

# Server Installation and Integration Guide

Using the Boxed Intel® Xeon™ Processor and  
Boxed Intel® SE7501BR2 Server Board



## ***Revision History***

<b>Date</b>	<b>Revision</b>	<b>Notes</b>	<b>Product Code</b>
8/18/03	1 <sup>st</sup> Draft		
9/12/03	2 <sup>nd</sup> Draft		

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# Introduction

## Document Overview

This guide outlines the procedures for integrating the Intel® SE7501BR2 Server Platform using the Intel SE7501BR2 Server Board and Intel Xeon™ processors.

This guide consists of the most essential information first-time server builders need to successfully assemble an Intel server solution. Your particular operating system's installation guide will cover the installation of the server's operating system.



## Target Audience

- Intel channel program members who are expanding their expertise to include server platforms and current channel program members looking for a refresher on servers
- System integrators deploying servers based on boxed Intel SE7501BR2 Server Boards

Our intent is to better enable system integrators, particularly first time server builders, to meet the competitive challenges they face in the server market and to keep program members up-to-date on emerging server technologies. By following the steps outlined in this document, you will be able to integrate an Intel SE7501BR2 Server Board with an Intel SC5200 Server Chassis in a timely and effective manner.

The Intel SC5200 Server Chassis is used as an example and is recommended for ease of integration and compatibility; other reference chassis may be different. Expanded installation instructions and complete product information are available in the *Intel® Server Board SE7501BR2 Product Guide* on the Resource CD.

## Thank you

Thank you for buying Intel Server Products.

## Troubleshooting Guide

In the unlikely event you do encounter issues, the troubleshooting guide will help you troubleshoot and identify possible areas of concern regarding the Intel SE7501BR2 Server Board. It will also assist you in collecting the data needed to help you work through any concerns or issues that may arise. The troubleshooting guide includes suggestions that may help you and a list of information that we will need to assist you should you need to call. The troubleshooting guide is available at:

<http://support.intel.com/support/motherboards/server/SE7501BR2/tsg.htm>

If you are unable to resolve a problem using this guide, please follow these steps:

1. Visit <http://support.intel.com/support/motherboards/server/SE7501BR2>. This Web site contains the latest information on known issues and their respective solutions. If you are still unable to resolve the issue, go to the next step.
2. Send e-mail including as much information on the issue as possible to Intel customer support using the form available at this URL:  
<http://supportmail.intel.com/scripts-emf/welcome.asp?id=37>
3. Channel Customers can contact Intel customer support toll free at 1-866-655-6565. Non-channel customers should use one of the numbers listed at  
<http://www.intel.com/support/9089.htm>

## Minimum Hardware Requirements

Your system must meet the following minimum requirements to avoid integration difficulties and possible board damage:

- **Processor:** Minimum of one 1.8-GHz Intel Xeon processor with 512K cache support in a 603-pin (400-Mhz FSB) or 604-pin (533-Mhz FSB) INT Flip-Chip micro Pin-Grid Array (INT-mPGA). For a list of tested processors, visit  
[http://support.intel.com/support/motherboards/server/se7501br2/supp\\_proc.htm](http://support.intel.com/support/motherboards/server/se7501br2/supp_proc.htm)
- **Memory:** Minimum of two identical 128-MB ECC DDR 266-compliant registered SDRAM 168-pin gold DIMMs. For a list of tested memory, visit  
[http://support.intel.com/support/motherboards/server/se7501br2/tested\\_mem.htm](http://support.intel.com/support/motherboards/server/se7501br2/tested_mem.htm)
- **Power:** Minimum of 450W with 1.2A standby current which meets the SSI EPS 12V specification. Intel provides a power budgeting tool to help you determine the power needs of your server at  
[http://support.intel.com/support/motherboards/server/pwr\\_budget.htm](http://support.intel.com/support/motherboards/server/pwr_budget.htm)

Additional resources and support for your server board, including tested chassis, qualified chassis components, specifications, and software updates, can be found at  
<http://support.intel.com/support/motherboards/server/SE7501BR2>

# Hardware Integration

The following installation procedures enable you to prepare a chassis for integration, add the needed components to your server board, and install the server board. The procedures are condensed from the more comprehensive and detailed Product Guides for the SE7501BR2 Server Board and SC5200 Server Chassis. To access the most current and complete Product Guides and for more information, visit Intel Support at:

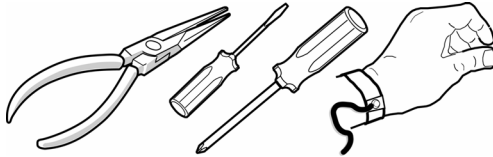
<http://support.intel.com/support/motherboards/server/se7501br2/>



## Prepare for Assembly

1. Gather tools needed:

- Needle nose pliers
- Flat blade screwdriver
- Philips screwdriver
- Antistatic wrist strap



2. Prepare a clean, static-controlled, uncluttered, flat, level workspace.
3. Collect and organize all necessary hardware including the server board, memory, processor(s), and peripherals (hard drives, floppy disk drive, CD/DVD).
4. Verify that the components chosen for installation are listed as validated for use with the Intel SE7501BR2 Server Board. This information is available from the Intel Support Web site: <http://support.intel.com/support/motherboards/server/se7501br2/>.

## **Important Safety Information**

### **Safety Instructions and Information**

To avoid personal injury or property damage, the following safety instructions apply whenever working inside the chassis:

1. Turn off all peripheral devices connected to this product.
2. Turn off the system by pressing the power button on the front of the product.
3. Disconnect the AC power by unplugging all AC power cords from the system or wall outlet.
4. Disconnect all cables and telecommunication lines that are connected to the system.
5. Retain all screws or other fasteners when removing access cover(s). When finished, refasten the access cover with original screws or fasteners.
6. Do not access the inside of the power supply. There are no serviceable parts in the power supply. If the power supply is malfunctioning, return it to the manufacturer for servicing.

### **Electrostatic Discharge (ESD)**

#### **CAUTION**

Perform the procedures in this product guide only at an electrostatic discharge (ESD) workstation, because the server components can be extremely sensitive to ESD. If no such station is available, you can reduce the risk of electrostatic discharge damage by doing the following:

- Wear an antistatic wrist strap, and attach it to a metal part of the server.
- Touch the metal on the server chassis before touching the server components.
- Keep part of your body in contact with the metal server chassis to dissipate the static charge while handling the components.
- Avoid moving around unnecessarily.
- Hold the server components (especially boards) only by the edges.
- Place the server components on a grounded, static-free surface. Use a conductive foam pad if available, but not the component wrapper.
- Do not slide the components over any surface.



## Chassis Preparation and Server Board Installation

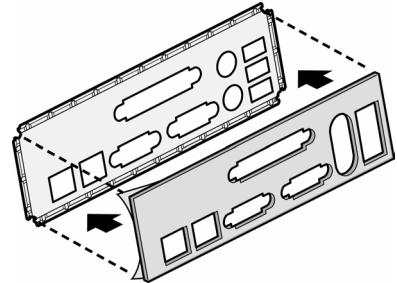
### About the I/O Shield

An ATX 2.03-compliant I/O shield is provided with your server board. The shield is required by Electromagnetic Interference (EMI) regulations. It minimizes EMI and helps obtain proper cooling of the server.

The shield fits the rectangular opening near the power supply in the back of the chassis. The shield has cutouts that match the external I/O connectors (such as keyboard and mouse).

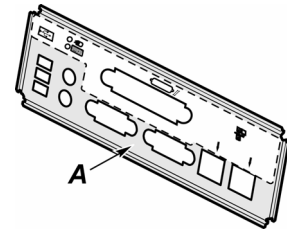
### Attaching the Gasket to the I/O Shield

1. Remove the two backing strips from the gasket.
2. Press the gasket onto the inside face of the I/O shield as shown.



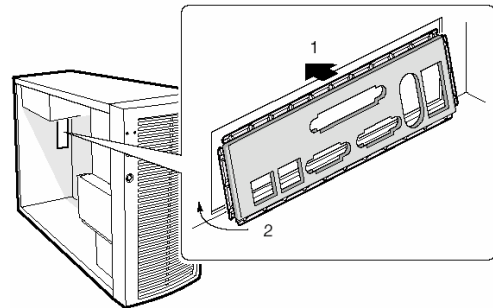
### Attaching the Label to the I/O Shield

1. Remove the backing from the label included with your server board.
2. Press the label onto the outside face of the I/O shield (A).



### Installing the I/O Shield

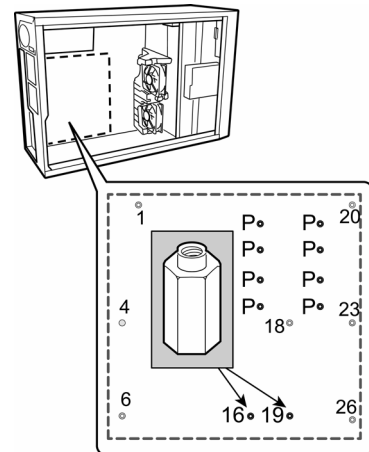
Position one edge of the shield so that the dotted groove is outside the chassis wall, and the lip of the shield rests on the inner chassis wall.



## Installing Chassis Standoffs

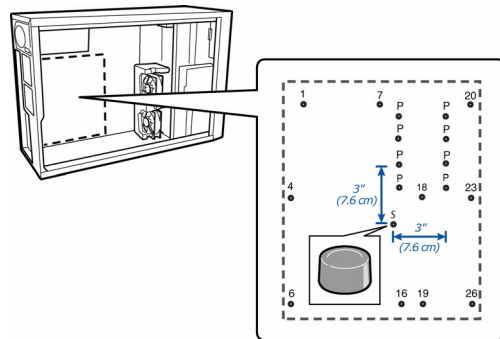
If your chassis does not have standoffs placed as shown, you must rearrange them so they match the holes in the server board. Failure to properly rearrange the metal standoffs may cause the server board to malfunction and permanently damage it. Your chassis may be different from the illustration, but you must still arrange the standoffs properly.

When using an Intel Server Chassis SC5200, positions 1, 4, 6, 20, 23, and 26 come preinstalled. You must install standoffs in positions 16 and 19. Install standoffs in the eight positions marked P **regardless of whether one or two processors will be installed**. Standoffs are included with this chassis.



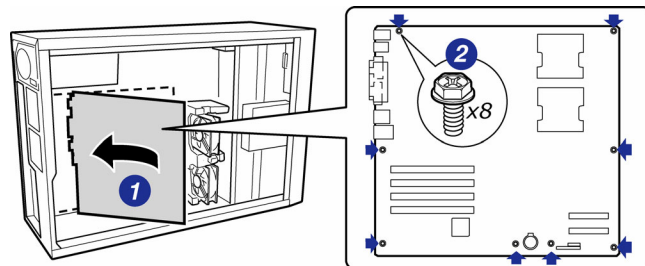
## Installing the Rubber Bumper

Attach the rubber bumper to the chassis. The bumper should cover the indicated chassis standoff hole. On the Intel Server Chassis SC5200, the standoff is marked 'S'. On other chassis, place the bumper approximately three inches below and to the left of the standoffs marked P as shown.



## Installing the Server Board

1. Place the board into the chassis, making sure that the back panel's I/O shield opening and chassis standoffs align correctly.
2. Attach the board, with the screws included with your chassis at the eight locations shown.



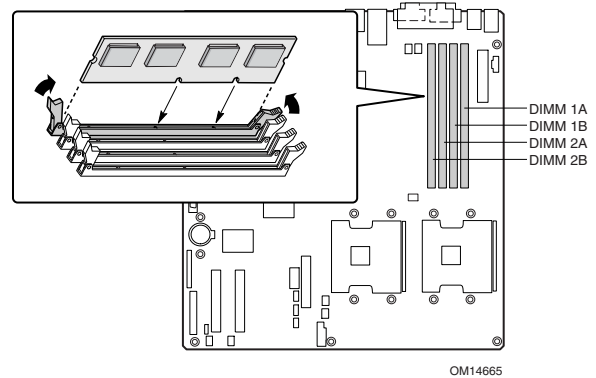
### NOTE

If a single processor is to be installed, also insert screws into the four standoff locations bordering the CPU2 socket.

## Installing Memory

The server board supports only DDR266-compliant DIMMs. The minimum supported memory configuration is 256 MB, using two 128-MB DIMMs. The maximum configurable memory size is 8 GB using four 2-GB DIMMs.

Memory must be installed in pairs and must be populated per bank starting with DIMM 1A and 1B (contiguous sockets). Although the SE7501BR2 server board architecture allows the user to mix various sizes of DIMMs between banks, DIMMs must be identical within each bank.



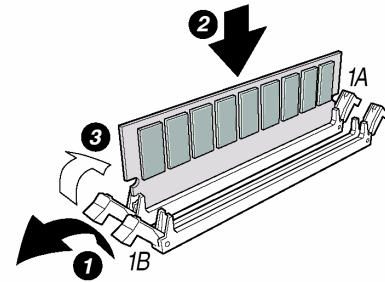
### **NOTE**

Use memory that has been tested for compatibility with the server board. For a list of tested memory, see:

[http://support.intel.com/support/motherboards/server/se7501br2/tested\\_mem.htm](http://support.intel.com/support/motherboards/server/se7501br2/tested_mem.htm)

If the server board is not already installed in the chassis, remove the server board from its packaging and place it on a clean ESD-protected work surface.

1. Open both DIMM socket levers.
2. Insert DIMM, making sure the connector edge of the DIMM aligns correctly with the slot.
3. Check that the socket levers are securely latched. DIMMs must be populated in identical pairs.



## Installing the Boxed Intel® Xeon™ Processor - Intel SC5200 Chassis, Base version

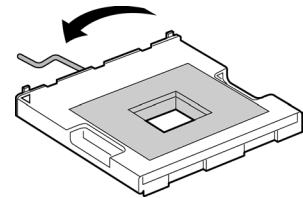
### Choosing the Processor Socket

Use these instructions for installing your processor instead of the instructions that came with your boxed processor unless you are using the Hot-Swap Redundant Power version of the Intel® SC5200 Server Chassis (see page 14 when installing in that chassis).

- If only ONE processor is to be used, it must be installed in the processor socket labeled CPU1, located closest to the corner of the server board. No processor terminator is required on a single processor system. Do not install a terminator in the SE7501BR2 Server Board.
- If installing a SECOND processor, verify that the processors are identical in voltage and speed. Do not mix processors of different types or frequencies.
- To avoid touching the pins, hold the processor only by the edges when unpacking it.

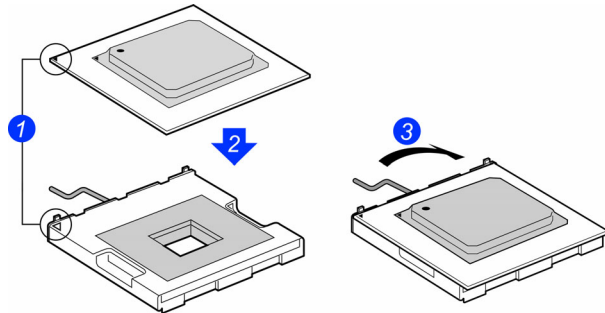
### Opening the Socket Lever

Open the lever all the way as shown. This server board has “zero-insertion force” (ZIF) sockets. If the processor does not drop easily into the socket holes, make sure the lever is in the full-open position and the processor is oriented properly. Applying pressure will damage the processor pins.



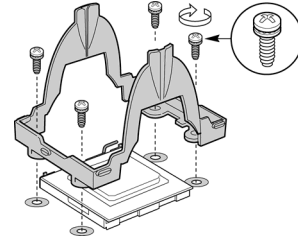
### Attaching the Processor

1. Align the alignment triangle mark on the processor with the alignment triangle cutout on the socket.
2. Insert the processor in the socket.
3. Close the socket lever all the way as shown.



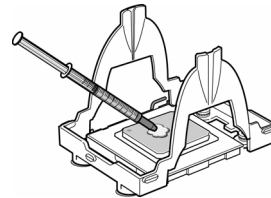
## Installing the Retention Mechanism

1. Insert the retention brackets.
2. Tighten the four retention screws.



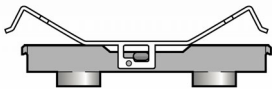
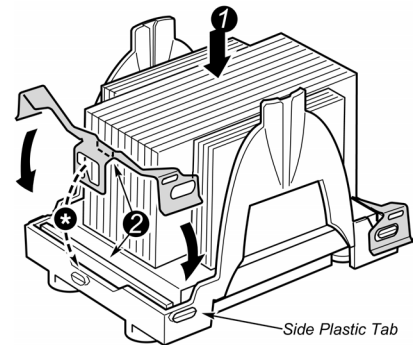
## Applying Thermal Grease

Apply thermal grease to the processor as shown.

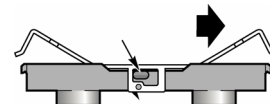


## Attaching the Heat Sink and Retention Clips

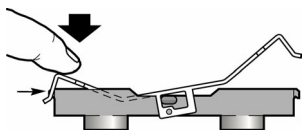
1. Place the heat sink onto the processor as shown. *Heat sink styles may differ.*
  2. Verify that the tab on the inside of the retention clip engages the slot on the heat sink during installation.
- \* The center slot in the clip provides room for side-to-side motion while you engage the retention clip slots on each side.



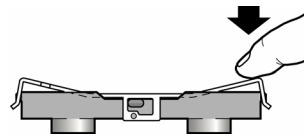
1. Position both clips as shown. Make sure the tab (2) above engages the slot on the heat sink base.



2. Slide the clip in the direction shown. Note the location of the center plastic tab.



3. Press downward on the retention clip end to engage the side plastic tab.



4. Snap the other end as shown.



### NOTE

Install both retention clips simultaneously for the easiest installation.

## Installing the Boxed Intel® Xeon™ Processor – Intel SC5200 Server Chassis, Hot-Swap Redundant Power Version

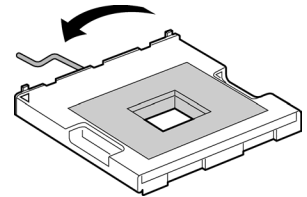
### Choosing the Processor Socket

Use these instructions for installing your processor when using the Hot-Swap Redundant Power version of the Intel® SC5200 Server Chassis.

- If only ONE processor is to be used, it must be installed in the processor socket labeled CPU1, located closest to the corner of the server board. No processor terminator is required on a single processor system. Do not install a terminator in the SE7501BR2 Server Board.
- If installing a SECOND processor, verify that the processors are identical in voltage and speed. Do not mix processors of different types or frequencies.
- To avoid touching the pins, hold the processor only by the edges when unpacking it.

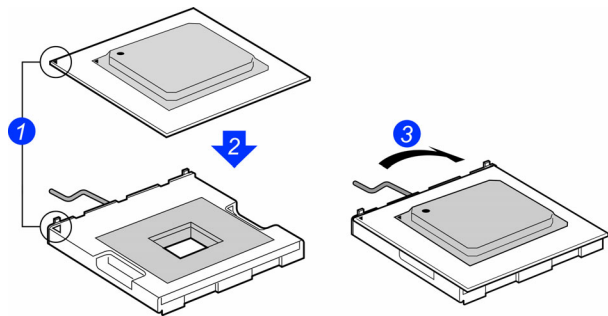
### Opening the Socket Lever

Open the lever all the way as shown. This server board has “zero-insertion force” (ZIF) sockets. If the processor does not drop easily into the socket holes, make sure the lever is in the full-open position and the processor is oriented properly. Applying pressure will damage the processor pins.



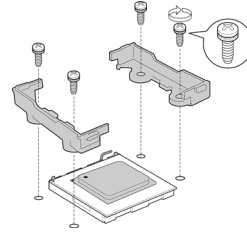
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1. Align the alignment triangle mark on the processor with the alignment triangle cutout on the socket.
2. Insert the processor in the socket.
3. Close the socket lever all the way as shown.



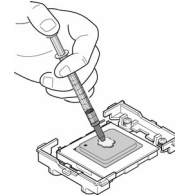
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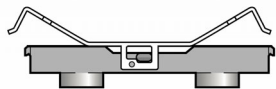
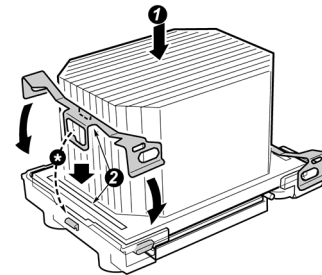
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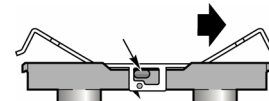


## Attaching the Heat Sink and Retention Clips

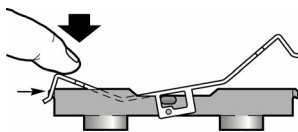
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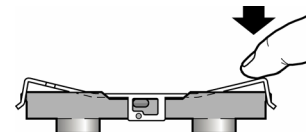
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4. Snap the other end as shown.



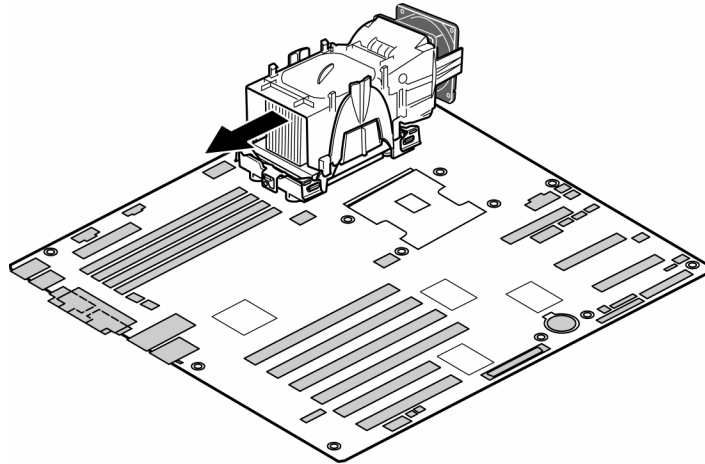
### NOTE

Install both retention clips simultaneously for the easiest installation.

## Installing the Processor Wind Tunnel

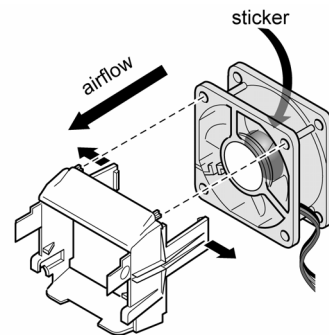
The following instructions apply to the base Intel Server Chassis SC5200 and reference chassis installations. If you are installing your server board in the Intel SC5200 Server Chassis, Hot-Swap Redundant Power version, **do not** install the processor wind tunnel. The ducting in this Server Chassis eliminates the need for a processor wind tunnel.

Direct the airflow from the processor wind tunnel toward the rear of the chassis as shown.



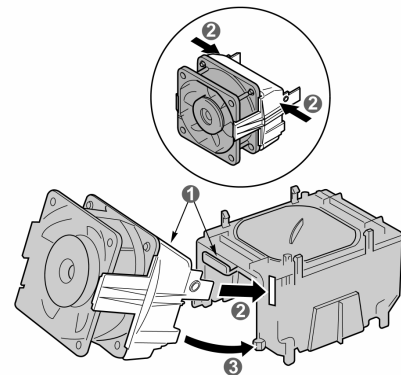
## Attaching the Heat Sink Fan

Install the processor wind tunnel center section over the heat sink. The plastic tabs on the wind tunnel center section must engage the tabs on the retention mechanism. Make sure the fan's sticker is facing away from the assembly, so that the airflow is into the assembly.



## Attaching the Fan/Intake Assembly

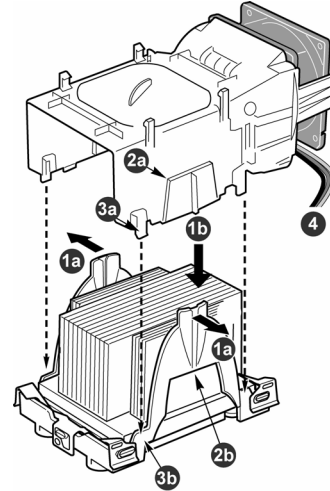
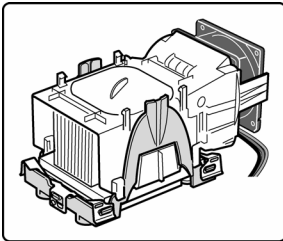
1. Position the fan/intake assembly at approximately 45°, and engage the clip at the top of the tunnel as shown.
2. Gently squeeze the two tabs on the intake, and insert it into the two mating slots on the wind tunnel.
3. Rotate the fan/intake downward to engage the mating clips on the wind tunnel.



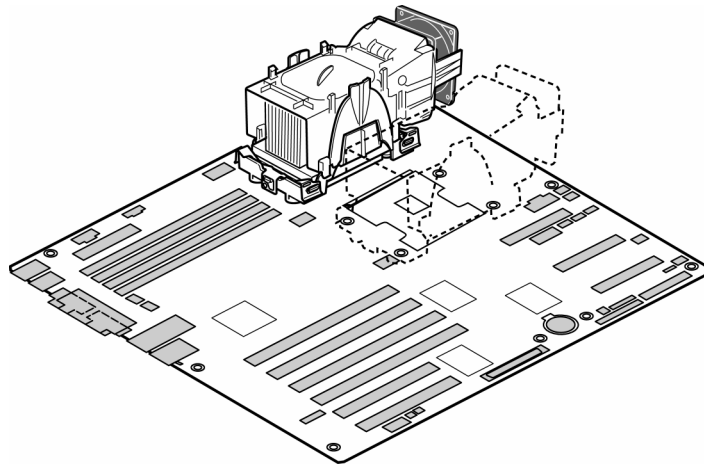


## Attaching the Wind Tunnel

1. Spread the tabs outward slightly (1a). Lower the wind tunnel assembly onto the retention mechanism (1b).
2. The tabs on the fan assembly (2a) slide into slots (2b) on the inner side of the retention mechanism.
3. The tabs on fan assembly (3a) connect to the outside surface of the retention mechanism (3b).
4. Then attach the fan power cable to the corresponding server board CPU fan connector.
5. Correct assembly should look like this:



When installing only one processor, there is no need to install the wind tunnel assembly over the second processor location. Use the wind tunnel assembly over a CPU socket only when a CPU is installed.



Install the rest of the internal peripherals of your server now, including any floppy, CD, and hard disk drives. See "Making Required Connections to the Server Board" below for the server board connection points.

## Making Required Connections to the Server Board

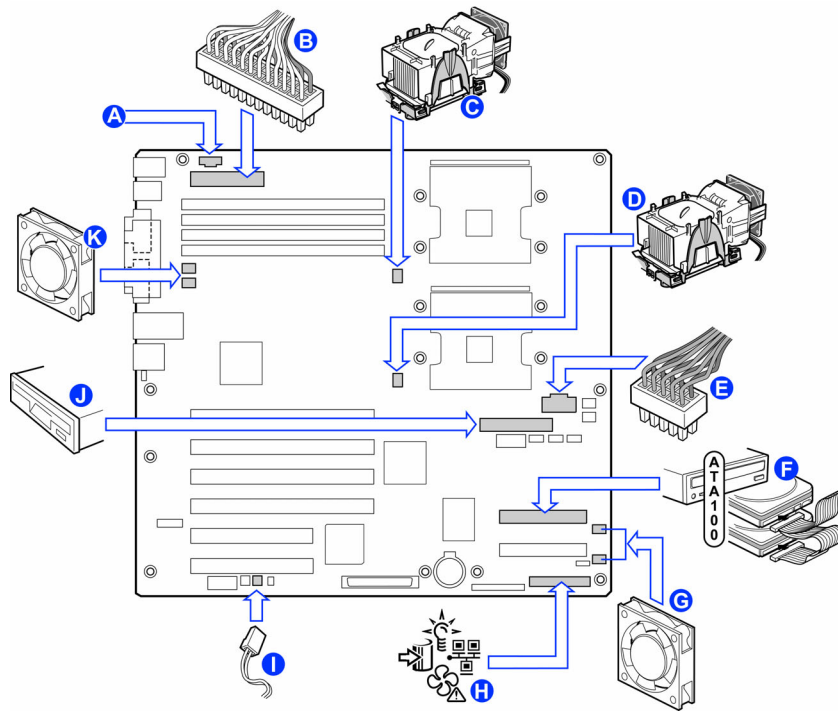
Make these connections regardless of the chassis used. Refer to your chassis documentation for additional connection requirements.

### Intel SC5200 Server Chassis Base Version:

- Connect the front system fans to the system fan connections 3 and 4 on the server board.

### Intel SC5200 Server Chassis Hot-Swap, Redundant Power Version:

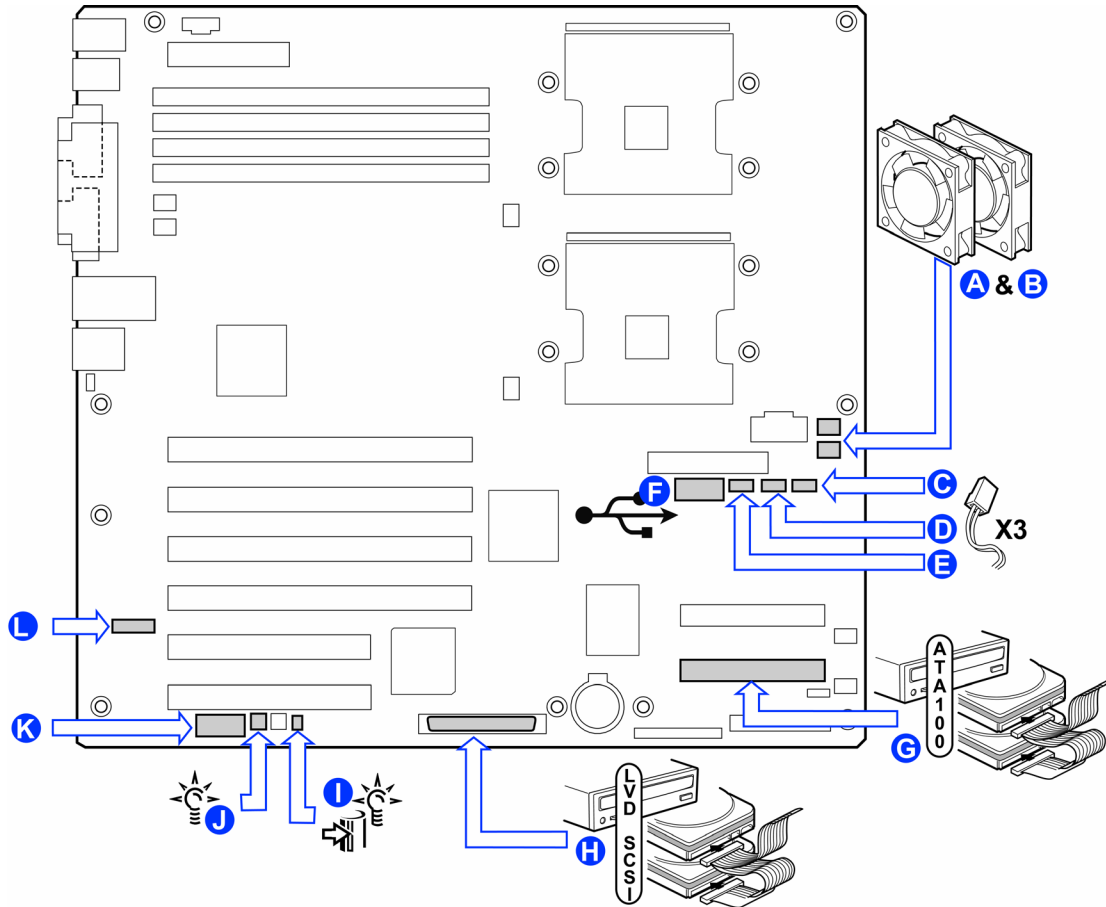
- Be sure to attach each system fan to its correspondingly numbered connector on the server board. System fan numbers are printed on the front and rear fan holders.



- |   |                 |   |   |
|---|-----------------|---|---|
| A | Auxiliary Power | G | System Fan 3 ( <i>lower connection</i> ) and System Fan 4 ( <i>upper connection</i> ) |
| B | Main Power      | H | Front Panel   |
| C | CPU1 Fan        | I | Chassis Intrusion   |
| D | CPU2 Fan        | J | Floppy Disk Drive   |
| E | Processor Power | K | System Fan 1 ( <i>upper connection</i> ) and System Fan 2 ( <i>lower connection</i> ) |
| F | ATA 100 IDE     |   |   |

## Making Optional Connections to the Server Board

These connections are required only when the corresponding component is installed.

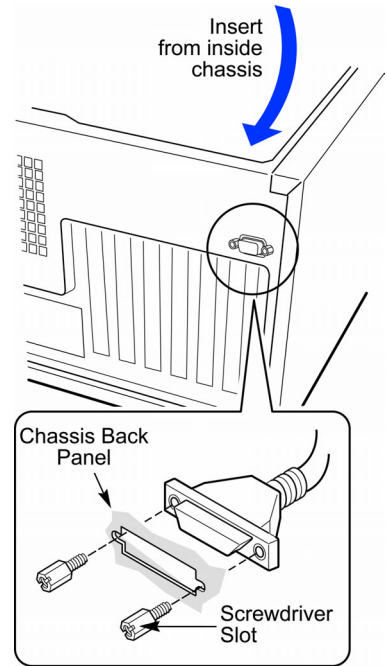


- |   |  |   |   |
|---|--|---|---|
| A | System Fan 6 ( <i>upper connection</i> )   | G | Secondary IDE                             |
| B | System Fan 5 ( <i>lower connection</i> )   | H | Low Voltage Differential (LVD) SCSI       |
| C | Intelligent Platform Management Bus (IPMB) | I | HDD LED                                   |
| D | Hot Swap Back Plane (HSBP) B               | J | Emergency Management Port (EMP) In Use    |
| E | Hot Swap Back Plane (HSBP) A               | K | Serial B                                  |
| F | USB Header                                 | L | Intelligent Chassis Management Bus (ICMB) |

## Installing the Serial B Cable

For the Intel Server Chassis SC5200, you can connect the Serial Port B cable to either the back of the chassis or, on a rack-mount system, to the front of the chassis.

1. Use a screwdriver to remove the connector knock-out.
2. Install the Serial B cable by inserting it into the chassis back panel cutout and attaching the two hex screws as shown.
3. Attach the other end of the cable to the Serial B connector on the server board. See "Making Optional Connections to the Server Board" on page 19.



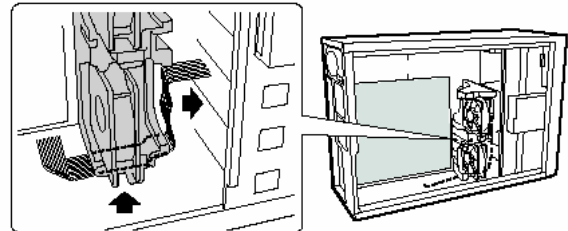
## Cable Routing – Intel SC5200 Chassis, Base version

To ensure proper airflow within the chassis, follow the cable routing guidelines below.

### IDE or SCSI Cables

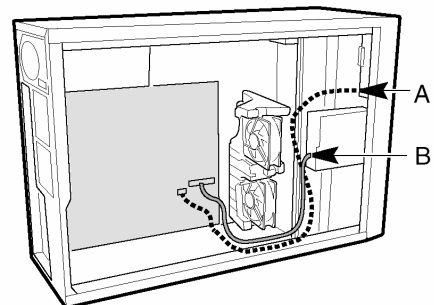
Cables that connect to devices in the lower device bays should be routed around the EPAC system fan carrier as shown.

1. Route cables as shown.
2. Replace the top half of the EPAC.



### Floppy and Front Panel Cables

Route the floppy drive and front panel cables as shown.

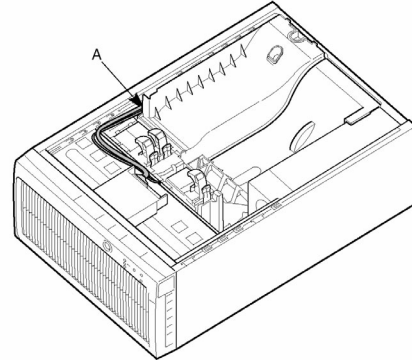


OM14376

- A. Front Panel Cable
- B. Floppy Diskette Cable

## Cable Routing – Intel SC5200 Server Chassis, Hot-Swap Redundant Power Version

Route the floppy drive cable and the hot-swap drive bay ICMB cable between the chassis wall and the hot-swap fan holder as shown at location A.

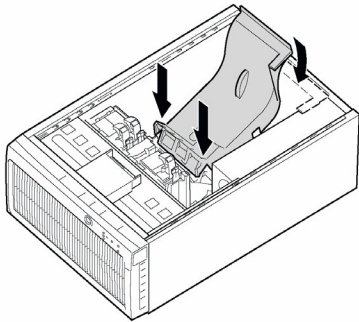


A. Cable Routing Location

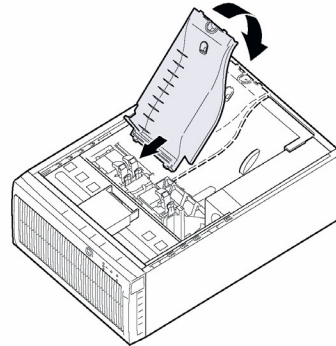
OM14377

## Installing the Plastic Air Ducting - Intel SC5200 Server Chassis, Hot-Swap Redundant Power Version

1. An air duct covers the processor. Place the tabs on that air duct into the hinge slots on the plastic fan carrier, and lower the duct into the chassis.
2. Another air duct covers the PCI slot area of the server board. Place the tabs on that air duct into the hinge slots on the plastic fan carrier, and lower the duct into the chassis.



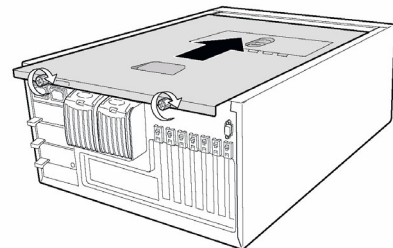
OM14019



OM14020

## Installing the Access Cover

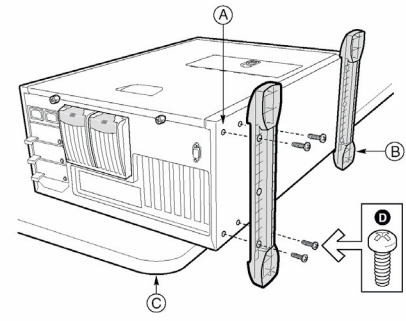
1. Place the cover so the tabs go into the slots on the server. The cover should be flush against the chassis.
2. Slide the cover forward until it stops.
3. Tighten the two captive screws into the rear of the chassis.



OM14021

## Installing the Chassis Feet (Pedestal Mode)

1. If you are installing this server into a rack system, skip these steps and go to "Installing into a Rack (Rack Mode)" below.
2. Move the chassis to the edge of your workbench.
3. Use four screws to attach each foot to the chassis. The holes in the feet line up with only one set of holes in the chassis. On the front foot, the middle hole should face toward the front of the chassis. Hole locations for the front foot are marked "F" and "1, 2". On the back foot, the middle hole should face toward the back of the chassis. Location holes for the rear foot are marked "F".



- OM14209
- A. Screw hole
  - B. Chassis foot
  - C. Workbench
  - D. Screw (M4 round head)

## Installing into a Rack (Rack Mode)

The Intel Server Chassis SC5200 is designed to be compatible with the EIA-310-d rack standard. Be sure to select a rack cabinet enclosure that is EIA-310-d compliant. For additional compatibility and rack cabinet selection information, see:

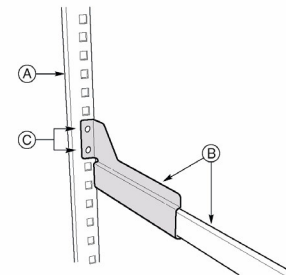
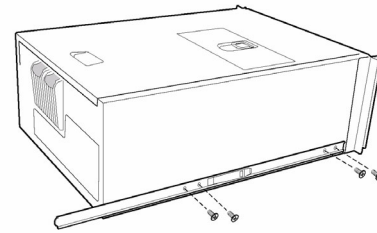
<http://support.intel.com/support/motherboards/server/chassis/sc5200>

1. Fully extend the rails.
2. Remove the smallest and innermost rail.
3. Position the rail.
4. Insert and tighten four screws.
5. Install the rest of the rail in your rack.



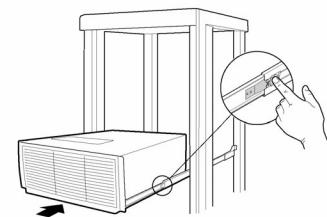
### NOTE

Your rack may vary from the illustration. Refer to your rack documentation for information specific to your rack.



- OM14910
- OM11973
- A. Rack
  - B. Rail Assembly
  - C. Mounting Holes

6. Hold the chassis so the rails on the chassis engage the rails in your rack. You will need someone to help you at this point.
7. Disengage the locking tab on each rail and slide the server into the rack.



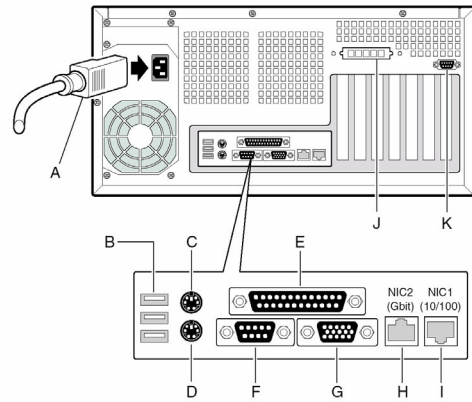
OM14211

## Finishing Up

### WARNING

**Install the chassis access cover before finishing up (See "Installing the Access Cover" on page 21.) An electrical shock hazard exists if the chassis access cover is not replaced before connecting the chassis AC power.**

1. Connect the keyboard, mouse and monitor cables to the back panel.
2. Connect the power cable to the back panel and to an AC outlet.



- |   |               |   |  |
|---|---------------|---|--|
| A | AC Power*     | G | Video                                  |
| B | USB 1,2, 3    | H | NIC2 (Gbit)                            |
| C | Mouse         | I | NIC1 (10/100)                          |
| D | Keyboard      | J | ICMB/External SCSI Connector Knockout* |
| E | Parallel Port | K | Serial B Knockout*                     |
| F | Serial A      |   |  |

OM14358

\* Intel SC5200 Base chassis shown here. Item may be different on your chassis.

# Software Installation

## Installing the Operating System

Consult your chosen operating system's documentation for information on setting up the operating system for your server. That documentation takes up where this guide leaves off, and steps you through setting up your server's operating system. Be sure to install the System Update Package first, then format the boot drive with an appropriate Intel Server Management drive partition, and then install the OS. When you are finished installing the server OS, install Intel Server Management and Intel SMaRT Tool.

For a list of validated operation systems, see:

<http://support.intel.com/support/motherboards/server/SE7501HG2/index.htm>

## System Update Package

Intel highly recommends that you go to the Intel Server Board SE7501BR2 support Web site and download and install the latest system update package for your operating system. The Intel Server Board SE7501BR2 support Web site is:

<http://support.intel.com/support/motherboards/server/SE7501BR2>. You'll find the System Update Package at the *Software and Servers* link.

The System Update Package simplifies the BIOS and firmware update process by providing all of the necessary files in one download and on one floppy disk. This package is most efficient when used in conjunction with the System Resource CD that ships with the Intel Server Board SE7501BR2. See the readme file and release notes for complete installation instructions.

The following utilities are included in the software update package:

- Baseboard Management Controller (BMC) firmware
- Hot-Swap Controller (HSC) firmware
- Field Replaceable Unit/Sensor Data Record (FRU/SDR)
- BIOS code

In addition, the SUP incorporates a menu-driven user interface to simplify the update process.

To launch the SUP:

1. Boot the server to the System Resource CD included with your board.
2. Choose "Quit to DOS" from the menu, and exit to a DOS prompt.
3. Place the SUP floppy disk into the A drive.
4. Type the command `a:SETUP.BAT` to launch the software upgrade package.
5. Follow the on-screen directions



## Intel Server Management

Intel Server Management and the service partition on the hard drive provide real-time monitoring and alerting for your server hardware, emergency remote management, and remote server setup.

Intel Server Management is implemented by installing it within client-server architecture. Intel Server Management provides an interface to the Intel® Server Maintenance and Reference Training Tool CD (Intel® SMaRT Tool) (see "Intel SMaRT Tool" on page 26), combining remote error detection and alerting with interactive maintenance and repair assistance. When Intel Server Management detects a hardware error and a part needs to be replaced, the Intel SMaRT Tool can be launched directly from Intel Server Management to locate the correct part information and the corresponding steps required to quickly get the server back up and running.

To get started with Intel Server Management, first install the Service Partition, then the operating system, and finally Intel Server Management (uninstall any previous versions first). The information here describes installation on a system running a Microsoft Windows operating system.

## Installing Intel Server Management

You can install Intel Server Management on a local server or on a remote workstation that is used to manage a LAN/WAN.

Insert the *Intel® Server Management CD* into the system's CD-ROM drive.

1. Click **Install Server Management**.
2. Complete the Registration form and click **Submit**.
3. Select the applicable system option.
4. Review the Intel Software License Agreement, and click **Accept**.
5. If installing to a local server, click **Install Now**. If this is a multiple system installation, click **Add** to compile a list of systems and then click **Install Now**.
6. Select Reboot Now or Reboot Later.
7. Remove the Intel Server Management CD.

## Intel SMaRT Tool

The Intel Server Maintenance and Reference Training Tool CD (Intel® SMaRT Tool) is an interactive software tool providing support information to assist with the maintenance and repair of Intel processor-based server systems and accessories. The Intel SMaRT Tool features visual, step-by-step instructions for replacing parts; a complete Field Replacement Unit (FRU) database containing part numbers and images; product spares lists; and worldwide Intel support information.

To activate the interface between Intel Server Management and the Intel SMaRT Tool, both software programs need to be installed. You can install the software on a server or on a workstation used to manage the server. The information here describes installation on a system running a Microsoft Windows operating system. Intel SMaRT Tool and Intel Server Management Console may only be installed on a system running a Microsoft Windows operating system.

## Installing the Intel SMaRT Tool

Follow the instructions below to install the Intel SMaRT Tool on your system.

1. Insert the *Intel® Server Board SE7501BR2 Resource CD* into the system's CD-ROM drive.
2. Click **Intel SMaRT Tool** in the menu on the left side of the screen.
3. In the green **Make a Selection** drop-down menu, select **SMaRT Tool Install Guide**. Print the Guide, and keep it on hand for reference.
4. Review the *Intel SMaRT Tool Install Guide* prior to proceeding.
5. In the Make a Selection drop-down menu, select **Install SMaRT Tool**.
6. Click the **Run Installer** icon to launch the Intel SMaRT Tool Setup program.
7. Follow the on-screen installation instructions. Review the Intel Software License Agreement and click **Accept**. When installation is complete, launch Intel SMaRT Tool.
8. On the Welcome page, click **Systems**.
9. Select **System > Servers > Xeon > SE7501BR2 SC5200**, and then follow the on-screen instructions to download the SE7501BR2 SC5200 server system module. You must have internet access to download the server system module. When the download is complete, Intel SMaRT Tool will restart.
10. Select **System > Servers > Xeon > SE7501BR2 SC5200** to access information on your new server system.
11. You can invoke the Intel SMaRT Tool directly from Intel Server Management's Platform Instrumentation Control application by clicking on the Intel SMaRT Tool icon, or by selecting **Launch SMaRT Tool** from the **SMaRT Tool** menu. The interface between the two programs is context-sensitive. To find out more about the integration between Intel SMaRT Tool and Intel Server Management, please select **SMaRT Tool and Server Management** in the **Make a Selection** drop-down menu.