

# Ground Keeper 1 Series Ground Monitors

Product  
Data  
Sheet

## Application

Impedance-type ground monitoring combined with ground fault protection is conveniently packaged in the Groundkeeper 1 Series of Line Power Ground Monitors. Easy to understand indication lights and adjustments put all the information up front to show at a glance the condition of the circuit.

## Ground Monitor Protection

The Groundkeeper 1 Series features easy to see lights on the front panel. The yellow "Control Power On" light shows when power is available to the unit. Next to it is the green "GM Picked Up" light which indicates the ground circuit is complete and the monitor is operational.

Also on the front cover are the "Test" button, "Polarity Switch" and "Adjust" knob. The "Test" button is provided to assist in initially setting the monitor and later to periodically check the operation of the monitor.

When the test button is depressed, the "GM Picked Up" light should go out to indicate the monitor has been tripped. Next to the "test" button is the "Polarity Switch". This switch reverses the polarity of the monitor current with respect to the induced voltages in the pilot wire/ground wire loop. Located in the center of the cover is the "Adjust" knob, for initially calibrating the monitor to trip as required by MSHA. (If desired, this knob can be easily relocated to an alternate position behind the front cover.) A simple set of instructions for ground monitor adjustment is printed on the front cover for operational convenience. The Groundkeeper 1 Series is MSHA accepted, B.T.S. #021177LPMC (1) - R3.

## Easily Accessible Interior

The interior of the monitor is accessible from the front of the panel. The front cover may be taken off by removing two screws. This provides convenient access to the transformer taps used in adjusting the monitor and also to the relay, should replacement ever be necessary. The monitor may be used to operate either shunt trip or under-voltage release devices by moving a wire from one terminal to another.



Part Number: 16-7015-03-01

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### **Rapid Change Out**

A complete change out of the monitor can be made from the front of the panel in five minutes or less. The same two screws that secure the front cover also secure the monitor to the panel. When these screws are removed, the monitor can be tipped forward and pulled out of the panel opening. Two plugs disconnect it from the electrical circuit.

### **Ground Fault Protection**

Several ground fault relay cards are available, each providing different features. Refer to the chart below to select the relay with the features required for your application. These can be easily changed at any time by replacing the ground fault card and the cover.

The ground fault relay features available are Ground Fault Instantaneous Trip, Ground Fault Time Delay Trip, Ground Fault Tripped Light, and Ground Fault Test Pushbutton. The Ground Fault Tripped Light remains on after a ground fault condition occurs until it is manually reset. The Ground Fault Test Pushbutton tests the system by imposing a simulated fault current on the sensor through a separate test winding.

### **Additional Features**

The -04 and -06 models of the Groundkeeper 1 Series contains the features listed above plus a "Ground Monitor Tripped" light and a "Power to Trip Coil" light.

### **Ordering Information**

For a complete Groundkeeper 1, first determine the application and select the Monitor Part Number. Then:

1. Determine if a GF Sensor is required for your application. If it is, request "**with GF Sensor**" on your monitor order.
2. Determine if a Panel Wiring Harness is required for your application. If it is, specify "**with Shunt Trip wiring harness**" or "**with Undervoltage Release wiring harness**" on your monitor order.

### **Groundkeeper 1**

#### **Impedance Type Ground Monitor**

<b>Part No.</b>	<b>Application</b>
17-0105-01	Output Circuit - Separate GF (imp. GM, no GF)
17-0105-03	Output Circuit (imp. GM, inst. GF, no indicator)
17-0105-02	Output Circuit (imp. GM, inst. GF, w/indicator)
17-0105-04	Output Circuit (imp. GM, inst. GF, w/indicators, GF test)
17-0105-05	Output Circuit Feeding a Distribution Box or Starter (imp. GM, TD GF, w/indicator)
17-0105-06	Output Circuit Feeding a Distribution Box or Starter (imp. GM, TD GF, w/indicators, GF test)

**Specifications subject to change without notice.**