

Field Engineer Handbook

Technical Volume II

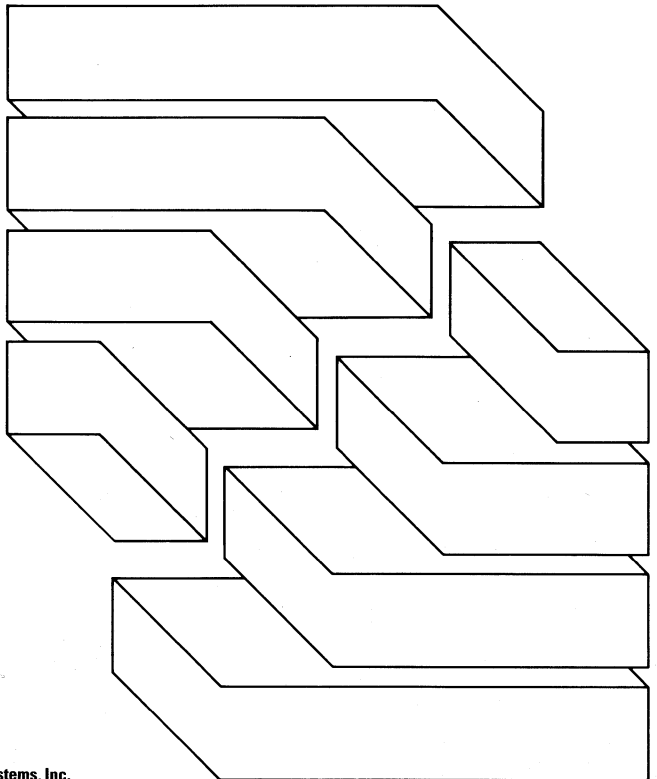


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Preface

The *Field Engineer (FE) Handbook – Technical Volumes I and II*, describes and illustrates specific Sun Microsystems, Inc. products. While Sun publishes extensive hardware documents, this handbook is a portable reference manual for Field Engineers, support personnel, and customers. Sun Field Engineers and customers equipped with the FE Handbook may perform service calls accurately and efficiently, thus reflecting Sun's commitment to quality customer service.

This handbook complements other Sun technical publications and education courses. We assume that Sun Field Engineers, support personnel, and customers who service and repair Sun products have access to these resources.

Handbook Organization

The technical information contained in the Field Engineer Handbook is organized into two volumes.

Volume I contains the following sections.

- **Configurations.** Contains illustrations identifying jumper and switch locations, and configuration tables for field replaceable boards.
- **Power Supplies.** Contains illustrations of power supplies and power distribution units with power supply specifications.

Volume II contains the following sections.

- **Parts Breakdowns.** This section contains part numbers and descriptions for Sun systems, racks, options, boards, monitors, keyboard/mouse, and provides miscellaneous hardware information.
- **Troubleshooting.** This section contains error code charts for CPUs, disks, tapes, and communications.
- **Operating Systems.** Contains selected software charts.
- **Diagnostics.** Describes diagnostics tools.

Revision History

DATE	DESCRIPTION		PART NO.
6/87	First Edition		800-1819-01
11/87	Second Edition	Entire contents	800-1819-01
4/88	Third Edition	Entire contents	800-4006-01
9/88	Fourth Edition	Entire contents	800-4006-02
5/89	Fifth Edition		800-4006-03
10/89	Supplement	Change pages	800-4704-01
		New Products	
5/90	Supplement	Change pages	800-5140-01
		New Products	
12/90	Sixth Edition		Entire contents
		Vol-I	800-4006-04
		Vol-II	800-4247-02

PARTS BREAKDOWN

Parts Breakdown

This section contains System, Rack, Option, Board, Monitor, Keyboard/Mouse, and Miscellaneous part numbers and descriptions. This section is intended for use by Sun Field Engineers. Use this section with the Field Service Manual for a specific product for further detail.

Parts listed as (obsolete) or (obs) are no longer used by Sun Manufacturing to build systems. Obsolete parts may be replaced with newer part numbers and may not be available.

Sun spare parts available for sale are listed in the *SunSpares Price List*. Sun manuals available for sale are listed in the *Sun Manuals Price List*.

Standard Configurations and Standard Options supported by Sun Microsystems are documented in Configuration Guides, Technical Reports, Product Brochures, Price Lists, and Hardware Installation Manuals.

Abbreviations

FRU	Field Replaceable Unit
CRU	Customer Replaceable Unit
DRU	Depot Replaceable Unit
MSS	Mass Storage Subsystem
MSP	Mass Storage Pedestal
ESM	External Storage Module
EEM	External Expansion Module
Obs	Obsolete Part
Assy	Assembly
NS	Indicates the part is not illustrated
●	Indicates the part is used in an assembly
w	With
w/o	Without

Class Codes

The first three digits of a Sun part number are the class code. Representative class codes are listed below.

CLASS CODE	DESCRIPTION
270-xxxx-xx	PCB Fabrication
300-xxxx-xx	Power Supply
330-xxxx-xx	Plastic part
340-xxxx-xx	Sheet metal part
365-xxxx-xx	Monitor Assembly
370-xxxx-xx	OEM part
500-xxxx-xx	Untested PCB
501-xxxx-xx	Tested PCB
520-xxxx-xx	Programmed IC
525-xxxx-xx	Programmed IC
530-xxxx-xx	Cable
540-xxxx-xx	Assembly
555-xxxx-xx	FRU Assembly
560-xxxx-xx	Shipping Kit
570-xxxx-xx	Electro Mechanical Assy
595-xxxx-xx	Top Level Option Assy
596-xxxx-xx	Configured Option Assy
600-xxxx-xx	Top Level System Assy
700-xxxx-xx	Software Tape
704-xxxx-xx	Software CD-ROM
790-xxxx-xx	Software Tape & Manual
800-xxxx-xx	Sun Manual
813-xxxx-xx	Configuration Manual

PARTS BREAKDOWN

SYSTEM

System

MULTIBUS

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VME

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Sun-2/100U

7-Slot Multibus Logic Enclosure

PART #	DESCRIPTION
140-1002	Fuse, 3.15A (240V)
140-1030	Fuse, 6.3A (115V)
150-0137	AC Filter/Fuse/Switch
300-0135	150 Watt Power Supply, Powertech (obsolete)
300-0135-03	200 Watt Power Supply, Power-One
340-0332	Backplane & Cardcage Assembly, without DC Harness
340-1052	Mounting Bracket, Power-One Power Supply
370-0138	AC Fan, 25 CFM, 115V (obsolete)
370-0157	AC Fan, 25 CFM, 240V
370-1013	AC Fan, 35 CFM, 115V
530-0129	Internal SMD Disk Data Cable
530-0132	Internal SMD Disk Command Cable
530-0139	AC Harness, AC Filter to Power Supply
530-0169	Internal RS-232 Cable
530-0178	DC Harness, Power Supply to Backplane DC Harness
530-0179	DC Harness, Backplane (solders to the backplane)
530-0204	AC Harness, AC Filter to 530-0421
530-0239	Internal Keyboard/Mouse Cable
530-0286	Internal Ethernet Cable
530-0421	AC Harness, 530-0204 to 17" Monitor
530-0491-02	Internal Tape Command Cable, Tape A
530-0491-03	Internal Tape Command Cable, Tape B
530-0495	Internal Color Cable, BNC
530-1048	AC Ground Strap, AC Filter to Backplane
530-1044	Internal Monochrome Video Cable

Sun-2/150U

15-Slot Multibus Logic Enclosure

PART #	DESCRIPTION
150-0648	AC Line Filter
150-1008	AC Indicator Lamp
150-1009	AC Circuit Breaker, 15 Amp
300-0645	1000 Watt Power Supply, Powertec 1
300-0645	1000 Watt Power Supply, LH 1
340-0613	Rear Filler Panel, Blank
340-0644	Cardcage & Backplane Assembly
340-1012	Mounting Bracket, LH Power Supply
370-0172	AC Fan, 115V, 75 CFM
370-0242	AC Fan, 240V, 75 CFM
530-0495-02	Internal Color Cable, BNC
530-1000	AC Harness, AC Filter to Circuit Breaker
530-1001	AC Harness, Fans
530-1031	Internal Ethernet Cable
530-1032	Internal SMD Disk Command Cable
530-1033	Internal Tape Command Cable
530-1034	Internal SMD Disk Data Cable
530-1035	Internal Keyboard/Mouse Cable
530-1036	Internal RS-232 Cable
530-1037	Internal Monochrome Video Cable
530-1038	Door Ground Strap
530-1039	Ground Strap, Chassis to Power Supply to Backplane
530-1059	DC Wire Harness

1 These Power Supplies are not interchangeable. The LH Power Supply requires mounting bracket 340-1012.

Sun-2/100U/150U

Keyboard and Mouse

PART #	DESCRIPTION
540-1014	Keyboard Assembly
320-0292	● Keytronics Keyboard
530-1030	● Keyboard Cable, DB-25
530-1042	Keyboard Extension Cable, 25', DB-25 to DB-25
550-0111	Keyboard Assembly (obsolete)
320-0112	● Microswitch Keyboard
530-0115	● Keyboard Cable, DB-25
550-0306	Parallel Mouse & Pad, DB-15
530-1040	Mouse Extension Cable, 25', DB-15 to DB-15

Monitors

PART #	DESCRIPTION
540-1015	17" Sun-2/100U Monochrome Monitor Assembly
360-0484	● 17" Monochrome Monitor
530-0421	● Internal AC Power Cable
530-1044	● Internal Video Cable
540-1016	17" Sun-2/150U Monochrome Monitor Assembly
360-0484	● 17" Monochrome Monitor
530-1002	● Internal Video Cable
530-1003	● Internal AC Wire Harness
530-1041	External Video Cable, 15'
360-0595	13" Barco Color Monitor
180-1097	● AC Power Cord
530-0492	● External Color Video Cable, 1x BNC to BNC
360-1002	19" Color Monitor
180-1097	● AC Power Cord
530-0492	● External Color Video Cable, 1x BNC to BNC

Sun-2/120

9-Slot Multibus Logic Enclosure

PART #	DESCRIPTION
140-1002	Fuse, 3.15A (240V)
140-1010	Fuse, 5A (115V)
150-1041	Fuseholder
150-1042	Fusecarrier
150-1018	Power Switch, Illuminated
150-1039	AC Line Filter
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
240-1020	Air Filter
240-1048	Swivel Caster
300-1000	750 Watt Power Supply, LH Research (early units only)
300-1004	750 Watt Power Supply, Boschert
330-1009	Front Bezel
340-1039	Top Cover
340-1040	Cardcage EMI Cover
340-1049	Blank Rear Filler Panel
340-1069	Shipping Bracket
340-1037	Side Cover, Right (340-1037-01) (obsolete)
340-1037	Side Cover, Left (340-1037-02) (obsolete)
340-1261	Side Cover, Right
340-1262	Side Cover, Left
501-1049	9-Slot Multibus Prime Backplane
501-1090	9-Slot Multibus Backplane (obsolete)
540-1018	Cardcage & Backplane Assembly
540-1128	DC Fan Assembly, 71 CFM
540-1509	DC Fan Assembly, 88 CFM (obsolete)
530-1060	Ground Cable, LH Research Power Supply
530-1101	DC Harness, LH Research Power Supply to Backplane
530-1105	DC Harness, Boschert Power Supply to Backplane
530-1027	DC Harness, Power Supply to SCSI Peripherals to Backplane
530-1051	AC Receptacle & AC Harness, Receptacle to Fuse to Filter
530-1100	DC Harness, Power Supply to Fan
530-1014	AC Harness, Line Filter to Power Switch
530-1015	AC Harness, Power Switch to Power Supply

Sun-2/120

Output Cable Panel Assemblies

PART #	DESCRIPTION
540-1011	RS-232 Cable Panel Assembly, CPU Port A & B
540-1022	RS-232 Cable Panel Assembly, SCSI Port C & D
540-1023	RS-232 Cable Panel Assembly, SCSI Port E & F
530-1072	● RS-232 Cable (obsolete)
530-1160	● RS-232 Cable
540-1010	Ethernet Cable Panel Assembly
530-1071	● Ethernet Cable (obsolete)
530-1128	● Ethernet Cable
540-1020	Keyboard, Mouse, Monochrome Video Cable Panel Assy
501-1015	● Keyboard & Mouse Interface PCB (obsolete)
501-1082	● Keyboard & Mouse Interface PCB
530-1057	● Monochrome Video Cable
530-1061	● Keyboard & Mouse Cable
540-1021	Color Video Cable Panel Assembly
530-0495	● Color Video Cable
540-1025	SMD Command Cable Panel Assembly
530-1097	● SMD Command Cable
540-1026	SMD Data Cable Panel Assembly
530-1064	● SMD Data Cable
540-1059	1/2" Tape Cable Panel Assembly
530-1099	● 1/2" Tape Command Cable (obsolete)
530-1161	● 1/2" Tape Command Cable
540-1280	RS-232 Cable Panel Assembly, Port 1 - 8
530-1168	● RS-232 Cable, Systech MTI 800/850
540-1296	RS-232 & RS-449 Cable Panel Assembly
530-1228	● RS-232 Cable, Systech DCP 8804
530-1229	● RS-449 Cable, Systech DCP 8804

Sun-2/120

Tape & Disk Drive Options

PART #	DESCRIPTION
330-1035	Cable Shield, Adaptec ACB-4000
370-1010	Adaptec ACB-4000 SCSI Disk Controller
370-1015	42MB Disk Drive, Micropolis 1304
370-1034	71MB Disk Drive, Micropolis 1325
370-1034	71MB Disk Drive, Fujitsu M2243AS
530-1162	SCSI Disk Command Cable
530-1026	SCSI Disc Data Cable
530-1054	SCSI Command Cable, Host Adapter to Adaptec to Sysgen
330-1034	Cable Shield, Sysgen SC4000
370-1011	Sysgen SC4000 SCSI Tape Controller
370-0544	20MB 1/4" Tape Drive, QIC-11, Archive 9020
370-0544	20MB 1/4" Tape Drive, QIC-11, Cipher F420-90
530-1024	Tape Command Cable, Sysgen SC4000 to Tape Drive
530-1054	SCSI Command Cable, Host Adapter to Adaptec to Sysgen
330-1034	Cable Shield, Sysgen SC4000
370-1011	Sysgen SC4000 SCSI Tape Controller
370-1024	20MB 1/4" Tape Drive, QIC-11, Archive Basic 9020
370-1026	Archive Stand Alone Controller (SAC)
530-1024	Tape Command Cable, Sysgen SC4000 to Tape Drive
530-1054	SCSI Command Cable, Host Adapter to Adaptec to Sysgen
530-1115	Tape Command Cable, SAC to Archive Basic 9020

Sun-2/170

15-Slot Multibus Logic Enclosure

PART #	DESCRIPTION
140-1002	Fuse, 3.15A (240V)
140-1010	Fuse, 5A (115V)
150-1041	Fuseholder
150-1042	Fusecarrier
150-1018	Power Switch, Illuminated
150-1039	AC Line Filter
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
300-1004	750 Watt Power Supply, Boschert
340-1049	Blank Rear Filler Panel
340-1261	Side Cover, Right
340-1262	Side Cover, Left
530-1075	AC Harness, Line Filter to Switch to Power Supply
530-1078	AC Receptacle & AC Harness, Receptacle to Fuse to Filter
530-1154	DC Harness, DC Fans
540-1017	Cardcage & Backplane Assembly
501-1050	● 15-Slot Multibus Prime Backplane
501-1150	● 15-Slot Multibus Backplane (obsolete)
540-1509	DC Fan Assembly, 88 CFM

Sun-2/170

Output Cable Panel Assemblies

PART #	DESCRIPTION
540-1048	SCSI Cable Panel Assembly, SCSI Bus & ttys0-3
530-1099	● SCSI Bus Cable (obsolete)
530-1215	● SCSI Bus Cable
530-1107	● RS-232 Cable
540-1031	Ethernet Cable Panel Assembly
530-1128	● Ethernet Cable
540-1027	Keyboard, Mouse, Monochrome Video Cable Panel Assy
501-1015	● Keyboard & Mouse Interface PCB (obsolete)
501-1082	● Keyboard & Mouse Interface PCB
530-1057	● Monochrome Video Cable
530-1058	● Monochrome Video Cable (obsolete)
530-1061	● Keyboard & Mouse Cable
540-1035	Color Video Cable Panel Assembly
530-0495	● Color Video Cable
540-1045	SMD Command & Data Cable Panel Assembly
540-1050	SMD Command & Data Cable Panel Assembly
530-1097	● SMD Command Cable
530-1064	● SMD Data Cable (obsolete)
530-1218	● SMD Data Cable
540-1043	1/2" Tape Cable Panel Assembly
530-1099	● 1/2" Tape Command Cable (obsolete)
530-1215	● 1/2" Tape Command Cable
540-1278	RS-232 Cable Panel Assembly, Port 8-13
540-1279	RS-232 Cable Panel Assembly, Port 1-8
530-1169	● RS-232 Cable, MTI 800/850/1600/1650, Port 1-8
530-1175	● RS-232 Cable, MTI 800/850/1600/1650, Port 8-13
540-1296	RS-232 & RS-449 Cable Panel Assembly
530-1176	● RS-232 Cable, Systech DCP 8804
530-1182	● RS-449 Cable, Systech DCP 8804

Sun-2/120/170

Keyboard and Mouse

PART #	DESCRIPTION
540-1006	Microswitch Keyboard Assembly
320-1000	● Microswitch Keyboard PCB
530-1069	● Keyboard Cable, RJ11
130-1078	Coupler, RJ11 to RJ11
370-1090	● M2/M3l Mouse & Pad, RJ11
550-1000	● M2/M3l Mouse & Pad, RJ11 (obsolete)
530-1062	● Mouse Extension Cable, RJ11 to RJ11

Monitors

PART #	DESCRIPTION
360-0595	13" Barco Color Monitor, 475x640, 60Hz
180-1097	AC Power Cord
530-0492	External Color Video Cable, 1x BNC to BNC
360-1002	19" Color Monitor, 475x640, 60Hz
180-1097	AC Power Cord
530-0492	Color Video Cable, 1x BNC to BNC (obsolete)
530-1138	Color Video Cable, 4x BNC to BNC, 5.0M (obsolete)
530-1307	Color Video Cable, 4x BNC to BNC, 5.0M
530-1362	Color Video Cable, 4x BNC to BNC, 1.2M
365-1037	19" Monochrome Monitor, TTL, 1152x900, 66Hz
540-1005	19" Monochrome Monitor, TTL, 1152x900, 66Hz (obsolete)
540-1029	19" Monochrome Monitor, OCLI, TTL, 1152x900, 66Hz
180-1097	AC Power Cord (115V)
530-1125	Monochrome Video Cable, 15'

Sun-2/50

2-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1031	Fuse, 4A (240V)
150-1258	Fuse, 7A (115V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
230-1025	Rubber Foot
230-1033	Chassis Cover Screw O-Ring
240-1024	Chassis Cover Screw
300-1002	Power Supply
330-1013	Teflon Ring
340-1178	Fan Fingerguard
501-1042	2-Slot Backplane (Riveted to the Chassis)
530-1020	AC Input Receptacle with AC Wire Harness
540-1068	DC Fan Assembly, 25 CFM (Riveted to the Chassis)
540-1069	AC Output Receptacle
540-1100	Top Cover
540-1102	2-Slot Chassis without Cover
540-1104	2-Slot Chassis with Cover
540-1105	Internal RFI Shield
540-1393	110/220 Voltage Select Switch Assembly
800-1222	<i>Sun-2/50 Field Service Manual</i>

Sun-2/130/160

12-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1017	Fuse, 10A (115V)
150-1018	AC Power Switch
150-1041	Fuse Holder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuse Carrier (240V)
150-1322	AC Line Filter
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1048	Caster
300-1004	750 Watt Power Supply
340-1138	Top Cover
340-1037	Side Cover, Right (340-1037-01) (obsolete)
340-1037	Side Cover, Left (340-1037-02) (obsolete)
340-1261	Side Cover, Right
340-1262	Side Cover, Left
370-1086	12-Slot Cardcage
501-1053	12-Slot VMEbus Backplane 1
530-1187	● Molex Connector Harness (soldered to the Backplane)
501-1085	12-Slot VMEbus Backplane (Pressfit) 1
530-1119	DC Harness, Power Supply to Backplane to Peripheral Tray
530-1121	AC Switch Harness
530-1123	AC Harness, AC Receptacle to AC Filter
530-1134	SCSI Bus Cable, Backplane to SCSI Tray
530-1159	Power Supply Ground Harness
530-1170	DC Harness, Upper DC Fan
530-1171	DC Harness, Upper DC Fan
530-1163	DC Harness, Fan Tray
540-1300	Power Supply RC Filter (required by Graphics Processor)
540-1252	DC Fan Assembly, 71 CFM

1 Slots 5-12, P3 Row B, Pins 33-64, are connected together on Backplane FAB 270-1053-03 and 270-1085-01.

Sun-2/130/160

Tape & Disk Drive Options

PART #	DESCRIPTION
370-1010	Adaptec ACB-4000 Disk Controller
370-1034	71MB Disk Drive, Micropolis 1325
370-1034	71MB Disk Drive, Fujitsu M2243AS
530-1134	SCSI Bus Cable, Backplane to SCSI Tray
530-1135	DC Harness, SCSI Tray to Power Supply Harness
530-1142	SCSI Data Cable, 4", LUN 0
530-1145	SCSI Data Cable, 9", LUN 1
530-1157	SCSI Command Cable, Dual Disk
370-1011	Sysgen SC4000 Tape Controller
370-1037	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EG11
370-1112	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EG11
370-1112	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945L-2
530-1141	Tape Command Cable, Sysgen SC4000 to Tape Drive

Sun-2/50/130/160

Keyboard and Mouse

PART #	DESCRIPTION
540-1006	Sun-2 Keyboard Assembly, RJ11
320-1000	● Microswitch Keyboard
530-1068	● External Keyboard Cable, 3.65M, RJ11 to RJ11
530-1069	● External Keyboard Cable, 7.3M, RJ11 to RJ11
540-1107	Keyboard/Mouse Adapter Assembly (Mouse House)
501-1082	● Keyboard/Mouse Adapter PCB
130-1078	RJ11 Coupler, RJ11 to RJ11
370-1090	M2/M3 Mouse & Pad, RJ11
530-1062	Mouse Extension Cable
550-1000	M2/M3 Mouse & Pad, RJ11 (obsolete)

Sun-3/50

1-Slot Logic Enclosure

PART #	DESCRIPTION
140-1020	Fuse, 4A (240V)
150-1258	Fuse, 7A (115V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
300-1015	100 Watt Power Supply (obsolete)
330-1054	Backplane Insulator Shield (Riveted to the Chassis)
340-1178	Fan Fingerguard
340-1365	Power Supply EMI Cover
501-1109	1-Slot Backplane (Riveted to the Chassis)
530-1020	AC Receptacle & AC Switch & Fuse Assembly
540-1069	AC Output Receptacle
540-1310	Top Cover Assembly with Monitor Mounting Hardware
540-1325	1-Slot Chassis with Cover
540-1326	1-Slot Chassis without Cover
540-1328	DC Fan Assembly, 25 CFM (Riveted to the Chassis)
540-1393	110/220 Voltage Select Switch
540-1078	110/220 Voltage Select Switch (obsolete)
540-1582	110/220 Voltage Select Switch
555-1062	116 Watt Power Supply Kit
230-0203	● Tiewrap, 2"
230-1006	● Hole Plug, 1/2"
300-1040	● 116 Watt Power Supply
800-3235	● <i>Read This First, 116 Watt Power Supply</i>
540-1325	1-Slot Chassis, Dimple-Top with Top Cover
540-1326	1-Slot Chassis, Dimple-Top without Top Cover
800-1356	<i>Field Service Manual for the Sun-3/50M Desktop Workstation</i>

Sun-3/50/60

1-Slot Logic Enclosure

PART #	DESCRIPTION
140-1020	Fuse, 4A (240V)
150-1258	Fuse, 7A (115V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
300-1015	100 Watt Power Supply (obsolete)
330-1109	Top Cover
330-1110	Backplane Insulator Shield (Riveted to the Chassis)
340-1575	Power Supply EMI Cover
501-1277	1-Slot Backplane (Riveted to the Chassis)
530-1020	AC Receptacle & AC Switch & Fuse Assembly
540-1069	AC Output Receptacle & Harness, Receptacle to Power Supply
540-1078	AC Voltage Select Switch, 110/220V (obsolete)
540-1557	DC Fan Assembly, 49 CFM
540-1582	110/220 Voltage Select Switch
555-1062	116 Watt Power Supply Kit
230-0203	● Tiewrap, 2"
230-1006	● Hole Plug, 1/2"
300-1040	● 116 Watt Power Supply
800-3235	● <i>Read This First, 116 Watt Power Supply</i>
599-1402	1-Slot Chassis, Flat-Top
800-3426	<i>Field Service Manual for the Sun-3/50 & Sun-3/60</i>

Sun-3/75

2-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1020	Fuse, 4A (115V/240V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1027	AC Power Cord (115V) (obsolete)
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
230-1066	Rubber Foot
300-1017	150 Watt Power Supply
330-1012	Teflon Ring
330-1054	Backplane Insulator Shield
340-1365	Power Supply EMI Cover
501-1093	2-Slot VMEbus Backplane (Riveted to the Chassis)
530-1020	AC Receptacle & AC Switch & Fuse Assembly
540-1069	AC Output Receptacle
540-1068	DC Fan Assembly, 25 CFM (Riveted to the Chassis)
540-1069	AC Output Receptacle
540-1078	AC Voltage Select Switch, 110/220V (obsolete)
540-1272	2-Slot Chassis without Cover
540-1275	2-Slot Chassis with Cover
540-1310	Top Cover Assembly with Monitor Mounting Hardware
540-1393	110/220 Voltage Select Switch

Sun-3/110/140

3-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1042	Fusecarrier (115V)
150-1051	Fusecarrier (240V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
300-1022	325 Watt Power Supply, Summit
300-1022	325 Watt Power Supply, Brown
330-1067	End Panel, 42 cm X 11 cm
330-1069	Front Bezel
330-1071	Side Panel, 42 cm X 59 cm
330-1089	Side Panel Screw
330-1144	Backplane Shield
340-1545	Air Filter Assembly
370-1106	AC Switch & Fuse (obsolete)
370-1178	AC Switch & Fuse & Filter Assembly
501-1127	3-Slot VMEbus Backplane, Pressfit
540-1384	DC Fan Tray & Power Supply Module Assembly (115V)
540-1418	Power Supply Module Assembly (115V)
540-1419	DC Fan Tray Assembly, 4 Fans
501-1193	● Fan Controller PCB
540-1455	● DC Fan Assembly, 26 CFM
540-1535	3-Slot Foot Assembly
540-1541	Power Supply Module Assembly (240V)
540-1542	DC Fan Tray & Power Supply Module Assembly (240V)
800-2126	<i>Field Service Manual for the Sun 3-Slot Logic Enclosure</i>
800-1523	<i>Sun-3/110 Workstation Field Service Manual</i>

Sun-3/150

6-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1042	Fusecarrier (115V)
150-1051	Fusecarrier (240V)
150-1217	AC Line Filter (obsolete) 1
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
330-1068	End Panel, 42 cm X 17 cm
330-1070	Front Bezel
330-1071	Side Panel, 42 cm X 59 cm
330-1089	Side Panel Screw
330-1143	Backplane Shield
340-1547	Air Filter Assembly
370-1106	AC Switch & Fuse ¹ (obsolete)
370-1178	AC Switch & Fuse & Filter Assembly 1
501-1128	6-Slot VMEbus Backplane, Pressfit
530-1352	AC Harness, AC Switch to Line Filter (obsolete) 1
530-1353	AC Harness, Line Filter to Power Supply (obsolete) 1
540-1381	DC Fan Tray & Power Supply Module Assembly (115V)
540-1409	DC Fan Tray Assembly, 3 Fans
540-1471	● DC Fan Assembly, 60 CFM
540-1410	Power Supply Module Assembly (115V)
300-1020	● 575 Watt Power Supply
340-1454	● Power Supply Cover
501-1233	● Fan Controller PCB
540-1475	6-Slot Foot Assembly
800-1944	<i>Field Service Manual for the Sun 6-Slot Logic Enclosure</i>

¹ When AC Switch, 370-1106, is replaced with AC Switch, 370-1178, remove the AC Line Filter, 150-1217, AC Wire Harness, 530-1352, and AC Wire Harness 530-1353.

Sun-3/160/260/460 & Sun-4/260/360

12-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1018	AC Power Switch, Illuminated (obsolete)
150-1216	AC Power Switch, Non-Illuminated
150-1041	Fuse Holder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuse Carrier (240V)
150-1129	AC Line Filter
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1048	Castor
330-1066	Front Bezel
330-1076	Backplane Cable Shield
340-1138	Top Cover
340-1261	Side Panel, Right
340-1262	Side Panel, Left
370-1086	12-Slot Cardcage
501-1092	12-Slot VMEbus Backplane, Pressfit (obsolete)
501-1117	12-Slot VMEbus Backplane, Pressfit
530-1134	SCSI Bus Cable, Backplane to SCSI Tray
530-1135	DC Harness, Power Supply DC Harness to SCSI Tray
530-1230	AC Receptacle
530-1231	AC Harness, AC Receptacle to AC Filter
530-1207	AC Harness, AC Filter to Fuse to Switch to Power Supply 1
800-1525	<i>Field Service Manual for the Sun-3/260 Workstation</i>

1 The 300-1016 Power Supply manufactured by Pioneer Magnetics cannot be installed in systems with AC Wire Harness 530-1207-03 Rev 53 or greater. This wire harness is installed in systems shipped after February 1987.

Sun-3/160/260/460 & Sun-4/260/360

Fan Assemblies

PART #	DESCRIPTION
540-1510	DC Fan Assembly, 71 CFM, Upper Chassis
530-1171	DC Harness, Power Supply Harness to Upper Fans (obs)
530-1322	DC Harness, Power Supply Harness to Upper Fans
540-1082	4-Fan Tray Assembly, No Fingerguards (obsolete)
540-1252	● DC Fan Assembly, 71 CFM (obsolete)
540-1510	● DC Fan Assembly, 71 CFM
530-1357	● DC Harness, Fan Tray
540-1555	6-Fan Tray Assembly (obsolete)
540-1510	● DC Fan Assembly, 71 CFM
530-1357	● DC Harness, Fan Tray
540-1581	6-Fan Tray Assembly, Low Profile, No Fingerguards (obs)
540-1510	● DC Fan Assembly, 71 CFM
530-1357	● DC Harness, Fan Tray
540-1584	6-Fan Tray Assembly, Low Profile, Individual Fingerguards
540-1572	● DC Fan Assembly, 71 CFM, Low Profile
530-1357	● DC Harness, Fan Tray
540-1596	6-Fan Tray Assembly, Low Profile, Full Screen
540-1572	● DC Fan Assembly, 71 CFM, Low Profile
530-1357	● DC Harness, Fan Tray

Sun-3/160

Power Supply

PART #	DESCRIPTION
300-1016	850 Watt Power Supply, Pioneer Magnetics 1
300-1016	850 Watt Power Supply, ETA
300-1016	850 Watt Power Supply, Fuji Electrochemical
530-1206	DC Harness, +5VDC
530-1201	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC (obsolete)
530-1324	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC

1 The 300-1016 Power Supply manufactured by Pioneer Magnetics cannot be installed in systems with AC Wire Harness 530-1207-03 Rev 53 or greater. This wire harness is installed in systems shipped after February 1987.

Sun-3/160/260/460 & Sun-4/260/360

Power Supplies

PART #	DESCRIPTION
300-1024	850 Watt Power Supply, Fuji Electrochemical
530-1206	DC Harness, +5VDC
530-1201	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC (obsolete)
530-1324	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC
300-1043	925 Watt Power Supply, Fuji Electrochemical
530-1578	DC Harness, +5VDC
530-1581	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC

Sun-3/160/260/460 & Sun-4/260/360

Tape & Disk Drive Options

PART #	DESCRIPTION
370-1011	Sysgen SC4000 Tape Controller
370-1037	45/60MB 1/4" Tape Drive, Wangtech 5099EG11 (obsolete)
370-1112	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EG11
370-1112	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945L-2
530-1141	Tape Command Cable, Sysgen SC4000 to Tape Drive
370-1061	Emulex MT02 Tape Controller
370-1235	Emulex MT02 Tape Controller
370-1076	45/60MB 1/4" Tape Drive, Wangtech 5099EN24 (obsolete)
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EN24
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945C
530-1141	Tape Command Cable, Emulex MT02 to Tape Drive
370-1010	Adaptec ACB-4000 SCSI Disk Controller
370-1034	71MB Disk Drive, Micropolis 1325
370-1034	71MB Disk Drive, Fujitsu M2243AS
530-1134	SCSI Bus Cable, Backplane to SCSI Tray
530-1135	DC Harness, Power Supply DC Harness to SCSI Tray
530-1142	Disk Data Cable, 39 cm, LUN 0
530-1145	Disk Data Cable, 62 cm, LUN 1
530-1157	Disk Command Cable, Dual Disk
370-0552	Emulex MD21 SCSI Disk Controller
370-1236	Emulex MD21 SCSI Disk Controller
370-0551	141MB Disk Drive, Micropolis 1355
370-0551	141MB Disk Drive, Toshiba MK156
370-1133	327MB Disk Drive, Micropolis 1558-15
530-1134	SCSI Bus Cable, Backplane to SCSI Tray
530-1135	DC Harness, Power Supply DC Harness to SCSI Tray
530-1142	Disk Data Cable, 39 cm, LUN 0
530-1145	Disk Data Cable, 62 cm, LUN 1
530-1157	Disk Command Cable, Dual Disk

Sun-3/180/280/480 & Sun-4/280/380

12-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1026	Fuse, 6A (230V)
140-1030	Fuse, 6.3A (240V)
150-1018	AC Power Switch, Illuminated (obsolete)
150-1216	AC Power Switch, Non-Illuminated
150-1041	Fuse Holder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuse Carrier (240V)
150-1129	AC Line Filter
180-1097	AC Power Cord (115V)
330-1076	Backplane Cable Shield
340-1283	Cardcage Mounting Bracket Assembly (obsolete)
340-1583	● Front & Rear Angle Bracket
340-1584	● Side Angle Bracket
340-1685	Front EMI Cover
340-1686	Front EMI Cover
370-1086	12-Slot Cardcage
501-1092	12-Slot VMEbus Backplane, Pressfit (obsolete)
501-1117	12-Slot VMEbus Backplane, Pressfit
530-1230	AC Receptacle Assembly
530-1257	AC Harness, AC Receptacle to AC Filter
530-1258	AC Harness, AC Filter to Fuse to Switch to Power Supply
530-1260	Indicator Lamp, 12 VDC (obsolete)
530-1343	AC Power Cord (240V)
530-1351	AC Power Cord (230V)
540-1366	Fan Tray Assembly, 4 Fans
530-1259	● DC Harness, Fan Tray (obsolete)
530-1321	● DC Harness, Fan Tray
540-1129	● DC Fan Assembly, 88 CFM (obsolete)
540-1509	● DC Fan Assembly, 88 CFM
540-1508	Indicator lamp, 12 VDC
540-1585	Cardcage Mounting Bracket Assembly

Sun-3/180

Power Supply

PART #	DESCRIPTION
300-1016	850 Watt Power Supply, Pioneer Magnetics
300-1016	850 Watt Power Supply, ETA
300-1016	850 Watt Power Supply, Fuji Electrochemical
530-1340	DC Harness, +5VDC
530-1222	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC (obsolete)
530-1320	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC

Sun-3/180/280/480 & Sun-4/280/380

Power Supplies

PART #	DESCRIPTION
300-1024	850 Watt Power Supply, Fuji Electrochemical
530-1206	DC Harness, +5VDC (obsolete)
530-1340	DC Harness, +5VDC
530-1222	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC (obsolete)
530-1320	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC
300-1043	925 Watt Power Supply, Fuji Electrochemical
530-1578	DC Harness, +5VDC
530-1580	DC Harness, +5VDC, -5VDC, +12VDC, -12VDC

Sun-3/180/280/480 & Sun-4/280/380

1/4" Tape Drive Option

PART #	DESCRIPTION
230-1007	Plastic Standoff, 1.0 cm
370-1061	Emulex MT02 Tape Controller
370-1235	Emulex MT02 Tape Controller
370-1076	45/60MB 1/4" Tape Drive, Wangtech 5099EN24 (obsolete)
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EN24
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945C
370-1235	Emulex MT02 Tape Controller
530-1249	SCSI Bus Cable, SCSI Host Adapter to SCSI Tray
530-1277	DC Harness, Emulex MT02 to Tape Drive
140-1010	● Fuse, 5A (+5 VDC)
530-1278	SCSI Bus Cable, Rear Panel to Emulex MT02
530-1279	Tape Command Cable, Emulex MT02 to Tape Drive
813-1016	<i>Installation & Service Manual for the Sun-3/180 Tape Drive Option</i>

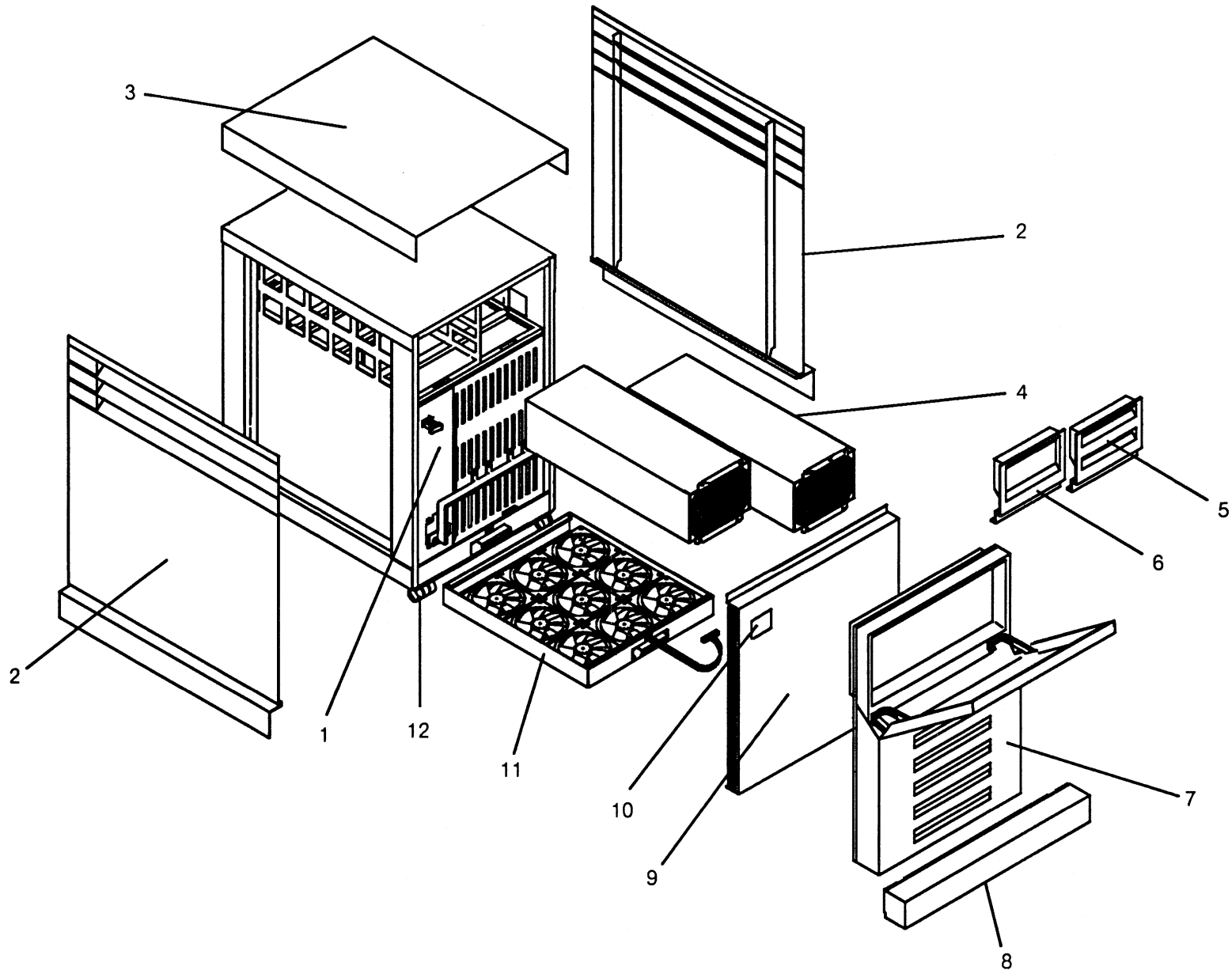
Sun-3/470 & Sun-4/370/470

12-Slot VMEbus Logic Enclosure

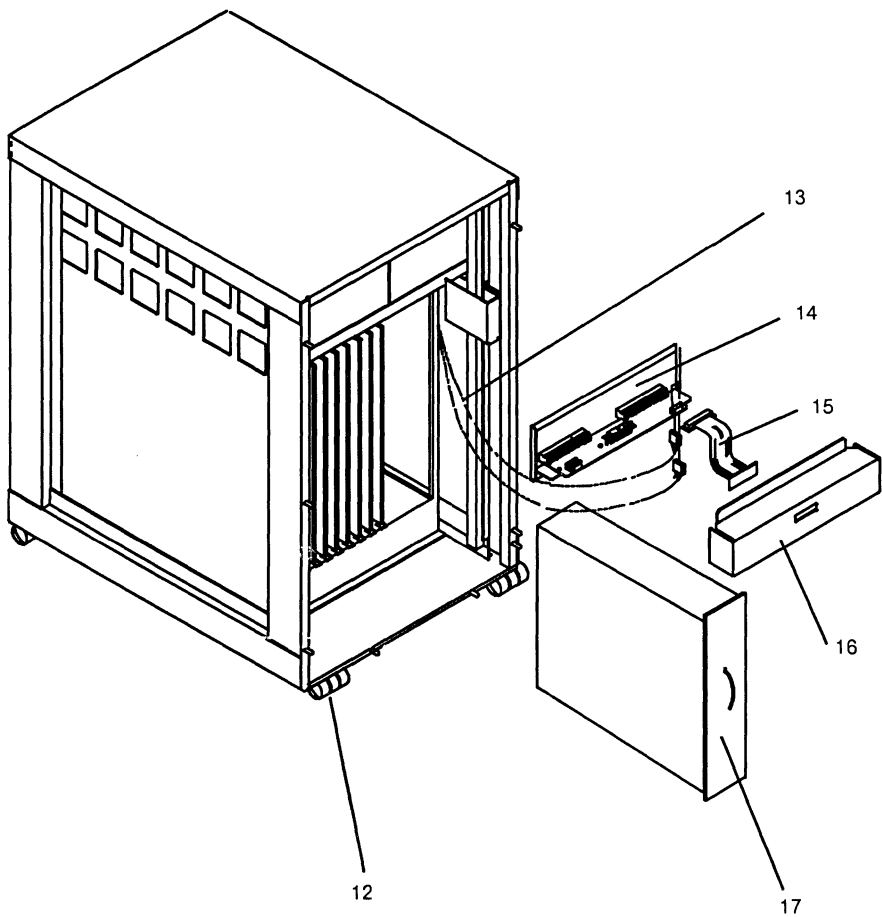
CODE	PART #	DESCRIPTION
1	501-1439	12-Slot Backplane, Pressfit (obsolete) 1
1	501-1598	12-Slot Backplane, Pressfit
1	501-1832	12-Slot Backplane, Pressfit with DC Harness Cutout
2	340-1877	Side Cover (obsolete)
2	540-1846	Side Cover
3	340-1898	Top Cover
4		Refer to Codes 18-24
5	330-1192	Front Bezel Blank Insert
6	330-1210	Front Bezel Half-Height Insert
6	330-1284	Front Bezel Full-Height Insert
NS	340-2249	SCSI Tray Full-Height Bezel
NS	340-1901	SCSI Tray Half-Height Bezel
7	540-1731	Front Bezel Assembly (obsolete)
8	540-1849	Front Bumper (obsolete)
7 & 8	540-1731	Front Bezel & Bumper Assembly
NS	240-0558	● Miniball Receptacle
NS	240-0557	● Miniball Fastener
9	340-1871	Front EMI Shield, without Switch Assembly
10	540-1748	Switch Assembly
NS	330-1212	● Plastic Remote Switch
NS	330-1213	● Plastic Remote Switch Block
NS	340-1936	● Remote Switch Housing
11	540-1751	Fan Tray Assembly (Fans are Rivetted to the Tray)
NS	530-1482	● Fan Tray DC Harness for Fan 540-1732
NS	540-1732	● DC Fan Assembly, 150 CFM
NS	530-1640	● Fan Tray DC Harness for Fan 370-1732
NS	370-1732	● DC Fan Assembly, 150 CFM
12	240-8503	Caster (obsolete)
12	340-2129	Caster
NS	340-1878	Rear Bezel (obsolete)
NS	540-1848	Rear Bezel
NS	540-1749	Rear Bumper
13	530-1480	Backplane to Interface PCB DC Harness
14	501-1493	Interface PCB (SCSI Bus & DC Power)
NS	140-1019	● 15 Amp Fuse
15	530-1494	SCSI Bus Internal Command Cable, 25.4 cm
16	340-1892	SCSI PCB Cover
17	300-1047	925 Watt Power Supply
17	300-1089	925 Watt Power Supply

1 The Sun 4400 CPU is not supported in the 501-1439 Backplane.

Sun-3/470 and Sun-4/370/470 12-Slot VMEbus Logic Enclosure

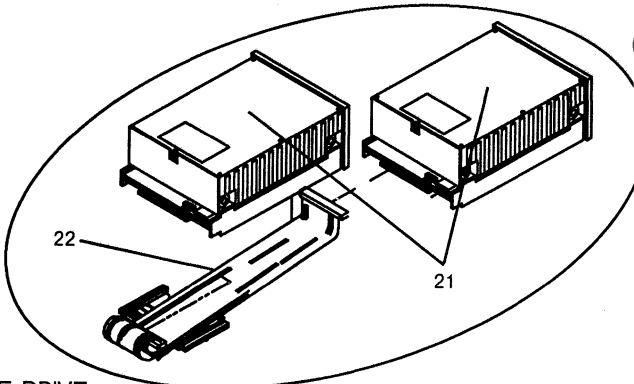


Sun-3/470 & Sun-4/370/470

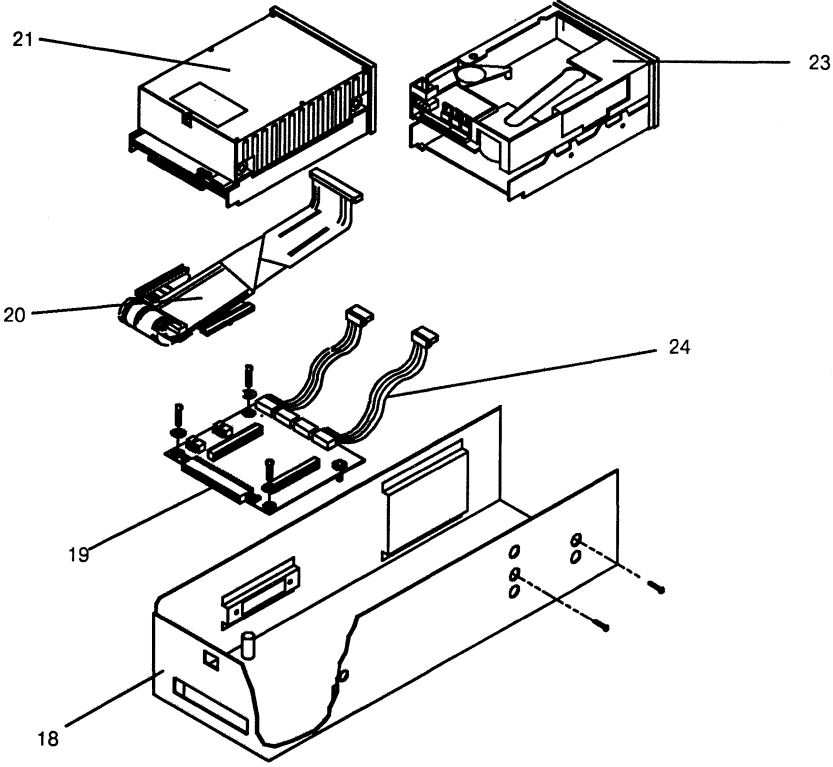


Sun-3/470 & Sun-4/370/470 Peripheral Tray

DUAL DISK
DRIVES



DISK DRIVE and TAPE DRIVE



Sun-3/470 & Sun-4/370/470

12-Slot VMEbus Logic Enclosure – Continued

CODE	PART #	DESCRIPTION
18	340-1903	Peripheral Tray Base
19	501-1496	Peripheral Tray Interface PCB
20	530-1498	Internal SCSI Bus Cable, 1.2M (obsolete) 1
20	530-1729	Internal SCSI Bus Cable, 1.2M 1
21	370-1230	327MB Disk Drive, Imprimis/CDC 77777126
21	370-1319	669MB Disk Drive, Micropolis 1588-15
21	370-1319	669MB Disk Drive, Maxtor XT-8760S
22	530-1500	Internal SCSI Bus Cable, 1.2M 1
23	370-1206	150MB Tape Drive, Full-Height, QIC-150
23	370-1247	45/60MB Tape with MT02, Full-Height, QIC-11/24
23	370-1297	2.3GB 8 mm Tape Drive, Full-Height
23	370-1205	150MB Tape Drive, Half-Height, QIC-150
23	370-1347	644MB CD ROM, Half-Height
24	530-1499	Peripheral Tray DC Harness
NS	530-1698	DC "Y" Harness, Half-Height Peripherals
NS	530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
NS	530-1593	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 1.0M
	800-3255	<i>12-Slot Office Pedestal Field Service Manual</i>

1 Tape only and Disk with Tape option trays use internal SCSI cable 530-1498 or 530-1729.

1 Disk only, Dual Disk, and Empty option trays use internal SCSI cable 530-1500.

Sun-4/110/310

3-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1042	Fusecarrier (115V)
150-1051	Fusecarrier (240V)
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
300-1022	325 Watt Power Supply, Summit
300-1022	325 Watt Power Supply, Brown
330-1067	End Panel, 42 cm X 11 cm
330-1069	Front Bezel
330-1071	Side Panel, 42 cm X 59 cm
330-1089	Side Panel Screw
330-1144	Backplane Shield
340-1545	Air Filter Assembly
370-1106	AC Switch & Fuse (obsolete)
370-1178	AC Switch & Fuse & Filter Assembly
501-1127	3-Slot VMEbus Backplane, Pressfit
540-1384	DC Fan Tray & Power Supply Module Assembly (115V)
540-1418	Power Supply Module Assembly (115V)
540-1419	DC Fan Tray Assembly, 4 Fans
501-1193	● Fan Controller PCB
540-1455	● DC Fan Assembly, 26 CFM
540-1535	3-Slot Foot Assembly
540-1541	Power Supply Module Assembly (240V)
540-1542	DC Fan Tray & Power Supply Module Assembly (240V)
800-2126	<i>Field Service Manual for the Sun 3-Slot Logic Enclosure</i>

Sun-4/150/350

6-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1042	Fusecarrier (115V)
150-1051	Fusecarrier (240V)
150-1217	AC Line Filter (obsolete) 1
180-1010	AC Power Cord, Coiled, AC Output Receptacle to Monitor
180-1097	AC Power Cord (115V)
180-1117	AC Power Cord, AC Output Receptacle to Monitor
180-1125	AC Power Cord (240V)
330-1068	End Panel, 42 cm X 17 cm
330-1070	Front Bezel
330-1071	Side Panel, 42 cm X 59 cm
330-1089	Side Panel Screw
330-1143	Backplane Shield
340-1547	Air Filter Assembly
370-1106	AC Switch & Fuse (obsolete) 1
370-1178	AC Switch & Fuse & Filter Assembly 1
501-1128	6-Slot VMEbus Backplane
530-1352	AC Harness, AC Switch to Line Filter (obsolete) 1
530-1353	AC Harness, Line Filter to Power Supply (obsolete) 1
540-1381	DC Fan Tray & Power Supply Module Assembly (115V)
540-1409	DC Fan Tray Assembly
501-1233	● Fan Controller PCB
540-1471	● DC Fan Assembly, 60 CFM
540-1410	Power Supply Module Assembly (115V)
300-1020	● 575 Watt Power Supply
340-1454	● Power Supply Cover
540-1475	6-Slot Foot Assembly
800-1944	<i>Field Service Manual for the Sun 6-Slot Logic Enclosure</i>

¹ When AC Switch, 370-1106, is replaced with AC Switch, 370-1178, remove the AC Line Filter, 150-1217, AC Wire Harness, 530-1352, and AC Wire Harness 530-1353.

Sun-4/330

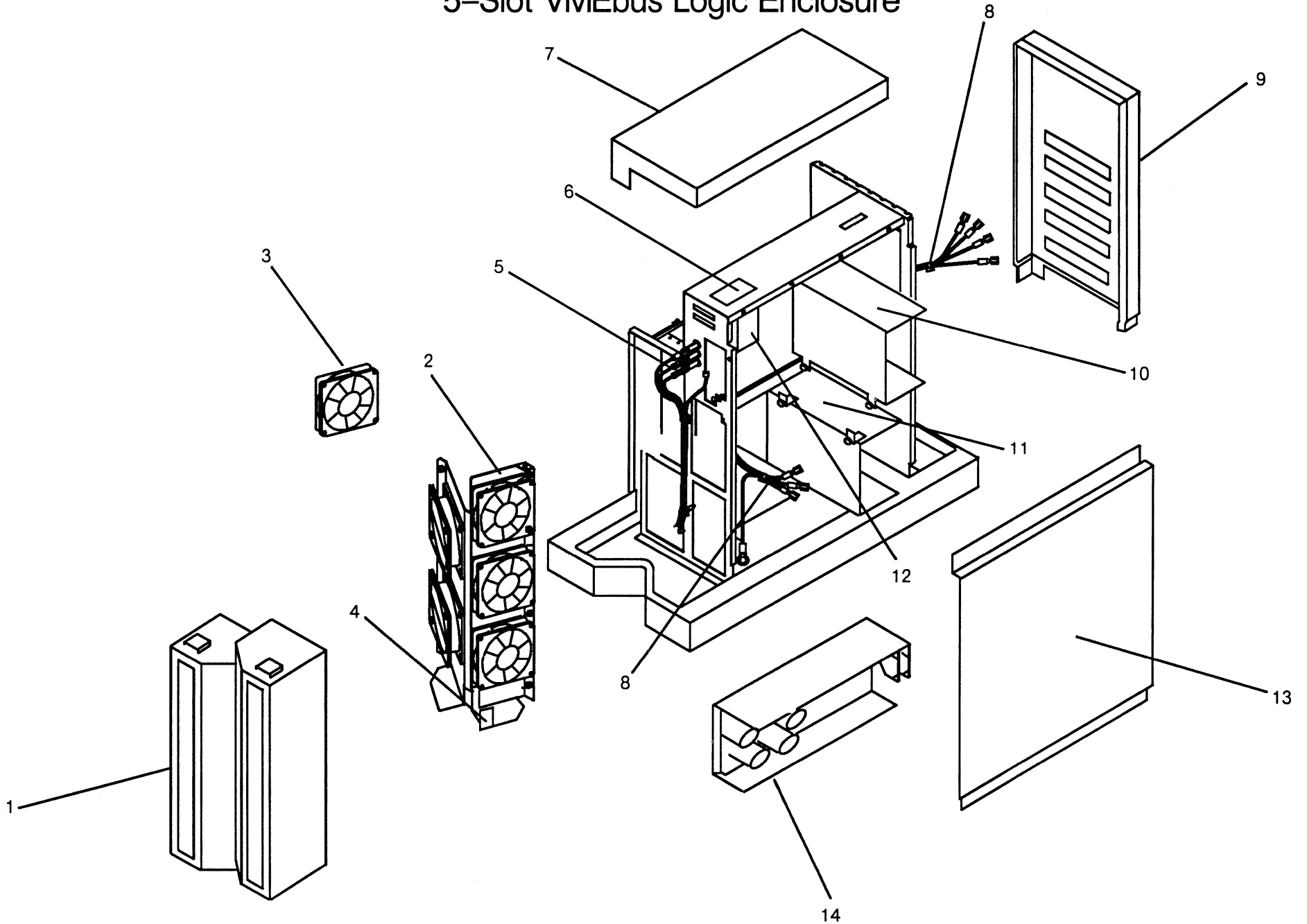
5-Slot VMEbus Logic Enclosure

CODE	PART #	DESCRIPTION
1	330-1178	Rear Cover
NS	330-1180	Cable Retainers
2	540-1760	Fan and Bracket Assembly
NS	530-1465	DC Harness, Power Supply to Peripherals & Fans 1
NS	530-1468	● Fan Harness 1
3	540-2029	● Fan Assembly, Variable Speed Controlled
3	540-1788	● Fan Assembly (obsolete)
4	540-1811	● AC Receptacle
5	530-1470	AC Input Harness
6	340-1772	SCSI Terminator Access Panel
NS	501-1432	● SCSI IN Terminator PCB
NS	501-1416	● SCSI OUT Terminator PCB
NS	120-1608	● 220/330 Terminator
NS	530-1434	External SCSI Cable 45 cm, 50-Pin SCSI-2
7	540-1789	Top Cover Assembly
8	530-1469	AC Harness, Internal 2
9	540-1787	Front Cover Assembly
10	540-1757	Upper Drive Tray Assy
NS	340-1800	● Tape Filler Panel
11	540-1758	Lower Drive Tray Assy
NS	370-1206	150MB Tape Drive, Full-Height, QIC-150
NS	370-1230	327MB Disk Drive, Imprimis/CDC 77777126
NS	370-1319	669MB Disk Drive, Micropolis 1588-15
NS	370-1319	669MB Disk Drive, Maxtor XT-8760S
NS	530-1466	Internal SCSI Cable
12	150-1129	AC Line Filter
13	340-1792	Left Cover
NS	340-1793	Right Cover
NS	340-1677	6U Filler Panel
NS	340-1784	6U Side Cover
NS	340-1676	3U Top Cover
NS	501-1354	5-Slot VMEbus Backplane, Pressfit
NS	540-1800	Caster Plate and Stud
NS	240-1605	Caster Ball
NS	150-1323	AC On/Off Switch
14	300-1034	520 Watt Power Supply (obsolete)
14	300-1072	520 Watt Power Supply, Improved -12v output
	800-3272	<i>Field Service Manual for the 5-Slot Logic Enclosure</i>

1 Wire harnesses \leq 530-1465-04, Rev 51, and \leq 530-1468-03, Rev 50, are NOT field repairable or replaceable. These lower revision harnesses are soldered together. Replace both harnesses upon failure. Wire harnesses \geq 530-1465-04, Rev 51, and \geq 530-1468-03, Rev 51, are pluggable.

2 Wire harness 530-1469 is NOT field repairable or replaceable.

Sun-4/330 5-Slot VMEbus Logic Enclosure



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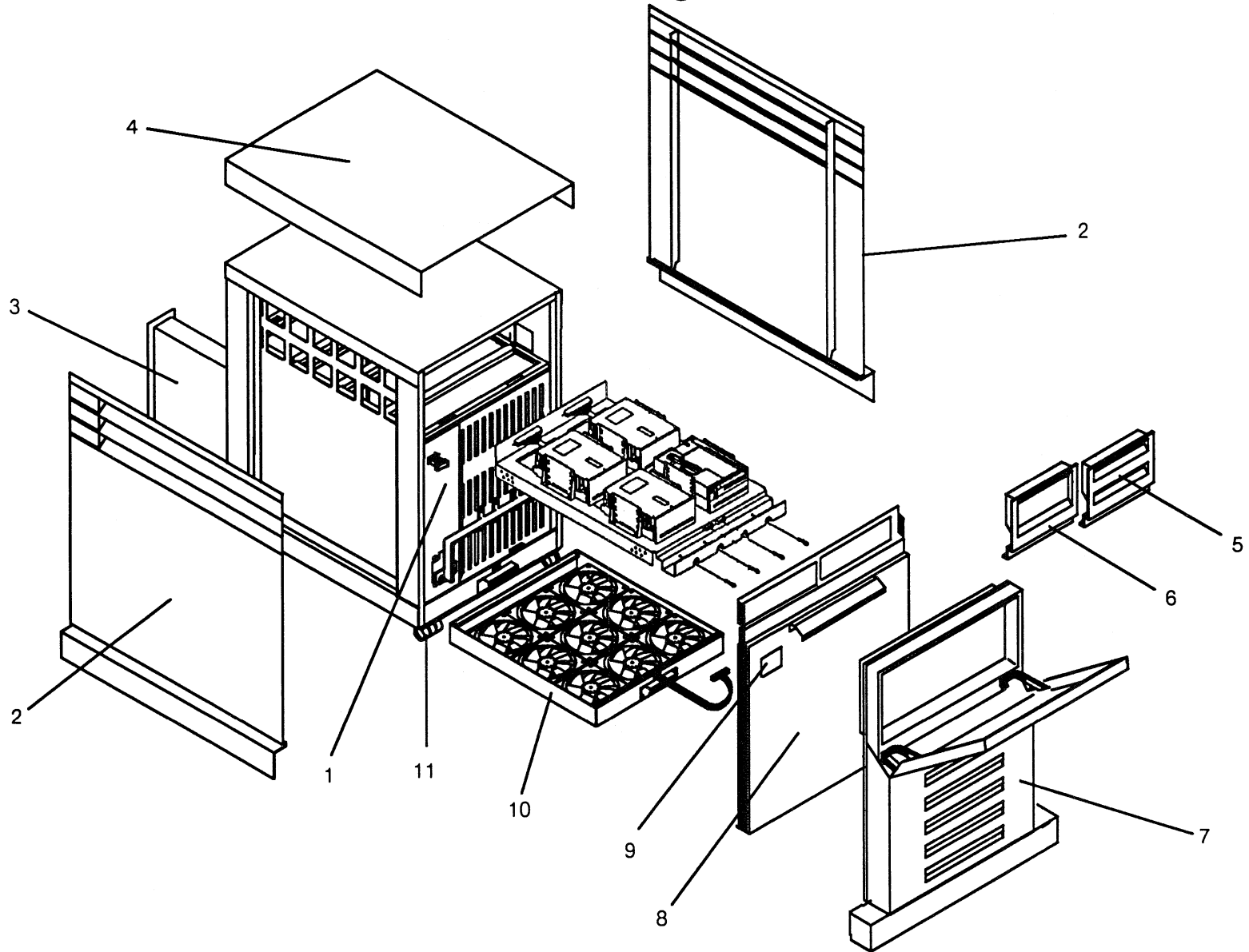
Sun-4/370/470

12-Slot VMEbus Logic Enclosure

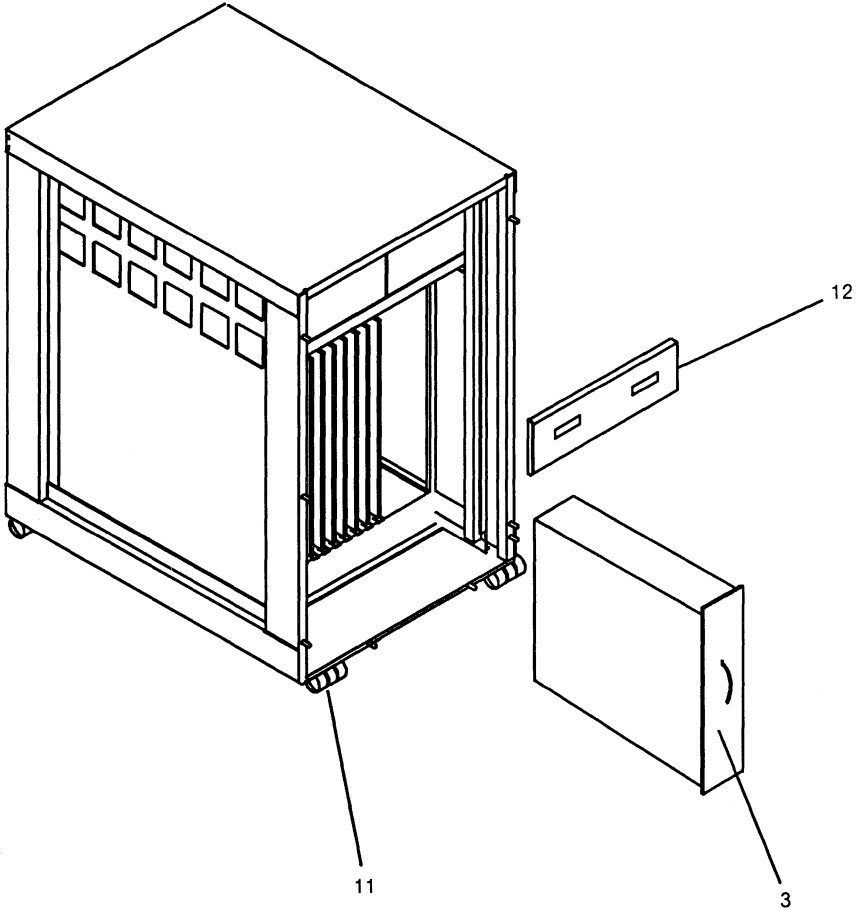
CODE	PART #	DESCRIPTION
1	501-1832	12-Slot Backplane, Pressfit with DC Harness Cutout
2	540-1846	Side Cover
3	300-1089	925 Watt Power Supply
4	340-1898	Top Cover
5	330-1192	Blank Bezel Insert
6	330-1210	Front Bezel Half-Height Insert
6	330-1284	Front Bezel Full-Height Insert
7	540-1939	Front Bezel Assembly
NS	240-0558	● Miniball Receptacle
NS	240-0557	● Miniball Fastener
8	340-2291	Front EMI Cover, without Switch Assembly
NS	340-2292	Blank EMI Cover Filler Panel
NS	340-xxxx	Half-Height EMI Cover Filler Panel
NS	340-2444	Peripheral Mounting Bracket
9	540-xxxx	Switch Assembly
10	540-xxxx	Fan Tray Assembly 1
NS	530-1482	● Fan Tray DC Harness for Fan 540-1732
NS	540-1732	● DC Fan Assembly, 150 CFM
NS	530-1640	● Fan Tray DC Harness for Fan 370-1732
NS	370-1732	● DC Fan Assembly, 150 CFM
11	340-2129	Caster
12	340-2293	Rear EMI Cover
NS	540-1848	Rear Bezel
NS	540-1749	Rear Bumper
NS	530-1676	Internal SCSI Bus Cable
NS	370-1319	669MB Disk Drive, Micropolis 1588-15
NS	370-1319	669MB Disk Drive, Maxtor XT-8760S
NS	370-1206	150MB Tape Drive, Full-Height, QIC-150
NS	370-1297	2.3GB 8 mm Tape Drive, Full-Height
NS	370-1205	150MB Tape Drive, Half-Height, QIC-150
NS	370-1347	644MB CD ROM, Half-Height
NS	530-1675	Peripheral Tray DC Harness
NS	530-1698	Peripheral Tray DC "Y" Harness
NS	150-1346	External SCSI-2 Terminator
NS	530-xxxx	SCSI Cable, DD-50SA to 50-Pin SCSI-2, xx cm
NS	530-xxxx	SCSI Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, xx cm
	800-3255	12-Slot Office Pedestal Field Service Manual

1 The nine fan assembly is removable to allow access to the fan tray screen during routine preventive maintenance.

Sun-4/370/470 12-Slot VMEbus Logic Enclosure

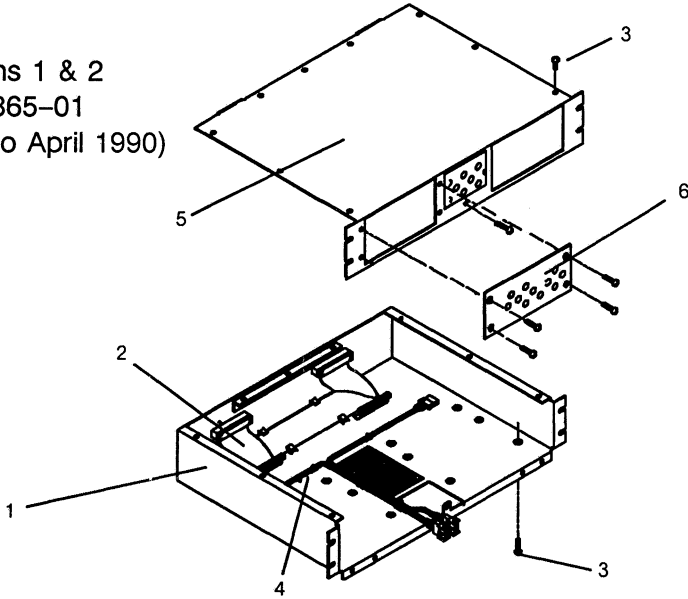


Sun-4/370/470

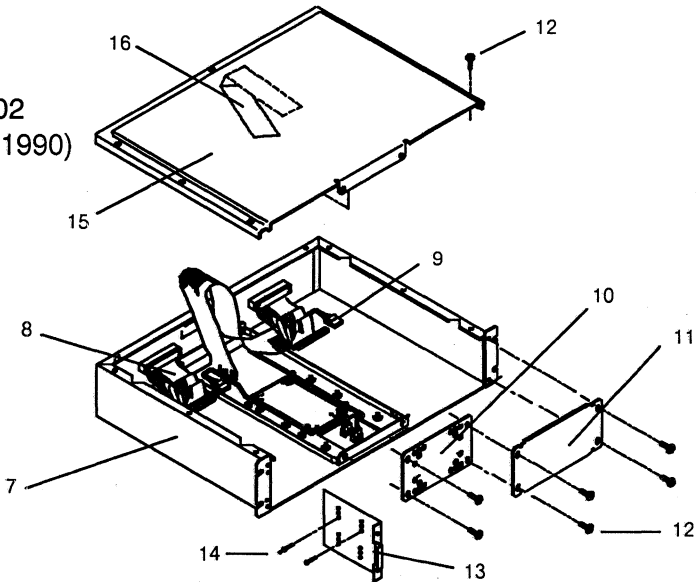


Sun-4/390/490 SCSI Peripheral Trays

Versions 1 & 2
540-1865-01
(Prior to April 1990)



Version 3
540-1865-02
(After April 1990)



Sun-4/390/490

SCSI Peripheral Trays

CODE	PART #	DESCRIPTION
	540-1865-01	SCSI Tray, Versions 1 & 2 (Shipped Prior to April 1990)
1	340-2000	● SCSI Tray
2	530-1474	● SCSI Bus Cable, 73 cm, Internal
3	240-1202	● Peripheral Mounting Screw, #6-32 x 5/8"
4	530-1507	● SCSI Power Cable, Internal
5	340-1832	● SCSI Tray Top Cover
6	340-1999	● Peripheral Cover Plate
	540-1865-02	SCSI Tray, Version 3 (Shipped After April 1990)
7	340-2143	● SCSI Tray
8	530-1642	● SCSI Bus Cable, 180 cm
9	530-1641	● SCSI Power Cable, Internal
NS	530-1638	● DC Power "Y" Cable, 15 cm
10	340-2145	● Front Plate
11	340-2146	● Full-Height Peripheral Blank Plate
11	340-2305	● Half-Height Peripheral Blank Plate
12	240-1372	● M4 0.7 x 10 mm Screw
13	340-2148	● Peripheral Mounting Bracket
14	240-0258	● #6-32 x 3/8" Peripheral Mounting Screw
15	340-2144	● SCSI Tray Top Cover
16	240-0646	● Cable Clamp
NS	370-1205	150MB Tape Drive, Half-Height, QIC-150
NS	370-1206	150MB Tape Drive, Full-Height, QIC-150
NS	370-1297	2.3GB 8 mm Tape Drive, Full-Height
NS	370-1347	644MB CD ROM, Half-Height
NS	530-1435	External Cable, 50-Pin SCSI-2 to DD-50SA, 2.0M
NS	530-1593	External Cable, 50-Pin SCSI-2 to DD-50SA, 1.0M
NS	530-1508	External Cable, 50-Pin SCSI-2 to SCSI-2, 80 cm
NS	530-1501	External Cable, 50-Pin SCSI-2 to Centronics, 2.0M
NS	530-1502	External Cable, Centronics to Centronics, 1.5
NS	530-1568	External Cable, 50-Pin SCSI-2 to Centronics, 4.0M

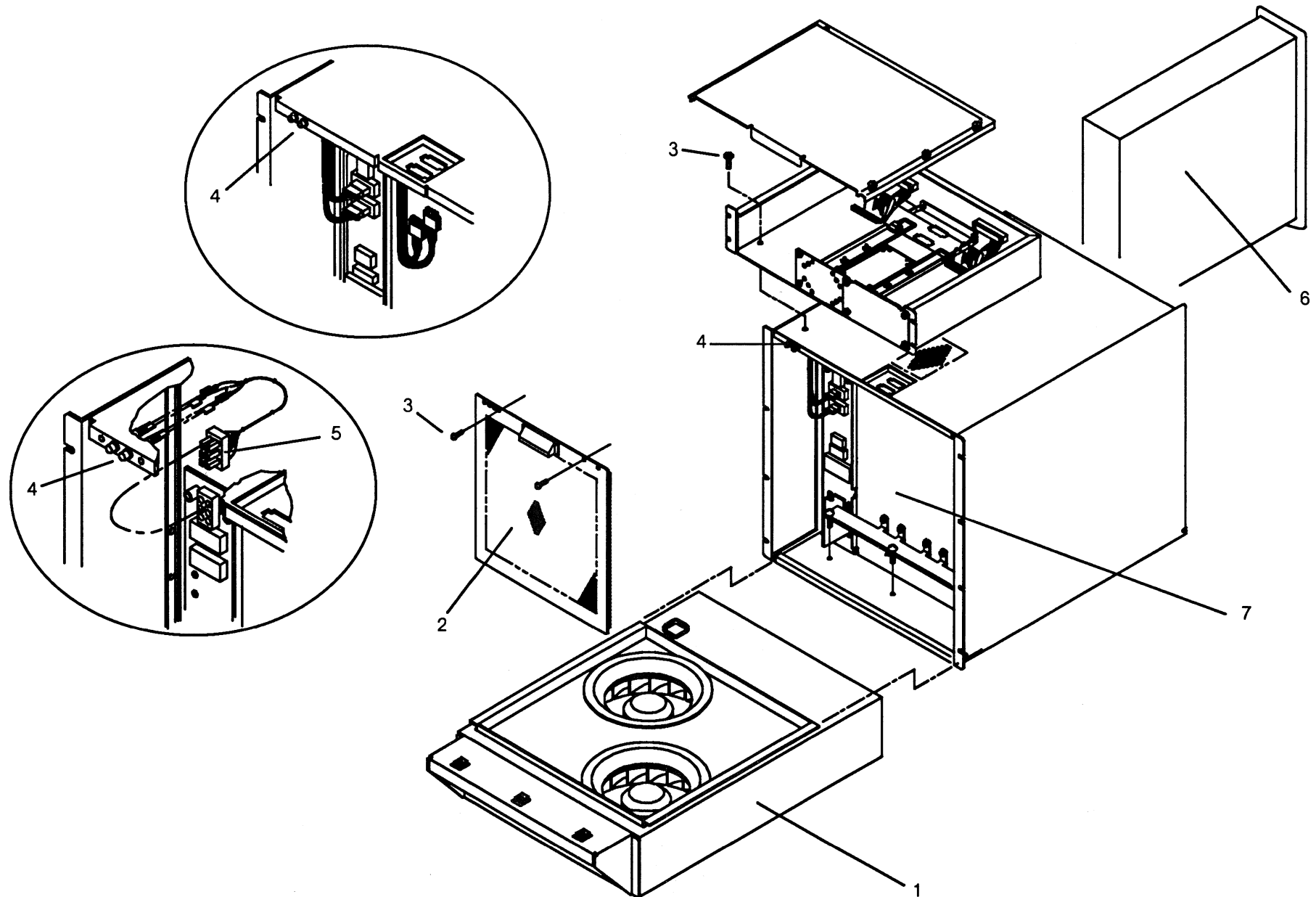
Sun-4/390/490

16-Slot VMEbus Logic Enclosure

CODE	PART #	DESCRIPTION
1	540-1719	Blower Assembly, 2 Blowers
	540-1840	● Centrifugal Fan Assembly
	530-1560	● Cable, 32.5 cm, Fan to Terminal
	530-1561	● Cable, 86.5 cm, AC Input to Terminal
	150-1393	● Capacitor
	240-1614	● Terminal Block
2	340-1833	Front RFI Shield
3	240-1372	M4 0.7 x 10 mm SEM Screw
4	150-1397	Indicator LED
5	530-1506	Indicator LED Cable
6	530-1534	SCSI Power Cable
7	300-1065	1200 Watt Power Supply
7	300-1047	925 Watt Power Supply (obsolete)
8	501-1498	16-slot Backplane, Pressfit (obsolete)
8	501-1597	16-slot Backplane, Pressfit
NS	540-1869	Load Resistor Assembly (obsolete) ¹
NS	180-1189	Power Cord (230V)
NS	180-1190	Power Cord (240V)
NS	230-0203	Cable Tie, 4"
NS	240-0146	Cable Clamp
	800-3265	<i>Sun 16-Slot Logic Enclosure Field Service Manual</i>

¹ The Load Resistor Assembly is only required with the 925 Watt Power Supply.

Sun-4/390/490 16-Slot Logic Enclosure



Sun386i/150/250

3-Slot ATbus Logic Enclosure

PART #	DESCRIPTION
230-1115	Clip, Quarter Turn
330-1118	Rear Bezel
350-1001	Front Bezel Assembly
350-1005	Panel Assembly, Right
350-1006	Panel Assembly, Top
350-1007	Panel Assembly, Left
370-1150	3 1/2" Floppy Drive
370-1158	DC Fan Assembly, 100 CFM
370-1184	DC Fan Assembly, 105 CFM (obsolete)
370-1271	DC Fan Assembly, 94 CFM
530-1370	AC Power Cord (115V)
530-1375	DC Harness, CPU to Floppy Drive & SCSI Disk Drive
530-1376	SCSI Bus Cable, Internal
530-1377	Floppy Data Cable
530-1380	DC Wire Harness, CPU to Fan
530-1381	SCSI Bus Terminator
530-1411	AC Power Cord (UK)
540-1612	Speaker Assembly
540-1613	DC Power Indicator LED
555-1006	265 Watt Power Supply Assembly
300-1032	● 265 Watt Power Supply with 90 VDC Output (obsolete)
300-1046	● 265 Watt Power Supply
340-1618	● Power Supply Air Deflector

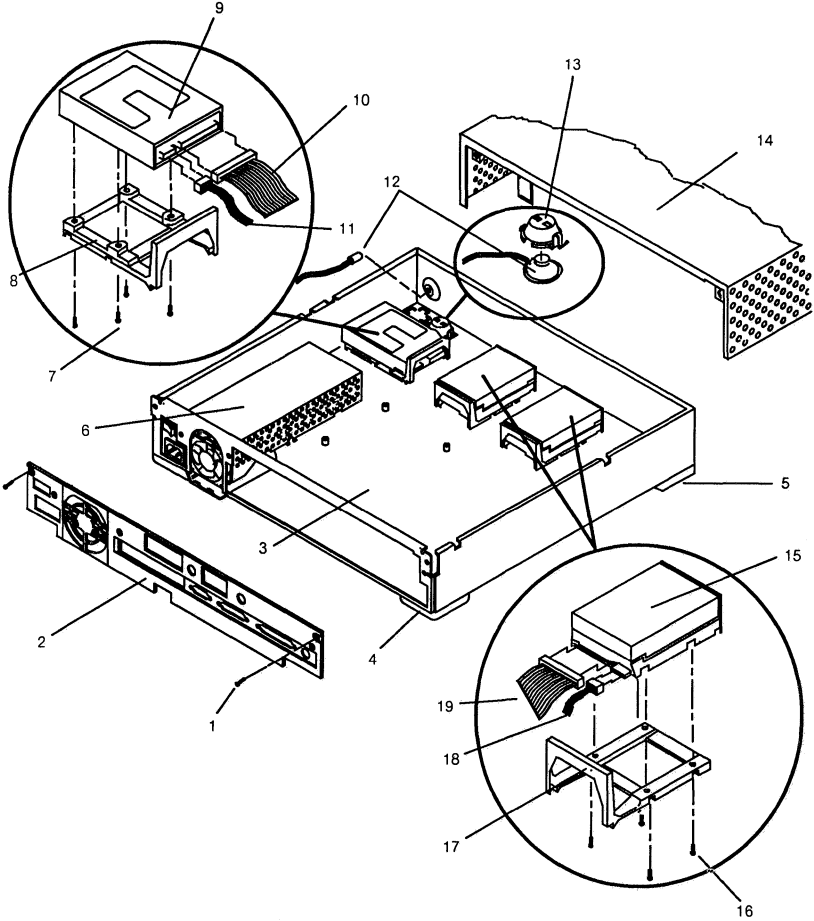
Sun386i/150/250

Disk Drive Options

PART #	DESCRIPTION
555-1004	91MB SCSI Disk Drive Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1148	● 91MB Disk Drive, Imprimis/CDC 77765863
530-1376	SCSI Bus Cable, Internal
530-1381	SCSI Bus Terminator
555-1005	327MB SCSI Disk Drive Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1153	● 327MB Disk Drive, Imprimis/CDC 77777107
530-1376	SCSI Bus Cable, Internal
530-1381	SCSI Bus Terminator
555-1059	155MB SCSI Disk Drive Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1191	● 155MB Disk Drive, Imprimis/CDC 77774677
530-1376	SCSI Bus Cable, Internal
530-1381	SCSI Bus Terminator

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Sun-3/80



Sun-3/80

1-Slot P4 Bus Logic Enclosure

CODE	PART #	DESCRIPTION
1	240-1151	Cover Screw, M4 0.7 x 10 mm (obsolete)
1	240-1206	Cover Screw, M4 0.7 x 10 mm (obsolete)
1	240-1761	Cover Screw, #8-32 x 1/2"
2	540-1710	Rear Panel Assembly (obsolete)
2	330-1173	Rear Panel Assembly
3	540-1701	Base Assembly
NS	230-1140	● LED Mounting Clip
4	330-1214	● Front Foot
5	330-1167	● Rear Foot
6	300-1038	Power Supply
7	240-1530	Screw, M3 x 6 mm
NS	340-1768	Floppy Drive Mounting Bracket (obsolete)
8	330-1242	Floppy Drive Mounting Bracket
NS	340-2045	Floppy Drive Filler Panel
9	370-1207	Floppy Drive
10	530-1452	Floppy Drive Command Cable
11	530-1441	Floppy Drive Power Cable
12	540-1703	Speaker and LED Assembly
13	330-1165	Speaker Housing
14	540-1702	Top Cover Assembly (obsolete)
14	540-1993	Top Cover Assembly
NS	230-1141	● Tinnerman Clip (obsolete)
NS	230-1242	● Tinnerman Clip
15	370-1200	104MB Disk Drive, Quantum 105S
16	240-1141	Screw, #6-32 x 1/4"
17	330-1228	Disk Drive Mounting Bracket
NS	340-1768	Disk Drive Mounting Bracket (obsolete)
18	530-1453	DC Power Harness
19	530-1451	Disk Command Cable
NS	340-1859	Blank Rear Panel
	800-3224	<i>Sun-3/80 Field Service Manual</i>

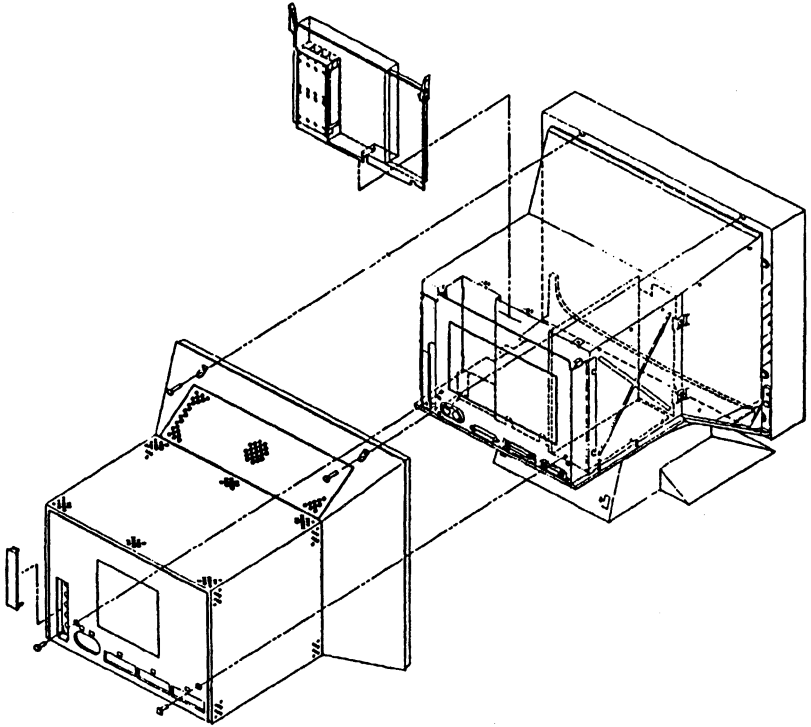
Sun-4/20

1-Slot Logic Enclosure

PART #	DESCRIPTION
330-1298	17" Monitor Control Panel Cover
530-1677	Serial Port Breakout Cable, DB-25 Male to 2 DB-25 Females
530-1696	Ethernet Adapter Cable, 2.0M
530-1702	Audio Adapter Cable
570-1057	17" Greyscale Monitor, FCC-A/VCCI-1
570-1044	17" Greyscale Monitor, FCC-B/VCCI-2
814-5039	<i>SPARCstation SLC Installation & Repair Guide</i>

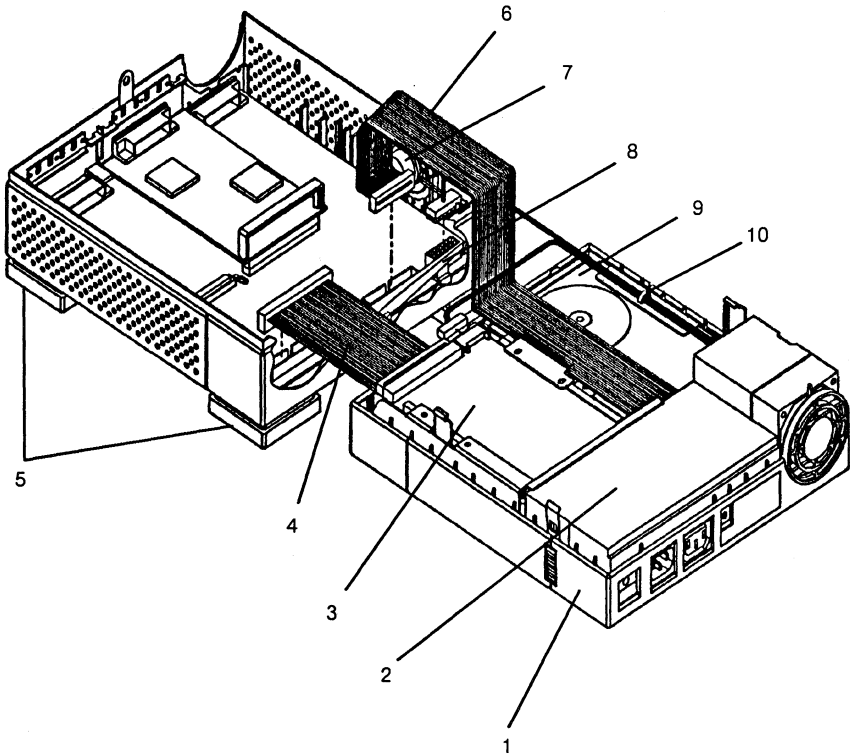
Sun-4/20

1-Slot Logic Enclosure



Sun-4/40

2-Slot SBus Logic Enclosure



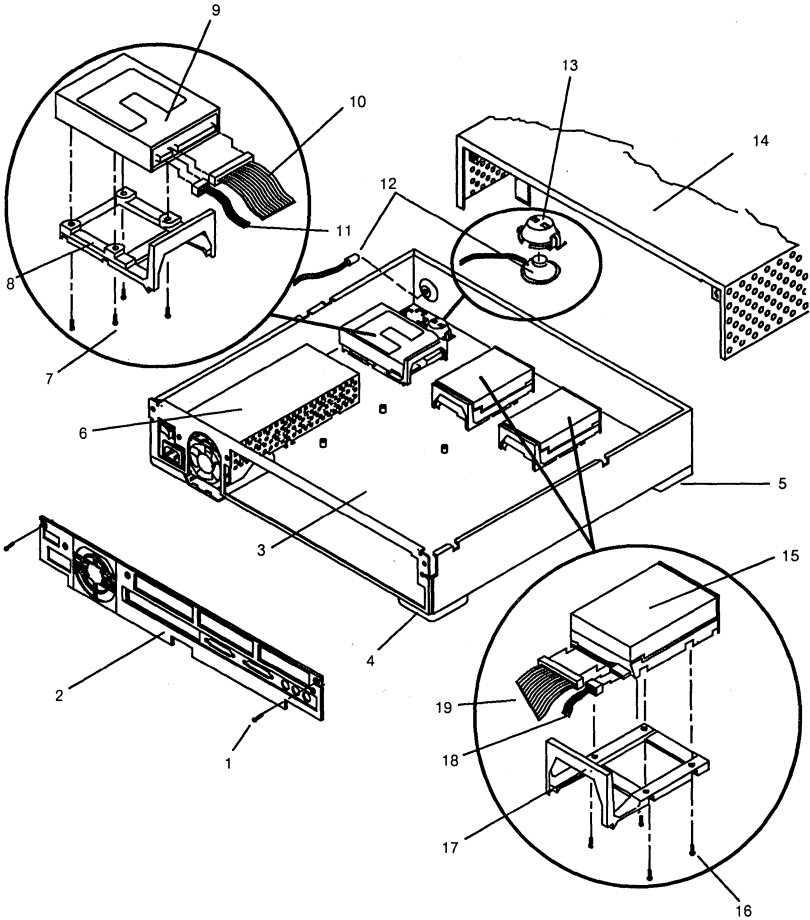
Sun-4/40

2-Slot SBus Logic Enclosure

CODE	PART #	DESCRIPTION
1	540-1998	Top Cover Assembly
2	300-1055	65 Watt Power Supply & DC Harness
3	370-1327	207MB Disk Drive, Quantum 210S
3	370-1327	207MB Disk Drive, Maxtor LXT-213SY
4	530-1451	SCSI Disk Cable
5	330-1214	Rubber Foot
6	530-1643	Floppy Disk Cable
7	540-1973	Speaker Assembly
8	330-1304	LED Light Pipe
9	370-1354	3.5" Floppy Disk Drive
10	330-1313	Cable Management Clip (obsolete)
NS	240-1612	#2-56 x 1/4" Screw, CPU SCSI Connector
NS	330-1322	LED Lens
NS	340-2297	SBus Cover Plate
NS	340-2371	Cable Management Bracket
NS	410-1018	Reusable Field Service System Transit Case
NS	530-1594	Audio Cable, Mini-Din to Mini-Jack
NS	530-1662	RS-232 Cable, External, 1.0 M, Mini-Din to DB-25
NS	540-1982	Top Cover Lockbox Assembly
NS	540-1999	Peripherals Mounting Bracket Assembly
NS	340-2135	● Peripherals Mounting Bracket
NS	240-1789	● Captive Screw, M3.5 0.6 x 10 mm
NS	540-2100	Vertical Support
NS	330-1327	● Vertical Support
NS	540-2090	● Foot Assembly
	800-5038	<i>SPARCstation IPC Field Service Manual</i>
	800-5698	<i>RTF SPARCstation IPC Field Service Manual</i>

Sun-4/60/65

3-Slot SBus Logic Enclosure



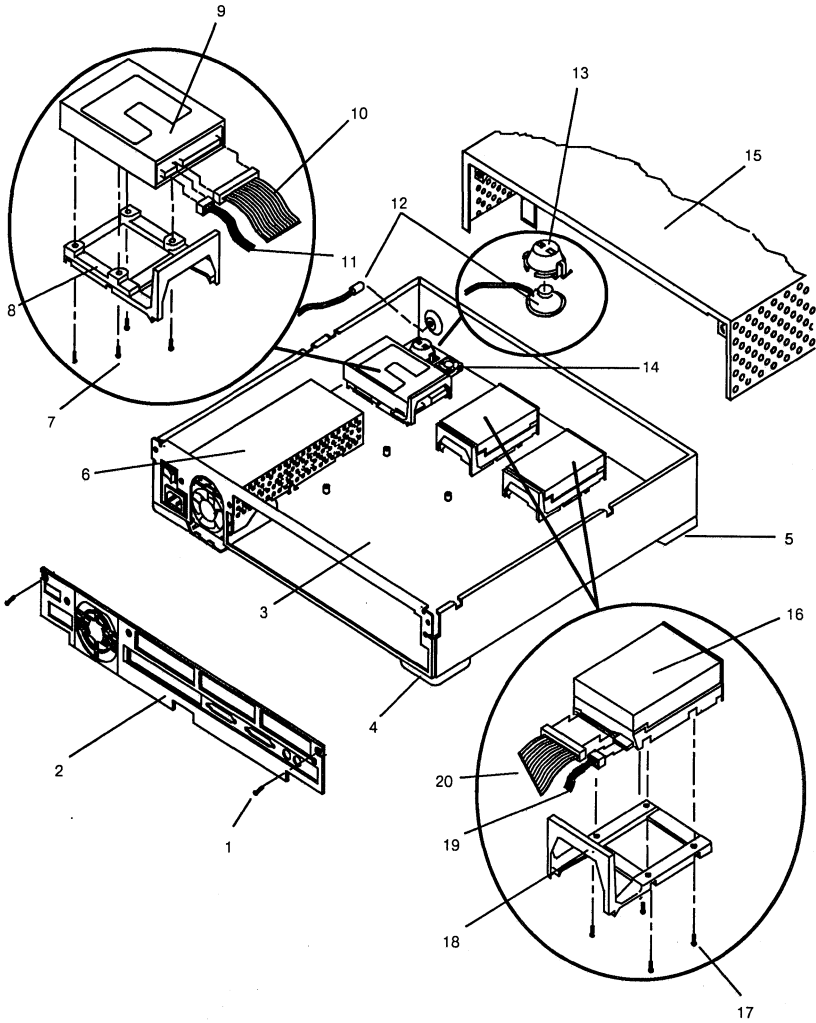
Sun-4/60/65

3-Slot SBus Logic Enclosure

CODE	PART #	DESCRIPTION
1	240-1206	Cover Screw, M4 0.7 x 10 mm (obsolete)
1	240-1531	Cover Screw, M4 0.7 x 10 mm (obsolete)
1	240-1761	Cover Screw, #8-32 x 1/2"
2	540-1708	Rear Panel Assembly (obsolete)
2	330-1168	Rear Panel Assembly
3	540-1701	Base Assembly
NS	230-1140	● LED Mounting Clip
4	330-1214	● Front Foot
5	330-1167	● Rear Foot
6	300-1038	Power Supply
7	240-1530	Screw, M3 x 6 mm
NS	340-1768	Floppy Drive Mounting Bracket (obsolete)
8	330-1242	Floppy Drive Mounting Bracket
NS	340-2045	Floppy Drive Filler Panel
9	370-1207	Floppy Drive
10	530-1452	Floppy Drive Command Cable
11	530-1441	Floppy Drive Power Cable
12	540-1703	Speaker and LED Assembly
13	330-1165	Speaker Housing
14	540-1702	Top Cover Assembly (obsolete)
14	540-1993	Top Cover Assembly
NS	230-1141	● Tinnerman Clip (obsolete)
NS	230-1242	● Tinnerman Clip
15	370-1200	104MB Disk Drive, Quantum 105S
16	240-1141	Screw, #6-32 x 1/4"
17	330-1228	Disk Drive Mounting Bracket
NS	340-1768	Disk Drive Mounting Bracket (obsolete)
18	530-1453	DC Power Harness
19	530-1451	Disk Command Cable
NS	340-1859	Blank Rear Panel
NS	530-1594	Audio Cable, Mini-Din to Mini-Jack
	800-4101	<i>SPARCstation 1 Field Service Manual</i>
	800-4918	<i>Addendum SPARCstation 1 Field Service Manual</i>

Sun-4/75

3-Slot SBus Logic Enclosure



Sun-4/75

3-Slot SBus Logic Enclosure

CODE	PART #	DESCRIPTION
1	240-1761	Cover Screw, #8-32 x 1/2"
2	330-1168	Rear Panel Assembly
3	540-2071	Base Assembly
NS	230-1140	● LED Mounting Clip
4	330-1214	● Front Foot
5	330-1167	● Rear Foot
6	300-1038	Power Supply
7	240-1530	Screw, M3 x 6 mm
8	330-1242	Floppy Drive Mounting Bracket
NS	340-2045	Floppy Drive Filler Panel
NS	330-1344	Floppy Drive Foam Gasket
9	370-1207	Floppy Drive
10	530-1452	Floppy Drive Command Cable
11	530-1679	Floppy Drive Power Cable
12	540-2072	Speaker and LED Assembly
13	330-1165	Speaker Housing
14	540-1802	DC Fan Assembly
15	540-1993	Top Cover Assembly
NS	230-1141	● Tinnerman Clip (obsolete)
NS	230-1242	● Tinnerman Clip
16	370-1327	207MB Disk Drive, Quantum 210S
16	370-1327	207MB Disk Drive, Maxtor LXT-213SY
17	240-1141	Screw, #6-32 x 1/4"
18	330-1343	Disk Drive Mounting Bracket
19	530-1453	DC Power Harness
20	530-1451	Disk Command Cable
NS	530-1594	Audio Cable, Mini-Din to Mini-Jack
	800-5166	<i>SPARCstation 2 Field Service Manual</i>

PARTS BREAKDOWN

RACK

Rack

76-inch Data Center Cabinet & Data Center	
Expansion Cabinet	3
Half-Height Rack	5
56-inch Data Center Cabinet & Data Center	
Expansion Cabinet	6

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76-Inch Data Center Cabinet Data Center Expansion Cabinet Option 960

PART #	DESCRIPTION
180-1149	32Amp IEC-309 AC Receptacle (240V)
300-1011	AC Power Sequencer (115V)
340-0530	19" Logic Enclosure Support Rail Bracket (obsolete)
340-1283	19" Logic Enclosure Support Rail Assembly (obsolete)
340-1284	Keyswitch Panel, 7" x 19" (obsolete)
340-1285	Panel, 7" x 19"
340-1286	Panel, 3.5" x 19"
340-1287	Panel, 24.5" x 19"
340-1441	Keyswitch Panel, 1.5" x 19"
340-1442	Tape Drive Filler Panel, 1.5" x 19"
340-1485	19" Logic Enclosure Filler Panel, xxx x 19"
340-1487	Rear Panel with Cable Cutout, 22.7" x 19"
340-1489	Panel, 1.5 x 19"
340-1490	Panel, 10.5" x 19"
340-1522	19" Logic Enclosure Support Rail (obsolete)
340-1554	Panel, 19.6" x 19"
340-1595	Perforated Panel, 20" x 19"
340-1597	Panel, 5.25 x 19"
340-1662	892MB Disk Drive Front Panel
340-1700	Front Panel, 3.5" x 19" x 40 mm
340-1701	Front Panel, 10.5" x 19" x 40 mm
340-1715	Filler Panel for 340-1662
370-1027	AC Power Sequencer (230V) (obsolete)
370-1045	Blower Assembly
370-1053	76" rack with Rear Door
370-1105	76" rack without Rear Door
370-1126	AC Power Sequencer (240V) (obsolete)
370-1155	AC Power Sequencer (230V)
370-1156	AC Power Sequencer (240V)

76-Inch Data Center Cabinet Data Center Expansion Cabinet Option 960

PART #	DESCRIPTION
530-1298	AC Power Cord, Fan Assembly (115V)
530-1303	Keypress Cable, 2.75M
530-1328	AC Power Cord, Fan Assembly (230V)
530-1343	AC Power Cord, 19" Logic Enclosure (240V)
530-1344	AC Power Cord, Fan Assembly (240V)
530-1346	AC Power Cord, Fujitsu M2444AC Tape Drive (240V)
530-1347	AC Power Cord, Fujitsu M2361A Disk Drive (240V)
530-1348	AC Power Cord, Fujitsu M2444AC Tape Drive (230V)
530-1349	AC Power Cord, Fujitsu M2361A Disk Drive (230V)
530-1350	AC Power Cord, CDC 92181 Tape Drive (230V)
530-1351	AC Power Cord, 19" Logic Enclosure (230V)
540-1285	Keypress Assembly
540-1428	AC Fan Assembly (115V)
340-1491	Fan Bracket
370-0550	● AC Fan (115V)
540-1503	AC Fan Assembly (230V)
340-1491	Fan Bracket
370-1124	● AC Fan (230V)
540-1568	AC Fan Assembly (240V)
340-1491	Fan Bracket
370-1124	● AC Fan (240V)
540-1585	19" Logic Enclosure Support Rail Assembly
340-1583	● 19" Logic Enclosure Support Rail Bracket
340-1584	● 19" Logic Enclosure Support Rail
560-1113	19" Logic Enclosure Mounting Hardware Kit

Half-Height Rack

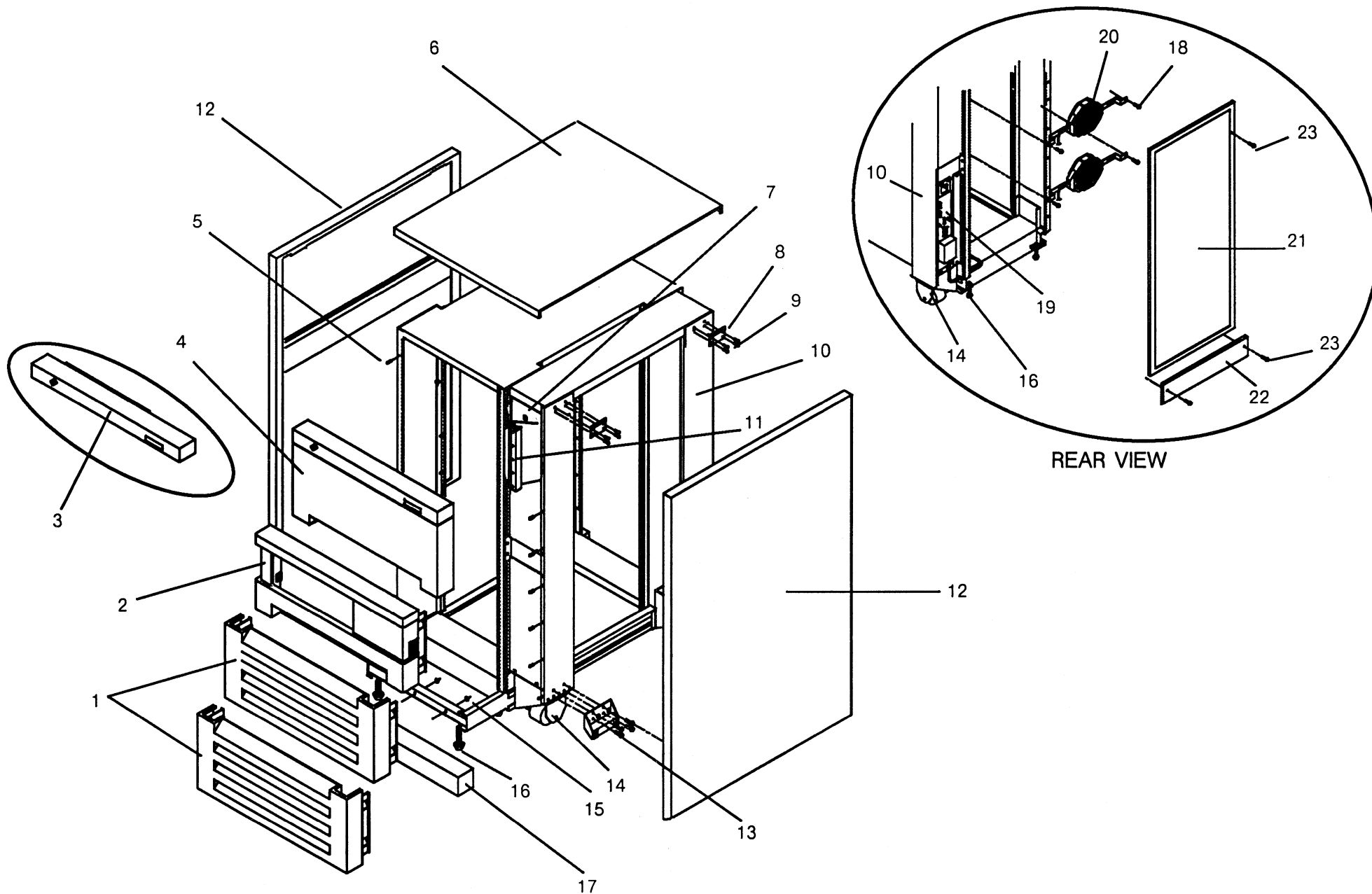
Option 950

PART #	DESCRIPTION
340-1434	Rear Door
340-1468	Front Door Plug
370-1060	Half-Height Rack, 40" x 19" x 30"
370-1080	CDC 92181 1/2" Tape Drive Horizontal Mounting Kit
370-1093	AC Outlet Strip (115V)
370-1114	CDC 92181 1/2" Tape Drive Operator Panel Cover
370-1115	CDC 92181 1/2" Tape Drive Operator Panel
530-1079	External Tape Command Cable, 0.7M (obsolete)
530-1079	External SMD Command Cable, 0.7M (obsolete)
530-1080	External SMD Data Cable, 0.7M (obsolete)
530-1209	External Tape Command Cable, 2.0M
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
540-1369	Cable Panel Assembly, 1/2" Tape Drive
530-1256	● Internal 1/2" Tape Command Cable
340-1433	● Cable Panel
540-1397	Cable Panel Assembly, 1/2" Tape Drive, Blank
340-1433	● Cable Panel
340-1447	● Filler Panel

56-Inch Data Center Cabinet Data Center Expansion Cabinet Option 955

CODE	PART #	DESCRIPTION
1	540-1857	Vented Panel Assembly
2	540-1947	1/2" Tape Panel Assembly with Cutout
3	540-1859	Cap Panel Assembly
4	540-1858	Upper Panel Assembly, 1/2" & 1/4" Tape, Hinged
5	240-1630	#6-32 Ballstud
6	340-1840	Top Panel
7	540-1285	Keyswitch Assembly
8	340-1885	Side Restraint Bracket, Upper
9	240-1372	M4 0.7 x 10 mm Sem Screw
10	540-1718	Frame Assembly
11	340-1881	Hinge Bracket
12	340-1848	Side Panel
13	340-1886	Side Restraint Bracket, Lower
14	370-1210	Caster
15	240-1373	M4 0.7 Kepnut
16	230-1181	Leveler Foot
17	340-1884	Anti-Tilt Panel
18	240-1207	#10-32 x 1/2" Sem Screw
19	370-1155	Power Sequencer (230V)
19	370-1156	Power Sequencer (240V)
20	540-1929	Fan Assy (230V)
20	540-1930	Fan Assy (240V)
21	340-1845	Rear Panel
22	340-2047	Kick Panel
23	240-1655	#10-32 x 3/4" Screw
NS	230-1166	Cable Tie 5.5", Reuseable
NS	230-1170	Cable Tie 10", Reuseable
NS	230-1177	Snap In Clip
NS	240-1633	Washer, Flat, 1.00
NS	240-1634	Washer, Lock, 3/8"
NS	240-1738	3/8 x 16 x 4.0 Screw
NS	240-1739	3/8" x 16 x 7.0 Screw
NS	240-1748	3/8" x 16 x 4.0 Screw
NS	340-1835	16-slot Chassis Support Rail, Left
NS	340-1913	Filler Panel, 5.2" x 19"
NS	340-2057	16-slot Chassis Support Rail, Right
NS	340-2138	Ballast, 30 lbs
NS	530-1303	Remote Keyswitch Cable
NS	800-3259	<i>Sun 56-inch Data Center Cabinet and Data Center Expansion Cabinet Field Service Manual</i>

56" Server System Cabinet and Expansion System



PARTS BREAKDOWN

OPTION

External Peripheral Option

OPTION	DESCRIPTION	
55	71MB Disk Mass Storage Subsystem	7
55EX	71MB Expansion Disk Mass Storage Subsystem ...	7
56	71MB Disk & 60MB Tape Mass Storage Subsystem	7
60	65MB Disk Subsystem	8
61	65MB Disk & 20MB Tape Subsystem	8
62	65MB Expansion Disk Subsystem	8
73	20MB Tape Subsystem	8
63	130MB Disk Subsystem	9
64	130MB Expansion Disk Subsystem	9
65	130MB Disk & 20MB Tape Subsystem	9
63	130MB Disk Subsystem	10
64	130MB Expansion Disk Subsystem	10
65	2x 130MB Disk Subsystem	10
66	130MB SMD Disk Subsystem	11
67	130MB Expansion SMD Disk Subsystem	11
D169	130MB SMD Disk Subsystem	11
D169EX	130MB Expansion SMD Disk Subsystem	11
D474	380MB SMD Disk Subsystem	12
D474EX	380MB Expansion SMD Disk Subsystem	12
68	380MB SMD Disk Subsystem	12
69	380MB Expansion SMD Disk Subsystem	12
620	380MB SMD Disk Subsystem	12
621	380MB Expansion SMD Disk Subsystem	12
75	1600 BPI 1/2" Tape Drive	13
670	1600 BPI 1/2" Tape Drive	13
TR	1600 BPI 1/2" Tape Drive	13
78	6250 BPI 1/2" GCR Tape Drive	14
675	6250 BPI 1/2" GCR Tape Drive	14
180	SunButtons	16

External Peripheral Option – Continued

OPTION	DESCRIPTION	
190	SunDials	16
501	71MB Disk Mass Storage Subsystem	17
503	71MB Expansion Disk Mass Storage Subsystem	17
511	71MB Disk & 60MB Tape Mass Storage Subsystem ...	17
504	141MB Disk Mass Storage Subsystem	18
505	141MB Expansion Disk Mass Storage Subsystem	18
514	141MB Disk & 60MB Tape Mass Storage Subsystem ...	18
506	327MB Disk Mass Storage Subsystem	19
507	327MB Expansion Disk Mass Storage Subsystem	19
509	2x 327MB Expansion Disk Mass Storage Subsystem ...	19
510	2x 327MB Disk Mass Storage Subsystem	19
516	327MB Disk & 60MB Tape Mass Storage Subsystem	19
526	327MB Disk External Storage Module	20
527	327MB Disk External Expansion Module	20
530	2x 327MB Disk External Storage Module	20
539	327MB Disk & 150MB Tape External Storage Module ..	20
550	104MB Desktop Disk Pack	22
552	207MB Desktop Disk Pack	22
558	644MB Desktop SunCD Pack	24
561	669MB Disk External Storage Module	26
563	2x 669MB Disk External Storage Module	26
565	669MB Disk & 150MB Tape External Storage Module ..	26
566	669MB Disk & 2.3GB Tape External Storage Module ...	26
601	130MB Disk Mass Storage Pedestal	27
602	130MB Expansion Disk Mass Storage Pedestal	27
603	2x 130MB Disk Mass Storage Pedestal	27
605	280MB Disk Mass Storage Pedestal	29
606	2x 280MB Disk Mass Storage Pedestal	29
615	688MB Disk Mass Storage Pedestal	31

External Peripheral Option – Continued

OPTION	DESCRIPTION	
616	2x 688MB Disk Mass Storage Pedestal	31
625	575MB SMD Disk Subsystem	33
626	575MB Expansion SMD Disk Subsystem	33
629	892MB SMD Disk Subsystem	34
630	892MB Expansion SMD Disk Subsystem	34
631	2x 892MB SMD Disk Subsystem	35
641	892MB SMD Disk Subsystem	35
642	2x 892MB SMD Disk Subsystem	35
643	3x 892MB SMD Disk Subsystem	35
644	4x 892MB SMD Disk Subsystem	35
645	892MB Expansion SMD Disk Subsystem without Tray . .	35
646	892MB Expansion SMD Disk Subsystem	35
660	150MB Desktop Backup Pack	36
680	Tabletop Front-Load 1/2" Tape Drive	39
682	56" Rack Front-Load 1/2" Tape Drive	39
683	56" Expansion Rack 1st Front-Load 1/2" Tape Drive . .	39
684	56" Expansion Rack 2nd Front-Load 1/2" Tape Drive .	39
706A	1.2GB Disk Subsystem	44
707A	2x 1.2GB Disk Subsystem	44
709A	4x 1.2GB Disk Subsystem	44
710A	8x 1.2GB Disk Subsystem	44
716A	911MB Disk Subsystem	45
717A	2x 911MB Disk Subsystem	45
719A	4x 911MB Disk Subsystem	45
720A	8x 911MB Disk Subsystem	45
731	688MB Sun Expansion Pedestal	48
732	2x 688MB Sun Expansion Pedestal	48
733	3x 688MB Sun Expansion Pedestal	48
734	4x 688MB Sun Expansion Pedestal	48

External Peripheral Option – Continued

OPTION	DESCRIPTION	
741A	1.2GB Sun Expansion Pedestal	52
742A	2x 1.2GB Sun Expansion Pedestal	52
743A	3x 1.2GB Sun Expansion Pedestal	52
744A	4x 1.2GB Sun Expansion Pedestal	52
745A	1.2GB Disk Standalone	52
741L	911MB Sun Expansion Pedestal	54
742L	2x 911MB Sun Expansion Pedestal	54
743L	3x 911MB Sun Expansion Pedestal	54
744L	4x 911MB Sun Expansion Pedestal	54
745L	911MB Disk Standalone	54
941	892MB SMD Disk Subsystem	56
942	2x 892MB SMD Disk Subsystem	56
943	3x 892MB SMD Disk Subsystem	56
944	4x 892MB SMD Disk Subsystem	56
945	892MB Expansion SMD Disk Subsystem w/o Tray .	56
946	892MB Expansion SMD Disk Subsystem	56
D84	65MB Disk Subsystem	57
D84TC	65MB Disk & 20MB Tape Subsystem	57
D84EX	65MB Expansion Disk Subsystem	57
TC	20MB Tape Subsystem	57
LW110	115V LaserWriter I	58
LW220	220V LaserWriter I	58
LW240	240V LaserWriter I	58
Sun/LW-1	115V LaserWriter I	58
Sun/LW-2	220V LaserWriter I	58
Sun/LW-3	240V LaserWriter I	58
LW-1	115V LaserWriter II	59
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External Peripheral Option – Continued

OPTION	DESCRIPTION	
RR127	Empty Sun386i Expansion Unit	60
RR128	60MB Tape Sun386i Expansion Unit	60
RR129	327MB Disk & 60MB Tape Sun386i Expansion Unit	60
RREXP	60MB Tape Sun386i Expansion Unit	60
RREXP-P7	327MB Disk & 60MB Tape Sun386i	60
RR131	155MB Disk Add-on Sun386i Options	61
RR132	60MB Tape Add-on Sun386i Options	61
RR133	91MB Disk Add-on Sun386i Options	61
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IPC-FPY1	Single Floppy Subsystem	63
IPC-FPY2	Dual Floppy Subsystem	63
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GT Graphics Tower		64

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55

71MB Disk

55EX71MB Disk
Expansion**56**71MB Disk
60MB Tape**Mass Storage Subsystem (Sun-2 Shoebox)**

PART #	DESCRIPTION
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
370-1010	Adaptec ACB-4000 SCSI Disk Controller
370-1011	Sysgen SC4000 SCSI Tape Controller
370-1026	Archive Stand Alone Controller (SAC)
370-1043	45/60MB 1/4" Tape Drive, QIC-11/24, Archive Basic 9050B
530-1185	External SCSI Cable, DD-50SA to DD-50SA, 1.0M (obs)
370-1034	71MB Disk Drive, Micropolis 1325
370-1034	71MB Disk Drive, Fujitsu M2243AS
530-1185	External SCSI Cable, DD-50SA to DD-50SA, 1.0M (obs)
530-1186	External SCSI Cable, DD-50SA to DD-50SA, 3.0M (obs)
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
540-1301	150 Watt Power Supply Assembly
300-1015	● 150 Watt Power Supply
530-1199	● DC Wire Harness
540-1302	● AC Line Filter
none	DC Fan Assembly
none	Disk Command Cable (use 530-1157)
none	Disk Data Cable (use 530-1145)
none	Tape Command Cable (use 530-1103)
none	Internal SCSI Command Cable
800-1292	<i>Sun/50 Mass Storage Subsystem Service Manual</i>

60

65MB Disk

6165MB Disk
20MB Tape**62**65MB Disk
Expansion**73**

20MB Tape

Rackmountable Disk and Tape Subsystem

PART #	DESCRIPTION
140-1024	Fuse, 5A (115V)
150-0137	AC Filter/Fuse/Switch
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-0566	170 Watt Power Supply (obsolete)
300-1014	250 Watt Power Supply
340-1274	Mounting Bracket for 300-1014 Power Supply
370-0567	65MB SMD Disk Drive, Fujitsu M2312K
370-1011	Sysgen SC4000 SCSI Tape Controller
370-1024	20MB 1/4" Tape Drive, QIC-11, Archive Basic 9020B
370-1026	Archive Stand Alone Controller (SAC)
530-0554	DC Harness, Power Supply to Disk Drive
530-1052	AC Harness, AC Filter to Power Supply
530-1053	Power Supply & Filter Ground Harness
530-1079	● External SMD Command Cable, 0.7M
530-1080	● External SMD Data Cable, 0.7M
530-1103	Tape Command Cable, Tape Drive to Sysgen SC4000
530-1104	DC Harness, Power Supply to Tape Subsystem
530-1115	Tape Command Cable, Archive SAC to Tape Drive
530-1153	DC Harness, DC Fan
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
540-1051	SCSI Cable Panel Assembly
530-1108	● Internal SMD Command Cable
530-1216	● Internal SCSI Command Cable
530-1219	● Internal SMD Data Cable
540-1509	DC Fan Assembly, 88 CFM

63

130MB Disk

64130MB Disk
Expansion**65**130MB Disk
Expansion**Rackmountable Disk and Tape Subsystem**

PART #	DESCRIPTION
140-1024	Fuse, 5A (115V)
150-0137	AC Filter/Fuse/Switch
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-0566	170 Watt Power Supply (obsolete)
300-1014	250 Watt Power Supply
340-1274	Mounting Bracket for 300-1014 Power Supply
370-1011	Sysgen SC4000 SCSI Tape Controller
370-1014	130MB SMD Disk Drive, Fujitsu M2322K
370-1024	20MB 1/4" Tape Drive, QIC-11, Archive Basic 9020B
370-1026	Archive Stand Alone Controller (SAC)
530-0554	DC Harness, Power Supply to Disk Drive
530-1052	AC Harness, AC Filter to Power Supply
530-1053	Power Supply & Filter Ground Harness
530-1079	● External SMD Command Cable, 0.7M
530-1080	● External SMD Data Cable, 0.7M
530-1103	Tape Command Cable, Tape Drive to Sysgen SC4000
530-1104	DC Harness, Power Supply to Tape Subsystem
530-1115	Tape Command Cable, Archive SAC to Tape Drive
530-1153	DC Harness, DC Fan
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
540-1051	SCSI Cable Panel Assembly
530-1108	● Internal SMD Command Cable
530-1216	● Internal SCSI Command Cable
530-1219	● Internal SMD Data Cable
540-1509	DC Fan Assembly, 88 CFM

63

130MB Disk

64130MB Disk
Expansion**65**

2x 130MB Disks

Disk Subsystem (9-Slot Chassis)

PART #	DESCRIPTION
140-1010	Fuse, 5A (115V)
150-1041	Fuseholder
150-1042	Fusecarrier
150-1018	Power Switch, Illuminated
150-1039	AC Line Filter
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1020	Air Filter
240-1048	Castor
300-0566	170 Watt Power Supply (obsolete)
300-1014	250 Watt Power Supply
330-1009	Front Bezel
340-1037	Side Cover (obsolete)
340-1039	Top Cover
340-1261	Right Side Cover
340-1262	Left Side Cover
340-1276	Mounting Bracket for 300-1014 Power Supply
370-1014	130MB SMD Disk Drive, Fujitsu M2322K
530-0550	DC Harness, Power Supply Ground Connect
530-0554	DC Harness, Power Supply to Disk Drive
530-1014	AC Harness, Line Filter to Power Switch
530-1052	AC Harness, Power Supply to Power Supply
530-1063	Internal SMD Command Cable
530-1064	Internal SMD Data Cable
530-1076	AC Harness, Power Switch to Power Supply
530-1079	External SMD Command Cable, 0.7M (obsolete)
530-1080	External SMD Data Cable, 0.7M (obsolete)
530-1100	DC Harness, Power Supply to Fan
540-1128	DC Fan Assembly, 71 CFM
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
540-1509	DC Fan Assembly, 88 CFM (obsolete)

66

130MB Disk

67130MB Disk
Expansion**D169**

130MB Disk

D169EX130MB Disk
Expansion**130MB SMD Disk Subsystem**

PART #	DESCRIPTION
300-1001	Power Supply (115V)
300-1003	Power Supply (240V)
370-1003	130MB SMD Disk Drive, Fujitsu M2284K
370-1004	Terminator, Fujitsu M2284K
530-0607	External SMD Daisy Chain Cable, Sun-2/150U
530-1010	External SMD Daisy Chain Command Cable
530-1046	External SMD Command Cable, 1.0M, Sun-2/150U
530-1047	External SMD Data Cable, 1.0M, Sun-2/150U
530-1079	External SMD Command Cable, 0.7M (obsolete)
530-1080	External SMD Data Cable, 0.7M (obsolete)
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
540-1042	SMD Cable Panel Assembly, 19" Rackmount
530-1097	● SMD Command Cable
530-1218	● SMD Data Cable

D474
380MB Disk

D474EX
380MB Disk
Expansion

68
380MB Disk

69
380MB Disk
Expansion

620
380MB Disk

621
380MB Disk
Expansion

380MB SMD Disk Subsystem

PART	DESCRIPTION
340-1430	Top Cover
340-1470	Head Lock Access Cover
370-1003	380MB SMD Disk Drive, Fujitsu M2351A
370-1004	Terminator, Fujitsu M2351A
530-0607	External SMD Daisy Chain Cable, Sun-2/150U
530-1046	External SMD Command Cable, 1.0M, Sun-2/150U
530-1047	External SMD Data Cable, 1.0M, Sun-2/150U
530-1079	External SMD Command Cable, 0.7M
530-1080	External SMD Data Cable, 0.7M
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
530-1214	External SMD Command Cable, 300 mm (obsolete)
530-1219	External SMD Data Cable, 500 mm (obsolete)
540-1042	SMD Cable Panel Assembly, 19" Rackmount
530-1097	● SMD Command Cable
530-1218	● SMD Data Cable
540-1396	Rear Cover Assembly
340-1431	● Rear Cover
530-1244	● SMD Command Cable
530-1245	● SMD Data Cable

75

1/2" Tape

670

1/2" Tape

TR

1/2" Tape

1600 BPI 1/2" Tape Drive

PART #	DESCRIPTION
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
370-0479	1600 BPI 1/2" Tape Drive, CDC 92181
530-1043	External Tape Command Cable, 1.0M
530-1079	External Tape Command Cable, 0.7M, DB-25 & DB-37 (obs)
530-1209	External Tape Command Cable, 1.0M, DB-25 & DB-37
540-1042	1/2" Tape Cable Panel Asembly, 19" Rackmount
530-1098	● Tape Command Cable
540-1368	1/2" Tape Cable Panel Asembly, 19" Rackmount
530-1243	● Tape Command Cable

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675

6250 BPI 1/2" Tape Drive

PART #	DESCRIPTION
370-1062	6250 BPI 1/2" Tape Drive, Fujitsu M2444AC
230-4601	● Elastic File Reel Hub Ring
530-1346	● AC Power Cord, IEC to CPC (240V)
530-1348	● AC Power Cord, NEMA 6-15P to CPC (230V)
555-1055	● Adjusted Tension Sensor, Idler Tachometer, & RPA Assy
811-1031	● Tension Sensor
811-1040	● Idler Tachometer
811-1048	● RPGMU PCA (RPA)
811-1026	● Tape Panel
811-1027	● Power Supply
811-1028	● Fuse
811-1029	● Operator Panel with Red LEDs
811-1030	● BOT/EOT Sensor
811-1031	● Tension Sensor
811-1032	● File Reel Motor
811-1033	● Write Enable Sensor
811-1034	● File Reel Tachometer Sensor
811-1035	● File Reel Hub
230-4601	● Elastic File Reel Hub Ring
811-1036	● Shield Block
811-1037	● Machine Reel Motor
811-1038	● Machine Tachometer Sensor
811-1039	● Machine Reel
811-1040	● Idler Tachometer
811-1041	● Tape Loading Fan
811-1042	● Tape Head
811-1043	● Roller Catch
811-1044	● Air Filter
811-1045	● Right Fan
811-1046	● Left Fan
811-1047	● Red Power Switch

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675

6250 BPI 1/2" Tape Drive – Continued

PART #	DESCRIPTION
811-1048	● RPGMU PCA (RPA)
811-1049	● WAPMU PCA (WTA)
811-1050	● UIJMU PCA (SVA)
811-1051	● Buffer PCA (BUF)
811-1052	● 512186U PCA (WFM)
811-1053	● 512188U PCA (RFM)
811-1054	● 532705U PCA (MPU)
811-1055	● 532706U PCA (IFU)
811-1056	● RKEMU PCA (RDA)
811-1057	● 550194U PCA (VFO)
811-1058	● Tachometer Cup
811-1149	● Operator Panel Cable
530-1079	External Tape Command Cable, 0.7M, DB-25 & DB-37 (obs)
530-1209	External Tape Command Cable, 1.0M, DB-25 & DB-37
530-1691	External Tape Command Cable, 5.5M, DB-25 & DB-37
540-1368	1/2" Tape Cable Panel Assembly, 19" Rackmounted
530-1243	● Tape Command Cable
540-1429	1/2" Tape Drive Cable Panel Assembly, Tape Drive Mounted
530-1299	● Tape Command Cable A
530-1301	● Tape Command Cable B
800-1409	<i>M244X Series Streaming Tape Drive CE Manual</i>

180

SunButtons

PART #	DESCRIPTION
180-1125	● AC Power Cord (240V) (obsolete)
260-3861	● Overlay Template
300-1053	● Power Supply (115V)
300-1054	● Power Supply (240V)
370-1291	● SunButtons Box
530-1525	● DB-9 to DB-15 to DIN-5 Cable, 2.0M

190

SunDials

PART #	DESCRIPTION
595-1737	SunDials Assembly (115V)
260-3257	● Overlay Template
300-1053	● Power Supply (115V)
370-1223	● Dialbox & Bale
530-1525	● DB-9 to DB-15 to DIN-5 Cable, 2.0M
540-1935	● RFI Filter, DB-25
595-1773	SunDials Assembly (240V)
180-1125	● AC Power Cord (240V) (obsolete)
260-3257	● Overlay Template
300-1054	● Power Supply (240V)
370-1223	● Dialbox & Bale
530-1525	● DB-9 to DB-15 to DIN-5 Cable, 2.0M
540-1935	● RFI Filter, DB-25

501

71MB Disk

50371MB Disk
Expansion**511**71MB Disk
60MB Tape**Mass Storage Subsystem (Sun-3 Shoebox)**

PART #	DESCRIPTION
140-1002	Fuse, 3A (240V)
150-1034	Fuse, 3A (115V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-1019	170 Watt Power Supply (obsolete)
530-1238	● DC Harness, Power Supply to Peripherals (obsolete)
530-1237	● AC Harness, Power Supply to Select Switch (obsolete)
300-1028	170 Watt Power Supply
530-1326	● DC Harness, Power Supply to Peripherals
530-1325	● AC Harness, Power Supply to Voltage Select Switch
340-1376	Tape Drive Mounting Bracket
340-1401	Disk Drive Mounting Bracket
370-1010	Adaptec ACB-4000 SCSI Disk Controller
370-1034	71MB Disk Drive, Micropolis 1325 or Fujitsu M2243AS
370-1061	Emulex MT02 Tape Controller
370-1076	45/60MB 1/4" Tape Drive, Wangtech 5099EN24 (obsolete)
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EN24
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945C
370-1235	Emulex MT02 Tape Controller
530-1233	Internal SCSI Cable
530-1234	Internal SCSI Disc Data Cable
530-1235	Internal SCSI Disk Command Cable
530-1236	Internal SCSI Tape Command Cable
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
540-1333	AC Switch Assembly (obsolete)
540-1406	AC Switch Assembly
540-1411	DC Fan (obsolete)
540-1511	110/220 Voltage Select Switch
540-1512	DC Fan Assembly, 180 mm Wire Harness
540-1752	DC Fan Assembly, 65 mm Wire Harness
555-1076	170 Watt to 130 Watt Power Supply Conversion Kit
300-1045	● 130 Watt Power Supply
530-1432	● DC Harness, Power Supply to Peripherals
811-9015	● Faston Adapter Power Supply to Voltage Select Switch

504

141MB Disk

505141MB Disk
Expansion**514**141MB Disk
60MB Tape**Mass Storage Subsystem (Sun-3 Shoebox)**

PART #	DESCRIPTION
140-1002	Fuse, 3A (240V)
150-1034	Fuse, 3A (115V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-1028	170 Watt Power Supply
530-1326	● DC Harness, Power Supply to Peripherals
530-1325	● AC Harness, Power Supply to Voltage Select Switch
340-1376	Tape Drive Mounting Bracket
340-1401	Disk Drive Mounting Bracket
370-0551	141MB Disk Drive, Micropolis 1355
370-0551	141MB Disk Drive, Toshiba MK156
370-0552	Emulex MD21 ESDI Disk Controller
370-1061	Emulex MT02 Tape Controller
370-1076	45/60MB 1/4" Tape Drive, Wangtech 5099EN24 (obsolete)
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EN24
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945C
370-1235	Emulex MT02 Tape Controller
370-1236	Emulex MD21 ESDI Disk Controller
530-1233	Internal SCSI Cable
530-1234	Internal SCSI Disc Data Cable
530-1235	Internal SCSI Disk Command Cable
530-1236	Internal SCSI Tape Command Cable
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
540-1406	AC Switch Assembly
540-1511	110/220 Voltage Select Switch
540-1512	DC Fan, 180 mm Wire Harness
540-1752	DC Fan, 65 mm Wire Harness
555-1076	170 Watt to 130 Watt Power Supply Conversion Kit
300-1045	● 130 Watt Power Supply
530-1432	● DC Harness, Power Supply to Peripherals
811-9015	● Faston Adapter Power Supply to Voltage Select Switch
813-1011	<i>Sun/3 Mass Storage Subsystem Field Service Manual</i>

506 327MB Disk	507 327MB Disk Expansion	509 2x 327MB Disk Expansion	510 2x 327MB Disk	516 327MB Disk 60MB Tape
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Mass Storage Subsystem (Sun-3 Shoebox)

PART #	DESCRIPTION
140-1002	Fuse, 3A (240V)
150-1034	Fuse, 3A (115V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-1028	170 Watt Power Supply, Todd or Cal DC
530-1326	● DC Harness, Power Supply to Peripherals
530-1325	● AC Harness, Todd Power Supply to Voltage Select Switch
340-1720	Tape Drive & 2nd Disk Drive Mounting Bracket
340-1401	Disk Drive Mounting Bracket
370-0552	Emulex MD21 ESDI Disk Controller
370-1133	327MB Disk Drive, Micropolis 1558-15
370-1061	Emulex MT02 SCSI Tape Controller
370-1076	45/60MB 1/4" Tape Drive, Wangtech 5099EN24 (obsolete)
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Wangtech 5099EN24
370-1103	45/60MB 1/4" Tape Drive, QIC-11/24, Archive 5945C
370-1235	Emulex MT02 SCSI Tape Controller
370-1236	Emulex MD21 ESDI Disk Controller
530-1233	Internal SCSI Cable
530-1234	Internal SCSI Disc Data Cable, 1st Disk Drive
530-1235	Internal SCSI Disk Command Cable
530-1236	Internal SCSI Tape Command Cable
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
530-1406	Internal SCSI Disc Data Cable, 2nd Disk Drive
530-1407	Internal SCSI Disk Command Cable, Dual Disk Drive
540-1406	AC Switch Assembly
540-1511	110/220 Voltage Select Switch
540-1512	DC Fan, 180 mm Wire Harness
540-1752	DC Fan, 65 mm Wire Harness
555-1076	170 Watt to 130 Watt Power Supply Conversion Kit
300-1045	● 130 Watt Power Supply, Boschert
530-1432	● DC Harness, Power Supply to Peripherals
811-9015	● Faston Adapter Power Supply to Voltage Select Switch
813-1011	<i>Sun/3 Mass Storage Subsystem Field Service Manual</i>

526

327MB Disk

527327MB Disk
Expansion**530**

2x 327MB Disks

539327MB Disk
150MB Tape**External Storage and External Expansion Modules**

PART #	DESCRIPTION
150-1556	SCSI ID Select Switch
300-1031	120 Watt Power Supply
330-1146	Disk Drive Mounting Bracket
330-1158	Disk Drive Removal Handle
350-1006	Top Cover
350-1010	Left Side Cover
350-1011	Front Bezel
350-1013	Right Side Cover
350-1117	Rear Bezel
370-1203	DC6150 QIC-150 1/4" Tape Cartridge
370-1246	150MB Tape Drive, Full-Height, QIC-150
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
530-1334	External SCSI Cable, DD-50SA to DD-50SA, 2.5M
530-1365	External SCSI Cable, DD-50SA to DD-50SA, 41 cm
530-1381	External Terminator
530-1409	Internal SCSI Cable (obsolete)
530-1435	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 2.0M
530-1593	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 1.0M
530-1461	1/4" Tape Drive SCSI Adapter Cable
530-1618	Internal SCSI Cable
530-1659	SCSI ID Select Switch Cable
555-1005	327MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1153	● 327MB Disk Drive, Imprimis/CDC 77777107
570-1042	Full-Height Peripheral Front Filler Panel
814-5036	<i>Replacing Components of Sun ESM and EEM Storage Units</i>

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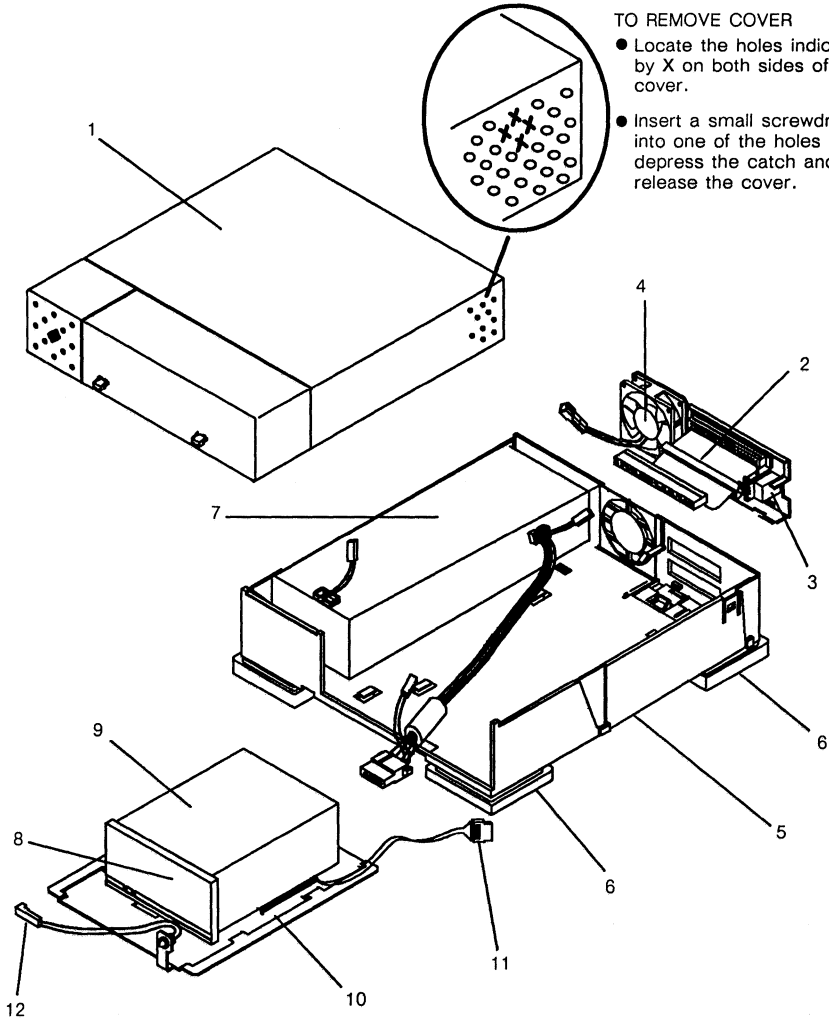
550
104MB Disk

552
207MB Disk

Desktop Disk Pack

TO REMOVE COVER

- Locate the holes indicated by X on both sides of the cover.
- Insert a small screwdriver into one of the holes to depress the catch and release the cover.



550
104MB Disk

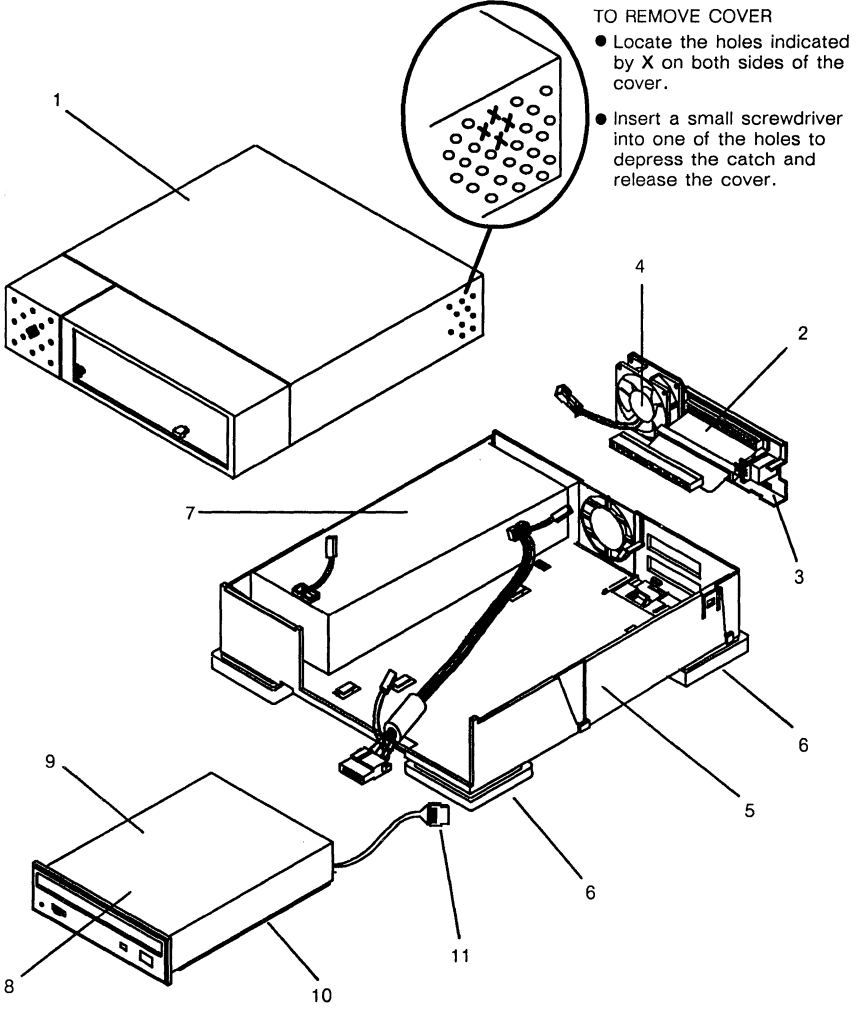
552
207MB Disk

Desktop Disk Pack

CODE	PART #	DESCRIPTION
1	540-1777	Disk Drive Cover Assembly
2	540-1776	Fan/SCSI Connector/Unit Select Assembly (obsolete)
3	150-1338	● Unit Select Switch (obsolete)
4	540-1802	● Fan Assembly
NS	150-1174	● 2A Subminiature Fuse
2	540-1978	Fan/SCSI Connector/Unit Select Assembly
3	150-1557	● Unit Select Switch
4	540-1802	● Fan Assembly
NS	150-1174	● 2A Subminiature Fuse
5	540-1773	Base Assembly
6	330-1214	● Rubber Foot
7	300-1037	Power Supply Assembly
8	540-1774	104MB Disk Drive Assembly
8	540-2049	207MB Disk Drive Assembly
9	370-1200	● 104MB Disk Drive, Quantum 105S
9	370-1376	● 207MB Disk Drive, Quantum 210S
10	340-1966	● Disk Drive Bracket
11	530-1454	● Unit Select Switch Cable
12	530-1522	● Power Indicator LED Cable
NS	240-1141	● Screw, #6-32 x 1/4"
NS	150-1346	External SCSI Bus Terminator
NS	530-1434	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.45 m
NS	530-1435	External Cable, 50-Pin SCSI-2 to DD-50SA, 2.0 m
NS	530-1508	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.8 m
NS	530-1593	External Cable, 50-Pin SCSI-2 to DD-50SA, 1.0 m
NS	800-4895	<i>Desktop Storage Pack Field Service Manual</i>

558

Desktop SunCD Pack



558

Desktop SunCD Pack

CODE	PART #	DESCRIPTION
1	540-1778	Cover Assembly, Tape & CD-ROM
2	540-1978	Fan/SCSI Connector/Unit Select FRU Assembly
3	150-1557	● Unit Select Switch
4	540-1802	● Fan Assembly
NS	150-1174	● 2A Subminiature Fuse
5	540-1773	Base Assembly
6	330-1214	● Rubber Foot
7	300-1037	Power Supply Assembly
8	540-1931	SunCD CD-ROM Assembly
9	370-1312	● Sony CDU-8012 644MB CD-ROM
10	340-1967	● Drive Bracket
11	530-1454	● Unit Select Switch Cable
NS	240-1141	● Screw, #6-32 x 1/4"
NS	150-1346	External SCSI Bus Terminator
NS	530-1434	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.45 m
NS	530-1435	External Cable, 50-Pin SCSI-2 to DD-50SA, 2.0 m
NS	530-1508	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.8 m
NS	530-1593	External Cable, 50-Pin SCSI-2 to DD-50SA, 1.0 m
NS	800-4895	<i>Desktop Storage Pack Field Service Manual</i>

561

669MB Disk

563

2x 669MB Disks

565669MB Disk
150MB Tape**566**669MB Disk
2.3GB Tape

External Storage and External Expansion Module

PART #	DESCRIPTION
150-1556	SCSI ID Select Switch
300-1031	120 Watt Power Supply
330-1146	Disk Drive Mounting Bracket
330-1158	Disk Drive Removal Handle
340-2359	Disk Drive Mounting Bracket, Right
340-2360	Disk Drive Mounting Bracket, Left
350-1006	Top Cover
350-1010	Left Side Cover
350-1011	Front Bezel
350-1013	Right Side Cover
350-1117	Rear Bezel
370-1203	DC6150 QIC-150 1/4" Tape Cartridge
370-1246	150MB Tape Drive, Full-Height, QIC-150
370-1297	2.3GB 8 mm Tape Drive, Full-height
370-1298	8 mm Tape Cartridge
370-1318	8 mm Cleaning Cartridge
370-1319	669MB Disk Drive, Micropolis 1588-15 with Bezel
370-1319	669MB Disk Drive, Maxtor XT-8760S with Bezel 1
370-1326	669MB Disk Drive, Micropolis 1588-15 without Bezel
370-1326	669MB Disk Drive, Maxtor XT-8760S without Bezel 1
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
530-1334	External SCSI Cable, DD-50SA to DD-50SA, 2.5M
530-1365	External SCSI Cable, DD-50SA to DD-50SA, 41 cm
530-1381	External Terminator
530-1435	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 2.0M
530-1593	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 1.0M
530-1461	1/4" Tape Drive SCSI Adapter Cable
530-1618	Internal SCSI Cable
530-1659	SCSI ID Select Switch Cable
570-1042	Full-Height Peripheral Front Filler Panel
814-5036	<i>Replacing Components of Sun ESM and EEM Storage Units</i>

1 The Maxtor drive does not fit into the lower drive position of External Storage Modules manufactured prior to October 1990. Remove the vertical stop block with 10-Inch End Cutter, 250-1074-01.

601

130MB Disk

602130MB Disk
Expansion**603**

2x 130MB Disks

Mass Storage Pedestal

PART #	DESCRIPTION
140-1010	Fuse, 5A (115V)
140-1029	Fuse, 5A (240V)
150-1041	Fuseholder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuseholder (240V)
150-1042	Fusecarrier (115V)
150-1018	Power Switch, Illuminated (obsolete)
150-1129	AC Line Filter
150-1216	Power Switch, Non-Illuminated
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1048	Castor
300-1014	250 Watt Power Supply
330-1066	Front Bezel
340-1138	Top Cover
340-1261	Right Side Cover
340-1262	Left Side Cover
340-1535	Disk Drive Mounting Cradle
370-1014	130MB SMD Disk Drive, Fujitsu M2322K
370-1020	DC Fan, 71 CFM, without Fastons (obsolete)
540-1252	DC Fan Assembly, 71 CFM, Upper Chassis (obsolete)
540-1510	DC Fan Assembly, 71 CFM, Upper Chassis
540-1561	DC Fan Assembly, 71 CFM, Rear Panel

601

130MB Disk

602130MB Disk
Expansion**603**

2x 130MB Disks

Mass Storage Pedestal – Continued

PART #	DESCRIPTION
530-1079	External SMD Command Cable, 0.7M (obsolete)
530-1080	External SMD Data Cable, 0.7M (obsolete)
530-1188	DC Harness, Power Supply to 530-1189
530-1189	DC Harness, Disk Drive to 530-1188
530-1190	Internal SMD Command Cable 1
530-1191	DC Harness, Lower DC Fans (obsolete)
530-1192	AC Harness, Lower Chassis (obsolete, use 530-1404)
530-1193	DC Harness, Upper DC Fans (obsolete)
530-1194	AC Harness, Upper Chassis (obsolete, use 530-1404)
530-1195	AC Harness, Power Supply to Power Supply
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
530-1211	Internal SMD Data Cable, Drive 1
530-1212	Internal SMD Data Cable, Drive 0
530-1230	AC Receptacle Assembly
530-1231	AC Harness, AC Receptacle to Line Filter
530-1232	Front Door Grounding Strap
530-1316	DC Harness, Lower DC Fans
530-1317	DC Harness, Upper DC Fans
530-1404	AC Harness, Filter to Fuse to Switch to Power Supply

¹ Internal SMD Command Cable part numbers 530-1190-01 and 530-1190-02 cause signal reflections. Use 530-1190-03. Install filler panel 340-1602 in the unused 25-pin SMD Out connector. Install filler panel 340-2044 in the unused 37-pin SMD Out connector. Secure the filler panels with #4-40 x 3/8" Screw, 240-1292. Terminate Drive 0, the lower drive in the pedestal.

605

280MB Disk

606

2x 280MB Disks

Mass Storage Pedestal

PART #	DESCRIPTION
140-1010	Fuse, 5A (115V) (obsolete, underrated)
140-1029	Fuse, 5A (240V)
150-1041	Fuseholder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuseholder (240V)
150-1042	Fusecarrier (115V)
150-1018	Power Switch, Illuminated (obsolete)
150-1129	AC Line Filter
150-1216	Power Switch, Non-Illuminated
150-1258	Fuse, 7A (115V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1048	Castor
300-1014	250 Watt Power Supply
330-1066	Front Bezel
340-1138	Top Cover
340-1261	Right Side Cover
340-1262	Left Side Cover
540-1510	DC Fan Assembly, 71 CFM, Upper Chassis
540-1561	DC Fan Assembly, 71 CFM, Rear Panel
540-1635	280MB SMD Disk Drive FRU Assembly
340-1535	● Disk Drive Mounting Cradle
370-1068	● 280MB SMD Disk Drive, Fujitsu M2333K
370-1068	● 280MB SMD Disk Drive, CDC 9720-368, PA8A2
580-1169	● 280MB Disk Drive FRU Packaging

605

280MB Disk

606

2x 280MB Disks

Mass Storage Pedestal – Continued

PART #	DESCRIPTION
530-1079	External SMD Command Cable, 0.7M (obsolete)
530-1080	External SMD Data Cable, 0.7M (obsolete)
530-1188	DC Harness, Power Supply to 530-1189
530-1189	DC Harness, Disk Drive to 530-1188
530-1190	Internal SMD Command Cable 1
530-1191	DC Harness, Lower DC Fans (obsolete)
530-1192	AC Harness, Lower Chassis (obsolete, use 530-1404)
530-1193	DC Harness, Upper DC Fans (obsolete)
530-1194	AC Harness, Upper Chassis (obsolete, use 530-1404)
530-1195	AC Harness, Power Supply to Power Supply
530-1209	External SMD Command Cable, 2.0M
530-1210	External SMD Data Cable, 2.0M
530-1211	Internal SMD Data Cable, Drive 1
530-1212	Internal SMD Data Cable, Drive 0
530-1230	AC Receptacle Assembly
530-1231	AC Harness, AC Receptacle to Line Filter
530-1232	Front Door Grounding Strap
530-1316	DC Harness, Lower DC Fans
530-1317	DC Harness, Upper DC Fans
530-1404	AC Harness, Filter to Fuse to Switch to Power Supply

1 Internal SMD Command Cable part numbers 530-1190-01 and 530-1190-02 cause signal reflections. Use 530-1190-03. Install filler panel 340-1602 in the unused 25-pin SMD Out connector. Install filler panel 340-2044 in the unused 37-pin SMD Out connector. Secure the filler panels with #4-40 x 3/8" Screw, 240-1292. Terminate Drive 0, the lower drive in the pedestal.

615

688MB Disk

616

2x 688MB Disks

Mass Storage Pedestal

PART #	DESCRIPTION
140-1010	Fuse, 5A (115V) (obsolete, underrated)
140-1029	Fuse, 5A (240V)
150-1041	Fuseholder (115V)
150-1042	Fusecarrier (115V)
150-1051	Fuseholder (240V)
150-1042	Fusecarrier (115V)
150-1129	AC Line Filter
150-1216	Power Switch, Non-Illuminated
150-1258	Fuse, 7A (115V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
240-1048	Castor
300-1014	250 Watt Power Supply
330-1066	Front Bezel
340-1138	Top Cover
340-1261	Right Side Cover
340-1262	Left Side Cover
540-1510	DC Fan Assembly, 71 CFM, Upper Chassis
540-1561	DC Fan Assembly, 71 CFM, Rear Panel
540-1635	688MB SMD Disk Drive FRU Assembly
240-1207	● SAE #10-32 x 1/2" Screw, CDC 9720-850
240-1356	● M4-0.7 x 16 mm Screw, Fujitsu M2372K (obs, too long)
240-1372	● M4-0.7 x 10 mm Screw, Fujitsu M2372K
340-1535	● Disk Drive Mounting Cradle
370-1197	● 688MB SMD Disk Drive, Fujitsu M2372K
370-1300	● Rubber Noise Insulator, Fujitsu M2372K
370-1197	● 688MB SMD Disk Drive, CDC 9720-850, PA8K2
580-1169	● 688MB Disk Drive FRU Packaging

615

688MB Disk

616

2x 688MB Disks

Mass Storage Pedestal – Continued

PART #	DESCRIPTION
530-1188	DC Harness, Power Supply to 530-1189
530-1189	DC Harness, Disk Drive to 530-1188
530-1190	Internal SMD Command Cable 1
530-1195	AC Harness, Power Supply to Power Supply
530-1211	Internal SMD Data Cable, Drive 1
530-1212	Internal SMD Data Cable, Drive 0
530-1230	AC Receptacle Assembly
530-1231	AC Wire Harness, AC Receptacle to Line Filter
530-1232	Front Door Grounding Strap
530-1316	DC Harness, Lower DC Fans
530-1317	DC Harness, Upper DC Fans
530-1330	External SMD Command Cable, 2.0M
530-1331	External SMD Data Cable, 2.0M
530-1404	AC Harness, Filter to Fuse to Switch to Power Supply

¹ Internal SMD Command Cable part numbers 530-1190-01 and 530-1190-02 cause signal reflections. Use 530-1190-03. Install filler panel 340-1602 in the unused 25-pin SMD Out connector. Install filler panel 340-2044 in the unused 37-pin SMD Out connector. Secure the filler panels with #4-40 x 3/8" Screw, 240-1292. Terminate Drive 0, the lower drive in the pedestal.

625

575MB Disk

626575MB Disk
Expansion**575MB SMD Disk Subsystem**

PART #	DESCRIPTION
370-1069	575MB SMD Disk Drive, Fujitsu M2361A
530-1079	SMD Command Cable, 0.7M, Xylogics 451
530-1080	SMD Data Cable, 0.7M, Xylogics 451
530-1209	SMD Command Cable, 2.0M, Xylogics 451
530-1210	SMD Data Cable, 2.0M, Xylogics 451
530-1330	SMD Command Cable, 2.0M, Xylogics 7053
530-1331	SMD Data Cable, 2.0M, Xylogics 7053
530-1692	SMD Data Cable, 6.0M, Xylogics 7053
530-1693	SMD Command Cable, 6.0M, Xylogics 7053
530-1347	Power Cord, IEC Plug to Ring Lugs (240V)
530-1349	Power Cord, NEMA 6-15P to Ring Lugs (230V)
540-1424	Rear Cover Assembly
340-1486	● Rear Cover
530-1291	● SMD Command Cable
530-1292	● SMD Data Cable
811-2004	DC Power Supply (B14L-5105-0182A)
811-2005	Slide Rails (B03B-4825-D020A)
811-2006	Blower Assembly (C90L-1370-0900)
811-2007	Air Filter (B90L-1570-0001A)
811-2008	Fan Sensor (B90L-1350-0001)
811-2009	Operator Panel Assembly (N860-3346-T001)
811-2010	Power Amplifier PCB (B17B-0250-0010A)
811-2011	Display Panel (B17B-0270-0010A)
811-2012	Logic PCB (C16B-5327-0290)
811-2013	Read Amplifier PCB (C16B-5502-0040)
811-2015	Interface PCB, Single Channel (C17B-0230-0010A)
811-2016	Back Panel (B03B-4825-E010A)
811-2017	Fan (B03B-4835-D030A)
811-2018	Terminator, Fujitsu M2361A (B03L-4790-0003A)
811-2019	A Cable (B660-1954-T904A)
811-2020	B Cable (B660-1954-T903A)
811-2021	PCB Extraction Tool (C960-0300-T001)
811-2022	HDA & Servo Assembly (B030A-4825-T001A & C16B-5502-0050)
800-1423	<i>M2361A Mini-Disk Drive Customer Engineering Manual</i>

629

1 Drive

630

Expansion Drive

631

2 Drives

892MB SMD Disk Subsystem

PART #	DESCRIPTION
340-1628	Disk Drive Mounting Tray (obsolete)
340-1682	Support Bracket, Right
340-1689	Support Bracket, Left
340-1728	Disk Drive Mounting Tray
530-1356	External SMD Daisy Chain Command Cable
530-1378	External SMD Command Cable, Xylogics 451
530-1379	External SMD Data Cable, Xylogics 451
555-1008	892MB Disk Drive Assembly
180-1097	● AC Power Cord (115V)
240-1655	● SAE #10-32 x 5/16" Screw (x3)
240-1666	● SAE #8-32 x 5/16" Screw (x16)
340-1683	● Slide Rail, NEC D2363
340-1712	● Stop Bracket, Hitachi DK815-10 & DK815-10A
340-1721	● Slide Rail, Hitachi DK815-10 & DK815-10A
370-1140	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, Hitachi DK815-10
370-1141	● 892MB Disk Drive, Hitachi DK815-10A
370-1162	● Terminator, Hitachi DK815-10 & DK815-10A
370-1163	● Terminator, NEC D2363
530-1343	● AC Power Cord (240V)
530-1351	● AC Power Cord (230V)
540-1637	● Mounting Hardware Kit, NEC D2363
540-1638	● Mounting Hardware Kit, Hitachi DK815-10 & DK815-10A
580-1179	● 892MB Disk Drive Packaging
813-1036	● <i>892MB Disk Drive Installation Manual</i>
813-2046	● <i>892MB Disk Drive Configuration Manual</i>

641

1 Drive

642

2 Drives

643

3 Drives

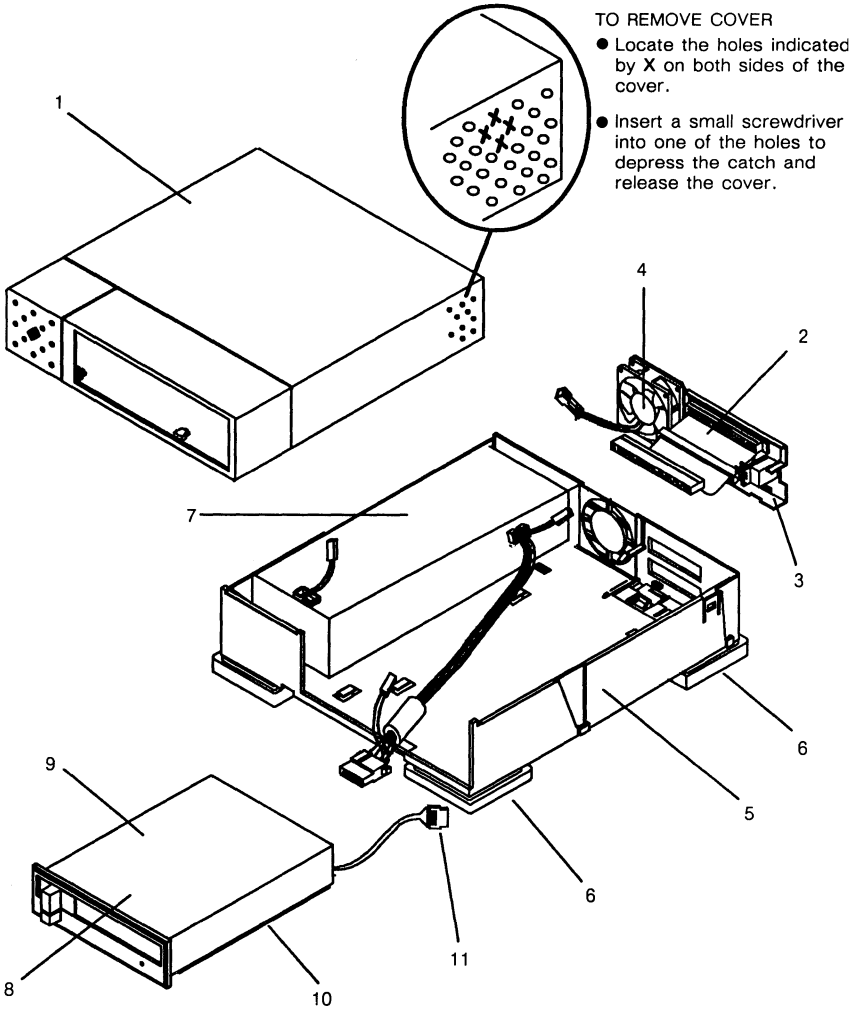
644

4 Drives

645Exp Drive
without Tray**646**Exp Drive
with Tray**892MB SMD Disk Subsystem**

PART #	DESCRIPTION
340-1628	Disk Drive Mounting Tray (obsolete)
340-1728	Disk Drive Mounting Tray
340-1682	Support Bracket, Right
340-1689	Support Bracket, Left
530-1475	SMD Data Cable, 6.0M, Xylogics 7053
530-1476	SMD Command Cable, 6.0M, Xylogics 7053
530-1354	SMD Command Cable, 2.5M, Xylogics 7053
530-1355	SMD Data Cable, 2.5M, Xylogics 7053
530-1356	SMD Daisy Chain Command Cable, 2.5M
555-1008	892MB Disk Drive Assembly
180-1097	● AC Power Cord (115V)
240-1655	● SAE #10-32 x 5/16" Screw (x3)
240-1666	● SAE #8-32 x 5/16" Screw (x16)
340-1683	● Slide Rail, NEC D2363
340-1712	● Stop Bracket, Hitachi DK815-10 & DK815-10A
340-1721	● Slide Rail, Hitachi DK815-10 & DK815-10A
370-1140	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, Hitachi DK815-10
370-1141	● 892MB Disk Drive, Hitachi DK815-10A
370-1162	● Terminator, Hitachi DK815-10 & DK815-10A
370-1163	● Terminator, NEC D2363
530-1343	● AC Power Cord (240V)
530-1351	● AC Power Cord (230V)
540-1637	● Mounting Hardware Kit, NEC D2363
540-1638	● Mounting Hardware Kit, Hitachi DK815-10 & DK815-10A
580-1179	● 892MB Disk Drive Packaging
813-1036	● 892MB Disk Drive Installation Manual
813-2046	● 892MB Disk Drive Configuration Manual

660 Desktop Backup Pack



660

Desktop Backup Pack

CODE	PART #	DESCRIPTION
1	540-1778	Tape Drive Cover Assembly
2	540-1776	Fan/SCSI Connector/Unit Select Assembly (obsolete)
3	150-1338	● Unit Select Switch (obsolete)
4	540-1802	● Fan Assembly
NS	150-1174	● 2A Subminiature Fuse
2	540-1978	Fan/SCSI Connector/Unit Select Assembly
3	150-1557	● Unit Select Switch
4	540-1802	● Fan Assembly
NS	150-1174	● 2A Subminiature Fuse
5	540-1773	Base Assembly
6	330-1214	● Rubber Foot
7	300-1037	Power Supply Assembly
8	540-1775	1/4" Tape Drive Assembly
9	370-1218	● 150MB Tape Drive, QIC-150, Archive 2150S
10	340-1967	● Tape Drive Bracket
11	530-1454	● Unit Select Switch Cable
NS	240-1141	● Screw, #6-32 x 1/4"
NS	150-1346	External SCSI Bus Terminator
NS	530-1434	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.45 m
NS	530-1435	External Cable, 50-Pin SCSI-2 to DD-50SA, 2.0 m
NS	530-1508	External Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 0.8 m
NS	530-1593	External Cable, 50-Pin SCSI-2 to DD-50SA, 1.0 m
NS	800-4895	<i>Desktop Storage Pack Field Service Manual</i>

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Tabletop

682

56" Rack

68356" Expansion Rack
1st Drive**684**56" Expansion Rack
2nd Drive**Front-Load 1/2" Tape Drive**

PART #	DESCRIPTION
150-1407	SCSI Terminator, Centronics
180-1097	115V Power Cord
180-1190	240V Power Cord
230-1166	Tie Wrap, 5.5"
230-1177	Cable Tie Clip
240-1207	10-32 x 1/2" Screw
250-1018	Rubber Stop Bumper
330-1312	Shipping Bracket, 56" Rack (obsolete)
340-1868	Shipping Bracket, 56" Rack (obsolete)
340-2185	Shipping Bracket, 56" Rack (obsolete)
340-2220	Shipping Bracket, 56" Rack (obsolete)
340-2288	Shipping Bracket, Outer Side, 56" Rack
340-2289	Shipping Bracket, Inner Side, 56" Rack
370-1254	Outer Slide Rails
530-1501	Data Cable, 2.0M, DD-50SA to Centronics
530-1502	Data Cable, 1.5M, Centronics to Centronics
530-1503	Data Cable, 2.0M, 50-Pin SCSI-2 to Centronics
530-1568	Data Cable, 4.0M, DD-50SA to Centronics
540-1821	Tabletop Tape Drive Assy
540-1823	Rackmounted Tape Drive Assy
800-3447	<i>Sun Front-Load 1/2-Inch Tape Drive Field Service Manual</i>

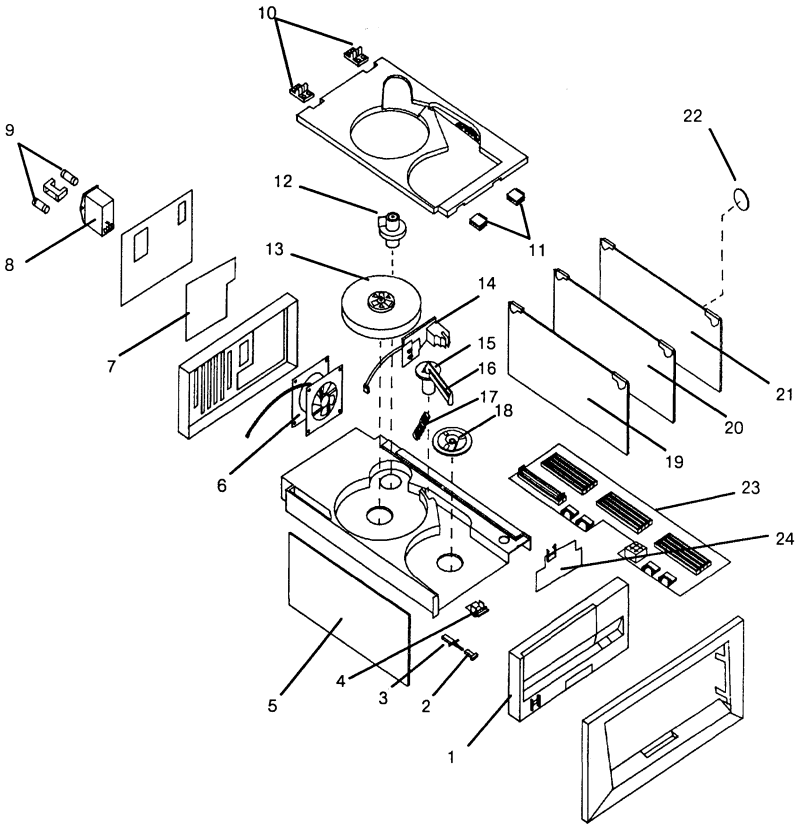
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Tabletop

682
56" Rack

683
56" Expansion Rack
1st Drive

684
56" Expansion Rack
2nd Drive

Front-Load 1/2" Tape Drive



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Tabletop

682

56" Rack

68356" Expansion Rack
1st Drive**684**56" Expansion Rack
2nd Drive**Front-Load 1/2" Tape Drive**

CODE	SUN PART#	HP PART#	DESCRIPTION
1	811-1236	88780-67707	Front Bezel Assembly
2	811-1210	07980-44111	Power Switch Button
3	811-1227	07980-61616	Power Switch Assembly
4	811-1228	07980-65000	Door Latch Assembly
5	811-1242	07980-69025	Power/Motor Drive Board
6	811-1245	07980-60043	Fan
7	811-1241	88780-69015	Single Ended I/O Board
8	811-1229	07980-67919	Power Module
9	140-1011		6.0A Fuse, .25x1.25" (115V)
9	140-1002		3.15A Fuse, 5x20mm (240V)
9	140-1039		3.0A Fuse, .25x1.25" (230V)
10	811-1235	3110-0178	Cover Hinge
11	811-1231	1390-0776	Cover Latch
12	811-1215	07980-60041	Speed Sensor Assembly
13	811-1218	07980-60052	Takeup Hub Assembly
14	811-1214	07980-60040	EOT/BOT Sensor Assembly
15	811-1216	07980-60045	Arm Buffer Assembly
16	811-1209	07980-21701	Buffer Arm Bearing (Roller Guide)
17	811-1233	1460-2180	Buffer Spring
18	811-1219	07980-60053	Supply Hub Assembly
19	370-1276	07980-66531	Read/Write/Format Board
20	370-1277	07980-66503	Drive Controller Board
21	370-1279	07980-66514	Data Buffer Board
22	811-1232	1420-0314	3V Lithium Battery
23	811-1211	07980-60000	Mother Board PCA
24	811-1212	07980-60008	Display (Front Panel PCA)

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Tabletop

682

56" Rack

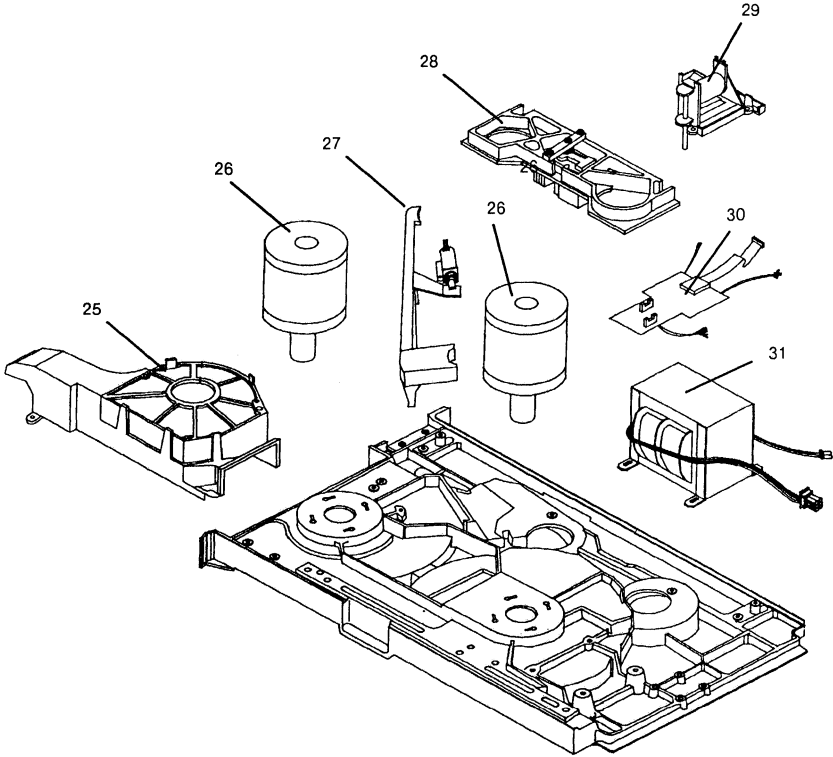
683

56" Expansion Rack
1st Drive

684

56" Expansion Rack
2nd Drive

Front-Load 1/2" Tape Drive



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Tabletop

682

56" Rack

68356" Expansion Rack
1st Drive**684**56" Expansion Rack
2nd Drive**Front-Load 1/2" Tape Drive**

CODE	SUN PART#	HP PART#	DESCRIPTION
25	811-1230	07980-86500	Blower Motor
26	811-1217	07980-60050	Takeup/Supply Reel Motor
27	811-1226	07980-60144	Hub Lock Assembly
28	811-1238	07980-60042	Head Plate Assembly
29	811-1237	07980-60051	Tape Displacement Unit
30	811-1213	07980-60009	Tape Sensor Assembly
31	811-1292	9100-4637	Transformer
NS	811-1220	07980-60062	Speed Sensor Cable
NS	811-1221	07980-60064	Front Panel Cable
NS	811-1222	07980-60067	Interface Cable
NS	811-1223	07980-60070	Cable Harness
NS	811-1224	07980-60071	Read Head Cable
NS	811-1225	07980-60072	Write Head Cable
NS	811-1234	3101-2923	Door Microswitch
NS	811-1240	07980-60065	Motor Control Cable
NS	811-1243	88780-60290	Firmware Kit
NS	811-1244	07980-60048	NR21 Speed Sensor

706A

1 Disk

707A

2 Disks
1 Tray

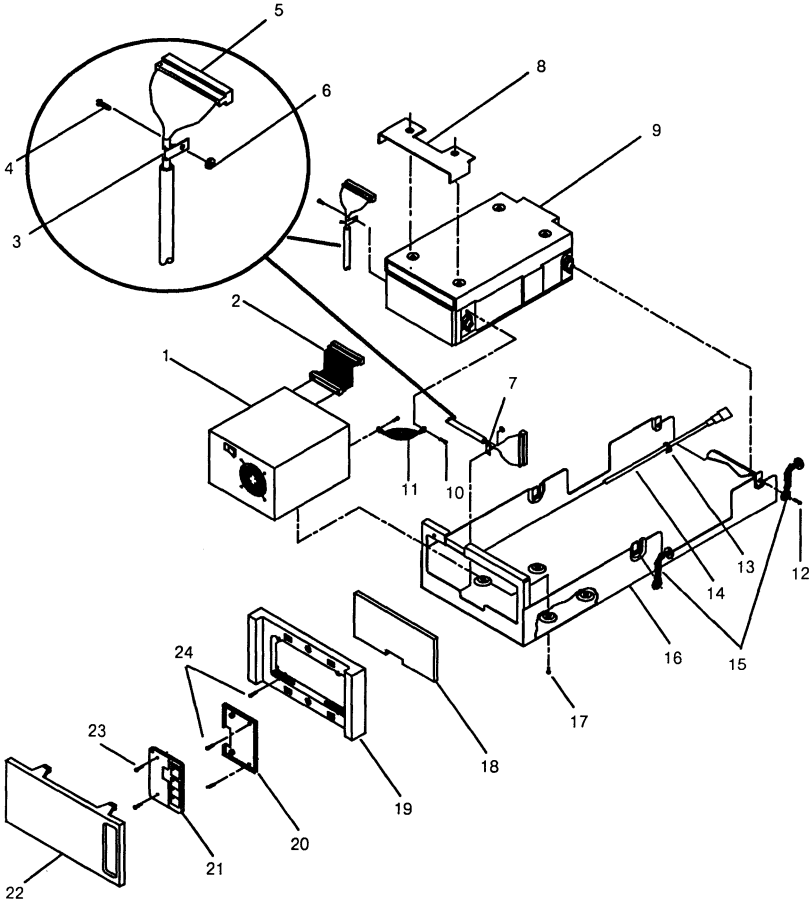
709A

4 Disks
1 ISP-80
2 Trays

710A

8 Disks
1 ISP-80
4 Trays

1.2GB IPI-2 Disk Subsystem



706A

1 1.2GB Disk

707A

2 1.2GB Disks

709A

4 Disks

710A

8 Disks

1.2GB IPI-2 Disk Subsystem

CODE	PART #	DESCRIPTION
0	540-1770	IPI Drive, Power Supply, & Tray Assembly
1	300-1041	205W Power Supply
2	370-1263	DC Harness
3	240-1603	Cable Clamp
4	240-1185	Screw, #6-32 x 1/4"
5	370-1262	Operator Panel Harness
6	240-1035	Lock Washer, #6
7	240-1602	Cable Clamp
8	370-1350	Air Baffle
9	370-1187	1.2GB Disk, Seagate 97209-12G, PA8R2
10	240-1185	#6-32 x 1/4" Screw (use 7/64" Hex Screwdriver)
11	250-1013	Ground Strap
12	240-1186	#6-32 x 3/8" Screw
13	240-1595	Power Cord Clamp
14	180-1185	AC Power Cord, 572 mm
15	250-1023	Ground Strap
16	340-1854	Tray
17	240-1185	#6-32 x 1/4" Screw (use 7/64" Hex Screwdriver)
18	250-1016	Filter
19	330-1224	Operator Panel Mounting Bracket
20	330-1226	Operator Panel Shield
21	370-1221	Operator Panel
22	330-1225	Operator Panel Cover
23	240-1601	#6-32 x 1/4" Screw (use 2 mm Hex Screwdriver)
24	240-1596	#6-32 x 7/8" Screw (use 7/64" Hex Screwdriver)
NS	180-1183	AC Power Cord, 'Y' (230V)
NS	180-1184	AC Power Cord, 'Y' (240V)
NS	340-1853	Dual Drive Tray (obsolete)
NS	340-1855	Tray Slide, Right (obsolete)
NS	340-1856	Tray Slide, Left (obsolete)
NS	340-1891	Tray Spacer
NS	340-2296	Dual Drive Tray
NS	370-1220	IPI Drive Terminator
NS	530-1351	AC Power Cord (230V)
NS	530-1343	AC Power Cord (240V)
NS	530-1487	IPI Drive I/O Cable, 8.0M
NS	530-1488	IPI Drive I/O Cable, 1.0M
NS	530-1518	IPI Drive I/O Cable, 2.0M
NS	530-1536	IPI Drive I/O Cable, 450 mm
NS	None	#6-32 x 1/4" Screw (use T15 Torx Screwdriver)
NS	370-1330	Connector Assembly (use 7/64" Hex Screwdriver)

716A

1 Disk

717A

2 Disks
1 Tray

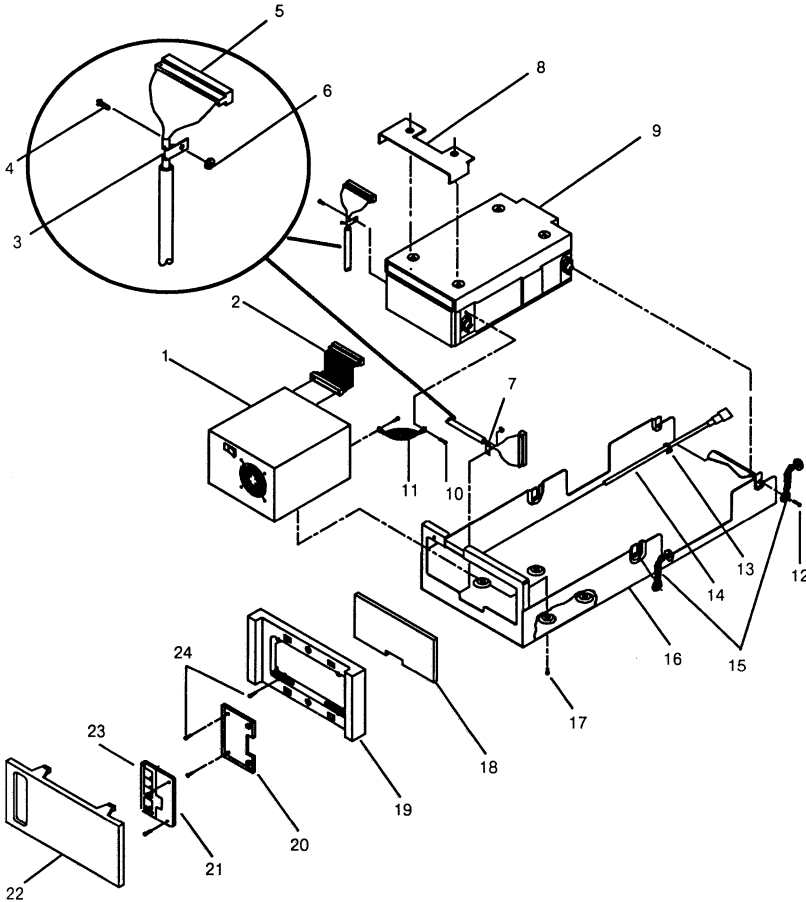
719A

4 Disks
1 ISP-80
2 Trays

720A

8 Disks
1 ISP-80
4 Trays

911MB IPI-2 Disk Subsystem



716A

1 Disk

717A

2 Disks

719A

4 Disks

720A

8 Disks

911MB IPI-2 Disk Subsystem

CODE	PART #	DESCRIPTION
	540-2005	IPI Drive, Power Supply, & Tray Assembly
1	300-1074	215 Watt Power Supply
2	370-1263	DC Harness
3	240-1603	Cable Clamp
4	240-1185	Screw, #6-32 x 1/4"
5	370-1262	Operator Panel Harness
6	240-1035	Lock Washer, #6
7	240-1602	Cable Clamp
8	370-1350	Air Baffle
9	370-1351	911MB Disk, Seagate 97229-11G, PA8Y2
10	240-1185	#6-32 x 1/4" Screw (use 7/64" Hex Screwdriver)
11	250-1013	Ground Strap
12	240-1186	#6-32 x 3/8" Screw
13	240-1595	Power Cord Clamp
14	180-1185	AC Power Cord, 572 mm
15	250-1023	Ground Strap
16	340-1854	Tray
17	240-1185	#6-32 x 1/4" Screw (use 7/64" Hex Screwdriver)
18	250-1016	Filter
19	330-1224	Operator Panel Mounting Bracket
20	330-1226	Operator Panel Shield
21	370-1355	Operator Panel
22	330-1225	Operator Panel Cover
23	240-1601	#6-32 x 1/4" Screw (use 2 mm Hex Screwdriver)
24	240-1596	#6-32 x 7/8" Screw (use 7/64" Hex Screwdriver)
NS	180-1183	AC Power Cord, 'Y' (230V)
NS	180-1184	AC Power Cord, 'Y' (240V)
NS	340-1853	Dual Drive Tray (obsolete)
NS	340-1855	Tray Slide, Right (obsolete)
NS	340-1856	Tray Slide, Left (obsolete)
NS	340-1891	Tray Spacer
NS	340-2296	Dual Drive Tray
NS	370-1220	IPI-2 Disk Terminator
NS	530-1351	AC Power Cord (230V)
NS	530-1343	AC Power Cord (240V)
NS	530-1487	IPI Drive I/O Cable, 8.0M
NS	530-1488	IPI Drive I/O Cable, 1.0M
NS	530-1518	IPI Drive I/O Cable, 2.0M
NS	530-1536	IPI Drive I/O Cable, 450 mm
NS	None	#6-32 x 1/4" Screw (use T15 Torx Screwdriver)
NS	370-1330	Connector Assembly (use 7/64" Hex Screwdriver)

731
688MB Disk

732
2 688MB Disks

733
3 688MB Disks

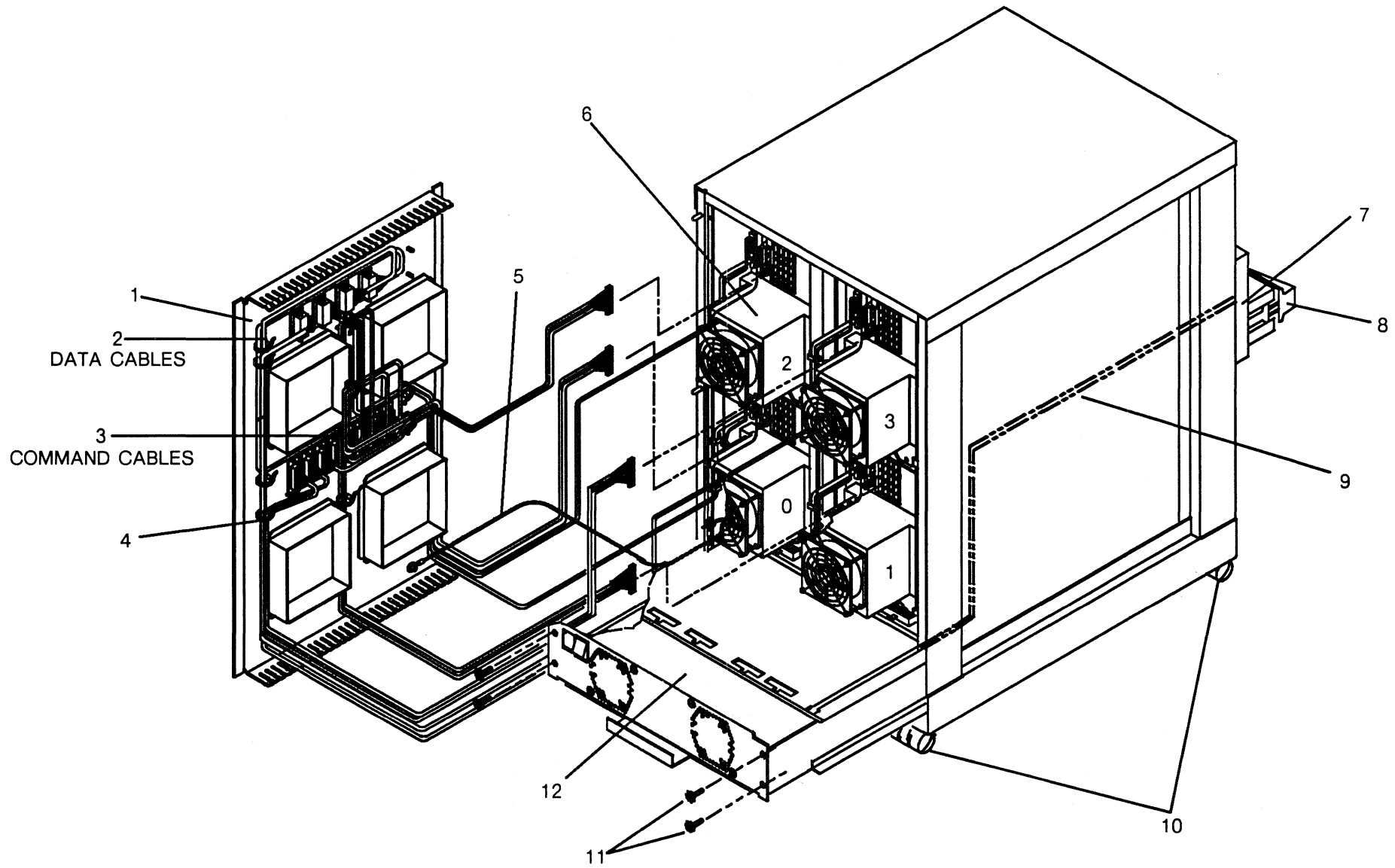
734
4 688MB Disks

Sun Expansion Pedestal

CODE	PART #	DESCRIPTION
NS	330-1192	Disk Bezel Insert
NS	340-1898	Top Cover
NS	370-1275	External Terminator
NS	530-1330	External SMD Data Cable, 2.0M
NS	530-1530	External SMD Command Cable, 2.0M
NS	530-1497	External SMD Daisy Chain Cable, 400 mm
NS	540-1731	Front Panel Assembly (obsolete)
NS	540-1749	Rear Bumper Assembly
NS	540-1846	Side Panel Assembly
NS	540-1847	Rear Bezel Assembly
NS	540-1849	Front Bumper Assembly (obsolete)
NS	540-1939	Front Panel and Bumper Assembly
1	540-1921	2-Drive Rear I/O Panel Assembly with Cables
1	540-1812	4-Drive Rear I/O Panel Assembly with Cables
1	540-1814	Rear Panel without Cables
2	530-1533	● Internal Data Cable, 1.2
3	530-1532	● Internal Command Cable, 960 mm
NS	240-1571	● Screw Female Standoff
NS	240-1394	● Screw, M3 x 8 mm
NS	340-1938	● Data Port Filler Panel
NS	340-2109	● Command Port Filler Panel
NS	340-2186	● Air Duct Filler Panel
NS	240-1559	● Screw, M4 0.7 x 6 mm
4	230-1188	● 6" Cable Tie
5	530-1589	Ground Strap
6	540-1813	Disk Drive FRU Assembly
NS	370-1292	● 688MB Disk Drive, Fujitsu M2372K
NS	340-1985	● Disk Mounting Cradle (obsolete)
NS	340-2300	● Disk Mounting Cradle
NS	240-1373	● Kepnut, M4
NS	530-1546	● DC Harness Fujitsu
NS	240-2356	● Screw, M4 0.7 x 16 mm
NS	340-2180	● Fan Duct, Fujitsu M2372
NS	230-1062	● Grommet
NS	240-1559	● Screw, M4 0.7 x 6 mm
NS	540-1915	● Fan Assembly
NS	340-1580	● Fingerguard
NS	530-1589	● Ground Strap
NS	240-1344	● Screw, #6-32 x 1 1/2"

731 1 688MB Drive 732 2 688MB Drives 733 3 688MB Drives 734 4 688MB Drive

Sun Expansion Pedestal



731
688MB Disk

732
2 688MB Disks

733
3 688MB Disks

734
4 688MB Disks

Sun Expansion Pedestal – Continued

CODE	PART #	DESCRIPTION
6	540-1813	Disk Drive FRU Assembly
NS	370-1292	● 688MB Disk Drive, CDC 9720-850, PA8K2 1
NS	340-1985	● Disk Mounting Cradle (obsolete)
NS	340-2300	● Disk Mounting Cradle
NS	240-1207	● Screw, #10-32 x 1/2"
NS	240-1373	● Kepnut, M4
NS	530-1544	● DC Harness CDC
NS	340-2178	● Fan Duct, CDC PA8K2A
NS	240-1308	● Washer, M5
NS	240-1432	● Screw, #10-32 x 1/4"
NS	540-1915	● Fan Assembly
NS	340-1580	● Fingerguard
NS	240-1344	● Screw, #6-32 x 1 1/2"
NS	240-1036	● Washer, #6
NS	240-1202	● Screw, #6-32 x 5/8
7	540-1765	LED/Switch Assembly
NS	340-2050	● Switch Panel
NS	501-1531	● LED/Switch PCB
8	540-1748	Remote Switch Assembly
NS	340-1936	● Switch Housing
NS	330-1213	● Switch Block
9	530-1495	LED/Switch DC Harness
10	340-2129	Caster
11	240-1372	M4 0.7 x 10 mm
12	300-1052	820W Power Supply 2
12	300-1056	410W Power Supply 3
NS	530-1619	System Grounding Cable, 2.0M
NS	230-1190	8" Cable Tie
NS	230-1191	Cable Clip, Snap-in
NS	340-2262	Cable Restraint Bracket
NS	800-3257	<i>Sun Expansion Pedestal Field Service Manual</i>

1 The 688MB Disk Drive cannot be used with Power Supply 300-1075.

2 Power Supplies 300-1052-03 and 300-1052-04 do not support the Fujitsu M2372 Disk Drive. Use 300-1052-05.

3 Power Supplies 300-1056-03 and 300-1056-04 do not support the Fujitsu M2372 Disk Drive. Use 300-1056-05.

741A
1.2GB Disk

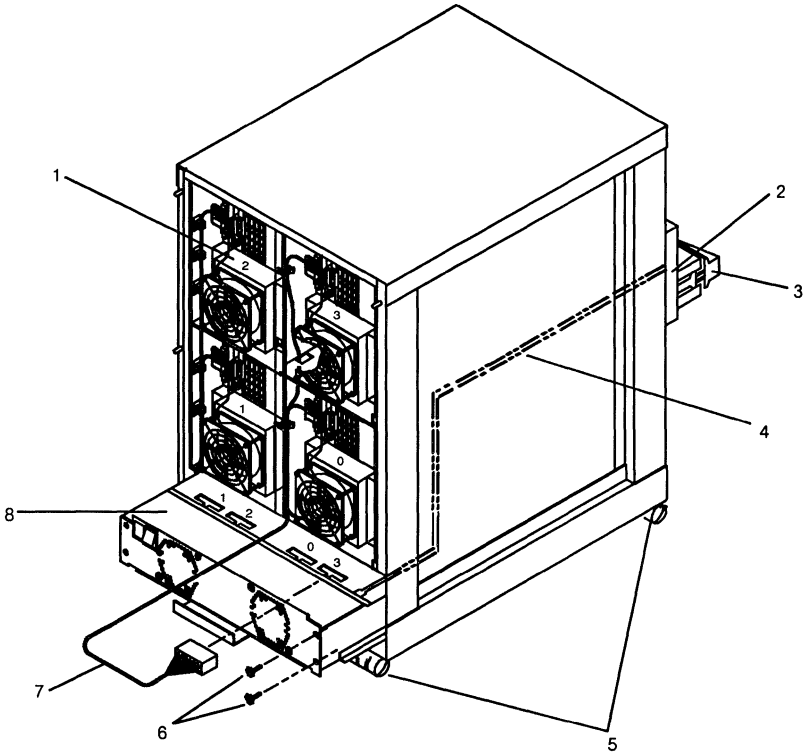
742A
2 1.2GB Disks

743A
3 1.2GB Disks

744A
4 1.2GB Disks

745A
1.2GB Disk
Standalone

Sun Expansion Pedestal



741A

1.2GB Disk

742A

2 1.2GB Disks

743A

3 1.2GB Disks

744A

4 1.2GB Disks

745A1.2GB Disk
Standalone

Sun Expansion Pedestal

CODE	PART #	DESCRIPTION
NS	340-2188	Rear Panel without Cables
NS	340-2208	● Filler Panel
1	540-1926	IPI8-1000 3MB/Sec Disk Drive FRU Assembly
NS	370-1314	● 1.2GB Disk Drive, Seagate 97209-12G, PA8R2 1
NS	340-2300	● Disk Mounting Cradle
NS	180-1486	● Front Ground Strap
NS	240-1207	● #10-32 x 1/2" Drive Mounting Screw
NS	250-1070	● Rear Ground Strap
NS	340-1898	Top Cover
NS	330-1192	Disk Bezel Insert
NS	540-1749	Rear Bumper Assembly
NS	540-1846	Side Panel Assembly
NS	540-1847	Rear Bezel Assembly
NS	540-1939	Front Panel and Bumper Assembly
NS	530-1487	IPI Drive I/O Cable, 8.0M
NS	530-1488	IPI Drive I/O Cable, 1.0M
NS	530-1518	IPI Drive I/O Cable, 2.0M
NS	530-1536	IPI Drive I/O Cable, 450 mm
NS	370-1275	IPI Drive Terminator
2	540-1765	LED/Switch Assembly
NS	340-2050	● Switch Panel
NS	501-1531	● LED/Switch PCB
3	540-1748	Remote Switch Assembly
NS	330-1212	● Switch
NS	330-1213	● Push Block
NS	340-1936	● Switch Housing
4	530-1495	LED/Switch DC Harness
5	340-2129	Caster
6	240-1372	M4 0.7 x 10 mm Screw
7	530-1544	DC Harness
8	300-1052	820W Power Supply (obsolete) 2
8	300-1075	840W Power Supply
NS	530-1619	System Grounding Cable, 2.0M
NS	340-2262	Cable Restraint Bracket
NS	230-0203	4" Tiestrap
NS	230-1188	6" Tiestrap, Snap-in
NS	800-3257	<i>Sun Expansion Pedestal Field Service Manual</i>

1 Do not install IPI8-1000 Disk Drive, 370-1187, in the Sun Expansion Pedestal.

2 The 820W Power Supply, 300-1052-05, does not support the 1.2GB Disk Drive. Use 840W Power Supply, 300-1075.

741L
911MB Disk

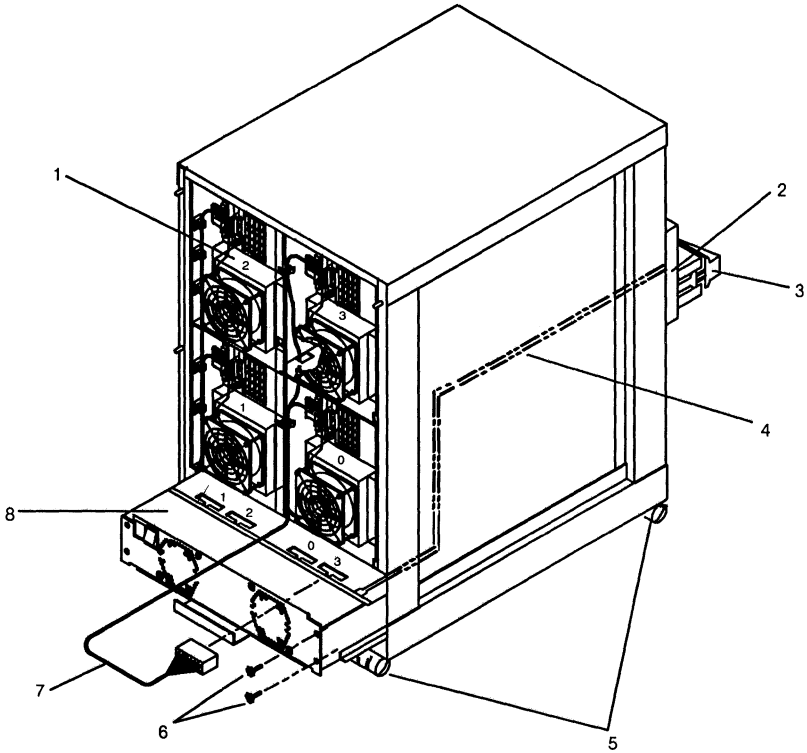
742L
2 911MB Disks

743L
3 911MB Disks

744L
4 911MB Disks

745L
911MB Disk
Stadalone

Sun Expansion Pedestal



741L

911MB Disk

742L

2 911MB Disks

743L

3 911MB Disks

744L

4 911MB Disks

745L911MB Disk
Standalone

Sun Expansion Pedestal

CODE	PART #	DESCRIPTION
NS	340-2188	Rear Panel without Cables
NS	340-2208	● Filler Panel
1	540-2008	IPI8-1000/2HP 6MB/Sec Disk Drive FRU Assembly
NS	370-1352	● 911MB Disk Drive, Seagate 97209-11G, PA8Y2 1
NS	340-2300	● Disk Mounting Cradle
NS	180-1486	● Front Ground Strap
NS	240-1207	● #10-32 x 1/2" Drive Mounting Screw
NS	250-1070	● Rear Ground Strap
NS	340-1898	Top Cover
NS	330-1192	Disk Bezel Insert
NS	540-1749	Rear Bumper Assembly
NS	540-1846	Side Panel Assembly
NS	540-1847	Rear Bezel Assembly
NS	540-1939	Front Panel and Bumper Assembly
NS	530-1487	IPI Drive I/O Cable, 8.0M
NS	530-1488	IPI Drive I/O Cable, 1.0M
NS	530-1518	IPI Drive I/O Cable, 2.0M
NS	530-1536	IPI Drive I/O Cable, 450 mm
NS	370-1275	IPI Drive Terminator
2	540-1765	LED/Switch Assembly
NS	340-2050	● Switch Panel
NS	501-1531	● LED/Switch PCB
3	540-1748	Remote Switch Assembly
NS	330-1212	● Switch
NS	330-1213	● Push Block
NS	340-1936	● Switch Housing
4	530-1495	LED/Switch DC Harness
5	340-2129	Caster
6	240-1372	M4 0.7 x 10 mm Screw
7	530-1544	DC Harness
8	300-1075	840W Power Supply 2
NS	530-1619	System Grounding Cable, 2.0M
NS	340-2262	Cable Restraint Bracket
NS	230-0203	4" Tiestrap
NS	230-1188	6" Tiestrap, Snap-in
NS	800-3257	<i>Sun Expansion Pedestal Field Service Manual</i>

1 Do not install IPI8-1000/2HP Disk Drive, 370-1351, in the Sun Expansion Pedestal.

2 The 820W Power Supply, 300-1052, does not support the 911MB Disk Drive. Use 840W Power Supply, 300-1075.

941

1 Drive

942

2 Drives

943

3 Drives

944

4 Drives

945Exp Drive
without Tray**946**Exp Drive
with Tray**892MB SMD Disk Subsystem**

PART #	DESCRIPTION
340-1628	Disk Drive Mounting Tray (obsolete)
340-1728	Disk Drive Mounting Tray
340-1682	Support Bracket, Right
340-1689	Support Bracket, Left
530-1475	SMD Data Cable, 6.0M, Xylogics 7053
530-1476	SMD Command Cable, 6.0M, Xylogics 7053
530-1354	SMD Command Cable, 2.5M, Xylogics 7053
530-1355	SMD Data Cable, 2.5M, Xylogics 7053
530-1356	SMD Daisy Chain Command Cable, 2.5M
555-1008	892MB Disk Drive Assembly
180-1097	● AC Power Cord (115V)
240-1655	● SAE #10-32 x 5/16" Screw (x3)
240-1666	● SAE #8-32 x 5/16" Screw (x16)
340-1683	● Slide Rail, NEC D2363
340-1712	● Stop Bracket, Hitachi DK815-10 & DK815-10A
340-1721	● Slide Rail, Hitachi DK815-10 & DK815-10A
370-1140	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, NEC D2363
370-1141	● 892MB Disk Drive, Hitachi DK815-10
370-1141	● 892MB Disk Drive, Hitachi DK815-10A
370-1162	● Terminator, Hitachi DK815-10 & DK815-10A
370-1163	● Terminator, NEC D2363
530-1343	● AC Power Cord (240V)
530-1351	● AC Power Cord (230V)
540-1637	● Mounting Hardware Kit, NEC D2363
540-1638	● Mounting Hardware Kit, Hitachi DK815-10 & DK815-10A
580-1179	● 892MB Disk Drive Packaging
813-1036	● 892MB Disk Drive Installation Manual
813-2046	● 892MB Disk Drive Configuration Manual

D84

65MB Disk

D84TC65MB Disk
20MB Tape**D84EX**65MB Disk
Expansion**TC**

20MB Tape

Rackmountable Disk and Tape Subsystem

PART	DESCRIPTION
140-1024	Fuse, 5A (115V)
150-0137	AC Filter/Fuse/Switch
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
300-0566	170 Watt Power Supply (obsolete)
300-1014	250 Watt Power Supply
340-1274	Mounting Bracket for 300-1014 Power Supply
370-0172	AC Fan (115V), 75 CFM
370-0242	AC Fan (240V), 75 CFM
370-0567	65MB SMD Disk Drive, Fujitsu M2312K
370-0544	20MB 1/4" Tape Drive, QIC-11, Archive 9020
370-0544	20MB 1/4" Tape Drive, QIC-11, Cipher F420-90
530-0139	AC Harness, AC Filter to Power Supply
530-0554	DC Harness, Power Supply to Disk Drive
530-0555	DC Harness, Power Supply to Tape Drive
530-0607	SMD Daisy Chain Cable
530-1043	Tape Command Cable, 1.0M
530-1046	SMD Command Cable, 1.0M
530-1047	SMD Data Cable, 1.0M
530-0241	AC Harness, AC Fan

LW110
 115V LaserWriter
SUN/LW-1
 115V LaserWriter

LW220
 220V LaserWriter
SUN/LW-2
 220V LaserWriter

LW240
 240V LaserWriter
SUN/LW-3
 240V LaserWriter

LaserWriter I

PART	DESCRIPTION
540-1253	LaserWriter I Assembly (115V)
260-1369	Sun Logo
260-2017	Label Kit
370-1041	LaserWriter I (115V)
811-1247	Letter/Legal Paper Tray
540-1271	LaserWriter I Assembly (240V)
260-1369	Sun Logo
260-2017	Label Kit
370-1042	LaserWriter I (240V)
150-1121	LaserWriter I Toner Cartridge
530-1172	LaserWriter Cable, DB-25 Male to DB-25 Male
530-1433	LaserWriter Cable, DB-25 Male to DB-25 Female

LW-1

115V LaserWriter

LW-2

240V LaserWriter

LW-3115V LaserWriter
A4 Paper Tray**LaserWriter II**

PART #	DESCRIPTION
365-1040	LaserWriter II Assembly, A4 Paper Tray (240V)
370-1189	● LaserWriter II Print Engine (240V)
370-1196	● NT Controller PCA
536-1003	● AC Power Cord (240V)
350-1015	● A4 Paper Tray Assembly
330-1162	● A4 Paper Tray Base
330-1163	● A4 Paper Tray Top
365-1041	LaserWriter II Assembly, Letter/Legal Paper Tray (115V)
370-1188	● LaserWriter II Print Engine (115V)
370-1196	● NT Controller PCA
536-1002	● AC Power Cord (115V)
350-1014	● Letter/Legal Paper Tray Assembly
330-1160	● Letter/Legal Paper Tray Base
330-1161	● Letter/Legal Paper Tray Top
365-1067	LaserWriter II Assembly, A4 Paper Tray (115V)
370-1188	● LaserWriter II Print Engine (115V)
370-1196	● NT Controller PCA
536-1002	● AC Power Cord (115V)
350-1015	● A4 Paper Tray Assembly
330-1162	● A4 Paper Tray Base
330-1163	● A4 Paper Tray Top
150-1279	LaserWriter II Toner Cartridge
530-1172	LaserWriter Cable, DB-25 Male to DB-25 Male
530-1433	LaserWriter Cable, DB-25 Male to DB-25 Female

RR127
Empty

RR128
60MB Tape

RR129
60MB Tape
327MB Disk

RREXP
60MB Tape

RREXP-P7
60MB Tape
327MB Disk

Sun386i Expansion Unit

PART #	DESCRIPTION
150-1556	SCSI ID Select Switch
300-1031	120 Watt Power Supply
340-1960	Half-Height Peripheral Front Filler Panel (obsolete)
350-1006	Top Cover
350-1010	Left Side Cover
350-1011	Front Bezel
350-1013	Right Side Cover
350-1117	Rear Bezel
370-1247	45/60MB 1/4" Tape Drive with MT02, Full-Height, QIC-11/24
530-1365	External SCSI Cable, DD-50SA to DD-50SA, 41 cm
530-1371	AC Power Cord, System Chassis to Peripheral Chassis
530-1381	External Terminator
530-1409	Internal SCSI Cable (obsolete)
530-1461	1/4" Tape Drive Adapter Cable
530-1618	Internal SCSI Cable
530-1659	SCSI ID Select Switch Cable
570-1042	Full-Height Peripheral Front Filler Panel
814-5036	<i>Replacing Components of Sun ESM and EEM Storage Units</i>
555-1004	91MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1148	● 91MB Disk Drive, Imprimis/CDC 77765863
555-1005	327MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1153	● 327MB Disk Drive, Imprimis/CDC 7777107
555-1059	155MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1191	● 155MB Disk Drive, Imprimis/CDC 77774677

RR131

155MB Disk

RR132

60MB Tape

RR133

91MB Disk

RR134

327MB Disk

Add-On Sun386i Options

PART #	DESCRIPTION
555-1004	91MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1148	● 91MB Disk Drive, Imprimis/CDC 77765863
555-1005	327MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1153	● 327MB Disk Drive, Imprimis/CDC 77777107
555-1059	155MB SCSI Disk Drive FRU Assembly
330-1146	● Mounting Bracket
330-1158	● Drive Removal Handle
370-1191	● 155MB Disk Drive, Imprimis/CDC 77774677
570-1018	45/60MB 1/4" Tape Drive Assembly
370-1247	● 45/60MB 1/4" Tape Drive with MT02, Full-Height
530-1461	● 1/4" Tape Drive Adapter Cable

SPRN-400

SPARCprinter

PART #	DESCRIPTION
365-1089	SPARCprinter (115V & 240V)
365-1124	Toner Cartridge 1
365-1125	Drum Cartridge 2
365-1126	Universal Paper Tray
365-1127	B4 Paper Tray
370-1365	Video Port Cable, Video Port to SPARCprinter
410-1017	Reusable Field Service Transit Case
501-1540	SBus Printer Board
530-1680	Parallel Port Cable
530-1683	Loopback Test Cable, Parallel Port to Video Port
530-1694	Test Cable, Video Port to Video Port
811-1345	Front Cover
811-1316	Corotron Assembly

- 1 The life of the Toner Cartridge is 8000 pages. A J5 error code indicates a low toner condition. Reset the display when a new Toner Cartridge is installed.
 - a. Turn the AC power OFF.
 - b. Replace the Toner Cartridge.
 - c. Turn the AC power ON.
 - d. Press the Reset button located next to the power switch.
- 2 The life of the Drum Cartridge is 20,000 pages. Reset the print counter when a new Drum Cartridge is installed.
 - a. Turn the AC power OFF.
 - b. Install a new Drum Cartridge.
 - b. Press and hold the Reset button located next to the power switch.
 - c. Turn the AC power ON.
 - d. Release the Reset button.

Do not reset the print counter unless a new Drum Cartridge is installed. Resetting the print counter without replacing the Drum Cartridge causes mechanical damage to the SPARCprinter when the toner sump fills.

SUNIPC-FPY1

Single Floppy Subsystem

SUNIPC-FPY2

Dual Floppy Subsystem

Sun Integrated Personal Computer

PART	DESCRIPTION
330-1096	Sun Type 3 Keyboard Template
370-1118	Single 5 1/4" Floppy Subsystem
370-1119	Dual 5 1/4" Floppy Subsystem
370-1125	External Command Cable
501-1125	PC/AT- Compatible Coprocessor Board
501-1214	PC/AT- Compatible Coprocessor Board with 80287

GT Graphics Tower

3-Slot VMEbus Logic Enclosure

PART #	DESCRIPTION
140-1019	Fuse, 15A (115V)
140-1030	Fuse, 6.3A (240V)
150-1042	Fusecarrier (115V)
150-1051	Fusecarrier (240V)
180-1097	AC Power Cord (115V)
180-1125	AC Power Cord (240V)
330-1067	End Panel, 42 cm X 11 cm
330-1069	Front Bezel
330-1071	Side Panel, 42 cm X 59 cm
330-1089	Side Panel Screw
330-1144	Backplane Shield
340-1545	Air Filter Assembly
370-1178	AC Switch & Fuse & Filter Assembly
501-1127	3-Slot VMEbus Backplane, Pressfit
530-1684	SBus HSA to HGPFE Cable, 1.5M
540-2061	Power Supply Module Assembly (115V)
240-1372	● Screw, M4 0.7 x 10mm
540-1418	● Power Supply Module Assembly (115V)
300-1022	● 325 Watt Power Supply, Summit
300-1022	● 325 Watt Power Supply, Brown
540-2051	DC Fan Tray Assembly, 4 Fans
501-1773	● Fan Controller PCB
540-2055	● DC Fan Assembly, 44 CFM
540-1535	3-Slot Foot Assembly
800-5264	<i>Service Manual for the GT Graphics Subsystem</i>

Notes

1. Do not install the GT Graphics Option Board Set in the Sun-3/110, Sun-3/140, Sun-4/110, or Sun-4/310 3-Slot Logic Enclosure. The three fan tray does not provide adequate cooling.
2. The GT Graphics Option Board Set is not supported in the Sun-3/150, Sun-4/150, or Sun-4/350 6-Slot Logic Enclosure.

PARTS BREAKDOWN

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CPU

Sun-1 68000 and Sun-2 68010

PART #	DESCRIPTION
501-0001	256KB Sun-1 68000 CPU
501-0002	256KB Sun-1 68000 CPU, TI
501-0004	256KB Sun-1 68000 CPU, Kontron
501-0600	256KB Sun-1.5 68010 CPU (obsolete, unsupported)
501-1007	Sun-2 68010 CPU
501-1051	Sun-2 68010 CPU
501-1005	1MB Sun-2/50 CPU (obsolete)
540-1101	1MB Sun-2/50 CPU (obsolete)
599-1182	1MB Sun-2/50 CPU (obsolete)
501-1141	1MB Sun-2/50 CPU
501-1142	2MB Sun-2/50 CPU
599-1183	2MB Sun-2/50 CPU (obsolete)
501-1143	4MB Sun-2/50 CPU
599-1184	4MB Sun-2/50 CPU (obsolete)
501-1072	4MB Sun-2/50 CPU, 1024x1024 Monochrome Video
501-1144	1MB Sun-2/130/160 CPU
599-1168	1MB Sun-2/130/160 CPU (obsolete)
501-1145	2MB Sun-2/130/160 CPU
599-1169	2MB Sun-2/130/160 CPU (obsolete)
501-1146	4MB Sun-2/130/160 CPU
599-1170	4MB Sun-2/130/160 CPU (obsolete)

CPU

Sun-3 68020 and Sun-3x 68030

PART #	DESCRIPTION
599-1220	2MB Sun-3/50, 12.5Mhz without 12.5Mhz 68881 (obsolete)
599-1267	2MB Sun-3/50, 12.5Mhz or 16.67Mhz w 12.5Mhz 68881 (obs)
501-1075	4MB Sun-3/50, 12.5Mhz without 12.5Mhz 68881 (obsolete)
501-1133	4MB Sun-3/50, 12.5 or 16.67Mhz w/o 12.5Mhz 68881 (obs)
501-1162	4MB Sun-3/50, 16.67Mhz without 16.67Mhz 68881
501-1207	4MB Sun-3/50, 16.67Mhz with 16.67Mhz 68881
599-1219	4MB Sun-3/50, 12.5Mhz without 12.5Mhz 68881 (obsolete)
599-1268	4MB Sun-3/50, 12.5Mhz or 16.67Mhz w 12.5Mhz 68881 (obs)
599-1309	4MB Sun-3/50, 16.67Mhz with 16.67Mhz 68881 (obsolete)
501-1205	4MB Sun-3/60 CPU with Monochrome Video, 1MB SIMMs
501-1322	4MB Sun-3/60 CPU without Monochrome Video, 1MB SIMMs
501-1334	0MB Sun-3/60 CPU with Monochrome Video
501-1345	0MB Sun-3/60 CPU without Monochrome Video
599-1177	2MB Sun 3004 CPU, 12.5Mhz 68881 (obsolete)
599-1178	4MB Sun 3004 CPU, 12.5Mhz 68881 (obsolete)
501-1074	2MB Sun 3004 CPU, 12.5Mhz 68881 (obsolete)
501-1094	4MB Sun 3004 CPU, 12.5Mhz 68881 (obsolete)
501-1163	2MB Sun 3004 CPU, 16.67Mhz 68881
501-1164	4MB Sun 3004 CPU, 16.67Mhz 68881
501-1208	4MB Sun 3004 CPU, 16.67Mhz 68881
501-1134	4MB Sun-3/110 CPU
501-1209	4MB Sun-3/110 CPU
501-1100	0MB Sun 3200 CPU
501-1206	0MB Sun 3200 CPU
501-1299	0MB Sun 3400 CPU (obsolete)
501-1550	0MB Sun 3400 CPU
501-1401	4MB Sun-3/80 CPU
501-1650	4MB Sun-3/80 CPU

CPU

Sun-4 SPARC

PART #	DESCRIPTION
501-8058	4MB Sun-4/E CPU without Weitek Floating Point
501-8035	4MB Sun-4/E CPU with Weitek Floating Point
501-1627	8MB Sun-4/20 CPU
501-1680	0MB Sun-4/20 CPU
501-1727	0MB Sun-4/20 CPU with packaging (obsolete)
501-1720	8MB Sun-4/20 CPU
501-1748	0MB Sun-4/20 CPU
501-1776	8MB Sun-4/20 CPU
501-1777	0MB Sun-4/20 CPU
530-1677	● Serial Port Adapter Cable, DB-25 to 2x DB-25
530-1696	● Ethernet Adapter Cable, 2.0M
530-1702	● Audio Cable, Mini-Din to Mini-Jack
501-1689	8MB Sun-4/40 CPU
501-1690	0MB Sun-4/40 CPU (obsolete)
501-1835	8MB Sun-4/40 CPU
530-1594	● Audio Cable, Mini-Din to Mini-Jack
530-1662	● RS-232 Cable, 1.0 M, Mini-Din to DB-25
501-1382	8MB Sun-4/60 CPU
501-1629	8MB Sun-4/60 CPU
530-1594	● Audio Cable, Mini-Din to Mini-Jack
501-1632	8MB Sun-4/65 CPU
501-1691	0MB Sun-4/65 CPU
530-1594	● Audio Cable, Mini-Din to Mini-Jack
501-1638	16MB Sun-4/75 CPU
501-1744	0MB Sun-4/75 CPU
530-1594	● Audio Cable, Mini-Din to Mini-Jack

CPU

Sun-4 SPARC

PART #	DESCRIPTION
501-1199	8MB Sun 4100 CPU without FPC
501-1512	8MB Sun 4100 CPU without FPC
501-1656	8MB Sun 4100 CPU without FPC
501-1237	8MB Sun 4100 CPU with FPC4 or FPC6
501-1513	8MB Sun 4100 CPU with FPC4 or FPC6
501-1657	8MB Sun 4100 CPU with FPC6
501-1462	16MB Sun 4100 CPU without FPC
501-1514	16MB Sun 4100 CPU without FPC
501-1658	16MB Sun 4100 CPU without FPC
501-1463	16MB Sun 4100 CPU with FPC4 or FPC6
501-1515	16MB Sun 4100 CPU with FPC4 or FPC6
501-1659	16MB Sun 4100 CPU with FPC6
501-1464	32MB Sun 4100 CPU without FPC
501-1516	32MB Sun 4100 CPU without FPC
501-1660	32MB Sun 4100 CPU without FPC
501-1465	32MB Sun 4100 CPU with FPC4 or FPC6
501-1517	32MB Sun 4100 CPU with FPC4 or FPC6
501-1661	32MB Sun 4100 CPU with FPC6
501-1129	0MB Sun 4200 CPU with FPC4 (obsolete)
501-1274	0MB Sun 4200 CPU with FPC4 or FPC6, 1-Slot Backpanel
501-1491	0MB Sun 4200 CPU with FPU-2, 2-Slot Backpanel
501-1522	0MB Sun 4200 CPU with FPC4 or FPC6, 2-Slot Backpanel
501-1316	8MB Sun 4300 CPU with 1MB SIMMs
501-1742	32MB Sun 4300 CPU with 4MB SIMMs
501-1381	0MB Sun 4400 CPU

Memory

Multibus and VMEbus

PART #	DESCRIPTION
370-0147	256KB Chrislin Multibus Memory
501-0147	256KB Sun-1 Parity Memory (501-0147-07)
501-0147	768KB Sun-1 Parity Memory (501-0147-05)
501-0147	1MB Sun-1 Parity Memory (501-0147-06)
501-1013	1MB Sun-2 Parity Memory, Multibus
501-1048	1MB Sun-2 Parity Memory, Multibus
501-1232	4MB Sun-2 Parity Memory, Multibus
501-1079	0MB Sun-2/50 Parity Memory
501-1020	1MB Sun-2/50 Parity Memory
540-1101	1MB Sun-2/50 Parity Memory (obsolete)
540-1103	1MB Sun-2/50 Parity Memory (obsolete)
599-1182	1MB Sun-2/50 Parity Memory (obsolete)
599-1069	1MB Sun-2/50 Parity Memory (obsolete)
501-1046	2MB Sun-2/50 Parity Memory
599-1067	2MB Sun-2/50 Parity Memory (obsolete)
501-1067	3MB Sun-2/50 Parity Memory
540-1104	3MB Sun-2/50 Parity Memory (obsolete)
599-1092	3MB Sun-2/50 Parity Memory (obsolete)
501-1047	4MB Sun-2/50 Parity Memory
599-1068	4MB Sun-2/50 Parity Memory (obsolete)
501-1070	1MB Sun-2/130/160 Parity Memory
540-1113	1MB Sun-2/130/160 Parity Memory (obsolete)
599-1115	1MB Sun-2/130/160 Parity Memory (obsolete)
501-1096	2MB Sun-2/130/160 Parity Memory
599-1163	2MB Sun-2/130/160 Parity Memory (obsolete)
501-1071	3MB Sun-2/130/160 Parity Memory
540-1114	3MB Sun-2/130/160 Parity Memory (obsolete)
599-1116	3MB Sun-2/130/160 Parity Memory (obsolete)
501-1097	4MB Sun-2/130/160 Parity Memory
599-1164	4MB Sun-2/130/160 Parity Memory (obsolete)

Memory

VMEbus and Sun386i

PART #	DESCRIPTION
501-1121	0MB Sun 3/75 Parity Memory (obsolete)
599-1242	0MB Sun 3/75 Parity Memory (obsolete)
501-1111	2MB Sun 3/75 Parity Memory
599-1240	2MB Sun 3/75 Parity Memory (obsolete)
501-1122	4MB Sun 3/75 Parity Memory
599-1241	4MB Sun 3/75 Parity Memory (obsolete)
501-1131	2MB Sun 3004 Parity Memory
599-1179	2MB Sun 3004 Parity Memory (obsolete)
599-1188	2MB Sun 3004 Parity Memory (obsolete)
501-1132	4MB Sun 3004 Parity Memory
599-1180	4MB Sun 3004 Parity Memory (obsolete)
599-1189	4MB Sun 3004 Parity Memory (obsolete)
501-1102	8MB Sun 3200 & Sun 3400, Sun 4200 ECC Memory
501-1254	32MB Sun 3200 & Sun 4200 ECC Memory
501-1576	16MB Sun 3200, Sun 3400 & Sun 4200 ECC Memory
501-1451	32MB Sun 3200, Sun 3400 & Sun 4200 ECC Memory
501-8031	4MB Sun-3/E Parity Memory
501-8030	12MB Sun-3/E Parity Memory
555-1423	0MB Sun386i Parity Memory
501-1394	4MB Sun386i Parity Memory
501-1441	8MB Sun386i Parity Memory
501-1482	0MB Sun386i Parity Memory with Cache
555-1054	0MB Sun386i Parity Memory with Cache
501-1325	4MB Sun386i Parity Memory with Cache
501-1298	8MB Sun386i Parity Memory with Cache

Memory

Sun-4/330 and VMEbus

PART #	DESCRIPTION
501-1436	8MB Sun-4/330 Parity Memory with 1MB SIMMs
501-1723	8MB Sun-4/330 Parity Memory with 1MB SIMMs
501-1711	16MB Sun-4/330 Parity Memory with 1MB SIMMs
501-1317	16MB Sun-4/330 Parity Memory with 1MB SIMMs
501-1704	32MB Sun-4/330 Parity Memory with 4MB SIMMs
501-1755	32MB Sun-4/330 Parity Memory with 4MB SIMMs
501-1564	8MB Sun 4300 Memory, with 1MB SIMMs
501-1563	24MB Sun 4300 Memory with 1MB SIMMs
501-1703	32MB Sun 4300 Memory with 4MB SIMMs
501-1495	48MB Sun 4300 Memory with 1MB SIMMs
501-1333	32MB Sun 4400 ECC Memory
501-1721	128MB Sun 4400 ECC Memory
501-8036	16MB Sun-4/E ECC Memory
501-8042	4MB Sun-4/E ECC Memory
501-8060	0MB Sun-4/E Combo Parity Memory & 2-Slot SBus Expansion

Memory

SIMMs

PART #	DESCRIPTION
501-1239	1MB x 9-Bit SIMM, Sun-3/60
501-1349	256KB x 9-Bit DIP SIMM, Sun-3/60LE
501-1346	1MB x 9-Bit DIP SIMM, Sun-3/60LE
501-1314	256KB x 9-Bit SIMM, Sun 4100
501-1466	1MB x 9-Bit SIMM, Sun 4100 & Sun 4300
501-1424	1MB x 9-Bit SIMM, Sun386i/150 & Sun386i/250
501-1375	1MB x 9-Bit SIMM, Sun386i/250
501-1510	1MB x 9-Bit SIMM, Sun386i/250
501-1408	1MB x 9-Bit SIMM, Sun-3/80, Sun-4/60 & Sun-4/65
501-1544	1MB x 9-Bit SIMM, Sun 4300
501-1565	1MB x 9-Bit SIMM, Sun 4300
501-1676	4MB x 36-Bit SIMM, Sun-4/20
501-1698	4MB x 36-Bit SIMM, Sun-4/20
501-1625	4MB x 9-Bit SIMM, Sun-4/40, Sun-4/60 & Sun-4/65
501-1682	4MB x 9-Bit SIMM, Sun 4300
501-1697	1MB x 9-Bit SIMM, Sun-4/40
501-1739	4MB x 9-Bit SIMM, Sun-4/75

Video

Multibus P4 Bus Sun386i

PART #	DESCRIPTION
501-0059	Sun-1 Multibus Monochrome Frame Buffer
501-0461	Sun-2 Multibus Color Frame Buffer
501-1003	Sun-2 Multibus Monochrome Frame Buffer
501-1052	Sun-2 Prime Multibus Monochrome Frame Buffer
501-1210	CG4 Color Frame Buffer, BNC (Sun-3/60 Only)
501-1247	MG3 ECL Monochrome Frame Buffer, DB-9
501-1248	CG4 Color Frame Buffer, BNC
501-1371	CG8 Color Frame Buffer, DB13W3
501-1402	MG4 ECL/Analog Monochrome Frame Buffer, DB-9/DB13W3
501-1443	CG4 Color Frame Buffer, BNC, Sun-3/80 Backpanel
501-1483	DC to DC Converter for MG3
501-1518	CG8 Color Frame Buffer, BNC
501-1577	CG8 Color Frame Buffer, DB13W3, Sun-3/80 Backpanel
501-1637	MG3 ECL Monochrome Frame Buffer, DB-9, Sun-3/80 Backpanel
	GX Graphics Option
501-1374	CG6 Color Frame Buffer, DB13W3
501-1505	CG6 Color Frame Buffer, DB13W3
501-1532	CG6 Color Frame Buffer, DB13W3
501-1243	Sun386i Color Frame Buffer, 1152x900
501-1244	Sun386i Monochrome Frame Buffer, 1152x900
501-1286	Sun386i Color Frame Buffer, 1024x768
501-1352	Sun386i GXi Graphics Accelerator
501-1397	Sun386i SunVGA/EGA
501-1443	Sun386i Monochrome Frame Buffer, 1024x768
501-1567	Sun386i Monochrome Frame Buffer, 1152x900
501-1568	Sun386i Monochrome Frame Buffer, 1024x768

Video

VMEbus

PART #	DESCRIPTION
501-1014	CG2 Color Frame Buffer
540-1126	CG2 Color Frame Buffer (obsolete)
599-1165	CG2 Color Frame Buffer (obsolete)
501-1089	CG3 Double Buffered Color Frame Buffer
501-1116	CG3 Color Frame Buffer
501-1319	CG3 Double Buffered Color Frame Buffer, 1024x1024
501-1267	CG5 Color Frame Buffer
501-1055	GP Graphics Processor
501-1139	GP+ Graphics Processor Plus
501-1268	GP2 Graphics Processor Two
501-1058	GB Graphics Buffer
501-8020	Sun-3/E Monochrome Frame Buffer
501-8029	Sun-3/E Color Frame Buffer
501-1383	TAAC-1 Application Accelerator
501-1447	TAAC-1 Application Accelerator
	CXP Graphics Option
501-1116	CG3 Color Frame Buffer
501-1139	GP+ Graphics Processor Plus
501-1268	GP2 Graphics Processor Two
	GXP Graphics Option
501-1434	CG9 24-bit Color Frame Buffer
501-1268	GP2 Graphics Processor Two
	MVX Graphics Option
501-1537	Visualization Accelerator Pixel Processor
501-1538	Visualization Accelerator Super Frame Buffer
501-1596	Visualization Accelerator Interconnect Board
	VX Graphics Option
501-1538	Visualization Accelerator Super Frame Buffer

Video

SBus

PART #	DESCRIPTION
501-1415	CG3 8-bit Color Frame Buffer, DB13W3, 66Hz
501-1718	CG3 8-bit Color Frame Buffer, DB13W3, 66/76Hz
501-8044	CG3 8-bit Color Frame Buffer, DB13W3, 66Hz, Sun-4/E
501-1419	MG1 1-bit ECL Monochrome Frame Buffer, DB-9, 66Hz
501-8043	MG1 1-bit ECL Monochrome Frame Buffer, DB-9, 66Hz, Sun-4/E
501-1455	MG2 1-bit Analog Monochrome Frame Buffer, DB13W3, 66Hz
501-1561	MG2 1-bit Analog Monochrome Frame Buffer, DB13W3, 66/76Hz
501-1706	VideoPics, 2x RCA
	GS Graphics Option
370-1329	CG12 24-Bit Color Frame Buffer, DB13W3, 76Hz
	GX Graphics Option
501-1481	CG6 8-bit Color Frame Buffer, DB13W3, 66Hz (Sun-4/60 only)
501-1645	CG6 8-bit Color Frame Buffer, DB13W3, 66Hz
501-1672	CG6 8-bit Color Frame Buffer, DB13W3, 66/76Hz

Video

SBus and VMEbus Combination

PART #	DESCRIPTION
	GT Graphics Option
501-1624	Frame Buffer, DB13W3 & DB5W5, 76Hz
501-1692	Graphics Processor Front End (GPFE)
501-1693	SBus GT Adapter
501-1694	GPFE to GPRP Connector
501-1726	Graphics Processor Rendering Pipeline (GPRP)
530-1684	SBus Adapter to GPFE Cable, 1.5M

Video

Cables

PART #	DESCRIPTION
530-0492	Color Video Cable, 4.6M, 1xBNC to 1xBNC
530-1138	Color Video Cable, 4.6M, 4xBNC to 4xBNC
530-1307	Color Video Cable, 4.6M, 4xBNC to 4xBNC
530-1362	Color Video Cable, 1.2M, 4xBNC to 4xBNC
530-1415	Color Video Cable, 50 cm, 4xBNC to 4xBNC
530-1440	Color Video Cable, 1.2M, DB13W3 to DB13W3
530-1446	Color Video Adapter Cable, 4xBNC to DB13W3
530-1509	Color Video Cable, 4.6M, DB13W3 to DB13W3
530-1308	Greyscale Video Cable, 4.6M, 2xBNC to 2xBNC
530-1363	Greyscale Video Cable, 1.2M, 2xBNC to 2xBNC
530-1511	Greyscale Video Adapter Cable, 2xBNC to DB13W3
530-1041	TTL Monochrome Video Cable, DB-9 to DB-9 (Sun-2/150U)
530-1109	ECL Monochrome Video Cable, 0.75M, DB-9 to DB-9
530-1125	TTL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1133	ECL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1242	ECL Monochrome Video Cable, 0.75M, DB-9 to DB-9
530-1336	ECL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1359	ECL Monochrome Video Cable, 1.2M, DB-9 to DB-9
530-1366	Color Video & Keyboard Cable, DB21W3 to 4xBNC (386i)
530-1383	Monochrome Video & Keyboard Cable, DB21W3 to DB-9 (386i)
530-1621	Color Video & Keyboard Cable, DB21W3 to DB13W3 (386i)

Disk Controller

PART #	DESCRIPTION
370-1010	Adaptec ACB-4000 SCSI Disk Controller
370-0552	Emulex MD-21 SCSI Disk Controller
370-1236	Emulex MD-21 SCSI Disk Controller
370-1012	Xylogics 450 Multibus SMD Disk Controller
370-1082	Xylogics 451 Multibus SMD Disk Controller
501-1154	Xylogics 450 VMEbus SMD Disk Controller Assembly
530-1147	● SMD Data Cable, 9U Adapter Assembly
530-1148	● SMD Command Cable, 9U Adapter Assembly
501-1186	● 9U VME Adapter Assembly for Xylogics 450/451
370-1012	● Xylogics 450 Multibus SMD Disk Controller
530-1079	● External SMD Command Cable, 0.7M
530-1080	● External SMD Data Cable, 0.7M
530-1209	● External SMD Command Cable, 2.0M
530-1210	● External SMD Data Cable, 2.0M
501-1166	Xylogics 451 VMEbus SMD Disk Controller Assembly
530-1147	● SMD Data Cable, 9U Adapter Assembly
530-1148	● SMD Command Cable, 9U Adapter Assembly
501-1186	● 9U VME Adapter Assembly for Xylogics 450/451
370-1082	● Xylogics 451 Multibus SMD Disk Controller
530-1079	● External SMD Command Cable, 0.7M
530-1080	● External SMD Data Cable, 0.7M
530-1209	● External SMD Command Cable, 2.0M
530-1210	● External SMD Data Cable, 2.0M
530-1378	● External SMD Command Cable, 892MB Disk Drive
530-1379	● External SMD Data Cable, 892MB Disk Drive
530-1356	● External SMD Daisy Chain Command Cable, 892MB Disk Drive

Disk Controller

PART #	DESCRIPTION
501-1249	Sun VME/SMD Disk Controller, Xylogics 7053-105
530-1330	● SMD Data Cable, 2.0M, Mass Storage Pedestal
530-1330	● SMD Data Cable, 2.0M, Sun Expansion Pedestal
530-1330	● SMD Data Cable, 2.0M, 575MB Disk Drive
530-1331	● SMD Command Cable, 2.0M, 575MB Disk Drive
530-1331	● SMD Command Cable, 2.0M, Sun Expansion Pedestal
530-1331	● SMD Command Cable, 2.0M, Mass Storage Pedestal
530-1475	● SMD Data Cable, 6.0M, 892MB Disk Drive
530-1476	● SMD Command Cable, 6.0M, 892MB Disk Drive
530-1354	● SMD Command Cable, 2.5M, 892MB Disk Drive
530-1355	● SMD Data Cable, 2.5M, 892MB Disk Drive
530-1356	● SMD Daisy Chain Command Cable, 2.5M, 892MB Disk Drive
530-1692	● SMD Data Cable, 6.0M, 575MB Disk Drive
530-1693	● SMD Command Cable, 6.0M, 575MB Disk Drive
501-1539	ISP-80 IPI-2 Disk Controller
501-1855	ISP-80 IPI-2 Disk Controller
530-1487	● IPI Command Cable, 8.0M
530-1518	● IPI Command Cable, 2.0M
530-1536	● IPI Command Cable, 0.45M
530-1488	● IPI Command Cable, 1.0M
530-1489	● IPI "W" Command Cable (not currently in use)
370-1372	Prestoserve NFS Accelerator

Tape Controller

PART #	DESCRIPTION
370-0502	Ciprico Tapemaster Multibus 1/2" Tape Controller
501-0526	Sun 256Kb Multibus Memory & 1/4" Tape Controller
370-1011	Sysgen SC4000 SCSI Tape Controller
370-1026	Archive Stand Alone Controller
370-1061	Emulex MT02 SCSI Tape Controller
370-1067	Xylogics 472 Multibus 1/2" Tape Controller
370-1235	Emulex MT02 SCSI Tape Controller
501-1155	Xylogics 472 1/2" Tape Controller Assembly, 9U VMEbus
501-1187	● 9U VME Adapter Assembly for Xylogics 472
370-1067	● Xylogics 472 Multibus 1/2" Tape Controller
530-1165	● Tape Command Cable, Xylogics 472 to 9U Backpanel
530-1209	External Tape Command Cable, 2.0M
530-1691	External Tape Command Cable, 5.5M
501-1249	Ciprico Tapemaster 1/2" Tape Controller
501-1187	● 9U VME Adapter Assembly for Ciprico Tapemaster
370-0502	● Ciprico Tapemaster Multibus 1/2" Tape Controller
530-1165	● Tape Command Cable, Ciprico Tapemaster to 9U Backpanel
530-1209	External Tape Command Cable, 2.0M
530-1691	External Tape Command Cable, 6.0M

Communication

Ethernet and FDDI

PART #	DESCRIPTION
370-1111	3Com 3C501 ATbus Etherlink I Controller
370-1180	3Com 3C503 ATbus Etherlink II Controller
370-1181	3Com 3C523 Microchannel Etherlink/MC Controller
370-0288	3Com 3C400 Multibus Ethernet Controller
370-8012	Fibercom 027-100G6 Fiberoptic Ethernet Controller
370-8012	Fibercom 7501-01 Fiberoptic Ethernet Controller
501-1004	Sun-2 Multibus Ethernet Controller
501-1450	SBus Ethernet Controller
501-8027	Sun-3/E SCSI/Ethernet Controller
501-1153	Sun-2 Ethernet Controller Assembly
501-1004	● Sun-2 Multibus Ethernet Controller
530-1173	● Ethernet Cable, Ethernet Controller to Backpanel
501-1584	Sun-3/E Ethernet Controller Assembly
501-8027	● Sun-3/E Ethernet Controller
530-1607	● Ethernet Cable, Ethernet Controller to Backpanel
501-1276	SunLight FDDI
537-1000	● Fiber Optic Cable, 15M

Communication

Multibus ALM and SCP

PART #	DESCRIPTION
370-1039	Systech MTI-800 Multi-Channel Communication Board Set
370-1046	● Systech MTI-800 USART Board
370-1047	● MTI-800/1600 Controller Board
370-1040	Systech MTI-1600 Multi-Channel Communication Board Set
370-1047	● MTI-800/1600 Controller Board
370-1048	● Systech MTI-800 USART Board
370-1096	Systech MTI-1650B Multi-Channel Communication Board Set
370-1099	● MTI-850/1650 Controller Board
811-1100	● Systech MTI-1650A USART Panel
370-1097	Systech MTI-1650B Multi-Channel Communication Board Set
370-1099	● MTI-850/1650 Controller Board
370-1100	● Systech MTI-1650B USART Board
370-1098	Systech MTI-850B Multi-Channel Communication Board Set
370-1099	● MTI-850/1650 Controller Board
370-1102	● Systech MTI-850B USART Board
370-1049	Systech DCP-8804 Communications Processor
540-1309	● RS-449 Loopback Test Plug
540-1281	● RS-232 Loopback Test Plug

Communication

VMEbus ALM and SCP

PART #	DESCRIPTION
501-1157	16-Channel Asynchronous Line Multiplexer (ALM)
370-1040	● Systech MTI-1600 Board Set
370-1047	● Systech MTI-1600 Controller Board
370-1048	● Systech MTI-1600 USART Board
370-1097	● Systech MTI-1650B Board Set
370-1099	● Systech MTI-1650B Controller Board
370-1100	● Systech MTI-1650B USART Board
530-1251	● Cable, Systech Controller to Systech USART
530-1252	● Cable, Systech MTI-1600/1650B to Backpanel
530-1255	● DC Power Cable
540-1281	● RS-232 Loopback Test Plug (obsolete)
540-1558	● RS-232 Loopback Test Plug
501-1165	Rackmounted 16-Channel Asynchronous Line Multiplexer(ALM)
370-1096	● Systech MTI-1650A Board Set
370-1099	● Systech MTI-1650B Controller Board
811-1100	● 16-Channel USART Rackmount Panel
530-1276	● RS-232 Cable, Systech MTI-1650A to Backpanel
530-1295	● DC Power Cable, ALM to USART Panel
540-1281	● RS-232 Loopback Test Plug (obsolete)
540-1558	● RS-232 Loopback Test Plug
501-1158	SunLink Serial Communications Processor Assembly (SCP)
370-1049	● Systech DCP-8804 Communications Processor
530-1178	● RS-232 Cable, Long
530-1179	● RS-232 Cable, Short
530-1180	● RS-449 Cable, Long
530-1181	● RS-449 Cable, Short
540-1309	● RS-449 Loopback Test Plug
540-1281	● RS-232 Loopback Test Plug

Communication

ALM-2 MCP HSI Channel Adapter

PART #	DESCRIPTION
501-1203	16 Channel Asynchronous Line Multiplexer-2 (ALM-2)
340-1569	● Rack Mounting Bracket
340-1587	● Wall Mounting Bracket
340-1914	● Rack Mounting Bracket, Short, 56" Rack
340-1915	● Rack Mounting Bracket, Long, 56" Rack
530-1334	● Cable, ALM-2 to DCA
540-1526	● DCA Assembly
540-1558	● RS-232 Loopback Test Plug
540-1560	● Parallel Port Loopback Test Plug
501-1221	SunLink Multiprotocol Communications Processor (MCP)
540-1558	● RS-232 Loopback Test Plug
540-1559	● RS-449 Loopback Test Plug
501-1338	SunLink High-Speed Serial Interface (HSI)
530-1425	● V.35 Cable, HSI to DSU
530-1426	● V.35 Loopback Test Plug
530-1430	● RS-449 Loopback Test Plug
370-1128	SunLink Channel Adapter (obsolete)
501-1460	SunLink Channel Adapter
530-1134	● Loopback Test Cable
370-1135	● Bus Terminator
370-1136	● Tag Terminator
370-1129	● Tag In & Bus In Cable, 8'
370-1130	● Tag Out & Bus Out Cable, 8'
370-1131	● Tag Out & Bus Out Cable, 5' (obsolete)
370-1132	● Tag In & Bus In Cable, 5' (obsolete)
530-1364	● RS-232 Diagnostic Port Cable, 20'

Communication

SBus

PART #	DESCRIPTION
501-1450	SBus Ethernet Controller
501-1511	SBus Serial Parallel Controller
540-2007	● 8-Channel Interface Panel
540-1558	● RS-232 Loopback Test Plug, 25-Pin
540-1701	● SBus Card Loopback Test Plug, 96-Pin High-Density
530-1685	● Interface Cable, SBus Card to Interface Panel, 2.0M
501-1557	SBus FDDI
501-1725	SBus High Speed Serial Interface (HSI)
530-1685	● Interface Cable, SBus Card to Interface Panel, 2.0M
370-1381	● SBus Card Loopback Test Plug, 96-Pin High-Density
370-1383	● RS-530 Loopback Test Plug, 25-Pin
540-2030	● 4-Channel Interface Panel
501-2140	SBus Printer Board
530-1680	● Parallel Port Cable, 28-Pin High-Density to Centronics
530-1683	● Loopback Test Cable, Parallel Port to Video Port
530-1694	● Test Cable, Video Port to Video Port
370-1365	● Video Port Cable, Video Port to SPARCprinter

SCSI Host Adapter

Boards and Cables

PART #	DESCRIPTION
501-1006	Sun-2 Multibus SCSI Host Adapter
501-1045	Sun-2 VMEbus SCSI Host Adapter
501-1120	Sun-3 VMEbus SCSI Host Adapter (obsolete)
501-1236	Sun-3 VMEbus SCSI Host Adapter
501-8027	Sun-3/E VMEbus SCSI Host Adapter
501-1759	SBus SCSI Host Adapter, FCC-A/VCCI-1
501-1850	SBus SCSI Host Adapter, FCC-B/VCCI-2
530-1185	External SCSI Cable, DD-50SA to DD-50SA, Ribbon, 1.0M (obs)
530-1186	External SCSI Cable, DD-50SA to DD-50SA, Ribbon, 5.0M (obs)
530-1249	External SCSI Cable, DD-50SA to DD-50SA, 1.0M
530-1250	External SCSI Cable, DD-50SA to DD-50SA, 3.0M
530-1334	External SCSI Cable, DD-50SA to DD-50SA, 2.5M
530-1365	External SCSI Cable, DD-50SA to DD-50SA, 41 cm
530-1435	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 2.0M
530-1593	External SCSI Cable, 50-Pin SCSI-2 to DD-50SA, 1.0M
530-1434	External SCSI Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 45 cm
530-1508	External SCSI Cable, 50-Pin SCSI-2 to 50-Pin SCSI-2, 80 cm
530-1501	External SCSI Cable, DD-50SA to Centronics, 2.0M
530-1502	External SCSI Cable, Centronics to Centronics, 1.5M
530-1503	External SCSI Cable, 50-Pin SCSI-2 to Centronics, 2.0M
530-1568	External SCSI Cable, DD-50SA to Centronics, 4.0M

SCSI Host Adapter

Assemblies

PART #	DESCRIPTION
501-1147	Sun-2/50 SCSI Host Adapter Assembly, External SCSI
501-1045	● Sun-2 VMEbus SCSI Host Adapter
501-1079	● Sun-2/50 0mb Memory Expansion Board
501-1149	Sun-2 SCSI Host Adapter Assembly, Internal SCSI
501-1045	● Sun-2 SCSI Host Adapter
270-1059	● VME 3x2 Adapter FAB with P2 Rows A&C
501-1138	Sun-2 SCSI Host Adapter Assembly, External SCSI
501-1045	● Sun-2 SCSI Host Adapter
270-1138	● VME 3x2 Adapter FAB without P2 Rows A&C
501-1167	Sun-2 SCSI Host Adapter Assembly, External SCSI
501-1045	● Sun-2 SCSI Host Adapter
270-1059	● VME 3x2 Adapter FAB with P2 Rows A&C
501-1170	Sun-3 SCSI Host Adapter Assembly, Internal SCSI
501-1236	● Sun-3 SCSI Host Adapter
270-1059	● VME 3x2 Adapter FAB with P2 Rows A&C
501-1172	Sun-3/75 SCSI Host Adapter Assembly, External SCSI
501-1045	● Sun-2 VMEbus SCSI Host Adapter
501-1121	● Sun-3/75 0MB Memory Expansion Board
501-1217	Sun-3 SCSI Host Adapter Assembly, External SCSI
501-1236	● Sun-3 SCSI Host Adapter
270-1138	● VME 3x2 Adapter FAB without P2 Rows A&C

Backplane

PART #	DESCRIPTION
340-0332	7-Slot Multibus Backplane & Cardcage Assembly
340-0644	15-Slot Multibus Backplane & Cardcage Assembly
501-1049	9-Slot Multibus Backplane, Sun-2/120
501-1050	15-Slot Multibus Backplane, Sun-2/170
501-1090	9-Slot Multibus Backplane, Sun-2/120 (obsolete)
501-1150	15-Slot Multibus Backplane, Sun-2/170 (obsolete)
501-1042	2-Slot VMEbus Backplane, Sun-2/50
501-1085	12-Slot VMEbus Backplane, Sun-2/130/160
501-1092	12-Slot VMEbus Backplane, (obsolete)
501-1093	2-Slot VMEbus Backplane, Sun-3/75
501-1109	1-Slot Backplane, Sun-3/50
501-1117	12-Slot VMEbus Backplane, Pressfit
501-1127	3-Slot VMEbus Backplane, Pressfit
501-1128	6-Slot VMEbus Backplane, Pressfit
501-1277	1-Slot Backplane, Pressfit, Sun-3/50/60
501-1354	5-Slot VMEbus Backplane, Pressfit
501-1439	12-Slot Backplane, 9 VMEbus Slots, Pressfit (obsolete)
501-1498	16-Slot Backplane, 13 VMEbus Slots, Pressfit (obsolete)
501-1597	16-Slot Backplane, 13 VMEbus Slots, Pressfit, Fused
501-1598	12-Slot Backplane, 9 VMEbus Slots, Pressfit
501-1832	12-Slot Backplane, 9 VMEbus Slots, Pressfit with cutout

Miscellaneous

PART #	DESCRIPTION
370-1021	Sky Floating Point Processor, Multibus
370-1029	Sky Floating Point Processor, VMEbus
501-1105	Floating Point Accelerator
501-1146	Floating Point Accelerator Plus
501-1154	VMEbus to Multibus Adapter Assembly, Blank Backpanel
501-1191	VME 3x2 Adapter Assembly, without P2 A&C, Option 160B
501-1220	VME 3x2 Adapter Assembly, without P2 A&C
501-1269	VME 3x2 Adapter Assembly, with P2 A&C, Option 160A
501-1384	Sun 4100 FPU2
501-1387	Sun 4200 FPU2
501-1454	Sun-4/60 SBus FPU
501-1666	VME 3x2 Adapter Assembly, with P2 A&C
540-1108	VME 3x2 Adapter Assembly (obsolete)
540-1250	VMEbus to Multibus Adapter Assembly (obsolete)
501-1125	SunIPC without 80287
501-1214	SunIPC with 80287
501-1196	● Parallel Port Loopback Test Plug
370-1125	● Floppy Drive Cable, SunIPC to Floppy Drive
501-1148	Sky Floating Point Processor Assembly, VMEbus
370-1029	● Sky Floating Point Processor
501-1079	● Sun-2/50 0mb Memory Expansion Board
501-1151	Sky Floating Point Processor Assembly, VMEbus
370-1029	● Sky Floating Point Processor
501-1059	● VME 3x2 Adapter Assembly

PARTS BREAKDOWN

MONITOR

Monitor

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Video Cables

PART #	DESCRIPTION
530-0492	Color Video Cable, 4.6M, 1xBNC to 1xBNC
530-1138	Color Video Cable, 4.6M, 4xBNC to 4xBNC
530-1307	Color Video Cable, 4.6M, 4xBNC to 4xBNC
530-1362	Color Video Cable, 1.2M, 4xBNC to 4xBNC
530-1415	Color Video Cable, 50 cm, 4xBNC to 4xBNC
530-1440	Color Video Cable, 1.2M, DB13W3 to DB13W3
530-1446	Color Video Adapter Cable, 4xBNC to DB13W3
530-1509	Color Video Cable, 4.6M, DB13W3 to DB13W3
530-1308	Greyscale Video Cable, 4.6M, 2xBNC to 2xBNC
530-1363	Greyscale Video Cable, 1.2M, 2xBNC to 2xBNC
530-1511	Greyscale Video Adapter Cable, 2xBNC to DB13W3
530-1041	TTL Monochrome Video Cable, DB-9 to DB-9 (Sun-2/150U)
530-1109	ECL Monochrome Video Cable, 75 cm, DB-9 to DB-9
530-1125	TTL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1133	ECL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1242	ECL Monochrome Video Cable, 75 cm, DB-9 to DB-9
530-1336	ECL Monochrome Video Cable, 4.6M, DB-9 to DB-9
530-1359	ECL Monochrome Video Cable, 1.2M, DB-9 to DB-9
530-1366	Color Video & Keyboard Cable, DB21W3 to 4xBNC (386i)
530-1383	Monochrome Video & Keyboard Cable, DB21W3 to DB9 (386i)
530-1621	Color Video & Keyboard Cable, DB21W3 to DB13W3 (386i)

14-inch Seiko Color
1024 x 768 Pixel Resolution
53.6KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
360-1033	115V Monitor, FCC-A, 4xBNC
530-1370	Power Cord, IEC 320/CEE 22 to NEMA 5-15, USA
360-1034	240V Monitor, FCC-A, 4xBNC
530-1583	Power Cord, IEC 320/CEE 22 to SEV 1011-24507, Swis
530-1410	Power Cord, IEC 320/CEE 22 to CEE 7-VII, Europe
530-1411	Power Cord, IEC 320/CEE 22 to BS1363, UK
360-1035	115V Monitor, FCC-B, 4xBNC (obsolete)
530-1370	Power Cord, IEC 320/CEE 22 to NEMA 5-15, USA
360-1036	240V Monitor, FCC-B, 4xBNC (obsolete)
530-1583	Power Cord, IEC 320/CEE 22 to SEV 1011-24507, Swiss
530-1410	Power Cord, IEC 320/CEE 22 to CEE 7-VII, Europe
530-1411	Power Cord, IEC 320/CEE 22 to BS1363, UK

15-inch Hitachi Color
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Refresh Rate

PART #	DESCRIPTION
360-1015	115V/240V Monitor, 4xBNC
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15

15-inch Sampo Monochrome ECL
1024 x 768 Pixel Resolution
63.96KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
360-1026	115V Monitor, DB9
530-1372,	Power Cord, IEC 320/CEE 22 to NEMA 5-15, USA
365-1038	240V Monitor, DB9
530-1583	Power Cord, IEC 320/CEE 22 to SEV 1011-24507, Swiss
530-1410	Power Cord, IEC 320/CEE 22 to CEE 7-VII, Europe
530-1411	Power Cord, IEC 320/CEE 22 to BS1363, UK

16-inch Sony Color
1152 x 900 Pixel Resolution
61.8KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1020	115V Monitor, 4xBNC
150-1225	Fuse, 4A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1022	240V Monitor, 4xBNC
150-1226	Fuse, 3.15A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1063	115V Monitor, DB13W3
150-1225	Fuse, 4A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1064	240V Monitor, DB13W3
150-1226	Fuse, 3.15A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1079	115V Monitor, DB13W3, VCCI-1
150-1225	Fuse, 4A
180-1146	Power Cord, IEC 320/CEE 22 ro NEMA 5-15
365-1080	240V Monitor, DB13W3, VCCI-1
150-1226	Fuse, 3.15A
365-1092	115V Monitor, DB13W3, FCC-B/VCCI-2
150-1225	Fuse, 4A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1093	240V Monitor, DB13W3, FCC-B/VCCI-2
150-1226	Fuse, 3.15A

16-inch Sony Color
17-inch Overscan
1152 x 900 Pixel Resolution
61.8KHz Horizontal Scan Frequency
66Hz or 76Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1096	115V/240V Monitor, DB13W3, FCC-A/VCCI-1 (not used)
365-1113	115V/240V Monitor, DB13W3, FCC-B/VCCI-2
365-1130	115V/240V Monitor, DB13W3, FCC-B/VCCI-2, VLF
365-1107	115V/240V OEM Monitor, DB13W3, FCC-B/VCCI-2

Notes

1. The overscan mode is not supported at 66Hz vertical refresh.
2. Monitor sense code information is not interpreted properly by older CG6 Color Frame Buffers. Video is not displayed upon power-up until the video cable is removed and reconnected. The following board revisions are affected.

P4 CG6, 501-1505-03 and below

P4 CG6, 501-1532-09 and below

SBus CG6, 501-1481-04 and below

SBus CG6 501-1645-03 and below.

17-inch Zenith Greyscale
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1055	90-240V Monitor, DB13W3
365-1094	90-240V Monitor, DB13W3, FCC-B/VCCI-2
365-1062	90-240V Monitor, DB13W3, OCLI

17-inch Greyscale
16-inch Underscan
1152 x 900 Pixel Resolution
71.7KHz & 70.8KHz Horizontal Scan Frequency
76Hz & 84Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1100	115V/240V Monitor, DB13W3, FCC-B/VCCI-2
365-1109	115V/240V OEM Monitor, DB13W3, FCC-B/VCCI-2

19-inch Color
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
540-1094	115V Monitor, 4xBNC, Metal Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
360-1008	19" Monitor
365-1000	115V Monitor, 4xBNC, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1006	240V Monitor, 4xBNC, 395x535 mm Base
150-1034	Fuse, 2A
150-1051	Fusecarrier
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1056	115V Monitor, 4xBNC, 409x409 mm Base
140-1022	Fuse, 1.6A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1054	240V Monitor, 4xBNC, 409x409 mm Base
150-1034	Fuse, 2A
150-1051	Fusecarrier
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1073	115V/240V Monitor, DB13W3, VCCI-1, 409x409 mm Base

19-inch Sony Color
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1038	115V Monitor, 4xBNC
150-1225	Fuse, 4A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1039	240V Monitor, 4xBNC
150-1226	Fuse, 3.15A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1065	115V Monitor, DB13W3
150-1225	Fuse, 4A
365-1066	240V Monitor, DB13W3
150-1226	Fuse, 3.15A
365-1081	115V Monitor, DB13W3, VCCI-1
150-1225	Fuse, 4A
365-1082	240V Monitor, DB13W3, VCCI-1
150-1226	Fuse, 3.15A

19-inch Sony Color
20-inch Overscan
1152 x 900 Pixel Resolution
61.8KHz Horizontal Scan Frequency
66Hz or 76Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1095	115V/240V Monitor, DB13W3, FCC-A/VCCI-1
365-1106	115V/240V OEM Monitor, DB13W3, FCC-A/VCCI-1
365-1112	115V/240V Monitor, DB13W3, FCC-B/VCCI-2, VLF
365-1114	115V/240V OEM Monitor, DB13W3, FCC-B/VCCI-2, VLF

Notes

1. The overscan mode is not supported at 66Hz vertical refresh.
2. Monitor sense code information is not interpreted properly by older CG6 Color Frame Buffers. Video is not displayed upon power-up until the video cable is removed and reconnected. The following board revisions are affected.

P4 CG6, 501-1505-03 and below

P4 CG6, 501-1532-09 and below

SBus CG6, 501-1481-04 and below

SBus CG6 501-1645-03 and below.

19-inch Greyscale
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
540-1514	115V Monitor, 2xBNC, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
360-1012	19-inch Monitor
360-1021	19-inch Monitor
540-1567	240V Monitor, 2xBNC, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1010	115V Monitor, 2xBNC, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15, USA
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1009	240V Monitor, 2xBNC, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1053	115V Monitor, 2xBNC, 409x409 mm Base
140-1022	Fuse, 1.6A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1046	240V Monitor, 2xBNC, 409x409 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1071	115V/240V Monitor, DB13W3, VCCI-1, 409x409 mm Base

19-inch Greyscale
20-inch Overscan
1152 x 900 Pixel Resolution
71.7KHz Horizontal Scan Frequency
76Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1099	115V/240V Monitor, DB13W3, FCC-B/VCCI-2
365-1108	115V/240V OEM Monitor, DB13W3, FCC-B/VCCI-2

19-inch Greyscale with OCLI
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1008	240V Monitor, 2xBNC, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/GEE 22 to pigtail
365-1052	240V Monitor, 2xBNC, 409x409 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/GEE 22 to pigtail

19-inch Monochrome ECL
1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
540-1062	115V Monitor, DB9, without Base (3/50 dimple top)
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
540-1562	240V Monitor, DB9, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
540-1240	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1016	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1014	240V Monitor, DB9, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1051	115V Monitor, DB9, 409x409 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1043	240V Monitor, DB9, 409x409 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1086	115V/240V Monitor, DB9, VCCI-1, 409x409 mm Base

19-inch Monochrome ECL with OCLI

1152 x 900 Pixel Resolution
62KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
540-1358	115V Monitor, DB9, without Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
360-1013	19-inch Monitor
540-1565	240V Monitor, DB9, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
540-1357	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
360-1013	19-inch Monitor
365-1013	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1011	240V Monitor, DB9, 395x535 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1044	115V Monitor, DB9, 409x409 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1045	240V Monitor, DB9, 409x409 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1087	115V/240V Monitor, DB9, VCCI-1, 409x409 mm Base

19-inch High Resolution ECL
1600 x 1280 Pixel Resolution
89KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
540-1427	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
360-1014	19-inch Monitor
540-1571	240V Monitor, DB9, 395x535 mm Base
150-1034	Fuse, 2A
150-1051	Fusecarrier
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1005	115V Monitor, DB9, 395x535 mm Base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1007	240V Monitor, DB9, 395x535 mm Base
150-1034	Fuse, 2A
150-1051	Fusecarrier
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1047	115V Monitor, DB9, 409x409 mm Base
140-1022	Fuse, 1.6A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1050	240V Monitor, DB9, 409x409 mm Base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1123	115V Monitor, DB9, 409x409 mm Base, VCCI-1
140-1022	Fuse, 1.6A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1128	240V Monitor, DB9, 409x409 mm Base, VCCI-1
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail

19-inch High Resolution ECL with OCLI
1600 x 1280 Pixel Resolution
89KHz Horizontal Scan Frequency
66Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1004	115V Monitor, DB9, 395x535 mm base
140-1022	Fuse, 1.6A
180-1097	Power Cord, IEC 320/CEE 22 to NEMA 5-15, USA
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1003	240V Monitor, DB9, 395x535 mm base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to pigtail
365-1048	115V Monitor, DB9, 409x409 mm base
140-1022	Fuse, 1.6A
180-1146	Power Cord, IEC 320/CEE 22 to NEMA 5-15
365-1049	240V Monitor, DB9, 409x409 mm base
150-1051	Fusecarrier
150-1215	Fuse, 1.6A
180-1125	Power Cord, IEC 320/CEE 22 to NEMA 5-15

21-inch Toshiba Color
20-inch Underscan
1280 x 1024 Pixel Resolution
81.13KHz Horizontal Scan Frequency
76Hz Vertical Refresh Rate

PART #	DESCRIPTION
365-1068	115V/240V Monitor, DB13W3, FCC-A/VCCI-1
365-1110	115V/240V OEM Monitor, DB13W3, FCC-A/VCCI-1

PARTS BREAKDOWN

KEYBOARD/MOUSE

Keyboard/Mouse

Type-3 Keyboard	3
Type-3 Mouse	3
Type-4 Keyboard	4
Type-4 Mouse	4
Type 101A Keyboard	5

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Type-3 Keyboard

PART #	DESCRIPTION
370-1063	Type-3 Keyboard, DB-15 (obsolete)
370-1095	Type-3 Keyboard, DB-15
530-1526	Type-3 Keyboard Adapter Cable, DB-15 to Mini-Din

Type-3 Mouse

PART #	DESCRIPTION
370-1058	M3 Mouse & Pad, RJ11 (obsolete)
370-1091	M3 Mouse & Pad, RJ11 (obsolete)
365-1042	M4 Mouse & Pad, RJ11
370-1169	● M4 Mouse, 200 CPI, RJ11
370-1171	● M4 Mouse Pad, 200 CPI, 0.062", 228.6 x 196.9 mm (obs)
370-1215	● M4 Mouse Pad, 200 CPI, 0.032", 228.6 x 196.9 mm (obs)
370-1368	● M4 Mouse Pad, 200 CPI, 0.032", 177.8 x 196.9 mm

Type-4 Keyboard

PART #	DESCRIPTION
320-1002	Type-4 Keyboard, Mini-Din, US (obsolete)
320-1005	Type-4 Keyboard, Mini-Din, US
320-1006	Type-4 Keyboard, Mini-Din, German
320-1007	Type-4 Keyboard, Mini-Din, Swiss German
320-1008	Type-4 Keyboard, Mini-Din, Belgium & France
320-1009	Type-4 Keyboard, Mini-Din, UK
320-1010	Type-4 Keyboard, Mini-Din, Swiss French
320-1011	Type-4 Keyboard, Mini-Din, Netherlands
320-1012	Type-4 Keyboard, Mini-Din, Sweden & Denmark
320-1013	Type-4 Keyboard, Mini-Din, Denmark
320-1014	Type-4 Keyboard, Mini-Din, Norway
320-1015	Type-4 Keyboard, Mini-Din, Italy
320-1016	Type-4 Keyboard, Mini-Din, Spanish
320-1017	Type-4 Keyboard, Mini-Din, Portugal
320-1018	Type-4 Keyboard, Mini-Din, French Canadian
530-1442	Keyboard Cable, Mini-Din to Mini Din, 2.0M
530-1443	Keyboard Cable, Mini-Din to Mini Din, 4.6M
530-1478	Keyboard Cable, DB-15 to Mini Din, 2.0M
530-1479	Keyboard Cable, DB-15 to Mini Din, 4.6M
530-1366	Color Video & Keyboard Cable, DB21W3 to 4xBNC (Sun386i)
530-1383	Monochrome Video & Keyboard Cable, DB21W3 to DB9 (Sun386i)
530-1621	Color Video & Keyboard Cable, DB21W3 to DB13W3 (Sun386i)

Type-4 Mouse

PART #	DESCRIPTION
370-1161	M4 200 CPI Mouse and Pad, Mini-Din (unreleased part, obsolete)
365-1059	M4 200 CPI Mouse and Pad, Mini-Din
370-1170	● M4 200 CPI Mouse, Mini-Din
370-1215	● M4 Mouse Pad, 200 CPI, 0.032", 228.6 x 196.9 mm (obsolete)
370-1368	● M4 Mouse Pad, 200 CPI, 0.032", 177.8 x 196.9 mm

Type 101A Keyboard

PART #	DESCRIPTION
320-1002	Type 101A Keyboard, Mini-Din
530-1442	Keyboard Cable, Mini-Din to Mini Din, 2.0M
530-1443	Keyboard Cable, Mini-Din to Mini Din, 4.6M
530-1478	Keyboard Cable, DB-15 to Mini Din, 2.0M
530-1479	Keyboard Cable, DB-15 to Mini Din, 4.6M

PARTS BREAKDOWN

MISCELLANEOUS

Miscellaneous

AC Power Cords	3
Ethernet Parts	4
Fuses	5
Recommended Service Tools	8

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AC Power Cords

PART #	FEMALE TO MALE CONNECTOR DESCRIPTION	COUNTRY
180-1097	IEC 320/CEE 22 to NEMA 5-15	USA
180-1125	IEC 320/CEE 22 to pigtail	
180-1146	IEC 320/CEE 22 to NEMA 5-15	USA
180-1176	IEC 320/CEE 22 to BS1363	United Kingdom
180-1177	IEC 320/CEE 22 to CEE 7-VII	French
180-1177	IEC 320/CEE 22 to CEE 7-VII	German
180-1177	IEC 320/CEE 22 to CEE 7-VII	Swedish
180-1178	IEC 320/CEE 22 to SEV 1011.1959	Swiss/German
180-1178	IEC 320/CEE 22 to SEV 1011.1959	Swiss/French
180-1179	IEC 320/CEE 22 to NEMA 5-15	USA
180-1234	IEC 320/CEE 22 to DHPR 1962	Denmark
180-1235	IEC 320/CEE 22 to CEI 23-16/VII	Italy
180-1236	AS 3109.1-1987 to SAA AS 3112	Australia/New Zealand
530-1370	IEC 320/CEE 22 to NEMA 5-15	USA
530-1372	IEC 320/CEE 22 to NEMA 5-15	USA
530-1410	IEC 320/CEE 22 to CEE 7-VII	Europe
530-1411	IEC 320/CEE 22 to BS1363	UK
530-1583	IEC 320/CEE 22 to SEV 1011-24507	Swiss
530-1657	IEC 320/CEE 22 to NEMA 5-15	US
530-1663	IEC 320/CEE 22 to CEE 7-VII	French
530-1663	IEC 320/CEE 22 to CEE 7-VII	German
530-1664	IEC 320/CEE 22 to SEV1011-24507	Swiss/French
530-1664	IEC 320/CEE 22 to SEV1011-24507	Swiss/German
530-1665	IEC 320/CEE 22 to 107/10-1973	Swedish
530-1671	IEC 320/CEE 22 to BS1363	United Kingdom

Ethernet Parts

DESCRIPTION	ORDER NUMBER	PART NUMBER
3Com 3c400 Controller		370-0288
3Com 3c100 Transceiver		370-0331
N-series Connector		370-0549
N-series Male Terminator	ETR	370-0368
15-meter Ethernet Coax Cable (obs)		370-0363
15-meter Transceiver Drop Cable (obs)		370-0364
BNC Tap Block, 3Com 3C139A		370-1074
N-series Tap Block, 3Com 3C139		370-1073
Vampire Tap Block, AMP 228752-1		370-1072
Ethernet Installation Kit, Vampire Tap Tool	ETH-TAP-TOOL	370-1075
3Com 3C101/102 Transceiver (obs)		370-1071-01
3Com 3C106 Transceiver		370-1071-02
15-meter Transceiver Drop Cable		530-1241
15-meter Thin Ethernet Cable	TS-15M	530-1253
5-meter Thin Ethernet Cable	TS-5M	530-1280
15-meter Ethernet Coax Cable	ECX	530-1254
BNC Female to N-series Male	TA-M	130-1240
BNC Male Terminator	TT-M	130-1241
BNC "T",F,M,F	TTC	130-1242
BNC Barrel, Double Female	TBC	130-1243
BNC Terminator, Female	TT-F	130-1244
BNC Female to N-series Female	TA-F	130-1245
Adapter Cable, 250 mm		530-1519
Adapter Cable, Sun-4/20, 2.0M		530-1696
If the customer uses the AMP type attachment, an N-series female terminator (not available from Sun), is needed to terminate the coax cable. AMP -----***----- Male End <-----Terminator		XXX-XXXX-XX

FUSES

FUSE	DESCRIPTION	SIZE	SUN PART #	VENDOR	VENDOR PART #
1/16A	250V 3AG	.25x1.25"	140-1004-01	Littelfuse	312.062
1/16A	250V 3AG	.25x1.25"	140-1004-01	Bussman	AGC 1/16
1/8A	250V FAST	.25x1.25"	140-1003-01	Littelfuse	312.125
1/8A	250V FAST	.25x1.25"	140-1003-01	Bussman	AGC 1/8
1/2A	250V SLO-BLO	.25x1.25"	140-1012-01	Littelfuse	313.500
3/4A	125V FAST	Submini	140-1024-01	Littelfuse	255.750
3/4A	125V FAST	Submini	140-1024-01	Bussman	GFA 3/4
1A	125V	Submini	140-1027-01	Littelfuse	273 001
1A	250V NORMAL-BLO	.25x1.25"	140-8500-01	Bussman	AGC-1
1A	250V NORMAL-BLO	.25x1.25"	140-8500-01	Littelfuse	314 001
1.5A	125V	Submini	150-1162-01	Littelfuse	273 01.5
1.5A	125V	Submini	150-1383-01	Littelfuse	273 01.5
1.5A	250V	5X20mm	150-1208-01	SOC	MT4-1.51
1.6A	250V NORMAL BLOW	.25x1.25"	140-1022-01	Littelfuse	312 01.6
1.6A	250V NORMAL BLOW	.25x1.25"	140-1022-01	BEL	3AG1.6
1.6A	250V NORMAL BLOW	.25x1.25"	140-1022-01	Power Dynamics	19340 1.6A
1.6A	250V NORMAL BLOW	.25x1.25"	140-1022-01	Bussman	AGC 1.6A
1.6A	250V SLOW BLO	5X20mm	150-1215-01	Schurter	034.3119
1.6A	250V SLO-BLO	5X20mm	150-1215-01	Littelfuse	218 01.6
2A	250V 3AG	.25x1.25"	140-1005-01	Littelfuse	312 002
2A	250V 3AG	.25x1.25"	140-1005-01	Bussman	AGC 2
2A	25V	Submini	140-1028-01	Littelfuse	252 002
2A	250V Slow Blow	5x20mm	140-1034-01	Bussman	GDC-2
2A	250V SLO-BLO	5x20mm	140-1034-01	Littelfuse	218 002
2A	125V FAST	Submini	150-1174-01	Littelfuse	273 002
2A	250V FAST-ACT	.25x1.25"	150-1191-01	MGC	MGC 0002
2A	250V FAST-ACT	.25x1.25"	150-1191-01	Littelfuse	312 002
2.5A	250V SLO-BLO 3AG	.25x1.25"	140-1000-01	Littelfuse	313 02.5
2.5A	250V SLOW BLOW 3AG	.25x1.25"	140-1000-01	Bussman	MDA 2 1/2
2.5A	250V 3AG	.25x1.25"	140-1008-01	Littelfuse	313 003
2.5A	250V 3AG	.25x1.25"	140-1008-01	Bussman	MDA 2 1/2
3A	250V SLO-BLO	.25x1.25"	150-1034-01	Littelfuse	313 003
3A	250V SLOW BLOW	.25x1.25"	150-1034-01	Bussman	MDA-3
3A	250V SLO-BLO	5x20mm	140-1002-01	Littelfuse	218 3.15
3A	250V SLOW BLOW	5x20mm	140-1002-01	Bussman	GDC 3.15
3A	250V	5x20mm	150-1209-01	SOC	MT4-3.0
4A	250V SLOW BLOW	5x20mm	140-1031-01	Schurter	FST 034.3123
4A	250V SLO-BLO	5x20mm	140-1031-01	Littelfuse	218 004

FUSES – Continued

FUSE	DESCRIPTION	SIZE	SUN PART #	VENDOR	VENDOR PART #
4A	250V 3AG FAST	.25x1.25"	140-1001-01	Littelfuse	318 004
4A	250V 3AG FAST	.25x1.25"	140-1001-01	Bussman	AGC4AMP
4A	250V 3AB FAST	.25x1.25"	140-1007-01	Littelfuse	312 004
4A	250V 3AB FAST	.25x1.25"	140-1007-01	Bussman	MTH 4
4A	250V SLO-BLO	.25x1.25"	140-1020-01	Littelfuse	313 004
4A	250V SLOW BLOW	.25x1.25"	140-1020-01	BEL	3SB4
4A	250V SLOW BLOW	.25x1.25"	140-1020-01	Power Dynamics	19341-4A
4A	250V SLO-BLO	.25x1.25"	150-1033-01	Littelfuse	313 004
4A	250V SLOW BLOW	.25x1.25"	150-1033-01	Bussman	MDA 4A,250V
5A	250V SLOW BLOW	5X20mm	140-1029-01	Schurter	034.3124
5A	250V SLO-BLO	5X20mm	140-1029-01	Littelfuse	218 005
5A	250V SLO-BLO	.25x1.25"	140-1010-01	Littelfuse	313 005
5A	250V SLOW BLOW	.25x1.25"	140-1010-01	Bussman	MDA (5 AMP)
5A	250V SLOW BLOW	5x20mm	140-1025-01	Schurter	034.3914
5A	250V SLOW BLOW	5x20mm	140-1025-01	BEL	5MT5
5A	250V SLO-BLO	5x20mm	140-1025-01	Littelfuse	218 005
6A	250V	5x20mm	140-1009-01	Littelfuse	212 06.3
6A	250V	5x20mm	140-1009-01	Bussman	GMA 6
6A	250V NORMAL-BLO	.25x1.25"	140-1011-01	Littelfuse	314 006
6A	250V NORMAL-BLO	.25x1.25"	140-1011-01	Bussman	ABC 6A 250V
6A	250V FAST	.25x1.25"	140-1021-01	Littelfuse	312 006
6A	250V FAST	.25x1.25"	140-1021-01	Bussman	MTH-6A
6A	250V FAST	.25x1.25"	140-1021-01	Power Dynamics	19340-6A
6A	250V SLOW BLOW	Unknown	140-1026-01	Bussman	250(MSL)
6A	250V SLOW BLOW	5x20mm	150-0473	Panel Component	341524
6A	250V SLO-BLO	5x20mm	150-0473	Littelfuse	213 006
6.3A	250V SLOW BLOW	5X20mm	140-1030-01	Schurter	FST 034.3125
6.3A	250V SLO-BLO	5X20mm	140-1030-01	Littelfuse	218 063
7A	250V SLO-BLO	.25x1.25"	150-1258-01	Littelfuse	313 007
7A	250V SLOW BLOW	.25x1.25"	150-1258-01	Bussman	MDQ-7
8A	250V 3AB NORMAL-BLO	.25x1.25"	140-1006-01	Littelfuse	314 008
8A	250V 3AB NORMAL-BLO	.25x1.25"	140-1006-01	Bussman	MTH 8
10A	250V SLO-BLO	.25x1.25"	140-1017-01	Littelfuse	326 010
10A	250V SLOW BLOW	.25x1.25"	140-1017-01	Power Dynamics	19341-10A
12A	250V NORMAL-BLO	.25x1.25"	140-8000-01	Bussman	ABC-12
12A	250V NORMAL-BLO	.25x1.25"	140-8000-01	Littelfuse	314.012
15A	250V NORMAL-BLO	.25x1.25"	140-1019-01	Littelfuse	314 015
15A	250V SLOW BLOW	.25x1.25"	140-1019-01	Bussman	ABC-15A

FUSES – Continued

DESCRIPTION	SUN PART #	VENDOR	VENDOR PART #
Fuse Carrier, Domestic	150-1042-01	Schurter	FEK 031.1666
Fuse Carrier, International	150-1051-01	Schurter	031.1663
Fuse Holder, In Line 22-14AWG	140-1023-01	AMP	552844-1
Fuse Holder, In Line 22-14AWG	140-1023-01	Littelfuse	155 020U
Fuse Holder, UL/CSA/VDE	150-1041-01	Schurter	FEU 031.1693
Fuse Holder, R/A for PIG-TAIL	150-1163-01	Littelfuse	281 007
Fuse Holder, R/A for PIG-TAIL	150-1163-01	Power Dynamic	19557
Fuse Holder, 20A,250V,UL,16A,250V	150-1177-01	Schurter	FEU031.1673
Fuse Holder, PNL MT,MICROFUSE STY	150-1179-01	Littelfuse	282 002
Fuse Holder, PNL MT,MICROFUSE STY	150-1179-01	Littelfuse	282 008
Fuse Holder	150-1024-01	Littelfuse	345 001
Fuse Holder, Faston Type	150-1026-01	Littelfuse	571 007
Fuse Holder, Faston Type	150-1026-01	Bussman	HPF
Fuse Holder, Quick Connect	150-1029-01	Bussman	HTA-HH
Fuse Holder, Quick Connect	150-1029-01	Littelfuse	342 858

Recommended Service Tools

SUN PART#	DESCRIPTION
240-1433-01	2mm Hex Key
345-1184-01	SIMM Extraction Tool
240-1718-01	EPROM Insertion Tool
240-1719-01	IC Extraction Tool
250-1007-01	Disposable ESD Wrist Strap
250-1011-01	Slotted & 2 mm Hex Screwdriver
250-1024-01	T9 Torx Screwdriver
250-1025-01	T7 Torx Screwdriver
250-1026-01	T25 Torx Blade
250-1027-01	#2 Pozidrive Blade
250-1028-01	Sun Field Engineers Tool Kit
250-1029-01	3/32" Hexdriver Blade
250-1030-01	7/64" Hexdriver Blade
250-1031-01	14 mm Deep Socket
250-1032-01	T20 Torx Blade
250-1033-01	Blue Cordora Zipper Case
250-1034-01	3 1/8" Driver Handle
250-1035-01	4 1/8" Driver Handle
250-1036-01	1/4" Drive Spinner Handle
250-1037-01	5" Extension Blade
250-1038-01	#1 Phillips Blade
250-1039-01	#2 Phillips Blade
250-1040-01	1/4" Slotted Blade
250-1041-01	3/16" Slotted Blade
250-1042-01	Alignment Tool
250-1043-01	Alignment Tool
250-1044-01	4 1/2" Miniature Diagonal Cutter
250-1045-01	5.25" Diagonal Cutting Pliers
250-1046-01	6.5" Thin Needlenose Pliers
250-1047-01	4" Adjustable Wrench
250-1048-01	6" Adjustable Wrench
250-1049-01	Crimping Tool/Wire Stripper
250-1050-01	Fluke 75 Digital Multimeter
250-1051-01	1.27 mm Hexdriver Blade
250-1052-01	1.5 mm Hexdriver Blade
250-1053-01	2 mm Hexdriver Blade
250-1054-01	2.5 mm Hexdriver Blade

Recommended Service Tools

Continued

SUN PART#	DESCRIPTION
250-1055-01	3 mm Hexdriver Blade
250-1056-01	4 mm Hexdriver Blade
250-1057-01	5 mm Hexdriver Blade
250-1058-01	4 mm Nutdriver Blade
250-1059-01	4.5 mm Nutdriver Blade
250-1060-01	5 mm Nutdriver Blade
250-1061-01	5.5 mm Nutdriver Blade
250-1062-01	6 mm Nutdriver Blade
250-1063-01	7 mm Nutdriver Blade
250-1064-01	8 mm Nutdriver Blade
250-1065-01	9 mm Nutdriver Blade
250-1066-01	10 mm Nutdriver Blade
250-1067-01	11 mm Nutdriver Blade
250-1068-01	T15 Torx Blade
250-1074-01	10-Inch End Cutter
250-1075-01	Cordless Power Screwdriver Kit
250-1076-01	Two Speed Power Screwdriver
250-1077-01	Screwdriver Carrying Case
250-1078-01	Screwdriver Battery Charger
250-1079-01	Screwdriver Battery
250-1080-01	Vacuum Cleaner Kit
250-1081-01	Vacuum Cleaner
250-1082-01	Vacuum Cleaner Filters (qty 6)
250-1083-01	Vacuum Cleaner Carrying Bag
250-1084-01	Power Screwdriver Xcelite Adapter
330-1145-01	Disposable ESD Mat

TROUBLESHOOTING

Troubleshooting

This section contains CPU, Disk, Tape, and Communication troubleshooting reference information.

The CPU section contains CPU LED codes and Sun 4300 Memory Address Decoding charts.

The Disk section contains Drive and Disk Controller status codes, error codes, sense codes, completion codes, LED codes, and ISP-80 self tests.

The Tape section contains Tape drives and Tape Controller self-tests, error codes, and sense codes.

The Communications section contains Keyboard/Mouse pinouts, Serial Port pinouts, Audio Port pinouts, Parallel Port pinouts, Ethernet pinouts, RS-232 pinouts, RS-449 pinouts, RS-530 pinouts, EIA Electrical Characteristics, SCSI pinouts, FDDI selftest, and FDDI LED codes.

TROUBLESHOOTING

CPU

CPU

Sun-2/50/130/160	2
Sun-2/120/170	4
Sun-3/50	5
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Sun-2/50/130/160 Self-Test Error Codes

● = ON 7 LEDs 0	○ = OFF	0	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●			A reset sets LEDs to this state	CPU or Monitor PROM bad
○ ○ ○ ○ ○ ○ ○ ○			After complete power-up sequence	System seems to be OK
○ ○ ○ ○ ● ○ ○ ○			Non-maskable interrupt level obtainable	System running OK
○ ○ ○ ○ ○ ○ ● ○			Entering user watchdog routine	Software BUG
○ ○ ○ ● ○ ○ ○ ●			Testing Context Register	CPU Board
○ ○ ● ○ ○ ○ ○ ●			Testing constant data in Segment Maps	CPU Board
○ ○ ● ○ ○ ○ ● ●			Testing data lines in Segment Maps	CPU Board
○ ○ ● ○ ○ ○ ● ○			Testing address dependency in Segment Maps	CPU Board
○ ○ ● ● ○ ○ ○ ●			Testing constant data in Page Maps	CPU Board
○ ○ ● ● ○ ○ ● ●			Testing data lines in Page Maps	CPU Board
○ ○ ● ● ○ ○ ● ○			Testing address dependency in Page Maps	CPU Board
○ ● ○ ○ ○ ○ ○ ○			Testing PROM contents	CPU or Monitor PROM bad
○ ● ○ ● ○ ○ ○ ○			Test SCC IC's	CPU Board
○ ● ● ● ○ ○ ○ ○			Sizing Memory before con- stant test	Check CPU then EXP Memory
○ ● ● ● ○ ○ ○ ●			Testing constant data in Memory	Check CPU then EXP Memory
○ ● ● ● ○ ○ ● ○			Testing address dependency in Memory	Check CPU then EXP Memory
○ ● ● ● ● ● ● ●			Testing Parity circuitry	Check CPU then EXP Memory
● ○ ○ ○ ○ ○ ○ ●			Testing Timer IC	CPU Board
○ ○ ○ ○ ○ ○ ○ ●			Finished Self-Test setting up to BOOT	CPU then EXP Memory
○ ○ ○ ○ ○ ○ ● ●			After local Memory verified	CPU Board

Sun-2/50/130/160 Self-Test Error Codes – Continued

● = ON 7 LEDs 0	SYSTEM ACTIVITY	PROBLEM BOARD
○ ○ ○ ○ ○ ● ● ●	After Diagnostics while setting up	CPU Board
● ● ● ● ○ ○ ○ ●	Setting up memory after Diagnostics	CPU then EXP Memory
● ● ● ● ○ ○ ● ○	Setting up Maps after Diagnostics	CPU Board
● ● ● ● ○ ○ ● ●	Setting up Frame Buffer	CPU then check video jumpers
● ● ● ● ○ ● ○ ○	Setting up NMI or Keyboard	CPU Board

SUN-2/120/170

Self-Test Error Codes

● = ON 7 LEDs	○ = OFF 0	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●		Resets set LEDs	CPU Board
○ ○ ○ ○ ○ ○ ○ ●		Initial state on power-up	CPU Board (MMU)
○ ○ ○ ○ ○ ○ ● ●		After local memory verified	CPU Board
○ ○ ○ ○ ○ ● ● ●		After diags, while setting up	CPU Board
○ ○ ○ ○ ○ ○ ○ ○		After reset processing in monitor	CPU Board
○ ○ ○ ○ ● ○ ○ ○		Blinks off and on while NMI ok	CPU Board
○ ○ ○ ○ ○ ○ ● ○		Entering user watchdog routine	CPU Board
○ ○ ○ ● ○ ○ ○ ●		Testing context registers	CPU Board
○ ○ ● ○ ○ ○ ○ ●		Testing constant data in segMap	CPU Board
○ ○ ● ○ ○ ○ ● ●		Testing data lines in segMap	CPU Board
○ ○ ● ○ ○ ● ○ ●		Testing alternating data in segMap	CPU Board
○ ○ ● ○ ○ ○ ● ○		Testing address-dependency in segMap	CPU Board
○ ○ ● ● ○ ○ ○ ●		Testing constant data in pgMap	CPU Board
○ ○ ● ● ○ ○ ● ●		Testing data lines in pgMap	CPU Board
○ ○ ● ● ○ ○ ● ○		Testing address-dependency in pgMap	CPU Board
○ ○ ● ● ○ ● ○ ●		Testing alternating data in pgMap	Check CPU then EXP Memory
○ ● ● ● ○ ○ ○ ○		Sizing memory before const test	CPU Board (MMU)
○ ● ● ● ○ ○ ○ ●		Testing constant data in memory	Memory
○ ● ● ● ○ ○ ● ○		Testing address-dependency in memory	Memory
○ ● ● ● ● ● ● ●		Testing parity circuitry	Memory
● ○ ○ ○ ○ ○ ○ ●		Testing timer chip	CPU Board

Sun-3/50 Self-Test Error Codes

● = ON ○ = OFF 0 7 LEDs	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●	A reset sets LEDs to this state	CPU or PROMs bad
○ ○ ○ ○ ○ ○ ○ ○	Test 0 checking CPU to SCC path	CPU Board (SCC)
● ○ ○ ○ ○ ○ ○ ○	Test 1 checking the boot PROM	Boot PROM
● ● ○ ○ ○ ○ ○ ○	Test 3 checking the Context Register	CPU Board (MMU)
○ ○ ● ○ ○ ○ ○ ○	Test 4 Segment Map RAM Rd/Wr Test	CPU Board (MMU)
● ○ ● ○ ○ ○ ○ ○	Test 5 checking Segment Map RAM	CPU Board (MMU)
○ ● ● ○ ○ ○ ○ ○	Test 6 checking Page Map RAM	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○	Test 7 checks memory data path	CPU Board
○ ○ ○ ● ○ ○ ○ ○	Test 8 checks bus error detection	CPU Board
● ○ ○ ● ○ ○ ○ ○	Test 9 checks interrupt capabilities	CPU Board
○ ● ○ ● ○ ○ ○ ○	Test 10 checking MMU read access	CPU Board
● ● ○ ● ○ ○ ○ ○	Test 11 checking MMU write access	CPU Board
○ ○ ● ● ○ ○ ○ ○	Test 12 writing to invalid page	CPU Board
● ○ ● ● ○ ○ ○ ○	Test 13 tries to write to protected page	CPU Board
○ ● ● ● ○ ○ ○ ○	Test 14 performs parity error check	CPU Board
● ● ● ● ○ ○ ○ ○	Test 15 performs parity error check	CPU Board
○ ○ ○ ○ ● ○ ○ ○	Test 16 performs memory tests	CPU Board
○ ○ ○ ○ ○ ○ ○ ●	Self-tests have found an error	CPU Board
○ ○ ○ ○ ○ ○ ● ○	An Exception Class error was found	CPU Board
○ ○ ○ ○ ○ ● ○ ○	Self-test done, UNIX in boot-state (LED is blinking)	CPU Board

Sun-3/60 Self-Test Error Codes

● = ON 7 LEDS 0 ○ = OFF	SYSTEM ACTIVITY	PROBLEM BOARD
○ ○ ○ ○ ○ ○ ○ ●	PROM checksum test	CPU
○ ○ ○ ○ ○ ○ ● ●	Context register test	CPU Board
○ ○ ○ ○ ○ ● ○ ○	Segment Map rd/wr test	Boot PROM
○ ○ ○ ○ ○ ● ○ ●	Segment Map address test	CPU Board
○ ○ ○ ○ ○ ● ○ ●	Page Map test	CPU Board
○ ○ ○ ○ ○ ● ● ●	Memory path data test	CPU Board
○ ○ ○ ○ ● ○ ○ ○	NXM buss error test	CPU Board
○ ○ ○ ○ ● ○ ○ ●	Interrupt test	CPU Board
○ ○ ○ ○ ● ○ ● ○	TOD clock interrupt test	CPU Board
○ ○ ○ ○ ● ○ ● ●	MMU protection/status test	CPU Board
○ ○ ○ ○ ● ● ○ ○	Parity error test (#1)	CPU Board
○ ○ ○ ○ ● ● ● ●	Parity error test (#2)	CPU Board
○ ○ ○ ● ○ ○ ○ ○	Memory test	CPU Board
● ○ ○ ○ ○ ○ ○ ○	Error found	CPU Board
○ ● ○ ○ ○ ○ ○ ○	Exception class error found	CPU Board
○ ○ ● ○ ○ ○ ○ ○	Self-test done (LED flashing)	CPU Board
● ● ● ● ● ● ● ●	Reset	CPU Board

Sun 3004

Self-Test Error Codes

● = ON 0	○ = OFF 7	LEDs	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●			A reset sets LEDs to this state	CPU or PROMs bad or +5VDC is low
● ○ ○ ○ ○ ○ ○ ○			Test 0x01 checking the boot PROM	Boot PROM
○ ● ○ ○ ○ ○ ○ ○			Test 0x02 checking DVMA Register	CPU Board
● ● ○ ○ ○ ○ ○ ○			Test 0x03 checking the Context Register	CPU Board (MMU)
○ ○ ● ○ ○ ○ ○ ○			Test 0x04 Segment Map RAM Rd/Wr Test	CPU Board (MMU)
● ○ ● ○ ○ ○ ○ ○			Test 0x05 checking Segment Map RAM	CPU Board (MMU)
○ ● ● ○ ○ ○ ○ ○			Test 0x06 checking Page Map RAM	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○			Test 0x07 checks memory data path	CPU Board
○ ○ ○ ● ○ ○ ○ ○			Test 0x08 checks bus error detection	CPU Board
● ○ ○ ● ○ ○ ○ ○			Test 0x09 checks interrupt capabilities	CPU Board
○ ● ○ ● ○ ○ ○ ○			Test 0x0A performs TOD clock interrupt test	CPU Board
● ● ○ ● ○ ○ ○ ○			Test 0x0B checking MMU protection and status	CPU Board (MMU)
○ ○ ● ● ○ ○ ○ ○			Test 0x0C performs parity error check	CPU Board
● ○ ● ● ○ ○ ○ ○			Test 0x0D performs parity error check	CPU Board
○ ● ● ● ○ ○ ○ ○			Test 0x0E performs memory tests	CPU Board
○ ○ ○ ○ ○ ○ ○ ●			Self-tests have found an error	CPU Board
○ ○ ○ ○ ○ ○ ● ○			An Exception Class error was found	CPU Board
○ ○ ○ ○ ○ ● ○ ○			Self-test done, UNIX in boot-state (LED is blinking)	CPU Board

Sun-3/110

Self-Test Error Codes

● = ON 0	○ = OFF 7 LEDS	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●		A reset sets LEDs to this state	CPU or PROMs bad or +5VDC is low
● ○ ○ ○ ○ ○ ○ ○		Test 0x01 checking the boot PROM	Boot PROM
○ ● ○ ○ ○ ○ ○ ○		Test 0x02 checking DVMA Register	CPU Board
● ● ○ ○ ○ ○ ○ ○		Test 0x03 checking the Context Register	CPU Board (MMU)
○ ○ ● ○ ○ ○ ○ ○		Test 0x04 Segment Map RAM Rd/Wr Test	CPU Board (MMU)
● ○ ● ○ ○ ○ ○ ○		Test 0x05 checking Segment Map RAM	CPU Board (MMU)
○ ● ● ○ ○ ○ ○ ○		Test 0x06 checking Page Map RAM	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○		Test 0x07 checks memory data path	CPU Board
○ ○ ○ ● ○ ○ ○ ○		Test 0x08 checks bus error detection	CPU Board
● ○ ○ ● ○ ○ ○ ○		Test 0x09 checks interrupt capabilities	CPU Board
○ ● ○ ● ○ ○ ○ ○		Test 0x0A performs TOD clock interrupt test	CPU Board
● ● ● ○ ○ ○ ○ ○		Test 0x0B checking MMU protection and status	CPU Board (MMU)
○ ○ ● ● ○ ○ ○ ○		Test 0x0C performs parity error check	CPU Board
● ○ ● ● ○ ○ ○ ○		Test 0x0D performs parity error checks	CPU Board
○ ● ● ● ○ ○ ○ ○		Test 0x0E performs memory tests	CPU Board
○ ○ ○ ○ ○ ○ ○ ●		Self-tests have found an error	CPU Board
○ ○ ○ ○ ○ ○ ● ○		An Exception Class error was found	CPU Board
○ ○ ○ ○ ○ ● ○ ○		Self-test done, UNIX in boot-state (LED is blinking)	CPU Board

Sun 3200

Self-Test Error Codes

● = ON 0	○ = OFF 7 LEDS	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●		A reset sets LEDs to this state	CPU or PROMs bad or +5VDC is low
● ○ ○ ○ ○ ○ ○ ○		Test 0x01 checking PROM checksum	Boot PROM
○ ● ○ ○ ○ ○ ○ ○		Test 0x02 checking DVMA Register	CPU Board
● ● ○ ○ ○ ○ ○ ○		Test 0x03 checking the Context Register	CPU Board (MMU)
○ ○ ● ○ ○ ○ ○ ○		Test 0x04 Segment Map RAM wr/rd test	CPU Board (MMU)
● ○ ● ○ ○ ○ ○ ○		Test 0x05 checking Segment Map RAM	CPU Board (MMU)
○ ● ● ○ ○ ○ ○ ○		Test 0x06 checking Page Map RAM	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○		Test 0x07 performs memory path data test	CPU or Memory Board
○ ○ ○ ● ○ ○ ○ ○		Test 0x08 is nonexistent memory bus error test	CPU or Memory Board
● ○ ○ ● ○ ○ ○ ○		Test 0x09 checks interrupt capabilities	CPU Board
○ ● ○ ● ○ ○ ○ ○		Test 0x0A performs TOD clock interrupt test	CPU Board
● ● ○ ● ○ ○ ○ ○		Test 0x0B checking MMU protection and status	CPU Board (MMU)
○ ○ ● ● ○ ○ ○ ○		Test 0x0C performs ECC error test	CPU or Memory Board
● ○ ● ● ○ ○ ○ ○		Test 0x0D performs cache data 3 pattern test	CPU Board
○ ● ● ● ○ ○ ○ ○		Test 0x0E performs cache tag 3 pattern test	CPU Board
● ● ● ● ○ ○ ○ ○		Test 0x0F performs memory tests	CPU or Memory Board
○ ● ○ ○ ● ● ● ●		Initializing MMU	CPU Board
○ ○ ○ ○ ○ ○ ○ ●		Self-tests have found an error	CPU or Memory Board
○ ○ ○ ○ ○ ○ ● ○		An Exception Class error was found	CPU or Memory Board
○ ○ ○ ○ ○ ● ○ ○		Self-test done, UNIX in boot-state (LED is blinking)	CPU or Memory Board

Sun 3400 Self-Test Error Codes

● = ON 0	○ = OFF 7	LEDs	SYSTEM ACTIVITY	PROBLEM BOARD					
●	○	○	○	○	○	○	○	Test 0x01 transmit character test OK (not error condition)	CPU to Terminal Port A OK
○	○	○	○	○	○	○	●	Value 0x80 error in SCC Port A, B write/write/read test	CPU to Terminal Port A and B (SCC)
○	●	○	○	○	○	○	●	Value 0x82 error in system enable register read test	CPU Board
○	○	○	●	○	○	○	●	Value 0x88 error in memory read/write tests	CPU Board (MMU)
●	○	○	●	○	○	○	●	Value 0x89 error in memory address tests	CPU Board (MMU)
○	●	○	○	○	○	○	●	Value 0x8A error in memory 3-pattern tests	CPU Board (MMU)
●	●	○	○	○	○	○	●	Value 0x8B error in marching 0s, 1s on memory	CPU Board
○	○	●	●	○	○	○	●	Value 0x8C error in read byte alignment tests	CPU Board
●	○	●	●	○	○	○	●	Value 0x8D error in write byte alignment tests	CPU Board
○	●	●	●	○	○	○	●	Value 0x8E error in parity memory no error tests	P2 MEZZ Mem Board
●	●	●	○	○	○	○	●	Value 0x8F error in parity memory forced error tests	P2 MEZZ Mem Board
○	○	○	○	●	○	○	●	Value 0x90 error in write/write/read I/O mapper	CPU Board
●	○	○	○	●	○	○	●	Value 0x91 error in I/O mapper RAM tests	CPU Board
○	●	○	○	●	○	○	●	Value 0x92 error in 3-pattern I/O mapper RAM test	CPU Board
●	●	○	○	●	○	○	●	Value 0x93 error in bus error register test	CPU Board
○	○	●	○	●	○	○	●	Value 0x94 error in level 1 interrupt test	CPU Board
●	○	○	●	○	○	○	●	Value 0x95 error in level 2 interrupt test	CPU Board
○	●	○	○	●	○	○	●	Value 0x96 error in level 3 interrupt test	CPU Board
●	●	○	○	●	○	○	●	Value 0x97 error in TOD clock interrupt test	CPU Board
○	○	○	●	●	○	○	●	Value 0x98 error in central cache tag write/write/read tests	CPU Board
●	○	○	○	●	○	○	●	Value 0x99 error in central cache tag RAM address test	CPU Board

Sun 3400 Self-Test Error Codes

● = ON 0 LEDs	○ = OFF 7	SYSTEM ACTIVITY	PROBLEM BOARD
○ ● ○ ● ● ○ ○ ●		Value 0x94 error in central cache tag Ram 3-pattern test	CPU Board
● ● ○ ● ● ○ ○ ○		Value 0x9B error in central cache data RAM write/write/read test	CPU Board
○ ○ ● ● ● ○ ○ ●		Value 0x9C error in central cache data RAM address test	CPU Board
● ○ ● ● ● ○ ○ ●		Value 0x9D error in central cache data RAM 3-pattern test	CPU Board
○ ● ● ● ● ○ ○ ●		Value 0x9E error in central cache data RAM read byte alignment	CPU Board
● ● ● ● ● ○ ○ ●		Value 0x9F error in central cache data RAM write byte alignment	CPU Board
● ○ ● ○ ○ ● ○ ●		Value 0xA5 error in IOC tag RAM write/write/read tests	CPU Board
○ ● ● ○ ○ ● ○ ●		Value 0xA6 error in IOC tag RAM address test	CPU Board
● ● ● ○ ○ ● ○ ●		Value 0xA7 error in IOC tag RAM 3-pattern test	CPU Board
○ ○ ○ ● ○ ● ○ ●		Value 0xA8 error in IOC data RAM write/write/read test	CPU Board
● ○ ○ ● ○ ● ○ ●		Value 0xA9 error in IOC data RAM address test	CPU Board
○ ● ○ ● ○ ● ○ ●		Value 0xAA error in IOC data RAM 3-pattern test	CPU Board
● ● ○ ● ○ ● ○ ●		Value 0xAB error in IOC data RAM read byte alignment test	CPU Board
○ ○ ● ● ○ ● ○ ●		Value 0xAC error in IOC data RAM write byte alignment test	CPU Board
● ○ ● ● ○ ● ○ ●		Value 0xAD error in ECC 'no error' test	CPU Board
○ ● ● ● ○ ● ○ ●		Value 0xAE error in ECC forced CE test	CPU Board
● ● ● ● ○ ● ○		Value 0xAF error in ECC forced UE test	CPU Board
○ ○ ○ ○ ● ● ○ ●		Value 0xB0 error in central cache read hit test	CPU Board
● ○ ○ ○ ● ● ○ ●		Value 0xB1 error in central cache invalid read miss test	CPU Board
○ ● ○ ○ ● ● ○ ●		Value 0xB2 error in central cache valid read miss test	CPU Board

Sun 3400 Self-Test Error Codes

● = ON 0 LEDS	○ = OFF 7	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ○ ○ ● ● ○ ●		Value 0xB3 error in central cache write miss test	CPU Board
○ ○ ○ ○ ● ● ○ ●		Value 0xB4 error in central cache write miss, no writeback test	CPU Board
● ○ ○ ○ ● ● ○ ●		Value 0xB5 error in central cache write miss, writeback test	CPU Board
○ ● ● ○ ● ● ○ ●		Value 0xB6 error in central cache cross-invalid read miss test	CPU Board
● ● ● ○ ● ● ○ ●		Value 0xB7 error in central cache line cross write miss writeback test	CPU Board
○ ○ ○ ● ● ● ○ ●		Value 0xB8 error in central cache writeback timeout test	CPU Board
● ○ ○ ● ● ● ○ ●		Value 0xB9 error in block copy test (source:cache hit,dest:cache miss)	CPU Board
○ ● ○ ● ● ● ○ ●		Value 0xBA error in block copy test (source:cache hit,dest:cache hit)	CPU Board
● ● ○ ○ ● ● ○ ●		Value 0xBB error in block copy test (source:cache hit,dest:cache miss)	CPU Board
○ ○ ● ● ● ● ○ ●		Value 0xBC error in block copy test (source:cache hit,dest:cache hit)	CPU Board
● ○ ● ● ● ● ○ ●		Value 0xBD error in memory write/write/read test (central cache on)	CPU Board
● ● ● ● ● ○ ● ●		Value 0xBE error in memory write/write/read test (central cache and 68030 on)	CPU Board
● ● ○ ● ● ● ● ●		Value 0xBF error in VME/DVMA loopback test	CPU Board
○ ○ ○ ○ ○ ● ● ●		Value 0xC0 error in IOC read hit test	CPU Board
● ○ ○ ○ ○ ● ● ●		Value 0xC1 error in IOC invalid read miss test	CPU Board
● ○ ○ ○ ○ ● ● ●		Value 0xC2 error in IOC write hit test	CPU Board
● ● ○ ○ ○ ● ● ●		Value 0xC3 error in IOC write miss, no writeback test	CPU Board
○ ○ ● ○ ○ ● ● ●		Value 0xC4 error in IOC write miss, writeback test	CPU Board
● ○ ● ○ ○ ● ● ●		Value 0xC5 error in IOC read miss, writeback test	CPU Board
○ ● ● ○ ○ ● ● ●		Value 0xC6 error in IOC valid write hit (central cache match, unmod) test	CPU Board

Sun 3400

Self-Test Error Codes

● = ON 0	○ = OFF 7	LEDs	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ○ ○ ● ●			Value 0xC7 error in IOC invalid write miss (central cache match, unmod) test	CPU Board
○ ○ ○ ● ○ ○ ● ●			Value 0xC8 error in IOC invalid read miss (central cache match, unmod) test	CPU Board
● ○ ○ ● ○ ○ ● ●			Value 0xC9 error in IOC invalid read miss (central cache match, mod) test	CPU Board
○ ● ○ ● ○ ○ ● ●			Value 0xCA error in IOC valid read miss (central cache match) write-back test	CPU Board
● ● ○ ● ○ ○ ● ●			Value 0xCB error in IOC (valid, mod) flush test	CPU Board
○ ○ ● ● ○ ○ ● ●			Value 0xCC error in IOC (valid, not modified) flush test	CPU Board
● ○ ● ● ○ ○ ● ●			Value 0xCD error in IOC (not valid, not modified) flush test	CPU Board
○ ● ● ● ○ ○ ● ●			Value 0xCE error in IO mapper invalid page test	CPU Board
● ● ● ● ○ ○ ● ●			Value 0xCF error in IOC write miss, writeback test	CPU Board
○ ○ ○ ○ ● ○ ● ●			Value 0xD0 error in IOC invalid read miss test	CPU Board
● ○ ○ ○ ● ○ ● ●			Value 0xD1 error in IOC write miss test	CPU Board
○ ● ○ ○ ● ○ ● ●			Value 0xD2 error in IOC random data block write test	CPU Board
● ● ○ ○ ● ○ ● ●			Value 0xD3 error in IOC random data block read (central cache off) test	CPU Board
○ ○ ● ○ ● ○ ● ●			Value 0xD4 error in IOC random data block read (central cache on) test	CPU Board
○ ○ ○ ○ ● ● ● ●			Value 0xE0 error in P4 video RAM write/write/read test	P4 Video Board
● ○ ○ ○ ● ● ● ●			Value 0xE1 error in P4 video RAM address test	P4 Video Board
○ ● ○ ○ ● ● ● ●			Value 0xE2 error in P4 video 3-pattern test	P4 Video Board
● ● ○ ○ ● ● ● ●			Value 0xE3 error in P4 video RAM read byte alignment test	P4 Video Board
○ ○ ● ○ ● ● ● ●			Value 0xE4 error in P4 video RAM byte alignment test	P4 Video Board

Sun386i/150/250 Self-Test Error Codes

SUB-SYSTEM	TEST	● = ON ○ = OFF		ERROR	FRU COMPONENT
		7	LEDs 0		
0	1	○ ○ ○ ● ○ ○ ○ ○		Fatal	CPU Board (80386)
0	2	○ ○ ● ○ ○ ○ ○ ○		Warning	" (LED register)
0	3	○ ○ ● ● ○ ○ ○ ○		Fatal	" (Boot PROM)
0	4	○ ● ○ ○ ○ ○ ○ ○		Warning	" (Serial Port)
0	5	○ ● ○ ● ○ ○ ○ ○		Warning	" (Parallel Port)
0	6	○ ● ● ○ ○ ○ ○ ○		Fatal	" (NVRAM)
0	7	○ ● ● ● ○ ○ ○ ○		Fatal	" (ID PROM)
1	0	○ ○ ○ ○ ○ ○ ○ ●		Fatal	CPU Board (82380)
1	1	○ ○ ○ ● ○ ○ ○ ●		Fatal	" (82380)
1	2	○ ○ ● ○ ○ ○ ○ ●		Fatal	" (82380)
1	3	○ ○ ● ● ○ ○ ○ ●		Fatal	" (82380)
1	4	○ ● ○ ○ ○ ○ ○ ●		Fatal	" (82380)
1	5	○ ● ○ ● ○ ○ ○ ●		Fatal	" (82380)
1	6	○ ● ● ○ ○ ○ ○ ●		Fatal	" (82380)
1	7	○ ● ● ● ○ ○ ○ ●		Warning	" (Ethernet Controller)
2	0	○ ○ ○ ○ ○ ○ ● ○		Fatal	CPU Board (82380)
2	1	○ ○ ○ ● ○ ○ ● ○		Fatal	" (82380)
2	2	○ ○ ● ○ ○ ○ ● ○		Fatal	" (82380)
2	3	○ ○ ● ● ○ ○ ● ○		Fatal	" (82380)
2	4	○ ● ○ ○ ○ ○ ● ○		Fatal	" (82380)
2	5	○ ● ○ ● ○ ○ ● ○		Fatal	" (82380)
2	6	○ ● ● ○ ○ ○ ● ○		Fatal	" (82380)
2	7	○ ● ● ● ○ ○ ● ○		Warning	" (SCSI Bus Controller)
3	0	○ ○ ○ ○ ○ ○ ● ●		Non-error	CPU Board (82380)
3	1	○ ○ ○ ● ○ ○ ● ●		Fatal	" (82380)
3	2	○ ○ ● ○ ○ ○ ● ●		Warning	" (Floppy Disk Controller)
3	3	○ ○ ● ● ○ ○ ● ●		Fatal	" (System Bus)
3	4	○ ● ○ ○ ○ ○ ● ●		Fatal	" (System Bus)
3	5	○ ● ○ ● ○ ○ ● ●		Fatal	" (MUSCI ASIC)
4	0	○ ○ ○ ○ ○ ● ○ ○		Fatal	Memory Bd. (System Bus Slot 1)
4	1	○ ○ ○ ● ○ ○ ○ ○		Fatal	"
4	2	○ ○ ● ○ ○ ○ ○ ○		Fatal	"
4	3	○ ○ ● ● ○ ○ ○ ○		Fatal	"
4	4	○ ● ○ ○ ○ ● ○ ○		Fatal & Warning	" (Cache)
4	5	○ ● ○ ● ○ ● ○ ○		Fatal & Warning	" (Cache)
4	6	○ ● ● ○ ○ ● ○ ○		Fatal & Warning	" (Cache)

Sun386i/150/250

Self-Test Error Codes – Continued

SUB-SYSTEM	TEST	● = ON ○ = OFF		ERROR	FRU COMPONENT
		7	LEDs 0		
5	0	○ ○ ○ ○ ○ ● ○ ●		Fatal	Memory Bd. (System Bus Slot 2)
5	1	○ ○ ○ ● ○ ● ○ ●		Fatal	"
5	2	○ ○ ● ○ ○ ● ○ ●		Fatal	"
5	3	○ ○ ● ● ○ ● ○ ●		Fatal	Memory Bd. (System Bus Slot 2)
5	4	○ ● ○ ○ ○ ● ○ ●		Fatal & Warning	" (Cache)
5	5	○ ● ○ ● ○ ● ○ ●		Fatal & Warning	" (Cache)
5	6	○ ● ● ○ ○ ● ○ ●		Fatal & Warning	" (Cache)
6	0	○ ○ ○ ○ ○ ● ○ ●		Fatal	Memory Bd. (System Bus Slot 3)
6	1	○ ○ ○ ● ○ ● ○ ●		Fatal	"
6	2	○ ○ ● ○ ○ ● ○ ●		Fatal	"
6	3	○ ○ ● ● ○ ● ○ ●		Fatal	"
6	4	○ ● ○ ● ○ ● ○ ●		Fatal & Warning	" (Cache)
6	5	○ ● ○ ● ○ ● ○ ●		Fatal & Warning	" (Cache)
6	6	○ ● ● ○ ○ ● ○ ●		Fatal & Warning	" (Cache)
7	0	○ ○ ○ ○ ○ ● ○ ●		Fatal	Memory Bd. (System Bus Slot 4)
7	1	○ ○ ○ ● ○ ● ○ ●		Fatal	"
7	2	○ ○ ● ○ ○ ● ○ ●		Fatal	"
7	3	○ ○ ● ● ○ ● ○ ●		Fatal	"
7	4	○ ● ○ ● ○ ● ○ ●		Fatal & Warning	" (Cache)
7	5	○ ● ○ ● ○ ● ○ ●		Fatal & Warning	" (Cache)
7	6	○ ● ● ○ ○ ● ○ ●		Fatal & Warning	" (Cache)
8	0	○ ○ ○ ○ ● ○ ○ ○		Warning	Video Bd. (VRAM)
8	1	○ ○ ○ ● ● ○ ○ ○		Warning	" (VRAM)
8	2	○ ○ ● ○ ● ○ ○ ○		Warning	" (Color LUT)
8	3	○ ○ ● ● ○ ○ ○ ○		Warning	" (All)
8	4	○ ● ○ ○ ● ○ ○ ○		Warning	" (Mouse/Kbd SCC)
9	0	○ ○ ○ ○ ● ○ ○ ●		Warning	Mouse/Keyboard (Kbd)
10	0	○ ○ ○ ○ ● ○ ○ ○		Warning	Floppy Disk
11	0	○ ○ ○ ○ ● ○ ● ●		Warning	SCSI Hard Disk (Bootable Device)
11	1	○ ○ ○ ● ● ○ ● ●		Warning	" (Controller)
12	0	○ ○ ○ ○ ● ○ ● ○		Warning	SCSI Tape Drive (Bootable Device)
12	1	○ ○ ○ ● ● ○ ● ○		Warning	" (Controller)
13	0	○ ○ ○ ○ ● ○ ● ●		Warning	Ethernet (Bootable Device)

Sun-3/E Self-Test Error Codes

● = ON ○ = OFF 0 LEDs 7	SYSTEM ACTIVITY	PROBLEM BD.
● ● ● ● ● ● ● ●	A reset sets LEDs to this state	CPU or PROM
● ○ ○ ○ ○ ○ ○ ○	Test 1 checking the boot PROM	Boot PROM
○ ● ○ ○ ○ ○ ○ ○	Test 2 checking DVMA Register	CPU
● ● ○ ○ ○ ○ ○ ○	Test 3 checking the Context Register	CPU (MMU)
○ ○ ● ○ ○ ○ ○ ○	Test 4 Segment Map RAM Rd/Wr Test	CPU (MMU)
● ○ ● ○ ○ ○ ○ ○	Test 5 checking Segment Map RAM	CPU (MMU)
○ ● ● ○ ○ ○ ○ ○	Test 6 checking Page Map RAM	CPU (MMU)
● ● ● ○ ○ ○ ○ ○	Test 7 checks memory data path	CPU
○ ○ ○ ● ○ ○ ○ ○	Test 8 checks bus error detection	CPU
● ○ ○ ● ○ ○ ○ ○	Test 9 checks interrupt capabilities	CPU
○ ● ○ ● ○ ○ ○ ○	Test 10 checking MMU read access	CPU
● ● ○ ● ○ ○ ○ ○	Test 11 checking MMU write access	CPU
○ ○ ● ● ○ ○ ○ ○	Test 12 writing to invalid page	CPU
● ○ ● ● ○ ○ ○ ○	Test 13 tries to write to protected page	CPU
○ ● ● ● ○ ○ ○ ○	Test 14 performs parity error check	CPU
● ● ● ● ○ ○ ○ ○	Test 15 performs parity error check	CPU
○ ○ ○ ○ ● ○ ○ ○	Test 16 performs memory tests	CPU
○ ○ ○ ○ ○ ○ ●	Self-Tests have found an error	CPU
○ ○ ○ ○ ○ ○ ● ○	An Exception Class error was found	CPU
○ ○ ○ ○ ○ ● ○ ○	Self-Test done, UNIX in boot-state (LED is blinking)	CPU
● ○ ○ ○ ○ ○ ○ ○	"Walking Ones" pattern	UNIX running OK

Sun-4/20

Self Test Error Codes

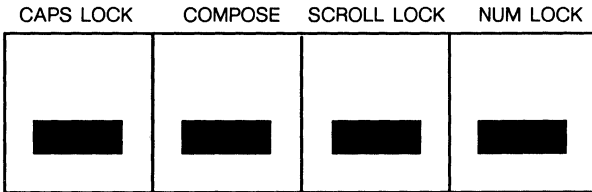
KEY

- = ON
- = OFF
- ⊗ = BLINKING

5	LEDs						0	DEFECTIVE PART
○	○	○	○	○	○	○	Monitor	
●	●	●	●	●	●	●	CPU	
○	○	○	○	○	●	⊗	CPU	
○	○	●	○	⊗	⊗		Memory Module, U0502	
○	○	●	○	●	⊗		Memory Module, U0501	
○	○	●	●	○	⊗		Memory Module, U0602	
○	○	●	●	●	⊗		Memory Module, U0601	

Sun-4/75

Type 4 Keyboard LEDs



KEY

- = ON indicates a 1
- = OFF indicates a 0

LED State					FRU
□	□	□	□	0000	N/A
□	□	□	■	0001	Boot PROM
□	□	■	□	0010	TOD/NVRAM
□	□	■	■	0011	CPU board
□	■	□	□	0100	SIMM U0311 Bank 0
□	■	□	■	0101	SIMM U0309 Bank 0
□	■	■	□	0110	SIMM U0307 Bank 0
□	■	■	■	0111	SIMM U0322 Bank 0
■	□	□	□	1000	N/A
■	□	□	■	1001	N/A
■	□	■	□	1010	N/A
■	□	■	■	1011	N/A
■	■	□	□	1100	N/A
■	■	□	■	1101	N/A
■	■	■	□	1110	N/A
■	■	■	■	1111	POSR Passed

Sun 4100

Self-Test Error Codes

● = ON 0	○ = OFF 7	LEDs	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●			A reset sets LEDs to this state	CPU or PROMs bad or +5V low
● ○ ○ ○ ○ ○ ○ ○			Test 0x01 checks PROM checksum	CPU Board (Boot PROM)
○ ● ○ ○ ○ ○ ○ ○			Test 0x02 checks the context register	CPU Board
● ● ○ ○ ○ ○ ○ ○			Test 0x03 performs segment Map tests	CPU Board
○ ○ ● ○ ○ ○ ○ ○			Test 0x04 checks page Map RAM	CPU Board
● ○ ● ○ ○ ○ ○ ○			Test 0x05 performs software traps tests	CPU Board (MMU)
○ ● ● ○ ○ ○ ○ ○			Test 0x06 performs interrupt register test	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○			Test 0x07 performs software interrupts tests	CPU Board (IU)
○ ○ ○ ● ○ ○ ○ ○			Test 0x08 performs TOD clock interrupt test	CPU Board
● ○ ○ ● ○ ○ ○ ○			Test 0x09 checks video memory	CPU Board
○ ● ○ ● ○ ○ ○ ○			Test 0x0A performs P4 color Map test	P4 Board
● ● ● ○ ○ ○ ○ ○			Test 0x0B runs limited main Memory tests	CPU Board
○ ○ ● ● ○ ○ ○ ○			Test 0x0C performs MMU read/write tests	CPU Board
● ○ ● ● ○ ○ ○ ○			Test 0x0D=MMU write to protected page test	CPU Board (MMU)
○ ● ● ● ○ ○ ○ ○			Test 0x0E performs MMU read invalid page test	CPU Board (MMU)
● ● ● ● ○ ○ ○ ○			Test 0x0F performs MMU write invalid page tests	CPU Board (MMU)
○ ○ ○ ○ ● ○ ○ ○			Test 0x10 performs main Memory, space control timeout test	CPU Board (MMU)
● ○ ○ ○ ● ○ ○ ○			Test 0x11 performs range and size error tests	CPU Board
○ ● ○ ○ ● ○ ○ ○			Test 0x12 performs parity circuit test	CPU Board
● ● ○ ○ ● ○ ○ ○			Test 0x13 tests cache tag memory	CPU Board

Sun 4100

Self-Test Error Codes – Continued

0	LEDs	7	SYSTEM ACTIVITY	PROBLEM BOARD
○ ○ ● ○ ● ○ ○ ○			Test 0x14 performs SCSI/DMA tests	CPU Board
● ○ ● ○ ● ○ ○ ○			Test 0x15 runs main Memory tests	CPU Board
○ ○ ○ ○ ○ ○ ○ ●			Self-tests have found an Error	CPU Board
○ ○ ○ ○ ○ ○ ● ○			An exception class error is found	CPU Board
○ ○ ○ ○ ○ ● ○ ○			Self-tests done, UNIX in boot state (LED is blinking)	CPU Board

Sun 4200 Self-Test Error Codes

0	LEDs	7	SYSTEM ACTIVITY	PROBLEM BOARD
● ● ● ● ● ● ● ●			A reset sets LEDs to this state	CPU or PROMs bad or +5VDC is low
● ○ ○ ○ ○ ○ ○ ○			Test 0x01 checks PROM checksum	CPU Board (Boot PROM)
○ ● ○ ○ ○ ○ ○ ○			Test 0x02 checks UDVMA enable register	CPU Board
● ● ○ ○ ○ ○ ○ ○			Test 0x03 checks UDVMA Map	CPU Board
○ ○ ● ○ ○ ○ ○ ○			Test 0x04 checks the context Register	CPU Board (MMU)
● ○ ● ○ ○ ○ ○ ○			Test 0x05 performs Segment Map RAM	CPU Board (MMU)
○ ○ ● ● ○ ○ ○ ○			Test 0x06 checks page Map RAM	CPU Board (MMU)
● ● ● ○ ○ ○ ○ ○			Test 0x07 performs Software traps test	CPU Board
○ ○ ○ ● ○ ○ ○ ○			Test 0x08 performs interrupt Register test	CPU Board
● ○ ○ ● ○ ○ ○ ○			Test 0x09 performs Software Interrupts test	CPU Board
○ ● ○ ● ○ ○ ○ ○			Test 0x0A performs TOD clock interrupt test	CPU Board
● ● ○ ● ○ ○ ○ ○			Test 0x0B checks Video Memory	CPU Board
○ ○ ● ● ○ ○ ○ ○			Test 0x0C performs limited main Memory tests	CPU or Memory Board
● ○ ● ● ○ ○ ○ ○			Test 0x0D performs MMU read/write tests	CPU Board (MMU)
○ ● ● ● ○ ○ ○ ○			Test 0x0E performs MMU write to protected page test	CPU Board (MMU)
● ● ● ● ○ ○ ○ ○			Test 0x0F performs MMU read invalid page tests	CPU Board (MMU)
○ ○ ○ ○ ● ○ ○ ○			Test 0x10 performs MMU write invalid page test	CPU Board (MMU)
● ○ ○ ○ ● ○ ○ ○			Test 0x11 performs main Memory timeout test	CPU Board
○ ● ○ ○ ● ○ ○ ○			Test 0x12 performs control space timeout test	CPU Board
● ● ○ ○ ● ○ ○ ○			Test 0x13 performs range error test	CPU Board

Sun 4200 Self-Test Error Codes – Continued

0	LEDs	7	SYSTEM ACTIVITY	PROBLEM BOARD
○ ○ ● ○ ● ○ ○ ○			Test 0x14 performs size error test	CPU Board
● ○ ● ○ ● ○ ○ ○			Test 0x15 test ECC circuits	Memory Board
○ ● ● ○ ● ○ ○ ○			Test 0x16 tests cache tag Memory	CPU Board
● ● ● ○ ● ○ ○ ○			Test 0x17 tests cache data Memory	CPU Board
○ ○ ○ ● ● ○ ○ ○			Test 0x18 is cache write/read hit/miss verify test	CPU Board
● ○ ○ ● ● ○ ○ ○			Test 0x19 is cache write/read/flush verify test	CPU Board
○ ● ○ ● ● ○ ○ ○			Test 0x1A runs main Memory tests	Memory Board
○ ○ ○ ○ ○ ○ ●			Self-tests have found an error	CPU or Memory Board
○ ○ ○ ○ ○ ● ○			An exception class error is found	CPU or Memory Board
○ ○ ○ ○ ● ○ ○			Self-tests done, UNIX in boot state (LED is blinking)	CPU or Memory Board

Sun 4300

Self-Test Error Codes

7	LEDs	0	SYSTEM ACTIVITY
	○ ○ ○ ○ ○ ○ ○ ○		LED Loop Test
	○ ○ ○ ○ ○ ○ ○ ●		Initialize SCC UART
	○ ○ ○ ○ ○ ○ ● ○		"BOOT PROM Selftest" Message
	○ ○ ○ ○ ○ ○ ● ●		EPROM Checksum Test
	○ ○ ○ ○ ○ ● ○ ○		Context Register Read-Write Test
	○ ○ ○ ○ ○ ● ○ ●		Segment Map Tests
	○ ○ ○ ○ ○ ● ● ○		Page Map Tests
	○ ○ ○ ○ ○ ● ● ●		Software Traps Test
	○ ○ ○ ○ ● ○ ○ ○		Interrupt Tests (Software and Register)
	○ ○ ○ ○ ● ○ ○ ●		TOD Interrupt Test
	○ ○ ○ ○ ● ○ ● ○		Video Memory Tests
	○ ○ ○ ○ ● ○ ● ●		Main Memory Tests
	○ ○ ○ ○ ● ● ○ ○		MMU Read Access/Modified Bits Test
	○ ○ ○ ○ ● ● ○ ●		MMU Write Access/Modified Bits Test
	○ ○ ○ ○ ● ● ● ○		MMU Write to Write=Protected Page Test
	○ ○ ○ ○ ● ● ● ●		MMU Read Not-Writeable Invalid Page Test
	○ ○ ○ ● ○ ○ ○ ○		MMU Read Writeable Invalid Page Test
	○ ○ ○ ● ○ ○ ○ ●		MMU Write Not-Writeable Invalid Page Test
	○ ○ ○ ● ○ ○ ● ○		MMU Write Writeable Invalid Page Test
	○ ○ ○ ● ○ ○ ● ●		Main Memory Timeout Test
	○ ○ ○ ● ○ ● ○ ○		Control Space Timeout Test
	○ ○ ○ ● ○ ● ○ ●		Range Error Test
	○ ○ ○ ● ○ ● ● ○		Size Error Test
	○ ○ ○ ● ○ ● ● ●		Parity Memory Test
	○ ○ ○ ● ● ○ ○ ○		CPU Cache Tag RAM Tests
	○ ○ ○ ● ● ○ ○ ●		CPU Cache Data RAM Tests
	○ ○ ○ ● ● ○ ● ○		CPU Cache Functional Tests
	○ ○ ○ ● ● ○ ● ●		VME Loopback Tests
	○ ○ ○ ● ● ● ○ ○		IOC Tag RAM Tests
	○ ○ ○ ● ● ● ○ ●		IOC Data RAM Tests
	○ ○ ○ ● ● ● ● ○		IOC Functional Tests

Sun 4300 Address Decoding

The physical address and the byte in error are used to determine a failing SIMM module. Socket locations are silkscreened on the component side of the CPU and 3U Memory Boards, and on the solder side of the 9U Memory Board. This section includes examples of errors and charts for the Sun 4300 CPU, 3U Memory Boards and 9U Memory Boards.

Error Examples

CPU Switch In NORM Position

Parity Error detected on byte 0
 (Physical address 0x01000000) with PC 0xFFE90048
Parity Error detected on byte 2

The location of the failing SIMM module is U1702.

CPU Switch In DIAG Position

error: at 0x000FFF8, expect 0x5A972C5a, obs 0x5AFE2C5 (looping)
Physical Address: 0x010FFFF8
 (3U expansion memory) Expansion board #1 SIMM in Error: U0802
 (9U expansion memory) SIMM in Error: U1702

The location of the failing SIMM module is U1702.

Unexpected parity_memory_error at PC 0xffea1d4c.
Memory Error Address Register: 0x000ffffc. Instruction: d2030000.
Memory Error Control Register: 0x00000054.
Physical address: 0x004ffffc.
CPU board SIMM in Error: U1306
error: at addr 0x000ffffc, expect 0x000ffffc, obs0x00000002. (looping)
Physical address: 0x004ffffc.

The location of the failing SIMM module is U1306.

Sun-4300 CPU Board Memory Addressing

ADDRESS (Dec)	ADDRESS (Hex)	BANK	BYTE	SOCKET
0-4MB	000000-3fffff	0	0	U1300
0-4MB	000000-3fffff	0	1	U1301
0-4MB	000000-3fffff	0	2	U1302
0-4MB	000000-3fffff	0	3	U1303
4-8MB	400000-7fffff	1	0	U1304
4-8MB	400000-7fffff	1	0	U1305
4-8MB	400000-7fffff	1	1	U1306
4-8MB	400000-7fffff	1	1	U1307

Sun 4300 Address Decoding

Continued

1st Sun-4300 3U Memory Board Addressing

ADDRESS (Dec)	ADDRESS (Hex)	BANK	BYTE	SOCKET
8-12MB	800000-bffff	0	0	U700
8-12MB	800000-bffff	0	1	U701
8-12MB	800000-bffff	0	2	U702
8-12MB	800000-bffff	0	3	U703
12-16MB	c00000-fffff	1	0	U704
12-16MB	c00000-fffff	1	1	U705
12-16MB	c00000-fffff	1	2	U706
12-16MB	c00000-fffff	1	3	U707
16-20MB	1000000-13ffff	2	0	U800
16-20MB	1000000-13ffff	2	1	U801
16-20MB	1000000-13ffff	2	2	U802
16-20MB	1000000-13ffff	2	3	U803
20-24MB	1400000-17ffff	3	0	U804
20-24MB	1400000-17ffff	3	1	U805
20-24MB	1400000-17ffff	3	2	U806
20-24MB	1400000-17ffff	3	3	U807

2nd Sun-4300 3U Memory Board Addressing

ADDRESS (Dec)	ADDRESS (Hex)	BANK	BYTE	SOCKET
24-28MB	1800000-1bffff	0	0	U700
24-28MB	1800000-1bffff	0	1	U701
24-28MB	1800000-1bffff	0	2	U702
24-28MB	1800000-1bffff	0	3	U703
28-32MB	1c00000-1fffff	1	0	U704
28-32MB	1c00000-1fffff	1	1	U705
28-32MB	1c00000-1fffff	1	2	U706
28-32MB	1c00000-1fffff	1	3	U707
32-36MB	2000000-23ffff	2	0	U800
32-36MB	2000000-23ffff	2	1	U801
32-36MB	2000000-23ffff	2	2	U802
32-36MB	2000000-23ffff	2	3	U803
36-40MB	2400000-27ffff	3	0	U804
36-40MB	2400000-27ffff	3	1	U805
36-40MB	2400000-27ffff	3	2	U806
36-40MB	2400000-27ffff	3	3	U807

Sun 4300 Address Decoding Continued

Sun-4300 9U Memory Board Addressing, 1st 24Mbytes

ADDRESS (Dec)	ADDRESS (Hex)	BANK	BYTE	SOCKET
8-12MB	800000-bffff	0L	0	U1600
8-12MB	800000-bffff	0L	1	U1601
8-12MB	800000-bffff	0L	2	U1602
8-12MB	800000-bffff	0L	3	U1603
12-16MB	c00000-ffffff	0H	0	U1604
12-16MB	c00000-ffffff	0H	1	U1605
12-16MB	c00000-ffffff	0H	2	U1606
12-16MB	c00000-ffffff	0H	3	U1607
16-20MB	1000000-13ffff	1L	0	U1700
16-20MB	1000000-13ffff	1L	1	U1701
16-20MB	1000000-13ffff	1L	2	U1702
16-20MB	1000000-13ffff	1L	3	U1703
20-24MB	1400000-17ffff	1H	0	U1704
20-24MB	1400000-17ffff	1H	1	U1705
20-24MB	1400000-17ffff	1H	2	U1706
20-24MB	1400000-17ffff	1H	3	U1707
24-28MB	1800000-1bffff	2L	0	U1800
24-28MB	1800000-1bffff	2L	1	U1801
24-28MB	1800000-1bffff	2L	2	U1802
24-28MB	1800000-1bffff	2L	3	U1803
28-32MB	1c00000-1ffffff	2H	0	U1804
28-32MB	1c00000-1ffffff	2H	1	U1805
28-32MB	1c00000-1ffffff	2H	2	U1806
28-32MB	1c00000-1ffffff	2H	3	U1807

Sun 4300 Address Decoding

Continued

Sun-4300 9U Memory Board Addressing, 2nd 24Mbytes

ADDRESS (Dec)	ADDRESS (Hex)	BANK	BYTE	SOCKET
32-36MB	2000000-23fffff	3L	0	U1900
32-36MB	2000000-23fffff	3L	1	U1901
32-36MB	2000000-23fffff	3L	2	U1902
32-36MB	2000000-23fffff	3L	3	U1903
36-40MB	2400000-27fffff	3H	0	U1904
36-40MB	2400000-27fffff	3H	1	U1905
36-40MB	2400000-27fffff	3H	2	U1906
36-40MB	2400000-27fffff	3H	3	U1907
40-44MB	2800000-2bfffff	4L	0	U2000
40-44MB	2800000-2bfffff	4L	1	U2001
40-44MB	2800000-2bfffff	4L	2	U2002
40-44MB	2800000-2bfffff	4L	3	U2003
44-48MB	2c00000-2fffff	4H	0	U2004
44-48MB	2c00000-2fffff	4H	1	U2005
44-48MB	2c00000-2fffff	4H	2	U2006
44-48MB	2c00000-2fffff	4H	3	U2007
48-52MB	3000000-33fffff	5L	0	U2100
48-52MB	3000000-33fffff	5L	1	U2101
48-52MB	3000000-33fffff	5L	2	U2102
48-52MB	3000000-33fffff	5L	3	U2103
52-56MB	3400000-1fffff	5H	0	U2104
52-56MB	3400000-1fffff	5H	1	U2105
52-56MB	3400000-1fffff	5H	2	U2106
52-56MB	3400000-1fffff	5H	3	U2107

Sun 4400 Self-Test Error Codes

0	LEDs	7	SYSTEM ACTIVITY	PROBLEM BOARD			
●	○	○	○	○	○	LED Loop Test (Walking LEDs)	CPU Board
○	○	○	○	○	○	SCC Write-Read Test	CPU Board
●	○	○	○	○	○	Initialize SCC UART	CPU Board
○	●	○	○	○	○	'Boot PROM Selftest' Message	CPU Board (Boot PROM)
●	●	○	○	○	○	EPROM Checksum Test	CPU Board
○	○	●	○	○	○	Context Register Write-Read Test	CPU Board (MMU)
●	○	○	○	○	○	Region Map Test(s)	CPU Board
○	●	●	○	○	○	Segment Map Test(s)	CPU Board (MMU)
●	●	●	○	○	○	Page Map Test(s)	CPU Board (MMU)
○	○	○	●	○	○	Software Traps Test	CPU Board
●	○	○	●	○	○	Interrupts Register Test	CPU Board
○	●	○	●	○	○	Software Interrupts Test	CPU Board
●	●	○	○	○	○	Bus Error Register Test	CPU Board
○	○	●	○	○	○	MIC Registers Write-Write-Read Test	CPU Board
●	○	○	●	○	○	MIN Registers Write-Write-Read Test	CPU Board
○	●	●	○	○	○	MIC Trace Test	CPU Board
●	●	●	○	○	○	TOD Interrupt Test	CPU Board
○	○	○	○	●	○	Video Memory Test	CPU Board
●	○	○	○	○	○	Limited Main Memory Test(s)	Memory Board
○	●	○	○	○	○	EEPROM Test(s)	CPU Board (MMU)
●	●	○	○	○	○	MMU Read/Write Test(s)	CPU Board (MMU)
○	○	●	○	○	○	Timeout Test(s)	CPU Board
●	○	○	○	○	○	Size Error Test	CPU Board
○	●	○	○	○	○	ECC Memory Test(s)	Memory Board
●	●	○	○	○	○	CPU Cache Tag RAM Test(s)	CPU Board
○	○	○	○	○	○	CPU Cache Data RAM Test(s)	CPU Board
●	○	○	○	○	○	CPU Cache Read/Write Hit-Miss Test(s)	CPU Board (CC gate array)
○	○	○	○	○	○	Block Copy Test(s)	CPU Board
●	○	○	○	○	○	VME Loopback Test	CPU Board
○	○	○	○	○	○	IOC Tag RAM Test(s)	CPU Board
●	○	○	○	○	○	IOC Data RAM Test(s)	CPU Board
○	○	○	○	○	○	IOC Functional Tests Read/Write/Flush	CPU Board
●	●	○	○	○	○	Main Memory Tests (ECC On)	CPU Board

Sun-4/E Self-Test Error Codes

0	LEDs	7	SYSTEM ACTIVITY
	(converging pattern)		Aux/IO LED Register Test
○ ○ ○ ○ ○ ○ ○ ●			EPROM Checksum Test
○ ○ ○ ○ ○ ○ ● ○			Context Register Test
○ ○ ○ ○ ○ ○ ● ●			Segment Map Write-Write-Read-Read Test
○ ○ ○ ○ ○ ● ○ ○			Segment Map Address Test
○ ○ ○ ○ ○ ● ○ ●			Segment Map 3-Pattern Test
○ ○ ○ ○ ○ ● ● ○			Page Map Write-Write-Read-Read Test
○ ○ ○ ○ ○ ● ● ●			Page Map Address Test
○ ○ ○ ○ ● ○ ○ ○			Page Map 3-Pattern Test
○ ○ ○ ○ ● ○ ○ ●			Software Trap Test: Levels 0x80-0xFF
○ ○ ○ ○ ● ○ ● ○			Interrupt Register Test
○ ○ ○ ○ ● ○ ● ●			Software Interrupt Test
○ ○ ○ ○ ● ● ○ ○			TOD SRAM Write-Write-Read-Read Test
○ ○ ○ ○ ● ● ○ ●			TOD SRAM Address Test
○ ○ ○ ○ ● ● ● ○			TOD SRAM 3-Pattern Test
○ ○ ○ ○ ● ● ● ●			TOD Interrupt Test
○ ○ ○ ● ○ ○ ○ ○			Probing for ECC and Main Memory Limit Memory Test: End of Megabyte 0x00000004
○ ○ ○ ● ○ ○ ○ ●			MMU Read Access/Modified Bit Test
○ ○ ○ ● ○ ○ ● ○			MMU Write Access/Modified Bit Test
○ ○ ○ ● ○ ○ ● ●			MMU Write to Write-Protected Page Test
○ ○ ○ ● ○ ● ○ ○			MMU Read from Write-Protected Invalid Page Test
○ ○ ○ ● ○ ● ○ ●			MMU Read from Writeable Invalid Page Test
○ ○ ○ ● ○ ● ● ○			MMU Write to Write-Protected Invalid Page Test
○ ○ ○ ● ○ ● ● ●			MMU Write to Writeable Invalid Page Test
○ ○ ○ ● ● ○ ○ ○			Main Memory Non-Existent Physical Address Read Timeout Test
○ ○ ○ ● ● ○ ○ ●			Main Memory Invalid Physical Address Read Timeout Test
○ ○ ○ ● ● ○ ● ○			Control Space Timeout Test
○ ○ ○ ● ● ○ ● ●			Range Error Test
○ ○ ○ ● ● ● ○ ○			Cache Data RAM Write-Write-Read-Read Test
○ ○ ○ ● ● ● ○ ●			Cache Data Ram Address Test

Sun-4/E Self-Test Error Codes – Continued

0	LEDs	7	SYSTEM ACTIVITY
○ ○ ○ ● ● ● ○ ○			Cache Data RAM 3–Pattern Test
○ ○ ○ ● ● ● ● ●			Cache Tag RAM Write–Write–Read–Read Test
○ ○ ● ○ ○ ○ ○ ○			Cache Tag RAM Address Test
○ ○ ● ○ ○ ○ ○ ●			Cache Tag RAM 3–Pattern Test
○ ○ ● ○ ○ ○ ● ○			Parity No Fault Test
○ ○ ● ○ ○ ○ ● ●			Parity Error Detection and Interrupt Test
○ ○ ● ○ ○ ● ○ ○			Parity Error Detection Without Interrupt Test
○ ○ ● ○ ○ ● ● ●			ECC (Memory 0x4MB) Test: Megabyte 0x00000004 (option)
○ ○ ● ○ ○ ● ● ●			ECC Single Error Correction Test (option)
○ ○ ● ○ ○ ● ● ●			ECC Single Error Correction (With Interrupt On) (option)
○ ○ ● ○ ○ ● ● ●			Syndrome, Diagnostic & Physical Address Register Test (option)
○ ○ ● ○ ○ ● ● ●			ECC Double Bit Error Correction Test (option)
○ ○ ● ○ ● ● ○ ○			Main (Memory 0x4MB) Test: Megabyte 0x00000004
○ ○ ● ○ ● ● ○ ●			VME Mail Box Test
○ ○ ● ○ ● ● ○ ○			VME Interrupt Register Test
○ ○ ● ○ ● ● ● ●			VME A32 Map Register Test
○ ○ ● ● ○ ○ ○ ○			VME Slave Map Register Test
○ ○ ● ● ○ ○ ○ ●			VME Loopback and DVMA Write/Read (Type 3,32–Bit) Test
○ ○ ● ● ○ ○ ○ ○			VME Loopback and DVMA Write/Read (Type 2,32–Bit) Test

TROUBLESHOOTING

DISK

Disk

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Hitachi DK815-10

Status LEDs in Status Mode

Mode Switch Set To		Status LED 0	Status LED 1	Status LED 2	Status LED 3	Status LED 4	Status LED 5
0	0	Unit Ready	Seek Error	Unit Selected 0	Reserved 0	Unit Selected 1*	Reserved 1*
0	1	Write On Read Check	Control Check	Index Check	Transition Check	Capable Check	Multi-Head Check
0	2	HDA Sequence Check	Interface Check	Initial Seek Check	Over-shoot Check	Access Time-out Check	Address Over
0	3	Voltage Check	Thermal Alarm	MPU Check	Data Encode/Decode Check	Servo Offtrack	

*Dual port option only

Reference

DK815-10 Winchester Disk Drive OEM Manual, 875-1000-XX.

Fujitsu M2361 A

Drive Status and State

Table 1 describes the drive state information indicated by two 7-segment LEDs in accordance with the position of the toggle State Switch. The Write/Read Check State, Access State, and DE Sequence State are described on the following pages.

STATE SWITCH POSITION		UPPER (ST 0)	CENTER (ST 1)	LOWER (ST 2)
LED	STATE	WRITE/READ CHECK STATE	ACCESS STATE	DE SEQUENCE STATE
	BIT			
LP1	1	Index Check	DE Sequence Check	DE Sequence Latch 1
	2	Control Check	Access Timeout Check	DE Sequence Latch 2
	4	Multi-Head Check	Over Shoot Check	DE Sequence Latch 4
	8	Head Short Check	Rezero Mode Latch	Hall Alarm
LP2	1	Write Current on Read Check	Servo Latch	Motor At Speed
	2	Write Transition Check	Linear Mode Latch	Inhibit DE Seq. Recycle
	4	Delta I Write Check	Control Latch	Unit Ready
	8	Servo Off-Track	Wait Latch	Access Busy

Table 1. State Switch and State Indicators

Use the information from Table 1 in conjunction with the flow charts in Chapter 5 of the Fujitsu M2361A Mini-Disk Drive Customer Engineering Manual, 800-1423, to determine the failing assembly. This information can also be used to troubleshoot the Fujitsu M2351A disk drive.

Fujitsu M2361 A

Write/Read Check State (ST 0)

The Write/Read Check State indicates fault status during a Write or Read operation. When a fault status occurs in the drive, the Fault signal in the Unit Status is issued as a summary to the controller. The controller issues a Fault Clear Signal to clear the Write/Read Check State.

Index Check (Status 0)	The Index signal not detected where it should be or is detected where it should not be during a Read/Write operation.
Control Check (Status 1)	Caused by the following conditions: 1. Write and Read Gate are issued at the same time. 2. Write operation during offset mode 3. Write Gate issued in the write protect mode.
Multi-Head Check (Status 2)	Two or more head ICs are selected simultaneously.
Head Short Check (Status 3)	Abnormal current sensed in the Write Select line during a write operation.
Write Current on Read Ck. (Status 4)	Write current sensed during a read operation.
Write Transition Check (Status 5)	Write current is not switched for writing data. The detection continues from byte-8 after Write Gate is true until the end of the Write operation.
Delta I Write Check (Status 6)	Abnormal write current sensed in the inner head or outer head.
Servo Off-Track (Status 7)	Indicates the following fault conditions. 1. The head is +/-100 micro-inches off the desired track during the Write/Read operation. 2. Write/Read Gate is received by the drive during not On Cylinder status, Heads in Motion, or Seek Error.

Fujitsu M2361 A

Access State (ST 1)

The Access State indicates the access status of the head in Seek and RTZ operation and the Start/Stop sequence of the spindle motor.

<p>DE Sequence Check (Status 0)</p>	<p>An Abnormal start/stop sequence of the DE occurred in the drive. One of the following errors occurred as DE SEQ advanced:</p> <ol style="list-style-type: none"> 1. Initial State Good (Motor At Speed and Hall Alarm not present), Does not result in State 1. 2. Run State Good (not Hall Alarm and Motor At Speed are sent out). Can not be obtained for approximately 40 seconds in State 3. 3. Run State Good goes off during State 6. <p>Cannot be cleared by the Fault Clear Switch on the operator panel or the Fault Clear signal on the interface. Cleared by stopping rotation of the spindle.</p> <p>Latches 4, 2 and 1 of DE SEQ represent the DE SEQ status shown in Table 2.</p>
<p>Access Time-Out Check (Status 1)</p>	<p>During an RTZ or Seek operation, On Cylinder failed to appear within 250 ms +/- 30% after Access Start. Cleared by an RTZ operation.</p>
<p>Overshoot Check (Status 2)</p>	<p>Heads go past the desired track during a Seek or RTZ operation, or go into the Guard Band or ID Position during a Seek operation. The heads are moving at an abnormal speed during the RTZ operation. Cleared by an RTZ operation.</p>
<p>Rezero Mode Latch (Sta. 3) Servo Latch (Status 4) Linear Mode Latch (Sta. 5) Control Latch (Status 6) Wait Latch (Status 7)</p>	<p>These latches observe the sequence of seek and RTZ operations. When an error occurs during a seek or RTZ, the contents of these latches is frozen. Cleared by RTZ operation. The relationship between Access State and the contents of the latches is shown in Table 3.</p>

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DE Sequence Latches

STATE No.	LATCH 4	LATCH 2	LATCH 1	STATUS
0	0	0	0	Wait status
1	0	0	1	Start/Stop switch on the operator panel is set to Start.
3	0	1	1	Spindle motor starts rotating.
2	0	1	0	Sequence Rezero starts approximately 40 seconds after State 3.
6	1	1	0	Sequence Rezero is completed and seek operation is possible.
7	1	1	1	DE Stop Sequence State results and the head begins to return to the home position (Go Home).
5	1	0	1	Go Home operation is completed and the spindle motor stops rotating.
4	1	0	0	Approximately 40 seconds following State 5. (Returns to State 0).

Table 2. Contents of DE Sequence Latches

Fujitsu M2361 A

DE SEQ Latches 1.2. and 4	Indicates Start/Stop status of DE. See Table 4.
Hall Alarm	All output signals from the hall-elements used to detect the pole position of the rotor in the spindle motor are high or low level simultaneously.
Motor At Speed	Spindle motor rotating at 3,600 RPM +/-2%.
Inhibit DE Sequence	Recycle Run State Good goes false while the DE Sequence Latch is in State 7. Stop sequence of the DE may be inhibited hereafter. Cleared by switching Off the drive power or pushing the Start switch to Off.
Unit Ready	Drive has reach the rated rotational speed and heads are positioned on track.
Access Busy	Heads are in motion performing Seek, RTZ, or Offset operation.

Table 3. Description of DE Sequence State (ST2) Latches

LATCHES					STATE	Mode
Rezero Mode	Servo	Linear Mode	Control	Wait		
0	0	0	0	1	Wait State	Reset
0	0	0	0	0	State RTZ	RTZ
1	0	0	0	0	Move In	
1	0	0	1	0	Turn Around	
1	0	1	1	0	Move Out	
0	0	1	1	0	RTZ Linear Mode	
0	1	1	1	0	On Track	Seek
0	1	0	1	0	Accelerate	
0	1	0	0	0	Decelerate	
0	1	1	0	0	Seek Linear Mode	
0	1	1	1	0	On Track	

Table 4. Access States

NEC D2363 Disk Drive

Fault Line Error Codes

STATE	STATE	FAULT	DESCRIPTION
Power On Initialize	1	1	Voltage fault
	1	2	ROM fault
	1	4	Fault latch
Stop Mode	2	1	Voltage fault
Start Wait	3	1	Voltage fault
Motor Initiating	4	1	Voltage fault
	4	3	Motor not up to speed
	4	4	No rotation
Motor Speed Up	5	1	Voltage fault
	5	2	Motor speed too slow
	5	3	Motor speed too high
	6	1	Voltage fault
Motor Speed OK	6	2	Motor speed loss
	6	3	Motor over speed
Lock Servo PLO	7	1	Voltage fault
	7	2	Motor speed loss
	7	4	Lost index
	7	5	Inner guard band (IGB) not found
Recalibrate Out	8	1	Voltage fault
	8	4	Lost Index
	8	5	Outer Guard Band (OGB) not found
	8	6	No N linearity found
	8	7	No half track found
	8	8	No Q linearity found
	8	9	No difference found
	8	A	Not at target velocity
	8	B	Too slow not found
	8	C	Over shoot check
8	D	Overshoot check (Time out)	

NEC D2363 Disk Drive

Fault Line Error Codes – Continued

STATE	STATE	FAULT	DESCRIPTION
Recalibrate In	9	1	Voltage fault
	9	4	Lost index
	9	5	OGB not found
	9	9	No linearity found
	9	C	Over shoot check
	9	D	Over shoot check (Time out)
Ready (On Cylinder)	A	1	Voltage fault
	A	2	Loss of motor speed
	A	3	Motor speed over
	A	4	Lost index
	A	C	Off track
Move Out	B	1	Voltage fault
	B	4	Lost index
	B	9	No difference=0 found
	B	C	Over shoot check
	B	D	Over shoot check (Time out)
	B	E	Over travel (OGB)
	B	F	Over travel (IGB)
Interface Check	C	1	Over cylinder
	C	3	Tag 1 while not ready
Move In	D	1	Voltage fault
	D	4	Lost index
	D	9	No difference=0 found
	D	C	Over shoot check
	D	D	Over shoot check (Time out)
	D	E	Over travel (OGB)
	D	F	Over travel (IGB)

NEC D2363 Disk Drive

Fault Line Error Codes – Continued

STATE	STATE	FAULT	DESCRIPTION
Seek Calibration	E	1	Seek unsuccessful
	E	2	Seek speed too high*
	E	3	Seek speed too low*
	E	4	Not PLO good in offset
	E	5	Off track in offset seek
	E	6	Offset command while Not on Cylinder state
	E	7	RTZ unsuccessful*
Fault Detected	F	1	Protect violation or read.write
	F	2	(Unit not ready or non on cylinder).write
	F	3	Write clock fault
	F	4	Off track write
	F	5	Write.MARS unsafe
	F	6	Read.MARS unsafe

*These "errors" do not send a "Seek Error" report to the system.
They only appear on the Status Display.

MD21 Disk Controller

Extended Sense Key Codes

HEX CODE	ERROR	DESCRIPTION
00	No Sense	No Sense Key information is reported for the designated LUN. This code occurs for a successfully completed command.
01	Recovered Error	The last command was completed successfully, with some recovery action performed by the Target.
02	Not Ready	The addressed LUN cannot be accessed. Operator intervention may be required.
03	Media Error	The command terminated with a nonrecoverable error condition probably caused by a flaw in the media or by an error in the recorded data.
04	Hardware Error	A nonrecoverable hardware error (e.g., controller failure, device failure, parity error, etc.) was detected while the Target was performing the command or while the Target was performing a self-test operation.
05	Illegal	There was an illegal parameter in the Request command or in the additional required parameters supplied as data for some related commands. If the error is detected in the Command Descriptor Block, the controller will not alter the Media.
06	Unit Attention	The addressed LUN has been reset. This error is reported the first time any command is issued after the condition is detected. The requested command is not performed. This condition is cleared when the next command is issued by the same Initiator. UNIT ATTENTION is reported to all SCSI devices that subsequently issue commands to the LUN.
08	Reserved	This key is reserved.

Note: MD21 errors are reported in the form:
 sd: sense key = (extended sense key code)
 error = (extended sense error code)

MD21 Disk Controller

Extended Sense Key Codes – Continued

HEX CODE	ERROR	DESCRIPTION
07	Data Protect	A write operation was attempted on a write-protected device.
08	Reserved	This key is reserved.
09	Vendor Unique	A Vendor Unique error condition occurred. The corresponding nonextended error class and code are specified in Byte 12 of the Extended Sense Byte.
0A	Copy/Compare Aborted	A COPY or COMPARE command was aborted because an error condition was detected on the source and/or destination device.
0B	Aborted Command	The Target aborted the command. The Initiator may recover by trying to execute the command again.
0E	Miscompare	Used by the Verify command to indicate the source data did not match the data read from the disk.

References

MD21/S2 Disk Controller Technical Manual and the *Emulex SCSI Disk Controller Programming Reference Manual*. There are no Sun part numbers for these manuals.

MD21 Disk Controller

Nonextended Sense Error Code

HEX CODE	ERROR	DESCRIPTION
00	No Sense	The controller detected no error during execution of the previous command.
02	No Seek Complete	The controller could not seek to the specified logical block within an allotted time.
03	Write Fault	The controller determined that the Attention line from the disk drive was asserted during a write operation.
04	Drive Not Ready	The disk drive is not ready.
05	Drive Not Selected	The drive associated with the specified LUN could not be addressed.
06	No Track	The controller could not rezero the disk drive.
10	ID Field CRC Error	The sector ID field could not be read after the number of retry attempts specified in the MODE SELECT command.
11	Uncorrectable Data Error	A block could not be written or read after the number of retry attempts specified in the MODE SELECT command.
12	ID Field Addr Mark not Found	The controller could not locate the address mark for a sector leader.
13	Data Addr Mark not Found	The controller could not locate the address mark for a sector header.
14	Block Not Found	The block sequence is improper, or a block is missing.
15	Seek Error	A miscompare occurred between the cylinder address of the data header and the address specified in the CDB of the command.
17	Recovered Read Error (with retries)	The controller encountered an error. It recovered the data using retries.
18	Recovered Read Error (with ECC)	The controller encountered an error. It recovered the data using ECC correction.

MD21 Disk Controller

Nonextended Sense Error Code – Continued

HEX CODE	ERROR	DESCRIPTION
19	Defect List	The controller encountered an error while accessing one of the Defect Lists.
1A	Parameter Overrun	The Parameter List Length specified in the CDB by the Initiator is too large for the controller.
1C	Primary Defect List Not Found	The controller could not locate the manufacturer's defect list.
1D	Compare Error	One or more bytes did not compare when the VERIFY or READ BUFFER command was issued.
20	Invalid Command	The Initiator issued a command that cannot be executed, or is not applicable.
21	Invalid Block Address	The addressed block was not valid.
22	Illegal Function for Device Type	The addressed LUN is unable to perform the requested function.
24	Illegal Field in CDB	A field in the Command Descriptor Block is reserved and contains a value other than zero or, the value in the field is incorrect.
25	Invalid LUN	The LUN specified in the Command Descriptor Block or SCSI IDENTIFY message is not support by the controller.
26	Illegal Field in Parameter List	A field in the Parameter List is reserved and contains a value other than zero or the value in the field is incorrect.
27	Write Protected	The disk is write protected. The outstanding WRITE command is aborted.
28	Medium Change	When the controller detects a media changed condition, it sets the Sense Key/ Error Code to UNIT ATTENTION/MEDIA CHANGED (06h/28h). A media changed condition occurs when the controller detects a drive offline condition, and then detects the drive come online.

MD21 Disk Controller

Nonextended Sense Error Code – Continued

HEX CODE	ERROR	DESCRIPTION
29	Power Up or Reset	The controller was reset by a SCSI Bus Reset, Bus Device Reset Message, or Power On Reset condition. After the controller detects the condition, it reports this error when the first command (except the INQUIRY command) is issued to it. The controller clears this condition when the next command is issued to it by the same Initiator, and reports the UNIT ATTENTION Sense Key to all SCSI devices that subsequently issue a command to it.
2A	Mode Select Changed	The MODE SELECT parameters for this device have been changed by another Initiator and may affect current operations. After the controller detects the condition, it reports the error when the first command (except the INQUIRY command) is issued to it. The controller clears this condition when the next command is issued to it by the same Initiator. The controller reports the UNIT ATTENTION Sense Key to all SCSI devices that subsequently issue a command to it.
31	Format Failed	The FORMAT UNIT command encountered an error while attempting to access on the defect lists.
32	No Defect Spare Location Available	No alternate tracks remain on the addressed LUN. This error condition may occur during the processing of a FORMAT UNIT or REASSIGN BLOCK command.
40	RAM Failure	The controller detected a RAM memory error during a SEND DIAGNOSTIC text operation.
43	Message Reject	The Initiator responded with a MESSAGE REJECT to a message sent by the controller.

MD21 Disk Controller

Nonextended Sense Error Code – Continued

HEX CODE	ERROR	DESCRIPTION
44	SCSI Hardware/ Firmware Error	The SCSI Firmware detected an internal firmware or hardware error and was unable to complete the current command.
45	Select/Reselect Failed Error	The SCSI firmware detected a timeout error while attempting a Selection or Reselection.
47	Parity Error	A parity error occurred on the SCSI Bus and the controller was unable to recover the data.
48	Initiator Detected Error	The Initiator sent an INITIATOR DETECTED ERROR message and the controller was unable to recover from the error.
49	Inappropriate/ Illegal Message Error	The Initiator sent an inappropriate or illegal SCSI Message to the controller.

Xylogics 450/451 Disk Controller

Completion Code Description

CODE	TYPE	DEFINITION
00	Status	Successful Completion
01	Hard	Interrupt Pending
02	-----	Reserved
03	Hard	Busy Conflict
04	Hard	Operation Timeout
05	Hard	Header Not Found
06	Hard	Hard ECC Error
07	Hard	Illegal Cylinder Address
08, 09	-----	Reserved
0A	Hard	Illegal Sector Address
0B, 0C	-----	Reserved
0D	Hard	Last Sector Too Small
0E	Hard	Slave ACK Error (Non-Existent Memory)
0F, 10, 11	-----	Reserved
12	Hard	Cylinder and Head/Header Error
13	Soft	Auto Seek Retry Successful
14	Hard	Write Protect Error
15	-----	Reserved
16	Hard	Drive Not Ready
17	Hard	Sector Count Zero
18	Hard	Drive Faulted
19	Hard	Illegal Sector Size
1A	Hard	Self Test A
1B	Hard	Self Test B
1C	Hard	Self Test C
1D	-----	Reserved
1E	Hard	Soft ECC Error
1F	Soft	Soft ECC Error Recovered
20	Hard	Illegal Head Error
21	Hard	Disk Sequencer Error
22, 23, 24	-----	Reserved
25	Hard	Seek Error

Note: Xylogics 450/451 errors are reported in the form:
 "xy: error (Completion Code) cmd (Command)".

Xylogics 450/451 Disk Controller

Command Description

HEX VALUE	COMMAND
0	No Operation (NOP)
1	Write
2	Read
3	Write Track Headers
4	Read Track Headers
5	Seek
6	Drive Reset
7	Write Format
8	Read Header, Data, and ECC
9	Read Drive Status
A	Write Header, Data, and ECC
B	Set Drive Size
C	Self Test
D	DMA Test
E	Maintenance Buffer Load
F	Maintenance Buffer Dump

Note: Xylogics 450/451 errors are reported in the form:
 "xy: error (Completion Code) cmd (Command)".

Xylogics 7053 Disk Controller

Completion Code Type Descriptions

CODE	DESCRIPTION
No Action/Status Only (00)	Status only. These completion codes require no action.
Non-retryable Programming Errors (10-20)	This group of errors is usually encountered while debugging drivers. They should not occur in a normal operating system environment.
Successfully Recovered Soft Errors (30-33)	Status only. If some errors recur often, the operating system should try to map out the sectors involved. Allowing these errors to recur degrades performance.
Hard Errors/Retry (40-48)	Transfer failed. Retry the operation. If several retries fail, manual intervention is required or the operating system may crash.
Hard Errors - Reset/Retry (60-64)	Transfer failed. Software should issue a Drive Reset command to the drive in use before retrying the operation.
Fatal Hardware Error (70-71)	Hardware failed. Manual intervention or a Controller Reset may be the only recovery approach.
Miscellaneous Errors (80)	Soft ECC
Requires Manual Intervention (90)	Manually remove the write-protection.

Notes

1. Xylogics 7053 errors are reported in the form:
"xd: error (Completion Code) cmd (Command)"
2. Reference the Model 7053 Users Manual, 875-1013-01.

Xylogics 7053 Disk Controller

Completion Code Descriptions

CODE	COMPLETION CODE	DESCRIPTION
00	Successful Completion	Not an error. The IOPB is complete.
10	Illegal Cylinder Address	Host software specified a cylinder address greater than the maximum number specified in the last Set Drive Parameters command for this drive.
11	Illegal Head Address	Host software specified a head address greater than the maximum head address specified in the last Set Drive Parameters command for this drive.
12	Illegal Sector Address	Host software specified a sector address greater than the maximum sector number specified in the last Set Drive Parameters command for this drive.
13	Count Zero	Host software issued the 7053 an IOPB that required a count, but the count was zero. Read, Write, and Format commands require a valid count.
14	Unimplemented	Occurs on all reserved commands.
15	Illegal Field Length 1	Refer to Model 7053 User's Manual
16	Illegal Field Length 2	
17	Illegal Field Length 3	
18	Illegal Field Length 4	
1A	Illegal Field Length 6	
1B	Illegal Field Length 7	
1C	Illegal Scatter/Gather Length	The linked list specified a number of words to transfer that does not agree with the amount of data contained in the requested number of sectors for transfer.

Xylogics 7053 Disk Controller

Completion Code Descriptions – Continued

CODE	COMPLETION CODE	DESCRIPTION
1D	Not Enough Sectors Per Track	The format routine was unable to format since too few sectors were actually available on the track.
1E	Next IOPB Alignment Error	The Next IOPB Address did not start on a 16-bit boundary. The 7053 does not execute the NIOPB.
1F	Scatter/Gather Address Alignment Error	A Scatter/Gather address did not start on a 16-bit boundary.
20	Scatter/Gather with Auto ECC Error	A Scatter/Gather operation resulted in a correctable ECC error. Due to Scatter/Gather boundaries, the 7053 did not automatically correct the error, but reverted to ECC Mode 0.
30	Soft ECC Corrected	The 7053 detected and corrected one or more ECC errors during a disk read in ECC Mode 2.
31	ECC Error Ignored	The 7053 detected, but ignored, an ECC error (during a Read command in ECC Mode 1) and continued the transfer.
32	Auto Seek Retry Recovered	The 7053 completed the transfer successfully. During the transfer, it recovered from an error by resetting the drive.
33	Soft Retry Recovered	The 7053 encountered an error while executing this command. A retry due to RBC being set or a zero latency read was successful.
40	Hard Data ECC Error	The 7053 detected a hard data ECC error in the data field during a Read command. Retry the previous Read operation.
41	Header Not Found	The 7053 cannot find the requested sector. The controller searches for one disk revolution plus one sector to locate the header.

Xylogics 7053 Disk Controller

Completion Code Descriptions – Continued

CODE	COMPLETION CODE	DESCRIPTION
42	Drive Not Ready	The selected drive is not ready, but not faulted. Issue a Drive Reset. Causes include: <ol style="list-style-type: none"> 1. Drive not up-to-speed. 2. Drive hardware error. 3. Bad or improperly connected cable(s). 4. Specified Unit Number drive is not connected to the 7053.
43	Operation Timeout	The 7053 did not complete the IOPB within a two second timeout period.
44	VMEDMA Timeout	The DMA controller did not complete its task within the allotted time limit. One reason could be that memory did not respond in time.
45	Disk Sequencer Error	The disk sequencer did not complete its task within the allotted time limit. The 7053 cannot send or receive the appropriate signals from the selected drive.
46	FIFO Parity	The transfer failed. The 7053 detected a FIFO parity error.
47	Dual Port Busy	The 7053 timed out while waiting for the port on a dual ported drive. The timeout is two seconds.
48	Header ECC Error	The 7053 found a header match, but the Header ECC did not compare.
49	Read Verify	Data read from the disk did not match data read from memory.
4A	Fatal VMEDMA Error	The VMEDMA stopped for no apparent reason. The count for the address overflowed and there was no bus error.
4B	VMEbus Error	The VME BERR* signal was asserted while the 7053 was bus master.

Xylogics 7053 Disk Controller

Completion Code Descriptions – Continued

CODE	COMPLETION CODE	DESCRIPTION
60	Drive Faulted	The selected drive is faulted. Issue a Drive Reset.
61	Header Error/Cylinder	The cylinder address did not match during a sector search. Check the cylinder address and retry the operation.
62	Header Error/Head	The head address did not match during a sector search.
63	Drive Not On-Cylinder	At some point during the transfer, the 7053 expected the drive to be on-cylinder, and it was not.
64	Seek Error	The disk drive reported a seek error.
70	Illegal Sector Size	The disk drive sector size is not large enough to hold the header, data, and specified field lengths.
71	Firmware Failure	Flag settings or counter values are inconsistent with the firmware routines being executed.
80	Soft ECC Error	The 7053 detected a correctable error in the data field of the current sector during a Read operation in ECC Mode 0. Software must perform the final correction.

ISP-80 Disk Controller

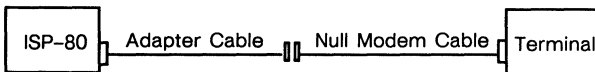
Diagnostic Engineering Monitor

The Diagnostic Engineering Monitor (DEMON) is entered when the Diag/Norm switch is in the Diag position.

POSITION	SYSTEM ACTIVITY
DIAG	Enters DEMON mode when Self-test is completed.

Self-test output is monitored by connecting the ISP-80 controller to a terminal set to 9600 baud, 8 data bits, no parity, and 1 stop bit. The ISP-80 Controller serial port is a 25-pin, dual in-line, header-type connector.

Since Sun does not make a cable that connects the ISP-80 controller and a terminal, use an adapter cable and a null modem cable.



Adapter Cable

Examples of Sun cables that can be used as adapter cables are:

530-1178-01 (ALM-1, RS-232)

530-1179-01 (ALM-1, RS-232)

530-1312-02 (ALM-2, Printer)

530-1313-01 (MCP, RS-232)

Sun SMD data cables cannot be used as the adapter cable because they do not have pin 2.

Null Modem Cable

The null modem cable must have pins 2 and 3 crossed and pin 7 straight. A Laserwriter cable, 530-1172-03, is an example of this type of cable.

TROUBLESHOOTING

TAPE

Tape

TAPE DRIVES

CDC 1/2"	3
Fujitsu 1/2"	5

CONTROLLERS

1/4" Tape

Emulex MT02	8
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1/2" Tape

Ciprico Tapemaster	12
Xylogics 472	13

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CDC 1/2" Tape Drive

Self-Test Procedure

SELF-TEST 01
<ol style="list-style-type: none"> 1. Thread a write enabled tape onto the takeup reel. 2. Press the LOGIC ON button. 3. Press TEST button. 4. Press the EXECUTE button to start self test 1.
SELF-TEST 91
<ol style="list-style-type: none"> 1. Thread a write enabled tape onto the takeup reel. 2. Press and hold the CE button. 3. Press TEST button. 4. Release the CE button. 5. Press the STEP button to increment the LED display to 09. 6. Press the TEST button to increment the LED display to 90. 7. Press the STEP button to increment the LED display to 91. 8. Press the EXECUTE button to start self test 1.
TEST 91 CONTINUOUS LOOP MODE
<ol style="list-style-type: none"> 1. Thread a write enabled tape onto the takeup reel. 2. Press and hold the CE button. 3. Press TEST button. 4. Release the CE button. 5. Press the STEP button to increment the LED display to 09. 6. Press the TEST button to increment the LED display to 90. 7. Press the STEP button to increment the LED display to 91. 8. Press and hold the CE button. 9. Press the EXECUTE button to increment the LED display to 00. 10. Release the CE button. 11. Press the STEP button to increment the LED display to 01. 12. Press the EXECUTE button to start self test 91 in a continuous loop.

Reference

CDC Streaming Tape Unit 92181 Field Service Manual. There is no Sun part number for this manual.

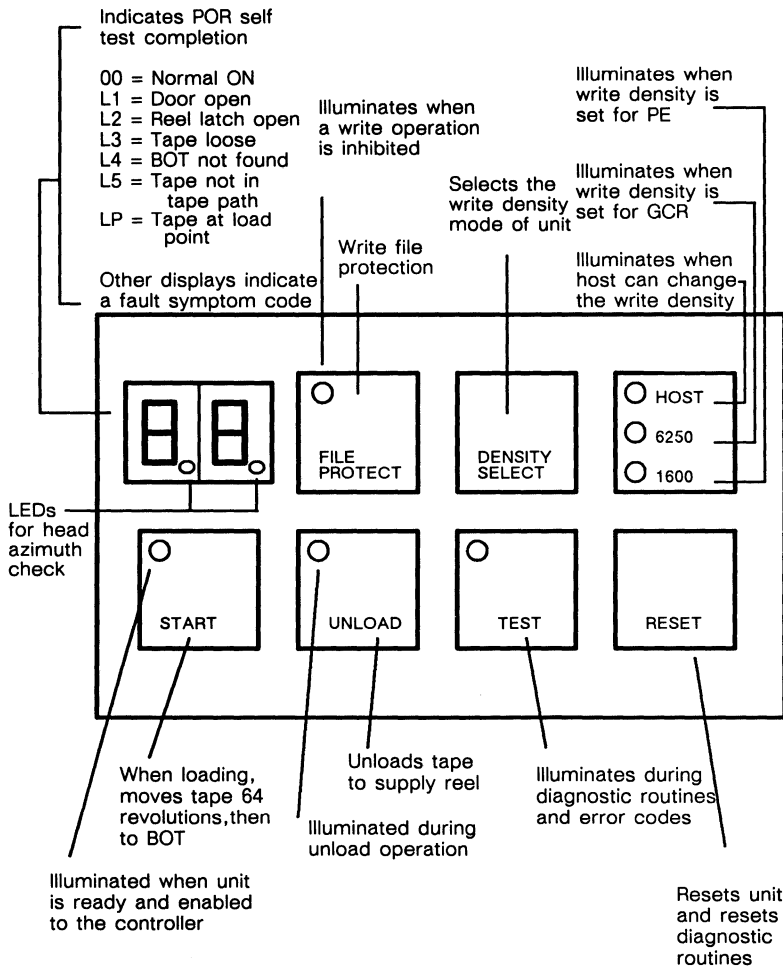
CDC 1/2" Tape Drive

Off-Line Diagnostic Error Codes

FAULT CODE	DESCRIPTION	FAULT CODE	DESCRIPTION
01	Read envelope fault	33	Tape positioning fault
02	Read amplitude tolerance fault	34	BOT positioning fault
03	ID fault	35	Positioning fault
04	Low speed write errors	36	Speed fault
05	Low speed read errors	37	Pump power-up
06	High speed write errors	38	Not Used
07	High speed read errors	46	
08	Noise in IBG	47	Velocity correction fault
09	Reserved for future use	48	Unload fault
10	Operator door open	49	Not Used
11	Absence of tape	50	Irrecoverable device health check fault
12	Load fault	51	Recoverable device health check fault
13	Tape threaded incorrectly	52	Speed calculation fault
14	BOT location fault	53	Arithmetic error
15	Load/unload aborted operator	54	Erase/write current fault
16	Diag. tape is write protected	55	Load/rewind timeout error
17	Ran off end of tape	56	Processor communication fault
18	Tape already loaded	57	Device illogical fault
19	Reserved for future use	58	Recoverable formatter health check fault
20	File tension sensor fault	59	Irrecoverable formatter health check fault
21	Take-up tension sensor fault	60	Irrecoverable operator health panel
22	Unable to tension tape	61	Recoverable operator health panel fault
23	Unable to re-establish tension		
24	High tension fault		
25	Low tension fault		
26	Servo fault		
27	No coarse tachs		
28	Tension recovery problem		
29	Absence of tape		
30	Up ramp fault		
31	Down ramp fault		
32	Stoplock over-run		

Fujitsu 1/2" Tape Drive

Operator Panel Layout



Fujitsu 1/2" Tape Drive

Self-Test Procedures

1. Thread a write enabled tape onto the takeup reel.
2. Press and hold TEST.
3. Press START.
4. Release TEST
5. Press START to increment the LED display to 01.
6. Press TEST to start self test 01 through 42.

Operator Panel Diagnostic Routines

CODE	FUNCTION
00	No operation
01	Load and run default test routine from code 10 to 42.
02	Load
03	Rewind
04	Unload
05	Retension
06	Run routine 10 - 19
09	Ignore door switch
10	Check reset test
11	LSI scan test
12	Time sensor test
13	Block format test
14	LWR test GCR high/low
15	LWR test PE high/low
16	Mask/error track test by LWR GCR, high speed
17	Mask/error track test by LWR GCR, low speed
18	Mask/error track test by LWR PE, high speed
19	Mask/error track test by LWR PE, low speed

Reference

Fujitsu M244X Streaming Tape Drive CE Manual, 800-1409-01.

Fujitsu 1/2" Tape Drive

Operator Panel Diagnostic Routines – Continued

CODE	FUNCTION
20	Tacho counter test (QCTRH, QCTRL)
21	Read level test by GCR high speed
22	Feed through test by PE low speed
23	GCR identification burst test
24	PE identification burst test low speed
25	PE identification burst test high speed
26	GCR/low/normal/combination command test
27	GCR/low/long/combination command test
28	GCR/high/normal/combination command test
29	GCR/high/long/combination command test
30	PE/low/normal/combination comand test
31	PE/low/long/combination command test
32	PE/high/normal/combination command test
33	PE/high/long/combination command test
34	GCR error detection/correction test
35	PE error detection/correction test
36	Tape mark detection test
37	BOT test by GCR
38	BOT test by PE
39	Command sequence test by GCR
40	Command sequence test by PE
41	Data security erase test
42	Unload and offline
90	BOT/EOT sensor gain adjustment
91	Azimuth adjustment
92	PE read amplifier adjustment
93	EC level/device type set
94	Device parameter set
95	Reserved for tension test
96	Reserved for idler erase test
97	Buffer parameter settings
99	Run initial diagnostics and reset diagnostics mode

MT02 Tape Controller

Sense Error Class/Code

HEX CODE	TAPE DRIVE ERROR	DESCRIPTION
00	No Sense	The MT02 controller detected no error during execution of the previous command.
04	Drive Not Ready	The tape drive is not powered up and ready.
09	Media Not Loaded	The media cartridge is not installed in the tape drive, as indicated by a tape drive status signal.
0A	Insufficient Capacity	There is insufficient space on the media to allow additional data from the initiator to be accepted.
0B	Drive Timeout	A timeout occurred during a tape drive operation.

HEX CODE	TARGET ERROR	DESCRIPTION
11	Uncorrectable Data Error	A block could not be written or read after 16 retry attempts.
14	Block Not Found	The block sequence is improper or a block is missing.
16	DMA Timeout Error	System activity reached a point at which DMA service for the MT02 controller was suspended beyond the allowable timing limits, requiring one or more retry attempts.
17	Write Protected	The media cartridge is write protected. The outstanding Write command has been aborted.
18	Correctable Data Check	During read operations, a block has to be read two or more times. During write operations, a block had to be written more than once.

MT02 Tape Controller

Sense Error Class/Code – Continued

HEX CODE	TARGET ERROR	DESCRIPTION
19	Bad Block Found	A block cannot be read correctly after 16 retry attempts.
1C	File Mark Detected (Vendor Unique)	A file mark block was encountered during a read operation. The outstanding Read and Verify commands are terminated and the tape is repositioned just after the file mark block.
1D	Compare Error	One or more bytes did not compare when the Verify command was issued.

HEX CODE	SYSTEM RELATED ERROR	DESCRIPTION
20	Invalid Command	The issued command cannot be implemented, or is not applicable.
30	Unit Attention	A Unit Attention condition occurred. The removable media may have been changed, or the addressed LUN has been reset (by the Bus Device Reset message) since the last command was issued to the addressed LUN. This error is reported the first time any command is issued after the condition is detected and the requested command is not performed. This condition is cleared when the next I/O is issued by the same host adapter.
31	Command Timeout	Command execution was not completed by the MT02 before a predetermined, command-specific time limit expired.
33	Append Error	A write operation to the tape device was attempted before the end-of-media was reached.
34	Read End-of-Media	A read operation to the tape device was attempted past the end-of-media position.

MT02 Tape Controller

Sense Key Errors

HEX CODE	ERROR	DESCRIPTION
00	No Sense	There is no Sense Key information to be reported for the designated LUN. This code occurs for a successful command or for a command that was checked because the FM or EOM bit in the Extended Sense (Byte 02) was set to 1.
01	Recoverable Error	The last command was completed successfully with some recovery action performed.
02	Not Ready	The addressed LUN cannot be accessed. Operator intervention may be required.
03	Media Error	The command terminated with a non-recoverable error condition which was probably caused by a flaw in the media or by an error in the recorded data.
04	Hardware Error	A non-recoverable hardware error was detected.
05	Illegal Request	An illegal parameter in the command or in the additional parameters was supplied as data for some commands.
06	Unit Attention	A Unit Attention condition occurred. This error is reported the first time any command is issued after the condition is detected and the requested command is not performed. This condition is cleared when the next I/O is issued by the same host adapter.
07	Data Protect	A write operation was attempted on a write protected device either because the cartridge is in the SAFE state.
08	Blank Check	The MT02 Controller encountered the end-of-recorded media (lack of data). This condition is not the same as the physical EOM.

MT02 Tape Controller

Sense Key Errors – Controlled

HEX CODE	ERROR	DESCRIPTION
09	Vendor Unique	A Vendor-Unique error condition occurred. The corresponding Error Class and Error Code are specified in Byte 08 of the Extended Sense Byte.
0A	Copy Aborted	A Copy command was aborted because an error condition was detected on the source or destination device.
0B	Aborted Command	The Target aborted the command. The Initiator may recover by trying the command again.
0C	Reserved	
0D	Volume Overflow	A buffered device has reached the end-of-media and data which has not been written to tape remains in the buffer. A Recover Buffered Data command can be issued to read the unwritten data from the buffer.
0E	Miscompare	Used by the Verify command to indicate that the source data did not match the data read from the tape.
0F	Reserved	

Ciprico Tapemaster Controller

CODE	DESCRIPTION OF ERROR
00	No unrecoverable error
01	Timed out waiting for expected data busy false.
02	Timed out waiting for expected data busy false formatter busy false and ready true.
03	Timed out waiting for expected ready false.
04	Timed out waiting for expected ready true.
05	Timed out waiting for expected data busy true.
06	A memory time-out occurred during a system memory reference.
07	A blank tape was encountered where data was expected.
08	An error occurred in the micro-diagnostic.
09	An unexpected EOT was encountered during a forward operation or during a rewind operation.
0A	A hard or soft error occurred which could not be eliminated by retry.
0B	A read overflow or write underflow occurred. This error indicates that the FIFO was empty when data was requested by the tape during a write or full when the tape presented a byte during a read.
0C	Not used
0D	A read parity error occurred on the byte interface between the drive and controller.
0E	An error was detected while calculating a checksum on the PROM.
0F	A tape time-out occurred because the tape drive did not supply an expected read or write strobe. This normally occurs when attempting to read a larger record than was written.
10	Tape not ready
11	A write was attempted on a tape without a write-enable ring.
12	Not used
13	The diagnostic jumper was not installed while attempting to execute a diag command.
14	An attempt was made to link from a command which does not allow linking.
15	An unexpected file mark was encountered during a tape read.
16	An error in specifying a parameter was detected by the Tapemaster. The usual cause is an entry in the byte count field which is zero or too large.
17	Not used
18	An unidentifiable hardware error occurred. Consult factory.
19	A streaming read or write operation was terminated by the operating system or disk.

Xylogics 472 1/2" Tape Controller

CODE	DESCRIPTION OF ERROR/TROUBLESHOOTING TIPS
00	Not an error
01	Interrupt pending. An operation is attempted while an interrupt is pending.
03	Busy conflict. A register write is attempted while the controller is busy.
04	Operation timeout. The controller did not complete the operation within the timeout period (usually a few seconds). Check the jumpering on the controller, make sure the board is seated properly in an appropriate slot, and check the switch settings of the VME-MB adapter, if applicable. Check the backplane configuration, (VME only).
06	Uncorrectable data. Data error reported on a read command (after four retries of the operation).
OE	Slave acknowledge error (non-existent memory). The memory addressed by the controller fails to respond within the slave acknowledge timeout period. Validate the memory address or memory itself and retry.
14	Write protect error. A write operation is attempted on a write-protected tape reel.
15	Unimplemented Command. Usually reported by the software. Check the device driver.
16	Drive Off-line. The controller cannot perform the requested operation if the drive is not on-line. If the tape is properly loaded and the drive on-line indicator is On, check the cables.
1A-1C	Self test failure - A, B, C. Controller failed the self test diagnostic. Check indicator LED on board (Diag Busy). On POR the self test LED is On briefly and then goes Off. If the LED stays on, self test A, B, or C has failed. Replace the controller.

Xylogics 472 1/2" Tape Controller

Continued

CODE	DESCRIPTION OF ERROR/TROUBLESHOOTING TIPS
1D	Tape mark failure. A tape mark is not detected during a write tape mark operation. Check the setup of the tape drive and the condition of the tape. Run the tape drive self-diagnostic to check the drive's ability to sense tape marks.
1E	Tape mark detected. A tape mark is detected on a Read operation. No data is transferred. Check the data cable from the controller to the drive. Check for proper seating on the read formatter board, the buffer card, and the processor card. Check the proper positioning of the read amplifier. Verify tape operation with self-diagnostic.
1F	Corrected data. Tape drive error correction corrected a single track error during a Read operation.
22	Record length short. Record length is shorter than expected. Result is part of the buffer is not used. Run Read/Write tests on the drive with the known good tape.
23	Record length long. The requested file is longer than expected. Only requested byte count is transferred. This may appear to be a recovered operation, however, the rest of the data is not transferred.
30	Reverse into BOT. A beginning of tape mark is detected while tape is moving in the reverse direction. The tape motion stops. Check tape, run self-diagnostics.
31	EOT detected. An end of tape mark is passed in the forward direction. Check tape, run self-diagnostics.
32	ID burst detected. A PE or GCR identification burst is detected while reading or writing from BOT. In the host mode, software can change before start of an operation. This change can also be set at the drive during load time. Check drive parameters for operation.
33	Data late detected. Indicates system bus contention. The FIFO underflowed during a write operation, or the FIFO overflowed during a read operation. Check the data path and configuration, especially when there are other bus masters.

TROUBLESHOOTING

COMMUNICATION

Communication

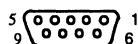
CPU Serial Ports	3
Sun-4/20 CPU Serial Ports	3
Sun386i Serial and Parallel Ports	4
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CPU RS-232/RS-423
(9-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	DCD	5	GND
2	RD	6	DSR
3	TD	7	RTS
4	DTR	8	CTS
9	Unused		

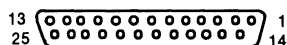
Board Connector



CPU RS-232/RS-423
(25-Pin D-Sub, Female)

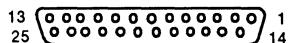
PIN	SIGNAL	PIN	SIGNAL
2	TD	8	DCD
3	RD	15	TC
4	RTS	17	RC
5	CTS	20	DTR
6	DSR	24	TCO
7	GND	25	-5 vdc

Board Connector



Sun-4/20 CPU RS-232/RS-423 Ports A & B
(25-Pin D-Sub, Female)
(Port B is asynchronous only)

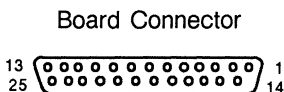
Board Connector



PIN	SIGNAL	PORT	PIN	SIGNAL	PORT
2	TD	A	14	TD	B
3	RD	A	15	TC	A
4	RTS	A	16	RD	B
5	CTS	A	17	RC	A
6	DSR	A	19	RTS	B
7	GND	A	20	DTR	A
8	DCD	A	24	TCO	A
12	DCD	B			
13	CTS	B			

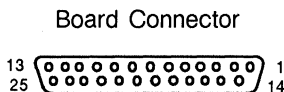
Sun386i CPU RS-232/RS-423 Port A
(25-Pin D-Sub, Male)

PIN	SIGNAL	PIN	SIGNAL
2	TD	15	TC
3	RD	17	RC
4	RTS	20	DTR
5	CTS	22	RI
6	DSR	24	TCO
7	GND	25	-5 vdc
8	DCD		



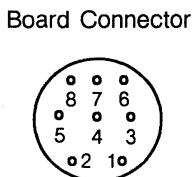
Sun386i CPU Parallel Port
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	STRB	14	AUTOFXDT
2	Data Bit 0	15	ERROR
3	Data Bit 1	16	INIT
4	Data Bit 2	17	SLCTIN
5	Data Bit 3	18	GND
6	Data Bit 4	19	GND
7	Data Bit 5	20	GND
8	Data Bit 6	21	GND
9	Data Bit 7	22	GND
10	ACK	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCT		



Sun-4/40 CPU RS-232/RS-423 Ports A & B
(8-Pin Mini-Din) (asynchronous only)

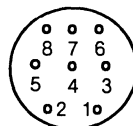
PIN	SIGNAL	PIN	SIGNAL
1	DTR	5	RD
2	RD	6	RTS
3	TD	7	DCD
4	SG	8	RC



CPU Keyboard and Mouse (8-Pin Mini-Din)

PIN	SIGNAL	PIN	SIGNAL
1	GND	5	TD (Keyboard)
2	GND	6	RD (Keyboard)
3	VCC	7	TD (Mouse)*
4	RD (Mouse)	8	VCC

Board Connector

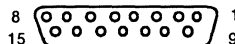


* Can be configured as transmit on the 4300, 4400 and 3/80 CPUs.

CPU Keyboard and Mouse (15-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	RD (Keyboard)	8	GND
2	GND	9	GND
3	TD (Keyboard)	10	VCC
4	GND	11	VCC
5	RD (Mouse)	12	VCC
6	GND	14	VCC
7	TD (Mouse)	15	VCC

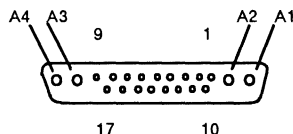
Board Connector



Sun386i Color FB Video/Keyboard/Mouse (DB21W4)

PIN	SIGNAL	PIN	SIGNAL
1	TD (Mouse)	14	GND
3	RD (Keyboard)	A1	Red
8	TDB	A2	Green
10	GND	A3	Blue
12	GND	A4	C sync

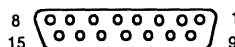
Board Connector



Sun386i Black and White FB Video/Keyboard/Mouse (DB 15-Pin, D-Sub, Male)

PIN	SIGNAL	PIN	SIGNAL
1	TD (Mouse)	9	GND
2	RD (KyBd)	10	GND
3	TD (KyBd)	11	GND
4	Vcc (KyBd)	12	Vcc (KyBd)
5	V sync	13	GND
6	H sync	14	GND
7	V out	15	V out
8	TDB		

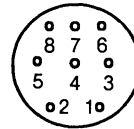
Board Connector



CPU Audio Port
(8-Pin Mini Din)

PIN	SIGNAL	PIN	SIGNAL
1	L In-1 (ISDN)	5	L Out-2 (ISDN)
2	L In-2 (ISDN)	6	Microphone Ring
3	Microphone Tip	7	Speaker Ring
4	L Out-1 (ISDN)	8	Speaker Tip

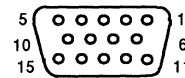
Board Connector



Sun 4/E CPU RS-423/RS-232C Port A
Asynchronous only
(15-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	GND	9	RTS+
2	TD	10	RTS-
3	RD-	11	CTS+
4	RTS	12	TD+
5	CTS-	13	TD-
6	DSR	14	RD+
7	DTR	15	GND
8	DCD		

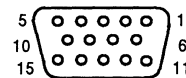
Board Connector



Sun 4/E CPU RS-422/RS-423/RS232C Port B
Asynchronous or Synchronous
(15-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	GND	9	TC
2	TD	10	TCO
3	RD-	11	RC
4	RTS	12	TD+
5	CTS	13	TD-
6	DSR	14	RD+
7	DTR	15	GND
8	DCD		

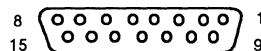
Board Connector



Ethernet
(15-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
2	E.COL+	9	E.COL-
3	E.TD+	10	E.TD-
5	E.RD+	12	E.RD-
6	GND	13	+12vdc
7	+5vdc*		

Board Connector

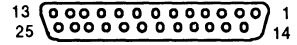


*Not used, jumper selectable on some boards

ALM-1 RS-232 Ports 0-15
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	FG	7	GND
2	TD	8	DCD
3	RD	15	TC
4	RTS	17	RC
5	CTS	20	DTR
6	DSR		

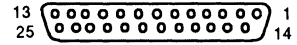
Board Connector



ALM-2 RS-232 Port 4-15 (25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
2	TD	8	DCD
3	RD	20	DTR
7	GND		

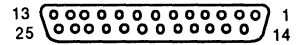
DCA Connector



ALM-2 RS-232/RS-423 Ports 0-3 and
MCP RS-232/RS-423 Ports 2 and 3
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
2	TD	8	DCD
3	RD	15	TC
4	RTS	17	RC
5	CTS	20	DTR
6	DSR	24	TC
7	GND		

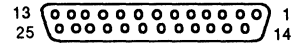
DCA Connector



ALM-2 Parallel Port (25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	STRB	12	PE
2	Data Bit 0	13	SLCT
3	Data Bit 1	18	GND
4	Data Bit 2	19	GND
5	Data Bit 3	20	GND
6	Data Bit 4	21	GND
7	Data Bit 5	22	GND
8	Data Bit 6	23	GND
9	Data Bit 7	24	GND
10	ACK		

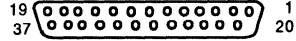
DCA Connector



MCP RS-449 Port 0 & 1
(37-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
4	SD-	22	SD+
5	ST-	23	ST+
6	RD-	24	RD+
7	RS-	25	RS+
8	RT-	26	RT+
9	CS-	27	CS+
11	DM-	29	DM+
12	TR-	30	TR+
13	RR-	31	RR+
17	TT-	35	TT+
19	SG		

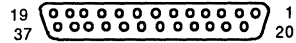
Board Connector



SCP RS-449 Ports 0 & 2
(37-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	Shield	20	RC
4	SD-	21	TT+
5	ST-	22	SD+
6	RD-	23	ST+
7	RS-	24	RD+
8	RT-	25	RS+
9	CS-	26	RT+
11	DM-	27	CS+
12	TR-	29	DM+
13	RR-	30	TR+
17	TT-	35	TT+
19	SG		

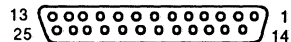
Board Connector



SCP RS-232 Ports 1 & 3
(25-Pin D-Sub, Male)

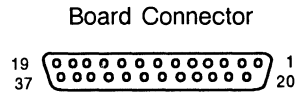
PIN	SIGNAL	PIN	SIGNAL
1	FG	8	DCD
2	TD	15	TD
3	RD	17	RD
4	RTS	29	DTR
5	CTS	24	TC
6	DSR	25	+5vdc
7	SG		

Board Connector



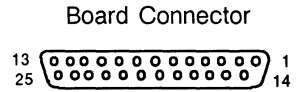
VMEbus HSI RS-449/RS-422 Port A & B
(37-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
4	SD-	22	SD+
5	ST-	23	ST+
6	RD-	24	RD+
7	RS-	25	RS+
8	RT-	26	RT+
9	CS-	27	CS+
11	DM-	29	DM+
12	TR-	30	TR+
13	RR-	31	RR+
17	TT-	35	TT+
19	SG	37	SG



VMEbus HSI V.35 Port A & B
(25-Pin D-Sub, Female)

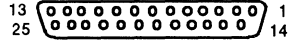
PIN	SIGNAL	PIN	SIGNAL
2	SG	11	DSR
3	TD+	15	TD-
4	RD+	16	RD-
5	TT+	17	TT-
6	TC+	18	TC-
7	RC+	19	RC-
9	RTS	20	CTS
10	DCD	21	DTR
11	DSR		



SBus HSI RS-530 Port 0, 1, 2, & 3
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
2	BA+ (TD)	13	CB- (CTS)
3	BB+ (RD)	14	BA- (TD)
4	CA+ (RTS)	15	DB+ (TC)
5	CB+ (CTS)	16	BB- (RD)
6	CC+	17	DD+
7	SG	19	CA- (RTS)
8	CF+	20	CD+
9	DD-	22	CC-
10	CF-	23	CD-
11	DA-	24	DA+
12	DB- (TC)		

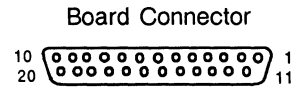
Patch Panel Connector



Note: RS-530 and RS-232 signal levels are not compatible. Install an RS-232 to RS-530 or an RS-422 to RS-530 Converter on each port.

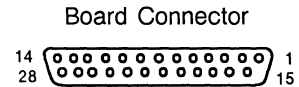
SBus Printer Board Video Port
(20-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	VCLK+	11	VCLK-
2	LSYNC+	12	LSYNC-
3	STATUS+	13	STATUS-
4	PSYNC+	14	PSYNC-
5	Do not use	15	Do not use
6	Do not use	16	Do not use
7	Do not use	17	Do not use
8	CBUSY-	18	CBUSY+
9	CMD+	19	CMD-
10	GND	20	VDATA-



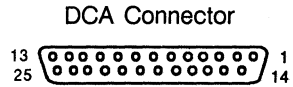
SBus Printer Board Parallel Port
(28-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	Data Bit 0	15	Do not use
2	Data Bit 1	16	Do not use
3	Data Bit 2	17	Do not use
4	Data Bit 3	18	Do not use
5	Data Bit 4	19	Do not use
6	Data Bit 5	20	GND
7	Data Bit 6	21	GND
8	Data Bit 7	22	do not use
9	GND	23	GND
10	DS-	24	GND
11	BUSY	25	ACK-
12	RESET-	26	OUT/IN-
13	AFXT-	27	PE
14	SELECT	28	ERROR-



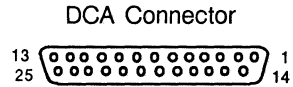
Serial Parallel Controller RS-232/RS-423
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	F GND	6	DSR
2	TD	7	SG
3	RD	8	DCD
4	RTS	20	DTR
5	CTS		



Serial Parallel Controller Parallel Port
(25-Pin D-Sub, Female)

PIN	SIGNAL	PIN	SIGNAL
1	STRB	14	AFXN
2	PD0	15	ERRN
3	PD1	16	ININ
4	PD2	17	SLCN
5	PD3	18	GND
6	PD4	19	GND
7	PD5	20	GND
8	PD6	21	GND
9	PD7	22	GND
10	ACK	23	GND
11	BUSY	24	GND
12	PAPE	25	GND
13	SLCT		

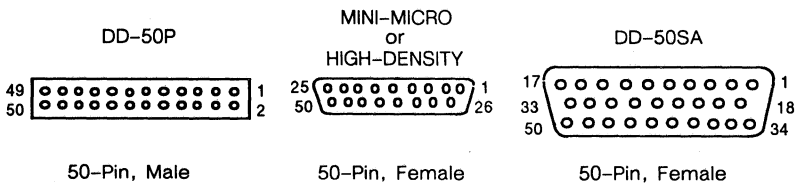


SCSI Connector Pinouts

SCSI SIGNAL	DD-50P	MINI MICRO	DD-50SA	SCSI SIGNAL	DD-50P	MINI MICRO	DD-50SA
-DB(0)	2	26	34	GND	1	1	1
-DB(1)	4	27	2	GND	3	2	18
-DB(2)	6	28	19	GND	5	3	35
-DB(3)	8	29	36	GND	7	4	3
-DB(4)	10	30	4	GND	9	5	20
-DB(5)	12	31	21	GND	11	6	37
-DB(6)	14	32	38	GND	13	7	5
-DB(7)	16	33	6	GND	15	8	22
-DB(P)	18	34	23	GND	17	9	39
GND	20	GND	40	GND	19	10	7
GND	22	GND	8	GND	21	11	24
GND	24	NC*	25	GND	23	NC	41
TERMPWR	26	38	42	GND	25	NC	9
GND	28	NC*	10	GND	27	NC	26
GND	30	GND	27	GND	29	15	43
-ATN	32	41	44	GND	31	16	11
GND	34	GND	12	GND	33	17	28
BSY	36	43	29	GND	35	18	45
-ACK	38	44	46	GND	37	19	13
-RST	40	45	14	GND	39	20	30
-MSG	42	46	31	GND	41	21	47
-SEL	44	47	48	GND	43	22	15
-C/D	46	48	16	GND	45	23	32
-REQ	48	49	33	GND	47	24	49
-I/O	50	50	50	GND	49	25	17

*NC = Not connected

Connector Types



RS-232 Signals

PIN	SIGNAL	SIGNAL NAME	DIRECTION	DESCRIPTION
2 14	BA or TD	Transmit Data	Output	Data transmitted to the data communications equipment.
3 16	BB or RD	Receive Data	Input	Data received from the data communications equipment.
4 19	CA or RTS	Request to Send	Output	Signal sent to the data communications equipment, asking if it is ready to start accepting data.
5 13	CB or CTS	Clear to Send	Input	Ready to accept data signal from the data communications equipment.
6	CC or DSR	Data Set Ready	Input	Data communications equipment indicates the status of the local data set.
7	AB or SG	Signal Ground	None	Signal Ground provides a reference level for the signal voltages.
8 12	CF or DCD	Data Carrier Detect	Input	Data communications equipment detected "carrier." Example: a modem senses tones sent to it by another modem over phone lines.
15	DB or TC	Transmit Clock from DCE	Input	Transmit clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
17	DD or RC	Receive Clock from DCE	Input	Receive clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
20	CD or DTR	Data Terminal Ready	Output	The DTE is powered on and ready to communicate as the "local data terminal" with the data communication equipment. For example, the modem.
24	DA or TCO	Transmit Clock from DTE	Output	Provides transmit clock from the DTE. Usually not used for asynchronous devices, (terminals, printers, and modems, etc).

RS-449 Signals

PIN	SIGNAL	SIGNAL NAME	DIRECTION	DESCRIPTION
4 22	SD or TD	Transmit Data	Output	Data transmitted to the data communications equipment.
6 24	RD	Receive Data	Input	Data received from the data communications equipment.
7 25	RS or RTS	Request to Send	Output	Signal sent to the data communications equipment, asking if it is ready to start accepting data.
9 27	CS or CTS	Clear to Send	Input	Ready to accept data signal from the data communications equipment.
11 29	DM or DSR	Data Set Ready	Input	Data communications equipment indicates the status of the local data set.
19	SG	Signal Ground	None	Signal Ground provides a reference level for the signal voltages.
13 31	RR or DCD	Data Carrier Detect	Input	Data communications equipment detected "carrier." Example: a modem senses tones sent to it by another modem over phone lines.
5 23	ST or TC	Transmit Clock from DCE	Input	Transmit clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
8 26	RT or RC	Receive Clock from DCE	Input	Receive clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
12 30	TR or DTR	Data Terminal Ready	Output	The DTE is powered on and ready to communicate as the "local data terminal" with the data communication equipment. For example, the modem.
17 35	TT or TCO	Transmit Clock from DTE	Output	Provides transmit clock from the DTE. Usually not used for asynchronous devices, (terminals, printers, and modems, etc).

RS-530 Signals

PIN	SIGNAL	SIGNAL NAME	DIRECTION	DESCRIPTION
2 14	BA or TD	Transmit Data	Output	Data transmitted to the data communications equipment.
3 16	BB or RD	Receive Data	Input	Data received from the data communications equipment.
4 19	CA or RTS	Request to Send	Output	Signal sent to the data communications equipment, asking if it is ready to start accepting data.
5 13	CB or CTS	Clear to Send	Input	Ready to accept data signal from the data communications equipment.
6 22	CC or DSR	Data Set Ready	Input	Data communications equipment indicates the status of the local data set.
7	AB or SG	Signal Ground	None	Signal Ground provides a reference level for the signal voltages.
8 10	CF or DCD	Data Carrier Detect	Input	Data communications equipment detected "carrier." Example: a modem senses tones sent to it by another modem over phone lines.
12 15	DB or TC	Transmit Clock (from DCE)	Input	Transmit clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
9 17	DD or RC	Receive Clock (from DCE)	Input	Receive clock from the modem. Usually not used for asynchronous devices (terminals, printers, and modems, etc).
20 23	CD or DTR	Data Terminal Ready	Output	The DTE is powered on and ready to communicate as the "local data terminal" with the data communication equipment. For example, the modem.
11 24	DA or TCO	Transmit Clock (from DTE)	Output	Provides transmit clock from the DTE. Usually not used for asynchronous devices, (terminals, printers, and modems, etc).

Electrical Characteristics

The U.S. Electronic Industries Association electrical specifications are included in this section with a reference to the section in the standard for each circuit type. EIA standards are available from the EIA Engineering Department, Standard Sales, 2001 Eye Street, N.W., Washington, D.C. 20006.

EIA RS-232-C Section 2.3

For data interchange circuits, the signal shall be considered in the marking condition when the voltage (V_1) on the interchange circuit, measured at the interface point, is more negative than minus three volts with respect to Circuit AB (Signal Ground). The signal shall be considered in the spacing condition when the voltage (V_1) is more positive than plus three volts with respect to circuit AB. The signal state is not uniquely defined when the voltage (V_1) is in this transition region.

EIA RS-422-A Section 4.1.1

For either binary state, the magnitude of the differential voltage (V_0) measured between the two generator output terminals shall not be less than 6.0 volts; nor shall the magnitude of V_{0a} and V_{0b} measured between the two generator output terminals and generator circuit ground be more than 6.0 volts.

EIA RS-423-A Section 4.1.1

For either binary state, the magnitude of the voltage (V_0) measured between the generator output terminal and generator circuit ground shall not be less than 4.0 volts nor more than 6.0 volts. For the opposite binary state, the polarity of V_0 shall be reversed.

Electrical Characteristics – Continued

EIA RS-449-A Section 2.1.1

The following circuits are classified as Category I circuits: SD, RD, TT, ST, RT, RS, CS, RR, TR, and DM.

For applications where the signaling rate on the data interchange circuits (Circuits SD and RD) is 20,000 bits per second or less, the individual Category I circuits shall use either the balanced electrical characteristics of RS-423, without the cable termination resistance (R_t), or the unbalanced electrical characteristics of RS-422-A. Two leads shall be brought out to the interface connector for each Category I circuit. Each interchange circuit consists of a pair of wires interconnecting a balanced or unbalanced generator and a differential receiver.

For applications where the signaling rate on the data interchange circuits (Circuits SD and RD) is above 20,000 bits per second, all Category I circuits shall use the balanced electrical characteristics of RS-422. Use of optional cable termination resistance (R_t) is permitted. Each interchange circuit consists of a pair of wires interconnecting a balanced generator and a differential receiver.

EIA RS-449-A Section 2.1.2

All other circuits are classified as Category II circuits. For all applications, Category II circuits shall use the unbalanced electrical characteristics of RS-423. Each Category II interchange circuit consists of one wire interconnecting an unbalanced generator and a differential receiver.

Electrical Characteristics – Continued

EIA RS-530 Section 2.1.1

The following circuits are classified as Category I circuits: BA, BB, DA, DB, CA, CB, CF, CC, and CD.

The individual Category I circuits shall use the balanced electrical characteristics of EIA-422-A. Two leads shall be brought out to the interface connector for each Category I circuit. Each interchange circuit consists of a pair of wires interconnecting a balanced generator and a differential receiver.

EIA RS-530 Section 2.1.2

The following circuits are classified as Category II circuits: RL, LL, and TL.

The Category II circuits shall use the unbalanced electrical characteristics of EIA-423-A. Each Category II interchange circuit consists of one wire interconnecting an unbalanced generator and a differential receiver.

EIA RS-530 Section 6.6

The connector used in this recommendation, is also used for EIA-232-D, which employs electrical characteristics that, if improperly connected to some silicon devices designed to meet EIA-422-A and EIA-423-A electrical characteristics specified in this recommendation, could damage those devices.

FDDI

Selftest

Normal mode selftests run at powerup when the DIAG/NORM switch is in the NORM position. Attach a terminal set for 9600 baud, 8 data bits, no parity, and 1 stop bit to the serial port to monitor normal mode selftest output.

Extended Selftests

Extended selftests are run with the DIAG/NORM switch in the DIAG position. Attach a terminal set for 9600 baud, 8 data bits, no parity, and 1 stop bit to the serial port and attach loopback cables between ports FDDI-A and FDDI-B. Enter **s** to enable the extended selftests. Enter **a** to display the Diagnostic Engineering Monitor (DEMON) menu.

LEDs

LEDs indicate the status of the FDDI PCB and the network during operation.

LED 4	LEDs 3 & 1	LEDs 2 & 0	LED Status
x	Off	Off	Connection is dead
x	Off	On	Connection sequence in progress
Off path	On	Off	Connection is complete and is part of token
On	On	Off	Connection is complete but there is no token
x	On	On	Connection is too noisy

LEDs 4, 1, and 0 indicate connection status for port FDDI-A.

LEDs 4, 3, and 2 indicate connection status for port FDDI-B.

LED 4, RINGOP, is ON when the ring is not operational.

LED 5, PACKETIO, changes state each time a packet is received or successfully transmitted. LEDs 6 and 7 blink alternately four times per second under normal conditions.

LEDs 6 and 7 blink together two times per second when a non-recoverable firmware problem occurs.

FDDI

LED Patterns During Powerup Selftests

● = ON 7	○ = OFF LEDs 0	Selftest Being Performed
● ● ● ● ● ● ● ●		A reset momentarily sets the LEDs to this state
○ ○ ○ ○ ○ ● ● ●		System Enable Register Test
○ ○ ○ ○ ● ○ ○ ○		NP Bus Error Test (Verify can detect a bus error.)
○ ○ ○ ○ ● ○ ○ ●		Xmit Character/Serial Port Test
○ ○ ○ ○ ● ○ ● ○		EPROM0 Checksum Test
○ ○ ○ ○ ● ○ ● ●		EPROM1 Checksum Test
○ ○ ○ ○ ● ● ○ ○		IDPROM Checksum Test
○ ○ ○ ○ ● ● ○ ●		EEPROM Checksum Test
○ ○ ○ ○ ● ● ● ○		VME Configuration Register Test
○ ○ ○ ○ ● ● ● ●		VME Interrupt Register Test
○ ○ ○ ● ○ ○ ○ ○		DMAC Xfer Count Register Test
○ ○ ○ ● ○ ○ ○ ●		DMAC Controller Register Test
○ ○ ○ ● ○ ○ ● ○		DMAC Low Address Register Test
○ ○ ○ ● ○ ○ ● ●		DMAC High Address Register Test
○ ○ ○ ● ○ ● ○ ○		MFP 68901 Registers Test
○ ○ ○ ● ○ ● ○ ●		STC AM9513 Register Test
○ ○ ○ ● ○ ● ● ○		STC AM9513 LQM Register Test
○ ○ ○ ● ○ ● ● ●		FDDI Controller Register Test
○ ○ ○ ● ● ○ ○ ○		RBC (RAM Buffer Ctr) Basic Test
○ ○ ○ ● ● ○ ○ ●		DPC (write.read) Basic Test
○ ○ ○ ● ● ○ ● ○		FORMAC Basic Test
○ ○ ○ ● ● ○ ● ●		ETXA (ENDEC) Basic Test
○ ○ ○ ● ● ● ○ ○		ETXB (ENDEC) Basic Test
○ ○ ○ ● ● ● ○ ●		ACE Bits REG Access Test
○ ○ ○ ● ● ● ● ○		GRP ADDR. Pntr. Reg. Test
○ ○ ○ ● ● ● ● ●		GAR (Group Address RAM) Test
○ ○ ● ○ ○ ○ ○ ○		Buffer RAM Address Test
○ ○ ● ○ ○ ○ ○ ●		Buffer RAM ERRATIC Pattern Test
○ ○ ● ○ ○ ○ ● ○		Buffer RAM ODD PARITY Test
○ ○ ● ○ ○ ○ ● ●		MFP68901 Timer Test
○ ○ ● ○ ○ ● ○ ○		STC9513 Timer Test

FDDI

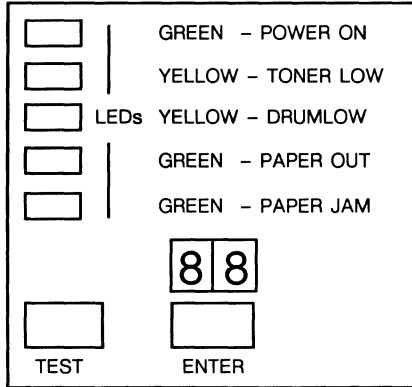
LED Patterns During Powerup Selftests – Continued

● = ON		○ = OFF		Selftest Being Performed		
7	LEDS	0				
○	○	●	○	○	●	LQM-STC9513 Timer Test
○	○	●	○	○	●	LQM-A-STC9513 Line/Func/Interrupt Test
○	○	●	○	○	●	LQM-B-STC9513 Line/Func/Interrupt Test
○	○	●	○	○	○	RBC/SRAM Access Test
○	○	●	○	○	○	RBC NMI (Non-Maskable-Interrupt) Test
○	○	●	○	○	○	FORMAC MINTR (Maskable Interrupt) Test
○	○	●	○	○	●	DPC NMI Test
○	○	●	○	○	○	Buff-RAM Parity Error Detect Test
○	○	●	○	○	○	FORMAC Internal Loopback Test
○	○	●	○	○	○	Endec A Internal Loopback Test
○	○	●	○	○	○	Endec B Internal Loopback Test
○	○	●	○	○	○	Fiber Loopback (WRP_A)
○	○	●	○	○	○	Fiber Loopback (WRP_B)
○	○	●	○	○	○	Fiber Loopback (THR_A)
○	○	●	○	○	○	Fiber Loopback (THR_B)
○	○	●	○	○	○	Line States Fibr Loopback (THR_A)
○	○	●	○	○	○	Line States Fibr Loopback (THR_B)
○	○	●	○	○	○	Group Addr. Func. (WRP_A)
○	○	●	○	○	○	Group Addr. Func. (WRP_B)
○	○	●	○	○	○	Group Addr. Func. (THR_A)
○	○	●	○	○	○	Group Addr. Func. (THR_B)
○	○	●	○	○	○	Endec Parity Err.. Fibr LPBK (WRP_A)
○	○	●	○	○	○	Endec Parity Err.. Fibr LPBK (WRP_B)
○	○	●	○	○	○	Endec Parity Err.. Fibr LPBK (THR_A)
○	○	●	○	○	○	Endec Parity Err.. Fibr LPBK (THR_B)
○	○	●	○	○	○	CLAIM/BEACON Fibr LPBCK (WRP_A)
○	○	●	○	○	○	CLAIM/BEACON Fibr LPBCK (WRP_B)
○	○	●	○	○	○	CLAIM/BEACON Fibr LPBCK (THR_A)
○	○	●	○	○	○	CLAIM/BEACON Fibr LPBCK (THR_B)
○	○	○	○	○	○	LQM-A Circuit Function Test
○	○	○	○	○	○	LQM-B Circuit Function Test

SPARCprinter

Operator Panel Diagnostic Routines

Operator Panel



IOT Test Print Mode

1. Switch the printer OFF.
2. Press and hold TEST.
3. Switch the printer ON.
4. Release TEST. 00 is displayed. The printer must warm-up for approximately one minute in order to print a test page.
5. Press ENTER to start printing the IOT test print. The display indicates the number of test pages printed.
6. Press ENTER to stop printing the IOT test print.
7. Switch the printer OFF to exit the IOT Test Print Mode.

Reference: *SPARCprinter Service Guide*, 800-5044.

OPERATING SYSTEMS

Operating Systems

The System Hardware and Operating System Dependency tables in this section are compiled by Software Information Services to illustrate support of hardware and software products by the Sun Operating System (SunOS) level in which the products were introduced. Key hardware features and software product support are shown in the left-hand column of each table. The Sun system and corresponding SunOS level(s) in which the product is supported are shown across the top of each table.

Key	Translation
x	Available and supported in this SunOS release
BT	Requires extra boot tape

The revision date of the tables in this section is 12/90

Operating Systems

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SUN-3 DEPENDENCIES

System Hardware and Operating System	
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SUN386i DEPENDENCIES

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SUN-2 DEPENDENCIES

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GRAPHICS HARDWARE PRODUCTS

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Sun-4 Dependencies

System Hardware and Operating System Dependencies

FEATURE	Sun-4 Kernel		Sun-4c Kernel
	Release 4.0.3	Release 4.3.2	Release 4.0.3
System Hardware Architecture:			
Sun-4/110 & Sun-4/2xx	x	x	
Sun-4/3xx	x		
Sun-3/4xx*	x		
System Hardware Features:			
ALM2	x	x	
32MB Memory Bd.	x		
900MB Disk	x	x	
327MB SCSI	x	x	
Double buffering	x		
Operating System Installation:			
Remote tape installation	x	x	
Diskless Sun-3 and Sun-4 installation on a Sun-4 Server**	x	x	
Diskless Sun-2, Sun-3 & Sun-4 installation on Sun-2***, Sun-3, Sun-4 Servers	x		
Sunupgrade from 4.0 to 4.0.3	x		
* SunLink Channel Gateway 7.0 required.			
** Sun-4 servers running Sys4-3.2 can support Sun-3 clients running SunOS Release 3.5.			
*** Sun-2 servers strongly discouraged.			

Bug Fixes and Improvements

FEATURE	Sun-4 Kernel		Sun-4c Kernel
	Release 4.0.3	Release 4.3.2	Release 4.0.3
QIC-24 Distribution Media (Sun-3/Sun-4)	x	x	
SunPro make	x	x	
filemerge	x		
Subnets	x		
SCSI Disconnect/Reconnect	x		
SunOS Rel. 3.3 bug fixes	x		
SunOS Rel. 3.4 kernel bug fixes	x		
SunOS Rel. 3.4 SunView bug fixes	x	x	
SunOS Rel. 3.5 bug fixes	x		

Sun-4 Dependencies - Continued
 Bundled Software Products

FEATURE	Sun-4 Kernel		Sun-4c Kernel
	Release 4.0.3	Release 4.3.2	Release 4.0.3
SunView Rel. 1.7		x	
SunView Rel. 1.75	x		

Unbundled Software Products

FEATURE	Sun-4 Kernel		Sun-4c Kernel
	Release 4.0.3	Release 4.3.2	Release 4.03
NeWS Rel. 1.1	x	x	x
NSE Rel. 1.1		x	
Cross-Compilers Rel. 2.0:			
Sun-4 to Sun-2 or Sun-3		x	
Cross-Compilers Rel. 3.0:			
Cross-Compilers 3.0-C	x		x
Cross-Compilers 3.0 - FORTRAN	x		x
Cross-Compilers 3.0 - Pascal	x		x
Sun FORTRAN Rel. 1.05		x	
Sun FORTRAN Rel. 1.2	x		x
Sun Pascal Rel. 1.05		x	
Sun Pascal Rel. 2.0	x		x
SunINGRES Rel. 5.1	x		
SunUNIFY Rel. 3.0	x	x	
SunSimplify Rel. 1.1	x	x	
SunGKS Rel. 2.2.1*	x		
SunGKS Rec. 3.0	x		x
Sun58TE Rel. 1.0	x		
SunPHIGS Rel. 1.0*	x		
SunPHIGS Rel. 1.1	x		x
Modula-2 Rel. 2.1	x		x
PC-NFS Rel. 3.0	x	x	x
PC-NFS Toolkit		x	
SunIPC Rel. 1.2	x		
Sun Common Lisp Rel.2.1	x	x	
Sun Common Lisp Rel. 3.0	x	x	
SPE 1.0 for SCLisp Rel. 2.1	x	x	
TranScript Rel 2.1	x		
SunTrac Rel. 1.3	x		x
DosWindows Rel. 1.0	x		
Pascal 2.0	x		x
SunNet License Rel. 1.0	x		x

* Applications produce graphics only under Sunview (1) in Rel. 4.0.3. NeWS is not currently supported.

**These releases run under SunOS 4.0.3 in a "compatibility" mode.

Sun-4 Dependencies - Continued

SunLink Communications Software Products

FEATURE	Sun-4 Kernel		Sun-4c Kernel
	Release 4.0.3	Release 4.3.2	Release 4.0.3
IBM Connectivity Products:			
BSCRJE Rel. 6.0	x		
SCA Rel 6.0	x		
SCG Rel. 7.0	x		
Local 3270 Rel. 6.1	x		
SNA 3270 Rel. 5.1		x	
SNA Peer-to-Peer Rel. 6.0	x		
SNA 3270 Rel. 6.1	x		
CG3270 Rel. 6.1	x		
DEC Connectivity Products:			
DNI Release 5.1		x	
TE100 Rel.5.1		x	
TE100 Rel. 6.0	x		
TE3278	x		
DNI Rel.6.0	x		
Standards:			
X.25 Rel. 5.1		x	
X.25 Rel. 6.0	x		
Wide Area Networks:			
IR Rel. 6.0	x		
MCP Rel. 6.0	x		

Sun-3 Dependencies

System Hardware and Operating System Dependencies

FEATURE	Sun-3 Kernel					Sun-3x Kernel
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2	Release 4.0.3
System Hardware Architecture:						
Sun-3/60	x	x	BT			
Sun-3/E	x	x	BT			
Sun-3/50, 3/75, 3/1xx, Sun-3/2xx	x	x	x	x	x	
Sun-3/80 & Sun-3/4xx						x
System Hardware Features:						
ALM2	x	x				x
32MB Memory Bd.						x
900MB Disk	x	x				x
327MB SCSI	x	x				x
Double buffering	x	x				x
Operating System Installation:						
Remote tape installation	x	x	x	x	x	x
Diskless Sun-2 and Sun-3 installation on a Sun-3 Server	x	x	x	x	x	x
Diskless Sun-3 and Sun-4 installation on a Sun-4 Server*	x					x
Diskless Sun-2, Sun-3, & Sun-4 installation on Sun-2**, Sun-3, Sun-4 Servers	x					x
Sunupgrade from 4.0 to 4.0.3	x					
* Sun-4 servers running Sys4-3.2 can support Sun-3 clients running SunOS Release 3.5. ** Sun-2 servers strongly discouraged.						

Sun-3 Dependencies – Continued

Bug Fixes and Improvements

FEATURE	Sun-3 Kernel					Sun-3x Kernel
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2	Release 4.0.3
QIC-24 Distribution Media (Sun-3/Sun-4)	x					
SunPro make	x	x	x			
filemerge	x	x	x			
Subnets	x	x	x	x		
SCSI Disconnect/Reconnect	x	x	x	x		
SunOS Rel. 3.3 bug fixes	x	x	x	x	x	
SunOS Rel. 3.4 kernel bug fixes	x	x	x			
SunOS Rel. 3.4 SunView bug fixes	x	x	x			
SunOS Release 3.5 bug fixes	x	x				

Bundled Software Products

FEATURE	Sun-3 Kernel					Sun-3x Kernel
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2	Release 4.0.3
FORTRAN-77		x	x	x*	x	
pc (Pascal)		x	x	x*	x	
SunView Rel. 1.7		x	x			
SunView Rel. 1.75	x					
* Uses the version for SunOS 3.2						

Sun-3 Dependencies – Continued

Unbundled Software Products

FEATURE	Sun-3 Kernel					Sun-3x Kernel
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2	Release 4.0.3
NeWS Rel. 1.1	x	x	x	x	x	x
NSE Rel. 1.0		x	x	x		
Cross-Compilers Rel. 2.0						
Sun-3 to Sun-2 or Sun-4		x	x	x	x	
Cross-Compilers Rel. 3.0:						
Cross-Compilers 3.0-C	x					x
Cross-Compilers 3.0 – FORTRAN	x					x
Cross-Compilers 3.0 – Pascal	x					x
Sun FORTRAN Rel. 1.0		x	x	x	x	
Sun FORTRAN Rel. 1.2	x					x
Sun Pascal Rel. 2.0	x					x
SunINGRES Rel. 5.1	x	x	x	x	x	
SunUNIFY Rel. 3.0	x	x	x	x	x	
SunSimplify Rel. 1.1	x	x	x	x	x	
SunAlis Rel. 2.1		x	x	x	x	
SunGKS Rel. 2.2.1*	x	x	x	x	x	x
SunGKS Rel. 3.0	x					x
Sun58TE Rel. 1.0	x					x
SunPHIGS Rel. 1.0*	x	x				x
SunPHIGS Rel. 1.1	x					x
Modula-2 Rel. 2.0		x	x	x	x	
Modula-2 Rel. 2.1	x					x
SunPaint Rel. 1.0**	x	x	x			x
SunWrite Rel. 1.0**	x	x	x			x
SunDraw Rel. 1.0**	x	x	x			x
PC-NFS Rel. 3.0	x	x	x	x	x	
PC-NFS Toolkit		x	x	x	x	
SunIPC Rel. 1.2		x	x	x	x	x
Sun Common Lisp Rel.2.1	x	x	x	x	x	
Sun Common Lisp Rel. 3.0	x	x	x	x	x	
SPE 1.0 for SCLisp Rel. 2.1	x	x	x	x	x	
TransScript Rel 2.1	x	x	x	x	x	x
SunTrac Rel. 1.3	x					x
DosWindows Rel. 1.0	x					x
SunNet License Rel. 1.0	x					x

* Applications produce graphics only under Sunview (1) in Rel. 4.0.3. NeWS is not currently supported.

**These releases run under SunOS 4.0.3 in a "compatibility" mode.

Sun-3 Dependencies – Continued

SunLink Communications Software Products

FEATURE	Sun-3 Kernel					Sun-3x Kernel
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2	Release 4.0.3
IBM Connectivity Products:						
BSC3270 Rel. 3.0		x	x		x	
BSC3270 Rel. 6.1	x					x
BSCRJE Rel 5.0		x	x		x	
BSCRJE Rel. 6.0	x					x
SCA Rel. 5.0		x	x		x	
SCA Rel 6.0	x					
SCG Rel. 7.0	x					
Local 3270 Rel. 5.0		x	x		x	
Local 3270 Rel. 6.1	x					
SNA 3270 Rel. 5.0		x	x		x	
SNA Peer-to-Peer Rel. 5.0		x	x		x	
SNA Peer-to-Peer Rel. 6.0	x					x
SNA 3270 Rel. 6.1	x					
CG3270 Rel. 6.1	x					x
DEC Connectivity Products:						
DNI Release 5.0		x	x		x	
TE100 Rel.4.0		x	x		x	
TE100 Rel. 6.0	x					x
TE3278	x					x
DNI Rel.6.0	x					x
Standards:						
DDN Rel 5.0		x	x		x	
OSI Rel.5.2		x	x		x	
MHS Rel. 5.2		x	x		x	
X.25 Rel. 5.2		x	x		x	
x.25 Rel. 6.0	x					x
Wide Area Networks:						
IR Rel. 5.0		x	x		x	
IR Rel. 6.0	x					x
MCP Rel. 5.0		x	x		x	
MCP Rel. 6.0	x					x*
* Not supported on Sun-3/80						

Sun386i Dependencies

Unbundled Software Products

FEATURE	Release 4.0.2
Sun FORTRAN Rel. 1.1R	x
Sun Pascal Rel. 1.1	x
SunGKS Rel. 3.0	x
SunUNIFY Rel. 3.0	x
SunSimplify Rel. 1.1	x
Modula-2 Rel. 2.1	x
SunTrac Rel. 1.3	x
TransScript Rel 2.1	x
DOS Windows Rel. 1.0	x
SunNet License Rel 1.0	x

SunLink Communications Software Products

FEATURE	Release 4.0.2
IBM Connectivity Products:	
SNA 3270 Rel. 6.1	x
DEC Connectivity Products:	
TE100 Rel. 6.0	x
DNI Rel.6.0	x
Standards:	
x.25 Rel. 6.0	x
Wide Area Networks:	
IR Rel. 6.0	x

Sun-2 Dependencies

System Hardware and Operating System Dependencies

FEATURE	Sun-2 Kernel				
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2
System Hardware Architecture:					
Sun-2/xxx	x	x	x	x	x
System Hardware Features:					
Double buffering	x	x			
Operating System Installation:					
Remote tape installation	x	x	x	x	
Diskless Sun-2 and Sun-3 installation on a Sun-3 Server	x	x	x	x	
Sunupgrade from 4.0 to 4.0.3	x				

Bug Fixes and Improvements

FEATURE	Sun-2 Kernel				
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2
SunPro make	x	x	x		
Subnets	x	x	x	x	
SCSI Disconnect/Reconnect*	x	x	x	x	
SunOS Rel. 3.3 bug fixes	x	x	x	x	
SunOS Rel. 3.4 kernel bug fixes	x	x	x		
SunOS Rel. 3.4 SunView bug fixes	x	x	x		
SunOS Release 3.5 bug fixes	x	x			
* No SCSI-3 support on Sun-2 systems					

Sun-2 Dependencies – Continued

Bundled Software Products

FEATURE	Sun-2 Kernel				
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2
FORTRAN-77		x	x	x*	x
pc (Pascal)		x	x	x*	x
SunView Rel. 1.5					x
SunView Rel. 1.7		x	x		
SunView Rel. 1.75	x				
*Uses the version for SunOS 3.2					

Unbundled Software Products

FEATURE	Sun-2 Kernel				
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2
NeWS Rel. 1.1	x	x	x	x	
NSE Rel. 1.1		x	x	x	
Cross-Compilers Rel. 2.0					
Sun-2 to Sun-3 or Sun-4		x	x	x	x
Sun FORTRAN Rel. 1.0		x	x	x	x
Sun FORTRAN Rel. 1.1	x				
Sun Pascal Rel. 1.1	x				
SunINGRES Rel. 5.1	x	x	x	x	x
SunUNIFY Rel. 3.0	x	x	x	x	x
SunSimplify Rel. 1.1	x	x	x	x	x
SunGKS Rel. 2.2.1*	x	x	x	x	x
SunPHIGS Rel. 1.0*	x	x			
Modula-2 Rel. 2.0		x	x	x	x
SunPaint Rel. 1.0**	x	x	x		
SunWrite Rel. 1.0**	x	x	x		
Sun Draw Rel. 1.0**	x	x	x		
SunIPC Rel. 1.2		x	x	x	x
Sun Common Lisp Rel. 2.1	x	x	x	x	x
TranScript Rel 2.1		x	x	x	x
SunTrac Rel. 1.2	x	x	x	x	x
DosWindows Rel. 1.0	x				
* Applications produce graphics only under Sunview (1) in Rel. 4.0.3. NeWS is not currently supported. **These releases run under SunOS 4.0.3 in a "compatibility" mode.					

Sun-2 Dependencies – Continued

SunLink Communications Software Products

FEATURE	Sun-2 Kernel				
	Release 4.0.3	Release 3.5	Release 3.4	Release 3.3	Release 3.2
IBM Connectivity Products:					
BSC3270 Rel. 3.0		x	x		x
BSC3270 Rel. 6.1	x				
BSCRJE Rel 5.0		x	x		x
BSCRJE Rel. 6.0	x				
Local 3270 Rel. 5.0		x	x		x
SNA Peer-to-Peer Rel. 6.0	x				
CG3270 Rel. 6.1	x				
DEC Connectivity Products:					
DNI Release 5.0		x	x		x
TE100 Rel. 6.0	x				
TE3278	x				
DNI Rel.6.0	x				
Standards:					
DDN Rel 5.0		x	x		x
OSI Rel.5.2		x	x		x
MHS Rel. 5.2		x	x		x
X.25 Rel. 5.2		x	x		x
x.25 Rel. 6.0	x				
Wide Area Networks:					
IR Rel. 5.0		x	x		x
IR Rel. 6.0	x				
MCP Rel. 5.0		x	x		x
MCP Rel. 6.0	x				

Sun-3 Architecture Graphics Hardware Products

PRODUCT	3.5	4.0/4.0.1	4.0.3	4.1
BW2	standard	standard	standard	standard
CG2/CG3	standard	standard	standard	standard
CG4	standard	standard	standard	standard
CG2/CG3 with GP/GP+	standard	standard	standard	standard
CG3/GP+/GB CXP	standard	standard	standard	standard
CG5/GP2 CXP	GP2 1.0	GP2 1.0	GFX Rev.1	standard
CG6 GX	3.5-CG6	N/A	CG6 & GFX-A or GFX Rev.1	standard
CG8 TC	N/A	N/A	GFX-A or GFX Rev.1	standard
CG9/GP2 GXP	N/A	N/A	CG9 & GFX-A or GFX Rev.1	standard
TAAC	TACC 2.0 2.1, 2.2, 2.3	TACC 2.0 2.1, 2.2, 2.3	TAAC 2.3	TACC 2.3
SunDials	N/A	Dials 1.0	GFX Rev. 1	standard

Sun-4 Architecture Graphics Hardware Products

PRODUCT	Sys 4-3.2	4.0/4.0.1	4.0.3	4.0.3c	4.1
BW2	standard	standard	standard	standard	standard
CG2/CG3	standard	standard	standard	N/A	standard
CG3	N/A	N/A	standard	standard	standard
CG4	standard	standard	standard	N/A	standard
CG2/CG3 with GP/GP+	standard	standard	standard	N/A	standard
CG3/GP+/GB CXP	standard	standard	standard	N/A	standard
CG5/GP2 CXP	GP2 1.0	GP2 1.0	GFX Rev.1	N/A	standard
CG6 GX	N/A	N/A	CG6 & GFX-A or GFX Rev.1	GFX Rev.1	standard
CG8 TC	N/A	4.0-CG8* or 4.0.2-CG8	GFX-A or GFX Rev.1	N/A	standard
CG9/GP2 GXP	N/A	4.0-CG9	CG9 & GFX-A or GFX Rev.1	N/A	standard
TAAC	TACC 2.0 2.1, 2.2, 2.3	TACC 2.0 2.1, 2.2, 2.3	TACC 2.3	N/A	TAAC 2.3
Sun Buttons	N/A	N/A	Btn 1.0	Btn 1.0 GFX Rev.1	standard GFX Rev.1
SunDials	N/A	Dials 1.0	GFX 1.0	GFX Rev.1	standard

* 4.0-CG8 is not upgradeable to SunOS 4.0.1

Sun386i Architecture Graphics Hardware Products

PRODUCT	4.0	4.0.1	4.0.2	4.0.3
BW2	standard	standard	standard	standard
CG3	standard	standard	standard	standard
CG5 GXi	N/A	GXi	standard	standard

DIAGNOSTICS

Diagnostics

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Self-Test Diagnostic

The CPU Self-Test runs in either the Normal or Diag mode. Set the CPU DIAG/NORM switch to DIAG to enable the Diag mode. Set the CPU Diag/Norm switch to NORM to enable the Normal mode. Some systems do not have this capability.

The jumper or NVRAM parameter changes required to set the Sun386i CPU board to Diag mode or to By-pass mode are described in the CPU Configuration Section. By-pass mode forces the CPU to skip most of the Self-Tests and go to the Prom Monitor.

In the Normal mode, the CPU runs through a basic set of tests and reports errors on the diagnostic LEDs. The meanings of the failure patterns of these LEDs are not always consistent between machine types. Refer to the appropriate Field Service Manual and the Troubleshooting Section of this Handbook for self-test LED error code information.

When the CPU is set to the Diag mode, the self-tests are more extensive than in the Normal mode and include a complete memory check. Connect an ASCII terminal to port A to display the self-test output when the system is in Diag mode. Use full duplex, 9600 baud, XON/XOFF, 8bits/1 stop bit, and no parity with a null modem type cable.

Extended Diagnostics

The diagnostics built into the EPROM on CPU boards are designed to verify a working boot path so that more comprehensive diagnostics can be loaded.

Enter "x" at the PROM Monitor prompt to display the Extended Diagnostics menu :

```
>x
```

The Extended Diagnostics menu displays the tests available. The user is prompted to select a test for execution. To return to the PROM Monitor, enter "q" to the Extended Diagnostics prompt.

EPROM space is limited. Some tests were removed from the 2.8 EPROM in November 1988 to make room for more boot and display device drivers.

With the 2.8 EPROM, boot path tests are no longer accessed through the Extended Diagnostics menu. They are executed directly from the PROM Monitor prompt using the command:

```
>b*device()
```

where *device* is the appropriate disk or tape device to be tested.

In the Sun-4c, the PROM Monitor has changed to the Open PROM Toolkit to take advantage of the FORTH programming language. Refer to the EPROM and NVRAM Information in the CPU section of Configurations for more information.

Sun386i Hardware Diagnostics

The Sun386i Hardware Diagnostics are a diagnostic tool for non-technical Sun386i users.

The Hardware Diagnostics are an automated subset of the Diagnostic Executive. These tests are used to find a FRU level failure. The diagnostic prints an error indication, reports the probable subsystem that needs help, and returns control to the PROM Monitor if a problem is found.

To execute the Hardware Diagnostics, halt the system, install the Hardware Diagnostic diskette in the floppy drive, and cycle the power.

The system configuration is compared with the configuration information stored in NVRAM. The user is prompted to answer questions if a conflict exists between the system configuration and the contents of NVRAM. All the tests are then displayed with an indication of which tests will be executed.

Select the tests with the return key and toggle the Yes/No choice with the space key. When the last return is entered, the user is prompted to verify the configuration. The tests are then run to completion or until an error occurs.

Diagnostic Executive

The Diagnostic Executive (Exec) provides a single, unified diagnostic environment with one user interface. The diagnostic tests reside in individual programs that work through the Exec platform. The platform provides a consistent interface and multitasking capabilities. Some features are:

Multiple Consoles

The Exec can run from any control terminal. This may be a monitor, serial port, or a remote console.

Error Logging

The Exec provides the ability to capture error messages into a logfile. The logfile may reside on a local disk or on a server.

Script Execution

Command scripts can be used to drive the menus without further user input.

Remote Execution

The Exec has the ability to perform remote diagnostics over a modem connected to a Serial Port or over Ethernet.

Due to the complexity of the Exec, individual tests will not be discussed here. Refer to the Sun Diagnostic Executive User Manuals for additional information. Tables of Contents for the Exec are included in this section.

Loopback connectors are required for some tests. The loopback connectors are described at the end of this section.

1.1 Diagnostic Executive

Sun-2 and Sun-3

Table of Contents

NAME	FILE # (HEX)	DESCRIPTION
Sun-2 Boot Block	0	Sun-2 boot file
Sun-3 Boot Block	1	Sun-3 boot file
Table of Contents	2	Contains list of contents of tape
extract.exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec	5	Diag Exex for Sun-2 and Sun-3
diags	6	Diagnostic Menu and File names
color2.exec	7	Sun-2 Color Diagnostic
color3.exec	8	Sun-3 Color Diagnostic
cpu.exec	9	Sun CPU Diagnostic
eeptool.exec	A	EEPROM programming tool
ether.exec	B	Sun Ethernet Diagnostic
execetest.exec	C	Exec Verification Suite
fpa.exec	D	Sun-3 FPA Diagnostic
gp1.exec	E	Graphics Processor1 Diagnostic
kb.exec	F	Sun Keyboard Diagnostic
mcp.exec	10	Sun ALM2/MCP Board Diagnostic
mem.exec	11	Sun Memory Diagnostic
mouse.exec	12	Sun Mouse Diagnostic
mti.exec	13	Sun MTI/ALM Board Diagnostic
scsisub.exec	14	Sun SCSI Diagnostic
sky2.exec	15	Sky 2 Diagnostic
smd.exec	16	Sun SMD Diagnostic
tape.exec	17	1/2" Tape Diagnostic
video.exec	18	Sun Video Diagnostic
vidmon.exec	19	Sun Video Monitor Diagnostic
vme3.exec	1A	Sun-3 VME Diagnostic
netcon	1B	Network Console Program
logfile	1C	Error Log File
eccmem3.diag	1D	Standalone ECC memory diagnostic
cache3.diag	1E	Standalone cache memory diagnostic
tarfile	1F	TAR image of executables
Copyright	20	Textfile containing copyright notice

1.19 Sun386i Diagnostic Executive

Sun386i

Table of Contents

NAME	DESCRIPTION
cpu	CPU Diagnostic Menu
flp	Floppy Diagnostic Menu
mem	Memory Diagnostic Menu
vid	Video Diagnostic Menu
Disk	Fixed Disk Diagnostic Menu
tape	Cartridge Tape Diagnostic Menu
eth	Ethernet Diagnostic Menu
fp	Floating-Point Diagnostic Menu
kb	Keyboard Diagnostic Menu
mou	Mouse Diagnostic Menu

Note

The 1.19 Sun386i Diagnostic Executive was replaced with the 1.26 Sun386i Diagnostic Executive in March 1989. The 1.26 Diag Exec is not available.

1.2 Diagnostic Executive

Sun-3 and Sun-3x

Table of Content

NAME	FILE # (Decimal)	DESCRIPTION
tpboot.sun3	0	Enables Sun-3 boot from tape
tpboot.sun3x	1	Enables Sun-3x boot from tape
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec	5	Diag Exec for Sun-3 architecture
exec3x	6	Diag Exec for Sun3/400 Series and 3/80
diags	7	Diagnostic Menu and File names
cg6.exec	8	P4 Color Frame Buffer Diagnostic
cg8.exec	9	P4 24-Bit Frame Buffer Board Diagnostic
cg9.exec	10	VME 24-Bit Frame Buffer Board Diagnostic
color.exec	11	Generic VME Color Board Diagnostic
cpcache.exec	12	Sun-3/400 Series Cache Diagnostic
cpu.exec	13	Sun CPU Diagnostic
eeptool.exec	14	EEPROM programming tool
ether2.exec	17	Ethernet II Diagnostic
execetest.exec	18	Exec Verification Suite
fdc.exec	19	On-Board Floppy Disk Controller Diagnostic
fdi.exec	20	FDDI Board Diagnostic
fpa.exec	21	Sun-3 Floating Point Accelerator Diagnostic
fpa_plus.exec	22	Sun-3/80 Floating Point AcceleratorPlus Diag
gp1.exec	23	Graphics Processor1/Graphics Buffer Diag
gp2.exec	24	Graphics Processor2 Diagnostic
hsi.exec	26	High Speed Serial Board Diagnostic
iocache.exec	26	Sun-3/400 Series I/O Cache Diagnostic
ipi.exec	27	IPI Disk Subsystem Diagnostic
kb.exec	28	Sun Keyboard Diagnostic
mcp.exec	29	Sun ALM2/MCP Board Diagnostic
mem.exec	30	Sun Memory Diagnostic
mempar.exec	31	Sun 3/80 Parity Memory Diagnostic
mouse.exec	32	Sun Mouse Diagnostic
mti.exec	33	Sun MTI/ALM Board Diagnostic
scsisub.exec	34	SCSI Subsystem Diagnostic
espscsi.exec	35	3/80 Extended SCSI Diagnostic
smd.exec	36	Sun SMD Diagnostic
taac.exec	37	TAAC-1 Accelerator Diagnostic
tape.exec	38	Pertec 1/2-inch Tape Diagnostic
video.exec	39	Sun Video Diagnostic
vidmon.exec	40	Sun Video Monitor Diagnostic
vme3.exec	41	Sun VME Diagnostic

1.2 Diagnostic Executive – Continued

Sun-3 and Sun-3x

Table of Content

NAME	FILE # (Decimal)	DESCRIPTION
netcon	42	Network Console Program
logfile	42	Error Log File
eccmem3.diag	43 (0x2C)	Standalone ECC Memory Diagnostic
cache3.diag	44 (0x2D)	Standalone Cache Memory Diagnostic
Copyright	45	Textfile containing copyright notice

References

1. *Read This First SunDiagnostic Executive, Version 1.2, 800-3288-10*
2. *SunDiagnostic Executive User's Guide for MC68020, MC68030, and SF90101U (SPARC) Based Systems, 800-3273-10.*

1.2 Diagnostic Executive

Sun-4

Table of Contents

NAME	FILE (DECIMAL)	DESCRIPTION
tpboot.sun4	0	Enables boot from tape
Copyright	1	Textfile containing copyright notice
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec4	5	Diag Exec for Sun-4 architecture
diags4	6	Diagnostic Menu and File names
cg6.4.exec	7	P4 Low-Eng Graphics Accelerator
cg8.4.exec	8	P4 24-Bit Frame Buffer Board Diagnostic
cg9.4.exec	9	VME 24-Bit Frame Buffer Board Diagnostic
color4.exec	10	Generic VME Color Board Diagnostic
cpcache4.exec	11	4300 CPU Cache Diagnostic
cpu4.exe	12	CPU Board Diagnostic
eeptool4.exec	13	EEPROM programming tool
ether4.exec	14	Ethernet Diagnostic
ether2.4.exec	15	2nd Ethernet Diagnostic
execetest4.exec	16	Exec Verification Suite
fddi4.exec	17	FDDI Board Diagnostic
fpu4.exec	18	Floating Point Unit Diagnostic
gp1.4.exec	19	Graphics Processor1/Graphics Buffer Diag
gp2.4.exec	20	Graphics Processor2 Diagnostic
hsi4.exec	21	High Speed Serial Board Diagnostic
ipi4.exec	22	IPI Disk Subsystem Diagnostic
kb4.exec	23	Sun Keyboard Diagnostic
mcp4.exec	24	Sun ALM2/MCP Board Diagnostic
mem4.exec	25	Sun Memory Diagnostic
mouse4.exec	26	Sun Mouse Diagnostic
mti4.exec	27	Sun MTI/ALM Board Diagnostic
scsisub4.exec	28	Sun SCSI Subsystem Diagnostic
espscsi.exec	29	4300 Extended SCSI Diagnostic
smd4.exec	30	Sun SMD Diagnostic
taac4.exec	31	TAAC-1 Diagnostic
tape4.exec	32	Pertec 1/2-inch Tape Diagnostic
video4.exec	33	Sun Video Circuit Diagnostic
vidmon4.exec	34	Sun Video Monitor Diagnostic
vme4.exec	35	Sun VME Diagnostic
netcon4	36	Network Console Program
logfile	37	Error Log File
eccmem4.diag	38 (0x27)	Standalone ECC Memory Diagnostic
cache4.diag	39 (0x28)	Standalone Cache Memory Diagnostic
Copyright	40	Textfile containing copyright notice

1.2 Diagnostic Executive Sun-4S

SPARCsystems 300/400

Table of Contents

NAME	FILE (DECIMAL)	DESCRIPTION
tpboot.sun4	0	Enables boot from tape
Copyright	1	Textfile containing copyright notice
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec4	5	Diag Exec for Sun-4s architecture
diags4	6	Diagnostic Menu and File names
cpu4.exe	7	CPU Board Diagnostic
mem4.exec	8	Memory Diagnostic
cpcache4_300.exec	9	4300 Cache Diagnostic
cpcache4_400.exec	10	4400 Cache Diagnostic
iocache4.exec	11	4400 I/O Cache Diagnostic
video4.exec	12	Video Circuit Diagnostic
kb4.exec	13	Keyboard Diagnostic
mouse4.exec	14	Mouse Diagnostic
cg6.4exec	15	P4 Low-Eng Graphics Accelerator
cg8.4.exec	16	P4 24-Bit Frame Buffer Board Diagnostic
cg9.4.exec	17	VME 24-Bit Frame Buffer Board Diagnostic
color4.exec	18	Generic VME Color Board Diagnostic
eeptool4.exec	19	EEPROM programming tool
espscsi.exec	20	4300 CPU Extended SCSI Diagnostic
ether2.4.exec	21	Ethernet II Board Diagnostic
ether4.exec	22	Sun Ethernet Diagnostic
execetest4.exec	23	Exec Verification Suite
fdi4.exec	24	FDDI Board Diagnostic
fpu4.exec	25	Floating Point Diagnostic
gpl.4.exec	26	Graphics Processor1/Graphics Buffer Diag
gp2.4.exec	27	Graphics Processor2 Diagnostic
hsi4.exec	28	High Speed Serial Board Diagnostic
ipi4.exec	29	IPI Disk Subsystem Diagnostic
mcp4.exec	30	Sun ALM2/MCP Board Diagnostic
mti4.exec	31	Sun MTI/ALM Board Diagnostic
scsisub4.exec	32	Sun SCSI Subsystem Diagnostic
smd4.exec	33	Sun SMD Diagnostic
taac4.exec	34	TAAC Diagnostic
tape4.exec	35	Tape Diagnostic
vme4.exec	36	VME Diagnostic
netcon4	37	NETCON
logfile	38	LOGFILE
eccmem4.diag	39	ECC Memory Diagnostic
cache4.diag	40	Cache Diagnostic
Copyright	41	Textfile containing copyright notice

Reference

SPARCsystems 300/400 Series SunDiagnostic Executive User's Guide Addenda, 800-3493-10.

1.2 Diagnostic Executive Sun-4c

Table of Contents

NAME	FILE (DECIMAL)	DESCRIPTION
tpboot.sun4c	0	Enables boot from tape
Copyright	1	Textfile containing copyright notice
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec4c	5	Diag Exec for Sun-4c architecture
diags4c	6	Diagnostic Menu and File names
cache4c.exec	7	Cache Memory Diagnostic
cpu4c.exec	8	CPU Board Diagnostic
ether4c.exec	9	Ethernet II Board Diagnostic
fdc4c.exec	10	Floating Point Unit Diagnostic
fpu4c.exec	11	Floating Point Unit Diagnostic
kbm4c.exec	12	Keyboard Diagnostic
mem4c.exec	13	Memory Diagnostic
scsi4c.exec	14	SCSI Subsystem Diagnostic
cg6.4c.exec	15	CG6 Diagnostic
video4c.exec	16	Video Diagnostic

Note

The 1.2 Diag Exec supports the Sun-4/60.

Reference

SunDiagnostic Executive 1.2C User's Guide for the SPARCstation 1, 800-3414-10.

1.3 Diagnostic Executive Sun-4c

Table of Contents

NAME	FILE (DECIMAL)	DESCRIPTION
tpboot.sun4c	0	Enables boot from tape
Copyright	1	Textfile containing copyright notice
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec4c	5	Diag Exec for Sun-4c architecture
diags4c	6	Diagnostic Menu and File names
cache4c.exec	7	Cache Memory Diagnostic
cpu4c.exec	8	CPU Board Diagnostic
ether4c.exec	9	Ethernet II Board Diagnostic
fdc4c.exec	10	Floating Point Unit Diagnostic
fpu4c.exec	11	Floating Point Unit Diagnostic
kbm4c.exec	12	Keyboard Diagnostic
mem4c.exec	13	Memory Diagnostic
scsi4c.exec	14	SCSI Subsystem Diagnostic
cg6.4c.exec	15	CG6 Diagnostic
video4c.exec	16	Video Diagnostic
n/a	18	TAR image of executables
n/a	19	TAR image of Development Platform
Copyright	20	Textfile containing copyright notice

Note

The 1.3 Diag Exec supports the Sun-4/20, Sun-4/40, Sun-4/60, and Sun-4/65.

Reference

SunDiagnostic Executive 1.3 User's Guide for SPARCstations,
800-5314-10.

1.4 Diagnostic Executive Sun-4c

Table of Contents

NAME	FILE (DECIMAL)	DESCRIPTION
exec4c	0	exec4c for OBP2
tpboot.sun4c	1	Enables boot from tape
toc	2	Contains list of contents of tape
extract_exec	3	Script to copy diagnostics to disk
Copyright	4	Textfile containing copyright notice
exec4c	5	Diag Exec for Sun-4c architecture
diags4c	6	Diagnostic Menu and File names
cache4c.exec	7	Cache Memory Diagnostic
cpu4c.exec	8	CPU Board Diagnostic
ether4c.exec	9	Ethernet II Board Diagnostic
fdc4c.exec	10	Floating Point Unit Diagnostic
fpu4c.exec	11	Floating Point Unit Diagnostic
kbm4c.exec	12	Keyboard Diagnostic
mem4c.exec	13	Memory Diagnostic
scsi4c.exec	14	SCSI Subsystem Diagnostic
cg6.4c.exec	15	CG6 Diagnostic
video4c.exec	16	Video Diagnostic
spif4c.exec	17	Serial Parallel Controller Diagnostic
zebra4c.exec	18	SPARCprinter Board Diagnostic
cg12.4c.exec	19	CG12 Video Diagnostic
snapshot4c.exec	20	Video Frame Capture Diagnostic
n/a	21	TAR image of executables
n/a	22	TAR image of Development Platform
Copyright	23	Textfile containing copyright notice

Note

The 1.4 Diag Exec supports the Sun-4/20, Sun-4/40, Sun-4/60, Sun-4/65, and Sun-4/75.

Loopback Connectors

RS-232/RS-423

PART #	SYSTEM BOARDS	CONNECT PINS
540-1281-01	CPU,SCSI,SCP,ALM	2-3 4-5 6-20
540-1558-01	CPU, SCSI, ALM, ALM-2 SCP, MCP, SBus SPC	2-3 4-5 6-8-20 17-24

RS-449

PART #	SYSTEM BOARDS	CONNECT PINS
540-1559-01	MCP,SCP	4-6 22-24 7-9 25-27 11-12-13 29-30-31 17-8 35-26
540-1309-01	SCP	4-6 7-9 11-12 17-8 22-24 25-27 29-30 35-26

Parallel Port

PART #	SYSTEM BOARDS	CONNECT PINS
540-1560-01	ALM-2	1-10 12-2-4-6-8 13-3-5-7-9
501-1196-01	IPC, Sun386i/150/250	5-15 6-13 7-12 8-10 9-11

Loopback Connectors – Continued

SCSI Connector Type DD-50SA

PART #	SYSTEM BOARDS	CONNECT PINS
501-1344-01	Sun-3/50, Sun-3/60 Sun386i/150/250	38-16
		36-14
		44-12
		32-10
		48-8
		42-6
		46-4
		50-2
		40-18

Sun386i Serial Port A

PART #	SYSTEM BOARDS	CONNECT PINS
501-1343-01	Sun386i/150/250	2-3
		4-5
		6-7

Sun386i Color Frame Buffer Keyboard/Mouse

PART #	SYSTEM BOARDS	CONNECT PINS
501-1341-01	Sun386i/150/250	1-8
		2-3

Sun386i Monochrome Frame Buffer Keyboard/Mouse

PART #	SYSTEM BOARDS	CONNECT PINS
501-1342-01	Sun386i/150/250	1-8
		2-3

Loopback Connectors – Continued

SBus Printer Board

PART #	DESCRIPTION
530-1683-01	Parallel Port to Video Port Loopback Cable
530-1694-01	Video Port Loopback Test Plug

SBus High Speed Serial Interface (HSI/S)

PART #	DESCRIPTION
370-1381-01	96-Pin High-Density Loopback Connector
370-1383-01	RS-530 Loopback Test Plug

SBus Serial Parallel Controller (SPC)

PART #	DESCRIPTION
540-1701-01	96-Pin High-Density Loopback Connector
540-1558-01	RS-232/RS-423 Loopback Test Plug