



AMERICAN ELECTRIC EQUIPMENT, INC.

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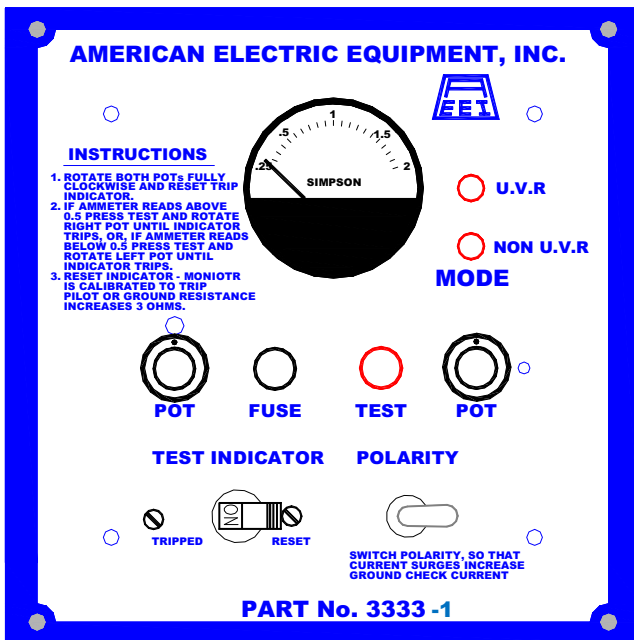
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3333-1 HIGH VOLTAGE GROUND MONITOR

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DEVICE FUNCTION

The 3333-1 Ground Check System is an impedance type monitor. It will function as either an undervoltage (UV) device or a NON-UV device.

UNDERVOLTAGE MODE

Connected in this mode, the monitor contacts drop out at approximately 65 % of rated control voltage to trip the associated circuit breaker. The monitor is capable of supplying undervoltage protection to systems where the circuit breaker is equipped with a potential trip device and a capacitor or battery trip is used to supply tripping power.

NON-UV MODE

Connected in this mode, the monitor employs a 0.25 second time delay to allow the ground check circuit to determine the pilot-ground status. This time delay prevents tripping when the monitor is initially in an off state, due to power loss or voltage dip, and is then energized.

Application Note

If user wishes to utilize the advantages of the monitor in the NON-UV mode, the associated circuit breaker must employ a potential trip device such as a capacitor trip.

CIRCUIT OPERATION, UNDERVOLTAGE MODE OR NON-UV MODE AC SIGNAL

The GCS uses an AC signal that does not exceed 2 amperes at 16 volts. A polarity reversal switch is included (S1) to enable the user to keep source current in phase with any induced current in the interest of reducing nuisance tripping.

Constant Voltage Transformer

The constant voltage transformer (T1) stabilizes operation with voltage dips up to 35 %.

Features

- ✓ Harsh environment operation; no sensitive electronic components to fail
- ✓ Higher power output for longer cable lengths
- ✓ 16 volt AC loop voltage
- ✓ Easy adjustment from front of unit
- ✓ Selectable UVR or Shunt operation
- ✓ No terminating device required
- ✓ Phase reversal switch to prevent nuisance tripping
- ✓ Test pushbutton for ground monitor function
- ✓ Monitor trip indicator
- ✓ Latched Fault indication
- ✓ Will monitor with a maximum of 57 ohm pilot resistance

Trip Indicator

The trip indicator serves two functions:

1. When the GCS is tripped the circuit breaker indicator (BKR) will detect the trip and indicate it by showing "tripped"
2. A lockout function is included that prevents operation until BKR is reset. This is accomplished via BKR AUX. If the lockout function is undesirable for the application, add jumper J-1 as shown.

MONITOR CALIBRATION AND ADJUSTMENT

THE MONITOR MUST BE ADJUSTED FOR THE USER'S CABLE ACCORDING TO THE INSTRUCTIONS FOUND ON THE FRONT OF THE MONITOR.

ORDERING INFORMATION

MONITOR PART NUMBER: 3333-1

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