HPE ProLiant XL225n Gen10 Plus Server - Parts Support Guide

Part Number: External
Published: 2020
Edition: 1

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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.

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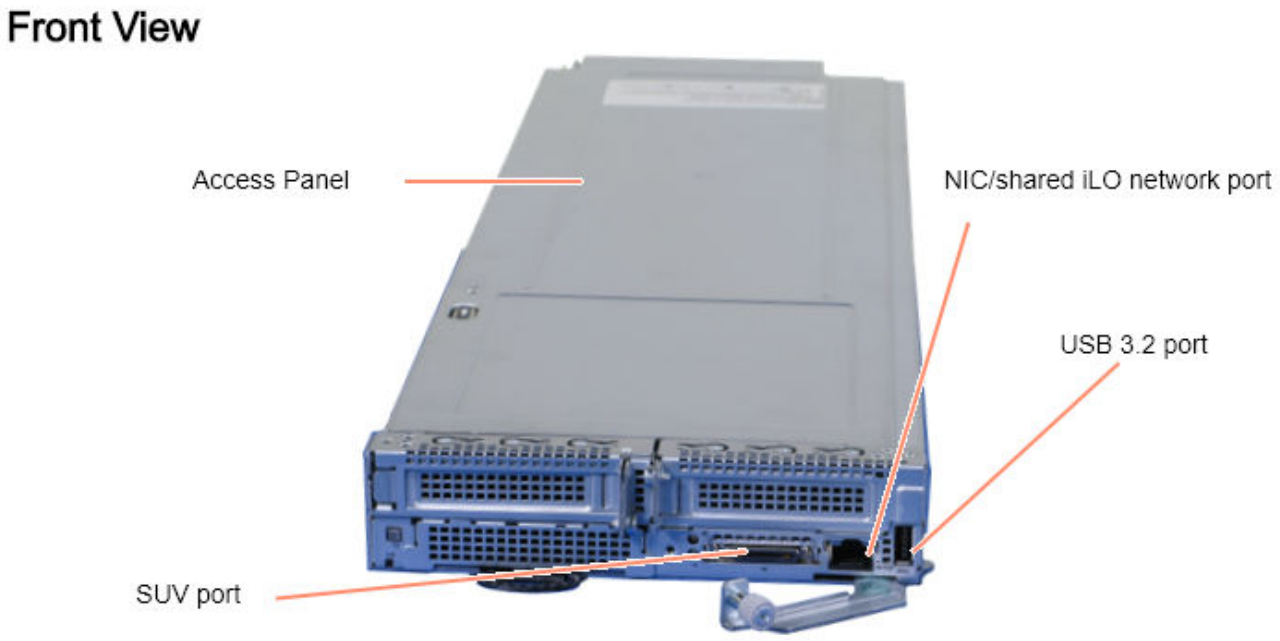
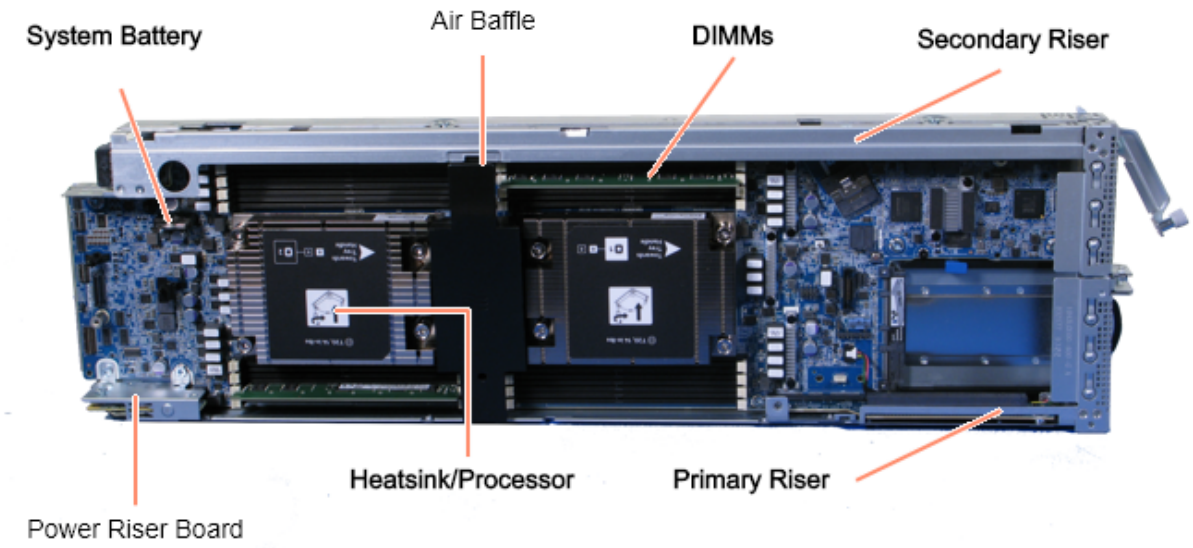
Front View



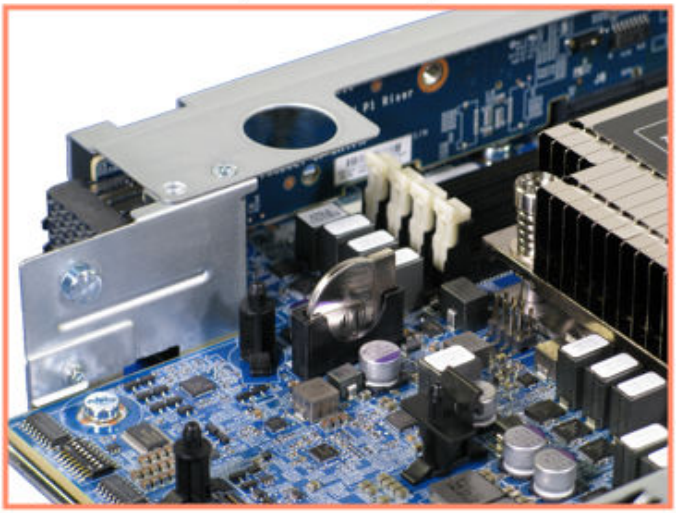
Internal View

Internal View



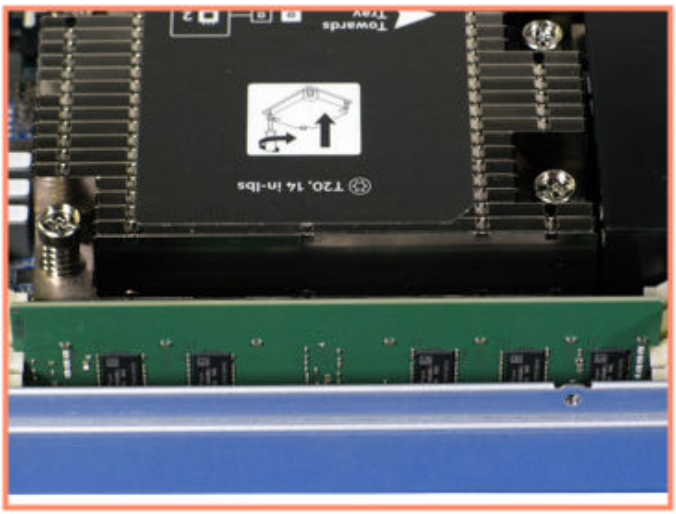
System Battery

System Battery



DIMMs

DIMMs



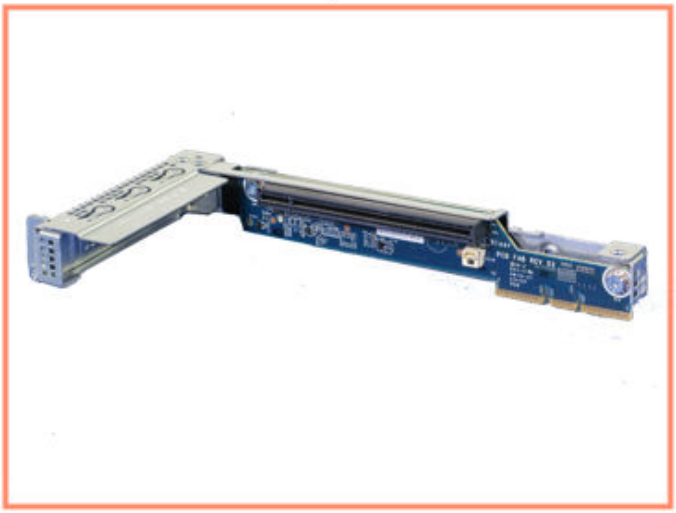
Secondary Riser

Secondary Riser



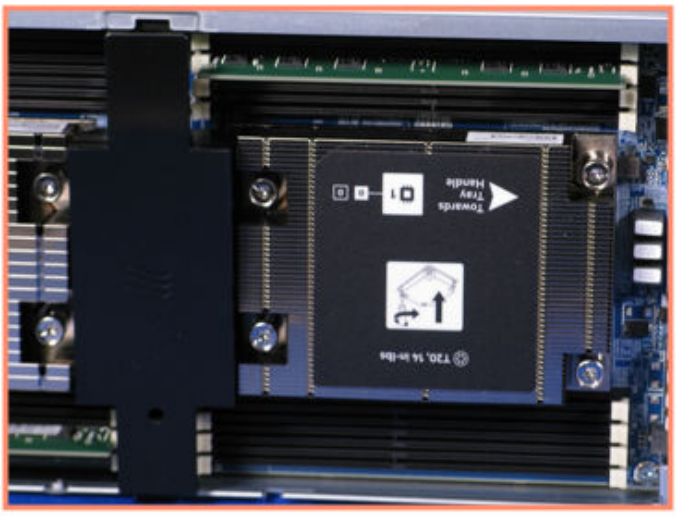
Primary Riser

Primary Riser



Heatsink/Processor

Heatsink/Processor



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
- Torx-20 Screwdriver
- Torx-25 Screwdriver

Node Cover

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Node Cover

Before you begin:

1. Review and follow Precautions.
2. Back up all data.
3. Power down the server.
4. Remove the server from the chassis.

Node Cover removal

1. Press down on the down on the button to release the Node Cover from the server.
2. Slide the node cover back.
3. Noting the orientation for replacement, grasp the Node Cover and remove it.

Node Cover replacement

1. Noting the orientation from removal, lower the node cover onto the server.

2. Slide the node cover forward until it locks into place.

Air Baffle

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Air Baffle

Before you begin:

1. Review and follow Precautions.
2. Back up all data.
3. Power down the server.
4. Remove the server from the chassis.
5. Remove the Node Cover

Air Baffle removal

1. Noting the orientation for replacement, grasp the air baffle and remove it from the server.

Air Baffle replacement

1. Noting the orientation from removal, lower the air baffle into the server.

Primary Riser

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Primary Riser

Before you begin:

1. Review and follow Precautions
2. Back up all data.

3. Remove the server from the chassis.
4. Remove the node cover

Primary Riser removal

1. Remove the two Torx-10 screws securing the Primary Riser to the server.
2. Grasp the Primary Riser and lift up to remove it from the server.

Primary Riser replacement

1. Lower the Primary Riser into the server.
2. Replace the two Torx-10 screws securing the Primary Riser to the server.

Primary Riser Board

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Primary Riser Board

Before you begin:

1. Review and follow Precautions
2. Back up all data.
3. Remove the server from the chassis.
4. Remove the node cover
5. Remove the Primary Riser

Primary Riser Board removal

1. Remove the two Torx-15 screws securing the Primary Riser Board to the riser.
2. Grasp the Primary Riser Board and remove it from the riser.

Primary Riser Board replacement

1. Lower the Primary Riser Board onto the riser.
2. Replace the two Torx-15 screws securing the Primary Riser Board to the riser.

Secondary Riser

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Secondary Riser

Before you begin:

1. Review and follow Precautions.
2. Back up all data.
3. Power down the server.
4. Remove the server from the chassis.
5. Remove the Node Cover

Secondary Riser removal

1. Remove the 4 Torx-10 screws securing the Secondary Riser to the server.
2. Lift up to remove the Secondary Riser from the server.
3. Disconnect the cable from the system board.
4. Remove the Secondary Riser from the server.

Secondary Riser replacement

1. Lower the Second Riser onto the Server.
2. Replace the cable to the system board.
3. Gently push the Secondary Riser into the slot.
4. Replace the 4 Torx-10 screws securing the Secondary Riser to the server.

Secondary Riser Board

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Secondary Riser Board

Before you begin:

1. Review and follow Precautions.
2. Back up all data.
3. Power down the server.
4. Remove the server from the chassis.
5. Remove the Node Cover
6. Remove the Secondary Riser

Secondary Riser Board removal

1. Remove the two Torx-10 screws securing the bracket to the Secondary Riser.
2. Noting the orientation for replacement, remove the bracket.
3. Remove the two Torx-10 screws securing the Riser Board to the Riser.
4. Slide the Secondary Riser Board forward.
5. Noting the orientation for replacement, grasp the Secondary Riser Board and remove it.

Secondary Riser Board replacement

1. Noting the orientation from removal, place the Secondary Riser Board on the riser..
2. Slide the Secondary Riser Board back to align the screw holes.
3. Replace the two Torx-10 screws securing the Riser Board to the Riser.
4. Noting the orientation from removal, replace the bracket.
5. Replace the two Torx-10 screws securing the bracket to the Secondary Riser.

DIMMs

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DIMMs

Before you begin:

1. Review and follow precautions.
2. Back up all data on the server.
3. Power down the server.
4. Remove server from the chassis.
5. Remove the Node Cover

DIMMs removal

1. Push down and out on the DIMM slot latches to release the DIMM.
2. Grasp the DIMM by the edges and remove the DIMM from the slot.

DIMMs replacement

1. Ensure the DIMM slot latches are open.
2. Grasp the DIMM by the edges and 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 DIMM is fully seated.

System Battery

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System Battery

Before you begin:

1. Review and follow precautions.
2. Back up all data on the server.
3. Power down the server.
4. Remove server from the chassis.
5. Remove the Node Cover

System Battery removal

1. Pull the retaining clip away from the battery.
2. Noting the orientation for replacement, lift the battery out of the socket.

System Battery replacement

1. Noting the orientation from removal, insert the battery into the socket.

Power Riser Board

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Power Riser Board

Before you begin:

1. Review and follow precautions.
2. Back up all data on the server.
3. Power down the server.
4. Remove server from the chassis.
5. Remove the Node Cover

Power Riser Board removal

1. Remove the two Tox-15 screws securing the Power Riser Assembly to the System Board.
2. Remove the two Tox-15 screws securing the Power Riser Board to the Assembly.
3. Noting orientation for replacement, remove the Power Riser board.

Power Riser Board replacement

1. Noting the orientation from removal, place the power riser board onto the Assembly.
2. Replace the two Tox-15 screws securing the Power Riser Board to the Assembly.
3. Replace Remove the two Tox-15 screws securing the Power Riser Assembly to the System Board.

Heatsink And Processor

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Heatsink and Processor

Before you begin:

1. Review and follow Precautions.
2. Backup all data.
3. Power down the server
4. Remove the server from the chassis.
5. Remove the Node Cover
6. Remove the air baffle.

Heatsink and Processor removal

CAUTION: Heatsink screws must be tightened and loosened in alternating sequence. Do not overtighten the screws as this might damage the system board or the processor socket.

1. Starting at one corner, loosen the Torx-20 captive screws a few turns.
2. Move to the Torx-20 screw opposite the first one and loosen it a few turns.

3. Move to the Torx-20 screw beside the second one and loosen it a few turns.
4. Move to the Torx-20 screw opposite the last one and loosen it a few turns.
5. Repeat the process all captive screws are free.
6. Noting the orientation for replacement, grasp the heatsink and lift up to remove it.
7. Using an alcohol wipe, remove the thermal grease from the processor and heatsink.
8. Loosen the three Torx-20 captive screws in the 3-2-1 order shown on the frame.
9. Rotate the processor frame open.
10. Rotate the frame into the open position.
11. Not the orientation for replacement, grasp the processor holder and remove the processor from the system.

Heatsink and Processor replacement

Caution: THE PINS ON THE SYSTEM BOARD ARE VERY FRAGILE AND EASILY DAMAGED. To avoid damage to the processor or system board, do not touch the processor or processor socket contacts and perform any work on the new processor away from the unit.

1. Noting the orientation from removal, slide the processor into the processor frame.
2. Close the processor frame and tighten the three Torx-20 captive screws in the 1-2-3 order shown on the frame.
3. Apply thermal grease on top of the processor in the pattern of 8 big dots.
4. Noting the orientation from removal, place the heatsink onto the system board.
5. Making sure not to overtighten, tighten the four Torx-20 heatsink screws in the same alternating pattern from removal.

System Board

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System Board

Before you begin:

1. Review and follow Precautions.
2. Backup all data.
3. Power down the server
4. Remove the server from the chassis.
5. Remove the Node Cover
6. Remove the air baffle.
7. Remove the Primary Riser
8. Remove the Secondary Riser
9. Remove the Power Riser Board
10. Remove the DIMMs
11. Remove the System Battery
12. Remove the Heatsink and Processor.

System Board removal

1. Loosen the Torx-15 screw securing the heatsink number pointer assembly and remove the assembly.
2. Disconnect the cable connected to the system board.
3. Remove the nine Torx-15 screws securing the system board to the server chassis.
4. Slide the system board backward and remove it.

System Board replacement

1. Lower the system board into the tray and slide it forward until it is fully seated.
2. Replace the nice Torx-15 screws securing the system board to the chassis.
3. Re-connect the cable connected to the system board.
4. Lower the heatsink number pointer assembly onto the system board and tighten the Torx-15 screw to secure it.

Power Button Cable

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Power Button Cable

Before you begin:

1. Review and follow precautions.
2. Back up all data on the server.
3. Power down the server.
4. Remove server from the chassis.
5. Remove the Node Cover
6. Remove the system board

Power Button Cable removal

1. Remove the Torx-10 screw securing the assembly to the chassis.
2. Slide the assembly back and remove it from the chassis.
3. Remove the Philips screw securing the cable to the assembly and remove it
4. Release the clips securing the cable to bracket, and noting the orientation for replacement remove the cable from the bracket.

Power Button Cable replacement

1. Noting the orientation from removal, replace the Power Button Cable into the bracket.
2. Place the cable on the assembly and replace the Philips screw securing it.
3. Place the assembly into the chassis, and slide it forward to lock it place.
4. Replace the Torx-10 screw securing the assembly to the chassis.