

CTOS®
Workstations
Hardware
Compatibility
Matrix

# **UNISYS**

# CTOS®

# Workstations

Hardware Compatibility Matrix

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Relative to workstations with B28/B38, B39, EXP, GXL, LCW, or SG-2100-320 processor units and workstations with SG-5201-433 or SG-5202-433 base units January 1992 Printed in USA

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# **About This Matrix**

The CTOS® Workstations Hardware Compatibility Matrix provides information on device support for the B2X/B3X, SuperGen® Series 2000, and SuperGen Series 5000 families. These families are part of the CTOS product line and include workstations equipped with the following processor units or base units:

- B2X/B3X processor units:
  - B28-CPU, B28-MCP, B28-EV, and B28-MEV
  - B28-EXP and B28-EX1
  - B28-LCW and B28-LC1
  - B38-CPU, B38-MCP, B38-EV, and B38-MEV
  - B38-EXP and B38-GXP
  - B38-GXL
  - All B39s
- Series 2000 processor units:
  - SG-2100-320
- Series 5000 base units:
  - SG-5201-433
  - SG-5202-433

# Scope

The Compatibility Matrix is a hardware reference; this document focuses on your system's hardware rather than its software. For example, the matrix defines the equipment in each product family and tells you which devices you can attach to your processor unit or base unit. However, it does not describe software products or address software compatibility.

Although the matrix discusses the hardware your workstation supports, it does not provide details on how to arrange, install, or start your workstation. To find out more about hardware configuration, installation, and startup, read these publications:

- CTOS Workstations Planning and Owner's Maintenance Guide
- CTOS B28/B38 Workstations Hardware Installation Guide
- CTOS LCW Workstations Hardware Installation Guide
- CTOS EXP Workstations Hardware Installation Guide
- CTOS GXL Workstations Hardware Installation Guide
- CTOS B39 Workstations Hardware Installation Guide
- SuperGen Series 2000 Hardware Installation and Owner's Guide
- SuperGen Series 5000 Hardware Installation and Owner's Guide

The matrix does not provide details on B26 or B27 processor units. For information on the B26 and B27, see the  $BTOS^{TM}$  Hardware Installation Guide.

# Who Should Use This Matrix

Anyone installing a CTOS workstation should review this matrix. The matrix is specially designed for a user who has little or no experience with CTOS equipment. However, the matrix also presents practical information for the expert.

# **How to Use This Matrix**

Use this matrix as a reference as you prepare the configuration plan for your workstation. After you complete the installation, keep the matrix handy; you will find the compatibility tables convenient if you decide to add equipment to your workstation.

We strongly urge all of you to review the compatibility information for your processor unit or base unit at least once, regardless of your experience level. For the B2X/B3X family, you can find this information in Section 2. If you have a Series 2000 or 5000 workstation, see Section 3. Once you are familiar with the devices your workstation supports, you can use the matrix as an occasional reference for specific questions.

If you are new to the CTOS product line, you should also read the equipment descriptions in Section 1. These descriptions familiarize you with the range of devices you can attach to your workstation. Section 1 also summarizes the function of various classes of equipment (for example, logic cartridges, graphics modules, or TeleCluster<sup>TM</sup> equipment). Those of you who are already acquainted with CTOS products can skip Section 1.

# **Organization**

The Compatibility Matrix is organized as follows:

#### Section 1. CTOS Equipment

This section describes the devices that make up the CTOS family. Section 1 introduces the following B2X/B3X devices: processor units, memory expansions, X-Bus cards, peripherals, financial equipment, and TeleCluster equipment. Series 2000 and 5000 product descriptions include base units, processor units, logic cartridges, storage cartridges, and peripherals.

#### Section 2. B2X/B3X Compatibility

This section provides tables that define the range of equipment compatible with each B2X/B3X processor unit. The equipment listings also provide the power code for each device.

## Section 3. Series 2000 and 5000 Compatibility

This section furnishes tables that identify the devices compatible with Series 2000 processor units and Series 5000 base units. Where applicable, the equipment listings also provide power codes.

#### Appendix A. Special Compatibility Issues

This appendix describes CTOS power supplies and processor unit options (hard ID cards, for instance). Appendix A also tells you which processor units support the various power supplies and options. In addition, this appendix provides information on video support, graphics support, and upgrade/expansion compatibility.

## Appendix B. B26 and B27 Processor Units

This appendix describes several CTOS processor units that are no longer manufactured. Use Appendix B as a background reference only.

# **Conventions**

To simplify discussion, the matrix uses the following conventions:

- The terms "system" and "workstation" are used interchangeably.
- The term "B2X/B3X" refers to workstations that utilize B28/B38, B39, EXP, GXL, and LCW processor units.
- The term "Series 2000" refers to workstations that utilize SG-2100-320 processor units.
- The term "Series 5000" refers to workstations that utilize SG-5201-433 or SG-5202-433 base units.
- The term "B25/NGEN" refers to modules originally designed for attachment to B2X/B3X and NGEN® processor units.
- For easy discussion, Sections 1 and 2 of the Compatibility Matrix classify B2X/B3X devices according to function. If you are not sure how a given piece of equipment is classified, check the following table. The items in the table are arranged in alphanumeric order.

B2X/B3X Device	Classification	
B25-1PC	Special-Purpose Module	
B25-ASB	Processor Unit Option	
B25-CA1	Monitor	
B25-CD3	Monitor	
B25-CDC	Disk Module	
B25-CDX	Disk Module	
B25-CX5	Disk Module	
B25-CX6	Disk Module	
B25-D1	Monitor	
B25-D2	Monitor	
B25-D3	Monitor	
B25-D5	Monitor	
B25-D6	Monitor	
B25-DCX	Communications Module	
B25-DDS	Tape Module	
B25-DN1	X-Bus Card	
B25-DN2	Communications Module	
B25-EN3	Communications Module	
B25-EV1	X-Bus Card	
B25-FXC	Special-Purpose Module	

B2X/B3X Device	Classification
B25-GPP	Graphics Module
B25-GRA	Graphics Module
B25-GRE	Graphics Module
B25-GS1	Monitor
B25-HIA	Processor Unit Option
B25-HID	Processor Unit Option
B25-ID2	Communications Module
B25-IDS	Communications Module
B25-IHU	TeleCluster Equipment
B25-K1	Keyboard
B25-K2	Keyboard
B25-K3	Keyboard
B25-K4	Keyboard
B25-K5	Keyboard
B25-M0	Disk Module
B25-M1	Disk Module
B25-M3	Disk Module
B25-M4	Disk Module
B25-M5	Disk Module
B25-MC5	Disk Module
B25-MC6	Disk Module
B25-MF1	Disk Module
B25-MO3	Mouse
B25-MS5	Disk Module
B25-MS6	Disk Module
B25-MS7	Disk Module
B25-MS8	Disk Module
B25-MS9	Disk Module
B25-MSA	Disk Module
B25-MU5	Disk Module
B25-MX3	Disk Module
B25-MX4	Disk Module
B25-MX5	Disk Module
B25-MX6	Disk Module
B25-NIU	TeleCluster Equipment
B25-PD7	Monitor
B25-PD8	Monitor
B25-PEM	Communications Module
B25-PS	Power Supply
B25-PS1	Power Supply
B25-TA1	TeleCluster Equipment
B25-TA2	TeleCluster Equipment
B25-TA3	TeleCluster Equipment

Classification  TeleCluster Equipment Special-Purpose Module Communications Module TeleCluster Equipment TeleCluster Equipment TeleCluster Equipment TeleCluster Equipment
Special-Purpose Module Communications Module TeleCluster Equipment TeleCluster Equipment TeleCluster Equipment TeleCluster Equipment
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Communications Module
Tape Module
Tape Module
Monitor
Monitor
K-Bus Card
Graphics Module
K-Bus Card
Graphics Module
K-Bus Card Upgrade
Monitor Adapter
Disk Module
Disk Module
Disk Module
Disk Module
Memory Expansion
Memory Expansion
Monitor
Communications Module
Graphics Module
Graphics Module
Communications Module
Disk Module
Disk Module
Monitor
Monitor
Disk Module
Disk Module
Disk Module Disk Module
Disk Module Disk Module
Disk Module Disk Module
Tape Module
Memory Expansion
Memory Expansion
Processor Unit

B2X/B3X Device	Classification
B28-EV	Processor Unit
B28-EX1	Processor Unit
B28-EXP	Processor Unit
B28-HI8	Processor Unit Option
B28-LC1	Processor Unit
B28-LCW	Processor Unit
B28-MCE	Memory Expansion
B28-MCL	Memory Expansion
B28-MCP	Processor Unit
B28-MEV	Processor Unit
B38-CPU	Processor Unit
B38-EV	Processor Unit
B38-EXP	Processor Unit
B38-GXL	Processor Unit
B38-GXP	Processor Unit
B38-MCP	Processor Unit
B38-HI8	Processor Unit Option
B38-MEV	Processor Unit
B39-1	Processor Unit
B39-2	Processor Unit
B39-3	Processor Unit
B39-4	Processor Unit
B39-4MB	Memory Expansion
B39-5	Processor Unit
B39-6	Processor Unit
B39-7	Processor Unit
B39-A	Processor Unit
B39-B	Processor Unit
B39-EV1	X-Bus Card
B39-12B	Processor Unit Option
B39-HI8	Processor Unit Option
EF 4260/4261	Financial Peripheral
EF 4551	Financial Peripheral
EF 4552	Financial Peripheral
EF 4553	Financial Peripheral
EF 4554	Financial Peripheral
EF 4557-1	Financial Peripheral
EF 4561	Financial Peripheral
EF 4562	Financial Peripheral
EF 4563	Financial Peripheral
EF 4565/4566	Financial Peripheral
EF 4570	Financial Peripheral
EF 4580	Financial Peripheral

B2X/B3X Device	Classification
EF 4581	Financial Peripheral
EF 4582	Financial Peripheral
EF 4583	Financial Peripheral
EF 4584	Financial Peripheral
EF 4585	Financial Peripheral
EF 4591/4592	Financial Peripheral
VGA-931-VDM	Monitor

For easy discussion, Sections 1 and 3 of the Compatibility Matrix classify Series 2000 and 5000 devices according to function. If you are not sure how a given piece of equipment is classified, check the following table. The items in the table are arranged in alphanumeric order.

Series 2000 and 5000 Devices	Classification
SG-100-U	Mouse
SG-101-K	Keyboard
SG-101-N	Processor Unit Option
SG-101-U	Mouse
SG-102-K	Keyboard
SG-120-D	Monitor
SG-210-M	Memory Expansion
SG-250-V	Processor Unit Option
SG-2100-320	Processor Unit
SG-500-A	Adapter
SG-500-M	Logic Cartridge
SG-501-V	Logic Cartridge
SG-503-R	Storage Cartridge
SG-504-R	Storage Cartridge
SG-506-R	Storage Cartridge
SG-510-A	Adapter
SG-511-A	TeleCluster Equipment
SG-520-M	Memory Pack
SG-5201-433	Base Unit
SG-5202-433	Base Unit
SG-540-M	Memory Pack
SG-540-P	Logic Cartridge
SG-599-U	Accessory
VGA-200-MON	Monitor

 The matrix introduces several new terms. These terms replace older terms formerly used in Unisys documentation. Here is a table listing each new term and the term(s) it replaces.

New Term	Old Term
Server	Master
Processor Unit	Processor
X-Bus Card	Option Board Option Card Internal Option Card
Memory Expansion	Memory Expansion Cartridge Memory Module Memory Expansion Module
Module	Expansion Module
Tape Module	Tape Streamer

# **Related Product Information**

Unisys publishes a variety of manuals designed to familiarize you with your workstation and some of the situations you may encounter when operating your workstation. As you plan your documentation library, you may want to review the following volumes. Some of these books ship with your workstation or software. You can order others by calling your sales representative (use the publication number if it is listed).

## **Installing Your Workstation**

To help you install your equipment, we provide a number of documents that focus on various issues related to installation. Here is a brief discussion of these documents:

#### CTOS Workstations Planning and Owner's Maintenance Guide

This document covers a wide range of equipment planning issues and tells you how to maintain your B2X/B3X workstation. This information is crucial to the installation process. If you have never installed a workstation, review this document before you start installing your equipment. Those who are experienced with the equipment will find this guide valuable for specialized questions. You can order the guide as publication number 4358 3624–XXX.

#### B2X/B3X Hardware Installation Guides

These documents describe the installation and startup procedures for B2X/B3X workstations. Unisys publishes a separate *Hardware Installation Guide* for workstations based on each of the following processor units:

Processor Unit	Publication Number
B28/B38	09-02572
B39	4358 6411–XXX
EXP/EX1/GXP	4358 3699–XXX
GXL	4358 3574-XXX
LCW/LC1	09-02573

All of the guides include a planning refresher and a brief discussion of workstation troubleshooting.

# SuperGen Series 2000 Hardware Installation and Owner's Guide

This document covers the installation, startup, and upkeep procedures for Series 2000 workstations. The guide also includes a planning discussion and a brief overview of workstation troubleshooting. You can order the guide as publication number 09-02699.

#### SuperGen Series 5000 Hardware Installation and Owner's Guide

This document describes the installation, startup, and upkeep procedures for Series 5000 workstations. The guide also includes a planning discussion and an overview of workstation troubleshooting. You can order the guide as publication number 09-02700.

#### Installation Sheets

These documents are pictorial representations of how you install various pieces of equipment. If an installation sheet is available for a particular device, it ships in the carton containing that device.

#### **BTOS Hardware Installation Guide**

This document covers the installation procedures for early B2X/B3X workstations; it also provides information on workstation planning. This guide can prove helpful if your workstation includes any equipment that has a B27 prefix. Remember that information in the CTOS Workstations Hardware Compatibility Matrix takes precedence over information in the BTOS Hardware Installation Guide if there is a conflict.

#### CTOS Cluster and Network Hardware Installation Guide

This document is a planning aid that discusses such subjects as cable routing for clusters and local area networks, cable types, and connection methods.

## **Operating Your Workstation**

Once you begin to operate your workstation, you will probably need documents that cover specific program applications, diagnostic testing, system utilities, and so forth. Here is a list of books that you may find handy:

#### CTOS Executive User's Guide

This document introduces you to the most commonly used Executive features and utilities. Topics include copying files, completing file backups, creating macro commands, and maintaining a file system.

#### CTOS System Administration Guide

This document defines the administrative aspects of your system software. The *System Administration Guide* furnishes material on setting up various types of operating systems, implementing application software, and installing peripherals.

#### CTOS Generic Print System™ Administration Guide

This document defines the administrative aspects of the Generic Print System (GPS), a software tool that manages printers. In addition to information on GPS, this guide covers printer installation and the basics of troubleshooting.

#### Other Publications

As your level of experience increases, you may want to expand your library by adding manuals that pertain to specific applications, special-interest topics, or equipment used in your workstation. Because the selection of available documents is a large one, it cannot be included in this text. For further information, ask your sales representative.

# Section 1 CTOS Equipment

This section identifies and briefly describes many of the devices you can include in a CTOS workstation. For easy reference, this section is divided into two separate equipment listings, one for B2X/B3X products and one for Series 2000/5000 products. However, since some B2X/B3X products are compatible with Series 2000/5000 workstations and vice versa, you may want to review both listings.

Section 1 does not include descriptions of printers, power supplies, or processor unit options (serialized bootstrap ROMs, for example). For information on power supplies and processor unit options, see Appendix A. If you need to find out about printers, refer to the CTOS Generic Print System Administration Guide instead. Here is an overview of the subjects you will read about in Section 1:

- B2X/B3X products
  - Processor units
  - X-Bus cards and memory expansions
  - Modules
  - Peripherals
  - TeleCluster equipment
- Series 2000 and 5000 products
  - Processor units and base units
  - Logic cartridges
  - Memory packs and expansions
  - Storage cartridges
  - Adapters
  - Peripherals
  - TeleCluster equipment

# **B2X/B3X Products**

The B2X/B3X product line includes processor units, X-Bus cards, memory expansions, modules, peripherals, and TeleCluster equipment. The following paragraphs summarize the characteristics of these devices. If you do not have a B2X/B3X workstation, you can skip most of this discussion. However, Series 2000 and 5000 workstation owners should review the "Modules," "Peripherals," and "TeleCluster Equipment" discussions, since some of these devices are compatible with the Series 2000/5000 product family.

#### **Processor Units**

The processor unit is the device responsible for the basic control functions performed by your workstation. It accepts the data you enter at the keyboard and executes your commands. To help you distinguish between the various types of processor units, Table 1–1 defines the characteristics of each processor unit. Table 1–1 covers such issues as microprocessor type, memory size, whether the processor unit can emulate an IBM PC® without the aid of a PC Emulator™ module, and so forth.

**Note:** For a description of processor units that start with a B26 or B27 prefix, see Appendix B.

## X-Bus Cards and Memory Expansions

You can enhance your processor unit by adding X-Bus cards and memory expansions. The following paragraphs describe the X-Bus cards and memory expansions for the B2X/B3X product line.

#### X-Bus Cards and X-Bus Card Upgrades

X-Bus cards provide extra capabilities for your workstation. X-Bus card upgrades enhance the size or function of specific X-Bus cards. Here is a description of the B2X/B3X X-Bus cards and upgrades:

B25-DN1 An ISDN network processor.

B25-VG1 A 256-kilobyte VGA graphics controller card.

B25-VG3 A 512-kilobyte VGA graphics controller card.

B25-VGM A 256-kilobyte memory upgrade for the B25-VG1 X-Bus card.

B39-EV1 An expanded video processor.

#### **Memory Expansions**

Memory expansions increase the size of your processor unit's memory. Here is a description of the B2X/B3X memory expansions:

B26-256 A 256-kilobyte memory cartridge.

B26-512 A 512-kilobyte memory cartridge.

B28-1MB A 1-megabyte memory cartridge.

B28-2MB A 2-megabyte memory card.

B28-MCE A 7-slot carrier that allows you to install multiple B28-2MBs in a processor unit.

B28-MCL A 3-slot carrier that allows you to install multiple B28-2MBs in a processor unit.

B39-4MB A group of four 1-megabyte Single Inline Memory Modules (SIMMs).

Table 1-1. Processor Unit Characteristics

Processor Unit	Microprocessor Type	Microprocessor Speed	IBM PC Emulation
B28-CPU	80286	8 Megahertz	No
B28-EV	80286	8 Megahertz	No
B28-EX1	80286	8 Megahertz	No
B28-EXP	80286	8 Megahertz	No
B28-LC1	80286	8 Megahertz	No
B28-LCW	80286	8 Megahertz	No
B28-MCP	80286	8 Megahertz	No
B28-MEV	80286	8 Megahertz	No
B38-CPU	80386	16 Megahertz	Yes
B38-EV	80386	16 Megahertz	Yes
B38-EXP	80386	25 Megahertz	Yes
B38-GXL	80386	25 Megahertz	Yes
B38-GXP	80386	25 Megahertz	Yes
B38-MCP	80386	16 Megahertz	Yes
B38-MEV	80386	16 Megahertz	Yes
B39-1	80386	20 Megahertz	Yes
B39-2	80386	20 Megahertz	Yes
B39-3	80386	25 Megahertz	Yes
B39-4	80386	25 Megahertz	Yes
B39-5	80386	25 Megahertz	Yes
B39-6	80386	25 Megahertz	Yes
B39-7	80386	25 Megahertz	Yes
B39-A	80386	20 Megahertz	Yes
B39-B	80386	20 Megahertz	Yes

continued

<sup>\*</sup> Depending on which disk modules you attach, the memory size may be restricted to 8 megabytes. See the *Planning and Owner's Maintenance Guide* for more information.

Table 1-1. Processor Unit Characteristics (cont.)

Math Coprocessor	Enhanced Video	Base Memory	Total Memory Allowed	Onboard Disk Drive Capacity
No	No	1 Megabyte	4 Megabytes	Not Applicable
No	Yes	1 Megabyte	4 Megabytes	Not Applicable
No	Yes	1 Megabyte	13 Megabytes *	Not Applicable
No	Yes	2 Megabyte	14 Megabytes *	Not Applicable
No	Yes	1 Megabyte	7 Megabytes	Not Applicable
No	Yes	2 Megabyte	8 Megabytes	Not Applicable
Yes	No	1 Megabyte	4 Megabytes	Not Applicable
Yes	Yes	1 Megabyte	4 Megabytes	Not Applicable
No	No	1 Megabyte	4 Megabytes	Not Applicable
No	Yes	1 Megabyte	4 Megabytes	Not Applicable
No	Yes	2 Megabyte	14 Megabytes *	Not Applicable
No	Yes	2 Megabyte	14 Megabytes *	Not Applicable
No	Yes †	2 Megabyte	14 Megabytes *	Not Applicable
Yes	No	1 Megabyte	4 Megabytes	Not Applicable
Yes	Yes	1 Megabyte	4 Megabytes	Not Applicable
No	No	4 Megabyte	24 Megabytes	140 Megabytes
No	No	4 Megabyte	24 Megabytes	320 Megabytes
No	No	4 Megabyte	24 Megabytes	140 Megabytes
No	No	4 Megabyte	24 Megabytes	320 Megabytes
No	No	4 Megabyte	24 Megabytes	40 Megabytes
No	No	4 Megabyte	24 Megabytes	240 Megabytes
No	No	4 Megabyte	24 Megabytes	425 Megabytes
No	Yes †	4 Megabyte	24 Megabytes	140 Megabytes
No	Yes †	4 Megabyte	24 Megabytes	320 Megabytes

<sup>†</sup> For the B38-GXP, enhanced video is provided by a B25-VG1 X-Bus card shipped in the processor unit. For the B39-A and B39-B, enhanced video is provided by a B39-EV1 X-Bus card shipped in the processor unit.

#### **Modules**

Modules are the devices you attach to your processor unit to implement specific functions or capabilities for your workstation. Among the different types of modules that attach to your processor unit are disk modules, tape modules, graphics modules, and communications modules. The following paragraphs discuss the various module families available for B2X/B3X workstations.

#### **Graphics Modules**

Graphics modules provide graphics control functions for your workstation. Here is a description of the B2X/B3X graphics modules:

B25-GPP	A positive-polarity graphics module.	This module is an
	X-Bus device.	

B25-GRA	A bit-mapped graphics module.	This module is an X-Bus
	device.	

B25-GRE	A bit-mapped graphics module with 132-column capability.
	This module is an X-Bus device

- B25-VG2 A 256-kilobyte graphics module. This module is an X-Bus device.
- B25-VG4 A 512-kilobyte graphics module. This module is an X-Bus device.
- B27-GRC A color graphics module. This module is an F-Bus device.
- B27-GRM A monochrome graphics module. This module is an F-Bus device.

#### **Disk Modules**

Disk modules provide local file storage for your workstation. To review the characteristics of the various B2X/B3X disk modules, see Table 1–2.

Table 1-2. Disk Module Characteristics

Module Name	Bus	Upgrade or Expansion	Hard Disk Capacity	Floppy Disk Drive Included
B25-CDC *	SCSI	Upgrade	Not Applicable	Not Applicable
B25-CDX *	SCSI	Expansion	Not Applicable	Not Applicable
B25-CX5 †	X-Bus	Expansion	40 Megabytes	No
B25-CX6 †	X-Bus	Expansion	68 Megabytes	No
B25-M0 ‡	X-Bus	Not Applicable	Not Applicable	Yes
B25-M1 ‡	X-Bus	Not Applicable	Not Applicable	Yes
B25-M3	X-Bus	Upgrade	10 Megabytes	Yes
B25-M4	X-Bus	Upgrade	20 Megabytes	Yes
B25-M5 †	X-Bus	Upgrade	40 Megabytes	Yes
B25-MC5 †	X-Bus	Upgrade	40 Megabytes	No
B25-MC6 †	X-Bus	Upgrade	68 Megabytes	No
B25-MF1 ‡	X-Bus	Not Applicable	Not Applicable	Yes
B25-MS5	SCSI	Upgrade	52 Megabytes	Yes
B25-MS6	SCSI	Upgrade	105 Megabytes	Yes
B25-MS7	SCSI	Upgrade	140 Megabytes	No
B25-MS8	SCSI	Upgrade	320 Megabytes	No
B25-MS9	SCSI	Upgrade	240 Megabytes	No

continued

<sup>\*</sup> These modules are CD-ROM disk drives.

<sup>†</sup> These modules feature error correction (ECC) capabilities.

<sup>‡</sup> The B25-M0 is a single floppy disk drive. The B25-M1 is a dual floppy disk drive. The B25-MF1 is a 3.5/5.25-inch dual floppy disk drive. Each of these modules features error correction (ECC) capabilities.

Table 1-2. Disk Module Characteristics (cont.)

Module Name	Bus	Upgrade or Expansion	Hard Disk Capacity	Floppy Disk Drive Included
B25-MSA	SCSI	Upgrade	425 Megabytes	No
B25-MU5	X-Bus	Upgrade	40 Megabytes	No
B25-MX3	X-Bus	Expansion	10 Megabytes	No
B25-MX4	X-Bus	Expansion	20 Megabytes	No
B25-MX5	X-Bus	Expansion	40 Megabytes	No
B25-MX6	X-Bus	Expansion	68 Megabytes	No
B25-XS6	SCSI	Expansion	105 Megabytes	No
B25-XS7	SCSI	Expansion	140 Megabytes	No
B25-XS8	SCSI	Expansion	320 Megabytes	No
B25-XSA	SCSI	Expansion	425 Megabytes	No
B27-M4	F-Bus	Upgrade	20 Megabytes	Yes
B27-MC5	F-Bus	Upgrade	40 Megabytes	No
B27-MU5	F-Bus	Upgrade	40 Megabytes	No
B27-MX4	F-Bus	Expansion	20 Megabytes	No
B27-MX5	F-Bus	Expansion	40 Megabytes	No
B27-SF1 §	F-Bus	Not Applicable	Not Applicable	Yes
B27-SF4 §	F-Bus	Not Applicable	Not Applicable	Yes

<sup>§</sup> The B27-SF1 is a single floppy disk drive. The B27-SF4 is a dual floppy disk drive.

#### **Tape Modules**

Tape modules let you store data on a computer tape. Here is a description of the B2X/B3X tape modules:

- B25-DDS A tape module that processes digital data storage (DDS) tape. This module is a SCSI device.
- B25-TS A tape module that processes 60-megabyte quarter-inch cartridge (QIC) tape. This module is an X-Bus device.
- B25-TS2 A tape expansion module that processes 160-megabyte QIC tape. This module is a SCSI device.
- B27-TS1 A tape module that processes 60-megabyte QIC tape. This module is an F-Bus device.

#### **Communications Modules**

Communications modules allow you to connect extra peripherals to your workstation and/or attach the workstation to a network. Here is a description of the B2X/B3X communications modules:

- B25-DCX A module that lets you attach four serial devices (printers, financial devices, and so forth) to your workstation. The B25-DCX also provides a port for wide area network (WAN) connection. This module is an X-Bus device.
- B25-DN2 A module that lets you attach your workstation to an ISDN network. This module is a Mode 3 X-Bus device.
- B25-EN3 A module that lets you attach your workstation to an Ethernet local area network (LAN). This module is a Mode 3 X-Bus device.
- B25-ID2 A module that provides two-channel high-speed communications for the following interfaces: RS232, TDI, and X.21. You can attach WANs, printers, TDI communications to mainframes, and so forth. This module is a Mode 3 X-Bus device.
- B25-IDS A module that provides two-channel high-speed communications for the following interfaces: RS232, TDI, and X.21. You can attach WANs, printers, TDI communications to mainframes, and so forth. This module is a Mode 3 X-Bus device.

- B25-PEM A module that lets you attach two serial devices and either a magnetic card reader (MCR) or a personal identification number (PIN) keypad. This module is a Mode 3 X-Bus device.
- B25-TEM A module that lets you attach two serial devices and either a magnetic card reader (MCR) or a personal identification number (PIN) keypad. This module is a Mode 3 X-Bus device.
- B25-TR2 A module that lets you attach your workstation to a token ring local area network (LAN). This module is a Mode 3 X-Bus device.
- B27-DCX A module that lets you attach four serial devices (printers, financial devices, and so forth) to your workstation. The B27-DCX also provides a port for wide area network (WAN) connection. This module is a Mode 3 F-Bus device.
- B27-LN3 A module that lets you attach your workstation to a low-cost triaxial Ethernet local area network (LAN). This module is a Mode 3 F-Bus device.

#### **Special-Purpose Modules**

Special-purpose modules perform specific functions for your workstation (voice processing and IBM PC® emulation, for example). Here is a description of the B2X/B3X special-purpose modules:

- B25-1PC An IBM® PC Emulator module. If you include the B25-1PC module in your configuration, your workstation will be able to run most PC DOS-based software. This module is an X-Bus device.
- B25-FXC An adapter module that allows you to attach most B27 modules to your B2X/B3X processor unit. This module provides a transition between the X-Bus and the F-Bus.
- B25-TEL A Voice Processor™ module. This module provides automatic phone answering and is used for such applications as the OFIS® Document Designer™ program. This module is a Mode 3 X-Bus device.

#### **Peripherals**

Peripherals are devices that support the workstation by allowing you to communicate with your equipment, receive printouts, and so forth. Among the different peripherals are printers, monitors, and financial equipment. The following paragraphs discuss some of the peripherals available for B2X/B3X workstations.

**Note:** For information on printers, see the CTOS Generic Print System Administration Guide.

#### **Monitors and Monitor Adapters**

Monitors provide you with a screen so that you can supervise, control, and verify the operation of your workstation. Monitor adapters allow you to attach a wider range of monitors to your workstation. Here is a description of the B2X/B3X monitors:

**Note:** Additional monitors are listed under "Series 2000 and 5000 Products," later in this section.

B25-CA1	A 16-inch high-resolution color monitor.
B25-CD3	A 15-inch color monitor.
B25-D1	A 12-inch monochrome monitor.
B25-D2	A 14-inch monochrome monitor.
B25-D3	A 15-inch color monitor.
B25-D5/D6	9-inch monochrome monitors. The B25-D5 is pedestal mounted, while the B25-D6 is arm mounted.
B25-GS1	A 15-inch high-resolution gray-scale monitor.
B25-PD7	A 12-inch positive-polarity monitor.
B25-PD8	A 15-inch positive-polarity monitor.

#### **CTOS Equipment**

B25-VDC A 14-inch color VGA monitor.

B25-VDM A 14-inch monochrome VGA monitor.

B25-VKA A monitor adapter that lets you connect VGA monitors

to your workstation.

B27-CD3 A 14-inch color monitor.

B27-MD1/MD7 12-inch monochrome monitors.

B27-MD2/MD8 15-inch monochrome monitors.

VGA-931-VDM A 9-inch monochrome VGA monitor.

#### **Keyboards and Mice**

Keyboards allow you to issue commands to your workstation and enter data. Mice let you position the cursor on your monitor screen; you can then use the mouse to select the item indicated by the cursor. Here is a description of the B2X/B3X keyboards and mice:

Note: Additional keyboards and mice are listed under "Series 2000

and 5000 Products," later in this section.

B25-K1 A 98-key keyboard.

B25-K2 A 110-key, slim-line keyboard. International versions

of the B25-K2 provide 112 keys.

B25-K3 A 112-key keyboard featuring data communications

keys and LEDs.

B25-K4 A 59-key keyboard featuring a numeric keypad. The

B25-K4 is used primarily for financial applications.

B25-K5 A 112-key, slim-line keyboard with data communica-

tions keys and LEDs.

B25-MO3 A 3-button mouse.

#### **Financial Peripherals**

Financial peripherals furnish a variety of special functions helpful to the banking and finance industries. The financial family includes passbook printers, magnetic card readers (MCRs), personal identification number (PIN) keypads, optical character recognition readers, and so forth. Here is a description of the B2X/B3X financial peripherals:

EF 4260/1	A validation and receipt printer.
EF 4551	A magnetic card reader.
EF 4552	A magnetic card reader.
EF 4553	A magnetic card reader.
EF 4554	A PIN keypad.
EF 4557-1	A PIN keypad.
EF 4561	An advanced multifunction printer.
EF 4562	An advanced multifunction printer.
EF 4563	An advanced multifunction printer.
EF 4565/6	A passbook and document printer.
EF 4570	A teller assist unit.
EF 4580	An optical character recognition reader.
EF 4581	An optical character recognition reader.
EF 4582	An optical character recognition reader.
EF 4583	An optical character recognition reader.
EF 4584	An optical character recognition reader.
EF 4585	An optical character recognition reader.
EF 4591/2	A magnetic ink character recognition reader

# **TeleCluster Equipment**

TeleCluster is a clustering product that utilizes twisted-pair cables to connect cluster workstations to a central hub which sequences communications for the cluster. Here is a list of TeleCluster equipment available for B2X/B3X workstations:

B25-IHU	A 12-line TeleCluster hub for data-only applications.
B25-NIU	A network interface unit for data-only applications. This product is designed for use in Switzerland.
B25-TA1	A 2-pin TeleCluster adapter that can be used for voice-over-data applications.
B25-TA2	A 3-pin TeleCluster adapter that can be used for voice-over-data applications. This product is available for Canadian customers only.
B25-TA3	A data-only TeleCluster adapter (3.68 megabits).
B25-TA4	A data-only TeleCluster adapter (1.8 megabits) designed for use in Switzerland.
B25-TH1	A 12-line TeleCluster hub for voice-over-data applications.
B25-TH2	A 24-line TeleCluster hub for voice-over-data applications.
B25-TIB	A network interface unit for voice-over-data applications.
B25-TPS	A power supply for the B25-TA3 TeleCluster adapter. The B25-TPS is only required for certain processor units.

## Series 2000 and 5000 Products

The Series 2000 and 5000 product line includes processor units, base units, logic cartridges, memory packs and expansions, storage cartridges, adapters, peripherals, and TeleCluster equipment. The following paragraphs summarize the characteristics of these devices. If you do not have a Series 2000 or 5000 workstation, you can skip most of this discussion. However, B2X/B3X workstation owners should review the "Peripherals" discussion, since some of these devices are compatible with the B2X/B3X family.

#### **Processor Units and Base Units**

The processor unit and base unit are the devices responsible for the basic control functions performed by your workstation. They accept the data you enter at the keyboard and execute your commands. Here is a list of processor units and base units available for the Series 2000 and 5000 workstation:

SG-2100-320 A processor unit equipped with a 20-megahertz 80386

microprocessor. The SG-2100-320 supports VGA+color graphics and arrives with a 2-megabyte base memory. You can add up to 6 megabytes of extra

memory, for a system total of 8 megabytes.

SG-5201-433 A base unit equipped with a 33-megahertz 80486

microprocessor featuring a math coprocessor. This product supports VGA+ color graphics and voice functions. The SG-5201-433 is shipped with 4 megabytes of base memory. You can add up to 32 megabytes of extra memory, for a system total of 36 megabytes. The SG-5201-433 also provides a built-in floppy disk and a removable 105-megabyte SCSI hard

disk cartridge.

SG-5202-433 A base unit equipped with a 33-megahertz 80486

microprocessor featuring a math coprocessor. This product is identical to the SG-5201-433 except that it provides a 210-megabyte SCSI hard disk cartridge

instead of a 105-megabyte cartridge.

## **Logic Cartridges**

Logic cartridges provide control functions and extra capabilities for Series 5000 workstations. Certain logic cartridges are necessary for your base unit to operate correctly; these cartridges are installed in the base unit prior to shipment. Other logic cartridges are optional and must be ordered separately. Here is a list of the Series 5000 logic cartridges:

SG-500-M	A logic cartridge that provides 4 megabytes of base memory for the base unit. The SG-500-M can be upgraded by adding up to two memory packs.
SG-501-V	A logic cartridge that furnishes video and voice functions for the base unit.
SG-540-P	A logic cartridge that furnishes the main control functions for the base unit. This cartridge includes the 80486 microprocessor.

## **Memory Packs and Expansions**

Memory packs and expansions increase the size of your workstation's memory. The Series 2000 uses memory expansions, while the Series 5000 uses memory packs. Here is a description of the Series 2000 memory expansions and Series 5000 memory packs:

SG-210-M	A 2-megabyte memory expansion.
SG-520-M	A 4-megabyte memory pack.
SG-540-M	A 16-megabyte memory pack.

## **Storage Cartridges and Accessories**

Storage cartridges provide additional storage capabilities for Series 5000 workstations. The Series 5000 base unit arrives with at least one storage cartridge and, if you need more storage, you can add a second cartridge. Here is a list of the Series 5000 storage cartridges and accessories:

SG-503-R	A 105-megabyte SCSI hard disk cartridge.
SG-504-R	A 210-megabyte SCSI hard disk cartridge.
SG-506-R	A 1.3-gigabyte DDS tape cartridge.
SG-599-U	A cartridge carrying case.

#### **Adapters**

Adapters are devices that allow you to connect different types of devices to a Series 5000 workstation. In some cases, adapters act as a bridge between two technologies. In other cases, they simply convert one plug type to another. Here is a description of the Series 5000 adapters:

SG-500-A An X-Bus adapter module. This module allows you to

connect B25/NGEN equipment to the base unit.

SG-510-A An adapter kit used to connect the base unit to an

RS-422/485 cluster.

## **Peripherals**

Peripherals are devices that support the workstation by allowing you to communicate with your equipment, receive printouts, and so forth. Among the different peripherals are printers, financial peripherals, monitors, keyboards, and mice. The following paragraphs discuss some of the peripherals available for Series 2000 and 5000 workstations.

#### Notes:

- 1. Additional monitors, mice, and keyboards are listed under "B2X/B3X Products," earlier in this section.
- For information on financial peripherals, see "B2X/B3X Products," earlier in this section.
- 3. For information on printers, see the CTOS Generic Print System Administration Guide.

#### **Monitors**

Monitors provide you with a screen so that you can supervise, control, and verify the operation of your workstation. Here is a description of the Series 2000 and 5000 monitors:

SG-120-D A 14-inch color VGA monitor.

VGA-200-MON A 14-inch gray-scale VGA monitor.

#### **Keyboards and Mice**

Keyboards allow you to issue commands to your workstation and enter data. Mice let you position the cursor on your monitor screen; you can then use the mouse to select the item indicated by the cursor. Here is a description of the Series 2000 and 5000 keyboards and mice:

SG-100-U	A 3-button PC-style mouse.
SG-101-K	A 113-key CTOS-style keyboard with data communications keys and LEDs. International versions of the SG-101-K provide 114 or 115 keys.
SG-101-U	A 3-button CTOS-style mouse.
SG-102-K	A 101-key PC-style keyboard. International versions of the SG-102-K provide 102 keys.

## **TeleCluster Equipment**

TeleCluster is a clustering product that utilizes twisted-pair cables to connect cluster workstations to a central hub which sequences communications for the cluster. Here is a list of TeleCluster equipment available for Series 2000 and 5000 workstations:

Note: Additional TeleCluster devices are listed under "B2X/B3X Products," earlier in this section.

SG-511-A A cable used to connect the base unit to a TeleCluster wall jack.

## Where to Go From Here

At this point, you should be familiar with the different types of equipment available for your workstation. To learn which of these devices is compatible with a B2X/B3X processor unit, turn to Section 2. If you have a Series 2000 or 5000 workstation, see Section 3.

# Section 2 B2X/B3X Compatibility

This section provides you with tables that list the devices supported by each of the B2X/B3X processor units. These tables are arranged on a processor unit-by-processor unit basis. Here are some points to keep in mind when you review the information in Section 2:

- If more than one processor unit is compatible with an identical set of devices, the processor units are covered in the same table. For example, the B39-A supports the same devices that the B39-B supports. Therefore, these two processor units share a single table. Here is how the processor units are grouped:
  - B28-LC1 and B28-LCW
  - B28-CPU, B28-MCP, B38-CPU, and B38-MCP
  - B28-EV, B28-MEV, B38-EV, and B38-MEV
  - B28-EX1 and B28-EXP
  - B38-EXP
  - B38-GXP
  - B38-GXL
  - B39-1, B39-2, B39-3, B39-4, B39-5, B39-6, and B39-7
  - B39-A and B39-B
- To find out which pages cover your processor unit, see Table 2–1.

Table 2-1. Processor Unit Reference Key

Processor Unit	Pages
B28-CPU	2-6 through 2-7
B28-EV	2-8 through 2-9
B28-EX1	2-10 through 2-11
B28-EXP	2-10 through 2-11
B28-LC1	2-4 through 2-5
B28-LCW	2-4 through 2-5
B28-MCP	2-6 through 2-7
B28-MEV	2-8 through 2-9
B38-CPU	2-6 through 2-7
B38-EV	2-8 through 2-9
B38-EXP	2-12 through 2-13
B38-GXL	2-16 through 2-17
B38-GXP	2-14 through 2-15
. B38-MCP	2-6 through 2-7
B38-MEV	2-8 through 2-9
B39-1	2-18 through 2-19
B39-2	2-18 through 2-19
B39-3	2-18 through 2-19
B39-4	2-18 through 2-19
B39-5	2-18 through 2-19
B39-6	2-18 through 2-19
B39-7	2-18 through 2-19
B39-A	2-20 through 2-21
B39-B	2-20 through 2-21

- The equipment listed in each table is categorized by function. For example, all graphics modules appear under the same heading. The devices in each category are arranged alphanumerically.
- In cases where Series 2000 or 5000 equipment is compatible with B2X/B3X processor units, the Series 2000/5000 product is included in the listing under the appropriate category.
- In addition to listing the devices compatible with each processor unit, each table indicates the devices that are **not** supported.
- Some of the products in the listings have been discontinued; you can
  no longer order these devices. To find out whether a device is still
  available, call your sales representative.
- Each listing assumes that you have the most current release level of the processor unit in question. If you have an older version of the processor unit, some of the equipment listed as compatible may not be supported. To find out about specific devices, call your service representative.
- The monitor listing covers monitor/processor unit support only.
   Your workstation generally supports a different set of monitors if you add a graphics controller to your configuration. For more information on graphics compatibility and video characteristics, see Appendix A.
- The disk module listing covers module/processor unit support only.
   Certain upgrade modules do not support the entire range of expansion modules. For more information on upgrade/expansion compatibility, see Appendix A.
- Section 2 does not include descriptions of printers, power supplies, or processor unit options. To learn about power supplies and processor unit options, see Appendix A. For information on printers, refer to the CTOS Generic Print System Administration Guide.

## **B28-LC1/LCW Processor Units**

MACHINE A	xpansions		,		
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	No	0
B26-512	No	Ŏ	B28-MCL	Yes	Ŏ
B28-1MB	No	0.25	B39-4MB	No	ŏ
B28-2MB	Yes	0	500 41115		·
X-Bus Ca	rds and X-Bus	Card Upgrades		-	
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	No	0	B25-VGM	No	0
B25-VG1	No	0	B39-EV1	No No	ŏ
B25-VG3	No No	0	D39-CV1	NO	U
Graphics	Modulos				
•					
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	No	2	B25-VG4	No	2
B25-GRA	No	2	B27-GRC	No	2
B25-GRE	No	2 .	B27-GRM	No	2
B25-VG2	No	2			
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	No	3	B25-MSA	No	4
B25-CDX	No	2	B25-MU5	No	6
B25-CX5	No	4	B25-MX3	No	4
B25-CX6	No	4	B25-MX4	No	4
B25-M0	No	3	B25-MX5	No	4
B25-M1	No	3	B25-MX6	No	4
B25-M3	No	6	B25-XS6	No	2
B25-M4	No	6	B25-XS7	No	3
B25-M5	No	6	B25-XS8	No	3
B25-MC5	No	3	B25-XSA	No	3
B25-MC6	No	6	B27-M4	No	5
B25-MF1	No	4	B27-MC5	No	6
B25-MS5	No	3	B27-MU5	No	6
B25-MS6	No	3	B27-MX4	No	3
B25-MS7	No	4	B27-MX5	No	4
B25-MS8	No	4	B27-SF1	No	1.5
B25-MS9	No	3	B27-SF4	No	3
Tape Mod	iules				***************************************
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	No	2	B25-TS2	No	5
B25-TS	No	5	B27-TS1	No	5
Special-P	Purpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	No	2	B25-TEL	No	1
B25-FXC	No.	1	DEO ILL	. 10	•

## **B28-LC1/LCW Processor Units**

Communi	cations Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	No	1	B25-PEM	No	1.5
B25-DN2	No	2	B25-TEM	No	1
B25-EN3	No	3	B25-TR2	No	3
B25-ID2	No	3	B27-DCX	No	1
B25-IDS	No	3	B27-LN3	No	3
Monitors :	and Monitor A				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Йo	1	B25-VDC	Ňо	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	Ó
B25-D3	Yes	ŏ	B27-MD1/MD7	No	3
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	No	4.5 0
B25-PD7	Yes	3	VGA-200-MON	No	0
					-
B25-PD8	Yes	4.5	VGA-931-MON	No	0
Keyboard	s and Mice				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Ýes	0	B25-K5	Ýes	0
B25-K2	Yes	0	B25-MO3	No	0
B25-K3	Yes	0	SG-101-K	Yes*	0
B25-K4	Yes	0	SG-101-U	No	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4565/6	Yes	0
EF 4551	Yes	ŏ	EF 4570	Yes	Ŏ
EF 4552	Yes	ŏ	EF 4580	Yes	Ŏ
EF 4553 †	Yes	ŏ	EF 4581	Yes	ŏ
EF 4554 †	Yes	ŏ	EF 4582	Yes	ŏ
EF 4557-1 †	Yes	Ŏ	EF 4583	Yes	ŏ
EF 4561	Yes	0	EF 4584	Yes	0
		-			
EF 4562	Yes	0	EF 4585	Yes	0
EF 4563	Yes	0	EF 4591/2	Yes	0
TeleClust	er Equipment				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TA4	Ýes	0
B25-NIU	Yes	Ö	B25-TH1	Yes	0
B25-TA1	Yes	Ö	B25-TH2	Yes	Ŏ
B25-TA2	Yes	ŏ	B25-TIB	Yes	ŏ
					ŏ

<sup>\*</sup> Requires an SG-151-K keyboard cable.

<sup>†</sup> Requires an EF 4550-1 converter for attachment to these processor units.

## B28-CPU/MCP and B38-CPU/MCP Processor Units

Memory E	xpansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	Йo	0	B28-MCE	No	0
B26-512	No	0	B28-MCL	No	0
B28-1MB	Yes	0.25	B39-4MB	No	0
B28-2MB	No	0			
X-Bus Ca	rds and X-Bus	Card Upgrades			***************************************
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	No	0	B25-VGM	No	0
B25-VG1	No	0	B39-EV1	No	0
B25-VG3	No	0			
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	Ňо	2	B25-VG4	Ýes	2
B25-GRA	Yes	2	B27-GRC	No	2
B25-GRE	Yes	2	B27-GRM	No	2
B25-VG2	Yes	2			
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Ýes	3	B25-MU5	Yes	6
B25-CDX	Yes	2	B25-MX3	Yes	4
B25-CX5	Yes	4	B25-MX4	Yes	4
B25-CX6	Yes	4	B25-MX5	Yes	4
B25-M0	Yes	3	B25-MX6	Yes	4
B25-M1	Yes	3	B25-XS6	Yes	2
B25-M3	Yes	6	B25-XS7	Yes	3
B25-M4	Yes	6	B25-XS8	Yes	3
B25-M5	Yes	6	B25-XSA	Yes	3
B25-MC5	Yes	3	B27-M4	No	5
B25-MC6	Yes	6	B27-MC5	Yes*	6
B25-MF1	Yes	4	B27-MU5	Yes*	6
B25-MS5	Yes	3	B27-MX4	Yes *	3
B25-MS6	Yes	3			_
B25-MS7	Yes	4	B27-MX5	Yes *	4
B25-MS8	Yes	4	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
B25-MSA	Yes	4			
Tape Mod	iules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	5
B25-TS	Yes	5	B27-TS1	Yes *	5
Special-F	urpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Yes	2	B25-TEL	Yes	1
	Yes	1	DL0 . LL		•

<sup>\*</sup> Requires a B25-FXC Module.

## B28-CPU/MCP and B38-CPU/MCP Processor Units

Communications Modules							
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-DCX	Yes	1	B25-PEM	Yes	1.5		
B25-DN2	Yes	2	B25-TEM	No	1		
B25-EN3	Yes	3	B25-TR2	Yes	3		
B25-ID2	Yes	3	B27-DCX	Yes*	1		
B25-IDS	Yes	3	B27-LN3	Yes *	3		
Monitors	and Monitor A	\dapters					
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-CA1	Йo	1	B25-VDC	No	0		
B25-CD3	No	0	B25-VDM	No	0		
B25-D1	Yes	3	B25-VKA	No	1		
B25-D2	Yes	3	B27-CD3	No	Ò		
B25-D3	No	Ō	B27-MD1/MD7	No	3		
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5		
B25-GS1	No	1	SG-120-D	No	0		
B25-PD7	No	3	VGA-200-MON	No	ŏ		
B25-PD8	No	4.5	VGA-931-MON	No	ŏ		
Keyboard	s and Mice			<del> </del>			
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-K1	Ýes	0	B25-K5	Ÿes	0		
B25-K2	Yes	0	B25-MO3	Yes	0		
B25-K3	Yes	0	SG-101-K	Yes †	0		
B25-K4	Yes	0	SG-101-U	Yes	0		
Financial	Peripherals						
Model	Compatible	Power Code	Model	Compatible	Power Code		
EF 4260/1	Yes	0	EF 4565/6	Yes	0		
EF 4551	Yes	0	EF 4570	Yes	0		
EF 4552	Yes	0	EF 4580	Yes	0		
EF 4553 ‡	Yes	0	EF 4581	Yes	0		
EF 4554 ‡	Yes	0	EF 4582	Yes	0		
EF 4557-1 ‡	Yes	0	EF 4583	Yes	0		
EF 4561	Yes	0	EF 4584	Yes	0		
EF 4562	Yes	0	EF 4585	Yes	0		
EF 4563	Yes	0	EF 4591/2	Yes	0		
TeleClust	er Equipment						
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-IHU	Yes	0	B25-TA4	Yes	0		
B25-NIU	Yes	Ŏ	B25-TH1	Yes	ŏ		
B25-TA1	Yes	ŏ	B25-TH2	Yes	ŏ		
B25-TA2	Yes	ŏ	B25-TIB	Yes	ŏ		
		Ŏ	B25-TPS		ŏ		

<sup>†</sup> Requires an SG-151-K keyboard cable.

<sup>‡</sup> Requires an EF 4550-1 converter for attachment to these processor units.

<sup>§</sup> Only required on early-model processor units.

## B28-EV/MEV and B38-EV/MEV Processor Units

<b>Memory E</b>	Expansions	•			
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	. 0	B28-MCE	No	0
B26-512	No	Ŏ	B28-MCL	No	Ŏ
B28-1MB	Yes	0.25	B39-4MB	No	ŏ
B28-2MB	No	0.25	D00 4111D	140	J
X-Bus Ca	rds and X-Bus	Card Upgrades	<b>,</b>		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	No	0	B25-VGM	No	0
B25-VG1	· No	0	B39-EV1	No	0
B25-VG3	. No	0			
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	Yes	2	B25-VG4	Yes	2
B25-GRA	Yes	2	B27-GRC	No	2
B25-GRE	Yes	2	B27-GRM	No	2
B25-VG2	Yes	2			_
Disk Mod	ules		<del></del>		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Yes	3	B25-MU5	Yes	6
B25-CDX	Yes	2	B25-MX3	Yes	4
B25-CX5	Yes	4	B25-MX4	Yes	4
B25-CX6	Yes	4	B25-MX5	Yes	4
B25-M0	Yes	3	B25-MX6	Yes	4
B25-M1	Yes	3	B25-XS6	Yes	2
B25-M3	Yes	- 6	B25-XS7	Yes	3
B25-M4	Yes	6	B25-XS8	Yes	3
B25-M5	Yes	6	B25-XSA	Yes	3
B25-MC5	Yes	3	B27-M4	No	5
B25-MC6	Yes	6	B27-MC5	Yes*	6
B25-MC0 B25-MF1	Yes	4			-
B25-MS5	Yes	3	B27-MU5	Yes*	6
B25-MS6	Yes	3	B27-MX4	Yes *	3
B25-MS7	Yes	4	B27-MX5	Yes*	4
B25-MS8	Yes	4	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
B25-MSA	Yes	4			
Tape Mod	dules				
Model	Compatible	Power Code	Model	Compatible	Power Code
Model B25-DDS	Compatible Yes		B25-TS2	Yes	Power Code
B25-DDS B25-TS	Yes Yes	2 5	B25-1S2 B27-TS1	Yes Yes*	5 5
DES-13	163	J	D2/-131	1 es	5
Special-F	urpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Yes	2	B25-TEL	Yes	1
B25-FXC	Yes	1			

<sup>\*</sup> Requires a B25-FXC Module.

## B28-EV/MEV and B38-EV/MEV Processor Units

Communic	cations Modu	les			
Model	Compatible	Power Code	Modei	Compatible	Power Code
B25-DCX	Yes	1	B25-PEM	Yes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	Yes *	1
B25-IDS	Yes	3	B27-LN3	Yes *	3
Monitors a	and Monitor A	\dapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Ňo	1	B25-VDC	Ňo	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	0
B25-D3	Yes	Ō	B27-MD1/MD7	No	3
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	No	Ö
B25-PD7	Yes	ġ	VGA-200-MON	No	ŏ
B25-PD8	Yes	4.5	VGA-931-MON	No	ŏ
Keyboard	s and Mice				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Yes	0
B25-K2	Yes	0	B25-MO3	Yes	0
B25-K3	Yes	0	SG-101-K	Yes †	0
B25-K4	Yes	0	SG-101-U	Yes	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Ýes	0	EF 4565/6	Yes	0
EF 4551	Yes	0	EF 4570	Yes	0
EF 4552	Yes	0	EF 4580	Yes	0
EF 4553 ‡	Yes	0	EF 4581	Yes	0
EF 4554 ‡	Yes	0	EF 4582	Yes	0
EF 4557-1 ±	Yes	0	EF 4583	Yes	0
EF 4561	Yes	0	EF 4584	Yes	0
EF 4562	Yes	0	EF 4585	Yes	0
EF 4563	Yes	Ó	EF 4591/2	Yes	0
TeleClust	er Equipment				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TA4	Yes	0
B25-NIU	Yes	0	B25-TH1	Yes	0
B25-TA1	Yes	Ö	B25-TH2	Yes	Ö
B25-TA2	Yes	Ŏ	B25-TIB	Yes	ŏ
		Õ	B25-TPS		Ŏ

<sup>†</sup> Requires an SG-151-K keyboard cable.

<sup>‡</sup> Requires an EF 4550-1 converter for attachment to these processor units.

<sup>§</sup> Only required on early-model processor units.

## **B28-EX1/EXP Processor Units**

Memory I	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	Yes	0
B26-512	No	Ŏ	B28-MCL	No	Ö
B28-1MB	No	0.25	B39-4MB	No	Ŏ
B28-2MB	Yes	0	D00 4111D	140	•
220 21112		· ·			
X-Bus Ca	rds and X-Bus	Card Upgrades	3		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes	0	B25-VGM	Yes	0
B25-VG1	Yes	; <b>0</b>	B39-EV1	No	0
B25-VG3	Yes	0	,		
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	Ýes	2	B25-VG4	Yes	2
B25-GRA	Yes	2	B27-GRC	No	2
B25-GRE	Yes	2	B27-GRM	No	2
B25-VG2	Yes	2			
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Yes	3	B25-MU5	Yes	6
B25-CDX	Yes	2	B25-MX3	Yes	4
B25-CX5	Yes	4	B25-MX4	Yes	4
B25-CX6	Yes	4	B25-MX5	Yes	4
B25-M0	Yes	3	B25-MX6	Yes	4
B25-M1	Yes	3	B25-XS6	Yes	2
B25-M3	Yes	6	B25-XS7	Yes	3
B25-M4	Yes	6	B25-XS8	Yes	3
B25-M5	Yes	6	B25-XSA	Yes	3
B25-MC5	Yes	3	B27-M4	No	5
B25-MC6	Yes	6	B27-MC5	Yes*	6
B25-MF1	Yes	4			_
B25-MS5	Yes	3	B27-MU5	Yes*	6
B25-MS6	Yes	3	B27-MX4	Yes *	3
B25-MS7	Yes	4	B27-MX5	Yes *	4
B25-MS8	Yes	5	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
B25-MSA	Yes	4			
Tape Mod	dules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	5
B25-TS	Yes	5	B27-TS1	Yes*	5
Special-F	Purpose Modu	 les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Yes	2	B25-TEL	Yes	1
B25-FXC	Yes	1	DEO ILL	100	•
		*			

<sup>\*</sup> Requires a B25-FXC Module.

## **B28-EX1/EXP Processor Units**

Communi	cations Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	Ÿes	1	B25-PEM	Ýes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	Yes *	1
B25-IDS	Yes	3	B27-LN3	Yes *	3
Monitors :	and Monitor A	\dapters		·	
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Ňo	1	B25-VDC	Ňo	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	0
B25-D3	Yes	Ö	B27-MD1/MD7	No	3
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	No	0
B25-PD7	Yes	3	VGA-200-MON	No	ŏ
B25-PD8	Yes	4.5	VGA-931-MON	No	ŏ
	163	7.3			
Keyboard	s and Mice				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Yes	0
B25-K2	Yes	0	B25-MO3	Yes	0
B25-K3	Yes	0	SG-101-K	Yes †	0
B25-K4	Yes	0	SG-101-U	Yes	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4565/6	Yes	0
EF 4551	Yes	0	EF 4570	Yes	0
EF 4552	Yes	0	EF 4580	Yes	0
EF 4553	Yes	Ō	EF 4581	Yes	Ö
EF 4554	Yes	ō	EF 4582	Yes	Ō
EF 4557-1	Yes	Ŏ	EF 4583	Yes	Ō
EF 4561	Yes	ŏ	EF 4584	Yes	Ŏ
EF 4562	Yes	ŏ	EF 4585	Yes	ŏ
EF 4563	Yes	ŏ	EF 4591/2	Yes	ŏ
TeleClust	er Equipment			·	
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	. 0	B25-TA4	Yes	0
B25-NIU	Yes	. 0	B25-TH1	Yes	Ö
B25-TA1	Yes	0	B25-TH2	Yes	Ö
B25-TA1		0	B25-TH2 B25-TIB	Yes Yes	0
	Yes	0 .			0
B25-TA3	Yes	U	B25-TPS	Not Required	U

<sup>†</sup> Requires an SG-151-K keyboard cable.

## **B38-EXP Processor Units**

Memory E	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	Yes	0
B26-512	No	0	B28-MCL	No	0
B28-1MB	No	0.25	B39-4MB	No	0
B28-2MB	Yes	. 0			
X-Bus Ca	rds and X-Bus	Card Upgrades	*		· · · · · · · · · · · · · · · · · · ·
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes	0	B25-VGM	Yes	0
B25-VG1	Yes	0	B39-EV1	No	0
B25-VG3	Yes	0			
Graphics	Modules				· · · · · · · · · · · · · · · · · · ·
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	Yes	2	B25-VG4	Yes	2
B25-GRA	Yes	2	B27-GRC	No	2
B25-GRE	Yes	2	B27-GRM	No	2
B25-VG2	Yes	2	<i>D2.</i> G1		-
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Yes	3	B25-MSA	Yes	4
B25-CDX	Yes	2	B25-MU5	Yes	6
B25-CX5	Yes	4	B25-MX3	Yes	4
B25-CX6	Yes	4	B25-MX4	Yes	4
B25-M0	Yes	3	B25-MX5	Yes	4
B25-M1	Yes	3	B25-MX6	Yes	4
B25-M3	Yes	6	B25-XS6	Yes	2
B25-M4	Yes	6	B25-XS7	Yes	3
B25-M5	Yes	6	B25-XS8	Yes	3
B25-MC5	Yes	3	B25-XSA	Yes	3
B25-MC6	Yes	6	B27-M4	No	5
B25-MF1	Yes	4	B27-MC5	No	6
B25-MS5	Yes	3	B27-MU5	No	6
B25-MS6	Yes	3	B27-MX4	No	3
B25-MS7	Yes	4	B27-MX5	No	4
B25-MS8	Yes	5	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
Tape Mod	lules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	5
B25-TS	Yes	5	B27-TS1	No	5
Special-P	urpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Ňo	2	B25-TEL	Yes	1
B25-FXC	No	1			

<sup>\*</sup> Additional X-Bus cards may be available; call your service representative for information.

## **B38-EXP Processor Units**

Communic	cations Modu	les			
Model	Compatible	Power Code	Model*	Compatible	Power Code
B25-DCX	Yes	1	B25-PEM	Yes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	No	1
B25-IDS	Yes	3	B27-LN3	No	3
Monitors	and Monitor A	Adapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Ňo	1	B25-VDC	No	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	0
B25-D3	Yes	Ō	B27-MD1/MD7	No	3
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5
B25-GS1	No	ĭ	SG-120-D	No	Ö
B25-PD7	Yes	3	VGA-200-MON	No	ŏ
B25-PD8	Yes	4.5	VGA-931-MON	No	ŏ
Keyboard	s and Mice				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Yes	0
B25-K2	Yes	Ō	B25-MO3	Yes	Ō
B25-K3	Yes	Ŏ	SG-101-K	Yes t	Ŏ
B25-K4	Yes	Ö	SG-101-U	Yes	Ō
Financial	Peripherals		***************************************		
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4565/6	Yes	0
EF 4551	Yes	Ö	EF 4570	Yes	Ō
EF 4552	Yes	Ō	EF 4580	Yes	Ó
EF 4553	Yes	0	EF 4581	Yes	Ō
EF 4554	Yes	Ŏ	EF 4582	Yes	Ö
EF 4557-1	Yes	ŏ	EF 4583	Yes	Ŏ
EF 4561	Yes	Ŏ	EF 4584	Yes	ŏ
EF 4562	Yes	ŏ	EF 4585	Yes	ŏ ·
EF 4563	Yes	ŏ	EF 4591/2	Yes	ŏ
TeleClust	er Equipment	•			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TA4	Yes	0
B25-NIU	Yes	ŏ	B25-TH1	Yes	Ŏ.
B25-TA1	Yes	ŏ	B25-TH2	Yes	ŏ
	Yes	ŏ	B25-TIB	Yes	ŏ
B25-TA2					

<sup>†</sup> Requires an SG-151-K keyboard cable.

## **B38-GXP Processor Units**

Memory I	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	Ÿes	0
B26-512	No	0	B28-MCL	No	0
B28-1MB	No	0.25	B39-4MB	No	0
B28-2MB	Yes	0			
X-Bus Ca	rds and X-Bus	S Card Upgrades	· · · · · · · · · · · · · · · · · · ·		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes *	0	B25-VGM	Yes *	0
B25-VG1	Yes	0	B39-EV1	No	0
B25-VG3	Yes *	0			
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	No	2	B25-VG4	No	2
B25-GRA	No	2	B27-GRC	No	2
B25-GRE	No	2	B27-GRM	No	2
B25-VG2	No	2			_
Disk Mod	ules				
Model	Compatible	Power Code	Modei	Compatible	Power Code
B25-CDC	Yes	3	B25-MSA	Yes	4
B25-CDX	Yes	2	B25-MU5	Yes	6
B25-CX5	Yes	4	B25-MX3	Yes	4
B25-CX6	Yes	4	B25-MX4	Yes	4
B25-M0	Yes	3	B25-MX5	Yes	4
B25-M1	Yes	3	B25-MX6	Yes	4
B25-M3	Yes	6	B25-XS6	Yes	2
B25-M4	Yes	6	B25-XS7	Yes	3
B25-M5	Yes	6	B25-XS8	Yes	3
B25-MC5	Yes	3	B25-XSA	Yes	3
B25-MC6	Yes	6	B27-M4	No	5
B25-MF1	Yes	4	B27-MC5	No	6
B25-MS5	Yes	3	B27-MU5	No	6
B25-MS6	Yes	3	B27-MX4	No	3
B25-MS7	Yes	4	B27-MX5	No	4
B25-MS8	Yes	5	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
Tape Mod	iules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	5
B25-TS	Yes	5	B27-TS1	No	5
Special-P	urpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	No	2	B25-TEL	Yes	1
B25-FXC	No	1			

<sup>\*</sup> To install this equipment, you must remove the B25-VG1 X-Bus card already in place.

## **B38-GXP Processor Units**

Communi	cations Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	Yes	1	B25-PEM	Yes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	No	1
B25-IDS	Yes	3	B27-LN3	No	3
Monitors a	and Monitor A	dapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Yes	1	B25-VDC	Ýes	0
B25-CD3	Yes	0	B25-VDM	Yes	0
B25-D1	Yes	3	B25-VKA	Yes	1
B25-D2	Yes	3	B27-CD3	Yes	Ó
B25-D3	No	Ŏ	B27-MD1/MD7	Yes	3
B25-D5/D6	No	3	B27-MD2/MD8	Yes	4.5
B25-GS1	Yes	1	SG-120-D	Yes	0
B25-PD7	Yes	3	VGA-200-MON	Yes	ŏ
B25-PD8	Yes	4.5	VGA-931-MON	Yes	ŏ
Kevboard	s and Mice				•
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Yes	0
B25-K2	Yes	ŏ	B25-MO3	Yes	ŏ
B25-K3	Yes	Ö	SG-101-K	Yes t	ŏ
B25-K4	Yes	Ŏ	SG-101-K	Yes	ŏ
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes		FF 4565/6	Yes	
	Yes	0 0	EF 4505/6 EF 4570	Yes	0
EF 4551		-		Yes Yes	Ö
EF 4552	Yes	0	EF 4580		_
EF 4553	Yes	. 0	EF 4581	Yes	0
EF 4554	Yes	0	EF 4582	Yes	0
EF 4557-1	Yes	0	EF 4583	Yes	0
EF 4561	Yes	0	EF 4584	Yes	0
EF 4562	Yes	0	EF 4585	Yes	Q
EF 4563	Yes	0	EF 4591/2	Yes	0
TeleClust	er Equipment				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TA4	Ýes	0
B25-NIU	Yes	Ö	B25-TH1	Yes	0
B25-TA1	Yes	Ö	B25-TH2	Yes	Ö
	Yes	Ŏ	B25-TIB	Yes	ŏ
B25-TA2					

<sup>†</sup> Requires an SG-151-K keyboard cable.

## **B38-GXL Processor Units**

Memory I	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	Yes	0
B26-512	No	0	B28-MCL	No	0
B28-1MB	No	0.25	B39-4MB	No	0
B28-2MB	Yes	0			
X-Bus Ca	rds and X-Bus	Card Upgrades	*		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes	0	B25-VGM	No	0
B25-VG1	No	Ŏ	B39-EV1	No	Ŏ
B25-VG3	No	Ö			•
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	No	2	B25-VG4	No	2
B25-GRA	No	2	B27-GRC	No	2
B25-GRE	No	2	B27-GRM	No	2
B25-VG2	No	2			_
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Yes	3	B25-MSA	Yes	4
B25-CDX	Yes	2	B25-MU5	Yes	6
B25-CX5	Yes	4	B25-MX3	Yes	4
B25-CX6	Yes	4	B25-MX4	Yes	4
B25-M0	Yes	3	B25-MX5	Yes	4
B25-M1	Yes	3	B25-MX6	Yes	4
B25-M3	Yes	6	B25-XS6	Yes	2
B25-M4	Yes	6	B25-XS7	Yes	3
B25-M5	Yes	6	B25-XS8	Yes	3
B25-MC5	Yes	3	B25-XSA	Yes	3
B25-MC6	Yes	6	B27-M4	No	5
B25-MF1	Yes	4	B27-MC5	No	6
B25-MS5	Yes	3	B27-MU5	No	6
B25-MS6	Yes	3	B27-MX4	No	3
B25-MS7	Yes	4	B27-MX5	No	4
B25-MS8	Yes	5	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
Tape Mod	iules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	5
B25-TS	Yes	5	B27-TS1	No	5
Special-F	urpose Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Ňo	2	B25-TEL	Ýes	1
B25-FXC	No	1			

<sup>\*</sup> Additional X-Bus cards may be available; call your service representative for information.

## **B38-GXL Processor Units**

cations Modu	les			
Compatible	Power Code	Model	Compatible	Power Code
Yes	1	B25-PEM	Yes	1.5
Yes		B25-TEM	No	1
Yes		B25-TR2	Yes	3
Yes			No	Ĩ
Yes	3	B27-LN3	No	3
and Monitor A	dapters			
Compatible	Power Code	Model	Compatible	Power Code
	1			0
Yes	0			0
Yes	3	B25-VKA	Yes	1
Yes	3	B27-CD3	Yes	0
No	0	B27-MD1/MD7	Yes	3
No	3	B27-MD2/MD8	Yes	4.5
Yes	1	SG-120-D	Yes	Ô
Yes			Yes	ō
Yes	4.5	VGA-931-MON	Yes	Ö
s and Mice				
Compatible	Power Code	Model	Compatible	Power Code
Yes	0	B25-K5	Yes	0
Yes	0	B25-MO3	Yes	0
Yes	0	SG-101-K	Yes †	0
Yes	0	SG-101-U	Yes	0
Peripherals		······································		
Compatible	Power Code	Model	Compatible	Power Code
Yes	0	EF 4565/6	Yes	0
Yes	0	EF 4570	Yes	0
Yes	0	EF 4580	Yes	0
Yes	0	EF 4581	Yes	0
Yes	Ö	EF 4582	Yes	0
Yes	Ō	EF 4583	Yes	Ó
			Yes	Ö
				ŏ
Yes	ŏ	EF 4591/2	Yes	Ö
er Equipment				
Compatible	Power Code	Model	Compatible	Power Code
Yes	0	B25-TA4	Yes	0
Yes			Yes	ŏ
	-			Ŏ
Yes	ŏ	B25-TIB	Yes	ŏ
				~
	Compatible Yes Yes Yes Yes Yes Yes Yes And Monitor A Compatible Yes Yes Yes No No Yes	Yes         1           Yes         2           Yes         3           Yes         3           Yes         3           Yes         1           Yes         0           Yes         3           Yes         3           No         0           No         3           Yes         1           Yes         3           Yes         1           Yes         3           Yes         1           Yes         0           Yes <t< td=""><td>Compatible         Power Code         Model           Yes         1         B25-PEM           Yes         2         B25-TEM           Yes         3         B25-TR2           Yes         3         B27-DCX           Yes         3         B27-LN3           and Monitor Adapters           Compatible         Power Code         Model           Yes         1         B25-VDC           Yes         3         B25-VDM           Yes         3         B25-VDM           Yes         3         B25-VDM           Yes         3         B27-CD3           No         0         B27-MD1/MD7           No         3         B27-MD2/MD8           Yes         1         SG-120-D           Yes         3         YGA-200-MON           Yes         4.5         VGA-931-MON           Sand Mice           Compatible         Power Code         Model           Yes         0         SG-101-K           Yes         0         EF 4580           Yes         0         EF 4581           Yes         0         EF 4583&lt;</td><td>  Compatible   Power Code   Model   Compatible   Yes   1   B25-PEM   Yes   Yes   2   B25-TEM   No   Yes   Yes   3   B25-TEZ   Yes   Yes   3   B27-DCX   No   Yes   3   B27-DCX   No   Yes   3   B27-LN3   No   Yes   Tes   Yes   3   B27-LN3   No   Yes   Tes   Yes   1   B25-VDC   Yes   Yes   1   B25-VDC   Yes   Yes   3   B27-VDM   Yes   Yes   3   B27-MD2/MD8   Yes   Yes   3   YGA-200-MON   Yes   Yes   3   YGA-200-MON   Yes   Yes   Yes   0   B25-K5   Yes   Yes   Yes   0   B25-MO3   Yes   Yes   0   SG-101-K   Yes   Yes   Yes   0   SG-101-K   Yes   Yes   Yes   0   SG-101-U   Yes   Yes   Yes   0   EF 4580   Yes   Yes   0   EF 4580   Yes   Yes   0   EF 4581   Yes   Yes   Yes   0   EF 4582   Yes   Yes   0   EF 4583   Yes   Yes   0   EF 4584   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4584   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4585   Yes   Yes  </td></t<>	Compatible         Power Code         Model           Yes         1         B25-PEM           Yes         2         B25-TEM           Yes         3         B25-TR2           Yes         3         B27-DCX           Yes         3         B27-LN3           and Monitor Adapters           Compatible         Power Code         Model           Yes         1         B25-VDC           Yes         3         B25-VDM           Yes         3         B25-VDM           Yes         3         B25-VDM           Yes         3         B27-CD3           No         0         B27-MD1/MD7           No         3         B27-MD2/MD8           Yes         1         SG-120-D           Yes         3         YGA-200-MON           Yes         4.5         VGA-931-MON           Sand Mice           Compatible         Power Code         Model           Yes         0         SG-101-K           Yes         0         EF 4580           Yes         0         EF 4581           Yes         0         EF 4583<	Compatible   Power Code   Model   Compatible   Yes   1   B25-PEM   Yes   Yes   2   B25-TEM   No   Yes   Yes   3   B25-TEZ   Yes   Yes   3   B27-DCX   No   Yes   3   B27-DCX   No   Yes   3   B27-LN3   No   Yes   Tes   Yes   3   B27-LN3   No   Yes   Tes   Yes   1   B25-VDC   Yes   Yes   1   B25-VDC   Yes   Yes   3   B27-VDM   Yes   Yes   3   B27-MD2/MD8   Yes   Yes   3   YGA-200-MON   Yes   Yes   3   YGA-200-MON   Yes   Yes   Yes   0   B25-K5   Yes   Yes   Yes   0   B25-MO3   Yes   Yes   0   SG-101-K   Yes   Yes   Yes   0   SG-101-K   Yes   Yes   Yes   0   SG-101-U   Yes   Yes   Yes   0   EF 4580   Yes   Yes   0   EF 4580   Yes   Yes   0   EF 4581   Yes   Yes   Yes   0   EF 4582   Yes   Yes   0   EF 4583   Yes   Yes   0   EF 4584   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4584   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4585   Yes   Yes   Yes   0   EF 4585   Yes   Yes

<sup>†</sup> If you have a CTOS monitor, you need an SG-151-K keyboard cable to attach the keyboard to the monitor. For VGA monitors, you also need this cable to attach the keyboard to a B25-VKA monitor adapter.

## B39-1/2/3/4/5/6/7 Processor Units

-	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	No	,O
B26-512	No	0	B28-MCL	No ·	0
B28-1MB	No	0.25	B39-4MB	Yes	0
B28-2MB	No	0			
X-Bus Ca	rds and X-Bus	Card Upgrades	}	,	
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes	0	B25-VGM	Yes	0
B25-VG1	Yes	0	B39-EV1	Yes	0
B25-VG3	Yes	0			
Graphics	Modules				
Model	Compatible	Power Code	Model	Compatible Compatible	Power Code
B25-GPP	Ňo	2	B25-VG4	Ýes	2
B25-GRA	No	2	B27-GRC	No	2
B25-GRE	No	2	B27-GRM	No	2
B25-VG2	Yes	2			
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Ÿes	3	B25-MU5	Yes	6
B25-CDX	Yes	2	B25-MX3	Yes	4
B25-CX5	Yes	4	B25-MX4	Yes	4
B25-CX6	Yes	4	B25-MX5	Yes	4
B25-M0	Yes	3	B25-MX6	Yes	4
B25-M1	Yes	3	B25-XS6	Yes	2
B25-M3	Yes	6	B25-XS7	Yes	3
B25-M4	Yes	6	B25-XS8	Yes	- 3
B25-M5	Yes	6	B25-XSA	Yes	3
B25-MC5	Yes	3	B27-M4	No	5
B25-MC6	Yes	6	B27-MC5	Yes*	6
B25-MF1	Yes	4	B27-MU5	Yes*	6
B25-MS5	Yes	3	B27-MX4	Yes*	3
B25-MS6	Yes	`~ <b>3</b>	B27-MX5	Yes*	4
B25-MS7	Yes	4			•
B25-MS8	Yes	4	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
B25-MSA	Yes	4			
Tape Mod	lules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	У̀еѕ	5
B25-TS	Yes	5	B27-TS1	Yes *	5
Special-P	urpose Modul				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Not Required	2	B25-TEL	Yes	. 1
B25-FXC	Yes	1	· <del></del>		•

<sup>\*</sup> Requires a B25-FXC Module.

## B39-1/2/3/4/5/6/7 Processor Units

Communic	cations <b>M</b> odu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	Ýes	1	B25-PEM	Ýes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	Yes*	1
B25-IDS	Yes	3	B27-LN3	Yes*	, <b>3</b>
Monitors a	and Monitor A	dapters †			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	No	1	B25-VDC	Ňo	0
B25-CD3	No	0	B25-VDM	No	0
B25-D1	No	3	B25-VKA	No	1
B25-D2	No	3	B27-CD3	No	0
B25-D3	No	0	B27-MD1/MD7	No	3
B25-D5/D6	No	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	No	0
B25-PD7	No	3	VGA-200-MON	No	0
B25-PD8	No	4.5	VGA-931-MON	No	0
Keyboard	s and Mice				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Yes	0
B25-K2	Yes	0	B25-MO3	Yes	0
B25-K3	Yes	0	SG-101-K	Yes ‡	0
B25-K4	Yes	0	SG-101-U	Yes	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4565/6	Yes	0
EF 4551	Yes	0	EF 4570	Yes	0
EF 4552	Yes	0	EF 4580	Yes	0
EF 4553 §	Yes	0	EF 4581	Yes	0
EF 4554 §	Yes	0	EF 4582	Yes	0
EF 4557-1 §	Yes	0	EF 4583	Yes	0
EF 4561	Yes	0	EF 4584	Yes	0
EF 4562	Yes	0	EF 4585	Yes	0
EF 4563	Yes	0	EF 4591/2	Yes	0
TeleCluste	er Equipment	•			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Ýes	0	B25-TA4	Yes	0
B25-NIU	Yes	0	B25-TH1	Yes	0
B25-TA1	Yes	Õ	B25-TH2	Yes	Ō
B25-TA2	Yes	Ō	B25-TIB	Yes	Ō
B25-TA3	Yes	0	B25-TPS	Not Required	0

<sup>†</sup> To connect a monitor, you must install a graphics controller X-Bus card or a graphics module.

<sup>‡</sup> Requires an SG-151-K keyboard cable.

<sup>§</sup> Requires an EF 4550-1 converter for attachment to these processor units.

## **B39-A/B Processor Units**

Memory I	Expansions				
Model	Compatible	Power Code	Model	Compatible	Power Code
B26-256	No	0	B28-MCE	Ňo	0
B26-512	No	. 0	B28-MCL	No	0
B28-1MB	No	0.25	B39-4MB	Yes	0
B28-2MB	No	0			
X-Bus Ca	rds and X-Bus	Card Upgrades	•		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DN1	Yes	0	B25-VGM	Yes *	0
B25-VG1	Yes*	0	B39-EV1	Yes	Ō
B25-VG3	Yes *	0			-
Graphics	Modules	· · · · · · · · · · · · · · · · · · ·			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-GPP	No	2	B25-VG4	Yes	2
B25-GRA	No	2	B27-GRC	No	2
B25-GRE	No	2	B27-GRM	No No	2
B25-VG2	Yes	2	DET-CITIVI		<b>4</b>
Disk Mod	ules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	Yes	3	B25-MSA	Yes	4
B25-CDX	Yes	2	B25-MU5	Yes	6
B25-CX5	Yes	4	B25-MX3	Yes	4
B25-CX6	Yes	4	B25-MX4	Yes	4
B25-M0	Yes	3	B25-MX5	Yes	4
B25-M1	Yes	3	B25-MX6	Yes	4
B25-M3	Yes	6	B25-XS6	Yes	2
B25-M4	Yes	6	B25-XS7	Yes	3
B25-M5	Yes	6	B25-XS8	Yes	3
B25-MC5	Yes	3	B25-XSA	Yes	· 3
B25-MC6	Yes	6	B27-M4	No	5
B25-MF1	Yes	4	B27-MC5	Yes †	6
B25-MS5	Yes	- 3	B27-MU5	Yes †	6
B25-MS6	Yes	3	B27-MX4	Yes †	3
B25-MS7	Yes	. 4	B27-MX5	Yes †	4
B25-MS8	Yes	4	B27-SF1	No	1.5
B25-MS9	Yes	3	B27-SF4	No	3
Tape Mod	dules	CONTRACTOR OF STREET			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Yes	2	B25-TS2	Yes	- 5
B25-TS	Yes	5	B27-TS1	Yes †	5
Special-F	Purpose Modul	<b>9</b> \$			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-1PC	Not Required	2	B25-TEL	Yes	1
B25-FXC	Yes	1			

<sup>\*</sup> To install this equipment, you must remove the B39-EV1 X-Bus card already in place.

## **B39-A/B Processor Units**

Communic	cations Modu	les			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	Yes	1	B25-PEM	Yes	1.5
B25-DN2	Yes	2	B25-TEM	No	1
B25-EN3	Yes	3	B25-TR2	Yes	3
B25-ID2	Yes	3	B27-DCX	Yes †	1
B25-IDS	Yes	3	B27-LN3	Yes †	3
Monitors	and Monitor A	dapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	No	1	B25-VDC	No	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	0
B25-D3	Yes	0	B27-MD1/MD7	No .	3
B25-D5/D6	Yes	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	No	0
B25-PD7	Yes	3	VGA-200-MON	No	0
B25-PD8	Yes	4.5	VGA-931-MON	No	0
Keyboard	s and Mice		······································		
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes	0	B25-K5	Ýes	0
B25-K2	Yes	0	B25-MO3	Yes	0
B25-K3	Yes	0	SG-101-K	Yes ‡	0
B25-K4	Yes	0	SG-101-U	Yes	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4565/6	Yes	0
EF 4551	Yes	0	EF 4570	Yes	0
EF 4552	Yes	0	EF 4580	Yes	0
EF 4553 §	Yes	0	EF 4581	Yes	0
EF 4554 §	Yes	0	EF 4582	Yes	0
EF 4557-1 §	Yes	0	EF 4583	Yes	0
EF 4561	Yes	0	EF 4584	Yes	0
EF 4562	Yes	0	EF 4585	Yes	0
EF 4563	Yes	0	EF 4591/2	Yes	0
TeleClust	er Equipment	·			<b>,</b>
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TA4	Yes	0
B25-NIU	Yes	Ō	B25-TH1	Yes	Ö
B25-TA1	Yes	Ö	B25-TH2	Yes	Ō
B25-TA2	Yes	ŏ	B25-TIB	Yes	ŏ
B25-TA3	Yes	Ŏ	B25-TPS	Not Required	Ŏ

<sup>†</sup> Requires a B25-FXC Module.

<sup>‡</sup> Requires an SG-151-K keyboard cable.

<sup>§</sup> Requires an EF 4550-1 converter for attachment to these processor units.



# Section 3 Series 2000 and 5000 Compatibility

This section provides you with tables that list the devices supported by each of the Series 2000 processor units and Series 5000 base units. For Series 2000 workstations, these tables are arranged on a processor unit-by-processor unit basis. For Series 5000 workstations, the tables are arranged base unit-by-base unit. Here are some points to keep in mind when you review the information in Section 3:

- If two or more processor units or base units are compatible with an identical set of devices, they are covered in the same table. For example, the SG-5201-433 supports the same devices that the SG-5202-433 supports. Therefore, these two base units share a single table. Here is how the processor units and base units are grouped:
  - SG-2100-320
  - SG-5201-433 and SG-5202-433
- The equipment listed in each table is categorized by function. For example, all logic cartridges appear under the same heading. The devices in each category are arranged alphanumerically.
- Many Series 2000 and 5000 products do not use the same power code system that the B2X/B3X products use. If a Series 2000/5000 product does not use the B2X/B3X power code system, the abbreviation "N/A" (not applicable) appears in the power code column next to the product in question.

- In cases where B2X/B3X equipment is compatible with Series 2000 processor units or Series 5000 base units, the B2X/B3X product is included in the listing under the appropriate category.
- In some cases, a B2X/B3X product has an NGEN equivalent that is also supported by the processor unit or base unit. To learn which B2X/B3X devices have a compatible NGEN equivalent, refer to Table 3-1.

Table 3-1. NGEN Equivalents for B2X/B3X Products

Product Type	B2X/B3X Product	NGEN Equivalent
Disk Modules	B25-MS5	HSD-040
	B25-MS7	HSD-140
	B25-MS8	HSD-320
	B25-XS6	HSD-020
	B25-XS7	HSD-140
	B25-XS8	HSD-320
Tape Modules	B25-TS2	HSB-002
Monitors	B25-CD3	VM-003
	B25-D1	VM-001
	B25-D2	VM-002
	B25-PD7	PD-7

- In addition to listing the devices compatible with each processor unit, each table indicates the devices that are **not** supported.
- Some of the products in the listings have been discontinued; you can
  no longer order these devices. To find out whether a device is still
  available, call your sales representative.
- Each listing assumes that you have the most current release level of the processor unit or base unit in question. If you have an older version of the processor unit or base unit, some of the equipment listed as compatible may not be supported. To find out about specific devices, call your service representative.
- The disk module listing covers module/base unit support only.
   Certain upgrade modules do not support the entire range of expansion modules. For more information on upgrade/expansion compatibility, see Appendix A.
- Section 3 does not include descriptions of printers or processor unit options. To learn about processor unit options, see Appendix A. For information on printers, refer to the SuperGen Series 2000 Hardware Installation and Owner's Guide or SuperGen Series 5000 Hardware Installation and Owner's Guide.

## SG-2100-320 Processor Units

Logic Car	tridaes				
Model SG-500-M	Compatible No	Power Code N/A	Model SG-540-P	Compatible No	Power Code N/A
SG-501-V	No	N/A			
Memory F	acks and Exp	ansions			
Model SG-210-M SG-520-M	Compatible Yes No	Power Code N/A N/A	Model SG-540-M	Compatible No	Power Code N/A
Storage C	artridges and	Accessories			
Model	Compatible	Power Code	Model	Compatible	Power Code
SG-503-R	Ňо	N/A	SG-506-R	Ňo	N/A
SG-504-R	No	N/A	SG-599-U	No	N/A
Adapters					
Model	Compatible	Power Code	Model	Compatible	Power Code
SG-500-A	No	2	SG-510-A	No	N/A
B2X/B3X	Disk Modules				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CDC	No	3	B25-MSA	No	4
B25-CDX	No	2	25-MU5	No	6
B25-CX5	No	4	B25-MX3	No	4
B25-CX6	No	4	B25-MX4	No	4
B25-M0	No	3	B25-MX5	No	4
B25-M1	No	3	B25-MX6	No	4
B25-M3	No	6	B25-XS6	No	2
B25-M4	No	6	B25-XS7	No	3
B25-M5	No	6	B25-XS8	No	3
B25-MC5	No	3	B25-XSA	No	3
B25-MC6	No	6	B27-M4	No	5
B25-MF1	No	4 3	B27-MC5	No	6
B25-MS5	No No	3	B27-MU5	No No	6 3
B25-MS6 B25-MS7	No No	3 4	B27-MX4 B27-MX5	No No	3 4
B25-MS8	No No	4	B27-MA5 B27-SF1	No No	4 1.5
B25-MS9	No No	3	B27-SF4	No No	3
D25-M59	NO	3	B27-3F4	NO	
	Communicati				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DCX	No	1	B25-PEM	No	1.5
B25-DN2	No	2	B25-TEM	No	1
B25-EN3	No	3	B25-TR2	No	3
B25-ID2	No	3	B27-DCX	No	1
B25-IDS	No	3	B27-LN3	No	3

#### SG-2100-320 Processor Units

<b>B2X/B3X</b> 7	Tape Modules	}			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	No	2	B25-TS2	No	5
B25-TS	No	5	B27-TS1	No	5
Monitors a	and Monitor A	\dapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Ÿes	1	B25-VDC	No	0
B25-CD3	Yes	0	B25-VDM	No	0
B25-D1	Yes	3	B25-VKA	No	1
B25-D2	Yes	3	B27-CD3	No	0
B25-D3	No	0	B27-MD1/MD7	No	3
B25-D5/D6	No	3	B27-MD2/MD8	No	4.5
B25-GS1	Yes	1	SG-120-D	Yes	0
B25-PD7	Yes	3	VGA-200-MON	Yes	Ō
B25-PD8	No	4.5	VGA-931-MON	Yes	0
Keyboard	s and Mice				<del></del>
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes *	0	B25-MO3	Yes t	0
B25-K2	No	Ö	SG-100-U	No	Ö
B25-K3	No	ŏ	SG-101-K	Yes ±	Ö
B25-K4	Yes *	ŏ	SG-101-U	Yes	Ö
B25-K5	Yes *	ŏ	SG-102-K	No	0
Financial	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	FF 4563	Yes	0
EF 4551	Yes	0	EF 4565/6	Yes	Ö
EF 4552	Yes	0	EF 4580	Yes	ŏ
EF 4553 §	Yes	Ŏ	FF 4581	Yes	ŏ
EF 4554 §	Yes	0	EF 4582	Yes	ŏ
EF 4557-1 §	Yes	0	EF 4583	Yes	Ŏ
EF 4561	Yes	Ö	EF 4584	Yes	Ö
EF 4562	Yes	ŏ	EF 4585	Yes	Ö
TeleClust	er Equipment				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TH1	Yes	0
B25-NIU	Yes	ŏ	B25-TH2	Yes	ŏ
B25-TA1	No	Ŏ	B25-TIB	Yes	Ö
B25-TA2	No	ŏ	B25-TPS	No	ŏ
B25-TA3	No	Ö	SG-511-A	Yes	ŏ

<sup>\*</sup> For VGA monitors, requires an SG-150-K keyboard cable.

<sup>†</sup> The NGEN version of this mouse (PD-001) is also compatible.

<sup>‡</sup> For CTOS monitors, requires an SG-151-K keyboard cable.

<sup>§</sup> Requires an EF 4550-1 converter for attachment to these processor units.

## SG-5201-433 and SG-5202-433 Base Units

Logic Cartridges							
Model	Compatible	Power Code	Model	Compatible	Power Code		
SG-500-M	Yes	N/A	SG-540-P	Yes	N/A		
SG-501-V	Yes	N/A					
Memory F	Packs and Exp	ansions					
Model Compatible Power Code		Power Code N/A	Model SG-540-M	Compatible Yes	Power Code N/A		
SG-520-M	Yes	N/A		, 55			
Storage C	Cartridges and	Accessories					
Model	Compatible	Power Code	Model	Compatible	Power Code		
SG-503-R	Ýes	N/A	SG-506-R	Ýes	N/A		
SG-504-R	Yes	N/A	SG-599-U	Yes	N/A		
Adapters	······································						
Model	Compatible	Power Code	Model	Compatible	Power Code		
SG-500-A	Yes	2	SG-510-A	Yes	N/A		
B2X/B3X	Disk Modules	*					
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-CDC	Yes	3	B25-MSA	Yes	4		
B25-CDX	Yes	2	B25-MU5	No	6		
B25-CX5	No	4	B25-MX3	No	4		
B25-CX6	No	4	B25-MX4	No	4		
B25-M0	No	3	B25-MX5	No	4		
B25-M1	No	3	B25-MX6	No	4		
B25-M3	No	6	B25-XS6	Yes	2		
B25-M4	No	6	B25-XS7	Yes	3		
B25-M5	No	6	B25-XS8	Yes	3		
B25-MC5	No	3	B25-XSA	Yes	3		
B25-MC6	No	6	B27-M4	No	5		
B25-MF1	No	4	B27-MC5	No	6		
B25-MS5	Yes	3 3	B27-MU5	No	6		
B25-MS6	Yes Yes	3 4	B27-MX4	No No	3		
B25-MS7 B25-MS8	Yes Yes	4 4	B27-MX5 B27-SF1	No No	4		
B25-MS9	Yes	3	B27-SF1	No No	1.5 3		
			D27-3F4	140			
		ons Modules *					
Model	Compatible	Power Code	Model	Compatible	Power Code		
B25-DCX	Yes	1	B25-PEM	No	1.5		
B25-DN2	No	2	B25-TEM	No	1		
B25-EN3	No	3	B25-TR2	No	3		
B25-ID2	No	3	B27-DCX	No No	1		
B25-IDS	No	3	B27-LN3	No	3		

<sup>\*</sup> Requires an SG-500-A X-Bus adapter module. See Table 3-1 for equivalent NGEN products.

## SG-5201-433 and SG-5202-433 Base Units

Model	Compatible	Power Code	Model	Compatible	Power Code
B25-DDS	Ýes	2	B25-TS2	Ÿes	5
B25-TS	No	5	B27-TS1	No	5
Monitors a	nd Monitor A	dapters			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-CA1	Ňo	1	B25-VDC	No	0
B25-CD3	No	0	B25-VDM	No	0
B25-D1	No	3	B25-VKA	No	1
B25-D2	No	3	B27-CD3	No	0
B25-D3	No	0	B27-MD1/MD7	No	3
B25-D5/D6	No	3	B27-MD2/MD8	No	4.5
B25-GS1	No	1	SG-120-D	Yes	0
B25-PD7	No	3	VGA-200-MON	Yes	0
B25-PD8	No	4.5	VGA-931-MON	No	0
Keyboards	and Mice	·····			
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-K1	Yes †	0	B25-MO3	Yes	0
B25-K2	No	Ö	SG-100-U	Yes	Ō
B25-K3	No	Ō	SG-101-K	Yes	Ŏ
B25-K4	·Yes t	Ö	SG-101-U	Yes	ŏ
B25-K5	Yes †	Ö	SG-102-K	Yes	Ö
Financial I	Peripherals				
Model	Compatible	Power Code	Model	Compatible	Power Code
EF 4260/1	Yes	0	EF 4563	Yes	0
EF 4551	Yes	Ö	EF 4565/6	Yes	Ŏ
EF 4552	Yes	Ö	EF 4580	Yes	Ŏ
EF 4553 ±	Yes	Ŏ	EF 4581	Yes	ō
EF 4554 ±	Yes	Ō	EF 4582	Yes	Ŏ
EF 4557-1 ±	Yes	Ö	EF 4583	Yes	Ŏ
EF 4561	Yes	Ŏ	EF 4584	Yes	ŏ
EF 4562	Yes	ŏ	EF 4585	Yes	ŏ
TeleCluste	r Equipment				
Model	Compatible	Power Code	Model	Compatible	Power Code
B25-IHU	Yes	0	B25-TH1	Yes	0
B25-NIU	Yes	Ö	B25-TH2	Yes	Ŏ
B25-TA1	No	Ö	B25-TIB	Yes	Õ
B25-TA2	No	Ŏ	B25-TPS	No	ŏ
B25-TA3	No	ŏ	SG-511-A	Yes	ŏ

<sup>†</sup> Requires an SG-150-K keyboard cable.

<sup>‡</sup> Requires an EF 4550-1 converter for attachment to these base units.



# Appendix A Special Compatibility Issues

This appendix addresses system compatibility for power supplies and processor unit options. For easy reference, the discussion of processor unit options includes a table showing which processor units support the various options. Appendix A also provides tables that clarify B2X/B3X upgrade/expansion compatibility, processor unit video characteristics, and graphics controller/monitor compatibility.

## **Power Supplies**

Power supplies convert the ac voltage from your wall outlet into the dc voltage required by the components in your workstation. The CTOS product line includes the following two power supplies:

B25-PS

A 150-Watt power supply capable of supplying 10 power units to your equipment. This power supply is compatible with all B2X/B3X workstations. The B25-PS is not supported for Series 2000 or 5000 workstations unless B2X/B3X modules are part of the configuration.

B25-PS1

A 225-Watt power supply capable of supplying 15 power units to your equipment. This power supply is compatible with all B2X/B3X workstations. The B25-PS1 is not supported for Series 2000 or 5000 workstations unless B2X/B3X modules are part of the configuration.

## **Processor Unit Options**

Processor unit options provide special functions for your processor unit. These functions include serialized bootstrap ROMs, 12-bit sync, hard ID, and so forth. Processor unit options are **not** customer-installable; you **must** contact your service representative if you plan to customize your processor unit with any of these options.

The following paragraphs define the various processor unit options. To find out which options are available for your processor unit, see Table A-1.

B25-ASB	A 12-bit sync card.
B25-HIA	A hard ID kit.
B25-HID	A hard ID kit.
B28-HI8	A serialized bootstrap ROM. The ROM contains the serial number used for the hard ID.
B38-HI8	A serialized bootstrap ROM. The ROM contains the serial number used for the hard ID.
B39-HI8	A serialized bootstrap ROM. The ROM contains the serial number used for the hard ID.
B39-12B	A 12-bit sync card.
SG-101-N	A math coprocessor.
SG-250-V	A 256-kilobyte video memory upgrade.

Table A-1. Processor Unit Option Compatibility

Processor Unit	Option
B28-LCW/LC1	B25-HID B28-HI8
B28-CPU/EV/MCP/MEV	B25-ASB B25-HIA B28-HI8
B28-EX1/EXP	B25-ASB B25-HID B28-HI8
B38-CPU/EV/MCP/MEV	B25-ASB B25-HIA B38-HI8
B38-EXP/GXP/GXL	B25-ASB B25-HID B38-HI8
All B39 Processor Units	B39-12B B39-HI8
Series 2000 Processor Units	SG-101-N SG-250-V

## B2X/B3X Upgrade/Expansion Compatibility

There are two types of hard disk and compact disc modules: upgrades and expansions. Upgrades include control circuitry as well as a drive. Expansions contain only a drive and, thus, rely on upgrades for all control functions. Since expansions are not equipped with their own control circuitry, any workstation that includes an expansion must also include an upgrade. When choosing an expansion, make sure that it is compatible with the upgrade as well as the processor unit. To learn which upgrades support the various expansions, review Table A-2.

Table A-2. Disk Upgrade/Expansion Compatibility

	Upgrades *							
Expansions	<b>M</b> 3	M4	<b>M</b> 5	MC5 MC6	MU5	SCSI Upgrades		
B25-CDX						Yes		
B25-CX5			Yes	Yes				
B25-CX6			Yes	Yes				
B25-DDS †						Yes		
B25-MX3	Yes	Yes	Yes	Yes	Yes			
B25-MX4	Yes	Yes	Yes	Yes	Yes			
B25-MX5	Yes	Yes	Yes	Yes	Yes			
B25-MX6			Yes	Yes				
B25-TS2 †						Yes		
B25-XS6						Yes		
B25-XS7						Yes		
B25-XS8						Yes		
B25-XSA						Yes		

<sup>\*</sup> For clarity, the B25 prefix is omitted from the upgrade number.

<sup>†</sup> The B25-DDS and B25-TS2 are tape expansions.

## **B2X/B3X Processor Unit Video Characteristics**

Your B2X/B3X processor unit video circuits determine such factors as the number of columns on your monitor screen, its chromatic features, and its brightness. For example, basic processor units like the B28-CPU provide monochrome displays. These processor units cannot generate color displays even if you attach a color monitor. Most other processor units feature enhanced video circuitry that allows color displays. With these processor units, if you have a color monitor, you have a color display. Table A-3 defines the video characteristics of each processor unit in the B2X/B3X family.

Table A-3. Processor Unit Video Capabilities (Without Graphics Controllers)

Processor Units	Screen Brightness	Chromatic Features *	Column Width	Positive Polarity Monitors †
B28-CPU/MCP	Half-Bright	Monochrome	80 Columns	No
B28-EV/MEV	Full-Bright	Color	132 Columns	Yes
B28-EXP/EX1	Full-Bright	Color	132 Columns	Yes
B28-LCW/LC1	Full-Bright	Color	132 Columns	Yes
B38-CPU/MCP	Half-Bright	Monochrome	80 Columns	No
B38-EV/MEV	Full-Bright	Color	132 Columns	Yes
B38-EXP/GXP ‡	Full-Bright	Color	132 Columns	Yes
B38-GXL §	Full-Bright	Color	132 Columns	Yes
B39-1/2/3/4/5/6/7 (no video capabilities)	No Video	No Video	No Video	No
B39-A/B	Full-Bright	Color	132 Columns	Yes

<sup>\*</sup> Assuming a color monitor and no graphics controller (module or X-Bus card).

<sup>†</sup> B25-PD7 and B25-PD8 monitors.

<sup>‡</sup> The B38-GXP includes a B25-VG1 graphics controller X-Bus card. As a result, this processor unit has graphic capabilities not indicated in this chart.

<sup>§</sup> The B38-GXL includes graphics control circuitry. As a result, this processor unit has graphic capabilities not indicated in this chart.

## B2X/B3X Graphics Controller/Monitor Compatibility

You can enhance your video capabilities by adding a graphics controller to your workstation. Graphics controllers are available in two forms: X-Bus cards and modules. In choosing a graphics controller, you should make sure that it is compatible with your monitor. Table A-4 shows you which graphics controllers support which monitors.

Table A-4. Graphics Controller/Monitor Compatibility

	Monitors *						
Graphics Controllers	D1 D2	D5 D6	D3	CD3	CA1 VDC †	GS1 VDM ‡	PD7 PD8
B25-GPP							Yes
B25-GRA	Yes	Yes	Yes	Yes			
B25-GRE	Yes	Yes	Yes	Yes			
B25-VG1/VG3 and B25-VG2/VG4 §	Yes			Yes	Yes	Yes	Yes

<sup>\*</sup> For clarity, the B25 prefix is omitted from the monitor number.

<sup>†</sup> This column also covers SG-120-D and off-the-shelf VGA monitors.

<sup>‡</sup> This column covers VGA-200-MON and VGA-931-VDM monitors as well.

<sup>§</sup> The B25-VG1 and B25-VG3 are X-Bus cards.

## Appendix B **B26 and B27 Processor Units**

This appendix defines the characteristics of the B26 and B27 processor units. If you need information on the devices supported by these processor units, refer to the BTOS Hardware Installation Guide.

## **B26 Processor Units**

The following discussion identifies and briefly describes each of the B26 processor units.

- B26-CPU A processor unit with a base memory of 256 kilobytes. The B26-CPU features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding 256-kilobyte memory expansions for a total memory size of 1 megabyte.
- B26-EPP A processor unit with a base memory of 512 kilobytes. The B26-EPP features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding 256-kilobyte or 512-kilobyte memory expansions for a total memory size of 1 megabyte. The B26-EPP supports positive-polarity monitors only.
- B26-EXP A processor unit with a base memory of 512 kilobytes. The B26-EXP features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding 256-kilobyte or 512-kilobyte memory expansions for a total memory size of 1 megabyte. The B26-EXP provides color video support without the use of a graphics module.

## **B27 Processor Units**

The following discussion identifies and briefly describes each of the B27 processor units.

- B27-CPU A processor unit with a base memory of 512 kilobytes. The B27-CPU features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding a 512-kilobyte memory expansion for a total memory size of 1 megabyte. Unlike other processor units, the B27-CPU uses the F-Bus as its module interface.
- B27-CLS A processor unit with a base memory of 512 kilobytes. The B27-CLS features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding a 512-kilobyte memory expansion for a total memory size of 1 megabyte. B27-CLS workstations are always cluster workstations; you cannot attach modules to this processor unit.
- B27-LCW A processor unit with a base memory of 512 kilobytes. The B27-LCW features a 80186 microprocessor running at a speed of 8 megahertz. You can enhance the processor unit by adding a 512-kilobyte memory expansion for a total memory size of 1 megabyte. B27-LCW workstations are always cluster workstations; you cannot attach modules to this processor unit. The B27-LCW is equipped with its own monitor.

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