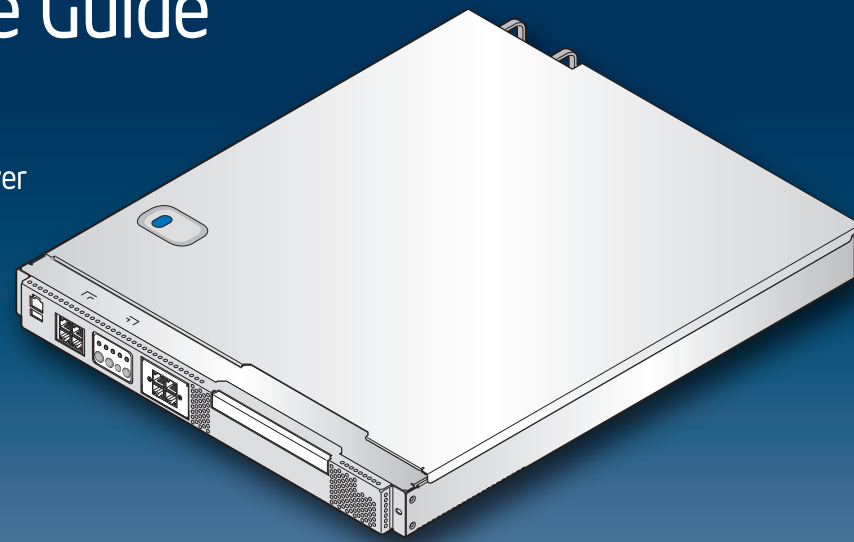


Kontron IP Network Server NSW1U-B Hardware Reference Guide

Thank you for buying an Kontron IP Network Server System. The following information will help you set up and install your Kontron IP Network Server NSW1U-B and service components.



This guide and other supporting documents are located on the web at <http://us.kontron.com/support>

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Kontron IP Network Server NSW1U-B Product Guide, available on the CD or at <http://us.kontron.com/support>

Read all cautions and warnings first before starting your server platform integration.



Minimum Hardware Requirements

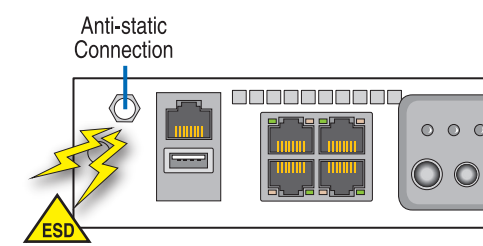
To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:

- Processor: Dual-Core Intel® Xeon® Processor 5100 Series or Quad-Core Intel® Xeon® Processor 5400 Series with compatible heat sink.
- Memory: Minimum of one 512 MB, 240-pin DDR2 533/667 MHz FBDIMM (populating in pairs is recommended).
- For power requirements, see the Kontron IP Network Server NSW1U Technical Product Specification.

1 Attaching Your Ground Strap

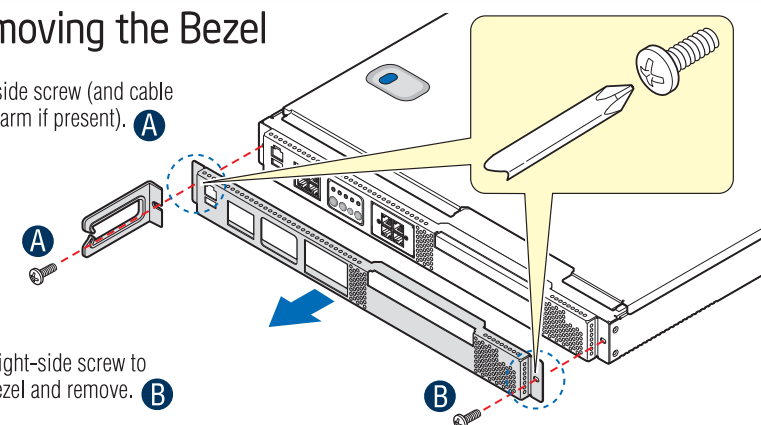
You must remove the bezel to access the ground strap attachment point. If the bezel is installed, see Step 2 at right.

Attach ground strap to anti-static connection point.



2 Removing the Bezel

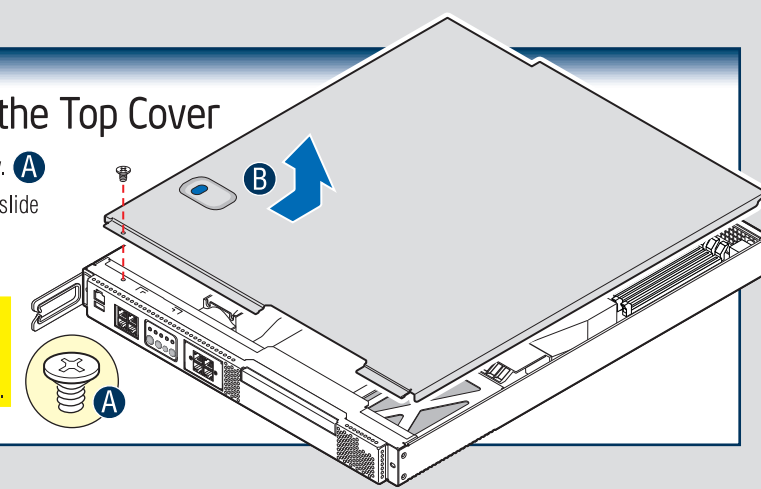
- Remove left-side screw (and cable management arm if present).
- Remove the right-side screw to release the bezel and remove.



3 Removing the Top Cover

- Remove the shipping screw.
- Push blue locking button, slide cover rearward, then lift up and remove.

CAUTION: This unit must be operated with the top cover installed to ensure proper cooling.



5 Replacing an Add-in Card

Remove the Riser Assembly:

- Loosen blue captive thumbscrew on the back panel.
- Loosen blue captive screw securing the PCI riser assembly to the server board.
- Lift riser assembly straight up and remove.
- Note location of "fork" and "pin". These must align when re-installing riser assembly.

Remove Add-in Card:

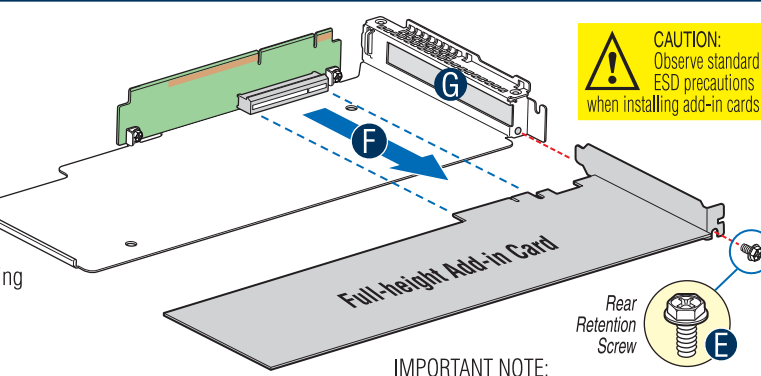
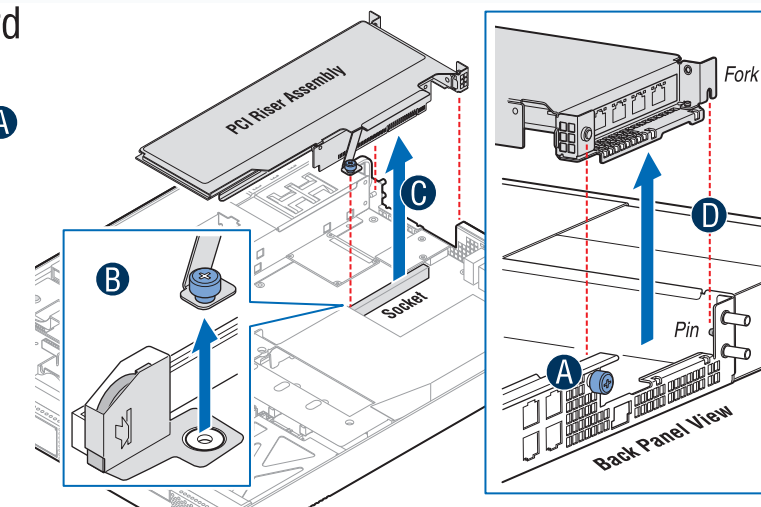
- Remove the rear retention screw.
- Remove the add-in card.

Install Add-in Card:

- If the add-in card slot was empty, push out the add-in card filler panel, then reverse the previous steps to complete installation of an add-in card.

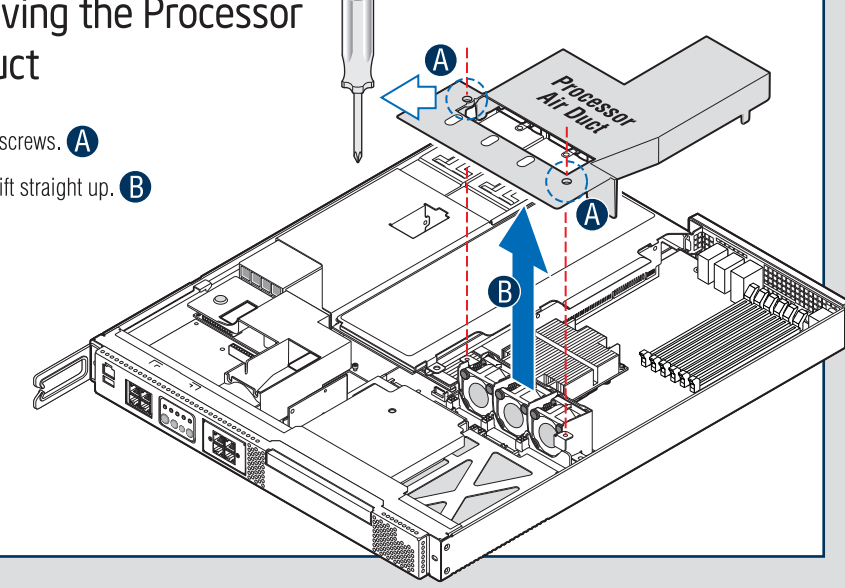
Install the Riser Assembly:

- Fork at rear of riser card assembly must engage matching pin on chassis back panel.
- Press riser card into matching socket on server board.
- Fasten the blue thumbscrew to the server board.
- Tighten thumbscrew at rear.



4 Removing the Processor Air Duct

- Remove the two screws.
- Grasp duct and lift straight up.

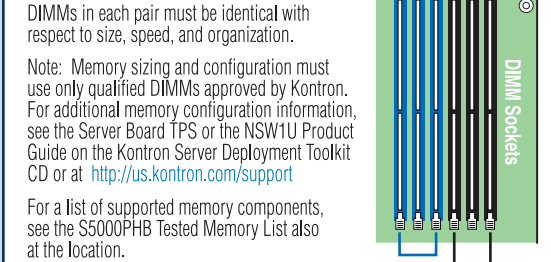


6 Installing Memory

Memory Configurations and Population Order:

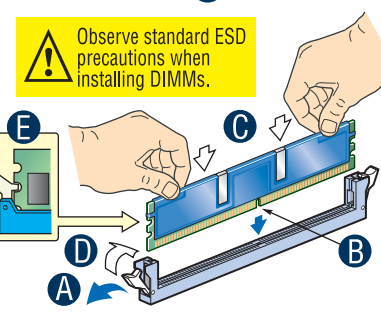
Memory Type: Minimum of one 512 Mbyte DDR2 FBDIMM 533/667 MHz-compliant 240-pin DIMM.

Populate DDR2 FBDIMMs in pairs in the following order: A1-B1, A2-B2, and A3-B3. For best performance, Intel® recommends installing memory in pairs. If installing only one DIMM, you must use slot A1.



To Install DIMMs:

- Open both DIMM socket levers.
- Note location of alignment notch.
- Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot.
- Using both hands, press down evenly and firmly on both sides of the DIMM until it snaps into place and the levers close.
- IMPORTANT! Visually check that each latch is fully closed and correctly engaged with its DIMM edge slot.



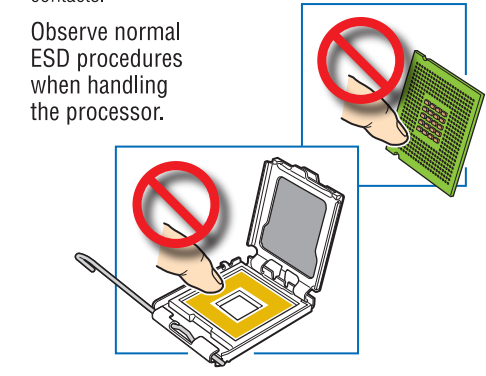
7 Installing the Processor

Cautions:

When opening a socket, DO NOT TOUCH the gold socket wires.

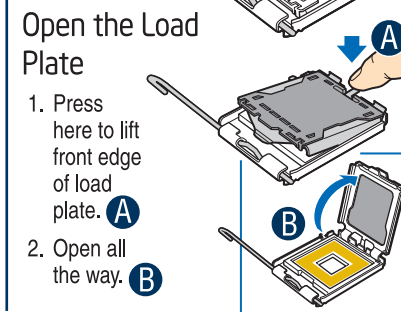
When unpacking a processor, hold by the edges only to avoid touching the gold contacts.

Observe normal ESD procedures when handling the processor.



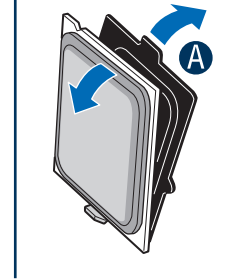
Open the Socket Lever

- Push the lever handle down and away from the socket to release it.
- Pull the lever and open all the way.



Remove the Processor Protective Cover

- Take the processor out of the box and remove the protective shipping cover.

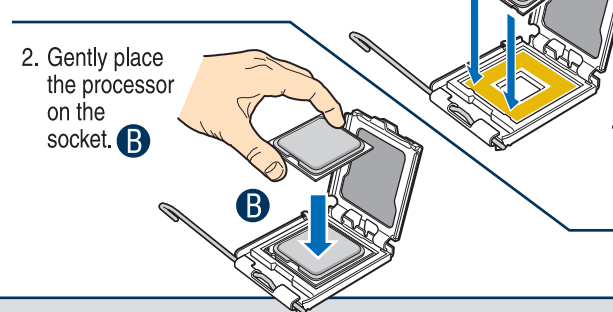


Install the Processor

CAUTION: The underside of the processor has components that may damage the socket pins if installed improperly. Processor must align correctly with socket opening before installation.

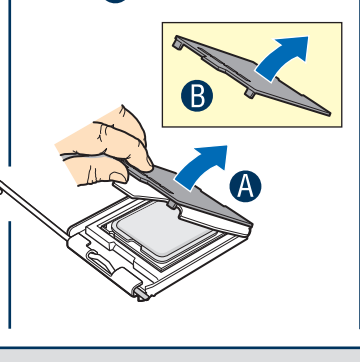
DO NOT DROP processor into socket!

- Orient the processor so that its cutouts match the socket's notches.
- Gently place the processor on the socket.



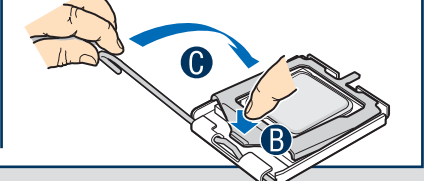
Remove Socket Protective Cover

- Grasp the socket protective cover tab and pull away from the load plate as shown.
- Remove the socket protective cover and store for future use.



Close Load Plate and Socket Lever

- Close the load plate all the way as shown.
- With your finger, push down on the load plate as shown.
- Close the socket lever and ensure that the load plate tab engages under the socket lever when fully closed.



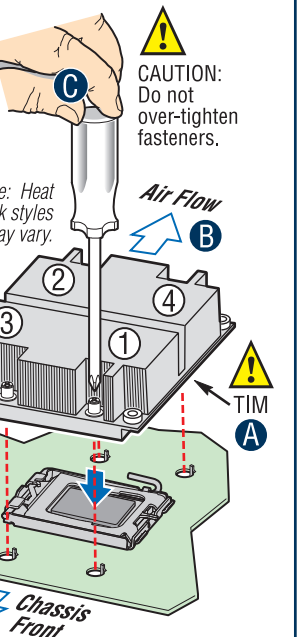
8 Installing the Processor Heat Sink

CAUTION: Use gloves to avoid sharp edges. The heat sink has thermal interface material (TIM) on the underside of it. Use caution so that you do not damage the thermal interface material.

- If this is a new heat sink, remove the protective film on the TIM if present.
- Align heat sink fins to the front and back of the chassis for correct airflow. Airflow goes from front to back of chassis.

- Using a Phillips #2 screwdriver, loosely tighten each fastener in the order shown, i.e. fastener #1 followed by the one diagonally across from it, #2, and so on.
- Gradually and equally tighten each captive screw in diagonal order until each is firmly tightened.

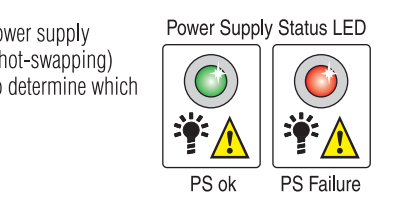
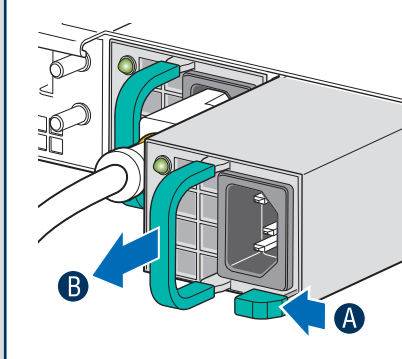
CAUTION: The torque spec for these screws is 8 inch-pounds. Be careful not to exceed it.



9 Replacing a Power Supply Module

IMPORTANT NOTES: There must be an active power supply module 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 power cord.
- Slide green safety lock to the left.
- Grasp handle and pull module out.



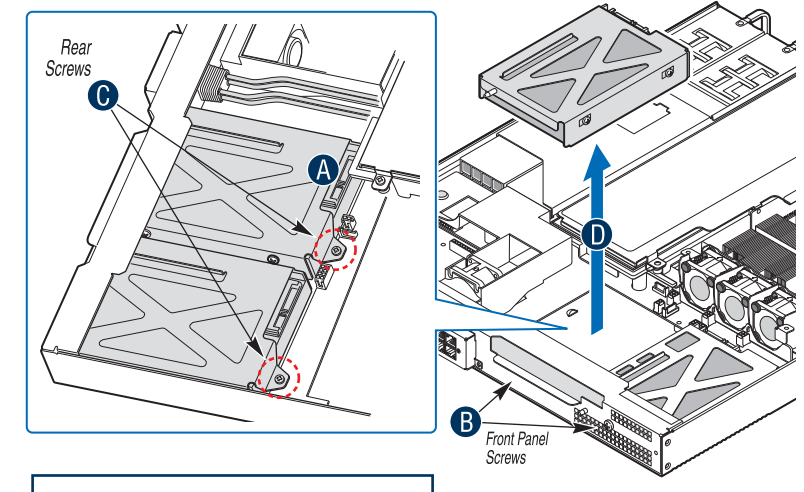
- To insert a new power supply, slide and hold the green safety lock to the left and slide the power supply module into the chassis slot.

10 Installing a Hard Disk Drive

- Remove the Bezel
- Remove the Top Cover
- Remove the Processor Air Duct
- Remove the Optical Device Tray

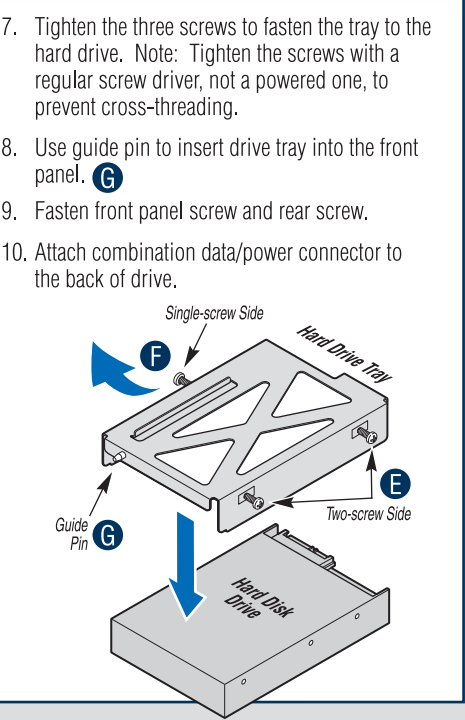
Remove the Hard Drive Tray Assembly

- Disconnect cable (power and data) at rear of hard disk drive if a drive is already installed in this bay.
- Remove the front panel screw securing the drive tray assembly.
- Remove the screw at the rear of the drive tray assembly.
- Slide the drive tray assembly rearward, lift up and remove.



Install Drive into Tray

- Lower the tray onto the drive and engage the side with the two spring-loaded screws first. Hold the rear surface of the drive against the wall of the tray to align the screws.
- Gently deflect the single screw on the other side of the tray out of the way, then lower the tray onto the drive.



Warning

Read all caution and safety statements in this document before performing any of the instructions. Also see the Kontron Server Board and Server Chassis Safety Information document at <http://us.kontron.com/support> for complete safety information.

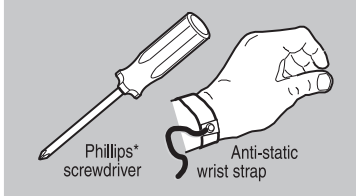
Warning

Installation and service of this product should only be performed by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

Caution

Observe standard ESD (Electrostatic Discharge) procedures during system integration to avoid possible damage to server board and/or other components.

Tools Required



D89247-005

