

# **Intel® RAID Activation Key AXXRAK18E:**

## **Enabling Hardware RAID on Intel® Server Boards that include Intel® Integrated Server RAID Technology (ROMB)**

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Order Number: D37328-001



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# Important Safety Instructions

## Important Safety Instructions

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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 <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm>.

## Wichtige Sicherheitshinweise

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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/sb/cs-010770.htm>.

## 重要安全指导

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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<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》）。

## Important Safety Instructions Consignes de sécurité

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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/sb/cs-010770.htm>.

## Instrucciones de seguridad importantes

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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 <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm>.



## WARNINGS

**Server power on/off:** The push-button on/off power switch on the front panel of the server does not turn off the AC power. To remove AC power from the server, you must unplug the AC power cord from either the power supply or wall outlet.

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

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

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# About Intel® RAID Activation Keys

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Intel® RAID Activation Keys are used to enable RAID features on Intel® Server Boards. Several models of Intel® RAID Activation Keys are available. These keys are used for different RAID products and serve different purposes.

This guide is specific to the Intel® RAID Activation Key with the order code, AXXRAK18E. This key is used to enable hardware RAID across all modes (0, 1, 5, 10, and 50) on the following Intel® Server Boards and Platforms that include an Intel® Integrated Server RAID Module:

- Intel® Server Platform SR4850HW4/M with product code SHW4URM3SA
- Intel® Server Platform SR6850HW4/M with product code SHW6URM3SA
- Intel® Server Board S5000PSL with product code S5000PSLROMB
- Intel® Server Platform SC5400RA
- Intel® Server Platform SR1550AL with product code SR1550ALSAS
- Intel® Server Platform SR2500AL with product code SR2500ALLX

This guide does not apply to the Intel® RAID Activation Keys with order codes AXXRAKSW5 or AXXRAKU42E. The function of these RAID Activation Keys is as follows:

- AXXRAKSW5 enables software RAID 5 on Intel® Server Boards that include Intel® Embedded Server RAID Technology II. This key enables software RAID 5 with the ESB2 SATA controller and / or the 1064E SAS / SATA controller. Except for the Intel Server Platforms SR1550AL and SR2500AS (product codes SR1550ALSAS and SR2500ALLX), SAS server boards can include two AXXRAKSW5 sockets.
- AXXRAKU42E is used to enable RAID on the following SCSI ROMB models of the following Intel® Server Boards and Platforms that include an on-board SCSI controller:
  - Intel® Server Board SE7520AF2
  - Intel® Server Platform SR4850HW4/M with product code SHW4UR/M
  - Intel® Server Platform SR6850HW4/M with product code SHW6UR/M

# Intel® Integrated Server RAID Requirements

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Intel® Integrated Server RAID requires RAM in addition to the standard server board RAM. For Intel Integrated Server RAID server boards that include a full size DIMM slot for this purpose, any memory DIMM that is listed in the *Tested Memory List* for the RAID module can be used (256 MB to 1 GB). The *Tested Memory List* is available at <http://support.intel.com/support/motherboards/server>. Select your server board and view the list for the appropriate DIMMs.

For intelligent RAID midplanes that include a mini-DIMM socket, the RAM can be ordered using Intel part number AXXMINIDIMM.

A backup battery, called the Intel® RAID Smart Battery, is available to prevent the loss of data in the RAM cache if AC power is lost. The backup battery will maintain the data for up to 65 hours. The Intel® RAID Smart Battery mounts to the chassis and is supplied with various length cables for the best fit on each model. The order code for the backup battery is AXXRSBBU3.

## Intel® RAID Activation Key AXXRAK18E Kit Contents

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- One Intel® RAID Activation Key AXXRAK18E
- These instructions

## Installing the Hardware

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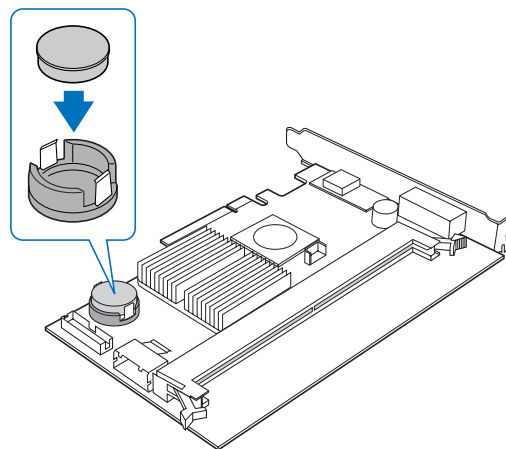
### Prepare the Server

1. Observe all safety and ESD precautions at the beginning of this guide and in the documentation for your server board and chassis.
2. If your server system is running, power off all peripheral devices attached to the server, power down the server, and disconnect the AC power cord from the server.
3. Remove the chassis cover. See your server chassis documentation for instructions.



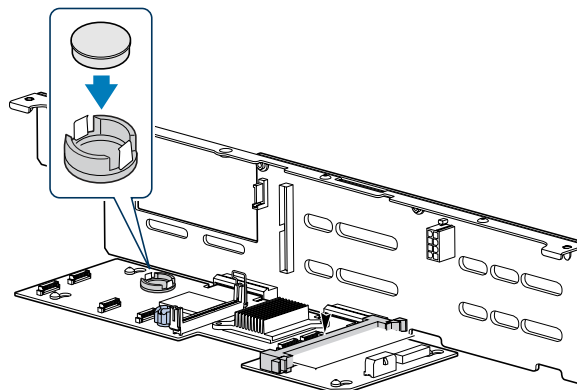
## Install the Intel® RAID Activation Key

1. Remove the RAID Activation Key from its packaging.
2. Locate the ROMB area in your server
3. the server board. This may be on a midplane board or on an add-in card in a specially keyed PCI Express\* slot. See your server board documentation for the location of the Intel® Integrated Server RAID components.
4. With the Intel name on the RAID Activation Key facing up, insert the RAID Activation Key into the socket.



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**Figure 1. Installing Intel® RAID Activation Key onto Intel® RAID Adapter SROMBSAS18E**



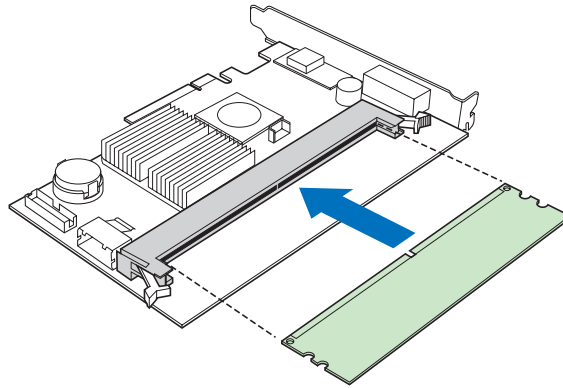
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**Figure 2. Installing Intel® RAID Activation Key onto Midplane Board**

5. Make sure the RAID Activation Key is fully seated. The metal protrusions on the socket will click over the top edges of the RAID Activation Key.

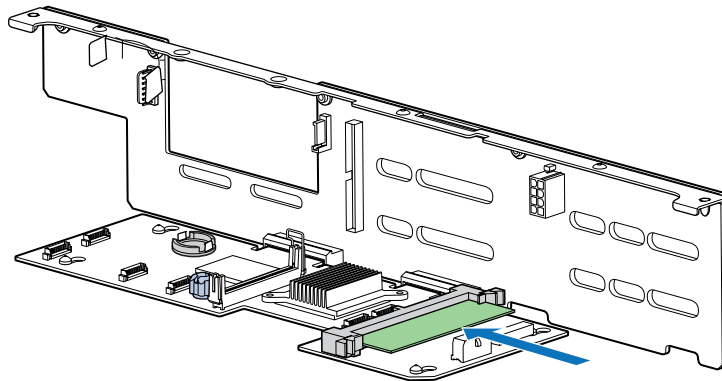
# Install the RAID DIMM or Mini-DIMM

Install RAM into the DIMM or the mini-DIMM socket.



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**Figure 3. Installing DIMM onto Intel® RAID Adapter SROMBSAS18E**



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**Figure 4. Installing Mini-DIMM onto Midplane Board**

## Finish Up the Hardware

1. (Optional) Follow the instructions included with the Intel RAID Smart Battery to install this accessory.
2. Reinstall any components inside of the server chassis that you needed to remove. See your server board or chassis documentation for instructions.
3. Install the server chassis cover and connect the AC power supply.

## Enabling Hardware RAID

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1. Restart the server system and press Ctrl key combination displayed on the screen during POST to enter the RAID BIOS Console setup utility.
2. Use the utility to configure hardware RAID. For instructions, see the RAID Software User's Guide on the *Intel® Server Deployment Toolkit 2.0* CD that came with your server board.