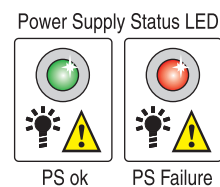


9 Replacing a Power Supply Module

IMPORTANT NOTES: To maintain hot-swap capability, make sure that an active AC Power Supply Module is in BOTH chassis slots before replacing (hot-swapping) a Power Supply Module. Check the status LED to determine which PS Module has failed... (see detail at right).



- Disconnect appropriate AC power cord.
- Grasp handle and pull module out.
- Grasp handle and pull module out.

Note: When inserting new power supply, make sure the green handle is depressed downward while sliding the module into the PS cage.

CAUTION: If only one module is installed, it must be in the right-side slot and a Power Supply Filler Panel must be installed in the left slot to ensure proper system cooling.

10 Servicing the 4-Port GbE Fiber Module

- Install the LED board using two screws as shown.
- Install each LC connector into an escutcheon opening using two screws and two nuts as shown.

See your fiber module add-in card documentation for complete configuration and installation instructions.

11 Removing the Network Port Blanks

If installing a copper module for the first time, remove the filler blanks:

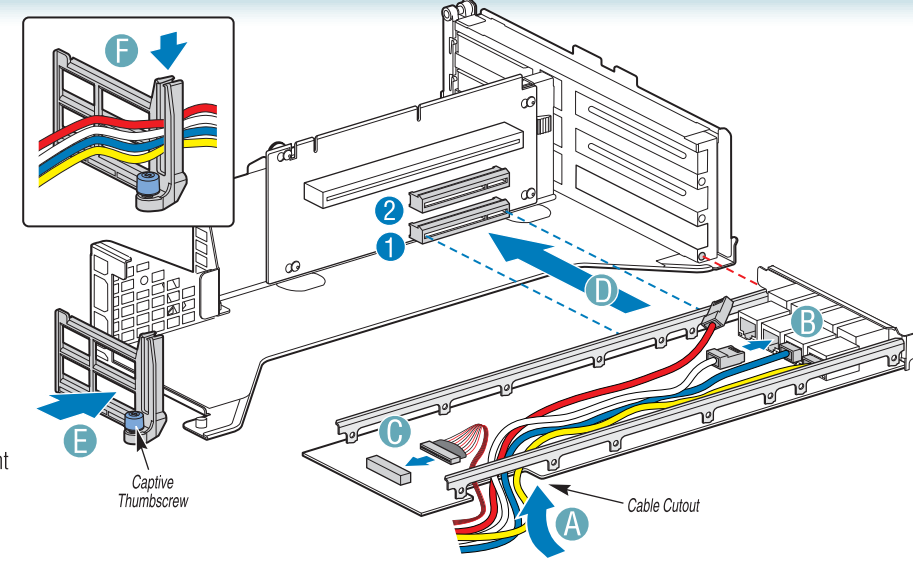
- Remove both screws as shown above.
- Both filler blanks must be removed together. Rotate the bottom edges of both filler blanks outward, lower filler blanks slightly to disengage the retention tabs at the top, and remove.

12 Attach Escutcheon(s)

- Both escutcheons must be installed together. Insert the retention tabs located at the top of each escutcheon into the front panel notches, then rotate bottom edges toward chassis.
- Attach each escutcheon with one screw each as shown.

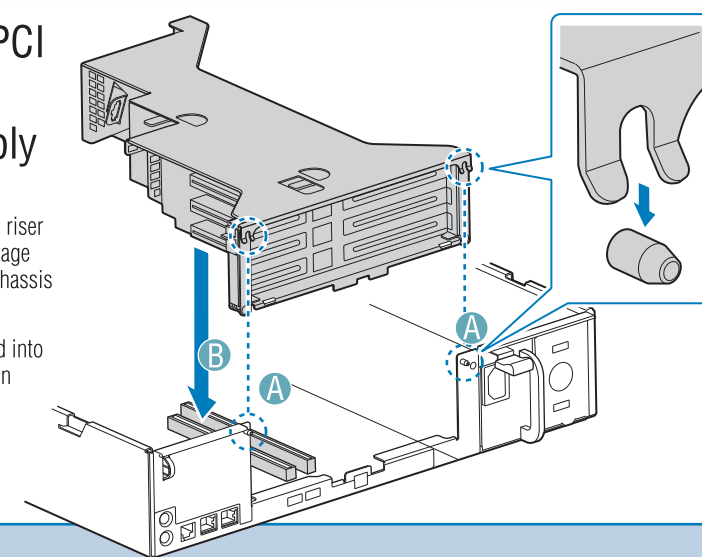
13 Configure and Install LAN Card

- Route cables through LAN card cable management cutout.
- Connect four cables to LAN card. Note color coding.
- Connect LED ribbon cable.
- Install LAN card into PCI Riser assembly, starting with slot #1.
- Attach the PCI retention clip and tighten the blue captive thumbscrew.
- Push cables into the cable management slot of the retention clip. Do not pull cables too tight.



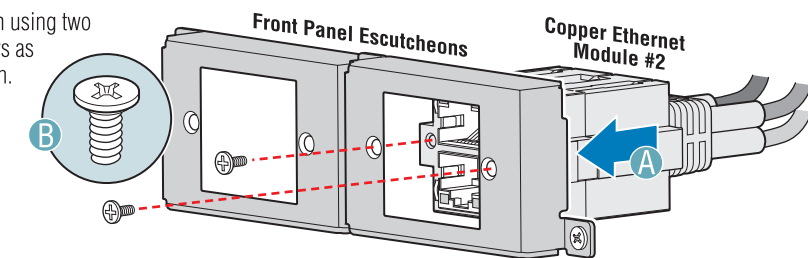
14 Install PCI Riser Assembly

- Forks at rear of PCI riser assembly must engage matching pins on chassis back panel.
- Press PCI riser card into matching sockets on server board.



15 Install Copper Module Connector to Front Panel Escutcheon

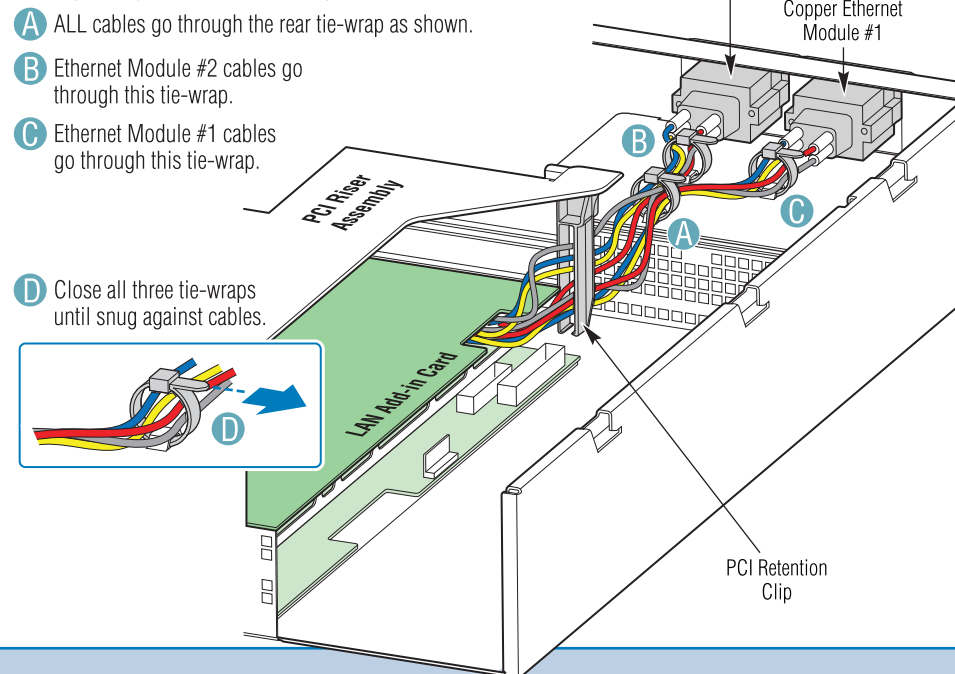
- Insert connector from back side of front panel as shown. Note that connector is keyed via screw locations, and will install only one way.
- Attach using two screws as shown.



16 Copper Module Cabling within the System

Visually check that all cables exit the LAN card correctly and route securely through the PCI retention clip as shown.

- ALL cables go through the rear tie-wrap as shown.
- Ethernet Module #2 cables go through this tie-wrap.
- Ethernet Module #1 cables go through this tie-wrap.
- Close all three tie-wraps until snug against cables.



Accessories and Order Codes

Intel® IP Network Server NS12U AC Base Model	NSIA0100	NS12U Escutcheons for Fiber NIF (kit of 48)	NSIESCFBR100
Spare Power Distribution Board	TLIPWRDISBD	NS12U Escutcheons for Copper NIF (kit of 48)	NSIESCCPR100
TIG2U AC Power supply module	TLIACPSU003	INTEL® PRO/1000 PT QUAD PORT BYPASS Adapter	EXPI9014PTBLK
NS12U Front Panel I/O board and Light Pipe	NSIFPIOLP03	INTEL® PRO/1000 AT QUAD PORT NIC IN FRONT Adapter	EXPI9024PTBLK
NS12U Interconnect Cable spare kit	NSICBLMSC03	INTEL® PRO/1000 AF QUAD PORT BYPASS NIC Adapter	EXPI9014PFBLK
NS12U Bezel spare (unpainted, kit of 12)	NSIBZEL003	INTEL® PRO/1000 AF QUAD PORT NIC IN FRONT Adapter	EXPI9024PFBLK
TIG2U CPU Heatsink	TLISNKCLP03		
TIG2U Fan set (4) Assembly spare	TLIFANSET03		
Intel® Server Board SE7520JR2 (SATA)	SE7520JR2ATAD2		
NS12U Cable management bracket (kit of 48)	NSICBLRET01		

A complete list of accessories and spares can be found at: www.intel.com/go/serverbuilder

Reference

Server System Cabling and Component Diagram

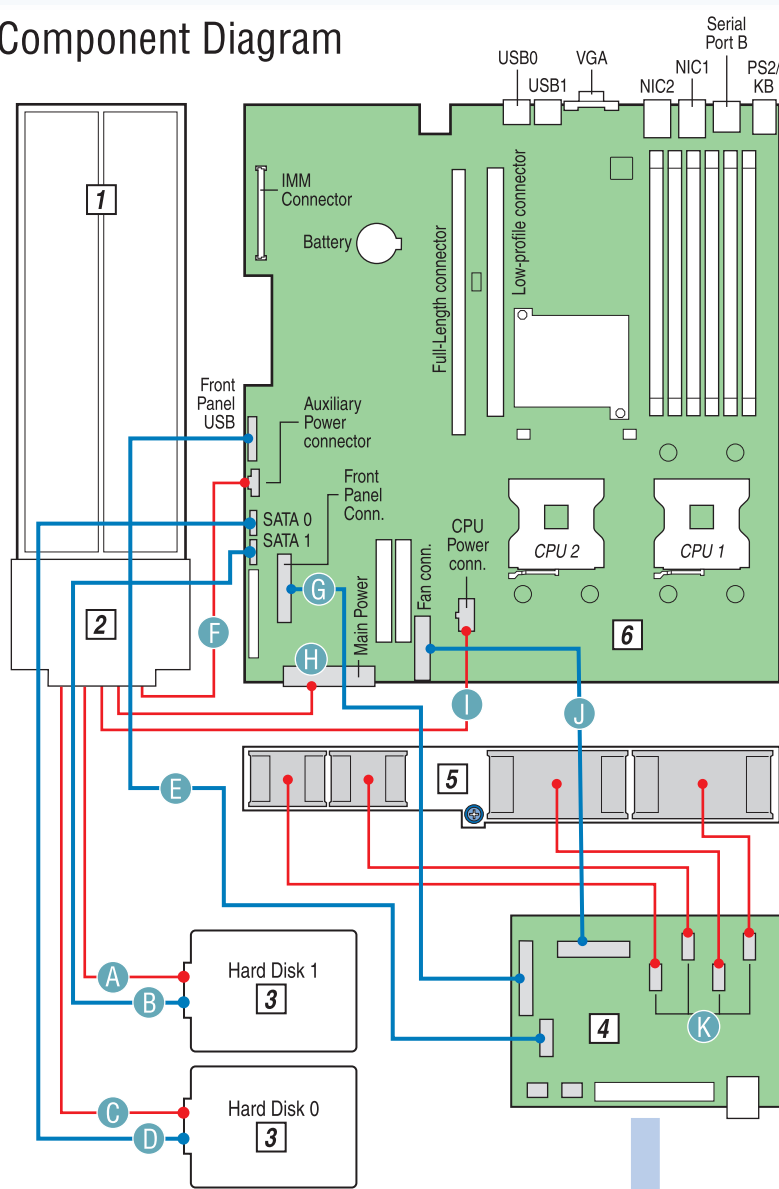
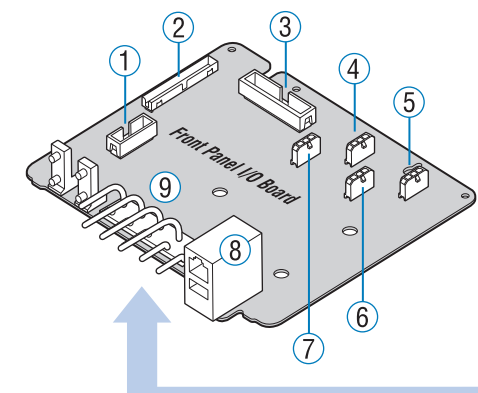
IMPORTANT NOTE: See your Intel® IP Network Server NS12U User Guide for complete cabling and server board component descriptions.

System Components

- Power Supply
- Power Distribution Module
- SATA Hard Drive
- Front Panel I/O Board
- Fan Module
- Server Board

Front Panel I/O Board Connector/Component Layout

- USB
- Front Panel I/O
- Fan Cable
- J3, Fan3, 40mm Fan
- J1, Fan1, 80mm Fan
- J2, Fan2, 80mm Fan
- J4, Fan4, 40mm Fan
- RJ45 COM2 w/single USB Port
- Light Pipe Module



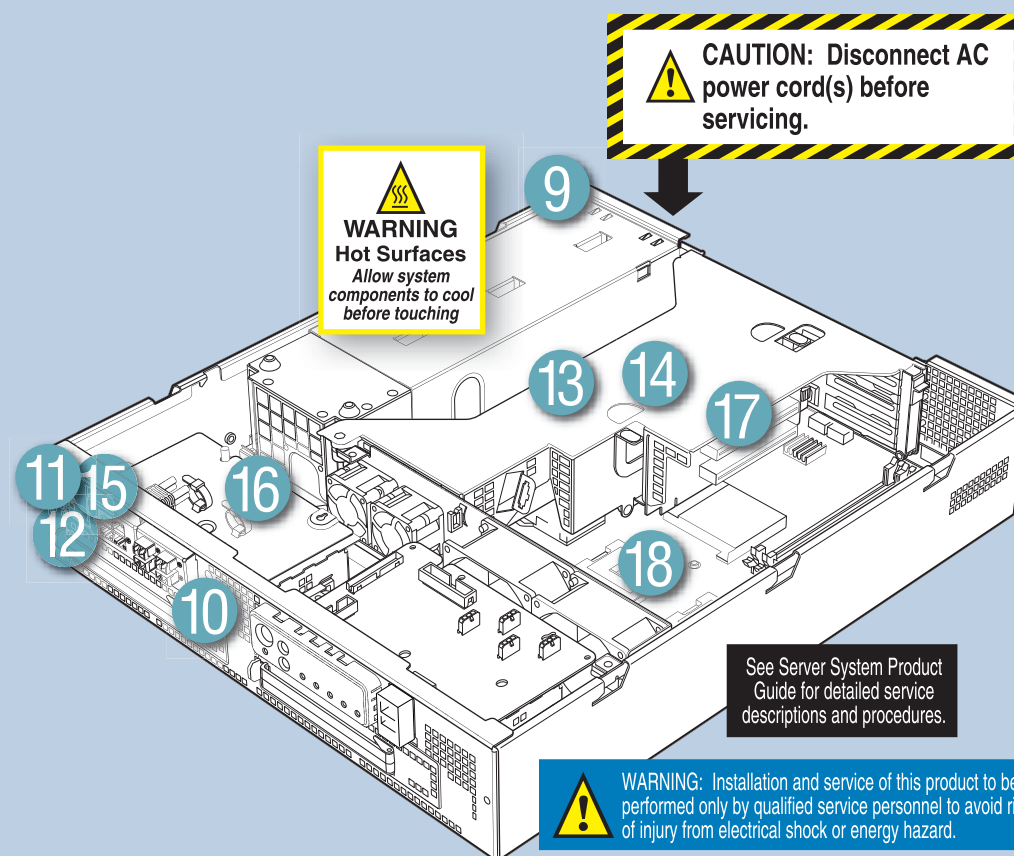
Connections

- Power Supply to HDD 1
- Server Board to HDD 1
- Power Supply to HDD 0
- Server Board to HDD 0
- Front Panel USB
- Auxiliary Power
- Front Panel
- Main Power
- CPU Power
- Fan Module Monitor
- Individual Fan Power

Cable Legend

- BLUE indicates Data Cable
- RED indicates Power Cable

CAUTIONS: See product documentation for detailed service instructions. Observe normal ESD precautions when installing components. See product documentation for detailed ESD procedures.



17 Replacing PCI Add-in Cards

Removing the Riser Assembly:

- Grasp the PCI riser assembly by the TWO blue flexible handles, pull carefully upward and lift out of chassis.

CAUTION: Place PCI riser assembly upside-down during installation or removal of PCI add-in cards.

Removing Low-profile Cards:

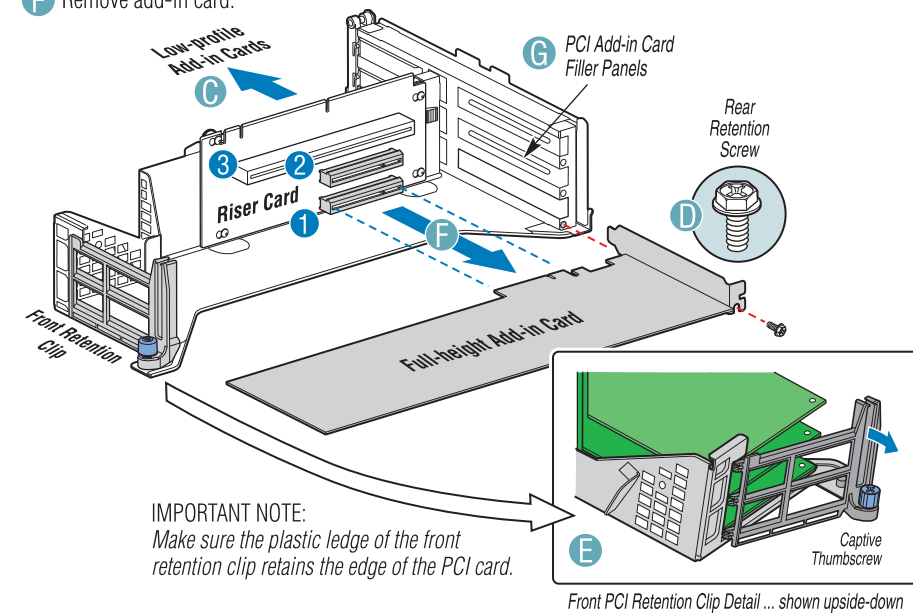
- Open right rear PCI add-in card retention clip.
- Remove PCI add-in card.

Removing Full-height Cards:

- Remove the screw securing the PCI add-in card to be removed.
- Remove front PCI add-in card retention clip by loosening the blue captive thumbscrew, rotating device outward slightly, then disengaging the three plastic tabs from the metal sidewall.
- Remove add-in card.

Installing Add-in Cards:

- Begin with slot #1 on both riser cards.
- If using a previously empty slot, push out the add-in card filler panel, then reverse the previous steps to complete installation of a new add-in card.



IMPORTANT NOTE: Make sure the plastic ledge of the front retention clip retains the edge of the PCI card.

Front PCI Retention Clip Detail ... shown upside-down

18 Servicing the Processor(s)

Notes and Cautions

- If only ONE processor is to be used, it must be installed in the Processor Socket 1.
- Do not mix processors of different types or frequencies.
- When unpacking a processor, hold by the edges only to avoid touching the pins.
- This server board has "zero-insertion force" sockets. If the processor does not drop easily into socket holes, make sure lever is in the full-open position.

Removing a Processor

Open the Socket Lever

CAUTION: Observe normal ESD procedures when handling processor(s).

Remove the Processor

CAUTION: If processor does not easily lift upward, make sure socket lever is in the fully OPEN position.

Installing Processor(s)

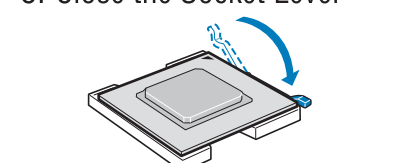
A. Open the Socket Lever

Open the lever all the way as shown.

B. Install the Processor

Align the corner mark on the processor to the socket as shown.

C. Close the Socket Lever



D. Installing/Removing Heat Sink(s)

CAUTION: Heat sink has Thermal Interface Material (TIM) located on the bottom, use caution when handling to avoid damage.

Each heat sink has four captive fasteners and should be tightened using the following procedure:

- Finger-tighten each fastener diagonally, according to the numbers shown.
- Securely re-tighten each fastener again in the same order as performed in step D1.

CAUTION: Do not over-tighten fasteners.

