

Illustrated Parts Catalog

HMM-116-D

CRAY J90 Series Systems

Last Modified: September 1997

Introduction	3
Record of Revision	4
Panels and Hinges	5
Pod	6
 CRAY J916 Mainframe Cabinet	 7
Central Control Unit	8
Input Air Filter	9
CPU Card Cage	10
Front-end Power Chassis	11
Backplane	12
Processor Module	13
Memory Module	14
AC Power Entry Chassis	15
Blower Assembly	16
 CRAY J932 Mainframe Cabinet	 17
Central Control Unit	18
Input Air Filter	19
CPU Card Cage	20
Clock Module	21
Processor Module	22
Memory Module	23
Front-end Power Chassis	24
Blower Assembly	25
AC Power Entry Chassis	26

Peripheral Cabinet	27
DR-5I Removable Disk Drive Chassis	28
TD-3 Tape Drive	29
VME Unit Assembly	30
VME Drawer	31
DS-3 Tape Drive	32
Ethernet Transceiver	33
VME Boards	34
SCSI Adapter Boards	37
VME Backplane Terminators and Jumper	38
FDDI Module	39
VME Power Supply	40
VME Chassis Bulkhead	41
PE-10S Drawer	42
PE-30S Drawer	43
PE-10I Drawer	44
Power Rail Assembly	45
I/O AC Power Entry Chassis	46
Bulkhead	47
System Support	49
SPARCstation 5 Workstation	50
Remote Support	51
NetBlazer Kit – Optional	52

Introduction

The CRAY J90™ series of computer systems may be serviced by properly trained Cray Research, Inc. service personnel, customer service personnel, or third-party maintainers. The purpose of this illustrated parts catalog is to assist service personnel in identifying the part numbers of parts they need to replace.

This catalog describes the major components, or field-replaceable units, of the CRAY J90 series systems. The *CRAY J90 Series Field Repair Procedures*, Cray Research publication number HMM-079-B, describes these components and their removal and replacement procedures. You can access the CRAY J90 Series Spares Support Plan, which lists the hardware maintenance tools and miscellaneous supplies and their part numbers, on the Worldwide Web at the following URL: <http://spo.cray.com/crispares.html>. You can also access the Spares Support Plan on hydra at /home/hydra/spe/spares; the filename is j90. Two software versions are available: FrameMaker® and PostScript®.

The parts ordering system at Cray Research ensures shipment of the most up-to-date parts. When you order parts using the part numbers in this catalog, you can be assured that you will receive the latest versions of the parts even if the part numbers have changed.

Record of Revision

May 1995

Original printing.

Revision A: September 1995

The CRAY J932™ system mainframe parts were added. Part numbers were updated for the CRAY J916™ system mainframe cabinet, the peripheral cabinet, and system support sections.

Revision B: December 1995

Updated the front-end power chassis 10-A fuse part number, Y1 cable part numbers, SI-3 PC board (DC6S) part number, VME power supply part number, and added a 10-A fuse to the VME chassis bulkhead. For the CRAY J916 system mainframe cabinet, this revision corrects the CPU module assembly part number and adds the non-HIPPI part number. For the VME boards, this revision adds another SPARC® based CPU part number.

Revision C: June 1996

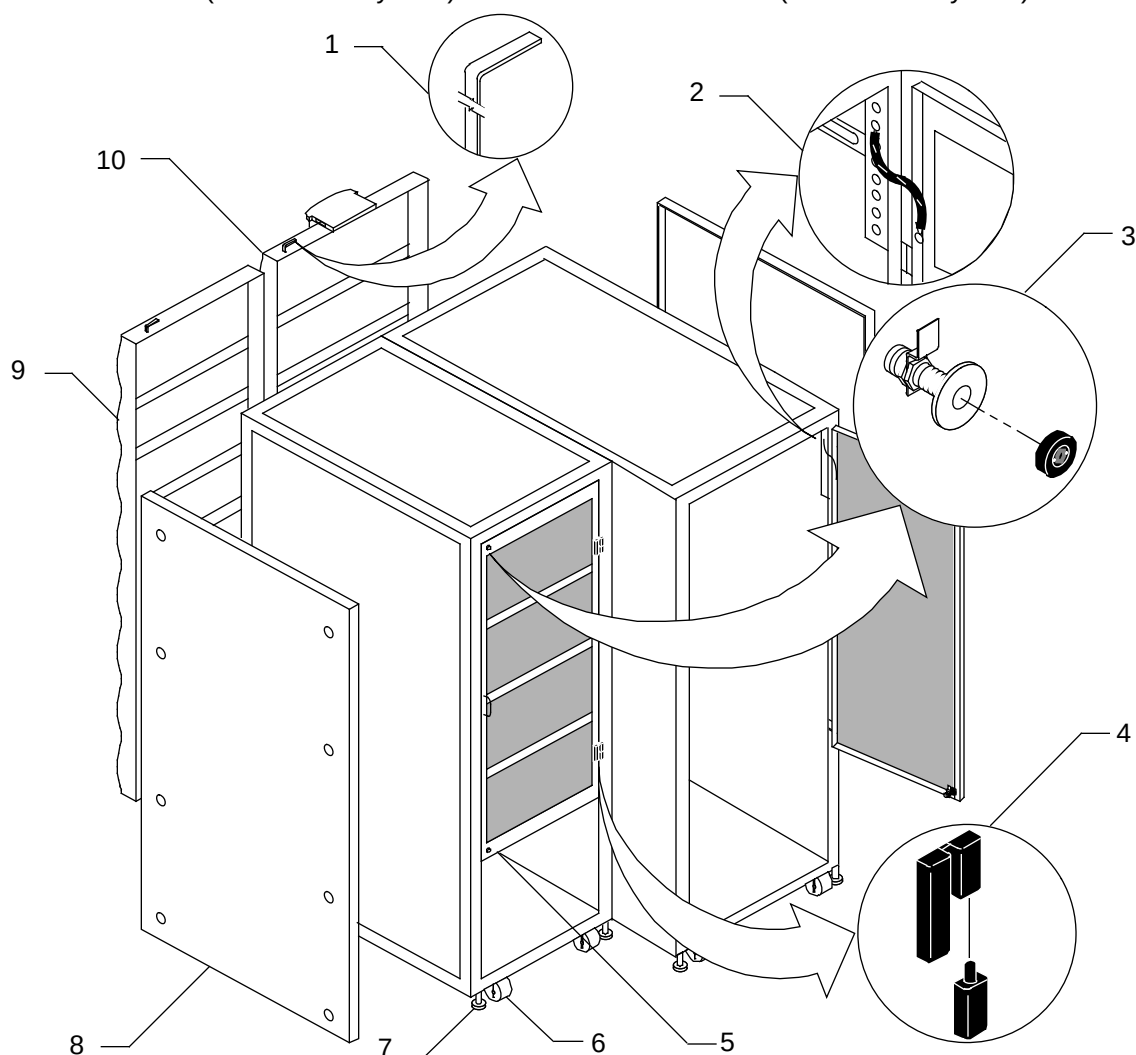
Updated part numbers for item 6, casters for the CRAY J916 system and the CRAY J932 system. Updated the part number for item 13, central control unit, for the CRAY J916 system.

Revision D: September 1997

Added items 107 through 111: the FORCE™ board, and ATM boards and cables. Added item 113, FORCE SCSI adapter. Updated part numbers for the following item numbers: 13, 33, 38, 46, 56, 57, 62, 99, 105, 137, 148, and 159.

Panels and Hinges

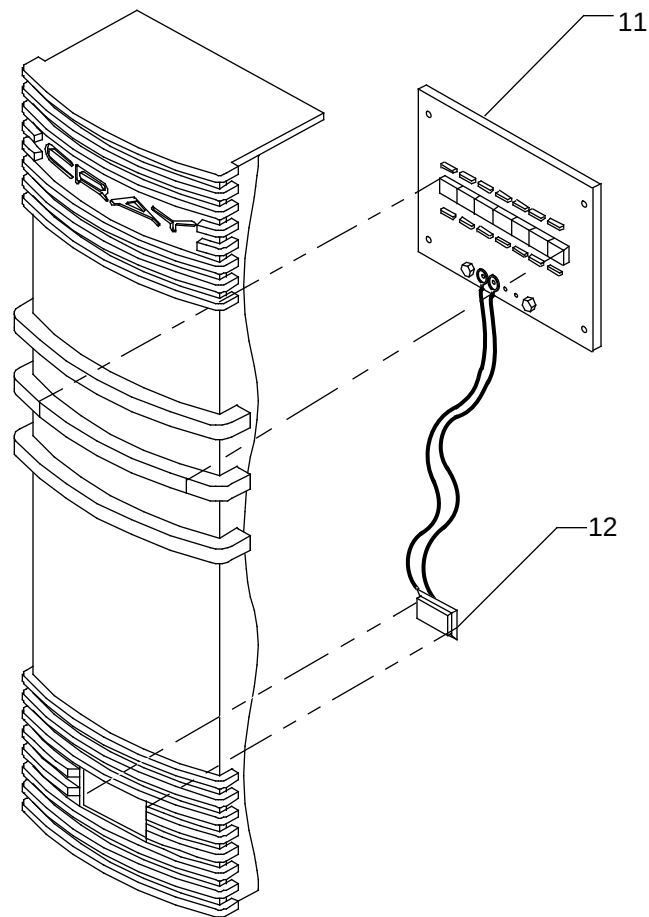
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
1	90347200	Bar Latch	7	90377600	Leveler
2	90395100	Cable Assembly Ground	8	90371000	Side Panel (CRAY J916 System)
3	90365700	Latch		90438800	Side Panel (CRAY J932 System)
4	90346901	Offset Lift-off Hinge (right side)	9	90385400	Front Panel, I/O Cabinet (CRAY J916 System)
5	90364700	Rear Trim Panel Assembly		90348100	Front Panel, I/O Cabinet (CRAY J932 System)
6	90399600	Caster (CRAY J916 System and I/O Cabinet)	10	90385400	Front Panel, Processor Cabinet (CRAY J916 System)
	90377500	Caster (CRAY J932 System)		90416800	Front Panel, Processor Cabinet (CRAY J932 System)



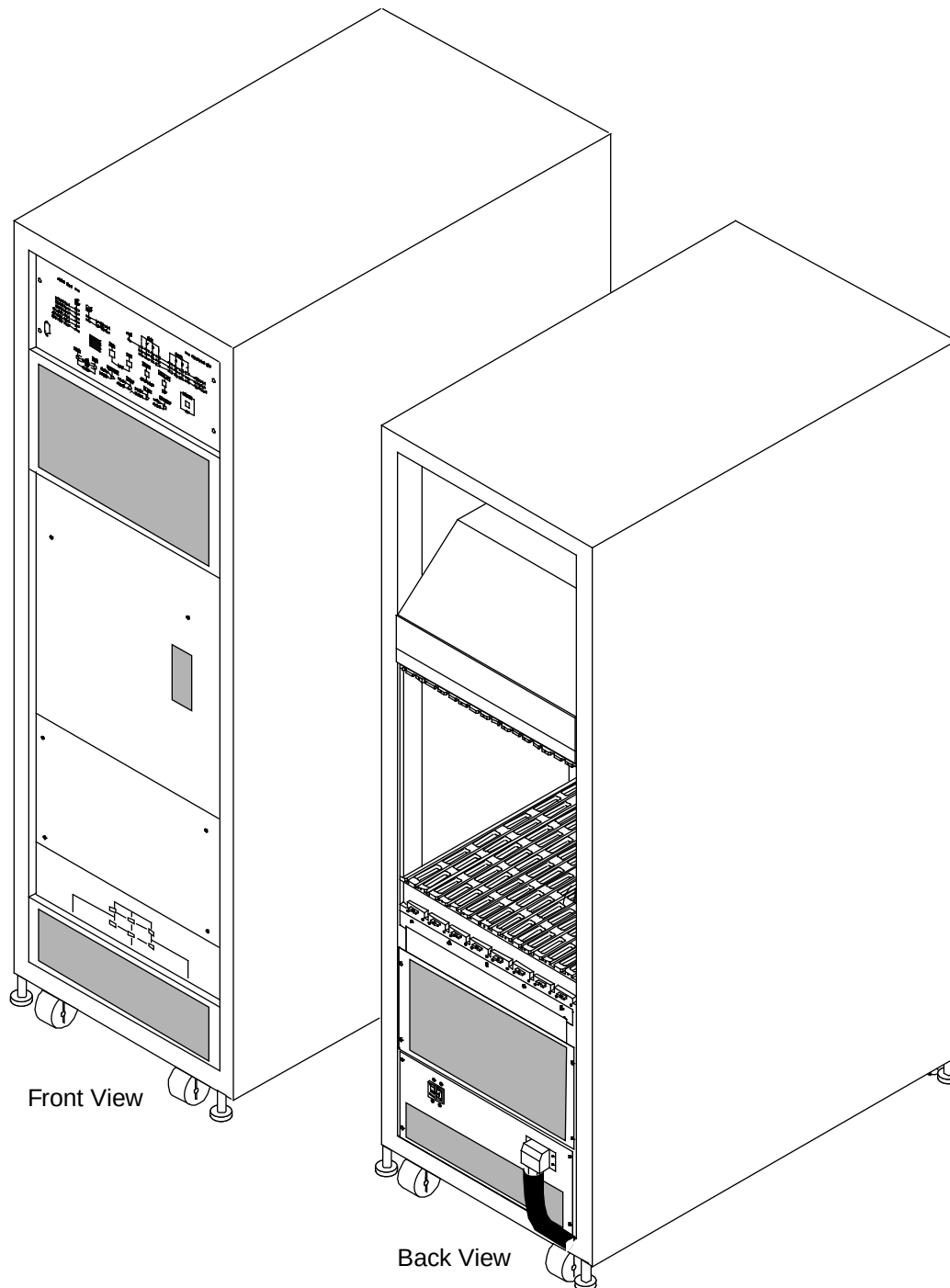
Pod

Ref.

No.	Part Number	Description
11	90391100	PCB Assembly, LED
12	90441500	System Off Switch Assembly (CRAY J916 System)
	90386401	System Off Switch Assembly (CRAY J932 System)



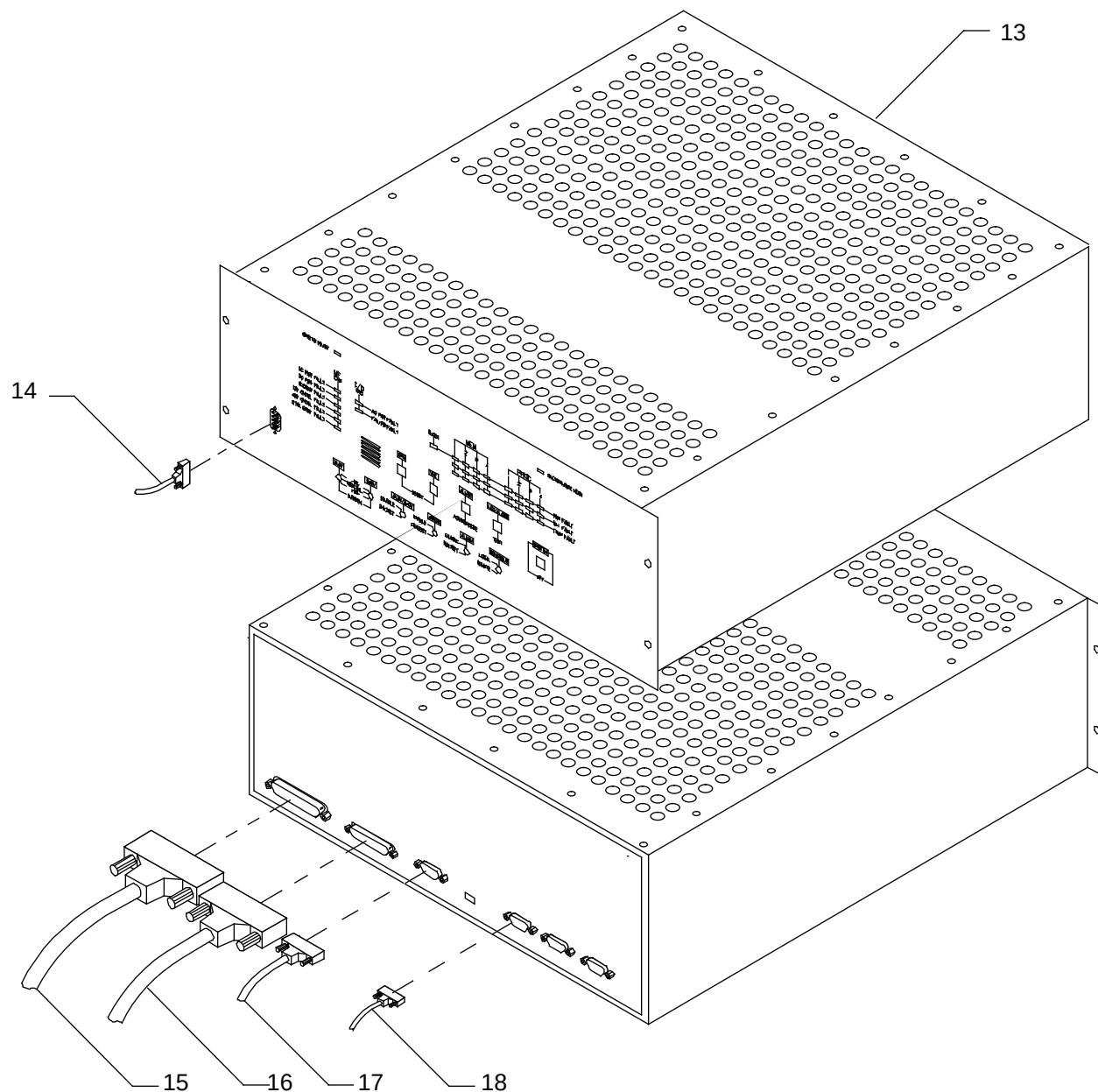
CRAY J916 Mainframe Cabinet



NOTE: When you order parts using the parts number in this catalog, you can be assured that you will receive the latest versions of the parts even if the part numbers have changed.

Central Control Unit

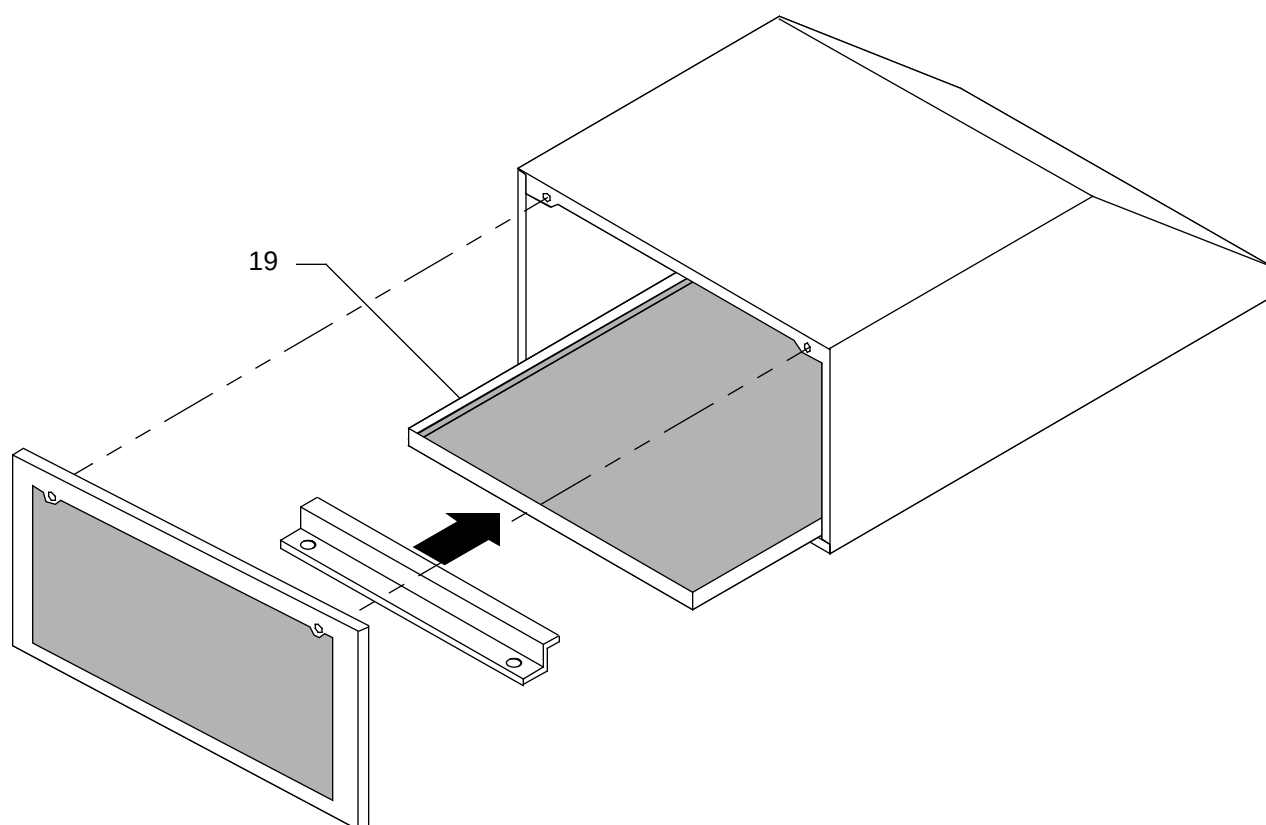
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
13	90472400	Central Control Unit	17	90350300	CCU to AC Power Entry Sense Cable
14	90386400	CCU to Pod Cable	18	90350600	Alarm Cable
15	90350000	CCU to Card Cage Backplane Sense Cable			
16	90350200	CCU to Front-end Power Sense Cable			



Input Air Filter

Ref.

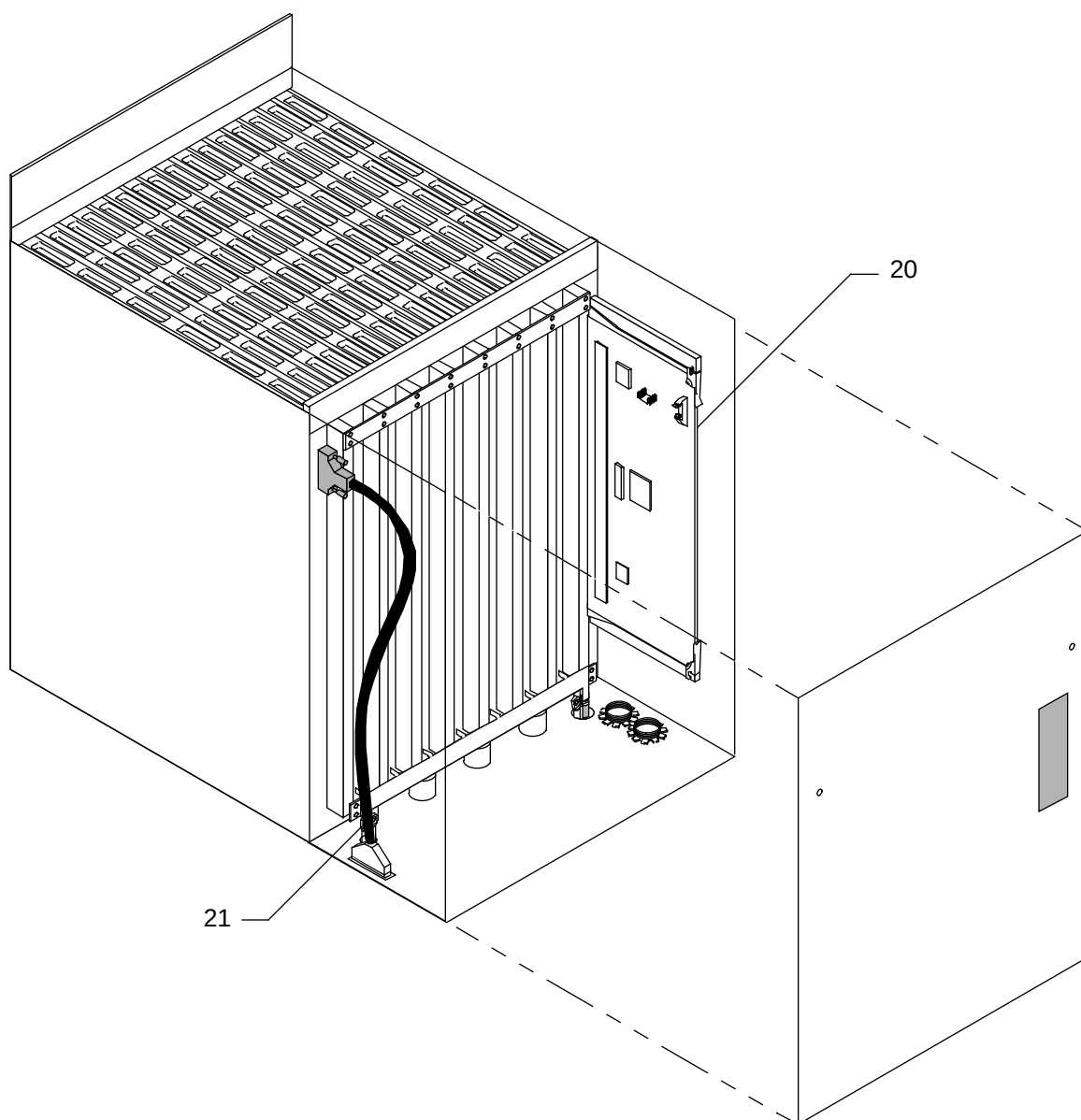
No.	Part Number	Description
19	90312400	Input Air Filter



CPU Card Cage

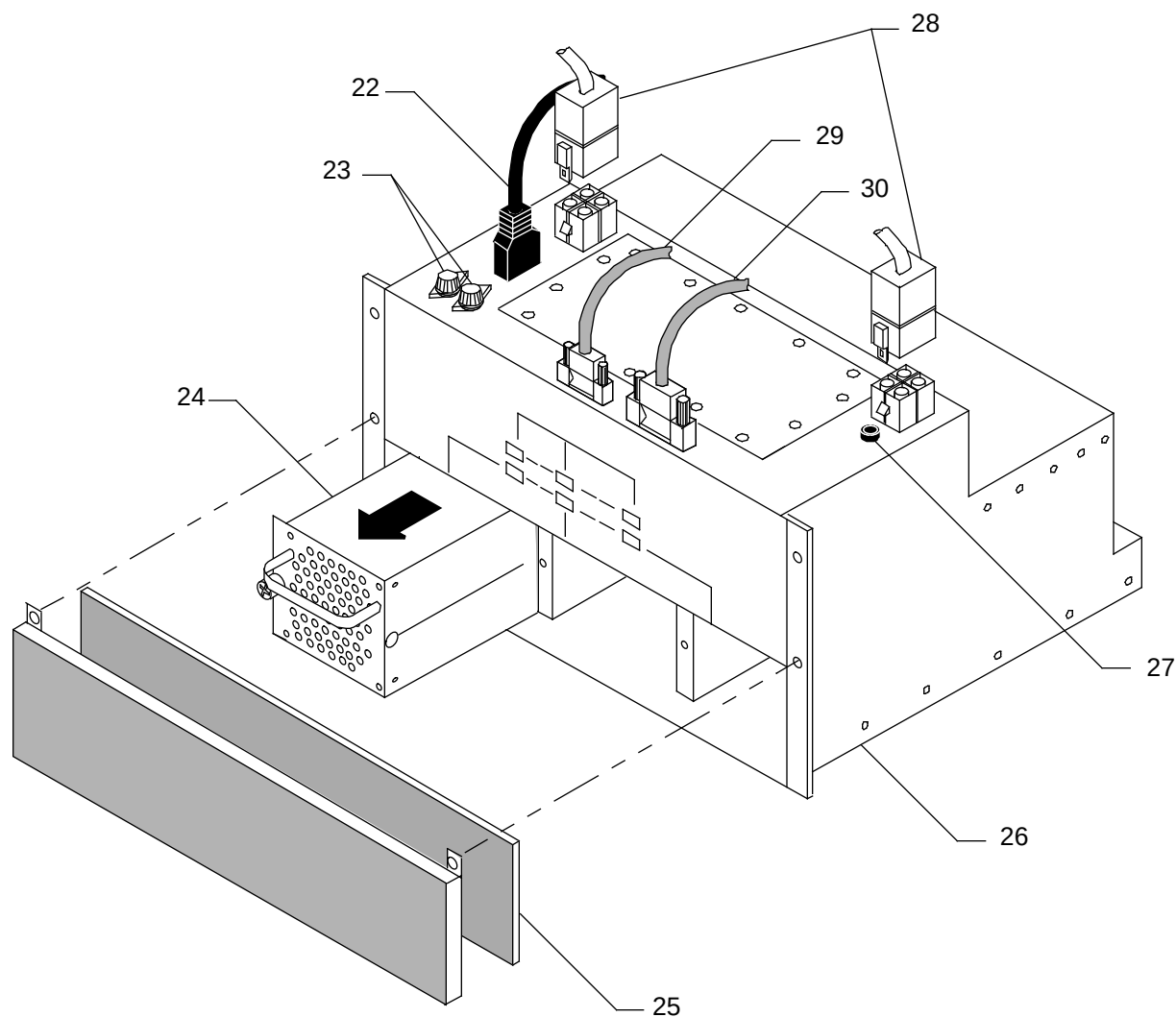
Ref.

No.	Part Number	Description
20	90278602	Clock Module
21	90350101	Sense Cable



Front-end Power Chassis

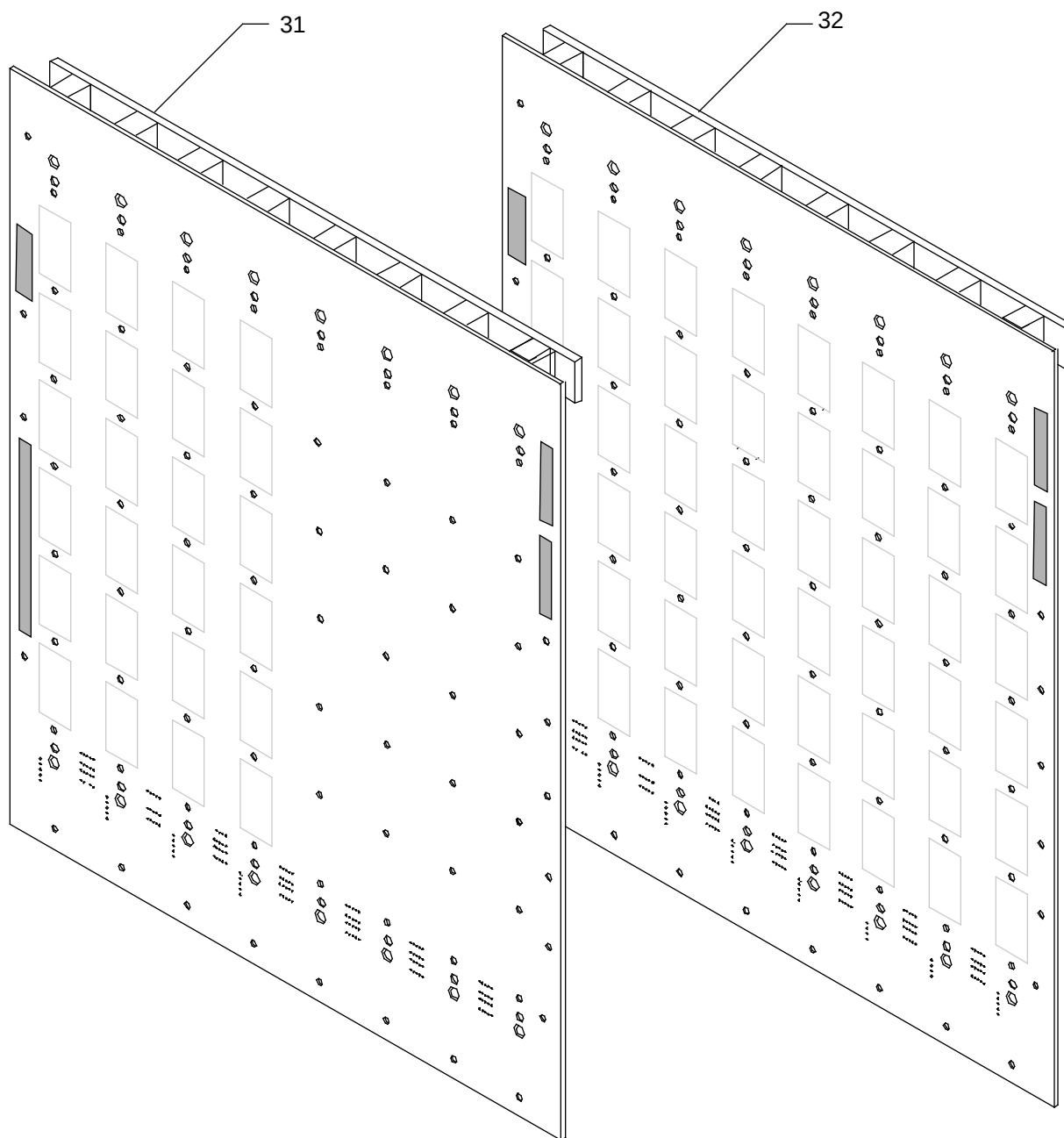
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
22	90307101	Power Cord, 1 m	28	90360500	Front-end to CPU Backplane Cable, 48 V
23	90459600	Fuse, 10 A	29	90350400	Front-end Power Chassis to Blower Assembly Sense Cable
24	90327900	220 Vac/48 Vdc Power Supply	30	90350200	CCU to Front-end Power Sense Cable
25	90365200	Power Supply Air Filter			
26	90375700	Front-end Power Chassis			
27	01134006	Fuse, 1/2 A			



Backplane

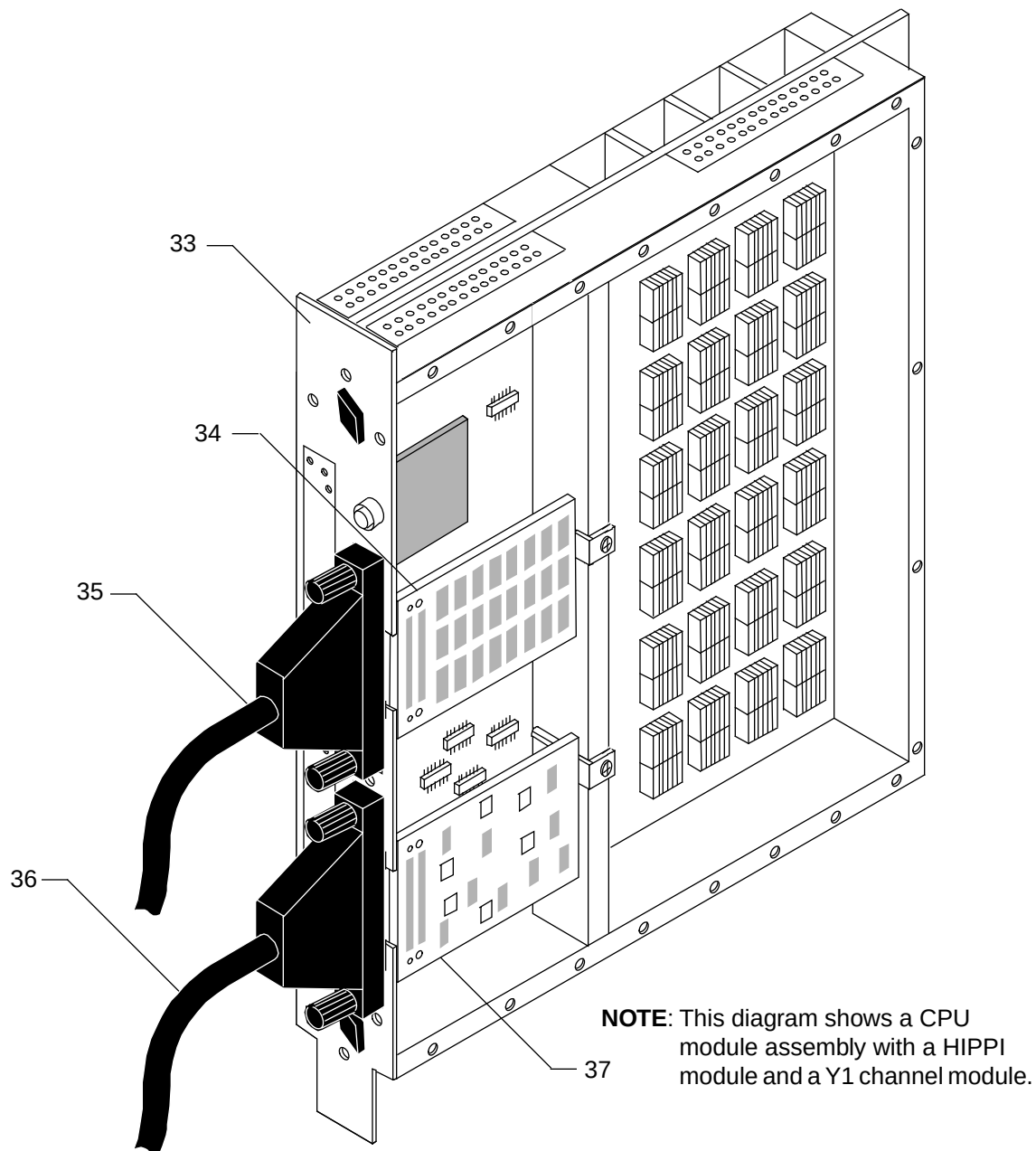
Ref.**No. Part Number Description**

31	90445000	2 x 2 Backplane Replacement Kit
32	90445200	4 x 4 Backplane Replacement Kit



Processor Module

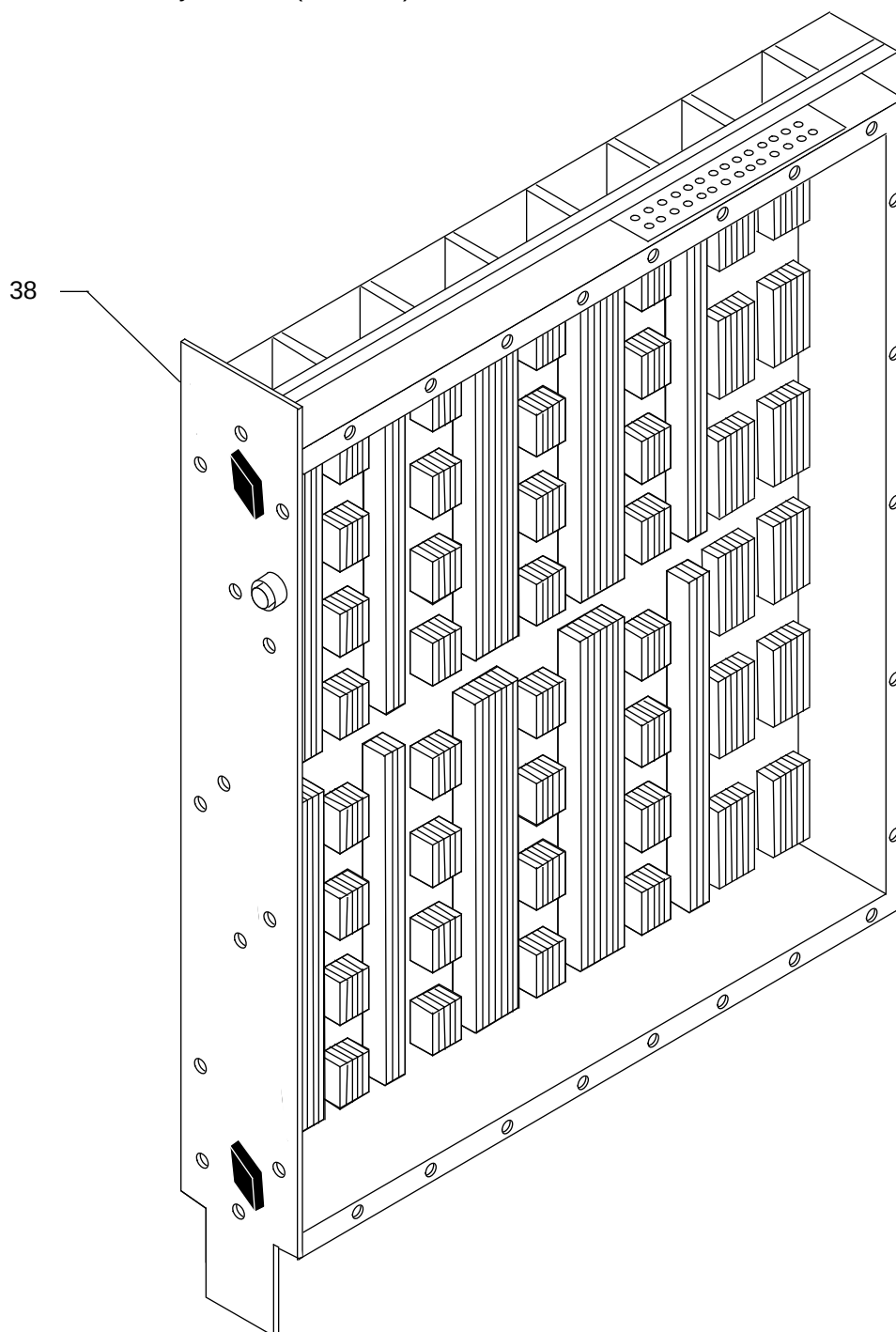
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
33	90380006	CPU Module Assembly (HIPPI)	35	90390900	HIPPI CPU Cable, TA
	90380000	CPU Module Assembly (Non-HIPPI)		90390901	HIPPI CPU Cable, RA
34	90287500	HIPPI Source (TA) Module	36	90457200	Y1 Cable, 20 ft
	90288000	HIPPI Destination (RA) Module	37	90288400	Y1 Channel Module Assembly



Memory Module

Ref.	Part Number	Description
------	-------------	-------------

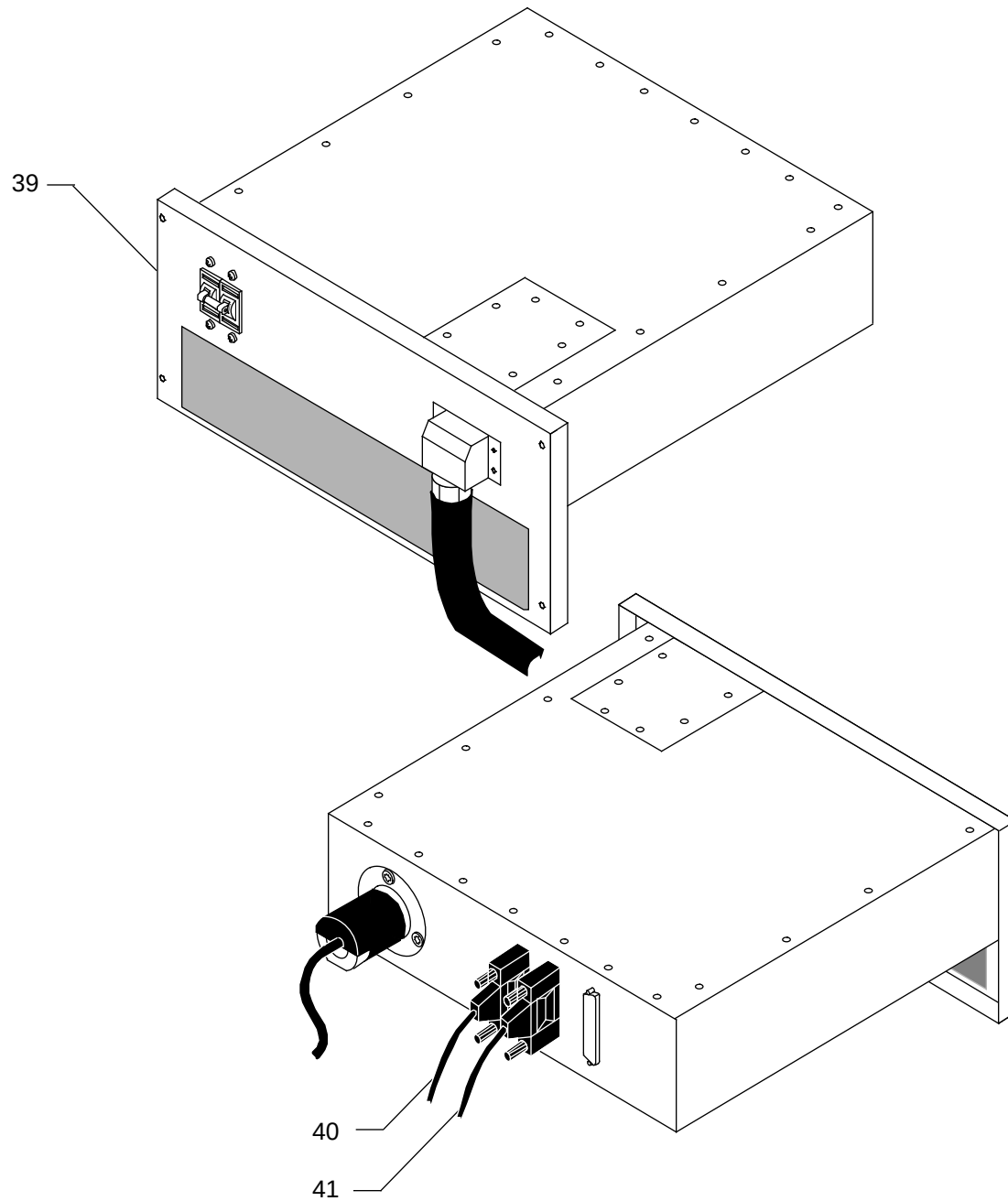
38	90373002	Memory Module, (MEM16)
	90380502	Memory Module, (MEM32)
	90373202	Memory Module, (MEM64)
	90373102	Memory Module, (MEM128)



AC Power Entry Chassis

Ref.**No. Part Number Description**

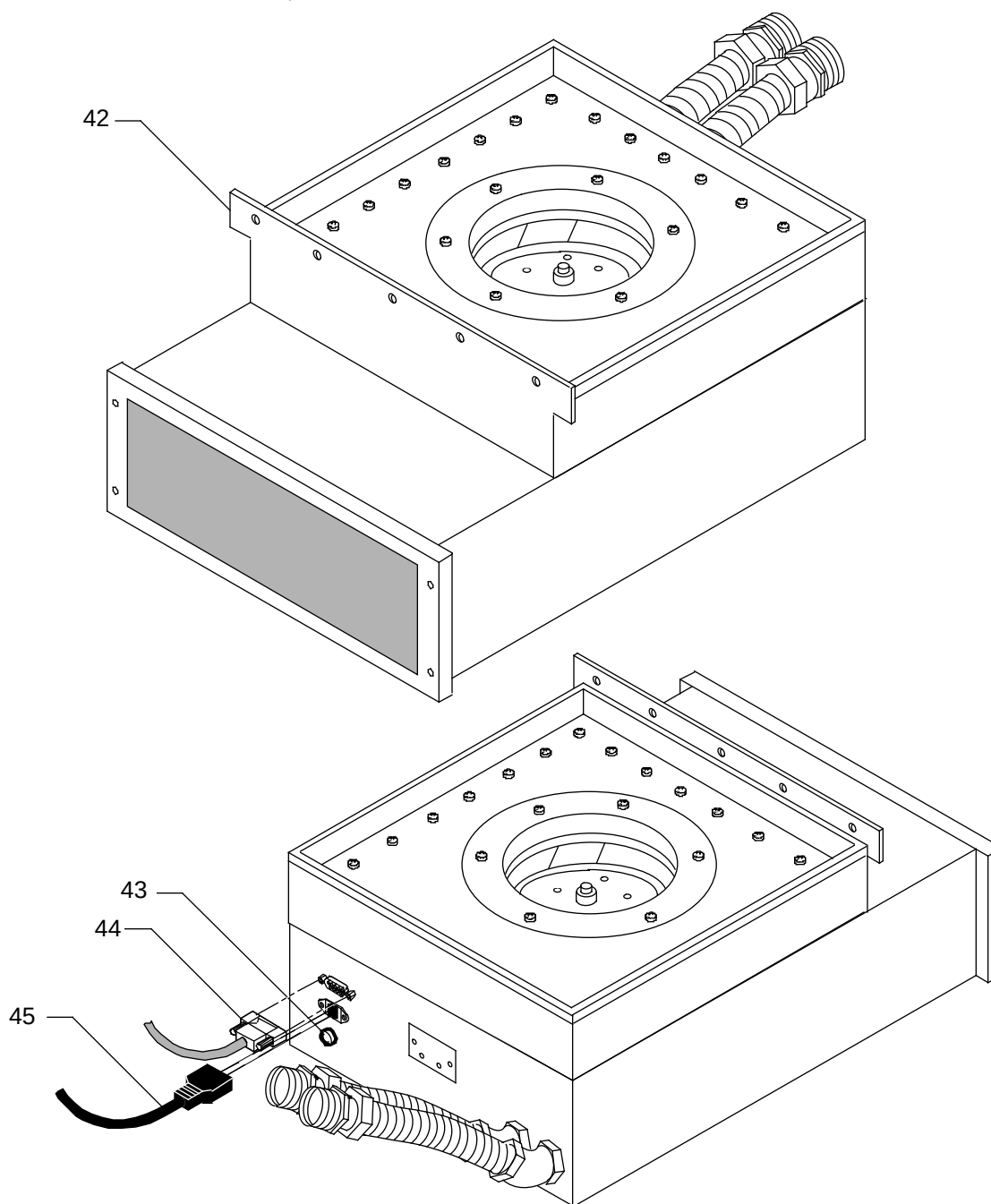
39	90358501	AC Power Entry Chassis Assembly
40	90350301	AC Power Entry to I/O AC Power Entry Sense Cable
41	90350300	CCU to AC Power Entry Sense Cable



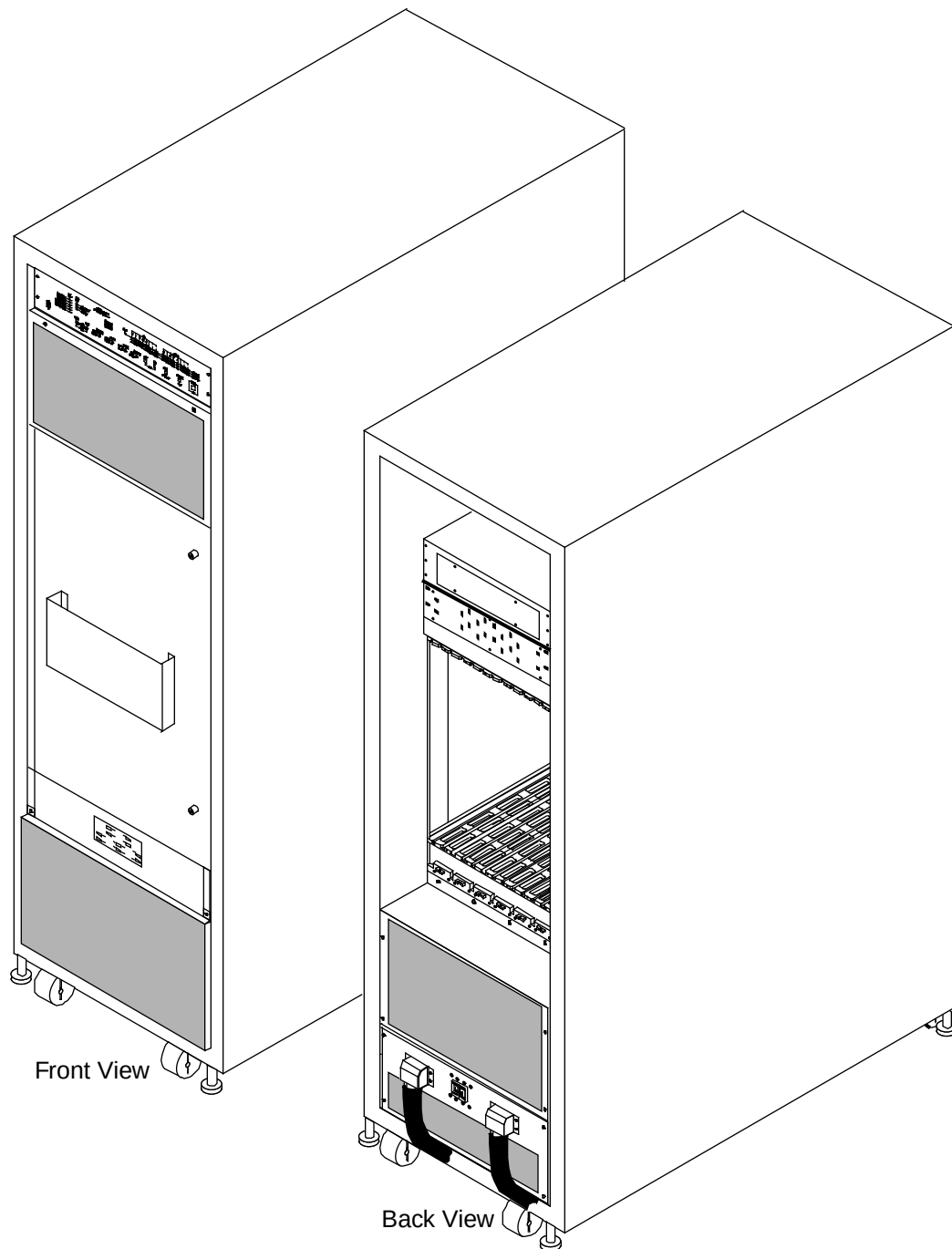
Blower Assembly

Ref.

No.	Part Number	Description
42	90361300	Blower Assembly
43	90311701	Fuse, 7 A
44	90350400	Front-end Power Chassis to Blower Assembly Sense Cable
45	90307101	Power Cord, 1 m



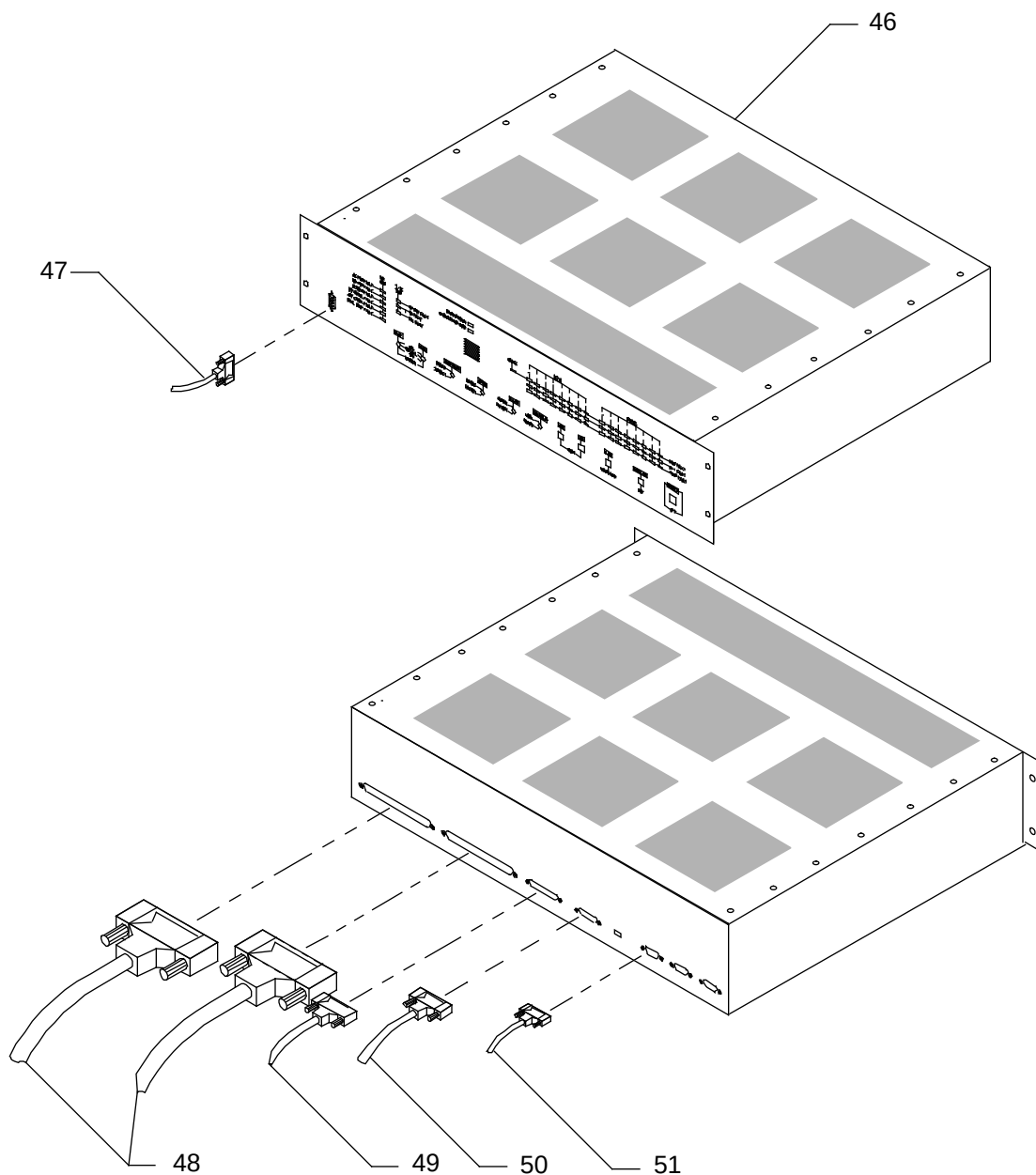
CRAY J932 Mainframe Cabinet



NOTE: *When you order parts using the parts number in this catalog, you can be assured that you will receive the latest versions of the parts even if the part numbers have changed.*

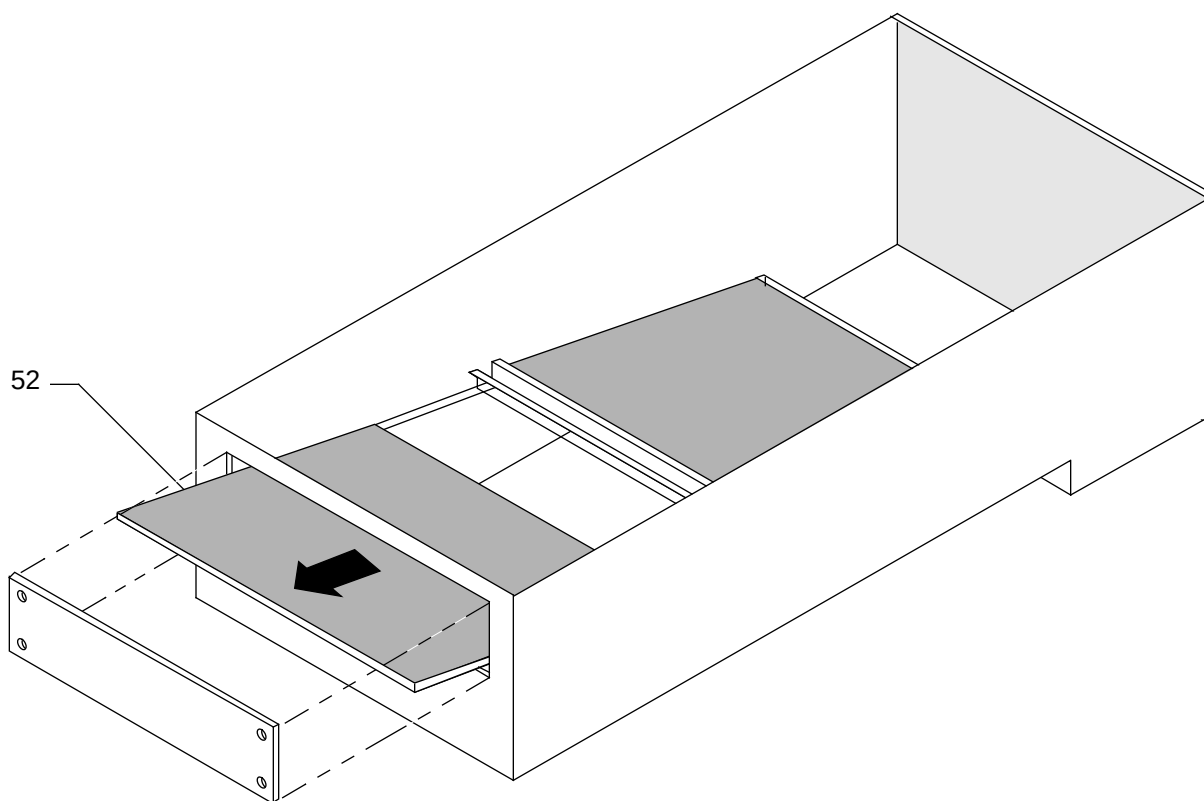
Central Control Unit

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
46	90473600	Central Control Unit	50	90350300	CCU to AC Power Entry Sense Cable
47	90386400	CCU to Pod Cable	51	90350600	Alarm Cable
48	90350000	CCU to Card Cage Midplane Sense Cable			
49	90350200	CCU to Front-end Power Sense Cable			



Input Air Filter

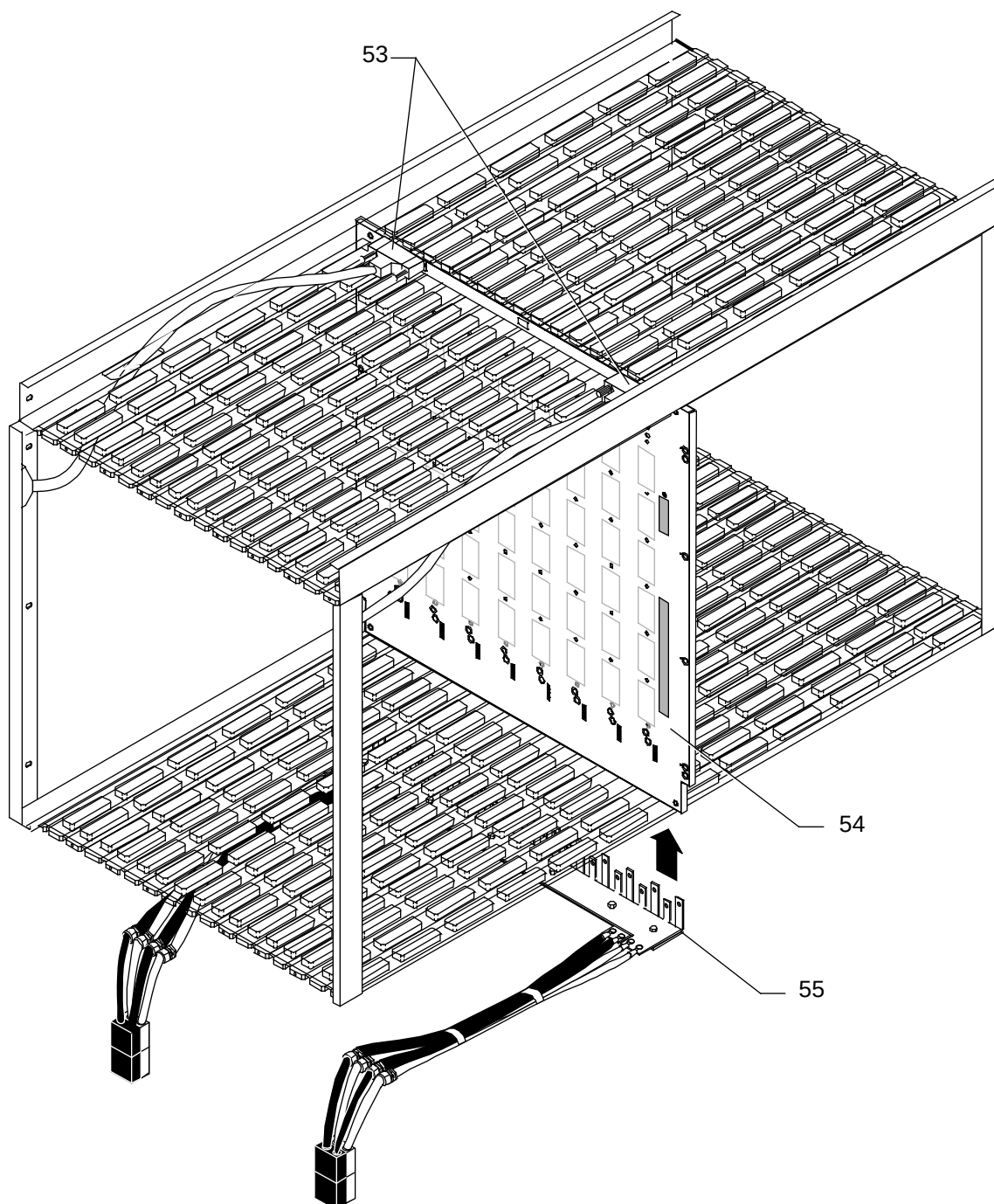
Ref. No.	Part Number	Description
52	90312400	Input Air Filter



CPU Card Cage

Ref.

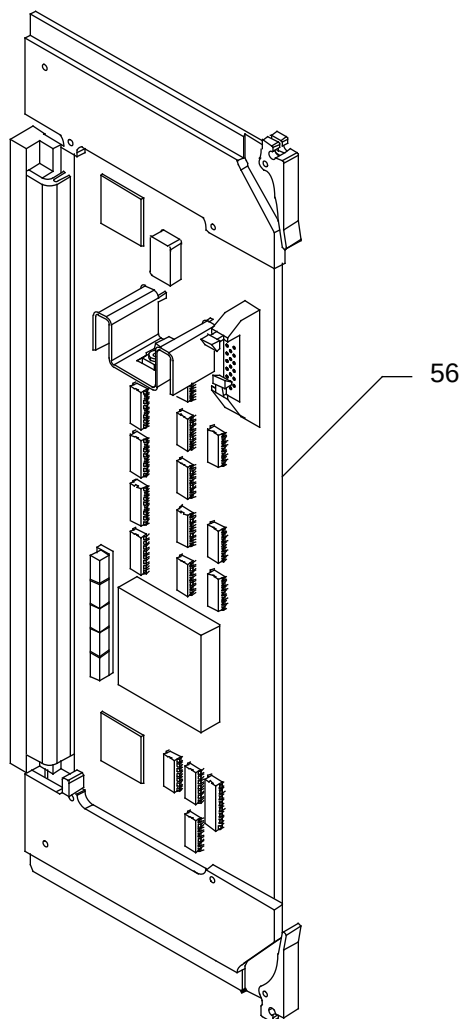
No.	Part Number	Description
53	90350101	Sense Cables
54	90400700	8 x 8 Midplane Module Assembly
55	90430000	48 Vdc Midplane Bus Assembly



Clock Module

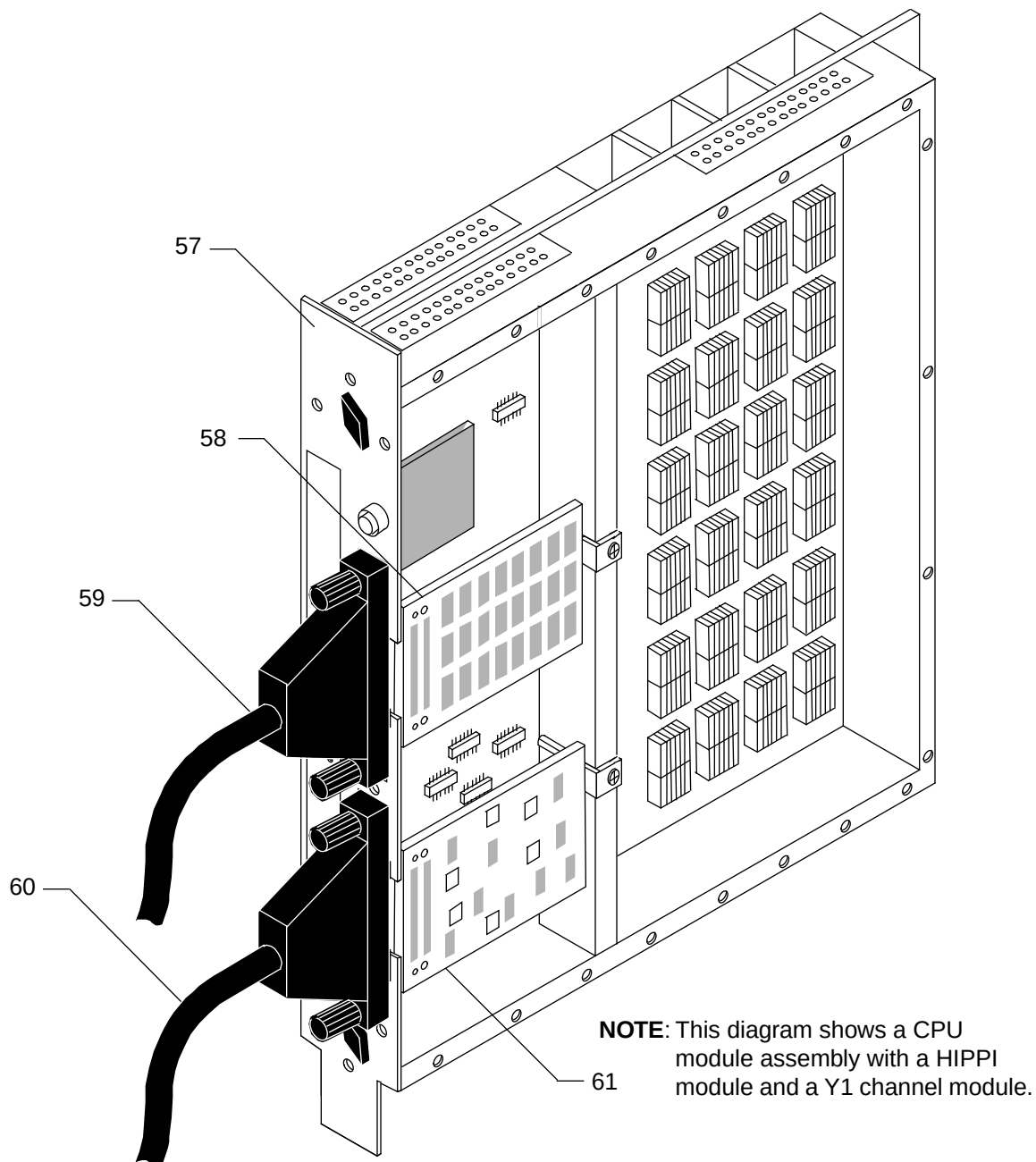
Ref.**No. Part Number Description**

56 90479900 Clock Module



Processor Module

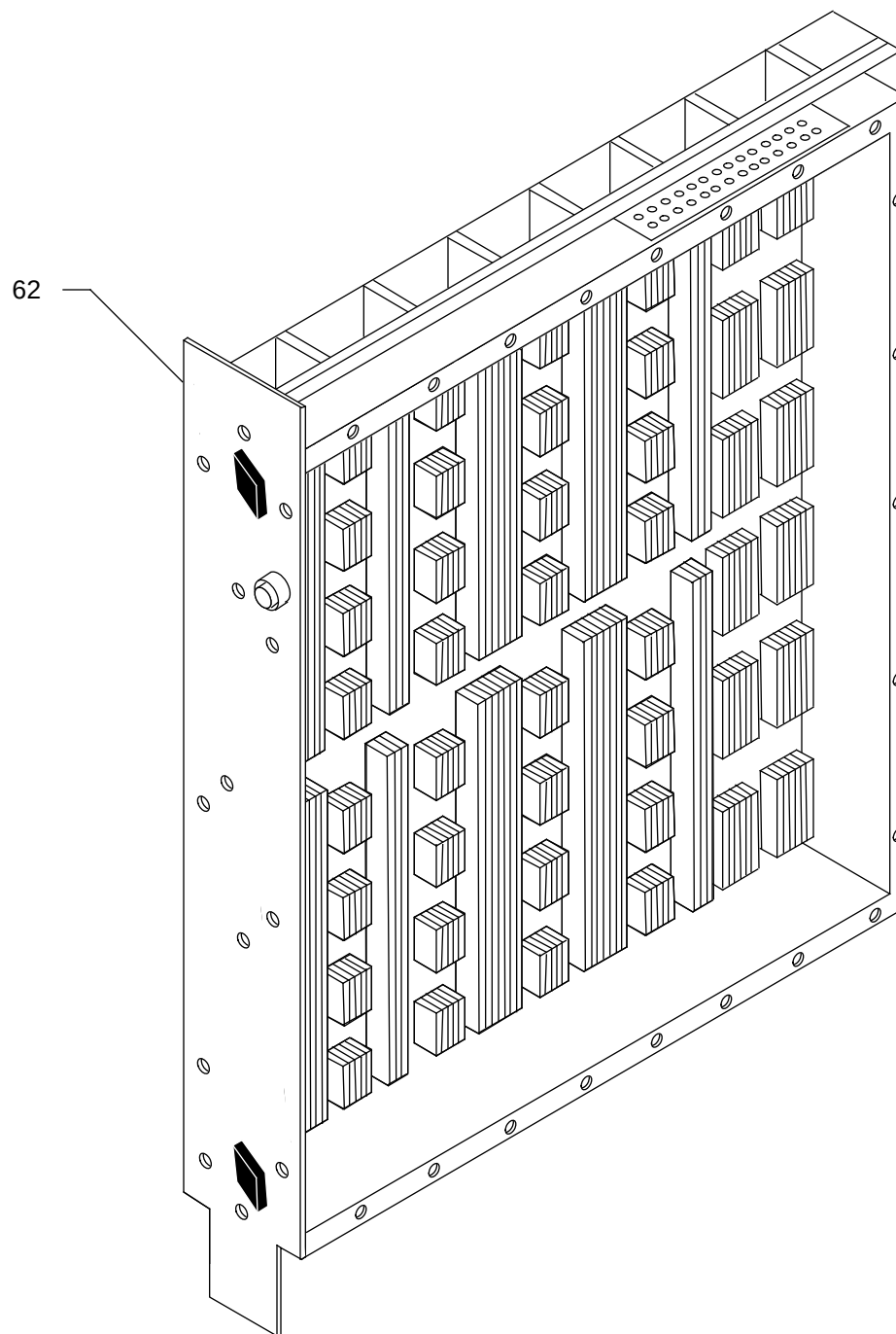
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
57	90380016	CPU Module Assembly	60	90457200	Y1 Cable, 20 ft
58	90287500	HIPPI Source (TA) Module	61	90288400	Y1 Channel Module Assembly
	90288000	HIPPI Destination (RA) Module			
59	90390900	HIPPI CPU Cable, TA			
	90390901	HIPPI CPU Cable, RA			



Memory Module

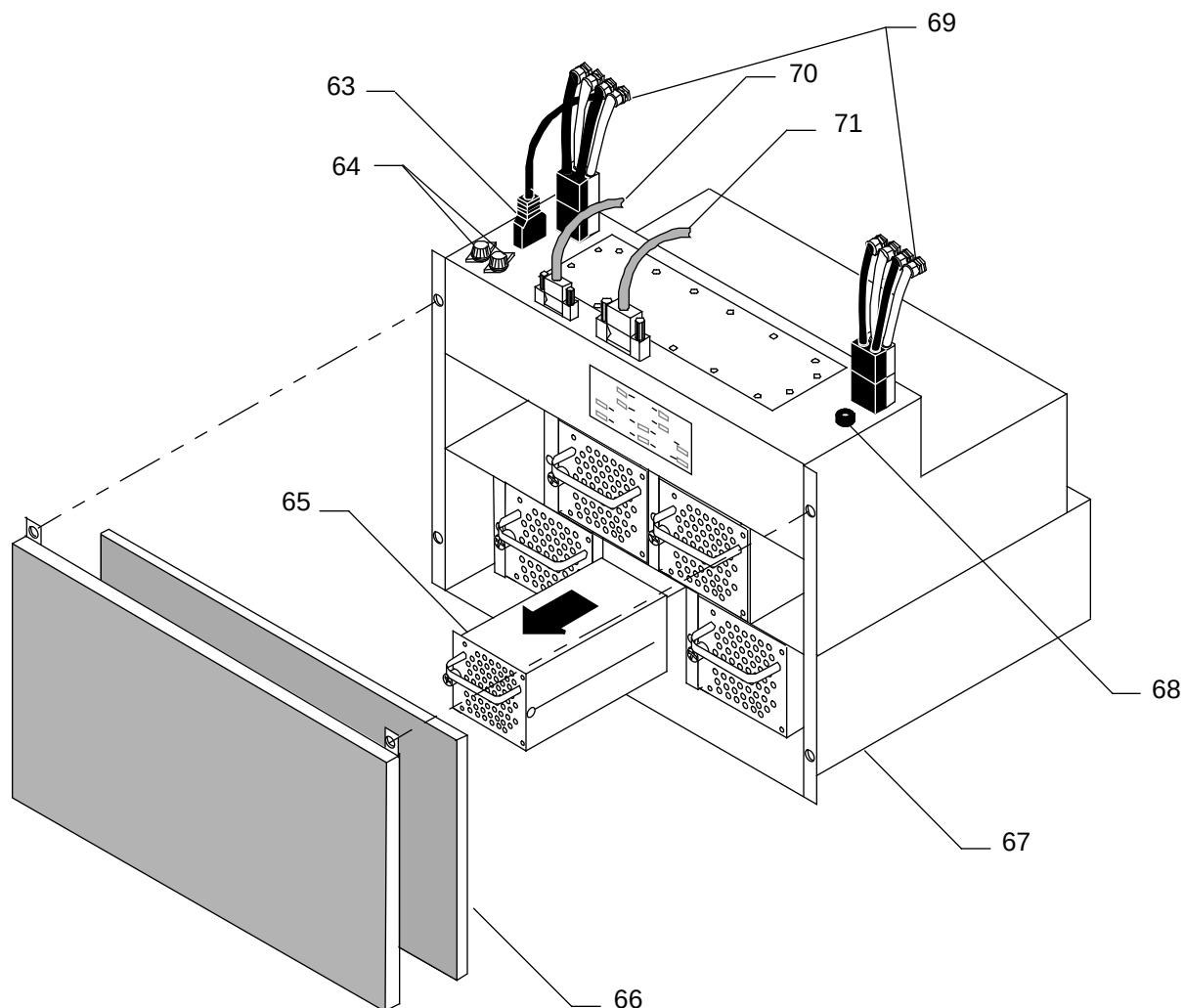
Ref.**No. Part Number Description**

62	90424101	Memory Module, (MEM16)
	90424201	Memory Module, (MEM32)
	90424301	Memory Module, (MEM64)
	90424401	Memory Module, (MEM128)



Front-end Power Chassis

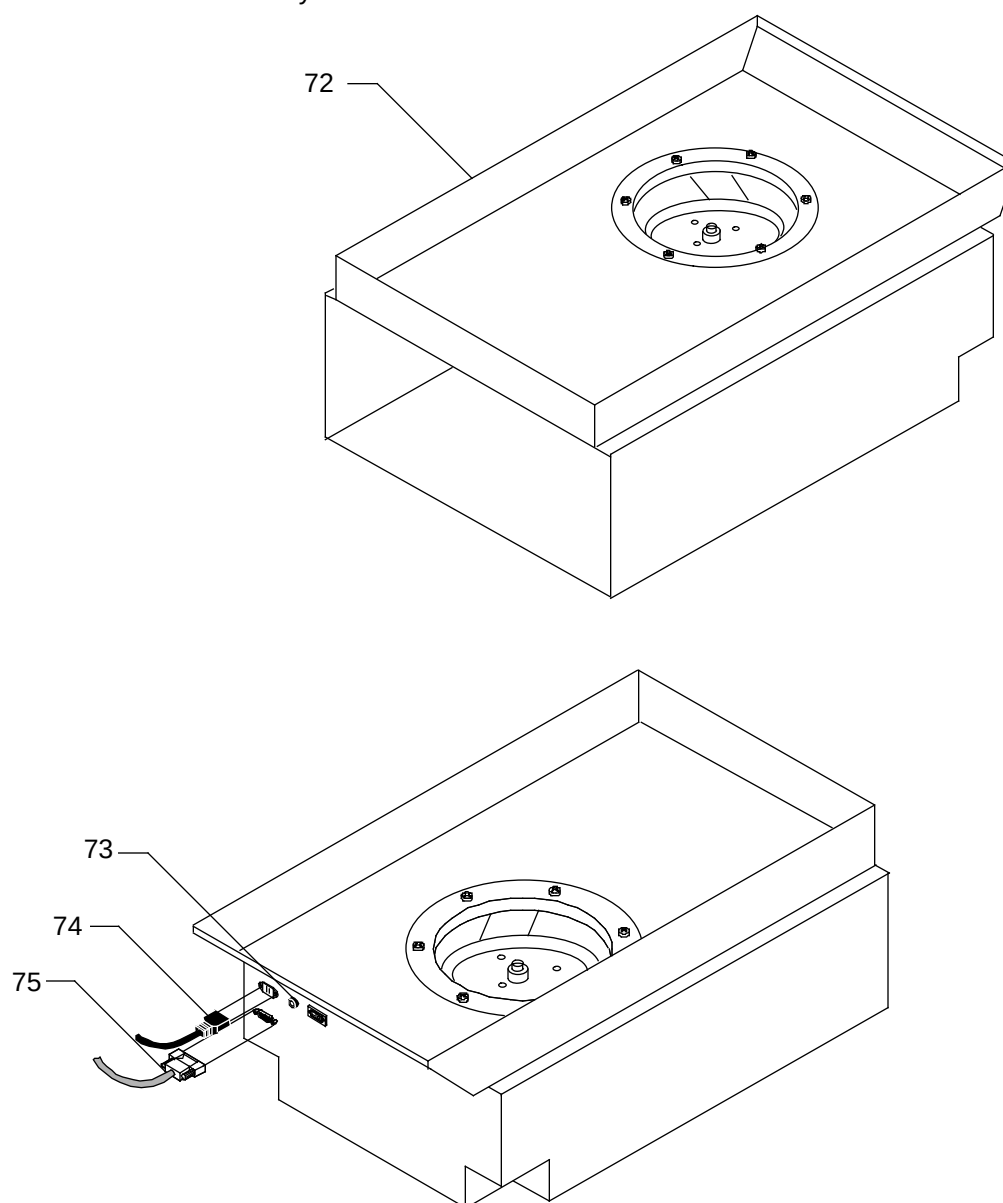
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
63	90307101	Power Cord, 1 m	69	90360500	Front-end to CPU Midplane Cable, 48 Vdc
64	90459600	Fuse, 10 A	70	90350400	Front-end Power Chassis to Blower Assembly Sense Cable
65	90327900	220 Vac/48 Vdc Power Supply	71	90350200	CCU to Front-end Power Sense Cable
66	90405700	Power Supply Air Filter			
67	90401900	Front-end Power Chassis			
68	01134006	Fuse, 1/2 A			



Blower Assembly

Ref.

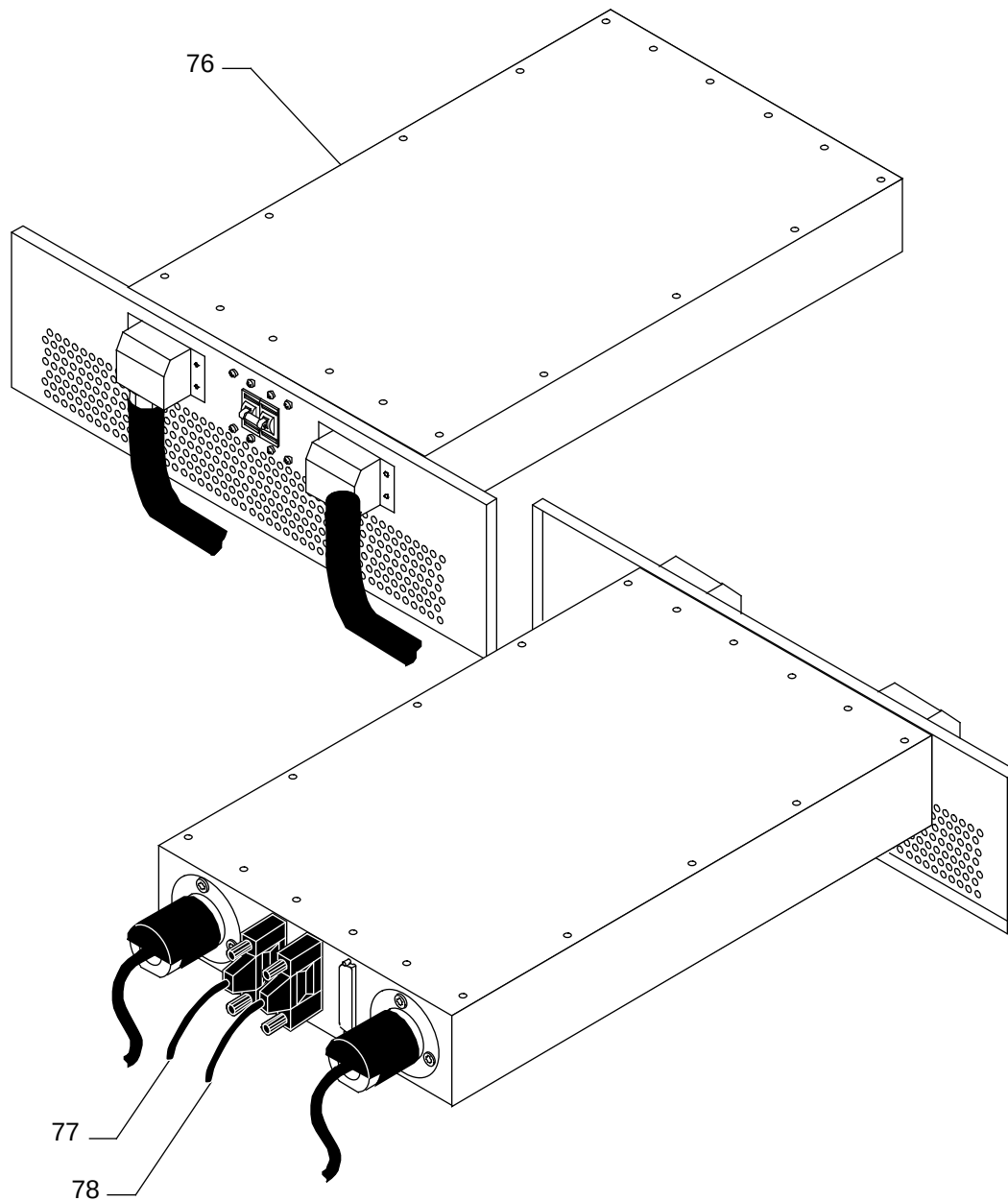
No.	Part Number	Description
72	90401800	Blower Assembly
73	90311700	Fuse, 10 A
74	90307101	Power Cord, 1 m
75	90350400	Front-end Power Chassis to Blower Assembly Sense Cable



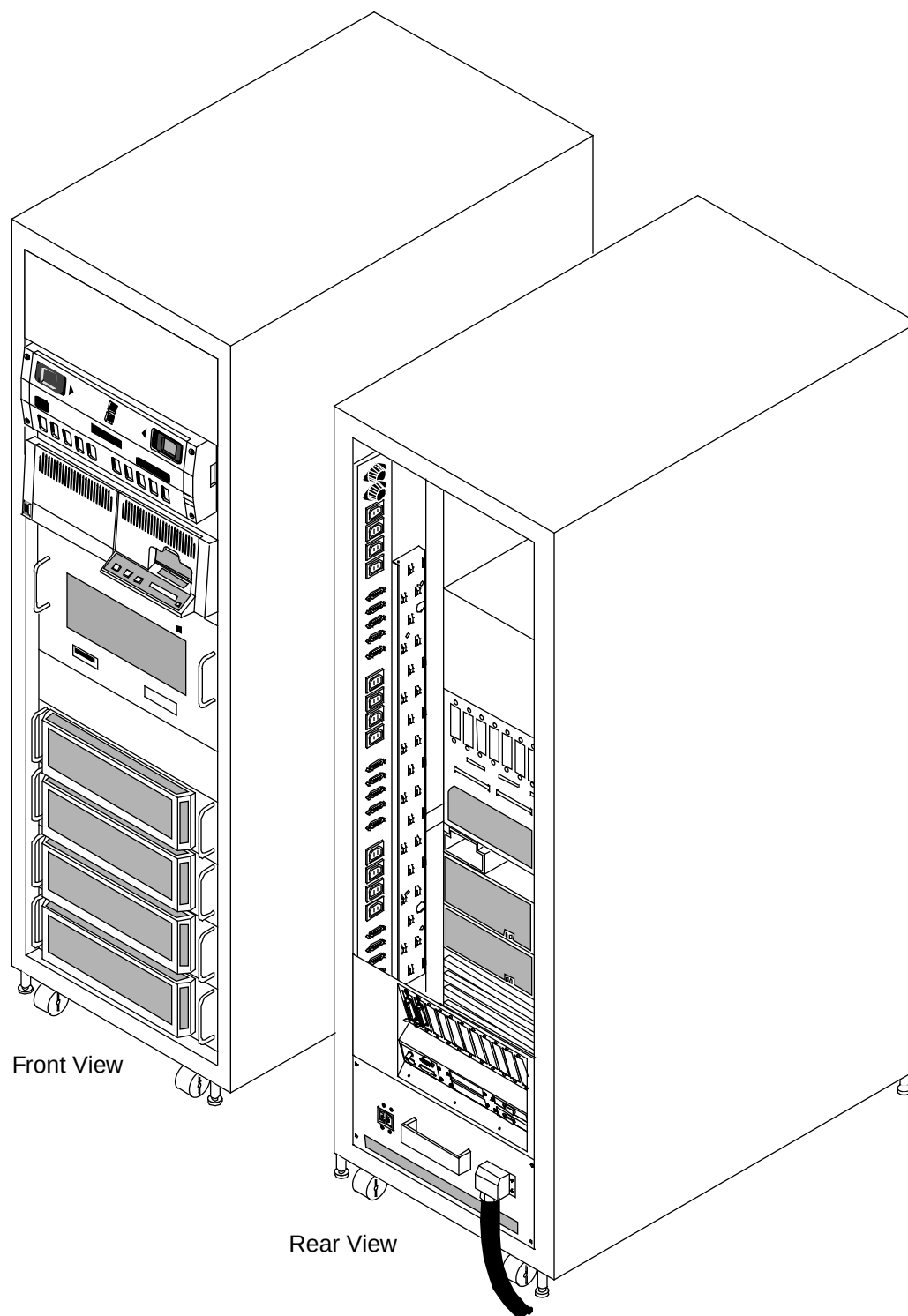
AC Power Entry Chassis

Ref.**No. Part Number Description**

76	90402000	AC Power Entry Chassis Assembly
77	90350301	AC Power Entry to I/O AC Power Entry Sense Cable
78	90350300	CCU to AC Power Entry Sense Cable



Peripheral Cabinet

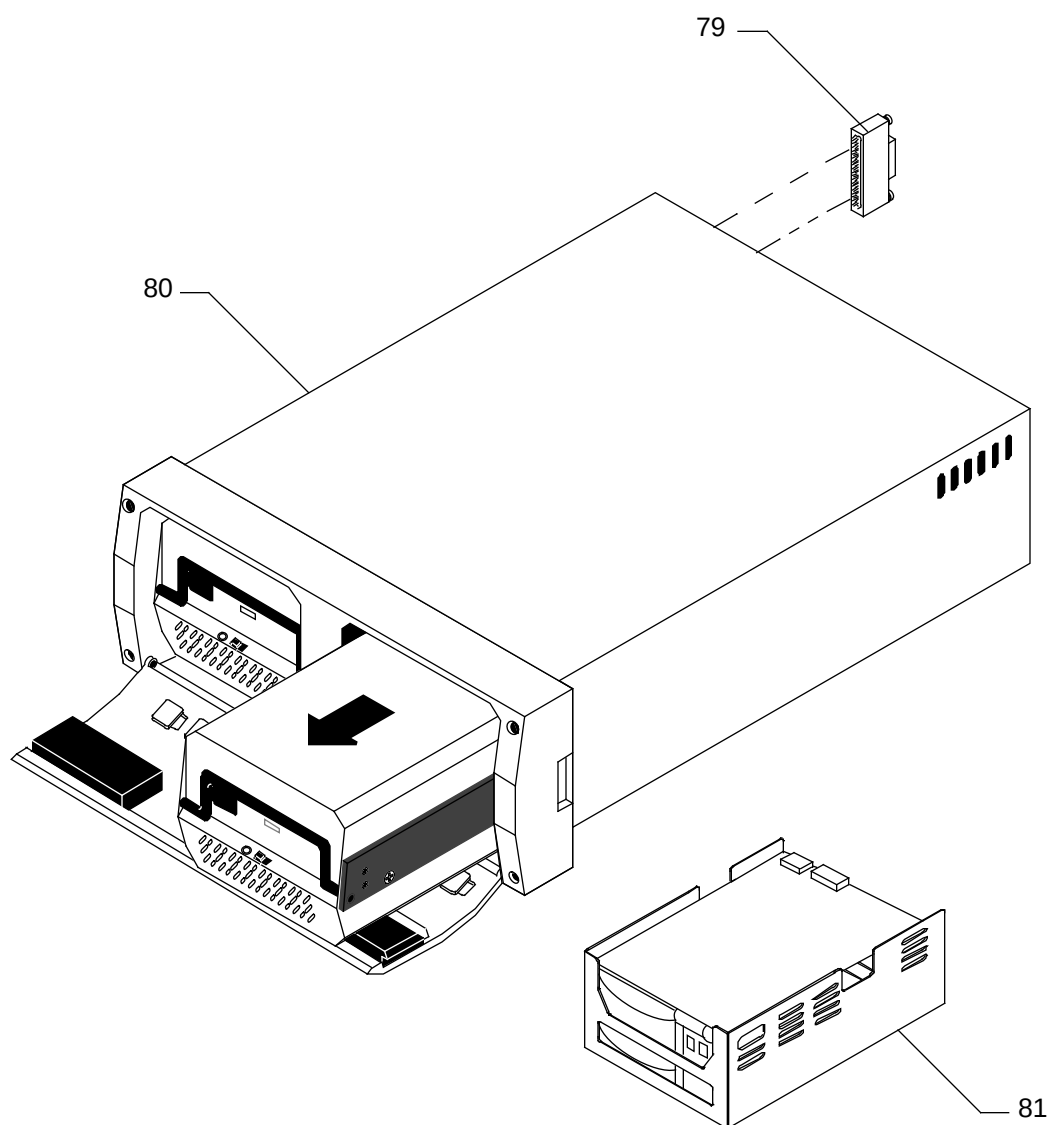


NOTE: When you order parts using the parts number in this catalog, you can be assured that you will receive the latest versions of the parts even if the part numbers have changed.

DR-5I Removable Disk Drive Chassis

Ref.

No.	Part Number	Description
79	90266100	Standard Profile Terminator
80	90241600	DR-5I Removable Disk Drive Chassis (part includes empty cannisters)
81	90244500	DD-5I Disk Drive

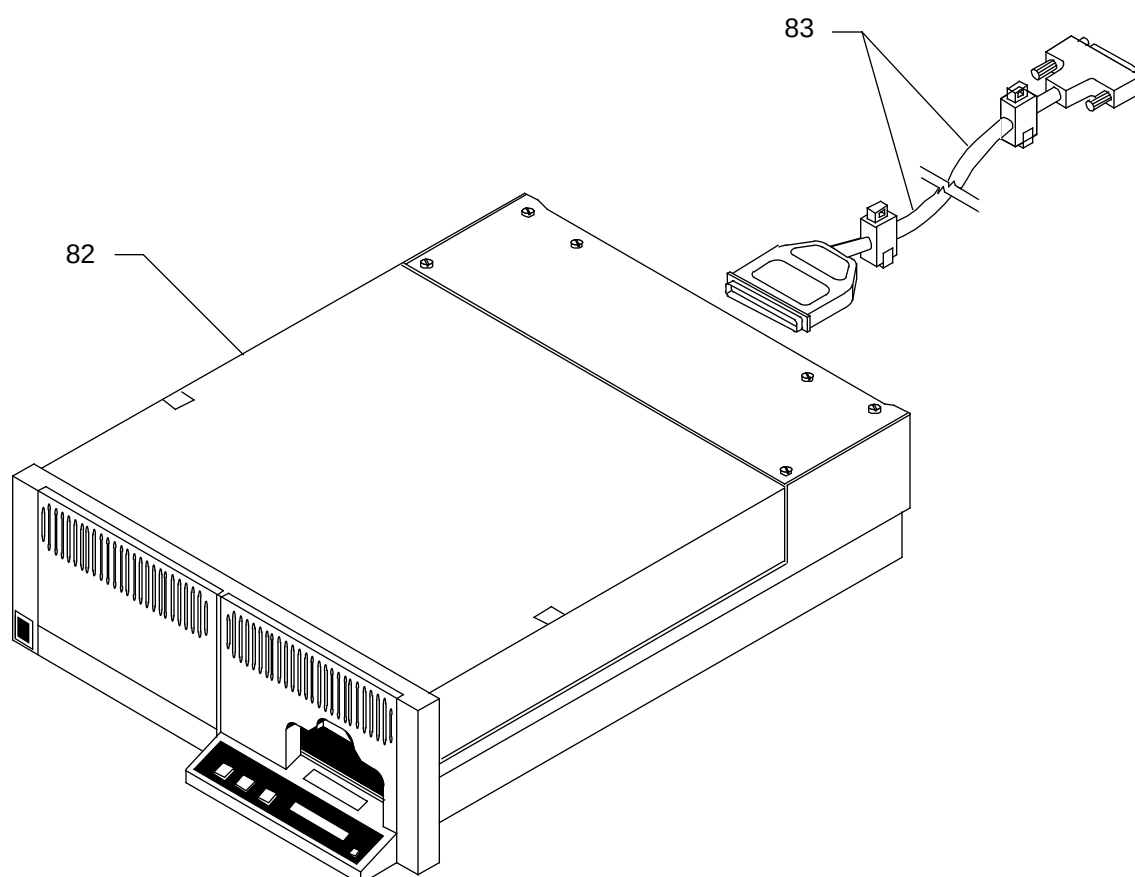


TD-3 Tape Drive

Ref.**No. Part Number Description**

82 90250700 TD-3 Tape Unit Assembly

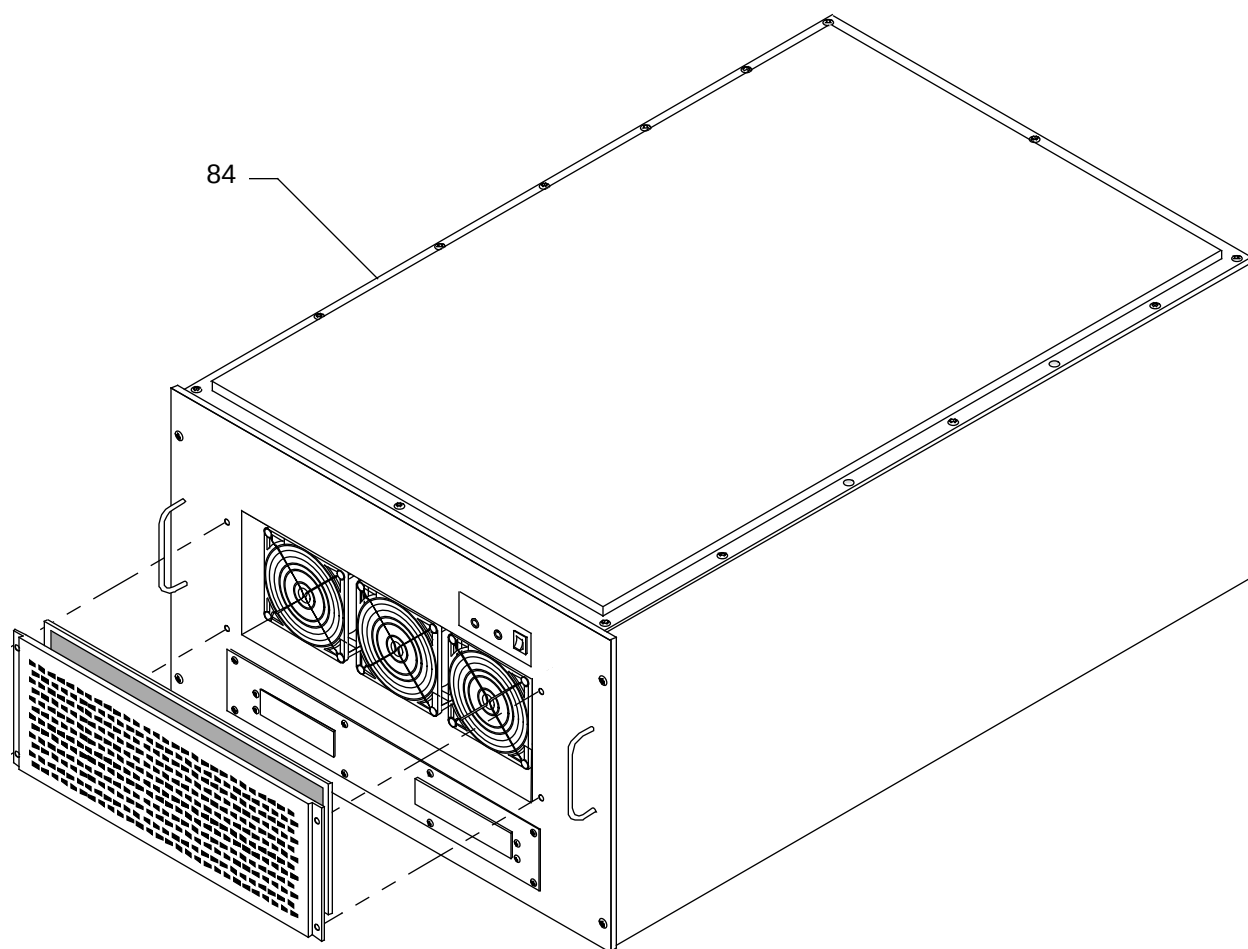
83 90269300 TD-3 Logic Harness Assembly



VME Unit Assembly

Ref.**No. Part Number Description**

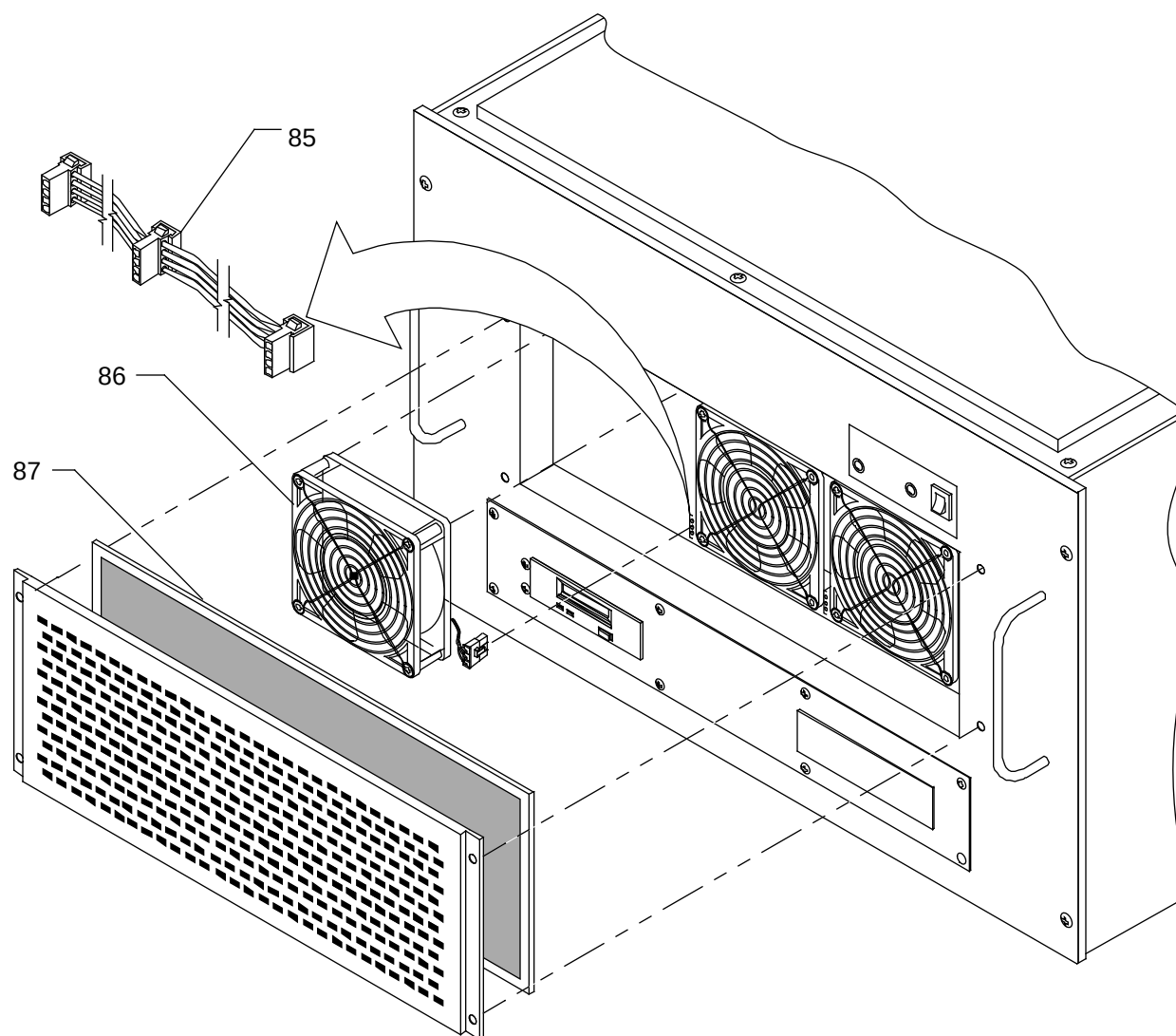
84 90382400 VME Unit Assembly



VME Drawer

Ref.

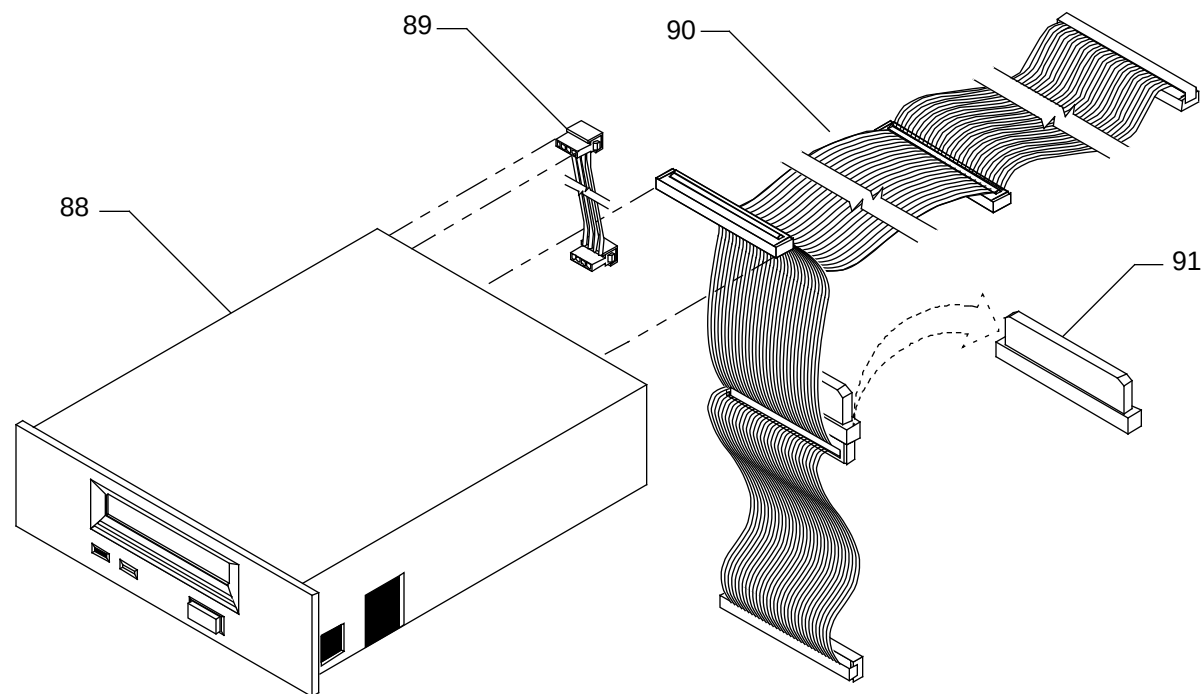
No.	Part Number	Description
85	90364300	Fan Cable Harness Assembly
86	90312000	VME Hot Swap Fan Assembly
87	90308000	Air Filter



DS-3 Tape Drive

Ref.

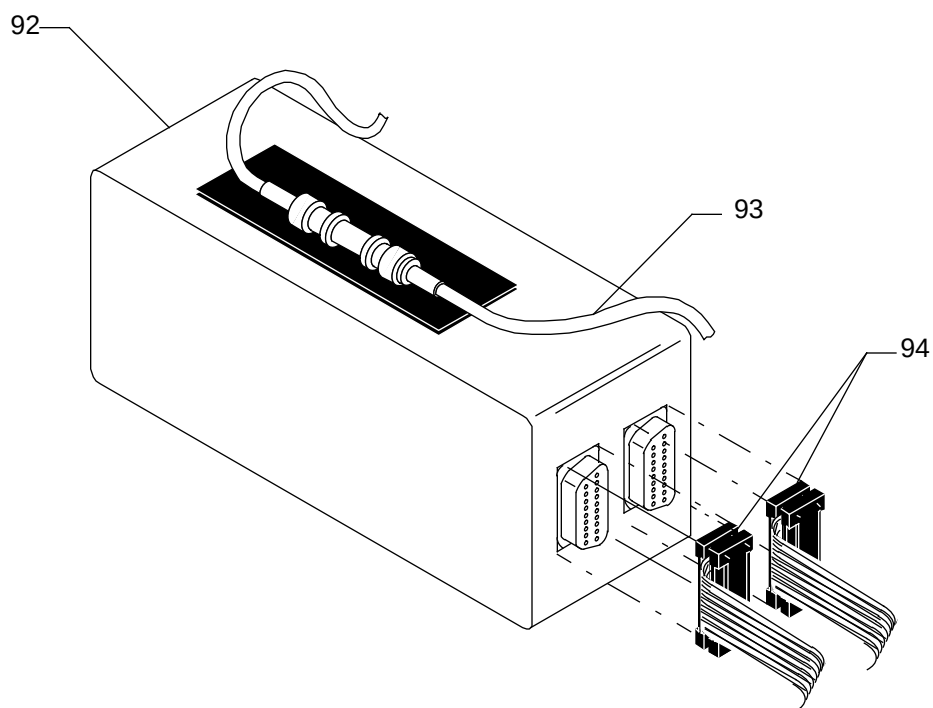
No.	Part Number	Description
88	90317700	DS-3 Tape Unit Assembly
89	90307100	Power Cable
90	90360400	SCSI System Cable
91	90436800	DS-3 Terminator



Ethernet Transceiver

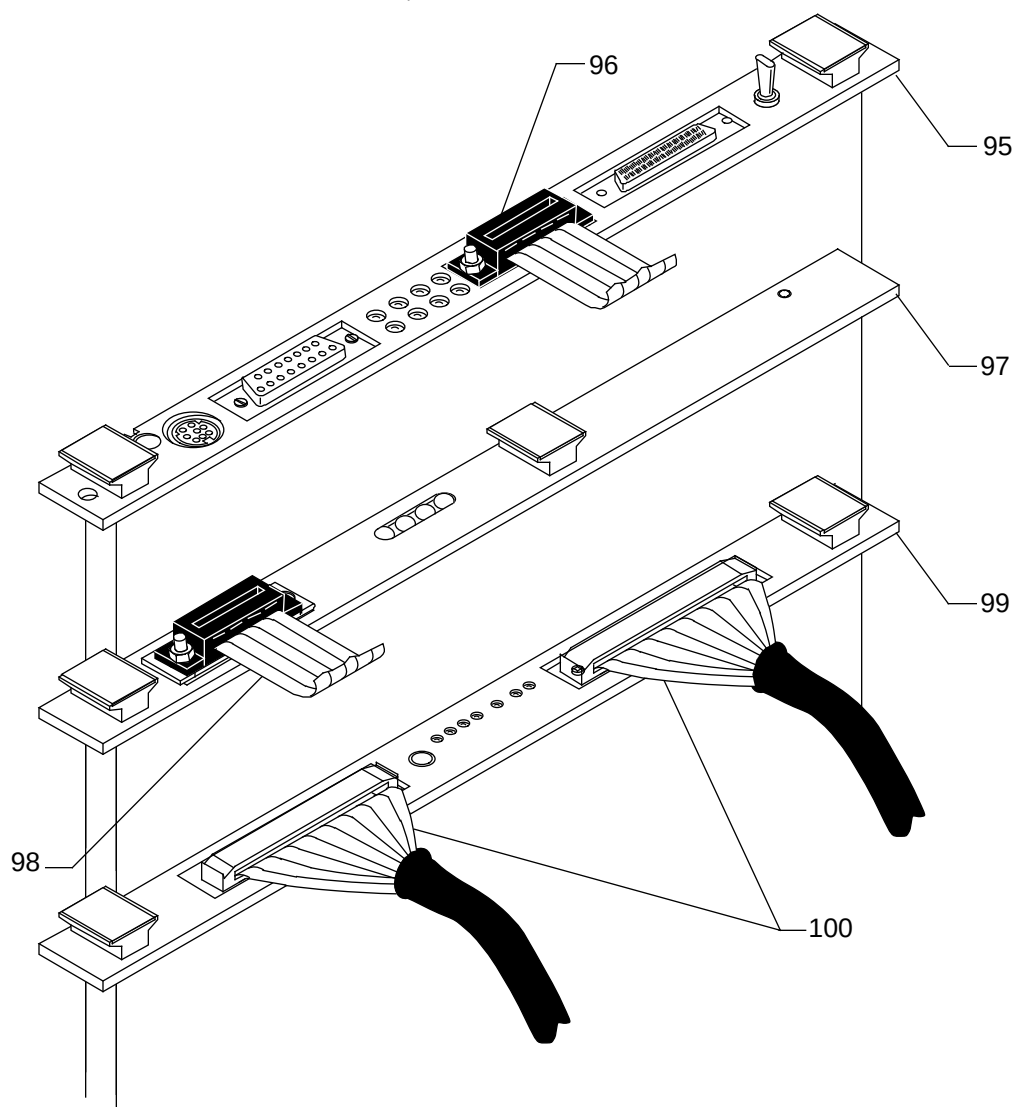
Ref.

No.	Part Number	Description
92	90366500	Ethernet Transceiver
93	90386900	Ethernet ThinNet Cable, 2.6 ft
94	90369600	Internal Ethernet Cable



VME Boards

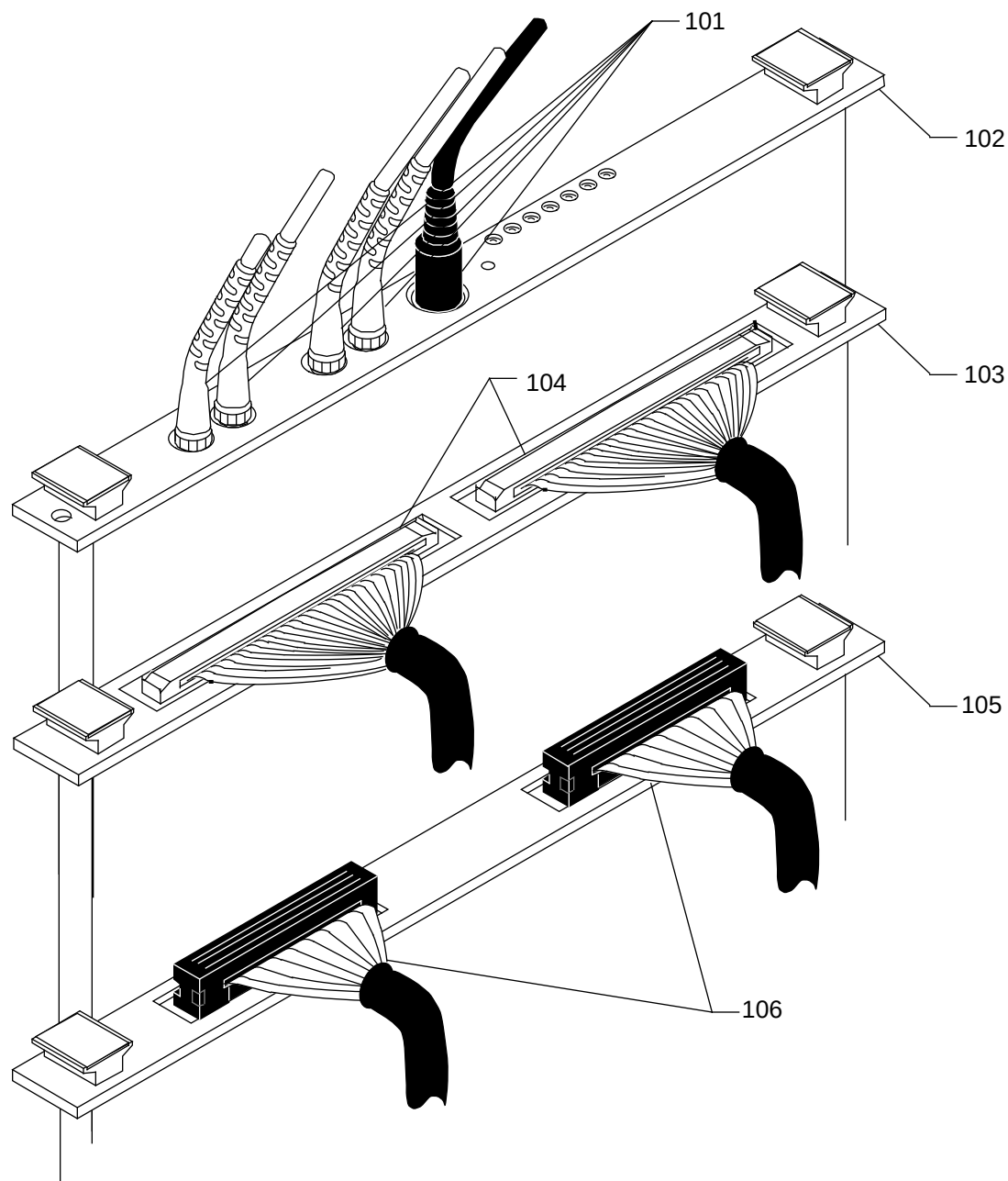
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
95	90384402	SPARC Based CPU PC Board (requires IOS™ Kernel below revision 8.0.3.2K)	97	90227200	EI-1 Module
	90384403	SPARC Based CPU PC Board (requires IOS Kernel revision 8.0.3.2K)	98	90347600	Internal Ethernet Cable, 2.5 ft
	90384404	SPARC Based CPU PC Board (requires IOS Kernel revision 8.0.4 and above)	99	90360801	SI-3 PC Board (DC6S)
	90384405	SPARC Based CPU (does not require a specific IOS Kernel revision)		90360802	SI-3 PC Board (DC6S)
96	90369600	Internal Ethernet Cable, 1.5 ft	100	90317400	SCSI-3 Cable



VME Boards (continued)

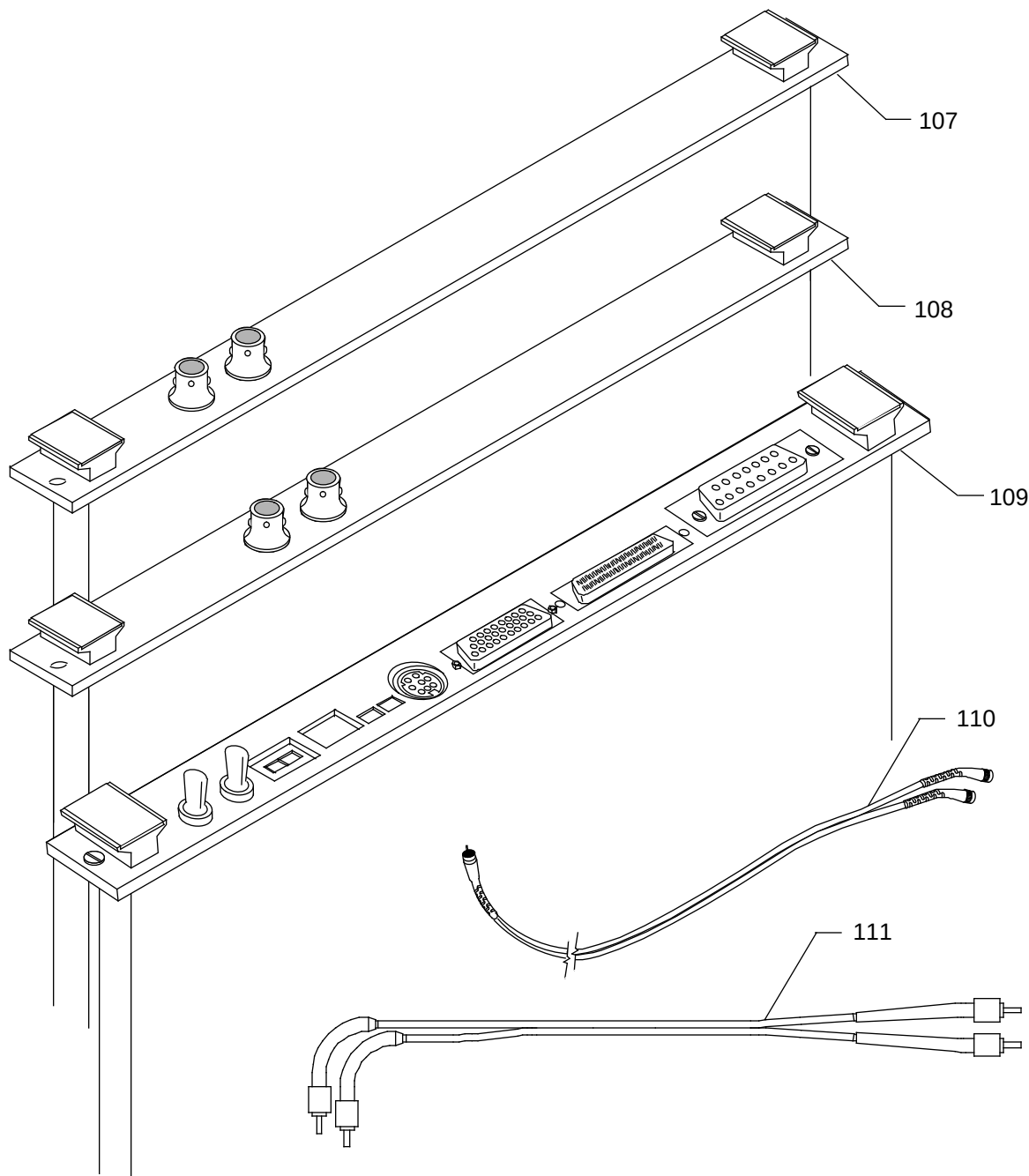
Ref.**No. Part Number Description**

101	90365500	Multimode FDDI Cable Assembly, 18 in.
102	90319100	FI-2 Module
103	90256603	IOBB-64 Module
104	90457300	Y1 Intermediate Cable
105	90257402	IPI-2 Controller Board (DC5I)
106	90417600	IPI Intermediate Cable



VME Boards (continued)

Ref.	Part Number	Description	No.	Part Number	Description
107	90450900	Module Assembly, AT-1/OC3	110	90369300	Multimode FDDI Cable Assembly, 3 m
108	90446700	Module Assembly, AT-1V	111	90446400	AT-1 Fiber-optic Cable, 20 in.
109	13314600	FORCE IOP with SCSI Adapter			

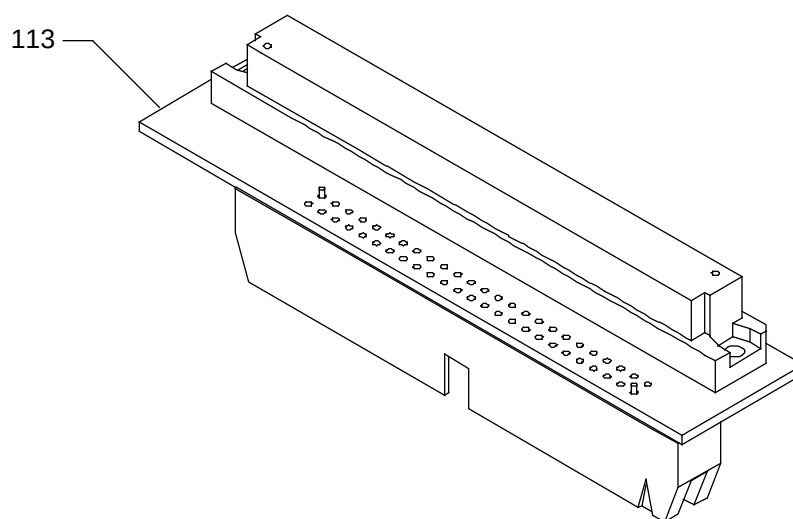
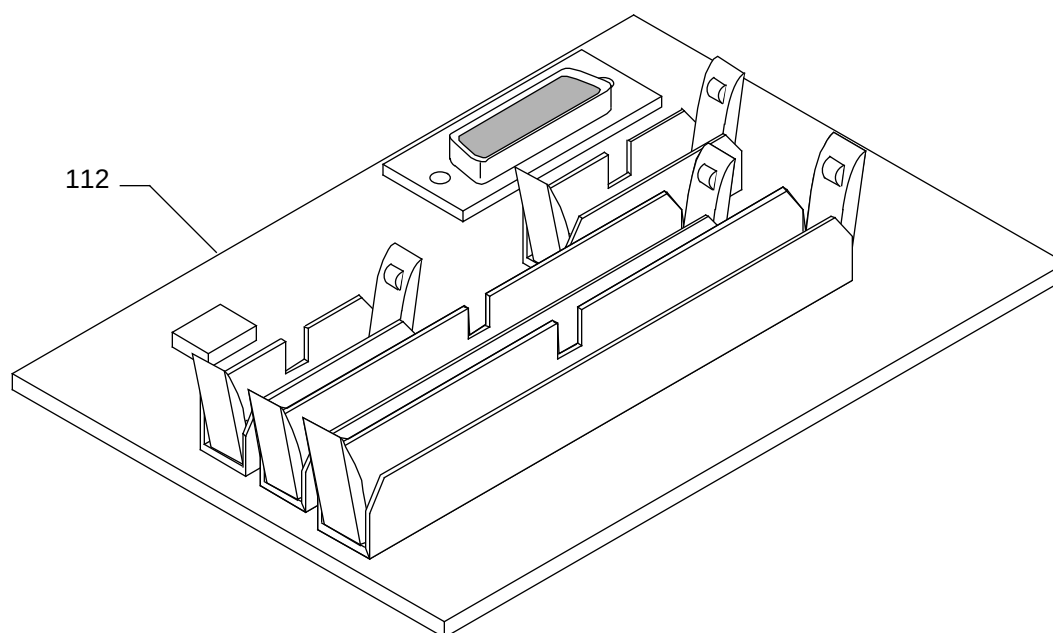


SCSI Adapter Boards

Ref.**No. Part Number Description**

112 90379500 Themis™ SCSI Adapter Board

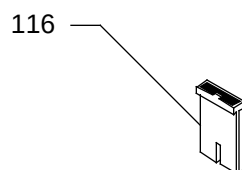
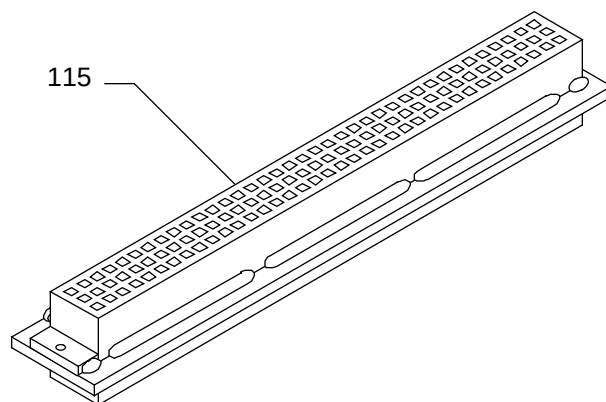
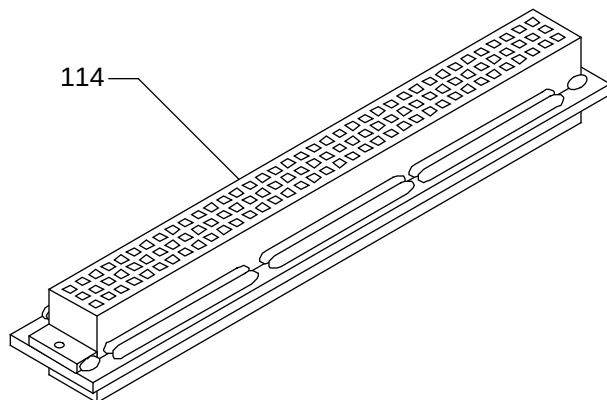
113 90471700 FORCE SCSI Adapter



VME Backplane Terminators and Jumper

Ref.

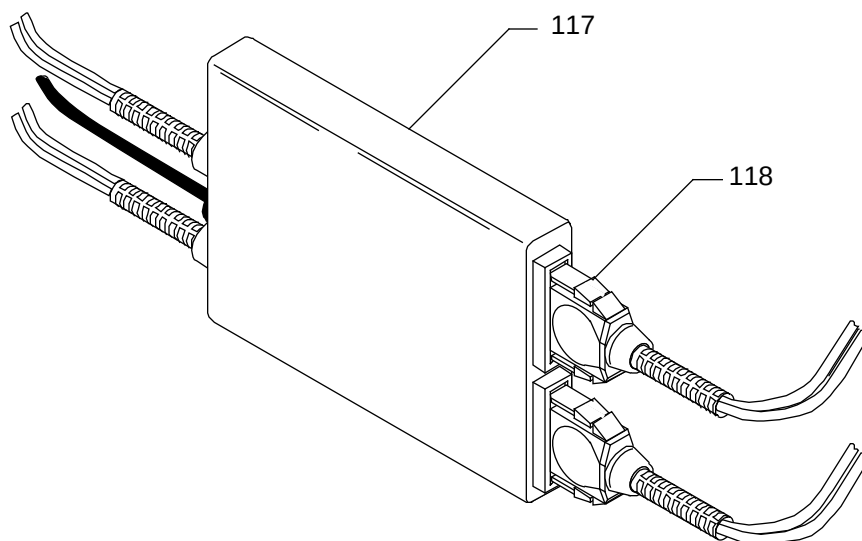
No.	Part Number	Description
114	90107500	VME J1 Terminator
115	90107600	VME J2 Terminator
116	90108200	Jumper



FDDI Module

Ref.

No.	Part Number	Description
117	90476800	FDDI Module Switch
118	90365500	Multimode FDDI Cable Assembly, 18 in.

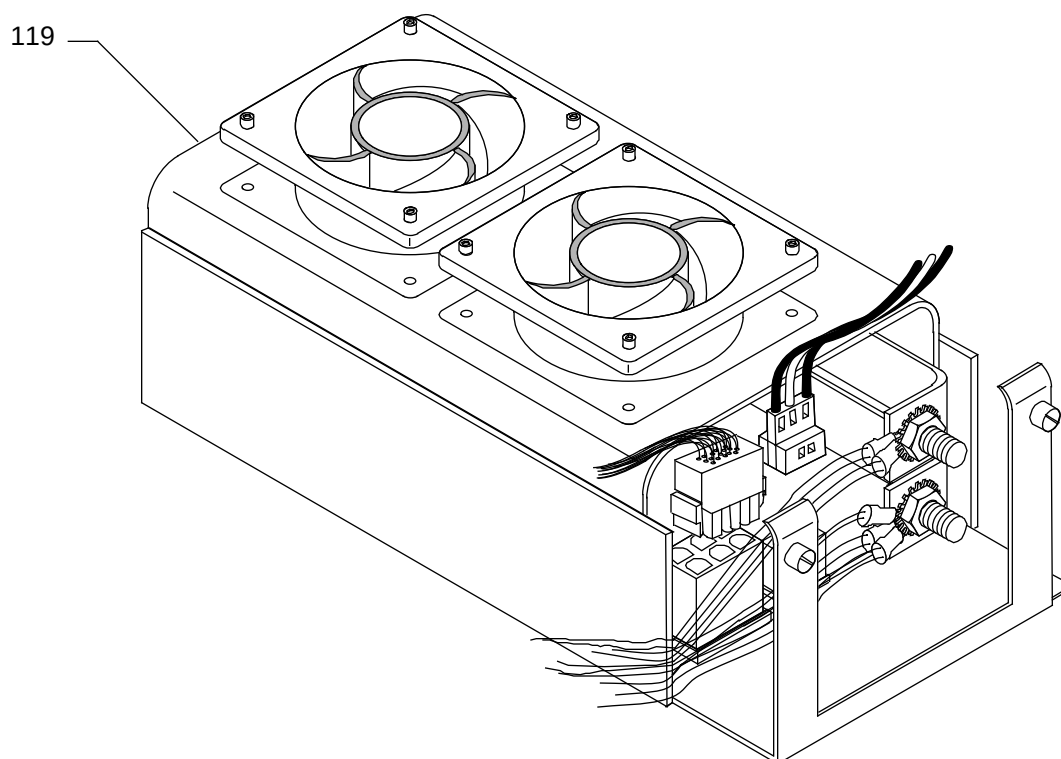


VME Power Supply

Ref.

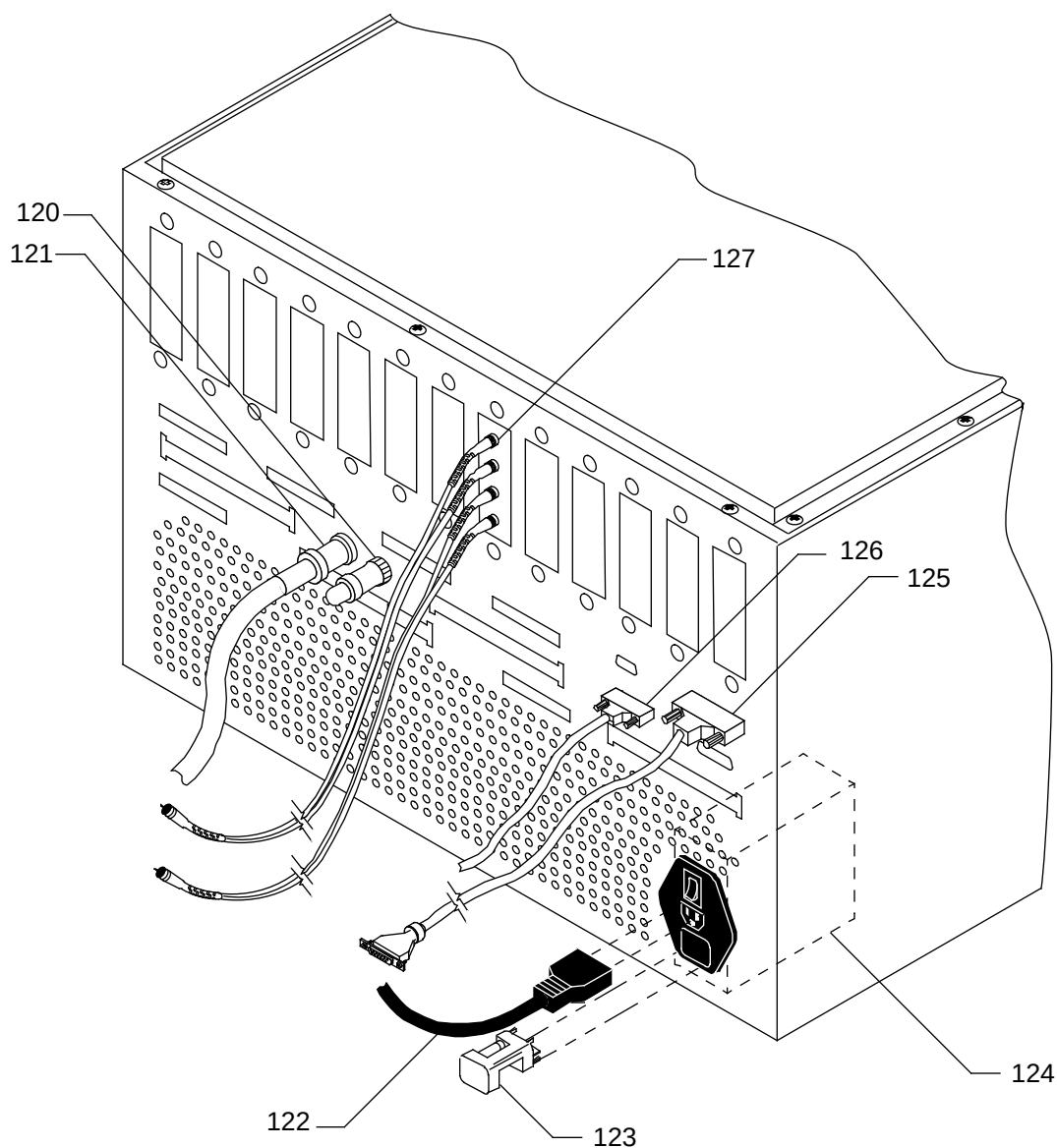
No. Part Number Description

119 90311400 VME Power Supply



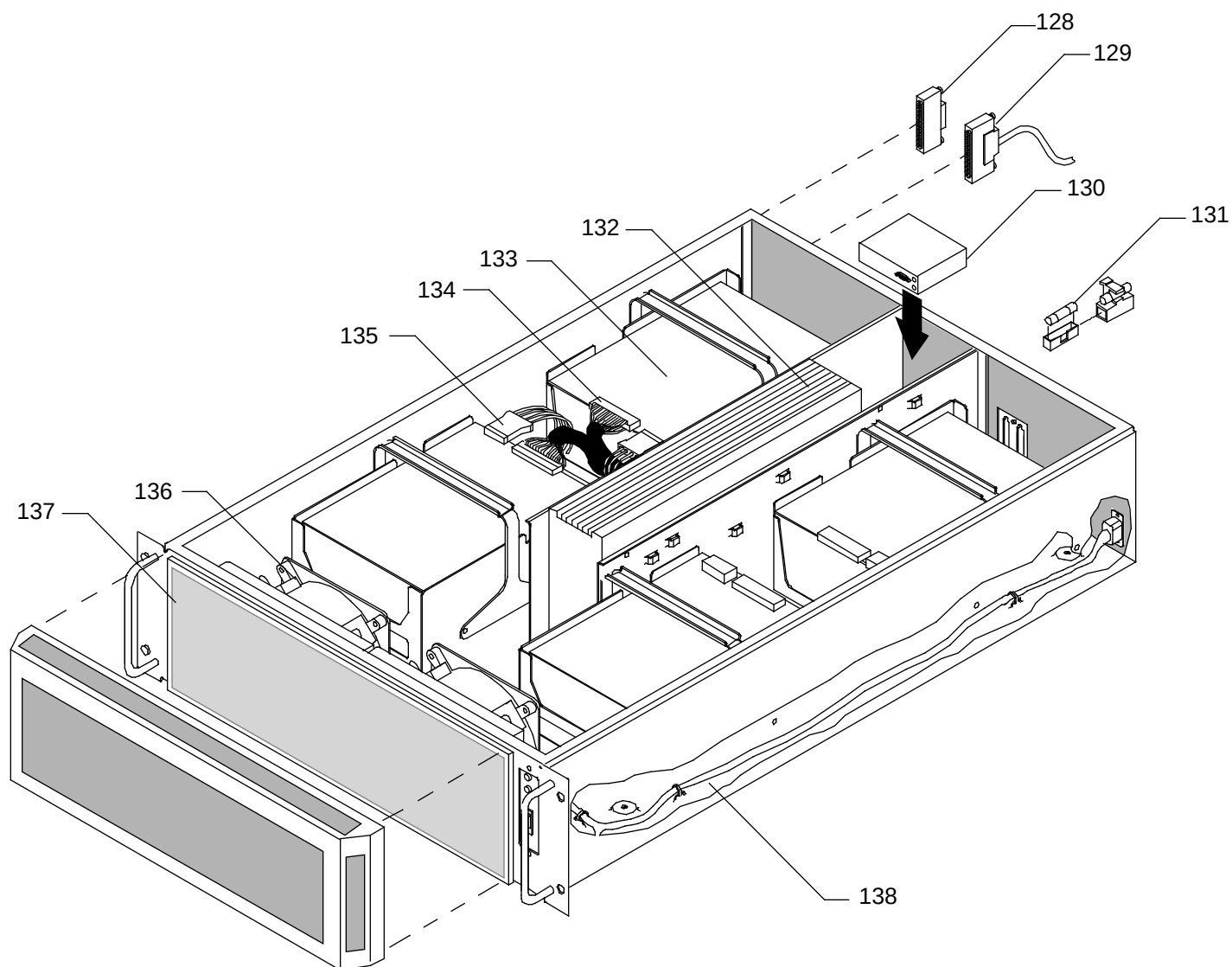
VME Chassis Bulkhead

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
120	90157000	BNC Terminator	124	90311600	Input Power-fused Filter
121	90387000	Ethernet ThinNet Cable, 10 ft	125	90349200	VME Chassis to Bulkhead Ethernet Cable
122	90307100	Universal Power Cord, 10 A	126	90307000	VME Signal Cable
123	90311700	Fuse, 10 A	127	90369300	FDDI Multimode Cable, 3 m



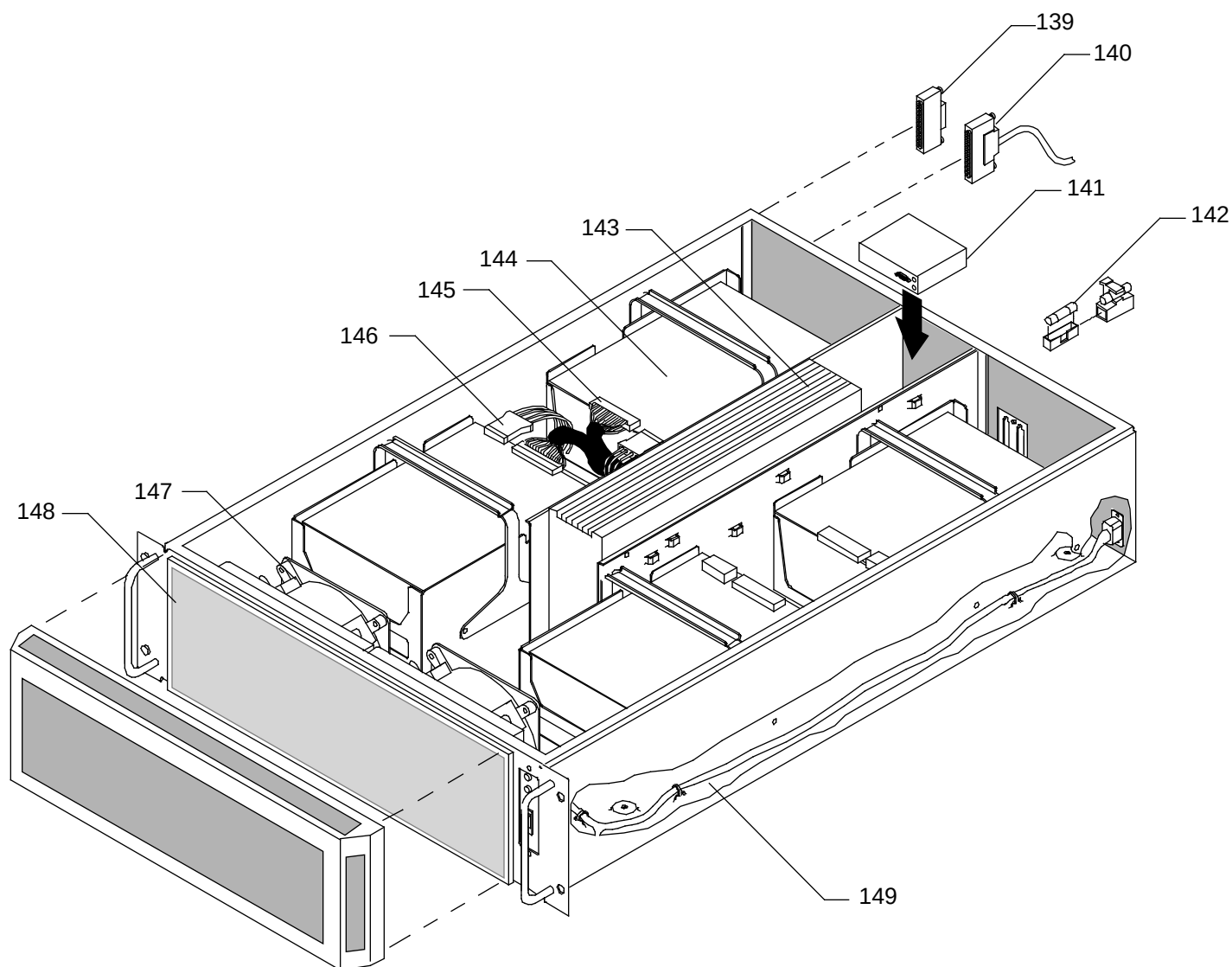
PE-10S Drawer

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
128	90266200	Low-profile Terminator	133	90244600	DD-5S Disk Drive
129	90272200	SCSI-3 Bulkhead Device Cable	134	90266400	Internal Cable
130	90306200	Input Power Filter	135	90306400	Drive and Fan Power Cable
131	90306800	Fuse, 4 A	136	90305600	Disk Drive Fan Assembly
132	90306101	Power Supply	137	90308001	Air Filter
			138	90306500	Control Logic Harness Assembly



PE-30S Drawer

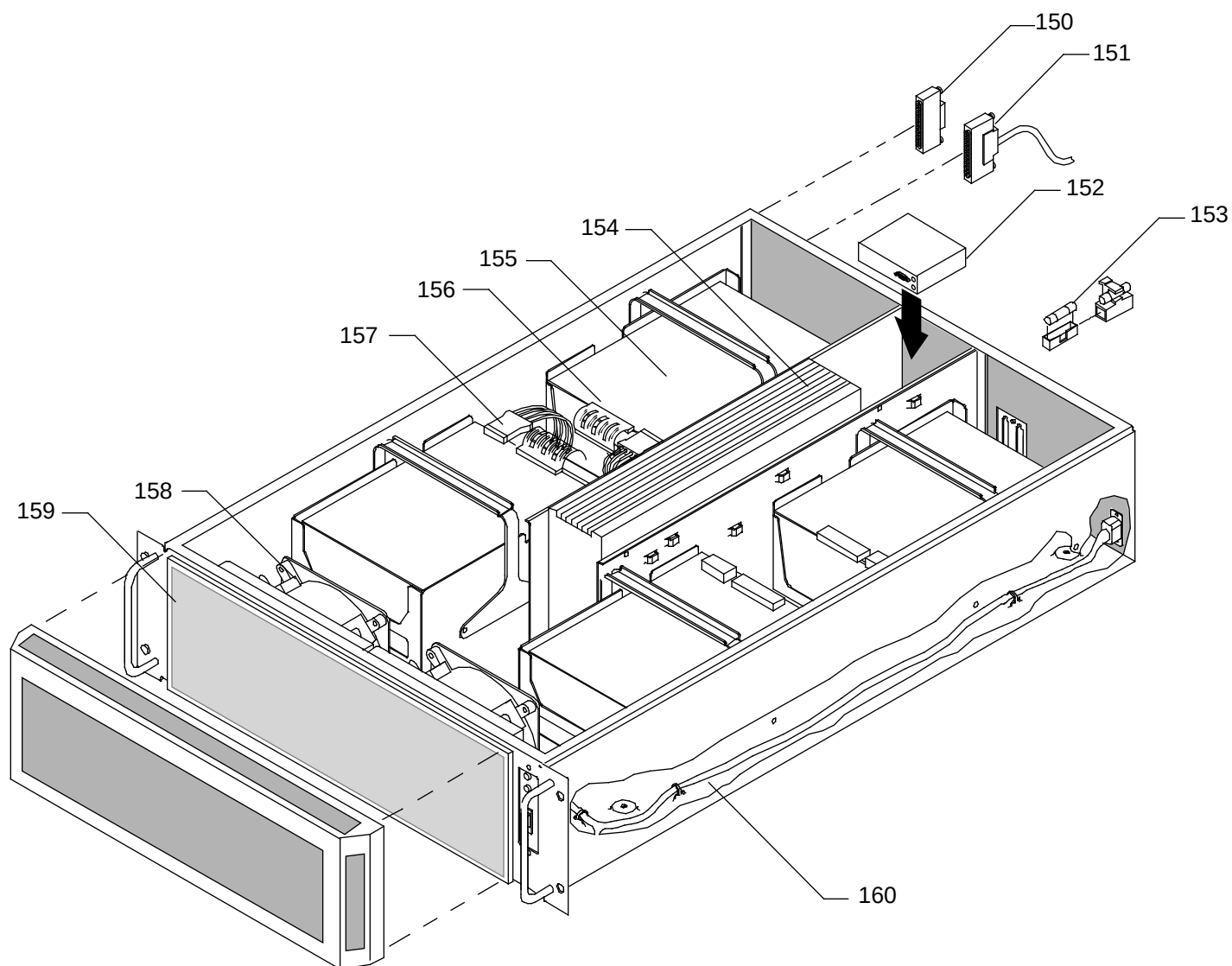
Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
139	90266200	Low-profile Terminator	144	90399700	DD-6S Disk Drive
140	90272200	SCSI-3 Bulkhead Device Cable	145	90266400	Internal Cable
141	90306200	Input Power Filter	146	90306400	Drive and Fan Power Cable
142	90306800	Fuse, 4 A	147	90305600	Fan Assembly
143	90306101	Power Supply	148	90308001	Air Filter
			149	90306500	Control Logic Harness Assembly



PE-10I Drawer

Ref. No.	Part Number	Description
150	90266100	Std-profile Terminator
151	90268100	DR-5I Cable
152	90306200	Input Power Filter
153	90306800	Fuse, 4 A
154	90306101	Power Supply

Ref. No.	Part Number	Description
155	90244500	DD-5I Disk Drive
156	90390600	Ribbon Cable
157	90306400	Drive and Fan Power Cable </td
158	90305600	Disk Drive Fan Assembly
159	90308001	Air Filter
160	90306500	Control Logic Harness Assembly

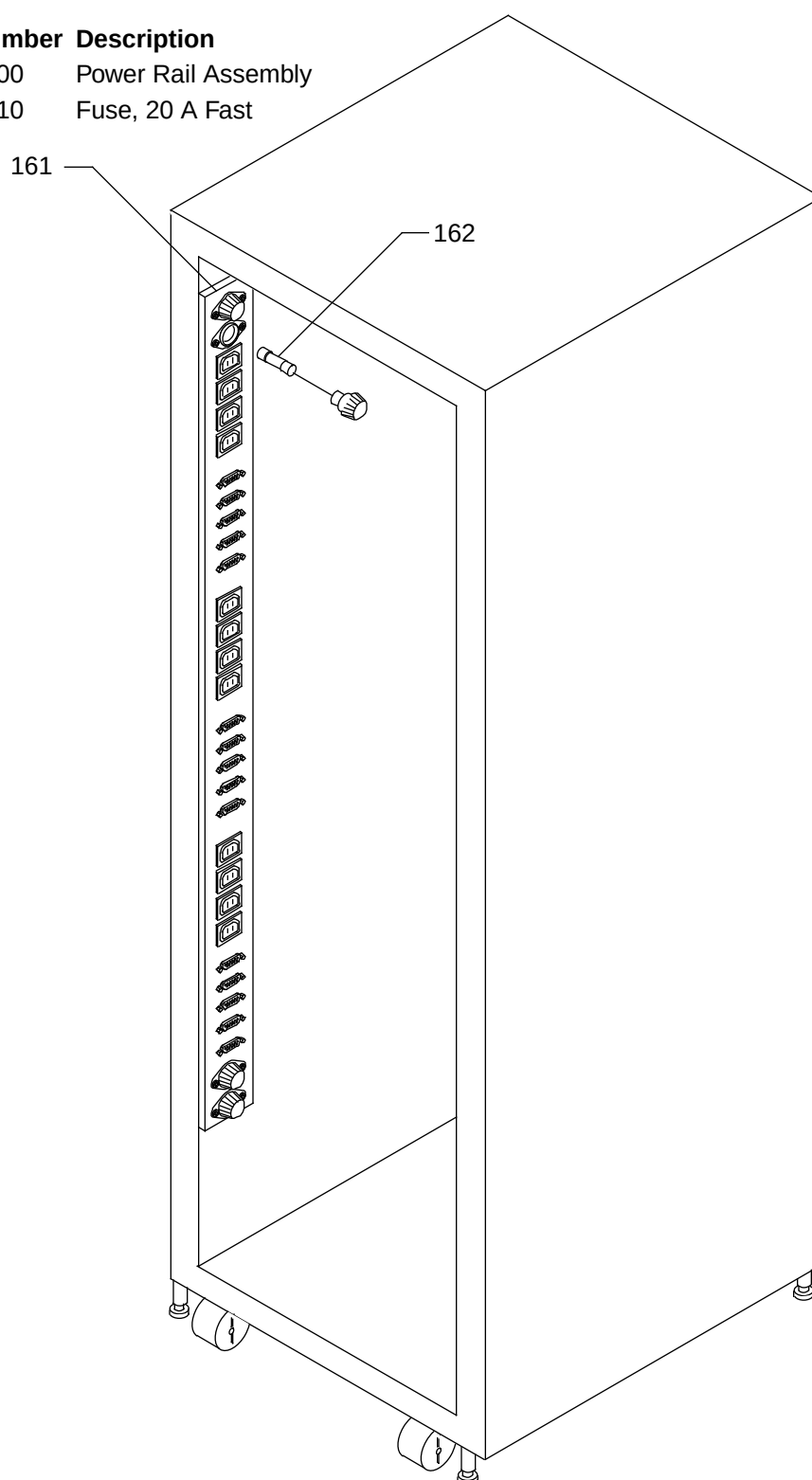


Power Rail Assembly

Ref.**No. Part Number Description**

161 90371500 Power Rail Assembly

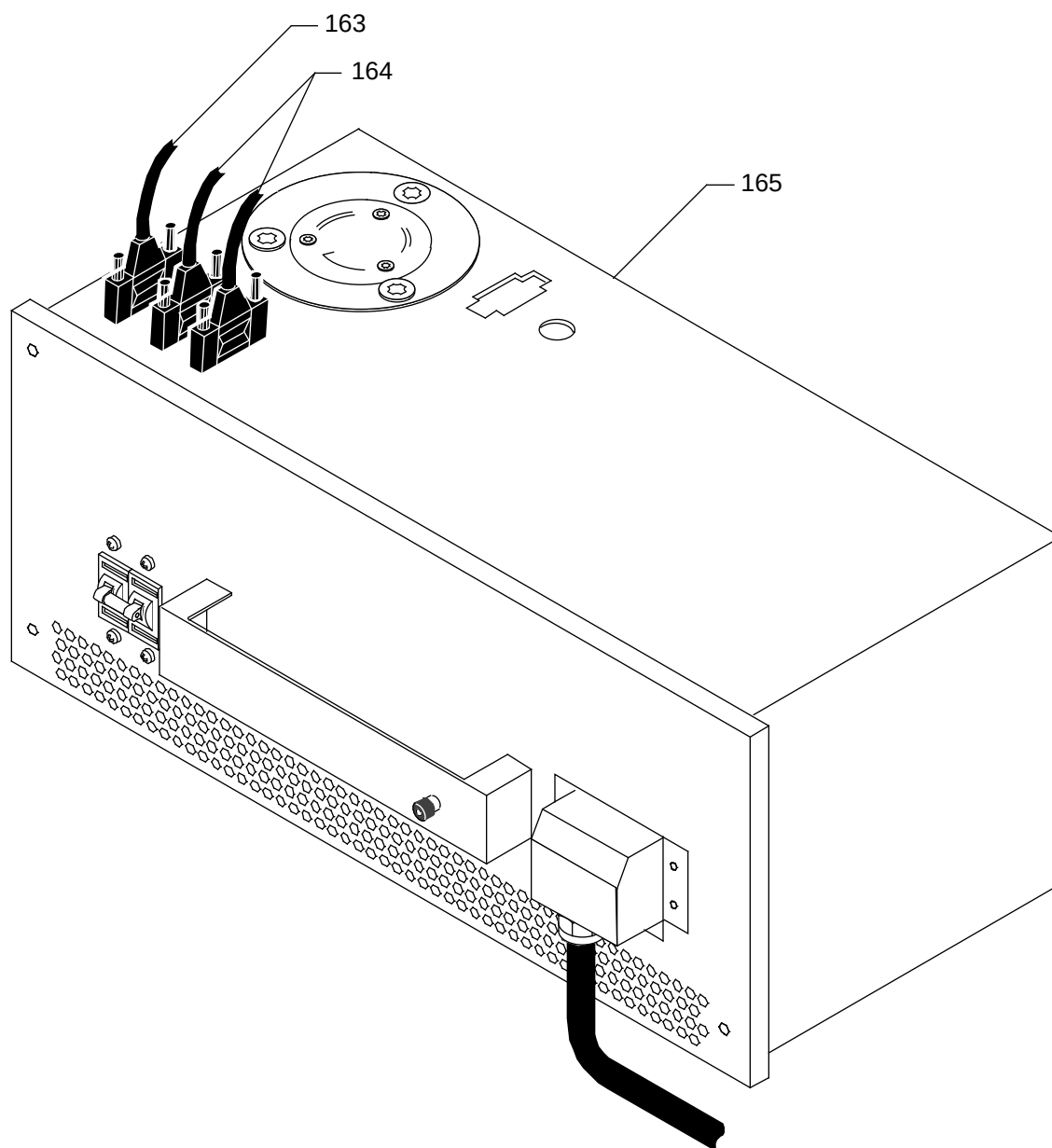
162 90031110 Fuse, 20 A Fast



I/O AC Power Entry Chassis

Ref.**No. Part Number Description**

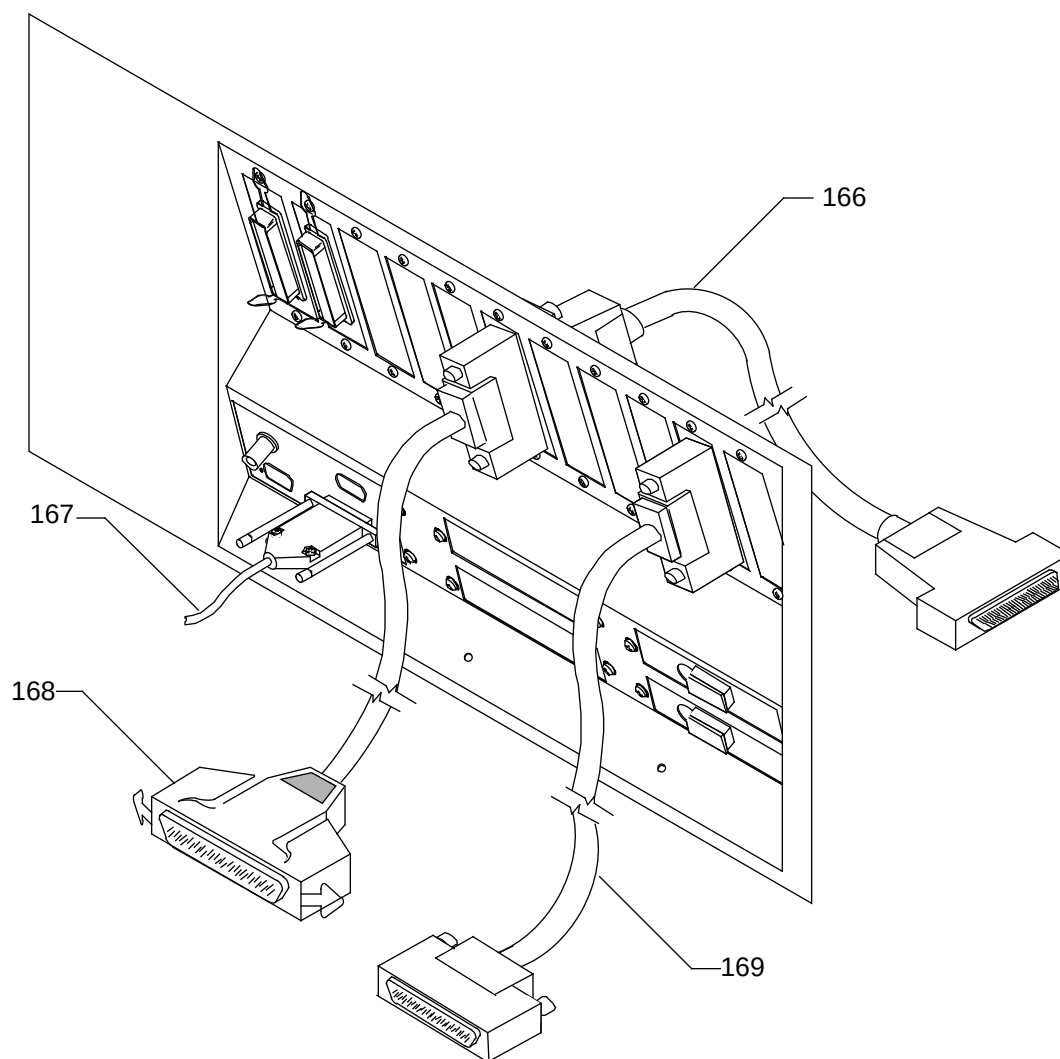
163	90366300	AC Power Entry to Power Rail Sense Cable
164	90350301	AC Power Entry to I/O AC Power Entry Sense Cable
165	90359101	AC Power Entry Chassis Assembly



Bulkhead

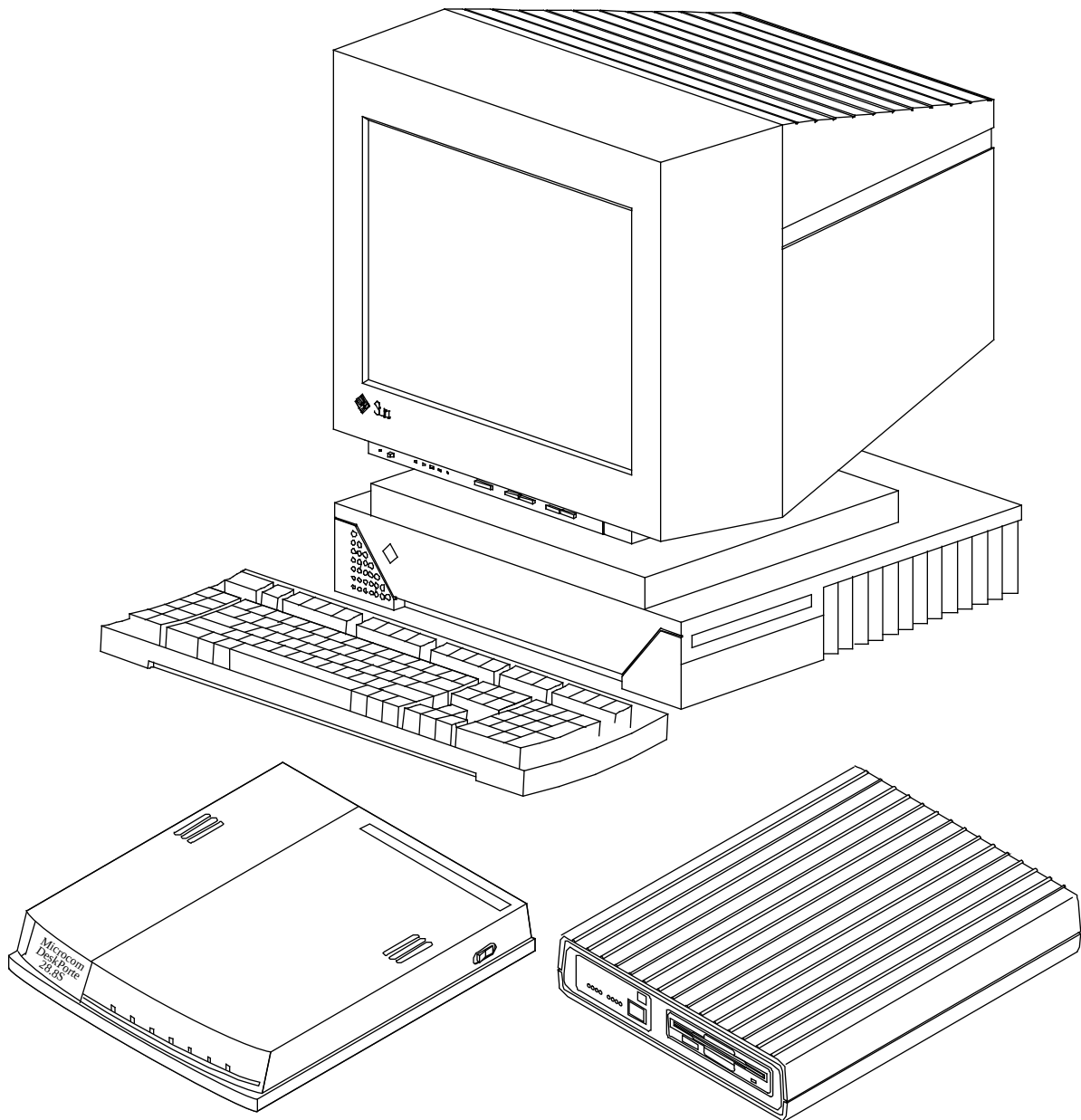
Ref.

No.	Part Number	Description
166	90272300	SCSI-3 Bulkhead Cable
167	90323900	Ethernet Cable
168	90289000	SCSI-3 to SCSI-1 Adapter Cable 3 ft
169	90216400	HIPPI External Cable 50 ft



This page intentionally left blank.

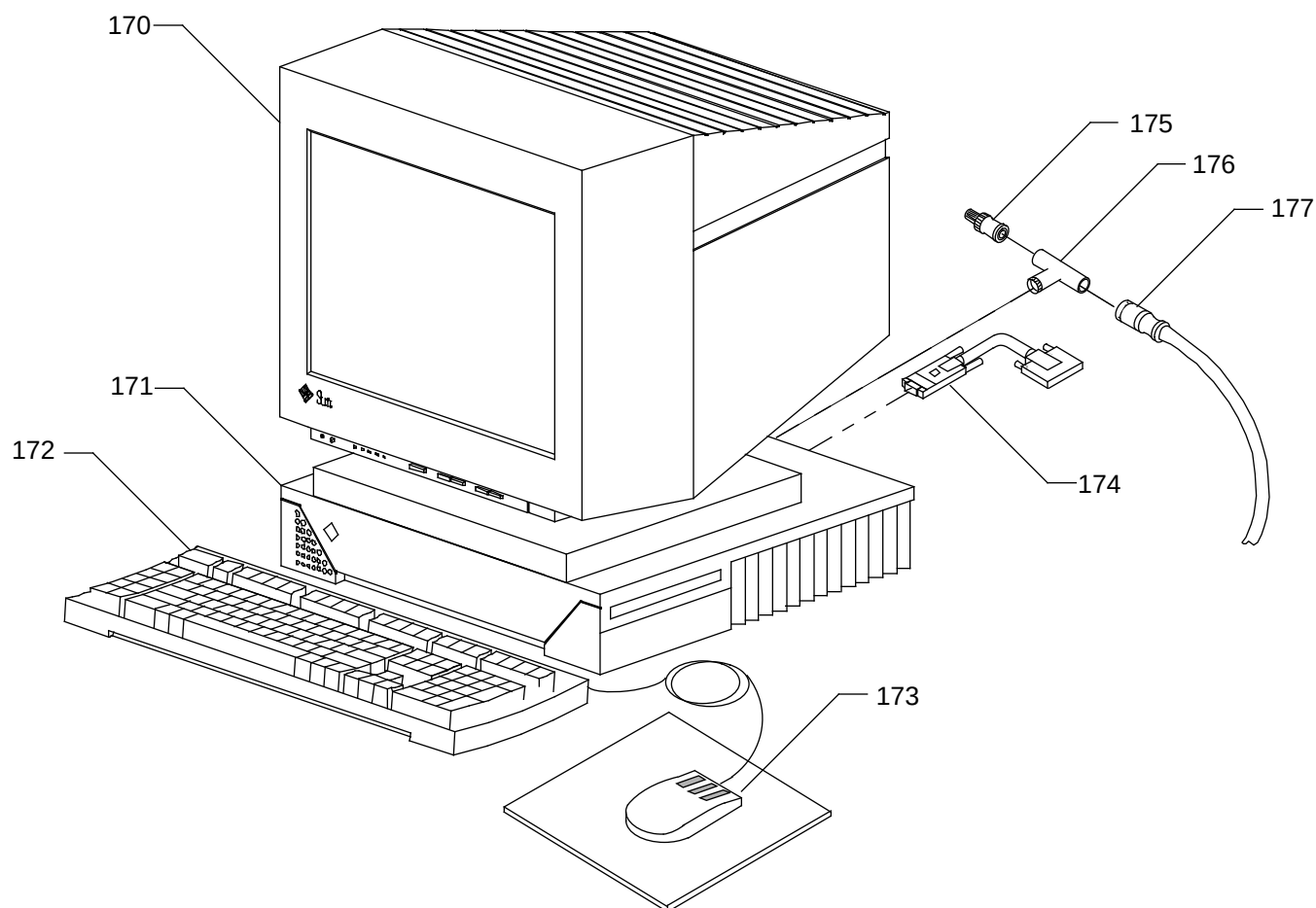
System Support



NOTE: When you order parts using the parts number in this catalog, you can be assured that you will receive the latest versions of the parts even if the part numbers have changed.

SPARCstation 5 Workstation

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
170	35496700	Monitor, 17 in. color	175	90157000	BNC Terminator
171	35517900	CPU Box Assembly, SPARCstation® 5	176	90150400	T-type ThinNet Connector
172	01497300	Keyboard	177	90392100	Ethernet ThinNet 50-ft Cable
173	01820600	Mouse with Pad			
174	90395800	Adapter Miniature D-AUI Cable			

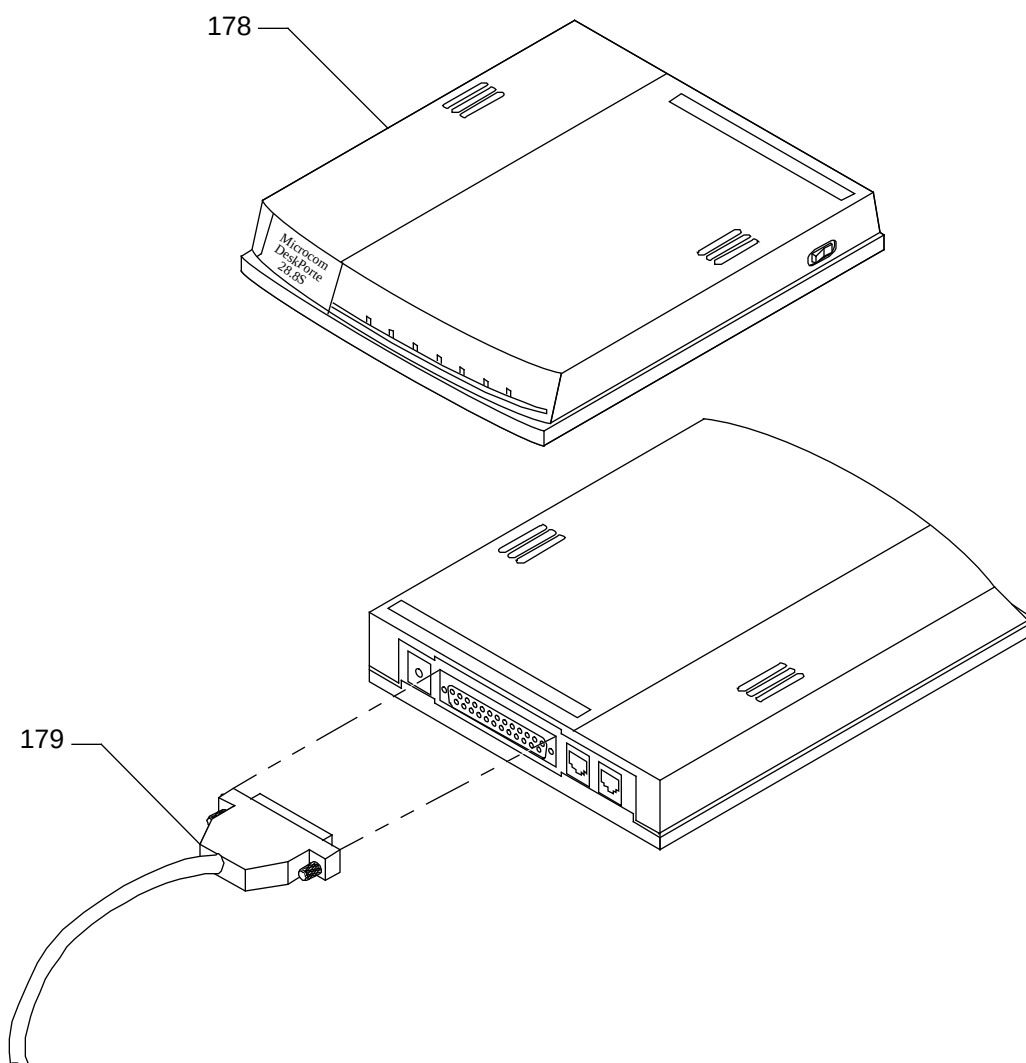


Remote Support

Ref.**No. Part Number Description**

178 35487700 Microcom® Modem

179 12171100 RS-232 Cable



NetBlazer Kit – Optional

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
180	35457100	PN2 NetBlazer® Router	185	90160300	International Power Cord, VDE 8 ft
181	90150500	Terminator	186	90414800	SBus Controller PC Board
182	90150400	T-type ThinNet Connector			
183	35548900	Ethernet Cable			
184	01751000	RS-232 Cable (supplied with NetBlazer router)			

