

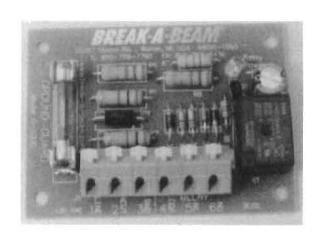
#### **GROUND GUARD**

The importance of proper grounding becomes paramount as most machines are now being controlled by expensive PLC's and PC's. Power protection for these systems rely on good grounding to dissipate electrical surges and transients from the incoming lines as well as from the machines themselves. The safety of the operator is also dependent on the machine or controls, to ground away short circuits.

## • CONTINUOUSLY VERIFIES GROUND CONNECTION

The new Ground Guard continuously monitors proper machine and control grounding with a simple compact 120 vac circuit board.

This is accomplished with an extremely low current leakage to ground circuit. Machine and control panel builders will often A) totally ignore or B) use incandescent or small neon lamps wired directly to ground to acknowledge the ground presence. These devices leak to ground, current levels up to several hundred times or more the UL allowable 500uA (micro amps). Most often these are not current limiting devices and the potential electrical shock can be much greater than their current draw. This puts the operator in danger of electrocution if proper grounding is lost.



### • SAFELY PROTECTS YOUR WORKERS FROM UN-SAFE ELECTRICAL HAZARDS CAUSED BY A BROKEN GROUND

Ground Guard will safely remedy this problem and give the customer the ability to "proactively" protect his equipment investment.

# • SIGNALS YOUR CONTROLS WHEN YOUR GROUND IS DISCONNECTED

Ground Guard provides a SP-DT relay contact output. With this output the user can wire to an isolated lamp, alarm or directly to his PLC to signal the operator or machine of grounding dangers.

#### TECHNICAL INFORMATION

**MODEL #** G-1000

**OPERATING VOLTAGE 120/60 VAC** 

CURRENT DRAW: 11 mA max @ 120 VAC

CURRENT TO GROUND POTENTIAL: 225 uA @ 120 vac

RELAY OUTPUT: 1 NO / NC CONTACT RELAY RATING: 120 / 240 vac 10A / 5A

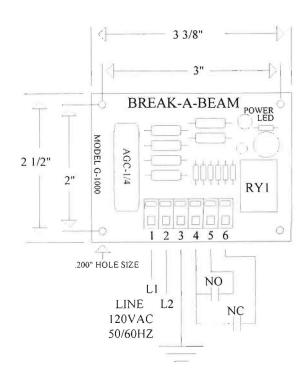
RELAY PULL IN / DROP OUT: 1/2 SECOND DELAY

**CONNECTION: WAGO CONNECTOR SPRING TYPE NON-SCREW** 

WIRE SIZE: 14 THRU 20 GAUGE WIRE

**OVER VOLTAGE PROTECTION: FUSED, SOLID STATE** 

**SIZE:** 3 3/8" LONG X 2 1/2" WIDE X .875" HIGH





### **GROUND GUARD INSTALLATION MANUAL MODEL G1000**

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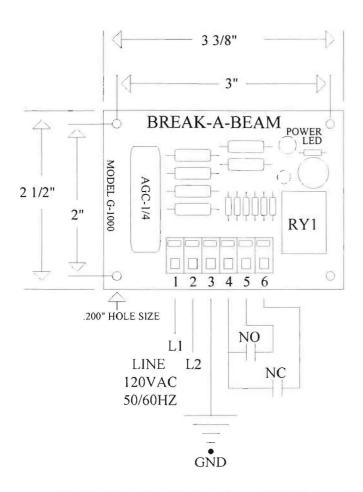
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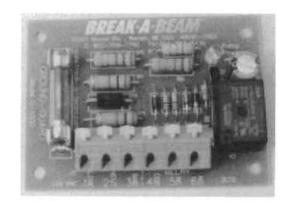
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## WIRING INSTRUCTIONS

- Connect 120 / 60 Hz to terminal #1 and terminal #2 on the G-1000 circuit board.
- Connect the ground you want to verify to terminal #3.
- When you lose your ground, terminal #4 and terminal #5 will close; terminal #4 and terminal #6 will open.

**WARNING:** Read instruction manual before installing. Disconnect power before installing. The possibility of electrical shock could result from improper installation. Color code systems of wiring are different for electronic and electrical equipment. Specifications subject to change without notice or incurring obligation