IBM System Storage DS8000 - 242x Models 94x and 95x

Version 6 Release 3.2

Parts Catalog

GC27-2296-07

Note
Before using this information and the product it supports, read the information in the Notices section.

This edition (GC27-2296-07, November 2012) replaces GC27-2296-06.

Contents

Summary of changes for the Parts Catalog

Changes for this edition are indicated by revision bars in the left margin.

There are part number updates for Version 6 Release 3.2 for Models 94x.

Who should use this guide

This guide is for service representatives who are trained to install and repair the IBM System Storage DS8000. Internal components of this machine are designed and certified to be serviced by trained personnel only.

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

To submit any comments about this book or any other DS8000® documentation:

- Go to the DS8000 information center website at DS8000 Feedback. There you will find the feedback page where you can enter and submit comments.
- Send your comments by email to starpubs@us.ibm.com. Be sure to include the following information:
  - In the subject line of the email:
    - Exact publication title and version
    - Publication form number (for example, GC26-1234-02)
  - Page, table, or illustration numbers that you are commenting on
  - A detailed description of any information that should be changed

Safety and Environmental notices

This section contains information about safety notices that are used in this guide and environmental notices for this product.

Safety notices

Observe the safety notices when using this product. These safety notices contain danger and caution notices. These notices are sometimes accompanied by symbols that represent the severity of the safety condition.

Most danger or caution notices contain a reference number (Dxxx or Cxxx). Use the reference number to check the translation in the *IBM System Storage DS8000 Safety Notices*, P/N 98Y3994 on the documentation CD.

The sections that follow define each type of safety notice and give examples.

Danger notice

A danger notice calls attention to a situation that is potentially lethal or extremely hazardous to people. A lightning bolt symbol always accompanies a danger notice to represent a dangerous electrical condition. A sample danger notice follows:

DANGER: An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. *(D004)*

Caution notice

A caution notice calls attention to a situation that is potentially hazardous to people because of some existing condition, or to a potentially dangerous situation that might develop because of some unsafe practice. A caution notice can be accompanied by one of several symbols:

If the symbol is...	It means...
	A generally hazardous condition not represented by other safety symbols.
 Class II	This product contains a Class II laser. Do not stare into the beam. (*C029*) Laser symbols are always accompanied by the classification of the laser as defined by the U. S. Department of Health and Human Services (for example, Class I, Class II, and so forth).
	A hazardous condition due to mechanical movement in or around the product.

If the symbol is...	It means...
	This part or unit is heavy but has a weight smaller than 18 kg (39.7 lb). Use care when lifting, removing, or installing this part or unit. (*C008*)

Sample caution notices follow:

Caution

The battery is a lithium ion battery. To avoid possible explosion, do not burn. Exchange only with the IBM-approved part. Recycle or discard the battery as instructed by local regulations. In the United States, IBM® has a process for the collection of this battery. For information, call 1-800-426-4333. Have the IBM part number for the battery unit available when you call. (*C007*)

Caution

The system contains circuit cards, assemblies, or both that contain lead solder. To avoid the release of lead (Pb) into the environment, do not burn. Discard the circuit card as instructed by local regulations. (*C014*)

Caution

When removing the Modular Refrigeration Unit (MRU), immediately remove any oil residue from the MRU support shelf, floor, and any other area to prevent injuries because of slips or falls. Do not use refrigerant lines or connectors to lift, move, or remove the MRU. Use handholds as instructed by service procedures. (*C016*)

Caution

Do not connect an IBM control unit directly to a public optical network. The customer must use an additional connectivity device between an IBM control unit optical adapter (that is, fibre, ESCON®, FICON®) and an external public network . Use a device such as a patch panel, a router, or a switch. You do not need an additional connectivity device for optical fibre connectivity that does not pass through a public network.

Environmental notices

The environmental notices that apply to this product are provided in the *Environmental Notices and User Guide*, Z125-5823-*xx* manual. A copy of this manual is located on the publications CD provided in the ship group.

Part numbers

Use this section to find part numbers (P/Ns).

To locate the part number for your rack model and enclosure:

1. Refer to "Visual overview of enclosures and components."
2. Then use the table of contents.

Visual overview of enclosures and components

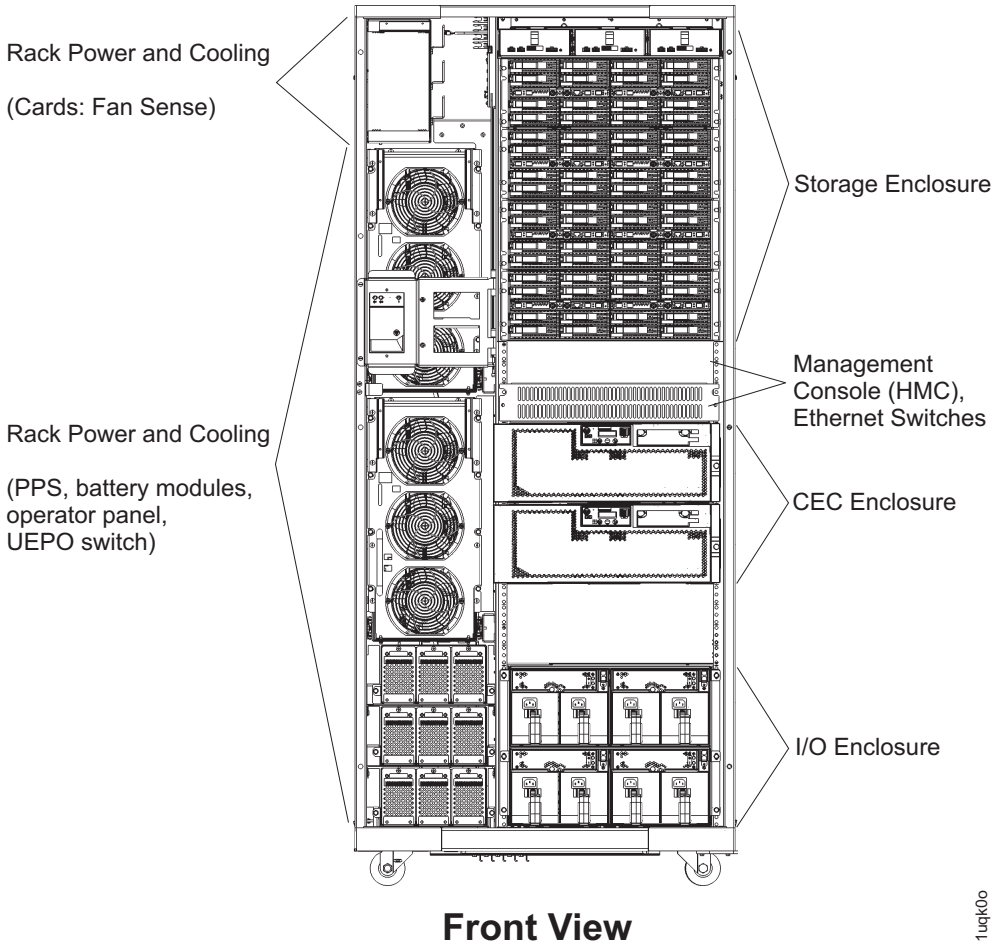

Figure 1. Visual overview of Model 941 Rack-1, front

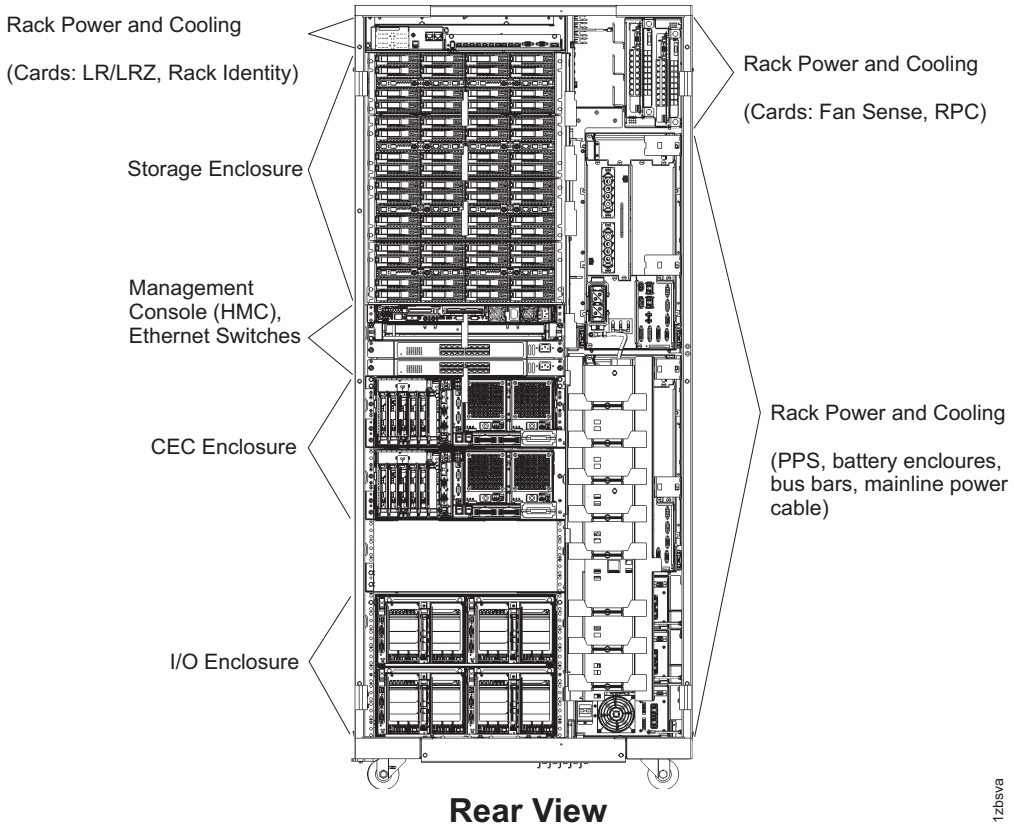

Figure 2. Visual overview of Model 941 Rack-1, rear

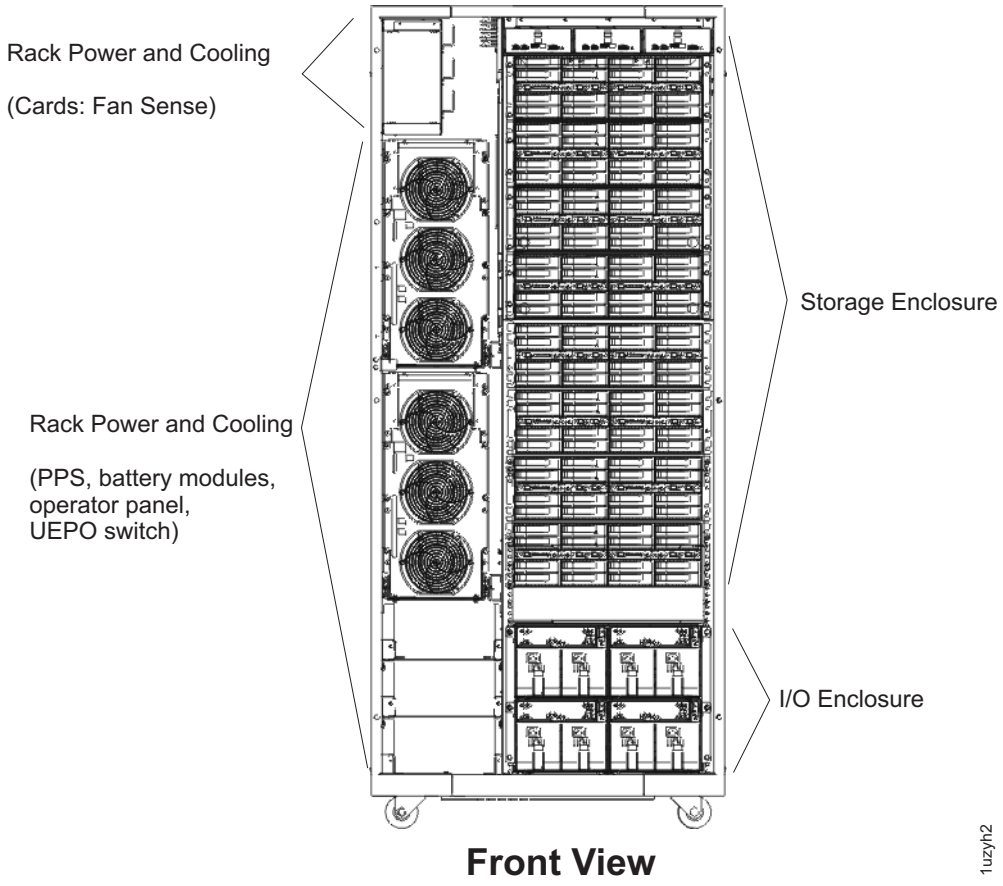

Figure 3. Visual overview of Model 94E Rack-2 expansion rack, front (Racks 3, 4, 5 similar: no I/O enclosures)

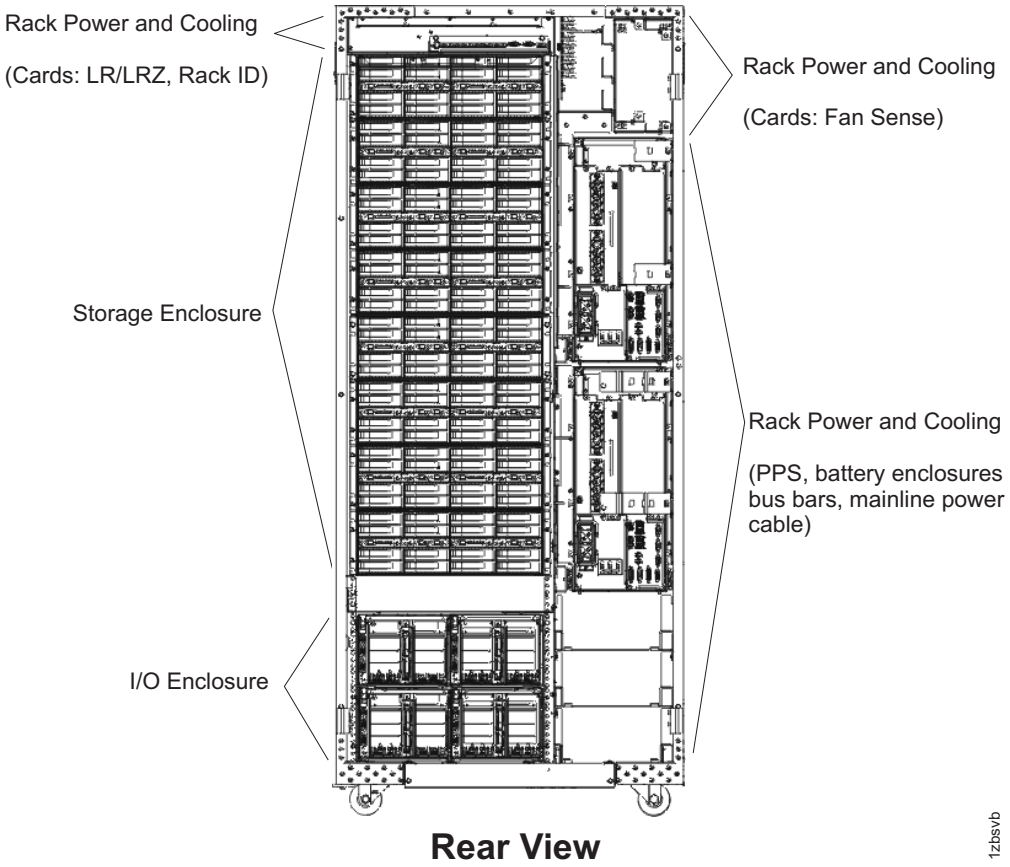

Figure 4. Visual overview of Model 94E Rack-2 expansion rack, rear (Racks 3, 4, 5 similar: no I/O enclosures)

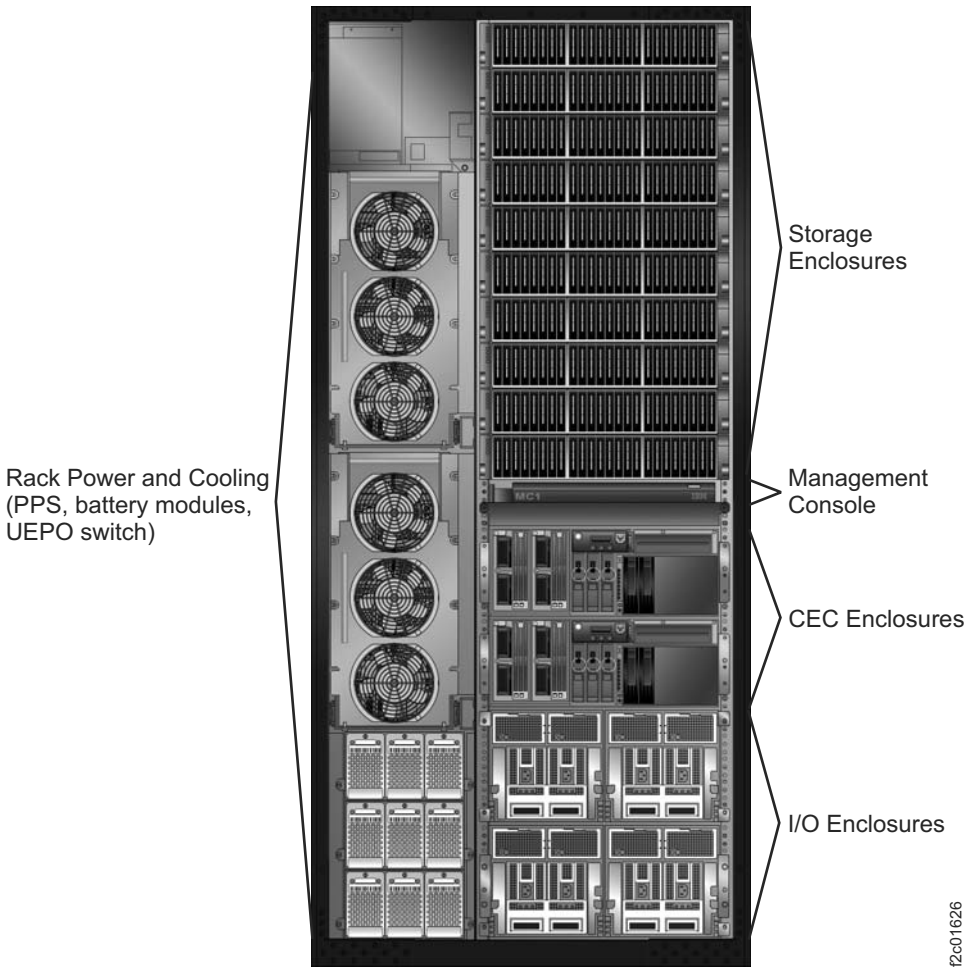

Figure 5. Visual overview of Model 951 Rack-1, front

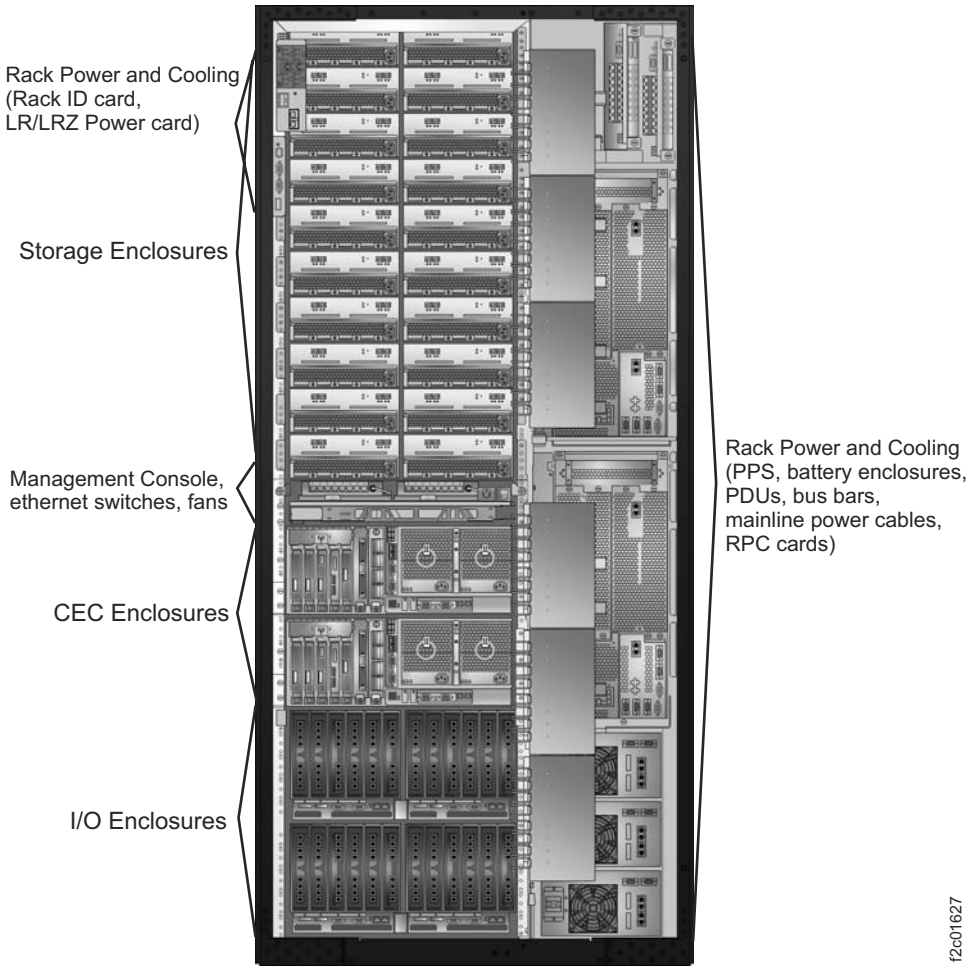

Figure 6. Visual overview of Model 951 Rack-1, rear

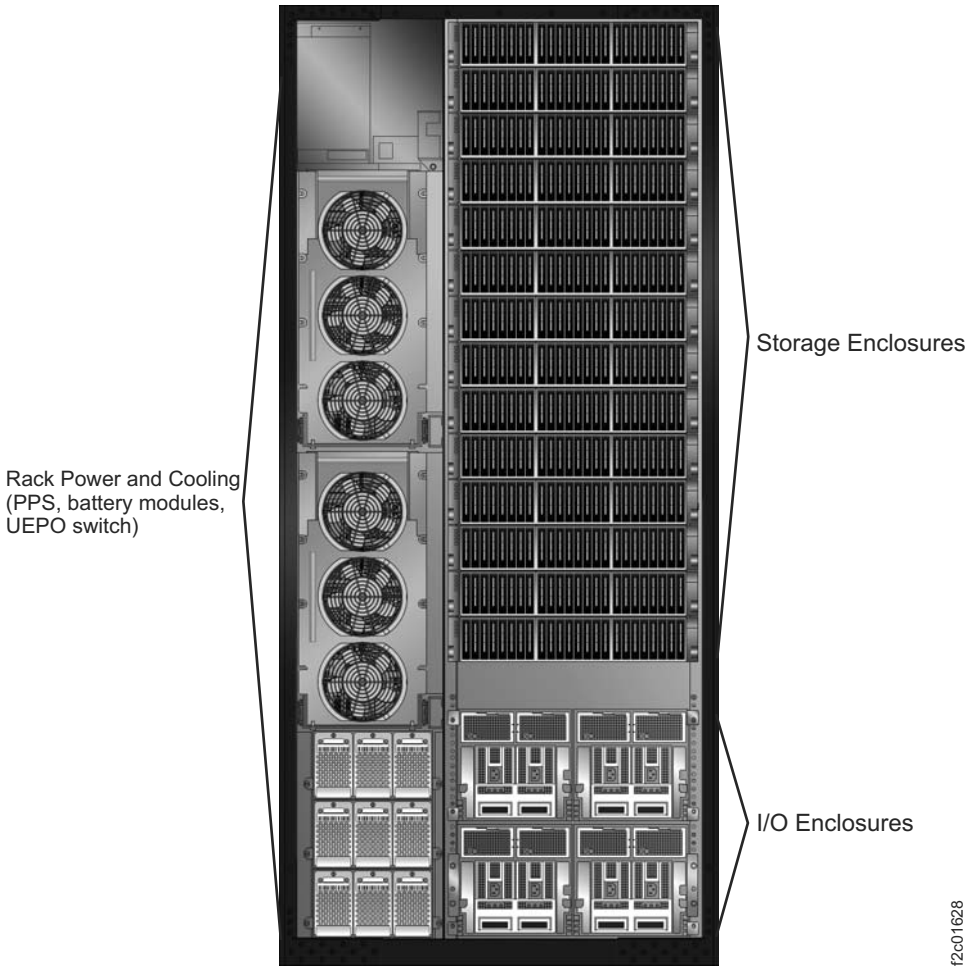

Figure 7. Visual overview of Model 95E Rack-2 expansion rack, front (Racks 3, 4 similar: no I/O enclosures, more storage enclosures)

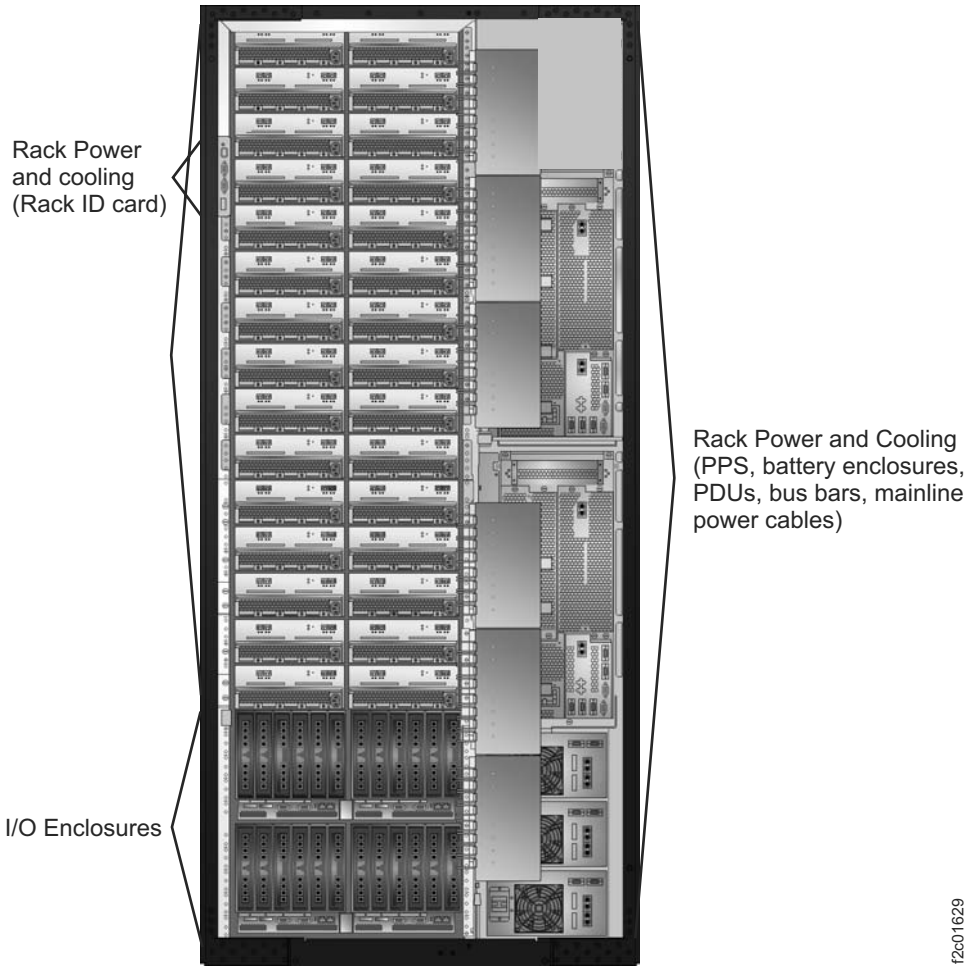

Figure 8. Visual overview of Model 95E Rack-2 expansion rack, rear (Racks 3, 4 similar: no I/O enclosures, more storage enclosures)

Cable part numbers

To find part information about cables, see the topic that contains information about the part to which the cable is connected.

Table 1. Cable part numbers

Part numbers for:	Model 941	Model 951	
CEC enclosure	"CEC enclosure part numbers, Model 941"	"CEC enclosure part numbers, Model 951" on page 23	
Ethernet (8-port) switch	"Ethernet (8-port) switch part numbers, Model 941" on page 45	"Ethernet (8-port) switch part numbers, Model 951" on page 48	
I/O enclosure	"I/O enclosure part numbers, Models 941, 94E" on page 51	"I/O enclosure part numbers, Models 951, 95E" on page 57	
Rack power and cooling	"Rack power and cooling part numbers, Models 941, 94E" on page 95	"Rack power and cooling part numbers, Models 951, 95E" on page 119	
Storage enclosure	"Storage enclosure part numbers, Models 941, 94E" on page 145	"Storage enclosure part numbers, Models 951, 95E (12 DDM slots)" on page 151 "Storage enclosure part numbers, Models 951, 95E (24 DDM slots)" on page 154	
Management console (MC)	**W500**	**T510**	**T520**
	"ThinkPad W500 laptop management console part numbers" on page 64	"ThinkPad T510 laptop management console part numbers" on page 65	"ThinkPad T520 laptop management console part numbers" on page 65

CEC part numbers

Use this section to find CEC part numbers.

"CEC enclosure part numbers, Model 941"

"CEC enclosure part numbers, Model 951" on page 23

CEC enclosure part numbers, Model 941

Information about CEC enclosure parts is listed below. Use Table 2 on page 10 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 2. Start here

Part name	Figure
CEC enclosure cables, rear of rack	Figure 12 on page 15
CEC enclosure control panel	Figure 9 on page 11
CEC enclosure disk drive	Figure 10 on page 12
CEC enclosure disk drive backplane assembly	Figure 10 on page 12
CEC enclosure fan	Figure 9 on page 11 Figure 10 on page 12
CEC enclosure I/O backplane assembly	Figure 11 on page 14
CEC enclosure memory DIMM	Figure 10 on page 12
CEC enclosure PCIe four port card	Figure 11 on page 14
CEC enclosure PCIe single port card	Figure 11 on page 14
CEC enclosure PCIe single port card (slot 5)	Figure 11 on page 14
CEC enclosure power supply	Figure 11 on page 14
CEC enclosure RIO card	Figure 11 on page 14
CEC enclosure service processor card	Figure 11 on page 14
CEC enclosure service processor card time of day battery	Figure 11 on page 14
CEC enclosure system processor backplane assembly	Figure 10 on page 12
CEC enclosure system processor card	Figure 10 on page 12
CEC enclosure system processor dummy card	Figure 10 on page 12
CEC enclosure system processor voltage card	Figure 9 on page 11
CEC enclosure system processor voltage dummy card	Figure 9 on page 11
CEC enclosure VPD card	Figure 11 on page 14
CEC enclosure VPD pass-through card	Figure 11 on page 14

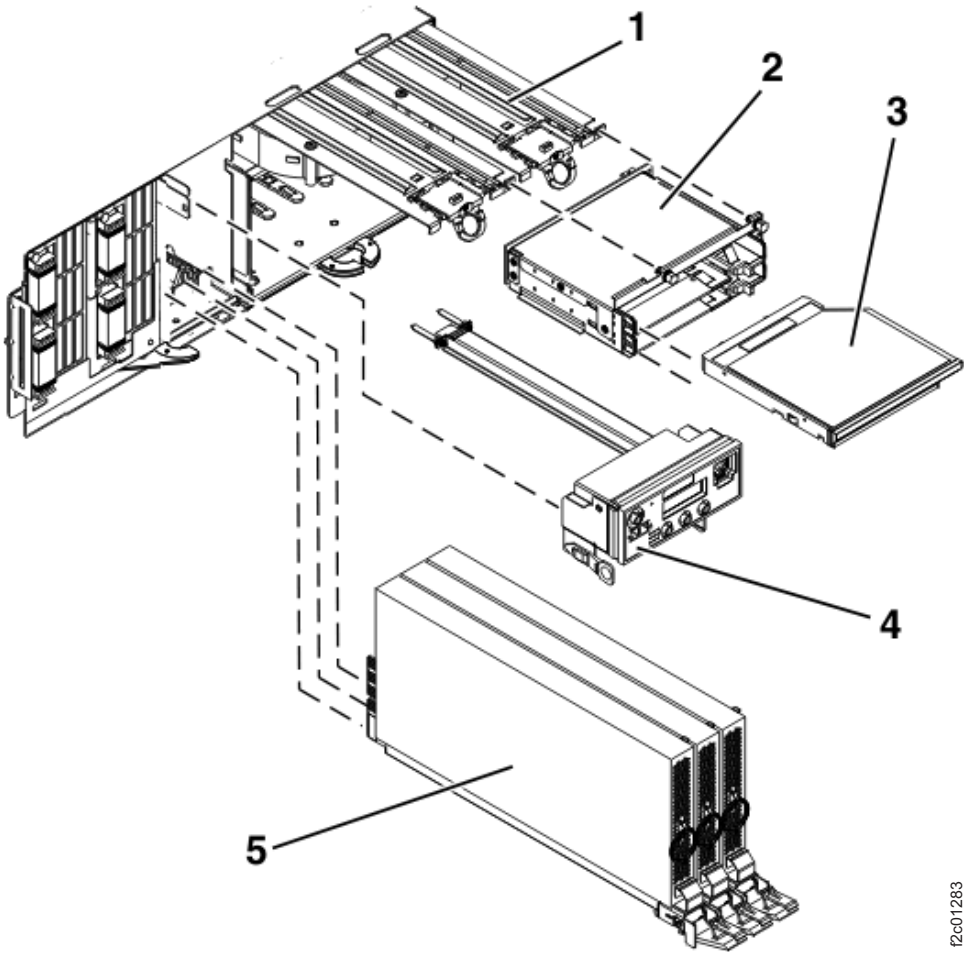

Figure 9. CEC enclosure parts (front view)

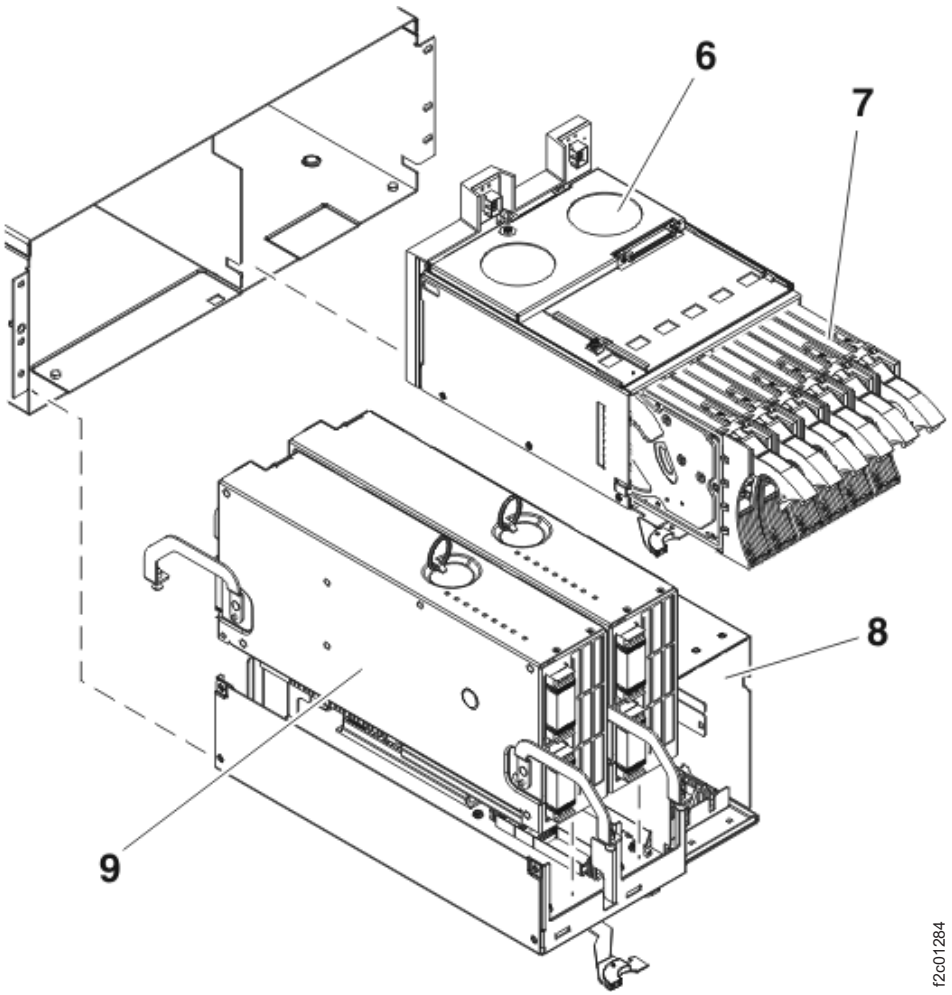

Figure 10. CEC enclosure parts (front view), continued

Table 3. CEC enclosure parts (front view)

Index	Part name	CCIN[1]	Part number
	CEC enclosure chassis[2]		39J5152
1	CEC enclosure fan		39J0859
2	Not used in Model 941 or Model 951		
3	Not used in Model 941 or Model 951		
4	CEC enclosure control panel		17P9228
5	CEC enclosure system processor voltage card		44V5705
5	CEC enclosure system processor voltage dummy card		39J5159
6	CEC enclosure disk drive backplane assembly	293C	10N9617
7	CEC enclosure disk drive, 146 GB, 15 K RPM		42R4234
8	CEC enclosure system processor backplane assembly	27B0	03N6902

Table 3. CEC enclosure parts (front view) (continued)

Index	Part name	CCIN[1]	Part number
9	CEC enclosure system processor card, 4.7 GHz 2-way **Important:** To prevent errors during power up, both system processor cards in a CEC enclosure must have the same CCIN. The firmware detects the CCIN and makes adjustments to the speed and voltages for the pair of cards.	53CF	03N4468
9	CEC enclosure system processor card, 4.7 GHz 2-way **Important:** To prevent errors during power up, both system processor cards in a CEC enclosure must have the same CCIN. The firmware detects the CCIN and makes adjustments to the speed and voltages for the pair of cards.	53F4	98Y1456
9	CEC enclosure memory DIMM (2 GB)	31B7	45D1672
	CEC enclosure memory DIMM (4 GB)	31B9	45D1199
	CEC enclosure memory DIMM (8 GB)[1]	31B3	45D1787
	CEC enclosure memory DIMM (8 GB)[1]	31BA	45D1205

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable.

   When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000. There are some exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer P/N which may have firmware that is not appropriate for DS8000. You must order the DS8000 FRU part number to ensure the correct firmware is present.
2. The CEC enclosure chassis is a special order item. The chassis to be replaced has bar code labels with the specific MTMS (machine type model serial number) information. Contact next level of support to determine if the label can be moved to the new chassis. The MTMS should stay the same as there is not an HMC menu option to change it. The MTMS on the bar code label must match the MTMS in the code, as the CEC enclosure serial number is used in serviceable event FRU list and exchange part lists.

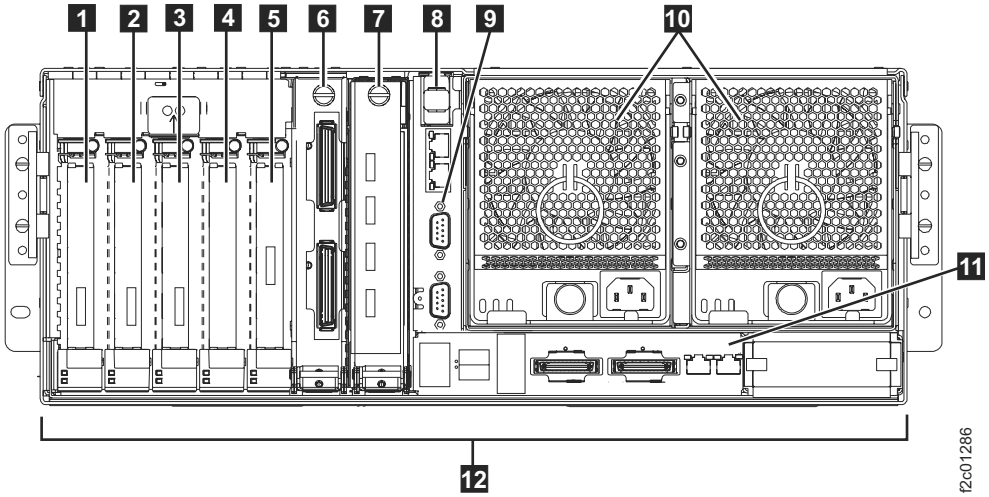

Figure 11. CEC enclosure parts (rear view)

Table 4. CEC enclosure parts (rear view)

Index	Part name	CCIN[1]	Part number
1	CEC enclosure PCIe single port card	CROT	45W5687
2	CEC enclosure PCIe single port card	CROT	45W5687
3	CEC enclosure PCIe single port card	CROT	45W5687
5	CEC enclosure PCIe single port card (slot 5)	CROF	45W5689
6	CEC enclosure RIO card	1800	46K7119
7	CEC enclosure PCIe four port card	63C0	45W5691
8	CEC enclosure VPD card		46K7846
9	CEC enclosure VPD pass-through card (two 1Gb Ethernet ports)		42R6775
9	CEC enclosure VPD pass-through card (four 1Gb Ethernet ports)		42R7000
10	CEC enclosure power supply		44V7309
11	CEC enclosure service processor card	294E	45W5696
11	CEC enclosure service processor card battery		16G8095
12	CEC enclosure I/O backplane assembly	293B	74Y2473

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable.

   When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000. There are some exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer™ P/N which may have firmware that is not appropriate for DS8000. You must order the DS8000 FRU part number to ensure the correct firmware is present.

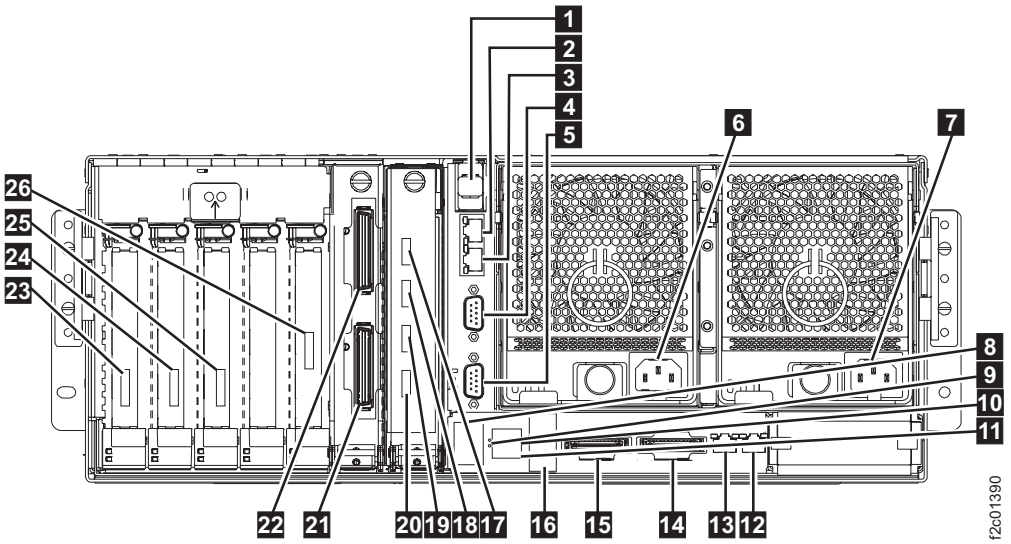

Figure 12. CEC enclosure cables, rear view

Table 5. CEC enclosure parts (rear view)

Index	Part name	Part number
1	VPD card	See Table 4 on page 14
2	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2360 45W2361
3	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2364 45W2365
4	not used	
5	not used	
6	Power input cable	
7	Power input cable	
8	not used	
9	not used	
10	not used	
11	not used	
12	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2362 45W2363
13	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2358 45W2359

Table 5. CEC enclosure parts (rear view) (continued)

Index	Part name	Part number
14 15	SPCN	See "Section-1 SPCN cables for two, four, and eight I/O enclosures "
16	not used	
17 18 19 20	PCIe cable	See "Section-2 PCIe cables for two, four, and eight I/O enclosures " on page 19
21 22	RIO cable	See "Section-3 RIO cables" on page 23
23 24 25 26	PCIe cable	See "Section-2 PCIe cables for two, four, and eight I/O enclosures " on page 19

Section-1 SPCN cables for two, four, and eight I/O enclosures

The following figure and table are for Model 941 with two I/O enclosures.

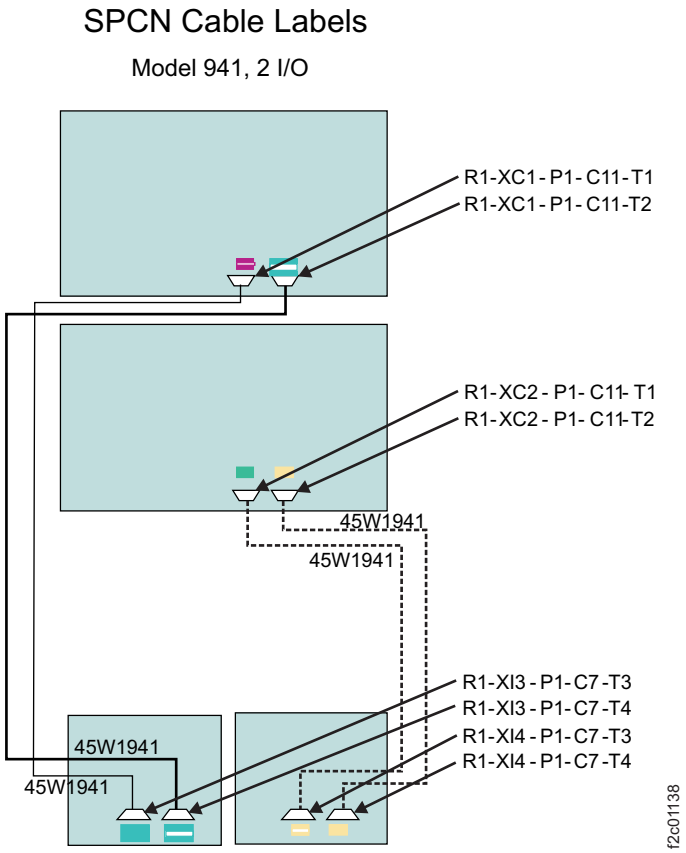

Figure 13. SPCN cable labels (Model 941, two I/O enclosures)

Table 6. SPCN Cabling (Model 941 with two I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B3) R1-XI3-P1-C7-T3	45W1941
(1B3) R1-XI3-P1-C7-T4	R1-XC1-P1-C11-T2	45W1941
R1-XC2-P1-C11-T1	(1B4) R1-XI4-P1-C7-T3	45W1941
(1B4) R1-XI4-P1-C7-T4	R1-XC2-P1-C11-T2	45W1941

The following figure and table are for Model 941 with four I/O enclosures.

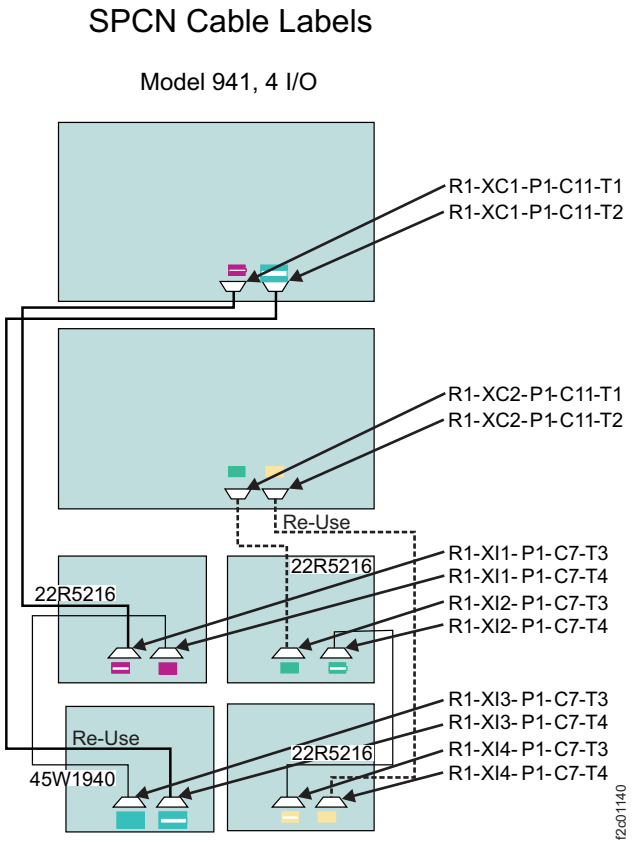

Figure 14. SPCN cable labels (Model 941, four I/O enclosures)

Table 7. SPCN Cabling (Model 941 with four I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B1) R1-XI1-P1-C7-T3	22R5216
(1B1) R1-XI1-P1-C7-T4	(1B3) R1-XI3-P1-C7-T3	45W1940
(1B3) R1-XI3-P1-C7-T4	R1-XC1-P1-C11-T2	45W1941
R1-XC2-P1-C11-T1	(1B2) R1-XI2-P1-C7-T3	22R5216
(1B2) R1-XI2-P1-C7-T4	(1B4) R1-XI4-P1-C7-T3	22R5216
(1B4) R1-XI4-P1-C7-T4	R1-XC2-P1-C11-T2	45W1941

The following figure and table are for Model 941 with eight I/O enclosures.

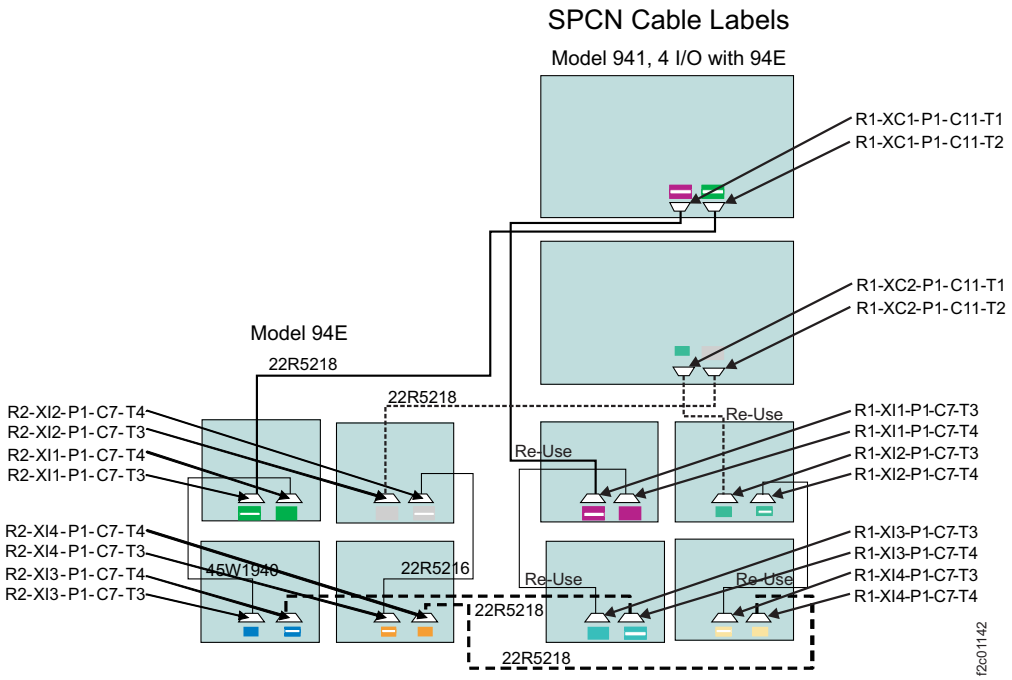

Figure 15. SPCN cable labels (Model 941, four I/O enclosures, with 94E)

Table 8. SPCN Cabling (Model 941 with eight I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B1) R1-XI1-P1-C7-T3	22R5216
(1B1) R1-XI1-P1-C7-T4	(1B3) R1-XI3-P1-C7-T3	45W1940
(1B3) R1-XI3-P1-C7-T4	(2B3) R2-XI3-P1-C7-T4	22R5218
(2B3) R2-XI3-P1-C7-T3	(2B1) R2-XI1-P1-C7-T4	45W1940
(2B1) R2-XI1-P1-C7-T3	R1-XC1-P1-C11-T2	22R5218
R1-XC2-P1-C11-T1	(1B2) R1-XI2-P1-C7-T3	22R5216
(1B2) R1-XI2-P1-C7-T4	(1B4) R1-XI4-P1-C7-T3	22R5216
(1B4) R1-XI4-P1-C7-T4	(2B4) R2-XI4-P1-C7-T4	22R5218
(2B4) R2-XI4-P1-C7-T3	(2B2) R2-XI2-P1-C7-T4	22R5216
(2B2) R2-XI2-P1-C7-T3	R1-XC2-P1-C11-T2	22R5218

Section-2 PCIe cables for two, four, and eight I/O enclosures

The following figure and table are for Model 941 with two I/O enclosures.

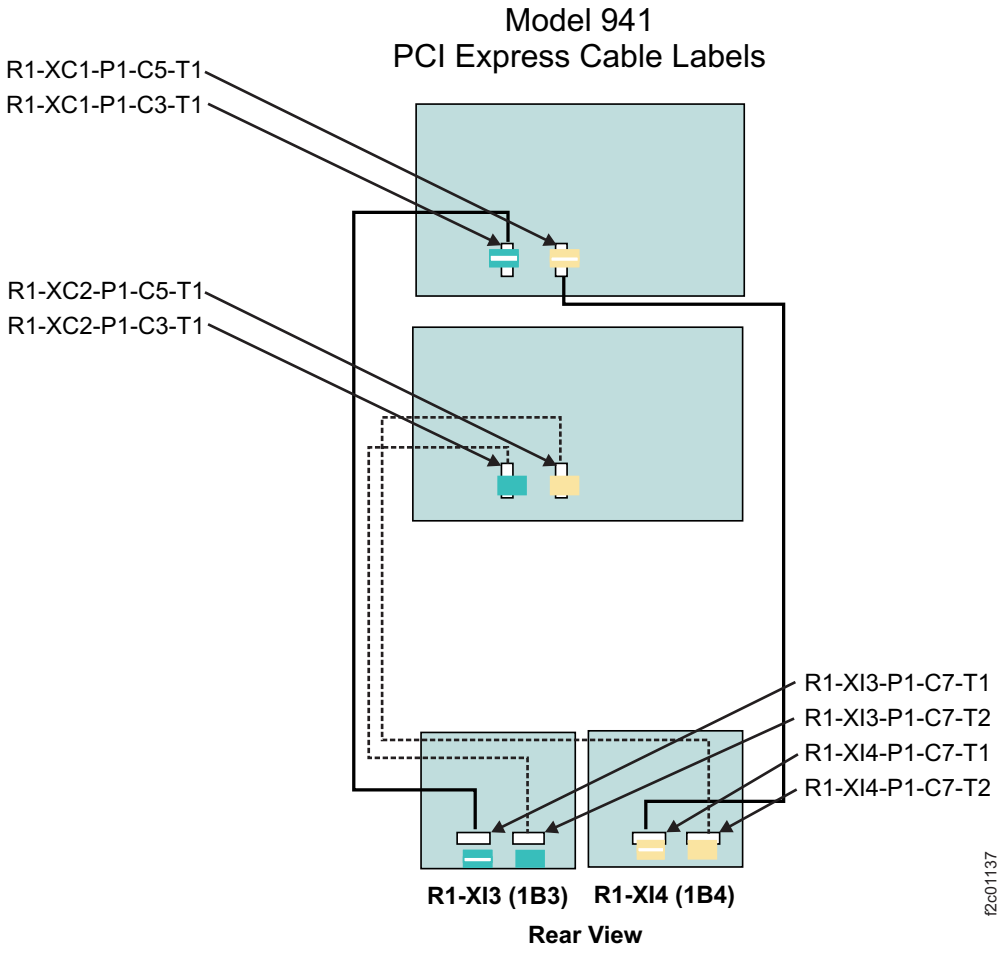

Figure 16. Model 941, two I/O enclosures

Table 9. PCIe Cabling (Model 941)

From CEC R1-XC1	To Rack 1 I/O Enclosure	FRU P/N
R1-XC1-P1-C3-T1	(1B3) R1-XI3-P1-C7-T1	45W1936
R1-XC1-P1-C5-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C3-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C5-T1	(1B4) R1-XI4-P1-C7-T2	45W1937

The following figure and table are for Model 941 with four I/O enclosures.

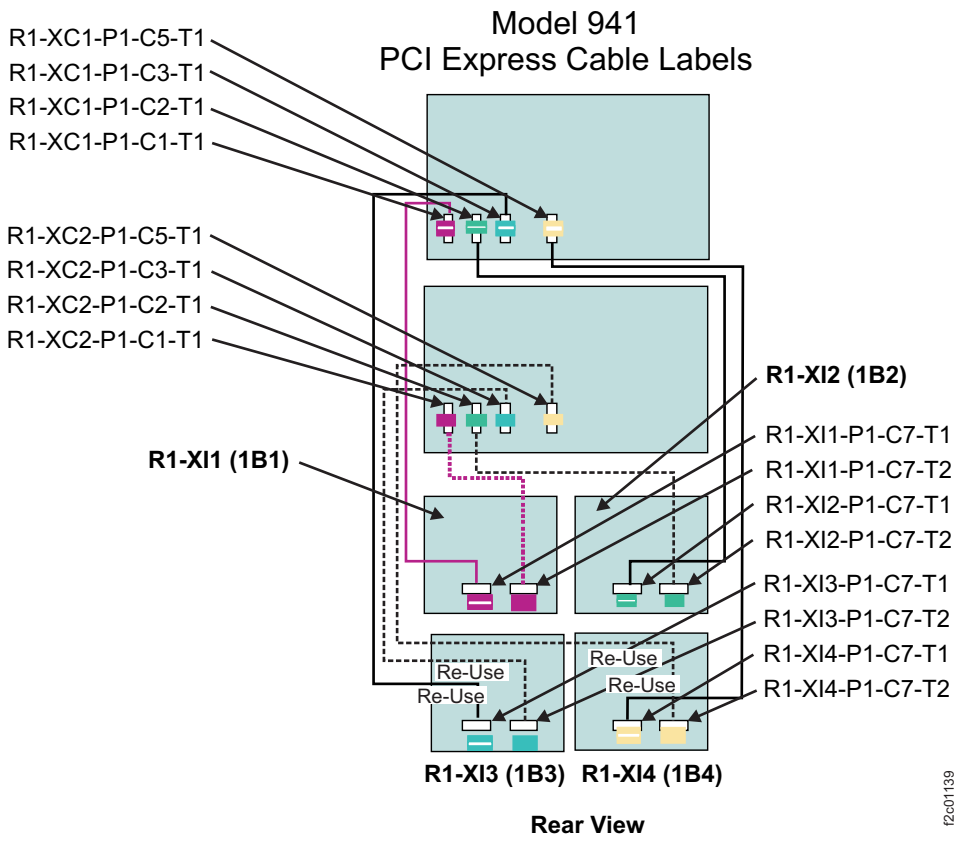

Figure 17. Model 941, four I/O enclosures

Table 10. PCIe Cabling (Model 941)

From CEC R1-XC1	To Rack 1 I/O Enclosure	FRU P/N
R1-XC1-P1-C1-T1	(1B1) R1-XI1-P1-C7-T1	45W1936
R1-XC1-P1-C2-T1	(1B2) R1-XI2-P1-C7-T1	45W1937
R1-XC1-P1-C3-T1	(1B3) R1-XI3-P1-C7-T1	45W1936
R1-XC1-P1-C5-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C1-T1	(1B1) R1-XI1-P1-C7-T2	45W1935
R1-XC2-P1-C2-T1	(1B2) R1-XI2-P1-C7-T2	45W1936
R1-XC2-P1-C3-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C5-T1	(1B4) R1-XI4-P1-C7-T2	45W1937

The following figure and table are for Model 941 with eight I/O enclosures.

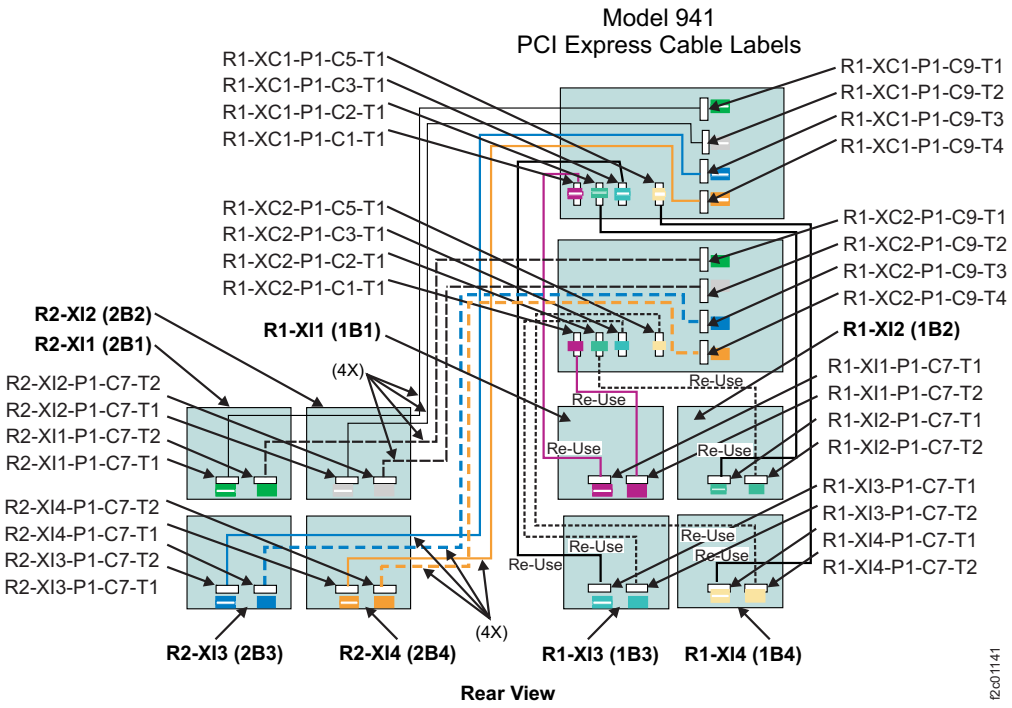

Figure 18. Model 941, eight I/O enclosures

Table 11. PCIe Cabling (Model 941)

From CEC R1-XC1	To Rack 1 I/O Enclosure	FRU P/N
R1-XC1-P1-C1-T1	(1B1) R1-XI1-P1-C7-T1	45W1936
R1-XC1-P1-C2-T1	(1B2) R1-XI2-P1-C7-T1	45W1937
R1-XC1-P1-C3-T1	(1B3) R1-XI3-P1-C7-T1	45W1936
R1-XC1-P1-C5-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC1	**To Rack 2I/O Enclosure**	**FRU P/N**
R1-XC1-P1-C9-T1	(2B1) R2-XI1-P1-C7-T1	45W1939
R1-XC1-P1-C9-T2	(2B2) R2-XI2-P1-C7-T1	45W1939
R1-XC1-P1-C9-T3	(2B3) R2-XI3-P1-C7-T1	45W1939
R1-XC1-P1-C9-T4	(2B4) R2-XI4-P1-C7-T1	45W1939
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C1-T1	(1B1) R1-XI1-P1-C7-T2	45W1935
R1-XC2-P1-C2-T1	(1B2) R1-XI2-P1-C7-T2	45W1936
R1-XC2-P1-C3-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C5-T1	(1B4) R1-XI4-P1-C7-T2	45W1937
From CEC R1-XC2	**To Rack 2 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C9-T1	(2B1) R2-XI1-P1-C7-T2	45W1939
R1-XC2-P1-C9-T2	(2B2) R2-XI2-P1-C7-T2	45W1939
R1-XC2-P1-C9-T3	(2B3) R2-XI3-P1-C7-T2	45W1939
R1-XC2-P1-C9-T4	(2B4) R2-XI4-P1-C7-T2	45W1939

Section-3 RIO cables

The following figure and table are for Model 941 with two and four I/O enclosures.

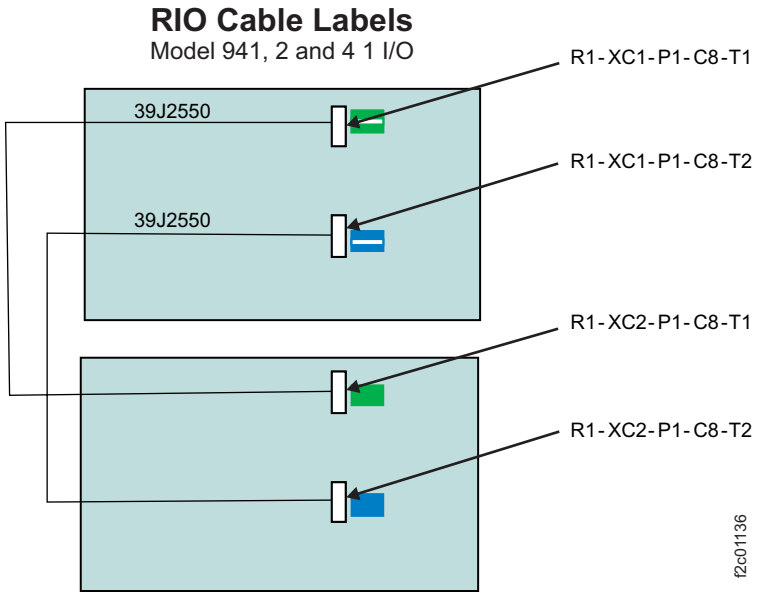

Figure 19. RIO cable labels

Table 12. RIO Cabling (Model 941)

From	To	FRU P/N
R1-XC1-P1-C8-T1	R1-XC2-P1-C8-T1	(0.6 meter) 39J2550[1]
R1-XC1-P1-C8-T1	R1-XC2-P1-C8-T1	(1.2 meter) 44V5140[1]
R1-XC1-P1-C8-T2	R1-XC2-P1-C8-T2	(0.6 meter) 39J2550[1]
R1-XC1-P1-C8-T2	R1-XC2-P1-C8-T2	(1.2 meter) 44V5140[1]

Notes:

1. Rack-1 ships with a matched pair of 0.6 meter or 1.2 meter RIO cables. The 0.6 meter and 1.2 meter RIO cables must not be intermixed. You must visually inspect the existing RIO cable FRU P/N labels and then order the same FRU P/N.

CEC enclosure part numbers, Model 951

Information about CEC enclosure parts is listed below. Use Table 13 on page 24 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 13. Start here

Part name	Figure
CEC enclosure cables, rear of rack	Figure 24 on page 29
CEC enclosure control panel	Figure 20 on page 25
CEC enclosure disk drive	Figure 21 on page 26
CEC enclosure disk drive backplane assembly	Figure 21 on page 26
CEC enclosure fan	Figure 20 on page 25 Figure 21 on page 26
CEC enclosure I/O backplane assembly	Figure 22 on page 27 Figure 23 on page 28
CEC enclosure memory DIMM	Figure 21 on page 26
CEC enclosure PCIe four port card	Figure 22 on page 27
CEC enclosure PCIe single port card	Figure 22 on page 27
CEC enclosure PCIe single port card (slot 5)	Figure 22 on page 27
CEC enclosure power supply	Figure 22 on page 27
CEC enclosure RIO card	Figure 22 on page 27
CEC enclosure service processor card	Figure 22 on page 27
CEC enclosure service processor card time of day battery	Figure 22 on page 27
CEC enclosure system processor backplane assembly	Figure 21 on page 26
CEC enclosure system processor card	Figure 21 on page 26
CEC enclosure system processor dummy card	Figure 21 on page 26
CEC enclosure system processor voltage card	Figure 20 on page 25
CEC enclosure system processor voltage dummy card	Figure 20 on page 25
CEC enclosure VPD card	Figure 22 on page 27
CEC enclosure VPD pass-through card	Figure 22 on page 27

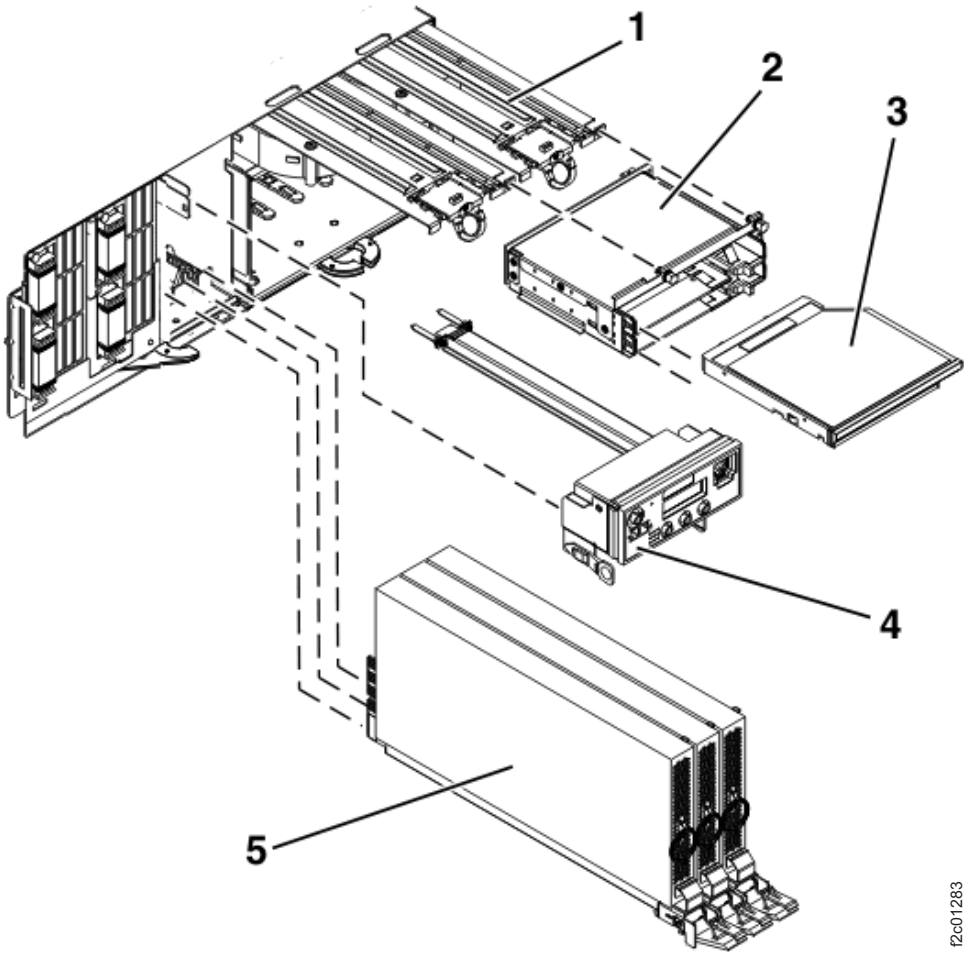

Figure 20. CEC enclosure parts (front view)

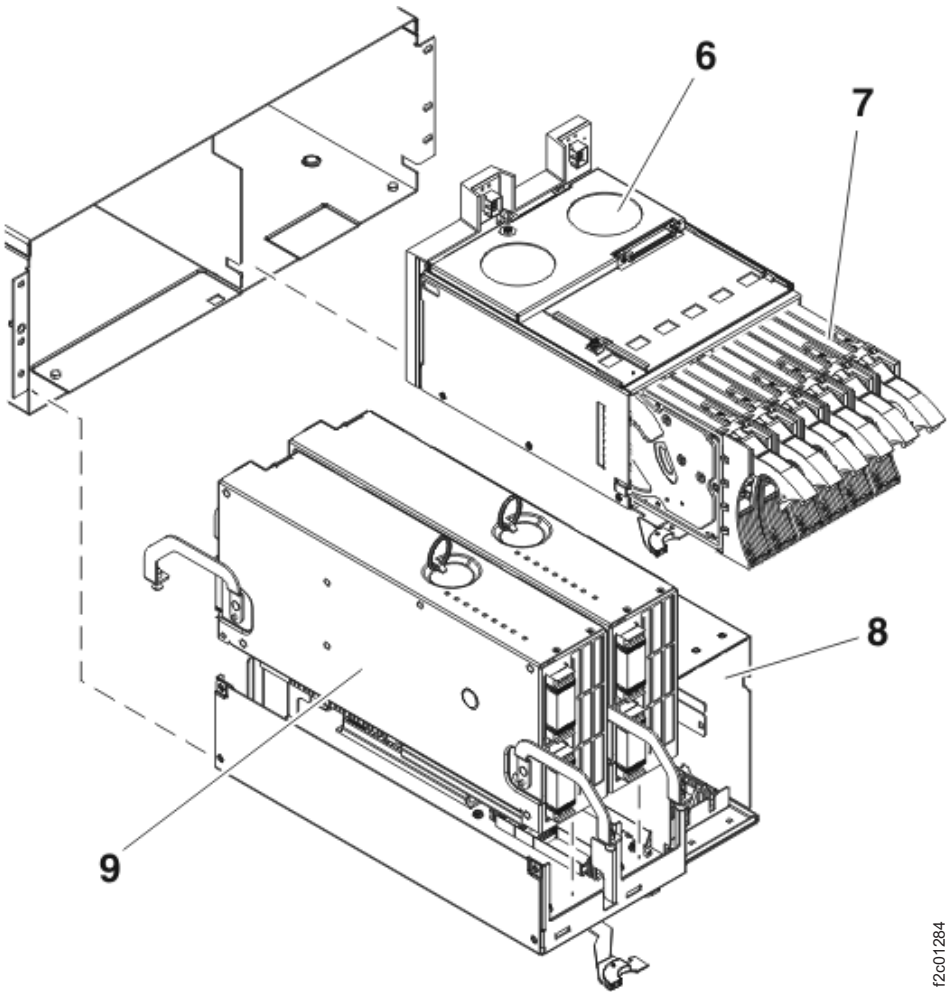

Figure 21. CEC enclosure parts (front view), continued

Table 14. CEC enclosure parts (front view)

Index	Part name	CCIN[1]	Part number
	CEC enclosure chassis[2]		39J5152
1	CEC enclosure fan		39J0859
2	Not used in Model 951		
3	Not used in Model 951		
4	CEC enclosure control panel		17P9228
5	CEC enclosure system processor voltage card		44V5705
5	CEC enclosure system processor voltage dummy card		39J5159
6	CEC enclosure disk drive backplane assembly	293C	10N9617
7	CEC enclosure disk drive, 146 GB, 15 K RPM		42R4234
8	CEC enclosure system processor backplane assembly	27B0	03N6902

Table 14. CEC enclosure parts (front view) (continued)

Index	Part name	CCIN[1]	Part number
9	CEC enclosure CEC enclosure system processor card, 5.0 GHz 2-way (Model 951 only) **Important:** To prevent errors during power up, both system processor cards in a CEC enclosure must have the same CCIN. The firmware detects the CCIN and makes adjustments to the speed and voltages for the pair of cards.	53E9	46K6621
9	CEC enclosure memory DIMM (2 GB)	31B7	45D6519
	CEC enclosure memory DIMM (4 GB)	31B9	45D6527
	CEC enclosure memory DIMM (8 GB)[1]	31B3	45D1787
	CEC enclosure memory DIMM (8 GB)[1]	31BA	45D6529

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable.

   When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000. There are some exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer™ P/N which may have firmware that is not appropriate for DS8000. You must order the DS8000 FRU part number to ensure the correct firmware is present.
2. The CEC enclosure chassis is a special order item. The chassis to be replaced has bar code labels with the specific MTMS (machine type model serial number) information. Contact next level of support to determine if the label can be moved to the new chassis. The MTMS should stay the same as there is not an HMC menu option to change it. The MTMS on the bar code label must match the MTMS in the code, as the CEC enclosure serial number is used in serviceable event FRU list and exchange part lists.

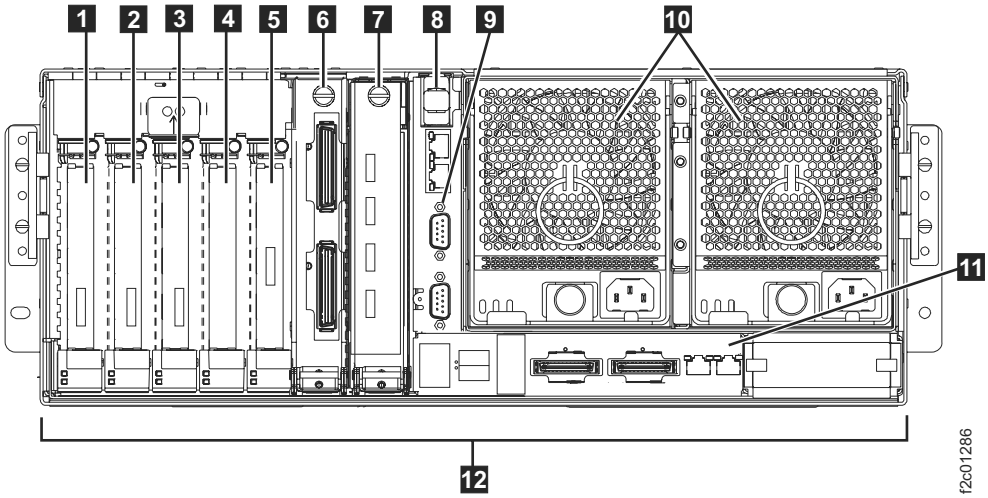

Figure 22. CEC enclosure parts (rear view)

Table 15. CEC enclosure parts (rear view)

Index	Part name	CCIN[1]	Part number
1	CEC enclosure PCIe single port card	CROT	45W5687
2	CEC enclosure PCIe single port card	CROT	45W5687
3	CEC enclosure PCIe single port card	CROT	45W5687
4	Not used		
5	CEC enclosure PCIe single port card (slot 5)	CROF	45W5689
6	CEC enclosure RIO card	1800	46K7119
7	CEC enclosure PCIe four port card	63C0	45W5691
8	CEC enclosure VPD card		46K7846
9	CEC enclosure VPD pass-through card (two 1Gb Ethernet ports)		42R6775
9	CEC enclosure VPD pass-through card (four 1Gb Ethernet ports)		42R7000
10	CEC enclosure power supply		44V7309
11	CEC enclosure service processor card	294E	45W5696
11	CEC enclosure service processor card battery		16G8095
12	CEC enclosure I/O backplane assembly	293B	74Y2473

Note:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable.

   When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000. There are some exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home might be the original eServer part number, which might have firmware that is not appropriate for DS8000. You must order the DS8000 FRU part number to ensure that the correct firmware is present.

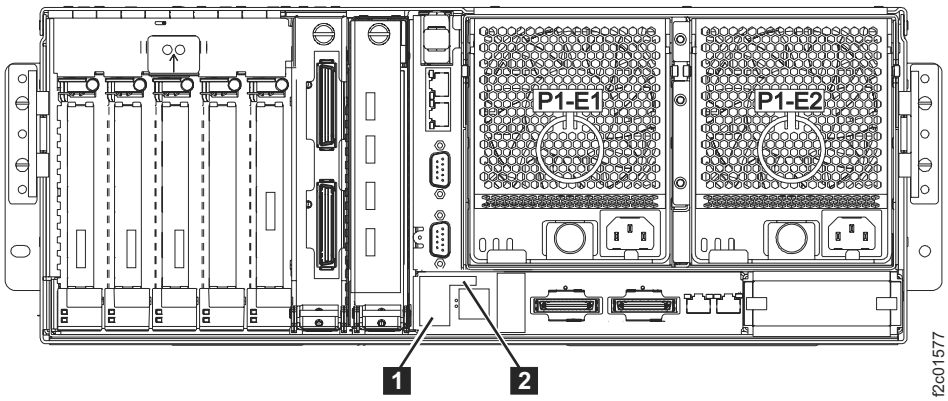

Figure 23. USB ports cover and screw

Table 16. CEC enclosure parts (rear view)

Index	Part name	Part number
1	USB port metal cover	45W9519
2	Screw, M2	87G4265

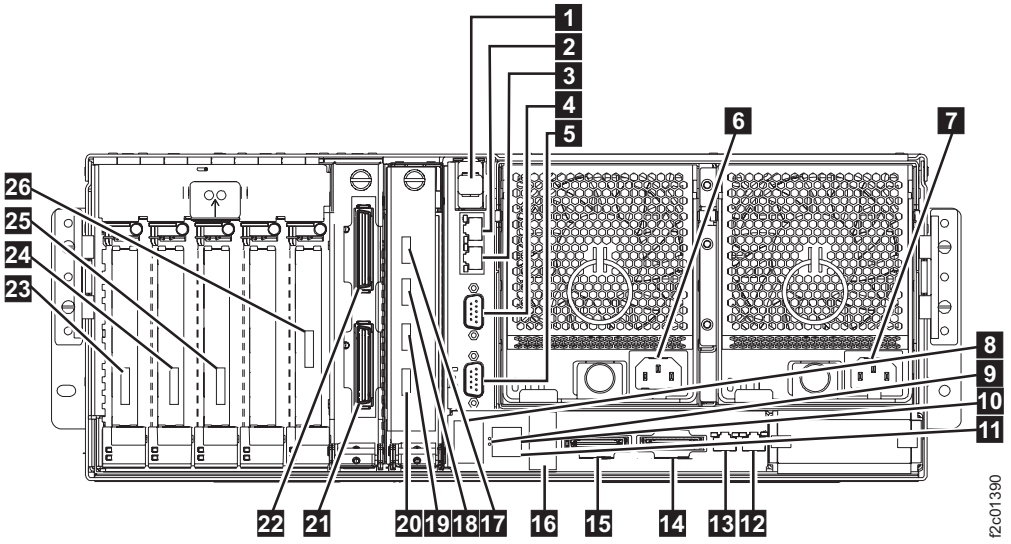

Figure 24. CEC enclosure cables, rear view

Table 17. CEC enclosure parts (rear view)

Index	Part name	Part number
1	VPD card	See Table 15 on page 28
2	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2360 45W2361
3	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2364 45W2365
4	not used	
5	not used	
6	Power input cable	
7	Power input cable	
8	not used	
9	not used	
10	not used	
11	not used	
12	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2362 45W2363
13	Ethernet cable (upper CEC enclosure) Ethernet cable (lower CEC enclosure)	45W2358 45W2359

Table 17. CEC enclosure parts (rear view) (continued)

Index	Part name	Part number
14 15	SPCN	See “Section-1 SPCN cables for two, four, and eight I/O enclosures”
16	not used	
17 18 19 20	PCIe cable	See “Section-2 PCIe cables for two, four, and eight I/O enclosures” on page 33
21 22	RIO cable	See “Section-3 RIO cables” on page 37
23 24 25 26	PCIe cable	See “Section-2 PCIe cables for two, four, and eight I/O enclosures” on page 33

Section-1 SPCN cables for two, four, and eight I/O enclosures

The following figure and table are for Model 951 with *two* I/O enclosures.

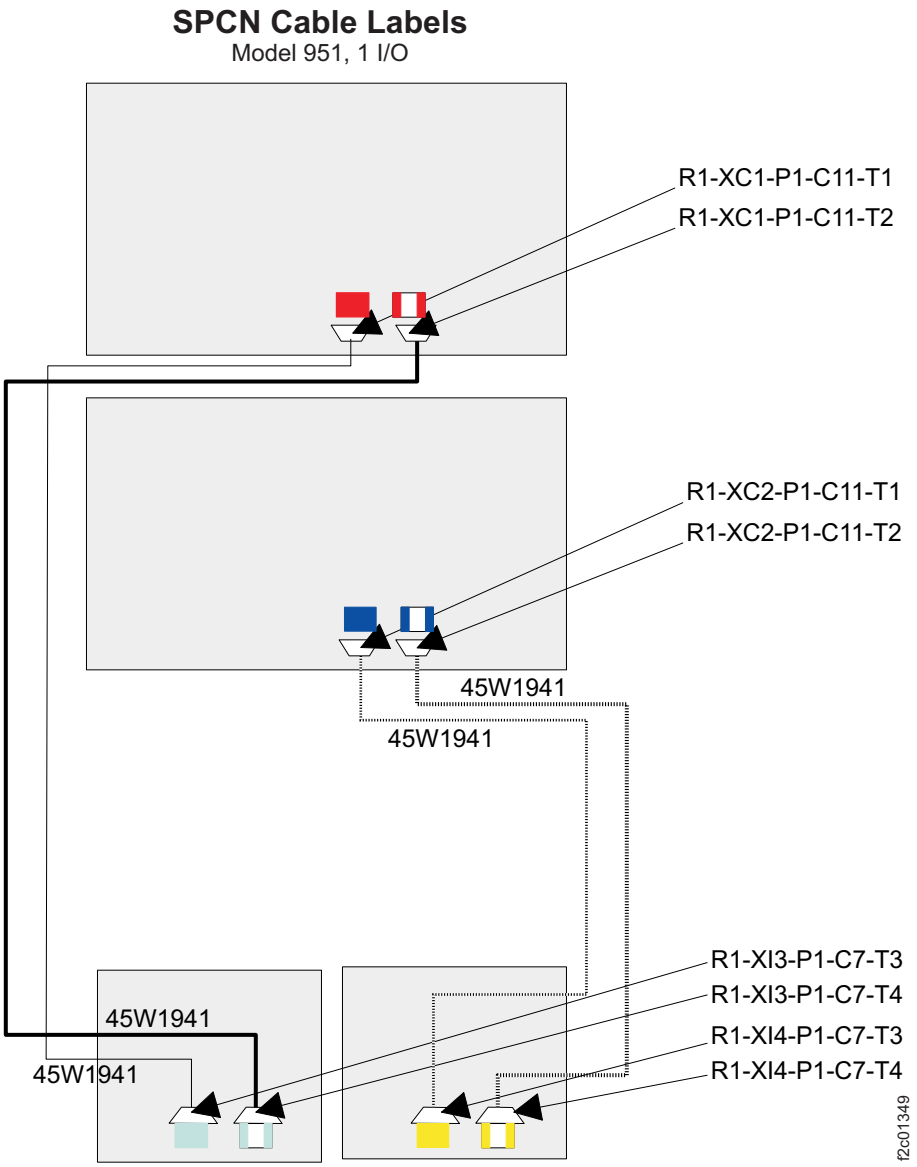

Figure 25. Model 951, two I/O enclosures

Table 18. SPCN Cabling (Model 951 with two I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B3) R1-XI3-P1-C7-T3	45W1941
(1B3) R1-XI3-P1-C7-T4	R1-XC1-P1-C11-T2	45W1941
R1-XC2-P1-C11-T1	(1B4) R1-XI4-P1-C7-T3	45W1941
(1B4) R1-XI4-P1-C7-T4	R1-XC2-P1-C11-T2	45W1941

The following figure and table are for Model 951 with *four* I/O enclosures.

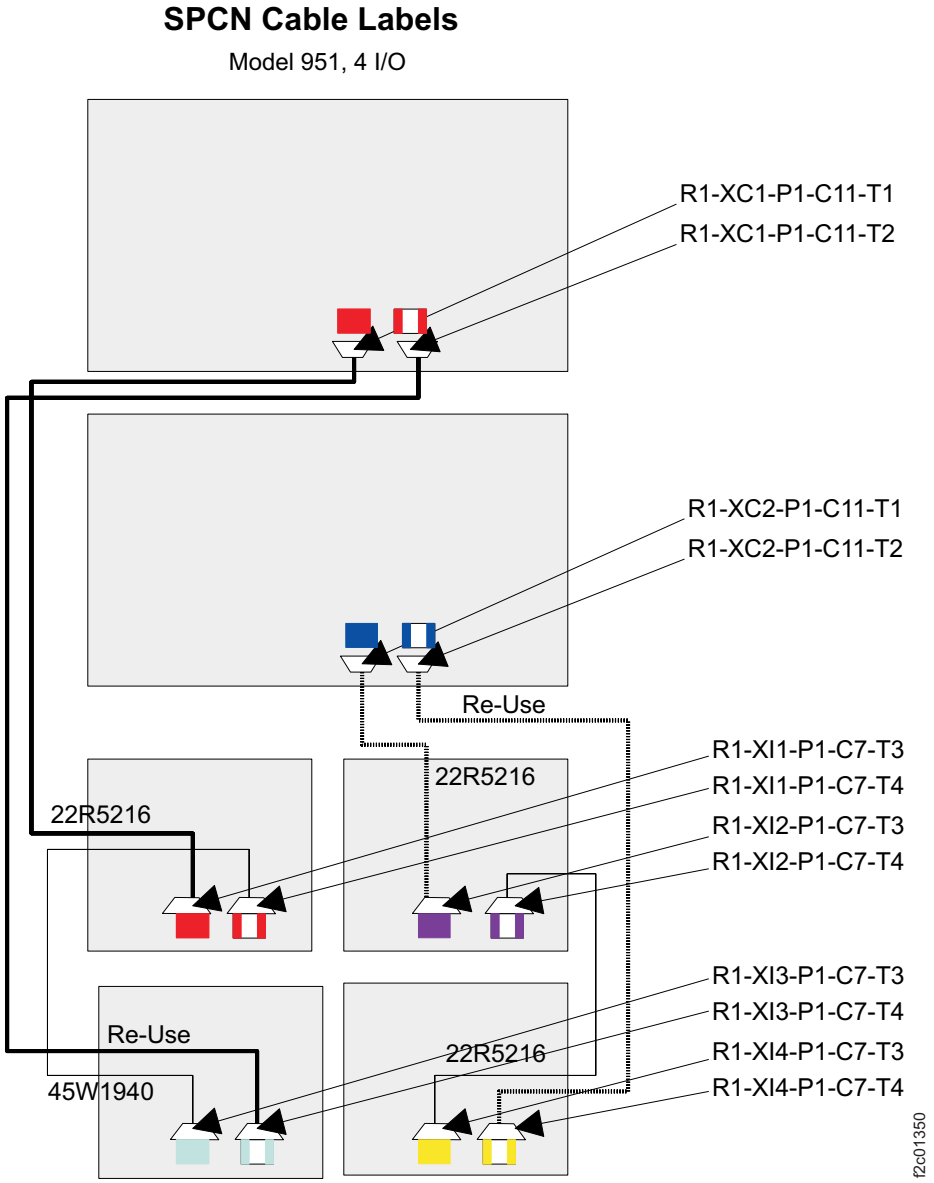

Figure 26. Model 951, four I/O enclosures

Table 19. SPCN Cabling (Model 951 with four I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B1) R1-XI1-P1-C7-T3	22R5216
(1B1) R1-XI1-P1-C7-T4	(1B3) R1-XI3-P1-C7-T3	45W1940
(1B3) R1-XI3-P1-C7-T4	R1-XC1-P1-C11-T2	45W1941
R1-XC2-P1-C11-T1	(1B2) R1-XI2-P1-C7-T3	22R5216
(1B2) R1-XI2-P1-C7-T4	(1B4) R1-XI4-P1-C7-T3	22R5216
(1B4) R1-XI4-P1-C7-T4	R1-XC2-P1-C11-T2	45W1941

The following figure and table are for Model 951 with *eight* I/O enclosures.

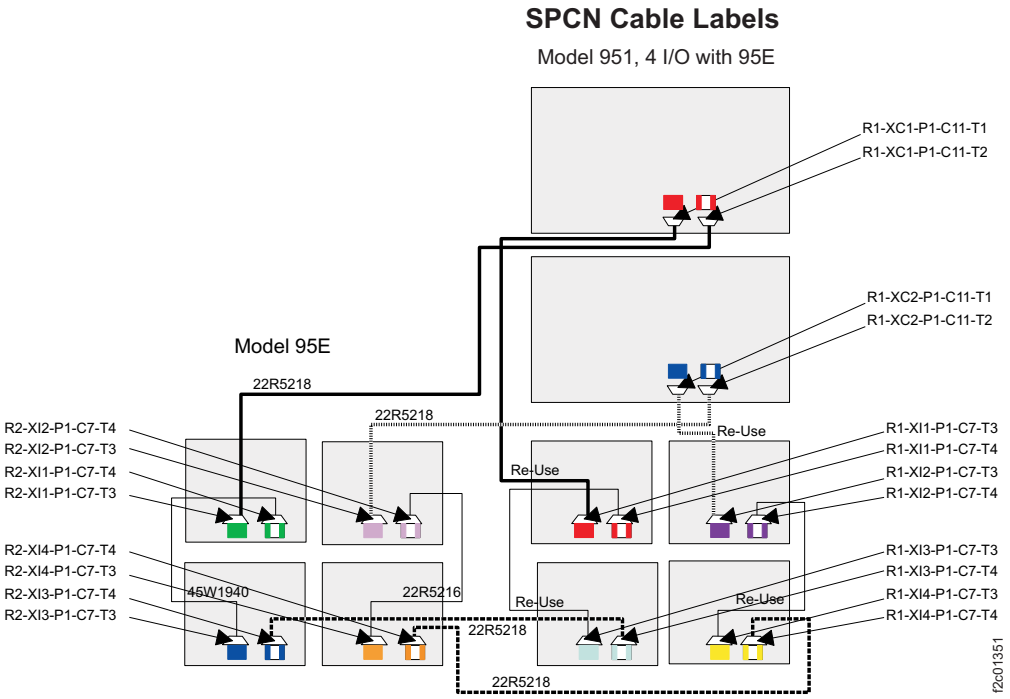

Figure 27. Model 951, eight I/O enclosures

Table 20. SPCN Cabling (Model 951 with eight I/O enclosures)

From	To	FRU P/N
R1-XC1-P1-C11-T1	(1B1) R1-XI1-P1-C7-T3	22R5216
(1B1) R1-XI1-P1-C7-T4	(1B3) R1-XI3-P1-C7-T3	45W1940
(1B3) R1-XI3-P1-C7-T4	(2B3) R2-XI3-P1-C7-T4	22R5218
(2B3) R2-XI3-P1-C7-T3	(2B1) R2-XI1-P1-C7-T4	45W1940
(2B1) R2-XI1-P1-C7-T3	R1-XC1-P1-C11-T2	22R5218
R1-XC2-P1-C11-T1	(1B2) R1-XI2-P1-C7-T3	22R5216
(1B2) R1-XI2-P1-C7-T4	(1B4) R1-XI4-P1-C7-T3	22R5216
(1B4) R1-XI4-P1-C7-T4	(2B4) R2-XI4-P1-C7-T4	22R5218
(2B4) R2-XI4-P1-C7-T3	(2B2) R2-XI2-P1-C7-T4	22R5216
(2B2) R2-XI2-P1-C7-T3	R1-XC2-P1-C11-T2	22R5218

Section-2 PCIe cables for two, four, and eight I/O enclosures

The following figure and table are for Model 951 with *two* I/O enclosures.

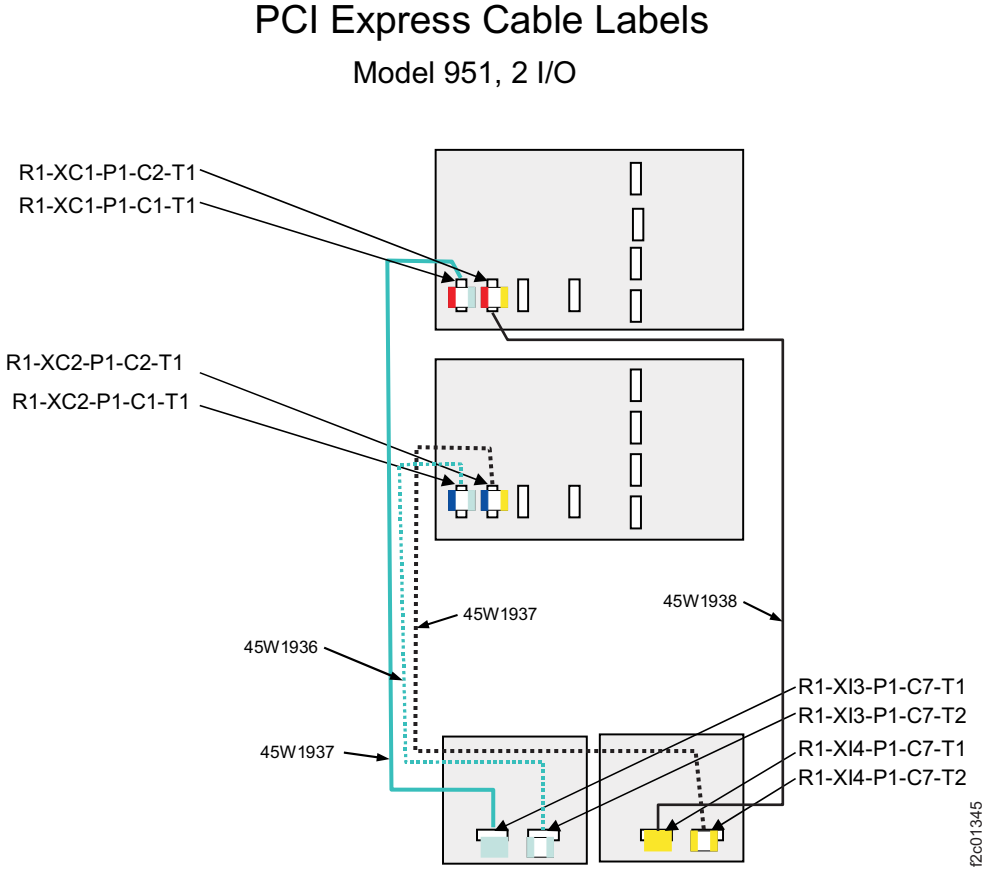

Figure 28. Model 951, two I/O enclosures

Table 21. PCIe Cabling (Model 951)

From CEC R1-XC1	To Rack 1 I/O Enclosure	FRU P/N
R1-XC1-P1-C1-T1	(1B3) R1-XI3-P1-C7-T1	45W1937
R1-XC1-P1-C2-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C1-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C2-T1	(1B4) R1-XI4-P1-C7-T2	45W1937

The following figure and table are for Model 951 with *four* I/O enclosures.

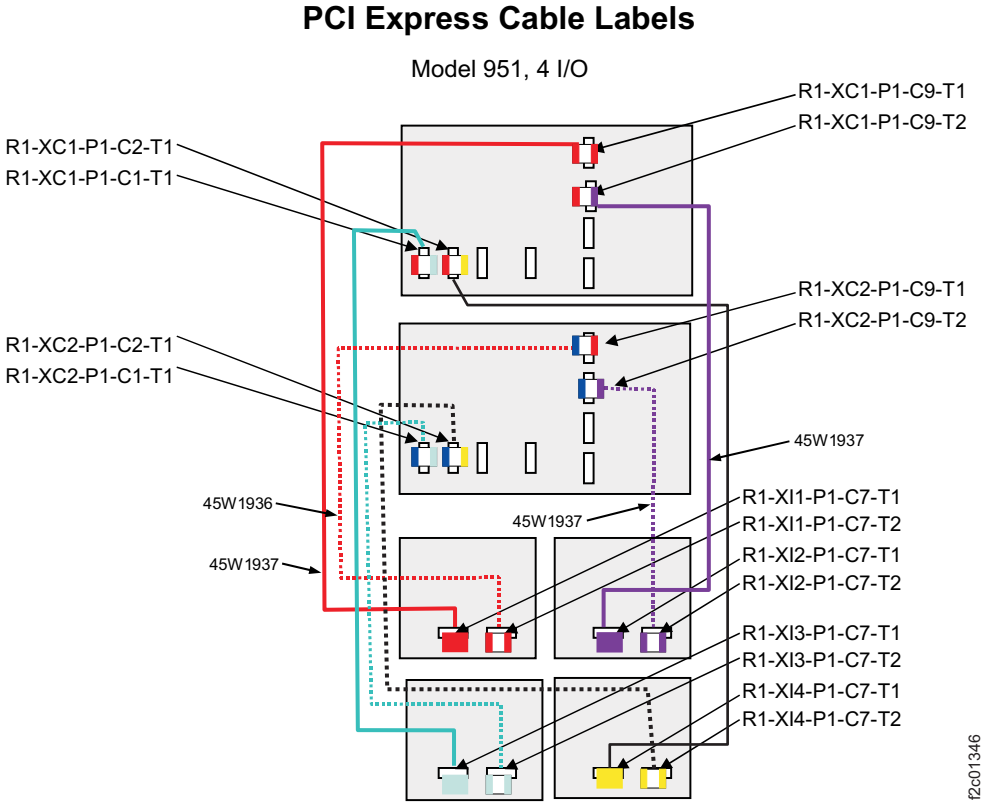

Figure 29. Model 951, four I/O enclosures

Table 22. PCIe Cabling (Model 951)

From CEC R1-XC1	To Rack 1 I/O Enclosure	Cable FRU P/N
R1-XC1-P1-C9-T1	(1B1) R1-XI1-P1-C7-T1	45W1937
R1-XC1-P1-C9-T2	(1B2) R1-XI2-P1-C7-T1	45W1937
R1-XC1-P1-C1-T1	(1B3) R1-XI3-P1-C7-T1	45W1937
R1-XC1-P1-C2-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**FRU P/N**
R1-XC2-P1-C9-T1	(1B1) R1-XI1-P1-C7-T2	45W1936
R1-XC2-P1-C9-T2	(1B2) R1-XI2-P1-C7-T2	45W1937
R1-XC2-P1-C1-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C2-T1	(1B4) R1-XI4-P1-C7-T2	45W1937

The following figure and table are for Model 951 with *eight* I/O enclosures.

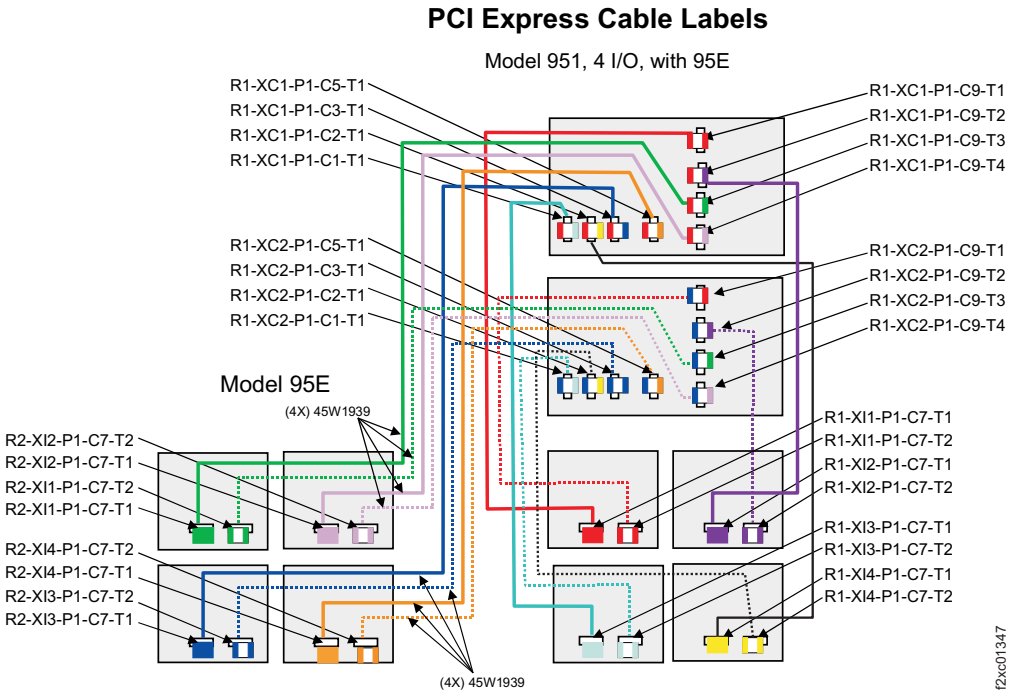

Figure 30. Model 951, eight I/O enclosures

Table 23. PCIe Cabling (Model 951)

From CEC R1-XC1	To Rack 1 I/O Enclosure	Cable FRU P/N
R1-XC1-P1-C9-T1	(1B1) R1-XI1-P1-C7-T1	45W1937
R1-XC1-P1-C9-T2	(1B2) R1-XI2-P1-C7-T1	45W1937
R1-XC1-P1-C1-T1	(1B3) R1-XI3-P1-C7-T1	45W1937
R1-XC1-P1-C2-T1	(1B4) R1-XI4-P1-C7-T1	45W1938
From CEC R1-XC1	**To Rack 2 I/O Enclosure**	**Cable FRU P/N**
R1-XC1-P1-C9-T3	(2B1) R2-XI1-P1-C7-T1	45W1939
R1-XC1-P1-C9-T4	(2B2) R2-XI2-P1-C7-T1	45W1939
R1-XC1-P1-C3-T1	(2B3) R2-XI3-P1-C7-T1	45W1939
R1-XC1-P1-C5-T1	(2B4) R2-XI4-P1-C7-T1	45W1939
From CEC R1-XC2	**To Rack 1 I/O Enclosure**	**Cable FRU P/N**
R1-XC2-P1-C9-T1	(1B1) R1-XI1-P1-C7-T2	45W1936
R1-XC2-P1-C9-T2	(1B2) R1-XI2-P1-C7-T2	45W1937
R1-XC2-P1-C1-T1	(1B3) R1-XI3-P1-C7-T2	45W1936
R1-XC2-P1-C2-T1	(1B4) R1-XI4-P1-C7-T2	45W1937
From CEC R1-XC2	**To Rack 2 I/O Enclosure**	**Cable FRU P/N**
R1-XC2-P1-C9-T3	(2B1) R2-XI1-P1-C7-T2	45W1939
R1-XC2-P1-C9-T4	(2B2) R2-XI2-P1-C7-T2	45W1939
R1-XC2-P1-C3-T1	(2B3) R2-XI3-P1-C7-T2	45W1939
R1-XC2-P1-C5-T1	(2B4) R2-XI4-P1-C7-T2	45W1939

Section-3 RIO cables

The following figure and table are for Model 951 with *two* and *four* I/O enclosures.

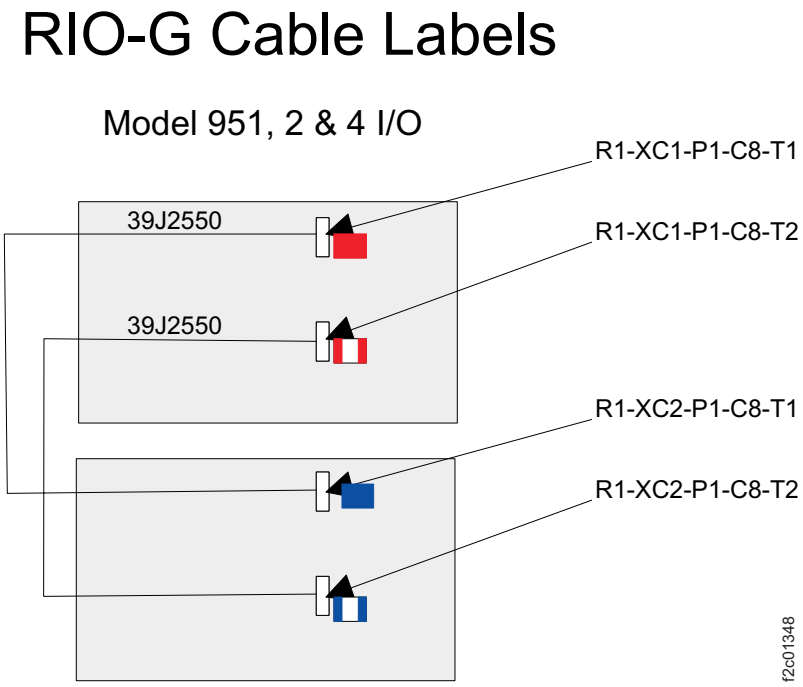

Figure 31. RIO cable labels

Table 24. RIO Cabling (Model 951)

From	To	FRU P/N
R1-XC1-P1-C8-T1	R1-XC2-P1-C8-T1	(0.6 meter) 39J2550[1]
R1-XC1-P1-C8-T1	R1-XC2-P1-C8-T1	(1.2 meter) 44V5140[1]
R1-XC1-P1-C8-T2	R1-XC2-P1-C8-T2	(0.6 meter) 39J2550[1]
R1-XC1-P1-C8-T2	R1-XC2-P1-C8-T2	(1.2 meter) 44V5140[1]

Notes:

1. Rack-1 ships with a matched pair of 0.6 meter or 1.2 meter RIO cables. The 0.6 meter and 1.2 meter RIO cables must not be intermixed. You must visually inspect the existing RIO cable FRU P/N labels and then order the same FRU P/N.

Earthquake resistance kit part numbers

Use the following sections to locate information about earthquake resistance kit parts:

- "Earthquake resistance kit parts at the front of the rack (stiffeners)" on page 38
- "Earthquake resistance kit parts at the rear of the rack (stiffeners)" on page 40
- "Earthquake resistance kit parts for non-raised floor (tie-downs)" on page 42

• "Earthquake resistance kit parts for raised floor (tie-downs)" on page 43

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Earthquake resistance kit parts at the front of the rack (stiffeners)

Use the figures and tables below to locate information about the earthquake resistance kit brackets (stiffeners) at the front of the rack.

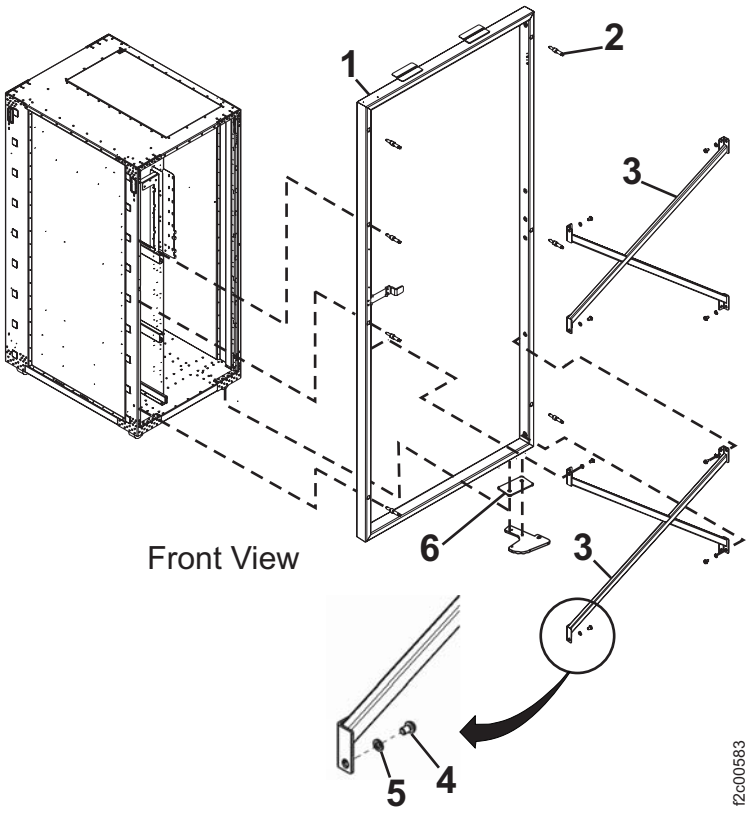

Figure 32. Earthquake resistance kit parts at the front of the rack

Table 25. Earthquake resistance kit parts (except relocation bracket for the operator panel)

Index	Part name	Part number
1	Brace extension frame	22R1317
2	Screw	22R2193
2a	Nut, earthquake resistance frame **Note:** If the rack frame hole is not threaded, then this nut is placed inside the frame to anchor screw **2** .	17P8602
3	X-brace	22R1321
4	Screw (20mm)	1621538
5	Washer, Lock	1622321

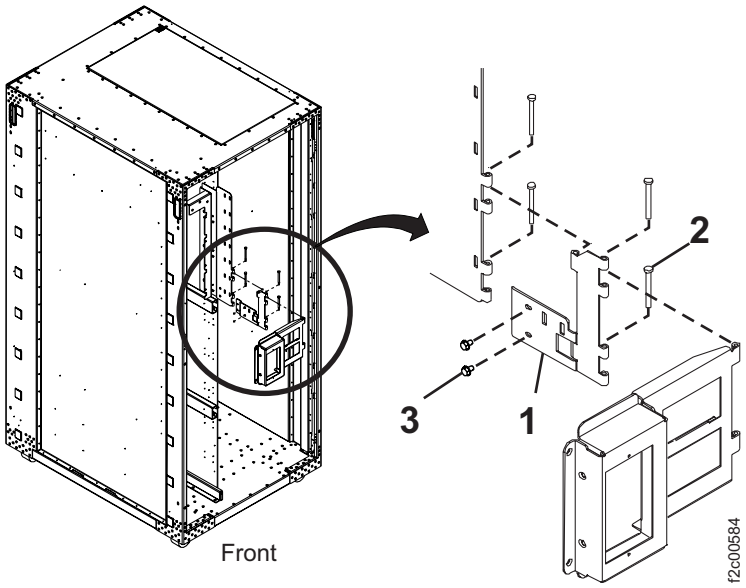

Figure 33. Earthquake resistance kit parts - Relocation bracket for the operator panel

Table 26. Earthquake resistance kit relocation bracket for the operator panel

Index	Part name	Part number
1	Bracket, relocation	22R1793
2	Pin, pivot	22R1794
3	Screw	1621842

Earthquake resistance kit parts CEC stiffeners

Use the figure and table that follow to locate information about the earthquake resistance kit CEC stiffeners.

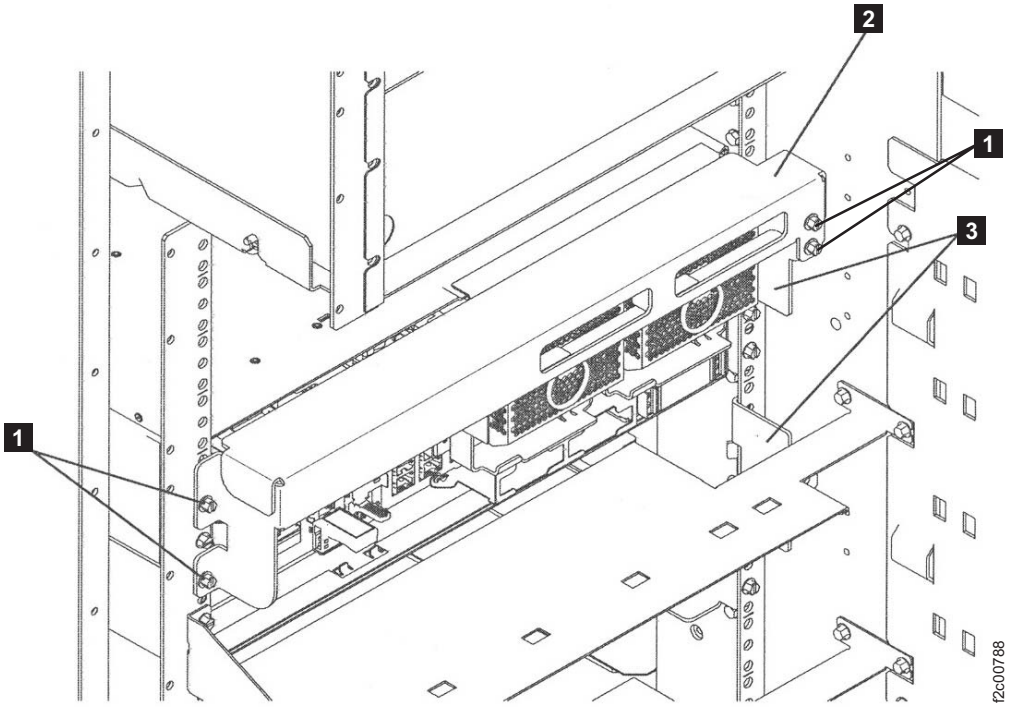

Figure 34. Earthquake resistance kit parts CEC stiffeners

Table 27. Earthquake resistance kit CEC stiffeners

Index	Part name	Part number
1	Screw	23R1520
2	Bracket, stiffener	22R2002
3	Bracket, mounting	17P8485

Earthquake resistance kit parts at the rear of the rack (stiffeners)

Use the figures and tables below to locate information about the earthquake resistance kit brackets (stiffeners) at the rear of the rack.

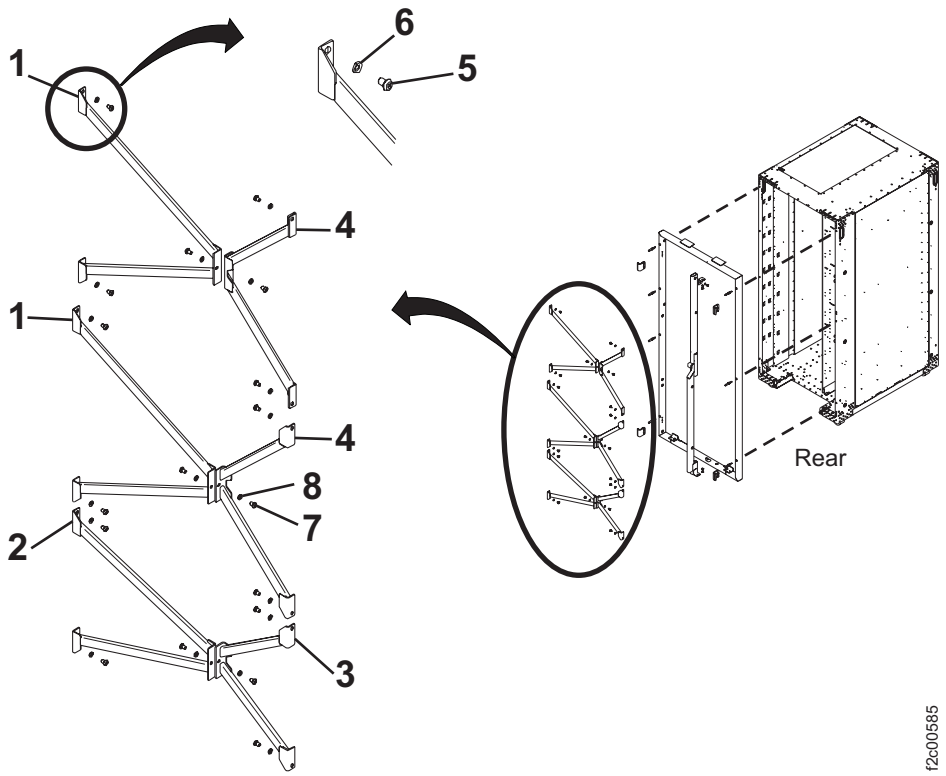

Figure 35. Earthquake resistance kit V-braces at the rear of the rack

Table 28. Earthquake resistance kit V-braces

Index	Part name	Part number
1	V-brace, main, upper	22R1313
2	V-brace, main, lower	22R1315
3	V-brace, power, lower	22R1316
4	V-brace, power, upper	22R1314
5	Screw (20mm)	1621538
6	Washer, Lock	1622321

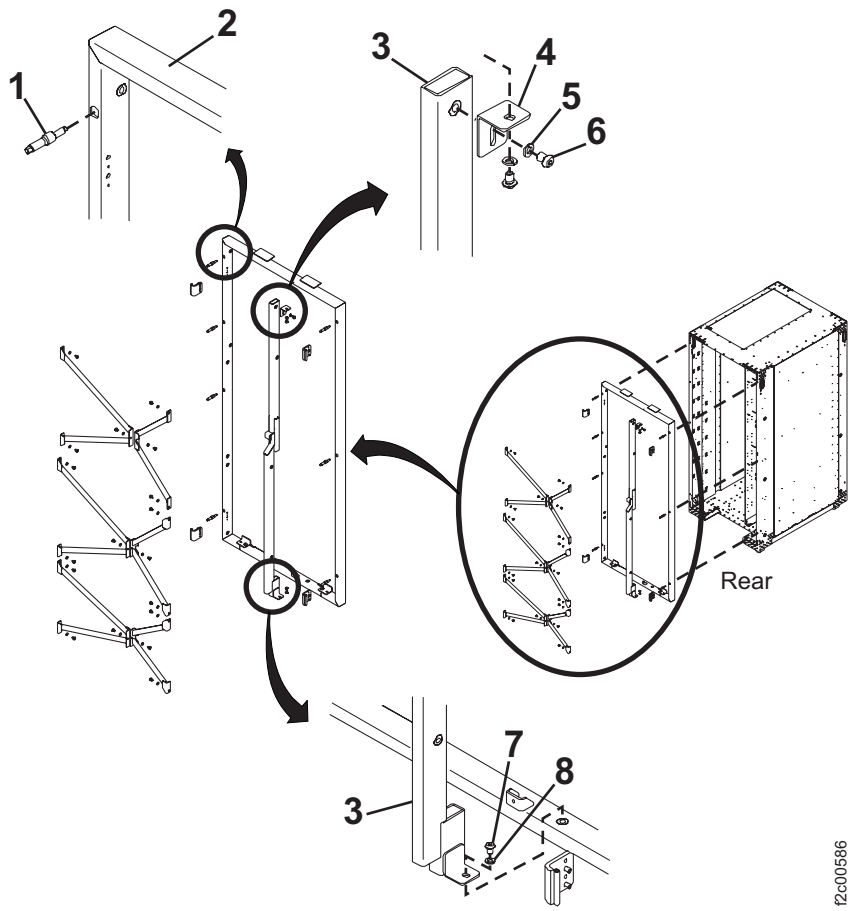

Figure 36. Earthquake resistance kit parts at the rear of the rack (except V-braces)

Table 29. Earthquake resistance kit parts (except V-braces)

Index	Part name	Part number
1	Screw	22R2193
2	Brace extension frame	22R1303
2a	Nut, earthquake resistance frame **Note:** If the rack frame hole is not threaded, then this nut is placed inside the frame to anchor screw **2** .	17P8602
3	Vertical brace	22R1304
4	Bracket, vertical brace to frame	22R1305
5	Washer	1622321
6	Screw	1621538
7	Screw	1621538
8	Washer	1622321

Earthquake resistance kit parts for non-raised floor (tie-downs)

Use the figure and table below to locate information about the earthquake resistance kit parts that tie the rack to the non-raised floor.

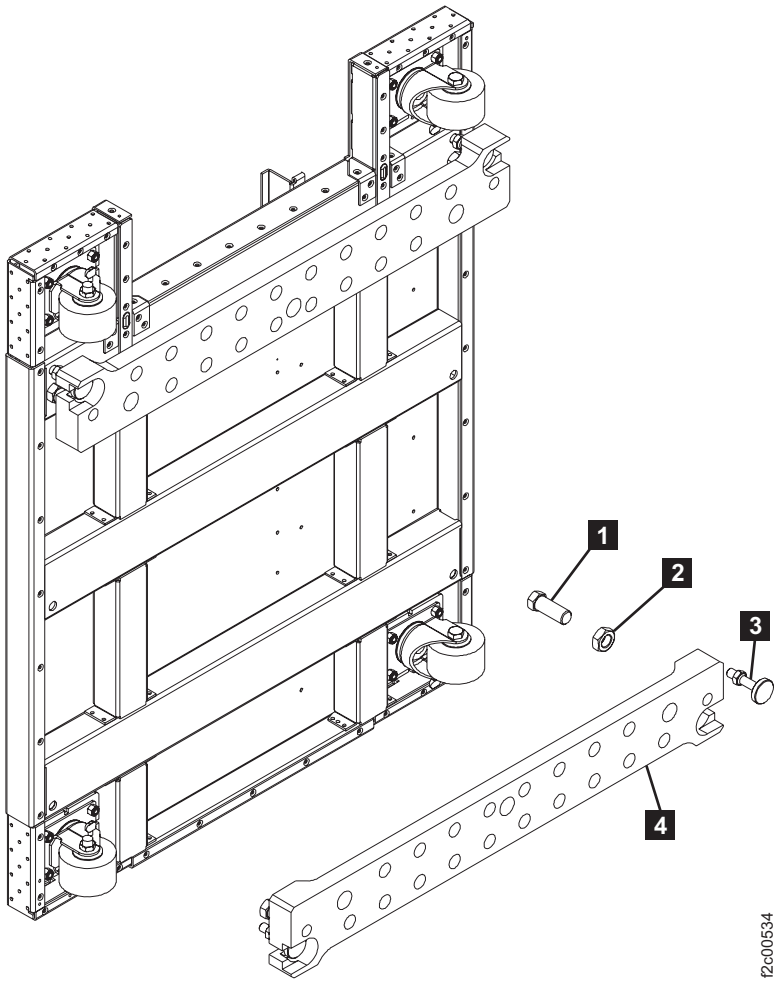

Figure 37. Rack tie-down parts of the earthquake resistance kit (non-raised floor)

Table 30. Floor tie-down parts of the earthquake resistance kit (non-raised floor)

Index	Part name[1]	Part number
1	Leveler	22R1462
2	Jam nut	22R1463
3	Stud	22R1461
4	Load plate	22R1515
Notes		
[1] - Part of the tie-down hardware kit P/N 22R1472.		

Earthquake resistance kit parts for raised floor (tie-downs)

Use the figure and table below to locate information about the earthquake resistance kit parts that tie the rack to the raised floor.

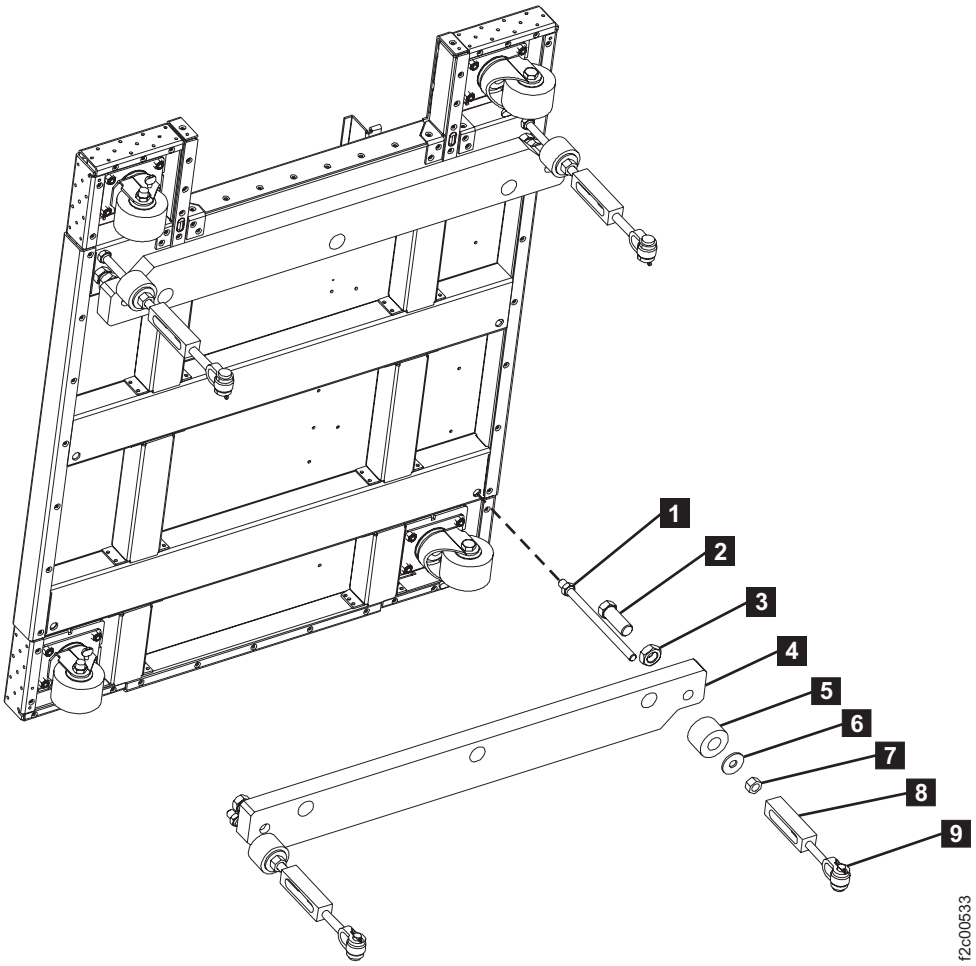

Figure 38. Rack tie-down parts of the earthquake resistance kit (raised floor)

Table 31. Floor tie-down parts of the earthquake resistance kit (raised floor)

Index	Part name	Part number
1	Stud, frame-to-turnbuckle	22R1464
2	Leveler	22R1462
3	Jam nut	22R1463
4	Load plate	22R1301
5	Bushing, rubber	44P2997
6	Washer (M12)	[1]
7	Nut (M12x1.75)	[2]
8	Turnbuckle, short[3]	22R1465
8	Turnbuckle, long[4]	22R1467
9	Spacer, jaw-to-floor hardware	21L3667

Notes:

- [1] - McMaster-Carr P/N 91100A180 or IBM approved equivalent.
- [2] - McMaster-Carr P/N 90591A181 or IBM approved equivalent.
- [3] - Part of the short tie-down hardware kit (P/N 22R1466).
- [4] - Part of the long tie-down hardware kit (P/N 22R1468).

Ethernet 8-port switch part numbers

Use this section to find Ethernet 8-port switch part numbers.

"Ethernet (8-port) switch part numbers, Model 941"

"Ethernet (8-port) switch part numbers, Model 951" on page 48

Ethernet (8-port) switch part numbers, Model 941

Information about Ethernet switch parts is listed below. See Figure 39 for switch locations.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

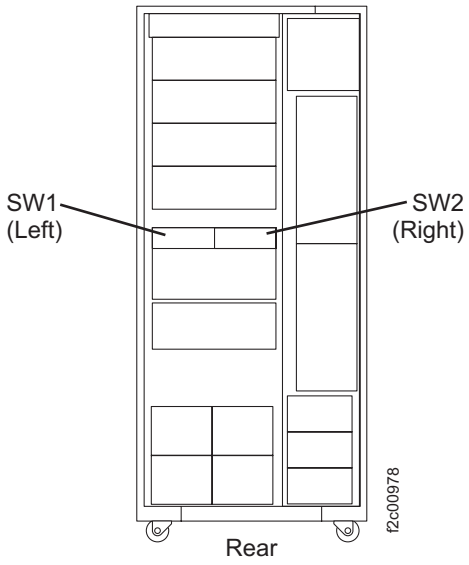

Figure 39. 8-port Ethernet switch locations

Table 32. Ethernet switch parts (model 941)

Index	Part name	Part number
SW1/ SW2	8-port Ethernet switch assembly (includes switch, power adapter, and sheet metal pre-assembled)	21R9558 45W5222

Cables for Ethernet switch SW1 (left)

To find part numbers for the cables that are connected to Ethernet switch SW1 (the left Ethernet switch), see Figure 40 on page 46, Figure 41 on page 46, and Table 33 on page 46.

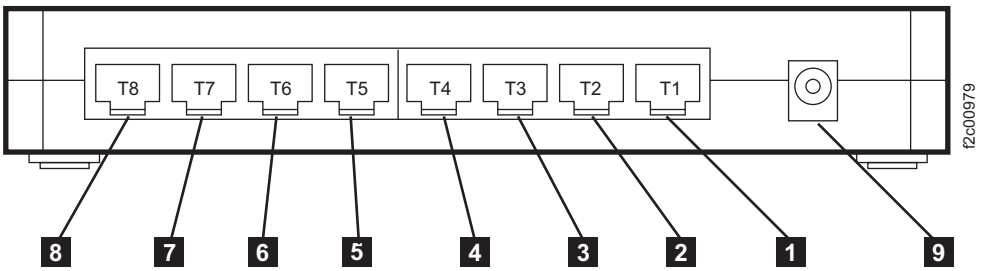

Figure 40. 8-port Ethernet cable locations (1 through 9)

Figure 41. 8-port Ethernet cable locations (10 through 13)

Table 33. Cables for Ethernet switch SW1 (left)

Index	Part name	Part number
1	Cable, Ethernet switch SW1 -to- HMC (1750 mm black)	45W2258
2	(Call your next level of support)	
3	Cable, Ethernet switch SW1 -to- CEC enclosure XC1[1] FSP (870 mm black)	45W2358
4	Cable, Ethernet switch SW1 -to- CEC enclosure XC2[2] FSP (1070 mm black)	45W2359
5	Cable, Ethernet switch SW1 -to- CEC enclosure XC1[1] (1070 mm black)	45W2360
6	Cable, Ethernet switch SW1 -to- CEC enclosure XC2[2] (1280 mm black)	45W2361
7	Not used	
8	Not used	
9	This power cable is part of the power adapter in the Ethernet switch assembly.	N/A
10	See Table 32 on page 45.	

Table 33. Cables for Ethernet switch SW1 (left) (continued)

Index	Part name	Part number
11	M5 screw	23R1520
12	Multi-connector power cord[3]	22R5759
13	8-port Ethernet switch assembly mounting shelf	21R9562

Notes:

1. XC1 is the upper CEC enclosure.
2. XC2 is the lower CEC enclosure.
3. This cord is hardwired to a junction connector that receives power from both PPSs. The junction connector also supplies power to the management console, the display/keyboard tray, and Ethernet switch SW2.

Cables for Ethernet switch SW2 (right)

To find part numbers for the cables that are connected to Ethernet switch SW2 (the right Ethernet switch), see Figure 40 on page 46, Figure 41 on page 46, and Table 34.

Table 34. Cables for Ethernet switch SW2 (right)

Index	Part name	Part number
1	Cable, Ethernet switch SW2 -to- HMC (1580 mm gray)	45W2262
2	(Call your next level of support)	
3	Cable, Ethernet switch SW2 -to- CEC enclosure XC1[1] FSP (660 mm gray)	45W2362
4	Cable, Ethernet switch SW2 -to- CEC enclosure XC2[2] FSP (870 mm gray)	45W2363
5	Cable, Ethernet switch SW2 -to- CEC enclosure XC1[1] (870 mm gray)	45W2364
6	Cable, Ethernet switch SW2 -to- CEC enclosure XC2[2] (1070 mm gray)	45W2365
7	Not used	
8	Not used	
9	This power cable is part of the power adapter in the Ethernet switch assembly.	N/A
10	See Table 32 on page 45.	
11	M5 screw	23R1520
12	Multi-connector power cord[3]	22R0842
13	8-port Ethernet switch assembly mounting shelf	21R9562

Notes:

1. XC1 is the upper CEC enclosure.
2. XC2 is the lower CEC enclosure.
3. This cord is hardwired to a junction connector that receives power from both PPSs. The junction connector also supplies power to the management console, the display/keyboard tray, and Ethernet switch SW1.

Ethernet (8-port) switch part numbers, Model 951

Information about Ethernet switch parts is listed below. See Figure 42 for switch locations.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

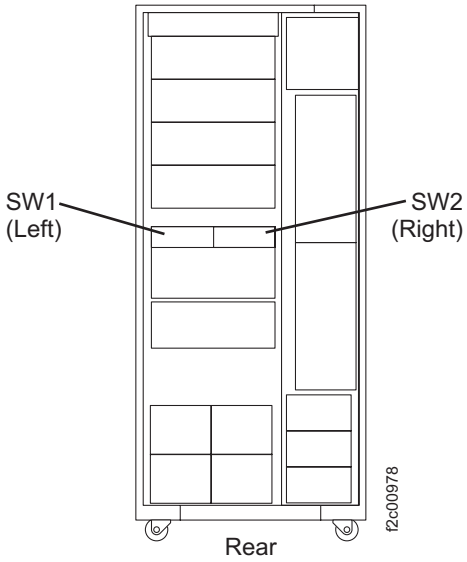

Figure 42. 8-port Ethernet switch locations

Table 35. Ethernet switch parts (model 951)

Index	Part name	Part number
SW1/ SW2	8-port Ethernet switch assembly	45W8096
SW1/ SW2	Ethernet switch power adapter	21R9561

Cables for Ethernet switch SW1 (left)

To find part numbers for the cables that are connected to Ethernet switch SW1 (the left Ethernet switch), see Figure 43 and Table 36 on page 49.

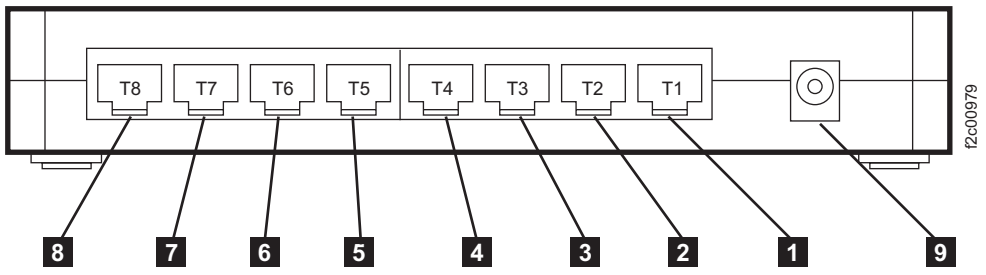

Figure 43. 8-port Ethernet cable locations (1 through 9)

Table 36. Cables for Ethernet switch SW1 (left)

Index	Part name	Part number
1	Cable, Ethernet switch SW1 -to- HMC (1750 mm black)	45W2258
2	(Call your next level of support)	
3	Cable, Ethernet switch SW1 -to- CEC enclosure XC1[1] FSP (870 mm black)	45W2358
4	Cable, Ethernet switch SW1 -to- CEC enclosure XC2[2] FSP (1070 mm black)	45W2359
5	Cable, Ethernet switch SW1 -to- CEC enclosure XC1[1] (1070 mm black)	45W2360
6	Cable, Ethernet switch SW1 -to- CEC enclosure XC2[2] (1280 mm black)	45W2361
7	Not used	
8	Not used	

Notes:

1. XC1 is the upper CEC enclosure.
2. XC2 is the lower CEC enclosure.

Cables for Ethernet switch SW2 (right)

To find part numbers for the cables that are connected to Ethernet switch SW2 (the right Ethernet switch), see Figure 43 on page 48 and Table 37.

Table 37. Cables for Ethernet switch SW2 (right)

Index	Part name	Part number
1	Cable, Ethernet switch SW2 -to- HMC (1580 mm gray)	45W2262
2	(Call your next level of support)	
3	Cable, Ethernet switch SW2 -to- CEC enclosure XC1[1] FSP (660 mm gray)	45W2362
4	Cable, Ethernet switch SW2 -to- CEC enclosure XC2[2] FSP (870 mm gray)	45W2363
5	Cable, Ethernet switch SW2 -to- CEC enclosure XC1[1] (870 mm gray)	45W2364
6	Cable, Ethernet switch SW2 -to- CEC enclosure XC2[2] (1070 mm gray)	45W2365
7	Not used	
8	Not used	

Notes:

1. XC1 is the upper CEC enclosure.
2. XC2 is the lower CEC enclosure.

Ethernet switch tray part numbers (Model 951)

Information about Ethernet switch tray fan is listed below. See Figure 44 on page 50 for switch locations.

Note: The following part numbers are the most recent. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts

ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

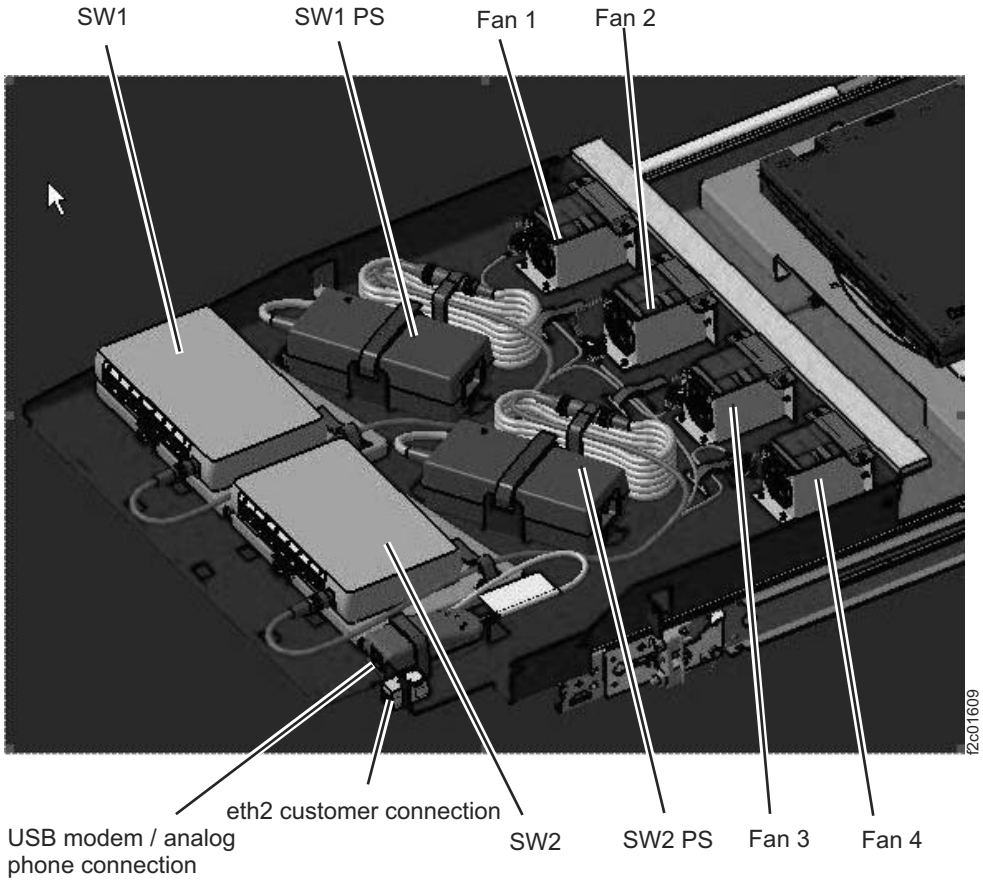

Figure 44. Ethernet switch tray fans

Table 38. Ethernet switch tray fans

Index	Part name	Part number
Fan 1, 2, 3 or 4	Fan assembly	45W9471
Power cable to SW1, Fan 1 and Fan 3	Fan power cable	45W9428
Power cable to SW2, Fan 2 and Fan 4	Fan power cable	45W9428
Fan clamp (across top of fan)	Fan clamp	45W9449
Fan clamp screw	Fan clamp screw	87G4617

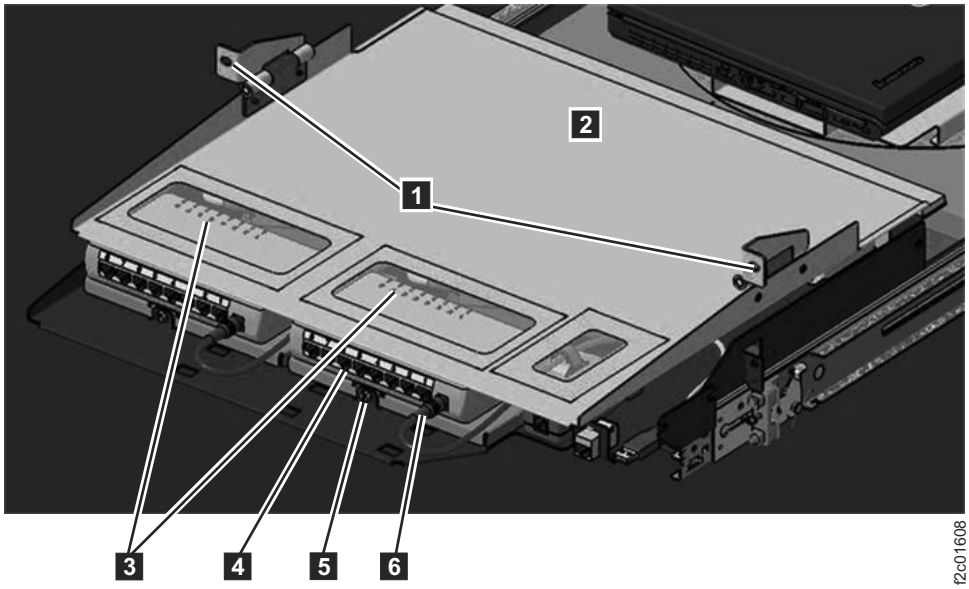

Figure 45. Ethernet switch tray air baffle

Table 39. Ethernet switch tray air baffle

Index	Part name	Part number
1	Screw	23R1520
2	Ethernet tray air baffle	45W9632

I/O enclosure part numbers

Use this section to find I/O enclosure part numbers.

"I/O enclosure part numbers, Models 941, 94E"

"I/O enclosure part numbers, Models 951, 95E" on page 57

I/O enclosure part numbers, Models 941, 94E

Information about I/O enclosure parts is listed below. Use Table 40 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 40. Start here

Part name	Figure
Cables, rear of rack	Figure 49 on page 56
I/O enclosure backplane assembly	Figure 46 on page 52
I/O enclosure device adapter card	Figure 48 on page 55
I/O enclosure fan	Figure 46 on page 52
I/O enclosure Fibre Channel host card	Figure 48 on page 55
I/O enclosure PCIe/SPCN card	Figure 48 on page 55

Table 40. Start here (continued)

Part name	Figure
I/O enclosure power supply	Figure 46
All other parts	(Find the appropriate figure below)

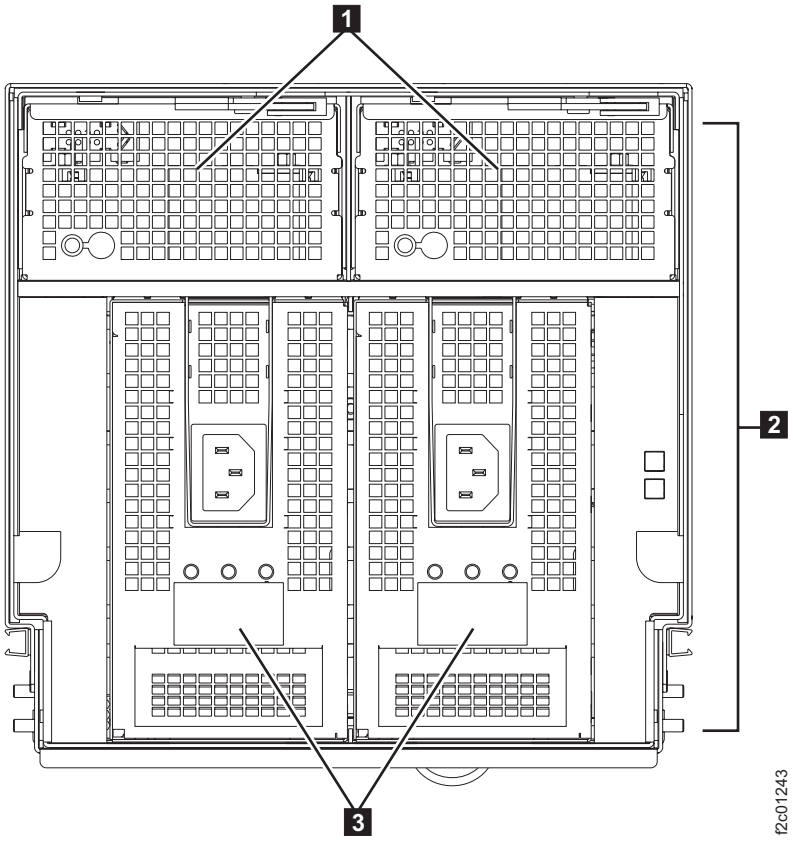

Figure 46. I/O enclosure FRUs, front of rack

Table 41. I/O enclosure FRUs, front of rack

Index	Part name	CCIN[1]	Part number
1	I/O enclosure fan	63C2	45W1232
2	I/O enclosure backplane assembly	63C1	45W1231
3	I/O enclosure power supply		44V6477

Table 41. I/O enclosure FRUs, front of rack (continued)

Index	Part name	CCIN[1]	Part number
Notes: 1. Important, read this entire note as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number reported in a serviceable event or call home record, check whether the parts ordering system has a conditional substitute for DS8000 series. There are a couple of exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home might be the original eServer™ part number which might have firmware that is not appropriate for the DS8000 series. You must order the DS8000 FRU part number to ensure that the correct firmware is present.			

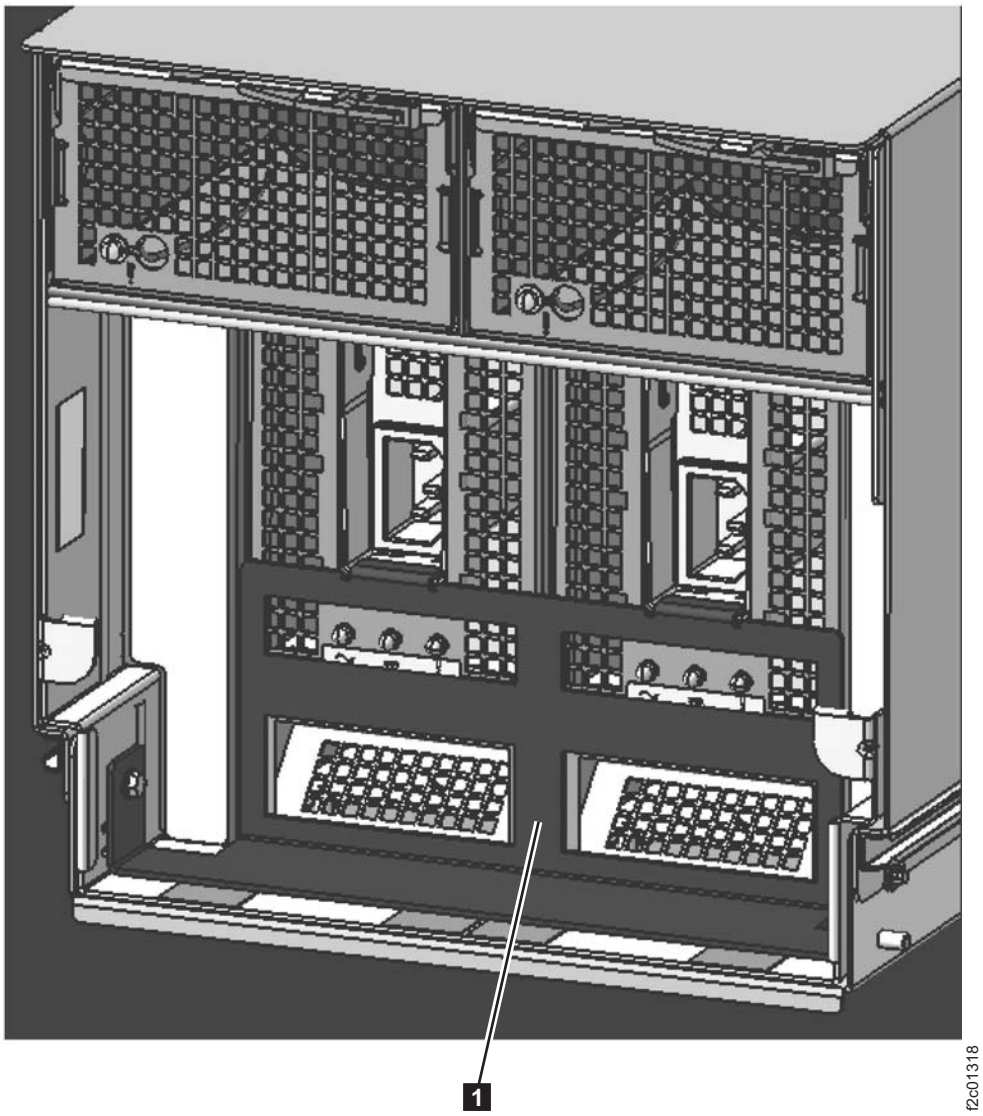

Figure 47. I/O enclosure sheet metal, front of rack

Table 42. I/O enclosure sheet metal, front of rack

Index	Part name	Part number
1	I/O enclosure power supply retention bracket[1]	45W6535

Notes:

1. This bracket is only present on some early racks to ensure the power supplies are properly retained. Latter racks do not use it.

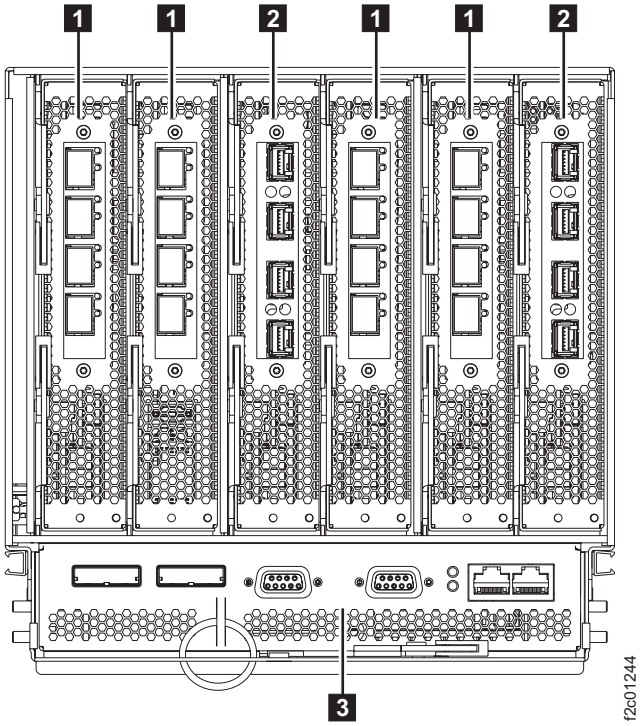

Figure 48. I/O enclosure FRUs, rear of rack

Table 43. I/O enclosure FRUs, rear of rack

Index	Part name	CCIN[1]	Part number
1	I/O Enclosure Fibre Channel Host Card, SW 8Gb (4-port)	HC4S	45W8086
1	I/O Enclosure Fibre Channel Host Card, LW-10 km 8Gb (4-port)	HC4L	45W8093
1	I/O enclosure Fibre Channel host card, short wave, 4 Gb	HB3S	45W2868
1	I/O enclosure Fibre Channel host card, long wave, 4 Gb, 4 km	HB34	45W2869
1	I/O enclosure Fibre Channel host card, long wave, 4 Gb, 10 km	HB3L	45W2870
1	I/O enclosure Fibre Channel host card, default CCIN[2]	HAFC	see note 2
1	I/O enclosure Fibre Channel host card, default CCIN[2]	HA1X	see note 2
2	I/O enclosure device adapter card	DAGO	45W2867
3	I/O enclosure PCIe/SPCN card	63C3	45W5683

Table 43. I/O enclosure FRUs, rear of rack (continued)

Index	Part name	CCIN[1]	Part number
Notes: 1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series. There are a couple of exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer™ part number which may have firmware that is not appropriate for the DS8000 series. You must order the DS8000 FRU part number to ensure that the correct firmware is present. 2. When a serviceable event is opened against a host card that has not yet been configured (for example, during an expansion rack or host card installation), the serviceable event will display the default CCIN and will not show a FRU part number. Use the table to select the part number which matches the card type being installed.			

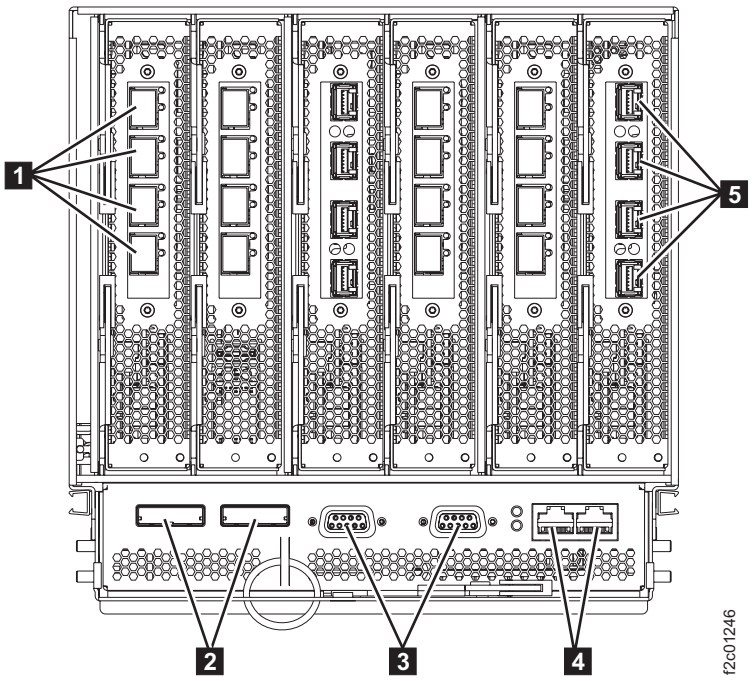

Figure 49. I/O enclosure cables, rear of rack

Table 44. I/O enclosure cables, rear of rack

Index	Part name	CCIN[1]	Part number
1	Host cable, provided by customer		

Table 44. I/O enclosure cables, rear of rack (continued)

Index	Part name	CCIN[1]	Part number
2	Cable, PCIe, 0.75 m (2 ft. 6 in) [4]		45W1935
	Cable, PCIe, 1.0 m (3 ft. 3 in) [4]		45W1936
	Cable, PCIe, 1.2 m (3 ft. 11 in) [4]		45W1937
	Cable, PCIe, 1.4 m (4 ft. 7 in)[4]		45W1938
	Cable, PCIe, 4.0 m (13 ft. 1 in) [4]		45W1939
3	Cable, SPCN, 0.5 m (1 ft. 7 in) [4]		45W1940
3	Cable, SPCN, 1.3 m (4 ft. 3 in) [4]		45W1941
4	Not used		
5	Cable, Fibre Channel, 0.6 m (2 ft.)[3]	FCBL[2]	22R5251
	Cable, Fibre Channel, 2.5 m (8 ft. 2 in.)[3]	FCBL[2]	22R5252
	Cable, Fibre Channel, 5.5 m (18 ft.)[3]	FCBL[2]	22R5253
	Cable, Fibre Channel, 9.0 m (29 ft. 6 in.)[3]	FCBL[2]	22R5254

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series.
2. Later levels of the LIC bundle report this CCIN. Earlier levels do not report a CCIN.
3. Fibre Channel cables are bundled in groups of eight from the factory. There are many cable bundles, each with custom-length cables that are individually labeled for specific racks, enclosures, and connectors. It is not possible to order individual cables bundles. There are four cables the field can order, each is a different length and without any labeling. You need to find the part number on the cable bundle that contains the cable that needs replaced. The parts ordering system will take the cable bundle part number and convert it to a single cable part number that is longer than the longest cable in the cable bundle.
4. SPCN and PCIe cables are custom length for each connector position. They have unique location code labels on each end of the cable. There are small number of cables the field can order, each is a different length and without any labeling. You must find the part number on the cable you are replacing. The parts ordering system will take the cable part number and convert it to a single cable part number that is longer than the cable being replaced.

I/O enclosure part numbers, Models 951, 95E

Information about I/O enclosure parts is listed below. Use Table 45 on page 58 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 45. Start here

Part name	Figure
Cables, rear of rack	Figure 53 on page 62
I/O enclosure backplane assembly	Figure 50
I/O enclosure device adapter card	Figure 52 on page 61
I/O enclosure fan	Figure 50
I/O enclosure Fibre Channel host card	Figure 52 on page 61
I/O enclosure PCIe/SPCN card	Figure 52 on page 61
I/O enclosure power supply	Figure 50
All other parts	(Find the appropriate figure below)

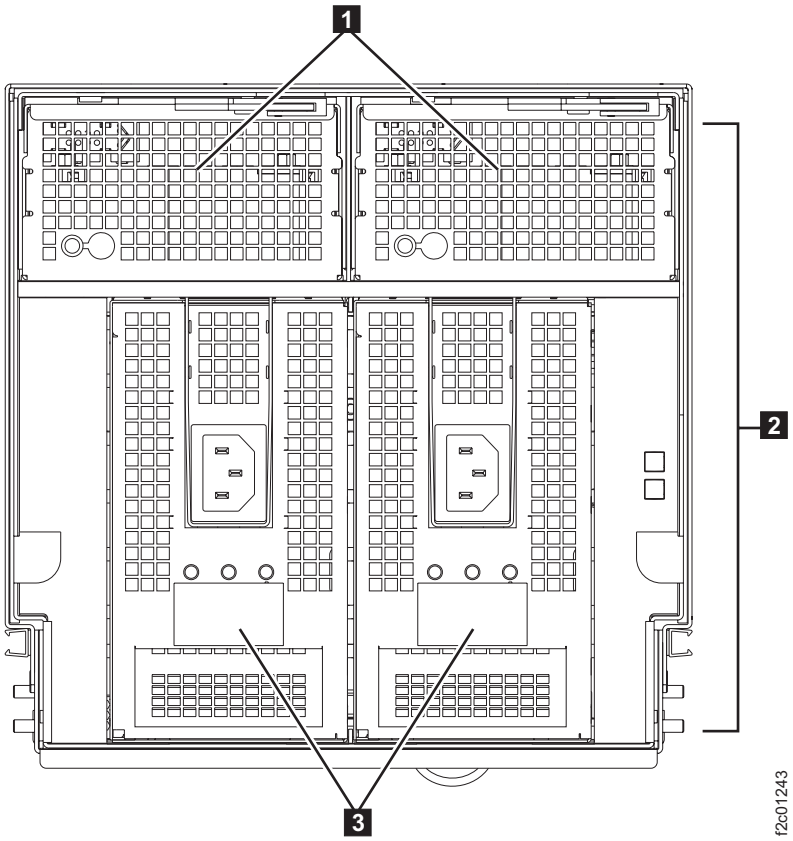

Figure 50. I/O enclosure FRUs, front of rack

Table 46. I/O enclosure FRUs, front of rack

Index	Part name	CCIN[1]	Part number
1	I/O enclosure fan	63C2	45W1232
2	I/O enclosure backplane assembly	63C1	45W1231
3	I/O enclosure power supply		74Y6726

Table 46. I/O enclosure FRUs, front of rack (continued)

Index	Part name	CCIN[1]	Part number
Notes: 1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series. There are a couple of exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer™ part number which may have firmware that is not appropriate for the DS8000 series. You must order the DS8000 FRU part number to ensure that the correct firmware is present.			

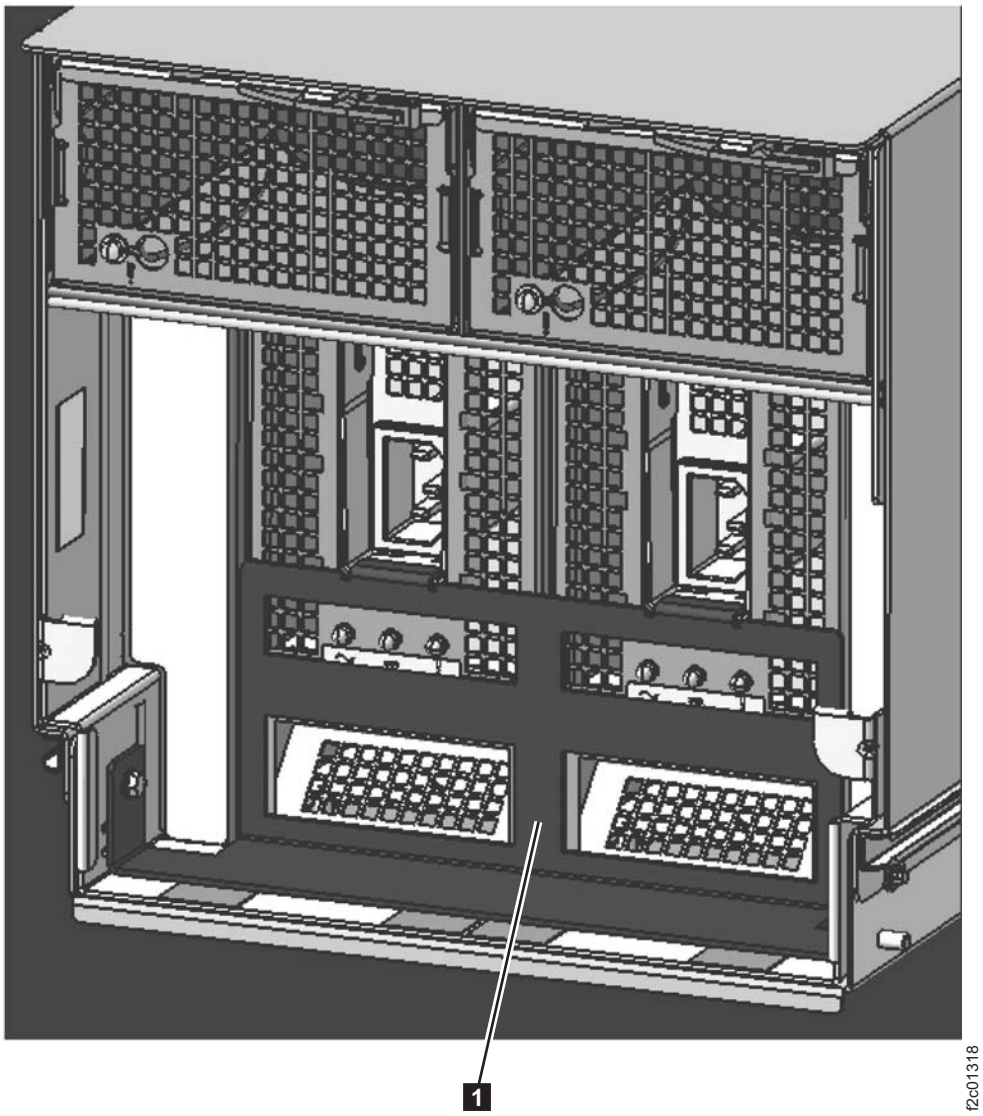

Figure 51. I/O enclosure sheet metal, front of rack

Table 47. I/O enclosure sheet metal, front of rack

Index	Part name	Part number
1	I/O enclosure power supply retention bracket[1]	45W6535

Notes:

1. This bracket is only present on some early racks to ensure the power supplies are properly retained. Latter racks do not use it.

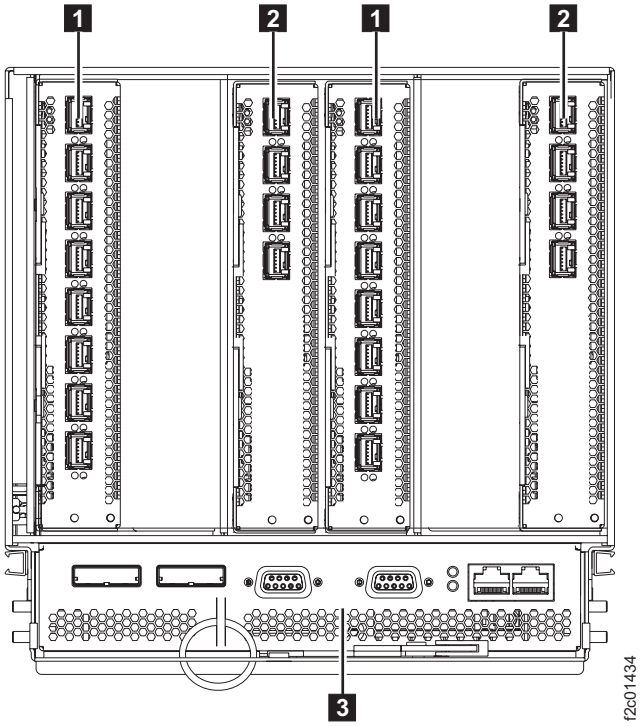

Figure 52. I/O enclosure FRUs, rear of rack

Table 48. I/O enclosure FRUs, rear of rack

Index	Part name	CCIN[1]	Part number
1	I/O Enclosure Fibre Channel Host Card, SW 8Gb (4-port)	HC4S	45W8086
1	I/O Enclosure Fibre Channel Host Card, LW-10 km 8Gb (4-port)	HC4L	45W8093
1	I/O Enclosure Fibre Channel Host Card, SW 8Gb (8-port)	HC8S	45W6444
1	I/O Enclosure Fibre Channel Host Card, LW-10 km 8Gb (8-port)	HC8L	45W6445
1	I/O enclosure Fibre Channel host card, default CCIN[2]	HAFC	see note 2
2	I/O enclosure device adapter card, optical (4-port)	DAD4	31P1452
3	I/O enclosure PCIe/SPCN card	63C3	45W5683

Table 48. I/O enclosure FRUs, rear of rack (continued)

Index	Part name	CCIN[1]	Part number

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable.

   When you order a part number reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series. There are a couple of exceptions where the part number on the DS8000 FRU part number is not the same one that is reported and called home. The part number reported and called home may be the original eServer™ part number which may have firmware that is not appropriate for the DS8000 series. You must order the DS8000 FRU part number to ensure that the correct firmware is present.
2. When a serviceable event is opened against a host card that has not yet been configured (for example, during an expansion rack or host card install), the serviceable event will display the default CCIN and will not show a FRU part number. Use the table to select the part number which matches the card type being installed.

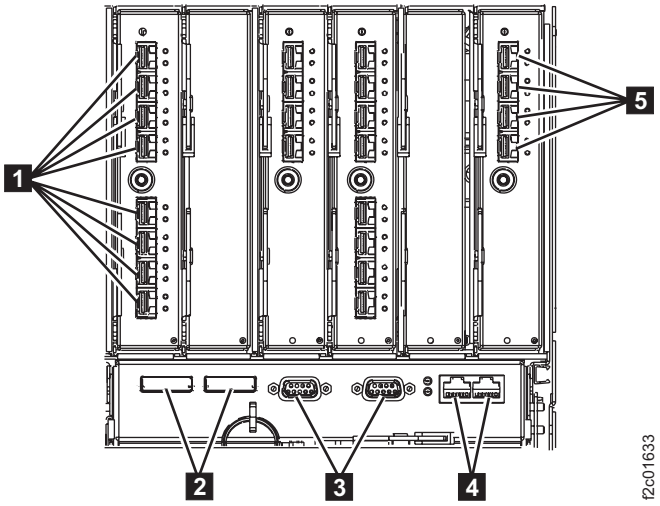

Figure 53. I/O enclosure cables, rear of rack

Table 49. I/O enclosure cables, rear of rack

Index	Part name	Part number
1	Host cable, provided by customer	
2	Cable, PCIe, 1.0 m (3 ft. 3 in)	45W1936
	Cable, PCIe, 1.2 m (3 ft. 11 in)	45W1937
	Cable, PCIe, 1.4 m (4 ft. 7 in)	45W1938
	Cable, PCIe, 4.0 m (13 ft. 1 in)	45W1939
3	Cable, SPCN, 0.5 m (1 ft. 7 in)	45W1940
	Cable, SPCN, 1.0 m (3 ft. 3 in)	22R5216
	Cable, SPCN, 1.3 m (4 ft. 3 in)	45W1941
	Cable, SPCN, 4.0 m (13 ft. 1 in)	22R5218

Table 49. I/O enclosure cables, rear of rack (continued)

Index	Part name	Part number
4	Not used	N/A
5	Cable, Fibre Channel (FC-AL), optical (see Table 50)	

Table 50. Fibre Channel (FC-AL) cables, optical

Index	Part name	CCIN[1]	Part number
1	Cable, Fibre Channel (FC-AL), optical, orange, 1.3 m (4 ft. 3 in.)[2, 3]	OCBL	45W8817
2	Cable, Fibre Channel (FC-AL), optical, blue, 2.5 m (8 ft. 2 in.)[2]	OCBL	45W8818
3	Cable, Fibre Channel (FC-AL), optical, blue, 5.6 m (18 ft. 4 in.)[2]	OCBL	45W8819

Notes:

1. Important: read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series.
2. Fibre Channel cables are bundled in groups from the factory. There are many cable bundles, each with custom-length cables that are individually labeled for specific racks, enclosures, and connectors. It is not possible to order individual cables bundles. There are three cables the field can order, each is a different length and without any labeling. You need to find the part number on the cable bundle that contains the cable that needs replaced. The parts ordering system will take the cable bundle part number and convert it to a single cable part number that is longer than the longest cable in the cable bundle.
3. Only used in Rack-1 with Rack Configuration: AB1, "business class" cabling.

Management console (MC) part numbers

Use this section to locate information about parts that are associated with the management console (MC) server and the display/keyboard tray.

"Laptop management console mounting slide and cable management part numbers" on page 64

"ThinkPad W500 laptop management console part numbers" on page 64

"ThinkPad T510 laptop management console part numbers" on page 65

"ThinkPad T520 laptop management console part numbers" on page 65

Laptop management console mounting slide and cable management part numbers

Note: This information is made available to order replacements in the event the existing management console mounting slide(s) or cable management arm become damaged.

Table 51. FRU part numbers for the management console tray kits

Part name	Part number
Slide rail kit (for management console tray)	69Y5085
Cable management arm kit (for management console tray)	46C1597

ThinkPad W500 laptop management console part numbers

Use the tables in this section to determine part number information for the laptop.

FRUs that are not listed in this section are listed in the *ThinkPad® T500 and W500 (15.4-inch widescreen) Hardware Maintenance Manual*. The publication contains information (including part numbers) about those FRUs.

Table 52. FRU part numbers for the laptop HMC

Part name	Part number
Cable, Ethernet, black, rack Ethernet switch to laptop eth0 USB Ethernet adapter	45W2258
Cable, Ethernet, customer connector at rear of rack to laptop eth2 Ethernet port	45W2367
Cable, Ethernet, gray, rack Ethernet switch to laptop eth3 USB Ethernet adapter	45W2262
Cable, USB, black, laptop to black USB Ethernet adapter	45W3578
Cable, USB, gray, laptop to gray USB Ethernet adapter	45W3579
DVD-RAM drive	45W2802
DVD-RAM media disc (for critical console backup data methods)	23R1971 (Version 2)
Hard drive, 160 GB	45W2799
Laptop auto power-on card (connects to laptop bottom docking connector)	45D1313
Laptop AC power adapter and cable to rear of rack (only used for external HMCs in customer-provided racks)	45W3059
Laptop AC power adapter for external laptop assembly, Japan	45W6814
Laptop DC power adapter and cable to rear of rack (only used for an HMC internal to a DS8xxx rack)	45W2449
Memory DIMM, 2 GB	45W2801
USB Modem and USB cable to laptop	45W2448
USB to Ethernet adapter	45D3566
W500 Laptop keyboard, English	45W2803
W500 Laptop keyboard, Japanese	45W2804
W500 Laptop with English keyboard	45W1946
W500 Laptop with Japanese keyboard	45W1947

ThinkPad T510 laptop management console part numbers

Use the tables in this section to determine part number information for the laptop.

FRUs that are not listed in this section are listed in the *ThinkPad T510, T510i, and W510 Hardware Maintenance Manual*. The publication contains information (including part numbers) about those FRUs.

Table 53. FRU part numbers for the laptop HMC

Part name	Part number
Cable, Ethernet, black, rack Ethernet switch to laptop eth0 USB Ethernet adapter	45W2258
Cable, Ethernet, customer connector at rear of rack to laptop eth2 Ethernet port	45W6688
Cable, Ethernet, gray, rack Ethernet switch to laptop eth3 USB Ethernet adapter	45W2262
Cable, USB, black, laptop to black USB Ethernet adapter	45W3578
Cable, USB, gray, laptop to gray USB Ethernet adapter	45W3579
DVD-RAM drive	45W8723
DVD-RAM media disc (for critical console backup data methods)	23R1971 (Version 2)
Hard drive, 160 GB	45D7524
Laptop auto power-on card (connects to laptop bottom docking connector)	45D8579
Laptop AC power adapter and cable to rear of rack (only used for external HMCs in customer-provided racks)	45W3059
Laptop AC power adapter for external laptop assembly, Japan	45W8728
Laptop DC power adapter and cable to rear of rack (only used for an HMC internal to a DS8xxx rack)	45W2449
Memory DIMM, 2 GB	45W8725
USB Modem and USB cable to laptop	45W2448
USB to Ethernet adapter	45D3566
T510 Laptop keyboard, English	45W8726
T510 Laptop with English keyboard	45W8727

ThinkPad T520 laptop management console part numbers

Use the tables in this section to determine part number information for the laptop.

FRUs that are not listed in this section are listed in the *Hardware Maintenance Manual ThinkPad® T520, T520i, and W520*. The publication contains information (including part numbers) about those FRUs.

Table 54. FRU part numbers for the laptop HMC

Part name	Part number
Cable, Ethernet, black, rack Ethernet switch to laptop eth0 USB Ethernet adapter	45W2258
Cable, Ethernet, customer connector at rear of rack to laptop eth2 Ethernet port	45W6688

Table 54. FRU part numbers for the laptop HMC (continued)

Part name	Part number
Cable, Ethernet, gray, rack Ethernet switch to laptop eth3 USB Ethernet adapter	45W2262
Cable, USB, black, laptop to black USB Ethernet adapter	45W3578
Cable, USB, gray, laptop to gray USB Ethernet adapter	45W3579
DVD-RAM drive	98Y1492
DVD-RAM media disc	23R1971 (Version 2)
Hard drive, 250 GB	41U9573
Laptop auto power-on card (connects to laptop bottom docking connector)	45D8579
Laptop AC power adapter and cable to rear of rack (only used for external HMCs in customer-provided racks)	45W3059
Laptop AC power adapter for external laptop assembly, Japan	45W8728
Laptop DC power adapter and cable to rear of rack (only used for an HMC internal to a DS8xxx rack)	45W2449
Memory DIMM, 4 GB	98Y1491
USB Modem and USB cable to laptop	45W2448
USB to Ethernet adapter	45D3566
T520 Laptop (4242-BC5) with English keyboard	46K2671

Rack brackets, sheet metal, and covers part numbers

Use this section to find part numbers for rack brackets, sheet metal, and covers.

"Rack brackets, sheet metal, and covers part numbers, Models 941, 94E"

"Rack brackets, sheet metal, and covers part numbers, Models 951, 95E" on page 79

Rack brackets, sheet metal, and covers part numbers, Models 941, 94E

Use the figures and tables below to find information about parts such as rack brackets, sheet metal, and covers.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

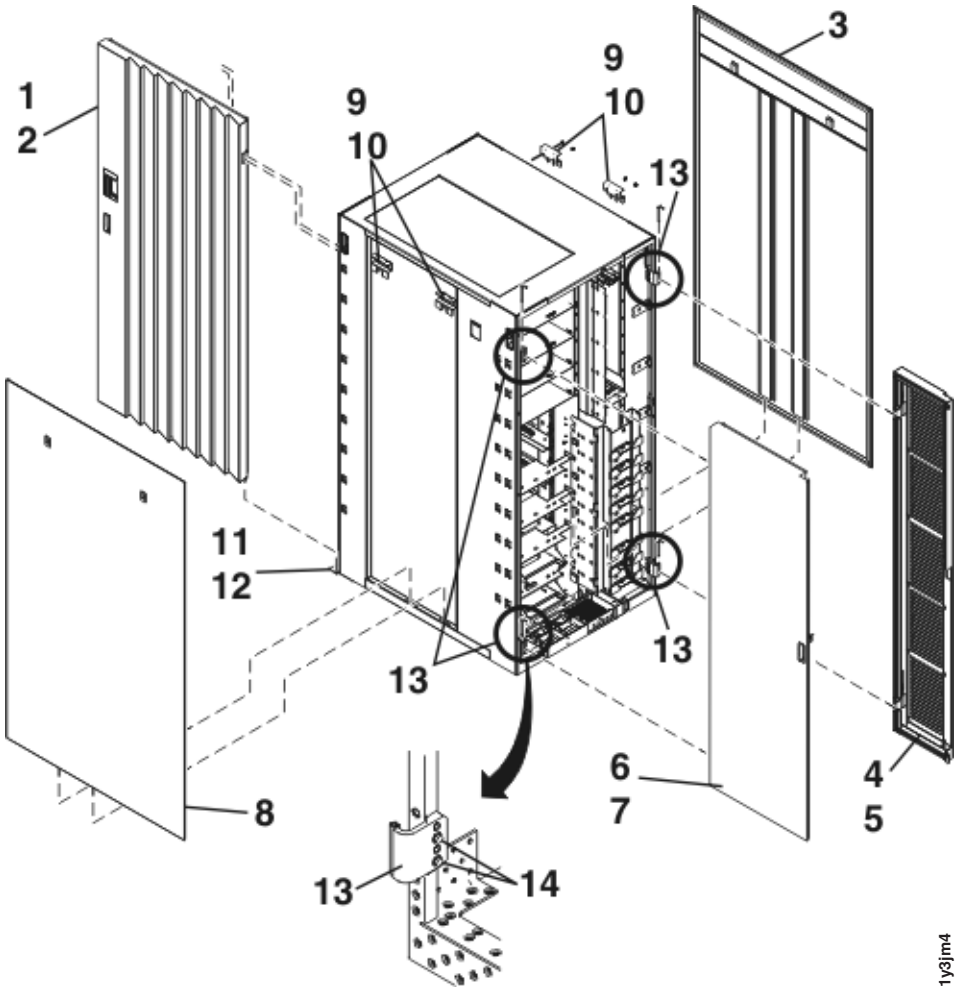

Figure 54. Rack cover parts

Table 55. Rack covers parts

Index	Part name	Part number
1	Cover, front, Models 941, 94E	45W4242
2	Screw	54G2882
3	Cover, side	22R5966[2]
4	Cover, rear, left[3]	22R4300
5	Screw (M5x8)	39J3128
6	Cover, rear, right[3]	22R6941
7	Pin, cover hinge	22R4298
8	Cover, side	22R5966[2]
9	Bracket, side cover-to-rack	N/A
10	Screw, side cover bracket	1621842
11	Bracket, bottom hinge	22R4959
12	Screw, bracket-to-frame	23R1520
13	Hinge, rear cover	18P4578
14	Screw, rear cover hinge-to-frame	23R1520

Table 55. Rack covers parts (continued)

Index	Part name	Part number
Notes: 1. Two finger latches secure the early version cover (at the side of the rack). 2. Two screws (P/N 31L7540) secure the later version cover (at the top of the rack). 3. Viewed from the front.		

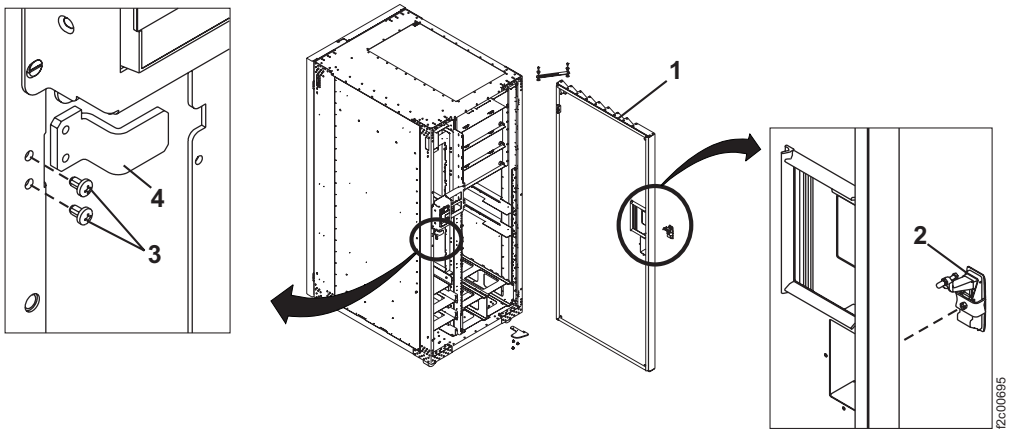

Figure 55. Front cover latch parts

Table 56. Front cover latch parts

Index	Part name	Part number
1	Cover, front, aluminum	22R1404
	Cover, front, steel	23R0275
2	Latch, front cover	21P4054
3	Screw, bracket-to-frame	22R0780
4	Bracket, front cover latch	41V0082

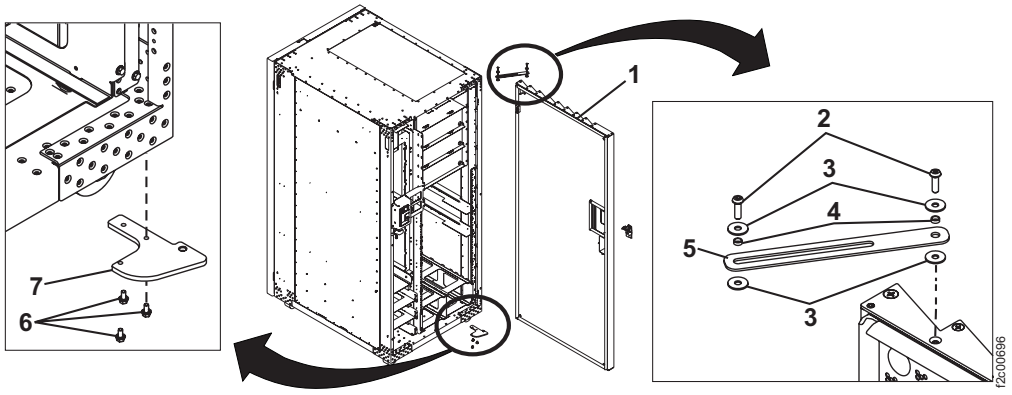

Figure 56. Front cover stop and lower hinge parts

Table 57. Front cover stop and lower hinge parts

Index	Part name	Part number
1	Cover, front, aluminum	22R1404
	Cover, front, steel	23R0275
2	Screw, stop strap (M6x20)[1]	22R3604
3	Washer, stop strap[1]	22R3496
4	Bushing/spacer, stop strap[1]	22R3495
5	Bracket, stop strap[1]	22R3481
6	Screw, bracket/hinge-to-frame	23R1520
7	Bracket/hinge, front cover mount, lower	22R4959
Notes: 1. Part of the stop strap kit P/N 23R1261.		

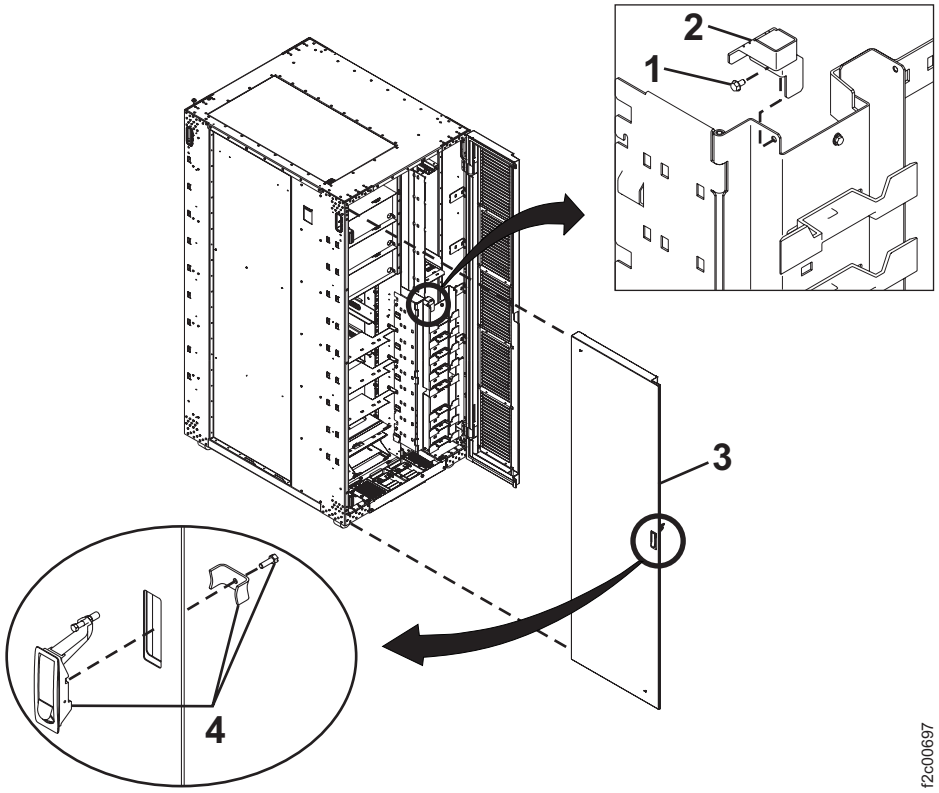

Figure 57. Rear cover latch parts

Table 58. Rear cover latch parts

Index	Part name	Part number
1	Screw, bracket-to-frame	23R1520
2	Bracket, rear cover latch	23R0871
3	Rear cover, right[1]	23R1520
4	Latch, rear cover	21P4054

Table 58. Rear cover latch parts (continued)

Index	Part name	Part number
Notes: 1. Viewed from the front.		

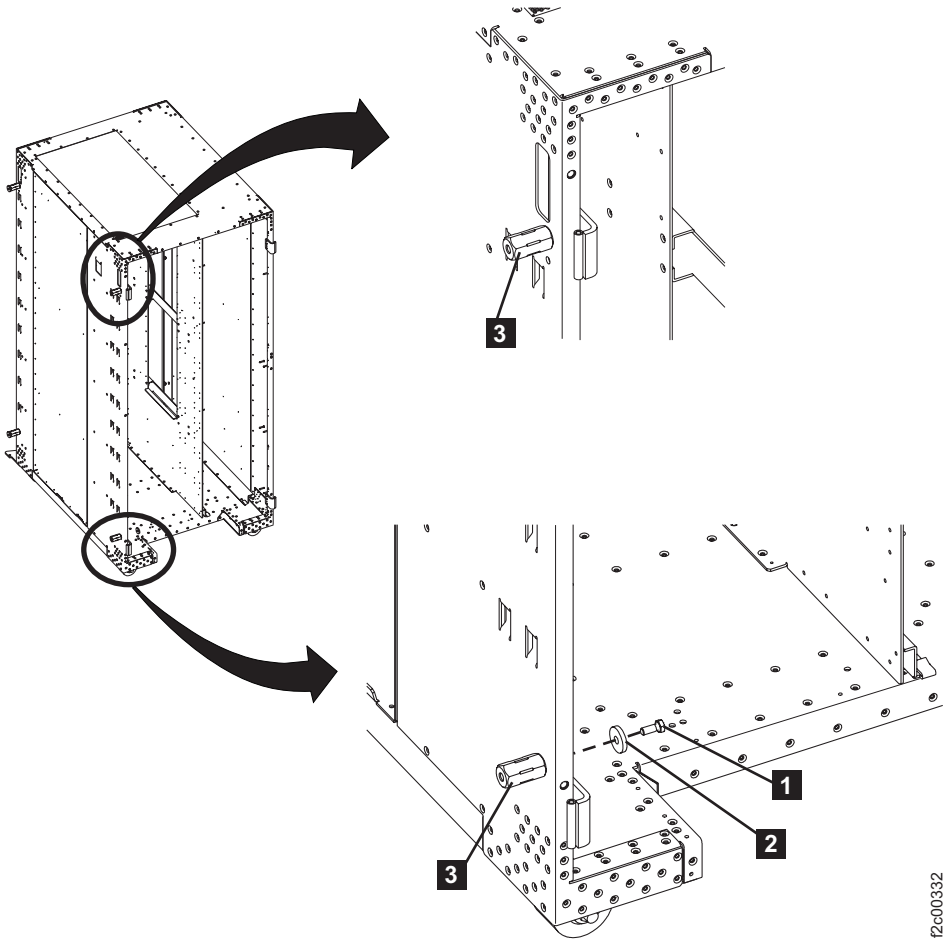

Figure 58. Interrack spacer studs

Table 59. Interrack spacer studs

Index	Part name	Part number
1	Bolt, interrack spacer stud	1621545
2	Washer, interrack spacer stud (M8)	84X5850
3	Spacer stud, interrack	22R5046

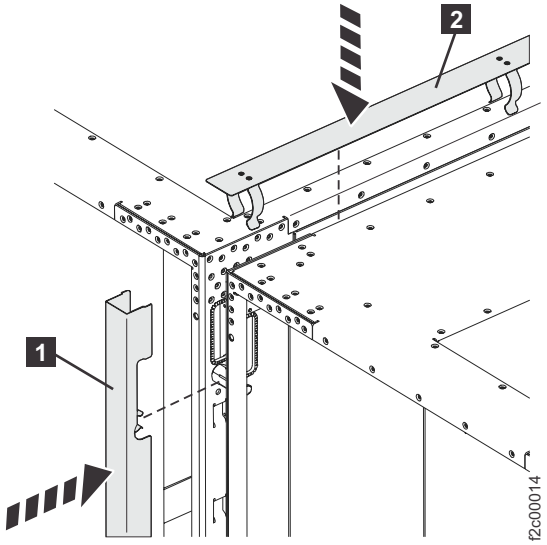

Figure 59. Installing the interrack decorative covers

Table 60. Interrack decorative covers

Index	Part name	Part number
1	Cover, interrack decorative, side (one-piece early version)	22R4964
2	Cover, interrack decorative, side (two-piece/hinged later version)	23R1050[1]
3	Cover, interrack decorative, top	22R4962
Notes: 1. For details, see Figure 60.		

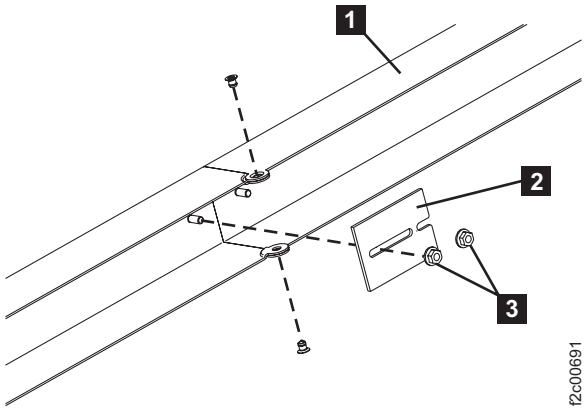

Figure 60. Assembling the later version of the interrack decorative side covers

Table 61. Interrack decorative side covers (later version)

Index	Part name	Part number
1	Cover, interrack decorative, side (two-piece/hinged later version)	23R1050
2	Bracket	23R2044

Table 61. Interrack decorative side covers (later version) (continued)

Index	Part name	Part number
3	Nut	84X4841

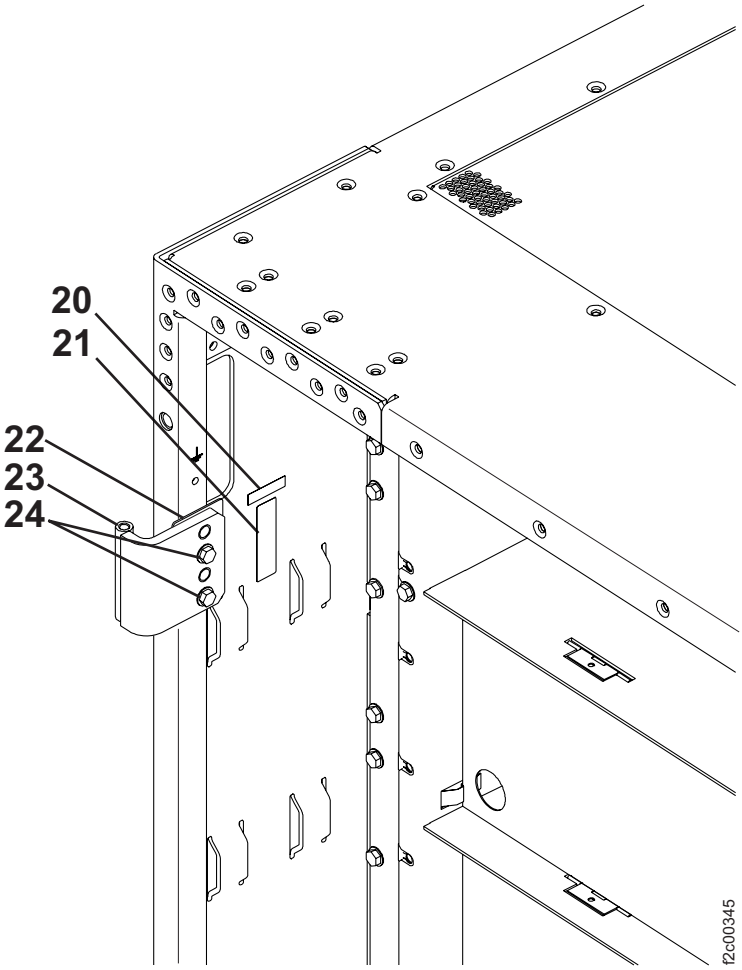

Figure 61. Rack labels

Table 62. Frames and covers labels

Index	Part name	Part number
20	Label, serial number	05J7400
21	Label, barcode serial number	44F0924
22	Shim, rear door adjustment	22R6151
23	Hinge, rear covers	18P4578
24	Screw, rear hinges	54G2882

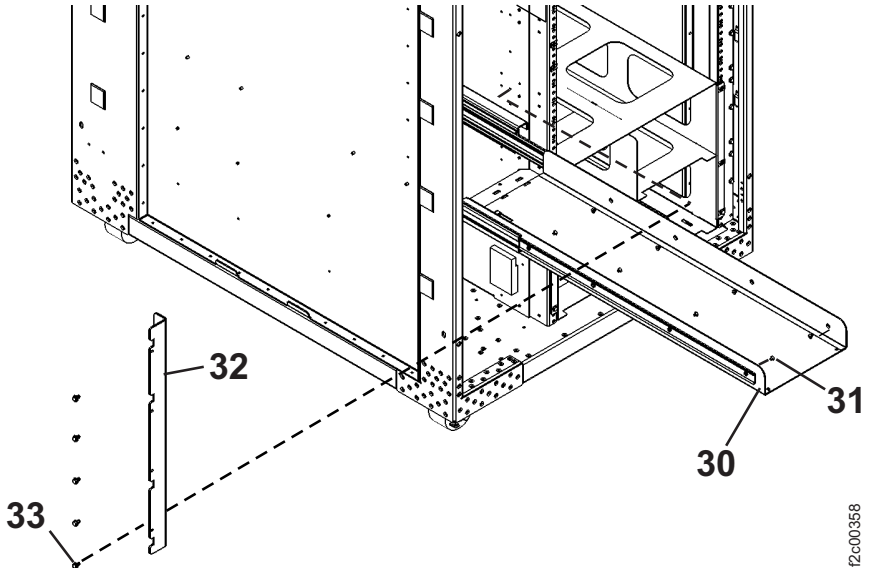

Figure 62. Rack shelves and brackets

Table 63. Frames and covers PPS shelf and bracket

Index	Part name	Part number
30	Shelf, PPS	22R4942
31	Screw, PPS shelf mounting (M5x6)	1621329
N/A	Bracket, PPS left (not shown)	22R4943
32	Bracket, PPS right	22R4944
33	Screw, PPS bracket (M5x8)	1621842

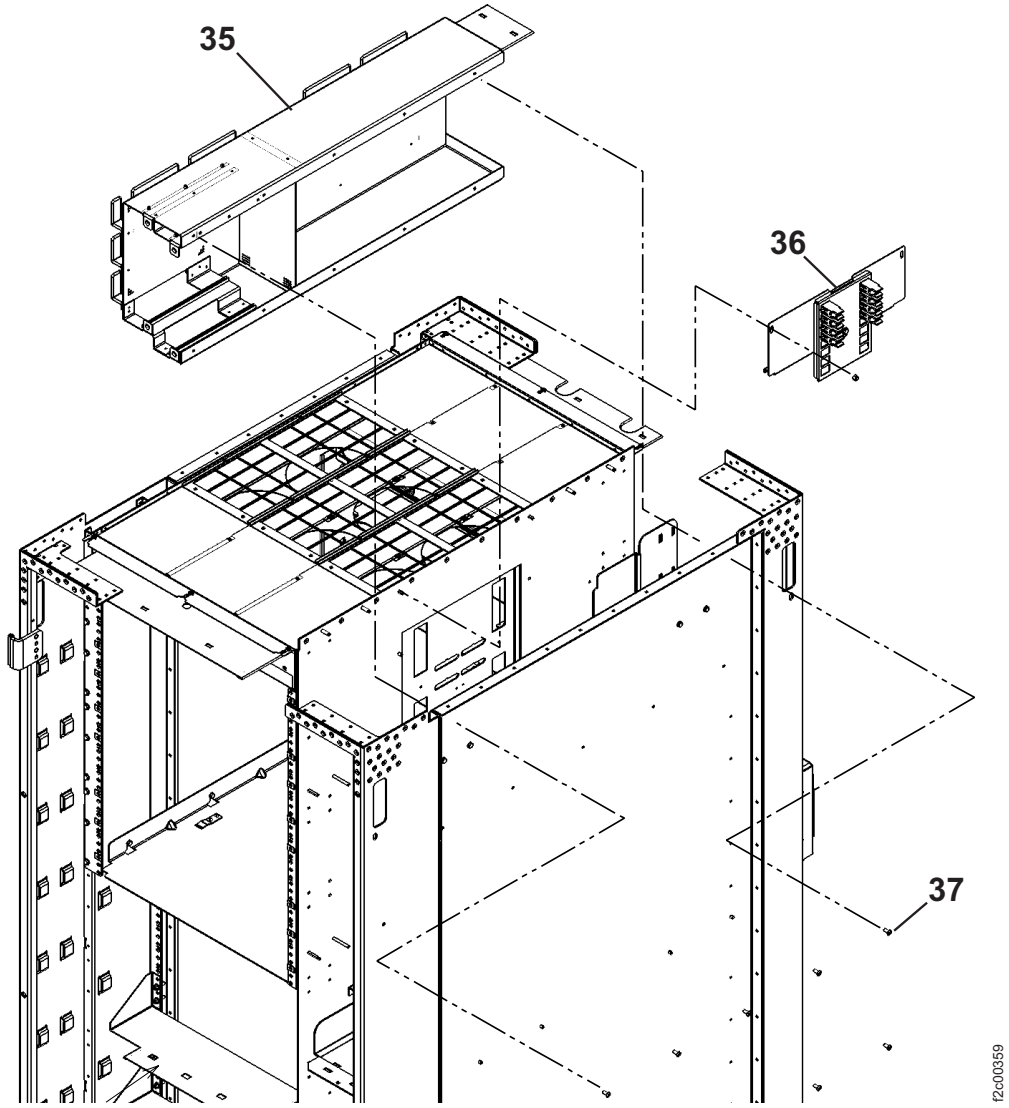

Figure 63. Rack shelves and brackets

Table 64. Frames and covers PPS shelf and bracket

Index	Part name	Part number
35	Housing assembly, RPC card	22R4940
36	Bracket, cable routing	22R6122
37	Rivets, RPC housing	04F1988

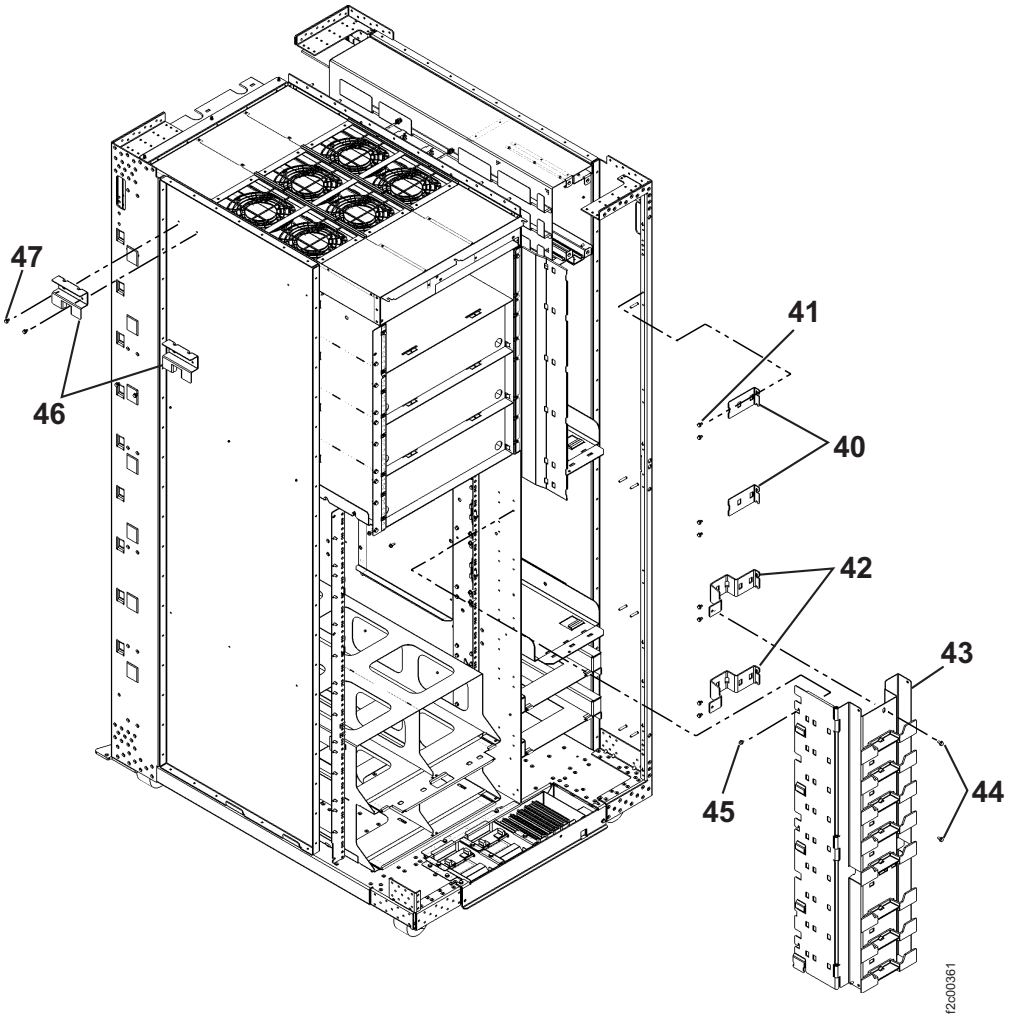

Figure 64. Rack shelves and brackets

Table 65. Frames and covers brackets and screws

Index	Part name	Part number
40	Bracket, cable routing	22R6135
41	Screw, cable routing bracket	1621842
42	Bracket, cable routing	22R6136
43	Bracket, bus bar	22R6132
44	Screw, bus bar	54G2882
45	Screw, bus bar	1624775
46	Bracket, side covers	N/A
47	Screw, side cover bracket	1621842

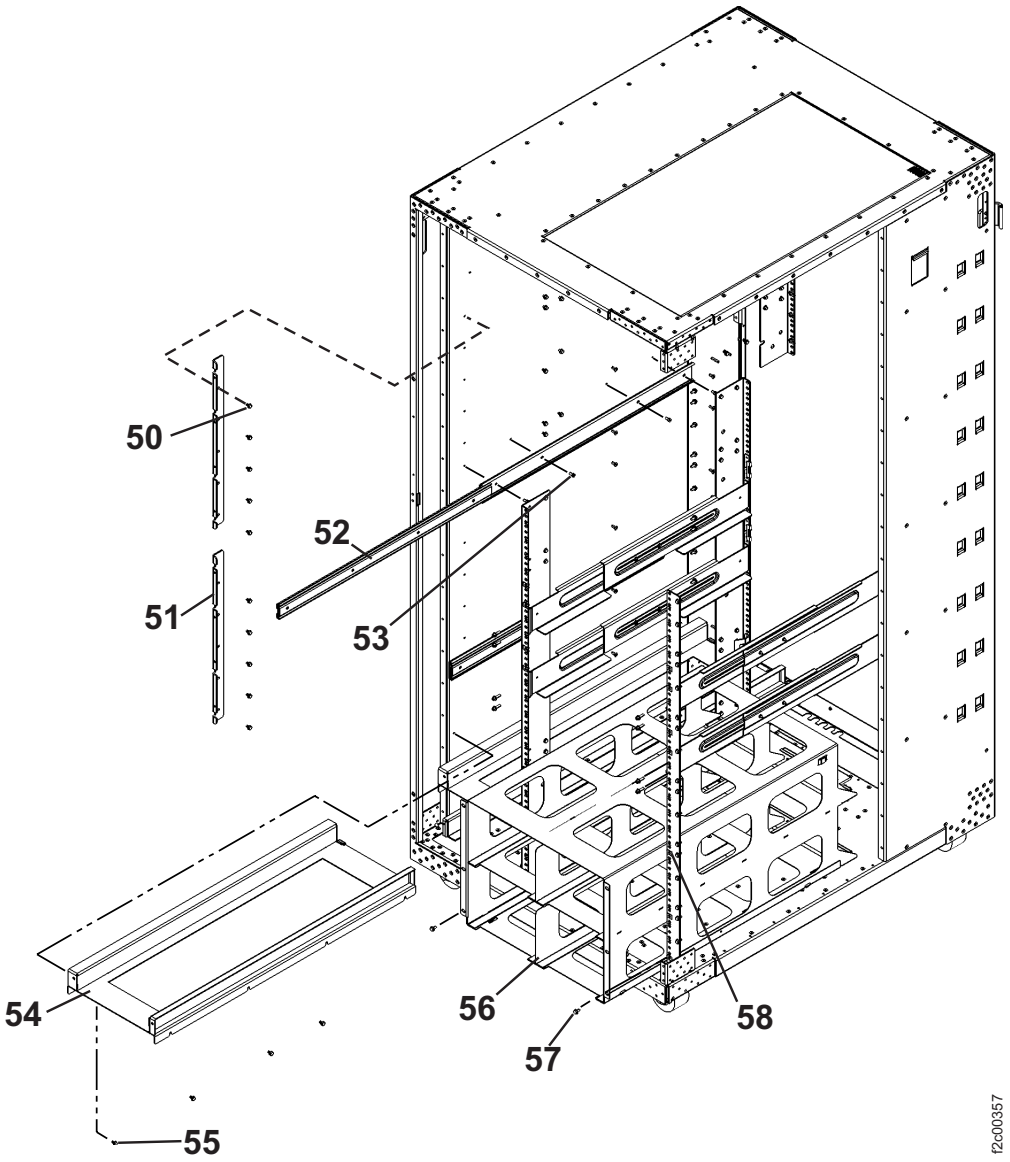

Figure 65. Rack shelves and wrappers

Table 66. Frames and covers shelves and wrappers

Index	Part name	Part number
50	Screw	1621842
51	Bracket, PPS left	22R4943
52	Slide, PPS	22R0780
53	Screw, PPS slide mounting (M5x8)	22R0780
54	Shelf, battery	22R4946
55	Screw, battery shelf	1621842
56	Wrapper, I/O enclosure	23R1338
57	Screw, wrapper	54G2882
58	Nut clip, wrapper	74F1823

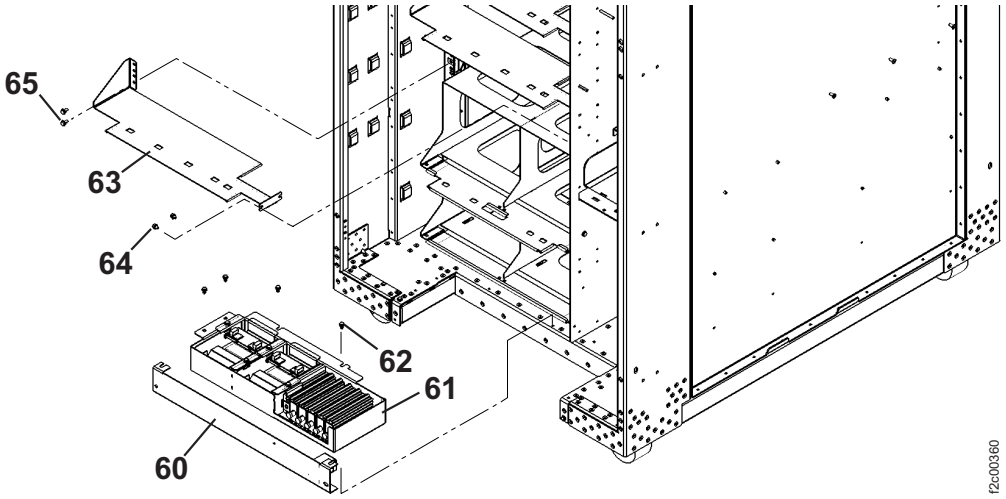

Figure 66. Rack shelves and brackets

Table 67. Frames and covers brackets and screws

Index	Part name	Part number
60	Tailgate bar	23R0039
61	Tailgate assembly, early version[1]	N/A
61	Tailgate assembly, later version[2]	23R2456
62	Screw, tailgate assembly	1621842
63	Bracket, cable	22R4947
64	Screw, cable bracket	1624775
65	Screw, cable bracket	54G2882

Notes:

1. See Figure 67
2. See Figure 68 on page 78.

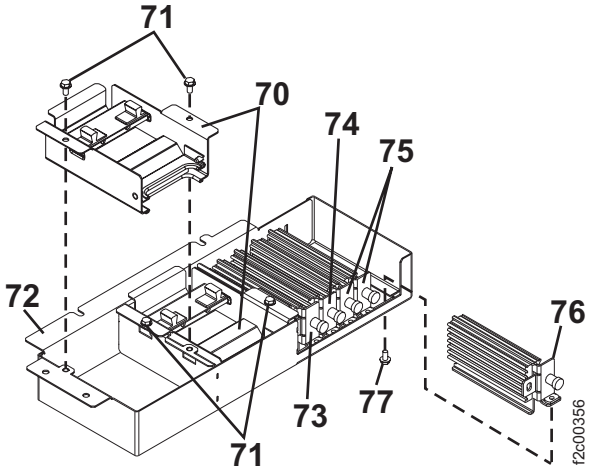

Figure 67. Tailgate parts (early version)

Table 68. Tailgate parts (early version)

Index	Part name	Part number
70	Bracket, strain relief	N/A
71	Screw, strain relief assembly mounting	N/A
72	Tailgate frame	N/A
73	Tailgate insert (clamping bracket)[1]	N/A
74	Tailgate insert (clamping bracket)[2]	N/A
75	Tailgate insert (clamping bracket)[3]	N/A
76	Tailgate insert (clamping bracket)[4]	N/A

Notes:

1. The rubber pad on the left side of the bracket is 11 mm (0.43 in.) thick.The right pad is 6 mm (0.24 in.) thick.
2. The rubber pad on the left side of the bracket is 9 mm (0.35) thick.The right pad is 6 mm (0.24 in.) thick.
3. The rubber pad on the left side of the bracket is 6 mm (0.24) thick.The right pad is 11 mm (0.43 in.) thick.
4. The rubber pad on each side of the bracket is 11 mm (0.43 in.) thick.

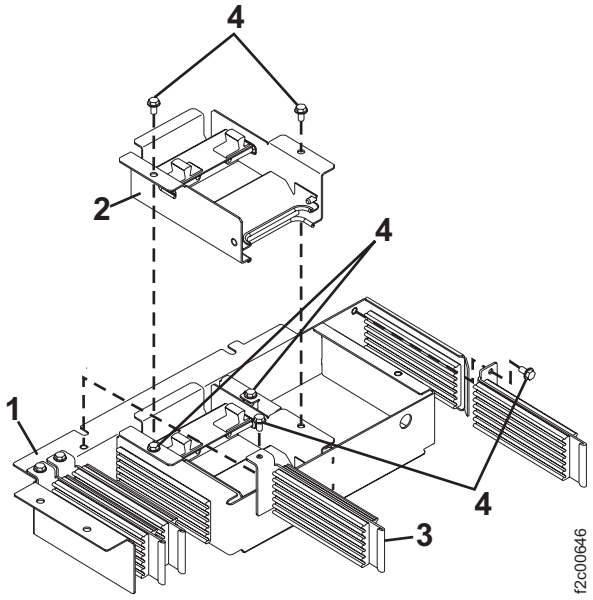

Figure 68. Tailgate parts (later version)

Table 69. Tailgate parts (later version)

Index	Part name	Part number
1	Tailgate frame	22R2457
2	Bracket, strain relief	22R4950
3	Tailgate insert (clamping bracket)	[1]
4	Screw	54G2882

Notes:

1. Call the next level of support.

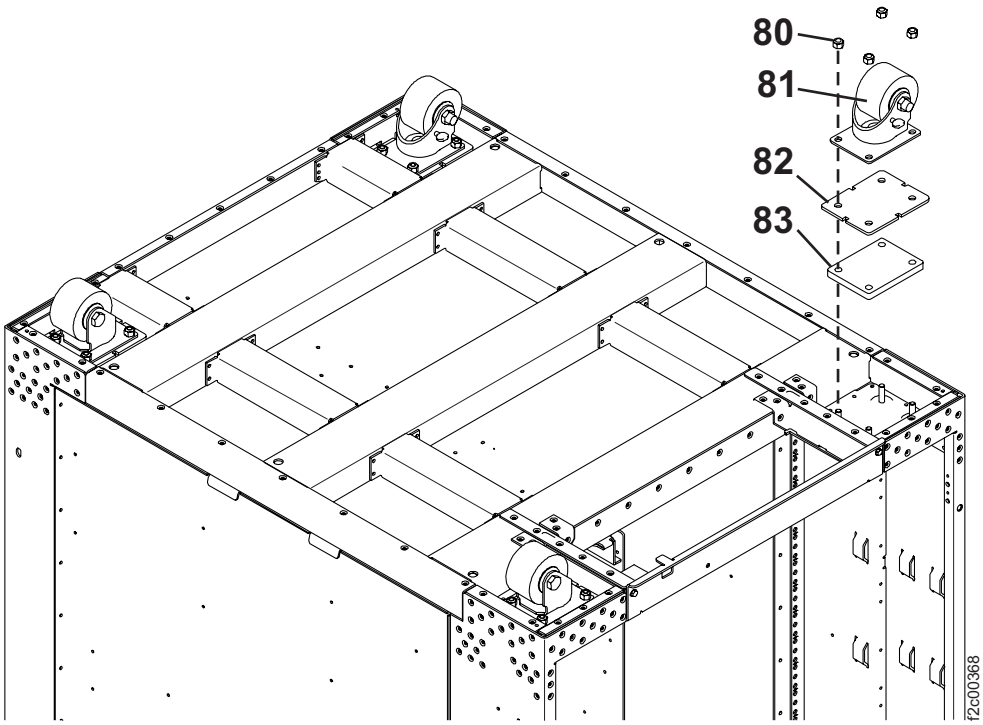

Figure 69. Caster parts

Table 70. Casters

Index	Part name	Part number
80	Nut, caster mounting	1622420
81	Caster	22R4156
82	Caster load plate	22R4155
83	Caster shock pad	22R4154

Rack brackets, sheet metal, and covers part numbers, Models 951, 95E

Use the figures and tables below to find information about parts such as rack brackets, sheet metal, and covers.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

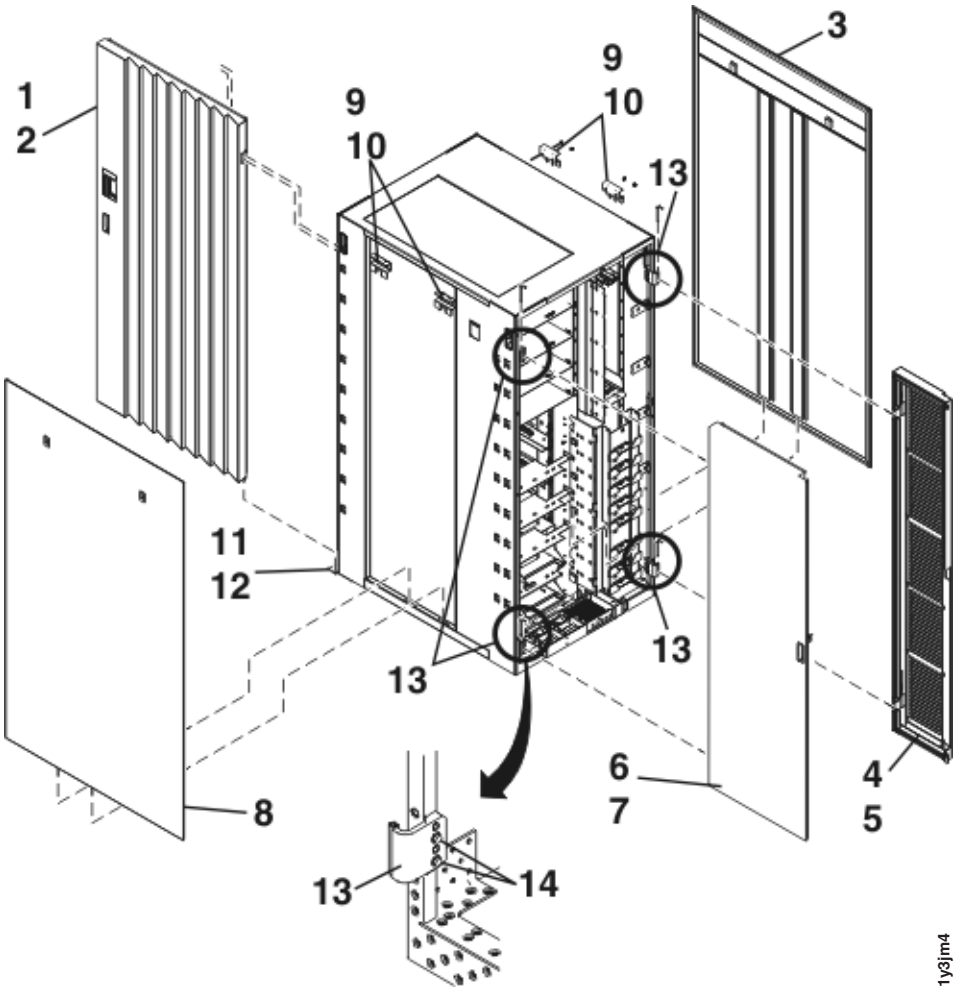

Figure 70. Rack cover parts

Table 71. Rack covers parts

Index	Part name	Part number
1	Cover, front, Models 951, 95E	99Y0963
2	Screw	54G2882
3	Cover, side	22R5966[2]
4	Cover, rear, left[3]	22R4300
5	Screw (M5x8)	39J3128
6	Cover, rear, right[3]	22R6941
7	Pin, cover hinge	22R4298
8	Cover, side	22R5966[2]
9	Bracket, side cover-to-rack	N/A
10	Screw, side cover bracket	1621842
11	Bracket, bottom hinge	22R4959
12	Screw, bracket-to-frame	23R1520
13	Hinge, rear cover	18P4578
14	Screw, rear cover hinge-to-frame	23R1520

Table 71. Rack covers parts (continued)

Index	Part name	Part number
Notes: 1. Two finger latches secure the early version cover (at the side of the rack). 2. Two screws (P/N 31L7540) secure the later version cover (at the top of the rack). 3. Viewed from the front.		

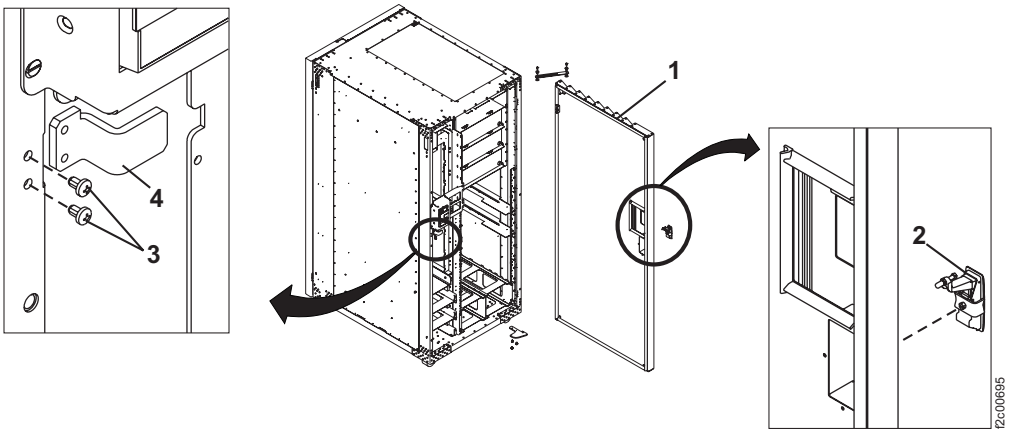

Figure 71. Front cover latch parts

Table 72. Front cover latch parts

Index	Part name	Part number
1	Cover, front, aluminum	22R1404
	Cover, front, steel	23R0275
2	Latch, front cover	21P4054
3	Screw, bracket-to-frame	22R0780
4	Bracket, front cover latch	41V0082

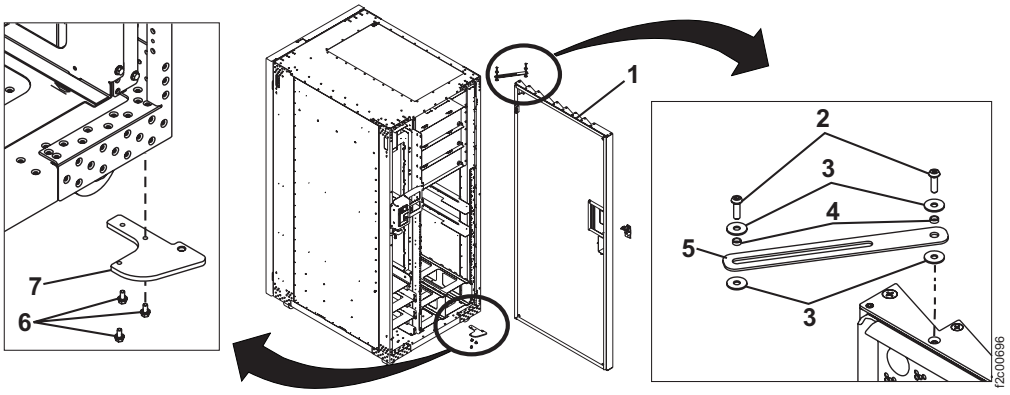

Figure 72. Front cover stop and lower hinge parts

Table 73. Front cover stop and lower hinge parts

Index	Part name	Part number
1	Cover, front, aluminum	22R1404
	Cover, front, steel	23R0275
2	Screw, stop strap (M6x20)[1]	22R3604
3	Washer, stop strap[1]	22R3496
4	Bushing/spacer, stop strap[1]	22R3495
5	Bracket, stop strap[1]	22R3481
6	Screw, bracket/hinge-to-frame	23R1520
7	Bracket/hinge, front cover mount, lower	22R4959
Notes: 1. Part of the stop strap kit P/N 23R1261.		

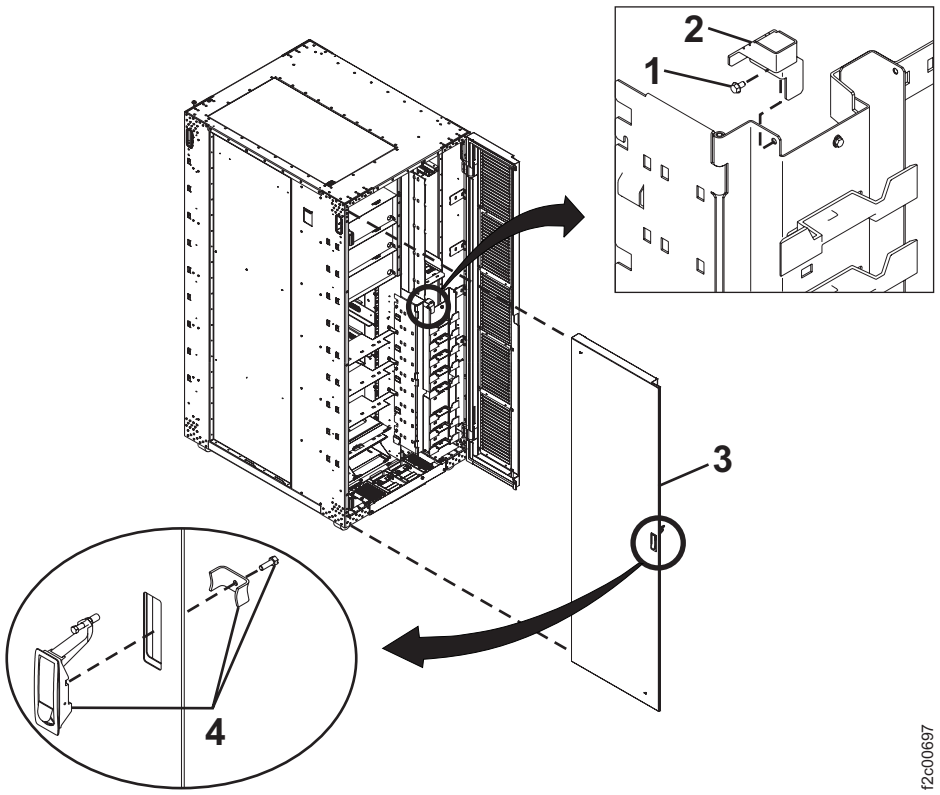

Figure 73. Rear cover latch parts

Table 74. Rear cover latch parts

Index	Part name	Part number
1	Screw, bracket-to-frame	23R1520
2	Bracket, rear cover latch	23R0871
3	Rear cover, right[1]	23R1520
4	Latch, rear cover	21P4054

Table 74. Rear cover latch parts (continued)

Index	Part name	Part number
Notes: 1. Viewed from the front.		

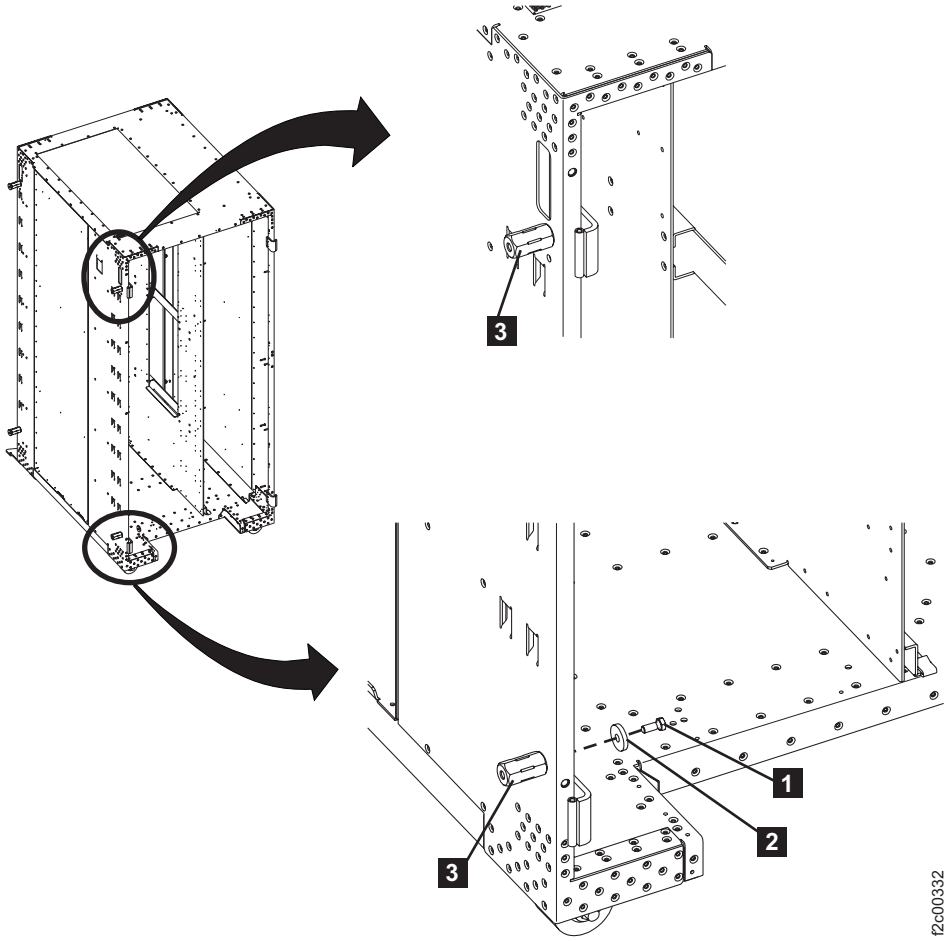

Figure 74. Interrack spacer studs

Table 75. Interrack spacer studs

Index	Part name	Part number
1	Bolt, interrack spacer stud	1621545
2	Washer, interrack spacer stud (M8)	84X5850
3	Spacer stud, interrack	22R5046

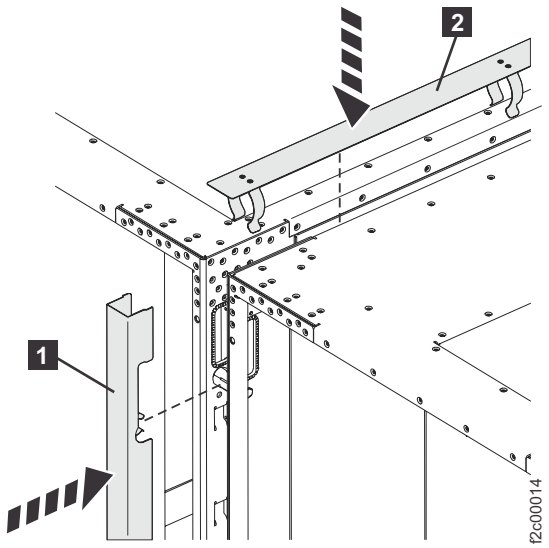

Figure 75. Installing the interrack decorative covers

Table 76. Interrack decorative covers

Index	Part name	Part number
1	Cover, interrack decorative, side (one-piece early version)	22R4964
2	Cover, interrack decorative, side (two-piece/hinged later version)	23R1050[1]
3	Cover, interrack decorative, top	22R4962
Notes: 1. For details, see Figure 76.		

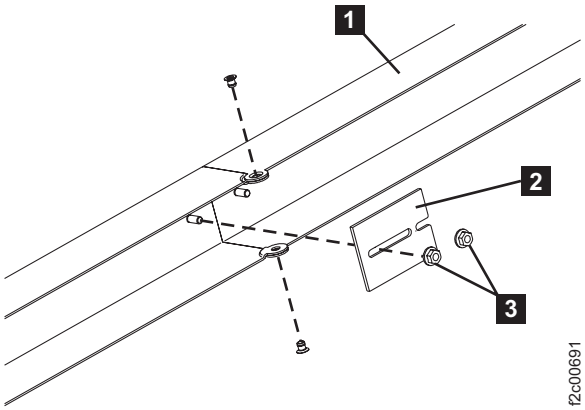

Figure 76. Assembling the later version of the interrack decorative side covers

Table 77. Interrack decorative side covers (later version)

Index	Part name	Part number
1	Cover, interrack decorative, side (two-piece/hinged later version)	23R1050
2	Bracket	23R2044

Table 77. Interrack decorative side covers (later version) (continued)

Index	Part name	Part number
3	Nut	84X4841

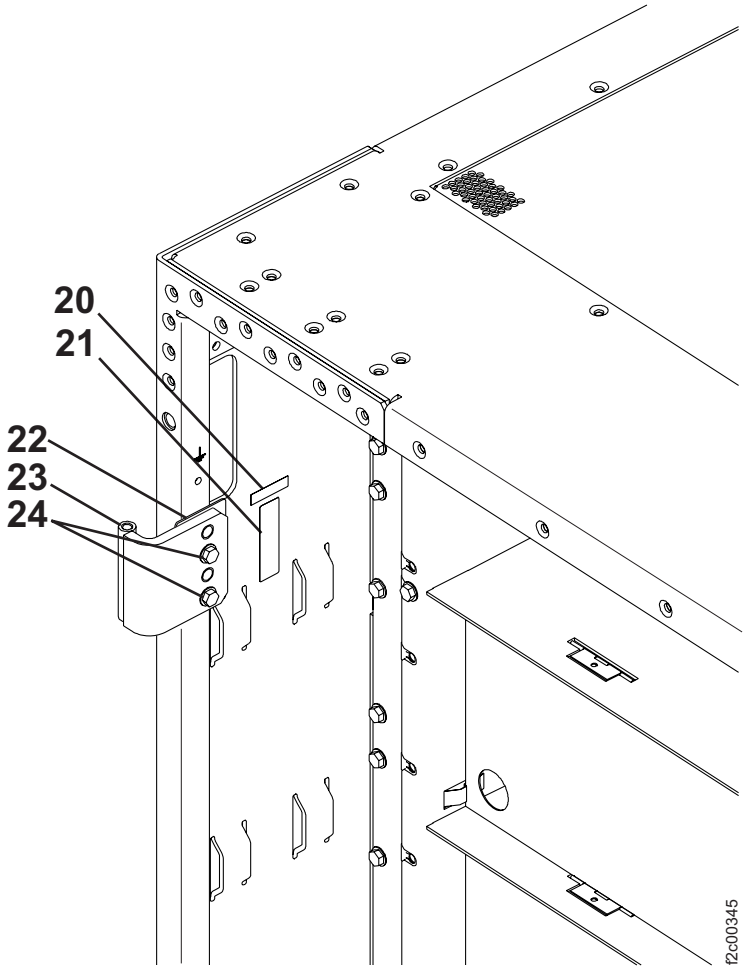

Figure 77. Rack labels

Table 78. Frames and covers labels

Index	Part name	Part number
20	Label, serial number	05J7400
21	Label, barcode serial number	44F0924
22	Shim, rear door adjustment	22R6151
23	Hinge, rear covers	18P4578
24	Screw, rear hinges	54G2882

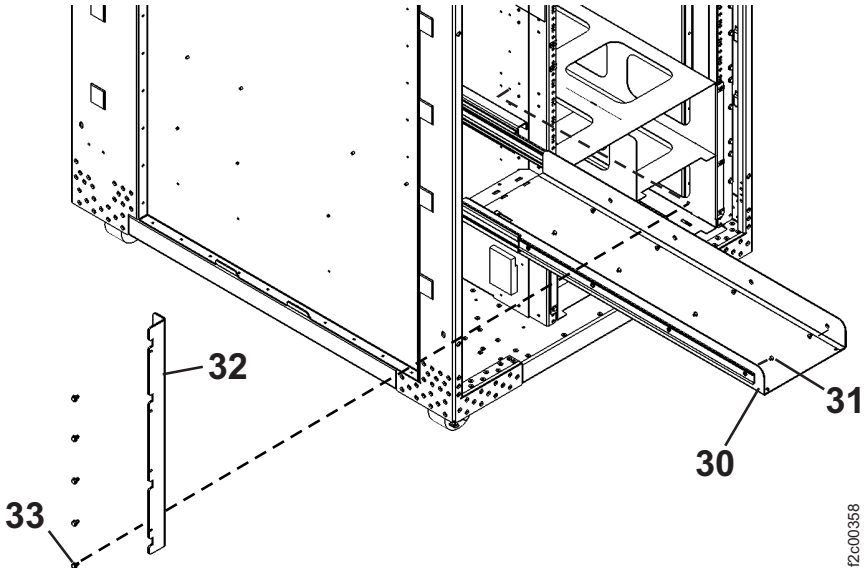

Figure 78. Rack shelves and brackets

Table 79. Frames and covers PPS shelf and bracket

Index	Part name	Part number
30	Shelf, PPS	22R4942
31	Screw, PPS shelf mounting (M5x6)	1621329
N/A	Bracket, PPS left (not shown)	22R4943
32	Bracket, PPS right	22R4944
33	Screw, PPS bracket (M5x8)	1621842

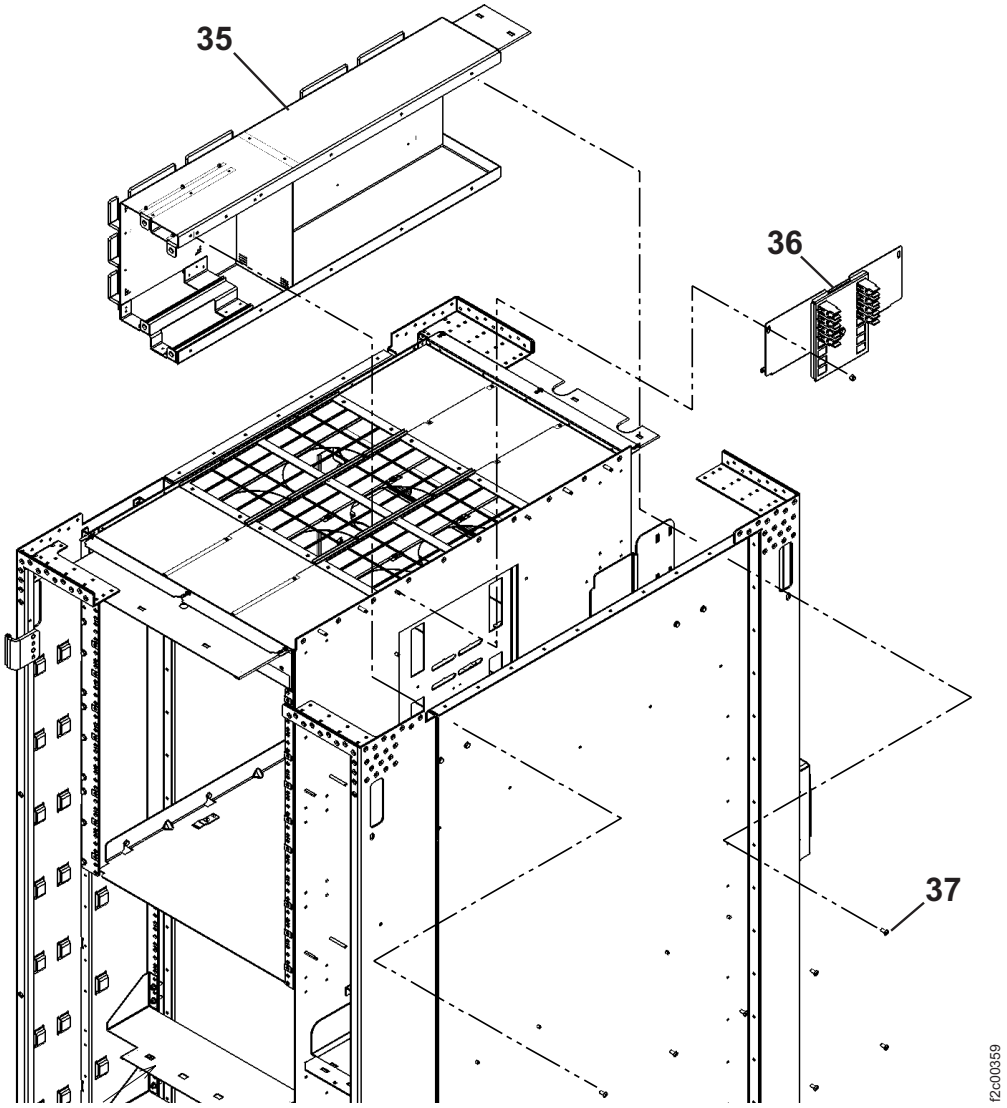

Figure 79. Rack shelves and brackets

Table 80. Frames and covers PPS shelf and bracket

Index	Part name	Part number
35	Housing assembly, RPC card	22R4940
36	Bracket, cable routing	22R6122
37	Rivets, RPC housing	04F1988

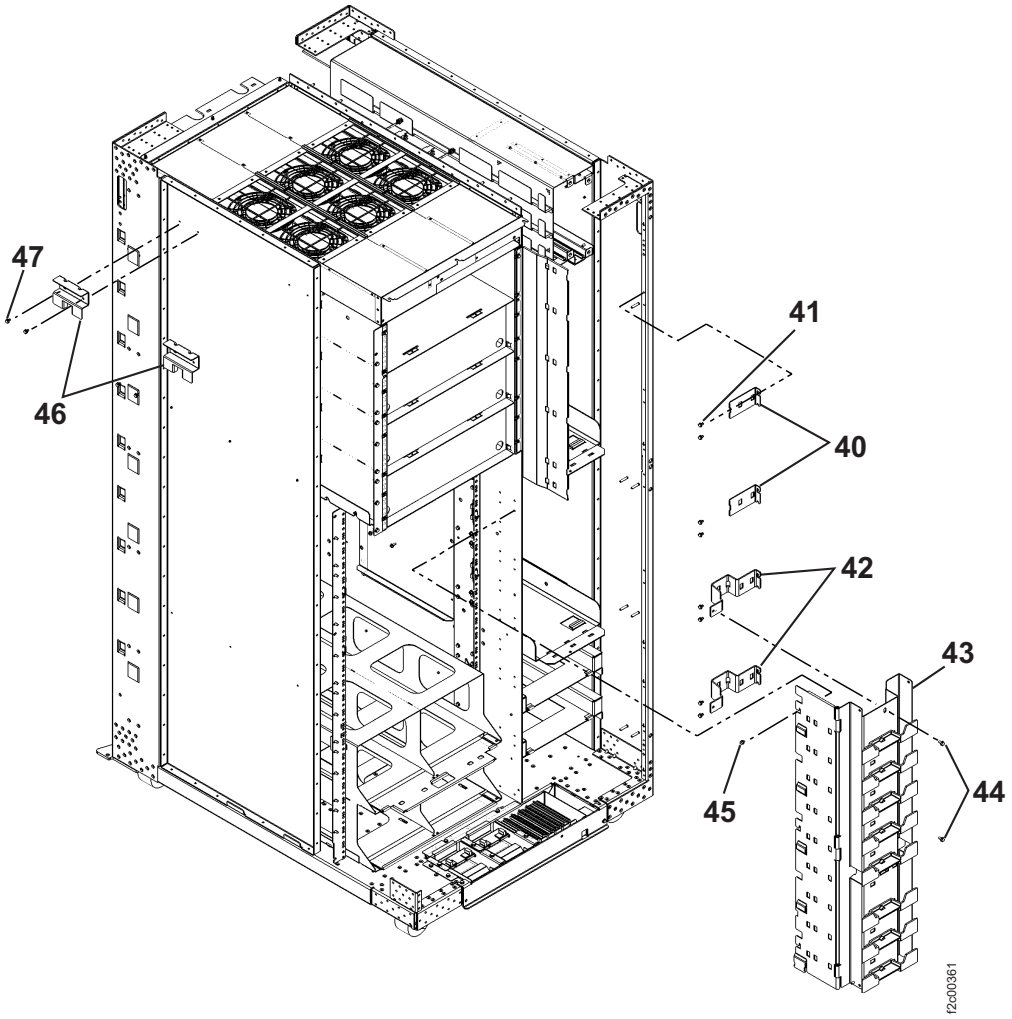

Figure 80. Rack shelves and brackets

Table 81. Frames and covers brackets and screws

Index	Part name	Part number
40	Bracket, cable routing	22R6135
41	Screw, cable routing bracket	1621842
42	Bracket, cable routing	22R6136
43	Bracket, bus bar	22R6132
44	Screw, bus bar	54G2882
45	Screw, bus bar	1624775
46	Bracket, side covers	N/A
47	Screw, side cover bracket	1621842

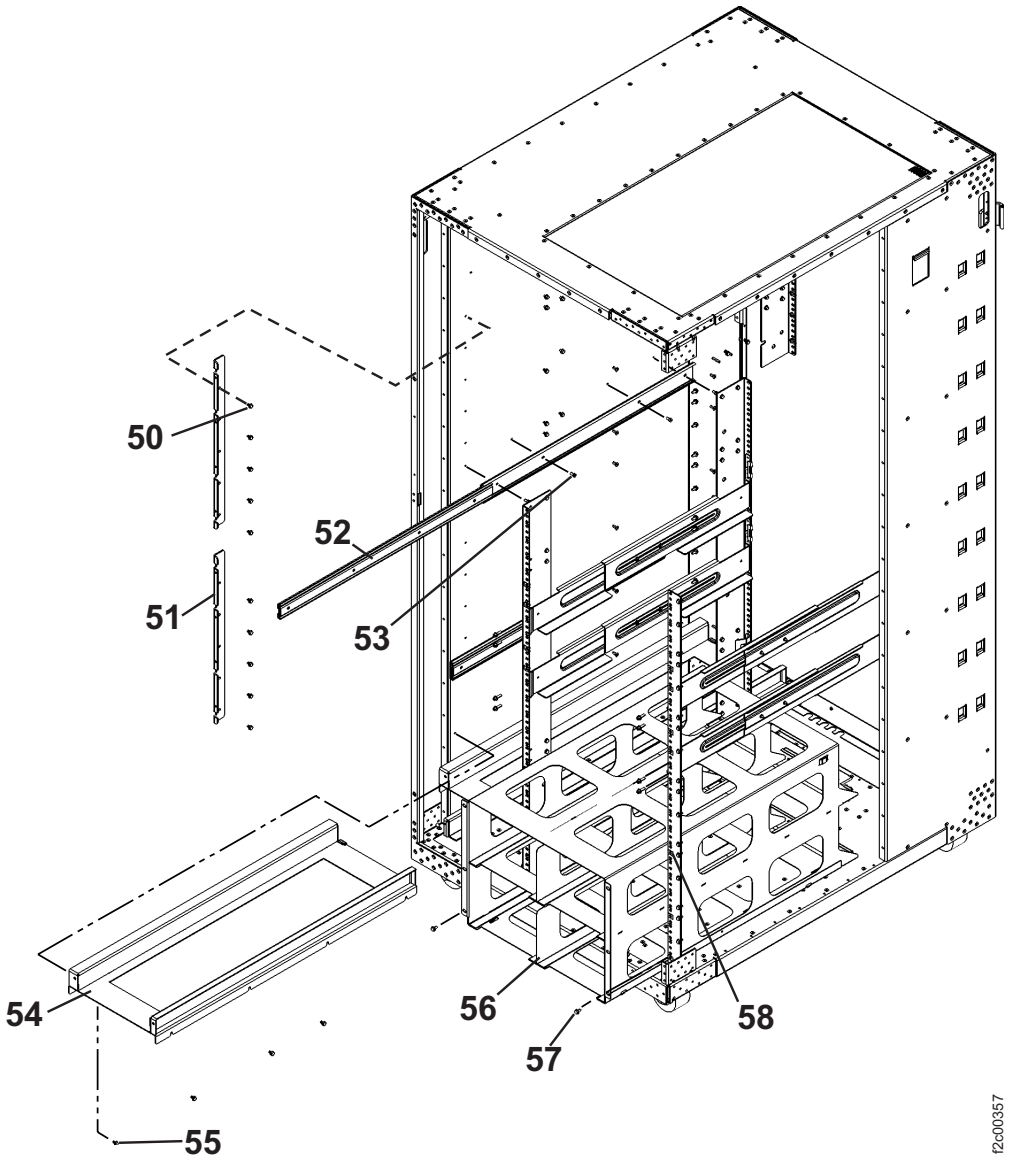

Figure 81. Rack shelves and wrappers

Table 82. Frames and covers shelves and wrappers

Index	Part name	Part number
50	Screw	1621842
51	Bracket, PPS left	22R4943
52	Slide, PPS	22R0780
53	Screw, PPS slide mounting (M5x8)	22R0780
54	Shelf, battery	22R4946
55	Screw, battery shelf	1621842
56	Wrapper, I/O enclosure	23R1338
57	Screw, wrapper	54G2882
58	Nut clip, wrapper	74F1823

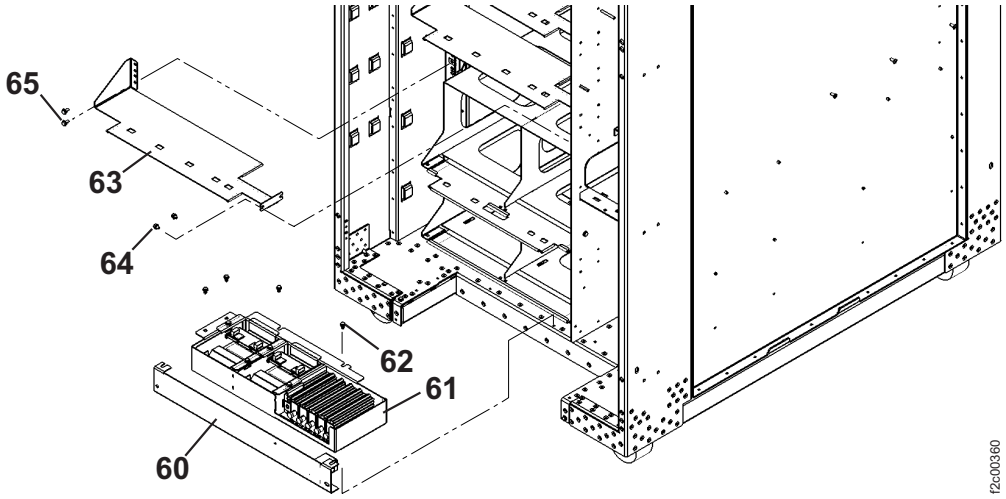

Figure 82. Rack shelves and brackets

Table 83. Frames and covers brackets and screws

Index	Part name	Part number
60	Tailgate bar	23R0039
61	Tailgate assembly, early version[1]	N/A
61	Tailgate assembly, later version[2]	23R2456
62	Screw, tailgate assembly	1621842
63	Bracket, cable	22R4947
64	Screw, cable bracket	1624775
65	Screw, cable bracket	54G2882

Notes:

1. See Figure 83
2. See Figure 84 on page 91.

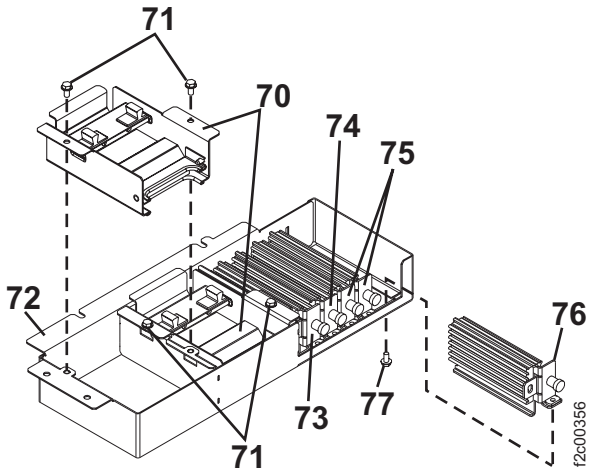

Figure 83. Tailgate parts (early version)

Table 84. Tailgate parts (early version)

Index	Part name	Part number
70	Bracket, strain relief	N/A
71	Screw, strain relief assembly mounting	N/A
72	Tailgate frame	N/A
73	Tailgate insert (clamping bracket)[1]	N/A
74	Tailgate insert (clamping bracket)[2]	N/A
75	Tailgate insert (clamping bracket)[3]	N/A
76	Tailgate insert (clamping bracket)[4]	N/A

Notes:

1. The rubber pad on the left side of the bracket is 11 mm (0.43 in.) thick.The right pad is 6 mm (0.24 in.) thick.
2. The rubber pad on the left side of the bracket is 9 mm (0.35) thick.The right pad is 6 mm (0.24 in.) thick.
3. The rubber pad on the left side of the bracket is 6 mm (0.24) thick.The right pad is 11 mm (0.43 in.) thick.
4. The rubber pad on each side of the bracket is 11 mm (0.43 in.) thick.

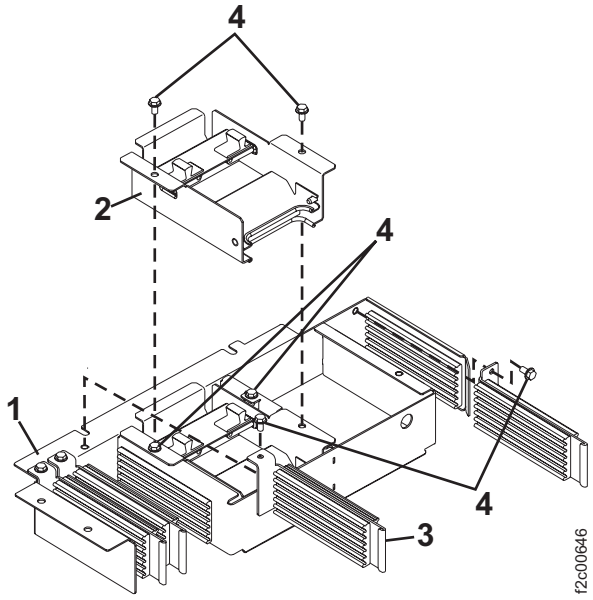

Figure 84. Tailgate parts (later version)

Table 85. Tailgate parts (later version)

Index	Part name	Part number
1	Tailgate frame	22R2457
2	Bracket, strain relief	22R4950
3	Tailgate insert (clamping bracket)	[1]
4	Screw	54G2882

Notes:

1. Call the next level of support.

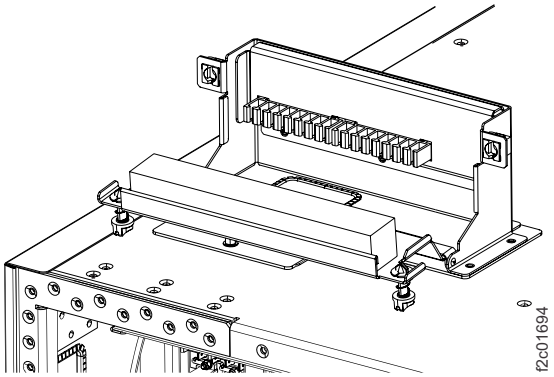

Figure 85. Top tailgate

Table 86. Top tailgate parts, external

Index	Part name	Part number
	Cable retention assembly	99Y1201

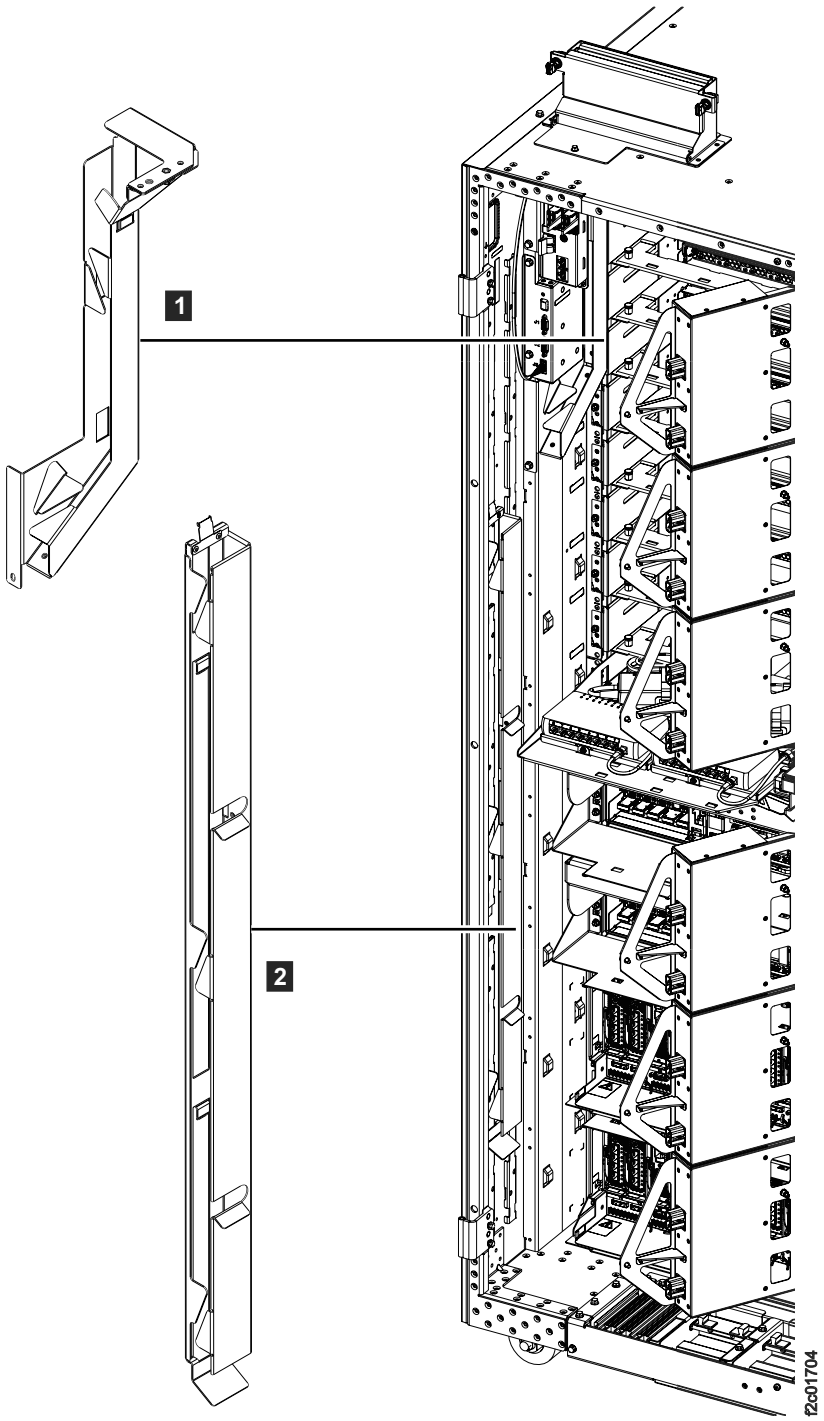

Figure 86. Top tailgate parts, internal

Table 87. Top tailgate parts, internal

Index	Part name	Part number
1	Cable channel assembly, upper	98Y1634
2	Cable channel, lower	98Y1630

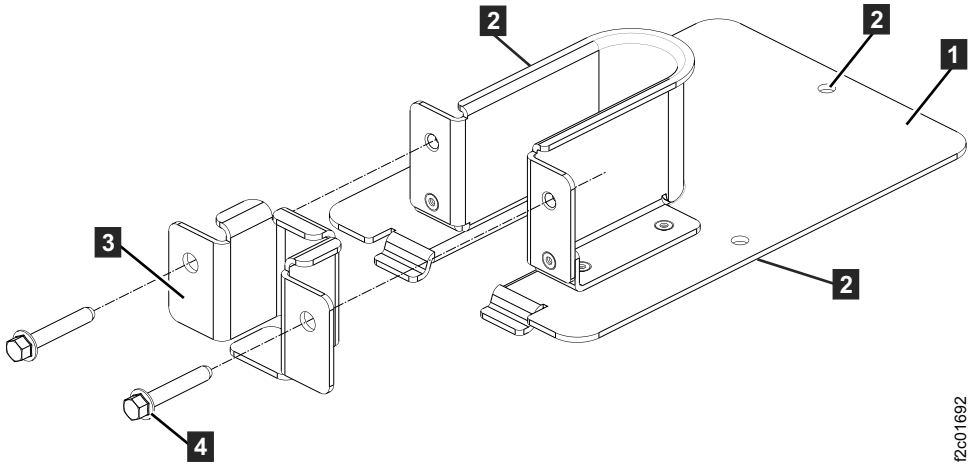

Figure 87. Top line cord clamp assembly

Table 88. Top line cord clamp assembly parts

Index	Part name	Part number
1	Housing assembly	98Y1531
3	Bracket, strain relief	98Y1534
4	Screw	46K4291

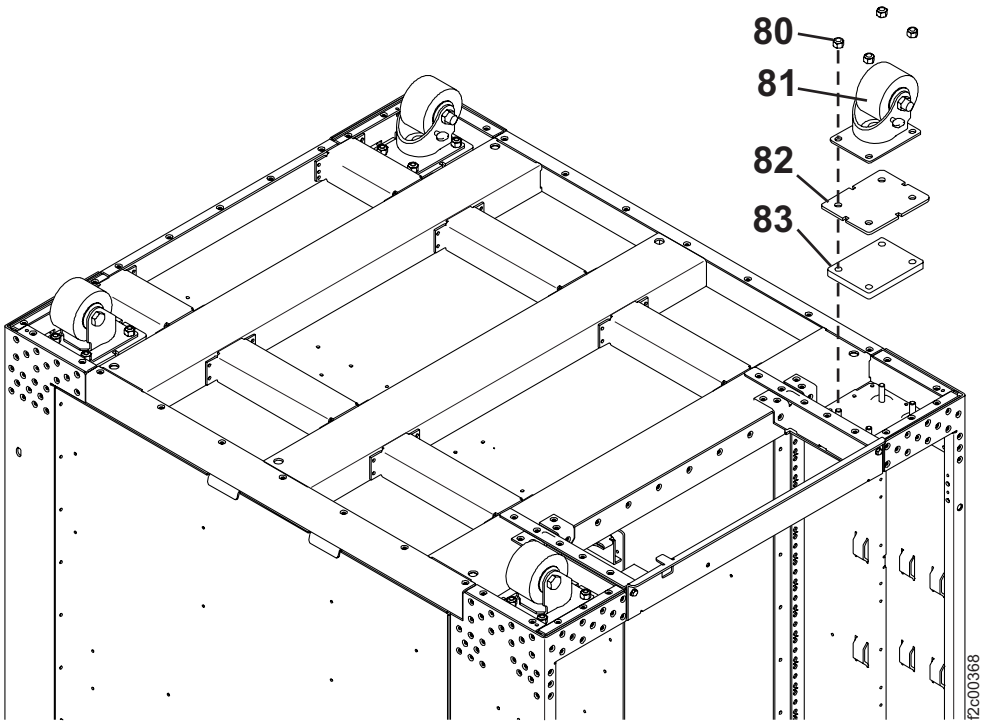

Figure 88. Caster parts

Table 89. Casters

Index	Part name	Part number
80	Nut, caster mounting	1622420

Table 89. Casters (continued)

Index	Part name	Part number
81	Caster	22R4156
82	Caster load plate	22R4155
83	Caster shock pad	22R4154

Rack power and cooling part numbers

Use this section to find rack power and cooling part numbers.

"Rack power and cooling part numbers, Models 941, 94E"

"Rack power and cooling part numbers, Models 951, 95E" on page 119

Rack power and cooling part numbers, Models 941, 94E

Information about rack power and cooling parts is listed below. Use Table 90 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 90. Start here

Part name	Figure
5/12V DDM power module	Figure 90 on page 97
Battery module set (a set is three battery modules)	Figure 89 on page 96
Battery module enclosure	Figure 89 on page 96
Battery module enclosure fan	Figure 89 on page 96
Battery module filler	Figure 89 on page 96
Booster power module	Figure 90 on page 97
Bus bar A1, 208VDC, primary	Figure 97 on page 105
Bus bar B1, 208VDC, primary	Figure 97 on page 105
Bus bar A2 and B2, 208VDC, secondary	Figure 98 on page 106
Bus bar A and B, 5/12V, primary	Figure 95 on page 103
Bus bar A and B, 5/12V, secondary	Figure 95 on page 103
Bus bar A, 5/12V, primary to 5/12V secondary	Figure 96 on page 104
Bus bar B, 5/12V, primary to 5/12V secondary	Figure 96 on page 104
Cables, battery module set	Figure 102 on page 112
Cables, bus bar, A1, 208VDC, primary	Figure 100 on page 110
Cables, bus bar, B1, 208VDC, primary	Figure 100 on page 110
Cables, bus bar, A2, 208VDC, secondary	Figure 100 on page 110
Cables, bus bar, B2, 208VDC, secondary	Figure 100 on page 110
Cables, fan sense card	Figure 103 on page 113
Cables, primary power supply (PPS)	Figure 99 on page 107

Table 90. Start here (continued)

Part name	Figure
Cables, rack identity card	Figure 105 on page 116
Cables, rack operator panel UEPO switch assembly	Figure 106 on page 117
Cables, RPC card	Figure 107 on page 118
DASD fan tray assembly	Figure 92 on page 100
Fan sense card	Figure 91 on page 99
Mainline power cable	Table 100 on page 108, Index 1
Local remote switch card	Figure 92 on page 100
Primary power supply	Figure 90 on page 97
Primary power supply fan	Figure 90 on page 97
Rack identity card	Figure 92 on page 100
Rack operator panel UEPO switch assembly	Figure 93 on page 101
RPC card	Figure 91 on page 99
Sequencer module	Figure 90 on page 97
zSeries local remote switch card	Figure 92 on page 100
All other parts	(Find the appropriate figure below)

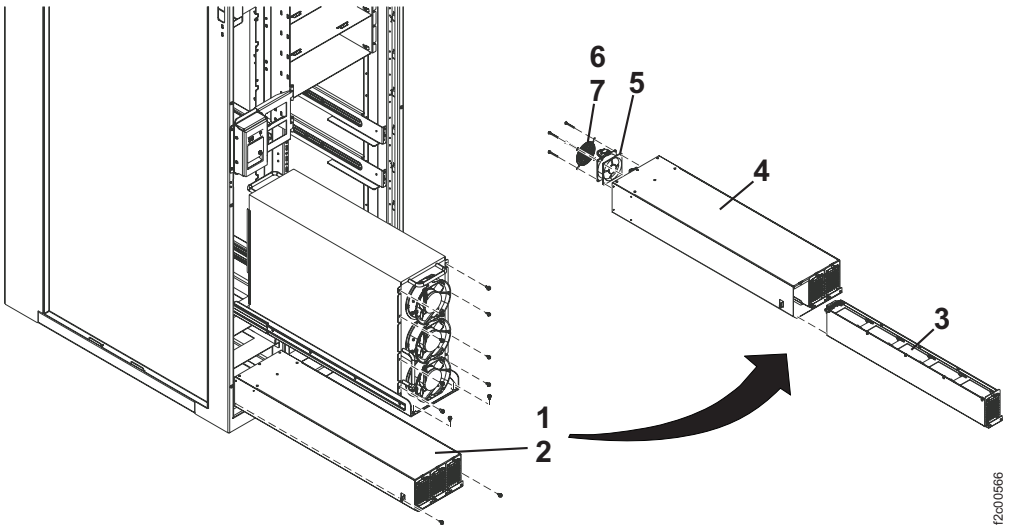

Figure 89. Battery module parts

Table 91. Battery module parts

Index	Part name	Part number
1	Battery module enclosure	22R4417
2	Screw	54G2882
3	Battery module filler	23R0207
3	Battery module set (three modules)	45W6796 [2] Screws

Table 91. Battery module parts (continued)

Index	Part name	Part number
3	Battery module set FRU shipping materials (box, pads, pallet and field strapping kit). Only to be ordered if the shipping materials for the new FRU have been lost or damaged.	45W9747
3	Field strapping kit, see FRU shipping materials above.	92X9720
4	Battery module frame (not a FRU)	[1]
5	Battery module enclosure fan	22R4419
6	Fan guard, battery module enclosure	93H6016
7	Screw	1621200

Notes:

1. Call your next level of support.
2. Old-level battery modules have captive screws to fasten the module into the battery module enclosure. New-level battery modules do not use captive screws and instead use a loose screw FRU P/N 00G1268. The FRU kit for the new-level modules includes the screws. The screws can be ordered separately if needed.

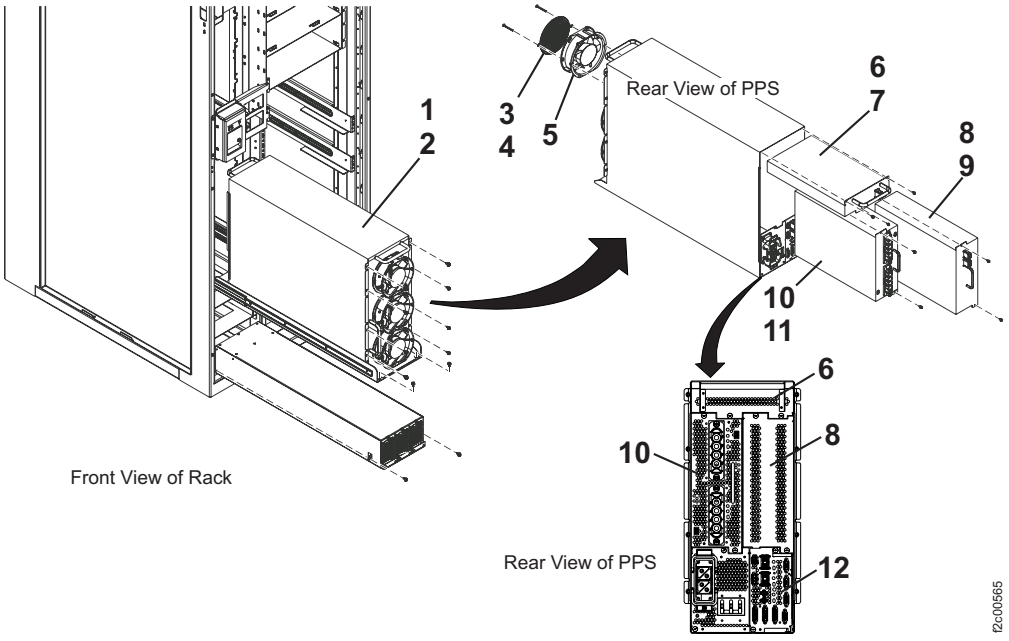

Figure 90. PPS parts

Table 92. PPS parts

Index	Part name	Part number
1	Primary power supply (PPS) A base PPS contains the following parts: • 208VDC base module • 5/12V DDM power module • AC input power module • PFC module • Sequencer module	22R4215
2	Screw	54G2882
3	Fan guard	22R5052
4	Screw, fan guard	22R6069
5	PPS Fan	22R4210
6	Booster power module (optional)	22R4208
7	Screw	54G2882
8	5/12V DDM power module[1] (optional)	22R4207
8	Cover[2]	22R4212
9	Screw	[3]
10	5/12V DDM power module	22R4207
11	Screw	[3]
12	Sequencer module	23R0639

Notes:

1. Required if more than 8 storage enclosures with DDMs present is installed.
2. Dummy module cover present if optional Booster power module **6** is not present.
3. Call your next level of support.

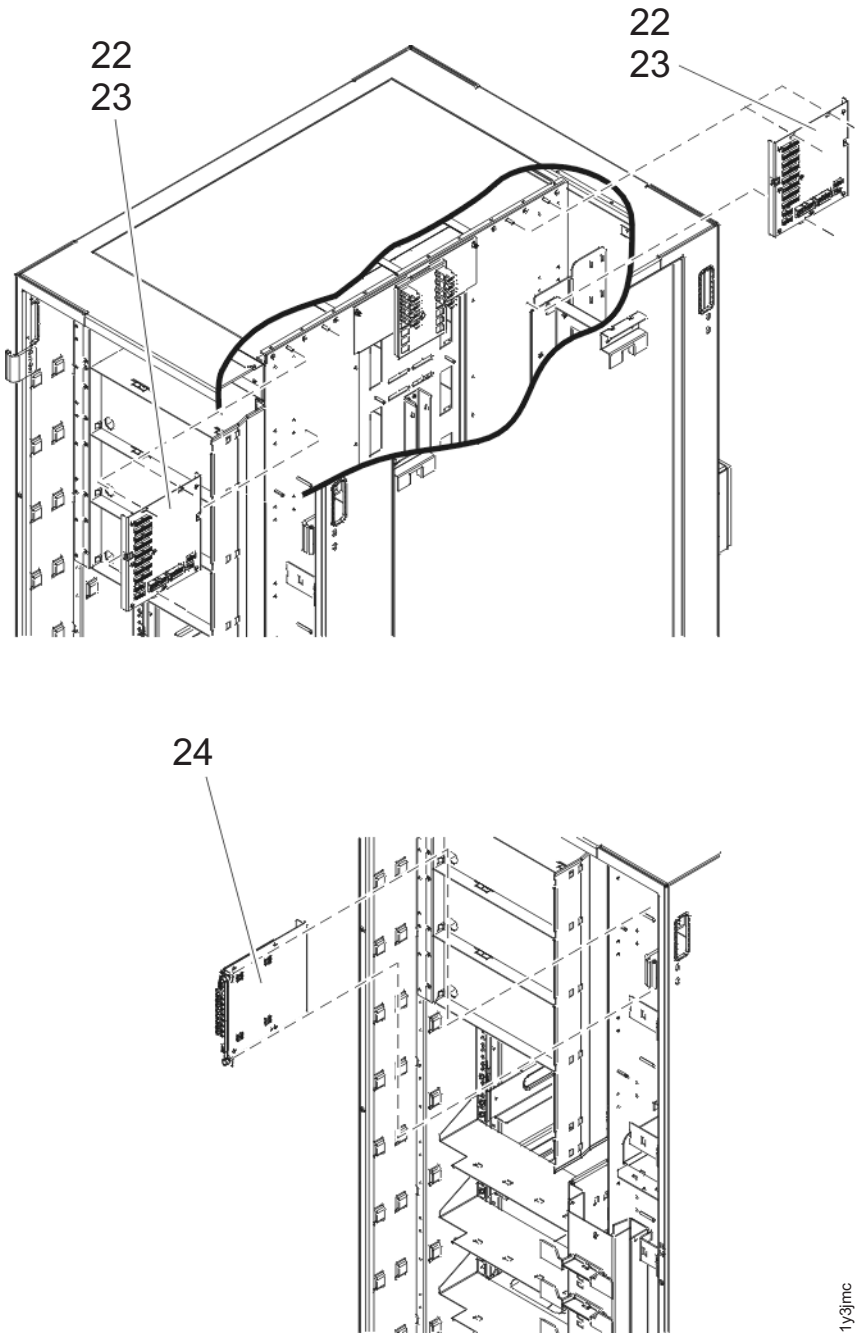

Figure 91. Rack power and cooling parts (continued)

Table 93. Rack power and cooling parts (1 of 3)

Index	Part name	Part number
22	Fan sense card	22R4917
23	Screw	1621842
24	RPC card	95P1959

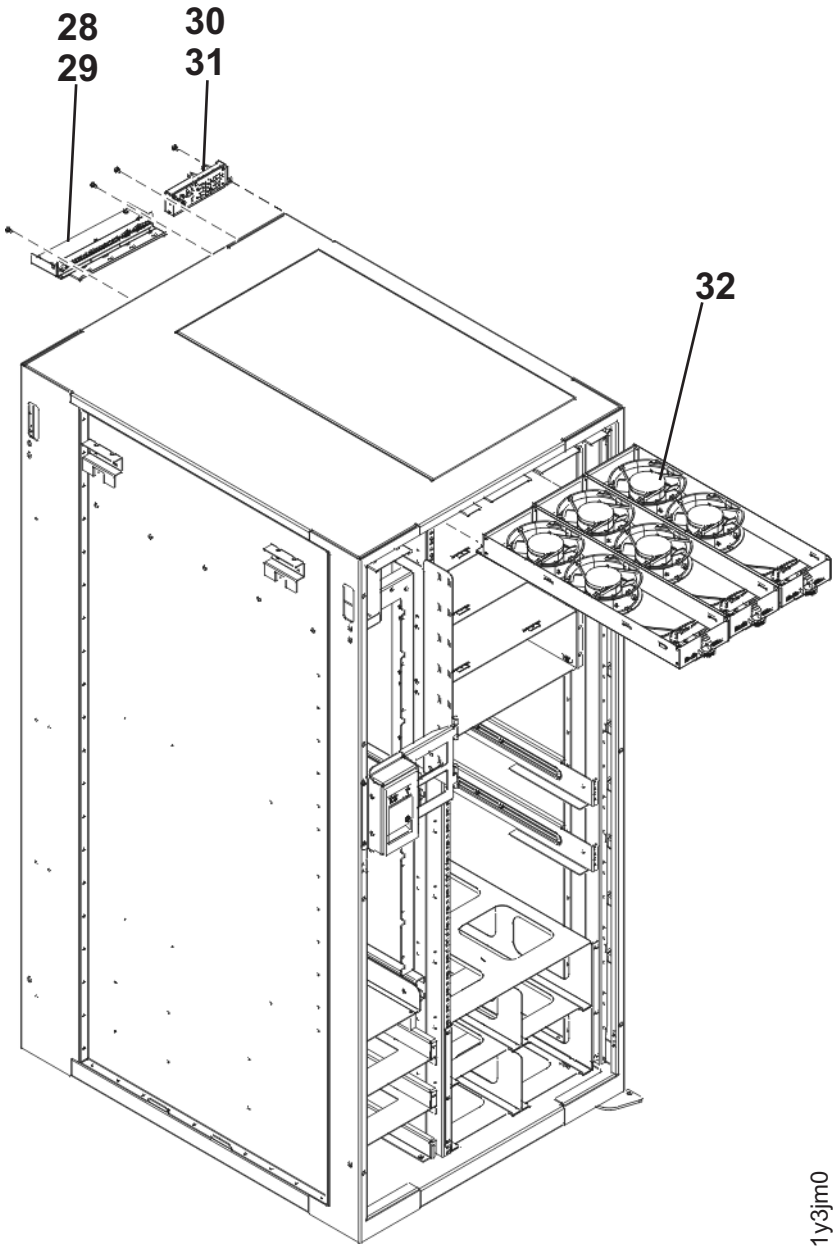

Figure 92. Rack power and cooling parts (continued)

Table 94. Rack power and cooling parts (2 of 3)

Index	Part name	Part number
28	Rack identity card	22R5740
29	Screw	54G2882
30	Card, local remote switch	95P1963
30	Card, zSeries local remote switch	95P1962
31	Screw	54G2882
32	DASD fan tray assembly	22R5051

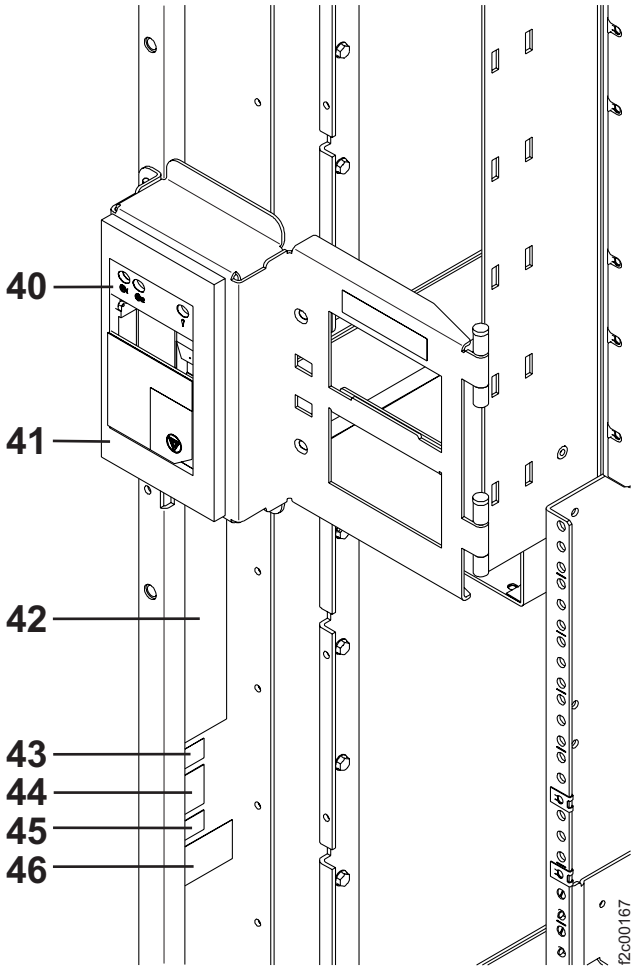

Figure 93. Rack power and cooling parts (continued)

Table 95. Rack power and cooling parts (3 of 3)

Index	Part name	Part number
40	Rack operator panel UEPO switch assembly	22R5741
41	Cover gasket	22R1453
42	Label, agency	22R1790
43	Label, country of origin, Hungary	53P5888
43	Label, country of origin, US	44P3946
44	Label, IBM logo	97P2549
45	Label, manufacturing site, Hungary	22R1805
45	Label, manufacturing site, San Jose, CA	22R1804
46	Label, Nordic	97P5092

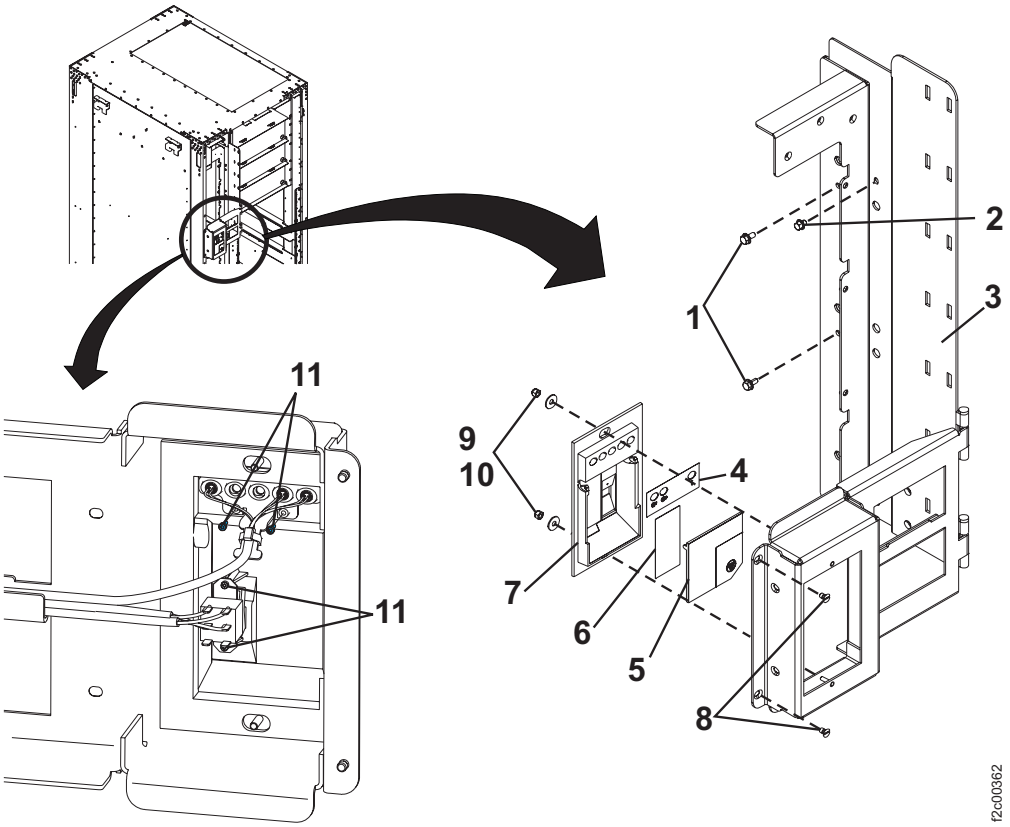

Figure 94. Rack operator panel UEPO switch assembly parts

Table 96. Parts of the rack operator panel UEPO switch assembly

Index	Part name	Part number
1	Screw, operator panel gate	54G2882
2	Screw, operator panel gate	1624775
3	Operator panel gate	22R4905
4	Label, operator panel	22R5887
5	Door, operator panel, early version[1]	N/A
	Door, operator panel, later version[1]	22R3997
6	Label, emergency switch	22R1047
7	Housing, operator panel, early version[1]	N/A
	Housing, operator panel, later version[1]	22R3996
8	Screw, operator panel gate[2]	1621319
9	Lock nut, housing mounting	1622417
10	Washer, housing mounting	1622276
11	Screw, connector-to-housing	1622660

Notes:

1. On the early version, nipples on the door pivot on holes in the housing. On the later version, holes in the door pivot on nipples on the housing. An early version door will not work with a later version housing and vice versa.
2. Keeps the gate closed.

Parts of the rack power and cooling bus bars

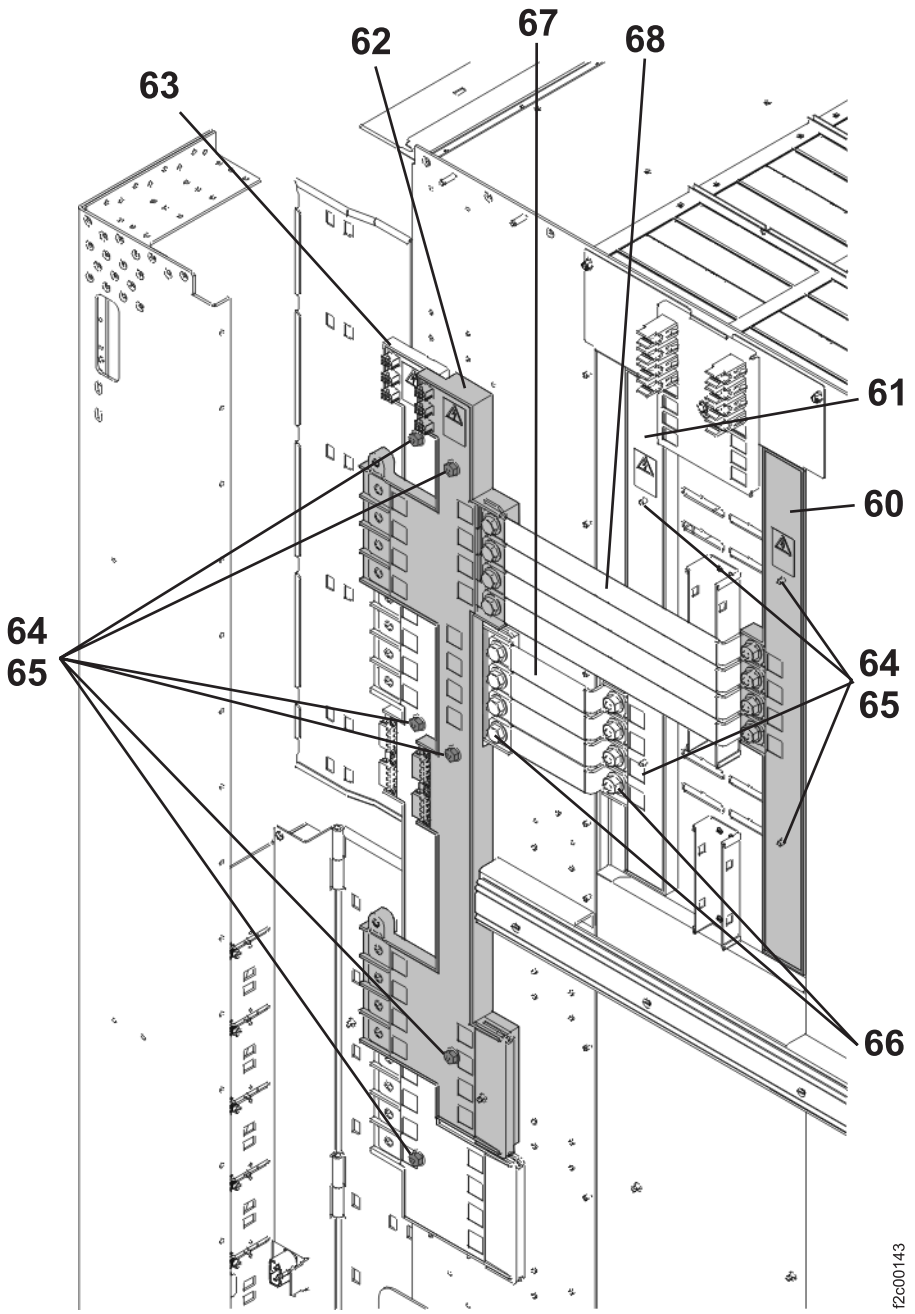

Figure 95. Rack power and cooling parts (continued)

Table 97. Parts of the rack power and cooling bus bars (1 of 4)

Index	Part name	Part number
60	Bus bar A, 5/12V, primary	22R6100
61	Bus bar B, 5/12V, primary	22R6101
62	Bus bar A, 5/12V, secondary	22R6102
63	Bus bar B, 5/12V, secondary	22R6103
64	Washer	1622276

Table 97. Parts of the rack power and cooling bus bars (1 of 4) (continued)

Index	Part name	Part number
65	Lock nut	1622418
66	Bolt	22R0321
67	Cable, bus bar -to- bus bar	22R6105
68	Cable, bus bar -to- bus bar	22R6104

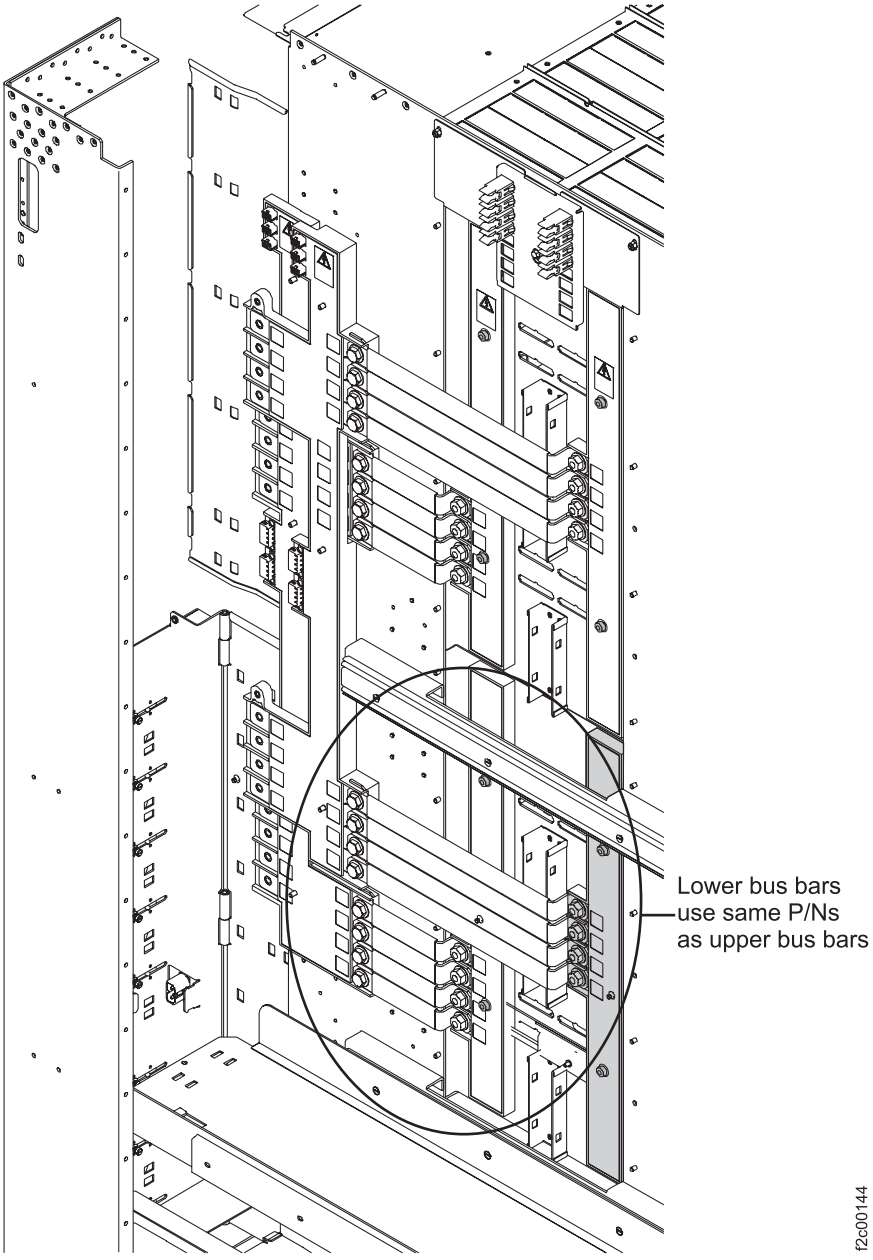

Figure 96. Rack power and cooling parts (continued)

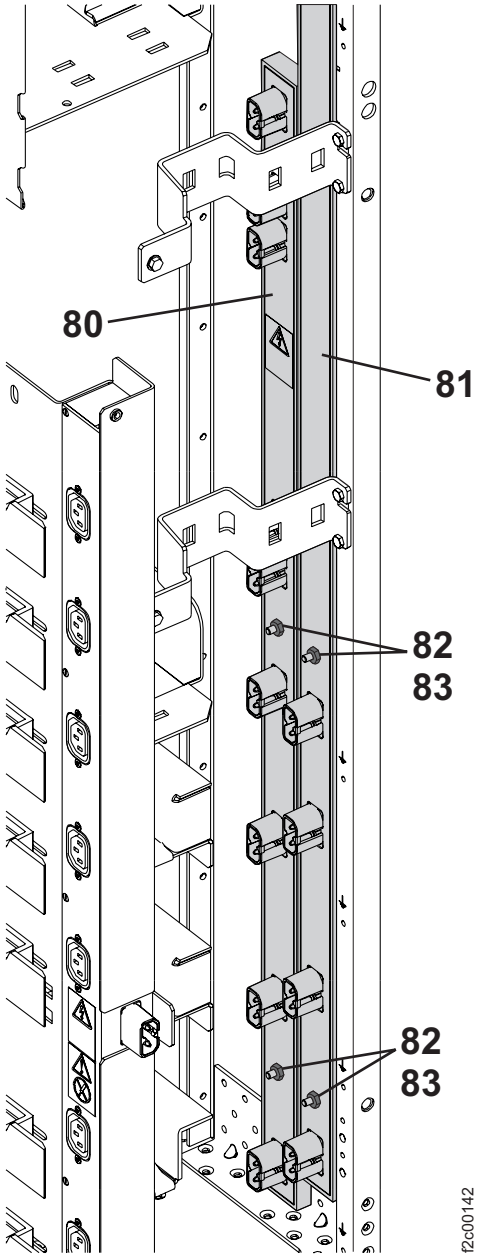

Figure 97. Rack power and cooling parts (continued)

Table 98. Parts of the rack power and cooling bus bars (3 of 4)

Index	Part name	Part number
80	Bus bar B1, 208VDC, primary	22R6125
81	Bus bar A1, 208VDC, primary	22R6124
82	Washer	1622276
83	Lock nut	1622418

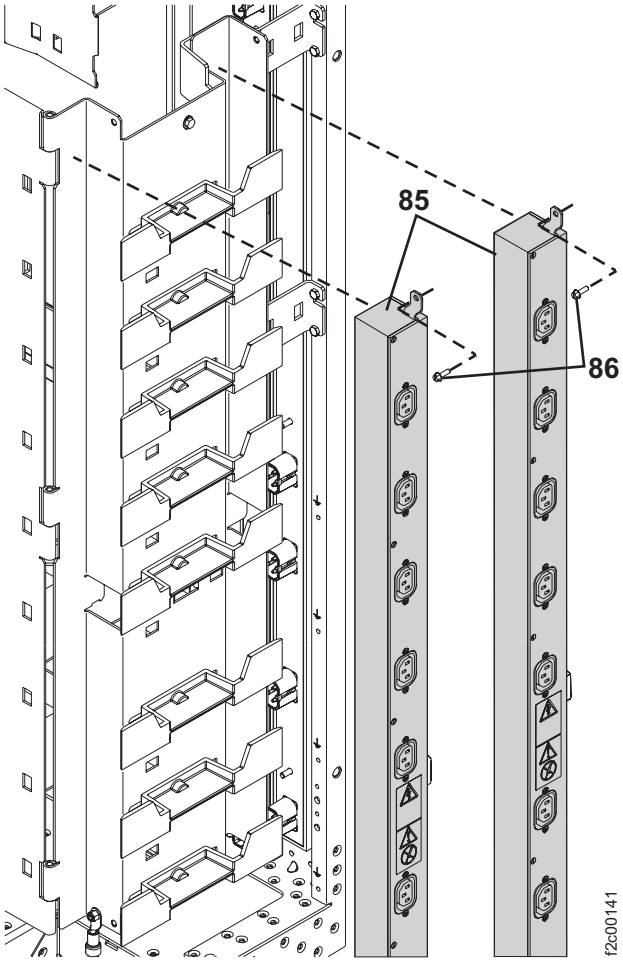

Figure 98. Rack power and cooling parts (continued)

Table 99. Parts of the rack power and cooling bus bars (4 of 4)

Index	Part name	Part number
85	Bus bar A2 and B2, 208 VDC, secondary	22R6126
86	Screw	54G2882

Cables for rack power and cooling parts

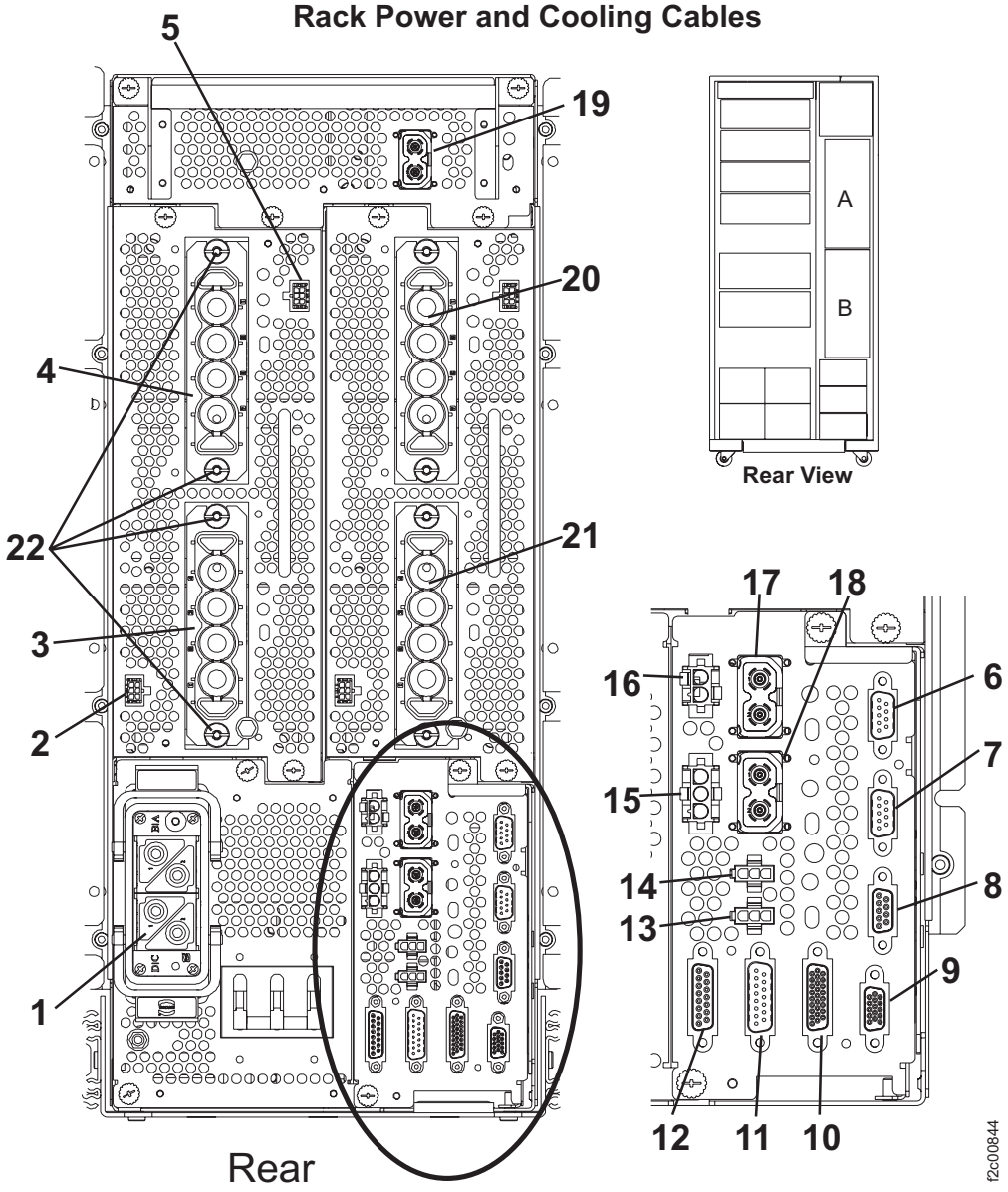

Figure 99. Rack power and cooling cables

Table 100. Cables for rack power and cooling parts

Index	Part name	Part number
1	Cable, power (3-phase), short (PPS-2), 60A Chicago (7.7 feet)	22R1188
	Cable, power (3-phase), long (PPS-1), 60A Chicago (9.5 feet)	22R1189
	Cable, power (1-phase), short (PPS-2), Chicago (7.7 feet)	17P9590
	Cable, power (1-phase), long (PPS-1), Chicago (9.5 feet)	17P9591
	Cable, power (3-phase), long (PPS-1), 60A Japan (17.5 feet)	22R2224
	Cable, power (3-phase), short (PPS-2), 60A Japan (15.8 feet)	22R1191
	Cable, power (3-phase), long (PPS-1), EMEA (17.5 feet)	22R3795
	Cable, power (3-phase), short (PPS-2), EMEA (15.8 feet)	22R3794
	Cable, power (1-phase), long (PPS-1), EMEA (17.5 feet)	17P9596
	Cable, power (1-phase), short (PPS-2), EMEA (15.8 feet)	17P9595
	Cable, power (3-phase), long (PPS-1), non-EMEA (17.5 feet)	22R2222
	Cable, power (3-phase), short (PPS-2), non-EMEA (15.8 feet)	22R1190
	Cable, power (1-phase), long (PPS-1), non-EMEA (17.5 feet)	17P9593
	Cable, power (1-phase), long (PPS-1), non-EMEA (17.5 feet)	17P9592
2	Cable, PPS-1 -to- 5/12V bus bar	17P8592
	Cable, PPS-2 -to- 5/12V bus bar	17P8593
3	Cable, PPS -to- 5/12V bus bar Base rack only	17P8587
	Cable, PPS -to- 5/12V bus bar Expansion rack only	17P8589
4	Cable, PPS -to- 5/12V bus bar Base rack only	17P8587
	Cable, PPS -to- 5/12V bus bar *x* Expansion rack only	17P8588
5	Cable, PPS-1 -to- 5/12V bus bar	17P8590
	Cable, PPS-2 -to- 5/12V bus bar	17P8591
6	Cable, PPS -to- RPC card (except Rack-1)	22R6139
	Cable, PPS -to- RPC card (Rack 1)	22R6147
7	Cable, PPS -to- RPC card (except Rack-1)	22R6140
	Cable, PPS -to- RPC card (Rack 1)	22R6148
8	Cable, PPS-1 -to- rack identity card	22R5756
	Cable, PPS-2 -to- rack identity card	22R5757

Table 100. Cables for rack power and cooling parts (continued)

Index	Part name	Part number
9	Cable, PPS -to- PPS	22R5754
10	Cable, PPS-1 -to- fan sense card	22R1772
	Cable, PPS-2 -to- fan sense card	22R5744
11	Cable, PPS-1 -to- fan sense card	22R5746
	Cable, PPS-2-to- fan sense card	22R5747
12	Cable, PPS-1 -to- battery module	22R5752
	Cable, PPS-2 -to- battery module	22R5753
13	Cable (multi-connector power cord)[1]	22R5759
14	Cable (multi-connector power cord)[1]	22R5759
15	Cable, PPS-1-to- battery module	22R5749
	Cable, PPS-2 -to- battery module	22R5750
16	Cable, PPS -to- rack operator panel UEPO switch	21R9592
17	Cable, PPS -to- 208V bus bar	22R6127
18	Cable, PPS -to- 208V bus bar[2]	22R6127
19	Cable, PPS -to- 208V bus bar	22R6127
20	Cable, PPS -to- 5/12V bus bar *x* Expansion rack only	17P8588
21	Cable, PPS -to- 5/12V bus bar Expansion rack only	17P8589
22	Screw, 5/12V cable retention	22R0123

Notes:

1. This cable is hard wired to a junction connector that provides power to the Ethernet switches, the display/ keyboard tray, and the management console. The junction box also receives power from the other PPS via this cord.
2. The PPS sequencer module connector and cable have been eliminated on later levels of hardware. The parts exchange procedure explains this in greater detail.

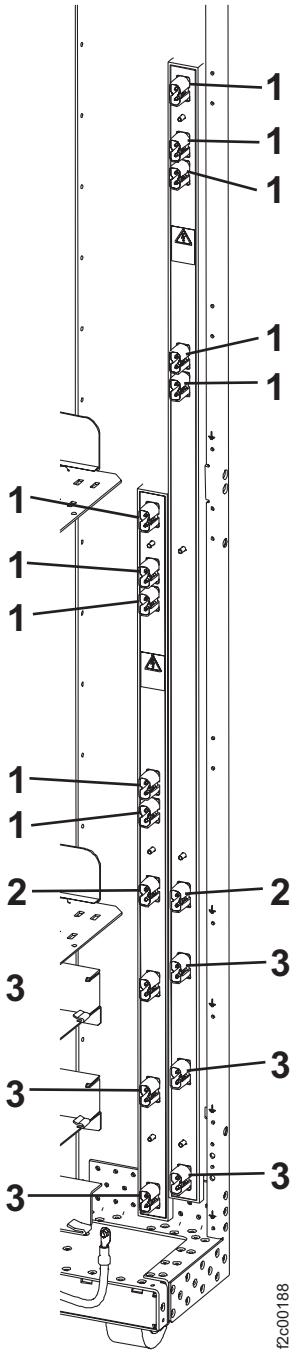

Figure 100. Cables for 208VDC primary bus bars A1 (right) and B1 (left)

Table 101. Cables for 208V bus bars A1 and B1

Index	Part name	Part number
1	Cable, 208V bus bar -to- PPS	22R6127
2	Cable, 208V bus bar A1 -to- 208V bus bar A2	22R6129
	Cable, 208V bus bar B1 -to- 208V bus bar B2	22R6130
3	Cable, 208V bus bar -to- battery module	22R6128

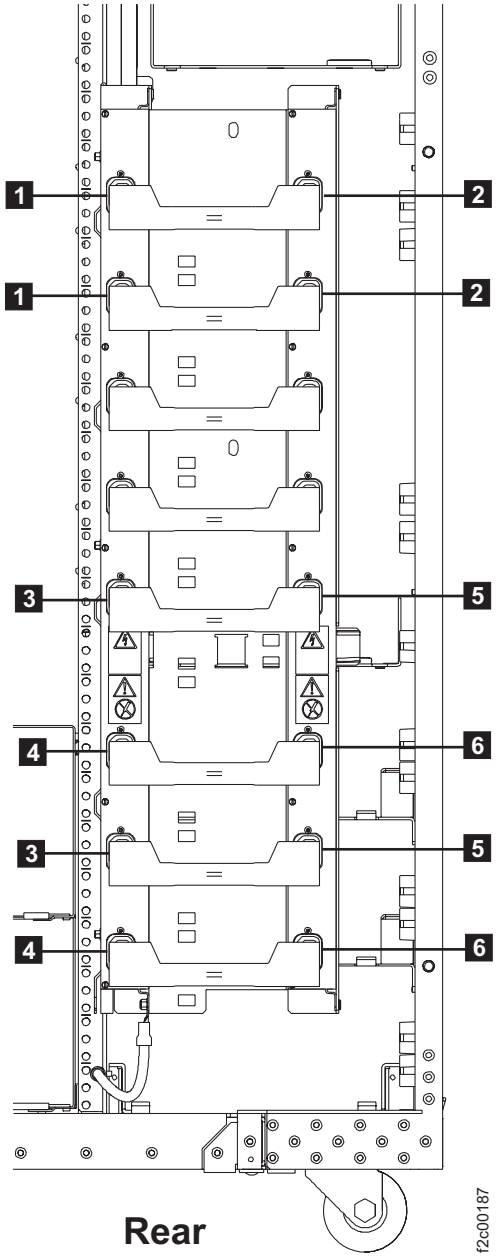

Figure 101. Rack power and cooling 208VDC bus bars A2 (right) and B2 (left)

Table 102. Cables for 208V bus bars A2 and B2

Index	Part name	Part number
1	Cable, 208V bus bar B2 -to- CEC enclosure power supply XC1-E1, XC2-E1	22R5828
2	Cable, 208V bus bar A2 -to- CEC enclosure power supply XC1-E2, XC2-E2	22R5829
3	Cable, 208V bus bar B2 -to- I/O enclosure power supply XI2-E2, XI4-E2	45W1170
4	Cable, 208V bus bar B2 -to- I/O enclosure power supply XI1-E2, XI3-E2	45W1172
5	Cable, 208V bus bar A2 -to- I/O enclosure power supply XI2-E1, XI4-E1	45W1169

Table 102. Cables for 208V bus bars A2 and B2 (continued)

Index	Part name	Part number
6	Cable, 208V bus bar A2 -to- I/O enclosure power supply XI1-E1, XI3-E1	45W1171

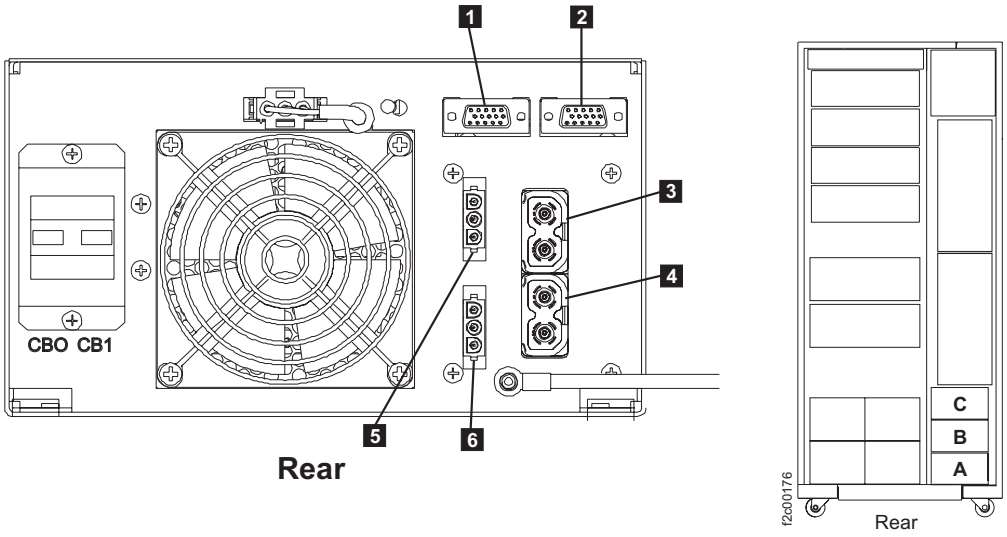

Figure 102. Cables for battery module enclosure

Table 103. Cables for a battery module set

Index	Part name	Part number
1-2	Cable, battery module -to- PPS-1	22R5752
	Cable, battery module -to- PPS-2	22R5753
3-4	Cable, battery module -to- 208V bus bar	22R6128
5	Cable, battery module -to- PPS-1	22R5749
6	Cable, battery module -to- PPS-2	22R5750

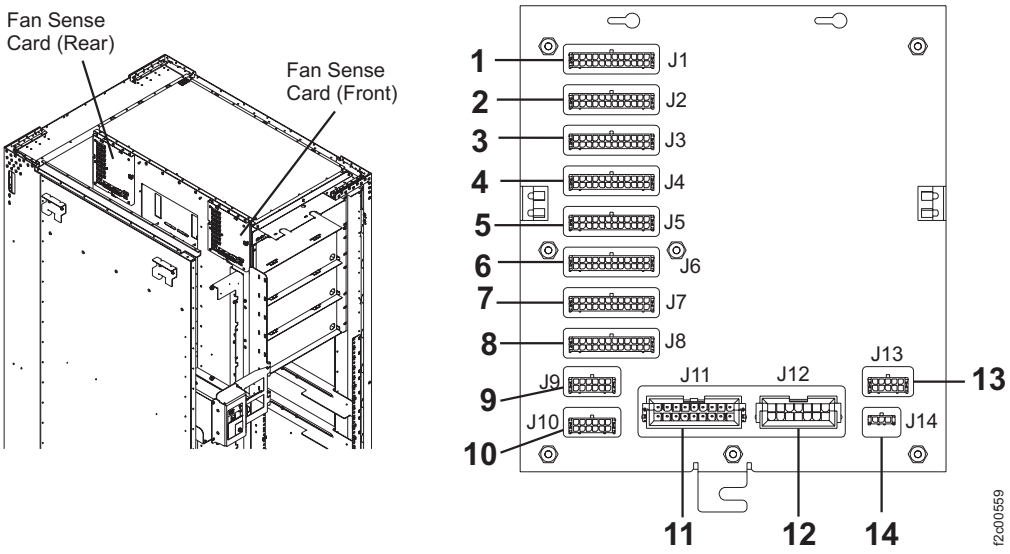

Figure 103. Cables on the fan sense cards

Table 104. Cables for the fan sense card (front card)

Index	Part name	Part number
1-4	Cable, fan sense card (front)-to-center wall bulkhead[1] (cable bundle) (Connector J1 cable goes to storage enclosure XS11, J2 to XS12, J3 to XS13, J4 to XS14) **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6110 (new); 22R1150 (old)
	Cable, center wall bulkhead-to-storage enclosure[1] (individual cable) **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6431 (new); 22R6109 (old)
5-8	Cable, fan sense card (front)-to-center wall bulkhead[1, 2] (cable bundle) (Connector J5 cable goes to storage enclosure XS15, J6 to XS16, J7 to XS17, J8 to XS18) **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6112 (new); 22R1152 (old)
	Cable, center wall bulkhead-to-storage enclosure (individual cable)[1, 2] **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6431 (new); 22R6109 (old)
9-10	Cable, fan sense card (front) -to- DASD fan trays 1 and 2	22R5474
11	Cable, fan sense card (front) -to- PPS-1 (upper)	22R5743
12	Cable, fan sense card (front) -to- PPS-2 (lower)	22R5746
13	Cable, fan sense card (front) -to- rack identity card	22R5916
14	Cable, fan sense card -to- fan sense card	22R5476

Table 104. Cables for the fan sense card (front card) (continued)

Index	Part name	Part number
Notes: 1. The cable interface between the fan sense card and the rear of the storage enclosure consists of three segments: a. The cable from the fan sense card to the rack center wall bulkhead. This FRU is a four-cable harness. Individual cables cannot be replaced. b. The rack center wall bulkhead which is between the PPS power supplies and the storage enclosure vertical air plenum. This FRU should never fail, and requires the rack to be powered off to replace it. c. The cable from the rack center wall bulkhead to the rear of the storage enclosure. This FRU is a Y-cable. One leg of the Y carries fan sense card signals from the rack center wall bulkhead to the storage enclosure. The other leg of the Y carries 5/12v power from the center wall bulkhead to the storage enclosure. 2. Expansion rack only.		

Table 105. Cables for the fan sense card (rear card)

Index	Part name	Part number
1-4	Cable, fan sense card (rear)-to-center wall bulkhead[1] (cable bundle) (Connector J1 cable goes to storage enclosure XS21, J2 to XS22, J3 to XS23, J4 to XS24). **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6111 (new); 22R1151 (old)
	Cable, center wall bulkhead-to-storage enclosure[1] (individual cable) **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6431 (new); 22R6109 (old)
5-8	Cable, fan sense card (rear)-to-center wall bulkhead[1, 2] (cable bundle) (Connector J5 cable goes to storage enclosure XS25, J6 to XS26, J7 to XS27, J8 to XS28) **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6113 (new); 22R1153 (old)
	Cable, center wall bulkhead-to-storage enclosure (individual cable)[1, 2] **Note:** Order both cables: fan sense card to bulkhead and bulkhead to storage enclosure.	22R6431 (new); 22R6109 (old)
9-10	Cable, fan sense card (rear) -to- DASD fan tray 3	22R5475
11	Cable, fan sense card (rear) -to- PPS-2 (lower)	22R5744
12	Cable, fan sense card (rear) -to- PPS-1 (upper)	22R5747
13	Cable, fan sense card (rear) -to- rack identity card	22R5917
14	Cable, fan sense card -to- fan sense card	22R5476

Table 105. Cables for the fan sense card (rear card) (continued)

Index	Part name	Part number
Notes: 1. The cable interface between the fan sense card and the rear of the storage enclosure consists of three segments: • The cable from the fan sense card to the rack center wall bulkhead. This FRU is a four-cable harness. Individual cables cannot be replaced. • The rack center wall bulkhead which is between the PPS power supplies and the storage enclosure vertical air plenum. This FRU should never fail, and requires the rack to be powered off to replace it. • The cable from the rack center wall bulkhead to the rear of the storage enclosure. This FRU is a Y-cable. One leg of the Y carries fan sense card signals from the rack center wall bulkhead to the storage enclosure. The other leg of the Y carries 5/12v power from the center wall bulkhead to the storage enclosure. 2. Expansion rack only.		

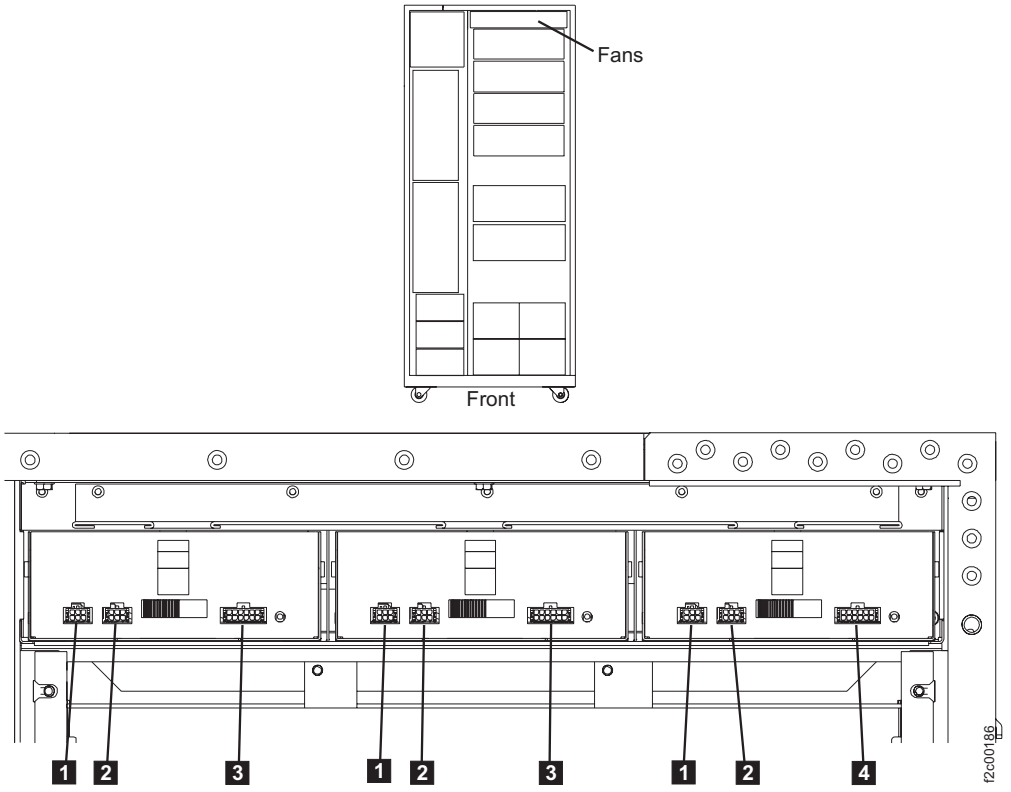

Figure 104. Rack power and cooling fan tray cables

Table 106. Cables for the DASD fan trays

Index	Part name	Part number
1	Cable, DASD fan tray -to- 5/12V secondary bus bar	22R5473
2	Cable, DASD fan tray -to- 5/12V secondary bus bar	22R5472
3	Cable, DASD fan tray -to- fan sense card (front)	22R5474

Table 106. Cables for the DASD fan trays (continued)

Index	Part name	Part number
4	Cable, DASD fan tray -to- fan sense card (rear)	22R5475

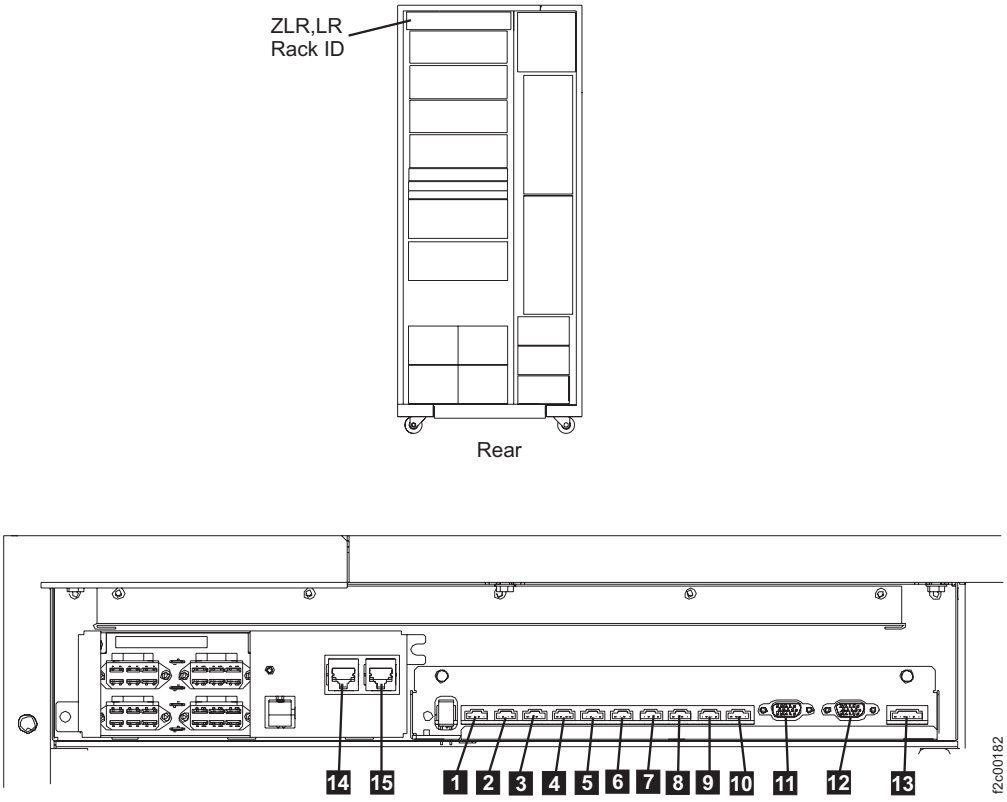

Figure 105. Rack power and cooling local remote and rack identity card cables

Table 107. Cables for the rack identity card and the local remote switch card

Index	Part name	Part number
1	Cable, rack identity card -to- fan sense card (front)	22R5916
2	Cable, rack identity card -to- fan sense card (rear)	22R5917
3-4	Cable, rack identity card -to- CEC enclosure 1	22R5919
	Cable, rack identity card -to- CEC enclosure 2	22R5920
	Cable, rack identity card -to- CEC enclosure 3	22R5921
5	Cable, rack identity card -to- I/O enclosure	22R5922
6	Cable, rack identity card -to- I/O enclosure	22R5923
7	Cable, rack identity card -to- I/O enclosure	22R5924
8	Cable, rack identity card -to- I/O enclosure	22R5925
9	Cable, rack identity card -to- PPS	22R5756
10	Cable, rack identity card -to- PPS	22R5757
11	Cable, rack identity card -to- RPC card	22R6145
12	Cable, rack identity card -to- RPC card	22R6146
13	Cable, rack identity card -to- rack operator panel LED assembly	22R5758

Table 107. Cables for the rack identity card and the local remote switch card (continued)

Index	Part name	Part number
14	Cable, local remote switch card -to- RPC card	22R6141
15	Cable, local remote switch card -to- RPC card	22R6142

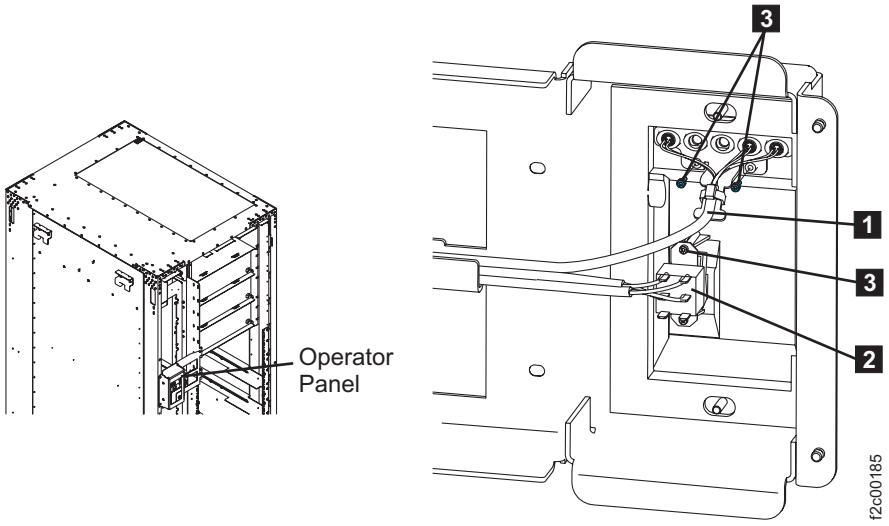

Figure 106. Rack operator panel UEPO switch cables

Table 108. Cables for the rack operator panel UEPO switch

Index	Part name	Part number
1	Cable, rack operator panel LED assembly	22R5758
2	Cable, rack operator panel UEPO switch	22R5741
3	Screw, connector-to-housing	1622660

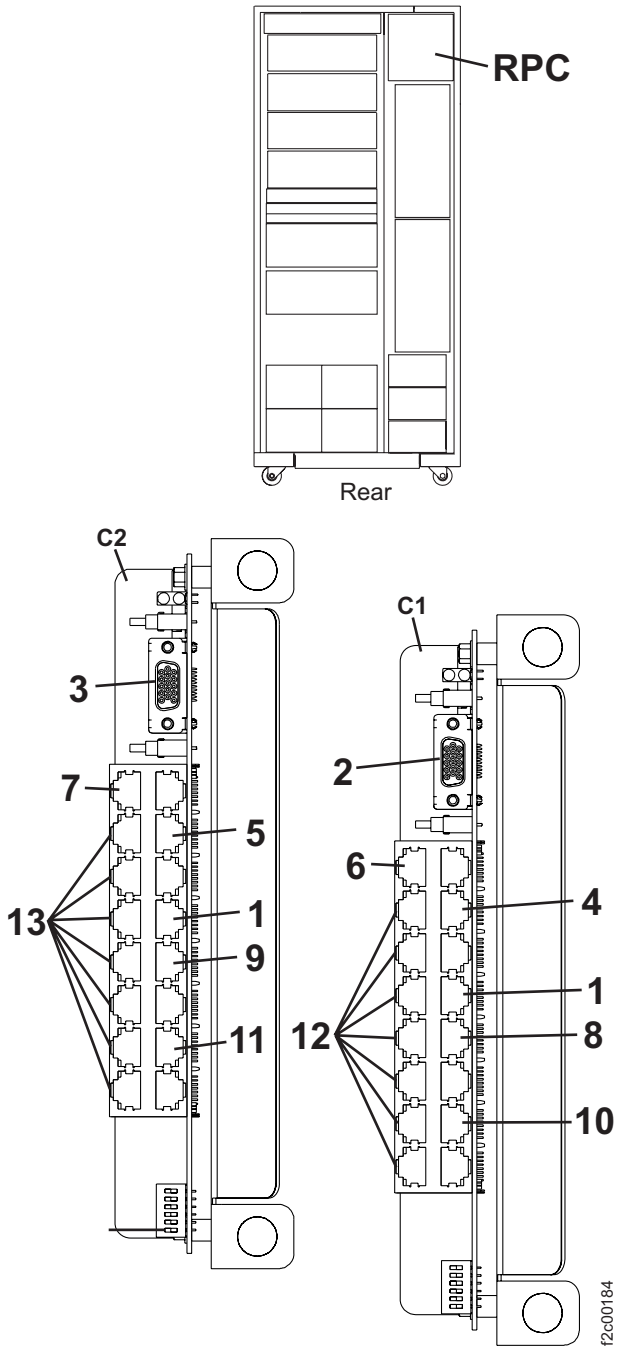

Figure 107. Cables for RPC cards

Table 109. Cables for the RPC card

Index	Part name	Part number
1	Cable, RPC card -to- RPC card	22R6138
2	Cable, RPC card -to- rack identity card	22R6145
3	Cable, RPC card -to- rack identity card	22R6146
4	Cable, RPC card -to- local remote switch card	22R6141
5	Cable, RPC card -to- local remote switch card	22R6142
6	Cable, RPC card -to- PPS (rack 1)	22R6147

Table 109. Cables for the RPC card (continued)

Index	Part name	Part number
7	Cable, RPC card -to- PPS (rack 1)	22R6148
8-9	Cable, RPC card -to- CEC enclosure 1	22R6143
10-11	Cable, RPC card -to- CEC enclosure 2	22R6144
12	Cable, RPC card -to- PPS (expansion rack)	22R6139
13	Cable, RPC card -to- PPS (expansion rack)	22R6140

Rack power and cooling part numbers, Models 951, 95E

Information about rack power and cooling parts is listed below. Use Table 110 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 110. Start here

Part name	Figure
Battery module set (a set is three battery modules)	Figure 108 on page 120
Battery module enclosure	Figure 108 on page 120
Battery module enclosure fan	Figure 108 on page 120
Battery module filler	Figure 108 on page 120
Booster power module	Figure 109 on page 121
Bus bar A1, 208VDC, primary	Figure 113 on page 124
Bus bar B1, 208VDC, primary	Figure 113 on page 124
Cables, battery module set	Figure 117 on page 130
Cables, bus bar, A1, 208VDC, primary	Figure 116 on page 129
Cables, bus bar, B1, 208VDC, primary	Figure 116 on page 129
Cables, power distribution units (PDU)	Figure 121 on page 133
Cables, primary power supply (PPS)	Figure 115 on page 126
Cables, rack identity card	Figure 118 on page 130
Cables, rack operator panel UEPO switch assembly	Figure 119 on page 131
Cables, RPC card	Figure 120 on page 132
Mainline power cable	Table 118 on page 126
Local remote switch card	Figure 111 on page 123
Power distribution unit (PDU)	Figure 114 on page 125
PPS 208V DDM power module	Figure 109 on page 121
Primary power supply	Figure 109 on page 121
Primary power supply fan	Figure 109 on page 121
Primary power supply sequencer module	Figure 109 on page 121
Rack identity card	Figure 111 on page 123
Rack operator panel UEPO switch assembly	Figure 112 on page 123
RPC card	Figure 110 on page 122

Table 110. Start here (continued)

Part name	Figure
zSeries local remote switch card	Figure 111 on page 123
All other parts	(Find the appropriate figure below)

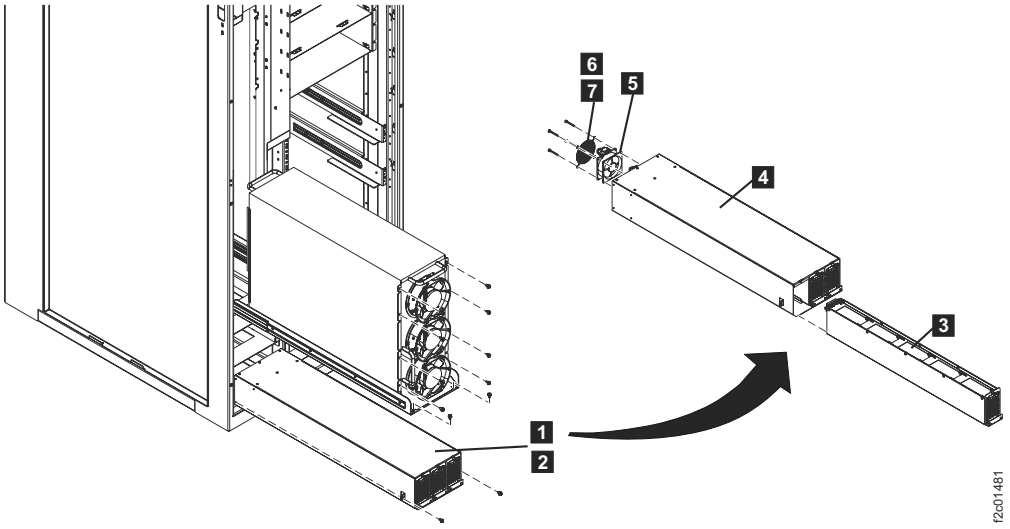

Figure 108. Battery module parts

Table 111. Battery module parts

Index	Part name	Part number
1	Battery module enclosure	45W1068
2	Screw	54G2882
3	Battery module filler	23R0207
3	Battery module set (three modules)	45W6796[2] Screws
3	Battery module set FRU shipping materials (box, pads, pallet and field strapping kit). Only to be ordered if the shipping materials for the new FRU have been lost or damaged.	45W9747
3	Field strapping kit, see FRU shipping materials above.	92X9720
4	Battery module frame (not a FRU)	[1]
5	Battery module enclosure fan	22R4419
6	Fan guard, battery module enclosure	93H6016
7	Screw	1621200

Notes:

1. Call your next level of support.
2. Old-level battery modules have captive screws to fasten the module into the battery module enclosure. New-level battery modules do not use captive screws and instead use a loose screw FRU P/N 00G1268. The FRU kit for the new-level modules includes the screws. The screws can be ordered separately if needed.

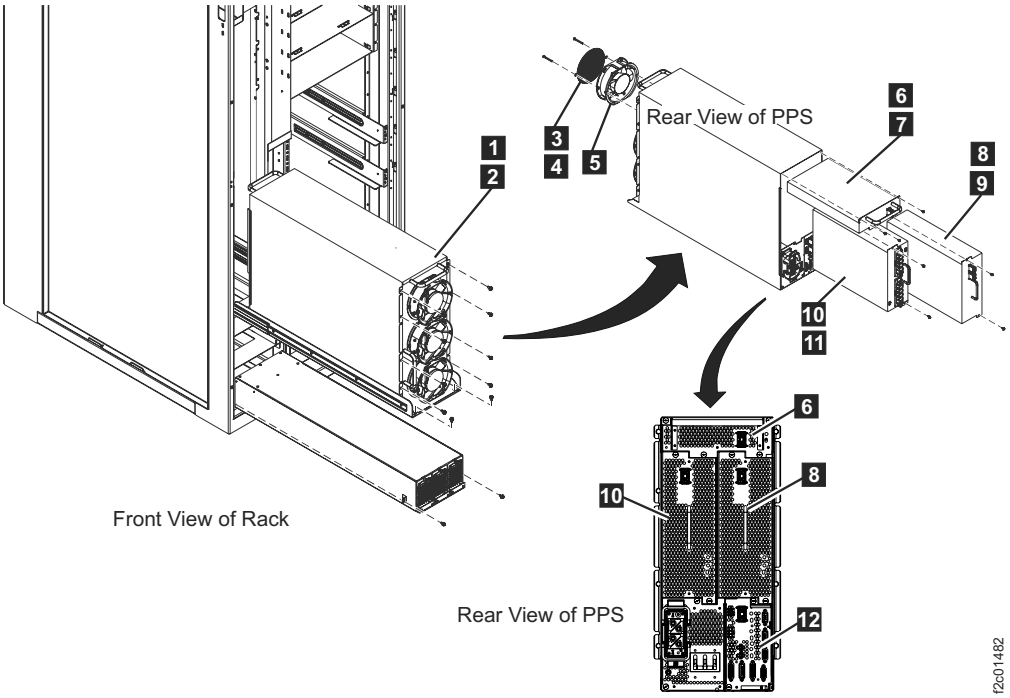

Figure 109. PPS parts

Table 112. PPS parts

Index	Part name	Part number
1	Primary power supply (PPS) A base PPS contains the following parts: • 208VDC base module • 208V DDM power module • AC input power module • PFC module • Sequencer module	45W8268
2	Screw	54G2882
3	Fan guard	22R5052
4	Screw, fan guard	22R6069
5	PPS Fan	22R4210
6	Booster power module (optional)	23R0493
7	Screw	54G2882
8	PPS 208V DDM power module	45W8270
9	Screw	1
10	PPS 208V DDM power module	45W8270
11	Screw	1
12	PPS sequencer module	23R0639
Notes: 1. Call your next level of support.		

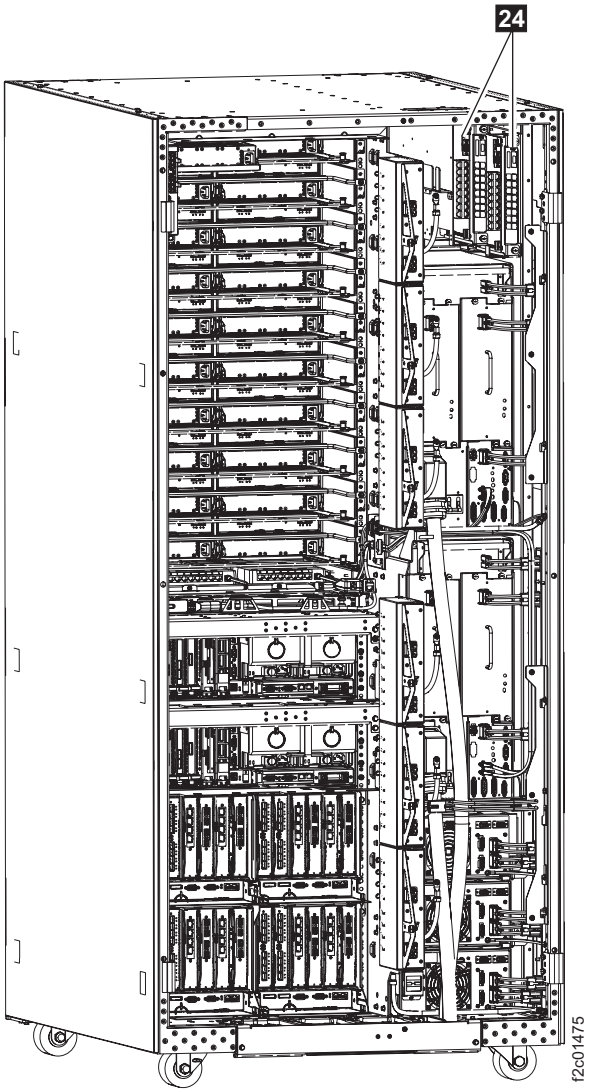

Figure 110. RPC card

Table 113. RPC cards

Index	Part name	Part number
24	RPC card	17P9652

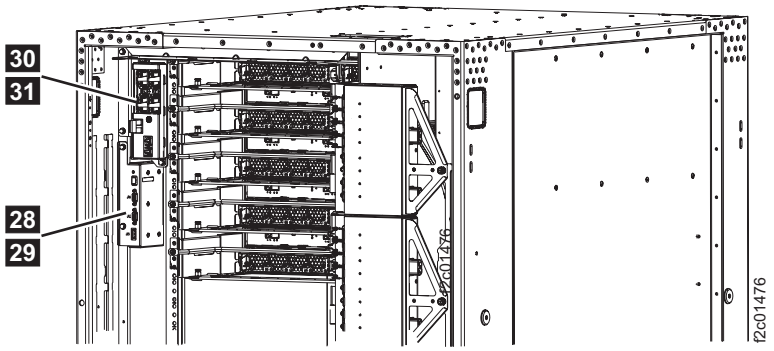

Figure 111. Rack identity card and local remote card

Table 114. Rack identity card and local remote card

Index	Part name	Part number
28	Rack identity card	45W7372
29	Screw	54G2882
30	Card, local remote switch	95P1963
30	Card, zSeries local remote switch	95P1962
31	Screw	54G2882

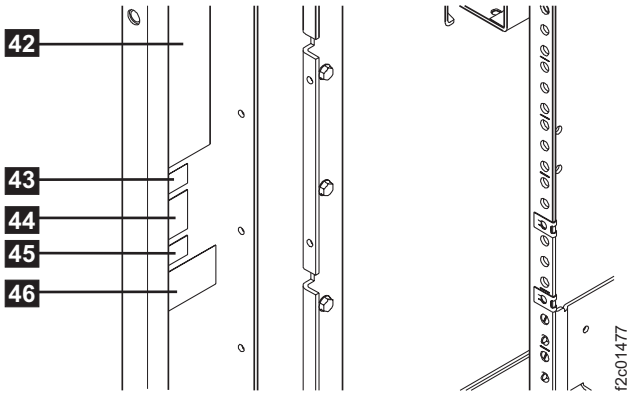

Figure 112. Rack front left labels

Table 115. Rack front left labels

Index	Part name	Part number
42	Label, agency	22R1790
43	Label, country of origin, Hungary	53P5888
43	Label, country of origin, US	44P3946
44	Label, IBM logo	97P2549
45	Label, manufacturing site, Hungary	22R1805
45	Label, manufacturing site, San Jose, CA	22R1804
46	Label, Nordic	97P5092

Parts of the rack power and cooling bus bars

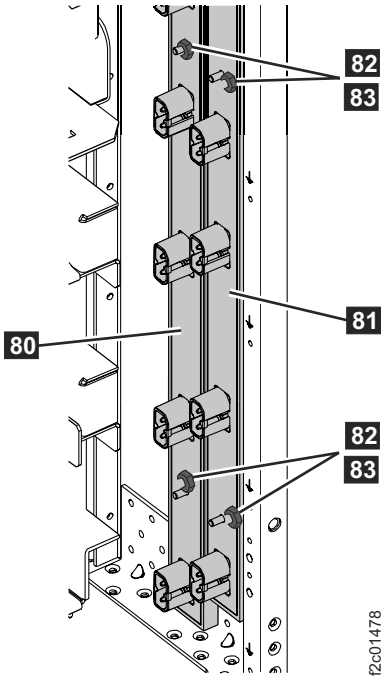

Figure 113. Bus bars, 208VDC primary

Table 116. Bus bars, 208VDC primary

Index	Part name	Part number
80	Bus bar B1, 208VDC, primary	22R6125
81	Bus bar A1, 208VDC, primary	22R6124
82	Washer	1622276
83	Lock nut	1622418

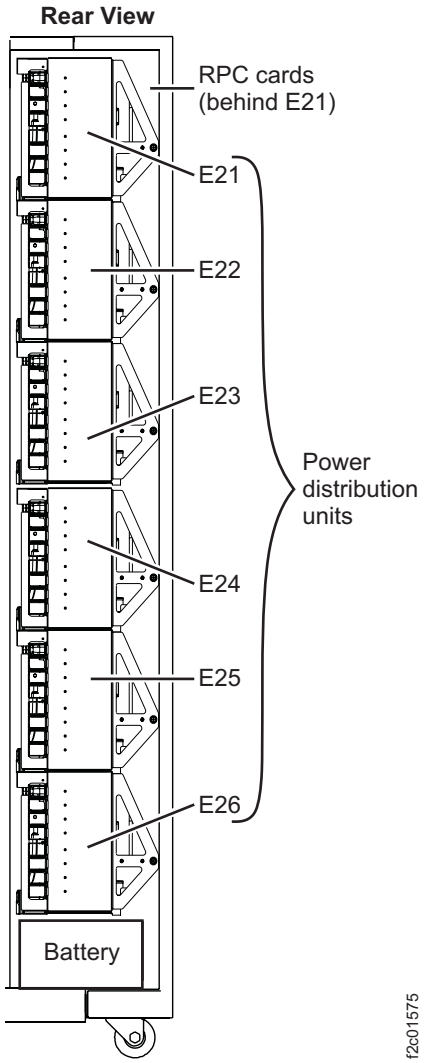

Figure 114. Locations for power distribution units

Table 117. Power distribution units

Location	Part name	Part number
E21 - E26	Power distribution unit (PDU)	45W8858

Cables for rack power and cooling parts

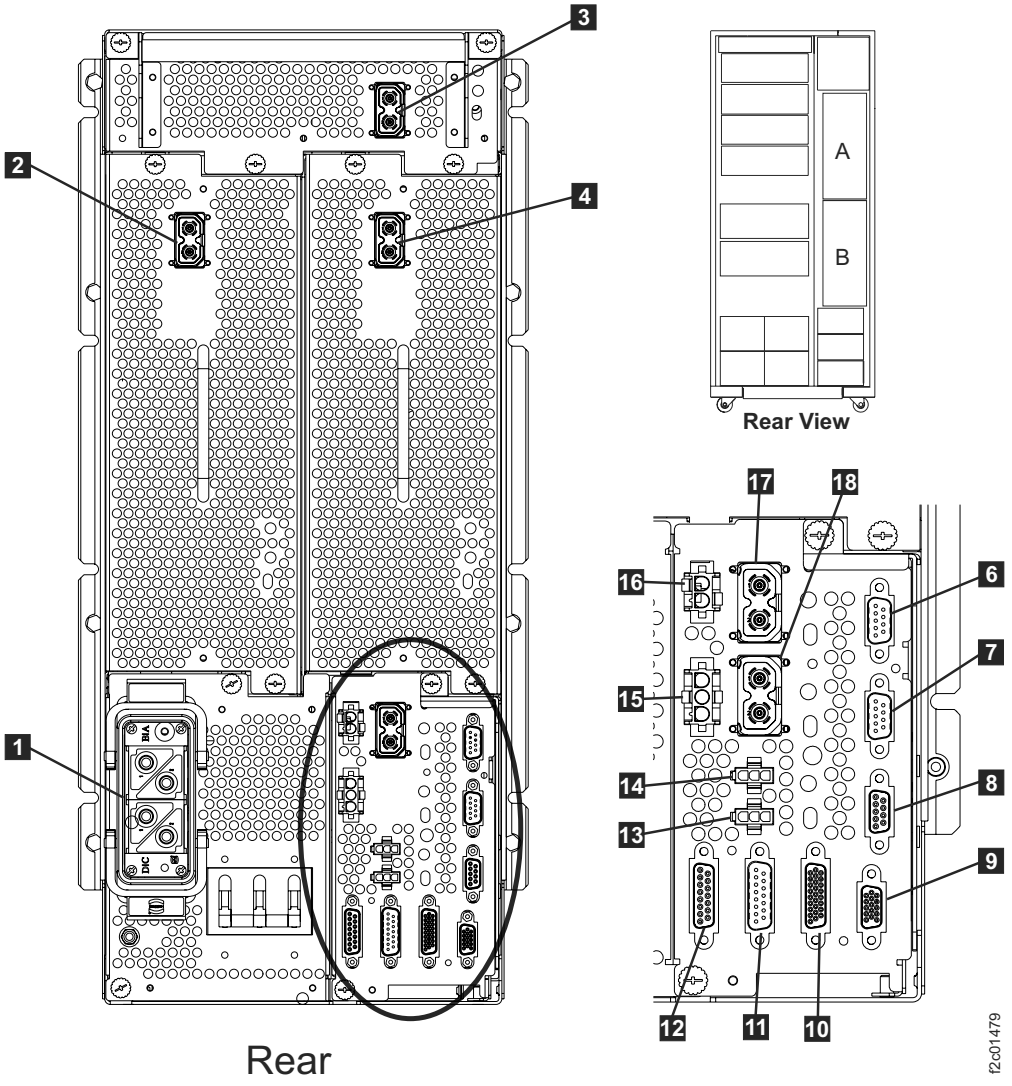

Figure 115. Cables connecting to rear of PPS

Table 118. Cables connecting to rear of PPS

Index	Part name	Part number
1	Cable, power (3-phase), short (PPS-2), 60A Chicago (7.7 feet)	22R1188
	Cable, power (3-phase), long (PPS-1), 60A Chicago (9.5 feet)	22R1189
	Cable, power (1-phase), short (PPS-2), Chicago (7.7 feet)	17P9590
	Cable, power (1-phase), long (PPS-1), Chicago (9.5 feet)	17P9591
1	Cable, power (3-phase), long (PPS-1), 60A Japan (17.5 feet)	22R2224
	Cable, power (3-phase), short (PPS-2), 60A Japan (15.8 feet)	22R1191

Table 118. Cables connecting to rear of PPS (continued)

Index	Part name	Part number
1	Cable, power (3-phase), long (PPS-1), EMEA (17.5 feet)	22R3795
	Cable, power (3-phase), short (PPS-2), EMEA (15.8 feet)	22R3794
	Cable, power (1-phase), long (PPS-1), EMEA (17.5 feet)	17P9596
	Cable, power (1-phase), short (PPS-2), EMEA (15.8 feet)	17P9595
1	Cable, power (3-phase), long (PPS-1), non-EMEA (17.5 feet)	22R2222
	Cable, power (3-phase), short (PPS-2), non-EMEA (15.8 feet)	22R1190
	Cable, power (1-phase), long (PPS-1), non-EMEA (17.5 feet)	17P9593
	Cable, power (1-phase), long (PPS-1), non-EMEA (17.5 feet)	17P9592
1	Cable, power (3-phase), top exit, long (PPS-2), 30A Japan (IEC 309) (3.2m / 10.5 feet)	99Y1185
	Cable, power (3-phase), top exit, short (PPS-1), 30A Japan (IEC 309) (2.6m / 8.5 feet)	99Y1186
1	Cable, power (3-phase), top exit, long (PPS-2), 40A EMEA (3.2m / 10.5 feet)	99Y1173
	Cable, power (3-phase), top exit, short (PPS-1), 40A EMEA (2.6m / 8.5 feet)	99Y1174
	Cable, power (1-phase), top exit, long (PPS-2), 40A EMEA (3.2m / 10.5 feet)	99Y1182
	Cable, power (1-phase), top exit, short (PPS-1), 40A EMEA (2.6m / 8.5 feet)	99Y1183
1	Cable, power (3-phase), top exit, long (PPS-2), 60A non-EMEA/Japan (RS) (3.2m / 10.5 feet)	99Y1176
	Cable, power (3-phase), top exit, short (PPS-1), 60A non-EMEA/Japan (RS) (2.6m / 8.5 feet)	99Y1177
	Cable, power (1-phase), top exit, long (PPS-2), 60A non-EMEA/Japan (IEC 309) (3.2m / 10.5 feet)	99Y1179
	Cable, power (1-phase), top exit, short (PPS-1), 60A non-EMEA/Japan (IEC 309) (2.6m / 8.5 feet)	99Y1180
2	Cable, PPS 208V DDM Power Module to PDU (see Table 124 on page 134 and Table 125 on page 134)	
3	Cable, PPS -to- 208V bus bar	22R6127
4	Cable, PPS 208V DDM Power Module to PDU (see Table 124 on page 134 and Table 125 on page 134)	
6	Cable, PPS -to- RPC card (except Rack-1)	22R6139
	Cable, PPS -to- RPC card (Rack 1)	22R6147

Table 118. Cables connecting to rear of PPS (continued)

Index	Part name	Part number
7	Cable, PPS -to- RPC card (except Rack-1)	22R6140
	Cable, PPS -to- RPC card (Rack 1)	22R6148
8	Cable, PPS-1 E1-J5 -to- rack identity card C5-J1 (expansion rack)	45W7649
	Cable, PPS-2 E2-J5 -to- rack identity card C5-J2 (expansion rack)	45W7650
9	Cable, PPS -to- PPS	22R5754
12	Cable, PPS-1 -to- battery module	22R5752
	Cable, PPS-2 -to- battery module	22R5753
13	Cable (multi-connector "Y" power cord), PPS to Ethernet switch SW1[1]	45W5284
14	Cable (multi-connector "X" power cord), PPS to Ethernet switch SW2 and management console[1]	45W6628
15	Cable, PPS-1-to- battery module	22R5749
	Cable, PPS-2 -to- battery module	22R5750
16	Cable, PPS -to- rack operator panel UEPO switch	21R9592
17	Cable, PPS -to- 208V bus bar	22R6127
18	Cable, PPS -to- 208V bus bar[2]	22R6127

Notes:

1. These cables are multi-connector cables that provide redundant power from both PPSs to the management console and Ethernet switches.
2. The PPS sequencer module connector and cable have been eliminated on later levels of hardware. The parts exchange procedure explains this in greater detail.

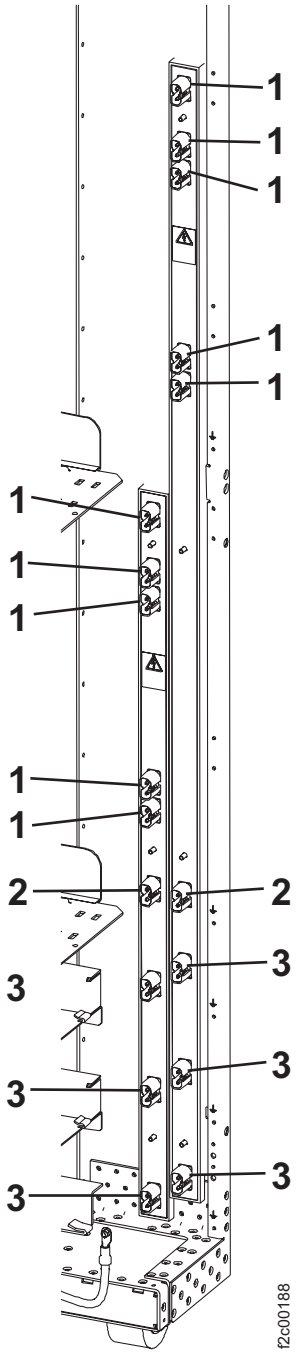

Figure 116. Cables for 208VDC primary bus bars A1 (right) and B1 (left)

Table 119. Cables for 208V primary bus bars A1 and B1

Index	Part name	Part number
1	Cable, 208V bus bar-to-PPS	45W8805
2	Cable, 208V bus bar A1-to-PDU E25 (see Table 124 on page 134 and Table 125 on page 134)	
	Cable, 208V bus bar B1-to-PDU E26 (see Table 124 on page 134 and Table 125 on page 134)	
3	Cable, 208V bus bar-to-battery module	45W8806

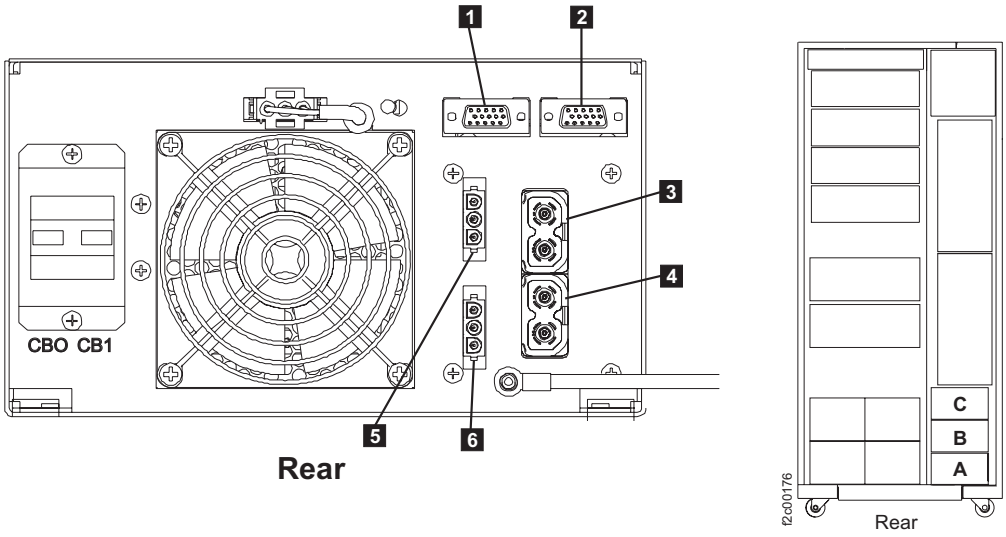

Figure 117. Cables for battery module enclosure

Table 120. Cables for a battery module set

Index	Part name	Part number
1-2	Cable, battery module -to- PPS-1	22R5752
	Cable, battery module -to- PPS-2	22R5753
3-4	Cable, battery module -to- 208V bus bar	22R6128
5	Cable, battery module -to- PPS-1	22R5749
6	Cable, battery module -to- PPS-2	22R5750

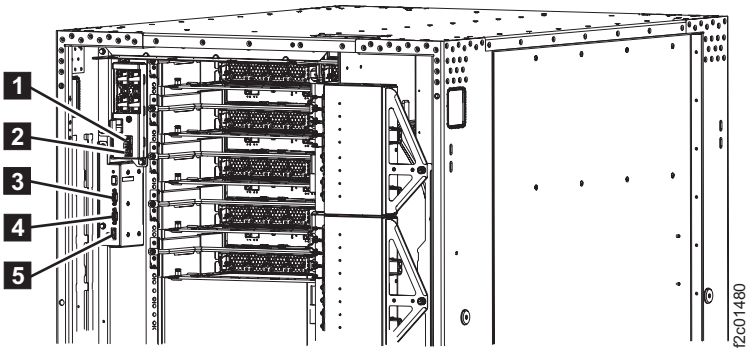

Figure 118. Cables for the rack identity card and the local remote switch card

Table 121. Cables for the rack identity card and the local remote switch card

Index	Part name	Part number
3	Cable, rack identity card C5-J1 to RPC card C1-J1 (Rack 1)	45W7647
4	Cable, rack identity card C5-J2 to RPC card C2-J1 (Rack 1)	45W7648
3	Cable, rack identity card C5-J1 to PPS E1-J5 (expansion rack)	45W7649
4	Cable, rack identity card C5-J2 to PPS E2-J5 (expansion rack)	45W7650
5	Cable, rack identity card C5-J3 to rack front door LED assembly	45W6123

Table 121. Cables for the rack identity card and the local remote switch card (continued)

Index	Part name	Part number
1	Cable, local remote switch card C6-J5 to-RPC card C1-P204	22R6141
2	Cable, local remote switch card C6-J6 to-RPC card C2-P204	22R6142

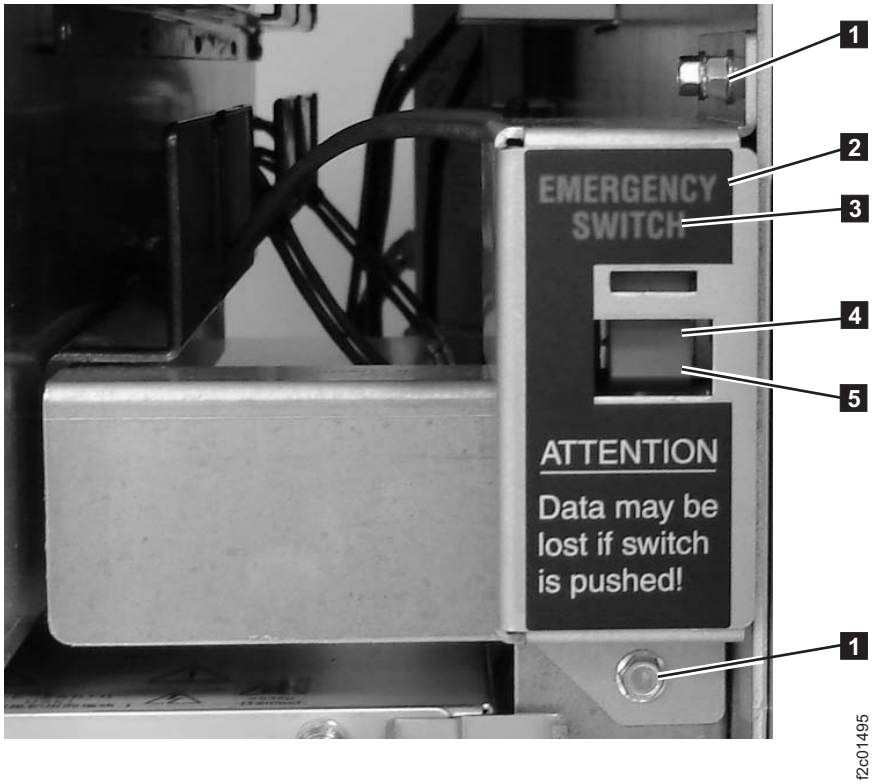

Figure 119. Cables for rack operator panel UEPO switch

Table 122. Cables for the rack operator panel UEPO switch

Index	Part name	Part number
1	Screw, UEPO switch housing to rack	N/A
2	UEPO switch housing	
3	UEPO switch label	
4	Screw, UEPO switch to housing	
5	UEPO switch and cable assembly	45W8101

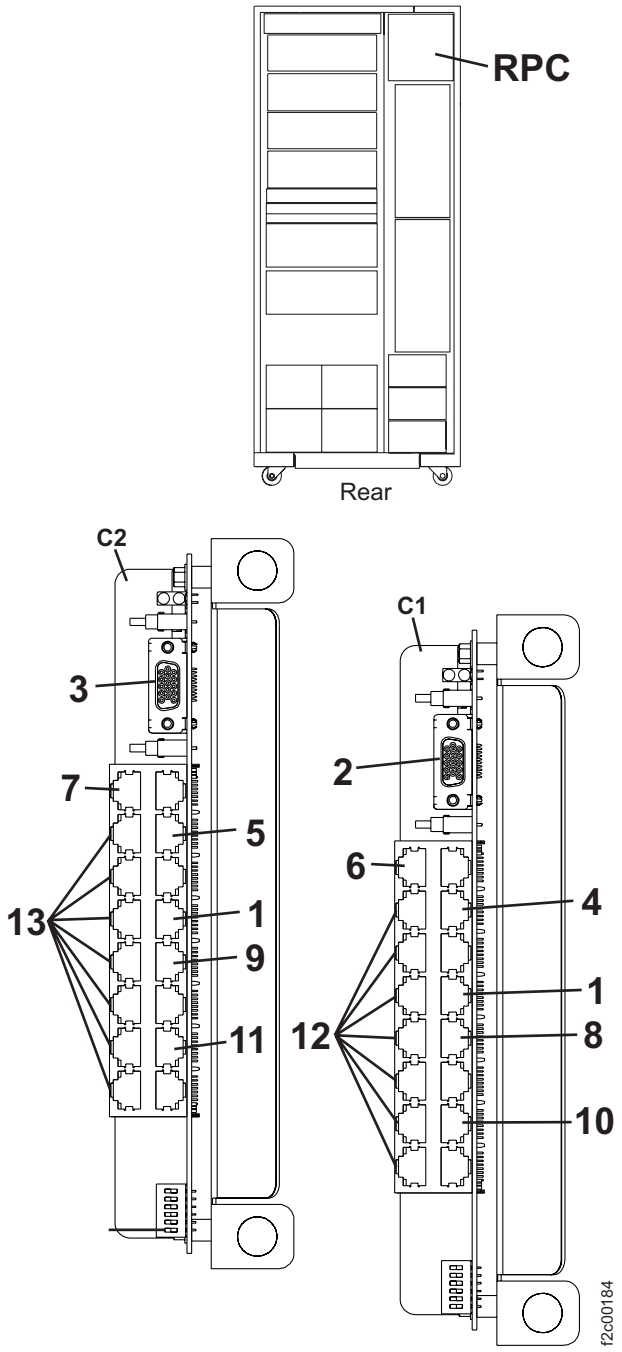

Figure 120. Cables for RPC cards

Table 123. Cables for RPC cards

Index	Part name	Part number
1	Cable, RPC card -to- RPC card	22R6138
2	Cable, RPC card C1-J1 -to- rack identity card C5-J1	45W7647
3	Cable, RPC card C2-J1 -to- rack identity card C5-J2	45W7648
4	Cable, RPC card C1-P204 -to- local remote switch card C6-J5	22R6141

Table 123. Cables for RPC cards (continued)

Index	Part name	Part number
5	Cable, RPC card C2-P204 -to- local remote switch card C6-J6	22R6142
6	Cable, RPC card -to- PPS (rack 1)	22R6147
7	Cable, RPC card -to- PPS (rack 1)	22R6148
8-9	Cable, RPC card -to- CEC enclosure 1	22R6143
10-11	Cable, RPC card -to- CEC enclosure 2	22R6144
12	Cable, RPC card -to- PPS (expansion rack)	22R6139
13	Cable, RPC card -to- PPS (expansion rack)	22R6140

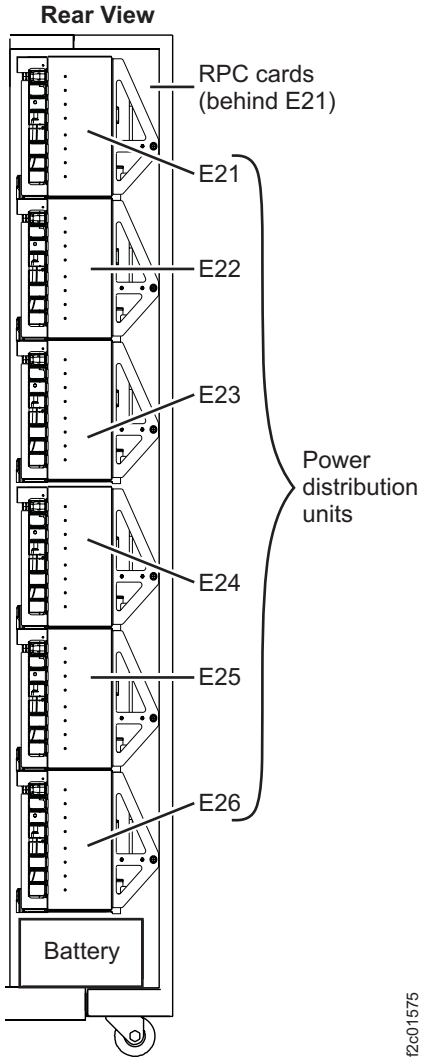

Figure 121. Locations for power distribution units

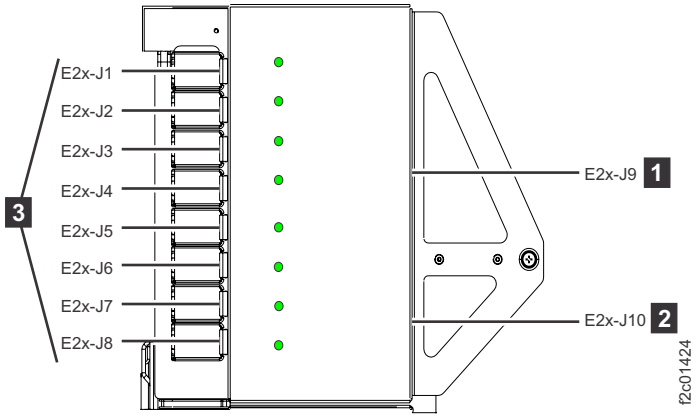

Figure 122. Locations for power distribution unit (PDU) connectors

Table 124 and Table 125 show power cables between the power distribution units (PDUs), primary power supply (PPS) modules, and bus bars.

Table 126 on page 135, Table 127 on page 138, and Table 128 on page 140 show power cables between the PDUs and the CEC enclosure, I/O enclosure, and storage enclosure power supplies.

Table 124. PDU to PPS and bus bar cabling – Racks 1 and 2.
Note: For further guidance on the "connects to" locations in this table, refer to "Rack power and cooling location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Rack power and cooling location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E21-J9	E1-E3-J1	PPS E1 (upper), right 208V module	45W5369	45W8802	yellow
E21-J10	E23-J10	PDU E23	45W8173	45W8804	yellow
E22-J9	E2-E1-J1	PPS E2 (lower), left 208V module	45W5370	45W8801	green
E22-J10	E24-J10	PDU E24	45W8174	45W8803	green
E23-J9	E2-E3-J1	PPS E2 (lower), right 208V module	45W5368	45W8802	yellow
E23-J10	E21-J10	PDU E21	45W8173	45W8804	yellow
E24-J9	E1-E1-J1	PPS E1 (upper), left 208V module	45W5371	45W8801	green
E24-J10	E22-J10	PDU E22	45W8174	45W8803	green
E25-J9	bus bar A1	primary bus bar A (longer)	45W5367	45W8804	yellow
E25-J10		not used			
E26-J9	bus bar B1	primary bus bar B (shorter)	45W5366	45W8803	green
E26-J10		not used			

Table 125. PDU to PPS and bus bar cabling – Racks 3 and 4.
Note: For further guidance on the "connects to" locations in this table, refer to "Rack power and cooling location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Rack power and cooling location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E21-J9	E2-E3-J1	PPS E2 (lower), right 208V module	45W8176	45W8802	yellow

Table 125. PDU to PPS and bus bar cabling – Racks 3 and 4 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to "Rack power and cooling location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Rack power and cooling location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E21-J10	E23-J10, E25-J10	PDU E23, PDU E25	45W8450	45W8450	yellow
E22-J9	E1-E3-J1	PPS E1 (upper), right 208V module	45W8175	45W8801	green
E22-J10	E24-J10, E26-J10	PDU E24, PDU E26	45W8447	45W8447	green
E23-J9	E2-E1-J1	PPS E2 (lower), left 208V module	45W9653	45W8802	yellow
E23-J10	E21-J10, E25-J10	PDU E21, PDU E25	45W8450	45W8450	yellow
E24-J9	E1-E1-J1	PPS E1 (upper), left 208V module	45W5371	45W8801	green
E24-J10	E22-J10, E26-J10	PDU E22, PDU E26	45W8447	45W8447	green
E25-J9	bus bar A1	primary bus bar A (longer)	45W5367	45W8804	yellow
E25-J10	E21-J10, E23-J10	PDU E21, PDU E23	45W8450	45W8450	yellow
E26-J9	bus bar B1	primary bus bar B (shorter)	45W5366	45W8803	green
E26-J10	E22-J10, E24-J10	PDU E22, PDU E24	45W8447	45W8447	green

Table 126. PDU to CEC, I/O, and storage enclosure cabling – Rack 1.

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)
- "CEC enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **CEC enclosure location codes**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
PDU E21					
E21-J1	G01-E2	storage enclosure G01 PSU E2 (right)	45W9127	45W8809	yellow
E21-J2	G02-E2	storage enclosure G02 PSU E2 (right)	45W9127	45W8809	yellow
E21-J3	G03-E2	storage enclosure G03 PSU E2 (right)	45W9127	45W8809	yellow
E21-J4	G04-E2	storage enclosure G04 PSU E2 (right)	45W9127	45W8809	yellow
E21-J5	G05-E2	storage enclosure G05 PSU E2 (right)	45W9127	45W8809	yellow
E21-J6		not used			
E21-J7		not used			

Table 126. PDU to CEC, I/O, and storage enclosure cabling – Rack 1 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)
- "CEC enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **CEC enclosure location codes**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E21-J8		not used			
PDU E22					
E22-J1	G01-E1	storage enclosure G01 PSU E1 (left)	45W9128	45W8810	green
E22-J2	G02-E1	storage enclosure G02 PSU E1 (left)	45W9128	45W8810	green
E22-J3	G03-E1	storage enclosure G03 PSU E1 (left)	45W9128	45W8810	green
E22-J4	G04-E1	storage enclosure G04 PSU E1 (left)	45W9128	45W8810	green
E22-J5	G05-E1	storage enclosure G05 PSU E1 (left)	45W9128	45W8810	green
E22-J6		not used			
E22-J7		not used			
E22-J8		not used			
PDU E23					
E23-J1	G06-E2	storage enclosure G06 PSU E2 (right)	45W9127	45W8809	yellow
E23-J2	G07-E2	storage enclosure G07 PSU E2 (right)	45W9127	45W8809	yellow
E23-J3	G08-E2	storage enclosure G08 PSU E2 (right)	45W9127	45W8809	yellow
E23-J4	G09-E2	storage enclosure G09 PSU E2 (right)	45W9127	45W8809	yellow
E23-J5	G10-E2	storage enclosure G10 PSU E2 (right)	45W9127	45W8809	yellow
E23-J6		not used			
E23-J7		not used			
E23-J8		not used			
PDU E24					
E24-J1	G06-E1	storage enclosure G06 PSU E1 (left)	45W9128	45W8810	green
E24-J2	G07-E1	storage enclosure G07 PSU E1 (left)	45W9128	45W8810	green
E24-J3	G08-E1	storage enclosure G08 PSU E1 (left)	45W9128	45W8810	green
E24-J4	G09-E1	storage enclosure G09 PSU E1 (left)	45W9128	45W8810	green
E24-J5	G10-E1	storage enclosure G10 PSU E1 (left)	45W9128	45W8810	green
E24-J6		not used			
E24-J7		not used			
E24-J8		not used			

Table 126. PDU to CEC, I/O, and storage enclosure cabling – Rack 1 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)
- "CEC enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **CEC enclosure location codes**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
PDU E25					
E25-J1	XC1-E2	upper CEC, power supply E2 (right)	45W5216	45W8807	yellow
E25-J2	XC2-E2	lower CEC, power supply E2 (right)	45W5216	45W8807	yellow
E25-J3		not used			
E25-J4		not used			
E25-J5	XI2-E1	front upper left I/O, power supply E1 (left)	45W7925	45W8807	yellow
E25-J6	XI1-E1	front upper right I/O, power supply E1 (left)	45W7926	45W8807	yellow
E25-J7	XI4-E1	front lower left I/O, power supply E1 (left)	45W7925	45W8807	yellow
E25-J8	XI3-E1	front lower right I/O, power supply E1 (left)	45W7926	45W8807	yellow
PDU E26					
E26-J1	XC1-E1	upper CEC, power supply E1 (left)	45W5217	45W8808	green
E26-J2	XC2-E1	lower CEC, power supply E1 (left)	45W5217	45W8808	green
E26-J3		not used			
E26-J4		not used			
E26-J5	XI2-E2	front upper left I/O, power supply E2 (right)	45W7924	45W8808	green
E26-J6	XI1-E2	front upper right I/O, power supply E2 (right)	45W7927	45W8808	green
E26-J7	XI4-E2	front lower left I/O, power supply E2 (right)	45W7924	45W8808	green
E26-J8	XI3-E2	front lower right I/O, power supply E2 (right)	45W7927	45W8808	green

Table 127. PDU to I/O and storage enclosure cabling – Rack 2.

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
PDU E21					
E21-J1	G01-E2	storage enclosure G01 PSU E2 (right)	45W9127	45W8809	yellow
E21-J2	G02-E2	storage enclosure G02 PSU E2 (right)	45W9127	45W8809	yellow
E21-J3	G03-E2	storage enclosure G03 PSU E2 (right)	45W9127	45W8809	yellow
E21-J4	G04-E2	storage enclosure G04 PSU E2 (right)	45W9127	45W8809	yellow
E21-J5	G05-E2	storage enclosure G05 PSU E2 (right)	45W9127	45W8809	yellow
E21-J6	G06-E2	storage enclosure G06 PSU E2 (right)	45W9127	45W8809	yellow
E21-J7	G07-E2	storage enclosure G07 PSU E2 (right)	45W9127	45W8809	yellow
E21-J8		not used			
PDU E22					
E22-J1	G01-E1	storage enclosure G01 PSU E1 (left)	45W9128	45W8810	green
E22-J2	G02-E1	storage enclosure G02 PSU E1 (left)	45W9128	45W8810	green
E22-J3	G03-E1	storage enclosure G03 PSU E1 (left)	45W9128	45W8810	green
E22-J4	G04-E1	storage enclosure G04 PSU E1 (left)	45W9128	45W8810	green
E22-J5	G05-E1	storage enclosure G05 PSU E1 (left)	45W9128	45W8810	green
E22-J6	G06-E1	storage enclosure G06 PSU E1 (left)	45W9128	45W8810	green
E22-J7	G07-E1	storage enclosure G07 PSU E1 (left)	45W9128	45W8810	green
E22-J8		not used			
PDU E23					
E23-J1	G08-E2	storage enclosure G08 PSU E2 (right)	45W9127	45W8809	yellow
E23-J2	G09-E2	storage enclosure G09 PSU E2 (right)	45W9127	45W8809	yellow
E23-J3	G10-E2	storage enclosure G10 PSU E2 (right)	45W9127	45W8809	yellow
E23-J4	G11-E2	storage enclosure G11 PSU E2 (right)	45W9127	45W8809	yellow
E23-J5	G12-E2	storage enclosure G12 PSU E2 (right)	45W9127	45W8809	yellow

Table 127. PDU to I/O and storage enclosure cabling – Rack 2 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E23-J6	G13-E2	storage enclosure G13 PSU E2 (right)	45W9127	45W8809	yellow
E23-J7	G14-E2	storage enclosure G14 PSU E2 (right)	45W9127	45W8809	yellow
E23-J8		not used			
PDU E24					
E24-J1	G08-E1	storage enclosure G08 PSU E1 (left)	45W9128	45W8810	green
E24-J2	G09-E1	storage enclosure G09 PSU E1 (left)	45W9128	45W8810	green
E24-J3	G10-E1	storage enclosure G10 PSU E1 (left)	45W9128	45W8810	green
E24-J4	G11-E1	storage enclosure G11 PSU E1 (left)	45W9128	45W8810	green
E24-J5	G12-E1	storage enclosure G12 PSU E1 (left)	45W9128	45W8810	green
E24-J6	G13-E1	storage enclosure G13 PSU E1 (left)	45W9128	45W8810	green
E24-J7	G14-E1	storage enclosure G14 PSU E1 (left)	45W9128	45W8810	green
E24-J8		not used			
PDU E25					
E25-J1		not used			
E25-J2		not used			
E25-J3		not used			
E25-J4		not used			
E25-J5	XI2-E1	front upper left I/O, power supply E1 (left)	45W7925	45W8807	yellow
E25-J6	XI1-E1	front upper right I/O, power supply E1 (left)	45W7926	45W8807	yellow
E25-J7	XI4-E1	front lower left I/O, power supply E1 (left)	45W7925	45W8807	yellow
E25-J8	XI3-E1	front lower right I/O, power supply E1 (left)	45W7926	45W8807	yellow
PDU E26					
E26-J1		not used			
E26-J2		not used			
E26-J3		not used			
E26-J4		not used			
E26-J5	XI2-E2	front upper left I/O, power supply E2 (right)	45W7924	45W8808	green
E26-J6	XI1-E2	front upper right I/O, power supply E2 (right)	45W7927	45W8808	green

Table 127. PDU to I/O and storage enclosure cabling – Rack 2 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to:

- "Storage enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**)
- "I/O enclosure location codes" in the information center (**Location codes** > **Location codes in serviceable events** > **I/O enclosure location codes** > **Models 951, 95E**)

PDU port	connects to	connection description	P/N	FRU/PN	PDU group
E26-J7	XI4-E2	front lower left I/O, power supply E2 (right)	45W7924	45W8808	green
E26-J8	XI3-E2	front lower right I/O, power supply E2 (right)	45W7927	45W8808	green

Table 128. PDU to storage enclosure cabling – Racks 3 and 4.

Note: For further guidance on the "connects to" locations in this table, refer to the topic, "Storage enclosure location codes," in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU P/N	PDU group
PDU E21					
E21-J1	G01-E2	storage enclosure G01 PSU E2 (right)	45W9127	45W8809	yellow
E21-J2	G02-E2	storage enclosure G02 PSU E2 (right)	45W9127	45W8809	yellow
E21-J3	G03-E2	storage enclosure G03 PSU E2 (right)	45W9127	45W8809	yellow
E21-J4	G04-E2	storage enclosure G04 PSU E2 (right)	45W9127	45W8809	yellow
E21-J5	G05-E2	storage enclosure G05 PSU E2 (right)	45W9127	45W8809	yellow
E21-J6	G06-E2	storage enclosure G06 PSU E2 (right)	45W9127	45W8809	yellow
E21-J7	G07-E2	storage enclosure G07 PSU E2 (right)	45W9127	45W8809	yellow
E21-J8		not used			
PDU E22					
E22-J1	G01-E1	storage enclosure G01 PSU E1 (left)	45W9128	45W8810	green
E22-J2	G02-E1	storage enclosure G02 PSU E1 (left)	45W9128	45W8810	green
E22-J3	G03-E1	storage enclosure G03 PSU E1 (left)	45W9128	45W8810	green
E22-J4	G04-E1	storage enclosure G04 PSU E1 (left)	45W9128	45W8810	green
E22-J5	G05-E1	storage enclosure G05 PSU E1 (left)	45W9128	45W8810	green
E22-J6	G06-E1	storage enclosure G06 PSU E1 (left)	45W9128	45W8810	green
E22-J7	G07-E1	storage enclosure G07 PSU E1 (left)	45W9128	45W8810	green
E22-J8		not used			
PDU E23					

Table 128. PDU to storage enclosure cabling – Racks 3 and 4 (continued).

Note: For further guidance on the "connects to" locations in this table, refer to the topic, "Storage enclosure location codes," in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU P/N	PDU group
E23-J1	G08-E2	storage enclosure G08 PSU E2 (right)	45W9127	45W8809	yellow
E23-J2	G09-E2	storage enclosure G09 PSU E2 (right)	45W9127	45W8809	yellow
E23-J3	G10-E2	storage enclosure G10 PSU E2 (right)	45W9127	45W8809	yellow
E23-J4	G11-E2	storage enclosure G11 PSU E2 (right)	45W9127	45W8809	yellow
E23-J5	G12-E2	storage enclosure G12 PSU E2 (right)	45W9127	45W8809	yellow
E23-J6	G13-E2	storage enclosure G13 PSU E2 (right)	45W9127	45W8809	yellow
E23-J7	G14-E2	storage enclosure G14 PSU E2 (right)	45W9127	45W8809	yellow
E23-J8		not used			
PDU E24					
E24-J1	G08-E1	storage enclosure G08 PSU E1 (left)	45W9128	45W8810	green
E24-J2	G09-E1	storage enclosure G09 PSU E1 (left)	45W9128	45W8810	green
E24-J3	G10-E1	storage enclosure G10 PSU E1 (left)	45W9128	45W8810	green
E24-J4	G11-E1	storage enclosure G11 PSU E1 (left)	45W9128	45W8810	green
E24-J5	G12-E1	storage enclosure G12 PSU E1 (left)	45W9128	45W8810	green
E24-J6	G13-E1	storage enclosure G13 PSU E1 (left)	45W9128	45W8810	green
E24-J7	G14-E1	storage enclosure G14 PSU E1 (left)	45W9128	45W8810	green
E24-J8		not used			
PDU E25					
E25-J1	G15-E2	storage enclosure G15 PSU E2 (right)	45W9127	45W8809	yellow
E25-J2	G16-E2	storage enclosure G16 PSU E2 (right)	45W9127	45W8809	yellow
E25-J3	G17-E2	storage enclosure G17 PSU E2 (right)	45W9127	45W8809	yellow
E25-J4	G18-E2	storage enclosure G18 PSU E2 (right)	45W9127	45W8809	yellow
E25-J5	G19-E2	storage enclosure G19 PSU E2 (right)	45W9127	45W8809	yellow
E25-J6	G20-E2	storage enclosure G20 PSU E2 (right)	45W9127	45W8809	yellow
E25-J7		not used			
E25-J8		not used			
PDU E26					
E26-J1	G15-E1	storage enclosure G15 PSU E1 (left)	45W9128	45W8810	green

Table 128. PDU to storage enclosure cabling – Racks 3 and 4 (continued).
Note: For further guidance on the "connects to" locations in this table, refer to the topic, "Storage enclosure location codes," in the information center (**Location codes** > **Location codes in serviceable events** > **Storage enclosure location codes** > **Models 951, 95E**).

PDU port	connects to	connection description	P/N	FRU P/N	PDU group
E26-J2	G16-E1	storage enclosure G16 PSU E1 (left)	45W9128	45W8810	green
E26-J3	G17-E1	storage enclosure G17 PSU E1 (left)	45W9128	45W8810	green
E26-J4	G18-E1	storage enclosure G18 PSU E1 (left)	45W9128	45W8810	green
E26-J5	G19-E1	storage enclosure G19 PSU E1 (left)	45W9128	45W8810	green
E26-J6	G20-E1	storage enclosure G20 PSU E1 (left)	45W9128	45W8810	green
E26-J7		not used			
E26-J8		not used			

Service ship group part numbers

Use this section to find service ship group part numbers.

"Service ship group part numbers, Models 941, 94E"

"Service ship group part numbers, Models 951, 95E" on page 144

Service ship group part numbers, Models 941, 94E

The parts in a service ship group vary depending on whether the ship group is for a base rack or an expansion rack, as shown in the tables below.

Service ship group for a base rack

The parts of a ship group for a base rack are listed in Table 129.

Note: For part quantities, see the bill of materials in the ship group.

Table 129. Service ship group part numbers (base rack)

Description	Part number
Cable, Ethernet, black, 31.0 m	22R1798
Cable, Ethernet, gray, 31.0 m	22R1799
CD-ROM, LIC bundle	[1]
CD-ROM, Customer Documents	[1]
CD-ROM, Service Documents	[1]
DVD-RAM media disc	17P8966
Label, operator panel warning, translated	22R1789
Publication, DS Storage Manager License & CIM Agent for DS Open API	[1]
Publication, Environmental Notices and User's Guide	80Y2056
Publication, Installation Guide	[1]
Publication, IBM Warranty Information	45W7866

Table 129. Service ship group part numbers (base rack) (continued)

Description	Part number
Publication, Waste Equipment (WEEE)	22R5822
Tag, "Do Not Operate"	23R0280
Tie wrap	07J6655
Wheel chocks (set of 4)	08J5557
Wrap plug, Ethernet	03N6070
Wrap plug, Fibre Channel, copper (device adapter) (Model 941 only)	23R0856
Wrap plug, Fibre Channel, optic (host adapter, all models; device adapter, model 951)	12R9314
Notes: 1. The part number changes with each release. Call the next level of support.	

Service ship group for an expansion rack

The parts of a ship group for an expansion rack are listed in Table 130.

Note: For part quantities, see the bill of materials in the ship group.

Table 130. Service ship group part numbers (expansion rack)

Description	Part number
Bolt, M8 x 20, interrack spacer	1621545
CD-ROM, LIC bundle	[1]
CD-ROM, Customer Documents	[1]
CD-ROM, Service Documents	[1]
Cover, interrack decorative, side (one-piece)	22R4964
Cover, interrack decorative, side (two-piece, hinged)[2]	23R1050[2]
Cover, interrack decorative, top	22R4962
Drawing, interrack spacer stud	22R5481
Label, operator panel warning, translated	22R1789
Publication, Environmental Notices and User's Guide	80Y2056
Publication, Adding an Expansion Rack to an Existing Storage Facility	[1]
Publication, IBM Warranty Information	45W7866
Publication, Waste Equipment (WEEE)	22R5822
Spacer stud, interrack	22R5046
Tag, "Do Not Operate"	23R0280
Tie wrap	07J6655
Washer, M8, interrack spacer	84X5850
Wheel chocks (set of 4)	08J5557
Notes: 1. The part number changes with each release. Contact your next level of support. 2. A bracket (23R2044) and two nuts (84X4841) secure the two pieces at the hinge.	

Service ship group part numbers, Models 951, 95E

The parts in a service ship group vary depending on whether the ship group is for a base rack or an expansion rack, as shown in the tables below.

Service ship group for a base rack

The parts of a ship group for a base rack are listed in Table 131.

Note: For part quantities, see the bill of materials in the ship group.

Table 131. Service ship group part numbers (base rack)

Description	Part number
Cable, Ethernet, black, 31.0 m	22R1798
Cable, Ethernet, gray, 31.0 m	22R1799
CD-ROM, LIC bundle	[1]
CD-ROM, Customer Documents	[1]
CD-ROM, Service Documents	[1]
DVD-RAM media disc	17P8966
Label, operator panel warning, translated	22R1789
Publication, DS Storage Manager License & CIM Agent for DS Open API	[1]
Publication, Environmental Notices and User's Guide	80Y2056
Publication, Installation Guide	[1]
Publication, IBM Warranty Information	45W7866
Publication, Waste Equipment (WEEE)	22R5822
Tag, "Do Not Operate"	23R0280
Tie wrap	07J6655
Wheel chocks (set of 4)	08J5557
Wrap plug, Ethernet	03N6070
Wrap plug, Fibre Channel, copper (device adapter) (Model 941 only)	23R0856
Wrap plug, Fibre Channel, optic (host adapter, all models; device adapter, model 951)	12R9314
Notes: 1. The part number changes with each release. Call the next level of support.	

Service ship group for an expansion rack

The parts of a ship group for an expansion rack are listed in Table 132.

Note: For part quantities, see the bill of materials in the ship group.

Table 132. Service ship group part numbers (expansion rack)

Description	Part number
Bolt, M8 x 20, interrack spacer	1621545
CD-ROM, LIC bundle	[1]
CD-ROM, Customer Documents	[1]

Table 132. Service ship group part numbers (expansion rack) (continued)

Description	Part number
CD-ROM, Service Documents	[1]
Cover, interrack decorative, side (one-piece)	22R4964
Cover, interrack decorative, side (two-piece, hinged)[2]	23R1050[2]
Cover, interrack decorative, top	22R4962
Drawing, interrack spacer stud	22R5481
Label, operator panel warning, translated	22R1789
Publication, Environmental Notices and User's Guide	80Y2056
Publication, Adding an Expansion Rack to an Existing Storage Facility	[1]
Publication, IBM Warranty Information	45W7866
Publication, Waste Equipment (WEEE)	22R5822
Spacer stud, interrack	22R5046
Tag, "Do Not Operate"	23R0280
Tie wrap	07J6655
Washer, M8, interrack spacer	84X5850
Wheel chocks (set of 4)	08J5557

Notes:

1. The part number changes with each release. Contact your next level of support.
2. A bracket (23R2044) and two nuts (84X4841) secure the two pieces at the hinge.

Storage enclosure part numbers

Use this section to find storage enclosure part numbers.

"Storage enclosure part numbers, Models 941, 94E"

"Storage enclosure part numbers, Models 951, 95E (12 DDM slots)" on page 151

"Storage enclosure part numbers, Models 951, 95E (24 DDM slots)" on page 154

Storage enclosure part numbers, Models 941, 94E

Information about storage enclosure parts is listed below. Use Table 133 on page 146 as a directory.

Notes:

1. The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system should recognize all valid part numbers and will automatically substitute an available part number as needed.
2. If the parts ordering system does not recognize a part number, determine whether the serviceable event FRU list displays a custom card identification number (CCIN) value for the FRU. If it does, use the CCIN to find and order a valid part number from the table(s) below. If a CCIN does not display, contact your next level of support.

Table 133. Start here

Part name	Figure
Cables, Fibre Channel (FC-AL), at front or rear of rack	Figure 124 on page 150
Disk drive dummy module	Figure 123
Disk drive module (DDM)	Figure 123
Fibre channel interface card (FCIC)	Figure 123
Storage enclosure backplane	Figure 123
All other parts	(Find the appropriate figure below)

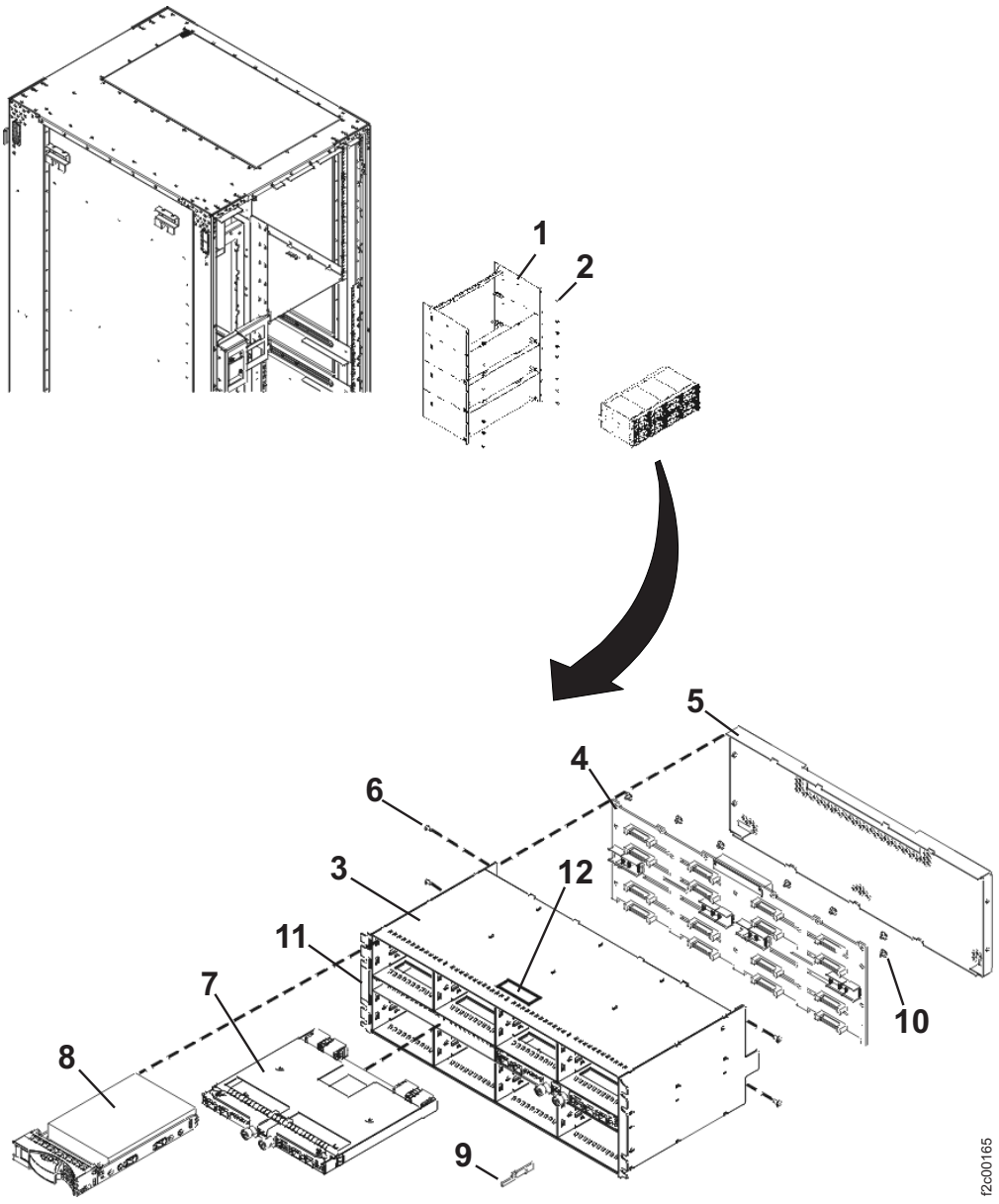

Figure 123. Storage enclosure parts

Table 134. Storage enclosure parts

Index	Part name	CCIN[1]	Part number	Allowable substitute CCIN(s) (note 3)
1	Storage enclosure wrapper		45W1225	N/A
2	Screw (M3x6 Pan head)		05J7942	N/A
3	Chassis[2]		22R4844	N/A
4	Storage enclosure backplane	SEBP	95P1961	none
5	Cover		22R5194	N/A
6	Screw (M3x6 flat head)		05J7943	N/A
7	Fibre channel interface card (FCIC)	FCIC	17P8893	none
8	Disk drive dummy module (slot baffle)	SBFL	22R2805	none
8	Disk drive module (DDM), 72 GB 15K RPM for the People's Republic of China (PRC), India, and Pakistan	D07C	45W3357	none
8	Disk drive module (DDM), 73 GB 15K RPM	D07C	23R0828	none
8	Solid State Disk (SSD), 73 GB	S071	45W1758	none
8	Disk drive module (DDM), 146 GB 10K RPM	D14B	23R0829	none
8	Disk drive module (DDM), 146 GB 10K RPM for PRC, India, and Pakistan	D14B	45W3358	none
8	Disk drive module (DDM), 146 GB 15K RPM	D14C	23R0830	none
8	Disk drive module (DDM), 146 GB 15K RPM for PRC, India and Pakistan	D14C	45W3359	none
8	Disk drive module (DDM), 146 GB 15K RPM, self encrypting	E14C	17P9909	none
8	Solid State Disk (SSD), 146 GB	S141	45W1759	none
8	Disk drive module (DDM), 300 GB 10K RPM, standard version	D30B	23R0831	none
8	Disk drive module (DDM), 300 GB 10K RPM, RPQ version	D30B	23R0831	none
8	Disk drive module (DDM), 300 GB 10K RPM for PRC, India, and Pakistan	D30B	45W3360	none
8	Disk drive module (DDM), 300 GB 15K RPM	D30C	17P8581	none
8	Disk drive module (DDM), 300 GB 15K RPM for PRC, India, and Pakistan	D30C	45W3361	none
8	Disk drive module (DDM), 300 GB 15K RPM, self-encrypting	E30C	17P9908	none

Table 134. Storage enclosure parts (continued)

Index	Part name	CCIN[1]	Part number	Allowable substitute CCIN(s) (note 3)
8	Solid state disk (SSD), 300 GB	S301	45W1760	none
8	Disk drive module (DDM), 450 GB 15K RPM	D45C	17P9905	none
8	Disk drive module (DDM), 450 GB 15K RPM,self-encrypting	E45C	17P9907	none
8	Disk drive module (DDM), 500 GB 7.2K RPM	N50A	22R6341	none
8	Disk drive module (DDM), 600 GB 15K RPM	D60C	45W2327	none
8	Disk drive module (DDM), 600 GB 15K RPM, self-encrypting	E60C	45W2354	none
8	Solid State Disk (SSD), 600 GB	S601 or S602	45W8708	S602 or S601
8	Disk drive module (DDM), 1 TB SATA, 7.2 RPM	T1AA	21R9819	none
8	Disk drive module (DDM), 2 TB SATA, 7.2 RPM	T1IA	45W5204	T1IE
8	Disk drive module (DDM), 2 TB SATA, 7.2 RPM, category 2 (note 3)	T1IE	98Y4241	none
9	Key, Fibre Channel		22R2678	N/A
10	Screw		05J7942	N/A
11	Label, serial number		44F0924	N/A
12	Label, safety > 35 lbs		5423461	N/A

Table 134. Storage enclosure parts (continued)

Index	Part name	CCIN[1]	Part number	Allowable substitute CCIN(s) (note 3)
Notes: 1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, please check if the parts ordering system has a conditional substitute for DS8000 series. If a part number from a serviceable event does not appear in this table, a part number with the same CCIN can be substituted. CCINs that are in parentheses are reported by earlier levels of the LIC bundle. 2. The enclosure chassis is a special order item. The chassis to be replaced has bar code labels with the specific MTMS (machine type model serial number) information. Contact next level of support to determine if the label can be moved to the new chassis. The MTMS should stay the same as there is not an HMC menu option to change it. The MTMS on the bar code label must match the MTMS in the code, as the enclosure serial number is used in serviceable event FRU list and exchange part lists. 3. For DDMs and SSDs with multiple CCINs for same size and speed, replace with a different CCIN only if that CCIN appears in the column "Allowable substitute CCIN(s)".				

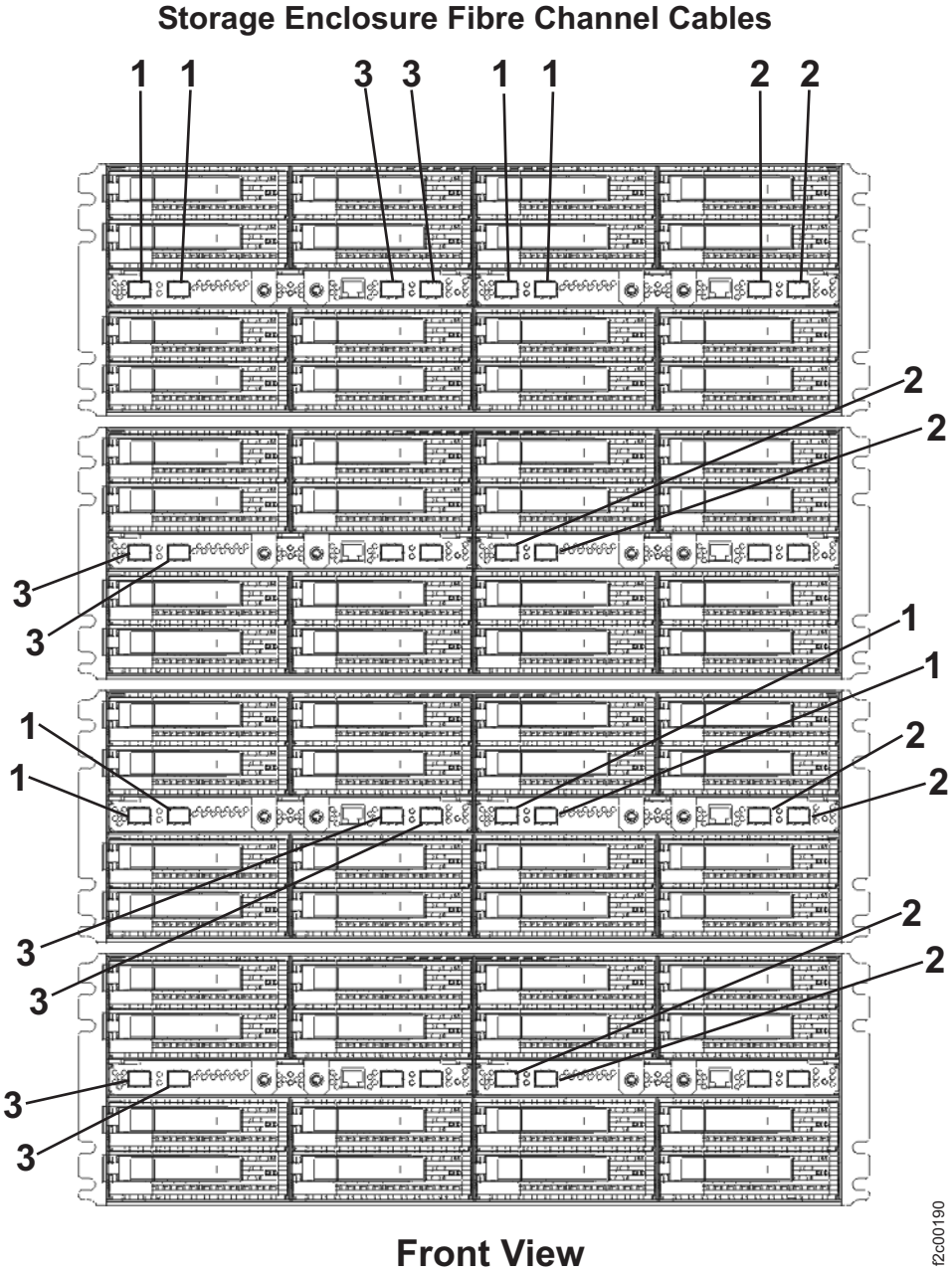

Figure 124. Storage enclosure Fibre Channel (FC-AL) cables (front or rear of rack)

IBM PART NUMBER
EC NUMBER
MANUFACTURER'S NAME OR CODE
COUNTRY OF ORIGIN
DATE OF MANUFACTURE (WEEK AND YEAR, ex: 26-2004)

f2c00562

Figure 125. The format of information on a cable bundle label

CAUTION:
Cables must only be replaced one at a time using the appropriate guided maintenance procedure.

Table 135. Fibre channel cables, copper

Index	Part name	CCIN[1]	Part number
1	Cable, Fibre Channel, 0.6 m (2 ft.)[3]	FCBL[2]	22R5251
	Cable, Fibre Channel, 2.5 m (8 ft. 2 in.)[3]	FCBL[2]	22R5252
	Cable, Fibre Channel, 5.5 m (18 ft.)[3]	FCBL[2]	22R5253
	Cable, Fibre Channel, 9.0 m (29 ft. 6 in.)[3]	FCBL[2]	22R5254
2	Cable, Fibre Channel	FCBL[2]	17P8085
3	Cable, Fibre Channel	FCBL[2]	17P8084

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series.
2. Later levels of the LIC bundle report this CCIN. Earlier levels do not report a CCIN.
3. Fibre channel cables are bundled in groups of eight from the factory. There are many cable bundles, each with custom-length cables that are individually labeled for specific racks, enclosures, and connectors. It is not possible to order individual cables bundles. There are four cables the field can order, each is a different length and without any labeling. You need to find the part number on the cable bundle that contains the cable that needs replaced. The parts ordering system will take the cable bundle part number and convert it to a single cable part number that is longer than the longest cable in the cable bundle.

Storage enclosure part numbers, Models 951, 95E (12 DDM slots)

Information about storage enclosure parts is listed below. Use Table 136 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 136. Start here

Part name	Figure
Cables, Fibre Channel (FC-AL), optical	Table 139 on page 154
Disk drive dummy module	Figure 126 on page 152
Disk drive module (DDM)	Figure 126 on page 152
Fibre Channel interface card (FCIC), optical	Figure 127 on page 153
Storage enclosure midplane	Figure 126 on page 152
All other parts	(Find the appropriate figure below)

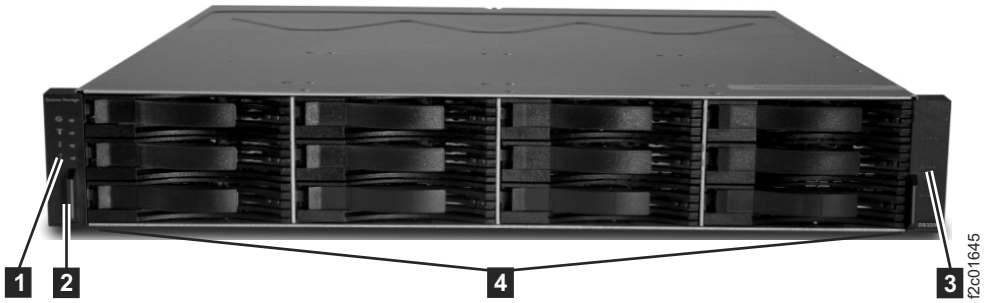

Figure 126. Storage enclosure parts, front

Table 137. Storage enclosure parts, front

Index	Part name	CCIN (note 1)	Part number	Allowable substitute CCIN(s) (note 2)
1	Left decorative bezel	N/A	99Y0098	N/A
2	Screw, M5 x 16 Hex	N/A	23R1521	N/A
3	Storage enclosure midplane (full chassis)	HPBP	99Y0810	none
4	Disk drive dummy module	N/A	42R7992	N/A
4	Disk drive module (DDM), 3 TB 7.2K RPM	K3AA	99Y0918	K3AE
4	Disk drive module (DDM), 3 TB 7.2K RPM, category 2 (note 2)	K3AE	98Y3274	none
4	Disk drive module (DDM), 3 TB 7.2K RPM, self-encrypting	Q3AA	99Y1328	none

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, please check if the parts ordering system has a conditional substitute for DS8000 series. CCINs that are in parentheses are reported by earlier levels of the LIC bundle.
2. For DDMs and SSDs with multiple CCINs for same size and speed, replace with a different CCIN only if that CCIN appears in the column **Allowable substitute CCIN(s)**.

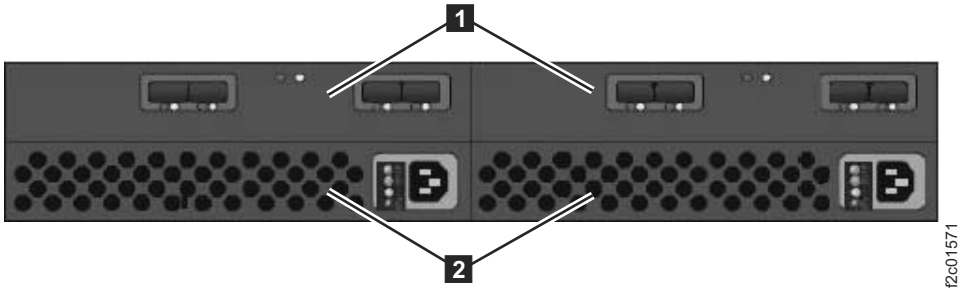

Figure 127. Storage enclosure parts, rear

Table 138. Storage enclosure parts, rear

Index	Part name	CCIN[1]	Part number
1	Fibre Channel interface card (FCIC), optical	GPIC	45W8405
2	Storage enclosure power supply	EPS1	45W8229

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, please check if the parts ordering system has a conditional substitute for DS8000 series. CCINs that are in parentheses are reported by earlier levels of the LIC bundle.

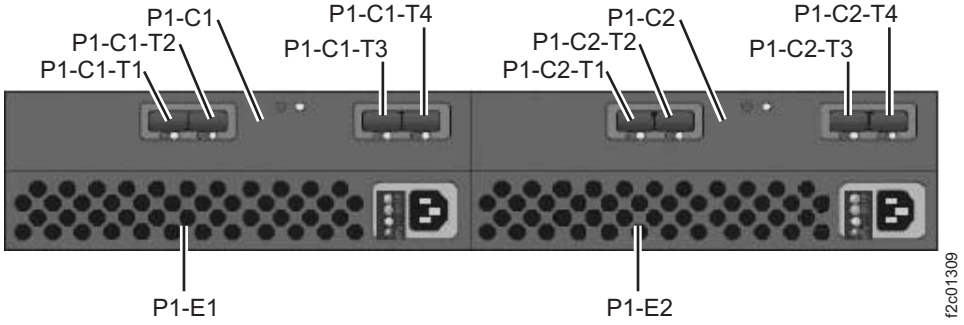

Figure 128. Storage enclosure Fibre Channel (FC-AL) cables, rear (T1, T2, T3, T4 connectors)

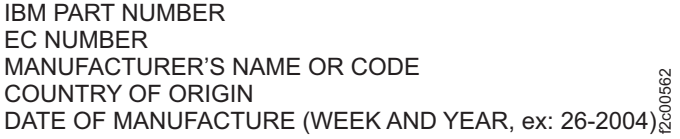

Figure 129. The format of information on a cable bundle label

CAUTION:
Cables must only be replaced one at a time using the appropriate guided maintenance procedure.

Table 139. Fibre Channel (FC-AL) cables, optical

Index	Part name	CCIN[1]	Part number
1	Cable, Fibre Channel (FC-AL), optical, orange, 1.3 m (4 ft. 3 in.)[2, 3]	OCBL	45W8817
2	Cable, Fibre Channel (FC-AL), optical, blue, 2.5 m (8 ft. 2 in.)[2]	OCBL	45W8818
3	Cable, Fibre Channel (FC-AL), optical, blue, 5.6 m (18 ft. 4 in.)[2]	OCBL	45W8819

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series.
2. Fibre Channel cables are bundled in groups from the factory. There are many cable bundles, each with custom-length cables that are individually labeled for specific racks, enclosures, and connectors. It is not possible to order individual cables bundles. There are three cables the field can order, each is a different length and without any labeling. You need to find the part number on the cable bundle that contains the cable that needs replaced. The parts ordering system will take the cable bundle part number and convert it to a single cable part number that is longer than the longest cable in the cable bundle.
3. Only used in Rack-1 Rack Configuration: AB1, "business class" cabling.

Storage enclosure part numbers, Models 951, 95E (24 DDM slots)

Information about storage enclosure parts is listed below. Use Table 140 as a directory.

Note: The following part numbers are the most recent for this version of the Parts Catalog. Your storage facility or serviceable event FRU list might contain an older or newer part number. The parts ordering system recognizes all valid part numbers and will automatically substitute an available part number as needed.

Table 140. Start here

Part name	Figure
Cables, Fibre Channel (FC-AL), optical	Table 143 on page 157
Disk drive dummy module	Figure 130 on page 155
Disk drive module (DDM)	Figure 130 on page 155
Fibre Channel interface card (FCIC), optical	Figure 131 on page 156
Solid state disk (SSD)	Figure 130 on page 155
Storage enclosure midplane	Figure 130 on page 155
All other parts	(Find the appropriate figure below)

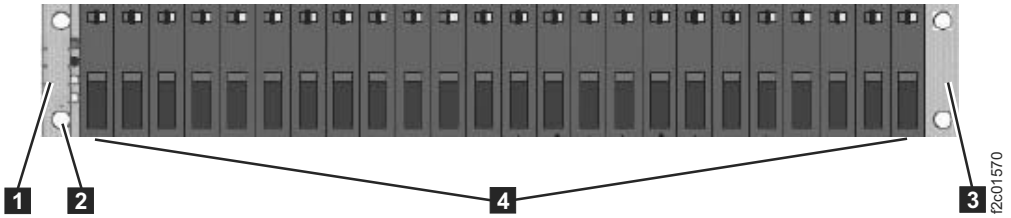

Figure 130. Storage enclosure parts, front

Table 141. Storage enclosure parts, front

Index	Part name	CCIN (note 1)	Part number	Allowable substitute CCIN(s) (note 2)
1	Left decorative bezel	N/A	99Y0098	N/A
2	Screw, M5 x 16 Hex	N/A	23R1521	N/A
3	Storage enclosure midplane (full chassis)	GPBP	45W8703	none
4	Disk drive dummy module	N/A	45W8680	N/A
4	Disk drive module (DDM), 73 GB 15K RPM	G07C	45W3868	none
4	Disk drive module (DDM), 146 GB 15K RPM (note 2)	G14C	45W3869	contact next level of support
4	Disk drive module (DDM), 146 GB 15K RPM, category 2	G14G	98Y3358	G14C
4	Disk drive module (DDM), 146 GB 15K RPM, self-encrypting	I14C	45W3950	none
4	Disk drive module (DDM), 300 GB 15K RPM (note 2)	G30C	45W9614	contact next level of support
4	Disk drive module (DDM), 300 GB 15K RPM, category 2	G30G	98Y3359	G30C
4	Disk drive module (DDM), 300 GB 15K RPM, self-encrypting	I30C	45W9615	none
4	Solid State Disk (SSD), 300 GB	J301	45W8704	J302 J303
4	Solid State Disk (SSD), 300 GB category 2 (note 2)	J302	98Y2695	none
4	Solid State Disk (SSD), 300 GB category 3 (note 2)	J303	98Y4043	J302
4	Solid State Disk (SSD), 400 GB (note 2)	J401	99Y1324	none
4	Solid State Disk (SSD), 400 GB category 2	J402	98Y4042	J401
4	Solid State Disk (SSD), 400 GB, self-encrypting	P401	99Y1329	none
4	Disk drive module (DDM), 450 GB 10K RPM	G45B	45W7731	G45F

Table 141. Storage enclosure parts, front (continued)

Index	Part name	CCIN (note 1)	Part number	Allowable substitute CCIN(s) (note 2)
4	Disk drive module (DDM), 450 GB 10K RPM, category 2 (note 2)	G45F	98Y3275	none
4	Disk drive module (DDM), 450 GB 10K RPM, self-encrypting	I45B	45W7733	none
4	Disk drive module (DDM), 600 GB 10K RPM	G60B	45W7732	G60F
4	Disk drive module (DDM), 600 GB 10K RPM, category 2 (note 2)	G60F	98Y3276	none
4	Disk drive module (DDM), 600 GB 10K RPM, self-encrypting	I60B	45W7734	none
4	Disk drive module (DDM), 900 GB 10K RPM	G90B	45W9605	G90F
4	Disk drive module (DDM), 900 GB 10K RPM, category 2 (note 2)	G90F	98Y3277	none
4	Disk drive module (DDM), 900 GB 10K RPM, self-encrypting	I90B	45W9609	none

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, please check if the parts ordering system has a conditional substitute for DS8000 series. CCINs that are in parentheses are reported by earlier levels of the LIC bundle.
2. For DDMs and SSDs with multiple CCINs for same size and speed, replace with a different CCIN only if that CCIN appears in the column **Allowable substitute CCIN(s)**.

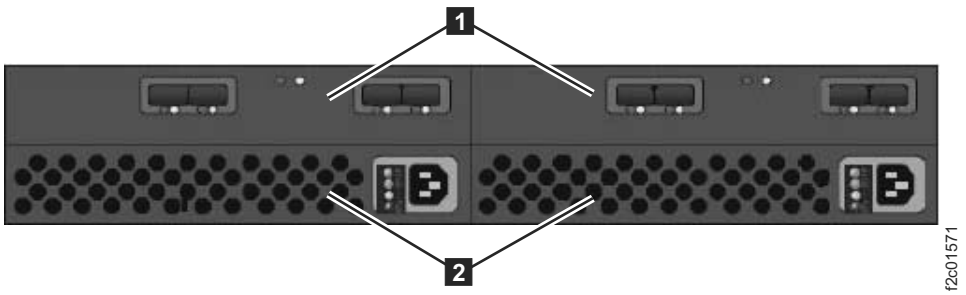

Figure 131. Storage enclosure parts, rear

Table 142. Storage enclosure parts, rear

Index	Part name	CCIN[1]	Part number
1	Fibre Channel interface card (FCIC), optical	GPIC	45W8405
2	Storage enclosure power supply	EPS1	45W8229

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, please check if the parts ordering system has a conditional substitute for DS8000 series. CCINs that are in parentheses are reported by earlier levels of the LIC bundle.

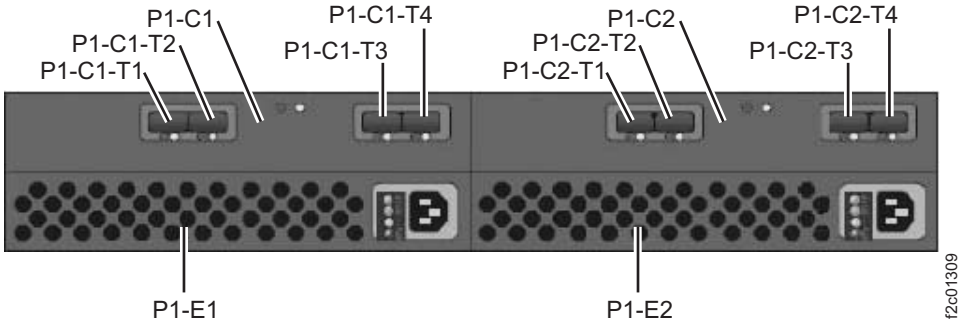

Figure 132. Storage enclosure Fibre Channel (FC-AL) cables, rear (T1, T2, T3, T4 connectors)

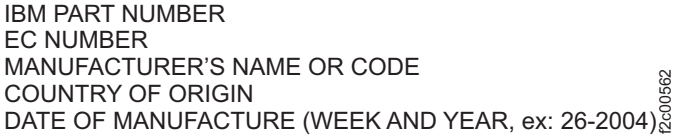

Figure 133. The format of information on a cable bundle label

CAUTION:
Cables must only be replaced one at a time using the appropriate guided maintenance procedure.

Table 143. Fibre Channel (FC-AL) cables, optical

Index	Part name	CCIN[1]	Part number
1	Cable, Fibre Channel (FC-AL), optical, orange, 1.3 m (4 ft. 3 in.)[2, 3]	OCBL	45W8817
2	Cable, Fibre Channel (FC-AL), optical, blue, 2.5 m (8 ft. 2 in.)[2]	OCBL	45W8818
3	Cable, Fibre Channel (FC-AL), optical, blue, 5.6 m (18 ft. 4 in.)[2]	OCBL	45W8819

Table 143. Fibre Channel (FC-AL) cables, optical (continued)

Index	Part name	CCIN[1]	Part number

Notes:

1. Important, read this entire paragraph as there are exceptions to what part number to order. The custom card identification number (CCIN) identifies the physical features and logical behavior of a part. If two parts appear physically identical but have different CCINs, they are not interchangeable unless stated elsewhere in the maintenance package or by the next level of support. If two parts have different part numbers and yet have the same CCIN, they are interchangeable. When you order a part number (P/N) reported in a serviceable event or call home record, check if the parts ordering system has a conditional substitute for DS8000 series.
2. Fibre Channel cables are bundled in groups from the factory. There are many cable bundles, each with custom-length cables that are individually labeled for specific racks, enclosures, and connectors. It is not possible to order individual cables bundles. There are three cables the field can order, each is a different length and without any labeling. You need to find the part number on the cable bundle that contains the cable that needs replaced. The parts ordering system will take the cable bundle part number and convert it to a single cable part number that is longer than the longest cable in the cable bundle.
3. Only used in Rack-1 Rack Configuration: AB1, "business class" cabling.

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Cet appareil numérique de la classe A est conform à la norme NMB-003 du Canada.

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This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a nonrecommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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Germany compliance statement

Deutschsprachiger EU Hinweis: Hinweis für Geräte der Klasse A EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der EN 55022 Klasse A ein.

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu betreiben. Des Weiteren dürfen auch nur von der IBM empfohlene Kabel angeschlossen werden. IBM übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt ohne Zustimmung der IBM verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne Empfehlung der IBM gesteckt/eingebaut werden.

EN 55022 Klasse A Geräte müssen mit folgendem Warnhinweis versehen werden: "Warnung: Dieses ist eine Einrichtung der Klasse A. Diese Einrichtung kann im Wohnbereich Funk-Störungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen zu ergreifen und dafür aufzukommen."

Deutschland: Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Geräten

Dieses Produkt entspricht dem “Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG)“. Dies ist die Umsetzung der EU-Richtlinie 2004/108/EG in der Bundesrepublik Deutschland.

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) (bzw. der EMC EG Richtlinie 2004/108/EG) für Geräte der Klasse A.

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen.

Verantwortlich für die Einhaltung der EMV Vorschriften ist der Hersteller:
International Business Machines Corp.
New Orchard Road
Armonk, New York 10504
Tel: 914-499-1900

Der verantwortliche Ansprechpartner des Herstellers in der EU ist:
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Generelle Informationen:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse A.

Japanese Voluntary Control Council for Interference (VCCI) class A statement

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

Translation:

This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.

Japanese Electronics and Information Technology Industries Association (JEITA) statement

Japanese Electronics and Information Technology Industries Association (JEITA) Confirmed Harmonics Guideline (products less than or equal to 20 A per phase)

高調波ガイドライン適合品

Japanese Electronics and Information Technology Industries Association (JEITA) Confirmed Harmonics Guideline with Modifications (products greater than 20 A per phase)

高調波ガイドライン準用品

Korea Communications Commission (KCC) Electromagnetic Interference (EMI) Statement

This is electromagnetic wave compatibility equipment for business (Type A). Sellers and users need to pay attention to it. This is for any areas other than home.

이 기기는 업무용(A급)으로 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

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Russia Electromagnetic Interference (EMI) class A statement

ВНИМАНИЕ! Настоящее изделие относится к классу А.
В жилых помещениях оно может создавать
радиопомехи, для снижения которых необходимы
дополнительные меры

Taiwan class A compliance statement

警告使用者:
這是甲類的資訊產品，在居住的環境中使用
時，可能會造成射頻干擾，在這種情況下，
使用者會被要求採取某些適當的對策。 VS07171L

Taiwan Contact Information

This topic contains the product service contact information for Taiwan.

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