Installation Instructions
Meg-Alert
MotorGuard Model: GP500-MU

NOTE: If unit is installed in an enclosure, please skip to # 4.

1. Position din rail inside motor starter housing for clearance and ease of wire installation. Drill four (4) holes for #10 screws and install rail(s). Snap MotorGuard onto rail.

2. If a 2% meter option was ordered with the unit: Drill one (1) 2-¾ inch diameter hole and three (3) $^{1}/_{8}$ inch holes to match the meter. Mount the meter on the front panel of the MCC or generator control panel. If a 1% meter was ordered with the unit: Use the pattern included with the meter. Drill one (1) 4 inch diameter hole and four (4) $3/_{8}$ inch holes.

3. If remote LED's are used, drill four (4) $1/_{8}$ inch holes and two (2) ½ inch clearance holes for the LED's. Mount the assembly using the mounting holes provided in the panel (panel is normally located near the meter indicator).

4. Install warning stickers (provided with the MotorGuard) on terminal boxes of equipment to be tested.

5. Locate a dry normally closed auxiliary contact on the motor starter contactor (one may need to be installed). Wire one side of the input power through the normally closed contact to terminal (1). Wire the other side of the input power to terminal (2). (See wiring diagram).

6. Connect terminals (3) and (4) to RAC system (optional) when it is supplied with the MotorGuard.

7. Connect terminals (5), (6), and (7) to an alarm panel or PLC inputs, if required.

8. Connect terminals (8), (9), and (10) to the motor starter circuit to lockout the equipment after an alarm, if so desired.

9. Connect terminals (11) through (14) to the remote LED's. Terminal (11) is the green LED positive output; terminal (12) is the red flashing LED positive output; terminal (13) is the yellow flashing LED positive output; and terminal (14) is the LED common.

10. Connect the (ground) terminal (15) to the mechanical ground of the equipment being tested.

11. Connect the (test) terminal (16) to the B phase winding in an AC motor system, or the positive lead in a DC motor system.

12. Connect terminals (31) and (32) to the meter. Observe correct polarity; terminal (31) is positive and terminal (31) is negative. *NOTE: When using 4-20mA transducer option, wire transducer input in series with mere connections (see wiring diagram..*

13. Connect (pre-alarm) terminals (17), (18), and (19) to an alarm panel or PLC, if desired.

14. Proceed with operating instructions.

Operation Instructions
Meg-Alert
MotorGuard Model: GP500-MU

1. After installation is completed on the unit, apply voltage to the MotorGuard. Observe the green "TEST ON" LED and meter indictor.

   A. Start the motor being tested and observe that the "TEST ON" green LED will be off and the meter indicator will read all the way to infinity.
   B. Stop the motor, the green "TEST ON" LED should be illuminated, and the meter indicator will now read the value of the motor's insulation condition.

2. Press the test button at this time to check proper operation of the MotorGuard and to see if the meter is calibrated correctly. Hold the test for approximately 10 to 15 seconds. The meter indicator should first go to the cal/test position, and the MotorGuard should trip on an alarm condition. The red "ALARM" LED should start flashing, while the green "TEST ON" LED should be off. The alarm and lockout contacts should now have changed state showing an alarm and preventing the motor from starting if the lockout circuit is used.

3. Press the reset button. The MotorGuard should return to a test condition. The red "ALARM" LED should stop flashing, while the green "TEST ON" LED should be illuminated. The meter indicator will now be showing the insulation value of the motor being tested.

4. IF REMOTE LED's ARE USED WITH THIS UNIT: Repeat steps 1 and 2 and observe their operation to make sure they coincide with the internal LED's.

5. If a pre-alarm feature is furnished on this unit, repeat step 2 and observe that the yellow flashing LED starts flashing approximately 5 to 10 seconds after pressing and holding the test button. The pre-alarm contacts will change state when the yellow LED begins flashing and automatically reset when the yellow LED stops flashing.

WARNING:
Before servicing any equipment being tested with a MotorGuard system, one must turn off and lockout the MotorGuard power and short the motor windings to ground in order to remove any possible residual capacitive charge that may be present in the unit.