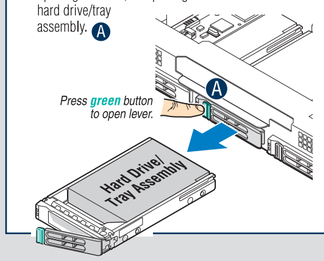
Side 2

9 Servicing the Hard Disk Drives

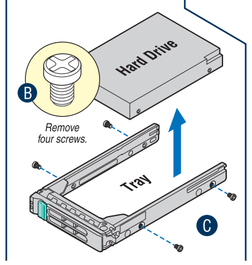
- Remove the bezel See Step 2

Remove the Hard Drive/Tray Assembly

1. Remove the drive tray by pressing the green button, opening the lever, and pulling out the hard drive/tray assembly. A

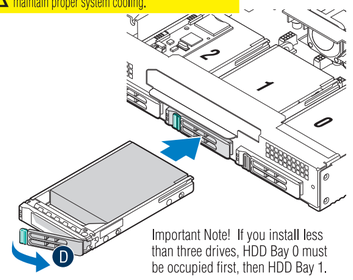


2. Remove four screws securing the drive to the tray and remove drive. B
3. Install new drive into tray and secure with four screws. C



4. With the drive tray locking lever in the fully open position, slide the hard drive/tray assembly into the chassis opening until it stops, then close the lever, pressing until it snaps shut. D

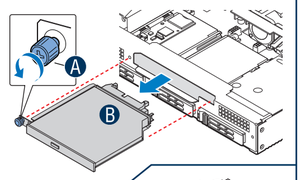
CAUTION: If you install less than three drives, empty drive bays must be occupied by trays with baffles to maintain proper system cooling.



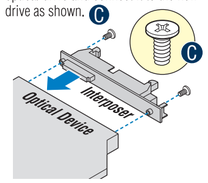
Important Note! If you install less than three drives, HDD Bay 0 must be occupied first, then HDD Bay 1.

10 Replacing the Optical Device

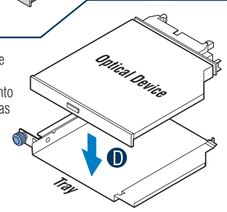
1. Loosen the blue captive thumbscrew. A
2. Remove the old optical device tray from the chassis. B



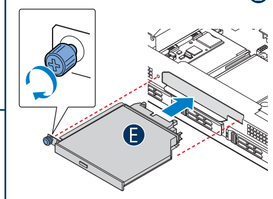
3. Remove the interposer board from the old optical drive and connect it to the new drive as shown. C



4. Place the optical device into the tray as shown. D



5. Insert the device/tray/interposer board assembly into the chassis opening and secure with the **blue** captive thumbscrew. E

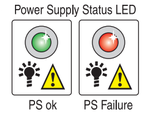


6. Connect the data and power cables to the interposer board. See the System Cabling Diagram below for completing cable connections to the front panel board and the server board. F

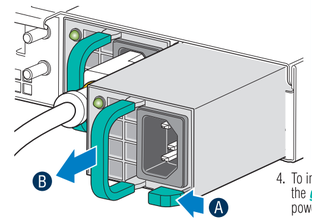
11 Replacing a Power Supply Module

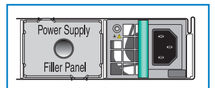
IMPORTANT NOTES: To maintain hot-swap capability, make sure that an active power supply module is in BOTH chassis slots before replacing (hot-swapping) a power supply module. Check the status LED to determine which ps module has failed ... *(see detail at right).*

Power Supply Status LED



1. Disconnect appropriate power cord.
2. Slide **green** safety lock to the left. A
3. Grasp handle and pull module out. B





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.

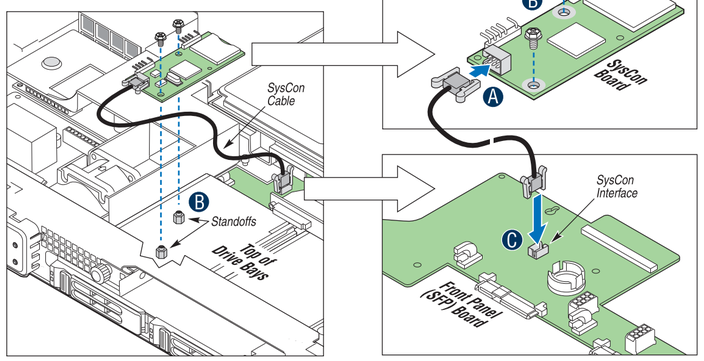
4. To insert a new power supply, slide and hold the **green** safety lock to the left and slide the power supply module into the chassis slot.

12 Installing the SysCon Board (optional)

1. Plug one end of the SysCon cable into the SysCon board as shown. A

   Note that cable ends are identical.

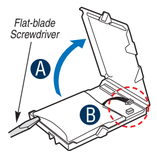
2. Attach SysCon board to the top of the drive bay utilizing two screws and standoffs as shown. B
3. Plug the other end of the SysCon cable into the matching connector on the front panel (SPF) board. C



13 Installing Hardware RAID5 Components (optional)

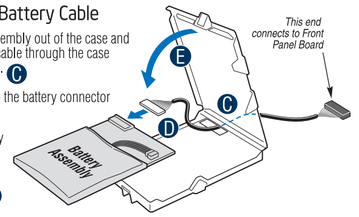
Check Battery Connection

1. The RAID IBBU has an internal battery power cable. Open the IBBU case lid as shown. If necessary, use a small flat-blade screwdriver to pry open each corner of the lid. A
2. If the battery power cable is not connected, connect the cable now. B *Do not close the lid.*



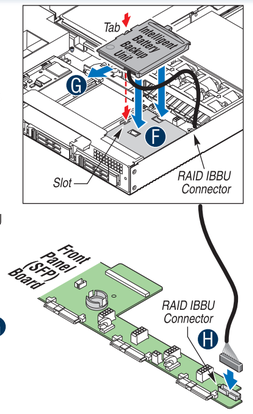
Connect RAID Battery Cable

3. Lift the battery assembly out of the case and insert the battery cable through the case opening as shown. C
4. Attach the cable to the battery connector as shown. D
5. Replace the battery assembly into the case and close and latch the IBBU case lid. E



Install RAID Battery

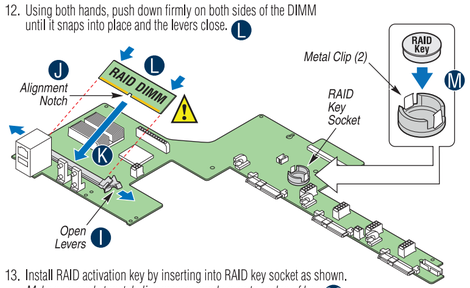
6. The RAID IBBU has two hooks on the underside. Place IBBU flat and align these hooks with the matching chassis tabs. F
7. Then slide the IBBU toward the front panel to lock into place.
   Note: Check that the top tab snaps into the small slot (see **red** arrow). G
8. Connect the IBBU power cable to the front panel board as shown. H



Install RAID DIMM and RAID Key

CAUTION: Avoid touching contacts when handling or installing the RAID DIMM.

9. Open both DIMM socket levers. I
10. Note location of alignment notch. J
11. Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot. K
12. Using both hands, push down firmly on both sides of the DIMM until it snaps into place and the levers close. L



13. Install RAID activation key by inserting into RAID key socket as shown. *Make sure socket metal clips snap securely over top edge of key.* M

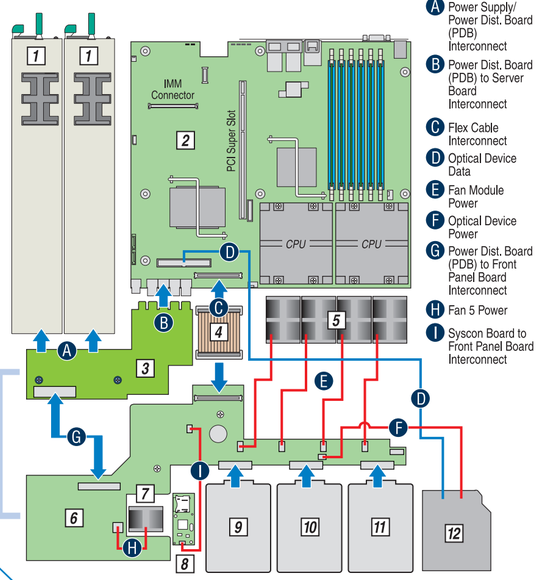
Reference

Server System Cabling and Component Diagram

IMPORTANT NOTE: See your Intel® Carrier Grade Server TIGW1U Product Guide for complete cabling and server board component descriptions.

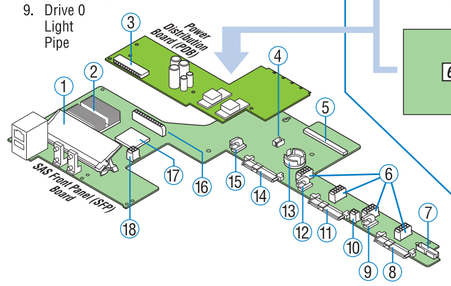
System Components

1	Power Supply Modules	7	PCI Fan
2	Server Board	8	SysCon Board
3	Power Distribution Board	9	SAS HDD 2
4	Flex Cable	10	SAS HDD 1
5	Fan Module	11	SAS HDD 0
6	Front Panel Board	12	Optical Device



Power Distribution Board (PDB)/ SAS Front Panel (SFP) Board *Connector/Component Layout*

1. RAID DIMM (Optional)
2. Intel 80333 with Heat Sink
3. Power Interconnect
4. SysCon Interface
5. SFP Flex Connector
6. CPU/DIMM Fan Power
7. IBBU Connector
8. SAS Drive 0
9. Drive 0 Light Pipe
10. Optical Drive Power
11. SAS Drive 1
12. Drive 1 Light Pipe
13. Hardware RAID Key
14. SAS Drive 2
15. Drive 2 Light Pipe
16. Power Input Connector
17. LSI1068
18. PCI Fan Power



Connections

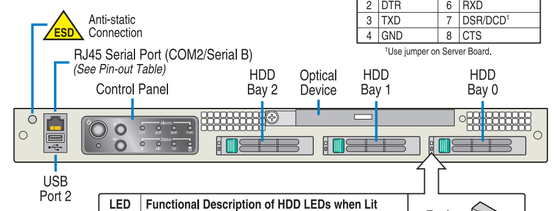
- A Power Supply/ Power Dist. Board (PDB) Interconnect
- B Power Dist. Board (PDB) to Server Board Interconnect
- C Flex Cable Interconnect
- D Optical Device Data
- E Fan Module Power
- F Optical Device Power
- G Power Dist. Board (PDB) to Front Panel Board Interconnect
- H Fan 5 Power
- I Syscon Board to Front Panel Board Interconnect

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

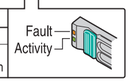
Cable Legend

BLUE indicates Data Cable
RED indicates Power Cable

Front Panel Controls and Features (Bezel Removed)



LED	Functional Description of HDD LEDs when Lit
Fault	Fault = Amber, otherwise LED is off
Activity	No Drive Installed = Off, Drive ready for access = Green, Drive being accessed (active) = Blinking Green



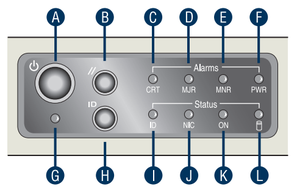
Serial Port Connector Pin-out

Pin	Description	Pin	Description
1	RTS	5	EMP_INUSE_L
2	DTR	6	RXD
3	TXD	7	DSR/DCD[1]
4	GND	8	CTS

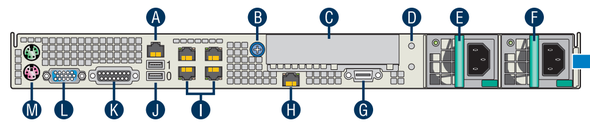
[1]Use jumper on Server Board.

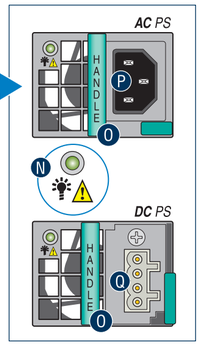
Control Panel

A	Power Switch
B	Reset Switch
C	Critical Alarm Relay LED (Amber)
D	Major Alarm Relay LED (Amber)
E	Minor Alarm Relay LED (Amber)
F	Power Relay LED (Amber)
G	NMI Switch
H	ID Switch
I	System ID LED (White)
J	NIC Activity LED (Green)
K	Main Power LED (Green)
L	Disk Activity (All Hard Drives) (No Drive Activity = Off, Activity = Blinking Green, Fault = Amber with no green showing at this LED location)



Back Panel Controls and Features





- A RJ45 Serial Port (COM2/Serial B)
- B PCI/PCIe Cage Thumbscrew
- C PCI/PCIe Add-in Card Bracket or Filler Panel
- D Ground Studs for DC Input (2)
- E Power Supply Module #2 *(hot-swappable if two power supplies are installed) (optional)*
- F Power Supply Module #1 *(hot-swappable if two power supplies are installed)*
- G External x4 SAS Connector
- H Remote Management Conn. *(optional)*
- I RJ45 NIC 1-4 Connectors
- J USB Port 0 and USB Port 1
- K Telco Alarms Connector
- L Video Connector
- M PS/2 Mouse/Keyboard Connectors
- N PS Status LED
- O Handle to remove PS
- P AC Power Input
- Q DC Power Input

Accessories and Order Codes

NSW1U/TIGW1U Syscon Board	TMWSYSCON01W
TIGW1U RAID5 Kit	TMWRAID01W
NSW1U/TIGW1U PCI Express Riser	TMWPCIERSR01W
NSW1U/TIGW1U PCI-X Riser	TMWPCIXRSR01W
NSW1U/TIGW1U AC Power Supply	TMWACPSU01W
NSW1U/TIGW1U DC Power Supply	TMWDCPSU01W
NSW1U/TIGW1U Power Distribution Board	TMWPDB01W
TIGW1U SAS Front Panel I/O (SFP) Board, Litepipe	TMWSASFP01W
NSW1U/TIGW1U CPU Heat Sink	TMWHSNK01W
TIGW1U Fan Set	TMWFANSET01W
NSW1U/TIGW1U Cables, CD-ROM power, spare	TMWCBL01W
TIGW1U Bezel	TMWMBZL01W
TIGW1U Baseboard	TMWBSBRD01W
NSW1U/TIGW1U CD-ROM Tray; I/F Board	TMWCDRMC01W
NSW1U/TIGW1U CD-ROM Filler Panel	NSWCDFILL01W

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

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