IBM

# IBM Power® System S822LC (8335-GTB) Quick Install Guide

Read all precautions and instructions before you start working on the system and its parts.

Use normal electrostatic discharge (ESD) procedures when working on the system and parts. IBM recommends wearing gloves and an ESD wrist strap to avoid possible damage to the equipment.

The information about the 8335-GTB system is available online in the IBM Knowledge Center. https://ibm.biz/QR8335-GCB
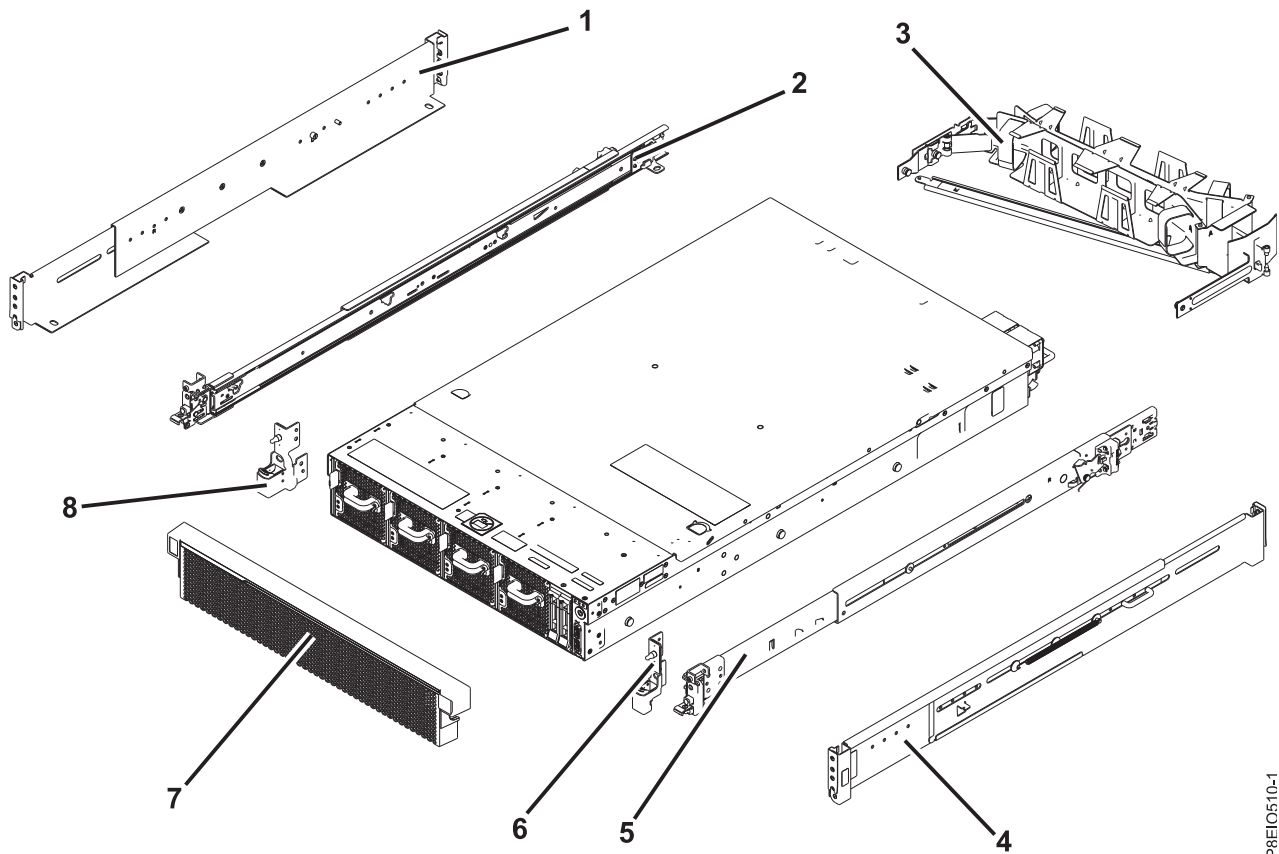
## 8335-GTB parts

Use this information to find the field-replaceable unit (FRU) part number.

After you identify the part number of the part that you want to order, go to Advanced Part Exchange Warranty Service. Registration is required. If you are not able to identify the part number, go to Contacting IBM® service and support.

# Rack final assembly



*Figure 1. Rack final assembly*

*Table 1. Rack final assembly part numbers*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 1 | 45W8836 | 1 | Fixed rail kit - contains left and right fixed rails and attaching screws |
| 2 | 00E4260 | 1 | Slide rail kit - contains left and right slide rails and attaching screws |
| 3 | 74Y9063 | 1 | Cable management arm assembly |
| 4 | 45W8836 | 1 | Fixed rail kit - contains left and right fixed rails and attaching screws |
| 5 | 00E4260 | 1 | Slide rail kit - contains left and right slide rails and attaching screws |
| 6 | | 1 | Electronic Industries Association (EIA) bracket (right side) |
| 7 | 00E4688 | 1 | Bezel |
| 8 | | 1 | EIA bracket (left side) |

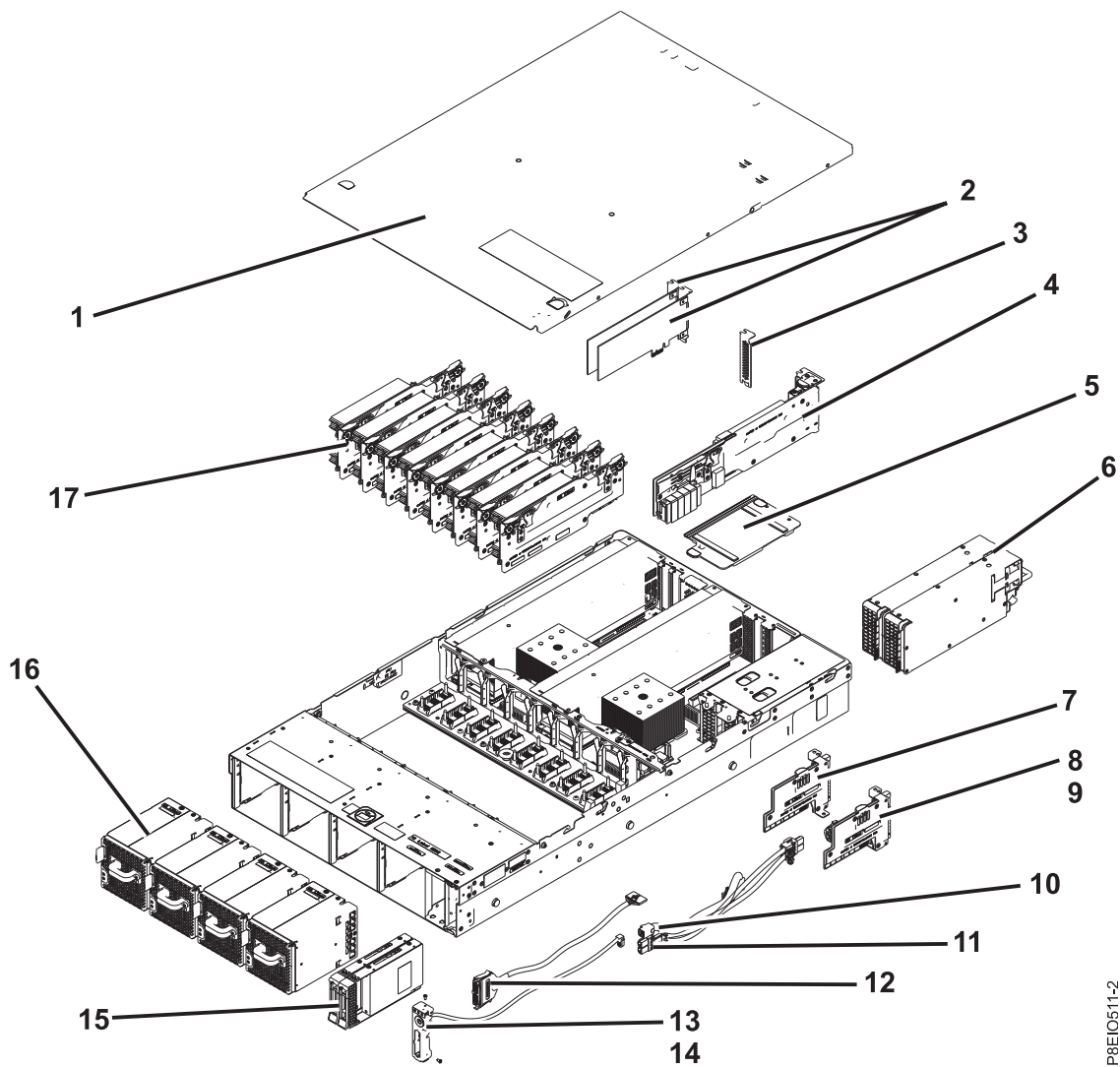# System parts (air-cooled and water-cooled systems)



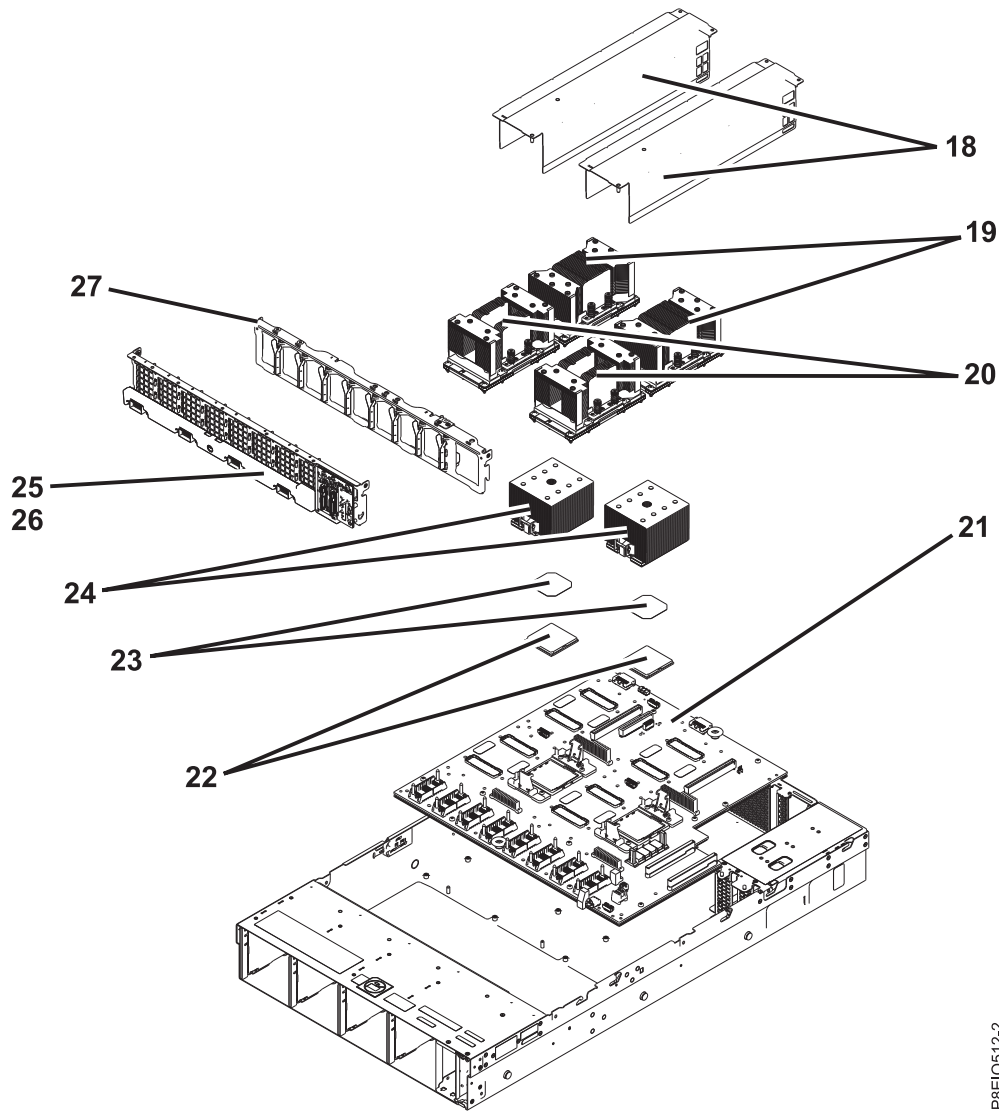*Figure 2. System parts (air-cooled and water-cooled systems)*

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*Table 2. System parts (air-cooled and water-cooled systems)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 1 | | 1 | Top access cover assembly |
| 2 | | 2 - 3 | PCI adapters. Use the feature type of the adapter to find the FRU number in PCIe adapters for the 8335-GTB. |
| 3 | 46K5109 | 1 - 2 | PCI filler |
| 4 | 00E4574 | 1 | Baseboard management controller (BMC) card |
| 5 | | 1 | Power riser air baffle |
| 6 | 01AF370 | 2 | Power supply |
| 7 | 00E4705 | 1 | Power riser without time-of-day battery slot |

*Table 2. System parts (air-cooled and water-cooled systems)  (continued)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 8 | 00E4704 | 1 | Power riser with time-of-day battery slot<br>**Note:** The power riser part number does not include the time-of-day battery. The time-of-day battery is a CR2450N lithium battery. |
| 9 | | 1 | Time-of-day battery |
| 10 | 00E4482 | 1 | Disk and fan signal cable |
| 11 | 00E4481 | 1 | Fan power cable |
| 12 | 00E4550 | 1 | Front USB cable with connector |
| 13 | 00E5189 | 1 | Power switch and power switch cable |
| 14 | | 2 | Screw |
| 15 | 00E4252 | 2 | Drive filler |
| | 00LY266 | 2 | 1 TB disk drive |
| | 00LY418 | 2 | 2 TB disk drive |
| | 00LY409 | 2 | 480 GB solid-state drive |
| | 00LY411 | 2 | 960 GB solid-state drive |
| | 00LY423 | 2 | 1.9 TB solid-state SATA drive |
| | 00LY438 | 2 | 3.84 TB solid-state drive |
| 16 | 00E4256 | 4 | Fan |
| 17 | 00E4251 | 8 | Memory riser filler |
| | 00E4498 | 8 | Memory riser |
| | 78P4618 | 32 | 4 GB, 1600 MHz DDR4 RDIMM |
| | 78P4620 | 32 | 8 GB, 1600 MHz DDR4 RDIMM |
| | 78P4621 | 32 | 16 GB, 1600 MHz DDR4 RDIMM |
| | 78P4622 | 32 | 32 GB, 1600 MHz DDR4 RDIMM |

# Additional system parts (air-cooled system)



*Figure 3. Additional system parts (air-cooled system)*

*Table 3. Additional system parts (air-cooled system)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 18 | | 2 | Graphics processing unit (GPU) air baffles |
| 19 | 01EM024 | 2 | Rear GPU kit (includes GPU card, air baffle, heat sink, and thermal interface material (TIM)) |
| 20 | 01EM025 | 2 | Front GPU kit (includes GPU card, air baffle, heat sink, and TIM) |
| 21 | 00E4570 | 1 | System backplane kit (includes module removal tool, 4mm hex key, magnetic screwdriver, air pump, and lid removal tool) |

*Table 3. Additional system parts (air-cooled system) (continued)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 22 | 00E5185 | 2 | 8 core 3.259 GHz system processor module kit (includes system processor module, processor tray, 4mm hex driver, module replacement tool, and air pump) |
| | 00E5187 | 2 | 10 core 2.860 GHz system processor module kit (includes system processor module, processor tray, 4mm hex driver, module replacement tool, and air pump) |
| 23 | 01AF286 | 2 | System processor heat sink kit (includes heat sink and TIM) |
| 24 | 01AF286 | 2 | System processor heat sink kit (includes heat sink and TIM) |
| 25 | 00E5128 | 1 | Disk drive and fan card |
| 26 | 00E4476 | 1 | Screw kit<br>**Note:** The screw kit includes 12 screws for the disk drive and fan card and 16 screws for the system backplane. |
| 27 | | 1 | Middle support for the system backplane |

## Additional system parts (water-cooled system)
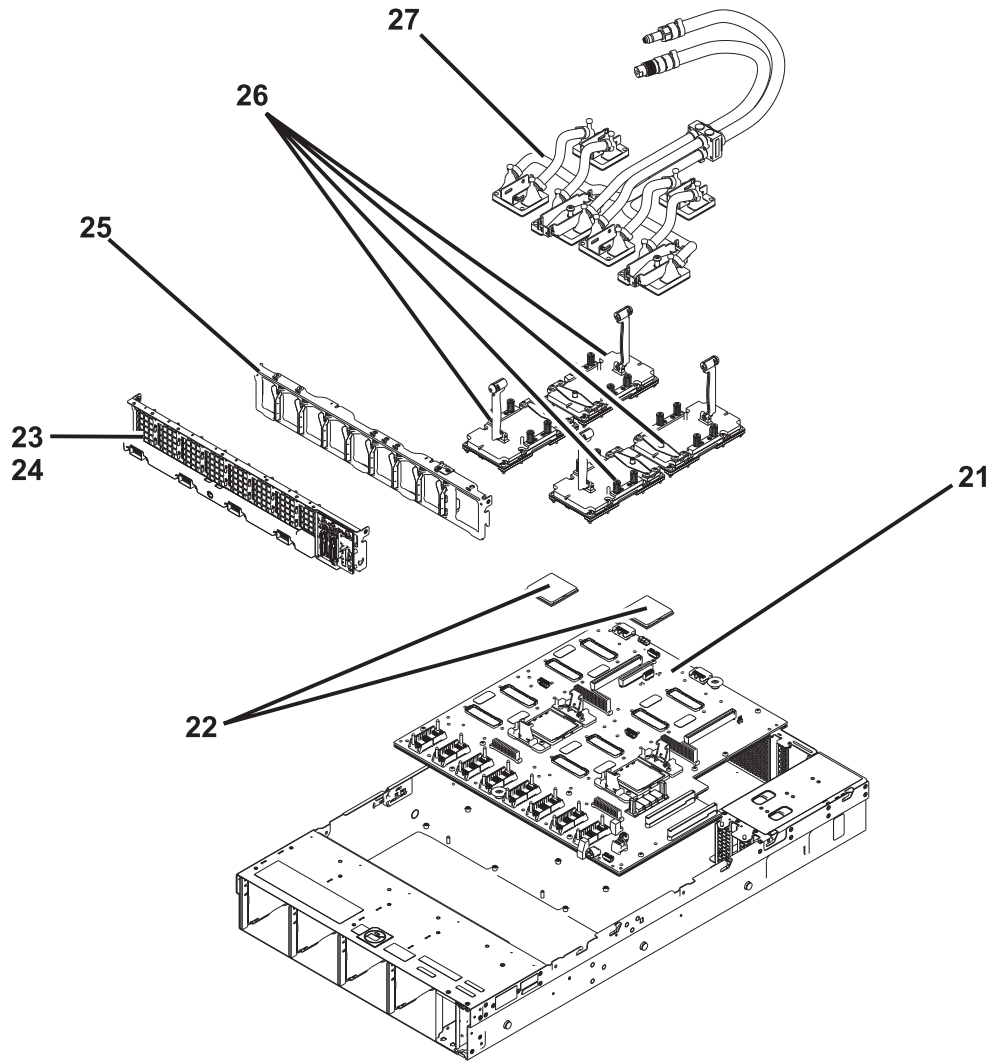


*Figure 4. Additional system parts (water-cooled system)*

*Table 4. Additional system parts (water-cooled system)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 21 | 00E4570 | 1 | System backplane kit (includes module removal tool, 4 mm hex key, magnetic screwdriver, air pump, and lid removal tool)<br>**Note:** When replacing the system backplane kit in a water-cooled 8335-GTB, you also need the System processor TIM replacement kit (01EM029) and the water-cooled system backplane kit (01EM030) . The water-cooled system backplane kit (01EM030) is not needed if you already have it. |

*Table 4. Additional system parts (water-cooled system) (continued)*

| Index number | Part number | Units per assembly | Description |
|---|---|---|---|
| 22 | 00E5185 | 2 | 8 core 3.259 GHz system processor module kit (includes system processor module, processor tray, 4mm hex driver, module replacement tool, and air pump) |
| | 00E5187 | 2 | 10 core 2.860 GHz system processor module kit (includes system processor module, processor tray, 4mm hex driver, module replacement tool, and air pump) |
| 23 | 00E5128 | 1 | Disk drive and fan card |
| 24 | 00E4476 | 1 | Screw kit<br>**Note:** The screw kit includes 12 screws for the disk drive and fan card and 16 screws for the system backplane. |
| 25 | | 1 | Middle support for the system backplane |
| 26 | 01EM027 | | Water-cooled GPU kit (includes spreader assembly, GPU card, air baffle, heat sink, and TIM) |
| 27 | 01AF969 | 1 | Cold plate assembly (includes cold plates, tweezers, and TIMs) |

## Miscellaneous parts

*Table 5. Miscellaneous system parts*

| Description | Part number | Units per assembly |
|---|---|---|
| System processor TIM replacement kit (includes TIM removal tool, tweezers, and TIM) | 01EM029 | 1 |
| Water-cooled system backplane kit (includes cold plate and module tray) | 01EM030 | 1 |

# Rear ports
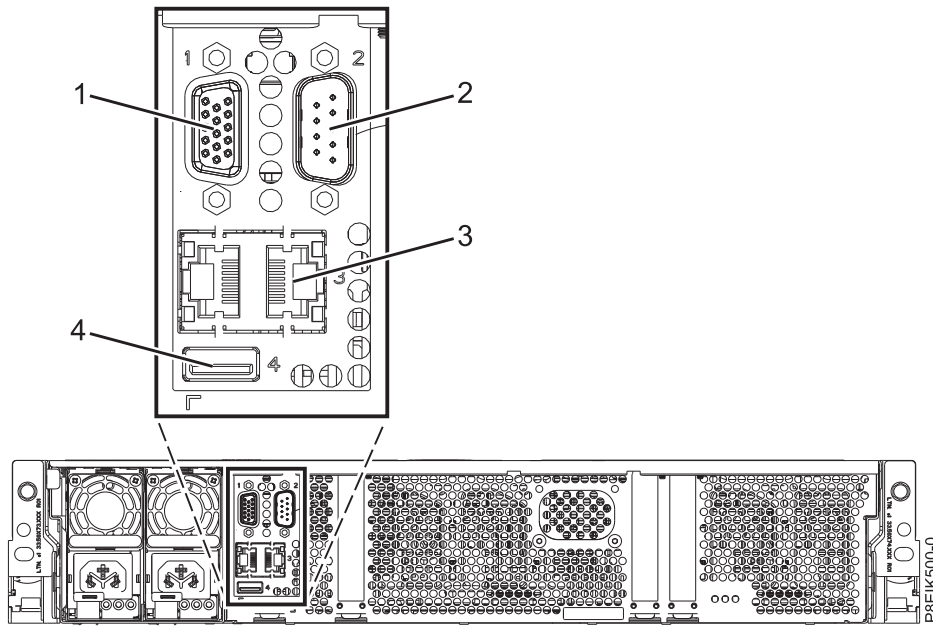
*Figure 5. Rear view of the system with ports displayed*

*Table 6. Port descriptions*

| Identifier | Description |
|---|---|
| 1 | Video Graphics Array (VGA). Text based capability is only supported at this time. |
| 2 | Intelligent Platform Management Interface (IPMI) serial |
| 3 | Ethernet. Use the left Ethernet port for the BMC/IPMI interface (as eth0). Use the right Ethernet port for any direct OS usage (as eth1). |
| 4 | USB 3.0 |

# Installing and removing IBM Power System S822LC (8335-GTB) parts
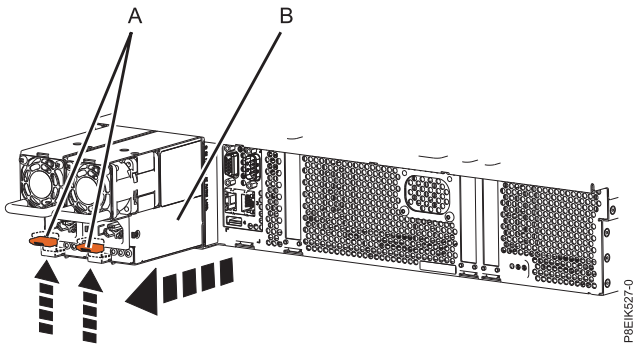
*Figure 6. Removing a power supply from the system*
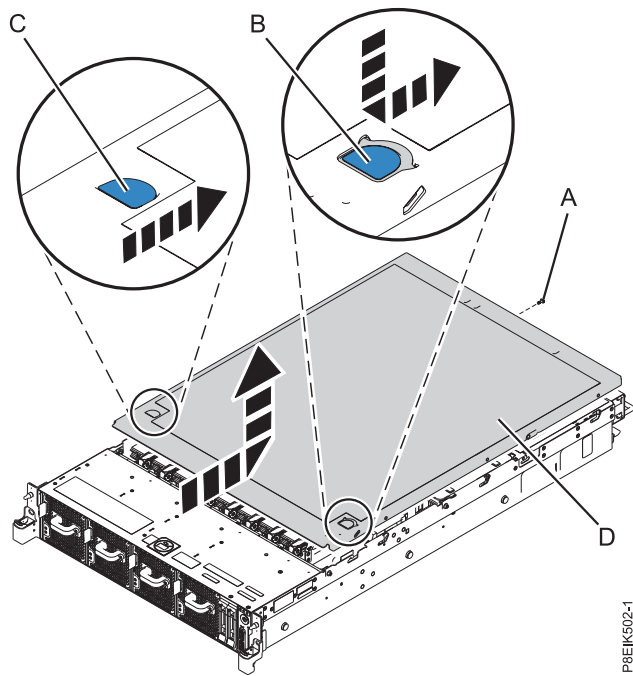


*Figure 7. Removing the cover*
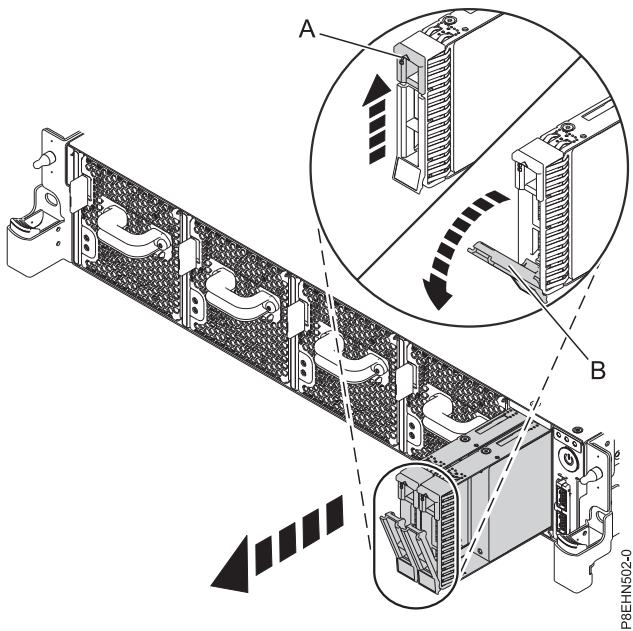


*Figure 8. Disk drive lock detail*
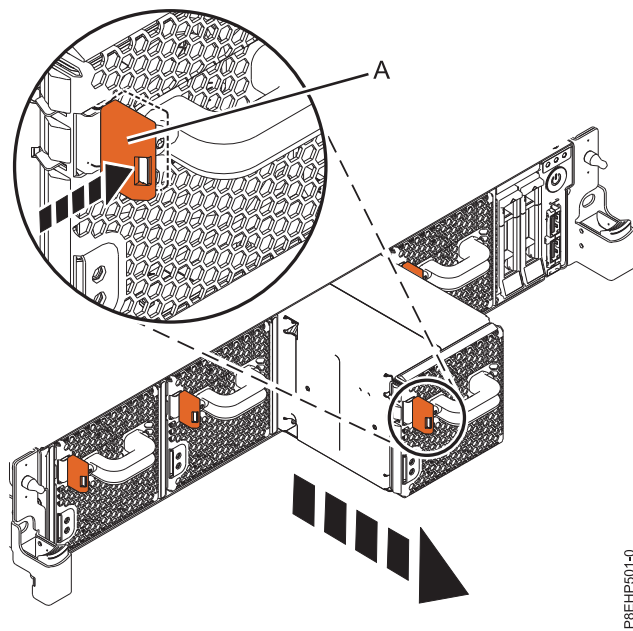


*Figure 9. Removing a fan from the system*
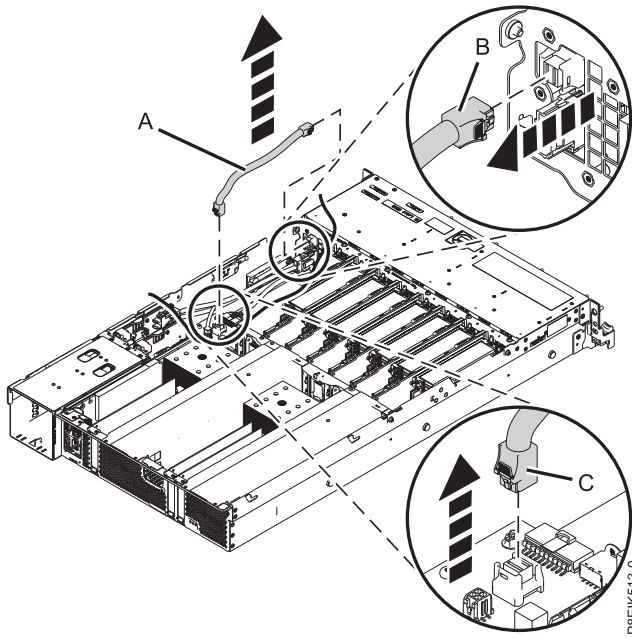
*Figure 10. Removing the disk and fan signal cable*
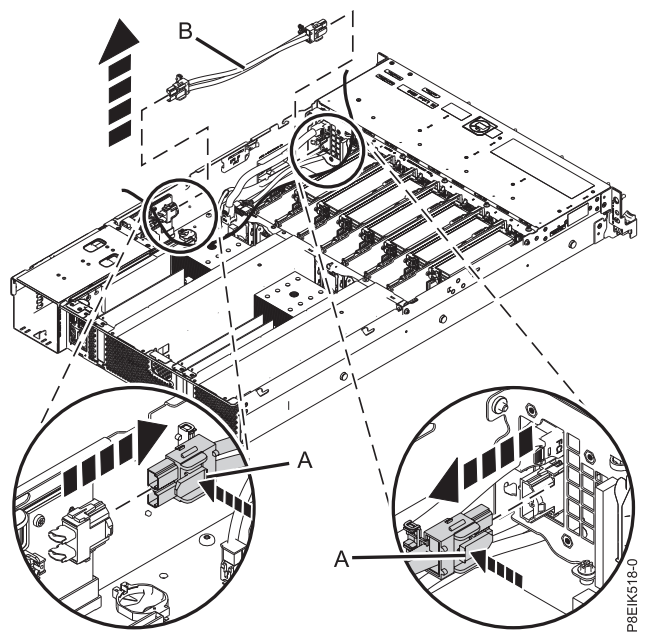


*Figure 11. Removing the fan power cable from the system*
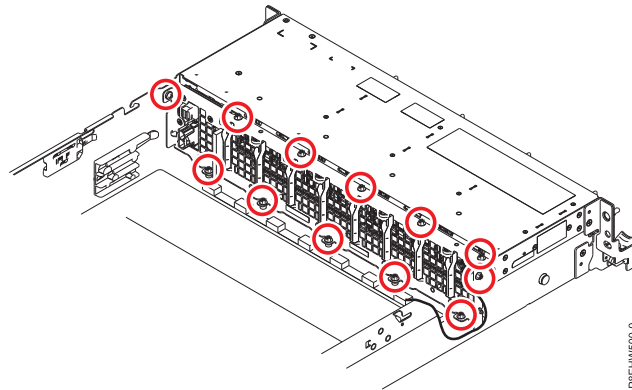


*Figure 12. Screw locations for the disk drive and fan card*
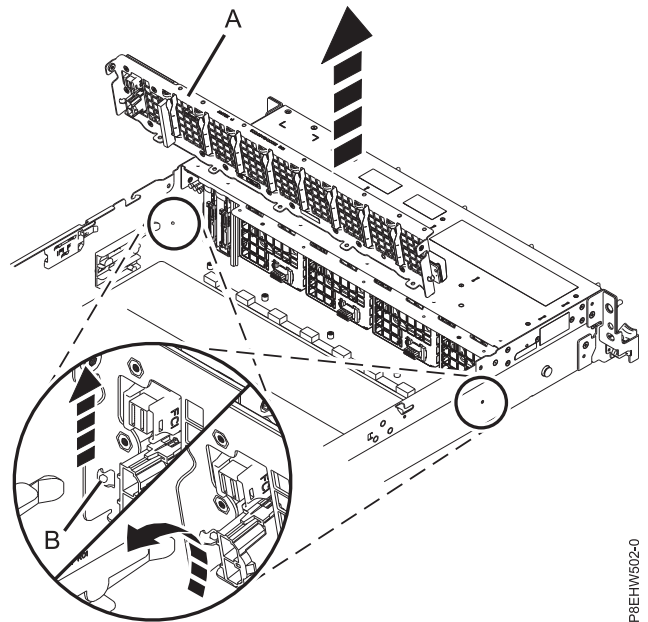


*Figure 13. Removing the disk drive and fan card*

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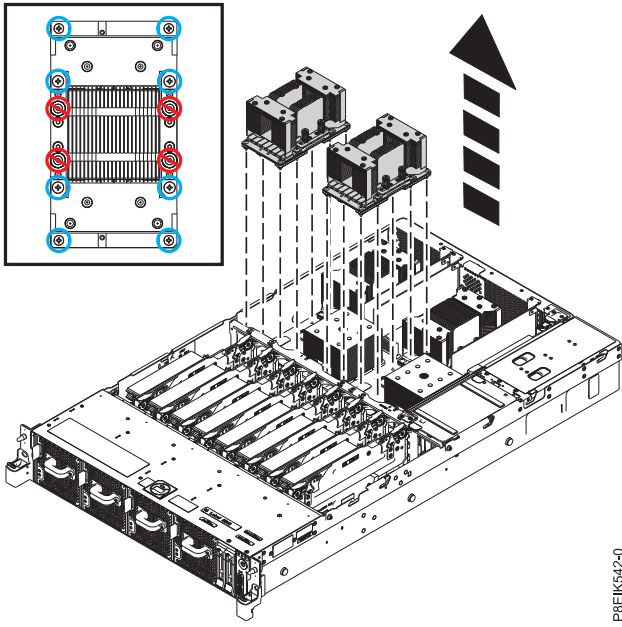
*Figure 14. Remove eight GPU screws per GPU; do not loosen the four spring-loaded screws*
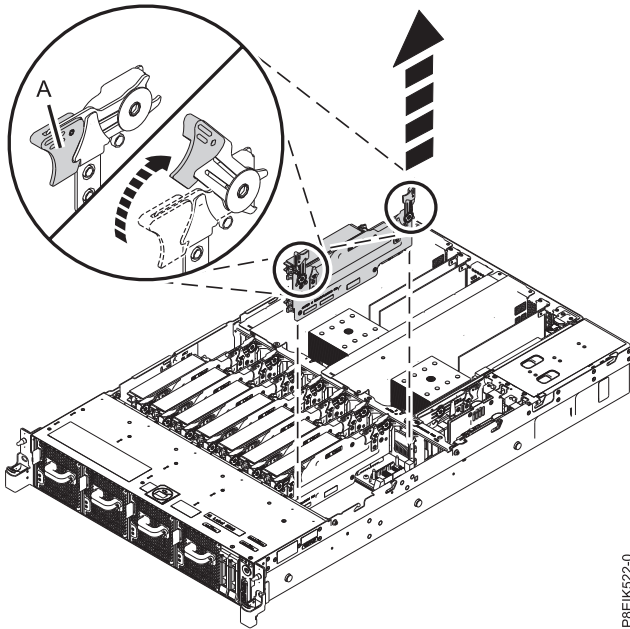


*Figure 15. Removing a memory riser from the system*
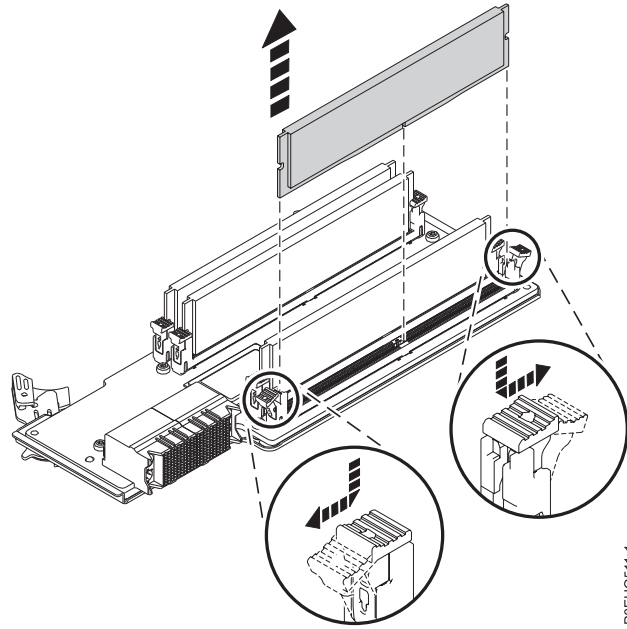


*Figure 16. Removing memory DIMM from a slot on the riser*
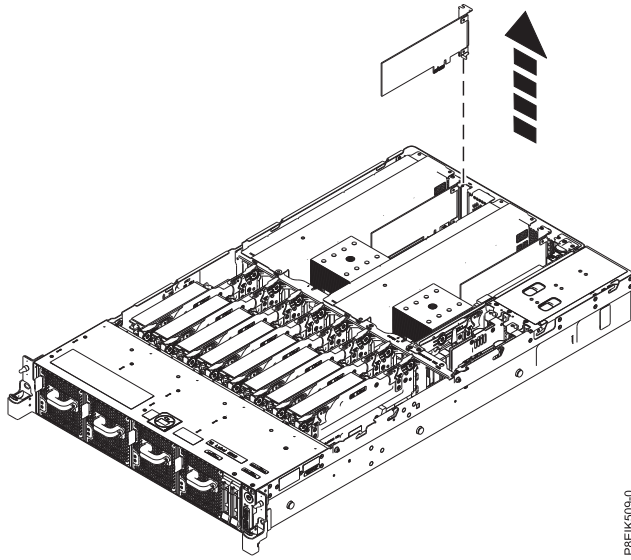
*Figure 17. Removing a PCIe adapter*
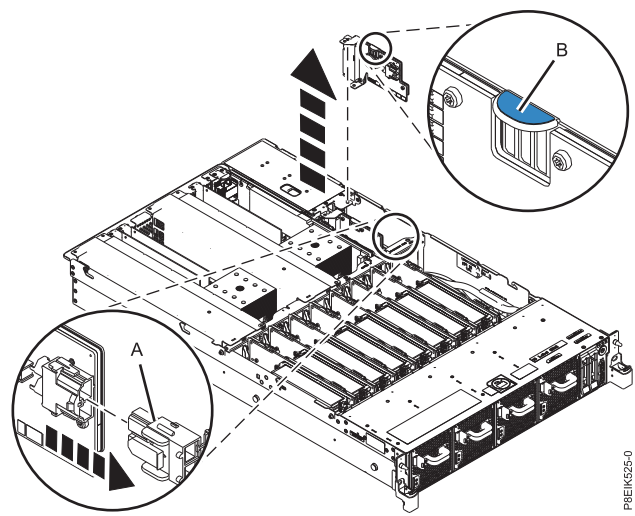


*Figure 18. Removing a power riser from the system*
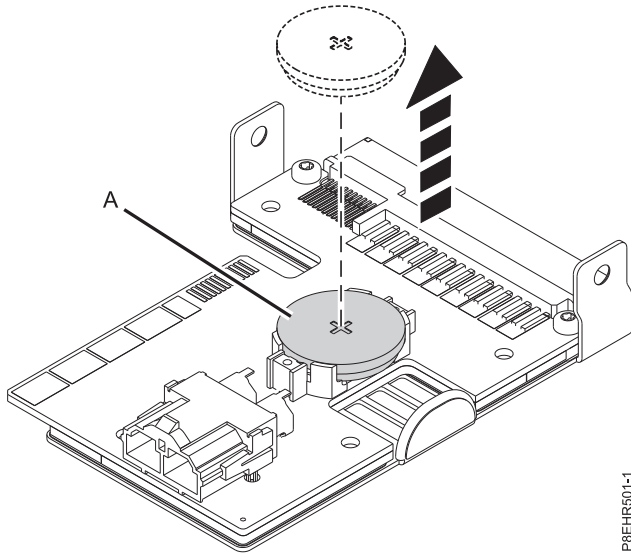


*Figure 19. Removing the time-of-day battery from the power riser*
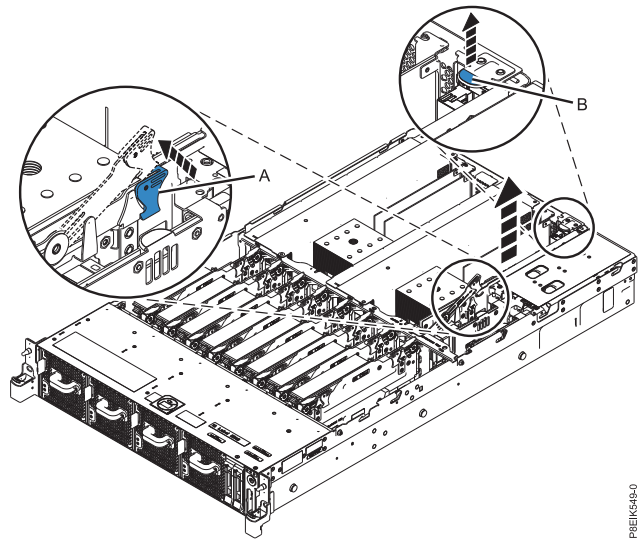


*Figure 20. Removing the BMC card*

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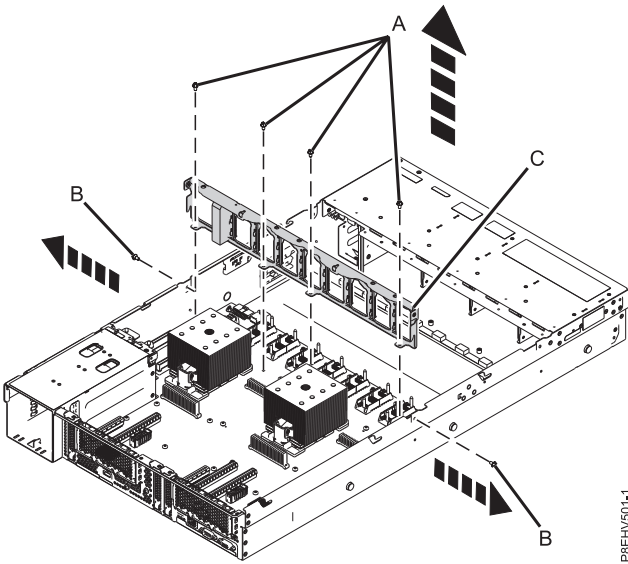
*Figure 21. Remove the middle support and screw locations*
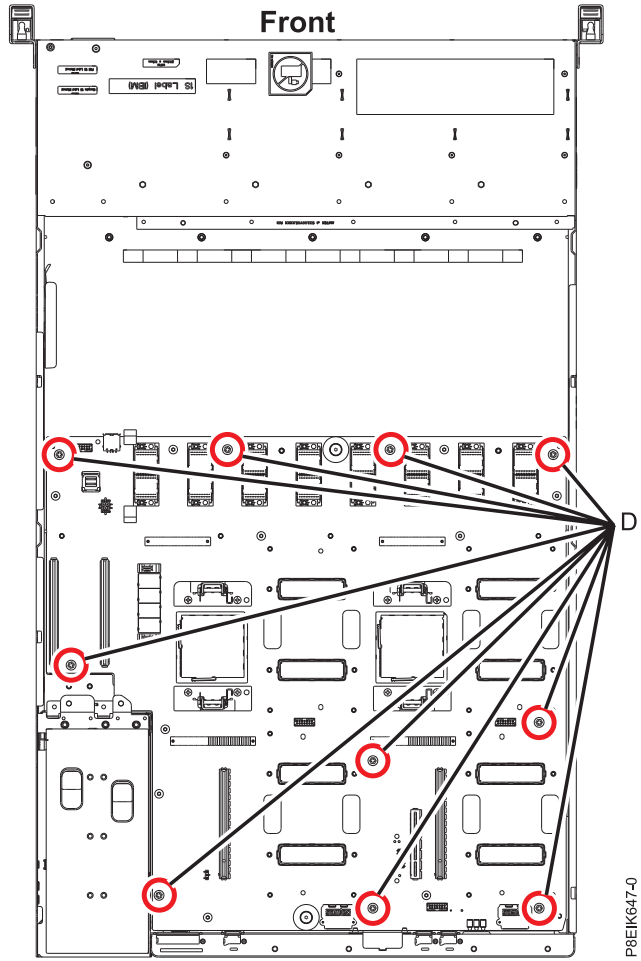


*Figure 22. System backplane screw locations*
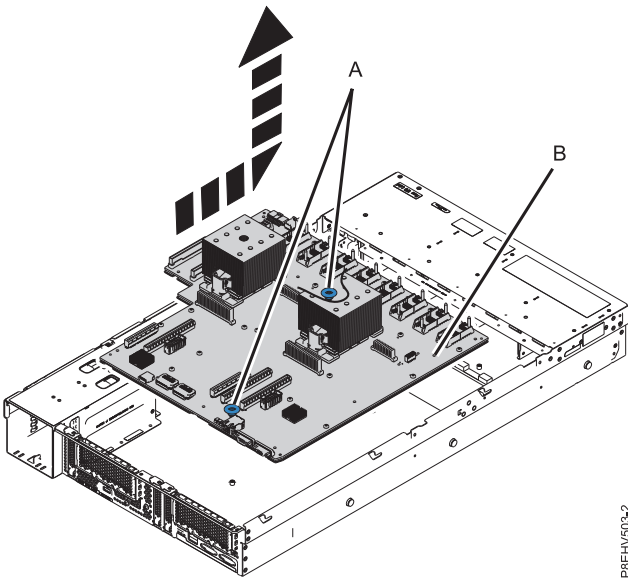


*Figure 23. Lifting out the system backplane*
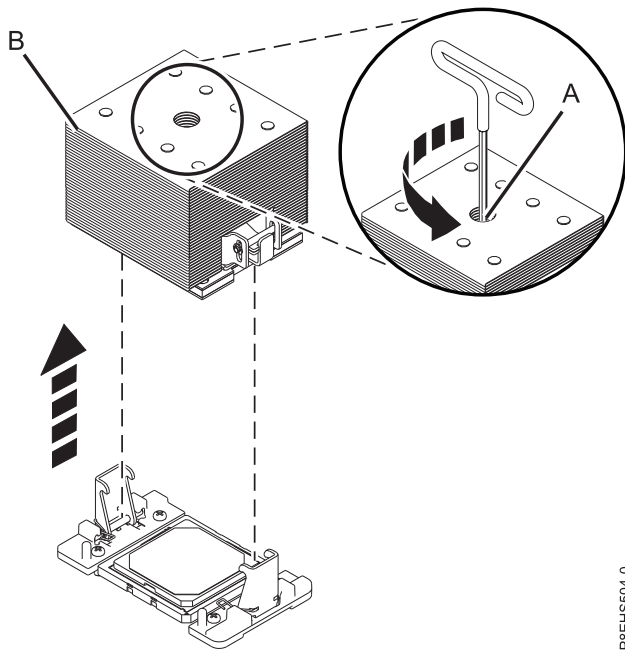
*Figure 24. Removing the heat sink*
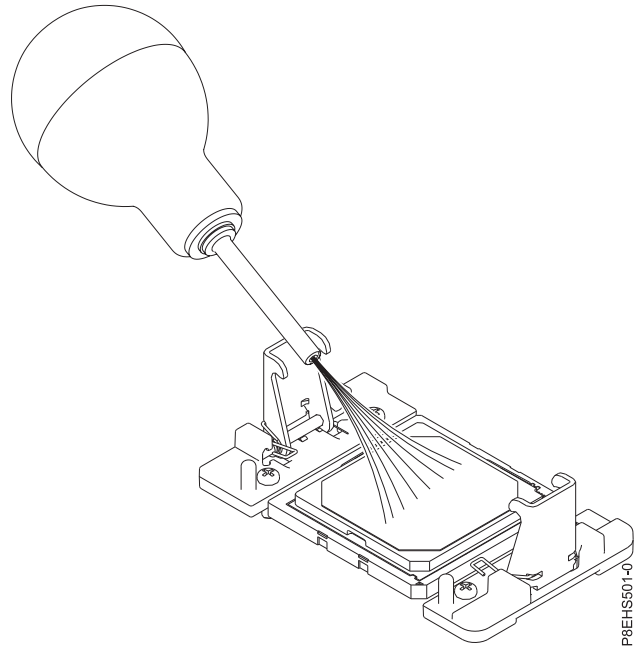


*Figure 25. Removing dust and debris from the system processor module area*
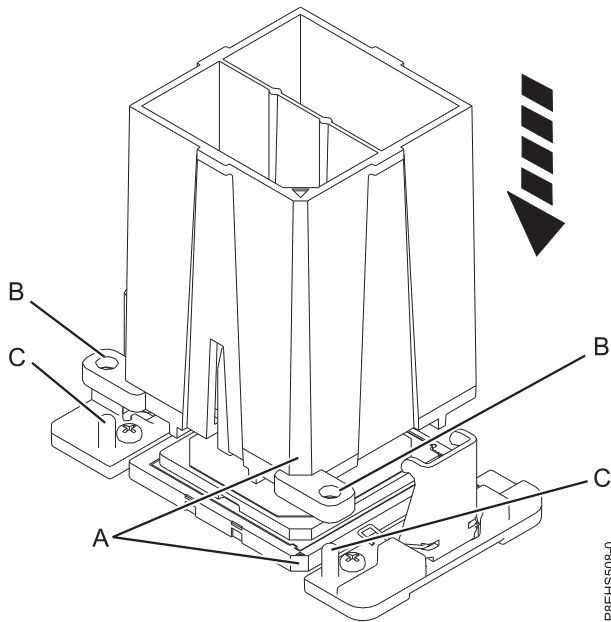


*Figure 26. Lowering the removal tool onto the system processor module*
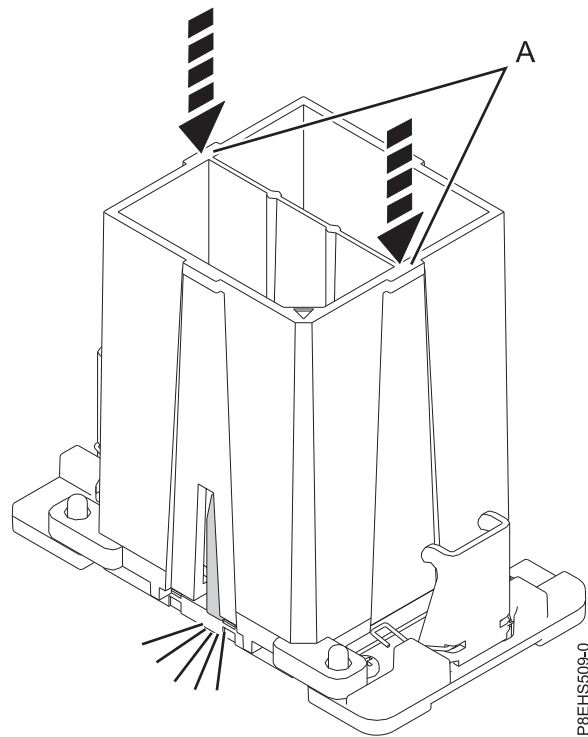


*Figure 27. Locking the system processor module into the tool*
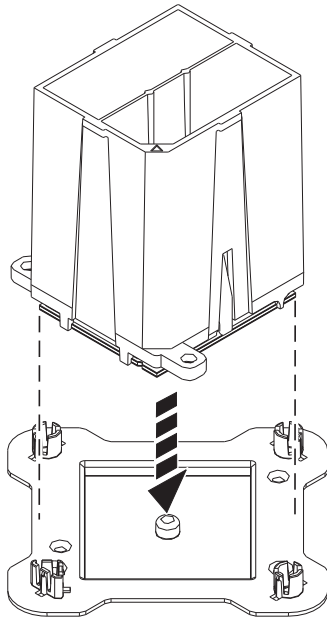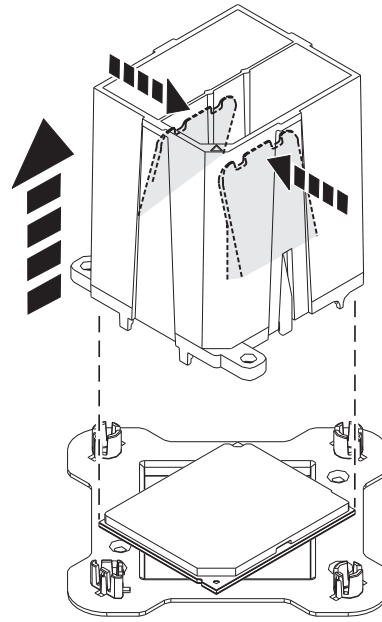
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*Figure 28. Placing the tool at an angle on the top cover of the packaging*



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*Figure 29. Releasing the system processor module from the tool*

If the thermal interface material is damaged, replace it.
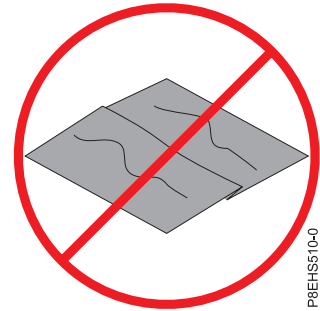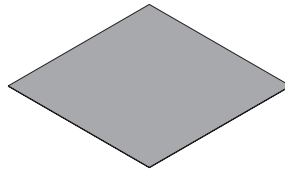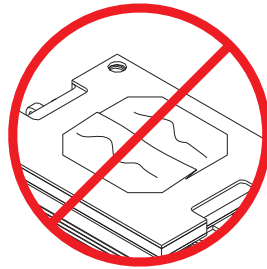


P8EHS510-0

*Figure 31. Inspecting the gray-colored thermal interface material*
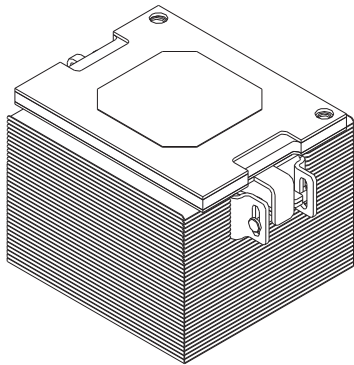


P8EHS502-0

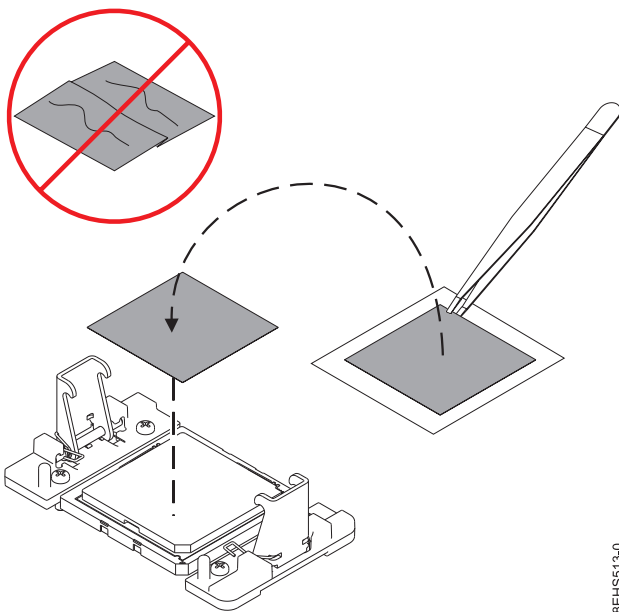*Figure 30. Inspecting the silver-colored thermal interface material*

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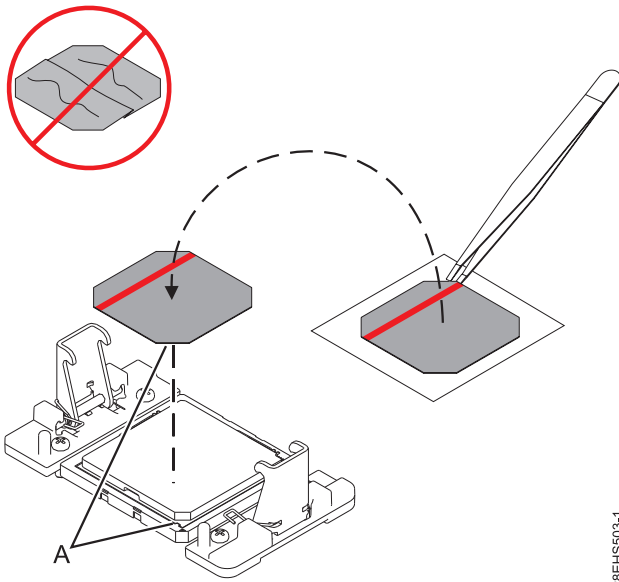
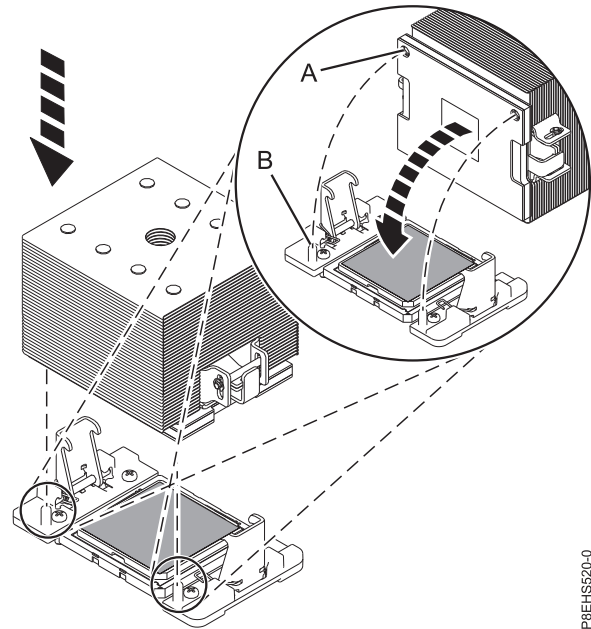*Figure 32. Installing the silver-colored TIM onto the processor*
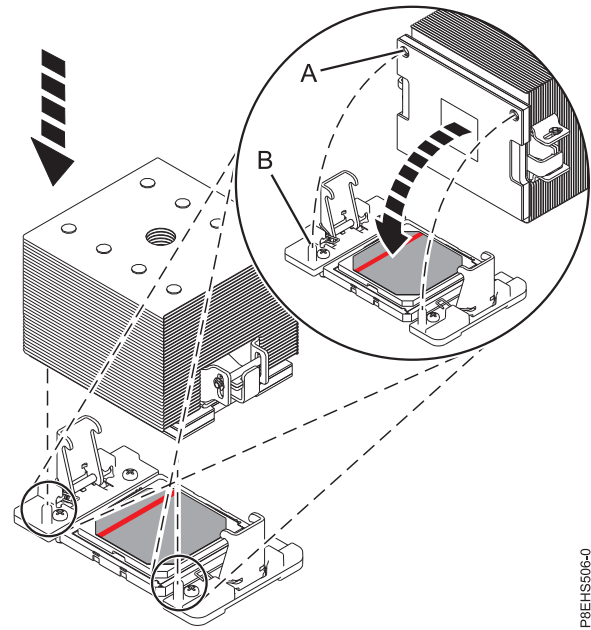


*Figure 33. Installing the new heat sink on the silver-colored TIM*



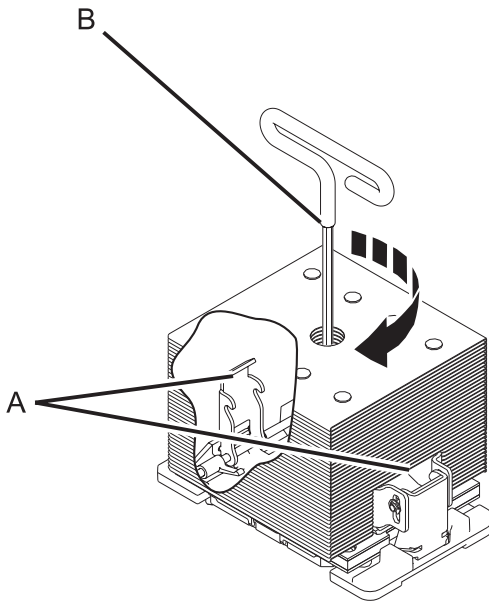*Figure 34. Installing a new gray-colored TIM onto the processor*



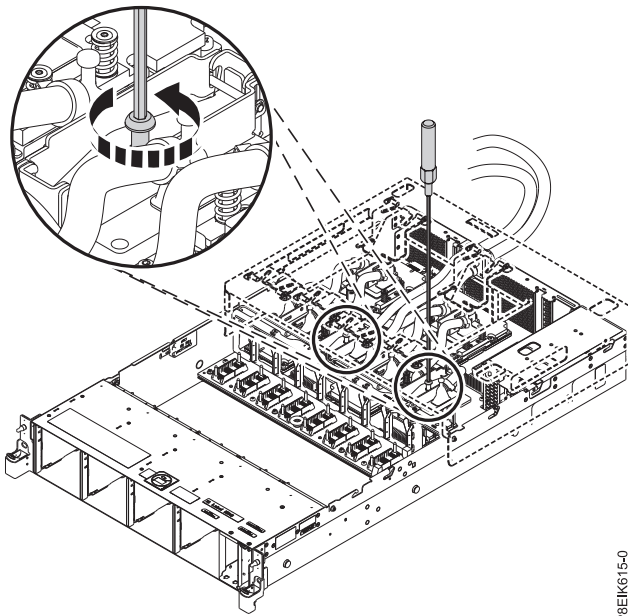*Figure 35. Installing the heat sink on the gray-colored TIM*

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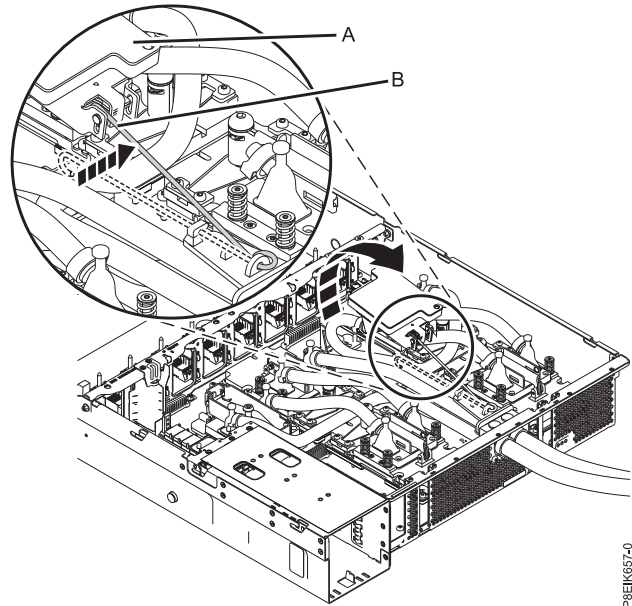*Figure 36. Tightening the center load screw on the heat sink*



*Figure 37. Loosening the cold plate retainer screw*



*Figure 38. Removing the cold plate*