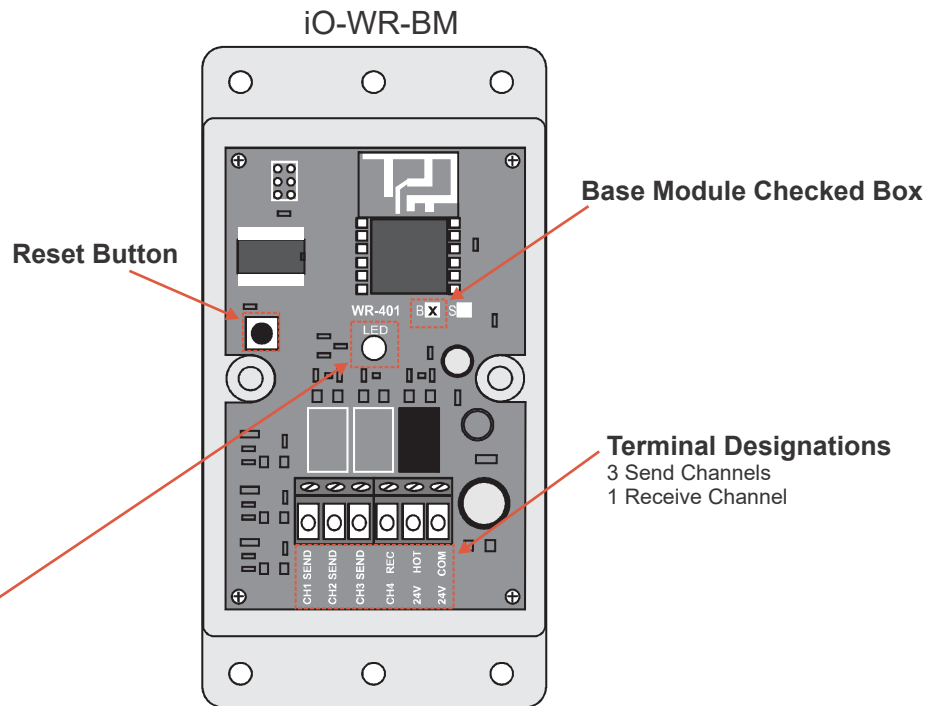


# Wireless Relay Troubleshooting Guide

*Only for use with the iO-WR*

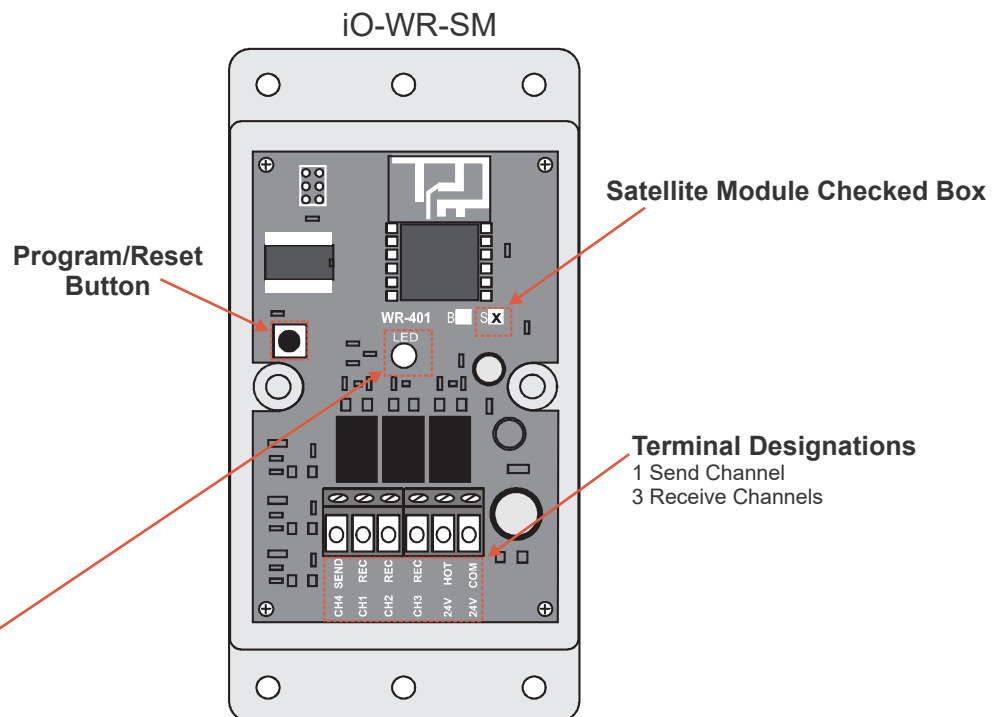


# Board Layout & LED Definitions



## LED Indicator

Communicating – Solid **Green** w/ Blinking **Red** Every 15 Seconds  
 Loss of Communications – Solid **Red**  
 Ready to Pair with SM – Alternating Blinking between **Green** and **Red**



## LED Indicator

Communicating – Solid **Green** w/ Blinking **Red** Every 15 Seconds  
 Loss of Communications – Solid **Red**  
 Ready to Pair with BM – Blinking **Red** Every 3 Seconds

# Mounting & Installation Location

## **IMPORTANT:**

**The iO-WR should never be installed or mounted on a metallic surface. It should never be installed inside of the cabinet of the indoor unit or compressor.**

**Mounting the iO-WR on or inside of a metallic surface will result in a significant drop in signal strength.**

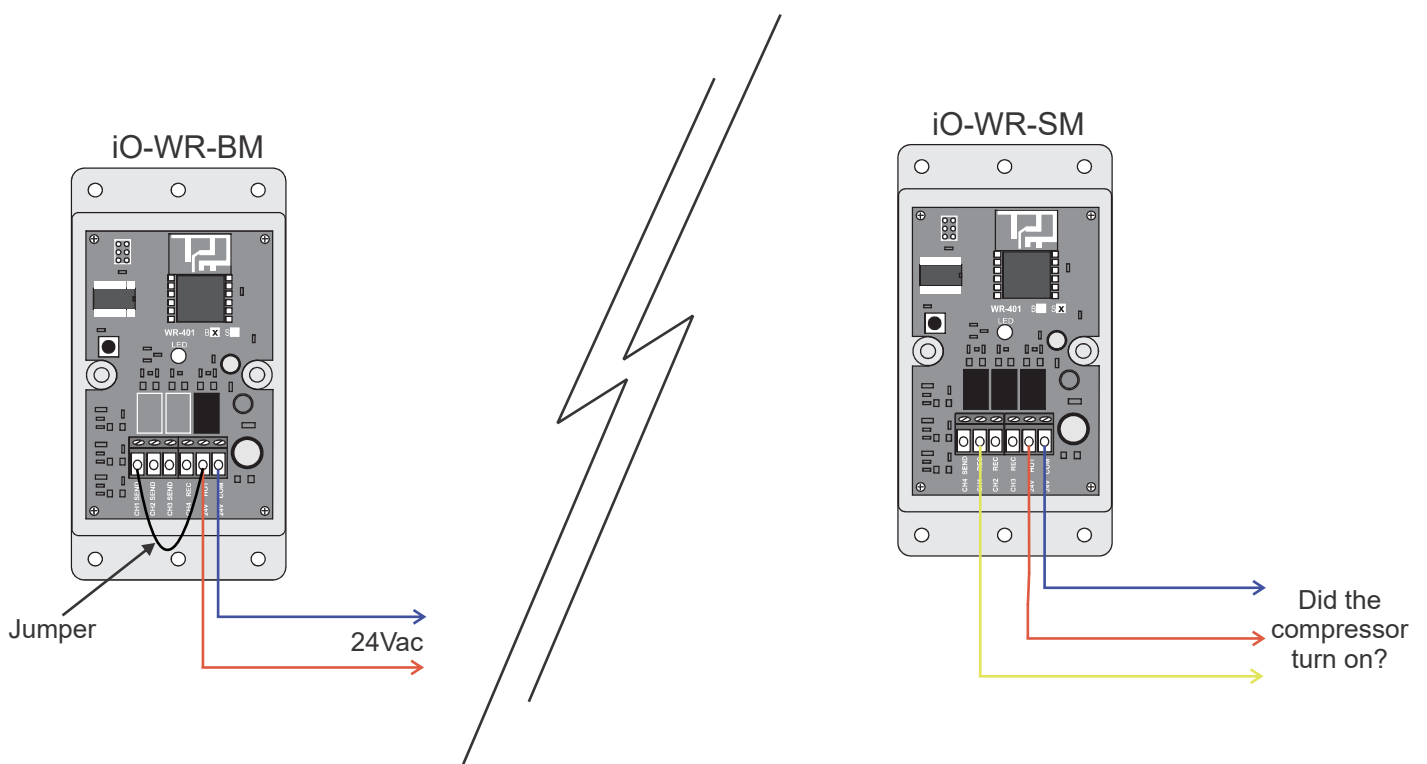
The iO-WR can communicate up to 100 feet line of sight. The distance it is able to communicate decreases based on the type of building material on the job site and the quantity of material the iO-WR is trying to transmit through.

These constraints should be taken into consideration when determining the best installation location for the iO-WR in any given application.

# Wiring the iO-WR

If the iO-WR modules are both showing that they are communicating with one another (see page 2), but the outdoor unit is not turning on when the thermostat makes a 'Y' call, then there is either a wiring issue or a thermostat issue.

To test this, insert a jumper between '24V HOT' and 'CH1 SEND' on the Base Module and check if the outdoor unit turns on.

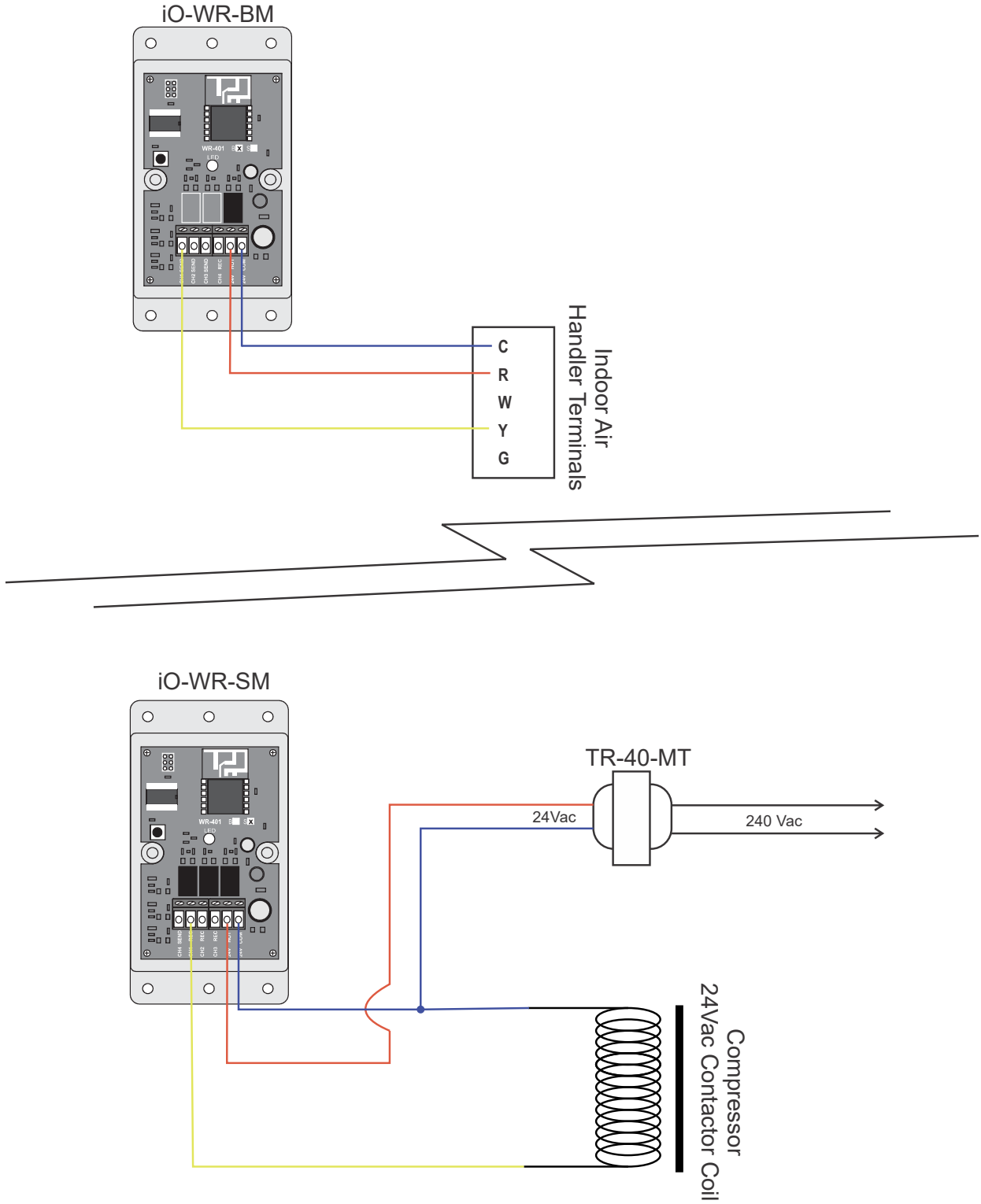


If the outdoor unit turned on, then there is likely a wiring issue at the indoor unit or an issue with the thermostat.

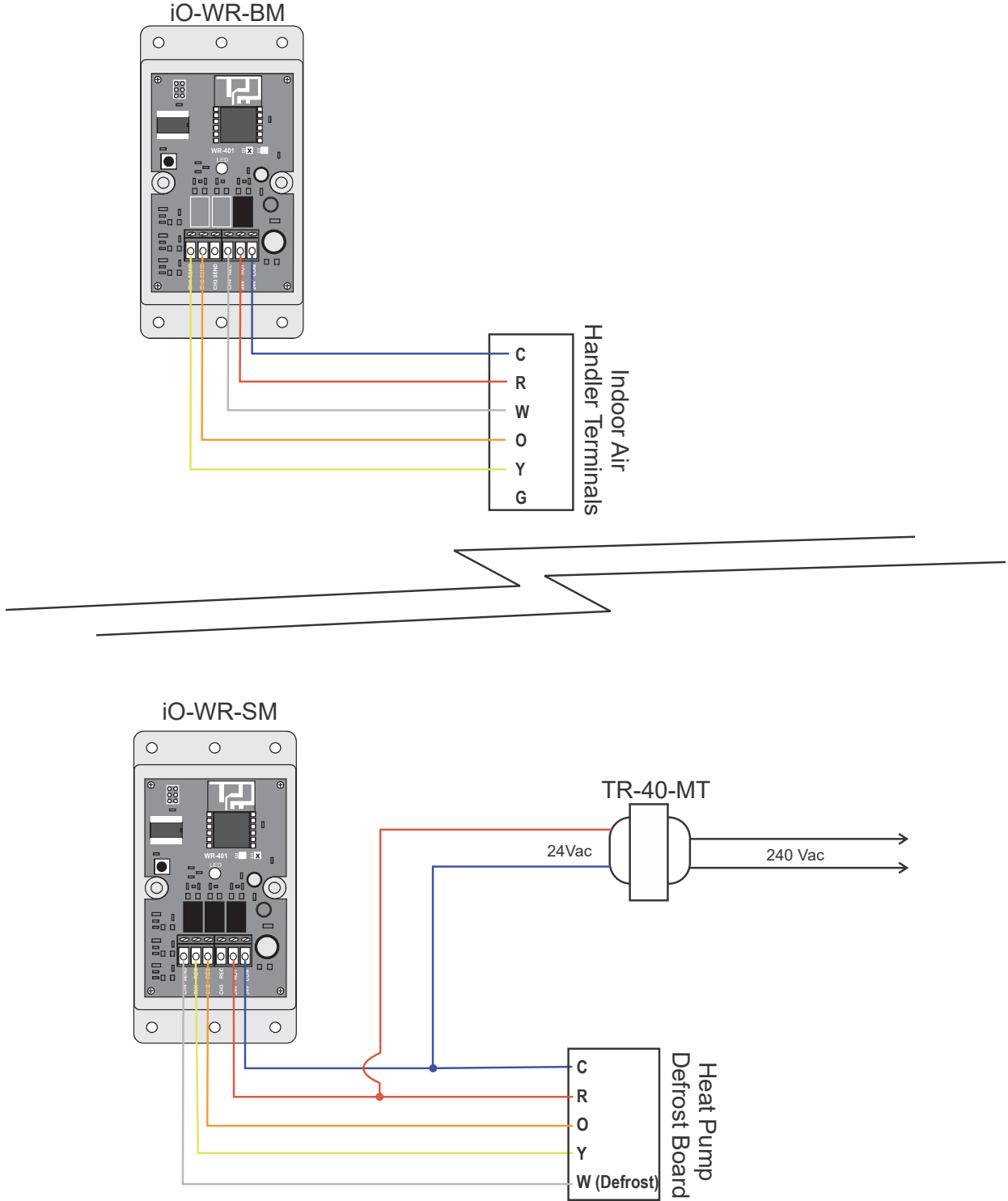
If the outdoor unit did not turn on, then there is likely a wiring issue at the outdoor unit.

See pages 5 and 6 for assistance with wiring the iO-WR.

# Typical Single Stage Compressor Wiring



# Typical Single Stage Heat Pump Wiring



# Loss of Communications

## **IMPORTANT:**

**The iO-WR should never be installed or mounted on a metallic surface. It should never be installed inside of the cabinet of the indoor unit or compressor.**

**Mounting the iO-WR on or inside of a metallic surface will result in a significant drop in signal strength.**

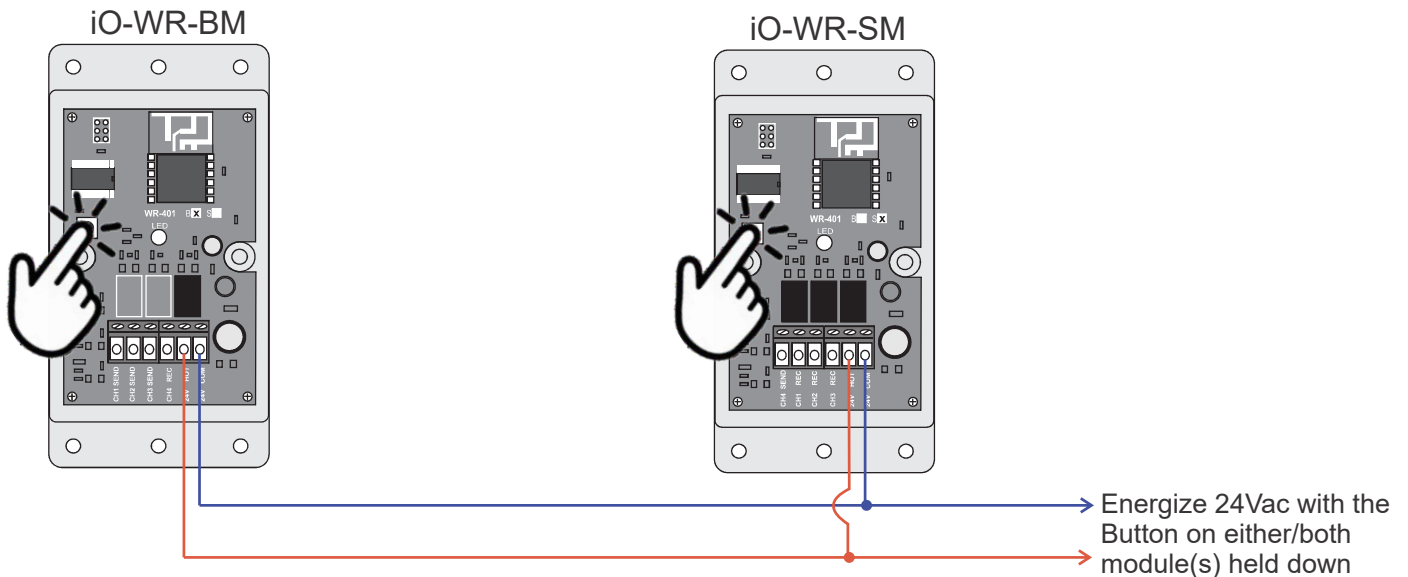
If the iO-WR has indicated that communications have been lost which will be evident by a solid **red** LED on both modules, make sure neither module is mounted on a metallic surface. If either module is mounted on or inside of a metallic surface, move the module away from the metal and see if the modules begin to communicate. This will be known by LED indication of solid **green** followed by quick **red** flashes.

If after both modules are moved away from all metallic surfaces, the iO-WR still is not communicating, follow the steps on pages 8 and 9 to reset and reprogram the iO-WR.

# Resetting & Reprogramming the iO-WR

## Resetting

1. Bring the Base Module and Satellite Module next to each other. They can share the same power supply.
2. On each module, press and hold the push button as power is applied. This step does not need to be completed simultaneously on both the Base Module and the Satellite Module. After this is done, the LEDs should indicate each module is ready to pair – see page 2.

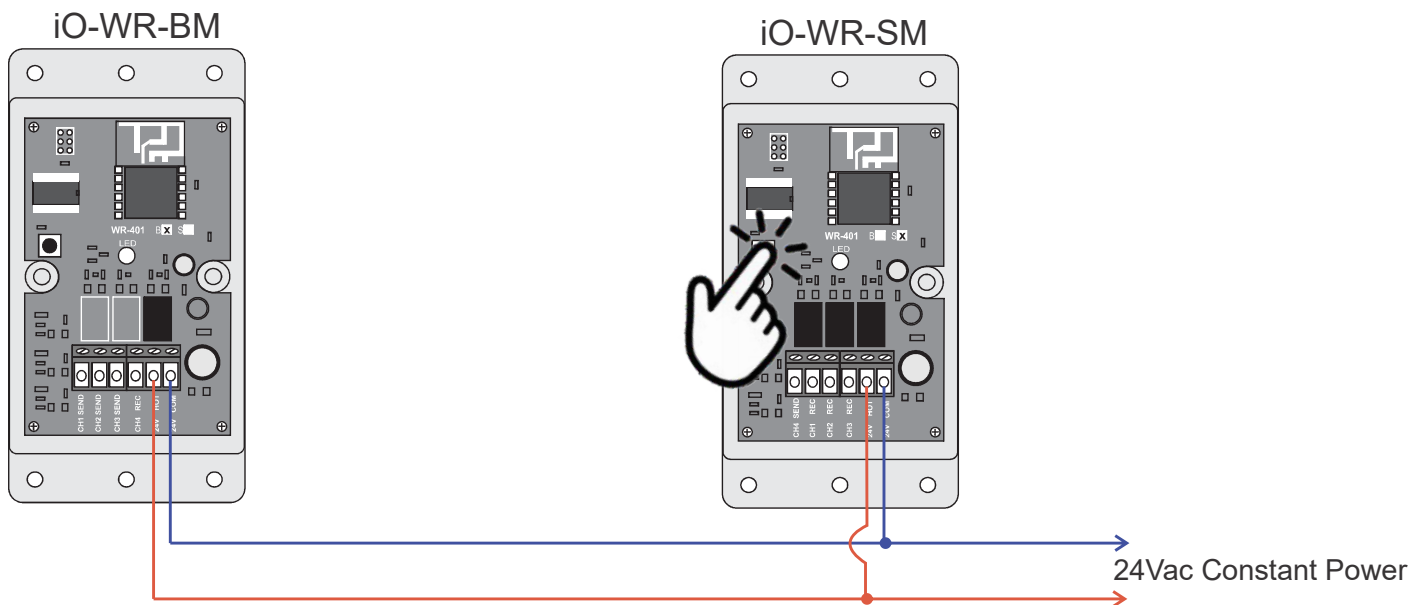




# Resetting & Reprogramming the iO-WR

## Reprogramming

1. Once both modules' LEDs are indicating that they're ready to pair, press the button on the satellite module.
2. Confirm both modules' LEDs show that they are paired by showing solid **green** followed by **red** flashes.



3. Remove power from the iO-WR modules and install each module in it's intended location as far from metallic surfaces as possible.

***If after these steps are taken, the iO-WR is still unable to communicate, contact iO HVAC Controls for further tech support.***