

Intel® Workstation Cooling Kit User's Guide

A Guide for Technically Qualified Assemblers of Intel® Identified Subassemblies and Products

Order Number: C74693-001

C74693-001



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1 Intel® Workstation Cooling Kit Features

The Intel® Workstation Cooling Kit can be used to retrofit either a new or existing Intel® Server Board SE7525GP2 or Intel® Server Board SE7320SP2 in the Intel® Entry Server Chassis SC5275-E.

Do not install the Intel® Workstation Cooling Kit in systems that have the passive heat sink solution. This kit is designed only for systems that use an active fan-cooled heat sink.

The following item is included in the kit:

- (1) Cooling Kit assembly (includes fan, fan bracket, heat sink, thermal pad, and four screws).

2 Before You Begin

Safety Cautions

CAUTIONS

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.

Supplies and Tools Needed

- A printout of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* (available from the Intel® Server Deployment Toolkit CD that shipped with your Intel® Entry Server Chassis SC5275-E, or the file can be downloaded from <http://support.intel.com/support/motherboards/server/chassis/SC5275E>).
- A printout of the *Intel® Server Board SE7525GP2/SE7320SP2 Quick Start User's Guide* (available from the Intel® Server Deployment Toolkit CD that shipped with your Intel® Server Board SE7525GP2/SE7320SP2, or the file can be downloaded from <http://support.intel.com/support/motherboards/server/se7320SP2/> or <http://support.intel.com/support/motherboards/server/se7525GP2/>).
- A printout of the *Intel® Server Board SE7320SP2/SE7525GP2 User Guide* (available from the Intel® Server Deployment Toolkit CD that shipped with your Intel® Server Board SE7525GP2/SE7320SP2, or the file can be downloaded from <http://support.intel.com/support/motherboards/server/se7320SP2/manual.htm> or <http://support.intel.com/support/motherboards/server/se7525GP2/manual.htm>).
- Phillips* (cross head) screwdriver
- Anti-static wrist strap and conductive foam pad (recommended)

3 Installation Procedure

Note: For retrofitting existing systems, complete all steps in this Installation Procedure.

For installing in a new system, complete Steps 1, 2, 4, 7, 8, 9, 10, and 11.

Step 1: Remove Side Cover from System Chassis

Before removing the side cover of the Intel® Entry Server Chassis SC5275-E, observe these safety guidelines:

- Turn off all peripheral devices connected to the server.
- Turn off the server by pressing the power button on the front of the chassis.
- Unplug the AC power cord from the chassis or wall outlet.
- Label and disconnect all peripheral cables and all telecommunication lines connected to I/O connectors or ports on the back of the chassis.
- Provide some electrostatic discharge (ESD) protection by wearing an anti-static wrist strap attached to chassis ground – any unpainted metal surface - when handling components.

Refer to Step 1 of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on removing the Side Cover.

Step 2: Remove the Front Bezel

Refer to Step 2 of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on removing the Front Bezel.

Step 3: Unplug the Front Fan Cable

Refer to Step 7, letter G, of the *Intel® Server Board SE7525GP2/SE7320SP2 Quick Start User's Guide* for information on the location of cooler fan connectors.

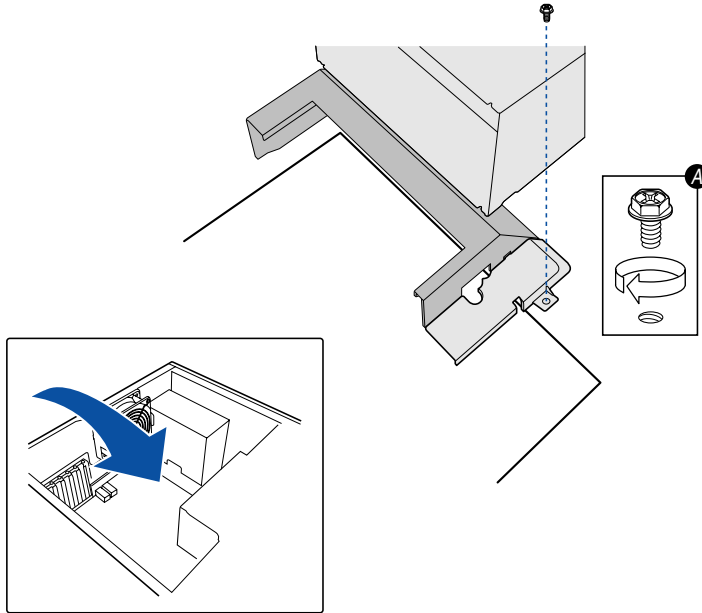
Step 4: Remove Hard Drive Cage

Refer to Step 5 of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on removing the Hard Drive Cage. Depending upon your configuration, you may be removing a fixed, SATA, or SCSI Hard Drive Cage. Set the Hard Drive Cage aside and save the screws.

Step 5: Remove the CPU Ducts

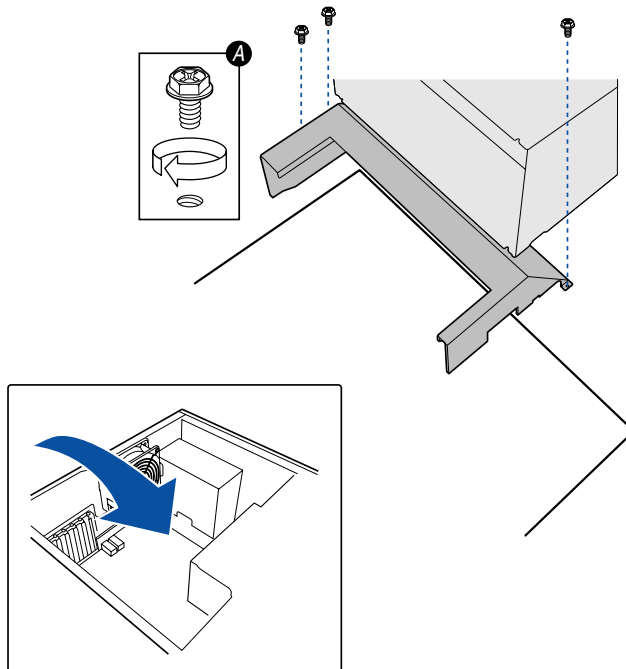
Remove the CPU Ducts, as illustrated in the following figures.

1. Remove one screw on the small CPU Duct (Part B of CPU Duct assembly).



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2. Remove three screws on the large CPU Duct (Part A of CPU Duct assembly).

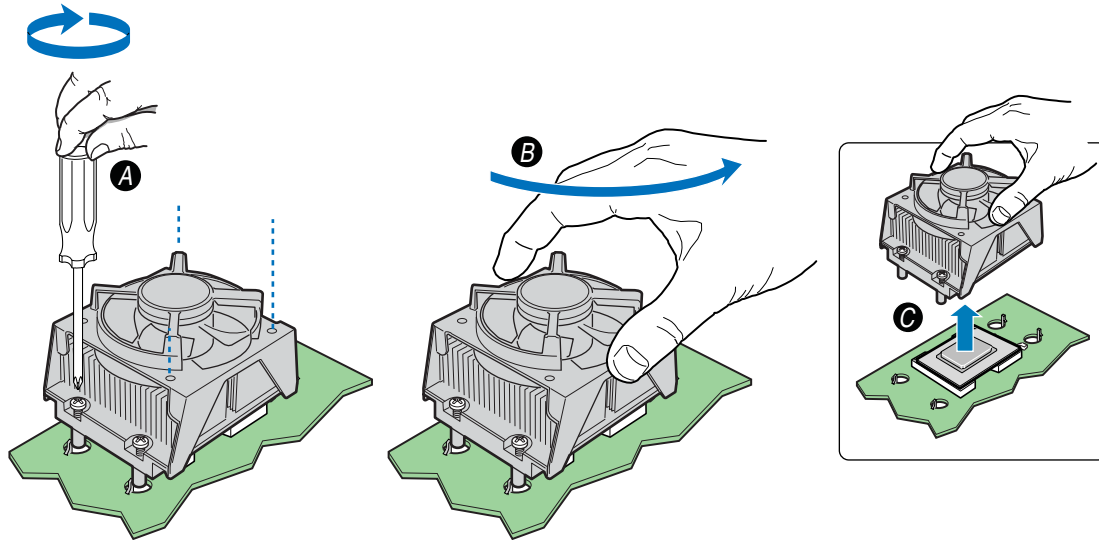


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Step 6: Remove the Heat Sink

Remove the active fan-cooled Heat Sink.

Note: Do not install this kit if your system uses the passive (non-fan cooled) heat sink solution.



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1. Fully loosen the four captive screws (A) on the Heat Sink.
2. Twist the Heat Sink (B) to break the seal between the TIM and the processor.

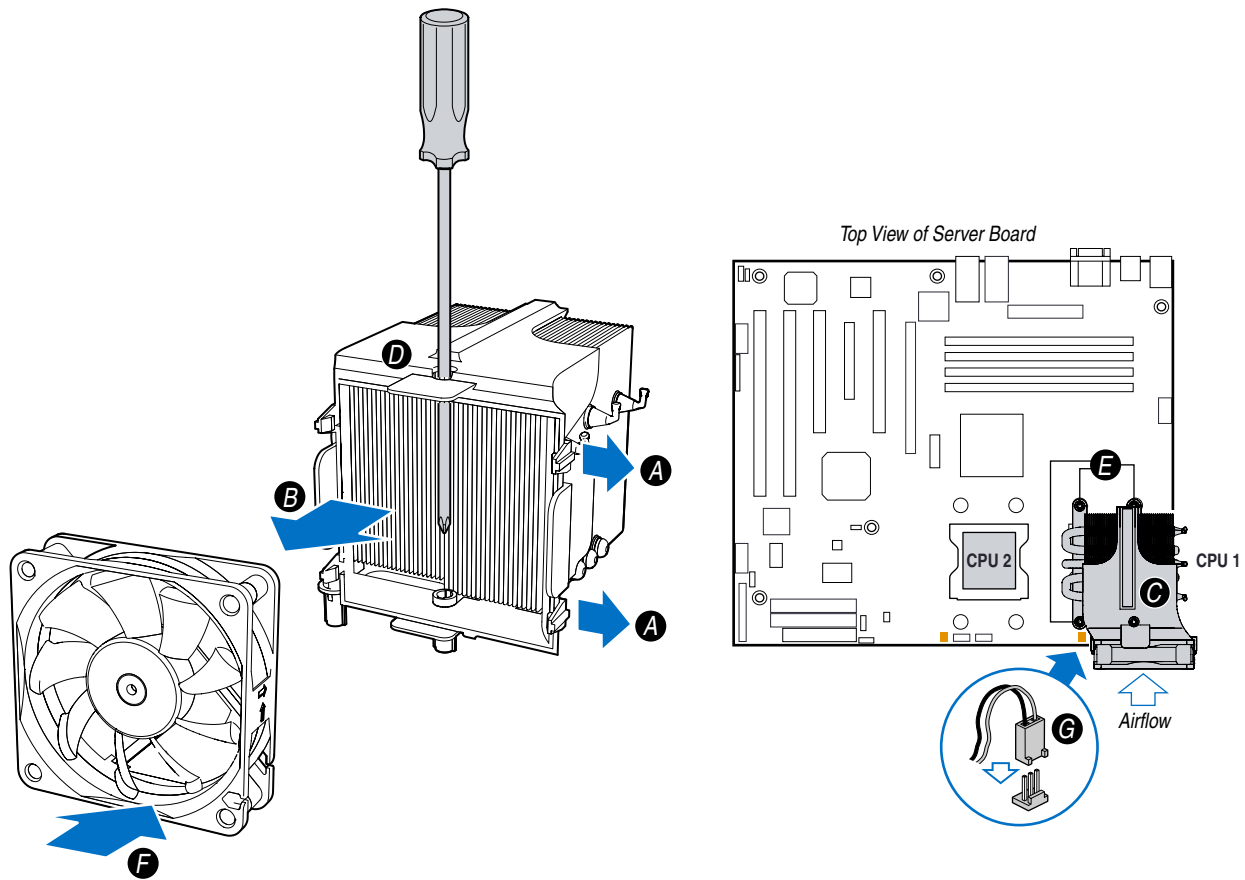


CAUTION

Do not attempt to lift the heat sink from the processor without first twisting it to break the seal between the TIM and the processor. Lifting the heat sink without breaking the seal may damage the processor or the processor socket.

3. Lift the Heat Sink (C) from the processor.

Step 7: Install the Cooling Kit Assembly



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1. Remove the fan from the front of the Cooling Kit assembly by pulling the fan retention tabs (A) outward slightly to release fan (B).
2. Remove the plastic cover from the TIM pad on the underside of the Cooling Kit assembly.
3. Place the Cooling Kit assembly (C) over the CPU 1 socket so that the fan side of the Cooling Kit faces the front of the server chassis. Align the four fasteners on the Cooling Kit with the mounting holes on the server board.
4. Insert a long-shaft screwdriver (D) into top access hole of Cooling Kit assembly to lightly tighten the screw located behind fan. Lightly tighten the three remaining retention screws (E). Securely tighten all four screws.
5. Re-attach fan (F) to Cooling Kit assembly. Ensure that the fan label is facing the Cooling Kit assembly.



CAUTION

Note direction of airflow arrow on fan housing. Ensure that fan is attached to the Cooling Kit assembly so that the airflow pushes INTO the Heat Sink.

6. Connect fan power cable (G) to server board. Refer to Step 7, letter G, of the *Intel® Server Board SE7525GP2/SE7320SP2 Quick Start User's Guide* for information on the location of cooler fan connectors.
7. Repeat Steps 1-6 if installing a second Cooling Kit assembly on the CPU 2 socket.

Step 8: Install the Hard Drive Cage

Refer to Step 7 on the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on installing the Hard Drive Cage into the server chassis.

Step 9: Install the Front Bezel

Refer to Step 9 of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on reattaching the Front Bezel to the server chassis.

Step 10: Install the Side Cover

Refer to Step 10 of the *Intel® Entry Server Chassis SC5275-E Quick Start User's Guide* for instructions on attaching the Side Cover to the server chassis.

Step 11: Update BIOS and Firmware

Update the BIOS and firmware of the server board. The latest BIOS and firmware may be downloaded from the following locations:

- <http://support.intel.com/support/motherboards/server/se7320SP2> (for the Intel® Server Board SE7320SP2)
- <http://support.intel.com/support/motherboards/server/se7525GP2> (for the Intel® Server Board SE7525GP2).

Refer to Chapter 3, “Server Utilities,” in the *Intel® Server Board SE7320SP2/SE7525GP2 User Guide* for instructions on updating the system BIOS.

4 Regulatory and Integration Information

Installation of the Intel® Workstation Cooling Kit does not effect original compliance to Safety or EMC requirements. Refer to the system product guide for details on regulatory information.