

# MNSPD KIT INSTALLATION INSTRUCTIONS



Parts included with the MNSPD Kit  
Surge suppressor sold separately  
except pre-mounted units

You will need a Phillips screwdriver, a slotted screwdriver and hammer for removing knockouts, a small saw to cut an opening in the wall, and a pilot drill for the wall anchors. Wire nuts may also be required.

## Wall Preparation:

Select a section of wall between the studs where existing wiring and plumbing will not be disturbed. Cut a hole approximately 6½" tall by 4½" wide.

Place the MNSPD Cut-in Box in the opening in the wall and mark the locations of the wall anchors. Remove the MNSPD Cut-in Box, then pre-drill and mount the wall anchors per the manufacturer's instructions.

## Installation:

Remove the two screws holding the mounting shelf and set the shelf and 2 screws aside. Remove the desired knockout and install either the straight or right angle close nipple. Install the plastic nut to the close nipple inside the cut-in box to protect the wires. Secure the flexible conduit to the close nipple.

The included flexible conduit is 18". You may need to cut the flexible conduit or purchase a longer length for your particular application. Pull the wires through the mounting shelf and secure the SPD to the shelf with the nut included with the SPD, and then pull the wires through the conduit and reinstall the mounting shelf. This step is not necessary if your SPD came pre-mounted.

Finally, place the box in the opening and secure to the wall anchors.

## Electrical connection:

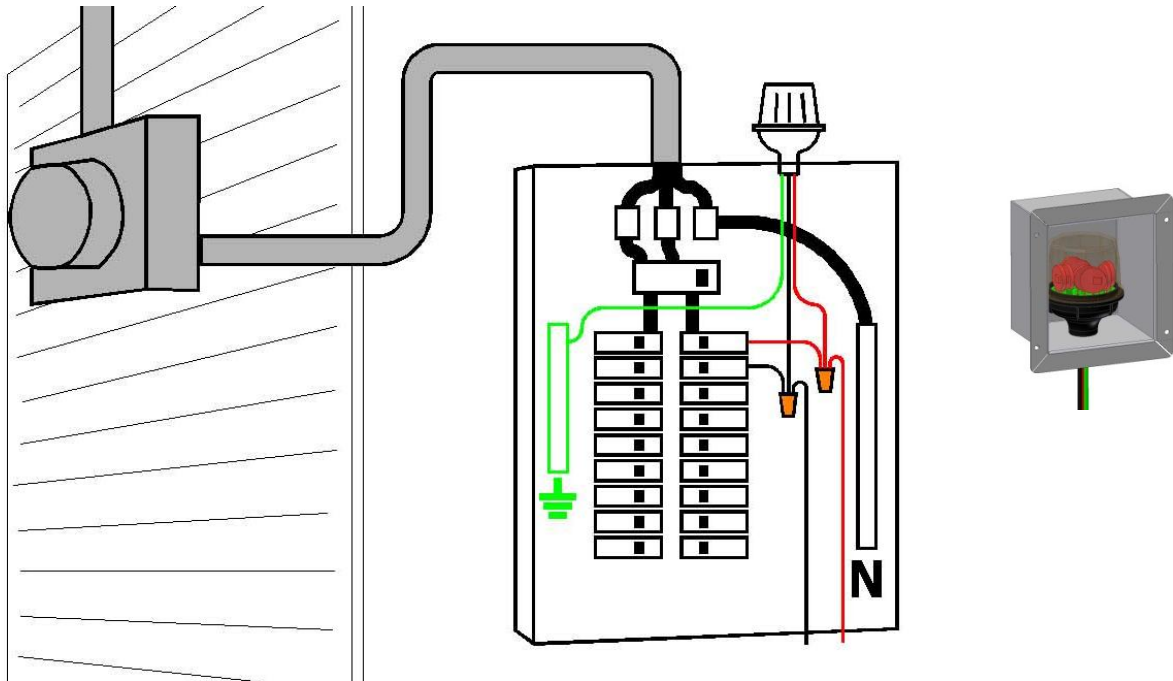
**Important!** Disconnect all sources of power before attempting installation.

Read and understand the MNSPD owner's manual. Read and follow all safety instructions.

Make sure that you have the correct MNSPD voltage rating for your application. For example an MNSPD300 would be a good choice for a 120/240 volt installation. See back.

To protect AC circuits – Connect the green wire to ground, the black wire to one phase of the incoming AC and the red wire to the other phase of the incoming AC. 2 MNSPDs are required to protect three phase systems.

To protect DC circuits. – Connect the green wire to ground, the black wire to negative and the red wire to positive.



Pigtailling into existing branch circuits

When installing the **MNSPD** in a typical service entrance distribution panel there are two choices. A circuit breaker can be installed in each leg of the grid and connected to each side of the **MNSPD** or a more economical choice is to *pigtail* into existing branch circuits as shown above. The **MNSPD** is internally fused and does not require a circuit breaker but this provides a convenient means of connection. Do not wire into the input terminals of the panel.

To pigtail, remove a wire from two adjacent breakers or both wires from a 240V breaker (this will give you both phases). Install a short length of solid wire of the same gauge as the wire removed from the breaker, 6 inches or so should suffice, into the circuit breaker and then on the other end of the wire join together the short piece of wire, the wire previously removed from the breaker and either the black (L1) or red (L2) wires from the **MNSPD**.

Secure with a wire nut (sold separately) and do a pull test to ensure that all the wires are secure.

Repeat for the other leg.

In all cases the ground (green) is connected to the ground bus.

It is the installer's responsibility to insure compliance with all applicable codes.