

Installation Note: PSC-WCM-50/60-BLE-XX - Wireless Single Channel Controller with Relay Load Control output

Install Guide

Wireless Single Channel Controller with Relay Load Control output



Models:

- PSC-WCM-50-BLE-xx/yyy
- PSC-WCM-60-BLE-xx/yyy



Device Overview

The mwConnect™ Wireless Fixture Controller features a sensor input, a control output for relay load control and one channel of 0-10V dimming. The controller communicates with other wireless mesh devices that provide input to control/dim loads. The optional sensor input and load control output allows other devices such as sensors to interact with the controller. The controller mounts to most luminaires via screw tabs.

Installation Preparation

WARNING: Controlling a load in excess of the specified rating will damage the device and may cause fire, shock or death. Ensure connected load does not exceed device rating.

IMPORTANT: Disconnect power when servicing any switch, controller or sensor.

NOTICE: Use this device with copper or copper clad wire only.

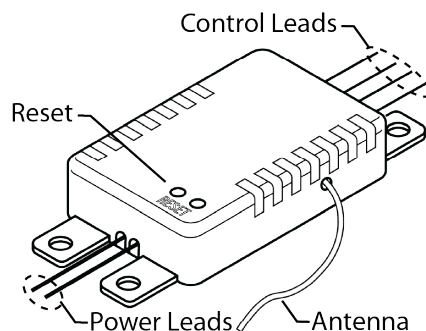
REMEMBER: This device requires an unswitched circuit leg.

RESTRICTION: Do not attempt to disassemble or repair.

ATTENTION: Wireless range is dependent on device spacing, surrounding environment, and conditions. It is highly recommended to test for signal strength and accuracy.

Configurations

Figure 1: PSC-WCM-50/60-BLE



Wiring Designation Information

Wire	Designation	Size
A) Black	Power (-) Input (12-24VDC)	#18 AWG, 7" (180mm)
B) Red	Power (+) Input (12-24VDC)	#18 AWG, 7" (180mm)
C) Purple (or Violet)	0-10VDC(+) Dim Output (Current Sinking, 30mA)	#22 AWG, 7" (180mm)
D) Pink (or Gray)	0-10VDC(-) Dim Output (Current Sinking, 30mA)	#22 AWG, 7" (180mm)
E) White (WCM-60 only)	Sensor Input (Note: VDC+ applied must equal device input voltage)	#22 AWG, 7" (180mm)
Y) Yellow	Load Control Output (10-22VDC, 30mA max)	#22 AWG, 7" (180mm)

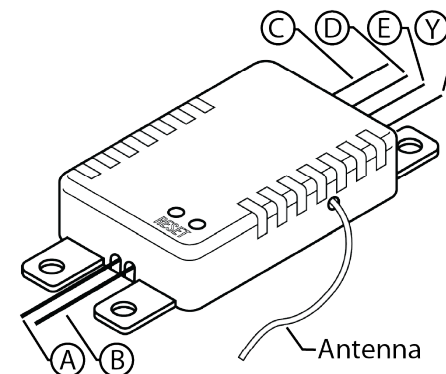
NOTICE: Wire lengths are +/- 0.75" (20mm)

Installation

1. Turn off all circuit power during the following installation steps.
2. Place the fixture controller into the luminaire cavity.
NOTE: NOTE: Careful consideration should be made for allowing the antenna to physically penetrate metal fixture housings to improve mesh signal strength and distance.
3. Secure the fixture controller in place using sheet metal screws and the mounting tabs on the controller body.

NOTE: NOTE: For best mounting result, use a minimum of two (2) fasteners.

Figure 2: Wiring Callouts



4. The controller leads should be loosely routed as needed to the driver and/or 12-24Vdc power pack.
5. Connect the PINK 0-10Vdc (-) lead to the similarly PINK 0-10Vdc (-) lead from the driver.
6. Connect the PURPLE 0-10Vdc (+) lead to the similarly PURPLE 0-10Vdc (+) lead from the driver.
7. Connect the BLACK (-) leads between power source and controller.
8. Connect the RED (+) leads between power source and controller.
9. If using to trigger a relay, use the YELLOW Active High lead and make the connection to the relay device at this point. Cap the YELLOW Active High lead if unused.
10. OPTIONAL: For EXA installations – Make a .43" dia. (7/16") hole and install the external antenna. Route the antenna lead wire to the controller and connect to antenna wire of the controller.
11. OPTIONAL: For WCM-60 installations using sensor inputs – Connect the WHITE (sensor in) lead to the sensor output lead.

Troubleshooting

TruBlu (-SR) Condition	Solution
Upon power up, the connected lighting load blinks 3x, then remains ON.	The device is powered and in an un-commissioned state. Proceed with commissioning the device.
A Red LED indicator is blinking rapidly on the device every 1/3rd second (every 300 ms).	The device is powered and in an un-commissioned state. Proceed with commissioning the device.
The status LED light is blinking ON/OFF 1 time every 2 seconds (0.5Hz).	The device is powered and in a commissioned state.
Upon power up, the connected lighting load comes on briefly and then turns OFF.	The device is powered and in a commissioned state. No action is necessary. The device is connected and operating on a Lighting Control System.

Casambi (-CB) Condition	Solution
A red LED indicator is ON steadily.	The device is powered and paired into a lighting control system. No Action is required.
There is no red LED indicator ON.	The device is not powered. Check the wiring connections.

TruBlu Commissioning Guide



For TruBlu models (partID ending in -SR), use this link to the Commissioning Guide:
https://mwconnect.us/trublu_commissioning/

Casambi Commissioning Guide



For Casambi models (partID ending in -CB), use this link to the Commissioning Guide:
https://mwconnect.us/casambi_commissioning/

Device Specifications

Specifications	
Input Voltage	12-24V DC
Sensor Input	12-24V DC
Load Control Output	Active High Vin-2.5V, 30 mA source
Current Consumption	100 mA
Environment	Dry
Operating Temperature	-22°F to 158°F (-30°C to 70°C)
Storage Temperature	-40°F to 176°F (-40°C to 80°C)

Limited 5 Year Warranty

mwConnect™ warrants, to the original or first end user purchaser and not for the benefit of anyone else, that this product at the time of its sale by mwConnect is free of defects in materials and in workmanship under normal and proper use for five years from the manufacture date. mwConnect's only obligation to correct such defects is by repair or replacement or by extending credit in the amount of the purchase, at its option. For details visit <https://mwconnect.us/> or call 1-888-600-9188. This warranty excludes and there is a disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for use is limited to five years. mwConnect is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein and the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

Contact

For Technical Assistance Call: 1-888-600-9188.

Certifications

- UL Listed
- FCC
- Bluetooth V5.1