

## Installation Instructions: DG2, DG3 & DG4 Options

### **⚠ WARNING HAZARDOUS VOLTAGES ARE PRESENT**

*Improper installation may result in serious injury to the installer and/or damage to the electrical system or related equipment. Read and understand all instructions before beginning the installation. Safety equipment must be used as prescribed by OSHA, whenever working around hazardous voltages.*

**Failure of unit and/or consequential equipment damage due to improper installation or misapplication is not covered by the product warranty.**

*Voltage measurements and installation must be completed by a licensed/qualified electrician in accordance with the National and/or Canadian Electric Code, State, and Local codes. These requirements supersede this instruction.*

**POWER MUST BE REMOVED FROM THE ELECTRICAL SYSTEM BEFORE INSTALLING THE UNIT.**

**MAKING ANY MODIFICATIONS ASSOCIATED WITH ALARM OPTIONAL FEATURES WILL REQUIRE POWER APPLIED TO THE UNIT.**

### **DG2 (Internal Audible Alarm, Three Position Dry Relay Contact)**

Units with “DG2” Option are equipped with an Audible Alarm and three position Dry Relay Contact.

To access the Dry Relay Contact (DRC) (If Used)

- **REMOVE POWER FROM THE UNIT.** Carefully remove lid.
- The three position DRC can be used for external or system “sensing” of this device. The N/O (Normally Open with Power Applied) and COM or N/C (Normally Closed with Power Applied) and COM can be utilized. The contacts are rated as follows:

**Max. switched power:** 60W or 125 VA

**Max. switched current:** 2 A

**Max. switched voltage:** 250 VDC or 300 VAC

**Max. carry current:** 3A



- The contacts accept 24 AWG to 16 AWG wire. Wire size must be in compliance with NEC, State or Local codes for power on circuit.
- Connections are “spring cage” terminals. Strip back wire to fit inside terminal and use small device to push down terminal and insert wire.
- After all connections have been made; replace and secure lid.

**🔔 Alarm will sound and RED LED will turn on when there has been a failure of surge suppression components.**

## DG3 (Internal Audible Alarm, Three Position Dry Relay Contact, Surge Counter)

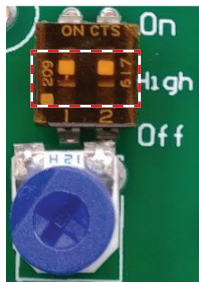
Units with “DG3” Option are equipped with an Audible Alarm, Surge Counter, and three position Dry Relay Contact. To access the Dry Relay Contact (DRC); see section DG2 previously.

### Surge Counter Operation:

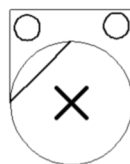
- The Surge Counter requires NO SETUP. Once the surge protective device (SPD) has been installed and connected and powered up; the Surge Counter provides automatic operation.
- The Surge Counter can be reset (set to zero count) by pressing the button located to the left of the counter.

### High Surge Counter Operation:

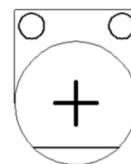
- Set switches 1 and 2 (High Surge) to the On position (as shown below). This will enable the “High Surge” variable level counting.
- By rotating the potentiometer counter clockwise to the settings shown below, you can adjust the sensitivity of the surge counter to count higher voltage surges



### Potentiometer Settings



Counts at:  
≥ 2kV/1kA



Counts at:  
≥ 4kV/2kA



Counts at:  
≥ 6kV / 3kA

 **Alarm will sound and RED LED will turn on when there has been a failure of surge suppression components.**

## DG4 (Internal Audible Alarm, Three Position Dry Relay Contact, Alarm Switches)

Units with “DG4” Option are equipped with an Audible Alarm, three position Dry Relay Contact, Alarm Switches, and Surge Counter. To access the Dry Relay Contact (DRC); see section DG2 above.

**NOTE:** *Alarm test functions can only be performed after the SPD has been installed, connected and powered up.*

### Operation of Alarm Switches:

- The Audible Alarm module switches consist of **Alarm Mute; Alarm On, Alarm Test** located on the lid of the SPD. All buttons are operated by pressing down on the button.
- Once power is applied to the SPD, turn Alarm on by pushing down the **Alarm On** button.
- To ensure Alarm is activated, push down and hold **Alarm Test** button. Alarm should sound and RED LED should turn on. If no Alarm or RED LED, push Alarm On Button; then re-test.
- To MUTE Alarm, press down and release Alarm Mute button

 **Alarm will sound and RED LED will turn on when there has been a failure of surge suppression components.**

### Surge Counter Operation:

- The Surge Counter requires NO SETUP. Once the surge protective device (SPD) has been installed and connected and powered up; the surge counter provides automatic operation.
- The Surge Counter can be reset (set to zero count) by pressing the button located to the left of the counter.
- You can enable “High Level” Surge Counter operation to adjust the sensitivity to count higher voltage surges only. Refer to Page 2 Instructions.