Wireless Remote Control
RGB+W LED Controller

🛡️ Full Protection	⚡ High Power	📶 Wireless Remote
🔲 Compact Size	⚡ Wide Voltage Range	😉 Easy Operation

■ Introduction

N40 RGB+W LED controller is designed to drive constant voltage LED products with common anode connection in voltage range of DC5-24V. The main unit works with a RF remote controller, user can setup white LED brightness, RGB LED color, brightness and dynamic modes on the remote controller, the main unit is powered by DC power supply and receives remote controller commands to drive LED fixtures.

■ Dimension
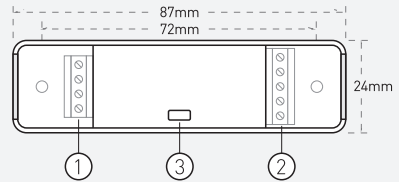
■ Wiring & Indicator

1. Power supply input

Install positive power cable into the terminal marked with '+' and negative power cable into the terminal marked with '-'. The two positive jacks are connected inside the controller and same for the negative jacks. 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.

2. LED output

Connect LED fixtures to this terminal. Install LED common anode cable into the terminal marked with '+' and each channel LED cables into the terminal marked with R, G, B and W. Please make sure the LED rated voltage is same as the power supply and each channel's maximum load current is below the controller rated current.

The controller will run into protection if the output been 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.

3. Work status indicator

This indicator shows all working status of the controller. It displays 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

4. 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.

Please use remote controller to turn on the unit if it was switched to off status before power cut.

5. White LED control

Press 'WHITE ONLY' key to switch off RGB and only use white LED channel. The white LED brightness could be adjusted independently by the two white brightness adjust keys on the right side of 'WHITE ONLY' key.
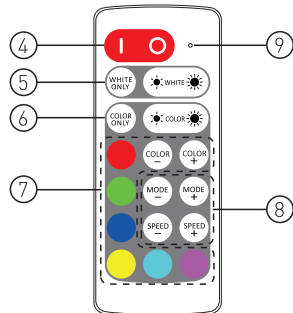
6. RGB mode and brightness

Press 'COLOR ONLY' key to switch off white and only use RGB LED channels. The static color brightness could be adjusted by the two color brightness keys on the right side of 'COLOR ONLY' key.

7. Select static RGB color

These keys set the RGB static color. Press the colored keys to set the RGB LEDs to correspond color. For other colors, please press 'COLOR+' and 'COLOR-' key to select from the preset library colors.

8. RGB dynamic mode

These keys control the RGB dynamic modes. Press 'MODE+' and 'MODE-' to select dynamic modes and press 'SPEED+' and 'SPEED-' key to set the running speed of the dynamic modes.

9. 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

10. Using the remote controller

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.

11. Pair a new remote controller

The remote controller and main unit is 1 to 1 paired as 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.

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

1). Plug off the power of main unit and plug in again after more than 5 seconds.

2). Press 'COLOR ONLY' and 'color brightness plus' key simultaneously for about 3 seconds, in time of 10 seconds after the main unit powered on.

12. Keep 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.

13. 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	N40	N40-S
Dynamic mode	34 modes	
Static color	30 colors	
PWM grade	4000 steps	
White brightness grade	10 levels	
Color brightness grade	5 levels	
Speed grade	10 levels	
Direct color select	6 direct keys	
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	3x2.5A + 4A	3x3.5A + 6A
Controller dimension	87x24x15mm	