

## Wireless Metering Switch (Load Controller)

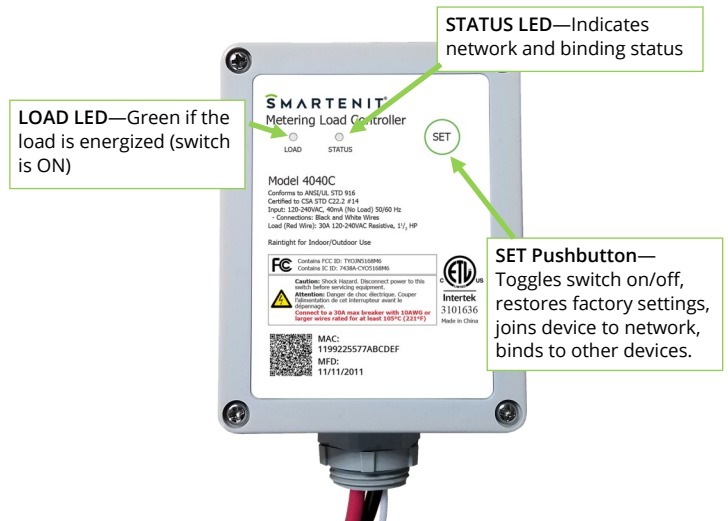
ZBMLCSR Model #4040C

### About this Product

This high power switch is ideal to wirelessly monitor and control higher voltage (up to 240VAC) and/or high current (up to 40A) appliances such as electric water heaters, pool pumps, booster pumps, etc. The device interfaces wirelessly with in IoT/Home Automation networks where it can be controlled by automation hubs using the Zigbee protocol.

For energy monitoring/management, the device measures the energy consumed as well as other parameters such as power, voltage, current, power factor, etc.

Install with the tips and suggestions below to get the benefits of the Internet of Things through your automation controller.

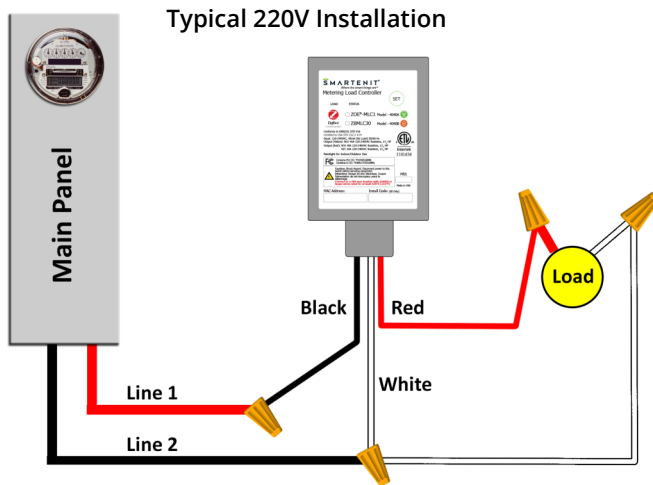


Wire Color	Connect To
Black	Electrical service line 1 (120V: Hot, 240V: L1)
White	Electrical service line 2 (120V: Neutral, 240V: L2)
Red	Electrical load

### Installation



**For outdoor installation, it is imperative that all water tight precautions are taken to ensure the life and safety of your load controller.**



The device can be installed indoors or outdoors and may be mounted to a junction box or panel through the provided 3/4" connector, or to a surface through the readily accessible mounting holes on the back of the unit. An optional mounting kit consisting of four mounting tabs and screws is sold separately. Using this kit does not require opening the device.

When mounting outdoors through flexible conduit, a water-tight connector (such as 3/4NPT #P472) must be used.

To maintain its water tight specification, the device uses a seal on its lid that matches a "lip" on the case bottom. If opening the device to change the connector or to mount it through the internally accessible holes, disconnect the electrical supply and do not disturb the sealing gasket or damage the sealing lip when closing it. Avoid overtightening the lid screws to maintain case integrity and water tightness.





Status LED Indications	
Pattern	Indication
Fast Flashing	Searching for network
Solid	Joined to network
Flash once per second	Open permit join
Short blip, pause-0.5 secs	Binding to Endpoint 1 (On/Off)
2 blips per second	Disconnected from network
Load LED Indication	
Color	Indication
Off	Load is de-energized

SET Pushbutton Functionality		
Operation	Pushbutton	Device Behavior
Leave Network	Tap 13 times	Status LED will begin fast blinking
Close Permit Join	Press and hold for 3 seconds when device is in open permit join	Status LED will stop flashing
Soft Reset (Reboot Device)	Tap 10 times	
Request Firmware Update (OTA)	Tap 6 times	
Restore Factory Settings	Tap 9 times	

## Setup

### 1) Factory Reset (Restore Factory Settings)

While powering the device, press the SET button and release it once the device powers up. Alternatively, if the device is already joined to a Zigbee network, quickly tap the SET button 13 times. The Status LED will go out for 1 second and then begin flashing rapidly. The ZBMLCSR will then search for an open Zigbee network to join.

### 2) Joining device to a Zigbee network

1. Set network controller to discover devices (Open Permit Join)
2. As the ZBMLCSR joins, the Status LED blinking rate will slow until it stays solid, indicating it has fully joined the Zigbee network.

### 3) Binding to be controlled by other devices

To allow On/Off control by another device, tap the SET button once quickly and within 1/2 second press and hold it for 3 seconds. The Status LED will blink per the pattern described in the Status LED Indications table above.

### 4) Allowing other devices to join Zigbee network (Open Permit Join)

As a Zigbee "Router", the ZBMLCSR can also be put in discovery mode to permit other devices to join the Zigbee network. Do note that ultimately the network manager device will decide whether to allow the new device to fully join. Assuming the ZBMLCSR is already in a Zigbee network, it can open the network for other devices to join as follows:

1. Press and hold the SET button for 6 seconds. The STATUS LED will blink once per second and the network will be open for joining for up to 4 minutes
2. Permit-join can be stopped by pressing and holding the SET button for 3 seconds. The LED will stop blinking.