

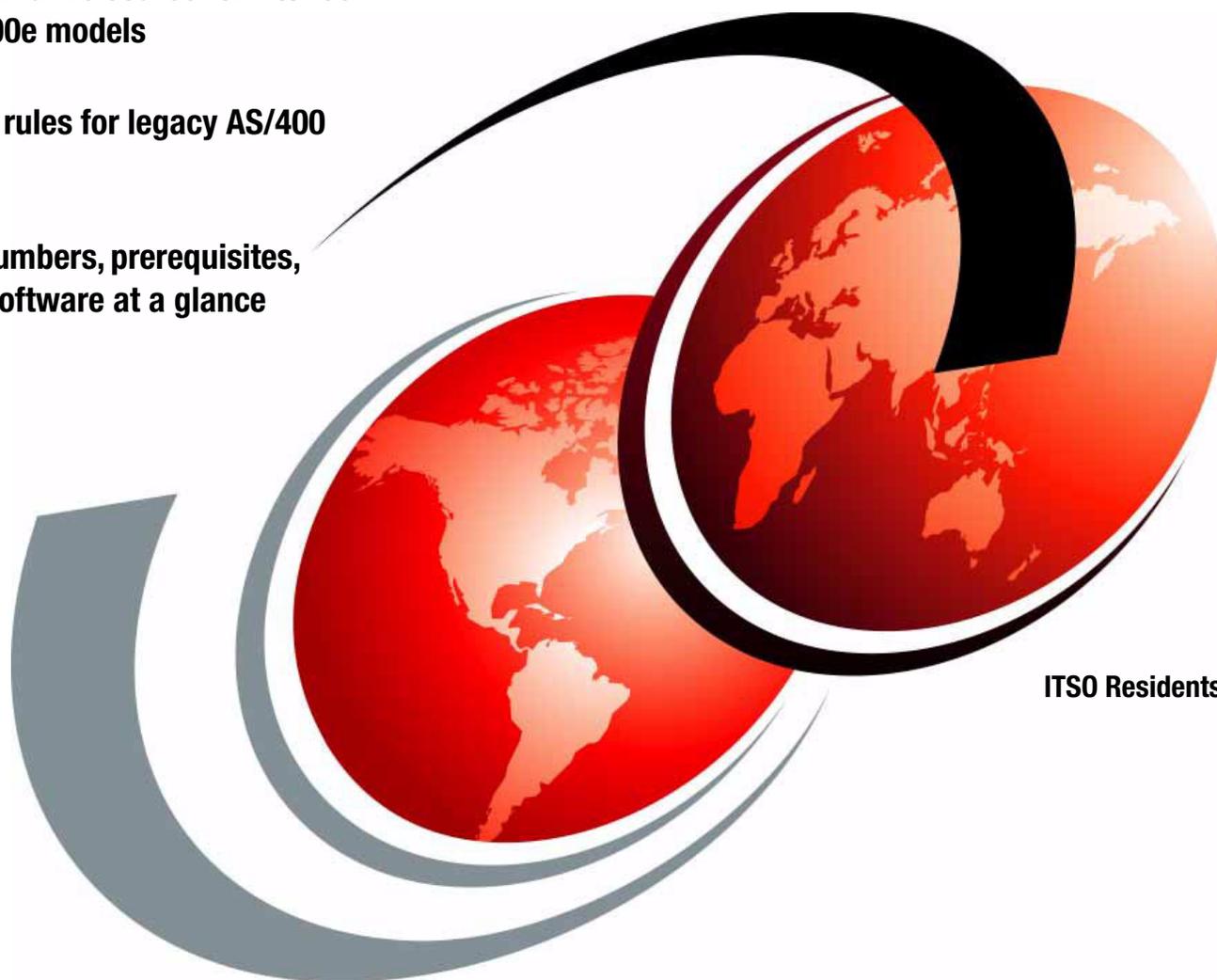
# IBM server AS/400e RISC System Builder

Version 3 Release 6 - Version 5 Release 2

The authoritative source for AS/400  
and AS/400e models

Facts and rules for legacy AS/400  
features

Product numbers, prerequisites,  
storage, software at a glance



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International Technical Support Organization

**IBM @server AS/400e RISC System Builder  
Version 3 Release 6 - Version 5 Release 2**

June 2004

**Note:** Before using this information and the product it supports, read the information in “Notices” on page vii.

### **First Edition (June 2004)**

This edition applies to Version 5, Releases 1 and 2 of OS/400 (product number 5722-SS1); Version 4, Releases 1, 2, 3, 4, and 5 (product number 5769-SS1); and Version 3, Releases 6 and 7 (product number 5716-SS1).

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# Preface

This *IBM eServer AS/400e RISC System Builder* offers you a comprehensive guide to AS/400 and AS/400e hardware and associated software. This document is a comprehensive guide for configuration and installation support for AS/400 and AS/400e systems announced since June 1995. It offers detailed information on the AS/400e 150, 6xx, and Sxx models, and the AS/400 4xx, 5xx, and xxS models.

Processor architectures are differentiated between CISC and RISC technologies. RISC processors include those announced in June 1995 and later. CISC processors are those models announced prior to June 1995. CISC models include the 9404 B, C, D, E, F processors, the 9406 B, D, E, F processors, and the Model 20S, 30S, 300, 310, and 320 families of processors.

This IBM Redpaper is organized into chapters on AS/400 and AS/400e processors with these major model chapters: Models xxS, 400, 4xx, 5xx, 150, 6xx, and Sxx. The chapters about processors include summary charts that show the capacity of each model and system diagrams.

Within each model chapter, the feature section is divided into these categories: processors, power and packaging, main storage, workstation controllers, communications, LAN and ATM adapters, disk units, internal tape and CD-ROM units, and magnetic media controllers. Features are listed in numerical sequence within each category.

External storage components (storage devices, QIC formats, and cables), CCIN and feature tables, and software are organized in stand-alone chapters serving to complement the hardware content described in the mainstay of this Redpaper.

For readers who still require CISC information, refer to the Redpaper *AS/400 CISC System Builder*, REDP0042. To access the *AS/400 CISC System Builder*, REDP0042, on CISC models, enter the search parameter REDP-0042 on the Web site:

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For readers who require iSeries information, refer to the parent redbook *iSeries and AS/400e System Builder*, SG24-2155. To access the *iSeries and AS/400e System Builder*, SG24-2155, on iSeries models, enter the search parameter SG24-2155 on the Web site:

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To order a copy or copies of the referenced Redbooks, see "How to get IBM Redbooks" on page 374.

## The production of this Redpaper

In the interest of maintaining the size of the *iSeries and AS/400e System Builder*, SG24-2155, the AS/400e and RISC information was extracted into this IBM Redpaper, after the May 2003 edition of the *Builder* was produced. The RISC processors have been out of support for quite some time.

Many experts contributed to the production of the *Builder*, used as the foundation of this Redpaper. Each Builder was the result of several past residencies at the International Technical Support Organization (ITSO), Rochester Center.

If you have suggestions or comments on the content, layout, and usefulness of this book, we welcome your input. We are eager to do whatever is necessary to continue to improve this publication so that it is as useful as possible for those who need it most.



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## AS/400 40S, 50S, and 53S models

AS/400 40S, 50S, and 53S systems are 9402, 9404, and 9406 processors.

Model and processor	Announce date	General availability date	Withdrawn from marketing
40S 2109	20 February 1996	01 September 1995	31 August 1998
40S 2110	20 February 1996	01 September 1995	31 March 1999
40S 2111	01 September 1996	01 September 1995	31 March 1999
40S 2112	01 September 1996	01 September 1995	31 March 1999
50S 2120	21 June 1995	01 September 1995	31 August 1998
50S 2121	21 June 1995	01 September 1995	31 March 1999
50S 2122	01 September 1996	01 September 1995	31 March 1999
53S 2154	21 June 1995	01 September 1995	30 October 1998
53S 2155	21 June 1995	01 September 1995	31 March 1999
53S 2156	21 June 1995	01 September 1995	01 July 1997
53S 2157	01 September 1996	01 September 1995	31 March 1999

**Note:** The darker shaded cells in the tables indicate the base features.

# 1.1 AS/400 Model 40S, 50S, and 53S overview

Processor	9402 40S	9402 40S	9402 40S	9402 40S	9406 50S	9406 50S	9406 50S	9406 53S	9406 53S	9406 53S	9406 53S
Feature	#2109	#2110	#2111	#2112	#2120	#2121	#2122	#2154	#2155	#2156	#2157
Relative system performance (CPW-V3R6) <sup>1</sup>											
Client/server environment	24.5	30.6	52.9	77.3	66.7	85.0	106.8	132.5	198.7	299.0	349.8
Interactive environment	8.4	12.3	18.3	26.9	18.7	26.9	26.9	26.9	26.9	26.9	26.9
Relative system performance (CPW-V3R7) <sup>1</sup>											
Client/server environment	27.0	33.3	59.8	87.3	77.7	104.2	130.7	162.7	278.8	459.3	509.9
Interactive environment	9.4	13.8	20.6	30.7	21.4	30.7	30.7	30.7	30.7	30.7	30.7
Relative system performance (CPW-V4) <sup>1</sup>											
Client/server environment	27.0	35.0	63.0	91.0	81.6	111.5	138.0	188.2	319.0	598.0	650.0
Interactive environment	9.4	14.5	21.6	32.2	22.5	32.8	32.8	32.8	32.8	32.8	32.8
Relative system performance (RAMP-C) <sup>2</sup>											
Client/server environment	8.3	10.6	†	†	19.7	26.6	†	43.4	66.6	101.4	†
Interactive environment	2.6	3.8	†	†	5.7	8.3	†	8.3	8.3	8.3	†
Number of n-way multiprocessors	1	1	1	1	1	1	1	1	2	4	4
Main storage (MB)	32-224		64-512		64-1024			256-4096			512-4096
Disk storage (GB)											
V3R6	1.96-23.6				1.96-318.7			1.96-520.0			
V3R7	1.96-50.3				1.96-318.7			1.96-520.0			
V4	1.96-50.3				4.19-652.8			4.19-996.4			
Maximum feature card slot	5				82			237			
Communication lines	1-20				1-96			1-200			
LAN ports	1-2				1-16			1-32			
ATM ports	0-1				0-8			0-16			
Maximum workstation controllers											
Twinaxial	1				1			1			
ASCII	1				1			1			
LocalTalk	1				2			4			
Maximum workstations (1 minimum)											
Twinaxial	7				7			7			
ASCII	6				6			6			
LocalTalk devices	31				62			124			
¼-inch cartridge tape/8mm	0-4				17			0-17			
Cartridge tape (internal)											
½-inch tape 9348/2440 (2440 is not supported the Model 40S)	0-4				0-4			0-4			
34xx/35xx	0-2				0-4			0-4			
8mm cartridge tape (external)	0-4				0-4			0-4			
Tape libraries	0-2				0-2			0-2			
Optical libraries	0-4				0-14			0-22			
Diskettes (5 ¼-inch or 8-inch)	0-2				0-2			0-2			
Fax adapters	0-5				0-32			0-32			
Cryptographic processors	0-1				0-1			0-1			
System I/O buses	1				1-7			0-19			

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	The relative system performance ratios are estimated based on iSeries and AS/400e environment RAMP-C workload, with a 9404 B10 with 16 MB of main storage and 945 MB of disk equalling 1.0. The ratios shown were estimated at maximum configurations running at 70% utilization. Relative system performance ratios may not be realized in all environments.
<b>Note 3</b>	The Model 40S supports three LAN adapters if running Firewall for AS/400 (5769-FW1).

## 1.2 AS/400 Advanced Server Model 40S features

See 2.1, “AS/400 Model 400 overview” on page 34, for details on the layout of the Model 40S. For details on Model 40S packages, see Chapter 3, “AS/400 4xx model packages” on page 51.

PROCESSOR		40S system unit	#7117 Integrated Expansion Unit
#2109	<b>8.3 RP RAMP-C Processor in Client/Server Environment, 2.6 RSP RAMP-C Processor in Interactive Environment; 24.5 RSP CPW Client/Server (OS/400 V3R6); 8.4 RSP Interactive (OS/400 VR36; 27.0 RSP CPW Client/Server (OS/400 V3R7, V4R1, V4R2, and V4R3). 9.4 RSP CPW Interactive (OS/400 V3R7, V4R2, and V4R3).</b> Base Memory 32 MB.	1	-
#2110	<b>10.6 RSP RAMP-C Processor in Client/Server Environment, 3.8 RSP RAMP-C Processor in Interactive Environment; 30.6 RSP CPW Client/Server (OS/400 V3R6), 12.3 RSP CPW Interactive (V3R6); 33.3 RSP CPW Client/Server (OS/400 V3R7), 13.8 RSP CPW Interactive (V3R7), 35.0 RSP CPW Client Server (OS/400 V4R1, V4R2, and V4R3), 14.5 RSP CPW Interactive (OS/400 V4R1, V4R2, and V4R3).</b> Base Memory 32 MB.	1	-
#2111	<b>52.9 RSP CPW Processor Client/Server Environment (OS/400 V3R6), 18.3 RSP CPW Processor in Interactive Environment (V3R6); 59.8 RSP CPW Client/Server (V3R7), 20.6 RSP CPW Interactive (V3R7), 63.0 RSP CPW Client Server (OS/400 V4R1, V4R2, and V4R3), 21.6 RSP CPW Interactive (OS/400 V4R1, V4R2, and V4R3).</b> Base Memory 64 MB. Minimum OS/400 level: V3R6 with #1988 or OS/400 V3R7, V4R1, V4R2, or V4R3	1	-
#2112	<b>77.7 RSP CPW Processor in Client/Server Environment (V3R6), 26.9 RSP CPW Processor in Interactive Environment (V3R6); 87.3 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7), 91.0 RSP CPW Client Server (OS/400 V4R1, V4R2, and V4R3), 32.2 RSP CPW (OS/400 V4R1, V4R2, and V4R3).</b> Base Memory 64 MB. Minimum OS/400 level: V3R6 with #1988 or V3R7, V4R1, V4R2, or V4R3	1	-

Power and Packaging		40S system unit	#7117 Integrated Expansion Unit
#5135	<p><b>#5135 Feature Power Supply</b></p> <p>The #5135 is required in these circumstances:</p> <ul style="list-style-type: none"> <li>▶ If Processor #2111 or #2112 is selected.</li> <li>▶ If a #9320 Migrated Disk Unit Package is selected.</li> <li>▶ If a #7117 Integrated Expansion Unit is not selected and there are three or four disks installed.</li> <li>▶ If a #7117 Integrated Expansion Unit is selected and there are three or four disks installed but no #6502/#6522/#6523/#6530/#6534 Magnetic Media Controller.</li> <li>▶ If there are four internal tape units.</li> <li>▶ If a #7117 Integrated Expansion Unit is selected and there are 11 or 12 disk units.</li> <li>▶ If there is more than one #8664/#2618 Fiber Distributed Data Interface Adapter, #2620 Full Cryptographic Processor, #2628 Limited Cryptographic Processor, #2666 High-Speed Communications Adapter or #2663 I/O Attachment Processor in the #9708 Expansion Card Cage.</li> <li>▶ If there is a #6516 to #6519, or #6529 to #6529 Integrated PC Server, formerly known as FSIOP in the #9108 Expansion Card Cage.</li> <li>▶ If there is more than one #2617/#9617 Ethernet Adapter in the #9108 Expansion Card Cage. The #5135 Feature Power Supply replaces the #9242 Base 175W Power Supply.</li> </ul> <p>Card slots used: None Maximum: One</p>	1	-
#7000	<p><b>Panel Keylock Feature</b></p> <p>The #7000 provides a keylock to secure the door covering the system panel.</p> <p>Card slots used: None Maximum: One</p>	1	-
#7117	<p><b>#7117 Integrated Expansion Unit</b></p> <p>The #7117 can be added to the Model 40S. It provides space for adding:</p> <ul style="list-style-type: none"> <li>Four additional feature card slots</li> <li>Up to two internal tape units (¼-inch or 8mm)</li> <li>Up to eight two-byte SCSI disk units</li> </ul> <p>Card slots used: None Maximum: One</p>	1	-
#9108	<p><b>Expansion Card Cage</b></p> <p>The #9108 is standard and provides two feature I/O card slots in the system unit. The #5135 Feature Power Supply may be required in high power feature combinations.</p> <p>Card slots used: None Maximum: One</p>	1	-

#9116	<p><b>Two Book Cage High Performance Card Enabler</b></p> <p>The #9116 provides a special backplane and cabling which is required for these high performance cards when installed in a #9108:</p> <ul style="list-style-type: none"> <li>#2620 Full Cryptographic Processor</li> <li>#2628 Limited Cryptographic Processor</li> <li>#2629 LAN/WAN/Workstation IOP</li> <li>#2810 LAN/WAN IOP</li> <li>#6501 Tape/Disk Device Controller</li> <li>#6534 Magnetic Media Controller</li> <li>#6616 Integrated PC Server</li> <li>#6516/#6517/#6518/#6519 Integrated PC Server</li> <li>#6526/#6527/#6528/#6529 Integrated PC Server</li> <li>#8716/#8717/#8718/#8719 Integrated PC Server</li> <li>#8726/#8727/#8728/#8729 Integrated PC Server</li> <li>#2663 I/O Attachment Processor</li> </ul> <p>Card slots used: None Maximum: One</p>	1	0
#9242	<p><b>Base Power Supply</b></p> <p>Base 175-watt power supply for systems without #5135 Feature Power Supply</p>	1	-
#9244	<p><b>320 Watt Power Supply</b></p> <p>Base 320-watt power supply for #7117</p>	1	-
#9139	<p><b>Standard Disk Unit Package</b></p> <p>Provides four positions in the system unit for two-byte SCSI disk units. No one-byte SCSI disk units are supported.</p> <p>Card slots used: none Maximum: One</p>	1	-
#9320	<p><b>Migrated Disk Unit Package</b></p> <p>Provides four positions in the system unit for the migrated one-byte SCSE disk units. Card slots used: none Maximum: One Prerequisite: #5135 Feature Power Supply</p>	1	-
UPS	<p><b>Uninterruptible Power Supply</b></p> <p>Provided instead of internal battery backup to minimum impact from power fluctuation and outages. A number of different models of the 9910 UPS are available. Specific models vary by country or region.</p>		
<b>Main Storage</b>		<b>40S system unit</b>	<b>#7117 Integrated Expansion Unit</b>
#3110 #8210 #9110	<p><b>64 MB Main Storage</b></p> <p>Plugs directly into the CPU. The #2109 and #2110 processors support three additional memory features. The #2111 and #2112 processors support eight. On the #2111 and #2112 processors, memory cards must be installed in pairs. The #8210 and #9110 and for #2109 and #2110 processors only.</p>	<b>3 or 8</b>	-
#3172 #4172 #8172	<p><b>32 MB Main Storage</b></p> <p>Plugs directly into the CPU. The #2109 and #2110 processors support three additional memory features. The #2111 and #2112 processors support eight. On the #2111 and #2112 processors, memory cards must be installed in pairs. Not supported on #2109 processor.</p>	<b>3 or 8</b>	
#3182 #9282	<p><b>32 MB Main Storage</b></p> <p>Plugs directly into the CPU. The #2109 and #2110 processors support three additional memory features. The #2111 and #2112 processors support eight. On the #2111 and #2112 processors, memory cards must be installed in pairs. The #9282 is supported on #2111 and #2112 processors only.</p>	<b>3 or 8</b>	

Workstation Controllers		40S system unit	#7117 Integrated Expansion Unit
#2629	<b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three #2669, #6149, #6181, #9249, and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. Card slots required: One Minimum OS/400 level: V4R1	1	4
#6054	<b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b>	1	1
#6141	<b>#6141 ASCII Workstation Controller</b>	1	1
#8054	<b>Workstation Adapter for Apple Macintosh (LocalTalk)</b>	1	-
#9171	<b>MFIO/ASCII Workstation Controller</b>	1	-
#9172	<b>MFIO/Twinaxial Workstation Controller</b>	1	-
#9173	<b>MFIO/LocalTalk</b>	1	-
#9176	<b>#9176 Base MFIO</b> MFIO that does not include a workstation controller. Requires a #9026 or #9027 Client Access Console cable and a #2612 or #9162 one-line communications adapter to attach a PC as a console.	1	-
Communications		40S system unit	#7117 Integrated Expansion Unit
#2605	<b>#2605 ISDN Basic Rate Interface Adapter</b>	2	2
#2609	<b>#2609 EIA 232/V.24 Two-Line Adapter</b> #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232./V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable	3	3
#2610	<b>#2610 EIA 232/V.24 Two-Line Adapter</b> #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable	3	3
#2612	<b>#2612 EIA 232/V.24 One-Line Adapter</b> One cable must be specified: #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232./V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable	7	7
#2613	<b>#2613 V.35 One-Line Adapter</b> #9020 V.35 20-ft. (6m) cable #9838 V.35 50-ft. (15m) cable	4	4
#2614	<b>#2614 X.21 One-Line Interface Adapter</b> One cable must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable	7	7
#2620	<b>#2620 Full Cryptographic Processor</b>	1	1
#2623	<b>#2623 Six-Line Communications Controller</b>	1	4
#2628	<b>#2628 Limited Cryptographic Processor</b>	1	1

#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6181, #9249, and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249, and #9381 IOAs cannot occupy all three positions of the #2629.</p> <p>Card slots required: One</p>	1	4
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b></p> <p>Not supported with V5R1 and later.</p>	1	4
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b></p> <p>#9879 6m V.35 cable  #9880 24m V.35 cable*  #9882 6m V.36/EIA 449 cable  #9883 24m V.36/EIA 449 cable**  #9884 45m V.36/EIA 449 cable**  #9885 6m X.21 cable</p> <p>*Line speeds up to 64 Kbps only.  **Using these longer cables requires that the #0329 V.24/EIA 232 80-ft. (24m) cable attaching Data Communications Equipment (DCE) support the V.36 transmitter signal element timing Data Terminal Equipment (DTE) source signal.</p>	1	1
#2699	<p><b>#2699 Two-Line WAN IOA</b></p> <p>The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:</p> <p>#0329 V.24/EIA 232 80-ft. (24m) cable  #0330 V.24/EIA 232 20-ft. (64m) cable  #3331 V.24/EIA 232 50-ft. (15m) cable  #0332 V.24/EIA 232 20-ft. (6m) enhanced cable  #0333 V.24/EIA 232 50-ft. (15m) enhanced cable  #0334 V.24/EIA 232 80-ft. (24m) enhanced cable  #0335 V.24/EIA 449 20-ft. (6m) cable  #0336 V.24/EIA 449 50-ft. (15m) cable  #0337 V.24/EIA 449 150-ft. (45m) cable  #0338 V.35 20-ft. (6m) cable  #0339 V.35 50-ft. (15m) cable  #0340 V.35 80-ft. (24m) cable  #0341 X.21 20-ft. (6m) cable  #0342 X.21 50-ft. (15m) cable</p> <p>Restrictions apply using the #2699. See "Comm. Restrictions" on page 116.  Prerequisite: #2629 LAN/WAN/Workstation IOP  IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP  Minimum OS/400 level: V4R1</p>	-	-
#6054 #8054	<p><b>#6054 Workstation Adapter for Apple Macintosh (Local Talk)</b></p> <p>#6054 attaches to the #2623 Six-Line Communications Controller  #8054 attaches to the MFIOP</p>	1	1
#9612	<p><b>#9612 Standard EIA 232/V.24 One-Line Adapter</b></p> <p>#9023 EIA 232/V.24 20-ft. (6m) enhanced cable  #9835 EIA 232/V.24 50-ft. (15m) enhanced cable</p>	1	-

MF1OP #9171	<b>Base Communications</b> <b>MF1OP/ASCII Workstation Controller</b> Supports two communications adapters. One communications line, with an EIA 232/V.24 adapter, is supplied as standard for use with IBM Electronic Customer Support. Further adapters are optional. Maximum communications lines for #9171: Three		
#9172	<b>MF1OP/Twinaxial Workstation Controller</b> Supports two communications adapters. One communications line, with an EIA 232/V.24 adapter, is supplied as standard for use with IBM Electronic Customer Support. Further adapters are optional. Maximum communications lines for #9172: Three	1	-
#9173	<b>MF1OP/LocalTalk Workstation Controller</b> Supports one communications adapter. One communications line, with an EIA 232/V.23 adapter, is supplied as standard for use with IBM Electronic Customer Support. Further adapters are optional. Maximum communications lines for #9173: Two	1	-
#9176	<b>#9176 Base MF1OP</b> Supports two communications adapters. A Two-Line EIA 232/V.24 adapter is supplied as standard. One line is for use with ECS and the other for attach to a Client Access or Operations Console (OS/400 V4R3). Further adapters are optional. Maximum communications lines for #9176: Two	1	-
<b>LANs and ATM</b>		<b>40S system unit</b>	<b>#7117 Integrated Expansion Unit</b>
#2617 #9617	<b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b> Supports 10 Mbps half duplex only.	2	2
#2618 #8664	<b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b>	1	1
#2619	<b>#2619 LAN/WAN/Workstation IOA (SPD)</b>	2	2
#2629	<b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three #2699, #6149, #6181, #9249 and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249 and #9381 LAN IOAs cannot occupy all three positions of the #2629. Card slots required: One Minimum OS/400 level: V4R1	2	4
#2663	<b>#2663 I/O Attachment Processor</b>	1	1
#2665 #8665	<b>Shielded Twisted-Pair Distributed Data Interface Adapter</b>	1	1
#2668	<b>#2668 Wireless LAN Adapter (SPD)</b> One of these antenna cables must be specified: #9814 20-ft. antenna cable #9815 50-ft. antenna cable One of these antenna must be specified: #9890 Omni-directional antenna #9891 Hemispherical antenna #9892 Directional antenna Prerequisite: #2663 I/O Attachment Processor	1	1

#2723	<p><b>#2723 PCI Ethernet IOA</b></p> <p>The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.</p> <p>The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode.</p> <p>Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server.</p> <p>Minimum OS/400 level: V4R2</p>	-	-
#2724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b></p> <p>The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.2 MAC and IEEE 802.2 LLC functions), and an external 8-ft. (2.4m) cable. Alternatively a twisted pair of cable for attachment to the RJ45 connector on the IOA can be used. The #2724 IOA is capable of operating in half or full duplex mode.</p> <p>Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server.</p> <p>Minimum OS/400 level: V4R2</p>	-	-
#2810	<p><b>#2810 LAN/WAN IOP</b></p> <p>The #2810 LAN/WAN IOP is required to attach one #2838 PCI 100/10 Mbps Ethernet IOAA or #2811/#2812/#2815/#2816/#2818/#2819 PCI Asynchronous Transfer Mode (ATM) IOA. Card slots required: One with any of the preceding features.</p> <p>Maximum: One</p> <p>Minimum OS/400 to support #2838/#9738: V4R1</p> <p>Minimum OS/400 to support ATM IOA: V4R2</p>	1	1
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b></p> <p>The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTP) cabling. The #2811 Fax is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	1	1
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 Fax is typically used where 45 Mbps speed is required over distances of less than 1000 meters. Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	1	1
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b></p> <p>The #2815 provides attachment into an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters.</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	1	1

#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers.</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	1	1
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fibre (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. Card slots required: One (#2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	1	1
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters.</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>	11	1
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The adapter comes with an RJ45 connector for attachment to UTP-5 media. The #9738 specifies the base LAN. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode.</p> <p>Maximum: One</p> <p>Card slots required: One (with #2810 LAN/WAN IOP) or three (with #6617 Integrated PC Server)</p> <p>Prerequisite: #2810 LAN/WAN IOP, #6617 Integrated PC Server or #6618 Integrated Netfinity Server.</p> <p>Minimum OS/400 to support with the #2810: V4R1</p> <p>Minimum OS/400 to support with the #6617: V4R2</p>	1	1
#6149 #9249	<p><b>16/4 Mbps Token Ring IOA</b></p> <p>The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC), and an external 8-ft. (2.4m) token ring cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6419 can operate in full or half-duplex mode. The #9249 specifies the base LAN. Card slots required: None</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server</p> <p>Maximum: Two</p> <p>Minimum OS/400 to support in #6616: V3R7</p> <p>Minimum OS/400 to support in #2629: V4R1</p>	-	-

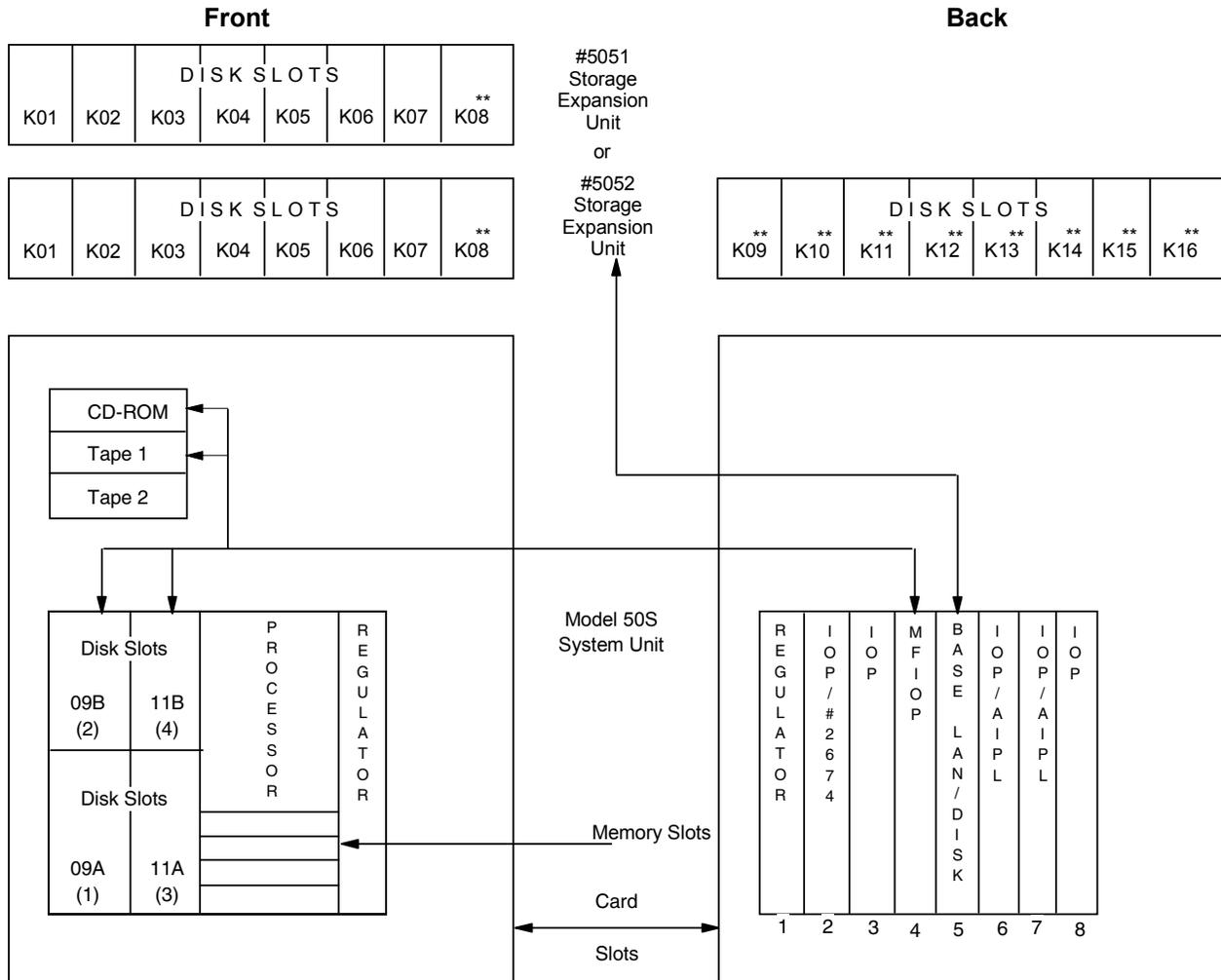
#6181 #9381	<p><b>#6181 ASCII Workstation Controller</b></p> <p>The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately.</p> <p>Cabling must meet or exceed Industry Standard EIA/TIA T568B.</p> <p>The #6181 can operate in full or half-duplex mode.</p> <p>The #9381 specifies the base LAN.</p> <p>Card slots required: None</p> <p>Maximum: Two</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server</p> <p>Minimum OS/400 to support in #6616: V3R7</p> <p>Minimum OS/400 to support in the #2629: V4R1</p>	-	-
#6516 #6517 #6518 #6519 #8716 to #8719 #8726 to #8729	<p><b>Integrated PC Server (formerly known as FSIOP)</b></p> <p>16 MB One-Port Integrated PC Server</p> <p>32 MB One-Port Integrated PC Server</p> <p>48 MB One-Port Integrated PC Server</p> <p>64 MB One-Port Integrated PC Server</p> <p>Specify for One-Port Integrated PC Server as base LAN</p> <p>Specify for Two-Port Integrated PC Server as base LAN</p> <p>The following cables need to be specified depending on the network attaching into an integrated PC Server Port:</p> <p>#9024 Token ring cable (2.44m)</p> <p>#9025 Ethernet Cable (3m AUI)</p>	- - - - 1 1	1 1 1 1 - -
#6509 #6520	<p>Additional 16 MB for Integrated PC Server</p> <p>Upgrade One-Port Integrated PC Server to Two-Port Integrated PC Server</p>	6 1	3 -
#6616	<p><b>#6616 Integrated PC Server</b></p> <p>The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required:</p> <p>#2861 32 MB Integrated PC Server Memory</p> <p>#2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:</p> <p>#9249/#6149 16/4 Mbps Token Ring IOA</p> <p>#9381/#6181 ASCII Workstation Controller</p> <p>The #9249 and #9381: One of these can be specified as the base LAN</p> <p>Minimum OS/400 level: V3R7 with Cumulative PTF Package C7029370</p> <p>Card slots required: Two contiguous slots</p>	1	1

#6617	<p><b>#6617 Integrated PC Server (SPD)</b></p> <p>The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and two LAN slots for higher performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:</p> <ul style="list-style-type: none"> <li>#2861 32 MB Integrated PC Server Memory</li> <li>#2862 128 MB Integrated PC Server Memory</li> </ul> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be the #2838/#9738.</p> <ul style="list-style-type: none"> <li>#2723 PCI Ethernet IOA</li> <li>#2724 PCI 16/4 Mbps Token Ring IOA</li> <li>#2838 PCI 100/10 Mbps Ethernet IOA</li> </ul> <p>The #9738 is the base LAN. The third LAN and the second #2838/#9738 can only be used if running Windows NT on the #6617. The #0022 100/10 Mbps Ethernet on IPCS is required for each #2838/#9738 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:</p> <ul style="list-style-type: none"> <li>#0325 Integrated PC Server Extension Cable for Windows NT is required.</li> <li>#1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A.</li> </ul> <p>A display must be connected to the IPCS to support Windows NT. For country- or region-specific keyboard, mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iseriess/windowsintegration/">http://www.ibm.com/eserver/iseriess/windowsintegration/</a></p> <p>Card slots required: Three contiguous slots.  Minimum OS/400 level: V4R2</p>	-	1
#6618	<p><b>#6618 Integrated Netfinity Server (SPD)</b></p> <p>The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:</p> <ul style="list-style-type: none"> <li>#2861 32 MB Integrated PC Server Memory</li> <li>#2862 128 MB Integrated PC Server Memory</li> <li>#2867 256 MB Integrated PC Server Memory</li> </ul> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838/#9738.</p> <ul style="list-style-type: none"> <li>#2723 PCI Ethernet IOA</li> <li>#2724 PCI 16/4 Mbps Token Ring IOA</li> <li>#2838 PCI 100/10 Mbps Ethernet IOA</li> </ul> <p>Only one of these Base LAN IOAs is supported:</p> <ul style="list-style-type: none"> <li>#9723 PCI Ethernet IOA</li> <li>#9724 PCI Token Ring IOA</li> <li>#9738 PCI 100/10 Mbps Ethernet IOA</li> </ul> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. When running Windows NT on the #6618, then:</p> <ul style="list-style-type: none"> <li>A minimum of 64 MB IOP memory is required.</li> <li>#0325 Integrated PC Server Extension Cable for Windows NT is required.</li> <li>#1700 Integrated PC Server Keyboard or Mouse for Windows NT, the default in the U.S.A.</li> </ul> <p>A display is required to support Windows NT on the IPCS. For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iseriess/windowsintegration/">http://www.ibm.com/eserver/iseriess/windowsintegration/</a></p>		1

#6618 (cont.)	<p>When running OS/2 on the #6618, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738. A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6618, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738. A maximum of 256 MB IOP memory is supported.</p> <p>SPD slots required: Three contiguous slots. Minimum OS/400 level: V4R2 and Cumulative PTF Package C8342420, V4R3 and Cumulative PTF Package C8349430</p>		
<b>Disk Units</b>		<b>40S system unit</b>	<b>#7117 Integrated Expansion Unit</b>
#1109	<b>988 MB Single Disk Unit Conversion Kit</b>	4	-
#1602	<b>1.03 GB Single Disk Unit Conversion Kit</b>	4	-
#1603	<b>#1603 1.96 GB Single Disk Unit Conversion Kit</b>	4	-
#6109	<b>988 MB Additional One-Byte SCSI Disk Unit</b>	4	-
#6602	<p><b>1.03 GB Additional One-Byte SCSI Disk Unit</b> The #6602 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. Requires #9320 Migrated Disk Unit Package. Occupies one disk unit position in the #9320. Cannot be used in #7117 Integrated Expansion Unit.</p>	4	-
#6603	<p><b>1.96 GB Additional Two-Byte SCSI Disk Unit</b> The #6603 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Requires #9320 Migrated Disk Unit Package. Occupies one disk unit position in the #9320. Cannot be used in #7117 Integrated Expansion Unit.</p>	4	-
#6605 #4605	<p><b>1.03 GB Additional Two-Byte SCSI Disk Unit</b> The #4605 is the plant install version of #6605.</p>	3	8
#6606 #4606	<p><b>1.96 GB Additional Two-Byte Disk Unit</b> The #4606 is the plant install version of #6606.</p>	3	8
#6607 #7607	<p><b>#6607 4.19 GB Additional Two-byte Disk Unit</b> The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage in the system unit or #7117 Integrated Expansion Unit. Requires the #9319 Standard Disk Unit Package or #9320 Migrated Disk Unit Package if installed in the system unit. Occupies one disk unit position in either the #9319/#9320 or #7117 Integrated Expansion Unit. The #7606 is replacement base disk. Minimum OS/400 level: V3R7.</p>	4	8
#6652 #4652	<p><b>1.03 GB Additional Two-Byte SCSI Disk Unit</b> The #4652 is the plant installed version of #6652.</p>	3	8
#8606	<b>1.9 GB Optional Base Two-Byte Disk Unit</b>	1	-
#9606	<p><b>1.96 GB Standard Two-Byte SCSI Disk Unit</b> The #9606 provides a 3 ½-inch single disk unit with 1.96 GB capacity as the base disk unit on a Model 40S.</p>	1	-
<b>Internal Tape Units and CD-ROM</b>		<b>40S system unit</b>	<b>#7117 Integrated Expansion Unit</b>

Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.		
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b>	1	3
#1380	<b>12.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b>	1	3
#6335	<b>#6335 840 MB ¼-inch Cartridge Mini Tape Unit</b>	1	3
#6380	<b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b>	1	3
#6390	<b>#6390 7 GB 8 mm Cartridge Tape Unit</b>	1	3
#9520	<b>Base CD-ROM</b>	1	-
<b>Magnetic Media Controllers</b>		<b>40S system unit</b>	<b>#7117 Integrated Expansion Unit</b>
#2621	<b>#2621 Storage Device Controller (SPD)</b>	2	4
#2624	<b>#2624 Storage Device Controller</b>	1	1
#2644	<b>#2644 Magnetic Tape Attachment Card/HP</b>	1	1
#6146	<b>#6146 Diskette Adapter</b>	2	1
#6501	<b>#6501 Tape/Disk Device Controller</b>	1	1
#6502 #6522	<b>#6502 High Performance Controller</b> The #6502 has 2 MB Cache and provides RAID and mirrored protection. The #6522 replaces the #6502.	-	1
#6530 #6523	<b>#6530 Disk Unit Controller No Cache</b> The #6530 provides mirrored protection.	-	1
#6534	<b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b> The #6534 provides attachment for one 3490E Cxx with #5040, 3490Exx, 3490 Fxx, 3570, 3575, 3494 D1x or L1x, 3590, 7208, 9348, 9427 Tape Drive, or 3995 Optical Library Dataserver - Model C4x. Card slots required: One Maximum: Four Minimum OS/400 level: V4R1 Minimum OS/400 to support 3995: V4R2	1	4
#9980	<b>Serpentine Cable</b>	1	1

# 1.3 9406 Advanced Server Model 50S system unit

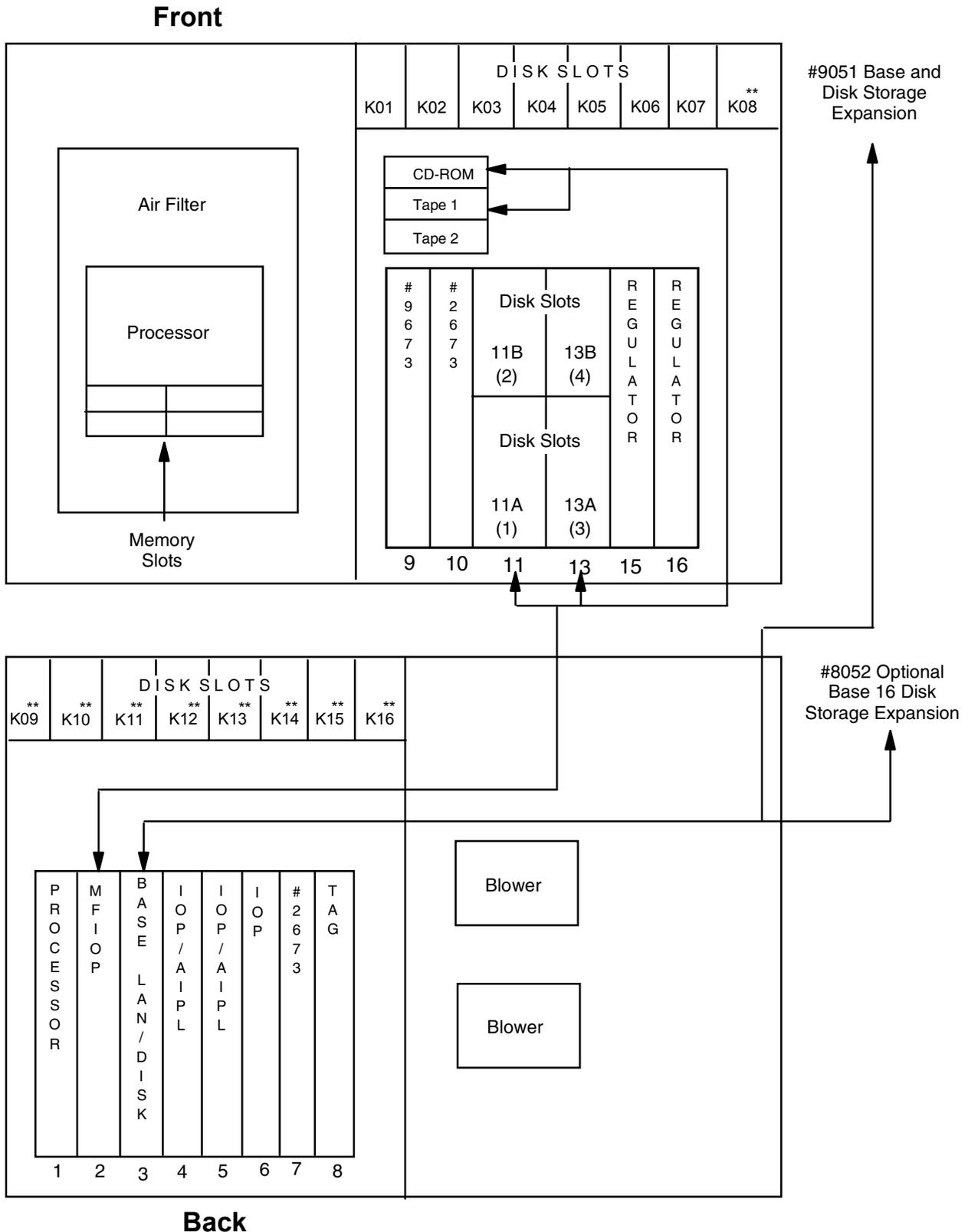


\*\* One-byte DASD cannot be installed in disk slots 8 through 16.

### Notes:

1. Slots 1 and 16 are occupied by #5142 Power Regulator. If the #9142 Power Supply is specified, these slots are not used.
2. If the #5051/#5052 Storage Expansion Unit is installed, slot 5 is occupied by the #6502, #6512, #6530, #6532, or #6533 disk controller card.
3. If the #2674 Optical Bus Adapter is installed, it must occupy slot 2.
4. If an external tape unit is used for alternate IPL, the tape controller card to which it is attached would be in slot 6 or slot 7.
5. The base 9406 Model 50S does not include a tape drive as standard. If a second internal tape is installed, a #2624 or #6513 in slot 6 is required to support it.
6. Main storage cards are installed on the processor card and require on slot each. There are four slots on the Model 50S, and main storage cards must be added in pairs of equal capacity.

# 1.4 9406 Advanced Server Model 53S system unit

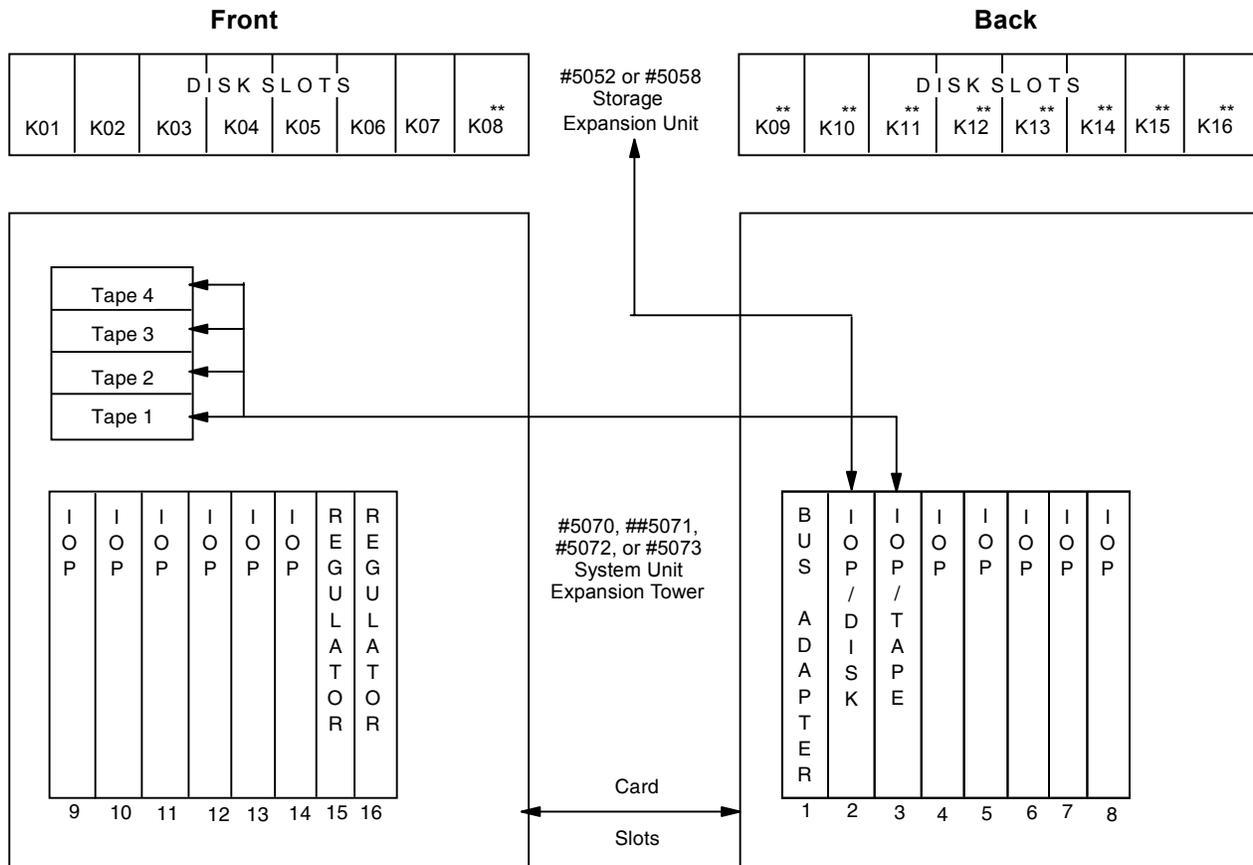


\*\* One-byte disks cannot be installed in disk slots 8 through 16.

**Notes:**

1. The #8052 Optional Base 16 Disk Storage Expansion Unit increases the number of disks supported in the system unit from 8 to 16.
2. The #9673 base and #2673 Optical Bus Adapters occupy slot 9 and slot 10.
3. If a 3590 1/2-inch Cartridge Tape Subsystem is attached to the system unit bus, no disk controller cards other than MFIOP would be used on Bus 0. This means that #9051 and #8052 are not supported.
4. If an external tape unit is used for alternate IPL, the tape controller card to which it is attached would be in slot 4 or slot 5.
5. The base 9406 Model 53S does not include a tape drive as standard. The #2624 or #6513 is required to support the second internal tape.
6. Main storage cards are installed on the processor card and require one slot each. There are four slots on the Model 53S, and main storage cards must be added in pairs of equal capacity.

## 1.5 #5070 and #5071, #5072 and #5073 9406 Model 50S and 53S System Unit Expansion Tower and Storage Expansion Unit



\*\* One-byte disks cannot be installed in disk slots K08 through K16.

**Notes:**

1. The #5070 and #5071 are supported on 9406 Models 500 and 510. The #5072 and #5073 are supported on the 9406 Model 530.
2. The #5071 and #5073 support the #5058, which is Ultra SCSI. The #5070 and #5072 are fast SCSI and support the #5052.
3. Slot 1 is occupied by the bus adapter card.
4. Slot 2 is occupied by the #6502, #6512, #6530, #6532 disk unit controller card if a #5052 or #5058 is attached.
5. Slot 3 is occupied by #2624 or #6513 if the #5070, #5071, #5072, or #5073 contains internal tape units.
6. Slots 4 through 14 are available for I/O feature cards.

## 1.6 AS/400 Advanced Server Model 50S and 53S features

50S and 53S Processors	
#2120	<b>19.7 RSP RAMP-C Processor in Client/Server Environment, 5.7 RSP RAMP-C Processor in Interactive Environment; 66.7 RSP CPW Client/Server (V3R6), 18.7 RSP CPW Interactive (V3R6); 77.7 RSP CPW Client/Server (V3R7), 21.4 RSP CPW Interactive (V3R7); 81.6 RSP CPW Client/Server (V4), 22.5 RSP CPW Interactive (V4).</b> Base Memory 64 MB. Model 50S only
#2121	<b>26.6 RSP RAMP-C Processor in Client/Server Environment, 8.3 RSP RAMP-C Processor in Interactive Environment; 85.0 RSP CPW Client/Server (V3R6), 26.9 RSP CPW Interactive (V3R6); 104.2 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 111.1 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 64 MB. Model 50S only
#2122	<b>106.8 RSP CPW Processor in Client/Server Environment (V3R6), 26.9 RSP CPW Processor in Interactive Environment (V3R6); 130.7 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 138.0 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 64 MB. Model 50S only. Minimum OS/400 level: V3R6 with #1988.
#2154	<b>43.4 RSP RAMP-C Processor in Client/Server Environment, 8.3 RSP RAMP-C Processor in Interactive Environment; 132.5 RSP CPW Client/Server (V3R6), 26.9 RSP CPW Interactive (V3R6); 162.7 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 188.2 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 256 MB. Model 53S only
#2155	<b>66.6 RSP RAMP-C 2-way Processor in Client/Server Environment, 8.3 RSP RAMP-C 2-way Processor in Interactive Environment; 198.7 RSP CPW Client/Server (V3R6), 26.9 RSP CPW Interactive (V3R6); 278.8 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 319.0 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 256 MB. Model 53S only
#2156	<b>101.4 RSP RAMP-C 4-way Processor in Client/Server Environment, 8.3 RSP RAMP-C 4-way Processor in Interactive Environment; 299.0 RSP CPW Client/Server (V3R6), 26.9 RSP CPW Interactive (V3R6); 459.3 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 598.0 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 256 MB. Model 53S only
#2157	<b>349.8 RSP CPW 4-way Processor in Client/Server Environment (V3R6), 26.9 RSP CPW 4-way Processor in Interactive Environment (V3R6); 509.9 RSP CPW Client/Server (V3R7), 30.7 RSP CPW Interactive (V3R7); 650.0 RSP CPW Client/Server (V4), 32.8 RSP CPW Interactive (V4).</b> Base Memory 512 MB. Minimum OS/400 level: V3R6 with #1988, or V3R7 Model 53S only

<b>Power and Packaging</b>	
#0090	<p><b>#5052 Storage Expansion Unit Located on System Unit</b> The #0090 feature indicates that a #5052 Storage Expansion Unit is located on the system unit of a Model 50S. It is not supported on the Model 53S.</p>
#2673 #9673	<p><b>#2673 Optical Bus Adapter (1063 Mbps)</b> The #2673 allows for the addition of up to six optical buses on the Model 53S. The #2688 or #2688 are required to attach the buses. The #9673 is the base optical bus adapter on the Model 53S. Maximum: Two Card slots used: One</p>
#2674	<p><b>#2674 Optical Bus Adapter (266 Mbps)</b> The #2674 allows for the addition of up to six optical buses on the Model 50S. The #2686 is required to attach the buses. Maximum: One Card slots used: One</p>
#2686	<p><b>#2686 Optical Link Processor (266 Mbps)</b> The #2686 is a daughter card that allows for the addition of up to two optical buses to a #2673, #2674, or #9673 Optical Bus Adapter. It can attach up to two #5070/#5071 or #5080/#5081 or one #5044. A maximum of three #2686 are allowed per optical bus adapter. Both #2686 and #2688 may be installed on the same optical bus adapter as long as the total number does not exceed three. Card slots used: None</p>
#2688	<p><b>#2688 Optical Link Processor (1063 Mbps)</b> The #2688 is a daughter card that allows for the addition of up to two optical buses to a #9673 or #2673 Optical Bus Adapter. It can attach up to two #5072/#5073 or #5082/#5083. A maximum of three #2688 are allowed per optical bus adapter. Both #2686 and #2688 may be installed on the same optical bus adapter as long as the total number does not exceed three. Card slots used: None</p>
#5051 #9051	<p><b>#5051 Storage Expansion Unit for System Unit</b> The #5051/#9051 provides space for up to eight disk units. It attaches to the top of Model 50S system unit. The #9051 is the base storage expansion unit for the Model 53S. Prerequisite: #5143 Power Supply</p>
#5052	<p><b>#5052 Storage Expansion Unit</b> The #5052 provides space for up to 16 disk units. It attaches to the top of Model 50S system units and #5070 and #5072 1063 Mbps System Unit Expansion Towers and #5080 and #5082 Storage Expansion Towers. Only one #5052 per tower is supported. A #5143 Power Supply may be required.</p>
#5058	<p><b>#5058 Storage Expansion Unit (Ultra SCSI)</b> The #5058 provides space for up to 16 disk units. It attaches to #5071 and #5073 1063 Mbps System Unit Expansion Towers and #5081 and #5083 Storage Expansion Towers. Only one #5058 per tower is supported.</p>
#5070	<p><b>#5070 266 Mbps System Unit Expansion Tower</b> The #5070 provides an I/O tower for creating additional buses on Model 50S. It includes a 266 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one #9245 Base Battery Backup, and two #9240/#9243 power supplies. It can support one #5052 Storage Expansion Unit with #5143 Power Supply. Due to power restrictions, there is a limitation on some high powered features housed in a #5070. This can mean that an additional #5070 is required. Prerequisite: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p>
#5071	<p><b>#5071 266 Mbps System Unit Expansion Tower (Ultra SCSI)</b> The #5071 provides an I/O tower for creating additional buses on Model 50S. It includes a 266 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one battery backup, and two power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, there is a limitation on some high powered features housed in a #5071. This can mean that an additional #5071 is required. The #5071 supports Ultra SCSI disks in the #5058 Storage Expansion Unit. Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p>
#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b> The #5072 provides an I/O tower for creating additional buses on Model 53S. It includes a 1063 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one #9245 battery backup, and two #9240/#9243 power supplies. It can support one #5052 Storage Expansion Unit with #5143 Power Supply. Due to power restrictions, there is a limitation on some high powered features housed in a #5072. This can mean that an additional #5072 is required. Prerequisites: #2688 Optical Link Processor and #2673 Optical Bus Adapter</p>

#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower (Ultra SCSI)</b></p> <p>The #5073 provides an I/O tower for creating additional buses on Model 53S. It includes a 1063 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one battery backup, and two power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, there is a limitation on some high powered features housed in a #5073. This can mean that an additional #5073 is required. The #5073 supports Ultra SCSI disks in the #5058 Storage Expansion Unit.</p> <p>Prerequisite: #2688 Optical Link Processor and #9673/#2673 Optical Bus Adapter</p>
#5080	<p><b>#5080 266 Mbps Storage Expansion Tower</b></p> <p>The #5080 provides a DASD tower on Model 50S for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5052). It includes a 266 Mbps optical bus card, two I/O card slots for the #6052, #6512, #6530, #6532, or #6533 disk IOPs one #9245 battery backup, and two #9240/#9243 power supplies.</p> <p>Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p>
#5081	<p><b>#5081 266 Mbps Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5081 provides a DASD tower on Model 50S for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5058). It includes a 266 Mbps optical bus card, two I/O card slots for the #6502, #6512, #6530, disk IOPs, one battery backup, and two power supplies. The #5081 supports Ultra SCSI disk units.</p> <p>Prerequisites: #2686 Optical Link Processor and #9673 or #2674 Optical Bus Adapter.</p>
#5082	<p><b>#5082 Storage Expansion Tower</b></p> <p>The #5082 provides a DASD tower on Model 53S for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5052). It includes a 1063 Mbps optical bus card, two I/O card slots for the #6502, #6512, #6530 disk IOPs, one #9245 battery backup, and two #9240/#9243 power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #9673/#2673 Optical Bus Adapter</p>
#5083	<p><b>#5083 Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5083 provides a DASD tower on Model 53S for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5058). It includes a 1063 Mbps optical bus card, two I/O card slots for the disk IOPs (#6502, #6512, #6530, (the new #6532 or #6533 is recommended), one battery backup, and two power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #9673/#2673 Optical Bus Adapter.</p> <p>The #5083 supports Ultra SCSI disk units.</p>
#5143	<p><b>#5143 Power Supply</b></p> <p>The #5143 is a 400-watt power feature required when adding a #5052 Storage Expansion Unit to a #5070 or #5072 1063 Mbps System Unit Expansion Tower or to a #5080 or #5082 Storage Expansion Tower.</p> <p>Only one #5143 is allowed per tower.</p> <p>Card slots used: None</p>
#5144	<p><b>Additional Battery Backup (External)</b></p> <p>The #5144 is required when the main storage capacity exceeds 384 MB on the Model 30S. It is allowed on the 50S when upgrading from a 30S. It is not supported on a Model 53S.</p> <p>Card slots used: None</p>
#5145	<p><b>Additional Battery Backup (Internal)</b></p> <p>The #5145 is available for the Model 50S where additional Continuously Powered Main Storage (CPM) time is desired, in the event of a system failure.</p> <p>Card slots used: None</p>
#5146	<p><b>Redundant Power</b></p> <p>The #5145 is a prerequisite to the installation of #5144.</p> <p>Card slots used: None</p>
#5149	<p><b>Redundant Power</b></p> <p>The #5149 is a 400-watt power supply that increases the availability of the Model 50S.</p> <p>Card slots used: None</p>
#8052	<p><b>#8052 Optional Base 16 Disk Storage Expansion Unit</b></p> <p>The #8052 provides space for up to 16 disk units and is available only on the system unit of the Model 53S. Replaces #9051. The #8052 is not allowed when the 3590 Tape is the Alternate IPL device.</p>
#9240	<p><b>400 Watt Power Supply</b></p> <p>The #9240 is required on Model 50S and 53S system unit and #5070, #5072, #5080, and #5082 Storage Expansion Towers.</p> <p>Card slots used: None</p>

#9243	<p><b>Base Feature Power Supply</b>  The #9243 is the base battery back-up used on Models 50S and 53S system units and #5070, #5072, #5080, and #5082 Storage Expansion Towers.  Model 53S system unit requires two #9243s.  Card slots used: None</p>
#9245	<p><b>#9245 Base Battery Backup</b>  The #9245 is the base battery backup used on Models 50S and 53S system units and #5070, #5072, #5080, and #5082 Storage Expansion Towers.  Model 53S system unit requires two #9245s.  Card slots used: None</p>
<b>Main Storage</b>	
#3152	<p><b>32 MB Main Storage</b>  Supported by Model 50S. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3153	<p><b>64 MB Main Storage</b>  Supported by Model 50S. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3154	<p><b>128 MB Main Storage</b>  Supported by Model 50S. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3155	<p><b>256 MB Main Storage</b>  Supported by Model 50S. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3162	<p><b>128 MB Main Storage</b>  Supported by Model 53S on the #2154, #2155, or #2156 processors. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3163	<p><b>256 MB Main Storage</b>  Supported by Model 53S on the #2154, #2155, or #2156 processors. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3164	<p><b>512 MB Main Storage</b>  Supported by Model 53S on all processors. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3165	<p><b>1024 MB Main Storage</b>  Supported by Model 53S on all processors. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#3166	<p><b>256 MB Main Storage</b>  Supported by Model 53S on the #2157 processor only. Must be added in pairs.  Requires one dedicated memory card slot. Maximum: One pair</p>
#7263	<p><b>Optional Base 256 MB Main Storage</b>  Supported by Model 53S on the #2154, #2155, or #2156 processors. It provides an optional 256 MB main storage card in place of a base 128 MB card. Must be added in pairs.  Requires one dedicated memory card slot.</p>
#7264	<p><b>Optional Base 512 MB Main Storage</b>  Supported by Model 53S on the #2154, #2155, or #2156 or #2157 processors. It provides an optional 512 MB main storage card in place of a base 128 MB card. Must be added in pairs.  Requires one dedicated memory card slot.</p>
#7265	<p><b>Optional Base 1024 MB Main Storage</b>  Supported by Model 53S on the #2154, #2155, or #2156 or #2157 processors. It provides an optional 1024 MB main storage card in place of a base 128 MB card. Must be added in pairs.  Requires one dedicated memory card slot.</p>

#7266	<b>Base 256 MB Main Storage</b> Supported by Model 53S on the #2157 processor only. Two of these features are required to reach the system minimum main storage or 512 MB. Must be added in pairs. Requires one dedicated memory card slot.
#8253	<b>Optional Base 64 MB Main Storage</b> Supported by Model 50S. It provides an optional 64 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8254	<b>Optional Base 128 MB Main Storage</b> Supported by Model 50S. It provides an optional 128 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8255	<b>Optional Base 256 MB Main Storage</b> Supported by Model 50S. It provides an optional 256 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#9252	<b>Base 32 MB Main Storage</b> Supported on Model 50S. Must be added in pairs. Requires one dedicated memory card slot.
#9262	<b>Base 32 MB Main Storage</b> Supported by Model 53S on #2154, #2155, or #2156 processors. Must be added in pairs. Requires one dedicated memory card slot.
<b>Workstation Controllers</b>	
#2629	<b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three #2699, #6149, #6180, #6181, #9249, and #9381 IOAs. The #6149, #6180, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5071 or #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One Minimum OS/400 level: V4R1
#5540	<b>#5540 System Console on Twinaxial Workstation IOA</b> Prerequisite: #9162 MFIOF
#5541	<b>Console attached to ASCII Workstation Controller</b> An #9141/#6141 ASCII Workstation Controller is automatically included when #5541 is specified to control the ASCII system console. Prerequisite: #9163 MFIOF
#5542	<b>Console attached to LocalTalk Workstation Controller</b>
#5543	<b>System Console</b> The #5543 specifies a PC workstation to act as the system console: #9026 Console Attachment Cable (6m) #9027 Console Attachment Cable (2.5m) Prerequisite: #2612 EIA 232/V.24 One-Line Adapter or #9612 Standard EIA 232/V.24 One-Line Adapter and #9026 or #9027 console attachment cable
#6050	<b>#6050 Enhanced Twinaxial Workstation Controller</b> One eight-port workstation attachment is provided to support seven 5250-type displays or printers. Requires one I/O card slot.
#6054 #9054	<b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b> See "Communications" on page 23 for a description of the #6054. The #9054 is plant installed only.
#6141 #9141	<b>#6141 ASCII Workstation Controller</b> The #6141 is a six-port workstation controller and workstation adapter. It supports up to six ASCII devices. Requires one I/O card slot.

#6180	<p><b>#6180 Twinaxial Workstation IOA</b>  The #6180 is an eight-port attachment provided to support up to seven twinaxial devices. The #6180 must be placed in a #2629 LAN/WAN/Workstation IOP.  Prerequisite: #2629 LAN/WAN/Workstation IOP  Minimum OS/400 level: V4R1</p>
#9149	<p><b>Twinaxial Passthru Adapter</b>  The #9149 adapts a twinaxial cable to the twinaxial function that resides inside the #9612/#8162. It is a prerequisite of the #9162/#8162. When an external diskette drive is required on the system, the #9149 is replaced by #6147 Diskette Adapter</p>
#9162 #8162	<p><b>MFIO with Twinaxial Support</b>  Both the #9152 and #8162 allow the attachment of seven 5250-type devices and provide support for a twinaxial console.  Prerequisite: #9149 Twinaxial Passthru Adapter</p>
#9163	<p><b>MFIO</b>  The #9163 does not support any 5250 type devices. When one #6054/#9054 is attached, the #9163 controls a LocalTalk system console. Without #6054/#9054 attached, the system console is driven by the first workstation controller found when the system searches along the bus.</p>
<b>Communications</b>	
MFIO	<p><b>Base Communications</b>  The Multifunction I/O Processor comes as standard on the Model 50S and 53S. The #9162, #8162 or #9163 MFIO can support two communications lines. The first line (with an EIA 232/V.24 adapter) is supplied as standard (#9612) for use with IBM Electronic Customer Support.  One cable must be specified:  #9023 EIA 232/V.24 enhanced cable (20-ft.)  #9835 EIA 232/V.24 enhanced cable (50-ft.)  Maximum aggregate data rate = 83,200 bps.</p>
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter</b>  The #2605 connects to the #2623 Six-Line Communications Controller to support one communications line to an ISDN network. Each adapter supports two 64 Kbps B channels and one 16 Kbps D channel. ISDN lines are full duplex.  Requires no I/O card slots.  <b>Restriction:</b> This adapter cannot be attached to #2623 that also attaches V.24, X.21 or V.35 adapter.</p>
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter</b>  The #2609 connects to the #2623 Six-Line Communications Controller to support two communications lines using ASYNC, BSC, SDLC or X.25 protocol.  Requires no I/O card slots. Two cables must be specified:  #9023 EIA/V.24 enhanced cable (20-ft.)  #9835 EIA/V.24 enhanced cable (50-ft.)  #9022 EIA/V.24 cable (20-ft.)  #9836 EIA/V.24 cable (50-ft.)</p>
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter</b>  The #2610 connects to the #2623 Six-Line Communications Controller to support two communications lines running X.21 or X.25 networks. Requires no I/O card slots.  Two cables must be specified:  #9021 X.21 cable (20-ft.)  #9839 X.21 cable (50-ft.)</p>
#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter</b>  The #2612 connects to the MFIO and #2623 Six-Line Communications Controller to support one communications line using ASYNC, BSC, SDLC or X.25 protocol.  Requires no I/O card slots. One cable must be specified:  #9023 EIA/V.24 enhanced cable (20-ft.)  #9835 EIA/V.24 enhanced cable (50-ft.)  #9022 EIA/V.24 cable (20-ft.)  #9836 EIA/V.24 cable (50-ft.)</p>

#2613	<p><b>#2613 V.35 One-Line Adapter</b></p> <p>The #2613 connects to the MFIOp and #2523 supporting one V.35 line using either BSC, SDLC, or X.25 protocols. Requires no I/O card slot.</p> <ul style="list-style-type: none"> <li>#9020 V.35 cable (20-ft.)</li> <li>#9020 V.35 cable (20-ft.)</li> <li>#9838 V.35 cable (50-ft.)</li> </ul>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter</b></p> <p>The #2614 connects to the MFIOp and #2623 to attach one communications line to an X.21 or X.25 network. Requires no I/O card slots. One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 cable (20-ft.)</li> <li>#9839 X.21 cable (50-ft.)</li> </ul>
#2620	<p><b>#2620 Full Cryptographic Processor</b></p> <p>The #2620 provides full cryptographic support for encrypting and decrypting data. The #2620 consists of an I/O processor card and cable to attach an optional #4754-001. Distribution of the #2620 is restricted by U.S. Government export regulations. In countries or regions outside the U.S.A. and Canada, it may be marketed only to financial institutions and subsidiaries of U.S. companies. Requires one I/O card slot.</p>
#2623	<p><b>#2623 Six-Line Communications Controller</b></p> <p>The #2623 provides basic control and common circuits for up to six lines. Requires one I/O card slot.</p>
#2628	<p><b>#2628 Limited Cryptographic Processor</b></p> <p>The #2628 provides the same functions as a #2620 except for Data Encryption Standard based data scrambling. Instead, it used Commercial Data Marketing Facility for data scrambling. Supports attachment of optional #4754-L01. Does not require U.S. Customs clearance. Requires one I/O card slot.</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, #6181, #9249, and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 or a #5072. There is no restriction on placing #2629 in #5071 or #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One Minimum OS/400 level: V4R1</p>
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b></p> <p>The #2664 provides the iSeries or AS/400e with two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax, another iSeries or AS/400e with an integrated Fax adapter, or PCs with approximately programmed Fax adapters. Requires one I/O card slot. Not supported with V5R1 and later.</p>
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b></p> <p>The #2666 provides the iSeries or AS/400e with one communications port capable of high-speed communication over public or private Frame Relay networks or point-to-point non-switched SDLC lines. Speeds up to 2.048 Mbps are possible. Requires one I/O card slot. One of the following cables must be specified:</p> <ul style="list-style-type: none"> <li>#9879 6m V.35 cable</li> <li>#9880 24m V.35 cable*</li> <li>#9882 6m V.36/EIA 449 cable</li> <li>#9883 24m V.36/EIA 449 cable**</li> <li>#9884 45m V.36/EIA 449 cable**</li> <li>#9885 6m X.21 cable</li> </ul> <p>* Line speeds up to 64 Kbps only. ** Use of the longer cables require that the attaching Data Communications Equipment (DCE) support the V.36 transmitter signal element timing Data Terminal Equipment (DTE) source signal.</p> <p><b>Note:</b> The #2666 is classed as a communications line for purpose of maximum communications lines per model.</p>

#2699	<p><b>#2699 Two-Line WAN IOA</b></p> <p>The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0329 V.24/EIA 232 80-ft. (24m) cable</li> <li>#0330 V.24/EIA 232 20-ft. (24m) cable</li> <li>#0331 V.24/EIA 232 50-ft. (24m) cable</li> <li>#0332 V.24/EIA 232 80-ft. (20m) enhanced cable</li> <li>#0333 V.24/EIA 232 80-ft. (50m) enhanced cable</li> <li>#0334 V.24/EIA 232 80-ft. (24m) enhanced cable</li> <li>#0335 V.36/EIA 232 449 20-ft. (6m) cable</li> <li>#0336 V.36/EIA 232 449 50-ft. (15m) cable</li> <li>#0337 V.36/EIA 232 449 150-ft. (45m) cable</li> <li>#0338 V.35 20-ft. (6m) cable</li> <li>#0338 V.35 50-ft. (15m) cable</li> <li>#0338 V.35 80-ft. (24m) cable</li> <li>#0338 X.21 20-ft. (6m) cable</li> <li>#0338 X.21 50-ft. (15m) cable</li> </ul> <p>Restrictions apply using the #2699. See "Comm. Restrictions" on page 116.  Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP  IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP  Minimum OS/400 level: V4R1</p>
#6054 #9054	<p><b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b></p> <p>The #6054 allows Apple Macintosh computer devices to attach directly to the iSeries or AS/400e. Also allows for connection to LocalTalk networks. Each adapter allows attachment of 31 Apple Macintosh devices with up to 56 sessions.</p> <p>The #6054 attaches to the #2623 Six-Line Communications Controller  The #9054 attaches to the MFIOP</p> <p>A maximum of one #6054/#9054 can be attached per #2623/MFIOP. A second adapter on the #2623 may be X.21, V.24, or V.35. The third adapter position <i>must not</i> be used.  A single-line EIA 232/V.24 adapter may co-reside with #9054 on MFIOP.</p>
#9612	<p><b>#9612 Standard EIA 232/V.24 One-Line Adapter</b></p> <p>The #9612 provides support for one communication line using either ASYNC, BSC, SDLC, or X.25 protocol. Specify one of the following cables for ECS:</p> <ul style="list-style-type: none"> <li>#9023 EIA232/V.24 enhanced cable (20-ft.)</li> <li>#9835 EIA232/V.24 enhanced cable (50-ft.)</li> </ul> <p>The #9612 may also be used in conjunction with #5543 System Console and requires #9026/#9027 cables.</p>
<b>LANs and ATM</b>	
#2617 #9617	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b></p> <p>The #2617 provides a single attachment on one Carrier Sense Multiple Access/Collision Detect Local Area Network. The #9617 is the base LAN. The customer must procure the Attachment Unit Interface (AUI) cable, which connects between the adapter and the Ethernet/IEEE 802.3 transceiver. Supports 10 Mbps half duplex only.  Requires one I/O card slot.</p>
#2618 #8664	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b></p> <p>The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which complies with ANSI X3T9.5 and ISO 9314 standards. The #8664 is the base LAN.  Requires one I/O card slot.  Cables: Requires multi-mode (62.5/125) micron FDDI optical fiber jumper cables to connect the FDDI adapter into the FDDI ring.</p>
#2619 #9619	<p><b>#2619 LAN/WAN/Workstation IOA (SPD)</b></p> <p>The #2619 provides a single attachment to a 16 Mbps or 4 Mbps IBM Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 Media Access Control and Logical Link Control functions, and an external 2.5m cable. The #9619 is the base LAN.  Requires one I/O card slot.</p>

#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, #6181, #9249 and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. There is no restriction on placing #2629 in #5071 or #5073 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072.</p> <p>Card slots required: One Minimum OS/400 level: V4R1</p>
#2663	<p><b>#2663 I/O Attachment Processor</b></p> <p>The #2663 provides the communications hardware base for the #2668 Wireless LAN Adapter. The #2663 is required when attaching the #2668. The #2663 and #2668 are integrated in a single hardware package to operate as a unit. Shares one I/O card slot with #2668.</p>
#2665 #8665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter</b></p> <p>The #2665/#8665 provides one interface to connect an iSeries or AS/400e to an FDDI LAN which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted pair wiring. The #8665 is the base LAN. Requires one I/O card slot. Cables: The SDDI adapter requires IBM FDDI copper jumper cables to connect the adapter into the FDDI ring.</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b></p> <p>The #2668 provides wireless connectivity from iSeries or AS/400e servers to workstations or other systems connected to a wireless LAN network. The #2668 comes with an antenna and a cable for connecting the antenna to the adapter. One of these antenna cables must be specified:</p> <ul style="list-style-type: none"> <li>#9814 20-ft. antenna cable</li> <li>#9815 50-ft. antenna cable</li> </ul> <p>One of these antenna must be specified:</p> <ul style="list-style-type: none"> <li>#9890 Omni-directional antenna</li> <li>#9891 Hemispherical antenna</li> <li>#9892 Directional antenna</li> </ul> <p>Shares one I/O card slot with #2663. Prerequisite #2663 I/O Attachment Processor.</p>
#2723	<p><b>#2723 PCI Ethernet IOA</b></p> <p>The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server Minimum OS/400 level: V4R2</p>
#2724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b></p> <p>The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions), and an external 8-ft. (2.4m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #2724 IOA is capable of operating in half or full duplex mode. Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server. Minimum OS/400 level: V4R2</p>
#2810	<p><b>#2810 LAN/WAN IOP</b></p> <p>The #2810 I/O processor is required to attach one #2738/#9738 PCI 100/10 Mbps Ethernet IOA or the #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Card slots required: One with any of the preceding features Minimum OS/400 to support #2838/#9738: V4R1 Minimum OS/400 to support any ATM/IOA: V4R2</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b></p> <p>The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810) Prerequisite: #2810 LAN/WAN IOP Minimum OS/400 level: V4R2</p>

#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3. The #2812 typically used where 45 Mbps speed is required over distances of less than 1000 meters.</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b></p> <p>The #2815 provides attachment into an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the MMF 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers.</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters.</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The adapter comes with an RJ45 connector for attachment to UTP-5 media. The #9738 specifies the base LAN. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode.</p> <p>Card slots required: One (with #2810) or three (with #6617 or #6618)</p> <p>Prerequisite: #2810 LAN/WAN IOP, #6617 Integrated PC Server, or #6618 Integrated Netfinity Server</p> <p>Minimum OS/400 to support with the #2810: V4R1</p> <p>Minimum OS/400 support with the #6617 or #6618: V4R2</p>
#6149 #9249	<p><b>16/4 Mbps Token Ring IOA</b></p> <p>The #6149/#9249 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC, and an external 8-ft. (2.4m) token ring cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode. The #9249 specifies the base LAN.</p> <p>Card slots required: None</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server</p> <p>Minimum OS/400 to support in the #6616: V3R7</p> <p>Minimum OS/400 to support in the #2629: V4R1</p>

<p>#6516 #6517 #6518 #6519 #6526 #6527 #6528 #6529 #8716 to #8719 #8726 to #8729</p> <p>#6509</p> <p>#6520</p>	<p><b>Integrated PC Server (formerly known as FSIOP)</b> The Integrated PC Server connects to the iSeries or AS/400e to provide high performance file serving to PCs attached using token ring or Ethernet networks. The I/O processor consists of an INTEL 80486 66MHZ processor and onboard main storage (16 to 64 MB).</p> <p>16 MB One-Port Integrated PC Server 32 MB One-Port Integrated PC Server 48 MB One-Port Integrated PC Server 64 MB One-Port Integrated PC Server 16 MB Two-Port Integrated PC Server 32 MB Two-Port Integrated PC Server 48 MB Two-Port Integrated PC Server 64 MB Two-Port Integrated PC Server</p> <p>Specify for One-Port Integrated PC Server as base LAN</p> <p>Specify for Two-Port Integrated PC Server as base LAN</p> <p>The following cables need to be specified depending on the network attaching into an integrated PC Server Port: #9024 Token ring cable (2.44m) #9025 Ethernet Cable (3m AUI)</p> <p>The Integrated PC Server requires two contiguous I/O card slots</p> <p><b>Additional 16 MB for Integrated PC Server</b> The #6509 is used for expanding the memory of an installed Integrated PC Server. One to three #6509s may be installed per Integrated PC Server up to a maximum of 64 MB.</p> <p><b>Upgrade One-Port Integrated PC Server to Two-Port Integrated PC Server</b> The #6520 cannot be used with a Two-Port Integrated PC Server.</p>
<p>#6616</p>	<p><b>#6616 Integrated PC Server</b> The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Either one or two of these LAN IOAs are supported: #9249/#6149 16/4 Mbps Token Ring IOA #9381/#6181 ASCII Workstation Controller One #9249 or #9381 can be specified as the base LAN. Minimum OS/400 level: V3R7 with Cumulative PTF Package C7029370 Card slots required: Two contiguous slots</p>
<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b> The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and two LAN slots for higher performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838/#9738. #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA #2838 PCI 100/10 Mbps Ethernet IOA The #9738 is the base LAN. The third LAN and the second #2838/#9738 can only be used if running Windows NT on the #6617. The #0022 100/10 Mbps Ethernet on IPCS is required for each #2838/#9738 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then: #0325 Integrated PC Server Extension Cable for Windows NT is required. #1700 Integrated PC Server Keyboard or Mouse for Windows NT, the default in the U.S.A. A display must be connected to the IPCS to support Windows NT. Minimum OS/400 level: V4R2 and Cumulative PTF Package C8342420, V4R3 and Cumulative PTF Package C8349430 For country- or region-specific keyboard or mouse and display support, refer to the Web site at: <a href="http://www.ibm.com/series/windowsintegration/">http://www.ibm.com/series/windowsintegration/</a> Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>

#6618	<p><b>#6618 Integrated Netfinity Server (SPD)</b>  The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory  #2867 256 MB Integrated PC Server Memory  Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838/#9738.  #2723 PCI Ethernet IOA  #2724 PCI 16/4 Mbps Token Ring IOA  #2838 PCI 100/10 Mbps Ethernet IOA  Only one of these Base LAN IOAs is supported:  #9723 PCI Ethernet IOA  #9724 PCI Token Ring IOA  #9738 PCI 100/10 Mbps Ethernet IOA  The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. When running Windows NT on the #6618, then:  A minimum of 64 MB IOP memory is required.  The #0325 Integrated PC Server Extension Cable for Windows NT is required.  The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.  A display is required to support Windows NT on the IPCS.  For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a>  When running OS/2 on the #6618, then:  The #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.  A maximum of 512 MB IOP memory is supported.  When running Novell Netware on the #6618, then:  The #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.  A maximum of 256 MB IOP memory is supported.  SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>
<b>Disk Units</b>	
#1109	<p><b>988 MB Single Disk Unit Conversion Kit</b>  The #1109 provides the conversion kit required to migrate 988MB one-byte SCSI disk units. 2.06 GB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#1378	<p><b>525 MB ¼-inch Cartridge Tape Unit</b>  The #1378 provides the conversion kit required to migrate 525 MB ¼-inch cartridge tape units.  Maximum: 17</p>
#1379	<p><b>1.2 GB ¼-inch Cartridge Tape Unit</b>  The #1379 provides the conversion kit required to migrate 1.2 GB ¼-inch cartridge tape units.  Maximum: 17</p>
#1380	<p><b>2.5 GB ¼-inch Cartridge Tape Unit</b>  The #1580 provides the conversion kit required to migrate 2.5 GB ¼-inch cartridge tape units.  Maximum: 17</p>
#1602	<p><b>1.03 GB Single Disk Unit Conversion Kit</b>  The #1602 provides the conversion kit required to migrate 1.03GB one-byte SCSI disk units. 1976 MB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b>  The #1603 provides the conversion kit required to migrate 1.96 GB one-byte SCSI disk units. 3.93 GB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#6109	<p><b>988 MB Additional Disk Unit</b>  The #6109 provides a 3 ½-inch single disk unit with 988 MB capacity for additional disk storage.</p>

#6285	<p><b>#6285 13.0 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6285 provides full interchange of data with all standard and optional ¼-inch cartridge tape units provided on the iSeries or AS/400e server, using the proper media and density. Sustained data transfer rate is 1.5 MB per second. With hardware, data compression maximum capacity is up to 26 GB. Supported as an Alternate IPL device. Requires #6513 Internal Tape Device Controller. Maximum: 17</p>
#6335	<p><b>#6335 840 MB ¼-inch Cartridge Mini Tape Unit</b></p> <p>Using QIC-3040-M recording format, tape cartridge capacity on the #6335 is 840 MB. With hardware, data compression maximum capacity is up to 1.6GB. Sustained data transfer rate is 300 KB per second. Maximum: 17</p>
#6380	<p><b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6380 provides full interchange of data with all standard ¼-inch cartridge tape units provided on the iSeries or AS/400e server, using the proper media and density. With hardware, data compression maximum capacity is up to 5 GB. Sustained data transfer rate is 300KB per second. Maximum: 17</p>
#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b></p> <p>The #6390 is an 8mm Helical Scan tape drive which can be used for save and restore, program distribution, and alternate IPL. Has sustained data rate of 500 KB per second. With hardware, data compression maximum capacity is up to 14 GB, and data transfer rate is up to 1 MB per second. Maximum: 17</p>
#6605	<p><b>1.03 GB Additional Two-Byte Disk Unit</b></p> <p>The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>
#6606	<p><b>1.96 GB Additional Two-Byte Disk Unit</b></p> <p>The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.</p>
#6607	<p><b>4.19 GB Additional Two-Byte Disk Unit</b></p> <p>The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage.</p>
#6650	<p><b>1.96 GB Additional Two-Byte Disk Unit</b></p> <p>The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.</p>
#6652	<p><b>1.03 GB Additional Two-Byte Disk Unit</b></p> <p>The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>
#6713 #7713	<p><b>#6713 8.58 GB Disk Unit (Ultra SCSI)</b></p> <p>The #6713 feature provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. The #7713 is an optional 8.58 GB base disk. Minimum OS/400 level: V3R7</p>
#6906	<p><b>1.96 GB Additional Two-Byte Disk Unit (Ultra SCSI)</b></p> <p>The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower.</p>
#6907	<p><b>4.19 GB Additional Two-Byte Disk Unit (Ultra SCSI)</b></p> <p>The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower.</p>
#7607	<p><b>4.19 GB Optional Two-Byte Disk Unit</b></p> <p>The #7607 provides a 3 ½-inch single disk unit with 4.19 GB capacity as the base disk unit in place of the #9606. This is the default base disk with OS/400 V4R1.</p>
#9606	<p><b>1.96 GB Base Two-Byte Disk Unit</b></p> <p>The #9606 provides a 3 ½-inch single disk unit with 1.96 GB capacity as the base disk unit on Models 50S and 53S.</p>
#9520	<p><b>Base CD-ROM Drive</b></p> <p>The #9520 is used for code distribution.</p>

<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller (SPD)</b>  The #2621 provides attachment capability for up to two of these removable media devices with hardware data compression: 2440, 9348, 9427, 7208 and 3995. If the #2621 is to support 3995 or 9427, it must be dedicated to it.  Card slots used: One</p>
#2624	<p><b>#2624 Storage Device Controller</b>  The #2624 can support up to two internal tape units in the system unit. As a feature on #507x, it can support up to three internal tape units. The #2624 can concurrently support a #6146 Diskette Adapter to attach an external diskette unit. With V3R7 and later, the hardware configurator defaults to the #6513 Internal Tape Device Controller unless the tape is a #1378 (525 MB QIC) or if a #2624 is available to attach to required tape.  Card slots used: One  Maximum: One per tower</p>
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP</b>  The #2644 provides attachment for all 34xx tape subsystem models (except SCSI attach 3490 models). May also require a #9980 serpentine cable.  Card slots used: One</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b>  The #6146 provides support for one of these external diskette types:  9331-011 8-inch diskette unit  9331-012 ¼-inch diskette unit  It requires #2624 to attach.  Card slots used: none  Maximum: One</p>
#6147	<p><b>#6147 Diskette Adapter</b>  The #6147 provides support for one of these external diskette types:  9331-011 8-inch diskette unit  9331-012 5 ¼-inch diskette unit  It attaches to #9162 or #9163 MFIOP  Card slots used: None  Maximum: One  Also supports #9149 Twinaxial Passthru Adapter.</p>
#6501	<p><b>#6501 Tape/Disk Device Controller</b>  The #6501 allows attachment of up to two SCSI attach 3490 or 35xx units.  Card slots used: One</p>
#6502	<p><b>#6502 High Performance Controller 2 MB Cache (RAID/Mirrored/Unprotected)</b>  The #6502 provides RAID-5 protection and a 2 MB write-cache for internal disk units installed in a single #505x, #8052, or #9051 Storage Expansion Unit or installed in the #508x Storage Expansion Tower. Supports up to 16 disk units. A maximum of two RAID-5 arrays are allowed per #6502 with a maximum of ten disk units per array. All disk units in an array must be of the same capacity. A minimum of four disk units are needed for a valid RAID-5 configuration and disk units not supported in a RAID-5 array can still be attached in base or mirrored mode. Only 1.03 GB, 1.96 GB, and 4.19 GB disk units can be RAID-5 protected with this controller and parity is spread across four or eight disk units. Mutually exclusive with #6512, #6530, #6532 and #6533. One #6502/#6512/#6530/#6532/#6533 is required for each #505x, #8052, or #9051 Storage Expansion Unit or #508x Storage Expansion Tower. The #6502 does not support integrated hardware disk compression.  Card slots used: One</p>
#6512	<p><b>#6512 High Performance Controller 4 MB Cache (RAID/Mirrored/Unprotected)</b>  The #6512 provides RAID-5 protection and a 4 MB write-cache for internal disk units installed in a single #505x, #8052 or #9051 Storage Expansion Unit or installed in the #508x Storage Expansion Tower. Supports up to 16 disk units. A maximum of two RAID-5 arrays are allowed per #6512 with a maximum of 10 disk units per array. All disk units in an array must be of the same capacity. A minimum of four disk units are needed for a valid RAID-5 configuration and disk units not supported in a RAID-5 array can still be attached in base or mirrored mode. Only 1.03 GB, 1.96 GB, and 4.19 GB disk units can be RAID-5 protected with this controller and parity is spread across four or eight disk units. Mutually exclusive with #6502, #6530, #6532, and #6533. One #6502/#6512/#6530/#6532/#6533 is required for each #505x, #8052, or #9051 Storage Expansion Unit or #508x Storage Expansion Tower. The #6512 does not support integrated hardware disk compression.  Card slots used: One</p>

#6513	<p><b>#6513 Internal Tape Device Controller</b></p> <p>The #6513 provides support for up to two internal tape devices when installed in the system unit or up to four internal tape devices when installed in a #507x System Unit Expansion Tower. The #6513 is the default on the hardware configurator except for #1378, (525 MB QIC) or if a #2624 Storage Device Controller is available for attaching a required tape. These internal tape features are supported: #1379, #1380, #6335, #6380, #6385, and #6390.</p> <p>Minimum OS/400 level: V3R7</p> <p>Card slots used: One</p>
#6530	<p><b>#6530 Disk Unit Controller No Cache (Mirrored/Unprotected)</b></p> <p>The #6530 provides attachment for up to two internal tape devices when installed in the system unit or up to four internal tape devices when installed in a #507x System Unit Expansion Tower in either base or mirrored mode. Mutually exclusive with #6502, #6512, #6532, and #6533. One #6502/#6512/#6530/#6532/#6533 is required for each #505x, #8052, or #9051 Storage Expansion Unit or #508x Storage Expansion Tower. The #6530 does not support integrated hardware disk compression.</p> <p>Card slots used: One</p>
#6532	<p><b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6532 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower. Also supports disks located in #5051, #5052, #8052 or #9051 Storage Expansion Unit, or #5080 or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6532.</p> <p>The #6532 does not support integrated hardware disk compression.</p> <p>Card slots required: One</p> <p>Minimum OS/400 level: V4R1</p>
#6533	<p><b>#6533 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6533 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower. Also supports disks located in the #5051, #5052, #8052, or #9051 Storage Expansion Unit or #5080 or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6533.</p> <p>Card slots required: One</p> <p>Minimum OS/400 level: V4R2</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Minimum OS/400 to support integrated hardware disk compression on the #6714/#8714 17.54 GB Disk Unit: V4R4</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b></p> <p>The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348, or 9427 Tape Drive, or 3995 C4x Optical Library Server.</p> <p>Card slots required: One</p> <p>Maximum: Four</p> <p>Minimum OS/400 level: V4R1</p> <p>Minimum OS/400 to support 3995: V4R2</p>
#9980	<p><b>Serpentine Cable</b></p> <p>The #9980 is required for attaching all #2644 supported devices (except 3490-Cxx when attached using "internal cables"). The #9980 is a 3490 feature.</p>



## AS/400 400 models

Model	General availability	Withdrawn from marketing
400	01 September 1995	30 June 1998

## 2.1 AS/400 Model 400 overview

Processor feature	400			
	#2130	#2131	#2132	#2133
Relative system performance (CPW-CISC or V3R6 RISC) <sup>1</sup>	12.3	18.3	24.5	30.6
Relative system performance (CPW - V3R7 RISC) <sup>1</sup>	13.8	20.6	27.0	33.3
Relative system performance (CPW - V4R1 RISC) <sup>1</sup>	13.8	20.6	27.0	35.0
Relative system performance (RAMP-C) <sup>2</sup>	4.1	6.1	8.7	10.9
Main storage (MB)	32-160	32-224	32-224	32-224
Disk storage (GB) (V3R1/R6)			1.96-23.6	
(V3R2/R7, V4R1/R2/R3)			1.96-50.3	
Maximum feature card slots			6	
Communication lines			1-20	
LAN adapters <sup>3</sup>			0-2	
ATM adapters			0-1	
Maximum workstation controllers			7	
Twinaxial			7	
ASCII			7	
LocalTalk			7	
Maximum workstations				
Twinaxial			280	
ASCII			126	
LocalTalk			217	
¼-inch/8mm cartridge tape (internal)			0-4	
½-inch tape				
9348			0-4	
34xx/35xx			0-2	
8mm cartridge tape (external)			0-4	
Tape libraries			0-2	
Optical libraries			0-4	
Diskettes (5 ¼-inch or 8-inch)			0-2	
Fax adapters			0-6	
Cryptographic processors			0-1	
System I/O buses			1	

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	The relative system performance (RAMP-C) ratios are estimated based on iSeries and AS/400e environment RAMP-C workload, with a 9404 B10 with 16 MB of main storage and 945 MB of disk equalling 1.0. The ratios shown were estimated at maximum configurations running at 70% utilization. Relative system performance ratios may not be realized in all environments.
<b>Note 3</b>	The Model 400 supports three LAN adapters if running Firewall for AS/400 (5769-FW1).

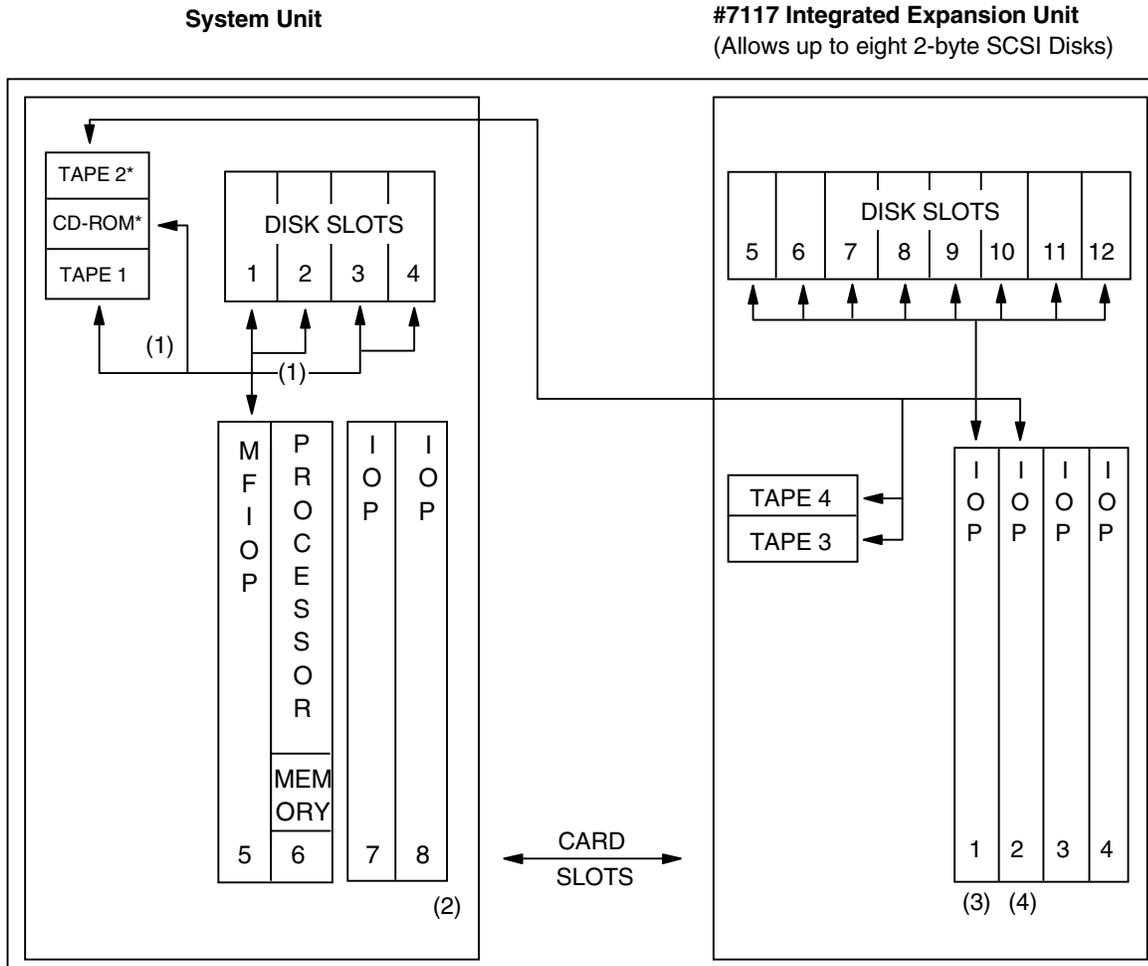
## 2.1.1 Model 400 communications considerations

Model	Lines per model	High-speed lines per model	LAN adapters
C04/C06	5	1	1
D02/E02	3	2	1
F02	8	2	1
D04/D06	8	4	1
E04/F04	8	4	1
E06/F06/20S	14	4	2
200	20	6	2
236	8	1	2
400	20	6	2
436 (SSP only)	8	1	2
436 (SSP and OS/400)	20	6	2

**Note:**

- ▶ Each ISDN line is counted as two high-speed lines.
- ▶ For D02/E02/F02, ISDN and X.21 adapters may co-reside, but do not operate concurrently.

## 2.2 9402 Model 400 system unit with #7117 Integrated Expansion Unit schematic



\* CD-ROM is only available on Model 400.

Diagram as viewed from the rear of a Model 400

### Notes:

1. The #5135 Feature Power Supply is required if the #7117 Integrated Expansion Unit is not installed and there are three or four two-byte disk units; if the #7117 is installed and there are three or four disk but no #6502, #6522, #6523, or #6530; if there are two internal tapes but no #2624; if there are four internal tapes; or if there are 11 or 12 disk units. It is a prerequisite for the #9320 Migrated Disk Unit Package. It is also required for certain high-power combinations of feature cards (when more than one of these cards is in a #7108, the #2617 with the #7174/#9174 on the MFIOP, the #2618, #2620, #2628, #2663, or #2666, or if an Integrated PC Server is in a #7108).
2. The #7108 Expansion Card Cage provides two feature I/O card slots.
3. Feature I/O card slot 1 is occupied by the disk controller if disks are installed in the #7117 Integrated Expansion Unit.
4. Feature I/O card slot 2 is occupied by #2624 if tape drives are installed in the #7117 Integrated Expansion Unit.
5. The base 9402 Model 400 does not include a tape drive as standard.

6. Main storage cards are installed on the processor and require one slot each. The Model 400 #2130 has two slots, and the Model 400 #2131, #2132, and #2133 have three slots available in addition to the base 32 MB.

## 2.3 AS/400 Advanced System Model 400 features

See 2.2, “9402 Model 400 system unit with #7117 Integrated Expansion Unit schematic” on page 36, for a diagram of the Model 400.

Processors		System unit	#7117 Integrated Expansion Unit
#2130	<b>4.1 RSP RAMP-C, 12.3 RSP CPW (V3R6), 13.8 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 32 MB. 64 MB required to run V4.	1	-
#2131	<b>6.1 RSP RAMP-C, 18.3 RSP CPW (V3R6), 20.6 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 32 MB. 64 MB required to run V4.	1	-
#2132	<b>8.7 RSP RAMP-C, 24.5 RSP CPW (V3R6), 27.0 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 32 MB. 64 MB required to run V4.	1	-
#2133	<b>10.7 RSP RAMP-C, 30.6 RSP CPW (V3R6), 33.3 RSP CPW (V3R7), 35.0 RSP CPW (V4R1, V4R2, and V4R3) Processor.</b> Base Memory 32MB. 64 MB required to run V4.	1	-
Power and Packaging		System unit	#7117 Integrated Expansion Unit
#5135	<p><b>#5135 Feature Power Supply</b></p> <p>The #5135 Feature Power Supply is required in these circumstances:</p> <ul style="list-style-type: none"> <li>If #7117 Integrated Expansion Unit is not selected and there are three or four disks installed.</li> <li>If #7117 Integrated Expansion Unit is selected and there are three or four disks installed but no #6502/#6522/#6523/#6530/#6534 disk controllers.</li> <li>If #7117 Integrated Expansion Unit is selected and there are 11 or 12 disk units.</li> <li>If there is more than one #2618 Fiber Distributed Data Interface Adapter: <ul style="list-style-type: none"> <li>#2620 Full Cryptographic Processor</li> <li>#2628 Limited Cryptographic Processor</li> <li>#2666 High-Speed Communications Adapter</li> <li>#2663 I/O Attachment Processor in the #7108 Expansion Card Cage</li> </ul> </li> <li>If there is a #6516 to #6519 or #6526 to #6529 Integrated PC Server (formerly known as FSIOP), in the #7108 Expansion Card Cage.</li> <li>If there is more than one #2617 Ethernet/IEEE 802.3 Adapter/HP in the #7108 Expansion Card Cage or #7174/#9174 Ethernet IOA in the MFIOP.</li> </ul> <p>Card slots used: None Maximum: One</p>	1	-
#7000	<p><b>Panel Keylock Feature</b></p> <p>The #7000 provides a keylock to secure the door covering the system panel.</p> <p>Card slots used: None Maximum: One</p>	1	-
#7108	<p><b>Expansion Card Cage</b></p> <p>The #7108 provides two feature I/O card slots in the system unit. The #5135 Feature Power Supply may be required in high power feature combinations.</p> <p>Card slots used: None Maximum: One</p>	1	-

#7117	<b>#7117 Integrated Expansion Unit</b> The #7117 unit can be added to the Model 400. It provides space for adding: Four additional feature cards Up to two internal tape units (¼-inch or 8mm) Up to eight two-byte SCSI disk units Maximum: One	1	-
#9116	<b>Two Book Cage High Performance Card Enabler</b> The #9116 provides a special backplane and cabling that is required for these high performance cards when installed in a #7108: #2620 Full Cryptographic Processor #2628 Limited Cryptographic Processor #2629 LAN/WAN/Workstation IOP #2810 LAN/WAN IOP #6501 Tape/Disk Device Controller #6534 Magnetic Media Controller #6616 Integrated PC Server #6516/#6517/#6518/#6519 Integrated PC Server #6526/#6527/#6528/#6529 Integrated PC Server #2663 I/O Attachment Processor Card slots used: None Maximum: One	1	-
#9242	<b>Base Power Supply</b> Base 175-watt power supply for systems without #5135 Feature Power Supply.	1	-
#9244	<b>320 Watt Power Supply</b> Base 320-watt power supply for #7117.	1	-
#9319	<b>Standard Disk Unit Package</b> Provides four positions in the system unit for two-byte SCSI disk units. One-byte SCSI disk units are not supported. Card slots used: none Maximum: One	1	-
#9320	<b>Migrated Disk Unit Package</b> Provides four positions in the system unit for migrated one-byte SCSI disk units. Prerequisite: #5135 Feature Power Supply Card slots used: None Maximum: One	1	-
UPS	<b>Uninterruptible Power Supply</b> Provided instead of internal battery backup to minimize impact from power fluctuations and outages. A number of different models of the 9910 UPS are available. Specific models vary by country or region.		
<b>Main Storage</b>		<b>System unit</b>	<b>#7117 Integrated Expansion Unit</b>
#3110	<b>64 MB Main Storage</b> Plugs directly onto the CPU. The #2130 Processor supports two additional memory features. The other Model 400 processors support three.	2/3	-
#3172 #4172 #8172	<b>32 MB Main Storage</b> Plugs directly onto the CPU. The #2130 Processor supports two additional memory features. The other Model 400 processors support three.	2/3	-
#3182	<b>32 MB Main Storage</b> Plugs directly onto the CPU. The #2130 Processor supports two additional memory features. The other Model 400 processors support three.	2/3	-

Workstation Controllers		System unit	#7117 Integrated Expansion Unit
#2629	<b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. Minimum OS/400 level: V4R1 Card slots used: One	2	4
#6050	<b>#6050 Enhanced Twinaxial Workstation Controller</b> One eight-port workstation attachment is provided to support 40 5250-type displays or printers. Requires one I/O card slot	2	4
#6054	<b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b> See "Communications" on page 40 for a description of the #6054.	2	4
#6140	<b>#6140 Twinaxial Workstation Controller</b> The #6140 provides eight ports to support a maximum of 40 twinaxial devices. Requires one I/O card slot.	2	4
#6141	<b>#6141 ASCII Workstation Controller</b> The #6141 is a six-port workstation controller and workstation adapter supports up to six ASCII devices. Requires one I/O card slot.	2	4
#6142	<b>#6142 ASCII 12-Port Workstation Attachment</b> The attachment plugs into the #6141 ASCII Workstation Controller providing an additional 12 ports. A total of 18 ASCII devices are supported. One #6142 can be attached per #6141 or #9171. Requires no I/O card slot.	2	4
#6148	<b>Eight-Port Twinaxial Expansion</b> The #6148 replaces the two twinaxial ports on the base system with a 6m attachment cable providing eight twinaxial ports supporting up to 40 5250-type devices.	1	-
#6180	<b>#6180 Twinaxial Workstation IOA</b> One eight-port attachment is provided to support up to 40 twinaxial devices. Prerequisite: #2629 LAN/WAN/Workstation IOP. IOA slots required for #6180: One on the #2629 LAN/WAN/Workstation IOP Minimum OS/400 level: V4R1	-	-
#8054	<b>Workstation Adapter for Apple Macintosh (LocalTalk)</b> See "Communications" on page 40 for a description of the #8054.	1	-
#9171	<b>MFIOP/ASCII Workstation Controller</b> The #9171 provides the MFIOP that includes an ASCII workstation controller with six ASCII ports. Up to six ASCII displays and printers may be directly attached, or up to 18 when a #6142 is installed.	1	-
#9172	<b>MFIOP/Twinaxial Workstation Controller</b> The #9172 provides the MFIOP that includes a two-port twinaxial workstation controller for attaching up to 14 5250-type devices. This number can be increased to 40 by adding #6148.	1	-
#9173	<b>MFIOP/LocalTalk</b> The #9173 provides the MFIOP that includes a LocalTalk workstation adapter for attaching to a LocalTalk network. 31 devices and 56 sessions are supported.	1	-
#9176	<b>#9176 Base MFIOP</b> The #9176 specifies the MFIOP that does not include a workstation controller. Requires the #9026 or #9027 Client Access console cable and a one-line communications adapter (#2612 or #9612) to attach a PC as a console.	1	-

#9177	<p><b>MFIOP/LAN Controller</b></p> <p>The #9177 specifies MFIOP that includes a #9174 Ethernet Adapter or #9175 Token-Ring Adapter.</p> <p>The #9174 Ethernet IOA supports attachment to an Ethernet network. The #9025 Ethernet cable or customer supplied RJ45 cable is required.</p> <p>The #9175 Token-Ring IOA supports attachment to a 4 Mbps token-ring network. A #7175/#9175 optionally supports a 16 Mbps token-ring. The maximum frame size at 16 Mbps is 4 KB. A maximum of 16 active device addresses are supported. The #9024 token-ring cable or customer supplied RJ45 cable is required.</p> <p>The #6146 Diskette Adapter is not supported on #9177.</p>	1	-
<b>Communications</b>		<b>System unit</b>	<b>#7117 Integrated Expansion Unit</b>
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter</b></p> <p>Connects to MFIOP and #2623 Six-Line Communications Controller to support one communications line connecting to an ISDN network. Each adapter supports two 64 Kbps B channels and one 16 Kbps D channel. ISDN lines are full duplex. Requires no I/O card slots.</p> <p>The #2605 cannot be attached to a #2623 that also attaches V.24, X.21, or V.35 adapters.</p>	2	2
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter</b></p> <p>Connects to MFIOP and #2623 to support two communications lines using ASYNC, BSC, SDLC or X.25 protocol. Requires no I/O card slots.</p> <p>Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 enhanced cable 20-ft. (6m)</li> <li>#9835 EIA 232/V.24 enhanced cable 50-ft. (15m)</li> <li>#9022 EIA 232/V.24 cable 20-ft. (6m)</li> <li>#9836 EIA 232/V.24 cable 50-ft. (15m)</li> </ul>	10	10
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter (SPD)</b></p> <p>Connects to MFIOP and #2623 to support two communications lines using X.21 or X.25 networks. Requires no I/O card slots.</p> <p>Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 cable 20-ft. (6m)</li> <li>#9839 X.21 cable 50-ft. (15m)</li> </ul>	10	10
#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter</b></p> <p>The #2612 connects to the MFIOP and #2623 Six-Line Communications Controller to support one communications line using ASYNC, BSC, SDLC or X.25 protocol. Requires no I/O card slots.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 enhanced cable 20-ft. (6m)</li> <li>#9835 EIA 232/V.24 enhanced cable 50-ft. (15m)</li> <li>#9022 EIA 232/V.24 cable 20-ft. (6m)</li> <li>#9836 EIA 232/V.24 cable 50-ft. (15m)</li> </ul>	8	12
#2613	<p><b>#2613 V.35 One-Line Adapter</b></p> <p>The #2613 connects to MFIOP and #2623 supporting one V.35 line using either BSC, SDLC, or X.25 protocols. Requires no I/O card slots.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9020 V.35 cable 20-ft. (6m)</li> <li>#9838 V.35 cable 50-ft. (15m)</li> </ul>	4	4
#2614	<p><b>#2614 X.21 One-Line Interface Adapter (SPD)</b></p> <p>The #2614 connects to MFIOP and #2623 to attach one communications line to an X.21 or X.25 network. Requires no I/O card slots.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 cable 20-ft. (6m)</li> <li>#9839 X.21 cable 50-ft. (15m)</li> </ul>	8	12

#2620	<p><b>#2620 Full Cryptographic Processor</b>            The #2620 provides full cryptographic support for encrypting and decrypting data. The #2620 consists of an I/O processor card and cable to attach an optional 4754-001. Distribution of the #2620 is restricted by U.S. Government export regulations. In countries or regions outside the U.S.A. and Canada, it may be marketed only to financial institutions and subsidiaries of U.S. companies. Requires one I/O card slot.            May require #5135 Feature Power Supply.</p>	1	1
#2623	<p><b>#2623 Six-Line Communications Controller</b>            The #2623 provides basic control and common circuits for up to six lines. Requires one I/O card slot</p>	2	4
#2628	<p><b>#2628 Limited Cryptographic Processor (SPD)</b>            The #2628 provides the same functions as #2620 except for Data Encryption Standard based data scrambling. Instead it uses Commercial Data Masking Facility for data scrambling. Supports attachment of optional 4754-L01. Does not require U.S. Customs clearance.            Requires one I/O card slot.            May require #5135 Feature Power Supply.</p>	1	1
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>            The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.            Minimum OS/400 level: V4R1            Card slots used: One</p>	2	4
#2664	<p><b>#2664 Integrated Fax Adapter</b>            The #2664 provides the iSeries or AS/400e with two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax, another iSeries or AS/400e with an integrated Fax adapter, or PCs with appropriately programmed Fax adapter. Not supported with V5R1 and later.</p>	2	4
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b>            The #2666 provides the iSeries or AS/400e with one communications port capable of high-speed communication over public or private Frame Relay networks or point-to-point non-switched SDLC lines. Speeds up to 2.048 Mbps are possible.            Requires one I/O card slot.            One of the following cables must be specified:                #9879 6m V.35 cable                #9880 24m V.35 cable *                #9882 6m V.36/EIA 449 cable                #9883 24m V.36/EIA 449 cable **                #9884 45m V.36/EIA 449 cable **                #9885 6m X.21 cable            * Line speeds up to 64Kbps only            ** Use of these longer cables requires that the attaching Data Communications Equipment (DCE) supports the V.36 transmitter signal element timing Data Terminal Equipment (DTE) source signal.             The #2666 is classed as a communications line for purpose of maximum communications lines per model.            May require #5135 Feature Power Supply.</p>	2	2
#6054 #8054	<p><b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b>            Allows Apple Macintosh computer devices to attach directly to the iSeries or AS/400e. Also allows for connection to LocalTalk networks. Each adapter allows attachment of 31 Apple Macintosh devices with up to 56 sessions:                #6054 attaches to the #2623 Six-Line Communications Controller                #8054 attaches to the MFIOP             A maximum of one #6054/#8054 can be attached per #2623/MFIOP. A second adapter on the #2623 may be X.21, V.24, or V.35. The third adapter position must not be used. A single-line EIA 232/V.24 adapter may co-reside with #8054 on MFIOP. The #8054 cannot be added to MFIOP #9173.</p>	2	4

LANs and ATM		System unit	#7117 Integrated Expansion Unit
#2617	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b>            The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC), plus IEEE 802.2 Logical Link Control (LLC) functions. An Attachment Unit Interface (AUI) Ethernet cable, which connects between the adapter and the Ethernet/IEEE 802.3 transceiver, must be ordered separately. Supports 10 Mbps half-duplex only.            Requires one I/O card slot.            May require #5135 Feature Power Supply.</p>	2	2
#2618	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b>            The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which complies with ANSI X3T9.5 and ISO 9314 standards.            Requires one I/O card slot.            Cables: Requires multi-mode (62.5/125) micron FDDI optical fiber jumper cables to connect the FDDI adapter into the FDDI ring. These must be separately ordered.            May require #5135 Feature Power Supply.</p>	1	1
#2619	<p><b>#2619 LAN/WAN/Workstation IOA</b>            The #2619 provides a single attachment to a 16 Mbps or 4 Mbps IBM token-ring network. It consists of an adapter card, Internal Code, which supplies IEEE 802.5 Media Access Control and Logical Link Control functions, and an external 2.5m cable.            Requires one I/O card slot.</p>	2	2
#2626	<p><b>#2626 16/4 Mbps Token Ring Adapter</b>            The #2626 provides a single attachment to either a 16 or 4 Mbps token-ring network.            Requires one I/O card slot.</p>	2	2
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>            The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.            Minimum OS/400 level: V4R1            Card slots used: One</p>	2	4
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>            The #2663 provides the communication hardware base for the #2668 Wireless LAN Adapter. The #2663 is required when attaching the #2668. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.            Shares one I/O card slot with #2668            May require #5135 Feature Power Supply.</p>	2	2
#2665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter</b>            The #2665 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted pair wiring.            Requires one I/O card slot.            Cables: The SDDI adapter requires IBM FDDI copper jumper cables to connect the adapter into the FDDI ring. These must be separately ordered.</p>	1	1
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>            The #2668 provides wireless connectivity from iSeries or AS/400e servers to workstations or other systems connected to a wireless LAN network. The #2668 comes with an antenna and a cable for connecting the antenna to the adapter. One of these antenna cables must be specified:                #9814 20-ft. antenna cable                #9815 50-ft. antenna cable             Specify one of these antenna:                #9890 Omni-directional antenna                #9891 Hemispherical antenna                #9892 Directional antenna            Prerequisite: #2663 I/O Attachment Processor</p>	2	2

#2699	<p><b>#2699 Two-Line WAN IOA</b></p> <p>The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0329 V.24/EIA 232 80-ft. (24m) cable</li> <li>#0330 V.24/EIA 232 20-ft. (6m) cable</li> <li>#0331 V.24/EIA 232 50-ft. (15m) cable</li> <li>#0332 V.24/EIA 232 20-ft. (6m) enhanced cable</li> <li>#0333 V.24/EIA 232 50-ft. (15m) enhanced cable</li> <li>#0334 V.24/EIA 232 80-ft. (24m) enhanced cable</li> <li>#0335 V.36/EIA 449 20-ft. (6m) cable</li> <li>#0336 V.36/EIA 449 50-ft. (15m) cable</li> <li>#0337 V.36/EIA 449 150-ft. (45m) cable</li> <li>#0338 V.35 20-ft. (6m) cable</li> <li>#0339 V.35 50-ft. (15m) cable</li> <li>#0340 V.35 80-ft. (24m) cable</li> <li>#0341 X.21 20-ft. (6m) cable</li> <li>#0342 X.21 50-ft. (15m) cable</li> </ul> <p>Restrictions apply using the #2699. See "Comm. Restrictions" on page 116. Prerequisite: #2629 LAN/WAN/Workstation IOP IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP Minimum OS/400 level: V4R1</p>	-	-
#2723	<p><b>#2723 PCI Ethernet IOA</b></p> <p>The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server. Minimum OS/400 level: V4R1</p>	-	-
#2724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b></p> <p>The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps token-ring network. It consists of an adapter card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions and an external 8-ft. (2.4m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server. Minimum OS/400 level: V4R2</p>	-	-
#2810	<p><b>#2810 LAN/WAN IOP</b></p> <p>The #2810 is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI Asynchronous Transfer Mode (ATM) IOA. Card slots required: One with any of the preceding features.</p>		
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b></p> <p>The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at: <a href="http://www.atmforum.com">http://www.atmforum.com</a> Minimum OS/400 level: V4R2 Card slots required: One (with #2810) Prerequisite: #2810 LAN/WAN IOP</p>	1	1
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at: <a href="http://www.atmforum.com">http://www.atmforum.com</a> Minimum OS/400 level: V4R2 Card slots required: One (with #2810) Prerequisite: #2810 LAN/WAN IOP</p>	1	1

#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b></p> <p>The #2815 provides attachment into an ATM network using the UTP-5 interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:  <a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2  Card slots required: One (with #2810)  Prerequisite: #2810 LAN/WAN IOP</p>	1	1
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Technical specifications and industry standards supported are available at the ATM Forum Web site at:  <a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2  Card slots required: One (with #2810)  Prerequisite: #2810 LAN/WAN IOP</p>	1	1
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. Technical specifications and industry standards supported are available at the ATM Forum Web site at:  <a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2  Card slots required: One (with #2810)  Prerequisite: #2810 LAN/WAN IOP</p>	1	1
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:  <a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2  Card slots required: One (with #2810)  Prerequisite: #2810 LAN/WAN IOP</p>	1	1
#2838	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The adapter comes with an RJ45 connector for attachment to UTP-5 media.</p> <p>Minimum OS/400 level: V4R1 with the #2810 or V4R2 with the #6617.  Maximum: One per system.  Card slots required: One (with #2810) or three (with #6617 or #6618).  Prerequisite: #2810 LAN/WAN IOP or #6617 Integrated PC Server or #6618 Integrated Netfinity Server</p>	1	1
#6149	<p><b>#6149 16/4 Mbps Token Ring IOA</b></p> <p>The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps token-ring network. It consists of an IOA card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC, and an external 8-ft. (2.4m) token-ring cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode.</p> <p>Minimum OS/400 level: V3R7 in the #6616 or V4R1 in the #2629.  Card slots required: None  Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server slot  Maximum: Two</p>	-	-

#6181	<p><b>#6181 ASCII Workstation Controller</b></p> <p>The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.</p> <p>The #6181 can operate in full or half-duplex mode.</p> <p>Minimum OS/400 level: V3R7 in #6616 or V4R1 in #2629.</p> <p>Card slots required: None</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server slot</p> <p>Maximum: Two</p>	-	-
IPCS  #6516 #6517 #6518 #6519 #6526 #6527 #6528 #6529	<p><b>Integrated PC Server (formerly known as FSIOP)</b></p> <p>The Integrated PC Server connects to the iSeries or AS/400e server to provide high performance file serving to PCs attached through token-ring or Ethernet networks. The I/O processor consists of an INTEL 80486 66 Mhz processor and onboard main storage (16 to 64 MB). Configuration options using #6509 and #6520 are:</p> <p>16 MB One-Port Integrated PC Server 32 MB One-Port Integrated PC Server 48 MB One-Port Integrated PC Server 64 MB One-Port Integrated PC Server 16 MB Two-Port Integrated PC Server 32 MB Two-Port Integrated PC Server 48 MB Two-Port Integrated PC Server 64 MB Two-Port Integrated PC Server</p> <p>Specify one of the following cables depending on the network attaching into an Integrated PC Server Port: #9024 token-ring cable (2.44m) #9025 Ethernet Cable (3m AUI)</p> <p>The Integrated PC Server requires two contiguous card slots. Requires #5135 Feature Power Supply if installed in #7108.</p>	1 1 1 1 1 1 1 1 1	2 2 2 2 1 1 1 1 1
#6509	<p><b>Additional 16 MB for Integrated PC Server</b></p> <p>The #6509 is used for expanding the memory of an installed Integrated PC Server. One to three #6509s may be installed per Integrated PC Server up to a maximum of 64 MB.</p>	6	6
#6520	<p><b>Upgrade One-Port Integrated PC Server to Two-Port Integrated PC Server</b></p> <p>The #6520 cannot be used with a Two-Port Integrated PC Server.</p>	1	1
#6616	<p><b>#6616 Integrated PC Server</b></p> <p>The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for higher performance serving to LAN attached PCs. The two main storage lots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported: #6149 16/4 Mbps Token Ring IOA #6181 ASCII Workstation Controller</p> <p>Minimum OS/400 level: V3R7 with Cumulative PTF Package C7029370 Card slots required: Two contiguous slots</p>	1	2

<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b>          The #6617 contains a 200 Mhz Pentium Processor, four main storage slots and three LAN IOA slots for high performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:              #2861 32 MB Integrated PC Server Memory              #2862 128 MB Integrated PC Server Memory</p> <p>Up to two of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of one of the LAN IOAs can be #2838.              #2723 PCI Ethernet IOA              #2724 PCI 16/4 Mbps Token Ring IOA              #2838 PCI 100/10 Mbps Ethernet IOA</p> <p>The #0222 100/10 Mbps Ethernet on IPCS is required for the #2838 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:              The #0325 Integrated PC Server Extension cable for Windows NT is required.              The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.          A display is required to support Windows NT on IPCS.</p> <p>For country- or region-specific keyboard or mouse and display support, see the Web site at:  <a href="http://www.ibm.com/eserver/iserries/">http://www.ibm.com/eserver/iserries/</a>          Minimum OS/400 level: V4R2          Card slots required: Three contiguous slots.</p>	<p>-</p>	<p>1</p>
<p>#6618</p>	<p><b>#6618 Integrated Netfinity Server (SPD)</b>          The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:              #2861 32 MB Integrated PC Server Memory              #2862 128 MB Integrated PC Server Memory              #2867 256 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838s:              #2723 PCI Ethernet IOA              #2724 PCI 16/4 Mbps Token Ring IOA              #2838 PCI 100/10 Mbps Ethernet IOA</p> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:              A minimum of 64 MB IOP memory is required.              The #0325 Integrated PC Server Extension Cable for Windows NT is required.              The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.          A display is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at:  <a href="http://www.ibm.com/eserver/iserries/">http://www.ibm.com/eserver/iserries/</a>          When running OS/2 on the #6618, then:              The #0325 and #1700 are not allowed.              Only two of the LAN IOA slots can be used, and only one can contain a #2838.              A maximum of 512 MB IOP memory is supported.          When running Novell Netware on the #6618, then:              The #0325 and #1700 are not allowed.              Only two of the LAN IOA slots can be used, and only one can contain a #2838.              A maximum of 256 MB IOP memory is supported.</p> <p>Card slots required: Three contiguous slots. Cannot be placed in the #5044 System Unit Expansion Rack.          Minimum OS/400 level: V4R2 and Cumulative PTF Package C8342420 or V4R3 and Cumulative PTF Package C8349430</p>	<p></p>	<p></p>

Disk Units		System unit	#7117 Integrated Expansion Unit
#1105	<p><b>320 MB Single Disk Unit Conversion Kit</b></p> <p>The #1105 provides the conversion kit required to migrate 320 MB one-byte SCSI disk units. Requires #9320 Migrated Disk Unit Package. 640 MB dual-disk units require <i>two</i> of these kits. Each kit occupies one disk unit position in the #9320. Cannot be installed in #7117 Integrated Expansion Unit.</p>	4	-
#1107	<p><b>400 MB Single Disk Unit Conversion Kit</b></p> <p>The #1107 provides the conversion kit required to migrate 400 MB one-byte SCSI disk units. Requires #9320 Migrated Disk Unit Package. 800 MB dual-disk units require <i>two</i> of these kits. Each kit occupies one disk unit position in the #9320. Cannot be installed in #7117 Integrated Expansion Unit.</p>	4	-
#1109	<p><b>988 MB Single Disk Unit Conversion Kit</b></p> <p>The #1109 provides the conversion kit required to migrate 988 MB one-byte SCSI disk units. Requires #9320 Migrated Disk Unit Package. 1976 MB dual-disk units require <i>two</i> of these kits. Each kit occupies one disk unit position in the #9320. Cannot be installed in #7117 Integrated Expansion Unit.</p>	4	-
#1602	<p><b>1.03 GB Single Disk Unit Conversion Kit</b></p> <p>The #1602 provides the conversion kit required to migrate 1.03 GB one-byte SCSI disk units. Requires #9320 Migrated Disk Unit Package. 2.06 GB dual-disk units require <i>two</i> of these kits. Each kit occupies one disk unit position in the #9320. Cannot be installed in #7117 Integrated Expansion Unit.</p>	4	-
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b></p> <p>The #1603 provides the conversion kit required to migrate 1.96 GB one-byte SCSI disk units. Requires #9320 Migrated Disk Unit Package. 3.93 GB dual-disk units require <i>two</i> of these kits. Each kit occupies one disk unit position in the #9320. Cannot be installed in #7117 Integrated Expansion Unit.</p>	4	-
#6109	<p><b>988 MB Additional One-Byte SCSI Disk Unit</b></p> <p>The #6109 provides a 3 ½-inch single disk unit with 988 MB capacity for additional disk storage. Requires #9320 Migrated Disk Unit Package. Occupies one disk unit position in the #9320. Cannot be used in #7117 Integrated Expansion Unit.</p>	4	-
#6602	<p><b>1.03 GB Additional One-Byte SCSI Disk Unit</b></p> <p>The #6602 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. Requires #9320 Migrated Disk Unit Package. Occupies one disk unit position in the #9320. Cannot be used in #7117 Integrated Expansion Unit.</p>	4	-
#6603	<p><b>1.96 GB Additional One-Byte SCSI Disk Unit</b></p> <p>The #6603 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Requires #9320 Migrated Disk Unit Package. Occupies one disk unit position in the #9320. Cannot be used in #7117 Integrated Expansion Unit.</p>	4	-
#6605 #4605	<p><b>1.03 GB Additional Two-Byte Disk Unit</b></p> <p>The #6605 provides a 3 ½-inch disk unit with 1.03 GB capacity for additional disk storage in the system unit or #7117 Integrated Expansion Unit. Requires #9319 Standard Disk Unit Package or #9320 Migrated Disk Unit Package if installed in the system unit. Occupies one disk unit position in either the #9319/#9320 or the #7117 Integrated Expansion Unit.</p> <p>The #4605 is the plant install version of the #6605.</p>	3	8
#6606 #4606 #9606	<p><b>1.96 GB Additional Two-Byte SCSI Disk Unit</b></p> <p>The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage in the system unit or the #7117 Integrated Expansion Unit. Requires the #9319 Standard Disk Unit Package or #9320 Migrated Disk Unit Package if installed in the system unit. Occupies one disk unit position in either the #9319/#9320 or #7117 Integrated Expansion Unit.</p> <p>The #4606 is the plant install version of #6606. The #9606 is the base disk.</p>	4	8

#6607 #7607	<b>4.19 GB Additional Two-Byte SCSI Disk Unit</b> The #6607 provides a 3 ½-inch single disk unit with 4.1 9GB capacity for additional disk storage in the system unit or the #7117 Integrated Expansion Unit. Requires the #9319 Standard Disk Unit Package or #9320 Migrated Disk Unit Package if installed in the system unit. Occupies one disk unit position in either the #9319/#9320 or #7117 Integrated Expansion Unit. The #7607 is replacement base disk. Minimum OS/400 level: V3R7.	4	8
#6652 #4652	<b>1.03 GB Additional Two-Byte SCSI Disk Unit</b> The #5541 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage in system unit or the #7117 Integrated Expansion Unit. Requires the #9319 Standard Disk Unit Package or #9320 Migrated Disk Unit Package. Occupies one disk unit position in either the #9319/#9320 or #7117 Integrated Expansion Unit. The #4652 is the plant install version of #6652.	3	8
#9606	<b>1.9 6 GB Standard Two-Byte SCSI Disk Unit</b> The #9606 provides a 3 ½-inch single disk unit with 1.96 GB capacity as the base disk unit on new Model 400s or on upgrades to Model 400.	1	-
<b>Internal Tape Units and CD-ROM</b>		<b>System unit</b>	<b>#7117 Integrated Expansion Unit</b>
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.		
#1378	<b>525 MB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1378 provides the conversion kit required to migrate 525 MB ¼-inch cartridge tape units. Maximum: Four	2	2
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1379 provides the conversion kit required to migrate 1.2 GB ¼-inch cartridge tape units. Maximum: Four	2	2
#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the conversion kit required to migrate 2.5 GB ¼-inch cartridge tape unit. Maximum: Four	2	2
#6335	<b>840 MB ¼-inch Cartridge Mini Tape Unit</b> Using the QIC-3040-MC recording format, tape cartridge capacity is 840 MB. With hardware, data compression maximum capacity is up to 1.6 GB. Sustained data transfer rate is 300 Kbps. Maximum: Four	2	2
#6380	<b>2.5 GB ¼-inch Cartridge Tape Unit</b> It provides full interchange of data with all standard and optional ¼-inch cartridge tape units provided on the iSeries or AS/400e server, using the proper media and density. Maximum: Four	2	2
#6390	<b>7 GB 8mm Cartridge Tape Unit</b> 8mm Helical Scan tape drive which can be used for save and restore, program distribution, and alternate IPL. Has sustained data rate of 500 KB per second. Maximum: Four	2	2
#9520	<b>Base CD-ROM</b> Used for program distribution.	1	-

Magnetic Media Controllers		System unit	#7117 Integrated Expansion Unit
#2621	<p><b>#2621 Storage Device Controller (SPD)</b>                      The #2621 is required to support up to two #9348, #7208, #3995, or #9427 devices and provides the hardware data compression feature. If the #2621 is to support a #3995 or a dual port #7208, it must be dedicated to it.                      Card slots used: One                      Maximum: Six</p>	2	4
#2624	<p><b>#2624 Storage Device Controller</b>                      The #2624 is required to support an internal tape unit in the #7117 Integrated Expansion Unit or a second internal tape unit in a system with no #7117 Integrated Expansion Unit. The #2624 can concurrently support a #6146 Diskette Adapter to attach a second external diskette unit.                      Card slots used: One                      Maximum: One</p>	1	1
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP</b>                      The #2644 provides attachment for all 34xx Tape subsystem models, except SCSI attach 3490 models. May also require a #9980 serpentine cable.                      Card slots used: One                      Maximum: One</p>	1	1
#6146	<p><b>#6146 Diskette Adapter</b>                      The #6146 provides support for one of these external diskette types:                      9331-011 8-inch Diskette Unit                      9331-012 5 ¼-inch Diskette Unit                      The #6146 can attach to either the MFIOF or #2624.                      Card slots used: None                      Maximum: Two</p>	2	1
#6501	<p><b>Tape/Disk Device Controller</b>                      The #6501 allows attachment of up to two SCSI attach 3490/35xx tape units.                      Card slots used: One                      Maximum: Two</p>	1	1
#6522 #6502	<p><b>High Performance Controller—2 MB Cache (RAID/Mirrored/Unprotected)</b>                      Provides RAID-5 protection and a 2 MB write-cache for up to eight disk units installed in the #7117 Integrated Expansion Unit. A minimum of four disk units are needed for a valid RAID-5 configuration and disk units not supported in the RAID-5 array can still be attached. Mutually exclusive with the #6523/#6530.                      Prerequisite: #7117 Integrated Expansion Unit                      Card slots used: One                      Maximum: One</p>	-	1
#6523 #6530	<p><b>Disk Unit Controller No Cache (Mirrored/Unprotected)</b>                      Provides attachment for up to eight disk units installed in the #7117 Integrated Expansion Unit. Mutually exclusive with #6502/#6522.                      Prerequisite: #7117 Integrated Expansion Unit                      Card slots used: One                      Maximum: One</p>	-	1
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b>                      Provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490 Fxx, 3570, 3575, 3494 L1x or D1x, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.                      Minimum OS/400 level: V4R1. V4R2 is required to support 3995.                      Card slots required: One                      Maximum: Four</p>	2	4
#9980	<p><b>Serpentine Cable</b>                      Required for attaching all #2644 supported devices (except 3490-Cxx when attached through "internal cables").</p>	1	1



## AS/400 4xx model packages

9402 model	Announce date	Withdrawn from marketing
#2109 4SS, 4SE, 4SG, 4SL, 4HS, 4HE, 4HG, 4HL models	20 February 1996	31 August 1998
#2110	20 February 1996	31 March 1999
#2111, #2112 4TG and 4TL models	1 September 1996	31 March 1999
#2130 40E, 40G, 42E, 42G, and 42L models	21 June 1995	31 August 1998
#2131 41E, 41G, 40L, 41L models, #2132 41E, and #2133 41E models	21 June 1995	31 March 1999

### 3.1 AS/400 Model 40E, 41E, 40G, 41G, 40L, and 41L summary

Package name	Entry 40E	Entry 41E	Growth 40G	Growth 41G	Large 40L	Large 41L
Relative system performance (CPW-V3R6) <sup>1</sup>	12.3	18.3-30.6	12.3	12.3	12.3	12.3
Relative system performance (CPW-V3R7) <sup>1</sup>	13.8	20.6-33.3	13.8	20.6-33.3	13.8	20.6-33.3
Main storage (MB)	64-160	64-224	96-180	96-224	160	160-224
Disk storage (GB) <sup>2</sup>	3.93-23.6	3.93-23.6	7.86-23.6	7.86-23.6	11.80-23.6	11.80-23.6
Standard tape cartridge	¼-inch	¼-inch	¼-inch	¼-inch	8mm	8mm
Twinaxial devices	40-280	40-280	40-280	40-280	80-280	80-280
LAN adapters <sup>3</sup>	0-2	0-2	0-2	0-2	0-2	0-2
Communication lines	1-20	1-20	2-20	2-20	2-20	2-20
Software Group	P05	P10	P05	P05	P05	P10
Software	OS/400 Client Access for AS/400 Query for AS/400 DB2 Query Manager and SQL Development for AS/400					

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	As of February 1997 with V3R7, the maximum disk capacity is 50.3 GB.
<b>Note 3</b>	The Model 436 supports three LAN adapters if running Firewall for AS/400 (5769-FW1).

### 3.2 AS/400 Model 40E, 41E, 40G, 41G, 40L, and 41L features

Entry 40E			Entry 41E			Growth 40G		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
0110	Packaged Configuration	1	0110	Packaged Configuration	1	0110	Packaged Configuration	1
0160	Software Package P05	1	0161	Software Package P10	1	0160	Software Package P05	1
2130	Processor (32 MB)	1	2131	Processor (32 MB)	1	2130	Processor (32 MB)	1
296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1
3182	32 MB main storage	1	3182	32MB main storage	1	3110	64 MB main storage	1
5000	Software Preload <sup>1</sup>	1	5000	Software Preload <sup>1</sup>	1	5000	Software Preload <sup>1</sup>	1
5517	Alt-IPL Specify QIC-2500	1	5517	Alt-IPL Specify QIC-2500	1	5517	Alt-IPL Specify QIC-2500	1
5520	Complete System Specify	1	5520	Complete System Specify	1	5520	Complete System Specify	1
6148	8-Port Twinaxial Expansion	1	6148	8-Port Twinaxial Expansion	1	5135	#5135 Feature Power Supply	1
6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6148	8-Port Twinaxial Expansion	1
6606	1.96 GB Disk Unit	1	6606	1.96 GB Disk Unit	1	6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1
7000	Panel Keylock Feature	1	7000	Panel Keylock Feature	1	6606	1.96 GB Disk Unit	1
9023	EIA 232/V.24 Enhanced Cable	1	9023	EIA 232/V.24 Enhanced Cable	1	7000	Panel Keylock Feature	1
9172	Standard MFIOPT Twinaxial	1	9172	Standard MFIOPT Twinaxial	1	7108	Expansion Gate	1
9242	Base 175W Power Supply	1	9242	Base 175 W Power Supply	1	8609	EIA 232/V.24 Two-Line Adapter	1
9319	Standard DASD Package	1	9319	Standard DASD Package	1	9023	EIA 232/V.24 Enhanced Cable	2
9520	Base CD-ROM	1	9520	Base CD-ROM	1	9172	Standard MFIOPT Twinaxial	1
9606	Base 1.96 GB Disk Unit	1	9606	Base 1.96 GB Disk Unit	1	9319	Standard DASD Package	1
9612	EIA 232/V.24 One-Line Adapter	1	9612	EIA 232/V.24 One-Line Adapter	1	9520	Base CD-ROM	1
						9606	Base 1.96 GB Disk Unit	1
Allowable substitutions: In place of #3182: #3110 64 MB main storage In place of #9242: #5135 Feature Power Supply In place of #9612: #8609 EIA/V.24 Two-Line Adapter			Allowable substitutions: In place of #2131: #2132 Processor (32 MB) or #2133 Processor (32 MB) In place of #3182: #3110 64 MB main storage In place of #9242: #5135 Feature Power Supply In place of #9612: #8609 EIA/V.24 Two-Line Adapter			Allowable substitutions: None		
<b>Note 1:</b> Country or Region Specific Software: OS/400 (5716-SS1); Client Access for AS/400 (5716-XA1), Query for AS/400 (5716-QU1), DB2 Query Manager (5716-ST1), and SQL Development for AS/400.								

Model 400 Packages

Growth 41G			Large 40L			Large 41L		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
0110	Packaged Configuration	1	0044	Data Loss Protection	1	0044	Data Loss Protection	1
0161	Software Package P10	1	0110	Packaged Configuration	1	0110	Packaged Configuration	1
2131	Processor (32 MB)	1	0161	Software Package P10	1	0161	Software Package P10	1
296x	Power Cord <sup>1</sup>	1	2131	Processor (32 MB)	1	2131	Processor (32 MB)	1
3110	64 MB main storage	1	296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1
5000	Software Preload <sup>1</sup>	1	3110	64 MB main storage	2	3110	64 MB main storage	2
5135	#5135 Feature Power Supply	1	5000	Software Preload <sup>1</sup>	1	5000	Software Preload <sup>1</sup>	1
5517	Alt-IPL Specify	1	5135	#5135 Feature Power Supply	1	5135	#5135 Feature Power Supply	1
	QIC-2500	1	5514	Alt-IPL Specify for 7208	1	5514	Alt-IPL Specify for 7208	1
5520	Complete System Specify	1	5520	Complete System Specify	1	5520	Complete System Specify	1
6148	8-Port Twinaxial Expansion	1	6050	Twinaxial Expansion	1	6050	Twinaxial Expansion	1
6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6148	8-Port Twinaxial Expansion	1	6148	8-Port Twinaxial Expansion	1
6606	1.96 GB Disk Unit	1	6390	7.0 GB 8mm cartridge tape unit	1	6390	7.0 GB 8mm cartridge tape unit	1
7000	Panel Keylock Feature	1	6522	Disk Unit Controller for RAID	1	6522	Disk Unit Controller for RAID	1
7108	Expansion Gate	1	6606	1.96 GB Disk Unit	5	6606	1.96 GB Disk Unit	5
8609	EIA 232/V.24 Two-Line Adapter	2	7000	Panel Keylock Feature	1	7000	Panel Keylock Feature	1
9023	EIA 232/V.24 Enhanced Cable	1	7108	Expansion Gate	1	7108	Expansion Gate	1
9172	Standard MFIOPT Twinaxial	1	7117	#7117 Integrated Expansion Unit	1	7117	#7117 Integrated Expansion Unit	1
9319	Standard DASD Package	1	8609	EIA 232/V.24 Two-Line Adapter	1	8609	EIA 232/V.24 Two-Line Adapter	1
9520	Base CD-ROM	1	9023	EIA 232/V.24 Enhanced Cable	2	9023	EIA 232/V.24 Enhanced Cable	2
9606	Base 1.96 GB Disk Unit	1	9172	Standard MFIOPT Twinaxial	1	9172	Standard MFIOPT Twinaxial	1
			9244	300 W Power Supply	1	9244	300 W Power Supply	1
			9319	Standard DASD Package	1	9319	Standard DASD Package	1
			9520	Base CD-ROM	1	9520	Base CD-ROM	1
			9606	Base 1.96 GB Disk Unit	1	9606	Base 1.96 GB Disk Unit	1
Allowable substitutions: In place of #2131: #2132 Processor (32 MB) or #2133 Processor (32 MB)			Allowable substitutions: None			Allowable substitutions: In place of #2131: #2132 Processor (32 MB) or #2133 Processor (32 MB)		
<b>Note 1:</b> Country or Region Specific Software: OS/400 (5716-SS1), Client Access for AS/400 (5716-XA1), Query for AS/400 (5716-QU1), DB2 Query Manager (5716-ST1), and SQL Development for AS/400.								

### 3.3 AS/400 Model 4SS, 4SE, 4SG, 4TG, 4SL, and 4TL summary

Package name	Small Server 4SS	Entry Server 4SE	Growth Server 4SG	Growth Server 4TG	Large Server 4SL	Large Server 4TL
Relative system performance (CPW-V3R6) <sup>2</sup>						
Client/server environment	24.5-52.9	24.5-52.9	24.5-52.9	77.3	24.5-52.9	77.3
Interactive environment	8.4-18.3	8.4-18.3	8.4-18.3	26.9	8.4-18.3	26.9
Relative system performance (CPW-V3R7) <sup>3</sup>						
Client/server environment	27.0-59.8	27.0-59.8	27.0-59.8	87.3	27.0-59.8	87.3
Interactive environment	9.4-20.6	9.4-20.6	9.4-20.6	30.7	9.4-20.6	30.7
Main storage (MB) <sup>2</sup>	32-224/ 64-512	32-224/ 64-512	32-224/ 64-512	128-512	96-224/ 128-512	128-512
Disk storage (GB)	3.93-23.6	3.93-23.6	7.86-23.6	7.86-23.6	11.0-23.6	11.80-23.6
Standard tape cartridge	¼-inch	¼-inch	¼-inch	¼-inch	8mm	8mm
Twinaxial devices	7	7	7	7	7	7
LAN adapters	1-2	1-2	1-2	1-2	1-2	1-2
Communication lines	2-20	2-20	2-20	2-20	2-20	2-20
Software Charge Group	P05	P05	P05	P10	P05	P10
Software	OS/400 Client Access for AS/400 Query for AS/400 DB2 Query Manager and SQL Development Kit for AS/400					

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	#2109 and #2110 Processors support 32 to 224 MB main storage. #2111 and #2112 Processors support 64 to 512MB.
<b>Note 3</b>	As of February 1997 with V3R7, the maximum disk capacity is 50.3 GB.
<b>Note 4</b>	The Model 40S packages support three LAN adapters if running Firewall for AS/400 (5769-FW1). Package 4SS has a base Ethernet or token ring adapter. The other five packages have a base Integrated PC Server (formerly known as FSIOP).

### 3.4 AS/400 Model 4SS, 4SE, 4SG, 4TG, 4SL, and 4TL features

Small Server 4SS			Entry Server 4SE			Growth Server 4SG		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
0110	Packaged Configuration	1	0110	Packaged Configuration	1	0110	Packaged Configuration	1
0160	Software Package P05	1	0160	Software Package P05	1	0160	Software Package P05	1
2109	Processor (32 MB)	1	2109	Processor (32 MB)	1	2109	Processor (32 MB)	1
296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1
5000	Software Preload <sup>1</sup>	1	5000	Software Preload <sup>1</sup>	1	3182	32 MB main storage	1
5135	#5135 Feature Power Supply	1	5135	#5135 Feature Power Supply	1	5000	Software Preload <sup>1</sup>	1
5517	Alt-IPL Specify	1	5517	Alt-IPL Specify	1	5135	#5135 Feature Power Supply	1
	QIC-2500			QIC-2500		5517	Alt-IPL Specify	1
5520	Complete System Specify	1	5520	Complete System Specify	1	5520	Complete System Specify	1
			6380	#6380 2.5 GB ¼-inch	1	6380	#6380 2.5 GB ¼-inch	1
6380	#6380 2.5 GB ¼-inch	1		Cartridge Tape Unit			Cartridge Tape Unit	
	Cartridge Tape Unit		6606	1.96 GB Disk Unit	1	6606	1.96 GB Disk Unit	1
6606	1.96 GB Disk Unit	1	7000	Panel Keylock Feature	1	7000	Panel Keylock Feature	1
7000	Panel Keylock Feature	1	8609	EIA 232/V.24 Two-Line	1	8609	EIA 232/V.24 Two-Line	1
8609	EIA 232/V.24 Two-Line	1		Adapter			Adapter	
	Adapter		8717	Base 32 MB 1-Port	1	8718	Base 48 MB 1-Port	1
9032	EIA 232/V.24 Enhanced	2		Integrated PC Server			Integrated PC Server	
	Cable			(formerly known as FSIOP)			(formerly known as FSIOP)	
9108	Standard Expansion Gate	1		EIA 232/V.24 Enhanced			EIA 232/V.24 Enhanced	
9172	Standard MFIOF Twinaxial	1	9023	Cable	2	9023	EIA 232/V.24 Enhanced	2
9319	Standard DASD Package	1	9024	802.5 Token Ring Cable	1		802.5 Token Ring Cable	1
9520	Base CD-ROM	1		(2.44 M)		9024	802.5 Token Ring Cable	1
9606	Base 1.96 GB Disk Unit	1	9108	Standard Expansion Gate	1		(2.44 M)	
9617	Ethernet/IEEE 802.3	1	9172	Standard MFIOF Twinaxial	1	9108	Standard Expansion Gate	1
	CSMA/CD Adapter		9319	Standard DASD Package	1	9172	Standard MFIOF Twinaxial	1
			9520	Base CD-ROM	1	9319	Standard DASD Package	1
			9606	Base 1.96 GB Disk Unit	1	9520	Base CD-ROM	1
						9606	Base 1.96 GB Disk Unit	1
<p>Allowable substitutions:                      In place of #2109:                      #2110 or #2111 Processor                      (Requires two #9282 Base 32 MB or two #8210 64 MB main storage features)                      In place of #9617:                      #9619 16/4Mbps Token Ring Adapter/HP</p>			<p>Allowable substitutions:                      In place of #2109:                      #2110 or #2111 Processor (requires two #9282 Base 32MB or two #8210 64 MB main storage features)                      In place of #8717:                      #8718 Base 48 MB 1-Port or #8719 Base 64 MB 1-Port or #8727 Base 32 MB 2-Port or #8728 Base 48 MB 2-Port or #8729 Base 64 MB 2-Port Integrated PC Server                      In place of #9024:                      #9025 Ethernet Cable (3 M)                      As of February 1997, the #8717 was replaced by #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA and #9116 2 Book Cage High Performance Enabler. In place of #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of #2861, the #2862 128 MB IPCS Memory can be ordered.</p>			<p>Allowable substitutions:                      In place of #2109:                      #2110 or #2111 Processor (requires two #9282 Base 32 MB or two #8210 64 MB main storage features)                      In place of #3182:                      #3110 64 MB main storage                      In place of #8718:                      #8719 Base 64 MB 1-Port or #8728 Base 48 MB 2-Port or #8729 Base 64 MB 2-Port Integrated PC Server                      In place of #9024:                      #9025 Ethernet Cable (3M)                      As of February 1997, the #8717 was replaced by #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA and #9116 2 Book Cage High Performance Enabler. In place of #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of either or both #2861, the #2862 128 MB IPCS Memory can be ordered.</p>		
<p><b>Note 1:</b> Country or Region Specific Software: OS/400 (5716-SS1), Client Access for AS/400 (5716-XA1), Query for AS/400 (5716-QU1), DB2 Query Manager (5716-ST1), and SQL Development for AS/400.                      All packages can have optional hardware added up to the configuration limits.</p>								

Growth Server 4TG			Large Server 4SL			Large Server 4TL		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
1001	Packaged Configuration	1	0044	Data Loss Protection	1	0044	Data Loss Protection	1
0161	Software Package P10	1	0110	Packaged Configuration	1	0110	Packaged Configuration	1
2112	Processor	1	0160	Software Package P05	1	0161	Software Package P10	1
296x	Power Cord <sup>1</sup>	1	2109	Processor (32 MB)	1	2112	Processor	1
3110	64 MB main storage	1	296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1
5000	Software Preload <sup>1</sup>	1	3110	64 MB main storage	1	3110	64 MB main storage	1
5135	#5135 Feature Power Supply	1	5000	Software Preload <sup>1</sup>	1	5000	Software Preload <sup>1</sup>	1
5517	Alt-IPL Specify QIC-2500	1	5135	#5135 Feature Power Supply	1	5135	#5135 Feature Power Supply	1
5520	Complete System Specify	1	5514	Alt-IPL Specify for 7208	1	5514	Supply	1
6380	2.5 GB ¼-inch cartridge tape unit	1	5520	Complete System Specify	1	5520	Alt-IPL Specify for 7208	1
6606	1.96 GB Disk Unit	3	6390	7.0 GB 8mm cartridge tape unit	1	6390	Complete System Specify 7.0 GB 8mm cartridge tape unit	1
7000	Panel Keylock Feature	1	6522	Disk Init Controller for RAID	1	6522	Disk Init Controller for RAID	1
8609	EIA 232/V.24 Two-Line Adapter	1	6606	1.96 GB Disk Unit	5	6606	Disk Init Controller for RAID	5
8718	Base 48 MB 1-Port Integrated PC Server (formerly known as FSIOF)	1	7000	Panel Keylock Feature	1	7000	1.96 GB Disk Unit	1
9023	EIA 232/V.24 Enhanced able	2	7117	#7117 Integrated Expansion Unit	1	7117	Panel Keylock Feature #7117 Integrated Expansion Unit	1
9024	802.5 Token Ring Cable (2.44 M)	1	8609	EIA 232/V.24 Two-Line Adapter	1	8609	Unit	1
9108	Standard Expansion Gate	1	8718	Base 48 MB 1-Port Integrated PC Server (formerly known as FSIOF)	2	8718	EIA 232/V.24 Two-Line Adapter	1
9110	Base 64 MB Main Storage	1	9023	EIA 232/V.24 Enhanced Cable	1	9023	Base 48 MB 1-Port Integrated PC Server (formerly known as FSIOF)	2
9172	Standard MFIOF Twinaxial	1	9024	802.5 Token Ring Cable (2.44 M)	1	9024	EIA 232/V.24 Enhanced Cable	1
9319	Standard DASD Package	1	9108	Standard Expansion Gate	1	9108	802.5 Token Ring Cable (2.44 M)	1
9520	Base CD-ROM	1	9172	Standard MFIOF Twinaxial	1	9110	Standard Expansion Gate	1
9606	Base 1.96 GB Disk Unit	1	9244	300 W Power Supply	1	9172	Base 64 MB Main Storage	1
			9319	Standard DASD Package	1	9244	Standard MFIOF Twinaxial	1
			9520	Base CD-ROM	1	9319	300 W Power Supply	1
			9606	Base 1.96 GB Disk Unit	1	9520	Standard DASD Package	1
						9606	Base CD-ROM	1
							Base 1.96 GB Disk Unit	1
<p>Allowable substitutions: In place of #8718: #8719 Base 64 MB 1-Port or #8728 Base 48 MB 2-Port or #8729 Base 64 MB 2-Port Integrated PC Server</p> <p>In place of #9024: #9025 Ethernet Cable (3 M)</p> <p>As of February 1997, the #8718 was replaced by the #6616 Integrated PC Server with the #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA, and #9116 2 Book Cage High Performance Enabler. In place of the #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of the #2861, the #2862 128 MB IPCS Memory can be ordered.</p>			<p>Allowable substitutions: In place of #2109: #2110 Processor or #2111 Processor (Requires one 9110 Base 64 MB main storage feature)</p> <p>In place of #8718: #8719 Base 64 MB 1-Port or #8728 Base 48 MB 2-Port or #8729 Base 64 MB 2-Port Integrated PC Server</p> <p>In place of #9024: #9025 Ethernet Cable (3 M)</p> <p>As of February 1997, the #8718 was replaced by #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA, and #9116 2 Book Cage High Performance Enabler. In place of #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of either or both #2861, the #2862 128 MB IPCS Memory can be ordered.</p>			<p>Allowable substitutions: In place of #8718: #8719 Base 64 MB 1-Port or #8728 Base 48 MB 2-Port or #8729 Base 64 MB 2-Port Integrated PC Server</p> <p>In place of #9024: #9025 Ethernet Cable (3 M)</p> <p>As of February 1997, the #8718 was replaced by the #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA and #9116 2 Book Cage High Performance Enabler. In place of the #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of the #2861, the #2862 128 MB IPCS Memory can be ordered.</p>		

Growth Server 4TG	Large Server 4SL	Large Server 4TL
<p><b>Note 1:</b> Country or Region Specific Software: OS/400 (5716-SS1), Client Access for AS/400 (5716-XA1), Query for AS/400 (5716-QU1), DB2 Query Manager (5716-ST1), and SQL Development for AS/400. All packages can have optional hardware added up to the configuration limits.</p>		

### 3.5 AS/400 Model 42E, 42G, and 42L package summary

Package name	Entry 42E	Growth 42G	Large 42L
Relative system performance (CPW-V3R6) <sup>1</sup>	12.3-30.6	12.3-30.6	12.3-30.6
Relative system performance (CPW-V3R7) <sup>1</sup>	13.8-33.3	13.8-33.3	13.8-33.3
Main storage (MB) <sup>2</sup>	64-160/64-224	96-160/96-224	160/160-224
Disk storage (GB) <sup>3</sup>	3.93-23.6	7.84-23.6	11.80-23.6
Standard tape cartridge	¼-inch	¼-inch	8mm
Twinaxial devices	40-280	40-280	80-280
LAN adapters <sup>4</sup>	0-2	0-2	0-2
Communications	1-20	2-20	2-20

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	The #2130 processor supports 160 MB main storage. The #2131, #2132, and #2133 processors support a maximum of 224 MB.
<b>Note 3</b>	As of February 1997 with V3R7, the maximum disk capacity is 50.3 GB.
<b>Note 4</b>	The Model 400 packages support three LAN adapters if running Firewall for AS/400 (5769-FW1).

### 3.6 AS/400 Model 42E, 42G, and 42L package features

Entry 42E			Growth 42G			Large 42L		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
0110	Packaged Configuration	1	0110	Packaged Configuration	1	0044	Data Loss Protection	1
2130	Processor (32 MB)	1	2130	Processor (32 MB)	1	0110	Packaged Configuration	1
296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1	2130	Processor (32 MB)	1
3182	32 MB main storage	1	3110	64 MB main storage	1	296x	Power Cord <sup>1</sup>	1
5517	Alt-IPL Specify QIC-2500	1	5135	#5135 Feature Power Supply	1	3110	64 MB main storage	2
5520	Complete System Specify	1	5517	Alt-IPL Specify QIC-2500	1	5135	#5135 Feature Power Supply	1
6148	8-port Twinaxial Expansion	1	5520	Complete System Specify	1	5514	Alt-IPL Specify for 7208	1
6380	#6380 2.5 GB ¼-inch	1	6148	8-port Twinaxial Expansion	1	5520	Complete System Specify	1
6606	Cartridge Tape Unit	1	6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6050	Twinaxial Expansion	1
7000	1.96 GB Disk Unit	1	6606	1.96 GB Disk Unit	1	6148	8-port Twinaxial Expansion	1
9023	Panel Keylock Feature EIA 232/V.24 Two-Line	1	7000	Panel Keylock Feature	1	6390	7.0 GB 8mm cartridge tape unit	1
9172	Adapter	1	7108	Expansion Gate	1	6522	Disk Unit Controller for RAID	1
9242	Standard MFIOPT Twinaxial	1	8609	EIA 232/V.24 Two-Line Adapter	1	6606	1.96 GB Disk Unit	5
9319	Base 175 Watt Power Supply	1	9023	EIA 232/V.24 Enhanced Cable	2	7000	Panel Keylock Feature	1
9520	Standard DASD Package	1	9172	Standard MFIOPT Twinaxial	1	7108	Expansion Gate	1
9606	Base CD-ROM	1	9319	Standard DASD Package	1	7117	#7117 Integrated Expansion Unit	1
9612	Base 1.96 GB Disk Unit EIA 232/V.24 One-Line Adapter	1	9520	Base CD-ROM	1	8609	EIA 232/V.24 Two-Line Adapter	1
			9606	Base 1.96 GB Disk Unit	1	9023	EIA 232/V.24 Enhanced Cable	1
						9172	Standard MFIOPT Twinaxial	1
						9244	Base 300 W Power Supply	1
						9319	Standard DASD Package	1
						9520	Base CD-ROM	1
						9606	Base 1.96 GB Disk Unit	1
<p>Allowable substitutions: In place of #2130: #2131 Processor (32 MB) or #2132 Processor (32 MB) or #2133 Processor (32 MB)</p> <p>In place of #3182: #3110 64 MB main storage</p> <p>In place of #9242: #5135 Feature Power Supply</p> <p>In place of #9612: #8609 EIA 232/V.24 Two-Line Adapter</p>			<p>Allowable substitutions: In place of #2130: #2131 Processor (32 MB) or #2132 Processor (32 MB) or #2133 Processor (32 MB)</p>			<p>Allowable substitutions: In place of #2130: #2131 Processor (32 MB) or #2132 Processor (32 MB) or #2133 Processor (32 MB)</p>		
<p><b>Note 1:</b> Country or Region Specific. All packages can have optional hardware added up to the configuration limits.</p>								

Model 400 Packages

### 3.7 AS/400 Model 4HS, 4HE, 4HG, and 4HL package summary

Package name	Small Server 4HS	Entry Server 4HE	Growth Server 4HG	Large Server 4HL
Relative system performance (CPW-V3R6) <sup>1</sup>				
Client/server environment	24.5-77.3	24.5-52.9	24.5-52.9	24.5-52.9
Interactive environment	8.4-26.9	8.4-18.3	8.4-18.3	8.4-18.3
Relative system performance (CPW-V3R7) <sup>1</sup>				
Client/server environment	27.0-87.3	27.0-59.8	27.0-59.8	27.0-59.8
Interactive environment	9.4-30.7	9.4-20.6	9.4-20.6	9.4-20.6
Main storage (MB) <sup>2</sup>	32-224/64-512	32-224/64-512	64-224/128-512	96-224/128-512
Disk storage (GB) <sup>3</sup>	3.93-23.6	3.93-23.6	7.84-23.6	11.0-23.6
Standard tape cartridge	¼-inch	¼-inch	¼-inch	8mm
Twinaxial devices (maximum)	7	7	7	7
LAN adapters <sup>4</sup>	1-2	1-2	1-2	1-2
Communication lines	1-20	2-20	2-20	2-20

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	The #2109 and #2110 processor support a maximum of 224 MB main storage. The #2111 and #2112 processors support a maximum of 512 MB.
<b>Note 3</b>	As of February 1997 with V3R7, the maximum disk capacity is 50.3 GB.
<b>Note 4</b>	The Model 400 packages support three LAN adapters if running Firewall for AS/400 (5769-FW1). Package 4HS has a base Ethernet or token ring adapter. The other three packages have a base Integrated PC Server (formerly known as FSIOP).

### 3.8 AS/400 Model 4HS, 4HE, 4HG, and 4HL package features

Small Server 4HS			Entry Server 4HE			Growth Server 4HG		
9402	System Unit	1	9402	System Unit	1	9402	System Unit	1
0110	Packaged Configuration	1	0110	Packaged Configuration	1	0110	Packaged Configuration	1
2109	Processor (32 MB)	1	2109	Processor (32 MB)	1	2109	Processor (32 MB)	1
296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1	296x	Power Cord <sup>1</sup>	1
5135	#5135 Feature Power Supply	1	5135	#5135 Feature Power Supply	1	3182	32 MB main storage	1
5517	Alt-IPL Specify QIC-2500	1	5517	Alt-IPL Specify QIC-2500	1	5517	Alt-IPL Specify QIC-2500	1
5520	Complete System Specify	1	5520	Complete System Specify	1	5520	Complete System Specify	1
6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1	6380	#6380 2.5 GB ¼-inch Cartridge Tape Unit	1
6606	1.96 GB Disk Unit	1	6606	1.96 GB Disk Unit	1	6606	1.96 GB Disk Unit	1
7000	Panel Keylock Feature	1	7000	Panel Keylock Feature	1	7000	Panel Keylock Feature	1
8609	EIA 232/V.24 Two-Line Adapter	2	8609	EIA 232/V.24 Two-Line Adapter	1	8609	EIA 232/V.24 Two-Line Adapter	1
9023	EIA 232/V.24 Enhanced Cable	1	8717	Base 32 MB 1-Port Integrated PC Server (formerly known as FSIOP)	2	8717	Base 32 MB 1-Port Integrated PC Server (formerly known as FSIOP)	1
9108	Standard Expansion Gate	1	9023	EIA 232/V.24 Enhanced Cable	1	9023	EIA 232/V.24 Enhanced Cable	2
9172	Standard MFIOPTwinaxial	1	9024	802.5 Token Ring Cable (2.44 M)	1	9024	802.5 Token Ring Cable (2.44 M)	2
9319	Standard DASD Package	1	9108	Standard Expansion Gate	1	9108	Standard Expansion Gate	1
9520	Base CD-ROM	1	9172	Standard MFIOPTwinaxial	1	9172	Standard MFIOPTwinaxial	1
9606	Base 1.96 GB Disk Unit	1	9319	Standard DASD Package	1	9319	Standard DASD Package	1
9617	Ethernet/IEEE 802.3 CSMA/CD Adapter	1	9520	Base CD-ROM	1	9520	Base CD-ROM	1
			9606	Base 1.96 GB Disk Unit	1	9606	Base 1.96 GB Disk Unit	1
<p>Allowable substitutions:                      In place of #2109:                      #2110 Processor or                      #2111 Processor or                      #2112 Processor                      (The #2111 or #2112 require two #9282 base 32 MB main storage or two #8210 64 MB main storage features.)                      In place of #9617:                      #9619 Base 16/4Mbps Token Ring Adapter/HP</p>			<p>Allowable substitutions:                      In place of #2109:                      #2110 Processor or                      #2111 Processor or                      #2112 Processor                      (The #2111 or #2112 require two #9282 base 32 MB main storage or two #8210 64 MB main storage features.)                      In place of #8717:                      #8718 Base 48 MB 1-Port or                      #8719 Base 64 MB 1-Port or                      #8727 Base 32 MB 2-Port or                      #8728 Base 48 MB 2-Port or                      #8729 Base 64 MB 2-Port Integrated PC Server                      In place of #9024:                      #9025 Ethernet Cable (3M)                      As of February 1997, the #8717 was replaced by #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA, and #9116 2 Book Cage High Performance Enabler. In place of the #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of the #2862, 128 MB IPCS Memory can be ordered.</p>			<p>Allowable substitutions:                      In place of #2109:                      #2110 Processor or                      #2111 Processor or                      #2112 Processor                      (The #2111 or #2112 require one #9110 Base 64 MB main storage and one 3110 64 MB main storage features.)                      In place of #3182:                      #3110 64 MB main storage                      In place of #8718:                      #8719 Base 64 MB 1-Port or                      #8728 Base 48 MB 2-Port or                      #8729 Base 64 MB 2-Port Integrated PC Server                      In place of #9024:                      #9025 Ethernet Cable (3M)                      As of February 1997, the #8718 was replaced by the #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA, and #9116 2 Book Cage High Performance Enabler. In place of the #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of either or both #2861, the #2862, 128 MB IPCS Memory can be ordered.</p>		
<p><b>Note 1:</b> Country or Region Specific. All packages can have optional hardware added up to the configuration limits.</p>								

Model 400 Packages

9402	System Unit 4HL	1
0044	Data Loss Protection	1
0110	Packaged Configuration	1
2109	Processor (32 MB)	1
296x	Power Cord <sup>1</sup>	1
3110	64 MB main storage	1
5135	#5135 Feature Power Supply	1
5514	Alt-IPL Specify for 7208	1
5520	Complete System Specify	
6390	#6390 7 GB 8 mm Cartridge Tape Unit	1
6522	Disk Unit Controller for RAID	1
6606	1.96 GB Disk Unit	5
7000	Panel Keylock Feature	1
7117	#7117 Integrated Expansion Unit	1
8609	EIA 232/V.24 Two-Line Adapter	1
8718	Base 48 MB 1-Port Integrated PC Server (formerly known as FS10P)	1
9023	EIA 232/V.24 Enhanced Cable	2
9024	802.5 Token Ring Cable (2.44 M)	1
9108	Standard Expansion Gate	1
9172	Base MFIOP Twinaxial	1
9244	Base 300 W Power Supply	1
9319	Standard DASD Package	1
9520	Base CD-ROM	1
9606	Base 1.96 GB Disk Unit	1
<p>Allowable substitutions:            In place of #2109:              #2110 Processor or              #2111 Processor or              #2112 Processor            (The #2111 or #2112 require one #9110 Base 64 MB main storage feature.)            In place of #8718:              #8719 Base 64 MB 1-Port or              #8728 Base 48 MB 2-Port or              #8729 Base 64 MB 2-Port Integrated PC Server            In place of #9024:              #9025 Ethernet Cable (3M)            As of February 1997, the #8718 was replaced by #6616 Integrated PC Server with #2861 32 MB Integrated PC Server Memory, #9249 Base Token Ring IOA, and #9116 2 Book Cage High Performance Enabler. In place of #9249, the #9381 Base Ethernet IEEE 802.3 IOA can be ordered, and in place of either or both #2861, the #2862, 128 MB IPCS Memory can be ordered.</p>		
<p><b>Note 1:</b> Country or Region Specific. All packages can have optional hardware added up to the configuration limits.</p>		



## AS/400 500, 510, and 530 models

AS/400 5xx systems are 9404 and 9406 processors.

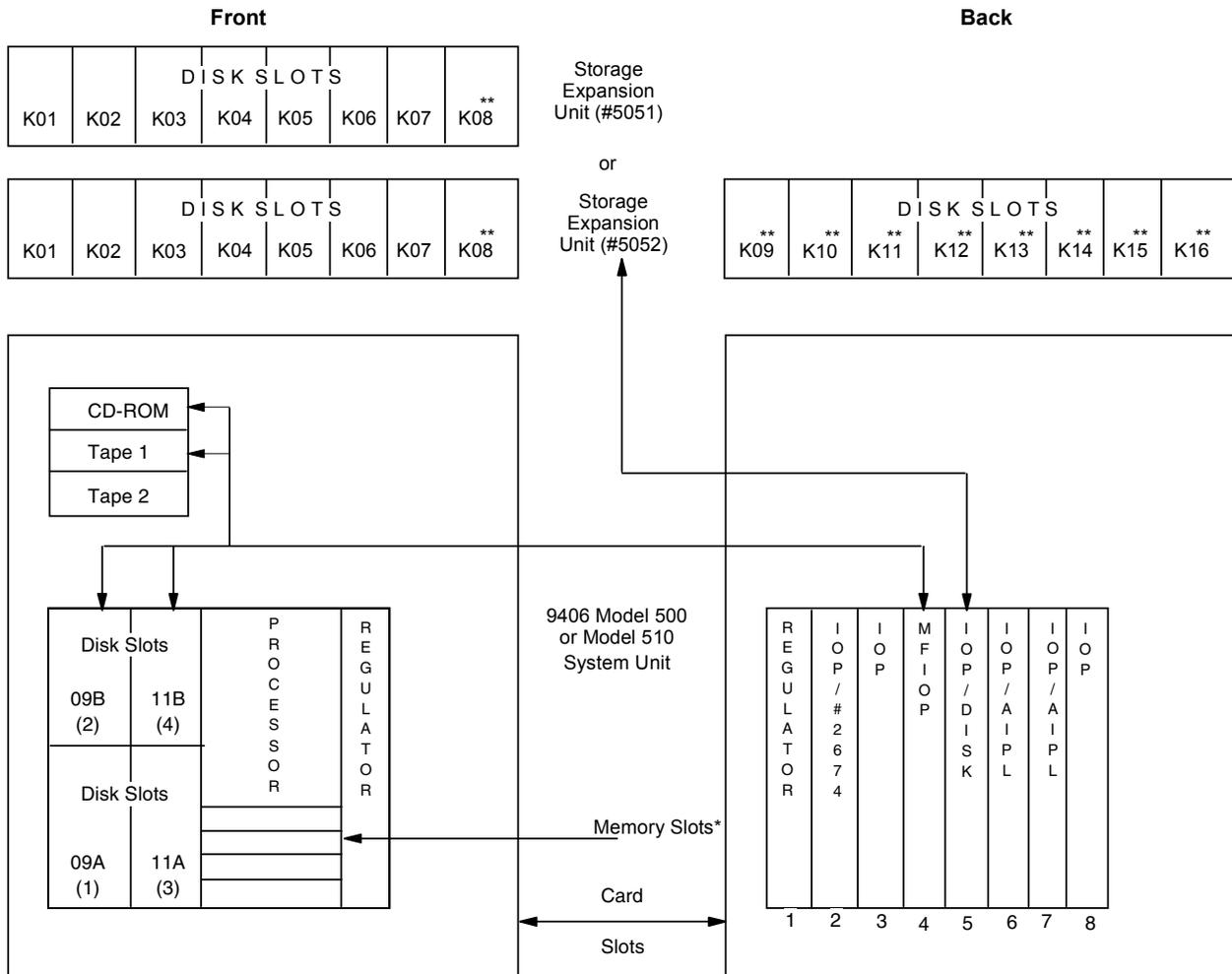
Model	General availability	Withdrawn from marketing
5xx	01 September 1995	30 June 1998

## 4.1 AS/400 Model 500, 510, and 530 overview

Model	500			510		530				
	#2140	#2141	#2142	#2143	#2144	#2150	#2151	#2152	#2153	#2162
Relative system performance (CPW-V3R6) <sup>1</sup>	18.7	26.9	38.3	66.7	85.0	107.1	132.5	198.7	299.0	349.8
Relative system performance (CPW-V3R7) <sup>1</sup>	21.4	30.7	43.9	77.7	104.2	131.1	162.7	278.8	459.3	509.9
Relative system performance (CPW-V4) <sup>1</sup>	21.4	30.7	43.9	81.6	111.5	148.0	188.2	319.0	598.0	650.0
Relative system performance (RAMP-C) <sup>2</sup>	6.4	9.3	12.6	21.6	28.5	37.4	48.9	74.0	119.2	Note 1
Number of n-way multiprocessors	1	1	1	1	1	1	1	2	4	4
Main storage (MB)	64-768	64-768	64-1024	256-1024	256-1024	512-4096	512-4096	512-4096	512-4096	512-4096
Disk storage base (GB)										
V3R6/R7		1.96		1.96				1.96		
V4		4.19		4.19				4.19		
Maximum internal-GB										
V3R6/R7		150.99		318.76				520.09		
V4		652.80		652.80				996.40		
Maximum external-GB										
V3R6/R7		134.21		301.98				503.31		
V4		618.40		618.40				962.00		
Maximum combined-GB										
V3R6/R7		150.99		318.76				520.09		
V4		652.80		652.80				996.40		
Disk unit IOPS										
Internal		0-13		0-13						
External		0-16		0-28						
Minimum feature card slots		6		6				4		
Maximum feature card slots		83		83				238		
Communication lines		1-33		1-96				1-200		
LAN ports		0-16		0-16				0-32		
ATM ports		0-8		0-8				0-16		
Maximum workstation controllers										
Twinaxial/ASCII/LocalTalk		35		60				175		
Maximum workstations-1 minim.										
Twinaxial		1400		2400				7000		
ASCII		630		1080				3150		
LocalTalk		1085		1860				5425		
¼-inch/8mm cartridge tape (internal)		0-9		0-17				0-17		
½-inch tape										
9348/2440		0-4		0-4				0-4		
34xx/35xx		0-4		0-4				0-4		
8mm cartridge tape (external)		0-4		0-4				0-4		
Tape libraries		0-2		0-2				0-2		
Optical libraries		0-14		0-14				0-22		
Diskettes (5¼-inch or 8-inch)		0-2		0-2				0-2		
Fax adapters		0-16		0-32				0-32		
Cryptographic processors		0-1		0-1				0-1		
System I/O buses		1-7		1-7				1-19		
System expansion										
#507x/#508x		0-6		0-6				0-18		
Bus extension										
#5044		0-3		0-3				0-9		
Storage expansion										
#5051		0-1		0-1						
#5052/#5058		0-7		0-7				0-18		
#8052/#9051								1		

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable. Processors announced in September 1996 and later do not have RAMP-C performance measurements.
<b>Note 2</b>	The relative system performance ratios are estimated based on iSeries and AS/400e environment RAMP-C workload, with a 9404 Model B10 with 16 MB of main storage and 945 MB of disk equalling 1.0. The ratios shown were estimated at maximum configurations running at 70% utilization. Relative system performance ratios may not be realized in all environments.

## 4.2 9406 Models 500 and 510 system unit schematics



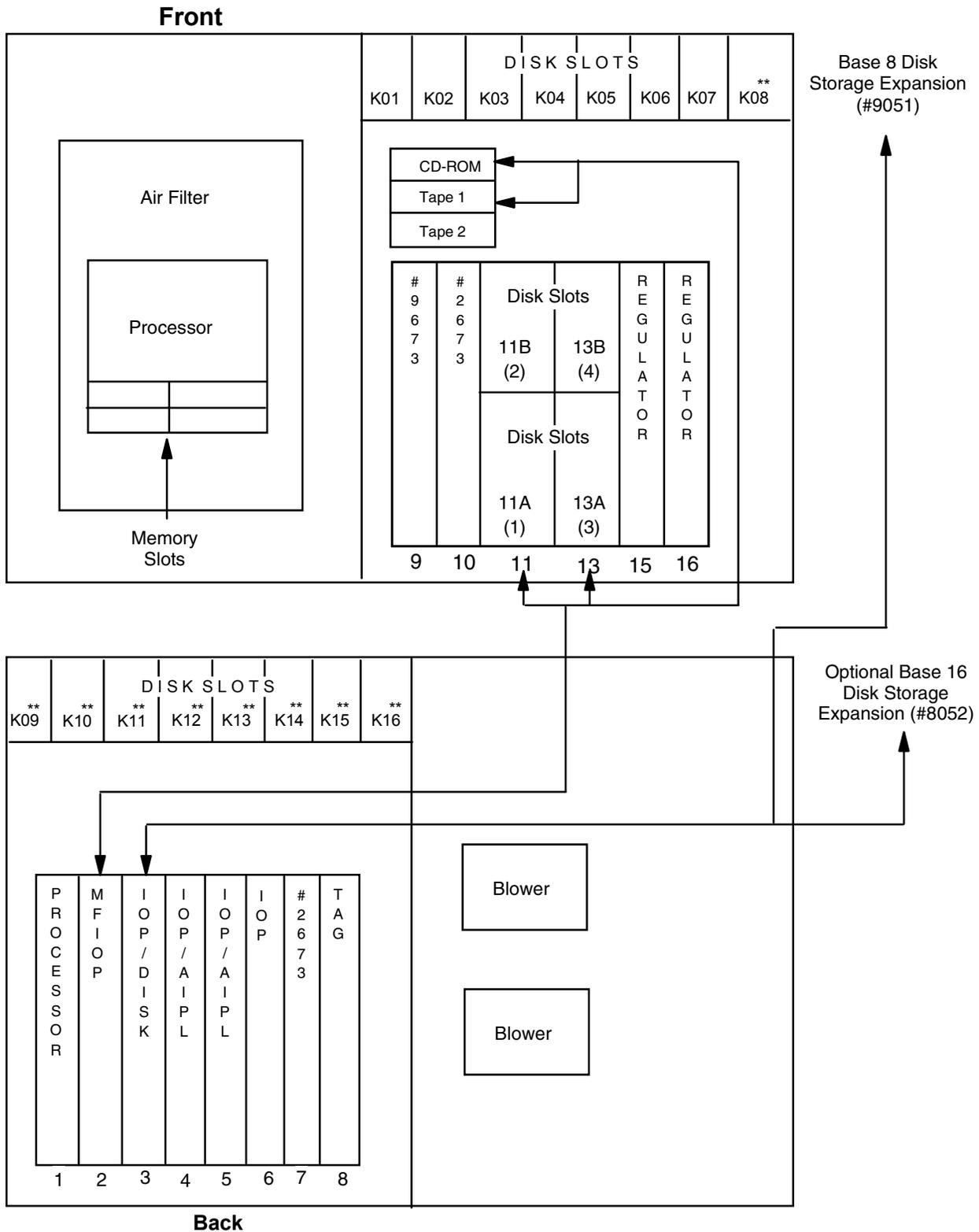
\*\* One-byte DASD cannot be installed in disk slots 8 through 16

\* Fourth memory slot available on Model 500-2142 and Model 510 only.

### Notes:

1. If the #5051 or #5052 Storage Expansion Unit is installed, slot 5 is occupied by the #6502, #6512, #6530, #6532, or #6533 RAID Disk Unit Controller card.
2. If the #2674 Optical Bus Adapter is installed, it must occupy slot 2.
3. If an external tape unit is used for alternate IPL, then the tape controller card to which it is attached would be in slot 6 or slot 7.
4. The base 9406 Model 500 and Model 510 does not include a tape drive as standard. The #2624 or #6513 is required to support the second internal tape.
5. Main storage cards are installed on the processor card and require one slot each. There are three slots on the #2140 and #2141 Model 500 and four on the #2142 Model 500 and Model 510. On the #2142 Model 500 and the Model 510, the main storage cards must be added in pairs of equal capacity.

### 4.3 9406 Model 530 system unit schematic



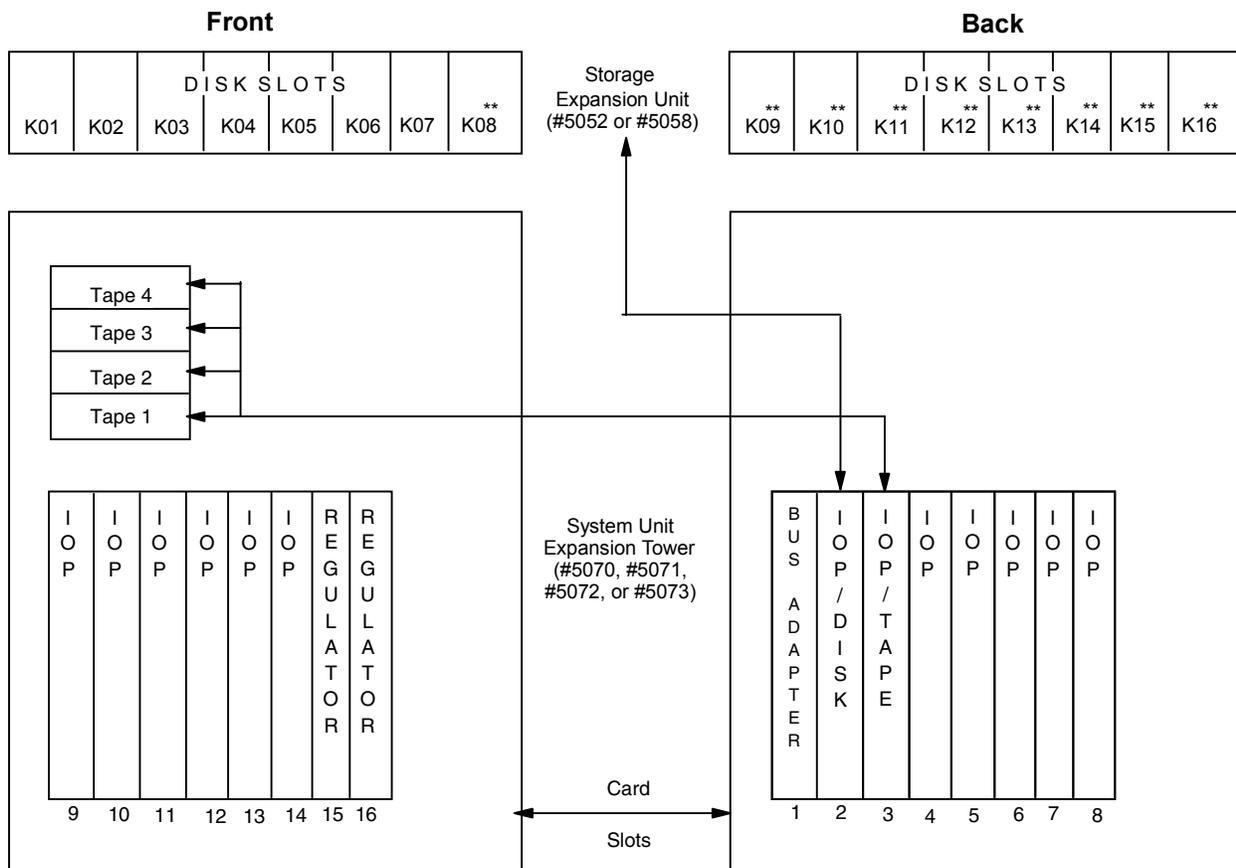
\*\* One-byte disks cannot be installed in disk slots 8 through 16.

Model 500, 510, 530

**Notes:**

1. The #8052 Optional Base 16 Disk Storage Expansion Unit increases the number of disks supported in the system unit from 8 to 16.
2. The #9673 base and #2673 Optical Bus Adapters occupy slot 9 and slot 10.
3. If a 3590 Tape Device is attached to the system unit bus, no disk controller cards other than the MFIO P can be used on bus 0. This means that #9051 and #8052 are not supported.
4. If an external tape unit is used for alternate IPL, the tape controller card to which it is attached would be in slot 4 or slot 5.
5. The base 9406 Model 530 does not include a tape drive as standard. The #2624 or #6513 is required to support the second internal tape.
6. Main storage cards are installed on the processor board and require one slot each. There are four slots on the Model 530, and main storage cards must be added in pairs of equal capacity.

## 4.4 #507x System Unit Expansion Tower and Storage Expansion Unit schematics



\*\* One-byte disks cannot be installed in disk slots K08 through K16.

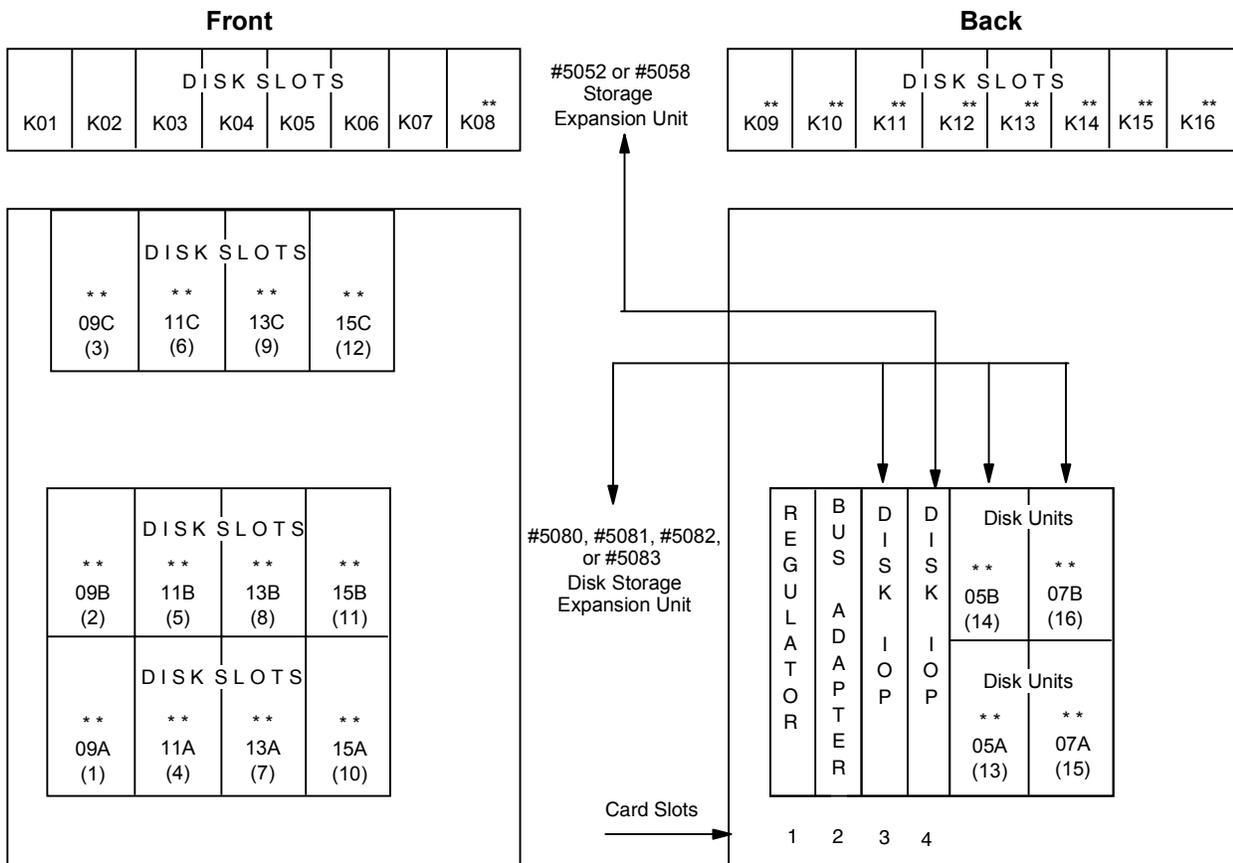
Model 500, 510, 530

**Notes:**

1. The #5070 and #5071 are supported on 9406 Models 500 and 510. The #5072 and #5073 are supported on the 9406 Model 530.
2. The #5071 and #5073 support the #5058, which is Ultra SCSI. The #5070 and #5072 are fast SCSI and support the #5052.
3. Slot 1 is occupied by the Bus adapter card.
4. Slot 2 is occupied by the #6502, #6512, #6530, #6532, or #6533 disk controller card if #5052 or #5058 is attached.
5. Slot 3 is occupied by #2624 or #6513 if the #5070, #5071, #5072, or #5073 contains internal tape units.
6. Slots 4 through 14 are available for I/O feature cards.

### 4.5 #5080, #5081, or #5083 Storage Expansion Unit schematic

The following diagram illustrates the #5080 266 Mbps Storage Expansion Tower, #5081 266 Mbps Storage Expansion Tower, and #5083 Storage Expansion Tower supported by the 9406 Models 500, 510, and 530.



\*\* One-byte disks are not supported in these disk slots.

Model 500, 510, 530

**Notes:**

1. The #5080 and #5081 are supported on the 9406 Models 500 and 510. The #5082 and #5083 are supported on the 9406 Model 530.
2. The #5081 and #5083 are used for Ultra SCSI disks and support the #5058, which is also Ultra SCSI. The #5080 and #5082 are fast SCSI and support the #5052.
3. Slot 3 is occupied by the #6502, #6512, #6530, #6532, or #6533 disk unit controller that supports the disk slots in the #5080, #5082, or #5083.
4. Slot 4 is occupied by the #6502, #6512, #6530, #6532, or #6533 disk unit controller that supports the disk slots in the #5052 or #5058 if attached.

## 4.6 AS/400 Advanced System Models 500, 510, and 530 features

500 Processors	
#2140	<b>6.4 RSP RAMP-C, 18.7 RSP CPW (V3R6), 21.4 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 64 MB Minimum OS/400 level: V3R6/V3R7
#2141	<b>9.3 RSP RAMP-C, 26.9 RSP CPW (V3R6), 30.7 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 6 MB Minimum OS/400 level: V3R6/V3R7
#2142	<b>12.6 RSP RAMP-C, 38.3 RSP CPW (V3R6), 43.9 RSP CPW (V3R7, V4R1, V4R2, and V4R3) Processor.</b> Base Memory 64 MB Minimum OS/400 level: V3R6/V3R7
510 Processors	
#2143	<b>21.6 RSP RAMP-C, 66.7 RSP CPW (V3R6), 77.7 RSP CPW (V3R7), 81.6 RSP CPW (V4R1, V4R2, and V4R3) Processor.</b> Base Memory 256 MB Minimum OS/400 level: V3R6/V3R7
#2144	<b>28.5 RSP RAMP-C, 85.0 RSP CPW (V3R6), 104.2 RSP CPW (V3R7), 111.5 RSP CPW (V4R1, V4R2, and V4R3) Processor.</b> Base Memory 256 MB Minimum OS/400 level: V3R6/V3R7
530 Processors	
#2150	<b>37.4 RSP RAMP-C, 107.1 RSP CPW (V3R6), 131.1 RSP CPW (V3R7), 148.0 RSP CPW (V4R1, V4R2, and V4R3) Processor.</b> Base Memory 512 MB Minimum OS/400 level: V3R6/V3R7
#2151	<b>48.9 RSP RAMP-C, 132.5 RSP CPW (V3R6), 162.7 RSP CPW (V3R7), 188.2 RSP CPW (V4R1, V4R2, and V4R3) Processor.</b> Base Memory 512 MB Minimum OS/400 level: V3R6/V3R7
#2152	<b>74.0 RSP RAMP-C, 198.7 RSP CPW (V3R6), 278.8 RSP CPW (V3R7), 319.0 RSP CPW (V4R1, V4R2, and V4R3) 2-way Processor.</b> Base Memory 512 MB Minimum OS/400 level: V3R6/V3R7
#2153	<b>119.2 RSP RAMP-C, 299.0 RSP CPW (V3R6), 459.3 RSP CPW (V3R7), 598.0 RSP CPW (V4R1, V4R2, and V4R3) 4-way Processor.</b> Base Memory 512 MB Minimum OS/400 level: V3R6/V3R7

#2162	<b>349.8 RSP CPW (V3R6), 509.9 RSP CPW (V3R7), 650.0 RSP CPW (V4R1, V4R2, and V4R3) 4-way Processor.</b> Base Memory 512 MB. Minimum OS/400 level: V3R6 with #1988/V3R7
<b>Power and Packaging</b>	
#0090	<b>#5052 Storage Expansion Unit Located on System Unit</b> The #5052 indicates that a #5052 Storage Expansion Unit is located on the system unit for Model 500 or 510. It is not supported on the Model 530.
#2673 #9673	<b>#2673 Optical Bus Adapter (1063 Mbps)</b> The #2673 allows for the addition of up to six optical buses on the Model 530. The #2686 or #2688 are required to attach the buses. The #9673 is the base optical bus adapter on the Model 530. Maximum: Two Card slots used: one
#2674	<b>#2674 Optical Bus Adapter (266 Mbps)</b> The #2674 allows for the addition of up to six optical buses on Models 500 and 510. The #2686 is required to attach the buses. Maximum: One Card slots used: One
#2686	<b>#2686 Optical Link Processor (266 Mbps)</b> The #2686 is a daughter card that allows for the addition of up to two optical buses to an #2674, #9763/#2673 Optical Bus Adapter. It can attach up to two #5070 or #5080 or one #5044. A maximum of three #2686 are allowed per optical bus adapter. Both #2686 and #2688 may be installed on the same optical bus adapter as long as the total number does not exceed three. Card slots used: None
#2688	<b>#2688 Optical Link Processor (1063 Mbps)</b> The #2688 is a daughter card that allows for the addition of up to two optical buses to a #9673 or #2673 Optical Bus Adapter on the Model 530. It can attach up to two #5072s or #5082s. A maximum of three #2688s are allowed per optical bus adapter. Both #2686 and #2688 may be installed on the same optical bus adapter as long as the total number does not exceed three. Card slots used: None
#5043	<b>Primary to Secondary Rack</b> The #5043 provides for the conversion of a 9406 E or F Model system unit rack to a 9309 #9171 type rack. The new rack retains the #5043. Only available when upgrading from 9406 E or F models to 9406 Model 5x0.
#5044	<b>#5044 System Unit Expansion Rackk</b> The #5044 is a 12 I/O card slot cage in a rack enclosure. Each unit provides two buses with six I/O card slots per bus. The #5044 is not available as a new feature but is a conversion of the #5042 rack. Requires the #2686 and #2673/#9673/#2674 to attach.
#5051 #9051	<b>#5051 Storage Expansion Unit for System Unit</b> The #5051 provides space for up to eight disk units. It attaches to the top of Model 500 and 510 system units. Prerequisite: #5143 Power Supply. The #9051 is the base storage expansion unit for the Model 530.
#5052	<b>#5052 Storage Expansion Unit</b> The #5052 provides space for up to 16 disk units. It attaches to the top of Model 500 and 510 system units and #5070 and #5072 1063 Mbps System Unit Expansion Towers and #5080 and #5082 Storage Expansion Tower. Only one #5052 per tower is supported and #5143 Power Supply may be required.
#5058	<b>#5058 Storage Expansion Unit (Ultra SCSI)</b> The #5058 provides space for up to 16 disk units. It attaches to #5071 266 Mbps System Unit Expansion Tower or #5073 1063 Mbps System Unit Expansion Towers, and #5081 266 Mbps Storage Expansion Tower and #5083 Storage Expansion Towers. Only one #5058 per tower is supported.
#5070	<b>#5070 266 Mbps System Unit Expansion Tower</b> The #5070 provides an I/O Tower for creating additional buses on Models 500 and 510. It includes a 266 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one #9245 Base Battery Backup, and two #9240/#9243 power supplies. Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter. The #5070 can support one #5052 Storage Expansion Unit with a #5143 Power Supply. Due to power restrictions, there is a limitation on some high powered features based in a #5070. This may mean that an additional #5070 is required.

#5071	<p><b>#5071 266 Mbps System Unit Expansion Tower (Ultra SCSI)</b></p> <p>The #5071 provides an I/O Tower for creating additional buses on Models 500 and 510. It includes a 266 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one battery backup, and two power supplies.</p> <p>Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p> <p>The #5071 can support one #5058 Storage Expansion Unit. Due to power restrictions, there is a limitation on some high powered features based in a #5071. This may mean that an additional #5071 is required. The #5071 supports Ultra SCSI disks in the #5058.</p>
#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5072 provides an I/O tower for creating additional buses on Model 530. It includes a 1063 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one #9245 Base Battery Backup, and two #9240/#9243 power supplies.</p> <p>Prerequisite: #2688 Optical Link Processor and #2673 Optical Bus Adapter/#9673</p> <p>The #5072 can support one #5052 Storage Expansion Unit, which may mean that an additional #5072 is required.</p>
#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower (Ultra SCSI)</b></p> <p>The #5073 provides an I/O tower for creating additional buses on Model 530. It includes a 1063 Mbps optical bus card, 13 I/O card slots, space for up to four internal tape units, one battery backup, and two power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #2673 Optical Bus Adapter/#9673</p> <p>The #5073 can support one #5058 Storage Expansion Unit. Due to power restrictions, there is a limitation on some high powered features based in a #5073. This may mean that an additional #5073 is required. The #5073 supports Ultra SCSI disks in the #5058.</p>
#5080	<p><b>#5080 266 Mbps Storage Expansion Tower</b></p> <p>The #5080 provides a DASD tower on Models 500 and 510 for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5052). It includes a 266 Mbps optical bus card, two I/O card slots for the #6052, #6512, #6530, #6532, or #6533 disk IOPs, one #9245 Base Battery Backup, and two #9240/#9243 power supplies.</p> <p>Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p>
#5081	<p><b>#5081 266 Mbps Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5081 provides a DASD tower on Models 500 and 510 for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5058). It includes a 266 Mbps optical bus card, two I/O card slots for the #6502, #6512, #6530 disk IOPs, one battery backup, and two power supplies.</p> <p>Prerequisites: #2686 Optical Link Processor and #2674 Optical Bus Adapter.</p> <p>The #5081 supports Ultra SCSI disk units.</p>
#5082	<p><b>#5082 Storage Expansion Tower</b></p> <p>The #5082 provides a DASD tower on Model 530 for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5052). It includes a 1063 Mbps optical bus card, two I/O card slots for the #6502, #6512, #6530, #6532, or #6533 disk IOPs, one #9245 Base Battery Backup, and two #9240/#9243 power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #2673 Optical Bus Adapter/#9673.</p>
#5083	<p><b>#5083 Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5083 provides a DASD tower on Model 530 for adding up to 16 disk units (a total of 32 disk units are possible with the addition of #5058). It includes a 1063 Mbps optical bus card, two I/O card slots for the #6502, #6512, #6530 disk IOPs, one battery backup, and two power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #2673 Optical Bus Adapter/#9673.</p> <p>The #5083 supports Ultra SCSI disk units.</p>
#5143	<p><b>#5143 Power Supply</b></p> <p>The #5143 is a 400-watt power supply feature required when one of these conditions applies:</p> <ul style="list-style-type: none"> <li>Adding the second internal tape unit into the system unit of Model 500</li> <li>Adding Storage Expansion Unit #5051 to Model 500 system unit</li> <li>Adding #5052 Storage Expansion Unit to a #5070 or #5072 1063 Mbps System Unit Expansion Tower or to a Model 500 system unit</li> <li>Adding a storage expansion unit to a #5080 or #5082 Storage Expansion Tower.</li> </ul> <p>Certain combinations of high powered features may also mean that #5143 Power Supply is required in a Model 500. Only one #5143 is allowed per tower.</p> <p>Card slots used: None</p>
#5144	<p><b>Additional Battery Back-up (External)</b></p> <p>The #5144 is required when the main storage capacity exceeds 384 MB on Models 310 and 320. It involves the removal of the #9245 Base Battery Backup. It is allowed on Models 500 and 510 when upgrading from a 310 or 320 that required it. The #5144 is not required on new Model 500 or 510. It is not supported at all on a Model 530.</p> <p>Card slots used: None</p>

#5145	<p><b>Additional Battery Back-up (internal)</b> The #5145 is available for Models 500 and 510 where additional Continuously Powered Main Storage (CPM) time is desired, in the event of a system failure. Card slots used: None</p>
#8052	<p><b>#8052 Optional Base 16 Disk Storage Expansion Unit</b> The #8052 provides space for up to 16 disk units and is available only on the system unit of the Model 530. Replaces the #9051. The #8052 is not allowed when the 3590 tape is the alternate IPL device. Maximum: One</p>
#9240	<p><b>400 Watt Power Supply</b> The #9240 is required on all Model 500, 510, and 530 system units and on #5070, #5072, #5080, and #5082 Storage Expansion Towers. Card slots used: None</p>
#9243	<p><b>Base Feature Power Supply</b> The #9243 provides a 400-watt power supply that is required on all Model 500, 510, and 530 system units, and on #5070, #5072, #5080, and #5082 Storage Expansion Towers. Model 510 and 530 system unit require two #9243s. Card slots used: None</p>
#9245	<p><b>#9245 Base Battery Backup</b> The #9245 is the base battery backup used on all Model 500, 510, and 530 system units and on #5070, #5072, #5080, and #5082 Storage Expansion Towers. Models 530 system unit requires two #9245 Base Battery Backups. Card slots used: None</p>
<b>Main Storage</b>	
#3152	<p><b>32 MB Main Storage</b> Supported on Model 510. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3153	<p><b>64 MB Main Storage</b> Supported on Model 510. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3154	<p><b>128 MB Main Storage</b> Supported on Model 510. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3155	<p><b>256 MB Main Storage</b> Supported on Model 510. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3162	<p><b>128 MB Main Storage</b> Supported on Model 530 on processors #2150, #2151, #2152, and #2153 only. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3163	<p><b>256 MB Main Storage</b> Supported on Model 530 on processors #2150, #2151, #2152, and #2153 only. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3164	<p><b>512 MB Main Storage</b> Supported on Model 530 on all processors. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3165	<p><b>1024 MB Main Storage</b> Supported on Model 530 on all processors. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3166	<p><b>256 MB Main Storage</b> Supported on Model 530 processor #2162 only. Must be added in pairs. Requires one dedicated memory card slot. Maximum: One pair.</p>
#3184	<p><b>32 MB Main Storage</b> Supported by Model 500 processor. Must be added in pairs on processor #2142. Requires one dedicated memory card slot. Maximum: Two on processor #2140 and #2141; one pair on processor #2142.</p>
#3185	<p><b>64 MB Main Storage</b> Supported by Model 500 processor. Must be added in pairs on processor #2142. Requires one dedicated memory card slot. Maximum: Two on processor #2140 and #2141; one pair on processor #2142.</p>

#3186	<b>128 MB Main Storage</b> Supported by Model 500 processor. Must be added in pairs on processor #2142. Requires one dedicated memory card slot. Maximum: Two on processor #2140 and #2141; one pair on processor #2142.
#3187	<b>256 MB Main Storage</b> Supported by Model 500 processor. Must be added in pairs on processor #2142. Requires one dedicated memory card slot. Maximum: Two on processor #2140 and #2141; one pair on processor #2142.
#7186	<b>Optional Base 128 MB Main Storage</b> Supported on Model 500 processors #2140 and #2141. It provides an optional 128 MB main storage card in place of the base 64 MB card. Requires one dedicated memory card slot.
#7187	<b>Optional Base 256 MB Main Storage</b> Supported on Model 500 processors #2140 and #2141. It provides an optional 256 MB main storage card in place of the base 64 MB card. Requires one dedicated memory card slot.
#7255	<b>Optional Base 256 MB Main Storage</b> Supported on Model 510. It provides an optional 256 MB main storage card in place of the base 128 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8185	<b>Optional Base 64 MB Main Storage</b> Supported on Model 500 processor #2142. It provides an optional 64 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8186	<b>Optional Base 128 MB Main Storage</b> Supported on Model 500 processor #2142. It provides an optional 128 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8187	<b>Optional Base 256 MB Main Storage</b> Supported on Model 500 processor #2142. It provides an optional 256 MB main storage card in place of a base 32 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#8264	<b>Optional Base 512 MB Main Storage</b> Supported on Model 530 on all processors. It provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs. Required one dedicated memory card slot.
#8265	<b>Optional Base 1024 MB Main Storage</b> Supported on Model 530 on all processors. It provides an optional 1024 MB main storage card in place of a base 256 MB card. Must be added in pairs. Requires one dedicated memory card slot.
#9184	<b>Base 32 MB Main Storage</b> Supported on Model 500 processor #2142. Must be added in pairs. Requires one dedicated memory card slot.
#9185	<b>Base 64 MB Main Storage</b> Supported on Model 500 processors #2140 and #2141. Requires one dedicated memory card slot.
#9254	<b>Base 128 MB Main Storage</b> Supported on Model 510. Must be added in pairs. Requires one dedicated memory card slot.
#9263	<b>Base 256 MB Main Storage</b> Supported on Model 530 on processors #2150, #2151, #2152, and #2153 only. Must be added in pairs. Requires one dedicated memory card slot.
#9266	<b>Base 256 MB Main Storage</b> Supported on Model 530 on processor #2162 only. Must be added in pairs. Requires one dedicated memory card slot.

<b>Workstation Controllers</b>	
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.</p> <p>No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5070 or #5072. There is no restriction on placing the #2629 in #5071 or #5073 1063 Mbps System Unit Expansion Tower.</p> <p>Minimum OS/400 level: V4R1 Card slots required: One</p>
#5540	<p><b>#5540 System Console on Twinaxial Workstation IOA Specify</b></p> <p>Prerequisite: #9162 MFIOF.</p>
#5541	<p><b>Console attached to ASCII Workstation Controller Specify</b></p> <p>Prerequisite: #9163 MFIOF. An #9141/#6141 ASCII Workstation Controller is automatically included when the #5541 is specified to control the ASCII system console.</p>
#5542	<p><b>Console attached to LocalTalk Workstation Adapter Specify</b></p>
#5543	<p><b>System Console Specify</b></p> <p>The #5543 specifies a PC workstation to act as the system console.</p> <p>Prerequisite: A #9612/#2612 EIA 232/V.24 One-Line Adapter and a #9026 or #9027 console attachment cable. #9026 Console attachment cable (6m) #9027 Console attachment cable (2.5m)</p>
#6050	<p><b>#6050 Enhanced Twinaxial Workstation Controller</b></p> <p>The #6050 is an eight-port workstation attachment provided to support 40 5250-type displays or printers. Requires one I/O card slot.</p>
#6054 #9054	<p><b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b></p> <p>See "Communications" on page 75, for a description of the #6054.</p>
#6140	<p><b>#6140 Twinaxial Workstation Controller</b></p> <p>The #6140 provides eight ports to support a maximum of 40 twinaxial devices. Requires one I/O card slot.</p>
#6141 #9141	<p><b>#6141 ASCII Workstation Controller</b></p> <p>The #6141 is a six-port workstation controller and workstation adapter supports up to six ASCII devices. Requires one I/O card slot.</p>
#6142	<p><b>#6142 ASCII 12-Port Workstation Attachment</b></p> <p>The #6142 plugs into the ASCII Workstation controller #6141/#9141 providing an additional 12 ports. One #6142 can be attached per #6141/#9141. Eighteen ASCII devices are supported. Requires no I/O card slot.</p>
#6180	<p><b>#6180 Twinaxial Workstation IOA</b></p> <p>The #6180 is an eight-port attachment provided to support up to 40 twinaxial devices.</p> <p>Prerequisite: #2629 LAN/WAN/Workstation IOP IOA slots required for #6180: One #2629 slot Minimum OS/400 level: V4R1</p>
#8162 #9162	<p><b>MFIOF with Twinaxial Support</b></p> <p>Both the #9152 and #8162 allow the attachment of 40 5250-type devices and provide support for a twinaxial console. They also support one #9149 as a prerequisite.</p>
#9149	<p><b>Twinaxial Passthru Adapter</b></p> <p>The #9149 adapts a twinaxial cable to the twinaxial function that resides inside the #9162/#8162. The #9149 is a prerequisite of #9162/#8162. When an external diskette drive is required on the system, the #9149 is replaced by a #6147 Diskette Adapter</p>
#9163	<p><b>MFIOF without Twinaxial Support</b></p> <p>The #9163 does not support any 5250-type devices. When one #6054/#9054 is attached, the #9163 controls a LocalTalk system console. Without the #6054/#9054 attached, the system console is driven by the first workstation controller found when the system searches along the bus.</p>

<b>Communications</b>	
MFIOP	<p><b>Base Communications</b></p> <p>The Multifunction I/O Processor comes as standard on the Model 500, 510, or 530. The MFIOP (#9162, #8162, or #9163) can support two communications lines. The first line (with an EIA 232/V.24 adapter) is supplied as standard (#9612) for use with IBM Electronic Customer Support.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 20-ft. (6m) enhanced cable</li> <li>#9835 EIA 232/V.24 50-ft. (15m) enhanced cable</li> </ul> <p>Maximum aggregate data rate: 83.2Kbps</p>
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter</b></p> <p>The #2605 connects to the #2623 to support one communications line to an ISDN network. Each adapter supports two 64 Kbps B channels and one 16 Kbps D channel. ISDN lines are full duplex. Requires no I/O card slots. Not supported in Canada.</p> <p><b>Note:</b> This adapter cannot be attached to #2623 that also attaches V.24, X.21, or V.35 adapters.</p>
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter</b></p> <p>The #2609 connects to the #2623 to support two communications lines using ASYNC, BSC, SDLC or X.25 protocol. Requires no I/O card slots. Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 20-ft. (6m) enhanced cable</li> <li>#9835 EIA 232/V.24 50-ft. (15m) enhanced cable</li> <li>#9022 EIA 232/V.24 20-ft. (6m) cable</li> <li>#9836 EIA 232/V.24 50-ft. (15m) cable</li> </ul>
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter (SPD)</b></p> <p>The #2610 connects to the #2623 to support two communications lines using X.21 or X.25 networks. Requires no I/O card slots. Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul>
#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter</b></p> <p>The #2612 connects to the MFIOP and #2623 Six-Line Communications Controller to support one communications line using ASYNC, BSC, SDLC or X.25 protocol. Requires no I/O card slots.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 20-ft. (6m) enhanced cable</li> <li>#9835 EIA 232/V.24 50-ft. (15m) enhanced cable</li> <li>#9022 EIA 232/V.24 20-ft. (6m) cable</li> <li>#9836 EIA 232/V.24 50-ft. (15m) cable</li> </ul>
#2613	<p><b>#2613 V.35 One-Line Adapter</b></p> <p>The #2613 connects to MFIOP and #2623 supporting one V.35 line using either BSC, SDLC, or X.25 protocols. Requires no I/O card slots. One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9020 V.35 20-ft. (6m) cable</li> <li>#9838 V.35 50-ft. (15m) cable</li> </ul>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter (SPD)</b></p> <p>The #2614 connects to the MFIOP and #2623 to attach one communications line to an X.21 or X.25 network. Requires no I/O card slots.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul>
#2620	<p><b>#2620 Full Cryptographic Processor</b></p> <p>The #2620 provides full cryptographic support for encrypting and decrypting data. The #2620 consists of an I/O processor card and cable to attach an optional 4754-001. Distribution of the #2620 is restricted by U.S. Government export regulations. In countries or regions outside the U.S.A. and Canada, it may be marketed only to financial institutions and subsidiaries of U.S. companies. Requires one I/O card slot.</p>
#2623	<p><b>#2623 Six-Line Communications Controller</b></p> <p>The #2623 provides basic control and common circuits for up to six lines. Requires one I/O card slot.</p>
#2628	<p><b>#2628 Limited Cryptographic Processor</b></p> <p>The #2628 provides the same functions as the #2620, except for Data Encryption Standard based data scrambling. Instead it uses Commercial Data Masking Facility for data scrambling. Supports attachment of optional 4754-L01. Does not require U.S. Customs clearance. Requires one I/O card slot.</p>

#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5070 or #5072. There is no restriction on placing the #2629 in the #5071 or #5073 1063 Mbps System Unit Expansion Tower.</p> <p>Card slots required: One Minimum OS/400 level: V4R1</p>
#2664	<p><b>#2664 Integrated Fax Adapter</b></p> <p>The #2664 provides the iSeries or AS/400e with two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax, another iSeries or AS/400e with an integrated Fax adapter, or PCs with appropriately programmed Fax adapters.</p> <p>Requires one I/O card slot. Not supported with V5R1 and later.</p>
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b></p> <p>The #2666 provides the iSeries or AS/400e with one communications port capable of high-speed communication over public or private Frame Relay networks or point-to-point non-switched SDLC lines. Speeds up to 2.048 Mbps are possible. Requires one I/O card slot.</p> <p>One of the following cables must be specified:</p> <ul style="list-style-type: none"> <li>#9879 6m V.35 cable</li> <li>#9880 24m V.35 cable *</li> <li>#9882 6m V.36/EIA 449 cable</li> <li>#9883 24m V.36/EIA 449 cable **</li> <li>#9884 45m V.36/EIA 449 cable **</li> <li>#9885 6m X.21 cable</li> </ul> <p>* Line speeds up to 64Kbps only ** Use of these longer cables require that the attaching Data Communications Equipment (DCE) support the V.36 transmitter signal element timing Data Terminal Equipment (DTE) source signal.</p> <p>The #2666 is classified as a communications line for purpose of maximum communication lines per model.</p>
#2699	<p><b>#2699 Two-Line WAN IOA</b></p> <p>The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0329 V.24/EIA 232 80-ft. (24m) cable</li> <li>#0330 V.24/EIA 232 20-ft. (6m) cable</li> <li>#0331 V.24/EIA 232 50-ft. (15m) cable</li> <li>#0332 V.24/EIA 232 20-ft. (6m) enhanced cable</li> <li>#0333 V.24/EIA 232 50-ft. (15m) enhanced cable</li> <li>#0334 V.24/EIA 232 80-ft. (24m) enhanced cable</li> <li>#0335 V.36/EIA 449 20-ft. (6m) cable</li> <li>#0336 V.36/EIA 449 50-ft. (15m) cable</li> <li>#0337 V.36/EIA 449 150-ft. (45m) cable</li> <li>#0338 V.35 20-ft. (6m) cable</li> <li>#0339 V.35 50-ft. (15m) cable</li> <li>#0340 V.35 80-ft. (24m) cable</li> <li>#0341 X.21 20-ft. (6m) cable</li> <li>#0342 X.21 50-ft. (15m) cable</li> </ul> <p>Restrictions apply using the #2699. See "Comm. Restrictions" on page 116. Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP Minimum OS/400 level: V4R1</p>
#6054 #9054	<p><b>#6054 Workstation Adapter for Apple Macintosh (LocalTalk)</b></p> <p>The #6054 allows Apple Macintosh computer devices to attach directly to the iSeries or AS/400e. Also allows for connection to LocalTalk networks. Each adapter allows attachment of 31 Apple Macintosh devices with up to 56 sessions. The #6054 attaches to the #2623 Six-Line Communications Controller.</p> <p>The #9054 attaches to the MFIOF.</p> <p>A maximum of one #6054/#9054 can be attached per #2623/MFIOF. A second adapter on the #2623 may be X.21, V.24 or V.35. The third adapter position <i>must not</i> be used.</p> <p>A single-line EIA 232/V.24 adapter may co-reside with #9054 on MFIOF. The #9054 cannot be added to #9173 MFIOF.</p>
#9612	<p><b>#9612 Standard EIA 232/V.24 One-Line Adapter</b></p> <p>The #9612 provides support for one communications line using either ASYNC, BSC, SDLC or X.25 protocol. Specify one of the following cables for ECS:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 enhanced cable (20-ft.)</li> <li>#9835 EIA 232/V.24 enhanced cable (50-ft.)</li> </ul> <p>#9612 may also be used in conjunction with #5543 System Console and requires #9026/#9027 cables.</p>

<b>LANs and ATM</b>	
#2617	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b>            The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. The customer must procure the Attachment Unit Interface (AUI) cable, which connects between the adapter and the Ethernet/IEEE 802.3 transceiver. Supports 10 Mbps half duplex only.            Requires one I/O card slot.</p>
#2618	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b>            The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN that complies with ANSI X3T9.5 and ISO 9314 standards.            Requires one I/O card slot.            Cables: Requires multi-node (62.5/125) micron FDDI optical fiber jumper cables to connect the FDDI adapter into the FDDI ring. Must be separately ordered.</p>
#2619	<p><b>#2619 LAN/WAN/Workstation IOA</b>            The #2619 provides a single attachment to a 16 Mbps or 4 Mbps IBM Token Ring Network. It consists of an adapter card, Internal Code, which supplies IEEE 802.5 Media Access Control and Logical Link Control functions, and an external 2.5m cable.            Requires one I/O card slot.</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>            The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.            No more than seven #2629s can be placed in one #5070 or #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5070 or #5072. There is no restriction on placing a #2629 in the #5071 or #5073 1063 Mbps System Unit Expansion Tower.            Card slots required: One</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>            The #2663 provides the communications hardware base for the #2668 Wireless LAN Adapter. The #2663 is required when attaching the #2668. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.            Shares one I/O card slot with #2668.</p>
#2665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter</b>            The #2665 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted pair wiring.            Requires one I/O card slot.            Cables: The SDDI adapter requires IBM FDDI copper jumper cables to connect the adapter into the FDDI ring. Must be separately ordered.</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>            The #2668 provides wireless connectivity from iSeries or AS/400e servers to workstations or other systems connected to a wireless LAN network. The #2668 comes with an antenna and a cable for connecting the antenna to the adapter.            One of these antenna cables must be specified:                #9814 20-ft. antenna cable                #9815 50-ft. antenna cable            One of these antenna must be specified:                #9890 Omni-directional antenna                #9891 Hemispherical antenna                #9892 Directional antenna            Prerequisite: #2663 I/O Attachment Processor</p>
#2723	<p><b>#2723 PCI Ethernet IOA</b>            The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer-supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately.            Minimum OS/400 level: V4R2            Prerequisites: #6617 Integrated PC Server or #6618 Integrated Netfinity Server.</p>
#2724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b>            The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions), and an external 8-foot (2.4m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately.            Minimum OS/400 level: V4R2            Prerequisite: #6617 Integrated PC Server or #6618 Integrated Netfinity Server.</p>

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#2810	<p><b>#2810 LAN/WAN IOP</b></p> <p>The #2810 is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI Asynchronous Transfer Mode (ATM) IOA.</p> <p>Minimum OS/400 level: V4R1 to support #2838 or V4R2 to support any ATM IOA.</p> <p>Card slots required: One with any of the preceding features.</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b></p> <p>The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b></p> <p>The #2815 provides attachment into an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2</p> <p>Card slots required: One</p> <p>Prerequisite: #2810 LAN/WAN IOP</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fibre (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fibre (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Minimum OS/400 level: V4R2</p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site at:</p> <p><a href="http://www.atmforum.com">http://www.atmforum.com</a></p> <p>Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>

#2838	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The adapter comes with an RJ45 connector for attachment to UTP-5 media.</p> <p>Card slots required: One (with #2810) or three (with #6617 or #6618).</p> <p>Prerequisite: #2810 LAN/WAN IOP or #6617 Integrated PC Server or #6618 Integrated Netfinity Server</p> <p>Minimum OS/400 to support #2838 with #2810: V4R1</p> <p>Minimum OS/400 to support #6617 with #2810: V4R2</p>
#6149	<p><b>#6149 16/4 Mbps Token Ring IOA</b></p> <p>The #6159 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC, and an external 8-ft. (2.4m) token ring cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode.</p> <p>Card slots required: None</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server</p> <p>Minimum OS/400 to support #6149 in #6616: V3R7</p> <p>Minimum OS/400 to support #6149 in #2629: V4R1</p>
#6181	<p><b>#6181 ASCII Workstation Controller</b></p> <p>The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplies cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.</p> <p>The #6181 can operate in full or half-duplex mode.</p> <p>Card slots required: None</p> <p>Prerequisite: One #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server</p> <p>Minimum OS/400 to support #6181 in #6616: V3R7</p> <p>Minimum OS/400 to support #6181 in #2629: V4R1</p>
IPCS	<p><b>Integrated PC Server (formerly known as FSIOP)</b></p> <p>The Integrated PC Server connects to the iSeries or AS/400e to provide high performance serving to PCs attached through token ring or Ethernet networks. The I/O processor consists of an Intel 80486 66 MHZ processor and on board main storage (16 to 64 MB). Configuration options using a #6509 and #6520 are:</p> <p>#6516 16 MB One-Port Integrated PC Server</p> <p>#6517 32 MB One-Port Integrated PC Server</p> <p>#6518 48 MB One-Port Integrated PC Server</p> <p>#6519 64 MB One-Port Integrated PC Server</p> <p>#6526 16 MB Two-Port Integrated PC Server</p> <p>#6527 32 MB Two-Port Integrated PC Server</p> <p>#6528 48 MB Two-Port Integrated PC Server</p> <p>#6529 64 MB Two-Port Integrated PC Server</p> <p>Specify one of the following cables depending on the network attaching into an Integrated PC Server Port:</p> <p>#9024 Token ring cable (2.44m)</p> <p>#9025 Ethernet Cable (3m AUI)</p> <p>The Integrated PC Server requires two contiguous card slots</p>
#6509	<p><b>Additional 16 MB for Integrated PC Server</b></p> <p>The #6509 is used for expanding the memory of an installed Integrated PC Server. One to three #6509s may be installed per Integrated PC Server up to a maximum of 64 MB</p>
#6520	<p><b>Upgrade One-Port Integrated PC Server to Two-Port Integrated PC Server</b></p> <p>The #6520 cannot be used with a Two-Port Integrated PC Server.</p>
#6616	<p><b>#6616 Integrated PC Server</b></p> <p>The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required:</p> <p>#2861 32 MB Integrated PC Server Memory</p> <p>#2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:</p> <p>#6149 16/4 Mbps Token Ring IOA</p> <p>#6181 ASCII Workstation Controller</p> <p>Card slots required: Two contiguous slots</p> <p>Minimum OS/400 level: V3R7 with Cumulative PTF Package C7029370</p>

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<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b>                  The #6617 contains a 200 Mhz Pentium Processor, four main storage slots and three LAN IOA slots for high performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:                  #2861 32 MB Integrated PC Server Memory                  #2862 128 MB Integrated PC Server Memory                  Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838:                  #2723 PCI Ethernet IOA                  #2724 PCI 16/4 Mbps Token Ring IOA                  #2838 PCI 100/10 Mbps Ethernet IOA                  The third LAN and the second #2838 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:                  The #0325 Integrated PC Server Extension Cable for Windows NT is required.                  The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.                  A display is required to support Windows NT on IPCS.                  For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iserries/">http://www.ibm.com/eserver/iserries/</a>                  Minimum OS/400 level: V4R2                  Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>
<p>#6618</p>	<p><b>#6618 Integrated Netfinity Server (SPD)</b>                  The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:                  #2861 32 MB Integrated PC Server Memory                  #2862 128 MB Integrated PC Server Memory                  #2867 256 MB Integrated PC Server Memory                  Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838s:                  #2723 PCI Ethernet IOA                  #2724 PCI 16/4 Mbps Token Ring IOA                  #2838 PCI 100/10 Mbps Ethernet IOA                  The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:                  A minimum of 64 MB IOP memory is required.                  The #0325 Integrated PC Server Extension Cable for Windows NT is required.                  The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.                  A display is required to support Windows NT on the IPCS.                  For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iserries/">http://www.ibm.com/eserver/iserries/</a>                  When running OS/2 on the #6618, then:                  #0325 and #1700 are not allowed.                  Only two of the LAN IOA slots can be used and only one can contain a #2838.                  A maximum of 512 MB IOP memory is supported.                  When running Novel Netware on the #6618, then:                  #0325 and #1700 are not allowed.                  Only two of the LAN IOA slots can be used and only one can contain a #2838.                  A maximum of 256 MB IOP memory is supported.                  SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.                  Minimum OS/400 level: V4R2 and Cumulative PTF Package C8342420 or V4R3 and Cumulative PTF Package C8349430</p>
<p><b>Disk Units</b></p>	
<p>#1105</p>	<p><b>320 MB Single Disk Unit Conversion Kit</b>                  The #1105 provides the conversion kit required to migrate 320 MB one-byte SCSI disk units to Models 500, 510, and 530. 640 MB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>

#1107	<p><b>400 MB Single Disk Unit Conversion Kit</b></p> <p>The #1107 provides the conversion kit required to migrate 400 MB one-byte SCSI disk units to Models 500, 510, and 530. 800 MB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#1109	<p><b>98 8MB Single Disk Unit Conversion Kit</b></p> <p>The #1109 provides the conversion kit required to migrate 988 MB one-byte SCSI disk units to Models 500, 510, and 530. 1976 MB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#1602	<p><b>1.03 GB Single Disk Unit Conversion Kit</b></p> <p>The #1602 provides the conversion kit required to migrate 1.03 GB one-byte SCSI disk units to Models 500, 510, and 530. 2.06 GB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b></p> <p>The #1603 provides the conversion kit required to migrate 1.96 GB one-byte SCSI disk units to Models 500, 510, and 530. 3.93 GB dual-disk units require two of these kits. Each kit occupies one disk slot.</p>
#6109	<p><b>988 MB Additional Disk Unit</b></p> <p>The #6109 provides a 3 ½-inch single disk unit with 988 MB capacity for additional disk storage.</p>
#6605	<p><b>1.03 GB Additional Two-Byte Disk Unit</b></p> <p>The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>
#6606	<p><b>1.96 GB Additional Two-Byte Disk Unit</b></p> <p>The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.</p>
#6607 #7607	<p><b>#6607 4.19 GB Additional Two-byte Disk Unit</b></p> <p>The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. The #7607 is the base disk. It is the default base disk with V4R1.</p>
#6650	<p><b>1.96 GB Additional Two-Byte Disk Unit</b></p> <p>The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.</p>
#6652	<p><b>1.03 GB Additional Two-Byte Disk Unit</b></p> <p>The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>
#6713 #7713	<p><b>#6713 8.58 GB Disk Unit (Ultra SCSI)</b></p> <p>The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the #5058 Storage Expansion Unit or #5083 Storage Expansion Tower. The #7713 is an optional 8.58 GB base disk. Minimum OS/400 level: V3R7.</p>
#6714	<p><b>#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)</b></p> <p>The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the #5058 Storage Expansion Unit or #5083 Storage Expansion Tower. This disk is not supported for attachment to the MFIOP. Minimum OS/400 level: V4R2 Minimum OS/400 to support the #6715 with integrated hardware disk compression: V4R4</p>
#6906	<p><b>1.96 GB Additional Two-Byte Disk Unit (Ultra SCSI)</b></p> <p>The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower.</p>
#6907	<p><b>4.19 GB Additional Two-Byte Disk Unit (Ultra SCSI)</b></p> <p>The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the #5058 Storage Expansion Unit or the #5081 or #5083 Storage Expansion Tower.</p>
#9606	<p><b>1.96 GB Base Two-Byte Disk Unit</b></p> <p>The #9606 provides a 3 ½-inch single disk unit with 1.96 GB capacity as the base disk unit.</p>
<b>Internal Tape Units and CD-ROM</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#1378	<p><b>525 MB ¼-inch Cartridge Tape Unit Conversion Kit</b></p> <p>The #1378 provides the conversion kit required to migrate 525 MB ¼-inch cartridge tape units.</p>
#1379	<p><b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b></p> <p>The #1379 provides the conversion kit required to migrate 1.2 GB ¼-inch cartridge tape units.</p>

#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the conversion kit required to migrate 2.5 GB ¼-inch cartridge tape unit.
#5032	<b>Removable Media Cluster Box</b> The #5032 is a rack-mounted box that allows the attachment of one to four 1.2 GB or 2.5 GB ¼-inch cartridge tape units (#6368 or #6369). It attaches to a #2621.
#6335	<b>#6335 840 MB ¼-inch Cartridge Mini Tape Unit</b> Using the QIC-3040-MC recording format, tape cartridge capacity is 840 MB. With hardware, data compression maximum capacity is up to 1.6 GB. Sustained data transfer rate is 300 KB per second.
#6368	<b>1.2 GB ¼-inch Cartridge Tape</b> The #6368 provides full interchange of data with appropriate ¼-inch cartridge tape units provided with the iSeries or AS/400e server using the proper media and density. This tape is installed in the #5032.
#6369	<b>#6369 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6369 provides full interchange of data with appropriate ¼-inch cartridge tape units provided with the iSeries or AS/400e server using the proper media and density. This tape is installed in the #5032.
#6380	<b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6380 provides full interchange of data with all standard and optional ¼-inch cartridge tape units provided on the iSeries or AS/400e server, using the proper media and devices. Sustained data transfer rate is 300 KB per second. With hardware, data compression maximum capacity is up to 5 GB. Supported as an alternate IPL device.
#6385	<b>#6385 13 GB ¼-inch Cartridge Tape Unit</b> The #6385 provides full interchange of data with all standard and optional ¼-inch cartridge tape units provided on the iSeries or AS/400e server, using the proper media and devices. Sustained data transfer rate is 1.5 MB per second. With hardware, data compression maximum capacity is up to 26 GB. Supported as an alternate IPL device. Prerequisite: #6513 Internal Tape Device Controller.
#6390	<b>#6390 7 GB 8 mm Cartridge Tape Unit</b> 8mm Helical Scan tape drive that can be used for save and restore, program distribution and alternate IPL. Has sustained data rate of 500KB per second. With hardware, data compression maximum capacity is up to 14 GB.
#9520	<b>Base CD-ROM Drive</b> Used for code distribution.
<b>Magnetic Media Controllers</b>	
#2621	<b>#2621 Storage Device Controller (SPD)</b> The #2621 provides attachment capability for up to two of these devices with hardware data compression: 2440, 9348, 7208, 3995, 9427, and #5032. If the #2621 is to support dual drive 7208, 3995, or 9427, it must be dedicated to it. Card slots used: One
#2624	<b>#2624 Storage Device Controller</b> The #2624 can support up to two internal tape units in the system unit. As a feature on #507x it can support up to three internal tape units. The #2624 can concurrently support a #6146 Diskette Adapter to attach an external diskette unit. Under V3R7, the hardware configurators defaults to the #6513 Internal Tape Device Controller, unless the tape is a #1378 (525MB QIC) or if a #2624 is available to attach to the tape. Card slots used: One. Maximum: One per tower
#2644	<b>#2644 Magnetic Tape Attachment Card/HP</b> The #2644 provides attachment for all 34xx Tape subsystem models (except for SCSI attach 3490 models). May also require #9980 Serpentine cable. Card slots used: One
#6112	<b>Magnetic Storage Device Controller</b> The #6112 provides attachment of up to two 9336 disk units, up to two 9331-00x diskettes or up to two 9347 tape units. If a #6112 has a 9336 disk unit attached to it, it cannot simultaneously attach a 9331 or a 9427 on 5x0 models. It must be dedicated to 9336. A maximum number of #6112s supported is two for 9331 on 5x0 models; two for 9427 on 5x0 models and 16, 28, and 35 for 9336 on 500, 510, and 530 models respectively. The maximum combined number of the #6112 is 20, 32, and 35 respectively. Card slots used: One.
#6146	<b>#6146 Diskette Adapter</b> The #6146 provides support for one of these external diskette types: 9331-011 8-inch Diskette Unit 9331-012 5 ¼-inch Diskette Unit It requires #2624 to attach. Card slots used: None. Maximum: One

#6147	<p><b>#6147 Diskette Adapter</b></p> <p>The #6147 provides support for one of these external diskette types:  9331-011 8-inch Diskette Unit  9331-012 5 ¼-inch Diskette Unit</p> <p>It attaches to MFIOF #9162 or #9163.  Card slots used: None. Maximum: One</p> <p>It also supports Twinaxial Passthru. See #9149 Twinaxial Passthru Adapter.</p>
#6500	<p><b>Direct Access Storage Device Controller</b></p> <p>The #6500 provides for the attachment of one 9337-0xx or 9337-1xx models.  Card slots used: One.</p>
#6501	<p><b>#6501 Tape/Disk Device Controller</b></p> <p>The #6501 allows attachment of up to two 9337-2xx/4xx/5xx DASD units. Provides attachment for the 2105 Versatile Storage Server. The #6501 provides improved performance through its unique two-byte wide data path and increased transfer rate over the #6500.  The #6501 also allows attachment of up to two SCSI attach 3490 or 35xx tape units.  DASD and tape units cannot be mixed on the same #6501.  Card slots used: One.</p>
#6502	<p><b>#6502 High Performance Controller—2 MB Cache (RAID/Mirrored/Unprotected)</b></p> <p>Card slots used: One.</p>
#6512	<p><b>#6512 High Performance Controller—4 MB Cache (RAID/Mirrored/Unprotected)</b></p> <p>Card slots used: One.</p>
#6513	<p><b>#6513 Internal Tape Device Controller</b></p> <p>The #6513 provides support for up to two internal tape devices when installed in the system unit or up to four internal tape devices when installed in a #507x System Unit Expansion Tower.  #1379, #1380, #6335, #6380, #6385, and #6390 internal tape features are supported.  Minimum OS/400 level: V3R7.  Card slots used: One.</p>
#6530	<p><b>#6530 Disk Unit Controller No Cache No Cache (Mirrored/Unprotected)</b></p> <p>The #6530 provides attachment for up to 16 internal disk units installed in a #505x, #8052 or #9051 Storage Expansion Unit (or installed in a #508x Storage Expansion Tower). Mutually exclusive with the #6502, #6512, #6532, and #6533.  Card slots used: One.</p>
#6532	<p><b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6532 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower. Also supports disks located in #5051, #5052, #8052 or #9051 Storage Expansion Unit, or #5080 or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over the #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6532.  The #6532 is not capable of compression.  Card slots required: One</p>
#6533	<p><b>#6533 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6533 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5081 or #5083 Storage Expansion Tower. Also supports disks located in the #5051, #5052, #8052 or #9051 Storage Expansion Unit, or #5080 or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over the #6502, #6512 and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6533.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R3  Minimum OS/400 to support integrated hardware disk compression on the #6714 17.54 GB Disk Unit: V4R4  Card slots required: One</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b></p> <p>The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 L1x or D1x, 3570, 3575, 3590, 7208, 9348, 9427 Tape Drive, or 3995 Optical Library Dataserver - Model C4x.  Minimum OS/400 level: V4R1. V4R2 is required to support the 3995.  Card slots required: One  Maximum: Four</p>
#9980	<p><b>Serpentine Cable</b></p> <p>Required for attaching all #2644 supported devices (except 3490-Cxx when attached using "internal cables").</p>



## AS/400e 150 models

Model and processor	Announce date	General availability date	Withdrawn from marketing
150 0181	01 October 1996	08 November 1996	12 December 1997
150 0182	01 October 1996	08 November 1996	12 December 1997
150 0183	01 October 1996	08 November 1996	12 December 1997
150 0184	01 October 1996	08 November 1996	12 December 1997
150 0191	19 August 1997	29 August 1997	31 August 1998
150 0192	19 August 1997	29 August 1997	31 August 1998
150 0193	19 August 1997	29 August 1997	31 August 1998
150 0194	19 August 1997	29 August 1997	31 August 1998
150 0291	10 February 1998	27 February 1998	31 December 1999
150 0391	01 September 1998*	11 September 1998	31 December 1999
150 0591	09 February 1999	21 May 1999	31 October 2000
150 0292	10 February 1998	27 February 1998	31 December 1999
150 0392	01 September 1998	11 September 1998	31 December 1999
150 0592	09 February 1999	21 May 1999	31 October 2000
150 0293	10 February 1998	27 February 1998	31 December 1999
150 0393	01 September 1998	11 September 1998	31 December 1999
150 0593	09 February 1999	21 May 1999	31 October 2000
150 0294	10 February 1998	27 February 1998	31 December 1999
150 0394	01 September 1998	11 September 1998	31 December 1999
150 0594	09 February 1999	21 May 1999	31 October 2000

\* Translated versions of 01 September announcement were available on 25 September 1998.

## 5.1 AS/400e Model 150 overview

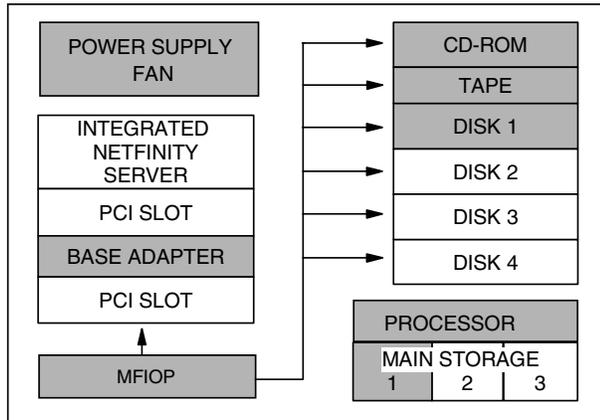
Package	Twinaxial Entry #0181	Twinaxial Growth #0182	Server Entry #0183	Server Growth #0184	Twinaxial Entry #0191	Twinaxial Growth #0192	Server Entry #0193	Server Growth #0194
Minimum software release	V3R7	V3R7	V3R7	V3R7	V4R1	V4R1	V4R1	V4R1
Relative system performance (CPW-V3R7)								
Constrained <sup>1</sup>	10.9/10.9	10.9/10.9	10.9/10.9	10.9/10.9	N/A	N/A	N/A	N/A
Unconstrained <sup>1</sup>	13.8/27.0	20.6/33.3	13.8/27.0	20.6/33.3	N/A	N/A	N/A	N/A
Relative system performance (CPW-V4R1, V4R2/R3)								
Constrained <sup>1</sup>	13.8/20.2	20.2/20.2	13.8/20.2	20.2/20.2	13.8/20.2	20.2/20.2	13.8/20.2	20.2/20.2
Unconstrained <sup>1</sup>	13.8/27.0	20.6/35.0	13.8/27.0	20.6/35.0	13.8/27.0	20.6/35.0	13.8/27.0	20.6/35.0
Main storage (V3R7) (MB)	32-96	64-96	32-96	64-96	N/A	N/A	N/A	N/A
Main storage (V4R1/R2/R3) (MB)	64-192	64-192	64-192	64-192	64-192	128-192	64-192	128-192
Disk storage (V3R7/V4R1) (GB)	4.19-16.77	4.19-16.77	4.19-16.77	4.19-16.77	4.19-16.77	4.19-16.77	4.19-16.77	4.19-16.77
Disk storage (V4R2/V4R3) (GB)	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9
Maximum feature card slots <sup>2</sup>	5	5	5	5	5	5	5	5
Communication lines	1-5	1-5	1-5	1-5	1-5	1-5	1-5 <sup>3</sup>	1-5 <sup>3</sup>
LAN IOAs	0-2	0-2	1-2	1-2	0-2	0-2	1-2	1-2
Integrated PC Server LANs (max)	2	2	2	2	2	2	2	2
MFIOP LANs (max)	1	1	1	1	1	1	1	1
Workstation controllers								
Twinaxial	1	1	0-1	0-1	1	1	0-1	0-1
ASCII	0	0	0	0	0	0	0	0
Workstations								
Twinaxial (V3R7, V4R1)	1-7	1-14	0-7	0-14	1-7	1-14	0-7	0-14
Twinaxial (V4R2/R3)	1-7	1-28	0-7	0-28	1-7	1-28	0-7	0-28
ASCII	0	0	0	0	0	0	0	0
¼-inch cartridge tape (2.5 GB)	1	1	1	1	1	1	1	1
½-inch reel tape	0	0	0	0	0	0	0	0
½-inch cartridge tape	0	0	0	0	0	0	0	0
8mm cartridge tape	0	0	0	0	0	0	0	0
Tape libraries	0	0	0	0	0	0	0	0
Optical libraries	0	0	0	0	0	0	0	0
Diskettes	0	0	0	0	0	0	0	0
Fax adapters	0	0	0	0	0	0	0	0
Cryptographic processors	0	0	0	0	0	0	0	0
System I/O buses	0	0	0	0	0	0	0	0

<b>Note 1</b>	<p>Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.</p> <p>The constrained figures are for the 9401 Model 150 with its maximum configuration. The unconstrained figures show what the performance would be if the processor was not limited by the maximum main storage and DASD of the Model 150. In ease case, the first figure is for interactive workload, and the second is for client/server.</p>
<b>Note 2</b>	Two of these slots are reserved for the Integrated PC Server. Three are driven by the MFIOP.
<b>Note 3</b>	Six lines are supported, but one is dedicated to Client Access Console.

Package	Twinaxial Entry #0291/#0391 #0591	Twinaxial Growth #0292/#0392 #0592	Server Entry #0293/#0393 #0593	Server Growth #0294/#0394 #0594
Minimum OS/400 release	V4R2/V4R3 V4R4	V4R2/V4R3 V4R4	V4R2/V4R3 V4R4	V4R2/V4R3 V4R4
Relative system performance (CPW) <sup>1</sup>				
Constrained	13.8/20.2	20.2/20.2	13.8/20.2	20.2/20.2
Unconstrained	13.8/27.0	20.6/35.0	13.8/27.0	20.6/35.0
Main storage (MB)	64-192	128-192	64-192	128-192
Disk storage (GB)	4.19-29.9	4.19-29.9	4.19-29.9	4.19-29.9
Maximum feature card slots <sup>2,3</sup>	5	5	5	5
Communication lines <sup>3</sup>	1-5	1-5	1-5 <sup>3</sup>	1-5 <sup>3</sup>
LAN IOAs	0-2	0-2	1-2	1-2
#2790 PCI Integrated Netfinity Server LANs (max)	0-2	0-2	0-2	1-2
MFIOP LANs (max)	1	1	1	1
Workstation controllers				
Twinaxial	1	1	0-1	0-1
ASCII	0	0	0	0
LocalTalk	0	0	0	0
Workstations				
Twinaxial	1-7	1-28	0-7	0-28
ASCII	0	0	0	0
LocalTalk	0	0	0	0
¼-inch cartridge tape (4.0 GB)	1	1	1	1
½-inch reel tape	0	0	0	0
½-inch cartridge tape	0	0	0	0
8mm cartridge tape	0	0	0	0
Tape libraries	0	0	0	0
Optical libraries	0	0	0	0
Diskettes	0	0	0	0
Fax adapters	0	0	0	0
Cryptographic processors	0	0	0	0
System I/O buses	0	0	0	0

<b>Note 1</b>	<p>CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.</p> <p>The constrained figures are for the 9401 Model 150 with its maximum configuration. The unconstrained figures show what the performance would be if the processor was not limited by the maximum main storage and DASD of the Model 150. In each case, the first figure is for interactive workload, and the second is for client/server.</p>
<b>Note 2</b>	Three are driven by the MFIOP. Two of these slots are reserved for the Integrated PC Server.
<b>Note 3</b>	Six lines are supported, but one is dedicated to Client Access Console (#029x Packages) or Operations Console (#039x and #059x packages).

## 5.2 9401 Model 150 system unit



## 5.3 AS/400e Model 150 features

All optional features for the Model 150 are Customer Install Features (CIF) except processor upgrades.

Power and Packaging	
#0185	<p><b>Performance Enhancement</b></p> <p>The #0185 feature upgrades the 9401 Model 150 processor and increases the number of twinaxial workstations and printers supported from 7 to 14 with V4R1 and earlier. It relates to packages #0181, #0183, #0191, or #0193 only.</p>
#0295	<p><b>Performance Enhancement/28 Workstations</b></p> <p>The #0295 feature upgrades the 9401 Model 150 processor and increases the number of twinaxial workstations and printers supported to 28. It relates to packages #0181, #0183, #xx91, and #xx93 only. Minimum OS/400 level: V4R2</p>
#0399	<p><b>4-Port Twinaxial Expansion</b></p> <p>The #0399 feature consists of a 4-port twinaxial expansion cable and drop box.</p>
Main Storage	
#3110	<p>64 MB Main Storage</p> <p>Plugs directly onto the CPU.</p> <p>Maximum: One on #0182, #0184, #xx92, and #xx94. Two on #0181, #0183, #xx91, and #xx93 packages. If base memory on #018x packages is removed, three can be installed.</p> <p>Minimum OS/400 level: V4R1</p> <p>The #3110 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
#3182	<p>32 MB Main Storage</p> <p>Plugs directly onto the CPU.</p> <p>Maximum: One on #0182, #0184, #xx92, and #xx94 packages. Two on #0181, #0183, #xx91, and #xx93 packages.</p> <p>The #3182 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>

<b>Workstation Controllers</b>	
#0059	<p><b>Transition Data Link</b> Offers a twinaxial data transfer between IBM systems.</p>
#2720	<p><b>#2720 Base PCI WAN/Twinaxial IOA</b> The #2720 adapter combines a workstation controller and support of one communications line (see "Communications" on page 89). Attaches to the MFIOF. The #2720 is shipped as standard with no feature code required on #0181, #0182, #xx91, and #xx92 packages.</p> <p>A two port twinaxial attachment cable comes with the adapter that supports seven attached devices on #0181, #0183, #xx91, and #xx93 packages. Supports 14 attached devices when the preceding packages have #0185 installed or on #0182, #0184, #0192 and #0194 packages. A four-port twinaxial attachment cable comes with the adapter that supports 28 devices on #xx92, and #xx94 packages or if #0295 or #0399 has been ordered and V4R2 at minimum. Maximum: One The #2720 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<b>Communications</b>	
#0032	<p><b>High Speed Modem</b> Required for Electronic Customer Support.</p>
#2720	<p><b>#2720 Base PCI WAN/Twinaxial IOA</b> The #2720 adapter combines a workstation controller (see "Workstation Controllers" on page 89) and support of one communications line. Attaches to the MFIOF.</p> <p>The #2720 is shipped as standard with no feature code required) on #0181, #0182, #xx91, and #xx92 packages. The #2720 is available as a feature on #0183, #0184, #xx93, and #xx94 packages.</p> <p>The #2720 provides one communication line. One of the following cables must be specified: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0350 V.24/EIA232 20-ft. (6m) Enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0356 V.36/EIA449 20-ft. (6m) PCI cable #0359 X.21 2-ft. (6m) PCI cable Maximum: One The #2720 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
#2721	<p><b>Multiprotocol Comm Adapter</b> Attaches to the MFIOF. The #2721 provides one or two communications lines. The #2721 adapter ships as standard with no feature required on #0183, #0184, #xx93, and #xx94 packages. One or two cable features must be specified: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0350 V.24/EIA232 20-ft. (6m) Enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0356 V.36/EIA449 20-ft. (6m) PCI cable #0359 X.21 20-ft. (6m) PCI cable</p> <p>One additional cable feature can be specified on #0181, #0182, #xx91, and #xx92 packages: #0367 Operations Console PCI Cable 20-ft. (6M) PCI (If #0367 is ordered then #0381 Remote Control Panel Cable may also be specified) #0362 Client Access Console 20-ft. (6M) PCI Cable</p> <p>Feature #0362 may be specified on packages #0181, #0182, #0191, #0192, #0291, #0292, #0391, and #0392. Feature #0362 is shipped as standard on #0183, #0184, #0193, and #0194. Feature #0367 may be specified on packages #0291, #0292, #0391, or #0392. Feature #0367 is shipped as standard on #0293, #0294, #0393, and #0394.</p> <p>One #0367 or #0362 may be specified per system for PC Console support. Minimum OS/400 to support #0367 and #0381: V4R3 The #2721 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<b>LANs</b>	
#2723 #9723	<p><b>#2723 PCI Ethernet IOA IEEE 802.3</b> The #2723 supports attachment to an Ethernet LAN. AUI and RJ45 wrap connectors and an RJ45 filter cable are included with a #2723 feature. A 3 meter AUI Ethernet Cable or RJ45 Cable must be separately ordered. No LAN can be attached to the MFIOF if an Integrated PC Server or #2790 PCI Integrated Netfinity Server is installed. The #9723 is the base PCI Ethernet IOA on packages #0183, #0184, #xx93, and #xx94.</p>

<p>#2723 #9723 (cont.)</p>	<p>Maximum: Two Prerequisite: Unused slot on MFIOP, on the #2850, #2852, or #2868, or on Integrated PC Server or #2790 PCI Integrated Netfinity Server shipped with package #0184 or #xx94. The #2723 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<p>#2724 #9724</p>	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b> The #2724 supports attachment to a token ring LAN. AUI and RJ45 wrap connectors and a 2.4 meter token ring cable are included with a #2724 feature. If the customer chooses to use RJ45 cabling, this must be separately ordered. No LAN can be attached to the MFIOP if an Integrated PC Server or #2790 PCI Integrated Netfinity Server is installed. The #9724 is the base 16/4 Token Ring IOA on packages #0183, #0184, #xx93, #xx94. Maximum: Two Prerequisite: Unused slot on MFIOP, on #2850, #2852, or #2868, or on Integrated PC Server or Integrated Netfinity shipped with package #0184 or #xx94. The #2724 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<p>#2838 #9738</p>	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b> The #2838 provides attachment to standard 100 Mbps high-speed Ethernet LANs and allows attachment to existing 10 Mbps Ethernet LANs. The #9738 is the base 100/10 Mbps Ethernet IOA on packages #xx93, or #xx94. If #2738/#9738 PCI 100/10 Mbps Ethernet IOA is selected to run on a #2866 PCI Integrated Netfinity Server, then one #0222 100/10 Mbps Ethernet on IPCS/#2790 PCI Integrated Netfinity Server is required. The IOA is capable of operating in half or full duplex mode. The adapter comes with an RJ-45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. Maximum cable length is 100 meters. Prerequisite: Unused slot on #2852 Integrated PC Server or #2868 Integrated Netfinity Server shipped with package #0184 or #xx94. Maximum: One Minimum OS/400 level: V4R2 The #2838 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<p>#2850</p>	<p><b>#2850 Integrated PC Server</b> The #2850 contains a 133 Mhz Intel Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. The #2850 comes with 32 MB of main storage and supports up to three of these features, giving a maximum of 128 MB. #2860 16 MB Integrated PC Server Memory #2861 32 MB Integrated PC Server Memory  Either one or two of these LAN IOAs are supported: #9723/#2723 PCI Ethernet IOA #9724/#2724 PCI 16/4 Mbps Token Ring IOA  The #9723 or #9724 is the base LAN IOA on #0183, #0184, #0193, or #0194 packages. The #2850 ships as standard with #0184 and #0194 packages (with no feature required). The #2850 is available as an option on all other packages, except #0294 or #0394. The #2850 is not supported on #059x packages. Maximum: One The #2850 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<p>#2852</p>	<p><b>#2852 Integrated PC Server (PCI)</b> The #2852 contains a 200 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. The #2852 comes with two 32 MB main storage cards as standard. Up to two of these additional main storage features may also be ordered. If the two base storage features are removed, four main storage features can be ordered giving a maximum of 512 MB. #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory  Either one or two of these LAN IOAs are supported: #9723/#2723 PCI Ethernet IOA #9724/#2724 PCI 16/4 Mbps Token Ring IOA #2738/#9738 PCI 100/10 Mbps Ethernet IOA  The #9723, #9724, or #9738 is the base LAN on #xx93 or #xx94 packages. Only one of the LANs can be #2838/#9738. The #2852 also comes with a special cable that provides industry standard keyboard, mouse, serial, and parallel connections. If running Windows NT on the #2852, then: #0325 Integrated PC Server Extension Cable for Windows NT is required. #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A. A display must be connected for Windows NT on the IPCS.</p>

#2852 (cont.)	<p>For other country- or region-specific keyboard or mouse and display support, refer to the Web site at: <a href="http://www-1.ibm.com/servers/eserver/iseries/">http://www-1.ibm.com/servers/eserver/iseries/</a></p> <p>The #2852 ships as standard with #0294, or #0394 package (with no feature required). The #2852 is available as an option on all other packages, except #0184 and #0194.</p> <p>When running OS/2 on the #2852, then #0325 and #1700 are not allowed.</p> <p>When running Novell Netware on the #2852, then #0325 and #1700 are not allowed and a maximum of 256 MB IOP memory is supported.</p> <p>Maximum: One</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2852 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
#2868	<p><b>#2868 Integrated Netfinity Server</b></p> <p>The #2868 contains a 333 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN-attached PCs. Comes with 64 MB as base IOP memory. Two additional main storage slots can each contain one of these features, giving a maximum of 578 MB on initial order. However, base #2861s can be removed in the field and replaced by two of these memory features, bringing the maximum IOP memory to 1024 MB.</p> <p>#2861 32 MB Integrated PC Server Memory          #2862 128 MB Integrated PC Server Memory          #2867 256 MB Integrated PC Server Memory</p> <p>Up to two of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of one LAN IOA can be a PCI 100/10 Mbps Ethernet IOA:</p> <p>#2723 PCI Ethernet IOA          #2724 PCI 16/4 Mbps Token Ring IOA          #2838 PCI 100/10 Mbps Ethernet IOA</p> <p>Only one of these base LAN IOAs is supported:</p> <p>#9723 PCI Ethernet IOA          #9724 PCI Token Ring IOA          #9738 PCI 100/10 Mbps Ethernet IOA</p> <p>The #2868 ships as standard with #0594 package (with no feature required). The #2868 is available as an option on all other packages.</p> <p>If running Windows NT on the #2868, then:</p> <p>#0325 Integrated PC Server Extension Cable for Windows NT is required.          #1700 Integrated PC Server Keyboard or Mouse for Windows NT. Default in the U.S.A.          A display is required to support Windows NT on the #2790 PCI Integrated Netfinity Server.</p> <p>For country- or region-specific keyboard or mouse and display support, refer to the Web site at: <a href="http://www-1.ibm.com/servers/eserver/iseries/">http://www-1.ibm.com/servers/eserver/iseries/</a></p> <p>When running OS/2 on the #2868, then #0325 and #1700 are not allowed and a maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #2868, then #0325 and #1700 are not allowed and a maximum of 256 MB IOP memory is supported.</p> <p>Maximum: One.</p> <p>Minimum OS/400 level: V4R2 with Cumulative PTF Package C8342420 or V4R3 with Cumulative PTF Package C9349430</p> <p>The #2868 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<b>Disk Units</b>	
#6607	<p><b>#6607 4.19 GB Additional Two-byte Disk Unit</b></p> <p>All 9401 Model 150 packages include one 4.19 GB disk as standard (with no feature required). Three #6607s may be added giving a maximum of four 4.19 GB disks.</p> <p>The #6607 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
#6713	<p><b>#6713 8.58 GB Disk Unit (Two-Byte)</b></p> <p>Up to three #6713s may be added to all packages giving a maximum of 29.9 GB if the base 4.19 GB disk is included.</p> <p>Minimum OS/400 level: V4R2</p> <p>The #6713 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
<b>Internal Tape Units</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.

#6381	<p><b>#6381 2.5 GB ¼-inch Cartridge Tape</b></p> <p>The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. It also supports the QIC-24 format used in S/36 ¼-inch units. This tape can be used to replace the 4.0 GB ¼-inch cartridge tape unit included as standard with all #029x packages if S/36 compatibility is required. A 2.5 GB ¼-inch cartridge tape unit ships as standard with all #018x and #019x packages with no feature required.</p> <p>The #6381 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>
#6382	<p><b>#6382 4 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This unit does not support QIC 24 format used in S/36 ¼-inch cartridge tape units. The #6382 is orderable on all #018x and #19x packages to replace the 2.5 GB ¼-inch cartridge tape unit that shipped as standard with those packages. A 4.0 GB ¼-inch cartridge tape unit ships as standard with all #029x or #039x packages with no feature required.</p> <p>The #6382 is a Customer Install Feature on a Model 150 for an MES that only includes CIF features.</p>

## 5.4 AS/400e Model 150 software

### 5.4.1 OS/400 V3R7

The following table shows the AS/400e products that are most commonly installed. It is not a definitive list of all the iSeries or AS/400e software products that are available.

Product name	WDFM	Model 150 product identifier	AS/400 equivalent product identifier
Advanced Entry Model 150 BasePak V3R7	✓	5649-EP1 *	N/A
PSF/400 20-45 IPM Feature	✓	5649-SB1	5716-SS1 Feature
Enhanced Integration for Novell NetWare	✓	5649-SC1	5716-SS1 Feature
Enhanced Integration for Lotus® Notes®	✓	5649-SD1	5716-EPK
<ul style="list-style-type: none"> <li>▶ DataPropagator™</li> <li>▶ ADSTAR Distributed Storage (ADSM)</li> <li>▶ Lotus Notes</li> </ul>			
Advanced Function Print Utility for AS/400	✓	5649-AF1	5716-AF1
Advanced DBCS Printer Support	✓	5649-AP1	5716-AP1
Integrated Language Environment® COBOL for AS/400	✓	5649-CB1	5716-CB1
Point-of-Sale Communications Utility for AS/400	✓	5649-CF1	5716-CF1
Application Development ToolSet Client Server (ADTS C/S) for AS/400	✓	5649-CL3	5716-CL3
<ul style="list-style-type: none"> <li>▶ CODE/400 for OS/2</li> <li>▶ VRPG for OS/2</li> <li>▶ CODE for Windows</li> <li>▶ VRPG for Windows</li> </ul>			
Current PTF CUM Kit	✓	5649-CUM	N/A
Integrated Language Environment C for AS/400	✓	5649-CX2	5716-CX2
Language Dictionaries for AS/400	✓	5649-DCT	5716-DCT
Application Program Driver for AS/400	✓	5649-PD1	5716-PD1
Application Development ToolSet for AS/400	✓	5649-PW1	5716-PW1
Application Dictionary Services for OS/400	✓	5649-PWA	5716-PW1 Feature
Application Development Manager for OS/400	✓	5649-PWB	5716-PW1 Feature
Integrated Language Environment RPG for AS/400	✓	5649-RG1	5716-RG1
Report/Data Archive and Retrieval System for AS/400	✓	5649-RD1	5716-RD1
IBM Connection Program for OS/400 for UNIX Environments	✓	5649-TBE	5798-TBE
OfficeVision® for AS/400	✓	5649-WP1	5716-WP1
Secondary Languages for 5649-XXX licensed programs	✓	5649-NLV	N/A
IBM Network Station® Manager for AS/400	✓	5649-A07	5648-B07
IBM Network Station Browser	✓	5649-A08	5648-B08

\* 5649-EP1 BasePak is provided preloaded on 9401 Model 150 only. It comprises OS/400, Client Access, Query, SQL Development Kit, Facsimile Support, Performance Management, PSF Fax Support, PSF 1-19 ipm support, and TCP/IP Communication Utilities. Advanced Function Printing™ DBCS Fonts are included on DBCS systems. No separate product identifier is required for these products. 5649-EP1 is not ordered separately.

## 5.4.2 OS/400 V4R1

The following table shows the AS/400e products that are most commonly installed. It is not a definitive list of all the iSeries or AS/400e software products that are available.

Product name	WDFM	Model 150 product identifier	AS/400 equivalent product identifier
Advanced Entry Model 150 BasePack V4R1	✓	5649-EP2 **	N/A
PSF/400 20-45 Printer Support	✓	5649-SB2	5769-SS1 Feature
PSF/400 46+ IBM Printer Support	✓	5649-SB3	5769-SS1 Feature
NetWare Enhanced Integration	✓	5649-SC2	5769-SS1 Feature
Enhanced Integration for Lotus Notes	✓	5649-SD1*	5769-EPK
▶ DataPropagator			
▶ ADSTAR Distributed Storage Manager (ADSM)			
▶ Lotus Notes			
Advanced Function Print Utility for AS/400	✓	5649-AF1*	5716-AF1
Advanced DBCS Printer Support	✓	5649-AP1*	5716-AP1
Integrated Language Environment COBOL for AS/400	✓	5649-CB1*	5716-CB1
Point-of-Sale Communications Utility for AS/400	✓	5649-CF1*	5716-CF1
Application Development ToolSet/Client Server	✓	5649-CL3*	5716-CL3
▶ CODE/400 for OS/2			
▶ VRPG for OS/2			
▶ CODE for Windows			
▶ VRPG for Windows			
Current PTF CUM Kit	✓	5649-CU1	N/A
Integrated Language Environment C for AS/400	✓	5649-CX2*	5716-CX2
Language Dictionaries for AS/400	✓	5649-DCT*	5716-DCT
Firewall for AS/400	✓	5649-FW1	5769-FW1
Internet Connection Secure Server for AS/400	✓	5649-NC1	5769-NC1
Internet Connection Secure Server for AS/400	✓	5649-NCE	5769-NCE
Secondary Languages for 5649 Licensed Programs	✓	5649-NL2	N/A
Application Program Driver for AS/400	✓	5649-PD1*	5716-PD1
Performance Tools for AS/400	✓	5649-PT1 @	5716-PT1
Application Development ToolSet for AS/400	✓	5649-PW1*	5716-PW1
Application Dictionary Services for OS/400	✓	5649-PWA*	5716-PW1 Feature
Application Development Manager for OS/400	✓	5649-PWB*	5716-PW1 Feature
Report/Data Archive and Retrieval System for AS/400	✓	5649-RD1*	5716-RD1
Integrated Language Environment RPG for AS/400	✓	5649-RG1*	5716-RG1
IBM Connection Program for OS/400 for UNIX Environments	✓	5649-TBE*	5798-TBE
	✓	5649-TBW @	5798-TBW
Wireless Connection for AS/400	✓	5649-WP2	5769-WP1
OfficeVision for AS/400	✓	5649-XY1	5769-XY1
AS/400 Client Access Family	✓	5649-XZ1	5769-XZ1
OS/2 Warp Server for AS/400	✓	-	-
IBM Network Station Manager for AS/400	✓	5649-A07*	5648-B07
IBM Network Station Browser	✓	5649-A08*	5648-B08
Navio NC Navigator for IBM Network Station (40 bit encryption)	✓	5648-B10	5648-B10
Navio NC Navigator for IBM Network Station (128 bit encryption)	✓	5648-B20	5648-B20
IBM Network Station Browser (128 bit encryption)	✓	5648-B18	5648-B18
IBM AFP™ FONT Collection for IBM Operating Systems	✓	5648-113	5648-113
* These V3R7 products are available for use on V4R1 systems (as skip ship).			
** 5649-EP2 BasePak V4R1 comprises OS/400, Client Access Family for Windows, Query, SQL Development Kit, Facsimile support, Performance Manager, and a selection of OS/400 features (PSF Fax Support, PSF 1-19 ipm support, CPA Tool Kit, Integration Services for IPCS, Integration for Novell Netware, Integration for Lotus Notes and TCP/IP Connectivity Utilities). No separate product identifier is required for these products. Advanced Function Printing DBCS Fonts is included on DBCS systems.			
@ New with V4R1, but also runs on V3R7.			

### 5.4.3 OS/400 V4R2

The following table shows the AS/400e products that are most commonly installed. It is not a definitive list of all the iSeries or AS/400e software products that are available.

Product name	WDFM	Model 150 product identifier	AS/400 equivalent product identifier
Advanced Entry Model 150 BasePak V4R2	✓	5649-EP3 **	N/A
PSF/400 20-45 Printer Support	✓	5649-SB4	5769-SS1 Feature
PSF/400 46+ IBM Printer Support	✓	5649-SB5	5769-SS1 Feature
NetWare Enhanced Integration	✓	5649-SC3	5769-SS1 Feature
Advanced Function Print Utility for AS/400	✓	5649-AF2	5769-AF1
Advanced DBCS Printer Support	✓	5649-AP2	5769-AP1
Integrated Language Environment COBOL for AS/400	✓	5649-CB2	5769-CB1
Point-of-Sale Communications Utility for AS/400	✓	5649-CF2	5769-CF1
Application Development ToolSet/Client Server	✓	5649-CL4	5769-CL3
▶ CODE/400 for OS/2			
▶ VRPG for OS/2			
▶ CODE for Windows			
▶ VRPG for Windows			
Current PTF CUM Kit	✓	5649-CU2	N/A
Integrated Language Environment C for AS/400	✓	5649-CX3	5769-CX2
Language Dictionaries for AS/400	✓	5649-DCT*	5716-DCT
Firewall for AS/400	✓	5649-FW2	5769-FW1
Internet Connection Secure Server for AS/400	✓	5649-NC4	5769-NC1
Internet Connection Secure Server for AS/400	✓	5649-NCF	5769-NCE
Secondary Languages for 5649 Licensed Programs	✓	5649-NL3	N/A
Application Program Driver for AS/400	✓	5649-PD2	5769-PD1
Performance Tools for AS/400	✓	5649-PT2	5769-PT1
Application Development ToolSet for AS/400	✓	5649-PW2	5769-PW1
Application Dictionary Services for OS/400	✓	5649-PWC	5769-PW1 Feature
Application Development Manager for OS/400	✓	5649-PWD	5769-PW1 Feature
OnDemand for AS/400	✓	5649-RD2	5769-RD1
Integrated Language Environment RPG for AS/400	✓	5649-RG2	5769-RG1
Wireless Connection for AS/400	✓	5649-TBX	5798-TBW
OfficeVision for AS/400	✓	5649-WP3	5769-WP1
AS/400 Client Access Family	✓	5649-XY1*	5769-XY1
OS/2 Warp Server for AS/400	✓	5649-XZ1*	5769-XZ1
IBM Network Station Manager for AS/400	✓	5648-B07	5648-B07
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓	5648-B10*	5648-B10
Navio NC Navigator for IBM Network Station (128-bit encryption)	✓	5648-B20*	5648-B20
IBM AFP Font Collection for IBM Operating Systems	✓	5648-113*	5648-113
<p>** 5649-EP3 BasePak V4R2 comprises OS/400 Client Access Family for Windows, Query, SQL Development Kit, Facsimile support, Performance Manager, and a selection of OS/400 features (PSF Fax support, PSF 1-19 ipm support, CPA Tool Kit, Integration Services for IPCS, Integration for Novell Netware, Integration for Lotus Notes and TCP/IP Connectivity Utilities). In addition, V4R2 also includes support for Lotus Domino, support for Java application development, TCP/IP enhancements, enhanced facsimile, and enablement for AS/400 Integration for Windows NT Server. No separate product identifiers are required for these products. Advanced Function Printing DBCS Fonts is included on all DBCS systems.</p>			
<p>* These prior release products are available for use on V4R2 systems (skip ship).</p>			

## 5.4.4 OS/400 V4R3

The following table shows the AS/400e products that are most commonly installed. It is not a definitive list of all the iSeries or AS/400e software products that are available.

Product name	WDFM	Model 150 product identifier	AS/400 equivalent product identifier
Advanced Entry Model 150 BasePak V4R3	✓	5649-EP4 **	N/A
PSF/400 20-45 Printer Support	✓	5649-SB6	5769-SS1 Feature
PSF/400 46+ IBM Printer Support	✓	5649-SB7	5769-SS1 Feature
NetWare Enhanced Integration	✓	5649-SC4	5769-SS1 Feature
Cryptographic Access Provider 40-bit for AS/400	✓	5649-AC1	5769-AC1
Cryptographic Access Provider 56-bit for AS/400	✓	5649-AC2	5769-AC2
Cryptographic Access Provider 128-bit for AS/400	✓	5649-AC3	5769-AC3
Advanced Function Print Utility for AS/400	✓	5649-AF2	5769-AF1
Advanced DBCS Printer Support	✓	5649-AP2	5769-AP1
Integrated Language Environment COBOL for AS/400	✓	5649-CB2	5769-CB1
Point-of-Sale Communications Utility for AS/400	✓	5649-CF2	5769-CF1
Application Development ToolSet/Client Server	✓	5649-CL4	5769-CL3
▶ CODE/400 for OS/2			
▶ VRPG for OS/2			
▶ CODE for Windows			
▶ VRPG for Windows			
Current PTF CUM Kit	✓	5649-CU3	N/A
Integrated Language Environment C for AS/400	✓	5649-CX4	5769-CX2
Language Dictionaries for AS/400	✓	5649-DCT*	5716-DCT
Firewall for AS/400	✓	5649-FW3	5769-FW1
Secondary Languages for 5649 Licensed Programs	✓	5649-NL4	N/A
Application Program Driver for AS/400	✓	5649-PD3	5769-PD1
Performance Tools for AS/400	✓	5649-PT2*	5769-PT1
Application Development ToolSet for AS/400	✓	5649-PW2*	5769-PW1
Application Dictionary Services for OS/400	✓	5649-PWC*	5769-PW1 Feature
Application Development Manager for OS/400	✓	5649-PWD*	5769-PW1 Feature
OnDemand for AS/400	✓	5649-RD3	5769-RD1
Integrated Language Environment RPG for AS/400	✓	5649-RG2*	5769-RG1
Wireless Connection for AS/400	✓	5649-TBX*	5798-TBW
OfficeVision for AS/400	✓	5649-WP3*	5769-WP1
AS/400 Client Access Family	✓	5649-XY1*	5769-XY1
OS/2 Warp Server for AS/400	✓	5649-XZ1*	5769-XZ1
IBM Network Station Manager for AS/400	✓	5648-C05	5648-C05
Navio NC Navigator for IBM Network Station (128-bit encryption)	✓	5648-C20	5648-C20
IBM AFP Font Collection for IBM Operating Systems	✓	5648-113*	5648-113
* These prior release products are available for use on V4R3 systems (skip ship).			
** 5649-EP4 BasePak V4R3 comprises OS/400 Client Access Family for Windows, Query, SQL Development Kit, Facsimile support, Performance Manager and a selection of OS/400 features (PSF Fax support, PSF 1-19 ipm support, CPA Tool Kit, Integration Services for IPCS, Integration for Novell Netware, Integration for Lotus Notes and TCP/IP Connectivity Utilities). In addition, V4R3 also includes support for Lotus Domino, support for Java application development, TCP/IP enhancements, enhanced facsimile, and enablement for AS/400 Integration for Windows NT Server. No separate product identifiers are required for these products. Advanced Function Printing DBCS Fonts are preloaded onto all DBCS systems.			

## 5.4.5 OS/400 V4R4

The following table shows the AS/400e products that are most commonly installed. It is not a definitive list of all the iSeries or AS/400e software products that are available.

Product name	WDFM	Model 150 product identifier	OS/400 equivalent product identifier
Advanced Entry Model 150 BasePack V4R3	✓	5649-EP5 **	N/A
PSF/400 20-45 Printer Support	✓	5649-SB8	5769-SS1 Feature
PSF/400 46+ IBM Printer Support	✓	5649-SB9	5769-SS1 Feature
NetWare Enhanced Integration	✓	5649-SC5	5769-SS1 Feature
Cryptographic Access Provider 40-bit for AS/400	✓	5649-AC4	5769-AC1
Cryptographic Access Provider 56-bit for AS/400	✓	5649-AC5	5769-AC2
Cryptographic Access Provider 128-bit for AS/400	✓	5649-AC6	5769-AC3
Advanced Function Print Utility for AS/400	✓	5649-AF3	5769-AF1
Advanced DBCS Printer Support	✓	5649-AP3	5769-AP1
Integrated Language Environment COBOL for AS/400	✓	5649-CB3	5769-CB1
AS/400 Client Encryption (40-bit)	✓	5649-CE1	5769-CE1
AS/400 Client Encryption (56-bit)	✓	5649-CE2	5769-CE2
AS/400 Client Encryption (128-bit)	✓	5649-CE3	5769-CE3
Point-of-Sale Communications Utility for AS/400	✓	5649-CF3	5769-CF1
Application Development ToolSet/Client Server	✓	5649-CL5	5769-CL3
<ul style="list-style-type: none"> <li>▶ CODE/400 for OS/2</li> <li>▶ VRPG for OS/2</li> <li>▶ CODE for Windows</li> <li>▶ VRPG for Windows</li> </ul>			
Integrated Language Environment C for AS/400	✓	5649-CX5	5769-CX2
Language Dictionaries for AS/400	✓	5649-DCT*	5716-DCT
Firewall for AS/400	✓	5649-FW4	5769-FW1
Secondary Languages for 5649 Licensed Programs	✓	5649-NL5	N/A
Application Program Driver for AS/400	✓	5649-PD3*	5769-PD1
Performance Tools for AS/400	✓	5649-PT3	5769-PT1
Application Development ToolSet for AS/400	✓	5649-PW3	5769-PW1
Application Dictionary Services for OS/400	✓	5649-PWE	5769-PW1 Feature
Application Development Manager for OS/400	✓	5649-PWF	5769-PW1 Feature
OnDemand for AS/400	✓	5649-RD4	5769-RD1
Integrated Language Environment RPG for AS/400	✓	5649-RG3	5769-RG1
Wireless Connection for AS/400	✓	5649-TBZ	5798-TBW
OfficeVision for AS/400	✓	5649-WP3*	5769-WP1
AS/400 Client Access Family	✓	5649-XY1*	5769-XY1
OS/2 Warp Server for AS/400	✓	5649-XZ1*	5769-XZ1
IBM Network Station Manager for AS/400	✓	5648-C05	5648-C05
Navio NC Navigator for IBM Network Station (128 bit encryption)	✓	5648-C20	5648-C20
IBM AFP Font Collection for IBM Operating Systems	✓	5648-113*	5648-113

\* These prior release products are available for use on V4R4 systems (skip ship).

\*\* 5649-EP5 BasePak V4R4 is comprised of OS/400 Client Access Family for Windows, Query, SQL Development Kit, Facsimile support, Performance Manager and a selection of OS/400 features (PSF Fax support, PSF 1-19 ipm support, CPA Tool Kit, Integration Services for IPCS, Integration for Novell Netware, Integration for Lotus Notes and TCP/IP Connectivity Utilities). V4R4 includes support for Lotus Domino, support for Java application development, TCP/IP enhancements, enhanced facsimile, and enablement for AS/400e Integration for Windows NT Server. No separate product identifiers are required for these products. Advanced Function Printing DBCS Fonts is included on all DBCS systems.

## AS/400e 600, 620, 640, and 650 models

Model and processor	Announce date	General availability date	Withdrawn from marketing
600 2129	19 August 1997	29 August 1997	31 May 1999
600 2134	19 August 1997	29 August 1997	31 May 2000
600 2135	19 August 1997	29 August 1997	31 May 2000
600 2136	19 August 1997	29 August 1997	31 May 2000
620 2175	28 October 1997	29 August 1997	31 May 2000
620 2179	19 August 1997	29 August 1997	31 May 2000
620 2180	19 August 1997	29 August 1997	31 May 2000
620 2181	19 August 1997	29 August 1997	31 May 2000
620 2182	19 August 1997	29 August 1997	31 May 2000
640 2237	19 August 1997	29 August 1997	31 May 2000
640 2238	19 August 1997	29 August 1997	31 May 2000
640 2239	19 August 1997	29 August 1997	31 May 2000
650 2240	19 August 1997	29 August 1997	31 May 2000
650 2243	19 August 1997	29 August 1997	31 May 2000
650 2188	01 September 1998	29 August 1997	31 May 2000
650 2189	01 September 1998	29 August 1997	31 May 2000

## 6.1 AS/400e Model 600 overview

Processor feature	Model 600			
	#2129	#2134	#2135	#2136
Relative system performance (CPW) <sup>1</sup>	22.7	32.5	45.4	73.1
Number of n-way multiprocessors	1	1	1	1
Main storage (MB)	64-384	64-384	64-384	128-512
Disk storage base (GB)				
Maximum internal (GB)			4.19	
V4R1			85.8	
V4R2 and later			175.4	
System I/O card slots				
SPD			0	
PCI			8	
Communication lines <sup>2</sup>			1-18	
LAN/ATM adapters			0-3	
Maximum workstation controllers				
Twinaxial			5	
ASCII			0	
Maximum workstations				
Twinaxial			188	
ASCII			0	
¼-inch/8mm cartridge tape (internal)			0-1	
½-inch tape				
Reel 9348			0-1	
Reel 2440, 9347			0	
Cartridge 34xx, 35xx			0-1	
8mm cartridge (external)			0-1	
Optical libraries			0-1	
Diskettes (5 ¼-inch or 8-inch)			0	
Fax adapters			0	
Cryptographic processor			1	
System I/O buses			1	

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	17 lines if Client Access or Operations Console is selected.

## 6.2 AS/400e Model 620 overview

	Model 620					
Processor feature	#2175	#2179	#2180		#2181	#2182
Relative system performance (CPW) <sup>1</sup>	50.0	85.6	113.8		210.0	464.3
Number of n-way multiprocessors	1	1	1		1	2
Main storage (MB) <sup>6</sup>	64-1856	256-2048	256-2048		256-2048	256-4096
Numbers are for all processor features	Base system	SUE #9364 PCI (#9329) (#9330) <sup>4</sup>	SUE #9364 SPD (#9331) <sup>4</sup>	#5065 Strg/PCI Expansion Tower	Expansion tower	System maximum
Disk storage base (GB)	4.19	-	-		-	4.19
V4R1	128.8 <sup>5</sup>	128.8	128.8 <sup>2</sup>		274.8 <sup>2</sup>	704.3
Maximum internal (GB)	-	-				652.8
Maximum external (GB)						704.3
Total maximum (GB)						
V4R2/V4R3	263.2 <sup>5</sup>	263.2	263.2 <sup>2</sup>		561.5 <sup>2</sup>	944.8
Maximum internal (GB)	-	-				893.3
Maximum external (GB)						944.8
Total maximum (GB)						
V4R4	263.2 <sup>5</sup>	263.2	263.2 <sup>2</sup>	386.5	561.5 <sup>2</sup>	944.8
Maximum internal (GB)	-	-				893.3
Maximum external (GB)						944.8
Total maximum (GB)						
V5R1	263.2 <sup>5</sup>	263.2	263.2 <sup>2</sup>	773.0	561.5 <sup>2</sup>	944.8
Maximum internal (GB)	-	-				893.3
Maximum external (GB)						944.8
Total maximum (GB)						
External SPD bus	0	4	4		0	4
Maximum card slots - SPD	0	0	6	0	13	58
Maximum card slots - PCI	8	14	0	12	0	22
Communication lines <sup>3</sup>	1-18	0-40	0-36	0-42	0-78	96
LAN/ATM adapters	0-3	0-5	0-6	0-6	0-13	16
Maximum workstation controllers						
Twinaxial	5	9	18	12	39	60
ASCII	0	0	6	0	13	58
Maximum workstations						
Twinaxial	188	360	720	240	1560	2388
ASCII	0	0	108	0	234	1044
¼-inch/8mm cartridge tape (internal)	0-1	0-3	0-3	0-2	0-4	17
½-inch tape						
Reel 9348	0-1	0-2	0-4	0-3	0-4	4
Reel 2440	0	0	0-4	0	0-4	4
Reel 9347	0	0	0-2	0	0-2	2
Cartridge 34xx, 35xx	0-1	0-2	0-4	0-3	0-4	6
8mm cartridge (external)	0-1	0-2	0-4	3	0-4	4
Optical libraries	0-1	0-2	0-12	3	0-14	14
Diskettes (5 ¼-inch or 8-inch)	0	0	0-2	0	0-2	2
Fax adapters	0	0	0-6	0	0-13	32
Cryptographic processor	0	0	0-1	3	0-1	3

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	External DASD can be attached via an SPD card in the expansion unit.
<b>Note 3</b>	Seventeen lines in the Base System if Client Access or Operations Console is chosen.
<b>Note 4</b>	The #9364 must be configured with #9329/#9330 (PCI) or #9331 (SPD). Therefore, these columns are mutually exclusive.
<b>Note 5</b>	Maximum is 85.8 GB (V4R1) or 175.4 GB (V4R2, V4R3, and V4R4) on #2175, #2179, and #2180 processors.
<b>Note 6</b>	The #0004 specify code indicates that the Model 620 #2175 processor shipped with base memory of 256 MB. These systems have a maximum memory of 2048 MB.

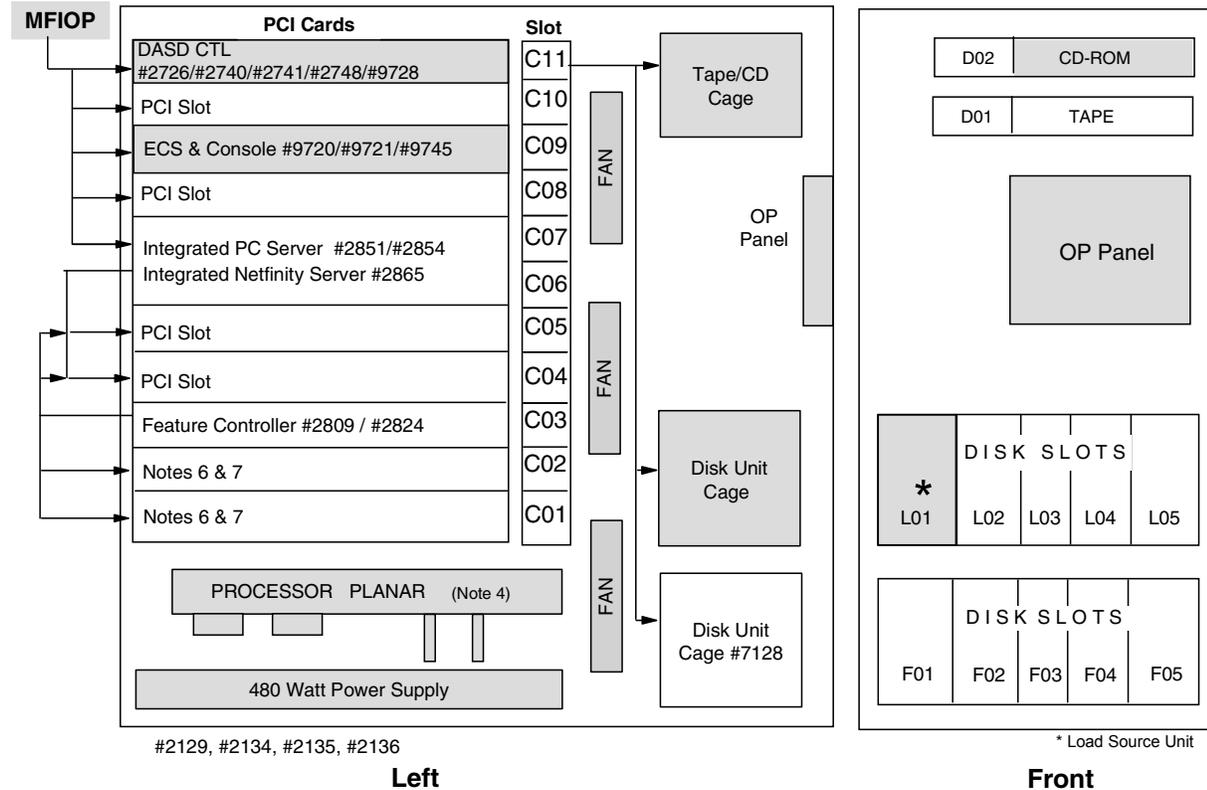
### 6.3 AS/400e Models 640 and 650 overview

Processor feature	Model 640			Model 650			
	#2237	#2238	#2239	#2240	#2243	#2188	#2189
Relative system performance (CPW) <sup>1</sup>	319.0	583.3	998.6	1794.0	2340.0	3660.0	4550.0
Number of n-way multiprocessors	1	2	4	8	12	8	12
Main storage (MB)							
V4R2	512-12288	512-12288	512-12288	1024-20480	1024-20480	-	-
V4R3	512-16384	512-16384	512-16384	1024-32758	1024-32758	1024-40960	1024-40960
Disk storage base (GB)	4.19			4.19			
<b>V4R1</b>							
Maximum internal (GB)	927.7			996.4			
Maximum external (GB)	893.3			962.0			
Maximum combined (GB)	927.7			996.4			
<b>V4R2</b>							
Maximum internal (GB)	1340.0			1546.1			
Maximum external (GB)	1305.6			1511.8			
Maximum combined (GB)	1340.0			1546.1			
<b>V4R3/V4R4</b>							
Maximum internal (GB)	1340.0			2095.9			
Maximum external (GB)	1305.6			2061.3			
Maximum combined (GB)	1340.0			2095.9			
Disk unit IOPs	1-37			1-37			
Minimum feature card slots	3			3			
Maximum feature card slots-SPD	235			237			
Maximum feature card slots-PCI	216			216			
Communications lines (V4R1/V4R2)	1-200			1-250			
Communications lines (V4R3/V4R4)	1-200			1-300			
LAN/ATM adapters <sup>2</sup>	0-32			0-48			
V4R1/V4R2/V4R3	0-32			0-72			

Maximum workstation controllers Twinaxial / ASCII	175	175
Maximum workstations Twinaxial	7000	7000
ASCII	3150	3150
¼-inch/8mm cartridge tape (internal)	0-17	0-17
½-inch tape		
Reel 2440, 9348	0-4	0-4
34xx, 35xx	0-8	0-8
9347	0-2	0-2
8mm cartridge tape (external)	0-4	0-4
Optical libraries	0-22	0-22
Diskettes (5 ¼-inch or 8-inch)	0-2	0-2
Fax adapters	0-32	0-32
Cryptographic processor	0-3	0-3
System I/O buses	1-19	1-19
System expansion		
#5065/#5072/#5073/#5082/#5083	0-18	0-18
Bus expansion (#5044)	0-9	0-9
Storage expansion		
#5055/#5057	0-1	0-1
#5052/#5058	0-18	0-18

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	Can include up to 16 Integrated Netfinity Servers.

## 6.4 9406 Model 600 system unit schematic

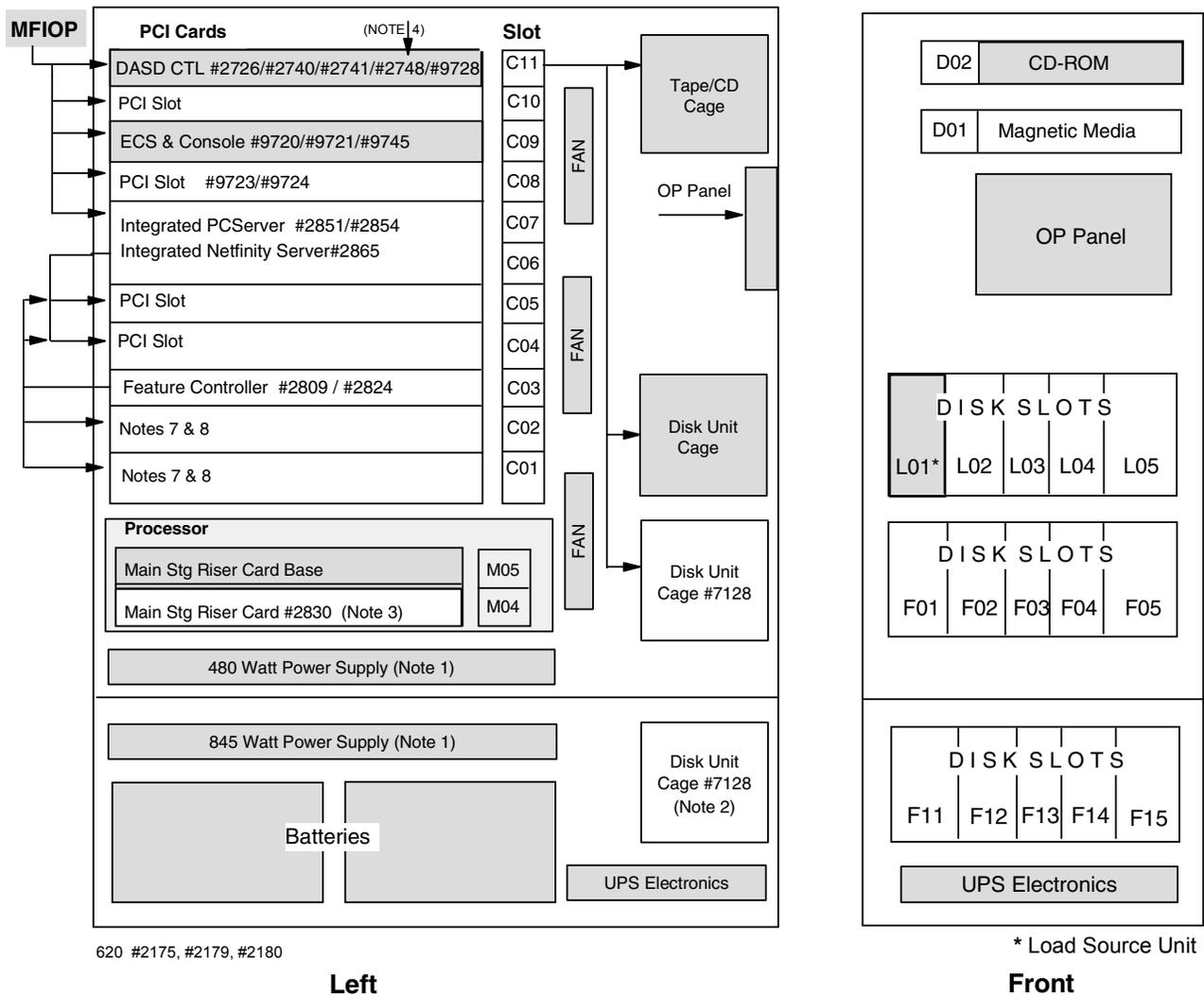


### Notes:

1. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. To support more than five disks or to implement RAID-5, use a #2726/#2740/#2741/#2748.
2. If an Integrated PC Server is in slots C06 and C07, it controls its LAN IOAs in slots C04 and C05. If there is no IPCS or Integrated Netfinity Server, C04 and C05 are controlled by C03.
3. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, a #2722/#2746 PCI Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slots C08 or C10.
4. SIMM modules plug directly to the planar board.
5. If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
  - Slot C04 supports #2723, #2724 or #2838/#9738.
  - Slot C05 supports #2723 or #2724.
6. For the #2809 in C03:
  - Slot C01 supports #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
  - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.
7. For the #2824 in C03:
  - Slot C01 supports the #2838/#9738 or #281x.
  - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.

- Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
- 8. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in slots C04 or C05.
- 9. There is a maximum of one #2838 or #281x per #2824/#2809 IOP.
- 10. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
- 11. There is a maximum of one #4800 per #2824 IOP.

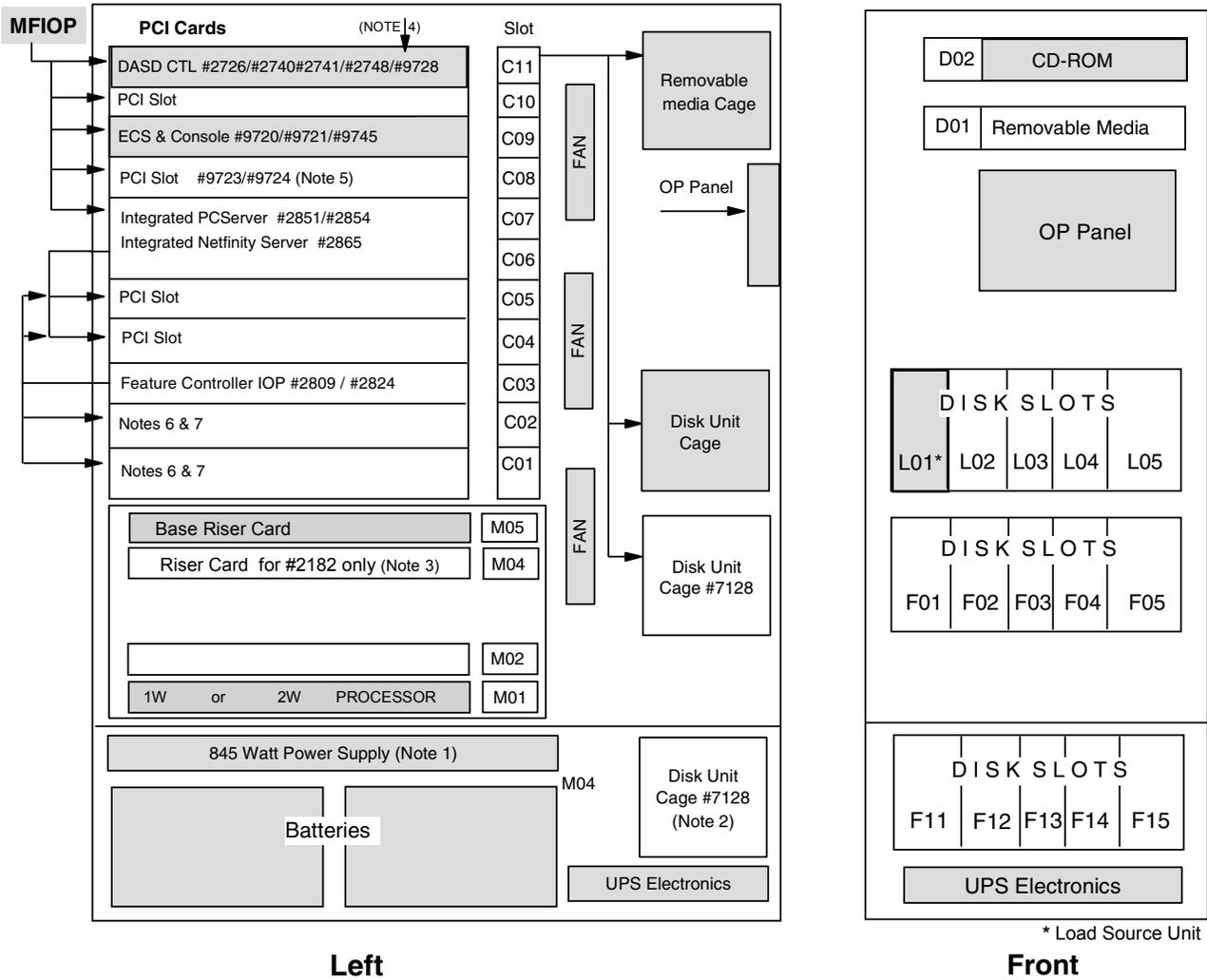
## 6.5 9406 Model 620 system unit schematic (#2175, #2179, #2180 processors)



Model 620, 640, 650

4. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. To support more than five disks in the base system unit or to implement RAID-5, use a #2726/#2740/#2741/#2748.
5. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, #2722/#2746 PCI Twinaxial Workstation IOAA and LAN IOAs are not allowed in slot C08.
6. If the #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
  - Slot C04 supports the #2723, #2724 or #2838/#9738.
  - Slot C05 supports the #2723 or #2724.
7. For the #2809 in C03:
  - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
  - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745 or #2746.
8. For the #2824 in C03:
  - Slot C01 supports the #2838/#9738 or #281x.
  - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
9. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in C04/C05.
10. There is a maximum of one #2838 or #281x per #2824 PCI Feature Controller.
11. There is a maximum of one #2750, #2751, or #2761 per #2824 PCI Feature Controller.
12. There is a maximum of one #4800 per #2824 IOP.

## 6.6 9406 Model 620 system unit schematic (#2181, #2182 processors)

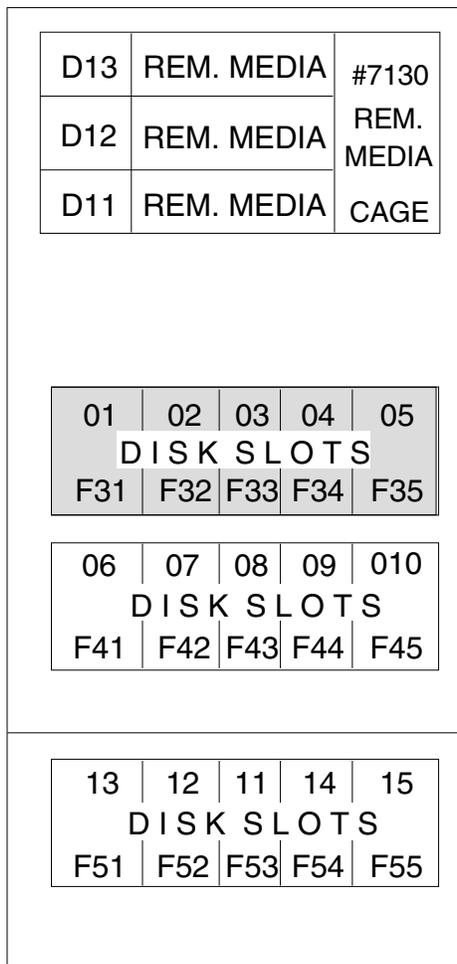


### Notes:

- Processors #2175, #2179, and #2180 have a 480-watt power supply. The #2181 and #2182 have an 845-watt power supply.
- This cage only available with #2181 and #2182 processors.
- Main Storage Expansion Riser Card only available on #2182.
- The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. To support more than five disks in the base system unit or to implement RAID-5, use a #2726/#2740/#2741/#2748.
- If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, #2722/#2746 PCI Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slot C08.
- If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
  - Slot C04 supports #2723, #2724 or #2838/#9738.
  - Slot C05 supports #2723 or #2724.

7. For the #2809 in C03:
  - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
  - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.
8. For the #2824 in C03:
  - Slot C01 supports the #2838/#9738 or #281x.
  - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
9. If a #2838 or #281x is installed on the #2824/#2809 in C03, then only features #2721 or #2745 may be installed in C04 or C05.
10. There is a maximum of one #2838 or #281x per #2824 PCI Feature Controller.
11. There is a maximum of one #2750, #2751, or #2761 per #2824 PCI Feature Controller.
12. There is a maximum of one #4800 per #2824 PCI Feature Controller.

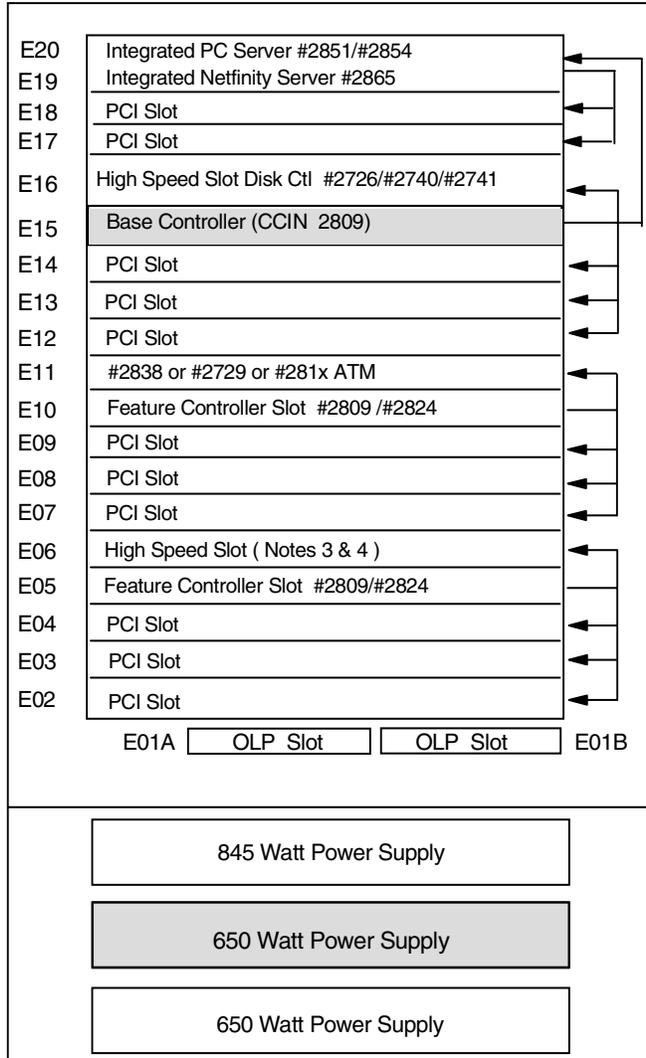
### Front of #9364 or #5064



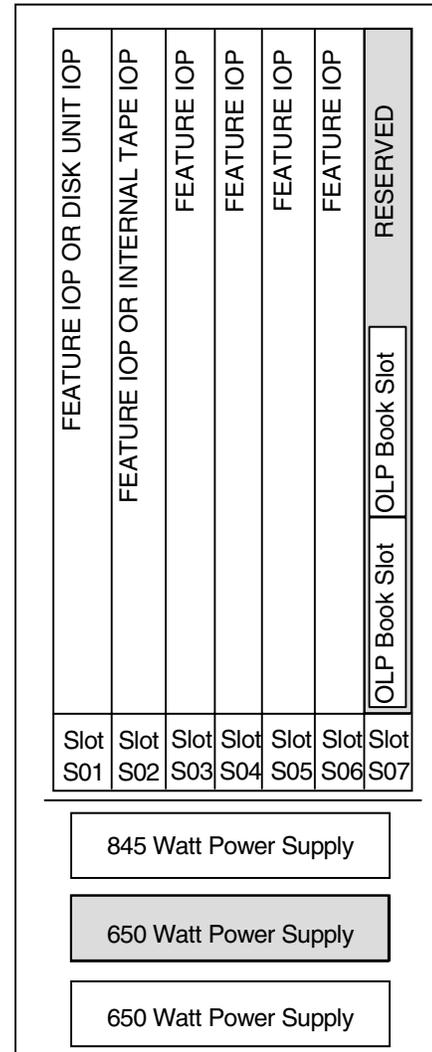
**Note:** The #9364/#5064 can either have a #9329/#9330 PCI or a #9331 SPD planar board.

## 6.7 #9329 PCI Card Cage, #9331 SPD Card Cage schematics

#9364 or #5064 with 9329 PCI Planar

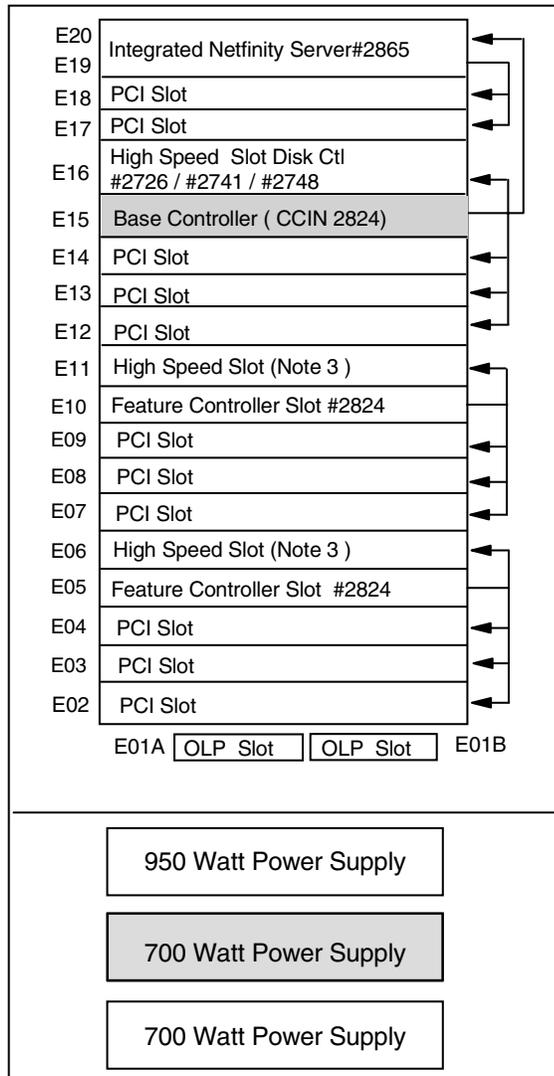


#9364 or #5064 with 9331 SPD Planar



## 6.8 #9330 PCI Integrated Expansion Unit Card Cage schematic

### #9364 with #9330 PCI Card Cage



#### Notes:

- Optical link processors are used for connecting expansion towers and racks.
- Base PCI LAN/WAN/Workstation IOP (CCIN 2809) in #9329 slot E15 supports:
  - In E16 (high-speed slot):
    - #2726, #2740, or #2741
  - In E12, E13, E14 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, or #2746
    - Three cards in any combination with a maximum of one LAN card
    - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LANs are allowed in slots E12, E13, and E14.

3. The #2809 PCI LAN/WAN/Workstation IOP in #9329 slots E05 or E10 supports:
  - In E06 or E11 (high-speed slots):
    - #2718, #2729, #2838, or #281x
  - In E02, E03, E04 or E07, E08, or E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, and #2746
    - Three cards in any combination with a maximum of two LAN cards
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
    - When a #2718/#2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in the slots E08 or E09.
    - When a #2718/#2729 PCI Magnetic Media Controller is installed in E06, only one LAN is allowed in the slots E03 or E04.
4. 100/10 Mbps Ethernet #2838/#9738 is normally located in slot E06 or E11. However, if driven by the #2865 PCI Integrated Netfinity Server, one #2838/#9738 is located in slot E17.
5. Base PCI LAN/WAN/Workstation IOP (CCIN 2824) in #9330 slot E15 supports:
  - In E16 (high-speed slot):
    - #2726, #2741, or #2748
  - In E12, E13, E14 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
    - Maximum of two #2723 or #2724 LAN adapters
    - A maximum of one remote access card (#2750, #2751, or #2761)
    - Any combination of WAN and twinaxial adapters
    - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LAN features are allowed in slots E12, E13, and E14. Two LAN adapters are allowed on the IPCS or Integrated Netfinity Server, one of which may be high speed.
6. The #2824 PCI Feature Controller in #9329 slots E05 or E10 supports:
  - In E06 or E11 (high-speed slots):
    - #2718, #2729, #2838, #2750, #2751, #2761, #281x, or #4800
  - In E02, E03, E04 or E07, E08, E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
    - Three cards in any combination
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
    - When a #2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in slots E08 and E09.

- When a #2729 PCI Magnetic Media Controller is installed in E06, only one LAN is allowed in slots E03 and E04.
  - A maximum of one remote access card (#2750, #2751, or #2761) per #2824.
  - A maximum of two low-speed LANs (#2723 or #2724) per #2824.
7. The #2824 PCI Feature Controller in the #9330 slots E05 or E10 supports:
- In E06 or E11 (high-speed slots):
    - #2718, #2729, #2745, #2746, #2750, #2751, #2761, #281x, #2838, or #4800
  - In E02, E03, E04 or E07, E08, and E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, and #2761
    - Three cards in any combination
    - Maximum of one high-speed #2838 LAN or one #281x ATM per #2824
    - If high-speed LAN or ATM feature present, #2723/#2724 not allowed on this #2824
    - A maximum of one #2750, #2751, or #2761 remote access card per #2824
    - A maximum of two #2723 or #2724 low-speed LANs per #2824
8. The #2809 is not supported in the #9330.

## 6.9 AS/400e Model 600 and 620 features

**Note:** The darker shaded cells in the tables indicate the base features.

Processors	
#2129	<b>22.7 RSP CPW Processor.</b> Base Memory 64 MB Model 600 only
#2134	<b>32.5 RSP CPW Processor.</b> Base Memory 64 MB Model 600 only
#2135	<b>45.4 RSP CPW Processor.</b> Base Memory 64 MB Model 600 only
#2136	<b>73.1 RSP CPW Processor.</b> Base Memory 128 MB Model 600 only
#2175	<b>50.0 RSP CPW Processor.</b> Base Memory 64 MB The #0004 specify code indicates that the Model 620 #2175 processor shipped with base memory of 256 MB. These systems have a maximum memory of 2048 MB. Model 620 only
#2179	<b>85.6 RSP CPW Processor.</b> Base Memory 256 MB Model 620 only
#2180	<b>113.8 RSP CPW Processor.</b> Base Memory 256 MB Model 620 only
#2181	<b>210.0 RSP CPW Processor.</b> Base Memory 256 MB Model 620 only
#2182	<b>464.3 RSP CPW 2-way Processor.</b> Base Memory 256 MB Model 620 only

<b>Power and Packaging</b>	
#2686	<p><b>#2686 Optical Link Processor (266 Mbps)</b></p> <p>The #2686 is used for attaching #5044 System Unit Expansion Rack. Each #2686 supports a maximum of one #5044.</p> <p>Prerequisite: #9364 System Unit Expansion with either #9329 PCI Card Expansion Unit or #9331 Expansion Unit for SPD Cards</p> <p>Maximum: Two</p> <p>Card slots used: None</p> <p>Model 620 only</p>
#2688	<p><b>#2688 Optical Link Processor (1063 Mbps)</b></p> <p>The #2688 is used for attaching #5072, #5073, #5082, and #5083 Storage Expansion Towers on the Model 620. Each #2688 supports a maximum of two #50xx towers.</p> <p>Prerequisite: #9364 System Unit Expansion with either #9329 PCI Card Expansion Unit or #9331 Expansion Unit for SPD Cards</p> <p>Maximum: Two</p> <p>Card slots used: None</p> <p>Model 620 only</p>
#5043	<p><b>Primary to Secondary Rack Conversion</b></p> <p>The #5043 provides for the conversion of a 9406 F Model system unit rack to a 9309 #9171 type rack. The new rack retains the #5043 feature.</p> <p>Model 620 only</p>
#5044	<p><b>#5044 System Unit Expansion Rack</b></p> <p>The #5044 is a 12 SPD I/O card slot cage in a rack enclosure. Each unit provides two buses with six I/O card slots per bus. The #5044 is a conversion of a #5040 or #5042 rack.</p> <p>Requires #2686 and an open slot on the Optical Bus Adapter.</p> <p>Model 620 only</p>
#5052	<p><b>#5052 Storage Expansion Unit</b></p> <p>The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower and the #5082 Storage Expansion Tower. Only one #5052 per tower is supported and #5143 Power Supply may be required.</p> <p>Model 620 only</p>
#5058	<p><b>#5058 Storage Expansion Unit (Ultra SCSI)</b></p> <p>The #5058 provides space for up to 16 disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported.</p> <p>Model 620 only</p>
#5065	<p><b>#5065 Storage/PCI Expansion Tower</b></p> <p>The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN, WAN, and Workstation controllers, 12 PCI IOA cards, two removable media and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device features. The #5065 is the only storage expansion unit to support Ultra2 SCSI.</p> <p>Maximum: Four on the Model 620.</p> <p>Prerequisite: #2688 Optical Link Processor</p> <p>Minimum OS/400 level: V4R4</p> <p>The #5065 is a Customer Install Feature (CIF).</p> <p>Model 620 only</p>
#5066	<p><b>#5066 1.8 M I/O Tower</b></p> <p>The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5065/#5066 PCI Expansion Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8 M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for 4 removable media devices, battery backup, redundant/hot swap power supplies and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified.</p> <p>Maximum: Two on the Model 620.</p> <p>Prerequisite: #2688 Optical Link Processor</p> <p>Minimum OS/400 level: V4R4</p>

**Model 620, 640, 650**

#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5072 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots; space for up to four internal tape units or CD-ROMs (maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5072 is required.</p> <p>Prerequisite: #2688 Optical Link Processor.</p> <p>Maximum: A total of four expansion towers of all types.</p> <p>Model 620 only</p>
#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5073 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5073 is required.</p> <p>Prerequisite: #2688 Optical Link Processor.</p> <p>Maximum: A total of four expansion towers of all types.</p> <p>Model 620 only</p>
#5082	<p><b>#5082 Storage Expansion Tower</b></p> <p>The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with the addition of a #5052. The #5082 includes a 1063 Mbps optical bus card, two SPD I/O card slots for the #6502, #6512, #6530, #6532 or #6533 disk IOP, and battery and power supplies.</p> <p>Prerequisite: #2688 Optical Link Processor.</p> <p>Maximum: A total of four expansion towers of all types.</p> <p>Model 620 only</p>
#5083	<p><b>#5083 Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with the addition of a #5058. It includes a 1063 Mbps optical bus card, two SPD I/O card slots for the #6502, #6512, and #6530 disk IOP, battery and power supplies.</p> <p>Prerequisite: #2688 Optical Link Processor</p> <p>Maximum: A total of four expansion towers of all types.</p> <p>Model 620 only</p>
#5101	<p><b>#5101 30 Disk Unit Expansion</b></p> <p>The #5101 provides two 15 unit disk enclosures, a 700-watt power supply, backplanes, and internal cables.</p> <p>Maximum: One per #5065 Storage/PCI Expansion Tower.</p>
#5143	<p><b>#5143 Power Supply</b></p> <p>The #5143 is a 400-watt power supply that is usually a prerequisite for a #5052 installed on a #5072 or #5082.</p> <p>Maximum: One per #5072 or #5082.</p> <p>Model 620 only</p>
#5153	<p><b>Redundant Power Supply</b></p> <p>The #5153 contains two power supplies, a 970 watt and a 700 watt. The #5153 provides redundancy for the power supplies in the system unit and system unit expansion. The #5153 physically resides in the #9364 System Unit Expansion. Model 620 Processors #2181 and #2182 only.</p> <p>Maximum: One</p>
#7128	<p><b>#7128 DASD Expansion Unit</b></p> <p>The #7128 allows the addition of five disk units to either the system unit or the #9364 System Unit Expansion.</p> <p>Maximum: One in Base System with Model 600 Processors #2129, #2134, #2135, and #2136 or Model 620 Processors #2175, #2179, or #2180. Two in Base System with Model 620 Processors #2181 or #2182. Two in #9364 System Unit Expansion.</p>
#7130	<p><b>#7130 Expansion Unit Tape Cage</b></p> <p>The #7130 allows the addition of three tape units to the #9364 System Unit Expansion. Tape Units #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 are supported in the first two tape positions. Only #1355 and #6485 tape units are supported in the third position. A tape controller is required to support these tape devices.</p> <p>Prerequisites: #9329 PCI Card Expansion Unit, #9330 PCI Integrated Expansion Unit or #9331 Expansion Unit for SPD Cards</p> <p>Maximum: One</p> <p>Model 620 only</p>

#9329	<p><b>#9329 PCI Card Expansion Unit</b>  The #9329 contains 11 PCI card slots and three high-speed PCI card slots. These are driven by three PCI controllers and one Integrated PC Server (not included). It also has space for one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. A Base PCI LAN/WAN/Workstation IOP is included with the #9329.  Prerequisite: #9364 System Unit Expansion  Maximum: One  Model 620 only</p>
#9330	<p><b>#9330 PCI Integrated Expansion Unit</b>  The #9330 contains 11 low-speed PCI card slots and three high-speed PCI card slots. These are driven by one base Controller (CCIN 2824) and two Feature Controllers. One IPCS or Integrated Netfinity Server is optional. It also has space for one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers.  Maximum: One  Minimum OS/400 level: V4R4  Model 620 only</p>
#9331	<p><b>#9331 Expansion Unit for SPD Cards</b>  The #9331 allows the addition of up to six SPD cards and one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. The #9331 includes an SPD Controller Card.  Prerequisite: #9364 System Unit Expansion  Maximum: One  Model 620 only</p>
#9364	<p><b>#9364 System Unit Expansion</b>  The #9364 allows the addition of either an #9330 PCI Integrated Expansion Unit or #9329 PCI Card Expansion Unit. It also supports one #7130 Expansion Unit Tape Cage for up to three tapes. It supports five disks and allows one or two #7128 DASD Expansion Units. The #9364 is processor dependent.  Maximum: One  Model 620 only</p>
<b>Main Storage</b>	
Base	<p>There are no features to specify the base memory of 64 MB on the Model 600 Processors #2129, #2134, and #2135; 128 MB on the Model 600 Processor #2136 or 256 MB on all of the Model 620 Processors.</p>
#2830	<p><b>Main Storage Expansion</b>  The #2830 contains 16 sockets for placement of 32 MB or 128 MB main storage DIMMs. Model 620 Processor #2182 only.  Maximum: One</p>
#3001	<p><b>32 MB Main Storage DIMM</b>  Plugs directly into the CPU or #2830. Must be added in pairs. Maximum: 14 DIMMs on Processors #2175, #2179, #2180 and #2181; 30 DIMMS on Processor #2182.  Prerequisite: One #2830 Main Storage Expansion for 16 DIMMs or more on Processor #2182.  Model 620 only</p>
#3002	<p><b>128 MB Main Storage DIMM</b>  Plugs directly into the CPU or #2830. Must be added in pairs. Maximum: 14 DIMMs on Processors #2175, #2179, #2180, and #2181; 30 DIMMs on Processor #2182.  Prerequisite: One #2830 Main Storage Expansion for 16 DIMMs or more on Processor #2182.  Model 620 only</p>
#3110	<p><b>64 MB Main Storage</b>  Plugs directly into the CPU. Must be added in pairs on Model 600 Processor #2136.  Maximum: Five on Processors #2129, #2134 and #2135; six on Processor #2136.  Supported on all Model 600 Processors.</p>
#3182	<p><b>32 MB Main Storage DIMM</b>  Plugs directly into the CPU. Must be added in pairs on Model 600 Processor #2136. Supported on all Model 600 Processors.  Maximum: Five on Processors #2129, #2134 and #2135; six on Processor #2136.</p>
#8172	<p><b>32 MB Base Main Storage Replace SIMM</b>  The #8172 provides 32 MB of memory. Model 600 only.</p>
#8210	<p><b>64 MB Optional Main Storage SIMM</b>  The #8210 provides 64 MB of additional memory. Model 600 only.</p>

<b>Workstation Controllers</b>	
Base MFIOF	<p><b>Base Multifunction IOP (PCI)</b></p> <p>The base system includes this MFIOF, which has three PCI card slots, one high-speed PCI card slot used for the base system disk controller and which also drives one Integrated PC Server. The high-speed PCI card slot supports #2726, #2740, #2741, #2748, or #9728 Base Disk Unit Controller. One PCI card slot supports the base #9720 or #9721 Base PCI Two-Line WAN IOA. The remaining two PCI card slots support #2721, #2722, #2723, or #2724 PCI IOAs. Only one of these can be a #9720 or #9721 LAN IOA. Also, if a #2851 or #2854 PCI Integrated PC Server is installed in slots C06 and C07, #2722 Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slots C08 or C10.</p>
Base IOP	<p><b>#9329/#9330 PCI Integrated Expansion Unit</b></p> <p>Comes as standard (no feature required) with #9329 and #9330 PCI Integrated Expansion Unit. In the #9329, it is identified as CCIN 2809. In the #9330, it is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs to the system and supports one slot reserved for a PCI disk controller and three low-speed slots. It also supports one PCI Integrated PC Server/Integrated Netfinity Server. The Base controller is located in slot E15.</p> <p>For CCIN 2809, in the high-speed slot E16, only the #2726 or #2741 PCI RAID Disk Unit Controller is supported. In slots E12, E13, and E14, it supports any three (with a maximum of one LAN) of #2721, #2722, #2723/#9723, #2724/#9724, #2745, or #2746. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14.</p> <p>For CCIN 2824, in the high-speed slot E16, only the #2726, #2741 or #2748 PCI RAID Disk Unit Controller is supported. In slots E12, E13 and E14, it supports any three (with a maximum of two LAN cards) of #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761. There is a maximum of one #2750, #2751 or #2761. There can be any combination of WAN and twinaxial. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14.</p> <p>Maximum: One. Model 620 only</p>
Base IOP	<p><b>Base Controller for Storage/#5065 Storage/PCI Expansion Tower</b></p> <p>Comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots.</p> <p>The #2718, #2729, or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Communications" on page 116 and "LANs and ATM" on page 123. SPD slots required: One Maximum: One per SPD slot Model 620 only</p>
#2720 #9720	<p><b>#2720 Base PCI WAN/Twinaxial IOA (PCI)</b></p> <p>The #2720 is a combined twinaxial/communications adapter. It can be included as base in the 600 and 620 models. The #2720 provides four ports supporting a maximum of 28 twinaxial devices. It also provides a single communications line to support ECS. See "Communications" on page 116. The #9720 is mutually exclusive with #9721/#9745. PCI slots required: One Maximum: One #9720 or one #2720 per system.</p>
#2722	<p><b>#2722 Twinaxial Workstation IOA (PCI)</b></p> <p>The #2722 is an eight-port attachment that supports 40 twinaxial devices. PCI slots required: One Maximum: Four in a Model 600; 13 in a Model 620 The #2722 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2746	<p><b>#2746 PCI Twinaxial Workstation IOA (PCI)</b></p> <p>The #2746 is an eight-port attachment that supports 40 active twinaxial devices. PCI slots required: One (low-speed in the system unit or #9329, high or low-speed in #9330 or #5065 Storage/PCI Expansion Tower) Minimum OS/400 level: V4R4 The #2746 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b>  The #2809 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. See “Communications” on page 116 and “LANs and ATM” on page 123. There is a maximum of one in the system unit and two in the #9329 PCI Card Expansion Unit.</p> <p>In system unit slot C03, it supports PCI feature IOAs in slots C01, C02, C04, and C05 (if an Integrated Netfinity Server is installed, the server controls slots C04 and C05). In slot C01, the #2809 supports #2838/#9738 or #281x. In the C02 high-speed slot, it supports a #2718 or #2729. In C04 and C05, it supports one or two #2721 or #2722 or #2723 or #2724 or #2745 or #2746. If the #2838/#9738 is in C01, only the #2721 or #2745 may be installed in C04 and C05.</p> <p>In #9329 PCI Card Expansion Unit slots E05 or E10, it supports low-speed slots E02, E03, E04 or E07, E08, E09, and high-speed slots E06 or E11. In E06 or E11, the #2718, #2729, #2738/#9738, or #281x are supported. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2745, or #2746.</p> <p>The #2809 is a Customer Install Feature on a Model 600 for an MES that includes CIF features only.</p>
#2824	<p><b>#2824 PCI Feature Controller</b>  The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. There is a maximum of one in the system unit and two in the #9329/#9330 PCI Integrated Expansion Unit and two in the #5065 Storage/PCI Expansion Tower.</p> <p>In system unit slot C03, it supports PCI feature IOAs in slots C01, C02, C04, and C05 (if an Integrated Netfinity Server is installed, the server controls slots C04 and C05). In slot C01, the #2824 supports #2838/#9738 or #281x. In the C02 high-speed slot, it supports #2718, #2729, #2750, #2751, #2761, or #4800. In C04 and C05, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761. If the #2838/#9738 is in C01, then only the #2721 or #2745 may be installed in C04 and C05.</p> <p>In #9329 PCI Card Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, and E04, or E07, E08, and E09. In E06 and E11, it supports #2718, #2729, #2838/#9738, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761.</p> <p>In #9330 PCI Integrated Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, and E04, or E07, E08, and E09. In E06 and E11, it supports #2718, #2729, #2838/#9738, #2745, #2746, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761.</p> <p>In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots. The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10, and C15 only. The #2838/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12. Restrictions apply using the #2824. See “Comm. Restrictions” on page 116. Minimum OS/400 level: V4R4  The #2824 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6050	<p><b>#6050 Enhanced Twinaxial Workstation Controller (SPD)</b>  The #6050 is an eight-port attachment that supports up to 40 twinaxial devices.  SPD slots required: One  Maximum: 59, but the total number of workstation controllers/adapters must not exceed this number.</p>
#6140	<p><b>#6140 Twinaxial Workstation Controller (SPD)</b>  The #6140 is an eight-port attachment that supports up to 40 twinaxial devices.  SPD slots required: One  Maximum: 59, but total number of workstation controllers/adapters must not exceed this number.  Model 620 only</p>
#6141	<p><b>#6141 ASCII Workstation Controller (SPD)</b>  The #6141 supports up to six ASCII devices.  SPD slots required: One  Maximum: 59, but total number of workstation controllers/adapters must not exceed this number.  Model 620 only</p>
#6142	<p><b>#6142 ASCII 12-Port Workstation Attachment (SPD)</b>  The #6142 plugs into the #6141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. One #6142 can be attached per #6141.  SPD slots required: None  Model 620 only</p>

Model 620, 640, 650

#6180	<p><b>#6180 Twinaxial Workstation IOA (SPD)</b></p> <p>The #6180 is an eight-port attachment that supports up to 40 twinaxial devices.  Prerequisite: #2629 LAN/WAN/Workstation IOP  IOA slots required: One in #2629  Maximum: 59, but total number of workstation controllers/adapters must not exceed this number.  Model 620 only</p>
<b>Communications</b>	
Comm. Restrictions	<p>Restrictions apply when using specific adapters and I/O processors. Basic communications restrictions when using the MFIOIP, #2629, #2699, #2720, #2721, #2745, #2809, #2824, and other communications functions are identified here. This information is a brief summary.</p> <ul style="list-style-type: none"> <li>▶ Maximum protocol speeds on the EIA-232/ITU V.24 electrical interfaces: <ul style="list-style-type: none"> <li>– 64 Kbps for Synchronous PPP, BSC, SDLC, and X.25</li> <li>– 115.2 Kbps for Asynchronous protocols (including Asynchronous PPP)</li> </ul> </li> <li>▶ Maximum protocol speeds on the ITU V.35: <ul style="list-style-type: none"> <li>– Permitted only on 20-ft. (6.2 m) cable</li> <li>– 2.048 Mbps for Synchronous PPP, SDLC, and Frame Relay</li> <li>– 230.4 Kbps for Asynchronous PPP</li> <li>– 640 Kbps for X.25</li> <li>– 64 Kbps for BSC</li> </ul> <p>Speeds faster than 512 Kbps may require either the “looped” or “inverted” clocking to be configured.</p> </li> <li>▶ Maximum protocol speeds on the EIA-449/ITU V.36: <ul style="list-style-type: none"> <li>– 2.048 Mbps for Synchronous PPP, SDLC, and Frame Relay</li> <li>– 230.4 Kbps for Asynchronous PPP</li> <li>– 640 Kbps for X.25</li> <li>– 64 Kbps for BSC</li> </ul> <p>“Looped” clocking is required on cables longer than 20 feet (6 meters).  Speeds faster than 512 Kbps may require either the “looped” or “inverted” clocking to be configured.</p> </li> <li>▶ Maximum protocol speeds on the ITU X.21 electrical interfaces: <ul style="list-style-type: none"> <li>– Permitted only on 20-ft. (6.2 m) cable</li> <li>– 2.048 Mbps for Synchronous PPP, SDLC, and Frame Relay</li> <li>– 640 Kbps for X.25</li> </ul> <p>Speeds faster than 512 Kbps may require either the “looped” or “inverted” clocking to be configured.</p> </li> <li>▶ Only one Frame Relay or one X.25 communication line is allowed per IOP.</li> <li>▶ One high-speed line is permitted per IOP.  ASYNC PPP above 115.2 Kbps is a high-speed line.  Frame Relay, SDLC, SYNC PPP, and X.25 above 64 Kbps is a high-speed line.  High-speed lines are supported on ITU X.21, ITU V.35 20-ft. (6 meters) cables, or EIA-449/ITU V.36 electrical interfaces.</li> <li>▶ No high-speed communication line is allowed when a #2750, #2751, or #2761 is installed under the same I/O processor.</li> <li>▶ If it is desired to run multiple emulated LAN lines on an #281x ATM IOA, then the following restrictions must be satisfied: <ul style="list-style-type: none"> <li>– The ATM IOA (281x) must be running under a dedicated #2824 IOP (no other IOAs of any type).</li> <li>– The number of emulated LANs running on the #281x ATM IOA is limited to a maximum of two, one token ring and one Ethernet.</li> </ul> </li> <li>▶ Frame Relay restrictions: <ul style="list-style-type: none"> <li>– Minimum line speed 56 Kbps</li> <li>– Frame Relay is not allowed on EIA-232/V.24 electrical interface</li> </ul> </li> <li>▶ Other IOAs allowed under same #2809 or #2824 IOP, one of two restrictions: <ul style="list-style-type: none"> <li>– Either a #281x or #2838</li> <li>– A #2718 or #2729 and maximum of one #2721, #2722, #2723, #2724, #2729, #2745, or #2746</li> </ul> </li> <li>▶ IPX is supported on Frame Relay, LAN, and ATM. <ul style="list-style-type: none"> <li>– IPX is supported only on V5R1 and earlier, not on V5R2.</li> <li>– Devices running IPX over the Integrated xSeries Server is limited to 2400 routes and 2400 services.</li> <li>– Devices running IPX are limited to 1400 routes and 1400 services when: <ul style="list-style-type: none"> <li>• #2723, #2724, or #2838 IOAs are not controlled by the Integrated xSeries Server.</li> <li>• Frame Relay running over a #2721, #2745, or #2699 IOA.</li> </ul> </li> </ul> </li> <li>▶ SDLC restrictions: <ul style="list-style-type: none"> <li>– Maximum of 64 remote locations per #2809, #2824, or #2629 IOP.</li> </ul> </li> </ul>

Comm. Restrictions (cont.)	<p>▶ X.25 restrictions:</p> <ul style="list-style-type: none"> <li>– Limit of 16 virtual circuits (16 remote locations).</li> <li>– Limit of 64 virtual circuits (64 remote locations) in the #5065 Storage/PCI Expansion Tower.</li> <li>– Speeds faster than 512 Kbps may require either “looped” or “inverted” clocking to be configured.</li> <li>– The other port of the #2721 or #2745 may be used as a low-speed communications line.</li> </ul> <p>▶ Not allowed on the #2720/#9720 if this combination of adapters is installed on the base MFIOF:</p> <ul style="list-style-type: none"> <li>– #2722 or #2746 plus one #2723 or #2724</li> </ul> <p>▶ No more than seven #2629s can be placed into each #5072 1063 Mbps System Unit Expansion Tower.</p> <p>▶ Bisync is always limited to a maximum of 64 Kbps.</p> <p>Additional restrictions include:</p> <ul style="list-style-type: none"> <li>▶ V.25 autocal cable is not supported.</li> <li>▶ Select standby mode is not supported.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>▶ It is imperative that these restrictions be understood and followed. If they are not followed, it is possible that a hardware configuration could be built that marginally works, and later quits working when the machine is upgraded to future software releases.</li> <li>▶ For best performance, we recommend that no other features be intermixed with a #2838 PCI 100/10 Mbps Ethernet IOA or an #2811/#2812/#2815/#2816/#2818/#2819 ATM IOA on a #2809 PCI LAN/WAN/Workstation IOP.</li> </ul> <p>The quantity and speed of each communications line must be known. Complete this table to determine the total communications CPW required. The #2750, #2751, and #2761 count as eight low-speed communications lines.</p> <p style="text-align: center;"><b>Maximum High-Speed Communication lines Calculation Table</b></p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">Quantity</th> <th style="width: 10%; text-align: center;">Factor</th> <th style="width: 10%; text-align: center;">CPW</th> </tr> </thead> <tbody> <tr> <td>Number of lines operating at</td> <td>64 Kbps</td> <td>or less</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 0.92</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td>Number of lines operating above</td> <td>64 Kbps</td> <td>up to 128 Kbps</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 1.84</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td>Number of lines operating above</td> <td>128 Kbps</td> <td>up to 256 Kbps</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 3.68</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td>Number of lines operating above</td> <td>256 Kbps</td> <td>up to 512 Kbps</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 7.36</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td>Number of lines operating above</td> <td>512 Kbps</td> <td>up to 1,024 Kbps</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 14.72</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td>Number of lines operating above</td> <td>1,024 Kbps</td> <td>up to 2,048 Kbps</td> <td></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">x 29.44</td> <td style="text-align: center;">= _____</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Total</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table> <p>For more information, refer to <i>iSeries Performance Capabilities Reference</i>, SC41-0607.</p>					Quantity	Factor	CPW	Number of lines operating at	64 Kbps	or less		_____	x 0.92	= _____	Number of lines operating above	64 Kbps	up to 128 Kbps		_____	x 1.84	= _____	Number of lines operating above	128 Kbps	up to 256 Kbps		_____	x 3.68	= _____	Number of lines operating above	256 Kbps	up to 512 Kbps		_____	x 7.36	= _____	Number of lines operating above	512 Kbps	up to 1,024 Kbps		_____	x 14.72	= _____	Number of lines operating above	1,024 Kbps	up to 2,048 Kbps		_____	x 29.44	= _____						Total	_____
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#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter (SPD)</b></p> <p>The #2605 connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2623.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>																																																								
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter (SPD)</b></p> <p>The #2609 connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols.</p> <p>Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 232/V.24 20-ft. (6m) enhanced cable</li> <li>#9022 EIA 232/V.24 20-ft. (6m) cable</li> <li>#9835 EIA 232/V.24 50-ft. (15m) enhanced cable</li> <li>#9836 EIA 232/V.24 50-ft. (15m) cable</li> </ul> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>																																																								
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter (SPD)</b></p> <p>The #2610 connects to #2623 to support two communications lines using X.21 or X.25 networks.</p> <p>Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>																																																								

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#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter (SPD)</b>  The #2612 connects to #2623 to support one communication line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified:  #9023 EIA 232/V.24 20-ft. (6m) enhanced cable  #9835 EIA 232/V.24 50-ft. (15m) enhanced cable  #9022 EIA 232/V.24 20-ft. (6m) cable  #9836 EIA 232/V.24 50-ft. (15m) cable  SPD slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model 620 only</p>
#2613	<p><b>#2613 V.35 One-Line Adapter (SPD)</b>  The #2613 connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to 640 Kbps, or two V.35 lines at speeds up to 512 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters allowed on #2623 when running T1/E1/J1.  One cable must be specified:  #9020 V.35 20-ft. (6m) cable  #9838 V.35 50-ft. (15m) cable  SPD slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model 620 only</p>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter (SPD)</b>  The #2614 connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified:  #9021 X.21 20-ft. (6m) cable  #9839 X.21 50-ft. (15m) cable  SPD slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model 620 only</p>
#2620	<p><b>#2620 Full Cryptographic Processor (SPD)</b>  The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries or regions outside the U.S.A. and Canada, it can only be marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, sell the #2628 in its place.  SPD slots required: One  Maximum: One  Model 620 only</p>
#2623	<p><b>#2623 Six-Line Communications Controller (SPD)</b>  The #2623 provides for attachment of a wide range of iSeries and AS/400e communications adapters. These adapters are supported by the #2623, #2605, #2609, #2610, #2612, #2613, #2614, #2654, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN Basic Rate Interface Adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is used on the Model 620 for customers purchasing the #2605 ISDN adapter.  SPD slots required: One  Model 620 only</p>
#2628	<p><b>#2628 Limited Cryptographic Processor (SPD)</b>  The #2628 provides the same function as the #2620, except that it does not include data encryption/decryption using commercial Data Masking Facility for data scrambling.  SPD slots required: One  Maximum: One  Model 620 only</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b>  The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Workstation Controllers" on page 114 and "LANs and ATM" on page 123.  SPD slots required: One  Maximum: One per SPD slot  Model 620 only</p>
#2654	<p><b>#2654 EIA 232/V.24 Two-Line IOA 20-ft. Enhanced Cable</b>  The #2654 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2m) enhanced cables.  SPD slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model 620 only</p>

#2655	<p><b>EIA 232/V.24 Two-Line Adapter 20-ft. Cable</b></p> <p>The #2655 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2m) cables.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#2656	<p><b>X.21 Two-Line Adapter 20-ft. Cable</b></p> <p>The #2656 connects to the #2623 to support two communications lines to attach to a X.21 or X.25 network using 20-ft. (6.2m) cables.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#2657	<p><b>EIA 232/V.24 Two-Line Adapter 50-ft. Enhanced Cable</b></p> <p>The #2657 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15m) enhanced cables.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#2658	<p><b>EIA 232/V.24 Two-Line Adapter 50-ft. Cable</b></p> <p>The #2658 connects to the #2623 to support two communications lines to supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15m) cables.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#2659	<p><b>X.21 Two-Line Adapter 50-ft. Cable</b></p> <p>The #2659 connects to the #2623 to support two communications lines to attach to a X.21 or X.25 network using 50-ft. (15m) cables.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b></p> <p>The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with the #2664, or PCs with appropriately programmed Fax adapters.</p> <p>SPD slots required: One</p> <p>Maximum: 32</p> <p>Restriction: Not supported with V5R1</p> <p>Model 620 only</p>
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b></p> <p>The #2666 provides one communications line capable of T1/E1 (1.544/2.048 Mbps) speeds. One of the following cables must be specified:</p> <ul style="list-style-type: none"> <li>#9879 20-ft. (6m) V.35 CCITT cable</li> <li>#9880 80-ft. (24m) V.35 CCITT cable</li> <li>#9882 20-ft. (6m) RS449/V.36 CCITT cable</li> <li>#9883 80-ft. (24m) RS449/V.36 CCITT cable *</li> <li>#9884 150-ft. (45m) RS449/V.36 CCITT cable *</li> <li>#9885 20-ft. (6m) X.21 CCITT cable</li> </ul> <p>* This cable is allowed only when the customer's modem supports Looped Clocking Mode.</p> <p>SPD slots required: One</p> <p>Maximum: Eight</p> <p>Model 620 only</p>

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#2699	<p><b>#2699 Two-Line WAN IOA (SPD)</b></p> <p>The #2699 supports up to two multiple protocol communications ports when one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0328 Operations Console 20-ft. (6m) cable *</li> <li>#0329 V.24/EIA232 80-ft. (24m) cable</li> <li>#0330 V.24/EIA232 20-ft. (6m) cable</li> <li>#0331 V.24/EIA232 50-ft. (15m) cable</li> <li>#0332 V.24/EIA232 20-ft. (6m) enhanced cable</li> <li>#0333 V.24/EIA232 50-ft. (15m) enhanced cable</li> <li>#0334 V.24/EIA232 80-ft. (24m) enhanced cable</li> <li>#0335 V.36/EIA449 20-ft. (6m) cable</li> <li>#0336 V.36/EIA449 50-ft. (15m) cable</li> <li>#0337 V.36/EIA449 150-ft. (45m) cable</li> <li>#0338 V.35 20-ft. (6m) cable</li> <li>#0339 V.35 50-ft. (15m) cable</li> <li>#0340 V.35 80-ft. (24m) cable</li> <li>#0341 X.21 20-ft. (6m) cable</li> <li>#0342 X.21 50-ft. (15m) cable</li> </ul> <p>* Used to support the Operations Console function for secondary partitions when logical partitioning (LPAR) is implemented (V4R4 and higher). A maximum of one #0328 cable is allowed per #2699.</p> <p>IOA slots required: One on the #2629 LAN/WAN/Workstation IOP</p>
#2720 #9720	<p><b>#2720 Base PCI WAN/Twinaxial IOA</b></p> <p>The #2720 is a combined twinaxial/communication adapter. It can be provided on the base system and supports a single communications line intended for ECS. One cable must be specified:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable</li> </ul> <p>The #2720/#9720 adapter also supports twinaxial workstations. See "Workstation Controllers" on page 114.</p> <p>PCI card slots required: One</p> <p>Maximum: One #9720 or one #2720 per system. The #9720 is mutually exclusive with #9721, #9745, and #2720.</p>
#2721	<p><b>#2721 PCI Two-Line WAN IOA</b></p> <p>The #2721 supports up to two multiple protocol communications ports when one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable</li> <li>#0353 V.35 20-ft. (6m) PCI cable</li> <li>#0354 V.35 50-ft. (15m) PCI cable</li> <li>#0355 V.35 80-ft. (24m) PCI cable</li> <li>#0356 V.36 20-ft. (6m) PCI cable</li> <li>#0357 V.36 50-ft. (15m) PCI cable</li> <li>#0358 V.36 150-ft. (45m) PCI cable</li> <li>#0359 X.21 20-ft. (6m) PCI cable</li> <li>#0360 X.21 50-ft. (15m) PCI cable</li> <li>#0365 V.24/EIA232 80-ft. (24m) PCI cable</li> <li>#0367 Operations Console PCI Cable 20-ft. (6m) *</li> </ul> <p>* Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and higher). A maximum of one #0367 Operations Console PCI Cable is allowed per #2721.</p> <p>Restrictions apply using the #2721. See "Comm. Restrictions" on page 116.</p> <p>PCI slots required: One</p> <p>The #2721 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

<p>#2745</p>	<p><b>#2745 PCI Two-Line WAN IOA</b></p> <p>The #2745 supports up to two multiple protocol communications ports when one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable</li> <li>#0353 V.35 20-ft. (6m) PCI cable</li> <li>#0354 V.35 50-ft. (15m) PCI cable</li> <li>#0355 V.35 80-ft. (24m) PCI cable</li> <li>#0356 V.36 20-ft. (6m) PCI cable</li> <li>#0357 V.36 50-ft. (15m) PCI cable</li> <li>#0358 V.36 150-ft. (45m) PCI cable</li> <li>#0359 X.21 20-ft. (6m) PCI cable</li> <li>#0360 X.21 50-ft. (15m) PCI cable</li> <li>#0365 V.24/EIA232 80-ft. (24m) PCI cable</li> <li>#0367 Operations Console PCI Cable 20-ft. (6m) *</li> </ul> <p>* Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and higher). A maximum of one #0367 Operations Console PCI Cable is allowed per #2745.</p> <p>PCI slots required: One (low-speed)  Minimum OS/400 level: V4R3  The #2745 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
<p>#2750</p>	<p><b>#2750 PCI ISDN BRI U Adapter</b> (available in the United States and Canada only)</p> <p>The #2750 is a four-port (8 channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #2750 is the "U"-bus (2 wire) version of the ISDN BRI PCI card. The #2750 feature supports these protocols:</p> <ul style="list-style-type: none"> <li>PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices)</li> <li>IDLC</li> <li>Fax</li> </ul> <p>Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2750 feature. For configuration purposes, each #2750 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex.</p> <p>Requirements: The #2750 requires country (region) certification or homologation.  Full sized PCI card slot.</p> <p>Maximum: One per IOP  Prerequisite: #2824 PCI Feature Controller  Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440  The #2750 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
<p>#2751</p>	<p><b>#2751 PCI ISDN BRI S/T IOA</b></p> <p>The #2751 is a four-port (eight channel) ISDN BRI (basic rate) full-sized PCI card. Each port consists of 2B+D configuration. The #2751 is the "S/T"-bus (four wire) version of the ISDN BRI PCI card. This requires a network terminating device in the circuit. In the United States and Canada, this must be provided by the customer. In other countries or regions, it is most likely provided by the telephone company.</p> <p>The #2751 feature supports these protocols:</p> <ul style="list-style-type: none"> <li>PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices)</li> <li>IDLC</li> <li>Fax</li> </ul> <p>Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2751 feature. For configuration purposes, each #2751 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex.</p> <p>Requirements: The #2751 requires country (region) certification or homologation.  Full sized PCI card slot.</p> <p>Maximum: One per IOP  Prerequisite: #2824 PCI Feature Controller  Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440  The #2751 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

#2761	<p><b>#2761 PCI Integrated Analog Modem</b></p> <p>The #2761 allows the modem function to be integrated into the IOA and supports multiple analog modem ports (eight phone lines). The #2761 runs these protocols without the need for an external modem:</p> <ul style="list-style-type: none"> <li>SLIP/PPP uses V.90, so maximum line speed is 56 Kbps.</li> <li>SDLC uses V.34, so maximum line speed is 33.6 Kbps.</li> <li>Fax uses V.17 to achieve a 14.4 Kbps maximum line speed.</li> </ul> <p>An asynchronous line description is required for Fax and can only be used for Fax. ECS line not supported. Eight 30-ft. (8m) phone cables are shipped with each #2761. To the iSeries or AS/400e server, the #2761 appears like a single IOA with eight individual resources available. For configuration purposes, each #2761 counts as eight communications lines.</p> <p>Requirements: The #2761 requires country (region) certification or homologation.</p> <ul style="list-style-type: none"> <li>Full sized PCI card slot.</li> <li>Maximum: One per IOP</li> <li>Restriction: Not supported with OS/400 V5R2</li> <li>Prerequisite: #2824 PCI Feature Controller</li> <li>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</li> </ul> <p>The #2761 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b></p> <p>The #2809 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See "Workstation Controllers" on page 114 and "LANs and ATM" on page 123.</p> <p>Maximum: One in the system unit, two in the #9329 PCI Card Expansion Unit.</p> <p>The #2809 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See "Workstation Controllers" on page 114 and "LANs and ATM" on page 123.</p> <p>Restrictions apply using the #2824. See "Comm. Restrictions" on page 116.</p> <p>The #2824 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#4800	<p><b>#4800 PCI Cryptographic Processor</b></p> <p>The #4800 is a hardware cryptography solution based on the #4758 card. It is a half length PCI card. Since the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging.</p> <p>Maximum: One per IOP.</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: OS/400 V4R4</p> <p>The #4800 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#4802	<p><b>#4802 PCI Cryptographic Processor</b></p> <p>The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card that offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800).</p> <p>The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program that is downloaded to the adapter. Due to temperature requirements (card temperature must not drop below 5 degrees F (-15 degrees C)), the #4802 is shipped separately from the system in a special package.</p> <p>Minimum OS/400 level: OS/400 V4R5</p> <p>Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower</p> <p>Maximum: Three per system.</p>
#6153	<p><b>V.35 One-Line Adapter 20-ft. Cable</b></p> <p>The #6153 connects to the #2623 to support one communications line supporting V.35 protocol using a 20-ft. (6.2 m) cable.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>
#6173	<p><b>V.35 One-Line Adapter 50-ft. Cable</b></p> <p>The #6173 connects to the #2623 to support one communications line supporting V.35 protocol using a 50-ft. (15m) cable.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model 620 only</p>

<p>#9721</p>	<p><b>#9721 Base PCI Two-Line WAN IOA</b></p> <p>The #9721 supports ECS and Client Access Console. Select one of the following cables for ECS:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable</li> <li>#0353 V.35 20-ft. (6m) PCI cable</li> <li>#0354 V.35 50-ft. (15m) PCI cable</li> <li>#0355 V.35 80-ft. (24m) PCI cable</li> <li>#0356 V.36 20-ft. (6m) PCI cable</li> <li>#0357 V.36 50-ft. (15m) PCI cable</li> <li>#0358 V.36 150-ft. (45m) PCI cable</li> <li>#0359 X.21 20-ft. (6m) PCI cable</li> <li>#0360 X.21 50-ft. (15m) PCI cable</li> <li>#0362 20-ft. (6m) Client Access Console Cable *</li> <li>#0365 V24/EIA232 80-ft. (24m) PCI cable</li> <li>#0367 Operations Console PCI Cable 20-ft. (6m) **</li> </ul> <p>* Must be installed for Client Access Console.  ** Used to support the Operations Console function on V4R3.</p> <p>To support the Remote Control Panel function, the #0381 Remote Control Panel Cable can be installed as an option. The #0381 cable does not attach to a communication port.  PCI card slots required: One  Maximum: One  Mutually exclusive with #9720</p>
<p>#9745</p>	<p><b>#9745 Base PCI Two-Line WAN IOA</b></p> <p>The #9745 adapter supports ECS and Client Access Console or Operations Console. Select one of the following cables for ECS:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable</li> <li>#0353 V.35 20-ft. (6m) PCI cable</li> <li>#0354 V.35 50-ft. (15m) PCI cable</li> <li>#0355 V.35 80-ft. (24m) PCI cable</li> <li>#0356 V.36 20-ft. (6m) PCI cable</li> <li>#0357 V.36 50-ft. (15m) PCI cable</li> <li>#0358 V.36 150-ft. (45m) PCI cable</li> <li>#0359 X.21 20-ft. (6m) PCI cable</li> <li>#0360 X.21 50-ft. (15m) PCI cable</li> <li>#0362 20-ft. (6m) Client Access Console Cable *</li> <li>#0365 V24/EIA232 80-ft. (24m) PCI cable</li> <li>#0367 Operations Console PCI Cable 20-ft. (6m) **</li> </ul> <p>* Must be used to support the Client Access Console.  ** Used to support the Operations Console function on V4R3.</p> <p>The #0381 Remote Control Panel Cable can be used to support the Remote Control Panel function. The #0381 cable does not attach to a communications port.  PCI card slots required: One  Maximum: One  Mutually exclusive with #9720 and #9721  Minimum OS/400 level: V4R3</p>
<p><b>LANs and ATM</b></p>	
<p>#2617</p>	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b></p> <p>The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. An AUI Ethernet cable must be ordered separately. Supports 10 Mbps half-duplex only.  SPD slots required: One  Model 620 only</p>

Model 620, 640, 650

#2618	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b>  The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code that supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-node (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately.  SPD slots required: One  Model 620 only</p>
#2619	<p><b>#2619 LAN/WAN/Workstation IOA (SPD)</b>  The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable.  SPD slots required: One  Model 620 only</p>
#2626	<p><b>#2626 16/4 Mbps Token Ring Adapter (SPD)</b>  The #2626 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable.  SPD slots required: One  Model 620 only</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b>  The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Workstation Controllers" on page 114 and "Communications" on page 116.   SPD slots required: One  Maximum: One per SPD slot  Model 620 only</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>  The #2663 I/O processor is a prerequisite when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.  SPD slots required: One (with #2668)  Model 620 only</p>
#2665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter (SPD)</b>  The #2665 provides one interface to connect to an FDDI LAN, which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately.  SPD slots required: One  Model 620 only</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>  The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified:  #9814 20-ft. (6m) antenna cable  #9815 50-ft. (15m) antenna cable   One of these antenna must be specified:  #9889 YAGI Directional Antenna  #9890 Omni Directional Antenna (360 degree)  #9891 Hemispherical Antenna (180 degree)  #9892 Directional Antenna (90 degree)   SPD slots required: One (with #2663)  Prerequisite: #2663 I/O Attachment Processor  Model 620 only</p>
#2723 #9723	<p><b>#2723 PCI Ethernet IOA</b>  The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code that supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately.  Cabling must meet or exceed Industry Standard EIA/TIA T568B.  PCI slots required: One. The #9723 is a base LAN feature.  The #2723 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

#2724 #9724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b></p> <p>The #2724/#9724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #2724 IOA is capable of operating in half or full duplex mode.</p> <p>PCI slots required: One. The #9724 is a base LAN feature.</p> <p>The #2724 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b></p> <p>The #2809 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See “Workstation Controllers” on page 114 and “Communications” on page 116.</p> <p>Maximum: One in the base system unit, two in the #9329 PCI Card Expansion Unit.</p> <p>The #2809 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2810	<p><b>#2810 LAN/WAN IOP (SPD)</b></p> <p>The #2810 IOP is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Prerequisite for these preceding features, although they can alternatively be located directly in an appropriate PCI slot.</p> <p>SPD slots required: One</p> <p>Model 620 only</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA (PCI or SPD)</b></p> <p>The #2811 provides attachment into an Asynchronous Transfer Mode (ATM) network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2811 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA (PCI or SPD)</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2812 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA (PCI or SPD)</b></p> <p>The #2815 provides attachment into an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)</p> <p>Minimum OS/400 level: V4R2)</p> <p>The #2514 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA (PCI or SPD)</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers.</p> <p>SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot).</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2816 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA (PCI or SPD)</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot).</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2818 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA (PCI or SPD)</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters.</p> <p>SPD slots required: One (with #2810) or PCI slots required: One</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot).</p> <p>Minimum OS/400 level: V4R2</p> <p>The #2819 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See "Workstation Controllers" on page 114 and "Communications" on page 116.</p> <p>Maximum: One in the system unit, two in the #9329/#9330 PCI Integrated Expansion Unit, two in the #5065 Storage/PCI Expansion Tower.</p> <p>The #2824 is a Customer Install Feature on a Model 600 and #5065 Storage/PCI Expansion Tower for an MES that only includes CIF features.</p>
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA (PCI or SPD)</b></p> <p>The #2838/#9738 provides attachment to standard 100 Mbps high-speed Ethernet LANs and allows attachment to existing 10 Mbps Ethernet LANs. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. The adapter comes standard with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B.</p> <p>SPD slots required: One (with #2810); three (with #6617/#6618) or PCI slots required: One</p> <p>Prerequisite: #2809/#2824 or #2854/#2865 (when located in PCI slot); #2810 LAN/WAN IOP or #6617/#6618 (when located in SPD slot).</p> <p>The #2838 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2851	<p><b>#2851 Integrated PC Server</b></p> <p>The #2851 contains a 166 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Comes with 32 MB of main storage and supports up to three of these main storage features:</p> <ul style="list-style-type: none"> <li>#2860 16 MB Integrated PC Server Memory</li> <li>#2861 32 MB Integrated PC Server Memory</li> </ul> <p>Either one or two of these LAN IOAs are supported:</p> <ul style="list-style-type: none"> <li>#2723 PCI Ethernet IOA</li> <li>#2724 PCI 16/4 Mbps Token Ring IOA</li> </ul> <p>PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit.</p> <p>The #2851 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2854	<p><b>#2854 PCI Integrated PC Server</b></p> <p>The #2854 contains a 200 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Between one and four of these main storage features are required:</p> <ul style="list-style-type: none"> <li>#2861 32 MB Integrated PC Server Memory</li> <li>#2862 128 MB Integrated PC Server Memory</li> </ul> <p>Either one or two of these LAN IOAs are supported:</p> <ul style="list-style-type: none"> <li>#2723 PCI Ethernet IOA</li> <li>#2724 PCI 16/4 Mbps Token Ring IOA</li> <li>#2838 PCI 100/10 Mbps Ethernet IOA (corequisite #0222 100/10 Mbps Ethernet on IPCS required if installed on the #2854 PCI Integrated PC Server)</li> </ul> <p>Only one of the IOAs can be a #2838.</p> <p>The #2854 comes with a special cable that provides industry standard keyboard, mouse, serial, and parallel connection.</p> <p>If running Windows NT on the #2854, then:</p> <ul style="list-style-type: none"> <li>#0325 Integrated PC Server Extension Cable for Windows NT is required.</li> <li>#1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A.</li> </ul> <p>A display unit must be connected to the IPCS to support Windows NT.</p> <p>When running OS/2 on the #2854, then:</p> <ul style="list-style-type: none"> <li>#0325 and #1700 are not allowed.</li> </ul> <p>When running Novell Netware on the #2854, then:</p> <ul style="list-style-type: none"> <li>The #0325 and #1700 are not allowed.</li> <li>A maximum of 256 MB IOP memory is supported.</li> </ul>

#2854 (cont.)	<p>For country- or region-specific keyboard, mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a>            PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit.            Minimum OS/400 level: V4R2            The #2854 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2865	<p><b>#2865 PCI Integrated Netfinity Server</b>            The #2865 contains a 333 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:            #2861 32 MB Integrated PC Server Memory            #2862 128 MB Integrated PC Server Memory            #2867 256 MB Integrated PC Server Memory</p> <p>Up to two of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of one LAN IOA can be a #2838.            #2723 PCI Ethernet IOA            #2724 PCI 16/4 Mbps Token Ring IOA            #2838 PCI 100/10 Mbps Ethernet IOA (Specify feature #0222 is required)</p> <p>If running Windows NT on the #2865, then:            A minimum of 64 MB IOP memory is required.            The #0325 Integrated PC Server Extension Cable for Windows NT is required.            The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.            A display is required to support Windows NT on the IPCS.            For country- or region-specific keyboard or mouse and display support, go to the site at:  <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a>            When running OS/2 on the #2865, then:            #0325 and #1700 are not allowed.            A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #2865, then:            #0325 and #1700 are not allowed.            A maximum of 256 MB IOP memory is supported.</p> <p>PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit.            Minimum OS/400 level: V4R2 with Cumulative PTF Package C8342420 or V4R3 with Cumulative PTF Package C9349430            The #2865 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6149	<p><b>#6149 16/4 Mbps Token Ring IOA (SPD)</b>            The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC), and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be used. Can operate in half or full duplex mode.            SPD slots required: None            Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server            #2629 or #6616 slots required: One            Model 620 only</p>
#6181	<p><b>#6181 ASCII Workstation Controller (SPD)</b>            The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. Cabling must meet or exceed Industry Standard EIA/TIA T568B.            This cable can be used if the customer uses IBM AUI cabling:            #9025 Ethernet Cable (3m AUI)            If the customer does not use IBM AUI cabling, AUI Ethernet or RJ45 twisted pair cable must be used.            The #6181 is capable of operating in half or full duplex mode.            SPD slots required: None            Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server            #2629 or #6616 slots required: One            Model 620 only</p>

Model 620, 640, 650

<p>IPCS</p> <p>#6516</p> <p>#6517</p> <p>#6518</p> <p>#6519</p> <p>#6526</p> <p>#6527</p> <p>#6528</p> <p>#6529</p>	<p><b>Integrated PC Server (formerly known as FSIO) (SPD)</b></p> <p>Contains a 66 Mhz 486 Processor, main storage, and ability to attach to one or two LANs for high performance serving to LAN attached PCs. These configurations can be changed using the #6509 and #6520:</p> <p>16 MB One-Port Integrated PC Server</p> <p>32 MB One-Port Integrated PC Server</p> <p>48 MB One-Port Integrated PC Server</p> <p>64 MB One-Port Integrated PC Server</p> <p>16 MB Two-Port Integrated PC Server</p> <p>32 MB Two-Port Integrated PC Server</p> <p>48 MB Two-Port Integrated PC Server</p> <p>64 MB Two-Port Integrated PC Server</p> <p>The following cables need to be specified depending on the LAN being attached to:</p> <p>#9024 Token ring cable (2.4m)</p> <p>#9025 Ethernet Cable (3m AU)</p> <p>SPD slots required: Two contiguous slots</p> <p>Model 620 only</p>
<p>#6509</p>	<p><b>Additional 16 MB for Integrated PC Server</b></p> <p>The #6509 is used to increase the memory on an installed Integrated PC Server up to the maximum of 64 MB.</p>
<p>#6520</p>	<p><b>Upgrade One-Port Integrated PC Server to Two Port Integrated PC Server</b></p> <p>The #6520 cannot be used with a Two-Port Integrated PC Server. The #9024 or #9025 cables are alternate options depending upon the LAN to be attached.</p>
<p>#6616</p>	<p><b>#6616 Integrated PC Server (SPD)</b></p> <p>The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required:</p> <p>#2861 32 MB Integrated PC Server Memory</p> <p>#2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:</p> <p>#6149 16/4 Mbps Token Ring IOA</p> <p>#6181 ASCII Workstation Controller</p> <p>SPD slots required: Two contiguous slots</p> <p>Model 620 only</p>
<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b></p> <p>The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:</p> <p>#2861 32 MB Integrated PC Server Memory</p> <p>#2862 128 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838.</p> <p>#2723 PCI Ethernet IOA</p> <p>#2724 PCI 16/4 Mbps Token Ring IOA</p> <p>#2838 PCI 100/10 Mbps Ethernet IOA</p> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:</p> <p>The #0325 Integrated PC Server Extension Cable for Windows NT is required.</p> <p>The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.</p> <p>A display unit is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard or mouse and display support, see the Web site at:</p> <p><a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a></p> <p>When running OS/2 on the #6617, then:</p> <p>The #0325 and #1700 are not allowed.</p> <p>Only two of the LAN IOA slots can be used, and only one can contain a #2838.</p>

#6617 (cont.)	<p>When running Novell Netware on the #6617, then:  The #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used, and only one can contain a #2838.  A maximum of 256 MB IOP memory is supported.  SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.  Minimum OS/400 level: V4R2 with Cumulative PTF Package C8342420 or V4R3 with Cumulative PTF Package C9349430  Model 620 only</p>
#6618	<p><b>#6618 Integrated Netfinity Server (SPD)</b>  The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory  #2867 256 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838.  #2723 PCI Ethernet IOA  #2724 PCI 16/4 Mbps Token Ring IOA  #2838 PCI 100/10 Mbps Ethernet IOA (Specify feature #0222 is required)</p> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:  A minimum of 64 MB IOP memory is required.  The #0325 Integrated PC Server Extension Cable for Windows NT is required.  The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.  A display is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard or mouse and display support, refer to the site at:  <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a></p> <p>When running OS/2 on the #6618, then:  #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used and only one can contain a #2838.  A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6618, then:  The #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used and only one can contain a #2838.  A maximum of 256 MB IOP memory is supported.</p> <p>SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>
<b>Disk Units</b>	
#1312	<p><b>One-byte 1.03 GB Disk Unit Conversion Kit</b>  The #1312 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1312 migrates a #1203, #1602, #6601, #6602, #6701, #6802, #9601, or #9602 disk. Two #1312s migrate a #2802, #6612, #6812, #8612, or #9802 dual disks.</p>
#1313	<p><b>One-byte 1.96 GB Disk Unit Conversion Kit</b>  The #1313 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1313 migrates a #1204, #1603 or #6603 disks. Two #1313s migrate #6613, #7613, or #8613 dual disks.</p>
#1322	<p><b>Two-byte 1.03 GB Disk Unit Conversion Kit</b>  The #1322 provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1322 migrates a #1211, #1213, #4211, #4652, #6652, or #9652 disk.</p>
#1323	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit</b>  The #1323 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1323 migrates a #1212, #1214, #4212, #4650, #6650, or #8650 disk.</p>
#1325	<p><b>Two-byte 1.03 GB Disk Unit Conversion Kit</b>  The #1325 provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1325 migrates a #1205, #4205, #4605, #6605, #9605, or #9705 disk.</p>

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#1326	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit</b></p> <p>The #1326 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1326 migrates a #1206, #4206, #4606, #6606, #8606, #8706, or #9606 disk.</p>
#1327	<p><b>Two-byte 4.19 GB Disk Unit Conversion Kit</b></p> <p>The #1327 provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a 3xx/5xx Model, the #1327 is used. In a 2xx/4xx model, the #1337 is used. Supported only in the system unit or #9364 System Unit Expansion. One #1327 migrates a #1207, #4207, #4607, #6607, #7607, #8607, or #8707 disk.</p>
#1333	<p><b>Two-byte 8.58 GB Disk Unit Conversion Kit (Ultra SCSI)</b></p> <p>The #1333 provides the hardware for migrating one 8.58 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1333 migrates a #6713, #7713, or #8713 disk.</p>
#1334	<p><b>Two-byte 17.54 GB Disk Unit Conversion Kit (Ultra SCSI)</b></p> <p>The #1334 provides the hardware for migrating one 17.54 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1334 migrates a #6714 disk.</p> <p>Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4</p>
#1336	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit (Ultra SCSI)</b></p> <p>The #1336 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1336 migrates a #6906 disk.</p>
#1337	<p><b>Two-byte 4.19 GB Disk Unit Conversion Kit (Ultra SCSI)</b></p> <p>The #1337 provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a Model 3xx/5xx, the #1327 is used. In a 2xx/4xx model, the #1337 is used. Supported only in the system unit or #9364 System Unit Expansion. One #1337 migrates a #6607, #6907, or #7607 disk.</p>
#1602	<p><b>One-byte 1.03 GB Disk Unit Conversion Kit</b></p> <p>The #1602 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units requires two of these kits. Can be placed in the system unit with purchase of the #1312 migration kit.</p> <p>Model 620 only</p>
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b></p> <p>The #1603 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in the #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units require two of these kits. Can be placed in the system unit with purchase of the #1313 migration unit.</p> <p>Model 620 only</p>
#4308	<p><b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b></p> <p>The #4308 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage.</p> <p>Supported in the #5065/#5066 PCI Expansion Tower only</p> <p>Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller</p> <p>Minimum OS/400 level: V4R4</p> <p>The #4308 is a Customer Install Feature.</p>
#4314	<p><b>#4314 8.58 GB Disk Unit (Ultra SCSI)</b></p> <p>The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM).</p> <p>Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller</p> <p>Minimum OS/400 level: V4R4</p> <p>The #4314 is a Customer Install Feature.</p> <p>Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4317	<p><b>#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)</b></p> <p>The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity.</p> <p>Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller</p> <p>Minimum OS/400 level: V4R4</p> <p>The #4317 is a Customer Install Feature.</p> <p>Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4318	<p><b>#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)</b></p> <p>The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity.</p> <p>Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller</p> <p>Minimum OS/400 level: V4R4</p> <p>The #4318 is a Customer Install Feature.</p> <p>Supported in #5065/#5066 PCI Expansion Tower only</p>

#4324	<p><b>#4324 17.54 GB Disk Unit (Ultra SCSI)</b>  The #4324 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM).  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller  Minimum OS/400 level: V4R4  The #4324 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4331	<p><b>#4331 1.6 GB Read Cache Device</b>  The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with the compression function turned off on the #2748/#2778 PCI RAID Disk Unit Controller.  Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller and one 1.6-inch DASD slot  Maximum: One per #2748 or #2778 I/O processor  Minimum OS/400 level: OS/400 V4R4  The #4331 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only.</p>
#6605	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.  Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower.  Model 620 only</p>
#6606	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.  Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower.  Model 620 only</p>
#6607	<p><b>#6607 4.19 GB Additional Two-byte Disk Unit</b>  The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage.  Supported for migration only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower.  Model 620 only</p>
#6650	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.  Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers.  Model 620 only</p>
#6652	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.  Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers.  Model 620 only</p>
#6713	<p><b>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported for migration only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance, use it attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083.  Model 620 only</p>
#6714	<p><b>#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported for migration only in the #5052 or #5058 Storage Expansion Units or #5082 or #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R4  Model 620 only</p>
#6717	<p><b>#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported for migration only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530.  Minimum OS/400 level: V4R3  Model 620 only</p>

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#6718	<p><b>#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported for migration only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on the #6502/#6512/#6530.  Minimum OS/400 level: V4R4  Model 620 only</p>
#6806	<p><b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6806 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion.  The #6806 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6807	<p><b>#6807 4.19 GB Additional Two byte Disk Unit (Ultra SCSI)</b>  The #6807 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion.  The #6807 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6813	<p><b>#6813 8.58 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6813 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in the system unit or the #9364 System Unit Expansion.  The #6813 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6817	<p><b>#6817 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6817 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on #9364 with #6502/#6512/#6530.  Minimum OS/400 level: V4R3  The #6817 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6818	<p><b>#6818 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6818 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530.  Minimum OS/400 level: V4R4  The #6818 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6824	<p><b>#6824 17.54 GB Disk Unit (Two-Byte) (Ultra SCSI)</b>  The #6824 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated disk compression for the #6824/#8824: V4R4  The #6824 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#6831	<p><b>#6831 1.6 GB Read Cache Device</b>  The #6831 provides 1.6 GB of capacity for large read cache function. The #6831 is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748 PCI RAID Disk Unit Controller.  Mirroring is not supported on the #6831.  Prerequisite: #2748 PCI RAID Disk Unit Controller  One 1.6-inch DASD slot. Maximum: One per #2748 IOP.  Minimum OS/400 level: V4R4</p>
#6906	<p><b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083.  Model 620 only</p>
#6907	<p><b>#6907 4.19 GB Additional Two-byte Disk unit (Ultra SCSI)</b>  The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or the #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083.  Model 620 only</p>
#8813	<p><b>8.58 GB Optional Base Two-byte Disk Unit (Ultra SCSI)</b>  The #8813 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of #9707.</p>
#8817	<p><b>#8817 8.58 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)</b>  The #8817 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of #9707. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530.  Minimum OS/400 level: V4R3</p>

#8818	<b>#8818 17.54 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)</b> The #8818 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of #9707. Supported only in the system unit or #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530. Minimum OS/400 level: V4R4
#8824	<b>17.54 GB Optional Base Two-Byte Disk Unit (Ultra SCSI)</b> The #8824 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of #9707. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4
#9707	<b>#9707 4.19 GB Base Two-byte Disk Unit (Ultra SCSI)</b> The #9707 provides a 3 ½-inch single disk unit with 4.19 GB capacity as the base disk unit.
RPQ 843977	<b>RPQ 843977</b> is for customers who want to move 4/8/17 GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6714 (17.54 GB unit) in the system unit of a Model 640/650/S30/S40/730/740 and in the #5052/#5055/#5057/#5058/#5070/#5071/#5072/#5073/#5080/#5081/#5082/#5083 disk expansion units and towers. These target enclosures use SPD technology. After the disk drives are installed, an RPO change must be processed to add a #6607/#6907 for each #6607/#6907 added, a #6713 for each #6713 added, and a #6714 for each #6714 added.
RPQ 843978	<b>RPQ 843978</b> is for customers who want to move 4/8/17 GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting device types #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6417 (17.54 GB unit) in the system unit of a Model 170/600/S10/620/ S20/720 and the #7101/#7102/#5064/#9364 expansion units and towers. After the disk drives are installed, an RPO change must be processed to add a #6807 for each #6607/#6907 added, add a #6813 for each device #6713 added, and add a #6824 for each #6417 added.
RPQ 847102	<b>RPQ 847102</b> ships the disk mounting hardware and instructions required to convert a #6717/#6817 to a #4317 and a #6718/#6818 to a #4318. One RPQ is required for each disk unit to be converted. Confirm that there is disk space available in the #5065/#5066 PCI Expansion Tower. This RPQ can also be used to move a disk to an iSeries 270, 820, 830, and 840, or #5075, #5074/#9074, and #5079/#9079 PCI Expansion Towers.
<b>Internal CD-ROM and Tape Units</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#1349	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1349 provides the hardware for migrating a #1251, #1379, #6368, #7343, #8343, #9343, #5348, #6348, #7348, #8348, or #9348 1.2 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1350	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1350 provides the hardware for migrating #1252, #1260, #1380, #6369, #6380, #6344, #7344, #8344, #5349, #6349, #7349, or #8349 2.5 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1355	<b>13 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1355 provides the hardware for migrating #6385 13 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1360	<b>7 GB 8mm Cartridge Tape Unit Conversion Kit</b> The #1360 provides the hardware for migrating #1261 or #6390 7 GB 8mm cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape units. Supported only in #5072 or #5073 1063 Mbps System Unit Expansion Towers. Model 620 only
#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the hardware for migrating 2.5 GB ¼-inch cartridge tape units. Supported only in #5072 or #5073 1063 Mbps System Unit Expansion Towers. Model 620 only
#4425	<b>#4425 CD-ROM</b> The #4425 is supported in the #5065 Storage/PCI Expansion Tower only. Prerequisite: #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4425 is a Customer Install Feature.

#4482	<p><b>#4482 4 GB ¼-inch Cartridge Tape Unit</b> Supported in #5065 Storage/PCI Expansion Tower only. The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature.</p>
#4483	<p><b>#4483 16 GB ¼-inch Cartridge Tape Unit</b> Supported in #5065 Storage/PCI Expansion Tower only. The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature.</p>
#4486	<p><b>#4486 25 GB ¼-inch Cartridge Tape Unit</b> Supported in #5065 Storage/PCI Expansion Tower only. The #4486 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4486 is a Customer Install Feature.</p>
#4487	<p><b>#4487 50 GB ¼-inch Cartridge Tape Unit</b> The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported in the #5065 Storage/PCI Expansion Tower only. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature.</p>
#4684	<p><b>#4684 30 GB ¼-inch Cartridge Tape Unit</b> The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. Supported in the #5065 Storage/PCI Expansion Tower only. The #4684 is a Customer Install Feature.</p>
#5032	<p><b>Removable Media Device Cluster Box</b> The #5032 is a rack-mounted box that allows the attachment between one and four #6368 or #6369 1.2 GB or 2.5 GB ¼-inch cartridge tape units. Attaches to #2621 Storage Device Controller. Model 620 only</p>
#6325	<p><b>#6325 Optional CD-ROM</b> The #6325 is an optional CD-ROM device that can be mounted in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Prerequisite: #2624 Storage Device Controller. Limits the use of tape in the same tower to #6380 and #6390. Maximum: One CD-ROM per #5072/#5073 Minimum OS/400 level: V4R4. Model 620 only</p>
#6368	<p><b>1.2 GB ¼-inch Cartridge Tape Unit</b> The #6368 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. Model 620 only</p>
#6369	<p><b>#6369 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6369 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. Model 620 only</p>
#6380	<p><b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model 620 only</p>
#6381	<p><b>#6381 2.5 GB ¼-inch Cartridge Tape</b> The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit</p>

#6382	<p><b>#6382 4 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit</p>
#6383	<p><b>#6383 16 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit</p>
#6385	<p><b>#6385 13 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit</p>
#6386	<p><b>#6386 25 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit</p>
#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b></p> <p>The #6390 can be used for save/restore, alternate IPL, migration, and 8mm cartridge tape exchange using the appropriate media and density. Supported only in #5072/#5073 1063 Mbps System Unit Expansion Towers. Model 620 only</p>
#6425	<p><b>Optional CD-ROM Feature</b></p> <p>The #6425 is an optional CD-ROM device (for models S20, 620, 720 only) that can be mounted system unit and #9364 System Unit Expansion, with #9329 PCI Card Expansion Unit only. It may be used for alternate IPL and LPP distribution. Feature CD-ROMS are introduced in support of LPARs. Not supported on #9331. Prerequisite: #2626 16/4 Mbps Token Ring Adapter, #2740 PCI RAID Disk Unit Controller or #2741 PCI RAID Disk Unit Controller with #9329 PCI Card Expansion Unit. Maximum: Only one CD-ROM is allowed in the system unit (base), and one in the #9329 PCI Card Expansion Unit only. Minimum OS/400 level: V4R4 Model 620 only</p>
#6480	<p><b>2.5 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6480 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. Supported in the Model 620 and S20 system unit only or the #5064/#9364 System Unit Expansion.</p>
#6481	<p><b>2.5 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6481 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>
#6482	<p><b>4 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>
#6483	<p><b>16 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>
#6484	<p><b>30 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6484 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or system unit expansion. The #6384 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. Supported in the Model 600, 620, S10, and S20 system unit only The #6384 is a Customer Install Feature.</p>
#6485	<p><b>13 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6485 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>

#6486	<p><b>25 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6486 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>
#6490	<p><b>7 GB 8mm Cartridge Tape Unit</b></p> <p>The #6490 can be used for save/restore, alternate IPL, migration and 8mm cartridge tape exchange using the appropriate media and density. Supported only in the system unit of Model 600, 620, S10, and S20 or the #5064/#9364 System Unit Expansion.</p>
<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller (SPD)</b></p> <p>The #2621 provides attachment for one or two of these devices with hardware data compression: 2440, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s count as two devices. If #2621 supports a 3995 or #5032, it must be dedicated to it. If the #2621 supports a 9427. It is recommended that the 9427 be attached to both ports of the #2621.</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>SPD slots required: One</p> <p>Model 620 only</p>
#2624	<p><b>#2624 Storage Device Controller (SPD)</b></p> <p>The #2624 provides support for up to three internal tape drives. With the addition of the #6146, it is also support one external diskette drive. Can be used to support tape drives only in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #2624 is used to support the #6325 Optional CD-ROM in #5072/#5073 1063 Mbps System Unit Expansion Tower. Not supported to drive #6425 CD-ROM in the Model 620 with #9331 in the #9364 System Unit Expansion.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Model 620 only</p>
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP (SPD)</b></p> <p>The #2644 provides attachment for 3422, 3430, 3480, 3490 Exx, 3490 Bxx, 3490 Dxx, 3490E Exx, 3490E Bxx, 3490E Dxx, 3490E Cxx, 3494 Tape Library Dataserver X10 models. Also requires #9980 Serpentine Cable except for 3490E Cxx when used with internal cables.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Model 620 only</p>
#2718	<p><b>#2718 PCI Magnetic Media Controller</b></p> <p>The #2718 provides SCSI attachment for one 7206-VX2 80 GB VXA-2 External Tape Drive, 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive), 7208-345 60 GB External 8mm Tape Drive, 7210-020 External CD-ROM, or 7210-025 External DVD-RAM.</p> <p>See 8.7.4, "#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules" on page 279, for information on connecting devices to the #2718.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2809 PCI LAN/WAN/Workstation IOP or #2824 LAN/WAN/Workstation IOP.</p> <p>Maximum: One in the system unit, two in the #9364 System Unit Expansion with #9329/#9330 and three in the #5065 Storage/PCI Expansion Tower.</p> <p>Minimum OS/400 to support the 7210-020 and 7208-345: V4R5</p> <p>Minimum OS/400 to support the 7210-025: V5R1</p> <p>The #2718 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2726	<p><b>PCI RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #2726 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2726. The #2726 also supports one CD-ROM drive (comes as standard) and one internal tape drive when placed in the system unit. When placed in the #9364 System Unit Expansion, it supports up to three internal tape drives. Supports #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. It is mutually exclusive with #2740, #2741, or #9728 in the same system unit or #9364. The #2726 does not support integrated hardware disk compression.</p> <p>High-speed PCI slots required: One</p> <p>Prerequisite: System unit or #9364 System Unit Expansion with #9329 PCI Card Expansion Unit</p> <p>Maximum: One per system unit or #9364</p> <p>The #2725 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

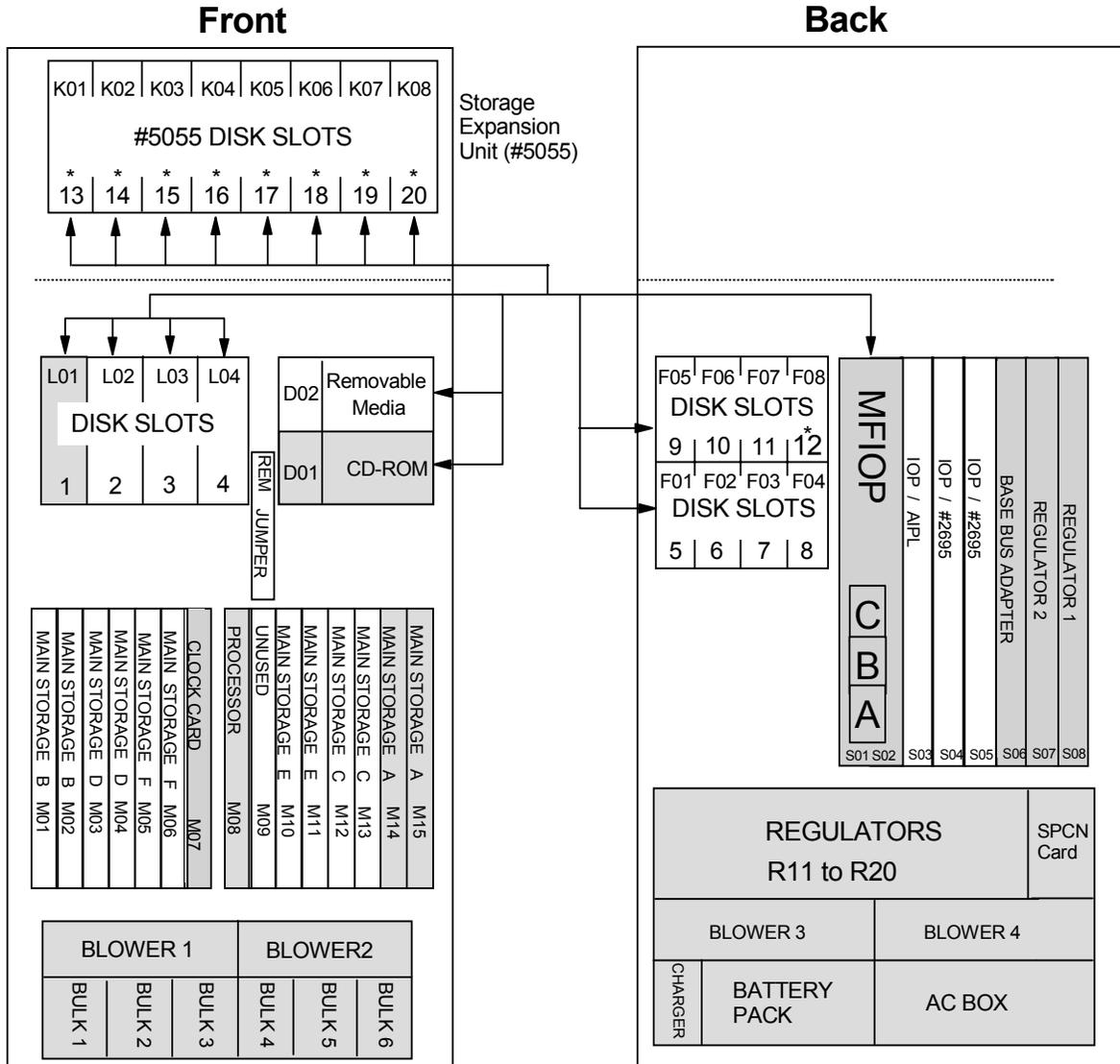
#2729	<p><b>#2729 PCI Magnetic Media Controller)</b>  The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x, 3570, 3575, 3580, 3581, 3582, 3583, 3584, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.  High-speed PCI slots required: One.  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP or #2824 LAN/WAN/Workstation IOP.  Maximum: One in the system unit, two in the #9364 System Unit Expansion with #9329/#9330, and three in the #5065 Storage/PCI Expansion Tower  Minimum OS/400 to support the 3995: V4R2  The #2729 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2740	<p><b>#2740 PCI RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b>  The #2740 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 10 disks installed in the system unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #2740. The #2740 also supports one CD-ROM drive (comes as standard) and one internal tape drive. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. Mutually exclusive with the #9728, #2726, or #2741 in the same system unit. The #2740 is not supported in the #9364 System Unit Expansion. The #2740 does not support integrated hardware disk compression. High-speed PCI slots required: One  Maximum: One  Minimum OS/400 level: V4R2  The #2740 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2741	<p><b>#2741 PCI RAID Disk Unit Controller—4 MB Cache (RAID Mirrored/Unprotected) (Ultra SCSI)</b>  The #2741 Ultra SCSI controller provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2741. The #2741 also supports one CD-ROM drive (comes as standard) and one internal tape drive when placed in the system unit. When placed in the #9364 System Unit Expansion, it supports up to three internal tape drives. Supports #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. Mutually exclusive with #2726, #2740, or #9728 in the same system unit or #9364.  Minimum OS/400 level: V4R2  Disk compression is supported for 17.54 drives. Disk compression on #6824/#8824 (17.54 GB Disk Unit) is not currently supported. IBM intends to provide disk compression for #6824/#8824 in a future release of OS/400.  High-speed PCI slots required: One  Prerequisite: System unit or #9364 System Unit Expansion with #9329 PCI Card Expansion Unit  Maximum: One per system unit or #9364  Minimum OS/400 to support integrated hardware disk compression: V4R3  Minimum OS/400 to support integrated hardware disk compression on the 17.54 GB disk unit: V4R4  Model 620 only</p>
#2748	<p><b>#2748 PCI RAID Disk Unit Controller—26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b>  The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower is Ultra SCSI capable when installed in the Model 720 system unit or a #5064/#9364 System Unit Expansion. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #6831/#4331 1.6 GB Read Cache Device. When placed in the system unit, it supports one internal tape and one CD-ROM. In the #5064/#9364 System Unit Expansion, it supports up to three internal tape and CD-ROM. In the #5065 Storage/PCI Expansion Tower, it supports up to two internal tapes and CD-ROM. Supports #1349, #1350, #1355, #1360, #4482, #4483, #4486, #4684, #6480, #6481, #6482, #6483, #6484, #6485, #6486, or #6490 tape units. It is mutually exclusive with #2726, #2740, #2741 or #9728 in the same system unit or #9330 PCI Integrated Expansion Unit.  High-speed PCI slots required: One  Prerequisite: System unit or #9364 System Unit Expansion with #9330 PCI Integrated Expansion Unit or #5065 Storage/PCI Expansion Tower  Minimum OS/400 level: V4R4  Maximum: One per system unit or #9364; three per #5065</p>

Model 620, 640, 650

#2778	<p><b>#2778 PCI RAID Disk Unit Controller—104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b></p> <p>The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity.</p> <p>The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when the #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units.</p> <p>The #2778 controls up to two removable media devices (internal tape or CD-ROM).</p> <p>Prerequisite: An available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower.</p> <p>Maximums: Three (in combination with #2748) per #5065. Six (in combination with #2748) per #5066 1.8 M I/O Tower.</p> <p>Minimum OS/400 level: V5R1</p>
#6112	<p><b>Magnetic Storage Device Controller (SPD)</b></p> <p>The #6112 provides attachment for up to two 9331-001 or 002 Diskette Units and up to two 9347 Tape Units.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Maximum: Two for 9331, two for 9347. Limit of two #6112s in #9331.</p> <p>Model 620 only</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b></p> <p>The #6146 provides attachment for one 9331 011, 012 Diskette Unit, and the #6135 5 ¼-inch diskette.</p> <p>SPD slots required: None</p> <p>Prerequisite: #2624 Storage Device Controller</p> <p>Maximum: Two</p> <p>Model 620 only</p>
#6500	<p><b>Direct Access Storage Device Controller (SPD)</b></p> <p>The #6500 provides attachment for one 9337 0xx or 1xx.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Model 620 only</p>
#6501	<p><b>#6501 Tape/Disk Device Controller (SPD)</b></p> <p>The #6501 provides attachment for the 2105 Versatile Storage Server. It provides attachment for up to two 9337 2xx, 4xx, or 5xx Models. Also supports up to two 3490E Cxx, 3490E Exx, 3490E Fxx, 3494 Lxx or Dxx, 3570, 3575, 3580, 3581, 3582, 3583, 3584 or 3590-Bxx/Exx Models. It also provides attachment for the 2105 Versatile Storage Server. DASD and tape units cannot be mixed on the same #6501.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Maximum: Four for tape. For disk, see the 600, 620, 640, and 650 model capacity charts on pages 98, 99, and 100.</p> <p>Model 620 only</p>
#6502	<p><b>#6502 High Performance Controller—2 MB Cache (RAID/Mirrored/Unprotected) (SPD)</b></p> <p>The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, the #5082 or #5083 Storage Expansion Tower, or the #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6502. The #6502 does not support integrated hardware disk compression.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083</p>
#6512	<p><b>#6512 High Performance Controller—4 MB Cache (RAID/Mirrored/Unprotected) (SPD)</b></p> <p>The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, the #5082 or #5083 Storage Expansion Tower, or the #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6512. The #6512 does not support integrated hardware disk compression.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083</p>

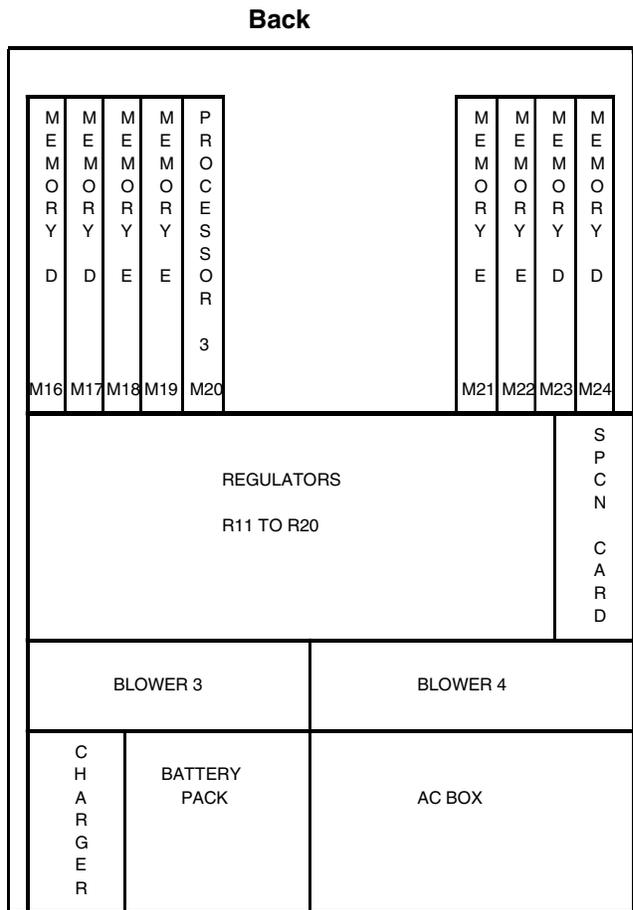
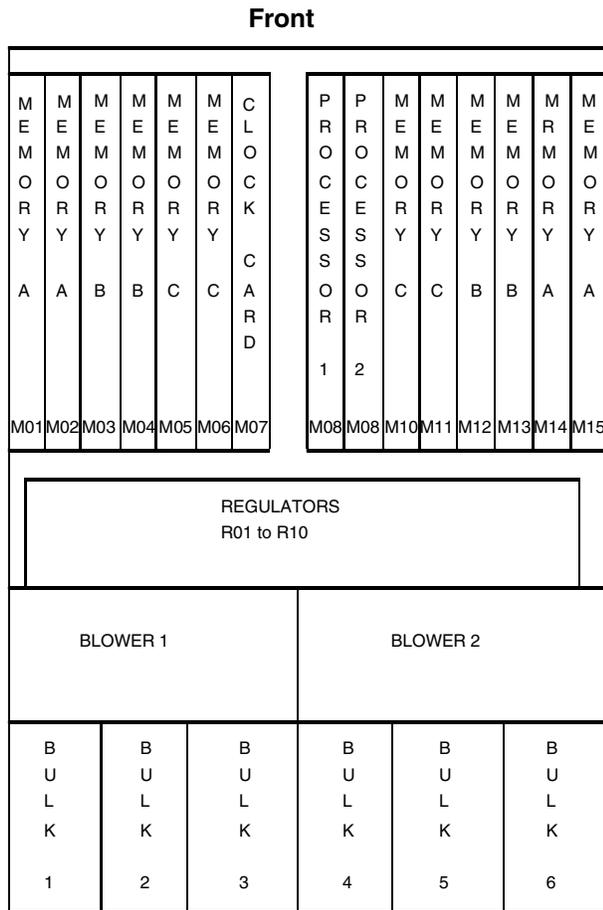
#6513	<p><b>#6513 Internal Tape Device Controller (SPD)</b></p> <p>The #6513 provides support for up to three internal tape drives when located in the #9331 Expansion Unit for SPD cards or four internal tape drives when located in the #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed. Supports the #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 in the #5072/#5073 1063 Mbps System Unit Expansion Tower; and the #1349, #1350, #1355, #1360, #6481, #6482, #6483, #6484, #6485, and #6490 in a #9364 System Unit Expansion with the #9331.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Maximum: Five</p> <p>Model 620 only</p>
#6530	<p><b>#6530 Disk Unit Controller No Cache (Mirrored/Unprotected) (SPD)</b></p> <p>The #6530 is a controller for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower, or #9364 System Unit Expansion.</p> <p>The #6530 does not support integrated hardware disk compression.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083</p> <p>Model 620 only</p>
#6532	<p><b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI) (SPD)</b></p> <p>The #6532 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #9364 System Unit Expansion. Also supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6532. The #6532 does not support integrated hardware disk compression.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083</p> <p>Model 620 only</p>
#6533	<p><b>#6533 RAID Disk Unit Controller - 4 MB Cache (Raid/Mirrored/Unprotected) (Ultra SCSI) (SPD)</b></p> <p>The #6533 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #9364 System Unit Expansion. Also supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6533.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083</p> <p>Minimum OS/400 level: V4R2</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4</p> <p>Model 620 only</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b></p> <p>The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3580, 3581, 3582, 3583, 3584, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.</p> <p>SPD slots required: One</p> <p>Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower</p> <p>Minimum OS/400 to support the 3995: V4R2</p> <p>Model 620 only</p>
#9728	<p><b>#9728 Base Disk Unit Controller (Ultra SCSI)</b></p> <p>The #9728 is the Base IOA for the system unit. The #9728 provides Ultra SCSI attachment for up to five internal disk units, one internal CD-ROM (standard) and one internal tape drive. Does not support RAID. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 tape units. Mutually exclusive with the #2726, #2740, or #2741, in the same system unit. The #9728 does not support integrated hardware disk compression.</p> <p>High-speed PCI slots required: One</p> <p>Maximum: One per system unit</p>

# 6.10 9406 Model 640 system unit schematic



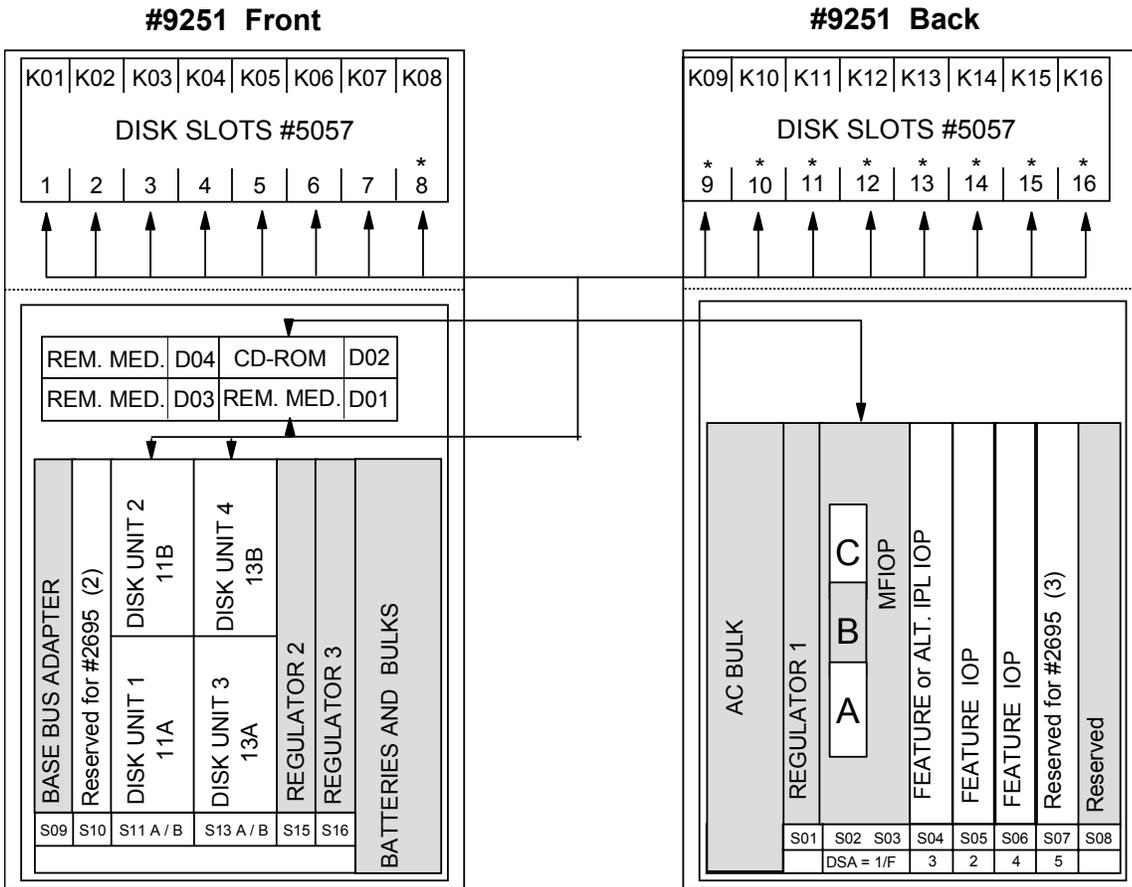
Model 620, 640, 650

# 6.11 9406 Model 650 system unit schematic



Model 620, 640, 650

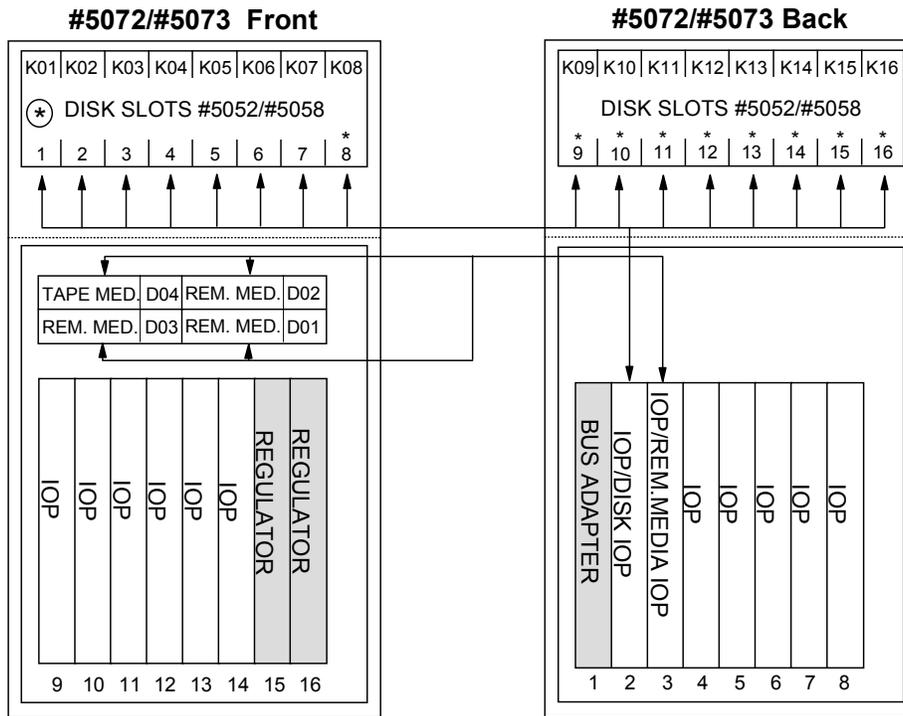
## 6.12 #9251 Base I/O Tower schematic



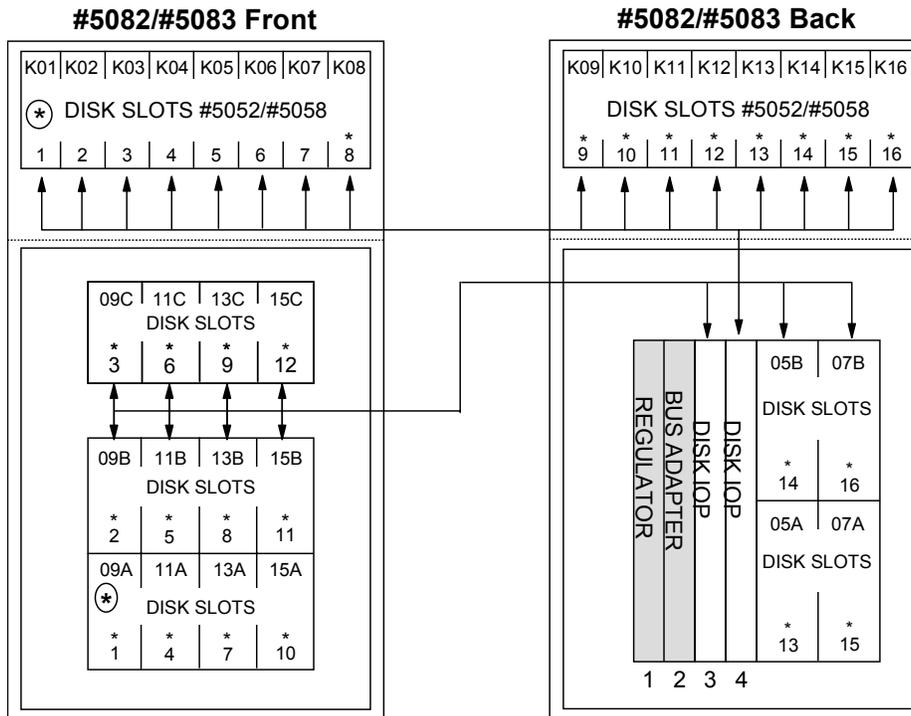
= Are part of the base configuration

\* One byte disks cannot be installed in these slots

## 6.13 #5072/#5073 System Unit Expansion Tower schematic

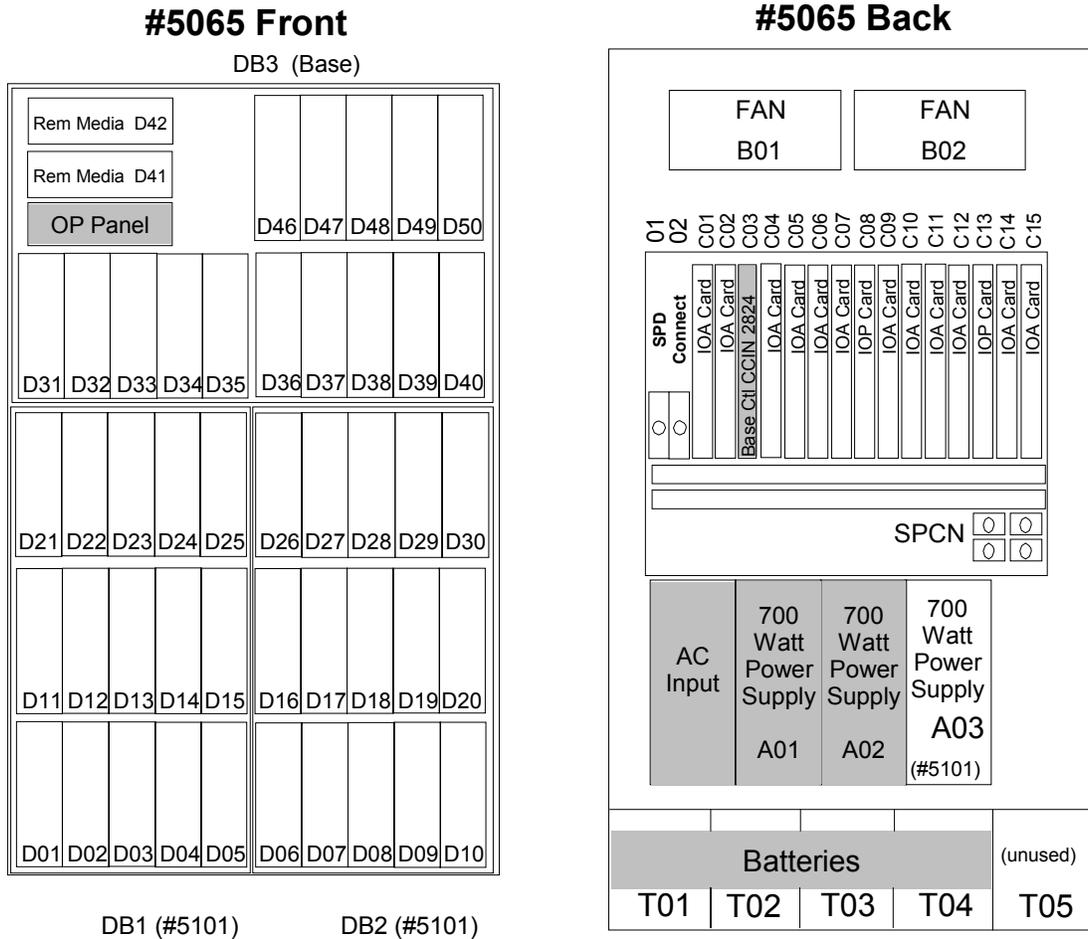


## 6.14 #5082/#5083 Storage Expansion Tower schematic



Model 620, 640, 650

## 6.15 #5065 Storage PCI Expansion Tower schematic



## 6.16 AS/400e Model 640 and 650 features

Model 620, 640, 650

Processors	
#2237	<b>319.0 RSP CPW Processor.</b> Base Memory 512 MB Model 640 only
#2238	<b>583.3 RSP CPW 2-way Processor.</b> Base Memory 512 MB Model 640 only
#2239	<b>998.6 RSP CPW 4-way Processor.</b> Base Memory 512 MB Model 640 only
#2240	<b>1794.0 RSP CPW 8-way Processor.</b> Base Memory 1024 MB Model 650 only
#2243	<b>2340.0 RSP CPW 12-way Processor.</b> Base Memory 1024 MB Model 650 only
#2188	<b>3660.0 RSP CPW 8-way Processor.</b> Base Memory 1024 MB Model 650 only. Minimum OS/400 level: V4R3
#2189	<b>4550.0 RSP CPW 12-way Processor.</b> Base Memory 1024 MB Model 650 only. Minimum OS/400 level: V4R3

<b>Power and Packaging</b>	
Base Optical Bus Adapter	<b>Base Optical Bus Adapter</b> This is the Base Optical Bus Adapter identified as CCIN 2696 with no feature code required. Model 640 and 650 only.
#2686	<b>#2686 Optical Link Processor (266 Mbps)</b> The #2686 is a card that is used for attaching #5044 System Unit Expansion Rack. Each #2686 supports a maximum of one #5044. Card slots used: None Maximum: Nine Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.
#2688	<b>#2688 Optical Link Processor (1063 Mbps)</b> The #2688 is a card that is used for attaching #5072, #5073, #5082, or #5083 Storage Expansion Towers. Each #2688 supports a maximum of two #50xx Towers. Card slots used: None Maximum: Nine Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.
#2695	<b>#2695 Optical Bus Adapter</b> The #2695 allows for the addition of up to three #2686 or #2688 Optical Link Processors in any combination. Card slots used: One Maximum: Two
#2730	<b>#2730 Programmable Regulator</b> The #2730 is required when five or more main storage cards are installed in a Model 640. Model 640 only. Card slots used: None Maximum: One
#5043	<b>Primary to Secondary Rack Conversion</b> The #5043 provides for the conversion of a 9406 F Model system unit rack to a 9309 #9171 type rack. The new rack retains the #5043 feature.
#5044	<b>#5044 System Unit Expansion Rack</b> The #5044 is a 12 I/O card slot cage in a rack enclosure. Each unit provides two buses with six I/O card slots per bus. The #5044 is a conversion of a #5040 or #5042 rack. Prerequisite: #2686 Optical Link Processor and #2695 Optical Bus Adapter or #2686 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.
#5052	<b>#5052 Storage Expansion Unit</b> The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower and the #5082 Storage Expansion Tower. Only one #5052 per tower is supported. A #5143 Power Supply may be required.
#5055	<b>#5055 Storage Expansion Unit (Ultra SCSI)</b> The #5055 provides space for up to eight disk units. It attaches to the top of the Model 640 system unit. Model 640 only. Prerequisite: #9751 or #9754 MFIO with RAID and #5151 Power Supply .
#5057	<b>#5057 Storage Expansion Unit (Ultra SCSI)</b> The #5057 provides space for up to 16 disk units. It attaches to the top of the Model 650 system unit. Model 650 only. Prerequisite: #9751 or #9754 MFIO with RAID.
#5058	<b>#5058 Storage Expansion Unit (Ultra SCSI)</b> The #5058 provides space for up to 16 disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported.
#5065	<b>#5065 Storage/PCI Expansion Tower</b> The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN/WAN/Workstation controllers, 12 PCI IOA cards, two removable media, and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device features. The #5065 is the only storage expansion unit to support Ultra2 SCSI. Maximum: Eighteen on the Model 640 and 650. Prerequisite: #2688 Optical Link Processor Minimum OS/400 level: V4R4 The #5065 is a Customer Install Feature.

#5066	<p><b>#5066 1.8 M I/O Tower</b></p> <p>The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5066 1.8 M I/O Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for four removable media devices, battery backup, redundant/hot swap power supplies, and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified.</p> <p>Maximum: Nine on the Model 640 and 650.</p> <p>Prerequisite: #2688 Optical Link Processor</p> <p>Minimum OS/400 level: V4R4</p>
#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5072 provides an I/O tower for creating additional buses on the Model 640 and 650. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5072 is required.</p> <p>Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.</p>
#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5073 provides an I/O tower for creating additional buses on the Model 640 and 650. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units/CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5073 is required.</p> <p>Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the system unit Base Optical Bus Adapter.</p>
#5082	<p><b>#5082 Storage Expansion Tower</b></p> <p>The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5052. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6530, #6532 or #6533), and battery and power supplies.</p> <p>Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.</p>
#5083	<p><b>#5083 Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5058. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6530, #6532 or #6533), and battery and power supplies.</p> <p>Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.</p>
#5101	<p><b>30 Disk Expansion Feature</b></p> <p>The #5101 provides two 15 unit disk enclosures, a 700-watt power supply, backplanes, and internal cables.</p> <p>Maximum: One per #5065 Storage/PCI Expansion Tower.</p>
#5143	<p><b>#5143 Power Supply</b></p> <p>The #5143 is a 400-watt power supply that is normally a prerequisite of a #5052 installed in a #5072/#5082 Storage Expansion Tower.</p> <p>Maximum: One per #5072 or #5082</p>
#5150	<p><b>Battery Backup (external)</b></p> <p>An external battery backup that when used in conjunction with internal battery backup is capable of extending the Continuously Power Main Storage (CPM) time to at least 48 hours. On Model 640 and 650, a standard internal battery backup is capable of maintaining CPM on 16 GB of main storage for at least 24 hours. The #5150 is required when main storage exceeds 16 GB on a Model 650.</p>
#5151	<p><b>Power Supply (650 watts)</b></p> <p>The #5151 is a 650-watt feature power supply that is a prerequisite for #5055 Storage Expansion Unit. Also required when six or more main storage cards are installed. Model 640 only.</p> <p>Maximum: One</p>
#9251	<p><b>#9251 Base I/O Tower</b></p> <p>The #9251 is the Base Tower on a Model 650. Includes four feature SPD IOP slots, space for three removable media devices, one CD-ROM drive, one MFIOP, the ability to add up to 20 feature disk units (with #5057 Storage Expansion Unit), and battery and power supplies. Model 650 only.</p>

<b>Main Storage</b>	
#3179	<b>256 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650. Minimum OS/400 level: V4R2
#3180	<b>512 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650. Minimum OS/400 level: V4R2
#3189	<b>128 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3190	<b>256 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3191	<b>512 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3192	<b>1024 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3193	<b>2048 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on 650. Requires one dedicated memory card slot. Maximum: Four pairs on 640; four fours on Model 650. Minimum OS/400 level: V4R3
#8180	<b>Optional Base 512 MB Main Storage</b> The #8180 provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400 level: V4R2
#8191	<b>Optional Base 512 MB Main Storage</b> The #8191 provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Supported on a Model 640 or 650.
#8192	<b>Optional Base 1024 MB Main Storage</b> The #8192 provides an optional 1024 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot.
#8193	<b>Base 2048 MB Main Storage</b> The #8193 provides an optional 2048 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400 level: V4R3
#9179	<b>Base 256 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400 level: V4R2
#9190	<b>Base 256 MB Main Storage</b> Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot.

<b>Workstation Controllers</b>	
Base IOP	<p><b>Base Controller for Storage/#5065 Storage/PCI Expansion Tower</b> This IOP comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots. The #2718, #2729, or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Communications" on page 149 and "LANs and ATM" on page 152. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing the #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One</p>
#2746	<p><b>#2746 PCI Twinaxial Workstation IOA (PCI)</b> The #2746 is an eight-port attachment which supports 40 active twinaxial devices. PCI slots required: One Prerequisite: #5065 Storage/PCI Expansion Tower. Minimum OS/400 level: V4R4 The #2746 is a Customer Install Feature.</p>
#2824	<p><b>#2824 PCI Feature Controller</b> The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. See "Communications" on page 149. There is a maximum of two in the #5065 Storage/PCI Expansion Tower.  In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots: The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10, and C15 only. The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12. Restrictions apply using the #2824. See "Comm. Restrictions" on page 116. Minimum OS/400 level: V4R4 The #2824 is a Customer Install Feature.</p>
#5540	<p><b>#5540 System Console on Twinaxial Workstation IOA Specify</b> The System Console attaches to #6180 or #9280 Twinaxial Workstation IOA or other migrated twinaxial workstation controller.</p>
#5541	<p><b>System Console Attached to ASCII Workstation Controller Specify</b> The System Console attaches to #9141 or #6141 ASCII Workstation Controller.</p>
#5543	<p><b>System Console Specify</b> The System Console is a PC attached to the #9751 MFIOF. Prerequisite: #0344 Cable for attaching Client Access Console and #9699 Base Two-Line WAN IOA in slot B in the #9751 MFIOF.</p>
#5544 #0328	<p><b>#5544 System Console on Operations Console</b> The system console is a PC. Prerequisite: Cable #0328 to be attached to port 0 of the #9699 Base Two-Line WAN IOA in slot B of the #9751 or #9754 MFIOF. <b>#0328: Operations Console cable.</b> The #0328 is a 6m cable used to attach a PC to a #9699 communications adapter for use as a remote PC Console. Mutually exclusive with #0344.</p>
#6050 #9050	<p><b>#6050 Enhanced Twinaxial Workstation Controller</b> One eight-port attachment is provided to support up to 40 twinaxial devices. The #9050 is the base twinaxial workstation controller on some older models. Card slots required: One</p>

#6140 #9140	<b>#6140 Twinaxial Workstation Controller</b> One eight-port attachment is provided to support up to 40 twinaxial devices. The #9140 is the base twinaxial workstation controller on some older models. Card slots required: One
#6141 #9141	<b>#6141 ASCII Workstation Controller</b> The #6141 supports up to six ASCII devices. The #9141 is a Base Workstation Controller. Card slots required: One
#6142	<b>#6142 ASCII 12-Port Workstation Attachment</b> The #6142 plugs into the #6141 or #9141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices are supported. Only one #6142 can be attached per #6141 or #9141. Card slots required: None
#6180 #9280	<b>#6180 Twinaxial Workstation IOA</b> One eight-port attachment is provided to support up to 40 twinaxial devices. The #9280 is specified on a base twinaxial workstation when there is no ASCII workstation controller. One #6180/#9280 is placed in slot C of the #9751 or #9754 MFIOIP when the System Console is ASCII. All other #6180s must be placed in a #2629. LAN/WAN/Workstation IOP. IOA slots required: One #2629, #9751, or #9754 slot.
#9751	<b>MFIOIP with RAID (Ultra SCSI)</b> The #9751 is standard on the Model 640 and 650. Contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA or one #6180 or #9280 Twinaxial IOA. Occupies two card slots. The #9751 does not support integrated hardware disk compression.  CCIN 6751
#9754	<b>#9754 MFIOIP with RAID (Ultra SCSI)</b> The #9754 contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA or one #6180 or #9280 Twinaxial IOA. Occupies two card slots. The #9754 is standard on the Model 640 and 650 and on systems shipped with V4R2. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4 CCIN 6754
<b>Communications</b>	
#2605	<b>#2605 ISDN Basic Rate Interface Adapter</b> Connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2623. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2609	<b>#2609 EIA 232/V.24 Two-Line Adapter</b> Connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols. Two cables must be specified: #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232/V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2610	<b>#2610 EIA 232/V.24 Two-Line Adapter</b> The #2610 connects to #2623 to support two communications lines using X.21 or X.25 networks. Two cables must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable Card slots required: None Prerequisite: #2623 Six-Line Communications Controller

#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter</b></p> <p>The #2612 connects to #2623 to support one communications line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul> <p>Card slots required: None Prerequisite: #2623 Six-Line Communications Controller</p>
#2613	<p><b>#2613 V.35 One-Line Adapter</b></p> <p>The #2613 connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to 640 Kbps, or two V.35 lines at speeds up to 512 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters are allowed on #2623 when running T1/E1/J1.</p> <p>One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9020 V.35 20-ft. (6m) cable</li> </ul> <p>Card slots required: None Prerequisite: #2623 Six-Line Communications Controller</p>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter</b></p> <p>The #2614 connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul> <p>Card slots required: None Prerequisite: #2623 Six-Line Communications Controller</p>
#2620	<p><b>#2620 Full Cryptographic Processor</b></p> <p>The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries or regions outside the U.S.A. and Canada, it can only be marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, a #2628 should be sold in its place.</p> <p>Card slots required: One Maximum: One</p>
#2623	<p><b>#2623 Six-Line Communications Controller</b></p> <p>The #2623 controller provides for attachment of a wide range of iSeries or AS/400e communications adapters. These adapters are supported by the #2623: #2605, #2609, #2610, #2612, #2613, #2614, #2654, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is used on the Model 640 and 650 to support the #2605 ISDN adapter.</p> <p>Card slots required: One</p>
#2628	<p><b>#2628 Limited Cryptographic Processor (SPD)</b></p> <p>The #2628 provides the same function as #2620 except that it does not include data encryption/decryption using commercial Data Masking Facility for data scrambling. Can be marketed to any non-U.S. company.</p> <p>Card slots required: One Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b></p> <p>The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Workstation Controllers" on page 148 and "LANs and ATM" on page 152. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower.</p> <p>Card slots required: One</p>
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b></p> <p>The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with the #2664, or PCs with appropriately programmed Fax adapter. The #2664 consists of a card, a wrap cable, two country or region unique attachment couplers and telephone cables, and Licensed Internal Code.</p> <p>Card slots required: One Restriction: Not supported with V5R1 Maximum: 32</p>

<p>#2666</p>	<p><b>#2666 High-Speed Communications Adapter</b>  The #2666 provides one communications line capable of T1/E1 (1.544/2.048 Mbps) speeds. The #2666 consists of a card, a wrap connector, and a cable. One of the following cables must be specified:  #9879 20-ft. (6m) V.35 CCITT cable  #9880 80-ft. (24m) V.35 CCITT cable  #9882 20-ft. (6m) RS449/V.36 CCITT cable  #9883 80-ft. (24m) RS449/V.36 CCITT cable *  #9884 150-ft. (45m) RS449/V.36 CCITT cable *  #9885 20-ft. (6m) X.21 CCITT cable  * This cable is only allowed when the customer's modem supports Looped Clocking Mode.  Card slots required: One  Maximum: 20 on Model 640; 30 on Model 650</p>
<p>#2699 #9699</p>	<p><b>#2699 Two-Line WAN IOA</b>  The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:  #0328 20-ft. (6m) Operations Console cable (on #9699 and V4R3 defaulted)*  #0329 V.24/EIA 232 80-ft. (24m) cable  #0330 V.24/EIA 232 20-ft. (6m) cable  #0331 V.24/EIA 232 50-ft. (15m) cable  #0332 V.24/EIA 232 20-ft. (6m) enhanced cable  #0333 V.24/EIA 232 50-ft. (15m) enhanced cable  #0334 V.24/EIA 232 80-ft. (24m) enhanced cable  #0335 V.36/EIA 449 20-ft. (6m) cable  #0336 V.36/EIA 449 50-ft. (15m) cable  #0337 V.36/EIA 449 150-ft. (45m) cable  #0338 V.35 20-ft. (6m) cable  #0339 V.35 50-ft. (15m) cable  #0340 V.35 80-ft. (24m) cable  #0341 X.21 20-ft. (6m) cable  #0342 X.21 50-ft. (15m) cable  #0344 20-ft. (6m) Communication Console cable  *For the #2699: Used to support the Operations Console function on CPU models supporting logical partitioning (LPAR) for secondary partitions when logical partitioning is implemented (V4R4 and later).  The #0380 Remote Control Panel Cable is optional for the base partition only. The #0380 cable does not attach to a communication port.  The #9699 is the base communications adapter card and is placed in slot B of the #9751 or #9754 MFIOF.  Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP or a spare IOA slot in #9751 or #9754 MFIOF with RAID MFIOF.  IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP, #9751, or #9754 MFIOF with RAID</p>
<p>#2745</p>	<p><b>#2745 PCI Two-Line WAN IOA</b>  The #2745 supports up to two multiple protocol communications ports when one or two of the following cables are attached:  #0348 V.24/EIA232 20-ft. (6m) PCI cable  #0349 V.24/EIA232 50-ft. (15m) PCI cable  #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable  #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable  #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable  #0353 V.35 20-ft. (6m) PCI cable  #0354 V.35 50-ft. (15m) PCI cable  #0355 V.35 80-ft. (24m) PCI cable  #0356 V.36 20-ft. (6m) PCI cable  #0357 V.36 50-ft. (15m) PCI cable  #0358 V.36 150-ft. (45m) PCI cable  #0359 X.21 20-ft. (6m) PCI cable  #0360 X.21 50-ft. (15m) PCI cable  #0365 V.24/EIA232 80-ft. (24m) PCI cable  #0367 Operations Console PCI Cable 20-ft. (6m) *  *Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and later). A maximum of one #0367 cable is allowed per #2745.  Prerequisite: #5065 Storage/PCI Expansion Tower  PCI card slots required: One</p>

Model 620, 640, 650

#2750	<p><b>#2750 PCI ISDN BRI U Adapter</b></p> <p>The #2750 is a 4 port (8 channel) ISDN BRI (basic rate, 2 wire interface) full size card. Each port consists of 2B+D configuration. A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2750 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. The feature is country- or region-specific.</p> <p>Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2751	<p><b>#2751 PCI ISDN BRI S/T IOA</b></p> <p>The #2751 is a 4 port (8 channel) ISDN BRI (basic rate, 4 wire interface) full size card. Each port consists of 2B+D configuration. A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2751 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. The feature is country- or region-specific.</p> <p>Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2761	<p><b>#2761 PCI Integrated Analog Modem</b></p> <p>The #2761 supports multiple analog modem ports (eight phone lines). The feature includes a wrap cable/plug and eight 30-ft. (8m) phone cables. Each #2761 counts as eight communication lines against the system maximums. It supports SLIP/PPP, SDLC and FAX protocols. Does not support ECS line. To the iSeries or AS/400e server, the #2761 looks like a single IOA with eight individual line resources available. The feature is country- or region-specific.</p> <p>Restriction: Not supported with OS/400 V5R2</p> <p>Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See "Workstation Controllers" on page 148 and "Communications" on page 149.</p> <p>Prerequisite: #5065 Storage/PCI Expansion Tower</p> <p>Minimum OS/400 level: V4R4</p>
#4800	<p><b>#4800 PCI Cryptographic Processor</b></p> <p>The #4800 is a hardware cryptography solution based on the IBM 4758 card. It is a half length PCI card. Since the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging.</p> <p>Maximum: Three per system.</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4</p>
#4802	<p><b>#4802 PCI Cryptographic Processor</b></p> <p>The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card, which offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800).</p> <p>The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program, which is downloaded to the adapter.</p> <p>Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower</p> <p>Maximum: Three per system</p> <p>Minimum OS/400 level: V4R5</p>
<b>LANs and ATM</b>	
#2617	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b></p> <p>The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. An AUI Ethernet cable must be ordered separately. Supports 10 Mbps half-duplex only.</p> <p>SPD slots required: One</p>
#2618	<p><b>#2618 Fiber Distributed Data Interface Adapter</b></p> <p>The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN that complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code that supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-mode (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately.</p> <p>Card slots required: One</p>

#2619	<p><b>#2619 LAN/WAN/Workstation IOA (SPD)</b>  The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC), and an external 8-ft. (2.4m) cable.  Card slots required: One</p>
#2626	<p><b>#2626 16/4 Mbps Token Ring Adapter</b>  The #2626 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions), and an external 8-ft. (2.4m) cable.  Card slots required: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>  The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. See "Communications" on page 149 and "LANs and ATM" on page 152. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower.  Card slots required: One</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>  The #2663 I/O processor is a prerequisite when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.  Card slots required: One (with #2668)</p>
#2665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter</b>  The #2665 provides one interface to connect to an FDDI LAN which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately.  Card slots required: One</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>  The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified:  #9814 20-ft. (6m) antenna cable  #9815 50-ft. (15m) antenna cable</p> <p>One of these antenna must be specified:  #9889 YAGI Directional Antenna  #9890 Omni Directional Antenna (360 degrees)  #9891 Hemispherical Antenna (180 degrees)  #9892 Directional Antenna (90 degrees)</p> <p>Card slots required: One (with #2663)  Prerequisite: #2663 I/O Attachment Processor  Maximum: Three.</p>
#2723 #9723	<p><b>#2723 PCI Ethernet IOA</b>  The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately.  Cabling must meet or exceed Industry Standard EIA/TIA T568B.  Prerequisites: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2724 #9724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b>  The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #2724 IOA is capable of operation in half or full duplex modes.  Prerequisites: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2810	<p><b>#2810 LAN/WAN IOP</b>  The #2810 IOP is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Prerequisite for the preceding features.  Card slots required: One with any of the preceding features.</p>

#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b></p> <p>The #2811 provides attachment into an ATM network using UTP cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810)</p> <p>Prerequisite: #2810 LAN/WAN IOP</p> <p>Minimum OS/400 level: V4R2</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b></p> <p>The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances less than 1000 meters. Card slots required: One (with #2810).</p> <p>Prerequisite: #2810 LAN/WAN IOP.</p> <p>Minimum OS/400 level: V4R2</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b></p> <p>The #2815 provides attachment into an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810).</p> <p>Prerequisite: #2810 LAN/WAN IOP.</p> <p>Minimum OS/400 level: V4R2</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers.</p> <p>Card slots required: One (with #2810).</p> <p>Prerequisite: #2810 LAN/WAN IOP.</p> <p>Minimum OS/400 level: V4R2</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single-Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provides equipment but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances from 16 to 40 kilometers.</p> <p>Card slots required: One (with #2810).</p> <p>Prerequisite: #2810 LAN/WAN IOP.</p> <p>Minimum OS/400 level: V4R2</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where speed of 34 Mbps is required over distances of less than 1000 meters. Card slots required: One (with #2810).</p> <p>Prerequisite: #2810 LAN/WAN IOP.</p> <p>Minimum OS/400 level: V4R2</p>
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The #2838 IOA is capable of operating in half or full duplex modes. The adapter comes with an RJ45 connector for attachment to UTP-5 media.</p> <p>SPD card slots required: One (with #2810) or three (with #6617/#6618). PCI slots required: One</p> <p>Prerequisite: #2810 LAN/WAN IOP or #6617/#6618 or #5065 Storage/PCI Expansion Tower.</p>
#6149	<p><b>#6149 16/4 Mbps Token Ring IOA</b></p> <p>The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC), and an external 8-ft. (2.4m) token ring cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode.</p> <p>Card slots required: None</p> <p>Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOP with RAID MFIOP slot</p>

#6181	<p><b>#6181 ASCII Workstation Controller (SPD)</b>  The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. Cabling must meet or exceed industry standard EIA/TIA T568B. The #6181 IOA is capable of operating in half or full duplex mode. This cable can be used to support IBM AUI cabling:  #9025 Ethernet Cable (3m AUI)  If the customer is not choosing IBM AUI cabling, AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.  SPD slots required: None  Card slots required: None  Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOP with RAID MFIOP slot.</p>
<p>IPCS</p> <p>#6516  #6517  #6518  #6519  #6526  #6527  #6528  #6529</p> <p>#6509</p> <p>#6520</p>	<p><b>Integrated PC Server (formerly known as FSIOP)</b>  Contains a 66 Mhz 486 Processor, main storage, and the ability to attach to one or two LANs for high performance serving to LAN attached PCs.  16 MB One-Port Integrated PC Server  32 MB One-Port Integrated PC Server  48 MB One-Port Integrated PC Server  64 MB One-Port Integrated PC Server  16 MB Two-Port Integrated PC Server  32 MB Two-Port Integrated PC Server  48 MB Two-Port Integrated PC Server  64 MB Two-Port Integrated PC Server</p> <p>The following cables need to be specified depending on the LAN being attached to:  #9024 Token ring cable (2.4m)  #9025 Ethernet Cable (3m AUI)</p> <p>Card slots required: Two contiguous slots</p> <p><b>Additional 16 MB for Integrated PC Server</b>  The #6509 is used to increase the memory on an installed Integrated PC Server up to the maximum of 64 MB.</p> <p><b>Upgrade One-Port Integrated PC Server to Two Port Integrated PC Server</b>  The #6520 cannot be used with a Two-Port Integrated PC Server. The #9024 or #9025 can be used with the #6520 depending on the LAN to be attached.  Maximum: Sixteen</p>
#6616	<p><b>#6616 Integrated PC Server (SPD)</b>  The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:  #6149 16/4 Mbps Token Ring IOA  #6181 ASCII Workstation Controller  Card slots required: Two contiguous slots  Maximum: Sixteen</p>
#6617	<p><b>#6617 Integrated PC Server (SPD)</b>  The #6617 contains a 200 Mhz Pentium Processor, four main storage slots and three LAN IOA slots for high performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838.  #2723 PCI Ethernet IOA Specify # is not required  #2724 PCI 16/4 Mbps Token Ring IOA Specify # is not required  #2838 PCI 100/10 Mbps Ethernet IOA Specify #0220 is required for each #2838.</p>

Model 620, 640, 650

<p>#6617 (cont.)</p>	<p>The third LAN and the second #2838 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6617 Integrated PC Server.</p> <p>If running Windows NT on the #6617, then:</p> <p>The #0325 Integrated PC Server Extension cable for Windows NT is required.</p> <p>The #1700 Integrated PC Server Keyboard/Mouse for Windows NT is recommended (in those countries or regions offering it).</p> <p>A display unit must be connected to the IPCS to support Windows NT.</p> <p>A minimum of 64MB is required if running Windows NT.</p> <p>When running OS/2 on the #6617, then:</p> <p>#0325 and #1700 are not allowed.</p> <p>Only two of the LAN IOA slots can be used and only one can contain a #2838.</p> <p>A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6617, then:</p> <p>#0325 and #1700 are not allowed.</p> <p>Only two of the LAN IOA slots can be used and only one can contain a #2838.</p> <p>A maximum of 256 MB IOP memory is supported.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at: <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a></p> <p>Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p> <p>Minimum OS/400 level: V4R2</p>						
<p>#6618</p>	<p><b>#6618 Integrated Netfinity Server (SPD)</b></p> <p>The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:</p> <p>#2861 32 MB Integrated PC Server MemorySpecify # is not required</p> <p>#2862 128 MB Integrated PC Server MemorySpecify # is not required</p> <p>#2867 256 MB Integrated PC Server MemorySpecify #0220 is required for each #2838</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838s:</p> <table border="0"> <tr> <td>#2723 PCI Ethernet IOA</td> <td>Specify # is not required</td> </tr> <tr> <td>#2724 PCI 16/4 Mbps Token Ring IOA</td> <td>Specify # is not required</td> </tr> <tr> <td>#2838 PCI 100/10 Mbps Ethernet IOA</td> <td>Specify #0222 is required</td> </tr> </table> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:</p> <p>A minimum of 64 MB IOP memory is required.</p> <p>The #0325 Integrated PC Server Extension Cable for Windows NT is required.</p> <p>The #1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A.</p> <p>A display is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at: <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a></p> <p>When running OS/2 on the #6618, then:</p> <p>The #0325 and #1700 are not allowed.</p> <p>Only two of the LAN IOA slots can be used and only one can contain a #2838.</p> <p>A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6618, then:</p> <p>The #0325 and #1700 are not allowed.</p> <p>Only two of the LAN IOA slots can be used and only one can contain a #2838.</p> <p>A maximum of 256 MB IOP memory is supported.</p> <p>SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p> <p>Minimum OS/400 level: V4R2 and Cumulative PTF Package C8342420 or V4R3 and Cumulative PTF Package C8349430</p>	#2723 PCI Ethernet IOA	Specify # is not required	#2724 PCI 16/4 Mbps Token Ring IOA	Specify # is not required	#2838 PCI 100/10 Mbps Ethernet IOA	Specify #0222 is required
#2723 PCI Ethernet IOA	Specify # is not required						
#2724 PCI 16/4 Mbps Token Ring IOA	Specify # is not required						
#2838 PCI 100/10 Mbps Ethernet IOA	Specify #0222 is required						
<p><b>Disk Units</b></p>							
<p>#1602</p>	<p><b>1.03 GB One-byte Disk Unit Conversion Kit</b></p> <p>The #1602 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit.</p> <p>Supported only in the system unit or #5052, #5057, and #5058 Storage Expansion Unit positions 1 through 7. One #1602 migrates #1312, #6602, #6802, or #9602 disk. Two #1602 migrates #2802, #6612, #6812, #8612, or #9802 dual disks.</p>						

#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b>  The #1603 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit.  Supported only in the system unit or #5052, #5057, and #5058 Storage Expansion Unit positions 1 through 7. One #1603 migrates #1313 or #6603 disk. Two #1602 migrates #6613, #7613 or #8613 dual disks.</p>
#4308	<p><b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #4308 provides a 3 ½-inch single disk unit with 4.19 GB capacity for a dditional disk storage.  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4308 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4314	<p><b>#4314 8.58 GB Disk Unit (Ultra SCSI)</b>  The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM).  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4314 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4317	<p><b>#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)</b>  The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity.  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4317 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4318	<p><b>#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)</b>  The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity.  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4318 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4324	<p><b>17.54 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #4324 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM).  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4324 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4331	<p><b>#4331 1.6 GB Read Cache Device</b>  The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression.  The system arrives in performance mode with compression function turned off on the #2748/#2778 PCI RAID Disk Unit Controller.  Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller and and one 1.6-inch DASD slot  Maximum: One per #2748 or #2778 I/O processor  Minimum OS/400 level: V4R4  The #4331 is a Customer Install Feature.  Supported in the #5065/#5066 PCI Expansion Tower only</p>
#6605	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>
#6606 #9606	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.  The #9606 specifies a 1.96 GB base disk unit.</p>
#6607 #7607	<p><b>4.19 GB Additional Two-byte Disk Unit</b>  The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage.  The #7607 specifies an optional 4.19 GB base disk unit.</p>
#6650	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage.</p>
#6652	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage.</p>

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#6713 #7713 #8713	<b>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)</b> The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIO, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #7713 and #8713 specify an optional 8.58 GB base disk.
#6714 #8714	<b>#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)</b> The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIO, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #8714 specifies an optional 17.54 GB base disk. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4
#6717 #8617	<b>#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b> The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in #5052, #5055, #5057, or #5058 Storage Expansion Units, or #5082, #5083 Storage Expansion Towers and in #9251 Base I/O Tower or Model 640 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8617 specifies an optional 8.58 GB base disk. Minimum OS/400 level: V4R3
#6718 #8618	<b>#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b> The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in #5052, #5055, #5057, or #5058 Storage Expansion Unit, or #5082 or #5083 Storage Expansion Towers and in #9251 or Model 640 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8618 specifies an optional 17.54 GB base disk. Minimum OS/400 level: V4R4
#6906	<b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIO, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower.
#6907 #9907	<b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIO, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #9907 specifies a 4.19 GB base disk included with Model 640 or 650.
<b>Internal CD-ROM and Tape Units</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape units. The #1379 migrates the #1349, #5348, #6348, #6368, #7348, #8348, or #9348 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIO.
#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the hardware for migrating 2.5 GB ¼-inch cartridge tape units. The #1380 migrates the #1350, #5349, #6349, #6369, #7349, #8349, or #9349 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIO.
#4425	<b>#4425 CD-ROM</b> Supported only in #5065 Storage/PCI Expansion Tower. Prerequisite: #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4425 is a Customer Install Feature.
#4482	<b>#4482 4 GB ¼-inch Cartridge Tape Unit</b> Supported only in #5065 Storage/PCI Expansion Tower. The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature.

#4483	<p><b>#4483 16 GB ¼-inch Cartridge Tape Unit</b> Supported only in #5065 Storage/PCI Expansion Tower. The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature.</p>
#4486	<p><b>#4486 25 GB ¼-inch Cartridge Tape Unit</b> The #4486 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4485 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower</p>
#4487	<p><b>#4487 50 GB ¼-inch Cartridge Tape Unit</b> The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature.</p>
#5032	<p><b>Removable Media Device Cluster Box</b> The #5032 is a rack-mounted unit that allows the attachment of between one and four #6368 1.2 GB or #6369 2.5 GB ¼-inch cartridge tape units. Attaches to the #2621 Storage Device Controller.</p>
#6325	<p><b>#6325 Optional CD-ROM</b> The #6325 is available on #5072/#5073 1063 Mbps System Unit Expansion Tower. Limits the use of tape in the same tower to the #6380 and #6390. Maximum three per I/O tower. Prerequisite: #2624 Storage Device Controller. Minimum OS/400 level: V4R4</p>
#6368	<p><b>1.2 GB ¼-inch Cartridge Tape Unit</b> The #6368 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032.</p>
#6369	<p><b>#6369 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6369 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032.</p>
#6380	<p><b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to the #2624, #6513, #9751, or #9754 MFIOP.</p>
#6381	<p><b>#6381 2.5 GB ¼-inch Cartridge Tape</b> The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to the #6513, #9751, or #9754 MFIOP.</p>
#6382	<p><b>#6382 4 GB ¼-inch Cartridge Tape Unit</b> The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.</p>
#6383	<p><b>#6383 16 GB ¼-inch Cartridge Tape Unit</b> The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073 or #9251 Towers and in the Model 640 System Tower. One can be controlled by the MFIOP. Additional #6383s must be controlled by the #6513.</p>
#6385	<p><b>#6385 13 GB ¼-inch Cartridge Tape Unit</b> The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.</p>
#6386	<p><b>#6386 25 GB ¼-inch Cartridge Tape Unit</b> The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.</p>

#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b></p> <p>The #6390 can be used for save/restore, alternate IPL, migration, and 8mm cartridge tape exchange using the appropriate media and density. Attaches to the #2624, #6513, #9751, or #9754 MFIOP.</p>
<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller</b></p> <p>The #2621 provides attachment for one or two of these devices with hardware data compression for tapes: 2440, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s count as two devices. If the #2621 supports a 3995 or #5032, it must be dedicated to it. If the #2621 supports a 9427, attach the 9427 to both ports of the #2621.</p> <p>Card slots required: One</p> <p>Maximum: Four for external tape; two for #5032; 22 for 3995</p>
#2624	<p><b>#2624 Storage Device Controller</b></p> <p>The #2624 provides support for up to three internal tape drives. With the addition of a #6146 it supports one external diskette drive. Supports the #6325 Optional CD-ROM in #5072/#5073 1063 Mbps System Unit Expansion Towers.</p> <p>Card slots required: One</p> <p>Maximum: Seven for internal tape, two for diskette</p>
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP</b></p> <p>The #2644 provides attachment for 3422, 3430, 3480, 3490 Axx, 3490 Bxx, 3490 Dxx, 3490E Axx, 3490E Bxx, 3490E Cxx, and 3490E Dxx Tape Subsystem Models. Also requires #9980 Serpentine Cable except for 3490E Cxx when used with internal cables.</p> <p>Card slots required: One</p> <p>Maximum: Eight</p>
#2718	<p><b>#2718 PCI Magnetic Media Controller</b></p> <p>The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼ inch cartridge external tape drive), 7208-345 60GB External 8mm Tape Drive, 7210-020 CD ROM, or 7210-025 DVD-RAM.</p> <p>See 8.7.4, "#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules" on page 279, for information on connecting devices to the #2718.</p> <p>High-speed PCI slots required: One</p> <p>Prerequisite: #2824 PCI Feature Controller and #5065 Storage/PCI Expansion Tower</p> <p>Maximum: Three in the #5065</p> <p>Minimum OS/400 to support the 7210-020 and 7208-345: V4R5</p> <p>Minimum OS/400 to support the 7210-025: V5R1</p>
#2729	<p><b>#2729 PCI Magnetic Media Controller</b></p> <p>The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x, 3570, 3575, 3580, 3581, 3583, 3590, 7208, 9348, or 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2824 PCI Feature Controller and #5065 Storage/PCI Expansion Tower</p> <p>Maximum: Three in the #5065.</p>
#2748	<p><b>#2748 PCI RAID Disk Unit Controller—26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b></p> <p>The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #4331 1.6 GB Read Cache Device. It supports up to two internal tapes and CD-ROM. Supports #1349, #1350, #1355, #1360, #4482, #4483, #4486, #6480, #6481, #6482, #6483, #6485, #6486, or #6490 tape units.</p> <p>High-speed PCI slots required: One</p> <p>Prerequisite: #5065 Storage/PCI Expansion Tower</p> <p>Minimum OS/400 level: V4R4</p> <p>Maximum: Three per #5065</p>

#2778	<p><b>#2778 PCI RAID Disk Unit Controller—104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b></p> <p>The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity.</p> <p>The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM).</p> <p>Maximums: Three (in combination with #2748) per #5065 Storage/PCI Expansion Tower. Six (in combination with #2748) per #5066 1.8 M I/O Tower.</p> <p>Prerequisite: An available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower</p> <p>Minimum OS/400 level: V5R1</p>
#6112	<p><b>Magnetic Storage Device Controller</b></p> <p>The #6112 provides attachment for up to two 9331-001 or 002 Diskette Units and up to two 9347 Tape Units.</p> <p>Card slots required: One</p> <p>Maximum: Two for 9331, two for 9347</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b></p> <p>The #6146 provides attachment for one 9331 011 or 012 Diskette Unit.</p> <p>Card slots required: None</p> <p>Prerequisite: #2624 Storage Device Controller</p> <p>Maximum: Two</p>
#6500	<p><b>Direct Access Storage Device Controller</b></p> <p>The #6500 provides attachment for one 9337 0xx or 1xx Disk Unit.</p> <p>Card slots required: One</p>
#6501	<p><b>Tape/Disk Device Controller</b></p> <p>The #6501 provides attachment for up to two 9337 2xx, 4xx, or 5xx Models. Also supports up to two 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 Lxx or Dxx, 3570, 3575, 3580, 3581, 3583, or 3590 Models. Also provides attachment for 2105 Versatile Storage Server. DASD and Tape Units cannot be mixed on the same #6501. The #6534 is used in preference to #6501 if it supports the tape device being configured.</p> <p>Card slots required: One</p> <p>Maximum: Eight for tape; for disk, see the 600, 620, 640, and 650 model capacity charts on pages 98, 99, and 100.</p>
#6502	<p><b>RAID Disk Unit Controller—2 MB Cache (RAID/Mirrored/Unprotected)</b></p> <p>The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Tower. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of two arrays are allowed for each #6502.</p> <p>The #6502 does not support integrated hardware disk compression.</p> <p>Card slots required: One</p>
#6512	<p><b>#6512 High Performance Controller—4 MB Cache (RAID/Mirrored/Unprotected)</b></p> <p>The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of two arrays are allowed for each #6512.</p> <p>The #6512 does not support integrated hardware disk compression.</p> <p>Card slots required: One</p>
#6513	<p><b>Internal Tape Device Controller</b></p> <p>The #6513 provides support for up to two internal tape drives when located in Model 650 system unit or four internal tape drives when located in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed.</p> <p>Supports #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 Tape Units.</p> <p>Card slots required: One</p> <p>Maximum: Five</p>
#6530	<p><b>Disk Unit Controller—No Cache (Mirrored/Unprotected)</b></p> <p>Controller for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, or #5082 or #5083 Storage Expansion Tower.</p> <p>The #6530 does not support integrated hardware disk compression.</p> <p>Card slots required: One.</p>

#6532	<p><b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Units or #5083 Storage Expansion Tower. Also supports disks located in #5052 Storage Expansion Unit, or #5082 Storage Expansion Tower, but these is not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6532.</p> <p>The #6532 does not support integrated hardware disk compression.</p> <p>Card slots required: One</p>
#6533	<p><b>#6533 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5083 Storage Expansion Tower. Also supports disks located in #5052 Storage Expansion Unit, or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6533.</p> <p>Card slots required: One</p> <p>Minimum OS/400 level: V4R2</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b></p> <p>The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 L1x or D1x, 3570, 3575, 3580, 3581, 3583, 3590, 7208, 9348, or 9427 Tape Drive, or 3995 C4x Optical libraries Dataserver.</p> <p>Card slots required: One</p> <p>Maximum: Eight</p> <p>Minimum OS/400 to support the 3995: V4R2</p>
#9751	<p><b>MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #9751 is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5055 or #5057 Storage Expansion Unit. On the Model 640, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model 650, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed. The #9751 does not support integrated hardware disk compression.</p> <p>Card slots required: Two</p> <p>Maximum: One</p> <p>CCIN 6754</p>
#9754	<p><b>#9754 MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #9754 MFIOP is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5055 or #5057 Storage Expansion Unit. On the Model 640, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model 650, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of four arrays are allowed. The #9754 is standard on all systems shipped with V4R2.</p> <p>Card slots required: Two</p> <p>Maximum: One</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54GB Disk Units: V4R4</p> <p>CCIN 6754</p>

## 6.17 Supported upgrades for 600, 620, 640, and 650 models

All upgrades to, within, and from the 600, 620, 640, and 650 systems are withdrawn from marketing.

### 6.17.1 Model 2xx, 3xx, 4xx, and 5xx to Model 6xx performance differential

The following table indicates the percentage increase in performance for Models 600, 620, 640, and 650.

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
Model	Proc RSP CPW <sup>1</sup>	600				620					640			650			
		#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
		22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
F02	5.5	313%	491%	725%													
F04	7.3	211%	345%	522%	901%												
F06	9.6	136%	239%	373%	661%												
F10	9.6	136%	239%	373%	661%	420%	792%										
F20	11.6	96%	180%	291%	530%	331%	638%	881%									
F25	13.7	66%	137%	231%	434%	265%	525%	731%									
F35	13.7	66%	137%	231%	434%	265%	525%	731%									
F45	17.1		90%	165%	327%	192%	401%	565%									
F50	27.8					80%	208%	309%	655%								
F60	40.0						114%	185%	425%	1064%	698%						
F70	57.0							100%	268%	715%	460%	923%					
F80	97.1								116%	378%	229%	501%					
F90	127.7								64%	264%	150%	357%	682%				
F95	148.8										114%	292%	571%				
F97	177.4										80%	229%	463%	911%			
236 <sup>3</sup>	16.3			179%	348%	207%	425%	598%									
200/#2030	7.3	211%	345%	522%	901%	585%	1073%										
200/#2031	11.6	96%	180%	291%	530%	331%	638%	881%									
200/#2032	16.8		93%	170%	335%	198%	410%	577%									
400/#2130 <sup>2</sup>	13.8	64%	136%	229%	430%	262%	520%	725%									
400/#2131 <sup>2</sup>	20.6		58%	120%	255%	143%	316%	452%	919%								
400/#2132 <sup>2</sup>	27.0			68%	171%	85%	217%	321%	678%								
400/#2133 <sup>2</sup>	33.3				120%		157%	242%	531%								
436/#2102	16.3			179%	348%	207%	425%	598%									
436/#2104	20.6			120%	255%	143%	316%	452%	919%								
436/#2106	27.4							315%	666%								
300/#2040	11.6	96%	180%	291%	530%	331%	638%	881%									
300/#2041	16.8		93%	170%	335%	198%	410%	577%									
300/#2042	21.1		54%	115%	246%	137%	306%	439%	895%								
310/#2043	33.8						153%	237%	521%	1274%	844%						
310/#2044	56.5							101%	272%	722%	465%	932%					
320/#2050	67.5							69%	211%	588%	373%	764%					
320/#2051	120.3								75%	286%	165%	385%	730%				
320/#2052	177.4										80%	229%	463%	911%			
500/#2140	21.4					134%	300%	432%	881%								
500/#2141	30.7					63%	179%	271%	584%	1412%	939%						
500/#2142	43.9						95%	159%	378%	958%	627%	1229%					
510/#2143	77.7							46%	170%	498%	311%	651%	1185%				

Model 620, 640, 650

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
Model	Proc RSP CPW <sup>1</sup>	600				620					640			650			
		#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
		22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
510/#2144	104.2								102%	346%	206%	460%	858%				
530/#2150	131.1										143%	345%	662%	1268%			
530/#2151	162.7										96%	259%	514%	1003%			
530/#2152	278.8										109%	258%	543%	739%	1213%		
530/#2153	459.3											117%	291%	409%	697%	890%	
530/#2162	509.9											96%	252%	359%	618%	792%	
<b>Note 1</b>	Relative system performance (CPW). For the 6x0 models, this is based on V4. For the "from" model, this is based on V3R1 for CISC boxes and V3R7 for RISC boxes. Boxes on V3R6 see greater improvements.																
<b>Note 2</b>	400 includes package Models 40E, 40G, 40L, 41E, 41G, 41L, 42E, 42G, and 42L.																
<b>Note 3</b>	The 236 does not run OS/400. However, the 436-2102 has an equivalent processor so the figures for that have been used.																

New systems are a 9406 machine type (for example, 9406 Model 600). AS/400e servers that have been upgraded from a 9402 or 9404 retain that machine type number to become a 9402/9404 Model 6xx, despite the fact that, physically, it is the same as a 9406 6xx.

### 6.17.2 Model 6xx to Model 6xx performance differential

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
Model	Proc RSP CPW <sup>1</sup>	600				620					640			650			
		#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
		22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
600 #2129	22.7		43%	100%	222%	120%	277%	401%	825%								
#2134	32.5			40%	125%	54%	163%	250%	546%								
#2135	45.4				61%		89%	151%	363%	923%							
#2136	73.1							56%	187%	535%							
620 #2175	50.0						71%	128%	320%	829%	538%						
#2179	85.6							33%	145%	442%	273%	581%					
#2180	113.8								85%	308%	180%	413%	718%				
#2181	210.0									121%	52%	178%	376%	754%			
#2182	464.3											115%	286%	404%	688%	880%	
640 #2237	319.0											83%	213%	462%	634%	1047%	
#2238	583.3												71%	208%	301%	527%	680%
#2239	998.6													80%	134%	267%	356%
650 #2240	1794														30%	104%	154%
#2243	2340															56%	94%
#2188	3660																24%
#2189	4550																
<b>Note 1</b>	Relative system performance (CPW). For the 6x0 models, this is based on V4. For the "from" model, this is based on V3R1 for CISC boxes and V3R7 for RISC boxes. Boxes on V3R6 see greater improvements.																

Model 620, 640, 650

### 6.17.3 Considerations for CISC-based models to RISC-based AS/400e 6xx models

1. OS/400 Version 4 is a prerequisite for all 6xx models.
2. For physical planning information such as weights, dimensions, and power requirements of the 6xx models, consult the *AS/400 Physical Planning Reference*, SA41-5109.
3. A Model 600 provides limited expansion for adapters. For example, if a fully configured Integrated PC Server supporting two LANs (token-ring or Ethernet) is installed, space remains for four additional adapters, two of which are dedicated for use by the #2838 PCI 100/10 Mbps Ethernet IOA, #281x ATM IOAs, and the #2729 PCI Magnetic Media Controller.
4. The Model 600 supports PCI cards only. These IOPs and adapters are not supported with PCI cards and, therefore, are not supported on the Model 600:
  - Cryptographic processors
  - Fax Adapter
  - ASCII Adapters
  - ISDN Adapter
  - SDDI Adapter
  - FDDI Adapter
  - Wireless LAN
  - LocalTalk Adapter
5. On most 6xx processors memory must be installed in pairs or fours.
6. When moving from Fxx, 2x0, and 3x0 models to RISC models, application software must be in an observable format or have source code available or have a RISC-based version ready.
7. The following racks are supported with the 9406 RISC models:
  - 9309 - #9171: General Purpose Rack with SPCN (stage 2)
  - 9406 - #5044: Converted D/E/F System (#5042) or Bus (#5040 Extension Unit)
  - 9406 - #5043: Converted D/E/F system unit (equivalent to 9309-#9171)
  - 9309 - #9141: General Purpose Rack without SPCN (stage 1). Must connect to one of the above three racks for power control.

The #9141 can attach to all system units if a jumper (P/N 93X0167) is installed. This is only recommended if the rack contains tape or diskette (not on Model 600).
8. Version 4 Release 1, Release 2, and Release 3 require more disk space than Version 3 Release 6 or Release 7. Refer to *Software Installation*, SC41-5120.
9. A CD-ROM drive is included on all RISC based models. All IBM AS/400e software is shipped on CD-ROM for these models.
10. The CD-ROM on the 6xx models is not identified by a feature. This also applies to base memory on the 600/620 models.
11. AS/400e RISC-based models use a substantially faster bus. The bus controller on the existing tower or racks can be converted to the faster bus controller using conversion kits.
12. No 320 MB, 400 MB, 640 MB (dual), 800 MB (dual), 988 MB, or 1976 MB (dual) disk units are supported on the 6xx model range.
13. The 120 MB and 525 MB ¼-inch cartridges and the 840 MB ¼-inch cartridge mini-cartridge tape units are not supported on the 6xx models.
14. The Model 620 uses PCI card technology. Models 640 and 650 use SPD card technology.



## AS/400e SB1, S10, S20, S30, and S40 models

AS/400e SB1, S10, S20, S30, and S40 models are special-purpose servers. The configuration options for these servers are limited.

Model	Announce	Withdrawn from marketing
SB1 #2310 and #2311	Announced 19 August 1997	29 December 2000
SB1 #2312 and #2313	Announced 1 September 1998	29 December 2000

Model and processor	Announce date	General availability date	Withdrawn from marketing
S10 2118	19 August 1997	08 August 1997	31 May 1999
S10 2119	19 August 1997	08 August 1997	31 May 2000
S20 2161	19 August 1997	08 August 1997	31 May 2000
S20 2163	19 August 1997	08 August 1997	31 May 2000
S20 2165	19 August 1997	08 August 1997	31 May 2000
S20 2166	19 August 1997	08 August 1997	31 May 2000
S20 2170	19 May 1998	08 August 1997	31 May 1999
S20 2177	19 August 1997	08 August 1997	31 May 2000
S20 2178	19 August 1997	08 August 1997	31 May 2000
S30 2257	19 August 1997	08 August 1997	31 May 2000
S30 2258	19 August 1997	08 August 1997	31 May 2000
S30 2259	19 August 1997	08 August 1997	31 May 2000
S30 2260	19 August 1997	08 August 1997	31 May 2000
S30 2320	19 August 1997	08 August 1997	31 May 2000

Model and processor	Announce date	General availability date	Withdrawn from marketing
S30 2321	19 August 1997	08 August 1997	31 May 2000
S30 2322	19 August 1997	08 August 1997	31 May 2000
S40 2256	10 February 1998	08 August 1997	31 May 2000
S40 2261	19 August 1997	08 August 1997	31 May 2000
S40 2207	01 September 1998	08 August 1997	31 May 2000
S40 2208	01 September 1998	08 August 1997	31 May 2000
S40 2340	01 September 1998	08 August 1997	31 May 2000
S40 2341	01 September 1998	08 August 1997	31 May 2000

**Note:** The darker shaded cells in the tables indicate the base features.

## 7.1 AS/400e Model SB1 overview

Processor feature	Model SB1			
	#2310	#2311	#2312	#2313
Relative system performance*				
Normalized FI dialog steps per hour	125,888	185,533	-	-
Number of n-way multiprocessors	8	12	8	12
Main storage (MB)	4096	4096	8192	8192
Minimum operating system level	V4R1		V4R3	V4R3
Disk storage base (GB)				
Minimum			16.77	
Maximum internal			34.35	
Maximum external			-	
Maximum combined			34.35	
Disk unit IOPs			1	
Minimum feature card slots			3	
Maximum feature card slots			29	
Communications lines			1-16	
LAN/ATM adapters			1-5	
Workstation controllers			1-3	
Twinaxial			0-1	
ASCII (V4R1)			0-1	
ASCII (V4R2/V4R3)			0-2	
Maximum workstations				
Twinaxial (V4R1)			7	
Twinaxial (V4R2/V4R3)			28	
ASCII (V4R1)			6	
ASCII (V4R2/V4R3)			28	
¼-inch/8mm cartridge tape			0-3	
½-inch tape				
Reel-to-reel (2440, 9348)			0-4	
Cartridge (34xx, 35xx)			0-4	
8mm cartridge tape (external)			0-4	
Optical libraries			0-2	
Diskettes (5 ¼-inch or 8-inch)			0-2	
Fax adapters			0-2	
Cryptographic processor			0-1	
System I/O buses			1-5	
#5073 System expansion			0-2	

\* Model SB1 performance measurements when used as a SAP R/3 application server. FI Dialog Steps may not be realized in all environments. Listed FI Dialog Steps per hour are at 65% CPU Utilization.

## 7.2 AS/400e Model S10 overview

Processor feature	Model S10	
	#2118	#2119
Relative system performance (CPW) <sup>1</sup>		
Client/server environment	45.4	73.1
Interactive environment	16.2	24.4
Number of n-way multiprocessors	1	1
Main storage (MB)	64-384	128-512
Disk storage base (GB)		4.19
Maximum internal (GB)		
V4R1		85.8
V4R2/V4R3		175.4
System I/O card slots		
SPD		0
PCI		8
Communications lines <sup>2</sup>		1-10
LAN/ATM adapters		1-3
Maximum workstation controllers		
Twinaxial		1
ASCII		0
Maximum workstations		
Twinaxial (V4R1)		7
Twinaxial (V4R2/V4R3)		28
ASCII		0
¼-inch/8mm cartridge tape (internal)		0-1
½-inch tape		
Reel 9348		0-1
Reel 2440,9347		0
Cartridge 34xx, 35xx		0-1
8mm cartridge (external)		0-1
Optical libraries		0-1
Diskettes (5 ¼-inch or 8-inch)		0
Fax adapters		0
Cryptographic processor		0
System I/O buses		1

<b>Note 1</b>	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine what performance is achievable.
<b>Note 2</b>	One line is used for Operations Console or Client Access Console if selected. The maximum is nine if Twinaxial Console is selected.

## 7.3 AS/400e Model S20 overview

Model SB1, S10, S20,  
S30, S40

Model S20							
Processor feature	#2161	#2163	#2165	#2166	#2170	#2177	#2178
Relative system performance <sup>1</sup>							
Client/server environment	113.8	210.0	464.3	759.0	464.3	759.0	759.0
Interactive environment	31.0	35.8	49.7	56.9	49.7	110.7	221.4
Number of n-way multiprocessors	1	1	2	4	1	4	4
Main storage (MB)	256-2048	256-2048	256-4096	256-4096	256-4096	256-4096	256-4096
<b>Numbers are for all processor features</b>	<b>Base system</b>	<b>SUE #5064 PCI (#9329)<sup>4</sup></b>	<b>SUE #5064 SPD (#9331)<sup>4</sup></b>	<b>Expansion tower</b>	<b>#5065 Expansion Tower</b>	<b>System maximum</b>	
Disk storage base (GB)	4.19	-	-	274.8			4.19
Maximum internal (GB) (V4R2/V4R3)	263.2 <sup>5</sup>	263.2	263.2	561.5			944.8
Maximum external (GB) (V4R2/V4R3)	-	-	note 2	note 2			893.3
Total maximum (GB) (V4R2/V4R3)							944.8
Total maximum (GB) (V4R4)	263.2 <sup>5</sup>	263.2	263.2	561.5	386.5		944.8
Total maximum (GB) (V5R1)	263.2 <sup>5</sup>	263.2	263.2	561.5	773.0		944.8
External SPD bus	0	4	4	0			4
Maximum card slots-SPD	0	0	6	13	0		58
Maximum card slots-PCI	8	14	0	0	12		22
Communication lines <sup>3</sup>	1-10	0-18	0-30	0-78	0-36		96
LAN/ATM adapters	1-3	0-5	0-6	0-13	3		16
Maximum workstation controllers <sup>6</sup>					12		
Twinaxial	1	1	1	1			1
ASCII (V4R1)	0	0	1	1			1
ASCII (V4R2/V4R3)	0	0	2	2			2
Maximum workstations <sup>6</sup>							
Twinaxial (V4R1)	7	7	7	7	28		7
Twinaxial (V4R2/V4R3)	28	28	28	28	1		28
Twinaxial (V4R4)	0	0	6	6			6
ASCII (V4R1)	0	0	28	28			28
ASCII (V4R2/V4R3)							
¼-inch/8mm cartridge tape (internal)	0-1	0-3	0-3	0-4	0-2		0-17
½-inch tape							
Reel 9348	0-1	0-2	0-4	0-4			4
Reel 2440	0	0	0-4	0-4			4
Reel 9347	0	0	0	0			0
Cartridge 34xx, 35xx	0-1	0-2	0-4	0-4	0-3		6
8mm cartridge (external)	0-1	0-2	0-4	0-4	0-3		4
Tape libraries	0-1	0-2	0-4		0-3		4
Optical libraries	0-1	0-2	0-12	0-14	3		14
Diskettes (5 ¼-inch or 8-inch)	0	0	0-2	0-2			2
Fax adapters	0	0	0-6	0-13			32
Cryptographic processor	0	0	0-1	0-1	0-3		1

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	External DASD can be attached using an SPD card in the expansion unit.
<b>Note 3</b>	One line is used for Client Access Console or Operations Console if selected. Maximum is nine if Twinaxial Console is selected.
<b>Note 4</b>	The #5064 must be configured with #9329 (PCI) or #9331 (SPD). Therefore, these columns are mutually exclusive.
<b>Note 5</b>	Maximum is 85.8 GB (V4R1) or 175.4 GB (V4R2/V4R3/V4R4) on the #2161 Processor.
<b>Note 6</b>	The S20 processors #2170, #2177, and #2178 support a maximum of 60 twinaxial and 58 ASCII Workstation Controllers and 2392 twinaxial and 1044 ASCII Workstations.

## 7.4 AS/400e Model S30 overview

Processor feature	Model S30						
	#2257	#2258	#2259	#2260	#2320	#2321	#2322
Relative system performance (CPW) <sup>1</sup>							
Client/server environment	319.0	583.3	998.6	1794.0	998.6	1794.0	1794.0
Interactive environment	51.5	64.0	64.0	64.0	215.1	386.4	579.6
Number of n-way multiprocessors	1	2	4	8	4	8	8
Main storage (MB)							
Minimum	512	512	512	1024	512	1024	1024
Maximum (V4R1/V4R2)	12288	12288	12288	12288	12288	12288	12288
Maximum (V4R3)	16384	16384	16384	24576	16384	24576	24576
Disk storage base (GB)			4.19			4.19	
Maximum internal (GB) (V4R1)			927.7			927.7	
Maximum external (GB) (V4R1)			893.3			893.3	
Maximum combined (GB) (V4R1)			927.7			927.7	
Max internal (GB) (V4R2/V4R3)			1340.0			1340.0	
Maximum external (GB) (V4R2/V4R3)			1305.6			1305.6	
Maximum combined (GB) (V4R2/V4R3)			1340.0			1340.0	
Disk unit IOPs			1-37			1-37	
Minimum feature card slots			3			3	
Maximum feature card slots			235			235	
Communication lines			1-200			1-200	
LAN/ATM adapters <sup>2</sup>			1-32			1-32	
Maximum workstation controllers							
Twinaxial			1			175	
ASCII (V4R1)			1			175	
ASCII (V4R2/V4R3)			2			175	
Maximum workstations							
Twinaxial (V4R1)			7			7000	
Twinaxial (V4R2/V4R3)			28			7000	
ASCII (V4R1)			6			3150	
ASCII (V4R2/V4R3)			28			3150	
¼-inch/8mm cartridge tape (internal)			0-17			0-17	
½-inch tape							
Reel 2440, 9348			0-4			0-4	
34xx, 35xx			0-8			0-8	
8mm cartridge tape (external)			0-4			0-4	
Optical libraries			0-22			0-22	
Diskettes (5 ¼-inch or 8-inch)			0-2			0-2	
Fax adapters			0-32			0-32	
Cryptographic processor			0-1			0-1	
System I/O buses			1-19			1-19	
System expansion			0-18			0-18	
(#5072/#5073/#5082/#5083)							
Storage expansion (#5055/#5057)			0-1			0-1	
Storage expansion (#5052/#5058)			0-18			0-18	

Model SB1, S10, S20, S30, S40

<b>Note 1</b>	CPW is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	Can include up to 16 Integrated PC Servers.

## 7.5 AS/400e Model S40 overview

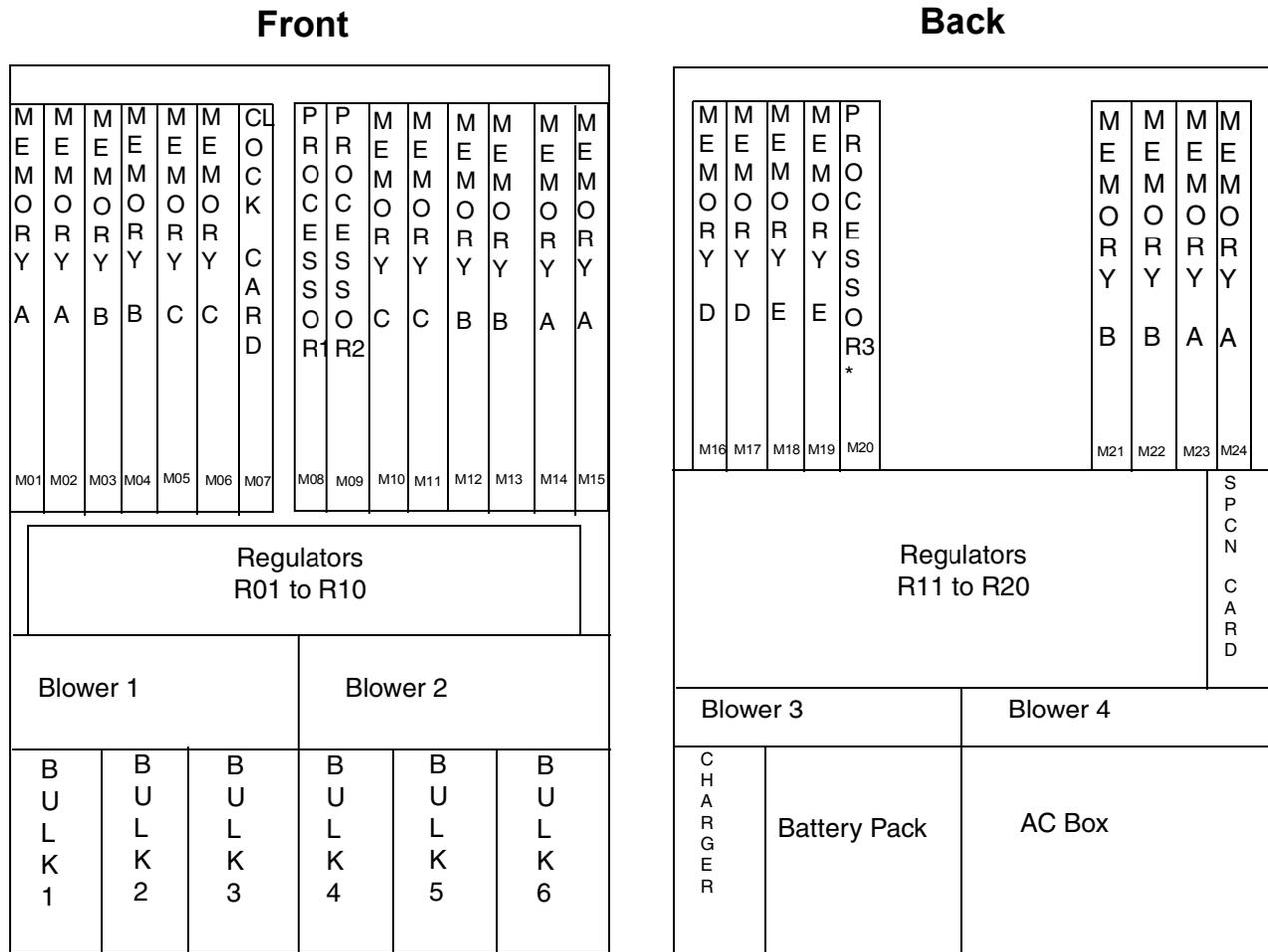
Model SB1, S10, S20,  
S30, S40

Processor feature	Model S40					
	#2256	#2261	#2207	#2208	#2340	#2341
Relative system performance (CPW <sup>1</sup> )						
Client/server environment	1794	2340	3660	4550	3660	4450
Interactive environment	64	64	120	120	1050	2050
Number of n-way multiprocessors	8	12	8	12	8	12
Main storage (MB)						
Minimum	1024	1024	1024	1024	1024	1024
Maximum (V4R1/V4R2)	20480	20480	-	-	-	-
Maximum (V4R3)	32768	32768	40960	40960	40960	40960
Disk storage base (GB)						
Minimum			4.19			4.19
V4R1						
Maximum internal			996.4			-
Maximum external			893.3			-
Maximum combined			996.4			-
V4R2						
Maximum internal			1546.1			-
Maximum external			1511.8			-
Maximum combined			1546.8			-
V4R3						
Maximum internal			2095.9			2095.9
Maximum external			2061.3			2061.3
Maximum combined			2095.9			2095.9
Disk unit IOPs			1-37			1-37
Minimum feature card slots			3			3
Maximum feature card slots			237			237
Communications lines						
V4R1/V4R2			1-250			-
V4R3			1-300			1-300
LAN/ATM adapters <sup>2</sup>						
V4R1/V4R2			1-48			-
V4R3			1-72			1-72
Workstation controllers			1-3			1-175
Twinaxial			0-1			0-175
ASCII (V4R1)			0-1			-
ASCII (V4R2/V4R3)			0-2			0-175
Maximum workstations						
Twinaxial (V4R1)			7			-
Twinaxial (V4R2/V4R3)			28			7000
ASCII (V4R1)			6			-
ASCII (V4R2/V4R3)			28			3150
¼-inch/8mm cartridge tape			0-17			0-17
½-inch tape (internal)						
½-inch Tape						
Reel-to-reel (2440, 9348)			0-4			0-4
Cartridge (34xx, 35xx)			0-8			0-8
8mm cartridge tape (external)			0-4			0-4
Optical libraries			0-22			0-22
Diskettes (5 ¼-inch or 8-inch)			0-2			0-2
Fax adapters			0-32			0-32
Cryptographic processor			0-1			0-1
System I/O buses			1-19			1-19
System expansion			0-18			0-18
(#5072/#5073/#5082/#5083)						
Storage expansion (#5057)			0-1			0-1
Storage expansion (#5052/#5058)			0-18			0-18

<b>Note 1</b>	Commercial Processing Workload is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
<b>Note 2</b>	Can include up to 16 Integrated PC Servers.

## 7.6 9406 Model SB1 system unit

Model SB1, S10, S20, S30, S40

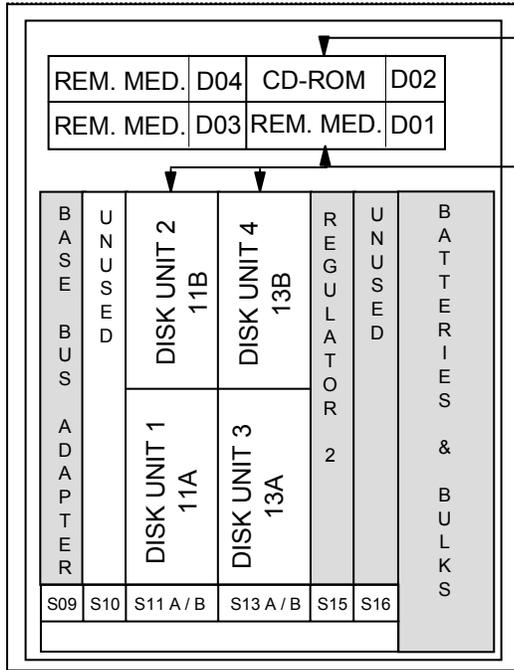


\*This slot is only used in SB1 #2311

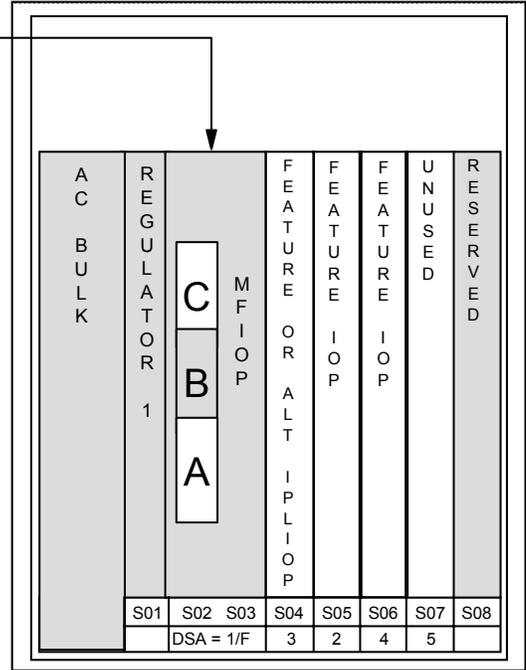
### #9251 Front

### #9251 Back

Model SB1, S10, S20, S30, S40



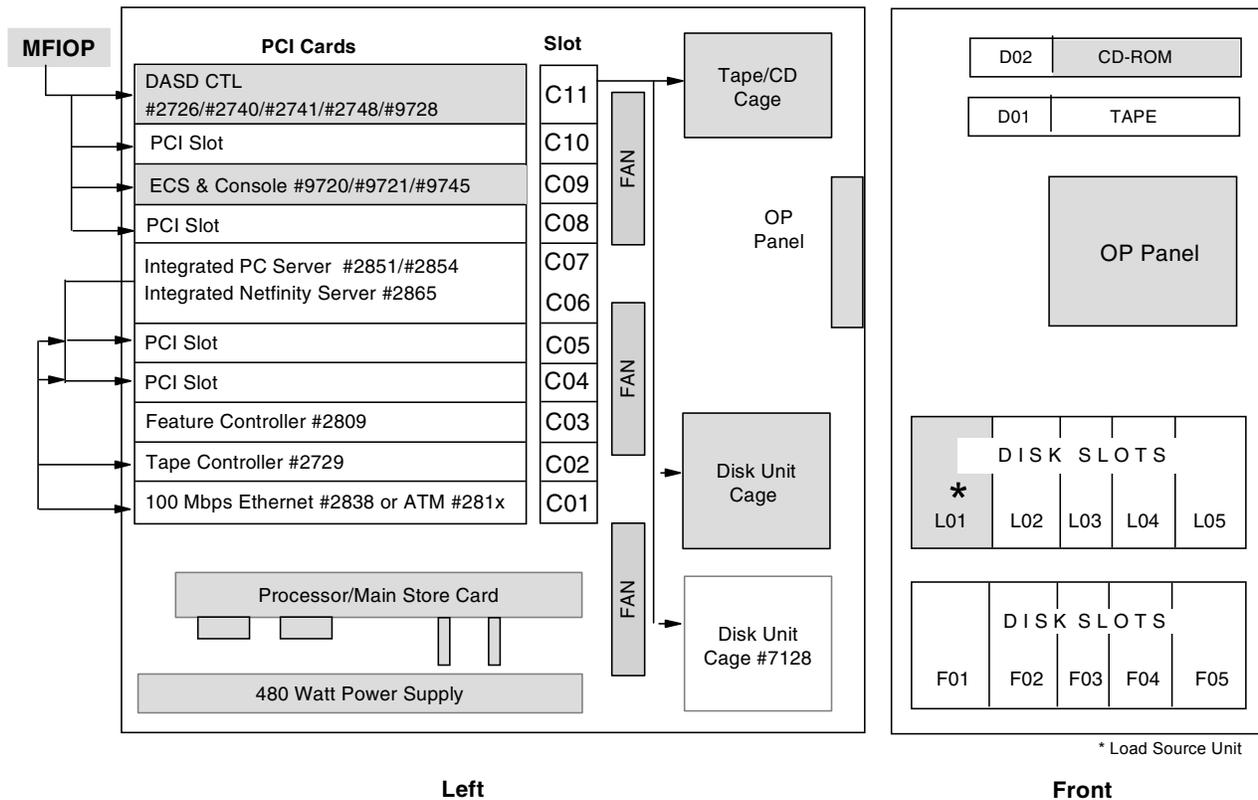
650 Base I/O Tower



= Are part of the base configuration

\* One byte disks cannot be installed in these slots

## 7.7 9406 Model S10 system unit



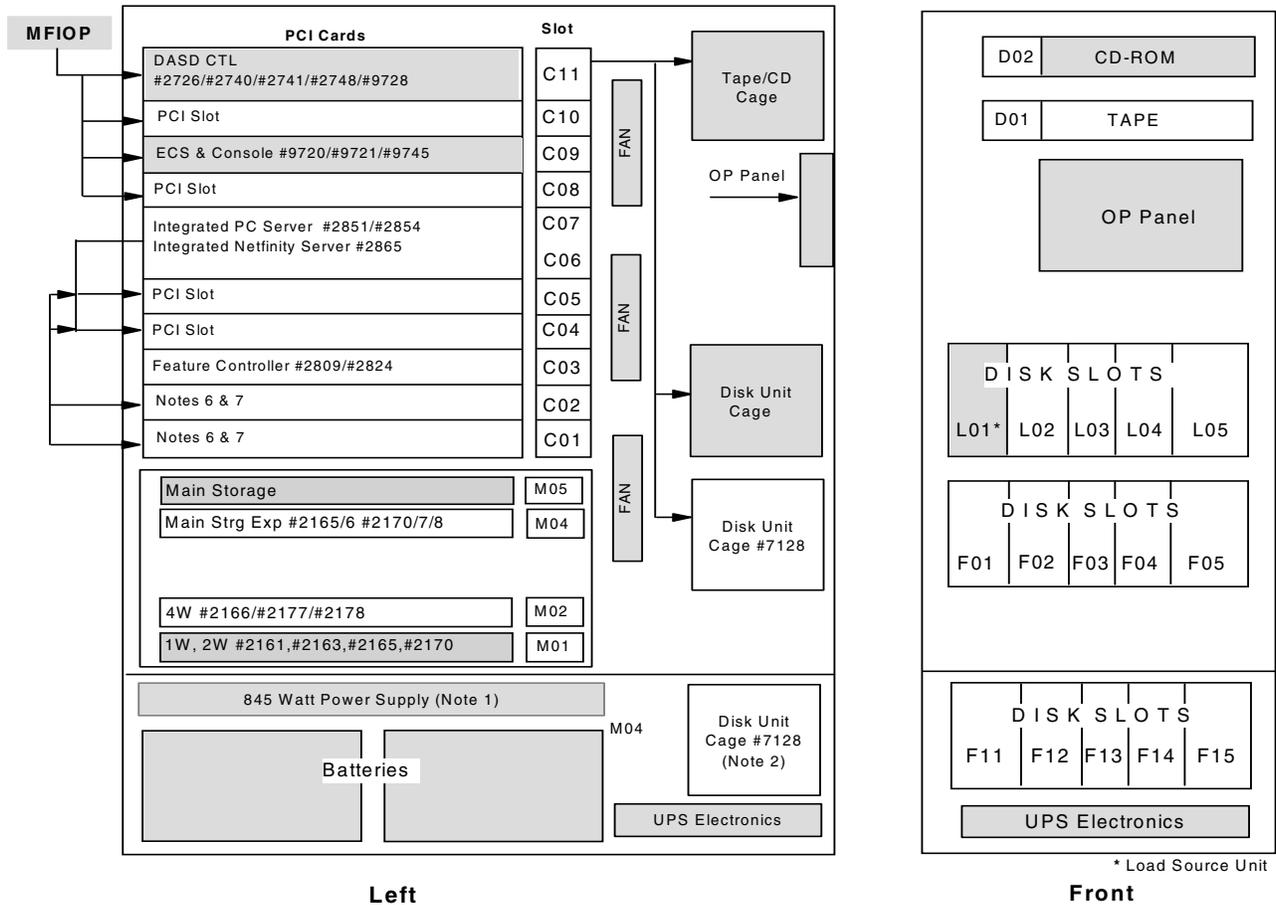
Model SB1, S10, S20, S30, S40

### Notes:

1. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. To install more than five disks or implement RAID-5 later, use a #2726/#2740/#2741/#2748 instead of the #9728.
2. If an Integrated PC Server is in slots C06 and C07, it controls its LAN IOAs in slots C04 and C05. If there is no IPCS or Integrated Netfinity Server, C04 and C05 are controlled by C03.
3. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07. The #2722/#2746 PCI Twinaxial Workstation IOA is not allowed in slot C08, and LAN IOAs are not allowed in slots C08 or C10.
4. SIMM modules plug directly to the planar board.
5. If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
  - Slot C04 supports #2723, #2724, or #2838/#9738.
  - Slot C05 supports #2723 or #2724.
6. For the #2809 in C03:
  - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x Asynchronous Transfer Mode (ATM).
  - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.

7. For the #2824 in C03:
  - Slot C01 supports the #2838/#9738 or #281x.
  - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
8. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in slots C04 or C05.
9. There is a maximum of one #2838 or #281x per #2824/#2809 IOP.
10. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
11. There is a maximum of one #4800 per #2824 IOP.

## 7.8 9406 Model S20 system unit



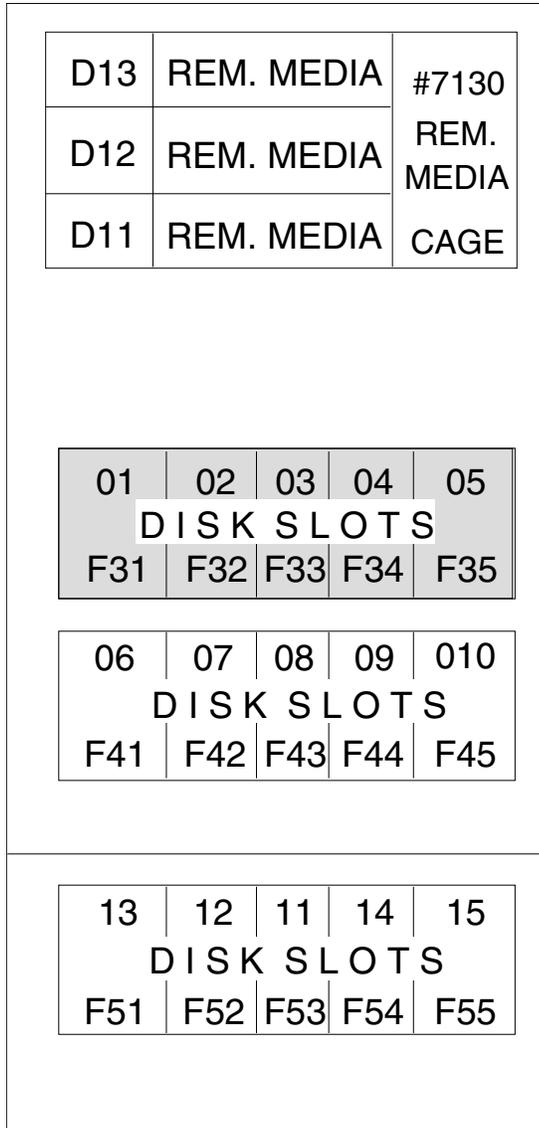
### Notes:

1. Processor #2161 has a 480-watt power supply. All other S20 models use the 845-watt power supply. The layout of the #2161 processor/main storage compartment differs from this drawing.
2. This cage is not supported with the #2161 processor.

3. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. To install more than five disks in the base system unit or to implement RAID-5, use a #2726/#2740/#2741/#2748.
4. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, then #2722/#2746 PCI Twinaxial Workstation IOA and LAN IOAs are not allowed in slot C08.
5. If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
  - Slot C04 supports #2723, #2724, or #2838/#9738.
  - Slot C05 supports #2723 or #2724.
6. For the #2809 in C03:
  - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
  - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.
7. For the #2824 in C03:
  - Slot C01 supports the #2838/#9738 or #281x.
  - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
  - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
8. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in C04/C05.
9. There is a maximum of one #2838 or #281x per #2824 IOP.
10. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
11. There is a maximum of one #4800 per #2824 IOP.

## 7.8.1 9406 Model S20 #5064 System Unit Expansion

### Front of #5064

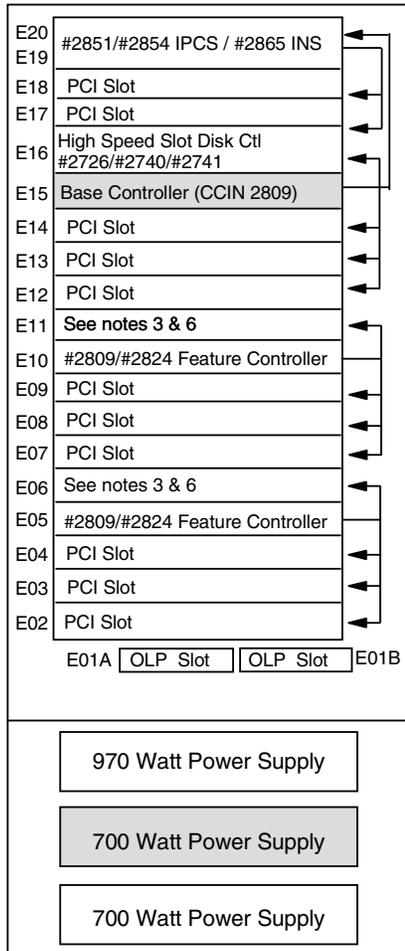


**Note:** The #5064 can either have #9329/#9330 PCI or a #9331 SPD planar board.

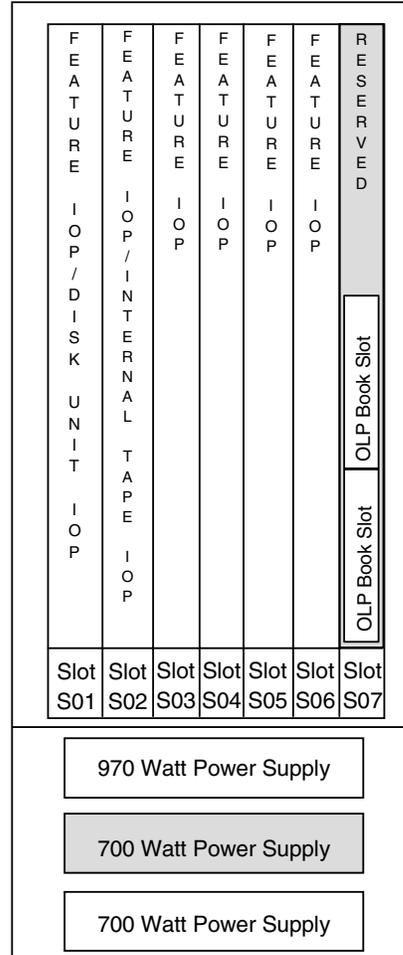
For diagrams of the #597X and #508X expansion towers, refer to 4.1, “AS/400 Model 500, 510, and 530 overview” on page 64.

## 7.8.2 #9329 PCI Card Cage and #9331 SPD Card Cage

#5064 with 9329 PCI Card Cage



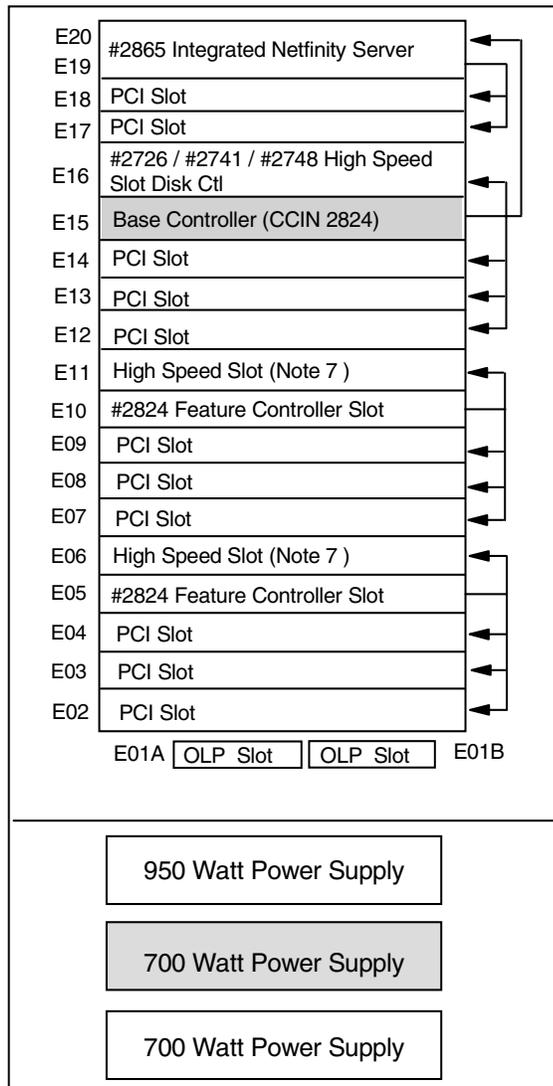
#5064 with 9331 SPD Card Cage



Model SB1, S10, S20,  
S30, S40

## 7.8.3 #9330 PCI Integrated Expansion Unit Card Cage

### #5064 with #9330 PCI Card Cage



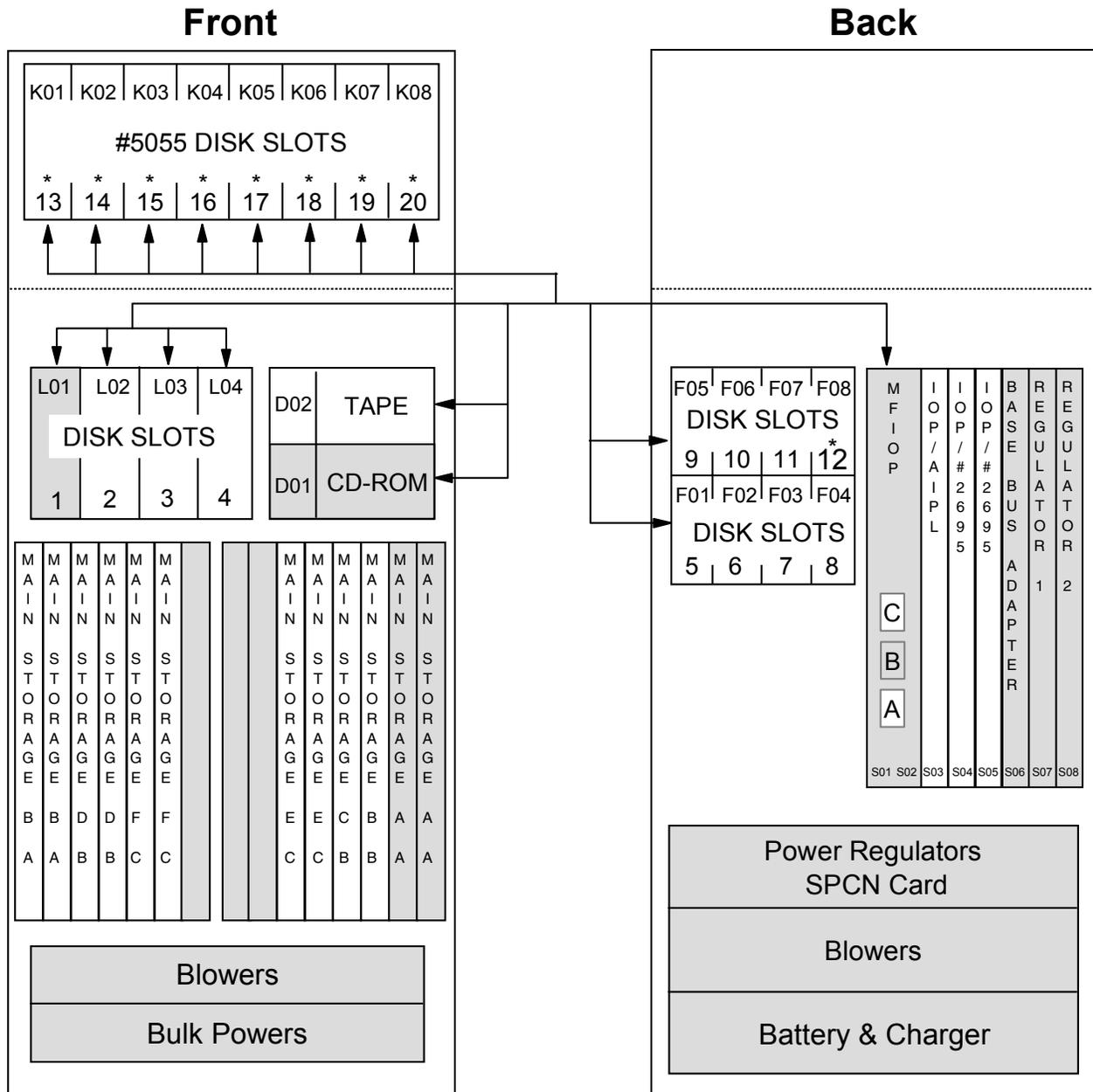
#### Notes:

- Optical link processors are used for connecting expansion towers and racks.
- Base PCI LAN/WAN/Workstation IOP (CCIN 2809) in the #9329 slot E15 supports:
  - In E16 (high-speed slot):
    - #2726, #2740, #2741
  - In E12, E13, E14 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, or #2746
    - Three cards in any combination with a maximum of one LAN card
    - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LANs are allowed in slots E12, E13, and E14.

3. The #2809 PCI LAN/WAN/Workstation IOP in #9329 slots E05 or E10 supports:
  - In E06 or E11 (high-speed slots):
    - #2718, #2729, #2838, or #281x
  - In E02, E03, E04 or E07, E08, and E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, or #2746
    - Three cards in any combination with a maximum of two LAN cards.
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
    - When a #2718/#2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in slots E08 or E09.
    - When a #2718/#2729 PCI Magnetic Media Controller is installed in E06, only one LAN is allowed in slots E03 or E04.
4. The #2838/#9738 100/10 Mbps Ethernet is normally located in slot E06 or E11. However, if driven by #2865 PCI Integrated Netfinity Server one #2838/#9738 is located in slot E17.
5. Base PCI LAN/WAN/Workstation IOP (CCIN 2824) in #9330 slot E15 supports:
  - In E16 (high-speed slot):
    - #2726, #2741, or #2748
  - In E12, E13, E14 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
    - Maximum of two LAN (#2723 and/or #2724) adapters
    - A maximum of one remote access card (#2750, #2751 or #2761)
    - Any combination of WAN and twinaxial adapters
    - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LAN features are allowed in slots E12, E13, and E14. Two LAN adapters are allowed on the IPCS or Integrated Netfinity Server, one of which may be high speed.
6. The #2824 PCI Feature Controller in #9329 slots E05 or E10 supports:
  - In E06 or E11 (high-speed slots):
    - #2718, #2729, #2838, #2750, #2751, #2761, #281x, or #4800
  - In E02, E03, E04 or E07, E08, E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
    - Three cards in any combination
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
    - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
    - When a #2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in slots E08 and E09.

- When a #2729 PCI Magnetic Media Controller is installed in E06, only one LAN is allowed in slots E03 and E04.
  - A maximum of one remote access card (#2750, #2751 or #2761) per #2824
  - A maximum of two low-speed LANs (#2723 and/or #2724) per #2824
7. The #2824 PCI Feature Controller in the #9330 slots E05 or E10 supports:
- In E06 or E11(high-speed slots):
    - #2718, #2729, #2745, #2746, #2750, #2751, #2761, #281x, #2838, or #4800
  - In E02, E03, E04 or E07, E08, E09 (low-speed slots):
    - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
    - Three cards in any combination
    - Maximum of one #2838 high-speed LAN or one #281x ATM per #2824
    - If high-speed LAN or ATM feature present, #2723/#2724 not allowed on this #2824
    - A maximum of one #2750, #2751, or #2761 remote access card per #2824
    - A maximum of two #2723 or #2724 low-speed LANs per #2824

## 7.9 9406 Model S30 system unit



Model SB1, S10, S20,  
S30, S40

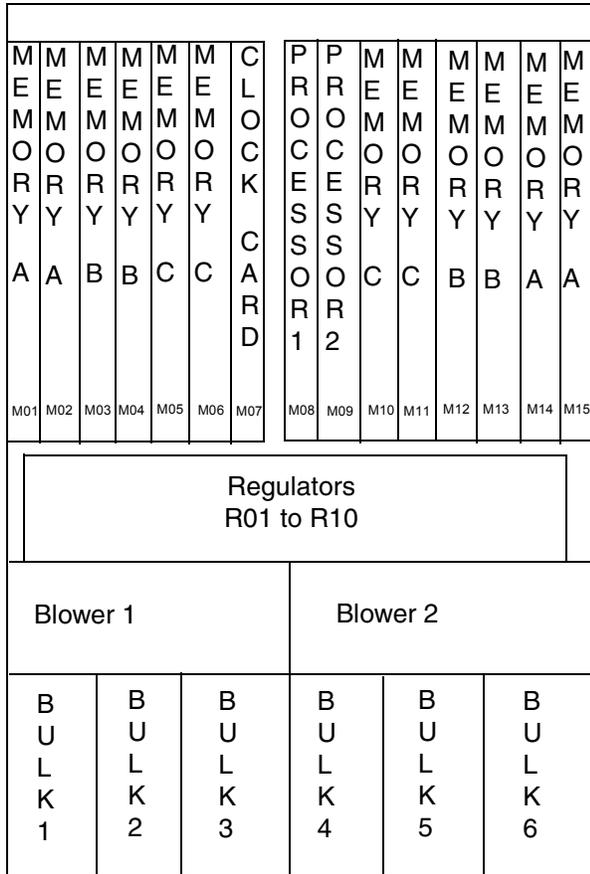
- \* One-byte disks cannot be installed in these slots.
- \*\* This slot is used only in the S30 #2260, #2321, and #2322.

**Note:** For memory slots, the first letter applies to the S30 #2257, #2258, #2259, and #2320. The second letter applies to the S30 #2260, #2321, and #2322.

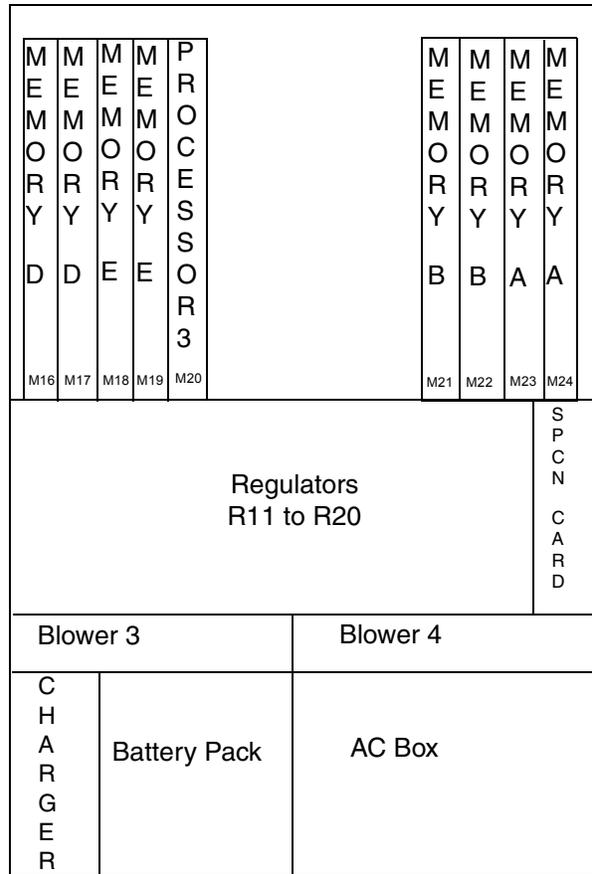
# 7.10 9406 Model S40 system unit

Model SB1, S10, S20, S30, S40

**Front**



**Back**



## 7.11 AS/400e Model SB1 features

This section identifies the supported features for the AS/400e Model SB1.

SB1 Processors	
#2310	<b>8-way Processor.</b> Base Memory 4096 MB. 125,888 normalized FI Dialog Steps per hour at 65% CPU. Prerequisite: #04xx ISV Software feature.
#2311	<b>12-way processor.</b> Base Memory 4096 MB. 185,533 normalized FI Dialog Steps per hour at 65% CPU. Prerequisite: #04xx ISV Software feature.
#2312	<b>8-way Processor.</b> Base Memory 8192 MB. For the latest information, see: <a href="http://www-4.ibm.com/software/">http://www-4.ibm.com/software/</a> Prerequisite: #04xx ISV Software feature.
#2313	<b>12-way Processor.</b> Base Memory 8192 MB. For the latest information, see: <a href="http://www-4.ibm.com/software/">http://www-4.ibm.com/software/</a> Prerequisite: #04xx ISV Software feature.
Power and Packaging	
#2688	<b>#2688 Optical Link Processor (1063 Mbps)</b> The #2688 is a card that is used for attaching #5072, #5073, #5082, or #5083 Storage Expansion Towers. Each #2688 supports a maximum of two #50xx Towers. Card slots used: None Maximum: Two on SB1 Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.
#2695	<b>#2695 Optical Bus Adapter</b> Allows for the addition of up to three #2688 Optical Link Processors. Card slots used: One Maximum: One
#5065	<b>#5065 Storage/PCI Expansion Tower</b> The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN/WAN/Workstation controllers, 12 PCI IOA cards, two removable media, and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device. The #5065 is the only storage expansion unit to support Ultra2 SCSI. Prerequisite: #2688 Optical Link Processor. Minimum OS/400 level: V4R4 The #5065 is a Customer Install Feature.
#5073	<b>#5073 1063 Mbps System Unit Expansion Tower</b> The #5073 provides an I/O tower for creating additional buses on the Model SB1. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5073 is required. Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 and an IOA slot on the System Unit Base Optical Bus Adapter.
#5101	<b>30 Disk Expansion Feature</b> This provides two 15 unit disk enclosures, a 700-watt power supply, backplanes and internal cables. Maximum: One per #5065 Storage/PCI Expansion Tower
#5150	<b>Battery Backup (External)</b> An external battery backup that when used in conjunction with an internal battery backup is capable of extending the Continuously Power Main Storage (CPM) time to at least 48 hours. On SB1 models, a standard internal battery backup is capable of maintaining CPM on 16 GB of main storage for at least 24 hours.
#9251	<b>#9251 Base I/O Tower</b> The #9251 is the Base Tower on a Model SB1. Includes four feature SPD IOP slots, space for three removable media devices, one CD-ROM drive, one MFIOP, and battery and power supplies. Model SB1 only

<b>Main Storage</b>	
#9179	<p><b>Base 256 MB Main Storage</b> Model SB1 comes standard with four 1024 MB main storage card on processors #2310 and #2311 and eight 1024 MB main storage cards on processors #2312 and #2313. There are no additional main storage features on Model SB1. Minimum OS/400 level: V4R2</p>
#9190	<p><b>Base 256 MB Main Storage</b> Model SB1 comes standard with four 1024 MB main storage cards on processors #2310 and #2311 and with 1024 MB main storage cards on processors #2312 and #2313. There is no additional feature main storage available on Model SB1.</p>
<b>Workstation Controllers</b>	
Base IOP	<p><b>Base Controller for Storage/#5065 Storage/PCI Expansion Tower</b> The base IOP comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots. The #2718, #2729 or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761 or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751 or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b> The #2699 supports up to three #2699, #6149, #6180, #6181, #9249, #9280, and #9381 LAN/WAN/workstation IOAs. The #6149, #6181, #9249, and #9381 cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One</p>
#2746	<p><b>#2746 PCI Twinaxial Workstation IOA</b> One eight-port attachment is provided to support 40 active twinaxial devices. PCI slots required: One Prerequisite: #5065 Storage/PCI Expansion Tower. Maximum: For workstation controller maximums in any combination, see the SB1 model capacity charts on page 168. Minimum OS/400 level: V4R4</p>
#2824	<p><b>#2824 PCI Feature Controller</b> The #2824 can be used for attaching additional LAN, WAN (see "Communications" on page 187), and Workstation IOAs to the system. There is a maximum of two in the #5065 Storage/PCI Expansion Tower. In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots: The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10 and C15 only. The #2838/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12. Restrictions apply using the #2824. See "Comm. Restrictions" on page 116. Minimum OS/400 level: V4R4</p>
#5540	<p><b>#5540 System Console on Twinaxial Workstation IOA Specify</b> The System Console attaches to #6180 or #9280 Twinaxial Workstation IOA or other migrated twinaxial workstation controller.</p>
#5541	<p><b>System Console Attached to ASCII Workstation Controller Specify</b> The System Console attaches to #9141 or #6141 ASCII Workstation Controller.</p>
#5543	<p><b>System Console Specify</b> The System Console is a PC attached to the #9751 MFIOP. Prerequisite: The #0344 Cable for attaching Client Access Console and #9699 Base Two-Line WAN IOA in slot B in the #9751 or #9754 MFIOP with RAID.</p>
#5544 #0328	<p><b>#5544 System Console on Operations Console</b> The System Console is a PC. The #5544 is the default for V4R3 SB1 Models. Prerequisite: The #0328 Cable to be attached to Port 0 of the #9699 Base Two-Line WAN IOA in slot B of the #9751 or #9754 MFIOP with RAID. #0328: Operations Console Cable: This is a 6-meter used to attach a PC to a #9699 for use as a remote PC Console. Mutually exclusive with #3044. Minimum OS/400 level: V4R3</p>
#6141 #9141	<p><b>#6141 ASCII Workstation Controller</b> The #6141 supports up to six ASCII devices. The #9141 can be specified as new orders on the Base Workstation Controller. Card slots required: One</p>

#6142	<p><b>#6142 ASCII 12-Port Workstation Attachment</b>  The #6142 plugs into the #9141 or #6141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. Only one #6142 can be attached per #6141 or #9141.  Card slots required: None</p>
#6180 #9280	<p><b>Twinaxial Workstation IOA</b>  One eight-port attachment is provided to support up to seven twinaxial devices with V4R1 or 28 with V4R2. The #9280 is specified on new order when a twinaxial workstation is required and there is no ASCII workstation controller. One #6280/#9280 is placed in slot C of the #9751 or #9754 MFIOP when the System Console is ASCII. All other #6180s must be placed in a #2629 LAN/WAN/Workstation IOP. IOA slots required: One #2629, #9751, or #9754 slot.</p>
#9751	<p><b>MFIOP with RAID (Ultra SCSI)</b>  The #9751 is standard on the Model SB1. Contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA, or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA, or one #6180 or #9280 Twinaxial IOA. Occupies two card slots.  The #9751 does not support integrated hardware disk compression.  CCIN 6751</p>
#9754	<p><b>#9754 MFIOP with RAID (Ultra SCSI)</b>  The #9754 contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA, or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA, or one #6180 or #9280 Twinaxial IOA. Occupies two card slots. The #9754 is standard on the Model SB1 and on systems ordered with V4R2.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R3  Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4  CCIN 6754</p>
<b>Communications</b>	
Comm. Restrictions	See "Comm. Restrictions" on page 116, for communications rules and restrictions.
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter</b>  The #2605 connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2523.  Card slots required: None  Prerequisite: #2623 Six-Line Communications Controller</p>
#2620	<p><b>#2620 Full Cryptographic Processor</b>  The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries or regions outside the U.S.A. and Canada, it can only be marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, a #2628 should be sold in its place.  Card slots required: One  Maximum: One</p>
#2623	<p><b>#2623 Six-Line Communications Controller</b>  The #2623 provides for attachment of a wide range of iSeries or AS/400e communications adapters. The following adapters are supported by the #2623: #2605, #2609, #2620, #2612, #2613, #2614, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. Of these only the #2605 is supported on the Model SB1. The #2623 supports two #2605 ISDN adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is only orderable on SB1 Models for customers purchasing the #2605 ISDN adapter.  Card slots required: One</p>
#2628	<p><b>#2628 Limited Cryptographic Processor</b>  The #2628 provides the same function as #2620 except that it does not include data encryption/decryption using commercial Data Masking Facility for data scrambling. Can be marketed to any non-U.S. company.  Card slots required: One  Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>  The #2629 supports up to three IOAs. Those supported are the #2699, #6149, #6180, #6181, #9280, and #9381. The #6149, #6181, #9149 and #9381 LAN IOAs cannot occupy all three positions of the #2629.  No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing the #2629 in #5073 1063 Mbps System Unit Expansion Tower.  Card slots required: One</p>

#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b>  The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with #2663, or PCs with approximately programmed Fax adapter. The #2664 consists of a card, a wrap cable, two country or region unique attachment couplers and telephone cables, and Licensed Internal Code.  Card slots required: One  Maximum: Two on Model SB1  Restriction: Not supported with V5R1</p>
#2699 #9699	<p><b>#2699 Two-Line WAN IOA</b>  The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:  #0328 Operations Console Cable 20-ft. (6m) (for #9699 and requires V4R3)*  #0329 V.24/EIA 232 80-ft. (24m) cable  #0330 V.24/EIA 232 20-ft. (6m) cable  #0331 V.24/EIA 232 50-ft. (15m) cable  #0332 V.24/EIA 232 20-ft. (6m) enhanced cable  #0333 V.24/EIA 232 50-ft. (15m) enhanced cable  #0334 V.24/EIA 232 80-ft. (24m) enhanced cable  #0335 V.24/EIA 449 20-ft. (6m) cable  #0336 V.36/EIA 449 50-ft. (15m) cable  #0337 V.36/EIA 449 150-ft. (45m) cable  #0338 V.35 20-ft. (6m) cable  #0339 V.35 50-ft. (15m) cable  #0340 V.35 80-ft. (24m) cable  #0341 X.21 20-ft. (6m) cable  #0342 X.21 50-ft. (15m) cable  #0344 Comms Console Cable 20-ft. (6m)</p> <p>*For #2699: Used to support the Operations Console function on CPU models supporting logical partitioning (LPAR) for secondary partitions when logical partitioning is implemented (V4R4 and later):  #0328 Operations Console 20-ft. (6m) Cable.</p> <p>For #9699 and to support the Remote Control Panel function (supported for the primary partition only), the Remote Control Panel Cable #0380 can be ordered as an option. The #0380 cable does not attach to a communication port. The #9699 is the base communications adapter card and is placed in slot B of the #9751 or #9754 MFIOF. Restrictions apply using the #2699. See "Comm. Restrictions" on page 116.  Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP or a spare IOA slot in #9751 or #9754 MFIOF with RAID.  IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP, #9751, or #9754 MFIOF with RAID</p>
#2745	<p><b>#2745 PCI Two-Line WAN IOA</b>  Supports up to two multiple protocol communications ports when one or two of the following cables are attached:  #0348 V.24/EIA232 20-ft. (6m) PCI cable  #0349 V.24/EIA232 50-ft. (15m) PCI cable  #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable  #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable  #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable  #0353 V.35 20-ft. (6m) PCI cable  #0354 V.35 50-ft. (15m) PCI cable  #0355 V.35 80-ft. (24m) PCI cable  #0356 V.36 20-ft. (6m) PCI cable  #0357 V.36 50-ft. (15m) PCI cable  #0358 V.36 150-ft. (45m) PCI cable  #0359 X.21 20-ft. (6m) PCI cable  #0360 X.21 50-ft. (15m) PCI cable  #0365 V.24/EIA232 80-ft. (24m) PCI cable  #0367 Operations Console PCI Cable 20-ft. (6m) *</p> <p>* Used to support the Operations Console function on CPU models supporting LPAR (V4R4 and later). A maximum of one #0367 cable is allowed per #2745.  Restrictions apply using the #2745. See "Comm. Restrictions" on page 116.  Prerequisite: #5065 Storage/PCI Expansion Tower.  PCI card slots required: One</p>

#2750	<p><b>#2750 PCI ISDN BRI U Adapter</b></p> <p>The #2750 is a 4 port (8 channel) ISDN BRI (basic rate, 2 wire interface) full size card. Each port consists of 2B+D configuration A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2750 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. Supports full duplex. The feature is country- or region-specific.</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller.</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2751	<p><b>#2751 PCI ISDN BRI S/T IOA</b></p> <p>The #2751 is a 4 port (8 channel) ISDN BRI (basic rate, 4 wire interface) full size card. Each port consists of 2B+D configuration A wrap cable/plug and four 30-ft. RJ-45 to RJ-45 cables are shipped with each card. Each #2751 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. Supports full duplex. The feature is country- or region-specific.</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2761	<p><b>#2761 PCI Integrated Analog Modem</b></p> <p>The #2761 supports multiple analog modem ports (eight phone lines). The feature includes a wrap cable/plug and eight 30-ft. (8 m) phone cables. Each #2761 counts as eight communication lines against the system maximums. It supports SLIP/PPP, SDLC and Fax protocols. Supports full duplex. ECS line not supported. To the iSeries or AS/400e server, the #2761 looks like a single IOA with eight individual line resources available. The feature is country- or region-specific.</p> <p>Restriction: Not supported with OS/400 V5R2</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. For workstation details, see "Workstation Controllers" on page 186. There is a maximum of two in the #5065 Storage/PCI Expansion Tower. In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots:</p> <ul style="list-style-type: none"> <li>The #2718, #2729 or #2748 are supported in C09 and C14 only.</li> <li>The #2838/#9738 and #281x are supported in C05, C10 and C15 only.</li> <li>The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14 or C15.</li> <li>The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11 or C12.</li> </ul> <p>Prerequisite: #5065 Storage/PCI Expansion Tower.</p> <p>Restrictions apply using the #2824. See "Comm. Restrictions" on page 116.</p> <p>Minimum OS/400 level: V4R4</p>
#4800	<p><b>#4800 PCI Cryptographic Processor</b></p> <p>The #4800 is a hardware cryptography solution based on the IBM 4758 card. It is a half length PCI card. Because the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging.</p> <p>Maximum: Three per system</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4</p>
#4802	<p><b>#4802 PCI Cryptographic Processor</b></p> <p>The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card that offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800).</p> <p>The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program which is downloaded to the adapter.</p> <p>Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower.</p> <p>Maximum: Three per system.</p> <p>Minimum OS/400 level: V4R5</p>
<b>LANs and ATM</b>	
#2618 #8664	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b></p> <p>The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN that complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 Logical Link Control (LLC), ANSI X3T9.5/ISO 9314 Media Access Control (MAC) functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-node (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately. The #8664 specifies the base LAN.</p> <p>Card slots required: One</p>

#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>  The #2629 supports up to three IOAs. Those supported are the #2699, #6149, #6180, #6181, #9249, #9280, and #9381. The #6149, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #4072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower  Card slots required: One</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>  The #2663 I/O processor is required when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.  Card slots required: One (with #2668)</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>  The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified:  #9814 20-ft. (6m) Antenna Cable  #9815 50-ft. (15m) Antenna Cable</p> <p>One of these antenna must be specified:  #9889 YAGI Directional Antenna  #9890 Omni Directional Antenna (360 degree)  #9891 Hemispherical Antenna (180 degree)  #9892 Directional Antenna (90 degree)</p> <p>Card slots required: One (with #2663)  Prerequisite: #2663 I/O Attachment Processor  Maximum: Two on SB1</p>
#2723 #9723	<p><b>#2723 PCI Ethernet IOA</b>  The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.  The #9723 is a base LAN feature.  SPD card slots required: Three (with #6617 or #6618). PCI slots required: One.  Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2724 #9724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b>  The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. This IOA is capable of operating in half or full duplex mode.  SPD card slots required: Three (with #6617 or #6618). PCI slots required: One. The #9724 is a base LAN feature.  Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2810	<p><b>#2810 LAN/WAN IOP</b>  The #2810 is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA.  Card slots required: One (with any of the preceding features)</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b>  The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTP) cabling, the #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810).  Prerequisite: #2810 LAN/WAN IOP  Minimum OS/400 level: V4R2</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b>  The #2812 provides attachment in an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. Card slots required: One (with #2810).  Prerequisite: #2810 LAN/WAN IOP  Minimum OS/400 level: V4R2</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b>  The #2815 provides attachment into an ATM network using the Unshielded Twisted Partible-5 interface. This interface is intended for connection to both local area switches and direct connection to server provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810).  Prerequisite: #2810 LAN/WAN IOP  Minimum OS/400 level: V4R2</p>

#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b></p> <p>The #2816 provides attachment into an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b></p> <p>The #2818 provides attachment into an ATM network using the Single Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b></p> <p>The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. For workstation details, see "Workstation Controllers" on page 186. There is a maximum of two in the #5065 Storage/PCI Expansion Tower. In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots: The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10 and C15 only. The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761, or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761 are supported in C06, C07, C11, or C12. Restrictions apply using the #2824. See "Comm. Restrictions" on page 116. Minimum OS/400 level: V4R4</p>
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>Provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex. The adapter comes with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. SPD card slots required: One (with #2810) or three (with #6617 or #6618). PCI slots required: One Prerequisite: #2810 LAN/WAN IOP or #6617 Integrated PC Server, #6618 Integrated Netfinity Server, or #5065 Storage/PCI Expansion Tower.</p>
#6149 #9249	<p><b>16/4 Mbps Token Ring IOA</b></p> <p>Provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC, and an external 8-ft. (2.4m) token ring cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode. #9249 specifies the base LAN. Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOIP with RAID</p>
#6181 #9381	<p><b>#6181 ASCII Workstation Controller</b></p> <p>The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has a FJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered sceptor-port integrated PC separately. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. The #9025 Ethernet Cable (3M AUI) can be ordered if the customer chooses IBM AUI cabling. Cabling must meet or exceed Industry Standard EIA/TIA T568B. The #9381 specifies the base LAN. Card slots required: None Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOIP with RAID</p>

#6616	<p><b>#6616 Integrated PC Server</b>  The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these IOAs are supported:  #9249/#6149 16/4 Mbps Token Ring IOA  #9381/#6181 ASCII Workstation Controller  #9249 and #9381 specify base LAN adapters.</p> <p>Card slots required: Two contiguous slots  Maximum: Two on SB1.</p>
#6617	<p><b>#6617 Integrated PC Server (SPD)</b>  The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be the #2838/#9738.  #9723/#2723 PCI Ethernet IOA  #9723/#2723 PCI Ethernet IOA  #2738/#9738 PCI 100/10 Mbps Ethernet IOA (Specify feature #0222 is required)</p> <p>The #9723, #9724, and #9738 are the base LAN. The third LAN and the second #2838. The #9738 can be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838/#9738 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:  #0325 Integrated PC Server Extension Cable for Windows NT is required.  #1700 Integrated PC Server keyboard/Mouse for Windows NT is recommended (in those countries or regions offering it).  A display is required on the IPCS to support Windows NT.  A minimum of 64MB is required if running Windows NT.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at:  <a href="http://www.ibm.com/eserver/iserries/windowsintegration/">http://www.ibm.com/eserver/iserries/windowsintegration/</a></p> <p>When running OS/2 on the #6617, then the #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838/#9738.</p> <p>When running Novell Netware on the #6617, then the #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838/#9738. A maximum of 256 MB IOP memory is supported.</p> <p>Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.  Minimum OS/400 level: V4R2</p>
#6618	<p><b>#6618 Integrated Netfinity Server (SPD)</b>  Minimum OS/400 level: V4R2 and Cumulative Package C8342420 or V4R3 and Cumulative Package C8349430.  Contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory  #2867 256 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838.  #2723 PCI Ethernet IOA  #2724 PCI 16/4 Mbps Token Ring IOA  #2838 PCI 100/10 Mbps Ethernet IOA (specify #0222 is required)</p>

#6618 (cont.)	<p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:</p> <ul style="list-style-type: none"> <li>A minimum of 64 MB IOP memory is required.</li> <li>The #0325 Integrated PC Server Extension Cable for Windows NT is required.</li> <li>The #1700 Integrated PC Server Keyboard or Mouse for Windows NT, the default in the U.S.A.</li> <li>A display is required to support Windows NT on the IPCS.</li> </ul> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at: <a href="http://www.ibm.com/eserver/iseriess/windowsintegration/">http://www.ibm.com/eserver/iseriess/windowsintegration/</a></p> <p>When running OS/2 on the #6618, then:</p> <ul style="list-style-type: none"> <li>The #0325 and #1700 are not allowed.</li> <li>Only two of the LAN IOA slots can be used.</li> <li>A maximum of 512 MB IOP memory is supported.</li> </ul> <p>When running Novell Netware on the #6618, then:</p> <ul style="list-style-type: none"> <li>#0325 and #1700 are not allowed.</li> <li>Only two of the LAN IOA slots can be used.</li> <li>A maximum of 256 MB IOP memory is supported.</li> </ul> <p>SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>
<b>Disk Units</b>	
#4318	<p><b>#4318 17.54 GB Disk Unit 10k RPM (Ultra SCSI)</b></p> <p>The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity. Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4318 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4324	<p><b>17.54 GB Additional Two-byte Disk Unit (Ultra SCSI)</b></p> <p>Supported in the #5065/#5066 PCI Expansion Tower only Provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM). Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4324 is a Customer Install Feature.</p>
#6606 #9606	<p><b>1.96 GB Additional Two-byte Disk Unit</b></p> <p>Provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6606 is supported for upgrades only. The #9606 specifies a 1.96 GB base disk unit. Model S39 or S40 only.</p>
#6713 #8713	<p><b>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)</b></p> <p>The #6713 provides a 3 ½-inch single disk unit with 8.57 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIO, #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #8713 specifies an optional 8.57GB base disk. The #6713 and #8713 Model SB1. Four are required if ordered on Model SB1, and they must be mirrored. RPQ 843977 and RPQ 843978 can be used for upgrades to Sxx system units and #5052, #5055, #5057, #5058, #5072, #5073, #5082, and #5083 Storage Expansion Units and Towers.</p>
#6717 #8617	<p><b>#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b></p> <p>The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in the #5052, #5055, #5057 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers and in the #9251. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8617 specifies an optional 8.58 GB base disk. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R3</p>
#6718 #8618	<p><b>#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b></p> <p>The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in the #5052, #5055, #5057 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower and in #9251. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on the #6502/#6512/#6530. The #8618 specifies an optional 17.54 GB base disk. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R4</p>

RPQ 843977	<b>RPQ 843977</b> is for customers who want to move 4/8/17 GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6714 (17.54 GB unit) in the #5052/#5055/#5057/#5058/#5070/#5071/#5072/#5073/#5080/#5081/#5082/#5083 disk expansion units and towers. These target enclosures use SPD technology. After the disk drives are installed, an RPO change must be processed to add a #6607/#6907 for each #6607/#6907 added, a #6713 for each #6713 added, and a #6714 for each #6714 added.
RPQ 843978	<b>RPQ 843978</b> is for customers who want to move 4/8/17GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting device types #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6417 (17.54 GB unit) in the system unit of a Model 170/600/S10/620/S20/720 and the #7101/#7102/#5064/#9364 expansion units and towers. After the disk drives are installed, an RPO change must be processed to add a #6807 for each #6607/#6907 added, add a #6813 for each device #6713 added, and add a #6824 for each #6417 added.
RPQ 847102	<b>RPQ 847102</b> ships the disk mounting hardware and instructions required to convert a #6717/#6817 to a #4317 and a #6718/#6818 to a #4318. Order one RPQ for each disk unit to be converted. Confirm that there is disk space available in an existing or on-order #5065/#5066 PCI Expansion Tower. This RPQ can also be used to move a disk to an iSeries 270, 820, 830, 840, or #5075, #5074/#9074, and #5079/#9079 PCI Expansion Towers.
<b>Internal Tape Units and CD-ROM</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#4482	<b>#4482 4 GB ¼-inch Cartridge Tape Unit</b> The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4483	<b>#4483 16 GB ¼-inch Cartridge Tape Unit</b> The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4486	<b>#4486 25 GB ¼-inch Cartridge Tape Unit</b> The #4486 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4486 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4487	<b>#4487 50 GB ¼-inch Cartridge Tape Unit</b> The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature.
#4684	<b>#4684 30 GB ¼-inch Cartridge Tape Unit</b> The #4684 s a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. Supported only in the #5065 Storage/PCI Expansion Tower. The #4684 is a Customer Install Feature.
#6325	<b>Optional CD-ROM Feature</b> The #6325 limits the use of tape in the same tower to a #6380 and #6390. Prerequisite: #2624 Storage Device Controller Minimum OS/400 level: V4R3
#6381	<b>#6381 2.5 GB ¼-inch Cartridge Tape</b> The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to #6513, #9751, or #9754 MFIOF.
#6382	<b>#6382 4 GB ¼-inch Cartridge Tape Unit</b> The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOF.
#6383	<b>#6383 16 GB ¼-inch Cartridge Tape Unit</b> The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073, or the #9251 towers. One can be controlled by the MFIOF. An additional #6383 must be controlled by the #6513.

#6384	<p><b>#6384 30 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6384 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #6384 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange.</p> <p>Supported only in the #5072, #5073, or #9251 towers.</p> <p>The #6384 is a Customer Install Feature.</p>
#6385	<p><b>#6385 13 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOF.</p>
#6386	<p><b>#6386 25 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073 or #9251 towers.</p>
#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b></p> <p>The #6390 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to the #2624, #6513, #9751, or #9754 MFIOF.</p>
<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller</b></p> <p>The #2621 provides attachment for one or two of these devices with hardware data compression for tapes: 2240, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s counts as two devices. If the #2621 supports a 3995 or #5023, it must be dedicated to it. If the #2621 supports a 9427, it is recommended that the 9427 be attached to both parts of the #2621. For new orders, the #6434 is used in preference to #2621 as long as it supports the tape device required.</p> <p>Card slots required: One</p> <p>Maximum: Two for external tape and for #3995 on SB1</p>
#2624	<p><b>#2624 Storage Device Controller</b></p> <p>The #2624 provides support for up to three internal tape drives. With the addition of #6146, it also supports one external diskette drive. For new orders, the #6513 is used in preference to #2624 unless #2624 is required anyway to support a diskette drive. Supports also the internal CD-ROM installed in the #5072/#5073 1063 Mbps System Unit Expansion Tower.</p> <p>Card slots required: One</p> <p>Maximum: Two for internal tape on SB1; two for diskette</p>
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP</b></p> <p>The #2644 provides attachment for the 3422, 3430, 3480, 3490 Exx, 3490 Box, 3490 Exx, 3490E Box, 3490E Cxx, 3490E Exx Tape Subsystem Models. Also requires the #9980 Serpentine Cable except for 3490E Cxx when ordered with internal cables.</p> <p>Card slots required: One</p> <p>Maximum: Two on SB1</p>
#2718	<p><b>#2718 PCI Magnetic Media Controller</b></p> <p>The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼-inch cartridge external tape drive)), 7208-345 60 GB External 8mm Tape Drive, or 7210-020 CD-ROM. See 8.7.4, "#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules" on page 279, for information on connecting devices to the #2768.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Maximum: Three in the #5065 Storage/PCI Expansion Tower</p> <p>Minimum OS/400 to support 7210-020 and 7208-345: V4R5</p>
#2729	<p><b>#2729 PCI Magnetic Media Controller</b></p> <p>The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x. 3570, 3575, 3580,3581, 3583, 3590, 7208, 9348 or 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Maximum: Three in the #5065 Storage/PCI Expansion Tower</p> <p>Minimum OS/400 to support 3995: V4R2</p>

#2748	<p><b>#2748 PCI RAID Disk Unit Controller—26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b>          The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #6831/#4331 1.6 GB Read Cache Device. It supports up to three internal tape and CD-ROMs. In the #5065 Storage/PCI Expansion Tower, it supports up to two internal tapes and CD-ROM. Supports the #1349, #1350, #1355, #1360, #4482, #4483, #4486, #4684, #6480, #6481, #6482, #6483, #6484, #6485, #6486, or #6490 tape units.          Maximum: Three per #5065 Storage/PCI Expansion Tower          High-speed PCI slots required: One          Prerequisite: #5065 Storage/PCI Expansion Tower          Minimum OS/400 level: V4R4</p>
#2778	<p><b>#2778 PCI RAID Disk Unit Controller—104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b>          The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity.           The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM).           Minimum OS/400 level: OS/400 V5R1          Prerequisite: Available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower          Maximums: Three (in combination with #2748) per #5065 Storage/PCI Expansion Tower; six (in combination with #2748) per #5066 1.8 M I/O Tower</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b>          The #6146 provides attachment for on 9331 011 or 012 Diskette Unit.          Card slots required: None          Prerequisite: #2624 Storage Device Controller          Maximum: Two</p>
#6513	<p><b>#6513 Internal Tape Device Controller</b>          The #6513 provides support for up to two internal tape drives when located in Model S40 or SB1 system unit or four internal tape drives when located in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed. Supports #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 Tape Units.          Card slots required: One          Maximum: One on SB1</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b>          The #6534 provides attachment for one 3490E Cxx with #5040), 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3580, 3581, 3583, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver. Card slots required: One          Maximum: Two on SB1.          Minimum OS/400 to support 3995: V4R2</p>
#9751	<p><b>#9751 MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b>          The #9751 is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5505 or #5057 Storage Expansion Unit. Model SB1 supports a maximum of four disks.          The #9751 does not support integrated hardware disk compression.          Card slots required: Two          Maximum: One          CCIN 6751</p>
#9754	<p><b>#9754 MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b>          The #9754 is an Ultra SCSI controller for up to 20 disks installed in the system unit and the #5505 or #5057 Storage Expansion Unit. Model SB1 supports a maximum of four disks.          Card slots required: Two          Maximum: One #9754 is standard on systems ordered with V4R2          Minimum OS/400 level: V4R2          Minimum OS/400 to support integrated hardware disk compression: V4R3          Minimum OS/400 to support integrated hardware disk compression for #6714/#8714 17.54 GB Disk Unit: V4R4          CCIN 6754</p>

## 7.12 AS/400e Model S10 and S20 features

Processors	
#2118	<b>45.4 RSP CPW Processor in Client/Server, 16.2 RSP CPW Processor Interactive Environment.</b> Base Memory 64 MB. Model S10 only
#2119	<b>73.1 RSP CPW Processor in Client/Server Environment, 24.4 RSP CPW Processor in Interactive Environment.</b> Base Memory 128 MB. Model S10 only
#2161	<b>113.8 RSP CPW Processor in Client/Server Environment, 31.0 CPW Processor in Interactive Environment.</b> Base Memory 256 MB. Model S20 only
#2163	<b>210.0 RSP CPW Processor in Client/Server Environment, 35.8 RSP CPW in Interactive Environment.</b> Base Memory 256 MB. Model S20 only
#2165	<b>464.3 RSP CPW 2-way Processor in Client/Server Environment, 49.7 RSP CPW 2-way Processor in Interactive Environment.</b> Base Memory 256 MB. Model S20 only
#2166	<b>759.0 RSP CPW 4-way Processor in Client/Server Environment, 56.9 RSP CPW 4-way Processor in Interactive Environment.</b> Base Memory 256 MB. Model S20 only
#2170	<b>464.3 RSP CPW 2-way Processor in Client/Server Environment, 49.7 RSP CPW 2-way Processor in Interactive Environment.</b> Base Memory 256 MB. Prerequisite: #04xx ISV Software feature. When upgrading to a Model 720, 730, or 740, to have the interactive capacity of this system properly converted to the appropriate supported feature, process an RPO order to the records of the #2170 processor feature of the Model S20 to add a #1490 interactive specify. Minimum OS/400 level: V4R2 Model S20 only
#2177	<b>759.0 RSP CPW 4-way Processor in Client/Server Environment, 110.7 RSP CPW 4-way Processor in Interactive Environment.</b> Base Memory 256 MB. Prerequisite: #04xx ISV Software feature. When upgrading to a Model 720, 730, or 740, to have the interactive capacity of this system properly converted to the appropriate supported feature, process an RPO order to the records of the #2177 processor feature of the Model S20 to add a #1491 interactive specify Minimum OS/400 level: V4R1 Model S20 only
#2178	<b>759.0 RSP CPW 4-way Processor in Client/Server Environment, 221.4 RSP CPW 4-way Processor in Interactive Environment.</b> Base Memory 256 MB. Prerequisite: #04xx ISV Software feature. When upgrading to a Model 720, 730, or 740, to have the interactive capacity of this system properly converted to the appropriate supported feature, process an RPO order to the records of the #2178 processor feature of the Model S20 to add a #1492 interactive specify. Minimum OS/400 level: V4R1 Model S20 only
Power and Packaging	
#2688	<b>#2688 Optical Link Processor (1063 Mbps)</b> The #2688 is a card that is used for attaching the #5072, #5073, #5082, and #5083 Storage Expansion Towers on the Model S20. Each #2688 supports a maximum of two #50xx towers. Prerequisite: #5064 System Unit Expansion with either #9331 Expansion Unit for SPD Cards or #9329 PCI Card Expansion Unit Maximum: Two Card slots used: None Model S20 only
#2695	<b>#2695 Optical Bus Adapter</b> Allows for the addition of up to three #2686 or #2688 Optical Link Processors in any combination. Card slots used: One Maximum: Two
#5052	<b>#5052 Storage Expansion Unit</b> The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower and the #5082 per tower is supported and #5143 Power Supply may be required. Model S20 only

Model SB1, S10, S20, S30, S40

#5058	<p><b>#5058 Storage Expansion Unit (Ultra SCSI)</b> The #5058 provides space for up to disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported. Model S20 only</p>
#5064	<p><b>#5064 System Unit Expansion</b> The #5064 allows one addition of either an #9331 Expansion Unit for SPD Cards or #9329 PCI Card Expansion Unit. It also supports one #7130 Expansion Unit Tape Cage for up to three tapes or CD-ROMs. It supports five disks and allows one or two #7128 DASD Expansion Units. The #5064 is processor dependent. Maximum: One Model S20 only</p>
#5065	<p><b>#5065 Storage/PCI Expansion Tower</b> The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN, WAN, or workstation controllers, 12 PCI IOA cards, two removable media, and up to 45 disk units. Three specific disk slots may be used for the #4331 1.6 GB Read Cache Device. The #5065 is the only storage expansion unit to support Ultra2 SCSI. See 6.15, "#5065 Storage PCI Expansion Tower schematic" on page 144. Minimum OS/400 level: V4R4 Prerequisite: #2688 Optical Link Processor Maximum: Four on the Model S20 The #5065 is a Customer Install Feature. Model S20 only</p>
#5066	<p><b>#5066 1.8 M I/O Tower</b> The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5066 1.8 M I/O Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for four removable media devices, battery backup, redundant/hot swap power supplies, and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified. Maximum: Two on the Model S20 Prerequisite: #2688 Optical Link Processor Minimum OS/400 level: V4R4</p>
#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b> The #5072 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5072 is required. Prerequisite: #2688 Optical Link Processor The #5072 is only supported on upgrades. It cannot be ordered with a new system. Maximum: A total of four expansion towers of all types Model S20 only</p>
#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower</b> The #5073 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5073 is required. Prerequisite: #2688 Optical Link Processor Maximum: A total of four expansion towers of all types Model S20 only</p>
#5082	<p><b>#5082 Storage Expansion Tower 1063 Mbps</b> The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disks units are supported with the addition of #5052. It includes a 1063 Mbps optical bus card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6530 supported but not orderable, or #6532 or #6533 for new orders), and battery and power supplies. Prerequisite: #2688 Optical Link Processor The #5082 is only supported on upgrades. It cannot be ordered with a new system. Maximum: A total of four expansion towers of all types Model S20 only</p>
#5083	<p><b>#5083 Storage Expansion Tower 1063 Mbps (Ultra SCSI)</b> The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disks units are supported with the addition of #5058. It includes a 1063 Mbps optical bus card, two SPD I/Os (#6502, #6512, #6530 supported but not orderable, or #6532 or #6533 for new orders), and battery and power supplies. Prerequisite: #2688 Optical Link Processor Maximum: A total of four expansion towers of all types Model S20 only</p>

#5143	<p><b>#5143 Power Supply</b> The #5143 is a 400 watt-power supply that is usually a prerequisite for a #5052 installed on a #5072 or #5082. Maximum: One per #5072 or #5082. Model S20 only</p>
#5153	<p><b>Redundant Power Supply</b> The #5153 contains two power supplies, an 970 watt and a 700 watt. The #5153 provides redundancy for the power supplies in the system unit and system unit expansion. The #5153 physically resides in the #5064 System Unit Expansion. Maximum: One Model S20 Processors #2163, #2165, #2166, #2170, #2177, and #2178 only</p>
#7128	<p><b>#7128 DASD Expansion Unit</b> The #7128 allows the addition of five disk units to either the system unit or the #5064 System Unit Expansion. Maximum: One in Base System with Model S10 Processors #2118, #2119, or Model S20 Processor #2161. Two in Base System with Model S20 Processors #2163, #2165, #2166, #2170, #2177, or #2178. Two in #5064 System Unit Expansion.</p>
#7130	<p><b>#7130 Expansion Unit Tape Cage</b> The #7130 allows the addition of three tape or CD-ROM units to the #5064 System Unit Expansion. Tape Units #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 are supported in the first two tape positions. Only Tape Units #1355 and #6485 are supported in the third position. A tape controller is required to support these tape devices. Prerequisite: #5064 System Unit Expansion Maximum: One Model S20 only</p>
#9329	<p><b>#9329 PCI Card Expansion Unit</b> The #9329 contains eleven PCI card slots and three high-speed PCI card slots. These are driven by three PCI controllers and one Integrated PC Server (not included). It also has space for one or two #2686 or #2688 Optical Link Processor Cards to support up to four external towers. A Base PCI LAN/WAN/Workstation IOP is included with #9329. Prerequisite: #5064 System Unit Expansion Maximum: One Model S20 only</p>
#9330	<p><b>#9330 PCI Integrated Expansion Unit</b> The #9330 contains 11 low-speed PCI card slots and three high-speed PCI card slots. These are driven by one base Controller (CCIN 2824) and two feature controllers. One IPCS or Integrated Netfinity Server is optional. It also has space for one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. Maximum: One Minimum OS/400 level: V4R4 Model S20 only</p>
#9331	<p><b>#9331 Expansion Unit for SPD Cards</b> The #9331 allows the addition of up to six SPD cards and one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. The #9331 includes an SPD controller card. Prerequisite: #5064 System Unit Expansion Maximum: One Model S20 only</p>
<b>Main Storage</b>	
Base	There are no features to specify the base memory of 64 MB on the Model S10 #2118 Processors; 128 MB on the Model S10 #2119 Processor; or 265 MB on all of the Model S20 processors.
#2830	<p><b>Main Storage Expansion</b> The #2830 contains 16 sockets for placement of 32 MB or 128 MB main storage card. Processors #2165, #2166, #2170, #2177, and #2178 only. Maximum: One Model S20 only</p>
#3001	<p><b>32 MB Main Storage</b> Plugs directly into the CPU or #2830. Must be added in pairs. Model S20 only. Prerequisite: One #2830 Main Storage Expansion for 16 or more on Processors #2165, #2166, #2170, #2177, and #2178. Maximum: 14 on Processors #2161 and #2163; 30 on Processors #2165, #2166, #2170, #2177, and #2178. Model S20 only</p>
#3002	<p><b>128 MB Main Storage</b> Plugs directly into the CPU or #2830. Must be added in pairs. Prerequisite: One #2830 Main Storage Expansion for 16 or more on Processors #2165, #2166, #2170, #2177, and #2178. Maximum: 14 on Processors #2161 and #2163; 30 on Processors #2165, #2166, #2170, #2177, and #2178. Model S20 only</p>

#3110	<p><b>64 MB Main Storage</b> Plugs directly into the CPU. Must be added in pairs on Model S10 Processor #2119. Supported on both Model S10 processors. Maximum: Five on Processor #2118; six on Processor #2119. Model S10 only</p>
#3182	<p><b>32 MB Main Storage</b> Plugs directly into the CPU. Must be added in pairs on Model S10 Processor #2119. Supported on both Model S10 processors. Maximum: Five on processor #2118; six on Processor #2119. Model S10 only</p>
#8172	<p><b>32 MB Base Main Storage Replace</b> Provides 32 MB of memory. It is not orderable being supported for model upgrades only. Model S10 only</p>
#8210	<p><b>64 MB Optional Main Storage</b> Provides 64 MB of additional memory. It is not orderable since it is supported for upgrades only. Model S10 only</p>
<b>Workstation Controllers</b>	
Base MFIOF	<p><b>Base Multifunction IOP (PCI)</b> The base system includes this MFIOF, which has three PCI card slots and one high-speed PCI card slots used for the base system disk controller, and drives one Integrated PC Server. The high-speed PCI card slot supports the #2723, #2740, #2741, or #9278 Disk Unit Controller. One PCI card slot supports the #9720 or #9721 Base PCI Two-Line WAN IOA. The remaining two PCI card slots support #2720, #2721, #2723, #2724, #9273, or #9274 PCI IOAs. Only one of these can be a #2723, #2724, #9273, or #9724 LAN IOA. Also, if a #2851 or #2854 PCI Integrated PC Server is installed in slots C06 and C07, the #2720 Base PCI WAN/Twinaxial IOA is not allowed in slot C08 and LAN IOAs are not allowed in slots C08 or C10.</p>
Base IOP	<p><b>Base Controller for #9329/#9330 PCI Integrated Expansion Unit</b> An IOP comes as standard (no feature required) with #9329 and #9330 PCI Integrated Expansion Unit. In the #9329, it is identified as CCIN 2809. In the #9330, it is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs to the system and supports one slot reserved for a PCI disk controller and three low-speed slots. It also supports one PCI Integrated PC Server/Integrated Netfinity Server. The base controller is located in slot E15.</p> <p><b>CCIN 2809:</b> In the high-speed slot E16, only the #2726 or #2741 PCI RAID Disk Unit Controller is supported. In slots E12, E13, and E14, it supports any three (with a maximum of one LAN) of the #2721, #2722, #2723/#9723, #2724/#9724, #2745 or #2746. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14.</p> <p><b>CCIN 2824:</b> In the high-speed slot E16, only the #2726, #2741 or #2748 PCI RAID Disk Unit Controller is supported. In slots E12, E13, and E14, it supports any three (with a maximum of two LAN cards) of #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761. There is a maximum of one #2750, #2751 or #2761. There can be any combination of WAN and twinaxial. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14. Maximum: One. Model S20 only</p>
Base IOP	<p><b>Base Controller for #5065 Storage/PCI Expansion Tower</b> This IOP comes as standard (no feature required) with the #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots. The #2718, #2729 or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b> The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower. Maximum: One per SPD slot Model S20 only</p>

#2720	<p><b>#2720 Base PCI WAN/Twinaxial IOA</b>  The #2720 is a combined twinaxial/communications adapter for S10 and S20. Supports 28 twinaxial devices but is limited to seven display sessions with V4R1 or 28 with V4R2 and above. Model S20 #2170, #2177, and #2178 processors support twinaxial devices on any release.  Provides a single communication line.  PCI slots required: One  Maximum: One  The #2720 is a Customer Install Feature (CIF) on a Model S10 for an MES that only includes CIF features.</p>
#2722	<p><b>#2722 Twinaxial Workstation IOA (PCI)</b>  One eight-port attachment is provided to support 40 twinaxial devices but is limited to seven display sessions with V4R1 or 28 with V4R2 and later. Model S20 processors #2170, #2177, and #2178 support twinaxial devices on any release.  PCI slots required: One  Maximum: One  Model S20 only</p>
#2746	<p><b>#2746 PCI Twinaxial Workstation IOA</b>  One eight-port attachment is provided to support 40 twinaxial devices but is limited to seven display sessions with V4R1 or 28 with V4R2 and later. Model S20 processors #2170, #2177, and #2178 support twinaxial devices on any release.  Maximum: One  PCI slots required: One (low speed in system unit or #9329, High or low speed in #9330 or #5065 Storage/PCI Expansion Tower)  Minimum OS/400 level: V4R4  Model S20 only</p>
#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b>  The #2809 can be used for attaching LAN, WAN, and workstation IOAs to the system. When installed in the system unit in slot C03, it can support #2838 or #281x ATM IOA in high-speed slot C01, #2729 in high-speed slot C02, and any combination of #2721, #2722, #2723, or #2724 in low-speed slots C04 and C05. If #2838 is installed in slot C03 only, the #2721 is allowed in slots C04 and C05. If #2851/#2854 is installed in slots C06 and C07, slots C04 and C05 cannot be used. The #2809 can also be installed in slot E05 or E10 of the #5064 System Unit Expansion with #9329. In each of these positions (E05 or E10), this card supports one high-speed card slot that can support a #2838, #2729, or #281x ATM IOA. It also supports three low-speed card slots that can contain any combination of #2721, #2722, #2723, or #2724. If #2838 is installed in the first two low-speed slots.  Maximum: One in the system unit, two in the #9329 PCI Card Expansion Unit  The #2809 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>
#2824	<p><b>#2824 PCI Feature Controller</b>  The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. There is a maximum of one in the system unit, two in the #9329/#9330 PCI Integrated Expansion Unit, and two in the #5065 Storage/PCI Expansion Tower.</p> <p>In system unit slot C03, it supports PCI feature IOAs in slots C01, C02, C04 and C05 (if an Integrated Netfinity Server is installed). The server controls slots C04 and C05). In slot C01, the #2824 supports #2838/#9738 or #281x. In the C02 high-speed slot, it supports the #2718, #2729, #2750, #2751, #2761, or #4800. In C04 and C05, it supports the #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761. If the #2838/#9738 is in C01, only the #2721 or #2745 may be installed in C04 and C05.</p> <p>In #9329 PCI Card Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, E04 or E07, E08, E09. In E06 and E11, it supports the #2718, #2729, #2838/#9738, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports the #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761.</p> <p>In #9330 PCI Integrated Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, E04 or E07, E08, E09. In E06 and E11, it supports the #2718, #2729, #2838/#9738, #2745, #2746, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports the #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761.</p> <p>In the #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots:  The #2718, #2729, or #2748 are supported in C09 and C14 only.  The #2838/#9738 and #281x are supported in C05, C10, and C15 only.  The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761, or #4800 are supported in C09, C10, C14, or C15.</p> <p>The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761 are supported in C06, C07, C11, or C12.  Restrictions apply using the #2824. See "Comm. Restrictions" on page 116.  Minimum OS/400 level: V4R4  The #2824 is a Customer Install Feature on a Model 600 for an MES that only includes CIF features.</p>

#6050	<p><b>#6050 Enhanced Twinaxial Workstation Controller (SPD)</b>            One eight-port attachment is provided to support up to seven twinaxial devices with V4R1 or 28 with V4R2 or V4R3. Model S20 processors #2170, #2177, and #2178 support more twinaxial devices on any release.            The #6050 is supported but not orderable.            SPD slots required: One            Maximum: One            Model S20 only</p>
#6141	<p><b>#6141 ASCII Workstation Controller (SPD)</b>            The #6141 supports up to six ASCII devices.            SPD slots required: One            Maximum: One            Model S20 only</p>
#6142	<p><b>#6142 ASCII 12-Port Workstation Attachment</b>            The #6142 plugs into the #9141 or #6141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. Only one #6142 can be attached per #6141.            SPD slots required: None            Model S20 only</p>
#6180	<p><b>#6180 Twinaxial Workstation IOA (SPD)</b>            One eight-port attachment is provided to support up to seven twinaxial devices with V4R1 or 28 with V4R2 and later. Model S20 processors #2170, #2177, and #2178 support more twinaxial devices on any release.            Prerequisite: #2629 LAN/WAN/Workstation IOP            IOA slots required: One in #2629            Maximum: One            Model S20 only</p>
#9720	<p><b>#9720 Base PCI WAN/Twinaxial IOA</b>            The #9720 is a combined twinaxial/communications adapter can be included as the base in the S10 and S20 models. It provides four posts supporting a maximum of seven twinaxial devices with V4R1 or 28 with V4R2 and above. Model #2170, #2177, and #2178 S20 processors support 28 twinaxial devices on the #9720 on any release.            The #9720 also provides a single communication line to support ECS. The #9720 is mutually exclusive with the #2720, #9721, and #9745.            PCI slots required: One            Maximum: One</p>
<b>Communications</b>	
Comm. Restriction	Refer to "Comm. Restrictions" on page 116.
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter (SPD)</b>            Connects to the #2623 to support one communication line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2623.            SPD slots required: None            Prerequisite: #2623 Six-Line Communications Controller            Model S20 only</p>
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter (SPD)</b>            Connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols. Two cables must be specified:                #9023 EIA 232/V.24 20-ft. (6m) enhanced cable                #9835 EIA 232/V.24 50-ft. (15m) enhanced cable                #9022 EIA 232/V.24 20-ft. (6m) enhanced cable                #9836 EIA 232/V.24 50-ft. (15m) enhanced cable            The #2609 is supported for upgrades only.             SPD slots required: None            Prerequisite: #2623 Six-Line Communications Controller            Model S20 only</p>
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter (SPD)</b>            The #2610 connects to the #2623 to support two communications line using X.21 or X.25 networks. Two cables must be specified:                #9021 X.21 20-ft. (6m) cable                #9839 X.21 50-ft. (15m) cable            The #2610 is supported for upgrades only.             SPD slots required: None            Prerequisite: #2623 Six-Line Communications Controller            Model S20 only</p>

#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter (SPD)</b>          The #2612 connects to #2623 to support one communications line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified:              #9023 EIA 232/V.24 20-ft. (6m) enhanced cable              #9835 EIA 232/V.24 50-ft. (15m) enhanced cable              #9022 EIA 232/V.24 20-ft. (6m) enhanced cable              #9836 EIA 232/V.24 50-ft. (15m) enhanced cable          The #2612 is supported for upgrades only.          SPD slots required: None          Prerequisite: #2623 Six-Line Communications Controller          Model S20 only</p>
#2613	<p><b>#2613 V.35 One-Line Adapter (SPD)</b>          The #2613 connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to 640 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters are allowed on the #2623 when running T1/E1/J1. One cable must be specified:              #9020 V.35 20-ft. (6m) cable              #9838 V.35 50-ft. (15m) cable          The #2613 is supported for upgrades only.            SPD slots required: None          Prerequisite: #2623 Six-Line Communications Controller</p>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter (SPD)</b>          The #2614 connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified:              #9021 X.21 20-ft. (6m) cable              #9839 X.21 50-ft. (15m) cable          The #2614 is supported for upgrades.          SPD slots required: One          Prerequisite: #2623 Six-Line Communications Controller          Model S20 only</p>
#2620	<p><b>#2620 Full Cryptographic Processor (SPD)</b>          The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries or regions outside the USA and Canada, it can only be marked to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, a #2628 should be sold in its place.          Card slots required: One          Maximum: One          Model S20 only</p>
#2623	<p><b>#2623 Six-Line Communications Controller (SPD)</b>          The #2623 provides for attachment of a wide range of iSeries or AS/400e communications adapters. These adapters are supported by the #2623: #2605, #2609, #2610, #2612, #2613, #2614, #2654, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is only orderable on Model S20 for customers purchasing the #2605 ISDN adapter.          SPD slots required: One          Model S20 only</p>
#2628	<p><b>#2628 Limited Cryptographic Processor (SPD)</b>          The #2628 provides the same function as the #2620, except that it does not include data encryption/decryption using a commercial Data Masking Facility for data scrambling. It can be marketed to any non-U.S. company.          SPD slots required: One          Maximum: One          Model S20 only</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b>          The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.          No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower.          SPD slots required: One          Maximum: One per SPD slot          Model S20 only</p>
#2654	<p><b>#2654 EIA 232/V.24 Two-Line IOA 20-ft. Enhanced Cable</b>          The #2654 connects to the #2623 to support two communications line supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2 m) enhanced cables. The #2654 is supported for upgrades only.          SPD slots required: None          Prerequisite: #2623 Six-Line Communications Controller          Model S20 only</p>

#2655	<p><b>EIA 232/V.24 Two-Line Adapter 20-ft. Cable</b> Connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2 m) cables. The #2655 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model S20 only</p>
#2656	<p><b>X.21 Two-Lined Adapter 20-ft. Cable</b> Connects to the #2623 to support two communications lines to attach to a X.21 or X.25 network using 20-ft. (6.2 m) cables. The #2656 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model S20 only</p>
#2657	<p><b>EIA 232/V.24 Two-Lined Adapter 50-ft. Enhanced Cable</b> Connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15 meter) enhanced cables. The #2657 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model S20 only</p>
#2658	<p><b>EIA 232/V.24 Two-Lined Adapter 50-ft. Cable</b> Connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15 meter) enhanced cables. The #2658 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model S20 only</p>
#2659	<p><b>X.21 Two-Line Adapter 50-ft. Cable</b> Connects to #2623 to support two communications lines to attach to a X.21 or X.25 network using 50-ft. (15 meter) cables. The #2659 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model S20 only</p>
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b> The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with the #2664, or PCs with appropriately programmed Fax adapters. SPD slots required: One Maximum: 32 Restriction: Not supported with V5R1 Model S20 only</p>
#2666	<p><b>#2666 High-Speed Communications Adapter (SPD)</b> The #2666 provides one communications line capable at T1/E1 (1.544/2.048 Mbps) speeds. One of the following cables must be specified: #9879 20-ft. (6m) V.35 CCITT cable #9880 80-ft. (24m) V.35 CCITT cable #9882 20-ft. (6m) RS449/V.36 CCITT cable #9883 80-ft. (24m) RS449/V.36 CCITT cable * #9884 150-ft. (45m) RS449/V.36 CCITT cable * #9885 20-ft. (6m) X.21 CCITT cable * This cable is only allowed when the customer's modem supports Looped Clocking Mode. The #2666 is supported but not orderable on Model S20.  SPD slots required: One Maximum: Eight Model S20 only</p>
#2699	<p><b>#2699 Two-Line WAN IOA (SPD)</b> The #2699 supports up to two multiple protocol communications ports when one or two of the following cables are attached: #0328 Operations Console 20-ft. (6m) PCI cable * #0329 V.24/EIA232 80-ft. (24m) cable #0330 V.24/EIA232 20-ft. (6m) cable #0331 V.24/EIA232 50-ft. (15m) cable #0332 V.24/EIA232 20-ft. (6m) enhanced cable #0333 V.24/EIA232 50-ft. (15m) enhanced cable #0334 V.24/EIA232 80-ft. (24m) enhanced cable #0335 V.36/EIA449 20-ft. (6m) cable #0336 V.36/EIA449 50-ft. (15m) cable #0337 V.36/EIA449 150-ft. (45m) cable</p>

<p>#2699 (cont.)</p>	<p>#0338 V.35 20-ft. (6m) cable          #0339 V.35 50-ft. (15m) cable          #0340 V.35 80-ft. (24m) cable          #0341 X.21 20-ft. (6m) cable          #0342 X.21 50-ft. (15m) cable</p> <p>* Used to support the Operations Console function on CPU models supporting LPAR for secondary partitions when logical partitioning is implemented (Minimum OS/400 level: V4R4):          #0328 Operations Console 20-ft. (6m) cable.</p> <p>Restrictions apply using the #2699. See “Comm. Restrictions” on page 116.          Prerequisite: #2629 LAN/WAN/Workstation IOP          IOA slots required: One on the #2629 LAN/WAN/Workstation IOP          Model S20 only</p>
<p>#2720 #9720</p>	<p><b>#2720 Base PCI WAN/Twinaxial IOA</b></p> <p>The #2720 is a combined twinaxial/communications adapter for Model S10 and S20. Supports a single multiple protocol port based on which one of the following cables is attached. It also supports twinaxial workstations. See the description of the #2720 in “Workstation Controllers” on page 200.</p> <p>#0348 V.24/EIA232 20-ft. (6m) PCI cable          #0349 V.24/EIA232 50-ft. (15m) PCI cable          #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable          #0351 V.24/EIA232 50ft(15m) enhanced PCI cable          #0352 V.24/EIA232 80ft(24m) enhanced PCI cable          #0353 V.35 20-ft. (6m) PCI cable          #0354 V.35 50-ft. (15m) PCI cable          #0355 V.35 80-ft. (24m) PCI cable          #0356 V.36 20-ft. (6m) PCI cable          #0357 V.36 50-ft. (15m) PCI cable          #0358 V.36 80-ft. (24m) PCI cable          #0359 X.21 20-ft. (6m) PCI cable          #0360 X.21 50-ft. (15m) PCI cable          #0365 V.24/EIA232 80-ft. (24m) PCI cable          #0367 Operations Console PCI Cable 20-ft. (6m) *</p> <p>The #2720 is mutually exclusive with the #9720, #9721, and #9745.          PCI slots required: One          Maximum: One          The #2720 is a Customer Install Feature on a Model S10 for MES that only includes CIF features.</p>
<p>#2721</p>	<p><b>PCI Two-Line WAN IOA</b></p> <p>The #2721 supports up to two multiple protocol communications ports when one or two of the following cables are attached:</p> <p>#0348 V.24/EIA232 20-ft. (6m) PCI cable          #0349 V.24/EIA232 50-ft. (15m) PCI cable          #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable          #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable          #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable          #0353 V.35 20-ft. (6m) PCI cable          #0354 V.35 50-ft. (15m) PCI cable          #0355 V.35 80-ft. (24m) PCI cable          #0356 V.36 20-ft. (6m) PCI cable          #0357 V.36 50-ft. (15m) PCI cable          #0358 V.36 80-ft. (24m) PCI cable          #0359 X.21 20-ft. (6m) PCI cable          #0360 X.21 50-ft. (15m) PCI cable          #0365 V.24/EIA232 80-ft. (24m) PCI cable          #0367 Operations Console PCI Cable 20-ft. (6m) *</p> <p>*Used to support the Operations Console function on CPU models supporting LPAR for secondary partitions when logical partitioning is implemented. (Minimum OS/400 level: V4R4):          #0367 Operations Console PCI Cable 20-ft. (6m).</p> <p>Restrictions apply using the #2721. See “Comm. Restrictions” on page 116.          PCI slots required: One (low speed only)          The #2721 is a Customer Install Feature on a Model S10 for MES that only includes CIF features.</p>

#2745	<p><b>#2745 PCI Two-Line WAN IOA</b>  The #2745 supports up to two multiple protocol communications ports when one or two of the following cables are attached:</p> <ul style="list-style-type: none"> <li>#0348 V.24/EIA232 20-ft. (6m) PCI cable</li> <li>#0349 V.24/EIA232 50-ft. (15m) PCI cable</li> <li>#0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable</li> <li>#0351 V.24/EIA232 50ft(15m) enhanced PCI cable</li> <li>#0352 V.24/EIA232 80ft(24m) enhanced PCI cable</li> <li>#0353 V.35 20-ft. (6m) PCI cable</li> <li>#0354 V.35 50-ft. (15m) PCI cable</li> <li>#0355 V.35 80-ft. (24m) PCI cable</li> <li>#0356 V.36 20-ft. (6m) PCI cable</li> <li>#0357 V.36 50-ft. (15m) PCI cable</li> <li>#0358 V.36 80-ft. (24m) PCI cable</li> <li>#0359 X.21 20-ft. (6m) PCI cable</li> <li>#0360 X.21 50-ft. (15m) PCI cable</li> <li>#0365 V.24/EIA232 80-ft. (24m) PCI cable</li> <li>#0367 Operations Console PCI Cable 20-ft. (6m )*</li> </ul> <p>* Used to support the Operations Console function on CPU models supporting LPAR for secondary partitions when logical partitioning is implemented. (V4R4 and later):  #0367 Operations Console PCI Cable 20-ft. (6m).</p> <p>Restrictions apply using the #2745. See "Comm. Restrictions" on page 116.  PCI slots required: One (low speed).  Minimum OS/400 level: V4R3  The #2745 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#2750	<p><b>#2750 PCI ISDN BRI U Adapter</b> (available in the United States and Canada only)  The #2750 is a four-port (8 channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #2750 is the "U"-bus (2 wire) version of the ISDN BRI PCI card. The #2750 feature supports these protocols:  PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices)  IDLC  Fax</p> <p>Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2750 feature. For configuration purposes, each #2750 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex.  Requirements: The #2750 requires country (region) certification or homologation.  Full sized PCI card slot.  Maximum: One per IOP  The #2750 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#2751	<p><b>#2751 PCI ISDN BRI S/T IOA</b>  The #2751 is a four-port (eight channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #2751 is the "S/T"-bus (four wire) version of the ISDN BRI PCI card.</p> <p><b>Note:</b> This requires a network terminating device in the circuit. In the United States and Canada, this must be provided by the customer. In other countries or regions, it is most likely provided by the telephone company.</p> <p>The #2751 feature supports these protocols:  PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices)  IDLC  Fax</p> <p>Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2751 feature. For configuration purposes, each #2751 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex.  Requirements: The #2751 requires country (region) certification or homologation.  Full sized PCI card slot.  Maximum: One per IOP  Prerequisite: #2824 PCI Feature Controller  Minimum OS/400 level: V4R4 and PTF MF22528, or Cumulative PTF Package C9313440</p>

#2761	<p><b>#2761 PCI Integrated Analog Modem (PCI)</b>  The #2761 allows the modem function to be integrated into the IOA and supports multiple analog modem ports (eight phone lines). The #2761 runs these protocols without the need for an external modem:  SLIP/PPP uses V.90, so maximum line speed is 56 Kbps.  SDLC uses V.34, so maximum line speed is 33.6 Kbps.  Fax uses V.17 to achieve a 14.4 Kbps maximum line speed.</p> <p>An asynchronous line description is required for Fax and can only be used for Fax. ECS line not supported. Eight 30-ft. (8 m) phone cables are shipped with each #2761. To the iSeries or AS/400e server, the #2761 appears like a single IOA with eight individual resources available. For configuration purposes, each #2761 counts as eight communications lines. Requirements: The #2761 requires country (region) certification or homologation.  Full sized PCI card slot.</p> <p>Maximum: One per IOP  Restriction: Not supported with OS/400 V5R2  Prerequisite: #2824 PCI Feature Controller  Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440  The #2761 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b>  The #2809 can be used for attaching LAN, WAN, and workstation IOAs to the system.  Restrictions apply using the #2809. See “Comm. Restrictions” on page 116.  Maximum: One in the base system unit, two in the #9329 PCI Card Expansion Unit.  The #2809 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#2824	<p><b>#2824 PCI Feature Controller</b>  The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. For workstation details, see “Workstation Controllers” on page 200.  Restrictions apply using the #2824. See “Comm. Restrictions” on page 116.  The #2824 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#4800	<p><b>#4800 PCI Cryptographic Processor</b>  The #4800 is a hardware cryptography solution based on the IBM 4758 card. It is a half-length PCI card. Since the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging.  Maximum: One per #2824.  Prerequisite: #2824 PCI Feature Controller  Minimum OS/400 level: V4R4  The #4800 is a Customer Install Feature on a Model S10 for an MES that includes CIF features only.</p>
#4802	<p><b>#4802 PCI Cryptographic Processor</b>  The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card, which offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800).  The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program that is downloaded to the adapter. Due to temperature requirements (card temperature must not drop below 5 degrees F (-15 degrees C)), the #4802 is shipped separately from the system in a special package.  Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower.  Minimum OS/400 level: V4R5  Maximum: Three per system</p>
#6153	<p><b>V.35 One-Line Adapter (20-ft. Cable)</b>  The #6153 connects to the #2623 to support one communications line supporting V.35 protocol using a 50-ft. (15m) cable. The #6173 is supported for upgrades only.  SPD slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model S20 only</p>
#6173	<p><b>V.35 One-Line Adapter (50-ft. Cable)</b>  The #6173 connects to #2623 to support one communications line supporting V.35 protocol using a 50-ft. (15 meter) cable. The #6173 is supported for upgrades only.  SPD slots Required: None  Prerequisite: #2623 Six-Line Communications Controller  Model S20 only</p>

<p>#9721</p>	<p><b>#9721 Base PCI Two-Line WAN IOA</b>  The #9721 is a two line communications adapter that supports ECS and Client Access Console or Operations Console.  Select one of the following cables for ECS:  #0348 V.24/EIA232 20-ft. (6m) PCI cable  #0349 V.24/EIA232 50-ft. (15m) PCI cable  #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable  #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable  #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable  #0353 V.35 20-ft. (6m) PCI cable  #0354 V.35 50-ft. (15m) PCI cable  #0355 V.35 80-ft. (24m) PCI cable  #0356 V.36 20-ft. (6m) PCI cable  #0357 V.36 50-ft. (15m) PCI cable  #0358 V.36 80-ft. (24m) PCI cable  #0359 X.21 20-ft. (6m) PCI cable  #0360 X.21 50-ft. (15m) PCI cable  #0365 V.24/EIA232 80-ft. (24m) PCI cable  #0367 Operations Console PCI Cable 20-ft. (6m) *  * Must be ordered for Client Access Console:  #0362 20-ft. (6m) Client Access Console cable  ** Used to support the Operations Console function on V4R3:  #0367 Operations Console PCI Cable 20-ft. (6m) (required).  To support the Remote Control Panel function, the #0381 Remote Control Panel Cable can be ordered as an option.  The #0381 cable does not attach to a communications port.  PCI card slots required: One  Maximum: One  The #9721 is mutually exclusive with the #9720 and #9745.</p>
<p>#9745</p>	<p><b>#9745 Base PCI Two-Line WAN IOA</b>  The #9745 is a two line communications adapter that supports ECS and Client Access Console or Operations Console.  Select on of the following cables for ECS:  #0348 V.24/EIA232 20-ft. (6m) PCI cable  #0349 V.24/EIA232 50-ft. (15m) PCI cable  #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable  #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable  #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable  #0353 V.35 20-ft. (6m) PCI cable  #0354 V.35 50-ft. (15m) PCI cable  #0355 V.35 80-ft. (24m) PCI cable  #0356 V.36 20-ft. (6m) PCI cable  #0357 V.36 50-ft. (15m) PCI cable  #0358 V.36 80-ft. (24m) PCI cable  #0359 X.21 20-ft. (6m) PCI cable  #0360 X.21 50-ft. (15m) PCI cable  #0365 V.24/EIA232 80-ft. (24m) PCI cable  #0367 Operations Console PCI Cable 20-ft. (6m) *    Must be ordered for Client Access Console.  #0362 20-ft. (6m) Client Access Console cable    * Used to support the Operations Console function on V4R3  #0367 Operations Console PCI Cable 20-ft. (6m) * (required)    To support the Remote Control Panel function, the #0381 Remote Control Panel Cable can be ordered as an option.  The #0381 cable does not attach to a communication port.  PCI card slots required: One  Maximum: One  Mutually exclusive with #9720 and #9721.  Minimum OS/400 level: V4R3</p>
<p><b>LANs and ATM</b></p>	
<p>#2617</p>	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b>  Provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions.  An AUI Ethernet cable must be ordered separately. Supports 10 Mbps half duplex only.  SPD slots required: One  Model S20 only</p>

#2618	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b>  The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN which complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-code (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately.  SPD slots required: One  Model S20 only</p>
#2619	<p><b>#2619 LAN/WAN/Workstation IOA (SPD)</b>  The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions), and an external 8-ft. (2.4m) cable.  SPD slots required: One  Model S20 only</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP (SPD)</b>  The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629.  No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower.  SPD slots required: One  Maximum: One per SPD slot  Model S20 only</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b>  The #2663 I/O processor is required when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit.  SPD slots required: One (with #2668)  Model S20 only</p>
#2665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter (SPD)</b>  The #2665 provides one interface to connect to an FDDI LAN, which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately.  SPD slots required: One  Model S20 only</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b>  The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified:  #9814 20-ft. (6m) Antenna Cable  #9815 50-ft. (15m) Antenna Cable  One of these antenna must be specified:  #9889 YAGI Directional Antenna  #9890 Omni Directional Antenna (360 degree)  #9891 Hemispherical Antenna (180 degree)  #9892 Directional Antenna (90 degree)  SPD slots required: One (with #2663)  Prerequisite: #2663 I/O Attachment Processor  Model S20 only</p>
#2723 #9723	<p><b>#2723 PCI Ethernet IOA</b>  The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15-pin D-shell connector for attachment of customer-supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.  PCI slots required: One  The #9723 is a base LAN feature.  Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2724 #9724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b>  The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions), and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. This IOA is capable of operating in half or full duplex mode.  PCI slots required: One. The #9724 is a base LAN feature.  Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>

#2809	<p><b>#2809 PCI LAN/WAN/Workstation IOP</b>  The #2809 can be used for attaching LAN, WAN, and Workstation IOAs to the system. See "Workstation Controllers" on page 200.  Maximum: One in the base system unit, two in the #9329 PCI Card Expansion Unit.  The #2809 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2810	<p><b>#2810 LAN/WAN IOP (SPD)</b>  The #2810 I/O processor is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA, or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Prerequisite for these preceding features, although they can alternatively be located directly in an appropriate PCI slot.  SPD slots required: One  Model S20 only</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA (PCI or SPD)</b>  The #2811 provides attachment into an ATM network using Unshielded Twisted Pair (UTO) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters.  Minimum OS/400 level: V4R2  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located on PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2811 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA (PCI or SPD)</b>  The #2812 provides attachment into an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 100 meters.  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2812 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.  Minimum OS/400 level: V4R2</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA (PCI or SPD)</b>  The #2815 provides attachment into an ATM network using the UTP-5 interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Minimum OS/400 level: V4R2  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2815 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA (PCI or SPD)</b>  The #2816 provides attachment into an ATM network using the MMF 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers.  Minimum OS/400 level: V4R2  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2816 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA (PCI or SPD)</b>  The #2818 provides attachment into an ATM network using the SMF 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers.  Minimum OS/400 level: V4R2  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2818 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA (PCI or SPD)</b>  The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters.  Minimum OS/400 level: V4R2  SPD slots required: One (with #2810) or PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot)  The #2819 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>

<p>#2838 #9738</p>	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA (PCI or SPD)</b>          The #2838 provides attachment to standard 100 Mbps high-speed Ethernet LANs and allows attachment to existing 10 Mbps Ethernet LANs. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. The adapter comes standard with an RJ45 connector for attachment to UTP-5 media.          SPD slots required: One (with #2810); three (with #6617/#6618) or PCI slots required: One          Prerequisite: #2809 PCI LAN/WAN/Workstation IOP/#2824 PCI Feature Controller or #2854 PCI Integrated PC Server/#2865 PCI Integrated Netfinity Server (when located in PCI slot); #2810 LAN/WAN IOP or #6617 Integrated PC Server/#6618 Integrated Netfinity Server (when located in SPD slot).          The #2838 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
<p>#2851</p>	<p><b>#2851 Integrated PC Server</b>          The #2851 contains a 166 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Comes with 32 MB main storage and supports up to three of these main storage features:              #2860 16 MB Integrated PC Server Memory              #2961 32 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:              #9723/#2723 PCI Ethernet IOA              #9724/#2724 PCI 16/4 Mbps Token Ring IOA</p> <p>The #9723 and #9724 are the base LAN.          PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit          The #2851 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
<p>#2854</p>	<p><b>#2854 PCI Integrated PC Server</b>          The #2854 contains a 200 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Between one and four of these main storage features must be ordered:              #2861 32 MB Integrated PC Server Memory              #2862 128 MB Integrated PC Server Memory</p> <p>Either one or two of these LAN IOAs are supported:              #9723/#2723 PCI Ethernet IOA              #9724/#2724 PCI 16/4 Mbps Token Ring IOA              #2738/#9738 PCI 100/10 Mbps Ethernet IOA (specify #0222 required if installed on              #2854 PCI Integrated PC Server)</p> <p>The #9723, #9724, and #9738 are the base LAN. Only one of the IOAs can be #2838/#9738. The #2854 comes with a special cable which provides industry standard keyboard, mouse, serial, and parallel connections. If running Windows NT on the #2854, then:              #0325 Integrated PC Server Extension Cable for Windows NT is required.              #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.          A display is required on the IPCS to support Windows NT.</p> <p>For country- or region-specific keyboard, mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a></p> <p>When running OS/2 on the #2854, then the #0325 and #1700 are not allowed.          When running Novell Netware on the #2854, then the #0325 and #1700 are not allowed. A maximum of 256 MB IOP memory is supported.          Minimum OS/400 level: V4R2          PCI slots required: Two reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit.          The #2854 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>

<p>#2865</p>	<p><b>#2865 PCI Integrated Netfinity Server</b>  The #2865 contains a 333 Mhz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory  #2867 256 MB Integrated PC Server Memory</p> <p>Up to two of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of one LAN IOA can be a #2838/#9738.  #2723 PCI Ethernet IOA  #2724 PCI 16/4 Mbps Token Ring IOA  #2838 PCI 100/10 Mbps Ethernet IOA (specify feature #0222 is required)</p> <p>Only one of these Base LAN IOAs is supported:  #9723 PCI Ethernet IOA  #9724 PCI Token Ring IOA  #9738 PCI 100/10 Mbps Ethernet IOA (specify feature #0222 is required)</p> <p>If running Windows NT on the #2865, then:  A minimum of 64 MB IOP memory is required.  #0325 Integrated PC Server Extension Cable for Windows NT is required.  #1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A.  A display is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a></p> <p>When running OS/2 on the #2865, then the #0325 and #1700 are not allowed. A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #2865, then the #0325 and #1700 are not allowed. A maximum of 256 MB IOP memory is supported.</p> <p>PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit.  Minimum OS/400 level: V4R2 and Cumulative Package C8342420 or V4R3 and Cumulative Package C8349430.</p>
<p>#6149</p>	<p><b>#6149 16/4 Mbps Token Ring IOA (SPD)</b>  The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC, and an external 8-ft. (204m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. Can operate in half or full duplex mode.  SPD slots required: None  Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server  #2629 or #6616 slots required: One  Model S20 only</p>
<p>#6181</p>	<p><b>#6181 ASCII Workstation Controller (SPD)</b>  The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus 802.2 LLC functions. Has an RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. This cable can be ordered if the customer is choosing IBM AUI cabling:  #9025 Ethernet Cable (3 meter AUI)  If the customer is not choosing IBM AUI cabling, AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B.  The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. SPD slots required: None  Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server  #2629 or #6616 slots required: One  Model S20 only</p>

<p>#6516 #6517 #6518 #6519 #6526 #6527 #6528 #6529</p> <p>#6509</p>	<p><b>Integrated PC Server (formerly known as FSIOP) (SPD)</b> Contains a 66 Mhz 486 processor, main storage and ability to attach to one or two LANs for high performance serving to LAN attached PCs. The initial order configurations can be upgraded using #6509 and #6520:</p> <p>16 MB One-Port Integrated PC Server 32 MB One-Port Integrated PC Server 48 MB One-Port Integrated PC Server 64 MB One-Port Integrated PC Server 16 MB Two-Port Integrated PC Server 32 MB Two-Port Integrated PC Server 48 MB Two-Port Integrated PC Server 64 MB Two-Port Integrated PC Server</p> <p>The following cables need to be specified depending on the LAN being attached to: #9024 Token ring cable (2.4m) #9025 Ethernet Cable (3m AUI)</p> <p>SPD slots required: Two contiguous slots.</p> <p><b>Additional 16 MB for Integrated PC Server</b> The #6509 is used to increase the memory on an installed Integrated PC Server up to the maximum of 64 MB. Model S20 only</p>
<p>#6520</p>	<p><b>Upgrade One-Port Integrated PC Server to Two Port Integrated PC Server</b> The #6520 cannot be used with a Two-Port Integrated PC Server. The #9024 or #9025 cables can be ordered with #6520 depending on the LAN to be attached.</p>
<p>#6616</p>	<p><b>#6616 Integrated PC Server (SPD)</b> The #6616 contains a 166 Mhz Pentium Processor, two main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory</p> <p>Supports one or two of these LAN IOAs: #6149 16/4 Mbps Token Ring IOA #6181 ASCII Workstation Controller</p> <p>SPD slots required: Two contiguous slots. Model S20 only</p>
<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b> The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be the #2838/#9738: #9723/#2723 PCI Ethernet IOA #9724/#2724 PCI 16/4 Mbps Token Ring IOA #2738/#9738 PCI 100/10 Mbps Ethernet IOA</p> <p>The #9723, #9724, and #9738 are the base LAN. The third LAN and the second #2838/#9738 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838/#9738 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then: The #0325 Integrated PC Server Extension Cable for Windows NT is required. The #1700 Integrated PC Server Keyboard/Mouse for Windows NT is the default in the U.S.A. A display is required on the IPCS to support Windows NT.</p> <p>For country- or region-specific keyboard, mouse and display support, refer to the Web site at: <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a></p> <p>When running OS/2 on the #6617, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.</p>

#6617 (cont.)	<p>When running Novell Netware on the #6617, then:          #0325 and #1700 are not allowed.          Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.          A maximum of 256 MB IOP memory is supported.          Minimum OS/400 level: V4R2          SPD slots required: Three contiguous slots.          Model S20 only</p>
#6618	<p><b>#6618 Integrated Netfinity Server (SPD)</b>          The #6618 contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:          #2861 32 MB Integrated PC Server Memory          #2862 128 MB Integrated PC Server Memory          #2867 256 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838/#9738:          #2723 PCI Ethernet IOA          #2724 PCI 16/4 Mbps Token Ring IOA          #2838 PCI 100/10 Mbps Ethernet IOA (specify feature #0222 is required)</p> <p>Only one of these Base LAN IOAs is supported:          #9723 PCI Ethernet IOA          #9724 PCI Token Ring IOA          #9738 PCI 100/10 Mbps Ethernet IOA (specify feature #0222 is required)</p> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:          A minimum of 64 MB IOP memory is required.          The #0325 Integrated PC Server Extension Cable for Windows NT is required.          The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A.          A display is required to support Windows NT on the IPCS.          For country- or region-specific keyboard or mouse and display support, refer to the Web site at:  <a href="http://www.ibm.com/eserver/iseries/windowsintegration/">http://www.ibm.com/eserver/iseries/windowsintegration/</a>          Minimum OS/400 level: V4R2 and Cumulative Package C8342420 or V4R3 and Cumulative Package C8349430.          Model S20 only</p> <p>When running OS/2 on the #6618, then:          The #0325 and #1700 are not allowed.          Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.          A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6618, then:          The #0325 and #1700 are not allowed.          Only two of the LAN IOA slots can be used and only one can contain a #2838/#9738.          A maximum of 256 MB IOP memory is supported.</p> <p>SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>
<b>Disk Units</b>	
#1312	<p><b>One-byte 1.03 GB Disk Unit Conversion Kit</b>          Provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the system unit or #5064 System Unit Expansion. One #1312 migrates a #1203, #1602, #6601, #6602, #6701, #6802, #9601, or #9602 disk. Two #1312s migrate #2802, #6612, #6812, #8612, or #9802 dual disks.</p>
#1313	<p><b>One-byte 1.96 GB Disk Unit Conversion Kit</b>          Provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion. One #1313 migrates #1204, #1603, or #6603 disk. Two migrate #6613, #7613, or #86130 dual disks.</p>
#1322	<p><b>Two-byte 1.03 GB Disk Unit Conversion Kit</b>          Provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion.          One #1322 migrates #1211, #1213, #4211, #4652, #6652, or #9652 disk.</p>
#1323	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit</b>          Provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion.          One #1323 migrates #1212, #1214, #4212, #4650, #6650, or #8650 disk.</p>

#1325	<p><b>Two-byte 1.03 GB Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion. One #1325 migrates #1205, #4205, #4605, #6605, #9605, or #9705 disks.</p>
#1326	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion. One #1326 migrates #1206, #4206, #4606, #6606, #8606, #8706, or #9606 disks.</p>
#1327	<p><b>Two-byte 4.19 GB Disk Unit Conversion Kit</b> Provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a 3xx/5xx model, the #1327 is used; in a 2xx/4xx model, the #1377 is used. Supported only in the system unit or #5064 System Unit Expansion. One #1327 migrates #1207, #4207, #4607, #6607, #7607, #8607, or #8707 disks.</p>
#1333	<p><b>Two-byte 8.58 GB Disk Unit Conversion Kit (Ultra SCSI)</b> Provides the hardware for migrating one 8.58 GB two-byte SCSI disk unit. Supported only in the system unit or #5064 System Unit Expansion. One #1333 migrates #6713, #7713, or #8713 disk.</p>
#1334	<p><b>Two-byte 17.54 GB Disk Unit Conversion Kit (Ultra SCSI)</b> Provides the hardware for migrating one 14.54 GB two-byte SCSI disk unit. Supported only in the system unit or #5064 System Unit Expansion. One #1334 migrates #6714 disk. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4</p>
#1336	<p><b>Two-byte 1.96 GB Disk Unit Conversion Kit (Ultra SCSI)</b> Provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in system unit or #5064 System Unit Expansion. One #1336 migrates #6906 disk.</p>
#1337	<p><b>Two-byte 4.19 GB Disk Unit Conversion Kit (Ultra SCSI)</b> Provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a 3xx/5xx model, the #1337 is used, and in a 2xx/4xx model, the #1337 is used. Supported only in the system unit or #5064 System Unit Expansion. One #1337 migrates #6607, #6907, or #7607 disk.</p>
#1602	<p><b>One-byte 1.03 GB Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units requires two of these kits. Can be placed in system unit with purchase of #1312 migration kit. Model S20 only</p>
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units require two of these kits. Can be placed in system unit with purchase of #1313 migration unit. Model S20 only</p>
#4308	<p><b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> Supported in the #5065/#5066 PCI Expansion Tower only. Provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4308 is a Customer Install Feature.</p>
#4314	<p><b>#4314 8.58 GB Disk Unit (Ultra SCSI)</b> The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM). Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4314 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4317	<p><b>#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)</b> The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4317 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4318	<p><b>#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)</b> The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4318 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>

#4324	<p><b>17.54 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  Provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM).  Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller.  Minimum OS/400 level: V4R4  The #4324 is a Customer Install Feature.  Supported in #5065/#5066 PCI Expansion Tower only</p>
#4331	<p><b>#4331 1.6 GB Read Cache Device</b>  The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748/#2778 PCI RAID Disk Unit Controller.  Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller and one 1.6 inch DASD slot  Maximum: One per #2748 PCI RAID Disk Unit Controller  Minimum OS/400 level: V4R4  The #4331 is a Customer Install Feature.  Supported in Model S20, S30, S40, and #5065/#5066 PCI Expansion Tower.</p>
#6605	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6605 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Units.  Model S20 only</p>
#6606	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6606 is supported for upgrades only. Supported only in #5052 or #5058 Storage Expansion Unit.  Model S20 only</p>
#6607	<p><b>#6607 4.19 GB Additional Two-byte Disk Unit</b>  The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. The #6607 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers.  RPQ 843977 and RPQ 843978 can be used for upgrades to Sxx system units and the #5064, #5072 and #5073 Storage Expansion Units and Towers.  Model S20 only</p>
#6650	<p><b>1.96 GB Additional Two-byte Disk Unit</b>  Model S20 only.  Provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6650 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers.</p>
#6652	<p><b>1.03 GB Additional Two-byte Disk Unit</b>  Provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6652 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers.  Model S20 only</p>
#6713	<p><b>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5803.  RPQ 843977 and RPQ 843978 can be used for upgrades to Sxx system units and the #5064, #5072, and #5073 Storage Expansion Units and Towers.  Model S20 only</p>
#6714	<p><b>#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5803.  RPQ 843977 and RPQ 843978 can be used for upgrades to Sxx system units and the #5064, #5072, and #5073 Storage Expansion Units and Towers.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R4  Model S20 only</p>
#6717	<p><b>#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in the Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5803. Not supported on the #6502/#6512/#6530.  Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102.  Minimum OS/400 level: V4R4  Model S20 only</p>

#6718	<p><b>#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530.  Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102.  Minimum OS/400 level: V4R4  Model S20 only</p>
#6806	<p><b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6806 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in the system unit or #5064 System Unit Expansion.  The #6806 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#6807	<p><b>#6807 4.19 GB Additional Two byte Disk Unit (Ultra SCSI)</b>  The #6807 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported only in the system unit or #5064 System Unit Expansion.  The #6807 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#6813	<p><b>#6813 8.58 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6813 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in the system unit or #5064 System Unit Expansion.  The #6813 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#6817	<p><b>#6817 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6817 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in the system unit or #5064/#9364 System Unit Expansion. Not supported on #5064/#9364 System Unit Expansion with #6502/#6512/#6530.  Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102.  The #6817 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.  Minimum OS/400 level: V4R3  Supported on S20</p>
#6818	<p><b>#6818 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b>  The #6818 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in the system unit or #5064/#9364 System Unit Expansion. Not supported on #5064/#9364 System Unit Expansion with #6502/#6512/#6530.  Minimum OS/400 level: V4R4  Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102.  The #6818 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#6824	<p><b>#6824 17.54 GB Disk Unit (Two-Byte) (Ultra SCSI)</b>  The #6824 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in the system unit or #5064 System Unit Expansion.  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R4  The #6824 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#6831	<p><b>#6831 1.6 GB Read Cache Device</b>  The #6831 feature provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748 PCI RAID Disk Unit Controller.  Mirroring is not supported on the #6831.  Prerequisite: #2748 PCI RAID Disk Unit Controller  Minimum OS/400 level: V4R4  One DASD slot 1.6 inch. Maximum: One per #2748 IOP</p>
#6906	<p><b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b>  The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance, use it attached to the #6532 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083.  Model S20 only</p>
#8813	<p><b>8.58 GB Optional Base Two-byte Disk Unit (Ultra SCSI)</b>  The #8813 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of the #9707.</p>
#8817	<p><b>#8817 8.58 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)</b>  The #8817 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of the #9707. Supported only in system unit or #5064/#9364 System Unit Expansion. Not supported on #5064/#9364 System Unit Expansion with #6502/#6512/#6530.  Minimum OS/400 level: V4R3</p>

#8818	<b>#8818 17.54 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)</b> The #8818 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of #9707. Supported only in system unit or the #5064/#9364 System Unit Expansion. Not supported on the #5064/#9364 System Unit Expansion with the #6502/#6512/#6530. Minimum OS/400 level: V4R4
#8824	<b>17.54 GB Optional Base Two-byte Disk Unit (Ultra SCSI)</b> The #8824 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of the #9707. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4
#9707	<b>#9707 4.19 GB Base Two-byte Disk Unit (Ultra SCSI)</b> The #9707 provides a 3 ½-inch single disk unit with 4.19 GB capacity as the base disk unit. The #9707 is included with new Model S10 or S20 orders.
RPQ 843977	<b>RPQ 843977</b> is for customers who want to move 4/8/17 GB disk units from one AS/400e to another AS/400e. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6714 (17.54 GB unit) in the system unit of a Model 640/650/S30/S40/730/740 and in the #5052/#5055/#5057/#5058/#5070/#5071/#5072/#5073/#5080/#5081/#5082/#5083 disk expansion units and towers. These target enclosures use SPD technology. After the disk drives are installed, an RPO change must be processed to add a #6607/#6907 for each #6607/#6907 added, a #6713 for each #6713 added, and a #6714 for each #6714 added.
RPQ 843978	<b>RPQ 843978</b> is for customers who want to move 4/8/17 GB disk units from one AS/400e to another AS/400e. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting device types #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6417 (17.54 GB unit) in the system unit of a Model 170/600/S10/620/S20/720 and the #7101/#7102/#5064/#9364 expansion units and towers. After the disk drives are installed, an RPO change must be processed to add a #6807 for each #6607/#6907 added, add a #6813 for each device #6713 added, and add a #6824 for each #6417 added.
RPQ 847102	<b>RPQ 847102</b> ships the disk mounting hardware and instructions required to convert a #6717/#6817 to a #4317 and a #6718/#6818 to a #4318. Order one RPQ for each disk unit to be converted. Confirm that there is disk space available in an existing or on-order #5065/#5066 PCI Expansion Tower. This RPQ can also be used to move a disk to an iSeries 270, 820, 830, 840, or #5075, #5074/#9074, and #5079/#9079 PCI Expansion Towers.
<b>Internal Tape Units and CD-ROM</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#1349	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1349 provides the hardware for migrating a #1251, #1379, #6368, #7343, #8343, #9343, #5348, #6348, #7348, #8348, or #9348 1.2 GB ¼-inch cartridge tape unit. Supported only in the system unit or #5064 System Unit Expansion.
#1350	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1350 provides the hardware for migrating a #1252, #1260, #1380, #6369, #6380, #6344, #7344, #8344, #5349, #6349, #7349, or #8349 2.5 GB ¼-inch cartridge tape unit. Supported only in the system unit or #5064 System Unit Expansion.
#1355	<b>13 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1355 provides the hardware for migrating the #6385 13 GB ¼-inch cartridge tape unit. Supported only in the system unit or #5064 System Unit Expansion.
#1360	<b>7 GB 8mm Cartridge Tape Unit Conversion Kit</b> The #1360 provides the hardware for migrating #1261 or #6390 7 GB 8mm cartridge tape unit. Supported only in the system unit or #5064 System Unit Expansion.
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape unit. Supported only in the #5071 or #5073 1063 Mbps System Unit Expansion Towers. Model S20 only
#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the hardware for migrating a 2.5 GB ¼-inch cartridge tape unit. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only
#4425	<b>#4425 CD-ROM</b> Supported only in #5065 Storage/PCI Expansion Tower. Prerequisite: #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4425 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.

#4482	<p><b>#4482 4 GB ¼-inch Cartridge Tape Unit</b> The #4482 is supported only in the #5065 Storage/PCI Expansion Tower. Can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature.</p>
#4483	<p><b>#4483 16 GB ¼-inch Cartridge Tape Unit</b> The #4483 is supported only in the #5065 Storage/PCI Expansion Tower. Can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature.</p>
#4486	<p><b>#4486 25 GB ¼-inch Cartridge Tape Unit</b> The #4486 is supported only in the #5065 Storage/PCI Expansion Tower. Can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4486 is a Customer Install Feature.</p>
#4487	<p><b>#4487 50 GB ¼-inch Cartridge Tape Unit</b> The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature.</p>
#4684	<p><b>#4684 30 GB ¼-inch Cartridge Tape Unit</b> The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. The #4684 is a Customer Install Feature.</p>
#6325	<p><b>Optional CD-ROM Feature</b> Available on Model S20 System Unit Expansion Towers #5072/#5073 1063 Mbps System Unit Expansion Tower. Prerequisite: #2624 Storage Device Controller Limits the use of tape in the same tower to #6380 and #6390. Minimum OS/400 level: V4R4 Model S20 only</p>
#6380	<p><b>#6380 2.5 GB ¼-inch Cartridge Tape Unit (Conversion Kit)</b> The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. The #6380 is supported for upgrades only. It cannot be ordered as a new feature. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Tower. Model S20 only</p>
#6381	<p><b>#6381 2.5 GB ¼-inch Cartridge Tape</b> The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only</p>
#6382	<p><b>#6382 4 GB ¼-inch Cartridge Tape Unit</b> The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only</p>
#6383	<p><b>#6383 16 GB ¼-inch Cartridge Tape Unit</b> The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6383 must be controlled by the #6513. Model S20 only</p>
#6385	<p><b>#6385 13 GB ¼-inch Cartridge Tape Unit</b> The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only</p>
#6386	<p><b>#6386 25 GB ¼-inch Cartridge Tape Unit</b> The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only</p>

#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b> The #6390 can be used for save/restore, alternate IPL, migration, and 8mm cartridge tape exchange using the appropriate media and density. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Model S20 only</p>
#6425	<p><b>Optional CD-ROM Feature</b> Prerequisite: #2626 16/4 Mbps Token Ring Adapter, #2740 PCI RAID Disk Unit Controller or #2741 PCI RAID Disk Unit Controller with #9329 PCI Card Expansion Unit. Not supported in combination with the #9331. Minimum OS/400 level: V4R3 Model S20 only Available on Model S20 #5064 System Unit Expansion</p>
#6481	<p><b>2.5 GB ¼-inch Cartridge Tape Unit</b> The #6481 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the system unit or the #5064 System Unit Expansion.</p>
#6482	<p><b>4 GB ¼-inch Cartridge Tape Unit</b> The #6482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in system unit or the #5064 System Unit Expansion.</p>
#6483	<p><b>16 GB ¼-inch Cartridge Tape Unit</b> The #6483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064/#9364 System Unit Expansion.</p>
#6484	<p><b>#6484 30 GB ¼-inch Cartridge Tape Unit</b> The #6484 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or system unit expansion. The #6384 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. Supported only in the system unit of the Model S20 or the #5064/#9364 System Unit Expansion. The #6384 is a Customer Install Feature.</p>
#6485	<p><b>13 GB ¼-inch Cartridge Tape Unit</b> The #6485 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064 System Unit Expansion.</p>
#6486	<p><b>25 GB ¼-inch Cartridge Tape Unit</b> The #6486 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in system unit or the #5064 System Unit Expansion.</p>
#6490	<p><b>7 GB 8mm Cartridge Tape Unit</b> The #6490 can be used for save/restore, alternate IPL, migration, and 8mm cartridge tape exchange using the appropriate media and density. Supported only in the system unit or the #5064 System Unit Expansion.</p>
<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller (SPD)</b> The #2621 provides attachment for one or two of these devices with hardware data compression: 2440, 9348, 7208, 3995, and 9427. Dual drive 7208s count as two devices. If the #2621 supports a 3995 or #5032, it must be dedicated to it. If the #2621 supports a 9427, we recommend that the 9427 be attached to both ports of the #2621. For new orders, the #6534 is used in preference to #2621 as long as it supports the tape device required. Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower SPD slots required: One Model S20 only</p>
#2624	<p><b>#2624 Storage Device Controller (SPD)</b> The #2624 provides support for up to three internal tape drives. With the addition of the #6146, it also supports one external diskette drive. Can be used to support tape drives only in the #5072 or #5073 1063 Mbps System Unit Expansion Towers. For new orders, the #6513 is used in preference to the #2624, unless the #2624 is required to support a diskette drive or one is already installed. Also used to support the optional the #6325 CD-ROM in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Not supported to drive the #6425 CD-ROM in the Model S20 with #9331 in the integrated #5064 System Unit Expansion. SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Model S20 only</p>

#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP (SPD)</b>  The #2644 provides attachment for 3422, 3430, 3480, 3490 Axx, 3490 Bxx, 3490 Dxx, 3490E Axx, 3490E Cxx, x10 Tape Subsystem Models. Also requires the #9980 Serpentine Cable, except for the 3490E Cxx when ordered with internal cables. SPD slots required: One  Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower  Model S20 only</p>
#2718	<p><b>#2718 PCI Magnetic Media Controller</b>  The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼-inch cartridge external tape drive) and 7208-345 60 GB External 8mm Tape Drive.  See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for information on connecting devices to the #2718.  PCI slots required: One.  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP/#2824 LAN/WAN/Workstation IOP.  Maximum: One in the system unit, two in the #5064 System Unit Expansion with #9329/#9330, and three in the #5065 Storage/PCI Expansion Tower  The #2718 is a Customer Install Feature on a Model S10 for an MES that only includes CIF features.</p>
#2726	<p><b>PCI RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected)</b>  This is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #5064 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2726. The #2726 also supports one CD-ROM drive (which comes as standard) and one internal tape drive when placed in the system unit. When placed in the #5064 System Unit Expansion, it supports up to three internal tape drives. Supports the #1349, #1350, #1355, #160, #6481, #6482, #6484, #6485, or #6490 tape units. Mutually exclusive with the #9728, #2740, or #2741 in the same system unit or #5064.  The #2726 does not support integrated hardware disk compression.  High-speed PCI slots required: One  Prerequisite: System unit or #5064 System Unit Expansion with #9329 PCI Card Expansion Unit  Maximum: One per system unit or #5064  The #2726 is a Customer Install Feature in a Model S10 for an MES that only includes CIF features.</p>
#2729	<p><b>#2729 PCI Magnetic Media Controller</b>  The #2729 provides SCSI attachment for one 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348, 9427 Tape drive, or 3995 C4x Optical Library Dataserver.  Minimum OS/400 to support 3995: V4R2  High-speed PCI slots required: One  Prerequisite: #2809 PCI LAN/WAN/Workstation IOP/#2824 LAN/WAN/Workstation IOP  Maximum: One per system unit or two in the #5064 System Unit Expansion with #9329/#9330 and three in the #5065 Storage/PCI Expansion Tower  The #2729 is a Customer Install Feature in a Model S10 for an MES that only includes CIF features.</p>
#2740	<p><b>#2740 PCI RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b>  The #2740 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 10 disks installed in the system unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #2740. The #2740 also supports one CD-ROM drive (which comes as standard) and one internal tape drive. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6484, #6485, or #6490 tape units. Mutually exclusive with the #9728, #2726, or #2741, in the same system unit. The #2740 is not supported in the #5064 System Unit Expansion. The #2740 does not support integrated hardware disk compression.  High-speed PCI slots required: One  Maximum: One  Minimum OS/400 level: V4R2  The #2740 is a Customer Install Feature in a Model S10 for an MES that only includes CIF features.</p>
#2741	<p><b>#2741 PCI RAID Disk Unit Controller—4 MB Cache (RAID Mirrored/Unprotected) (Ultra SCSI)</b>  The #2741 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #5064 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2726. The #2726 also supports one CD-ROM drive (comes as standard) and one internal tape drive when placed in the system unit. When placed in the #5064 System Unit Expansion, it supports up to three internal tape drives. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6484, #6485, or #6490 tape units. Mutually exclusive with the #2726, #2740, or #9728 in the same system unit or #5064.  High-speed PCI slots required: One  Prerequisite: System unit or #5064 System Unit Expansion with #9329 PCI Card Expansion Unit  Maximum: One per system unit or #5064  Minimum OS/400 level: V4R2  Minimum OS/400 to support integrated hardware disk compression: V4R3  Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Unit: V4R4  Supports integrated hardware disk compression except on the #6824/#8824 17.54 GB Disk Unit.  Model S20 only</p>

#2748	<p><b>#2748 PCI RAID Disk Unit Controller–26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b>  The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower or is Ultra SCSI capable when installed in the Model 720 system unit or a #5064/#9364 System Unit Expansion. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #6831/#4331 1.6 GB Read Cache Device. When placed in the system unit, it supports one internal tape and one CD-ROM. In the #5064/#9364 System Unit Expansion, it supports up to three internal tape and CD-ROM. In the #5065 Storage/PCI Expansion Tower, it supports up to two internal tapes and CD-ROM. Supports the #1349, #1350, #1355, #1360, #4482, #4483, #4486 #6480, #6481, #6482, #6483, #6485, #6486, or #6490 tape units. Mutually exclusive with the #2726, #2740, #2741 or #9728 in the same system unit or #9330 PCI Integrated Expansion Unit.  High-speed PCI slots required: One  Prerequisite: System unit or #5064 System Unit Expansion with #9330 PCI Integrated Expansion Unit or #5065 Storage/PCI Expansion Tower  Maximum: One per system unit or #5064, three per #5065 Storage/PCI Expansion Tower.  Minimum OS/400 level: V4R4</p>
#2778	<p><b>#2778 PCI RAID Disk Unit Controller–104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b>  The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity.  The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when the #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM).  Minimum OS/400 level: OS/400 V5R1  Prerequisite: Available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower.  Maximums: Three (in combination with #2748) per #5065. Six (in combination with #2748) per #5066 1.8 M I/O Tower.</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b>  The #6146 provides attachment for one #9331 011, 012 Diskette Unit and the #6134 5 ¼-inch diskette drive.  SPD slots required: None  Prerequisite: #2624 Storage Device Controller  Maximum: Two  Model S20 only</p>
#6501	<p><b>#6501 Tape/Disk Device Controller (SPD)</b>  The #6501 provides attachment for up to two 9337 2xx, 4xx or 5xx models. Also supports up to two 3490E Exx. 3490E Fxx, 3570, 3575, or 3590 models. Also provides attachment for the 2105 Versatile Storage Server. DASD and tape units cannot be mixed on the same #6501.  SPD slots required: One  Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower  Maximum: Four for tape; for disk, see the 630 and 640 model capacity charts on page 171 and 172.  Model S20 only</p>
#6502	<p><b>#6502 High Performance Controller–2 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b>  The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower, or #5064 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6502. The #6502 is supported for upgrades.  The #6502 does not support integrated hardware disk compression.  SPD slots required: One  Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or, #5072/#5073 1063 Mbps System Unit Expansion Tower, #5082/#5083 Storage Expansion Tower  Model S20 only</p>
#6512	<p><b>#6512 High Performance Controller (RAID/Mirrored/Unprotected) (SPD)</b>  The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, or #5064 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6512. The #6512 is supported for upgrades.  The #6512 does not support integrated hardware disk compression.  SPD slots required: One</p>

#6512 (cont.)	Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower, #5082/#5083 Storage Expansion Tower Model S20 only
#6513	<b>#6513 Internal Tape Device Controller (SPD)</b> The #6513 provides support for up to three internal tape drives when located in #9331 Expansion Unit for SPD Cards, or four internal tape drives when located in the #5072/#5073 1063 Mbps System Unit Expansion Towers. The #6513 is the default controller unless a #2624 is installed. Supports the #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 in the #5072/#5073 1063 Mbps System Unit Expansion Tower; and the #1349, #1350, #1355, #1360, #6481, #6482, #6485, #6486, and #6490 in a #5064 System Unit Expansion with the #9331. SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Maximum: Five Model S20 only
#6530	<b>#6530 Disk Unit Controller No Cache (Mirrored/Unprotected) (SPD)</b> Controller for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower or #5064 System Unit Expansion. The #6530 is supported for upgrades. The #6530 does not support integrated hardware disk compression. SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower or #5082/#5083 Storage Expansion Tower Model S20 only
#6532	<b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/ Mirrored/Unprotected) (Ultra SCSI) (SPD)</b> Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #5064 System Unit Expansion. Also supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6532. The #6532 does not support integrated hardware disk compression. SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower or #5082/#5083 Storage Expansion Tower Model S20 only
#6533	<b>#6533 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI) (SPD)</b> Ultra SCSI Controller for up to 16 disks installed in the #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #5064 System Unit Expansion. Also supports disks located in the #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over the #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6533. SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower or #5082/#5083 Storage Expansion Tower Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Unit: V4R4 Model S20 only
#6534	<b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b> Provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348, or 9427 Tape Drives or 3995 C4x Optical Library Dataserver. Minimum OS/400 to support 3995: V4R2 SPD slots required: One Prerequisite: #5064 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower. Model S20 only
#9728	<b>Base PCI Disk Unit Controller (Ultra SCSI)</b> The #9728 is the base IOA for the system unit. Provides Ultra SCSI attachment for up to five internal disk units, one internal CD-ROM (standard) and one internal tape drive. Does not support RAID. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 tape units. Mutually exclusive with the #2726, #2740, or #2741 in the same system unit. The #9728 does not support integrated hardware disk compression. High-speed PCI slots required: One Maximum: One per system unit.

## 7.13 AS/400e Model S30 and S40 features

Model SB1, S10, S20,  
S30, S40

Processors	
#2207	<b>3660 RSP CPW 8-way Processor in Client/Server Environment 120 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Minimum OS/400 level: V4R3 Model S40 only
#2208	<b>4550 RSP CPW 12-way Processor in Client/Server Environment 120 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Minimum OS/400 level: V4R3 Model S40 only
#2256	<b>1794.0 RSP CPW 8-way Processor in Client/Server Environment, 64.0 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Model S40 only
#2257	<b>319.0 RSP CPW Processor in Client/Server Environment, 51.5 RSP CPW Processor in Interactive Environment.</b> Base Memory 512 MB. Model S30 only
#2258	<b>583.3 RSP CPW 2-way Processor in Client/Server Environment, 64.0 RSP CPW 2-way Processor in Interactive Environment.</b> Base Memory 512 MB. Model S30 only
#2259	<b>998.6 RSP CPW 4-way Processor in Client/Server Environment, 64.0 RSP CPW 4-way Processor in Interactive Environment.</b> Base Memory 512 MB. Model S30 only
#2260	<b>1794.0 RSP CPW 8-way Processor in Client/Server Environment, 64.0 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Model S30 only
#2261	<b>2340.0 RSP CPW 12-way Processor in Client/Server Environment, 64.0 RSP CPW 12-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Model S40 only
#2311	<b>12-way processor.</b> Base Memory 4096 MB. 185,533 normalized FI Dialog Steps per hour at 65% CPU. Prerequisite: #04xx ISV Software feature. Model SBI only
#2320	<b>998.6 RSP CPW 4-way Processor in Client/Server Environment, 215.1 RSP CPW 4-way Processor in Interactive Environment.</b> Base Memory 512 MB. Prerequisite: #04xx ISV Software feature. Model S30 only
#2321	<b>1794.0 RSP CPW 8-way Processor in Client/Server Environment, 386.4 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Prerequisite: #04xx ISV Software feature. Model S30 only
#2322	<b>1794.0 RSP CPW 8-way Processor in Client/Server Environment, 579.6 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Prerequisite: #04xx ISV Software feature. Model S30 only
#2340	<b>3660 RSP CPW 8-way Processor in Client/Server Environment 1050 RSP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB. Prerequisite: #04xx ISV Software feature. Minimum OS/400 level: V4R3 Model S40 only
#2341	<b>4550 RSP CPW 12-way Processor in Client/ Server Environment 2050 SRP CPW 8-way Processor in Interactive Environment.</b> Base Memory 1024 MB Prerequisite: #04xx ISV Software feature. Minimum OS/400 level: V4R3 Model S40 only
Power and Packaging	
Base Optical Bus Adapter	<b>Base Optical Bus Adapter</b> This is a base Optical Bus Adapter in the S30 and S40 identified as CCIN 2696 with no feature code required.

#2688	<p><b>#2688 Optical Link Processor (1063 Mbps)</b>  The #2688 is a card that is used for attaching #5072, #5073, #5082, or #5083 Storage Expansion Towers. Each #2688 supports a maximum of two #50xx towers.  Card slots used: None  Maximum: Nine on S30 and S40  Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.</p>
#2695	<p><b>#2695 Optical Bus Adapter</b>  Allows for the addition of up to three #2688 Optical Link Processors.  Card slots used: One  Maximum: One</p>
#2730	<p><b>#2730 Programmable Regulator</b>  The #2730 is required when five or more main storage cards are installed in a Model S30 only.  Card slots used: None  Maximum: One</p>
#5052	<p><b>#5052 Storage Expansion Unit</b>  The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower or #5082 Storage Expansion Tower. The #5052 is only supported with upgrades. It cannot be ordered with a new system. Only one #5052 per tower is supported and #5143 Power Supply may be required.  Model S30 and S40 only</p>
#5055	<p><b>#5055 Storage Expansion Unit (Ultra SCSI)</b>  The #5055 provides space up to eight disk units. It attaches to the top of the Model S30 system unit.  Prerequisite: The #9751 or #9754 MFIOP with RAID and #5151 Power Supply .  Model S30 only</p>
#5057	<p><b>#5057 Storage Expansion Unit (Ultra SCSI)</b>  The #5057 provides space for up to 16 disk units. It attaches to the top of the Model S40 system unit.  Prerequisite: #9751 or #9754 MFIOP with RAID.  Model S30 only</p>
#5058	<p><b>#5058 Storage Expansion Unit (Ultra SCSI)</b>  The #5058 provides space for up to 16 disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported.  Model S30 and S40 only</p>
#5065	<p><b>#5065 Storage/PCI Expansion Tower</b>  The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN/WAN/Workstation controllers, 12 PCI IOA cards, two removable media, and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device. The #5065 is the only storage expansion unit to support Ultra2 SCSI.  Prerequisite: #2688 Optical Link Processor.  Maximum: Eighteen on the Model S30 and S40.  Minimum OS/400 level: V4R4  The #5065 is a Customer Install Feature.</p>
#5066	<p><b>#5066 1.8 M I/O Tower</b>  The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5066 1.8 M I/O Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8 M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for four removable media devices, battery backup, redundant/hot swap power supplies, and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified.  Prerequisite: #2688 Optical Link Processor.  Maximum: Nine on the Model S30 and S40.  Minimum OS/400 level: V4R4</p>
#5072	<p><b>#5072 1063 Mbps System Unit Expansion Tower</b>  The #5072 provides an I/O tower for creating additional buses on the Model S30 and S40. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5072 is required.  Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 and an IOA slot on the System Unit Base Optical Bus Adapter. The #5072 is only supported on upgrades, it cannot be ordered with a new system.  Model S30 and S40 only</p>

#5073	<p><b>#5073 1063 Mbps System Unit Expansion Tower</b></p> <p>The #5073 provides an I/O tower for creating additional buses on the Model S30, and S40. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5073 is required.</p> <p>Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 and an IOA slot on the System Unit Base Optical Bus Adapter.</p>
#5082	<p><b>#5082 Storage Expansion Tower</b></p> <p>The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5052. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the #6502, #6512, #6530 disk IOPs—all supported but not orderable; #6532 or #6533—for new orders, and battery and power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 and an IOA slot on the Base Optical Bus Adapter. The #5082 is only supported on upgrades; it cannot be ordered with a new system. Model S30 and S40 only</p>
#5083	<p><b>#5083 Storage Expansion Tower (Ultra SCSI)</b></p> <p>The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5058. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6430—all supported but not orderable; #6532 or #6533—for new orders), and battery and power supplies.</p> <p>Prerequisites: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 and an IOA slot on the Base Optical Bus Adapter. Model S30 and S40 only</p>
#5101	<p><b>30 Disk Expansion Feature</b></p> <p>This provides two 15 unit disk enclosures, a 700-watt power supply, backplanes and internal cables. Maximum: One per #5065 Storage/PCI Expansion Tower</p>
#5143	<p><b>#5143 Power Supply</b></p> <p>The #5143 Power Supply is a 400-watt power supply that is normally a prerequisite of a #5052 installed in a #5072 1063 Mbps System Unit Expansion Tower or #5082 Storage Expansion Tower Maximum: One per #5072 or #5082. Model S30 and S40 only</p>
#5150	<p><b>Battery Backup (External)</b></p> <p>An external battery backup that when used in conjunction with an internal battery backup is capable of extending the Continuously Power Main Storage (CPM) time to at least 48 hours. On Model S30, S40, and SB1, a standard internal battery backup is capable of maintaining CPM on 16 GB of main storage for at least 24 hours. The #5150 is required when main storage exceeds 16 GB on a Model S30 and S40.</p>
#5151	<p><b>Power Supply (650 watts)</b></p> <p>The #5151 is a 650 feature power supply that is a prerequisite for #5052 Storage Expansion Unit. Also required when six or more main storage cards are installed. Maximum: One Model S30 only</p>
#9251	<p><b>#9251 Base I/O Tower</b></p> <p>The #9251 is the base tower on a Model S40. Includes four feature SPD IOP slots, space for three removable media devices, one CD-ROM drive, one MFIOP, the ability to add up to 20 feature disk units (with #5057—Model S40 only), and battery and power supplies. Supported on the Model S40 only</p>
<b>Main Storage</b>	
#3179	<p><b>256 MB Main Storage</b></p> <p>Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40 Processors. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259 and #2320; two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Minimum OS/400 level: V4R2 Model S30 and S40 only</p>
#3180	<p><b>512 MB Main Storage</b></p> <p>Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2220. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40 Processors. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259, and #2320; two fours on Model S30 Processors #2260, #2321, #2322; four fours on S40. Minimum OS/400 level: V4R2 Model S30 and S40 only</p>
#3189	<p><b>128 MB Main Storage</b></p> <p>Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259, and #2320; two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Model S30 and S40 only</p>

#3190	<p><b>256 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321 and #2322 and Model S40. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259, and #2320; two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Model S30 and S40 only</p>
#3191	<p><b>512 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in focus on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259, and #2320; and two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Model S30 and S40 only</p>
#3192	<p><b>1024 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2360, #2321, and #2322 on Model S40. Requires one dedicated memory card slot. Maximum: Five pairs on Model S30 Processors #2257, #2258, #2259, and #2320; two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Model S30 and S40 only</p>
#3193	<p><b>2084 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot. Maximum: Four pairs on Model S30 Processors #2257, #2258, #2259, and #2320; two fours on Model S30 Processors #2260, #2321, and #2322; four fours on Model S40. Minimum OS/400 level: V4R3 Model S30 and S40 only</p>
#8180	<p><b>Optional Base 512 MB Main Storage</b> Provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot. Minimum OS/400 level: V4R2 Model S30 and S40 only</p>
#8191	<p><b>Optional Base 512 MB Main Storage</b> Provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot. Model S30 and S40 only</p>
#8192	<p><b>Optional Base 1024 MB Main Storage</b> Provides an optional 1024 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2321, and #2322, and Model S40. Requires one dedicated memory card slot. Model S30 and S40 only</p>
#8193	<p><b>Optional Base 2048 MB Main Storage</b> Provides an optional 2048 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322, and Model S40. Requires one dedicated card slot. Minimum OS/400 level: V4R3 Model S30 and S40 only</p>
#9179	<p><b>Base 256 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires on dedicated memory card slot. Minimum OS/400 level: V4R2</p>
#9190	<p><b>Base 256 MB Main Storage</b> Must be added in pairs on Model S30 Processors #2257, #2258, #2259, and #2320. Must be added in fours on Model S30 Processors #2260, #2321, and #2322 and Model S40. Requires one dedicated memory card slot.</p>

<b>Workstation Controllers</b>	
Base IOP	<p><b>Base Controller for Storage/#5065 Storage/PCI Expansion Tower</b>            A base IOP comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots.            The #2718, #2729, or #2748 are supported in C04 only.            The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05.            The #281X or #2838/#9738 are supported on C05 only.            The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02.            Restrictions apply.            Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>            The #2699 supports up to three #2699, #6149, #6180, #6181, #9249, #9280, and #9381 LAN/WAN/Workstation IOAs. The #6149, #6181, #9249, and #9381 cannot occupy all three positions of the #2629.            No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower.            Card slots required: One</p>
#2746	<p><b>#2746 PCI Twinaxial Workstation IOA</b>            One eight-port attachment is provided to support 40 active twinaxial devices.            PCI slots required: One            Prerequisite: #5065 Storage/PCI Expansion Tower.            Maximum: For workstation controller maximums in any combination, see the capacity charts on page 171 and 172.            Minimum OS/400 level: V4R4</p>
#2824	<p><b>#2824 PCI Feature Controller</b>            The #2824 can be used for attaching additional LAN, WAN, and workstation IOAs to the system. There is a maximum of two in the #5065 Storage/PCI Expansion Tower.             In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots:            The #2718, #2729 or #2748 are supported in C09 and C14 only.            The #2838/#9738 and #281x are supported in C05, C10 and C15 only.            The #2838/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15.            The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12.            Restrictions apply using the #2824. See "Comm. Restrictions" on page 116.            Minimum OS/400 level: V4R4</p>
#5540	<p><b>#5540 System Console on Twinaxial Workstation IOA Specify</b>            The System Console attaches to #6180 or #9280 Twinaxial Workstation IOA or other migrated twinaxial workstation controller.</p>
#5541	<p><b>System Console Attached to ASCII Workstation Controller Specify</b>            The System Console attaches to #9141 or #6141 ASCII Workstation Controller.</p>
#5543	<p><b>System Console Specify</b>            The System Console is a PC attached to the #9751 MFIOF.            Prerequisite: #0344 Cable for attaching Client Access Console and #9699 Base Two-Line WAN IOA in slot B in the #9751 or #9754 MFIOF with RAID.</p>
#5544 #0328	<p><b>#5544 System Console on Operations Console</b>            The System Console is a PC. The #5544 is the default for V4R3 S30 and S40 Models.            Prerequisite: #0328 Cable to be attached to Port 0 of the #9699 Base Two-Line WAN IOA in slot B of the #9751 or #9754 MFIOF with RAID.            #0328: Operations Console Cable: This is a 6-meter used to attach a PC to a #9699 for use as a remote PC Console.            Mutually exclusive with #3044.            Minimum OS/400 level: V4R3</p>
#6050 #9050	<p><b>#6050 Enhanced Twinaxial Workstation Controller</b>            One eight-port attachment is provided to support up to seven twinaxial devices with V4R1 or 28 with V4R2 or V4R3. Model S30 processors #2320, #2321, and #2322 and S40 processors #2340 and #2341 support more twinaxial devices on any release.            The #9050 is the base twinaxial workstation controller on some older models.            Card slots required: One            Model S30 or S40 only</p>
#6141 #9141	<p><b>#6141 ASCII Workstation Controller</b>            The #6141 supports up to six ASCII devices. The #9141 can be specified as new orders on the base workstation controller. Card slots required: One</p>

#6142	<p><b>#6142 ASCII 12-Port Workstation Attachment</b></p> <p>The #6142 plugs into the #9141 or #6141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. Only one #6142 can be attached per #6141 or #9141.</p> <p>Card slots required: None</p>
#6180 #9280	<p><b>Twinaxial Workstation IOA</b></p> <p>One eight-port attachment is provided to support up to seven twinaxial devices with V4R1 or 28 with V4R2. Model S30 processors #2320, #2321, and #2322 and S40 processors #2340 and #2341 support more twinaxial devices on any release.</p> <p>The #9280 is specified on new order when a twinaxial workstation is required, and there is no ASCII workstation controller. One #6280/#9280 is placed in slot C of the #9751 or #9754 MFIOP when the System Console is ASCII. All other #6180s must be placed in a #2629 LAN/WAN/Workstation IOP. IOA slots required: One #2629, #9751, or #9754 slot.</p>
#9751	<p><b>MFIOP with RAID (Ultra SCSI)</b></p> <p>The #9751 is standard on the Model S30 and S40. Contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA, or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one ##2699 Two-Line WAN IOA, or one #6180 or #9280 Twinaxial IOA. Occupies two card slots.</p> <p>The #9751 does not support integrated hardware disk compression.</p> <p>CCIN 6751</p>
#9754	<p><b>#9754 MFIOP with RAID (Ultra SCSI)</b></p> <p>The #9754 contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA, or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA, or one #6180 or #9280 Twinaxial IOA. Occupies two card slots.</p> <p>The #9754 is standard on the Model S30 and S40 and on systems ordered with V4R2.</p> <p>Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4</p> <p>CCIN 6754</p>
<b>Communications</b>	
#2605	<p><b>#2605 ISDN Basic Rate Interface Adapter</b></p> <p>The #2605 connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2523.</p> <p>Card slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p>
#2609	<p><b>#2609 EIA 232/V.24 Two-Line Adapter</b></p> <p>The #2609 connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols. Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9023 EIA 223/V.24 20-ft. (6m) enhanced cable</li> <li>#9835 EIA 223/V.24 50-ft. (15m) enhanced cable</li> <li>#9022 EIA 232/V.24 20-ft. (6m) cable</li> <li>#9836 EIA 232/V.24 50-ft. (15m) cable</li> </ul> <p>Card slots required: None</p> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model S30 and S40 only</p>
#2610	<p><b>#2610 EIA 232/V.24 Two-Line Adapter (SPD)</b></p> <p>The #2610 connects to the #2623 to support two communications lines using X.21 or X.25 networks. Two cables must be specified:</p> <ul style="list-style-type: none"> <li>#9021 X.21 20-ft. (6m) cable</li> <li>#9839 X.21 50-ft. (15m) cable</li> </ul> <p>Prerequisite: #2623 Six-Line Communications Controller</p> <p>Model S30 or S40 only</p>

#2612	<p><b>#2612 EIA 232/V.24 One-Line Adapter</b>  The #2612 connects to #2623 to support one communications line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified:  #9023 EIA 223/V.24 20-ft. (6m) enhanced cable  #9835 EIA 223/V.24 50-ft. (15m) enhanced cable  #9022 EIA 232/V.24 20-ft. (6m) cable  #9836 EIA 232/V.24 50-ft. (15m) cable  Card slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model S30 and S40 only</p>
#2613	<p><b>#2613 V.35 One-Line Adapter</b>  Connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to S30 Kbps, or two V.35 lines at speeds up to 512 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters are allowed on #2623 when running T1/E1/J1. One cable must be specified:  #9020 V.35 20-ft. (6m) cable  #9838 V.35 50-ft. (15m) cable  Card slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model S30 or S40 only</p>
#2614	<p><b>#2614 X.21 One-Line Interface Adapter (SPD)</b>  Connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified:  #9021 X.21 20-ft. (6m) cable  #9839 X.21 50-ft. (15m) cable  Card slots required: None  Prerequisite: #2623 Six-Line Communications Controller  Model S30 or S40 only</p>
#2620	<p><b>#2620 Full Cryptographic Processor</b>  The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries or regions outside the U.S.A. and Canada, it can only be marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, a #2628 should be sold in its place.  Card slots required: One  Maximum: One</p>
#2623	<p><b>#2623 Six-Line Communications Controller</b>  The #2623 provides for attachment of a wide range of iSeries or AS/400e communications adapters. The following adapters are supported by the #2623: #2605, #2609, #2620, #2612, #2613, #2614, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is only orderable on Model S30 and S40 for customers purchasing the #2605 ISDN adapter.  Card slots required: One</p>
#2628	<p><b>#2628 Limited Cryptographic Processor</b>  The #2628 provides the same function as #2620 except that it does not include data encryption/decryption using commercial Data Masking Facility for data scrambling. Can be marketed to any non-U.S. company.  Card slots required: One  Maximum: One</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b>  The #2629 supports up to three IOAs. Those supported are the #2699, #6149, #6180, #6181, #9280, and #9381. The #6149, #6181, #9149, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in the #5073 1063 Mbps System Unit Expansion Tower.  Card slots required: One</p>
#2664	<p><b>#2664 Integrated Fax Adapter (SPD)</b>  The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with #2663, or PCs with approximately programmed Fax adapter. The #2664 consists of a card, a wrap cable, two country or region unique attachment couplers and telephone cables, and Licensed Internal Code.  Card slots required: One  Maximum: 32 on Model S30 and S40.  Restriction: Not supported with V5R1</p>

<p>#2666</p>	<p><b>#2666 High-Speed Communications Adapter</b>          The #2666 provides one communications line capable of T1/E1 (1.544/2.048 Mbps) speeds. The #2666 consists of a card, a wrap connector and a cable. One of the following cables must be specified:          #9879 20-ft. (6m) V.35 CCITT cable          #9880 80-ft. (24m) V.35 CCITT cable          #9882 20-ft. (6m) RS449/V.36 CCITT cable          #9883 80-ft. (24m) RS440/V.36 CCITT cable *          #9884 150-ft. (45m) RS449/V.36 CCITT cable *          #9885 20-ft. (6m) X.21 CCITT cable</p> <p>* This cable is only allowed when the customer's modem supports Looped Clocking Mode.          The #2666 is supported but not orderable on Model S30 and S40.          Card slots required: One          Maximum: Twenty on Model S30; 30 on Model S40          Model S30 or S40 only</p>
<p>#2699 #9699</p>	<p><b>#2699 Two-Line WAN IOA</b>          The #2699 supports up to two multiple protocol communications ports when any one or two of the following cables are attached:          #0328 Operations Console Cable 20-ft. (6m) (for #9699 and requires V4R3)*          #0329 V.24/EIA 232 80-ft. (24m) cable          #0330 V.24/EIA 232 20-ft. (6m) cable          #0331 V.24/EIA 232 50-ft. (15m) cable          #0332 V.24/EIA 232 20-ft. (6m) enhanced cable          #0333 V.24/EIA 232 50-ft. (15m) enhanced cable          #0334 V.24/EIA 232 80-ft. (24m) enhanced cable          #0335 V.24/EIA 449 20-ft. (6m) cable          #0336 V.36/EIA 449 50-ft. (15m) cable          #0337 V.36/EIA 449 150-ft. (45m) cable          #0338 V.35 20-ft. (6m) cable          #0339 V.35 50-ft. (15m) cable          #0340 V.35 80-ft. (24m) cable          #0341 X.21 20-ft. (6m) cable          #0342 X.21 50-ft. (15m) cable          #0344 Comms Console Cable 20-ft. (6m)</p> <p>*For #2699: Used to support the Operations Console function on CPU models supporting LPAR for secondary partitions when logical partitioning is implemented (V4R4 and later):          #0328 Operations Console 20-ft. (6m) cable</p> <p>For #9699 and to support the Remote Control Panel function (supported for the primary partition only), the Remote Control Panel Cable #0380 can be ordered as an option. The #0380 cable does not attach to a communication port. The #9699 is the base communications adapter card and is placed in slot B of the #9751 or #9754 MFIOF.          Restrictions apply using the #2699. See "Comm. Restrictions" on page 116.          Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP or a spare IOA slot in #9751 or #9754 MFIOF with RAID          IOA slots required for #2699: One on the #2629 LAN/WAN/Workstation IOP, #9751, or #9754 MFIOF with RAID</p>
<p>#2745</p>	<p><b>#2745 PCI Two-Line WAN IOA</b>          Supports up to two multiple protocol communications ports when one or two of the following cables are attached:          #0348 V.24/EIA232 20-ft. (6m) PCI cable          #0349 V.24/EIA232 50-ft. (15m) PCI cable          #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable          #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable          #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable          #0353 V.35 20-ft. (6m) PCI cable          #0354 V.35 50-ft. (15m) PCI cable          #0355 V.35 80-ft. (24m) PCI cable          #0356 V.36 20-ft. (6m) PCI cable          #0357 V.36 50-ft. (15m) PCI cable          #0358 V.36 150-ft. (45m) PCI cable          #0359 X.21 20-ft. (6m) PCI cable          #0360 X.21 50-ft. (15m) PCI cable          #0365 V.24/EIA232 80-ft. (24m) PCI cable          #0367 Operations Console PCI Cable 20-ft. (6m) *</p> <p>* Used to support the Operations Console function on CPU models supporting LPAR (V4R4 and later). A maximum of one #0367 cable is allowed per #2745.          See "Comm. Restrictions" on page 116.          Prerequisite: #5065 Storage/PCI Expansion Tower.          PCI card slots required: One</p>

#2750	<p><b>#2750 PCI ISDN BRI U Adapter</b></p> <p>The #2750 is a 4 port (8 channel) ISDN BRI (basic rate, 2 wire interface) full size card. Each port consists of 2B+D configuration A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2750 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. Supports full duplex. The feature is country- or region-specific.</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2751	<p><b>#2751 PCI ISDN BRI S/T IOA</b></p> <p>The #2751 is a 4 port (8 channel) ISDN BRI (basic rate, 4 wire interface) full size card. Each port consists of 2B+D configuration A wrap cable/plug and four 30-ft. RJ-45 to RJ-45 cables are shipped with each card. Each #2751 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. Supports full duplex. The feature is country- or region-specific.</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2761	<p><b>#2761 PCI Integrated Analog Modem</b></p> <p>The #2761 supports multiple analog modem ports (eight phone lines). The feature includes a wrap cable/plug and eight 30-ft. (8 m) phone cables. Each #2761 counts as eight communication lines against the system maximums. It supports SLIP/PPP, SDLC and Fax protocols. Supports full duplex. ECS line not supported. To the iSeries or AS/400e server, the #2761 looks like a single IOA with eight individual line resources available. The feature is country- or region-specific.</p> <p>Restriction: Not supported with OS/400 V5R2</p> <p>Prerequisites: #5065 Storage/PCI Expansion Tower and #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4 with PTF MF22528 or Cumulative PTF Package C9313440</p>
#2824	<p><b>#2824 PCI Feature Controller</b></p> <p>The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. There is a maximum of two in the #5065 Storage/PCI Expansion Tower.</p> <p>In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots:</p> <ul style="list-style-type: none"> <li>The #2718, #2729, or #2748 are supported in C09 and C14 only.</li> <li>The #2838/#9738 and #281x are supported in C05, C10 and C15 only.</li> <li>The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761, or #4800 are supported in C09, C10, C14 or C15.</li> <li>The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761 are supported in C06, C07, C11 or C12.</li> </ul> <p>Prerequisite: #5065 Storage/PCI Expansion Tower.</p> <p>Restrictions apply using the #2824. See "Comm. Restrictions" on page 116.</p> <p>Minimum OS/400 level: V4R4</p>
#4800	<p><b>#4800 PCI Cryptographic Processor</b></p> <p>The #4800 is a hardware cryptography solution based on the IBM 4758 card. It is a half length PCI card. As the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging.</p> <p>Maximum: Three per system</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Minimum OS/400 level: V4R4</p>
#4802	<p><b>#4802 PCI Cryptographic Processor</b></p> <p>The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card which offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800). The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program that is downloaded to the adapter.</p> <p>Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower</p> <p>Maximum: Three per system</p> <p>Minimum OS/400 level: V4R5</p>
<b>LANs and ATM</b>	
#2617 #9617	<p><b>#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)</b></p> <p>The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detector Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. Supports 10 Mbps half duplex only. An AIO Ethernet cable must be ordered separately. The #9617 specifies the base LAN on upgraded systems.</p> <p>Card slots required: One</p> <p>Model S30 and S40 only</p>

#2618 #8664	<p><b>#2618 Fiber Distributed Data Interface Adapter (SPD)</b> The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN which complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-node (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately. The #8664 specifies the base LAN. Card slots required: One</p>
#2619 #9619	<p><b>#2619 LAN/WAN/Workstation IOA (SPD)</b> The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable. The #9619 specifies the base LAN on upgraded systems. Card slots required: One Model S30 and S40 only</p>
#2629	<p><b>#2629 LAN/WAN/Workstation IOP</b> The #2629 supports up to three IOAs. Those supported are the #2699, #6149, #6180, #6181, #9249, #9280, and #9381. The #6149, #6181, #9249, and #9381 LAN IOAs cannot occupy all three positions of the #2629. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower, and the #2629 cannot be placed in slot 14 of a #4072. There is no restriction on placing the #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One</p>
#2663	<p><b>#2663 I/O Attachment Processor (SPD)</b> The #2663 I/O processor is required when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit. Card slots required: One (with #2668)</p>
#2665 #8665	<p><b>Shielded Twisted-Pair Distributed Data Interface Adapter</b> The #2665 provides one interface to connect to an FDDI LAN which is constructed of IBM Cabling System Type 1, 2, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 LLC, ANSI X3T9.5/ISO 9314 MAC functions, and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately. The #8665 specifies the base LAN on upgraded systems. Card slots required: One Model S30 and S40 only</p>
#2668	<p><b>#2668 Wireless LAN Adapter (SPD)</b> The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified: #9814 20-ft. (6m) Antenna Cable #9815 50-ft. (15m) Antenna Cable  One of these antenna must be specified #9889 YAGI Directional Antenna #9890 Omni Directional Antenna (360 degree) #9891 Hemispherical Antenna (180 degree) #9892 Directional Antenna (90 degree)  Card slots required: One (with #2663) Prerequisite: #2663 I/O Attachment Processor Maximum: Three on S30 and S40.</p>
#2723 #9723	<p><b>#2723 PCI Ethernet IOA</b> The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code which supplies Ethernet Version 2 and IEEE 802.3 MAC plus IEEE 802.2 LLC functions. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. The #9723 is a base LAN feature. SPD card slots required: Three (with #6617 or #6618). PCI slots required: One. Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>
#2724 #9724	<p><b>#2724 PCI 16/4 Mbps Token Ring IOA</b> The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 MAC and IEEE 802.2 LLC functions, and an external 8-ft. (2.4m) cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. This IOA is capable of operating in half or full duplex mode. SPD card slots required: Three (with #6617 or #6618) PCI slots required: One. The #9724 is a base LAN feature. Prerequisite: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.</p>

#2810	<p><b>#2810 LAN/WAN IOP</b> The #2810 is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Card slots required: One (with any of the preceding features)</p>
#2811	<p><b>#2811 PCI 25 Mbps UTP ATM IOA</b> The #2811 provides attachment into an ATM network using UTP cabling, the #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP Minimum OS/400 level: V4R2</p>
#2812	<p><b>#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA</b> The #2812 provides attachment in an ATM network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP Minimum OS/400 level: V4R2</p>
#2815	<p><b>#2815 PCI 155 Mbps UTP OC3 ATM IOA</b> The #2815 provides attachment into an ATM network using the Unshielded Twisted Partible-5 interface. This interface is intended for connection to both local area switches and direct connection to server provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP Minimum OS/400 level: V4R2</p>
#2816	<p><b>#2816 PCI 155 Mbps MMF ATM IOA</b> The #2816 provides attachment into an ATM network using the MMF 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2818	<p><b>#2818 PCI 155 Mbps SMF OC3 ATM IOA</b> The #2818 provides attachment into an ATM network using the SMF 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2819	<p><b>#2819 PCI 34 Mbps Coax E3 ATM IOA</b> The #2819 provides attachment into an ATM network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400 level: V4R2</p>
#2824	<p><b>#2824 PCI Feature Controller</b> The #2824 can be used for attaching additional LAN, WAN, and workstation IOAs to the system. There is a maximum of two in the #5065 Storage/PCI Expansion Tower.</p> <p>In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots: The 2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10 and C15 only. The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761, or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751, or #2761 are supported in C06, C07, C11, or C12. Restrictions apply using the #2824. See "Comm. Restrictions" on page 116. Minimum OS/400 level: V4R4</p>
#2838 #9738	<p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b> Provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex. The adapter comes with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, and cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. SPD card slots required: One (with #2810) or three (with #6617 or #6618). PCI slots required: One Prerequisite: #2810 LAN/WAN IOP or #6617 Integrated PC Server, #6618 Integrated Netfinity Server, or #5065 Storage/PCI Expansion Tower.</p>



<p>#6617</p>	<p><b>#6617 Integrated PC Server (SPD)</b>  The #6617 contains a 200 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be the #2838/#9738.  #9723/#2723 PCI Ethernet IOA  #9723/#2723 PCI Ethernet IOA  #2738/#9738 PCI 100/10 Mbps Ethernet IOA (specify feature #0222 is required)</p> <p>The #9723, #9724, and #9738 are the base LAN. The third LAN and the second #2838. The #9738 can be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838/#9738 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then:  #0325 Integrated PC Server Extension Cable for Windows NT is required.  #1700 Integrated PC Server keyboard/Mouse for Windows NT is recommended (in those countries or regions offering it).  A display is required on the IPCS to support Windows NT.  A minimum of 64 MB is required if running Windows NT.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at:  <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a></p> <p>When running OS/2 on the #6617, then the #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838/#9738.  When running Novell Netware on the #6617, then the #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838/#9738. A maximum of 256 MB IOP memory is supported.</p> <p>Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.  Minimum OS/400 level: V4R2</p>
<p>#6618</p>	<p><b>#6618 Integrated Netfinity Server (SPD)</b>  Minimum OS/400 level: V4R2 and Cumulative Package C8342420 or V4R3 and Cumulative Package C8349430.  Contains a 333 Mhz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required:  #2861 32 MB Integrated PC Server Memory  #2862 128 MB Integrated PC Server Memory  #2867 256 MB Integrated PC Server Memory</p> <p>Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838.  #2723 PCI Ethernet IOA  #2724 PCI 16/4 Mbps Token Ring IOA  #2838 PCI 100/10 Mbps Ethernet IOA (Specify #0222 is required)</p> <p>The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then:  A minimum of 64 MB IOP memory is required.  The #0325 Integrated PC Server Extension Cable for Windows NT is required.  The #1700 Integrated PC Server Keyboard or Mouse for Windows NT, the default in the U.S.A.  A display is required to support Windows NT on the IPCS.</p> <p>For country- or region-specific keyboard, mouse and display support, see the Web site at:  <a href="http://www.ibm.com/eserver/series/windowsintegration/">http://www.ibm.com/eserver/series/windowsintegration/</a></p> <p>When running OS/2 on the #6618, then:  The #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used.  A maximum of 512 MB IOP memory is supported.</p> <p>When running Novell Netware on the #6618, then:  #0325 and #1700 are not allowed.  Only two of the LAN IOA slots can be used.  A maximum of 256 MB IOP memory is supported.</p> <p>SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.</p>

<b>Disk Units</b>	
#1602	<p><b>1.03 GB One-byte Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in system unit or #5052, #5057, and #5058 Storage Expansion Unit positions 1 through 7. One #1602 migrates a #1312, #6602, #6802, or #9602 disk. Two #1602s migrate a #2802, #6612, #6812, #8612, or #9802 dual disk. Model S30 or S40 only</p>
#1603	<p><b>#1603 1.96 GB Single Disk Unit Conversion Kit</b> Provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in system unit or #5052, #5057 and #5058 Storage Expansion Unit positions 1 through 7. One #1603 migrates #1313 or #6603 disk. Two #1602s migrate a #6613, #7613, or #8613 dual disk. Model S30 or S40 only</p>
#4308	<p><b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> Supported in the #5065/#5066 PCI Expansion Tower only. Provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller The #4308 is a Customer Install Feature. Minimum OS/400 level: V4R4</p>
#4314	<p><b>#4314 8.58 GB Disk Unit (Ultra SCSI)</b> The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM). Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4314 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4317	<p><b>#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)</b> The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity. Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4317 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4318	<p><b>#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)</b> The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity. Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4318 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only</p>
#4324	<p><b>17.54 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> Supported in the #5065/#5066 PCI Expansion Tower only Provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM). Prerequisite: A #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4324 is a Customer Install Feature.</p>
#4331	<p><b>#4331 1.6 GB Read Cache Device</b> The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748/#2778 PCI RAID Disk Unit Controller.  Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller and one 1.6-inch DASD slot Maximum: One per #2748 or #2778 I/O processor Minimum OS/400 level: V4R4 The #4331 is a Customer Install Feature. Supported in the #5065/#5066 PCI Expansion Tower only.</p>
#6605	<p><b>1.03 GB Additional Two-byte Disk Unit</b> Provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6605 is supported for upgrades only. Model S30 or S40 only.</p>
#6606 #9606	<p><b>1.96 GB Additional Two-byte Disk Unit</b> Provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6606 is supported for upgrades only. The #9606 specifies a 1.96 GB base disk unit. Model S39 or S40 only.</p>
#6607 #7607	<p><b>4.19 GB Additional Two-byte Disk Unit</b> Provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. The #6607 is supported for upgrades only. The #7607 specifies an optional 4.19 GB base disk unit. Model S30 or S40 only. RPQ 843977 and RPQ 843978 can be used for the #6607, upgrades to Sxx system units and the #5052, #5055, #5057, #5058, #5072, #5073, #5082, and #5083 Expansion Units and Towers.</p>

#6650	<b>1.96 GB Additional Two-byte Disk Unit</b> Provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6650 is supported or upgrades only. Model S30 or S40 only.
#6652	<b>1.03 GB Additional Two-byte Disk Unit</b> Provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6652 is supported for upgrades only. Model S30 or S40 only.
#6713 #7713 #8713	<b>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)</b> The #6713 provides a 3 ½-inch single disk unit with 8.57 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOF, #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #7713 and #8713 specify an optional 8.57GB base disk. The #7713 is supported for upgrades only. The #7713 Model S30 or S40 only. The #6713 and #8713 Model S30 or S40. RPQ 843977 and RPQ 843978 can be used for the #6713, upgrades to Sxx system units and #5052, #5055, #5057, #5058, #5072, #5073, #5082 and #5083 Storage Expansion Units and Towers.
#6714 #8714	<b>#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)</b> The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOF, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit. RPQ 843977 and RPQ 843978 can be used for #6714, upgrades to Sxx system units and #5052, #5055, #5057, #5058, #5072, #5073, #5082, and #5083 Storage Expansion Units and Towers. Minimum OS/400 level: V4R4 Model S30 or S40 only
#6717 #8617	<b>#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b> The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in the #5052, #5055, #5057 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers and in the #9251 or Model S30 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8617 specifies an optional 8.58 GB base disk. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R3
#6718 #8618	<b>#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)</b> The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in the #5052, #5055, #5057 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower and in #9251 or Model S30 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on the #6502/#6512/#6530. The #8618 specifies an optional 17.54 GB base disk. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R4
#6906	<b>1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOF, #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, #5058 Storage Expansion Unit, or #5083 Storage Expansion Tower. Model S30 or S40 only
#6907 #9907	<b>4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)</b> The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOF, #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057 or #5058 Storage Expansion Unit, or #5083 Storage Expansion Tower. The #6906 Model S30 or S40 only. The #9907 specifies a 4.19 GB base disk included with new Model S30 and S40 orders and with upgrades to these models from CISC models. RPQ 843977 and RPQ 843978 can be used for #6907 upgrades to Sxx system units and the #5052, #5055, #5057, #5058, #5072, #5073, #5082 and #5083 Storage Expansion Towers and Towers.
RPQ 843977	<b>RPQ 843977</b> is for customers who want to move 4/8/17 GB disk units from one AS/400e to another AS/400e. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6714 (17.54 GB unit) in the system unit of a Model 640/650/S30/S40/730/740 and in the #5052/#5055/#5057/#5058/#5070/#5071/#5072/#5073/#5080/#5081/#5082/#5083 disk expansion units and towers. These target enclosures use SPD technology. After the disk drives are installed, an RPO change must be processed to add a #6607/#6907 for each #6607/#6907 added, a #6713 for each #6713 added, and a #6714 for each #6714 added.
RPQ 843978	<b>RPQ 843978</b> is for customers who want to move 4/8/17GB disk units from one AS/400e to another AS/400e. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting device types #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6417 (17.54 GB unit) in the system unit of a Model 170/600/S10/620/S20/720 and the #7101/#7102/#5064/#9364 expansion units and towers. After the disk drives are installed, an RPO change must be processed to add a #6807 for each #6607/#6907 added, add a #6813 for each device #6713 added, and add a #6824 for each #6417 added.

RPQ 847102	<b>RPQ 847102</b> ships the disk mounting hardware and instructions required to convert a #6717/#6817 to a #4317 and a #6718/#6818 to a #4318. Order one RPQ for each disk unit to be converted. Confirm that there is disk space available in an existing or on-order #5065/#5066 PCI Expansion Tower. This RPQ can also be used to move a disk to an iSeries 270, 820, 830, 840, or #5075, #5074/#9074, and #5079/#9079 PCI Expansion Towers.
<b>Internal Tape Units and CD-ROM</b>	
Supported media	See 8.8, "QIC format compatibility for iSeries and AS/400e systems" on page 281, for the supported media for each tape device.
#1379	<b>1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape units. The #1379 migrates the #1349, #5348, #6368, #7348, #8348, or #9349 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIOP. Model S30 or S40 only
#1380	<b>2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit</b> The #1380 provides the hardware for migrating 2.5 GB ¼-inch cartridge tape units. The #1380 migrates the #1350, #5349, #6349, #6369, #7349, #8349, or #9349 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIOP. Model S30 or S40 only
#4425	<b>#4425 CD-ROM</b> Prerequisite: #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: V4R4 The #4425 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4482	<b>#4482 4 GB ¼-inch Cartridge Tape Unit</b> The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4483	<b>#4483 16 GB ¼-inch Cartridge Tape Unit</b> The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4486	<b>#4486 25 GB ¼-inch Cartridge Tape Unit</b> The #4486 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4486 is a Customer Install Feature. Supported only in #5065 Storage/PCI Expansion Tower.
#4487	<b>#4487 50 GB ¼-inch Cartridge Tape Unit</b> The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature.
#4684	<b>#4684 30 GB ¼-inch Cartridge Tape Unit</b> The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange. Supported only in the #5065 Storage/PCI Expansion Tower. The #4684 is a Customer Install Feature.
#6325	<b>Optional CD-ROM Feature</b> The #6325 limits the use of tape in the same tower to a #6380 and #6390. Prerequisite: #2624 Storage Device Controller Minimum OS/400 level: V4R3
#6380	<b>#6380 2.5 GB ¼-inch Cartridge Tape Unit</b> The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. The #6380 is supported for upgrades only. Attaches to the #2624, #6513, #9751, or #9754 MFIOP. Available on Model S30 and S40 #5072/#5073 1063 Mbps System Unit Expansion Tower.
#6381	<b>#6381 2.5 GB ¼-inch Cartridge Tape</b> The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to #6513, #9751, or #9754 MFIOP.

#6382	<p><b>#6382 4 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.</p>
#6383	<p><b>#6383 16 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073, or the #9251 towers and in the Model S30 System Tower. One can be controlled by the MFIOP. An additional #6383 must be controlled by the #6513.</p>
#6384	<p><b>#6384 30 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6384 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #6384 may be used for save/restore, alternate IPL, program distribution, migration, and ¼-inch cartridge tape exchange.</p> <p>Supported only in the #5072, #5073, or #9251 towers and in the Model S30 System Tower.</p> <p>The #6384 is a Customer Install Feature.</p>
#6385	<p><b>#6385 13 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.</p>
#6386	<p><b>#6386 25 GB ¼-inch Cartridge Tape Unit</b></p> <p>The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073, or #9251 towers and in the Model S30 System Tower.</p>
#6390	<p><b>#6390 7 GB 8 mm Cartridge Tape Unit</b></p> <p>The #6390 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to the #2624, #6513, #9751, or #9754 MFIOP.</p>
<b>Magnetic Media Controllers</b>	
#2621	<p><b>#2621 Storage Device Controller</b></p> <p>The #2621 provides attachment for one or two of these devices with hardware data compression for tapes: 2240, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s counts as two devices. If #2621 supports a 3995 or #5023, it must be dedicated to it. If the #2621 supports a 9427, it is recommended that the 9427 be attached to both parts of the #2621. For new orders, the #6434 is used in preference to #2621 as long as it supports the tape device required.</p> <p>Card slots required: One</p> <p>Maximum: Four for external tape, 22 for #3995 on S30 or S40.</p>
#2624	<p><b>#2624 Storage Device Controller</b></p> <p>The #2624 provides support for up to three internal tape drives. With the addition of #6146, it also supports one external diskette drive. For new orders, the #6513 is used in preference to #2624 unless #2624 is required anyway to support a diskette drive. Supports also the internal CD-ROM installed in the #5072/#5073 1063 Mbps System Unit Expansion Tower.</p> <p>Card slots required: One</p> <p>Maximum: Seven for internal tape/CD-ROM on S30 or S40; two for diskette.</p>
#2644	<p><b>#2644 Magnetic Tape Attachment Card/HP</b></p> <p>The #2644 provides attachment for the 3422, 3430, 3480, 3490 Exx, 3490 Box, 3490 Exx, 3490E Box, 3490E Cxx, and 3490E Exx Tape Subsystem Models. Also requires the #9980 Serpentine Cable except for 3490E Cxx when ordered with internal cables.</p> <p>Card slots required: One</p> <p>Maximum: Eight on S30 and S40.</p>
#2718	<p><b>#2718 PCI Magnetic Media Controller</b></p> <p>The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼-inch cartridge external tape drive), 7208-345 60 GB External 8mm Tape Drive, or 7210-020 CD-ROM. See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for information on connecting devices to the #2768.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2824 PCI Feature Controller</p> <p>Maximum: Three in the #5065 Storage/PCI Expansion Tower</p> <p>Minimum OS/400 to support 7210-020 and 7208-345: V4R5</p>
#2729	<p><b>#2729 PCI Magnetic Media Controller</b></p> <p>The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x. 3570, 3575, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.</p> <p>High-speed PCI slots required: One.</p> <p>Prerequisite: #2824 PCI Feature Controller.</p> <p>Maximum: Three in the #5065 Storage/PCI Expansion Tower.</p> <p>Minimum OS/400 to support 3995: V4R2</p>

#2748	<p><b>#2748 PCI RAID Disk Unit Controller—26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b></p> <p>The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of three arrays is allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #6831/#4331 1.6 GB Read Cache Device. It supports up to three internal tape and CD-ROMs. In the #5065 Storage/PCI Expansion Tower, it supports up to two internal tapes and CD-ROM. Supports the #1349, #1350, #1355, #1360, #4482, #4483, #4486, #4684, #6480, #6481, #6482, #6483, #6484, #6485, #6486, or #6490 tape units.</p> <p>Maximum: Three per #5065 Storage/PCI Expansion Tower. High-speed PCI slots required: One Prerequisite: #5065 Storage/PCI Expansion Tower. Minimum OS/400 level: V4R4</p>
#2778	<p><b>#2778 PCI RAID Disk Unit Controller—104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)</b></p> <p>The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity. The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM).</p> <p>Minimum OS/400 level: OS/400 V5R1 Prerequisite: Available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower Maximums: Three (in combination with #2748) per #5065 Storage/PCI Expansion Tower. Six (in combination with #2748) per #5066 1.8 M I/O Tower.</p>
#6146	<p><b>#6146 Diskette Adapter (SPD)</b></p> <p>The #6146 provides attachment for on 9331 011 or 012 Diskette Unit.</p> <p>Card slots required: None Prerequisite: #2624 Storage Device Controller Maximum: Two</p>
#6500	<p><b>Direct Access Storage Device Controller</b></p> <p>The #6500 provides attachment for one 9337 0xx or 1xx Disk Unit. The #6500 is supported for upgrades only.</p> <p>Card slots required: One Model S30 and S40 only</p>
#6501	<p><b>#6501 Tape/Disk Device Controller</b></p> <p>The #6501 provides attachment for up to two 9337 2xx, 4xx, or 5xx models. Also supports up to two 3490E Cxx with #5040, 3490E Exx, 3494 Lxx or Dxx, 3490E Fxx, 3570, or 3590 models. Also provides attachment for 2105 Versatile Storage Server. DASD and Tape Units cannot be mixed on the same #6501. The #6534 is used in preference to the #6501 if it supports the tape device being configured.</p> <p>Card slots required: One Maximum: Eight for tape; for disk, see the S30 and S40 model capacity charts on page 171 and 172. Model S30 or S40 only</p>
#6502	<p><b>#6502 High Performance Controller Disk Unit Controller (RAID/Mirrored/Unprotected)</b></p> <p>The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit or #5053 Storage Expansion Tower. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6502. The #6502 is supported for upgrades. The #6502 does not support integrated hardware disk compression.</p> <p>Card slots required: One Model S30 and S40 only</p>
#6512	<p><b>#6512 High Performance Controller Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected)</b></p> <p>The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of two arrays are allowed for each #6512. The #6512 is supported for upgrades. The #6512 does not support integrated hardware compression.</p> <p>Model S30 and S40 only. Card slots required: One</p>

#6513	<p><b>#6513 Internal Tape Device Controller</b></p> <p>The #6513 provides support for up to two internal tape drives when located in Model S40 system unit or four internal tape drives when located in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed. Supports #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 Tape Units.</p> <p>Card slots required: One</p> <p>Maximum: Five on S30 and S40.</p>
#6530	<p><b>#6530 Disk Unit Controller No Cache—No Cache (Mirrored/Unprotected)</b></p> <p>The #6530 is a controller for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, or #5082 or #5083 Storage Expansion Tower. The #6530 is supported for upgrades.</p> <p>The #6530 does not support integrated hardware disk compression.</p> <p>Model S30 and S40 only.</p> <p>Card slots required: One.</p>
#6532	<p><b>#6532 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6532 is an Ultra SCSI Controller for up to 16 disks installed in the #5058 Storage Expansion Unit, or #5083 Storage Expansion Tower. Also Supports disks located in the #5052 Storage Expansion Unit or the #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over the #6502, #6512, and #6530. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of four arrays are allowed for each #6532.</p> <p>The #6532 does not support integrated hardware disk compression.</p> <p>Model S30 and S40 only.</p> <p>Card slots required: One</p>
#6533	<p><b>#6533 RAID Disk Unit Controller—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #6533 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, or #5083 Storage Expansion Tower. Also Supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of four arrays is allowed for each #6533.</p> <p>Card slots required: One.</p> <p>Minimum OS/400 level: V4R2</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Model S30 and S40 only</p>
#6534	<p><b>#6534 Magnetic Media Controller (SPD) (Ultra SCSI)</b></p> <p>The #6534 provides attachment for one 3490E Cxx with #5040), 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348, 9427 Tape Drive, or 3995 C4x Optical Library Dataserver.</p> <p>Card slots required: One</p> <p>Maximum: Eight on S30 and S40.</p> <p>Minimum OS/400 to support 3995: V4R2</p>
#9751	<p><b>MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #9751 is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5505 or #5057 Storage Expansion Unit. On the Model S30, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model S40, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed.</p> <p>The #9751 does not support integrated hardware disk compression.</p> <p>Card slots required: Two</p> <p>Maximum: One</p> <p>CCIN 6751</p>
#9754	<p><b>#9754 MFIOP with RAID—4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)</b></p> <p>The #9754 is an Ultra SCSI controller for up to 20 disks installed in the system unit and the #5505 or #5057 Storage Expansion Unit. On the Model S30, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model S40, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed.</p> <p>Card slots required: Two</p> <p>Maximum: One #9754 is standard on systems ordered with V4R2</p> <p>Minimum OS/400 level: V4R2</p> <p>Minimum OS/400 to support integrated hardware disk compression: V4R3</p> <p>Minimum OS/400 to support integrated hardware disk compression for #6714/#8714 17.54 GB Disk Unit: V4R4</p> <p>CCIN 6754</p>

## 7.14 Performance differentials of Models S10, S20, S30, and S40

This table indicates the performance differentials of the S10, S20, S30, and S40 models. The percentage values show the increase in client/server (batch) performance.

From 9402/4/6		To 9402/9404/9406 Model S10, S20, S30, and S40													
Model	Proc	S10		S20				S30				S40			
	RSP CPW Client/ Server <sup>1</sup>	#2118	#2119	#2161	#2163	#2165	#2166	#2257	#2258	#2259	#2260	#2256	#2261	#2207	#2208
40S/#2109 <sup>2</sup>	27.0	68%	171%	321%	678%										
#2110 <sup>2</sup>	33.3		210%	242%	531%										
#2111 <sup>2</sup>	59.8			90%	251%	676%									
#2112 <sup>2</sup>	87.3				141%	432%	769%								
50S/#2120	77.7				170%	498%	877%	311%	651%						
#2121	104.2				102%	346%	638%	206%	460%	858%					
#2122	130.7				61%	255%	481%	144%	346%	664%					
53S/#2154	162.7							96%	259%	514%	1003%	1003%			
#2155	278.8								109%	258%	543%	543%	739%		
#2156	459.3									117%	291%	291%	409%	697%	891%
#2157	509.9									96%	252%	252%	359%	618%	792%
S10/#2118	45.4		61%	151%	363%	923%									
#2119	73.1			56%	187%	535%	938%								
S20/#2161	113.8				85%	308%	567%	180%	413%	778%					
#2163	210					121%	261%	52%	178%	376%					
#2165	464.3						63%			115%	286%	286%	404%	688%	880%
#2166	759										136%	136%	208%	382%	499%
S30/#2257	319								83%	213%	462%	462%	634%	1047%	
#2258	583.3									71%	208%	208%	301%	527%	680%
#2259	998.6										80%	80%	134%	267%	356%
#2260	1794												30%	104%	154%
S40/#2256	1794												30%	104%	154%
#2261	2340													56%	94%
#2207	3660														24%
#2208	4550														

**Note 1:** Relative system performance (Commercial Processing Workload) client server environment. For the Sxx models, this is based on V4R1. For the "from" model, this is based on V3R6. AS/400e servers on V3R6 see greater improvements.

**Note 2:** 40S includes package Models 4SS, 4SE, 4SG, 4SL, 4TG, 4TL, 4HS, 4HE, 5HG, and 4HL.

Model SB1, S10, S20, S30, S40

### 7.14.1 AS/400e Model S10, S20, S30, and S40 considerations

1. V4R1, V4R2, or V4R3 is a prerequisite for all Sxx models.
2. For physical planning information, such as weights, dimensions and power requirements of the Sxx models, customers should consult the *AS/400 Physical Planning Reference*, SA41-5109.
3. The S10 provides limited expansion for adapters. For example, if a fully configured Integrated PC Server (IPCS) supporting two LANs (token ring or Ethernet) is installed, space remains for four additional adapters, two of which are dedicated for use by the #2738/#9738 PCI 100/10 Mbps Ethernet IOA and #2729 PCI Magnetic Media Controller.

4. On most Sxx processors, memory is installed in pairs or quads.
5. The 988 MB and 1976 MB (dual) disk units are not supported on the Sxx models.
6. The CD-ROM on the Sxx models is not identified by a feature. This also applies to the base memory on the S10 and S20 models.
7. Model S10 and S20 card technology are PCI. Model S30 and S40 card technology is SPD.
8. These IOPs and adapters are not supported with PCI cards and are, therefore, not supported on the Model S10:

Cryptographic processors	Fax adapter
ASCII adapters	ISDN adapter
SDDI adapter	FDDI adapter
Wireless LAN	LocalTalk adapter
9. The 525 MB ¼-inch cartridge tape drive and 840 MB ¼-inch mini-cartridge tape units are not supported on the Sxx models.
10. The 9309 racks with features #9141 and #9171 can be attached to Model S20, S30, and S40 to attach external tape and disk.



## External storage, QIC formats, cables for iSeries and AS/400e

This chapter describes the external storage options for iSeries and AS/400e servers. This includes disk drives, diskette drives, tape devices, automated tape libraries, and optical devices. This chapter also includes supporting documentation for supported ¼-inch cartridge compatibility and communication cables, for example.

## 8.1 External disk storage for iSeries and AS/400e systems

External disk drives offer an optional configuration for iSeries and AS/400e systems to extend disk storage capacity. This section describes the external disk storage configurations found in these systems.

### 8.1.1 9336 and 9337 DASD

Machine	Model	Description	9406 model
9336	010	<b>Direct Access Storage Device</b> Provides 942 MB of DASD with two disk drives (471 MB each) with one actuator.	B, D, E, F 3x0, 5x0
9336	020	<b>Direct Access Storage Device</b> Provides 1714 MB of DASD with two disk drives (857 MB each) with one actuator. These devices are housed in 9309 racks. Four optional features are offered with the 9336: #1201 adds a single 471 MB disk drive #1202 adds two 471 MB disk drives (942 MB) #1203 adds a single 857 MB disk drive #1204 adds two 857 MB disk drives (1714 MB)	
9336	025	A maximum of two additional disk drives per model can be installed. <b>Direct Access Storage Device</b> Provides 3428 MB of DASD with four disk drives (857 MB each) as standard. 9336 attaches to the iSeries using the #6112 Magnetic Storage Device Controller.	

Type-model <sup>1</sup>	RAID <sup>2</sup>	MB per disk	No. of disks min/max	Max capacity			9406 models	Upgrade from
				Feature	Base	HA		
9337-010	N	542	2/7	#1206	3.79		B,D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740 820, 830, 840	None
9337-110	Y	542	4/7	#1206		3.25		010
9337-020	N	970	2/7	#1212	6.79			None
9337-120	Y	970	4/7	#1212		5.82		020
9337-040	N	1967	4/7	#1220	13.76			None
9337-140	Y	1967	4/7	#1220		11.80	040	
9337-015	N	542	2/7	#1207	3.79		B,D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740 820, 830, 840	None
9337-115	Y	542	4/7	#1207		3.25		015
9337-025	N	970	2/7	#1213	6.79			None
9337-125	Y	970	4/7	#1213		5.82		020
9337-210	S	542	2/8	#1206	4.33	3.79	D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740, 820, 830, 840	010, 110
9337-220	S	970	2/8	#1212	7.76	6.79		020, 120
9337-215	S	542	2/8	#1207	4.33	3.79	D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740	015, 115
9337-225	S	970	2/8	#1213	7.76	6.79		025, 125
9337-240	S	1967	4/8	#1220	15.73	13.76		040, 140
9337-420	S	970	4/8	#1228	7.76	6.79	D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740, 820, 830, 840	(note 3)
9337-440	S	1967	4/8	#1248	15.73	13.76		
9337-480	S	4194	4/8	#1288	33.55	29.35		
9337-540	S	1967	4/8	#1249	15.73	13.76	D,E,F, 3x0, 5x0, 6x0, Sx0, 720, 730, 740, 820, 830, 840	None
9337-545	S	1967	4/8	#1249	15.73	13.76		
9337-580	S	4194	4/8	#1289	33.55	29.35		
9337-585	S	4194	4/8	#1289	33.55	29.35		
9337-590	S	8589	4/8	#1290	68.71	60.12		
9337-595	S	8589	4/8	#1290	68.71	60.12		

<b>Note 1</b>	<p>Models 0xx and 1xx</p> <p>Models 2xx/4xx</p> <p>Models 4xx</p> <p>Models 545/585/595</p> <p>Models 5xx</p>	<p>Attach to 9406 D, E, F, 3x0, 5x0, 620, 640, 650, S20, S30, S40, 7xx models using IOP #6500 Attach to 9406 B using IOP #2611</p> <p>Attach to 9406 D, E, F, 3x0, 5x0, 620, 640, 650, S20, S30, S40 and 7xx models using #6501 Tape/Disk Device Controller</p> <p>Available as stand-alone towers by specifying #2400 for black covers or #2410 for white covers. Attach using #6501 Tape/Disk Device Controller.</p> <p>Stand-alone towers. Specify #2405 for black covers or #2410 for white covers.</p> <p>Can be converted to attach to other supported open systems (RS/6000®, HP, SUN, and NCR) with specify feature #5001. Includes a controller card, operator panel, and installation support disk drive.</p>
<b>Note 2</b>	N=No Y=Yes S=Switchable	
<b>Note 3</b>	The #1400 4xx controller card with a 4 MB write cache can be installed on any 9337-2xx model to boost performance by up to 20%.	

### 8.1.2 Disk model identifier

The system configuration list (rack configuration) shows the disk type and model in the format XXXX-YYY, where the XXXX identifies the CCIN number of the disk and YYY identifies the potential or actual disk protection and compression. Refer to Chapter 9, “Customer Card Identification Numbers” on page 291, for a listing of the CCIN numbers. The YYY identifiers are:

- ▶ **030**: Unprotected or mirrored unit attached to a non-RAID capable controller.
- ▶ **050**: Unprotected or mirrored unit attached to a RAID capable controller.
- ▶ **060**: Unprotected or mirrored unit attached to a RAID capable controller. Data compression is active.
- ▶ **070**: Non-parity member of a parity (RAID) set. Full capacity. Data compression is inactive.
- ▶ **071**: Parity member of a parity (RAID) set with sixteen parity members. Fifteen-sixteenths capacity. Data compression is inactive.
- ▶ **072**: Parity member of a parity (RAID) set with eight parity members. Seven-eighths capacity. Data compression is inactive.
- ▶ **074**: Parity member of a parity (RAID) set with four parity members. Three-fourths capacity. Data compression is inactive.
- ▶ **078**: Parity member of a parity (RAID) set with two parity members. Half capacity. Data compression is inactive.
- ▶ **080**: Non-parity member of a parity (RAID) set. Full capacity. Data compression is active.
- ▶ **082**: Parity member of a parity (RAID) set with eight parity members. Seven-eighths capacity. Data compression is active.
- ▶ **084**: Parity member of a parity (RAID) set with four parity members. Three-fourths capacity. Compression is active.

### 8.1.3 Versatile Storage Server (VSS)

Machine	Description	9406 model
2105 B09	<p><b>2105 Versatile Storage Server</b></p> <p>The 2105 is the primary enclosure of the Versatile Storage Server (VSS). It includes the storage server, two 7133 drawers, and the power control system. There is space for two additional 7133 disk drawers. The primary enclosure can be combined with up to two 2105-100 expansion enclosures. The 2105 attaches to the AS/400e system using a #6501 Tape/Disk Device Controller (SPD). When attached to the #6501, the VSS emulates the 9337-580 or 9337-590 based on the size of the disk unit installed.</p> <p>Each connection to an iSeries or AS/400e server using a #6501 supports a maximum of 16 disk units. There can be a maximum of eight #3001 Host Interface Adapters per 2105 VSS. If eight #6501s are attached to eight #3001s, this dedicates the 2105 VSS to the iSeries or AS/400e server and gives a maximum capacity of 536.3 GB when emulating 9337-580s and 1099.5 when emulating 9337-580s and 1099.5 when emulating 9337-590s.</p> <p>In most cases, the minimum cache memory of 512 MB is better for use with the iSeries and AS/400e system. OS/400 expert cache normally provides better performance.</p>	D, E, F, 3x0, 5x0, 6x0, Sx0, (excluding 600, S10 and SBx), 720, 730, 740, 820, 830, 840
2105 100	<p><b>2105 Versatile Storage Server Expansion Enclosure</b></p> <p>Expansion Enclosure includes space for seven 7133 drawers and a power control system. Prerequisite: 2105-B09</p>	
#1000	Battery Backup System	
#2111	Additional Storage Capacity Upgrade Base to 456 GB	
#2713	Remote Support Switch. 2105-B09 only	
#2714	Remote Support Attachment. 2105-B09 only	
#3001	Host Interface Adapter	
#3201	SSA Disk Adapter	
#4001	Read/Write Cache (per 512M)	
#9701	10m Ultra SCSI Cable	
#9702	20m Ultra SCSI Cable	
#9703	10m Ultra SCSI-2 FW Cable	
#9704	20m Ultra SCSI-2 FW Cable	
#9705	10m AS/400 SCSI-2 Cable	
#9706	20m AS/400 SCSI-2 Cable	
#9801	Single phase 50/60 Hz 50 amp	
#9851	Three phase 50/60 Hz 50 amp	
#9854	Three phase 50/60 Hz 60 amp	
#9901	Designate 7133-020 Drawers	
#9986	Single phase 50/60 Hz 50 amp	
#9987	Three phase 50/60 Hz 50 amp	
#9988	Three phase 50/60 Hz 60 amp	
	Minimum OS/400 level: V3R1	
7133 010 020 D40	<p><b>Serial Storage Architecture Disk Subsystem</b></p> <p>The IBM 7133 SSA Disk Subsystem is a second-generation serial storage subsystem that uses the industry-standard Serial Storage Architecture (SSA). The 7133 can be attached to the AS/400e server only through a 2105 Versatile Storage Server. When installed in a 2105, disk drives must be added in multiples of eight.</p> <p>Prerequisite: 2105-B09 or 2105-100.</p>	D, E, F, 3x0, 5x0, 6x0, Sx0, (excluding 600, S10, and SBx), 720, 730, 740, 820, 830, 840
#0987	RDS Rochester Manufacturing Integration	
#2105	Plant install in Versatile Storage Server	
#2106	Field install in Versatile Storage Server	
#3401	One 4.5 GB Disk Drive Module	
#3901	One 9.1 GB Disk Drive Module	
#9850	100/200V 50/60Hz 300V DC Power	
	IBM 7133 Model 10 and Model 20 are for upgrades only.	

## 8.1.4 IBM TotalStorage Enterprise Storage Server (ESS)

Machine	Description	9406 model						
2105	<p><b>2105 Enterprise Storage Server</b></p> <p>The 2105 is the enclosure of the Enterprise Storage Server (ESS), which is commonly known as <i>Shark</i>. Each 2105 incorporates dual RISC 4-way SMP processors, read/write cache up to 64 GB, up to 384 MB non-volatile storage (NVS) (write cache), four device adapter pairs, and 8-packs of disks in the optimum serial loop configuration.</p> <p>The ESS offers excellent scalability. The Model 800 supports up to 55.9 TB of physical capacity that can be configured as RAID 5, RAID 10, or a combination of both. The E10, E20, F10, and F20 ESS models range from 420 GB to over 1.6 TB (E10), 11.2 TB (E20), 3.3 TB (F10), and 22.4 TB (F20) of RAID-5 effective capacity.</p> <p>Enterprise Storage Server supports platforms including RS/6000 and pSeries™ running AIX and many leading UNIX variants, Netfinity, xSeries, other PC servers running Windows NT or Novell Netware, and Compaq AlphaServers running OpenVMS. In addition, the ESS supports IBM System/390® and zSeries® servers with selected host operating systems.</p> <p>Storage capacity is partitioned among the attached servers using the Web-based StorWatch™ ESS Specialist management tool.</p> <p>For the latest on server and operating support, check the ESS Interoperability Matrix at the following site:  <a href="http://www.storage.ibm.com/disk/ess/supserver.htm">http://www.storage.ibm.com/disk/ess/supserver.htm</a></p> <p>Minimum OS/400 level to support 4 GB and 8 GB arms: V3R1            Minimum OS/400 level to support 17 GB and 36 GB arms: V4R2            Minimum OS/400 level to support ESS Models F10, F20, and 800 with a #2766 PCI Fibre Channel Disk Controller: V5R1            Minimum OS/400 level to support the Model 800: V4R5            Minimum OS/400 to support FlashCopy® and PPRC: V4R5            Minimum OS/400 to support #2766 PCI Fibre Channel Disk Controller:            Minimum OS/400 to support LUN sizes 70.56 and greater: V5R1. Install PTF MF27545 to improve the time to add 2105 disk units to an auxiliary storage pool.            Minimum OS/400 to support FlashCopy V2 and PPRC V2: V5R2            Minimum OS/400 to support Linux or SuSE Linux Enterprise Server 7 for iSeries and the Model 800: V5R2.            Linux and SuSE Linux Enterprise Server 7 for iSeries support requires #0612 - Linux Direct Attach #2766.</p>	<p><b>#6501 Attach:</b>            3x0, 5x0,            6x0, Sx0, (not            600, S10)            720, 730, 740,            SB2, SB3, 820,            830, 840</p> <p><b>#2766 Attach:</b>            270, 800, 810,            820, 825, 830,            840, 870, 890</p>						
<b>ESS Model Summary Matrix</b>								
Model Number	Physical Capacity	9.1 GB <sup>3</sup> Drives	18.2 GB Drives	36.4 GB Drives	72.8 GB Drives	145.6 GB Drives	Cache	Power
E10	420 GB - 1.6 TB <sup>1</sup>	Yes	Yes	Yes	No	No	6 GB	Single phase
E20	420 GB - 11.2 TB <sup>1</sup>	Yes	Yes	Yes	No	No	6 GB	Three phase
F10	420 GB - 3.3 TB <sup>1</sup>	Yes	Yes	Yes	Yes	No	8 - 32 GB	Single phase
F20	420 GB - 22.4 TB <sup>1</sup>	Yes	Yes	Yes	Yes	No	8 - 32 GB	Three phase
800	582 GB - 55.9 TB <sup>2</sup>	No	Yes	Yes	Yes	Yes	8 - 64 GB	Three phase
1. Capacity quoted is RAID 5 effective capacity 2. Capacity quoted is raw physical capacity and can be RAID 5, RAID 10, or a combination of both 3. 9.1 GB drives are withdrawn from marketing								

<b>2105 (cont.)</b>	<p><b>ESS Copy Service Functions</b></p> <p>The following ESS Copy Service Functions are supported with the iSeries:</p> <ul style="list-style-type: none"><li>▶ FlashCopy</li><li>▶ Peer-to-Peer Remote Copy (PPRC)</li><li>▶ PPRC Extended Distance (PPRC-XD)</li></ul> <p>Use of these copy services on the iSeries or AS/400e requires creating a copy of the iSeries load source unit (LSU) on the ESS.</p> <p><b>#6501 Tape/Disk Device Controller attachment:</b></p> <p>AS/400e and some iSeries servers attach to the ESS using the #6501 Tape/Disk Device Controller (SPD) adapter. In this configuration, the ESS emulates a 9337-5xx drive, based on the size of the disk unit installed. Sixteen disk drives (LUNs) are supported per #6501, with up to a maximum of 16 #6501s for 32 ports on the ESS.</p> <p><b>#2766 PCI Fibre Channel Disk Controller attachment:</b></p> <p>Fibre attachment to the iSeries server is either directly to an ESS (point-to-point) or via a 3534-1RU Fibre Channel Managed Hub using Fibre Channel Arbitrated Loop (FC-AL) connectivity. Connection via a 3534-1RU is not supported for the 2105 Model 800.</p> <p>Each #2766 supports 32 LUNs. Each LUN can be 8.58 GB, 17.54 GB, 35.16 GB, 36.00 GB, or 70.56 GB.</p> <p>The 2109 SAN Fibre Channel Switch Models S08, S16, F16 and 3534-F08 can be used in QuickLoop mode to attach iSeries to the ESS, with a minimum OS/400 level of V5R1. QuickLoop is ordered as RPQ 8S0521 for the 2109.</p> <p>Appropriate fibre cables must be provided to connect the iSeries to the ESS and/or to the SAN. Model F10 and F20 fibre adapters have SC connectors. Model 800 fibre adapters have LC connectors. The #2766 adapter has an LC connector.</p> <p><b>SAN support:</b></p> <p>With OS/400 V5R2 full switched fabric support is available. Up to five iSeries servers can be on a single loop. Performance considerations apply. Refer to the RedDraft <i>IBM @server iSeries in Storage Area Networks: Implementing Fibre Channel Disk and Tape with iSeries</i>, SG24-6220, available from the IBM Redbooks Web site at: <a href="http://www.redbooks.ibm.com">http://www.redbooks.ibm.com</a></p> <p>Supported SAN devices include the 3534-F08, the 2109-F16, 2031-224, 2031-232, 2032-064 and 2032-140. Refer to the following Web sites for the latest information on switch and SAN device support for the iSeries:</p> <ul style="list-style-type: none"><li><a href="http://www.ibm.com/servers/eserver/iseries/hardware/storage/sansupport.html">http://www.ibm.com/servers/eserver/iseries/hardware/storage/sansupport.html</a></li><li><a href="http://www.ibm.com/storage/fcswitch">http://www.ibm.com/storage/fcswitch</a></li><li><a href="http://www.ibm.com/storage/mcdata">http://www.ibm.com/storage/mcdata</a></li></ul>
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## 8.2 Diskette device storage for iSeries and AS/400e systems

Machine	Model	Description	9406 model
#6135		<b>5 ¼-inch Diskette Drive</b> The #6135 allows interchange of data between the iSeries and other 9404, 9406, 5360, 5362, 5381, and 5382 systems. Attaches using #6146 Diskette Adapter or to the MFIOP using the #6147 Diskette Adapter (3x0 and 5x0 only).	3x0, 5x0, 620, S20, 720, 820, 830
9331	001 011  002 012	<b>8-inch Diskette Drive</b> The 9331 Model 001 and 011 allow data and program transfer between the iSeries and other 9404, 9406, 5360, 5362, 5381, and 5382 systems.  <b>5 ¼-inch Diskette Drive</b> The 9331 Model 002 and 012 allow data and program transfer between the iSeries and other 9404, 9406, 5363, 5364, 5381, and 5382 systems.  The Model 001 and 002 attach to the 9406 using the #6112 Magnetic Storage Device Controller (#6110 for 9406 B Models) or #6146 Diskette Adapter. The #6112 attachment is not available for S10, S30, or S40 servers.  The Model 011 and 012 attach to the 9406 using a #6146 Diskette Adapter or to the MFIOP using the #6147 Diskette Adapter (3x0 and 5x0 only).  Maximum: Two 9331 Diskette drives per system Restriction: 9331 Models 001 and 002 are not supported with OS/400 V5R1 and later	B, D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600, S10), 720, 730, 740, 820, 830, 840

## 8.3 External tape storage for iSeries and AS/400e systems

The minimum OS/400 level for external tape storage is dependent upon the OS/400 level required for the iSeries adapter.

For the 3480 and 3490 Cartridge Tape Subsystems, see 8.5, “3494 options for iSeries and AS/400e systems” on page 265, for information on the associated cartridge library.

See 8.9, “External SCSI tape cable part numbers for iSeries and AS/400e systems” on page 282, for specifications of the cable required on the external tape devices listed in this section.

Machine	Description	9406 model
2440 - A12	<b>Tape I/O Subsystem</b> The 2440 is a ½-inch reel tape drive that records at 1600/6250 bpi and can be used for save/restore, program distribution and alternate IPL. Attaches to iSeries using the #2621 Storage Device Controller (SPD)—#2602 for 9406 B models. The tape drive and controller are packaged in a stand-alone 1.6m high rack.	B, D, E, F, 3x0, 5x0, 6x0, Sx0, (not 600, S10), 720, 730, 740, 820, 830, 840
#3903	2440 high-speed feature (field installation)	
#3904	2440 high-speed feature (factory installation)	
#3905	Allows up to four 9332 disks to be placed in the 2440 rack	
#3906	Allows one 9335-A01 and up to two 9335-B01 drives to be placed in the 2440 rack	
#3907	Allows up to three 9336 drawers to be placed in the 2440 rack	
#3908	Allows up to three 9337 drawers to be placed in the 2440 rack Restriction: Not supported with OS/400 V5R1 and later.	

Machine	Description	9406 model
3480 - A22 B22	<p><b>Cartridge Tape Subsystem</b> The Model A22 and B22 are ½-inch cartridge drives that can be used for data interchange, save/restore, program distribution, and alternate IPL. The 3480 Subsystem consists of a stand-alone controller (Model A22) and up to eight tape drives (Model B22), which has two drives. The Model A22 and B22 attach to the iSeries using #2621 Storage Device Controller or #2644 Magnetic Tape Attachment Card/HP (SPD)—#2604 on 9406 B models. Attachment of 3480 Models A11 and B11 is also supported.</p> <p>Restriction: Not supported with OS/400 V5R1.</p>	B, D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600, S10), 720, 730, 740, 820, 830, 840
3490E  C10 C11 C22 C1A C2A	<p><b>Rack Mounted 3490 tape drives</b> The 3490E is a ½-inch cartridge tape drive which can be used for data interchange, save/restore, program distribution and alternate IPL. C10 Control Unit and tape drive (1 x 2.4 GB), attach using #2644 Magnetic Tape Attachment Card/HP only. C11 Control Unit, tape drive, and Automatic Cartridge Loader for six tape cartridge (6 x 2.4 GB) C22 Control Unit, two tape drives and Automatic Cartridge Loader for 12 cartridges (12 x 2.4 GB) C1A Control Unit, tape drive for 3494 Tape Library Dataserver C2A Control Unit, two tape drives for 3494 Tape Library Dataserver</p> <p>The 3490E can be used as an automated tape library. Attaches to iSeries using #2644 Magnetic Tape Attachment Card/HP (SPD), #2604 on 9406 B models, #6501/#6534 Magnetic Media Controller (SPD), #2729 PCI Magnetic Media Controller, or #2749 PCI Ultra Magnetic Media Controller. Requires 9309 rack if not C1A or C2A. A #5037 channel attach and a #5040 SCSI attach are supported together on the same 3490-Cxx unit.</p> <p><b>The 3490-C1A and C2A attach:</b></p> <p><b>(i) Channel Attach</b> <b>#2644 Magnetic Tape Attachment Card/HP</b> (SPD) on AS/400e (or optionally #2622 on D/E models).  These features are required on the 3490-CxA: <b>#5037</b> Channel Attach <b>#9931 or #9932</b> Internal cable 6m or 24m  A second #5037 can be added to the 3490-CxA to allow attachment of a second AS/400 system.</p> <p><b>(ii) SCSI Attach</b>  #6501 Tape/Disk Device Controller (SPD), #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller on the AS/400e or iSeries server.</p> <p><b>3490-CxA features:</b> <b>#5040</b> Magnetic Tape Subsystem SCSI Attachment <b>#5045</b> Performance Enhancement Feature  A second #5040 and #5045 can be added to the 3490-CxA to allow attachment to a second iSeries or AS/400e server, and one of these features per #5040:  <b>#6045</b> 4.5m (15-ft.) SCSI cable <b>#6120</b> 12m SCSI cable <b>#6140</b> 14m SCSI cable <b>#6180</b> 18m SCSI cable <b>#9410</b> Interposer for the AS/400</p> <p>Both Channel Attach and SCSI Attach are supported together on the same 3490-CxA unit. Restriction: Not supported with OS/400 V5R1. Minimum OS/400 to support #2644 attachment: V3R1 Minimum OS/400 to support #6501 attachment: V3R1 Minimum OS/400 to support #6534 or #2729 attachment: V4R1 Minimum OS/400 to support #2749 attachment: V4R5</p>	9404 and 9406 - B, D, E, F, 170, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600, 610), 720, 730, 740, 800, 810, 820, 825, 830, 840, 870, 890

Machine	Description	9406 model
<b>3490E</b> <b>C10</b> <b>C11</b> <b>C22</b> <b>C1A</b> <b>C2A</b> <b>(cont.)</b>	<p><b>3490-F1A</b> attaches to all iSeries or AS/400e models that support: #6501 Tape/Disk Device Controller, #6534 Magnetic Media Controller, or #2729 on AS/400e models, or #2749 on iSeries servers.</p> <p>These features are required for each AS/400 attached:</p> <p>#2895 Interposer for #6501  #5212 12m SCSI cable  #5218 18m SCSI cable  #5245 4.5m SCSI cable  #9400 Attached to AS/400</p> <p>Minimum OS/400 to support #6501 attachment: V3R1  Minimum OS/400 to support #6534 or #2729 attachment: V4R1  Minimum OS/400 to support #2749 attachment: V4R5</p>	
<b>3490E</b> <b>D41</b> <b>D42</b>	<p><b>Cartridge Tape Subsystem</b></p> <p>The Model D41 and D42 are ½-inch cartridge drives which can be used for data interchange, save/restore, program distribution, and alternate IPL. IDRC is standard. The Model D41 and D42 attach using the #2644 Magnetic Tape Attachment Card/HP or the #2604 on 9406 B models. The 3490E can be used as an automated tape library.</p> <p>Restriction: Not supported with OS/400 V5R1.</p>	B, D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600, S10), 720, 730, 740 820, 830, 840
<b>3580</b> <b>H11</b> <b>H13</b> <b>H23</b> <b>L23</b>	<p><b>3580 IBM TotalStorage Ultrium Tape Drive</b></p> <p>The 3580-H11 and 3580-H13 Ultrium Tape Drives are stand-alone, SCSI-attached IBM Linear Tape Option (LTO) Ultrium tape drives. They provides a media capacity of up to 100 GB (200 GB with 2:1 compression) per cartridge and a sustained data rate of up to 15 MB per second (uncompressed). The H11 has a one year CE assisted warranty and the H13 has a three year element exchange warranty.</p> <p>The 3580-H23 and 3580-L23 Ultrium 2 Tape Drives are stand-alone or rack mountable SCSI-attached tape drives. Using the Ultrium 2 data cartridge, a capacity of up to 200 GB (400 GB with 2:1 compression) per cartridge can be achieved, and a native data transfer rate of 35 MB per second. Aggregate sustained data rates of up to 252 GB per hour (with 2:1 compression) are achievable. They both come with a three year element exchange warranty. They will read and write Ultrium 1 media with Ultrium 1 capabilities and performance.</p> <p>The 3580-L23 comes with a SCSI Ultra160 LVD interface (HD68) for attachment using the #5702 PCI-X Ultra Tape controller (VHDCI interface) or #5705 PCI-X Tape/DASD Controller. The 3580-H23 has an Ultra SCSI HVD interface and for attachment via #2729 PCI Magnetic Media Controller, #2749 PCI Ultra Magnetic Media Controller, or #6534 Magnetic Media Controller.</p>	4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890
<b>3581</b> <b>H13</b> <b>H17</b>	<p><b>IBM TotalStorage Ultrium Tape Autoloader 3581</b></p> <p>The 3581-H13 and 3581-H17 Ultrium Tape Autoloaders are external, stand-alone or rack mounted SCSI-attached autoloaders that incorporate IBM Ultrium tape drives. The 3581 capacity is up to seven tape cartridges, providing a media capacity of up to 700 GB (1.4 TB with 2:1 compression), and a sustained data rate of up to 15 MB per second (uncompressed). The 3581 appears as two drives on the SCSI bus and can be operated in sequential or random-access modes. The 3581 can be used as an automated tape library. The H13 has a one year CE assisted warranty and the H17 has a three year element exchange warranty.</p> <p>The 3581 models have a High Voltage Differential (HVD) Ultra SCSI interface.  A #2895 interposer is required for a #6501 attachment.</p>	

Machine	Description	9406 model
<b>3580/3581 (cont.)</b>	<p><b>Cable features:</b> SCSI cables and appropriate interposers, as required, should be ordered.</p>	
#5099	Interposer VHDCI to HD68	
#5301	0.4m HD68/HD68 SCSI cable (use to daisy-chain two tape drives on the same SCSI bus)	
#5302	2.5m (8-ft.) HD68/HD68 SCSI cable	
#5305	5.0m (16-ft.) HD68/HD68 SCSI cable	
#5310	10.0m (33-ft.) HD68/HD68 SCSI cable	
#5318	18.0m (59-ft.) HD68/HD68 SCSI cable	
#5325	25.0m (82-ft.) HD68/HD68 SCSI cable	
#5602	2.5m (8-ft.) VHDCI/HD68 SCSI cable	
#5604	4.5m (14.5 ft.) VHDCI/HD68 SCSI cable	
#5610	10.0m (33-ft.) VHDCI/HD68 SCSI cable	
#5620	20.0m (66-ft.) VHDCI/HD68 SCSI cable	
#5625	25.0m (82-ft.) VHDCI/HD68 SCSI cable	
#9702	2.5M (8-ft.) HD68/HD68 SCSI cable	
#9703	2.5M (8-ft.) VHDCI/HD68 SCSI cable	
#9705	5.0M (16-ft.) HD68/HD68 SCSI cable	
	<p><b>Cartridge/Supply features:</b> IBM Ultrium data and cleaning cartridges available only with the initial order.</p>	
#8001	1 Ultrium data cartridge (100 GB)	
#8002	1 Cleaning cartridge	
#8101	1 Ultrium 2 data cartridge (200 GB)	
#8723	Rack mount kit	
<b>3589</b>	Additional media is ordered against machine type 3589.	
	IBM LTO Ultrium Data Cartridge (100 GB) - IBM p/n 08L9120	
	IBM LTO Ultrium 2 Data Cartridge (200 GB) - IBM p/n 08L9870	
	IBM LTO Ultrium Universal Cleaning Cartridge - IBM p/n 35L2086	
	Leader Pin attachment Kit - IBM p/n 08L9129	
	Manual Rewind Tool - IBM p/n 08L9130	
	Magazine with cover - IBM p/n 35L1088	
	Minimum OS/400 to support #2729, #6534, or #6501 attachment: V4R2	
	Minimum OS/400 to support #2749 attachment: V4R5	
	Minimum OS/400 to support #5702 or #5705 attachment: V5R2	

Machine	Description	9406 model
3590 B11 B1A	<p><b>IBM TotalStorage Enterprise Tape Drive</b></p> <p>Also known as the 3590 High Performance Tape Subsystem, the IBM TotalStorage Enterprise Tape Drive Models B11 and B12 are ½-inch cartridge rack mountable tape units that provide up to 17 MB per second sustained data rate and up to 10 GB capacity per cartridge (up to 30 GB when compressed). With Extended Media Support and Extended High Performance Media capacity is up to 20 GB per cartridge (up to 60 GB when compressed).</p> <p>A 10 cartridge random access Automatic Cartridge Facility (ACF) gives data capacity of up to 300 GB in unattended mode (not on the B1A model). The 3590-B11 or B1A can simultaneously attach to a combination of two iSeries, AS/400e, and RS/6000 systems. Attaches to the iSeries using #2749 PCI Ultra Magnetic Media Controller, and AS/400e models using #6501 Tape/Disk Device Controller (SPD), #6534 Magnetic Media Controller (SPD), #2729 PCI Magnetic Media Controller. The B1A is supported in the 3494 Tape Library Dataserver. The B11 can upgrade to the B1A, the E11 or the H11.</p> <p>3590 Ultra SCSI feature is available as standard with #9790 or as an MES with #5790.</p> <p><b>Cable features:</b></p> <p>#5106 0.6m (2-ft.) SCSI cable used to connect 3590-B11s when they are side-by-side in a rack and connected to the same SCSI port - Maximum: Two</p> <p>#5128 2.8m (9-ft.) SCSI cable used to connect a 3590-B11 when it is in the same rack as the iSeries or AS/400e. Maximum: Two</p> <p>#5145 4.5m (15-ft.) SCSI cable</p> <p>#5112 12.0m (39-ft.) SCSI cable</p> <p>#5118 18.0m (59-ft.) SCSI cable</p> <p>#5125 25.0m (82-ft.) SCSI cable</p> <p>#9240 Interposer for AS/400</p> <p><b>Other features:</b></p> <p>#2200 Deskside Enclosure</p> <p>#5780 Extended Media Support - Bxx</p> <p>#5790 Field installation of Ultra SCSI feature for 3590</p> <p>#9221 First 3590 drive in rack</p> <p>#9222 Second or fourth 3590 drive in rack</p> <p>#9223 Third 3590 drive in rack</p> <p>#9400 Attached to AS/400</p> <p>#9410 Interposer for AS/400 adapter #6501</p> <p>#9790 Plant installation of Ultra SCSI attachment feature for 3590</p> <p>Minimum OS/400 level: V4R1</p> <p>PTFs are required to attach the 3590 with the Ultra SCSI interface to iSeries and AS/400e models with a #6534 Magnetic Media Controller (SPD), #2729 PCI Magnetic Media Controller, or #2749 PCI Ultra Magnetic Media Controller. Refer to AS/400 Information APAR II11472 for required PTFs. No PTFs required for attachment to the #6501 Tape/Disk Device Controller.</p> <p>Minimum OS/400 to support #6501 attachment: V3R1</p> <p>Minimum OS/400 to support #6534 or #2729 attachment: V4R1</p> <p>Minimum OS/400 to support #2749 attachment: V4R5</p> <p><b>3590-B1A</b> attaches to all iSeries or AS/400e models that support #6501 Tape/Disk Device Controller, #6534 Magnetic Media Controller or #2729 on AS/400e models, or #2749 on iSeries servers.</p> <p>The following features are required for each AS/400 attached:</p> <p>#5112 12.0m (39-ft.) SCSI Cable</p> <p>#5118 18.0m (59-ft.) SCSI Cable</p> <p>#5125 25.0m (82-ft.) SCSI Cable</p> <p>#5145 45.0m (150-ft.) SCSI Cable</p> <p>#9400 AS/400 Attach Specify</p> <p>#9410 Interposer for #6501</p> <p>Minimum OS/400 to support #6501 attachment: V3R1</p> <p>Minimum OS/400 to support #6534 or #2729 attachment: V4R1</p> <p>Minimum OS/400 to support #2749 attachment: V4R5</p>	D, E, F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890

Machine	Description	9406 model
<p><b>3590 E11</b> <b>E1A</b></p> <p><b>#5145</b></p> <p><b>#5112</b></p> <p><b>#5118</b></p> <p><b>#5125</b></p> <p><b>#9410</b></p> <p><b>#5805</b></p> <p><b>#5813</b></p> <p><b>#5825</b></p> <p><b>#5861</b></p> <p><b>#5907</b></p> <p><b>#5913</b></p> <p><b>#5922</b></p> <p><b>#5961</b></p> <p><b>#2200</b></p> <p><b>#3510</b></p> <p><b>#5781</b></p> <p><b>#9221</b></p> <p><b>#9222</b></p> <p><b>#9223</b></p> <p><b>#9400</b></p> <p><b>#9510</b></p>	<p><b>IBM TotalStorage Enterprise Tape Drive</b></p> <p>Also known as the 3590 High Performance Tape Subsystem, the IBM TotalStorage Enterprise Tape Drive Models E11 and E1A are ½-inch cartridge rack mountable tape drives that provide up to 34 MB per second sustained data rate on Ultra SCSI interface or 42 fibre, and up to 20 GB capacity per cartridge (up to 60 GB when compressed). With Extended Media Support and Extended High Performance Media capacity is up to 40 GB per cartridge (up to 120 GB when compressed).</p> <p>A 10-cartridge random access Automatic Cartridge Facility (ACF) provides data capacity up to 1.8 TB unattended (not on the E1A models). With SCSI, the 3590-E11 or E1A can simultaneously attach to any combination of two iSeries, AS/400e, pSeries, and RS/6000 systems. The E1A is supported in the 3494 Tape Library Dataserver and the E11 can upgrade to the E1A or the H11.</p> <p>Supported iSeries and AS/400e adapters:</p> <ul style="list-style-type: none"> <li>▶ #2729 PCI Magnetic Media Controller</li> <li>▶ #2749 PCI Ultra Magnetic Media Controller</li> <li>▶ #2765 PCI Fibre Channel Tape Controller, either direct attach or to SAN via 3534-1RU SAN Fibre Channel Managed Hub or 2109 or 3534-F08 switches in QuickLoop mode. Full switch support is available with V5R2.</li> <li>▶ #6501 Tape/Disk Device Controller (#9410 Interposer is required)</li> <li>▶ #6534 Magnetic Media Controller</li> </ul> <p>The 3590 fibre drive port requires an SC connection. The #2765 requires an LC connection. Connections on the switches and SAN components between the drive and the iSeries may be either SC or LC.</p> <p><b>Cable features:</b></p> <p>4.5m (15-ft.) SCSI cable Maximum: Two. This is the minimum length SCSI cable required to connect a 3590 Model E11 or an E1A to a SCSI port on a host system.</p> <p>12.0m (39-ft.) SCSI cable Maximum: Two</p> <p>18.0m (59-ft.) SCSI cable Maximum: Two</p> <p>25.0m (82-ft.) SCSI cable Maximum: Two</p> <p>Interposer for AS/400 (#6501 attachment only)</p> <p>5 M SC/SC Fibre Cable Maximum: Two</p> <p>13 M SC/SC Fibre Cable Maximum: Two</p> <p>25 M SC/SC Fibre Cable Maximum: Two</p> <p>61 M SC/SC Fibre Cable Maximum: Two</p> <p>7 M LC/SC Fibre Cable Maximum: Two</p> <p>13 M LC/SC Fibre Cable Maximum: Two</p> <p>22 M LC/SC Fibre Cable Maximum: Two</p> <p>61 M LC/SC Fibre Cable Maximum: Two</p> <p><b>Other features:</b></p> <p>Deskside Enclosure</p> <p>Fibre Attachment - Field (#2765 attachment only)</p> <p>Extended Media Support - Exx</p> <p>First 3590 drive in rack</p> <p>Second or fourth 3590 drive in rack</p> <p>Third 3590 drive in rack</p> <p>Attached to AS/400</p> <p>Fibre attachment - Plant (#2765 attachment only)</p>	<p>4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890</p>





Machine	Description	9406 model
<p><b>7206-VX2 (cont.)</b></p> <p><b>#9762</b> <b>#9764</b> <b>#9760</b></p> <p><b>#8723</b></p> <p><b>#2505</b> <b>#2506</b> <b>#2507</b> <b>#2508</b> <b>#2509</b></p>	<p><b>Cable features: (cont.)</b> 2.5m SCSI cable for #5702, #5705 4.5m SCSI cable for #5702, #5705 10m SCSI cable for #5702, #5705</p> <p><b>Other features:</b> Rack Mount Kit</p> <p><b>Cartridge features:</b> 1 20 GB VXA2 Cartridge 1 59 GB VXA2 Cartridge 1 80 GB VXA2 Cartridge 1 VXA2 Test Cartridge 1 VXA2 Cleaning Cartridge</p> <p>Minimum OS/400 level: V5R1 Minimum OS/400 level for #5702/#5705 attachment: V5R2</p>	
<p><b>7207 122</b></p>	<p><b>4 GB External QIC Tape Drive</b> The 7207 Model 122 is a QIC ¼-inch streaming linear tape drive that can be used for save and restore, program distribution, and alternate IPL. It incorporates Single Channel Linear Recoding (SLR5) QIC technology and has an effective data transfer rate of 380 KB per second (760 KB per second with 2:1 compression). Provides up to 4 GB (8 GB with 2:1 compression) storage capacity.</p> <p>The Model 122 attaches using #2718 PCI Magnetic Media Controller or #2768 PCI Magnetic Media Controller. See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for a description of the supported attachment configurations.</p> <p>Minimum OS/400 level: V4R2 with supporting PTFs. See APAR II11671 for details.</p>	<p>6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890</p>
<p><b>7208 002 012</b></p>	<p><b>8mm Cartridge Tape Drive</b> The 7208 is an 8mm Helical scan tape drive that can be used for save and restore, program distribution, and alternate IPL.</p> <p><b>Model 002 8mm Cartridge Tape Drive 2.3 GB</b> The Model 002 has an effective data transfer rate of 245 KB per second. Provides up to 5 GB storage capacity. 7208-002 attaches using #2621 Storage Device Controller (SPD). Not supported on 600/S10 models.</p> <p><b>Model 012 8mm Cartridge Tape Drive 5 GB</b> The Model 012 has an effective data transfer rate of 1 MB per second when compressed (500 KB per second in native mode). Provides up to 10 GB storage capacity with compression. Attaches using #2621 Storage Device Controller (SPD), #6543 (SPD) or #2729 /#2749 PCI Ultra Magnetic Media Controller—#2511 for 9406 B models.</p> <p>Minimum OS/400 to support #2621 attachment: V3R1 Minimum OS/400 to support #6534 or #2629 attachment: V4R1 Minimum OS/400 to support #2749 attachment: V4R5 Restriction: Model 002 not supported with OS/400 V5R2</p>	<p>B,D,E,F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170 (012 only), 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890</p>

Machine	Description	9406 model
7208 222	<p><b>8mm Cartridge Tape Drive 7 GB</b></p> <p>The 7208 Model 222 is a stand-alone 8mm Cartridge tape drive providing capacity of up to 7 GB per cartridge, or 14 GB with compression, and has an effective data transfer rate of 1 MB/S when compressed (500 KB per second in native mode). It can be used for save and restore, program distribution, and alternate IPL. The 7208-222 supports the 160 m data cartridge and read/write compatible with all IBM 8mm cartridge tape units.</p> <p>Attaches using #2621 Storage Device Controller, #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller (PCI).</p> <p>Available in black (#9100) or white (#9200)</p> <p>Minimum OS/400 to support #2621 attachment: V3R1  Minimum OS/400 to support #6534 or #2629 attachment: V4R1  Minimum OS/400 to support #2749 attachment: V4R5</p>	D,E,F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890
7208 232	<p><b>Dual Drive 8mm Cartridge Tape Unit (10 GB)</b></p> <p>The 7208 Model 232 provides two 5 GB 8mm drives in a single tape unit. Each unit emulates the 7208 Model 012, which can be used for save and restore, program distribution, and alternate IPL (except 9402 D04, and D06; 9404 B, C, D10, and D20; and 9406 B models). Each drive can provide up to 10 GB of storage capacity or up to 20 GB of unattended capacity if both drives are used in cascade mode with compression (5 GB per drive in native).</p> <p>The Model 232 attaches using #2621 Storage Device Controller, #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller - #2611 for 9406 B models and supports dual host attachment. It has a data transfer rate of 500 KB per second in native mode per drive or 1 MB/s when compressed. It is read/write compatible with all IBM 8mm cartridge tape units and has an integrated label-printer port.</p>	B,D,E,F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 7x0, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890
7208 234	<p><b>Dual Drive 8mm Cartridge Tape Unit (28 GB)</b></p> <p>The 7208 Model 234 provides two 7 GB 8mm drives in a single tape unit that can be used for save and restore, program distribution, and alternate IPL (except 9402 D04 and D06; 9404 B, C, D10, and D20; and 9406 B models). 7208-234 only available in black. Each drive can provide up to 14 GB of storage capacity, or up to 28 GB of unattended capacity if both drives are used in cascade mode with compression (7 GB per drive in native).</p> <p>The Model 234 attaches using the #2621 Storage Device Controller, #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller - #2611 for 9406 B models, and supports dual host attachment. It has a data transfer rate of 500 KB per second in native mode per drive or 1 MB/s when compressed. It is read/write compatible with all IBM 8mm cartridge tape units and has an integrated label-printer port.</p>	B,D,E,F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890
#0501	<p>The #0501 provides a single 8mm drive unit than can only be used to attach to an existing 7208 Model 012 using a #9612 Device-to-Device cable to provide the functions of the 7208-232 Dual Drive Unit #0502.</p>	

Machine	Description	9406 model
7208 342	<p><b>8mm Tape Drive (20 GB)</b></p> <p>The 7208 Model 342 is a stand-alone 8mm cartridge tape drive providing capacity of up to 20 GB per cartridge or 40 GB with compression. It has an effective data transfer rate of 6 MB per second when compressed (3 MB per second in native mode).</p> <p>The Model 342 is intended for save and restore and archiving purposes. It uses the 8mm advanced metal-evaporated (AME) data cartridges and can only read previous IBM 8mm tape formats. The Model 342 attaches using #6534 Magnetic Media Controller or #2729/#2749 PCI Ultra Magnetic Media Controller. Available in black only. Attachment cable length and media option must be specified.</p> <p>#7019 Five data cartridges, cleaning cartridge, and test cartridge (plant)  #2019 Five data cartridges (MES)  #9019 One data cartridges, cleaning cartridge, and test cartridge (plant)  #2016 Five cleaning cartridges (MES)  #9245 4.5m (15-ft.) cable  #9212 12.0m (39-ft.) cable  #9218 18.0m (59-ft.) cable</p> <p>Minimum OS/400 level: V4R1  Minimum OS/400 to support #2749 attachment: V4R5</p>	4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890
7208 345	<p><b>60 GB External 8mm Tape Drive</b></p> <p>The 7208 Model 345 is a stand-alone 8mm cartridge tape drive provides capacity of up to 60 GB per cartridge or 150 GB with compression and has an effective data transfer rate of 12 MB per second when compressed (20 MB per second in native mode).</p> <p>The Model 345 is intended for save and restore and archiving purposes. It uses the 8mm advanced metal-evaporated (AME) data cartridges and can read (but not write) 20 GB 8mm AME tape cartridges. Attaches using the #2718, #2768, or #5702 (PCI). Attachment cable length and power cable option must be specified. Ships with one 60 GB AME Tape and one cleaning cartridge.</p> <p>#5224 2.4m (8-ft.) SCSI cable  #9224 2.4m (8-ft.) SCSI cable (Plant)  #98xx 2.7m (9-ft.) Country- or region-specific power cord</p> <p>Minimum OS/400 level: V4R5</p>	6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890
9347 - 001	<p><b>Tape Drive</b></p> <p>The 9347 is a ½-inch cartridge tape drive that records at 1600/3200 bpi. At 1600 bpi, it can be used for data interchange, save/restore, program distribution, and alternate IPL. At 3200 bpi, the capacity of a reel can approximately double for system backup/restore functions.</p> <p>Attaches to iSeries using the #6112 Magnetic Storage Device Controller (#6110 for 9406 B models).  Maximum: Two per system  Restriction: Not supported with OS/400 V5R1 and later.</p>	B, D, E, F, 3x0, 4x0, 5x0, 6x0, Sx0 (not 600, S10), 720, 730, 740, 820, 830, 840
9348 - 001 002 011 012	<p><b>IBM Magnetic Tape Unit</b></p> <p>The 9348 is a ½-inch reel tape drive that records at 1600/6250 bpi and can be used for restore, program distribution, and alternate IPL. Attaches to iSeries using the #2621 Storage Device Controller (SPD), #6534 Magnetic Media Controller (SPD), #2729 PCI Magnetic Media Controller, or #2749 - #2607 or #2608 for 9406 B models.</p> <p>Each 2440 or 9347 attached reduces by one the number of 9348s which can be attached.</p>	B, D, E, F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 7x0, 170, 250, 270, 820, 830, 840

## 8.4 Automated tape libraries for iSeries and AS/400e systems

The tape devices described in this section offer an Automated Tape Library (ATL) capability.

Existing ½-inch cartridges can be used after applying 3M barcode labels on CxA drives. 3590-B1A requires high capacity ½-inch cartridges. The ACL on the 3490-C11 and 3490-C22 and ACF on the 3590-B11 are not used in the Library.

3490 Cartridge Tape Subsystems		
Machine	Description	9406 model
3490 - A01 A02 D31 D32	<p><b>Cartridge Tape Subsystem</b></p> <p>The Model A01, A02, D31, and D32 are ½-inch cartridge drives that can be used for data interchange, save/restore, program distribution, and alternate IPL. Attaches to the iSeries with the #2621 Storage Device Controller or #2644 Magnetic Tape Attachment Card/HP (SPD), #2604 for 9406 B models. Attachment of 3490 Models B02 and B04 is also supported.</p> <p>Restriction: Cannot use enhanced capacity cartridge.</p>	B, D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600/S10), 720, 730, 740, 820, 830, 840
3490 - A10 A20	<p><b>Cartridge Tape Subsystem</b></p> <p>The Model A10 and A20 are ½-inch cartridge drives that can be used for data interchange, save/restore, program distribution, and alternate IPL. Attaches to the #9406 with feature #2621 Storage Device Controller or #2644 Magnetic Tape Attachment Card/HP (SPD), #2604 for 9406 B models. Attachment of 3490 Models B02 and B04 is also supported.</p> <p>Restriction: Cannot use enhanced capacity cartridge.</p>	B, D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, (not 600/S10), 720, 730, 740,820, 830, 840
3490E - E01 E11	<p><b>Cartridge Tape Subsystem</b></p> <p>The Model E01 and E11 are ½-inch cartridge tape drives. The E01/E11 tapes have IDRC as standard, both include a seven Cartridge Stack Loader. Attachment is to a single iSeries or AS/400e system.</p> <p>E01 Table Top Version (7x2.4 GB) E11 Rack Mounted Version (7x2.4 GB)</p> <p>Attaches using #6501 Tape/Disk Device Controller or #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller.</p> <p>Minimum OS/400 to support #6501 attachment: V3R1 Minimum OS/400 to support #6534 or #2729 attachment: V4R1 Minimum OS/400 to support #2749 attachment: V4R5</p>	D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740,170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890
3490E - F00 F01 F11 F1A	<p><b>Cartridge Tape Subsystem</b></p> <p>The Models F00, F01, F11, and F1A are ½-inch cartridge tape drives. These tapes have DRC as standard. The F01 and F11 have a 10 cartridge stack loader. Attachment is only available to a single iSeries or AS/400e system.</p> <p>F00 Table Top (1x2.4GB) F01 Stand-alone (10x2.4GB) F11 Rack Mounted Version (10x2.4GB) F1A Tape Unit for 3494 Tape Library Dataserver</p> <p>Attaches using #6501 Tape/Disk Device Controller, or #6534 Magnetic Media Controller (SPD), or #2729/#2749 PCI Ultra Magnetic Media Controller.</p> <p>Minimum OS/400 for #6501 attachment: V3R1 Minimum OS/400 for #6534 or #2729 attachment: V4R1 Minimum OS/400 for #2749 attachment: V4R5</p>	D, E, F, 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890

3570 Cartridge Tape Subsystems		
Machine	Description	9406 model
<b>3570 - B00 B01 B11 B12</b> <b>C00 C01 C02 C11 C12</b>	<p><b>3570 0.31-inch Cartridge Tape Subsystem</b></p> <p>The 3570 is a cartridge tape unit with table-top and library units based on 3590 technology.</p> <p>Up to 5 GB capacity per cassette (up to 15 GB when compressed) or 7 GB capacity per cassette (up to 21 GB when compressed). Attach to the AS/400 system using #6501 Tape/Disk Device Controller or #6534 Magnetic Media Controller (SPD), or #2729 PCI Magnetic Media Controller or #2749 PCI Ultra Magnetic Media Controller. One drive can attach to one iSeries or AS/400e system only. With models B02/C02 and B12/C12, each one of the two drives may be connected to a different system. The 3570 is supported as an alternate IPL device. CISC models require RPQ 843945. Not supported on 9404 Models D10 and D20. Specify a non-3570 tape drive as a valid alternate IPL device.</p> <p><b>Bxx models</b> Data transfer rate of 2.2 M/second (uncompressed) up to 6.6 M/second (average compressed) data transfer rate.</p> <p><b>Cxx models</b> Data transfer rate of 7 MB/second (uncompressed) up to 15 MB/second (average compressed) data transfer rate using C-format cartridges.</p> <p>Data transfer rate of 3.5 MB/second (uncompressed) up to 10.5 MB/second (average compressed) data transfer rate using B-format cartridges.</p> <p>B00/C00            Table Top Unit (1 x 15 GB)  B01/B02/C01/C2   Stand-Alone Library with 20 cassette slots  (20 x 15 GB) and one drive.  B11/B12/C11/C12   Rack Mounted Library with 20 cassette slots  (20 x 15 GB) and one drive.</p> <p>Requires 9309 Rack.</p> <p><b>Cable features:</b>  #5205            0.5m (2-ft.) SCSI cable  #5212            12.0m (39-ft.) SCSI cable  #5218            18.0m (59-ft.) SCSI cable  #5225            25.0m (82-ft.) SCSI cable (Models C00,C01, C02, C11, C12)  #5245            4.5m (15-ft.) SCSI cable  #2895            AS/400 Interposer</p> <p><b>Other features:</b>  #8701            10-Pack Data Cartridges + one cleaning cassette  #8702            20-Pack Data Cartridges + one cleaning cassette  #8703            20-Pack Data Cartridges + one cleaning cassette. All Cxx models  #8705            10-Pack C-format Data Cartridges + one cleaning cassette  #8750            One Cleaning Cassette  #8751            One Data Cassette  #8752            10-pack Data Cassette. All Bxx models  #8753            Two 10-cassette Magazine  #8758            10-Pack Data Cassettes + one cleaning cassette. All Cxx models.  #9066            White Covers (B01, B02)  #9068            Black Covers (B01, B02)  #9076            Attached to SP2®  #9080            Watertight Power Plug  #9200            Open System Device Driver; not Bxx models  #9210            Attached to HP-UNIX; not Bxx models  #9211            Attached to SUN; not Bxx models  #9212            Attached to Windows NT; not Bxx models  #9400            Attached to AS/400; not Bxx models  #9570            One data cassette; one cleaning cassette</p>	D, E, F, (except D02, E02, F02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890

3570 Cartridge Tape Subsystems		
<b>3570 (cont.)</b>		
#9600 #9603 #9710	Attached to AS/400; not Bxx models AIX Device Driver; not Cxx models SUN Device Driver; not Cxx models  Minimum OS/400 to support #6501 attachment: V3R1 Minimum OS/400 to support #6534 or #2729 attachment: V4R1 Minimum OS/400 to support #2749 attachment: V4R5	

7329-308 SLR100 ¼-inch Tape Autoloader		
Machine	Description	9406 model
<b>7329 308</b>	<p><b>7329-308 SLR100 ¼-inch Tape Autoloader</b> The 7329-308 SLR100 ¼-inch Tape Autoloader is a stand-alone SCSI-based device that uses the MLR3 QIC technology.</p> <p>The 7329 attaches to the #2718 PCI Magnetic Media Controller in the AS/400e 170, 6xx, Sxx, and 7xx or to the #2768 PCI Magnetic Media Controller that fits into the iSeries 270, 820, 830, 840, and SBx hardware.</p> <p>The autoloader, with a magazine capable of holding 8 - SLR100 data cartridges, provides up to 400 GB of uncompressed data (800 GB assuming 2:1 compression) and a transfer rate of 5 MB/second. The autoloader can operate in either random or sequential mode depending on user preference. In random mode, a tape cartridge may be selected from any slot in the magazine and loaded into the tape drive. In sequential mode, tapes are automatically fed into the tape drive beginning with slot one of the magazine.</p> <p>See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for a description of the supported attachment configurations.</p> <p>Minimum OS/400 level: V4R5</p>	60x S0x, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890
9427 8mm Tape Cartridge Library		
<b>Model 210</b> <b>Model 211</b>	Stand-alone unit. Is not upgradable to the Model 211. Rack mounted unit. Two Model 211s can be put in a rack side by side.	D,E,F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890

The 9427 Tape Library consists of a single #0701 7 GB 8mm tape drive or two #0702 7GB 8mm tape drives. The effective data transfer rate is 1 MB per second when compressed (500KB per second in native mode) for each drive. The 9427 is read/write compatible with IBM 8mm cartridge tape units.

Two 10-cartridge magazines (one per drive ordered) provide storage for up to 20 8mm cartridges, with storage capacity of up to 280 GB.

**Features:**

- ▶ Power cord (#9800 for 125V or #9833 for 250V)
- ▶ a: SCSI System-to-Device Cable for #2621 attach:
  - #9870 - 2m SCSI cable
  - #9871 - 4.0m (13-ft.) SCSI cable
  - #9872 - 12.0m (39-ft.) SCSI cable
  - #9873 - 20.0m (65.6-ft.) SCSI cable
- b: SCSI System-to-Device Cable for #2729, #2749, #6534 attach - requires interposer
  - #9245 - 4.5m (15-ft.) SCSI cable
  - #9212 - 12.0m (39-ft.) SCSI cable
  - #9218 - 18.0m (59-ft.) SCSI cable
  - #9174 - interposer

Exterior covers - #9100 black or #9200 white

A cleaning cartridge and two 8mm cartridges are included.

The 9427 attaches to AS/400 models, except B and C and 9401 models using #2621 Storage Device Controller, #6534 Magnetic Media Controller (SPD), or #2729#2749 PCI Ultra Magnetic Media Controller, or #9427 (PCI). Maximum of one 9427 per controller.

Minimum OS/400 level: V3R1

#2007	Additional 10 cartridge magazine
#2008	Direct attach feature allows option to configure drive 1 to attach to port 1 and drive 2 to attach to port 2 of the #2621 (SPD) adapter card to allow two concurrent data streams.
#2656/#2857/#2858/#2859	System-to-device cables for additional host attachment or for dual port attachment with #2008.

## 8.5 3494 options for iSeries and AS/400e systems

### 3494 ½-inch Cartridge Library

The 3494 is a stand-alone automated tape storage subsystem that provides the solution for automated tape operations such as save/restore, migration of data between DASD and tape, and other large data applications.

The 3494 Tape Library consists of:

- ▶ A 3494-L10 or 3494-L12 Library Control Unit, which includes the Media Library Manager (a PC that controls the library) and the Media Library Device Driver
- ▶ Base storage for up to 240 ½-inch cartridges (210 if the #5210 convenience I/O station is installed, or 160 if the #5230 is installed)
- ▶ A tape subsystem (either 3490-CxA/F1A or 3590-B1A/E1A/H1A)
- ▶ The Accessor (robotic arm that accesses the tape cartridges)
- ▶ iSeries and AS/400e attachment to the Media Library Manager using a RS232 or LAN for the library commands

The storage capacity and the number of tape subsystems in the 3494 Library can be increased by adding drive units and storage units (see the following table). The drive units provide additional cartridge slots and space for additional tape subsystems. The storage units provide an additional 400 cartridge slots but no space for tape subsystems.

**Software Requirements**

Software support for the 3494 is provided by the following offerings:

- OS/400 V5R1 plus PTFs, or later, for 3590 Fibre Channel attachment support
- OS/400 V3R2 plus PTFs, or later, for 3590 SCSI support (V4R4 or later for HA1 Frames configurations)
  - 3494 #5211 AS/400 Host Attachment needed for releases prior to V3R6
  - BRMS/400 V3R1 or later, optional but recommended
  - R/DARS 1.3.0 or later
- OS/400 Version V3R1, or later, for 3490E support
  - 3494 #5211 AS/400 Host Attachment needed for releases prior to V3R6
  - BRMS/400 V2R3 or later, optional but recommended
  - R/DARS 1.3.0 or later

See I109772, Index of BRMS and Tape Library Informational APAR, and I111472, Attaching 3590 Exx/Hxx to AS/400, for installation information.

Options for 3494 Models L10 and L12	
#3511	<p><b>Install Fibre Channel Drive</b></p> <p>The #3511 must be added to the 3494 Model L12 or D12 frame when it is to contain any 3590 Model E1A or H1A Tape Drive with the #9510 or #3510 Fibre Channel Attachment and the quantity is equal to the number of installed fibre channel drives. The #3511 provides a fibre channel patch panel and the fibre channel cables from fibre channel attached tape drives to the patch panel. The #5805, #5812, #5825, or #5861 Fibre Channel cables can be ordered on the tape drive to connect from the patch panel to fibre channel adapters on host server systems or the SAN.</p> <p>Maximum: Two in L12, six in D12. One of these features is required for each fibre channel attached drive installed in that frame.</p> <p>Plant or Field installation.</p> <p>Prerequisite: The 3590 Model E1A or H1A must have feature #9510 or #3510.</p>
#5210	<p><b>Convenience I/O Station (10 cartridges)</b></p> <p>The #5210 allows either input or output of up to ten ½-inch cartridges into the 3494 Tape Library Dataserver without interruption of normal operations.</p> <p>See #5230 if a 30 cartridge I/O station required.</p> <p>Maximum: One</p>
#5211 #5213	<p><b>RS-232 Host Attachment</b></p> <p>The #5211 and #5213 support attachment of iSeries or AS/400 processors and provide communications between the iSeries and AS/400 system and the tape library using the Media Library Device Driver. The RS232 attached distance for #5211 is 50 feet and for #5213 is 400 feet. The #5211 or #5213 is required for AS/400 Host Attachment for releases prior to V3R6.</p> <p>Maximum: Four RS-232 connections without #5229, eight RS-232 connections with #5229.</p>
#5214	<p><b>Second Disk Drive for Library Manager</b></p> <p>The #5214 allows mirroring of the 3494 Tape Library Dataserver database and provides the capability to recover the Library Manager database in case of the failure of the primary disk drive.</p> <p>A mirrored disk drive is standard for Model Lxx shipped after 1 November 1999.</p> <p>Maximum: One</p>
#5215	<p><b>Dual Gripper</b></p> <p>The #5212 provides a second cartridge picker on the accessor for enhanced tape library performance. Recommended for longer configurations (three or more frames). Installation of dual gripper reduces the quantity of available storage cells by 10%.</p> <p>Maximum: One</p>
#5216	<p><b>Remote Power Sequence</b></p> <p>The #5216 allows power on and off sequencing by attached host processors.</p> <p>Maximum: One</p>
#5217	<p><b>50 Foot RS-232 Cable</b></p> <p>The #5217 supports attachment of iSeries or AS/400 processors and provides communications between the iSeries and AS/400 system and the tape library using the Media Library Device Driver.</p> <p>Maximum: Four RS-232 connections without #5229, eight RS-232 connections with #5229.</p> <p>Minimum OS/400 level: V3R6</p>
#5219	<p><b>Token Ring Adapter</b></p> <p>The #5219 allows the 3494 Tape Library Dataserver to attach to a token ring LAN, and provides communications between the host and the tape library.</p> <p>Maximum: One</p>
#5220	<p><b>Ethernet Adapter</b></p> <p>The #5220 allows the 3494 Tape Library Dataserver to attach to an Ethernet LAN, and provides communications between the host and the tape library.</p> <p>Maximum: One</p>
#5226	<p><b>Remote Console</b></p> <p>The #5226 provides the capability of controlling and monitoring the status of up to eight 3494 Tape Library Dataservers from a remote location using a LAN connection. One #5226 is required per 3494 connected in the LAN.</p> <p>Maximum: One</p>

#5227	<p><b>32 Port Attachment</b></p> <p>The #5227 provides 16 additional tape control unit connections. Use of this feature along with the Expansion Attachment Card (#5229) provides a total of 24 tape control unit connections and eight RS-232 host processor connections. When #5227 is installed with one or two Tape Control Unit Expansion features (#5228) or with the 3494-HA1 High Availability frame, the number of available tape control unit connections is increased by 16 over the numbers shown in the table below for #5228. This allows up to 32 SCSI or Fibre-Channel attached tape drives to be installed in the library.</p> <p>Prerequisite: #5229</p>																								
#5228	<p><b>Tape Control Unit Expansion</b></p> <p>The #5228 expands the number of tape drive controllers that can be attached to the 3494 Library Manager. One feature converts four RS-232 host processor connections into four tape control unit connections in either the base library manager or the #5229 Expansion Attachment. Up to 16 tape control units can be supported on the Library Manager.</p> <table border="1"> <thead> <tr> <th>Number of #5228 (for direct attach to host)</th> <th>Available RS-232 port connections</th> <th>Available tape control unit required</th> <th>Additional features</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>4</td> <td>4</td> <td>None</td> </tr> <tr> <td>0</td> <td>8</td> <td>8</td> <td>#5229</td> </tr> <tr> <td>1</td> <td>0</td> <td>8</td> <td>#5219 or #5220</td> </tr> <tr> <td>1</td> <td>4</td> <td>12</td> <td>#5229</td> </tr> <tr> <td>2</td> <td>0</td> <td>16</td> <td>#5229 and #5219 or #5220</td> </tr> </tbody> </table> <p>Maximum: Two</p>	Number of #5228 (for direct attach to host)	Available RS-232 port connections	Available tape control unit required	Additional features	0	4	4	None	0	8	8	#5229	1	0	8	#5219 or #5220	1	4	12	#5229	2	0	16	#5229 and #5219 or #5220
Number of #5228 (for direct attach to host)	Available RS-232 port connections	Available tape control unit required	Additional features																						
0	4	4	None																						
0	8	8	#5229																						
1	0	8	#5219 or #5220																						
1	4	12	#5229																						
2	0	16	#5229 and #5219 or #5220																						
#5229	<p><b>Expansion Attachment Card</b></p> <p>The #5229 applies to the Library Manager of the 3494 and is required to support the fifth through eighth tape control units or the fifth through eighth RS232 connection.</p> <p>Maximum: One</p>																								
#5230	<p><b>Convenience I/O Station (30 Cartridges)</b></p> <p>The #5230 allows either input or output of up to 30 ½-inch cartridges into the 3494 library without interruption of normal operations.</p> <p>See the #5210 if 10 cartridge I/O stations are required.</p> <p>Maximum: One</p>																								
#5300	<p><b>Drive Unit</b></p> <p>The #5300 provides an expansion unit for an additional CxA tape subsystem and additional 300 cartridge storage capacity. Attachment to 3494-L10 is supported but attachment to 3494-L12 requires an RPQ.</p> <p>The #5300 is replaced by 3494 Model D10.</p>																								
#5302	<p><b>Upgrade #5300 for 3590-B1A/E1A</b></p> <p>The #5302 upgrades #5300 Drive Unit to accept two 3590-B1A or E1A tape drives. RPQ 8B3166 allows a #5300 to accept a third and fourth drive. RPQ 8B3167 allows #5300 to accept a fifth and sixth drive tape subsystem.</p> <p>Maximum: One per #5300</p>																								
#5400	<p><b>Storage Unit</b></p> <p>The #5400 provides an expansion unit for 400 additional cartridges. Attachment to the 3494-L10 is supported but attachment to the 3494-L12 requires a RPQ. Replaced by 3494 Model S10.</p>																								

3494 Model Matrix Summary			
Library control unit model	Cartridge capacity (max)	Flexible growth	Tape drive supported
3494 - L10	210 (if #5210 installed) 160 (if #5320 installed)	1-8 CxA tape units (16 drives) <sup>1</sup> 1-8 frames Supports D10, D12, S10, #5300 <sup>2</sup> , #5400 <sup>2</sup> , #5302 <sup>3</sup>	3490E-CxA 3490E-F1A
3494 - L12	210 (if #5210 installed) 160 (if #5230 installed)	1-32 B1A, E1A or H1A tape units <sup>1</sup> 1-16 Frames Supports D10, D12, S10, #5300 <sup>2</sup> , #5400 <sup>2</sup> , #5302 <sup>3</sup>	3590-B1A 3590-E1A 3590-H1A
Drive unit model	Cartridge capacity (max)	Number of tape drives	Tape drive supported
3494 - D10	400	0	3490E-CxA 3490E-F1A
	300	1-2	

<b>3494 - D12</b>	400	0	3590-B1A 3590-E1A 3590-H1A
	335	1-2	
	290	3-4	
	250	5-6	
<b>Storage unit model</b>	<b>Cartridge capacity (max)</b>	<b>Number of tape drives</b>	<b>Tape drive supported</b>
<b>3494 - S10</b>	400	0	None
<b>High availability model</b>	<b>Cartridge capacity (max)</b>	<b>Number of tape drives</b>	<b>Tape drive supported</b>
<b>3494 - HA1</b>	Includes a second library manager and accessor, two service bays, and required hardware for concurrent maintenance. The Model HA1 operates in stand-by mode to provide a redundant library manager and accessor for improved availability. The Model HA1 frame includes no storage cells for tape cartridges and no drives.		
<b>Notes:</b>			
1. Both the 3490E and 3590 tape drives are supported by the L10 and L12 Library Control Units provided that the appropriate drive units are installed (3494-D10 for 3490E and 3494-D12 for 3590).			
2. The #5300 is the specify feature for a drive unit, and the #5400 is the specify feature for a storage unit. These are each replaced by the 3494 Models D10 and S10 respectively. Both the #5300 and #5400 are supported by the 3494 Tape Library Dataserver Models L10 and L12.			
3. The #5302 is the specify feature for upgrading a #5300 to support 3590-B1A tape transports in place of 3490-CxA tape transports.			
4. The maximum combined total of D10, D12, S10 #5300, #5302, and #5400 is fifteen.			

#### 3490, 3590, 3494 Upgrades

Supported field upgrades are:	From	To	
	3490-C10	3490-C11	withdrawn
	3490-C10	3490-C1A	withdrawn
	3490-C11	3490-C1A	withdrawn
	3490-C1A	3490-C2A	withdrawn
	3490-C22	3490-C2A	withdrawn
	3590-B11	3490-B1A	
	3590-B1A	3590-B11	
	3590-B11	3590-E11	
	3590-B1A	3590-E1A	
	3590-B11	3590-H11	
	3590-B1A	3590-H1A	
	3590-E11	3490-E1A	
	3590-E1A	3590-E11	
	3590-E11	3590-H11	
	3590-E1A	3590-H1A	
	3590-H11	3590-H1A	
	3590-H1A	3590-H11	
	3494-D10	3490-D12	
	3490-L10	3490-L12	

#### 3575 Magstar MP Tape Library Dataserver

The 3575 0.31-inch Cartridge Tape Subsystem is a stand-alone automated tape storage subsystem that provides the solution for automated tape operations such as save/restore, migration of data between DASD and tape, and other mass data applications. All models of the 3575, except the L06, may be partitioned into two or three logical libraries with separate and distinct drives and storage slots. This allows multiple heterogeneous hosts to share the library easily.

The 3575 consists of:

- ▶ A Media Mover robotic assembly
- ▶ Two to six 3570 B1A or C model tape devices
- ▶ Attachment for up to six host systems using SCSI. Attached to iSeries or AS/400e via the #2729/#2749 PCI Ultra Magnetic Media Controller, #6534 Magnetic Media Controller, #6501 Tape/Disk Device Controller. These adapters only support an HVD interface.

3575 Features	
Feature	Description
1400	<b>Multi-Path Feature with Two Magstar MP Model C Tape Drives</b> Provides plant installation of the multi-path feature and two Magstar MP Model C tape drives. Required Feature: Yes Maximum: One
1450	<b>Multi-Path Feature</b> Provides field installation of the multi-path feature for 3575s manufactured, shipped, and installed prior to the availability of #1400. Required Feature: No Maximum: One
1451	<b>Field Installation of Magstar MP 3570 Tape Drive Model B1A</b> Adds Magstar MP 3570 Model B1A tape drives into a currently installed 3575. Not available on Model L06.
1453	<b>Magstar MP Model C Tape Drive</b> Add a Magstar MP Model C tape drive into a currently installed 3575 Tape Library. Not available on Model L06. Prerequisite: #1400 or #1450 Multi-Path Feature
2895	<b>Interposer for AS/400 Feature #6501</b> Allows attachments of tape drives installed in the 3575 Tape Library to #6501 Tape/Disk Device Controller. One is required for each tape drive that attaches to a #6501. AS/400 configurators allow only one drive per IOP port for maximum performance. Installing more than one Magstar MP Model C tape drive on an IOP part can impact system performance. When using a #6501 to attach the 3575 tape drives, one port on the #6501 must remain unused. Prerequisite: #1400 or #1450 Multi-Path Feature
5212	<b>12 Meter SCSI Cable</b> 12m (39-ft.) cable with an industry-standard high-density 68-pin (HD68) cable connector on each end.
5218	<b>18 Meter SCSI Cable</b> 18m (59-ft.) cable with an industry-standard high-density 68-pin (HD68) cable connector on each end.
5225	<b>25 Meter SCSI Cable</b> 25m (82-ft.) cable with an industry-standard high-density 68-pin (HD68) cable connector on each end.
5245	<b>4.5 Meter SCSI Cable</b> 4.5m (15-ft.) cable with an industry-standard high-density 68-pin (HD68) cable connector on each end.
8750	<b>One Cleaner Cartridge</b> One cleaner cartridge used to clean the Magstar MP Model C tape drives or 3570 Model B1A tape drives. Maximum: 3
8754	<b>30-Pack of Magstar MP B-format Data Cartridges</b>
8755	<b>30-Pack of Magstar MP C-format Data Cartridges</b>
8756	<b>120-Pack of Magstar MP B-format Data Cartridges</b>
8757	<b>120-Pack of Magstar MP C-format Data Cartridges</b>
9400	<b>Attached to the AS/400 system</b>
9907	<b>Power Cord</b> 4.3m (14-ft.) 125V
9908	4.3m (14-ft.) 250V
9909	4.3m (14-ft.) 250V, Watertight
9985	1.8m (6-ft.) 125V
9986	1.8m (6-ft.) 250V
9987	1.8m (6-ft.) 250V, Watertight

3575 Model Matrix Summary				
Model	Capacity	Capacity	Cartridges	Drives
L06	300 GB	900 GB	60	2
L12	600 GB	1.8 TB	120	2 to 4
L18	900 GB	2.7 TB	180	2 to 6
L24	1.2 TB	3.6 TB	240	2 to 6
L32	1.6 TB	4.8 TB	324	2-6

**Notes:**

- ▶ Fourteen cartridge slots may be configured for bulk I/O within the library. This reduces the maximum cartridges per library by 14 and reduces the maximum capacity of the library.
- ▶ Model L12 can be upgraded to Model L18 to increase the capacity of the library.
- ▶ Model L24 can be upgraded to Model L32 to increase the capacity of the library.
- ▶ All drives installed at the plant are 3570 Model C tape drives.
- ▶ AS/400 configurators allow only one drive per IOP port to enable maximum performance. Installing more than one 3570 Magstar MP Model C tape drive on an IOP port may impact system performance. When using #6501 Tape/Disk Device Controller to attach the 3575, one port on the #6501 must remain unused.

IBM TotalStorage 3582 Ultrium Tape Library	
<b>3582 L23</b>	<p><b>3582 Ultrium Tape Library</b></p> <p>The IBM 3582 Ultrium Tape Library is designed for desktop operation, but an optional rack mounting kit allows installation into an ANSI/EIA standard 19-inch rack with four EIA units of space. The 3582 tape library can have one or two IBM LTO Ultrium 2 tape drives. Ultrium 2 drives have a native data transfer rate of 35 MB/second and cartridge capacity of 200 MB. Data compression (IDRC) provides an effective data rate of 70 MB/second and up to 400 MB cartridge capacity. The 3582 has two 7-cartridge removable magazines, 9 rear fixed slots, and one I/O slot for a total of 24 tape cartridge slots, providing a maximum capacity of 9.6 TB. Multi-path architecture allows the 3582 to be partitioned into two logical libraries.</p> <p><b>Tape drive features:</b></p> <p><b>#8103</b> LTO Ultrium 2 LVD Drive Sled (HD68 connection)  <b>#8104</b> LTO Ultrium 2 HVD Drive Sled (HD68 connection)  <b>#8105</b> LTO Ultrium 2 Fibre Drive Sled with a LC Fibre Channel interface</p> <p><b>Note:</b> These are plant only features and cannot be intermixed. Each feature can be ordered by specifying quantity one or two.</p> <p><b>#8203</b> LTO Ultrium 2 LVD Drive Sled (HD68 connection)  <b>#8204</b> LTO Ultrium 2 HVD Drive Sled (HD68 connection)  <b>#8205</b> LTO Ultrium 2 Fibre Drive Sled with a LC Fibre Channel interface</p> <p><b>Note:</b> These features provide a second drive that is <i>customer installed</i>. They may be specified with the initial order or ordered as an MES. One of these features can be intermixed with one #8103, #8104, or #8105 in any combination.</p> <p><b>Adapters supported:</b></p> <p><b>LVD Drive Sled (#8103 or #8203)</b>  #5702 PCI-X Ultra Tape Controller ((LVD, VHDCI)  #5705 PCI-X Tape/DASD Controller (LVD, VHDCI)</p> <p><b>HVD Drive Sled (#8104 or #8204)</b>  #2729 PCI Magnetic Media Controller (HVD, HD68)  #2749 PCI Ultra Magnetic Media Controller (HVD, HD68)  #6534 Magnetic Media Controller (HVD, HD68)</p> <p><b>Fibre Drive Sled (#8105 or #8205)</b>  #2765 PCI Fibre Channel Tape Controller (LC)</p>

<b>3582 L23 (cont.)</b>	<p><b>Cable features:</b>  Interposer SC-LC  #5096 VHDCI/HD68 Cable/Interposer  #5301 0.4 m HD68/HD68 SCSI cable (use to daisy-chain two tape drives on the same SCSI bus)  #5302 2.5m (8-ft.) HD68/HD68 SCSI cable  #5305 5.0m (16-ft.) HD68/HD68 SCSI cable  #5310 10.0m (33-ft.) HD68/HD68 SCSI cable  #5318 18.0m (59-ft.) HD68/HD68 SCSI cable  #5325 25.0m (82-ft.) HD68/HD68 SCSI cable  #5602 2.5m (8-ft.) VHDCI/HD68 SCSI cable  #5605 5.0m (16-ft.) VHDCI/HD68 SCSI cable  #5610 10.0m (33-ft.) VHDCI/HD68 SCSI cable  #5620 20.0m (66-ft.) VHDCI/HD68 SCSI cable  #5625 25.0m (82-ft.) VHDCI/HD68 SCSI cable  #5907 7m SC-LC Fibre Channel Cable  #5913 13m SC-LC Fibre Channel Cable  #5922 22m SC-LC Fibre Channel Cable  #5961 61m SC-LC Fibre Channel Cable  #6005 5m LC-LC Fibre Channel Cable  #6013 13m LC-LC Fibre Channel Cable  #6025 22m LC-LC Fibre Channel Cable  #6061 61m LC-LC Fibre Channel Cable</p>
#8002 #8101 #8103 #8110	<p><b>Cartridge/supply features:</b>  Available only with initial order.  1 cleaning cartridge  5-pack Ultrium 2 data cartridges  Magazine kit with dust cover  20-pack Ultrium 2 data cartridges</p>
<b>3589</b>	<p>Additional media is ordered against machine type 3589.</p> <p>IBM LTO Ultrium Data Cartridge (100 GB) - IBM p/n 08L9120  IBM LTO Ultrium 2 Data Cartridge (200 GB) - IBM p/n 08L9870  IBM LTO Ultrium Universal Cleaning Cartridge - IBM p/n 35L2086  Magazine with Dust Cover - IBM p/n 18P7219</p> <p>Minimum OS/400 level: V5R1  Minimum OS/400 to support #5702/5705 attachment: V5R2</p>

IBM TotalStorage 3583 Ultrium Scalable Tape Library	
<b>3583 Lxx</b>	<p><b>3583-Lxx Ultrium Scalable Tape Library</b></p> <p>The IBM 3583 Ultrium Scalable Tape Library is designed for stand-alone operation. An optional rack mounting kit allows installation into an ANSI/EIA standard 19-inch rack with 14 EIA units of space. The 3583 tape library contains from one to six tape drives, IBM LTO Ultrium or Ultrium 2.</p> <p>IBM LTO Ultrium drives have a native data transfer rate of 15 MB/second and cartridge capacity of 100 MB (with 2:1 data compression, 30 MB/second and up to 200 MB). IBM LTO Ultrium 2 drives have a native data transfer rate of 35 MB/second and cartridge capacity of 200 MB (with 2:1 data compression, 70 MB/second and up to 400 MB). The 3583 Models L18, L36 and L72 have cartridge slots of 18, 36, and 72, respectively, providing total data capacities of 1.8 TB, 3.6 TB, and 7.2 TB (3.6 TB, 7.2 TB, and 14.4 TB with compression) using LTO Ultrium (100 GB) data cartridges or capacities of 3.6 TB, 7.2 TB, and 14.4 TB (7.2 TB, 14.4 TB and 28.8 TB with compression) using LTO Ultrium 2 (200 GB) data cartridges. The L18 and L36 models can be field upgraded to increase their capacities to 72 cartridges.</p> <p>Multi-path architecture allows the 3583 to be partitioned into up to three logical libraries. Logical libraries allow the 3583 library robotics to be shared between homogeneous or heterogeneous applications with each logical library having its own separate and distinct drives, storage slots, and control paths. Logical libraries can also be used for separating Ultrium 1 Tape Drives and cartridges from Ultrium 2 Tape Drives and cartridges, for applications that do not support mixing drives in the same logical library. Multi-path is standard on all libraries shipped after 13 June 2003 and may be added to existing libraries as an MES. It is a required feature for all libraries containing an Ultrium 2 Tape Drive. The RMU/Specialist must be installed to add multi-path support. The RMU/Specialist function is included on every 3583 shipped since 27 July 2001. Machines shipped prior to 27 July 2001 must have #1660 RMU/Specialist installed.</p> <p><b>Adapters supported:</b></p> <p><b>LVD Drive Sled (#8103)</b>  #5702 PCI-X Ultra Tape Controller ((LVD, VHDCI)  #5705 PCI-X Tape/DASD Controller (LVD, VHDCI)</p> <p><b>HVD Drive Sled (#8004 or #8104)</b>  #2729 PCI Magnetic Media Controller (HVD, HD68)  #2749 PCI Ultra Magnetic Media Controller (HVD, HD68)  #6501 Tape/Disk Device Controller (HVD, requires 2895 Interposer)  #6534 Magnetic Media Controller (HVD, HD68)</p> <p><b>Fibre Drive Sled (#8105)</b>  #2765 PCI Fibre Channel Tape Controller (LC)</p> <p>The 3583 library requires one tape drive sled and can have up to six installed. With Ultrium 1, the iSeries supports one HVD SCSI drive. Up to 6 LVD SCSI drives are supported if using the #8005 SAN Data Gateway for attaching to the #2765.</p> <p><b>Note:</b> It is not recommended that the #8105 LTO Ultrium 2 Fibre Drive Sled be installed in the same 3583 library with the #8005 SAN Data Gateway Module feature #8105.</p> <p><b>#8003</b> LTO Ultrium LVD Drive Sled (for iSeries, only valid when using #8005 SAN Data gateway)  <b>#8004</b> LTO Ultrium HVD Drive Sled (HD68 connection)  <b>#8103</b> LTO Ultrium 2 LVD Drive Sled (HD68 connection)  <b>#8104</b> LTO Ultrium 2 HVD Drive Sled (HD68 connection)  <b>#8105</b> LTO Ultrium 2 Fibre Drive Sled (LC connection)</p> <p><b>Library features:</b></p> <p><b>#1450</b> Multi-path field  <b>#1660</b> RMU/Specialist  <b>#8005</b> SAN Data Gateway Module  <b>#8006</b> Rack mount option  <b>#8007</b> 18 slot tape storage column  <b>#8008</b> Redundant power module  <b>#8012</b> 12-cartridge I/O station  <b>#9450</b> Multi-path plant</p>

<b>3583 Lxx (cont.)</b>	
<b>#2895</b>	<b>Cable features:</b> Interposer for AS/400 #6501
<b>#5096</b>	Interposer SC-LC Fibre
<b>#5099</b>	VHDCI/HD68 Cable/Interposer
<b>#5301</b>	0.4 m HD68/HD68 SCSI cable (use to daisy-chain two tape drives on the same SCSI bus)
<b>#5302</b>	2.5m (8-ft.) HD68/HD68 SCSI cable
<b>#5305</b>	5.0m (16-ft.) HD68/HD68 SCSI cable
<b>#5310</b>	10.0m (33-ft.) HD68/HD68 SCSI cable
<b>#5318</b>	18.0m (59-ft.) HD68/HD68 SCSI cable
<b>#5325</b>	25.0m (82-ft.) HD68/HD68 SCSI cable
<b>#5602</b>	2.5m (8-ft.) VHDCI/HD68 SCSI cable
<b>#5605</b>	5.0m (16-ft.) VHDCI/HD68 SCSI cable
<b>#5610</b>	10.0m (33-ft.) VHDCI/HD68 SCSI cable
<b>#5620</b>	20.0m (66-ft.) VHDCI/HD68 SCSI cable
<b>#5625</b>	25.0m (82-ft.) VHDCI/HD68 SCSI cable
<b>#5907</b>	7m SC-LC Fibre Channel Cable
<b>#5913</b>	13m SC-LC Fibre Channel Cable
<b>#5922</b>	22m SC-LC Fibre Channel Cable
<b>#5961</b>	61m SC-LC Fibre Channel Cable
<b>#6005</b>	5m LC-LC Fibre Channel Cable
<b>#6013</b>	13m LC-LC Fibre Channel Cable
<b>#6025</b>	22m LC-LC Fibre Channel Cable
<b>#6061</b>	61m LC-LC Fibre Channel Cable
	<b>Cartridge/supply features:</b> Available only with initial order.
<b>#8001</b>	1 IBM LTO Ultrium data cartridge (100 GB)
<b>#8002</b>	1 cleaning cartridge
<b>#8101</b>	1 IBM LTO Ultrium 2 data cartridge (200 GB)
<b>#8010</b>	20-pack IBM LTO Ultrium data cartridges (100 GB)
<b>#8013</b>	6-cartridge magazine
<b>#8110</b>	20-pack IBM LTO Ultrium 2 data cartridges (200 GB)
<b>3589</b>	Additional media is ordered against machine type 3589.
<b>p/n 08L9120</b>	IBM LTO Ultrium data cartridge (100 GB)
<b>p/n 08L9870</b>	IBM LTO Ultrium 2 data cartridge (200 GB)
<b>p/n 35L2086</b>	IBM LTO Ultrium universal cleaning cartridge
<b>p/n 08L9129</b>	Leader pin attachment kit
<b>p/n 08L9130</b>	Manual rewind tool
<b>p/n 35L1088</b>	Magazine with cover
	Minimum OS/400 level: V4R3 Minimum OS/400 to support #2749 attachment: V4R5 Minimum OS/400 to support #2765 attachment: V5R1 Minimum OS/400 to support #5702, #5705 attachment: V5R2 Minimum OS/400 to support #8103, #8104, #8105 Ultrium 2 drive sleds: V5R2

IBM TotalStorage 3584 Ultra Scalable Tape Library	
<b>3584 L32/D32</b>	<p>The 3584-L32 or D32 Ultrascalable Tape Library are strategic choices for tape automation for the iSeries, AS/400e, RS/6000, and other popular Open Systems. The IBM 3584 L32 and D32 use the multi-path architecture to allow homogeneous and heterogeneous Open Systems servers to share the library robotics.</p> <p>The 3584 Ultra Scalable Tape Library Model L32 offers 141 to 281 slots and up to 12 IBM LTO Ultrium Tape Drives. It provides strategic price/performance in Open System environments where the tape automation requirements are satisfied by one to 12 drives or a library capacity of 56 TB (with 2:1 compression) or 28 TB native data.</p> <p>The 3584 Ultra Scalable Tape Library Model D32 Expansion Frame offers 440 slots and up to 12 drives. Five model D32 frames can be attached to a Model L32 frame. This provides a total library capacity of up to 72 IBM LTO Ultrium 1 or Ultrium 2 drives, or up to 2481 slots, holding up to 992 TB (with 2:1 compression) or 496 TB native data.</p> <p>Multi-path architecture allows the 3584 to be partitioned into up to 72 logical libraries. Logical libraries allow the 3584 library robotics to be shared between homogeneous or heterogeneous applications with each logical library having its own separate and distinct drives, storage slots, and control paths. Logical libraries can also be used for separating Ultrium 1 Tape Drives and cartridges from Ultrium 2 Tape Drives and cartridges, for applications that do not support mixing drives in the same logical library. Multi-path is standard on the 3584 library.</p> <p><i>Restriction:</i> If a #6501 is attaching to any drive in a partition, then the partition needs to have 10 or fewer drives.</p>
<b>#9002</b>	<b>Features:</b>
<b>#9003</b>	<p>First Expansion Frame Attachment</p> <p>Drive Frame Attachment</p> <p>For the first Model D32 frame added to the library one #9002 First Expansion Frame Attachment must be added to the Model L32. For each subsequent Model D32 frame added, a #9003 Drive Frame Attachment must be added to the Model L32. This is to ensure that the proper cables are shipped and the configuration records are correct.</p>
<b>#1603</b>	<p>Capacity Expansion</p> <p>The capacity of the base Model L32 can be expanded by enabling an additional four columns in that frame with the addition of #1603 Capacity Expansion. The #1603 is required to enable the use of IBM LTO Ultrium drives and storage elements in the optional Model D32 Expansion Frame.</p> <p>The 3584-L32 or D32 Ultrascalable Tape Library contains a maximum of 12 LTO Ultrium Tape Drives per frame (total of 72 tape drives). A maximum of 32 drives may be attached to any one AS/400 or iSeries.</p>
<b>#1454</b>	<b>Drive features:</b>
<b>#1455</b>	LTO Ultrium LVD Drive Sled (VHDCI connection; HD68 connection if shipped prior to 31 August 2001)
<b>#1456</b>	LTO Ultrium HVD Drive Sled (VHDCI connection; HD68 connection if shipped prior to 31 August 2001)
<b>#1464</b>	LTO Ultrium FC-AL Drive Sled (SC connection)
<b>#1465</b>	LTO Ultrium LVD Drive (HD68 connection)
<b>#1466</b>	LTO Ultrium HVD Drive (HD68 connection)
<b>#1474</b>	LTO Ultrium FC-AL Drive (SC connection)
<b>#1475</b>	LTO Ultrium 2 LVD Drive (VHDCI connection)
<b>#1476</b>	LTO Ultrium 2 HVD Drive (VHDCI connection)
	LTO Ultrium 2 Fibre Drive (LC connection)
<b>#1462</b>	<b>Library features:</b>
<b>#1657</b>	Fibre Channel patch panel
<b>#1660</b>	20 additional LTO I/O slots
<b>#1662</b>	10/100 Ethernet support
<b>#1663</b>	3584 Specialist
<b>#1665</b>	Drive removal
<b>#2710</b>	LTO Ultrium drive reinstall
<b>#2711</b>	Remote support facility
<b>#2712</b>	Remote support switch
<b>#9660</b>	Remote support attachment
	10/100 Ethernet support

<b>3584 L32/D32 (cont.)</b>	<p><b>Cable features:</b> An interposer may be required for attachment to various server adapters.</p>
<b>#2895</b>	Interposer for AS/400 #6501
<b>#5096</b>	Interposer SC-LC Fibre
<b>#5099</b>	VHDCI/HD68 Cable/Interposer
<b>#5301</b>	VHDCI/HD68 Cable/Interposer
<b>#5302</b>	0.4 m HD68/HD68 SCSI cable (use to daisy-chain two tape drives on the same SCSI bus)
<b>#5305</b>	2.5m (8-ft.) HD68/HD68 SCSI cable
<b>#5310</b>	5.0m (16-ft.) HD68/HD68 SCSI cable
<b>#5318</b>	10.0m (33-ft.) HD68/HD68 SCSI cable
<b>#5325</b>	18.0m (59-ft.) HD68/HD68 SCSI cable
<b>#5602</b>	25.0m (82-ft.) HD68/HD68 SCSI cable
<b>#5605</b>	2.5m (8-ft.) VHDCI/HD68 SCSI cable
<b>#5610</b>	5.0m (16-ft.) VHDCI/HD68 SCSI cable
<b>#5620</b>	10.0m (33-ft.) VHDCI/HD68 SCSI cable
<b>#5625</b>	20.0m (66-ft.) VHDCI/HD68 SCSI cable
<b>#5704</b>	25.0m (82-ft.) VHDCI/HD68 SCSI cable
<b>#5710</b>	4.5m (15 ft.) VHDCI/VHDCI SCSI cable
<b>#5720</b>	10.0m (33 ft.) VHDCI/VHDCI SCSI cable
<b>#5725</b>	20.0m (66 ft.) VHDCI/VHDCI SCSI cable
<b>#5907</b>	25.0m (82 ft.) VHDCI/VHDCI SCSI cable
<b>#5913</b>	7m SC-LC Fibre Channel Cable
<b>#5922</b>	13m SC-LC Fibre Channel Cable
<b>#5961</b>	22m SC-LC Fibre Channel Cable
<b>#6005</b>	61m SC-LC Fibre Channel Cable
<b>#6013</b>	5m LC-LC Fibre Channel Cable
<b>#6025</b>	13m LC-LC Fibre Channel Cable
<b>#6061</b>	22m LC-LC Fibre Channel Cable
<b>#9700</b>	61m LC-LC Fibre Channel Cable
	No host cables from the plant
	<p><b>3584 cartridge features:</b> Available only with initial order.</p>
<b>#8750</b>	1 cleaning cartridge
<b>#8757</b>	20-pack of Ultrium data cartridges (100 GB)
<b>#8767</b>	20-pack of Ultrium 2 data cartridges (200 GB)
<b>3589</b>	Additional media is ordered against machine type 3589.
<b>p/n 08L9120</b>	IBM LTO Ultrium data cartridge (100 GB)
<b>p/n 08L9870</b>	IBM LTO Ultrium 2 data cartridge (200 GB)
<b>p/n 35L2086</b>	IBM LTO Ultrium universal cleaning cartridge
<b>p/n 08L9129</b>	Leader pin attachment kit
<b>p/n 08L9130</b>	Manual rewind tool
<b>p/n 35L1088</b>	Magazine with cover
	<p>Minimum OS/400 level: V4R3  Minimum OS/400 to support #2749 attachment: V4R5  Minimum OS/400 to support #2765 attachment: V5R1  Minimum OS/400 to support #5702, #5705 attachment: V5R2  Minimum OS/400 to support #8103, #8104, #8105 Ultrium 2 drive sleds: V5R2</p>

## 8.6 External optical storage for iSeries and AS/400e systems

Machine	Description	9406 model																																																																																								
3995	<p><b>Optical Library Dataserver</b></p> <p>OS/400 software is required to support 3995-Cx0 with up to four internal 2.6 GB drives:            OS/400 V3R6 with Group PTF SF99087 or OS/400 V3R7.            OS/400 V3R2 with 5755-AS3 #1979 and PRPQ 5799-XBW specify code #3520</p> <p>Models C4x with up to four internal 5.2 GB drives:            OS/400 V4R2 with Group PTF SF99088 or OS/400 V4R3            OS/400 V3R2 with 5755-AS3 #1979 and PRPQ 5799-XBW specify code #3520 and Group PTF SF99079</p> <p>Models C46 and C48 with six drives installed require:            OS/400 V4R2 with Group PTF SF99088 or later and #2729 or #6534 Magnetic Media Controller (not supported on #2621)</p> <p>8X support on direct attach 3995 require:            For #2621 attach: Only OS/400 V3R2 with PRPQ 5799-XBW #3520 and Group PTF SF99079            For #2729/#6534 Magnetic Media Controller attach: OS/400 V4R2 with Group PTF SF99088 or V4R3 with Group PTF SF99089 or OS/400 V4R4.            For #2749 PCI Ultra Magnetic Media Controller attach: OS/400 V4R5</p> <p><b>Note:</b> Media must be formatted as WORM in LAN-attached 3995 libraries to be used in AS/400 direct-attached 3995 libraries.            Restrictions: 3995 Models 042, 043, 142, 143, and A43 are not supported with OS/400 V5R1 and later.</p>	D, E, F (except D02, E02), 2x0, 3x0, 4x0, 5x0, 6x0, Sx0, 720, 730, 740, 170, 250, 270, 800, 810, 820, 825, 830, 840, 870, 890																																																																																								
Direct attach	<table border="1"> <thead> <tr> <th colspan="3">Media supported</th> <th colspan="5">Capacity (per library)</th> </tr> <tr> <th>WORM</th> <th>Rewritable</th> <th>CCW</th> <th>Cartridge capacity (GB)</th> <th>Optical nerves</th> <th>Storage slots</th> <th>Total unformatted (GB)</th> <th>Model upgrades from</th> </tr> </thead> <tbody> <tr> <td>A43</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>.65/1.3</td> <td>1</td> <td>16</td> <td>20</td> <td>-</td> </tr> <tr> <td>043</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>.65/1.3</td> <td>2</td> <td>32</td> <td>40</td> <td>042</td> </tr> <tr> <td>C40</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>.65/1.3</td> <td>4</td> <td>144</td> <td>188</td> <td>142</td> </tr> <tr> <td>C42</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>.65/1.3/2.6/5.2</td> <td>1-2</td> <td>20</td> <td>104</td> <td>-</td> </tr> <tr> <td>C44</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>.65/1.3/2.6/5.2</td> <td>2</td> <td>52</td> <td>270</td> <td>-</td> </tr> <tr> <td>C46</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>.65/1.3/2.6/5.2</td> <td>2-4</td> <td>104-156</td> <td>540</td> <td>-</td> </tr> <tr> <td>C48</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>.65/1.3/2.6/5.2</td> <td>4-6</td> <td>156</td> <td>811</td> <td>C44</td> </tr> <tr> <td></td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>.65/1.3/2.6/5.2</td> <td>4-6</td> <td>258</td> <td>1341</td> <td>-</td> </tr> </tbody> </table>	Media supported			Capacity (per library)					WORM	Rewritable	CCW	Cartridge capacity (GB)	Optical nerves	Storage slots	Total unformatted (GB)	Model upgrades from	A43	Yes	Yes	No	.65/1.3	1	16	20	-	043	Yes	Yes	No	.65/1.3	2	32	40	042	C40	Yes	Yes	No	.65/1.3	4	144	188	142	C42	Yes	Yes	Yes	.65/1.3/2.6/5.2	1-2	20	104	-	C44	Yes	Yes	Yes	.65/1.3/2.6/5.2	2	52	270	-	C46	Yes	Yes	Yes	.65/1.3/2.6/5.2	2-4	104-156	540	-	C48	Yes	Yes	Yes	.65/1.3/2.6/5.2	4-6	156	811	C44		Yes	Yes	Yes	.65/1.3/2.6/5.2	4-6	258	1341	-	
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#1403	Additional 2.6 GB Optical Drive for 3995-C20 or C40 model																																																																																									
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#9401/	20.0m (65-ft.) SCSI Cable for #2729/#2749 PCI Ultra Magnetic Media Controller or #6534 Magnetic Media Controller (SPD)																																																																																									
#7401	20.0m (65-ft.) SCSI Cable for #2729/#2749 PCI Ultra Magnetic Media Controller or #6534 Magnetic Media Controller (SPD)																																																																																									
#7403	20.0m (65-ft.) SCSI Cable for #2729/#2749 PCI Ultra Magnetic Media Controller or #6534 Magnetic Media Controller (SPD)																																																																																									

Machine	Description	9406 model
7210 020	<p><b>7210-020 External CD-ROM</b></p> <p>The 7210-020 External CD-ROM is a 32x CD-ROM device that attaches to the #2718 PCI Magnetic Media Controller or to the #2768 PCI Magnetic Media Controller. The 7210-020 External CD-ROM drive is primarily intended for use with LPAR but is not limited to LPAR.</p> <p>See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for a description of the supported attachment configurations.</p> <p>Minimum OS/400 level: V4R5</p>	6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890
7210 025	<p><b>7210-025 External DVD-RAM</b></p> <p>The 7210-025 External DVD-RAM is a DVD-RAM device that attaches to the #2718 PCI Magnetic Media Controller or to the #2768 PCI Magnetic Media Controller. The 7210-025 can be used as an alternate IPL device but is not supported by the Boot Manager.</p> <p>The media capacity for a DVD-RAM cartridge is 4.7 GB per side versus 650 MB on CD-ROM. Its highest capacity can be as much as 9.4 GB per side. The 7210-025 drive reads CD-ROM, CD-R, CD-RW, DVD-ROM, and DVD-RAM media. It can write only DVD-RAM media. The speed at which it transfers data from the media is roughly equivalent to a 24X speed CD-ROM, or about 3.6 MB/second average sustained. When the data is compressed in a 3:1 compression ratio (the average for iSeries servers) a single DVD-RAM cartridge can save about 13GB of data in an unattended save mode.</p> <p>See 8.7.4, “#5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules” on page 279, for a description of the supported attachment configurations.</p> <p>Minimum OS/400 level: V5R1</p>	6x0, Sx0, 720, 730, 740, 170, 250, 270, SB2, SB3, 800, 810, 820, 825, 830, 840, 870, 890

## 8.7 External tape rules for iSeries and AS/400e systems

### 8.7.1 High workload placement rules for magnetic media IOP

SPD disk unit, tape, and some LAN IOPs are considered high workload IOPs. Therefore, they require special consideration when configuring an iSeries or AS/400e system. In addition, their workload capability IOPs can be streaming or non-streaming.

The following table lists the high workload SPD magnetic media IOPs and identifies the bus capacity as streaming or non-streaming. These guidelines are for all system buses including the first system bus (bus 1). Exceeding these guidelines causes performance degradation.

Subsystem	High workload IOP	Bus capacity
DASD	#6112, #6500	Non-streaming
Tape	#2621, #2624, #2644, #6112	Non-streaming
DASD	#6501 Tape/Disk Device Controller, #6530, #6502, #6512, #6532, #6533	Streaming
Tape	#6501 Tape/Disk Device Controller, #6513, #6534 Magnetic Media Controller	Streaming
Tape IOP with 3590	#6501 Tape/Disk Device Controller, #6534 Magnetic Media Controller	Streaming
Optical	#6534 Magnetic Media Controller	Streaming
LAN	#2810	Streaming
<b>IOP combination limitations:</b>		
<ul style="list-style-type: none"> <li>▶ Maximum of five high workload IOPs per bus. This includes system bus 1.</li> <li>▶ Maximum of three non-streaming high workload IOPs per bus.</li> <li>▶ In #5044 System Unit Expansion Rack, no DASD controllers are allowed on the same bus with a 3590 tape controller. More than one 3590 tape controller is allowed on the same bus.</li> </ul>		

### 8.7.2 3590 and disk IOP restriction

On AS/400e 530 and 53S models, an information-only RPQ 843914 for V3R6 and V3R7 removes a prior restriction against controlling both internal disk and a 3590 on bus one. This RPQ may result in degraded 3590 performance. From OS/400 V4R1 onward, the 3590 may be placed on any bus as an alternate installation device.

For maximum performance, controllers that drive high-speed tapes must not be installed in bus extension units (#5060, #5040).

### 8.7.3 Alternate IPL or alternate installation device

Throughout this book and the *IBM @server iSeries System Handbook*, GA19-5486, the term *alternate IPL* or *ALT-IPL* is used to describe both alternate IPL devices and alternate installation devices. It is important to understand the differences. An alternate IPL device must be attached to the first system bus (bus one), and an alternate installation device can be attached to any bus except bus one.

Alternate installation device support allows you to perform installation and recovery procedures using a combination of devices. Prior to V4R1, these types of activities can only be performed using devices attached to the first system bus. The first system bus connects to the service processor IOP. Typically, this is where the optical device or tape devices used for installations are attached. From OS/400 V4R1 onward, you can use a combination of devices that are attached on the first system bus and on additional buses. The alternate installation device is not attached to the first system bus.

If you use this function, the system uses existing support (a device on the first system bus) to install or recover enough of the Licensed Internal Code required to perform an IPL with IPL-type D. Then, using the new alternate installation device support, the system continues the operation using media in the alternate installation device. This new function supports installation and recovery from tape media, such as SAVSYS tapes or distribution tapes that you created, which contains Licensed Internal Code and may contain the operating system, licensed programs, and data.

From OS/400 V4R5 onward, the #0208 - No Alternate Installation Device Required specify code can be used to force an external tape IOA into the first Multi-Adapter Bridge on Model

270, 820, 830, 840, and SBx servers. This eliminates the need to use the alternate installation device function to perform a D-mode IPL. Forcing the external tape IOA on the first Multi-Adapter Bridge can result in a higher cost system configuration due to the need for additional PCI IOPs. If the external tape IOA cannot be placed in the first Multi-Adapter Bridge due to other system constraints, the order fails validation.

In the past, a #55xx specify feature code has appeared on iSeries configurations indicating which tape device should be the ALT-IPL device. Beginning with the January 2003 announcement of Models 800, 810, 870, and 890, this #55xx can no longer be configured. A new feature can be chosen to indicate which external tape IOA should be placed on the first Multi-Adapter Bridge, if required. The Model 825 does not have a spare IOA slot on its first Multi-Adapter Bridge, and, therefore, cannot have an ALT-IPL device. It is limited to an alternate installation device. The new features are:

- ▶ #0705 Forced #2749 Placement
- ▶ #0707 Forced #2768 Placement
- ▶ #0708 Forced #5702 Placement

**Note:** The #2765 PCI Fibre Channel Tape Controller does not support the alternate IPL device function. A D-mode IPL is required using CD-ROM, DVD-ROM, or another ALT-IPL tape device. Then select a #2765 to complete the installation or recovery process.

See *Backup and Recovery*, SC41-5304, for more information.

#### 8.7.4 #5702, #5705, #2718, and #2768 PCI Magnetic Media Controller: Device cabling rules

The #2718, #2768, #5702, and #5705 provide Ultra SCSI attachment capability for an external tape, an external CD-ROM device, or an external DVD-RAM device that have a Single Ended SCSI interface.

The #5702 PCI-X Ultra Tape Controller has two SCSI ports, each port providing the same attachment capability of the #2718, #2768, and #5705. This doubles the capability.

The supported devices are:

- ▶ 7206-VX2 80 GB External VXA-2 Tape Drive
- ▶ 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive)
- ▶ 7208-345 60 GB External 8mm Tape Drive
- ▶ 7210-020 External CD-ROM
- ▶ 7210-025 External DVD-RAM
- ▶ 7329-308 SLR100 ¼-inch Tape Autoloader

The following combination of devices are supported:

- ▶ One 7206-VX2
- ▶ One 7207-122
- ▶ One 7208-345
- ▶ One 7210-020
- ▶ One 7210-025
- ▶ One 7329-308
- ▶ Two 7210-025s (the two devices are daisy-chained)
- ▶ One 7210-025 and one 7210-020 (the two devices are daisy-chained with the 7210-025 physically connected first; no #0120 attachment specify code is required for the 7210-020)

- ▶ One 7207-122 and one 7210-020 (the two devices are daisy-chained with the 7207-122 physically connected first; no #0120 attachment specify code is required for the 7210-020)
- ▶ One 7207-122 and one 7210-025 (the two devices are daisy-chained with the 7207-122 physically connected first)
- ▶ One 7208-345 and one 7210-020 (the two devices are daisy-chained with the 7208-345 physically connected first; no #0120 attachment specify code is required for the 7210-020)
- ▶ One 7208-345 and one 7210-025 (the two devices are daisy-chained with the 7208-345 physically connected first)

The #0120 7210-020 Attachment Specify is required for each 7210-020 External CD-ROM Drive to be connected directly (not daisy-chained) to the system through a #2718, #2768, #5702, or #5705.

**Note:** If the 7210-020 is to be daisy-chained with another external device, this specify code must not be present.

The #0162 Extended Single Ended Attach Specify is required when these devices are directly attached (not second on a daisy-chained string) to an iSeries server via a #2718 PCI Magnetic Media Controller, #2768 PCI Magnetic Media Controller, #5702 PCI-X Ultra Tape Controller, or #5705 PCI-X Tape/DASD Controller.

- ▶ 7329-308 SLR100 ¼-inch Tape Autoloader
- ▶ 7210-025 External DVD-RAM

**Note:** If either the 7329-308 or the 7210-025 device is daisy-chained off another device, the #0162 specify must not be present.

## 8.8 QIC format compatibility for iSeries and AS/400e systems

Cartridge capacity (native)	Media type	Format (density)	2.5 GB: #6380 #6480	2.5 GB: #6381 #6481 <sup>7</sup>	4 GB: #4482 #4582 #6382 #6482 7207-122	13 GB: #6385 #6485	16 GB: #4483 #4583 #6383 #6483	25 GB: #4486 #4586 #6386 #6486	30 GB #4584 #4684	50 GB #4487 #4587 7329-308
30 GB	SLR60								R/W	R/W
50 GB	SLR100	*SLR100								R/W
5 GB	SLR100								R/W	R/W
25 GB <sup>4, 5</sup>	MLR3	*MLR3						R/W	R/W	R/W
16 GB <sup>3, 5</sup>	MLR1 <sup>1</sup>	*QIC5010				R/W	R/W	R/W	R/W	R
2 GB	MLR1	*QIC5010				R/W	R/W	R/W	R/W	R
13 GB <sup>3, 5</sup>	DC5010 <sup>1</sup>	*QIC5010				R/W	R/W	R/W	R/W	R
8 GB	SLR5-4 GB	*QIC4DC <sup>2</sup>			R/W		R	R	R	R
4 GB	SLR5-4 GB	*QIC4GB			R/W		R	R	R	R
5 GB	DC9250	*QIC2DC <sup>2</sup>		R/W	R/W		R	R	R	
2.5 GB	DC9250	*QIC2GB	R/W	R/W	R/W	R/W	R	R	R	
1.2 GB	DC9120	*QIC1000	R/W	R/W	R/W	R/W				
525 MB	DC6525	*QIC525	R/W	R/W	R/W	R/W				
320 MB	DC6320	*QIC525	R/W	R/W	R/W	R/W				
120 MB	DC6150	*QIC120	R/W	R/W	R/W	R/W				
60 MB	DC6150	*QIC24 <sup>6</sup>	R	R						

<b>Note 1</b>	13 GB and 16 GB cartridges have auto-retention (retention done as required).												
<b>Note 2</b>	QIC2DC and QIC4DC formats are compression formats. Cartridge capacity is data dependent. Native capacities shown assume a two to one compression ratio.												
<b>Note 3</b>	The internal 13 GB tape drives with feature code #6385 or #6485 also supports the 16 MB IBM MLR1 tape media. For the correct operation of the #6385 and #6485 tape drives with the MLR1 tape media, these PTFs are required: MF19447 for V3R7 MF19448 for V4R1 MF19449 for V4R2 MF19450 for V4R3 With V4R4, support is built in.												
<b>Note 4</b>	Minimum OS/400 to support the 25 GB capacity cartridge drive: V4R1												
<b>Note 5</b>	The capacity shown can typically be doubled when the compression option is selected.												
<b>Note 6</b>	QIC24 format is written by System/36.												
<b>Note 7</b>	The #6381/#6481 2.5 GB QIC internal tape speed is:  <table border="0"> <thead> <tr> <th>Format</th> <th>Speed</th> </tr> </thead> <tbody> <tr> <td>QIC2DC</td> <td>600 K/second</td> </tr> <tr> <td>QIC2GB</td> <td>300 K/second</td> </tr> <tr> <td>QIC1000</td> <td>300 K/second</td> </tr> <tr> <td>QIC525</td> <td>200 K/second</td> </tr> <tr> <td>QIC120</td> <td>120 K/second</td> </tr> </tbody> </table>	Format	Speed	QIC2DC	600 K/second	QIC2GB	300 K/second	QIC1000	300 K/second	QIC525	200 K/second	QIC120	120 K/second
Format	Speed												
QIC2DC	600 K/second												
QIC2GB	300 K/second												
QIC1000	300 K/second												
QIC525	200 K/second												
QIC120	120 K/second												

## 8.9 External SCSI tape cable part numbers for iSeries and AS/400e systems

These cable part numbers may not be available in all countries or regions, or on all models of the AS/400 system and can change.

**Note:** The length in feet is rounded to the nearest whole number.

SCSI cables for #2729 PCI Magnetic Media Controller, #2749 PCI Ultra Magnetic Media Controller, #6534 Magnetic Media Controller, and #6501 Tape/Disk Device Controller			
Tape drive	Length	Part number	Feature code
3490 C10, C11, C22 with #5040 - SCSI attach #6501 attach only	4.5m (15 ft.)	61G8328	6045
	12.0m (39 ft.)	61G8329	6120
	18.0m (59 ft.)	61G8330	6180
3490 E01, E11 3590	2.8m (9 ft.)	05H4647	5128
	4.5m (15 ft.)	05H4648	5145
	12.0m (39 ft.)	05H4649	5112
	18.0m (59 ft.)	05H4650	5118
	25.0m (82 ft.)	05H4651	5125
3490 F00, F01, F11 3570 B/C 7208 - 342 9427 - 210/211	0.5m (2 ft.)	49G6456	5205
	4.5m (15 ft.)	49G6457	5245
	12.0m (39 ft.)	49G6458	5212
	18.0m (59 ft.)	49G6459	5218
	25.0m (82 ft.)	08L6201	5225 (3570 Cxx)
358x Hxx 3582, 3583 HVD drives 3584 HVD drives #1455 if shipped prior to 31 August 2001, and HVD drives #1465 *	0.41m (1.5 ft.)	19P0872	5302 (9702 - 3580, 81) 5305 (9705 - 3583) 5310 5318 5325 5099 2895
	0.72m (2.4 ft.)	19P0873	
	2.5m (8 ft.)	35L1307	
	5.0m (16 ft.)	19P0052	
	10.0m (33 ft.)	19P0053	
	18.0m (59 ft.)	19P0097	
	25.0m (82 ft.)	19P0054	
	VHDCI to HD68 interposer	19P0482	
	Interposer for #6501	05H3834	

\* 3584 HVD drives #1455 shipped on or after 31 August 2001 and HVD drives #1475 have VHDCI connectors, so these drives can use the VHDCI to HD68 cables shown for adapters #5702 and #5705, or they require the VHDCI to HD68 interposer.

SCSI cables for #2729 PCI Magnetic Media Controller, #2749 PCI Ultra Magnetic Media Controller, and #6534 Magnetic Media Controller			
Tape drive	Length	Part number	Feature code
3995 - C4x	12.0m (39 ft.)	05H5543	7401/9401
	12.0m (39 ft.) (for #2621 attach only)	05H5439	7400/9400
7208 - 012	1.5m (5 ft.)	52G0174	2871
	4.0m (13 ft.)	59H3462	2903
	12.0 (39 ft.)	59H3463	2904
7208 - 222/ 232/234 9348 - 001/002	1.0m (3 ft.)	06H6037	2875
	4.0m (13 ft.)	59H3460	2901
	12.0m (39 ft.)	59H3461	2902
7208 - 342	4.5m (15 ft.)	49G6457	5245/9245
	12.0m (39 ft.)	49G6458	5212/9212
	18.0m (59 ft.)	49G6459	5218/9218

SCSI cables for #2718 PCI Magnetic Media Controller and #2768 PCI Magnetic Media Controller			
Tape drive	Length	Part number	Feature code
7206-VX2	1.5m (5 ft.) (HD68 to HD68) 2.5m (8 ft.) (HD68 to HD68)	19P4506 35L1307	5300/9750 5302/9752
7207 - 122 7208 - 345 7329 - 308	2.4m (8 ft.) (HD68 to HD68)	67G1260 (#2768) 19P0279 (#2718)	5224/9224 N/A
7210 - 020	1.0m (3 ft.) (HD68 to LD50)	06H6037	2872/9148
7210 - 025	0.5m (2 ft.) (HD68 to HD68) 0.7m (2 ft.) (HD68 to HD68, Dev to Dev) 2.5m (8 ft.) (HD68 to HD68) 5.0m (16 ft.) (HD68 to HD68)	19P0051 19P0873 35L1307 19P0052	5303 5301/9751 5302/9752 5305/9755

SCSI cables for #5705 (one port) and #5702 PCI-X Ultra Tape Controller (two ports - VHDCI interface)			
Tape drive	Length	Part number	Feature code
3580-L23 3582 Drives #8103, #8203 3583 Drives #8103	2.5m (8 ft.) (VHDCI to HD68) 4.5m (14.5 ft.) (VHDCI to HD68) 10.0m (33 ft.) (VHDCI to HD68) 20.0m (66 ft.) (VHDCI to HD68) 25.0m (82 ft.) (VHDCI to HD68) Interposer VHDCI to HD68	19P0279 19P0050 19P0048 19P0049 35L1977 19P0872	5602 (9703 - 3580) 5604 (9704 - 3583) 5610 5620 5625 5099
3584 Drives #1474	4.5m (14.5 ft.) (VHDCI to VHDCI) 10.0m (33 ft.) (VHDCI to VHDCI) 20.0m (66 ft.) (VHDCI to VHDCI) 25.0m (82 ft.) (VHDCI to VHDCI)	19P2499 09L0881 19P1904 19P2500	5704 5710 5720 5725
7206-VX2 7208-345	1.5m (5 ft.) (VHDCI to HD68) 2.5m (8 ft.) (VHDCI to HD68) 4.5m (14.5 ft.) (VHDCI to HD68) * 10.0m (33 ft.) (VHDCI to HD68) *	19P4508 19P0279 19P0050 19P0048	5601/9761 5602/9762 5604/9764 5610/9760
7207 - 122	1.5m (5 ft.) (VHDCI to HD68) 2.5m (8 ft.) (VHDCI to HD68)	19P4508 19P0279	5601/9761 5602/9762
7210 - 020	1.0m (3 ft.) (HD68 to LD50) also require interposer VHDCI to HD68	06H6037 19P0482	2872/9148 5099
7210 - 025	0.5m (2 ft.) (HD68 to HD68) 0.7m (2 ft.) (HD68 to HD68, Dev to Dev) 2.5m (8 ft.) (HD68 to HD68) 5.0m (16 ft.) (HD68 to HD68) above cables require interposer VHDCI to HD68  0.5m (2 ft.) (VHDCI to HD68) 1.5m (4.5 ft.) (VHDCI to HD68) 2.5m (8 ft.) (VHDCI to HD68) 4.5m (14.5 ft.) (VHDCI to HD68)	19P0051 19P0873 35L1307 19P0052 19P0482  19P4507 19P4508 19P0279 19P0050	5303 5301/9751 5302/9752 5305/9755 5099  5600 5601 5602 5604
* 4.5m and 10.0m cable can be used only if the 7206-VX2 or 7208-345 is the only device on the bus.			

## 8.10 SAN components for iSeries systems

For the latest SAN support information, refer to the following Web sites:

<http://www-1.ibm.com/servers/eserver/series/hardware/storage/san.html>

<http://www.ibm.com/storage/fcswitch>

<http://www.ibm.com/storage/mcdata>

Machine	Description	9406 model
2031-224	<p><b>McDATA Sphereon 4500 Fibre Channel Switch</b></p> <p>The IBM 2031 McDATA Sphereon "Core to Edge" 4500 Fibre Channel Switch Model 224 provides storage consolidation using a high availability and high-port density 1-U high design. The McDATA Sphereon 4500 offers up to 24 non-blocking ports (longwave or shortwave transceivers), providing 1 Gb/second and 2 Gb/second Fibre Channel Arbitrated Loop (FC-AL) and Fabric (FC-SW) operation. The ports are auto-sensing and auto-negotiating, and can be purchased in 8-port increments. The McDATA Sphereon 4500 provides integrated support for full Fabric and FC-AL tape attachment to McDATA core fabric switches and directors. The McDATA Sphereon 4500 is a 1U unit that can be mounted in the McDATA Fabriccenter FC-512 Cabinet (IBM 2032-C40), IBM racks (IBM 7014), or industry standard 19-inch racks.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 2 Gb Fibre Channel, auto-sense for connection to 1 Gb</li> <li>▶ Eight-, 16-, or 24-port, Small Form-Factor Pluggable (SFP)</li> <li>▶ LC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> </ul> <p>Restriction: Open trunking, a feature of McDATA, is currently not supported on iSeries servers.</p> <p><b>#3230</b> Longwave SFP transceivers  <b>#4508</b> Flex-port additional 8-port enablement  <b>#4516</b> Base unit with 16 SW SFP ports enabled  <b>#4524</b> Base unit with 24 SW SFP ports enabled  <b>#4510</b> Sphereon Product Manager  <b>#1800</b> 50 micron SC/SC cable coupler  <b>#1810</b> 10m 50 micron LC/SC fibre cable  <b>#1811</b> 10m 50 micron LC/LC fibre cable</p> <p>Minimum OS/400 level: V5R2</p>	270, 800, 810, 820, 825, 830, 840, 870, 890
2031-232	<p><b>McDATA ES-3232 Fibre Channel Switch</b></p> <p>The IBM 2031 McDATA ES-3232 "Enterprise to Edge" Fabric Switch Model 232 is designed to provide workgroup and departmental Fibre Channel SAN capability. The 2 Gb/second McDATA ES-3232 offers up to 32 non-blocking ports. The minimum configuration contains 16 shortwave ports, while the remaining 16 ports can be configured with either shortwave or longwave transceivers. The McDATA ES-3232 is a 1.5U unit that can be mounted in the McDATA Fabriccenter FC-512 Cabinet (IBM 2032-C40 or 2032-C36), an IBM 2101 or 7014 rack, an industry standard 19-inch rack, or used in a stand-alone table-top configuration. The McDATA ES-3232 is fully compatible with the McDATA ES-3016 (IBM 2031-016) and the McDATA ES-3032 (IBM 2031-032) 1 Gb/second models, as well as the Enterprise Directors, the McDATA ED-6064, and the McDATA ED-5000.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 2 Gb Fibre Channel, auto-sense for connection to 1 Gb</li> <li>▶ Sixteen shortwave ports standard, 16 optional, shortwave or longwave, SFP</li> <li>▶ LC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> </ul> <p>Restriction: Open trunking, a feature of McDATA, is currently not supported on iSeries servers</p>	270, 800, 810, 820, 825, 830, 840, 870, 890



Machine	Description	9406 model
<p>2032-140</p> <p>#1800</p> <p>#1810</p> <p>#1811</p> <p>#3220</p> <p>#3235</p> <p>#6210</p> <p>#6211</p>	<p><b>McDATA Intrepid 6140 Enterprise Fibre Channel Director</b></p> <p>The McDATA Intrepid 6140 supports up to 140 Fibre Channel ports for Open System and FICON attachment. From an initial configuration size of 16 ports, it scales in 4-port increments to 140 ports, all with 12 unit chassis offering a higher density SAN connectivity solution. The McDATA Intrepid 6140 has a 2 Gb Fibre Channel, up to 140 non-blocking Fibre Channel ports, an aggregate bandwidth of up to 28,000 MB/second, high-availability connectivity technology. The McDATA Intrepid 6140 installs in the McDATA Fabriccenter FC-512 Cabinet (IBM 2032-C40).</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 2 Gb Fibre Channel (1 Gb support is offered through McDATA ES3016, ES3032, and ED6064 with a 1 Gb interface card)</li> <li>▶ 16-140 ports configured as 4-35 4-port cards</li> <li>▶ LC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> </ul> <p>Restriction: Open trunking, a feature of McDATA, is currently not supported on iSeries servers.</p> <p>Multimode 50 micron coupler, SC/SC</p> <p>10m multimode 50 micron fibre cable, LC/SC</p> <p>10m multimode 50 micron fibre cable, LC/LC</p> <p>Extended longwave 20 Km transceiver</p> <p>Extended longwave 35 Km transceiver</p> <p>2 Gb Fibre 4-port module with four shortwave transceivers</p> <p>2 Gb Fibre 4-port module with four longwave transceivers</p> <p>Minimum OS/400 level: V5R2</p>	<p>270, 800, 810, 820, 825, 830, 840, 870, 890</p>
<p>2109-F16</p> <p>#2210</p> <p>#2220</p> <p>#5601</p> <p>#5605</p> <p>#5607</p> <p>#5625</p> <p>#5631</p> <p>#5702</p>	<p><b>IBM TotalStorage SAN Switch Model F16</b></p> <p>The IBM 2109 SAN Switch Model F16 includes 16 non-blocking ports, each with full-duplex throughput at either 2 Gb/second or 1 Gb/second, and auto-sensing ports that self-negotiate to the highest speed supported by the attached server, storage device, or switch. Zoning support is included. Hardware zoning is controlled at the port level. Software zoning is controlled at the worldwide name level.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 2 Gb Fibre Channel, auto-sense for connection to 1 Gb</li> <li>▶ Eight shortwave ports standard, eight ports optional by adding shortwave or longwave transceivers</li> <li>▶ LC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> </ul> <p>Restriction: Open trunking, a feature of McDATA, is currently not supported on iSeries servers.</p> <p>Shortwave transceiver</p> <p>Longwave transceiver</p> <p>1m multimode LC/LC fibre cable</p> <p>5m multimode LC/LC fibre cable</p> <p>7m multimode LC/LC fibre cable</p> <p>25m multimode LC/LC fibre cable</p> <p>31m multimode LC/LC fibre cable</p> <p>LC/SC coupling cable</p> <p>Minimum OS/400 level: V5R1, QuickLoop RPQ required<sup>1</sup></p> <p>Minimum OS/400 level for switched fabric support: V5R2</p>	<p>270, 800, 810, 820, 825, 830, 840, 870, 890</p>

Machine	Description	9406 model
<p><b>2109-S08</b></p> <p><b>#2010</b> <b>#2020</b> <b>#5805</b> <b>#5825</b></p>	<p><b>SAN Fibre Channel Switch</b> The IBM 2109 Model S08 is an 8-port SAN Fibre Channel Switch that is used to interconnect multiple host servers with storage servers and devices, creating a SAN.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 1 Gb Fibre Channel</li> <li>▶ Four shortwave ports standard, four ports optional by adding shortwave or longwave GBICs</li> <li>▶ SC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> <li>▶ 9406 feature #0371, LC-SC Adapter Kit (50 micron) required to connect SC cable</li> </ul> <p>Shortwave GBIC Longwave GBIC 5m multimode 50 micron cable (SC-SC) 25m multimode 50 micron cable (SC-SC)</p> <p>Minimum OS/400 level: V5R1, QuickLoop RPQ required<sup>1</sup></p>	<p>270, 800, 810, 820, 825, 830, 840, 870, 890</p>
<p><b>2109-S16</b></p> <p><b>#2010</b> <b>#2020</b> <b>#5805</b> <b>#5825</b></p>	<p><b>SAN Fibre Channel Switch</b> The IBM 2109 Model S16 is a 16-port SAN Fibre Channel Switch that is used to interconnect multiple host servers with storage servers and devices, creating a SAN.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 1 Gb Fibre Channel</li> <li>▶ Four shortwave ports standard, 12 ports optional by adding shortwave or longwave GBICs</li> <li>▶ SC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> <li>▶ 9406 feature #0371, LC-SC Adapter Kit (50 micron) required to connect SC cable</li> </ul> <p>Shortwave GBIC Longwave GBIC 5m multi-mode 50 micron cable (SC-SC) 25m multi-mode 50 micron cable (SC-SC)</p> <p>Minimum OS/400 level: V5R1, QuickLoop RPQ required<sup>1</sup></p>	<p>270, 800, 810, 820, 825, 830, 840, 870, 890</p>
<p><b>3534-F08</b></p> <p><b>#2210</b> <b>#2220</b> <b>#5601</b> <b>#5605</b> <b>#5625</b> <b>#5701</b> <b>#5702</b> <b>#7320</b></p>	<p><b>IBM TotalStorage SAN Model F08</b> The IBM 3434 SAN Switch Model F08 is an 8-port Fibre Channel switch. It is designed to provide 2 Gb/second Fibre Channel port-to-port throughput with auto-sensing capability for connection to existing 1 Gb/second host servers, storage and switches in a 1U form factor. The F08 is fully interoperable with the IBM TotalStorage 2109 Models S08, S16, and F16 SAN Switches.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 2 Gb Fibre Channel, auto-sense for connection to 1 Gb</li> <li>▶ Four shortwave ports standard, four ports optional by adding shortwave or longwave transceivers</li> <li>▶ LC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> </ul> <p>Shortwave transceiver Longwave transceiver 1m multimode LC/LC fibre cable 5m multimode LC/LC fibre cable 25m multimode LC/LC fibre cable SC (male)/LC (female) coupling cable LC (male)/SC (female) coupling cable Full Fabric Activation - <i>required for zoning</i></p> <p>Minimum OS/400 level: V5R1, QuickLoop RPQ required<sup>1</sup> Minimum OS/400 level for switched fabric support: V5R2</p>	<p>270, 800, 810, 820, 825, 830, 840, 870, 890</p>

Machine	Description	9406 model
3534-1RU	<p><b>SAN Fibre Channel Managed Hub</b></p> <p>The 3534-1RU Managed Hub is used to attach network devices to fiber-based transmission systems such as Fibre Channel and gigabit Ethernet. It converts the serial electrical signals to serial optical signals and serial optical signals to serial electrical signals. The managed hub is designed for implementing multinode server clusters and storage systems for high availability and disaster recovery solutions.</p> <p><b>Highlights:</b></p> <ul style="list-style-type: none"> <li>▶ 1 Gb Fibre Channel</li> <li>▶ Seven shortwave ports standard, one port optional by adding shortwave or longwave GBIC</li> <li>▶ SC connections</li> <li>▶ For use with the iSeries #2765 and #2766 Fibre Channel Controllers (LC connections)</li> <li>▶ 9406 feature #0371, LC-SC Adapter Kit (50 micron) required to connect SC cable</li> </ul> <p>#2010 Shortwave GBIC  #2020 Longwave GBIC  #5805 5m multimode 50 micron cable (SC-SC)  #5825 25m multimode 50 micron cable (SC-SC)</p> <p>Minimum OS/400 level: V5R1</p>	270, 800, 810, 820, 825, 830, 840, 870, 890
<p><b>Notes:</b></p> <p>1. The QuickLoop RPQ (8S0521) provides the firmware that enables devices connected to ports of the switch to be handled as private loop devices. QuickLoop creates a unique Fibre Channel topology that allows host bus adapters (such as the #2765 and #2766 with V5R1) that use FC-AL without knowledge of SAN fabric, to communicate with FC-AL storage devices. QuickLoop allows individual switch ports to be designated as arbitrated loop ports, allowing a private host initiator to communicate with arbitrated loop storage devices as though they were all contained in one logical loop.</p>		

## 8.11 Communication cable part numbers for iSeries and AS/400e systems

Use these part numbers to order cables for the iSeries and AS/400e models. These part numbers may not be available in all countries or regions, or on all models and can change. For a complete list of iSeries cables, see the iSeries Information Center at:

<http://publib.boulder.ibm.com/pubs/html/as400/infocenter.htm>

After you reach the Information Center, on the left-hand panel, click the **Plan for hardware and software** option. On the right-hand page, scroll down and click the **Cables** link under Planning reference. On the Plan for cables page, scroll down and click the **All cables** link.

Description	Length	Part number	Feature code
<b>SPD communication cables non-enhanced</b>			
RS232 Cable	6.1m (20 ft.)	22F0149	#9022
RS232 Cable - Germany	6.1m (20 ft.)	22F0150	#9022
RS232 Cable - Japan	6.1m (20 ft.)	22F0151	#9022
RS232 Cable	15.2m (50 ft.)	22F9348	#9836
RS232 Cable - Germany	15.2m (50 ft.)	21F9953	#9836
RS232 Cable - Japan	15.2m (50 ft.)	21F9349	#9836
RS366 Cable	6.1m (20 ft.)	72X5643	#9840
RS366 Cable - Japan	6.1m (20 ft.)	21F4415	#9840

<b>SPD communication cables enhanced</b>			
V.24 Cable	6.1m (20 ft.)	22F0152	#9023
V.24 Cable - Germany	6.1m (20 ft.)	22F0153	#9023
V.24 Cable - Japan	6.1m (20 ft.)	22F0154	#9023
V.24 Cable	15.2m (50 ft.)	21F9350	#9835
V.24 Cable - Germany	15.2m (50 ft.)	21F9352	#9835
V.24 Cable - Japan	15.2m (50 ft.)	21F9351	#9835
V.24 Cable	24.2m (80 ft.)	74F1837	#9869
<b>Other SPD communication cables</b>			
V.35 Cable	6.1m (20 ft.)	72X5641	#9020
V.35 Cable	15.2m (50 ft.)	21F9357	#9838
V.35 Cable	24.4m (80 ft.)	74F1839	#9870
X.21 Cable	6.1m (20 ft.)	72X5640	#9021
X.21 Cable	15.2m (50 ft.)	21F9356	#9839
2 Port Communication Cable	3m (10 ft.)	21F9345	#9843
<b>#2666 High-Speed Communications Adapter (SPD)</b>			
RS449 Cable	6.1m (20 ft.)	17G4000	#9882
RS449 Cable	24.4m (80 ft.)	17G4001	#9883
RS449 Cable	45.7m (150 ft.)	17G4002	#9884
V.35 Cable	6.1m (20 ft.)	17G3991	#9879
V.35 Cable	24.4m (80 ft.)	17G3992	#9880
X.21 Cable	6.1m (20 ft.)	17G3987	#9885
<b>PCI/SPD miscellaneous server cables</b>			
BBU Cable	2.4m (8 ft.)	86G7712	#5144
Diskette Cable	2.4m (8 ft.)	46G3658	#9886
Diskette/Twinaxial Cable	2.4m (8 ft.)	46G3585	#9887
Ethernet Cable	3.0m (10 ft.)	86G7691	#9025
Token Ring Cable	2.4m (8 ft.)	6339098	#9024
<b>PCI Communication Cables for Models 150, 600, S10, 620, S20, 720, 250, 270, 820, 830, SB2, 840, SB3, and 890</b>			
RS232 Cable	6.1m (20 ft.)	44H7480	#0348
RS232 Cable - Germany	6.1m (20 ft.)	44H7482	#0348
RS232 Cable - Japan	6.1m (20 ft.)	44H7484	#0348
V.24 Cable	6.1m (20 ft.)	44H7486	#0350
V.24 Cable	6.1m (20 ft.)	44H7489	#0350
V.24 Cable	6.1m (20 ft.)	44H7492	#0350
V.35 Cable	6.1m (20 ft.)	44H7495	#0353
V.36 Cable	6.1m (20 ft.)	44H7498	#0356
X.21 Cable	6.1m (20 ft.)	44H7501	#0359
Client Access Console Cable	6.1m (20 ft.)	44H7504	#0362
Operations Console Cable	6.1m (20 ft.)	97H7557	#0367
Remote Control Panel Cable	6.1m (20 ft.)	97H7591	#0381
<b>PCI Communication Cables for Models 170, 600, S10, 620, S20, 720, 250, 270, 820, 830, SB2, 840, SB3, and 890</b>			
RS232 Cable	15.2m (50 ft.)	44H7481	#0349
RS232 Cable - Germany	15.2m (50 ft.)	44H7483	#0349
RS232 Cable - Japan	15.2m (50 ft.)	44H7485	#0349
V.24 Cable	15.2m (50 ft.)	44H7487	#0351
V.24 Cable - Germany	15.2m (50 ft.)	44H7490	#0351
V.24 Cable - Japan	15.2m (50 ft.)	44H7493	#0351
V.24 Cable	24.4m (80 ft.)	44H7488	#0352
V.24 Cable - Germany	24.4m (80 ft.)	44H7491	#0352
V.24 Cable - Japan	24.4m (80 ft.)	44H7494	#0352
V.24 Cable	24.4m (80 ft.)	97H7386	#0365
V.24 Cable - Germany	24.4m (80 ft.)	97H7387	#0365
V.24 Cable - Japan	24.4m (80 ft.)	97H7388	#0365
V.35 Cable	15.2m (50 ft.)	44H7496	#0354
V.35 Cable	24.4m (80 ft.)	44H7497	#0355

<b>PCI Communication Cables for Models 170, 600, S10, 620, S20, 720, 250, 270, 820, 830, SB2, 840, SB3, and 890 (cont.)</b>			
V.36 Cable	15.2m (50 ft.)	44H7499	#0357
V.36 Cable	45.7m (150 ft.)	44H7500	#0358
X.21 Cable	15.2m (50 ft.)	44H7502	#0360
<b>SPD Communication Cables for Models 6x0, Sx0, and SB1</b>			
RS232 Cable	6.1m (20 ft.)	21H3764	#0330
RS232 Cable - Germany	6.1m (20 ft.)	21H3765	#0330
RS232 Cable - Japan	6.1m (20 ft.)	21H3766	#0330
RS232 Cable	15.2m (50 ft.)	21H3767	#0331
RS232 Cable - Germany	15.2m (50 ft.)	21H3768	#0331
RS232 Cable - Japan	15.2m (50 ft.)	21H3769	#0331
V.24 Cable	6.1m (20 ft.)	21H3770	#0332
V.24 Cable - Germany	6.1m (20 ft.)	21H3771	#0332
V.24 Cable - Japan	6.1m (20 ft.)	21H3772	#0332
V.24 Cable	15.2m (50 ft.)	21H3773	#0333
V.24 Cable - Germany	15.2m (50 ft.)	21H3774	#0333
V.24 Cable - Japan	15.2m (50 ft.)	21H3775	#0333
V.24 Cable	24.4m (80 ft.)	21H3776	#0334
V.24 Cable - Germany	24.4m (80 ft.)	21H3777	#0334
V.24 Cable - Japan	24.4m (80 ft.)	21H3778	#0334
V.35 Cable	6.1m (20 ft.)	21H3787	#0335
V.35 Cable	15.2m (50 ft.)	21H3788	#0336
V.35 Cable	45.7m (150 ft.)	21H3789	#0337
V.36 Cable	6.1m (20 ft.)	21H3783	#0341
V.36 Cable	6.1m (20 ft.)	21H3792	#0338
V.36 Cable	15.2m (50 ft.)	21H3785	#0339
X.21 Cable	24.4m (80 ft.)	21H3786	#0340
X.21 Cable	15.2m (50 ft.)	21H3779	#0342
Client Access Console Cable	6.1m (20 ft.)	21H3782	#0344
Operations Console Cable	6.1m (20 ft.)	97H7556	#0328
Remote Control Panel Cable	6.1m (20 ft.)	97H7584	#0380
Client Access Console Cable	6m (20 ft.)	46G0450	#9026
Client Access Console Cable	2.5m (8 ft.)	46G0479	#9027
<b>Modem (telephone) Cables for #9771 Base PCI Two-Line WAN with integrated modem, #2761 PCI Integrated Analog Modem, and #4761 PCI Integrated Analog Modems</b>			
Modem Cable - Africa	9.1m (30 ft.)	21H4904	#1012
Modem Cable - Australia	9.1m (30 ft.)	75G3807	#1019
Modem Cable - Austria	9.1m (30 ft.)	21H4902	#1010
Modem Cable - Belgium	9.1m (30 ft.)	21H4903	#1011
Modem Cable - Denmark	9.1m (30 ft.)	75G3812	#1024
Modem Cable - Finland/Norway	9.1m (30 ft.)	75G3809	#1021
Modem Cable - France	9.1m (30 ft.)	75G3803	#1015
Modem Cable - Germany	9.1m (30 ft.)	75G3804	#1016
Modem Cable - China (Hong Kong S.A.R.)/New Zealand	9.1m (30 ft.)	75G3808	#1020
Modem Cable - Iceland/Sweden	9.1m (30 ft.)	87G6236	#1018
Modem Cable - Israel	9.1m (30 ft.)	21H4905	#1013
Modem Cable - Italy	9.1m (30 ft.)	75G3802	#1014
Modem Cable - Netherlands	9.1m (30 ft.)	75G3810	#1022
Modem Cable - Switzerland	9.1m (30 ft.)	75G3811	#1023
Modem Cable - United Kingdom	9.1m (30 ft.)	75G3805	#1017
Modem Cable - U.S./Canada	9.1m (30 ft.)	787G623	#1025



## Customer Card Identification Numbers

The following list contains the Customer Card Identification Number (CCIN), feature code, and description for many iSeries and AS/400 features. It assists customers and IBM personnel in configuring MESes and upgrades. It provides a cross reference for the CCIN number reported by the Hardware Resources Listing with a feature code used for ordering.

The CCIN number is used when working from a Hardware Resource Listing. The Hardware Resource listing is also known as the Rack Configuration Listing. The entries selected are those which are most useful when interpreting Hardware Resource Listings.

See Chapter 10, “Feature codes” on page 303, for a list of CCIN numbers sorted by feature code. The feature code is used by marketing to report configurations and work with upgrades.

CCIN	Feat. Code	Description
0032	0381	0381 Remote Control Panel Cable
0121	0121	#0121 Lower Unit in Rack Specify
0122	0122	#0122 Upper Unit in Rack Specify
0297	0297	Model 250 Package - 2295
0298	0298	Model 250 Package - 2296
0329	0329	V.24/EIA232 80-ft. Cable
032A	0327	Operations Console Cable
032B	0328	Operations Console Cable
032C	0367	Operations Console PCI Cable
032D	0380	Remote Control Panel Cable
0330	0330	V.24/EIA232 20-ft. Cable
0331	0331	V.24/EIA232 50-ft. Cable
0332	0332	V.24/EIA232 20-ft. Enh Cable
0333	0333	V.24/EIA232 50-ft. Enh Cable
0334	0334	V.24/EIA232 80-ft. Enh Cable
0335	0335	V.36/EIA449 20-ft. Cable
0336	0336	V.36/EIA449 50-ft. Cable
0337	0337	V.36/EIA449 150-ft. Cable
0338	0338	V.35 20-ft. Cable
0339	0339	V.35 50-ft. Cable
0340	0340	V.35 80-ft. Cable
0341	0341	X.21 20-ft. Cable
0342	0342	X.21 50-ft. Cable
0344	0344	20-ft. Comm Console Cable
0348	0348	V.24/EIA232 20-ft. PCI Cable
0349	0349	V.24/EIA232 50-ft. PCI Cable
0350	0350	V.24/EIA232 20-ft. E PCI Cable
0351	0351	V.24/EIA232 50-ft. E PCI Cable
0352	0352	V.24/EIA232 80-ft. E PCI Cable
0353	0353	V.35 20-ft. PCI Cable
0354	0354	V.35 50-ft. PCI Cable
0355	0355	V.35 80-ft. PCI Cable
0356	0356	V.36 20-ft. PCI Cable
0357	0357	V.36 50-ft. PCI Cable
0358	0358	V.36 150-ft. PCI Cable
0359	0359	X.21 20-ft. PCI Cable
0360	0360	X.21 50-ft. PCI Cable
0362	0362	Comm Console PCI Cable
0364	0364	Parallel Cable
0365	0365	V.24/EIA232 80-ft. PCI Cable
0380	0380	Remote Control Panel Cable
0381	0381	Remote Control Panel Cable
0382	0382	Remote Control Panel Cable
0383	0383	Remote Control Panel Cable
0446	0446	512 MB DDR Server Memory
0446	0426	512 MB Server Memory
0446	9726	Base 512 MB Server Memory
0447	0447	1 GB DDR Server Memory
0447	0427	1 GB Server Memory
1468	1468	250m Optical SPCN Cable
1469	1468	4.3m/200V/25A HD Wired EMEA
2010	2010	1.6 SPPR CPU for Model 20S
2030	2030	0.7 SPPR CPU for Model 200
2031	2031	1.1 SPPR CPU for Model 200

CCIN	Feat. Code	Description
2032	2032	1.6 SPPR CPU for Model 200
2040	2040	1.1 SPPR Processor
2041	2041	1.6 SPPR Processor
2042	2042	2.0 SPPR Processor
2043	2043	3.0 SPPR Processor
2044	2044	5.0 SPPR Processor
2050	2050	6.4 SPPR Processor
2051	2051	11.4 SPPR Processor
2052	2052	16.8 SPPR Processor
2058	4805	PCI Crypto Accelerator
2100	2100	2.3 SPPR CPU for Model 236
2102	2102	2.2 SPPR CPU for 436
2104	2104	2.8 SPPR CPU for 436
2106	2106	5.2 SPPR CPU for 436
2109	2109	2.2 SPPR CPU for Model 40S
2110	2110	2.8 SPPR CPU for Model 40S
2111	2111	Model 40S Processor
2112	2112	Model 40S Processor
2118	2118	Model S10 Processor
2119	2119	Model S10 Processor
2120	2120	5.2 SPPR CPU for Model 50S
2121	2121	7.0 SPPR CPU for Model 50S
2122	2122	Model 50S Processor
2129	2129	Model 600 Processor
2130	2130	1.0 SPPR CPU for Model 400
2131	2131	1.5 SPPR CPU for Model 400
2132	2132	2.2 SPPR CPU for Model 400
2133	2133	2.8 SPPR CPU for Model 400
2134	2134	Model 600 Processor
2135	2135	Model 600 Processor
2136	2136	Model 600 Processor
2140	2140	1.5 SPPR CPU for Model 500
2141	2141	2.2 SPPR CPU for Model 500
2142	2142	3.0 SPPR CPU for Model 500
2143	2143	5.2 SPPR CPU for Model 510
2144	2144	7.0 SPPR CPU for Model 510
2150	2150	9.0 SPPR CPU for Model 530
2151	2151	12 SPPR CPU for Model 530
2151	2152	18.4 SPPR CPU for Model 530
2153	2153	28 SPPR CPU for Model 530
2154	2154	12 SPPR CPU for Model 53S
2155	2155	18.4 SPPR CPU for Model 53S
2156	2156	28 SPPR CPU for Model 53S
2157	2157	Model 53S 4-way Processor
2159	2159	Model 170 Processor
2160	2160	Model 170 Processor
2161	2161	Model S20 Processor
2162	2162	Model 530 4-way Processor
2163	2163	Model S20 Processor
2164	2164	Model 170 Processor
2165	2165	Model S20 2-way Processor
2166	2166	Model S20 4-way Processor
2170	2170	Model S20 2 W ISV Processor
2175	2175	Model 620 Processor
2176	2176	Model 170 Processor
2177	2177	Model S20 4-w ISV Processor
2178	2178	Model S20 4-w ISV Processor
2179	2179	Model 620 Processor

CCIN	Feat. Code	Description
2180	2180	Model 620 Processor
2181	2181	Model 620 Processor
2182	2182	Model 620 2-way Processor
2183	2183	Model 170 Processor
2185	2185	Model 640 Processor
2186	2186	Model 640 2-way Processor
2187	2187	Model 640 4-way Processor
2188	2188	Model 650 8 Way Processor
2189	2189	Model 650 12 Way Processor
2200	2200	Model 600 Processor
2203	2203	Model S30 Processor
2204	2204	Model S30 2-way Processor
2205	2205	Model S30 4-way Processor
2206	2206	Model S30 8-way Processor
2207	2207	Model S40 8 Way Processor
2208	2208	Model S40 12 Way Processor
2211	2211	Model 600 Processor
2212	2212	Model 600 Processor
2213	2213	Model 600 Processor
2223	2223	Model S20 4-way Processor
2228	2228	Model 620 Processor
2230	2230	Model 620 Processor
2231	2231	Model 620 Processor
2232	2232	Model 620 Processor
2233	2233	Model 620 2-way Processor
2234	2234	Model 620 4-way Processor
2211	2211	Model 600 Processor
2237	2237	Model 640 Processor
2238	2238	Model 640 2-way Processor
2239	2239	Model 640 4-way Processor
2240	2240	Model 650 8-way Processor
2243	2243	Model 650 12-way Processor
2256	2256	Model S40 8-way Processor
2257	2257	Model S30 Processor
2258	2258	Model S30 2-way Processor
2259	2259	Model S30 4-way Processor
2260	2260	Model S30 8-way Processor
2261	2261	Model S40 12-way Processor
2269	2269	Model 150 Processor
2270	2270	Model 150 Processor
2289	2289	Model 170 Processor
2290	2298	Model 170 Proc Package 64 MB
2290	2290	Model 170 Processor
2291	2291	Model 170 Processor
2291	2299	Model 170 Proc Package 64 MB
2292	2292	Model 170 Processor
2295	0297	Model 250 Package
2295	2295	Model 250 Processor
2296	0298	Model 250 package
2296	2296	Model 250 Processor
2310	2310	Model SB1 8-way Processor
2311	2311	Model SB1 12-way Processor
2312	2312	Model SB1 8 Way Processor
2313	2313	Model SB1 12 Way Processor
2320	2320	Model S30 4-w ISV Processor
2321	2321	Model S30 8-w ISV Processor

CCIN	Feat. Code	Description
2322	2322	Model S30 8-w ISV Processor
2324	2324	Model S30 4-way Processor
2325	2325	Model S30 8-way Processor
2326	2326	Model S30 8-way Processor
2328	2328	Model S20 ISV Processor
2329	2329	Model S20 Processor
2330	2330	Model S20 2-way Processor
2331	2331	Model S20 4-way Processor
2340	2340	Model S40 12 Way Processor
2341	2341	Model S40 ISV 12-w Processor
2383	2383	Model 170 Processor
2384	2384	Model 170 Processor
2385	2385	Model 170 Processor
2386	2386	Model 170 Processor
2387	2387	Model S20 Processor
2388	2388	Model 170 2 Way Processor
2389	2389	Model S20 Processor
2390	2390	Model S20 Processor
2391	2391	Model S20 2-way Processor
2392	2392	Model S20 4-way Processor
2410	2410	100 Client Server Processor
2411	2411	3.0 SPPR Processor
2412	2412	6.1 SPPR Processor
2515	2515	C10 Floating Pt Processor
2516	2516	C20 Floating Pt Processor
2523	2523	D80 Processor
2525	2525	D02 Processor
2528	2528	16.8 SPPR CPU for Model F97
2530	2530	E04 Processor
2531	2413	E06 Processor
2533	2533	E20 Processor
2534	2534	E25 Processor
2536	2536	E35 Processor
2537	2537	E45 Processor
2539	2539	E02 TWINAXIAL
2540	2540	0.7 SPPR CPU for Model D35
2541	2541	D45 Processor
2542	2542	D50 Processor
2543	2543	D60 Processor
2544	2544	D70 Processor
2552	2552	C06 Processor
2553	2553	D06 Processor
2554	2554	D04 Processor
2555	2555	D10 Processor
2556	2556	D20 Processor
2557	2557	D25 Processor
2558	2558	C04 Processor 8MB
2559	2559	E50 Processor
2560	2560	E60 Processor
2561	2561	E70 Sort Processor
2562	2562	E80 Sort Processor
2563	2563	E90 (2way) Sort
2568	2568	E95 (2way) Sort
2582	2582	F06 Processor
2583	2583	F25 Processor
2584	9584	ASCII Workstation Controller
2585	2414	F02 Processor

CCIN	Feat. Code	Description
2585	9585	Twinaxial Workstn Controller
2586	2586	0.7 SPPR for F04
2587	2587	F10 Processor
2588	2588	F20 Processor
2592	2592	F35 Processor
2593	2593	F45 Sort Processor
2594	2594	F50 Processor
2595	2595	F60 Sort Processor
2596	2596	F70 Processor 1-way
2597	2597	F80 Processor 2-way
2598	2598	F90 Processor 2-way
259A	2599	F95 Processor 2-way
2600	2600	Magnetic Storage Controller
2601	2601	9346 Mag Tape Unit Controller
2602	2602	Processor Expansion
2602	2607	9348 Mag Tape Unit Attach
2604	2604	3422 3430 Mag Tape Subsys
2605	2605	ISDN Basic Rate Adapter
2608	2608	2440/9348 HCD Mag Tape Att
2609	2609	EIA 232/V.24 Two-Line Adapt
2609	8863	EIA 232/V.24 Two line 20E
2609	8866	EIA 232/V.24 Two line 50E
2609	2658	EIA 232/V.24 Two-Line 50
2609	2655	EIA 232/V.24 Two-Line 20
2609	2657	EIA 232/V.24 Two-Line 50E
2609	2654	EIA 232/V.24 Two-Line 20E
2610	2659	X.21 Two-Line 50
2610	2610	X.21 Two-Line Adapter
2610	2656	X.21 Two-Line 20
2611	2611	DASD Controller
2612	2612	EIA 232/V.24 One-Line Adapt
2612	9612	Std EIA 232/V.24 1-Line/Ad
2613	2613	V.35 One-Line Adapter
2614	2614	X.21 One-Line Adapter
2617	2617	Ethernet/IEEE 802.3 CSMA/CD
2617	9617	Base Ethernet IOP
2618	2618	Fiber Distributed Data Adapt
2618	8664	Opt Base Fiber DD Intf
2619	2619	16/4 Mbps Token-Ring Adapter
2619	9619	Base 16/4 Mbps Token-Ring IOP
2620	2620	Cryptographic Processor
2621	2621	Removable Media Device Attach
2622	2622	3490 Magnetic Tape Attach
2623	9623	Std Six Line Comm Cntrlr
2623	2623	Six-Line Comm Controller
2624	2624	Storage Device Controller
2624	9624	Store Device Control Spec
2625	2625	Ethrnnet/IEEE 802.3 CSMA/CD
2626	2626	16/4Mbps Token-Ring Adapt/A
2628	2628	Cryptographic Processor-Comm
2629	2629	LAN/WAN/Workstation IOP
2630	8505	I/O Card Unit Conversion
2634	2634	16/4 Mbps Token-Ring Adpt
2636	2636	16/4 Mbps Token-Ring Adpt
2637	9144	ASCII Workstation Controller

CCIN	Feat. Code	Description
2637	9150	Std MFIOP/ASCII WSC
2637	9147	Std MFIOP/ASCII WSC
2638	9146	Std MFIOP/TWINAXIAL WSC
2644	2644	34xx Magnetic Tape Attachment
2647	2647	9348 Model 2 Tape Attachment
2651	9651	Storage Device Controller
2654	8609	EIA 232/V.24 Two-Line
2654	9609	Std EIA 232/V.24 2-line
2661	9148	Std MFIOP/Twinaxial WSC
2661	9151	Std MFIOP/Twinaxial WSC
2661	9172	TWINAXIAL MFIOP
2663	2663	I/O Attachment Processor
2664	2664	Integrated Fax Adapter
2665	8665	Opt Base Shielded DD Intf
2665	2665	Copper Dist Data Interface
2666	2666	Frame Relay Adapter
2668	2668	AS/400 Wireless LAN Adapter
2669	2669	Shared Bus Interface Card
2670	2670	Sys Unit Exp Tower (optical)
2671	2671	PCI Bus IOP
2672	2672	PCI Bus IOP
2673	2673	Optical Bus Adapter
2673	9673	Std Optical Bus Adapter
2674	2674	Optical Bus Adapter
2680	2680	Optical Bus Receiver-266Mbps
2682	2682	Optcl Bus Rcvr (1063 Mbps)
2683	2683	266 Mbps OptiConnect Receiver
2685	2685	1063 Mbps OptiConnect Receive
2686	2686	Optical Link Processor (266 Mbps)
2688	2688	Optical Link Processor (1063 Mbps)
2691	2691	Opt Bus Adapt w/Token Ring
2692	2692	Opt Bus Adapt w/Ethernet
2693	2693	Opt Bus Adapt w/Token Ring
2694	2694	Opt Bus Adapt w/Ethernet
2695	2695	Optical Bus Adapter
2696	9696	Base Optical Bus Adapter
2699	9699	Base Two-Line WAN IOA
2699	2699	Two-Line WAN IOA
2705	2705	M1 Filler Tray
2706	2706	M2 Terminator Tray
2713	2713	SPD I/O Regulator
2715	2715	Processor/Memory Regulator
2718	2718	PCI Magnetic Media Controller
2720	2720	PCI WAN/Twinaxial IOA
2720	9720	Base PCI WAN/Twinaxial IOA
2721	2721	PCI Two-Line WAN IOA
2721	9721	Base PCI Two-Line WAN IOA
2722	2722	PCI Twinaxial Workstn IOA
2723	2723	PCI Ethernet IOA
2723	4723	PCI 10Mbps Ethernet IOA
2723	9723	Base Ethernet IOA
2724	2724	PCI 16/4Mbps Token-Ring IOA

CCIN	Feat. Code	Description
2724	9724	Base 16/4Mbps Token-Ring IOA
2726	2726	PCI RAID Disk Unit Controller
2728	9728	Base PCI Disk Unit Controller
2729	2729	PCI Magnetic Media Controller
2730	2730	Programmable Regulator
2735	2735	Optical Bus Adapter
2736	2736	Optical Bus Adapter
2739	9739	Base Optical Bus Adapter
2739	2739	Optical Bus Adapter
2740	9740	Base PCI RAID Disk Unit Controller
2740	2740	PCI RAID Disk Unit Controller
2741	2741	PCI RAID Disk Unit Controller
2742	2742	PCI Two-Line WAN IOA
2743	2743	PCI 1 Gbps Ethernet IOA
2744	2744	PCI 100 Mbps Token-Ring IOA
2745	4745	PCI Two-Line WAN IOA
2745	2745	PCI Two-Line WAN IOA
2745	9745	Base PCI Two-Line WAN IOA
2745	0398	Operations Console Package
2746	4746	PCI Twinaxial Workstn IOA
2746	2746	PCI Twinaxial Workstn IOA
2746	9746	Base PCI Twinaxial Wrkstn IOA
2748	9748	Base PCI Disk Unit Controller
2748	4748	PCI RAID Disk Unit Controller
2748	2748	PCI RAID Disk Unit Controller
2749	2749	PCI Ultra Mag Media Controller
2750	4750	PCI ISDN BRI U IOA
2750	2750	PCI ISDN BRI U IOA
2751	4751	PCI ISDN BRI S/T IOA
2751	2751	PCI ISDN BRI S/T IOA
2760	2760	PCI 1 Gbps Ethernet UTP IOA
2761	2761	PCI Integrated Analog Modem
2761	4761	PCI Integrated Analog Modem
2763	2763	PCI RAID Disk Unit Controller
2765	2765	PCI Fibre Channel Tape Controller
2766	2766	PCI Fibre Channel Disk Controller
2767	9767	Base PCI Disk Unit Controller
2768	2768	PCI Magnetic Media Controller
2771	9771	Base PCI 2-Line WAN w/Modem
2772	2772	PCI Dual WAN/Modem IOA
2772	2773	PCI Dual WAN/Modem IOA(ANSI)
2778	2778	PCI RAID Disk Unit Controller
2778	4778	PCI RAID Disk Unit Controller
2778	9778	Base PCI RAID Disk Unit Controller
2793	2793	PCI 2-Line WAN w/Modem
2793	2794	PCI 2-Line WAN w/Modem (CIM)
2793	9794	Base PCI 2-Line WAN w/Modem

CCIN	Feat. Code	Description
2793	9793	Base PCI 2-Line WAN w/Modem
2799	2799	#2799 PCI Integrated xSeries Server
2800	9800	Internal Disk Unit (640 MB)
2801	9801	Internal Disk Unit (1 GB)
2801	2801	1.96 GB Internal Disk Unit
2802	2802	2.0 GB Internal Disk Unit
2802	9802	Std 2.0 GB Int Disk Unit
2805	2805	PCI Quad Modem IOA
2805	2806	PCI Quad Modem IOA (CIM)
2809	2809	PCI LAN/WAN/Workstation IOP
2810	2810	LAN/WAN IOP
2811	2811	PCI 25 Mbps UTP ATM
2812	2812	PCI 45 Mbps Coax T3/DS3 ATM
2813	2813	PCI 155 Mbps MMF ATM
2813	2814	PCI 100 Mbps MMF ATM
2815	4815	PCI 155 Mbps UTP OC3 ATM
2815	2815	PCI 155 Mbps UTP OC3 ATM
2816	2816	PCI 155 Mbps MMF ATM
2816	4816	PCI 155 Mbps MMF ATM
2817	2817	PCI 155 Mbps MMF ATM
2818	4818	PCI 155 Mbps SMF OC3 ATM
2818	2818	PCI 155 Mbps SMF OC3 ATM
2819	2819	PCI 34 Mbps Coax E3 ATM
2824	2824	PCI LAN/WAN/Workstation IOP
2830	2830	Main Storage Expansion
2838	4838	PCI 100/10 Mbps Ethernet IOA
2838	9738	Base PCI 100/10Mbps Ethernet
2838	2838	PCI 100/10 Mbps Ethernet IOA
283F	7133	DASD Concurrent Maint Cage
283F	7123	DASD Expansion Unit
283F	7127	DASD Expansion Unit
2842	2842	PCI IOP
2843	9943	Base PCI IOP
2843	2843	PCI IOP
2844	9844	Base PCI IOP
2844	2844	PCI IOP
2849	9749	Base PCI 100/10 Ethernet IOA
2849	2849	PCI 100/10 Mbps Ethernet IOA
284A	_PCI	IOP Embedded
284B	_PCI	IOP Embedded
284C	_PCI	IOP Embedded
284D	_PCI	IOP Embedded
284E	_PCI	IOP Embedded
2850	2868	PCI Integ Netfinity Server
2850	2850	Integrated PC Server 32 MB
2850	2857	PCI Integrated PC Server
2850	2851	PCI Integrated PC Server
2850	2866	PCI Integ Netfinity Server
2850	2865	PCI Integ Netfinity Server
2850	2852	PCI Integrated PC Server
2850	2854	PCI Integrated PC Server
2850	2858	FSIOA 128MB MEM KEYBOARD MOUSE



CCIN	Feat. Code	Description
2853	2853	3450 .66m sys to dev cable
2855	2855	3450 1.2m sys to dev cable
2856	2856	3450 1.2m sys to dev cable
2860	2860	16 MB IOP Memory
2861	2861	32 MB IOP Memory
2862	2862	128 MB IOP Memory
2863	2863	8 MB Addtnl Cache Memory
2864	2864	32 MB Addtnl Cache Memory
2867	2867	256 MB IOP Memory
286C	_PCI	IOP Embedded
286D	_PCI	IOP Embedded
286F	_PCI	IOP Embedded
2881	2881	Main Storage Expansion
2884	2884	Main Storage Expansion
2886	2886	Optical Bus Adapter
2886	9886	Base Optical Bus Adapter
2890	2799	PCI Integ xSeries Server
2890	2891	PCI Integ xSeries Server
2890	2890	PCI Integ Netfinity Server
2890	2899	PCI Integ xSeries Server
2890	2791	PCI Integ xSeries Server
2890	2790	PCI Integ Netfinity Server
2892	2792	PCI Integ xSeries Server
2892	2892	PCI Integ xSeries Server
2892	9792	Base PCI Integ xSeries Srvr
2892	4710	PCI Integ xSeries Server
2892	4810	PCI Integ xSeries Server
2895	2795	128 MB Server Memory
2895	2895	128 MB Server Memory
2896	2896	256 MB Server Memory
2896	2796	256 MB Server Memory
2897	2797	1 GB Server Memory
2897	2897	1 GB Server Memory
28BC	7124	DASD Expansion Unit - 5 slot
28CD	7136	DASD Expansion Unit - 6 slot
28CD	7137	DASD Concurrent Maintenance
3001	3001	32 MB Main Storage
3002	3062	128 MB Main Storage
3002	3000	Migrated 128 MB Main Storage
3002	3002	128 MB Main Storage
3003	3003	256 MB Main Storage
3004	3004	256 MB Main Storage
3004	3064	256 MB Main Storage
3005	3005	512 MB Main Storage
3005	3065	512 MB Main Storage
3006	3006	512 MB Main Storage
3006	3066	512 MB Main Storage
3007	3067	1 GB Main Storage
3007	3007	1 GB Main Storage
3009	3009	128 MB Main Storage
3015	3015	8 GB Main Storage
3016	3016	8 GB Main Storage
3017	3017	32 GB Main Storage
3018	3018	32 GB Main Storage
3020	3020	4 GB Main Storage
3021	3021	4 GB Main Storage
3022	3022	128 MB Main Storage

CCIN	Feat. Code	Description
3024	3024	256 MB Main Storage
3025	3025	512 MB Main Storage
3026	3026	512 MB Main Storage
3027	3027	1 GB Main Storage
3029	3029	128 MB Main Storage
3032	3032	256 MB Main Storage
3033	3033	512 MB Main Storage
3034	3034	1 GB Main Storage
3035	3035	16 GB Main Storage
3036	3036	16 GB Main Storage
3042	3042	256 MB Main Storage
3043	3043	512 MB Main Storage
3044	3044	1024 MB Main Storage
3045	3045	1024 MB Main Storage
3046	3046	2048 MB Main Storage
3054	3054	4 MB Additional Main Storage
3055	3055	8 MB Additional Main Storage
3060	3060	16 MB Additional Main Storage
3061	3061	16 MB Additional Main Storage
3092	3092	256 MB Main Storage
3093	3093	512 MB Main Storage
3094	3094	1024 MB Main Storage
3095	3095	1024 MB Main Storage
3096	3096	2048 MB Main Storage
3100	3100	16 MB Main Storage
3101	3101	32 MB Main Storage
3102	3102	16 MB Main Storage
3103	3103	32 MB Main Storage
3103	4103	32 MB Main Storage
3104	9304	Std 64 MB Main Storage
3104	3104	64 MB Main Storage
3104	4204	64 MB Main Storage
3108	3108	8 MB Main Storage
3109	3109	32 MB Main Storage
3110	3110	64 MB Main Storage
3110	8210	Optional 64 MB Main Storage
3110	9110	Std 64 MB Main Storage
3116	3116	MFIOP Storage Expansion
3117	4117	8 MB Main Storage SIMM
3117	3117	8 MB Main Storage
3118	4118	16 MB Main Storage SIMM
3118	3118	16 MB Main Storage
3119	3119	8 MB Main Storage
3120	4120	8 MB Main Storage
3120	3120	8 MB Main Storage
3121	3121	8 MB Main Storage
3121	4121	8 MB Main Storage
3122	3122	32 MB Main Storage
3122	4122	32 MB Main Storage
3130	3130	32 MB Main Storage
3131	9231	Opt Base 64 MB Main Storage
3131	3131	64 MB Main Storage
3132	9232	Opt Base 128 MB Main Storage
3132	3132	128 MB Main Storage
3133	4133	64 MB Main Storage
3133	3133	64 MB Main Storage
3134	3134	128 MB Main Storage

CCIN	Feat. Code	Description
3134	9234	Std 128 MB Main Storage
3134	4134	128 MB Main Storage
3135	4135	256 MB Main Storage
3135	7135	Opt 256 MB Main Storage
3135	8135	Opt Base 256 MB Main Storage
3135	3135	256 MB Main Storage
3136	3136	256 MB Main Storage
3136	4136	256 MB Main Storage
3138	4138	64 MB Main Storage
3138	3138	64 MB Main Storage
3140	3140	8 MB Main Storage
3141	3141	16 MB Main Storage
3142	3142	32 MB Main Storage
3144	3144	8 MB Main Storage
3144	4144	8 MB Main Storage
3145	4145	16 MB Main Storage
3145	3145	16 MB Main Storage
3146	4146	32 MB Main Storage
3146	3146	32 MB Main Storage
3147	4147	32 MB Main Storage
3147	3147	32 MB Main Storage
3149	3149	128 MB Main Storage
3149	4149	128 MB Main Storage
3152	3152	32 MB Main Storage
3152	9252	Std 32 MB Main Storage
3153	3153	64 MB Main Storage
3153	8253	Opt Base 64 MB Main Storage
3154	3154	128 MB Main Storage
3154	8254	Opt Base 128 MB Main Storage
3154	9254	Std 128 MB Main Storage
3155	3155	256 MB Main Storage
3155	8255	Opt Base 256 MB Main Storage
3155	7255	Opt Base 256 MB Main Storage
3156	9156	Std 64 MB Main Storage
3156	4156	64 MB Main Storage
3156	3156	64 MB Main Storage
3156	8156	Opt Base 64 MB Main Storage
3157	4157	128 MB Main Storage
3157	7157	Opt Base 128 MB Main Storage
3157	8157	Opt Base 128 MB Main Storage
3157	3157	128 MB Main Storage
3158	8158	Opt Base 256 MB Main Storage
3158	3158	256 MB Main Storage
3158	4158	256 MB Main Storage
3158	7158	Opt Base 256 MB Main Storage
3159	9159	Std 8 MB Main Storage
3159	3159	8 MB Main Storage
3160	3160	16 MB Main Storage
3160	8160	Opt Addtl 16 MB Main Storage
3160	9160	Std 16 MB (2 SIMM)
3161	3161	32 MB Main Storage

CCIN	Feat. Code	Description
3161	9161	Std 32 MB Main Storage
3161	4161	32 MB Main Storage
3162	9262	Std 128 MB Main Storage
3162	3162	128 MB Main Storage
3163	7263	Opt Base 256 MB Main Storage
3163	9263	Std 256 MB Main Storage
3163	3163	256 MB Main Storage
3164	3164	512 MB Main Storage
3164	8264	Opt Base 512 MB Main Storage
3164	7264	Opt Base 512 MB Main Storage
3165	8265	Opt Base 512 MB Main Storage
3165	3165	1024 MB Main Storage
3165	7265	Opt Base 1024MB MS
3166	7266	Opt Base 256MB MS
3166	3166	256 MB Main Storage
3166	9266	Std 256 MB Main Storage
3172	3182	32 MB Main Storage
3172	9272	Std 32 MB Main Storage
3172	8172	Delt Price 32 MB
3172	9282	Std 32 MB Main Storage
3172	3172	32 MB Main Storage (2 SIMMs)
3172	4172	32 MB Main Storage
3179	3179	256 MB Main Storage
3179	9179	Base 256 MB Main Storage
3180	8180	Opt Base 512 MB Main Storage
3180	3180	512 MB Main Storage
3184	3184	32 MB Main Storage
3184	9184	Standard 32 MB Main Storage
3185	9185	Standard 64 MB Main Storage
3185	3185	64 MB Main Storage
3185	8185	Opt Base 64 MB Main Storage
3186	7186	Opt Base 128 MB Main Storage
3186	3186	128 MB Main Storage
3186	8186	Opt Base 128 MB Main Storage
3187	8187	Opt Base 256 MB Main Storage
3187	7187	Opt Base 256 MB Main Storage
3187	3187	256 MB Main Storage
3189	3189	128 MB Main Storage
3190	9190	Base 256 MB Main Storage
3190	3190	256 MB Main Storage
3191	3191	512 MB Main Storage
3191	8191	Opt Base 512 MB Main Storage
3192	3192	1024 MB Main Storage
3192	8192	Opt Base 1024 MB Main Storage
3193	8193	Opt Base 2048 MB Main Storage
3193	3193	2048 MB Main Storage



CCIN	Feat. Code	Description
3195	3195	4096 MB Main Storage
3196	3196	8192 MB Main Storage
3197	3197	1024 MB Main Storage
3198	3198	2048 MB Main Storage
3612	3612	1024 MB Main Storage
3613	3613	2048 MB Main Storage
3614	3614	4096 MB Main Storage
4010	4010	4 MB Write Cache
4011	4011	8 MB Data Store
4012	4012	32 MB Data Store
4104	9904	4 MB Main Storage - No Charge
4104	4104	4 MB Main Storage
4114	4114	4 MB Main Storage Expansion
4326	7508	Quantity 150 of #4326
4326	4326	35.16GB 15k rpm Disk Unit
4327	4327	70.56GB 15k rpm Disk Unit
4327	7509	Quantity 150 of #4327
4758	4801	PCI Crypto Coprocessor
4758	4802	PCI Crypto Coprocessor
4758	4800	PCI Crypto Coprocessor
4961	4961	240V, 6ft, 30A Line Cord
5052	8052	Opt 16 Disk Unit Expansion
5065	5065	#5065 Storage/PCI Expansion Tower
5066	0565	#5065 Equivalent
5066	5066	1.8 M I/O Tower
5072	5072	#5072 1063 Mbps System Unit Expansion Tower
5073	5073	#5073 1063 Mbps System Unit Expansion Tower
5121	5121	Pwr Regulator Card
5130	5130	Tower Attach Power (RISC)
5133	5133	Feature Power Supply
5133	5134	Feature Power Supply
5135	5135	Feature Power Supply
5136	5136	Feature Power Supply
5140	5140	Regulator
5141	5141	3.6V I/O Regulator
5142	5142	Tower Attach Power
5143	5143	Feature Power Supply (400W)
5144	5144	BBU External (Opt)
5145	5145	BBU Internal (Opt)
5146	5146	Redundant Power (Bulk+Reg)
5147	5147	Feature Power -560W
5148	5148	Addtl Battery Backup Internal
5149	5149	Redundant Power (bulk+reg)
5150	5150	Battery Backup (External)
5151	5151	Power Supply (650 Watts)
5152	5152	Feature Power Supply (500W)
5153	5153	Redundant Power Supplies
5156	5156	#5156 Redundant Power and Cooling
5157	5157	#5157 Feature Power Supply
515F	5138	Redundant Power and Cooling
5160	5160	#5160 Power Distribution Unit
5161	5161	#5161 Power Distribution Unit
5162	5162	#5162 Power Distribution Unit
5700	5700	PCI 1 Gbps Ethernet IOA

CCIN	Feat. Code	Description
5701	5701	PCI 1 Gbps Ethernet UTP IOA
6040	6040	Twinaxial Workstn Controller
6041	6041	ASCII Workstation Controller
6050	9050	Base Twinaxial Workstn Cntl
6050	6050	Twinaxial Workstation Controller
6054	8054	LocalTalk Adapter
6054	6054	LOCAL TALK Controller
6053	9053	Std Twinaxial WSC Specify
6054	9054	Std LocalTalk Controller
6100	6100	Disk Unit (315 MB)
6100	9100	315 MB Disk Unit Relocation
6102	9102	Std 320 MB Disk Unit
6103	6103	Single Disk Unit (400 MB)
6103	9103	Std 400 MB Disk Unit
6104	6126	Base DASD Replace (988 MB)
6104	9104	Std 988 MB Disk Unit
6105	9106	Standard Dual Disk (640 MB)
6105	6105	Single Disk Unit (320 MB)
6105	6108	Addition Dual Disk (640 MB)
6105	1200	Sngl Disk Unit (320 MB) Kit
6105	1105	Sngl Disk Unit (320 MB) Kit
6107	1107	Sngl Disk Unit (400 MB) Kit
6107	6121	Addition Dual Disk (800 MB)
6107	9120	Standard Dual Disk (800 MB)
6107	6107	Single Disk Unit (400 MB)
6107	6120	Dual Disk Unit (800 MB)
6107	1201	Sngl Disk Unit (400 MB) Kit
6109	1109	Sngl Disk Unit (988 MB) Kit
6109	9109	Std 988 MB Disk Unit Spec
6109	6127	Base DASD Replace (1976 MB)
6109	6124	Base DASD Upgrade (1976 MB)
6109	6125	Base DASD Replace (988 MB)
6109	1210	Addt Disk Unit (988 MB)
6109	6123	Addition Dual Disk (1976 MB)
6109	1202	Sngl Disk Unit (988 MB) Kit
6109	8123	Dual Disk Unit (1976 MB)
6109	6109	Single Disk Unit (988 MB)
6110	8110	Std Mag Storage Controller
6110	6110	Mag Storage Dev Controller
6111	6111	Mag Storage Dev Controller
6111	8111	Std Mag Storage Controller
6112	6112	Magnetic Storage Device Controller
6122	9122	Std 851MB Disk Unit (RPQ)
6140	9140	Twinaxial Workstn Control
6140	6140	Twinaxial Workstation Controller
6141	6141	ASCII Workstation Controller
6141	9141	ASCII Workstation Control
6146	6146	Diskette Adapter
6147	6147	Diskette Adapter
6148	6148*	8-Port Twinaxial Expansion
6149	6149	16/4 Mbps Token-Ring IOA
6149	9249	Base 16/4 Mbps Token-Ring IOA
6150	6150	Three-Line Comm Controller

CCIN	Feat. Code	Description
6151	6171	X.21 One-Line 50
6151	6151	X.21 One-Line 20
6152	9865	EIA 232/V.24 One line 50E
6152	9862	EIA 232/V.24 One line 20E
6152	6152	EIA 232/V.24 Adapter
6152	6175	EIA 232/V.24 One-Line 50
6152	6155	EIA 232/V.24 One-Line 20
6152	6154	EIA 232/V.24 One-Line 20E
6152	6174	EIA 232/V.24 One-Line 50E
6153	6173	V.35 One-Line (50-ft. Cable)
6153	6153	V.35 One-Line (20-ft. Cable)
6160	6160	Token-Ring Network Adapter
6180	6180	Twinaxial Workstation IOA
6180	9280	Base Twinaxial WSC
6181	9381	Base Ethernet/IEEE 802.3 IOA
6181	6181	Ethernet/IEEE 802.3 IOA
6183	6183	6 port ASCII IOA
6320	9520	Std CD-ROM
6321	6425	CD-ROM
6321	4625	CD-ROM
6321	4525	CD-ROM
6321	4425	CD-ROM
6321	6325	CD-ROM
6330	4630	DVD-RAM
6330	4530	DVD-RAM
6330	4430	DVD-RAM
6335	6365	840 MB QIC-mini Tape Extrnl
6335	6335	840 MB QIC-mini Tape Unit
6335	1335	6335 Extrnl Conversion Kit
6335	1262	840 MB QIC-3040-MC
6336	4531	DVD-ROM
6336	4631	DVD-ROM
6340	6340	13 GB QIC mini Tape Unit
6341	6341	120 MB ¼-in Cart Tape
6341	9341	Std 120 MB ¼-inch Tape
6342	9342	Std 525 MB ¼-inch Tape
6342	6342	525 MB ¼-inch Cart Tape
6342	8342	525 MB ¼-inch Cart Tape
6343	6343	1.2 GB ¼-inch Cart Tape
6343	7343	1.2 GB ¼-inch Cart Tape
6343	5343	Base Tape Replace (1.2 GB)
6343	8343	1.2 GB ¼-inch Cart Tape
6343	9343	Std 1.2 GB ¼-inch Tape
6344	6344	2.5 GB ¼-in Cart Tape
6344	8344	2.5 GB ¼-in Cart Tape
6344	7344	2.5 GB ¼-in Cart Tape
6345	6345	13 GB ¼-in Cart Tape
6345	8345	13 GB ¼-in Cartridge Tape
6346	6346	120 MB ¼-in Cart Tape
6347	9347	Std 525 MB ¼-inch Tape
6347	7347	Base Tape Upgrade (525 MB)
6347	8347	525 MB ¼-in Cart Tape
6347	6347	525 MB ¼-in Cart Tape
6348	8348	1.2 GB ¼-in Cart Tape
6348	9348	Std 1.2 GB ¼-inch-inch Tape
6348	7348	1.2 GB ¼-in Cart Tape
6348	5348	Base Tape Replace (1.2 GB)
6348	6348	1.2 GB ¼-in Cart Tape

CCIN	Feat. Code	Description
6349	8349	2.5 GB ¼-in Cart Tape
6349	7349	2.5 GB ¼-in Cart Tape
6349	6349	2.5 GB ¼-in Cart Tape
6349	5349	Base Tape Replace (2.5 GB)
6350	6350	13 GB ¼-in Cart Tape
6366	6367	525 MB ¼-in Cart Tape
6366	6366	120 MB ¼-in Cart Tape
6368	6368	1.2 GB ¼-inch Cart Tape
6369	6369	2.5 GB ¼-inch Cart Tape
6370	6370	13 GB ¼-in Cartridge Tape
6378	1250	525 MB ¼-inch Tape Kit
6378	1378	525 MB ¼-inch Cart Tape Kit
6379	1251	1.2 GB ¼-inch Tape Kit
6379	1379	1.2 GB ¼-inch Cart Tape Kit
6379	1349	1.2 GB ¼-inch Tape Kit
6380	1252	2.5 GB ¼-inch Tape Kit
6380	6480	2.5 GB ¼-inch Cart Tape
6380	9380	2.5 GB ¼-inch Cart Tape
6380	1260	2.5 GB ¼-inch Tape
6380	1350	2.5 GB ¼-inch Tape Kit
6380	6380	2.5 GB ¼-inch Cart Tape
6380	1380	2.5 GB ¼-inch Cart Tape Kit
6385	6385	13 GB ¼-inch Cartridge Tape
6385	6485	13 GB ¼-inch Cartridge Tape
6385	1355	13.0 GB ¼-inch Tape Kit
6390	6490	7 GB 8mm Cartridge Tape
6390	1261	7.0 GB 8mm Cart Tape
6390	1360	7.0 GB 8mm Cartridge Tape Kit
6390	6390	7 GB 8mm Cartridge Tape Unit
63A0	4486	25 GB ¼-inch Cartridge Tape
63A0	4487	50 GB ¼-inch Cartridge Tape
63A0	4483	16 GB ¼-inch Cartridge Tape
63A0	4585	80 GB VXA-2 Tape Unit
63A0	4685	80 GB VXA-2 Tape Unit
63A0	4582	4 GB ¼-inch Cartridge Tape
63A0	4583	16 GB ¼-inch Cartridge Tape
63A0	4584	30 GB ¼-inch Cartridge Tape
63A0	4482	4 GB ¼-inch Cartridge Tape
63A0	4587	50 GB ¼-inch Cartridge Tape
63A0	4586	25 GB ¼-inch Cartridge Tape
63A0	6486	25 GB ¼-inch Cartridge Tape
63A0	6483	16 GB ¼-inch Cartridge Tape
63A0	6384	30 GB ¼-inch Cartridge Tape
63A0	6484	30 GB ¼-inch Cartridge Tape
63A0	6383	16 GB ¼-inch Cartridge Tape
63A0	6382	4 GB ¼-inch Cartridge Tape
63A0	6381	2.5 GB ¼-inch Cart Tape
63A0	6482	4 GB ¼-inch Cartridge Tape
63A0	6481	2.5 GB ¼-inch Cart Tape
63A0	4687	50 GB ¼-inch Cartridge Tape
63A0	6386	25 GB ¼-inch Cartridge Tape
63A0	4683	16 GB ¼-inch Cartridge Tape
63A0	4684	30 GB ¼-inch Cartridge Tape
63A0	4686	25 GB ¼-inch Cartridge Tape
63A0	4682	4 GB ¼-inch Cartridge Tape
6500	6500	Disk Controller
6501	6501	Tape/Disk Device Controller



CCIN	Feat. Code	Description
6502	6502	Disk Unit Controller for RAID
6502	6522	Disk Unit Cntrlr for RAID
6506	6528	48MB Two-Port FSIOP
6506	8717	Optional 32MB One-Port FSIOP
6506	6526	16MB Two-Port FSIOP
6506	6527	32MB Two-Port FSIOP
6506	8719	Optional 64MB One-Port FSIOP
6506	8718	Optional 48MB One-Port FSIOP
6506	8716	Optional 16MB One-Port FSIOP
6506	8729	Optional 64MB Two-Port FSIOP
6506	6517	32MB One-Port FSIOP
6506	6529	64MB Two-Port FSIOP
6506	8727	Optional 32MB Two-Port FSIOP
6506	6518	48MB One-Port FSIOP
6506	8728	Optional 48 MB Two-Port FSIOP
6506	6516	16 MB One-Port FSIOP
6506	6519	64 MB One-Port FSIOP
6506	8726	Optional 16 MB Two-Port FSIOP
6509	6509	Addl 16 MB FSIOP Memory
6512	6512	Disk Unit Controller for RAID
6513	6513	Internal Tape Device Controller
6517	9517	Std File Srvr 32MB 1 Port
6520	6520	Upgrade 1 to 2 Port FSIOP
6529	9529	Std File Srvr 64MB 2 Port
6530	6523	Disk Unit Controller
6530	6530	Storage Device Controller
6532	6532	RAID Disk Unit Controller
6533	6533	RAID Disk Unit Controller
6534	6534	Magnetic Media Controller
6535	6536	SSA Disk Unit Cntrlr
6535	6537	SSA RAID Disk Unit Cntrlr
6601	6701	Base Disk Replace (1.0 GB)
6601	6601	Single Disk Unit (1031 MB)
6601	9601	Standard 1.0GB Disk Unit
6602	1602	Single Disk Unit Kit (1.03 GB)
6602	6652	Addl Disk Unit (1.03 GB)
6602	6612	Dual Disk Unit (2.0 GB)
6602	1322	2-Byte 1.03GB Disk Unit Kit
6602	1312	1-Byte 1.03GB Disk Unit Kit
6602	6802	Base Disk Replace (1.0 GB)
6602	1211	Addt Disk Unit (1.031 GB)
6602	9652	Std Disk Unit (1.031 GB, 2 Byte)
6602	6602	Single Disk Unit (1031 MB)
6602	6812	Base Disk Replace (2.0 GB)
6602	9602	Standard 1.0GB Disk Unit
6602	1203	Sngl Disk Unit (1031 MB) Kit
6602	4211	Addt Disk Unit (1.031 GB)
6602	8612	Base 2.0GB Dual Disk Unit
6602	4652	Single Disk Unit (1031 MB)

CCIN	Feat. Code	Description
6602	1213	Std Disk Unit (1.031 GB, 2byte)
6603	4212	Addt Disk Unit (1967 MB)
6603	1603	Single Disk Unit Kit (1.96 GB)
6603	1323	2-Byte 1.96 GB Disk Unit Kit
6603	1313	1-Byte 1.96 GB Disk Unit Kit
6603	4650	Addt Disk Unit (1.967 GB, reg)
6603	6650	Addl Disk Unit (1.96 GB)
6603	6613	Dual Disk Unit (4 GB)
6603	6603	Single Disk Unit (1967 MB)
6603	8650	Opt Disk Unit (1.967 GB, 2byte)
6603	1214	Opt.Bs Disk Unit (1.967 GB, 2b)
6603	1212	Addt Disk Unit (1967 MB)
6603	1204	Sngl Disk Unit (1967 MB) Kit
6603	8613	Base DASD Upgrade (3934 MB)
6603	7613	Base DASD Replace (3934 MB)
6605	4605	Addt Disk Unit (1.031 GB, reg)
6605	9705	Std 1.031 Disk Unit regulated
6605	6605	1.03 GB Disk Unit
6605	1325	2-Byte 1.03 GB Disk Unit Kit
6605	1205	Additional 1.031 GB Disk Unit
6605	4205	Addt Disk Unit (1.031 GB)
6605	9605	Std 1.031 Disk Unit
6606	4606	Single Disk Unit (1967 MB)
6606	1326	2-Byte 1.96 GB Disk Unit Kit
6606	1206	Additional 1.967 GB Disk Unit
6606	9606	Base 1.96 GB Disk Unit
6606	6806	1.96 GB Disk Unit
6606	8606	Single Disk Unit (1967 MB)
6606	6606	1.96 GB Disk Unit
6606	4206	Addt Disk Unit (1.967 GB)
6606	6906	1.96 GB Disk Unit
6606	1336	2-Byte 1.96 GB Disk Unit Kit
6606	8706	Opt Base Disk Unit (1.967 GB)
6607	1327	2-Byte 4.19 GB Disk Unit Kit
6607	1337	2-Byte 4.19 GB Disk Unit Kit
6607	9707	Base 4.19 GB Disk Unit
6607	4607	Addt Disk Unit (4.194 GB, reg)
6607	8607	Opt Base DASD (4.194 GB, reg)
6607	6807	4.19GB Disk Unit
6607	1207	Additional 4.194 GB Disk Unit
6607	4308	4.19GB Disk Unit
6607	9907	Base 4.19GB Disk Unit
6607	6907	4.19GB Disk Unit
6607	8707	Opt Base Disk Unit (4.194 GB)
6607	7607	Opt Base 4.19GB Disk Unit
6607	6607	4.19GB Disk Unit
6607	4207	Addt Disk Unit (4.194 GB)
6616	6616	Integrated PC Server
6617	6618	Integrated Netfinity Server
6617	6617	Integrated PC Server
6713	8813	Opt Base 8.58GB Disk Unit
6713	4314	8.58GB Disk Unit
6713	9313	Base 8.58GB Disk Unit

CCIN	Feat. Code	Description
6713	8713	Opt Base 8.58GB Disk Unit
6713	7713	Opt Base 8.58GB Disk Unit
6713	6813	8.58GB Disk Unit
6713	1333	2-Byte 8.58GB Disk Unit Kit
6713	7500	Quantity 150 of #4314
6713	6713	8.58GB Disk Unit
6714	8714	Opt Base 17.54GB Disk Unit
6714	4324	17.54GB Disk Unit
6714	8824	Opt Base 17.54GB Disk Unit
6714	6714	17.54GB Disk Unit
6714	6824	17.54GB Disk Unit
6714	8924	Opt Base 17.54GB Disk Unit
6714	1334	2-Byte 17.54GB Disk Unit Kit
6714	7503	Quantity 150 of #4324
6717	7501	Quantity 150 of #4317
6717	8617	Opt Base 8.58GB 10k rpm Disk
6717	6817	8.58GB 10k rpm Disk Unit
6717	8917	Opt Base 8.58GB 10k rpm Disk
6717	8817	Opt Base 8.58GB 10k rpm Disk
6717	6717	8.58GB 10k rpm Disk Unit
6717	4317	8.58GB 10k rpm Disk Unit
6718	8818	Opt Base 17GB 10k rpm Disk
6718	4318	17.54GB 10k rpm Disk Unit
6718	6718	17.54GB 10k rpm Disk Unit
6718	8618	Opt Base 17 GB 10k rpm Disk
6718	7502	Quantity 150 of #4318
6718	8918	Opt Base 17 GB 10k rpm Disk
6718	6818	17.54GB 10k rpm Disk Unit
6719	7504	Quantity 150 of #4319
6719	4319	35.16GB 10k rpm Disk Unit
6731	4331	1.6GB Read Cache Device
6750	6750	MFIOP
6751	9751	Base MFIOP with RAID
6752	6752	MFIOP
6753	6753	MFIOP
6753	9753	Base MFIOP
6754	9754	Base MFIOP with RAID
6831	6831	1.6GB Read Cache Device
7000	9000	Panel Keylock Feature
7104	7104	System Unit Expansion
7116	9116	High Performance CD Enable
7117	9117	Expansion Unit 1
7126	9126	STD Mixed Disk Enabler
7128	7128	#7128 DASD Expansion Unit
7130	7130	#7130 Expansion Unit Tape Cage
9020	9020	V.35 Cable 20-ft.
9021	9021	X.21 Cable 20-ft.
9022	9022	EIA232 20-ft. Cable
9023	9023	V.24 20-ft. Enhanced Cable
9024	9024	Token-Ring Cable (2.44m)
9025	9025	Ethernet Cable AUI (3m)
9026	9026	EIA 232 6m Client Acc cable
9027	9027	EIA 232 2.5m Clnt Acc cable
9143	9143	Twinaxial Workstn Controller
9145	9145	Std MFIOP/ASCII WSC

CCIN	Feat. Code	Description
9149	9149	Twinaxial passthru adapter
9152	9152	Std MFIOP/Twinaxial WSC
9152	8152	Opt Base Twinaxial
9153	9153	Std MFIOP w/Twinaxial WSC
9162	9162	Std MFIOP w/Twinaxial WSC
9162	8162	Opt Base MFIOP w/Twinaxial
9163	9163	Std MFIOP
9164	9164	Std MFIOP
9174	7174	Ethernet IOA
9174	9174	Base ETHERNET IOA
9175	9175	Base Token Ring IOA
9175	7175	Token Ring IOA
917A	9171	Std MFIOP/ASCII WSC
917C	9173	Std MFIOP/LocalTalk WSC
918D	9177	EtherN MFIOP
918E	9176	Base MFIOP
9206	1463	2m SPCN Cable
9211	9211	60 meter SPCN Optical cable
9212	9212	100 meter SPCN Optical cable
9212	0369	100m Optical SPCN Cable
9213	1465	15m SPCN Cable
9214	1466	30m SPCN Cable
9215	9215	60 meter SPCN Copper Cable
9219	1464	6m SPCN Cable
9243	9243	400W Availability Bulk
9301	9301	Upgraded 30-Disk Expansion
9739	9739	Base Optical Bus Adapter
9803	9803	2.5 meter DFCI cable
9814	9814	20-ft. Antenna Cable Wireless
9815	9815	50-ft. Antenna Cable Wireless
9820	9820	2nd Bus cable for Model 300
9835	9835	V.24 Cable 50-ft. Enhanced
9836	9836	EIA232 Cable 50-ft.
9838	9838	V.35 Cable 50-ft.
9839	9839	X.21 Cable 50-ft.
9853	9853	20.0 meter optical bus cable
9854	9854	60 meter optical bus cable
9865	9855	100.0 M optical bus cable
9879	9879	20-ft./6m V.35 Cable
9880	9880	80-ft./24.4m V.35 Cable
9882	9882	20-ft./6m V.36 Cable
9883	9883	80-ft./24.4m V.36 Cable
9884	9884	150-ft./45.7m V.36 Cable
9885	9885	20-ft./6m X.21 Cable
9895	0366	Optical Bus Cable (20m)
9927	9927	Channel Box and cable
9928	9928	1.7 meter attach cable
9929	9929	6.6 meter attach cable
9930	9930	24.0 meter attach cable
9980	9980	Serpentine Cable Connector







## Feature codes

This list contains the feature code, Customer Card Identification Number (CCIN), and description for many iSeries and AS/400 features. It assists customers and IBM personnel in configuring MESEs and upgrades. It provides a cross reference for the feature code used for ordering with a CCIN number reported by the Hardware Resources Listing.

The listing in this chapter is sorted by feature code. The feature code is used by marketing to report configurations and work with upgrades. The entries selected are those that are most useful when interpreting Hardware Resource Listings.

Refer to Chapter 9, “Customer Card Identification Numbers” on page 291, for a listing of the features sorted by CCIN number. The CCIN number is used when working from a Hardware Resource Listing. The Hardware Resource listing is also known as the Rack Configuration Listing.

Feat. Code	CCIN	Description
0381	0032	0381 Remote Control Panel Cable
0121	0121	#0121 Lower Unit in Rack Specify
0122	0122	#0122 Upper Unit in Rack Specify
0297	2295	Model 250 Package
0297	0297	Model 250 Package - 2295
0298	2296	Model 250 package
0298	0298	Model 250 Package - 2296
0327	032A	Operations Console Cable
0328	032B	Operations Console Cable
0329	0329	V.24/EIA232 80-ft. Cable
0330	0330	V.24/EIA232 20-ft. Cable
0331	0331	V.24/EIA232 50-ft. Cable
0332	0332	V.24/EIA232 20-ft. Enh Cable
0333	0333	V.24/EIA232 50-ft. Enh Cable
0334	0334	V.24/EIA232 80-ft. Enh Cable
0335	0335	V.36/EIA449 20-ft. Cable
0336	0336	V.36/EIA449 50-ft. Cable
0337	0337	V.36/EIA449 150-ft. Cable
0338	0338	V.35 20-ft. Cable
0339	0339	V.35 50-ft. Cable
0340	0340	V.35 80-ft. Cable
0341	0341	X.21 20-ft. Cable
0342	0342	X.21 50-ft. Cable
0344	0344	20-ft. Comm Console Cable
0348	0348	V.24/EIA232 20-ft. PCI Cable
0349	0349	V.24/EIA232 50-ft. PCI Cable
0350	0350	V.24/EIA232 20-ft. E PCI Cable
0351	0351	V.24/EIA232 50-ft. E PCI Cable
0352	0352	V.24/EIA232 80-ft. E PCI Cable
0353	0353	V.35 20-ft. PCI Cable
0354	0354	V.35 50-ft. PCI Cable
0355	0355	V.35 80-ft. PCI Cable
0356	0356	V.36 20-ft. PCI Cable
0357	0357	V.36 50-ft. PCI Cable
0358	0358	V.36 150-ft. PCI Cable
0359	0359	X.21 20-ft. PCI Cable
0360	0360	X.21 50-ft. PCI Cable
0362	0362	Comm Console PCI Cable
0364	0364	Parallel Cable
0365	0365	V.24/EIA232 80-ft. PCI Cable
0366	9895	Optical Bus Cable (20m)
0367	032C	Operations Console PCI Cable
0369	9212	100m Optical SPCN Cable
0380	032D	Remote Control Panel Cable
0380	0380	Remote Control Panel Cable
0381	0381	Remote Control Panel Cable
0382	0382	Remote Control Panel Cable
0383	0383	Remote Control Panel Cable
0398	2745	Operations Console Package
0426	0446	512 MB Server Memory
0427	0447	1 GB Server Memory
0446	0446	512 MB DDR Server Memory
0447	0447	1 GB DDR Server Memory
0565	5066	#5065 Equivalent
0574	5079	#5074 Equivalent

Feat. Code	CCIN	Description
0578	5078	PCI Expansion Unit in Rack
0694	5094	#5094 Equivalent
1105	6105	Sngl Disk Unit (320 MB) Kit
1107	6107	Sngl Disk Unit (400 MB) Kit
1109	6109	Sngl Disk Unit (988 MB) Kit
1200	6105	Sngl Disk Unit (320 MB) Kit
1201	6107	Sngl Disk Unit (400 MB) Kit
1202	6109	Sngl Disk Unit (988 MB) Kit
1203	6602	Sngl Disk Unit (1031 MB) Kit
1204	6603	Sngl Disk Unit (1967 MB) Kit
1205	6605	Additional 1.031 GB Disk Unit
1206	6606	Additional 1.967GB Disk Unit
1207	6607	Additional 4.194GB Disk Unit
1210	6109	Addt Disk Unit (988 MB)
1211	6602	Addt Disk Unit (1.031 GB)
1212	6603	Addt Disk Unit (1967 MB)
1213	6602	Std Disk Unit (1.031 GB, 2byte)
1214	6603	Opt.Bs Disk Unit (1.967GB,2b)
1250	6378	525 MB ¼-inch Tape Kit
1251	6379	1.2 GB ¼-inch Tape Kit
1252	6380	2.5 GB ¼-inch Tape Kit
1260	6380	2.5 GB ¼-inch Tape
1261	6390	7.0 GB 8mm Cart Tape
1262	6335	840 MB QIC-3040-MC
1312	6602	1-Byte 1.03 GB Disk Unit Kit
1313	6603	1-Byte 1.96 GB Disk Unit Kit
1322	6602	2-Byte 1.03 GB Disk Unit Kit
1323	6603	2-Byte 1.96 GB Disk Unit Kit
1325	6605	2-Byte 1.03 GB Disk Unit Kit
1326	6606	2-Byte 1.96GB Disk Unit Kit
1327	6607	2-Byte 4.19 GB Disk Unit Kit
1333	6713	2-Byte 8.58 GB Disk Unit Kit
1334	6714	2-Byte 17.54 GB Disk Unit Kit
1335	6335	6335 Extrnl Conversion Kit
1336	6606	2-Byte 1.96 GB Disk Unit Kit
1337	6607	2-Byte 4.19 GB Disk Unit Kit
1349	6379	1.2 GB ¼-inch Tape Kit
1350	6380	2.5 GB ¼-inch Tape Kit
1355	6385	13.0 GB ¼-inch Tape Kit
1360	6390	7.0 GB 8mm Cartridge Tape Kit
1378	6378	525 MB ¼-inch Cart Tape Kit
1379	6379	1.2 GB ¼-inch Cart Tape Kit
1380	6380	2.5 GB ¼-inch Cart Tape Kit
1463	9206	2m SPCN Cable
1464	9219	6m SPCN Cable
1465	9213	15m SPCN Cable
1466	9214	30m SPCN Cable
1468	1469	4.3m/200V/25A HD Wired EMEA
1468	1468	250m Optical SPCN Cable
1602	6602	Single Disk Unit Kit (1.03 GB)
1603	6603	Single Disk Unit Kit (1.96 GB)
2010	2010	1.6 SPPR CPU for Model 20S
2030	2030	0.7 SPPR CPU for Model 200
2031	2031	1.1 SPPR CPU for Model 200
2032	2032	1.6 SPPR CPU for Model 200
2040	2040	1.1 SPPR Processor
2041	2041	1.6 SPPR Processor

Feat. Code	CCIN	Description
2042	2042	2.0 SPPR Processor
2043	2043	3.0 SPPR Processor
2044	2044	5.0 SPPR Processor
2050	2050	6.4 SPPR Processor
2051	2051	11.4 SPPR Processor
2052	2052	16.8 SPPR Processor
2100	2100	2.3 SPPR CPU for Model 236
2102	2102	2.2 SPPR CPU for 436
2104	2104	2.8 SPPR CPU for 436
2106	2106	5.2 SPPR CPU for 436
2109	2109	2.2 SPPR CPU for Model 40S
2110	2110	2.8 SPPR CPU for Model 40S
2111	2111	Model 40S Processor
2112	2112	Model 40S Processor
2118	2118	Model S10 Processor
2119	2119	Model S10 Processor
2120	2120	5.2 SPPR CPU for Model 50S
2121	2121	7.0 SPPR CPU for Model 50S
2122	2122	Model 50S Processor
2129	2129	Model 600 Processor
2130	2130	1.0 SPPR CPU for Model 400
2131	2131	1.5 SPPR CPU for Model 400
2132	2132	2.2 SPPR CPU for Model 400
2133	2133	2.8 SPPR CPU for Model 400
2134	2134	Model 600 Processor
2135	2135	Model 600 Processor
2136	2136	Model 600 Processor
2140	2140	1.5 SPPR CPU for Model 500
2141	2141	2.2 SPPR CPU for Model 500
2142	2142	3.0 SPPR CPU for Model 500
2143	2143	5.2 SPPR CPU for Model 510
2144	2144	7.0 SPPR CPU for Model 510
2150	2150	9.0 SPPR CPU for Model 530
2151	2151	12 SPPR CPU for Model 530
2152	2151	18.4 SPPR CPU for Model 530
2153	2153	28 SPPR CPU for Model 530
2154	2154	12 SPPR CPU for Model 53S
2155	2155	18.4 SPPR CPU for Model 53S
2156	2156	28 SPPR CPU for Model 53S
2157	2157	Model 53S 4-way Processor
2159	2159	Model 170 Processor
2160	2160	Model 170 Processor
2161	2161	Model S20 Processor
2162	2162	Model 530 4-way Processor
2163	2163	Model S20 Processor
2164	2164	Model 170 Processor
2165	2165	Model S20 2-way Processor
2166	2166	Model S20 4-way Processor
2170	2170	Model S20 2 W ISV Processor
2175	2175	Model 620 Processor
2176	2176	Model 170 Processor
2177	2177	Model S20 4-w ISV Processor
2178	2178	Model S20 4-w ISV Processor
2179	2179	Model 620 Processor
2180	2180	Model 620 Processor
2181	2181	Model 620 Processor
2182	2182	Model 620 2-way Processor
2183	2183	Model 170 Processor

Feat. Code	CCIN	Description
2185	2185	Model 640 Processor
2186	2186	Model 640 2-way Processor
2187	2187	Model 640 4-way Processor
2188	2188	Model 650 8 Way Processor
2189	2189	Model 650 12 Way Processor
2200	2200	Model 600 Processor
2203	2203	Model S30 Processor
2204	2204	Model S30 2-way Processor
2205	2205	Model S30 4-way Processor
2206	2206	Model S30 8-way Processor
2207	2207	Model S40 8 Way Processor
2208	2208	Model S40 12 Way Processor
2211	2211	Model 600 Processor
2211	2211	Model 600 Processor
2212	2212	Model 600 Processor
2213	2213	Model 600 Processor
2223	2223	Model S20 4-way Processor
2228	2228	Model 620 Processor
2230	2230	Model 620 Processor
2231	2231	Model 620 Processor
2232	2232	Model 620 Processor
2233	2233	Model 620 2-way Processor
2234	2234	Model 620 4-way Processor
2237	2237	Model 640 Processor
2238	2238	Model 640 2-way Processor
2239	2239	Model 640 4-way Processor
2240	2240	Model 650 8-way Processor
2243	2243	Model 650 12-way Processor
2256	2256	Model S40 8-way Processor
2257	2257	Model S30 Processor
2258	2258	Model S30 2-way Processor
2259	2259	Model S30 4-way Processor
2260	2260	Model S30 8-way Processor
2261	2261	Model S40 12-way Processor
2269	2269	Model 150 Processor
2270	2270	Model 150 Processor
2289	2289	Model 170 Processor
2290	2290	Model 170 Processor
2291	2291	Model 170 Processor
2292	2292	Model 170 Processor
2295	2295	Model 250 Processor
2296	2296	Model 250 Processor
2298	2290	Model 170 Processor Package 64 MB
2299	2291	Model 170 Processor Package 64 MB
2310	2310	Model SB1 8-way Processor
2311	2311	Model SB1 12-way Processor
2312	2312	Model SB1 8 Way Processor
2313	2313	Model SB1 12 Way Processor
2320	2320	Model S30 4-w ISV Processor
2321	2321	Model S30 8-w ISV Processor
2322	2322	Model S30 8-w ISV Processor
2324	2324	Model S30 4-way Processor
2325	2325	Model S30 8-way Processor
2326	2326	Model S30 8-way Processor
2328	2328	Model S20 ISV Processor
2329	2329	Model S20 Processor

**Feature Codes**

Feat. Code	CCIN	Description
2330	2330	Model S20 2-way Processor
2331	2331	Model S20 4-way Processor
2340	2340	Model S40 12 Way Processor
2341	2341	Model S40 ISV 12-w Processor
2383	2383	Model 170 Processor
2384	2384	Model 170 Processor
2385	2385	Model 170 Processor
2386	2386	Model 170 Processor
2387	2387	Model S20 Processor
2388	2388	Model 170 2 Way Processor
2389	2389	Model S20 Processor
2390	2390	Model S20 Processor
2391	2391	Model S20 2-way Processor
2392	2392	Model S20 4-way Processor
2407	2407	Dedicated Domino Processor
2408	2408	Dedicated Domino Processor
2409	2409	Dedicated Domino Processor (2-way)
2410	2410	100 Client Server Processor
2411	2411	3.0 SPPR Processor
2412	2412	6.1 SPPR Processor
2413	2531	E06 Processor
2414	2585	F02 Processor
2422	2422	Dedicated Domino Processor
2423	2423	Dedicated Domino Processor
2424	2424	Dedicated Domino 2-way Processor
2425	2425	Dedicated Domino Processor
2426	2426	Dedicated Domino 2-way Processor
2427	2427	Dedicated Domino 4-way Processor
2452	25BA	Dedicated Domino Processor
2452	2452	Dedicated Domino Processor
2454	2454	Dedicated Domino 2-way Processor
2456	2456	Dedicated Domino Processor
2457	2457	Dedicated Domino 2-way Processor
2458	2458	Dedicated Domino 4-way Processor
2515	2515	C10 Floating Pt Processor
2516	2516	C20 Floating Pt Processor
2523	2523	D80 Processor
2525	2525	D02 Processor
2528	2528	16.8 SPPR CPU for Model F97
2530	2530	E04 Processor
2533	2533	E20 Processor
2534	2534	E25 Processor
2536	2536	E35 Processor
2537	2537	E45 Processor
2539	2539	E02 TWINAXIAL
2540	2540	0.7 SPPR CPU for Model D35
2541	2541	D45 Processor
2542	2542	D50 Processor
2543	2543	D60 Processor
2544	2544	D70 Processor
2552	2552	C06 Processor
2553	2553	D06 Processor

Feat. Code	CCIN	Description
2554	2554	D04 Processor
2555	2555	D10 Processor
2556	2556	D20 Processor
2557	2557	D25 Processor
2558	2558	C04 Processor 8MB
2559	2559	E50 Processor
2560	2560	E60 Processor
2561	2561	E70 Sort Processor
2562	2562	E80 Sort Processor
2563	2563	E90 (2way) Sort
2568	2568	E95 (2way) Sort
2582	2582	F06 Processor
2583	2583	F25 Processor
2586	2586	0.7 SPPR for F04
2587	2587	F10 Processor
2588	2588	F20 Processor
2592	2592	F35 Processor
2593	2593	F45 Sort Processor
2594	2594	F50 Processor
2595	2595	F60 Sort Processor
2596	2596	F70 Processor 1-way
2597	2597	F80 Processor 2-way
2598	2598	F90 Processor 2-way
2599	259A	F95 Processor 2-way
2600*	2600	Magnetic Storage Controller
2601	2601	9346 Mag Tape Unit Controller
2602	2602	Processor Expansion
2604	2604	3422 3430 Mag Tape Subsys
2605*	2605	ISDN Basic Rate Adapter
2607	2602	9348 Mag Tape Unit Attach
2608	2608	2440/9348 HCD Mag Tape Att
2609*	2609	EIA 232/V.24 Two-Line Adapt
2610*	2610	X.21 Two-Line Adapter
2611*	2611	DASD Controller
2612*	2612	EIA 232/V.24 One-Line Adapt
2613*	2613	V.35 One-Line Adapter
2614*	2614	X.21 One-Line Adapter
2617*	2617	Ethernet/IEEE 802.3 CSMA/CD
2618*	2618	Fiber Distributed Data Adapt
2619*	2619	16/4 Mbps Token-Ring Adapter
2620	2620	Cryptographic Processor
2621*	2621	Removable Media Device Attach
2622	2622	3490 Magnetic Tape Attach
2623*	2623	Six-Line Comm Controller
2624*	2624	Storage Device Controller
2625	2625	Ethrnet/IEEE 802.3 CSMA/CD
2626*	2626	16/4Mbps Token-Ring Adapt/A
2628*	2628	Cryptographic Processor-Comm
2629	2629	LAN/WAN/Workstation IOP
2634	2634	16/4 Mbps Token-Ring Adpt
2636	2636	16/4 Mbps Token-Ring Adpt
2644*	2644	34xx Magnetic Tape Attachmen
2647	2647	9348 Model 2 Tape Atchmnt
2654*	2609	EIA 232/V.24 Two-Line 20E
2655*	2609	EIA 232/V.24 Two-Line 20
2656*	2610	X.21 Two-Line 20
2657*	2609	EIA 232/V.24 Two-Line 50E
2658*	2609	EIA 232/V.24 Two-Line 50

Feat. Code	CCIN	Description
2659*	2610	X.21 Two-Line 50
2663*	2663	I/O Attachment Processor
2664*	2664	Integrated Fax Adapter
2665*	2665	Copper Dist Data Interface
2666*	2666	Frame Relay Adapter
2668*	2668	AS/400 Wireless LAN Adapter
2669	2669	Shared Bus Interface Card
2670	2670	Sys Unit Exp Tower (optical)
2671	2671	PCI Bus IOP
2672	2672	PCI Bus IOP
2673	2673	Optical Bus Adapter
2674	2674	Optical Bus Adapter
2680	2680	Optical Bus Receiver-266Mbps
2682	2682	Optcl Bus Rcvr (1063 Mbps)
2683	2683	266 Mbps OptiConnect Receiver
2685	2685	1063 Mbps OptiConnect Receive
2686	2686	Optical Link Processor (266 Mbps)
2688	2688	Optical Link Processor (1063 Mbps)
2691	2691	Opt Bus Adapt w/Token Ring
2692	2692	Opt Bus Adapt w/Ethernet
2693	2693	Opt Bus Adapt w/Token Ring
2694	2694	Opt Bus Adapt w/Ethernet
2695	2695	Optical Bus Adapter
2699	2699	Two-Line WAN IOA
2705	2705	M1 Filler Tray
2706	2706	M2 Terminator Tray
2713	2713	SPD I/O Regulator
2715	2715	Processor/Memory Regulator
2718	2718	PCI Magnetic Media Controller
2720	2720	PCI WAN/Twinaxial IOA
2721	2721	PCI Two-Line WAN IOA
2722	2722	PCI Twinaxial Workstn IOA
2723	2723	PCI Ethernet IOA
2724	2724	PCI 16/4Mbps Token-Ring IOA
2726	2726	PCI RAID Disk Unit Controller
2729	2729	PCI Magnetic Media Controller
2730	2730	Programmable Regulator
2735	2735	Optical Bus Adapter
2736	2736	Optical Bus Adapter
2739	2739	Optical Bus Adapter
2740	2740	PCI RAID Disk Unit Controller
2741	2741	PCI RAID Disk Unit Controller
2742	2742	PCI Two-Line WAN IOA
2743	2743	PCI 1 Gbps Ethernet IOA
2744	2744	PCI 100 Mbps Token-Ring IOA
2745	2745	PCI Two-Line WAN IOA
2746	2746	PCI Twinaxial Workstn IOA
2748	2748	PCI RAID Disk Unit Controller
2749	2749	PCI Ultra Mag Media Controller
2750	2750	PCI ISDN BRI U IOA
2751	2751	PCI ISDN BRI S/T IOA
2760	2760	PCI 1 Gbps Ethernet UTP IOA
2761	2761	PCI Integrated Analog Modem
2763	2763	PCI RAID Disk Unit Controller

Feat. Code	CCIN	Description
2765	2765	PCI Fibre Channel Tape Controller
2766	2766	PCI Fibre Channel Disk Controller
2768	2768	PCI Magnetic Media Controller
2772	2772	PCI Dual WAN/Modem IOA
2773	2772	PCI Dual WAN/Modem IOA(ANSI)
2778	2778	PCI RAID Disk Unit Controller
2790	2890	PCI Integ Netfinity Server
2791	2890	PCI Integ xSeries Server
2792	2892	PCI Integ xSeries Server
2793	2793	PCI 2-Line WAN w/Modem
2794	2793	PCI 2-Line WAN w/Modem (CIM)
2795	2895	128 MB Server Memory
2796	2896	256 MB Server Memory
2797	2897	1 GB Server Memory
2799	2890	PCI Integ xSeries Server
2799	2799	#2799 PCI Integrated xSeries Server
2801	2801	1.96 GB Internal Disk Unit
2802	2802	2.0 GB Internal Disk Unit
2805	2805	PCI Quad Modem IOA
2806	2805	PCI Quad Modem IOA (CIM)
2809	2809	PCI LAN/WAN/Workstation IOP
2810	2810	LAN/WAN IOP
2811	2811	PCI 25 Mbps UTP ATM
2812	2812	PCI 45 Mbps Coax T3/DS3 ATM
2813	2813	PCI 155 Mbps MMF ATM
2814	2813	PCI 100 Mbps MMF ATM
2815	2815	PCI 155 Mbps UTP OC3 ATM
2816	2816	PCI 155 Mbps MMF ATM
2817	2817	PCI 155 Mbps MMF ATM
2818	2818	PCI 155 Mbps SMF OC3 ATM
2819	2819	PCI 34 Mbps Coax E3 ATM
2824	2824	PCI LAN/WAN/Workstation IOP
2830	2830	Main Storage Expansion
2838	2838	PCI 100/10 Mbps Ethernet IOA
2842	2842	PCI IOP
2843	2843	PCI IOP
2844	2844	PCI IOP
2849	2849	PCI 100/10 Mbps Ethernet IOA
2850	2850	Integrated PC Server 32 MB
2851	2850	PCI Integrated PC Server
2852	2850	PCI Integrated PC Server
2853	2853	3450 .66m sys to dev cable
2854	2850	PCI Integrated PC Server
2855	2855	3450 1.2m sys to dev cable
2856	2856	3450 1.2m sys to dev cable
2857	2850	PCI Integrated PC Server
2858	2850	FSIOA 128MB MEM KEYBOARD MOU
2860	2860	16 MB IOP Memory
2861	2861	32 MB IOP Memory
2862	2862	128 MB IOP Memory
2863	2863	8 MB Addtnl Cache Memory
2864	2864	32 MB Addtnl Cache Memory
2865	2850	PCI Integ Netfinity Server

Feat. Code	CCIN	Description
2866	2850	PCI Integ Netfinity Server
2867	2867	256 MB IOP Memory
2868	2850	PCI Integ Netfinity Server
2881	2881	Main Storage Expansion
2884	2884	Main Storage Expansion
2886	2886	Optical Bus Adapter
2890	2890	PCI Integ Netfinity Server
2891	2890	PCI Integ xSeries Server
2892	2892	PCI Integ xSeries Server
2895	2895	128 MB Server Memory
2896	2896	256 MB Server Memory
2897	2897	1 GB Server Memory
2899	2890	PCI Integ xSeries Server
3000	3002	Migrated 128 MB Main Storage
3001	3001	32 MB Main Storage
3002	3002	128 MB Main Storage
3003	3003	256 MB Main Storage
3004	3004	256 MB Main Storage
3005	3005	512 MB Main Storage
3006	3006	512 MB Main Storage
3007	3007	1 GB Main Storage
3009	3009	128 MB Main Storage
3015	3015	8 GB Main Storage
3016	3016	8 GB Main Storage
3017	3017	32 GB Main Storage
3018	3018	32 GB Main Storage
3020	3020	4 GB Main Storage
3021	3021	4 GB Main Storage
3022	3022	128 MB Main Storage
3024	3024	256 MB Main Storage
3025	3025	512 MB Main Storage
3026	3026	512 MB Main Storage
3027	3027	1 GB Main Storage
3029	3029	128 MB Main Storage
3032	3032	256 MB Main Storage
3033	3033	512 MB Main Storage
3034	3034	1 GB Main Storage
3035	3035	16 GB Main Storage
3036	3036	16 GB Main Storage
3042	3042	256 MB Main Storage
3043	3043	512 MB Main Storage
3044	3044	1024 MB Main Storage
3045	3045	1024 MB Main Storage
3046	3046	2048 MB Main Storage
3054	3054	4 MB Additional Main Storage
3055	3055	8 MB Additional Main Storage
3060	3060	16 MB Additional Main Storage
3061	3061	16 MB Additional Main Storage
3062	3002	128 MB Main Storage
3064	3004	256 MB Main Storage
3065	3005	512 MB Main Storage
3066	3006	512 MB Main Storage
3067	3007	1 GB Main Storage
3092	3092	256 MB Main Storage
3093	3093	512 MB Main Storage
3094	3094	1024 MB Main Storage
3095	3095	1024 MB Main Storage
3096	3096	2048 MB Main Storage

Feat. Code	CCIN	Description
3100	3100	16 MB Main Storage
3101	3101	32 MB Main Storage
3102	3102	16 MB Main Storage
3103	3103	32 MB Main Storage
3104	3104	64 MB Main Storage
3108	3108	8 MB Main Storage
3109	3109	32 MB Main Storage
3110	3110	64 MB Main Storage
3116	3116	MFIO Storage Expansion
3117	3117	8 MB Main Storage
3118	3118	16 MB Main Storage
3119	3119	8 MB Main Storage
3120	3120	8 MB Main Storage
3121	3121	8 MB Main Storage
3122	3122	32 MB Main Storage
3130	3130	32 MB Main Storage
3131	3131	64 MB Main Storage
3132	3132	128 MB Main Storage
3133	3133	64 MB Main Storage
3134	3134	128 MB Main Storage
3135	3135	256 MB Main Storage
3136	3136	256 MB Main Storage
3138	3138	64 MB Main Storage
3140	3140	8 MB Main Storage
3141	3141	16 MB Main Storage
3142	3142	32 MB Main Storage
3144	3144	8 MB Main Storage
3145	3145	16 MB Main Storage
3146	3146	32 MB Main Storage
3147	3147	32 MB Main Storage
3149	3149	128 MB Main Storage
3152	3152	32 MB Main Storage
3153	3153	64 MB Main Storage
3154	3154	128 MB Main Storage
3155	3155	256 MB Main Storage
3156	3156	64 MB Main Storage
3157	3157	128 MB Main Storage
3158	3158	256 MB Main Storage
3159	3159	8 MB Main Storage
3160	3160	16 MB Main Storage
3161	3161	32 MB Main Storage
3162	3162	128 MB Main Storage
3163	3163	256 MB Main Storage
3164	3164	512 MB Main Storage
3165	3165	1024 MB Main Storage
3166	3166	256 MB Main Storage
3172	3172	32 MB Main Storage (2 SIMMs)
3179	3179	256 MB Main Storage
3180	3180	512 MB Main Storage
3182	3172	32 MB Main Storage
3184	3184	32 MB Main Storage
3185	3185	64 MB Main Storage
3186	3186	128 MB Main Storage
3187	3187	256 MB Main Storage
3189	3189	128 MB Main Storage
3190	3190	256 MB Main Storage
3191	3191	512 MB Main Storage
3192	3192	1024 MB Main Storage

Feat. Code	CCIN	Description
3193	3193	2048 MB Main Storage
3195	3195	4096 MB Main Storage
3196	3196	8192 MB Main Storage
3197	3197	1024 MB Main Storage
3198	3198	2048 MB Main Storage
3612	3612	1024 MB Main Storage
3613	3613	2048 MB Main Storage
3614	3614	4096 MB Main Storage
4010	4010	4 MB Write Cache
4011	4011	8 MB Data Store
4012	4012	32 MB Data Store
4103	3103	32 MB Main Storage
4104	4104	4 MB Main Storage
4114	4114	4 MB Main Storage Expansion
4117	3117	8 MB Main Storage SIMM
4118	3118	16 MB Main Storage SIMM
4120	3120	8 MB Main Storage
4121	3121	8 MB Main Storage
4122	3122	32 MB Main Storage
4133	3133	64 MB Main Storage
4134	3134	128 MB Main Storage
4135	3135	256 MB Main Storage
4136	3136	256 MB Main Storage
4138	3138	64 MB Main Storage
4144	3144	8 MB Main Storage
4145	3145	16 MB Main Storage
4146	3146	32 MB Main Storage
4147	3147	32 MB Main Storage
4149	3149	128 MB Main Storage
4156	3156	64 MB Main Storage
4157	3157	128 MB Main Storage
4158	3158	256 MB Main Storage
4161	3161	32 MB Main Storage
4172	3172	32 MB Main Storage
4204	3104	64 MB Main Storage
4205	6605	Addt Disk Unit (1.031 GB)
4206	6606	Addt Disk Unit (1.967 GB)
4207	6607	Addt Disk Unit (4.194 GB)
4211	6602	Addt Disk Unit (1.031 GB)
4212	6603	Addt Disk Unit (1967 MB)
4308	6607	4.19GB Disk Unit
4314	6713	8.58 GB Disk Unit
4317	6717	8.58 GB 10k rpm Disk Unit
4318	6718	17.54 GB 10k rpm Disk Unit
4319	6719	35.16 GB 10k rpm Disk Unit
4324	6714	17.54 GB Disk Unit
4326	4326	35.16 GB 15k rpm Disk Unit
4327	4327	70.56 GB 15k rpm Disk Unit
4331	6731	1.6 GB Read Cache Device
4425	6321	CD-ROM
4430	6330	DVD-RAM
4482	63A0	4 GB ¼-inch Cartridge Tape
4483	63A0	16 GB ¼-inch Cartridge Tape
4486	63A0	25 GB ¼-inch Cartridge Tape
4487	63A0	50 GB ¼-inch Cartridge Tape
4525	6321	CD-ROM
4530	6330	DVD-RAM
4531	6336	DVD-ROM

Feat. Code	CCIN	Description
4582	63A0	4 GB ¼-inch Cartridge Tape
4583	63A0	16 GB ¼-inch Cartridge Tape
4584	63A0	30 GB ¼-inch Cartridge Tape
4585	63A0	80GB VXA-2 Tape Drive
4685	63A0	80GB VXA-2 Tape Drive
4586	63A0	25 GB ¼-inch Cartridge Tape
4587	63A0	50 GB ¼-inch Cartridge Tape
4605	6605	Addt Disk Unit (1.031 GB, reg)
4606	6606	Single Disk Unit (1967 MB)
4607	6607	Addt Disk Unit (4.194 GB, reg)
4625	6321	CD-ROM
4630	6330	DVD-RAM
4631	6336	DVD-ROM
4650	6603	Addt Disk Unit (1.967 GB, reg)
4652	6602	Single Disk Unit (1031 MB)
4682	63A0	4 GB ¼-inch Cartridge Tape
4683	63A0	16 GB ¼-inch Cartridge Tape
4684	63A0	30 GB ¼-inch Cartridge Tape
4686	63A0	25 GB ¼-inch Cartridge Tape
4687	63A0	50 GB ¼-inch Cartridge Tape
4710	2892	PCI Integ xSeries Server
4723	2723	PCI 10Mbps Ethernet IOA
4745	2745	PCI Two-Line WAN IOA
4746	2746	PCI Twinaxial Workstn IOA
4748	2748	PCI RAID Disk Unit Controller
4750	2750	PCI ISDN BRI U IOA
4751	2751	PCI ISDN BRI S/T IOA
4761	2761	PCI Integrated Analog Modem
4778	2778	PCI RAID Disk Unit Controller
4800	4758	PCI Crypto Coprocessor
4801	4758	PCI Crypto Coprocessor
4802	4758	PCI Crypto Coprocessor
4805	2058	PCI Crypto Accelerator
4810	2892	PCI Integ xSeries Server
4815	2815	PCI 155 Mbps UTP OC3 ATM
4816	2816	PCI 155 Mbps MMF ATM
4818	2818	PCI 155 Mbps SMF OC3 ATM
4838	2838	PCI 100/10 Mbps Ethernet IOA
4961	4961	240V, 6ft, 30A Line Cord
5065	5065	#5065 Storage/PCI Expansion Tower
5066	5066	1.8 M I/O Tower
5072	5072	#5072 1063 Mbps System Unit Expansion Tower
5073	5073	#5073 1063 Mbps System Unit Expansion Tower
5078	5078	PCI Expansion Unit
5079	5079	1.8 M I/O Tower
5121	5121	Pwr Regulator Card
5130	5130	Tower Attach Power (RISC)
5133	5133	Feature Power Supply
5134	5133	Feature Power Supply
5135	5135	Feature Power Supply
5136	5136	Feature Power Supply
5138	515F	Redundant Power and Cooling
5140	5140	Regulator
5141	5141	3.6V I/O Regulator
5142	5142	Tower Attach Power

Feat. Code	CCIN	Description
5143	5143	Feature Power Supply (400W)
5144	5144	BBU External (Opt)
5145	5145	BBU Internal (Opt)
5146	5146	Redundant Power (Bulk+Reg)
5147	5147	Feature Power -560W
5148	5148	Addnl Battery Backup Internal
5149	5149	Redundant Power (bulk+reg)
5150	5150	Battery Backup (External)
5151	5151	Power Supply (650 Watts)
5152	5152	Feature Power Supply (500W)
5153	5153	Redundant Power Supplies
5156	5156	#5156 Redundant Power and Cooling
5157	5157	#5157 Feature Power Supply
5160	5160	#5160 Power Distribution Unit
5161	5161	#5161 Power Distribution Unit
5162	5162	#5162 Power Distribution Unit
5343	6343	Base Tape Replace (1.2 GB)
5348	6348	Base Tape Replace (1.2 GB)
5349	6349	Base Tape Replace (2.5 GB)
5700	5700	PCI 1 Gbps Ethernet IOA
5701	5701	PCI 1 Gbps Ethernet UTP IOA
6040	6040	Twinaxial Workstn Controller
6041	6041	ASCII Workstation Controller
6050*	6050	Twinaxial Workstation Controller
6054*	6054	LOCAL TALK Controller
6100	6100	Disk Unit (315 MB)
6103	6103	Single Disk Unit (400 MB)
6105	6105	Single Disk Unit (320 MB)
6107	6107	Single Disk Unit (400 MB)
6108	6105	Addition Dual Disk (640 MB)
6109	6109	Single Disk Unit (988 MB)
6110*	6110	Mag Storage Dev Controller
6111*	6111	Mag Storage Dev Controller
6112*	6112	Magnetic Storage Device Controller
6120	6107	Dual Disk Unit (800 MB)
6121	6107	Addition Dual Disk (800 MB)
6123	6109	Addition Dual Disk (1976 MB)
6124	6109	Base DASD Upgrade (1976 MB)
6125	6109	Base DASD Replace (988 MB)
6126	6104	Base DASD Replace (988 MB)
6127	6109	Base DASD Replace (1976 MB)
6140*	6140	Twinaxial Workstation Controller
6141*	6141	ASCII Workstation Controller
6146*	6146	Diskette Adapter
6147*	6147	Diskette Adapter
6148*	6148	8-Port Twinaxial Expansion
6149	6149	16/4 Mbps Token-Ring IOA
6150*	6150	Three-Line Comm Controller
6151*	6151	X.21 One-Line 20
6152*	6152	EIA 232/V.24 Adapter
6153*	6153	V.35 One-Line (20-ft. Cable)
6154	6152	EIA 232/V.24 One-Line 20E
6155	6152	EIA 232/V.24 One-Line 20
6160	6160	Token-Ring Network Adapter
6171	6151	X.21 One-Line 50
6173*	6153	V.35 One-Line (50-ft. Cable)

Feat. Code	CCIN	Description
6174	6152	EIA 232/V.24 One-Line 50E
6175	6152	EIA 232/V.24 One-Line 50
6180	6180	Twinaxial Workstation IOA
6181	6181	Ethernet/IEEE 802.3 IOA
6183	6183	6 port ASCII IOA
6325	6321	CD-ROM
6335	6335	840 MB QIC-mini Tape Unit
6340	6340	13 GB QIC mini Tape Unit
6341	6341	120 MB ¼-in Cart Tape
6342	6342	525 MB ¼-inch Cart Tape
6343	6343	1.2 GB ¼-inch Cart Tape
6344	6344	2.5 GB ¼-in Cart Tape
6345	6345	13 GB ¼-in Cart Tape
6346	6346	120 MB ¼-in Cart Tape
6347	6347	525 MB ¼-in Cart Tape
6348	6348	1.2 GB ¼-in Cart Tape
6349	6349	2.5 GB ¼-in Cart Tape
6350	6350	13 GB ¼-in Cart Tape
6365	6335	840 MB QIC-mini Tape Extrl
6366	6366	120 MB ¼-in Cart Tape
6367	6366	525 MB ¼-in Cart Tape
6368	6368	1.2 GB ¼-inch Cart Tape
6369	6369	2.5 GB ¼-inch Cart Tape
6370	6370	13 GB ¼-in Cartridge Tape
6380	6380	2.5 GB ¼-inch Cart Tape
6381	63A0	2.5 GB ¼-inch Cart Tape
6382	63A0	4 GB ¼-inch Cartridge Tape
6383	63A0	16 GB ¼-inch Cartridge Tape
6384	63A0	30 GB ¼-inch Cartridge Tape
6385	6385	13 GB ¼-inch Cartridge Tape
6386	63A0	25 GB ¼-inch Cartridge Tape
6390	6390	7 GB 8mm Cartridge Tape Unit
6425	6321	CD-ROM
6480	6380	2.5 GB ¼-inch Cart Tape
6481	63A0	2.5 GB ¼-inch Cart Tape
6482	63A0	4 GB ¼-inch Cartridge Tape
6483	63A0	16 GB ¼-inch Cartridge Tape
6484	63A0	30 GB ¼-inch Cartridge Tape
6485	6385	13 GB ¼-inch Cartridge Tape
6486	63A0	25 GB ¼-inch Cartridge Tape
6490	6390	7 GB 8mm Cartridge Tape
6500*	6500	Disk Controller
6501*	6501	Tape/Disk Device Controller
6502*	6502	Disk Unit Controller for RAID
6509	6509	Addl 16 MB FSIOP Memory
6512*	6512	Disk Unit Controller for RAID
6513*	6513	Internal Tape Device Controller
6516	6506	16 MB One-Port FSIOP
6517	6506	32MB One-Port FSIOP
6518	6506	48MB One-Port FSIOP
6519	6506	64 MB One-Port FSIOP
6520	6520	Upgrade 1 to 2 Port FSIOP
6522*	6502	Disk Unit Cntrlr for RAID
6523	6530	Disk Unit Controller
6526	6506	16MB Two-Port FSIOP
6527	6506	32MB Two-Port FSIOP
6528	6506	48MB Two-Port FSIOP
6529	6506	64MB Two-Port FSIOP

Feat. Code	CCIN	Description
6530*	6530	Storage Device Controller
6532	6532	RAID Disk Unit Controller
6533	6533	RAID Disk Unit Controller
6534	6534	Magnetic Media Controller
6536	6535	SSA Disk Unit Cntrlr
6537	6535	SSA RAID Disk Unit Cntrlr
6601	6601	Single Disk Unit (1031 MB)
6602	6602	Single Disk Unit (1031 MB)
6603	6603	Single Disk Unit (1967 MB)
6605	6605	1.03 GB Disk Unit
6606	6606	1.96GB Disk Unit
6607	6607	4.19GB Disk Unit
6612	6602	Dual Disk Unit (2.0 GB)
6613	6603	Dual Disk Unit (4 GB)
6616	6616	Integrated PC Server
6617	6617	Integrated PC Server
6618	6617	Integrated Netfinity Server
6650	6603	Addl Disk Unit (1.96 GB)
6652	6602	Addl Disk Unit (1.03 GB)
6701	6601	Base Disk Replace (1.0 GB)
6713	6713	8.58GB Disk Unit
6714	6714	17.54GB Disk Unit
6717	6717	8.58GB 10k rpm Disk Unit
6718	6718	17.54GB 10k rpm Disk Unit
6750	6750	MFIOP
6752	6752	MFIOP
6753	6753	MFIOP
6802	6602	Base Disk Replace (1.0 GB)
6806	6606	1.96GB Disk Unit
6807	6607	4.19GB Disk Unit
6812	6602	Base Disk Replace (2.0 GB)
6813	6713	8.58GB Disk Unit
6817	6717	8.58GB 10k rpm Disk Unit
6818	6718	17.54GB 10k rpm Disk Unit
6824	6714	17.54GB Disk Unit
6831	6831	1.6GB Read Cache Device
6906	6606	1.96 GB Disk Unit
6907	6607	4.19GB Disk Unit
7104	7104	System Unit Expansion
7123	283F	DASD Expansion Unit
7124	28BC	DASD Expansion Unit - 5 slot
7127	283F	DASD Expansion Unit
7128	7128	#7128 DASD Expansion Unit
7130	7130	#7130 Expansion Unit Tape Cage
7133	283F	DASD Concurrent Maint Cage
7135	3135	Opt 256 MB Main Storage
7136	28CD	DASD Expansion Unit - 6 slot
7137	28CD	DASD Concurrent Maintenance
7157	3157	Opt Base 128 MB Main Storage
7158	3158	Opt Base 256 MB Main Storage
7174*	9174	Ethernet IOA
7175*	9175	Token Ring IOA
7186	3186	Opt Base 128 MB Main Storage
7187	3187	Opt Base 256 MB Main Storage
7255	3155	Opt Base 256 MB Main Storage
7263	3163	Opt Base 256 MB Main Storage
7264	3164	Opt Base 512 MB Main Storage

Feat. Code	CCIN	Description
7265	3165	Opt Base 1024MB MS
7266	3166	Opt Base 256MB MS
7343	6343	1.2 GB ¼-inch Cart Tape
7344	6344	2.5 GB ¼-in Cart Tape
7347	6347	Base Tape Upgrade (525 MB)
7348	6348	1.2 GB ¼-in Cart Tape
7349	6349	2.5 GB ¼-in Cart Tape
7500	6713	Quantity 150 of #4314
7501	6717	Quantity 150 of #4317
7502	6718	Quantity 150 of #4318
7503	6714	Quantity 150 of #4324
7504	6719	Quantity 150 of #4319
7508	4326	Quantity 150 of #4326
7509	4327	Quantity 150 of #4327
7607	6607	Opt Base 4.19GB Disk Unit
7613	6603	Base DASD Replace (3934 MB)
7713	6713	Opt Base 8.58GB Disk Unit
8052	5052	Opt 16 Disk Unit Expansion
8054*	6054	LocalTalk Adapter
8079	9079	Opt Base 1.8 M I/O Rack
8093	8093	Opt Base 1.8 M I/O Rack
8094	8094	Opt Base 1.8 M I/O Rack
8110	6110	Std Mag Storage Controller
8111	6111	Std Mag Storage Controller
8123	6109	Dual Disk Unit (1976 MB)
8135	3135	Opt Base 256 MB Main Storage
8152	9152	Opt Base Twinaxial
8156	3156	Opt Base 64 MB Main Storage
8157	3157	Opt Base 128 MB Main Storage
8158	3158	Opt Base 256 MB Main Storage
8160	3160	Opt Addtl 16 MB Main Storage
8162	9162	Opt Base MFIOP w/Twinaxial
8172	3172	Delt Price 32 MB
8180	3180	Opt Base 512 MB Main Storage
8185	3185	Opt Base 64 MB Main Storage
8186	3186	Opt Base 128 MB Main Storage
8187	3187	Opt Base 256 MB Main Storage
8191	3191	Opt Base 512 MB Main Storage
8192	3192	Opt Base 1024 MB Main Storage
8193	3193	Opt Base 2048 MB Main Storage
8210	3110	Optional 64 MB Main Storage
8253	3153	Opt Base 64 MB Main Storage
8254	3154	Opt Base 128 MB Main Storage
8255	3155	Opt Base 256 MB Main Storage
8264	3164	Opt Base 512 MB Main Storage
8265	3165	Opt Base 512 MB Main Storage
8342	6342	525 MB ¼-inch Cart Tape
8343	6343	1.2 GB ¼-inch Cart Tape
8344	6344	2.5 GB ¼-in Cart Tape
8345	6345	13 GB ¼-in Cartridge Tape
8347	6347	525 MB ¼-in Cart Tape
8348	6348	1.2 GB ¼-in Cart Tape
8349	6349	2.5 GB ¼-in Cart Tape
8505	2630	I/O Card Unit Conversion
8606	6606	Single Disk Unit (1967 MB)
8607	6607	Opt Base DASD (4.194 GB, reg)
8609*	2654	EIA 232/V.24 Two-Line
8612	6602	Base 2.0GB Dual Disk Unit

Feat. Code	CCIN	Description
8613	6603	Base DASD Upgrade (3934 MB)
8617	6717	Opt Base 8.58GB 10k rpm Disk
8618	6718	Opt Base 17 GB 10k rpm Disk
8650	6603	Opt Disk Unit (1.967GB,2byte)
8664	2618	Opt Base Fiber DD Intf
8665	2665	Opt Base Shielded DD Intf
8706	6606	Opt Base Disk Unit (1.967 GB)
8707	6607	Opt Base Disk Unit (4.194 GB)
8713	6713	Opt Base 8.58GB Disk Unit
8714	6714	Opt Base 17.54GB Disk Unit
8716	6506	Optional 16MB One-Port FSIOP
8717	6506	Optional 32MB One-Port FSIOP
8718	6506	Optional 48MB One-Port FSIOP
8719	6506	Optional 64MB One-Port FSIOP
8726	6506	Optional 16 MB Two-Port FSIOP
8727	6506	Optional 32MB Two-Port FSIOP
8728	6506	Optional 48 MB Two-Port FSIOP
8729	6506	Optional 64MB Two-Port FSIOP
8813	6713	Opt Base 8.58GB Disk Unit
8817	6717	Opt Base 8.58GB 10k rpm Disk
8818	6718	Opt Base 17GB 10k rpm Disk
8824	6714	Opt Base 17.54GB Disk Unit
8863*	2609	EIA 232/V.24 Two line 20E
8866*	2609	EIA 232/V.24 Two line 50E
8917	6717	Opt Base 8.58 GB 10k rpm Disk
8918	6718	Opt Base 17 GB 10k rpm Disk
8924	6714	Opt Base 17.54 GB Disk Unit
9000	7000	Panel Keylock Feature
9020	9020	V.35 Cable 20-ft.
9021	9021	X.21 Cable 20-ft.
9022	9022	EIA232 20-ft. Cable
9023	9023	V.24 20-ft. Enhanced Cable
9024	9024	Token-Ring Cable (2.44m)
9025	9025	Ethernet Cable AUI (3m)
9026	9026	EIA 232 6m Client Acc cable
9027	9027	EIA 232 2.5m Clnt Acc cable
9050	6050	Base Twinaxial Workstn Cntl
9053	6053	Std Twinaxial WSC Specify
9054	6054	Std LocalTalk Controller
9100	6100	315 MB Disk Unit Relocation
9102	6102	Std 320 MB Disk Unit
9103	6103	Std 400 MB Disk Unit
9104	6104	Std 988 MB Disk Unit
9106	6105	Standard Dual Disk (640 MB)
9109	6109	Std 988 MB Disk Unit Spec
9110	3110	Std 64 MB Main Storage
9116	7116	High Performance CD Enable
9117	7117	Expansion Unit 1
9120	6107	Standard Dual Disk (800 MB)
9122	6122	Std 851MB Disk Unit (RPQ)
9126	7126	STD Mixed Disk Enabler
9140	6140	Twinaxial Workstn Control
9141	6141	ASCII Workstation Control
9143*	9143	Twinaxial Workstn Controller
9144*	2637	ASCII Workstation Controller
9145*	9145	Std MFIOP/ASCII WSC
9146	2638	Std MFIOP/TWINAXIAL WSC
9147	2637	Std MFIOP/ASCII WSC

Feat. Code	CCIN	Description
9148	2661	Std MFIOP/Twinaxial WSC
9149*	9149	Twinaxial passthru adapter
9150	2637	Std MFIOP/ASCII WSC
9151	2661	Std MFIOP/Twinaxial WSC
9152	9152	Std MFIOP/Twinaxial WSC
9153	9153*	Std MFIOP wo/Twinaxial WSC
9156	3156	Std 64 MB Main Storage
9159	3159	Std 8 MB Main Storage
9160	3160	Std 16 MB (2 SIMM)
9161	3161	Std 32 MB Main Storage
9162*	9162	Std MFIOP w/Twinaxial WSC
9163*	9163	Std MFIOP
9164	9164	Std MFIOP
9171*	917A	Std MFIOP/ASCII WSC
9172*	2661	TWINAXIAL MFIOP
9173*	917C	Std MFIOP/LocalTalk WSC
9174*	9174	Base ETHERNET IOA
9175*	9175	Base Token Ring IOA
9176*	918E	Base MFIOP
9177*	918D	EtherN MFIOP
9179	3179	Base 256 MB Main Storage
9184	3184	Standard 32 MB Main Storage
9185	3185	Standard 64 MB Main Storage
9190	3190	Base 256 MB Main Storage
9211	9211	60 meter SPCN Optical cable
9212	9212	100 meter SPCN Optical cable
9215	9215	60 meter SPCN Copper Cable
9231	3131	Opt Base 64 MB Main Storage
9232	3132	Opt Base 128 MB Main Storage
9234	3134	Std 128 MB Main Storage
9243	9243	400W Availability Bulk
9249	6149	Base 16/4 Mbps Token-Ring IOA
9252	3152	Std 32 MB Main Storage
9254	3154	Std 128 MB Main Storage
9262	3162	Std 128 MB Main Storage
9263	3163	Std 256 MB Main Storage
9266	3166	Std 256 MB Main Storage
9272	3172	Std 32 MB Main Storage
9280	6180	Base Twinaxial WSC
9282	3172	Std 32 MB Main Storage
9301	9301	Upgraded 30-Disk Expansion
9304	3104	Std 64 MB Main Storage
9313	6713	Base 8.58GB Disk Unit
9341	6341	Std 120 MB ¼-inch Tape
9342	6342	Std 525 MB ¼-inch Tape
9343	6343	Std 1.2 GB ¼-inch Tape
9347	6347	Std 525 MB ¼-inch Tape
9348	6348	Std 1.2 GB ¼-inch-inch Tape
9380	6380	2.5 GB ¼-inch Cart Tape
9381	6181	Base Ethernet/IEEE 802.3 IOA
9517	6517	Std File Svr 32MB 1 Port
9520	6320	Std CD-ROM
9529	6529	Std File Svr 64MB 2 Port
9584	2584	ASCII Workstation Controller
9585	2585	Twinaxial Workstn Controller
9601	6601	Standard 1.0GB Disk Unit
9602	6602	Standard 1.0GB Disk Unit
9605	6605	Std 1.031 Disk Unit

Feat. Code	CCIN	Description
9606	6606	Base 1.96GB Disk Unit
9609	2654	Std EIA 232/V.24 2-line
9612	2612	Std EIA 232/V.24 1-Line/Ad
9617	2617	Base Ethernet IOP
9619	2619	Base 16/4 Mbps Token-Ring IOP
9623	2623	Std Six Line Comm Cntrlr
9624	2624	Store Device Control Spec
9651	2651	Storage Device Controller
9652	6602	Std Disk Unit (1.031 GB, 2 Byte)
9673	2673	Std Optical Bus Adapter
9696	2696	Base Optical Bus Adapter
9699	2699	Base Two-Line WAN IOA
9705	6605	Std 1.031 Disk Unit regulated
9707	6607	Base 4.19 GB Disk Unit
9720	2720	Base PCI WAN/Twinaxial IOA
9721	2721	Base PCI Two-Line WAN IOA
9723	2723	Base Ethernet IOA
9724	2724	Base 16/4Mbps Token-Ring IOA
9726	0446	Base 512 MB Server Memory
9728	2728	Base PCI Disk Unit Controller
9738	2838	Base PCI 100/10Mbps Ethernet
9739	2739	Base Optical Bus Adapter
9739	9739	Base Optical Bus Adapter
9740	2740	Base PCI RAID Disk Unit Controller
9745	2745	Base PCI Two-Line WAN IOA
9746	2746	Base PCI Twinaxial Wrkstn IOA
9748	2748	Base PCI Disk Unit Controller
9749	2849	Base PCI 100/10 Ethernet IOA
9751	6751	Base MFIOPI with RAID
9753	6753	Base MFIOPI
9754	6754	Base MFIOPI with RAID
9767	2767	Base PCI Disk Unit Controller
9771	2771	Base PCI 2-Line WAN w/Modem
9778	2778	Base PCI RAID Disk Unit Controller
9792	2892	Base PCI Integ xSeries Srvr
9793	2793	Base PCI 2-Line WAN w/Modem
9794	2793	Base PCI 2-Line WAN w/Modem
9800	2800	Internal Disk Unit (640 MB)
9801	2801	Internal Disk Unit (1 GB)
9802	2802	Std 2.0 GB Int Disk Unit
9803	9803	2.5 meter DFCI cable
9814	9814	20-ft. Antenna Cable Wireless
9815	9815	50-ft. Antenna Cable Wireless
9820	9820	2nd Bus cable for Model 300
9835	9835	V.24 Cable 50-ft. Enhanced
9836	9836	EIA232 Cable 50-ft.
9838	9838	V.35 Cable 50-ft.
9839	9839	X.21 Cable 50-ft.
9844	2844	Base PCI IOP
9853	9853	20.0 meter optical bus cable
9854	9854	60 meter optical bus cable
9855	9865	100.0 M optical bus cable
9862	6152	EIA 232/V.24 One line 20E
9865	6152	EIA 232/V.24 One line 50E
9879	9879	20-ft./6m V.35 Cable
9880	9880	80-ft./24.4m V.35 Cable

Feat. Code	CCIN	Description
9882	9882	20-ft./6m V.36 Cable
9883	9883	80-ft./24.4m V.36 Cable
9884	9884	150-ft./45.7m V.36 Cable
9885	9885	20-ft./6m X.21 Cable
9886	2886	Base Optical Bus Adapter
9904	4104	4 MB Main Storage
9907	6607	Base 4.19GB Disk Unit
9927	9927	Channel Box and cable
9928	9928	1.7 meter attach cable
9929	9929	6.6 meter attach cable
9930	9930	24.0 meter attach cable
9943	2843	Base PCI IOP
9980	9980	Serpentine Cable Connector

**Note:** As of January 2000, level 3 microcode fixes for these adapters are no longer provided. There are no further microcode changes for these components. IBM service and maintenance agreements on systems containing these I/O adapters can be offered within guidelines. Contact your IBM Service Representative for further information.





## Software for iSeries and AS/400e systems

OS/400 Version 5, Version 4, and some Version 3 releases (specifically V3R7, and V3R6) are supported by RISC-based processors. This chapter covers OS/400 and related software information for all software releases supporting RISC and POWER4 processors. OS/400 V5R2 supports all POWER4 processors, and all RISC processors except the 5xx and 4xx models.

**Note:** RISC processor-based models of the iSeries and AS/400e servers are 800, 810, 820, 830, 840, 270, SB2, SB3, 250, 720, 730, 740, 150, 620, 630, 640, 5x0, 4x0, and Sx0. POWER4 is the chip technology used in the Model 825, 870, and 890.

All OS/400 software releases up to and including V3R2 run only on CISC models of the AS/400 system (Bx0, Cx0, Dx0, Exx, Fx0, P0x, 100, 135, 140, 2x0, and 3x0 Models). For information on software supporting these CISC systems, refer to the Redpaper *AS/400 CISC System Builder*, REDP0042.

## 11.1 Minimum OS/400 software level requirements for iSeries and AS/400e hardware

The following table identifies the minimum OS/400 software release required for iSeries and AS/400e models. The Model 170, for example, has a minimum release of V4R2. A minimum of OS/400 V5R2 or V5R1 is required for most of the newer processors.

V3R6	V3R7	V4R1
<p><b>All 9402 400 and 40S models</b> (except #2111 and #2112 processors)</p> <p><b>All 9406 500, 510, 530, 50S and 53S models</b> (except #2122, #2157 and #2162 processors)</p> <p><b>All 9402 4xx Hardware and Hardware/Software Packages</b> (#2111 and #2112 processors require stack feature #1988)</p> <p><b>3995 Direct Attach to 4xx and 5xx models</b> (with stack feature #1980 and #1986)</p> <p><b>9402 40S #2111, #2112; 9406 50S #2122; 9406 530 #2162; 9406 53S #2157</b> (all with stack feature #1988)</p>	<p><b>9401-150 #018x Packages</b></p> <p>#6385 13 GB ¼-inch Cartridge Tape Unit for 5xx models</p> <p>#6513 Internal Tape Device Controller</p> <p>#6607 4.19 GB Additional Two-byte Disk Unit in 4xx models</p> <p>#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI) in 5xx models</p> <p>#6616 Integrated PC Server (with PTF package C7029370)</p> <p>#2861 32 MB IPCS Memory</p> <p>#2862 128 MB IPCS Memory</p> <p>#6149 16/4 Mbps Token Ring IOA</p> <p>#6181 ASCII Workstation Controller</p>	<p><b>All 9406 600, 620, 640, 650, S10, S20, S30, S40 and #2310 SB1 models</b></p> <p>9401-150 #019x Packages</p> <p>7208-342 8mm Tape Drive</p> <p>#03xx Communications Cables</p> <p>#2629 LAN/WAN/Workstation IOP</p> <p>#2699 Two-Line WAN IOA</p> <p>#2810 LAN/WAN IOP</p> <p><b>#2838 PCI 100/10 Mbps Ethernet IOA</b></p> <p>#4838 PCI 100/10 Mbps Ethernet IOA</p> <p>#6180 Twinaxial Workstation IOA</p> <p>#6532 RAID Disk Unit Controller</p> <p>#6534 Magnetic Media Controller</p>

V4R2	V4R3	V4R4
<b>9401-150 #029x Packages</b> <b>9406-170 model</b> <b>9406-S20 #2170 Processor</b> <b>9406-S40 #2256 Processor</b> 7207-122 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) #0222 100/10 Mbps Ethernet on IPCS #0295 Performance Enhancement/28 Workstations (on 9401 Model 150) #0325 IPCS Extension Cables for NT #1334 2-byte 17.54 GB Disk Unit Kit #1700 IPCS Keyboard/Mouse for NT <b>#2718 PCI Magnetic Media Controller</b> #2740 PCI RAID Disk Unit Controller #2741 PCI RAID Disk Unit Controller #2811 PCI 25 Mbps UTP ATM IOA #2812 PCI 45 Mbps Coax T3/DS3 ATM IOA #2815 PCI 155 Mbps UTP OC3 ATM IOA #2816 PCI 155 Mbps MMF ATM IOA #2818 PCI 155 Mbps SMF OC3 ATM IOA #2819 PCI 34 Mbps Coax E3 ATM IOA #2852 Integrated PC Server #2854 PCI Integrated PC Server #2865 PCI Integrated Netfinity Server #2866 PCI Integrated Netfinity Server #3179 256 MB main storage #3180 512 MB main storage #6381 2.5 GB ¼-inch Cartridge Tape (on 9401 Model 150) #6714 17.54 GB Disk Unit #6824 17.54 GB Disk Unit #8180 Optional Base 512 MB Main Strg #8714 Optional Base 17.54 GB Disk Unit #8824 Optional Base 17.54 GB Disk Unit #9179 Base 256 MB main storage #9754 MFIOP with RAID	<b>9401-150 #039x Packages</b> <b>9406-170 #229x Processors</b> <b>9406-170 #238x Processors</b> <b>9406-650 #2188 Processor</b> <b>9406-650 #2189 Processor</b> <b>9406-S40 #2207 Processor</b> <b>9406-S40 #2208 Processor</b> <b>9406-S40 #2340 Processor</b> <b>9406-S40 #2341 Processor</b> <b>9406-SB1 #2312 Processor</b> <b>9406-SB1 #2313 Processor</b> #0328 Operations Console Cable #0367 Operations Console PCI Cable #0380 Remote Control Panel Cable #0381 Remote Control Panel Cable #2741 PCI RAID Disk Unit Controller (on 9406 Model 170) #3003 256 MB main storage #3193 2048 MB main storage #5544 System Console on Operations Console #6824 17.54 GB Disk Unit (on 9406 Model 170) #8193 Optional Base 2048 MB main storage #8824 Optional Base 17.54 GB Disk Unit (on 9406 Model 170) V4R3 features 2/99 announce date #20xx 7x0 Processors #149x Interactive Specify codes #15xx Interactive cards #0034 Red Covers #003A Internet Leased Line #0220 Token Ring on IPCS #0221 Ethernet on IPCS #0422 JDE Pkg 1 Ready to go NTIPCS #0423 JDE Pkg 2 Ready to go Netfinity #0445 Preload Acacia #0465 Preload Lilly #2745 PCI Two-Line WAN IOA #2867 256 Mb Memory #5536 Alt IPL Specify for 25 GB #6386 25 GB ¼-inch Cartridge Tape Unit #6717 8.58 GB 10k RPM Disk Unit #6817 8.58 GB 10k RPM Disk Unit #6824 17.54 GB Disk Unit (on 9406 Model 170) #8193 Optional Base 2048 MB main storage #8617 8.58 GB Optional Base 10k RPM Disk Unit #8817 8.58 GB Optional Base Two-byte Disk Unit 10k RPM #8824 Optional Base 17.54 GB Disk Unit (on 9406 Model 170)	#2746 PCI Twinaxial Workstation IOA #2748 PCI RAID Disk Unit Controller #2750 PCI ISDN BRI U Adapter #2751 PCI ISDN BRI S/T IOA #2761 PCI Integrated Analog Modem #2824 PCI Feature ControllerP #4308 4.19 GB Disk Unit #4314 8.58 GB Disk Unit #4317 8.58 GB Disk Unit 10k RPM #4318 17.54 GB Disk Unit 10k RPM #4324 17.54 GB Disk Unit #4331 1.6 GB Read Cache Device #4425 CD-ROM #4482 4 GB ¼-inch Cartridge Tape Unit #4483 16 GB ¼-inch Cartridge Tape Unit #4486 25 GB ¼-inch Cartridge Tape Unit #4800 PCI Cryptographic Processor #5065 Storage/PCI Expansion Tower #5066 1.8 M I/O Tower #6325 Optional CD-ROM #6383 16 GB ¼-inch Cartridge Tape Unit #6425 CD-ROM #6483 16 GB ¼-inch cartridge tape #6718 17.54 GB 10k RPM Disk Unit #6818 17.54 GB 10k RPM Disk Unit #6831 1.6 GB Read Cache Device #7102 System Expansion Unit #8618 17.54 GB Optional Base 10k RPM Disk Unit #8818 17.54 GB Optional Base Two-byte Disk Unit 10k RPM #9330 PCI Integrated Expansion Unit

Software

V4R5	V5R1	V5R2
<b>9406-250</b> #0295, #0296, #0297, #0298 <b>Processors</b>	<b>9406-270</b> #2431, #2432, #2434 <b>Processors</b>	<b>9406-800</b> #2463 <b>Processor</b>
<b>9406-270</b> #2248, #2250, #2252, #2253 <b>Processors</b>	<b>9406-270</b> #2452, #2454 <b>DSD Processors</b>	<b>9406-810</b> #2465, #2466, #2467, #2469 <b>Processors</b>
<b>9406-270</b> #2422, #2423, #2424 <b>DSD Processors</b>	<b>9406-820</b> #0150, #0151, #0152, #2435, #2436, #2437, #2438 <b>Processors</b>	<b>9406-825</b> #2473 <b>Processor</b>
<b>9406-820</b> #2395, #2396, #2397 <b>Processors</b>	<b>9406-820</b> #2456, #2457, #2458 <b>DSD Processors</b>	<b>9406-870</b> #2486 <b>Processor</b>
<b>9406-820</b> #2425, #2426, #2427 <b>DSD Processors</b>	<b>9406-830</b> #0153, #2349, #2351 <b>Processors</b>	<b>9406-890</b> #0197, #0198, #2487, #2488, #2497, #2498 <b>Processors</b>
<b>9406-830</b> #2400, #2402, #2403 <b>Processors</b>	<b>9406-840</b> #0158, #0159, #2461 <b>Processors</b>	#15xx Interactive Card
<b>9406-840</b> #2416, #2417, #2418, #2419, #2420 <b>Processors</b>	9406-8x0 #235x CUoD	#2742 Two-Line WAN IOA
#146x HSL Cables	#037x LC-SC Adapter Kit	#2757 PCI Ultra RAID Disk Controller
#146x SPCN Cables	#1422 PDU Line Cord	#2776 HSL-2 8 port copper
#15xx Interactive features for 270 and 8xx	#147X Optical HSL Cable	#2782 PCI-X RAID Disk Unit Controller
#2743 1 Gbps PCI Ethernet IOA	#1548 Interactive Capacity Card	#2785 HSL-2 Ports - 2 Copper
#2744 PCI 100 Mbps Token Ring IOA	#2739 Optical Bus Adapter	#2786 HSL Ports - 2 Optical
#2749 PCI Ultra Magnetic Media Controller	#275x HSL Ports	#2844 PCI IOP
#2763 PCI RAID Disk Unit Controller	#2760 PCI 1 Gbps Ethernet UTP Adapter	#2886 Optical Bus Adapter
#2768 PCI Magnetic Media Controller	#2765 PCI Fibre Channel Tape Controller	#2887 HSL Two Bus Adapter
#2790 PCI Integrated Netfinity Server IOP	#2766 PCI Fibre Channel Disk Controller	#2788 HSL 8 port optical
#2795 128 MB IOP Memory	#2772 PCI Dual WAN/Modem IOA	#2792 PCI Integrated xSeries Server
#2796 256 MB IOP Memory	#2773 PCI Dual WAN/Modem IOA (ANSI)	#2793/#9793 2-line WAN IOA with modem
#2797 1 GB IOP Memory	#2777 HSL Ports - 8 Copper	#2794/#9794 2-line WAN with modem IOA
#2842 PCI IOP (Model 270)	#2778 PCI RAID Disk Unit Controller	#2844 PCI IOP
#2843 PCI IOP (Model 8xx)	#2799 PCI Integrated xSeries Server	#2849 10/100 Mbps Ethernet Adapter
#2881 Main Storage Expansion	#2805 PCI Quad Modem IOA	#2892 PCI Integrated xSeries Server
#2884 Main Storage Expansion Riser Card	#2806 PCI Quad Modem (CIM)	#4805 Cryptographic Accelerator
#2890 PCI Integrated Netfinity Server	#2817 PCI 155 Mbps MMF ATM IOA	#3020 4 GB main storage
#2895 128 MB IOP Memory	#2899 PCI Integrated xSeries Server	#3021 4 GB main storage
#2896 256 MB IOP Memory	3007 1 GB main storage	#3015 8 GB main storage
#2897 1 GB IOP Memory	3009 128 MB main storage	#3016 8 GB main storage
#3xxx Memory for 270 and 8xx Models	3027 1 GB main storage	#3017 32 GB main storage
#4430 DVD-RAM	3029 128 MB main storage	#3018 32 GB main storage
#4525 CD-ROM		#3035 16 GB main storage
#4530 DVD-RAM		#3036 16 GB main storage
#4582 4 GB ¼-inch Cartridge Tape Unit		#3042 256 MB main storage
#4583 16 GB ¼-inch Cartridge Tape Unit		#3043 512 MB main storage
#4586 25 GB ¼-inch Cartridge Tape Unit		#3044 1024 MB main storage
#4625 CD-ROM		#3046 2048 MB main storage
#4630 DVD-RAM		#3092 256 MB main storage
#4682 4 GB ¼-inch Cartridge Tape Unit		#3093 512 MB main storage
#4683 16 GB ¼-inch Cartridge Tape Unit		#30941024 MB main storage
#4686 25 GB ¼-inch Cartridge Tape Unit		#3096 2048 MB main storage
#4723 PCI 10 Mbps Ethernet Adapter		#4326 35.16 GB 15k RPM Disk Unit
#4745 PCI 2-line WAN IOA		#4327 70.56 GB 15k RPM Disk Unit
#4746 PCI Twinaxial IOA		#4531 DVD-ROM
#4748 PCI RAID Disk Unit Controller		#4631 DVD-ROM
#475x ISDN IOAs		#5088 PCI-X Expansion Unit
#4761 PCI Integrated Analog Modem		#5094 PCI-X Expansion Tower
#4801 PCI Cryptographic Coprocessor		#5095 PCI-X Expansion Tower
#481x 155 Mbps ATM IOAs		#5108 PCI-X Expansion Unit
#4838 PCI 100/10 Mbps Ethernet IOA		#5115 Dual Line Cords - Tower
#503x Migration Tower I		#5116 Dual Line Cords - 5294 Tower
#5074 PCI Expansion Tower		#5138 Redundant Power and Cooling
#5075 PCI Expansion Tower		#52941.8 M PCI Expansion Tower
#5077 Migration Tower II		
#5079 1.8 M I/O Tower		

V4R5	V5R1	V5R2
(cont.)	(cont.)	(cont.)
#7002 HSL Enabler - Internal Flex Cable	3032 256 MB main storage	#5700 PCI 1 Gbps Ethernet IOA
#7104 System Unit Expansion	3033 512 MB main storage	#5701 PCI 1 Gbps Ethernet UTP IOA
#7123 DASD Expansion Unit	3034 1 GB main storage	#5702 PCI-X Ultra Tape Controller
#7127 DASD Expansion Unit	3067 1 GB main storage	#5705 PCI-X Tape/DASD Controller
#7133 DASD Concurrent Maintenance Cage	#4319 35.16 GB 10k RPM Disk Unit	#7116 System Unit Expansion
#9074 Base I/O Tower	#4487 50 GB ¼-inch Cartridge Tape Unit	#7124 DASD Expansion Unit - 5 slot
#9079 Base I/O Tower	#4587 50 GB ¼-inch Cartridge Tape Unit	#7136 DASD Expansion Unit - 6 slot
#9691 Base Bus Adapter	#4687 50 GB ¼-inch Cartridge Tape Unit	#7137 DASD Concurrent Maintenance
#973x Base HSL Ports	#4778 PCI RAID Disk Unit Controller	#8094 Optional 1.8 M I/O Rack
#9748 Base PCI RAID Disk Unit Controller	#5078 PCI Expansion Unit	#9094 Base PCI I/O Enclosure
#9767 Base PCI Disk Unit Controller	#510x PCI Disk Expansion Unit	#9492 Base PCI Integrated xSeries Server
#9771 Base PCI Two-Line WAN with integrated modem	#516x Power Dist Unit	#9746 Base PCI Twinaxial IOA
#9943 Base PCI IOP (Model 8xx)	#9002 Dual Line Cord Enabler	#9749 Base PCI 100/10 Ethernet IOA
7208-345 60 GB External 8mm Tape Drive	#9752 Base HSL Ports - 8 Copper	#9792 Base PCI Integrated xSeries Server
	#9755 Base HSL Ports - 16 Copper	#9844 Base PCI IOP
	#9777 Base HSL Ports - 8 Copper	
	#9778 Base PCI RAID Disk Unit Controller	

**Note:** You can verify this information by using the Offering Information (OITool), IBMLink™, or other online tools. You can find the OITool on the Web at:

<http://w3-3.ibm.com/sales/ssi/>

### 11.1.1 Software Inventory Tool

The Software Inventory Tool is available to assist in planning and ordering software upgrades for iSeries servers with Version 5 or Version 4 installed. The Software Inventory Tool produces a printed report that identifies the software that is installed on the customer system in these categories:

- ▶ Products ordered at no-charge with a valid Software Subscription contract
- ▶ Products not covered by Software Subscription
- ▶ Keyed products that have an invalid key for the system's software group
- ▶ User licensed products that have exceeded the usage limit
- ▶ Keyed products where no license key was found
- ▶ No charge software or software included at no charge with billed products
- ▶ Other non-categorized software products

The Software Inventory Tool provides information on the software installed on the system. It does not provide a valid Proof of Entitlement (PoE). It is the responsibility of the IBM representative or Business Partner to verify entitlement of any software that the customer has installed before an upgrade is ordered.

You can find more information on the Software Inventory Tool on the Web at:

[http://publib.boulder.ibm.com/series/v5r1/ic2924/tstudio/tech\\_ref/invtool/index.htm](http://publib.boulder.ibm.com/series/v5r1/ic2924/tstudio/tech_ref/invtool/index.htm)

## 11.2 OS/400 general availability and support

OS/400 V5R2 and V5R1 are the supported levels of operating system for the iSeries server. All earlier releases of have been withdrawn from IBM marketing and support.

The following table shows the availability and withdrawal dates of the releases of OS/400 that support AS/400e and iSeries RISC systems.

Release	General availability	Withdrawn from marketing	End of program support
R7.5 SSP	08 March 1996	09 February 1999	31 May 2000
V3R0.5	03 June 1994	11 February 1997	31 May 1997
V3R1	30 June 1995	11 February 1997	31 October 1998
V3R2	21 June 1996	10 February 1998	31 May 2000
V3R6	29 September 1995	19 August 1997	31 October 1998
V3R7	09 November 1996	01 September 1998	30 June 1999
V4R1	29 August 1997	09 February 1999	31 May 2000
V4R2	27 February 1998	09 February 1999	31 May 2000
V4R3	11 September 1998	15 February 2000	31 January 2001
V4R4	21 May 1999	31 May 2001	31 May 2001
V4R5	28 July 2000	2 July 2002	31 December 2002
V5R1	25 May 2001	21 November 2003	31 May 2003 * 31 May 2004 *
V5R2	30 August 2002	---	31 May 2003 * 31 May 2004 *

\* Announced minimum date of support via the Software Maintenance Agreement or Support Line contract. The actual termination date is declared with a 12-month notice.

## 11.3 OS/400 upgrade paths

V5R2 and V5R1 are the supported release levels of OS/400. Refer to the appropriate software installation manual for instructions to upgrade software. Single step RISC-to-RISC upgrades are supported as normal upgrade procedures.

From:	To:	V4R1 **	V4R2 **	V4R3 **	V4R4 **	V4R5 **	V5R1	V5R2
V2R3	-	X*	X*	X*	X*	-	-	
V3R05	-	-	-	X*	X*	-	-	
V3R1	X*	-	-	X*	X*	-	-	
V3R2	X*	X*	X*	X*	X*	X*	-	
V3R6	X	-	-	-	-	-	-	
V3R7	X	X	X	X	-	-		
V4R1			X	X	X	X	-	
V4R2				X	X	X	-	
V4R3					X	X	-	
V4R4						X	X	
V4R5							X	X
V5R1								X

\* For single step CISC-to-RISC upgrades (previously known as e-Jump) from V2R3, V3R0M5, V3R1, and V3R2, use the Enhanced Upgrade Assistant (5798-TBU). OS/400 V4R4 is the last release to offer single-step CISC-to-RISC upgrade capabilities from V2R3, V3R0M5, and V3R1 systems. OS/400 V4R5 is the last release to offer single-step CISC-to-RISC upgrade capabilities from V3R2.

\*\* Withdrawn from IBM support.

## 11.4 Current-release to previous-release support for OS/400

The Target Release (TGTRLS) parameter specifies the valid release of the operating system on which you intend to restore and use the object.

Values for TGTRLS parameter			
Current OS/400 release	*CURRENT	*PRV	Other valid values
V5R2	V5R2	V5R1	V4R5
V5R1	V5R1	V4R5	V4R4
V4R5	V4R5	V4R4	V4R3 V4R2 V3R2
V4R4	V4R4	V4R3	V4R2 V3R2
V4R3	V4R3	V4R2	V4R1 V3R7 V3R2
V4R2	V4R2	V4R1	V3R7 V3R2
V4R1	V4R1	V3R7	V3R6 V3R2 V3R1
V3R7	V3R7	V3R6	V3R2 V3R1 V3R0M5

## 11.5 OS/400 software ordering terminology

This section explains the standard terminology for software. The terms used for all software versions are:

- ▶ **Product identifier:** Each version of OS/400 has a product identifier. The format is 57xx-yyy. For example, V5R2 is 5722-SS1, and V4R1 is 5769-SS1.
- ▶ **HIPO:** New, preload orders of Version 5 are defined with HIPO numbers associated with the hardware product order. For example, HIPO feature 5372-IS5 is for V5R2. 5372-IS5 serves as an (administrative) software preload ordering vehicle.
- ▶ **Stack:** Associated with each release of Version 4 is a stack product identifier. The format is 575x-Ayy. For example, the stack product identifier for V4R1 is 5755-AS5.
- ▶ **Stack features:** When ordering iSeries or AS/400e software, a corresponding “stack feature” or Licensed Program Component Supply Feature is inserted into the “stack” or each product ordered.
- ▶ **Additional feature:** Additional features are stack features that relate to an optional feature of the licensed programs. The additional feature provides the delivery mechanism for the licensed programs.
- ▶ **Skip ship:** For Version 5, some products have a “skip ship” from a previous release. They retain their original product identifiers, but can still be ordered.

## 11.6 OS/400 V5R2 and V5R1 software (RISC systems)

The following table shows the OS/400 Version 5-based software products that are most commonly ordered. It is not a definitive list of all iSeries software products now available.

See 11.7, “Notes for V5R2 and V5R1 software tables” on page 326, for Version 5 software group information.

Operating system and base products	Skip ship <sup>2</sup>	Product identifier	HIPO feature (5372-IS5) <sup>2</sup> V5R1/V5R2	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Operating System/400 <sup>6,7</sup>	---	5722-SS1	1000/1000	5050	S
Media and Storage Extensions	---	5722-SS1 Option 18	1500/1500	5103	S
OptiConnect for OS/400	---	5722-SS1 Option 23	1515/1515		S
DB2 Symmetric Multiprocessing	---	5722-SS1 Option 26	1517/1517		S
DB2 MultiSystem	---	5722-SS1 Option 27	1518/1518		S
Print Services Facility™ (PSF/400) 1-45 IPM 1-100 IPM Any speed	---	5722-SS1 Option 36 Option 37 Option 38	---/1501 ---/1502 1503/1503	5112 5113 5114	S
High Availability Switchable Resource	---	5722-SS1 Option 41	1505/1505	5116	S
High Availability Journal Performance (V5R2 only)	---	5722-SS1 Option 42	---/1545	5117	S
S/38 Utilities for AS/400 <sup>6</sup>	---	5722-DB1	1521/1021		S
HTTP Server for iSeries	---	5722-DG1	---/---		S
IBM Toolbox for Java	---	5722-JC1	---/---		S
IBM Developer Kit for Java	---	5722-JV1	---/---		S
DB2 Query Manager and SQL Development Kit for iSeries <sup>6, 7</sup>	---	5722-ST1	1011/1011	5050	S
iSeries Integration for Windows Server	---	5722-WSV	---/---		S

OS/400 complementary database software	Skip ship <sup>2</sup>	Product identifier	HIPO feature (5372-IS5) <sup>2</sup> V5R1/V5R2	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Warehouse Manager for iSeries	V5R1	5724-B08			
		5722-XP1			
DCE Base Services		5769-DC1	1023/1023		
DCE DES Library Routines		5769-DC3	1024/1024		
DB2 Universal Database™ Extenders for iSeries V7.2	---	5722-DE1	---/1004	5050	S
DB2 DataPropagator for iSeries Version 7.1 <sup>6</sup> (V5R1)	✓	5769-DP3	1005/-	5050	S
DB2 DataPropagator for iSeries Version 8.1 (V5R2)	---	5722-DP4	---/1035	5050	S
QMF™ for Windows for iSeries	V5R1	5697-G24	---/---		S
DB2 Table Editor for iSeries	V5R1	5697-G84	---/--		S
DB2 Web Query Tool	V5R1	5697-G85	---/---		S
DB2 Intelligent Miner™ for Data V6.1	V5R1	5733-IM3	---/---		M

OS/400 complementary database software	Skip ship <sup>2</sup>	Product identifier	HIPO feature (5372-IS5) <sup>2</sup> V5R1/V5R2	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
iSeries ODBC Driver for Linux		5733-LO1	---/---		
DB2 OLAP Server™ for iSeries V7.1	---	5686-OLP	---/---		
Query for iSeries <sup>6, 7</sup>	---	5722-QU1	1009/1009	5050	S
Electronic Service Agent™ for iSeries		5798-RZG	---/---		
System Openness Includes	---	5722-SS1 Option 13	---/---		S
NetWare Enhanced Integration	---	5722-SS1 Option 25	---		S
Portable Application Solution Environment	---	5722-SS1 Option 33	1519/-		S
TCP/IP Connectivity Utilities for iSeries	---	5722-TC1	---/---		S
Client Access Express - Windows/iSeries Access for Windows	---	5722-XE1	---/---		S
iSeries Access for Wireless		5722-XP1			
iSeries Access Family <sup>6,7</sup>	---	5722-XW1	1012/ 1012-1013 Client Processor	5050	S

Networking products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup> (5372-IS5)	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Cryptographics Access Provider 56-bit <sup>6</sup> (V5R1)	---	5722-AC2	1016/---		S
Cryptographics Access Provider 128-bit <sup>6</sup>	---	5722-AC3	1017/1017		S
MQSeries® for iSeries (V5.2) <sup>6</sup>	✓	5733-A38	---/---	-	M
Host On-Demand		5733-A59	---/---		
iSeries Client Encryption (56-bit) <sup>6</sup> (V5R1)	---	5722-CE2	1018/---		S
iSeries Client Encryption (128-bit) <sup>6</sup>	---	5722-CE3	1019/1019		S
Communications Utilities for iSeries <sup>6</sup>	---	5722-CM1	1003/1003	5050	S
Cryptographic Support for AS/400 <sup>6</sup>	---	5722-CR1	1520/1020		S
DCE Base Services for AS/400 <sup>6</sup> Withdrawn from marketing January 2003	✓	5769-DC1	1023/1023		S
DCE DES Library Routines for AS/400 <sup>6</sup> Withdrawn from marketing January 2003	✓	5769-DC3	1024/1024		S
Communications Server for Windows NT	V5R1	5639-F25	---/---		
MQSeries Integrator for iSeries (V5R1)	---	5697-F49	---/---		
Personal Communications for Windows Version 5.5		5639-I70			
iSeries Access for Windows		5722-XE1	---/---		

Networking products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup> (5372-IS5)	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
iSeries Access for Web		5722-XH2 5722-XP1 5722-IWE	---/--- /--- /6007		

WebSphere® and e-business products	Skip ship <sup>2</sup>	Product identifier	HIPO features <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
WebSphere Standard Edition <sup>6</sup> (V5R1)	✓	5733-AS3	---/---		S
WebSphere V4.0.1 for iSeries <sup>6</sup>	✓	5722-AS4	---/---		-
Connect for iSeries (V5R1) Withdrawn from marketing January 2003	✓	5733-B2B	---/---		S
Connect for iSeries V2		5733-CO2	---/---		S
WebSphere Advanced Edition V3.5 <sup>6</sup> (V5R1) Withdrawn from marketing December 2002	✓	5733-WA3	6002/---		M
WebSphere Advanced Edition V4.0.1 <sup>6</sup>	---	5733-WA4	6000/6000		M
WebSphere Advanced Edition Single Server V4.0.1	---	5733-WS4	---/6005		M

Systems management products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Backup Recovery and Media Services for iSeries <sup>6</sup> Network Feature Advanced Feature	---	5722-BR1	1002/1002 1506/1506 1507/1507	5050 5101 5102	S
PATROL for iSeries - Predict	---	5620-FIF	---/---		---
Tivoli® Storage Manager Enterprise Edition V5.1	---	5698-ISE	---/---		---
Tivoli Storage Manager V5.1	---	5698-ISM	---/---		---
Advanced Job Scheduler for iSeries <sup>6</sup>	---	5722-JS1	1007/1007	5050	S
Tivoli Management Agent		1TME-LCF	---/---		
Managed System Services for iSeries <sup>6</sup>	---	5722-MG1	1030/1030		S
Performance Tools for iSeries <sup>6,7</sup> Manager Feature Agent Feature	---	5722-PT1 Option 1 Option2	1008/1008 1508/1508 1509/1509	5050 5101 5102	S
Content Manager OnDemand for iSeries <sup>6</sup> PDF Indexer Feature Web Enablement Kit Feature	---	5722-RD1 Option 12 Option 11	1010/1010 1510/1510 1511/1511		M
System Manager for iSeries <sup>6</sup>	---	5722-SM1	1032/1032		S

Application development products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
WebSphere Commerce Product		5724-A18	---/---		M
Screen Customizer Version 2.0.60		5648-D76	---/---		
CICS® Transaction Server for iSeries <sup>6</sup>	---	5722-DFH	1025/1025		S

Application development products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Lotus Domino for iSeries		5733-LD6	---/---		
Lotus Domino for iSeries		5769-LNT	---/---		
QuickPlace for iSeries		5733-LQP	---/---		
Application Program Driver	✓	5722-PD1	1031/1031		S
WebSphere Payment Manager for iSeries (V5R1)	✓	5733-PY2	---/---		S
Visualage Generator Server for iSeries	✓	5769-VG1	1033/1033		S
WebSphere Commerce Suite, Pro Edition for AS/400, Version 4.1	✓	5798-WC4	-		M
WebSphere Commerce Suite, Pro Edition for iSeries, Version 5.1	✓	5798-WC5	---/---		M
WebSphere Development Studio (Toolset)	---	5722-WDS	1015/1015	5050	S
ILE COBOL for iSeries <sup>6</sup>	---	Options 41-45			
ILE RPG for iSeries <sup>6</sup>	---	Options 31-35			
ILE C++ for AS/400	---	Options 52, 54			
ILE C for AS/400 <sup>6</sup>	---	Options 51, 53			
Application Development ToolSet <sup>6</sup>	---	Option 21			
Application Development Manager	---	Option 22	1543/1543		
Application Dictionary Services	---	Option 23	1544/1544		
XML Toolkit for iSeries		5733-XT1	---/---		

Office support and printing products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Advanced Function Printing Utilities for AS/400 <sup>6</sup>	---	5722-AF1	1001/1001	5050	S
AFP PrintSuite for AS/400 <sup>6</sup> APU Advanced Print Utility PPFA Page Printer Formatting Aid AF3 SAP R3 AFP Print	✓	5798-AF3 Option 1	- ---/1514	5101	S
Advanced DBCS Printer Support for AS/400 <sup>6</sup>	---	5722-AP1	1014/1014	5050	S
AFP Font Collection for Workstation and OS/400		5648-B45	---/---		
Dictionaries and Linguistic Tools for iSeries <sup>6</sup>	✓	5769-DL1	1026/1026		M
Business Graphics Utility for AS/400 <sup>6</sup>	---	5722-DS1	1027/1027		S
Facsimile Support for iSeries	---	5798-FAX	-		S
Advanced Function Printing Fonts for AS/400 <sup>6</sup>  Font Options	✓	5769-FNT  Options 1-15	-  1520-1534/ 1520-1534		S
Advanced Function Printing DBCS Fonts for AS/400 <sup>6†</sup> Font Options	✓	5769-FN1	- 1535-1539/ 1535-1539		S

Office support and printing products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Domino Fax for iSeries		5733-FXD	---/---		S
Infoprint® Designer for iSeries	---	5733-ID1	6003/6003		S
Infoprint Server for iSeries	---	5722-IP1	1006/1006	5050	S
Content Manager for iSeries	✓	5722-VI1	1034/1034		M
Object Server		Option 1	-		
Advanced Workflow		Option 4	-		

Additional and packaged products	Skip ship <sup>2</sup>	Product identifier	HIPO feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software Subscription or Maintenance <sup>8</sup>
Host Access Client Package for iSeries, Version 3.0 Personal Communications V5.6 Screen Customizer Version 1.0.70 WebSphere Host On-Demand V7.0		5733-A78	---/---		
Host Access Client Package for multiplatforms, Version 3.0 Personal Communications V5.6 Screen Customizer V2.0.70 WebSphere Host On-Demand V7.0		5648-E81	---/---		
Lotus Enterprise Integrator® for iSeries <sup>6</sup>	✓	5769-LNP	-		M
Lotus Domino Enterprise Server for iSeries	✓	5769-LNT	6001/6001		M
CISC to RISC Upgrade Kit Withdrawn from marketing January 2003		5798-TBU	---/---		
ValuPak for V5R1 and V5R2: 5722-SS1: OS/400 5722-SS1: 1-45 ipm feature 5722-XW1: Client Access Family/iSeries Access 5722-QU1: Query 400 5722-ST1: DB2/400 Query Manager and SQL Development Kit 5722-PT1: Performance Tools (Manager feature)		5722-VP1	---/---		

## 11.7 Notes for V5R2 and V5R1 software tables

<b>Note 1</b>	<p>V5 is supported on these AS/400e RISC models <i>only</i>:</p> <ul style="list-style-type: none"> <li>▶ 9401-150 (V5R1 does not support 5649-<i>nnn</i> products. 5722-<i>nnn</i> programs in group P05 support the 9401-150.)</li> <li>▶ 9402/4-4xx (V5R1 only)</li> <li>▶ 9404/6-5xx (V5R1 only)</li> <li>▶ 9402/9404/9406-620, 630, 640, S20, S30, S40</li> <li>▶ 9406-170</li> <li>▶ 9406-720, 730, 740</li> <li>▶ 9406-250</li> <li>▶ 9406-270</li> <li>▶ 9406-800, 810, 820, 825, 830, 840, 870, 890</li> <li>▶ 9406-SB2/SB3</li> </ul> <p>V5 <i>is not</i> supported on any AS/400 CISC models.</p>
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<p><b>Note 2</b></p>	<p>The HIPO feature column provides the feature codes that are included in the HIPO (5732-IS5) when a specific product or feature is ordered to be preloaded in the factory. If you order a software upgrade, or if the initial order does not include the #5000 software preload code, the order does not include the HIPO (5732-IS5).</p> <p>With the introduction of Keyed Stamped Media in V4R4, all products the customer ordered are no longer “stacked” on a single set of CDs. The customer receives a grouping of CDs. With V5R2, this includes:</p> <ul style="list-style-type: none"> <li>▶ Licensed Internal Code (I_Base_01)</li> <li>▶ OS/400 Base Operating System CD (B29xx_01)</li> <li>▶ OS/400 No Charge Options (B29xx_02 to B29xx_06)</li> <li>▶ No charge License Programs (B29xx_07 to B29xx_09)</li> <li>▶ Set of Keyed Stamped Media CDs (L29xx_01 to L29xx_02)</li> <li>▶ Individual CD for each product ordered that is not part of Keyed Stamped Media (F29xx_01 and higher)</li> <li>▶ Cumulative PTF CDs (Cydddvrm_01)</li> <li>▶ Secondary Languages if ordered (N29xx_01)</li> <li>▶ iSeries Information Center (SK3T-4091)</li> </ul> <p>Products marked with a “✓” in the Skip ship column are unchanged from a previous version or release and are referred to as being “skip shipped”. These products retain their original product identifiers.</p>																																																														
<p><b>Note 3</b></p>	<p>† This product is available in Asia Pacific (AP) countries or regions only.          †† This product is available in the United States and Canada only.          ††† This product is available in Europe, Middle East, and Africa (EMEA) countries or regions only.          †††† This product is available in EMEA, AP, and Latin America (LA) countries or regions only.</p>																																																														
<p><b>Note 4</b></p>	<p><b>Alternate IPL Device Feature Codes:</b></p> <p>The following feature codes are hardware features. They are used to specify which storage device is to be used as an alternate IPL device. They are not required when ordering Models 800, 810, 825, 870, and 890.</p> <ul style="list-style-type: none"> <li>▶ #5502 840 MB Mini ¼-inch Cartridge Tape Unit (not 250, 270, 6xx, Sxx, 720, 730, 740, 8xx)</li> <li>▶ #5503 9347 Tape Unit (not 250, 270, 8xx)</li> <li>▶ #5504 3490 E01/E11 Tape Units</li> <li>▶ #5505 2440 Tape Unit (not 250, 270, 8xx)</li> <li>▶ #5506 4 GB ¼-inch Cartridge Tape Unit (not 150, 4xx, 5xx)</li> <li>▶ #5507 9348 Tape Unit</li> <li>▶ #5508 3422 Tape Subsystem (not 250, 270, 8xx)</li> <li>▶ #5509 3430 Tape Subsystem (not 250, 270, 8xx)</li> <li>▶ #5511 3480 Tape Subsystem</li> <li>▶ #5512 3490 C10/C11/C22 Tape Unit</li> <li>▶ #5513 3490 Tape Subsystem</li> <li>▶ #5514 7208 8mm Tape Drive and Internal 8mm Tape Unit</li> <li>▶ #5515 3570 Tape Subsystem</li> <li>▶ #5516 1.2 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5517 2.5 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5518 13 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5519 3590 Tape System</li> <li>▶ #5531 16 GB or 30 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5536 25 GB or 50 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5537 358x Ultrium</li> <li>▶ #5538 DVD-RAM</li> <li>▶ #5599 No Save/Restore Device</li> </ul> <p>Refer to Chapter 8, “External storage, QIC formats, cables for iSeries and AS/400e” on page 245, and the internal tape unit sections of each processor’s chapter to see which tapes are supported for that model.</p>																																																														
<p><b>Note 5</b></p>	<p><b>Maximum number of chargeable users by product</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="6" style="text-align: center;">Maximum Number of Users</th> </tr> <tr> <th colspan="2"></th> <th>P05</th> <th>P10</th> <th>P20</th> <th>P30</th> <th>P40</th> <th>P50</th> <th>P60</th> </tr> </thead> <tbody> <tr> <td>5722-DFH</td> <td>CICS for iSeries</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> </tr> <tr> <td>5722-RD1</td> <td>OnDemand for iSeries - concurrent user</td> <td>--</td> <td>--</td> <td colspan="3">No maximum limit</td> <td>--</td> <td>--</td> </tr> <tr> <td>5769-VI1</td> <td>Content Manager for iSeries</td> <td>--</td> <td>--</td> <td colspan="3">No maximum limit</td> <td>--</td> <td>--</td> </tr> <tr> <td colspan="9">The number of individual user licenses that, when priced, equates the tier (based on processor) pricing and is the maximum that can be used in a conversion for user based to tier (processor) pricing in that tier:</td> </tr> <tr> <td>5722-XW1</td> <td>iSeries Access Family</td> <td>10</td> <td>40</td> <td>100</td> <td>150</td> <td>200</td> <td>250</td> <td>300</td> </tr> </tbody> </table>			Maximum Number of Users								P05	P10	P20	P30	P40	P50	P60	5722-DFH	CICS for iSeries	450	450	450	450	450	450	450	5722-RD1	OnDemand for iSeries - concurrent user	--	--	No maximum limit			--	--	5769-VI1	Content Manager for iSeries	--	--	No maximum limit			--	--	The number of individual user licenses that, when priced, equates the tier (based on processor) pricing and is the maximum that can be used in a conversion for user based to tier (processor) pricing in that tier:									5722-XW1	iSeries Access Family	10	40	100	150	200	250	300
		Maximum Number of Users																																																													
		P05	P10	P20	P30	P40	P50	P60																																																							
5722-DFH	CICS for iSeries	450	450	450	450	450	450	450																																																							
5722-RD1	OnDemand for iSeries - concurrent user	--	--	No maximum limit			--	--																																																							
5769-VI1	Content Manager for iSeries	--	--	No maximum limit			--	--																																																							
The number of individual user licenses that, when priced, equates the tier (based on processor) pricing and is the maximum that can be used in a conversion for user based to tier (processor) pricing in that tier:																																																															
5722-XW1	iSeries Access Family	10	40	100	150	200	250	300																																																							

<b>Note 6</b>	<p>These products are licensed using the International Program License Agreement (IPLA). The remaining V4 licensed programs are licensed under the International Customer Agreement (ICA) or IBM Agreement for Programs (IAP) terms.</p> <p>Three documents, <i>Proof of Entitlement (POE)</i>, <i>License Information Document (LID)</i>, and <i>International Program License Agreement (IPLA)</i>, are provided with IPLA software as proof of a valid license. IPLA software may be sold to another party. You must notify the purchaser of the program's terms and provide the POE, LID, and IPLA documents to the purchaser. IBM licenses the purchaser when that party accepts the program's license terms by initial use of the program. The seller's license is terminated at this time.</p> <p>When ordering upgrades to software licensed under the IPLA, such as OS/400, a copy of the POE should be provided by the customer to validate the license to the software.</p>																		
<b>Note 7</b>	<p>These products are also available in software packages:</p> <p><b>5722-VP1 ValuPak for OS/400 (not available on OS/400 V4R5) includes:</b></p> <table border="0"> <tr> <td>5722-SS1</td> <td>Operating System/400</td> <td></td> </tr> <tr> <td>5722-PSF</td> <td>1-45 ipm Option 36 of OS/400</td> <td><b>Note:</b> Provides this number of users</td> </tr> <tr> <td>5722-XW1</td> <td>iSeries Access Family for Windows</td> <td>XW1: P05/10 P10/20 P20/50 P30/70 P40/125 P50/150</td> </tr> <tr> <td>5722-QU1</td> <td>Query/400</td> <td>P60/175</td> </tr> <tr> <td>5722-ST1</td> <td>DB2/400 Query Manager and SQL Development Kit</td> <td></td> </tr> <tr> <td>57xx-PT1</td> <td>Performance Tools (Option 1 Manager feature)</td> <td></td> </tr> </table>	5722-SS1	Operating System/400		5722-PSF	1-45 ipm Option 36 of OS/400	<b>Note:</b> Provides this number of users	5722-XW1	iSeries Access Family for Windows	XW1: P05/10 P10/20 P20/50 P30/70 P40/125 P50/150	5722-QU1	Query/400	P60/175	5722-ST1	DB2/400 Query Manager and SQL Development Kit		57xx-PT1	Performance Tools (Option 1 Manager feature)	
5722-SS1	Operating System/400																		
5722-PSF	1-45 ipm Option 36 of OS/400	<b>Note:</b> Provides this number of users																	
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5722-QU1	Query/400	P60/175																	
5722-ST1	DB2/400 Query Manager and SQL Development Kit																		
57xx-PT1	Performance Tools (Option 1 Manager feature)																		
<b>Note 8</b>	<p>S = Software Subscription M = Software Maintenance</p> <p>New versions and updates to these products are covered by one of these two methods. "S" indicates that the product is on the Eligible Products List for Software Subscription. Customers must purchase Software Subscription when they move to Version 4 or higher to upgrade to new versions or releases. Software Subscription is available at prepaid options of one or three years.</p> <p>The price of Software Subscription is the same regardless of whether the software has been licensed to a system. Most iSeries stacked software is covered by Software Subscription. Customers who do not take out Software Subscription when they install Version 4 must either re-license the software or purchase the After License For iSeries license to join if they want to upgrade to a new version or release. You can find a current list of program products covered by Software Subscription on the Web at: <a href="http://www-1.ibm.com/servers/eserver/iseries/sftsol/subscript2.htm">http://www-1.ibm.com/servers/eserver/iseries/sftsol/subscript2.htm</a></p> <p>Software Subscription is ordered as a unique product/model combination depending upon the method of payment:</p> <ul style="list-style-type: none"> <li>▶ 5733-SW1 Software Subscription for AS/400 1-Year Prepay. <i>Withdrawn from marketing.</i></li> <li>▶ 5733-SW3 Software Subscription for AS/400 3-Year Prepay. <i>Withdrawn from marketing.</i></li> <li>▶ 5733-CA1 After License For iSeries</li> </ul> <p>For the prepayment options and the Subscription After License, specify the corresponding processor-based feature for 5733-SWx.</p> <p>"M" indicates Software Maintenance, which differs from Software Subscription. It requires maintenance to be purchased separately based on individual product. Some products that were covered by Software Subscription are now covered by Software Maintenance. Customers that have these products covered under an existing Software Subscription are still eligible for upgrades under Software Subscription, but need to carefully plan their requirements when that Software Subscription expires. You can find a list of program products covered by Software Maintenance and their Maintenance product codes on the Web at the same site listed earlier in this note.</p>																		
<b>Note 9</b>	<p>A number (representing the Installation ID of the product) in the Keyed Stamped Media column indicates that the product is one of those provided in V5R1 on iSeries Keyed Stamped Media and shipped with OS/400. This is to provide on demand delivery of these products and features and allows a 70-day evaluation period for any of the provided products or features. To use the software distributed on the keyed stamped media after the 70-day evaluation period, order a Software License Key. New Software License Keys are also required when the version, release, or modification level of the software changes. If the software is transferred to a different system, a new software key is required. Some software is keyed based on the Software group, and a new software key must be obtained when the Software group changes.</p> <p>When a Software License Key is ordered, retain the <i>Software License Key Sheet</i> that IBM provides.</p> <p>If a Keyed Stamped Media product or feature is to be upgraded, the current Software License Key Sheet for the product must be provided as proof of license.</p>																		

## 11.8 OS/400 V4R5 software

The following table shows those V4R5 OS/400-based software products most commonly installed. It is not a definitive list of all available iSeries or AS/400e software products.

See 11.13, “Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables” on page 352, for Version 4 software group information.

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
System Program Order	7/2002		5755-AS5	-	-		
Operating System/400 <sup>6,7</sup>	7/2002		5769-SS1 <sup>4</sup>	#2501		5050	✓
TCP/IP Connectivity Utilities/400 <sup>10</sup>			5769-TC1*		#2529		
Integration for Windows Server			5769-WSV*		#2547		
HTTP Server for AS/400 <sup>10</sup>			5769-DG1*		#2553		
Performance Manager <sup>10</sup>			5769-PM1*		#2556		
AS/400 Toolbox for Java Refresh <sup>10</sup>			5769-JC1*		#2584		
AS/400 Toolbox for Java <sup>10</sup>			5769-JC1*		#2585		
AS/400 Developer Kit for Java <sup>10</sup>			5769-JV1*		#2586		
WebSphere Applications Server <sup>10</sup>			5769-AS1*		#2591		
Client Access Express for Windows <sup>10</sup>			5769-XE1*		#2603		
Media and Storage Extensions					#2619	5103	
OptiConnect for OS/400					#2642		
Integration Services for FSIOF					#2644		
Novel Enhanced Integration					#2646		
Private Address Space Environment					#2648		
PSF/400 1-28 IPM					#2681	5112	
PSF/400 1-45 IPM					#2682	5113	
PSF/400 Any Speed					#2683	5114	
PSF/400 Fax Feature					#2684	5102	
CPA Toolkit					#2690		
DB2 Symmetric Multiprocessing					#2698		
DB2 MultiSystem					#2699		
Cryptographic Support for AS/400 <sup>6</sup>	7/2002	✓	5769-CR1	#2518	-		✓
S/38 Utilities for AS/400 <sup>6</sup>	7/2002	✓	5769-DB1	#2519	-		✓
DataPropagator Relational 7.1 for AS/400 <sup>6</sup>			5769-DP3	#2546		5050	✓
Query for AS/400 <sup>6,7</sup>	7/2002		5769-QU1	#2508	-	5050	✓
DB2 Query Manager and SQL Development Kit for AS/400 <sup>6,7</sup>	7/2002		5769-ST1	#2511	-	5050	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Cryptographic Access Provider 40-bit <sup>6†††</sup>	7/2002		5769-AC1	#2560	-		✓
Cryptographics Access Provider 56-bit <sup>6††††</sup>	7/2002		5769-AC2	#2561	-		✓
Cryptographics Access Provider 128-bit <sup>6,12</sup>	7/2002		5769-AC3	#2562	-		✓
AS/400 Client Encryption (40-bit) <sup>6†††</sup>	7/2002		5769-CE1	#2580	-		✓
AS/400 Client Encryption (56-bit) <sup>6††††</sup>	7/2002		5769-CE2	#2581	-		✓
AS/400 Client Encryption (128-bit) <sup>6,12</sup>	7/2002		5769-CE3	#2582	-		✓
Point-of-Sale Communications Utility for OS/400 <sup>6</sup>	✓	✓	5769-CF1	#2528	-		✓
Communications Utilities for AS/400 <sup>6</sup>	7/2002	✓	5769-CM1	#2503	-	5050	✓
DCE Base Services for AS/400 <sup>6</sup>	7/2002	✓	5769-DC1	#2563	-		✓
DCE DES Library Routines for AS/400 <sup>6</sup>	7/2002	✓	5769-DC3	#2564	-		✓
Firewall for AS/400 <sup>6</sup>	✓	✓	5769-FW1	#2514	-		-
Host Access Client Package	✓		5648-E09				
MQSeries for AS/400 (V4R2M1) <sup>6</sup>	✓	✓	5769-MQ2	#2524	-		-
MQSeries for AS/400 (V5.1) <sup>6</sup>			5733-A38			-	-
MQSeries for AS/400 (V5.1) <sup>13</sup>			5801-AAR				-
MQSeries Integrator for AS/400 <sup>14</sup>			5801-AAR				-
Client Access Family <sup>6,7</sup> Enhanced Windows 3.1 Client Windows 95 Client	7/2002		5769-XW1	#2516			✓
Wireless Connection for AS/400	7/2001		5798-TBW	-	-		-
56-bit WebSphere Standard Edition <sup>6††††</sup>	✓		5733-AS2	-	-		-
128-bit WebSphere Standard Edition <sup>6, 12</sup>		✓	5733-AS3	-	-		-
56-bit WebSphere Advanced Edition <sup>6††††</sup>	8/2001	✓	5733-WA2	-	-		-
128-bit WebSphere Advanced Edition <sup>6,12</sup>		✓	5733-WA3	-	-		-
WebSphere Personalization for AS/400 V3.5			5733-A47				
Network Station Manager V1R3	✓	✓	5648-C05	-	-		-
Network Station Manager V2R1 (40-bit)	7/2002	✓	5648-C07	-	-		-
Network Station Manager V2R1 (128-bit) ††	7/2002	✓	5648-C08	-	-		-
Network Station Manager for AS/400 (V3R7)	✓		5648-B07	-	-		-
Network Station Browser (40-bit encryption)	✓		5648-B08	-	-		-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓		5648-B10	-	-		-

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Network Station Browser (128-bit encryption) ††	✓		5648-B18	-	-		-
Navio NC Navigator for IBM Network Station (128-bit encryption) ††	✓		5648-B20	-	-		-

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Backup Recovery and Media Services for OS/400 <sup>6</sup>	7/2002	✓	5769-BR1	#2521		5050	✓
Advanced Feature		✓			#2616	5102	
Network		✓			#2617	5101	
Advanced Job Scheduler for AS/400 <sup>6</sup>	7/2002	✓	5769-JS1	#2594	-	5050	✓
Managed System Services for AS/400 <sup>6</sup>	7/2002	✓	5769-MG1	#2558	-		✓
Performance Tools for AS/400 <sup>6,7</sup>	7/2002		5769-PT1	#2525	-	5050	✓
Manager Feature					#2610	5101	
Agent Feature					#2611	5102	
Content Manager OnDemand for AS/400 <sup>6</sup>	7/2002		5769-RD1	#2593		5050	-
Server Feature					#2693		
Spool File Archive					#2694	5101	
Record Level Archive					#2695	5103	
Object Level Archive					#2696	5102	
Anystore					#2697	5104	
System Manager for OS/400 <sup>6</sup>	7/2002		5769-SM1	#2533	-		✓

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
ILE COBOL for AS/400 <sup>6</sup>	7/2002	✓	5769-CB1	#2513	-	5050	✓
Application Development ToolSet Client Server <sup>6</sup>	7/2002	✓	5769-CL3	#2568	-		-
ILE C for AS/400 <sup>6</sup>	7/2002	✓	5769-CX2	#2527	-	5050	✓
VisualAge® C++ for AS/400 <sup>6</sup>	7/2002	✓	5769-CX5	#2532			✓
VisualAge C++ for Windows Client		✓			#2620		
CICS for AS/400 <sup>6</sup>	7/2002	✓	5769-DFH	#2545	-		✓
Application Program Driver for AS/400	7/2002	✓	5769-PD1	#2557	-		✓
Application Development ToolSet for AS/400 <sup>6,7</sup>	7/2002	✓	5769-PW1	#2526		5050	✓

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Application Dictionary Services Feature <sup>7</sup>		✓			#2612	5102	
Application Development Manager Feature <sup>7</sup>		✓			#2613	5101	
ILE RPG for AS/400 <sup>6</sup>	7/2002	✓	5769-RG1	#2512	-	5050	✓
Visualage Generator Server for AS/400			5769-VG1	#2577	-		✓
Net.Commerce™ for AS/400 (V3.2)	✓	✓	5798-NC3	-	-		-
WebSphere Payment Manager for AS/400		✓	5733-PY2	-	-		✓

Office products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Advanced Function Printing Utilities for AS/400 <sup>6</sup>	7/2002	✓	5769-AF1	#2541	-	5050	✓
Advanced DBCS Printer Support <sup>6</sup> IPDS™ Printer Support	7/2002		5769-AP1	#2510	#2607	5050 5101	✓
Language Dictionaries for AS/400	7/2002	✓	5716-DCT	#2105	-		-
Dictionaries and Linguistic Tools for AS/400 <sup>6</sup>			5769-DL1	#2522	-		-
Business Graphics Utility for AS/400 <sup>6</sup>	7/2002	✓	5769-DS1	#2507	-		✓
Advanced Function Printing Fonts for AS/400 <sup>6</sup>		✓	5769-FNT	#2550	-		✓
Various Fonts					#2625 to #2639		
Advanced Function Printing DBCS Fonts for AS/400 <sup>6†</sup> Various Fonts		✓	5769-FN1	#2535	-	#2650 to #2654	✓
OfficeVision for AS/400 <sup>6</sup>	7/2002	✓	5769-WP1	#2504	-		-
Content Manager for AS/400 Object Server Advanced Workflow	7/2002		5769-VI1	#2551	-	#2687 #2689	-
AFP PrintSuite for AS/400 <sup>6</sup>			5798-AF3	-	-		✓
Facsimile Support for AS/400	7/2002	✓	5798-TBY	-	-		✓
OfficeVision JustMail for AS/400	5/2001		5798-TBT	-	-		✓
Domino Fax for iSeries			5733-FXD				

Additional products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature	Addn'l feature	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Connect for iSeries	1/2003	✓	5733-B2B				✓
Lotus Domino Enterprise Server for AS/400 <sup>6</sup>	1/2003		5769-LNT				-
Lotus Enterprise Integrator <sup>6</sup>	1/2003		5769-LNP				-
System/38 Migration Aid	✓		5714-MG1	-	-		-
System/36 Migration Aid	✓		5727-MG1	-	-		-

## 11.9 OS/400 V4R4 software

The following table shows the V4R4 OS/400-based software products that are most commonly installed. It is not a definitive list of all AS/400e software products available for RISC systems.

See 11.13, "Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables" on page 352, for Version 4 software group information.

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
System Program Order	✓		5755-AS5	-	-		
Operating System/400 <sup>6,7</sup>	✓		5769-SS1 <sup>4</sup>	#2501		5050	✓
TCP/IP Connectivity Utilities/400 <sup>10</sup>			5769-TC1*		#2529		
HTTP Server for AS/400 <sup>10</sup>			5769-DG1*		#2553		
NetQuestion for AS/400 <sup>10</sup>					#2554		
Performance Manager <sup>10</sup>			5769-PM1*		#2556		
AS/400 Toolbox for Java Refresh <sup>10</sup>			5769-JC1*		#2584		
AS/400 Toolbox for Java <sup>10</sup>			5769-JC1*		#2585		
AS/400 Developer Kit for Java <sup>10</sup>			5769-JV1*		#2586		
WebSphere Applications Server <sup>10</sup>			5769-AS1*		#2591		
Client Access Express for Windows <sup>10</sup>			5769-XE1*		#2603		
Media and Storage Extensions					#2619	5103	
Client Access Express for Windows Refresh					#2641		
PSF/400 1-20 IPM					#2681	5112	
PSF/400 1-45 IPM					#2682	5113	
PSF/400 Any Speed					#2683	5114	
PSF/400 Fax Feature					#2684	5102	
CPA Toolkit					#2690		
OptiConnect for OS/400					#2642		

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Integration Services for Integrated PC Server					#2644		
Integration for Novell Netware	✓				#2645		
Enhanced Integration for Novel Netware					#2646		
Private Address Space Environment					#2648		
Integration for Windows NT Server					#2692		
DB2 Symmetric Multiprocessing					#2698		
DB2 MultiSystem					#2699		
Cryptographic Support for AS/400 <sup>6</sup>	✓		5769-CR1	#2518	-		✓
S/38 Utilities for AS/400 <sup>6</sup>	✓		5769-DB1	#2519	-		✓
DataPropagator Relational 5.1 for AS/400 <sup>6</sup>	✓	✓	5769-DP2	#2552			-
Query for AS/400 <sup>6,7</sup>	✓		5769-QU1	#2508	-	5050	✓
DB2 Query Manager and SQL Development Kit <sup>6,7</sup>	✓		5769-ST1	#2511	-	5050	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Cryptographic Access Provider 40-bit <sup>6†††</sup>	✓		5769-AC1	#2560	-		✓
Cryptographics Access Provider 56-bit <sup>6††††</sup>	✓		5769-AC2	#2561	-		✓
Cryptographics Access Provider 128-bit <sup>6,12</sup>	✓		5769-AC3	#2562	-		✓
AS/400 Client Encryption (40-bit) <sup>6†††</sup>	✓		5769-CE1	#2580	-		✓
AS/400 Client Encryption (56-bit) <sup>6††††</sup>	✓		5769-CE2	#2581	-		✓
AS/400 Client Encryption (128-bit) <sup>6,12</sup>	✓		5769-CE3	#2582	-		✓
Point-of-Sale Communication Utility for OS/400 <sup>6</sup>	✓		5769-CF1	#2528	-		✓
Communications Utilities for AS/400 <sup>6</sup>	✓		5769-CM1	#2503	-	5050	✓
CallPath for AS/400 <sup>6</sup>	✓	✓	5769-CP4	#2534			-
Switch Connection					#2608		
DCE Base Services for AS/400 <sup>6</sup>	✓	✓	5769-DC1	#2563	-		✓
DCE DES Library Routines <sup>6</sup>	✓	✓	5769-DC3	#2564	-		✓
Firewall for AS/400 <sup>6</sup>	✓		5769-FW1	#2514	-		-
MQSeries for AS/400 (V4R2M1) <sup>6</sup>	✓	✓	5769-MQ2	#2524	-		-
MQSeries for AS/400 (V5.1) <sup>6</sup>			5733-A38			-	-
MQSeries Integrator for AS/400 <sup>14</sup>			5801-AAR				-
Client Access Family for Windows <sup>6,7</sup> Enhanced Windows 3.1 Client Windows 95 Client	✓		5769-XW1	#2516			✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Client Access Family <sup>6</sup> DOS Client DOS Extended Client OS/2 Client Optimized OS/2 Client Windows 3.1 Client	✓	✓	5769-XY1	#2517			-
OS/2 Warp Server for AS/400 <sup>6</sup>	✓	✓	5769-XZ1	#2566	-		-
Wireless Connection for AS/400	✓		5798-TBW	-	-		-
56-bit WebSphere Standard Edition <sup>6††††</sup>	✓		5733-AS2	-	-		-
128-bit WebSphere Standard Edition <sup>6,12</sup>			5733-AS3	-	-		-
56-bit WebSphere Advanced Edition <sup>6††††</sup>	✓		5733-WA2	-	-		-
128-bit WebSphere Advanced Edition <sup>6,12</sup>			5733-WA3	-	-		-
Network Station Manager V1R3	✓	✓	5648-C05	-	-		-
Network Station Manager V2R1 (40-bit)	✓	✓	5648-C07	-	-		-
Network Station Manager V2R1 (128-bit)††	✓	✓	5648-C08	-	-		-
Network Station Manager for AS/400 (V3R7)	✓		5648-B07	-	-		-
Network Station Browser (40-bit encryption)	✓		5648-B08	-	-		-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓		5648-B10	-	-		-
Network Station Browser (128-bit encryption)††	✓		5648-B18	-	-		-
Navio NC Navigator for IBM Network Station (128-bit encryption)††	✓		5648-B20	-	-		-

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Backup Recovery and Media Services for OS/400 <sup>6</sup> Advanced Network	✓		5769-BR1	#2521		5050 #2616 5102 #2617 5101	✓
Job Scheduler for AS/400 <sup>6</sup>	✓		5769-JS1	#2594	-	5050	✓
Managed System Services for AS/400 <sup>6</sup>	✓	✓	5769-MG1	#2558	-		✓
Performance Tools for AS/400 <sup>6,7</sup> Performance Tools Manager Performance Tools Agent	✓		5769-PT1	#2525		5050 #2610 5101 #2611 5102	✓

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
OnDemand for AS/400 <sup>6</sup> Server Feature Spool File Archive Record Level Archive Object Level Archive Anystore	✓		5769-RD1	#2593	#2693 #2694 #2695 #2696 #2697	5050 5101 5103 5102 5104	-
SystemView® System Manager for OS/400 <sup>6</sup>	✓		5769-SM1	#2533	-		✓
Netfinity Server for AS/400 <sup>6</sup>	✓		5769-SVA	#2536	-		-
Netfinity AS/400 Manager for OS/2 V3R7 <sup>6</sup>	✓		5769-SVD	#2537	-		-
Netfinity AS/400 Manager for Windows 95 V3R7 <sup>6</sup>	✓		5769-SVE	#2538	-		-
ADSTAR Distributed Storage Manager <sup>6</sup> Multiple Client Workstations Supported	✓	✓ ✓	5769-SV3	#2598	#1442 #1446		-

Packaged software	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
ValuPak for OS/400	✓		5769-VP1	#1463	-		-
ValuPak for AS/400 Printing	✓		5769-PPK	#1452	-		-
Application Development ToolSet Plus <sup>6</sup>	✓		5769-PWK	#1453	-		-

Additional products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature	Addn'l feature	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Lotus Domino Enterprise Server for AS/400	✓		5769-LNT				-
Lotus Enterprise Integrator	✓		5769-LNP				-
System/38 Migration Aid	✓		5714-MG1	-	-		-
System/36 Migration Aid	✓		5727-MG1	-	-		-

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
ILE COBOL for AS/400 <sup>6</sup>	✓		5769-CB1	#2513	-	5050	✓
Application Development ToolSet Client Server <sup>6</sup>	✓	✓	5769-CL3	#2568	-		-
ILE C for AS/400 <sup>6</sup>	✓		5769-CX2	#2527	-	5050	✓

Application development products	WDFM <sup>1</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
VisualAge C++ for AS/400 VisualAge C++ for OS/2 Client	✓	✓ ✓	5716-CX4	#2190	#2214		-
VisualAge C++ for AS/400 (Windows) <sup>6</sup> VisualAge C++ for Windows Client	✓		5769-CX5	#2532	#2620		✓
CICS Transaction Server for AS/400 <sup>6</sup>	✓		5769-DFH	#2545	-		✓
Application Program Driver for AS/400	✓	✓	5769-PD1	#2557	-		✓
Application Development ToolSet for AS/400 <sup>6,7</sup> Application Dictionary Services/400 <sup>7</sup> Application Development Manager/400 <sup>7</sup>	✓		5769-PW1	#2526	#2612 #2613	5050 5102 5101	✓
ILE RPG for AS/400 <sup>6</sup>	✓		5769-RG1	#2512	-	5050	✓
VisualGen® Host Services for AS/400	✓		5716-VG1	#2177	-		-
Net.Commerce for AS/400 (V2)	✓		5798-NC2	-	-		-
Net.Commerce for AS/400 (V3.2)	✓		5798-NC3	-	-		-
Payment Server for AS/400	✓		5733-PY1	-	-		-
WebSphere Payment Manager for AS/400			5733-PY2	-	-		-

Office products	WDFM <sup>1</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
Advanced Function Printing Utilities for AS/400 <sup>6</sup>	✓		5769-AF1	#2541	-	5050	✓
Advanced DBCS Printer Support <sup>6†</sup> IPDS Printer Support	✓		5769-AP1	#2510	#2607		✓
Language Dictionaries for AS/400	✓	✓	5716-DCT	#2105	-		-
Business Graphics Utility for AS/400 <sup>6</sup>	✓		5769-DS1	#2507	-		✓
Advanced Function Printing Fonts for AS/400 <sup>6</sup> Various Fonts		✓	5769-FNT	#2550	#2625 to #2639		✓
Advanced Function Printing DBCS Fonts for AS/400 <sup>6†</sup> Various Fonts		✓	5769-FN1	#2535	-	#2650 to #2654	✓
OfficeVision for AS/400 <sup>6</sup>	✓	✓	5769-WP1	#2504	-		-
ImagePlus® VisualInfo™ for AS/400 Secondary Object Server Advanced Workflow	✓		5769-VI1	#2551	- #2687 #2689		-

Office products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Keyed stamped media <sup>9</sup>	Software subscription <sup>8</sup>
AFP PrintSuite for AS/400	✓		5798-AF3	-	-		✓
OfficeVision JustMail for AS/400	✓		5798-TBT	-	-		-
Facsimile Support for AS/400	✓		5798-TBY	-	-		✓

## 11.10 OS/400 V4R3 software

The following table shows the V4R3 OS/400-based software products that are most commonly installed. It is not a definitive list of all AS/400e software products available for RISC systems.

See 11.13, "Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables" on page 352, for Version 4 software group information.

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	SW subscription <sup>8</sup>
		V3R6	V3R7					
System Program Order (also known as Software Stack)	✓			✓	5755-AS5	-	-	
Operating System/400 <sup>6,7</sup> (including TCP/IP Connectivity Utilities/400)	✓			✓	5769-SS1 <sup>4</sup>	#2501	-	✓
					-	-	#2529	✓
HTTP Server for AS/400				✓			#2553	✓
NetQuestion for AS/400 (including Performance Manager)				✓			#2554	✓
				✓	-	-	#2556	✓
AS/400 Toolbox for Java				✓	-	-	#2585	✓
AS/400 Toolbox for Java Refresh				✓			#2584	✓
AS/400 Developer Kit for Java				✓	-	-	#2586	✓
SystemView Base for OS/400	✓			✓	-	-	#2195	✓
Operations Navigator				✓	-	-	#2601	✓
Print Services Facility/400 <sup>6</sup>				✓	-	-	#2691	✓
CPA Toolkit				✓	-	-	#2690	✓
Media and Storage Extensions <sup>6</sup>				✓	-	-	#2619	✓
Client Access Express for Windows Refresh <sup>6</sup>							#2641	✓
OptiConnect for OS/400 <sup>6</sup>				✓	-	-	#2642	✓
Integration Services for Integrated PC Server				✓	-	-	#2644	✓
Integration for Novell Netware	✓			✓	-	-	#2645	✓
Enhanced Integration for Novel Netware <sup>6</sup>				✓	-	-	#2646	✓

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	SW subscription <sup>8</sup>
		V3R6	V3R7					
Integration of Lotus Notes				✓	-	-	#2656	✓
DB2 Symmetric Multiprocessing <sup>6</sup>				✓	-	-	#2698	✓
DB2 MultiSystem <sup>6</sup>				✓	-	-	#2699	✓
Integration for Windows NT Server <sup>6</sup>				✓	-	-	#2692	✓
Private Address Space Environment				✓	-	-	#2648	✓
Cryptographic Support for OS/400	✓			✓	5769-CR1	#2518	-	✓
S/38 Utilities for OS/400 <sup>6</sup>	✓			✓	5769-DB1	#2519	-	✓
DataPropagator Relational Capture and Apply <sup>7</sup>	✓			✓	5769-DP1	#2565	-	-
DataPropagator Relational 5.1 for AS/400 <sup>6</sup>	✓			✓	5769-DP2	#2552		-
Query for OS/400 <sup>7</sup>	✓			✓	5769-QU1	#2508	-	✓
DB2 Query Manager and SQL Development Kit <sup>7</sup>	✓			✓	5769-ST1	#2511	-	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Cryptographic Access Provider 40-bit <sup>6</sup>	✓			✓	5769-AC1	#2560		✓
Cryptographics Access Provider 56-bit <sup>6</sup>	✓			✓	5769-AC2	#2561		✓
Cryptographics Access Provider 120-bit <sup>6</sup>	✓			✓	5769-AC3	#2562		✓
Point-of-Sale Communication Utility for OS/400	✓			✓	5769-CF1	#2528	-	
Communications Utilities for OS/400 <sup>6</sup>	✓			✓	5769-CM1	#2503	-	✓
CallPath for OS/400 <sup>6</sup>	✓			✓	5769-CP4	#2534	-	-
DCE Base Services for AS/400 <sup>6</sup>	✓			✓	5769-DC1	#2563		✓
DCE DES Library Routines <sup>6</sup>	✓			✓	5769-DC3	#2564		✓
Firewall for AS/400	✓			✓	5769-FW1	#2514	-	-
MQSeries for OS/400 (V4R2) <sup>6</sup>	✓			✓	5769-MQ1	#2523	-	-
MQSeries for OS/400 (V4R2M1) <sup>6</sup>	✓			✓	5769-MQ2	#2524		-
Internet Connection Secure Server <sup>6††</sup>	✓			✓	5769-NC1	#2506	-	-
Internet Connection Secure Server for AS/400 <sup>6</sup>	✓			✓	5769-NCE	#2509	-	-

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Client Access Family for Windows <sup>7</sup>	✓			✓	5769-XW1	#2516	-	✓
Enhanced Windows 3.1 Client				✓	-	-	-	✓
Windows 95 Client				✓	-	-	-	✓
Windows 95/NT Client Refresh				✓	-	-	#2640	✓
Client Access Family	✓			✓	5769-XY1	#2517	-	-
DOS Client				✓	-	-	-	-
DOS Extended Client				✓	-	-	-	-
OS/2 Client				✓	-	-	-	-
Optimized OS/2 Client				✓	-	-	-	-
Windows 3.1 Client				✓	-	-	-	-
OS/2 Warp Server for OS/400	✓			✓	5769-XZ1	#2566	-	-
Wireless Connection for AS/400	✓	✓	✓	✓	5798-TBW	-	-	-
Network Station Manager V1R3			✓	✓	5648-C05	-	-	-
Network Station Manager V2R1 (40-bit)				✓	5648-C07	-	-	-
Network Station Manager V2R1 (128-bit)††				✓	5648-C08	-	-	-
Network Station Manager for AS/400 (V3R7)	✓		✓	✓	5648-B07	-	-	-
Network Station Browser (40-bit encryption)	✓		✓	✓	5648-B08	-	-	-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓		✓	✓	5648-B10	-	-	-
Network Station Browser (128-bit encryption)††	✓		✓	✓	5648-B18	-	-	-
Navio NC Navigator for IBM Network Station (128-bit encryption)††	✓		✓	✓	5648-B20	-	-	-

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Backup Recovery and Media Services for OS/400	✓			✓	5769-BR1	#2521	-	✓
Job Scheduler for OS/400	✓			✓	5769-JS1	#2594	-	✓
Managed System Services for OS/400	✓			✓	5769-MG1	#2558	-	✓
Performance Tools for OS/400 <sup>7</sup>	✓			✓	5769-PT1	#2525	-	✓
Performance Tools Manager			✓	✓	-	-	#2610	✓
Performance Tools Agent				✓	-	-	#2611	✓

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
OnDemand for AS/400	✓			✓	5769-RD1	#2593	-	-
Server Feature				✓	-		#2693	
Spool File Archive				✓	-	-	#2694	
Record Level Archive				✓	-	-	#2695	
Object Level Archive				✓	-	-	#2696	
Anystore				✓	-	-	#2697	
SystemView System Manager for OS/400	✓			✓	5769-SM1	#2533	-	✓
Netfinity Server for AS/400 <sup>6</sup>	✓			✓	5769-SVA	#2536	-	-
Netfinity AS/400 Manager for OS/2 V3R7 <sup>6</sup>	✓			✓	5769-SVD	#2537	-	-
Netfinity AS/400 Manager for Windows 95 V3R7 <sup>6</sup>	✓			✓	5769-SVE	#2538	-	-
ADSTAR Distributed Storage Manager <sup>6,7</sup>	✓			✓	5769-SV3	#2598	-	-
Multiple Client Workstations Supported				✓	-	-	#1442- #1446	

Multimedia products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Ultimedia Business Conferencing for OS/400	✓	✓	✓	✓	5716-UB1	#2170	-	-
Person-to-Person		✓	✓	✓	-	-	#2223	-
Client Access Ultimedia Tools for OS/400	✓	✓	✓	✓	5716-US1	#2172	-	-
Ultimedia Perfect Image/400		✓	✓	✓	-	-	#2221	-
Ultimedia Builder/400		✓	✓	✓	-	-	#2222	-

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ILE COBOL for OS/400 <sup>6</sup>	✓			✓	5769-CB1	#2513	-	✓
Application Development ToolSet Client Server <sup>6</sup>	✓			✓	5769-CL3	#2568	-	✓
ILE C for OS/400 <sup>6</sup>	✓			✓	5769-CX2	#2527	-	✓
VisualAge C++ for OS/400	✓	✓	✓	✓	5716-CX4	#2190	-	-
VisualAge C++ for OS/2 Client					-	-	#2214	-
VisualAge C++ for AS/400 (Windows)	✓		✓	✓	5716-CX5	#2132		✓

Software

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
VisualAge C++ for Windows Client		✓	✓	✓	-	-	#2220	✓
CICS for OS/400	✓			✓	5769-DFH	#2545	-	✓
Application Program Driver for OS/400	✓			✓	5769-PD1	#2557	-	✓
Application Development ToolSet for OS/400 <sup>6,7</sup>	✓			✓	5769-PW1	#2526	-	✓
Application Dictionary Services/400				✓	-	-	#2612	✓
Application Development Manager/400				✓	-	-	#2613	✓
ILE RPG for OS/400 <sup>6,7</sup>	✓			✓	5769-RG1	#2512	-	✓
VisualGen Host Services for OS/400	✓			✓	5716-VG1	#2177	-	✓
Net.Commerce for AS/400	✓			✓	5798-NC2	-	-	-

Office products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Advanced Function Printing Utilities for OS/400	✓			✓	5769-AF1	#2541	-	✓
Advanced DBCS Printer Support† IPDS Printer Support	✓			✓ ✓	5769-AP1	#2510 #2607	- -	✓ ****
Language Dictionaries for OS/400 <sup>7</sup>	✓		✓	✓	5716-DCT	#2105	-	-
Business Graphics Utility for OS/400 <sup>6</sup>	✓			✓	5769-DS1	#2507	-	✓
Advanced Function Printing Fonts for OS/400 Various Fonts	✓			✓ ✓	5769-FNT -	#2550 -	- #2625 to #2639	✓ ✓
Advanced Function Printing DBCS Fonts for OS/400 Various Fonts	✓			✓ ✓	5769-FN1 -	#2535 -	- #2650 to #2654	✓ ✓
OfficeVision for OS/400 <sup>7</sup>	✓			✓	5769-WP1	#2504	-	-
ImagePlus VisualInfo for AS/400	✓			✓	5769-VI1	-	-	-
AFP PrintSuite for OS/400 <sup>7</sup>	✓		✓	✓	5798-AF3	-	-	-
OfficeVision JustMail for OS/400	✓			✓	5798-TBT	-	-	-
Facsimile Support for OS/400	✓			✓	5798-TBY	-	-	✓

Packaged software	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ValuPak for OS/400	✓			✓	5769-VP1	#1463	-	-
GrowthPak for OS/400	✓			✓	5769-GP1	#1464	-	-
Application Development ToolSet Plus <sup>6</sup>	✓			✓	5769-PWK	#1453	-	-
ValuPak for AS/400 Printing	✓			✓	5769-PPK	#1452	-	-
Operations Productivity Pak	✓			✓	5769-OPK	#1771	-	-

Additional products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R3	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
System/38 Migration Aid	✓	✓	✓	✓	5714-MG1	-	-	-
System/36 Migration Aid	✓	✓	✓	✓	5727-MG1	-	-	-

## 11.11 OS/400 V4R2 software

The following table shows the V4R2 OS/400-based software products that are most commonly installed. It is not a definitive list of all AS/400e software products available for RISC systems.

See 11.13, “Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables” on page 352, for Version 4 software group information.

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
System Program Order (also known as Software Stack)	✓			✓	5755-AS5	-	-	
Operating System/400 <sup>6,7</sup>	✓			✓	5769-SS1 <sup>4</sup>	#2501	-	✓
(including TCP/IP Connectivity Utilities/400)	✓			✓	-	-	#2529	✓
(including Performance Manager)	✓			✓	-	-	#2556	✓
AS/400 Toolbox for Java	✓			✓	-	-	#2585	✓
AS/400 Developer Kit for Java	✓			✓	-	-	#2586	✓
SystemView Base for OS/400	✓			✓	-	-	#2195	✓
Windows 95/NT Client (shipped with OS/400)	✓			✓	-	-	#2601	
Advanced Printer Function Feature	✓			✓	-	-	#2691	✓
CPA Toolkit	✓			✓	-	-	#2690	✓
Media and Storage Extensions	✓			✓	-	-	#2619	✓

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
OptiConnect for OS/400	✓			✓	-	-	#2642	✓
Integration Services for Integrated PC Server	✓			✓	-	-	#2644	✓
Netware Integration for OS/400	✓			✓	-	-	#2645	✓
Enhanced Netware Integration	✓			✓	-	-	#2646	✓
Integration of Lotus Notes	✓			✓	-	-	#2656	✓
DB2 Symmetric Multiprocessing	✓			✓	-	-	#2698	✓
DB2 MultiSystem	✓			✓	-	-	#2699	✓
Integration for Windows NT Server	✓			✓	-	-	#2692	✓
Cryptographic Support for OS/400	✓			✓	5769-CR1	#2518	-	✓
S/38 Utilities for OS/400 <sup>6</sup>	✓			✓	5769-DB1	#2519	-	✓
DataPropagator Relational Capture and Apply <sup>7</sup>	✓			✓	5769-DP1	#2565	-	-
Query for OS/400 <sup>7</sup>	✓			✓	5769-QU1	#2508	-	✓
DB2 Query Manager and SQL Development Kit <sup>7</sup>	✓			✓	5769-ST1	#2511	-	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Point-of-Sale Communication Utility for OS/400	✓			✓	5769-CF1	#2528	-	
Communications Utilities for OS/400 <sup>6</sup>	✓			✓	5769-CM1	#2503	-	✓
CallPath for OS/400	✓		✓	✓	5716-CP3	#2131	-	-
Firewall for AS/400	✓			✓	5769-FW1	#2514	-	
MQSeries for OS/400 (V4R2) <sup>6</sup>	✓			✓	5769-MQ1	#2523	-	-
MQSeries for OS/400 (V4R2M1) <sup>6</sup>	✓			✓	5769-MQ2	#2524		
Internet Connection Secure Server††	✓			✓	5769-NC1	#2506	-	
Internet Connection Secure Server for AS/400	✓			✓	5769-NCE	#2509	-	
Client Access Family for Windows <sup>7</sup>	✓			✓	5769-XW1	#2516	-	✓
Enhanced Windows 3.1 Client	✓			✓	-	-		✓
Windows 95 Client	✓			✓	-	-		✓
Windows 95/NT Client Refresh	✓			✓	-	-	#2640	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Client Access Family	✓			✓	5769-XY1	#2517	-	-
DOS Client	✓			✓	-	-	-	
DOS Extended Client	✓			✓	-	-	-	
OS/2 Client	✓			✓	-	-	-	
Optimized OS/2 Client	✓			✓	-	-	-	
Windows 3.1 Client	✓			✓	-	-	-	
OS/2 Warp Server for AS/400	✓			✓	5769-XZ1	#2566	-	-
Wireless Connection for AS/400	✓	✓	✓	✓	5798-TBW	-	-	-
Network Station Manager V1R3			✓	✓	5648-C05	-	-	-
Network Station Manager V2R1 (40-bit)				✓	5648-C07	-	-	-
Network Station Manager V2R1 (128-bit)††				✓	5648-C08	-	-	-
Network Station Manager for AS/400	✓		✓	✓	5648-B07	-	-	-
Network Station Browser (40-bit encryption)	✓		✓	✓	5648-B08	-	-	-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓		✓	✓	5648-B10	-	-	-
Network Station Browser (128-bit encryption)††	✓		✓	✓	5648-B18	-	-	-
Navio NC Navigator for IBM Network Station (128-bit encryption)††	✓		✓	✓	5648-B20	-	-	-

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Backup Recovery and Media Services for AS/400	✓			✓	5769-BR1	#2521	-	✓
Job Scheduler for OS/400	✓			✓	5769-JS1	#2594	-	✓
Managed System Services for OS/400	✓			✓	5769-MG1	#2558	-	✓
Performance Tools for OS/400 <sup>7</sup>	✓			✓	5769-PT1	#2525	-	✓
Performance Tools Manager	✓		✓	✓	-	-	#2610	✓
Performance Tools Agent	✓			✓	-	-	#2611	✓
OnDemand for AS/400	✓			✓	5769-RD1	#2593	-	-
Spool File Archive	✓			✓	-	-	#2694	
Record Level Archive	✓			✓	-	-	#2695	
Object Level Archive	✓			✓	-	-	#2696	
Anystore	✓			✓	-	-	#2697	

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
SystemView System Manager for OS/400	✓			✓	5769-SM1	#2533	-	✓
Netfinity Server for AS/400	✓		✓	✓	5716-SVA	#2136	-	-
Netfinity AS/400 Manager for OS/2	✓		✓	✓	5716-SVD	#2137	-	-
Netfinity AS/400 Manager for Windows95	✓		✓	✓	5716-SVE	#2138	-	-
ADSTAR Distributed Storage Manager <sup>7</sup>	✓		✓	✓	5716-SV2	#2197	-	-
Multiple Client Workstations Supported	✓		✓	✓	-	-	#1419- #1440	-

Multimedia products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Ultimedia Business Conferencing for OS/400	✓	✓	✓	✓	5716-UB1	#2170	-	-
Person-to-Person	✓	✓	✓	✓	-	-	#2223	-
Client Access Ultimedia Tools for OS/400	✓	✓	✓	✓	5716-US1	#2172	-	-
Ultimedia Perfect Image/400	✓	✓	✓	✓	-	-	#2221	-
Ultimedia Builder/400	✓	✓	✓	✓	-	-	#2222	-

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ILE COBOL for OS/400 <sup>6</sup>	✓			✓	5769-CB1	#2513	-	✓
Application Development ToolSet Client Server <sup>6</sup>	✓			✓	5769-CL3	#2568	-	✓
ILE C for OS/400 <sup>6</sup>	✓			✓	5769-CX2	#2527	-	✓
VisualAge C++ for OS/400	✓	✓	✓	✓	5716-CX4	#2190	-	-
VisualAge C++ for OS/2 Client	✓	✓	✓	✓	-	-	#2214	-
VisualAge C++ for AS/400 (Windows)	✓		✓	✓	5716-CX5	#2132		-
VisualAge C++ for Windows Client	✓	✓	✓	✓	-	-	#2220	-
CICS for OS/400	✓			✓	5769-DFH	#2545	-	✓
Application Program Driver for OS/400	✓			✓	5769-PD1	#2557	-	✓
Application Development ToolSet for OS/400 <sup>6,7</sup>	✓			✓	5769-PW1	#2526	-	✓
Application Dictionary Services/400 <sup>7</sup>	✓			✓	-	-	#2612	✓
Application Development Manager/400 <sup>7</sup>	✓			✓	-	-	#2613	✓

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ILE RPG for OS/400 <sup>6,7</sup>	✓			✓	5769-RG1	#2512	-	✓
VisualGen Host Services for OS/400	✓			✓	5716-VG1	#2177	-	-
Net.Commerce for AS/400	✓			✓	5798-NC2	-	-	-

Office products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Advanced Function Printing Utilities for OS/400	✓			✓	5769-AF1	#2541	-	✓
Advanced DBCS Printer Support†	✓			✓	5769-AP1	#2510	-	✓
PDS Printer Support	✓			✓			2607	✓
Language Dictionaries for OS/400 <sup>7</sup>	✓		✓	✓	5716-DCT	#2105	-	-
Business Graphics Utility for OS/400 <sup>6</sup>	✓			✓	5769-DS1	#2507	-	✓
Advanced Function Printing Fonts for OS/400	✓			✓	5769-FNT	#2550	-	✓
Various Fonts	✓			✓	-	-	#2625 to #2639	✓
Advanced Function Printing DBCS Fonts for OS/400	✓			✓	5769-FN1	#2535	-	✓
Various Fonts	✓			✓	-	-	#2650 to #2654	✓
OfficeVision for OS/400 <sup>7</sup>	✓			✓	5769-WP1	#2504	-	-
ImagePlus VisualInfo for AS/400	✓		✓	✓	5733-A18	-	-	-
AFP PrintSuite for OS/400 <sup>7</sup>	✓		✓	✓	5798-AF3	-	-	✓
OfficeVision JustMail for OS/400	✓			✓	5798-TBT	-	-	-
Facsimile Support for OS/400	✓			✓	5798-TBY	-	-	✓

Packaged software	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ValuPak for OS/400	✓			✓	5769-VP1	#1463	-	-
GrowthPak for OS/400	✓			✓	5769-GP1	#1464	-	-
Application Development ToolSet Plus	✓			✓	5769-PWK	#1453	-	-
ValuPak for AS/400 Printing	✓			✓	5769-PPK	#1452	-	-
Operations Productivity Pak	✓			✓	5769-OPK	#1771	-	-

Additional products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R2	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
System/38 Migration Aid	✓	✓	✓	✓	5714-MG1	-	-	-
System/36 Migration Aid	✓	✓	✓	✓	5727-MG1	-	-	-

## 11.12 OS/400 V4R1 software

The following table shows the V4R1 OS/400-based software products that are most commonly installed. It is not a definitive list of all AS/400e software products available for RISC systems.

See 11.13, "Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables" on page 352, for Version 4 software group information.

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
System Program Order (Software Stack)	✓			✓	5755-AS5	-	-	
Operating System/400 <sup>6,7</sup>	✓			✓	5769-SS1 <sup>4</sup>	#2501	-	✓
(including TCP/IP Connectivity Utilities/400)	✓			✓	-	-	#2529	✓
(including Performance Manager)	✓			✓	-	-	#2556	✓
SystemView Base for OS/400	✓			✓	-	-	#2195	✓
Windows 95/NT Client (shipped with OS/400)	✓			✓	-	-	#2601 #2691 #2690 #2619 #2642	✓ ✓ ✓ ✓ ✓
PSF/400 <sup>7</sup>	✓			✓	-	-		
CPA Toolkit	✓				-	-		
Media and Storage Extensions	✓				-	-		
OptiConnect for OS/400	✓			✓	-	-		
Integration Services for Integrated PC Server	✓			✓	-	-	#2644	✓
Netware Integration for OS/400	✓			✓	-	-	#2645	✓
Enhanced Netware Integration	✓			✓	-	-	#2646	✓
Integration of Lotus Notes <sup>7</sup>	✓			✓	-	-	#2656	✓
DB2 Symmetric Multiprocessing	✓			✓	-	-	#2698	✓
DB2 MultiSystem	✓			✓	-	-	#2699	✓
Cryptographic Support for OS/400	✓		✓	✓	5716-CR1	#2118	-	-
S/38 Utilities for OS/400	✓	✓	✓	✓	5716-DB1	#2119	-	-

Database products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
DataPropagator Relational Capture and Apply <sup>7</sup>	✓		✓	✓	5716-DP1	#2165	-	-
Query for OS/400 <sup>7</sup>	✓			✓	5769-QU1	#2508	-	✓
DB2 Query Manager and SQL Development Kit <sup>7</sup>	✓			✓	5769-ST1	#2511	-	✓

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Point-of-Sale Communication Utility for OS/400	✓	✓	✓	✓	5716-CF1	#2128	-	-
Communications Utilities for OS/400	✓		✓	✓	5716-CM1	#2103	-	-
CallPath for OS/400	✓		✓	✓	5716-CP3	#2131	-	-
Firewall for AS/400	✓		x	✓	5769-FW1	#2514	-	-
MQSeries for OS/400	✓		✓	✓	5716-MQ1	#2123	-	-
Internet Connection Secure Server††	✓			✓	5769-NC1	#2506	-	-
Internet Connection Secure Server for AS/400	✓			✓	5769-NCE	#2509	-	-
Client Access Family for Windows <sup>7</sup>	✓			✓	5769-XW1	#2516	-	✓
Enhanced Windows 3.1 Client	✓			✓	-	-	-	✓
Windows 95 Client	✓			✓	-	-	-	✓
Client Access Family	✓			✓	5769-XY1	#2517	-	-
DOS Client	✓			✓	-	-	-	-
DOS Extended Client	✓			✓	-	-	-	-
OS/2 Client	✓			✓	-	-	-	-
Optimized OS/2 Client	✓			✓	-	-	-	-
Windows 3.1 Client	✓			✓	-	-	-	-
Windows 95/NT Client Refresh V4R3	✓			✓	-	-	#2640	-
OS/2 Warp Server for OS/400	✓			✓	5769-XZ1	#2566	-	-
Wireless Connection for AS/400	✓			✓	5798-TBW	-	-	-
Network Station Manager for AS/400 (V3R7)	✓		✓	✓	5648-B07	-	-	-
Network Station Manager V1R3			✓		5648-C05	-	-	-
Network Station Browser (40-bit encryption)	✓		✓	✓	5648-B08	-	-	-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓		✓	✓	5648-B10	-	-	-
Network Station Browser (128-bit encryption)††	✓		✓	✓	5648-B18	-	-	-

Software

Networking products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Navio NC Navigator for IBM Network Station (128-bit encryption)††	✓		✓	✓	5648-B20	-	-	-

Systems management products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Backup Recovery and Media Services for OS/400	✓			✓	5769-BR1	#2521	-	✓
Job Scheduler for OS/400	✓		✓	✓	5716-JS1	#2194	-	-
SystemView Managed System Services for OS/400	✓		✓	✓	5716-MG1	#2158	-	-
Performance Tools for OS/400 <sup>7</sup>	✓		✓	✓	5716-PT1	#2125	-	-
Performance Tools Manager	✓		✓	✓	-	-	#2210	-
Performance Tools Agent	✓	✓	✓	✓	-	-	#2211	-
Report/Data Archive and Retrieval System	✓		✓	✓	5716-RD1	#2193	-	-
Spool File Archive	✓		✓	✓	-	-	#2294	-
Record Level Archive	✓		✓	✓	-	-	#2295	-
Object Level Archive	✓		✓	✓	-	-	#2296	-
SystemView System Manager for OS/400	✓			✓	5769-SM1	#2533	-	✓
Netfinity Server for AS/400 V3R7	✓		✓	✓	5716-SVA	#2136	-	-
Netfinity AS/400 Manager for OS/2 V3R7	✓		✓	✓	5716-SVD	#2137	-	-
Netfinity AS/400 Manager for Windows95 V3R7	✓		✓	✓	5716-SVE	#2138	-	-
ADSTAR Distributed Storage Manager <sup>7</sup>	✓		✓	✓	5716-SV2	#2197	-	-
Multiple Client Workstations Supported	✓		✓	✓	-	-	#1419- #1440	-

Multimedia products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Ultimedia Business Conferencing for OS/400	✓	✓	✓	✓	5716-UB1	#2170	-	-
Person-to-Person	✓	✓	✓	✓	-	-	#2223	-
Client Access Ultimedia Tools for OS/400	✓	✓	✓	✓	5716-US1	#2172	-	-
Ultimedia Perfect Image/400	✓	✓	✓	✓	-	-	#2221	-
Ultimedia Builder/400	✓	✓	✓	✓	-	-	#2222	-

Application development products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
ILE COBOL for OS/400	✓		✓	✓	5716-CB1	#2113	-	-
Application Development ToolSet Client Server	✓		✓	✓	5716-CL3	#2168	-	-
ILE C for AS/400	✓		✓	✓	5716-CX2	#2127	-	-
VisualAge C++ for OS/400	✓	✓	✓	✓	5716-CX4	#2190	-	-
VisualAge C++ for OS/2 Client	✓	✓	✓	✓	-	-	#2214	-
VisualAge C++ for AS/400 (Windows)	✓		✓	✓	5716-CX5	#2132		-
VisualAge C++ for Windows Client	✓	✓	✓	✓	-	-	#2220	-
CICS for OS/400	✓	✓	✓	✓	5716-DFH	#2145	-	-
Application Program Driver for OS/400	✓	✓	✓	✓	5716-PD1	#2157	-	-
Application Development ToolSet for AS/400 <sup>7</sup>	✓		✓	✓	5716-PW1	#2126	-	-
Application Dictionary Services/400 <sup>7</sup>	✓	✓	✓	✓	-	-	#2212	-
Application Development Manager/400 <sup>7</sup>	✓	✓	✓	✓	-	-	#2213	-
ILE RPG for AS/400 <sup>7</sup>	✓		✓	✓	5716-RG1	#2112	-	-
VisualGen Host Services for OS/400	✓	✓	✓	✓	5716-VG1	#2177	-	-
AS/400 Toolbox for Java	✓			✓	5798-JC1	-	-	-

Office products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
Advanced Function Printing Utilities for OS/400	✓		✓	✓	5716-AF1	#2141	-	-
Advanced DBCS Printer Support†	✓		✓	✓	5716-AP1	#2110	-	-
Language Dictionaries for AS/400 <sup>7</sup>	✓		✓	✓	5716-DCT	#2105	-	-
Business Graphics Utility for AS/400	✓		✓	✓	5716-DS1	#2107	-	-
Advanced Function Printing Fonts for AS/400	✓	✓	✓	✓	5716-FNT	#2150	-	-
Various Fonts	✓	✓	✓	✓	-	-	#2225 to #2239	-
Advanced Function Printing DBCS Fonts for AS/400	✓		✓	✓	5716-FN1	#2135	-	-
Various Fonts	✓	✓	✓	✓	-	-	#2250 to #2254	-
OfficeVision for AS/400 <sup>7</sup>	✓		✓	✓	5769-WP1	#2504	-	-
ImagePlus VisualInfo for AS/400 V4R1	✓		✓	✓	5733-A18	-	-	-
AFP PrintSuite for OS/400 <sup>7</sup>	✓		✓	✓	5798-AF3	-	-	-

OfficeVision JustMail for OS/400	✓		x	✓	5798-TBT	-	-	-
Facsimile Support for OS/400	✓	✓	✓	✓	5798-TAY	-	-	-

Packaged software	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
BasePak for Lotus Notes	✓			✓	5769-APK	#1454	-	-
EnhancedPak for Lotus Notes	✓			✓	5769-EPK	#1465	-	-
ValuPak for OS/400	✓			✓	5769-VP1	#1463	-	-
GrowthPak for OS/400	✓			✓	5769-GP1	#1464	-	-
Application Development ToolSet Plus	✓		✓	✓	5716-PWK	#1462	-	-
ValuPak for AS/400 for Print	✓		✓	✓	5716-PPK	#1459	-	-
Operations Productivity Pak	✓			✓	5769-OPK	#1771	-	-

Additional products	WDFM <sup>11</sup>	Skip ship <sup>2</sup>		V4R1	Product identifier	Stack feature <sup>2</sup>	Addn'l feature <sup>2</sup>	Software subscription <sup>8</sup>
		V3R6	V3R7					
System/38 Migration Aid	✓	✓	✓	✓	5714-MG1	-	-	-
System/36 Migration Aid	✓	✓	✓	✓	5727-MG1	-	-	-

## 11.13 Notes for V4R5, V4R4, V4R3, V4R2, V4R1 software tables

<b>Note 1</b>	<p>V4 supports these AS/400e RISC models <i>only</i>:</p> <ul style="list-style-type: none"> <li>▶ 9401-150</li> <li>▶ 9402/4-4xx</li> <li>▶ 9404/6-5xx</li> <li>▶ 9402/4/6-6xx/Sxx</li> <li>▶ 9406-170 (V4R2)</li> <li>▶ 9406-7xx (V4R3)</li> <li>▶ 9406-250 (V4R5)</li> <li>▶ 9406-270 (V4R5)</li> <li>▶ 9406-8xx (V4R5)</li> <li>▶ 9406-SB2/SB3 (V4R5)</li> </ul> <p>Version 4 <i>does not</i> support any AS/400 CISC models.</p>
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<p><b>Note 2</b></p>	<p>The Stack feature and Addn'l feature columns provide the feature codes that are included in the System Program Order (5755-AS5) when a specific product or feature is ordered. Prior to V4R4, most AS/400 products are supplied together on a stacked media that is generated based on the features listed in the 5755-AS5 product. For Version 4, the only stacked media available is CD-ROM.</p> <p>With the introduction of Keyed Stamped Media in V4R4, all products the customer ordered are no longer stacked on a single set of CDs. For V4R4 and later, the SIPO provides a list of all products the customer receives. The customer receives this group of CDs:</p> <ul style="list-style-type: none"> <li>▶ Microcode CDs</li> <li>▶ OS/400 Base Operating System CDs</li> <li>▶ Set of Keyed Stamped Media CDs</li> <li>▶ Individual CD for each product ordered that is not part of Keyed Stamped Media</li> <li>▶ Cumulative PTF CDs</li> </ul> <p>Products marked with a “✓” in the Skip ship column are unchanged from a previous version or release and are referred to as being skip shipped. These products retain their original product identifiers but are still shipped as part of a 5755-AS5 stacked media when ordered.</p> <p>A typical order for licensed programs may be constructed as shown here:</p> <table border="0"> <tr> <td>5755-AS5</td> <td>#2501</td> <td>OS/400</td> </tr> <tr> <td></td> <td>#25xx</td> <td>V4R1 and V4R2 Licensed Programs</td> </tr> <tr> <td></td> <td>#21xx</td> <td>V3R6/V3R7 Skip Ship Licensed Programs</td> </tr> <tr> <td></td> <td>#26xx</td> <td>Additional Features of V4R1 and V4R2 Licensed Programs</td> </tr> <tr> <td></td> <td>#22xx</td> <td>Additional Features of V3R6/V3R7 Licensed Programs</td> </tr> <tr> <td></td> <td>#1991</td> <td>New Releases and CumPacks supplied on request only</td> </tr> <tr> <td></td> <td>#19xx</td> <td>Update Feature</td> </tr> <tr> <td></td> <td>#29xx</td> <td>Primary Language</td> </tr> <tr> <td></td> <td>#3410</td> <td>CD-ROM Media</td> </tr> <tr> <td></td> <td>#35xx</td> <td>Release Specifier</td> </tr> <tr> <td></td> <td>#5000</td> <td>SW Preload</td> </tr> <tr> <td>Release Specifiers:</td> <td>#3510</td> <td>Release specifier for V4R1</td> </tr> <tr> <td></td> <td>#3520</td> <td>Release specifier for V4R2</td> </tr> <tr> <td></td> <td>#3530</td> <td>Release specifier for V4R3</td> </tr> <tr> <td></td> <td>#3540</td> <td>Release specifier for V4R4</td> </tr> <tr> <td></td> <td>#3550</td> <td>Release specifier for V4R5</td> </tr> <tr> <td>Update Features:</td> <td>#1960</td> <td>Version 3 to Version 4 Release 1 Upgrade PTFs</td> </tr> <tr> <td></td> <td>#1925</td> <td>PTFs when upgrading to V4R2</td> </tr> </table>	5755-AS5	#2501	OS/400		#25xx	V4R1 and V4R2 Licensed Programs		#21xx	V3R6/V3R7 Skip Ship Licensed Programs		#26xx	Additional Features of V4R1 and V4R2 Licensed Programs		#22xx	Additional Features of V3R6/V3R7 Licensed Programs		#1991	New Releases and CumPacks supplied on request only		#19xx	Update Feature		#29xx	Primary Language		#3410	CD-ROM Media		#35xx	Release Specifier		#5000	SW Preload	Release Specifiers:	#3510	Release specifier for V4R1		#3520	Release specifier for V4R2		#3530	Release specifier for V4R3		#3540	Release specifier for V4R4		#3550	Release specifier for V4R5	Update Features:	#1960	Version 3 to Version 4 Release 1 Upgrade PTFs		#1925	PTFs when upgrading to V4R2
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<p><b>Note 3</b></p>	<p>† This product is available in Asia Pacific (AP) countries or regions only.  †† This product is available in the United States and Canada only.  ††† This product is available in Europe, Middle East, and Africa (EMEA) countries or regions only.  †††† This product is available in EMEA, AP, and Latin America (LA) countries or regions only.</p>																																																						

<b>Note 4</b>	<p><b>Alternate IPL Device Feature Codes:</b> The following feature codes are hardware features. They are used to specify which storage device is to be used as an alternate IPL device.</p> <ul style="list-style-type: none"> <li>▶ #5502 840 MB Mini ¼-inch Cartridge Tape Unit (not 250, 270, 6xx, Sxx, 7xx, 8xx)</li> <li>▶ #5503 9347 Tape Unit (not 250, 270, 8xx)</li> <li>▶ #5504 3490 E01/E11 Tape Units</li> <li>▶ #5505 2440 Tape Unit (not 250, 270, 8xx)</li> <li>▶ #5506 4 GB ¼-inch Cartridge Tape Unit (not 150, 4xx, 5xx)</li> <li>▶ #5507 9348 Tape Unit</li> <li>▶ #5508 3422 Tape Subsystem (not 250, 270, 8xx)</li> <li>▶ #5509 3430 Tape Subsystem (not 250, 270, 8xx)</li> <li>▶ #5511 3480 Tape Subsystem</li> <li>▶ #5512 3490 C10/C11/C22 Tape Unit</li> <li>▶ #5513 3490 Tape Subsystem</li> <li>▶ #5514 7208 8mm Tape Drive and Internal 8mm Tape Unit</li> <li>▶ #5515 3570/358x Tape Subsystem</li> <li>▶ #5516 1.2 GB ¼-inch Cartridge Tape Unit (not 270, 8xx)</li> <li>▶ #5517 2.5 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5518 13 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5519 3590 Tape System</li> <li>▶ #5531 16 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5536 25 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5599 No Save/Restore Device</li> </ul> <p>Refer to Chapter 8, “External storage, QIC formats, cables for iSeries and AS/400e” on page 245, and the internal tape unit section of each processor chapter to see which tapes are supported.</p>																																																																																																																								
<b>Note 5</b>	<p>Maximum number of chargeable users by product</p> <table border="1" data-bbox="337 961 1437 1360"> <thead> <tr> <th colspan="2"></th> <th colspan="6">Maximum Number of Users</th> </tr> <tr> <th colspan="2"></th> <th>P05</th> <th>P10</th> <th>P20</th> <th>P30</th> <th>P40</th> <th>P50</th> </tr> </thead> <tbody> <tr> <td>5769-BR1</td> <td>BRMS for OS/400</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>5769-FW1</td> <td>Firewall for AS/400</td> <td>--</td> <td>--</td> <td colspan="2">16 IPCS</td> <td>--</td> <td>--</td> </tr> <tr> <td>5769-SM1</td> <td>System Manager for AS/400</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> </tr> <tr> <td>5769-WP1</td> <td>OfficeVision for AS/400</td> <td>10</td> <td>40</td> <td>100</td> <td>200</td> <td>300</td> <td>300</td> </tr> <tr> <td>5769-XW1</td> <td>Client Access Family For Windows</td> <td>10</td> <td>40</td> <td>100</td> <td>150</td> <td>200</td> <td>250</td> </tr> <tr> <td>5769-XY1</td> <td>Client Access Family</td> <td>10</td> <td>40</td> <td>100</td> <td>150</td> <td>200</td> <td>250</td> </tr> <tr> <td>5769-XZ1</td> <td>OS/2 Warp Server for AS/400</td> <td>--</td> <td>--</td> <td colspan="2">16 IPCS</td> <td>--</td> <td>--</td> </tr> <tr> <td>5798-TBT</td> <td>JustMail/400</td> <td>--</td> <td>--</td> <td colspan="2">No Maximum Limit</td> <td>--</td> <td>--</td> </tr> <tr> <td>5769-DFH</td> <td>CICS for AS/400</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> <td>450</td> </tr> <tr> <td>5769-RD1</td> <td>OnDemand for AS/400 (Spl File Arch)</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td>5769-SVD</td> <td>Netfinity AS/400 Manager for OS/2</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> </tr> <tr> <td>5769-SVE</td> <td>Netfinity AS/400 Manager for WIN95</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> </tr> <tr> <td>5769-SV3</td> <td>ADSTAR Distributed Storage Mgr V3</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> </tr> </tbody> </table>			Maximum Number of Users								P05	P10	P20	P30	P40	P50	5769-BR1	BRMS for OS/400	50	50	50	50	50	50	5769-FW1	Firewall for AS/400	--	--	16 IPCS		--	--	5769-SM1	System Manager for AS/400	250	250	250	250	250	250	5769-WP1	OfficeVision for AS/400	10	40	100	200	300	300	5769-XW1	Client Access Family For Windows	10	40	100	150	200	250	5769-XY1	Client Access Family	10	40	100	150	200	250	5769-XZ1	OS/2 Warp Server for AS/400	--	--	16 IPCS		--	--	5798-TBT	JustMail/400	--	--	No Maximum Limit		--	--	5769-DFH	CICS for AS/400	450	450	450	450	450	450	5769-RD1	OnDemand for AS/400 (Spl File Arch)	25	25	25	25	25	25	5769-SVD	Netfinity AS/400 Manager for OS/2	250	250	250	250	250	250	5769-SVE	Netfinity AS/400 Manager for WIN95	250	250	250	250	250	250	5769-SV3	ADSTAR Distributed Storage Mgr V3	250	250	250	250	250	250
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5769-BR1	BRMS for OS/400	50	50	50	50	50	50																																																																																																																		
5769-FW1	Firewall for AS/400	--	--	16 IPCS		--	--																																																																																																																		
5769-SM1	System Manager for AS/400	250	250	250	250	250	250																																																																																																																		
5769-WP1	OfficeVision for AS/400	10	40	100	200	300	300																																																																																																																		
5769-XW1	Client Access Family For Windows	10	40	100	150	200	250																																																																																																																		
5769-XY1	Client Access Family	10	40	100	150	200	250																																																																																																																		
5769-XZ1	OS/2 Warp Server for AS/400	--	--	16 IPCS		--	--																																																																																																																		
5798-TBT	JustMail/400	--	--	No Maximum Limit		--	--																																																																																																																		
5769-DFH	CICS for AS/400	450	450	450	450	450	450																																																																																																																		
5769-RD1	OnDemand for AS/400 (Spl File Arch)	25	25	25	25	25	25																																																																																																																		
5769-SVD	Netfinity AS/400 Manager for OS/2	250	250	250	250	250	250																																																																																																																		
5769-SVE	Netfinity AS/400 Manager for WIN95	250	250	250	250	250	250																																																																																																																		
5769-SV3	ADSTAR Distributed Storage Mgr V3	250	250	250	250	250	250																																																																																																																		
<b>Note 6</b>	<p>These products are licensed using the International Program License Agreement (IPLA). The remaining Version 4 licensed programs are licensed under the International Customer Agreement (ICA) or IBM Agreement for Programs (IAP) terms.</p> <p>Three documents, <i>Proof of Entitlement (POE)</i>, <i>License Information Document (LID)</i>, and <i>International Program License Agreement (IPLA)</i>, are provided with IPLA software as proof of a valid license. IPLA software may be sold to another party. You must notify the purchaser of the program's terms and provide the POE, LID, and IPLA documents to the purchaser. IBM licenses the purchaser when that party accepts the program's license terms by initial use of the program. The seller's license is terminated at this time.</p> <p>When ordering upgrades to software licensed under the IPLA, such as OS/400, a copy of the POE should be provided by the customer to validate the license to the software.</p>																																																																																																																								

<p><b>Note 7</b></p>	<p>These products are also available in software packages.</p> <p><b>5769-VP1 ValuPak for OS/400 (not available on OS/400 V4R5) includes:</b></p> <p>5769-SS1 Operating System/400                      <b>Note:</b> Provides the following number of users:  5769-PSF 1-19 ipm feature of OS/400                      XW1: P05/10 P10/20 P20/50 P30/70 P40/125 P50/150  5769-XW1 Client Access Family for Windows  5769-QU1 Query/400  5769-ST1 DB2/400 Query Manager and SQL Development Kit  57xx-PT1 Performance Tools (Manager feature)</p> <p><b>5769-GP1 GrowthPak for OS/400 (OS/400 V4R1, V4R2, or V4R3 only) includes:</b></p> <p>5769-SS1 Operating System/400  5769-XW1 Client Access Family for Windows  5769-QU1 Query/400  5769-ST1 DB2/400 Query Manager and SQL Development Kit  5716-DCT Language Dictionary/400 5769-WP1 OfficeVision/400™  57xx-PT1 Performance Tools (Manager feature)  5769-WP1 OfficeVision/400  <b>Note:</b> Provides the following number of users:  XW1: P05/10 P10/20 P20/50 P30/70 P40/125 P50/150  WP1: P05/10 P10/20 P20/50 P30/140 P40/250 P50/250.</p> <p><b>5769-PWK Application Development ToolSet Plus (5716-PWK in OS/400 V4R1) includes:</b></p> <p>57xx-PW1 Application ToolSet  - Application Dictionary Services  - Application Development Manager  57xx-CL3 Application Development Client Server ToolSet  <b>Note:</b> Provides the following number of users: CL3: P05/1 P10/1 P20/1 P30/1 P40/1 P50/1</p> <p><b>5769-PPK ValuPak for AS/400 Printing (5716-PPK in OS/400 V4R1, not available on V4R5) includes:</b></p> <p>57xx-AF1 Advanced Function Printing Utilities  5648-B45 AFP Font Collection  5798-AF3 AFP PrintSuite components:  - Advanced Print Utility  - Page Printer Formatting Aid  <b>Note:</b> User-based pricing does not apply to any of the products in this pack.</p> <p><b>5769-APK OS/400 Integration Base Pack for Lotus Notes (OS/400 V4R1 only) includes:</b></p> <p>Integration Services for Integrated PC Server feature of OS/400  IBM OS/400 Integration for Lotus Notes feature of OS/400  One Lotus Notes Server license  One Lotus Notes Client license</p> <p><b>5769-EPK OS/400 Integration Enhanced Pack for Lotus Notes (OS/400 V4R1 only) includes:</b></p> <p>IBM OS/400 Integration Base Pack for Lotus Notes  5716-DP1 DataPropagator Relational for OS/400  5716-SV2 ADSTAR Distributed Storage Manager for AS/400, V2.1</p> <p><b>5769-OPK Operations Productivity Pak (OS/400 V4R1, V4R2, or V4R3 only) includes:</b></p> <p>57xx-JS1 Job Scheduler  5769-BR1 Backup Recovery and Media Services (includes 5 user licenses, 50 media)  5716-SV2 ADSTAR Distributed Storage Manager (includes 20 user licenses)</p>
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<b>Note 8</b>	<p>A number in the Software Subscription column indicates that the product is on the Eligible Products List for Software Subscription. Customers must purchase Software Subscription when they move to Version 4 to upgrade to new versions or releases. Software Subscription is available at prepaid options of one or three years.</p> <p>The price of Software Subscription is the same regardless of what software has been licensed to a system. Most AS/400 stacked software is covered by Software Subscription. Customers who do not take out Software Subscription when they install Version 4 or Version 5 must either relicense the software or pay the Subscription After License to join if they want to upgrade to a new version or release.</p> <p>For more information on Software Subscription and the list of programs it covers, refer to:  <a href="http://www-1.ibm.com/servers/eserver/series/sftsol/subscript2.htm">http://www-1.ibm.com/servers/eserver/series/sftsol/subscript2.htm</a></p> <p>Software Subscription is ordered as a unique product/model combination depending upon the method of payment:  5733-SW1 Software Subscription for AS/400 1-Year Prepay. <i>Withdrawn from marketing.</i>  5733-SW3 Software Subscription for AS/400 3-Year Prepay. <i>Withdrawn from marketing.</i></p> <p>For the Prepayment options and the Subscription After License, specify the corresponding processor-based feature for 5733-SWx.</p>
<b>Note 9</b>	<p>A number (representing the Installation Code ID of the product) in the Keyed Stamped Media column indicates that the product is one of those provided in V4R4 on AS/400 Keyed Stamped Media and shipped with OS/400. This is to provide on demand delivery of these products and features and allows a 70-day evaluation period for any of the provided products or features.</p> <p>To use the software distributed on the keyed stamped media after the 70-day evaluation period, order a Software License Key. New Software License Keys are also required when the version, release, or modification level of the software changes. If the software is transferred to a different system, a new software key is required as well. Some software is keyed based on the software group and a new software key must be obtained when the software group changes.</p> <p>When a Software License Key is ordered, retain the <i>Software License Key Sheet</i> that IBM provides.</p> <p>If a Keyed Stamped Media product or feature is to be upgraded, the current Software License Key Sheet for the product must be provided as proof of license.</p> <p>In the United States, Canada, and Asia Pacific, a customer upgrading from V4R4 to V4R5 receives only new Software License Key sheets for program products that changed in V4R5. Program Products that changed in V4R5 are identified by a blank in the Skip ship column.</p>
<b>Note 10</b>	Included in SPO when OS/400 is ordered; no 5769-SS1 chargeable feature is required.
<b>Note 11</b>	<p>A “✓” in the WDFM (Withdrawn from marketing) column indicates that the product has been withdrawn from marketing for a specific version and release.</p> <p>A date in the WDFM column indicates that the product is to be withdrawn from marketing on the date specified.</p>
<b>Note 12</b>	<p>Available in the United States and Canada only.</p> <p>Can be made available with a bulk license outside the United States and Canada if the customer who receives the product meets the standards set forth by the United States Government.</p>
<b>Note 13</b>	MQSeries for AS/400, V5.1, can be ordered as product 5801-AAR, feature 5610. It can also be ordered using part number 0704923.
<b>Note 14</b>	MQSeries Integrator can be ordered as product 5801-AAR, feature 6002. It can also be ordered using part number 0764248.

## 11.14 OS/400 V3R6 and V3R7 software

The following table shows the V3R7 and V3R6 OS/400-based software products that are most commonly installed. It is not a definitive list of all AS/400e software products available for RISC systems.

See 11.16, “OS/400 Software pricing groups” on page 364, for Version 3 software group information.

Database products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
System Program Order (also known as Software Stack)	✓	✓	✓	5755-AS4	-	-
Operating System/400®* (including TCP/IP Connectivity Utilities/400)	✓	✓	✓	5716-SS1 <sup>6</sup>	#2101	-
SystemView Base for OS/400	✓	✓	✓	-	-	#2195
PSF/400*	✓	✓	✓	-	-	#2291
CPA Toolkit	✓	✓	✓	-	-	#2290
Media and Storage Extensions	✓	✓	✓	-	-	#2219
OptiConnect for OS/400	✓	✓	✓	-	-	#2242
Integration Services for Integrated PC Server	✓	✓	✓	-	-	#2244
Netware Integration for OS/400	✓	✓	✓	-	-	#2245
Enhanced Netware Integration	✓	✓	✓	-	-	#2246
SOMObjects Runtime	✓	✓	✓	-	-	#2247
Integration of Lotus Notes*	✓	✓	✓	-	-	#2256
DB2 Symmetric Multiprocessing	✓	✓	✓	-	-	#2298
DB2 MultiSystem	✓	✓	✓	-	-	#2299
Cryptographic Support for OS/400	✓	✓	✓	5716-CR1	#2118	-
S/38 Utilities for OS/400	✓	✓	✓	5716-DB1	#2119	-
DataPropagator Relational Capture and Apply for OS/400*	✓	✓	✓	5716-DP1	#2165	-
Query for OS/400*	✓	✓	✓	5716-QU1	#2108	-
DB2 Query Manager and SQL Development Kit for OS/400*	✓	✓	✓	5716-ST1	#2111	-

Networking products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
Point-of-Sale Communication Utility for OS/400	✓	✓	✓	5716-CF1	#2128	-
Communications Utilities for OS/400	✓	✓	✓	5716-CM1	#2103	-
CallPath for OS/400	✓	✓	✓	5716-CP2	#2146	-
CallPath for OS/400	✓	✓	✓	5716-CP3	#2131	-
OSI File Services for OS/400	✓	✓	✓	5716-FS1	#2142	-
MQSeries for OS/400	✓	✓	✓	5716-MQ1	#2123	-
OSI Message Services for OS/400	✓	✓	✓	5716-MS1	#2120	-
OSI Communications Subsystem for OS/400	✓	✓	✓	5716-OS1	#2102	-
Client Access for OS/400*	✓	✓	✓	5716-XA1	#2180	-
DOS Extended Client	✓	✓	✓	-	-	#2181
OS/2 Client	✓	✓	✓	-	-	#2182
DOS Client	✓	✓	✓	-	-	#2183

Networking products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
Windows 3.1 Client	✓	✓	✓	-	-	#2184
Optimized OS/2 Client	✓	✓	✓	-	-	#2186
Windows 95/NT Client	✓	✓	✓	-	-	#2196
Client Access Family for Windows*	✓	✓	✓	5716-XW1	#2116	-
Enhanced for Windows 3.1 Client	✓	✓	✓	-	-	-
Windows 95/NT Client	✓	✓	✓	-	-	-
Client Access Family	✓	✓	✓	5716-XY1	#2117	-
DOS Client	✓	✓	✓	-	-	-
DOS Extended Client	✓	✓	✓	-	-	-
OS/2 Client	✓	✓	✓	-	-	-
Optimized OS/2 Client	✓	✓	✓	-	-	-
Windows 3.1 Client	✓	✓	✓	-	-	-
Client Access Migration Aid	✓	✓	✓	-	#2106	-
LAN Server for OS/400	✓	✓	✓	5716-XZ1	#2166	-
TCP/ICP File Server Support for OS/400	✓	✓	✓	5798-TAZ	-	-
RadioPac for OS/400	✓	✓	✓	5798-TBD	-	-
PagerPac for OS/400	✓	✓	✓	5798-TBC	-	-
UNIX Connection Program for OS/400	✓	✓	✓	5798-TBE	-	-
NetView® File Transfer Program	✓	✓	✓	5798-TBG	-	-
Network Station Manager V1R3	✓	✓	✓	5648-C05	-	-
Network Station Manager for AS/400 (V3R7)	✓	✓	✓	5648-B07	-	-
Network Station Browser (40-bit encryption)	✓	✓	✓	5648-B08	-	-
Navio NC Navigator for IBM Network Station (40-bit encryption)	✓	✓	✓	5648-B10	-	-
Network Station Browser (128-bit encryption)††	✓	✓	✓	5648-B18	-	-
Navio NC Navigator for IBM Network Station (128-bit encryption)††	✓	✓	✓	5648-B20	-	-

Systems management products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
Backup Recovery and Media Services for OS/400	✓	✓	✓	5716-BR1	#2121	-
SystemView OMEGAMON Services/400	✓	✓	✓	5716-ES1	#2122	-
Automated Facilities/400	✓	✓	✓	-	-	#2208
OMEGAVIEW/400	✓	✓	✓	-	-	#2209
Job Scheduler for OS/400	✓	✓	✓	5716-JS1	#2194	-
SystemView Managed System Services for OS/400	✓	✓	✓	5716-MG1	#2158	-

Systems management products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
SystemView ManageWare for OS/400	✓	✓	✓	5716-MW1	#2124	-
Performance Tools for OS/400*	✓	✓	✓	5716-PT1	#2125	-
Performance Tools Manager	✓	✓	✓	-	-	#2210
Performance Tools Agent	✓	✓	✓	-	-	#2211
Report/Data Archive and Retrieval System	✓	✓	✓	5716-RD1	#2193	-
Spool File Archive	✓	✓	✓	-	-	#2294
Record Level Archive	✓	✓	✓	-	-	#2295
Object Level Archive	✓	✓	✓	-	-	#2296
SystemView System Manager for OS/400	✓	✓	✓	5716-SM1	#2133	-
ADSTAR Distributed Storage Manager for OS/400	✓	✓	✓	5716-SV1	#2169	-
Multiple Client Workstations Supported	✓	✓	✓	-	-	#2271- #2289
ADSTAR Distributed Storage Manager V2R1*	✓	✓	✓	5716-SV2	#2197	-
Multiple Client Workstations Supported	✓	✓	✓	-	-	#1419- #1440
NetFinity Server for AS/400 V3R7	✓	✓	✓	5716-SVA	#2136	-
NetFinity AS/400 Manager for OS/2 V3R7	✓	✓	✓	5716-SVD	#2137	-
NetFinity AS/400 Manager for Windows 95 V3R7	✓	✓	✓	5716-SVE	#2138	-

Multimedia products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
Ultimedia Business Conferencing for OS/400	✓	✓	✓	5716-UB1	#2170	-
Person-to-Person	✓	✓	✓	-	-	#2223
Client Access Ultimedia Tools for OS/400	✓	✓	✓	5716-US1	#2172	-
Ultimedia Perfect Image/400	✓	✓	✓	-	-	#2221
Ultimedia Builder/400	✓	✓	✓	-	-	#2222

Application development products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
ILE COBOL for OS/400	✓	✓	✓	5716-CB1	#2113	-
Application Development Toolset Client Server for OS/400*	✓	✓	✓	5716-CL1	#2167	-
CODE for OS/400 and OS/2	✓	✓	✓	-	-	#2240
VRPG for OS/400 and OS/2	✓	✓	✓	-	-	#2241
Application Development ToolSet Client Server for OS/400	✓	✓	✓	5716-CL3	#2168	-
ILE C for OS/400	✓	✓	✓	5716-CX2	#2127	-
VisualAge C++ for OS/400	✓	✓	✓	5716-CX4	#2190	-

Application development products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
VisualAge C++ for OS/2 Client	✓	✓	✓	-	-	#2214
VisualAge C++ for AS/400 (Windows)	✓	✓	✓	5716-CX5	#2132	
VisualAge C++ for Windows Client	✓	✓	✓	-	-	#2220
CICS for OS/400	✓	✓	✓	5716-DFH	#2145	-
Application Program Driver for OS/400	✓	✓	✓	5716-PD1	#2157	-
Application Development ToolSet for OS/400*	✓	✓	✓	5716-PW1	#2126	-
Application Dictionary Services/400	✓	✓	✓	-	-	#2212
Application Development Manager/400	✓	✓	✓	-	-	#2213
ILE RPG for OS/400*	✓	✓	✓	5716-RG1	#2112	-
VisualGen Host Services for OS/400	✓	✓	✓	5716-VG1	#2177	-
BYPASS2000 for AS/400	✓	✓	✓	5679-C20	-	-
Intelligent Miner for AS/400	✓	✓	✓	5733-IM1		-
KnowledgeTool Runtime for OS/400	✓	✓	✓	5798-TAT	-	-
KnowledgeTool Development Toolkit for OS/400	✓	✓	✓	5798-TAW	-	-
Neural Network Utility for OS/400	✓	✓	✓	5798-TBA	-	-
DCE Base Services for OS/400	✓	✓	✓	5798-TBF	-	-
SOMObjects Developer ToolKit	✓	✓	✓	5798-TBL	-	-
AS/400 Toolbox for Java	✓	✓	✓	5798-JC1	-	-

Office products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
Advanced Function Printing Utilities for OS/400*	✓	✓	✓	5716-AF1	#2141	-
Advanced DBCS Printer Support	✓	✓	✓	5716-AP1	#2110	-
Language Dictionaries for OS/400*	✓	✓	✓	5716-DCT	#2105	-
Business Graphics Utility for OS/400	✓	✓	✓	5716-DS1	#2107	-
Advanced Function Printing Fonts for OS/400	✓	✓	✓	5716-FNT	#2150	-
Various Fonts	✓	✓	✓	-	-	#2225 - #2239
Advanced Function Printing DBCS Fonts for OS/400†	✓	✓	✓	5716-FN1	#2135	-
Various Fonts	✓	✓	✓	-	-	#2250 - #2254
OfficeVision for OS/400*	✓	✓	✓	5716-WP1	#2104	-
ImagePlus VisualInfo for AS/400 V4R1	✓	✓	✓	5733-A18	-	-
AFP PrintSuite for OS/400*	✓	✓	✓	5798-AF3	-	-
OfficeVision JustMail for OS/400	✓	✓	✓	5798-TAQ	-	-
Facsimile Support for OS/400	✓	✓	✓	5798-TAY	-	-

Packaged software	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
BasePak for Lotus Notes	✓	✓	✓	5716-APK	#1466	-
EnhancedPak for Lotus Notes	✓	✓	✓	5716-EPK	#1467	-
ValuPak for OS/400	✓	✓	✓	5716-VPK	#1587	-
ValuPak for V3R7	✓	✓	✓	5716-VP1	#1457	
GrowthPak for OS/400	✓	✓	✓	5716-GPK	#1588	-
GrowthPak for V3R7	✓	✓	✓	5716-GP1	#1458	
DeveloperPak for OS/400	✓	✓	✓	5716-DPK	#1589	-
Application Development ToolSet Plus	✓	✓	✓	5716-PWK	#1462	-
ValuPak for AS/400 for Print	✓	✓	✓	5716-PPK	#1459	-
Operations ProductivityPak for V3R7	✓	✓	✓	5716-OPK	#1770	-

Additional products	WDFM <sup>2</sup>	V3R6 <sup>1</sup>	V3R7 <sup>1</sup>	Product identifier	Stack feature	Addn'l feature
System/38 Migration Aid	✓	✓	✓	5714-MG1	-	-
System/36 Migration Aid	✓	✓	✓	5727-MG1	-	-

## 11.15 Notes for V3R7 and V3R6 software tables

<b>Note 1</b>	<p>OS/400 V3R6 and V3R7 support these AS/400 RISC (PowerPC®) models only:</p> <ul style="list-style-type: none"> <li>▶ 9401-150 (V3R7 only)</li> <li>▶ 9402-400/40S</li> <li>▶ 9404 CISC to 4xx and 5xx upgrades</li> <li>▶ 9406-500/50S/510/530/53S</li> </ul> <p>These releases do not support any AS/400 CISC models.</p>
<b>Note 2</b>	<p>A "✓" in the WDFM column indicates that a product is about to be, or is already, withdrawn from marketing for all applicable releases. A date in the WDFM column indicates the date in the future when the product is to be withdrawn from marketing.</p>
<b>Note 3</b>	<p>A typical order for licensed programs may be constructed as follows:</p> <p>5755-AS4                   #2101 OS/400                                    #21xx Licensed Programs                                    #22xx Additional Features of Licensed Programs                                    #198x Update Feature (not all stacks)                                    #1796 Custom QuickShip                                    #1991 New Releases and CumPacks supplied on demand only                                    #19xx Update Feature                                    #29xx Primary Language                                    #3410 CD-ROM Media                                    #35xx Release Specifier                                    #PRLI Preload required</p> <p>Release Specifiers:       #3560 Release Specifier for V3R6                                    #3570 Release Specifier for V3R7</p>

<b>Note 3 (cont.)</b>	Update Features: #1986 3995 Optical Library Support available on V3R6 #1988 V3R6 Processor Update (for Processors #2111, #2112, #2122, #2157, #2162) on V3R6 #1980 V3R7 3995-C4X Support																																																																																																																																																																																						
<b>Note 4</b>	† This product is available in Asia Pacific countries or regions only.																																																																																																																																																																																						
<b>Note 5</b>	†† This product is available in U.S.A. and Canada only.																																																																																																																																																																																						
<b>Note 6</b>	<p><b>Alternate IPL Device Feature Codes:</b> The following feature codes are hardware features. They are used to specify which storage device is to be used as an alternate IPL device.</p> <ul style="list-style-type: none"> <li>▶ #5501 120 MB ¼-inch Cartridge Tape Unit</li> <li>▶ #5502 840 MB ¼-inch Mini Tape Unit</li> <li>▶ #5503 9347 Tape Unit</li> <li>▶ #5504 3490 E01/E11 Tape Units</li> <li>▶ #5505 2440 Tape Unit</li> <li>▶ #5507 9348 Tape Unit</li> <li>▶ #5508 3422 Tape Subsystem</li> <li>▶ #5509 3430 Tape Subsystem</li> <li>▶ #5510 525 MB ¼-inch Tape Unit</li> <li>▶ #5511 3480 Tape Subsystem</li> <li>▶ #5512 3490 C10/C11/C22 Tape Unit</li> <li>▶ #5513 3490 Tape Subsystem</li> <li>▶ #5514 7208 8mm Tape Drive and Internal 8mm Tape Unit</li> <li>▶ #5515 3570 Tape Subsystem</li> <li>▶ #5516 1.2 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5517 2.5 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5518 13 GB ¼-inch Cartridge Tape Unit</li> <li>▶ #5519 3590 Tape System</li> </ul> <p>Refer to the Chapter 8, "External storage, QIC formats, cables for iSeries and AS/400e" on page 245, to see which tapes are supported on which models.</p>																																																																																																																																																																																						
<b>Note 7</b>	<p><b>Maximum number of chargeable users by product:</b></p> <table border="1"> <thead> <tr> <th></th> <th>Users in Base</th> <th>P05</th> <th>P10</th> <th>P20</th> <th>P30</th> <th>P40</th> </tr> </thead> <tbody> <tr> <td>5716-SS1 OS/400</td> <td>N/A</td> <td colspan="5">-----Not Applicable-----</td> </tr> <tr> <td>5716-XA1 Client Access for OS/400</td> <td>1</td> <td>5</td> <td>30</td> <td>75</td> <td>125</td> <td>125</td> </tr> <tr> <td>5716-XW1 Client Access Family For Windows</td> <td>0</td> <td>10</td> <td>40</td> <td>100</td> <td>150</td> <td>200</td> </tr> <tr> <td>5716-XY1 Client Access Family</td> <td>0</td> <td>10</td> <td>40</td> <td>100</td> <td>150</td> <td>200</td> </tr> <tr> <td>5716-DFH CICS for OS/400</td> <td>1</td> <td>5</td> <td>30</td> <td>75</td> <td>200</td> <td>450</td> </tr> <tr> <td>5716-WP1 OfficeVision for OS/400</td> <td>1</td> <td>10</td> <td>40</td> <td>100</td> <td>200</td> <td>300</td> </tr> <tr> <td>5716-SM1 System Manager for OS/400</td> <td>1</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> <td>250</td> </tr> <tr> <td>5716-BRI BRMS for OS/400</td> <td>0</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>5798-TBD RadioPac for OS/400</td> <td>N/A</td> <td>750</td> <td>750</td> <td>750</td> <td>750</td> <td>750</td> </tr> <tr> <td>5798-TBC PagerPac for OS/400</td> <td>N/A</td> <td>750</td> <td>750</td> <td>750</td> <td>750</td> <td>750</td> </tr> <tr> <td>5716-RDI R/DARS for OS/400</td> <td>1</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td>5716-SV2 ADSM for AS/400, V2.1</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-CL3 ADTS C/S for OS/400</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-CP3 CallPath for OS/400</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-US1 CA Ultimedia Tools for OS/400</td> <td>0</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5798-TAY Facsimile Support for OS/400</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5798-TAQ JustMail</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-XZ1 LAN Server for OS/400</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-MQ1 MQSeries for OS/400</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5798-TBL SOMobjects® Toolkit for OS/400</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-ES1 OMEGAMON OMEGAVIEW</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-UB1 Ultimedia Bus Conf for OS/400</td> <td>1</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5798-TBE UNIX Connection for OS/400</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-CX4 VisualAge C++ for OS/400 (OS/2)</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> <tr> <td>5716-CX5 VisualAge C++ for OS/400 (Windows)</td> <td>N/A</td> <td colspan="5">-----No Maximum Limit-----</td> </tr> </tbody> </table>		Users in Base	P05	P10	P20	P30	P40	5716-SS1 OS/400	N/A	-----Not Applicable-----					5716-XA1 Client Access for OS/400	1	5	30	75	125	125	5716-XW1 Client Access Family For Windows	0	10	40	100	150	200	5716-XY1 Client Access Family	0	10	40	100	150	200	5716-DFH CICS for OS/400	1	5	30	75	200	450	5716-WP1 OfficeVision for OS/400	1	10	40	100	200	300	5716-SM1 System Manager for OS/400	1	250	250	250	250	250	5716-BRI BRMS for OS/400	0	50	50	50	50	50	5798-TBD RadioPac for OS/400	N/A	750	750	750	750	750	5798-TBC PagerPac for OS/400	N/A	750	750	750	750	750	5716-RDI R/DARS for OS/400	1	25	25	25	25	25	5716-SV2 ADSM for AS/400, V2.1	N/A	-----No Maximum Limit-----					5716-CL3 ADTS C/S for OS/400	N/A	-----No Maximum Limit-----					5716-CP3 CallPath for OS/400	1	-----No Maximum Limit-----					5716-US1 CA Ultimedia Tools for OS/400	0	-----No Maximum Limit-----					5798-TAY Facsimile Support for OS/400	N/A	-----No Maximum Limit-----					5798-TAQ JustMail	N/A	-----No Maximum Limit-----					5716-XZ1 LAN Server for OS/400	1	-----No Maximum Limit-----					5716-MQ1 MQSeries for OS/400	1	-----No Maximum Limit-----					5798-TBL SOMobjects® Toolkit for OS/400	1	-----No Maximum Limit-----					5716-ES1 OMEGAMON OMEGAVIEW	1	-----No Maximum Limit-----					5716-UB1 Ultimedia Bus Conf for OS/400	1	-----No Maximum Limit-----					5798-TBE UNIX Connection for OS/400	N/A	-----No Maximum Limit-----					5716-CX4 VisualAge C++ for OS/400 (OS/2)	N/A	-----No Maximum Limit-----					5716-CX5 VisualAge C++ for OS/400 (Windows)	N/A	-----No Maximum Limit-----				
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**Note 8**

Products marked “\*\*” are also available in software packages.

**5716-VPK ValuPak for OS/400**

Number of Users Provided:

		P05	P10	P20	P30	P40
5716-SS1	Operating System/400 from 19 August 1997	5	15	30	100	250
		----- Unlimited Usage -----				
5716-XA1	Client Access/400 Family	5	15	30	100	125
5716-QU1	Query/400	----- Not Applicable -----				
5716-ST1	DB2/400 Query Manager and SQL Development Kit	----- Not Applicable -----				
5716-VP1	ValuPak for V3R7 includes:					
5716-SS1	Operating System/400	----- Unlimited Usage -----				
	PSF 1-19 ipm feature of OS/400	----- Not Applicable -----				
5716-XW1	Client Access Family for Windows	10	20	50	70	125
5716-QU1	Query/400	----- Not Applicable -----				
5716-ST1	DB2/400 Query Manager and SQL Development Kit	----- Not Applicable -----				
5716-PT1	Performance Tools/400 (Manager Feature)	----- Not Applicable -----				

**5716-GPK GrowthPak for OS/400 includes:**

5716-SS1	Operating System/400 from 19th August 1997	5	15	30	100	250
		----- Unlimited Usage -----				
5716-XA1	Client Access/400 Family	5	15	30	100	125
5716-QU1	Query/400	----- Not Applicable -----				
5716-ST1	DB2/400 Query Manager and SQL Development Kit	----- Not Applicable -----				
5716-DCT	Language Dictionary/400	----- Not Applicable -----				
5716-WP1	OfficeVision/400 from 19 August 1997	5	15	30	100	250
		10	20	50	140	250
5716-PT1	Performance Tools/400	----- Not Applicable -----				

**5716-GP1 GrowthPak for V3R7 includes:**

5716-SS1	Operating System/400 PSF 19 ipm feature of OS/400	----- Unlimited Usage -----				
		----- Not Applicable -----				
5716-XW1	Client Access Family for Windows	10	20	50	70	125
5716-QU1	Query/400	----- Not Applicable -----				
5716-ST1	DB2/400 Query Manager and SQL Development Kit	----- Not Applicable -----				
5716-QU1	Query/400	----- Not Applicable -----				
5716-PT1	Performance Tools/400 (Manager Feature)	----- Not Applicable -----				
5716-WP1	OfficeVision/400	10	20	50	70	125
5716-DCT	Language Dictionary/400	----- Not Applicable -----				

**5716-DPK DeveloperPak for OS/400 includes:**

5716-PW1	Application Development ToolSet/400	----- Not Applicable -----				
5716-RG1	Integrated Language Environment RPG/400®	----- Not Applicable -----				
5716-CL1	Application Development ToolSet Client Server/400	5	15	30	100	250

**5716- PWK Application Development ToolSet Plus includes:**

		Number of Users Provided:				
		P05	P10	P20	P30	P40
5716-PW1	Application Development Tool Set	----- Not Applicable -----				
	Application Dictionary Services	----- Not Applicable -----				
	Application Development Manager	----- Not Applicable -----				
5716-CL3	Application Development Tool Set Client Server	1	1	1	1	1

<b>Note 8 (cont.)</b>	<b>5716-PPK ValuPak for AS/400 for Print includes:</b>		<b>Note:</b> User-based pricing does not apply to any of the products in this pack.
	5716-AF1	Advanced Function Printing Utilities	
	5648-113	AFP Font Collection	
	5798-AF3	AFP Print Suite components: Advanced Print Utility Page Printer Formatting Aid	
	<b>5716-APK OS/400 Integration Base Pack for Lotus Notes includes:</b>		
	Integration Services for Integrated PC Server (formerly FSIOP) feature of OS/400		
	IBM OS/400 Integration for Lotus Notes feature of OS/400		
	One Lotus Notes Server license		
	One Lotus Notes Client license		
	<b>5716-EPK OS/400 Integration Enhanced Pack for Lotus Notes includes:</b>		
IBM OS/400 Integration Base Pack for Lotus Notes		<b>Note:</b> One Enhanced Pack is required for the first integrated PC Server on which	
5716-DP1	DataPropagator Relational for OS/400	Lotus Notes is to be installed. Use Base Pack for the second and subsequent	
5716-SV2	ADSTAR Distributed Storage Manager for AS/400,V2.1	Integrated PC Servers with Lotus Notes. Three ADSM users are provided.	
<b>The Lotus Notes Packs are available for OS/400 V3R7 only.</b>			
<b>5716-OPK Operations Productivity Pak for V3R7 includes:</b>			
5716-JS1	Job Scheduler	----- Not Applicable -----	
5716-BR1	Backup Recovery and Media Services	All groups/5 (50 Media)	
5716-SV2	ADSTAR Distributed Storage Manager	All groups/20	

## 11.16 OS/400 Software pricing groups

OS/400 software is priced by software groups. This section shows the software group for each iSeries and AS/400e processor.

Use the Work with License Information (WRKLICINF) command to display the software group of the installed AS/400e or iSeries server.

### 11.16.1 OS/400 Version 4 and Version 3 software groups

The following tables show the software group for each iSeries and AS/400e processor supported by OS/400 Version 4 or Version 3.

Hardware models	Processor feature	Interactive/ package feature	Version 3 group	Version 4 group
10S	-	-	P05	-
150	#2269, #2270	-	EE3	-
170	#2159, #2160	-	-	P05
	#2164, #2176	-	-	P10
	#2183, #2286	-	-	P20
	#2289, #2290, #2291	-	-	P05
	#2292, #2385	-	-	P10
	#2386, #2388	-	-	P20
	#2407, #2408	-	-	P05
#2409	-	-	-	P10

Hardware models	Processor feature	Interactive/ package feature	Version 3 group	Version 4 group
200	#2030	-	P05	-
	#2031, #2032	-	P10	-
20S	-	-	P05	-
250	#2295, #2296	-	-	PPS
270	#2248	#1517	-	P05
	#2250	#1516, #1518	-	P10
	#2252	#1516, #1519	-	P10
	#2253	#1516, #1520	-	P20
	#2422, #2423	-	-	P05
	#2424	-	-	P10
	#2431	#1518	-	P10
	#2432	#1516, #1519	-	P10
	#2434	#1516, #1520	-	P20
#2452, #2454	-	-	P10	
30S	-	-	P10	-
300	-	-	P20	-
310	-	-	P30	-
320	-	-	P40	-
400	#2130	-	P05	P05
	#2131, #2132, #2133	-	P10	P10
40E 40G 40L	#2130	-	P05	-
	#2130	-	P05	-
	#2130	-	P05	-
40S	#2109, #2110, #2111	-	P05	
	#2112	-	P10	P10
40x	#2131, #2132, #2133	-	P10	-
41x	#2131, #2132, #2133	-	P10	-
42x	#2130	-	P05	P05
	#2131, #2132, #2133	-	P10	P10
4Hx	#2109, #2110, #2111	-	P05	P05
	#2112	-	P10	P10
4Sx	#2109, #2110, #2111	-	P05	
4Tx	#2112	-	P10	-
436	#2102	-	P05	-
	#2104, #2106	-	P10	P10
500	-	-	P20	P20
50S	#2120, #2121, #2122	-	P10	P10
510	#2143, #2144	-	P30	P30
530	#2150, #2151, #2152, #2153, #2162	-	P40	P40
53S	#2154, #2155, #2156	-	P20	P20
600	#2129	-	-	P05
	#2134, #2135	-	-	P10
	#2136	-	-	P20

Hardware models	Processor feature	Interactive/ package feature	Version 3 group	Version 4 group
<b>620</b>	#2228, #2230	-	-	P20
	#2231, #2232			P30
	#2175			P20
	#2233			P40
	#2179	-	-	P20
	#2180, #2181	-	-	P30
	#2182, #2233	-	-	P40
<b>640</b>	#2185, #2186, #2187	-	-	P40
	#2237, #2238, #2239			P40
<b>650</b>	#2188, #2189	-	-	P50
	#2240, #2430	-	-	P40
<b>S10</b>	#2118, #2119	-	-	P05
<b>S20</b>	#2161	-	-	P05
	#2163, #2165	-	-	P10
	#2166, #2170, #2177, #2178	-	-	P20
<b>S20</b>	#2328, #2387, #2390, #2391			P10
	#2330, #2331, #2392			P20
<b>S30</b>	#2203, #2204, #2205	-	-	P20
	#2206, #2256			P30
	#2257, #2258, #2259			P20
	#2260	-	-	P30
	#2320	-	-	P20
	#2321, #2322	-	-	P30
	#2324			P20
	#2325, #2326	-	-	P30
<b>S40</b>	#2207, #2208	-	-	P40
	#2256	-	-	P30
	#2261	-	-	P40
	#2340, #2341	-	-	P50
<b>SB1</b>	#2310	-	-	P30
	#2311, #2312, #2313	-	-	P40
<b>SB2</b>	#2315	-	-	P30
<b>SB3</b>	#2316, #2318	-	-	P40

## 11.16.2 OS/400 Version 5 software group

The following tables show the software group for each iSeries and AS/400e processor supported by OS/400 Version 5.

Hardware models	Processor feature	Interactive/package feature	Version 5 group
<b>720</b>	#2061	#1500	P10
		#1501, #1502	P20
	#2062	#1500	P10
		#1501, #1502, #1503	P20
	#2063	#1500	P20
		#1502, #1503, #1504	P30
#2064	#1500	P20	
	#1502, #1503, #1504, #1505	P30	
<b>730</b>	#2065	#1506	P20
		#1507, #1508, #1509	P30
	#2066	#1506	P20
		#1507, #1508, #1509, #1510	P30
	#2067	#1506	P30
		#1508, #1509, #1510, #1511	P40
#2068	#1506	P30	
	#1508, #1509, #1510, #1511	P40	
<b>740</b>	#2069	#1510, #1511, #1512	P50
		#1514	P40
	#2070	#1510, #1511, #1512, #1513	P50
		#1514	P40
<b>800</b>	#2463	#7400	P05
	#2463	#7400	P05
<b>810</b>	#2465	#7404, #7406	P10
	#2466	#7407, #7408, #7409	P10
	#2467	#7410, #7411, #7412	P10
	#2469	#7428, #7429, #7430	P20

Hardware models	Processor feature	Interactive/package feature	Version 5 group
<b>820</b>	#0150, #0151	-	P20
	#0152	-	P30
	#2395	#1521	P10
		#1522, #1523, #1524	P20
	#2396	#1522, #1523, #1524, #1525	P30
	#2397	#1521	P20
		#1522, #1523, #1524, #1525, #1526	P30
	#2398	#1521	P30
		#1522, #1523, #1524, #1525, #1526, #1527	P40
	#2425	-	P05
	#2426, #2427	-	P10
	#2435	#1521	P10
		#1522, #1523, #1524	P20
	#2436	#1521	P20
		#1522, #1523, #1524	P30
	#2437	#1521	P20
		#1522, #1523, #1524, #1526, #1527	P30
	#2438	#1521	P30
#1522, #1523, #1524, #1525, #1526, #1527		P40	
#2456	-	P05	
#2457, #2458	-	P10	
<b>825</b>	#2473	#7416, #7417, #7418	P30
<b>830</b>	#0153	-	P30
	#2349	#1531	P30
		#1532, #1533, #1534, #1535, #1536, #1537	P40
	#2400	#1531	P20
		#1532, #1533, #1534, #1535	P30
	#2402	#1531	P30
		#1532, #1533, #1534, #1535, #1536	P40
	#2403	#1531	P40
#1532, #1533, #1534, #1535, #1536, #1537		P50	

Hardware models	Processor feature	Interactive/package feature	Version 5 group
840	#0158, #0159	-	P40
	#2352	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546	P50
	#2353	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546, #1547	P50
	#2354	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546, #1547, #1548	P50
	#2416	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546	P40
	#2417	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546	P50
	#2418	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546	P50
	#2419	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546, #1547	P50
	#2420	#1540	P40
	#2420	#1541, #1542, #1543, #1544, #1545, #1546, #1547	P50
	#2461	#1540	P40
		#1541, #1542, #1543, #1544, #1545, #1546, #1547, #1548	P50
	870	#2486	#7419
890	#0197, #0198	-	P50
	#2487	#1576	P50
	#2487	#1577, #1578, #1579, #1581, #1583, #1585, #1587, #1588	P60
	#2488	#1576	P50
		#1577, #1578, #1579, #1581, #1583, #1585, #1587, #1588, #1591	P60
	#2497, #2498	#7422, #7423, #7424 #7425, #7426, #7427	P50

## 11.17 Release-to-release software product mapping

The following table shows a list of iSeries software products. Use it to understand the current set of software offerings for a given OS/400 installed release. For more information, refer to the iSeries Planning Web site at:

<http://www.ibm.com/servers/eserver/iseries/support/planning>

V3R2 <sup>2</sup>	V3R6 <sup>2</sup>	V3R7	V4R1	V4R2	V4R3	V4R4	V4R5	V5R1	V5R2
5763-MQ2	5716-MQ1	5716-MQ1	5716-MQ1	5769-MQ2	5769-MQ2	*	5733-A38	*	*
			-	-	-	-	5733-A47	*	N/A
			N/A	N/A	5769-AC1	*	*	5722-AC3	*
5763-AF1	5716-AF1	5716-AF1	5716-AF1	5769-AF1	*	*	*	5722-AF1	*

V3R2 <sup>2</sup>	V3R6 <sup>2</sup>	V3R7	V4R1	V4R2	V4R3	V4R4	V4R5	V5R1	V5R2
			5798-AF3	**	**	**	**	**	**
5763-AP1	5716-AP1	5716-AP1	5716-AP1	5769-AP1	*	*	*	5722-AP1	*
			-	-	-	5769-AS1	*	5733-AS3	*
			-	-	-	-	5733-B2B	*	*
5763-BR1	5716-BR1	5716-BR1	5769-BR1	*	*	*	*	5722-BR1	5722-BR1
5763-CP3	5716-CP2		5716-CP2	*	5769-CP4	*	5648-C69	*	N/A
			-	-	-	5769-CE1	*	5722-CE2	NA
			-	-	-	5769-CE1	**	5722-CE3	5722-CE3
5763-CF1	5716-CF1	*	5716-CF1	5769-CF1	*	**	*	*	*
5763-CM1	5716-CM1	5716-CM1	5716-CM1	5769-CM1	*	*	*	5722-CM1	5722-CM1
5763-CR1	5716-CR1	5716-CR1	5716-CR1	5769-CR1	*	*	*	5722-CR1	5722-CR1
5763-DB1	5716-DB1	*	5716-DB1	5769-DB1	*	*	*	5722-DB1	5722-DB1
			5798-TBF	*	5769-DC1	*	*	*	*
			-	-	5769-DCE	*	*	*	*
			-	-	-	-	-	5722-DE1	5722-DE1
5763-DFH	5716-DFH	5763-DFH	5716-DFH	5769-DFH	5769-DFH	*	*	5722-DFH	5722-DFH
5763-DCT	5716-DCT	5716-DCT	5716-DCT	*	*	*	5769-DL1	*	*
5763-DP1	5716-DP1	5716-DP1	5716-DP1	5769-DP1	5769-DP2	*	5769-DP3	*	5722-DP4
5763-DS1	5716-DS1	*	5716-DS1	5769-DS1	*	*	*	5722-DS1	5722-DS1
			N/A	N/A	N/A	N/A	5648-E09		
			**	**	**	**	**	5798-FAX	5798-FAX
-	-	-		5798-TBY	**	**	**	5798-FAX	5798-FAX
			5798-TAY	**	**	**	**	5798-FAX	5798-FAX
			5798-TBY	**	**	**	**	5798-FAX	5798-FAX
5763-FN1	5716-FN1	*	5716-FN1	5769-FN1	*	*	*	*	*
5763-FNT	5716-FNT	5763-FNT	5716-FNT	5769-FNT	*	*	*	*	*
5763-FS1	5716-FS1	*	5716-FS1	*	N/A	N/A	N/A	N/A	N/A
			5769-FW1	*	*	*	*	N/A	N/A
			-	-	-	-	5733-FXD	*	*
		*	-	-	-	-	N/A	5733-ID1	5733-ID1
			N/A	N/A	N/A	N/A	N/A	5722-IP1	5722-IP1
5798-JC1	-	5798-JC1	5798-JC1	*	*	*	*	*	*
5763-JS1	5716-JS1	5716-JS1	5716-JS1	5769-JS1	*	5769-JS1	*	5722-JS1	*
-	-	-	-	-	-	5769-LNP	*	N/A	N/A
			-	-	-	5769-LNT	*	N/A	N/A
5763-WP1	5716-WP1	5716-WP1	5769-WP1	5769-WP1	*	*	*	Lotus Notes	*
5763-MG1	5716-MG1	5716-MG1	5716-MG1	5769-MG1	*	*	*	5722-MG1	5722-MG1
5763-MS1	5716-MS1	*	5716-MS1	N/A	N/A	N/A	N/A	N/A	N/A
			5769-NC1	*	N/A	N/A	N/A	N/A	N/A
			5769-NCE	*	N/A	N/A	N/A	N/A	N/A
5763-OS1	5716-OS1	*	5716-OS1	N/A	N/A	N/A	N/A	N/A	N/A
5763-PD1	5716-PD1	*	5769-PD1	5769-PD1	5769-PD1	*	*	*	*
5763-PT1	5716-PT1	5716-PT1	5716-PT1	5769-PT1	*	*	*	5722-PT1	*
-	-	-	-	-	-	5733-PY1	*	5733-PY2	*
5763-QU1	5716-QU1	5716-QU1	5769-QU1	*	**	*	*	5722-QU1	*
5763-RD1	-	5716-RD1	5716-RD1	5769-RD1	**	*	*	5722-RD1	*
			-	-	-	-	5769-SA2	N/A	N/A
5763-SM1	5716-SM1	5716-SM1	5769-SM1	*	*	*	*	5722-SM1	*
			-	-	-	5769-PM1	5769-PM1	5722-SS1	*

V3R2 <sup>2</sup>	V3R6 <sup>2</sup>	V3R7	V4R1	V4R2	V4R3	V4R4	V4R5	V5R1	V5R2
5763-SS1	5716-SS1	5716-SS1	*	5769-SS1	*	*	*	5722-SS1	*
5763-ST1	5716-ST1	5716-ST1	5769-ST1	*	*	*	*	5722-ST1	*
5763-SV2	5716-SV1	5716-SV2	5716-SV3	*	5769-SV3	*	N/A	N/A	N/A
			5798-TAT	**	**	**	N/A	N/A	N/A
			5798-TAW	**	**	**	N/A	N/A	N/A
			5798-TAZ	**	N/A	N/A	N/A	N/A	N/A
			5798-TBF	**	**	**	N/A	N/A	N/A
			5798-TBT	*	**	**	NA	N/A	N/A
5763-UB1 *	5716-UB1	*	5716-UB1	N/A	N/A	N/A	N/A	N/A	N/A
5763-US1	5716-US1	*	5716-US1	N/A	N/A	N/A	N/A	N/A	N/A
5763-VG1	5716-VG1	*	5716-VG1	*	*	*	5769-VG1	*	*
			5733-AI8	*	*	*	5769-VI1	5722-VI1	*
			-	-	-	5798-NC3	*	5798-WC5	N/A
5763-CL3	5716-CL1	5716-CL3	5716-CL3	5769-CL3	*	*	5769-WD3	5722-WDS	*
5763-CX2 *	5716-CX2	5716-CX2	5716-CX2	5769-CX2	*	*	5769-WDS	5722-CX6 5722-WDS	5722-WDS
5716-CX4	*	*	5716-CX4	*	*	*	*	Windows and CX5	5722-WDS
5763-CB1	5716-CB1	5716-CB1	5716-CB1	5769-CB1	*	*	*	5722-WDS	*
-	5716-CX5	*	5716-CX5	*	*	5769-CX5	*	5722-CX6	5722-WDS
5763-PW1	5716-PW1	5716-PW1	5716-PW1	5769-PW1	*	*	5769-WDS	5722-WDS	*
5763-RG1	5716-RG1	5716-RG1	5716-RG1	5769-RG1	*	*	5769-WDS	5722-WDS	*
			-	-	-	-	-	-	5733-XT1
			5769-XW1	*	*	*	*	5722-XW1	*
			5769-XY1	*	*	*	N/A	N/A	N/A
			5769-XZ1	*	*	*	N/A	N/A	N/A
-	Product announced after this version/release.								
*	LP product compatible with and unmodified for this release.								
**	LPO supported on this version/release.								
N/A	Not Available								

## 11.18 Software preload feature codes

A preload of solution developer software for participating providers can be ordered with selected models of iSeries and AS/400e hardware. IBM does not sell solution developer software as part of the solution package. The customer purchases the solution through the software developer using normal solution developer channels.

The preloaded feature code specified during the configuration process triggers a solution developer license validation check before the solution developer software is preloaded and a total solution shipment is made. Only feature code #0400 can be preloaded on Models SB2 and SB3. All listed feature codes can be preloaded on Models 270 and 8xx.

A preload feature code specified during the configuration process triggers an installation of the software product before the total system solution shipment is made.

Product number	Product name	Product number	Product name
5722-AF1	AFP Utilities	5722-SS1	OS/400
5722-BR1	BRMS	5722-CM1	Communication Utilities
5722-DE1	DB2 Universal Data Extender	5769-DP3	DataPropagator
5722-IP1	Infoprint Server for iSeries	5722-PT1	Performance Tools
5722-QU1	Query	5722-RD1	OnDemand
5722-XW1	Client Processor	5722-XW1	XW1 Client User

5722-AP1	APSU	5722-AC2	Crypto 56b
5722-AC3	Crypto 128-bit	5722-CE2	CI Encryption 56b
5722-CE3	CI Enc 128-bit	5722-CR1	Cryp Support
5722-DB1	System/38 Utilities	5769-DC1	DCE Basic Services
5769-DC3	DCE DES	5722-DFH	CICS
5769-DL1	Dictionary and Languages	5769-FN1	AFP DBCS Fonts
5722-MG1	Managed System Services	5722-PD1	APD
5722-SM1	Systems Management	5769-VG1	Visual Age Generator
5722-SS1	Media and Storage Extensions	5722-SS1	PSF 1-45 (Option 36)
5722-SS1	PSF 1-100 (Option 37)	5722-SS1	PSF Any Speed (Option 38)
5722-SS1	PSF One Printer	5722-SS1	High Availability Switchable Resources (Option 41)
5722-BR1	BRMS Networking	5722-BR1	BRMS Advanced Function
5722-PT1	Performance Manager	5722-PT1	Performance Agent
5722-RD1	Object Archive	5722-RD1	Web Enable
5722-AP1	IPDS	5722-SS1	OptiConnect
5722-SS1	DB2 Symmetric	5722-SS1	DB2 Multisystem
5722-SS1	PASE	5722-WDS	ADM
5769-FNT	Sonoran Serif Options	5722-WDS	ADS
5733-WA3	WebSphere V3.5	5769-LNT	Lotus Domino (U.S. and Canada only)

# Related publications

The publications listed in this section are considered particularly suitable for a more detailed discussion of the topics covered in this redbook.

## IBM Redbooks

For information on ordering these publications, see “How to get IBM Redbooks” on page 374.

- ▶ *IBM @server iSeries System Handbook*, GA19-5486
- ▶ *AS/400e to IBM @server iSeries Migration: A Guide to System Upgrades*, SG24-6055
- ▶ *IBM @server iSeries Pocket Handbook*, SG24-9406
- ▶ *AS/400 CISC System Builder*, REDP0042
- ▶ *Update of ESS (Shark) Features Supported by the IBM @server iSeries Server*, REDP0199
- ▶ *IBM @server iSeries Supported Upgrades*, REDP0322

## Other publications

These publications are also relevant as further information sources:

- ▶ *AS/400 Physical Planning Reference*, SA41-5109
- ▶ *AS/400 RoadMap for Changing to PowerPC Technology*, SA41-5150
- ▶ *System Upgrade RoadMap (RISC to RISC)*, SA41-5155
- ▶ *Software Installation*, SC41-5120
- ▶ *Backup and Recovery*, SC41-5304
- ▶ *iSeries Performance Capabilities Reference*, SC41-0607

This book is available on the Web at:

<http://www-1.ibm.com/servers/eserver/series/perfmgmt/resource.htm>

## Online resources

These Web sites are also relevant as further information sources:

- ▶ IBM Redbooks home page  
<http://www.redbooks.ibm.com>
- ▶ iSeries Online Library  
<http://publib.boulder.ibm.com/pubs/html/as400/online/lib.htm>
- ▶ iSeries Information Center  
<http://www.ibm.com/eserver/series/infocenter>
- ▶ The ATM Forum  
<http://www.atmforum.com>

- ▶ IBM @server iSeries server site  
<http://www-1.ibm.com/servers/eserver/series/>
- ▶ iSeries Planning  
<http://www.ibm.com/servers/eserver/series/support/planning>
- ▶ Capacity on Demand  
<http://www-1.ibm.com/servers/eserver/series/hardware/ondemand/>
- ▶ Logical partitioning  
<http://www.ibm.com/eserver/series/lpar/>
- ▶ Windows Integration (with iSeries)  
<http://www.ibm.com/eserver/series/windowsintegration>
- ▶ Country- or region-specific keyboard or mouse and display support:  
<http://www-1.ibm.com/servers/eserver/series/>
- ▶ iSeries Software  
<http://www.ibm.com/eserver/series/software>
- ▶ Offering Information (OITool)  
<http://crmweb.boulder.ibm.com/oitool>
- ▶ Software Subscription for iSeries  
<http://www-1.ibm.com/servers/eserver/series/sftsol/subscript.htm>
- ▶ Software Inventory Assistant  
<http://www-1.ibm.com/servers/eserver/series/sftsol/siu.htm>
- ▶ Electronic Support Access  
<http://www.iseries.ibm.com/tstudio/planning/esa/esa.htm>
- ▶ IBM @server iSeries Support  
<http://www.ibm.com/series400/support>
- ▶ IBM @server iSeries Resource Library  
<http://www.ibm.com/eserver/series/library>
- ▶ iSeries and AS/400 publications: "What's new" by release  
<http://publib.boulder.ibm.com/pubs/html/as400/online/chgfrm.htm>
- ▶ PartnerWorld for Developers - IBM @server iSeries  
<http://www.iseries.ibm.com/developer/index.html>

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# IBM *@*server AS/400e RISC System Builder

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**The authoritative source for AS/400 and AS/400e models**

**Facts and rules for legacy AS/400 features**

**Product numbers, prerequisites, storage, software at a glance**

Processor architectures are differentiated between CISC and RISC technologies. RISC processors include those announced in June 1995 and later. CISC processors are those models announced prior to June 1995.

This *IBM @server AS/400e RISC System Builder* offers you a comprehensive guide for configuration and installation support for AS/400 and AS/400e RISC processor hardware, related hardware, and associated software marketed by IBM representatives beginning June 1995 through June 2000, when the iSeries servers were announced. It offers detailed information on the AS/400e 150, 6xx, and Sxx Models, the AS/400 4xx, 5xx, and xxS Models, and releases of OS/400 software from Version 3 Release 7 through Version 5 Release 2.

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