Introduction
Mini Bluetooth LED Dimmers are designed to drive constant voltage LED products from 6-24VDC. The dimmer works with the 'ColorEasy1 Plus' app on iOS or Android via Bluetooth connection. Users can control the LEDs and save settings from the app. An optional RF remote control is available for easy on/off control and switching between saved settings.

Installation
1. Power Supply
Mini Bluetooth LED Controllers work from 6-24VDC. The red power input cable should be connected to power supply positive and black to negative. Always make sure the power supply voltage is the same as the rated LED voltage.

2. LED Output
The dimmer supports constant voltage LED products and controls the load using a PWM output. The red cable connects to LED positive. The black wire connects to LED negative.

3. Indicator Light
The indicator light displays the current status of the unit. It indicates the following:

- Blue fast flashing: starting up.
- Blue/yellow fast flashing: waiting for Bluetooth pairing.
- Blue with yellow short flashes: Bluetooth connected.
- Steady Blue: Bluetooth disconnected.
- White flash 3 times: new remote controller paired.
- Short single white flash: command signal received.
- Red flashing: overload protection active.
- Yellow flashing: thermal protection active.

4. Bluetooth Pairing
Mini Bluetooth LED Dimmers have full protection circuitry for short circuit, output overload, reversed power polarity and overheating. The indicator will flash red for overload or short circuit protection and flash yellow for thermal protection. The dimmer will automatically recover from protection when conditions return to normal.

5. Bluetooth Auto Re-Connect
By default, the app is set to automatically re-connect with the most recently paired dimmer when in range. This setting can be disabled on the app's settings page while the dimmer and smartphone are connected. When the auto-re-connect feature is set to off, the user can manually connect to the dimmer at any time by tapping the device name on the smartphone's Bluetooth settings page. After the initial pairing, the dimmer does not need to be in the 90 second pairing window.

6. RF Remote Pairing
The RF remote can power the dimmer on/off and cycle through saved settings from the app. One dimmer can be paired with 5 RF remotes. New RF remotes ship un-paired. To pair a new RF remote:

1. Make sure that remote control function is enabled in the app.
2. Unplug the power from the controller for more than 5 seconds and power on again.
3. Within 5 seconds of power-on, press the on/off key and down arrow key together on the remote.
4. The indicator will flash 3 times to show the remote has been paired.
Advanced Features

7. Waterproofing
When installing at wet environment, the cable connections must also be waterproofed. Waterproofing glue and heat-shrink are recommended, but waterproof connectors may also be used.
Wireless signals are attenuated by water, so wireless range may be reduced if the receivers are installed underwater. Be sure to test the wireless range before permanently installing the receiver in water or very wet locations.

8. Protection
Mini Bluetooth LED dimmers have full protection circuitry for short circuit, output overload, reversed power polarity and overheating. The indicator will flash red for overload or short circuit protection and flash yellow for thermal protection. The controller will automatically recover from protection when conditions return to normal.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>dim-mini-BT</th>
</tr>
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<tbody>
<tr>
<td>Brightness Resolution</td>
<td>256 levels</td>
</tr>
<tr>
<td>Connection Method</td>
<td>Bluetooth V2.1/4.0 Class 2</td>
</tr>
<tr>
<td>Smartphones</td>
<td>OS, Android</td>
</tr>
<tr>
<td>App</td>
<td>ColorEasy1 Plus</td>
</tr>
<tr>
<td>Optional RF Remote</td>
<td>Yes</td>
</tr>
<tr>
<td>RF Remote Frequency</td>
<td>433.92MHz</td>
</tr>
<tr>
<td>Overload Protection</td>
<td>Yes</td>
</tr>
<tr>
<td>Thermal Protection</td>
<td>Yes</td>
</tr>
<tr>
<td>Working Voltage</td>
<td>6-24VDC</td>
</tr>
<tr>
<td>Bluetooth Control Distance</td>
<td>&gt;10m in an open area</td>
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<tr>
<td>Rated Output Current</td>
<td>15A</td>
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<tr>
<td>IP Grade</td>
<td>IP-68</td>
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</tbody>
</table>

App Link:

The app can also be found by searching for "ColorEasy1 Plus"