

Ground Fault Relay Model GFR480

Installation, and Operation Manual

SENTINEL II

-- MONITORING --
4mA

GFR 480

RESET / HOLD-TEST



INTERNATIONAL INTELLIGENT METERING
DIVISION OF MARINA ELECTRICAL EQUIPMENT INC
WILLIAMSBURG VIRGINIA 23185
1-757-258-3939
GROUND FAULT RELAY SYSTEM

SERIAL NO. 120480-30-100
RESPONSE SETTING 30mA,100mA, 1000mA
NEMA 1
AC-VOLTS 125V
MODEL GFR 480
60Hz
CURRENT DRAW 1.2WATT
CT RATIO 1000:1 CLASS 100

DATE:

Marina Electrical Equipment, Inc.
1715 Merrimac Trail
Williamsburg, VA 23185
Toll Free: 1-855-258-3939
Fax: 1-757-258-3988

CAI[®] US
E503730

CONFORMS TO STD. ANSI/UL1053
CERT. TO CUL STAD.C22.2
NO 144

Ground Fault Relay Model GFR480 Installation, and Operation Manual

INTRODUCTION:

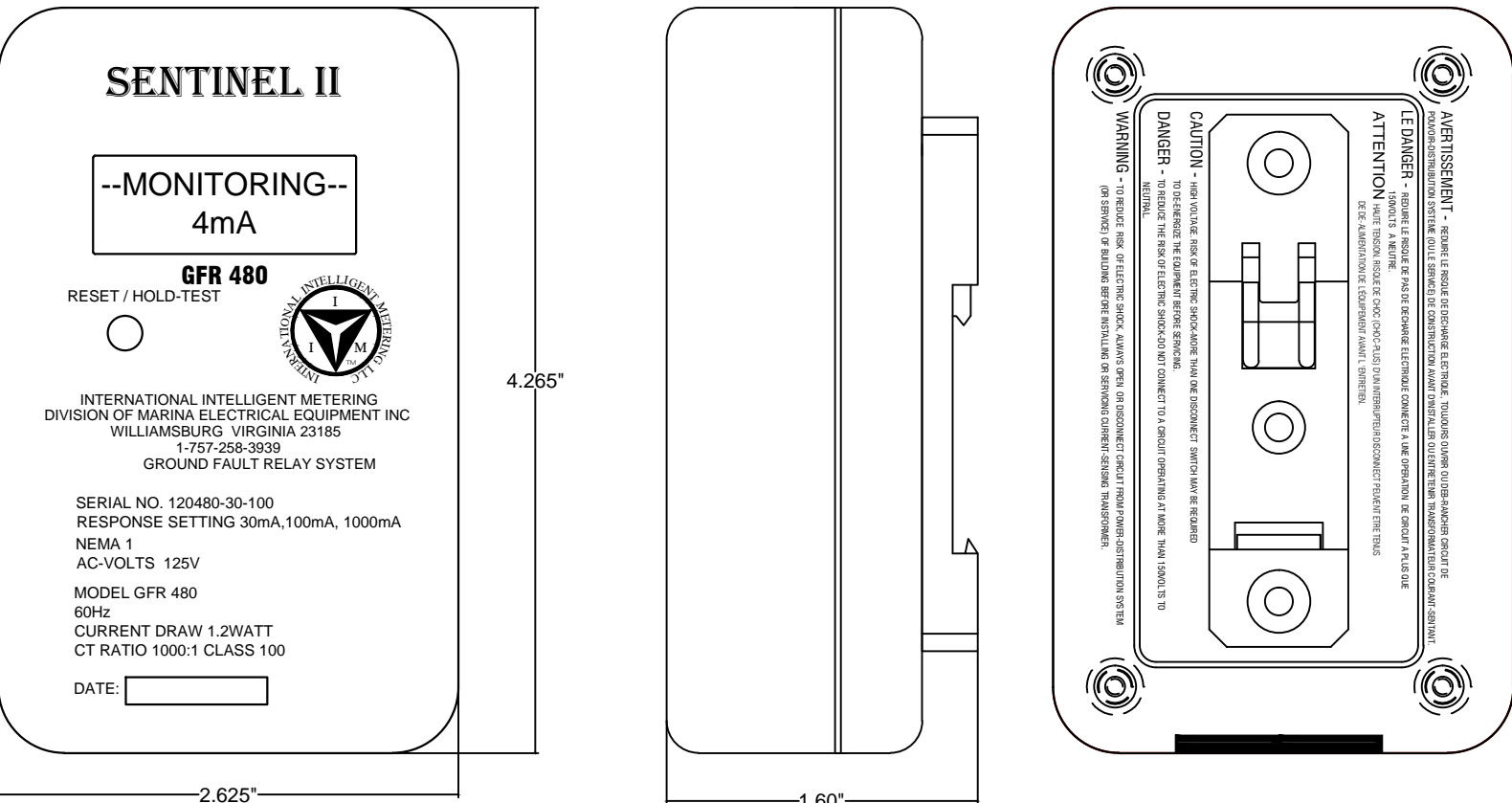
PRODUCT DESCRIPTION:

The Ground Fault Relay shall be listed and marked, tested and certified to conform to Class B Standard ANSI/UL® 1053 entitled “Ground Fault Relay Sensing Equipment” and CUL Standard C22.2 No. 144 entitled “Standard Ground Fault Circuit Interrupter.” It is designed as a NEMA 1 enclosure for installation in, at minimum, a NEMA Type 3R enclosure.

FUNCTION: Device provides equipment protection only, and is not for people protection. Equipped with a current transformer, the GFR480-1 monitors for current leakage to ground. When a fault is detected, a 120V output connected to a shunt disconnects power.

WARNING: Disconnect power before servicing. Marina Electrical Equipment, Inc. recommends that only qualified personnel or an electrician, familiar with the operation of this power outlet equipment, should install or service this power outlet. This product must be installed in accordance with the National Electrical Code (NEC) or the Canadian Standards Association (CSA) and any other applicable local codes. Before installing equipment, check with your local electrical inspector for specific requirements and information for your area.

CAUTION: Marina Electrical Equipment, Inc. will not assume any responsibility for property damage or personal injury resulting from misuse of the information in this manual.



Ground Fault Relay Model GFR480 Installation, and Operation Manual

INSTALLATION:

IMPORTANT: Installation manual for use by qualified personnel or an electrician only.

Step 1: Disconnect power to the pedestal prior to any service. Access terminal block and breaker dinrail in pedestals.

Step 2: Installing CT: Determine which circuit will be monitored by the ground fault relay. The CT must be placed around all hot leads in the circuit including neutral, if applicable. Route wires in the circuit through the CT and reconnect. Route CT wires away from any obstructions or shrap edges. Do not run the ground conductors or a conductor from another circuit through the CT.

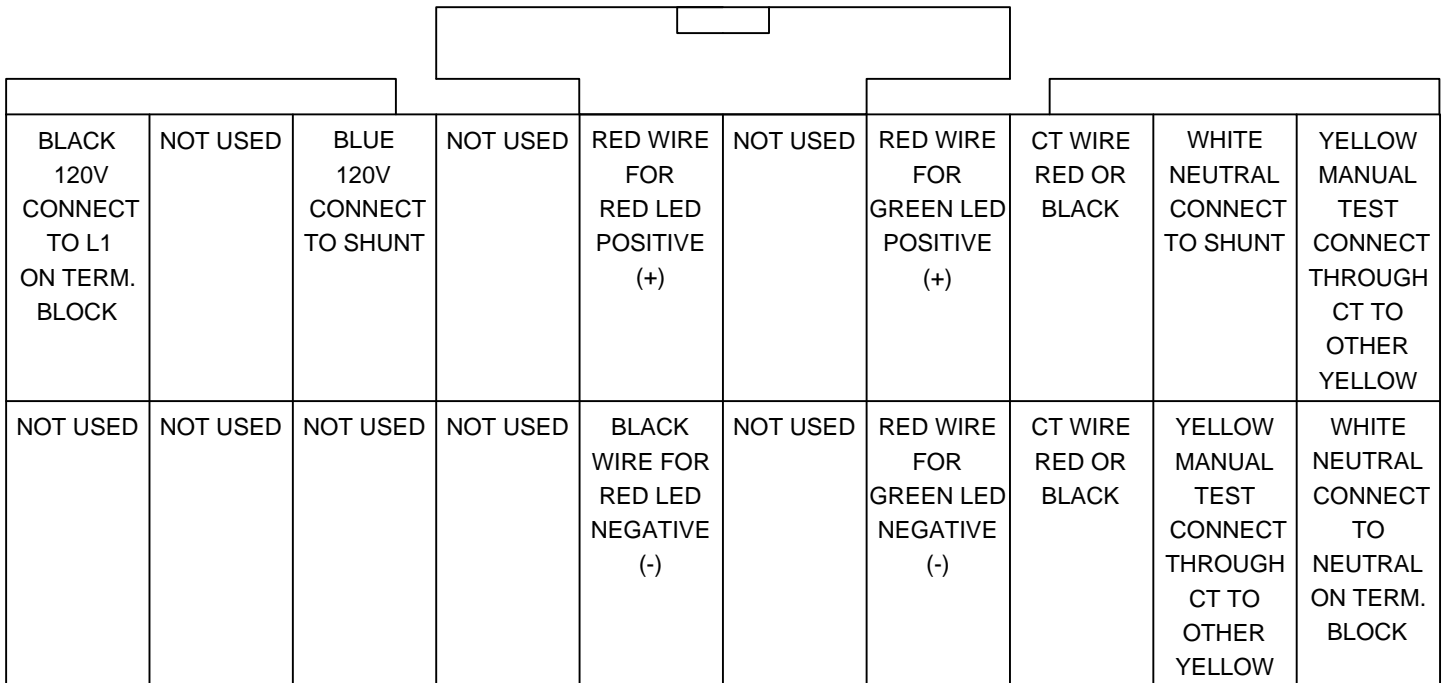
Step 3: Manual Test Circuit: 2 yellow wires can be found coming from the ground fault relay harness. Route one through the CT and wirenut to the other. Direction is not important.

Step 4: Power Leads: Connect the black and white leads, which are diagonally opposite to each other on the harness, to the 120V hot (Black) and neutral (White) load side terminals on the terminal block. All terminals on the load side of the terminal block shall be torqued to 15ft.lbs.

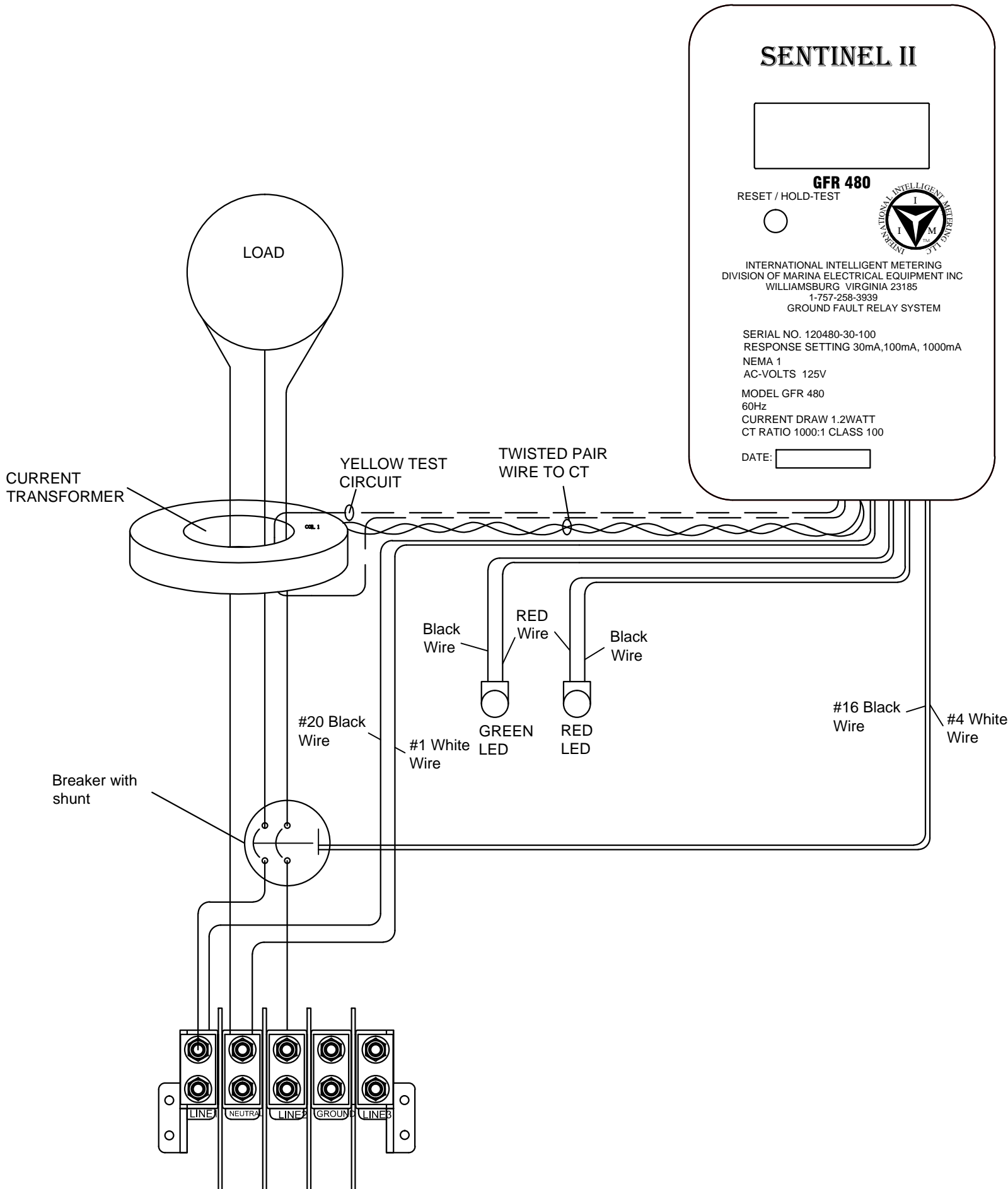
Step 5: Shunt: Connect the remaining blue and white wires to a 120V external shunt with breaker or a shunt-trip breaker that disconnects power on the circuit being monitored.

Step 6: Mounting: Connect the ground fault relay to the dinrail using the set screw. Plug in the harness to the relay and ziptie harness to the strain relief tab.

BACK OF CONNECTOR WITH WIRE PROTRUDING



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CURRENT DRAW 1.2WATT
CT RATIO 1000:1 CLASS 100
DATE:

NORMAL OPERATING
CONDITIONS: 4mA OF
LEAKAGE TO
GROUND

SENTINEL II

-- FAULT TIME --
00:01:47:00

GFR 480
RESET / HOLD-TEST



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CURRENT DRAW 1.2WATT
CT RATIO 1000:1 CLASS 100
DATE:

GROUND FAULT
EXCEEDING PRESET
LIMIT 1 HOUR 47
MINUTES AGO

SENTINEL II

TEST PASSED
00:01:47:00

GFR 480
RESET / HOLD-TEST



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MODEL GMR 480
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CT RATIO 1000:1 CLASS 100
DATE:

MANUAL TEST
COMPLETED AND
PASSED 1 HOUR 47
MINUTES AGO

SENTINEL II

- MANUAL SELF -
- TEST FAILED -

GFR 480
RESET / HOLD-TEST



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DATE:

MANUAL TEST
COMPLETED AND
FAILED: SERVICE

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OPERATION:

Step 1: Power on the pedestal/switchgear with the ground fault relay. If the connected breaker is not already off, then it will trip, then engage the breaker.

Step 2: Perform a functional test by pressing and holding the TEST/RESET button for 3 seconds. The LCD screen will inform you whether the test has passed or failed, an audible alarm will be heard, and the breaker will trip. If this does not occur, the ground fault relay is not protecting the circuit and it is not safe to use.

Step 3: Clear the manual test fault by pressing the TEST/RESET button once. If the test passed, the circuit is safe to use.

In the case of a ground fault: Fix or remove the ground fault before re-energizing the circuit. Common issues resulting in the ground fault relay are neutral-ground bonds, failing appliances, and faulty shorepower cords.

WARRANTY POLICY

Housings:

Marina Electrical Equipment, Inc. (MEE) warrants that the main housing and attached parts (lens, button, and set screw) will be free from failure resulting from defects in material and/or workmanship, and are covered by a limited warranty of one (1) year. Should any of the above parts fail to comply with the above-mentioned warranty, MEE will either repair or replace the defective part(s), or credit the purchaser for the purchase price of the part.

Internal Components:

MEE warrants that the International Intelligent Meter (IIM) Ground Fault Relay will be free from failure resulting from defects in material and/or workmanship, and are covered for one (1) year. Although the IIM Ground Fault Relay contains integrated surge protection, MEE and IIM will not warrant the product against severe over-voltage conditions such as lightning strikes or abnormal utility surges. Should a ground fault relay fail to comply with the above-mentioned warranty, MEE will either repair or replace the defective part(s)/components, or credit the purchaser for the purchase price of the part. This warranty is voided if the damage to any or all of the components is the result of abuse, misuse, or Force Majeure. This warranty is voided if the factory seal is broken or manipulated.

This warranty policy does not cover damage or failure resulting from abuse, misuse, negligence or Force Majeure. All warranty claims must be made in writing and all defective products shall be returned to MEE for evaluation unless stated otherwise by MEE. MEE will not be responsible for reimbursing the purchaser for any sort of expense incurred by the purchaser as a result of the repair or replacement of a warranty claim.

Send all warranty claims to:

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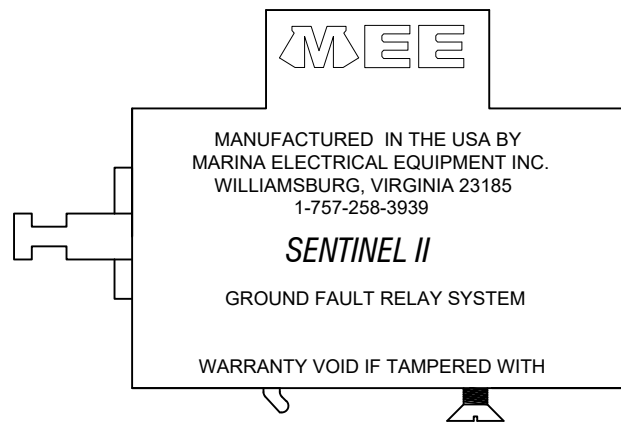
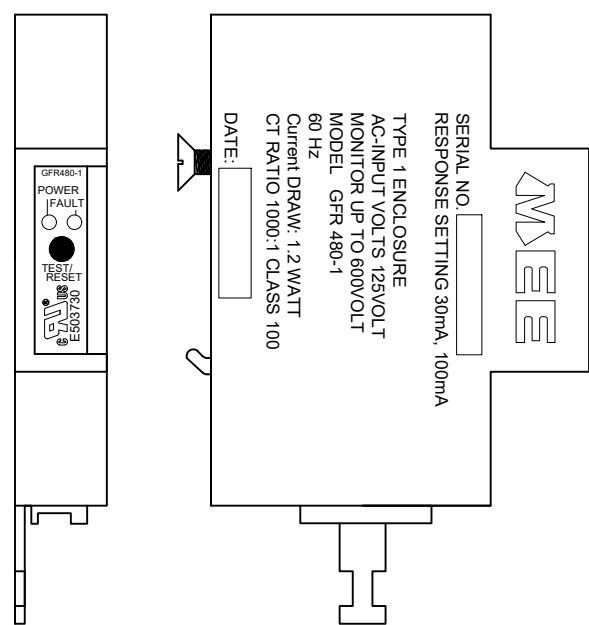
Specifications Subject to Change Without Notice

END OF SECTION



Ground Fault Relay Model GFR480-1

Installation, and Operation Manual



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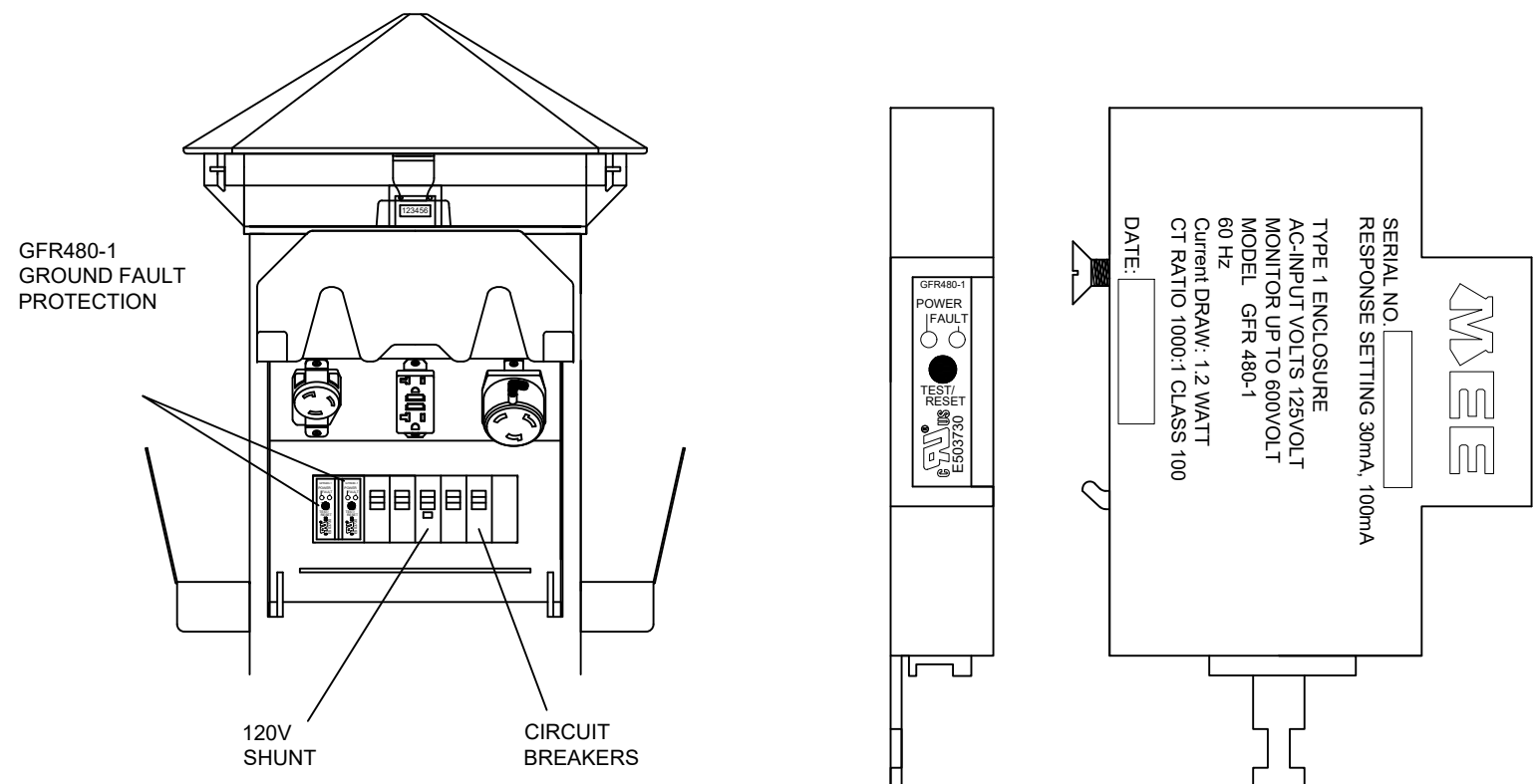
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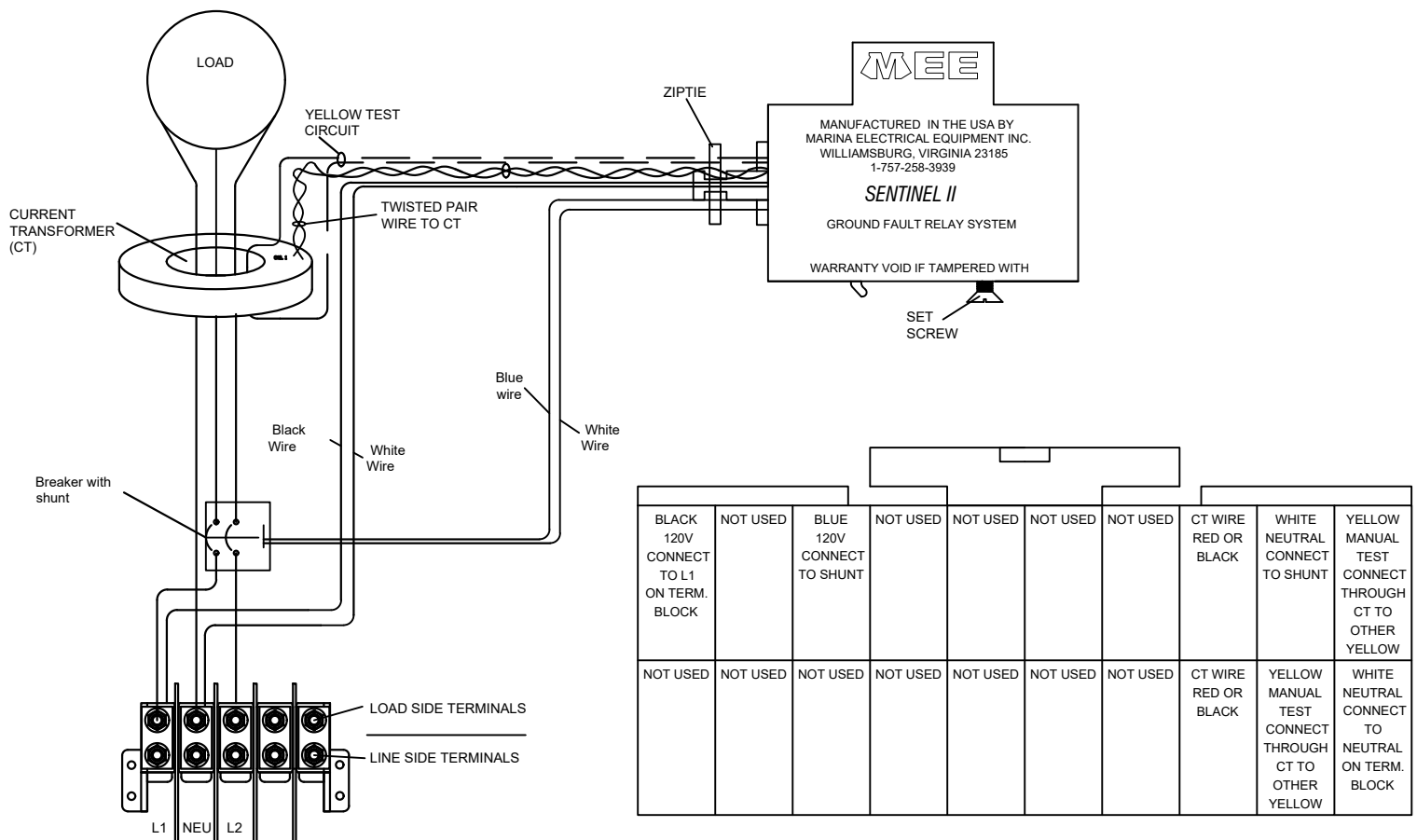
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Step 3: Manual Test Circuit: 2 yellow wires can be found coming from the ground fault relay harness. Route one through the CT and wirenut to the other. Direction is not important.

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Step 5: Shunt: Connect the remaining blue and white wires to a 120V external shunt with breaker or a shunt-trip breaker that disconnects power on the circuit being monitored.

Step 6: Mounting: Connect the ground fault relay to the dinrail using the set screw. Plug in the harness to the relay and zip tie harness to the strain relief tab.



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OPERATION:

Step 1: Power on the pedestal with the ground fault relay. If the connected is not already off already, then it will trip, then engage the breaker.

Step 2: Perform a functional test by pressing and holding the TEST/RESET button for 3 seconds. The LED indicator will change from green to red, an audible alarm will be heard, and the breaker will trip. If this does not occur, the receptacle is not safe to use and will need service.

Step 3: Clear the manual test fault by pressing the TEST/RESET button once. The receptacle is ready to use.

In the case of a ground fault: Unplug from the receptacle, and reset the ground fault relay. Then correct the fault before plugging the vessel back in. Common issues resulting in the ground fault relay engaging are neutral-ground bonds, failing appliances, and faulty shorepower cords.

WARRANTY POLICY

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