

MCG Surge Protection

120M and 160M Installation Instructions

Important Warranty Information

MCG surge protectors are designed to work at specific voltages and configurations, for example, at 120/208VAC, wye. Installation of the surge protector improperly on a power system will automatically void the warranty.

1. Confirm Power Service.

Measure Phase to Neutral, Phase to Ground, and Phase to Phase with voltmeter to confirm application voltage prior to installation. With Delta units, measure Phase to Ground and Phase to Phase with voltmeter to confirm application voltage prior to installation.

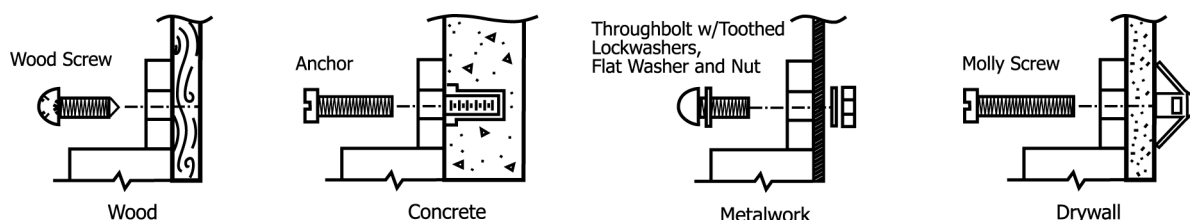
120M/160M	Power Service	Description	Wiring Figure
-120T	120/240VAC	1ph, 3W + Gnd	1
-120Y	120/208VAC	3ph, 4W + Gnd, Wye	2
-220Y	220/380VAC	3ph, 4W + Gnd, Wye	2
-240Y	240/415VAC	3ph, 4W + Gnd, Wye	2
-240D	240VAC	3ph, 3W + Gnd, Delta	4
-240DCT	240/120/120VAC	3ph, 4W + Gnd (DCT) hi-leg	3
-277Y	277/480VAC	3ph, 4W + Gnd, Wye	2
-480D	480VAC	3ph, 3W + Gnd	4

2. Disconnect Power Before Installation.

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

3. Mount The Protector. (Refer to Mounting Specs & Templates Included)

For best performance, mount protection board as close to power bus as possible.



4. Wire To Service Panel.

For best performance, conductors should be tightly taped together and as short as possible for the entire run.

Circuit Breakers: A circuit breaker should be coordinated to protector wire size. The primary function of this breaker is to provide a means of removing power from the unit for maintenance. The circuit breakers will not trip during normal surge suppression since the response time of the circuit breaker is much longer than the duration of a transient voltage.

For 12AWG , use 20A rms circuit breaker

For 10AWG , use 30A rms circuit breaker

Recheck wiring prior to reapplying power.

If space for breakers is not available, use a fused disconnect switch (time delay fuses are recommended).

Fig. 1

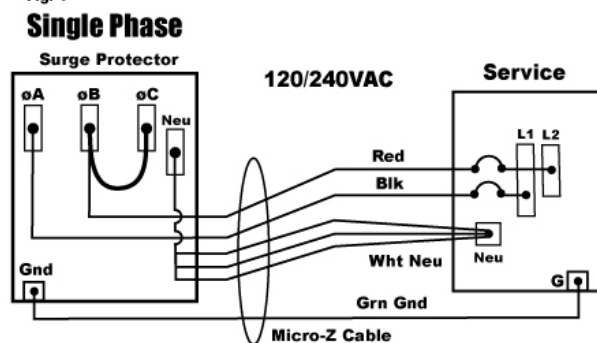


Fig. 2

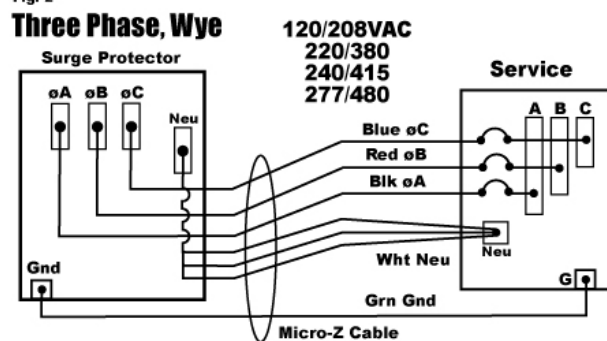


Fig. 3

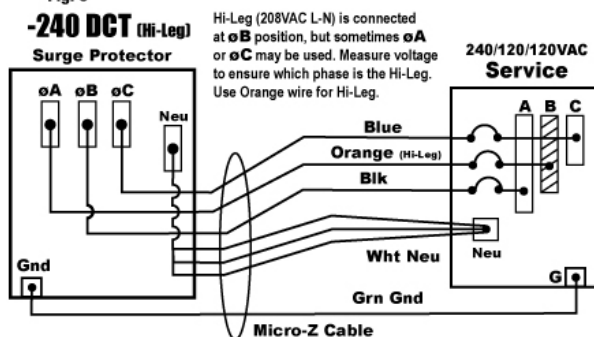
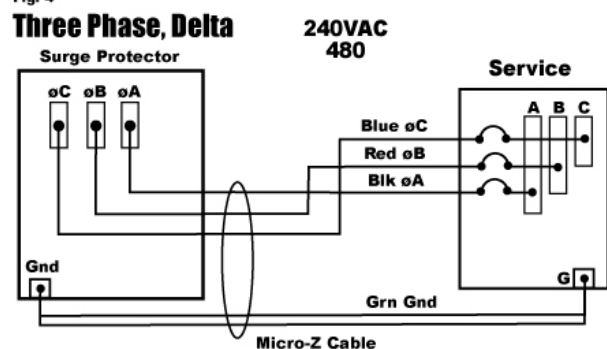


Fig. 4



5. Diagnostics & Troubleshooting.

When the red “Protection Reduced” light is illuminated:

- Open door. **Caution:** High voltage present - Do not touch anything inside.
- Locate red lights indicating module(s) and fuses needing to be replaced.
- Remove AC power. Front panel lights will extinguish. For non-Delta models, remove thumb screws and pull on handle to remove disconnect.
- Replace appropriate modules and fuses. For non-Delta models, insert disconnect switch and reinstall thumbscrews.
- Close and secure door. Reapply power.
- Green light on, red light off, full protection restored.

Consult factory for assistance: 1-800-851-1508

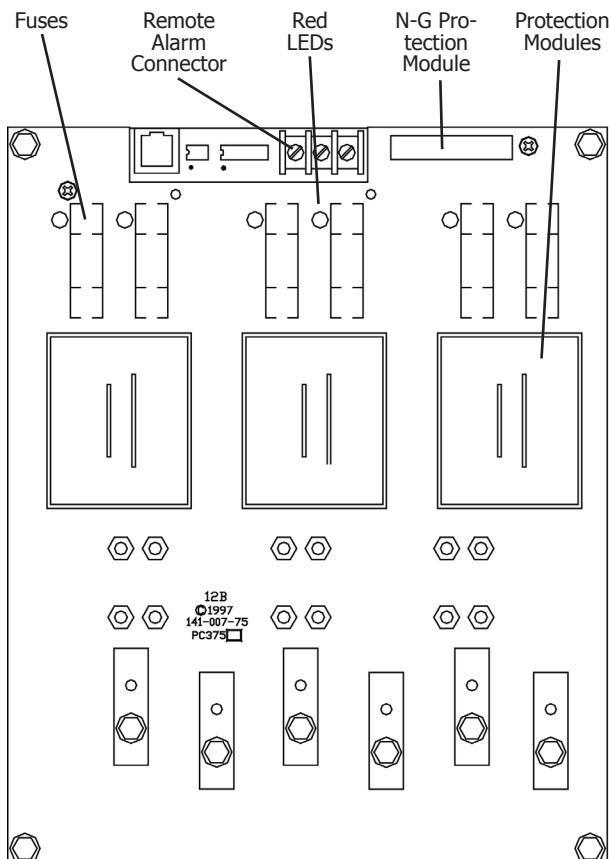
Audible Alarm

Audible Alarm is factory preset in the audible position. To disable alarm on T, Y, DCT models, move SW1 located on the front panel board. from “Audible” position to “Mute”. For Delta Models, refer to label on inside front cover of protector.

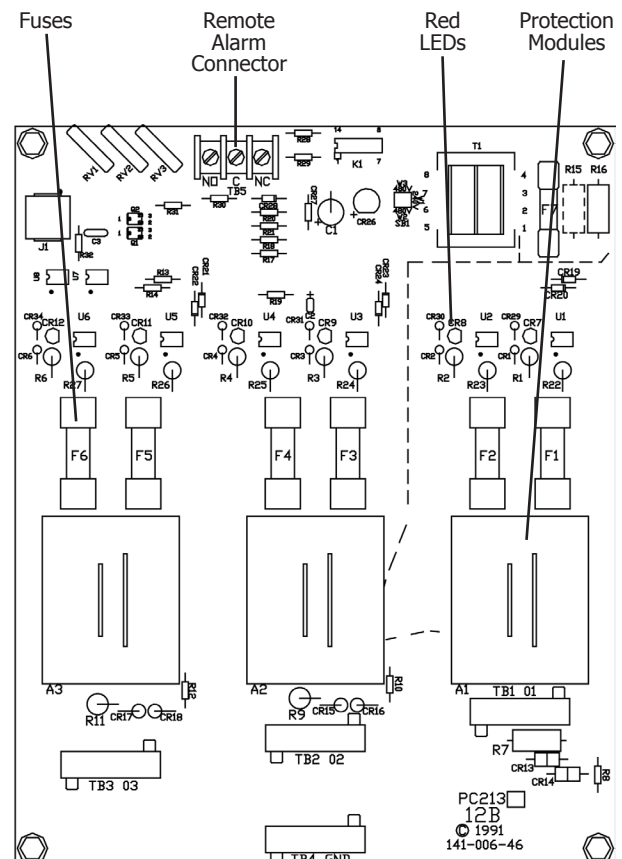
Counter Reset

To reset counter to 0 count, press SW2 switch marked “Reset” located on the front panel board.

Interior View: Models T, Y, DCT



Interior View: Delta Models

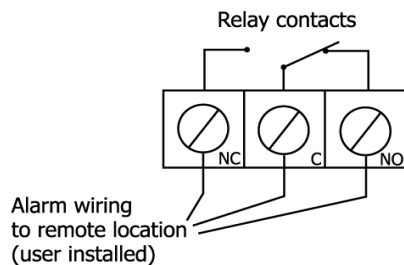


6. Remote Alarm Wiring Option

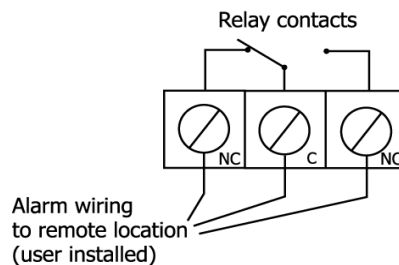
When desired, a 3-wire remote monitoring cable can be connected to the remote alarm relay connector located within the enclosure. The relay deactivates when any section of the surge suppression modules requires replacement or when power is removed from the suppressor. This can also be used as a power failure alarm. The MCG remote monitor RM100A is recommended.

Do not exceed alarm relay contact ratings: Maximum load 60mA.
Max switching voltage 100VDC or 130VAC.

Normal Operation (100% Protection)



Reduced Protection (or Power Off)



7. Mounting Dimensions

