HPE ProLiant MicroServer Gen10 - FRU Parts Support Guide

Part Number: External
Published: 2020
Edition: 1

HPE ProLiant MicroServer Gen10 - FRU Parts Support Guide

Abstract
This document will help you identify parts of the product and also gives a step-by-step instruction on how to remove and replace the components.

Part Number: External
Published: 2020
Edition: 1

© Copyright 2020 Hewlett Packard Enterprise Development LP

Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Acknowledgments

Intel®, Itanium®, Optane™, Pentium®, Xeon®, Intel Inside®, and the Intel Inside logo are trademarks of Intel Corporation in the U.S. and other countries.
Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.
Java® and Oracle® are registered trademarks of Oracle and/or its affiliates.
UNIX® is a registered trademark of The Open Group.
All third-party marks are property of their respective owners.

Table of contents

Part Locator
- Front View 5
  - SSD 5
- Front View 2 6
  - LFF SATA non-hot-plug drive 7
  - SFF SATA non-hot-plug drive 7
- Back View 8
  - System board 9
  - System board assembly 9
  - System battery 10
- Internal View 1 11
  - Drive cable assembly 11
  - System fan 12
  - DIMM 13
- Internal View 2 13
  - Integrated power supply 14

Remove/Replace
- References
  - Precautions 15
  - Tools And Materials 16
- Procedures
  - Chassis Cover 16
  - Front Bezel 17
  - System Board Assembly 18
  - LFF SATA Non-Hot-Plug Drive 19
  - SFF SATA Non-Hot-Plug Drive 19
  - Optical Drive 20
  - SSD 21
  - Drive Cable Assembly 22
  - System Fan 24
  - Integrated Power Supply 24
  - Expansion Board 25
  - DIMM 26
  - RDX Cartridge 27

RDX Docking Station....28
System Battery....28

Front View



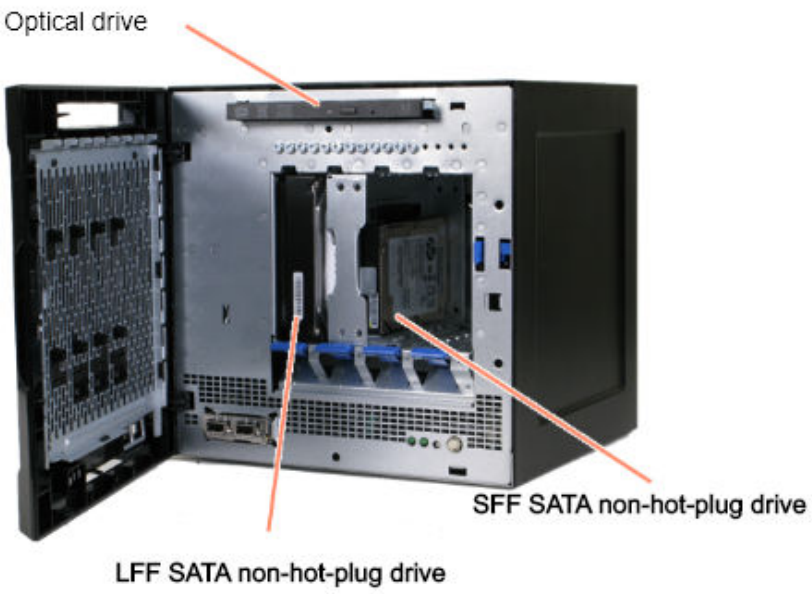
SSD

SSD



Front View 2

Front View 2



LFF SATA non-hot-plug drive

LFF SATA non-hot-plug drive

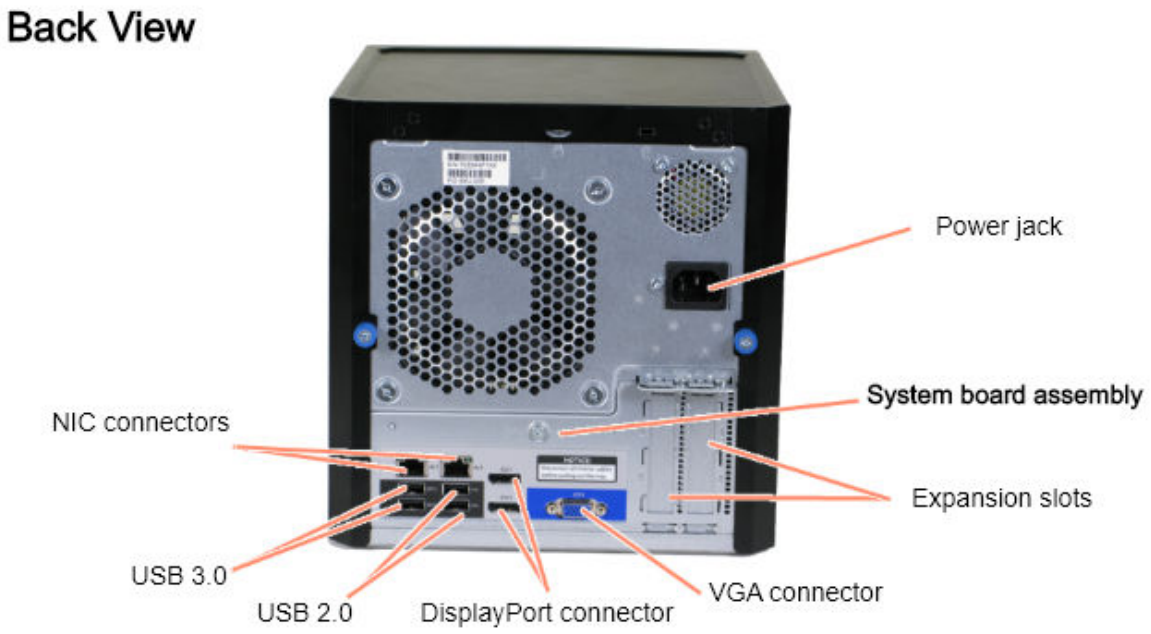


SFF SATA non-hot-plug drive

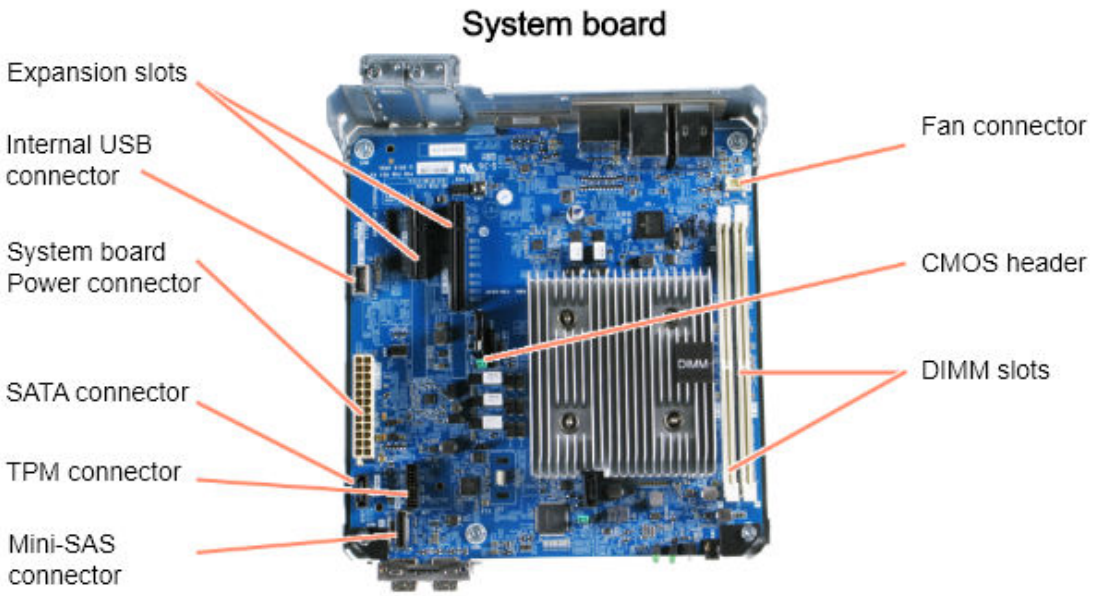
SFF SATA non-hot-plug drive



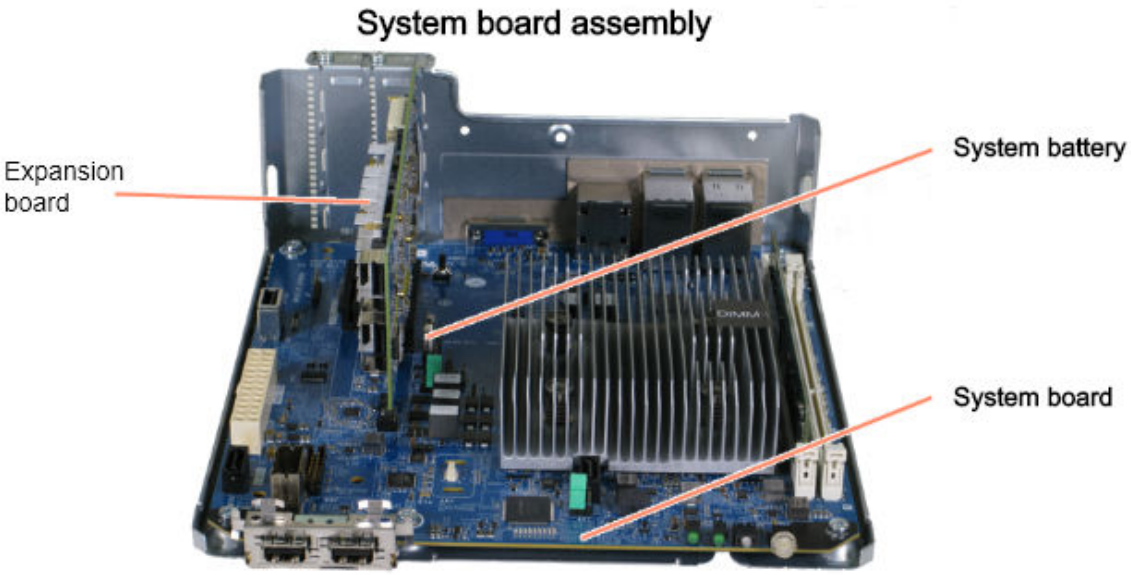
Back View



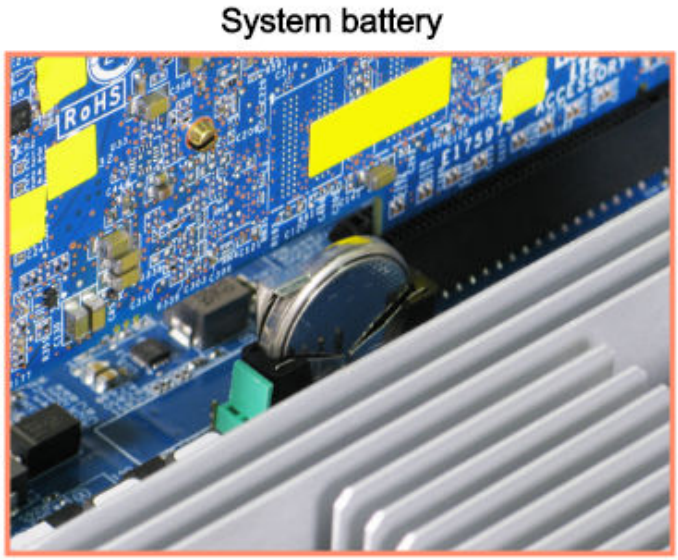
System board



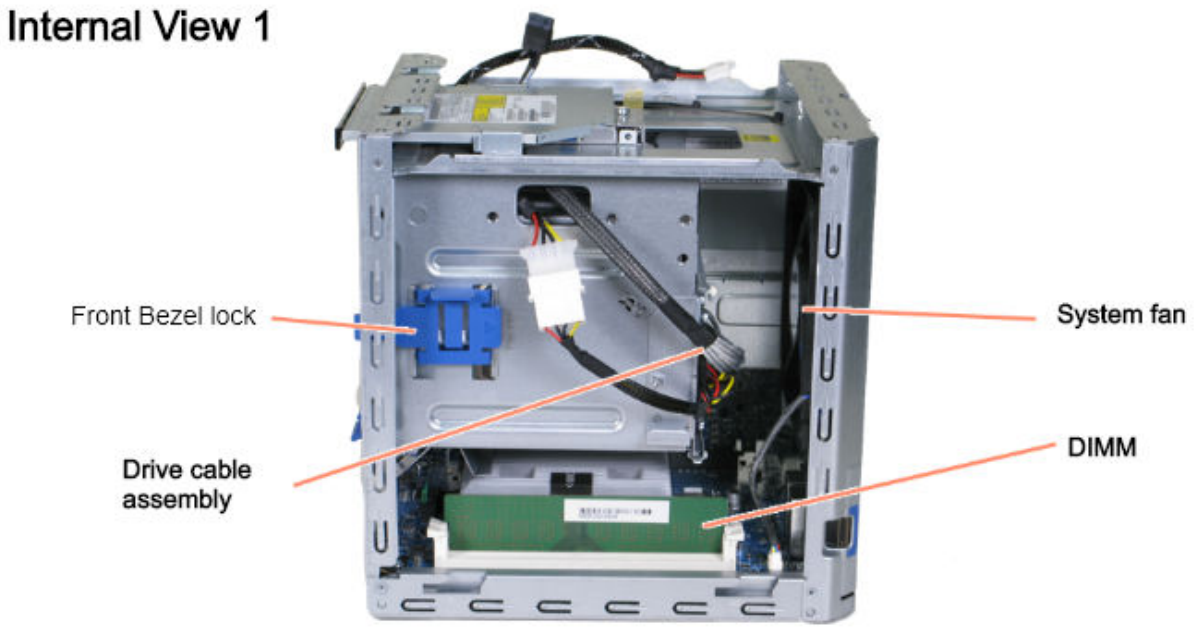
System board assembly



System battery



Internal View 1



Drive cable assembly

Drive cable assembly



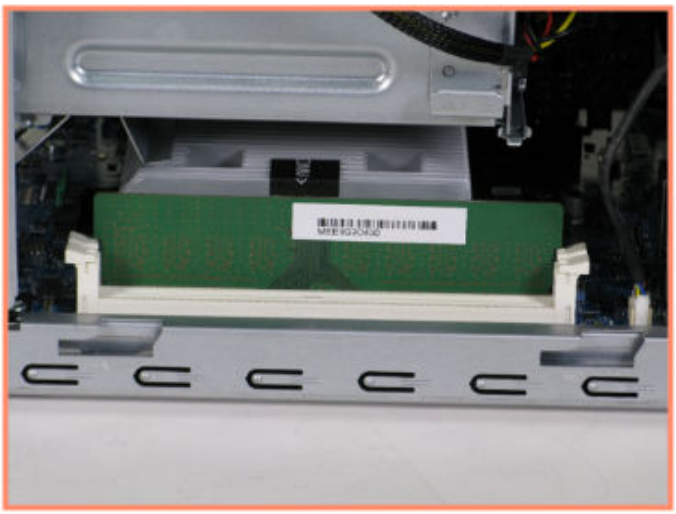
System fan

System fan



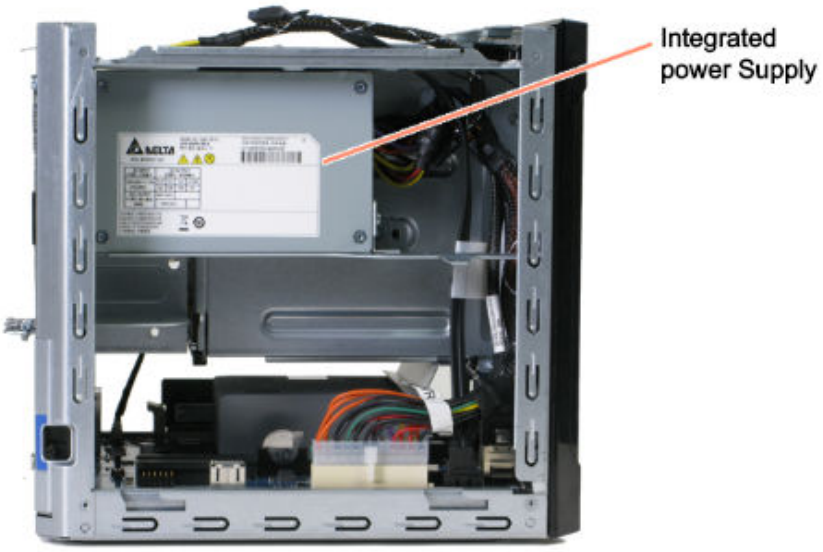
DIMM

DIMM



Internal View 2

Internal View 2



Integrated power supply

Integrated power supply



Precautions

To prevent damage to the unit, protect data, and avoid personal injury, review and follow these precautions.

Before you begin

1. If the unit contains heated components, wait until the components have cooled off before proceeding. Refer to the service manual for details on how long each component requires to adequately cool off.
2. Put on your electrostatic discharge (ESD) wrist or shoe strap to avoid damaging any circuitry.
3. Place an ESD mat on a suitably grounded surface, and then place the unit on the mat.
4. Remove any devices from the unit being serviced, such as diskettes, tape cartridges, or CD-ROMs.
5. Power off the unit and any peripheral devices that are connected to it.**Note: Replacing a hot-plug device does not require powering down the unit.**
6. Disconnect the power cord from the electrical outlet and then from the unit. When a unit is plugged into an AC power source, voltage is always applied to the unit. You must therefore disconnect the power cord from the power source before opening the unit.
7. Disconnect all peripheral device cables from the unit.

Static electricity

Static electricity can damage electrical components. Before removing or replacing a component, observe the following precautions to prevent damage to electric components and accessories:

- Remove all ESD-generating materials from your work area.
- To avoid hand contact, transport and store all electrostatic parts and assemblies in conductive or approved ESD packaging such as ESD tubes, bags, or boxes.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free stations. Before removing items from their containers, place the containers on a grounded surface.
- Do not take the new component out of its ESD package or handle any component before connecting your ESD wrist or shoe strap to a suitably grounded surface.
- Always use an ESD-protected work station when servicing the unit. If an ESD work station is not available, ground yourself to discharge body static by touching the metal chassis of the unit you are servicing.
- Avoid contact with pins, leads, or circuitry.

- Use the ESD package provided with the new part to return the old part.

Disassembly

Ensure that you take the following precautions when disassembling a unit:

- Label each cable as you remove it, noting its position and routing. This will make replacing the cables much easier and will ensure that the cables are rerouted properly.
- Keep all screws with the component removed, if applicable. The screws used in each component can be of different thread sizes and lengths. Using the wrong screw in a component could damage the unit.
- If the unit contains light-sensitive components such as toner cartridges, store the component in its original packaging or in a dark location to avoid damage.

Tools And Materials

Tools used in removal and replacement

Ensure that you have the tools you need before you begin. These should include:

- Torx-10 Screwdriver
- Torx-15 Screwdriver
- Phillips Screwdriver
- Non-metallic pry tool

Chassis Cover

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002573en_us&noframe

Chassis Cover

Before you begin:

1. Review warnings and precautions.

2. Power down the server.
3. Disconnect all cables from the server.

Chassis Cover removal

1. Remove the two Torx-15 thumbscrews securing the chassis cover to the server.
2. Slide the chassis cover towards the rear of the server, then lift up to remove it.

Chassis Cover replacement

1. Lower the chassis cover onto the server, then slide the chassis cover toward the front of the server.
2. Replace the two Torx-15 thumbscrews securing the chassis cover to the server.

Front Bezel

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002574en_us&noframe

Front Bezel

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

Front Bezel removal

1. Slide the release tab upward to unlock the front bezel from the server chassis.
2. Rotate the front panel away from the server chassis and remove it.

Front Bezel replacement

1. Guide the front bezel hinges into the slot on the server chassis and close the front bezel.
2. Slide the release tab downward to lock the front bezel from the server chassis.

System Board Assembly

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002575en_us&noframe

System Board Assembly

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

System Board Assembly removal

1. Disconnect all cables from the system board.
2. Remove the Torx-15 screw securing the system board assembly to the server chassis.
3. Grasp the notches on both side of the system board assembly and pull the system board assembly straight out to remove it from the server chassis.

System Board Assembly replacement

1. Slide the system board assembly into the server chassis.
2. Replace the Torx-15 screw securing the system board assembly to the server chassis.
3. Re-connect all cables from the system board.

LFF SATA Non-Hot-Plug Drive

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002576en_us&noframe

LFF SATA non-hot-plug drive

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. If the front bezel is locked, remove the chassis cover.
6. Unlock the front bezel.
7. Remove the chassis cover.
8. Remove the front bezel.

LFF SATA non-hot-plug drive removal

1. Press the drive latch in the downward direction.
2. Pull the LFF SATA non-hot-plug drive out of the drive bay.
3. Remove the 4 Torx-15 screws for use on replacement LFF SATA non-hot-plug drive.

LFF SATA non-hot-plug drive replacement

1. Replace the 4 Torx-15 screws taken from the removed LFF SATA non-hot-plug drive.
2. Push the LFF SATA non-hot-plug drive into the drive bay until the latch clicks.

SFF SATA Non-Hot-Plug Drive

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002577en_us&noframe

SFF SATA non-hot-plug drive

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. If the front bezel is locked, remove the chassis cover.
6. Unlock the front bezel.
7. Remove the chassis cover.
8. Remove the front bezel.

SFF SATA non-hot-plug drive removal

1. Press the drive latch in the downward direction.
2. Pull the LFF SATA non-hot-plug drive out of the drive bay.
3. Remove the 4 Torx-10 screws securing the SFF SATA non-hot-plug drive to the converter tray.
4. Remove the SFF SATA non-hot-plug drive from the converter tray.

SFF SATA non-hot-plug drive replacement

1. Replace the SFF SATA non-hot-plug drive into the converter tray.
2. Replace the 4 Torx-10 screws securing the SFF SATA non-hot-plug drive to the converter tray.
3. Push the LFF SATA non-hot-plug drive into the drive bay until the latch clicks.

Optical Drive

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002578en_us&noframe

Optical drive

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.
6. Remove the front bezel.

Optical drive removal

1. Disconnect the optical drive cable from the optical drive.
2. Remove the Torx-15 screw securing the optical drive to the server chassis.
3. Grasp the Optical drive and remove it from the media bay.
4. Remove the two Phillips screws securing the Optical Drive bracket to the Optical Drive.
5. Remove the Optical Drive bracket.

Optical drive replacement

1. Align the Optical Drive bracket with the screw holes on the Optical Drive.
2. Replace the two Phillips screws securing the Optical Drive bracket to the Optical Drive.
3. Grasp the Optical drive and slide it in the media bay.
4. Replace the Torx-15 screw securing the optical drive to the server chassis.
5. Re-connect the optical drive cable to the optical drive.

SSD

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002579en_us&noframe

SSD

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

SSD removal

1. Disconnect the power and SATA cables from the solid state drive.
2. Remove the Torx-15 screw securing the drive carrier to the server chassis.
3. Slide the drive carrier towards the front panel and then lift up.
4. Remove the four Torx-10 screws securing the solid state drive to the drive chassis.
5. Remove the solid state drive from the bracket.

SSD replacement

1. Place the solid state drive into the bracket.
2. Replace the four Torx-10 screws securing the solid state drive to the drive chassis.
3. Lower the drive carrier into the server chassis and slide it towards the rear of the server chassis.
4. Replace the Torx-15 screw securing the drive carrier to the server chassis.
5. Re-connect the power and SATA cables to the solid state drive.

Drive Cable Assembly

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002580en_us&noframe

Drive cable assembly

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.
6. Remove the front bezel.
7. Remove all drives.

Drive cable assembly removal

1. Disconnect the drive power cable.
2. Remove the cable tie securing the cables to the server chassis.
3. Disconnect the LFF/SFF drive SATA port cable from the system board and carefully pull the cable out of the server chassis.
4. Disconnect the mini-SAS cable from the system board and carefully pull the cable out of the server chassis.
5. Remove the Torx-15 screw securing the drive cable assembly to the server chassis.
6. Grasp the drive cable assembly and remove it from the server chassis.

Drive cable assembly replacement

1. Slide the drive cable assembly into the server chassis.
2. Replace the Torx-15 screw securing the drive cable assembly to the server chassis.
3. Carefully feed the LFF/SFF drive SATA port cable through the server chassis and reconnect it to the system board.
4. Re-connect the drive power cable.

System Fan

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002581en_us&noframe

System Fan

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

System Fan removal

1. Disconnect the fan cable from the system board.
2. Remove the four Torx-15 screws securing the system fan to the rear of the server chassis.
3. Grasp the system fan and remove it from the server chassis.

System Fan replacement

1. Making sure to align the screw holes, replace the system fan into the rear of the server chassis.
2. Replace the four Torx-15 screws securing the system fan to the server chassis.
3. Re-connect the fan cable to the system board.

Integrated Power Supply

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002582en_us&noframe

Integrated power supply

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Remove the chassis cover.

Integrated power supply removal

1. Remove the cable ties securing the power cables to the top of the server chassis.
2. Disconnect all power supply cables.
3. Remove the three Torx-15 screws securing the integrated power supply to the rear of the server chassis.
4. Remove the Torx-15 screw securing the integrated power supply inside the server chassis.
5. Slide the integrated power supply towards the front of server and remove it from the server chassis.
6. Remove the Torx-15 screw securing the power supply support bracket to the integrated power supply, and remove the power supply support bracket.

Integrated power supply replacement

1. Replace the power supply support bracket, and replace the Torx-15 screw securing the power supply support bracket to the integrated power supply.
2. Lower the integrated power supply into the server chassis and move it towards the rear of the server.
3. Replace the Torx-15 screw securing the integrated power supply inside the server chassis.
4. Replace the three Torx-15 screws securing the integrated power supply to the rear of the server chassis.
5. Re-connect all power supply cables.

Expansion Board

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002583en_us&noframe

Expansion board

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

Expansion board removal

1. Disconnect the cable connected to the expansion board, and remove all cables from the system board assembly.
2. Remove the Torx-15 screw securing the system board assembly to the server chassis.
3. Remove the system board assembly.
4. Remove the Torx-15 screw securing the expansion board to the system board assembly.
5. Grasp the expansion board and lift up to remove it.

Expansion board replacement

1. Lower the expansion board into the slot on the system board assembly.
2. Replace the Torx-15 screw securing the expansion board to the system board assembly.
3. Replace the system board assembly.
4. Replace the Torx-15 screw securing the system board assembly to the server chassis.
5. Re-connect all cables connected to the expansion board and the system board assembly.

DIMM

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002584en_us&noframe

DIMM

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.

DIMM removal

1. Push down and out on the DIMM slot latches to release the DIMM.
2. Remove the DIMM from the DIMM slot.

DIMM replacement

1. Ensure the DIMM slot latches are open.
2. Align the notch in the DIMM with the DIMM slot key.
3. Push the DIMM down firmly into the slot until the latches snap into place and the module is fully seated.

RDX Cartridge

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002585en_us&noframe

RDX cartridge

Before you begin:

1. Review warnings and precautions.

RDX cartridge removal

1. Press the eject button on the front panel of the RDX docking station.

2. The drive will complete any currently assigned tasks and then eject the RDX cartridge.
3. Noting orientation for replacement, remove the RDX cartridge.

RDX cartridge replacement

1. Noting the orientation from removal, insert the RDX cartridge into the RDX docking station.
2. Gently push the cartridge into the unit until you hear a clicking sound.

RDX Docking Station

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002586en_us&noframe

RDX docking station

Before you begin:

1. Review warnings and precautions. Eject the RDX cartridge to mitigate data loss.

RDX docking station removal

1. If equipped, switch off the power adapter and disconnect it from the RDX docking station.
   NOTE: The unit used in this video is powered by the USB cable and does not require a power adapter.
2. Remove the USB cable connected to the back of the docking station.

RDX docking station replacement

1. Reconnect the USB cable to the USB port on the back of the docking station.
2. If equipped, replace the power adapter to the RDX docking station.

System Battery

https://support.hpe.com/hpesc/public/videoDisplay?videoId=vpsg00002587en_us&noframe

System battery

Before you begin:

1. Review warnings and precautions.
2. Power down the server.
3. Disconnect all cables from the server.
4. Disconnect all cables from the server.
5. Remove the chassis cover.
6. Remove the system board assembly.

Warning: A risk of fire and burns exists if the battery in 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 140 degrees Fahrenheit.Do not disassemble, crush, puncture, short external contacts, or dispose of the battery in fire or water.Replace only with the spare designated for this product.

System battery removal

1. Pull back on the retaining clip to release the system battery from the system board.
2. Lift the system battery out of the socket, noting the orientation for replacement.

System battery replacement

1. Noting the orientation from removal, push the system battery into the socket on the system board.