

IBM® Power® System S812LC (8348-21C) Quick Install Guide

The IBM Knowledge Center is available online from: http://www.ibm.com/support/knowledgecenter/HW4P4/p8hdx/8348_21c_landing.htm.

- Read all precautions and instructions before you start working on key parts.
- Use normal electrostatic discharge (ESD) procedures when working on the system and parts. IBM recommends wearing gloves and an anti-static wrist strap to avoid possible damage to the equipment.

8348-21C information: <https://ibm.biz/8348-21CQR>



8348 21C

8348-21C parts

Use this information to find the FRU part number.

Rack final assembly

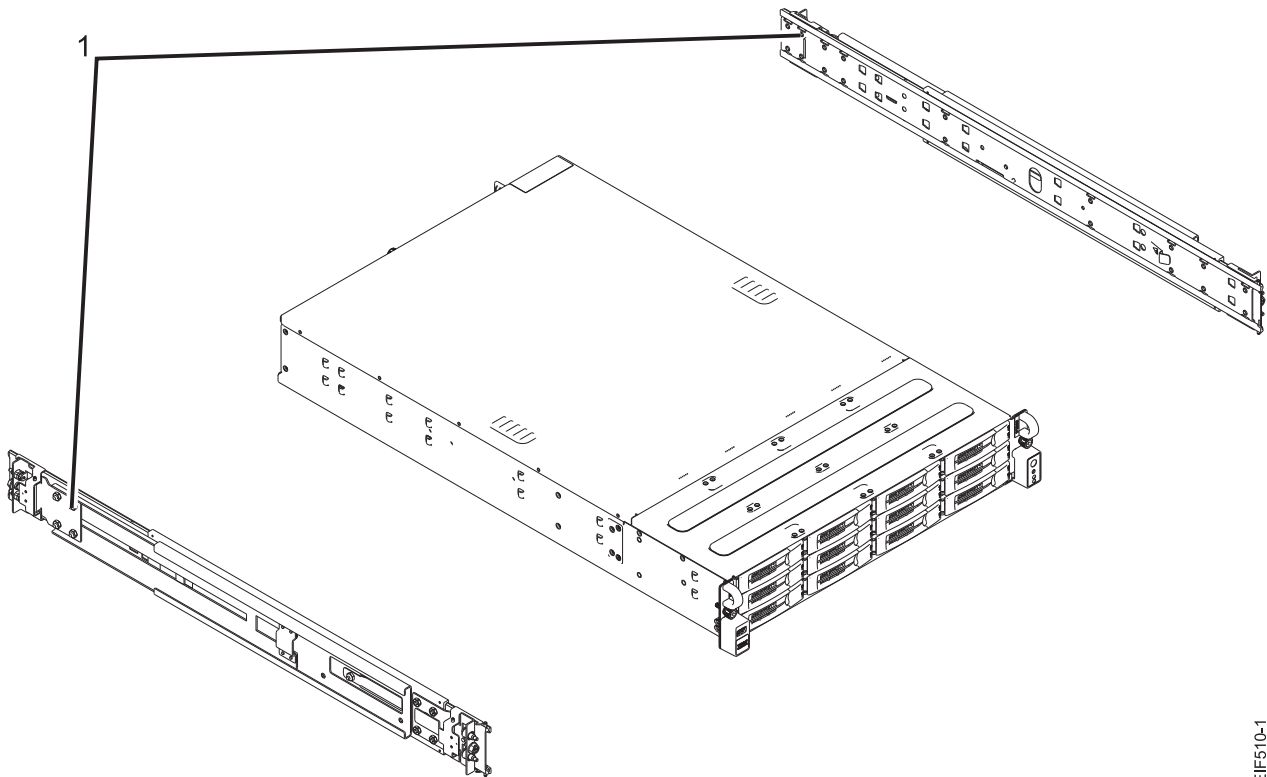


Figure 1. Rack final assembly

Table 1. Rack final assembly part numbers.

Index number	Part number	Units per assembly	Description
1	01AF405	2	Slide rail kit - contains left and right slide rails and attaching screws

System parts

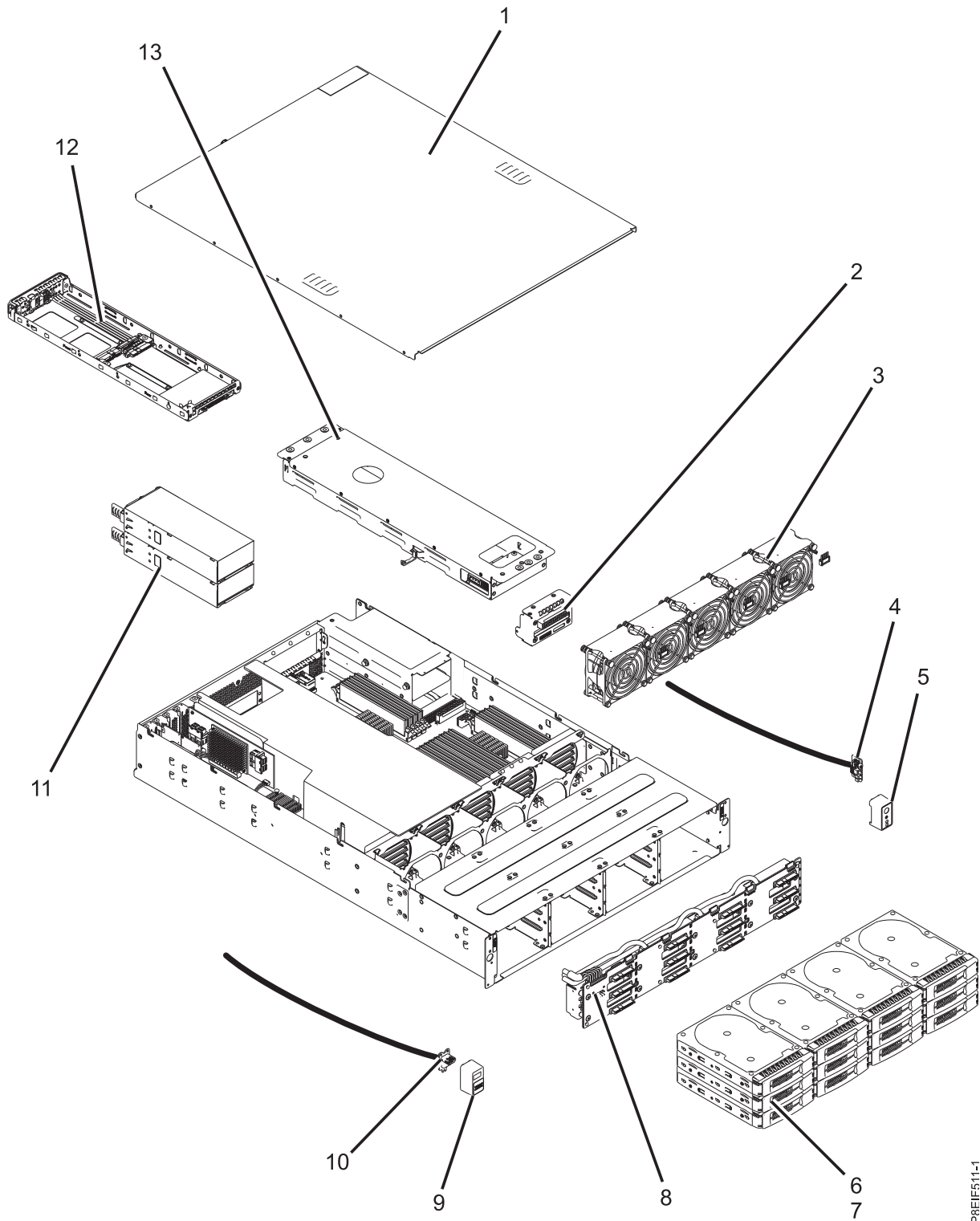


Figure 2. System parts

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Table 2. System parts.

Index number	Part number	Units per assembly	Description
1		1	Top access cover assembly
2	01AF251	1	Power distribution board, cable, and power supply control cable
3	01AF243	5	Fan
4	01AF252	1	Power switch card and cable
5		1	Power switch bezel
6	01AF246	12	Front drive carriers
7	00LY397	14	960 GB solid-state drive
	00LY398	14	1 TB disk drive
	00LY399	14	6 TB disk drive
8	01AF249	1	Disk drive backplane
		1	700 mm SAS cable
		1	800 mm SAS cable
		1	900 mm SAS cable
		1	Disk drive backplane power cable
		1	Fan control cable
9	01AF252	1	USB bezel
10		1	USB card and cable
11	01AF244	2	Power supply
12	01AF245		Rear drive tray
13		1	Rear drive tray assembly (includes rear drive tray, internal backplane, and internal power cable for internal backplane)

Additional system parts

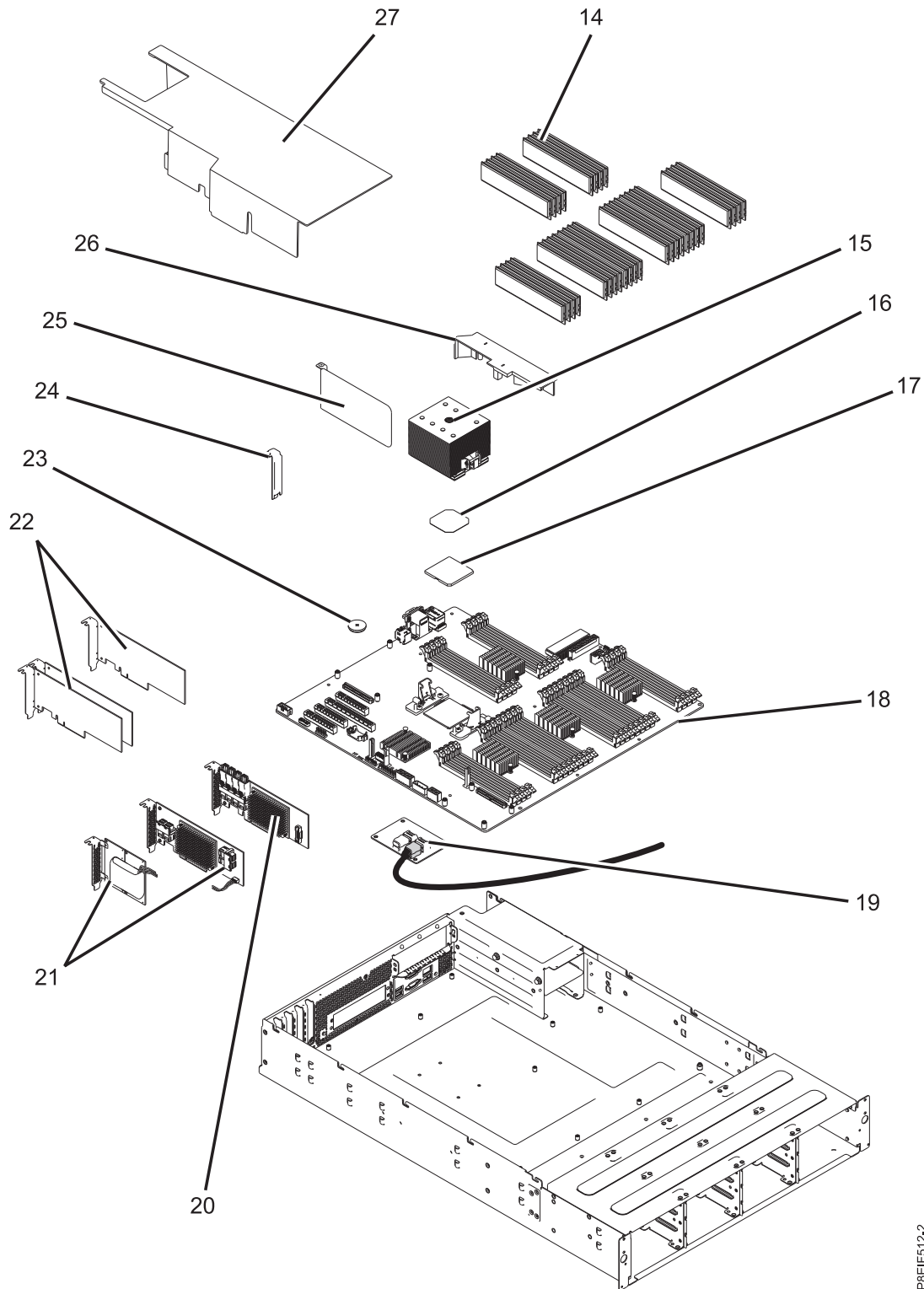


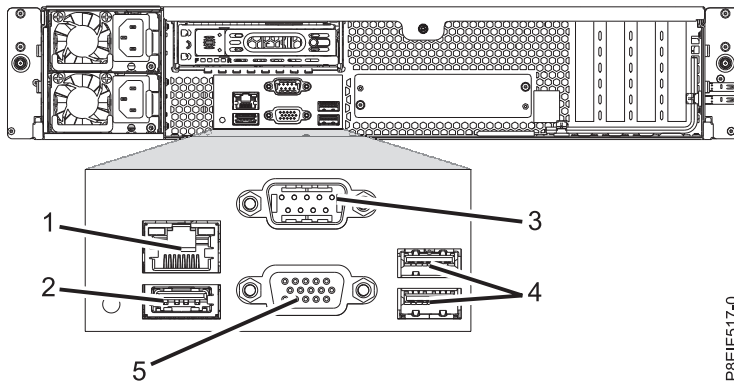
Figure 3. Additional system parts

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Table 3. Additional system parts.

Index number	Part number	Units per assembly	Description
14	78P4489	32	4 GB, 1600 MHz DDR3 DIMM
	78P4490	32	8 GB, 1600 MHz DDR3 DIMM
	78P4491	32	16 GB, 1600 MHz DDR3 DIMM
	78P4492	32	32 GB, 1600 MHz DDR3 DIMM
15	01AF286	1	Heat sink Note: The heat sink kit includes the heat sink and thermal interface material.
16		1	Thermal interface material Note: The heat sink kit includes the thermal interface material.
17	01AF287	1	8 core 3.625 GHz system processor module
	01AF288	1	10 core 3.259 GHz system processor module
18	01AF250	1	System backplane
19	01AF247	1	Storage mezzanine card and mini SAS cable
20	00WV552	1	PCIe3 low profile 6 Gb SAS/SATA RAID adapter (FC EC3Y) Note: This adapter is also known as a PMC Adaptec RAID 71605E adapter.
21	00WV554	1	PCIe3 low profile 12 Gb SAS/SATA RAID adapter with 1 GB protected write cache (FC EC3S) Notes: <ul style="list-style-type: none"> The supercapacitor module card is shipped together with the PCIe Gen3 SAS/SATA RAID adapter as a single FRU and therefore must also be removed when the SAS RAID adapter is removed. This adapter is also known as a PMC Adaptec RAID 81605Z adapter.
22	00E2714	3	PCIe2 low profile 2-port 10 GbE BaseT RJ45 adapter
	74Y4064	4	PCIe2 low profile 4-port 1 GbE adapter
	00E2715	4	PCIe2 low profile 4-port (10 Gb + 1 GbE) SR + RJ45 adapter
	00FW105	4	PCIe3 low profile 2-port 40 GbE NIC RoCE QSFP+ adapter
	10N9824	4	PCIe low profile 2-port 8 Gb Fibre Channel adapter
23		1	Time-of-day battery Note: The time-of-day battery is a CR2032 lithium battery.
24	01AF248	1	PCIe filler
25		1	Air divider next to PCIe adapters
26		1	Air duct under rear drive tray assembly
27	01AF241	1	Processor air baffle

Rear ports



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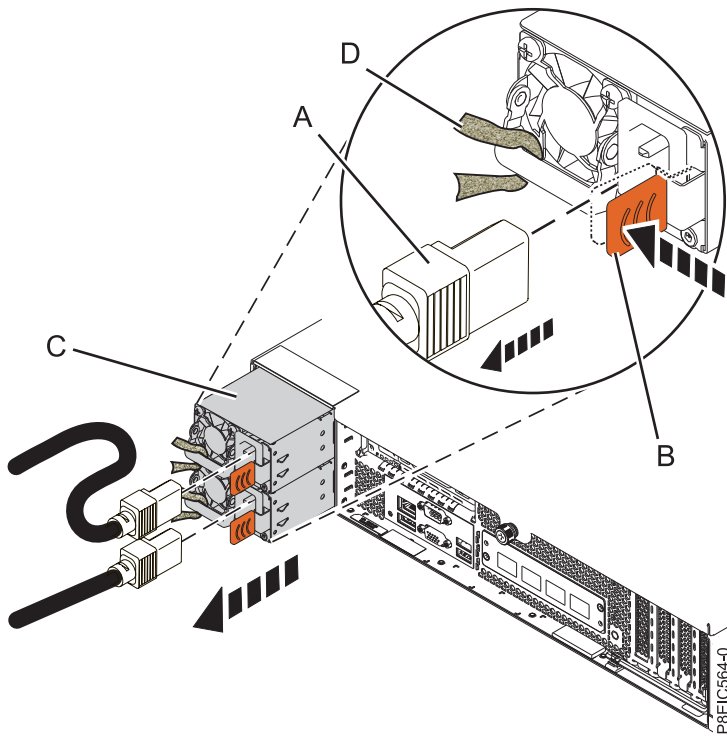
Figure 4. Rear view of the system with ports displayed

Table 4. Input and output ports

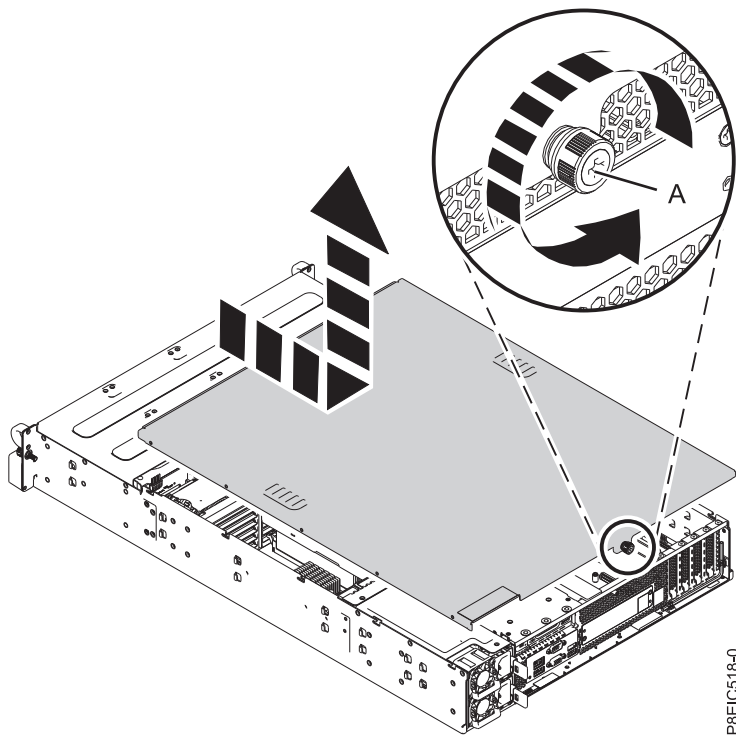
Identifier	Description
1	Ethernet
2	USB 1.1 Baseboard management controller (BMC) - not enabled
3	Serial Intelligent Platform Management Interface (IPMI)
4	USB 3.0 used for keyboard and mouse
5	Video Graphics Array (VGA) used for monitor. Only the 1024 x 768 at 60 Hz VGA setting is supported. Only up to a 3-meter cable is supported.

Installing and Removing

Power supplies:



Top cover:



Front disks:

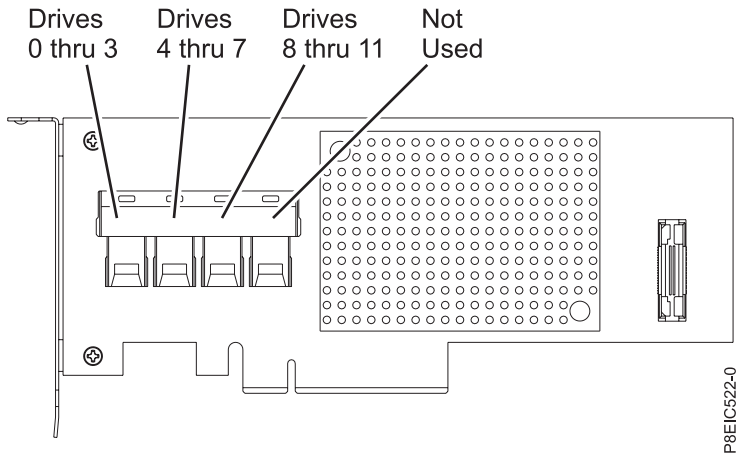
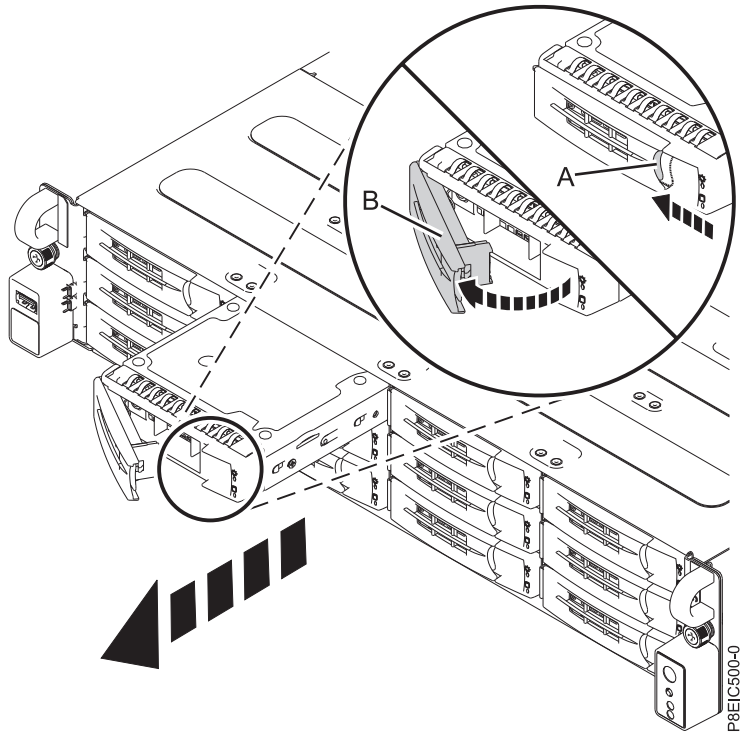


Figure 5. Cabling the (FC EC3Y) PCIe Gen3 x8, LP adapter

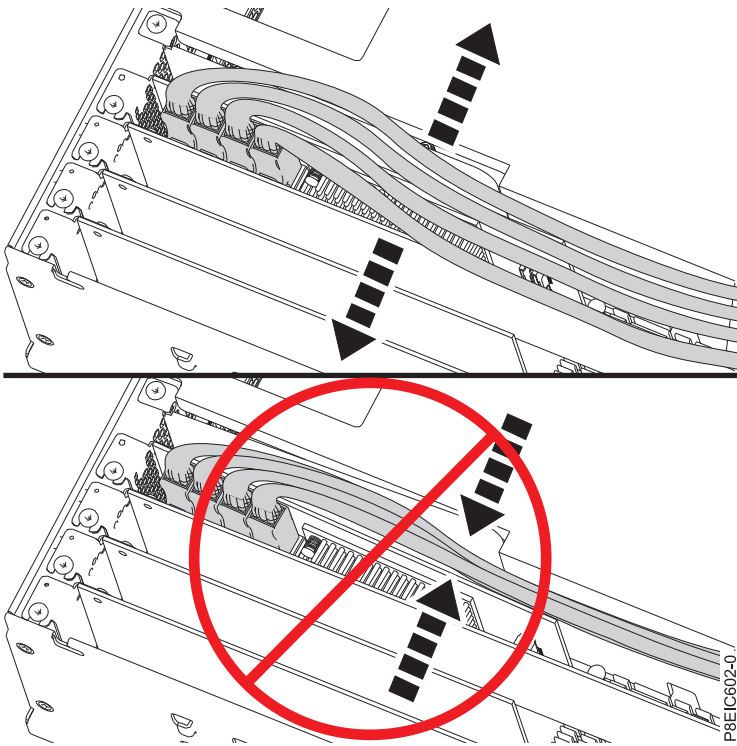


Figure 6. Disk drive signal cable routing

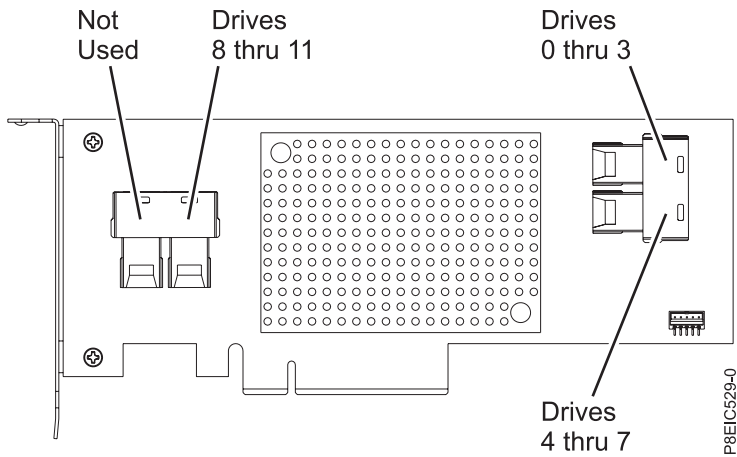
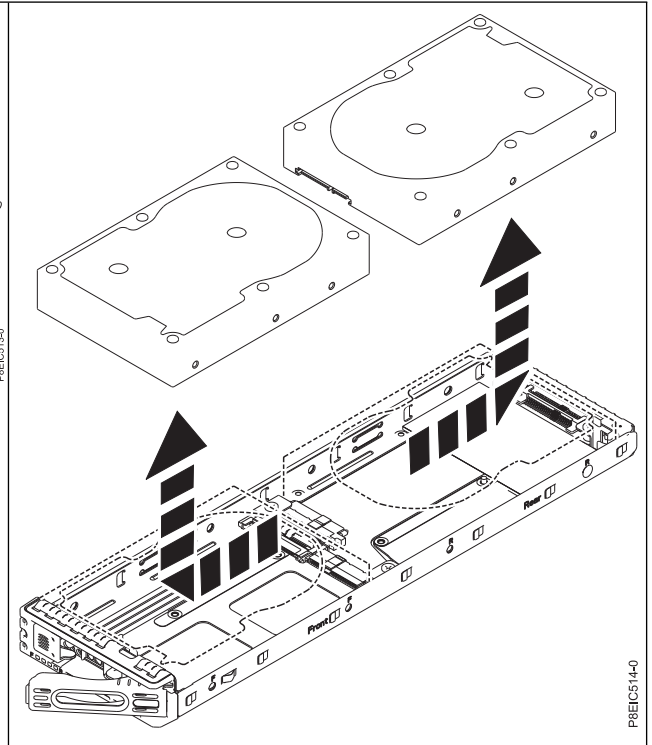
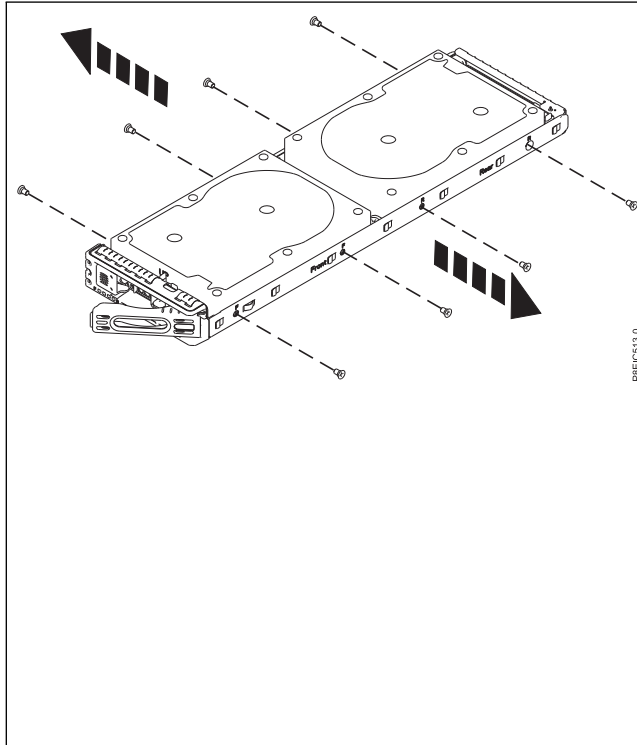
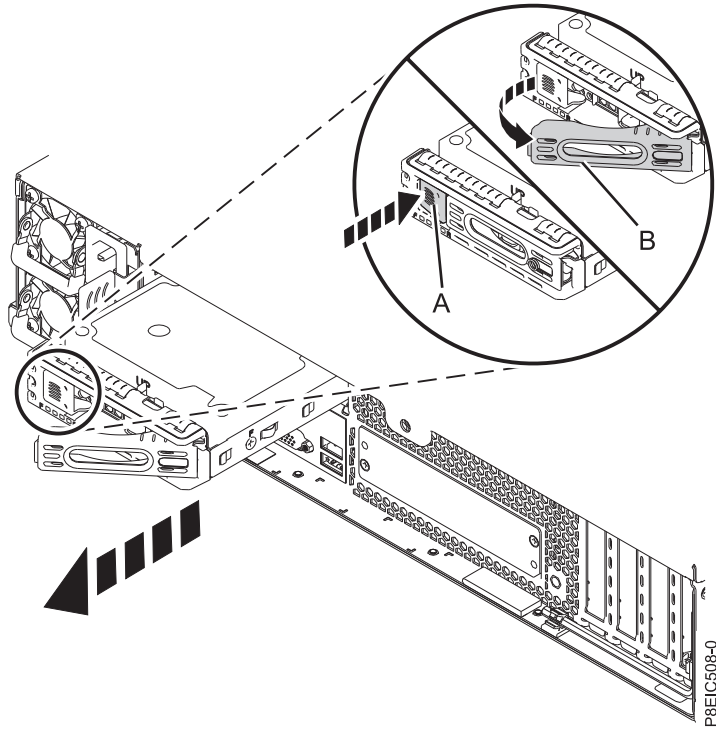
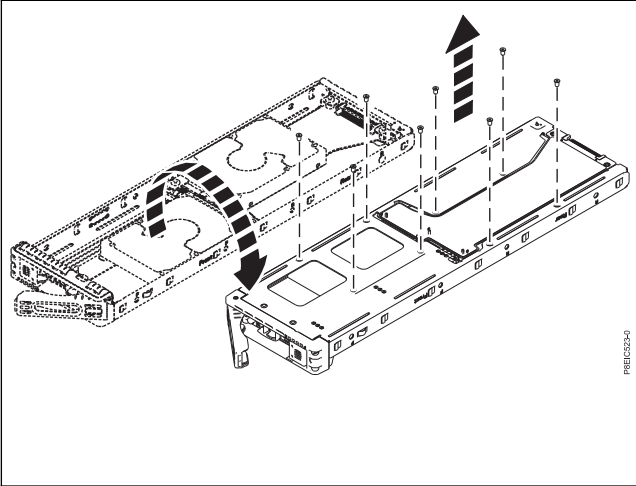


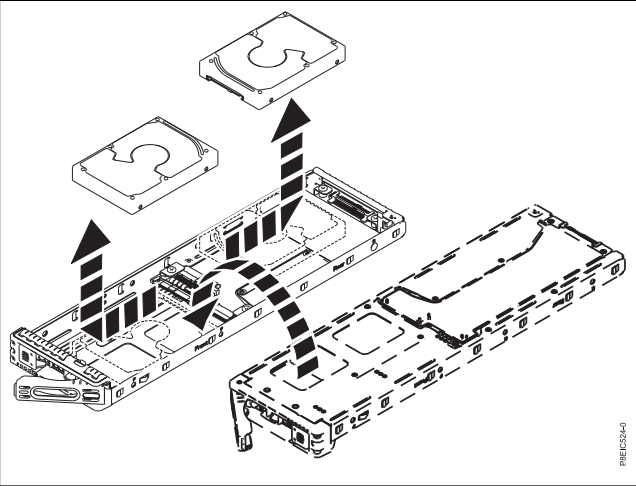
Figure 7. Cabling the (FC EC3S) PCIe Gen3 SAS/SATA RAID adapter

Rear drives:



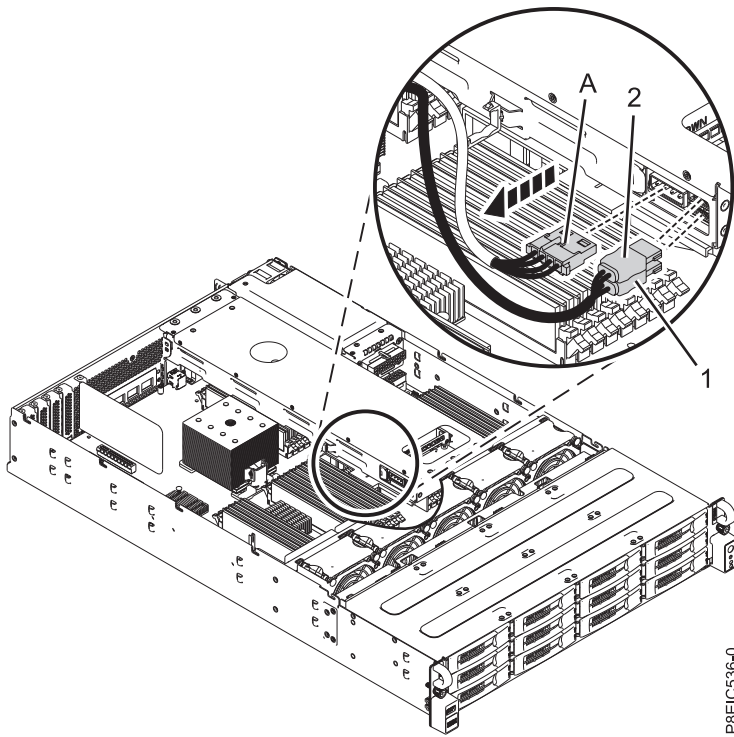


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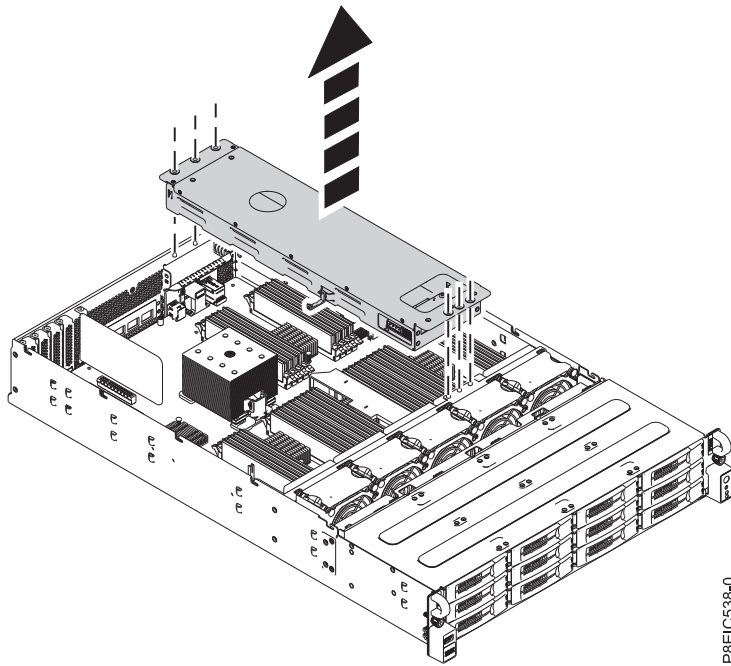


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Rear drive tray:

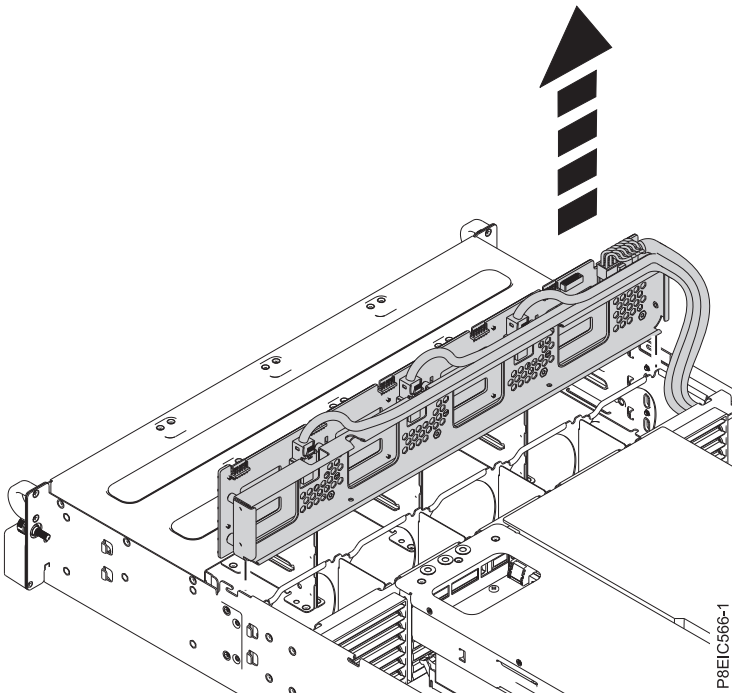
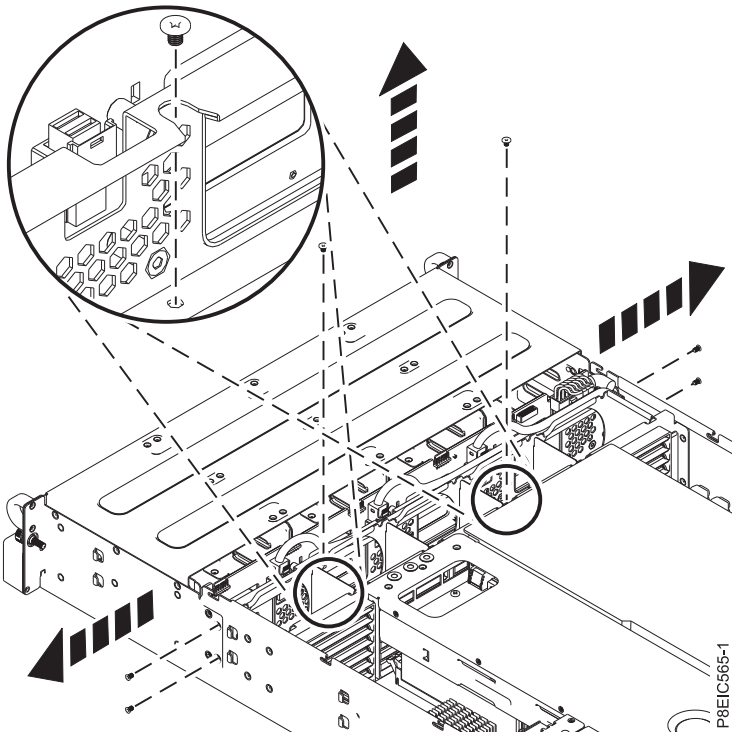


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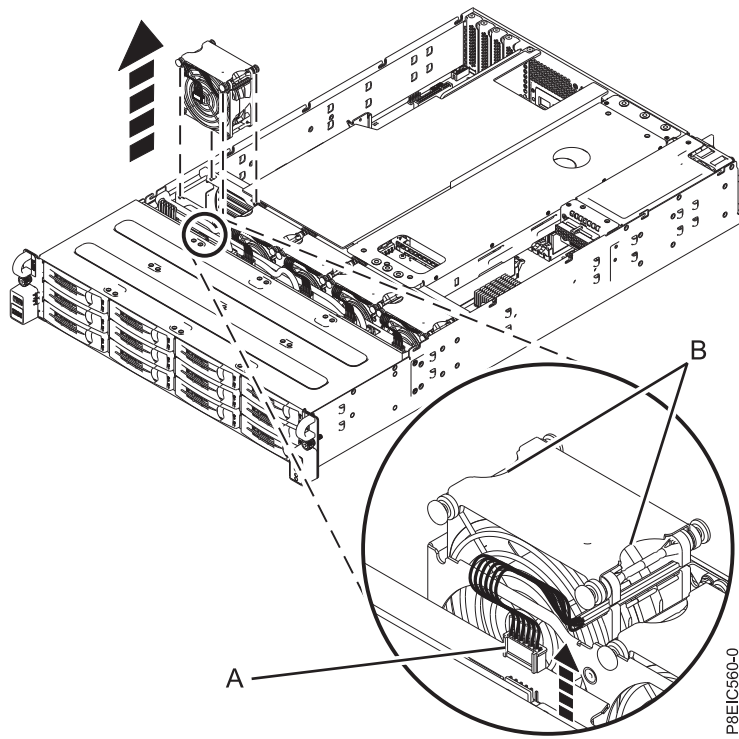


P8E1C538-0

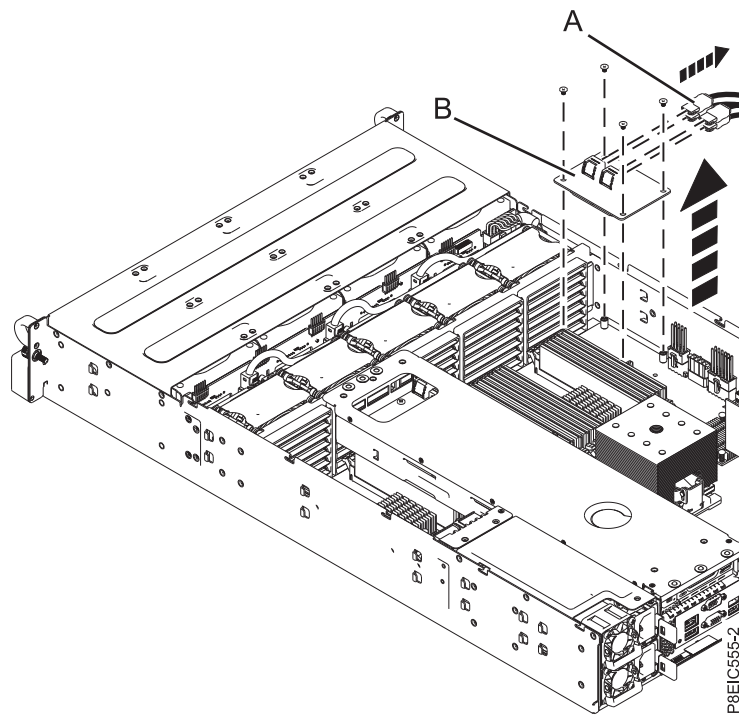
Rear drive backplane:



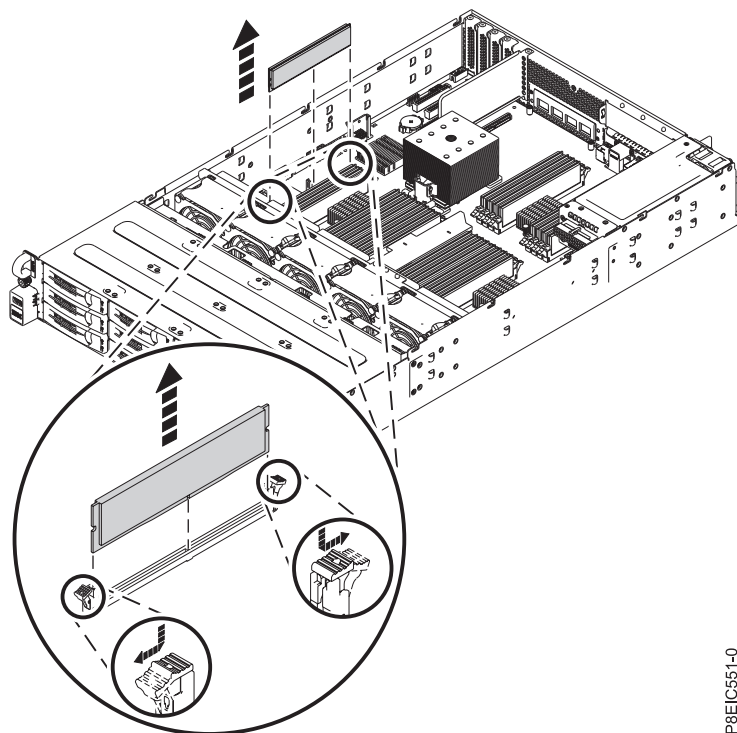
Fans:



Storage mezzanine card



Memory:



P8EIC051-0

Table 5. Memory DIMM feature codes

Supported feature codes (FC)	Size
EM5A	4 GB IS DIMMS, 1333 MHZ, 4 GBIT DDR3 DRAM
EM5C	16 GB IS DIMMS, 1333 MHZ, 16 GBIT DDR3 DRAM
EM5D	32 GB IS DIMMS, 1333 MHZ, 32 GBIT DDR3 DRAM
EM5E	8 GB IS DIMMS, 1066 MHZ, 8 GBIT DDR3 DRAM

Table 6. 8348-21C memory configuration as a function of the number of DIMMs. You read this table by selecting the individual DIMM size row in the leftmost column, then move to the right and select the columns for the memory capacity. The value that is listed is the quantity of the memory feature code that can be ordered, which corresponds to the DIMM size in the leftmost column.

	32 GB	64 GB	128 GB	256 GB	512 GB	1024 GB
DIMM Size	DIMMs	DIMMs	DIMMs	DIMMs	DIMMs	DIMMs
4 GB	8 ¹	16	32			
8 GB			16 ¹	32		
16 GB				16 ¹	32	
32 GB					16 ¹	32

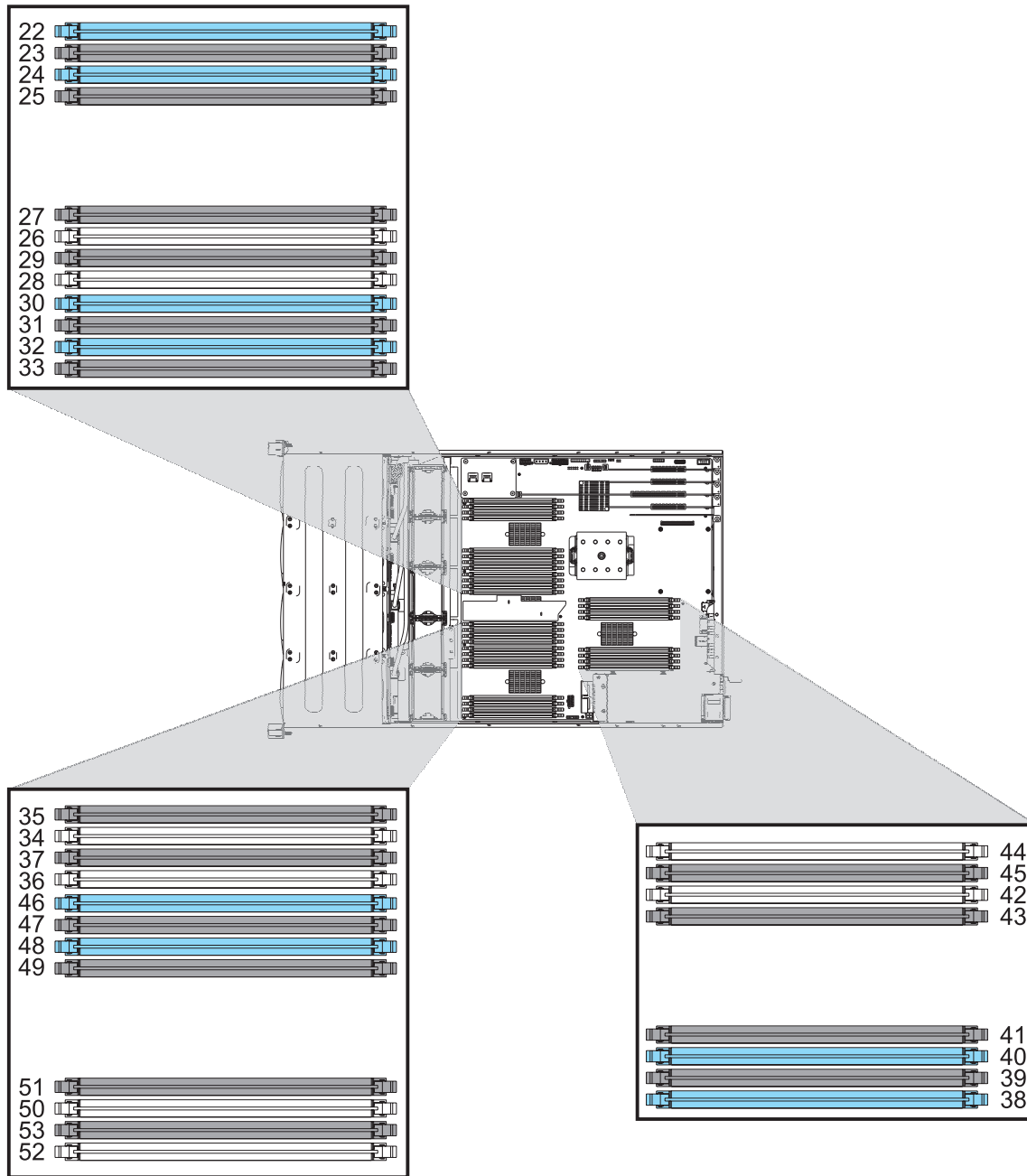
Notes:

1. Default configurations for the listed memory capacity

Use Table 7 on page 17 and Figure 8 on page 17 to determine the memory placement. The memory needs to be plugged in a sequence: Slots with blue connectors are plugged first. Slots with ivory connectors are plugged second. Slots with black connectors are plugged last.

Table 7. Memory plugging sequence

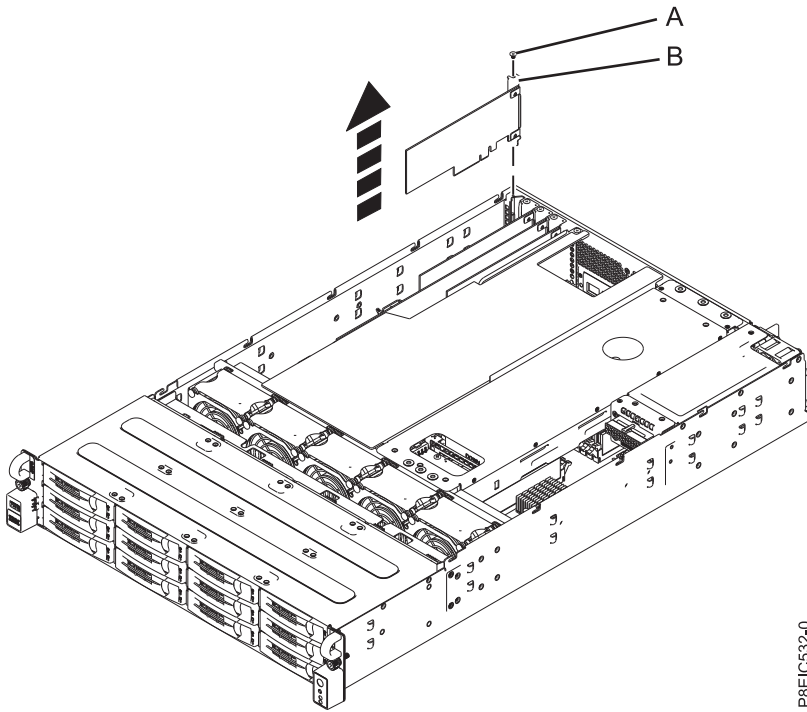
Slot latch color	Slot number	Sequence
Blue	22, 24, 30, 32, 38, 40, 46, 48	Fill these DIMM slots first
Ivory	26, 28, 34, 36, 42, 44, 50, 52	Fill these DIMM slots second
Black	23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53	Fill these DIMM slots last



P8E1C550-0

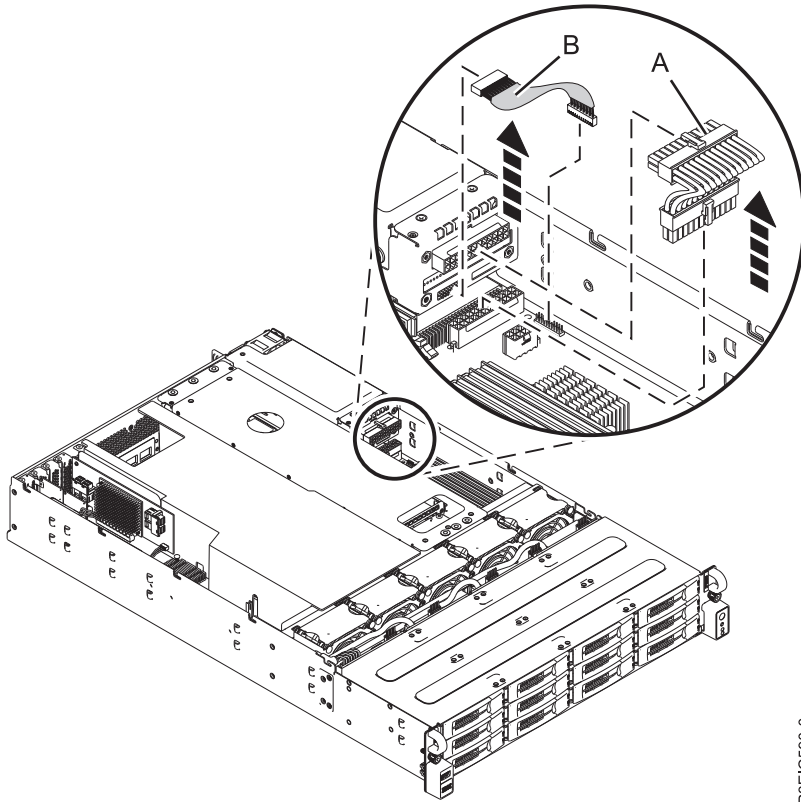
Figure 8. 8348-21C memory slot locations

PCIe adapters:

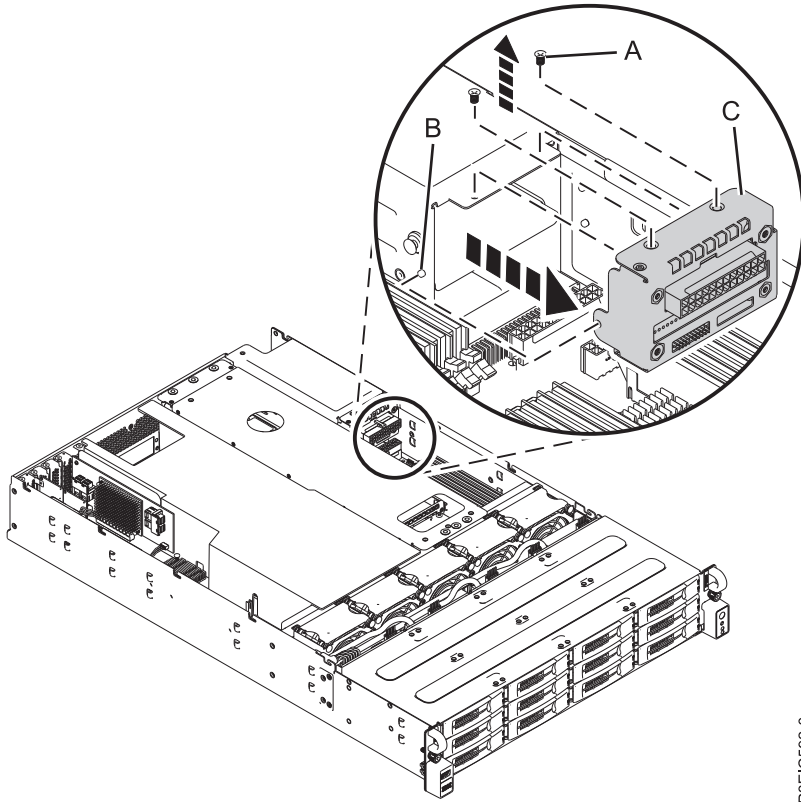


P8EIC532-0

Power distribution board

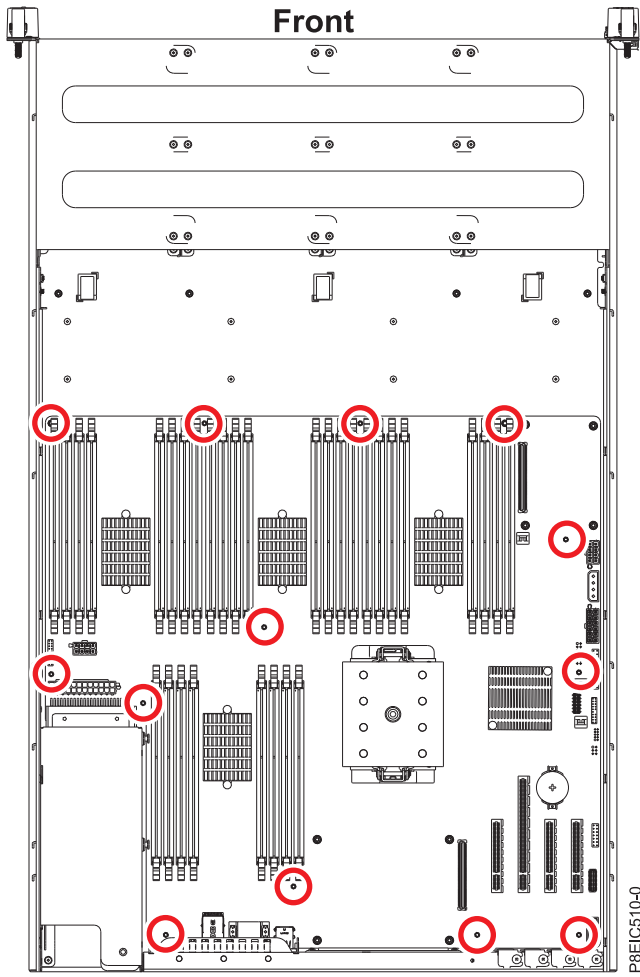


P8EIC590-0

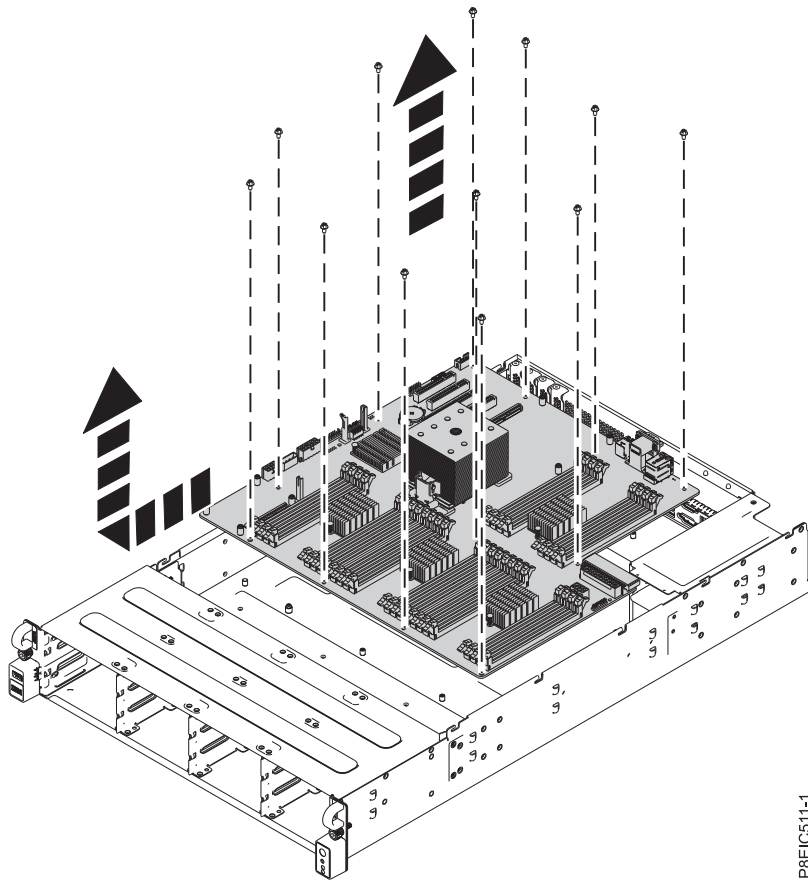


P8EIC592-0

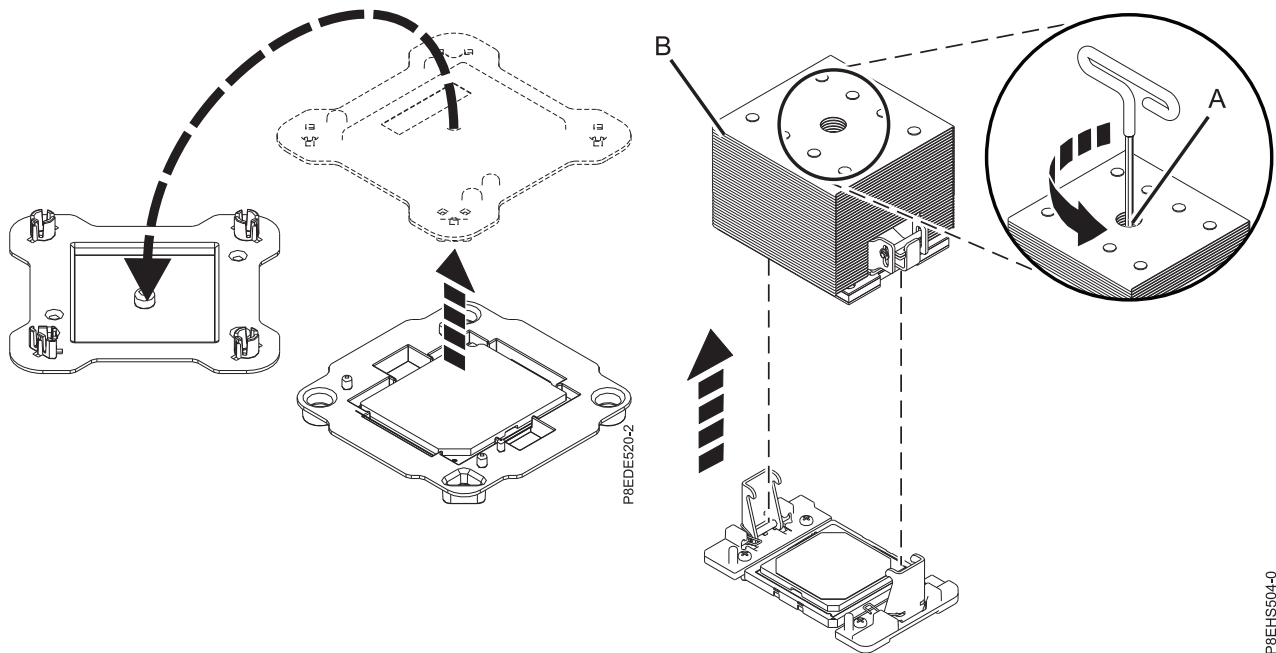
System backplane:



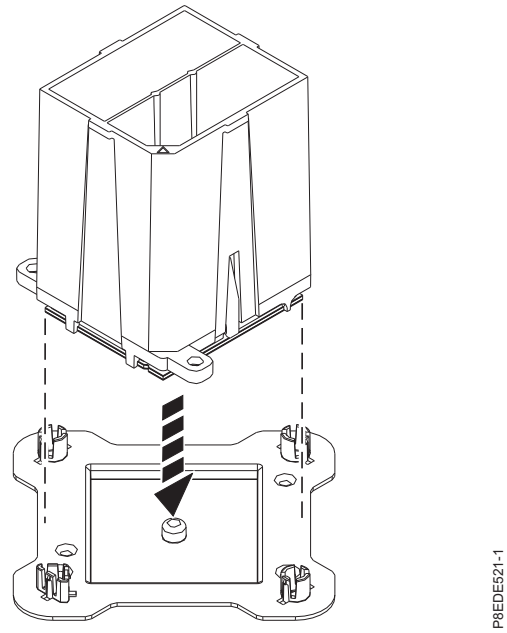
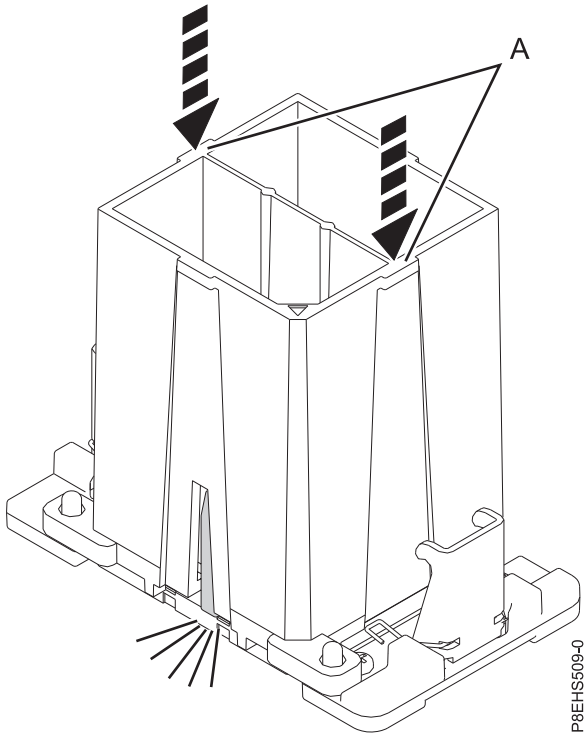
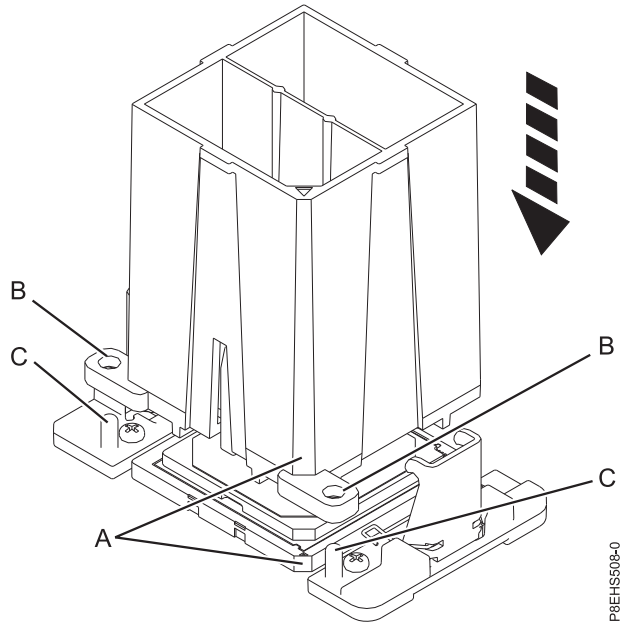
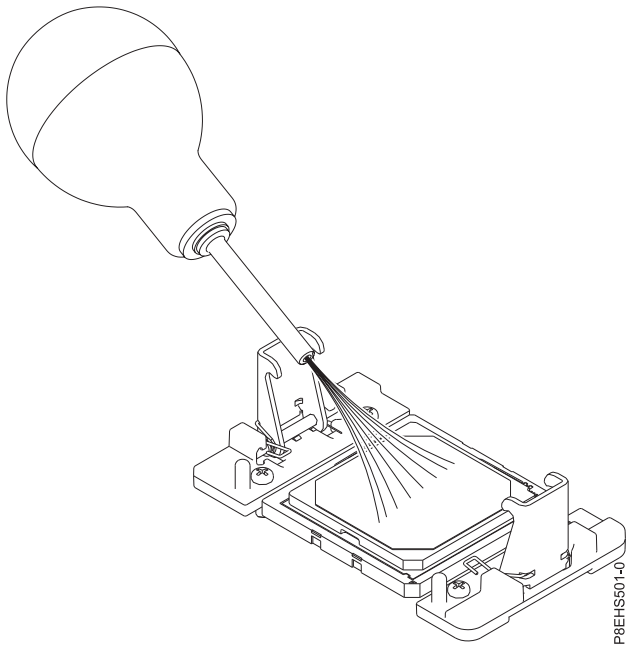
System backplane (continued). Moving the front cables out of the way, and carefully holding the processor heat sink, slide the system backplane towards the fans, then lift to remove it.



System processor modules:

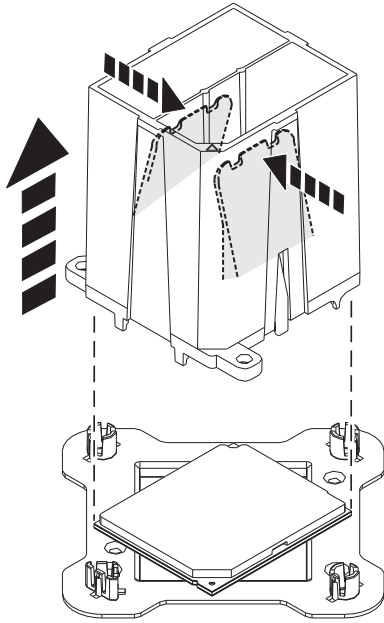


System processor modules:

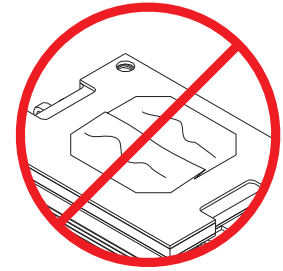


System processor modules:

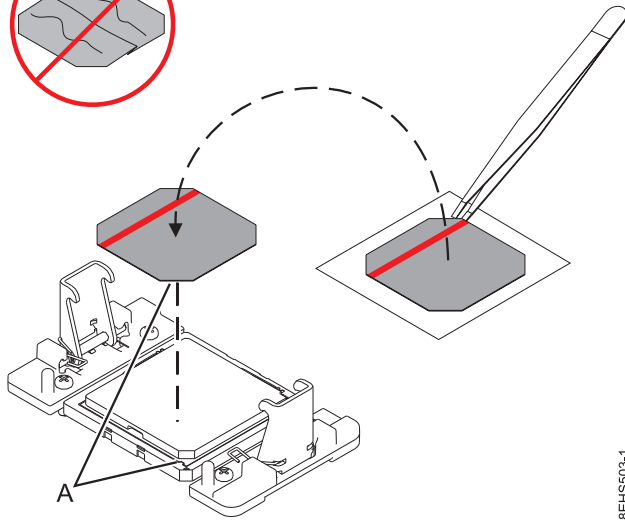
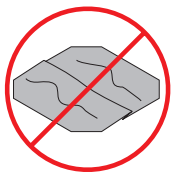
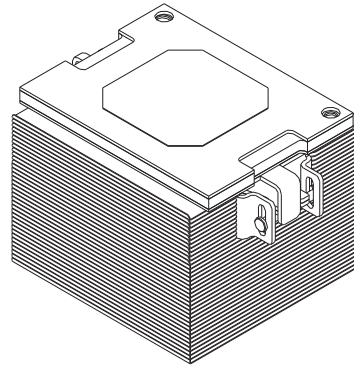
If the thermal interface material is damaged, replace it.



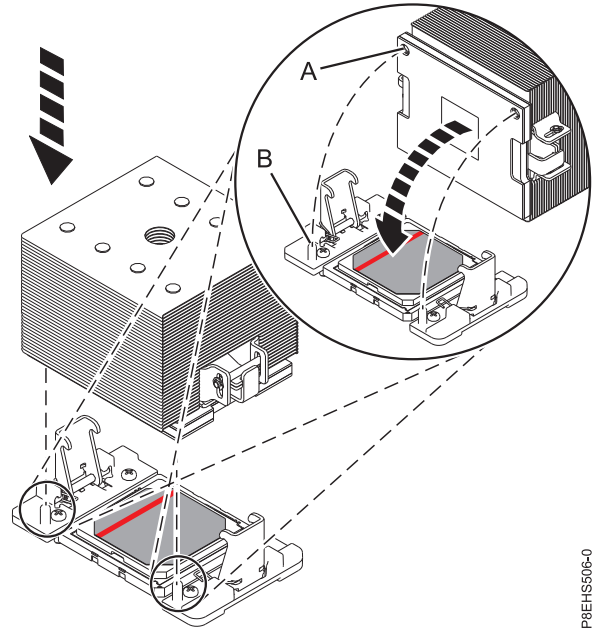
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P8EHS502-0



P8EHS503-1



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This January 16, 2016 edition applies to IBM Power Systems servers that contain the POWER8 processor and to all associated models.

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