# Hot Swap Fan Upgrade Kit Installation Guide:

# Intel<sup>®</sup> Server Chassis SC5300

Order Number: C55112-001

#### Disclaimer

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not designed, intended or authorized for use in any medical, life saving, or life sustaining applications or for any other application in which the failure of the Intel product could create a situation where personal injury or death may occur. Intel may make changes to specifications and product descriptions at any time, without notice.

Intel is a registered trademark of Intel Corporation or its subsidiaries in the United States and other countries.

\* Other names and brands may be claimed as the property of others.

Copyright © 2004 Intel Corporation. All Rights Reserved.

# **Important Safety Instructions**

#### **Important Safety Instructions**

Read all caution and safety statements in this document before performing any of the instructions. See *Intel Server Boards and Server Chassis Safety Information* at <a href="http://support.intel.com/support/motherboards/server/safecert.htm">http://support.intel.com/support/motherboards/server/safecert.htm</a>.

#### Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warn- und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel-Serverplatinen und -Servergehäusen unter

http://support.intel.com/support/motherboards/server/safecert.htm.

#### 重要安全指导

在执行任何指令之前,请阅读本文档中的所有注意事项及安全声明。 和/或 <a href="http://support.intel.com/support/motherboards/server/safecert.htm">http://support.intel.com/support/motherboards/server/safecert.htm</a> 上的 Intel Server Boards and Server Chassis Safety Information (《Intel 服务器主板与服务器机箱安全信息》)。

#### Consignes de sécurité

Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez *Intel Server Boards and Server Chassis Safety Information* rendez-vous sur le site

http://support.intel.com/support/motherboards/server/safecert.htm.

#### Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel Server Boards and Server Chassis Safety Information* en <a href="http://support.intel.com/support/motherboards/server/safecert.htm">http://support.intel.com/support/motherboards/server/safecert.htm</a>.

# **Warnings and Cautions**

These warnings and cautions apply whenever you remove the Access Cover to access components inside the server. Only a technically qualified person should integrate and configure the server.



#### **WARNINGS**

The power button on the front panel DOES NOT turn off the AC power. To remove power from server, you must unplug the AC power cord from the wall outlet or the chassis.

Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the server and disconnect the power cords, telecommunications systems, networks, and modems attached to the server before opening it. Otherwise, personal injury or equipment damage can result.

Hazardous voltage, current, and energy levels are present inside the power supply. There are no user-serviceable parts inside it; servicing should be done by technically qualified personnel.



#### CAUTIONS

ESD can damage disk drives, boards, and other parts. Perform all procedures in this document only at an ESD workstation. If one is not available, provide ESD protection by wearing an anti-static wrist strap attached to chassis ground—any unpainted metal surface—on your server when handling parts.

Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. Do not touch the connector contacts. After removing a board from its protective wrapper or from the server, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the board wrapper. Do not slide board over any surface.

For proper cooling and airflow, always install the Access Cover before turning on the server. Operating it without the cover in place can damage system parts.

# **Contents**

Before You Begin	1
About the Hot Swap Fan Upgrade Kit	
Kit Contents Lists	
Tools and Supplies Needed	
Intel® Server Chassis SC5300 Installation	2
Remove Primary Access Cover	
Remove Air Ducts	
Remove PCI Add-in Card Retainer	
Remove Secondary Access Cover	
Remove Fixed Fan Assembly	
Install Hot Swap Fan Assembly	7
Reinstall PCI Add-in Card Retainer	
Reinstall Air Ducts	10
Reinstall Secondary Access Cover	11
Reinstall Primary Access Cover	12
Figures	
Figure 1. Removing Primary Access Cover	2
Figure 2. Removing Air Ducts	
Figure 3. Removing PCI Add-in Card Retainer	4
Figure 4. Removing Secondary Access Cover from Chassis	
Figure 5. Removing Fixed Fans from Chassis	6
Figure 6. Removing Fixed Fan Brackets from Chassis	
Figure 7. Snapping Fan Cable into Bracket Hole	
Figure 8. Routing Fan Cables to Server Board	
Figure 9. Installing Hot Swap Fans	
Figure 10. Reinstalling PCI Add-in Card Retainer	
Figure 11. Reinstalling Air Ducts	
Figure 12. Reinstalling Secondary Access Cover	
Figure 13. Replacing Access Cover	12

## **Before You Begin**

Before removing the Access Cover for any reason, observe these safety guidelines.

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

### **About the Hot Swap Fan Upgrade Kit**

This Hot Swap Fan Upgrade Kit can be installed in the following chassis:

• Intel<sup>®</sup> Server Chassis SC5300

#### **Kit Contents Lists**

The Hot Swap Fan Upgrade Kit contains the following items:

#### **Hot Swap Fan Upgrade Kit (ARIGHSFANKIT)**

Item	Quantity
92-mm Hot Swap Fan	2
120-mm Hot Swap Fan	2
92-mm Fan Cable (length is 85 mm)	2
120-mm Fan Cable (length is 120 mm)	2

## **Tools and Supplies Needed**

- Phillips\* (cross head) screwdriver (#2 bit)
- Flat-head screwdriver
- Anti-static wrist strap (recommended)
- Needle-nosed pliers

Before You Begin 1

### Intel® Server Chassis SC5300 Installation

### **Remove Primary Access Cover**

When your chassis is upright (in a tower/pedestal position), and you are facing the front of it, the Primary Access Cover is on the left side.

If your chassis is in a rack-mount configuration, the left side is already on the top.

To remove the Primary Access Cover:

- 1. Observe all safety and ESD precautions listed at the beginning of this document.
- 2. Power the system off and disconnect the power cable(s).
- 3. Remove the shipping screw, if necessary (letter "A").
- 4. Press the latch (letter "B") and slide the cover towards the rear of the chassis.
- 5. Lift the cover outward to remove it.

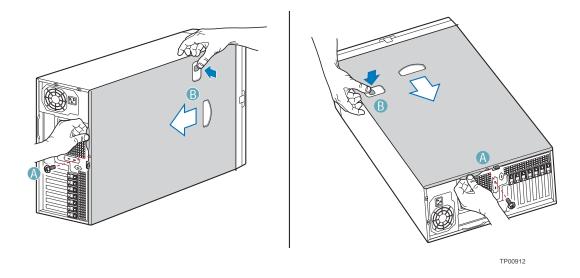


Figure 1. Removing Primary Access Cover

### **Remove Air Ducts**

- 1. Press latch and remove small air duct (letter "A").
- 2. Remove large air duct (letter "B").

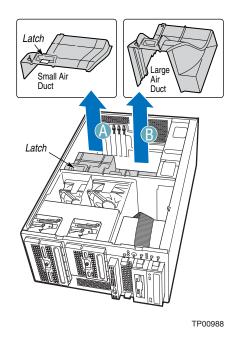


Figure 2. Removing Air Ducts

### **Remove PCI Add-in Card Retainer**

- 1. Press on two plastic tabs (letter "A") and remove the PCI Add-in Card Retainer.
- 2. If PCI Add-in Card(s) are in the way, open back panel PCI Add-in Card Retention Device (letter "B") and remove add-in card (letter "C").

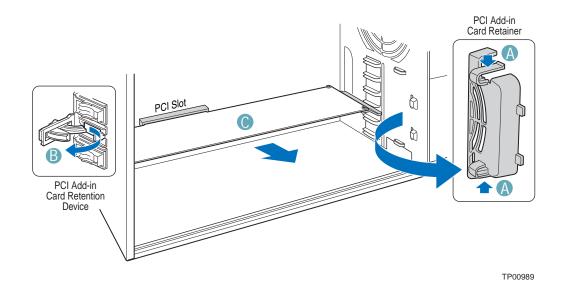


Figure 3. Removing PCI Add-in Card Retainer

# **Remove Secondary Access Cover**

- 1. Remove the two screws at the rear of the chassis (letter "A").
- 2. Grasp handle (letter "B") and slide the Secondary Access Cover rearward about 2 inches until it releases from the mounting brackets.

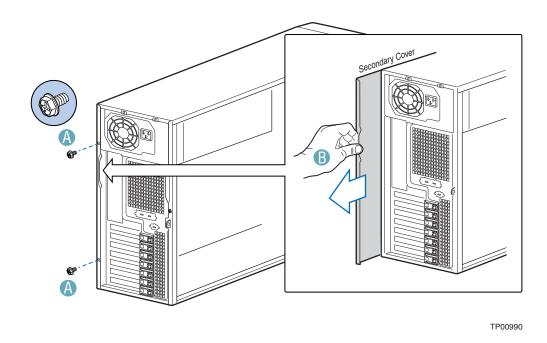


Figure 4. Removing Secondary Access Cover from Chassis

### **Remove Fixed Fan Assembly**

- 1. Disconnect the fan cables from the server board.
- 2. Remove the 92-mm (letter "A") and 120-mm (letter "B") Fixed Fans from their snap-in brackets.

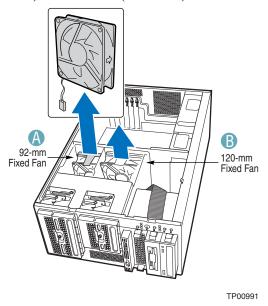


Figure 5. Removing Fixed Fans from Chassis

3. Remove the four screws securing each Fixed Fan plastic snap-in bracket. When loose, remove each bracket from the chassis.

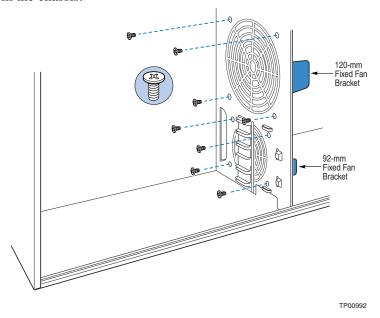


Figure 6. Removing Fixed Fan Brackets from Chassis

## **Install Hot Swap Fan Assembly**

Fan Cable Description	Label	Part Number
(2) 92-mm fan cables (length is 85 mm)	FAN1, FAN2	34CB000600
(2) 120-mm fan cables (length is 120 mm)	FAN3, FAN4	34CB000509

1. From the Secondary Access side of the chassis, snap each fan cable into its matching bracket hole in the chassis.

#### → NOTE

The fan cables must match the fan numbers stamped into the sheet metal brackets. These numbers are stamped on both the front and back sides of the sheet metal.

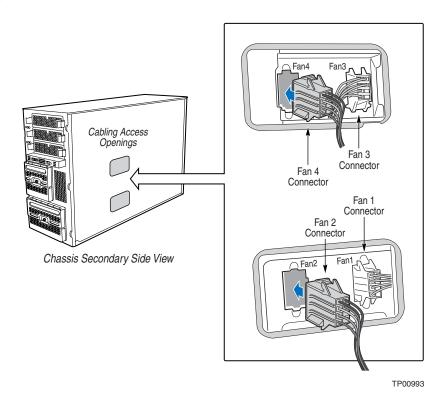


Figure 7. Snapping Fan Cable into Bracket Hole

2. Route the fan cable(s) to the chassis area where the server board is installed. Connect the fan cables to the server board. (See the documentation that came with your server board for location of fan connectors.)

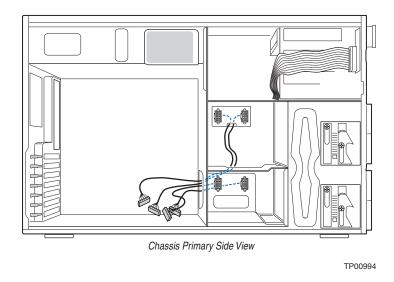


Figure 8. Routing Fan Cables to Server Board

3. From the Primary Access side of the chassis, install the Hot Swap Fan(s) into the appropriate sockets.

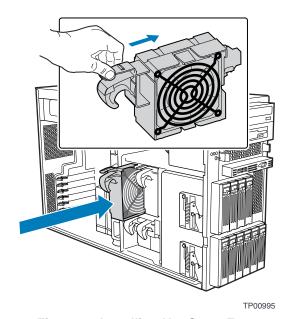


Figure 9. Installing Hot Swap Fans

### **Reinstall PCI Add-in Card Retainer**

- 1. If removed in a previous step, reinstall the add-in PCI Card(s) (letter "A") and close the PCI Add-in Card Retention Device (letter "B").
- 2. Snap the PCI Add-in Card Retainer into position on chassis (letter "C").

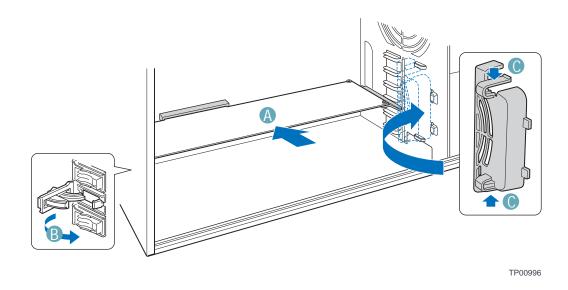


Figure 10. Reinstalling PCI Add-in Card Retainer

### **Reinstall Air Ducts**

- 1. Install large air duct (letter "A").
- 2. Install small air duct and latch into place (letter "B").

#### → NOTE

Large air duct interlocks with the small air duct in two places before latching into place.

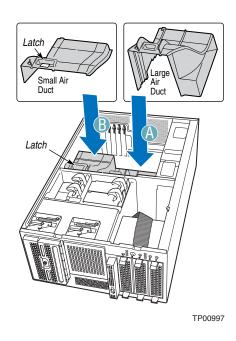


Figure 11. Reinstalling Air Ducts

# **Reinstall Secondary Access Cover**

- 1. Slide the Secondary Access Cover into position on the chassis (letter "A").
- 2. Secure the cover in place with two screws (letter "B").

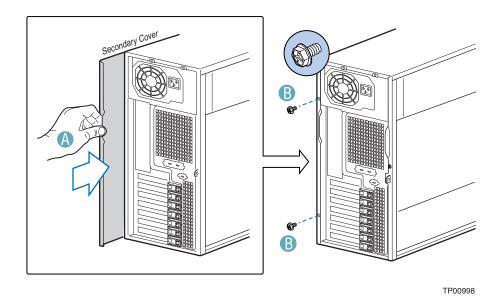


Figure 12. Reinstalling Secondary Access Cover

### **Reinstall Primary Access Cover**

- 1. Slide Access Cover on chassis.
- 2. Replace shipping screw (optional).



### **A** CAUTION

This chassis must be operated with the Access Cover installed to ensure proper cooling.

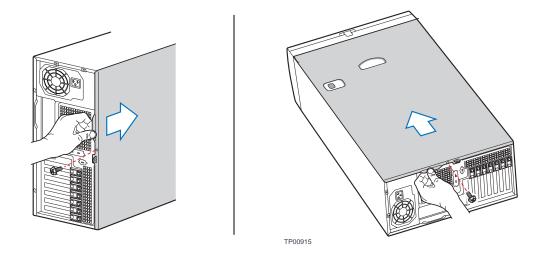


Figure 13. Replacing Access Cover