



Installing and Removing Modules

This chapter describes the procedure for installing and removing the field-replaceable modules of the Storage Array 12. The following modules are discussed: disk drive carriers, power supplies, ACMs, and the SMM/terminator module. Figure 5-1 shows the location of the field-replaceable modules.



Caution

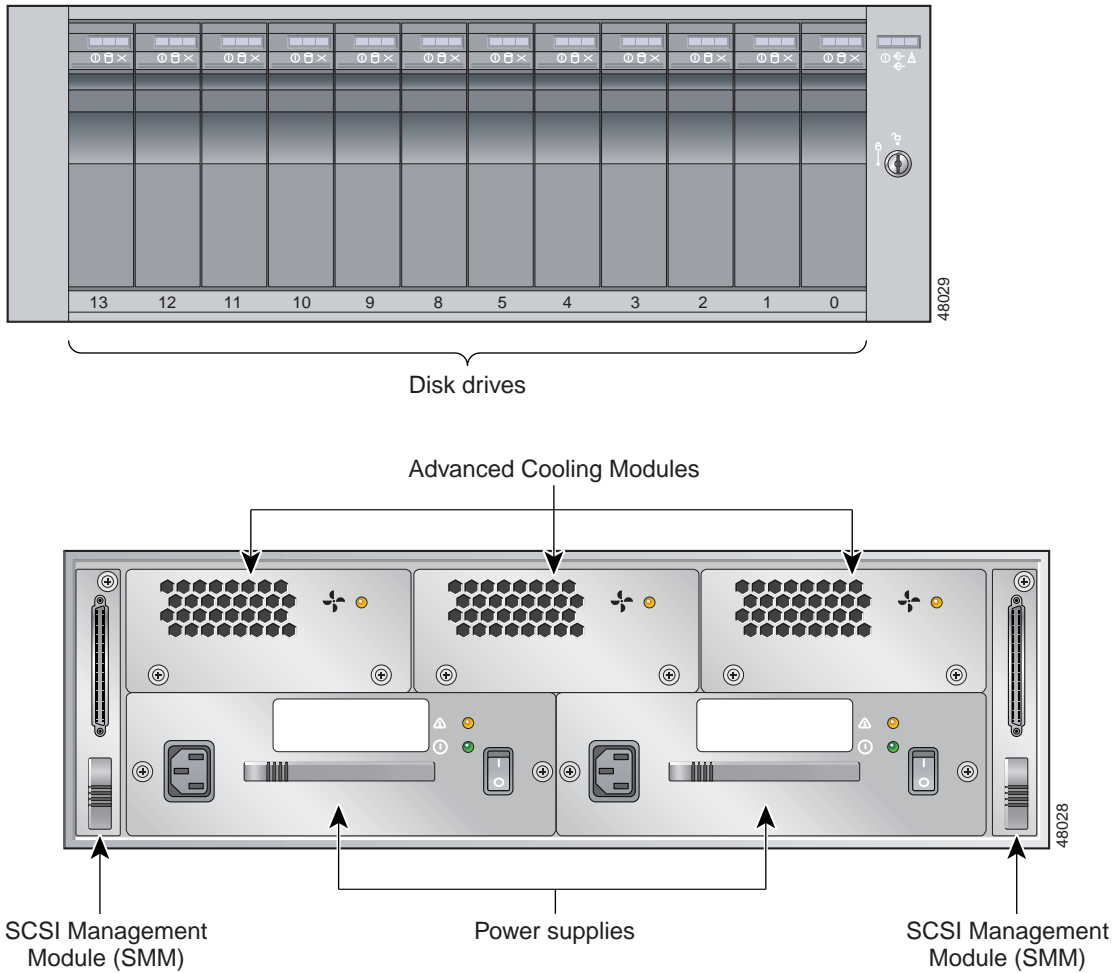
Before attempting to install or remove any of the modules, take antistatic precautions. The minimum requirement is an antistatic wrist strap and grounding wire.



Warning

Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

Figure 5-1 Location of Field-Replaceable Modules



Removing and Installing a Disk Drive Carrier

Disk drives should be idle when inserted or removed, although the SCSI bus can have active I/O processes running for other devices. If possible, ensure that the disk drive has stopped spinning before removing it from the bay, because centrifugal forces may damage the drive. Allow a minimum of 1 minute for the drive to stop spinning. Take precautions to prevent electrical shock.



Caution

Before removing a disk drive, you must ensure that there is no I/O activity on the drive.



Caution

If you remove a disk drive, the empty space must be blocked as soon as possible by installing a new disk drive carrier or a disk drive carrier blank. Failure to do so can seriously restrict airflow and cooling and cause damage to the disk drive and Storage Array 12.

Removing a Disk Drive Carrier

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- Step 1** Remove the locking bar from the front of the Storage Array 12. You need the Storage Array 12 key to do this. To remove the locking bar, follow this procedure:
- Insert the Storage Array 12 key in the key lock on the front of the Storage Array 12.
 - Grasping the locking bar tab, turn the Storage Array 12 key clockwise to the open position.
 - Pull the locking bar away from the Storage Array 12.
- Step 2** Using your thumb and forefinger, press the carrier locking tabs together and swing the carrier locking arm towards you.
- Step 3** Gently pull the disk drive carrier out of the Storage Array 12.
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Installing a Disk Drive Carrier

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- Step 1 With the disk drive carrier locking arm open, gently slide the carrier into a slot.
 - Step 2 When the carrier is almost fully inserted, the locking arm starts to close. Fully close the locking arm until it snaps shut.
 - Step 3 Replace the locking bar on the front of the Storage Array 12 and lock it in place by turning the key counterclockwise.
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Removing and Installing a Power Supply

The power supplies are designed for hot-swappable operation. To remove or install a power supply, follow this procedure.



Caution

If you remove a power supply, the resulting empty space must be blocked as soon as possible by installing a new power supply or a power supply blank. Failure to do so can seriously restrict airflow and cooling and cause damage to the Storage Array 12.

Removing a Power Supply

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- Step 1 Turn off the power supply on/off switch, and remove the power supply cable from the power supply.
 - Step 2 Use a screwdriver to loosen the two fixing screws on the power supply.
 - Step 3 Grasping the power supply handle, slowly pull the power supply out of the Storage Array 12.
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Installing a Power Supply

- Step 1 Using the power supply handle, slide the power supply into the Storage Array 12.
 - Step 2 Push it in all the way and secure it in place using the two fixing screws.
 - Step 3 Insert the power cable into the power receptacle and turn on the power switch.
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Removing and Installing an Advanced Cooling Module

The Advanced Cooling Module (ACM) is designed for hot-swappable operation. To remove an Advanced Cooling Module, follow this procedure.



Caution

If you remove an ACM, the resulting empty space must be blocked as soon as possible by installing a new ACM or an ACM blank. Failure to do so can seriously restrict airflow and cooling and cause damage to the Storage Array 12.

Removing an ACM

- Step 1 Use a screwdriver to loosen the two fixing screws on the ACM.
 - Step 2 Slowly pull the ACM out of the Storage Array 12.
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Installing an ACM

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- Step 1 Slowly slide the ACM into the ACM slot on the rear of the Storage Array 12.
 - Step 2 Push the ACM in all the way and secure it in place by tightening the two fixing screws.
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Removing and Installing a SCSI Management Module

To remove a SCSI Management Module (SMM), follow this procedure.

**Note**

This procedure also applies to the terminator module if you only have one SMM.

Removing an SMM

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- Step 1 Remove any cable that is connected to the SMM.
 - Step 2 Use a screwdriver to loosen the fixing screw that secures the SMM.
 - Step 3 Grasping the SMM handle, slowly pull the SMM out of the Storage Array 12.
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Installing an SMM

- Step 1** Grasping the SMM handle, slide the SMM into the I/O option slot of the Storage Array 12.
 - Step 2** Push the SMM in all the way and secure it in place by tightening the fixing screw.
 - Step 3** Reconnect the SCSI cable if necessary.
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■ Removing and Installing a SCSI Management Module