

Intel® Server Chassis SR1400 User Guide

Order Number: C51492-002

Disclaimer

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not designed, intended or authorized for use in any medical, life saving, or life sustaining applications or for any other application in which the failure of the Intel product could create a situation where personal injury or death may occur. Intel may make changes to specifications and product descriptions at any time, without notice.

Intel server boards contain a number of high-density VLSI and power delivery components that need adequate airflow for cooling. Intel's own chassis are designed and tested to meet the intended thermal requirements of these components when the fully integrated system is used together. It is the responsibility of the system integrator that chooses not to use Intel developed server building blocks to consult vendor datasheets and operating parameters to determine the amount of airflow required for their specific application and environmental conditions. Intel Corporation can not be held responsible if components fail or the server board does not operate correctly when used outside any of their published operating or non-operating limits.

Intel, Intel Pentium, and Intel Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

* Other names and brands may be claimed as the property of others.

Copyright © 2004-2005, Intel Corporation. All Rights Reserved

Preface

About this Manual

Thank you for purchasing and using the Intel® Server Chassis SR1400.

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 board/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 Server Chassis SR1400. For the latest version of this manual, see

<http://support.intel.com/support/motherboards/server/chassis/SR1400/manual.htm>.

Manual Organization

Chapter 1 provides a brief overview of the Intel Server Chassis SR1400. In this chapter, you will find a list of the server chassis features, pictures 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 some technical specifications¹, regulatory information, “getting help” information, and the warranty.

¹ For complete technical specifications and additional technical information, see the *Intel® Server Chassis SR1400 Technical Product Specification*. See “[Additional Information and Software](#)” to find a Web link to this document.

Product Contents, Order Options, and Accessories

The server chassis SR1400 is compatible with the following Intel® Server Boards and Systems:

- Intel® Server Board SE7520JR2
- Intel® Server Board SE7320VP2
- Intel® Server Board SE7221BK1
- Intel® Server Platform SR1400JR2 (integrated system)

Your Server Chassis SR1400 ships with the following items:

- DPS500 power supply, installed in the chassis
- A box of hardware components, referred to below as the “hardware box”
- Low profile riser, installed in the chassis
- CD-ROM tray assembly, installed in the chassis
- Fan distribution board, installed in the chassis
- Fan cable, installed in the chassis
- Chassis intrusion switch, installed in the chassis
- *Attention* document, in the chassis product box
- *Intel® Server Chassis SR1400 Quick Start User’s Guide*, in the chassis product box
- Six 32-6mm flat screws for installing drive component, in the hardware box
- Seven screws for mounting the server board into the chassis, in the hardware box
- Rack handles, in the hardware box
- USB cable, in the hardware box
- Floppy carrier assembly, in the hardware box
- CD-ROM filler panel, in the hardware box

You must choose from several required options when purchasing this chassis ²:

- Riser connector, choose one:
 - Full-height PCI-X riser connector
 - Full-height PCI-Express* riser connector
- Hard drive installation option, choose one:
 - SCSI hot-swap backplane
 - SATA hot-swap backplane
 - Fixed SATA drive kit
- Control panel, choose one:
 - Standard Control Panel
 - Intel® Local Control Panel³

² Before purchasing any required options, refer to your server board documentation to determine which option(s) are supported on your server board.

You may need or want to purchase one or more of the following items for your server:⁴

- Server rack cabinet and rails / brackets to mount the server into a rack
- Cable management arm
- Front bezel for the selected control panel option
- Processor(s) and heat sink(s)
- Memory DIMMs
- Intel® Management Module (Advanced or Professional)
- Slimline CD-ROM drive or slimline DVD-ROM drive
- Slimline floppy drive
- Kit to convert a hard drive bay to a floppy drive bay

For information about which of these items have been tested and can be used with your chassis, and for ordering information for Intel products, see

<http://support.intel.com/support/motherboards/server//chassis/SR1400/>

³ The Intel® Local Control Panel requires the installation of the optional Intel® Management Module – Professional or Intel® Management Module – Advanced

⁴ Before purchasing any optional items, refer to your server board documentation to determine which items are supported on your server board.

Additional Information and Software

If you need more information about this product or information about the accessories that can be used with this server board, use the following resources.

These sources are available at

<http://support.intel.com/support/motherboards/server/chassis/SR1400/>

Unless otherwise indicated in the table below, 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 BIOS settings and chipset information	Technical Product Specification
If you just received this product and need to install it	<i>Intel® Server Chassis SR1400 Quick Start User's Guide</i> 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
Accessories or other Intel® server products	Search for “Spares and Configuration Guide”
Hardware (peripheral boards, adapter cards) and operating systems that have been tested with this product	Search for “Tested Hardware and Operating System List”
Server boards that have been tested with this product	Search for “Compatible Server Board”
Processors that have been tested with this product	See your server board documentation
DIMMs that have been tested with this product	See your server board documentation
To make sure your system falls within the allowed power budget	See your server board documentation
For software to manage your Intel® server	See your server board documentation
For drivers	See your server board documentation
For firmware and BIOS updates	See your server board documentation
For diagnostics test software	See your server board documentation

Safety Information



WARNING

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.

Emissions Disclaimer

To ensure EMC compliance with your local regional rules and regulations, the final configuration of your end system product may require additional EMC compliance testing. For more information contact your local Intel Representative.

See “[Regulatory and Integration Information](#)” for product Safety and EMC regulatory compliance information. This is an FCC Class A device. Integration of it into a Class B chassis does not result in a Class B device.

Intended 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, telecommunications, NEBS, residential, alarm systems, test equipment, etc.), other than an ITE application, may require further evaluation.

EMC Testing

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.



Warnings

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.

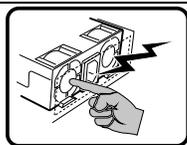
Electrostatic discharge (ESD) and ESD protection: ESD can damage disk drives, boards, and other parts. We recommend that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis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

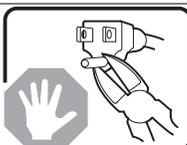
Installing or removing jumpers: A jumper is a small plastic encased conductor that slips over two jumper pins. Some jumpers have a small tab on top that you can grip with your fingertips or with a pair of fine needle nosed pliers. If your jumpers do not have such a tab, take care when using needle nosed 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 stake pins on the board.

Safety Cautions

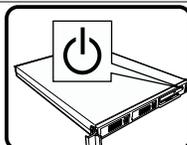
Read all caution and safety statements in this document before performing any of the instructions. See also *Intel Server Boards and Server Chassis Safety Information* or at <http://support.intel.com/support/motherboards/server/sb/CS-010770.htm>



The power supply in this product contains no user-serviceable parts. Refer servicing only to qualified personnel.

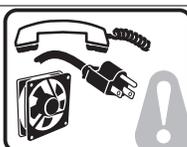


Do not attempt to modify or use the supplied AC power cord if it is not the exact type required. A product with more than one power supply will have a separate AC power cord for each supply.



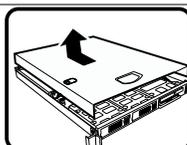
The power button on the system does not turn off system AC power. To remove AC power from the system, you must unplug each AC power cord from the wall outlet or power supply.

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.



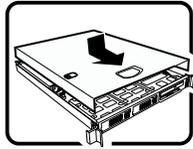
SAFETY STEPS: Whenever you remove the chassis covers to access the inside of the system, follow these steps:

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.



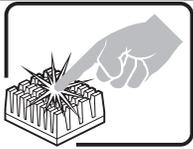
After you have completed the six SAFETY steps above, you can remove the system covers. To do this:

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 covers.

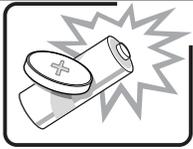


For proper cooling and airflow, always reinstall the chassis covers before turning on the system. Operating the system without the covers in place can damage system parts. To install the covers:

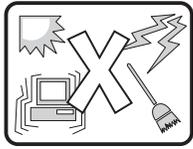
1. Check first to make sure you have not left loose tools or parts inside the system.
2. Check that cables, add-in boards, and other components are properly installed.
3. Attach the covers to the chassis with the screws removed earlier, and tighten them firmly.
4. Insert and lock the padlock to the system 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.



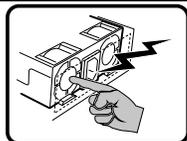
The system is designed to operate in a typical office environment. Choose a site that is:

- 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.

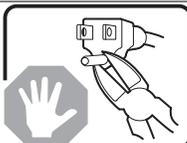
Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warn- und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel-Serverplatinen und Servergehäusen unter

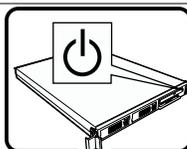
<http://support.intel.com/support/motherboards/server/sb/CS-010770.htm>



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.

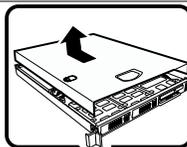


Der Wechselstrom des Systems wird durch den Ein-/Aus-Schalter für Gleichstrom nicht ausgeschaltet. Ziehen Sie jedes Wechselstrom-Netzkabel aus der Steckdose bzw. dem Netzgerät, um den Stromanschluß des Systems zu unterbrechen.



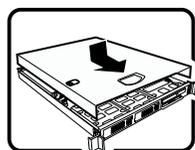
SICHERHEISSCHRIFFEN: Immer wenn Sie die Gehäuseabdeckung abnehmen um an das Systeminnere zu gelangen, sollten Sie folgende Schritte beachten:

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.



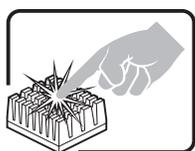
Nachdem Sie die oben erwähnten ersten sechs SICHERHEITSSCHRITTE durchgeführt haben, können Sie die Abdeckung abnehmen, indem Sie:

1. Öffnen und entfernen Sie die Verschlusseinrichtung (Padlock) auf der Rückseite des Systems, falls eine Verschlusseinrichtung installiert ist.
2. Entfernen Sie alle Schrauben der Gehäuseabdeckung.
3. Nehmen Sie die Abdeckung ab.

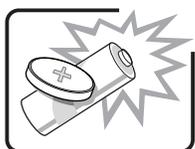


Zur ordnungsgemäßen Kühlung und Lüftung muß die Gehäuseabdeckung immer wieder vor dem Einschalten installiert werden. Ein Betrieb des Systems ohne angebrachte Abdeckung kann Ihrem System oder Teile darin beschädigen. Um die Abdeckung wieder anzubringen:

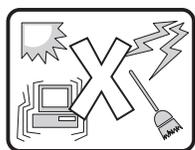
1. Vergewissern Sie sich, daß Sie keine Werkzeuge oder Teile im Innern des Systems zurückgelassen haben.
2. Überprüfen Sie alle Kabel, Zusatzkarten und andere Komponenten auf ordnungsgemäßen Sitz und Installation.
3. Bringen Sie die Abdeckungen wieder am Gehäuse an, indem Sie die zuvor gelösten Schrauben 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:

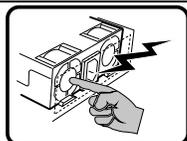
- sauber und staubfrei sein (Hausstaub ausgenommen);
- gut gelüftet und keinen Heizquellen ausgesetzt sein (einschließlich direkter Sonneneinstrahlung);
- keinen Erschütterungen ausgesetzt sein;
- keine starken, von elektrischen Geräten erzeugten elektromagnetischen Felder aufweisen;
- in Regionen, in 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.

重要安全指导

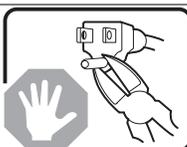
在执行任何指令之前，请阅读本文档中的所有注意事项及安全声明。和/或 <http://support.intel.com/support/motherboards/server/sb/CS-010770.htm> 上的 *Intel Server Boards and Server Chassis Safety Information* (《Intel 服务器主板与服务器机箱安全信息》)。

Consignes de sécurité

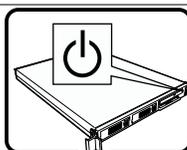
Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez *Intel Server Boards and Server Chassis Safety Information* sur le site <http://support.intel.com/support/motherboards/server/sb/CS-010770.htm>



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.

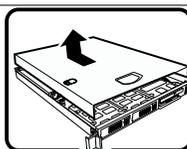


Notez que le commutateur CC de mise sous tension /hors tension du panneau avant n'éteint pas l'alimentation CA du système. Pour mettre le système hors tension, vous devez débrancher chaque câble d'alimentation de sa prise.



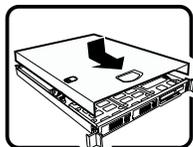
CONSIGNES DE SÉCURITÉ -Lorsque vous ouvrez le boîtier pour accéder à l'intérieur du système, suivez les consignes suivantes:

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.



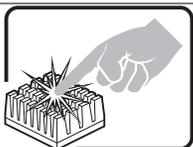
Une fois TOUTES les étapes précédentes accomplies, vous pouvez retirer les panneaux du système. Procédez comme suit:

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.
-

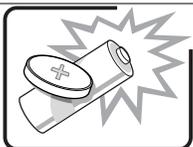


Afin de permettre le refroidissement et l'aération du système, réinstallez toujours les panneaux du boîtier avant de mettre le système sous tension. Le fonctionnement du système en l'absence des panneaux risque d'endommager ses pièces. Pour installer les panneaux, procédez comme suit:

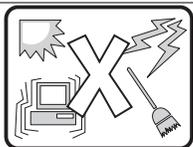
1. Assurez-vous de ne pas avoir oublié d'outils ou de pièces démontées dans le système.
2. Assurez-vous que les câbles, les cartes d'extension et les autres composants sont bien installés.
3. Revissez solidement les panneaux du boîtier avec les vis retirées plus tôt.
4. Remettez le cadenas en place et 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.

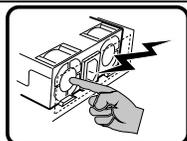


Le système a été conçu pour fonctionner dans un cadre de travail normal. L'emplacement choisi doit être:

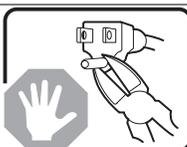
- Propre et dépourvu de poussière en suspension (sauf la poussière normale).
- Bien aéré et loin des sources de chaleur, y compris du soleil direct.
- A l'abri des chocs et des sources de vibrations.
- Isolé de forts champs électromagnétiques géenérés par des appareils électriques.
- Dans les régions 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).

Instrucciones de seguridad importantes

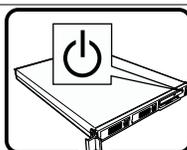
Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel Server Boards and Server Chassis Safety Information* en en <http://support.intel.com/support/motherboards/server/sb/CS-010770.htm>



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.

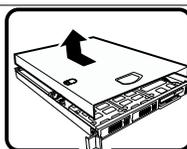


Nótese que el interruptor activado/desactivado en el panel frontal no desconecta la corriente alterna del sistema. Para desconectarla, deberá desenchufar todos los cables de corriente alterna de la pared o desconectar la fuente de alimentación.



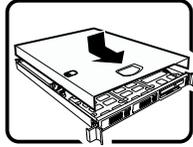
INSTRUCCIONES DE SEGURIDAD: Cuando extraiga la tapa del chasis para acceder al interior del sistema, siga las siguientes instrucciones:

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 sujeta 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.



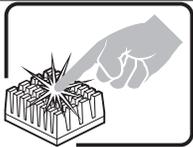
Después de completar las seis instrucciones de SEGURIDAD mencionadas, ya puede extraer las tapas del sistema. Para ello:

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.
3. Extraiga las tapas.

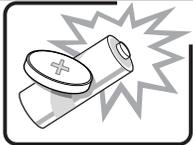


Para obtener un enfriamiento y un flujo de aire adecuados, reinstale siempre las tapas del chasis antes de poner en marcha el sistema. Si pone en funcionamiento el sistema sin las tapas bien colocadas puede dañar los componentes del sistema. Para instalar las tapas:

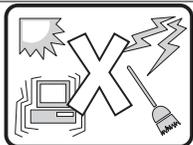
1. Asegúrese primero de no haber dejado herramientas o componentes sueltos dentro del sistema.
2. Compruebe que los cables, las placas adicionales y otros componentes se hayan instalado correctamente.
3. Incorpore las tapas al chasis mediante los tornillos extraídos anteriormente, tensándolos firmemente.
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.



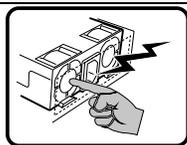
Existe peligro de explosión si la pila no se cambia de forma adecuada. Utilice solamente pilas iguales o del mismo tipo que las recomendadas por el fabricante del equipo. Para deshacerse de las pilas usadas, siga igualmente las instrucciones del fabricante.



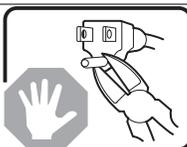
El sistema está diseñado para funcionar en un entorno de trabajo normal. Escoja un lugar:

- 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.

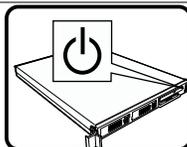
AVVERTENZA: Italiano



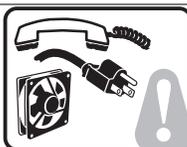
Rivolgersi ad un tecnico specializzato per la riparazione dei componenti dell'alimentazione di questo prodotto. È possibile che il prodotto disponga di più fonti di alimentazione.



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.

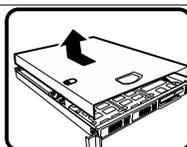


L'interruttore attivato/disattivato nel pannello anteriore non interrompe l'alimentazione in c.a. del sistema. Per interromperla, è necessario scollegare tutti i cavi di alimentazione in c.a. dalle prese a muro o dall'alimentazione di corrente.



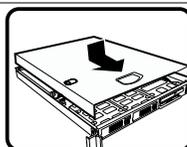
PASSI DI SICUREZZA: Qualora si rimuovano le coperture del telaio per accedere all'interno del sistema, seguire i seguenti passi:

1. Spegner tutti i dispositivi periferici collegati al sistema.
2. Spegner 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.



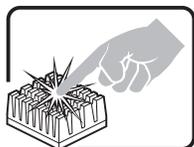
Dopo aver seguito i sei passi di SICUREZZA sopracitati, togliere le coperture del telaio del sistema come segue:

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.

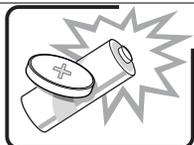


Per il giusto flusso dell'aria e raffreddamento del sistema, rimettere sempre le coperture del telaio prima di riaccendere il sistema. Operare il sistema senza le coperture al loro proprio posto potrebbe danneggiare i componenti del sistema. Per rimettere le coperture del telaio:

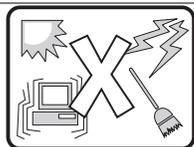
1. Controllare prima che non si siano lasciati degli attrezzi o dei componenti dentro il sistema.
2. Controllare che i cavi, dei supporti aggiuntivi ed altri componenti siano stati installati appropriatamente.
3. Attaccare le coperture al telaio con le viti tolte in precedenza e avvitarle strettamente.
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 prolunghie 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.

Contents

	Warnings	viii
1	Server Chassis Features	23
	Component Identification	26
	Internal Components	26
	Standard Control Panel	27
	Intel® Local Control Panel	28
	Back Panel Features	29
	Peripheral Devices	30
	Hard Disk Drives	30
	Floppy / CD-ROM / DVD-ROM Slimline Carriers	31
	Advanced Management Options	31
	Intel® Management Module	31
	Rack-Mounted Systems	32
	Front Bezels	32
2	Hardware Installations and Upgrades	33
	Before You Begin	33
	Tools and Supplies Needed	33
	System References	33
	Removing and Installing the Chassis Cover	34
	Removing the Chassis Cover	34
	Installing the Chassis Cover	35
	Removing and Installing the Front Bezel	36
	Removing the Front Bezel	36
	Installing the Front Bezel	37
	Removing and Installing the Processor Air Duct	37
	Removing the Processor Air Duct	38
	Installing the Processor Air Duct	38
	Removing and Installing the Air Baffle	40
	Removing the Air Baffle	40
	Installing the Air Baffle	41
	Installing and Removing a Hard Disk Drive	41
	Removing a SATA or SCSI Hot-swap Hard Disk Drive	42
	Installing a SATA or SCSI Hot-swap Hard Disk Drive	43
	Installing a Fixed SATA Hard Disk Drive	44
	Removing a Fixed SATA Hard Disk Drive	49
	Installing or Removing a Floppy Drive (Slimline or Standard)	50
	Installing a Floppy Drive into Slimline Bay (Backplane Installed)	50
	Removing a Floppy Drive from the Slimline Bay (Backplane Installed)	53
	Installing Floppy Drive into Slimline Bay (No Backplane Installed)	53
	Removing a Floppy Drive from the Slimline Bay (No Backplane Installed)	58
	Installing a Floppy Drive into the Converted Hard Drive Bay (Backplane Installed)	59
	Removing a Floppy Drive from the Converted Hard Drive Bay	63

Contents

Installing or Removing a CD-ROM or DVD-ROM Drive	63
Installing a DVD-ROM or CD-ROM Drive into Slimline Bay (Backplane Installed)	64
Removing a CD-ROM or DVD-ROM Drive from the Slimline Bay (Backplane Installed).....	65
Installing DVD-ROM or CD-ROM Drive into Slimline Bay (No Backplane Installed)....	66
Installing and Removing a PCI Riser Connector.....	69
Installing a PCI Riser Connector	69
Removing a PCI Riser Connector	72
Installing and Removing a PCI Add-in Card.....	73
Installing a PCI Add-in Card	73
Removing a PCI Add-in Card	75
Replacing the Control Panel	75
Replacing a System Fan	77
Replacing the Power Supply	77
Removing and Installing the SATA or SCSI Backplane	79
Removing the SATA or SCSI Backplane	80
Installing the SCSI or SATA Backplane	81
Technical Reference	83
Cable Routing	83
Power Supply Specifications.....	85
500-W Single Power Supply Input Voltages.....	85
500-W Single Power Supply Output Voltages.....	85
System Environmental Specifications	86
Equipment Log and Worksheets	87
Equipment Log.....	87
Current Usage.....	88
Calculating Power Usage	88
Regulatory and Compliance Information	91
Product Regulatory Compliance	91
Product Safety Compliance.....	91
Product EMC Compliance – Class A Compliance.....	91
Certifications / Registrations / Declarations.....	92
Product Regulatory Compliance Markings	92
Electromagnetic Compatibility Notices	93
FCC (USA)	93
Industry Canada (ICES-003)	94
Europe (CE Declaration of Conformity).....	94
VCCI (Japan).....	95
BSMI (Taiwan).....	95
Korean RRL Compliance.....	95
Regulated Specified Components.....	96
Getting Help	97
Intel® Server Issue Report Form.....	99
Warranty.....	103
Limited Warranty for Intel® Chassis Subassembly Products.....	103

Contents

Extent of Limited Warranty	103
Warranty Limitations and Exclusions	104
Limitations of Liability	104
How to Obtain Warranty Service	105
Telephone Support	105
Returning a Defective Product	105

Figures

Figure 1. Intel® Server Chassis SR1400	23
Figure 2. Internal Component Locations	26
Figure 3. Standard Control Panel Features	28
Figure 4. Intel® Local Control Panel Features	29
Figure 5. Chassis Back	29
Figure 6. Optional Peripherals	30
Figure 7. Removing the Chassis Cover	34
Figure 8. Installing the Chassis Cover	35
Figure 9. Standard Front Bezel	36
Figure 10. Intel® Local Control Panel Front Bezel	36
Figure 11. Removing the Front Bezel	36
Figure 12. Installing the Front Bezel	37
Figure 13. Removing the Processor Air Duct	38
Figure 14. Preparing the Processor Air Duct	38
Figure 15. Installing the Processor Air Duct	39
Figure 16. Removing the Air Baffle	40
Figure 17. Installing the Air Baffle	41
Figure 18. Removing a Hot-swap Hard Drive Carrier from Chassis	42
Figure 19. Removing the Retention Device from a Hot-swap Drive Carrier	42
Figure 20. Attaching a Hot-swap Hard Disk Drive to a Carrier	43
Figure 21. Inserting a Hot-swap Hard Disk Drive Assembly into the Chassis	43
Figure 22. Removing a Fixed Hard Drive Carrier from the Chassis	44
Figure 23. Removing the Retention Device from a Fixed Drive Carrier	45
Figure 24. Attaching the Fixed Hard Drive to the Carrier	45
Figure 25. Connecting the Fixed SATA Drive Power Cable Adapter	46
Figure 26. Installing the Fixed SATA Drive Data Cables	47
Figure 27. Installing the Fixed SATA Drive Power Cables	48
Figure 28. Installing a Floppy Drive into the Slimline Carrier	51
Figure 29. Installing Floppy Flat Flex Cable to a Floppy Drive	51
Figure 30. Installing the Slimline Floppy Drive into the Chassis	52
Figure 31. Installing a Slimline Floppy Drive into the Carrier	54
Figure 32. Installing the Flat Flex Cable	55
Figure 33. Installing the Floppy Drive Interposer Board	56
Figure 34. Installing the Slimline Floppy Drive into the Chassis	57
Figure 35. Removing the Rails from the Floppy Drive Conversion Kit Carrier	59
Figure 36. Inserting a Drive into the Floppy Conversion Kit Carrier	60
Figure 37. Attaching a Drive to Floppy Drive Conversion Kit Carrier	60
Figure 38. Install the Rails onto the Floppy Drive Conversion Kit Carrier	61
Figure 39. Installing the Flat Flex Cable to the Floppy Drive	61
Figure 40. Installing the Slimline Floppy Drive into the Chassis	62

Contents

Figure 41. Installing a DVD-ROM / CD-ROM Drive into the Carrier.....	64
Figure 42. Installing a DVD/CDROM Drive into the Chassis	65
Figure 43. Installing a DVD-ROM or CD-ROM Drive into the Carrier	67
Figure 44. Installing a DVD-ROM or CD-ROM Drive into the Chassis.....	68
Figure 45. Removing the PCI Riser Assembly from the Chassis.....	69
Figure 46. Installing an Add-in Card Connector into the PCI Riser Assembly	70
Figure 47. Installing the PCI Riser Assembly into the Chassis	71
Figure 48. Removing the PCI Riser Assembly from the Chassis.....	73
Figure 49. Installing an Add-in Card to the PCI Riser Assembly.....	74
Figure 50. Installing the PCI Riser Assembly into the Chassis	74
Figure 51. Removing the Control Panel from the Chassis.....	76
Figure 52. Removing the Power Supply Connections	78
Figure 53. Removing the SATA or SCSI Backplane from the Chassis	80
Figure 54. Installing a SATA or SCSI Backplane into the Chassis	81
Figure 55. Cable Routing Around the Air Baffle	83

Tables

Table 1.	Server Chassis Features	24
Table 2.	Cable Routing Around Air Baffle for Fixed Drive Installation	84
Table 3.	Cable Routing Around Air Baffle for Hot-Swap Drive Installation	84
Table 4.	Product Certification Markings.....	92

1 Server Chassis Features

This chapter briefly describes the main features of Intel® Server Chassis SR1400. This chapter provides pictures of the product, a list of the server features, and diagrams showing the location of important components and connections on the server chassis.

The Intel Server Chassis SR1400 is shown in the following picture.

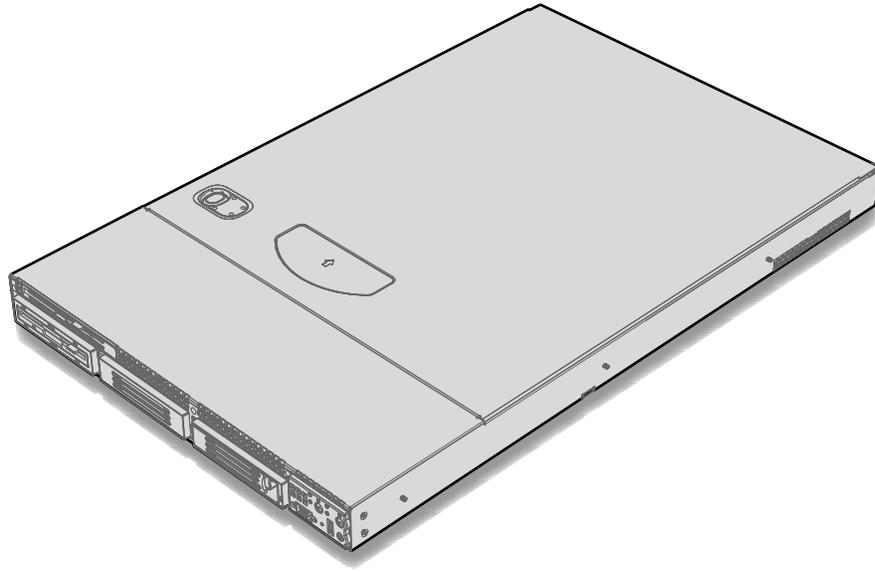


Figure 1. Intel® Server Chassis SR1400

Table 1 summarizes the major features of the server chassis.⁵

Table 1. Server Chassis Features

Feature	Description
Dimensions	<ul style="list-style-type: none"> ▪ 1.703 inches high ▪ 16.930 inches wide ▪ 26.457 inches deep ▪ 31 pounds (base chassis weight)
Hard Drives (dependent on option selected)	<ul style="list-style-type: none"> ▪ Up to three fixed, hot-swap SATA or hot-swap SCSI drives
Peripherals (dependent on option selected)	<ul style="list-style-type: none"> ▪ Slimline bay for CD-ROM, DVD-ROM drive, or floppy drive ▪ Kit to convert one hard drive bay into a floppy drive bay (optional accessory) ▪ PCI riser card (configurations depend on accessories used)
Control Panel (dependent on option selected)	<p>Standard Control Panel: Intel® Local Control Panel (requires installation of the optional Intel® Management Module – Advanced or Intel® Management Module – Professional)</p>
LEDs and displays (dependent on option selected)	<p>With Standard Control Panel:</p> <ul style="list-style-type: none"> ▪ NIC1 Activity ▪ NIC2 Activity ▪ Power / Sleep ▪ System Status ▪ System Identification ▪ Hard Drive Activity <p>With Intel® Local Control Panel:</p> <ul style="list-style-type: none"> ▪ NIC1 Activity ▪ NIC2 Activity ▪ Power / Sleep ▪ System Status ▪ System Identification ▪ Hard Drive Activity ▪ LCD Display

Continued

⁵ Before purchasing any component noted as either “optional,” or “dependent on option selected,” refer to your server board documentation to determine which option(s) are supported with your server board.

Table 1. Server Chassis Features (continued)

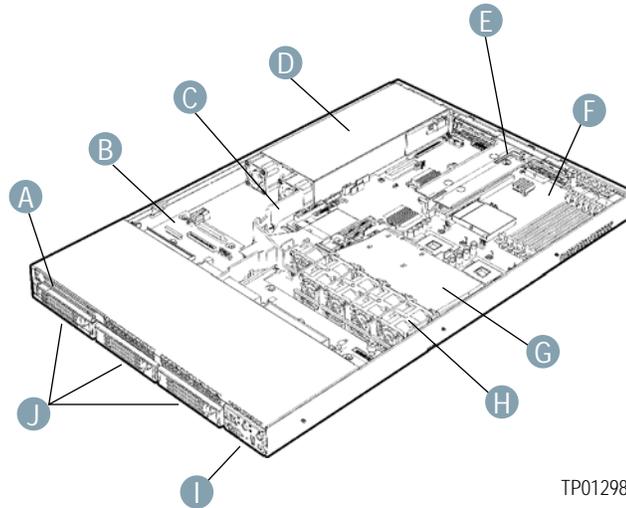
Power Supply	One 500W power supply
System Security	<ul style="list-style-type: none"> ▪ Lockable front bezel (optional accessory) ▪ Chassis intrusion switch ▪ Lock attach point for chassis cover
Fans	<ul style="list-style-type: none"> • Four 40x40x56mm dual-rotor fans • One 40x40x28mm single rotor fan • Two 40x40x28mm fans in the power supply
USB (dependent on option selected)	<ul style="list-style-type: none"> ▪ One front panel USB port with Standard Control Panel ▪ Two front panel USB ports with Intel® Local Control Panel ▪ Two back panel USB ports
Video ⁶	<ul style="list-style-type: none"> ▪ One front panel video port (available only with Standard Control Panel) ▪ One rear panel video port

⁶ Video connections must be used separately. The board and chassis do not support synchronous use of video out the front and back.

Component Identification

Internal Components

The diagram below shows the server chassis with a server board installed into it.



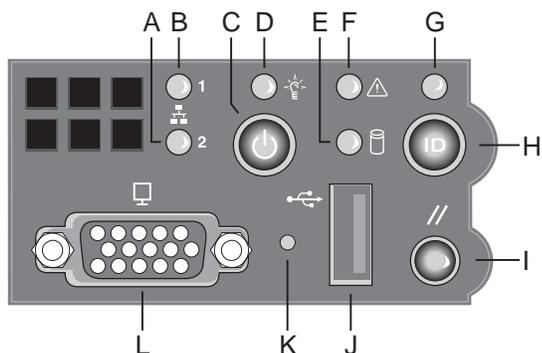
- A. Slimline drive bay (drive not included)
- B. Backplane (optional component)
- C. Power supply air baffle
- D. Power supply
- E. PCI add-in card riser assembly
- F. Server board
- G. Processor air duct
- H. Fan module
- I. Control panel (Standard Control Panel shown)
- J. Hard drive bays (drives not included)

Not shown: rack handles, optional front bezel, chassis cover

Figure 2. Internal Component Locations

Standard Control Panel

The diagram below shows the features available on the Standard Control Panel. The Standard Control Panel is one of two required control options that can be selected. The other option is the Intel® Local Control Panel. For instructions on installing the Standard Control Panel, see [“Replacing the Control Panel.”](#)



TP00779

Callout	Feature	Function
A	NIC 2 activity LED	Blinking green light indicates network activity.
B	NIC 1 activity LED	Continuous green light indicates a link between the system and the network to which it is connected.
C	Power/Sleep button	Toggles the system power on/off. Sleep button for ACPI-compatible operating systems.
D	Power/Sleep LED	Continuous green light indicates the system has power applied to it. Blinking green indicates the system is in S1 sleep state (see Note 1) No light indicates the power is off / is in ACPI S4 or S5 state.
E	Hard disk drive activity LED	Random blinking green light indicates hard disk drive activity (SCSI or SATA). No light indicates no hard disk drive activity.
F	System Fault LED	Solid green indicates normal operation Blinking green indicates degraded performance Solid amber indicates a critical or non-recoverable condition Blinking amber indicates a non-critical condition No light indicates POST is running or the system is off (see Note 1)
G	System Identification LED	Solid blue indicates system identification is active No light indicates system identification is not activated
H	System identification button	Toggles the front panel ID LED and the baseboard ID LED on and off. The baseboard LED is visible from the rear of the chassis and allows you to locate the server from the rear of a rack of systems.
I	Reset button	Reboots and initializes the system.
J	USB 2.0 port	Allows you to attach a USB component to the front of the chassis.
K	NMI button	Puts the server in a halt-state for diagnostic purposes.
L	Video port	Allows you to attach a video monitor to the front of the chassis. The front and rear video ports cannot be used at the same time.

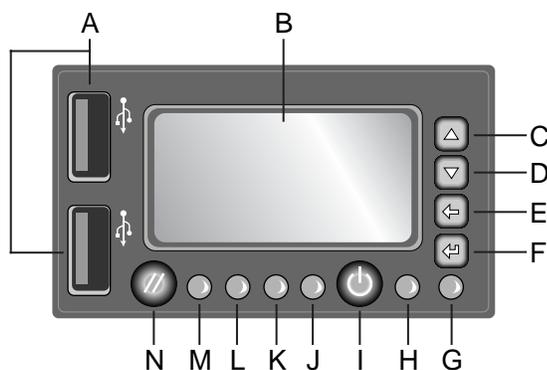
Figure 3. Standard Control Panel Features

Intel® Local Control Panel

The diagram below shows the features available on the Intel® Local Control Panel. The Intel Local Control Panel is one of two required control options that can be selected. The other option is the Standard Control Panel. For instructions on installing the Standard Control Panel, see “[Replacing the Control Panel](#)”.

⇒ **NOTE**

This control panel requires the installation of the Intel® Management Module, Professional or Advance Edition. Some server boards do not support this control panel. See your server board documentation to determine if this control panel is compatible with your server board.



TP00780

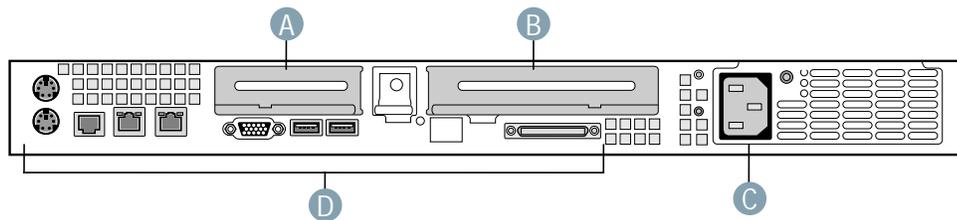
Callout	Feature	Function
A	USB 2.0 port	Allows you to attach a USB component to the front of the chassis.
B	LCD display	Screen on which system information is displayed.
C	Menu control button, scroll up	Scroll up one option at a time.
D	Menu control button, scroll down	Scroll down one option at a time.
E	Menu control button, scroll left	Move to the previous option.
F	Menu control button, scroll right	Move to the previous page.
G	System Identification LED	Solid blue indicates system identification is active. No light indicates system identification is not activated.
H	Power/Sleep LED	Continuous green light indicates the system has power applied to it. Blinking green indicates the system is in S1 sleep state. No light indicates the power is off / is in ACPI S4 or S5 state.
I	Power/Sleep button	Toggles the system power on/off. Sleep button for ACPI-compatible operating systems.

Continued

Callout	Feature	Function
J	System Status LED	Solid green indicates normal operation. Blinking green indicates degraded performance. Solid amber indicates a critical or non-recoverable condition. Blinking amber indicates a non-critical condition. No light indicates POST is running or the system is off.
L	NIC 1 activity LED	Continuous green light indicates a link between the system and the network to which it is connected. Blinking green light indicates network activity.
K	NIC 2 activity LED	
M	Hard disk drive activity LED	Random blinking green light indicates hard disk drive activity (SCSI or SATA). No light indicates no hard disk drive activity is taking place.
N	Reset button	Reboots and initializes the system.

Figure 4. Intel® Local Control Panel Features

Back Panel Features



TP01299

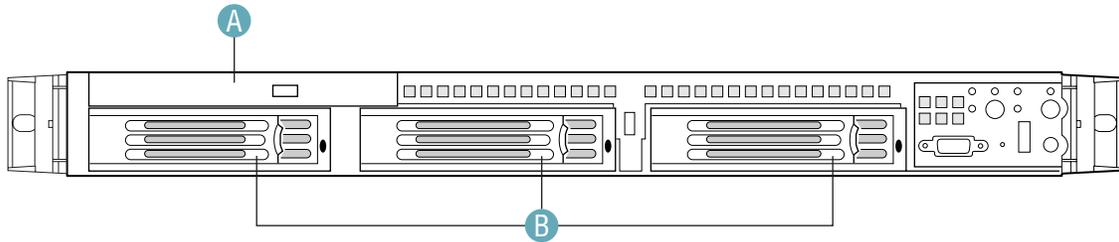
- A. Low-profile add-in card bracket
- B. Full-height add-in card bracket
- C. AC power receptacle
- D. I/O ports (see note)

Note: I/O connectors vary, depending on the server board installed. See your server board documentation for port identification.

Figure 5. Chassis Back

Peripheral Devices

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



TP00782

- A. Slimline floppy drive / DVD-ROM drive / CD-ROM drive
- B. Hard drive bays (3)

Figure 6. Optional Peripherals

Hard Disk Drives

There are three options for hard drive support: SCSI hot-swap or SATA (hot-swap and a non-hot-swap configuration are available). If the non-hot-swap configuration is used, before replacing a hard 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.

The left drive bay can be converted to be used as a floppy bay. To use the bay for a floppy drive, the AXXFLOPHDDTRAY accessory kit must be used.

For instructions on installing hard drives, see [“Installing and Removing a Hard Disk Drive”](#).

➡ NOTES

Drives can consume up to 17 watts of power each. Drives must be specified to run at a maximum ambient temperature of 45 °C.

The Intel Server Chassis SR1400 does not support all SCSI or Serial ATA hard drives. See [“Additional Information and Software”](#) for an Internet link to a list of supported hardware.

Floppy / CD-ROM / DVD-ROM Slimline Carriers

The slimline drive carriers can be used with one slimline floppy, CD-ROM or DVD-ROM drive. There are two carriers that ship with the chassis; one carrier is for a CD-ROM or DVD-ROM, and the other is for a slimline floppy. Unless the optional kit to convert a hard drive bay to a floppy drive bay is used, you cannot install both a CD-ROM / DVD-ROM drive and a floppy drive.

The floppy drive / CD-ROM / DVD-ROM carriers can be inserted or removed only when system power is turned off. Drives in the slimline carriers are NOT hot swappable, regardless of whether one of the backplanes is installed. For installation instructions on installing a floppy drive see “[Installing or Removing a Floppy Drive](#)”. For installation instructions on installing a CD-ROM drive or DVD-ROM drive, see “[Installing or Removing a CD-ROM or DVD-ROM Drive](#)”.

⇒ NOTE

The Intel Server Chassis SR1400 does not support all slimline floppy, CD-ROM or DVD-ROM hard drives. See “[Additional Information and Software](#)” for an Internet link to a list of supported hardware. Intel provides accessory kits for these drives.

Advanced Management Options

Intel® Management Module

Two versions of the Intel® Management Module are available to provide additional server management features.

- The Intel Management Module - Professional Edition contains a hardware mezzanine card that plugs into the server board.
- The Intel Management Module - Advanced Edition includes a hardware mezzanine card, a 10/100 Mb NIC mezzanine card, and cables.

For installation instructions on installing either Intel Management Module, see the instructions provided with the management module.

⇒ NOTE

Some server boards may not support the Intel® Management Module. See your server board documentation to determine if this feature is compatible with your server board.

Rack-Mounted Systems

Your Server Chassis SR1400 is designed to be mounted into a rack. The SR1400 chassis can be mounted using one of the two accessories. The first is a tool-less rail kit and the second is a fixed rail kit. When installing the chassis into a rack, Intel recommends you install systems from the bottom of the rack to the top. In other words, install the first system in the rack into the bottom position of the rack, the second system in the second position from the bottom, and so on. Instructions for installing your chassis into a rack are included in the rail kit.

The order numbers are as follows:

- Tool-less Rail Kit: AXXHERAIL
- Fixed Rail Kit: AXXBRACKETS
- Cable Management Arm: AXXRACKCARM (requires the tool-less rail kit)

Front Bezels

The optional front bezels provide a snap-on design that allows for maximum airflow through the server chassis. Two bezels are available. One fits a system that has the Standard Control Panel installed. The other is used for a chassis with the other Intel Local Control Panel. Each bezel provides a lock to secure the hard drive and floppy drive / CD-ROM / DVD-ROM drive area. For instructions on installing either of the front bezels, see “[Removing and Installing the Front Bezel](#)”.

The order numbers for the bezels are:

- ADWBEZBLACK: Black bezel for use with the Standard Control Panel.
- ADWLCDBEZEL: Black bezel for use with the Intel® Local Control Panel.

2 Hardware Installations and Upgrades

Before You Begin

Before working with your server product, pay close attention to the safety instructions at the beginning of this manual. See “[Safety Information](#).”

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 DIMMs, see the instructions provided with the server board.

Tools and Supplies Needed

- Phillips* (cross head) screwdriver (#1 bit and #2 bit)
- Antistatic 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 normal operation.

Removing and Installing the Chassis Cover

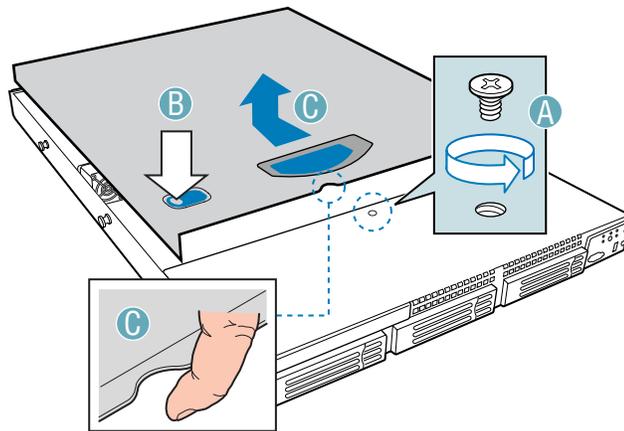
Removing the Chassis Cover

The Server Chassis SR1400 must be operated with the top cover in place to ensure proper cooling. You will need to remove the top cover to add or replace components inside of the platform. Before removing the top cover, power down the server and unplug all peripheral devices and the AC power cable. None of the components inside the chassis are hot-swappable.

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 at the beginning of this book. See [“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 shipping screw (if installed). See letter “A” in the figure below.
5. While holding in the blue button at the top of the chassis in (see letter “B”), slide the top cover back until it stops (See letter “C”).
6. Lift the cover upward to remove it.

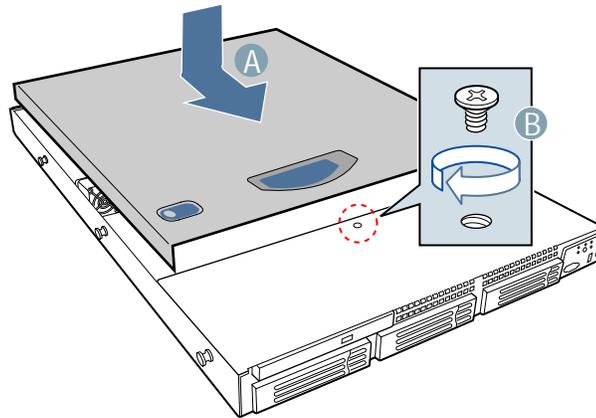


TP00784

Figure 7. Removing the Chassis Cover

Installing the Chassis Cover

1. Place the cover over the chassis so that the side edges of the cover sit just inside the chassis sidewalls.
2. Slide the cover forward until it clicks into place. See letter “A” in the figure below.
3. (Optional) Insert the shipping screw at the center of the top cover. See letter “B” in the figure.
4. Reconnect all peripheral devices and the AC power cord.



TP01301

Figure 8. Installing the Chassis Cover

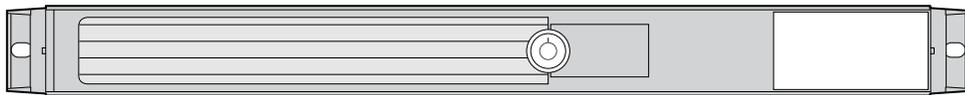
Removing and Installing the Front Bezel

The front bezels are available as optional accessories for the Server Chassis SR1400. Two front bezel options are available. One is used for the Standard Control Panel and the other is used with the Intel® Local Control Panel. See the diagrams below to identify your front bezel. Note the orientation in the figures below – the control panel is at the right. If you are installing a bezel on your chassis, make sure you position it as shown.



TP00783

Figure 9. Standard Front Bezel



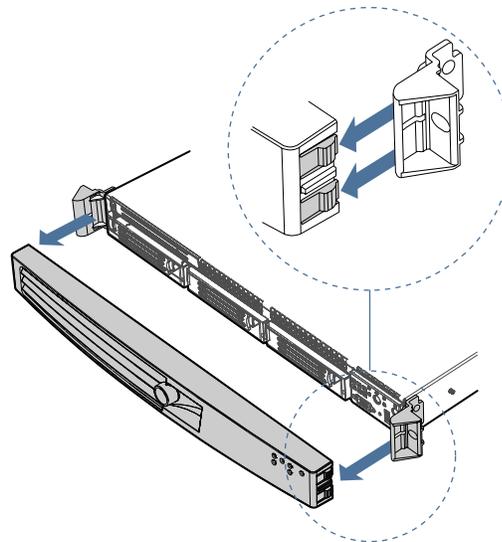
TP01300

Figure 10. Intel® Local Control Panel Front Bezel

Removing the Front Bezel

Use the steps below if your system includes either the standard front bezel or the front bezel for the Intel Local Control Panel.

1. Unlock the bezel.
2. Disconnect any cables attached to the front of the control panel.
3. Pull the bezel out from the chassis.



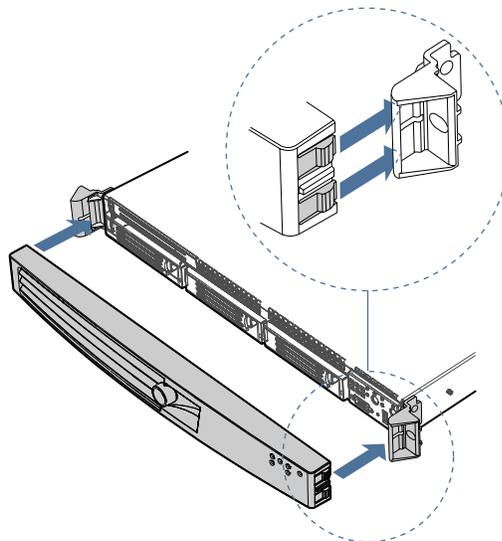
TP01303

Figure 11. Removing the Front Bezel

Installing the Front Bezel

Use the steps below if your system includes either the standard front bezel or the front bezel for the Intel Local Control Panel. The front bezel is optional.

1. At each end of the bezel, line up the center notch on the bezel with the center guide on the rack handles.
2. Push the bezel onto the front of the chassis until it clicks into place.
3. Connect any necessary cables to the front control panel area at the right side of the chassis.



TP01302

Figure 12. Installing the Front Bezel

Removing and Installing the Processor Air Duct

Always operate your server chassis with the processor air duct in place. The air duct is required for proper airflow to maintain proper cooling of the processors.

For instructions on adding or replacing a processor, first remove the processor air duct, and then see your server board user guide for instructions on processor installations and removals. Return to these instructions to reinstall the processor air duct after installing your processor and heat sink.

Removing the Processor Air Duct

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Lift the processor air duct from its location over the two processor sockets.

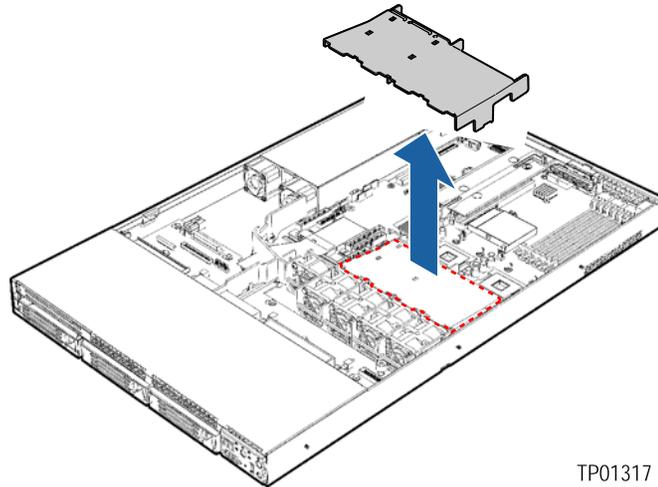


Figure 13. Removing the Processor Air Duct

Installing the Processor Air Duct

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. If you are installing the processor air duct for the first time after installing a second processor, remove the tab on the back side of the processor air duct. See the figure below.

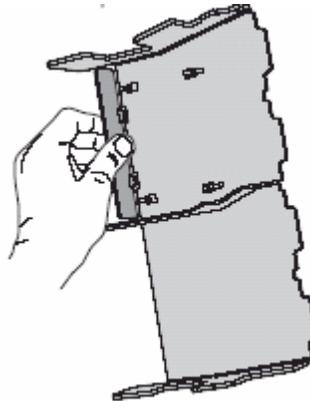
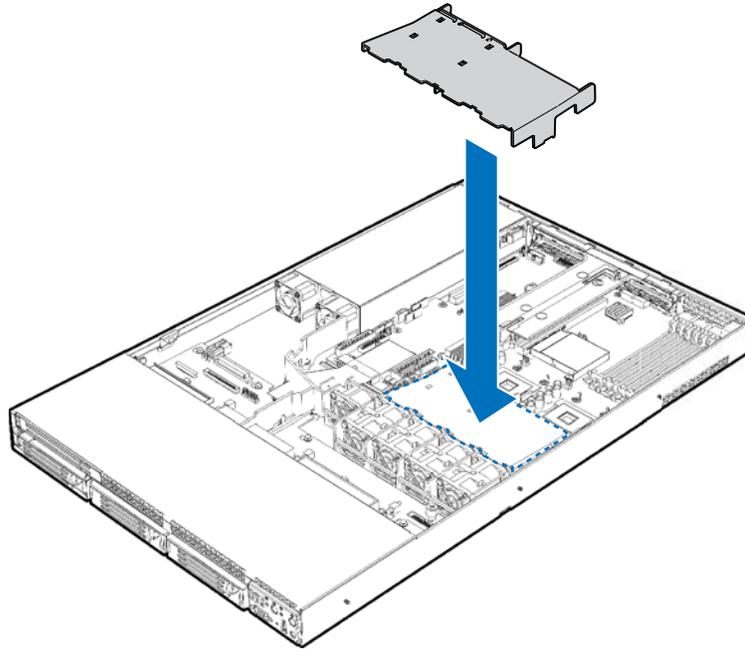


Figure 14. Preparing the Processor Air Duct

5. Place the processor air duct over the processor socket(s). See the figure below. The front edge of the air duct should contact the fan module and the top of the installed air duct should be flush with the top surface of the power supply. Use caution not to pinch or disengage cables that may be near or under the air duct.



TP00806

Figure 15. Installing the Processor Air Duct

6. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
7. Plug all peripheral devices and the AC power cable back into the server.

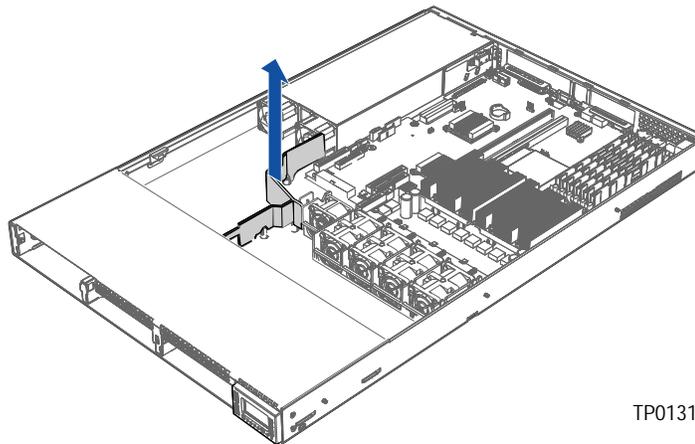
Removing and Installing the Air Baffle

Some installation processes will require that you remove the air baffle that is placed behind the hard drive bays, next to the fan module near the front of your server. The steps below describe how to remove and then install the air baffle. Use these steps only when it is indicated as necessary for a component installation process.

Always operate your server chassis with the air baffle in place. The air baffle is required for proper airflow within the chassis.

Removing the Air Baffle

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Note how the cables are routed over and under the air baffle. You will need to re-route these cables.
5. Pull up on the air baffle to remove it. See the figure below. You may need to remove or hold cables out of the way.



TP01318

Figure 16. Removing the Air Baffle

Installing the Air Baffle

1. Lower the baffle into the chassis between the power supply and the drive bay area, to the left of the fan module.
2. While setting the baffle into place, route the cables beneath it appropriately. See “[Cable Routing](#)” for help in determining where the cables should be routed.
3. Fit the tab that extends from the front of the baffle under the drive bay area.
4. Line up the guide pins on the baffle with the matching holes in the chassis floor and in the backplane if you have a backplane installed. See letter “A” in the figure below.
5. Push down firmly on the air baffle to secure it to the chassis.

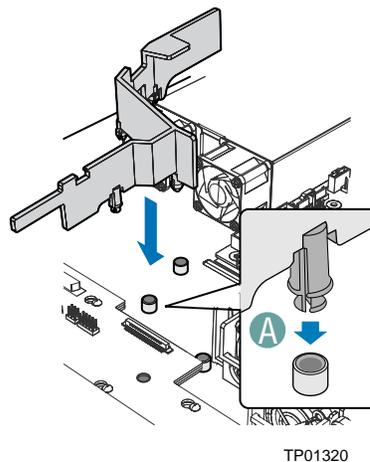


Figure 17. Installing the Air Baffle

Installing and Removing a Hard Disk Drive

Up to three hard drives of one of the following types can be installed, depending on the hard drive installation option used in your server chassis and the drives supported by your server board.

- Three hot-swap SCSI drives if the SCSI backplane is installed.
- Three hot-swap SATA drives if the SATA backplane is installed.
- Three fixed SATA drives if the fixed drive kit is installed.

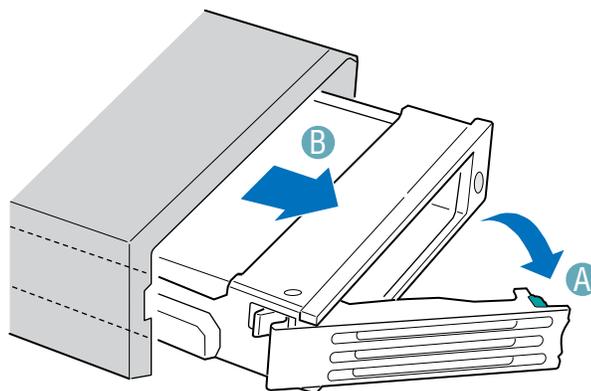
➡ NOTE

The Intel Server Chassis SR1400 does not support all hard drives. See “[Additional Information and Software](#)” for an Internet link to a list of supported hardware.

Removing a SATA or SCSI Hot-swap Hard Disk Drive

Use these instructions only if you have installed the SATA or SCSI backplane kit.

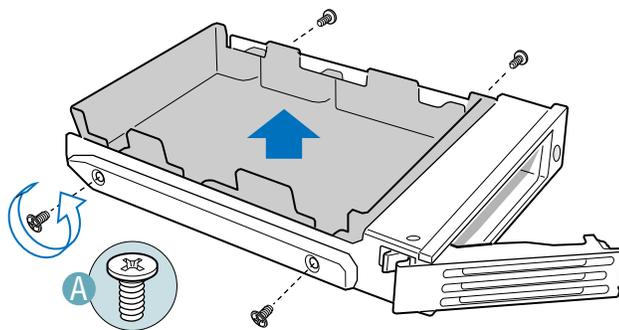
1. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
2. Press in on the green latch at the front of the hard drive carrier. See letter “A” in the figure below.
3. Pull out on the black lever and slide the carrier from the chassis. See letter “B” in the figure below.



TP00786

Figure 18. Removing a Hot-swap Hard Drive Carrier from Chassis

4. Remove the four screws that attach the plastic retention device or the previously installed hard drive to the drive carrier. Two screws are at each side of the retention device or the hard drive. If required, store the plastic retention device for future use.

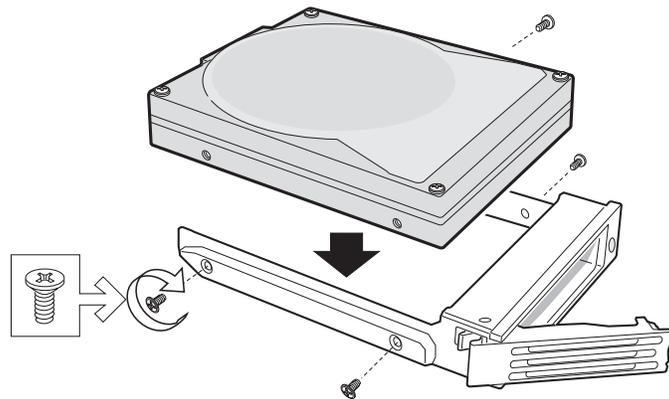


TP00787

Figure 19. Removing the Retention Device from a Hot-swap Drive Carrier

Installing a SATA or SCSI Hot-swap Hard Disk Drive

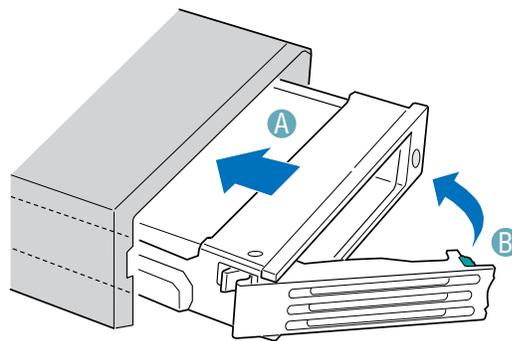
1. Remove the hard drive from its wrapper and place it on an antistatic surface.
2. Set any jumpers and/or switches on the drive according to the drive manufacturer's instructions.
3. With the drive circuit-side down, position the connector end of the drive so that it is facing the rear of the drive carrier. See Figure 20.
4. Align the holes in the drive to the holes in the drive carrier and attach it to the carrier with the screws that were attached to the plastic retention device.



TP00736

Figure 20. Attaching a Hot-swap Hard Disk Drive to a Carrier

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



TP00789

Figure 21. Inserting a Hot-swap Hard Disk Drive Assembly into the Chassis

7. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)

Installing a Fixed SATA Hard Disk Drive

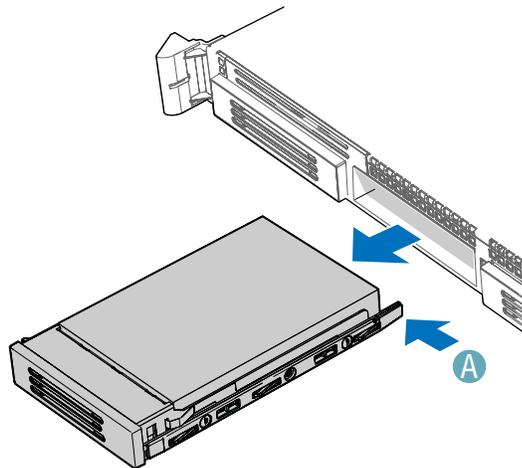
Use these instructions only if you have installed the fixed drive kit.



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.

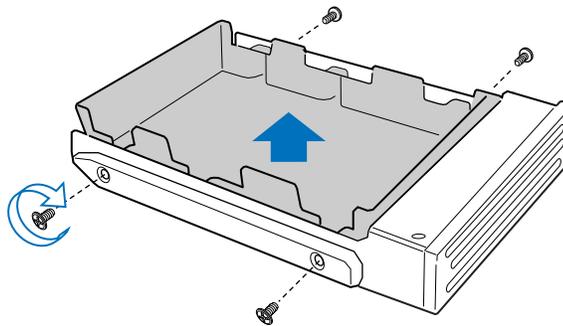
1. Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
4. Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
5. Press the latch on the back of the fixed drive carrier and slide it out of the bay. See letter “A” in the figure below to identify the latch at the rear of the carrier.



TP00790

Figure 22. Removing a Fixed Hard Drive Carrier from the Chassis

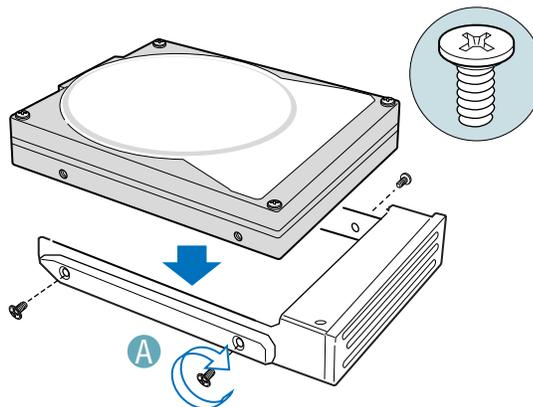
6. Remove the four screws that attach the plastic retention device or the previously installed hard drive to the drive carrier. Two screws are at each side of the retention device or the hard drive. If required, store the plastic retention device for future use.



TP01304

Figure 23. Removing the Retention Device from a Fixed Drive Carrier

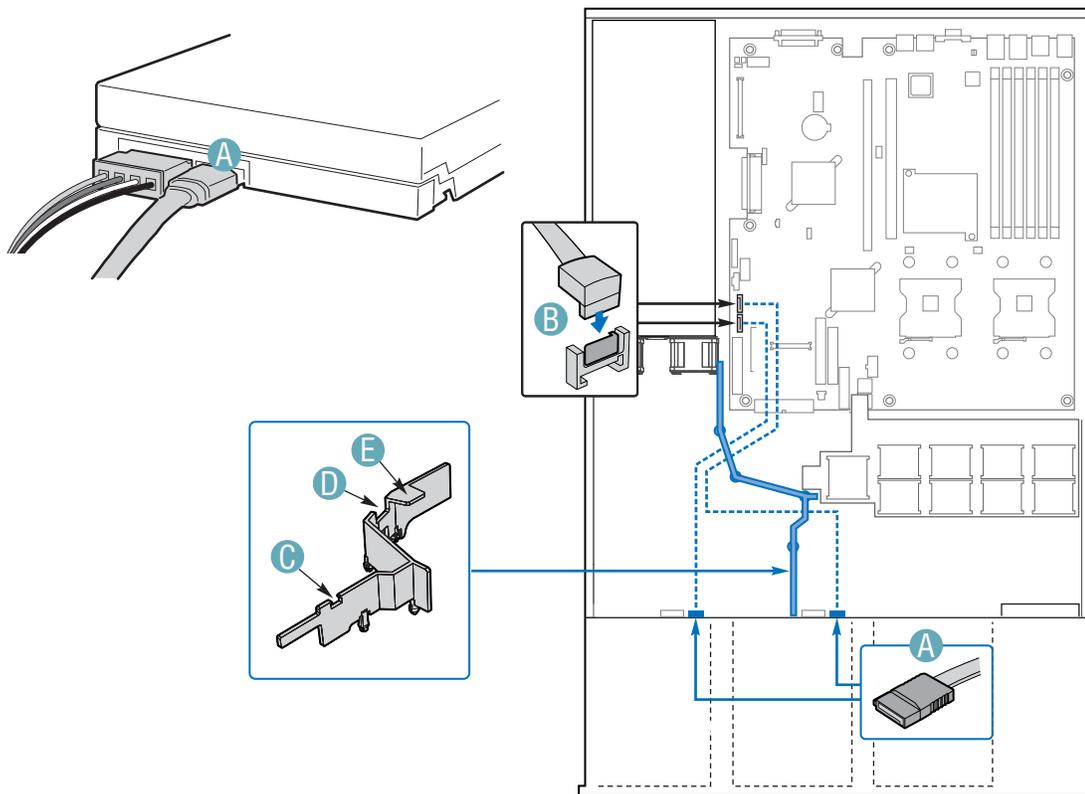
7. With the drive circuit-side down, position the connector end of the drive so that it is facing the back of the carrier.
8. Attach the hard drive to the carrier using the four screws removed from the carrier.



TP00788

Figure 24. Attaching the Fixed Hard Drive to the Carrier

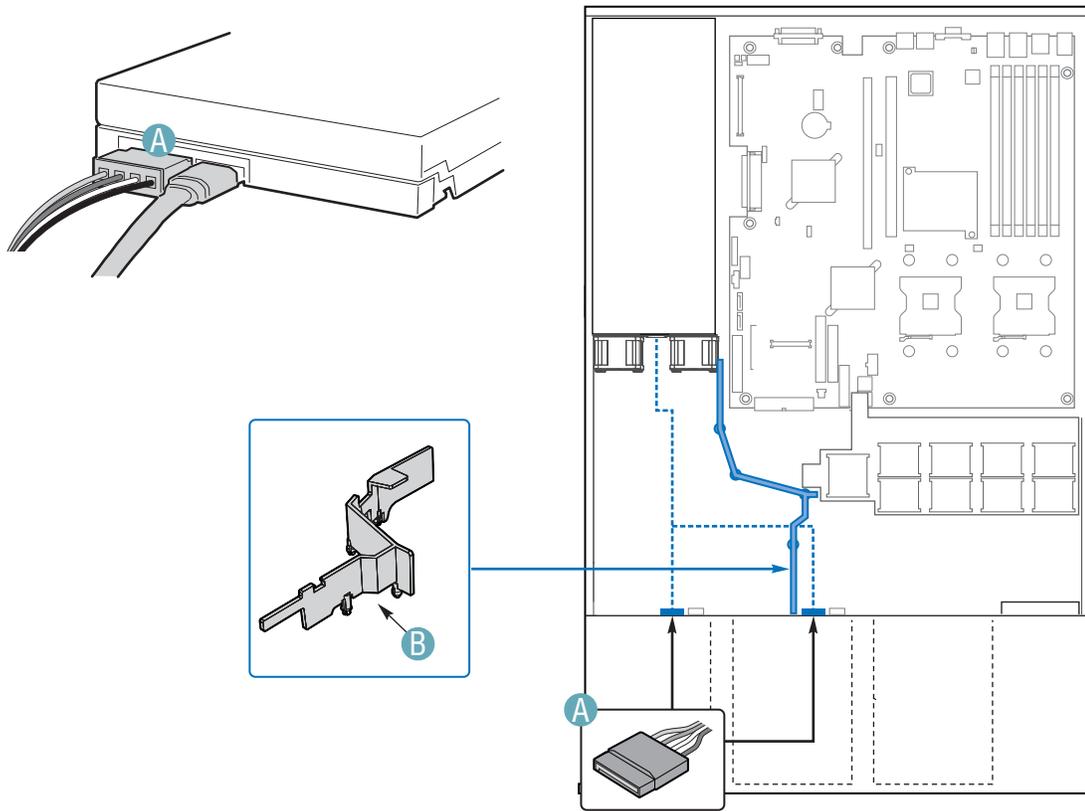
9. Insert the drive into the bay until it clicks into place.
10. If it is not already installed, connect the SATA power cable adapter to the 3x2 power supply cable that extends from your power supply. See letters “A” and “B” in the figure below. The power cable adapter was provided to you with the fixed drive kit.



TP01305

Figure 26. Installing the Fixed SATA Drive Data Cables

15. See letter “B” in Figure 27 and the arrow that leads from this letter to the component in the chassis. This component is the air baffle that is referred to in the following steps. The letter “B” points to the cutout that is referred to.
16. Power cables for drives installed to the right side of the air baffle must be routed beneath the front cutout in the underside of the air baffle. The power cable for a drive installed to the left of the air baffle does not need to be routed under the air baffle. See letter “B” in the figure below to identify the air baffle and the cutout area. You may need to remove the air baffle to route cables underneath it. To see how to remove and then install the air baffle, see [“Removing and Installing the Air Baffle.”](#)
17. Connect the SATA power cable adapter end(s) to the rear of the SATA drive. See letter “A” in the figure below to locate the connector on the SATA drive.



TP01306

Figure 27. Installing the Fixed SATA Drive Power Cables

18. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
19. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
20. Plug all peripheral devices and the AC power cable back into the server.

Removing a Fixed SATA Hard Disk 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 at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Disconnect the SATA data connector and power cables from the rear of the SATA drive.
6. Press the latch on the back of the fixed drive carrier and slide it out of the bay.
7. Remove the four screws that attach the hard drive to the drive carrier. Lift the drive from the carrier. Store the drive in an anti-static bag.
8. If you are not installing a new drive, place the plastic retention device into the drive carrier, using the four screws you removed from the hard drive.
9. Insert the screws that held the drive in the carrier into the screw locations on the carrier for future use.
10. Slide the drive carrier back into the chassis until it clicks into place.



NOTE

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

11. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
12. Install the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
13. Plug all peripheral devices and the AC power cable back into the server.

Installing or Removing a Floppy Drive (Slimline or Standard)

Floppy drives are installed in different ways, depending on the following items:

- The SATA or SCSI backplane is installed and you want to install the floppy drive into the slimline drive bay.
- No backplane is installed and you want to install the floppy drive into the slimline drive bay.
- The SATA or SCSI backplane is installed and you have installed a CD-ROM or DVD-ROM drive into the slimline drive bay. You want to install the floppy drive into a bay that was intended for a hard drive (optional conversion kit is required).

Look carefully at the heading titles below before beginning your installation to be sure you are following the correct instructions for your system.



CAUTION

Floppy 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 Floppy Drive into Slimline Bay (Backplane Installed)

Use these instructions if you are installing a floppy drive into the slimline drive bay at the upper left side of your chassis and your system includes either the SATA or SCSI backplane. You will know if you have one of these backplanes installed if you can install either hot-swap SATA or hot-swap SCSI drives.

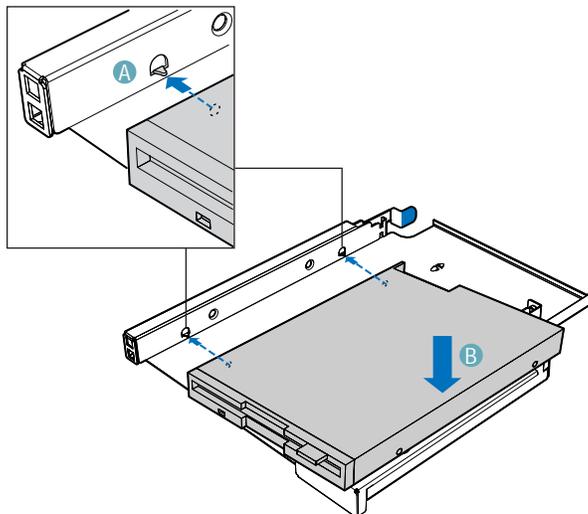


NOTE

The carrier for the slimline floppy drive that is used in these instructions was sent to you in the hardware kit that came with your Server Chassis SR1400.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)

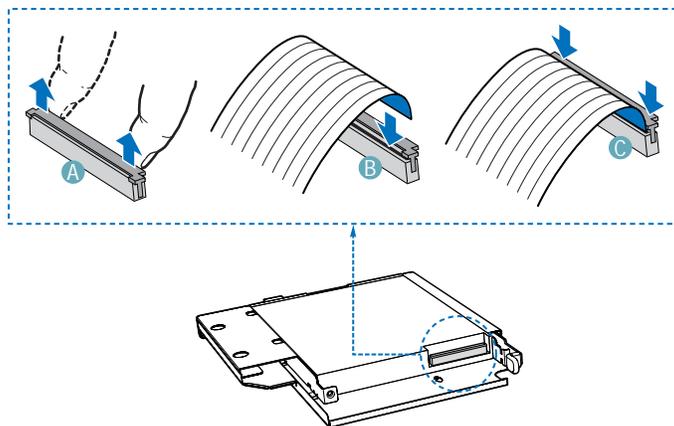
5. Align the two holes at the left side of the floppy drive with the two cutouts in the floppy drive carrier. See letter “A” in the figure below.
6. Lower the right side of the floppy drive into the carrier until it clicks into place. See letter “B” in the figure below.



TP01082

Figure 28. Installing a Floppy Drive into the Slimline Carrier

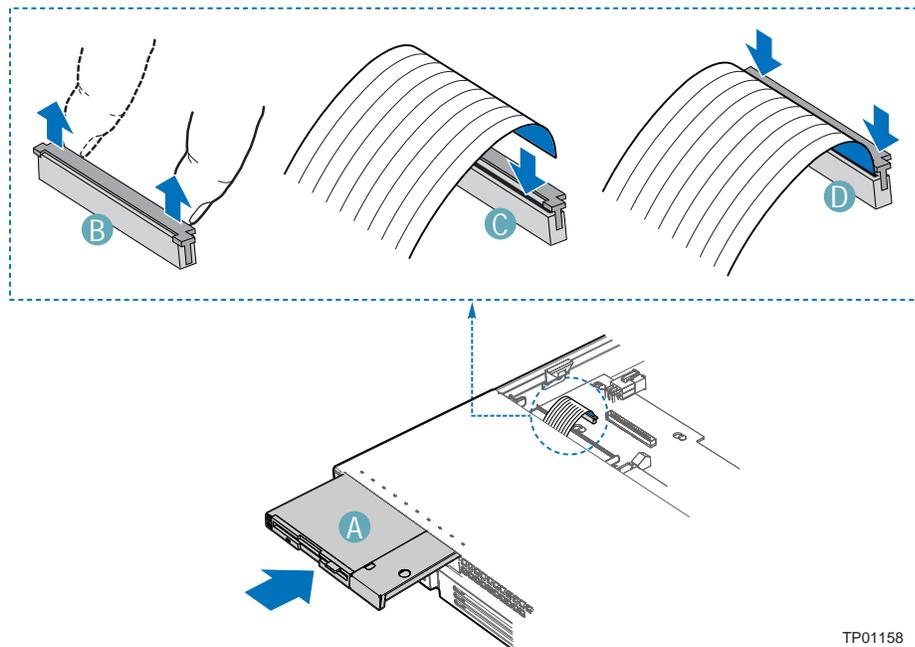
7. Open the connector on the rear of the floppy drive by pulling up on the connector cover. See letter “A” in the figure below.
8. Insert one end of the 26-pin floppy drive flat flex cable end into the connector. See letter “B” in the figure.
9. Push down on the connector cover to lock the cable into place. See letter “C” in the figure.



TP01144

Figure 29. Installing Floppy Flat Flex Cable to a Floppy Drive

10. Slide the floppy drive assembly into the slimline bay of the chassis until it clicks into place. See letter “A” in the figure below.
11. Open the connector labeled “Floppy Con” on the backplane by pulling up on the connector cover. See letter “B” in the figure below.
12. Insert the loose end of the floppy cable into the backplane connector. See letter “C” in the figure.
13. Push in on the connector cover to lock the cable into place. See letter “D” in the figure.
14. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
15. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
16. Plug all peripheral devices and the AC power cable back into the server.



TP01158

Figure 30. Installing the Slimline Floppy Drive into the Chassis

Removing a Floppy Drive from the Slimline Bay (Backplane Installed)

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Pull up at the top of the connector on the backplane labeled “Floppy Con” to release the flat flex cable from it.
6. Push in on the blue lever at the rear of the drive carrier.
7. Slide the floppy drive carrier out through the front of the chassis.
8. Remove the flat flex cable from the rear of the floppy.
9. Press downward on the side of the carrier to release the drive from the drive carrier.
10. Store the floppy drive carrier and the flat flex cable for future use.
11. Install the slimline filler panel into slimline bay if no drive is to be installed into the bay.
12. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
13. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
14. Plug all peripheral devices and the AC power cable back into the server.

Installing Floppy Drive into Slimline Bay (No Backplane Installed)

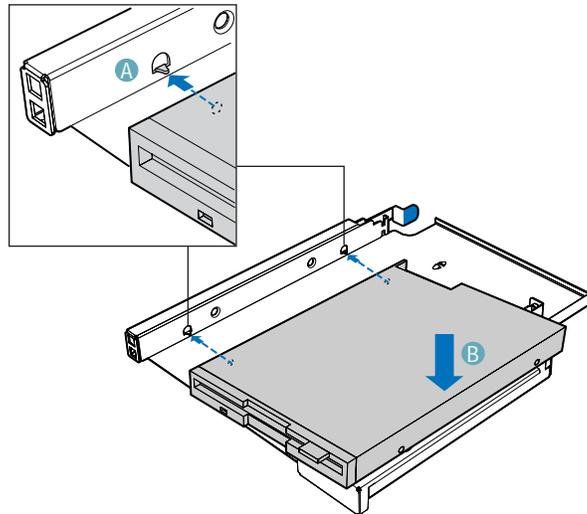
⇒ NOTE

The carrier for the slimline floppy drive that is used in these instructions was sent to you in the hardware kit that came with your Server Chassis SR1400. The interposer board and floppy drive power adapter cable used in these instructions was sent to you with your fixed drive kit.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)

Hardware Installations and Upgrades

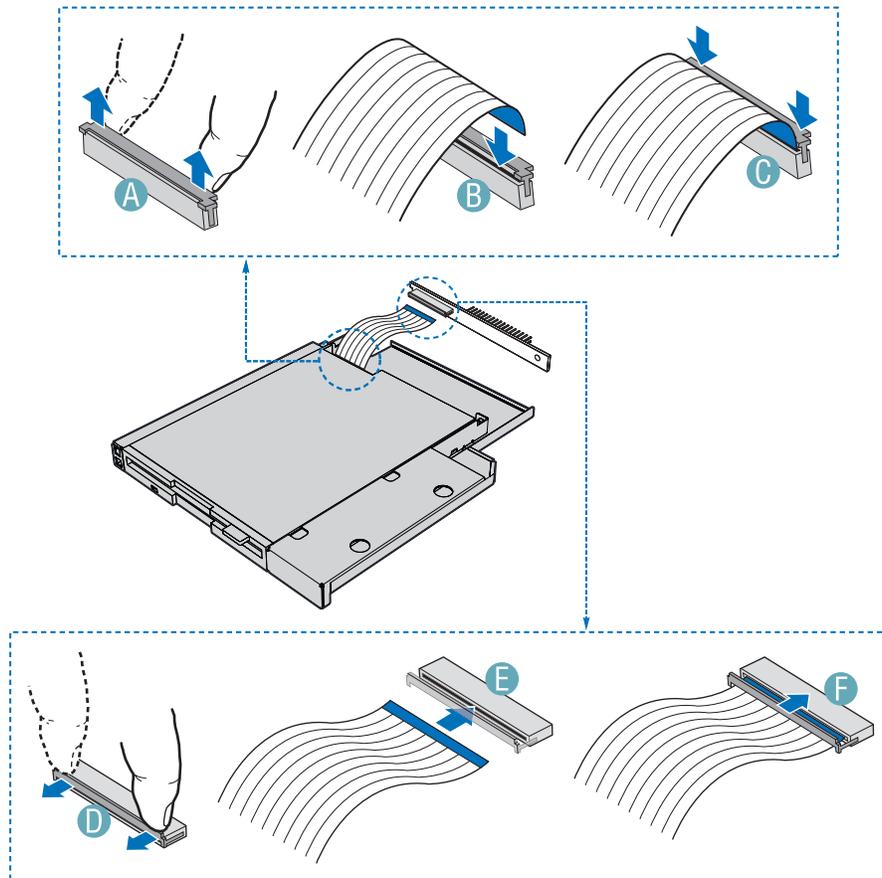
5. Align the two holes at the left side of the floppy drive with the two cutouts in the floppy drive carrier. See letter “A” in the figure below.
6. Lower the right side of the floppy drive into the carrier until it clicks into place. See letter “B” in the figure below.



TP01082

Figure 31. Installing a Slimline Floppy Drive into the Carrier

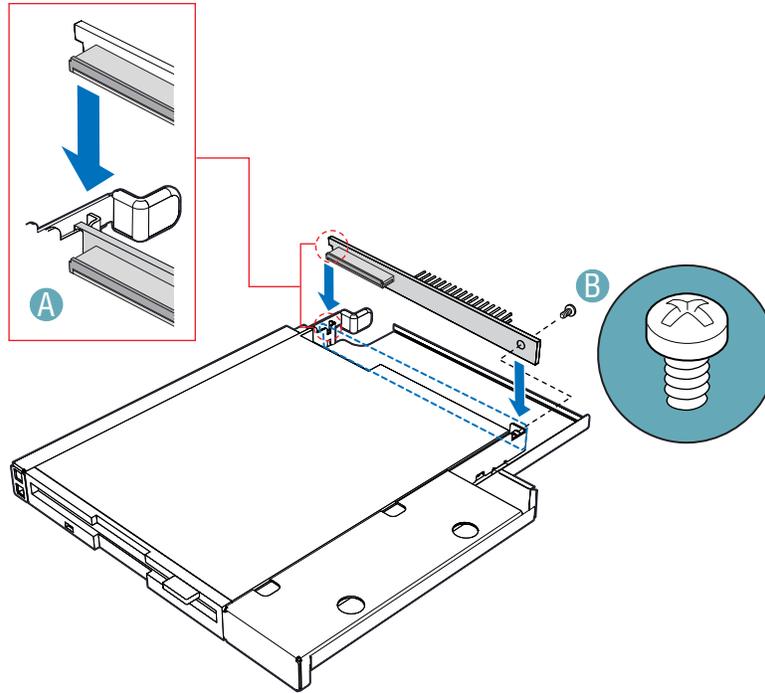
7. Open the connector on the rear of the floppy drive by pulling up on the connector cover. See letter “A” in the figure below.
8. Insert one end of the 26-pin flat flex cable end into the connector. See letter “B” in the figure.
9. Push down on the connector cover to lock the cable into place. See letter “C” in the figure.
10. Open the connector on the interposer board by pulling out on the connector cover. See letter “D” in the figure below.
11. Insert the loose end of the floppy cable into the interpose board connector. See letter “E” in the figure.
12. Push in on the connector cover to lock the cable into place. See letter “F” in the figure.



TP01162

Figure 32. Installing the Flat Flex Cable

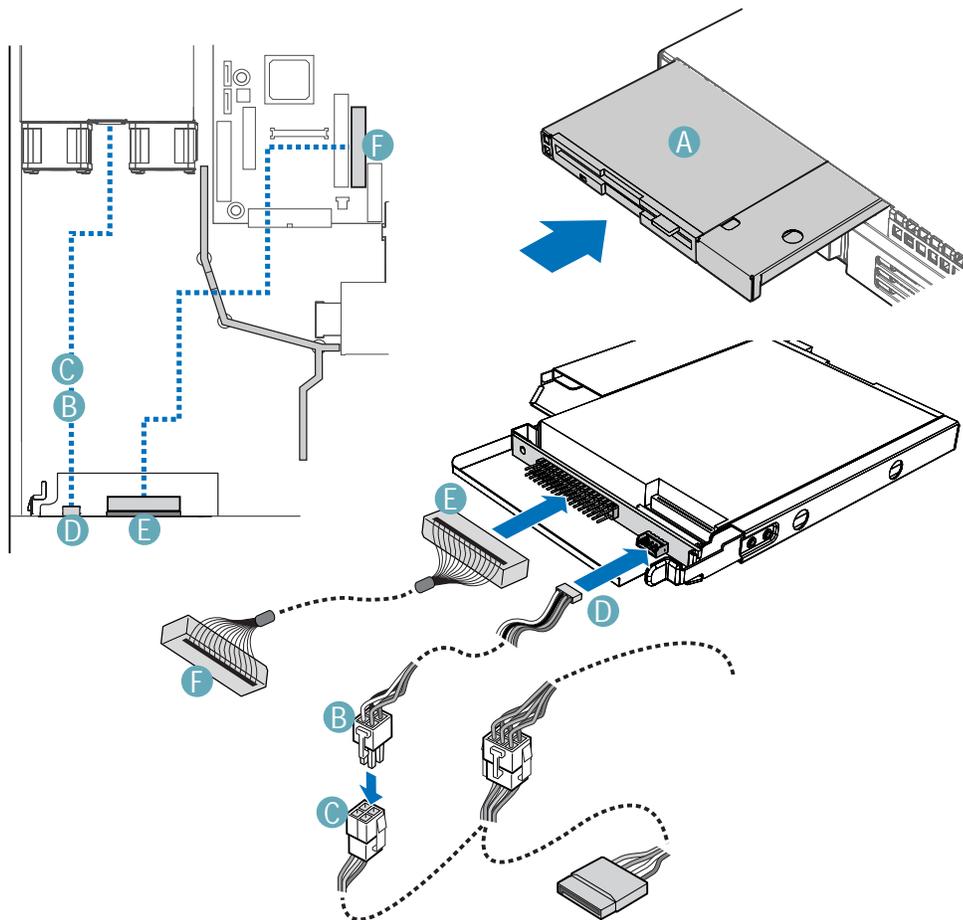
13. Lower the interposer board into the floppy drive tray at the rear of the floppy drive and engage the notch on the board. See Letter “A” in the figure below.
14. Attach the interposer board to floppy drive with the screw that was included with the interposer board. See letter “B” in the figure. In the diagram, the flat flex cable been removed for clarity.



TP01164

Figure 33. Installing the Floppy Drive Interposer Board

15. Slide the floppy drive assembly into the chassis until it clicks into place. See letter “A” in the figure below.
16. Connect the 2x2 end of the floppy drive power cable that was included with your kit to the 2x2 power connector on the SATA power adapter cable. See letters “B” and “C” in the figure below.
17. Connect the remaining end of the floppy drive power cable to the power connector on the rear of the floppy drive. See letter “D” in the figure.
18. Connect the floppy drive data cable that was included with your kit between the floppy drive data connector and the server board. See letters “E” and “F” in the figure. See your server board documentation for assistance in locating the connector location on the server board.
19. Route the floppy drive data cable over the air baffle, as shown in the diagram below.



TP01174

Figure 34. Installing the Slimline Floppy Drive into the Chassis

20. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
21. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
22. Plug all peripheral devices and the AC power cable back into the server.

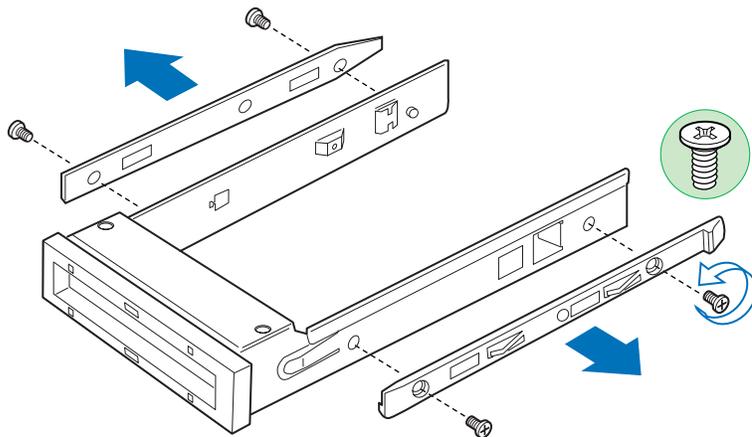
Removing a Floppy Drive from the Slimline Bay (No Backplane Installed)

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Detach the power and data cables from the rear of the floppy drive.
6. Detach the data cable from the server board and remove the cable from the chassis.
7. Push in on the blue lever at the rear of the drive carrier.
8. Slide the floppy drive carrier out through the front of the chassis.
9. Remove the screw that attaches the interposer board to the drive. Lift the interposer board from the drive.
10. Remove the flat flex cable from the floppy drive and from the interposer board.
11. Press downward on the side of the carrier to release the drive from the drive carrier.
12. Store the floppy drive carrier, the interposer board, the flat flex cable, and the floppy drive data cable for future use.
13. Install the slimline filler panel into slimline bay if no drive is to be installed into the bay.
14. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
15. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
16. Plug all peripheral devices and the AC power cable back into the server.

Installing a Floppy Drive into the Converted Hard Drive Bay (Backplane Installed)

The slimline floppy drive conversion kit can only be installed into a system that is using either the SATA or the SCSI backplane. The conversion kit must be installed in the left hard drive bay.

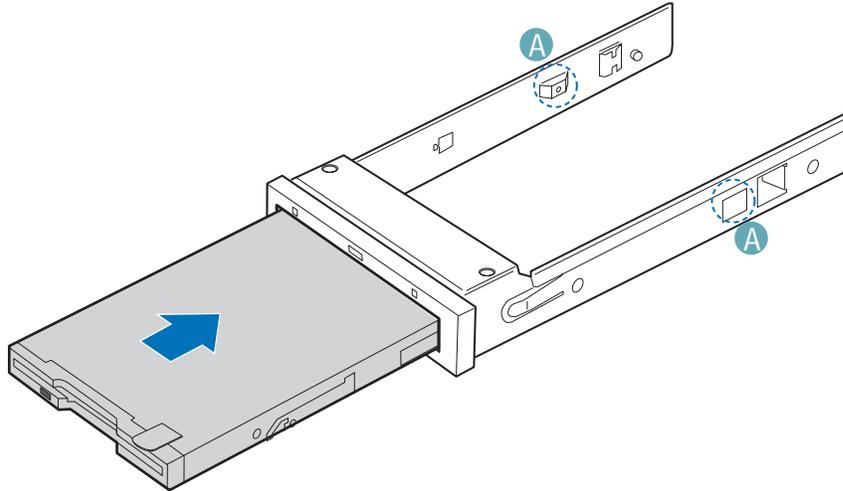
1. Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Remove the left hot-swap hard drive carrier from the chassis.
6. Remove the screws that attach the slide rails to the floppy drive conversion kit carrier.



TP01307

Figure 35. Removing the Rails from the Floppy Drive Conversion Kit Carrier

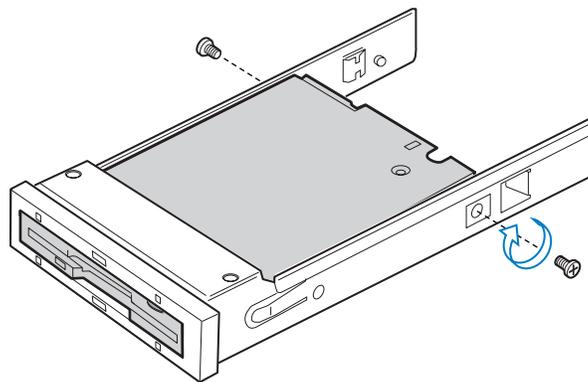
7. Slide the floppy drive into the drive carrier, rear of the drive first, with the underside of the drive facing down.
8. Line up the holes in the side of the drive with the holes in the carrier. See letter “A” in the figure below.



TP01308

Figure 36. Inserting a Drive into the Floppy Conversion Kit Carrier

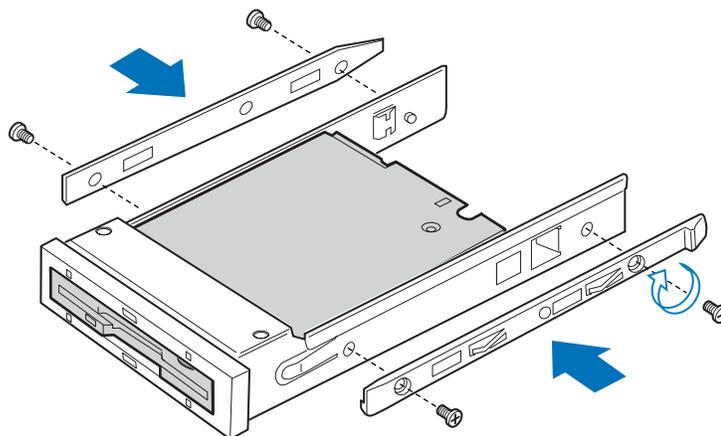
9. Attach the floppy drive to the carrier with the screws that came with your floppy drive conversion kit. One screw attaches at each side. See the figure below.



TP01323

Figure 37. Attaching a Drive to Floppy Drive Conversion Kit Carrier

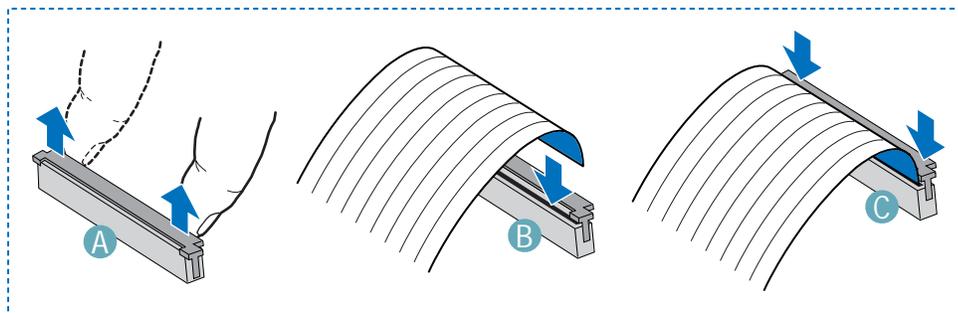
10. Reattach the slide rails onto floppy drive conversion kit carrier. See the figure below.



TP01309

Figure 38. Install the Rails onto the Floppy Drive Conversion Kit Carrier

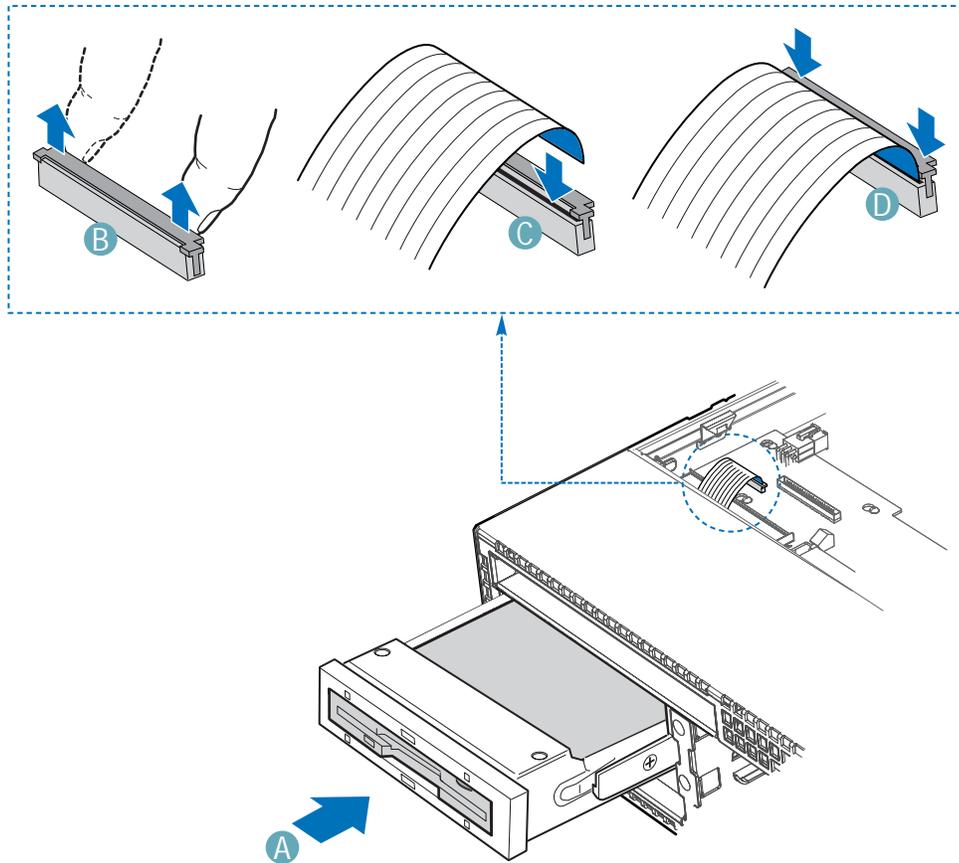
11. Open the connector on the rear of the floppy drive by pulling up on the connector cover. See letter “A” in the figure below.
12. Insert one end of the flat flex cable end into the floppy drive connector. See letter “B” in the figure.
13. Push down on the connector cover to lock the cable into place. See letter “C” in the figure.



TP01311

Figure 39. Installing the Flat Flex Cable to the Floppy Drive

14. Slide the carrier assembly into left hard drive bay until it clicks into place. See letter “A” in the figure below.
15. Open the connector labeled “Floppy Con” on the backplane by pulling up on the connector cover. See letter “B” in the figure below.
16. Insert the loose end of the flat flex cable into the backplane connector. See letter “C” in the figure.
17. Push in on the connector cover to lock the cable into place. See letter “D” in the figure.



TP01310

Figure 40. Installing the Slimline Floppy Drive into the Chassis

18. Install the chassis cover. For instructions, see [“Installing the Chassis Cover”](#)
19. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
20. Plug all peripheral devices and the AC power cable back into the server.

Removing a Floppy Drive from the Converted Hard Drive Bay

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Open the connector labeled “Floppy Con” on the backplane by pulling up on the connector cover. Remove the flat flex cable from the backplane.
6. Push in on the lever at the rear of the floppy carrier and slide the drive from the front of the chassis.
7. Open the connector cover on the rear of the floppy drive by pulling up on it. Release the flat flex cable from the drive.
8. Remove the two screws at each side that hold the drive rails to the drive carrier. Lift the two rails from the carrier.
9. Disconnect the two screws attaching the drive to the converted hard drive bay carrier.
10. Install an empty hot-swap hard drive carrier into chassis drive bay if no floppy or hard drive is to be installed into the bay.
11. Store the screws, the converted drive bay carrier, the side rails, and the flat flex cable for future use.
12. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
13. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
14. Plug all peripheral devices and the AC power cable back into the server.

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



CAUTION

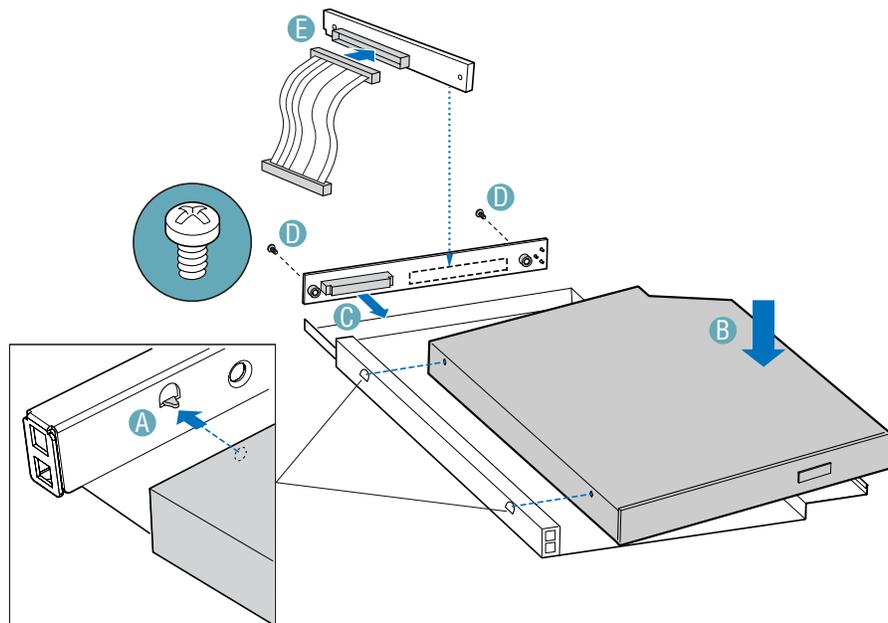
CD-ROM and DVD-ROM drives are NOT hot swappable. Before removing or replacing the drive, you must first take the server out of service, turn off all peripheral devices connected to the system, turn off the system by pressing the power button, and unplug the AC power cord from the system or wall outlet.

Installing a DVD-ROM or CD-ROM Drive into Slimline Bay (Backplane Installed)

⇒ NOTE

The carrier for the slimline DVD-ROM drive / CD-ROM drive was pre-installed in the slimline drive bay of your Server Chassis SR1400.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Push in on the blue lever at the rear of the CD-ROM / DVD-ROM drive carrier and push the carrier out through the front of the chassis.
6. Align the two holes at left edge of DVD-ROM / CD-ROM drive with the cutouts in drive carrier. See letter “A” in the figure below.
7. Lower the right side of the DVD-ROM / CD-ROM drive into the carrier until it clicks into place. See letter “B” in the figure below.
8. Use the two screws indicated in the figure to attach the interposer board to the DVD-ROM / CD-ROM drive. See letters “C” and “D” in the figure.
9. Attach the 44-pin CD-ROM drive cable to the exposed side / back of the interposer board. See letter “E” in the figure.



TP01085

Figure 41. Installing a DVD-ROM / CD-ROM Drive into the Carrier

- Slide the DVD-ROM / CD-ROM drive carrier into the chassis. See letter “A” in the figure below.
- Connect the loose end of the CD-ROM drive cable to the backplane connector. See letter “B” in the figure.

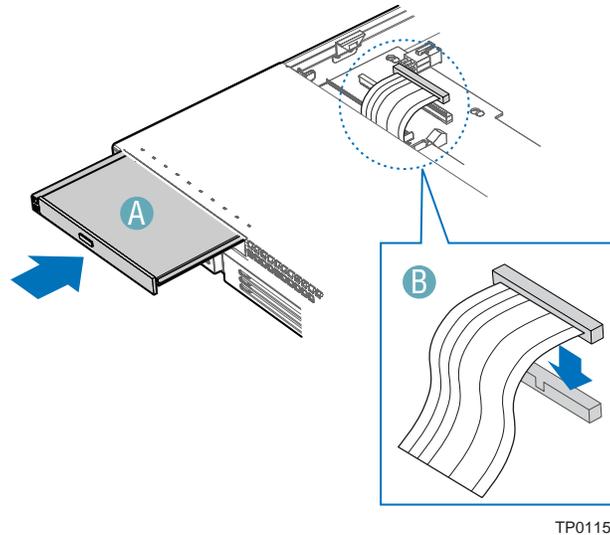


Figure 42. Installing a DVD/CDROM Drive into the Chassis

- Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
- (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
- Plug all peripheral devices and the AC power cable back into the server.

Removing a CD-ROM or DVD-ROM Drive from the Slimline Bay (Backplane Installed)

- Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
- Power down the server and unplug all peripheral devices and the AC power cable.
- Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
- Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
- Disconnect the CD-ROM data cable from the backplane.
- Push in on the blue lever at the rear of the drive carrier. Slide the drive carrier out through the front of the chassis.
- Press downward on the side of the carrier release the drive from the drive carrier.
- Disconnect the data cable from the rear of the CD-ROM or DVD-ROM drive.
- Remove the two screws at the rear of the CD-ROM or DVD-ROM drive to disconnect the interposer board.

10. Store the screw and interposer board for future use. Suggestion: tape the screw to the drive carrier.
11. Slide the empty drive carrier into the chassis until it clicks into place.
12. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
13. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
14. Plug all peripheral devices and the AC power cable back into the server.

Installing DVD-ROM or CD-ROM Drive into Slimline Bay (No Backplane Installed)

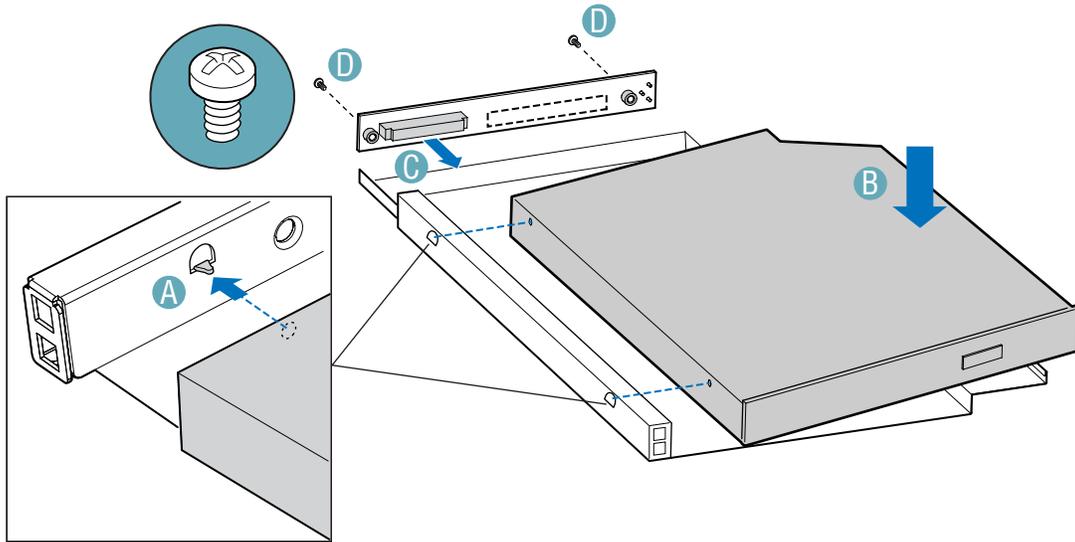
⇒ NOTE

The carrier for the slimline DVD-ROM drive / CD-ROM drive was pre-installed in the slimline drive bay of your Server Chassis SR1400. The interposer board and floppy drive power adapter cable used in these instructions was sent to you with your fixed drive kit.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the front bezel if it is installed. For instructions, see [“Removing and Installing the Front Bezel.”](#)
5. Push in on the blue lever at the rear of the CD-ROM / DVD-ROM drive carrier and push the carrier out through the front of the chassis.

Hardware Installations and Upgrades

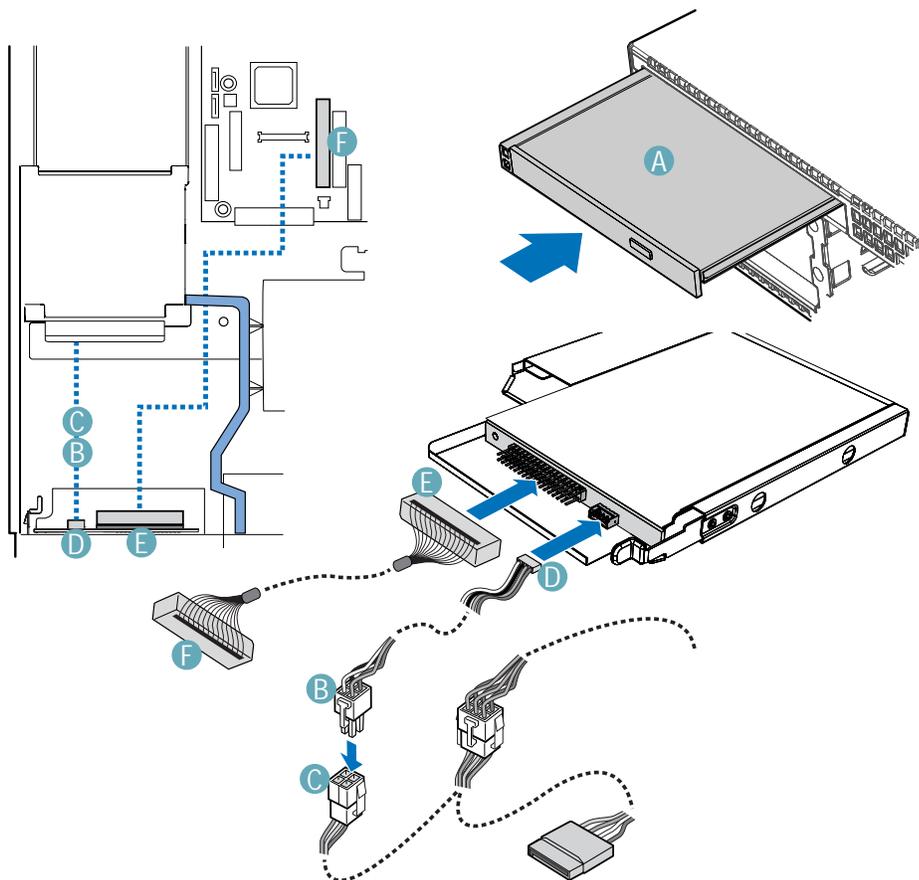
6. Align the two holes at left edge of DVD-ROM / CD-ROM drive with the cutouts in drive carrier. See letter “A” in the figure below.
7. Lower the right side of the DVD-ROM / CD-ROM drive into the carrier until it clicks into place. See letter “B” in the figure below.
8. Use the two screws indicated in the figure to attach the interpose board to the DVD-ROM / CD-ROM drive. See letters “C” and “D” in the figure.



TP01166

Figure 43. Installing a DVD-ROM or CD-ROM Drive into the Carrier

9. Insert the DVD-ROM / CD-ROM drive carrier into the chassis. See letter “A” in the figure below.
10. If it is not already connected, connect the 2x3 end of the DVD-ROM/CD-ROM drive power cable that was included with your fixed drive kit to the 2x3 power connector on the SATA power adapter cable. See letters “B” and “C” in the figure below.
11. Connect the drive power cable to the power connector on the rear of the DVD-ROM or CD-ROM drive. See letter “D” in the figure.
12. Connect the DVD-ROM / CD-ROM drive data cable that was included with your kit between the interposer board and the IDE connector on the server board. See letters “E” and “F” in the figure. See your server board documentation for assistance in locating the connector location on the server board.
13. Route the DVD-ROM / CD-ROM drive data cable over the top of air baffle, as shown in the diagram below.
14. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
15. (Optional) Install the front bezel. For instructions, see [“Removing and Installing the Front Bezel.”](#)
16. Plug all peripheral devices and the AC power cable back into the server.



TP01167

Figure 44. Installing a DVD-ROM or CD-ROM Drive into the Chassis

Installing and Removing a PCI Riser Connector

You received your server chassis with your choice of one of two PCI riser solutions.



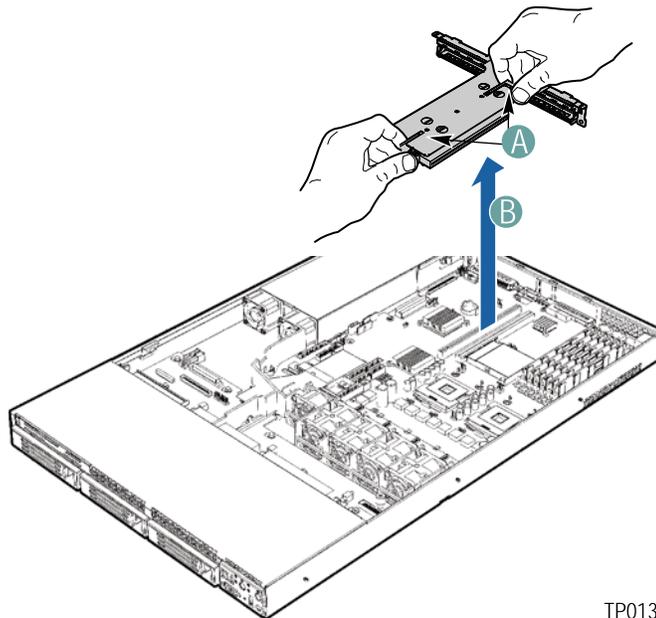
CAUTION

PCI riser connectors are NOT hot swappable. Before removing or replacing the riser connector, 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 PCI Riser Connector

To install the PCI riser connector, use the following instructions.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Pull up on the two latches on the assembly. See letter “A” in the figure below.
5. Lift the PCI riser assembly from the chassis.



TP01312

Figure 45. Removing the PCI Riser Assembly from the Chassis

6. Line up the screws on the riser assembly with the slot and the large hole on the riser connector.
7. Press and hold the blue riser locking lever. See letter “A” in the figure below.
8. Place riser connector onto the retention pins.
9. Slide the riser connector to the right to lock it into place.
10. Release the blue locking lever.

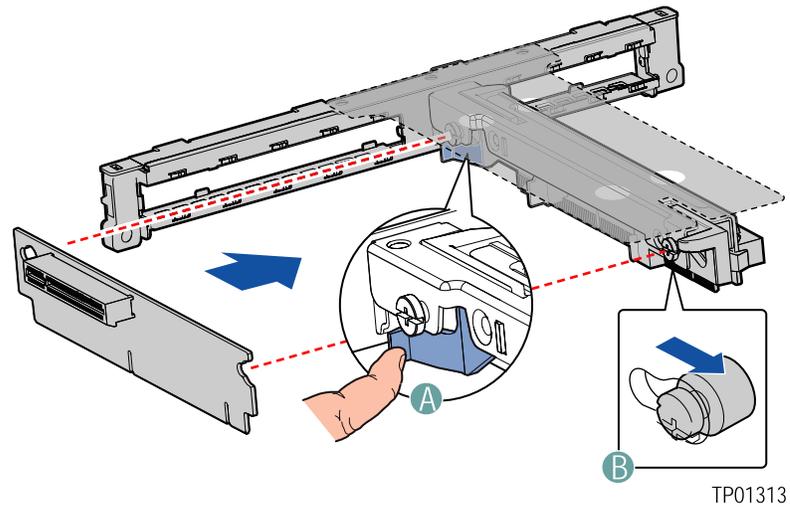
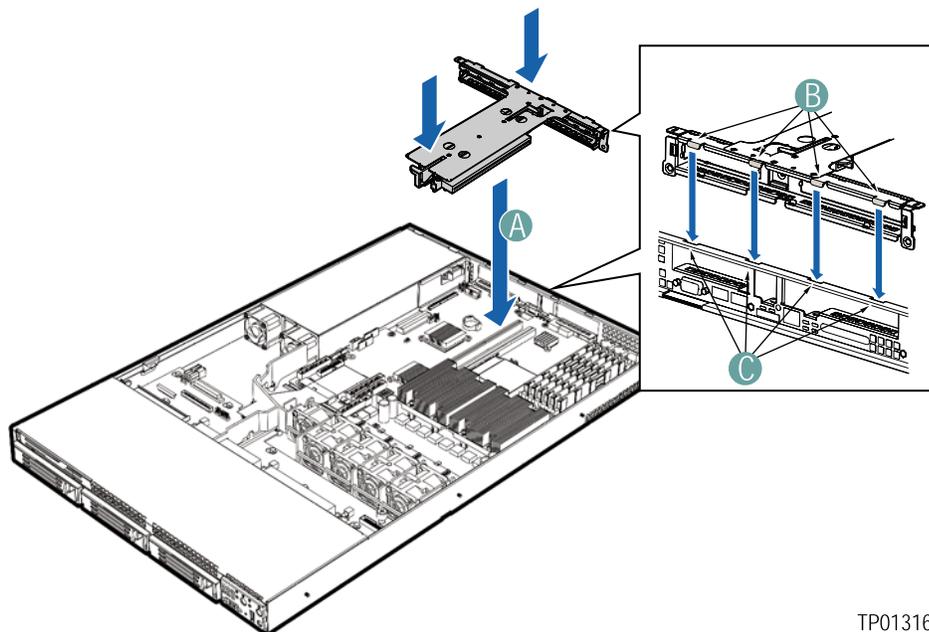


Figure 46. Installing an Add-in Card Connector into the PCI Riser Assembly

11. Install a PCI add-in card, if desired. For instructions, see [“Installing a PCI Add-in Card.”](#)
12. Position the riser assembly over the PCI sockets on the server board (see letter “A” in the figure below), lining up the four hooks at the rear of the riser assembly (see letter “B”) with the four slots in the rear of the chassis (see letter “C”).
13. Push the riser assembly down until the assembly is securely seated.



TP01316

Figure 47. Installing the PCI Riser Assembly into the Chassis

14. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
15. Plug all peripheral devices and the AC power cable back into the server.

Removing a PCI Riser Connector

The PCI riser connector can be replaced if it fails or if a different option is required. To replace the PCI riser connector, use the following instructions to remove it, and then follow the instructions under [“Installing a PCI Riser Connector”](#) to install a new riser connector.

⇒ NOTE

To eliminate the possibility of installing the replacement connector on the wrong side of the PCI riser assembly, replace one connector at a time.

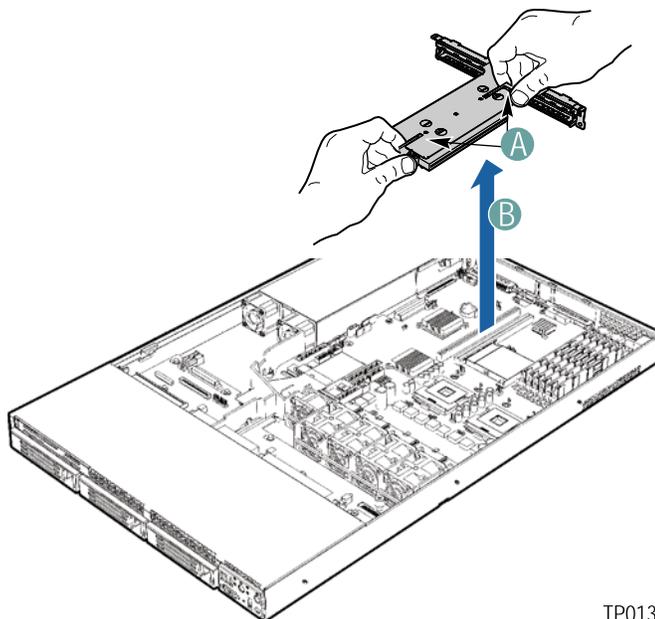
1. Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
4. Lift up on the two blue levers to lift the PCI riser assembly from the chassis.
5. Remove any PCI add-in cards that are installed in the connector. For instructions, see [“Removing a PCI Add-in Card.”](#)
6. Push back on the blue release lever at the end of the riser connector. While holding the lever back, push firmly on the other edge of the board to disengage the board from the riser.
7. Follow the steps under [“Installing a PCI Riser Connector”](#) to install a replacement riser connector.
8. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)

Installing and Removing a PCI Add-in Card

Installing a PCI Add-in Card

In the slots provided by the PCI riser connector, you can install either one or two add-in cards. Use the following instructions to install an add-in card.

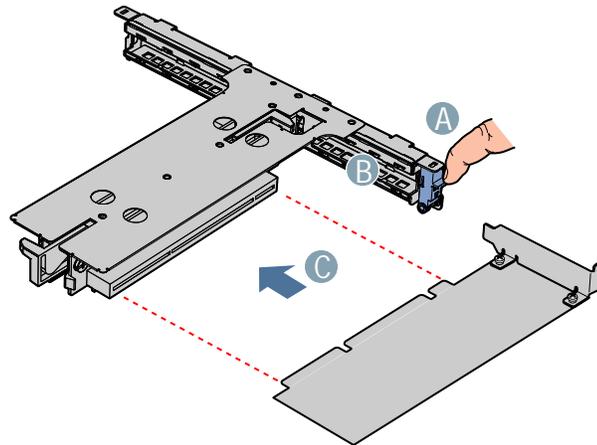
1. Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)
4. Pull up on the two latches on the assembly. See letter “A” in the figure below.
5. Lift the PCI riser assembly from the chassis.



TP01312

Figure 48. Removing the PCI Riser Assembly from the Chassis

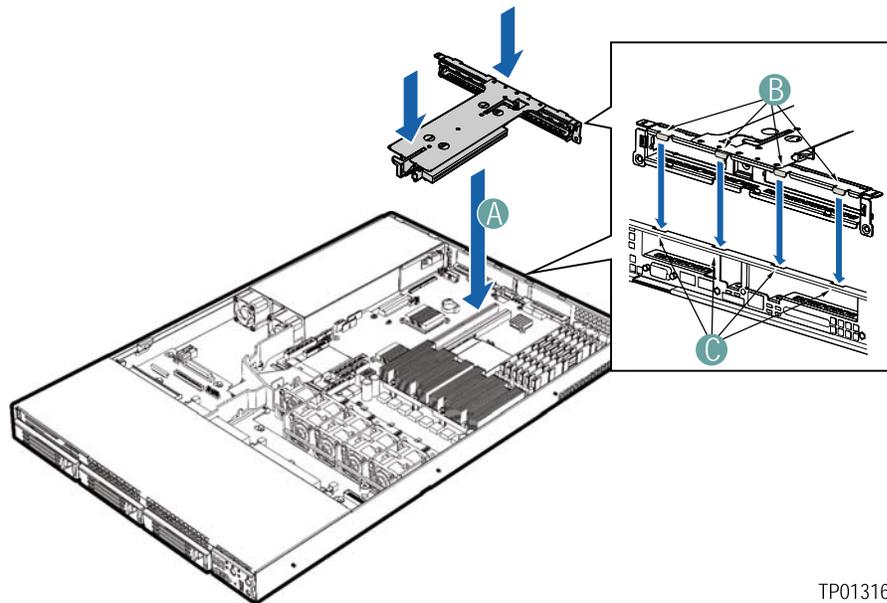
6. Open the PCI retention clip on the PCI riser card assembly. See letter “A” in the figure below.
7. Remove the filler panel at the back of the riser assembly. See letter “B” in the figure below.
8. Insert the add-in card until it seats in riser card connector. Make sure the bracket inserts into the matching slot. See letter “C”.
9. Close the retention clip. See letter “A” in the figure.



TP01315

Figure 49. Installing an Add-in Card to the PCI Riser Assembly

10. Position the riser assembly over the PCI sockets on the server board (see letter “A” in the figure below), lining up the four hooks at the rear of the riser assembly (see letter “B”) with the four slots in the rear of the chassis (see letter “C”).
11. Push the riser assembly down until the assembly is securely seated.



TP01316

Figure 50. Installing the PCI Riser Assembly into the Chassis

10. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
11. Plug all peripheral devices and the AC power cable back into the server.

Removing a PCI Add-in Card

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Pull up on the two latches on the riser assembly.
5. Lift the PCI riser assembly from the chassis.
6. Open the PCI retention clip on the PCI riser card assembly.
7. Remove the add-in card
8. Close the retention clip.
12. Position the riser assembly over the PCI sockets on the server board.
13. Push the riser assembly down until the assembly is securely seated.
9. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
10. Plug all peripheral devices and the AC power cable back into the server.

Replacing the Control Panel

The steps for replacing the Standard Control Panel and the Intel® Local Control Panel are nearly identical. Use the steps below for both varieties of the control panel. Where necessary, differences between the two control panels are noted.

Your server must be operated with a control panel installed.



CAUTION

The control panel is NOT hot swappable. Before removing or replacing the control panel, 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.

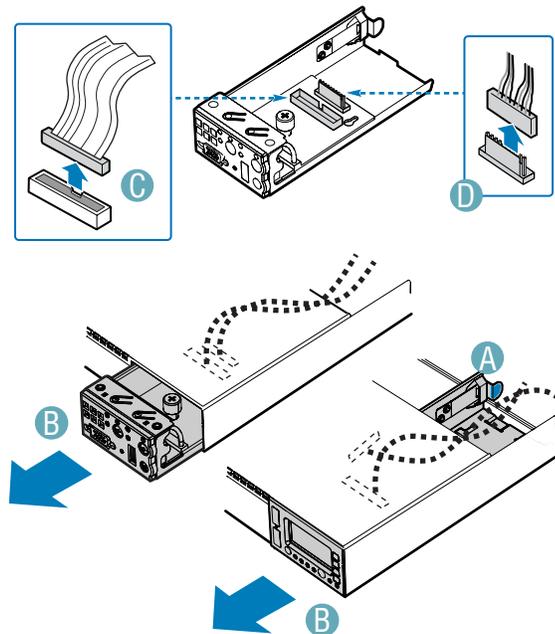
1. Observe the safety and ESD precautions at the beginning of this book. See [“Safety Information.”](#)
2. Power down the server and unplug all peripheral devices and the AC power cable.
3. Remove the chassis cover. For instructions, see [“Removing the Chassis Cover.”](#)

4. Press the latch at the back of the control panel. See letter “A” in the figure below.
5. Slide the control panel out through the front of the chassis far enough so that you can reach the front panel and USB cable connectors at the rear of the control panel. See letter “B” in the figure. You may need to disconnect the ends of the front panel and USB cables that are attached to the server board or to a backplane board to create sufficient slack to slide the control panel module from the chassis.
6. Disconnect the front panel cable and the USB cable from the front panel control board at the rear of the control panel. See letters “C” and “D” in the figure.



NOTE

The cables at the rear of the control panel are positioned differently for the Intel® Local Control Panel and the Standard Control Panel. In the Local Control Panel, the USB cable (letter “D” in the figure below) is perpendicular to the front panel cable (letter “C” in the figure below), instead of parallel to it. Note the positions as you remove the cables from the control panel.



TP01297

Figure 51. Removing the Control Panel from the Chassis

7. Connect the front panel cable and the USB cable to the replacement control panel.
8. Slide the replacement control panel into the chassis until it clicks into place.
9. If you needed to disconnect the front panel or USB cable from the server board or from a backplane board, reconnect the cable(s).
10. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
11. Plug all peripheral devices and the AC power cable back into the server.

Replacing a System Fan

The system fans at the front of the Server Chassis SR1400 can be individually replaced if one of them fails. Use the steps below to replace either a dual rotor fan or a single rotor fan.

The fans that are integrated into the power supply cannot be replaced separately. If one of the fans in the power supply fails, the power supply must be replaced.

To replace a dual rotor system fan, use the following instructions.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the processor air duct. For instructions, see [“Removing the Processor Air Duct.”](#)
5. Follow the cable from the failed fan to the connector on the fan distribution board.
6. Disconnect the cable from the fan distribution board.
7. There are no screws or connections to loosen. Lift the failed fan from the fan module assembly.
8. Note the position of the raised arrows in the top of the replacement fan. Position the fan so one arrow points to the left, and the other arrow points to the rear of the chassis.
9. With the fan arrows oriented correctly, insert the replacement fan into the fan module.
10. Connect the power cable for the fan into the fan distribution board.
11. Install the processor air duct. For instructions, see [“Installing the Processor Air Duct.”](#)
12. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
13. Plug all peripheral devices and the AC power cable back into the server.

Replacing the Power Supply



CAUTION

The power supply is NOT hot swappable. Before removing or replacing the 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.

The power supply can be replaced if it fails or if one of the fans that is integrated into it fails. To replace the power supply, use the following instructions.

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the air baffle. For instructions, see [“Removing the Air Baffle.”](#)
5. Unplug the power signal cable, main power cable, and CPU power cables that are connected to the server board. See your server board documentation to locate the connection points. If you have a backplane installed, you may need to disconnect the flex cable from the server board to access one or more of these cables. See letter “A” in the figure below to locate the flex cable.
6. If you have a backplane installed, disconnect the 2x3 power cable from the backplane. See letter “B” in the figure below.
7. If you are using fixed drives, disconnect the 2x3 power cable adapter from the power supply cable.

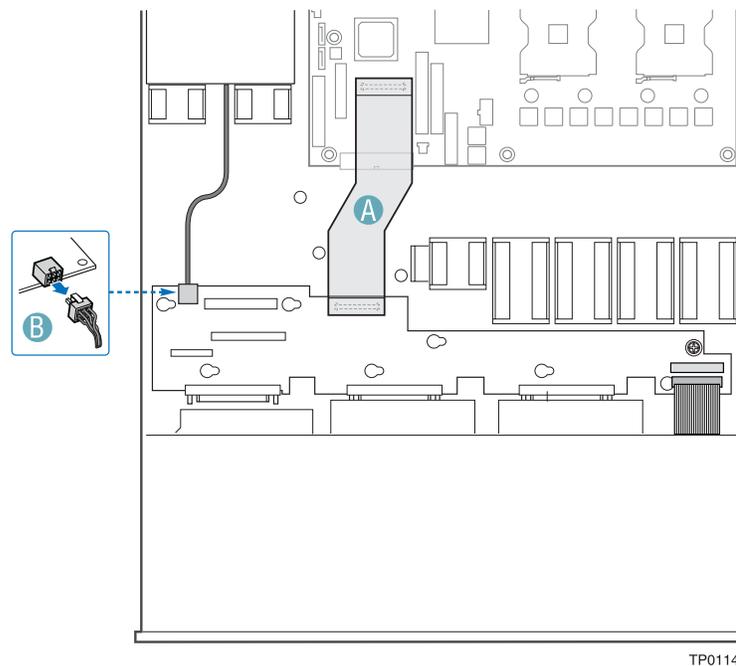


Figure 52. Removing the Power Supply Connections

8. There are no screws or connections to loosen. Lift up on the front edge of the power supply (closest to the front of the chassis).
9. Pull the power supply toward you to disengage it from the clips that hold it at the rear of the chassis.
10. Lift the power supply from the chassis.
11. Set the replacement power supply into the chassis.
12. Push the power supply towards the rear of the chassis, engaging it underneath the two clips at the rear of the chassis.
13. Connect the power signal cable, the main power cable, and the CPU power cable to the server board. See your server board documentation to locate the connection points on the server board.
14. If you are using a backplane, connect the 2x3 power cable to the backplane.

15. If you are using a backplane, connect the backplane flex cable to server board if you needed to detach it earlier.
16. If you are using a fixed drive kit, connect the 2x3 power cable to the SATA power cable adapter.
17. Install the air baffle. For instructions, see [“Installing the Air Baffle.”](#)
18. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
19. Plug all peripheral devices and the AC power cable back into the server.

Removing and Installing the SATA or SCSI Backplane

You received your server chassis with your choice of one of drive installation options:

- A hot-swap SCSI option that came with a SCSI backplane board.
- A hot-swap SATA option that came with a SATA backplane board.
- A fixed SATA drive option. This option does not include a board to install.



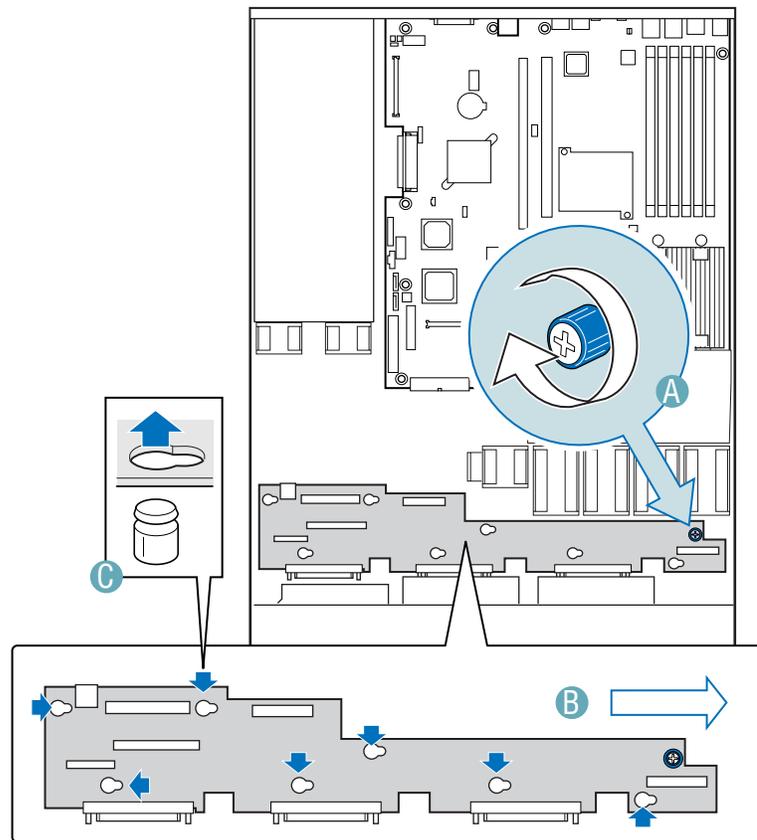
CAUTION

The backplane is NOT hot swappable. Before removing or replacing the backplane, 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.

The backplane board and the hardware that came with the backplane can be replaced if your backplane fails or if a different option is required. To replace the backplane, use the following instructions to remove and then to install a backplane.

Removing the SATA or SCSI Backplane

1. Observe the safety and ESD precautions at the beginning of this book. See “[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 Chassis Cover.](#)”
4. Remove the air baffle. For instructions, see “[Removing the Air Baffle.](#)”
5. Remove all hot-swap drive carriers. For instructions, see “[Error! Reference source not found.](#)”
6. Disconnect all cables from the backplane:
7. Loosen the blue captive screw at the right side of the backplane. See letter “A” in the figure below
8. Slide the board to the right until it stops. Do not pull on any components on the board – grasp only on the edges of the board. See letter “B” in the figure.
9. Lift the backplane from the chassis. The holes in the backplane will slide from the matching pins in the chassis. If any of the pins catches on the holes, it means you have not slid the board fully to the right. See letter “C” in the figure.

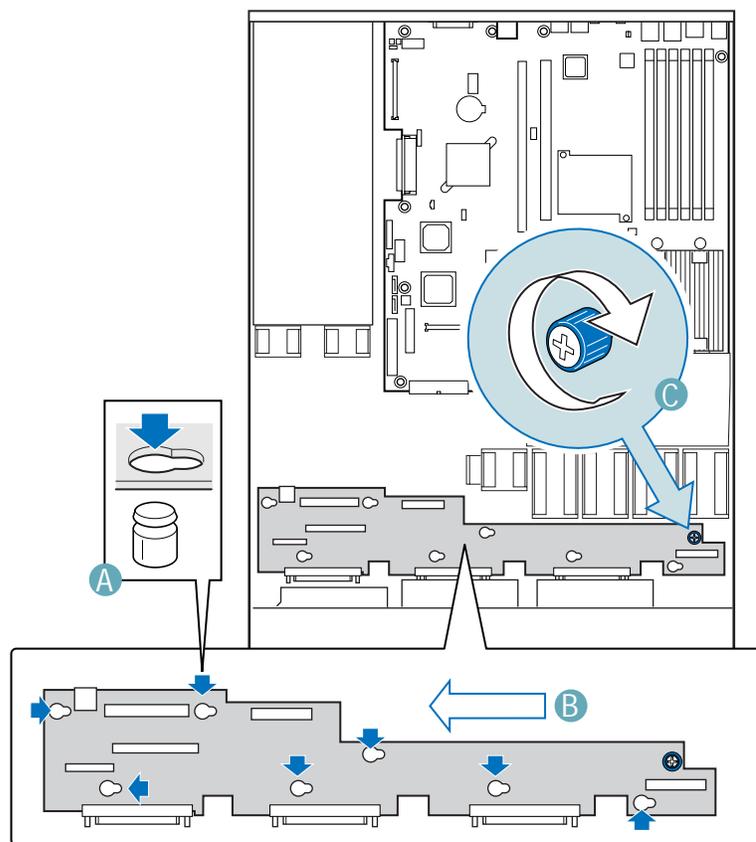


TP01146

Figure 53. Removing the SATA or SCSI Backplane from the Chassis

Installing the SCSI or SATA Backplane

1. Observe the safety and ESD precautions at the beginning of this book. See [“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 Chassis Cover.”](#)
4. Remove the air baffle. For instructions, see [“Removing the Air Baffle.”](#)
5. Remove all hot-swap drive carriers. For instructions, see [“Error! Reference source not found.”](#)
6. Set the backplane board in place so that the holes in the board fit through the pegs in the bottom of the server chassis. See letter “A” in the figure below.
7. Slide the board to the left until it stops. Do not pull on any components on the board – grasp only on the edges of the board. See letter “B” in the figure.
8. Tighten the blue captive screw at the right side of the backplane board. See letter “C” in the figure.



TP01146

Figure 54. Installing a SATA or SCSI Backplane into the Chassis

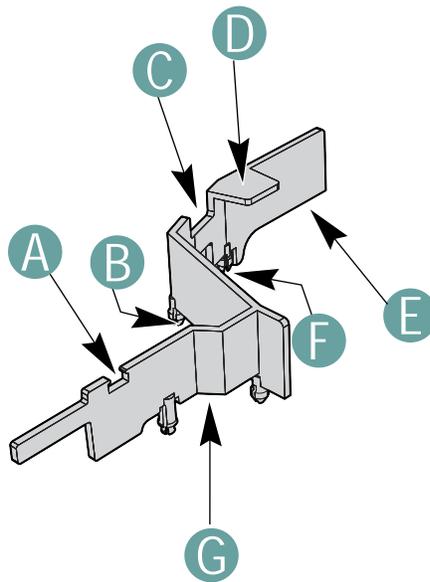
Hardware Installations and Upgrades

9. Connect the following cables to the backplane:
 - Front panel cable
 - Power cable
 - Flex cable. The cable indicates the end that is to be connected to the backplane.
 - (SCSI backplane only): SCSI Channel A cable. The cable indicates the end that is to be connected to the backplane.
 - (SATA backplane only): SATA cable(s).
 - Floppy drive cable, if applicable
 - CD-ROM drive cable, if applicable
10. Install the air baffle. For instructions, see [“Installing the Air Baffle.”](#)
11. Install the chassis cover. For instructions, see [“Installing the Chassis Cover.”](#)
12. Install the hot-swap hard drive(s), if applicable. For instructions, see [“Removing a SATA or SCSI Hot-swap Hard Disk Drive.”](#)
13. (Optional) Install the front bezel. For instructions, see [“Installing the Front Bezel.”](#)

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. Use the tables and figure below to determine the correct cable routing.



TP01321

Figure 55. Cable Routing Around the Air Baffle



NOTE

For cable routing that refers to letter “D”, route cables underneath the indicated tab.

Table 2. Cable Routing Around Air Baffle for Fixed Drive Installation

Cable	A	B	C	D	E	F	G
Main Power Cable						X	
CPU Power Cable						X	
Power Signal Cable					X		
Front Panel USB Cable			X				X
Front Panel Cable		X					X
Floppy Data Cable					X		
CD ROM Data Cable			X				
SATA Power Cable							X
SATA Data Cable(s)	X		X	X			

Table 3. Cable Routing Around Air Baffle for Hot-Swap Drive Installation

Cable	A	B	C	D	E	F	G
Main Power Cable						X	
CPU Power Cable						X	
Power Signal Cable					X		
Front Panel USB Cable			X				X
Backplane Flex Cable		X					
SATA Data Cable(s)	X		X	X			
SCSI Cable(s)			X				
CD ROM Data Cable					X		

Power Supply Specifications

500-W Single Power Supply Input Voltages

- 100-127 V~ at 50/60 Hz; 8.2 A max.
- 200-240 V~ at 50/60 Hz; 4.1 A max.

500-W Single Power Supply Output Voltages

The table below lists the total wattage available from the power subsystem for each voltage. Ensure that your loads do not exceed the combined total wattage of 500 Watts. For information about calculating the power usage for your configuration, see [“Calculating Power Usage.”](#)

Table 1. 500-W Power Supply System Output Capability

Voltage	Maximum Current
+3.3 V	16 A
+5.0 V	12 A
+5 V Standby	2 A
+12.0	35 A
-12.0 V	0.5 A



CAUTION

Do not exceed a combined power output of 90Watts for the +5 V and +3.3 V outputs. Exceeding a combined 90 Watts will overload the power subsystem and may cause the power supplies to overheat and malfunction.

System Environmental Specifications

Table 2. Environmental Specifications

Temperature Non-operating Operating	–40 ° to 70 °C. 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 Packaged	2.0 g, 11 msec, 1/2 sine Operational after an 18" free fall.
Acoustic noise	7 Bels in sound power for a typical office ambient temperature (65-75 °F). Your selection of peripherals may change the noise level.
Electrostatic discharge (ESD)	Tested to 15 kilovolts (kV); no component damage.

Equipment Log and Worksheets

Equipment Log

Use this equipment log to record information about your server.

Item	Manufacturer Name and Model Number	Serial Number	Date Installed
Chassis			
Server Board			
Processor Speed and Cache			
Memory			
Video Display			
Keyboard			
Mouse			
Diskette Drive A			
CD-ROM Drive			
Hard Disk Drive			
Hard Disk Drive			
Hard Disk Drive			
Intel® Management Module			
Intel® Local Control Panel			

Current Usage

Calculating Power Usage

The total combined wattage for your configuration **must be less than the wattage rating for your power supply**. Use the worksheets in this section to calculate the total used by your configuration. See the documentation that came with your add-in boards for their current and voltage information.

Worksheet, Calculating DC Power Usage

Table 3. Power Usage Worksheet 1

Device	Current (maximum) at voltage level:					
	+3.3 V	+5 V	-5 V	+12 V	-12 V	5 V Standby
Baseboard, Front Panel Board and Fans						
Processor(s)						
Memory						
3.5-inch Diskette Drive						
CD-ROM Drive						
1st Hard Drive						
2nd Hard Drive						
3rd Hard Drive						
Expansion Board 1						
Expansion Board 2						
Intel® Management Module						
Local Control Panel						
Total Current						

Worksheet, Total Combined Power Used by the Server

1. From the previous worksheet, enter the total current for each column.
2. Multiply the voltage by the total current to get the total wattage for each voltage level.
3. Add the total wattage for each voltage level to arrive at the total combined power usage for the power subsystem.

Table 4. Power Usage Worksheet 2

Voltage level and total current (V X A = W)	Total Watts for each voltage level
(+3.3 V) X (_____ A)	_____ W
(+5 V) X (_____ A)	_____ W
(+12 V) X (_____ A)	_____ W
(-12 V) X (_____ A)	_____ W
(5 V standby) X (_____ A)	_____ W
Total Combined Wattage	_____ W



CAUTION

Do not exceed a combined power output of 140 Watts for the +5 V and +3.3 V outputs. Exceeding a combined 140 Watts will overload the power subsystem and may cause the power supplies to overheat and malfunction.

Regulatory and Compliance Information

Product Regulatory Compliance

Product Safety Compliance

The Server Chassis SR1400 complies with the following 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

The Server Chassis SR1400 has been tested and verified to comply with the following electromagnetic compatibility (EMC) regulations when installed 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 product is marked with the following Product Certification Markings:

Table 4. Product Certification Markings

Regulatory Compliance	Country	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

continued

Table 4. Product Certification Markings (continued)

Regulatory Compliance	Country	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 (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
1-800-628-8686

Regulatory Information and Compliance

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: "Appareils Numériques", NMB-003 édictée 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 too, 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 notice above:

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 RRL Compliance



1. 기기의 명칭(모델명) :
2. 인증번호 :
3. 인증받은 자의 상호 :
4. 제조년월일 :
5. 제조자/제조국가 :

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 component 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 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.

Getting Help

World Wide Web

<http://support.intel.com/support/motherboards/server/SR1400>

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 the “Issue Report Form” on the following pages.

In U.S. and Canada		1-800-404-2284	
In Europe			
UK	0870 6072439	Finland	9 693 79297
France	01 41 918529	Denmark	38 487077
Germany	069 9509 6099	Norway	23 1620 50
Italy	02 696 33276	Sweden	08 445 1251
Spain	91 377 8166	Holland	020 487 4562
In Asia-Pacific region			
Australia	1800 649931	Indonesian	001-803 65 7249
Hong Kong	852 2 844 4456	Malaysia	1-800 80 1390
Korea	822 767 2595	New Zealand	0800 444 365
PRC	800 820 1100	Pakistan	632 6368415 (IDD via Philippines)
Singapore	65 213-1311	Philippines	1-800 1 651 0117
Taiwan	2 2545-1640	Thailand	1-800 6310003
India	0006517-830 3634	Vietnam	632 6368416 (IDD via Philippines)
In Japan			
0120-868686 (Domestic)		81-298-47-0800 (outside country)	
In Latin America			
Brazil	0021-0811-408-5540	Ecuador	999-119, 800-628-8686 (via AT&T)
Mexico	001-800-628-8686	Guatemala	99-99-190, 800-628-8686 (via AT&T)
Colombia	980-9-122-118	Venezuela	800-11-120, 800-628-8686 (via AT&T)
Costa Rica	0-800-011-0395	Argentina	001-800-222-1001, 800-628-8686 (via AT&T)
Panama	001-800-628-8686	Paraguay	008-11, 800-628-8686 (via AT&T)
Chile	800-532-992	Peru	0-800-50000, 800-628-8686 (via AT&T)
Miami	1-800-621-8423	Uruguay	000-410, 800-628-8686 (via AT&T)

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

Intel® Server Issue Report Form

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

Server Board	DIMM Configuration
<input type="checkbox"/> Intel Server Board SE7520JR2	DIMM1A MB:
<input type="checkbox"/> Other (list):	DIMM1A Vendor/part number:
Baseboard Revision – PBA#:	DIMM1B MB:
Baseboard Serial Number:	DIMM1B Vendor/part number:
CPU1 Speed/Stepping/Spec:	DIMM2A MB:
CPU2 Speed/Stepping/Spec:	DIMM2A Vendor/part number:
System BIOS Version:	DIMM2B MB:
HSC Firmware Version:	DIMM2B Vendor/part number:
	DIMM3A MB:
	DIMM3A Vendor/part number:
	DIMM3B MB:
	DIMM3B Vendor/part number:

Operating System Information

Operating System _____

Version _____

Service Pack # _____

Peripheral Information

Check each box below that is used, and provide the requested information

Peripheral	Card Or Peripheral Description	Driver Revision	IRQ #	I/O Base Address	FW Rev#
Add-in Cards					
<input type="checkbox"/>	Add-in Card				
<input type="checkbox"/>	Add-in Card				
<input type="checkbox"/>	Add-in Card				

Video

On-Board Video

Add-in Video

NIC

On-Board NIC1

On-Board NIC2

Hard Drive Information:

IDE # of drives installed: _____
Make/Model/Firmware Revision _____

SCSI # of drives installed: _____
Make/Model/Firmware Revision _____

SATAI # of drives installed: _____
Make/Model/Firmware Revision _____

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.