

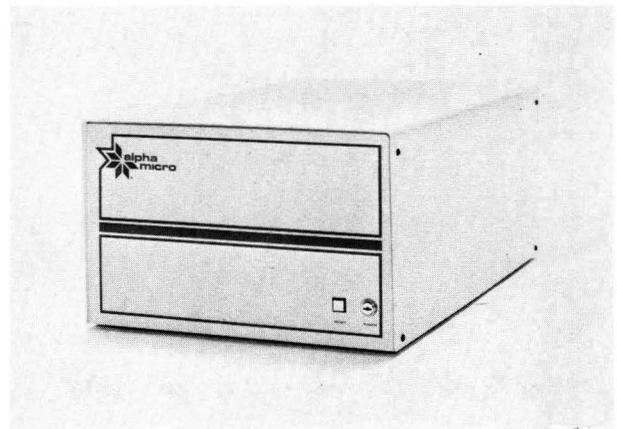
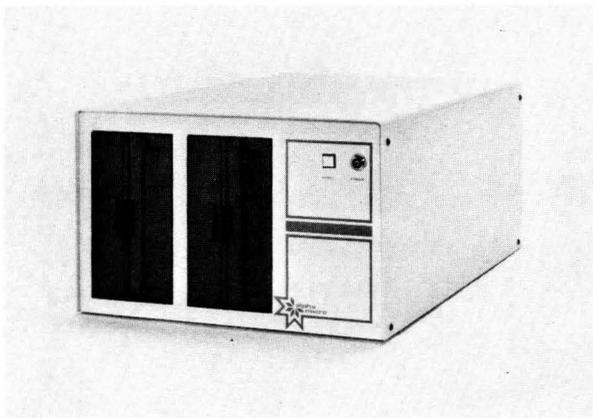
TECHNICAL MANUAL  
FOR

**AM-900**

CPU CHASSIS

DWM-00900-XX

TECHNICAL MANUAL  
FOR  
**AM-900**  
CPU CHASSIS



Manufactured By  
ALPHA MICROSYSTEMS  
17881 SKY PARK NORTH  
IRVINE, CALIFORNIA 92714

**FIRST EDITION**

October 1979

<b>REVISIONS INCORPORATED:</b>	
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### 1.0 INTRODUCTION

This manual provides operating and maintenance instructions for the AM-900 Alpha Micro Computer Chassis manufactured by Alpha Microsystems located in Irvine, California. Chassis description, theory of operation and maintenance instructions are included to provide the user with the information necessary to utilize this chassis to its full capacity.

### 1.1 CHASSIS DESCRIPTION

The AM-900 Computer Chassis is easily converted from 115 VAC to 230 VAC, 50 or 60 Hz. The AM-900 contains a fully regulated linear power supply with input filtering to provide maximum line-noise immunity. There is a 9 and a 19 slot terminated motherboard option, with dual Floppy Drive configurations available with the 9 slot motherboard. Power-fail detect circuitry is provided from the power supply. The PC board power dissipation is significantly reduced due to the regulated power supply. Standard S-100 compatible PC boards as well as the new tall style boards can be accommodated. This chassis and accessories are fully factory tested.

The several configurations available for the AM-900 are summarized in Table 1-1.

Table 1-1. Computer Chassis Configuration Summary

Part Number	AC Input Requirement	Style	Card Cage Capacity	Additional Features
PDB-00900-00	115V 60Hz @ 5A	Table Top	19 Slots	
-01	230V 50Hz @ 2.5A	Table Top	19 Slots	
-02	115V 60Hz @ 5A	Rack Mount	19 Slots	
-03	230V 50Hz @ 2.5A	Rack Mount	19 Slots	
-04	115V 60Hz @ 5A	Table Top	9 Slots	Two Dual Density Double Sided Floppy Drives
-05	230V 50Hz @ 2.5A	Table Top	9 Slots	"
-06	115V 60Hz @ 5A	Rack Mount	9 Slots	"
-07	230V 50Hz @ 2.5A	Rack Mount	9 Slots	"

### 2.0 INTRODUCTION

This section describes the mechanical and electrical specifications required for the operation of the AM-900 Computer Chassis.

### 2.1 MECHANICAL CONSIDERATIONS (Table Top Configuration)

NOTE: Rack Mount configurations are essentially the same except the width is compatible with standard 19 inch Retma rack dimensions.

1. AM-900 with 19 slot motherboard
  - a. Size: 27.5" deep × 16.5" wide × 10.5" high
  - b. Weight: 50 lbs. nominal
  
2. AM-900 with 9 slot motherboard and Dual Floppy Drives
  - a. Size: 27.5" deep × 16.5" wide × 10.5" high
  - b. Weight: 70 lbs. nominal
  
3. Rack Mount Slides
  - a. Centerline of the slides: 8.75 inches from the bottom.
  - b. Top mounting hole: 9 inches from the bottom.
  - c. Centerline of the slide: ¼ inch below the top mounting hole.  
The lower hole is designed to fit either ½ or ⅝ inch below the top hole.

### 2.2 A.C. INPUT REQUIREMENTS

1. 115 VAC ± 10%, 47-63 Hz fused at 5 Amps
2. Optional configuration: 230 VAC ± 10%, 47-63 Hz fused at 2.5 Amps.
3. Conversion from 115 VAC to 230 VAC field retrofittable, see Section 3.4.

## 2.3 OPERATING ENVIRONMENTAL REQUIREMENTS

1. Ambient Operating Temperature Range: 10°C to 35°C
2. Relative Humidity: 20% to 80%, without condensation.

## 2.4 LINEAR REGULATED POWER SUPPLY

The output from the power supply is constant and will compensate for load as it is added to maintain a constant output voltage.

### 2.4.1 DC OUTPUTS (All are short circuit protected.)

1. +7.5 Volts
  - a. Current Rating: 30 Amps maximum
  - b. Line Regulation:  $\pm 0.1\%$  for 10% line change
  - c. Load Regulation:  $\pm 0.1\%$  for 50% load change
  - d. Output Adjustment Range:  $\pm 5\%$
  - e. Remote Sensing
  
2. +16 Volts
  - a. Current Rating: 3.0 Amps maximum
  - b. Line Regulation:  $\pm 0.1\%$  for 10% line change
  - c. Load Regulation:  $\pm 0.1\%$  for 50% load change
  
3. -16 Volts
  - a. The specifications are the same as for the +16 Volt output.
  
4. 24 Volts (Only on the floppy based system)
  - a. Current Rating: 2.4 Amps
  - b. Line Regulation:  $\pm .01\%$  for 10% line change
  - c. Load Regulation:  $\pm .02\%$  for 50% load change

## 2.4.2 AC OUTPUTS

1. 24 Volt peak to peak, 50/60 Hz
  - a. Current Rating: 10 ma
  - b. Short circuit protected
2. 115 VAC
  - a. Used on 230 VAC configurations to supply input power to the fan and floppy drives.

## 2.5 MOTHERBOARD

1. Capacity: 9 slot or 19 slot
2. Signal line Termination:
  - a. All signal lines are terminated by resistors to 2.5 Volts. Exceptions are busses 12, 13, and 75. (See Table 3-1.)
3. Card Edge Connector: 100 pin connector, 0.125 inch centers (standard S-100 bus configuration).
4. Auxiliary Regulations
  - a. Two +5 Volt regulators @ 1 Amp each.
  - b. One -5 Volt regulator @ 0.3 Amps.

## 2.6 REAR PANEL STANDARD OUTPUTS

1. Remote AC Control Connector
  - a. +7.5 Volts through a 330 ohm limiting resistor and ground are provided to allow remote control of AC to other peripherals via chassis key switch.

## 2.7 DUAL FLOPPY DRIVES

Dual Floppy Drives are optional. For specifications, see the manual that is included with the Floppy Drive. The Floppy Drive option jumpers and switches are set up as described in Section 3.5.

### 3.0 INTRODUCTION

The Alpha Microsystems' series of Computer Chassis has been designed in the same format as the S-100 Bus with several improvements. This section gives a description of specific improvements to the chassis.

### 3.1 LINEAR REGULATED POWER SUPPLY

The incorporation of a regulated power supply to replace the S-100 Bus unregulated power supplies provides several basic advantages.

#### 3.1.1 REGULATED VOLTAGE

The regulated voltage feature will significantly decrease the power dissipation on each PC Board in the system, thereby increasing the reliability of each board used by the system.

#### 3.1.2 FOLDBACK CURRENT LIMITING

Foldback Current limiting is designed into the power supply in order to eliminate the use of fuses on the power supply outputs. This feature eliminates the need to replace a fuse in case of a short on the bus.

#### 3.1.3 CONVERTING FROM 115 VAC 60 Hz TO 230 VAC 50 Hz

This is a simple, straightforward step with no replacement of a transformer required. (See Section 3.4.)

#### 3.1.4 POWER FAIL SIGNAL

A Power Fail signal is generated by the power supply and routed to bus pin 13. This signal is designed so that when full AC power is applied to the power supply, the line will be clamped to ground through an NPN transistor. When AC power falls below 103 volts AC, however, this signal will be open. The DC outputs from the power supply will maintain regulation for at least eight (8) msec after the Power Fail signal fires. (See Section 3.6 for Power Fail Detect Adjustment Procedure.)

#### 3.1.5 LINE FREQUENCY SIGNAL

A Line Frequency signal (24 volts peak to peak) is generated by the power supply and routed to bus pin 12, and may be used as a real-time clock signal by any board residing on the bus.

## **3.2 ENHANCED TERMINATED MOTHERBOARD**

The Alpha Microsystems' terminated Motherboard (9 and 19 slot) offers terminated lines and regulators.

### **3.2.1 TERMINATED LINES**

All lines are terminated through resistors to +2.5 volts with some exceptions. For these exceptions, consult Table 3-1.

### **3.2.2 REGULATORS**

The following regulators are provided on the Motherboard:

+5v @ 1 Amp

+5v @ 1 Amp

-5v @ 0.3 Amp

These regulators are typically used to provide power to peripherals such as the Floppy Disk Drives.

## **3.3 MECHANICAL CONSIDERATIONS**

Several features have been designed into the Alpha Microsystems' series of Computer Chassis to provide versatility, flexibility, upward compatibility and more accessibility to components.

### **3.3.1 EASY CONVERSION**

To convert from a table top to a rack mounted configuration, install a rack mountable front panel, side panels and a top cover. There is no rewiring required.

### **3.3.2 FRONT AND REAR PANELS**

Both front and rear panels are easily removable and include connectors for plug-in installation.

### **3.3.3 MOTHERBOARD AND CARD CAGE**

The Motherboard and Card Cage are easily removed from the CPU Chassis.

### **3.3.4 COMPATIBILITY**

The Chassis has been designed to be compatible with standard size, S-100 bus boards as well as the new Alpha Microsystems' expanded boards.

**NOTE:** In order to utilize an Alpha Micro AM-100 CPU board set in the chassis, the following jumper **MUST BE** added to board #2 of the AM-100:

**J1-12 to J3-4**

### **3.4 115 TO 230 VAC CONVERSION PROCEDURE**

The following procedures cover conversion of a CPU Chassis initially configured for 115 VAC operation to 230 VAC operation:

1. Make sure that the CPU Chassis is completely unplugged from the AC line.
2. Remove the cover from the terminal block (J1) mounted at the rear of the linear regulated power supply.
3. Note that the jumpers are installed at J1 between pins 1 and 3, and 2 and 4. Remove these jumpers and reinstall one of the jumpers between pins 2 and 3. Save the other jumper in case a reconversion process is necessary.
4. Reinstall terminal block cover at J1.
5. Install a 250v, 2.5 Amp fuse in the fuse holder at the rear panel.
6. Re-mark the label at the rear of the CPU Chassis with the correct rating information.
7. Convert the AC power cord to a 230 VAC compatible AC cord.
8. If your system contains floppy drives, consult the manual with the floppy drives for conversion procedures.
9. When using an AM-100/T CPU, it will be necessary to adjust the Power Fail Circuitry. Refer to Section 3.6 for details.

### **3.5 FLOPPY DRIVE CONFIGURATOR** (Reference page 5-12 of the Floppy Drive Manual.)

1. Jumper block installations:  
TS, NS, SS, RR, RI, B, WP, HO, Z, DL, S2, DD, A, B, S, R, I, C
2. Drive Number Selection (Switch 1)
  - a. Left hand drive (Drive 0)  
S1-4 and S1-8 ON
  - b. Right hand drive (Drive 1)  
S1-3 and S1-7 ON
3. Resistor Pack RM3 must only be installed in Drive 0 (left hand drive). It must be removed from Drive 1.

### **3.6 POWER FAIL DETECT ADJUSTMENT PROCEDURE**

The Power Fail Detect threshold level has been set at the factory as follows:

1. For 115 VAC, 60Hz units, the threshold level is set at 103 VAC.
2. For 230 VAC, 50Hz units, the threshold level is set at 206 VAC.

To change the Power Fail Detect threshold level, proceed as follows:

1. Remove the CPU chassis cover. If the chassis is a rack-mount version, remove the side panel nearest the power supply. Make sure an AM-100/T CPU board is installed in the system.
2. Using a Variac (Variable Transformer), adjust the AC input voltage for the desired threshold voltage.
3. Plug the CPU chassis into the Variac and turn on the AC power.
4. Monitor the Power Fail signal on the bus (pin 13) using a scope or voltmeter.
5. Observe the power supply from the open side of the CPU Chassis. Note the two potentiometers on the PC board mounted to the base of the power supply. The potentiometer nearest the front panel (R4) controls the threshold setting. Adjust this control until the power fail signal changes level, approximately a five volt change.

NOTE: Clockwise adjustment of R4 increases the voltage threshold.

This completes the adjustment. Turn off the AC power and mechanically restore the unit to its original condition.

Table 3-1. Exceptions to Resistor Terminated Lines.

<b>Bus Pin</b>	<b>Function</b>
1, 51	+ 7.5v
2	+ 16.v
12	Real Time Clock
13	Power Fail Detect
20, 50, 53, 70, 100	Ground
52	- 16v
75	Reset

The above lines have no bus terminators.

## 4.0 INTRODUCTION

The AM-900 Computer Chassis performs to full capability with a minimum of maintenance. This Section describes maintenance and troubleshooting procedures and procedures for handling warranty returns.

## 4.1 INSPECTION PROCEDURES

Immediately upon receiving the Computer Chassis, inspect all contents for physical damage which may have occurred during shipping. Report any damage or incorrect shipment to your dealer or Alpha Microsystems' Customer Service.

## 4.2 WARRANTY PROCEDURES

This Computer Chassis is covered by warranty issued by Alpha Microsystems, Irvine, California. Complete details of the warranty are included with the chassis. Should a problem arise with this chassis, call your dealer or the Alpha Micro International Support/Services Group for information.

## 4.3 INITIAL TEST PROCEDURES

Before installing any boards in the chassis, the following procedures should be followed:

1. Examine the system I.D. label on the rear of the chassis, checking to make sure that the AC voltage input requirement is the correct one for your AC power service. For details on input power options, see Section 3.4
2. Remove the top cover from the chassis. If the chassis includes Floppy Disk Drives, remove any drive packing material and save it in a case the chassis is to be reshipped.
3. Plug the chassis into the AC power outlet and turn the key switch to the ON position.
4. Examine the fan to insure that it is operating. If not, check the fuse at the rear of the unit and the connectors at the front and rear of the unit for proper mating.

5. Next, monitor the voltages at TB1 on the Motherboard. The following points should be monitored:

TB1-1	+7.5v nominal
TB1-4	+16v nominal
TB1-10	-16v nominal

Use TB1-6 as a ground reference.

6. Monitor bus pin 12 on any PC edge connector on the Motherboard. A 24v peak-to-peak AC signal at line frequency should appear here. TB1-6 should be used as ground reference.
7. Monitor the VT test pad in the regulator section of the Motherboard. The voltage should read +2.5 volts  $\pm$  0.2 volts. TB1-6 should be used as ground reference.
8. To use a two-card, AM-100 CPU, see Section 3.3.4.
9. To check the configuration of the floppy drives, see Section 3.5.

If all of the above steps appear as described, the chassis is ready to accept the System PC boards.

## **4.4 OPERATIONAL MAINTENANCE**

This section describes maintenance instructions required to keep the CPU Chassis in operational status.

### **4.4.1 FRONT PANEL LAMP**

A lighted push button on the front panel is used to reset the System and also indicates whether AC power has been switched on. To replace the lamp, pull off the switch cap from the front and remove the bulb. The bulb replacement part number is listed in Section V.

### **4.4.2 FUSE**

The CPU Chassis contains only one fuse which is located on the rear panel. The holder cap can be turned and pulled out for fuse replacement.

### **4.4.3 FLOPPY DISK DRIVE**

Consult the manual that accompanies the drive.

## **4.5 PREVENTIVE MAINTENANCE**

This section describes maintenance instructions that are required to prevent problems.

### **4.5.1 GENERAL CHASSIS CLEANING**

Cleaning for visual reasons is a customer prerogative. Any commercial cleaner can be utilized. However, care must be taken to avoid spilling liquid into any part of the Chassis.

### **4.5.2 CHASSIS FAN FILTER**

The fan filter is located on the rear panel. The filter can be cleaned with a fine stream of water after removal. The frequency of cleaning will be dictated by environmental conditions.

## **4.6 REPLACEMENT PARTS AND REPAIR SERVICE**

Alpha Microsystems makes available major subassemblies for use as replacement parts. To assist the customer, Alpha Microsystems will provide assistance through the Authorized Dealer Network or the Alpha Microsystems International Support/Service Group, Customer Service Department.

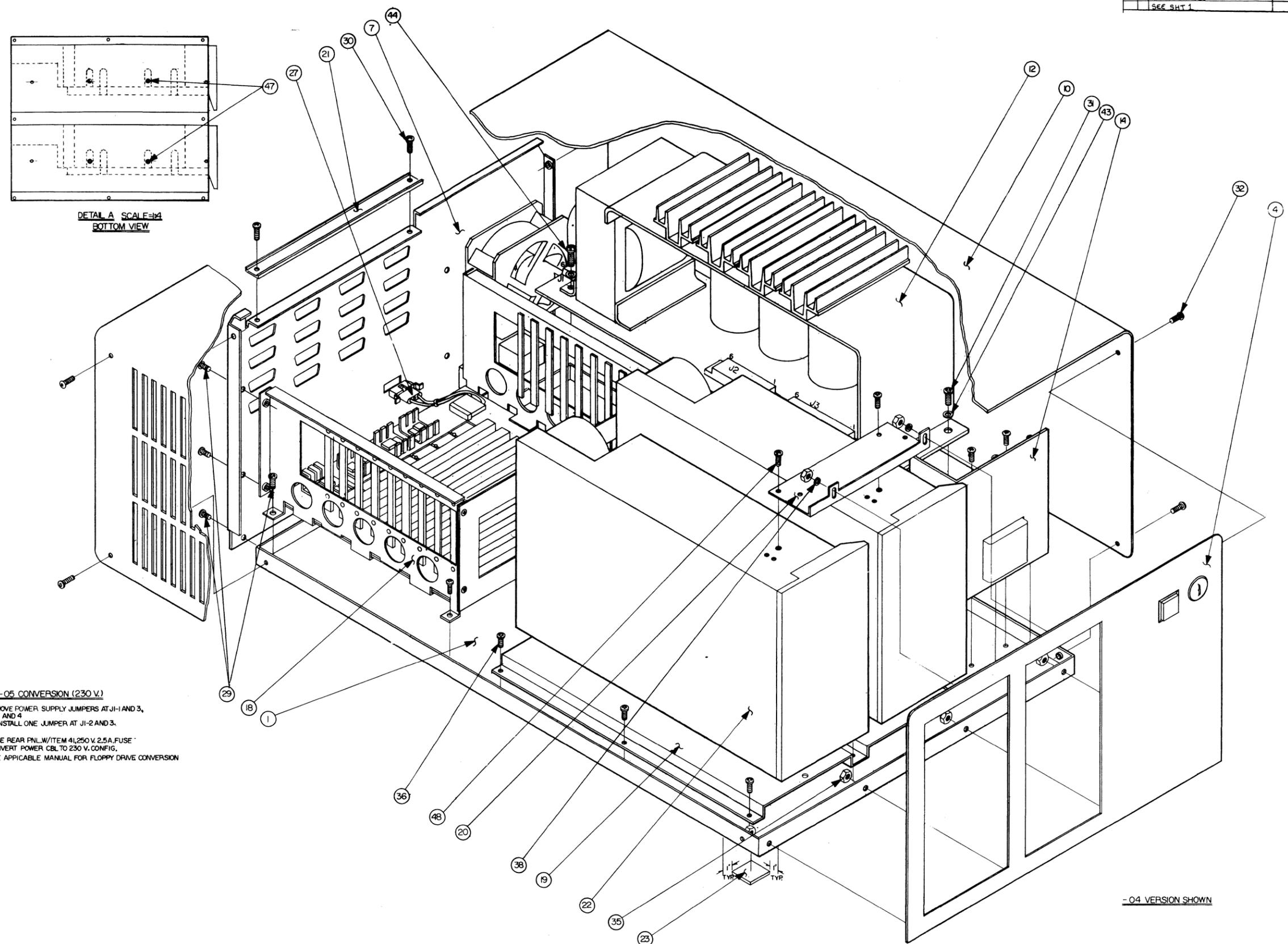
# **SECTION V**

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## **MECHANICAL ASSEMBLIES**







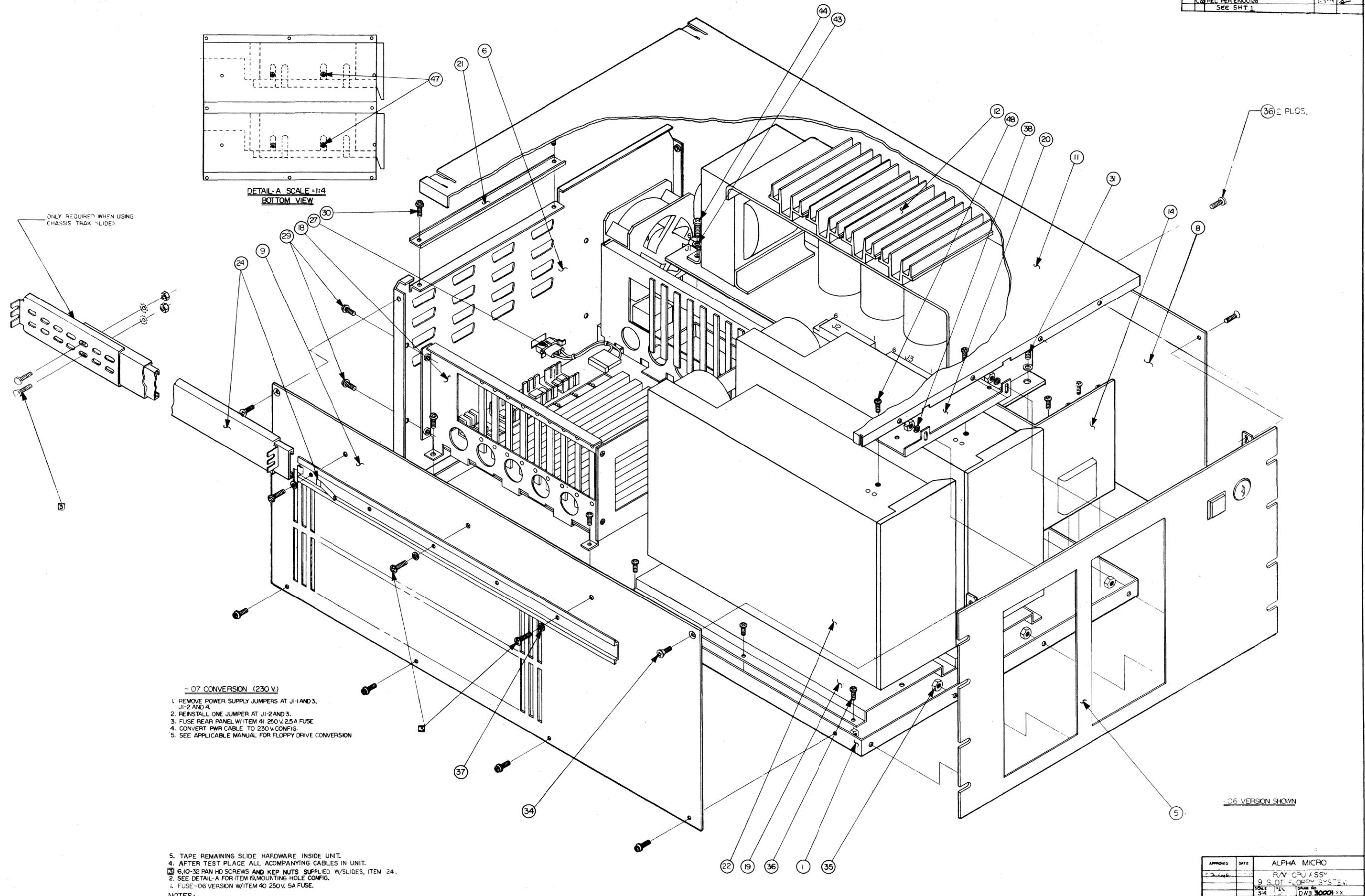
- 05 CONVERSION (230 V.)
1. REMOVE POWER SUPPLY JUMPERS AT J1-1 AND 3, J1-2 AND 4
  2. REINSTALL ONE JUMPER AT J1-2 AND 3.
  - 3.
  4. FUSE REAR PNL./ITEM 41,250 V. 2.5A. FUSE
  5. CONVERT POWER CBL TO 230 V. CONFIG.
  6. SEE APPLICABLE MANUAL FOR FLOPPY DRIVE CONVERSION

-04 VERSION SHOWN

3. AFTER TEST, PLACE ACCOMPANYING CABLES IN UNIT.  
 2. SEE DETAIL A FOR ITEM 19 MOUNTING HOLE CONFIG.  
 1. FUSE -04 VERSION W/HDM-00024-01, 250V. 5A. FUSE.  
 NOTES:

APPROVED	DATE	ALPHA MICRO
		CPU ASSY.
		9 SLOT FLOPPY SYSTEM
		374
		DWB-30001-XX
		3/7

REV	DATE	DESCRIPTION	BY	APP'D
1		REL PER ENO028		
		SEE SHT 1		



DETAIL-A SCALE=1:4  
BOTTOM VIEW

ONLY REQUIRED WHEN USING  
CHASSIS TRAK SLIDES

-07 CONVERSION (230 V.)

1. REMOVE POWER SUPPLY JUMPERS AT J1 AND 3, J1-2 AND 4.
2. REINSTALL ONE JUMPER AT J1-2 AND 3.
3. FUSE REAR PANEL W/ ITEM 41 250V, 2.5A FUSE
4. CONVERT PWR CABLE TO 230V CONFIG.
5. SEE APPLICABLE MANUAL FOR FLOPPY DRIVE CONVERSION

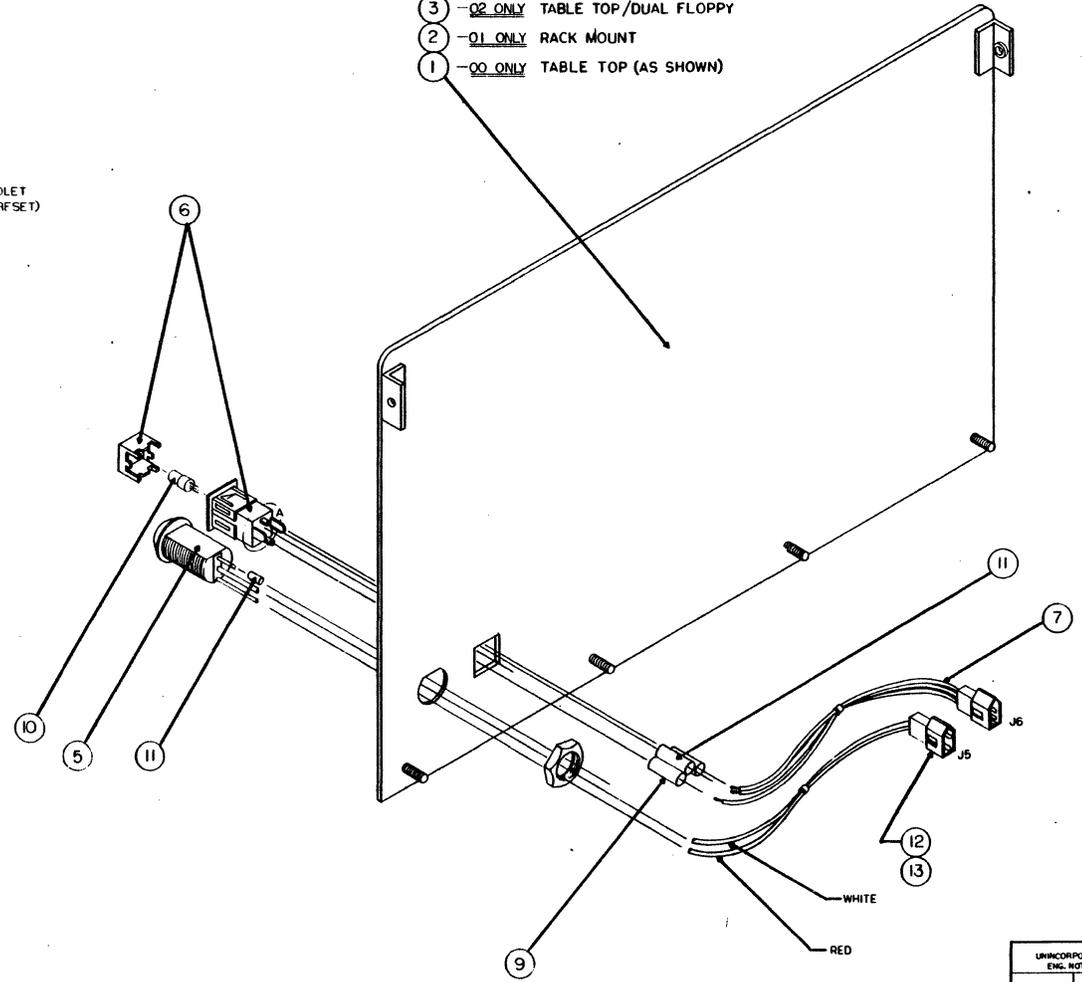
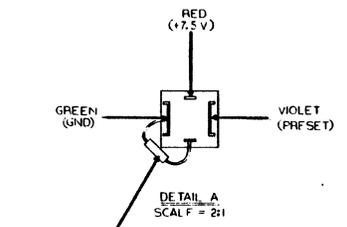
5. TAPE REMAINING SLIDE HARDWARE INSIDE UNIT.  
 4. AFTER TEST PLACE ALL ACCOMPANYING CABLES IN UNIT.  
 3. 6,10-32 PAN HD SCREWS AND KEP NUTS SUPPLIED W/ SLIDES, ITEM 24.  
 2. SEE DETAIL-A FOR ITEM 19 MOUNTING HOLE CONFIG.  
 1. FUSE -06 VERSION W/ ITEM 40 250V, 5A FUSE.
- NOTES:

-06 VERSION SHOWN

APPROVED	DATE	ALPHA MICRO
		RAY CPU ASSY
		9 SLOT FLOPPY SYSTEM
TABLE	REV	DATE
3-4		DWG 30001-X
		REV. 47

REVISIONS			
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10-11-78		AD1 REVISED PER EN00128	[Signature]
		BD1 REVISION PER EN 00164	[Signature]

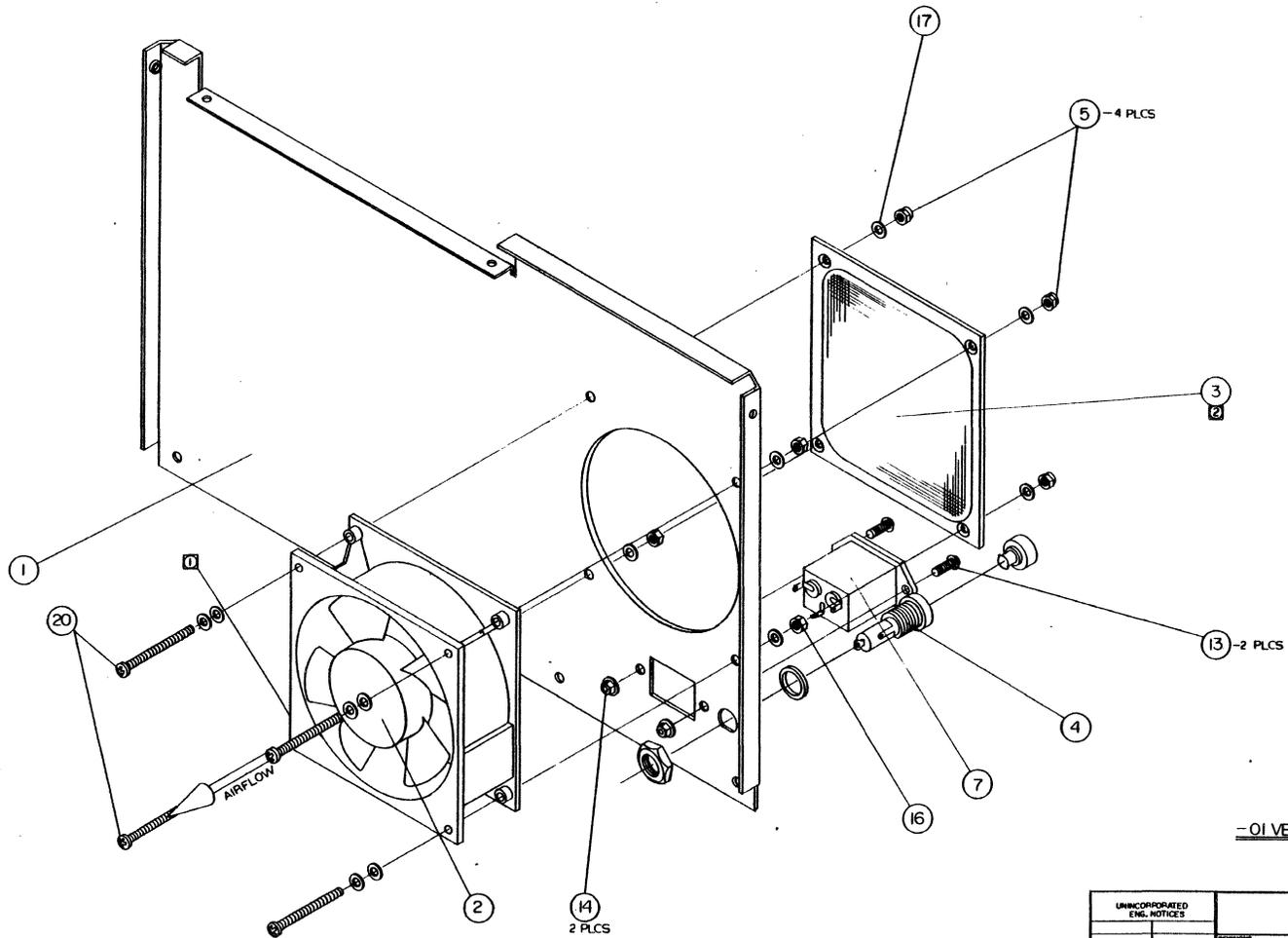
- ④ - Q3 ONLY RACK MTG/DUAL FLOPPY
- ③ - Q2 ONLY TABLE TOP/DUAL FLOPPY
- ② - Q1 ONLY RACK MOUNT
- ① - Q0 ONLY TABLE TOP (AS SHOWN)



NOTES:  
 2. TAPE POWER SWITCH KEY TO PANEL.  
 1. SEE DETAIL A FOR RESET HARNESS INSTALLATION

UNINCORPORATED ENL. NOTICES	ALPHA SYSTEMS IRVINE, CA 92714
REVISED BY	TITLE
BD00	FRONT PANEL ASSY, TABLE TOP
SCALE	PAGE
3/4	1/2
DRAWING NO.	
DWB-20003-XX	

REVISIONS			
REV	DESCRIPTION	DATE	APPR.
A00	ENCL PER EN000082	8-14-74	SP
B00	INCORP PER EN000091	1-5-75	SP
C00	INCORP PER EN000108		
D00	INCORP PER EN000128		
E00	INCORP PER EN000130		



-01 VERSION

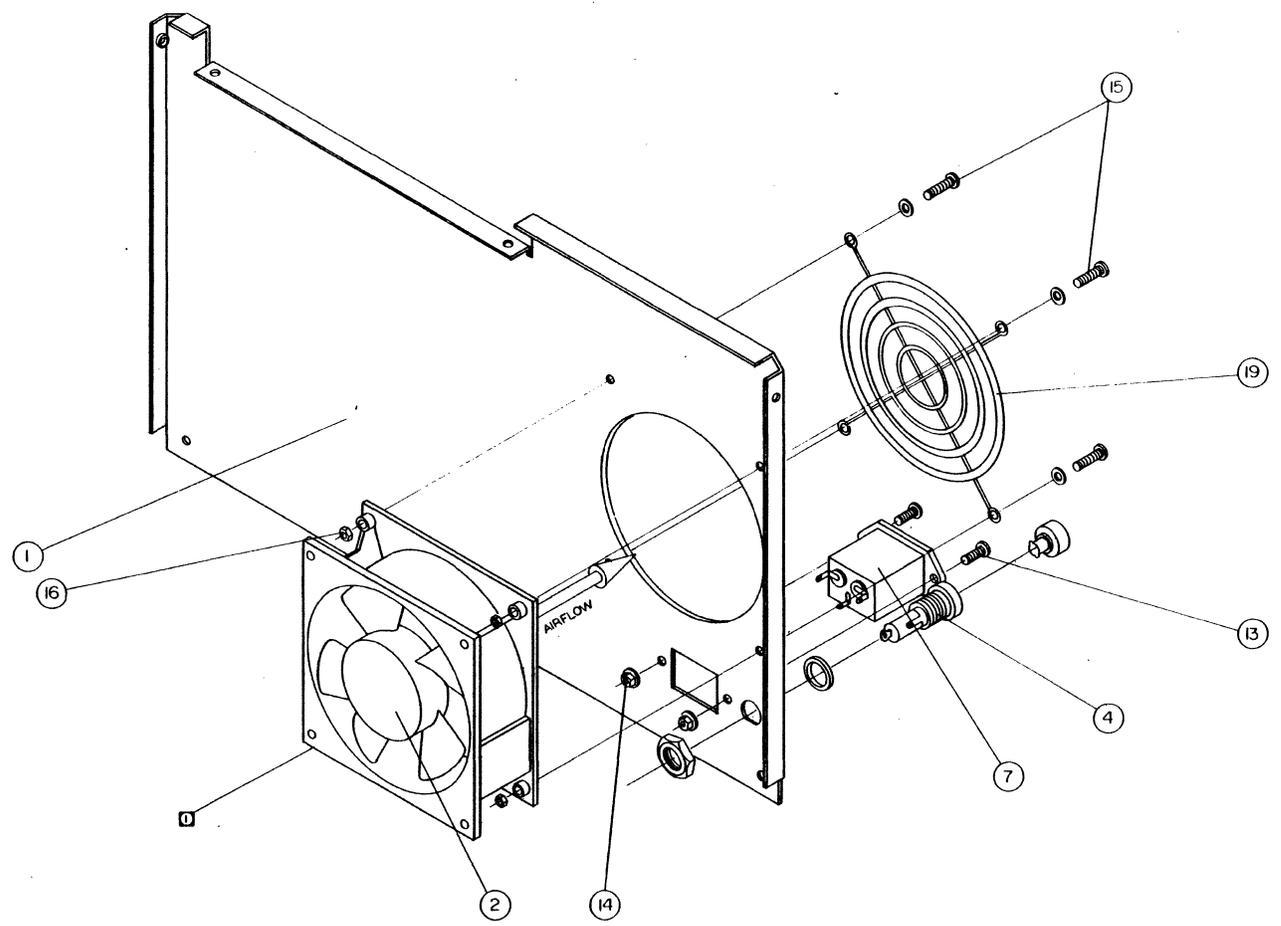
- 2 INSTALL AIR FILTER WITH DIMPLES TOWARD REAR PANEL.  
 17 INSURE FAN TERMINALS ARE LOCATED ON BOTTOM, AND AIRFLOW IS INWARD.

NOTES:

UNINCORPORATED ENG. NOTICES	 IRVINE, CA 92714	
REVISIONS	E00	TITLE
		REAR PANEL ASSY. TABLE TOP
DATE	DESIGNER	SCALE
7/28/75	J. J. J.	3:4
APPROVED	FRG	PAGE
		1/5
		ISSUING NO.
		DWB-20001-XX

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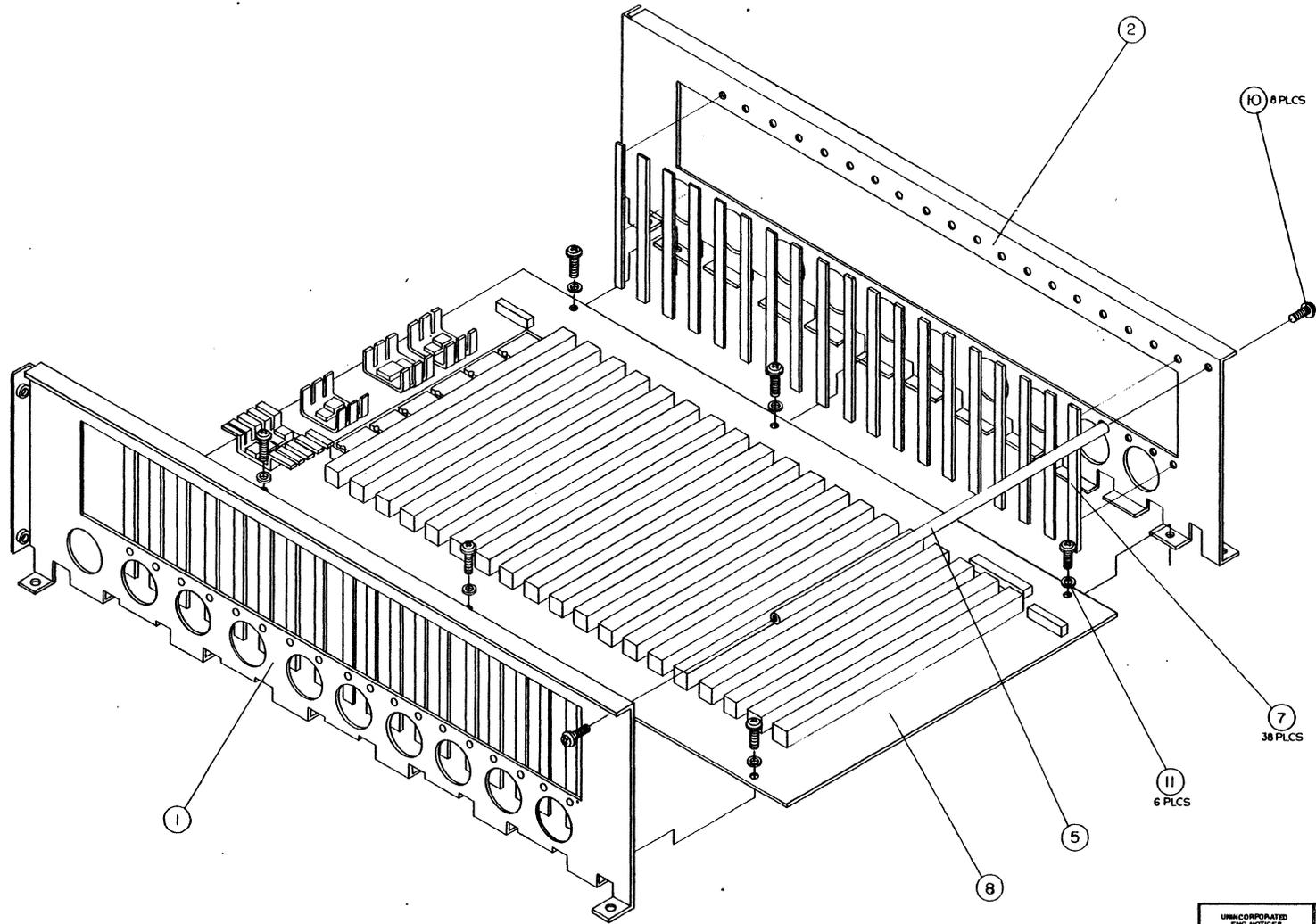
REV		DESCRIPTION	DATE	APPROVED
001	REV	REVISIONS		
100 FPM PER ENOUGH				



INSURE FAN TERMINALS ARE ON BOTTOM AND AIRFLOW IS OUTWARD  
 NOTES:

<b>ALPHA SYSTEMS</b>		IRVINE, CA 92714	
REV	100	TITLE	REAR PANEL ASSEMBLY RACK MOUNT
SCALE	3/4	ISSUE NO.	2/3
DATE		PROJECT NO.	DWB-20001-XX

REVISIONS			
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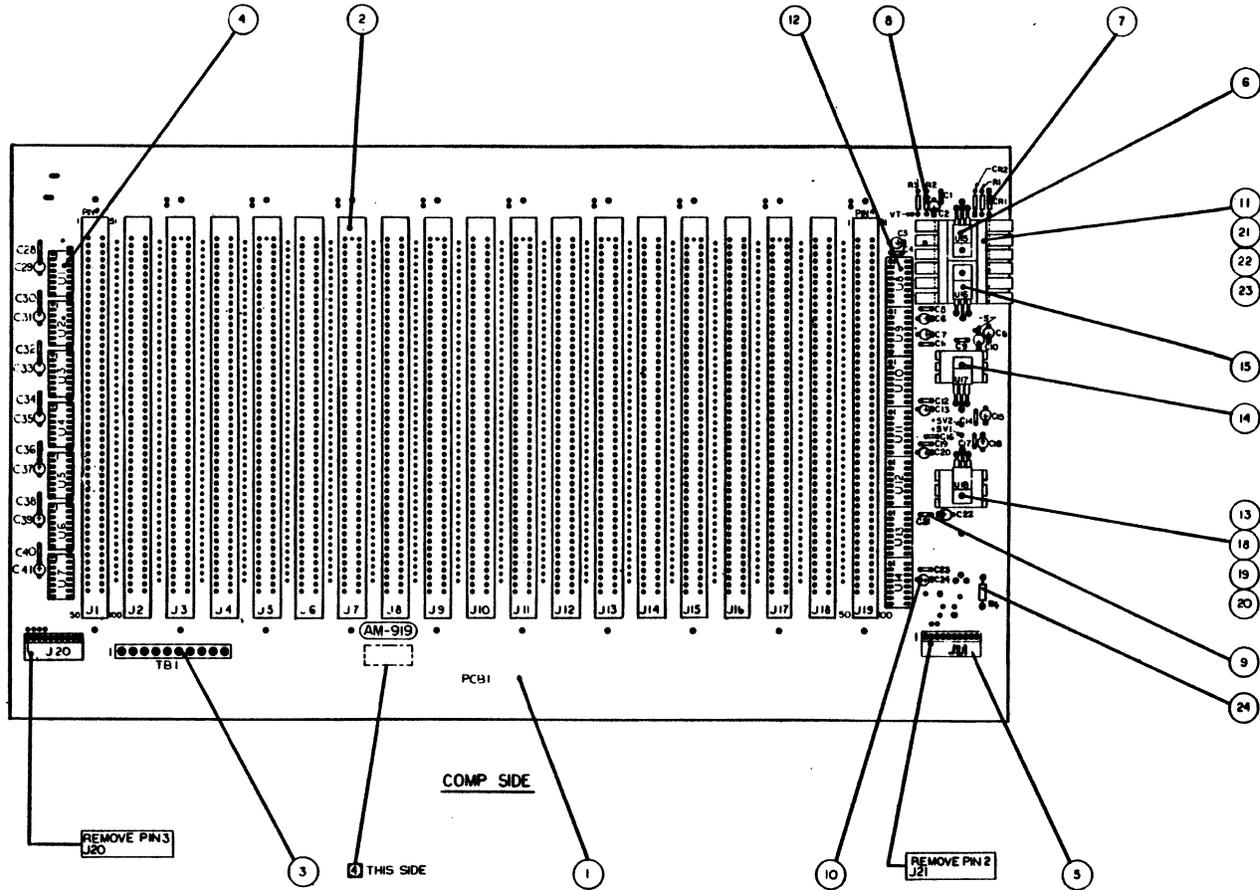
- 00 VERSION

NOTES:

UNINCORPORATED ENL. NOTICES	REVISED BY	DATE	SCALE	PROJECT NO.
	B00		3/4	DWB-20002-1X

**ALPHA SYSTEMS**  
IRVINE, CA 92714  
TITLE  
CARD CAGE ASSY.  
19 SLOT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
REV 1	RELEASED PER EN0001	4-17-79	WJ
REV 2	CHG PER EN0001	8-8-79	WJ
REV 3	INCOMP PER EN0020	10-1-79	WJ
REV 4	INCOMP PER EN0133	03-11-79	WJ
REV 5	INCOMP PER EN0148	10-24-79	WJ
REV 6	INCOMP PER EN0148	11-11-79	WJ



4. APPLY SERIAL NO. AREA SHOWN BY: [ ]  
 3. USE THERMAL GREASE ON ALL REGULATORS, U15, U16.  
 2. SEE DWS-30000-04 FOR U17-U19 MOUNTING ASSY.  
 1. SEE DWS-30000-03 FOR U15, U16 MOUNTING ASSY.

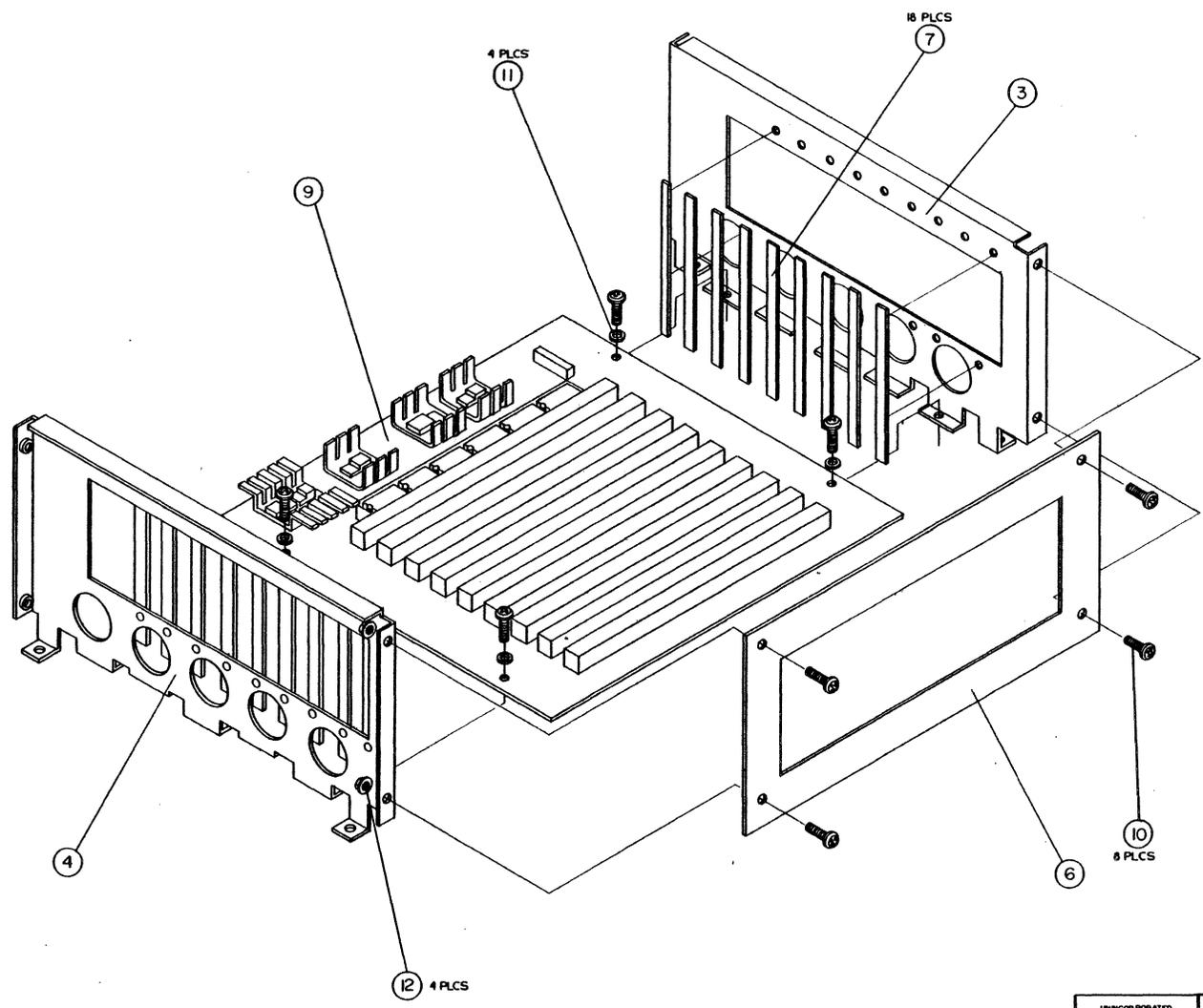
NOTES: UNLESS OTHERWISE SPECIFIED.

PARTS LIST		REVISIONS	
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2	CHG PER EN0001	8-8-79	WJ
3	INCOMP PER EN0020	10-1-79	WJ
4	INCOMP PER EN0133	03-11-79	WJ
5	INCOMP PER EN0148	10-24-79	WJ
6	INCOMP PER EN0148	11-11-79	WJ

Alpha micro	
MOTHERBOARD ASSY	
REV 1	REV 00919-00
1	DWS-00919-00
1	1 OF 3

REVISIONS			
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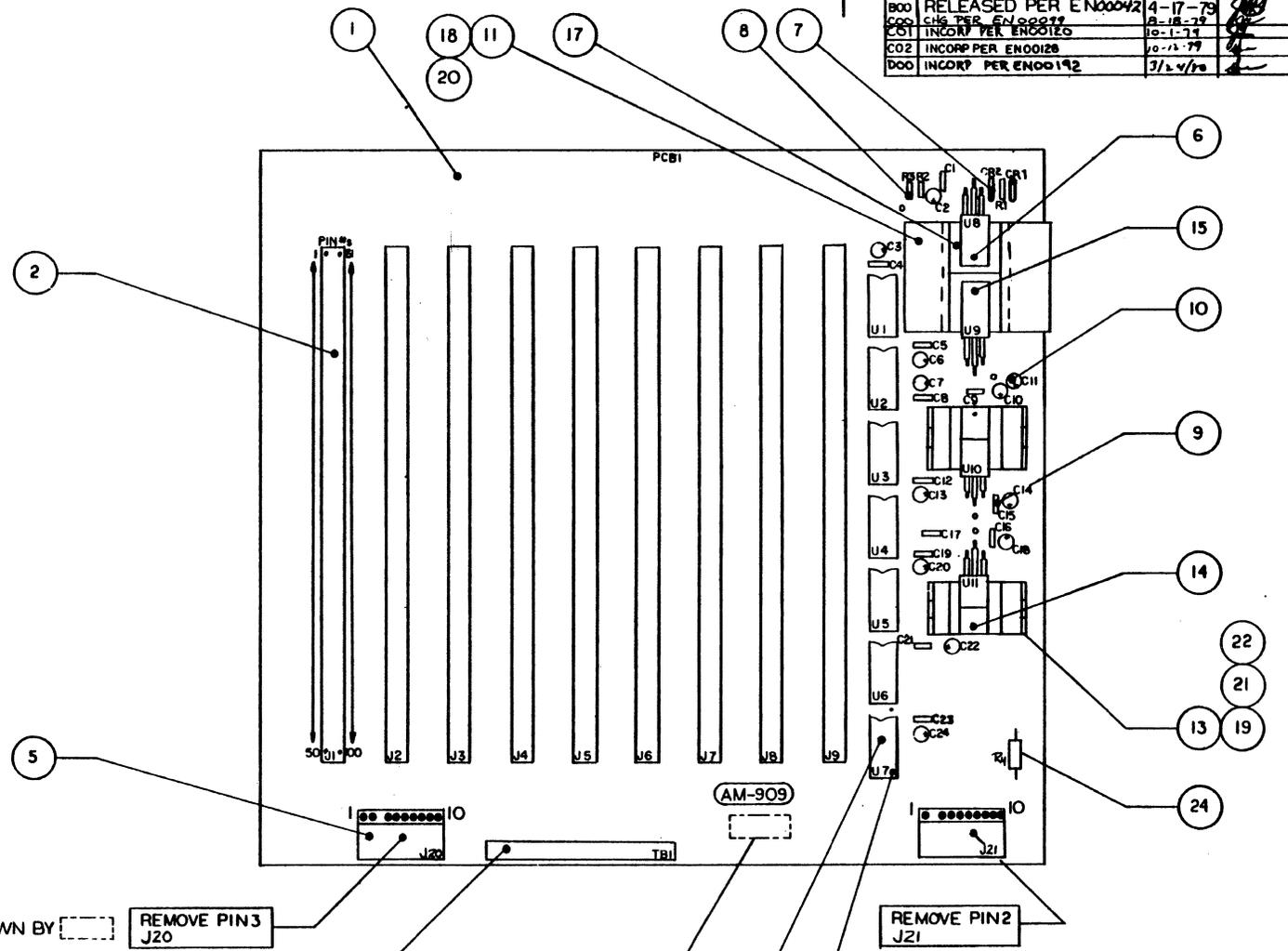


-02 VERSION

NOTES:

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REVISION	800	TITLE	CARD CAGE ASSY 9 SLOT
DATE	3/4	ISSUED BY	DWB-20002-106

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
B00		RELEASED PER EN00042	4-17-79	
C01		CHG PER EN00042	8-18-79	
C01		INCORP PER EN00126	10-11-79	
C02		INCORP PER EN00126	10-11-79	
D00		INCORP PER EN00192	3/14/80	

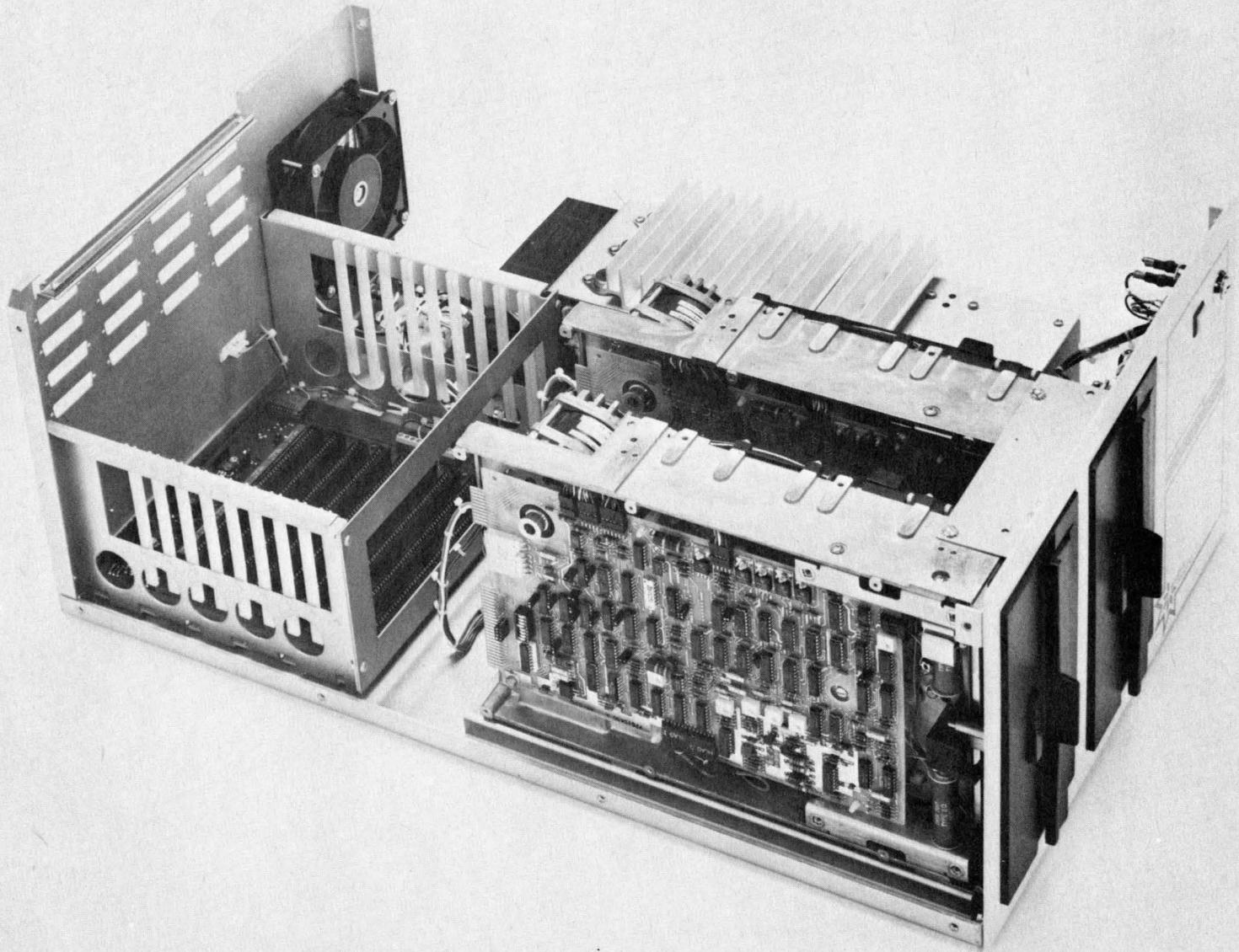


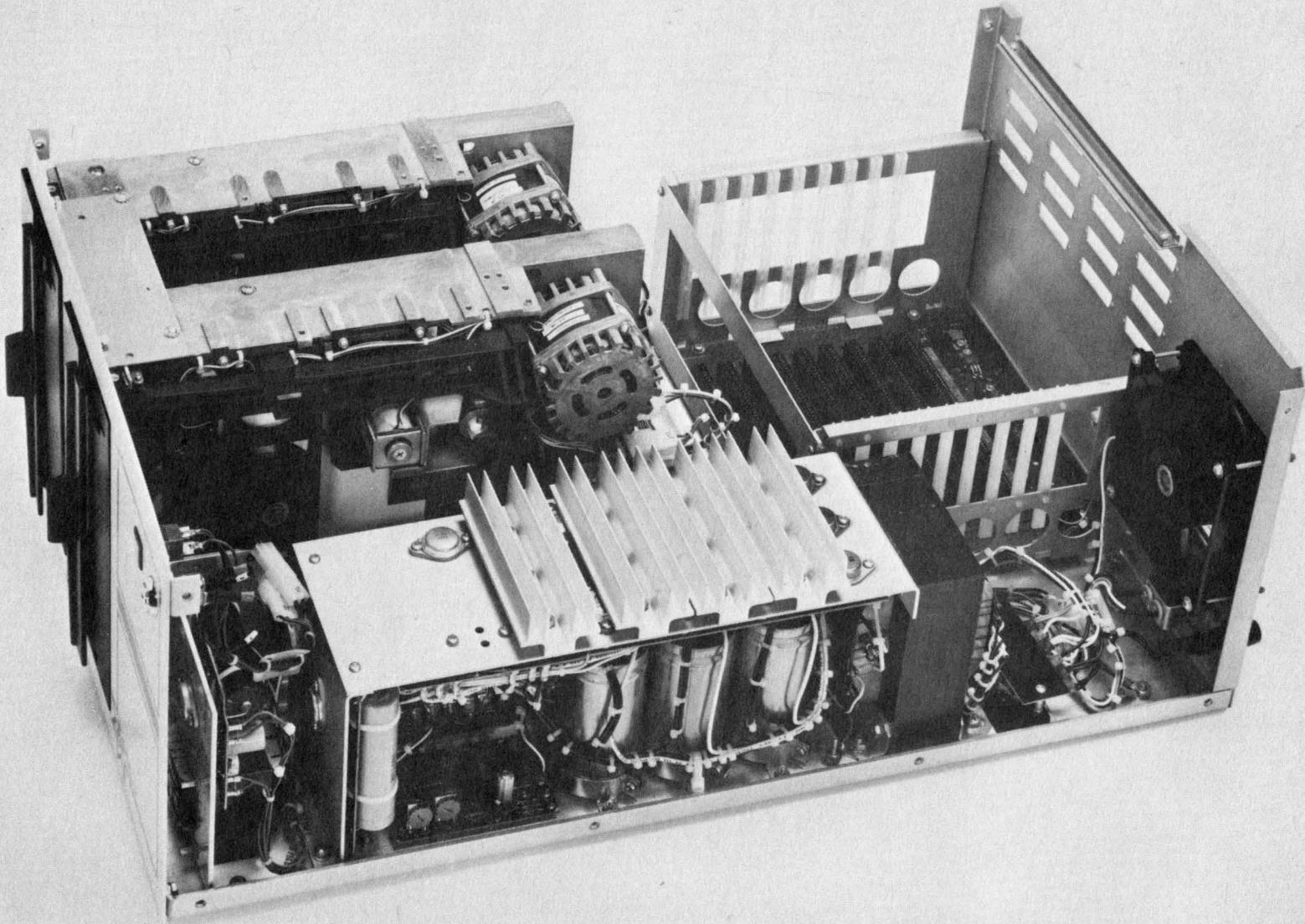
- ④ APPLY SERIAL NO. IN AREA SHOWN BY [ ] REMOVE PIN 3 J20
- USE THERMAL GREASE ON ALL REGULATORS. U8-U11
  - FASTEN U8, U9 WITH NYLON HARDWARE: HDS-00632-03, HDN-00632-02, SEE DWS-30000-03.
  - FASTEN U10, U11 WITH HARDWARE SPECIFIED: HDS-10306-05, HDN-00632-01, HDW-00632-01 SEE DWS-30000-04.

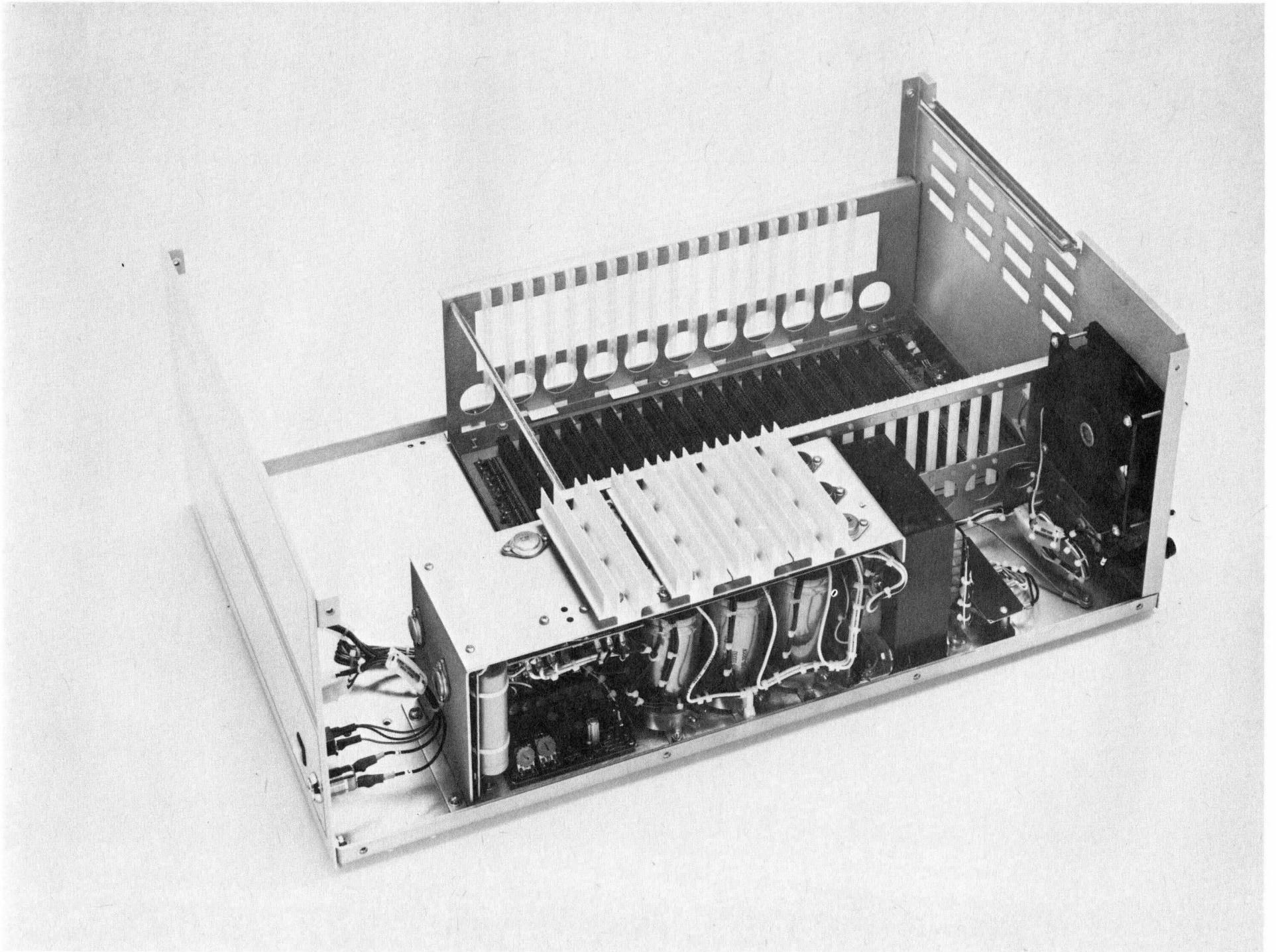
NOTES: UNLESS OTHERWISE SPECIFIED

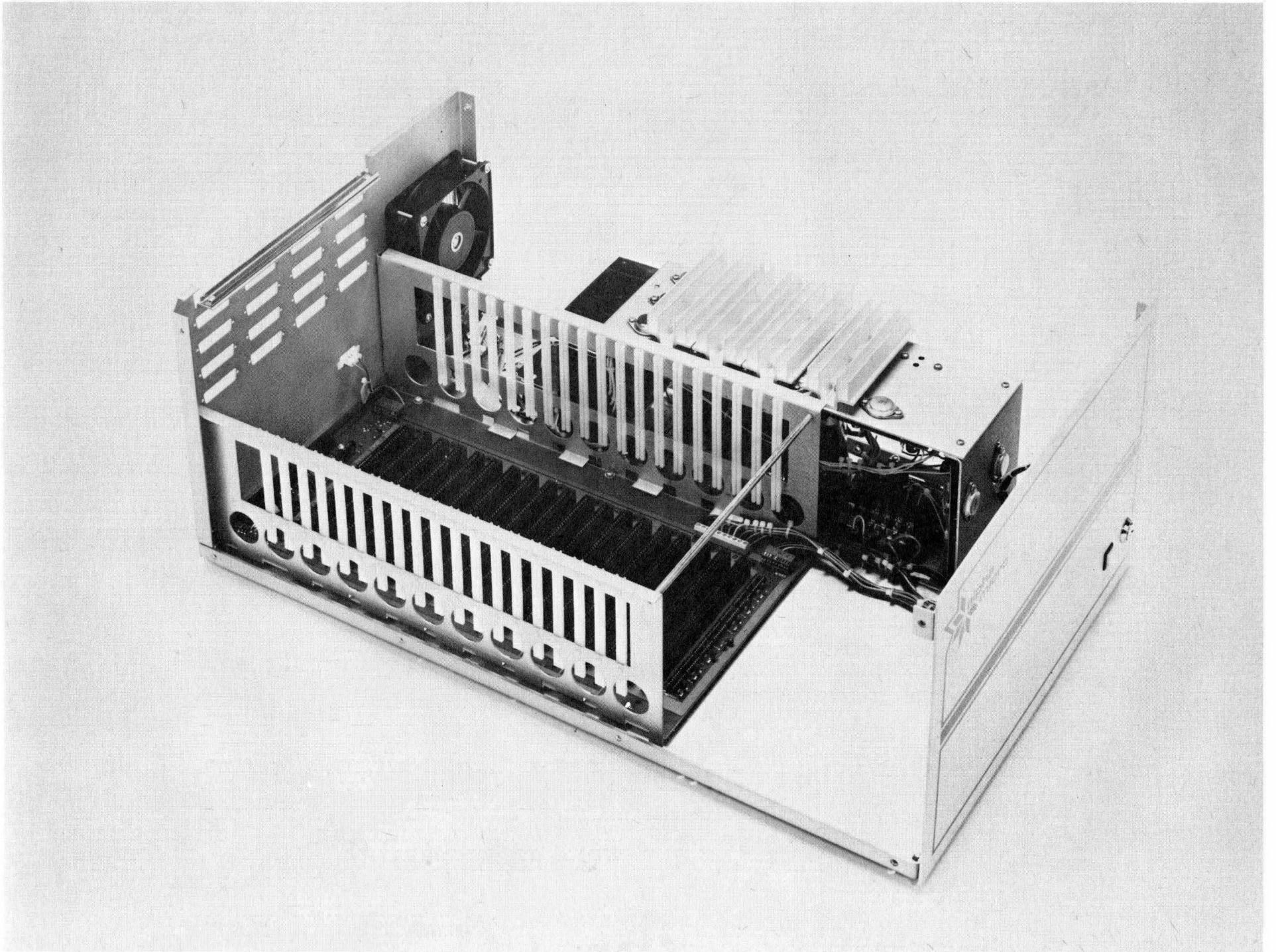
QTY	REQ	FORM NO.	PART OR IDENTIFYING NO.	ABBREVIATION OR DESCRIPTION	NATURAL SPECIFICATION
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:			CONTRACT NO.		
FRACTIONS DECIMALS ANGLES			APPROVALS		
.XXX .001 .001 .001			DATE		
MATERIAL			MARK DANIELS 1-23-79		
FORM			DATE		
NEXT ASSY			DATE		
USED ON			DATE		
APPLICATION			SCALE 1:1		
DO NOT SCALE DRAWING			SHEET 1 OF 3		

DRAWING NO. DWB-009 09-00







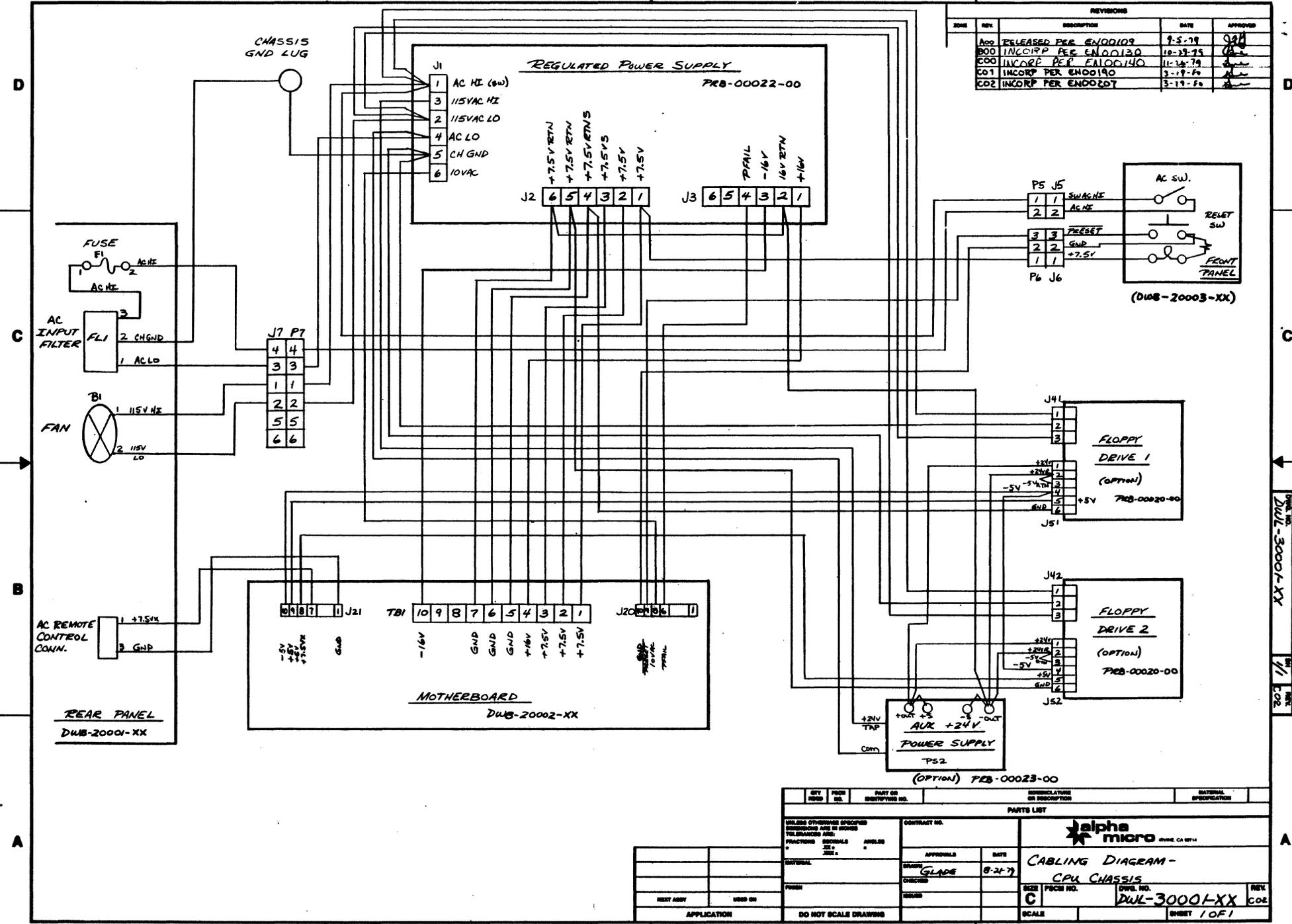


# **SECTION VI**

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## **SCHEMATICS**

REVISIONS				
DATE	REV.	DESCRIPTION	DATE	APPROVED
	ADD	RELEASED PER EN00109	9-5-79	JWH
	MOD	INCORP PER EN00130	10-29-79	...
	COO	INCORP PER EN00140	11-28-79	...
	CO1	INCORP PER EN00190	3-19-80	...
	CO2	INCORP PER EN00207	3-19-80	...

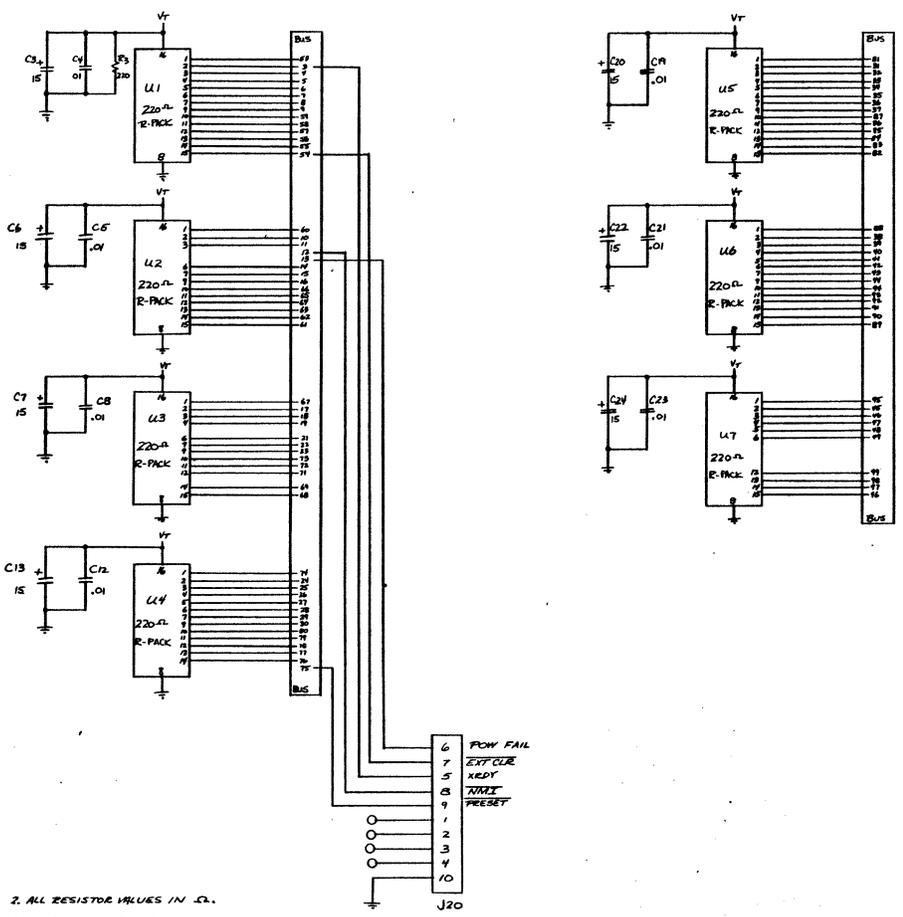


QTY	REQ. NO.	PART OR DESCRIPTION NO.	DESCRIPTION OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES</small> <small>* SEE 1. * SEE 2.</small>		<small>CONTRACT NO.</small> <small>APPROVALS</small> <small>CHECKED</small> <small>DATE</small>	 <small>ALPHA MICRO</small>	
<small>MATERIAL</small> <small>FINISH</small> <small>HEAT TREAT</small> <small>USED ON</small>		<small>DATE</small> <small>8-24-79</small>	<b>CABLING DIAGRAM - CPU CHASSIS</b> <small>SIZE / PFORM NO.</small> <b>C</b>	
<small>APPLICATION</small> <small>DO NOT SCALE DRAWINGS</small>		<small>SCALE</small> <small>1/1</small>	<small>DWG. NO.</small> <b>DWL-30001-XX</b> <small>REV.</small> <b>CO2</b>	
<small>SCALE</small> <small>1/1</small>		<small>SHEET</small> <b>1 OF 1</b>		

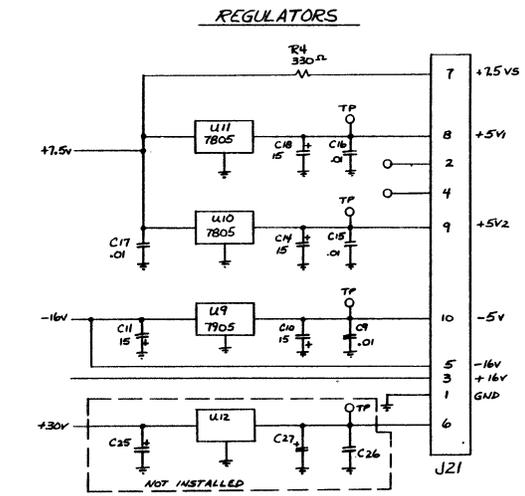
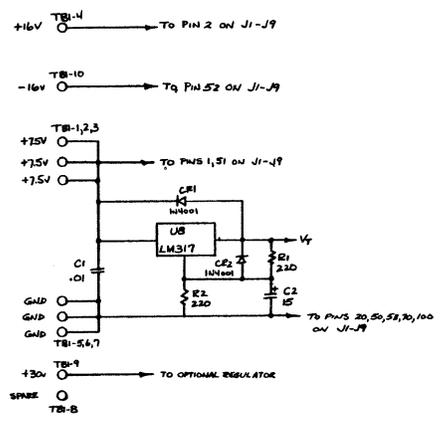
DWL-30001-XX



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
COO	RELEASED PER EN 00099	8-18-79	MD



NOTES:  
 2. ALL RESISTOR VALUES IN  $\Omega$ .  
 1. ALL CAPACITOR VALUES IN  $\mu F$ .



OLYMPIA SYSTEMS	
IRVINE, CA 92714	
REVISED	COO
TITLE	SCHEMATIC, S-100 BUS MOTHERBOARD (7 SLOT)
SCALE	UNLESS NOTED
DATE	8-18-79
DESIGNER	DWL-C0107-XX

# **SECTION VII**

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## **PARTS LIST**

ILL # PDB-00900-00

EV.A01

9 MAR, 1980

DESCRIPTION CPU CHASSIS 19 SLOT 115V 60HZ T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-00	ASSY CHASSIS 19 SLOT 115V T.T.	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	DWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7	SHA-00001-00	SHIPPING CONTAINER NON FLOPPY SYS	1

BILL # FBB-00900-01

REV.A02

19 MAR, 1980

DESCRIPTION CPU CHASSIS 19 SLOT 230V 50HZ T.T.

PART NUMBER	DESCRIPTION	QTY
1	DWB-30001-00 ASSY CHASSIS 19 SLOT 115V T.T.	1
2	LBL-00015-00 LABEL SYSTEM ID	1
3	DWM-00900-XX MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00 TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01 WARRANTY LIMITED	1
6	PDT-00900-XX PRODUCT TEST SPEC AM-900	0
7	SHA-00001-00 SHIPPING CONTAINER NON FLOPPY SYS	1
8	HDM-00024-00 FUSE FER 2.5AMPS 250V CERAMIC	1

BILL # PDB-00900-02

REV.A01

19 MAR,1980

DESCRIPTION CPU CHASSIS 19 SLOT 115V 60HZ R.M.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-02	ASSY CHASSIS 19 SLDT 115V R.M.	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	BWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7	SHA-00001-00	SHIPPING CONTAINER NON FLOPPY SYS	1

BILL # PDB-00900-03

REV.A02

19 MAR, 1980

DESCRIPTION CPU CHASSIS 19 SLOT 230V 50HZ R.M.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-02	ASSY CHASSIS 19 SLOT 115V R.M.	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	DWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7	SHA-00001-00	SHIPPING CONTAINER NON FLOPPY SYS	1
8	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1

BILL, # PDB-00900-04

REV.A02

19 MAR, 1980

DESCRIPTION CPU CHASSIS 9 SLOT 115V 60HZ T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-04	ASSY CPU/FLOPPY 115V TABLETOP	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	DWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7		*** DELETED PART ***	0
8		*** DELETED PART ***	0
9	SHA-00001-01	SHIPPING CONTAINER FLOPPY SYSTEM	1

BILL # PDB-00900-05

REV.A03

19 MAR, 1980

DESCRIPTION CPU CHASSIS 9 SLOT 230V 50HZ T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-04	ASSY CPU/FLOPPY 115V TABLETOP	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	DWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZUW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7		*** DELETED PART ***	0
8	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1
9	SHA-00001-01	SHIPPING CONTAINER FLOPPY SYSTEM	1

BILL # PDB-00900-06

REV.A02

19 MAR, 1980

DESCRIPTION CPU CHASSIS 9 SLOT 115V 60HZ R.M.

PART NUMBER	DESCRIPTION	QTY
1	DWB-30001-06 ASSY CPU/FLOPPY 115V RACK MT	1
2	LBL-00015-00 LABEL SYSTEM ID	1
3	DWM-00900-XX MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00 TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01 WARRANTY LIMITED	1
6	POT-00900-XX PRODUCT TEST SPEC AM-900	0
7	*** DELETED PART ***	0
8	SHA-00001-01 SHIPPING CONTAINER FLOPPY SYSTEM	1

BILL # PDB-00900-07

REV.A03

19 MAR, 1980

DESCRIPTION CPU CHASSIS 9 SLOT 230V 50HZ R.M.

PART NUMBER	DESCRIPTION	QTY	
1	DWB-30001-06	ASSY CPU/FLOPPY 115V RACK MT	1
2	LBL-00015-00	LABEL SYSTEM ID	1
3	DWM-00900-XX	MANUAL TECH CPU CHASSIS AM-900	1
4	ZCT-00001-00	TAG RETURN AUTHORIZATION YELLOW	1
5	ZVW-00001-01	WARRANTY LIMITED	1
6	PDT-00900-XX	PRODUCT TEST SPEC AM-900	0
7		*** DELETED PART ***	0
8	SHA-00001-01	SHIPPING CONTAINER FLOPPY SYSTEM	1
9	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1

19 MAR,1980

DESCRIPTION ASSY CHASSIS 19 SLOT 115V T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2	DWB-20003-00	FRONT PANEL CPU TABLETOP	1
3		*** DELETED PART ***	0
4		*** DELETED PART ***	0
5		*** DELETED PART ***	0
6		*** DELETED PART ***	0
7	DWB-20001-01	REAR PANEL CPU T.T.	1
8		*** DELETED PART ***	0
9		*** DELETED PART ***	0
10	DWF-20004-00	COVER CPU TABLETOP	1
11		*** DELETED PART ***	0
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14		*** DELETED PART ***	0
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16		*** DELETED PART ***	0
17	DWB-20002-00	CARD CAGE CPU 19 SLOT	1
18		*** DELETED PART ***	0
19		*** DELETED PART ***	0
20		*** DELETED PART ***	0
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22		*** DELETED PART ***	0
23	HDM-00020-00	RUBBER FEET .750IN SQ GREY	4
24		*** DELETED PART ***	0
25		*** DELETED PART ***	0
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	2
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	10
33		*** DELETED PART ***	0
34		*** DELETED PART ***	0
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	4
36		*** DELETED PART ***	0
37		*** DELETED PART ***	0
38		*** DELETED PART ***	0
39		*** DELETED PART ***	0
40	HDM-00024-01	FUSE FER 5 AMPS 250V CERAMIC	1
41		*** DELETED PART ***	0
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47		*** DELETED PART ***	0
48		*** DELETED PART ***	0
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	0

19 MAR,1980

DESCRIPTION ASSY CHASSIS 19 SLOT 230V T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2	DWB-20003-00	FRONT PANEL CPU TABLETOP	1
3		*** DELETED PART ***	0
4		*** DELETED PART ***	0
5		*** DELETED PART ***	0
6		*** DELETED PART ***	0
7	DWB-20001-01	REAR PANEL CPU T.T.	1
8		*** DELETED PART ***	0
9		*** DELETED PART ***	0
10	DWF-20004-00	COVER CPU TABLETOP	1
11		*** DELETED PART ***	0
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14		*** DELETED PART ***	0
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16		*** DELETED PART ***	0
17	DWB-20002-00	CARD CAGE CPU 19 SLOT	1
18		*** DELETED PART ***	0
19		*** DELETED PART ***	0
20		*** DELETED PART ***	0
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22		*** DELETED PART ***	0
23	HDM-00020-00	RUBBER FEET .750IN SQ GREY	4
24		*** DELETED PART ***	0
25		*** DELETED PART ***	0
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	2
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	10
33		*** DELETED PART ***	0
34		*** DELETED PART ***	0
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	4
36		*** DELETED PART ***	0
37		*** DELETED PART ***	0
38		*** DELETED PART ***	0
39		*** DELETED PART ***	0
40		*** DELETED PART ***	0
41	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47		*** DELETED PART ***	0
48		*** DELETED PART ***	0
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	0

19 MAR, 1980

DESCRIPTION ASSY CHASSIS 19 SLOT 115V R.M.

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3	DWB-20003-01	FRONT PANEL CPU RACK MT	1
4		*** DELETED PART ***	0
5		*** DELETED PART ***	0
6	DWB-20001-00	REAR PANEL CPU R.M.	1
7		*** DELETED PART ***	0
8	DWF-20006-00	SIDE CPU RACK MT L.H.	1
9	DWF-20006-01	SIDE CPU RACK MT R.H.	1
10		*** DELETED PART ***	0
11	DWF-20007-00	COVER CPU RACK MT	1
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14		*** DELETED PART ***	0
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16		*** DELETED PART ***	0
17	DWB-20002-00	CARD CAGE CPU 19 SLOT	1
18		*** DELETED PART ***	0
19		*** DELETED PART ***	0
20		*** DELETED PART ***	0
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22		*** DELETED PART ***	0
23		*** DELETED PART ***	0
24	PRF-00021-00	SLIDE ASSY 24 IN	1
25	HDM-00026-00	MOUNTING BRACKET SLIDE ASSY	2
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	10
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	0
33		*** DELETED PART ***	0
34	HDS-10210-06	SCREW FLAT HD 100 10-32 X .375 STL	4
35	HDN-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	4
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	2
37	HDW-10000-10	WASHER LOCK 10-32 CAD PLT STL	6
38		*** DELETED PART ***	0
39		*** DELETED PART ***	0
40	HDM-00024-01	FUSE FER 5 AMPS 250V CERAMIC	1
41		*** DELETED PART ***	0
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47		*** DELETED PART ***	0
48		*** DELETED PART ***	0
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	0

REV. D01

19 MAR, 1980

DESCRIPTION ASSY CHASSIS 19 SLOT 230V R.M.

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3	DWB-20003-01	FRONT PANEL CPU RACK MT	1
4		*** DELETED PART ***	0
5		*** DELETED PART ***	0
6	DWB-20001-00	REAR PANEL CPU R.M.	1
7		*** DELETED PART ***	0
8	DWF-20006-00	SIDE CPU RACK MT L.H.	1
9	DWF-20006-01	SIDE CPU RACK MT R.H.	1
10		*** DELETED PART ***	0
11	DWF-20007-00	COVER CPU RACK MT	1
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14		*** DELETED PART ***	0
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16		*** DELETED PART ***	0
17	DWB-20002-00	CARD CAGE CPU 19 SLOT	1
18		*** DELETED PART ***	0
19		*** DELETED PART ***	0
20		*** DELETED PART ***	0
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22		*** DELETED PART ***	0
23		*** DELETED PART ***	0
24	PRF-00021-00	SLIDE ASSY 24 IN	1
25	HDM-00026-00	MOUNTING BRACKET SLIDE ASSY	2
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	10
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	0
33		*** DELETED PART ***	0
34	HDS-10210-06	SCREW FLAT HD 100 10-32 X .375 STL	4
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	4
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	2
37	HDW-10000-10	WASHER LOCK 10-32 CAD PLT STL	6
38		*** DELETED PART ***	0
39		*** DELETED PART ***	0
40		*** DELETED PART ***	0
41	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47		*** DELETED PART ***	0
48		*** DELETED PART ***	0
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	0

19 Mar, 1980

## DESCRIPTION ASSY CPU/FLOPPY 115V TABLETOP

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3		*** DELETED PART ***	0
4	DWB-20003-02	CPU DUAL FLOPPY TABLETOP	1
5		*** DELETED PART ***	0
6		*** DELETED PART ***	0
7	DWB-20001-01	REAR PANEL CPU T.T.	1
8		*** DELETED PART ***	0
9		*** DELETED PART ***	0
10	DWF-20004-00	COVER CPU TABLETOP	1
11		*** DELETED PART ***	0
12	FRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14	FRB-00023-00	POWER SUPPLY 24VDC 2.4 AMPS B.I.	1
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16	DWB-10013-00	CABLE ASSY FLOPPY	1
17		*** DELETED PART ***	0
18	DWB-20002-02	CARD CAGE CPU 9 SLOT	1
19	DWF-20013-00	BRACKET FLOPPY DISK MTG	1
20	DWF-20012-00	BRACKET DUAL FLOPPY PANEL SUPPORT	1
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22	FRB-00020-00	FLOPPY DR, CDC 9406 B.I.	2
23	HDM-00020-00	RUBBER FEET .750IN SQ GREY	4
24		*** DELETED PART ***	0
25		*** DELETED PART ***	0
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	2
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	10
33		*** DELETED PART ***	0
34		*** DELETED PART ***	0
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	6
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	8
37		*** DELETED PART ***	0
38	HDM-10001-10	WASHER FLAT 10-32 CAD PLT STL	2
39		*** DELETED PART ***	0
40	HDM-00024-01	FUSE FER 5 AMPS 250V CERAMIC	1
41		*** DELETED PART ***	0
42		*** DELETED PART ***	0
43	HDM-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47	HDS-10008-06	SCREW PAN HD SEM CAD 8-32	4
48	HDS-10011-06	SCREW PAN HD SEM 10-24 X .375 STL	2
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	1

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## DESCRIPTION ASSY CPU/FLOPPY 230V TABLETOP

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3		*** DELETED PART ***	0
4	DWB-20003-02	CPU DUAL FLOPPY TABLETOP	1
5		*** DELETED PART ***	0
6		*** DELETED PART ***	0
7	DWB-20001-01	REAR PANEL CPU T.T.	1
8		*** DELETED PART ***	0
9		*** DELETED PART ***	0
10	DWF-20004-00	COVER CPU TABLETOP	1
11		*** DELETED PART ***	0
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14	PRB-00023-00	POWER SUPPLY 24VDC 2.4 AMPS B.I.	1
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16	DWB-10013-00	CABLE ASSY FLOPPY	1
17		*** DELETED PART ***	0
18	DWB-20002-02	CARD CAGE CPU 9 SLOT	1
19	DWF-20013-00	BRACKET FLOPPY DISK MTG	1
20	DWF-20012-00	BRACKET DUAL FLOPPY PANEL SUPPORT	1
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22	PRB-00020-00	FLOPPY DR, CDC 9406 B.I.	2
23	HDM-00020-00	RUBBER FEET .750IN SQ GREY	4
24		*** DELETED PART ***	0
25		*** DELETED PART ***	0
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	2
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	10
33		*** DELETED PART ***	0
34		*** DELETED PART ***	0
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	6
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	8
37		*** DELETED PART ***	0
38	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	2
39		*** DELETED PART ***	0
40		*** DELETED PART ***	0
41	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47	HDS-10008-06	SCREW PAN HD SEM CAD 8-32	4
48	HDS-10011-06	SCREW PAN HD SEM 10-24 X .375 STL	2
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	1

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## DESCRIPTION ASSY CPU/FLOPPY 115V RACK MT

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3		*** DELETED PART ***	0
4		*** DELETED PART ***	0
5	DWB-20003-03	CPU DUAL FLOPPY RACK MT	1
6	DWB-20001-00	REAR PANEL CPU R.M.	1
7		*** DELETED PART ***	0
8	DWF-20006-00	SIDE CPU RACK MT L.H.	1
9	DWF-20006-01	SIDE CPU RACK MT R.H.	1
10		*** DELETED PART ***	0
11	DWF-20007-00	COVER CPU RACK MT	1
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14	PRB-00023-00	POWER SUPPLY 24VDC 2.4 AMPS B.I.	1
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16	DWB-10013-00	CABLE ASSY FLOPPY	1
17		*** DELETED PART ***	0
18	DWB-20002-02	CARD CAGE CPU 9 SLOT	1
19	DWF-20013-00	BRACKET FLOPPY DISK MTG	1
20	DWF-20012-00	BRACKET DUAL FLOPPY PANEL SUPPORT	1
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22	PRB-00020-00	FLOPPY DR, CDC 9406 B.I.	2
23		*** DELETED PART ***	0
24	PRF-00021-00	SLIDE ASSY 24 IN	1
25	HDM-00026-00	MOUNTING BRACKET SLIDE ASSY	2
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT VNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	10
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	0
33		*** DELETED PART ***	0
34	HDS-10210-06	SCREW FLAT HD 100 10-32 X .375 STL	4
35	HDM-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	6
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	10
37	HDW-10000-10	WASHER LOCK 10-32 CAD PLT STL	6
38	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	2
39		*** DELETED PART ***	0
40	HDM-00024-01	FUSE FER 5 AMPS 250V CERAMIC	1
41		*** DELETED PART ***	0
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47	HDS-10008-06	SCREW PAN HD SEM CAD 8-32	4
48	HDS-10011-06	SCREW PAN HD SEM 10-24 X .375 STL	2
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	1

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DESCRIPTION ASSY CPU/FLOPPY 230V RACK MT

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20000-00	BASE CPU	1
2		*** DELETED PART ***	0
3		*** DELETED PART ***	0
4		*** DELETED PART ***	0
5	DWB-20003-03	CPU DUAL FLOPPY RACK MT	1
6	DWB-20001-00	REAR PANEL CPU R.M.	1
7		*** DELETED PART ***	0
8	DWF-20006-00	SIDE CPU RACK MT L.H.	1
9	DWF-20006-01	SIDE CPU RACK MT R.H.	1
10		*** DELETED PART ***	0
11	DWF-20007-00	COVER CPU RACK MT	1
12	PRB-00022-00	POWER SUPPLY 115/230V S-100 B.I.	1
13		*** DELETED PART ***	0
14	PRB-00023-00	POWER SUPPLY 24VDC 2.4 AMPS B.I.	1
15	DWB-10012-00	CABLE ASSY HARNESS CPU CHASSIS	1
16	DWB-10013-00	CABLE ASSY FLOPPY	1
17		*** DELETED PART ***	0
18	DWB-20002-02	CARD CAGE CPU 9 SLOT	1
19	DWF-20013-00	BRACKET FLOPPY DISK MTG	1
20	DWF-20012-00	BRACKET DUAL FLOPPY PANEL SUPPORT	1
21	DWF-20009-00	BRACKET STRAIN RELIEF CPU	1
22	PRB-00020-00	FLOPPY DR, CDC 9406 B.I.	2
23		*** DELETED PART ***	0
24	PRF-00021-00	SLIDE ASSY 24 IN	1
25	HDM-00026-00	MOUNTING BRACKET SLIDE ASSY	2
26	CBP-00002-15	POWER CORD AC 7.5 FT SVT UNYL BLK	1
27	DWB-10016-00	CABLE ASSY AC REMOTE CONTROL	1
28		*** DELETED PART ***	0
29	HDS-10006-05	SCREW PAN HD SEM 6-32 X .312 STL	12
30	HDS-10006-08	SCREW PAN HD SEM 6-32 X .500 STL	2
31	HDS-10010-08	SCREW PAN HD SEM 10-32 X .500 STL	10
32	HDS-10110-06	SCREW BUT HD CAP 10-32 X .375 STL	0
33		*** DELETED PART ***	0
34	HDS-10210-06	SCREW FLAT HD 100 10-32 X .375 STL	4
35	HDN-10000-10	NUT HEX 10-32 KEP INT/EXT CAD STL	6
36	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	10
37	HDW-10000-10	WASHER LOCK 10-32 CAD PLT STL	6
38	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	2
39		*** DELETED PART ***	0
40		*** DELETED PART ***	0
41	HDM-00024-00	FUSE FER 2.5AMPS 250V CERAMIC	1
42		*** DELETED PART ***	0
43	HDW-10001-10	WASHER FLAT 10-32 CAD PLT STL	4
44	HDS-10010-09	SCREW PAN HD 10-32 X .562 SEM CAD	2
45	DWL-30001-XX	LOGIC CABLING DIAGRAM CPU CHASSIS	0
46		*** DELETED PART ***	0
47	HDS-10008-06	SCREW PAN HD SEM CAD 8-32	4
48	HDS-10011-06	SCREW PAN HD SEM 10-24 X .375 STL	2
49	DWB-10003-05	CABLE ASSY 50COND FLAT (2 CDC)	1

BILL # DWB-20003-00

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19 MAR, 1980

DESCRIPTION FRONT PANEL CPU TABLETOP

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20003-00	PANEL FRONT CPU TABLETOP	1
2		*** DELETED PART ***	0
3		*** DELETED PART ***	0
4		*** DELETED PART ***	0
5		*** DELETED PART ***	0
6	SWT-00003-00	SWITCH PUSHBUTTON ILLU NHT	1
7	DWB-10015-00	CABLE ASSY FRONT PANEL HARNESS	1
8	RS2-00220-00	RESISTOR 22 OHM 1/4W 5% CAR	1
9	CBA-00002-00	TUBING HEATSHRINK .375 X .750	0
10	HDM-00016-00	LAMP 6V 75MA	1
11	CBA-00007-00	TUBING HEATSHRINK .125 FIT-221	0
12	SWT-00005-00	SWITCH KEY 115/230V 7 AMPS	1
13	CNR-00008-00	CONN SOCKET 2PIN W/D EARS FEM	1
14	CNA-00007-00	CONTACT PIN .060DIA 18-22AWG L	2
15		*** DELETED PART ***	0

BILL # DWB-20003-01

REV. B00

19 MAR, 1980

DESCRIPTION FRONT PANEL CPU RACK MT

PART NUMBER	DESCRIPTION	QTY
1	*** DELETED PART ***	0
2 DWB-20003-01	PANEL FRONT CPU RACK MOUNT	1
3	*** DELETED PART ***	0
4	*** DELETED PART ***	0
5	*** DELETED PART ***	0
6 SWT-00003-00	SWITCH PUSHBUTTON ILLU WHT	1
7 DWB-10015-00	CABLE ASSY FRONT PANEL HARNESS	1
8 RS2-00220-00	RESISTOR 22 OHM 1/4W 5% CAR	1
9 CBA-00002-00	TUBING HEATSHRINK .375 X .750	0
10 HDM-00016-00	LAMP 6V 75MA	1
11 CBA-00007-00	TUBING HEATSHRINK .125 FIT-221	0
12 SWT-00005-00	SWITCH KEY 115/230V 7 AMPS	1
13 CNR-00008-00	CONN SOCKET 2PIN W/O EARS FEM	1
14 CNA-00007-00	CONTACT PIN .060DIA 18-22AWG L	2
15	*** DELETED PART ***	0

BILL # DWB-20003-02

REV. B00

19 MAR, 1980

DESCRIPTION CPU DUAL FLOPPY TABLETOP

PART NUMBER	DESCRIPTION	QTY
1	*** DELETED PART ***	0
2	*** DELETED PART ***	0
3 DWB-20003-02	PANEL DUAL FLOPPY	1
4	*** DELETED PART ***	0
5	*** DELETED PART ***	0
6 SWT-00003-00	SWITCH PUSHBUTTON ILLU WHT	1
7 DWB-10015-00	CABLE ASSY FRONT PANEL HARNESS	1
8 RS2-00220-00	RESISTOR 22 OHM 1/4W 5% CAR	1
9 CBA-00002-00	TUBING HEATSHRINK .375 X .750	0
10 HDM-00016-00	LAMP 6V 75MA	1
11 CBA-00007-00	TUBING HEATSHRINK .125 FIT-221	0
12 SWT-00005-00	SWITCH KEY 115/230V 7 AMPS	1
13 CNR-00008-00	CONN SOCKET 2PIN W/O EARS FEM	1
14 CNA-00007-00	CONTACT PIN .060DIA 18-22AWG L	2
15	*** DELETED PART ***	0

BILL # DWB-20003-03

REV. B00

19 MAR, 1980

DESCRIPTION CPU DUAL FLOPPY RACK MT

PART NUMBER	DESCRIPTION	QTY
1	SWT-00005-00 SWITCH KEY 115/230V 7 AMPS	1
2	*** DELETED PART ***	0
3	*** DELETED PART ***	0
4	DWF-20003-03 FRONT PANEL DUAL FLOPPY RCK MT	1
5	CNR-00008-00 CONN SOCKET 2PIN W/O EARS FEM	1
6	SWT-00003-00 SWITCH PUSHBUTTON ILLU WHT	1
7	DWB-10015-00 CABLE ASSY FRONT PANEL HARNESS	1
8	RS2-00220-00 RESISTOR 22 OHM 1/4W 5% CAR	1
9	CBA-00002-00 TUBING HEATSHRINK .375 X .750	0
10	HDM-00016-00 LAMP 6V 75MA	1
11	CBA-00007-00 TUBING HEATSHRINK .125 FIT-221	0
12	CNA-00007-00 CONTACT PIN .060DIA 18-22AWG L	2

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19 MAR,1980

DESCRIPTION REAR PANEL CPU R.M.

PART NUMBER	DESCRIPTION	QTY
1	DWF-20001-00 PANEL REAR CPU	1
2	HDM-00015-00 FAN VENTILATION 4.500SQ 1.500D	1
3	*** DELETED PART ***	0
4	HDM-00025-00 FUSE HOLDER	1
5	*** DELETED PART ***	0
6	DWB-10018-00 CABLE ASSY HARNESS REAR PANEL	1
7	IND-00003-00 INDUCTOR POWER FILTER INLET 6AMP	1
8	*** DELETED PART ***	0
9	*** DELETED PART ***	0
10	*** DELETED PART ***	0
11	*** DELETED PART ***	0
12	CBA-00005-00 TUBING HEATSHRINK .250	0
13	HDS-10004-08 SCREW PAN HD SEM 4-40 X .500 STL	2
14	HDN-10000-04 NUT HEX 4-40 KEP INT/EXT CAD STL	2
15	HDS-10006-14 SCREW PAN HD SEM 6-32 X .875 STL	4
16	HDN-10000-06 NUT HEX 6-32 KEP INT/EXT CAD STL	4
17	HDW-10001-06 WASHER FLAT 6-32 CAD FLT STL	4
18	CBA-00008-00 TUBING HEATSHRINK .500 FIT-221	0
19	HDM-00019-00 FAN FINGER GUARD	1
20	*** DELETED PART ***	0
21	CBA-00007-00 TUBING HEATSHRINK .125 FIT-221	0

BILL # DWB-20001-01

REV.E00

19 MAR,1980

DESCRIPTION REAR PANEL CPU T.T.

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20001-00	PANEL REAR CPU	1
2	HDM-00015-00	FAN VENTILATION 4.500SQ 1.500D	1
3	HDM-00023-00	FILTER AIR	1
4	HDM-00025-00	FUSE HOLDER	1
5	HDM-20000-06	NUT CAP 6-32 CAD STL	4
6	DWB-10018-00	CABLE ASSY HARNESS REAR PANEL	1
7	IND-00003-00	INDUCTOR POWER FILTER INLET 6AMP	1
8		*** DELETED PART ***	0
9		*** DELETED PART ***	0
10		*** DELETED PART ***	0
11		*** DELETED PART ***	0
12	CBA-00005-00	TUBING HEATSHRINK .250	0
13	HDS-10004-08	SCREW PAN HD SEM 4-40 X .500 STL	2
14	HDM-10000-04	NUT HEX 4-40 KEP INT/EXT CAD STL	2
15		*** DELETED PART ***	0
16	HDM-10000-06	NUT HEX 6-32 KEP INT/EXT CAD STL	4
17	HDW-10001-06	WASHER FLAT 6-32 CAD PLT STL	16
18	CBA-00008-00	TUBING HEATSHRINK .500 FIT-221	0
19		*** DELETED PART ***	0
20	HDS-10306-32	SCREW PAN HD 6-32 X 2	4
21	CBA-00007-00	TUBING HEATSHRINK .125 FIT-221	0

REV. B00

19 MAR, 1980

## DESCRIPTION CARD CAGE CPU 19 SLOT

PART NUMBER	DESCRIPTION	QTY	
1	DWF-20002-00	SIDE CARD CAGE R.H. 19 SLOT	1
2	DWF-20002-01	SIDE CARD CAGE L.H. 19 SLOT	1
3	*** DELETED PART ***		0
4	*** DELETED PART ***		0
5	DWF-20010-00	SPACER CARD CAGE	1
6	*** DELETED PART ***		0
7	HDM-00014-00	PCB GUIDE 4.50LG .312WT	38
8	DWA-00919-00	ASSY MOTHERBOARD 19 SLOT S-100 BUS	1
9	*** DELETED PART ***		0
10	HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	8
11	HDW-10001-06	WASHER FLAT 6-32 CAD PLT STL	6
12	*** DELETED PART ***		0

BILL # DWB-00919-00

REV.000

19 MAR, 1980

DESCRIPTION ASSY MOTHERBOARD 19 SLOT S-100 BUS

PART NUMBER	DESCRIPTION	QTY
1	DWF-00919-00 PCB MOTHERBOARD S-100 BUS 19 SLOT	1
2	CNP-00003-01 CONN PC EDGE 50 PIN DIP	19
3	CNA-00004-00 TERMINAL BLOCK	1
4	CNS-00016-00 SOCKET 16 PIN DIP	14
5	CNR-00004-01 CONN PC MOUNT 10 PIN MALE	2
6	ICL-00317-00 IC REGULATOR ADJUSTABLE POSITIVE	1
7	DIO-04001-00 DIODE	2
8	RS2-00221-00 RESISTOR 220 OHM 1/4W 5% CAR	2
9	CPN-00103-01 CAPACITOR .01 UF	19
10	CPP-00156-01 CAPACITOR 15 UF 20V	19
11	HDM-00002-00 HEAT SINK .700WI .375HT DUAL	1
12	RSN-00013-00 RES PACK 16PIN DIP 330 OHM CER	14
13	HDM-00000-00 HEAT SINK 1.000WI .500HT .710LG	2
14	ICL-07805-00 IC REGULATOR + 5V	2
15	ICL-07905-00 IC REGULATOR - 5V	1
16	*** DELETED PART ***	0
17	*** DELETED PART ***	0
18	HDS-00632-02 SCREW 6-32 X .375	2
19	HDN-00632-01 NUT HEX 6-32 STL SM PATTERN	2
20	HDW-00632-01 WASHER LOCK 6-32	2
21	HDM-00004-00 MICA PAD TO 220	2
22	HDS-00632-03 SCREW 6-32 X .750 NYL	2
23	HDN-00632-02 NUT HEX 6-32 NYL SM PATTERN	2
24	RS2-00331-00 RESISTOR 330 OHM 1/4W 5% CAR	1
25	DWL-00919-XX LOGIC MOTHERBOARD 19 SLOT	0
26	DWT-00919-00 TEST SPEC 19 SLOT MOTHERBOARD	0

BILL # DWB-20002-02

REV. B00

19 MAR, 1980

DESCRIPTION CARD CAGE CPU 9 SLOT

PART NUMBER	DESCRIPTION	QTY
1	*** DELETED PART ***	0
2	*** DELETED PART ***	0
3 DWF-20002-02	SIDE CARD CAGE R.H. 9 SLOT	1
4 DWF-20002-03	SIDE CARD CAGE L.H. 9 SLOT	1
5	*** DELETED PART ***	0
6 DWF-20015-00	SPACER 9 SLOT CARD CAGE	1
7 HDM-00014-00	PCB GUIDE 4.50LG .312WT	12
8	*** DELETED PART ***	0
9 DWA-00909-00	ASSY MOTHERBOARD 9 SLOT S-100 BUS	1
10 HDS-10006-06	SCREW PAN HD SEM 6-32 X .375 STL	8
11 HDW-10001-06	WASHER FLAT 6-32 CAD PLT STL	4
12 HDN-10000-06	NUT HEX 6-32 KEP INT/EXT CAD STL	4

FBILL # DNB-00909-00

REV.000

31 Mar, 1980

DESCRIPTION ASSY MOTHERBOARD 9 SLOT S-100 BUS

PART NUMBER	DESCRIPTION	QTY	COST	EXTND
1	DWF-00909-00	PCB MOTHERBOARD S-100 BUS 9 SLOT		1
2	CNP-00003-01	CONN PC EDGE 50 PIN DIP		7
3	CNA-00004-00	TERMINAL BLOCK		1
4	CNS-00016-00	SOCKET 16 PIN DIP		7
5	CNR-00004-01	CONN PC MOUNT 10 PIN MALE		2
6	ICL-00317-00	IC REGULATOR ADJUSTABLE POSITIVE		1
7	BIO-04001-00	DIODE		2
8	RS2-00221-00	RESISTOR 220 OHM 1/4W 5% CAR		3
9	CPN-00103-01	CAPACITOR .01 UF		12
10	CPP-00156-01	CAPACITOR 15 UF 20V		12
11	HDM-00002-00	HEAT SINK .700WI .375HT DUAL		1
12	RSN-00005-00	RES PACK 16PIN 220 OHM		7
13	HDM-00000-00	HEAT SINK 1.000WI .500HT .710LS		2
14	ICL-07805-00	IC REGULATOR + 5V		2
15	ICL-07905-00	IC REGULATOR - 5V		1
16		*** DELETED PART ***		0
17	HDM-00004-00	MICA PAD TO 220		2
18	HDS-00632-03	SCREW 6-32 X .750 NYL		2
19	HDS-00632-02	SCREW 6-32 X .375		2
20	HDN-00632-02	NUT HEX 6-32 NYL SM PATTERN		2
21	HDN-00632-01	NUT HEX 6-32 STL SM PATTERN		2
22	HDW-00632-01	WASHER LOCK 6-32		2
23		*** DELETED PART ***		0
24	RS2-00331-00	RESISTOR 330 OHM 1/4W 5% CAR		1
25	DNL-00909-XX	LOGIC 9 SLOT MOTHERBOARD		0
26	DWT-00909-00	TEST SPEC 9 SLOT MOTHERBOARD		0