

GENERAL

1. This document provides detailed information on how to install and operate the RCHW Series of Surge Protection Devices (SPD)
2. Locate a position to mount the SPD that will minimize the length of connecting wires required. SPD's 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.
3. 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.
4. 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 post a danger to personnel.
5. Incorrect installation may significantly impair the performance of the Surge Protection Device. It is particularly important that all installation procedures and guidelines be followed exactly
6. Installation of this device should only be performed by a qualified licensed installer.
7. Before starting any installation procedures, verify service voltages with an AC voltmeter to ensure that the correct SPD model has been selected.
8. Check to ensure that all connections are correct and secure before energizing.
9. Keep this manual in a safe, dry place for future reference.

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 OUTSIDE 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.

INSURE ALL CONNECTIONS ARE CORRECT AND SECURE BEFORE ENERGIZING SPD.

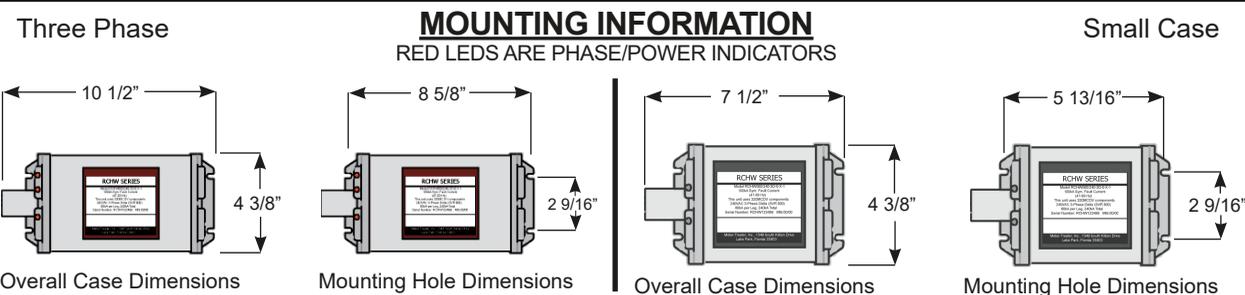
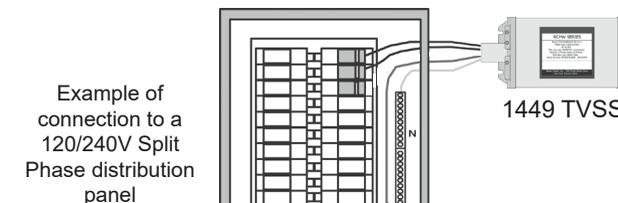
UNIT DIAGNOSTICS

PHASE LED INDICATORS: When the SPD is securely connected and operating properly, the RED LED(S) 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 a high neutral-ground voltage detected.

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

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 rated not less than 15 amps.
3. Prepare any supplementary conduit, or other materials for wire routing. Minimize right angles as they 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 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. Check that the LED light is on.



Mount the RCHW Series SPD using the four mounting holes as close as possible to the connections point to the system. Keeping the lead length short will increase the performance of the unit. 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 performance 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

