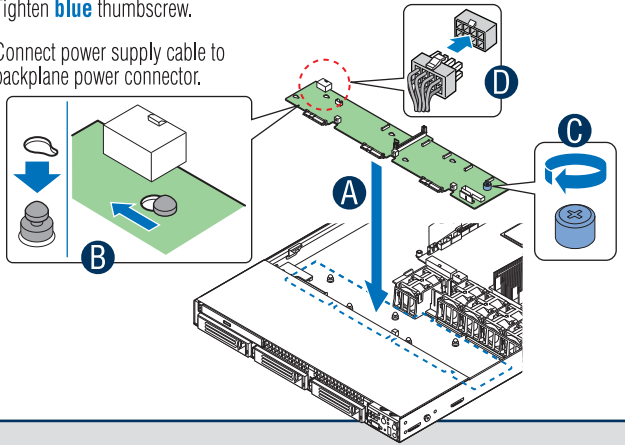# 12 Install Hot-swap Drive System Components...for a Fixed Drive System, go to Step 13

Install the Backplane
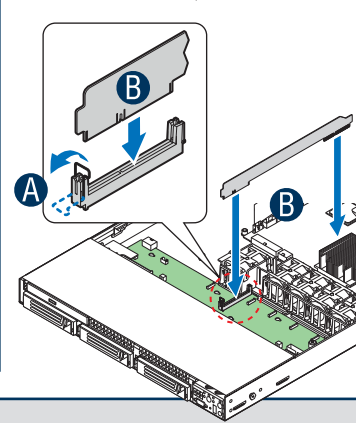
Note: Both the active and passive backplanes install the same.

A. Position backplane over chassis standoffs [6].

B. Engage standoffs and push backplane in the direction shown to lock into place.

C. Tighten **blue** thumbscrew.

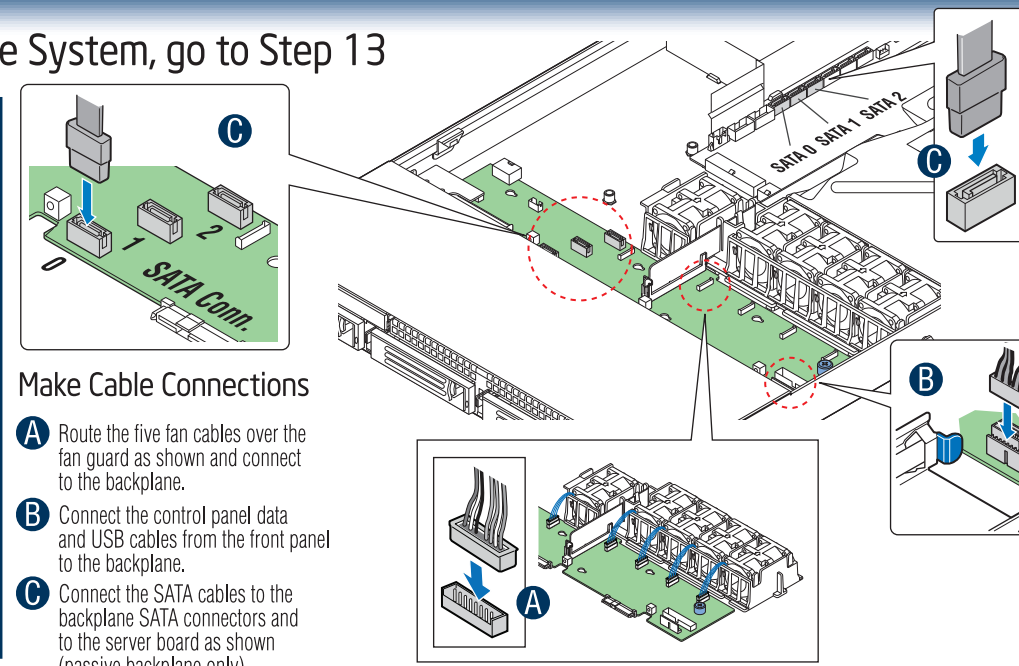D. Connect power supply cable to backplane power connector.

Install the Bridge Board

A. Open the backplane bridge board connector retention clip.

B. Install bridge board as shown, pressing down on both sides simultaneously. Close retention clip.

Make Cable Connections

A. Route the five fan cables over the fan guard as shown and connect to the backplane.

B. Connect the control panel data and USB cables from the front panel to the backplane.

C. Connect the SATA cables to the backplane SATA connectors and to the server board as shown (passive backplane only).
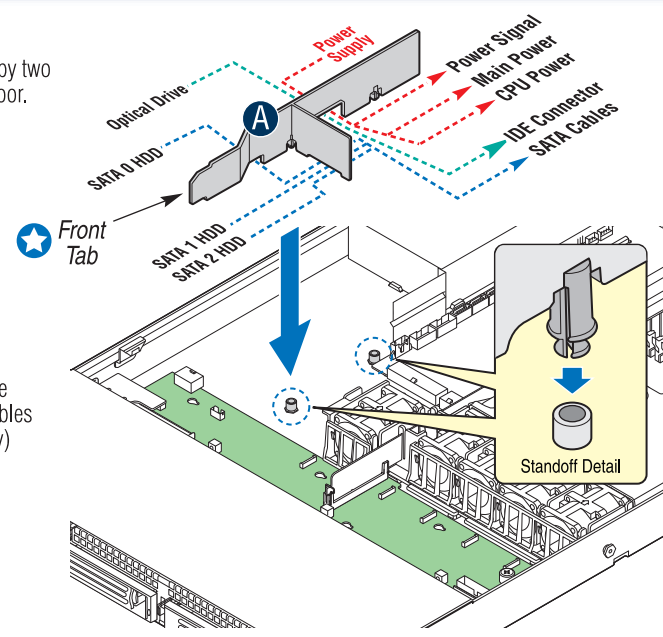
Install Air Baffle

The baffle is held in place by two standoffs on the chassis floor.

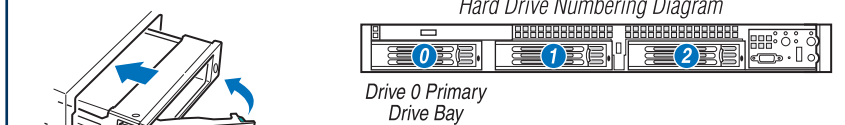A. Route all applicable cables (see below) through the baffle notches and set air baffle into place.

Cabling Legend:
- Main Power Cable
- CPU Power Cable
- Power Signal Cable
- Optical Drive Data Cable
- SATA 0-2 HDD Data Cables (passive backplane only)

☆ *Note: Front tab of air baffle must fit under the drive bay cover prior to lowering into chassis standoffs to ensure a proper fit.*

Install Hot-swap Hard Drives

A. Remove the Plastic Air Baffle

B. Install the Hard Disk Drive
Attach with four screws.

C. Install the Carrier Assembly

Hard Drive Numbering Diagram

Drive 0 Primary Drive Bay

Note: Carrier lever must be held in the FULLY OPEN position to install into chassis. Slide carrier into chassis until it stops, then rotate the lever until it snaps shut.

⚠ **CAUTIONS:** If you install less than three drives or devices, empty drive bays must be occupied by carriers with baffles to maintain proper system cooling. To avoid possible damage to your chassis, use only carriers that came with your server system.

Repeat these steps for each installed hard drive

---

13 Install Fixed Drive System Components...for a Hot-swap Drive System, go to Step 12

Install Fixed Hard Drives/Carriers

A. Remove the Plastic Air Baffle
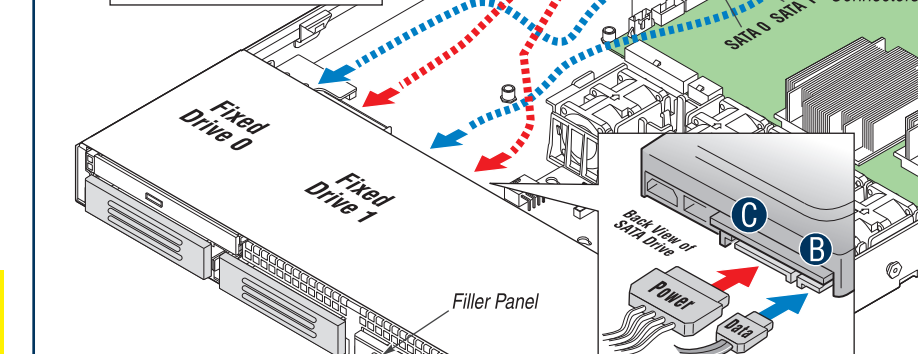
B. Install the Drive
Attach with four screws.

Repeat these steps for each installed hard drive

⚠ **CAUTIONS:** Empty drive bays must be occupied by carriers with baffles to maintain proper system cooling. To avoid possible damage to your chassis, use only carriers that came with your server system.

Install Hard Drive Cables

A. Connect SATA data cable(s) to server board as shown.

B. Connect opposite end of SATA data cable(s) to hard drive(s) as shown ... *see detail below.*

C. Connect the SATA fixed drive power connectors to each hard drive as shown ... *see detail.*

Cable Legend
- BLUE indicates Data Cable
- RED indicates Power Cable
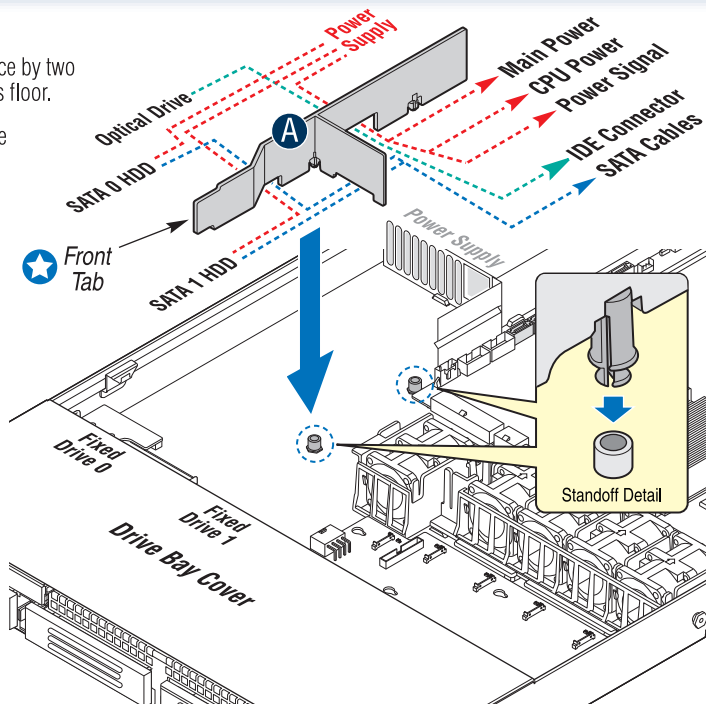
Server Board SATA Connectors

Install Air Baffle

The baffle is held in place by two standoffs on the chassis floor.

A. Route all applicable cables (see below) through the baffle notches and set air baffle into place.

Cabling Legend:
- Main Power Cable
- CPU Power Cable
- Power Signal Cable
- Optical Drive Data Cable
- SATA 0-1 HDD Data Cables
- SATA 1 HDD Power Cable

☆ *Note: Front tab of air baffle must fit under the drive bay cover prior to lowering into chassis standoffs to ensure a proper fit.*
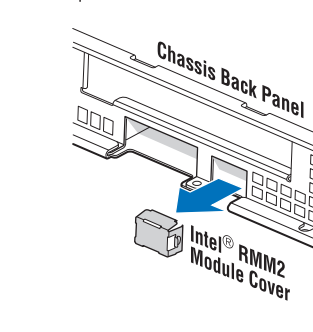
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14 Install Intel® Remote Management Modules (optional)

Remove Module Cover

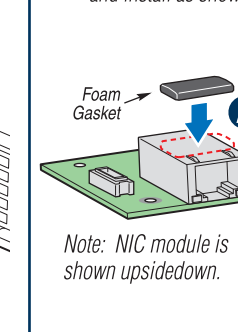Prior to installing the Intel® RMM2 Module, you must remove the module cover.

Squeeze the sides of the cover to disengage from the chassis back panel and remove.
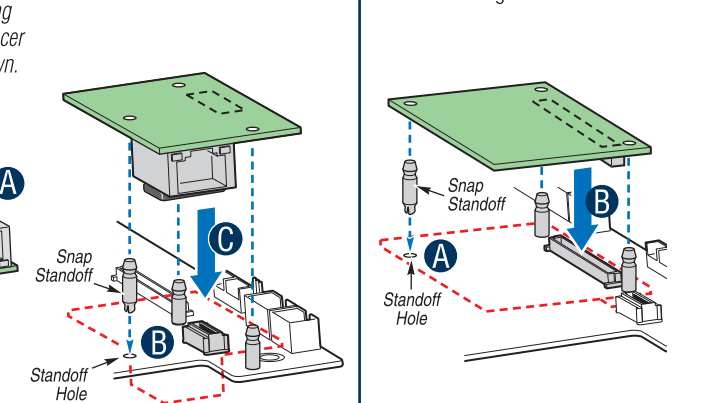
Install Intel® RMM2 NIC Module

Install Foam Gasket

A. A self-adhesive foam gasket is required to protect the underside of the NIC module.

Remove the backing paper from the spacer and install as shown.

B. Install the three standoffs to the server board first.

C. Attach module to the server board connector and matching standoffs.

Note: NIC module is shown upsidedown.

Install Intel® RMM2 Module

A. Install the three standoffs to the server board first.

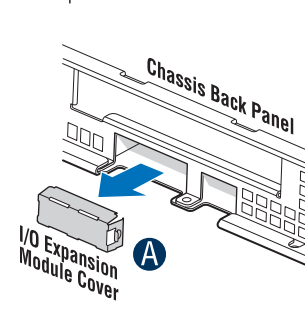B. Attach module to the server board connector and matching standoffs.

---

15 Install I/O Expansion Module (optional)
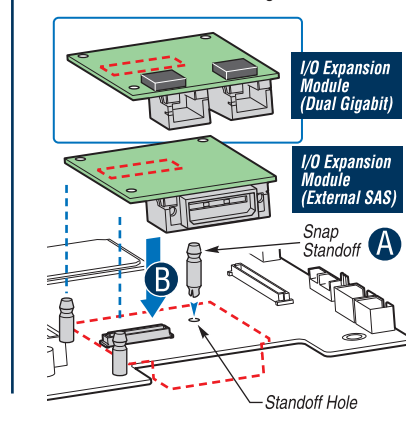
Remove Module Cover

Prior to installing the I/O Expansion Module, you must remove the module cover.

A. Squeeze the sides of the cover to disengage from the chassis back panel and remove.
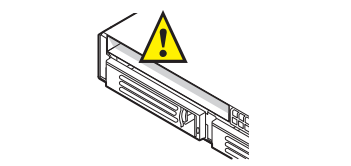
Install I/O Expansion Module

A. Install the three standoffs to the server board first.

B. Attach module to the server board connector and matching standoff holes.

I/O Expansion Module (Dual Gigabit)

I/O Expansion Module (External SAS)

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16 Install Optical Device (optional)

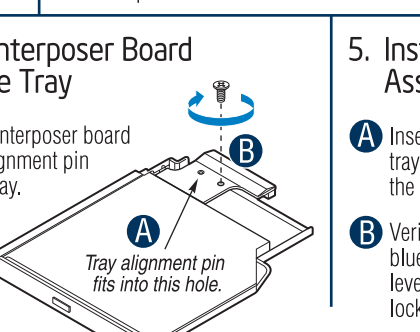### 1. Remove the Empty Tray

A. Remove the empty tray and screw from the accessory kit box.

⚠ **CAUTION:** To maintain proper system cooling, the provided filler blank must be installed if you do not install a device at this location.

2. Install the Interposer Board

A. Plug the interposer board connector into the matching connector on the back of the optical device.

3. Install Device into the Tray

A. Align the two holes on the left edge of the optical device with the two metal tabs in the tray.

B. Lower opposite side of optical device into tray until it clicks into place.

4. Secure Interposer Board to Device Tray

A. Make sure interposer board fits onto alignment pin on device tray.

B. Attach with screw as shown.

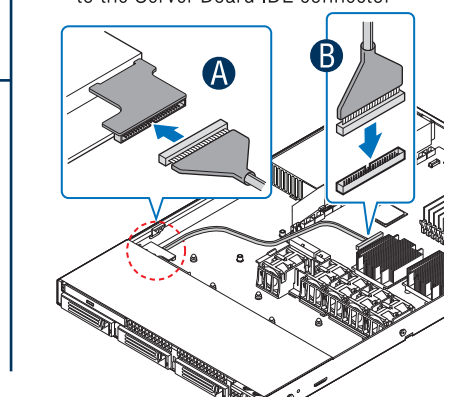*Tray alignment pin fits into this hole.*

5. Install Optical Device Tray Assembly into Chassis

A. Insert optical device tray assembly into the chassis.

B. Verify that the blue release lever on the tray locks into place.
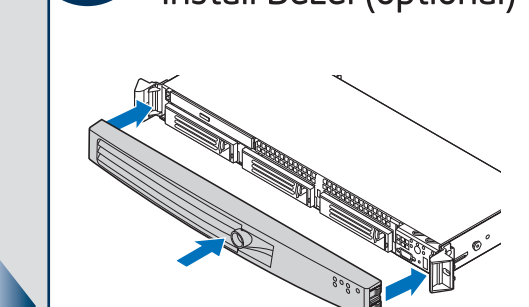
Blue Release Lever

Install Optical Device Data Cable

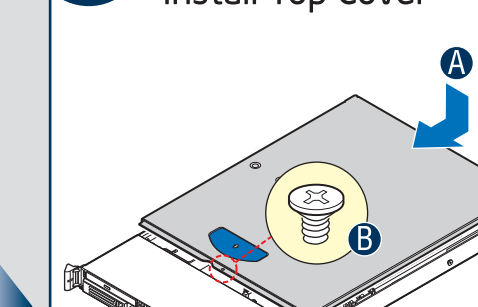*Note: Both ends of the IDE cable are labeled.*

A. Connect one end of the IDE cable to the rear of the interposer board.

B. Connect the opposite end of the IDE cable to the Server Board IDE connector

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17 Install Bezel (optional)
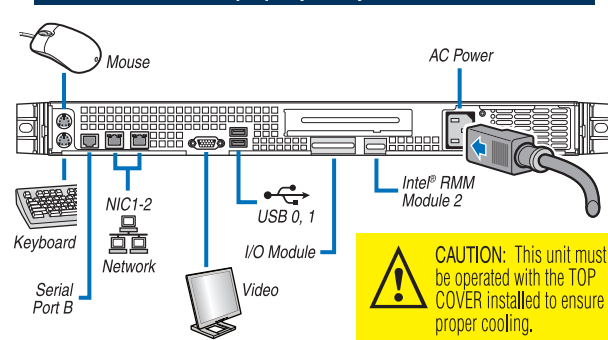
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18 Install Top Cover

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19 Finishing Up

Before installing your operating system, you must finish your system installation and connect back panel I/O connectors and AC power.

1. Re-install the system cover.
2. Connect your keyboard, mouse, video and other I/O cables/devices as shown. *Then connect the AC power cord.*

IMPORTANT NOTE: You must download and install the latest Intel® Remote Management Module 2 software for the Intel® RMM2 board to work properly with your server board.

⚠ **CAUTION:** This unit must be operated with the TOP COVER installed to ensure proper cooling.

Mouse · *AC Power* · *Keyboard* · *NIC1-2* · *Network* · *USB 0, 1* · *I/O Module* · *Intel® RMM Module 2* · *Serial Port B* · *Video*

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20 Software • BIOS, Drivers, and Operating System Installation

A. Confirm BIOS, BMC, and FRUSDR Versions: Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS, BMC firmware, and FRUSDR versions. Compare these to the versions at: http://support.intel.com/support/motherboards/server/s5400sf. If new versions are available, update the BIOS, BMC firmware, and FRUSDR on your server. See the User Guide on the FRUSDR on the Intel® Server Deployment Toolkit 2.0 CD for update instructions. **Note: You must run the FRUSDR Utility prior to operating your server to ensure integrated system sensors are monitored correctly. Even if no updates are available, you must run the utility from the Intel® Server Deployment Toolkit 2.0 CD and reboot your system.**

B. Configure your RAID Controller: If using a RAID card, use the instructions provided with the RAID controller. If using on-board RAID, you must activate RAID in the BIOS setup. See the Intel® Server Board S5400SF Technical Product Specification for more information.

C. Install your Operating System: Use the instructions provided with the RAID controller and with the operating system.
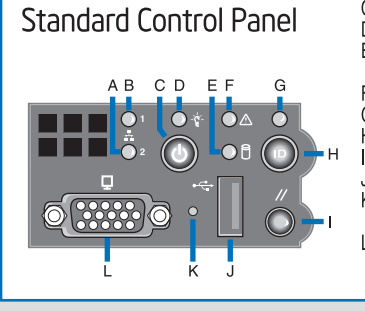
D. Install Operating System Drivers: With the operating system running, insert the Intel® Server Deployment Toolkit 2.0 CD. If using a Microsoft Windows* operating system, the Express Installer will autorun and allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.

E. Install Intel® Remote Management Software: If you installed the Intel® Remote Management Module 2 and the Intel® RMM2 NIC, download and install the Intel® Remote Management Software from: http://support.intel.com/support/motherboards/server/s5400sf.

Reference

Front Panel *Controls and Indicators*

Standard Control Panel

A. NIC2
B. NIC1
C. Power Button
D. Power LED
E. Hard Drive Activity LED
F. Status LED
G. System ID LED
H. System ID Button
I. Reset Button
J. USB
K. NMI (tool required)
L. Video (hot-swap drive system only)

Intel® Server Board S5400SF Component Layout

See your Intel® Server System SR1560SF Service Guide for expanded component and connection information.

Intel® RMM2 NIC Connector · POST LEDs · Status LED · Serial A · I/O Module Connector · 4-pin IPMB · 3-pin IPMB Intrusion Jumpers · Intel® RMM2 Connector · 16 DIMM Sockets · RAID5 Key · Riser Card Slot · SATA 5 · SATA 4 · SATA 3 · SATA 2 · SATA 1 · SATA 0 · BIOS Jumper · USB 0-1 · MCH · Bridge Board Conn. · IDE Optical Drive · Power Supply Signal Conn. · Main Power Conn. · Battery · Control Panel · CPU 1 Socket · CPU 2 Socket · Fan Board Connector · Serial B Config Jumper

Optional Accessories and Order Codes

Item	Order Code
Tool-less Rail Kit	AXXHERAIL
Basic Slide Rail Kit	AXXBASICRAIL
Fixed Bracket Kit	AXXBRACKETS
Bezel for Standard Control Panel	ADWBEZBLACK
Dual Gigabit I/O Expansion Module	AXXGBIOMOD
SAS I/O Expansion Module	AXXSASIOMOD
Intel® Remote Management Module 2	AXXRMM2
Infiniband* I/O Expansion Module	AXXIBIOMOD

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

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