



# HUBBELL

SURGE PROTECTIVE DEVICES

## Replacement Modules Surge Protective Devices (SPD)

### Precautions

**⚠ DANGER**

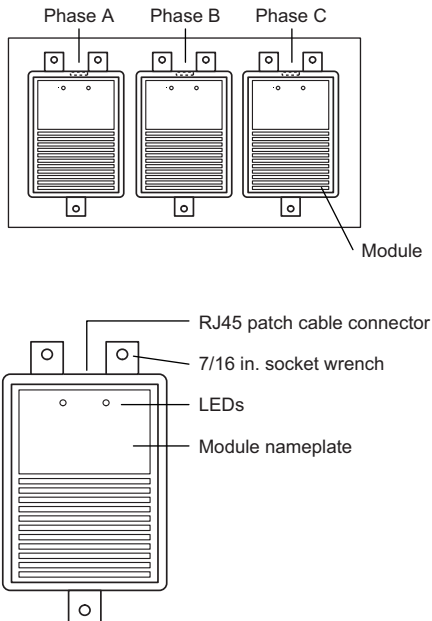
**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- 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.
- This equipment must be effectively grounded per all applicable codes. Use an equipment-grounding conductor to connect this equipment to the power system ground.

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

### Installation

**Figure 1: SPD Device and Modules, Top View**



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.

**Table 1: Replacement Modules**

System Voltage	Peak Surge Current Rating	Catalog Number		
		Phase A	Phase B	Phase C
120/240 V, One-phase	120 kA	HBL3P120CM	—	HBL3P120CM
120/240 V, One-Phase	160 kA	HBL160M120B	—	HBL160M120B
240/120 V Three-Phase High-leg Delta <sup>1</sup>	120 kA	HBL6P120CMAC	HBL6P120CMB	HBL6P120CMAC
240/120 V, Three-Phase High-leg Delta <sup>1</sup>	160 kA	HBL160M120B	HBL160M240BHL	HBL160M120B
208Y/120 V, Three-Phase	120 kA	HBL4P120CM	HBL4P120CM	HBL4P120CM
208Y/120 V, Three-phase	160 kA	HBL160M120B	HBL160M120B	HBL160M120B
480Y/277, Three-Phase	120 kA	HBL8P120CM	HBL8P120CM	HBL8P120CM
480Y/277, Three-phase	160 kA	HBL160M480B	HBL160M480B	HBL160M480B

<sup>1</sup> Phase B modules are different than Phase A and Phase C modules.

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Figure 2: Display Panel and RJ45 Patch Cables

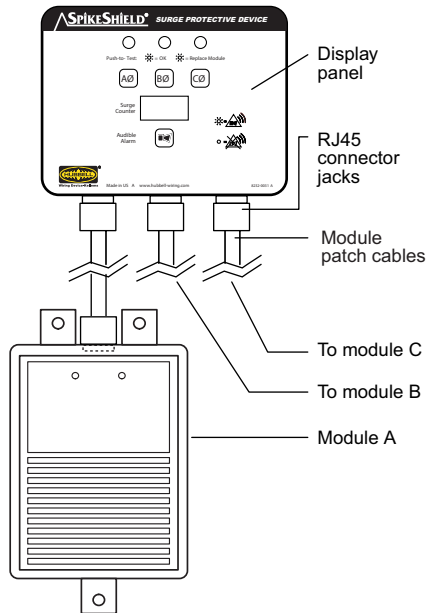


Figure 3: Module, Side View

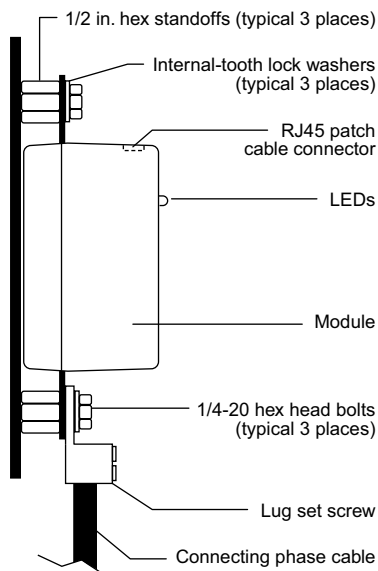


Table 1: Replacement Modules

System Voltage	Peak Surge Current Rating	Catalog Number		
		Phase A	Phase B	Phase C
480V, Delta/HRG Three-phase	120 kA	HBL9P120CM	HBL9P120CM	HBL9P120CM
480V, Delta/HRG Three-phase	160 kA	HBL160M480DB	HBL160M480DB	HBL160M480DB
240V, Delta Three-phase	160 kA	HBL160M240B	HBL160M240B	HBL160M240B
600Y/347 V, Three-phase	120 kA	HBL10P120CM	HBL10P120CM	HBL10P120CM
600Y/347 V, Three-phase	160 kA	HBL160M347B	HBL160M347B	HBL160M347B
600V, Delta/HRG Three-phase	120 kA	HBL11P120CM	HBL11P120CM	HBL11P120CM
600V, Delta/HRG Three-phase	160 kA	HBL160M600B	HBL160M600B	HBL160M600B

<sup>1</sup> Phase B modules are different than Phase A and Phase C modules.

- Mark the RJ45 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 RJ45 patch cable from the module.
- 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.
- Carefully remove the module.
- 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 N•m).
- Attach the phase cable lug to the replacement module (A, B, or C phase as marked in step 4).
- Plug the RJ45 patch cable into the new module. Make sure that the correct RJ45 patch cable labeled A, B, or C is connected.
- Check that all connections are secure. Remove all tools and discarded hardware from the unit.
- Ensure that the RJ45 patch cables are not touching any internal components.
- Replace the barrier, cover/door, and/or trim to the equipment.
- Equipment may be re-energized after all of the above steps are complete.

