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.

Meter-Treater, Inc.
1349 South Killian Drive, Lake Park, Florida 33403
Phone: (561) 845-2007 Fax: (561) 848-2372
E-mail: sales@metertreater.com
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RCHW 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)

P/N: 914-4004-0A0
MS 256-04/22/2009

GENERAL

A) This document provides detailed information on how to install and operate the **RCHW 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 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.

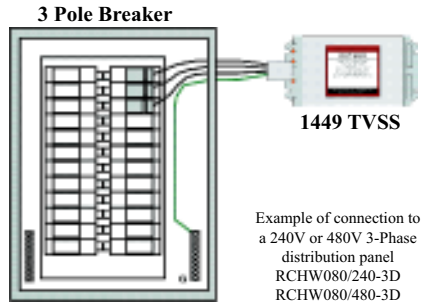
3. Prepare any supplementary conduit or other materials for wire routing. Minimize right angles as right angles will degrade overall SPD performance.

4. Mount the device in your predetermined location next to the panel or equipment to be protected.

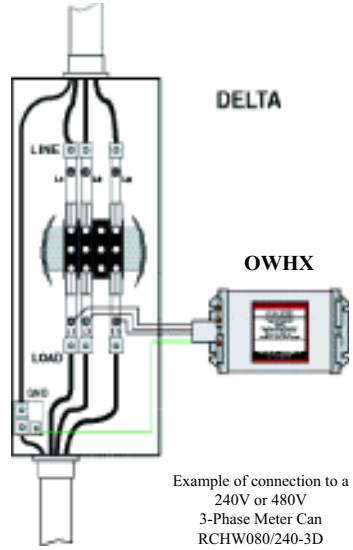
5. Connect the Green Ground wire to the system ground.

6. Connect the Black Phase wires to each phase.

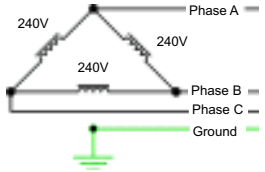
7. Energize the circuit if applicable. LEDs should now be illuminated.



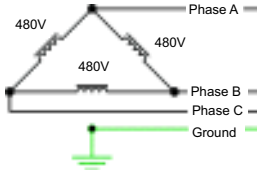
Example of connection to a 240V or 480V 3-Phase distribution panel
RCHW080/240-3D
RCHW080/480-3D



Example of connection to a 240V or 480V 3-Phase Meter Can
RCHW080/240-3D
RCHW080/480-3D



240V 3-Phase Delta



480V 3-Phase Delta

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.

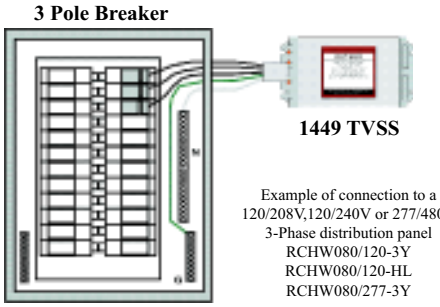
5. Connect the Green Ground wire to the system ground.

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.

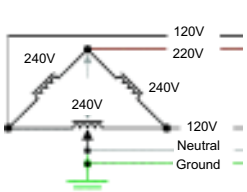
7. If applicable, for high leg delta systems, connect the orange wire to the high leg phase. CONNECTING A BLACK WIRE TO THE HIGH LEG OF A HIGH LEG DELTA WILL DAMAGE THE SPD.

8. Connect the Black Phase wires to each phase.

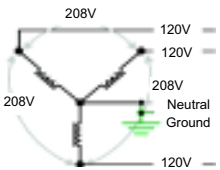
9. Energize the circuit if applicable. LEDs should now be illuminated.



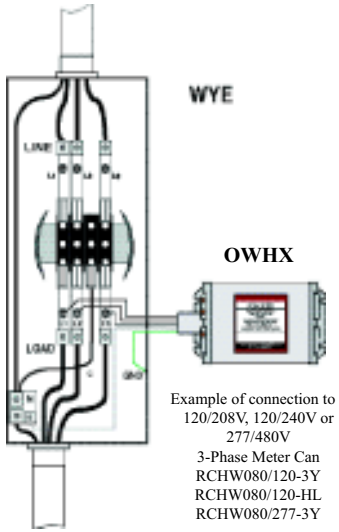
Example of connection to a 120/208V,120/240V or 277/480V 3-Phase distribution panel
RCHW080/120-3Y
RCHW080/120-HL
RCHW080/277-3Y



120/240V High Leg Delta



120/208V 3-Phase Wye



Example of connection to a 120/208V, 120/240V or 277/480V 3-Phase Meter Can
RCHW080/120-3Y
RCHW080/120-HL
RCHW080/277-3Y

INSTALLATION INSTRUCTIONS FOR:

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

All RCHW MODELS ARE APPROVED FOR OUTDOOR USE.

1) Secondary Surge Arrestors listed to UL OWHX can be directly connected across the load side of the meter can or at the line side of the main breaker. A 30 Amp or 60 Amp disconnect may be used for ease of maintenance.

2) TVSS devices listed to UL 1449 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.

3) 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 RED LEDs will be illuminated. Replacement of the SPD is required if the RED LED(S) are not illuminated. If equipped, the YELLOW LED will illuminate only if there is high neutral-ground voltage detected.

MAINTENANCE:
Check the status of the LED indicators 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.