

Cooling Fan Kit Install Guide: Intel® Entry Storage System SS4200-E

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

Intel Order Number: E20702-003



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Intel® server boards contain a number of high-density VLSI and power delivery components that need adequate airflow for cooling. Intel's own chassis are designed and tested to meet the intended thermal requirements of these components when the fully integrated system is used together. It is the responsibility of the system integrator that chooses not to use Intel developed server building blocks to consult vendor datasheets and operating parameters to determine the amount of airflow required for their specific application and environmental conditions. Intel Corporation can not be held responsible if components fail or the server board does not operate correctly when used outside any of their published operating or non-operating limits.

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Safety Information

Important Safety Instructions

Read all caution and safety statements in this document before performing any of the instructions. See also Intel Server Boards and Server Chassis Safety Information on the *Intel® Server Deployment Toolkit CD* and/or at <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm>.

Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warnung und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel-Serverplatinen und Servergehäusen auf der *Intel® Server Deployment Toolkit CD* oder unter <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm>.

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 sur le *Intel® Server Deployment Toolkit CD* ou bien rendez-vous sur le site <http://support.intel.com/support/motherboards/server/sb/cs-010770.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 el *Intel® Server Deployment Toolkit CD* y/o en <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm>.

重要安全指导

在执行任何指令之前，请阅读本文件中的所有注意事项及安全声明。并参阅 <http://support.intel.com/support/motherboards/server/sb/CS-010770.htm> 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》）。

Warnings

Heed safety instructions: Before working with your storage product, whether you are using this guide or any other resource as a reference, pay close attention to the safety instructions. You must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described, regulated components specified in this guide. Use of other products / components will void the UL listing and other regulatory approvals of the product and will most likely result in noncompliance with product regulations in the region(s) in which the product is sold.

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 anti-static wrist strap attached to chassis ground (any unpainted metal surface) on your server when handling parts.

ESD and handling boards: Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. 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.

Installing or removing jumpers: A jumper is a small plastic encased conductor that slips over two jumper pins. Some jumpers have a small tab on top that you can grip with your fingertips or with a pair of fine needle nosed pliers. If your jumpers do not have such a tab, take care when using needle nosed pliers to remove or install a jumper; grip the narrow sides of the jumper with the pliers, never the wide sides. Gripping the wide sides can damage the contacts inside the jumper, causing intermittent problems with the function controlled by that jumper. Take care to grip with, but not squeeze, the pliers or other tool you use to remove a jumper, or you may bend or break the pins on the board.

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Cooling Fan Kit Install Guide

This install guide provides the specific steps required to replace a failed cooling fan in the Intel® Entry Storage System SS4200-E. The cooling fan should only be replaced if it has been properly diagnosed by trained service personnel as functioning improperly or not working at all.

Tools Needed

- #1 or #2 Phillips* screwdriver

Kit Contents

Cooling Fan Kit Installation Instructions

Cooling Fan Kit (FXXSS4200EFAN)

Item	Quantity
Cooling Fan	2
Install Guide	1

Caution: *Before performing any maintenance on the system, back up the data. Follow the instructions in the operating system manual or third-party software documentation for shutting down the system.*

Warning: *The enclosure cover should only be removed by qualified service personnel as it provides access to a service area. Potential hazards include:*

- *Energy hazard*
- *Rotating fans*
- *Hot surfaces*
- *Access to power supply unit openings*

Warning: *Upon completion of cooling fan replacement, the enclosure cover MUST be properly re-installed to ensure adequate cooling of the system.*

Prepare System

1. Read all caution and safety statements and observe all ESD precautions listed in this document before performing any of the steps. See the *Intel® Server Boards and Server Chassis Safety Information* document at <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm> for a complete listing of all caution and safety statements.

Caution: Before performing any maintenance on the system, back up the data.

2. Check the new cooling fan for damage. If any damage exists, return the cooling fan to your vendor for replacement.
3. Turn off all peripheral devices connected to the storage system. Power down the system.
4. Disconnect the AC power cord.

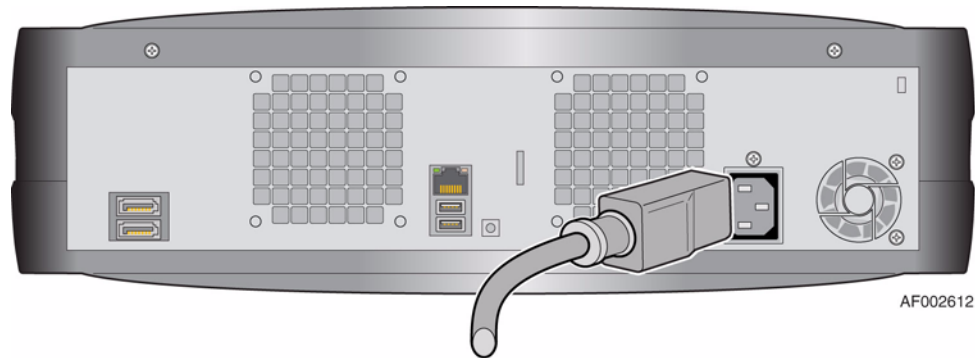
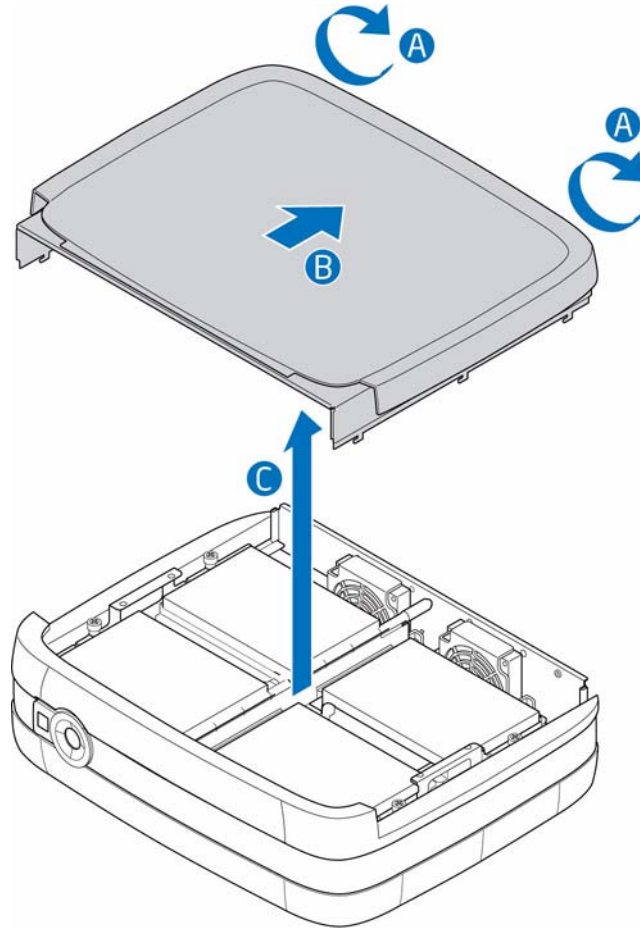


Figure 1. Disconnecting Power Cord

5. Release the enclosure cover by loosening the two captive screws at the rear of the system (see letter “A” in the following figure). Slide the enclosure cover to the rear (see letter “B”) and then lift to remove from the system (see letter “C”).



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Figure 2. Removing Enclosure Cover

Replacing Cooling Fan

To Replace Left Cooling Fan

6. Lift the left side of the drive tray assembly (see letter “A” in the following figure).

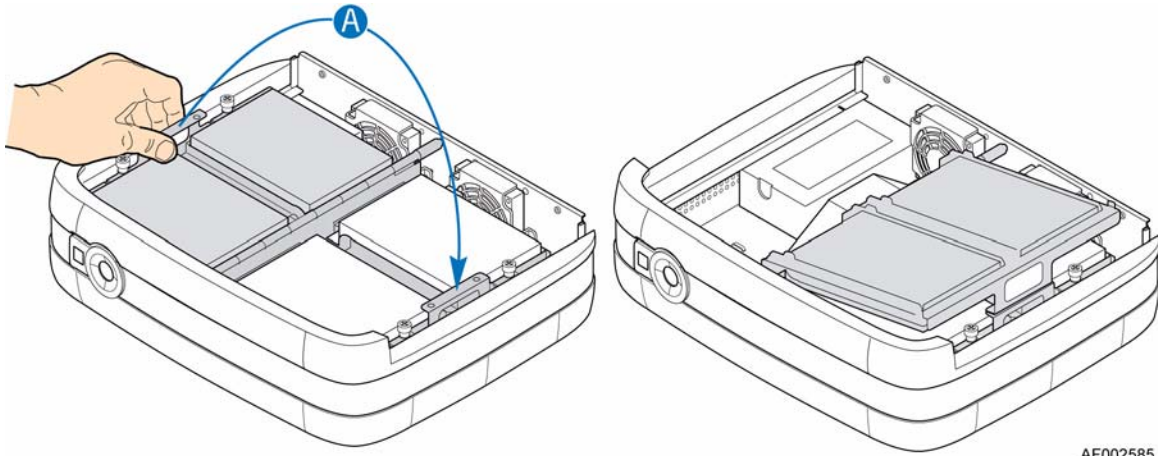


Figure 3. Lifting Left Side of Drive Tray Assembly

7. Disconnect the fan power cable from the system board (see letter “A” in the following figure). Remove the two screws securing the fan assembly to the chassis (see letter “B”). Remove the fan assembly (see letter “C”).

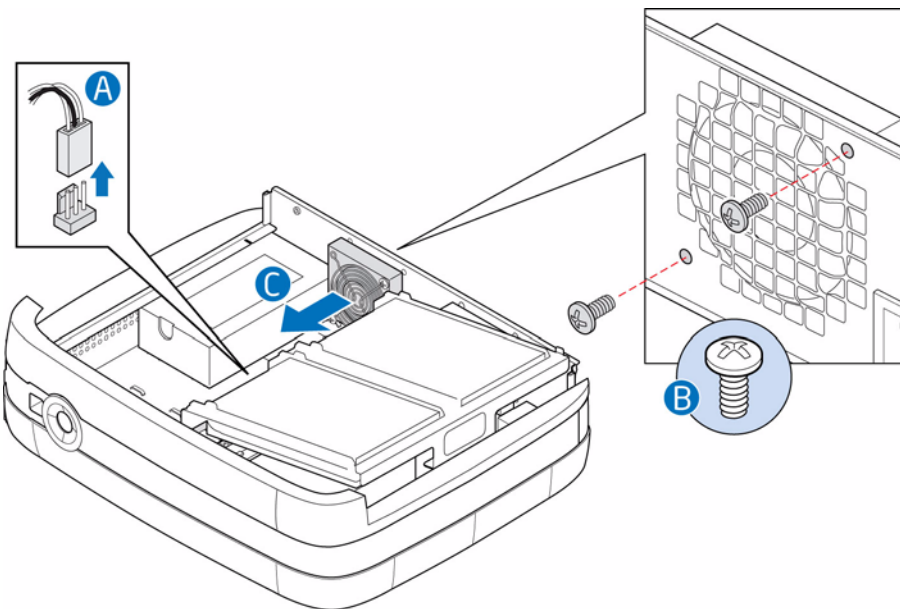
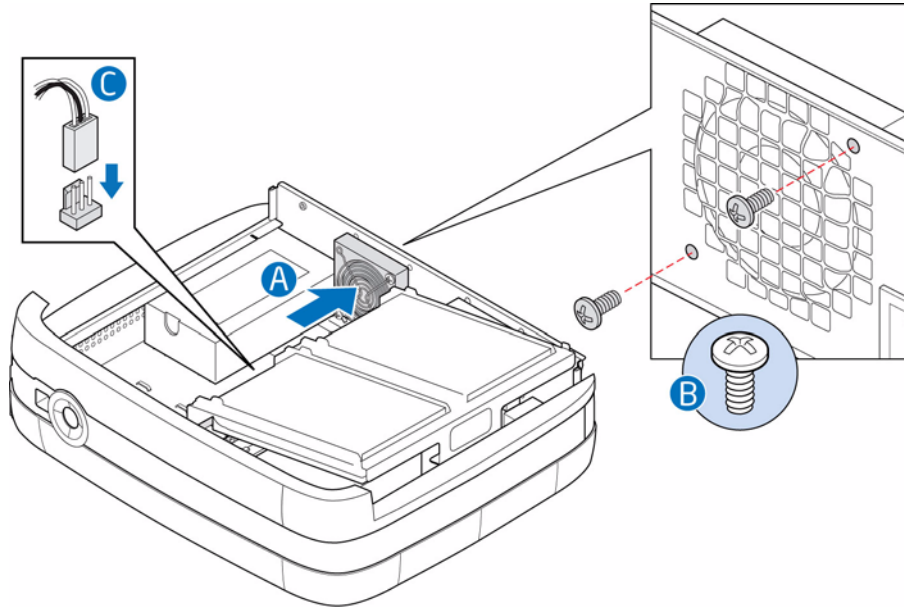


Figure 4. Removing Faulty Left Cooling Fan

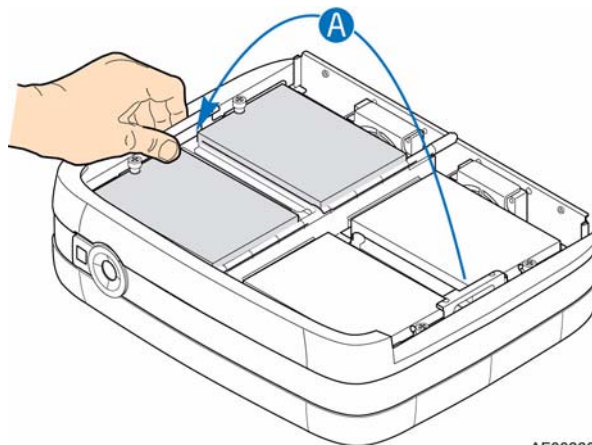
- Position the new cooling fan assembly in the system (see letter “A” in the following figure). Secure the fan assembly to the chassis with the two screws previously removed (see letter “B”). Connect the fan power cable to the SYS FAN2 connector (J10) on the system board (see letter “C”).



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Figure 5. Installing New Left Cooling Fan

- Return the left side of the drive tray assembly to its operational position (see letter “A” in the following figure).

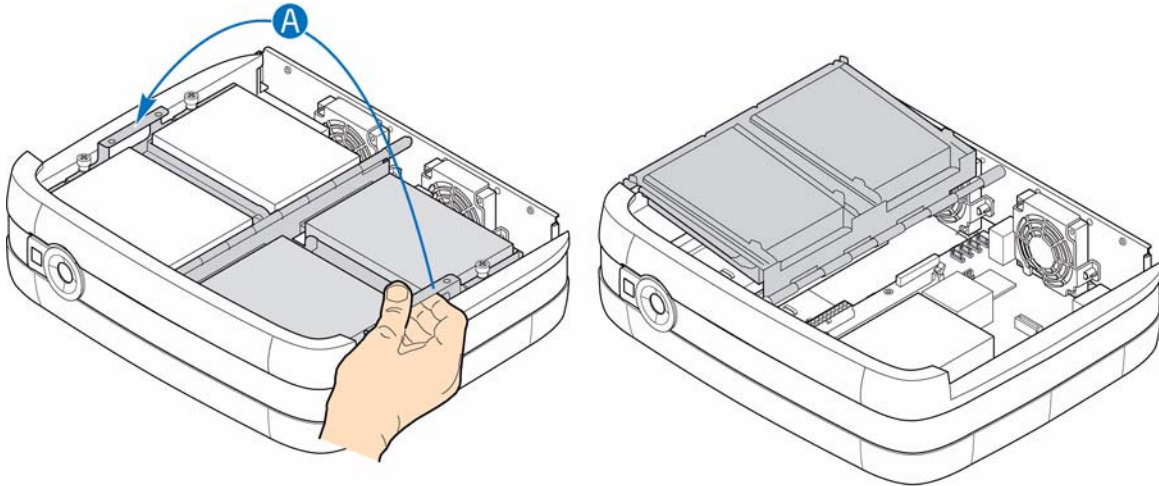


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Figure 6. Lowering Left Side of Drive Tray Assembly

To Replace Right Cooling Fan

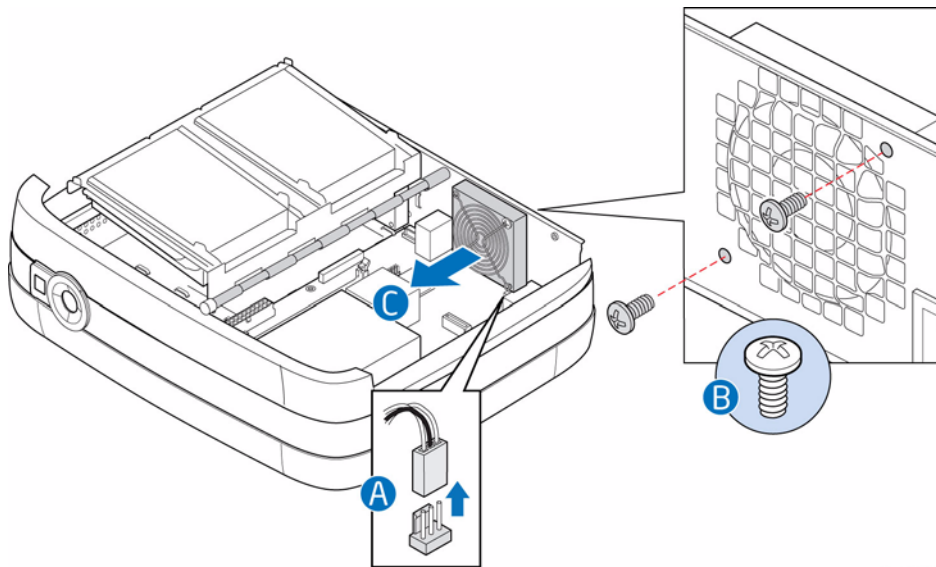
10. Lift the right side of the drive tray assembly (see letter “A” in the following figure).



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Figure 7. Lifting Right Side of Drive Tray Assembly

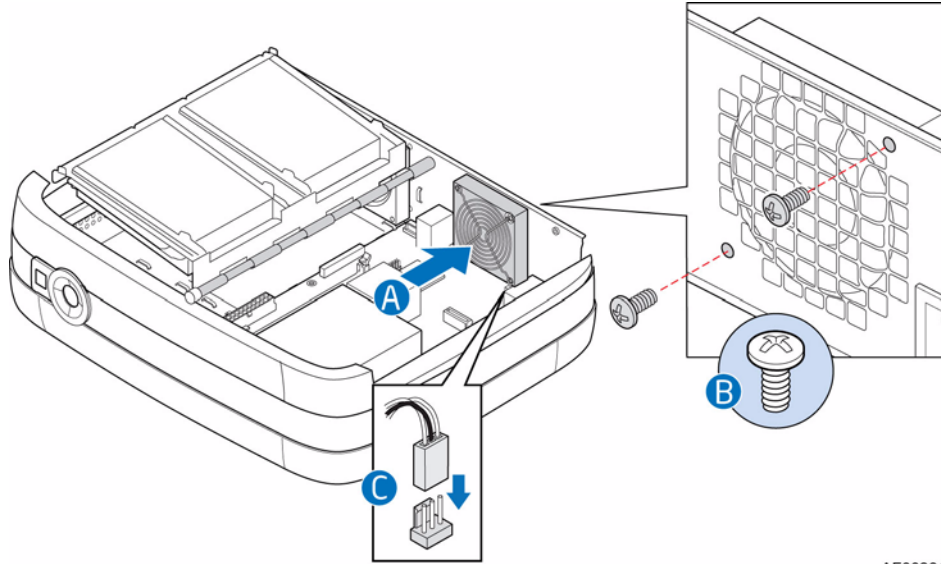
11. Disconnect the fan power cable from the system board (see letter “A” in the following figure). Remove the two screws securing the fan assembly to the rear of the chassis (see letter “B”). Remove the fan assembly (see letter “C”).



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Figure 8. Removing Right Faulty Cooling Fan

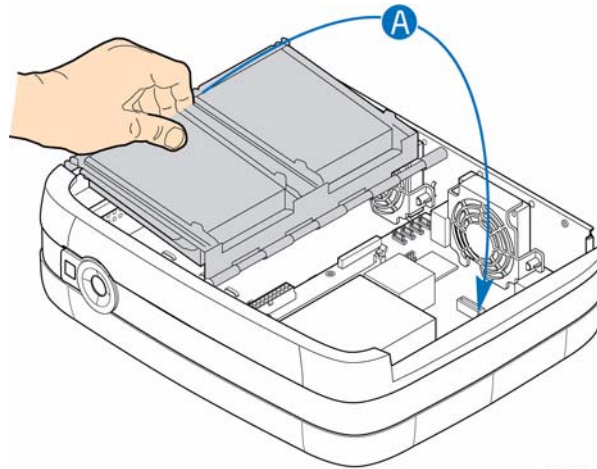
12. Position the new cooling fan assembly in the system (see letter “A” in the following figure). Secure the fan assembly to the chassis with the two screws previously removed (see letter “B”). Connect the fan power cable to the SYS FAN1 connector (J4B1) on the system board (see letter “C”).



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Figure 9. Installing New Right Cooling Fan

13. Return the right side of the drive tray assembly to its operational position (see letter “A” in the following figure).

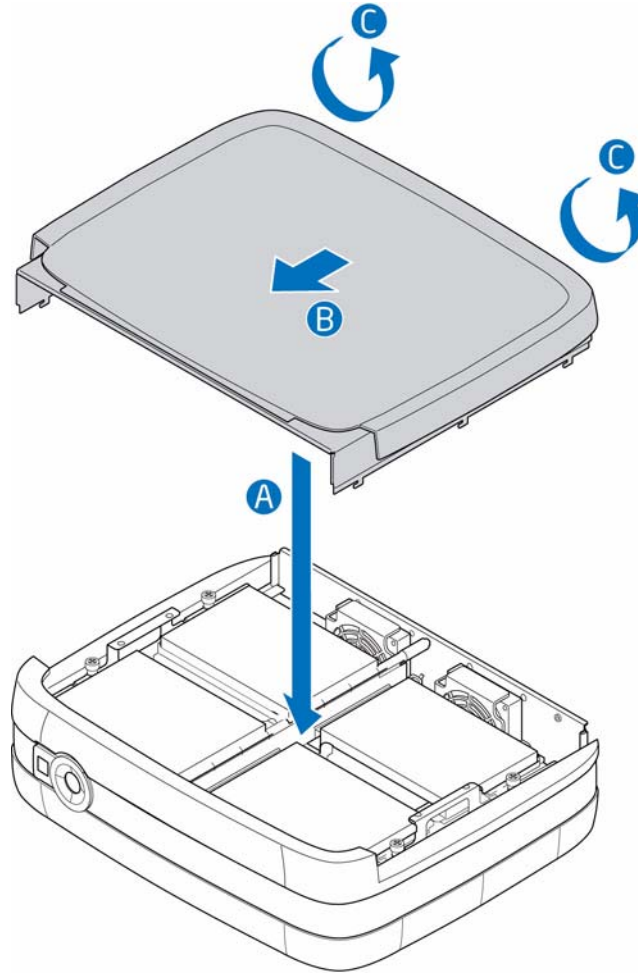


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Figure 10. Lowering Right Side of Drive Tray Assembly

Complete Setup

14. Re-install the enclosure cover. Align the enclosure cover over the sides of the system (see letter “A” in the following figure). Slide the enclosure cover toward the front of the system (see letter “B”). Secure the enclosure cover to the system by tightening the captive screws at the rear of the system (see letter “C”).



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Figure 11. Re-installing Enclosure Cover

15. Re-connect all peripheral devices and the AC power cord.
16. Power up the storage system.