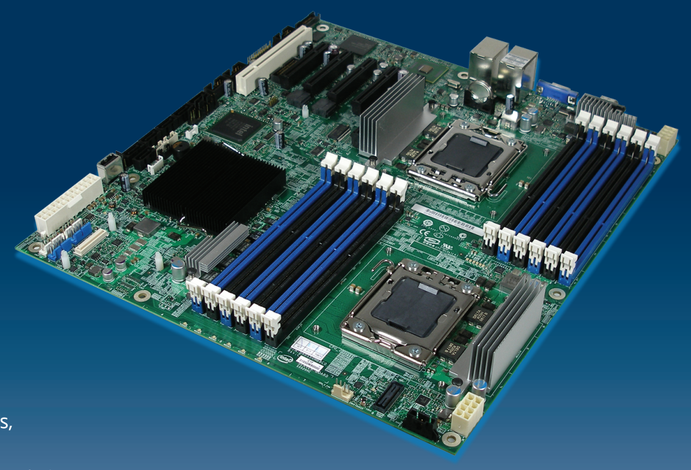
Intel® Server Board S5520HC and S5500HCV Quick Start User's Guide



Thank you for buying the Intel® Server Board S5520HC and S5500HCV. The following information will help you integrate your new server board into a server chassis. The Intel® Server Board S5520HC and S5500HCV are designed for use with the Intel® Server Chassis SC5650 and the Intel® Server Chassis SC5600.

For details on these chassis or to select a third-party chassis, please visit: http://support.intel.com/support/motherboards/server.

When installing the server board into a reference chassis, refer to the reference chassis instructions.

Service Guides are also available on the CDs that accompanied your Intel® Server Boards S5520HC and S5500HCV.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Intel® Server Boards S5520HC and S5500HCV Service Guide, available on the Intel® Server Deployment Toolkit 3.0 CD or at http://support.intel.com/support/motherboards/server/S5520HC/manual.htm

Minimum Hardware Requirements

To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:

- **Processor:** Minimum of one Intel® Xeon® Processor 5500 Series. Maximum 95-W processor or Minimum of one Intel® Xeon® Processor 5600 Series. Maximum 130-W processor.
- **Heatsink(s):** Minimum of one active heat sink for the Intel® Server Chassis SC5650 and SC5600. Passive heat sink(s) is required for the SC5600LX chassis.
- **Memory Type:** Minimum of one 1 GB, 240-pin, RDIMM or UDIMM, DDR3-800, DDR3-1066, or DDR3-1333.
- **AC Power:** SSI EPS 12V compliant power supply. Recommend minimum of 550 W with 3 A of standby current, or calculate your system power demand with the power budget tool.

For a complete list of compatible processors, heatsinks, and memory, see: http://support.intel.com/support/motherboards/server/s5520HC/

1 Preparing the Chassis

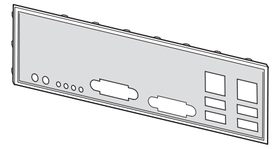
Observe normal ESD (Electrostatic Discharge) procedures.

Place your Intel® Server Chassis on a flat anti-static surface to perform the following integration procedures. Observe ESD procedures before reaching inside to make server board connections or install components.

2 Installing the I/O Shield and Attach I/O Labels

Prepare the I/O shield

Do not remove the three circular knockouts that are at the edge next to the openings for the NIC and USB ports. *Use caution so you do not deform the shield.*

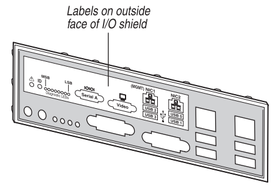


Attach the Labels to the I/O Shield

Note: Make sure you install the labels on the correct side of the I/O shield. Note the orientation of the cutouts in the drawing before attaching your labels.

A. Remove the backing from the I/O shield labels included with your server board.

B. Press the label onto the I/O shield as shown.

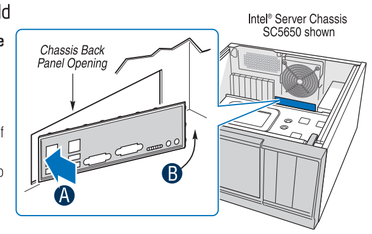


Install the I/O shield

Shield installs from **inside** of chassis. *The labels should be visible from the outside of the chassis.*

A. Insert one side edge of shield as shown.

B. Push shield firmly into chassis opening until it clicks into place.



3 Install the Chassis Bumpers

NOTE: If you are using an Intel Server Chassis you must install the chassis bumpers included with the chassis. Refer to your Intel® Server board and Intel® Server Chassis Quick-Start User's Guide for proper bumper installation guidelines. If you are using a non-Intel server chassis that includes bumpers, refer to the non-Intel server chassis documentation for the correct bumper installation procedure. If the non-Intel server chassis does not include bumpers, then you should consult with the chassis vendor to determine whether bumpers are required or not.

Prepare Server Board

A. Rotate board to show underside and hold upright as shown.

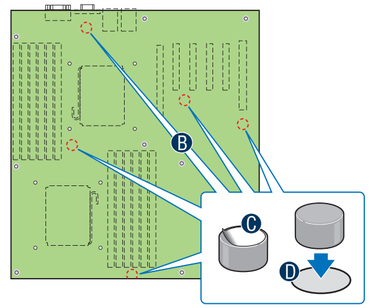
⚠ CAUTION: To avoid damage to the board, do not lay flat with the component side down.

B. Locate the five circles as shown.

Attach the Bumpers

C. Remove the backing from each bumper.

D. Press a bumper onto each of the five circles.



Warning

⚠ Read all caution and safety statements in this document before performing any of the instructions. Also see the *Intel® Server Board and Server Chassis Safety Information* document at: http://support.intel.com/support/motherboards/server/sb/cs-010770.htm for complete safety information.

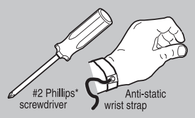
Warning

⚠ Installation and service of this product should only be performed by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

Caution

⚠ Observe normal ESD [Electrostatic Discharge] procedures during system integration to avoid possible damage to server board and/or other components.

Tools Required



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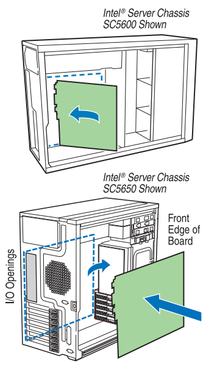
4 Install the Server Board

IMPORTANT NOTE: If you are using a non-Intel server chassis, see your chassis documentation for preparatory steps prior to server board installation.

A. Insert the Server Board

Place the board into the chassis, making sure that back panel I/O openings and chassis standoffs align correctly.

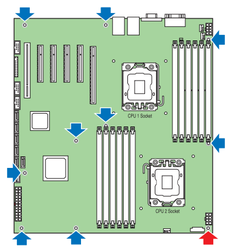
- When using the Intel® Server Chassis SC5600, remove the rear chassis fan and then insert the I/O connector side (back) of the board first.
- When using the Intel® Server Chassis SC5650, remove the front drive bay and rear chassis fan, and then insert the front of the board first. Slide the board back so the I/O connectors fit through the I/O shield.



B. Attach the Server Board

The Intel® Server Chassis SC5600 and the Intel® Server Chassis SC5650 use different screws to attach the server board to the chassis. Use the screws indicated for your chassis. *For a non-Intel server chassis, use the fasteners that came with your chassis.*

- Intel® Server Chassis SC5600: Attach the board to the chassis at the nine locations indicated by the solid blue arrows in the figure [🔷] and at the one location indicated by the solid red arrow [🔴].
- Intel® Server Chassis SC5650: Push down firmly to engage the snap-top standoffs at the location indicated by the solid red arrow [🔴]. Use screws to attach the board to the chassis at the nine locations indicated by the solid blue arrows [🔷].

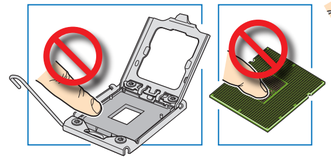


5a Install the Processor(s)

Cautions:

⚠ 1. When opening a socket, DO NOT TOUCH the gold socket wires.

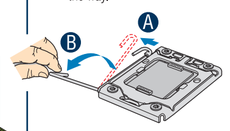
⚠ 2. When unpacking a processor, hold by the edges only to avoid touching the gold contact wires.



A. Open the Socket Lever

A. Push the lever handle down and away from the socket to release it.

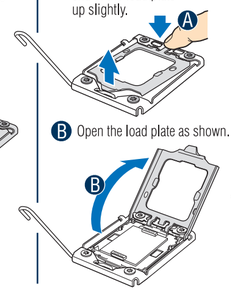
B. Rotate the lever open all the way.



B. Open the Load Plate

A. Push the rear tab with your finger tip to bring the front end of the load plate up slightly.

B. Open the load plate as shown.

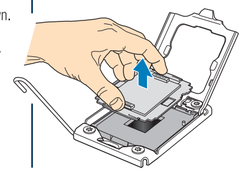


C. Remove Socket Protective Cover

A. Grasp the socket protective cover by the two tabs and carefully lift straight up as shown.

⚠ To avoid damage, DO NOT DROP the cover onto the socket wires or components.

Save the protective cover.



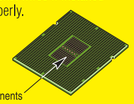
D. Remove the Processor Protective Cover

A. Take the processor out of the box and remove the protective shipping cover.

5b Install the Processor(s) ... *continued*

E. Install the Processor

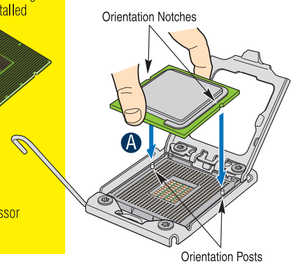
⚠ CAUTION: The underside of the processor has components that may damage the socket wires if installed improperly.



Processor must align correctly with the socket opening before installation.

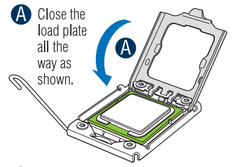
DO NOT DROP processor into the socket!

A. Orient the processor with the socket so that the orientation notches on the processor align with the two orientation posts on the socket. *Install the processor as shown.*



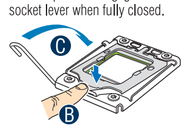
F. Close Load Plate and Socket Lever

A. Close the load plate all the way as shown.



B. With your finger, push down on the load plate as shown.

C. Close the socket lever and ensure that the load plate tab engages under the socket lever when fully closed.



6 Make Server Board Power Connections

A. Attach auxiliary power signal connector to the server board.

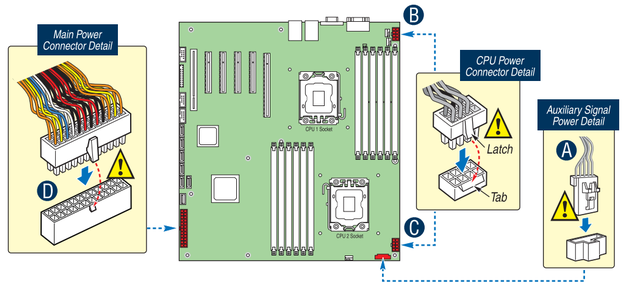
B. Attach the CPU 1 power connector to the server board.

C. Attach the CPU 2 power connector to the server board.

D. Attach the main power connector to the server board.

⚠ CAUTION: Note the location of the latch on each power cable connector and align it with the matching tab on each server board socket.

IMPORTANT NOTE: If you are using a non-Intel server chassis with an ATX power supply, see the documentation that came with your chassis for installation information.



Go to Side 2