www.apc.com

Surge Protective Devices (SPD)

Module Replacement

PRECAUTIONS

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

WARRANTY

For warranty information about your Surge Protection Device, go to the APC Web site: **www.apc.com**. Choose **Products**, and then choose **Surge Protection and Power Conditioning**. Scroll down to **Hardwire Surge Suppression**.

Choose your part number from among the three categories listed under Hardwire Surge Suppression. A screen containing information specific to your Surge Protection Device is then displayed. Click on the **Documentation** tab to locate the file containing your warranty.

INSTALLATION

1. Verify that all replacement modules have the correct catalog number. The catalog number is found on the nameplate of each existing and replacement module (see Figure 1) and on the SPD device nameplate. Use Table 1 to determine the correct replacement catalog number based on the existing SPD system voltage and peak surge current rating.

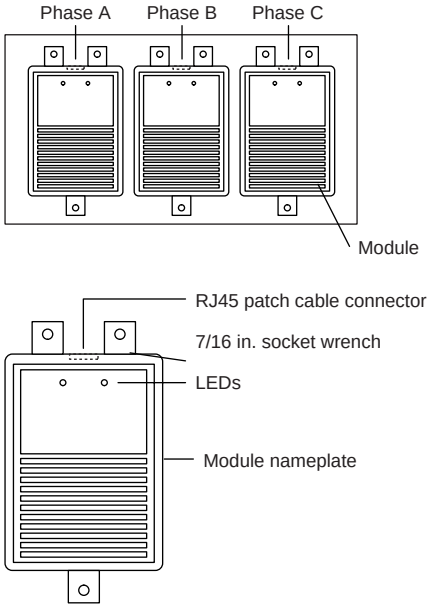
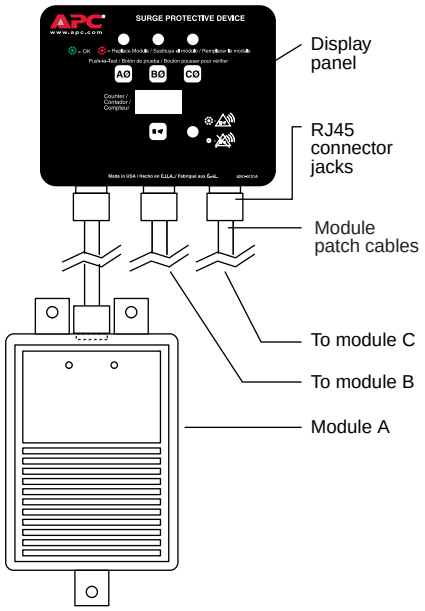


Figure 1:SPD Device and Modules, Top View

Table 1: Module Replacements

System Voltage	Peak Surge Current Rating	Catalog Number		
		Phase A	Phase B	Phase C
120V	120 kA	MP3-A	N/A	MP3-A
120V	160 kA	MP4-A	N/A	MP4-A
208/120V	120 kA	MF3-A	MF3-A	MF3-A
208/120V	160 kA	MF4-A	MF4-A	MF4-A
480/277V	120 kA	MG3-A	MG3-A	MG3-A
480/277V	160 kA	MG4-A	MG4-A	MG4-A
380/220V	160 kA	MH4-A	MH4-A	MH4-A
600/347V	80 kA	ML2-A	ML2-A	ML2-A
600/347V	120 kA	ML3-A	ML3-A	ML3-A
600/347V	160 kA	ML4-A	ML4-A	ML4-A

Figure 2: Display Panel and RJ45 Patch Cables



2. Mark the R45 patch cable and the phase cable for the module to be replaced (if it is not already marked) with the appropriate A, B, or C phase. Unplug the module R45 patch cable from the module.
3. Use a suitable tool to prevent each 1/2 in. hex standoff from turning (see Figure 3) and remove and discard the three 1/4-20 hex head bolts and the three corresponding internal tooth lock washers of the module. It is not necessary to remove the connecting phase cables from the lugs.
4. Carefully remove the module.
5. Install the new module, using the new hardware kit supplied (see Figure 3). Torque each 1/4-20 hex head bolt to 70 lb-in (8 Nm).
6. Attach the phase cable lug to the replacement module (A, B, or C phase as marked in step 4).
7. Plug the R45 patch cable into the new module. Make sure that the correct R45 patch cable labeled A, B, or C is connected.
8. Check that all connections are secure. Remove all tools and discarded hardware from the unit.
9. Ensure that the R45 patch cables are not touching any internal components.
10. Replace the barrier, cover/door, and/or trim to the equipment.
11. Equipment may be re-energized after all of the above steps are complete.

Figure 3: Module, Side View