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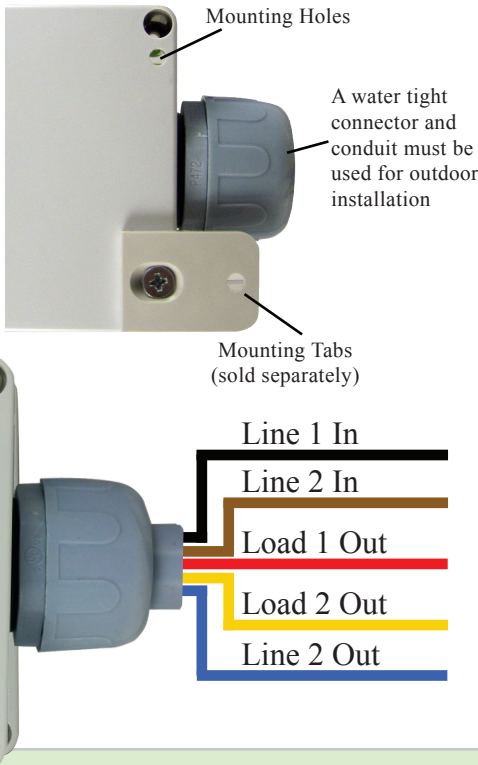
Quick Start Guide - ZBMLC30 Model #4040B

Wireless Triple-Relay Metering Load Controller

Product Brief

The ZBMLC30 interfaces wirelessly with ZigBee Pro controllers and gateways in the Home Automation (HA) profile. This high power load controller is ideal for applications that require control and monitoring of loads up to 240VAC at 30Amps.

The device measures the energy delivered to the load in Kilowatt-Hours, enabling the intelligent management of large appliances to maximize energy conservation. Two-speed appliances such as pool pump motors are handled directly with an integrated third relay.



Installation

The ZBMLC30 can be mounted indoors or outdoors

Mounting

Can be mounted with #6 screws through mounting holes from the inside or with optional Mounting tabs (sold separately). **For water tight operation, all four mounting holes must be used or otherwise sealed.**

Wire Connections

Wire Color	Make Connection To
Black	Electrical service Line1 (Hot for 120VAC or L1 for 240VAC)
Brown	Electrical service Line2 (Neutral for 120VAC or L2 for 240VAC)
Red	L1 to Load 1 (High Speed if 2-speed appliance)
Yellow	L1 to Load 2 (Low speed if 2-speed appliance)
Blue	L2 to Load (Common to Load 1 and Load 2)

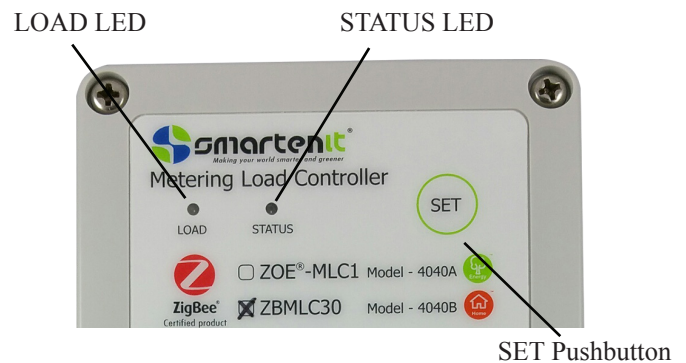
** High voltage installations should always be performed by a licensed professional **

Local Control & LED Indicators

SET Pushbutton - used to factory reset device, join network, bind to other devices, and for local control. A single tap cycles loads from OFF, to Load 2 ON (Red LED), to Load 1 ON (Green LED) with each successive tap.

Load LED - Indicates when load is energized (Green if high power, Red if low power. Green/Red flashing, both loads on)

Status LED - Indicates network join and bind status.





Setup

1) Factory Reset ZBMLC30

- Press SET button on your ZBMLC30 while powering device and release. Alternatively, if the device has already joined a ZigBee network, press the SET button for at least 20 seconds and release. The Status LED will go out for 1 second and then begin flashing rapidly. The ZBMLC30 is now searching for an open ZigBee HA network to join to.

2) Joining the ZBMLC30 to the Network

- Open a ZigBee HA router or coordinator to permit joining of your ZBMLC30 to the network.
- As the ZBMLC30 begins to join, the Status LED blinking rate will slow until fully joined, when it'll be lit solid.

3) Binding the ZBMLC30 to other devices

- To bind **Load1 Out** to a ZigBee HA controller, tap the SET button **once** quickly and within 1/2 second press and hold it for 3 seconds. The Status LED will begin to blink (refer pattern in table below). Then press the Program Button on the client device(such as a switch) according to the instructions of that device.
- To bind **Load2 Out** to a ZigBee HA controller, tap the SET button **twice** quickly and within 1/2 second press hold it for 3 seconds. The Status LED will begin to blink fast (refer to pattern in table below). Then press the Program Button on the client device(such as a switch) according to the instructions of that device.
- Binding time window varies by coordinator.

Open Permit Join

The ZBMLC30 also serves as a router and allows other ZigBee HA devices to join the network. After the ZBMLC30 has already joined the network (Status LED is solid) proceed as follows:

- Press and hold the SET button for 6 seconds. The Status LED will blink once per second while in permit join mode. The ZBMLC30 will allow joining of other devices for up to 4 minutes.
- Join the new ZigBee HA device to the network according to the join method of that device.
- Permit-join can be terminated by pressing and holding the SET button for 3 seconds.

SET Pushbutton Additional Operation

Desired Operation	Action on Pushbutton	Device Behavior
Leave Network	Press and hold for 15~17 seconds (works like a factory reset, but preserves meter calibration settings)	Status LED will begin Fast Flashing
Close Join	Press and hold for 3 seconds when device is in Open Join	Status LED will stop flashing
Soft Reset	Tap 10 times	both LEDs will go out for about a second and then device will rejoin network
Request New Firmware via OTA	Tap 6 times	LED will quick blip off, once every second while in OTA progress
Enable for Control4 networks	Press and hold for 10 ~ 12 seconds	Status LED will blink 3 times

Status LED Indication

Pattern	Indication
Fast flashing	Searching for network
Solid	Joined network
Flash once per second	Open Permit Join
Short blip, pause - 5 sec.	Bind to Load1 Out
Fast Flash - 5 sec.	Bind to Load2 Out
2 blips per second	Disconnected from network
Load LED Indication	
Color	Indication
Off	No power on load
Red	Load 2 (yellow wire) On
Green	Load 1 (red wire) On
Green/Red Flashing	Load 1 and Load 2 On (Both loads can only be turned on via ZigBee)