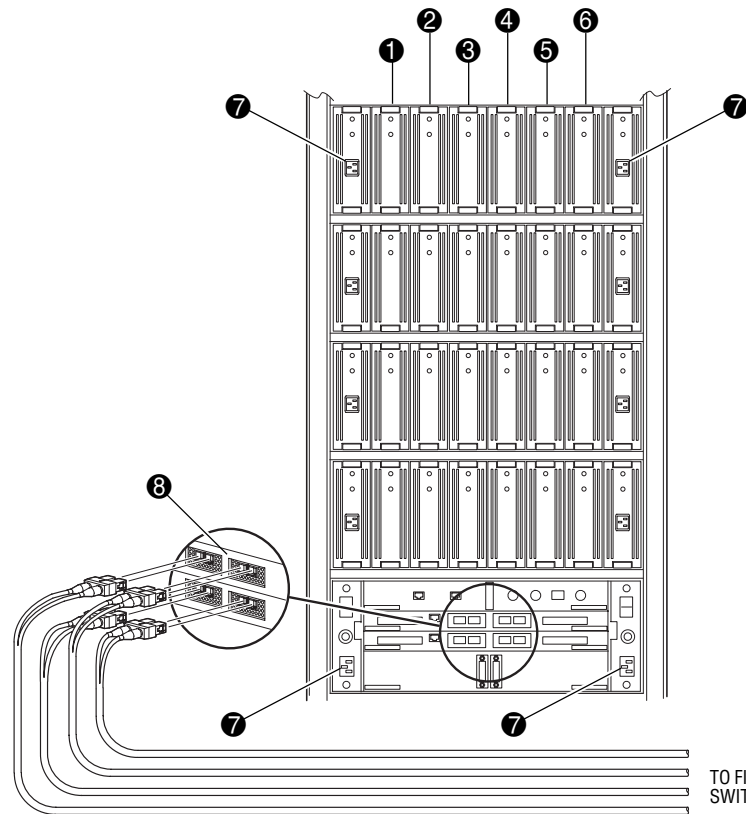


# RA8000/ESA12000 Storage System Installation



- ❶ SCSI Bus 1
- ❷ SCSI Bus 2
- ❸ SCSI Bus 3
- ❹ SCSI Bus 4
- ❺ SCSI Bus 5
- ❻ SCSI Bus 6
- ❼ AC Power Inputs
- ❽ Fibre Channel Ports

**NOTE:** The RA8000 or ESA12000 storage systems can be configured at the customer site in a Compaq rack or pre-configured in a pedestal. ESA12000 storage systems are shipped pre-configured and fully populated in a rack. If you ordered a customer-configurable RA8000 storage system, unpack and install all the items that were shipped. Refer to the documentation that came with your storage system, then continue to the Fibre Channel Switch or Hub Installation steps.

# Disk Enclosure SCSI IDs

## ESA12000 Storage System

SCSI BUS	1	2	3	4	5	6	SCSI ID
1-15	2-15	3-15	4-15	5-15	6-15		15
1-14	2-14	3-14	4-14	5-14	6-14		14
1-13	2-13	3-13	4-13	5-13	6-13		13
1-12	2-12	3-12	4-12	5-12	6-12		12
1-11	2-11	3-11	4-11	5-11	6-11		11
1-10	2-10	3-10	4-10	5-10	6-10		10
1-9	2-9	3-9	4-9	5-9	6-9		9
1-8	2-8	3-8	4-8	5-8	6-8		8
1-3	2-3	3-3	4-3	5-3	6-3		3
1-2	2-2	3-2	4-2	5-2	6-2		2
1-1	2-1	3-1	4-1	5-1	6-1		1
1-0	2-0	3-0	4-0	5-0	6-0		0

## RA8000 Storage System

SCSI BUS	1	2	3	4	5	6	SCSI ID
1-3	2-3	3-3	4-3	5-3	6-3		3
1-2	2-2	3-2	4-2	5-2	6-2		2
1-1	2-1	3-1	4-1	5-1	6-1		1
1-0	2-0	3-0	4-0	5-0	6-0		0

### NOTICE

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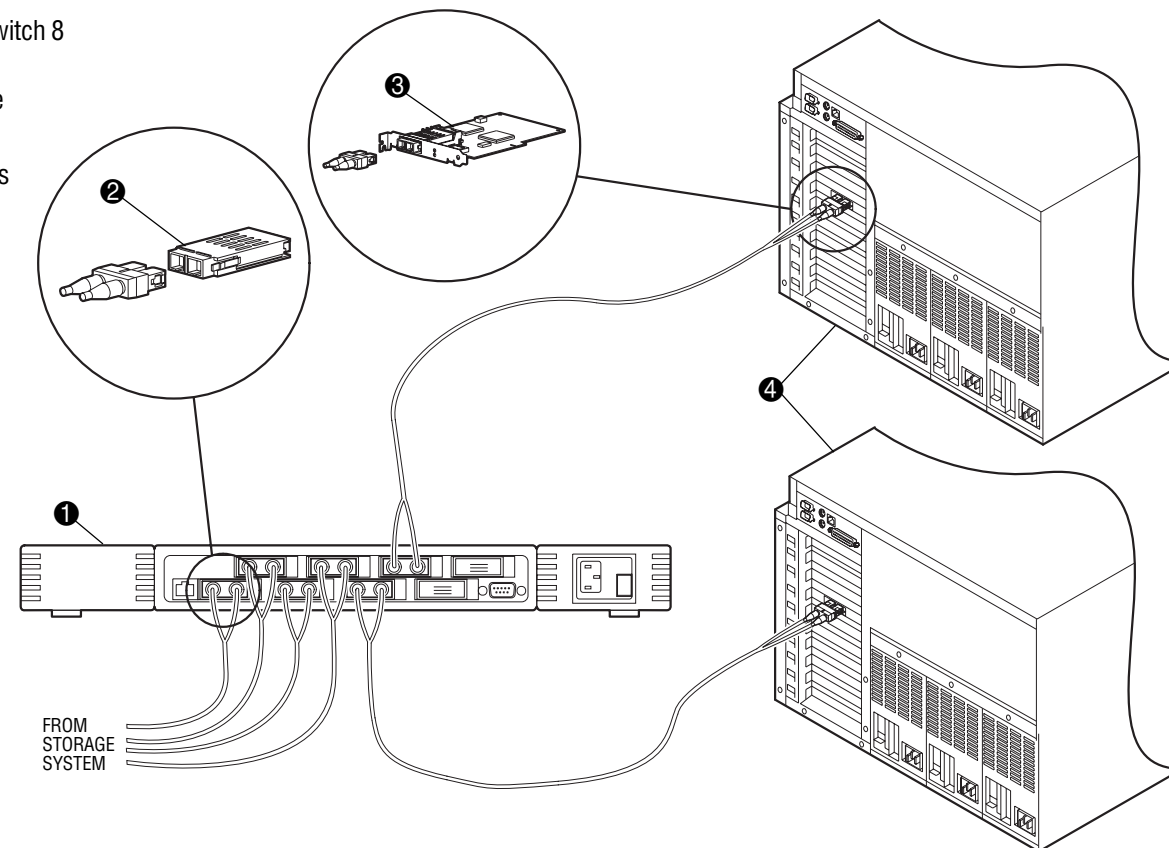
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Compaq Computer Corporation

# Fibre Channel Switch or Hub Installation

- ❶ Compaq StorageWorks SAN Switch 8
- ❷ Gigabit Interface Converter–Short Wave (GBIC-SW) Module
- ❸ Fibre Channel Host Controllers
- ❹ Rack-Mounted Compaq Servers

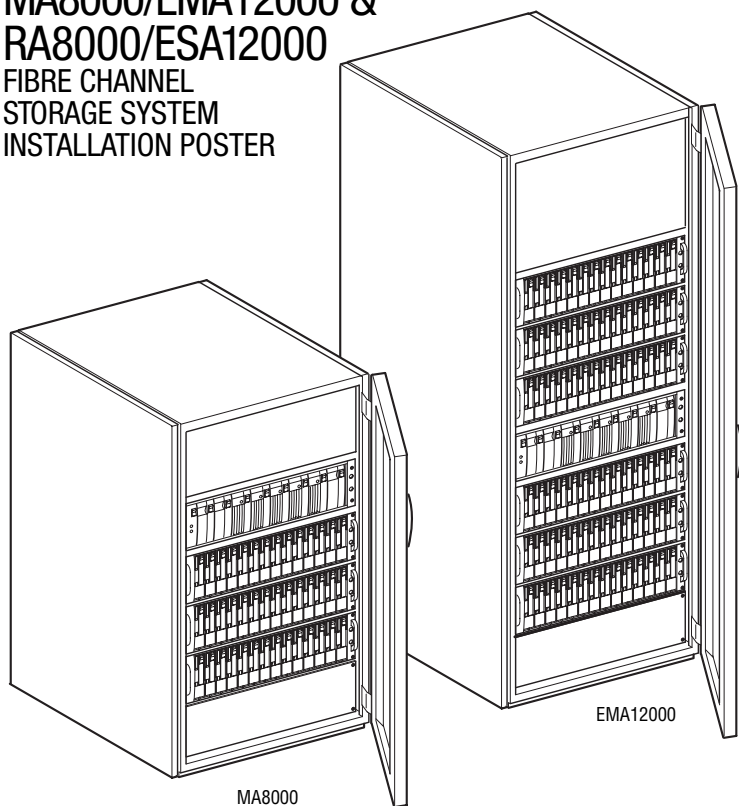


**NOTE:** The example shows a Compaq StorageWorks SAN Switch 8. Cabling to another Compaq Switch or a Fibre Channel Hub is similar. Refer to the applicable Fibre Channel Switch or Hub documentation for your specific Fibre Channel Switch or Hub.

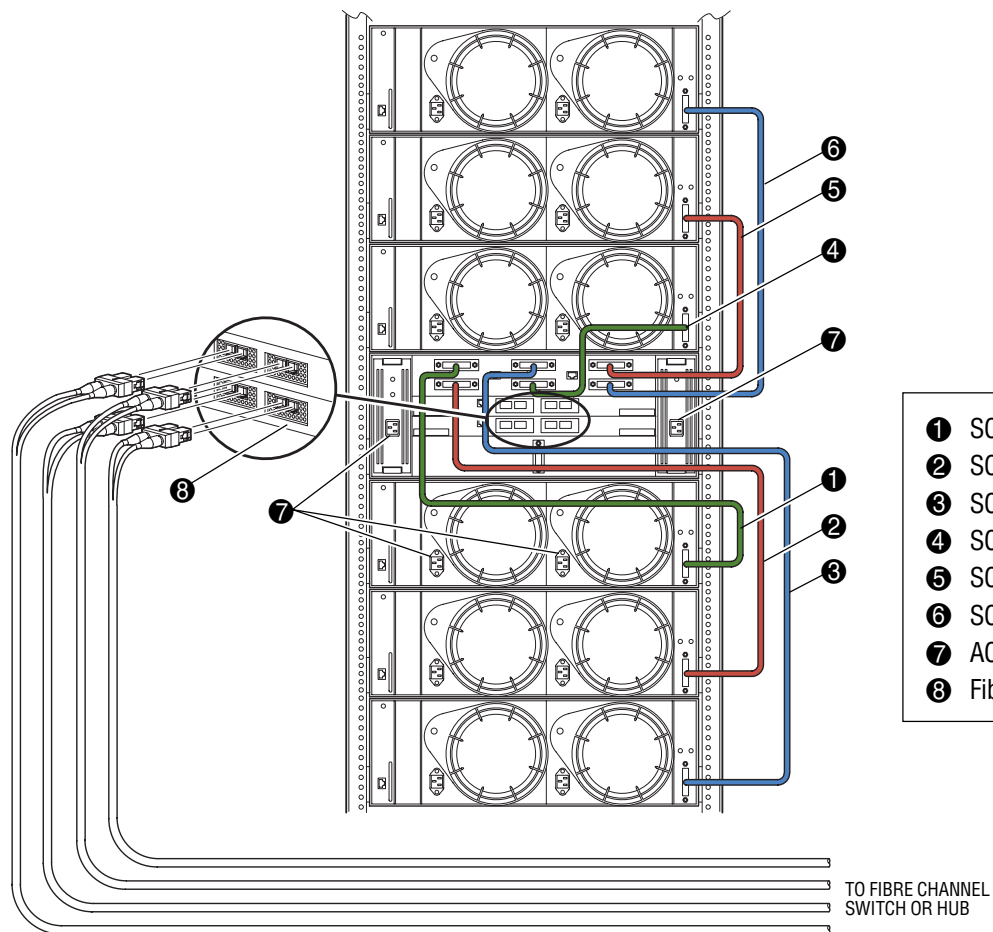
1. Install the switch or hub in the rack or another suitable location. Refer to the documentation that came with your switch or hub.
2. Install the appropriate number of Fibre Channel host controllers/host bus adapters into the available slots in the server(s). Refer to the host controller documentation.
3. Install the appropriate number of Gigabit Interface Converters-Short Wave (GBIC-SW) modules into each switch or hub, and one GBIC-SW into each host controller/host bus adapter.
4. Connect a fiber optic cable to each Fibre Channel port on the array controller(s). Connect the other end of each fiber optic cable to a GBIC-SW module on the switch or hub.
5. Connect a fiber optic cable to each GBIC-SW module on the host controllers/host bus adapters. Connect the other end of each fiber optic cable to a GBIC-SW module on the switch or hub.
6. Connect the power supplies, AC power controller modules, ECB cache modules, UPS, and PDU, as necessary, to their appropriate power sources.
7. Apply power to the storage system.
8. Refer to your *Solution Software Installation and Reference Guide* to begin software installation.



MA8000/EMA12000 &  
RA8000/ESA12000  
FIBRE CHANNEL  
STORAGE SYSTEM  
INSTALLATION POSTER

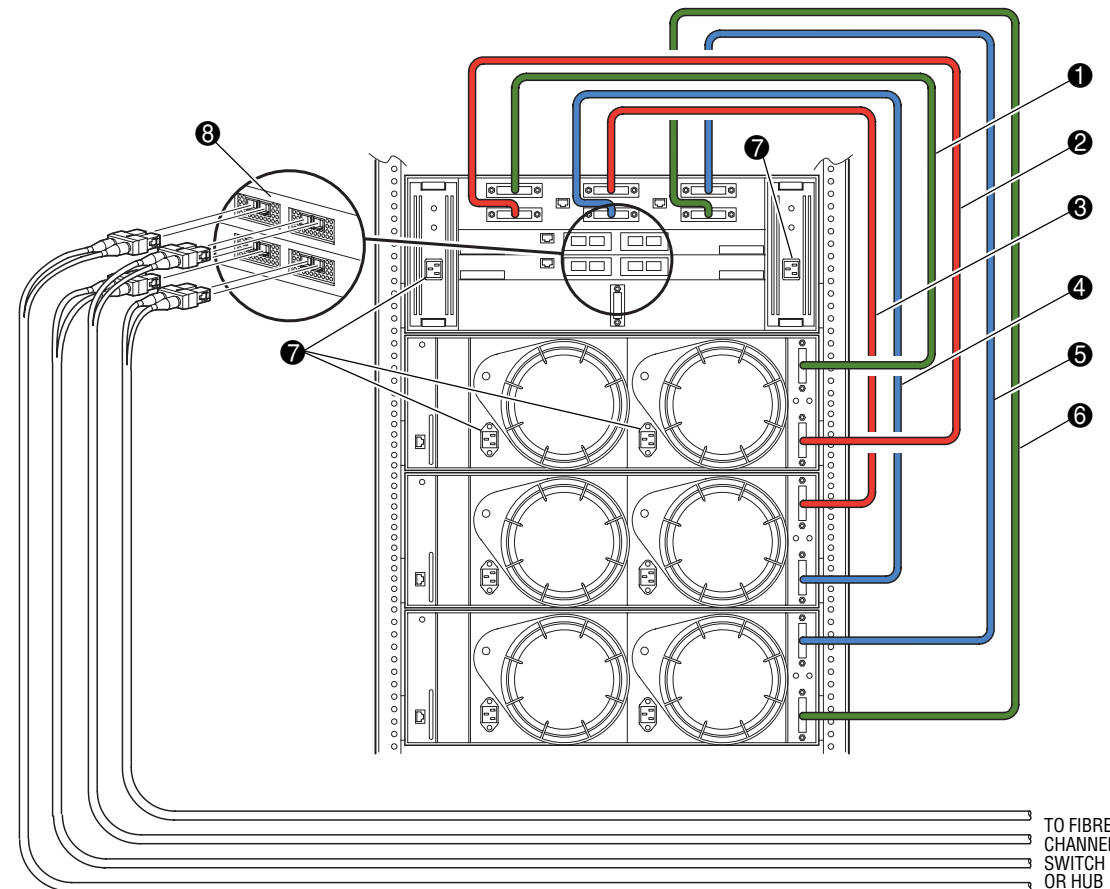


Single Bus EMA12000 Storage System

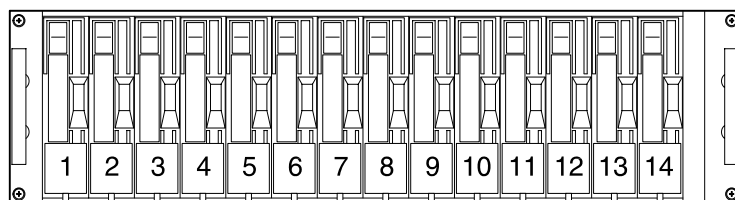


- ❶ SCSI Bus 1 Cable
- ❷ SCSI Bus 2 Cable
- ❸ SCSI Bus 3 Cable
- ❹ SCSI Bus 4 Cable
- ❺ SCSI Bus 5 Cable
- ❻ SCSI Bus 6 Cable
- ❼ AC Power Inputs
- ❽ Fibre Channel Ports

Dual Bus MA8000 Storage System



Disk Enclosure SCSI IDs

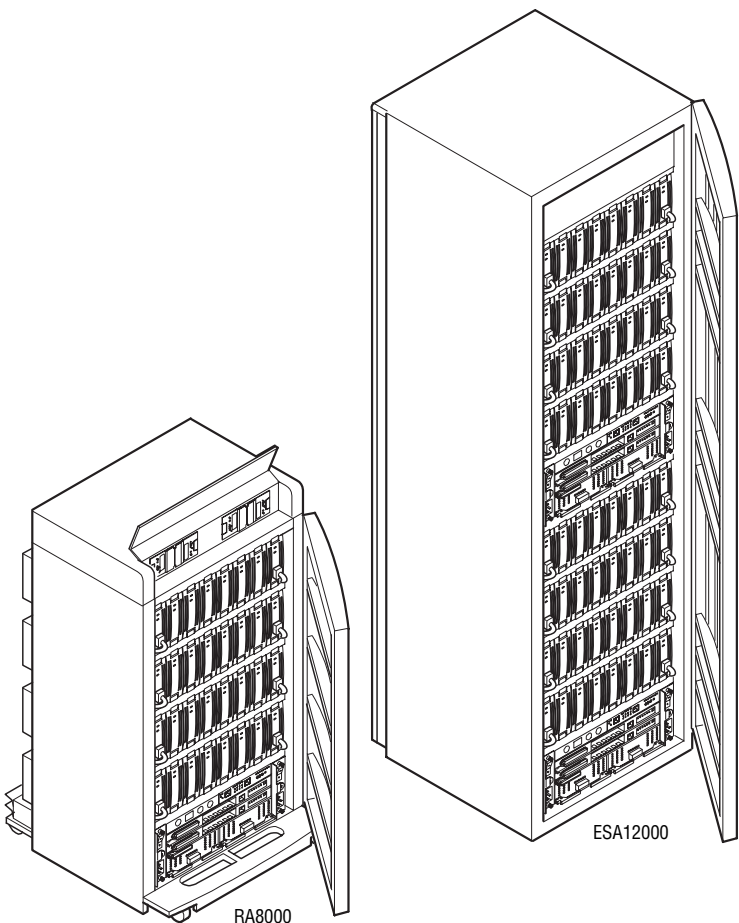


Model 4214 Disk Enclosure (Single Bus)

Bay	1	2	3	4	5	6	7	8	9	10	11	12	13	14
SCSI ID	00	01	02	03	04	05	08	09	10	11	12	13	14	15

Model 4254 Disk Enclosure (Dual Bus)

Bay	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	SCSI Bus A						SCSI Bus B							
SCSI ID	00	01	02	03	04	05	08	00	01	02	03	04	05	08



MA8000/EMA12000 Storage System Installation



**WARNING:** A shock hazard exists at the backplane when the controller enclosure bays or cache module bays are empty.

Be sure the enclosures are empty, then mount the enclosures into the rack. DO NOT use the disk enclosure handles to lift the enclosure. The handles cannot support the weight of the enclosure. Only use these handles to position the enclosure in the mounting brackets.

Use two people to lift, align, and install any enclosure into a rack. Failure to use two people might cause personal injury and/or equipment damage.



**CAUTION:** Controller and disk enclosures have no power switches. Make sure the controller enclosures and disk enclosures are physically configured before turning the PDU on and connecting the power cords. Failure to do so can cause equipment damage.

1. Be sure the enclosures are empty before mounting them into the rack. If necessary, remove the following elements from the controller enclosure:

- Environmental Monitoring Unit (EMU)
- External Cache Batteries (ECBs)
- Power Supplies
- Fans

If necessary, remove the following elements from the disk enclosure:

- Power Supply/Blower Assemblies
- Environmental Monitoring Unit (EMU)
- Disk Drives
- I/O Modules

Refer to the *Compaq StorageWorks Model 2100 and 2200 UltraSCSI Controller User Guide* and *Compaq StorageWorks Enclosure 4200 Family LVD Disk Enclosure User Guide* for further information.

2. Install brackets onto the controller enclosure and disk enclosures. Using two people, mount the enclosures into the rack. Refer to the mounting kit documentation for further information.
3. Install the elements. Install the disk drives (up to 12 disk drives in the Model 4214 disk enclosures, or up to 14 disk drives in the Model 4254 disk enclosures). Make sure you install blank panels in any unused bays.
4. Connect the six VHDCI UltraSCSI bus cables between the controller and disk enclosures as shown. Note that the maximum supported cable lengths are 1, 2, 3, 5, and 10 meters.
5. Refer to the steps on the back side of this poster for instructions on how to install and connect your switch or hub.
6. Connect the AC power cords from the appropriate rack AC outlets to the controller and disk enclosures.