

Rayrun N11 Single Color LED Dimmer User Manual

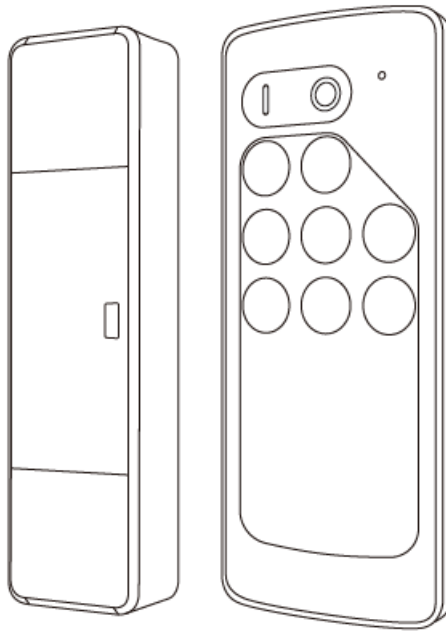
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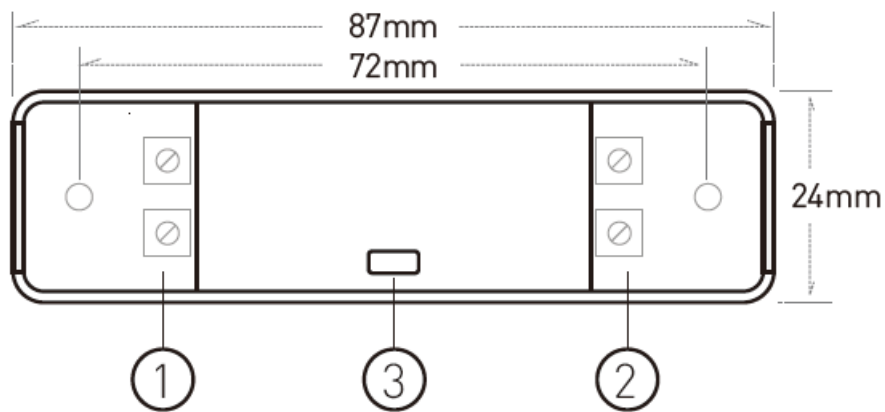
Rayrun N11 Single Color LED Dimmer



Introduction

N11 single color LED dimmer is designed to drive constant voltage LED products in voltage range of DC5-24V. The main unit works with a RF remote controller, user can adjust LED brightness on the remote controller. The main unit is powered by DC power supply and receives remote controller commands to drive LED fixtures.

Dimension



Wiring & Indicator

Power supply input

Install positive power cable into the terminal marked with '+' and negative power cable into the terminal marked with '-'. The controller can accept DC power from 5V to 24V, the output voltage is the same as the power supply, so please make sure the LED rated voltage is same as the power supply. Do not power on the controller until all connection is firmly finished.

LED output

Connect LED fixtures to this terminal. Install positive LED load cable into the terminal marked with '+' and negative cable into the terminal marked with '-'. Please make sure the LED rated voltage is same as the power supply and the maximum load current is lower than controller's rated current.

The controller will run into protection if the output is overloaded or short circuited. The indicator will flash red color and stop working in this case, Please check the wiring and load current to remove the fault.

Work status indicator

This indicator displays all working status of the controller. It shows different events as following:

- Steady green: Normal working.
- Single green blink: Command received.
- Long single green blink: Mode or color cycle edge. Long single yellow blink: Brightness or speed limit. Red flash: Overload protection.
- Yellow flash: Over heat protection.
- Green flash 3 times: New remote controller paired.

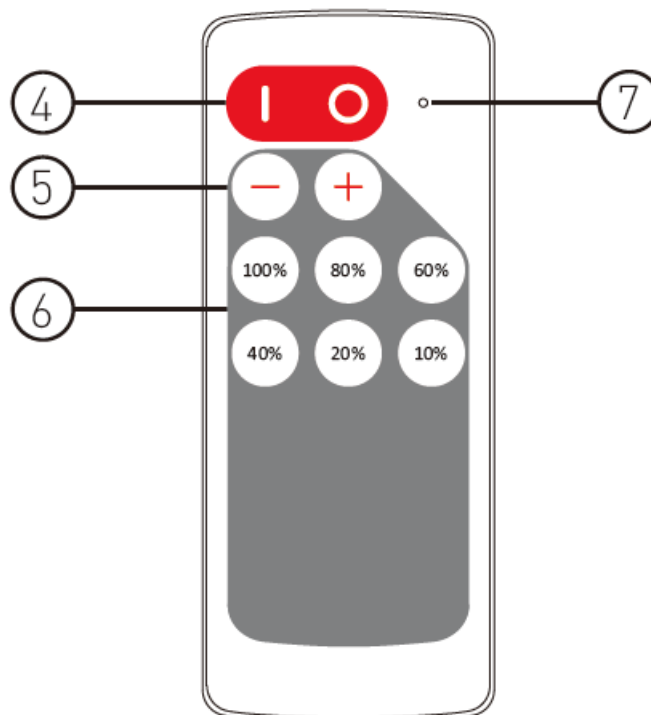
Functions

Turn ON / OFF

Press 'I' key to turn on unit or press 'O' key to turn off. Main unit will memorize the on/off status and will restore to the previous status on next power on.

Brightness control

Press '+' key to increase brightness and press '-' key to decrease. The brightness will change smoothly when hold pressing these two keys. The controller applies brightness gamma correction on dimming control, makes the brightness tuning more smooth to human sense.



Brightness shortcut keys

These keys are shortcuts to fixed brightness. Press each key to jump to the relevant brightness level. The controller applies brightness gamma correction on dimming, the brightness level is valued to human sense, and

not proportional to the LED output power.

Remote indicator

This indicator blinks when remote controller is working. If the indicator flash slowly when pressing keys, it means the remote battery is nearly empty and please change the battery in this case. The battery model is CR2032.

Operation

Using the remote

Please pull out the battery insulate tape before using. The RF wireless remote signal can pass through some nonmetal barrier. For proper receiving remote signal, please do not install the controller in closed metal parts.

Pair a new remote controller

The remote controller and main unit is 1 to 1 paired for factory default. It's possible to pair maximum 5 remote controllers to one main unit and each remote controller could be paired to any main unit.

You could pair a new remote controller to main unit by following steps:

1. Plug off the power of main unit and plug in again after more than 5 seconds.
2. Press '100%' and '60%' key simultaneously for about 3 seconds, within time of 10 seconds after the main unit powered on.

Recognize current remote only

In some cases, one main unit might be paired with several remote controllers but extra remote controllers are no longer needed. User could simply pair the current using remote to main unit again, then the main unit will dis-pair all other remote controllers and recognize current one only.

Protection

The main unit has full protection function for wrong wiring, output short circuit, overload and overheat. The controller will protect itself from damage at these extreme conditions and could automatically recover when working condition is good.

To avoid the protection, please ensure the LED fixtures are capable for constant voltage driving and in rated range, the cables are well connected and insulated. Also please install the controller with good ventilation and heat dissipation condition.

Specification

Model	N11
Brightness grade	100 levels
Brightness shortcut	6 levels
PWM grade	4000 steps
Overload protection	Yes
Overheat protection	Yes
Working voltage	DC 5-24V
Remote frequency	433.92MHz
Remote control distance	>15m at open area
Rated output current	1x10A
Controller dimension	87x24x15mm

Documents / Resources

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