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**ZigBee**  
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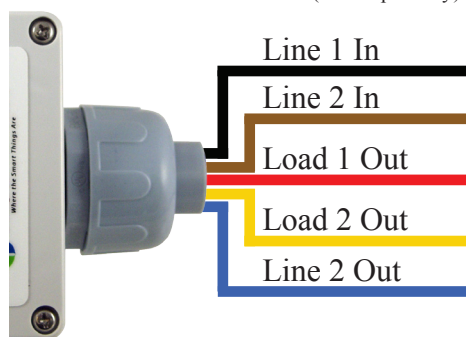
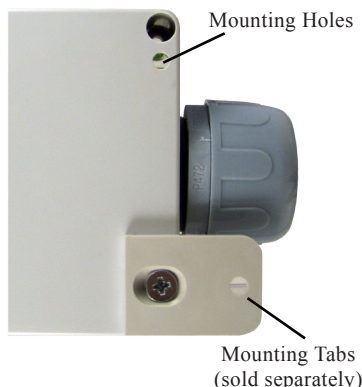
# Quick Start Guide - ZBMLC30 Model #4040B

## 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   |
|---------------|--|
| <b>Black</b>  | Electrical service Line1 (Hot for 120VAC or L1 for 240VAC)     |
| <b>Brown</b>  | Electrical service Line2 (Neutral for 120VAC or L2 for 240VAC) |
| <b>Red</b>    | L1 to Load 1 (High Speed if 2-speed appliance)                 |
| <b>Yellow</b> | L1 to Load 2 (Low speed if 2-speed appliance)                  |
| <b>Blue</b>   | 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

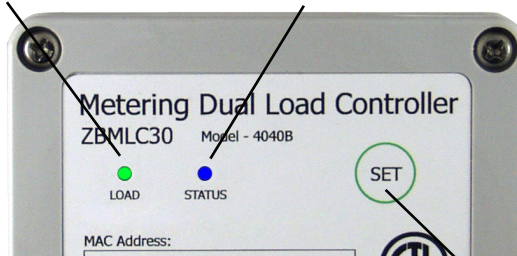
**SET Pushbutton** - used to factory reset device, join network, bind to other devices, and for local control.

**Load LED** - Indicates when load is energized (Green if high power, Red if low power.)

**Status LED** - Indicates network join and bind status.

LOAD LED

STATUS LED



SET Pushbutton





## 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.
- When the ZBMLC30 joins successfully, the device will open permit join to allow other devices to join the network.
- The Status LED blinking rate will slow to once per second for 4 minutes, indicating open permit join is enabled.

### 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 and 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 3 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 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 seconds  | Status LED will blink 3 times  |

Status LED Indication

| Pattern                    | Indication              |
|----------------------------|-------------------------|
| Fast flashing              | Searching for network   |
| Solid                      | Joined network          |
| Slow Flashing - 4 minutes  | Open Permit Join        |
| Short blip, pause - 5 sec. | Bind to Load1 Out       |
| Fast Flash - 5 sec.        | Bind to Load2 Out       |
| Load LED Indication        |                         |
| Color                      | Indication              |
| Off                        | No power on load        |
| Red                        | Load 2 (yellow wire) On |
| Green                      | Load 1 (red wire) On    |

