HPE ProLiant DL585 G6 Server - Parts Support Guide

Part Number: External
Published: 2020
Edition: 1

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Abstract
This document gives a step-by-step instruction on how to remove and replace the components of the product.

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Power Button Assembly Bezel

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Power button assembly bezel

WARNING! Use caution when installing the processor memory module or removing the processor memory module; when fully populated, it can weigh up to 13.6 kg (30 lb).

Power button assembly bezel removal

1. Power down the server.
2. Remove the access panel.
3. Remove the processor memory module.
4. Press the tab and pull the bezel away from the server.

Power button assembly bezel replacement

1. Push the bezel in the server.
2. Place the processor memory module.

USB Cable/Assembly

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USB cable/assembly

USB cable/assembly removal

1. Power down the server.
2. Remove the access panel.
3. Remove the processor memory module.
4. Remove the power button assembly bezel.
5. Disconnect the USB cable from the media board.
6. Remove the screws securing the USB cable assembly and remove the cable from the server.

USB cable/assembly replacement

1. Place the cable in the server and tighten the screws securing the USB cable assembly.
2. Connect the USB cable in the media board.
3. Place the power button assembly bezel.
4. Place the processor memory module.
5. Replace the access panel.

Video Cable/Assembly

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Video cable/assembly

Video cable/assembly removal

1. Power down the server.
2. Remove the access panel.
3. Remove the processor memory module.
4. Remove the power button assembly bezel.
5. Disconnect the video cable from the media board.
6. Remove the screws securing the cable bracket to the server and remove the bracket.

Video cable/assembly replacement

1. Place the bracket and tighten the screws securing the cable bracket to the server.
2. Connect the video cable in the media board.
3. Place the power button assembly bezel.
4. Place the processor memory module.
5. Replace the access panel.

Power Button Cable/Assembly

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Power button cable/assembly

Power button cable/assembly removal

1. Power down the server.
2. Remove the access panel.
3. Remove the processor memory module.
4. Remove the power button assembly bezel.
5. Disconnect the power button cable from the media board.
6. Push up on the power button cable assembly to disconnect it from the server.

Power button cable/assembly replacement

1. Push down on the power button cable assembly to connect it to the server.
2. Connect the power button cable to the media board.
3. Place the power button assembly bezel.
4. Place the processor memory module.
5. Replace the access panel.

Fan Cage Bezel

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Fan cage bezel

Fan cage bezel removal

1. Power down the server.
2. Remove the access panel.

WARNING! Use caution when installing the processor memory module or removing the processor memory module; when fully populated, it can weigh up to 13.6 kg (30 lb).

1. Remove the processor memory module.
2. Press the tabs behind the bezel and pull the bezel away from the server. If necessary, use a flathead screwdriver to press the tabs.

Fan cage bezel replacement

1. Push the bezel in the server.
2. Place the processor memory module.

Processor Memory Module Bezel

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Processor memory module bezel

P rocessor memory module bezel removal

1. Power down the server.
2. Remove the access panel.

WARNING! Use caution when installing the processor memory module or removing the processor memory module; when fully populated, it can weigh up to 13.6 kg (30 lb).

1. Remove the processor memory module.
2. Remove the fans from the server,
3. Open the cover.
4. Press the tabs to disconnect the bottom of the bezel and pull the bezel away from the server. If necessary, use a flathead screwdriver to press the tabs.

P rocessor memory module bezel replacement

1. Push the bezel in the server and press the tabs to connect to the bottom of the bezel.
2. Close the cover.
3. Install the fans.
4. Place the processor memory module.

Processors

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Processors

Caution! Before starting this procedure, read the information about protecting against electrostatic discharge. Caution! Processor and PPM sockets 1 and 2 must be populated at all times or the server will not function properly.

Processors removal

1. Power down the server.
2. Remove the access panel.

WARNING! Use caution when installing the processor memory module or removing the processor memory module; when fully populated, it can weigh up to 13.6 kg (30 lb).

1. Remove the processor memory module.
2. Remove the fans from the server.
3. Open the cover.

WARNING! To reduce the risk of personal injury from hot surfaces, allow the heatsink to cool before touching it.

1. Open the heatsink retaining bracket.
2. Remove the heatsink.
3. Open the processor retaining latch and the processor socket retaining bracket.
4. Use your fingers to remove the failed processor. This process should ideally be implemented through the processor installation tool.

Processors replacement

Important! Be sure the replacement processor remains inside the processor installation tool.

1. Apply all the grease to the top of the processor to ensure even distribution.
2. Align the processor installation tool with the socket and install the spare processor.

Caution! The processor is designed to fit one way into the socket. Use the alignment guides on the processor and socket to properly align the processor with the socket.

1. Close the processor retaining latch and the processor socket retaining bracket.
2. Install the heatsink.

3. Close the heatsink retaining bracket.
4. Close the cover.
5. Install the fans.
6. Place the processor memory module.

PPM

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Processor Power Module (PPM)

Caution! Processor and PPM sockets 1 and 2 must be populated at all times or the server will not function properly. Important! Always install a PPM when you install a processor. The system fails to boot if the PPM is missing. PPM removal

1. Power down the server.
2. Remove the access panel.

WARNING! Use caution when installing the processor memory module or removing the processor memory module; when fully populated, it can weigh up to 13.6 kg (30 lb).

1. Remove the processor memory module.
2. Remove the fans from the server.
3. Open the cover.
4. Remove the PPM.

Note: The appearance of compatible PPMs may vary.

PPM replacement

1. Place the PPM.
2. Close the cover.
3. Install the fans.
4. Place the processor memory module.

DIMM

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DIMM

DIMM removal

1. Power down the server.
2. Remove the access panel.
3. Remove the processor memory module.
4. Remove the fans from the server.
5. Open the cover.
6. Open the DIMM slot latches.
7. Remove the DIMM.

DIMM replacement

1. Place the DIMM.
2. Close the DIMM slot latches.
3. Close the cover.
4. Install the fans.
5. Place the processor memory module.

SAS Or SATA Hard Drives

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SAS or SATA hard drives

Caution! Always power down the server if the boot partition resides on the drive you are replacing or if you are replacing the only drive in the server.

Caution! To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

SAS or SATA hard drive removal

1. Determine the status of the hard drive from the hot-plug hard drive LEDs.
2. Push down and open the latch.
3. Remove the hard drive.

SAS or SATA hard drive replacement

1. Place the hard drive.
2. Push the latch.

Diskette DVD CD-RW Drive

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Diskette, DVD, CD-RW drive

Diskette, DVD, CD-RW drive removal

1. Power down the server.
2. Use the T-15 Torx screwdriver to eject the drive, and pull the drive out of the server.

Diskette, DVD, CD-RW drive replacement

1. Push the drive in the server.

Power Supply

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Power supply

WARNING! To reduce the risk of electric shock, do not disassemble the power supply or attempt to repair it. Replace it only with the specified spare part.

Caution! If only one power supply is installed, do not remove the power supply unless the server has been powered down. Removing the only operational power supply will cause an immediate power loss.

Caution! To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

Power supply removal

1. Disconnect the power cord from the power supply.
2. Remove the power supply.

Note: To remove the primary hot-plug power supply, remove the shipping screw under the power supply handle. Use the T-15 Torx screwdriver.

Power supply replacement 1. Place the power supply.

Hot-Plug Fans

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Hot-plug fans

Hot plug fans removal:

1. Remove the access panel.
2. The server supports redundant hot-plug fans in a 5+1 configuration to provide proper airflow to the server.
3. Identify the failed fan by locating an amber LED on top of the failed fan or on the Systems Insight Display.
4. Remove the malfunctioning hot-plug fan from the server.

Important! Remove and replace one fan at a time. If the system detects two fan failures, the server shuts down to avoid thermal damage.

Hot-plug fans replacement

1. Install a new hot-plug fan.

Note: If the front panel internal system health LED is not green after you install hot-plug fans, reseat the hot-plug fan or refer to the troubleshooting section.

1. Replace the access panel.

Expansion Slot Cover

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Expansion slot

Expansion slot cover removal

Caution! To prevent improper cooling and thermal damage, do not operate the server unless all expansion slots have either an expansion slot cover or an expansion board installed.

1. Remove the access panel
2. Open the latch, and remove the expansion slot cover.

Expansion slot cover replacement

1. Place the expansion slot cover and close the latch.
2. Replace the access panel.

Expansion Boards

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Expansion boards

Expansion board removal

1. Remove the access panel.
2. Disconnect any internal or external cables attached to the expansion board.
3. Open the latch.
4. Remove the board from the server.

Expansion board replacement

1. Place the board in the server.
2. Close the latch.
3. Replace the access panel.

SAS Backplane

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SAS backplane

SAS backplane removal

1. Power down the server.
2. Remove the access panel.
3. Remove all hard drives.
4. Disconnect all cables from the SAS backplane.
5. Slide the bracket to the front of the server.
6. Lift the backplane, slide the board over the anchoring pins, and lift the board out of the server.

SAS backplane replacement

1. Slide the bracket in the server.
2. Place the board in the server by sliding the board over the anchoring pins and lifting the backplane.
3. Connect all cables to the SAS backplane.
4. Place all hard drives.
5. Replace the access panel.

Pass-Through Board

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Pass-through board

Pass-through board removal

1. Power down the server.
2. Remove the access panel.
3. Loosen the thumbscrews and lift the pass-through board out of the server.

Pass-through board replacement

1. Place the pass through board in the server and tighten the thumbscrews.
2. Replace the access panel.

Media Board

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Media board

Media board removal

1. Power down the server.
2. Remove the access panel.
3. Remove all media drives and media drive blanks.
4. Remove the pass-through board.
5. Disconnect all cabling from the media board.
6. Loosen the thumbscrews and slide the media board toward the front of the server.
7. Tilting the rear of the media board, lift the media board out of the server.

Media board replacement

1. Tilting the rear of the media board, place the media board in the server.
2. Slide the media board and tighten the thumbscrews.
3. Connect all cabling to the media board.
4. Place all media drives and media drive blanks.
5. Replace the access panel.

Cache Module

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Cache module removal

Caution! After the server is powered down, wait 15 seconds and then check the amber LED before unplugging the cable from the cache module. If the amber LED blinks after 15 seconds, do not remove the cable from the cache module. The cache module is backing up data, and data is lost if the cable is detached.

1. Power down the server.
2. Remove the access panel.

Caution! Disconnect the cable from the cache module only if the battery pack is not being used to recover data from the server or transfer data to another server.

1. If the existing cache is connected to a battery, observe the BBWC Status LED.
   a. If the LED is blinking every 2 seconds, data is still trapped in the cache. Restore system power, and repeat the previous steps.
   b. If the LED is not lit, disconnect the battery cable from the cache.
2. Remove the controller.
3. Remove the cache module from the controller.

Cache module replacement

1. Place the cache module in the controller.
2. Place the controller.
3. Replace the access panel.

BBWC

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002401en_us&noframe

BBWC

BBWC removal

1. Power down the server.
2. Remove the access panel.

Caution! To prevent a server malfunction or damage to the equipment, do not add or remove the battery pack while an array capacity expansion, RAID level migration, or stripe size migration is in progress.

Caution! After the server is powered down, wait 15 seconds and then check the amber LED before unplugging the cable from the cache module. If the amber LED blinks after 15 seconds, do not remove the cable from the cache module. The cache module is backing up data, and data is lost if the cable is detached.

1. Remove the BBWC battery pack.
2. Disconnect the cable from the cache module only if the battery pack is not being used to recover data from the server or transfer data to another server.

Important! The battery pack might have a low charge when installed. In this case, a POST error message is displayed when the server is powered up; indicating that the battery pack is temporarily disabled. No action is necessary on your part. The internal circuitry automatically recharges the batteries and enables the battery pack. This process might take up to four hours. During this time, the cache module functions properly, but without the performance advantage of the battery pack.

Note: The data protection and the time limit also apply if a power outage occurs. When power is restored to the system, an initialization process writes the preserved data to the hard drives.

BBWC replacement

1. Connect the cable from the cache module only if the battery pack is not being used to recover data from the server or transfer data to another server.
2. Place the BBWC battery pack.
3. Replace the access panel.

System Cage

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System cage

System cage removal

1. Power down the server.
2. Remove the access panel.
3. Remove all hot-plug power supplies.
4. Remove fans installed in front of the power supply cages.
5. Remove all expansion boards.
6. Remove all expansion slot covers.

7. Remove the pass-through board.
8. Loosen the thumbscrews, and lift the system cage from the server.

Note: The T-15 Torx screwdriver can be used to loosen the thumbscrews. The T-15 Torx screwdriver is shipped with the server and can be located on the rear panel.

1. Remove the system cage.

System cage replacement

1. Place the system cage in the server and tighten the thumbscrews.
2. Place the pass-through board.
3. Place all expansion slot covers.
4. Place all expansion boards.
5. Install fans in front of the power supply cages.
6. Place all hot-plug power supplies
7. Replace the access panel.

Power Supply Backplane

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Power supply backplane

Power supply backplane removal

1. Power down the server.
2. Remove the access panel.
3. Remove all hot-plug power supplies.
4. Remove fans installed in front of the power supply cages.
5. Remove all expansion boards.
6. Remove all expansion slot covers.
7. Remove the pass-through board.
8. Loosen the thumbscrews and lift the system cage from the server.

9. Remove the system cage.
10. Turn the system cage over and place it on a level surface.
11. Loosen the thumbscrews and remove the backplane.

Power supply backplane replacement

1. Place the backplane and tighten the thumbscrews.
2. Place the system cage in the server and tighten the thumbscrews.
3. Place the pass-through board.
4. Place all expansion slot covers.
5. Place all expansion boards.
6. Install fans in front of the power supply cages.
7. Place all hot plug power supplies.
8. Replace the access panel.

System Board

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System board

Caution! Before starting this procedure, read the information about protecting against electrostatic discharge.

Caution! Only authorized technicians trained by HP should attempt to remove the system board. If you believe the system board requires replacement, contact HP Technical Support before proceeding.

Important! HP recommends troubleshooting the system using port 85 codes before replacing the system board.

System board removal

1. Power down the server.
2. Remove the access panel.
3. Remove all hot-plug power supplies.
4. Remove fans installed in front of the power supply cages.

5. Remove all expansion boards.
6. Remove all expansion slot covers.
7. Remove the pass-through board.
8. Loosen the thumbscrews and lift the system cage from the server.

Note: The T-15 Torx screwdriver can be used to loosen the thumbscrews. The T-15 Torx screwdriver is shipped with the server and can be located on the rear panel.

1. Remove the system cage.
2. Disconnect the SAS power cable from the system board.
3. Unlock the latch and open the lever.
4. Slide the system board out through the back of the server.

System board replacement

1. Slide the system board in through the back of the server.
2. Close the lever and lock the latch.
3. Connect the SAS power cable to the system board.
4. Place the system cage in the server and tighten the thumbscrews.
5. Place the pass-through board.
6. Place all expansion slot covers.
7. Place all expansion boards.
8. Install all fans in front of the power supply cages.
9. Place all hot-plug power supplies.
10. Replace the access panel.

System Battery

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System battery

Caution! Before starting this procedure, read the information about protecting against electrostatic discharge.

If the server no longer automatically displays the correct date and time, you may need to replace the battery that provides power to the real-time clock. Under normal use, battery life is 5 to 10 years.

WARNING! The computer contains an internal lithium manganese dioxide, a vanadium pentoxide, or an alkaline battery pack. A risk of fire and burns exists if the battery pack is not properly handled. To reduce the risk of personal injury:

- **Do not attempt to recharge the battery.**
- **Do not expose the battery to temperatures higher than 60°C (140°F).**
- **Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.**
- **Replace only with the spare designated for this product.**

System battery removal

1. Power down the server.
2. Remove the access panel.
3. Remove the controller.
4. Locate the battery.
5. Remove the battery.

System battery replacement

1. Place the battery.
2. Place the expansion boards from and around slot 9, if they were removed.
3. Replace the access panel.