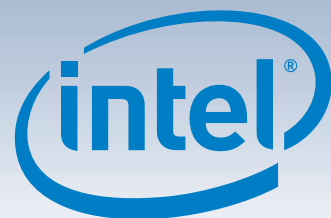# Intel® Server Board S5000VCL
Quick Start User's Guide

Thank you for buying the Intel® Server Board S5000VCL. The following information will help you integrate your new server board into a server chassis.

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

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

User Guides are also available on the Intel® Server Deployment Toolkit 2.0 CD that accompanied your Intel® Server Board S5000VCL.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Intel® Server Board S5000VCL User's Guide, available on the Intel® Server Deployment Toolkit 2.0 CD or at http://support.intel.com/support/motherboards/server/s5000vcl/howto.htm.

Minimum Hardware Requirements

To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:
- **Processor:** Dual-Core Intel® Xeon® processor 5100 series with compatible heat sink.
- **Memory Type:** Minimum of one 512MB, 240-pin DDR2 667 MHz FBDIMM.
- **Power:** Minimum of 400W with 2A of standby current, which meets the SSI EPS 12V specification.

1 Preparing the Chassis

When using an Intel® Server Chassis, begin with the Quick Start User's Guide that came with your chassis. Return to this document when directed by the server chassis Quick Start User's Guide. If using a non-Intel server chassis, refer to the documentation that came with your chassis for preparatory steps.

Observe normal ESD (ElectroStatic Discharge) procedures. Place your Intel® Server Chassis on a flat anti-static surface to perform the following integration procedures. Always touch the chassis frame first, before reaching inside to make server board connections or to install components.
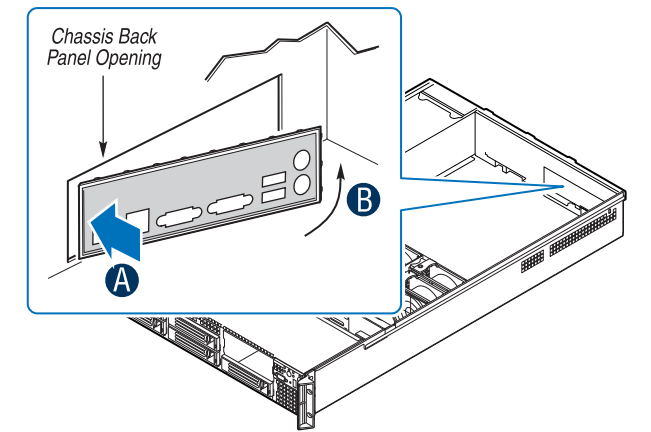
2 Install the I/O Shield

Note: The I/O shield and label installation procedures shown below apply to a non-intel server chassis.
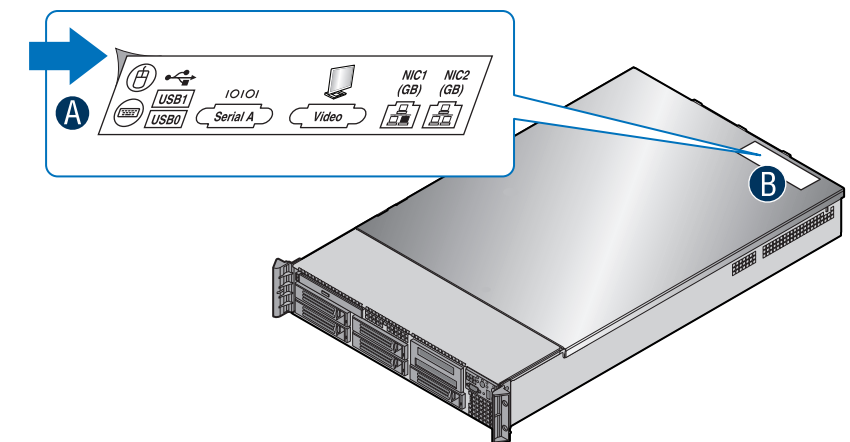
Install the I/O shield

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.

Chassis Back Panel Opening

3 Attach the I/O Shield Label

A. Remove the backing from the label included with your server board.
B. Press the label onto the top cover near the back panel I/O, or directly onto the I/O shield.

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.
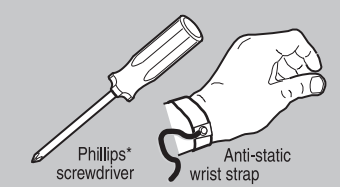
Warning

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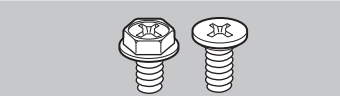
Caution

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

Tools Required

Phillips* screwdriver
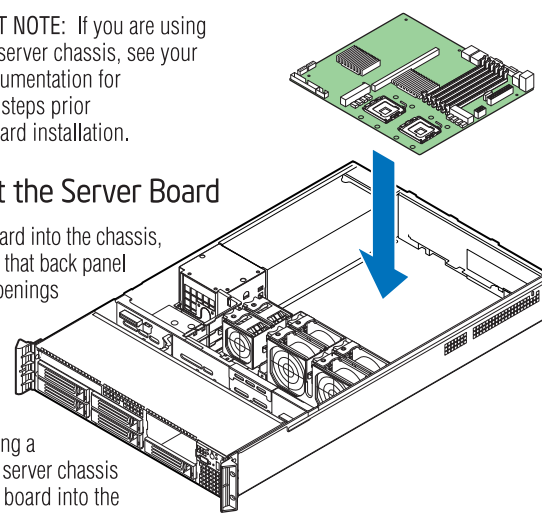Anti-static wrist strap

Fastener Identification Guide

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 shield openings and chassis standoffs align correctly.
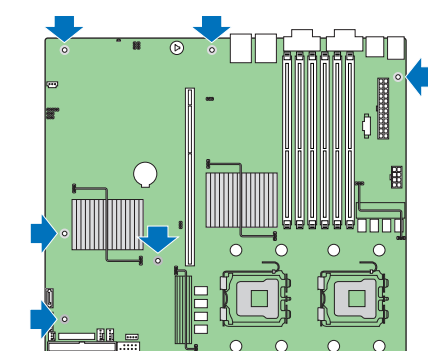
- When using a non-Intel server chassis place the board into the chassis as shown.

B. Attach the Server Board

For a non-Intel server chassis, use the fasteners that came with your chassis.
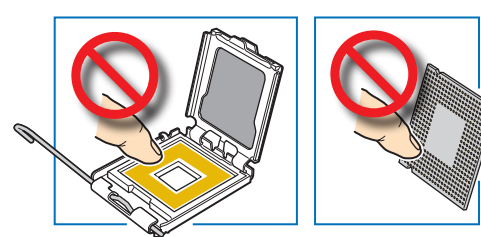
Use screws to attach the board to the chassis at the 6 locations indicated by the solid blue arrows in the figure [◄].
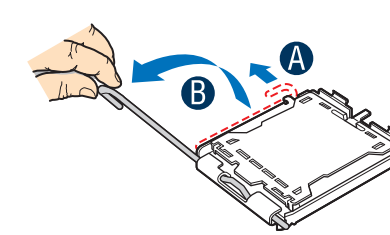
5 Install the Processor

Caution:

When unpacking a processor, hold by the edges only to avoid touching the contacts.
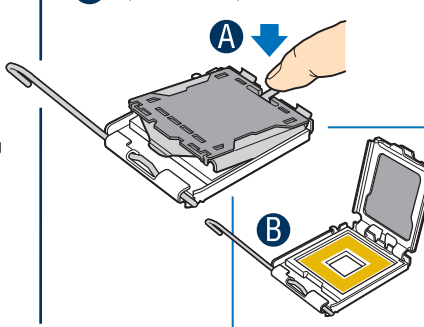
A. Open the Socket Lever

A. Push the lever handle down and away from the socket to release it.
B. Pull the lever and 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.
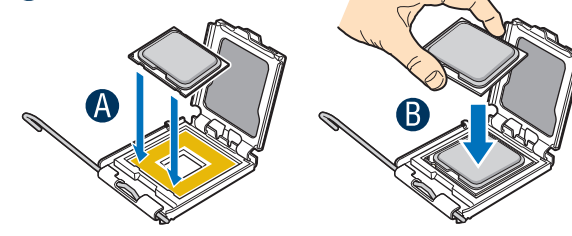B. Open the load plate as shown.

C. Remove the Processor Protective Cover

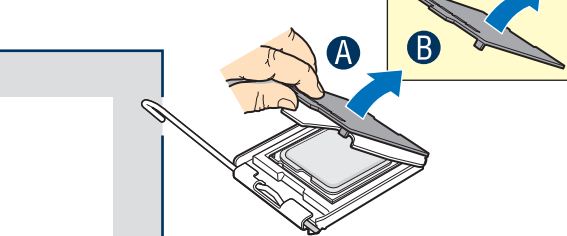A. Take the processor out of the box and remove the protective shipping cover.

D. Install the Processor

A. Orient the processor with the socket so that the processor cutouts match the socket notches.
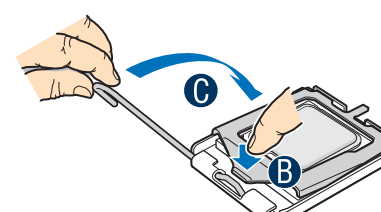B. Install the processor as shown.

E. Remove Socket Protective Cover

A. Grasp the socket protective cover tab and pull away from the load plate as shown.
B. Remove the socket protective cover and store for future use.

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.

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6 Install Passive Heat Sink(s)

IMPORTANT NOTE: You must install the heat sink(s) designated for your server chassis. For third party 1U and 2U chassis, see your server chassis documentation for processor fan/heat sink requirements.

A typical passive heat sink is shown below.

⚠ CAUTION: The heat sink has thermal interface material (TIM) on the underside of it. Use caution so that you do not damage the thermal interface material. *Use gloves to avoid sharp edges.*

A. Remove the protective film on the TIM.
B. Align heat sink fins to the front and back of the chassis for correct airflow. *Airflow goes from front-to-back of chassis.*

Each heat sink has four captive fasteners and should be tightened using the following procedure:

C. Finger-tighten each fastener diagonally, according to the numbers shown.
D. Securely re-tighten each fastener again in the same order as performed in step C.

Note: Heatsink styles may differ.

⚠ CAUTION: Do not over-tighten fasteners.

2U Heat Sink
1U Heat Sink
Air Flow
TIM
Chassis Front

7 Install Active Heat Sink(s)

A typical active heat sink is shown below.

⚠ CAUTION: The heat sink has thermal interface material (TIM) on the underside of it. Use caution so that you do not damage the thermal interface material. *Use gloves to avoid sharp edges.*
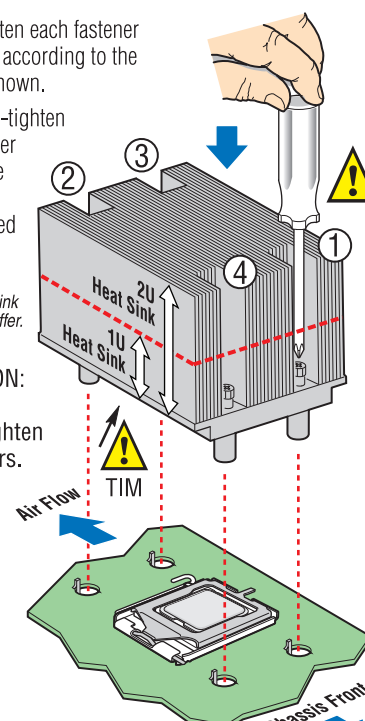
A. Remove the protective film on the TIM.
B. Align heat sink fins to the front and back of the chassis for correct airflow. *Airflow goes from front-to-back of chassis.*

Each heat sink has four captive fasteners and should be tightened using the following procedure:

C. Finger-tighten each fastener diagonally, according to the numbers shown.
D. Securely re-tighten each fastener again in the same order as performed in step C.

Note: Heatsink styles may differ.

⚠ CAUTION: Do not over-tighten fasteners.

TIM