



Intel® Telco/Industrial Grade Server TIGI2U Hardware Reference Guide

Thank you for buying an Intel® Server System. The following information will help you use and maintain your Intel® Telco/Industrial Grade Server TIGI2U.

This Guide is for technically qualified service persons. Expanded installation instructions and complete product information are available in the Intel® Telco/Industrial Grade Server TIGI2U User Guide.

These guides and other supporting documents are located on the web at <http://support.intel.com/support/motherboards/server/tigi2u/manual.htm>

You can also find the guides on the CD that accompanied the Intel® Telco/Industrial Grade Server TIGI2U.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Intel® Telco/Industrial Grade Server TIGI2U User Guide, available on the CD or at <http://support.intel.com/support/motherboards/server/tigi2u/manual.htm>

Warning

Read all caution and safety statements in this document before performing any of the instructions. Also see the *Intel® Server Board and Server Chassis Safety Information* document at: <http://support.intel.com/support/motherboards/server/safecert.htm> for complete safety information.

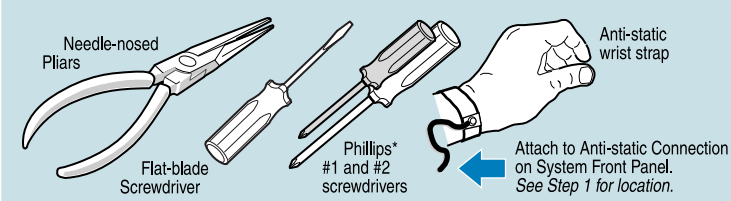
Warning

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

Caution

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

Tools Required



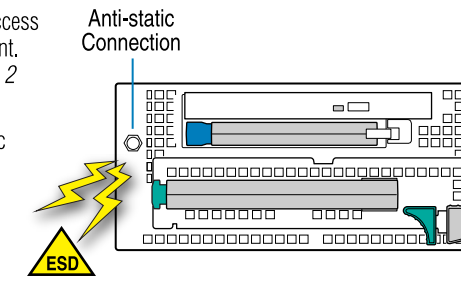
Minimum Hardware Requirements

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

- Processor: Minimum of one Intel® Xeon™ processor with 2 MB cache support.
- Memory: Minimum of two 256 MB (512 MB), DDR2-400/533-compliant Registered ECC SDRAM 240-pin gold DIMMs.
- AC Power: 600W with 1.2A of 5V standby current.
- DC Power: DC source must provide up to 600W of continuous power per feed pair.

1 Ground Strap Attachment Location

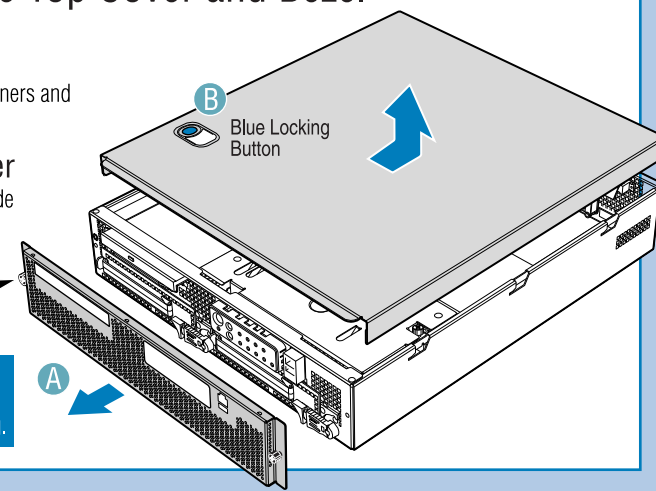
You must remove the bezel to access the ground strap attachment point. If the bezel is installed, see Step 2 at right.



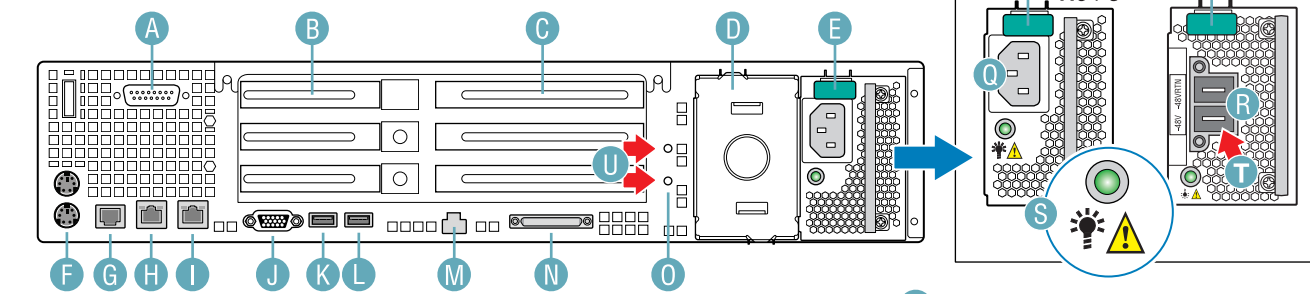
2 Removing the Top Cover and Bezel

- To Remove the Bezel: Loosen two BLUE captive fasteners and pull bezel outward.
- To Remove Top Cover: 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.



3 Back Panel Controls and Features



- A DB15 Telco Alarm Connector
- B PCI Card Bracket (low-profile)
- C PCI Card Bracket (full-height)
- D Power Supply Blank
- E Power Supply (hot-swap if two power supplies are installed)
- F PS/2 Mouse/Keyboard Connectors
- G Rear Serial Port
- H RJ45 NIC 1 Connector
- I RJ45 NIC 2 Connector
- J Video Connector
- K USB 1
- L USB 0
- M Server Management Port

- N SCSI Channel B
- O Chassis provides two #10-32 ground studs. A single two-hole compression terminal must be used for proper safety grounding.
- P PS Release Lever
- Q AC Power IN
- R DC Power IN (female connector)
- S PS Status LED
- T DC Male Power Conn. attaches here.
- U DC Ground Lug attaches here.

Telco Alarms Connector Pinout

Pin	Description	Pin	Description
1	MinorReset +	9	MinorAlarm - NC
2	MinorReset -	10	MinorAlarm - COM
3	MajorReset +	11	MajorAlarm - NO
4	MajorReset -	12	MajorAlarm - NC
5	CriticalAlarm - NO	13	MajorAlarm - COM
6	CriticalAlarm - NC	14	PwrAlarm - NO
7	CriticalAlarm - COM	15	PwrAlarm - COM
8	MinorAlarm - NO		

- DC Power IN Male Connector Configuration:
 - Slide open top of male connector to reveal screw holes.
 - Strip wire insulation as shown. Note minimum wire gauge.
 - Insert each wire all the way and tighten to 24 in-lb (2.7 N-m) torque.

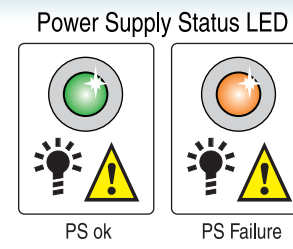
- DC Chassis Grounding Diagram**
- DC Ground Lug Installation (two hole): Use 4 #10-32 nuts, one under and one on top of lug. Tighten each to 10 in-lbs torque.

For complete installation details, see the Intel® Carrier Grade Server TIGI2U User Guide.

8 Replacing a Power Supply Module

IMPORTANT NOTES: To maintain hot-swap capability, make sure that an active AC or DC 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).

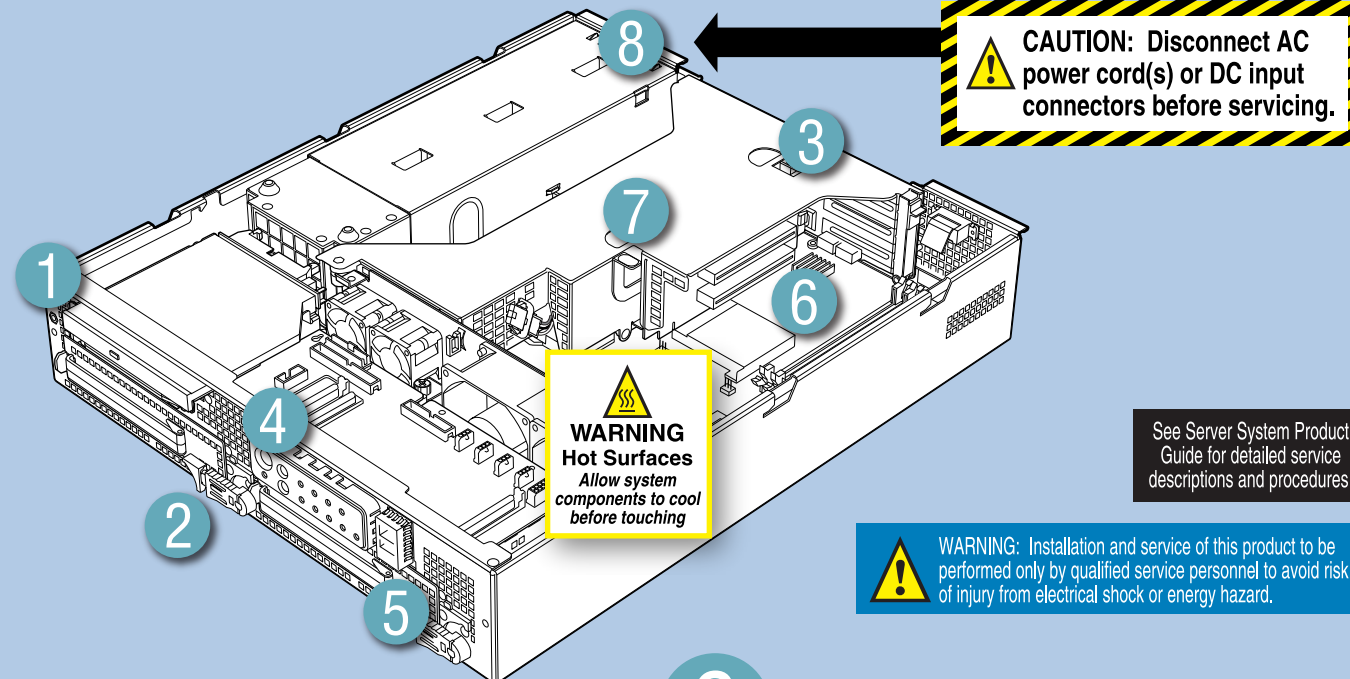
- AC Power Supply**
- Disconnect AC power cord.
 - Depress and hold green latch.
 - Grasp handle and pull module out.
- DC Power Supply**
- Disconnect DC power cord.
 - Depress and hold green latch.
 - Grasp handle and pull module out.



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.



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



CAUTION: Disconnect AC power cord(s) or DC input connectors before servicing.

WARNING: Hot Surfaces. Allow system components to cool before touching.

See Server System Product Guide for detailed service descriptions and procedures.

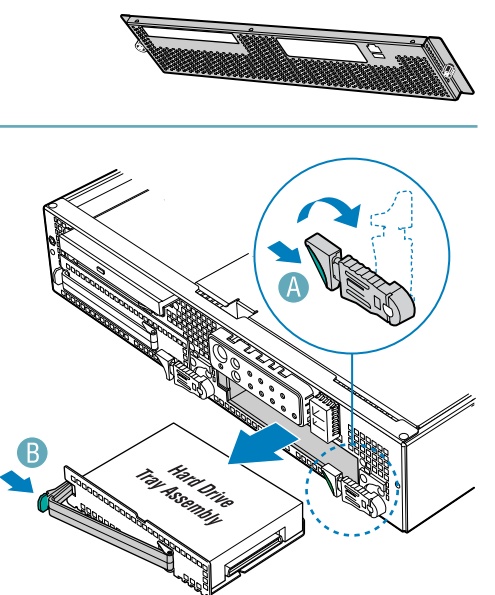
WARNING: Installation and service of this product to be performed only by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

5 Servicing the Hard Disk Drives

Remove the Bezel. See Step 2 above ...

Remove the Hard Drive Tray

- Press GREEN tab on lever and rotate lever assembly clockwise to the vertical position to disconnect SCSI drive connector.
- Press GREEN tab on latch handle, pull handle outward to disengage tray, then slide hard drive tray assembly out of chassis.



Remove the Hard Drive

- Remove four screws securing drive to hard drive tray.
- Remove drive and insert new drive. Secure new drive with four screws.
- Re-insert drive tray assembly into chassis, making sure green latch handle locks into place.
- Press GREEN tab and rotate lever 90 degrees counter-clockwise to engage the SCSI drive connector.

CAUTION: Hard disk drives are hot-swap. See your Intel® Telco/Industrial Grade Server System TIGI2U User Guide for detailed hard disk drive service procedures.

7 Replacing PCI Add-in Cards

CAUTION: Before removing the PCI riser assembly, disconnect the PCI riser power cable shown at right. See descriptive labels on top of PCI riser assembly.

Removing the Riser Assembly:

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

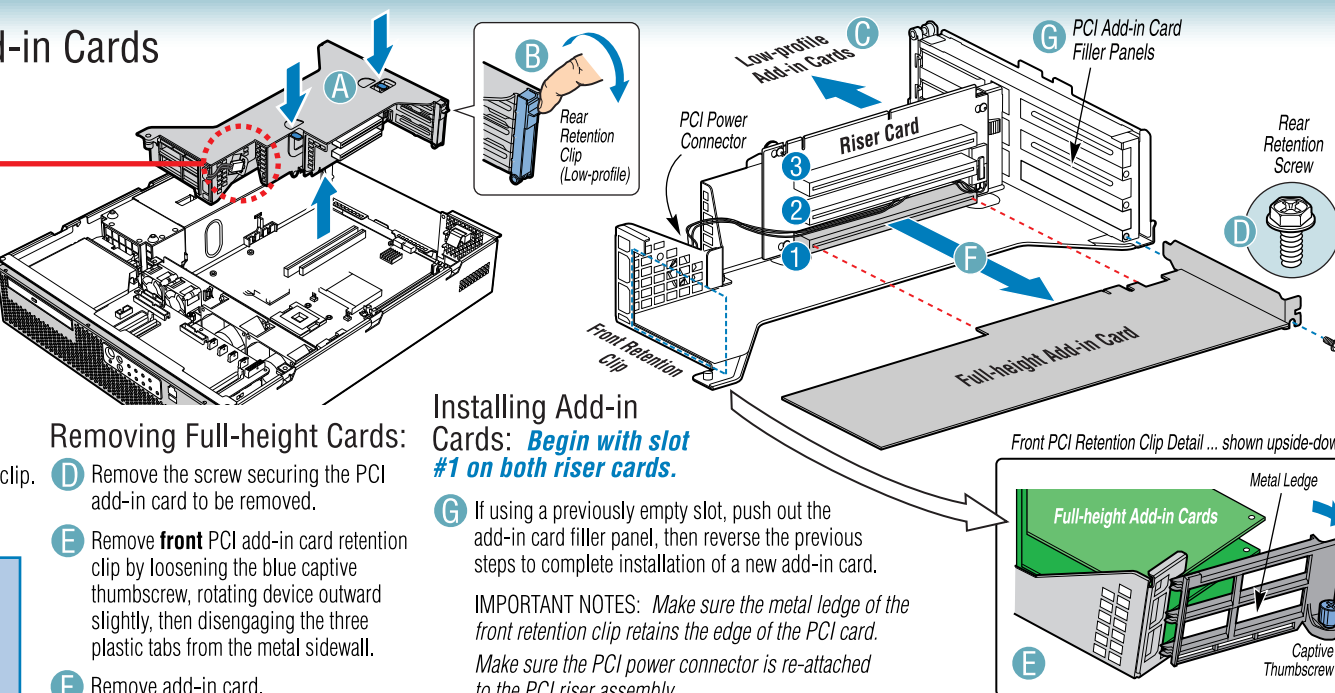
CAUTION: Place PCI riser assembly upside-down during installation or removal of PCI add-in cards.

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.

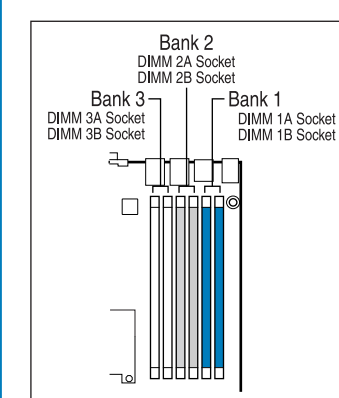
IMPORTANT NOTES: Make sure the metal ledge of the front retention clip retains the edge of the PCI card. Make sure the PCI power connector is re-attached to the PCI riser assembly.

6 Installing Memory

Memory Type: Minimum of two 256 MB, DDR2-400/533 compliant Registered ECC or non-ECC, SPD SDRAM 240-pin gold DIMMs.

Notes and Cautions: Bank 1 (DIMM1A and DIMM1B) must be fully populated before populating Bank 2 (DIMM2A and DIMM2B). Memory must be populated in pairs. The DIMM size, speed and vendor must be the same within a bank. However, the DIMM size can vary between banks. For example, Bank 1 can use two 256 MB DIMMs and Bank 2 can use two 512 MB DIMMs.

Note: For additional memory configurations, see the User Guide on the CD that accompanied your Intel® Telco/Industrial Grade Server System TIGI2U.



- Open both DIMM socket levers.
- Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot.
- Check that socket levers are securely latched.

Observe normal ESD precautions when installing DIMMs.

