

Casambi 0354838856316

PWM4 Single Color Dimming Controller User Manual

Model: 0354838856316

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Casambi PWM4 Single Color Dimming Controller. The PWM4 is designed to provide smooth and reliable dimming control for single-color LED lighting fixtures, integrating seamlessly into a Casambi Bluetooth mesh network.

2. PRODUCT OVERVIEW

The Casambi PWM4 is a compact, high-performance dimming controller for 12-24 VDC constant voltage LED loads. It allows for precise control of light intensity through the Casambi app or compatible Casambi-enabled switches. Its robust design ensures stable operation and easy integration into various lighting applications.

Key Features:

- Single channel PWM output for constant voltage LED strips and fixtures.
- Wide input voltage range: 12-24 VDC.
- Maximum output current: 6 A total.
- Bluetooth Low Energy (BLE) connectivity for Casambi network integration.
- Control via Casambi app (iOS/Android) or Casambi-compatible devices.
- Compact form factor for easy installation.

3. SETUP AND INSTALLATION

Safety Precautions:

- Ensure power is disconnected before installation or wiring.
- Installation should be performed by a qualified electrician.
- Observe all local electrical codes and regulations.

- Do not exceed the maximum current rating of 6 A.

Product Identification:



This image displays various Casambi control modules. The top-left module is the PWM4 Single Color Dimming Controller, identifiable by its 'INPUT 12-24 VDC' and 'OUTPUT 12-24 VDC Max. 6 A total' labels. The other modules are a CBU-ASR 2ch 0-10V controller (top-right), a CBU-A2D 2ch 0-10V/DALI controller (bottom-left), and a general Casambi connector module (bottom-right).

Wiring Instructions:

The PWM4 controller features screw terminals for secure connections. Refer to the top-left module in the image above for terminal locations.

1. **Power Input (INPUT 12-24 VDC):** Connect your 12-24 VDC power supply to the input terminals. Ensure correct polarity: connect the positive (+) terminal of the power supply to the '+' terminal on the controller, and the negative (-) terminal of the power supply to the '-' terminal on the controller.
2. **LED Output (OUTPUT 12-24 VDC):** Connect your single-color LED load to the output terminals. The PWM4 has four output terminals (1, 2, 3, 4) which are internally connected to provide a single dimming channel. Connect the positive (+) wire of your LED load to any of the output terminals (1, 2, 3, or 4) and the negative (-) wire of your LED load to the common negative output terminal (often marked with a line or a common symbol, or simply connect to the negative input terminal if the output is shared

common negative). Ensure the total current draw of your LED load does not exceed 6 A.

3. **Secure Connections:** Tighten all screw terminals firmly to prevent loose connections.

Initial Pairing with Casambi App:

1. **Power On:** After wiring, apply power to the PWM4 controller. The connected LEDs should illuminate.
2. **Download App:** Download the Casambi app from the Apple App Store (for iOS) or Google Play Store (for Android).
3. **Open App:** Launch the Casambi app on your smartphone or tablet.
4. **Add Device:** The app will automatically detect nearby Casambi devices. Select the PWM4 from the list of unconfigured devices.
5. **Configure:** Follow the in-app instructions to add the device to your network, assign it to a fixture, and configure its dimming behavior.

4. OPERATING INSTRUCTIONS

The Casambi PWM4 is primarily controlled through the Casambi app, which offers a wide range of functionalities for managing your lighting.

Using the Casambi App:

- **Dimming:** Use the slider controls within the app to adjust the brightness of the connected LED lights.
- **Scenes:** Create and save custom lighting scenes (e.g., 'Bright', 'Relax', 'Night Light') with specific brightness levels.
- **Animations:** Program dynamic lighting effects or sequences.
- **Timers & Schedules:** Set up automated on/off times or scene activations based on time of day or astronomical clock.
- **Galleries:** Organize your lighting fixtures into groups for simultaneous control.
- **Switches:** Pair the PWM4 with Casambi-compatible wireless switches for physical control.

5. MAINTENANCE

The Casambi PWM4 controller is designed for long-term, maintenance-free operation. However, general care can help ensure its longevity.

- **Cleaning:** If necessary, gently wipe the device with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Environment:** Ensure the device is installed in a dry environment, free from excessive dust, moisture, and extreme temperatures. The IP20 rating indicates protection against solid objects larger than 12.5mm, but no protection against water.
- **Connections:** Periodically check wiring connections to ensure they remain secure.

6. TROUBLESHOOTING

If you encounter issues with your PWM4 controller, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
LEDs do not turn on.	No power to controller; incorrect wiring; faulty LED load.	Check power supply connection and voltage. Verify input and output wiring polarity. Test LED load separately.
Cannot find device in Casambi app.	Device not powered; out of Bluetooth range; app issue.	Ensure controller is powered. Move closer to the device. Restart the Casambi app or your mobile device.
LEDs flicker or dim erratically.	Overload; unstable power supply; loose connections.	Ensure total LED load does not exceed 6 A. Verify power supply stability. Check all wiring connections.
Device disconnects frequently.	Interference; weak Bluetooth signal.	Reduce distance between controller and controlling device. Minimize sources of wireless interference.



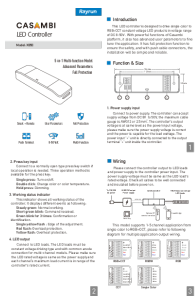
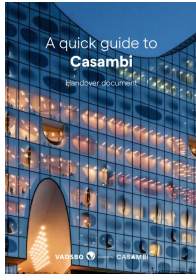
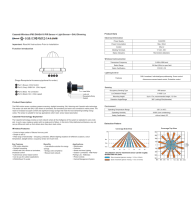
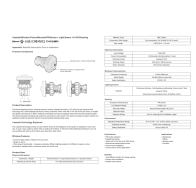
7. TECHNICAL SPECIFICATIONS

Specification	Value
Model Number	0354838856316
Input Voltage	12-24 VDC
Output Type	PWM, Single Channel
Max Output Current	6 A total
Connectivity	Bluetooth Low Energy (BLE)
Controller Type	iOS, Android (via Casambi App)
Terminal Type	Screw
IP Rating	IP20
Certifications	ETL
Item Weight	2.65 ounces
Manufacturer	CASAMBI

8. WARRANTY AND SUPPORT

Casambi products are designed for reliability and performance. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Casambi website. Keep your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or further inquiries, please contact your Casambi distributor or visit the Casambi support portal online. Ensure you have your product model number and a description of the issue ready when seeking support.

	<p>Casambi CBU-PWM4-LR Bluetooth-Controllable 4-Channel PWM Dimmer - Technical Specifications</p> <p>Detailed technical specifications for the Casambi CBU-PWM4-LR, a Bluetooth-controllable 4-channel PWM dimmer for constant voltage LED loads. Covers product features, technical data, installation, compatibility, fixture profiles, and wiring diagrams.</p>
	<p>Casambi Xpress Wireless User Interface</p> <p>Learn about the Casambi Xpress, a wireless user interface offering flexibility in interior design for lighting control. Discover its basic and smart functions, including dimming, preset controls, color temperature adjustment, and indirect/direct ratio control. Includes mounting instructions and technical specifications.</p>
	<p>Casambi XB50 LED Controller: Features, Specifications, and Wiring Guide</p> <p>Comprehensive guide to the Casambi XB50 LED Controller, detailing its 5-in-1 multi-functionality, advanced parameter control, robust protection features, and essential wiring instructions for various LED applications including single color, CCT, RGB, RGBW, and RGB+CCT.</p>
	<p>Casambi Quick Guide: Installation and Operation</p> <p>A comprehensive guide to installing and operating Casambi lighting systems, covering app setup, network management, dimming, scene creation, and automation.</p>
	<p>Casambi Wireless IP65 ZHAGA 18 PIR Sensor + Light Sensor + DALI Dimming</p> <p>Detailed information on the Casambi Wireless IP65 ZHAGA 18 PIR Sensor, including its features, benefits, technical specifications, and installation guidelines. This sensor combines presence sensing, daylight harvesting, DALI dimming, and Casambi radio technology for energy-efficient lighting control in various applications.</p>
	<p>Casambi SR-CS9032A-PIR-V Wireless Fixture Mounted PIR Sensor + Light Sensor + 0-10V Dimming Installation Guide</p> <p>Detailed installation guide and specifications for the Casambi SR-CS9032A-PIR-V, a wireless fixture-mounted PIR and light sensor with 0-10V dimming capabilities, designed for smart lighting control in residential and commercial spaces. Includes product features, wiring diagrams, dimensions, and installation precautions.</p>