

Instructions for 0E-SPROACHW Surge Protector

Application:

The high performance 0E-SPROACHW is a Type 2 Surge Protection Device that protects sensitive electronic loads connected to service panels, intrusion alarm panels, fire panels and devices connected directly to it, via parallel installation on 120VAC branch circuits.

Install properly to insure maximum effectiveness.

Product specifications:

- Surge Protection Device Type 2
- Service voltage: Single (2 wire + ground), 120VAC
- Maximum Continuous Operating Voltage (MCOV): 130V
- Protection modes: L-G, L-N, N-G
- Voltage protection rating: 800V L-N, 900V L-G, 800V N-G
- Surge current rating: 18KA
- Short-Circuit Current Rating (SCCR): 10KA
- Nominal Discharge Current Rating: (In): 3KA
- LEDs: one green for AC Input, second green for active surge protection
- Storage Temperature: -40°F – 140°F (-40°C – 85°C)
- Operating Temperature: -40°F – 185°F (-40°C – 60°C)
- Humidity: 95% maximum
- Enclosure: Sealed ABS plastic, weather and impact resistant
- Dimensions:
 - Main body: 2.75"W X 2"D X 1.75"H (70mmW X 51mmD X 45mmH)
 - Including mounting tabs and threaded nipple: 3.25"W X 2.88"D X 1.75"H (83mmW X 73mmD X 45mmH)
- Lead wire length: 15" (381mm)
- Weight: 9.2 ounces (261g)

Installation Instructions:

- 1) Turn off power at circuit breaker or main circuit.
- 2) Open enclosure of panel to be protected. Punch open a 1" knockout on the side of the enclosure in a location suitable to allow necessary wiring in instructions that follow.
- 3) After unscrewing and removing nut from the 0E-SPROACHW, feed all wires and 0E-SPROACHW threaded wiring nipple from outside the enclosure of panel to be protected into the inside (main body of 0E-SPROACHW remains outside).
- 4) Pass 0E-SPROACHW wires through nut and tighten nut on threaded wiring nipple to secure the 0E-SPROACHW.
- 5) Follow wiring instructions for Alarm Panel or Service Panel

IMPORTANT NOTICES:

- 1) 0E-SPROACHW must be installed by a qualified electrician in compliance with national and local electrical codes.
- 2) All voltages must be measured carefully to ensure they do not exceed voltage rating of 800 L-N, 900 L-G and 800 N-G for 0E-SPROACHW.
- 3) 0E-SPROACHW is suitable for use only on a circuit capable of delivering not more than 10,000 RMS symmetrical Amps or less, when protected by a 20 Amp circuit breaker rated 120 volts minimum. The interrupting rating of the circuit breaker shall not be less than the available fault current.
- 4) Ground resistance must be properly measured and must meet NEC maximum of 25 Ohms or less. For optimal performance of 0E-SPROACHW, 5 Ohms or less is preferred.
- 5) 0E-SPROACHW is intended to be mounted directly to a panel or flexible conduit only.

Operation:

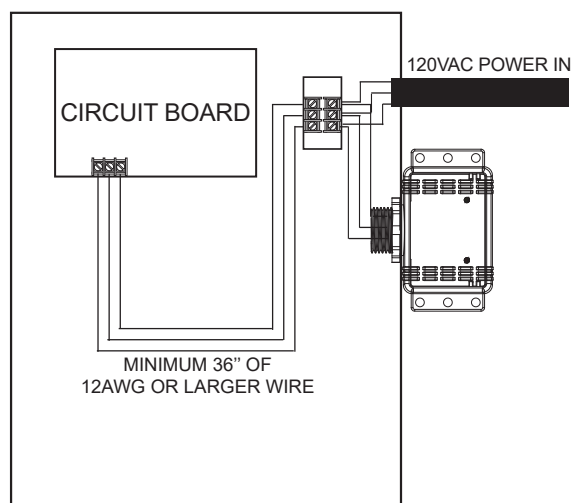
- 1) When power is connected to 0E-SPROACHW, the green LED marked "AC IN" will light to indicate power is connected and the green LED marked "PROTECTION" will light to indicate surge protection is active.
- 2) In the event of a surge or other failure that disables the surge protection components of 0E-SPROACHW, the green LED marked "PROTECTION" will extinguish to indicate surge protection is disabled. If power remains connected, the green LED marked "AC IN" will remain lighted, and power to the load will be maintained, but without surge protection. To reinstate surge protection, replace 0E-SPROACHW, following all instructions:

Wiring:

Intrusion or fire alarm panel

- 1) Ensure that all power is disconnected.
- 2) Connect the lead wires from 0E-SPROACHW to the corresponding 120VAC power input connection terminals (for 0E-SPROACHW lead wires, Black=Hot, White=Neutral and Green=Ground). Lead wires should be no longer than necessary to reach terminals. Trim and re-strip if necessary.
- 3) For connection between 120VAC power input connection terminals and control panel circuit board, use no less than 36" of 12 AWG or larger wire. This is necessary to allow 0E-SPROACHW to react to a surge before the circuit board is affected.
- 4) Ensure minimal ground resistance. For proper operation, optimal ground resistance is 5 Ohms or less, and maximum ground resistance is 25 Ohms. Ground resistance must be properly measured and reduced if necessary. Do not assume ground resistance of electrical system meets code in its current state.
- 5) After ensuring that all connections have been made properly and that no hazards exist, restore power.

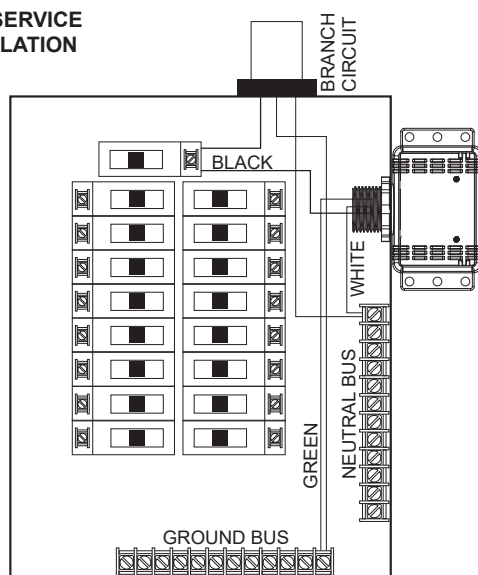
INTRUSION OR FIRE ALARM PANEL INSTALLATION



Service panel:

- 1) Ensure that all power remains disconnected.
- 2) Connect the lead wires from 0E-SPROACHW to the load side of fuse or circuit breaker (for 0E-SPROACHW lead wires, Black=Hot, White=Neutral and Green=Ground). 0E-SPROACHW lead wires should be no longer than necessary to reach terminals. Trim and re-strip if necessary. Ground wire lead should be shorter than the other leads.
- 3) Ensure minimal ground resistance. For proper operation, optimal ground resistance is 5 Ohms or less, and maximum ground resistance is 25 Ohms. Ground resistance must be properly measured and reduced if necessary. Do not assume ground resistance of electrical system meets code in its current state.
- 4) After ensuring that all connections have been made properly and that no hazards exist, restore power.

ELECTRICAL SERVICE PANEL INSTALLATION



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