

WARRANTY INFORMATION

Meter-Treater, Inc. (M-Ti) warrants to its customers that the hardware products that M-Ti manufactures and sells will be free from defects in material and workmanship. Warranty coverage is for fifteen (15) years starting from the date of the original shipment from M-Ti. If any such product proves defective during the applicable warranty period, M-Ti, at its discretion, will repair without charge for parts and labor or will provide a replacement in exchange for the defective product.

This warranty shall not apply to any defect, failure, and/or damage caused by improper use, or inadequate maintenance or care. M-Ti shall not be obligated to furnish service under this warranty (a) to repair damage resulting from connection to incompatible equipment; or (b) to service a product that has been modified, altered or integrated with other products.

WARRANTY RETURNS

All warranty and non-warranty repairs must be returned freight prepaid and insured to **MTI**. All returns must have a Return Materials Authorization (RMA) number on the outside of the shipping container. This number may be obtained from **MTI** Customer Service at (800) 342-6890.

Products returned without an RMA number will not be accepted.

NOTE

IF UNIT(S) ARE RECEIVED DAMAGED, NOTIFY THE SHIPPING COMPANY IMMEDIATELY. RETAIN ALL SHIPPING CONTAINERS AND PACKING MATERIALS FOR INSPECTION.

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RCHW PC Series Hardwire Device



SURGE PROTECTION DEVICES FOR AC POWER APPLICATIONS

The RCHW is a Type 1 Device (IEEE Category C).
The RCHW Series is built to both UL's OWHX (Secondary Surge Arrestor) and 1449 Third Edition SPD standards

RESIDENTIAL & COMMERCIAL INSTALLATIONS

USER MANUAL AND INSTALLATION GUIDE (ALL MODELS)

GENERAL

A) This document provides detailed information on how to install and operate the **RCHW/PC Series** of Surge Protective Devices (SPD).

B) Locate a position to mount the SPD that will minimize the length of connecting wires required. SPDs should be located as close as possible to the AC panel or service area as possible. Mount the units using the mounting holes provided on the enclosure as shown by the illustrations in these instructions.

C) The **RCHW/PC Series** of Protectors are installed and connected in parallel ("shunt") across the AC supply to be protected. Connecting wires do not carry the supply current, only the short duration currents associated with the suppression of a transient event.

D) Identified or indicated leads/wires must be connected exactly with respect to the AC Power feeding the SPD. Failure to do so may result in damage to the device or pose a danger to personnel.

E) Incorrect installation may significantly impair the performance of the Surge Protective Device. It is particularly important that all installation procedures and guidelines be followed exactly.

F) Installation of this device should only be performed by a qualified licensed installer.

G) Before starting any installation procedures, verify service voltages with an AC voltmeter to ensure that the correct SPD model has been selected.

H) Check to ensure that all connections are correct and secure before energizing.

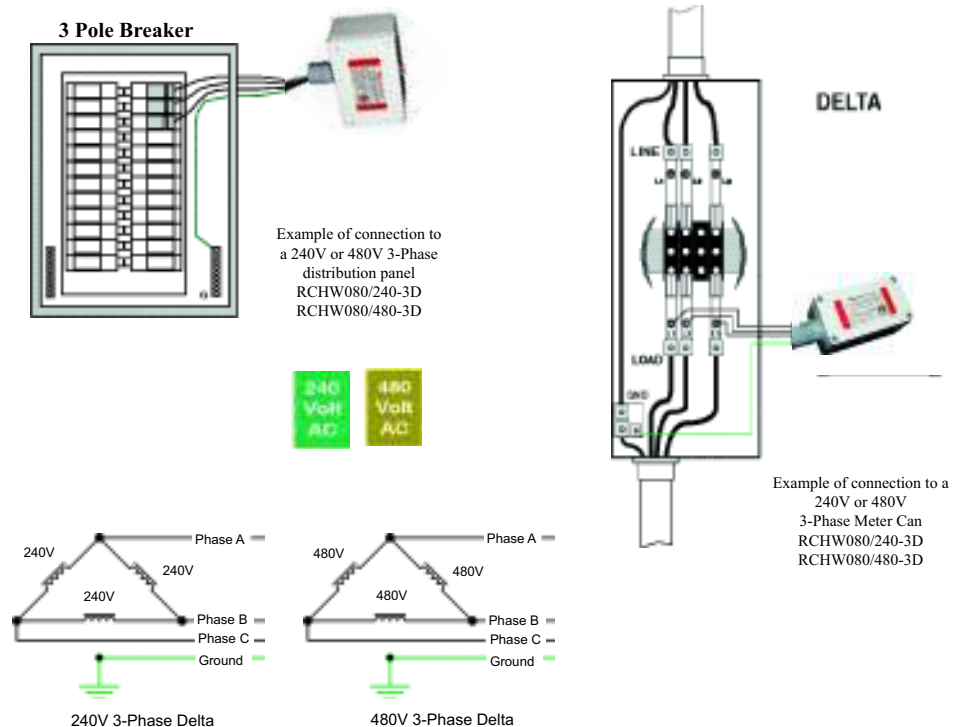
I) Keep this manual in a safe dry place for future reference.

FOR ASSISTANCE

CONTACT **M-TI** CUSTOMER SERVICE
AT 1-800-638-3788

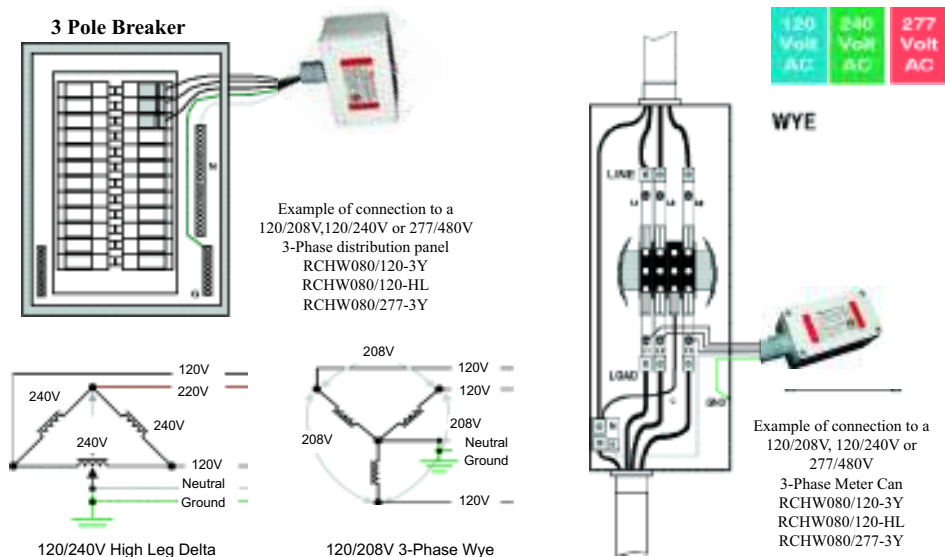
240VAC, Three Phase Delta, 3 Wire + Ground 480VAC, Three Phase Delta, 3 Wire + Ground

1. Deenergize as much as possible prior to installation.
2. Locate the mounting position of the SPD as close as possible to the electrical connection point. The SPD may be connected directly to the load side of the meter socket via spare/additional lugs or through a disconnect, fuse or circuit breaker rated not less than 30 amps.
3. Prepare any supplementary conduit or other materials for wire routing. Minimize right angles as right angles will degrade overall SPD performance.
4. Mount the device in your predetermined location next to the panel or equipment to be protected.
5. Connect the Green Ground wire to the system ground.
6. Connect the Black Phase wires to each phase.
7. Energize the circuit if applicable. LED(s) should now be illuminated.



120/240VAC, High Leg Delta, 4 Wire + Ground
120/208VAC, Three Phase Wye, 4 Wire + Ground
277/480VAC, Three Phase Wye, 4 Wire + Ground

1. Deenergize as much as possible prior to installation.
2. Locate the mounting position of the SPD as close as possible to the electrical connection point. The SPD may be connected directly to the load side of the meter socket via spare/additional lugs or through a disconnect, fuse or circuit breaker rated not less than 30 amps.
3. Prepare any supplementary conduit or other materials for wire routing. Minimize right angles as right angles will degrade overall SPD performance.
4. Mount the device in your predetermined location next to the panel or equipment to be protected.
5. Connect the Green Ground wire to the system ground.
6. Connect the White Neutral wire to to the neutral bus. Where there is no neutral bus and the SPD is equipped with a white neutral wire, the white neutral wire from the SPD should be connected to ground.
7. If applicable, for high leg delta systems, connect the orange wire to the high leg phase. **CONNECTING A BLACK WIRE TO THE HIGH LEG OF A HIGH LEG DELTA WILL DAMAGE THE SPD.**
8. Connect the Black Phase wires to each phase.
9. Energize the circuit if applicable. LED(s) should now be illuminated.



INSTALLATION INSTRUCTIONS FOR:

RCHWXXX/120-SO/PC	Single Phase	2 Wire + Gnd
RCHWXXX/120-1O/PC	Single Phase	3 Wire + Gnd
RCHWXXX/120-SP/PC	Split Phase	3 Wire + Gnd
RCHWXXX/120-2P/PC	Single Phase	2 Wire + Gnd
RCHWXXX/240-2P/PC	Single Phase	2 Wire + Gnd
RCHWXXX/120-3W/PC	3 Phase Wye,	4 Wire + Gnd
RCHWXXX/220-3W/PC	3 Phase Wye,	4 Wire + Gnd
RCHWXXX/230-3W/PC	3 Phase Wye,	4 Wire + Gnd
RCHWXXX/240-3W/PC	3 Phase Wye,	4 Wire + Gnd
RCHWXXX/120-3H/PC	High Leg Delta	4 Wire + Gnd
RCHWXXX/240-3D/PC	3 Phase Delta,	3 Wire + Gnd
RCHWXXX/277-3W/PC	3 Phase Wye,	4 Wire + Gnd
RCHWXXX/480-2P/PC	Single Phase	2 Wire + Gnd
RCHWXXX/480-3D/PC	3 Phase Delta,	3 Wire + Gnd

All RCHW MODELS ARE APPROVED FOR OUTDOOR USE.

Listed to UL 1449 3rd Edition may be fed from the line side of a distribution panel or via a 20 Amp or 30 Amp circuit breaker in a distribution panel for ease of maintenance.

Optimize device performance by keeping connecting wires as short and as straight as possible. Plan the wiring path(s) prior to commencing any installation procedure. This will assist in keeping the wire lengths and inductance to a minimum.

IF POSSIBLE, SECURE ALL POWER FROM THE PANEL TO WHICH THE DEVICE IS BEING INSTALLED.

ENSURE ALL CONNECTIONS ARE CORRECT AND SECURE BEFORE ENERGIZING SPD.

UNIT DIAGNOSTICS

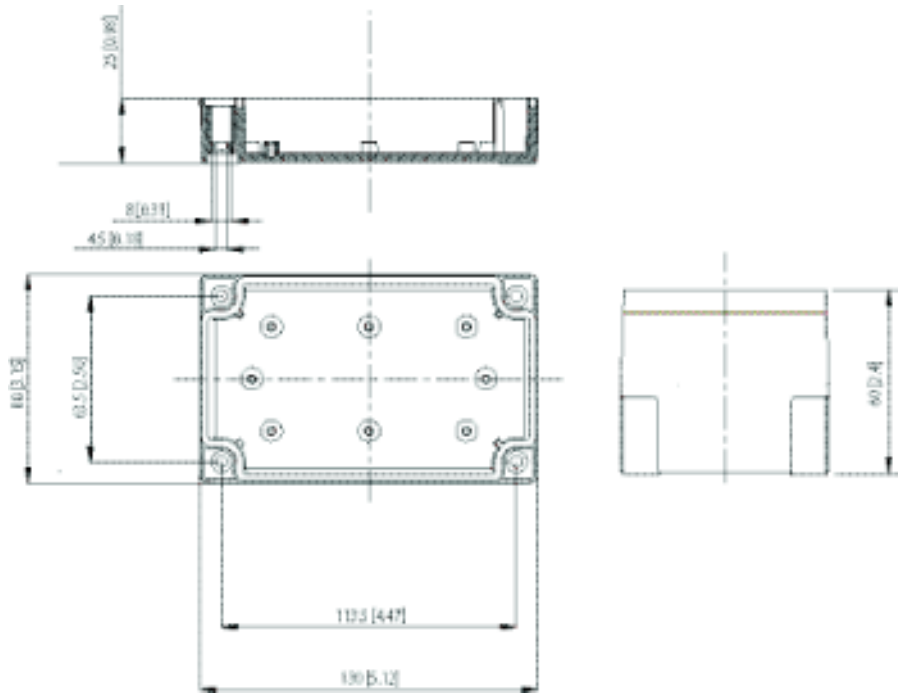
PHASE LED INDICATOR(S): When the SPD is securely connected and operating properly, the LED(s) will be illuminated. Replacement of the SPD is required if the LED(s) are not illuminated.

MAINTENANCE:

Check the status of the LED indicator at intervals not to exceed 2 months. If the Phase Indicators are not illuminated the Protector requires replacement.

**PLEASE NOTE:
THERE ARE NO USER SERVICEABLE PARTS INSIDE.**

MOUNTING INFORMATION



For wall or back plate mounting: Remove the cover/lid from the RCHW SPD by extracting the 4 screws that secure the lid to the body of the unit.

NOTE: For Safety Reasons, DO NOT remove the black protective shield inside the device.

Locate the SPD as close as possible to the electrical connection point to the system and secure the device by utilizing the 4 mounting screws provided. Replace the lid and carefully secure with plastic screws; use caution not to over torque the screws. Continue with the interface wiring of the SPD to the electrical system, keep lead lengths as short as possible and minimize sharp bends and turns in the wire to optimize SPD performance. Connecting conduit should be rated for use in the environment that the SPD is mounted. Splicing wires to gain extra lead length is not advisable as the extra lead length will degrade the protection capabilities of the device.

CAUTION: WORKING NEAR EXPOSED LIVE CONDUCTORS IS HAZARDOUS. POWER SHOULD BE SECURED OR APPROPRIATE ELECTRICAL SAFETY EQUIPMENT SHOULD BE USED TO THE GREATEST EXTENT POSSIBLE BEFORE CONNECTING.

120/240VAC, Split Phase, 3 Wire + Ground
120VAC Single Phase, 3 Wire + Ground
120VAC Single Phase, 2 Wire + Ground
240VAC Single Phase, 2 Wire + Ground

1. Deenergize as much as possible prior to installation.
2. Locate the mounting position of the SPD as close as possible to the electrical connection point. The SPD may be connected directly to the load side of the meter socket via spare/additional lugs or through a disconnect, fuse or circuit breaker not rated not less than 15 amps.
3. Prepare any supplementary conduit or other materials for wire routing. Minimize right angles as right angles will degrade overall SPD performance.
4. Mount the device in your predetermined location next to the panel or equipment to be protected.
5. Connect the Green Ground wire to the system ground.
6. If applicable, connect the White Neutral wire to to the neutral bus. Where there is no neutral bus and the SPD is equipped with a white neutral wire, the white neutral wire from the SPD should be connected to ground.
7. Connect the Black Phase wire(s) to each phase.
8. Energize the circuit if applicable. LED(s) should now be illuminated.

1 or 2 pole breaker as applicable

