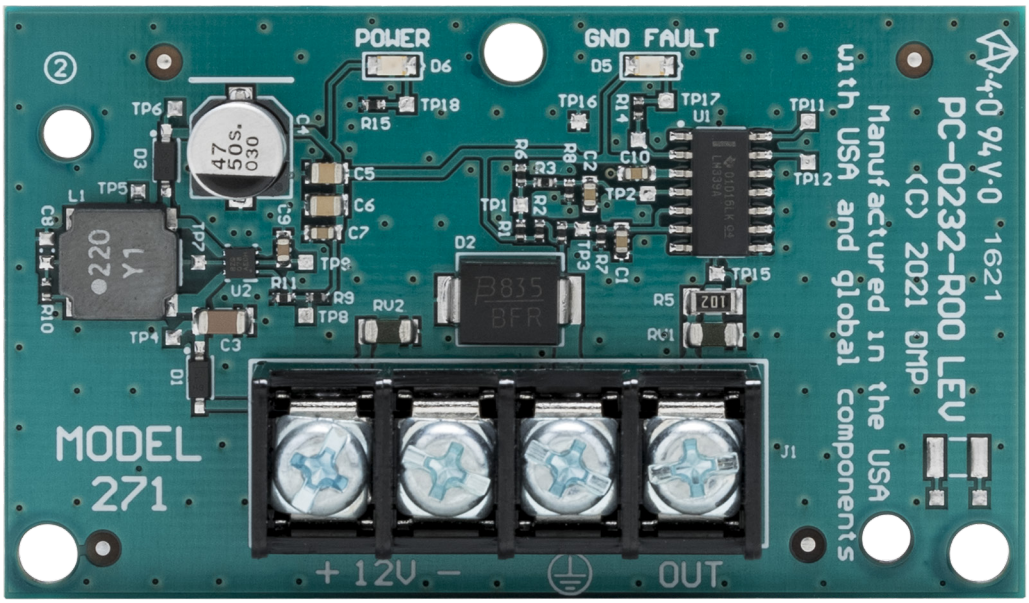


INSTALLATION GUIDE

271
Ground Fault Detection Module

GET STARTED

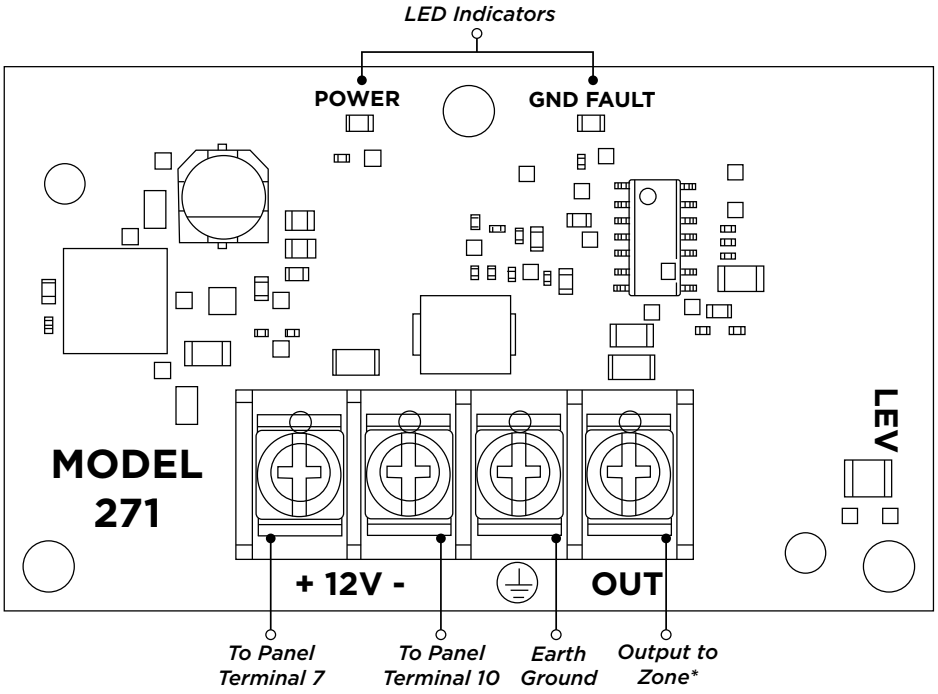
The 271 module detects ground faults without harming the control panel. The module connects to a zone and the earth ground to determine if there is a fault. Refer to the panel installation guide for more information about zone programming.

What's Included

- One 271 Ground Fault Detection Module
- 3 Nylon Standoffs
- 7 Small Nylon Washers
- 7 Nylon Cup Washers
- 2 Nylon Washers 1.25"
- 1 Ferrite Core

What You'll Need

- #2 Phillips screwdriver



**Connect to the positive terminal of any available zone between 1 and 8*

Figure 1: PCB Features

INSTALLATION

1 Preparing for Installation

1. Unscrew the panel from the enclosure and remove the panel PCB.
2. Place the included nylon cup washer between the enclosure standoffs and the panel. Place the flat nylon washer on the screw to secure the panel. This provides ground isolation from the enclosure.
3. Screw the panel PCB back into place.
4. If a cellular module is used, install the two 1.25” nylon washers to isolate the cable.

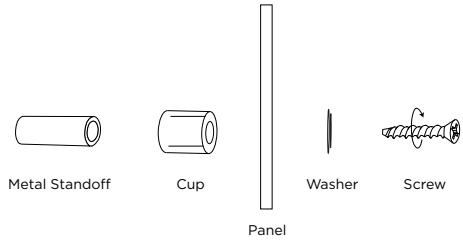


Figure 2: Washer and Panel Installation

Note: The panel and entire system must be **completely** separated from the earth ground before installing the 271 module. If there are any earth ground connections on the system, such as the panel mounting screws or the brass washers on the cellular antenna, the module will instantly indicate a ground fault.

Any power supplies or zone expander PCB’s installed in metal enclosures connected by conduit must also be isolated from earth ground using nylon cup/flat washers. For information about ordering additional nylon washers, refer to “Ordering Information.”

2 Mount the Module

The module can be mounted in a DMP enclosure using the standard 3-hole mounting pattern. Refer to Figure 3 as needed during installation.

1. Hold the nylon standoffs against the inside of the enclosure side wall.
2. Insert the included Phillips head screws from outside of the enclosure into the standoffs. Tighten the screws.
3. Carefully snap the module onto the standoffs.

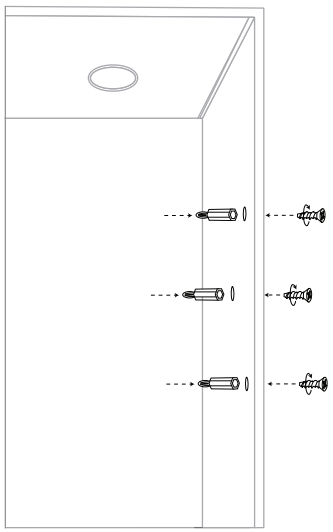


Figure 3: Standoff and Module Installation

3 Wire the Module

Caution: Disconnect all power from the panel before wiring the module. Failure to do so may result in equipment damage or injury. Observe polarity when making power connections.

Use 18 to 22 gauge wire when wiring the module.

1. Use a wire to connect the module’s 12V negative to terminal 10 on the panel. Use another wire to connect the module’s 12V positive to terminal 7 on the panel.
2. Connect the module to the earth ground using 14 gauge wire or larger. Additional options are a cold water pipe, ground rod, or building ground. Gas pipes or sprinkler pipes should not be used. Do not connect to an electrical ground, server rack or telephone company ground.
3. Connect the module’s OUT to the positive terminal of any available zone between 1 and 8. Do not attach a resistor to the zone, there is a resistor built into the 271.

Note: The module monitors all busses on the panel through the on-board zone connection.

4 Wire the Ferrite Core

Refer to Figure 4 as needed during installation.

1. Unplug the keypad harness from the panel keypad bus header.
2. Open the ferrite core.
3. Loop the keypad harness wires around the core and close.
4. Reconnect the keypad harness to the panel keypad bus header.

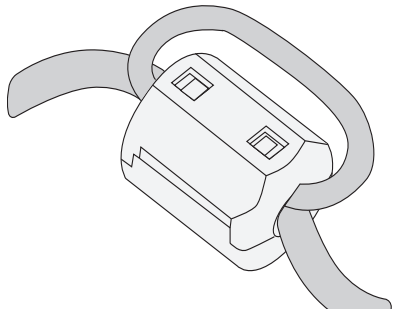


Figure 4: Ferrite Core Installation

5 Program the Panel

Refer to the panel programming guide for full programming information.

After completing each of the following steps, press **CMD** to advance to the next prompt.

1. Reset the panel. At a keypad, enter **6653** (PROG) to access the PROGRAMMER menu.
2. In **STATUS LIST**, navigate to **SUPERVISORY ZONES** and select keypads to display the ground fault trouble.
3. At **ZONE INFORMATION**, enter the zone number.
4. At ***UNUSED***, name the zone **GROUND FAULT**.
5. At **ZONE TYPE**, select **SUPERVISORY** (SV).
6. Press **CMD** until **STOP** displays. Press a top row select key or area to save programming.

ADDITIONAL INFORMATION

Module Operation

When a ground fault is detected, the panel will enter into a trouble condition and annunciate at the keypad programmed in the Status list. The trouble condition will continue until a valid user code is entered at the keypad. In addition, ground fault conditions on the zone will light the corresponding GND FAULT red LED.

Compatibility

- XR Series Panels

Ordering Information

Accessories

271-WASHER/10	Nylon Cup/Flat Washers, 10 Pack

SPECIFICATIONS

Primary Power	12 VDC from panel
Current Draw	
Idle	8.8 mA
Operating	12.8 mA

CERTIFICATIONS

Underwriters Laboratory (UL) Listed

ANSI/UL 864	Fire Protective Signaling

INTRUSION • FIRE • ACCESS • NETWORKS

2500 North Partnership Boulevard
Springfield, Missouri 65803-8877

800.641.4282 | DMP.com