

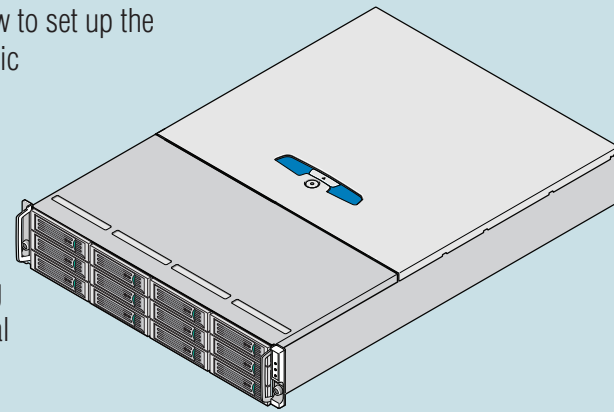


# Intel® Storage System SSR212MA Quick Start User's Guide

Thank you for buying an Intel® Storage Enclosure. This document describes how to set up the Intel® Storage System SSR212MA, turn on the system, and how to complete basic hardware and software configuration for the system.

This guide and other supporting documents are located on the web at <http://support.intel.com/support/motherboards/server>.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Intel® Storage Enclosure SSR212MA Technical Product Specification at <http://support.intel.com/support/motherboards/server>.



## Warning

- Safety information:** Read all the safety and caution 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.
- Installation and service:** Installation and service of this product is to be performed only by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.
- Avoid injury:** Lifting the storage system chassis and attaching it to the rack is a two-person job. If needed, use an appropriate lifting device.
- Hazardous conditions—power supply:** Hazardous voltage, current, and energy levels are present inside the power supply enclosure. There are no user-servicable parts inside the power supply; 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 storage system and disconnect telecommunications systems, networks, modems, and the power cord attached to the storage system before opening it. Failure to do so can result in personal injury or equipment damage.
- Enclosure cover:** In order to comply with applicable safety, emission, and thermal requirements, no covers should be removed and all bays must be fitted with drive carriers.
- Power ground:** A safe electrical earth connection must be provided to the power cord. Check the grounding of the enclosure before applying power.
- Ventilation:** The equipment rack must provide sufficient airflow to the front of the storage system to maintain proper cooling. It must also include ventilation sufficient to exhaust a maximum of 1676 BTUs per hour for a fully loaded Intel® Storage System SSR212MA.

## Caution

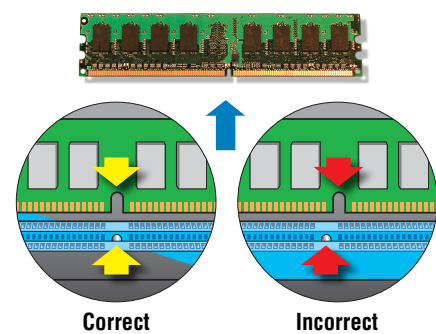
- Electrical discharge:** Observe normal ESD (Electrical Discharge) procedures during system integration to avoid possible damage to the server board and/or other components of the storage system.
- Storage system power:** The power connection must always be removed before disconnecting the power supply module from the storage enclosure.
- Temperature:** The operating temperature of the storage system, when installed in an equipment rack, must not go below 5 °C (41 °F) or rise above 35 °C (95 °F). Extreme fluctuations in temperature can cause a variety of problems in the storage system.

## 6

### Install Memory

You must install the correct DIMMs to avoid possible damage to server board DIMM sockets. A minimum of two 512-MB DDR-2 400-compliant registered SDRAM 240-pin DIMMs is recommended.

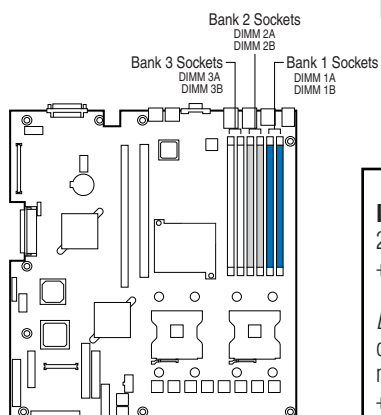
The illustration below shows the correct alignment between the DIMM notch and the server board DIMM socket. Before installing your DIMMs, make sure the notch in the DIMM aligns correctly with your server board.



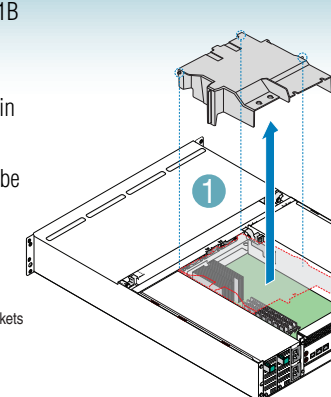
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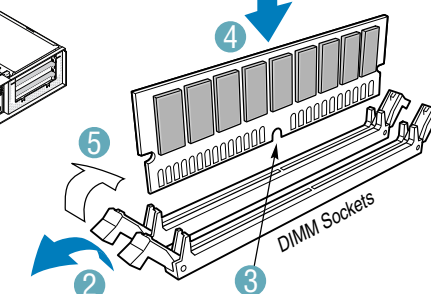
**Notes and Cautions:** Bank 1 (DIMM1B and DIMM1A) must be fully populated before populating Bank 2 (DIMM2B and DIMM2A). Memory must be populated in pairs. The DIMM size, speed and vendor must be the same within a bank. However, the DIMM size can vary between banks.



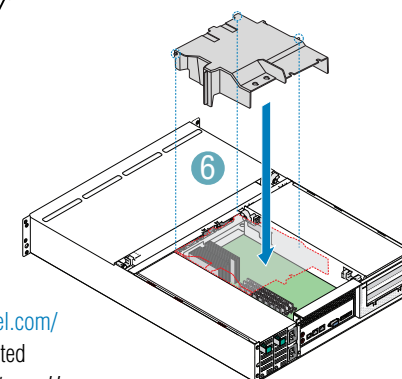
Use a grounding strap when handling memory DIMMs.



- 1 Lift the processor air duct from its location over the processor socket.
- 2 Open both DIMM socket levers.
- 3 Note location of alignment notch.



Avoid touching gold contacts when handling or installing DIMMs.



- 4 Insert DIMM making sure connector edge of DIMM aligns correctly with slot.
- 5 Check that socket levers are securely latched.
- 6 Replace processor air duct. Do not pinch any system cables. The front edge of processor air duct should lineup with corresponding holes in chassis.

**Minimum Required:** 200 MB + 200 MB per 1 TB raw disk capacity + 128 MB per RAID 5 array

**Example:** For 12 x 500-GB hard drives and two RAID 5 arrays, memory = 200 MB + (200 MB x 6.0) + 256 MB = 1.656 GB = 2 GB

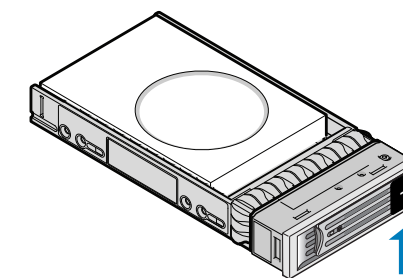
**Recommended Maximum:** 4 GB

See the Tested Memory List at <http://support.intel.com/support/motherboards/server> for a list of supported DIMMs. Refer to the *Intel® Storage System Software User Manual* for more information on memory configurations.

## 3

### Affix Hard Drive Labels

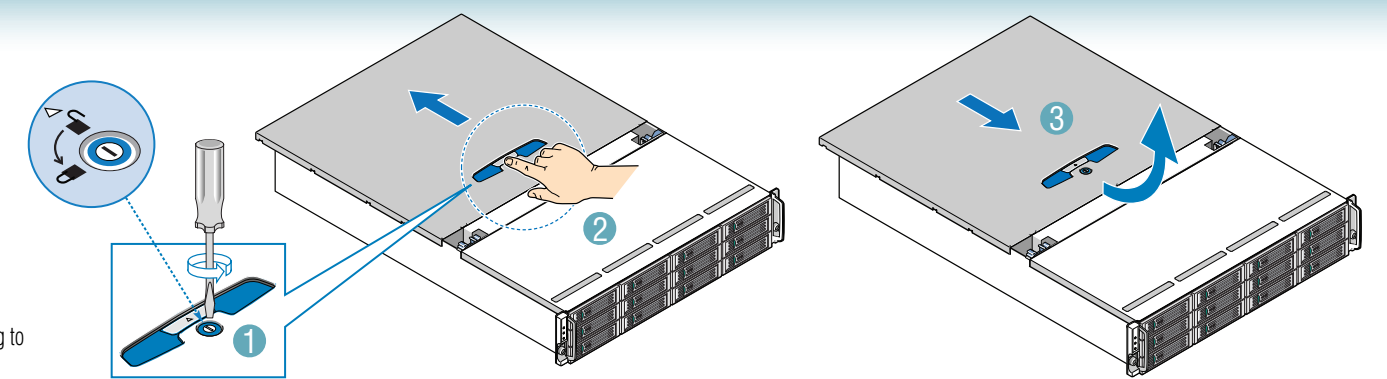
Included with the Intel® Storage System SSR212MA are labels for you to use to identify your hard drive carriers. Affix a label to each hard drive carrier that will be filled with a hard drive. See the illustration below for the recommended location to affix labels. Save unused labels for future use.



## 5

### Remove Enclosure Cover

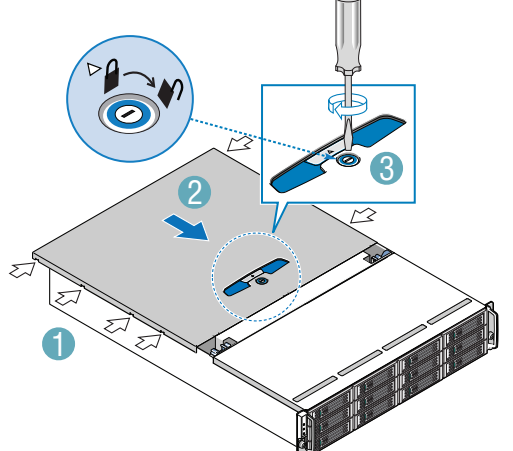
- 1 Turn locking screw to the unlock position by aligning the unlock symbol with the notch in the chassis.
- 2 Press on palm latch and slide enclosure cover back about two inches until it lines up with the blue zone on the fan module label.
- 3 Slide enclosure cover forward while at the same time lifting to remove enclosure cover from chassis.



## 7

### Install Enclosure Cover

- 1 Align enclosure cover over corresponding notches in chassis.
- 2 Slide enclosure cover toward front of chassis.
- 3 With a flat-headed screwdriver, secure enclosure cover to chassis by aligning the lock symbol with the notch in the chassis.



## Package Contents

- Intel® Storage System SSR212MA
- This document
- Hard disk drive labels
- Rail kit
- One Ethernet to DB9 cable
- One T10 TORX\* screwdriver
- Bag of 50 Phillips\* head screws for hard drives

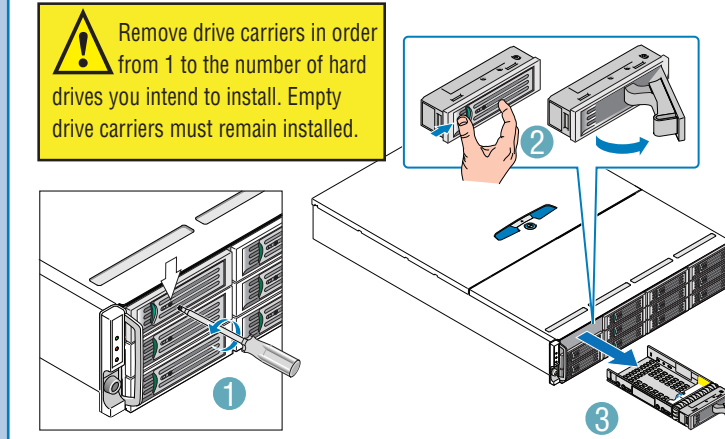
## Installation Requirements

- Minimum of a 486-compatible PC or laptop with serial port to attach to the Intel® Storage System SSR212MA serial port for configuring the network connection
- PC with terminal emulation software to establish connection to the storage system
- Minimum of two 512-MB DDR-2-400 DIMMs (recommended)

## 1

### Remove Hard Drive Carriers

- 1 Your storage system should have shipped with the hard drive carrier unlocked. If not, starting with drive bay 1, use the T10 TORX\* screwdriver provided to unlock the hard drive carrier by turning the screw one-half turn to the left.
- 2 Release hard drive carrier from drive bay by pressing latch in handle towards drive hinge.
- 3 Once released, slide hard drive carrier out of drive bay.

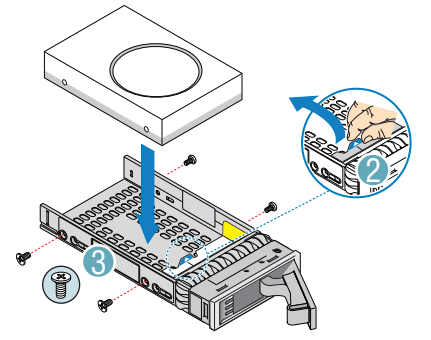


Remove drive carriers in order from 1 to the number of hard drives you intend to install. Empty drive carriers must remain installed.

## 2

### Install Hard Drives into Hard Drive Carriers

- 1 Set any jumpers and/or switches on the hard drive(s) according to the instructions that came with your hard drive(s).
- 2 Remove label from inside of drive carrier.
- 3 Position the drive with circuit side facing down and connector end of drive facing rear of drive carrier. Align holes in drive with holes in drive carrier. Attach drive to carrier with four screws.

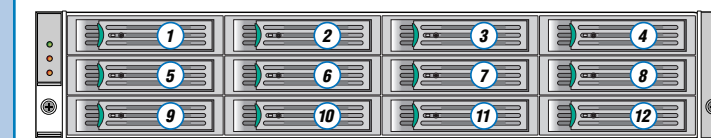


## 4

### Install Hard Drive Carriers

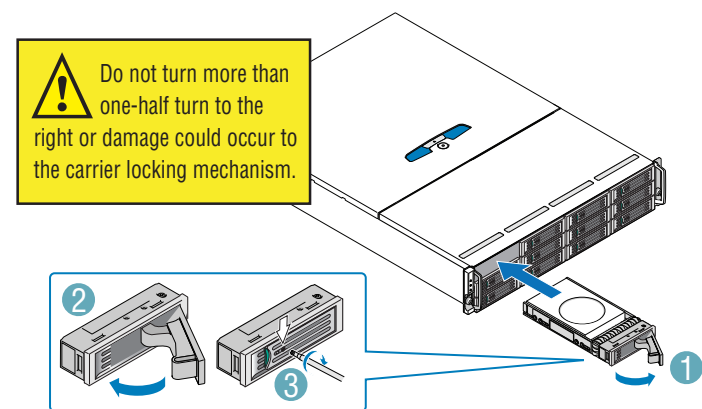
Drive carriers are numbered 1 through 12 and must be installed into the drive bay of the same number. Begin with the top row of drive bays and move left to right. Proceed to the middle row of drive bays starting at the far left. Complete installation with the bottom row of drive bays, moving left to right.

Never change the bay position of a hard drive once it has been installed in the system and appropriate RAID levels have been applied to it. This may cause data on the hard drive to become inaccessible.



- 1 With lever in the fully open position, slide drive carrier into chassis. Do not push on lever until lever begins to close by itself.
- 2 Once lever begins to latch, close lever to lock drive carrier into place.
- 3 Use the T10 TORX\* screwdriver provided to lock hard drive carrier to chassis by turning one-half turn to the right.

Do not turn more than one-half turn to the right or damage could occur to the carrier locking mechanism.



## 8

### Plug in System

- 1 Connect power cord(s) to installed power supply module(s). Plug power cord(s) into power source. Power up the system.
- 2 Ensure that power supply LED is green. Green indicates power is on.
- 3 Attach a null modem cable to the RJ-45 serial port connector on back of chassis. Connect other end of null modem cable to a serial port on your PC or laptop. You will use the PC or laptop to assign an IP address to the storage system.
- 4 Attach an active Ethernet cable to the NIC1 port.

