

GLEDOPTO GL-C-202P

GLEDOPTO ZigBee Pro+ 3-in-1 LED Strip Light Controller User Manual

Model: GL-C-202P | Brand: GLEDOPTO

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the GLEDOPTO ZigBee Pro+ 3-in-1 LED Strip Light Controller (Model GL-C-202P). This versatile controller is designed to manage RGBCCT, RGBW, and RGB LED strips, offering smart control via ZigBee 3.0 compatible hubs, including voice control through platforms like Alexa and Google Home.

2. SAFETY INFORMATION

Important Safety Warnings:

- Before powering on the device, ensure all connections are correct and secure. Do not intervene or handle the device when it is powered.
- The product must be used at its rated voltage (DC12V-24V). Use under excessive or insufficient voltage may cause damage to the controller or connected LED strips.
- Do not disassemble the product. Disassembly may cause fire, electric shock, or void the warranty.
- Do not use the product in environments exposed to direct sunlight, high humidity, or extreme temperatures (outside -20°C to 45°C).
- Avoid using the product in areas with metallic shielding or near strong magnetic fields, as this could severely affect the product's wireless signal transmission and performance.

prendre note

- 1** Avant de mettre l'appareil sous tension, assurez-vous que toutes les connexions sont correctes et sûres, et n'intervenez pas lorsque l'appareil est sous tension.
- 2** Le produit doit être utilisé sous la tension nominale. L'utilisation sous une tension excessive ou insuffisante peut entraîner des dommages.
- 3** Ne pas démonter le produit, sous peine de provoquer un incendie ou un choc électrique.
- 4** Ne pas utiliser le produit dans des environnements exposés à la lumière directe du soleil, à l'humidité, à des températures élevées, etc.
- 5** N'utilisez pas le produit dans des zones à blindage métallique ou à proximité de champs magnétiques puissants, car cela pourrait affecter gravement la transmission du signal sans fil du produit.

Figure 2.1: Important Safety Notes. Always adhere to these guidelines for safe operation.

3. PRODUCT OVERVIEW

The GLEDOPTO ZigBee Pro+ controller is a compact and powerful device designed for intelligent control of various LED strip types. It features a 3-in-1 mode selection, allowing compatibility with RGB CCT, RGBW, and RGB LED strips. With a maximum total output current of 20A, it can support longer LED strip installations.

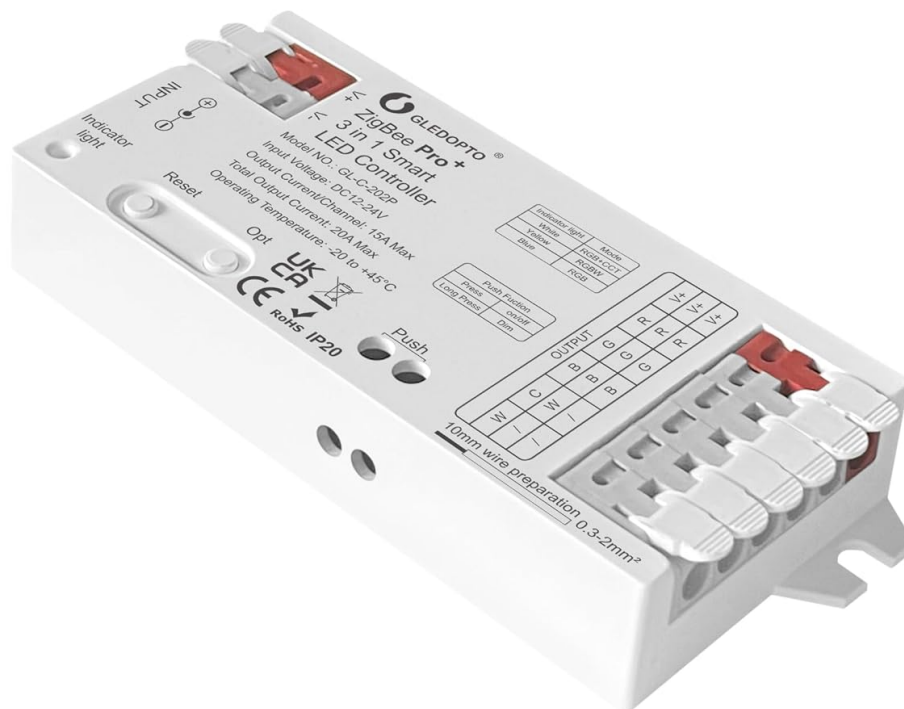


Figure 3.1: GLEDOPTO ZigBee Pro+ LED Strip Controller. This image shows the overall design and terminal layout of the controller.

Total output current **20A Max**

can accommodate longer light strips

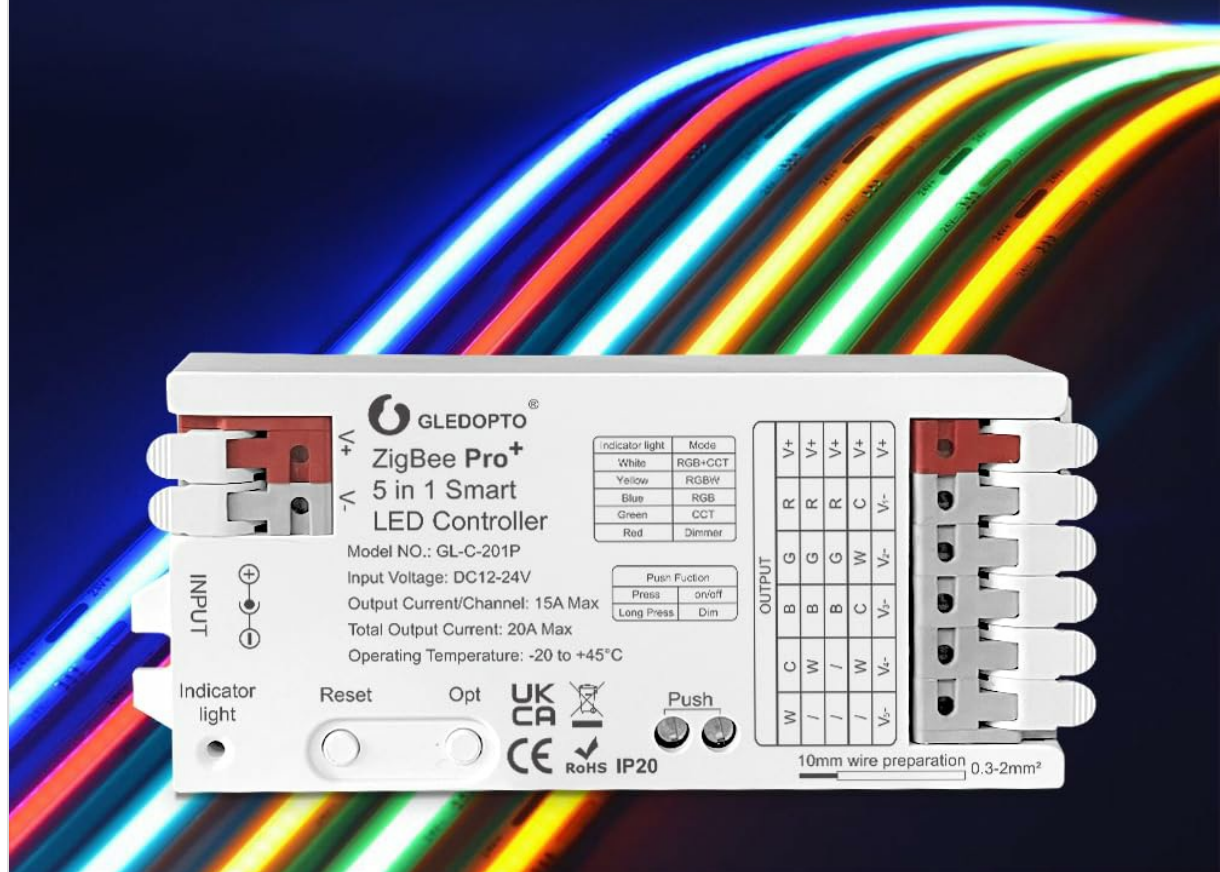


Figure 3.2: Controller with 20A Max Output. The controller supports a maximum total output current of 20A, suitable for extended LED strip lengths.

Key Features:

- **3-in-1 Mode Selection:** Supports RGB+CCT, RGBW, and RGB LED strips.
- **High Current Capacity:** Total output current of 20A Max, with 15A Max per channel.
- **ZigBee 3.0 Compatibility:** Works with various ZigBee hubs (e.g., Tuya, Amazon Echo Plus, SmartThings, Philips Hue).
- **APP & Voice Control:** Control via smartphone apps and voice assistants (Alexa, Google Home) when connected to a compatible hub.
- **Quick Connect Port Design:** Simplified wiring for easy installation.

4. SETUP AND INSTALLATION

Before installation, ensure the power supply is disconnected. A ZigBee 3.0 compatible hub is required for smart control functionalities.

4.1 Wiring Instructions

The controller features a quick connect port design for easy and secure wiring.

1. **Open the Connector:** Gently open the connector upwards.
2. **Insert Wire:** Insert the stripped wire (10mm preparation, 0.3-2mm² wire size) into the appropriate terminal. Refer to the wiring diagram for correct connections (V+, R, G, B, C, W for RGBCCT; V+, R, G, B, W for RGBW; V+, R, G, B for RGB).
3. **Secure Wire:** Press down the connector to secure the wire firmly.
4. **Complete Wiring:** Repeat for all necessary connections. Ensure all wires are correctly seated and secure before proceeding.

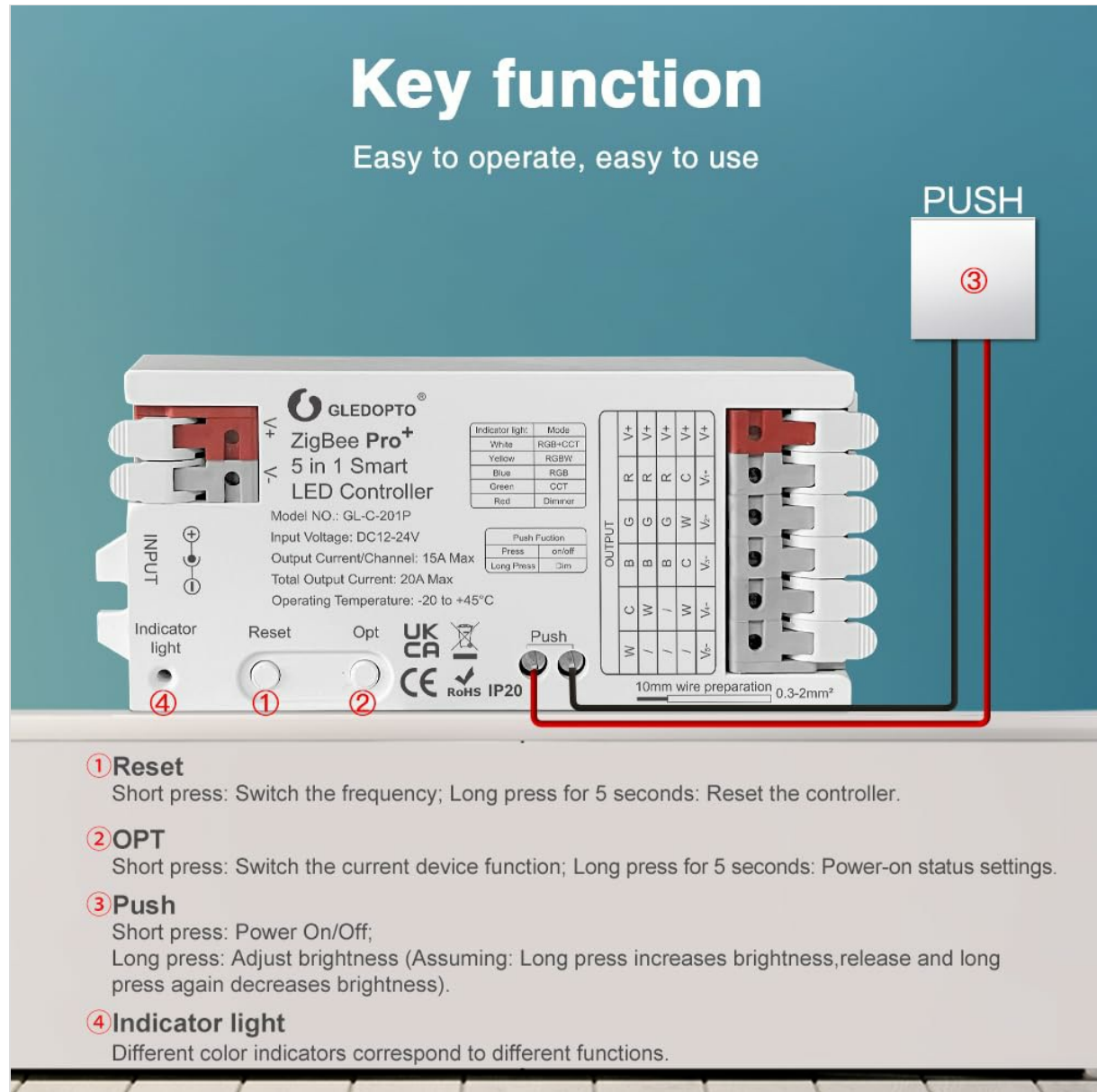


Figure 4.1: Wiring Diagram and Key Functions. This diagram illustrates the wiring terminals and the functions of the control buttons.

4.2 Dimensions

The compact design of the controller allows for flexible installation.

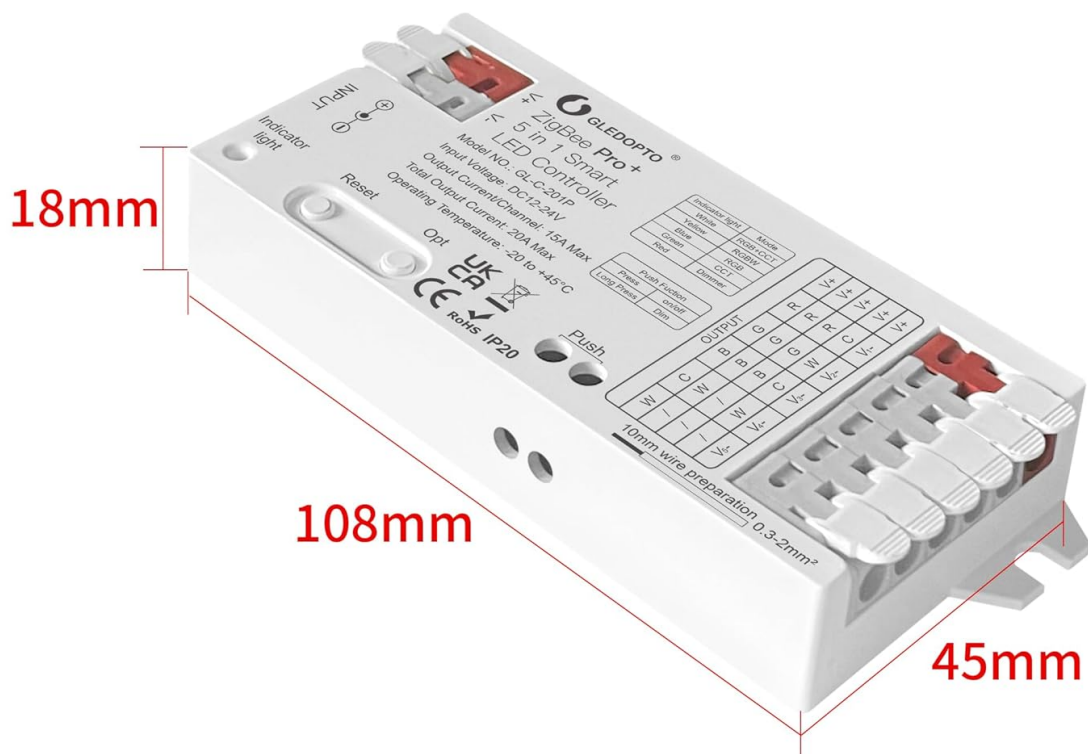


Figure 4.2: Controller Dimensions. The controller measures 108mm x 45mm x 18mm.

4.3 Pairing with a ZigBee Hub

To enable smart control, the controller must be paired with a compatible ZigBee 3.0 hub.

- Ensure your ZigBee hub is powered on and in pairing mode (refer to your hub's specific instructions).
- Power on the GLEDOPRO controller. It should automatically enter pairing mode.
- If the controller does not pair automatically, perform a reset (see Section 5.1).
- Once paired, the controller will appear in your ZigBee hub's application, allowing for remote control and automation.

ZigBee 3.0 gateway compatible

Compatible with most gateways on the market



homey



Conbee



SmartThings



Tuya



Philips HUE



Amazon Echo studio

Gateways Item						
	Philips Hue	Amazon Echo Plus	Smart Things	Tuya	Conbee	Homey
RGB	Yes	Yes	Yes	Yes	Yes	Yes
CCT	Yes	Yes	Yes	Yes	Yes	Yes
BRIGHTNESS	Yes	Yes	Yes	Yes	Yes	Yes

Figure 4.3: ZigBee 3.0 Gateway Compatibility. The controller is compatible with a wide range of ZigBee 3.0 gateways.

5. OPERATING INSTRUCTIONS

The controller features an 'Opt' button for mode switching, a 'Reset' button for frequency and factory reset, and a 'Push' button for basic power control and dimming.

5.1 Button Functions

- **Reset Button:**

- *Short Press:* Switches the operating frequency (600Hz, 800Hz, 1000Hz, 2000Hz, 4000Hz, 8000Hz). The indicator light will flash white and then resume its previous color. Default frequency is 1000Hz.
- *Long Press (5 seconds):* Resets the controller to factory settings and unpairs it from the ZigBee network.

- **Opt Button (Mode Selection):**

- *Short Press:* Switches between the three LED strip modes: RGBCCT, RGBW, and RGB. The indicator light will change color to indicate the selected mode (White for RGBCCT, Yellow for RGBW, Blue for RGB).

- *Long Press (5 seconds)*: Initiates Power-on Status Settings. The indicator will flash light blue and then turn off for 4 seconds. The default power-on status is 'light on'. Flashing 3 times in light blue means 'light on' at power-on; flashing 4 times means 'light off' at power-on.

- **Push Button:**

- *Short Press*: Toggles power On/Off.
- *Long Press*: Adjusts brightness. Long press increases brightness; release and long press again decreases brightness.

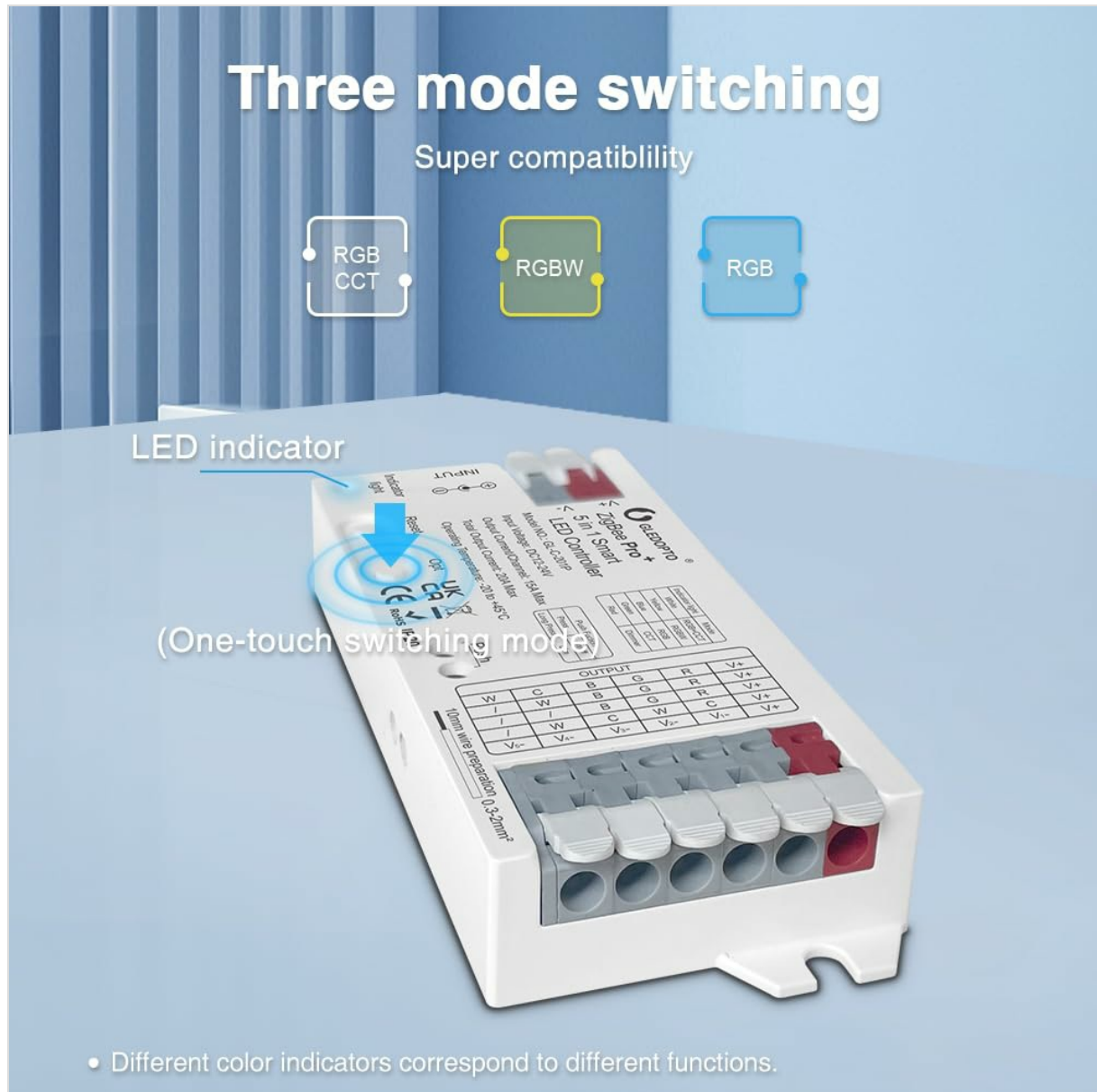


Figure 5.1: Three Mode Switching. Easily switch between RGB CCT, RGBW, and RGB modes using the 'Opt' button.

5.2 Smart Control (via ZigBee Hub)

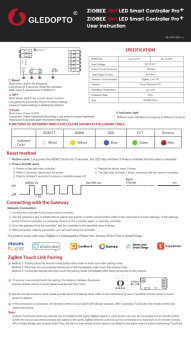
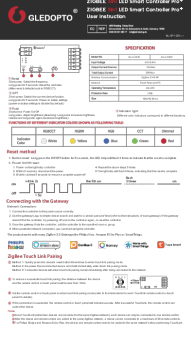
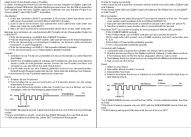

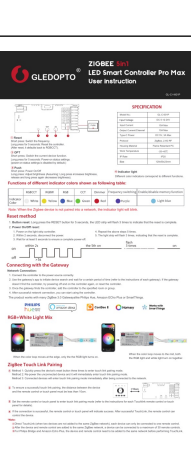

Once paired with a ZigBee hub, you can control the LED strip via the hub's dedicated smartphone application or through integrated voice assistants.

- **Color Control:** Access 16 million colors for RGB and RGBW strips.
- **Color Temperature Control:** Adjust white light from warm to cool for RGB CCT strips.
- **Dimming:** Adjust brightness from 1% to 100%.
- **Scenes & Automation:** Create custom lighting scenes and set schedules through your ZigBee hub's

application.

- **Voice Control:** Use voice commands with compatible assistants (e.g.,

Related Documents - GL-C-202P

	<p>GLEDOPTO Zigbee 3in1/5in1 LED Smart Controller Pro+ User Manual</p> <p>Comprehensive user instructions for GLEDOPTO Zigbee 3in1 and 5in1 LED Smart Controller Pro+ (GL-C-201P, GL-C-202P). Covers specifications, setup, gateway connection, Zigbee and RF pairing, wiring, and troubleshooting.</p>
	<p>GLEDOPTO Zigbee 3in1/5in1 LED Smart Controller Pro+ User Manual</p> <p>User instructions for the GLEDOPTO Zigbee 3in1 and 5in1 LED Smart Controller Pro+, covering specifications, setup, pairing, wiring, and troubleshooting.</p>
	<p>ZigBee Light Link Gateway Controller: Connection and Pairing Guide</p> <p>Instruction manual detailing the connection and pairing of ZigBee Light Link controllers with smart home gateways. Covers wiring, setup, and reset procedures for various LED types.</p>
	<p>Gledopto GL-CP-1-002K Three-Button Zigbee RGB CCT LED Controller Manual</p> <p>Instruction manual for the Gledopto GL-CP-1-002K three-button Zigbee RGB CCT LED controller, covering features, installation, operation, and compatibility with smart home systems like Philips Hue.</p>
	<p>GLEDOPTO Zigbee 5in1 LED Smart Controller Pro Max User Instruction</p> <p>Detailed user instruction manual for the GLEDOPTO Zigbee 5in1 LED Smart Controller Pro Max (Model GL-C-I-601P). Covers specifications, button functions, indicator lights, reset methods, gateway and RF remote pairing, wiring diagrams, power-on status, and frequency settings.</p>
	<p>Gledopto Smart Lighting Products Catalog - Zigbee, WiFi, RF LED Controllers, Bulbs, and Fixtures</p> <p>Explore the comprehensive range of Gledopto smart lighting solutions, including Zigbee 3.0, WiFi, and RF LED controllers, dimmers, RGB+CCT strips, downlights, bulbs, and floodlights. Enhance your home with intelligent, energy-efficient lighting.</p>

