



LEDYi Lighting V2-L(WB) Bluetooth 2-in-1 LED Controller Instruction Manual

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Bluetooth & RF 2 in1 LED Controller

Model No.: V2-L(WB)

Tuya APP cloud control/

Voice control/

2 Channels/2 color/Push Dim/Four PWM frequency/Linear or logarithmic dimming



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Features

- 2 in 1 function, used for control color temperature or single color LED strip.
- DC12-48V input, 2 channel constant voltage output.
- Tuya APP cloud control, support on/off, color temperature and brightness adjust, delay turn on/off light, timer run, scene edit, and music play function.
- Voice control, support amazon ECHO and TmallGenie smart speaker.
- Match with RF 2.4G remote control optional.
- Users need set the light type by pressing the key before the Tuya APP network connection and matching the RF remote of the same light type.
- Each V2-L(WB) controller can also work as a Bluetooth-RF converter, then use Tuya App to control one or more RF LED controllers or RF LED dimming drivers synchronously.
- Light on/off fade time 3s selectable.
- Connect with external push key to achieve on/off and 0-100% dimming function.
- Logarithmic or linear dimming curve selectable.
- PWM frequency 500Hz, 2KHz, 8KHz, or 16KHz selectable.
- Over-heat / Overload Short circuit protection recovers automatically.

Technical Parameters

Input and Output

Input voltage	12-48VDC
Input current	16.5A
Output voltage	2 x (12-48)VDC
Output current	2CH,8A/CH
Output power	2 x (96-384)W
Output type	Constant voltage

Safety and EMC

EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard(LVD)	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Environment

Operation temperature	Ta: -30 C ~ +55 C
Case temperature (Max.)	T c: +85 C
IP rating	IP20

Dimming data

Input signal	Tuya APP + RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming grayscale	4096 (2 ¹²) levels
Dimming range	0 -100%
Dimming curve	Logarithmic or linear
PWM Frequency	500Hz, 2KHz, 8KHz or 16KHz

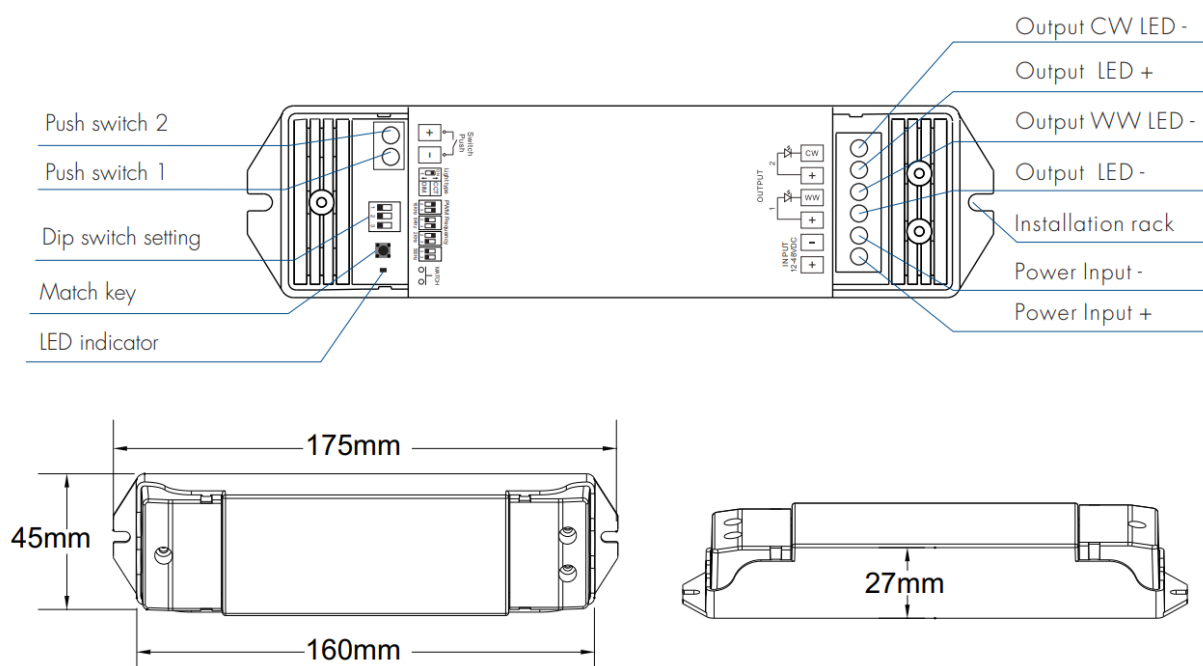
Warranty and Protection

Warranty	5 years
Protection	Reverse polarity Over-load Short circuit

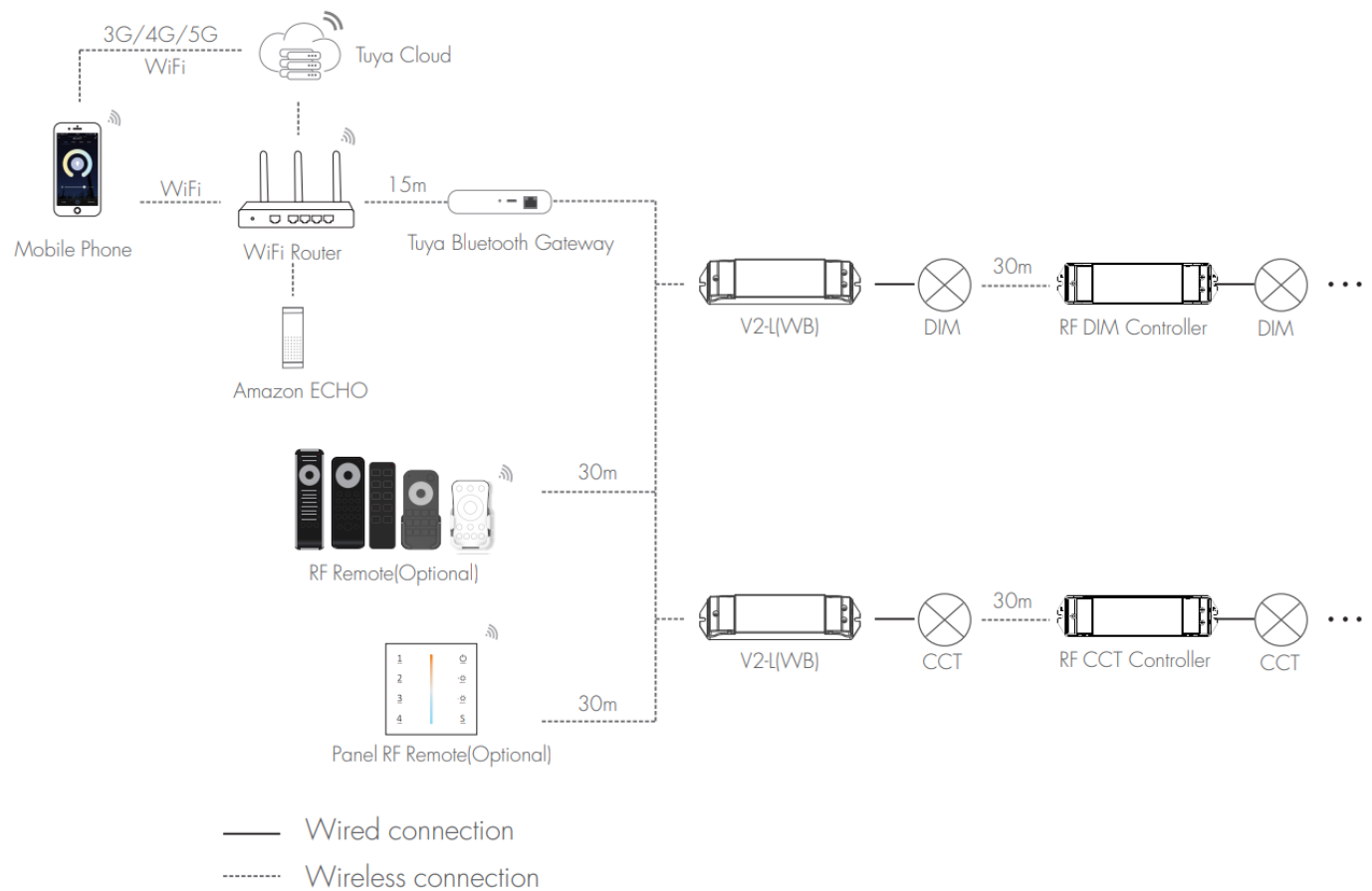
Weight

Gross weight	0.107kg
Net weight	0.126kg

Mechanical Structures and Installations



System wiring

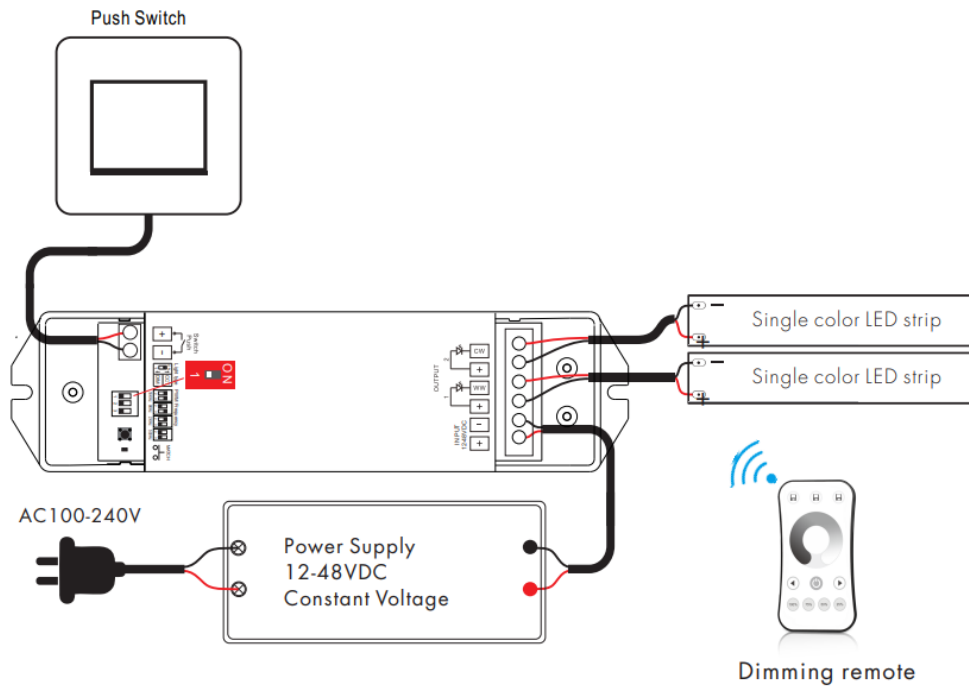


Note:

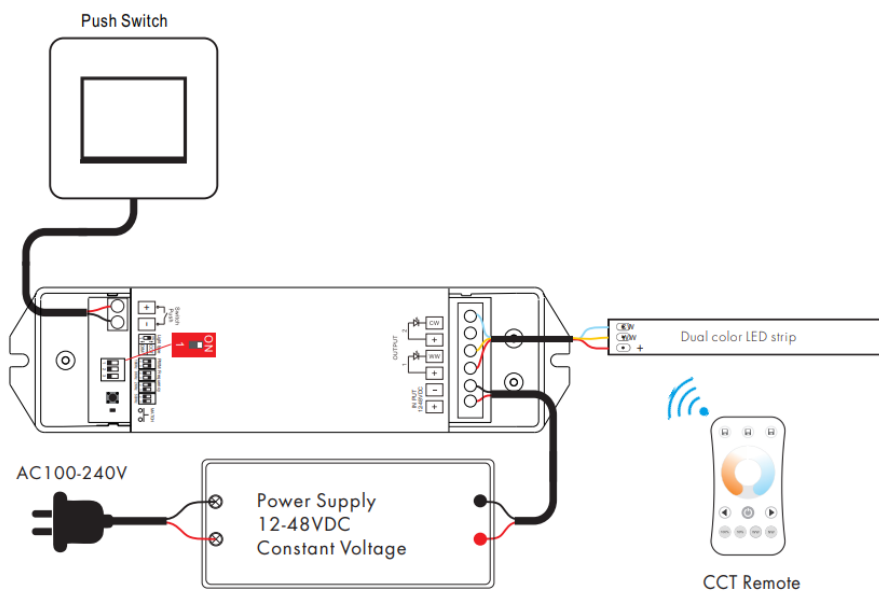
1. The above distance is measured in a spacious(no obstacle) environment, Please refer to the actual test distance before installation.
2. Users can also use the Tuya Bluetooth gateway to realize remote control and voice control.

Wiring Diagram

- V2-L(WB) for single color



- V2-L(WB) for dual color



Note:

1. After changing the light type by DIP switch, please redo the tuya APP con
2. For CCT light type, continuous power on and off will change 3 levels of color temperature (WW, NW, and CW) in sequence.
3. Switch off the power, then switch on the power, and repeat again. Immediately short press match key 3 times, the light on/off time will change between 3s and 0.5s.

Push Dim

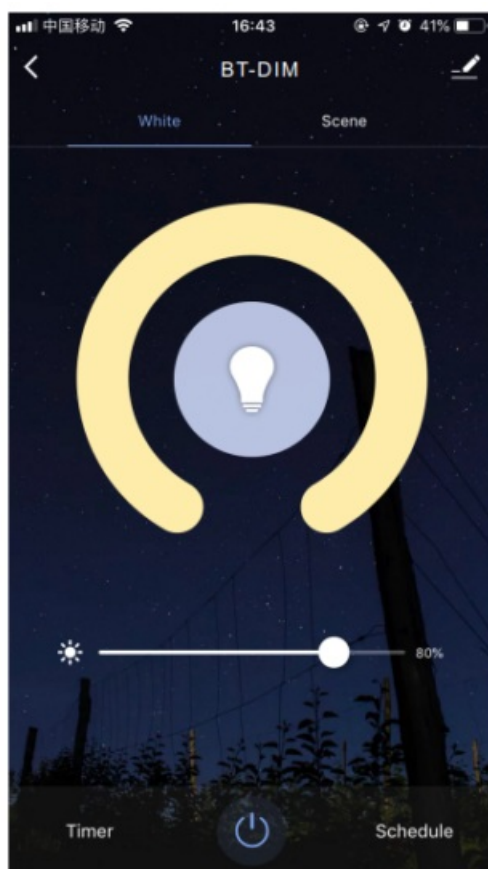
DIM Single color	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(> 1 s) from OFF	Dimming UP/DOWN
	Long press(> 1 s) from ON	Dimming UP/DOWN
CCT Dual Color	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(> 1 s) from OFF	Color temperature UP/DOWN (turn off and turn on to return dimming)
	Long press(> 1 s) from ON	Dimming UP/DOWN

Tuya APP network connection

Press and hold the Match key for 5s, or push twice the Match key fastly:

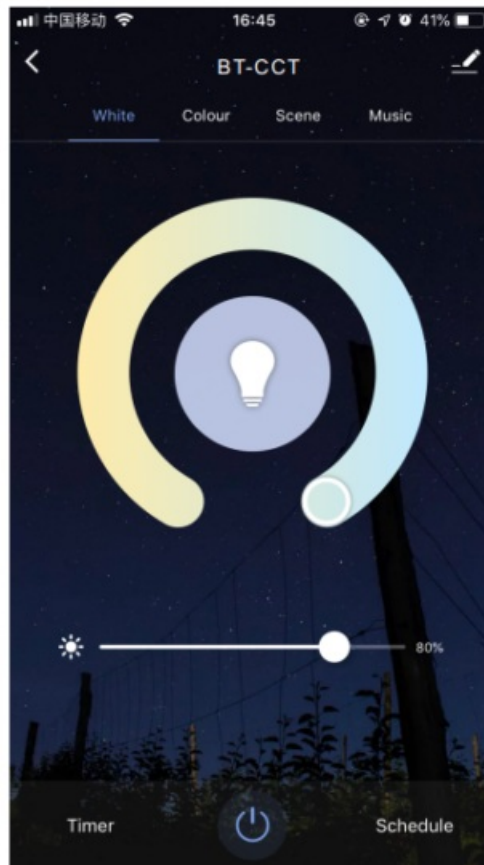
Clear previous network connection, enter config mode, the blue LED indicator fast flash, and the output LED will flash 10 times. Repeat power on and off for 5 consecutive times, also clear previous network connection, enter config mode, and the output LED will flash 10 times. If the Tuya APP network connection succeed, the blue LED indicator will stop flashing, and in Tuya APP, you can find BT-DIM/CCT device.

Tuya APP interface



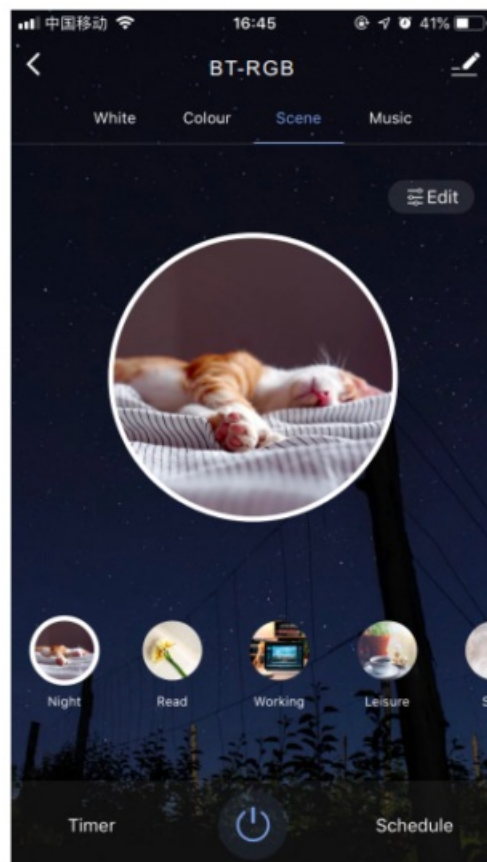
White interface

For DIM type: Touch brightness slide to adjust brightness.



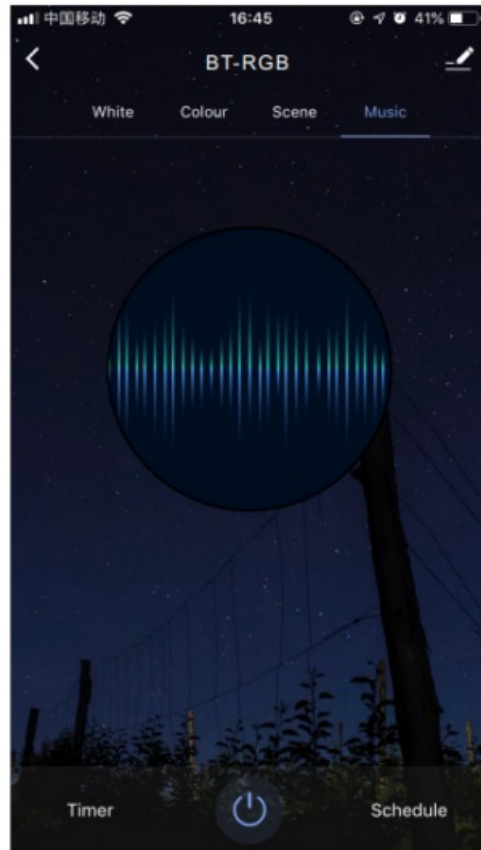
Color temperature interface

For CCT type: Touch the color wheel to adjust color temperature. Touch brightness slide to adjust brightness.



Scene interface

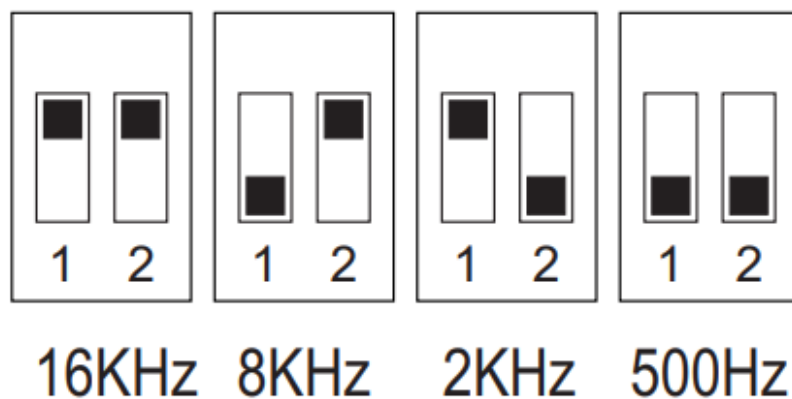
The 1-4 scene is static color. the inner color of this scene can be editable.



Music, Timer, Schedule

The music play can use a smartphone music player or micro-phone as music signal input. The Timer key can turn on or turn off the light in the next 24 hours. The Schedule key can add multiple timers to turn on or turn off lights according to different time periods.

PWM frequency setting



We can select four PWM frequencies: 500Hz, 2KHz, 8KHz, or 16KHz. Higher PWM frequency will cause lower output current, and higher power noise, but more suitable for the camera (No flickers for video).

V2-L(WB) match remote control (Optional)

The end-user can choose the suitable match/delete ways. Two options are offered for selection:

Use the V2-L(WB)'s Match key

Match: Short press the match key of V2-L(WB), immediately press the on/off key (single-zone remote) or zone key (multiple zones remote) on the remote. The LED indicator fast flash a few times means the match is successful.

Delete: Press and hold the match key of V2-L(WB) for 10s, The LED indicator fast flash a few times means all matched remotes were deleted.

Use Power Restart

Match:

Switch off the power of V2-L(WB), then switch on the power, and repeat again. An immediately short press on/off key (single-zone remote) or zone key (multiple zones remote) 3 times on the remote. The light blinks 3 times means the match is successful.

Delete:

Switch off the power of V2-L(WB), then switch on the power, and repeat again. An immediately short press on/off key (single-zone remote) or zone key (multiple zones remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

V2-L(WB) works as a Bluetooth-RF converter to match RF LED controller or dimming driver

End-user can choose the suitable match/delete ways. Two options are offered for selection:

Use the controller's Match key

Match:

Short press the match key of the controller, and immediately press the on/off key on the Tuya APP. The LED indicator fast flash a few times means the match is successful.

Delete:

Press and hold the match key of the controller for 5s, The LED indicator fast flash a few times means the match was deleted.

Use Power Restart

Match:

Switch off the power of the controller, then switch on the power, and repeat again. An immediately short press on/off key 3 times on the Tuya APP. The light blinks 3 times means the match is successful.


Delete:

Switch off the power of the controller, then switch on the power, and repeat again. An immediately short press on/off key 5 times on the Tuya APP. The light blinks 5 times means the match was deleted.

V2-L(WB) Bluetooth & RF 2 in 1 LED Controller

FC CE RoHS emc LVD RED

Documents / Resources

	LEDYi Lighting V2-L(WB) Bluetooth 2-in-1 LED Controller [pdf] Instruction Manual V2-L WB, Bluetooth 2-in-1 LED Controller, V2-L WB Bluetooth 2-in-1 LED Controller
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