Intel® Entry Server Chassis SC5299-E DP/WS/BRP User Guide

A Guide for Technically Qualified Assemblers of Intel® Identified Subassemblies/Products

Intel Order Number D37596-002

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Safety Information

Important Safety Instructions

Read all caution and safety statements in this document before performing any of the instructions. See also Intel Server Boards and Server Chassis Safety Information on the *Intel® Server Deployment Toolkit CD* and/or at http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warnund Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel-Serverplatinen und Servergehäusen auf der *Intel® Server Deployment Toolkit CD* oder unter http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

Consignes de sécurité

Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez Intel Server Boards and Server Chassis Safety Information sur le *Intel® Server Deployment Toolkit CD* ou bien rendez-vous sur le site http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea Intel Server Boards and Server Chassis Safety Information en el *Intel® Server Deployment Toolkit CD* y/o en http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

重要安全指导

在执行任何指令之前，请阅读本文档中的所有注意事项及安全声明。 和/或 http://support.intel.com/support/motherboards/server/sb/cs-010770.htm 上的 Intel Server Boards and Server Chassis Safety Information（《Intel 服务器主板与服务器机箱安全信息》）。

Warnings

Heed safety instructions: Before working with your server product, whether you are using this guide or any other resource as a reference, pay close attention to the safety instructions. You must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components specified in this guide. Use of other products / components will void the UL listing and other regulatory approvals of the product and will most likely result in noncompliance with product regulations in the region(s) in which the product is sold.

System power on/off: The power button DOES NOT turn off the system AC power. To remove power from system, you must unplug the AC power cord from the wall outlet. Make sure the AC power cord is unplugged before you open the chassis, add, or remove any components.

Hazardous conditions, devices and cables: Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the server and disconnect the power cord, telecommunications systems, networks, and modems attached to the server before opening it. Otherwise, personal injury or equipment damage can result.

Electrostatic discharge (ESD) and ESD protection: ESD can damage disk drives, boards, and other parts. We recommend that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground any unpainted metal surface on your server when handling parts.

ESD and handling boards: Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. After removing a board from its protective wrapper or from the server, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the board wrapper. Do not slide board over any surface.

Installing or removing jumpers: A jumper is a small plastic encased conductor that slips over two jumper pins. Some jumpers have a small tab on top that you can grip with your fingertips or with a pair of fine needle nosed pliers. If your jumpers do not have such a tab, take care when using needle nosed pliers to remove or install a jumper; grip the narrow sides of the jumper with the pliers, never the wide sides. Gripping the wide sides can damage the contacts inside the jumper, causing intermittent problems with the function controlled by that jumper. Take care to grip with, but not squeeze, the pliers or other tool you use to remove a jumper, or you may bend or break the pins on the board.

Preface

About this Manual

Thank you for purchasing and using the Intel® Entry Server Chassis SC5299-E.

This manual is written for system technicians who are responsible for troubleshooting, upgrading, and repairing this server chassis. This document provides a brief overview of the features of the chassis, a list of accessories or other components you may need, troubleshooting information, and instructions on how to add and replace components on the Intel® Entry Server Chassis SC5299-E. For the latest version of this manual, see http://support.intel.com/support/motherboards/server/chassis/sc5299-e/.

Manual Organization

Chapter 1 provides a brief overview of the Intel® Entry Server Chassis SC5299-E. In this chapter, you will find a list of the server chassis features, photos of the product, and product diagrams to help you identify components and their locations.

Chapter 2 provides instructions on adding and replacing components. Use this chapter for step-by-step instructions and diagrams for installing or replacing components such as the fans, power supply, drives, and other components.

At the back of this book, you will find technical specifications, regulatory information, "getting help" information, and the warranty.

Product Contents, Order Options, and Accessories

This server chassis is compatible with the following Intel® Server Boards:

- Intel® Server Board S5000XVN
- Intel® Server Board S5000VSA
- Intel® Server Board S5000PSL
- Intel® Server Board S5000XSL

Your Intel® Entry Server Chassis SC5299-E ships with the following items:

- A power factor correction (PFC) power supply, installed in the chassis. Wattage of power supply will depend on the model of server chassis you purchased. Three power supply configurations are available.
- A box of hardware components, referred to below as the "hardware kit"
- Fan cable, installed in the chassis

- Chassis intrusion switch, installed in the chassis
- Front panel, installed in the chassis
- Attention document, in the chassis product box
- *Intel® Entry Server Chassis SC5299-E Quick Start User's Guide*, in the chassis product box
- Four M3 screws for installing 5.25-in drive component, in the hardware kit
- Fifteen 6-32 screws for mounting the server board to the chassis, in the hardware kit
- USB cable

In addition, you may need or want to purchase one or more of the following accessory items for your server:

Processor, memory FBDIMMs, hard drive, CD-ROM or DVD-ROM drive, RAID controller, operating system.

For information about which accessories, memory, processors, and third-party hardware have been tested and can be used with your server board, and for ordering information for Intel® products, see http://support.intel.com/support/motherboards/server/chassis/sc5299-e/compat.htm.

Additional Information and Software

If you need more information about this product or information about the accessories that can be used with this server chassis, use the following resources. These files are available at http://support.intel.com/support/motherboards/server/chassis/sc5299-e/

Unless otherwise indicated in the following table, once on this Web page, type the document or software name in the search field at the left side of the screen and select the option to search "This Product."

For this information or software	Use this Document or Software
For in-depth technical information about this product, including dimensions and power characteristics	*Intel® Entry Server Chassis SC5299-E Technical Product Specification*
If you just received this product and need to install it	Intel® Entry Server Chassis SC5299-E *Quick Start User's Guide* in the product box
For virtual system tours and interactive repair information	A link to the SMaRT Tool is available under "Other Resources" at the right side of the screen at http://support.intel.com/support/motherboards/server/chassis/sc5299-e
Accessories or other Intel server products	Spares and Configuration Guide

For this information or software	Use this Document or Software
Hardware (peripheral boards, adapter cards) and operating systems that have been tested with this product	Tested Hardware/Operating Systems List
To make sure your system falls within the allowed power budget	Power Budget Tool at http://support.intel.com/support/motherboards/server/chassis/sc5299-e
For software to manage your Intel® server	Intel® System Management Software

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1 Server Chassis Features

This chapter describes the main features of the Intel® Entry Server Chassis SC5299-E. The location of important chassis components and connections, as well as a description of LED identification, are also presented.

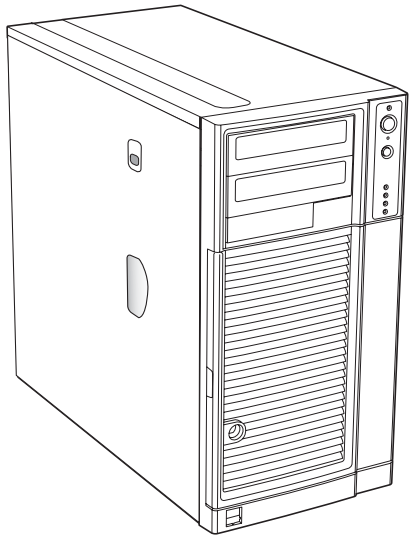


Figure 1. Front View of Intel® Entry Server Chassis SC5299-E

The Intel® Entry Server Chassis SC5299-E is a 5.2U pedestal[1] server chassis and is available in three configurations: DP (dual-processor), WS (workstation), and BRP (base redundant power). The chassis is designed to support the Intel® Server Boards S5000XVN, S5000PSL, S5000XSL and S5000VSA. The type of server board supported is dependent upon the configuration purchased. See Table 1 for a list of the Intel® server boards that are supported by each server chassis configuration.

Table 1. Breakdown of Intel® Entry Server Chassis SC5299-E Configurations

Intel® Entry Server Chassis SC5299-E Configuration	Intel® Server Boards Supported[1]
DP (Dual-processor)	Intel® Server Boards S5000VSA, S5000XSL and S5000PSL
WS (Workstation)	Intel® Server Board S5000XVN
BRP (Base Redundant Power)	Intel® Server Boards S5000VSA, S5000XSL and S5000PSL

NOTES:
1. For updated server board support, go to http://support.intel.com/support/motherboards/server/chassis/sc5299-e/.

1. The Intel® Entry Server Chassis SC5299-E can be configured as a rack-mountable server chassis when outfitted with the optional Rack Mount Kit (order code APP3RACKIT).

Table 2 summarizes the features of the Intel® Entry Server Chassis SC5299-E.

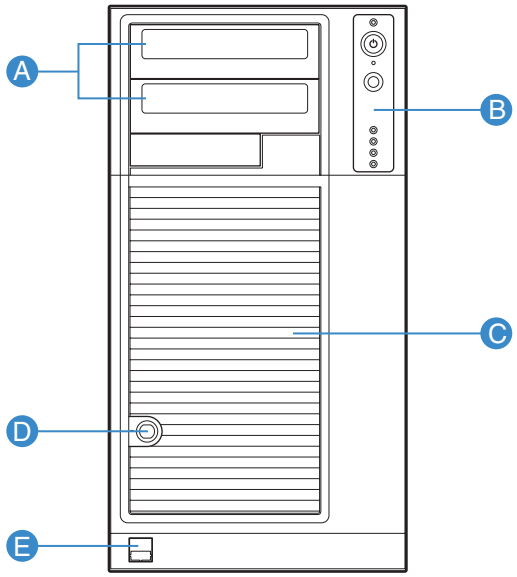
Table 2. Server Chassis Features

Feature	Description
Dimensions (pedestal)	• 17.8 in (45.2 cm) high with feet; 17.6 in (44.7 cm) without feet • 9.256 in (23.5 cm) wide • 19.2 in (48.7 cm) deep
Dimensions (rack)	• 9.256 in (23.5 cm) high without rack bezel; 10.3 in (26.2 cm) high with rack bezel • 17.6 in (44.7 cm) wide • 19.2 in (48.7 cm) deep
Hard drive cage	• One removable fixed hard drive cage that can accept up to 6 tool-less cabled 3.5-in x 1-in hard drives. **NOTE:** An optional SCSI or SAS/SATA hot swap backplane hard drive cage (capable of handling up to 6 SCSI, SATA or SAS hot-swappable hard drives) can be purchased to replace the fixed hard drive cage.
Peripherals	• Two tool-less 5.25-in device drive bays for CD-ROM, DVD-ROM drive, or tape drive •
Front panel	• One for the DP/WS/BRP chassis configurations.
Front Panel LEDs and displays	• NIC1 Activity • NIC2 Activity • Power / Sleep • Hard Drive Activity • System Status • NMI **NOTE:**
Power Supply	Wattage of power supply is dependent on configuration of server chassis purchased: • DP - ships with a 550-W PFC tool-less fixed power supply • WS - ships with a 670-W PFC tool-less fixed power supply • BRP - ships with a 650-W PFC redundant power supply module in a 1+0 configuration. An additional module can be purchased as an accessory to create a 1+1 configuration.
Fans	• One 120-mm system fan • One power supply fan[1] • Processor fans for active thermal solution • Fan with optional hot swap drive kit upgrade • Fixed hard drive fan with WS chassis configuration
USB	• Two front panel USB ports

NOTES:
1. Power supply fan integrated into power supply module.

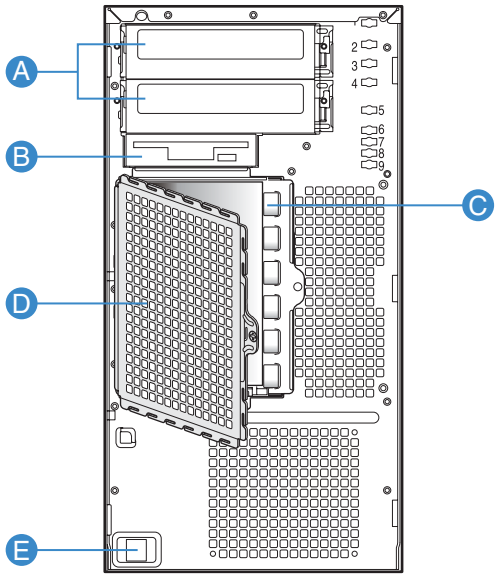
Component Identification

Front View Components



A. 5.25-in Device Drive Bays
B. Front Panel
C. Drive Bay Access Door
D. Door Lock
E. Front Panel USB Ports

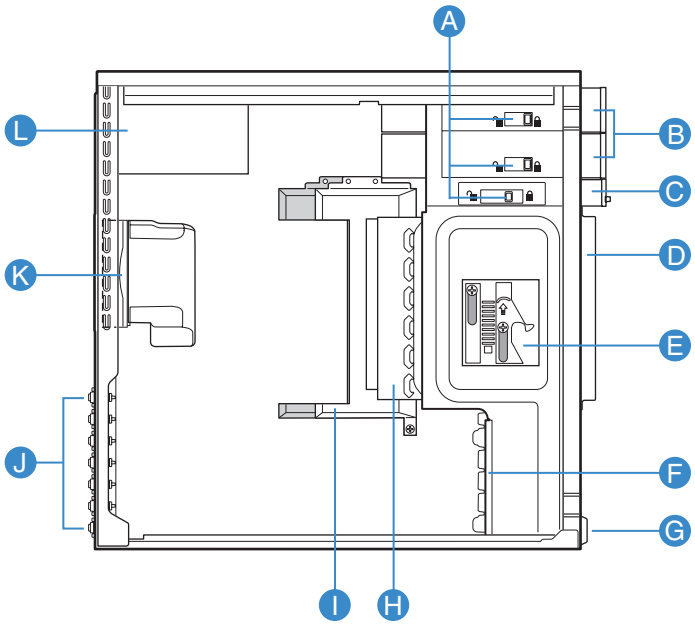
Figure 2. Front View Components (with Front Bezel Assembly)



A. 5.25-in Device Drive Bays
B. 3.5-in Device Drive Bay
C. Hard Drive Cage
D. Drive Bay EMI Shield (shown open)
E. Front Panel USB Ports

Figure 3. Front View Components (without Front Bezel Assembly)

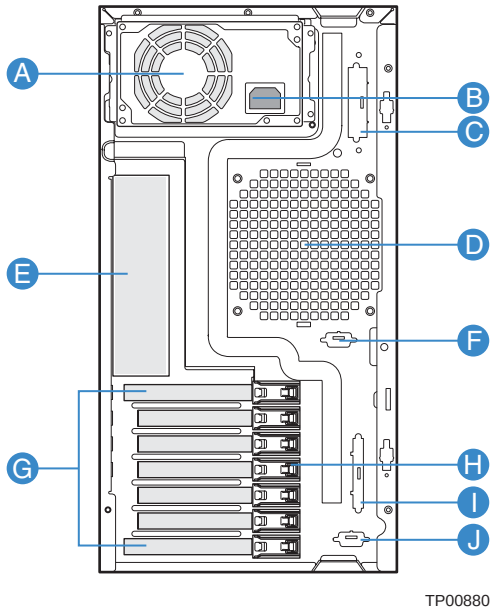
Internal Components



A. Tool-less Device Bay Locks
B. 5.25-in Device Bays
C. 3.5-in Device Bay
D. Drive Bay EMI Shield
E. Drive Cage Retention Mechanism
F. PCI Add-in Card Guide
G. Front Panel USB Ports
H. Fixed Hard Drive Cage
I. Large Processor Air Duct
J. Rear Tool-less PCI Retention Mechanisms
K. Fan Duct / System Fan Assembly
L. Power Supply

Figure 4. Internal Components

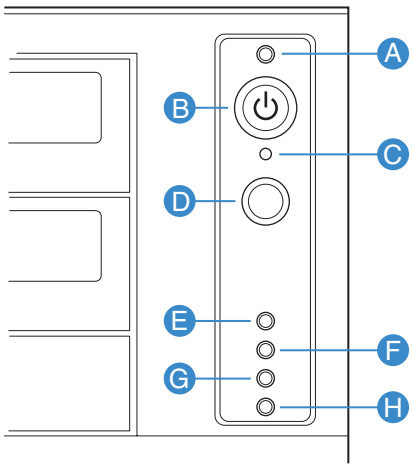
Back Panel Components



A. Power Supply **NOTE:** Fixed Power Supply shown. Your Power Supply may vary depending on chassis configuration purchased
B. A/C Power In **NOTE:** Fixed Power Supply shown. Your Power Supply may vary depending on chassis configuration purchased.
C. Alternate external SCSI knockout
D. System Fan
E. I/O Shield **NOTE:** I/O connectors vary, depending on the server board installed. See your server board documentation for port identification
F. Alternate Serial B port knockout
G. PCI Add-in Card slots
H. PCI Tool-less Card Retention Mechanisms
I. External SCSI knockout
J. Serial B port knockout

Figure 5. Back Panel Components

Front Panel



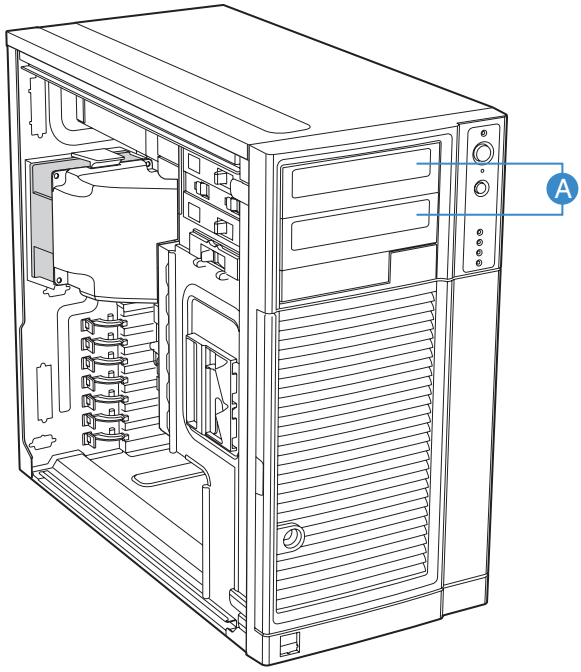
Callout	Feature[1,2]	Function
A.	Power/Sleep LED	Continuous green light indicates the system has power applied to it. Continuous amber light indicates the system is in S1 Sleep state. No light indicates the power is off / or the system is in S4 Sleep state.
B.	Power/Sleep LED	Powers the system off or on.
C.	NMI Button	Used to force system halt and dump memory contents to screen or file.
D.	Reset Button	Reboots and initializes the system.
E. F.	NIC 1 Activity LED NIC 2 Activity LED	Continuous green light indicates a link between system and network. Blinking green light indicates network activity. No light indicates the NIC is disconnected.
G.	Hard Drive Activity LED	Random blinking green light indicates hard drive activity (SCSI or SAS/SATA). Continous amber light indicates a hard drive fault. No light indicates no hard disk drive activity.
H.	Status LED	Solid green indicates system ready (not supported by all server boards). Blinking green indicates processor or memory disabled. Solid amber indicates a critical temperature or voltage fault, or a missing CPU/terminator. Blinking amber indicates a power fault, fan fault, or a non-critical temperature or voltage fault. No light indicates a fatal error during POST.

NOTES:
1. LED status may vary depending on server board integrated.

Figure 6. Front Panel Components

Peripheral Devices

The server chassis provides locations and hardware for installing hard drives, a floppy drive, a CD-ROM drive, a DVD-ROM drive or a tape drive. The drives must be purchased separately. The following figure shows the available options.



NOTE: It is recommended that screws be used to secure large devices if shipping chassis integrated.

Figure 7. Optional Peripheral Devices

Hard Disk Drives

The server chassis ships with one fixed hard drive cage capable of supporting up to six cabled 3.5-in x 1-in hard drives. Power requirements for each individual hard drive may limit the maximum number of drives that can be integrated into the server chassis.

An optional hot-swap SCSI or SAS/SATA backplane hard drive cage (capable of handling up to six hot-swappable SCSI, SATA or SAS hard drives) may be purchased to replace the fixed hard drive cage. See Table 3 for order code information.

For instructions on installing hard drives, see “Installing and Removing a Fixed Hard Drive”.

Note: *Drives can consume up to 18.4 watts of power each. Drives must be specified to run at a maximum ambient temperature of 45C.*

Note: *The Intel® Entry Server Chassis SC5299-E does not support all SCSI or Serial ATA hard drives. See "Additional Information and Software" for an web link to a list of supported hardware.*

Front Bezel Assembly

The front bezel assembly provides a snap-on design that allows for maximum airflow through the server chassis.

All configurations of the server chassis ship with a two-piece front bezel assembly.

Rack-Mounted Systems

Your Intel® Entry Server Chassis SC5299-E can be optionally mounted into a rack. Instructions for installing your chassis into a rack are included with the rail kit.

The order number for the rack mounting kit is APP3RACKIT.

Mechanical Locks

All configurations of the server chassis can support the installation of a padlock loop (see letter “A” in the following figure) at the rear of the chassis. Additionally, the server chassis ships with a two-position mechanical lock (see letter “B”) on the front bezel assembly to prevent access to the hard drives and the interior of the chassis.

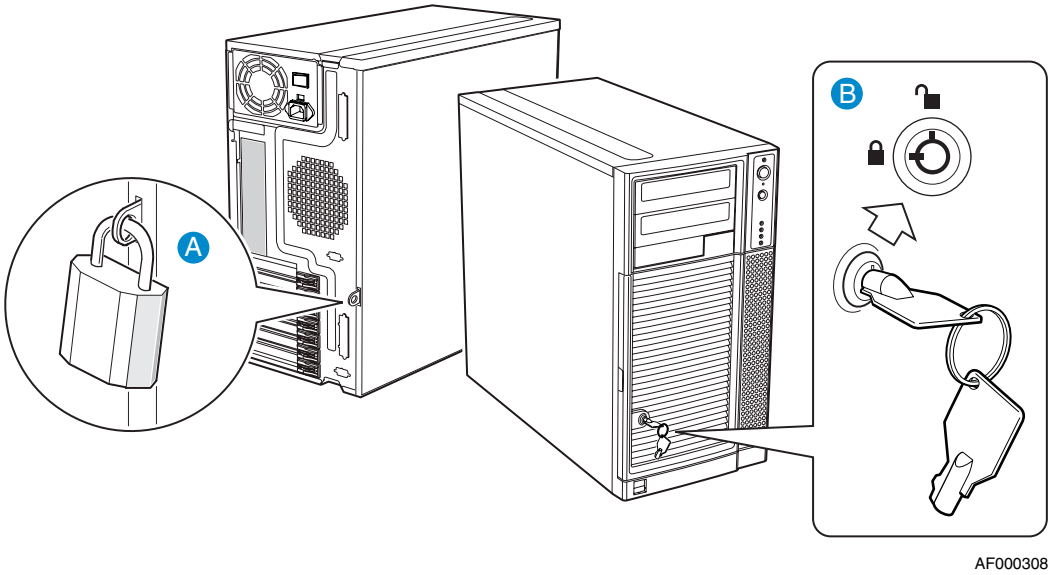


Figure 8. Mechanical Locks

Accessories and Order Codes

For a complete list of spares and accessories available for your chassis, see:

http://support.intel.com/go/serverbuilder

Table 3. Accessories and Order Codes

Accessory	Order Code
SAS/SATA Hot Swap Drive Bay Upgrade Kit	AXX6SASDB
SCSI Hot Swap Drive Bay Upgrade Kit	AXX6SCSIDB
Hot Swap Conversion Kit	APP3HSDBKIT
Rack Mount Kit	APP3RACKIT

2 Hardware Installations and Upgrades

This document provides instructions for adding and replacing chassis components. For instructions on replacing components on the server board, such as the processor and memory FBDIMMs, see the instructions provided with the server board.

Before You Begin

Before working with your server product, review the important safety information listed in Appendix A, “Safety Information”.

Tools and Supplies Needed

- Phillips* (cross head) screwdriver (#1 bit and #2 bit)
- Needle-nosed pliers
- Anti-static wrist strap and conductive foam pad (recommended)
- Hex nut driver (6 mm)

System References

All references to left, right, front, top, and bottom assume the reader is facing the front of the chassis as it would be positioned for pedestal operation.

Removing and Installing the Left Side Cover

Warning: *This chassis must be operated with the left side cover installed to ensure proper cooling.*

Removing the Left Side Cover

The Intel® Entry Server Chassis SC5299-E must be operated with the left side cover in place to ensure proper cooling. You will need to remove the left side cover to add or replace components inside of the platform. Before removing the left side cover, power down the server and unplug all peripheral devices and the AC power cable.

Note: *A nonskid surface or a stop behind the chassis may be needed to prevent the chassis from sliding on your work surface.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Turn off all peripheral devices connected to the server. Turn off the server.

3. Disconnect the AC power cord(s).
4. If present, remove the two screws (see letter “A” in the following figure). Push in on latch with your right hand (see letter “B”), and with your left hand, grasp the rear cover clasp and slide the left side cover rearward to remove from chassis (see letter “C”).

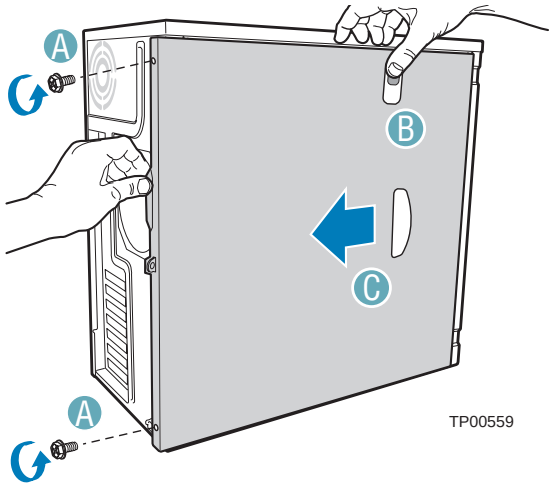


Figure 9. Removing Left Side Cover

Installing the Left Side Cover

Warning: *This chassis must be operated with the left side cover installed to ensure proper cooling.*

1. Slide the left side cover on the chassis and latch securely (see letter “A” in the following figure).
2. (Optional) Replace screws (see letter “B”).

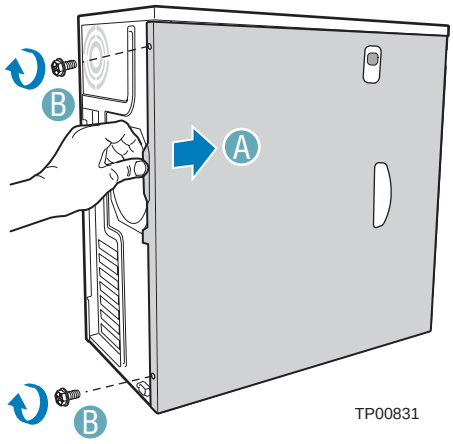


Figure 10. Installing Left Side Cover

3. Reconnect all peripheral devices and the AC power cord. Power up the server.

Removing and Installing the Front Bezel Assembly

All configurations of the Intel® Entry Server Chassis SC5299-E ship with a two-piece front bezel assembly.

Removing the Front Bezel Assembly

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Turn off all peripheral devices connected to the server. Turn off the server.
3. Disconnect the AC power cord.
4. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
5. Disengage the two bezel tabs from the left side of the chassis (see letter “A” in the following figure). Rotate the left side of the front bezel assembly outward slightly (see letter “B”). Disengage the three clips that attach the right side of the front bezel assembly to the chassis and remove (see letter “C”).

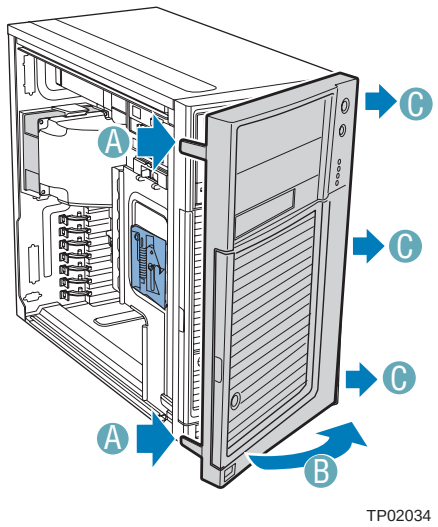


Figure 11. Removing Front Bezel Assembly

Installing the Front Bezel Assembly

1. Line up the three clips on the right-side of the front bezel assembly with the corresponding slots on the right-side of the chassis (see letter “A” in the following figure). Engage the clips with the slots (see letter “B”). Rotate the left side of the the front bezel assembly towards the chassis (see letter “C”). Snap the two bezel tabs into the corresponding recesses at the left edge of the chassis front panel (see letter “D”).

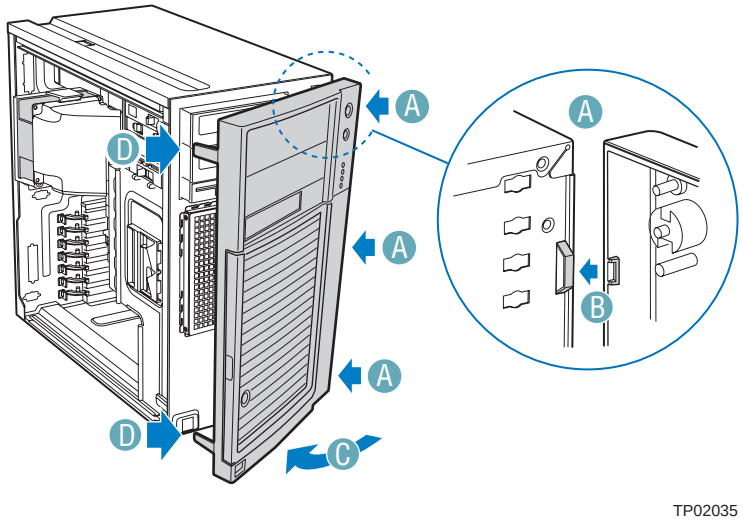


Figure 12. Installing the Front Bezel Assembly

2. Reinstall the left side cover. For instructions, see “Installing the Left Side Cover”.
3. Reconnect all peripheral devices and the AC power cable. Power up the server.

Removing and Installing the Processor Air Duct

Warning: *Always operate your server chassis with the processor air duct in place. This air duct is required for proper airflow within the chassis.*

Warning: *The processor air duct must only be used with active thermal solutions.*

When adding or replacing a processor, first remove the processor air duct, and then refer to your server board *User Guide* for instructions on processor installation and removal. Return to these instructions to reinstall the processor air duct after you have installed your processor and heat sink.

Removing the Processor Air Duct

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see "Removing the Left Side Cover".
4. Loosen the two mounting screws and remove the processor air duct.

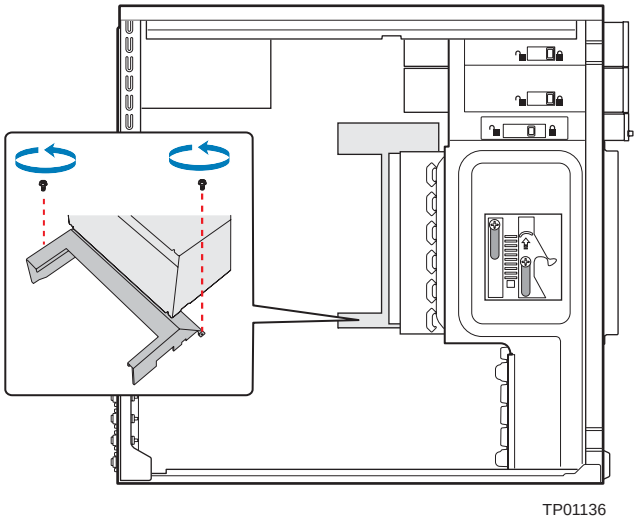


Figure 13. Removing Processor Air Duct

5. Save the screws. You will need them to re-install the processor air duct.

Installing the Processor Air Duct

Warning: ***DO NOT*** *operate the server chassis without the processor air duct in place. The processor air duct is required for proper airflow within the chassis.*

1. Lower the processor air duct into the chassis and line it up with the two mounting holes in chassis. Secure the processor air duct to the chassis with two mounting screws.

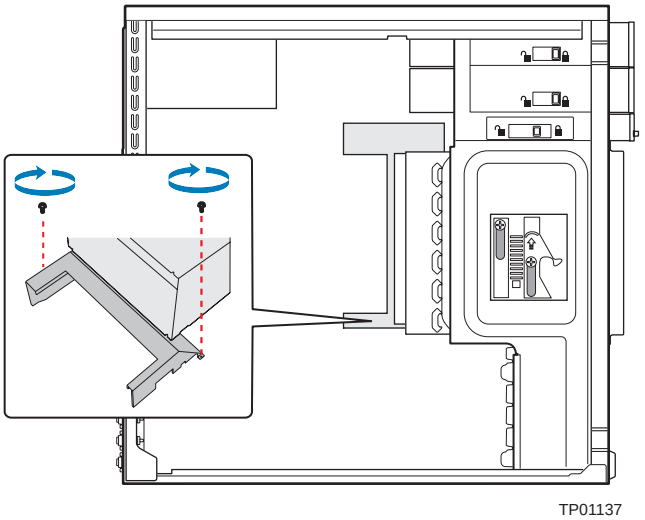


Figure 14. Installing Processor Air Duct

2. Install the left side cover. For instructions, see "Installing the Left Side Cover".
3. Plug all peripheral devices and the AC power cable into the server. Power up the server.

Installing or Removing a Server Board

Note: *The type of Intel® Server Board you can install in your chassis will depend upon the model of chassis you purchased. For a breakout of server board/chassis model compatibility, see Table 1, "Breakdown of Intel® Entry Server Chassis SC5299-E Configurations"*.

To install or remove a server board, do the following:

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see "Removing the Left Side Cover".
4. Remove the front bezel assembly. For instructions, see "Removing the Front Bezel Assembly".

5. Loosen thumb screw and remove the drive cage EMI shield (see letter “A” in the following figure).

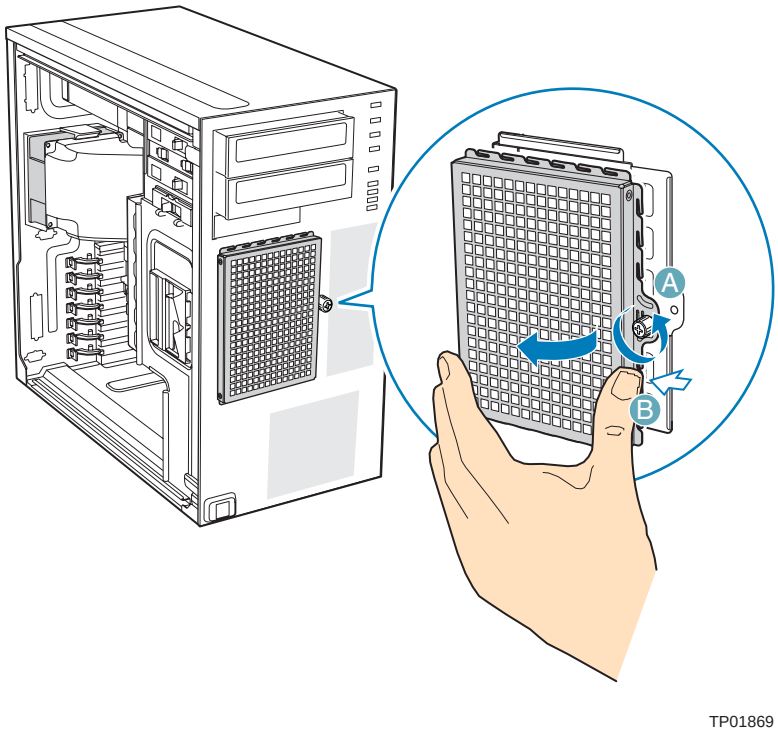


Figure 15. Removing Drive Cage EMI Shield from Fixed Drive Cage

6. Disconnect cables from any installed fixed hard drives. If necessary, remove hard drives from fixed hard drive cage. For instructions on removing fixed hard drives, see “Removing a Fixed Hard Drive”.

7. Push the blue plastic release mechanism upward to release the fixed hard drive cage (see letter “A” in the following figure). Once released, pull the fixed hard drive cage from the chassis (see letter “B”).

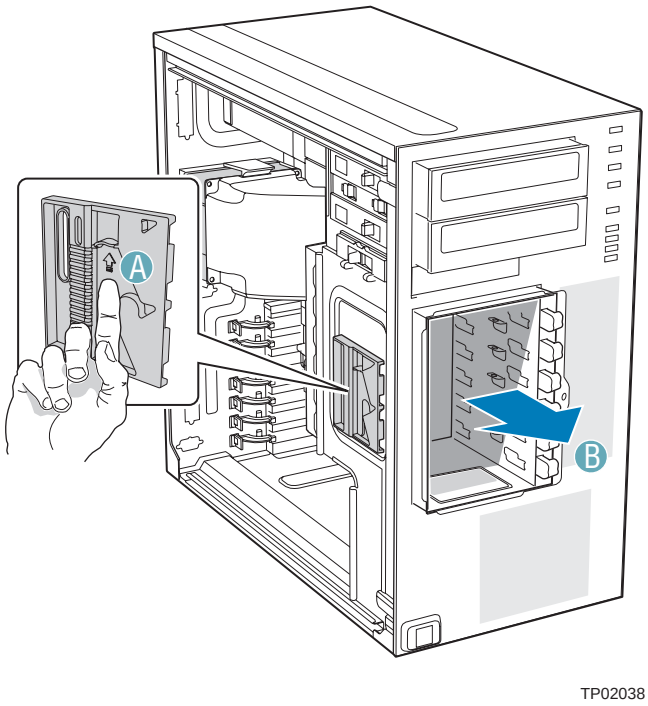


Figure 16. Removing Fixed Hard Drive Cage

8. Remove any PCI add-in boards that are present.
9. Remove the PCI card guide by pressing in on the blue tabs (see letter “A” in the following figure) and pulling the PCI card guide outward (see letter “B”).

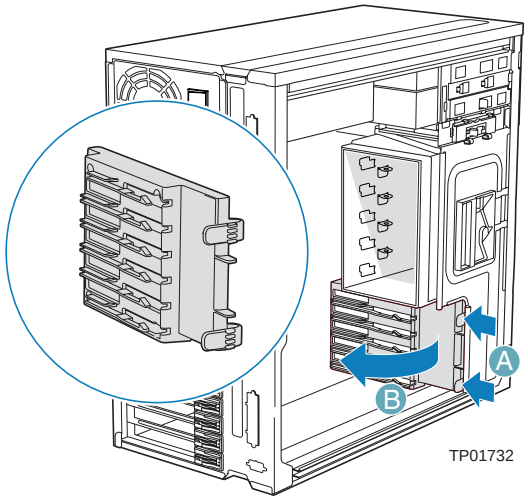


Figure 17. Removing PCI Card Guide

10. Remove the processor air duct. For instructions, see "Removing the Processor Air Duct".
11. If installing a server board, refer to your Intel® Server Board *User's Guide* and/or *Quick Start User's Guide* for installation instructions. Use the mounting screws, bumpers and standoffs (if necessary) that came with your chassis to secure the server board to the chassis. Make sure the server board is properly seated and then tighten the screws firmly, starting with the screws at the center of the server board.

    If removing a server board, disconnect all cables connected to the server board. Refer to your Intel® Server Board *User's Guide* and/or *Quick Start User's Guide* for additional removal instructions.
12. Reinstall the processor air duct. For instructions, see "Installing the Processor Air Duct".
13. Re-install the PCI card guide. Insert tabs on left side of PCI card guide into slots in chassis (see letter "A" in the following figure). Swing PCI card guide into chassis until right-side blue tabs snap into place (see letter "B").

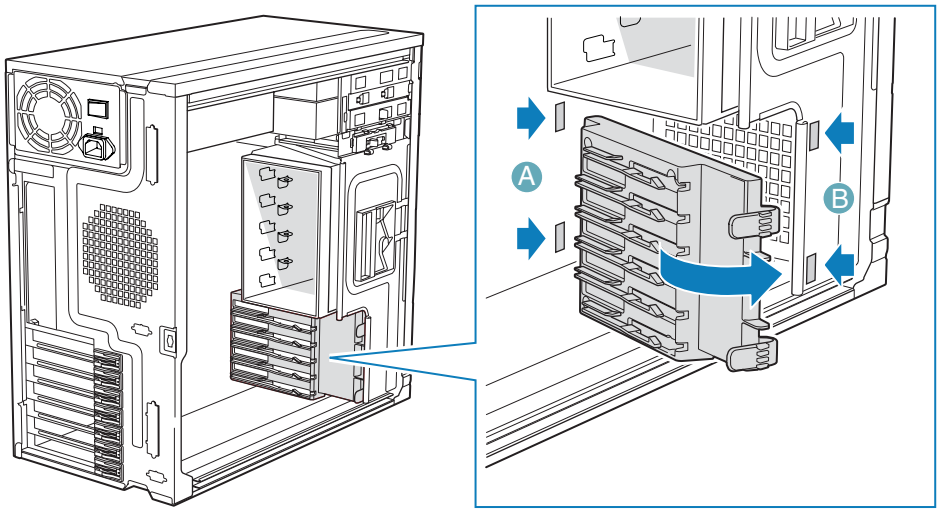
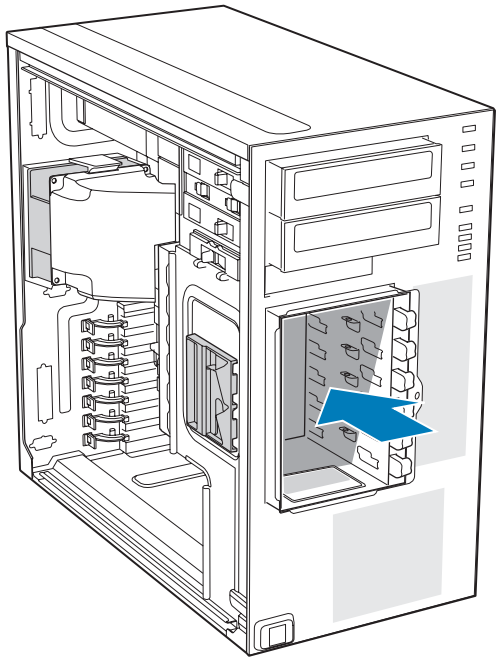


Figure 18. Re-installing PCI Card Guide into Chassis

14. Slide the fixed hard drive cage into the drive bay slot of the chassis. You should hear a click when the blue plastic retention mechanism locks into place.



TP02039

Figure 19. Inserting Fixed Hard Drive Cage into Chassis

15. If previously removed, install fixed hard drives and connect power and data cables. For instructions, see “Installing a Fixed Hard Drive”.

16. Re-attach the drive cage EMI shield to the fixed hard drive cage and tighten the thumb screw.

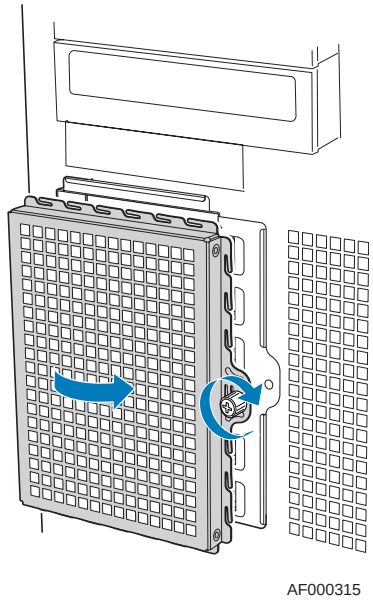


Figure 20. Re-attaching Drive Cage EMI Shield

17. Re-install the front bezel assembly. For instructions, see "Removing and Installing the Front Bezel Assembly"
18. Re-install the left side cover. For instructions, see "Installing the Left Side Cover"
19. Plug all peripheral devices and the AC power cable(s) back into the server. Power up the server.

Installing and Removing a Fixed Hard Drive

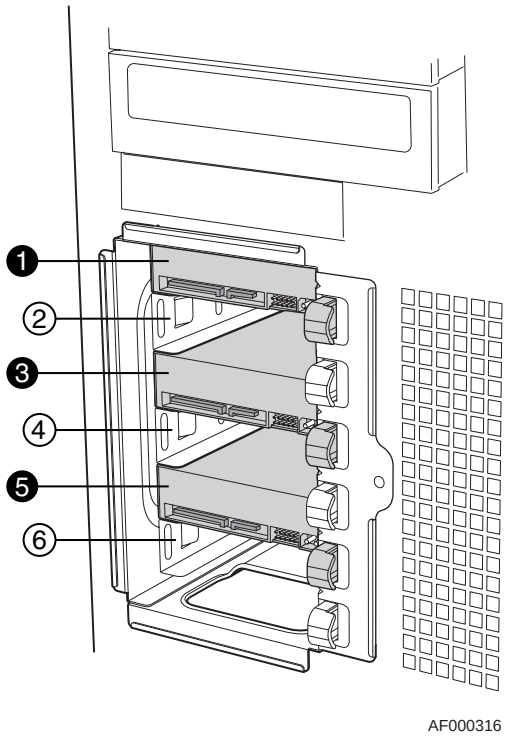
Up to six fixed hard drives can be installed in the fixed hard drive cage that ships with the Intel® Entry Server Chassis SC5299-E. Power requirements for each individual hard drive may limit the maximum number of drives that can be integrated into the server chassis.

Note: *The Intel® Entry Server Chassis SC5299-E does not support all hard drives. See "Additional Information and Software" for a web link to a list of supported hard drives.*

Installing a Fixed Hard Drive

Caution: *Fixed drives are NOT hot swappable. Before removing or replacing the drive, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

Warning: *Drive bay slots 1, 3, and 5 MUST be populated first. Failure to do so could result in thermal issues within the chassis.*



Note: *SAS/SATA drives illustrated.*

Figure 21. Drive Bay Slot Order

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.

3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
4. Remove the front bezel assembly. For instructions, see “Removing the Front Bezel Assembly”.
5. Loosen thumb screw and remove the drive cage EMI shield (see letter “A” in the following figure).

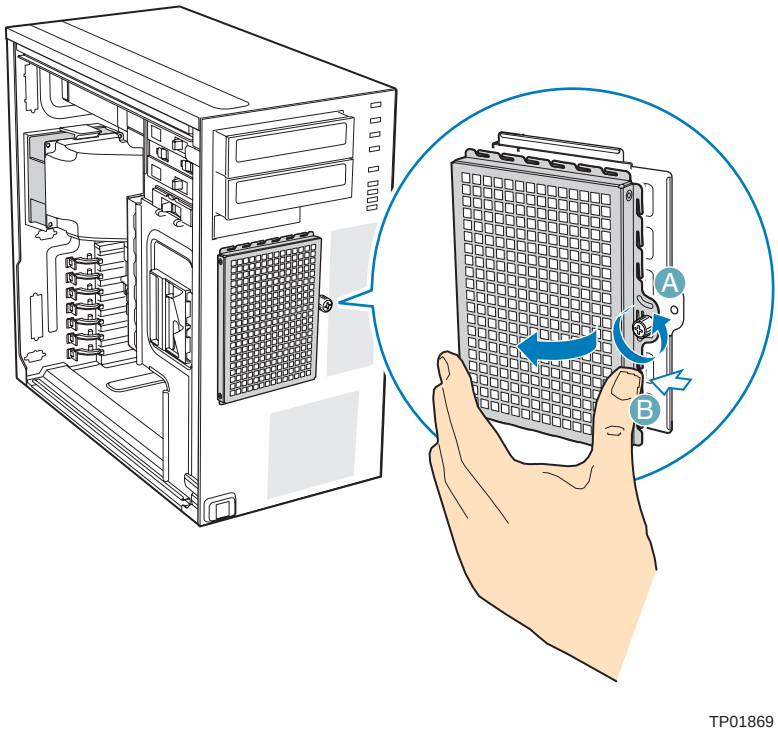


Figure 22. Removing Drive Cage EMI Shield from Chassis

6. Remove any PCI add-in boards that use the PCI card guide. For instructions, see “Removing PCI Add-in Boards”.

7. Remove the PCI card guide by pressing in on the blue tabs (see letter “A” in the following figure) and pulling the PCI card guide outward (see letter “B”).

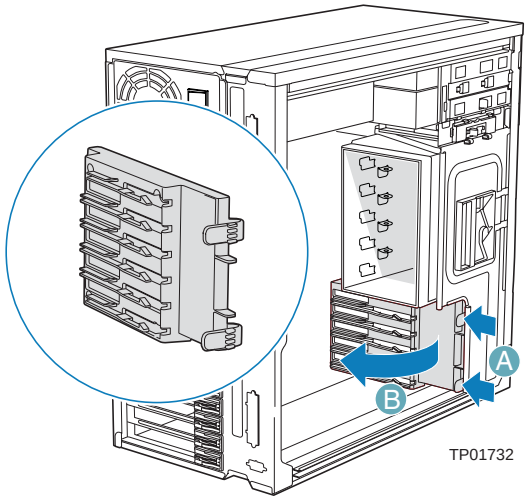


Figure 23. Removing PCI Card Guide

8. Route the required power cables (connectors P8-P13) from behind the PCI card guide through the cable routing area at the bottom of the fixed drive cage.

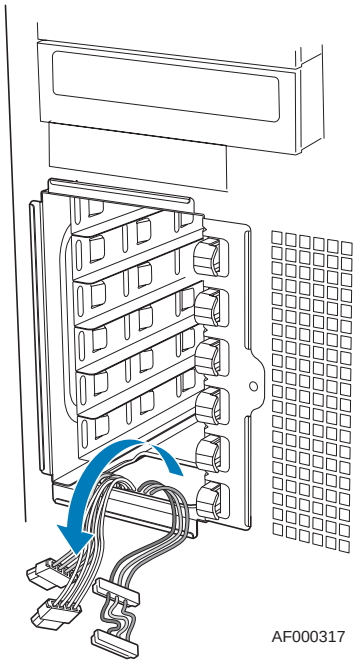


Figure 24. Routing Hard Drive Power Cables

9. Pull the drive latch forward to unlatch the drive locking assembly for the drive bay you want to install a hard drive in.

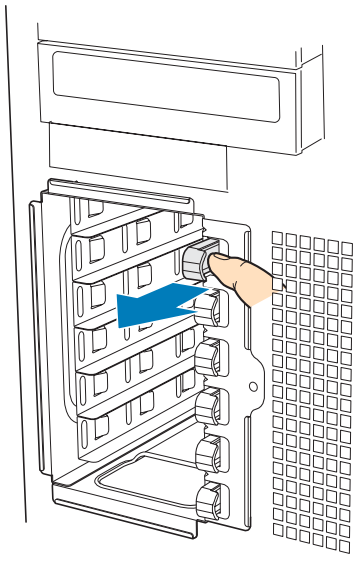


Figure 25. Unlatching Drive Latch

10. Insert fixed hard drive into drive bay and push until it stops. Ensure that the power and data connector end of the hard drive is facing forward

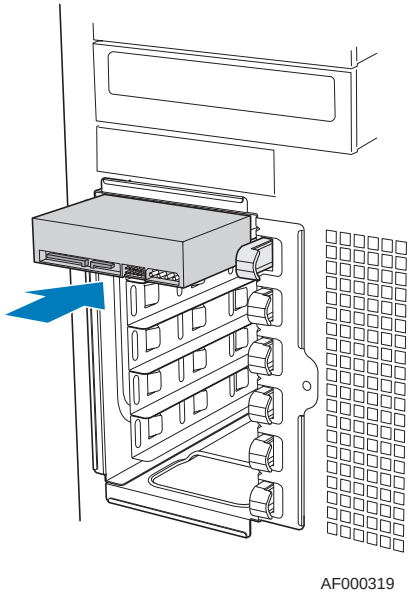


Figure 26. Inserting Hard Drive into Drive Cage

11. Push drive latch in to lock hard drive into drive bay

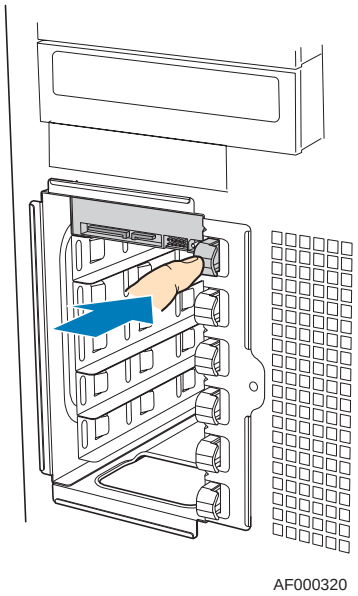


Figure 27. Latching Drive Latch

12. Install additional drives as necessary.

Warning: *Drive bay slots 1, 3, and 5 MUST be populated first. Failure to do so could result in thermal issues within the chassis.*

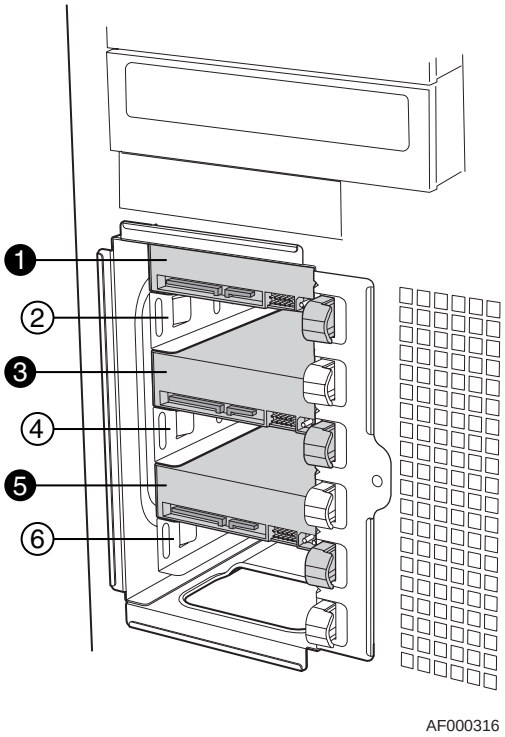


Figure 28. Drive Bay Slot Order

13. Install power (see letter “A” in the following figure) and data (see letter “B”) cables to each of the installed drives.The cables route through the oval opening at the bottom of the fixed drive cage.

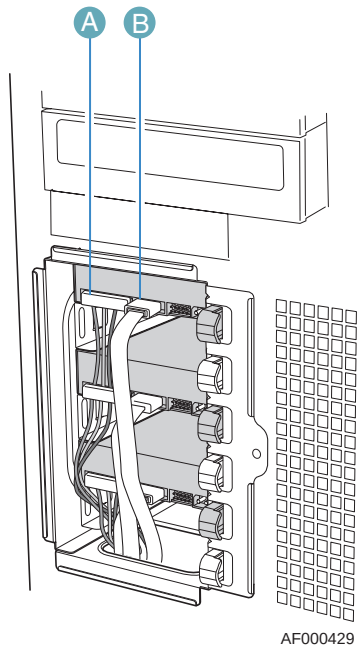


Figure 29. Cabling a Fixed Hard Drive

14. Re-attach the drive cage EMI shield to the chassis and tighten the thumb screw.

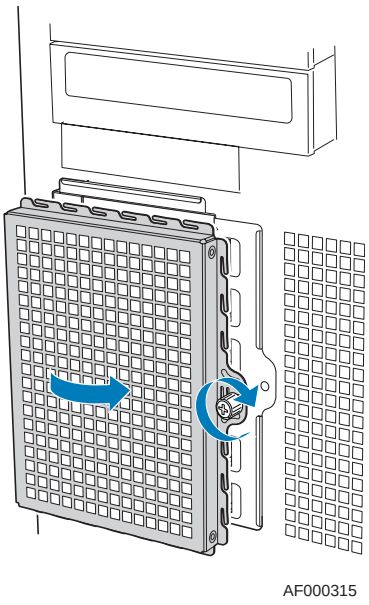


Figure 30. Re-installing Drive Cage EMI Shield

15. Re-install the PCI card guide. Insert tabs on left side of PCI card guide into slots in chassis (see letter “A” in the following figure). Swing PCI card guide into chassis until right-side blue tabs snap into place (see letter “B”).

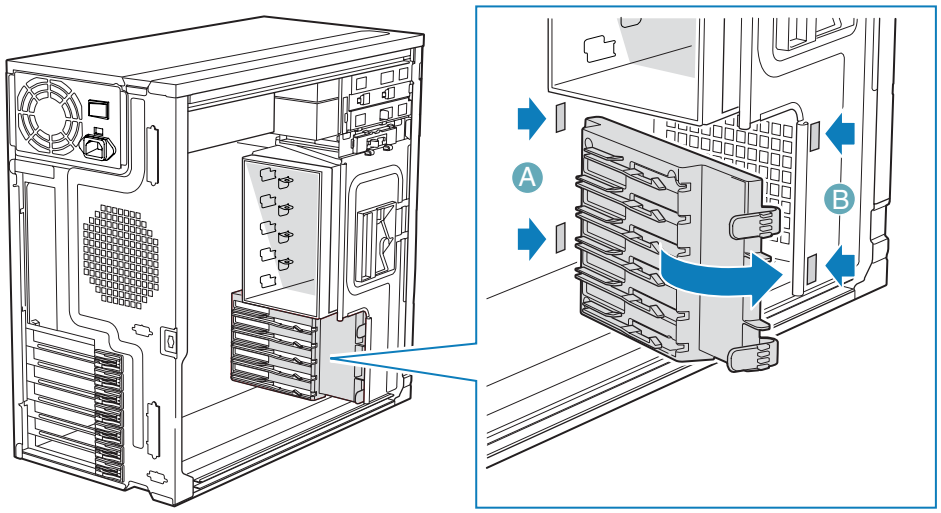


Figure 31. Re-installing PCI Card Guide

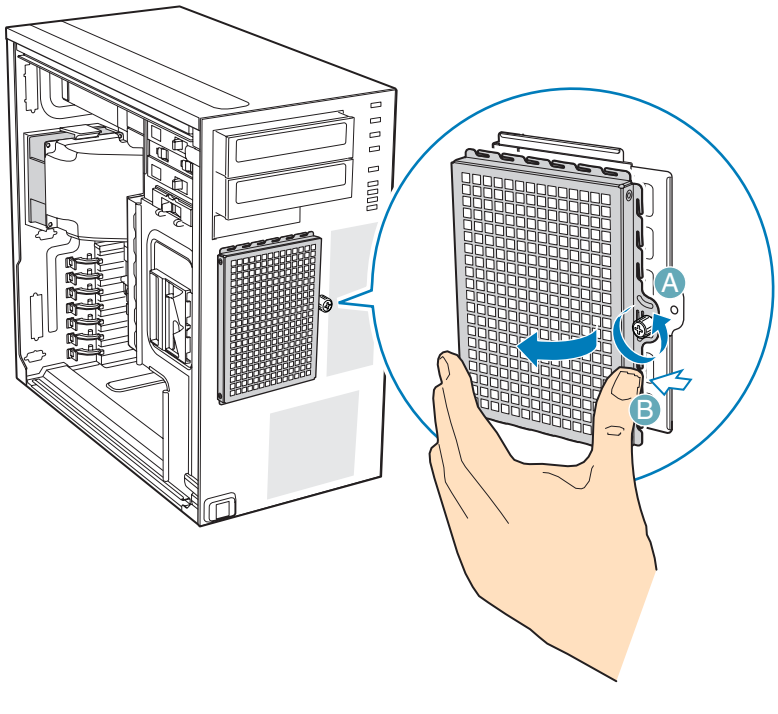
16. Re-install any PCI add-in cards that were removed. For instructions, see “Installing PCI Add-in Boards”.
17. Re-install the front bezel assembly. For instructions, see “Installing the Front Bezel Assembly”
18. Re-install the left side cover. For instructions, see “Installing the Left Side Cover”
19. Plug all peripheral devices and the AC power cable back into the server. Power up the server.

Removing a Fixed Hard Drive

Caution: *Fixed drives are NOT hot swappable. Before removing or replacing the drive, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
4. Remove the front bezel assembly. For instructions, see “Removing and Installing the Front Bezel Assembly”.

5. Loosen thumb screw (see letter “A” in the following figure). Apply slight pressure to right side of drive bay access door and swing door outward (see letter “B”).



6. Disconnect the data and power cables from the hard drive to be removed (see letter “A” in the following figure). Pull the drive latch forward (see letter “B”) to unlatch the drive locking mechanism for the hard drive you want to remove.

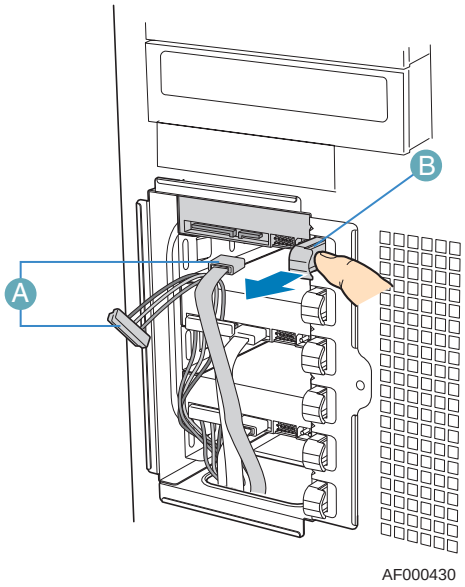


Figure 32. Preparing Fixed Hard Drive for Removal

7. Slide the hard drive out of the fixed hard drive cage and place on an anti-static surface. If replacing the hard drive, see "Installing a Fixed Hard Drive" for instructions.

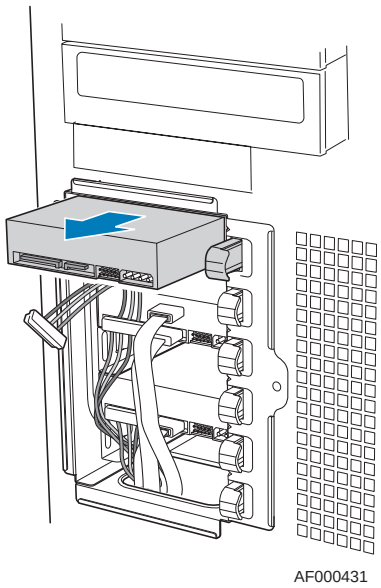


Figure 33. Removing Fixed Hard Drive from Drive Bay

8. Re-attach the drive cage EMI shield to the chassis and tighten the thumb screw.

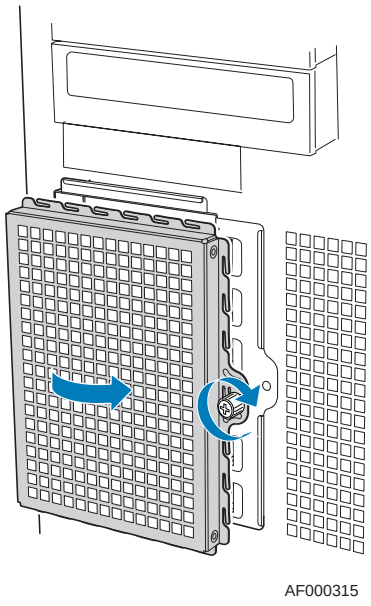


Figure 34. Re-installing Drive Cage EMI Shield

9. Re-install the front bezel assembly. For instructions, see "Installing the Front Bezel Assembly"
10. Re-install the left side cover. For instructions, see "Installing the Left Side Cover"

11. Plug all peripheral devices and the AC power cable(s) into the server. Power up the server.

Installing or Removing a DVD-ROM or CD-ROM Drive

Caution: *CD-ROM and DVD-ROM drives are NOT hot swappable. Before removing or replacing the drive, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

Installing a DVD-ROM or CD-ROM Drive

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
4. Remove the front bezel assembly. For instructions, see “Removing the Front Bezel Assembly”.
5. Remove the EMI shield from the 5.25-in device drive bay (see letter “A” in the following figure). Move latch to the “unlock” position (see letter “B”).

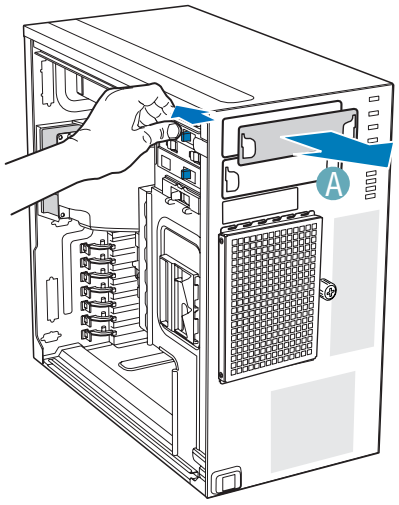


Figure 35. Removing 5.25-in Drive EMI Shield

6. Insert CD-ROM or DVD-ROM drive into the 5.25-in device drive bay (see letter “C” in the following figure). Line up holes in CD-ROM drive with holes in chassis (see letter “D”). Move latch to the “lock” position (see letter “E”). Connect power (P3 or P4 connector from the power supply) and data cables to the rear of the CD-ROM or DVD-ROM drive (see letter “F”).

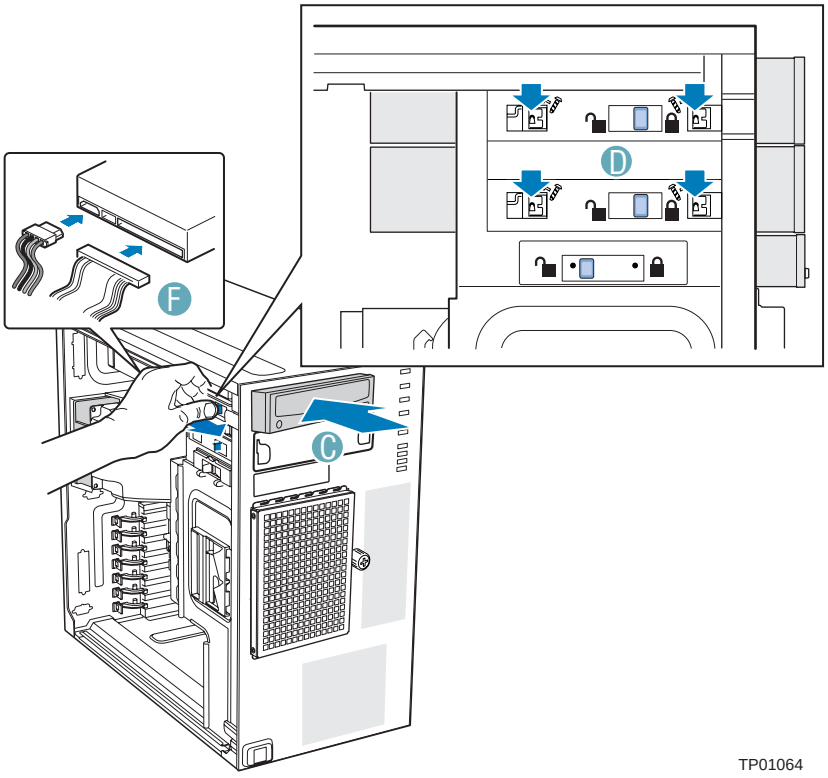
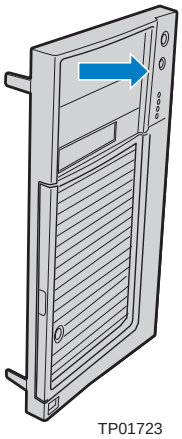


Figure 36. Installing CD-ROM or DVD-ROM Drive

7. If necessary, remove the filler panel from the front bezel assembly.



8. Reinstall the front bezel assembly. For instructions, see "Installing the Front Bezel Assembly".
9. Reinstall the left side cover. For instructions, see "Installing the Left Side Cover".
10. Reconnect all peripheral devices and the AC power cable(s). Power up the server.

Removing a CD-ROM or DVD-ROM Drive

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the chassis cover. For instructions, see "Removing the Left Side Cover".
4. Remove the Front Bezel Assembly. For instructions, see "Removing the Front Bezel Assembly".
5. Disconnect the power and data cables from the rear of the CD-ROM or DVD-ROM drive (see letter "A" in the following figure). Move latch to the "unlock" position (see letter "B"). Slide CD-ROM or DVD-ROM drive out of the Device Drive Bay (see letter "C").

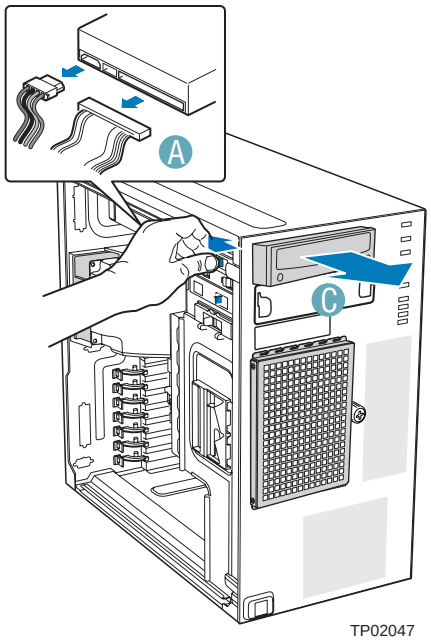


Figure 37. Removing CD-ROM or DVD-ROM Drive

6. If reinstalling a new CD-ROM or DVD-ROM drive, see "Installing a DVD-ROM or CD-ROM Drive" for instructions. If not replacing the drive, reinstall the EMI shield and front bezel filler panel, if available.

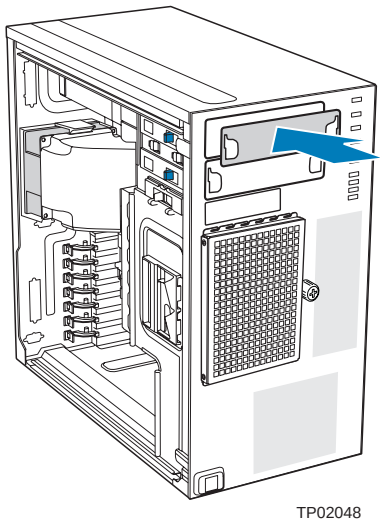


Figure 38. Installing 5.25-in Drive EMI Shield

7. Reinstall the front bezel assembly. For instructions, see "Installing the Front Bezel Assembly".
8. Reinstall the chassis cover. For instructions, see "Installing the Left Side Cover".
9. Reconnect all peripheral devices and the AC power cable(s). Power up the server.

Installing the Removing PCI Add-in Boards

The following instructions describe how to install and remove a PCI add-in board in the Intel® Entry Server Chassis SC5299-E. These instructions are server board dependent. See your server board documentation to determine PCI add-in board compatibility.

Caution: *Do not overload the server board by installing add-in boards that draw excessive current.*

Caution: *PCI add-in boards can be extremely sensitive to electric static discharge (ESD) and always require careful handling. After removing the add-in board from its protective wrapper or from the server board, place it component side up on a grounded, static-free surface or conductive foam pad. Do not slide the add-in board over any surface.*

Installing PCI Add-in Boards

Note: *You may want to install an operating system before installing any PCI add-in boards.*

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.

3. Remove the left side cover. For instructions, see "Removing the Left Side Cover".
4. Open the back panel PCI Add-in Card Retention Device by pressing open from the inside of the chassis.

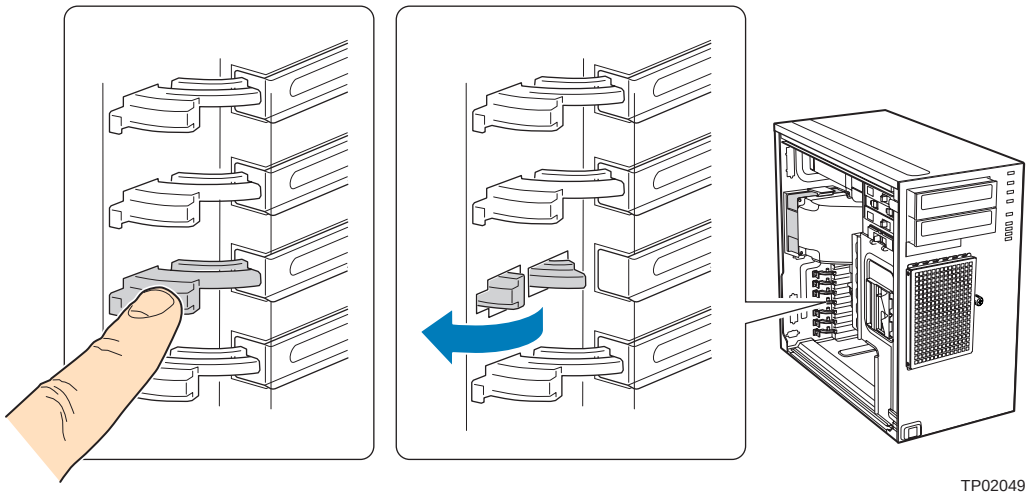


Figure 39. Opening PCI Add-in Card Retention Device

5. Remove the PCI slot shield, if it has not already been removed, by pushing the shield out from the inside of the chassis.

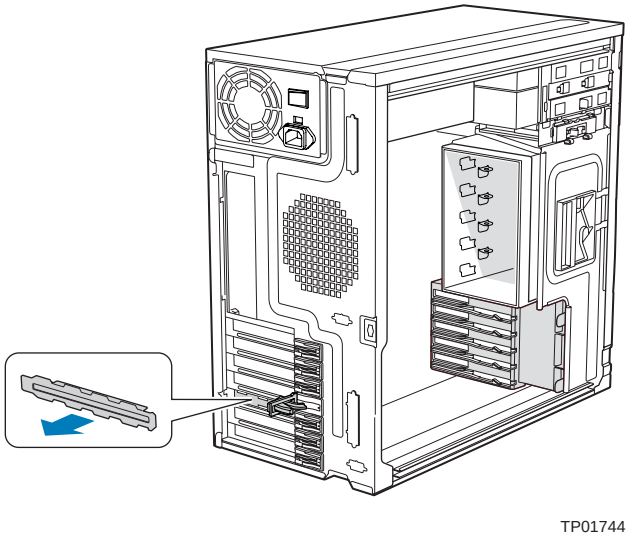


Figure 40. Removing PCI Slot Shield

6. Remove a PCI add-in board from its protective wrapper. Be careful not to touch the components or gold-edge connectors. Place board on an anti-static surface. Record the type and serial number of the add-in board in your equipment log. Set jumpers or switches on the board according to the manufacturer's instructions.

7. Hold the PCI add-in board by its top edge or upper corners. Firmly press the add-in board into an expanision slot on the server board (see letter “A” in the following figure). Close the back panel PCI Add-in Card Retention Device (see letter “B”).

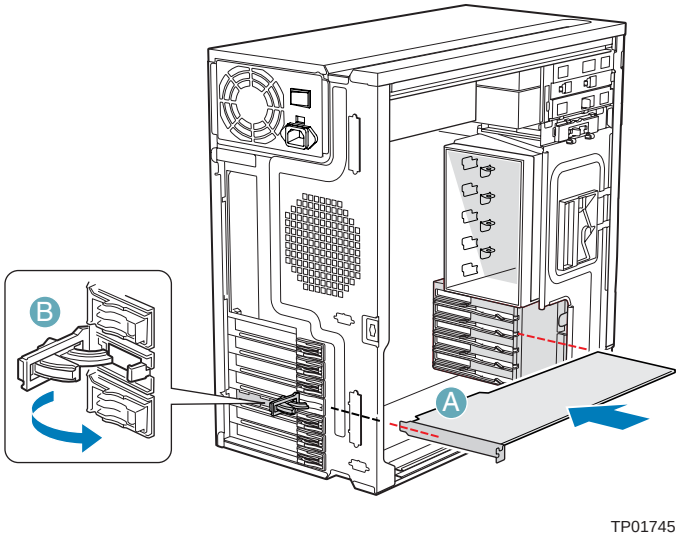


Figure 41. Installing PCI Add-in Board

8. Repeat the previous steps until all PCI add-in boards are installed.
9. Attach cables, if necessary.
10. Reinstall the left side cover. For instructions, see “Installing the Left Side Cover”.
11. Reconnect all peripheral devices and the AC power cable. Power up the server.

Removing PCI Add-in Boards

Caution: *PCI add-in boards can be extremely sensitive to electric static discharge (ESD) and always require careful handling. After removing the add-in board from its protective wrapper or from the server board, place it component side up on a grounded, static-free surface or conductive foam pad. Do not slide the add-in board over any surface.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.

4. Open the back panel PCI Add-in Card Retention Device by pressing open from the inside of the chassis.

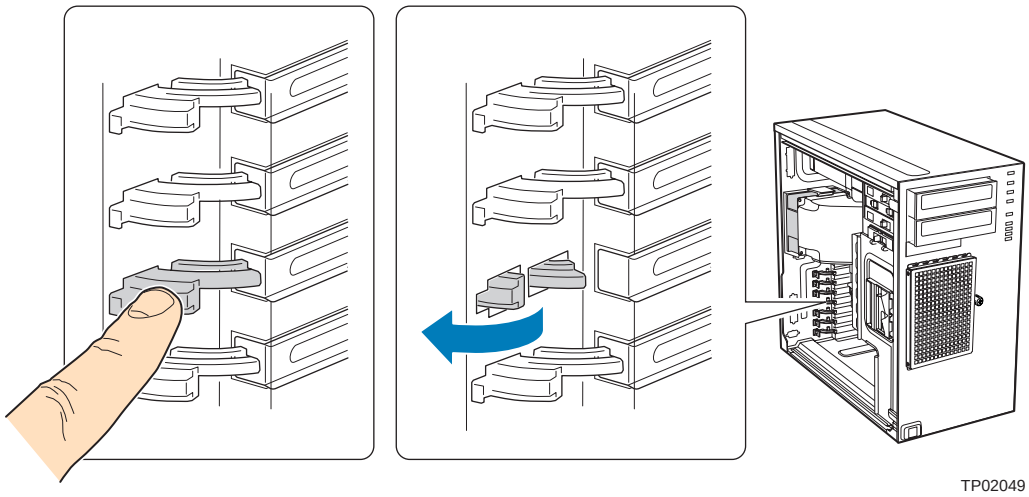


Figure 42. Opening PCI Add-in Card Retention Device

5. Disconnect any cables that may be attached to the PCI add-in board that needs to be removed.
6. Firmly grab the PCI add-in board by its top edge or upper corners and remove from the expansion slot on the server board (see letter “A” in the following figure). Place the removed add-in board in an anti-static protective wrapper. Close the back panel PCI Add-in Card Retention Device (see letter “B”).

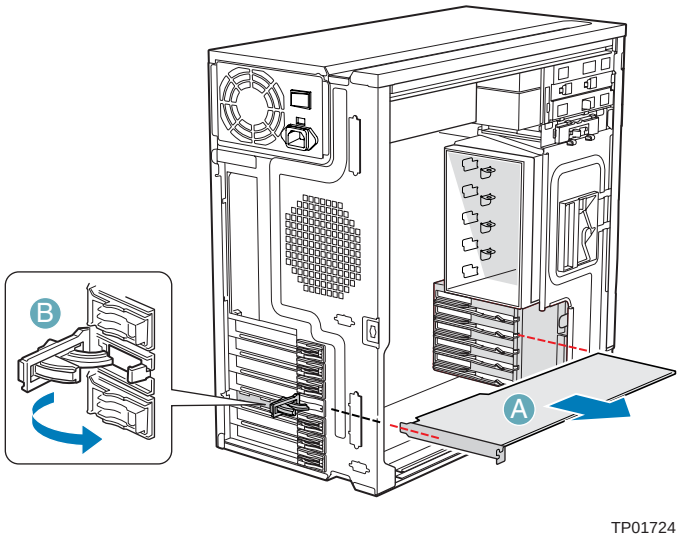


Figure 43. Removing PCI Add-in Board

7. If available, replace the PCI slot shield by pressing the slot shield into the opening on the chassis.

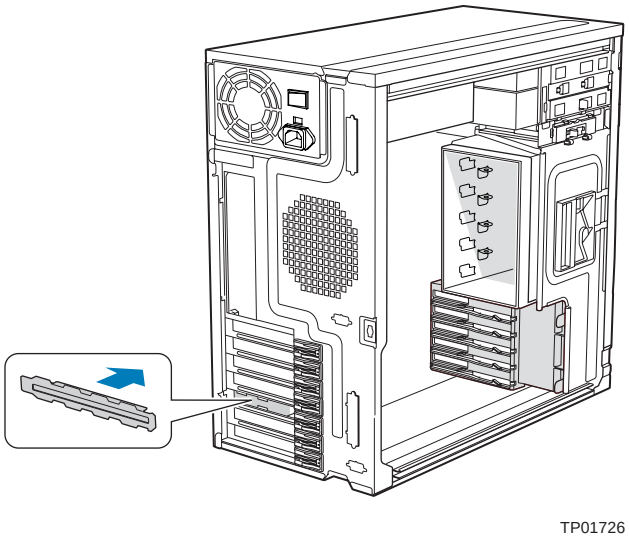


Figure 44. Replacing PCI Slot Shield

8. Reinstall the left side cover. For instructions, see "Installing the Left Side Cover".
9. Reconnect all peripheral devices and the AC power cable(s). Power up the server.

Replacing the Front Panel Board

Your server must be operated with a front panel board installed.

Caution: *The front panel board is NOT hot swappable. Before removing or replacing the front panel board, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see "Removing the Left Side Cover"
4. Remove the front bezel assembly if it is installed. For instructions, see "Removing the Front Bezel Assembly".

5. Remove the two screws (see letter “A” in the following figure”) securing the right side cover to the chassis. Lift the right side cover off the chassis.

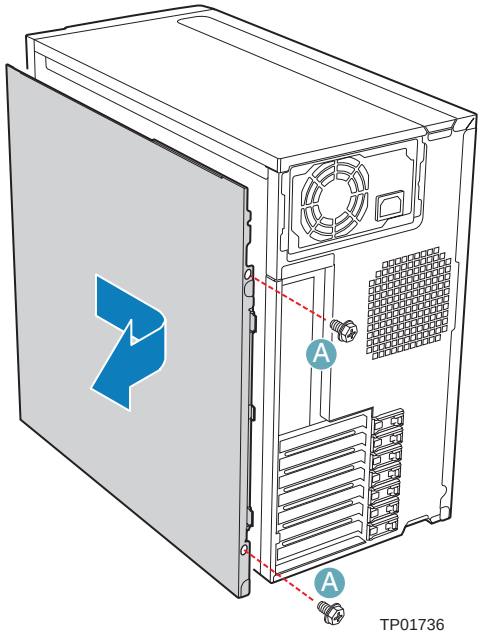


Figure 45. Removing Right Side Cover from Chassis

6. Remove the three screws securing the front panel board to the chassis.

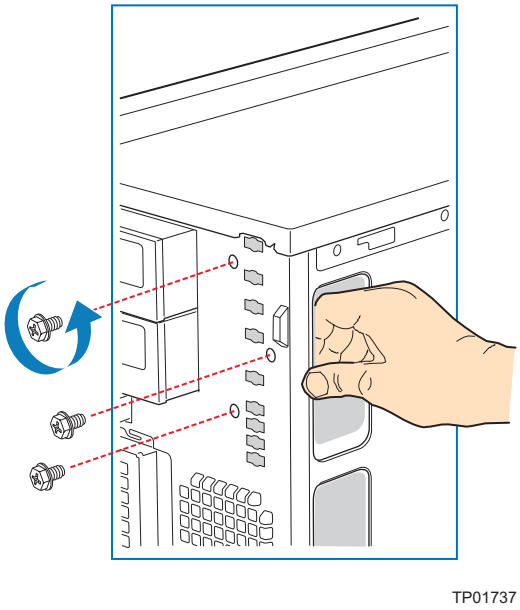


Figure 46. Unattaching Front Panel Board from Chassis

7. Carefully remove the front panel board through the opening in the left side of the chassis (see letter “A” in the following figure). Disconnect the front panel cable (see letter “B”) and the chassis intrusion cable (see letter “C”) from the front panel board.

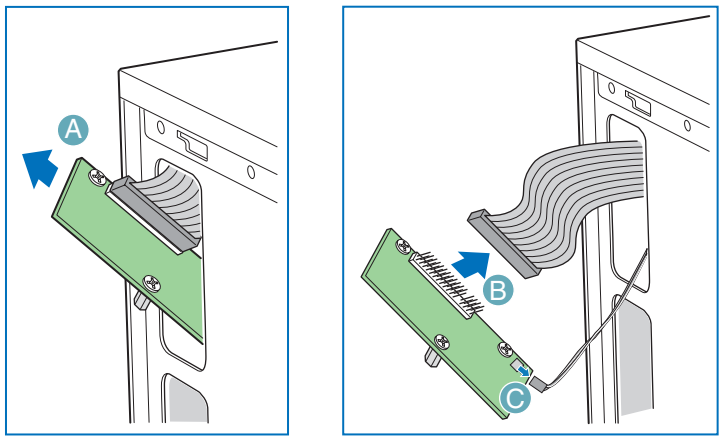


Figure 47. Removing Front Panel Board from Chassis

8. Remove standoffs from old front panel and install on new front panel.

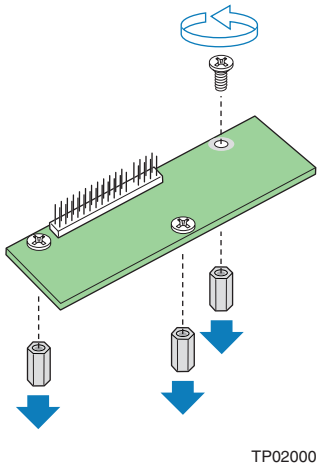


Figure 48. Removing Standoffs from Front Panel

9. Attach the front panel cable (see letter “A” in the following figure) and the chassis intrusion cable (see letter “B”) to the new front panel board. Slide the new front panel board through the opening in the left side of chassis (see letter “C”).

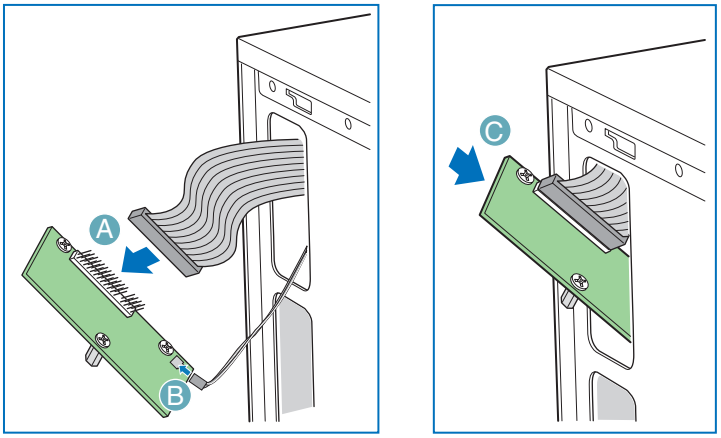


Figure 49. Installing Front Panel Board in Chassis

10. Use one hand to align the front panel board in position inside the chassis. With your other hand, tighten the three screws to secure the front panel board to the front of the chassis.

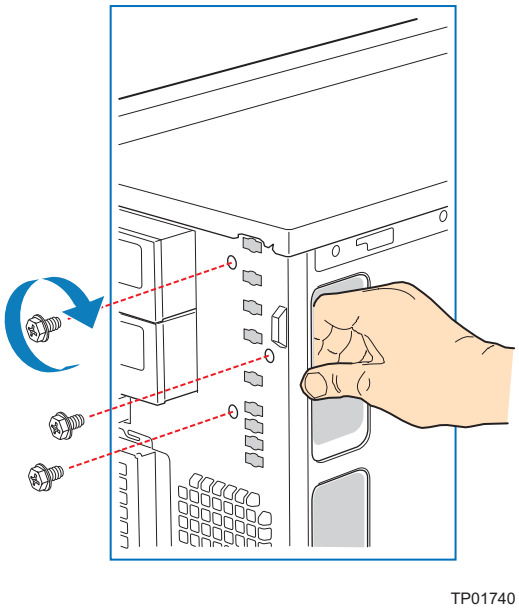


Figure 50. Positioning Front Panel Board in Chassis

11. Reinstall the right side cover. Reinstall the two screws.

Warning: *This chassis must be operated with the right side cover installed to ensure proper cooling.*

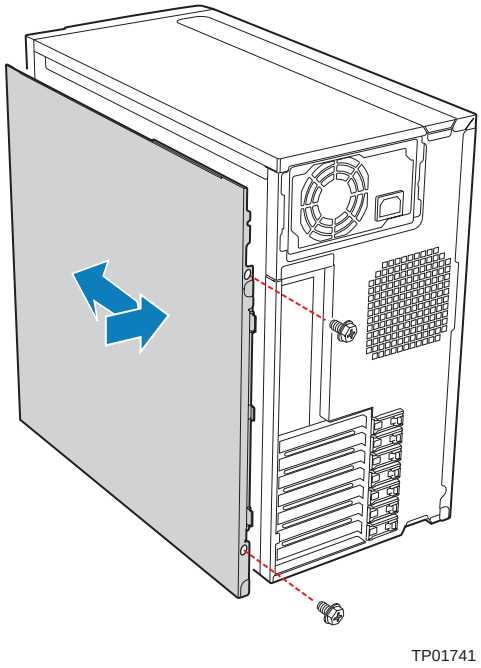


Figure 51. Re-installing Right Side Cover on Chassis

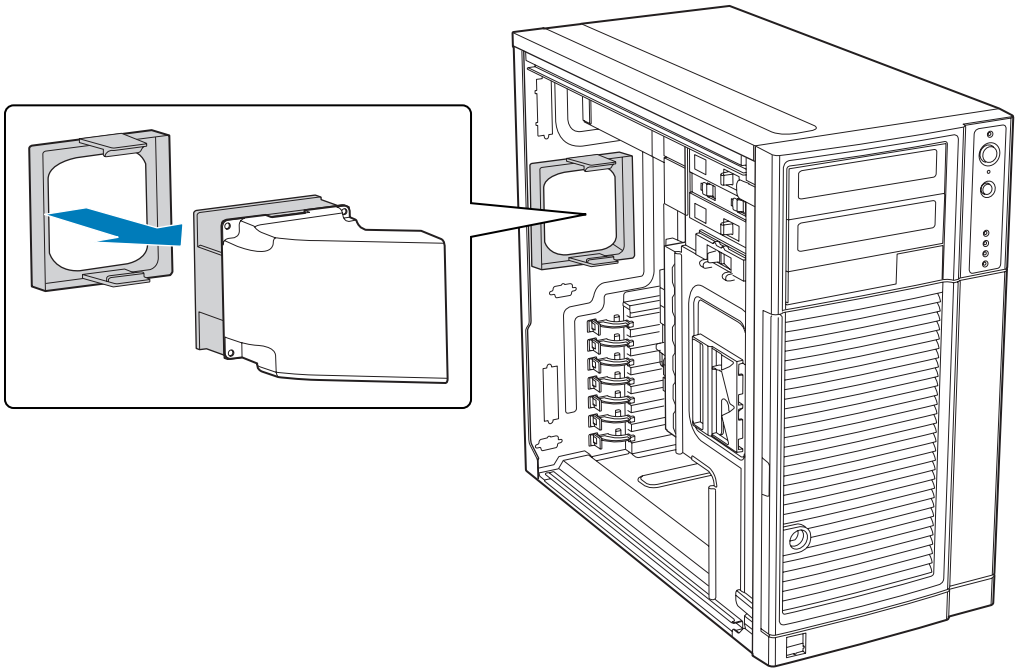
12. Reinstall the front bezel assembly. For instructions, see "Installing the Front Bezel Assembly".
13. Reinstall the left side cover. For instructions, see "Installing the Left Side Cover"
14. Reconnect all peripheral devices and the AC power cable. Power up the server.

Replacing a System Fan

Caution: *The system fan for the Intel® Entry Server Chassis SC5299-E is NOT hot swappable. Before removing or replacing a fan, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see "Removing the Left Side Cover".

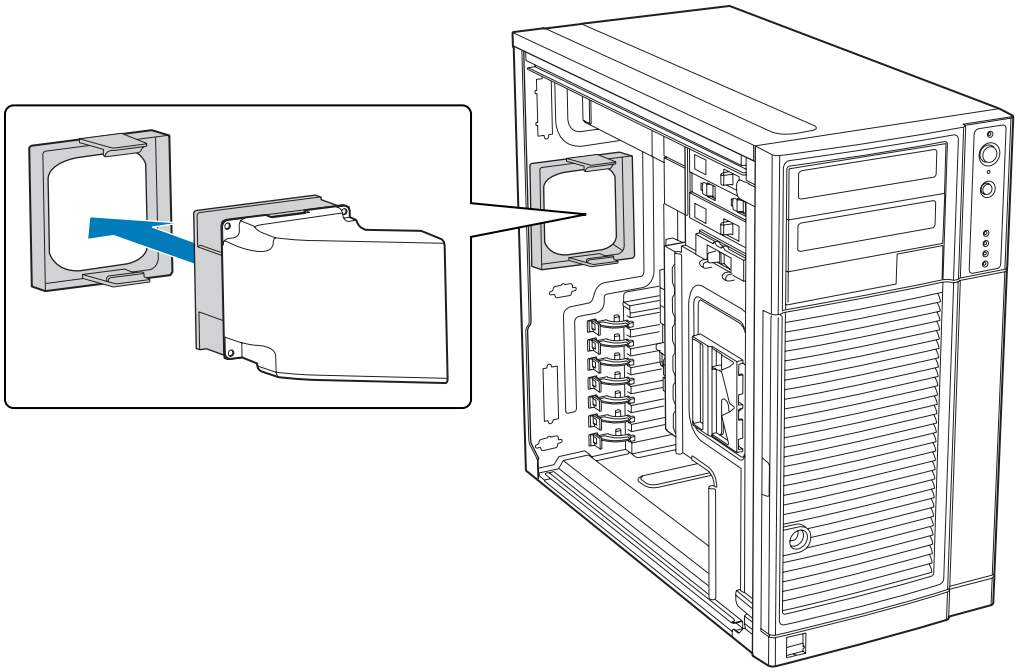
4. Remove the fan duct /system fan assembly.



AF000284

Figure 52. Removing Fan Duct / System Fan Assembly

5. Re-install the fan duct / system fan assembly.



TP01853

Figure 53. Re-installing Fan Duct / System Fan Assembly

6. Reconnect the fan cable to the server board. Refer to the *User Guide* that came with your server board for connection location.
7. Install the left side cover. For instructions, see "Installing the Left Side Cover".
8. Plug all peripheral devices and the AC power cable into the server. Power up the server.

Replacing a Fixed Power Supply

Warning: *Hazardous conditions, power supply: Hazardous voltage, current, and energy levels are present inside the power supply. There are no user-serviceable parts inside it; servicing of the power supply should only be done by technically qualified personnel.*

Caution: *The fixed power supply is NOT hot swappable in the DP and WS models of the Intel® Entry Server Chassis SC5299-E. Before removing or replacing the fixed power supply, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.*

To replace a fixed power supply, use the following instructions:

1. Observe the safety and ESD precautions listed in Appendix A, "Safety Information".
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see "Removing the Left Side Cover".
4. Disconnect all internal power cables from chassis components and server board.
5. Rotate the blue locking mechanism (see letter "A" in the following figure to the open position.

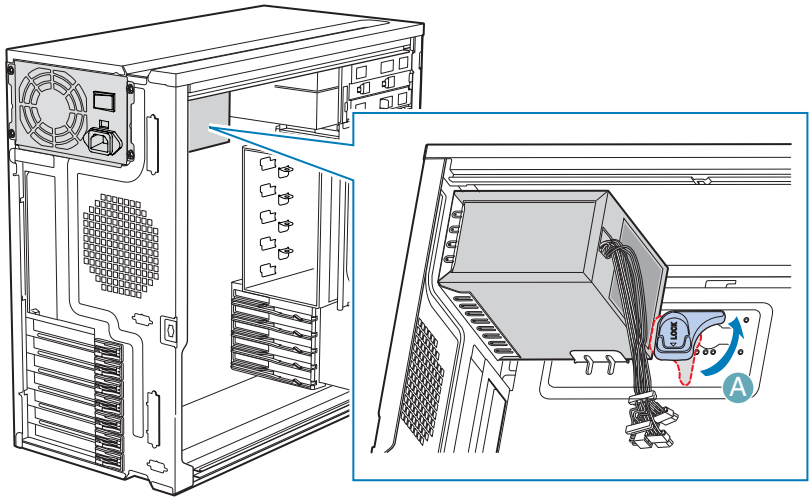
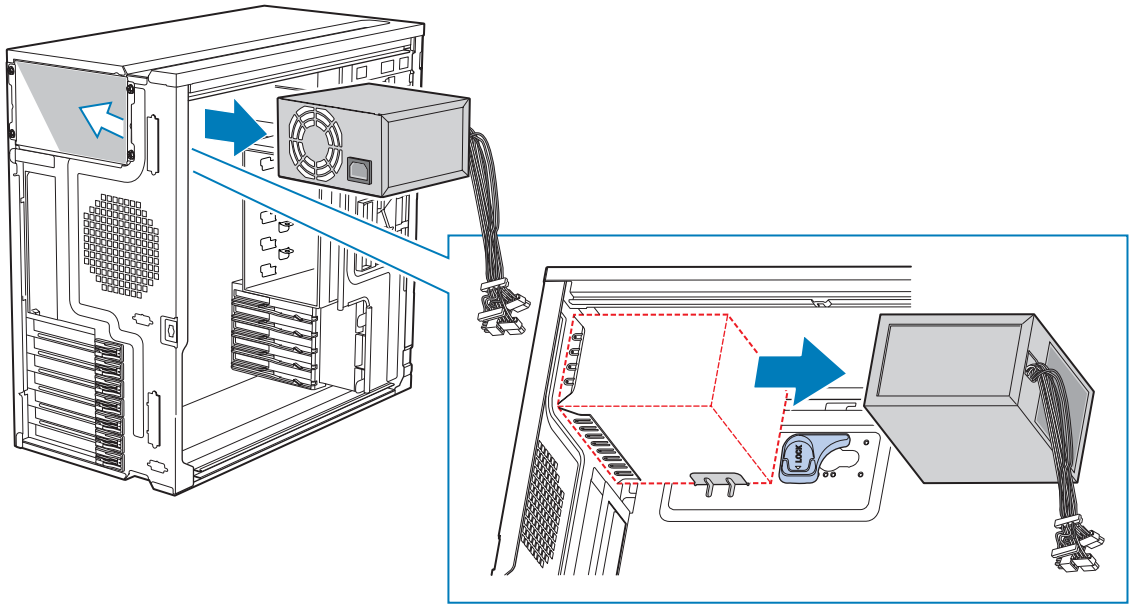


Figure 54. Unlocking Fixed Power Supply from Chassis

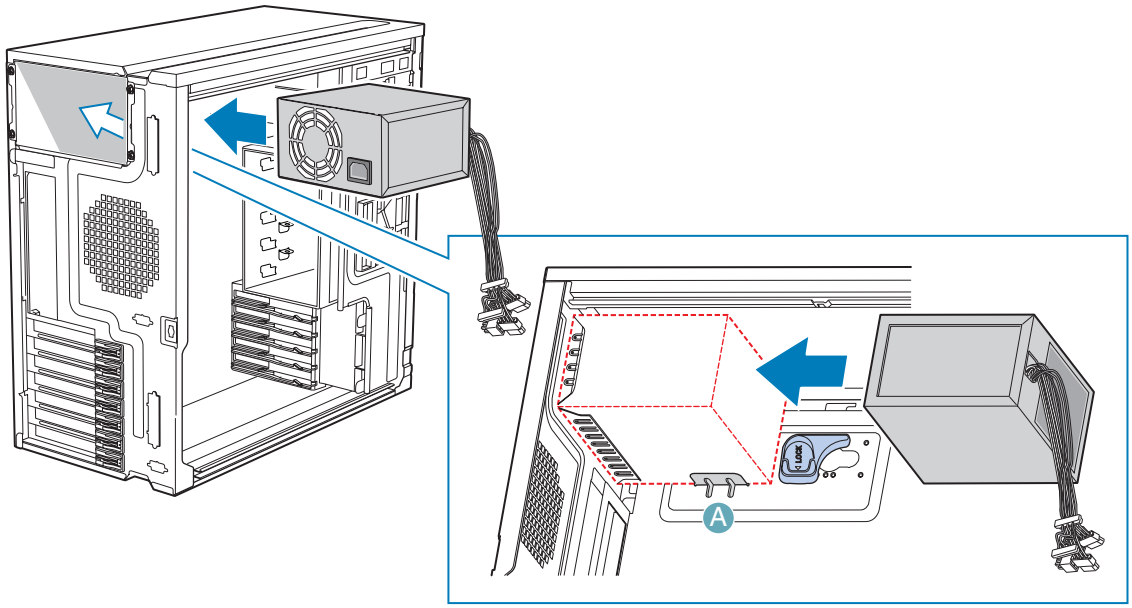
6. Once the fixed power supply is loose, push the power supply against the blue locking mechanism and then lift the power supply out of the chassis.



TP01754

Figure 55. Removing Fixed Power Supply from Chassis

7. Insert new fixed power supply in chassis. Ensure that the blue locking mechanism is still in the open position. Make sure that the new fixed power supply rests on the small metal shelf on the side wall of the chassis (see letter “A” in the following figure).



TP01753

Figure 56. Inserting Fixed Power Supply in Chassis

8. Rotate the blue locking mechanism to the locked position (see letter “A” in the following figure).

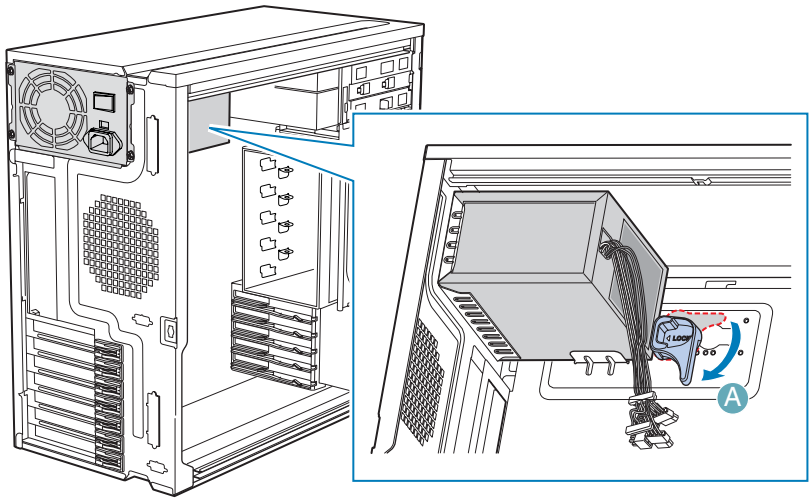


Figure 57. Locking Fixed Power Supply into Chassis

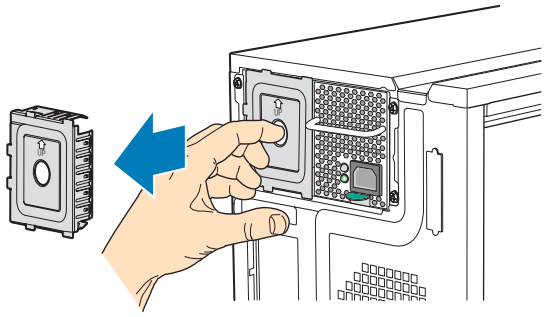
9. Route and connect the P1, P2, and P14 cables to the server board. Refer to the Intel® Server Board *Quick Start User's Guide* or *User Guide* that came with your Intel® server board for appropriate power connections.
10. Route the P5 cable to the floppy drive.
11. Route the P3 and P4 cables to the 5.25-in. removable media device bays and connect to installed devices.
12. Route the P8, P9, P10, and P12 cables to the hard drive cage and connect power cables to installed devices.
13. Install the left side cover. For instructions, see “Installing the Left Side Cover”.
14. Reconnect all peripheral devices and the AC power cable to the server. Power up the server.

Installing an Additional Hot Swap Power Supply Module (BRP configuration only)

Note: *This install procedure only applies to a chassis with redundant power supply capability. DO NOT perform this install procedure if your chassis has a fixed power supply*

Warning: *Hazardous conditions, power supply: Hazardous voltage, current, and energy levels are present inside the power supply. There are no user-serviceable parts inside it; servicing of the power supply should be done only by technically qualified personnel.*

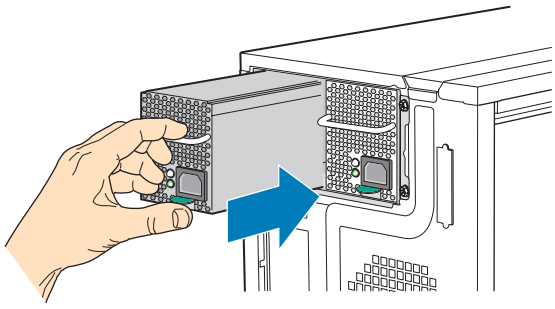
1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Insert finger into hole in middle of filler panel and remove filler panel from chassis.



TP00916

Figure 58. Removing Power Supply Filler Panel

3. Insert new hot swap power supply module until it clicks into place.



TP00917

Figure 59. Inserting Additional Hot Swap Power Supply Module

Replacing a Hot Swap Power Supply (BRP configuration only)

Warning: *Hazardous conditions, power supply: Hazardous voltage, current, and energy levels are present inside the power supply. There are no user-serviceable parts inside it; servicing of the power supply should be done only by technically qualified personnel.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Remove power cable from defective power supply.
3. Press up on green latch (see letter “A” in the following figure) while pulling on handle (see letter “B”) to remove hot swap power supply from chassis.

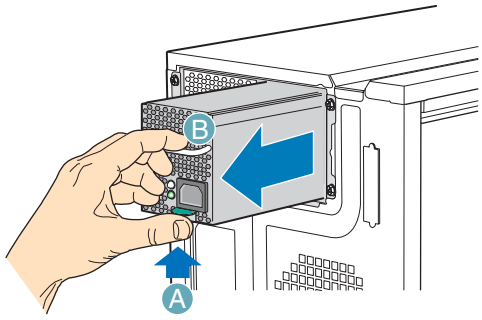


Figure 60. Removing Hot Swap Power Supply Module from Chassis

4. Insert new hot swap power supply module.

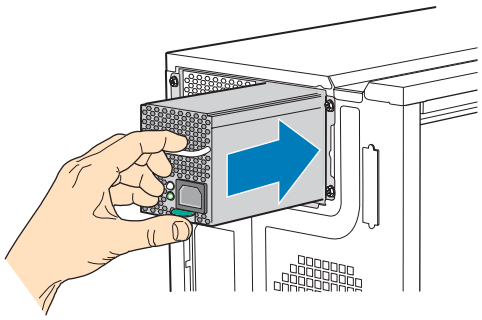


Figure 61. Inserting Hot Swap Power Supply Module in Chassis

5. Connect power cable to replaced hot swap power supply.

Replacing a Hot Swap Power Supply Cage (BRP configuration only)

Warning: *Hazardous conditions, power supply: Hazardous voltage, current, and energy levels are present inside the power supply. There are no user-serviceable parts inside it; servicing of the power supply should be done by technically qualified personnel.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
4. Press up on green latch (see letter “A”) while pulling on handle to remove hot swap power supply module from chassis.

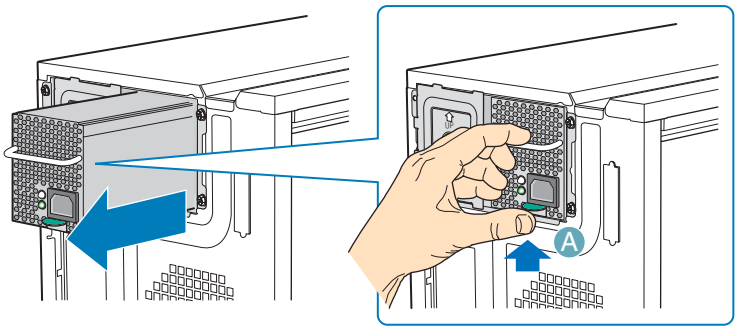


Figure 62. Removing Hot Swap Power Supply Module

5. Remove second (redundant) hot swap power supply module (or filler panel), if one is present.
6. Disconnect all internal power cables from chassis components and server board.

7. Remove two internal screws (see letter “A” in the following figure) securing hot swap power supply cage to chassis.

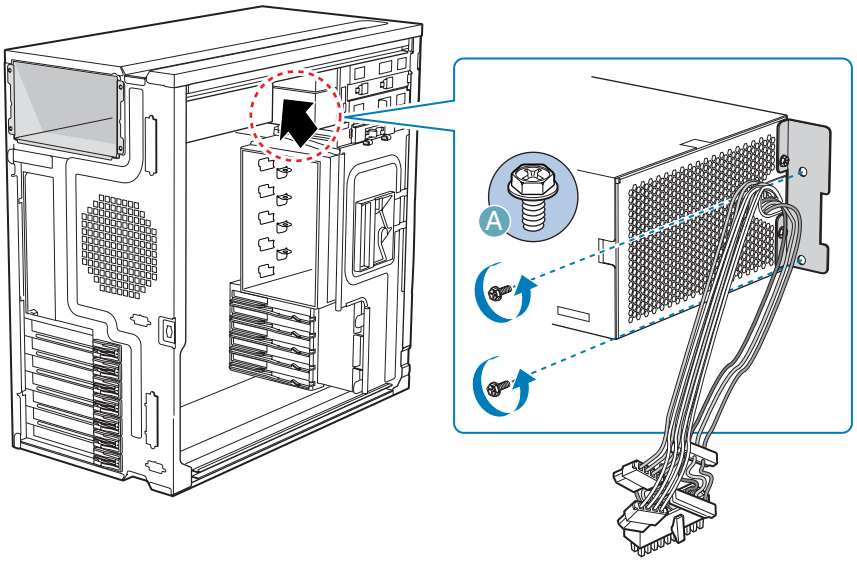


Figure 63. Detaching Hot Swap Power Supply Cage from Inside of Chassis

8. Remove five external screws securing back of power supply cage to chassis. Slide the power supply cage out of the chassis.

Note: *You may have to work the power cables through slot sopenings with your free hand as you remove the power supply cage from the chassis.*

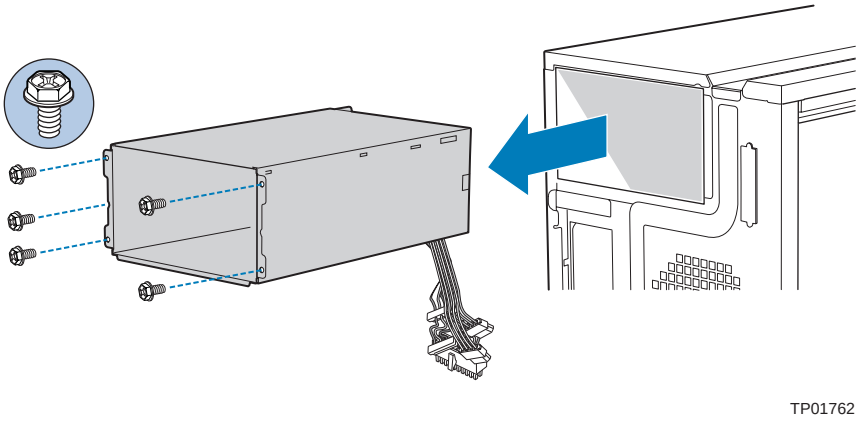


Figure 64. Detaching Hot Swap Power Supply Cage from Rear of Chassis

9. Remove the two screws (see letter “A” in the following figure) attaching the rear support bracket to the old power supply cage. Remove the rear support bracket (see letter “B”).

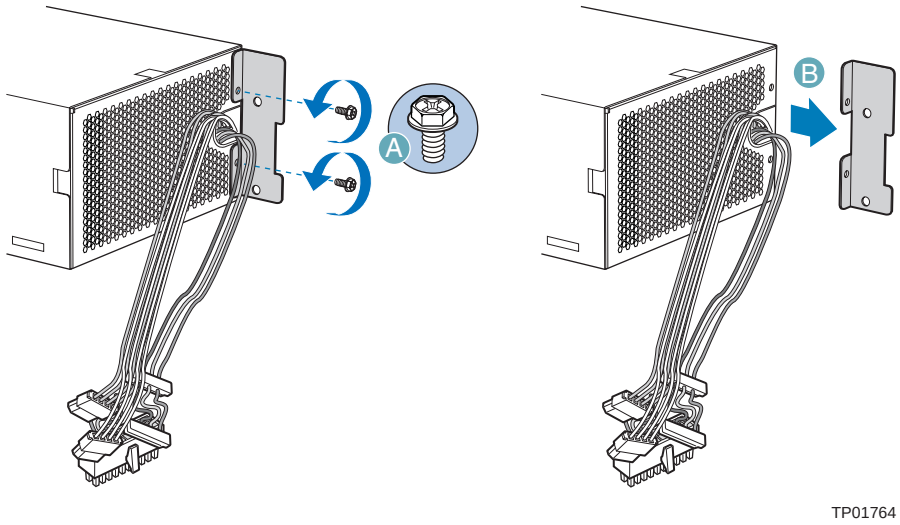


Figure 65. Removing Rear Support Bracket from Hot Swap Power Supply Cage

10. Attach the rear support bracket to the new power supply cage with the two screws removed from the previous step.

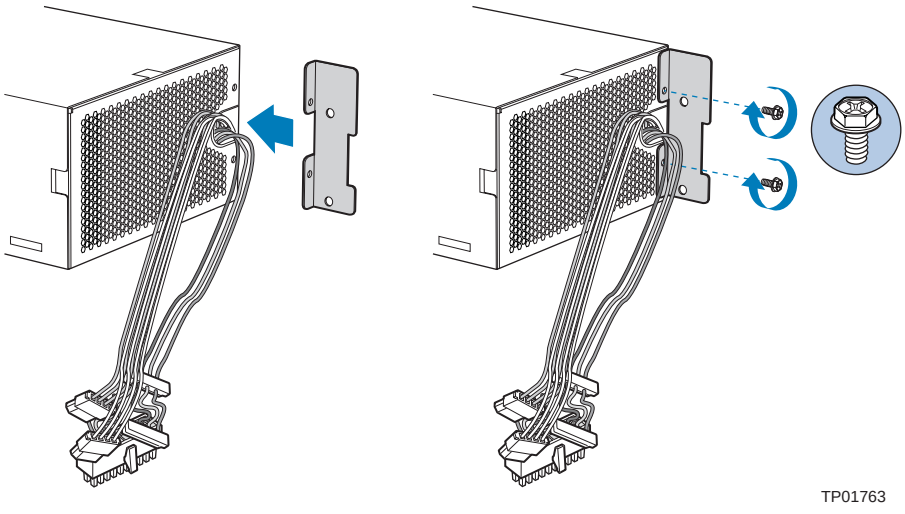


Figure 66. Attaching Rear Support Bracket to Power Supply Cage

11. Insert new hot swap power supply cage into chassis. Secure back of hot swap power supply cage to chassis with five screws.

Note: *Ensure that you route the power supply cables through the power supply opening in the chassis first before inserting the power supply cage.*

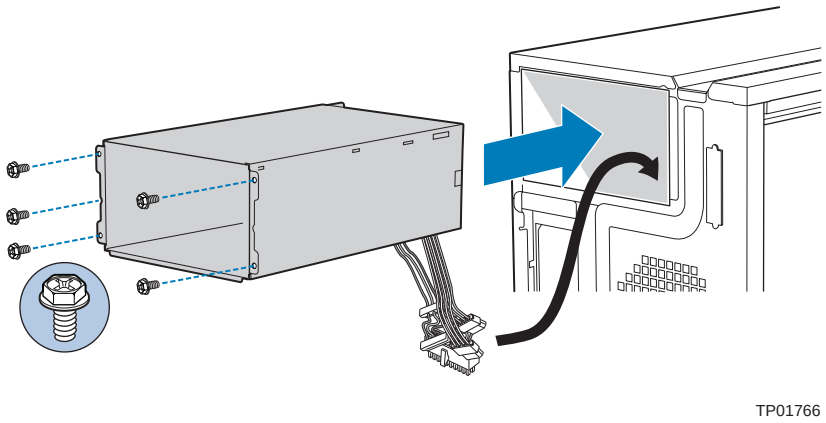


Figure 67. Securing Hot Swap Power Supply Cage to Rear of Chassis

12. Secure inside panel of hot swap power supply cage to chassis with two screws.

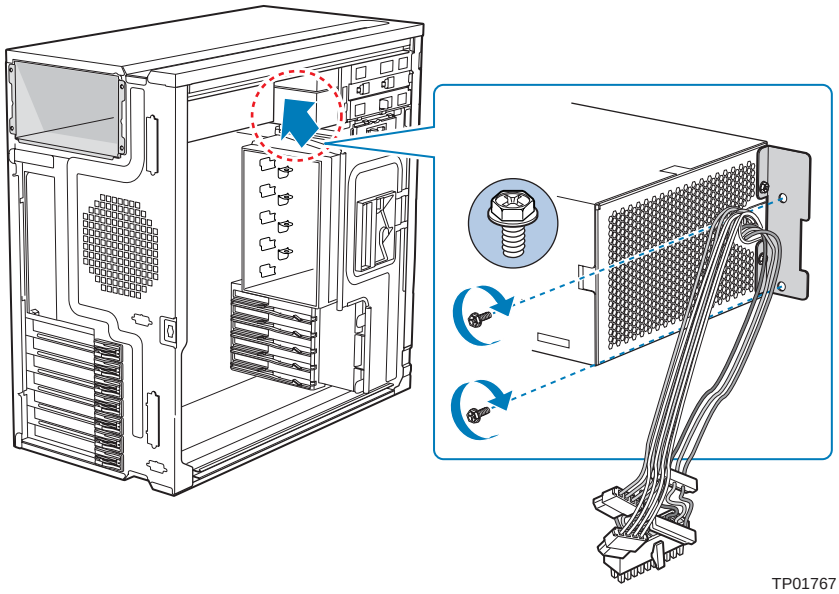


Figure 68. Securing Hot Swap Power Supply Cage to Inside of Chassis

13. Route the P1, P2, and P14 power cables to the server board and connect to appropriate connectors. Refer to the Intel® Server Board *Quick Start User's Guide* or *User Guide* that came with your Intel® server board for the location of power connections.
14. Route the P8, P9, P10, and P12 cables to the hard drive cage and connect power cables to any installed devices.
15. Route the P3 and P4 cables to the 5.25-in. removable media device bays and connect to any installed devices.
16. Route the P5 cable to the floppy drive, if installed.
17. Reinstall the hot swap power supply module(s). The power supply module(s) will click into place when properly seated.

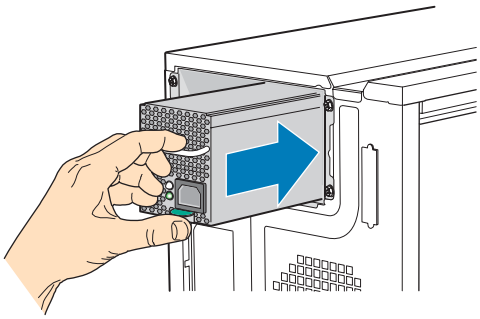


Figure 69. Re-installing Hot Swap Power Supply Module(s)

18. Install the left side cover. For instructions, see "Installing the Left Side Cover".
19. Reconnect all peripheral devices and the AC power cable(s) to the server. Power up the server.

Installing Feet for a Pedestal-configured Chassis

Note: *Do not install feet on your Intel® Entry Server Chassis SC5299-E if it is to be installed in a rack. Only install feet on a pedestal-configured chassis.*

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Lay the chassis down on its right side.
4. Insert rubber foot into chassis hole (see letter “A” in the following figure). Secure foot to chassis by inserting a pin through the rubber foot (see letter “B”). Repeat process for remaining feet.

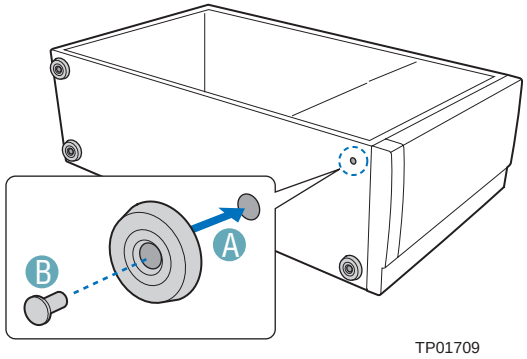


Figure 70. Installing Feet on Chassis

5. Put chassis in the upright position.
6. Reconnect all peripheral devices and the AC power cable to the server. Power up the server.

3 Hot Swap Drive Cage Upgrade Install Instructions (optional)

The fixed hard drive cage that ships with your Intel® Entry Server Chassis SC5299-E is upgradeable to a hot swap drive cage with a SCSI or SAS/SATA backplane. See your Intel Representative for ordering information.

Up to six hot swap hard drives can be installed in the optional hot swap drive cage. Power requirements for each individual hard drive may limit the maximum number of drives that can be integrated into the server chassis.

Note: *The Intel® Entry Server Chassis SC5299-E does not support all hard drives. See "Additional Information and Software" for a web link to a list of supported hard drives.*

Before You Begin

Before working with your server product, review the important safety information listed in Appendix A, "Safety Information".

Kits Required

- A hot swap conversion kit (part number: APP3HSDBKIT).
- Either a hot swap drive cage kit with a SCSI backplane (part number: AXX6SCSIDB) or a hot swap drive cage kit with a SAS/SATA backplane without expander (part number AXX6DRV3G) or a SAS/SATA backplane with expander (part number AXX6DRV3GEXP).

Tools and Supplies Needed

- Phillips* (cross head) screwdriver (#1 bit and #2 bit)
- Needle-nosed pliers
- Anti-static wrist strap and conductive foam pad (recommended)

System References

All references to left, right, front, top, and bottom assume the reader is facing the front of the chassis as it would be positioned for pedestal operation.

Installing a Hot Swap Hard Drive Cage with a SAS/SATA or SCSI Backplane

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the left side cover. For instructions, see “Removing the Left Side Cover”.
4. Remove the front bezel assembly. For instructions, see “Removing the Front Bezel Assembly”.
5. Loosen the thumb screw and remove the fixed drive cage EMI shield.

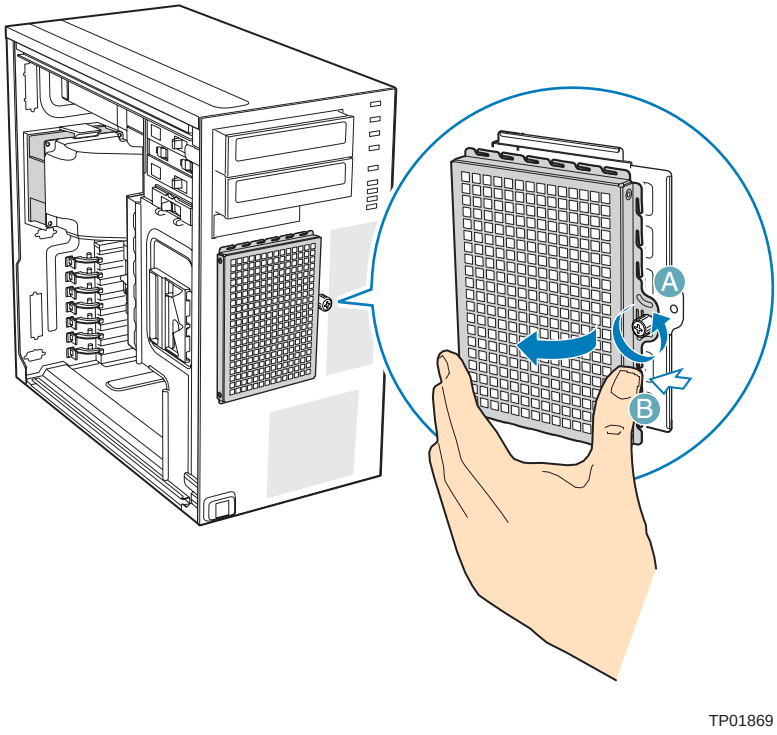


Figure 71. Removing Fixed Drive Cage EMI Shield from Chassis

6. Disconnect cables from any fixed hard drives and remove hard drives from fixed hard drive cage. For instructions on removing fixed hard drives, see “Removing a Fixed Hard Drive”.

7. Push the blue plastic release mechanism upward to release the fixed hard drive cage (see letter “A” in the following figure). Once released, pull the fixed hard drive cage from the chassis (see letter “B”).

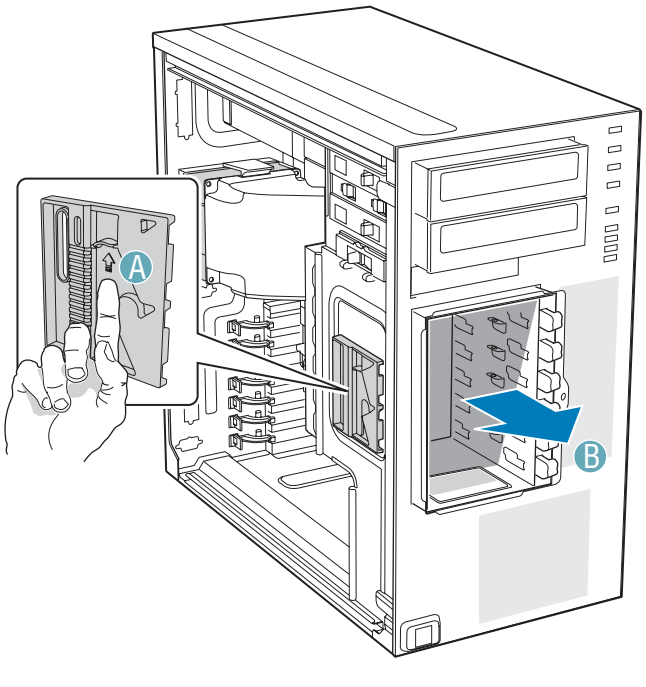


Figure 72. Removing Fixed Hard Drive Cage from Chassis

8. Gather together the components for the hot swap drive cage installation. You should have a hot swap drive cage with either a SAS/SATA or SCSI backplane, a side filler panel, a latch plate, a fan bracket, and a fan.

9. Remove the stud screws from the top of the hot swap drive cage.

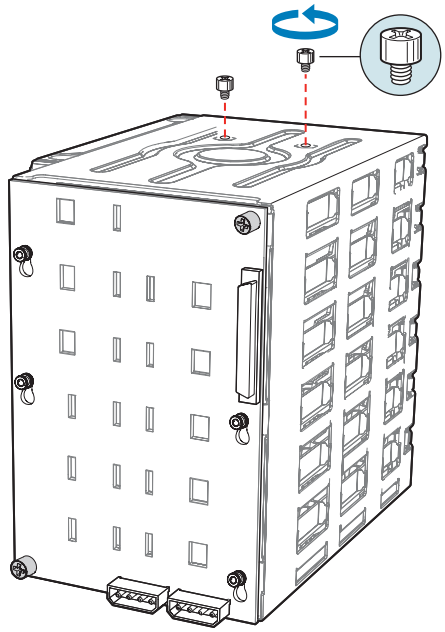


Figure 73. Removing Stud Screws from Hot Swap Drive Cage

10. Attach the latch plate to the left side of the hot swap drive cage.

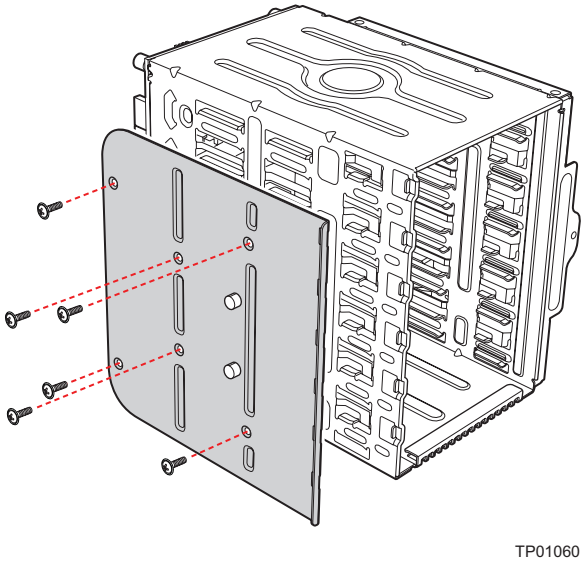


Figure 74. Attaching Latch Plate to Hot Swap Drive Cage

11. Attach the side filler panel to the right side of the hot swap drive cage.

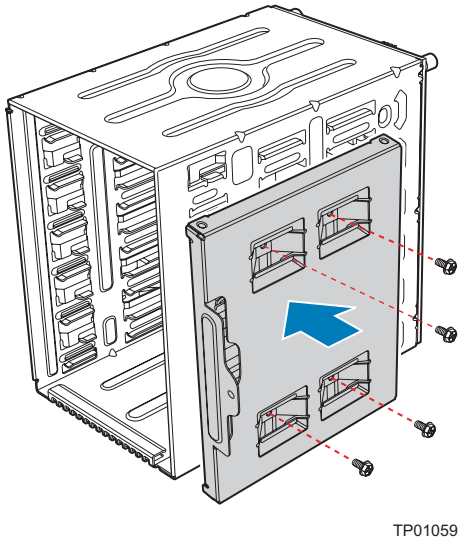


Figure 75. Attaching Filler Panel to Hot Swap Drive Cage

12. Remove the two thumb screws that secure the backplane to the hot swap drive cage.

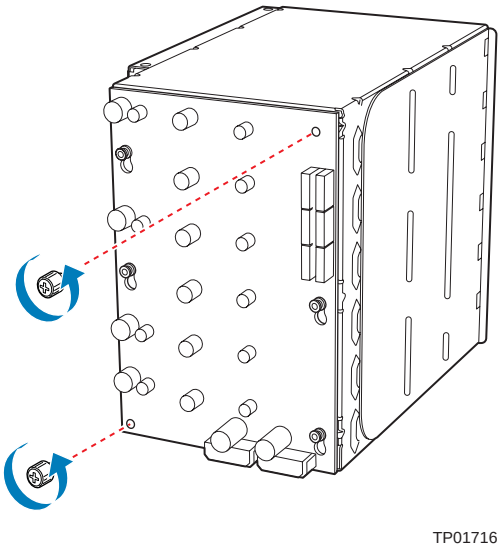


Figure 76. Removing Thumb Screws from Backplane

13. Align the fan bracket with the three pegs on the drive cage (see letter “A” in the following figure) and slide the fan bracket into position. Replace the two thumb screws (see letter “B”).

Caution: *The backplane may have slipped once the thumb screws were removed. Ensure that the backplane is positioned correctly before re-tightening the thumb screws.*

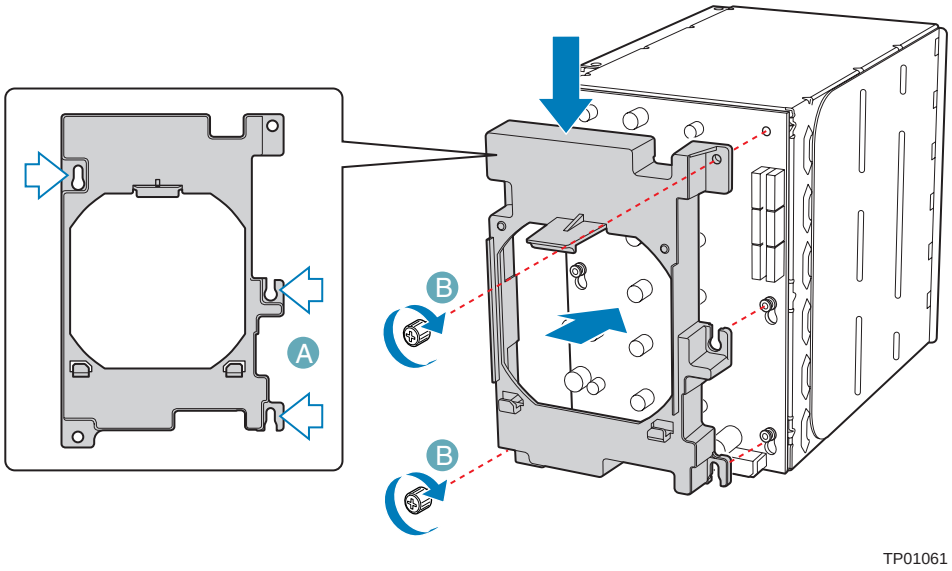


Figure 77. Attaching Fan Bracket to Hot Swap Drive Cage (SAS/SATA drive cage illustrated)

14. Attach the fan to the fan bracket by placing two corners of the fan into the two holding slots on the fan bracket. Press the fan into the fan bracket until is clicks into place.

Caution: *Ensure that the label and directional airflow arrow on fan are pointed out (away from the backplane).*

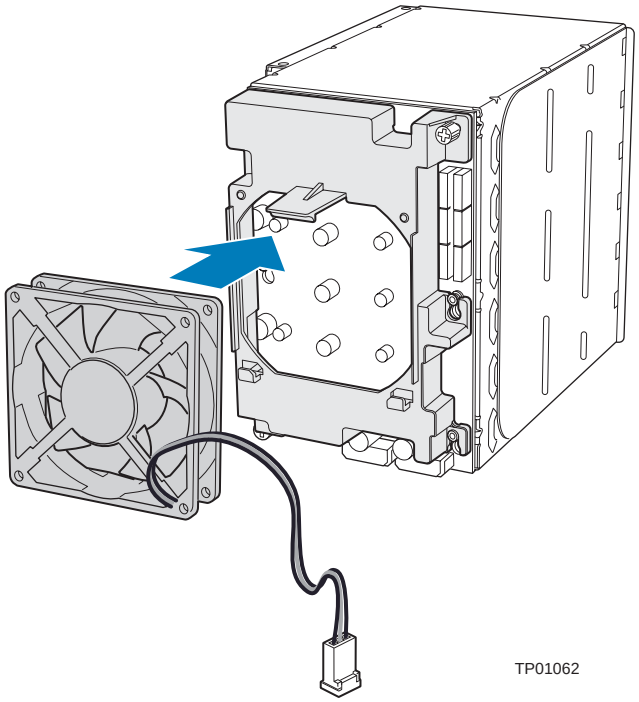


Figure 78. Attaching Fan to Fan Bracket

15. Slide the drive cage into the drive bay slot on the chassis. You should hear a click when the blue plastic retention mechanism locks into place. Be sure to feed the fan cable through the slot first so that it exits through the back of the drive cage. Connect the fan cable to its connector on the server board.

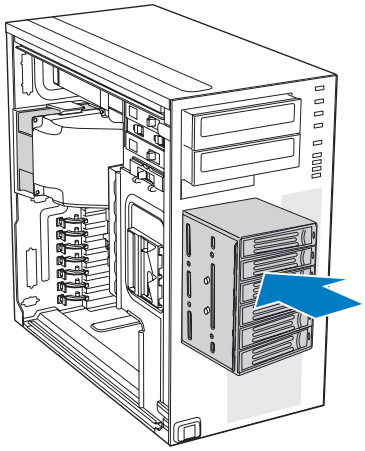


Figure 79. Inserting Hot Swap Drive Cage into Chassis

16. Connect fan cable to the appropriate connector on the server board. See your server board documentation for information on the location of the fan cable connector.

17. Make backplane and server board/RAID controller card cable connections. Cable instructions will differ depending upon whether you are installing a SCSI or SAS/SATA hot swap drive cage. Refer to the documentation that came with your server board and/or RAID controller card for instructions on connecting backplane cables to your server board or RAID controller card.

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

    Note: *Connect the SES cable from the backplane to the RAID card (if one is installed).*

    a. If you are installing a six-drive SCSI hot swap drive cage:

       i. Connect the two power cables (see letter "A" in the following figure) to the two power cable connectors on the SCSI backplane.

       ii. Connect the SCSI data cable (see letter "B") to the SCSI connector on the SCSI backplane.

       iii. (Optional, dependent on server board installed) Connect the IPMB header (see letter "C") to the IPMB connector on the SCSI backplane.

       iv. Connect the fan power to the server board. For the Intel® Server Board S5000VSA, use FAN1. For other Intel® server boards, refer to the *Quick Start User's Guide* that came with the server board.

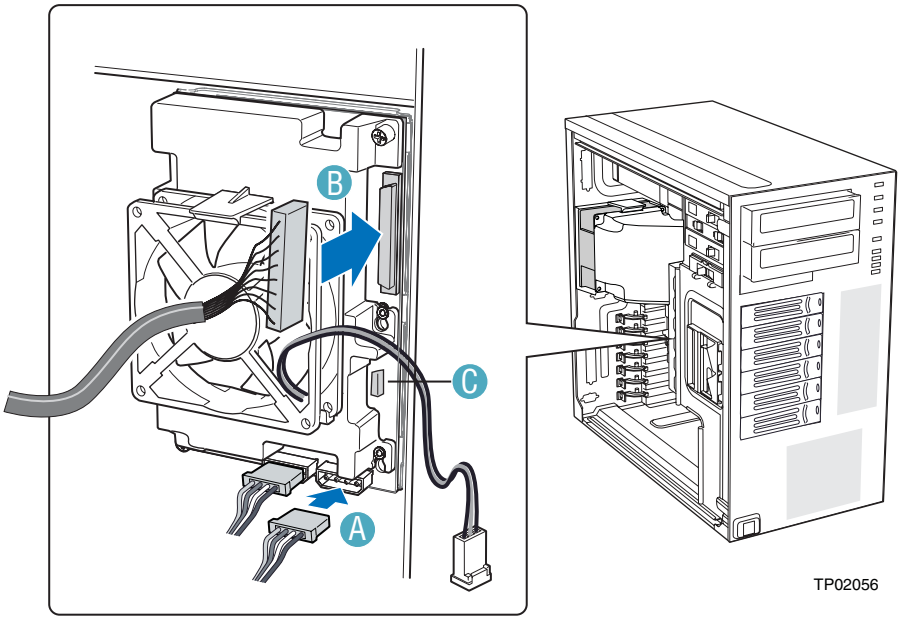


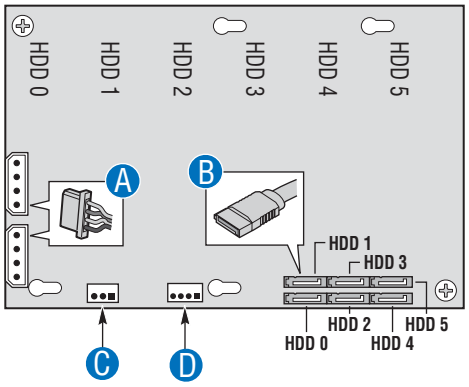
Figure 80. Cabling the SCSI Hot Swap Drive Cage

b. If you are installing a six-drive SAS/SATA hot swap drive cage:

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

Note: *The SAS/SATA cables are labeled to correspond with each drive. Make sure to connect the cables correctly to avoid confusion later.*

The SAS/SATA connectors are laid out as follows on the SAS/SATA backplane.



A.	Power cable
B.	Data Cable
C.	IPMB
D.	SES (not available in AXX6DRV3GEXP)

Figure 81. Layout of Cable Connectors on the SAS/SATA Backplane (Backplane without expander shown)

c. If you are installing a SAS/SATA hot swap backplane without expander

Warning: *SATA controllers cannot be used with an expander backplane.*

i. Connect the two power cables (see letter “A” in the following figure) to the power cable connectors on the SAS/SATA backplane.

ii. Connect a SAS/SATA data cable (see letter “B”) to each appropriate SAS/SATA connector on the SAS/SATA backplane.

iii. Connect the IPMB cable (see letter “C”).

iv. Connect the SES cable (see letter “D”).

v. Connect the fan power to the server board. For the Intel® Server Board S5000VSA, use FAN1. For other Intel® server boards, refer to the *Quick Start User’s Guide* that came with the server board.

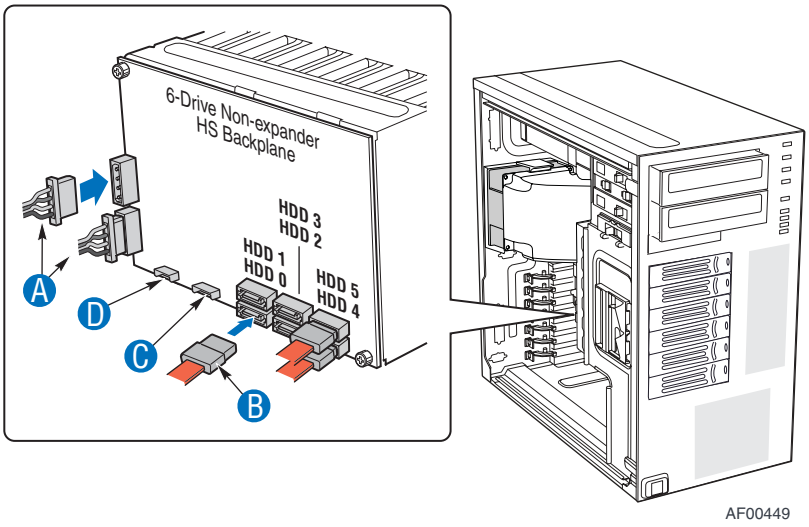


Figure 82. Making Six-drive SAS/SATA Hot-Swap Drive Cage Backplane without Expander Connections (fan bracket not shown in the illustration for clarity)

d. If you are installing a SAS/SATA hot swap backplane with expander

Warning: *SATA controllers cannot be used with an expander backplane.*

i. Connect the two power cables (see letter "A" in the following figure) to the power cable connectors on the SAS/SATA backplane.

ii. Connect a SAS/SATA data cable (see letter "B") to each appropriate SAS/SATA connector on the SAS/SATA backplane.

iii. Connect the IPMB cable (see letter "C").

iv. Connect the fan power to the server board. For the Intel® Server Board S5000VSA, use FAN1. For other Intel® server boards, refer to the *Quick Start User's Guide* that came with the server board.

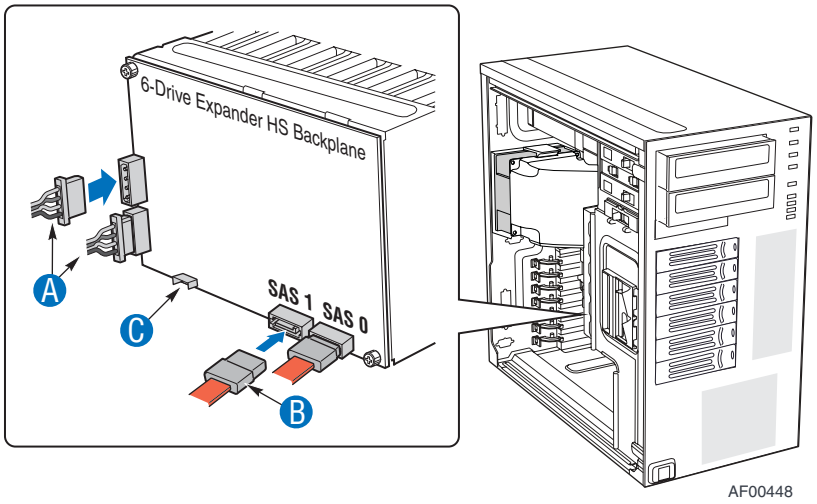


Figure 83. Making Six-drive Hot Swap Drive Cage Backplane with Expander Connections (fan bracket not shown in the illustration for clarity)

18. Install the hot swap hard drives. For instructions, see "If you are installing a six-drive SCSI hot swap drive cage:".
19. Install the front bezel assembly. For instructions, see "Installing the Front Bezel Assembly".
20. Install the left side cover. For instructions, see "Installing the Left Side Cover".
21. Plug all peripheral devices and the AC power cable into the server.

Installing a Hot Swap Hard Drive

Note: *The following set of instructions is only applicable if you have replaced the fixed hard drive cage that shipped with your chassis with an optional hot swap SCSI or SAS/SATA hard drive cage. If you are replacing a fixed hard drive, see "Removing a Fixed Hard Drive" for instructions.*

Note: *The Intel® Entry Server Chassis SC5299-E does not support all hard drives. See "Additional Information and Software"for an Internet link to a list of supported hard drives.*

1. Open the drive bay access door.

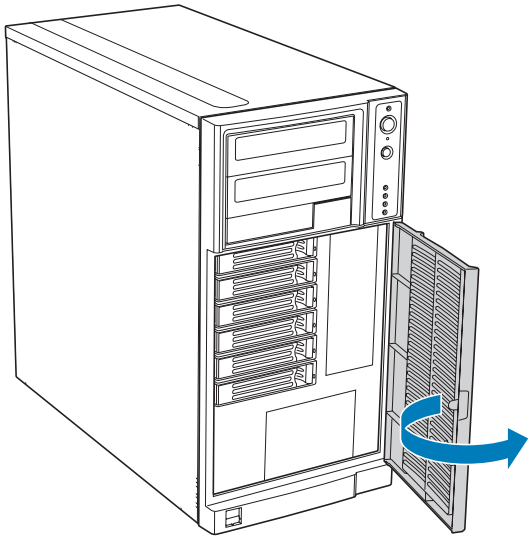


Figure 84. Opening Drive Bay Access Door

2. Remove a drive carrier from the hot swap drive cage. Press in on the green latch (see letter “A” in the following figure) at the end of the drive carrier to disengage the drive carrier from the drive cage. Pull out on the black lever (see letter “B”) to push the drive carrier partially out of the drive cage. Slide the drive carrier all the way out of the drive cage.

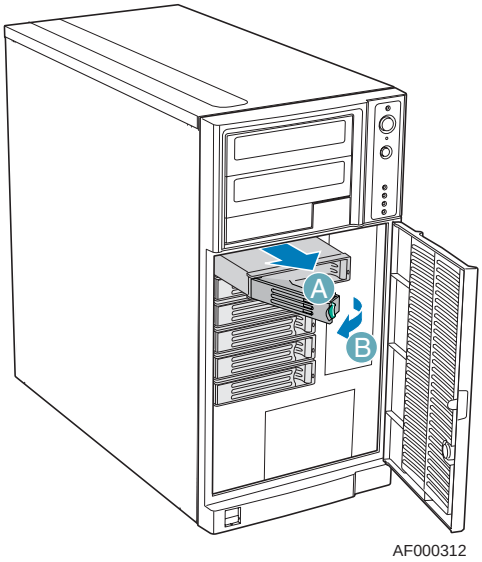


Figure 85. Releasing Drive Carrier from Hot Swap Drive Cage

3. Remove the four screws that attach the plastic retention device to the drive carrier. Two screws are located on each side of the retention device.

Note: *Store the plastic retention device for future use.*

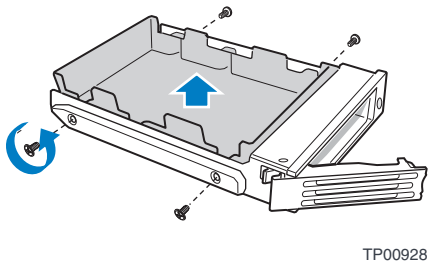


Figure 86. Removing Retention Device from Drive Carrier

4. Remove the hard drive from its wrapper and place it on an anti-static surface.
5. Set any jumpers and/or switches on the drive according to the drive manufacturer's instructions.
6. With the drive circuit-side down, position the connector end of the drive so that it is facing the rear of the drive carrier.

7. Align the holes in the drive to the holes in the drive carrier and attach the drive to the carrier with the screws that were formerly attached to the plastic retention device.

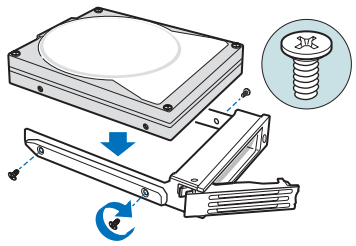


Figure 87. Installing Hard Drive into Drive Carrier

8. With the black lever in the fully open position, insert the drive carrier into the hot swap drive cage. The green latch at the front of the drive carrier must be to the left of the drive cage. Do not push on the black drive carrier lever until the lever begins to close by itself. Once the black drive carrier lever begins to close by itself, push on it to lock the drive carrier into place.

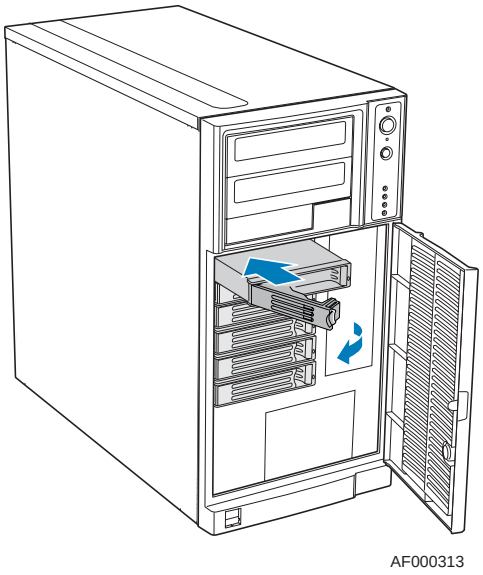


Figure 88. Re-installing Drive Carrier in Hot Swap Drive Cage

9. Close the drive bay access door.

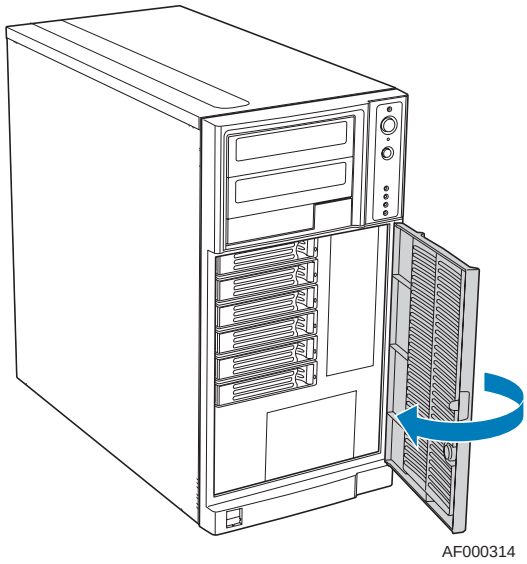


Figure 89. Closing Drive Bay Access Door

Removing a Hot-swap Hard Drive

1. Open the drive bay access door.

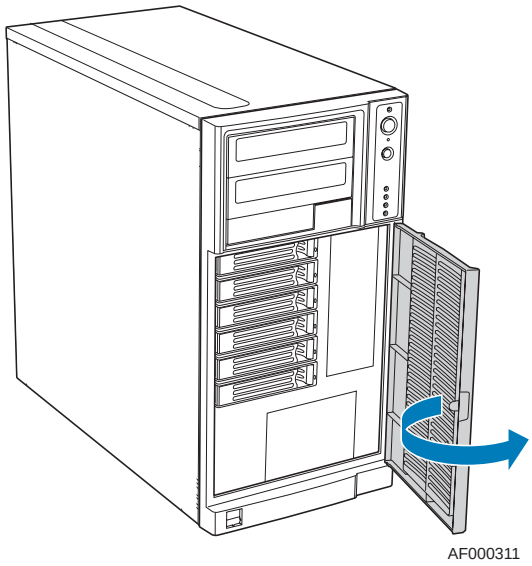


Figure 90. Opening Drive Bay Access Door

2. Press in on the green latch at the front of the drive carrier (see letter “A” in the following figure). Pull out on the black lever (see letter “B”) to slide the drive carrier from the hot swap drive cage.

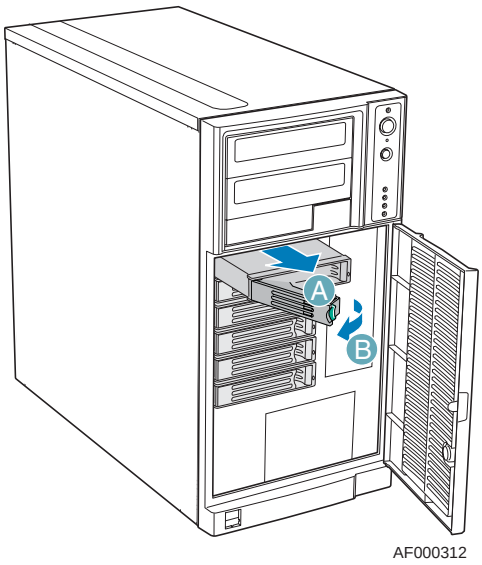


Figure 91. Removing Drive Carrier from Hot Swap Drive Cage

3. Remove the four screws that attach the hard drive to the drive carrier. Lift the drive from the carrier. Store the old drive in an anti-static bag.

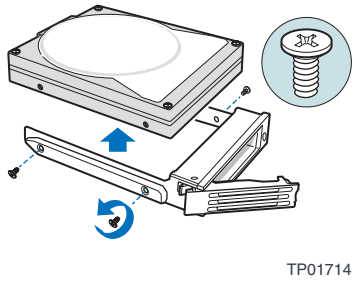


Figure 92. Removing Hard Drive from Drive Carrier

4. Remove the new drive from its anti-static bag and place in the drive carrier. With the drive circuit-side down, position the connector end of the drive so that it is facing the rear of the drive carrier. Align the holes in the drive to the holes in the drive carrier and attach the drive to the carrier with the screws removed in the previous step.

Note: *If you are not installing a new drive, place a plastic retention device into the drive carrier, using the four screws you removed from the hard drive.*

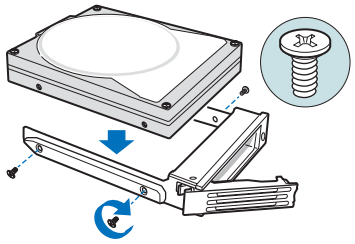


Figure 93. Installing Hard Drive in Drive Carrier

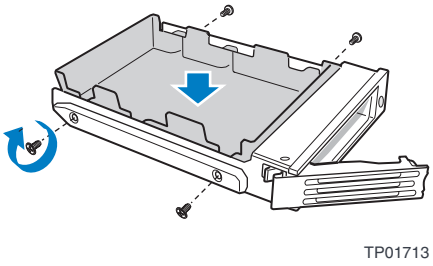


Figure 94. Installing Plastic Retention Device in Drive Carrier

5. With the black lever in the fully open position, slide the drive carrier into the chassis. The green latch must be to the left. Do not push on the black lever until the lever begins to close by itself. When the black lever begins to close by itself, push on it to lock the drive carrier into place.

Note: *For proper airflow, the drive carrier must be replaced in the chassis, even if no hard drive is installed in it.*

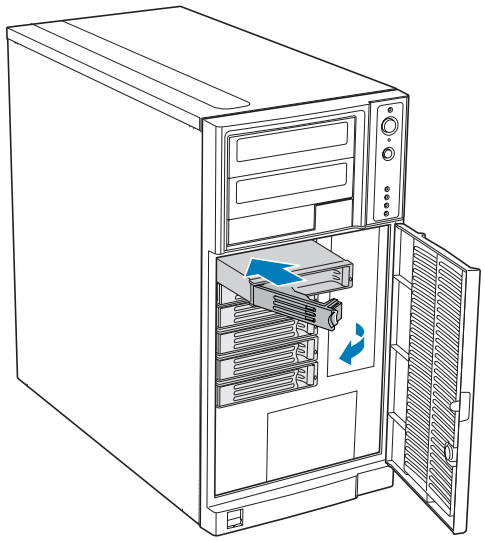


Figure 95. Re-installing Drive Carrier in Hot Swap Drive Cage

6. Close the drive bay access door.

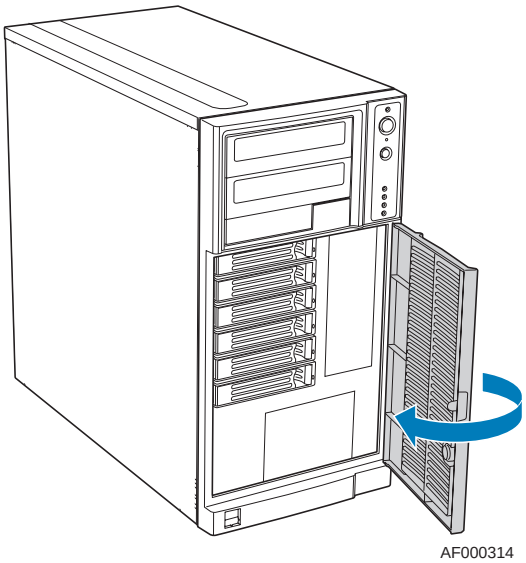


Figure 96. Closing Drive Bay Access Door

4 Rack Mount Kit Install Instructions (optional)

The Intel® Entry Server Chassis SC5299-E can be configured as a rack-mount chassis when outfitted with the optional rack mount accessory kit.

Before You Begin

Before working with your server product, review the important safety information listed in Appendix A, “Safety Information”.

Tools and Supplies Needed

- Phillips* (cross head) screwdriver (#1 bit and #2 bit)
- Needle-nosed pliers
- Anti-static wrist strap and conductive foam pad (recommended)

System References

All references to left, right, front, top, and bottom assume the reader is facing the front of the chassis as it would be positioned for rack-mount operation.

Setting up a Rack-configured Chassis

1. Observe the safety and ESD precautions listed in Appendix A, “Safety Information”.
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Lay the chassis down on its right side.

4. If installed, remove the chassis feet. Remove pin from rubber foot (see letter “A” in the following figure). Remove rubber foot from chassis hole (see letter “B”). Repeat process for remaining feet.

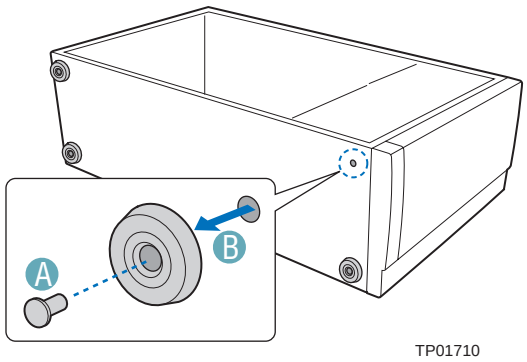


Figure 97. Removing Chassis Feet

5. Remove the top side cover by pressing the latch and pushing back on the side cover to slide rearward and lift from chassis.

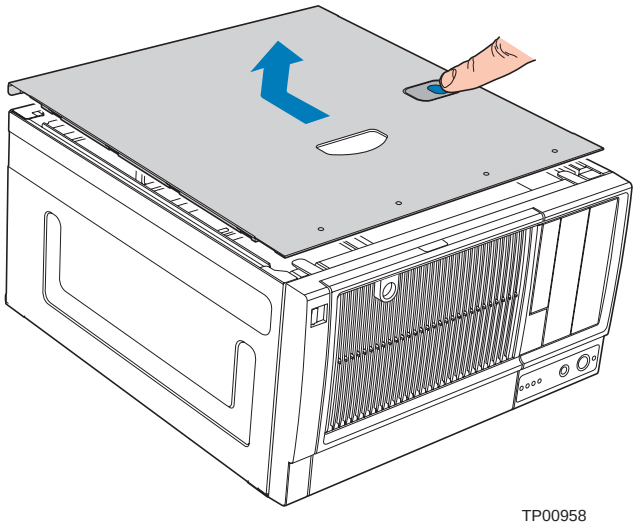


Figure 98. Removing Top Side Cover from Chassis

6. Remove any PCI add-in boards. Remove the PCI card guide by pressing in on the blue tabs (see letter “A” in the following figure) and pulling the PCI card guide outward (see letter “B”).

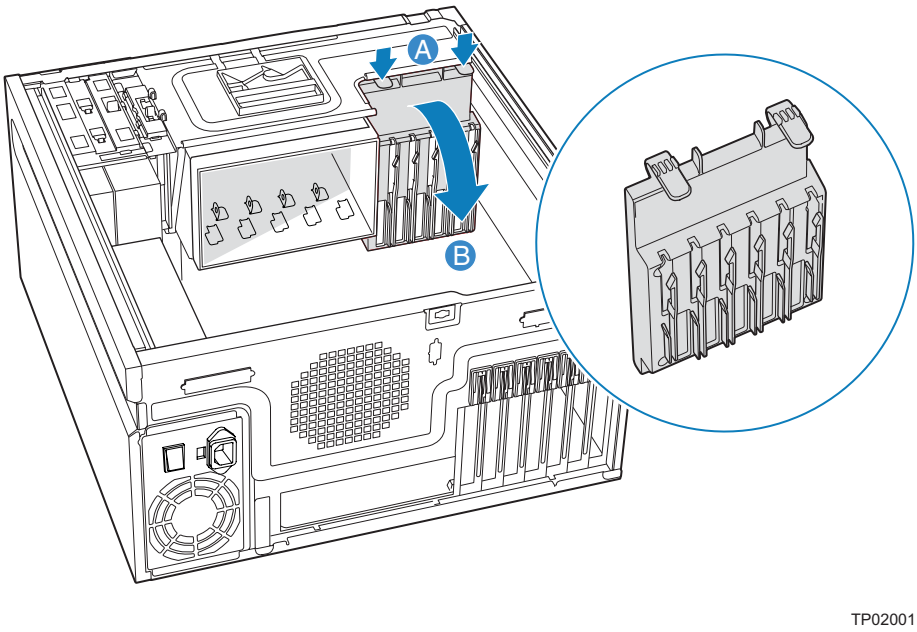


Figure 99. Removing PCI Card Guide

7. Remove plastic filler panel from chassis by pushing on interior tab (see letter “A” in the following figure) and sliding filler panel towards rear of chassis (see letter “B”).

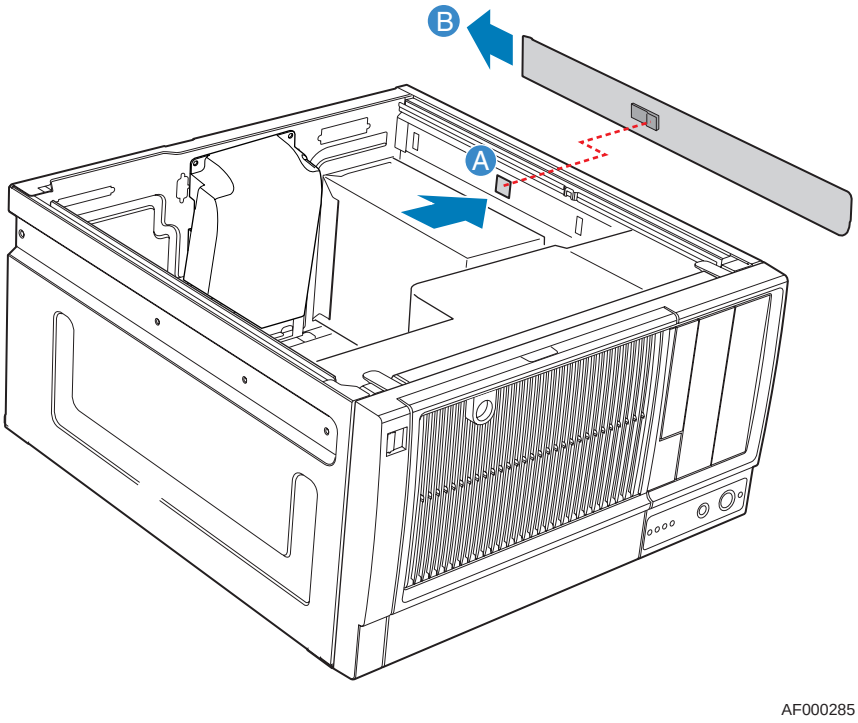


Figure 100. Removing Plastic Filler Panel from Chassis

8. Remove the three plastic plugs from left side of chassis.

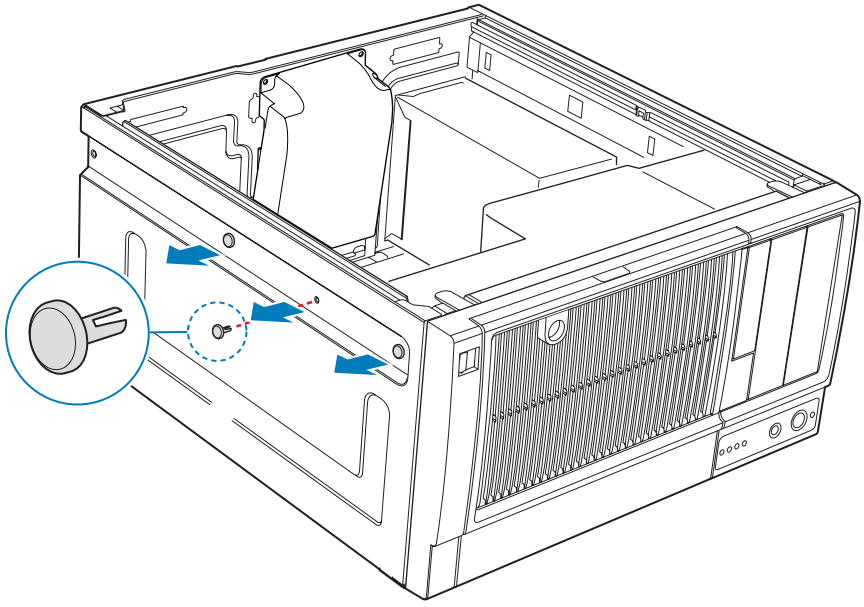


Figure 101. Removing Plastic Plugs

9. Remove two screws from left and right sides of chassis.

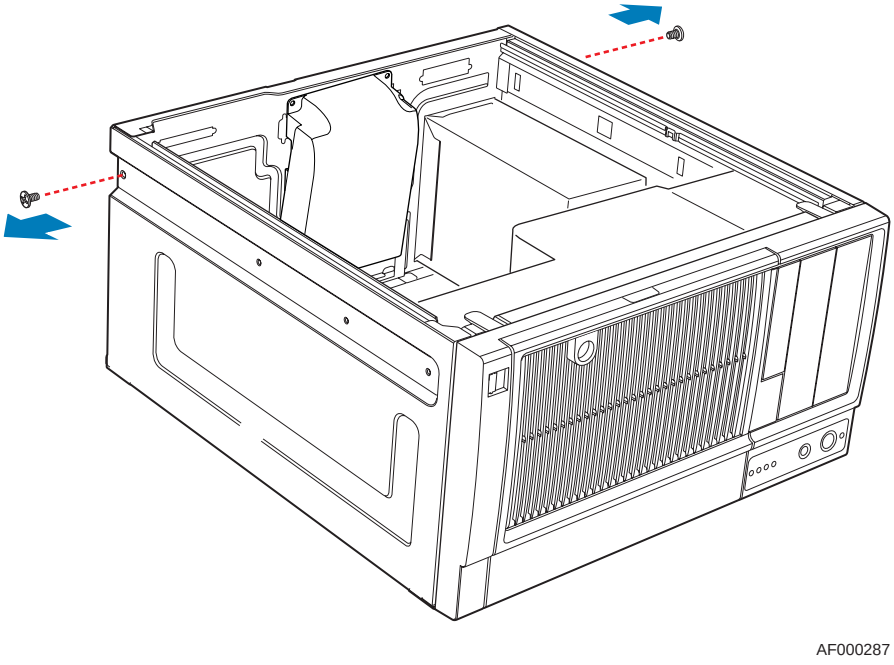


Figure 102. Removing Rear Screws

10. Remove four plastic plugs from top side cover.

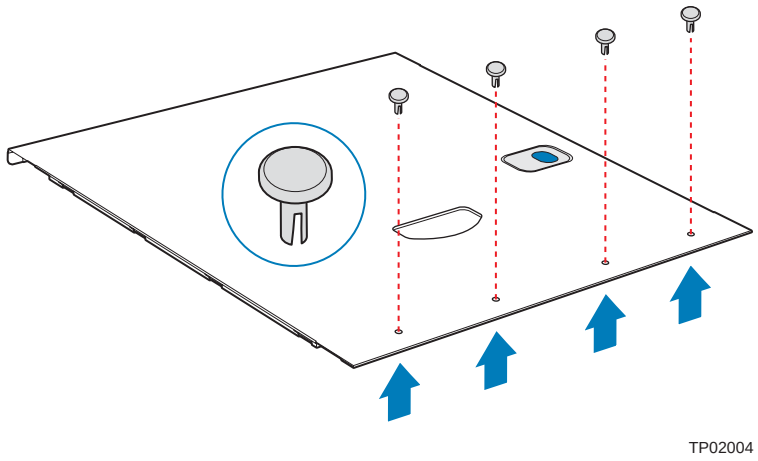


Figure 103. Removing Plastic Plugs from Top Side Cover

11. Install rack handle on left side cover using four 6-32 screws.

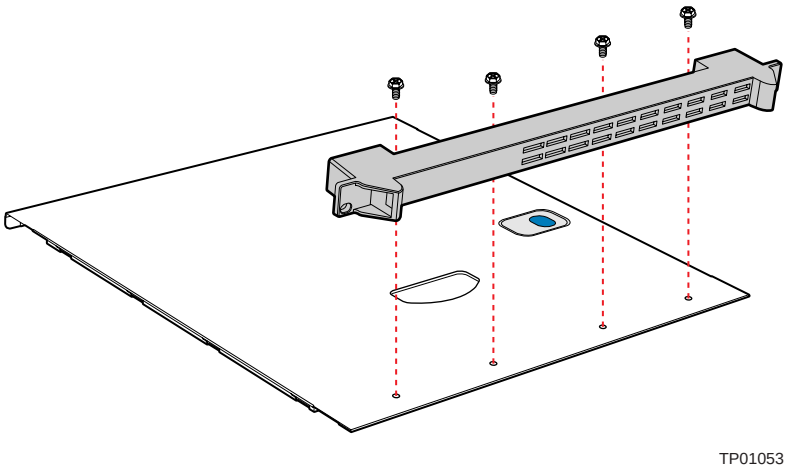


Figure 104. Installing Rack Handle on Left Side Cover

12. If removed, install front bezel assembly. Affix front panel label (see letter “A” in the following figure) to the front panel.

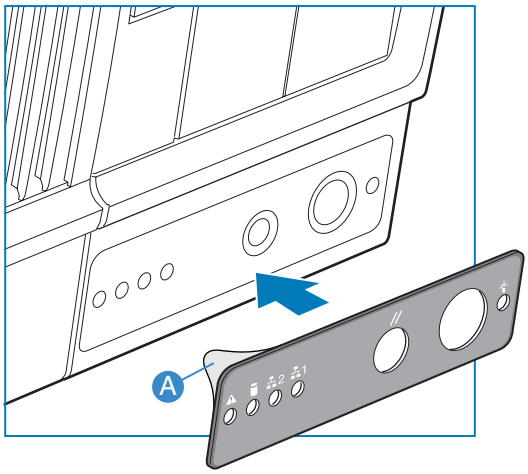


Figure 105. Affixing Label to Front Panel

13. Install top side cover on chassis.

Warning: *This chassis must be operated with the left side cover installed to ensure proper cooling.*

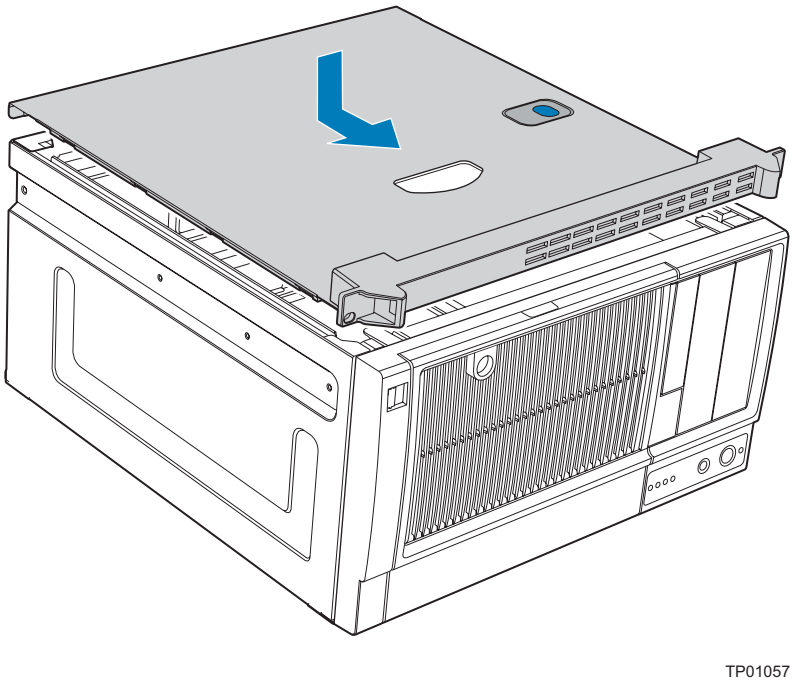


Figure 106. Installing Top Side Cover on Chassis

14. Detach inner rack rail from rack rail assembly. Press tab on inside of rack rail to release rack rail from rack rail assembly.

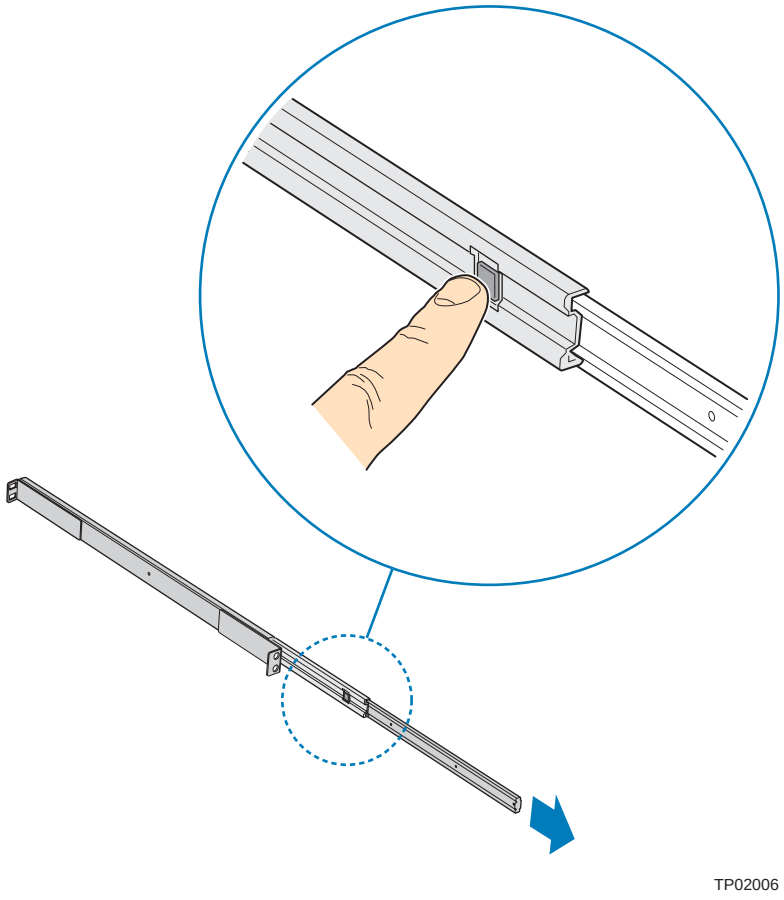


Figure 107. Detaching Inner Rack Rail from Rack Rail Assembly

15. Attach inner rack rails (one per side) to chassis with four 6-32 screws.

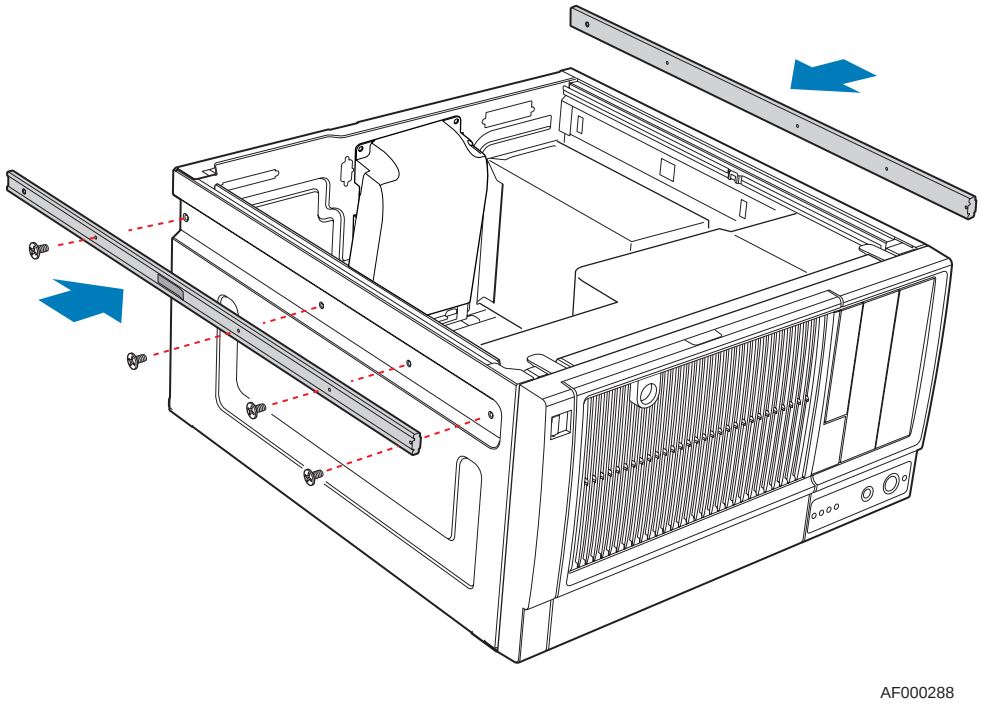


Figure 108. Attaching Inner Rack Rails to Chassis

16. Attach outer rack rails to rack uprights. Ensure that the screws (two per outer rack rail; see letter “A” in the following figure) pass through the rack upright (see letter “B”), and the outer rack rail (see letter “C”).

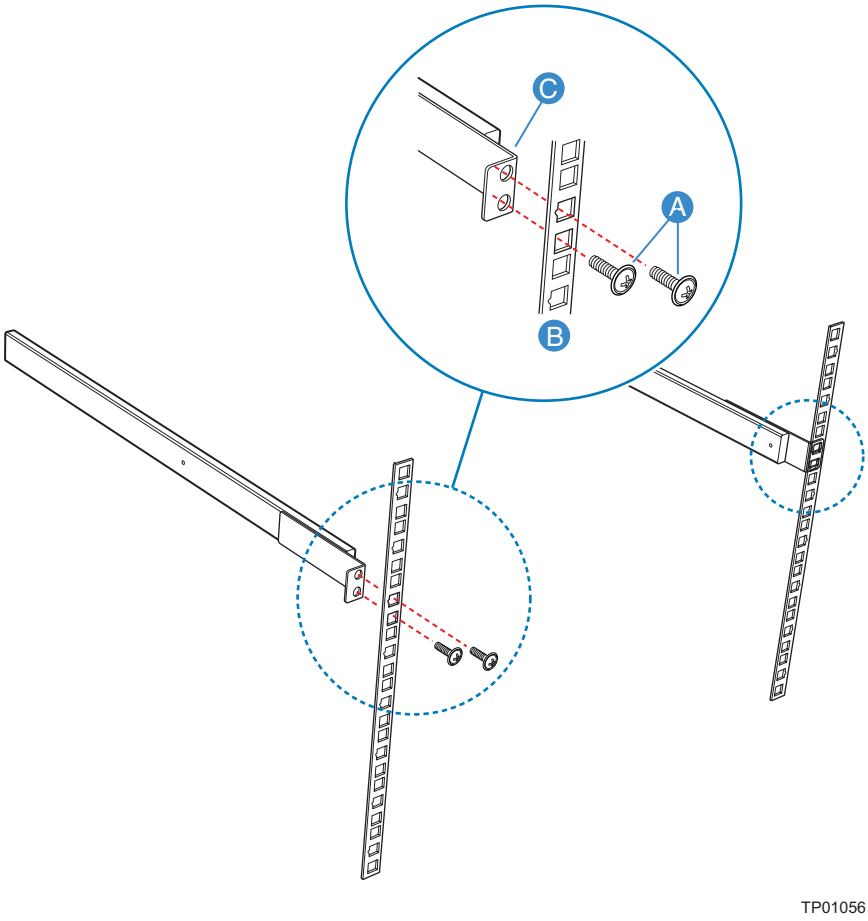


Figure 109. Attaching Outer Rack Rails to Rack Uprights

17. Install chassis into rack.

Warning: *Safe handling and lifting of this system requires TWO people.*

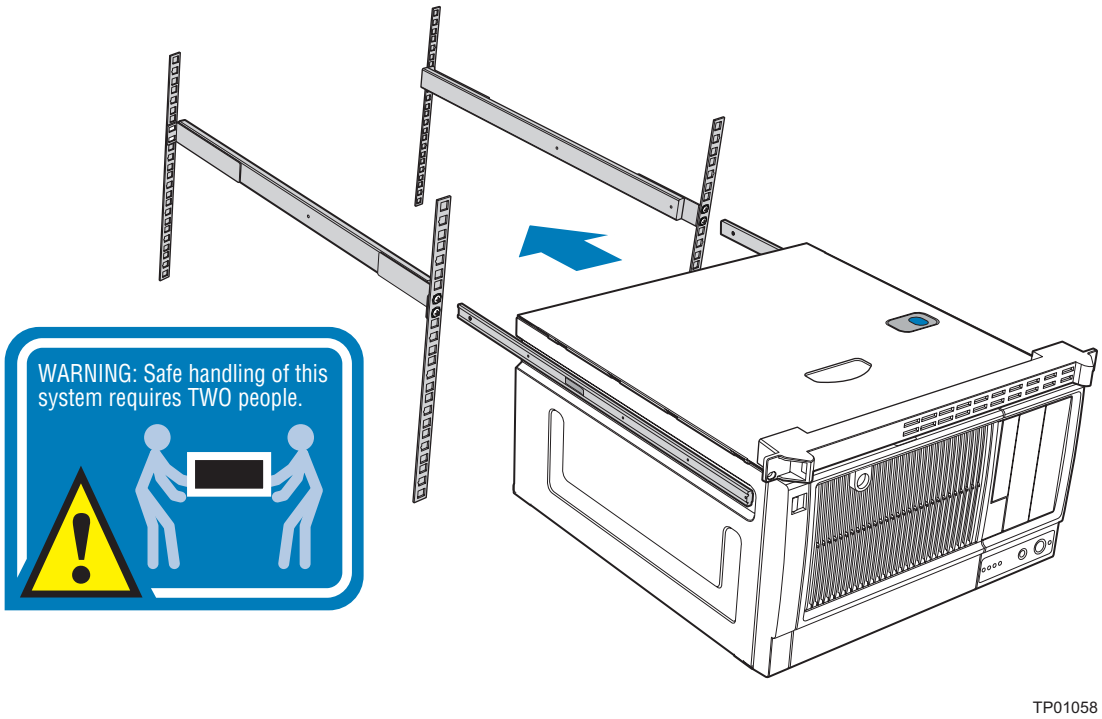


Figure 110. Installing Chassis into Rack

18. Reconnect all peripheral devices and the AC power cable to the server. Power up the server.

5 Technical Reference

Cable Routing

When you add or remove components from your server chassis, make sure your cables are routed correctly before reinstalling the chassis cover. Use caution to make sure no cables or wires are pinched and that the airflow from the fans is not blocked.

Power Supply Specifications

The power supply specifications for your Intel® Entry Server Chassis SC5299-E will depend upon the configuration of chassis you purchased. Four power supply configurations are available:

- 550-W PFC fixed power supply (DP configuration)
- 650-W PFC redundant power supply (BRP configuration)
- 670-W PFC fixed power supply (WS configuration)

550-W Single Power Supply Input Voltages

- 100-127V at 50/60 Hz; 140 V_{rms} max.
- 200-240V at 50/60 Hz; 264 V_{rms} max.

550-W Single Power Supply Output Current

The following table lists the total amperage available from the power subsystem for each voltage. Ensure that your loads do not exceed the combined total wattage of 550 Watts.

Table 4. 550-W Power Supply Output Capability

Voltage	Maximum Current
+3.3 V	24 A
+5.0 V	24 A
+5 V Standby	3 A
+12.0 V1	40 A
-12.0 V	0.5 A
+12 V2	16 A

670-W Single Power Supply Input Voltages

- 100-127V at 50/60 Hz; 12 A_{rms} max.
- 200-240V at 50/60 Hz; 7 A_{rms} max.

670-W Single Power Supply Output Voltages

The following table lists the total amperage available from the power subsystem for each voltage. Ensure that your loads do not exceed the combined total wattage of 670 Watts.

Table 5. 670-W Power Supply Output Capability

Voltage	Maximum Current
+3.3 V	24 A
+5.0 V	30 A
+5 V Standby	3.0 A
+12 V1	16 A
+12 V2	16 A
+12 V3	16 A
+12 V4	16 A
-12.0 V	0.5 A

650-W Single Power Supply Input Voltages

- 100-127V at 50/60 Hz; 9.63 A_{rms} max.
- 200-240V at 50/60 Hz; 4.82 A_{rms} max.

650-W Single Power Supply Output Voltages

The following table lists the total amperage available from the power subsystem for each voltage. Ensure that your loads do not exceed the combined total wattage of 650 Watts.

Table 6. 650-W Power Supply Output Capability

Voltage	Maximum Current
+3.3 V	24 A
+5.0 V	30 A
+5 V Standby	3.0 A
-12.0 V	0.3 A
12 V1	16 A
12 V2	16 A
12 V3	16 A

Table 6. 650-W Power Supply Output Capability

Voltage	Maximum Current
12 V4	16 A
12 V5	18 A

System Environmental Specifications

Table 7. System Environmental Specifications

Temperature	
Non-operating	-40 ° to 70 °C.
Operating	10 ° to 35 °C; derated 0.5 °C for every 1000 ft (305 m) to a maximum of 10,000 ft.
Humidity	
Non-operating	90% relative humidity (non-condensing) at 30 °C.
Shock	
Operating	2.0 g, 11 msec, 1/2 sine
Packaged	Operational after an 18" free fall.
Acoustic noise	DP, BRP configurations - 5.5 BA LWA idle; 6.0 BA LWA typical operation
	WS configuration - 4.8 BA LWA idle; 5.5 BA LWA typical operation
Electrostatic discharge (ESD)	Tested to 15 kilovolts (kV); no component damage.

A Safety Information

English

Server Safety Information

This document applies to Intel® server boards, Intel® server chassis (pedestal and rack-mount) and installed peripherals. To reduce the risk of bodily injury, electrical shock, fire, and equipment damage, read this document and observe all warnings and precautions in this guide before installing or maintaining your Intel® server product.

In the event of a conflict between the information in this document and information provided with the product or on the website for a particular product, the product documentation takes precedence.

Your server should be integrated and serviced only by technically qualified persons.

You must adhere to the guidelines in this guide and the assembly instructions in your server manuals to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components specified in this guide. Use of other products / components will void the UL Listing and other regulatory approvals of the product, and may result in noncompliance with product regulations in the region(s) in which the product is sold.

Safety Warnings and Cautions

To avoid personal injury or property damage, before you begin installing the product, read, observe, and adhere to all of the following safety instructions and information. The following safety symbols may be used throughout the documentation and may be marked on the product and / or the product packaging.

CAUTION	Indicates the presence of a hazard that may cause minor personal injury or property damage if the CAUTION is ignored.
WARNING	Indicates the presence of a hazard that may result in serious personal injury if the WARNING is ignored.
	Indicates potential hazard if indicated information is ignored.
	Indicates shock hazards that result in serious injury or death if safety instructions are not followed.
	Indicates hot components or surfaces.
	Indicates do not touch fan blades, may result in injury.
	Indicates to unplug all AC power cord(s) to disconnect AC power
	Please recycle battery

Intended Application Uses

This product was evaluated as Information Technology Equipment (ITE), which may be installed in offices, schools, computer rooms, and similar commercial type locations. The suitability of this product for other product categories and environments (such as medical, industrial, residential, alarm systems, and test equipment), other than an ITE application, may require further evaluation.

Site Selection

The system is designed to operate in a typical office environment. Choose a site that is:

- Clean, dry, and free of airborne particles (other than normal room dust).
- Well-ventilated and away from sources of heat including direct sunlight and radiators.
- Away from sources of vibration or physical shock.
- Isolated from strong electromagnetic fields produced by electrical devices.
- In regions that are susceptible to electrical storms, we recommend you plug your system into a surge suppresser and disconnect telecommunication lines to your modem during an electrical storm.
- Provided with a properly grounded wall outlet.
- Provided with sufficient space to access the power supply cord(s), because they serve as the product's main power disconnect.

Equipment Handling Practices

Reduce the risk of personal injury or equipment damage:

- Conform to local occupational health and safety requirements when moving and lifting equipment.
- Use mechanical assistance or other suitable assistance when moving and lifting equipment.
- To reduce the weight for easier handling, remove any easily detachable components.

Power and Electrical Warnings

Caution: *The power button, indicated by the stand-by power marking, DOES NOT completely turn off the system AC power, 5V standby power is active whenever the system is plugged in. To remove power from system, you must unplug the AC power cord from the wall outlet. Your system may use more than one AC power cord. Make sure all AC power cords are*

unplugged. Make sure the AC power cord(s) is/are unplugged before you open the chassis, or add or remove any non hot-plug components.

Do not attempt to modify or use an AC power cord if it is not the exact type required. A separate AC cord is required for each system power supply.

Some power supplies in Intel® servers use Neutral Pole Fusing. To avoid risk of shock use caution when working with power supplies that use Neutral Pole Fusing.

The power supply in this product contains no user-serviceable parts. Do not open the power supply. Hazardous voltage, current and energy levels are present inside the power supply. Return to manufacturer for servicing.

When replacing a hot-plug power supply, unplug the power cord to the power supply being replaced before removing it from the server.

To avoid risk of electric shock, turn off the server and disconnect the power cord, telecommunications systems, networks, and modems attached to the server before opening it.

Power Cord Warnings

If an AC power cord was not provided with your product, purchase one that is approved for use in your country.

Caution: *To avoid electrical shock or fire, check the power cord(s) that will be used with the product as follows:*

- *Do not attempt to modify or use the AC power cord(s) if they are not the exact type required to fit into the grounded electrical outlets*
- *The power cord(s) must meet the following criteria:*
- *The power cord must have an electrical rating that is greater than that of the electrical current rating marked on the product.*
- *The power cord must have safety ground pin or contact that is suitable for the electrical outlet.*
- *The power supply cord(s) is/are the main disconnect device to AC power. The socket outlet(s) must be near the equipment and readily accessible for disconnection.*
- *The power supply cord(s) must be plugged into socket-outlet(s) that is /are provided with a suitable earth ground.*

System Access Warnings

Caution: *To avoid personal injury or property damage, the following safety instructions apply whenever accessing the inside of the product:*

- *Turn off all peripheral devices connected to this product.*
- *Turn off the system by pressing the power button to off.*
- *Disconnect the AC power by unplugging all AC power cords from the system or wall outlet.*

- *Disconnect all cables and telecommunication lines that are connected to the system.*
- *Retain all screws or other fasteners when removing access cover(s). Upon completion of accessing inside the product, refasten access cover with original screws or fasteners.*
- *Do not access the inside of the power supply. There are no serviceable parts in the power supply. Return to manufacturer for servicing.*
- *Power down the server and disconnect all power cords before adding or replacing any non hot-plug component.*
- *When replacing a hot-plug power supply, unplug the power cord to the power supply being replaced before removing the power supply from the server.*

Caution: *If the server has been running, any installed processor(s) and heat sink(s) may be hot. Unless you are adding or removing a hot-plug component, allow the system to cool before opening the covers. To avoid the possibility of coming into contact with hot component(s) during a hot-plug installation, be careful when removing or installing the hot-plug component(s).*

Caution: *To avoid injury do not contact moving fan blades. If your system is supplied with a guard over the fan, do not operate the system without the fan guard in place.*

Rack Mount Warnings

The equipment rack must be anchored to an unmovable support to prevent it from tipping when a server or piece of equipment is extended from it. The equipment rack must be installed according to the rack manufacturer's instructions.

Install equipment in the rack from the bottom up, with the heaviest equipment at the bottom of the rack.

Extend only one piece of equipment from the rack at a time.

You are responsible for installing a main power disconnect for the entire rack unit. This main disconnect must be readily accessible, and it must be labeled as controlling power to the entire unit, not just to the server(s).

To avoid risk of potential electric shock, a proper safety ground must be implemented for the rack and each piece of equipment installed in it.

Electrostatic Discharge (ESD)

Caution: *ESD can damage disk drives, boards, and other parts. We recommend that you perform all procedures at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground -- any unpainted metal surface -- on your server when handling parts.*

Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. After removing a board from its protective wrapper or from the server, place the board component side up on a grounded, static free surface. Use a

conductive foam pad if available but not the board wrapper. Do not slide board over any surface.

Other Hazards

Battery Replacement

Caution: *There is the danger of explosion if the battery is incorrectly replaced. When replacing the battery, use only the battery recommended by the equipment manufacturer.*

Dispose of batteries according to local ordinances and regulations.

Do not attempt to recharge a battery.

Do not attempt to disassemble, puncture, or otherwise damage a battery.

Cooling and Airflow

Caution: *Carefully route cables as directed to minimize airflow blockage and cooling problems.*

For proper cooling and airflow, operate the system only with the chassis covers installed. Operating the system without the covers in place can damage system parts. To install the covers:

- *Check first to make sure you have not left loose tools or parts inside the system.*
- *Check that cables, add-in boards, and other components are properly installed.*
- *Attach the covers to the chassis according to the product instructions.*

Laser Peripherals or Devices

Caution: *To avoid risk of radiation exposure and/or personal injury:*

- *Do not open the enclosure of any laser peripheral or device*
- *Laser peripherals or devices have are not user serviceable*
- *Return to manufacturer for servicing*

Deutsch

Sicherheitshinweise für den Server

Das vorliegende Dokument bezieht sich auf Intel® Serverplatinen, Intel® Servergehäuse (Standfuß und Rack) sowie installierte Peripheriegeräte. Es enthält Warnungen und Vorsichtsmaßnahmen zur Vermeidung von Gefahren durch Verletzung, Stromschlag, Feuer und Beschädigungen von Geräten. Lesen Sie diese Dokument daher sorgfältig, bevor Sie Ihr Intel® Serverprodukt installieren oder warten.

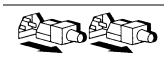
Bei Widersprüchen zwischen den hier vorliegenden Angaben und den Informationen im Lieferumfang des Produkts oder auf der Website des betreffenden Produkts hat die Produktdokumentation Vorrang.

Die Integration und Wartung des Servers darf nur durch technisch qualifizierte Personen erfolgen.

Um die Einhaltung der vorhandenen Zulassungen und Genehmigungen für das Produkt zu gewährleisten, sind die Richtlinien in diesem Handbuch sowie die Montageanleitungen in den Serverhandbüchern zu beachten. Verwenden Sie nur die beschriebenen, zugelassenen Komponenten, die im vorliegenden Handbuch angegeben werden. Die Verwendung anderer Produkte oder Komponenten führt zum Erlöschen der UL-Zulassung und anderer Genehmigungen für das Produkt. Dadurch kann das Produkt gegen Produktbestimmungen verstoßen, die im Verkaufsland gelten.

Sicherheitshinweise und Vorsichtsmaßnahmen

Um Verletzungen und Beschädigungen zu vermeiden, sollten Sie vor dem Beginn der Produktinstallation die nachfolgend aufgeführten Sicherheitshinweise und -informationen sorgfältig lesen und befolgen. In dem vorliegenden Handbuch sowie auf dem Produkt und auf der Verpackung werden folgende Sicherheitssymbole verwendet:

VORSICHT	Weist auf eine Gefahrenquelle hin, die bei Nichtbeachtung des VORSICHTSHINWEISES zu leichteren Verletzungen bzw. Sachbeschädigungen führen kann.
WARNUNG	Weist auf eine Gefahrenquelle hin, die bei Nichtbeachtung der WARNUNG zu ernsten Verletzungen führen kann.
	Weist auf potentielle Gefahr bei Nichtbeachtung der angezeigten Informationen hin.
	Weist auf die Gefahr eines Stromschlags hin, der bei Nichtbeachtung der Sicherheitshinweise zu schweren oder tödlichen Verletzungen führen kann.
	Weist auf Verbrennungsgefahr an heißen Bauteilen bzw. Oberflächen hin.
	Weist darauf hin, daß das Anfassen des Gebläses zu Verletzungen führen kann.
	Bedeutet, alle Netzkabel abzuziehen und das Gerät von der Netzspannung zu trennen.
	Bereiten Sie bitte Batterie auf

Zielbenutzer der Anwendung

Dieses Produkt wurde in seiner Eigenschaft als IT-Gerät getestet, das in Büros, Schulen, Computerräumen und ähnlichen öffentlichen Räumlichkeiten installiert werden kann. Die Eignung dieses Produkts für andere Einsatzbereiche als IT (z. B. Medizin, Industrie, Alarmsysteme oder Prüfgeräte) kann u. U. weitere Tests erfordern.

Standortauswahl

Das System ist für den Betrieb innerhalb normaler Büroumgebungen geeignet. Wählen Sie einen Standort, der folgenden Kriterien entspricht:

- Sauber, trocken und frei von Partikeln in der Luft (außer dem normalen Raumstaub).
- Gut belüftet, nicht in der Nähe von Wärmequellen und keiner direkten Sonnenbestrahlung ausgesetzt.
- Nicht in der Nähe von Vibrations- oder Erschütterungsquellen.
- Abgeschirmt von starken elektromagnetischen Feldern, die durch elektrische Geräte erzeugt werden.
- In gewittergefährdeten Gebieten sollten Sie das System an einen Überspannungsschutz anschließen und bei einem Gewitter die Telekommunikationskabel zum Modem abziehen.
- Eine ordnungsgemäß geerdete Wandsteckdose muß vorhanden sein.
- Ausreichender Freiraum für den Zugang zu den Netzkabeln, da diese die Hauptvorrichtung zum Trennen des Produkts von der Stromversorgung sind.

Handhabung von Geräten

Beachten Sie zur Vermeidung von Verletzungen oder Beschädigungen an den Geräten die folgenden Hinweise:

- Halten Sie beim Transportieren und Anheben von Geräten die örtlichen Gesundheits- und Sicherheitsvorschriften ein.
- Verwenden Sie mechanische oder andere geeignete Hilfsmittel zum Transportieren oder Anheben von Geräten.
- Entfernen Sie alle Komponenten, die sich leicht abnehmen lassen, um das Gewicht zu reduzieren und die Handhabung zu erleichtern.

Warnungen zu Netzspannung und Elektrizität

Vorsicht: *Durch Betätigen der mit dem Standby-Symbol gekennzeichneten Netztaste wird das System NICHT vollständig vom Netz getrennt. Es sind weiterhin 5 V aktiv, solange das System eingesteckt ist. Um das System vollständig vom Strom zu trennen, muß das Netzkabel aus der Steckdose abgezogen werden. Das System verfügt möglicherweise über mehrere Netzkabel. Vergewissern Sie sich in diesem Fall, daß alle Netzkabel abgezogen sind. Wenn Sie Komponenten ein- oder ausbauen möchten, die nicht hot-plug-fähig sind, stellen Sie sicher, daß zuvor alle Netzkabel abgezogen sind.*

Nehmen Sie keine Änderungen am Netzkabel vor, und verwenden Sie kein Kabel, das nicht genau dem geforderten Typ entspricht. Jedes Netzteil im System muß über ein eigenes Netzkabel angeschlossen werden.

Einige Netzteile von Intel Servern verwenden Nullleitersicherungen. Vorsicht ist geboten im Umgang mit Netzteilen, welche Nullleitersicherungen verwenden, um das Risiko eines elektrischen Schlages zu vermeiden

Das Netzteil in diesem Produkt enthält keine Teile, die vom Benutzer gewartet werden können. Öffnen Sie das Netzteil nicht. Im Netzteil bestehen gefährliche Spannungen, Ströme und Energiequellen. Schicken Sie das Gerät für Wartungsarbeiten an den Hersteller zurück.

Wenn Sie ein hot-plug-fähiges Netzteil austauschen, ziehen Sie dessen Netzkabel ab, bevor Sie es aus dem Server ausbauen.

Zur Vermeidung von Stromschlägen schalten Sie den Server aus, und trennen Sie vor dem Öffnen des Geräts das Netzkabel sowie alle an den Server angeschlossene Telekommunikationssysteme, Netzwerke und Modems.

Hinweis für Netzkabel

Wenn kein Netzkabel mit dem Produkt geliefert wurde, kaufen Sie ein Kabel, das für die

Vorsicht: *Prüfen Sie zur Vermeidung von Stromschlag- oder Feuergefahr die mit dem Produkt zu verwendenden Netzkabel wie folgt:*

- *Nehmen Sie keine Änderungen an einem Netzkabel vor, und benutzen sie es nicht, wenn es nicht genau in die geerdeten Netzsteckdosen paßt.*
- *Netzkabel müssen die folgenden Anforderungen erfüllen:*
- *Die Nennbelastbarkeit des Netzkabels muß mindestens so hoch sein wie die am Produkt angegebenen Nennstromaufnahme.*
- *Das Netzkabel muß einen zur Netzsteckdose passenden Schutzkontakt besitzen.*
- *Die Netzkabel sind die Hauptvorrichtung zum Trennen des Geräts vom Stromnetz. Die Steckdose muß in der Nähe der Anlage angebracht und gut erreichbar sein.*
- *Netzkabel müssen an eine ordnungsgemäß geerdete Steckdose angeschlossen sein.*

Warnhinweise für den Systemzugang

Vorsicht: *Um Verletzungen und Beschädigungen zu vermeiden, sollten Sie vor Arbeiten im Produktinneren folgende Sicherheitsanweisungen beachten:*

- *Schalten Sie alle am Produkt angeschlossenen Peripheriegeräte aus.*
- *Schalten Sie das System mit dem Netzschalter aus.*
- *Trennen Sie das Gerät von der Stromquelle, indem Sie alle Netzkabel vom System bzw. aus der Steckdose ziehen.*
- *Ziehen Sie alle Kabel und alle an das System angeschlossenen Telekommunikationsleitungen ab.*
- *Bewahren Sie alle Schrauben und anderen Befestigungselemente gut auf, nachdem Sie die Gehäuseabdeckung entfernt haben. Wenn Sie Ihre Arbeiten im Systeminneren beendet haben, befestigen Sie die Gehäuseabdeckung mit den Originalschrauben bzw. -befestigungselementen.*
- *Führen Sie keine Arbeiten im Netzteil aus. Das Netzteil enthält keine für den Benutzer wartungsbedürftigen Teile. Schicken Sie das Gerät für Wartungsarbeiten an den Hersteller zurück.*
- *Schalten Sie den Server aus, und ziehen Sie alle Netzkabel ab, bevor Sie Komponenten ein- oder ausbauen, die nicht hot-plug-fähig sind.*
- *Wenn Sie ein hot-plug-fähiges Netzteil austauschen, ziehen Sie dessen Netzkabel ab, bevor Sie es aus dem Server ausbauen.*

Vorsicht: *War Ihr Server in Betrieb, können die installierten Prozessoren und Kühlkörper heiß sein. Sofern Sie keine Hot-Plug-Komponenten ein- oder ausbauen, warten Sie mit dem Abnehmen der Abdeckungen, bis das System abgekühlt ist. Gehen Sie beim Aus- oder Einbauen von Hot-Plug-Komponenten sorgfältig vor, um nicht mit heißen Komponenten in Berührung zu kommen.*

Vorsicht: *Berühren Sie nicht die rotierenden Lüfterflügel, um Verletzungen zu vermeiden. Falls Ihr System mit eine Lüfterabdeckung besitzt, darf es nicht ohne diese Abdeckung betrieben werden.*

Warnhinweise für Racks

Das Geräte-Rack muß auf einer geeigneten, festen Unterlage verankert werden, um ein Umkippen zu vermeiden, wenn ein Server oder andere Geräte herausgezogen werden. Bei der Installation des Racks müssen die Anweisungen des Rack-Herstellers beachtet werden.

Gehen Sie bei der Installation von Geräten im Rack immer von unten nach oben vor, und bauen Sie das schwerste Gerät an der untersten Position im Rack ein.

Ziehen Sie jeweils immer nur ein Gerät aus dem Rack heraus.

Sie müssen für die gesamte Rack-Einheit einen Netztrennschalter einrichten. Dieser Netztrennschalter muß leicht zugänglich sein und über eine Kennzeichnung verfügen, die besagt, daß er die Stromzufuhr zur gesamten Einheit steuert und nicht nur zu den Servern.

Zur Vermeidung von Stromschlaggefahr müssen das Rack selbst und alle darin eingebauten Geräte ordnungsgemäß geerdet sein.

Elektrostatische Entladungen (ESD)

Vorsicht: *Elektrostatische Entladungen können zur Beschädigung von Festplatten, Platinen und anderen Komponenten führen. Daher sollten Sie alle Arbeiten an einer ESD-Workstation ausführen. Steht ein solcher Arbeitsplatz nicht zur Verfügung, erzielen Sie einen gewissen Schutz vor elektrostatischen Entladungen durch Tragen einer Antistatik-Manschette, die Sie während der Arbeit zur Erdung an einem beliebigen unlackierten Metallteil des Computergehäuses befestigen.*

Gehen Sei bei der Handhabung von Platinen immer mit größter Vorsicht vor. Sie können äußerst empfindlich gegenüber elektrostatischer Entladung sein. Halten Sie Platinen nur an den Kanten fest. Legen Sie die Platinen nach dem Auspacken aus der Schutzhülle oder nach dem Ausbau aus dem Server mit der Bauelementseite nach oben auf eine geerdete, statisch entladene Unterlage.Verwenden Sie dazu, sofern verfügbar, eine leitfahige Schaumstoffunterlage, aber niche die Schutzhülle der Platine. Ziehen Sie die Platine nicht über eine Fläche.

Andere Gefahren

Batterieaustausch

Vorsicht: *Wird die Batterie unsachgemäß ausgetauscht, besteht Explosionsgefahr. Verwenden Sie als Ersatz nur die vom Gerätehersteller empfohlene Batterie.*

Beachten Sie bei der Entsorgung von Batterien die gültigen Bestimmungen.

Versuchen Sie nicht, eine Batterie aufzuladen.

Versuchen Sie nicht, eine Batterie zu öffnen oder sonstwie zu beschädigen.

Kühlung und Luftstrom

Vorsicht: *Verlegen Sie Kabel sorgfältig entsprechend der Anleitung, um Störungen des Luftstroms und Kühlungsprobleme zu vermeiden.*

Zur Gewährleistung des ordnungsgemäßen Kühlungs- und Luftstromverhaltens darf das System nur mit angebrachten Gehäuseabdeckungen betrieben werden. Die Inbetriebnahme des Systems ohne Abdeckung kann zur Beschädigung von Systemkomponenten führen. So bringen Sie die Abdeckung wieder an:

- Vergewissern Sie sich zunächst, daß Sie keine Werkzeuge oder Teile im Gehäuse vergessen haben.
- Prüfen Sie, ob Kabel, Erweiterungskarten sowie weitere Komponenten ordnungsgemäß angebracht sind.
- Befestigen Sie die Abdeckungen am Gehäuse des Produkts, wie in dessen Anleitung beschrieben.

Laser-Peripheriegeräte oder -Komponenten

Vorsicht: *Beachten Sie zur Vermeidung von Strahlung und Verletzungen die folgenden Hinweise:*

- *Öffnen Sie keinesfalls das Gehäuse von Laser-Peripheriegeräten oder Laser-Komponenten.*
- *Laser-Peripheriegeräte oder -Komponenten besitzen keine für den Benutzer wartungsbedürftigen Teile.*
- *Schicken Sie das Gerät für Wartungsarbeiten an den Hersteller zurück.*

Français

Consignes de sécurité sur le serveur

Ce document s'applique aux cartes serveur Intel®, au châssis de serveur Intel® (sur pieds et sur rack) et aux périphériques installés. Pour réduire les risques de dommages corporels, d'électrocution, d'incendie et de dommages matériels, lisez ce document et respectez tous les avertissements et précautions mentionnés dans ce guide avant d'installer ou de mettre à jour votre produit serveur Intel®.

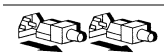
En cas de conflit entre les informations fournies dans ce document et celles livrées avec le produit ou publiées sur le site Web pour un produit particulier, la documentation du produit prime.

Votre serveur doit être intégré et entretenu uniquement par des techniciens qualifiés.

Vous devez suivre les informations de ce guide et les instructions d'assemblage des manuels de serveur pour vérifier et maintenir la conformité avec les certifications et approbations de produit existantes. Utilisez uniquement les composants décrits et réglementés spécifiés dans ce guide. L'utilisation d'autres produits/composants annulera la liste UL et les autres approbations réglementaires du produit, et le produit peut ne pas être conforme aux autres lois et réglementations locales applicables au produit.

Sécurité: avertissements et mises en garde

Pour éviter de vous blesser ou d'endommager votre équipement, lisez et respectez toutes les informations et consignes de sécurité avant de commencer l'installation du produit. Les symboles de sécurité suivants peuvent être utilisés tout au long de cette documentation et peuvent figurer sur le produit ou sur son emballage.

ATTENTION	Indique la présence d'un risque pouvant entraîner des blessures physiques mineures ou endommager légèrement le matériel si la mise en garde n'est pas prise en compte.
AVERTISSEMENT	Indique la présence d'un risque pouvant entraîner des blessures corporelles graves si l'avertissement n'est pas pris en compte.
	Indique un risque potentiel si les informations signalées ne sont pas prises en compte.
	Indique des risques d'électrocution pouvant entraîner des blessures corporelles graves ou mortelles si les consignes de sécurité ne sont pas respectées.
	Signale des composants ou des surfaces soumis à des températures élevées.
	Indique de ne pas toucher aux pales de ventilateur, car cela peut entraîner des blessures.
	Indique de débrancher tous les cordons d'alimentation secteur pour déconnecter l'alimentation.
	Veuillez réutiliser la batterie

Domaines d’utilisation prévus

Ce produit a été testé comme équipement informatique (ITE) et peut être installé dans des bureaux, des écoles, des salles informatiques et des endroits commerciaux similaires. L’utilisation du présent produit dans des catégories et environnements de produits et domaines d’application (par exemple, le domaine médical, industriel, résidentiel, les systèmes d’alarme et les appareils de contrôle) autres qu’ITE doit faire l’objet d’évaluations supplémentaires.

Sélection d’un emplacement

Le système est conçu pour fonctionner dans un environnement standard de bureau. Choisissez un emplacement respectant les conditions suivantes :

- Propre, sec et exempt de particules en suspension (autres que la poussière normale d’une pièce).
- Bien ventilé et à l’écart des sources de chaleur telles que la lumière directe du soleil et les radiateurs.
- À l’écart des sources de vibration ou des chocs physiques.
- Isolé des champs électromagnétiques importants produits par des appareils électriques.
- Dans les régions sujettes aux orages magnétiques, nous vous recommandons de brancher votre système à un suppresseur de surtension et de déconnecter les lignes de télécommunication de votre modem pendant les orages.
- Équipé d’une prise murale reliée à la terre.
- Équipé d’un espace suffisant pour accéder aux cordons d’alimentation secteur, car ils servent de disjoncteur principal d’alimentation du produit.

Pratiques de manipulation de l’équipement

Réduisez le risque de dommages personnels ou matériels :

- Conformez-vous aux exigences de médecine du travail et de sécurité lorsque vous déplacez et soulevez le matériel.
- Utilisez l’assistance mécanique ou toute autre assistance appropriée lorsque vous déplacez et soulevez le matériel.
- Pour réduire le poids en vue de faciliter la manipulation, retirez tout composant amovible.

Alimentation et avertissements en matière d'électricité

Attention: *Le bouton d'alimentation, indiqué par le symbole de mise en veille, NE COUPE PAS complètement l'alimentation secteur du système car le courant de veille 5 V reste actif lorsque le système est sous tension. Pour couper l'alimentation du système, vous devez débrancher le cordon d'alimentation secteur de la prise murale. Votre système peut utiliser plusieurs cordons d'alimentation secteur. Assurez-vous que tous les cordons d'alimentation sont débranchés. Vous devez les débrancher avant d'ouvrir le châssis, d'ajouter ou de supprimer un composant non connectable à chaud.*

Les alimentations de certains serveurs Intel sont munies de doubles fusibles pôle/neutre: veuillez observer les précautions d'usage afin d'éviter tout risque d'eléctrocution.

N'essayez pas de modifier ou d'utiliser un cordon d'alimentation secteur s'il ne s'agit pas du type exact requis. Un cordon secteur est requis pour chaque alimentation système.

Le bloc d'alimentation de ce produit ne contient aucun composant réparable par l'utilisateur. N'ouvrez pas le bloc d'alimentation. L'intérieur de celui-ci est soumis à des niveaux dangereux de tension, de courant et d'énergie. Renvoyez-le au fabricant en cas de problème.

Lorsque vous remplacez un bloc d'alimentation à chaud, débranchez le cordon du bloc d'alimentation en cours de remplacement avant de le retirer du serveur.

Pour éviter tout risque d'électrocution, mettez le système hors tension et débranchez les cordons d'alimentation ainsi que les systèmes de télécommunication, réseaux et modems reliés au système avant d'ouvrir ce dernier.

Avertissements sur le cordon d'alimentation

Si aucun cordon d'alimentation secteur n'a été fourni avec votre produit, vous devez vous en procurer un qui soit approuvé pour une utilisation dans votre pays.

Attention: *Pour éviter tout risque d'électrocution ou d'incendie, vérifiez les cordons d'alimentation qui seront utilisés avec le produit comme suit:*

- *N'essayez pas d'utiliser ou de modifier les cordons d'alimentation en CA s'ils ne correspondent pas exactement au type requis pour les prises électriques reliées à la terre.*
- *Les cordons d'alimentation doivent répondre aux critères suivants :*
- *Le cordon d'alimentation doit supporter une intensité supérieure à celle indiquée sur le produit.*
- *Le cordon d'alimentation doit posséder une broche ou un contact de mise à la terre approprié à la prise électrique.*
- *Les cordons d'alimentation électrique représentent le principal dispositif de déconnexion raccordé à l'alimentation secteur. Les prises de courant doivent se trouver à proximité de l'équipement et être facilement accessibles pour une déconnexion.*
- *Les cordons d'alimentation doivent être branchés sur des prises électriques correctement reliées à la terre.*

Avertissements sur l’accès au système

Attention: *Pour éviter de vous blesser ou d’endommager votre équipement, les consignes de sécurité suivantes s’appliquent chaque fois que vous accédez à l’intérieur du produit:*

- *Mettez hors tension tous les périphériques connectés à ce produit.*
- *Éteignez le système en appuyant sur le bouton d’alimentation.*
- *Déconnectez l’alimentation secteur en débranchant tous les cordons d’alimentation secteur du système ou de la prise murale.*
- *Déconnectez l’ensemble des câbles et lignes de télécommunication qui sont connectés au système.*
- *Mettez toutes les vis ou autres attaches de côté lorsque vous retirez les panneaux d’accès. Une fois que vous avez terminé d’accéder à l’intérieur du produit, refixez le panneau d’accès avec les vis ou attaches d’origine.*
- *N’essayez pas d’accéder à l’intérieur du bloc d’alimentation. Il ne contient aucune pièce réparable. Renvoyez-le au fabricant en cas de problème.*
- *Mettez le serveur hors tension et débranchez tous les cordons d’alimentation avant d’ajouter ou de remplacer tout composant non connectable à chaud.*
- *Lorsque vous remplacez le bloc d’alimentation à chaud, débranchez le cordon du bloc d’alimentation en cours de remplacement avant de retirer le bloc du serveur.*

Attention: *Si le serveur a été utilisé, les processeurs et dissipateurs de chaleur installés peuvent être chauds. À moins que vous n’ajoutiez ou ne retiriez un composant connectable à chaud, laissez le système refroidir avant d’ouvrir les panneaux. Pour éviter tout risque d’entrer en contact avec un composant chaud lors d’une installation à chaud, prenez toutes les précautions nécessaires lorsque vous retirez ou installez des composants connectables à chaud.*

Attention: *Pour éviter de vous blesser, ne touchez pas les pales de ventilateur en mouvement. Si votre système est fourni avec une protection sur le ventilateur, ne mettez pas le système en route sans la protection en place.*

Avertissements sur le montage en rack

Le rack doit être fixé à un support inamovible pour éviter qu'il ne bascule lors de l'extension d'un serveur ou d'un élément de l'équipement. Le rack doit être installé conformément aux instructions du fabricant.

Installez les équipements dans le rack en partant du bas, en plaçant le plus lourd en bas du rack.

N'étendez qu'un seul élément de l'équipement à partir du rack à la fois.

Vous êtes responsable de l'installation d'un disjoncteur principal d'alimentation pour la totalité du rack. Ce disjoncteur principal doit être rapidement accessible et doit être étiqueté comme contrôlant toute l'unité, et pas uniquement le ou les serveurs.

Pour éviter tout risque d'électrocution, le rack et chaque élément de l'équipement installé dans le rack doivent être correctement reliés à la terre.

Décharges électrostatiques (ESD)

Attention: *Les décharges électrostatiques (ESD) peuvent endommager les lecteurs de disque dur, les cartes et d'autres pièces. Il est fortement conseillé d'effectuer l'ensemble des procédures décrites à un poste de travail protégé contre les ESD. Au cas où aucun poste de ce type ne serait disponible, protégez-vous contre les ESD en portant un bracelet antistatique relié à la masse du châssis (n'importe quelle surface métallique non peinte) de votre serveur lorsque que vous manipulez les pièces.*

Manipulez toujours les cartes avec précaution. Elles peuvent être extrêmement sensibles aux ESD. Ne tenez les cartes que par leurs bords. Après avoir retiré une carte de son emballage de protection ou du serveur, placez-la sur une surface reliée à la terre, exempte de charge statique, composants orientés vers le haut. Utilisez si possible un tapi de mousse conducteru, mais pas l'emballage de la carte. Veillez à ce que la carte ne glisse sur aucune surface.

Autres risques

Remplacement de la pile

Attention: *Il existe un risque d'explosion si la pile n'est pas correctement remplacée. Lors du remplacement de la pile, utilisez uniquement celle recommandée par le fabricant du matériel.*

Mettez la pile au rebut en vous conformant aux réglementations locales.

N'essayez pas de recharger une pile.

N'essayez pas de démonter, de percer ou d'endommager la pile d'une quelconque façon.

Refroidissement et ventilation

Attention: *Routez les câbles avec précaution comme indiqué pour minimiser les blocages de circulation d'air et les problèmes de refroidissement.*

Afin de permettre une ventilation et un refroidissement corrects, ne mettez le système en marche que lorsque les panneaux du châssis sont en place. L'utilisation du système sans les panneaux peut endommager les composants système. Pour installer les panneaux :

- Vérifiez tout d'abord que vous n'avez pas oublié d'outils ou de composants détachés à l'intérieur du système.
- Vérifiez que les câbles, les cartes d'extension et les autres composants sont correctement installés.
- Fixez les panneaux au châssis en suivant les instructions du produit.

Périphériques laser

Attention: *Pour éviter tout risque d'exposition aux rayonnements et/ou de dommage personnel:*

- *N'ouvrez pas l'enceinte d'un périphérique laser.*
- *Les périphériques laser ne sont pas réparables par l'utilisateur.*
- *Retournez-les au fabricant en cas de problème.*

Español

Información de seguridad del servidor

Este documento se aplica a las tarjetas de servidor de Intel®, las carcasas de servidor de Intel® (montaje en bastidor y en pedestal) y los dispositivos periféricos. Para reducir el riesgo de daños corporales, descargas eléctricas, fuego y en el equipo, lea este documento y preste atención a todos las advertencias y precauciones de esta guía antes de instalar o mantener el producto de servidor de Intel®.

En el caso de que haya diferencias entre la información para un producto en particular contenida en este documento y la información proporcionada con dicho producto o en el sitio Web, la documentación del producto es la que prevalece.

Sólo personal técnico cualificado debe montar y prestar los servicios para el servidor.

Debe ceñirse a las directrices de esta guía y a las instrucciones de montaje de los manuales del servidor para asegurar y mantener el cumplimiento con las certificaciones y homologaciones existentes de los productos. Utilice sólo los componentes descritos y homologados que se especifican en esta guía. El uso de otros productos o componentes anulará la homologación UL y otras certificaciones oficiales del producto, pudiendo dejar de ser compatible con las normativas locales de los países en los que se comercializa.

Advertencias y precauciones sobre seguridad

Para reducir la posibilidad de que se produzcan lesiones personales o daños en la propiedad, antes de empezar a instalar el producto, lea, observe y cumpla toda la información e instrucciones de seguridad siguientes. Puede que se utilicen los siguientes símbolos de seguridad en la documentación y es posible que aparezcan en el producto o en su embalaje.

PRECAUCIÓN	Indica la existencia de un riesgo que podría causar lesiones personales o daños en la propiedad leves si no se tiene en cuenta la PRECAUCIÓN.
ADVERTENCIA	Indica la existencia de un riesgo que podría causar lesiones personales graves si no se tiene en cuenta la ADVERTENCIA.
	Indica un riesgo potencial si no se tiene en cuenta la información indicada.
	Indica riesgo de descargas eléctricas que podrían causar lesiones graves o la muerte si no se siguen las instrucciones de seguridad.
	Indica componentes o superficies calientes.
	Indica que no se deben tocar las aspas de los ventiladores, ya que de lo contrario se podrían producir lesiones.
	Indica que es necesario desenchufar los cables de alimentación de CA para desconectar la alimentación de CA
	Recicle por favor la batería

Aplicaciones y usos previstos

Este producto ha sido evaluado como equipo de tecnología informática (ITE) que puede instalarse en oficinas, escuelas, salas de equipos informáticos o lugares de ámbito comercial similares. Es posible que sea necesario llevar a cabo una evaluación adicional para comprobar si este producto es apropiado para otras categorías de productos y entornos además de las aplicaciones informáticas (por ejemplo, soluciones médicas, industriales, residenciales, sistemas de alarma y equipos de pruebas).

Selección de la ubicación

El sistema se ha diseñado para funcionar en un entorno normal de oficinas. Seleccione una ubicación que esté:

- Limpia, seca y libre de macropartículas en suspensión en el aire (que no sean el polvo habitual de la habitación).
- Bien ventilada y alejada de fuentes de calor, incluida la luz solar directa y los radiadores.
- Alejada de fuentes de vibración o de golpes físicos.
- Aislada de campos electromagnéticos producidos por dispositivos eléctricos.
- En zonas propensas a tormentas eléctricas, se recomienda que conecte el servidor a un supresor de sobretensiones y desconecte las líneas de telecomunicaciones al módem durante una tormenta eléctrica.
- Provista de una toma de corriente alterna correctamente conectada a tierra.
- Provista de espacio suficiente para acceder a los cables de la fuente de alimentación ya que constituyen la desconexión principal de la alimentación.

Manipulación del equipo

Reduzca el riesgo de daños personales o en el equipo:

- Respete los requisitos de sanidad y seguridad laborales de su país cuando traslade y levante el equipo.
- Utilice medios mecánicos u otros que sean adecuados al trasladar o levantar el equipo.
- Para que el peso sea menor para manipularlo con más facilidad, extraiga los componentes que sean de fácil extracción.

Advertencias de alimentación y eléctricas

Precaución: *El botón de encendido, indicado con la marca del modo de reposo o stand-by, NO DESCONECTA completamente la alimentación de CA del sistema, ya que el modo de reposo de 5 V sigue activo mientras el sistema está enchufado. Para desconectar el sistema debe desenchufar el cable de alimentación de CA de la toma de la pared. Puede usar más de un cable de alimentación de CA con el sistema. Asegúrese de que todos los cables de alimentación de CA están desenchufados. Asegúrese de que los cables de alimentación de CA estén desenchufado antes de abrir la carcasa, agregar o extraer cualquier componente que no es de conexión en funcionamiento.*

Algunas fuentes de alimentación de electricidad de los servidores de Intel utilizan el polo neutral del fuselaje. Para evitar riesgos de choques electricos use precauciónes al trabajar con las fuentes de alimentación que utilizan el polo neutral de fuselaje.

No intente modificar ni utilizar un cable de alimentación de CA si no es del tipo exacto requerido. Se necesita un cable de CA para cada fuente de alimentación del sistema.

La fuente de alimentación de este producto no contiene piezas que puedan ser reparadas por el usuario. No abra la fuente de alimentación. Dentro de la fuente de alimentación puede haber niveles de tensión, corriente y energía peligrosos. Devuélvala al fabricante para repararla.

Al reemplazar una fuente de alimentación de conexión en funcionamiento, desenchufe el cable de alimentación de la fuente de alimentación que va a reemplazar antes de extraerla del servidor.

Para evitar el riesgo de descargas eléctricas, antes de abrir el servidor, apáguelo, desconecte el cable de alimentación, los sistemas de telecomunicaciones, las redes y los módems conectados al mismo.

Advertencias sobre el cable de alimentación

Si no se ha proporcionado con el producto ningún cable de alimentación de CA, adquiera alguno cuyo uso esté aprobado en su país.

Precaución: *Para evitar descargas eléctricas o fuego, revise los cables de alimentación que usará con el producto tal y como se describe a continuación:*

- *No intente modificar ni utilizar los cables de alimentación de CA si no son exactamente del modelo especificado para ajustarse a las tomas de corriente conectadas a tierra*
- *Los cables de alimentación deben reunir los siguientes requisitos:*
- *El cable de alimentación debe disponer de una capacidad nominal de corriente eléctrica mayor que la capacidad especificada en el producto.*
- *El cable de alimentación debe disponer de una patilla o contacto de conexión a tierra que sea apto para la toma de corriente.*
- *Los cables de la fuente de alimentación son los dispositivos de desconexión principales a la corriente alterna. El enchufe o enchufes de zócalo deben encontrarse cerca del equipo y el acceso a ellos debe poderse efectuar de forma inmediata con el fin de desconectarlos.*

- *Los cables de la fuente de alimentación deben estar conectados a los enchufes con una toma de tierra adecuada.*

Advertencias el acceso al sistema

Precaución: *Para evitar lesiones personales o daños en la propiedad, se aplican las siguientes instrucciones de seguridad siempre que se acceda al interior del producto:*

- *Apague todos los dispositivos periféricos conectados a este producto.*
- *Pulse el botón de alimentación para apagar el sistema.*
- *Desconecte la alimentación de CA desenchufando los cables de alimentación de CA del sistema o de la toma de corriente alterna.*
- *Desconecte todos los cables y líneas de telecomunicación que estén conectados al sistema.*
- *Guarde todos los tornillos o elementos de fijación cuando retire las cubiertas de acceso. Cuando termine de operar en el interior del producto, vuelva a colocar los tornillos o los elementos de fijación originales de la cubierta de acceso.*
- *No acceda al interior de la fuente de alimentación. No hay elementos en la fuente de alimentación que usted pueda reparar y utilizar. Devuélvala al fabricante para repararla.*
- *Apague el servidor y desconecte todos los cables de alimentación antes de agregar o reemplazar cualquier componente que no es de conexión en funcionamiento.*
- *Al reemplazar una fuente de alimentación de conexión en funcionamiento, desenchufe el cable de alimentación de la fuente de alimentación que va a reemplazar antes de extraerla del servidor.*

Precaución: *Si el servidor se ha estado ejecutando, los procesadores y disipadores de calor estarán recalentados. A no ser que esté instalando o extrayendo un componente de conexión en funcionamiento, deje que el sistema se enfríe antes de abrir las cubiertas. Para que no llegue a tocar los componentes que estén calientes cuando esté realizando una instalación de conexión en funcionamiento, tenga cuidado al extraer o instalar los componentes de conexión en funcionamiento.*

Precaución: *Para evitar posibles daños, no toque las aspas en movimiento de los ventiladores. Si el sistema se le ha suministrado con una protección para el ventilador, asegúrese de que cuando esté funcionando el sistema la protección esté en su sitio.*

Advertencias sobre el montaje en bastidor

El bastidor del equipo se debe sujetar con un soporte fijo para evitar que se caiga cuando se extraiga un servidor o una pieza del mismo. El bastidor del equipo debe instalarse siguiendo las instrucciones del fabricante del bastidor.

Instale el equipo en el bastidor comenzando desde la parte de abajo, con el equipo más pesado en la parte inferior del bastidor.

Extraiga las piezas del equipo del bastidor de una a una.

El usuario es el responsable de la instalación de un dispositivo de desconexión de la alimentación principal para toda la unidad del bastidor. El acceso a este dispositivo de desconexión deberá ser de fácil acceso y deberán incluirse indicaciones que lo identifiquen como el control de alimentación eléctrica de toda la unidad, no sólo de los servidores.

Para evitar el riesgo de descargas eléctricas, deberá instalar una conexión a tierra apropiada para el bastidor y para cada pieza del equipo instalada en el mismo.

Descarga electrostática (ESD)

Precaución: *Las descargas electrostáticas pueden dañar las unidades de disco, las tarjetas y otros componentes. Recomendamos que realice todos los procedimientos en una estación de trabajo protegida contra descargas electrostáticas. En caso de que no haya una disponible, protéjase de alguna forma contras las descargas llevando un brazalete antiestático conectado a la toma de tierra de la carcasa (cualquier superficie de metal que no esté pintada) del servidor cuando manipule las piezas.*

Manipule siempre las tarjetas con el máximo cuidado. Pueden ser sumamente sensibles a las descargas electrostáticas. Sujételas sólo por los bordes. Una vez extraída la tarjeta de su envoltorio de protección o del servidor, colóquela con el lado de los componentes hacia arriba sobre una superficie con toma de tiearra y sin carga estática. Utilice una almohadilla de espuma conductora si dispone de ella, pero nunca el envoltorio de la tarjeta. No deslice la tarjeta sobre ninguna superficie.

Sustitución de la batería

Precaución: *Existe el peligro de explosión si la batería no se reemplaza correctamente. Al reemplazar la batería, utilice sólo la batería recomendada por el fabricante del equipo.*

Deseche las baterías respetando la normativa local.

No intente recargar la batería.

No intente desmontar, pinchar o causar cualquier otro desperfecto a una batería.

Enfriamiento y circulación de aire

Precaución: *El tendido de los cables debe realizarse cuidadosamente tal y como se le indica para reducir al mínimo los problemas de obstrucción de la ventilación y de refrigeración.*

Para conseguir una refrigeración y corriente de aire adecuadas, compruebe que cuando sistema esté funcionando, las cubiertas de la carcasa están instaladas. Si utiliza el sistema sin las cubiertas, podría dañar sus componentes. Para instalar las cubiertas:

- *Compruebe primero que no ha dejado herramientas o piezas sueltas dentro del sistema.*
- *Compruebe que los cables, tarjetas adicionales y otros componentes están instalados correctamente.*
- *Sujete las cubiertas a la carcasa siguiendo las instrucciones del producto.*

Periféricos o dispositivos láser

Precaución: *Para evitar el riesgo de la exposición a radiaciones o de daños personales:*

- *No abra la caja de ningún periférico o dispositivo láser*
- *Los periféricos o dispositivos láser no pueden ser reparados por el usuario*
- *Haga que el fabricante los repare.*

简体中文

服务器安全信息

本文档适用于 Intel® 服务器主板、Intel® 服务器机箱（基座和机架固定件）和已安装的外设。为减少人身伤害、电击、火灾以及设备毁坏的危险，请在安装或维护 Intel® 服务器产品之前阅读本文档并遵循本指南中的所有警告和预防措施。

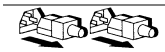
如果本文档中的信息与特定产品的随附信息或 Web 站点信息之间存在不一致，请以产品文档为准。

服务器须由合格的技术人员进行集成和维护。

必须遵守本指南的规定和服务器手册的装配指导，以确保符合现有的产品认证和审批。仅使用本指南中描述和规定的指定组件。使用其他产品 / 组件将使产品的 UL 认证和其他管理审批无效，并可能导致产品不符合销售地的产品法规。

安全警告与注意事项

为避免人身伤害与财产损失，安装本产品之前，请阅读以下所有安全指导和信息。下面所列的安全符号可能在整个文档中使用并可能标注于产品和 / 或产品包装之上。

注意	表示如果无视此“？？？项”？？？？？？？？ 轻微人身伤害或财产损失的危险。
警告	表示如果无视此“？？ ”？？？？？？？？ 严重人身伤害的危险。
	表示如果无视所示信息，即存在潜在的危险。
	表示如果不遵守安全指导，存在可导致严重伤害或死亡的电击危险。
	表示灼热组件或表面。
	表示请勿触摸风机叶片，否则可能致伤。
	表示拔下所有交流电线，断开交流电源

预期应用使用

根据评估，本产品为信息技术设备
(ITE)，可安装在办公室、学校、计算机房和类似的商业场所。本产品对于非 ITE 应用的其他产品种类和环境（如医疗、工业、住宅、报警系统和测试设备）的适用性尚有待进一步的评估。

场地选择

本系统专为在典型办公环境运行而设计。请选择符合以下条件的地点：

- 清洁、干燥，无气载微粒（而非一般的室内尘埃）。
- 通风良好，远离热源（包括直接日晒和散热器）。
- 远离振动源或物理震动。
- 与电气设备产生的强大电磁场隔离。
- 在易受闪电袭击的地区，我们建议将系统插入电涌抑制器并在闪电期间断开通信线路与调制解调器之间的连接。
- 提供正确接地的墙壁插座。
- 提供足够的空间，以便拿取电源供应线，因为这是本产品的主要电源断开器。

设备操作规范

减少人身伤害或设备受损的危险：

- 移举设备时遵守当地的职业健康与安全要求。
- 借助机械手段或其他合适的手段移举设备。
- 拆除一切易分离组件，以降低重量并方便操作。

电源与电气警告

⚠ ⚠注意事项

电源按钮（如待机电源标记所示）并不能完全关闭系统的交流电源，只要系统已接通电源，就存在 5V
待机电源。要从系统切断电源，须从墙壁电源插座中拔下交流电线。您的系统可能不止使用一根交流电线。请确保所有的交流电线都已拔下。打开机箱或增加或去除任何热插拔组件之前，确保交流电线已拔下。

若非所需的确切类型，请勿尝试修改或使用交流电线。系统的每个电源供应设备都需要一根单独的交流电线。

本产品的电源供应设备包含非用户维修部件。请勿打开电源供应设备。电源供应设备包含非常危险的电压级、电流级和能量级。请与生产商联系维修事宜。

替换热插拔电源供应设备时，请先拔下需替换的电源供应设备上的电源线，再将其从服务器上移除。

为避免电击，请在打开服务器之前，关闭服务器并断开服务器上连接的电源线、电信系统、网络和调制解调器。

电源线警告

如果产品未提供交流电线，请购买一根您所在国家批准使用的交流电线。

⚠注意事项

为避免电击或火灾危险，请按如下所述对产品所用的电源线进行检查：

- 若非所需的符合接地插座的确切类型，请勿尝试修改或使用交流电线
- 电源线须符合以下标准：
  - 电源线的电气额定值须大于产品上标注的电流额定值。
  - 电源线须拥有适合插座的安全接地插头或触点。
- 电源线为交流电源的主要断开设备。插座须靠近设备并可随时断开。
- 电源线须插入所提供的拥有合适接地的插座。

系统使用警告

⚠注意事项

为避免人身伤害或财产损失，无论何时检查产品内部，以下安全指导都适用：

- 关闭所有与本产品相连的外设。
- 按下电源按钮至关闭状态，关闭系统。
- 从系统或墙壁插座上拔下所有交流电线，断开交流电源。
- 断开与系统相连的所有线缆和通信线路。
- 卸除舱口盖时，保留所有螺钉及其他紧固件。完成产品内部检查之后，请用螺钉或紧固件重新固定舱口盖。
- 请勿打开电源供应设备。电源供应设备内没有可维修部件。请与生产商联系维修事宜.
- 增加或替换任何非热插拔组件之前，请关闭服务器电源并断开所有电源线。
- 替换热插拔电源供应设备时，请先拔下需替换的电源供应设备上的电源线，然后再从服务器上移除电源供应设备。

⚠⚠ 注意事项

如果服务器一直在运行，任何已安装的处理器和吸热设备都可能很热。除非要增加或移除热插拔组件，否则请待系统冷却后再开盖。为避免在热插拔组件安装过程中接触灼热组件，移除或安装热插拔组件时务须小心。

⚠ 注意事项

为避免受伤，请勿触摸运转的风机叶片。如果系统的风机上配有防护装置，请勿卸下风机防护装置运行系统。

机架固定件警告

设备的机架须固定在稳固的支座上，以防从中安装服务器或设备时倒塌。须按照机架生产商提供的安装说明进行安装。

从下往上将设备安装在机架上，最重的设备安装在机架的最底层。

一次只从机架上安装一件设备。

您须负责安装整个机架装置的主要电源断开设备。此主要断开设备须随时可用，且须标明为控制整个装置（而不仅限于服务器）的电源。

为避免潜在的电击危险，须对机架及其上所安装的每一件设备实行正确的安全接地。

静电放电（ESD）

⚠ 注意事项

ESD 会损坏磁盘驱动器、主板及其他部件。我们建议您执行 ESD 工作站的所有步骤。如果没有 ESD 工作站，则采取一些静电放电保护措施，操作部件时，戴上与服务器上的机箱接地或任何未喷漆金属表面连接的防静电腕带。

操作主板时始终保持小心。它们可能对 ESD 非常敏感。拿持主板时只接触边缘。从保护包装中或从服务器上取出主板后，请将主板组件侧面朝上放置在无静电的接地表面上。请使用导电泡沫垫（若有），不要使用主板包装。请勿将主板在任何表面上滑动。

其他危险

替换电池

⚠ 注意事项

不正确替换电池可能导致爆炸危险。替换电池时，请只使用设备生产商推荐使用的电池。

请按当地法规处置电池。

请勿对电池充电。

请勿拆卸、刺穿或以其他方式损坏电池。

冷却和气流

⚠ 注意事项

按照说明小心布置线缆，尽量减少气流阻塞和冷却问题。

为保证适当的冷却和气流，运行系统时请确保机箱盖已安装。未安装机箱盖即运行系统可能导致系统部件受损。安装机箱盖的步骤如下：

- 首先检查并确保系统内没有遗留的未固定工具或部件。
- 检查线缆、内插板和其他组件已正确安装。
- 按产品说明安装机箱盖。

激光外设或激光设备

⚠ 注意事项

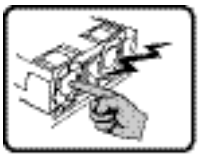
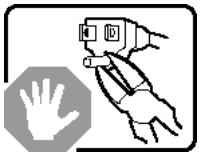
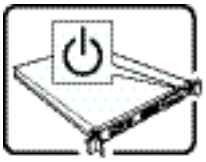
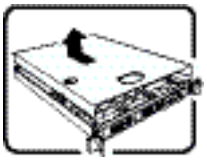
为避免幅射暴露和 / 或人身伤害：

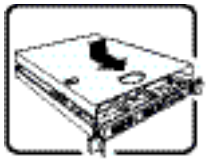
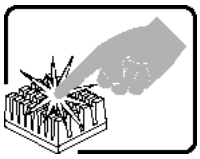
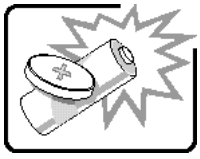
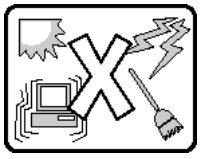
- 请勿打开任何激光外设或激光设备的外壳
- 激光外设或激光设备为非用户维修设备

请与生产商联系维修事宜

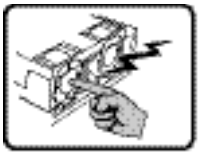
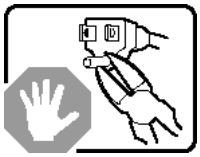
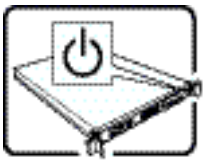
B Installation/Assembly Safety Instructions

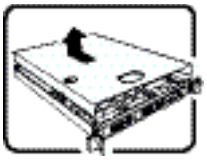
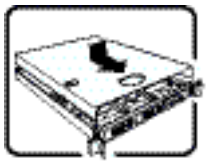
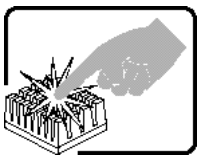
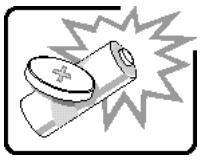
English

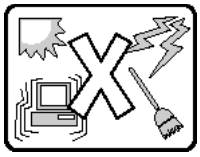
	The power supply in this product contains no user-serviceable parts. Refer servicing only to qualified personnel.
	Do not attempt to modify or use the supplied AC power cord if it is not the exact type required. A product with more than one power supply will have a separate AC power cord for each supply.
	The power button on the system does not turn off system AC power. To remove AC power from the system, you must unplug each AC power cord from the wall outlet or power supply. The power cord(s) is considered the disconnect device to the main (AC) power. The socket outlet that the system plugs into shall be installed near the equipment and shall be easily accessible.
	SAFETY STEPS: Whenever you remove the chassis covers to access the inside of the system, follow these steps: 1. Turn off all peripheral devices connected to the system. 2. Turn off the system by pressing the power button. 3. Unplug all AC power cords from the system or from wall outlets. 4. Label and disconnect all cables connected to I/O connectors or ports on the back of the system. 5. Provide some electrostatic discharge (ESD) protection by wearing an antistatic wrist strap attached to chassis ground of the system-any unpainted metal surface-when handling components. 6. Do not operate the system with the chassis covers removed.
	After you have completed the six SAFETY steps above, you can remove the system covers. To do this: 1. Unlock and remove the padlock from the back of the system if a padlock has been installed. 2. Remove and save all screws from the covers. 3. Remove the cover(s).

	For proper cooling and airflow, always reinstall the chassis covers before turning on the system. Operating the system without the covers in place can damage system parts. To install the covers: 1. Check first to make sure you have not left loose tools or parts inside the system. 2. Check that cables, add-in boards, and other components are properly installed. 3. Attach the covers to the chassis with the screws removed earlier, and tighten them firmly. 4. Insert and lock the padlock to the system to prevent unauthorized access inside the system. 5. Connect all external cables and the AC power cord(s) to the system.
	A microprocessor and heat sink may be hot if the system has been running. Also, there may be sharp pins and edges on some board and chassis parts. Contact should be made with care. Consider wearing protective gloves.
	Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Dispose of used batteries according to manufacturer's instructions.
	The system is designed to operate in a typical office environment. Choose a site that is: • Clean and free of airborne particles (other than normal room dust). • Well ventilated and away from sources of heat including direct sunlight. • Away from sources of vibration or physical shock. • Isolated from strong electromagnetic fields produced by electrical devices. • In regions that are susceptible to electrical storms, we recommend you plug your system into a surge suppresser and disconnect telecommunication lines to your modem during an electrical storm. • Provided with a properly grounded wall outlet. • Provided with sufficient space to access the power supply cord(s), because they serve as the product's main power disconnect.

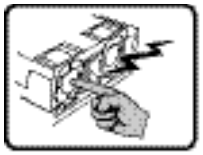
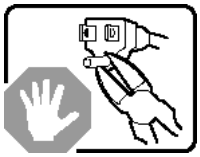
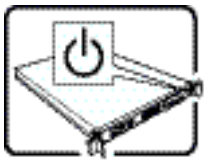
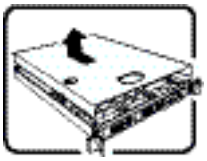
Deutsch

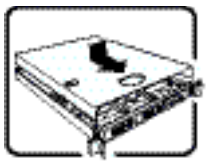
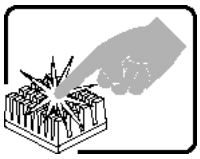
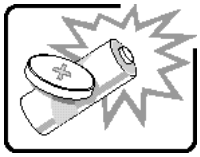
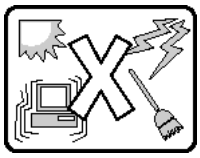
	Benutzer können am Netzgerät dieses Produkts keine Reparaturen vornehmen. Das Produkt enthält möglicherweise mehrere Netzgeräte. Wartungsarbeiten müssen von qualifizierten Technikern ausgeführt werden.
	Versuchen Sie nicht, das mitgelieferte Netzkabel zu ändern oder zu verwenden, wenn es sich nicht genau um den erforderlichen Typ handelt. Ein Produkt mit mehreren Netzgeräten hat für jedes Netzgerät ein eigenes Netzkabel.
	Der Wechselstrom des Systems wird durch den Ein-/Aus-Schalter für Gleichstrom nicht ausgeschaltet. Ziehen Sie jedes Wechselstrom-Netzkabel aus der Steckdose bzw. dem Netzgerät, um den Stromanschluß des Systems zu unterbrechen.
	SICHERHEISMASSNAHMEN: Immer wenn Sie die Gehäuseabdeckung abnehmen um an das Systeminnere zu gelangen, sollten Sie folgende Schritte beachten: 1. Schalten Sie alle an Ihr System angeschlossenen Peripheriegeräte aus. 2. Schalten Sie das System mit dem Hauptschalter aus. 3. Ziehen Sie den Stromanschlußstecker Ihres Systems aus der Steckdose. 4. Auf der Rückseite des Systems beschriften und ziehen Sie alle Anschlußkabel von den I/O Anschlüssen oder Ports ab. 5. Tragen Sie ein geerdetes Antistatik Gelenkband, um elektrostatische Ladungen (ESD) über blanke Metallstellen bei der Handhabung der Komponenten zu vermeiden. 6. Schalten Sie das System niemals ohne ordnungsgemäß montiertes Gehäuse ein.

	SICHERHEISMASSNAHMEN: Immer wenn Sie die Gehäuseabdeckung abnehmen um an das Systeminnere zu gelangen, sollten Sie folgende Schritte beachten: 1. Schalten Sie alle an Ihr System angeschlossenen Peripheriegeräte aus. 2. Schalten Sie das System mit dem Hauptschalter aus. 3. Ziehen Sie den Stromanschlußstecker Ihres Systems aus der Steckdose. 4. Auf der Rückseite des Systems beschriften und ziehen Sie alle Anschlußkabel von den I/O Anschlüssen oder Ports ab. 5. Tragen Sie ein geerdetes Antistatik Gelenkband, um elektrostatische Ladungen (ESD) über blanke Metallstellen bei der Handhabung der Komponenten zu vermeiden. 6. Schalten Sie das System niemals ohne ordnungsgemäß montiertes Gehäuse ein.
	Zur ordnungsgemäßen Kühlung und Lüftung muß die Gehäuseabdeckung immer wieder vor dem Einschalten installiert werden. Ein Betrieb des Systems ohne angebrachte Abdeckung kann Ihrem System oder Teile darin beschädigen. Um die Abdeckung wieder anzubringen: 1. Vergewissern Sie sich, daß Sie keine Werkzeuge oder Teile im Innern des Systems zurückgelassen haben. 2. Überprüfen Sie alle Kabel, Zusatzkarten und andere Komponenten auf ordnungsgemäßen Sitz und Installation. 3. Bringen Sie die Abdeckungen wieder am Gehäuse an, indem Sie die zuvor gelösten Schrauben wieder anbringen. Ziehen Sie diese gut an. 4. Bringen Sie die Verschlußeinrichtung (Padlock) wieder an und schließen Sie diese, um ein unerlaubtes Öffnen des Systems zu verhindern. 5. Schließen Sie alle externen Kabel und den AC Stromanschlußstecker Ihres Systems wieder an.
	Der Mikroprozessor und der Kühler sind möglicherweise erhitzt, wenn das System in Betrieb ist. Außerdem können einige Platinen und Gehäuseteile scharfe Spitzen und Kanten aufweisen. Arbeiten an Platinen und Gehäuse sollten vorsichtig ausgeführt werden. Sie sollten Schutzhandschuhe tragen.
	Bei falschem Einsetzen einer neuen Batterie besteht Explosionsgefahr. Die Batterie darf nur durch denselben oder einen entsprechenden, vom Hersteller empfohlenen Batterietyp ersetzt werden. Entsorgen Sie verbrauchte Batterien den Anweisungen des Herstellers entsprechend.

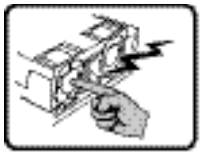
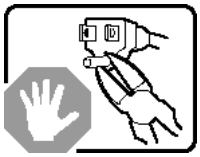
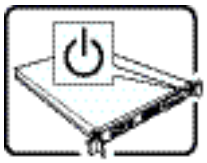
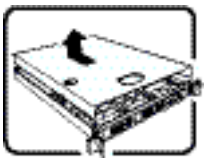
	Das System wurde für den Betrieb in einer normalen Büroumgebung entwickelt. Der Standort sollte: • "sauber und staubfrei sein (Hausstaub ausgenommen); • "gut gelüftet und keinen Heizquellen ausgesetzt sein (einschließlich direkter Sonneneinstrahlung); • "keinen Erschütterungen ausgesetzt sein; • "keine starken, von elektrischen Geräten erzeugten elektromagnetischen Felder aufweisen; • "in Regionen, in denen elektrische Stürme auftreten, mit einem Überspannungsschutzgerät verbunden sein; während eines elektrischen Sturms sollte keine Verbindung der Telekommunikationsleitungen mit dem Modem bestehen; • "mit einer geerdeten Wechselstromsteckdose ausgerüstet sein; • "über ausreichend Platz verfügen, um Zugang zu den Netzkabeln zu gewährleisten, da der Stromanschluß des Produkts hauptsächlich über die Kabel unterbrochen wird

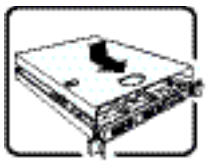
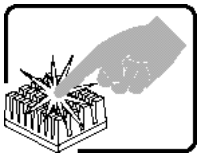
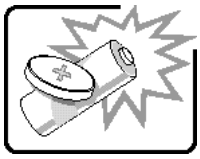
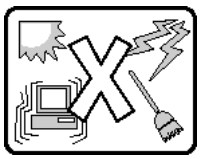
Français

	Le bloc d'alimentation de ce produit ne contient aucune pièce pouvant être réparée par l'utilisateur. Ce produit peut contenir plus d'un bloc d'alimentation. Veuillez contacter un technicien qualifié en cas de problème.
	Ne pas essayer d'utiliser ni modifier le câble d'alimentation CA fourni, s'il ne correspond pas exactement au type requis. Le nombre de câbles d'alimentation CA fournis correspond au nombre de blocs d'alimentation du produit
	Notez que le commutateur CC de mise sous tension /hors tension du panneau avant n'éteint pas l'alimentation CA du système. Pour mettre le système hors tension, vous devez débrancher chaque câble d'alimentation de sa prise.
	CONSIGNES DE SÉCURITÉ -Lorsque vous ouvrez le boîtier pour accéder à l'intérieur du système, suivez les consignes suivantes: 1. Mettez hors tension tous les périphériques connectés au système. 2. Mettez le système hors tension en mettant l'interrupteur général en position OFF (bouton-poussoir). 3. Débranchez tous les cordons d'alimentation c.a. du système et des prises murales. 4. Identifiez et débranchez tous les câbles reliés aux connecteurs d'E-S ou aux accès derrière le système. 5. Pour prévenir les décharges électrostatiques lorsque vous touchez aux composants, portez une bande antistatique pour poignet et reliez-la à la masse du système (toute surface métallique non peinte du boîtier). 6. Ne faites pas fonctionner le système tandis que le boîtier est ouvert.
	Une fois TOUTES les étapes précédentes accomplies, vous pouvez retirer les panneaux du système. Procédez comme suit: 1. Si un cadenas a été installé sur à l'arrière du système, déverrouillez-le et retirez-le. 2. Retirez toutes les vis des panneaux et mettez-les dans un endroit sûr. 3. Retirez les panneaux.

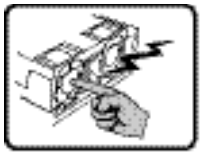
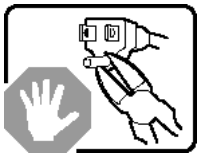
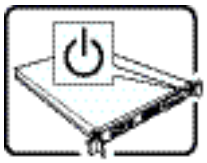
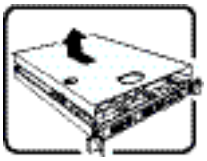
	Afin de permettre le refroidissement et l'aération du système, réinstallez toujours les panneaux du boîtier avant de mettre le système sous tension. Le fonctionnement du système en l'absence des panneaux risque d'endommager ses pièces. Pour installer les panneaux, procédez comme suit: 1. Assurez-vous de ne pas avoir oublié d'outils ou de pièces démontées dans le système. 2. Assurez-vous que les câbles, les cartes d'extension et les autres composants sont bien installés. 3. Revissez solidement les panneaux du boîtier avec les vis retirées plus tôt. 4. Remettez le cadenas en place et verrouillez-le afin de prévenir tout accès non autorisé à l'intérieur du système. 5. Rebranchez tous les cordons d'alimentation c. a. et câbles externes au système.
	Le microprocesseur et le dissipateur de chaleur peuvent être chauds si le système a été sous tension. Faites également attention aux broches aiguës des cartes et aux bords tranchants du capot. Nous vous recommandons l'usage de gants de protection.
	Danger d'explosion si la batterie n'est pas remontée correctement. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le fabricant. Disposez des piles usées selon les instructions du fabricant.
	Le système a été conçu pour fonctionner dans un cadre de travail normal. L'emplacement choisi doit être: • "Propre et dépourvu de poussière en suspension (sauf la poussière normale). • "Bien aéré et loin des sources de chaleur, y compris du soleil direct. • "A l'abri des chocs et des sources de vibrations. • "Isolé de forts champs électromagnétiques géenérés par des appareils électriques. • "Dans les régions sujettes aux orages magnétiques il est recomandé de brancher votre système à un supresseur de surtension, et de débrancher toutes les lignes de télécommunications de votre modem durant un orage. • "Muni d'une prise murale correctement mise à la terre. • "Suffisamment spacieux pour vous permettre d'accéder aux câbles d'alimentation (ceux-ci étant le seul moyen de mettre le système hors tension).

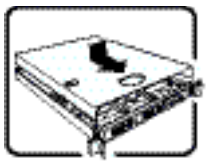
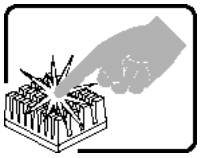
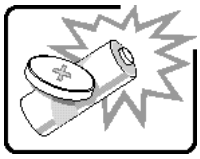
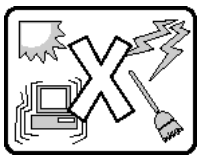
Español

	El usuario debe abstenerse de manipular los componentes de la fuente de alimentación de este producto, cuya reparación debe dejarse exclusivamente en manos de personal técnico especializado. Puede que este producto disponga de más de una fuente de alimentación
	No intente modificar ni usar el cable de alimentación de corriente alterna, si no corresponde exactamente con el tipo requerido. El número de cables suministrados se corresponden con el número de fuentes de alimentación de corriente alterna que tenga el producto
	Nótese que el interruptor activado/desactivado en el panel frontal no desconecta la corriente alterna del sistema. Para desconectarla, deberá desenchufar todos los cables de corriente alterna de la pared o desconectar la fuente de alimentación.
	INSTRUCCIONES DE SEGURIDAD: Cuando extraiga la tapa del chasis para acceder al interior del sistema, siga las siguientes instrucciones: 1. Apague todos los dispositivos periféricos conectados al sistema. 2. Apague el sistema presionando el interruptor encendido/ apagado. 3. Desconecte todos los cables de alimentación CA del sistema o de las tomas de corriente alterna. 4. Identifique y desconecte todos los cables enchufados a los conectores E/S o a los puertos situados en la parte posterior del sistema. 5. Cuando manipule los componentes, es importante protegerse contra la descarga electrostática (ESD). Puede hacerlo si utiliza una muñequera antiestática sujetada a la toma de tierra del chasis - o a cualquier tipo de superficie de metal sin pintar. 6. No ponga en marcha el sistema si se han extraído las tapas del chasis.
	Después de completar las seis instrucciones de SEGURIDAD mencionadas, ya puede extraer las tapas del sistema. Para ello: 1. Desbloquee y extraiga el bloqueo de seguridad de la parte posterior del sistema, si se ha instalado uno. 2. Extraiga y guarde todos los tornillos de las tapas.Extraiga las tapas.

	Para obtener un enfriamiento y un flujo de aire adecuados, reinstale siempre las tapas del chasis antes de poner en marcha el sistema. Si pone en funcionamiento el sistema sin las tapas bien colocadas puede dañar los componentes del sistema. Para instalar las tapas: 1. Asegúrese primero de no haber dejado herramientas o componentes sueltos dentro del sistema. 2. Compruebe que los cables, las placas adicionales y otros componentes se hayan instalado correctamente. 3. Incorpore las tapas al chasis mediante los tornillos extraídos anteriormente, tensándolos firmemente. 4. Inserte el bloqueo de seguridad en el sistema y bloquéelo para impedir que pueda accederse al mismo sin autorización. 5. Conecte todos los cables externos y los cables de alimentación CA al sistema.
	Si el sistema ha estado en funcionamiento, el microprocesador y el disipador de calor pueden estar aún calientes. También conviene tener en cuenta que en el chasis o en el tablero puede haber piezas cortantes o punzantes. Por ello, se recomienda precaución y el uso de guantes protectores.
	Existe peligro de explosión si la pila no se cambia de forma adecuada. Utilice solamente pilas iguales o del mismo tipo que las recomendadas por el fabricante del equipo. Para deshacerse de las pilas usadas, siga igualmente las instrucciones del fabricante.
	El sistema está diseñado para funcionar en un entorno de trabajo normal. Escoja un lugar: • "Limpio y libre de partículas en suspensión (salvo el polvo normal). • "Bien ventilado y alejado de fuentes de calor, incluida la luz solar directa. • "Alejado de fuentes de vibración. • "Aislado de campos electromagnéticos fuertes producidos por dispositivos eléctricos. • "En regiones con frecuentes tormentas eléctricas, se recomienda conectar su sistema a un eliminador de sobrevoltage y desconectar el módem de las líneas de telecomunicación durante las tormentas. • "Provisto de una toma de tierra correctamente instalada. • "Provisto de espacio suficiente como para acceder a los cables de alimentación, ya que éstos hacen de medio principal de desconexión del sistema.

Italiano

	Rivolgersi ad un tecnico specializzato per la riparazione dei componenti dell'alimentazione di questo prodotto. È possibile che il prodotto disponga di più fonti di alimentazione.
	Non modificare o utilizzare il cavo di alimentazione in c.a. fornito dal produttore, se non corrisponde esattamente al tipo richiesto. Ad ogni fonte di alimentazione corrisponde un cavo di alimentazione in c.a. separato
	L'interruttore attivato/disattivato nel pannello anteriore non interrompe l'alimentazione in c.a. del sistema. Per interromperla, è necessario scollegare tutti i cavi di alimentazione in c.a. dalle prese a muro o dall'alimentazione di corrente.
	PASSI DI SICUREZZA: Qualora si rimuovano le coperture del telaio per accedere all'interno del sistema, seguire i seguenti passi: 1. Spegnere tutti i dispositivi periferici collegati al sistema. 2. Spegnere il sistema, usando il pulsante spento/acceso dell'interruttore del sistema. 3. Togliere tutte le spine dei cavi del sistema dalle prese elettriche. 4. Identificare e sconnettere tutti i cavi attaccati ai collegamenti I/O od alle prese installate sul retro del sistema. 5. Qualora si tocchino i componenti, proteggersi dallo scarico elettrostatico (SES), portando un cinghia anti-statica da polso che è attaccata alla presa a terra del telaio del sistema - qualsiasi superficie non dipinta - . 6. Non far operare il sistema quando il telaio è senza le coperture.
	Dopo aver seguito i sei passi di SICUREZZA sopracitati, togliere le coperture del telaio del sistema come seque: 1. Aprire e rimuovere il lucchetto dal retro del sistema qualora ve ne fosse uno installato. 2. Togliere e mettere in un posto sicuro tutte le viti delle coperture. 3. Togliere le coperture.

	Per il giusto flusso dell'aria e raffreddamento del sistema, rimettere sempre le coperture del telaio prima di riaccendere il sistema. Operare il sistema senza le coperture al loro proprio posto potrebbe danneggiare i componenti del sistema. Per rimettere le coperture del telaio: 1. Controllare prima che non si siano lasciati degli attrezzi o dei componenti dentro il sistema. 2. Controllare che i cavi, dei supporti aggiuntivi ed altri componenti siano stati installati appropriatamente. 3. Attaccare le coperture al telaio con le viti tolte in precedenza e avvitarle strettamente. 4. Inserire e chiudere a chiave il lucchetto sul retro del sistema per impedire l'accesso non autorizzato al sistema. 5. Ricollegare tutti i cavi esterni e le prolunghe AC del sistema.
	Se il sistema è stato a lungo in funzione, il microprocessore e il dissipatore di calore potrebbero essere surriscaldati. Fare attenzione alla presenza di piedini appuntiti e parti taglienti sulle schede e sul telaio. È consigliabile l'uso di guanti di protezione.
	Esiste il pericolo di un esplosione se la pila non viene sostituita in modo corretto. Utilizzare solo pile uguali o di tipo equivalente a quelle consigliate dal produttore. Per disfarsi delle pile usate, seguire le istruzioni del produttore.
	Il sistema è progettato per funzionare in un ambiente di lavoro tipo. Scegliere una postazione che sia: • "Pulita e libera da particelle in sospensione (a parte la normale polvere presente nell'ambiente). • "Ben ventilata e lontana da fonti di calore, compresa la luce solare diretta. • "Al riparo da urti e lontana da fonti di vibrazione. • "Isolata dai forti campi magnetici prodotti da dispositivi elettrici. • "In aree soggette a temporali, è consigliabile collegare il sistema ad un limitatore di corrente. In caso di temporali, scollegare le linee di comunicazione dal modem. • "Dotata di una presa a muro correttamente installata. • "Dotata di spazio sufficiente ad accedere ai cavi di alimentazione, i quali rappresentano il mezzo principale di scollegamento del sistema.

C Getting Help

World Wide Web

http://support.intel.com/support/motherboards/server/chassis/sc5299-e/.

Telephone

All calls are billed US $25.00 per incident, levied in local currency at the applicable credit card exchange rate plus applicable taxes. (Intel reserves the right to change the pricing for telephone support at any time without notice).

Before calling, fill out an "Intel® Server Issue Report Form". A sample form is provided on the following pages. However, for the fastest service, please submit your form via the Internet.

For an updated support contact list, see http://www.intel.com/support/9089.htm/

U.S. and Canada

1-800-404-2284

Europe

Belgium 02 714 3182

Denmark ... 38 487077

Finland 9 693 79297

France..... 01 41 918529

Germany ... 069 9509 6099

Holland..... 020 487 4562

Italy..... 02 696 33276

Norway 23 1620 50

Spain..... 91 377 8166

Sweden..... 08 445 1251

UK..... 870 6072439

In Asia-Pacific region

Australia.... 1800 649931

Cambodia.. 63 2 636 9797 (via Philippines)

China ..... 800 820 1100 (toll-free)

..... 8 621 33104691 (not toll-free)

Hong Kong 852 2 844 4456

India..... 0006517 2 68303634 (manual toll-free. You need an IDD-equipped telephone)

Indonesia... 803 65 7249

Korea 822 767 2595

Malaysia 1 800 80 1390

Myanmar... 63 2 636 9796 (via Philippines)

New Zealand 0800 444 365

Pakistan..... 632 63684 15 (IDD via Philippines)

Philippines 1 800 1 651 0117

Singapore .. 65 6213-1311

Taiwan 2 2545-1640

Thailand.... 1 800 631 0003

Vietnam..... 632 6368416 (IDD via Philippines)

Japan

Domestic.... 0120 868686

Outside country 81 298 47 0800

Latin America

Argentina .. Contact AT&T USA at 0-800 222 1288. Once connected, dial 800 843 4481

Brazil 001-916 377 0180

Chile

Easter Island. ..... Contact AT&T USA at 800 800 311. Once connected, dial 800 843 4481
Mainland and Juan .. Contact AT&T USA at 800 225 288. Once connected, dial 800 843 4481

Colombia ... Contact AT&T USA at 01 800 911 0010. Once connected, dial 800 843 4481

Costa Rica . Contact AT&T USA at 0 800 0 114 114. Once connected, dial 800 843 4481

Ecuador

(Andimate) .... Contact AT&T USA at 1 999 119. Once connected, dial 800 843 4481

(Pacifictel) ..... Contact AT&T USA at 1 800 225 528. Once connected, dial 800 843 4481

Guatemala. Contact AT&T USA at 99 99 190. Once connected, dial 800 843 4481

Mexico ..... Contact AT&T USA at 001 800 462 628 4240. Once connected, dial 800 843 4481

Miami 1 800 621 8423

Panama..... Contact AT&T USA at 00 800 001 0109. Once connected, dial 800 843 4481

Paraguay ... 001 916 377 0114

Peru 001 916 377 0114

Uruguay..... 001 916 377 0114

Venezuela... Contact AT&T USA at 0 800 2255 288. Once connected, dial 800 843 4481

D Intel® Server Issue Report Form

Note: *An on-line / automatic submission version of this form is available at http://support.intel.com/support/motherboards/server/chassis/sc5299-e/. For the fastest service, please submit your form via the Internet.*

Date Submitted: _____

Company Name: _____

Contact Name: _____

Email Address: _____

Intel Server Product: _____

Priority (Critical, Hot, High, Low): _____

Brief Problem Description. Provide a brief description below. See the last page for space to include a detailed problem description.

_____

_____

_____

_____

_____

Board / Chassis Information

Baseboard Revision - PBA#: _____

Baseboard Serial Number: _____

Chassis Model: _____

CPU1 Speed/Stepping/Spec: _____

CPU2 Speed/Stepping/Spec: _____

System BIOS Version: _____

HSC Firmware Version: _____

DIMM Configuration

DIMM1A MB and Vendor / part number: _____

DIMM1B MB and Vendor / part number: _____

DIMM2A MB and Vendor / part number: _____

DIMM2B MB and Vendor / part number: _____

DIMM3A MB and Vendor / part number: _____

DIMM3B MB and Vendor / part number: _____

DIMM4A MB and Vendor / part number: _____

DIMM4B MB and Vendor / part number: _____

Operating System Information

Operating System:_____

Version: _____

Service Pack:_____

Add-in Card, Peripheral, Video, NIC

Check each box below as applicable, and provide the requested information.

Peripheral Card or Peripheral Description Driver Revision IRQ # I/O Base Address NIC

X	Peripheral	Description	Driver Revision	IRQ	I/O Base Address	FW Revision
	Low-profile Riser					
	PCI Slot 1					
	PCI Slot 2					
	PCI Slot 3					
	Full-height Riser					
	PCI Slot 1					
	PCI Slot 2					
	PCI Slot 3					
	Video					
	On-board Video					
	Add-in Video					
	NIC					
	On-Board NIC1					

X	Peripheral	Description	Driver Revision	IRQ	I/O Base Address	FW Revision
	On-board NIC2					

Hard Drive Information

X	Drive Type (SCSI, SATA, etc)	Make/Model	Hot-swap or Fixed	IRQ	FW Revision

Management Information

On-board Platform Instrumentation only_____

Intel® Management Module - Professional Edition_____

Intel® Management Module - Advanced Edition _____

Control Panel Information

Standard Control Panel _____

Intel® Local Control Panel_____

Complete Problem Description

In the space below, provide a complete description of the steps used to reproduce the problem or a complete description of where the problem can be found. Please also include any details on troubleshooting already done.

E Warranty

Limited Warranty for Intel® Chassis Subassembly Products

Intel warrants that the Products (defined herein as the Intel® chassis subassembly and all of its various components and software delivered with or as part of the Products) to be delivered hereunder, if properly used and installed, will be free from defects in material and workmanship and will substantially conform to Intel's publicly available specifications for a period of three (3) years after the date the Product was purchased from an Intel authorized distributor. Software of any kind delivered with or as part of products is expressly provided "as is" unless specifically provided for otherwise in any software license accompanying the software.

If any Product furnished by Intel which is the subject of this Limited Warranty fails during the warranty period for reasons covered by this Limited Warranty, Intel, at its option, will:

- REPAIR the Product by means of hardware and/or software; OR
- REPLACE the Product with another Product; OR
- REFUND the then-current value of the Product if Intel is unable to repair or replace the Product.

If such Product is defective, transportation charges for the return of Product to buyer within the USA will be paid by Intel. For all other locations, the warranty excludes all costs of shipping, customs clearance, and other related charges. Intel will have a reasonable time to make repairs or to replace Product or to refund the then-current value of the Product.

In no event will Intel be liable for any other costs associated with the replacement or repair of Product, including labor, installation or other costs incurred by buyer and in particular, any costs relating to the removal or replacement of any product soldered or otherwise permanently affixed to any printed circuit board.

This Limited Warranty, and any implied warranties that may exist under state law, apply only to the original purchaser of the Product.

Extent of Limited Warranty

Intel does not warrant that Products to be delivered hereunder, whether delivered stand-alone or integrated with other Products, including without limitation semiconductor components, will be free from design defects or errors known as "errata." Current characterized errata are available upon request.

This Limited Warranty does not cover damages due to external causes, including accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, alteration, repair, improper installation, or improper testing.

Warranty Limitations and Exclusions

These warranties replace all other warranties, expressed or implied including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Intel makes no expressed warranties beyond those stated here. Intel disclaims all other warranties, expressed or implied including, without limitation, implied warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not allow the exclusion of implied warranties, so this limitation may not apply.

All expressed and implied warranties are limited in duration to the limited warranty period. No warranties apply after that period. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Limitations of Liability

Intel's responsibility under this, or any other warranty, implied or expressed, is limited to repair, replacement, or refund, as set forth above. These remedies are the sole and exclusive remedies for any breach of warranty. Intel is not responsible for direct, special, incidental, or consequential damages resulting from any breach of warranty under another legal theory including, but not limited to, lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, reprogramming, or reproducing any program or data stored in or used with a system containing this product. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

Any and all disputes arising under or related to this Limited Warranty shall be adjudicated in the following forums and governed by the following laws: for the United States of America, Canada, North America, and South America, the forum shall be Santa Clara, California, USA, and the applicable law shall be that of the State of California, USA; for the Asia Pacific region, the forum shall be Singapore and the applicable law shall be that of Singapore; for Europe and the rest of the world, the forum shall be London and the applicable law shall be that of the United Kingdom.

In the event of any conflict between the English language version and any other translated version(s) of this Limited Warranty, the English language version shall control.

How to Obtain Warranty Service

To obtain warranty service for this Product, you may contact Intel or your authorized distributor.

- North America and Latin America To obtain warranty repair for the product, please go to the following Web site to obtain instructions: http://support.intel.com/support/motherboards/draform.htm
- In Europe and in Asia Contact your original authorized distributor for warranty service.

Any replacement Product is warranted under this written warranty and is subject to the same limitations and exclusions for the remainder of the original warranty period.

Telephone Support

If you cannot find the information you need on Intel's World Wide Web site (http://www.intel.com/), call your local distributor or an Intel Customer Support representative. See “Getting Help” for telephone numbers.

Returning a Defective Product

Before returning any product, call your authorized dealer/distribution authority.

F Regulatory and Compliance Information

Product Regulatory Compliance

Warning: *To ensure regulatory compliance, you must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components specified in this guide. Use of other products/components will void the UL listing and other regulatory approvals of the product and will most likely result in noncompliance with product regulations in the region(s) in which the product is sold.*

To help ensure EMC compliance with your local regional rules and regulations, before computer integration, make sure that the chassis, power supply, and other modules have passed EMC testing using a server board with a microprocessor from the same family (or higher) and operating at the same (or higher) speed as the microprocessor used on this server board. The final configuration of your end system product may require additional EMC compliance testing. For more information, please contact your local Intel representative.

This is an FCC Class A device. Integration of it into a Class B chassis does not result in a Class B device.

Product Safety Compliance

This server chassis product, when correctly integrated per this guide, complies with the following safety and electromagnetic compatibility (EMC) regulations.

Intended Application

This product was evaluated as Information Technology Equipment (ITE), which may be installed in offices, schools, computer rooms, and similar commercial type locations. The suitability of this product for other product categories and environments (such as: medical, industrial, telecommunications, NEBS, residential, alarm systems, test equipment, etc.), other than an ITE application, may require further evaluation.

Product Safety Compliance

The server chassis complies with the following product safety requirements:

- UL60950 - CSA 60950 (USA / Canada)
- EN60950 (Europe)
- IEC60950 (International)
- CB Certificate & Report, IEC60950 (report to include all country national deviations)

- GS License (Germany)
- GOST R 50377-92 - License (Russia)
- Belarus License (Belarus)
- Ukraine License (Ukraine)
- CE - Low Voltage Directive 73/23/EEE (Europe)
- IRAM Certification (Argentina)
- GB4943- CNCA Certification (China)

Product EMC Compliance - Class A Compliance

This server chassis has been tested and verified to comply with the following electromagnetic compatibility (EMC) regulations when installed in a compatible Intel® host system. For information on compatible host system(s) refer to Intel's Server Builder Web site or contact your local Intel representative.

- FCC /ICES-003 - Emissions (USA/Canada) Verification
- CISPR 22 - Emissions (International)
- EN55022 - Emissions (Europe)
- EN55024 - Immunity (Europe)
- EN61000-3-2 - Harmonics (Europe)
- EN61000-3-3 - Voltage Flicker (Europe)
- CE - EMC Directive 89/336/EEC (Europe)
- VCCI Emissions (Japan)
- AS/NZS 3548 Emissions (Australia / New Zealand)
- BSMI CNS13438 Emissions (Taiwan)
- GOST R 29216-91 Emissions (Russia)
- GOST R 50628-95 Immunity (Russia)
- Belarus License (Belarus)
- Ukraine License (Ukraine)
- RRL MIC Notice No. 1997-41 (EMC) & 1997-42 (EMI) (Korea)
- GB 9254 - CNCA Certification (China)
- GB 17625 - (Harmonics) CNCA Certification (China)

Certifications / Registrations / Declarations

- UL Certification (US/Canada)
- CE Declaration of Conformity (CENELEC Europe)
- FCC/ICES-003 Class A Attestation (USA/Canada)

- VCCI Certification (Japan)
- C-Tick Declaration of Conformity (Australia)
- MED Declaration of Conformity (New Zealand)
- BSMI Certification (Taiwan)
- GOST R Certification / License (Russia)
- Belarus Certification / License (Belarus)
- RRL Certification (Korea)
- IRAM Certification (Argentina)
- CNCA Certification (China)
- Ecology Declaration (International)

Product Regulatory Compliance Markings

This Intel® server chassis product bears the following regulatory marks.

Table 8. Product Regulatory Compliance Markings

Regulatory Compliance	Region	Marking
cULus Listing Marks	USA/Canada	
GS Mark	Germany	
CE Mark	Europe	
FCC Marking (Class A)	USA	This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Manufactured by Intel Corporation
EMC Marking (Class A)	Canada	CANADA ICES-003 CLASS A CANADA NMB-003 CLASSE A
VCCI Marking (Class A)	Japan	この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。VCCI-A

Table 8. Product Regulatory Compliance Markings

Regulatory Compliance	Region	Marking
BSMI Certification Number & Class A Warning	Taiwan	警告使用者： 這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策
GOST R Marking	Russia	
RRL MIC Mark	Korea	
China Compulsory Certification Mark	China	

Electromagnetic Compatibility Notices

FCC Verification Statement (USA)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions related to the EMC performance of this product, contact:

```
Intel Corporation
5200 N.E. Elam Young Parkway
Hillsboro, OR 97124-6497
1-800-628-8686
```

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit other than the one to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment. The customer is responsible for ensuring compliance of the modified product.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class A or B limits may be attached to this computer product. Operation with noncompliant peripherals is likely to result in interference to radio and TV reception.

All cables used to connect to peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded may result in interference to radio and TV reception.

Industry Canada (ICES-003)

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Apparelis Numériques", NMB-003 édictee par le Ministre Canadian des Communications.

English translation of the notice above:

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled: "Digital Apparatus," ICES-003 of the Canadian Department of Communications.

Europe (CE Declaration of Conformity)

This product has been tested in accordance to, and complies with the Low Voltage Directive (73/23/EEC) and EMC Directive (89/336/EEC). The product has been marked with the CE Mark to illustrate its compliance.

VCCI (Japan)

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

English translation of the preceding notice:

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI) from Information Technology Equipment. If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

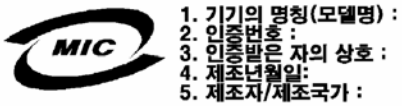
BSMI (Taiwan)

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，
可能會造成射頻干擾，在這種情況下，使用者會
被要求採取某些適當的對策

The BSMI Certification Marking and EMC warning is located on the outside rear area of the product.

Korean Compliance (RRL)

Following is the RRL certification information for Korea.



English translation of the notice above:

1. Type of Equipment (Model Name): On License and Product
2. Certification No.: On RRL certificate. Obtain certificate from local Intel representative
3. Name of Certification Recipient: Intel Corporation
4. Date of Manufacturer: Refer to date code on product
5. Manufacturer/Nation: Intel Corporation/Refer to country of origin marked on product

Regulated Specified Components

To maintain the UL listing and compliance to other regulatory certifications and/or declarations, the following regulated components must be used and conditions adhered to. Interchanging or use of other components will void the UL listing and other product certifications and approvals.

Updated product information for configurations can be found on the Intel Server Builder Web site at the following URL:

http://channel.intel.com/go/serverbuilder

If you do not have access to Intel's Web address, please contact your local Intel representative.

- **Server Chassis:** (base chassis is provided with power supply and fans) - UL listed.
- **Server board:** you must use an Intel server board - UL recognized.
- **Add-in boards:** must have a printed wiring board flammability rating of minimum UL94V-1. Add-in boards containing external power connectors and/or lithium batteries must be UL recognized or UL listed. Any add-in board containing modem telecommunication circuitry must be UL listed. In addition, the modem must have the appropriate telecommunications, safety, and EMC approvals for the region in which it is sold.
- **Peripheral Storage Devices:** must be a UL recognized or UL listed accessory and TUV or VDE licensed. Maximum power rating of any one device is 19 watts. Total server configuration is not to exceed the maximum loading conditions of the power supply.

Restriction of Hazardous Substances (RoHS) Compliance

Intel has a system in place to restrict the use of banned substances in accordance with the European Directive 2002/95/EC. Compliance is based on declaration that materials banned in the RoHS Directive are either (1) below all applicable substance threshold limits or (2) an approved/pending RoHS exemption applies.

Note: *RoHS implementing details are not fully defined and may change.*

Threshold limits and banned substances are noted as follows:

- Quantity limit of 0.1% by mass (1000 PPM) for:
  - Lead
  - Mercury
  - Hexavalent chromium
  - Polybrominated biphenyls diphenyl ethers (PBDE)
- Quantity limit of 0.01% by mass (100 PPM) for:
  - Cadmium

End of Life / Product Recycling

Product recycling and end-of-life take back systems and requirements vary from country to country. Contact the retailer or distributor of this product for information on product recycling and / or take back.