

Surge Free™

SF120M & SF160M



Installation Instructions

1. Confirm Model with Power Service.

Measure \emptyset -N, \emptyset - \emptyset , with voltmeter to confirm application voltage prior to installation.

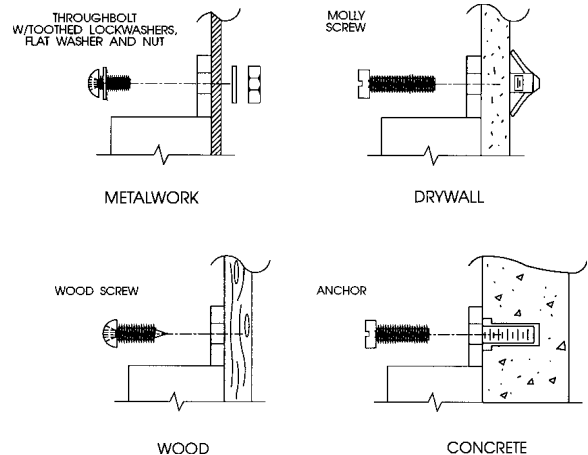
Model	Power Service	Description	Wiring Diagram
SF120M-120T	120/240 VAC	1 ph, 3w + gnd	1
SF120M-120Y	120/208 VAC	3 ph, 4w + gnd, Wye	2
SF120M-220Y	220/380 VAC	3 ph, 4w + gnd, Wye	2
SF120M-240Y	240/415 VAC	3 ph, 4w + gnd, Wye	2
SF120M-240DCT	240/120/120 VAC	3 ph, 4w + gnd, High-leg Delta	3
SF120M-277Y	277/480 VAC	3 ph, 4w + gnd, Wye	2
SF160M-120T	120/240 VAC	1 ph, 3w + gnd	1
SF160M-120Y	120/208 VAC	3 ph, 4w + gnd, Wye	2
SF160M-220Y	220/380 VAC	3 ph, 4w + gnd, Wye	2
SF160M-240Y	240/415 VAC	3 ph, 4w + gnd, Wye	2
SF160M-240DCT	240/120/120 VAC	3 ph, 4w + gnd, High-leg Delta	3
SF160M-277Y	277/480 VAC	3 ph, 4w + gnd, Wye	2

2. Disconnect Power before Installation.

All wiring to be done in accordance with National Electric Code and local codes by qualified electricians.

3. Mounting.

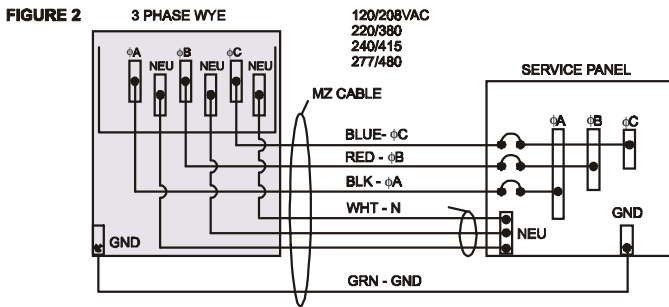
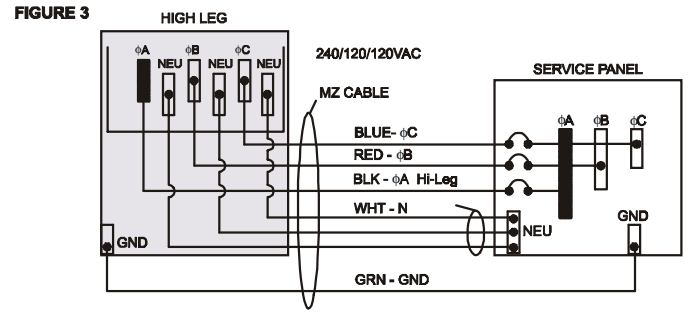
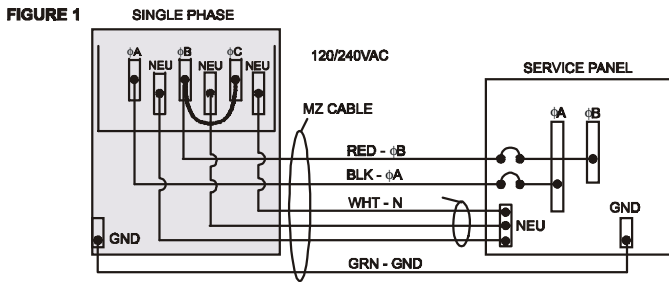
For best performance, mount protector as close to service panel as possible. Secure unit to mounting surface. Use proper fasteners as indicated. (Fasteners not supplied.)



4. Wiring.

Surge protector is factory supplied with power cable installed. Cut the cable back as short as possible. **Electrician Note:** connect cable to service panel as shown. Refer to wiring diagrams 1-3 on the next page.

4A. Wiring Diagrams.



Troubleshooting

When the red "**Protection Reduced**" light is lit...

- Open door.
- Locate red lights indicating modules and fuses needing to be replaced.
- Remove four thumb screws from deadfront.
- Pull handle to remove switch assembly.
- * **CAUTION** - After switch assembly is removed, power still exists at terminals below barrier.
- Front panel lights will extinguish.
- Replace appropriate modules and fuses.
- Reinstall switch assembly and thumb screws.
- Close and secure door.
- Green light on, red light off, full protection restored.
- Consult factory for assistance: 1-800-851-1508.

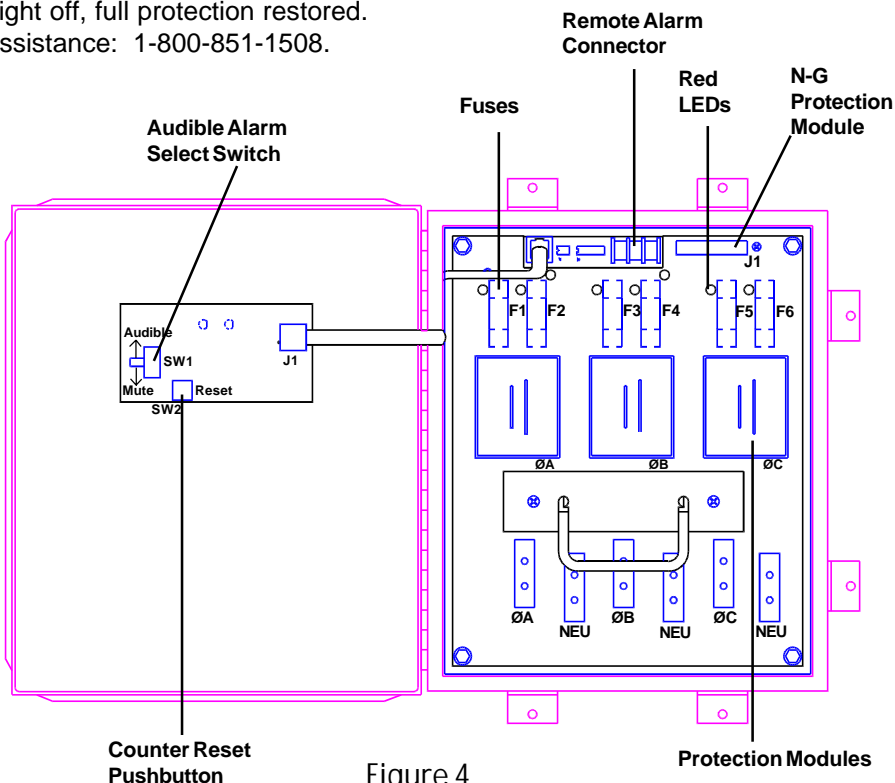
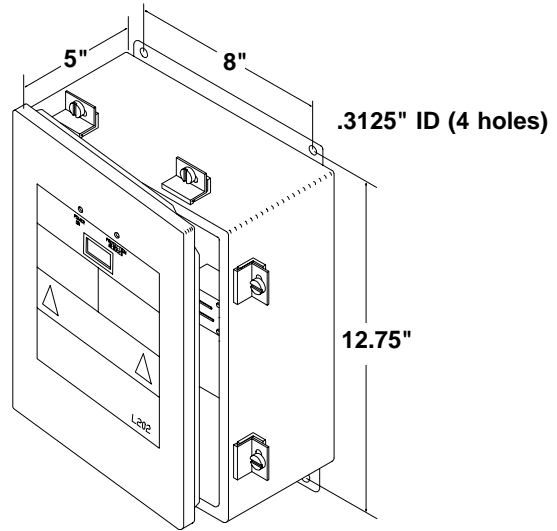


Figure 4

Mounting Specifications

NEMA 4 Enclosure

FIGURE 5



Remote Alarm Wiring Option

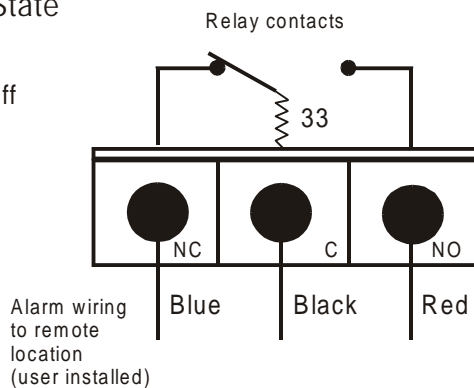
When desired, a 3-wire remote monitoring cable can be connected to the remote alarm relay connector located within the enclosure. The relay deactivates when any section of the surge suppression modules requires replacement or when power is removed from the suppressor. This can also be used as a power failure alarm.

The center terminal is common. The outer two terminals provide a normally closed or normally open contact (when deactivated). The relay is activated during normal operation. SAD's provide surge protection for alarm relay.

Do not exceed alarm relay contact ratings: Maximum load 100 mA.
Max. switching voltage 100VDC or 130VAC

Deactivated State

Unit failure or power to unit off (power failure)



Activated State

Normal operation, power to unit is on.

