

**CRAY Y-MP EL™ and CRAY EL98™
Illustrated Parts Catalog**

CQQ-0709-000

Cray Research Proprietary

Cray Research, Inc.

Record of Revision

Each time this manual is updated with a change packet, a change to part of a text page is indicated by a change bar in the margin directly opposite the change. A change bar in the footer of a text page indicates that most, if not all, of the text is new. A change bar in the footer of a page composed primarily of a table and/or figure may indicate that a change was made to that table/figure or, it could indicate that the entire table/figure is new. Change packets are assigned a numerical designator, which is indicated in the publication number on each page of the change packet.

Each time this manual is fully revised and reprinted, all change packets to the previous version are incorporated into the new version, and the new version is assigned an alphabetical revision level, which is indicated in the publication number on each page of the manual. A revised manual does not usually contain change bars.

REVISION

DESCRIPTION

September 1993. Original Printing.

PREFACE

The CRAY Y-MP EL and the CRAY EL98 computer systems may be serviced by either Cray Research, Inc. engineers, customer engineers, or third party maintainers. This illustrated parts catalog is provided to assist service personnel in identifying part numbers for parts they need to replace.

The parts described in this catalog are major components, or field-replaceable units, for the CRAY Y-MP EL and CRAY EL98 systems. The components and their removal and replacement procedures are included in the *CRAY EL Series Troubleshooting and Maintenance Manual*, Cray Research publication number CMM-0431-0B0.

CRAY Y-MP EL AND CRAY EL98 ILLUSTRATED PARTS CATALOG

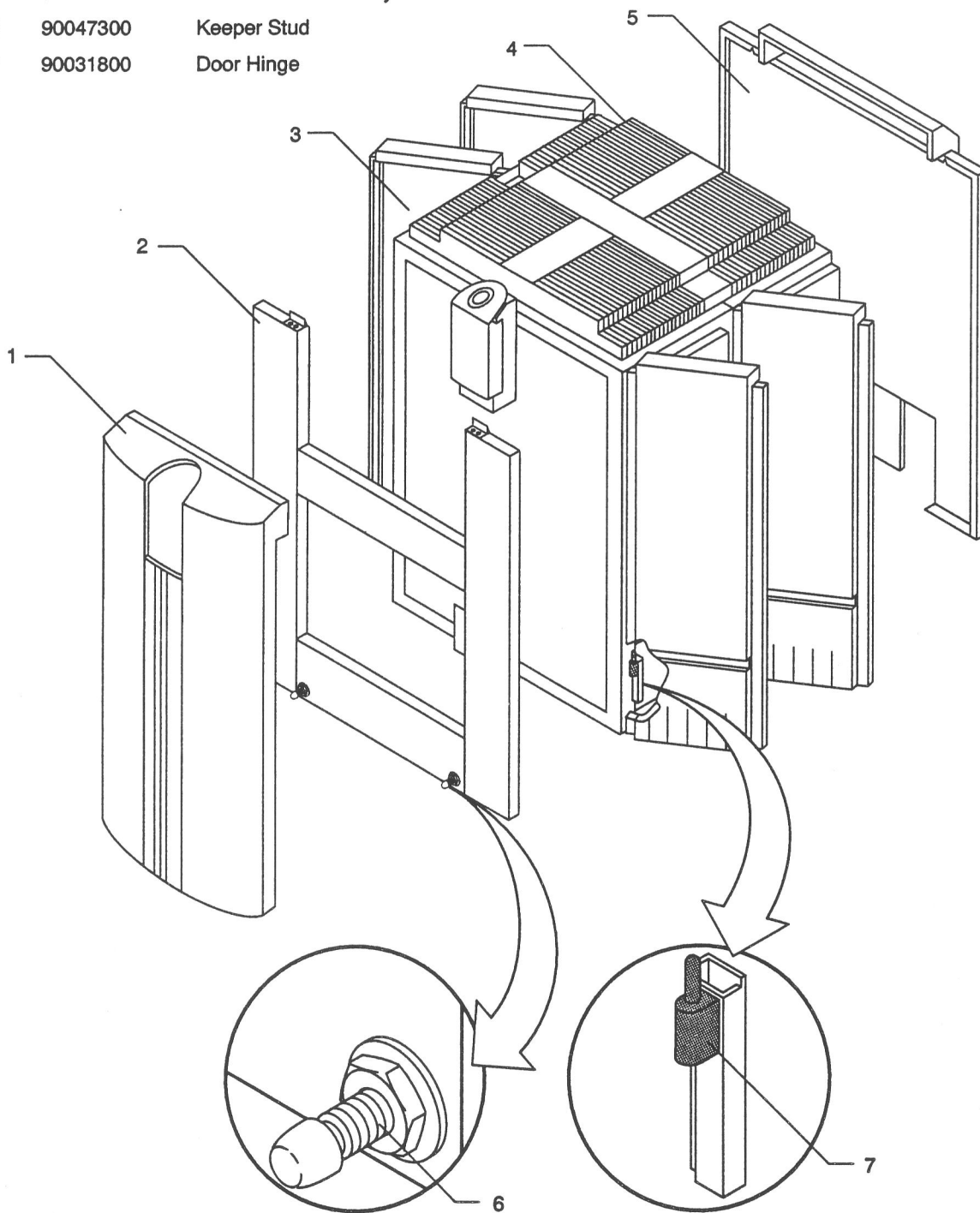
The information in this catalog is arranged by functional areas of the machine. Because the hardware of the CRAY EL98 system is nearly identical to the CRAY Y-MP EL system, the two systems have been combined in this catalog; any CRAY EL98 differences have been noted throughout.

In some instances part names and numbers vary depending on the configuration of the system. In such cases, these variances have been noted.

Our parts ordering system is set up to ensure shipment of the most up-to-date parts. When you order parts using the part numbers in this catalog, you can be assured you will receive the latest revisions of the parts even if the part numbers have changed.

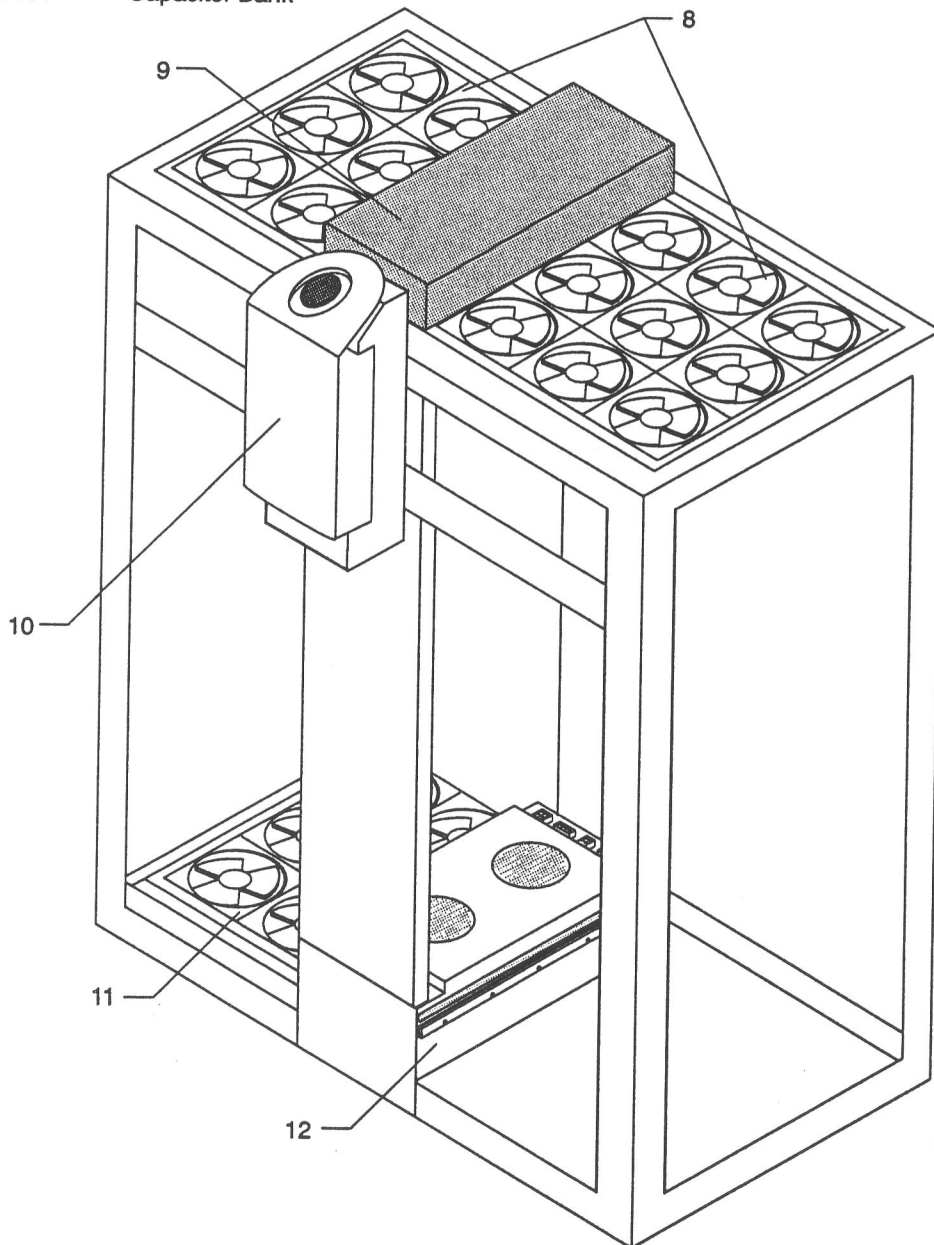
Mainframe Panels

Ref No	Part Number	Description
1	90172900	Curved Front Panel Assembly
2	90172800	Front Panel Trim Assembly
3	90089300	Door Panel Assembly
4	90076800	Top Grille Assembly
5	90089500	Rear Panel Assembly
6	90047300	Keeper Stud
7	90031800	Door Hinge



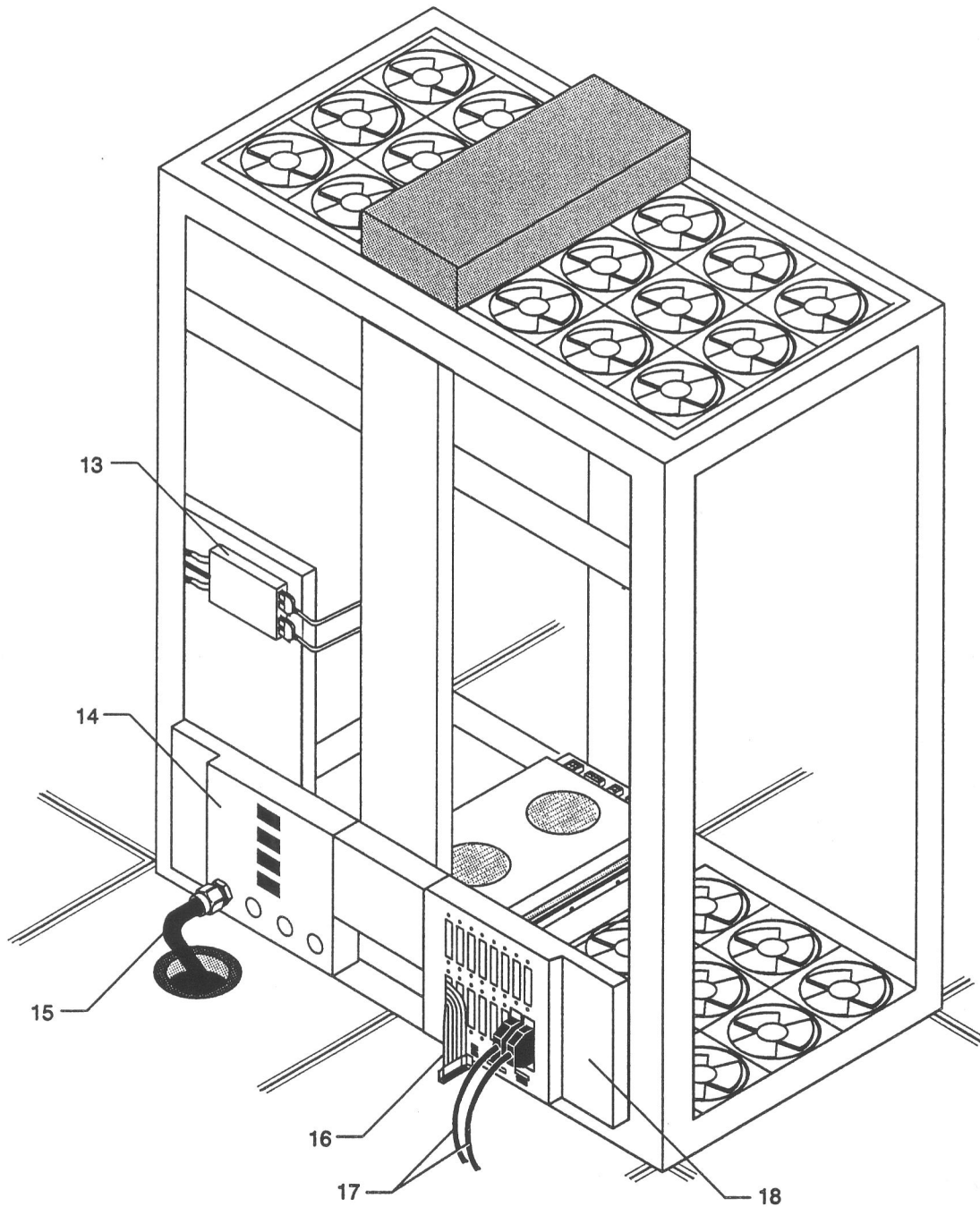
Power (Front View)

Ref No	Part Number	Description
8	90013301	Exhaust (Top) Fan Tray Assembly
9	90046101	Bulk Converter Assembly
10	90013203	Control Panel
11	90013401	Intake (Lower) Fan Tray Assembly (This is not the assembly that fits under CPU card cage. Refer to page 14, reference number 62 for the CPU fan tray assembly.)
12	90027401	Capacitor Bank



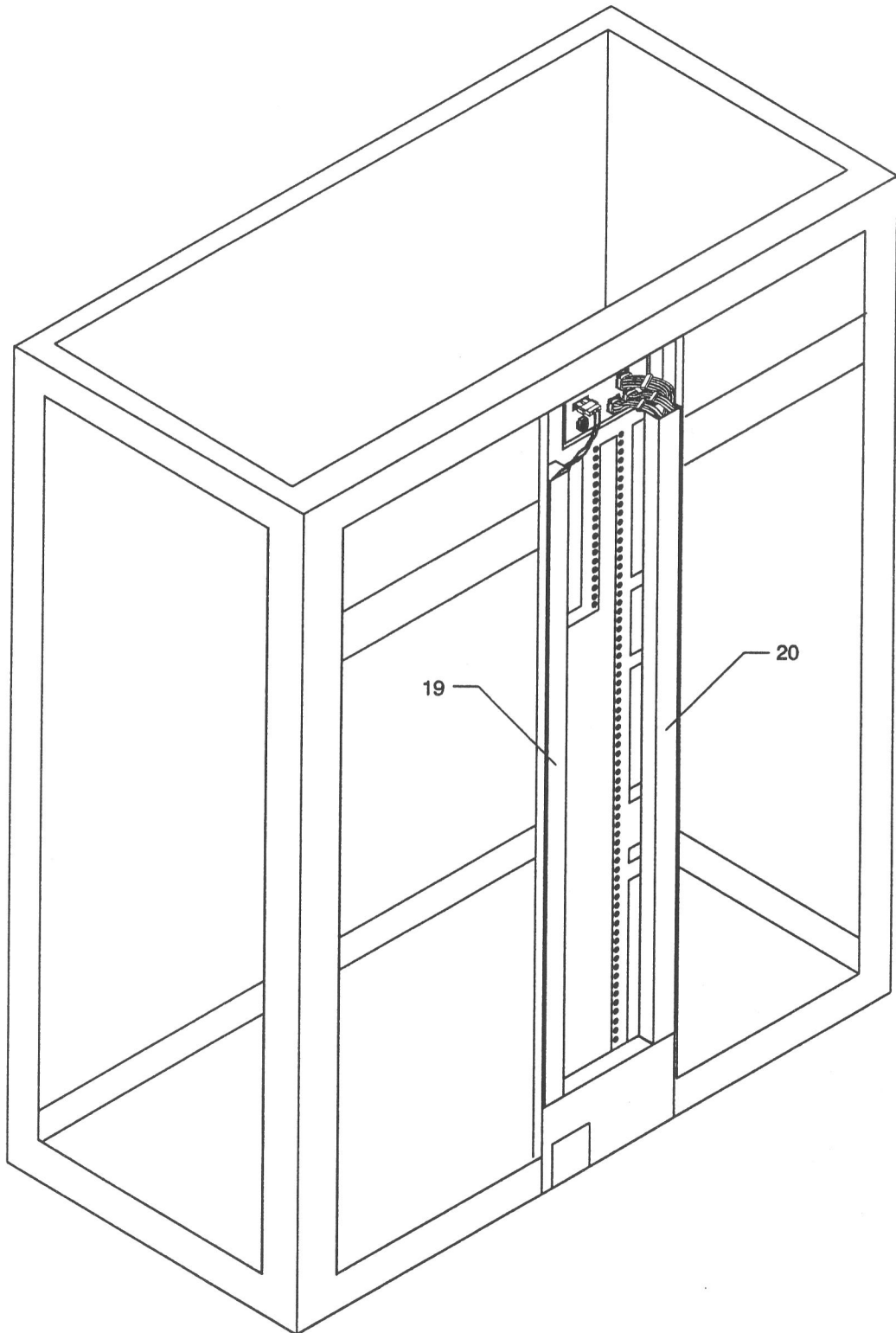
Power (Back View)

Ref No	Part Number	Description	Ref No	Part Number	Description
13	90156600	FDDI Switch Module Assembly	16	90156800	External SCSI Cable
14	90022500	Incoming Power Module Assembly	17	90216400	External HIPPI Cables (Set of 2)
15	90086601	Domestic Power Cord	18	90053600	Connector Bulkhead Assembly
	90097401	International Power Cord			



Power (Vertical Wireway)

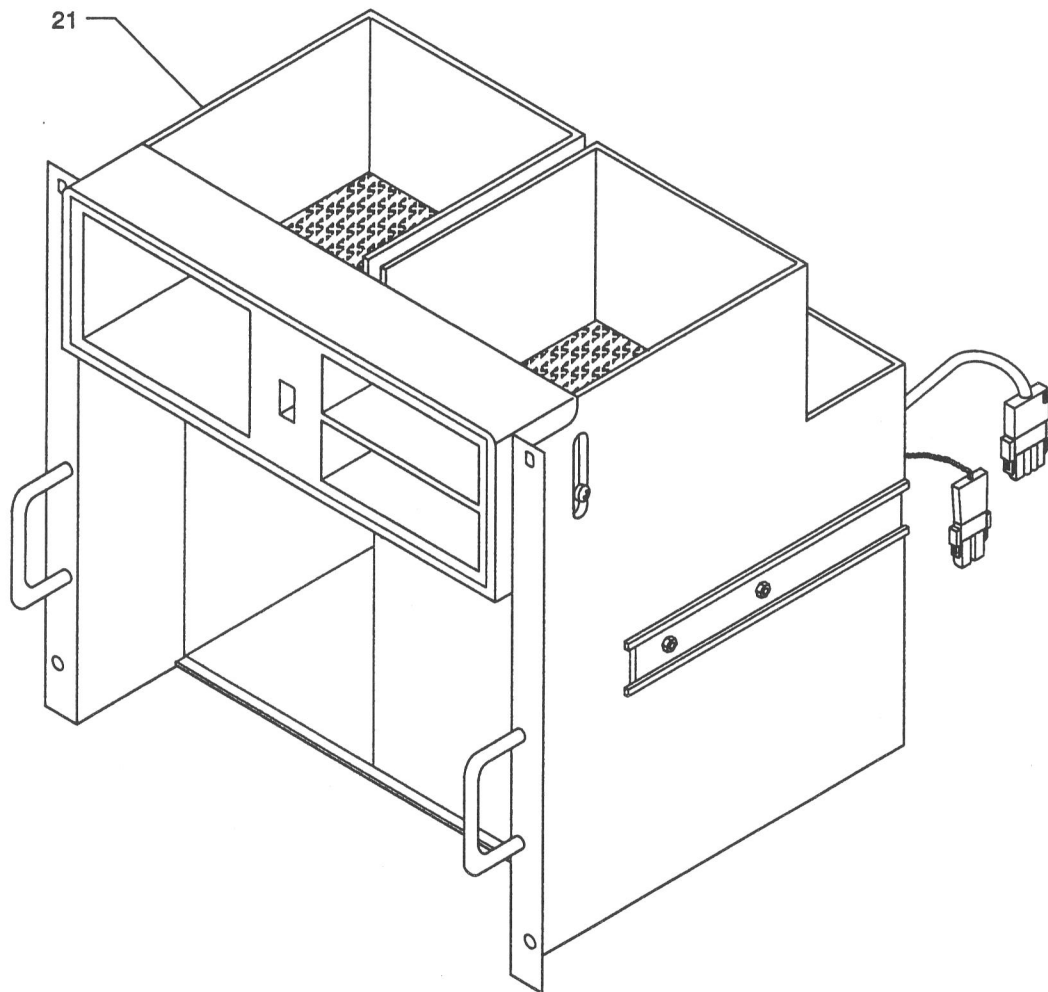
Ref No	Part Number	Description
19	90157300	Inhibit Distribution Kit
20	90053800	Power Distribution Kit



IOS VME Card Cage

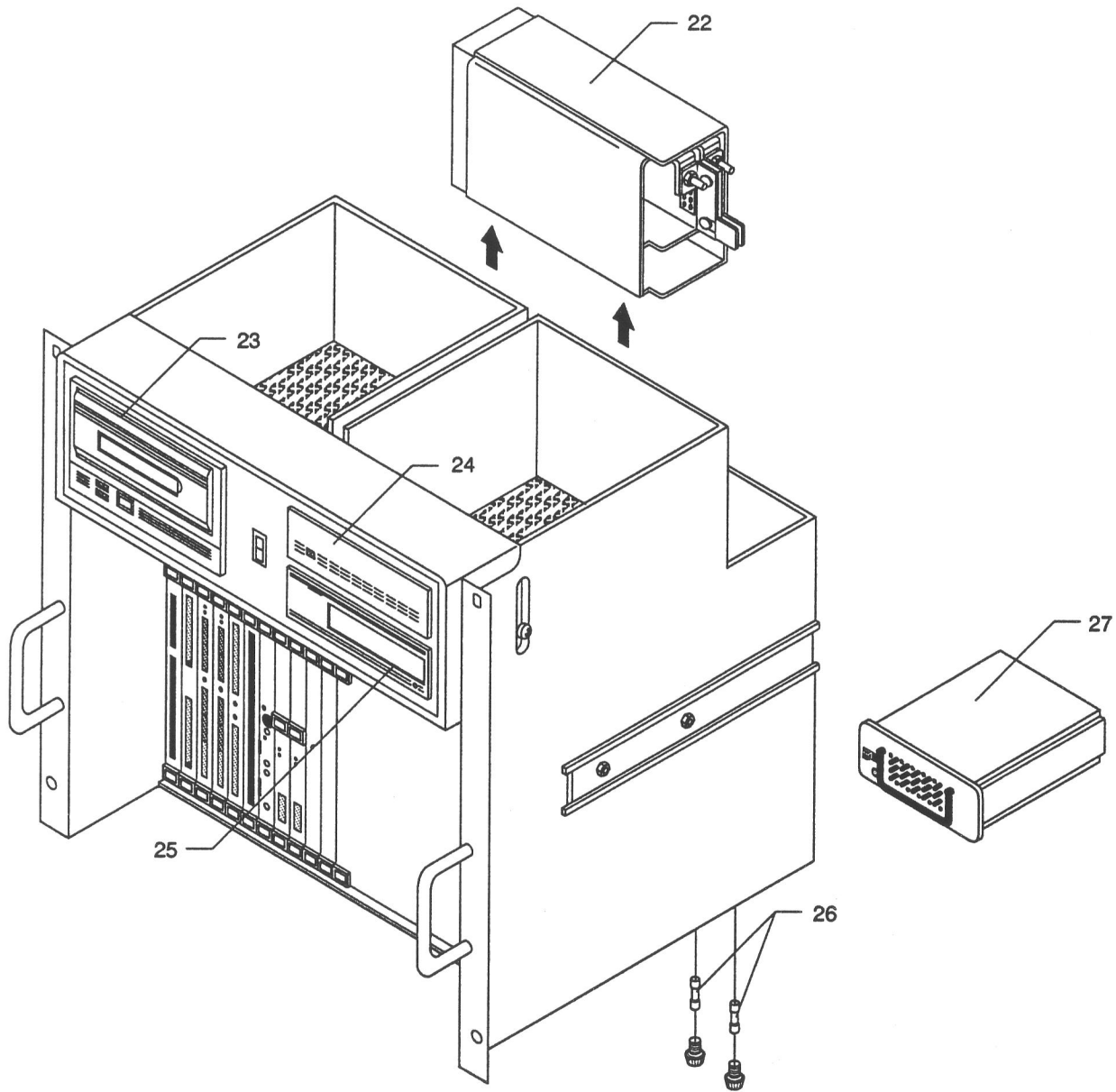
Ref No	Part Number	Description
21	90140300	IOS VME Chassis Assembly

NOTE: When you order the part number above, you receive everything shown in this diagram. This part number does not include the power supply.



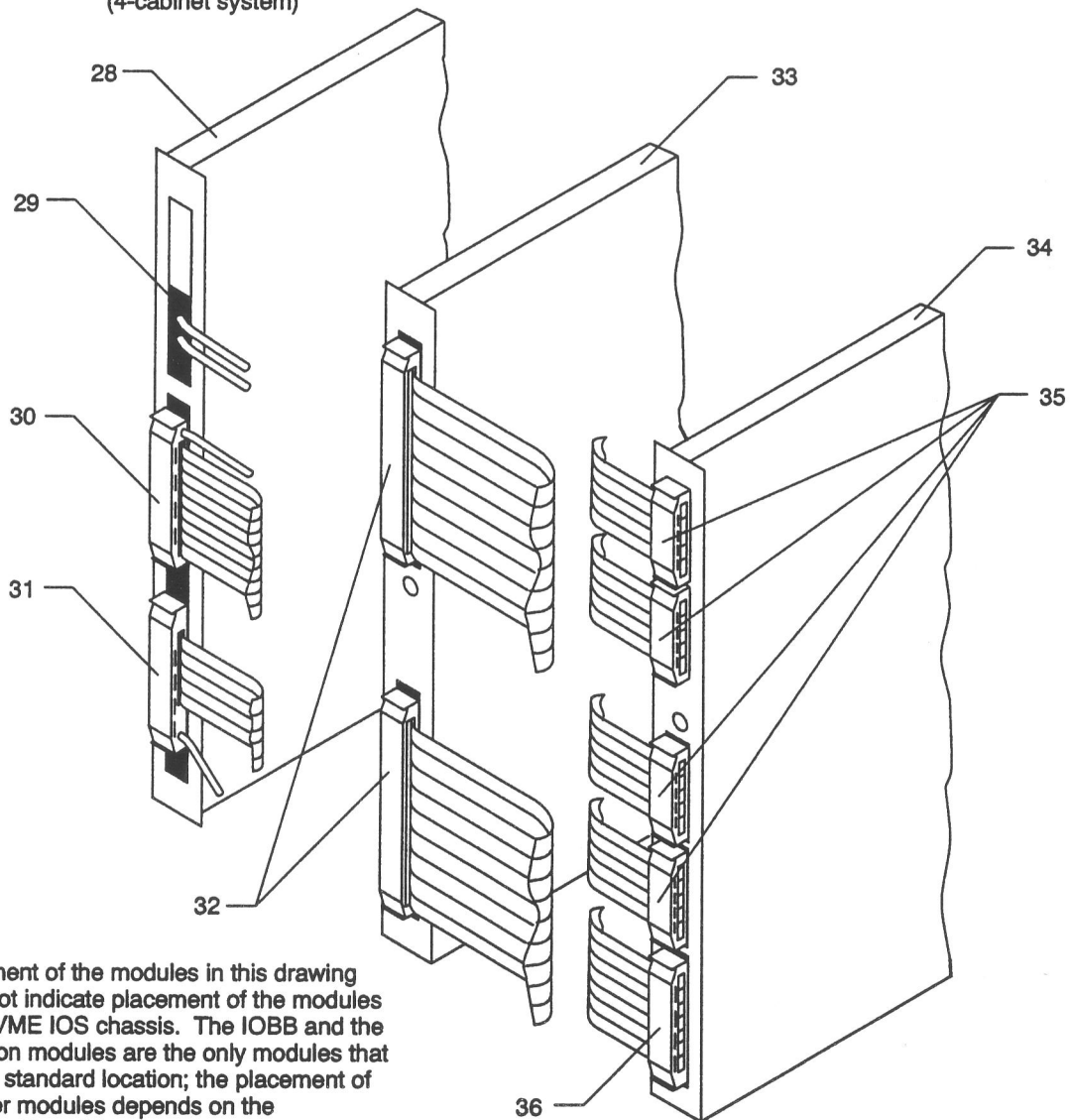
IOS VME Card Cage Assembly

Ref No	Part Number	Description	Ref No	Part Number	Description
22	90035900	VME Power Supply	26	90067407	Fuses
23	90215200	EX-2 Tape Unit Assembly	27	90184200	DR-2 Removable Drive (This drive is exchangeable with the HD-1.)
24	90237100	HD-1 Tape Unit Assembly (Hard Disk Drive)			
25	90168604	QIC Tape Drive Assembly (DS-2 Tape Unit Assembly) (Streaming Tape Drive)			



IOS VME Boards

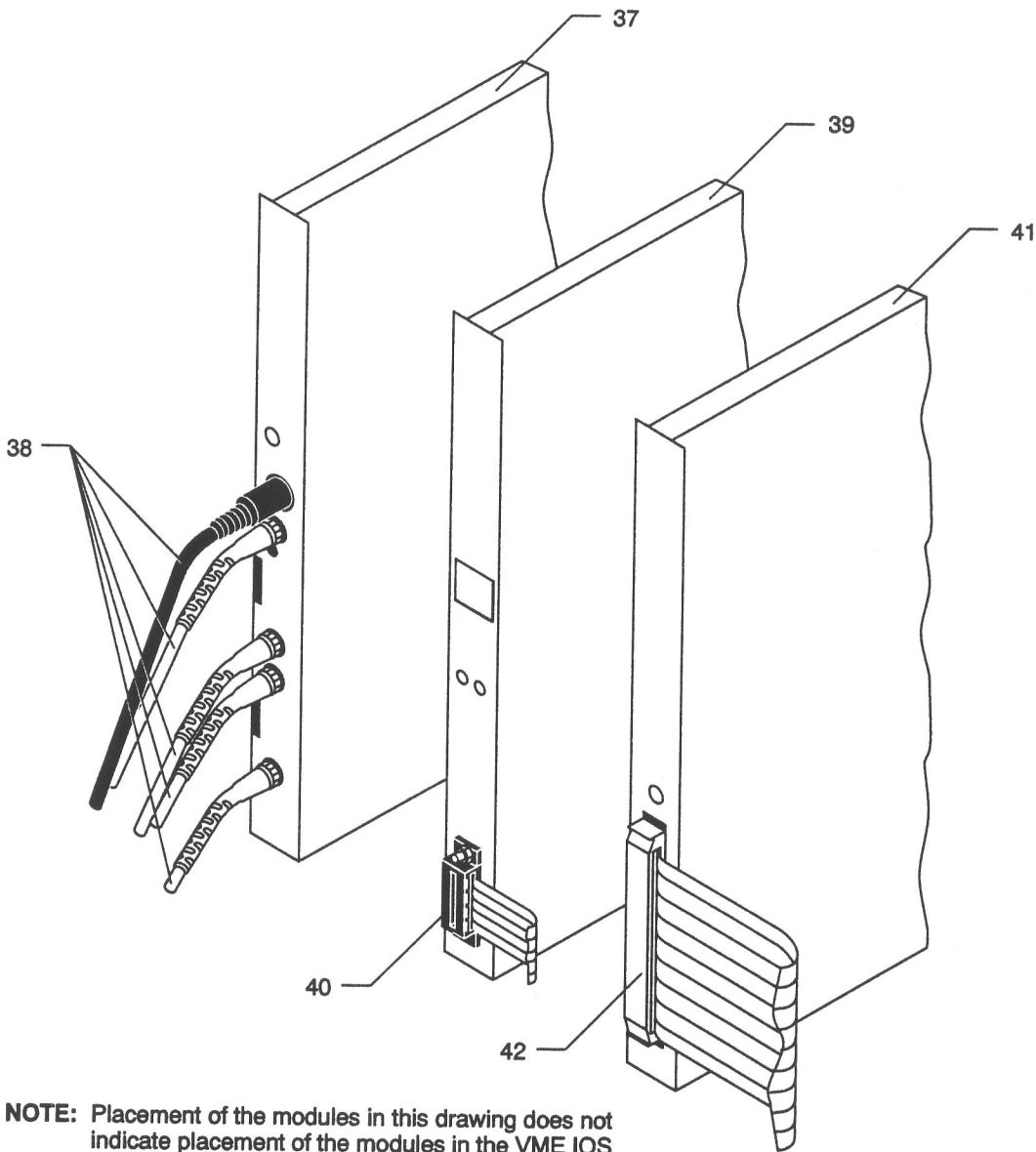
Ref No	Part Number	Description	Ref No	Part Number	Description
28	90118902	IOP (Heurikon HK68/V30) Board	33	90043401	IOBB-15 Board
29	90166400	IOS Reset Cable		90044302	IOBB-25 Board (CRAY EL98)
30	90124900	Printer Interface Cable (Includes Autoboot Line)	34	90227300	DC-3 Board
31	90131100	RS232/422 Cable	35	90048900	DD-3 Data Cable
32	90048800	Y1 Channel Cable (1-cabinet system)	36	90049600	ESDI Control Cable (4 drop, left side)
	90048801	Y1 Channel Cable (2-cabinet system)		90132000	ESDI Control Cable (4 drop, right side)
	90048802	Y1 Channel Cable (3-cabinet system)		90131600	ESDI Control Cable (2 drop, left side)
	90048803	Y1 Channel Cable (4-cabinet system)		90132100	ESDI Control Cable (2 drop, right side)



NOTE: Placement of the modules in this drawing does not indicate placement of the modules in the VME IOS chassis. The IOBB and the Heurikon modules are the only modules that have a standard location; the placement of all other modules depends on the configuration of the system.

IOS VME Boards (continued)

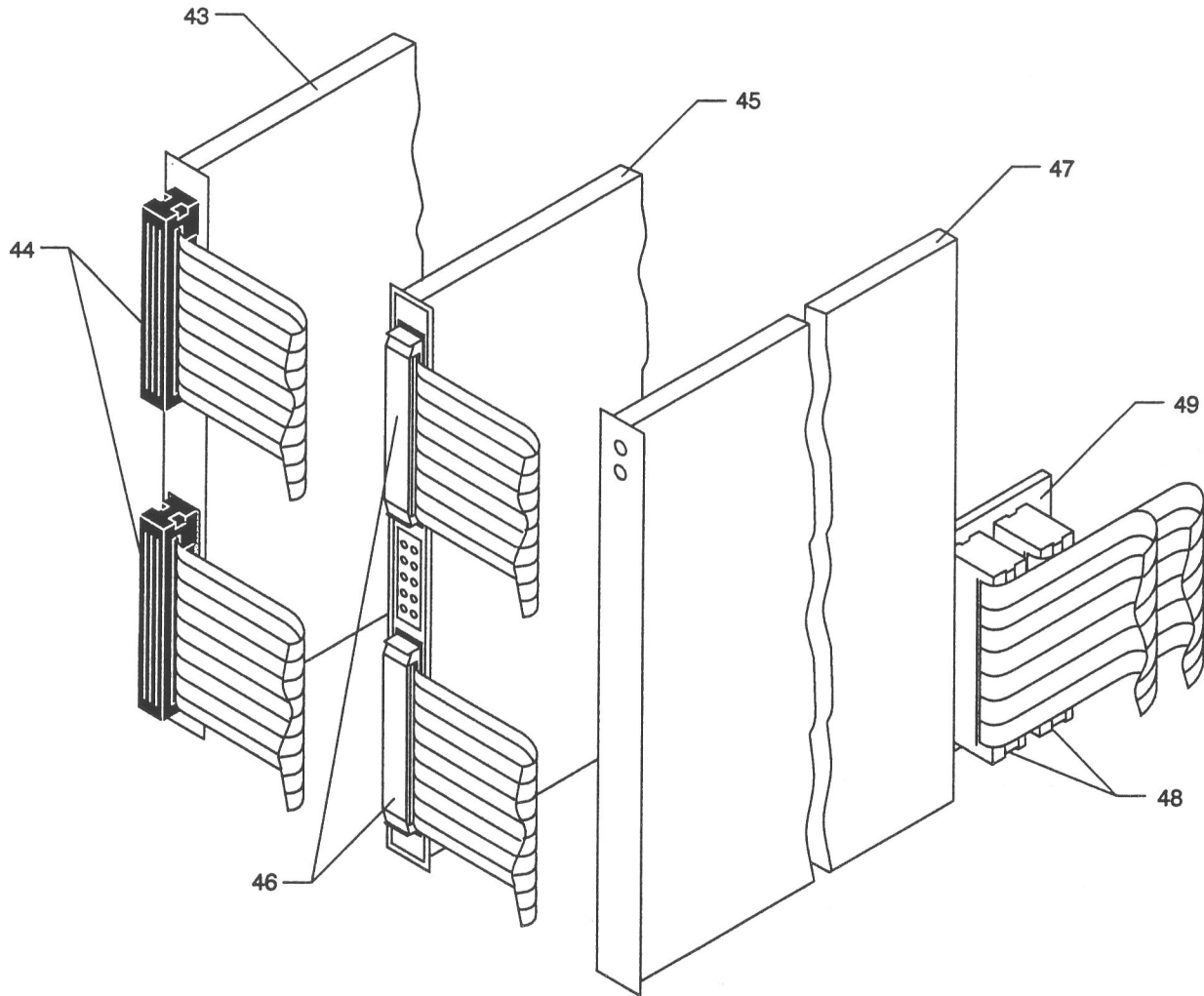
Ref No	Part Number	Description	Ref No	Part Number	Description
37	90227400	FI-1 Board	42	90123000	TD-3 Logic Cable (if cable leads to TD-3)
38	These cables can be ordered only by ordering the FDDI module switch assembly (refer to page 4, reference number 13).			90156800	SCSI Bulkhead Cable (if cable leads to Connector Bulkhead Assembly)
39	90227200	EI-1 Board		90162000	TD-3 Jumper Cable (if system has 2 TD-3s)
40	90152600	Ethernet Cable			
41	90089702	SI-1 Board			



NOTE: Placement of the modules in this drawing does not indicate placement of the modules in the VME IOS chassis. The placement of the modules depends on the configuration of the system.

IOS VME Boards (continued)

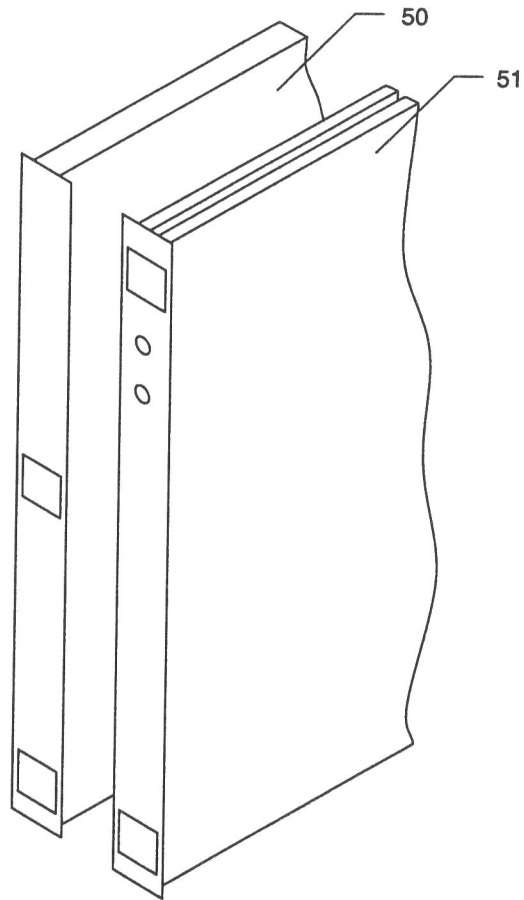
Ref No	Part Number	Description	Ref No	Part Number	Description
43	90233900	DC-4 Board	46	90244400	Hyperchannel Cable
44	90123300	PE-4 Logic (Control and Data) Cable	47	90237700	TC-2 Board
45	90237800	HC-1 Board (Hyperchannel Interface Card)	48	90135000	TC-2 Adapter Module
			49	90122600	TD-2 Logic Cable



NOTE: Placement of the modules in this drawing does not indicate placement of the modules in the VME IOS chassis. The placement of the modules depends on the configuration of the system.

IOS VME Boards (continued)

Ref No	Part Number	Description
50	90237600	BMR-C Module
51	90237500	BMR-M Module

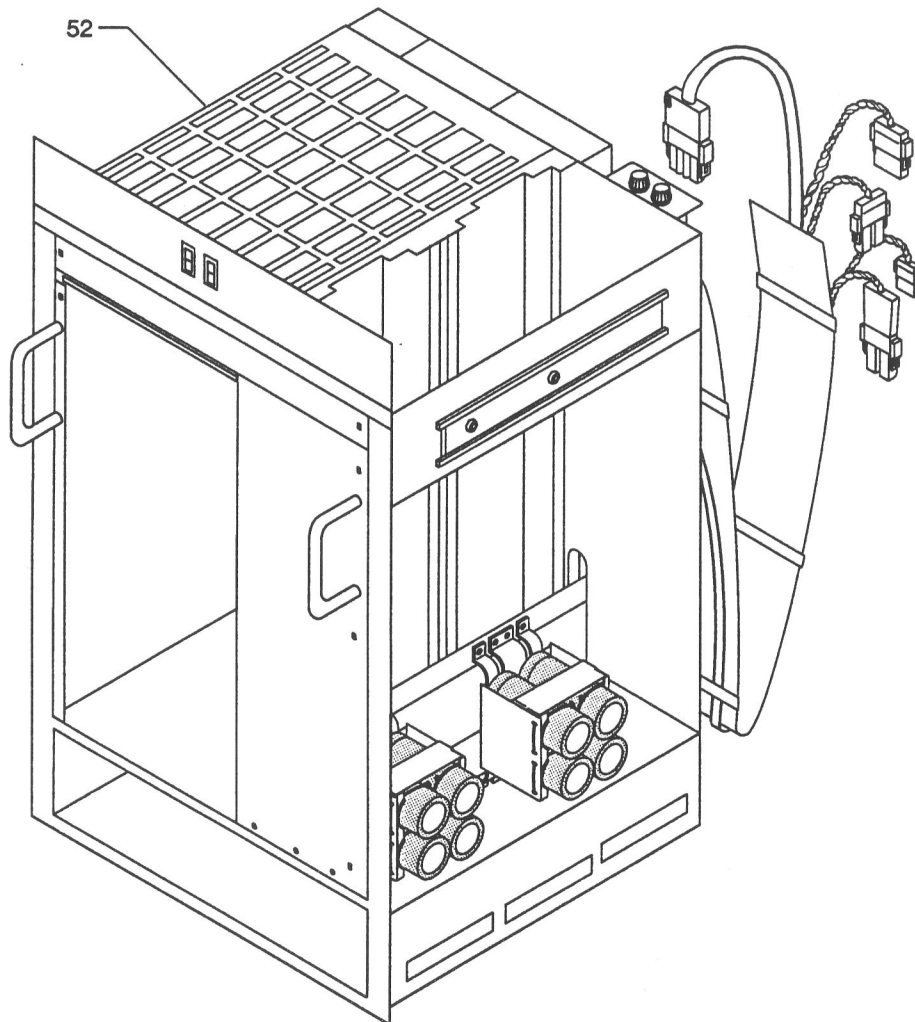


NOTE: The placement of the two modules in this drawing is important. The BMR-C module must always be placed before, or to the left, of the BMR-M module.

CPU Card Cage

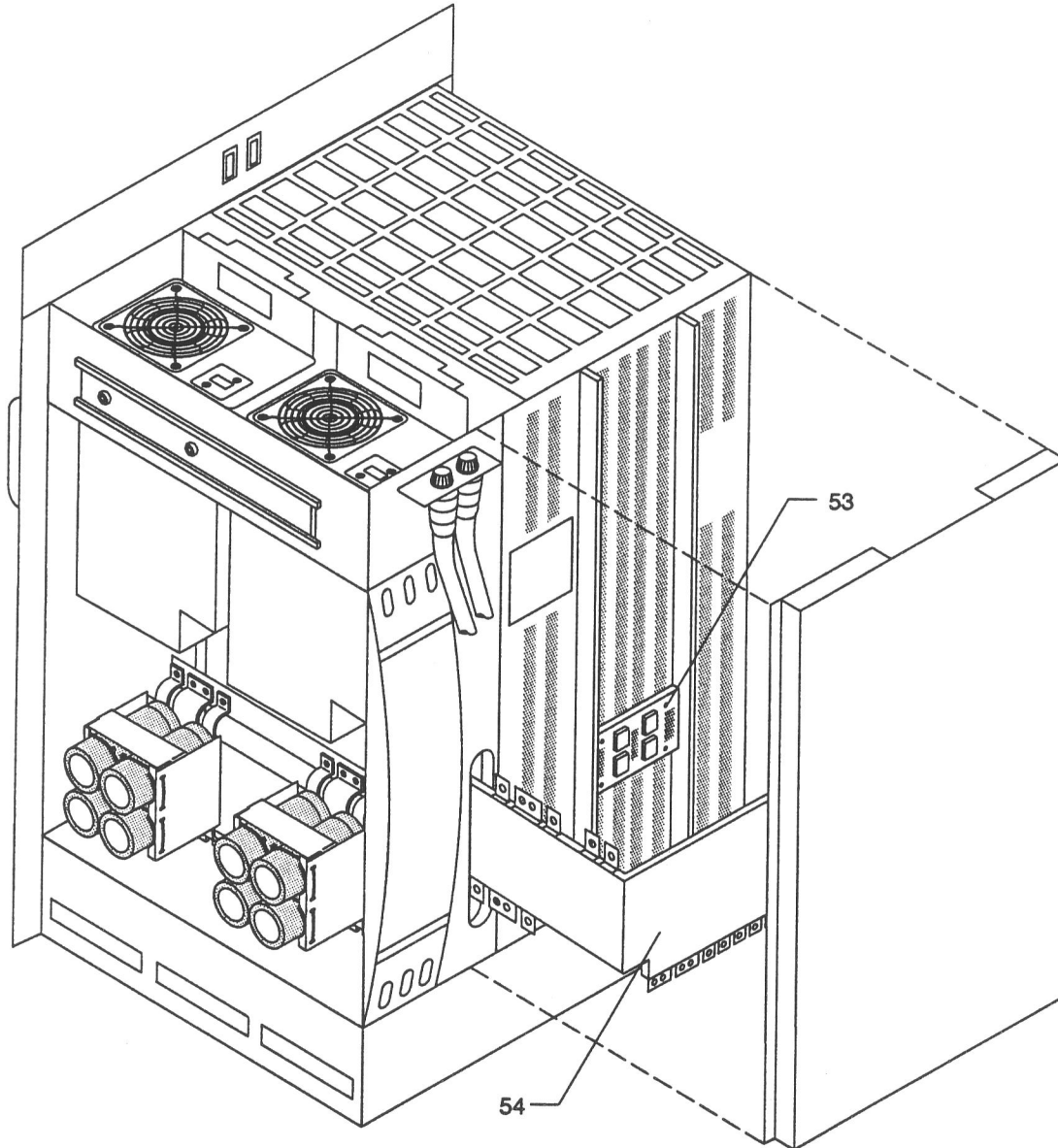
Ref No	Part Number	Description
52	90012701	CPU Card Cage Assembly (CRAY Y-MP EL)
	90200200	CPU Card Cage Assembly (CRAY EL98)

NOTE: When you order the part number above, you receive everything shown in this diagram.



CPU Card Cage Assembly (Back View)

Ref No	Part Number	Description
53	90063000	Scan Adapter Board
54	90008200	Bus Bar Assembly



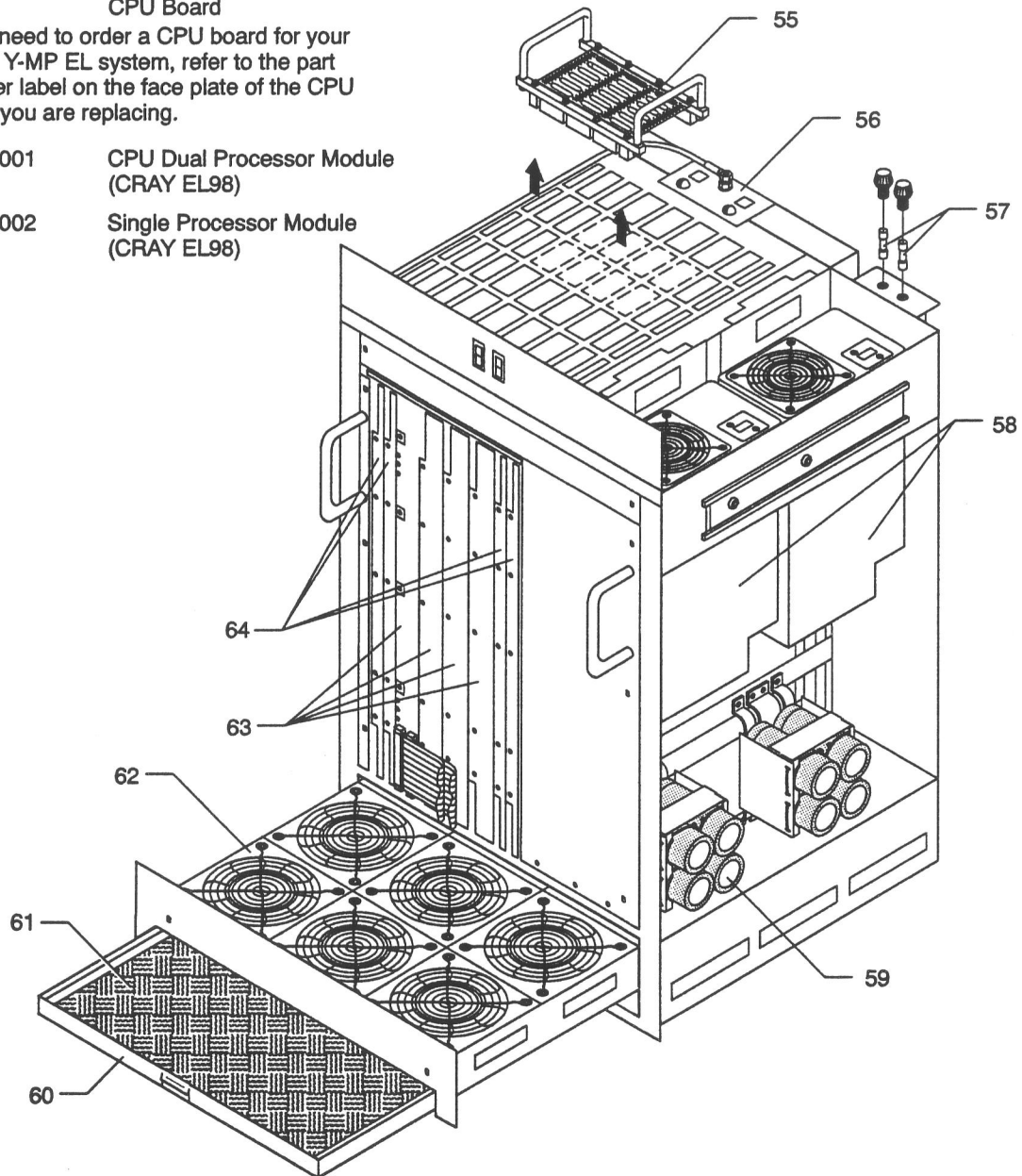
CPU Card Cage Assembly

Ref No	Part Number	Description	Ref No	Part Number	Description
55	90194000	Memory Arbitration Bus (CRAY EL98)	64	90015000	Mem16 Board (configuration dependent) (also used as Mem8 board replacement)
56	90017001	Clock Module	90013440	Mem32 Board (configuration dependent)	
57	90036800	Fuses	90224000	Mem64 Board (configuration dependent) (CRAY EL98)	
58	90014300	Power Supplies (CPU/Mem)	90193000	Mem128 Board (configuration dependent) (CRAY EL98)	
59	90008800	Capacitor Assembly			
60	90248000	Filter Tray			
61	90247900	Fan Tray Filter			
62	90008601	Fan Tray Assembly			
63		CPU Board			

If you need to order a CPU board for your CRAY Y-MP EL system, refer to the part number label on the face plate of the CPU board you are replacing.

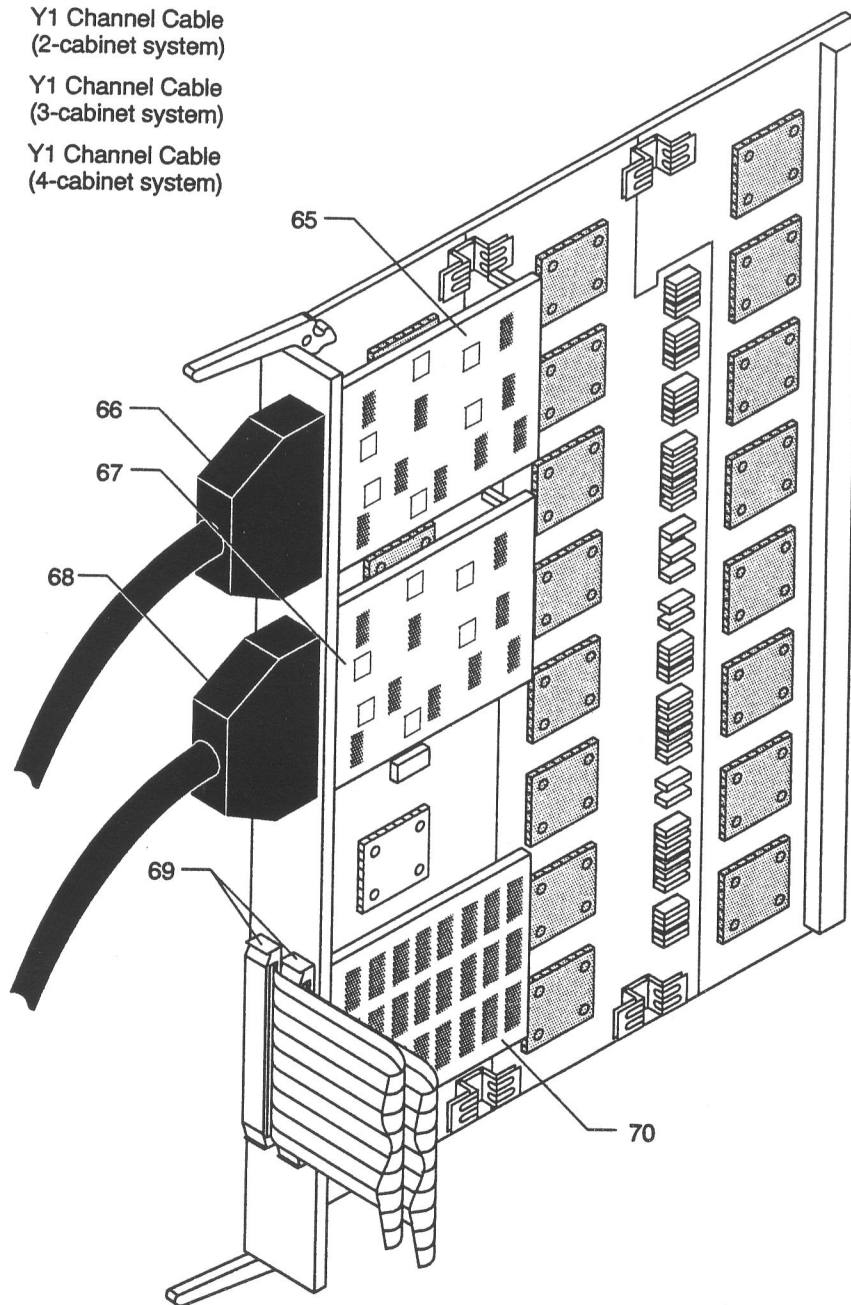
90190001 CPU Dual Processor Module (CRAY EL98)

90191002 Single Processor Module (CRAY EL98)



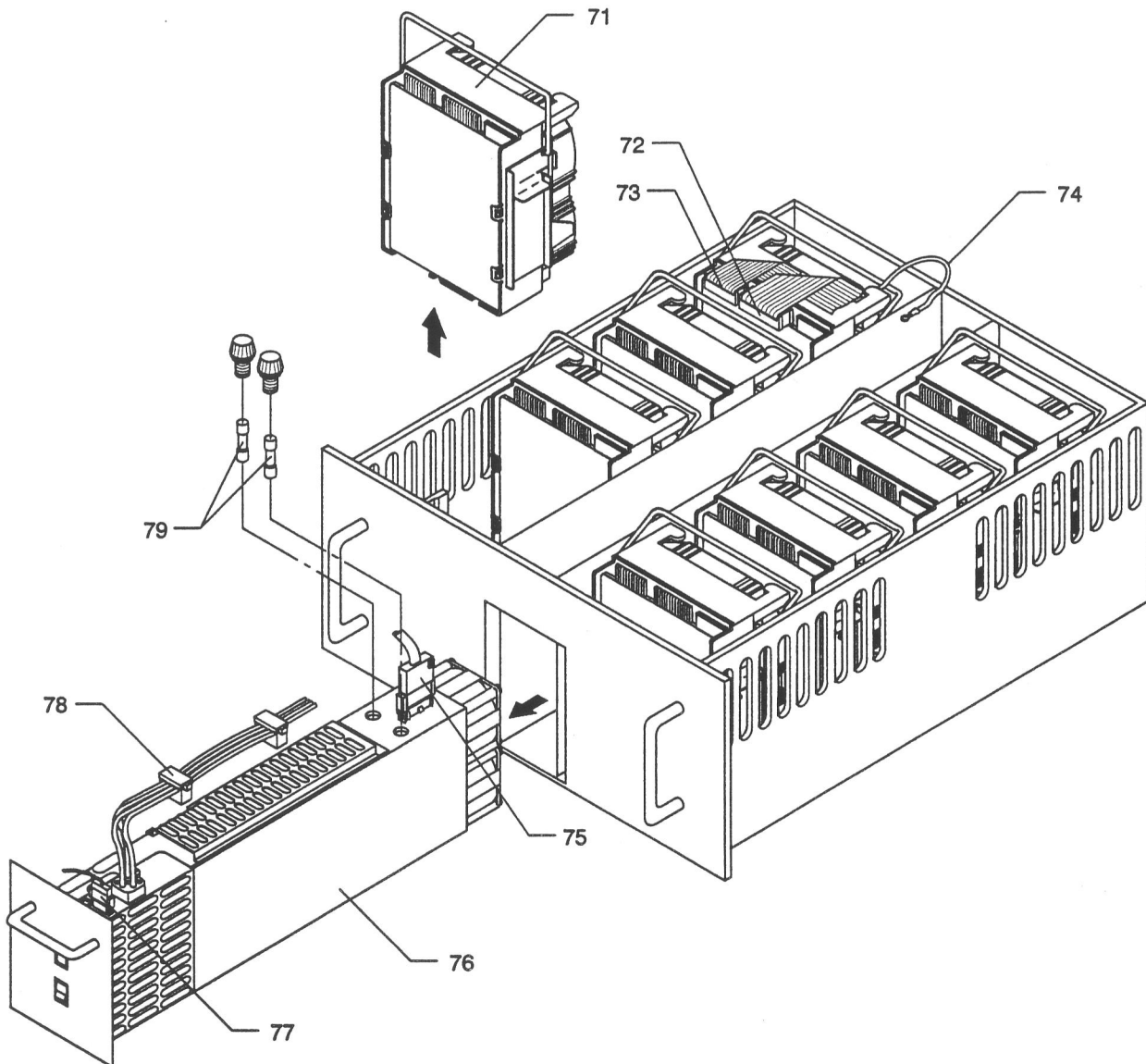
CPU Board with Y1 Channel Board and HIPPI Boards

Ref No	Part Number	Description	Ref No	Part Number	Description
65	90045500	Source HIPPI Board	70	90018001	Y1 Channel Board (with CC02 ASIC)
66	90227600	Internal Source Cable		90018002	Y1 Channel Board (with CC05 ASIC)
67	90019001	Destination HIPPI Board			
68	90227601	Internal Destination Cable			
69	90048800	Y1 Channel Cable (1-cabinet system)			
	90048801	Y1 Channel Cable (2-cabinet system)			
	90048802	Y1 Channel Cable (3-cabinet system)			
	90048803	Y1 Channel Cable (4-cabinet system)			



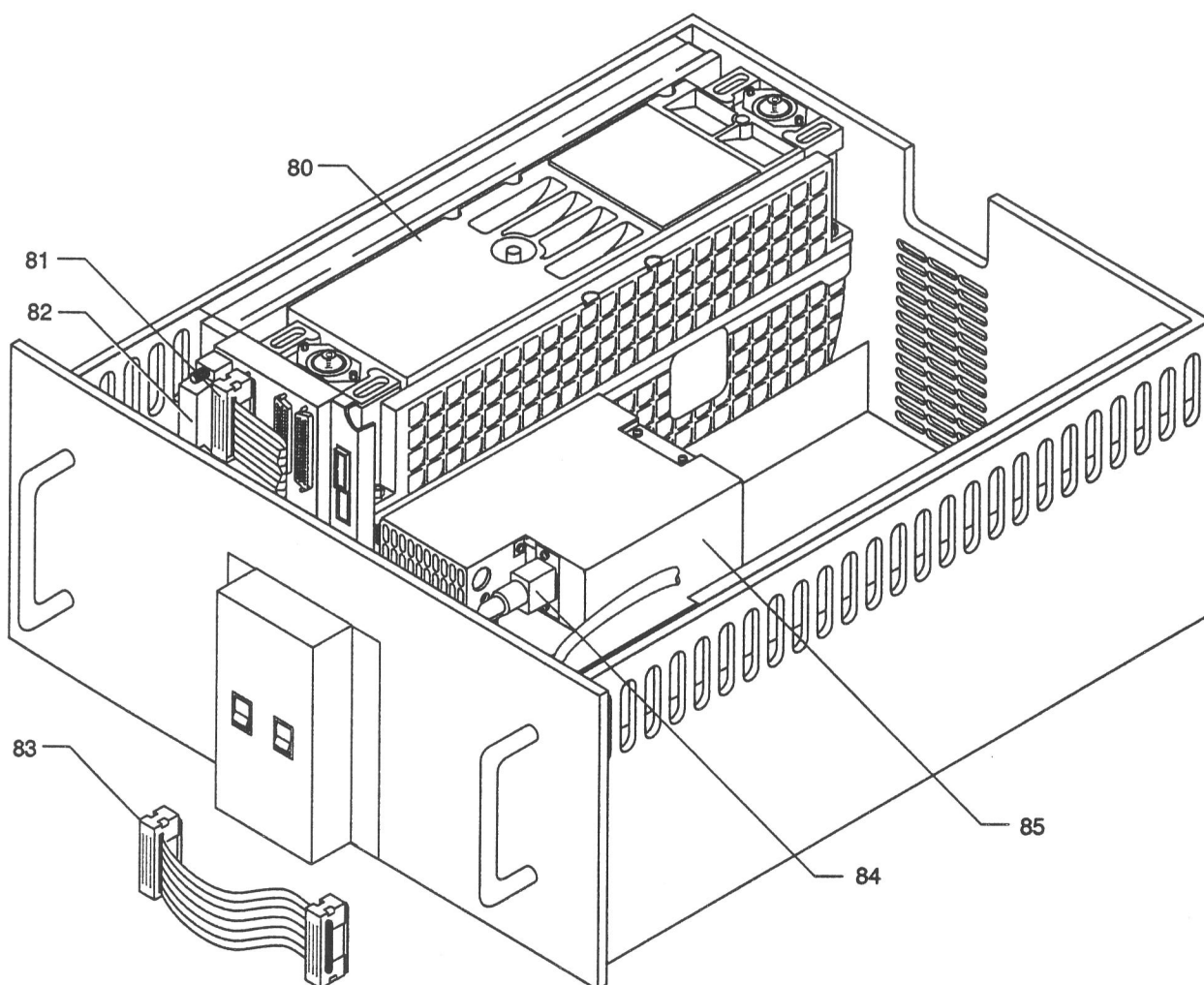
PE-3 Tray Assembly

Ref No	Part Number	Description	Ref No	Part Number	Description
71	90250400	DD-3 Drive Assembly	73	90048900	Data Cable
72	90049600	ESDI Control Cable (4 drop, left side)	74	90209000	Ground Cable
	90132000	ESDI Control Cable (4 drop, right side)	75	90110800	HVdc Input Cable
	90131600	ESDI Control Cable (2 drop, left side)	76	90139200	Power Supply Assembly
	90132100	ESDI Control Cable (2 drop, right side)	77	90091700	Inhibit Control Cable
			78	90142700	Daisy Chain Power Cable
			79	90067404	Fuses



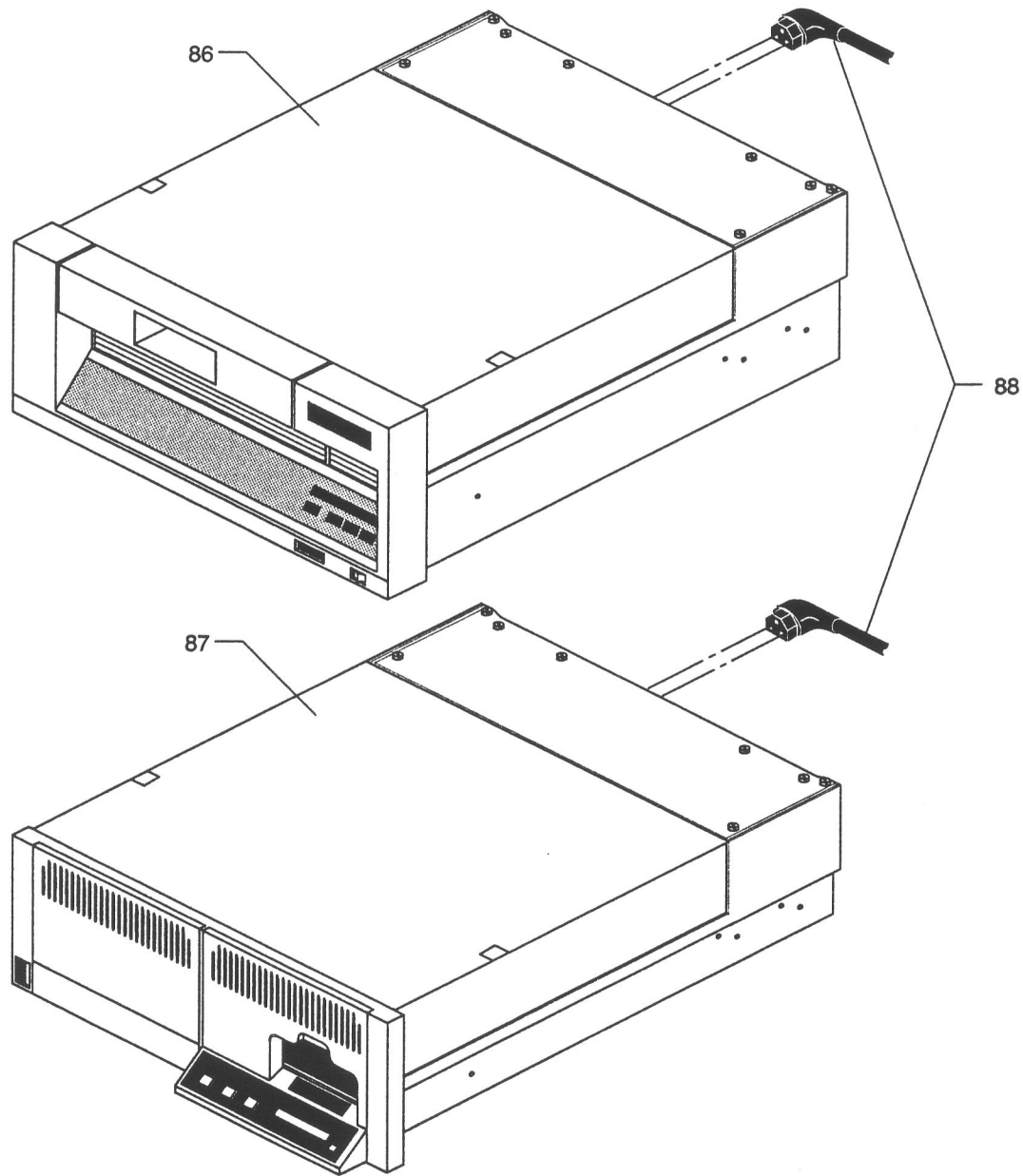
PE-4 Drawer Assembly

Ref No	Part Number	Description
80	90073200	IPI Drive
81	90123300	Logic Cable
82	90118100	Terminator
83	90136700	Logic Jumper Cable (Used when there are 2 IPI drives.)
84	90051900	Power Cable
85	01488200	Power Supply



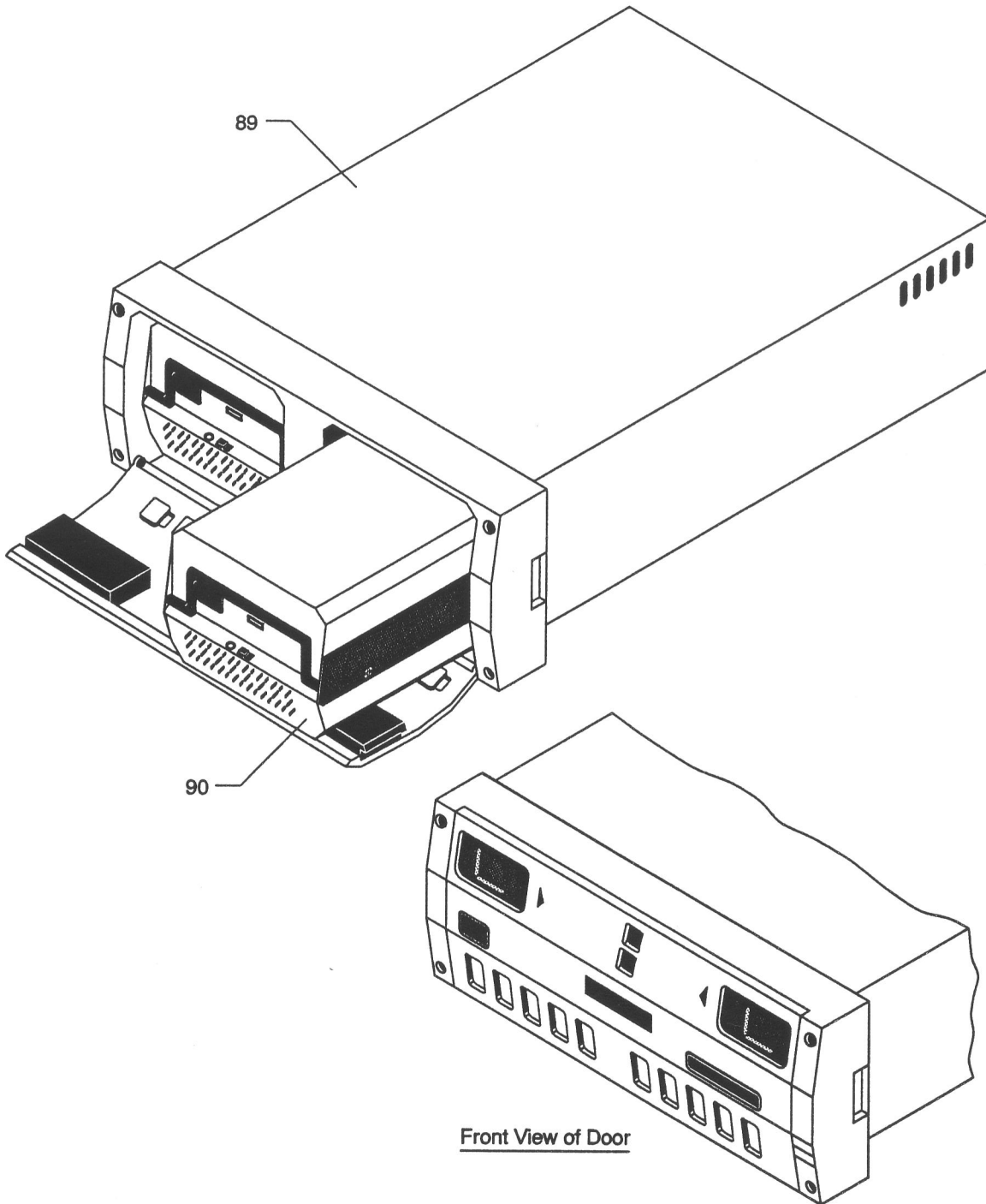
TD-2 and TD-3 Tape Drives

Ref No	Part Number	Description
86	90250600	TD-2 9-track Tape Drive
87	90250700	TD-3 18-track Tape Drive
88	90159200	Power Input Cable



Datashuttle and DR-1

Ref No	Part Number	Description
89	90158800	Datashuttle Kit (Datashuttle and DR-1 Cannisters)
90	90074600	DR-1 Cannister only



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