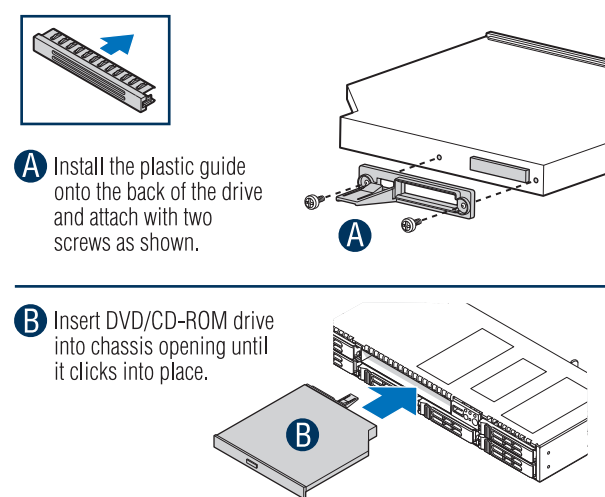


## 9 Install Optical Drive (optional)

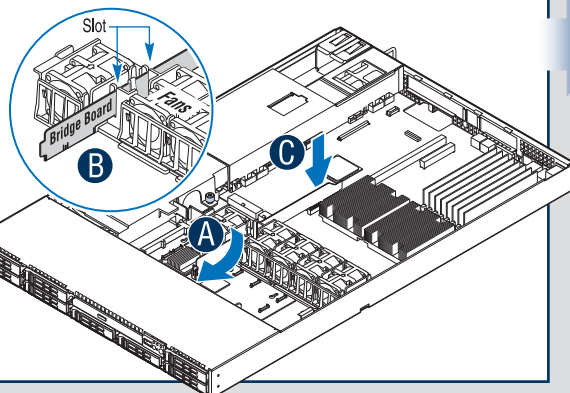
**IMPORTANT NOTE:** If you do not install a device at this location, go to your accessory kit and install the optical device bay filler panel shown below. This is required to maintain proper system cooling.



## Install CD-ROM Data Cable

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

- Connect one end of the IDE cable to the rear of the backplane board.
- Route cable through fan module slot next to the bridge board.
- Connect the opposite end of the IDE cable to the server board IDE connector.

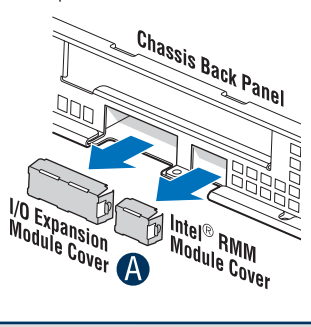


## 10 Install I/O Expansion Module (optional)

### Remove Module Covers

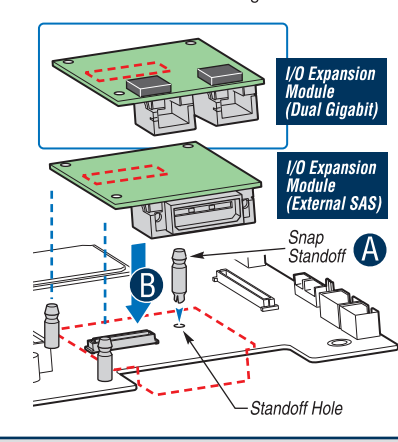
Prior to installing the I/O Module and/or the Intel® RMM Modules, you must remove the corresponding module cover(s).

- Squeeze the sides of each cover to disengage from the chassis back panel and remove.



### Install I/O Expansion Module

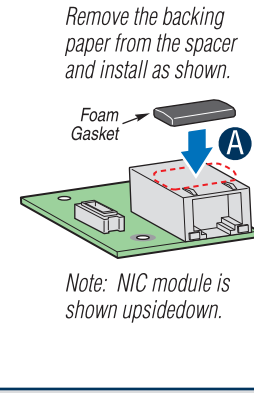
- Install the three standoffs to the server board first.
- Attach module to the server board connector and matching standoff holes.



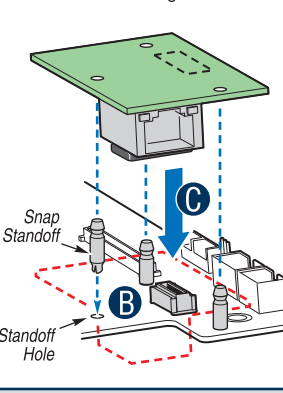
## 11 Install Intel® Remote Management Modules (optional)

### Install Intel® RMM NIC Module

- Install Foam Gasket**  
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.

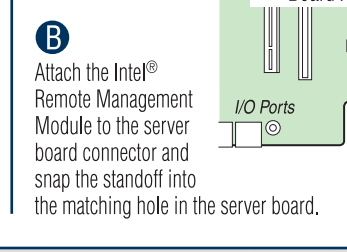


- Install the three standoffs to the server board first.
- Attach module to the server board connector and matching standoffs.



### Install Intel® RMM Module

- Insert the standoff into the hole labeled TH4 on the Intel® Remote Management Module. The standoff installs on the bottom side of the Intel® Remote Management Module.
- Attach the Intel® Remote Management Module to the server board connector and snap the standoff into the matching hole in the server board.



## 12 Install PCI-X\* Riser Card (optional)

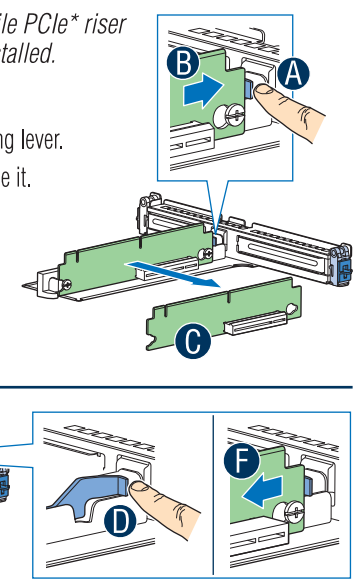
**Note:** Your chassis ships with one low-profile PCIe\* riser card and one full-height PCIe\* riser card installed.

Remove the PCIe\* Riser Card:

- Press and hold the blue PCI riser card locking lever.
- Slide the riser card toward the lever to release it.
- Remove riser card.

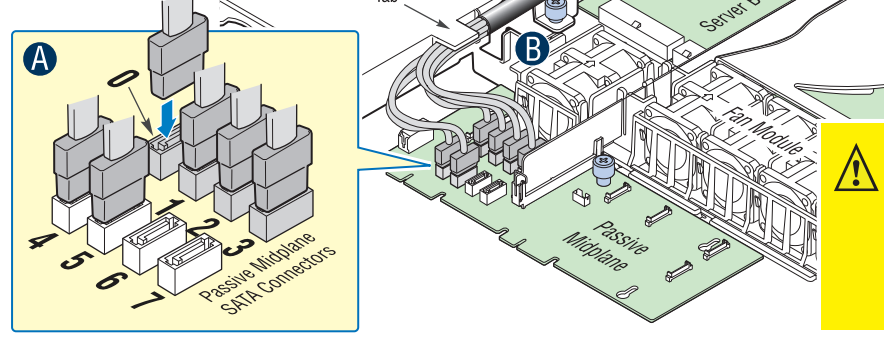
Install the PCI-X\* Riser Card:

- Press and hold the blue PCI riser card locking lever.
- Position the riser card onto the two retention pins.
- Slide riser card to the left to lock.



## 13 Install and Route SATA Cables

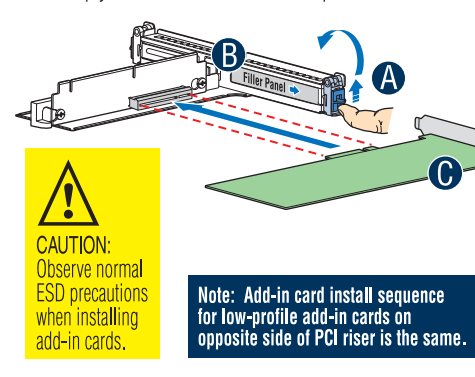
- Connect SATA cables from passive midplane board to server board as shown.
- Route cables under the retention tab and alongside the power supply as shown to allow clearance for a full-height PCI add-in card.



**CAUTION:** It is critical that you connect the SATA data cables correctly from the SATA backplane to your server board or RAID Controller card. Failure to do so may result in data loss.

## 14 Install Add-in Card(s)

- Open rear retention clip by pushing the blue slide upward and rotating the clip fully open.
- Remove filler panel from the selected add-in card slot.
- Insert add-in card until it seats in riser connector.
- Close both retention clips. **Note:** Make sure that all empty add-in card slots have filler panels installed.

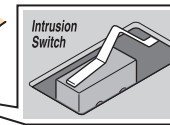
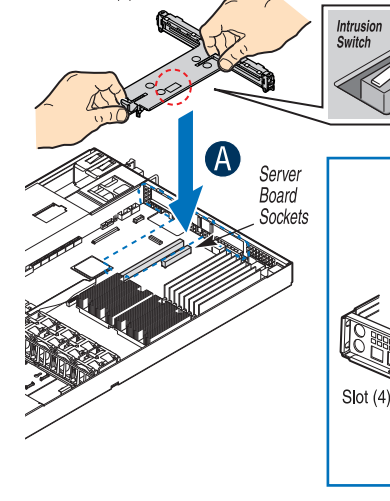


**CAUTION:** Observe normal ESD precautions when installing add-in cards.

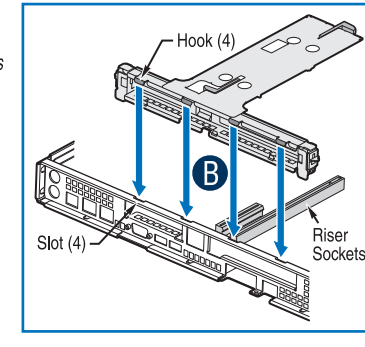
**Note:** Add-in card install sequence for low-profile add-in cards on opposite side of PCI riser is the same.

## 15 Install PCI Add-in Card Riser Assembly

- Position riser card edge connector(s) over the server board riser socket(s).



**Note:** The PCI riser assembly includes an intrusion switch that engages the system cover. Do not use the intrusion header located on the server board.



- Press down uniformly until the four hooks on the rear of the PCI riser assembly engage the chassis back panel slots. The riser cards will seat into the matching sockets on the server board.

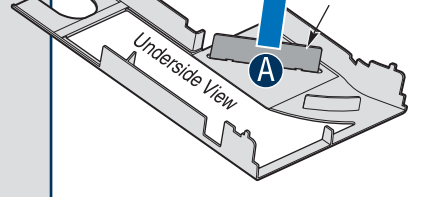
## 16 Second Processor Duct Modification

Configure Processor Air Duct for Two Processors:

**Note:** This step only applies if your system has two processors. If only one processor is installed, leave the air baffle in place and proceed to Step 20.

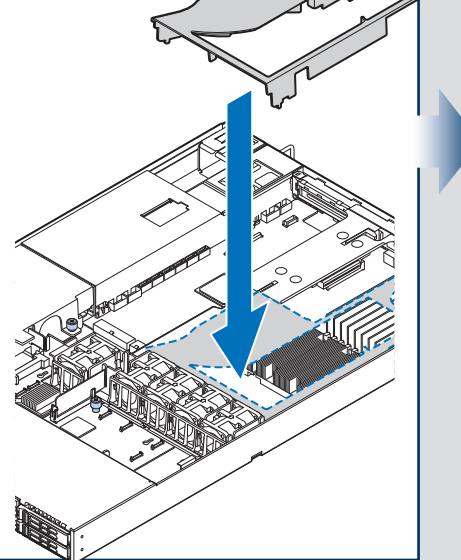
**CAUTION:** For a one-processor configuration, the air baffle must be in place to ensure proper cooling.

- Remove air baffle by rocking back and forth until it breaks off.



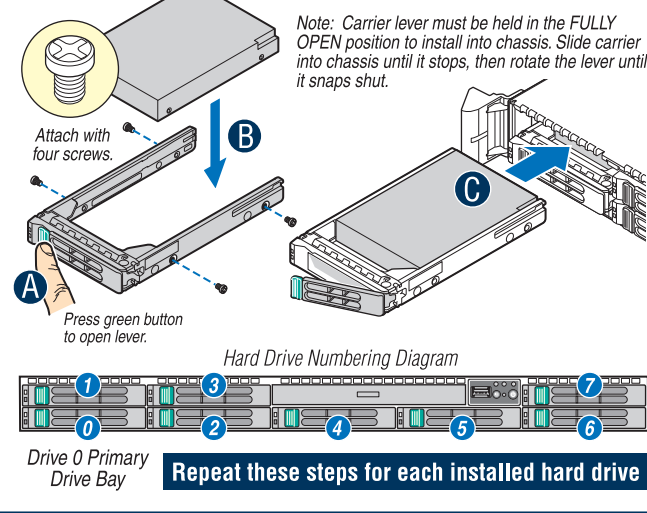
## 17 Install Processor Air Duct

Install processor air duct as shown.



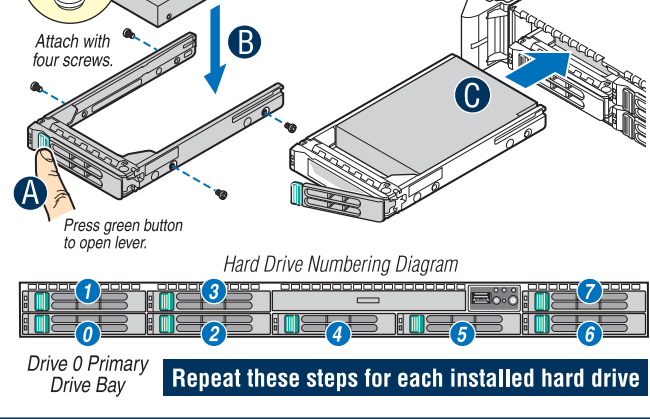
## 18 Install Hard Drives/Carriers

- Remove the drive carrier by pressing the green button.
- Install the hard disk drive as shown.
- Install hard disk drive assembly into chassis opening.



**CAUTION:** If you install less than eight drives or devices, empty drive bays must be occupied by carriers with baffles to maintain proper system cooling.

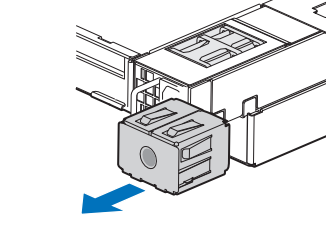
**Note:** Carrier lever must be held in the FULLY OPEN position to install into chassis. Slide carrier into chassis until it stops, then rotate the lever until it snaps shut.



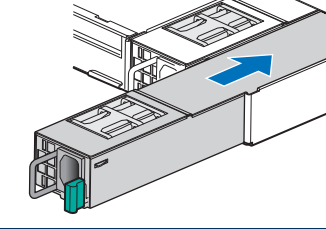
**Repeat these steps for each installed hard drive**

## 19 Install Second Power Supply (optional)

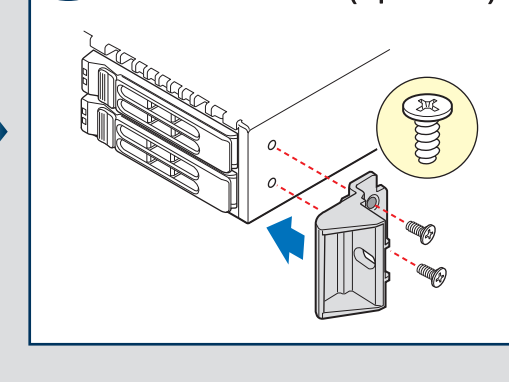
- Remove filler panel



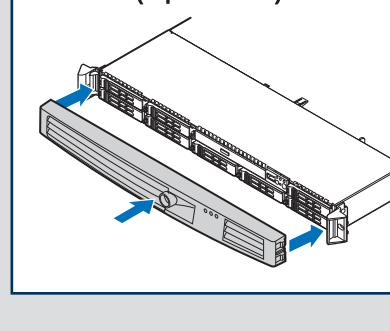
- Install second power supply



## 20 Install Bezel (optional)

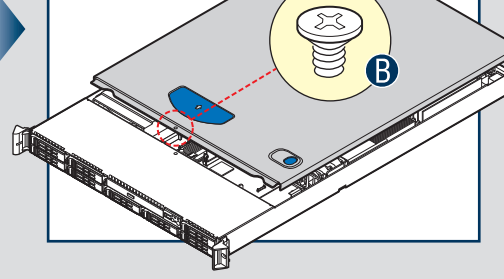


## 21 Install Bezel (optional)



## 22 Install Top Cover

**Note:** Security screw re-installation is optional.

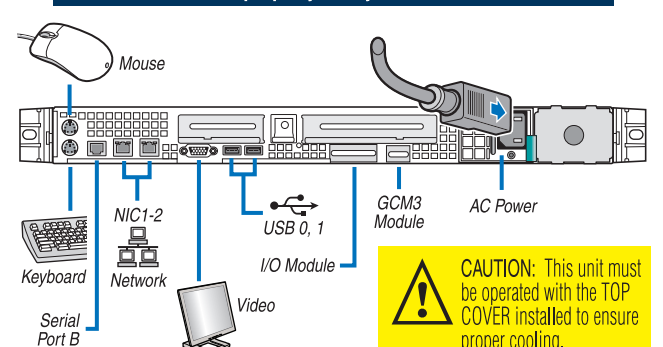


## 23 Finishing Up

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

- Replace the system cover.
- 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 software for the Intel® RMM board to work properly with your server board.



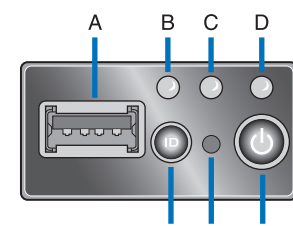
**CAUTION:** This unit must be operated with the TOP COVER installed to ensure proper cooling.

## 24 Software • BIOS, Drivers, and Operating System Installation

- Confirm BIOS Version:** Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS version. Compare this to the versions at: <http://support.intel.com/support/motherboards/server/s5000pal>. If new versions are available, update the BIOS on your server. See the User Guide on the Intel® Server Deployment Toolkit 2.0 CD for update instructions.
- Configure your RAID Controller:** Use the instructions provided with the RAID controller.
- Install your Operating System:** Use the instructions provided with the RAID controller and with the operating system.
- 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 Intel® Deployment Assistant will autonomously allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.
- Install Intel® SmaRT Tool (optional):** With the operating system running, insert the Intel® Server Deployment Toolkit 2.0 CD. The Express Installer will autonomously allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.

## Reference

### Mini Control Panel Controls and Indicators



- USB Port
- System ID LED
- System Status LED
- Power/Sleep LED
- Power Button
- NMI Button
- System ID

### Optional Accessories and Order Codes

Tool-less Rail Kit	AXXHERRAIL
Cable Management Arm	AXXRACKCARM
Basic Slide Rail Kit	AXXBASICRAIL
Fixed Rack Brackets	AXXBRAKETS
Bezel for Standard Control Panel	ASR1550BEZ
Bezel for Intel® Local Control Panel	ASR1550LCDBEZ
Bezel for Intel® Mini Control Panel	ASR1550MINBEZ

Intel® Remote Management Module	AXXRMM
Stimline DVD-ROM/CD-ROM Drive	AXXDVDCLR
650W Power Supply	ASR1550PS
Intel® Local Control Panel Module	ASR1550LCP
Standard Control Panel Module	ASR1550FP

A complete list of accessories and spares can be found at: [www.intel.com/go/serverbuilder](http://www.intel.com/go/serverbuilder)

### Intel® Server Board S5000PAL Component Layout

See your Intel® Server Board S5000PAL User's Guide for expanded component and connection information.

