

Getting Started Guide for Sun StorageTek™ 2500 Series Storage Arrays

This document provides an overview of the installation procedure for Sun StorageTek 2500 Series Storage Arrays. For detailed information, have the *Sun StorageTek 2500 Series Array Hardware Installation Guide* available as you go through the steps in this document. Additional documentation is listed in the section “[Documentation for This Product](#)” and available at the Sun documentation web site:

<http://docs.sun.com/app/docs/prod/st2500.array~st2500arrays#hic>

Sun StorageTek Common Array Manager

The Sun StorageTek Common Array Manager software is a key component for the initial configuration and operation of the Sun StorageTek 2500 Series Array hardware. It is installed on a management host cabled to the array via out-of-band Ethernet (cables for this connection are provided). To obtain a general overview and detailed technical information, go to:

http://www.sun.com/storagetek/management_software/resource_management/cam

Click the “Get It” tab to obtain the latest information and version available. **Note:** It is recommended to begin the download process now so that the software is ready for installation once hardware installation is complete.

Before You Begin

Review the following documents before starting the installation:

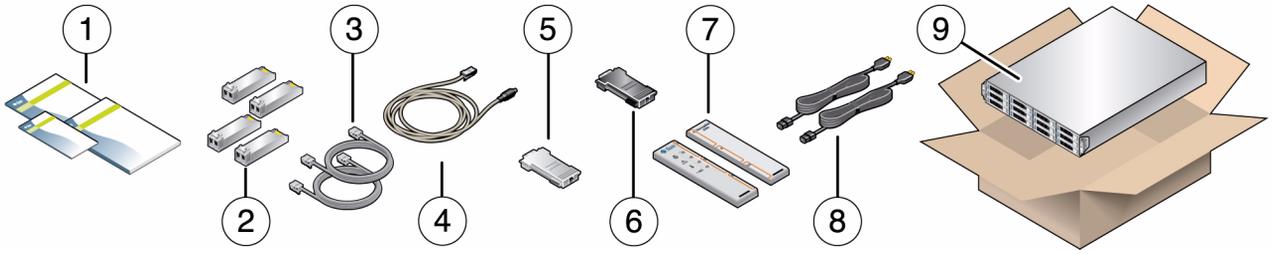
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- *Important Safety Information for Sun Hardware Systems*
 - *Sun StorageTek 2500 Series Array Release Notes*
 - *Sun StorageTek 2500 Series Array Regulatory & Safety Manual*
 - *Sun StorageTek 2500 Series Array Site Preparation Guide*
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Review Contents of the Ship Kit

FIGURE 1 shows the components of the controller tray ship kit for the Sun StorageTek 2540 Array, Sun StorageTek 2530 Array, and Sun StorageTek 2510 Array. Note the following:

- AC power cables are shipped separately.
- Small form-factor pluggables (SFPs) are included only with the Sun StorageTek 2540 Array.
- Cables for connecting the controller tray to the data host, such as Serial Attached SCSI (SAS), Fibre Channel (FC) fiber-optic, and Ethernet, are not included and may be ordered separately. SAS cables for inter-tray cabling are included with the Sun StorageTek 2501 expansion tray ship kit.

FIGURE 1 Controller Tray Ship Kit Contents

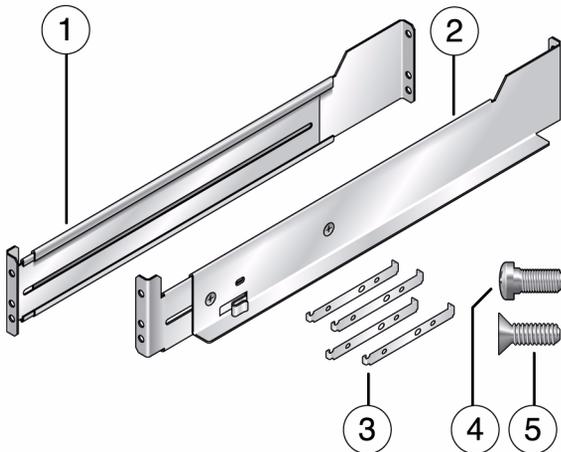


Callout	Description	Callout	Description
1	Documentation	6	RJ-45 - DB9 adapter with null modem
2	Four Fibre Channel SFPs (2540 only)	7	Bezel end caps
3	RJ-45 - RJ-45 Ethernet cables (one per controller module)	8	Power cables (AC cables shipped separately. DC cables included for DC configurations)
4	RJ-45 - mini-DIN cable	9	Controller tray
5	RJ-45 - DB9 adapter		

Install the Cabinet and Prepare the Rail Kit

Before installing the rail kit, install and stabilize the cabinet as described in the cabinet installation instructions. Make sure the cabinet’s casters (if any) are locked to prevent the cabinet from rolling, and remove or open the front panel and vented back panel. Then, review the rail kit contents ([FIGURE 2](#)).

FIGURE 2 Rail Kit Contents

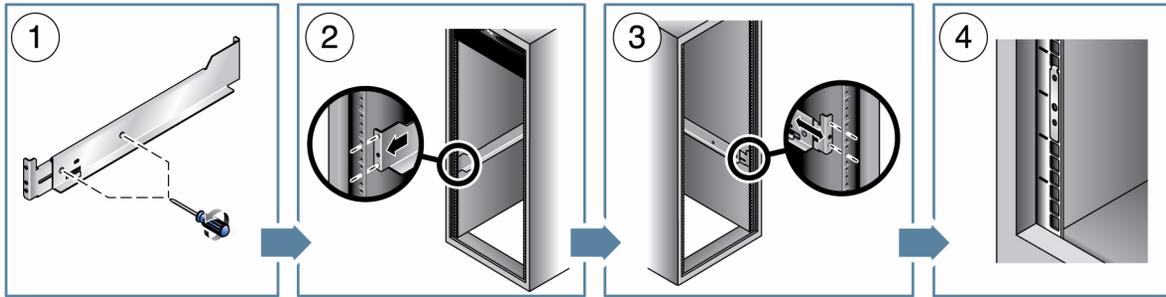


Callout	Description
1	Left rail assembly
2	Right rail assembly
3	Four unthreaded cabinet rail adapter plates
4	Ten 10-32 screws
5	Four M4 screws

Install the Rail Kit Into the Cabinet

The following steps provide an overview of the rail kit installation. The Installation Guide provides detailed installation steps for your cabinet type. **Note:** Each tray requires two standard mounting rack units (2RU) of vertical space in the cabinet.

FIGURE 3 Installation of Rail Kit



Step/Callout	Task
1	Loosen the rail to adjust the rail length.
2	Position the front rail behind the front cabinet rail and secure.
3	Position the back rail in front of the back cabinet rail and secure.
4	Use cabinet rail adapter plates to mount the rail on cabinets with unthreaded holes.

Install the Tray in the Cabinet and Connect Power Cables

Install the controller tray in the first empty 2RU slot at the bottom of the cabinet. If you are installing expansion trays, continue installing the trays from the bottom up. Consult the Installation Guide for further details.

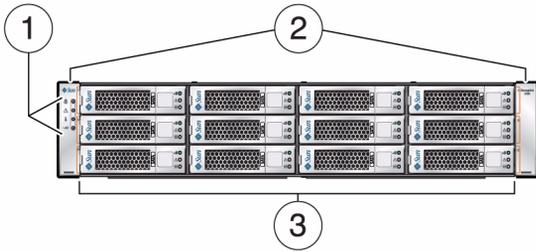
FIGURE 4 Installing the Tray



Step	Task
1	Using two people, carefully lift and rest the tray on the bottom ledge of the left and right rails. Note that tray equipment can weight up to 95 pounds.
2	Carefully slide the tray into the cabinet until the front mounting flanges on the tray touch the vertical face of the cabinet.
3	Insert a single 8-32 pan head screw through the center hole in each front mounting flange and tighten.
4	Replace the end caps (bezels) that cover the mounting flanges on the front of the array tray.
5	Verify that the controller power switches and cabinet circuit breakers are turned off. Then, connect each tray power supply to a separate power source in the cabinet.

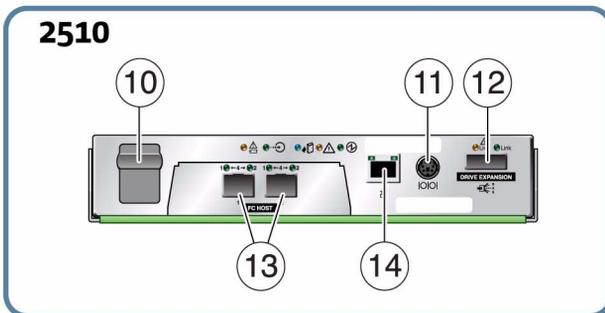
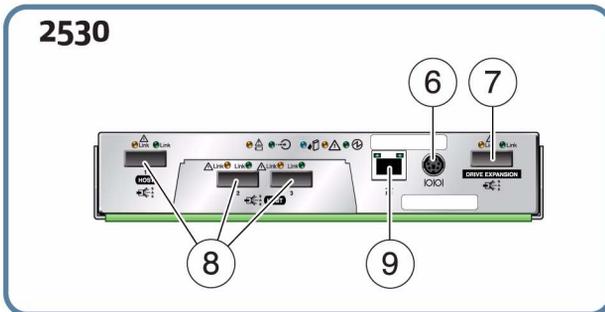
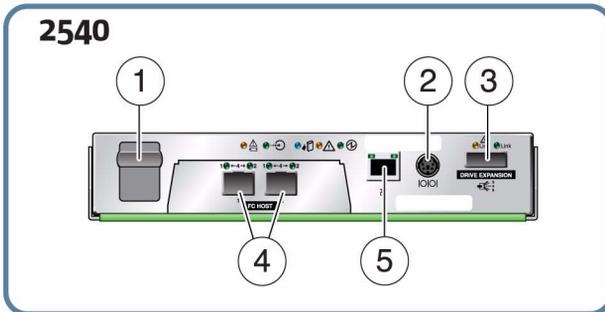
Review Controller Tray Front and Rear Panels

FIGURE 5 Controller Tray Front Panel



Callout	Description
1	Tray LEDs
2	End caps
3	Disk drives

FIGURE 6 Controller Tray Rear Panel

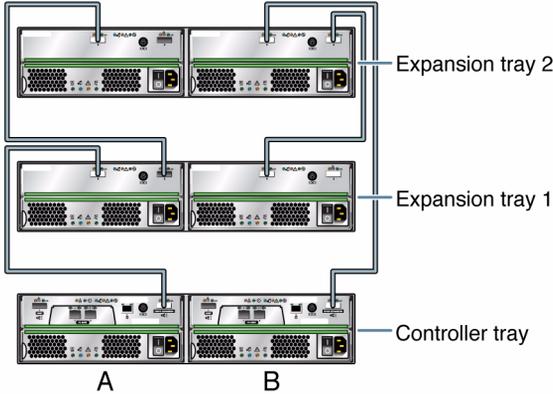


Callout	Description
1	(Not used)
2	RS-232 connector (Diagnostics port)
3	Drive expansion tray connector (SAS out)
4	Fibre Channel data host connectors or copper data host connectors
5	Ethernet management host connector
6	RS-232 connector (Diagnostics port)
7	Drive expansion tray connector (SAS out)
8	SAS data host connectors
9	Ethernet management host connector
10	(Not used)
11	RS-232 connector (Diagnostics port)
12	Drive expansion tray connector (SAS out)
13	Ethernet data host connectors
14	Ethernet management host connector

Connect Controller and Expansion Trays

The following procedure demonstrates the typical cabling configuration for connecting two expansion trays to a duplex controller tray for maximum redundancy. See the Installation Guide for alternate configurations.

FIGURE 7 Typical Expansion Tray Cabling Configuration

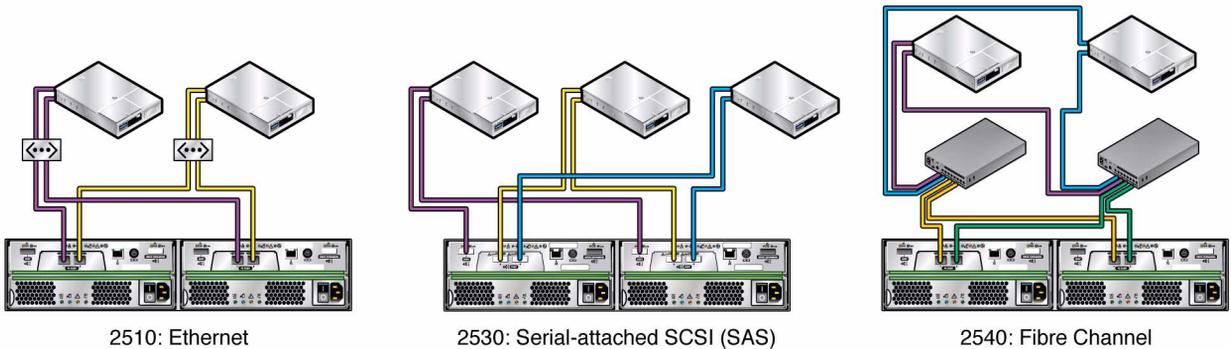


Step	Task
1	Connect one SAS cable between the Controller A expansion Out port and the A-side In port of expansion tray 1.
2	Connect one SAS cable between the Controller B expansion Out port and the B-side In port of expansion tray 2.
3	Connect one SAS cable between the A-side Out port of expansion tray 1 and the A-side In port of expansion tray 2.
4	Connect one SAS cable between the B-side Out port of expansion tray 2 and the B-side In port of expansion tray 1.

Connect Management Host and Data Hosts

The following procedure demonstrates typical management host and data host connections. Alternate configurations are described in the Installation Guide. **Note:** All three models in the Sun StorageTek 2500 Array Series support direct connections, if desired.

FIGURE 8 Sample Controller-to-Data Host Connections



Step	Task
1	Connect an Ethernet cable from the management host port of each controller to the LAN of the management host.
2	<ul style="list-style-type: none"> For the 2510, connect an Ethernet cable from a controller host port to a port in an Ethernet switch or router. For the 2530, connect a SAS cable from a controller host port to the data host HBA port (direct connection only). For the 2540, plug an SFP into a controller host port. Then, connect a fiber-optic cable from the controller host port to a port in a Fibre Channel switch.
3	For each controller, repeat Step 2 for additional data host connections.

Turn on Power and Install Management Host Software

To power on the array, follow the detailed procedure in the Installation Guide. Then, install Sun StorageTek Common Array Manager on the management host from the downloaded package. **Note:** If you did not previously begin the download process, see the “[Sun StorageTek Common Array Manager](#)” section.

During initial array registration, you are prompted to register with the Auto Service Request (ASR) service. It is highly recommended that you register with ASR so that Sun Service can respond appropriately to your needs.

Documentation for This Product

- Additional documentation for the Sun StorageTek 2500 Series Storage Arrays is available at:
<http://docs.sun.com/app/docs/prod/st2500.array~st2500arrays#hic>
- Documentation related to the Sun StorageTek Common Array Manager software is available at:
<http://docs.sun.com/app/docs/prod/stor.armgr#hic>

Review safety information	<i>Sun StorageTek 2500 Series Array Regulatory & Safety Manual</i> <i>Important Safety Information for Sun Hardware Systems</i>
Review known issues and workarounds	<i>Sun StorageTek 2500 Series Array Release Notes</i> <i>Sun StorageTek Common Array Manager Release Notes</i>
Prepare the site	<i>Sun StorageTek 2500 Series Array Site Preparation Guide</i>
Install the array	<i>Sun StorageTek 2500 Series Array Hardware Installation Guide</i>
Install the management software	<i>Sun StorageTek Common Array Manager Software Installation Guide</i>
Manage the array	<i>Sun StorageTek Common Array Manager Online Help (integrated with software)</i> <i>Sun StorageTek Common Array Manager CLI Guide</i>

Sun Contact Information

Technical support	http://www.sun.com/service/contacting
Submitting comments on this document	Click the Feedback[+] link at: http://docs.sun.com
Patch and firmware updates	http://www.sun.com/support/index.jsp

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Part No. 820-7947-10, Rev. A
June 2009