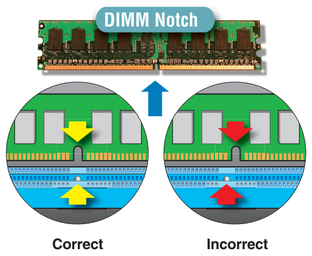
Side 2

7 Identify DIMM Memory

> ⚠ You must install the correct DIMMs to avoid possible damage to server board DIMM sockets. See the minimum hardware requirements to determine the correct DIMM type for your server board.

The illustrations below show the correct alignment between the DIMM notch and the server board DIMM socket. DDR and DDR-2 DIMM notches align differently. Before installing your DIMMs, make sure the notch in the DIMM aligns correctly with your server board.

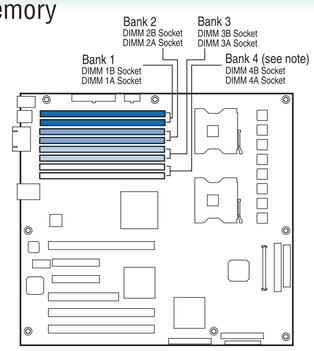


8 Install DIMM Memory

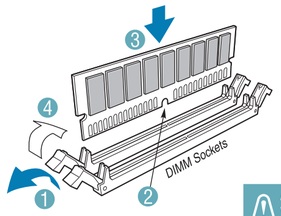
Memory Type: See "Minimum Harware Requirements" on the reverse side of this document for DIMM requirements.

Notes and Cautions:
A single DIMM can be used in the either slot of Bank 1 (DIMM1B or DIMM1A). Bank 1 must be fully populated before populating Bank 2 (DIMM2B and DIMM2A). Memory in Banks 2 through 4 must be populated in pairs.

The DIMM size, speed and vendor must be the same within a bank. However, the DIMM size can vary between banks. For example, Bank 1 can use two 256MB DIMMs and Bank 2 can use two 512MB DIMMs.



Note: Bank 4 (DIMM 4B and DIMM 4A) are available only on the DDR2 versions of the Server Board SE7520BD2



1. Open both DIMM socket levers.
2. Note location of alignment notch.
3. Insert DIMM making sure the connector edge of the DIMM aligns correctly with the slot.
4. Check that socket levers are securely latched.

> ⚠ Avoid touching gold contacts when handling or installing DIMMs.

9 Make Connections to the Server Board

Intel® Entry Server Chassis SC5275-E Note: Install the hard drive bay before making your connections. See the Quick Start User's Guide that came with your server chassis for instructions.

Intel® Entry Server Chassis SC5295-E Note: Before making server board connections, return to the Quick Start User's Guide that came with your server chassis When directed by the server chassis Quick Start User's Guide, return to this document to make your server board connections.

Required Connections	SC5300, All configurations	SC5275-E or SC5295-E
E. Main Power Connector	■	■
D. Auxiliary Signal Connector	■	■ See Note
F. +12V CPU Power Connector	■	■
L. Front Panel Connector	■	■
O. IDE Connector	■	■
A. Chassis Intrusion Header	⃠	■

■ = Make this connection ⃠ = Do not connect

Note: The Server Chassis SC5295-E DP does not support an auxilliary signal connector.

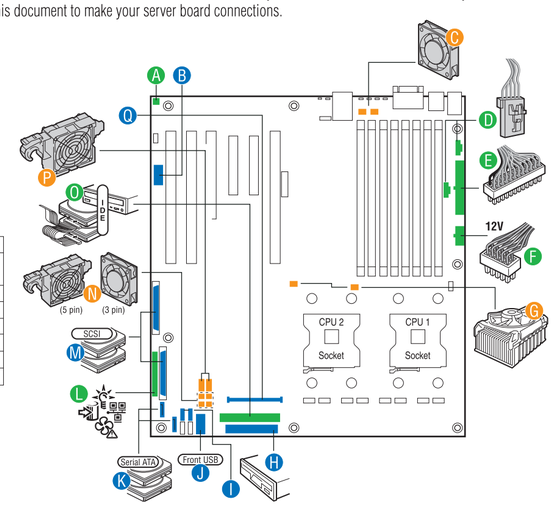
CPU/System Fan (see note)	SC5300 Base/BRP	SC5300 LX	SC5275-E or SC5295-E
G. CPU Fan 1 (right)	⃠	⃠	■ CPU Fan 1
G. CPU Fan 2 (left) *... if CPU 2 is installed*	⃠	⃠	■ CPU Fan 2
N. Fan 1 Header (left)	■ Fan 1 (3-pin)	■ Fan 1 (5-pin)	■ Front Fan, see Note
N. Fan 2 Header (right)	⃠	■ Fan 2 (5-pin)	⃠
P. Fan 3 Header (left)	■ Fan 3 (6-pin)	■ Fan 3 (6-pin)	⃠
P. Fan 4 Header (right)	⃠	■ Fan 4 (6-pin)	⃠
C. Fan 5 Header (left)	⃠	⃠	■ Rear Fan
C. Fan 6 Header (right)	⃠	⃠	⃠

■ = Make this connection ⃠ = Do not connect

Note: On the Server Chassis SC5295-E DP, the front fan connection is available only if a hot-swap backplane is installed.

Optional Connections	SC5300, Fixed Drives	SC5300, HS Drives	SC5275-E or SC5295-E
I. Hot-swap Backplane Headers A-B	⃠	■	■
M. SCSI Connectors	■	■	■
H. Floppy Connector	■	■	■
J. Front USB Header	■	■	■
B. Serial B Header	■	■	■
K. SATA 1-2	■	■	■
Q. IMM Module Connector	■	■	■

■ = Make this connection ⃠ = Do not connect



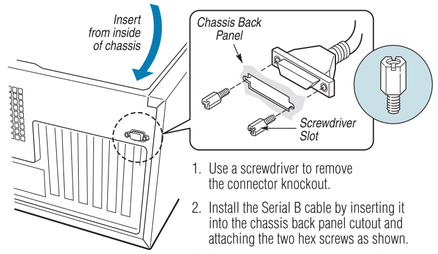
Notes:

The location of the Auxilliary Power Signal Connector location is different on the DDR and DDR2 Server Boards. Both connection locations are shown by (D) in the figure.

Not all optional connections are shown in this diagram. See the Reference section of this Quick Start User's Guide, your Intel® Server Board SE7520BD2 User Guide, and your server chassis documentation for additional connection information.

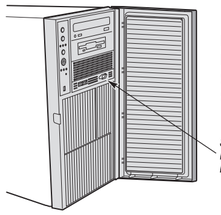
10 Install the Serial B Cable [optional]

For the Intel® Server Chassis SC5300 and the Intel® Entry Server Chassis SC5275-E and SC5295-E you have the option of connecting the Serial B cable to the back of the chassis.



Serial B Back Panel Location

1. Use a screwdriver to remove the connector knockout.
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 to the Serial B connector on the server board. See the Reference section of this document for the server board header location.



For the Intel® Server Chassis SC5300, a front panel Serial B cable comes factory installed.

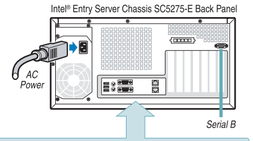
See the Reference section of this document for server board Serial B header location.

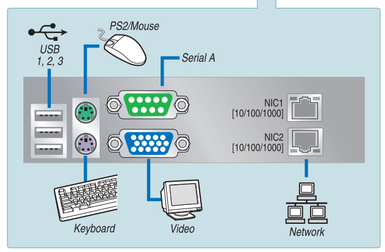
11 Finish Up

Before installing your operating system, you must finish your chassis installation, make I/O connections and plug in AC power.

1. Return to the chassis Quick Start User's Guide to complete any remaining chassis installation steps.
3. Connect your keyboard, mouse, video, and other I/O cables as shown.
4. Connect the AC power cable last.

Note: USB 3 (top) is available **only** on product codes SE7520BD2 and SE7520BD2SCSI.





12 Install Drivers, Firmware, and Software

A. Confirm BIOS and FRU/SDR Versions
Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS and FRU/SDR versions. Compare these to the versions at:
http://support.intel.com/support/motherboards/server/SE7520BD2/
If new versions are available, update the BIOS and FRU/SDR on your server. See the User Guide on the Intel® Server Deployment Toolkit CD for update instructions.

B. Configure your Server with the Server Configuration Wizard
Boot to the Server Board SE7520BD2 Intel® Server Deployment Toolkit CD. Select the Server Configuration Wizard to configure your server for remote server management. Unless you have downloaded a newer version of the FRU/SDR from the Web, use the Server Configuration Wizard also to load the FRU/SDR.

C. Configure your RAID Controller (optional)
Use the instructions provided with the RAID controller.

D. Install your Operating System
Use the instructions provided with the RAID controller and with the operating system.

E. Install Operating System Drivers
With the operating system running, insert the Intel® Server Deployment Toolkit CD. If using a Microsoft* Windows* operating system, the Express Installer will autorun and allow you to select most drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.

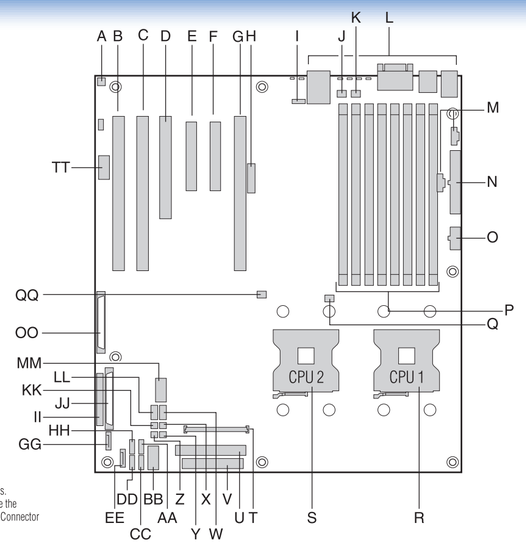
F. Install Intel® Management Module Professional or Advanced Edition (optional)

G. Install Intel® Server Management 8 (optional)
With the operating system running, insert the Intel® Server Management 8 CD that came with your server board. On a Windows* operating system, the Setup program will auto-run. Follow the on-screen instructions. For installation details, see *Getting Started with Intel® Server Manager 8*, on the ISM CD.

H. Install Intel® SMaRT Tool 5 (optional)
With the operating system running, insert the Intel® Server Deployment Toolkit CD. The Express Installer will autorun. Click Intel® SMaRT Tool at the left side of the screen. Follow the on-screen instructions. For information about Intel® SMaRT Tool, see http://developer.intel.com/design/servers/smarttool/index.htm.

Server Board Component Layout

A:	Chassis Intrusion	V:	Floppy Connector
B:	PCI-X* 100 Slot	W:	System Fan 4 (6-pin)
C:	PCI-X 100 Slot (MROMB)	X:	System Fan 2 (3-pin)
D:	PCI Slot 32/33	Y:	System Fan 2 (2-pin)
E:	x8 (x4 speed) PCI-Express* Slot	Z:	System Fan 1 (2-pin)
F:	x8 PCI-Express* Slot	AA:	HSBP A
G:	PCI-X 133 Slot	BB:	Front Panel USB
H:	Battery	CC:	Front Panel LCP
I:	ICMB Connector	DD:	IPMB
J:	System Fan 5	EE:	SATA A2
K:	System Fan 6	GG:	SATA A1
L:	System I/O Connectors	HH:	HSBP B
M:	Auxiliary Power Connector	II:	Front Panel Connector
N:	Main Power Connector	JJ:	SCSI Channel A
O:	CPU Power Connector	KK:	System Fan 1 (3-pin)
P:	DIMM Sockets	LL:	System Fan 3 (6-pin)
Q:	CPU 1 Fan Header	MM:	OEM RMC
R:	CPU 1	OO:	SCSI Channel B
S:	CPU 2	QQ:	CPU 2 Fan Header
T:	IMM Connector	TT:	Serial B
U:	IDE Connector		



Notes:
F, Z, MM, and OO are not populated on product codes SE7520BD2V or SE7520BD2VD2.

The location of the Auxilliary Power Signal Connector is different on the DDR and DDR2 server boards. Both connection locations are shown by letter M in the figure. DDRs versions of the server board have the connector nearest to the rear of the board. On DDR boards, the connector is between the Main Power Connector and DIMM Socket 3B.

Reference

Back Panel Diagnostic LEDs

Diagnostic LEDs, System Fault, and System ID are not available on product codes SE7520BD2V or SE7520BD2VD2.

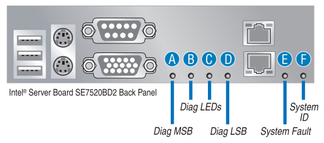
Your Intel Server Board SE7520BD2 has six diagnostic LEDs visible from the chassis back panel. The following text describes the function of each LED:

Diagnostic LEDs A, B, C, and D are multi-colored LEDs that can be OFF, Green, Amber, or Red. Each color represents 4 bits in a 16-bit hexadecimal code. The codes are documented in the *Intel® Server Board SE7520BD2 Technical Product Specification*.

LED E - System Fault LED, can be OFF or Amber = ON.
LED F - System ID, can be OFF or Blue = ON.

Note: It is normal for the LEDs to flash during boot and occasionally during system operation. Analysis of the bits is only necessary if the system is hung, and the LEDs are continuously lit.

Note: USB 3 (top) is available **only** on product codes SE7520BD2 and SE7520BD2SCSI.



Common Problems and Solutions

For a list of hardware components that have been tested with this server board, see:
http://support.intel.com/support/motherboards/server/SE7520BD2

The system does not boot or show video at power-on.

- Check that the +12V CPU power connector is plugged in. Without this cable, the processors will not have any power.
- If configuring with only one processor verify that the processor is in the Primary Processor socket (CPU 1).
- Remove and replace DIMMs one bank at a time to isolate which one is causing problems.
- Remember, all DIMMs must be:
  - Registered DDR2-400 compliant or DDR266/DDR333 compliant, depending on the version of the server board. "Minimum Harware Requirements" on the reverse side of this document.
  - The same speed.
  - From the same manufacturer.
  - Installed beginning with DIMM1A and DIMM1B.
  - Installed with no empty sockets in between filled sockets.
- Your power supply must provide a minimum of 600W with 2A standby current, which complies with the SSI EPS 12V specification.

The system sometimes works, but is exhibiting erratic behavior.

- This is typically the result of using an under-rated power supply. Make sure you are using at least a 600W power supply.

Accessories and Order Codes	
Intel® Server Chassis SC5300 Base	SC5300BASE
Intel® Server Chassis SC5300 BRP	SC5300BRP
Intel® Server Chassis SC5300 LX	SC5300LX
Intel® Entry Server Chassis SC5275-E	SC5275E
Intel® Entry Server Chassis SC5295-E DP	SC5295
Intel® Entry Server Chassis SC5295-E BRP	SC5295BRP

Intel® Server Chassis SC5300 Rack Conversion Kit	ARIGRACK
Intel® Server Chassis SC5300 Hot-Swap SCSI 4-Drive Bay Upgrade Kit	AXX4SCSIDB
Intel® Server Chassis SC5300 Hot-Swap SCSI 6-Drive Bay Upgrade Kit	AXX6SCSIDB
Intel® Server Chassis SC5300 Hot-Swap SATA 6-Drive Bay Upgrade Kit	AXX6SATADB
Intel® RAID Controller SRCU42X	SRCU42X
Intel® RAID Controller SRCU42E	SRCU42E
Intel® RAID Controller SRCZCRX	SRCZCRX
Intel® RAID Controller SRCS16	SRCS16
Intel® Management Module-Professional Edition	AXXIMMPRO
Intel® Management Module-Advanced Edition	AXXIMMADV
Intel® Local Control Panel	AXXLCPPED

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