

# TS-S(WT)

## WiFi+RF 5 Button Panel Triac Dimmer

Triac



CE RoHS

### Features

- Touch panel WiFi + RF AC phase control dimmer, 1 channel output.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- 5 button control, dual button brightness adjustment, two scene memories.
- Tuya smart APP cloud control, support on/off, brightness adjust, delay turn on/off light, timer run, scene function.
- Leading edge dimming or trailing edge dimming set by dip switch.
- Min brightness can be set by key.
- Light on/off fade time 3s selectable.
- 256 levels 0-100% dimming smoothly without any flash.
- Compatibility with RF 2.4G single zone or multiple zone dimming remote control.
- Easy to be placed in standard wall junction box.
- Over-heat / Overload protection, recover automatically.
- White or black glass panels are available.

### Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	100-240VAC	Input signal	WiFi + RF 2.4GHz	EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3
Output voltage	100-240VAC	Control distance	30m(Barrier-free space)	Safety standard	EN 61347-1/-2
Output current	Max 1.5A	Dimming level	256 levels	Radio equipment	ETSI EN 300 440 ETSI EN 300 328
Output power	150-360W	Dimming range	0-100%	Certification	CE RoHS
Warranty and Protection		Environment		Package	
Warranty	5 years	Operation temperature	Ta: -20℃ ~ +55℃	Size	L112 x W112 x H50mm
Protection	Over-heat / Overload	Case temperature (Max.)	Tc: +89℃	Gross weight	0.223kg
		IP rating	IP20		

### Compatible Load Types

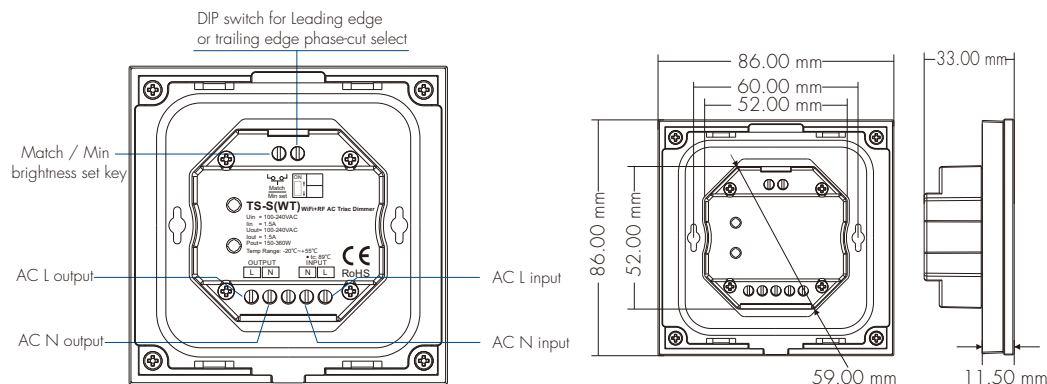
Load type	Maximum load	Remarks
Dimmable LED lamps	200W @ 220V 100W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
Triac dimmable LED drivers	200W @ 220V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver rated input power, and make sure the surge current is no more than 130A.
Incandescent lighting, HV halogen lamps	400W @ 220V 200W @ 110V	

### Recommended Number of Load Connection

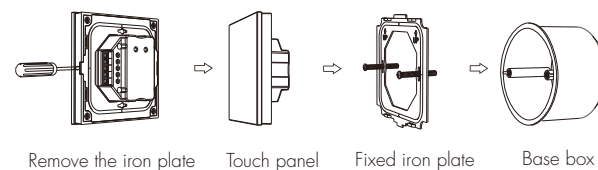
Load type	Output power per load	Quantity
Dimmable downlight	5.5W @ 220V~240V	20
Triac dimmable LED driver	12W @ 220V~240V	15
Triac dimmable LED driver	36W @ 220V~240V	4
Triac dimmable LED driver	75W @ 220V~240V	2

Because different manufacturers triac dimmable LED driver rated input power is different, you can refer to the formula to calculate the max. number of LED driver. Formula:  $D_{max} = 200W / RP$ , at the same time need to meet the sum of the surge current (I surge) does not exceed 130A. For example: triac dimmable LED driver rated input power(RP) = 15.4W, surge current = 10A/230VAC, Then  $D_{max} = 200 / 15.4 = 13$ (pcs), I surge =  $13 * 10 = 130A$ , the max. number of triac dimmable LED driver is 13.

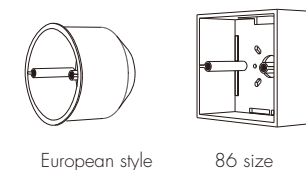
### Mechanical Structures and Installations



#### Installation diagram:

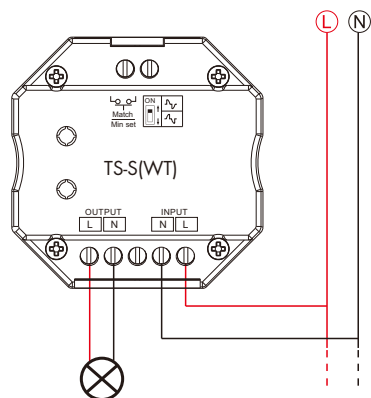


#### Typical base as below:



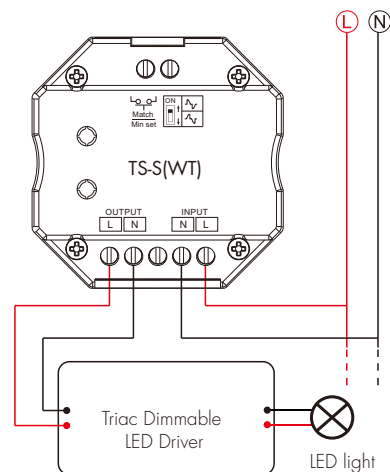
## Wiring Diagram

Connect with dimmable LED light:

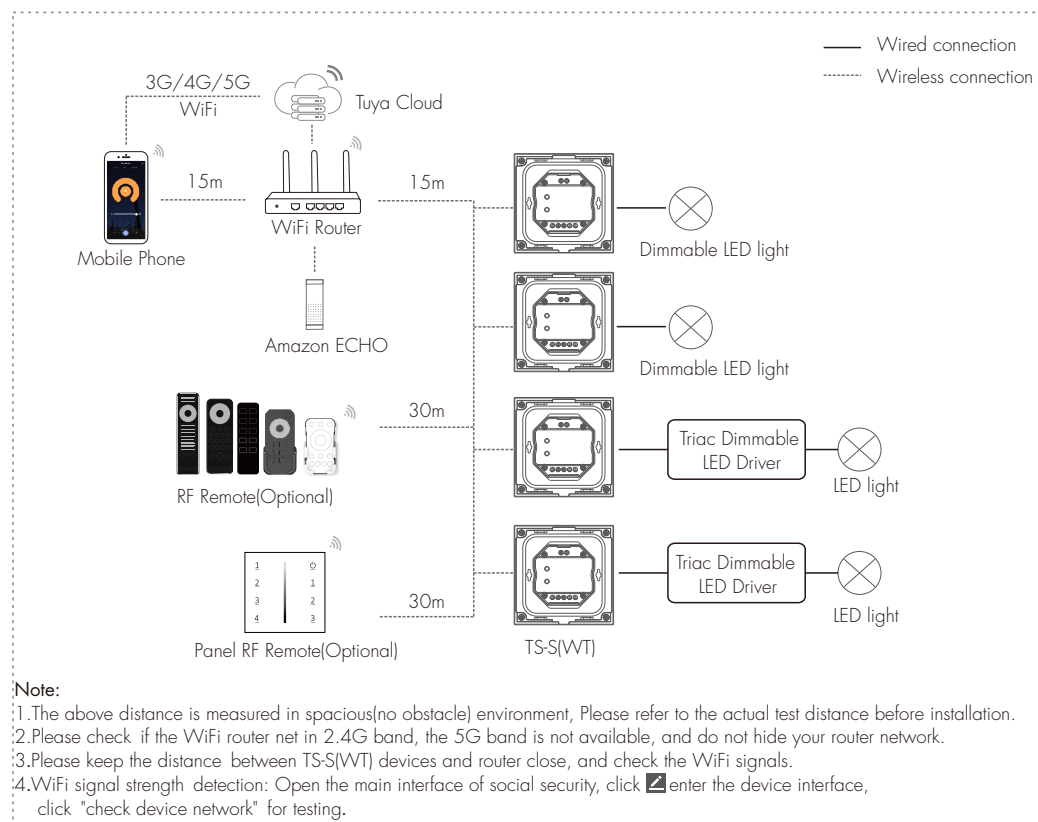


Dimmable LED light

Connect with Triac dimmable LED driver:



## System Wiring



## Tuya Smart APP Network Connection

### 1. Download and open the APP

Search for "Tuya smart/Smart Life APP" in the app store or scan the QR code on the right to download the APP. Register and log in after installation.

### 2. APP network connection operation

Use the button:

Press and hold the < and > buttons simultaneously for 5s to clear previous network connections and enter the Tuya WiFi network configuration mode. The output light blinks 10 times.

### Clear network:

Power on 5 times in succession to clear previous network connections, and the output light will blink 10 times.

If Tuya smart APP network connection succeed, the output light blinks 10 times, and in Tuya smart APP, you can find Triac Dimmer device.

When controlling the light with Tuya Smart/Smart Life APP, if the network connection is poor, you can control the light with Bluetooth connection within the Bluetooth control range.

Note: The light can not be directly controlled by Bluetooth without WiFi configuration.

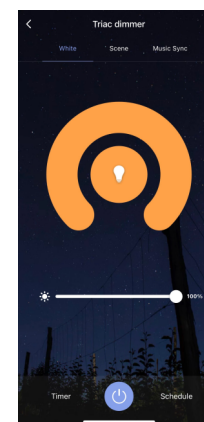


Smart Life



Tuya smart

## Tuya Smart APP Interface



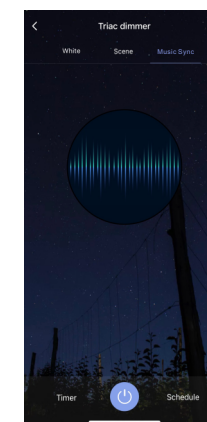
### White interface

Click Turning lights on or off, Touch brightness slide to adjust brightness.



### Scene interface

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



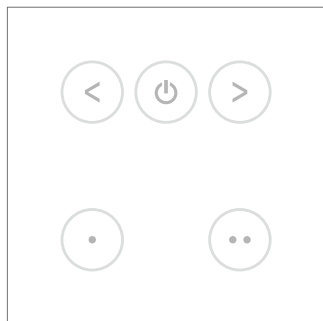
### Music, Timer, Schedule

The music play can use smart phone music player or microphone as music signal input.

The Timer key can turn on or turn off light in the next 24 hours.

The Schedule key can add multiple timers to turn on or turn off light according to different time periods.

## Button Function



- : Short press to turn on or off the light.  
The indicator light turns orange when the light are turned off.
- : Brightness adjustment, short press for 10 levels,  
long press to continuously decrease/increase the brightness.  
The indicator light is blue during operation.
- : Short press to recall scene 1/2 lighting,  
Long press for 5s, the current lighting status will be saved to Scene 1/2,  
and the indicator light will blinks 2 times.  
The indicator light is green during operation.

### Scene Lock Setting:

- Press and hold the button and the button for 5s at the same time.  
The indicator lights of the button and the button will blinks 3 times simultaneously.  
The two scene button will be set to the locked state.
- Press and hold the button and the button for 5s at the same time.  
The indicator lights of the button and the button will blinks 3 times simultaneously.  
The two scene button will be set to the unlocked state (Default factory settings are not locked).

### Min brightness setting:

Long press Min set key(back) for 2s, the light blinks 2 times, ready for min brightness set.  
Then short press Min set key 1-6 times, to get 6 min brightness: 5%, 10%, 15%, 20%, 25% or 30%, the light will output the current min brightness immediately.  
Long press Min set key for 2s or wait 8s, quit min brightness set, the light will output 100% brightness automatically.

### Switch gradient function setting:

Press the pairing button(back) 3 times to toggle the switch gradient function.  
During a 3s fade, the output light blinks 3 times; during a 0.5s fade, the output light blinks 5 times.

### Restore factory setting:

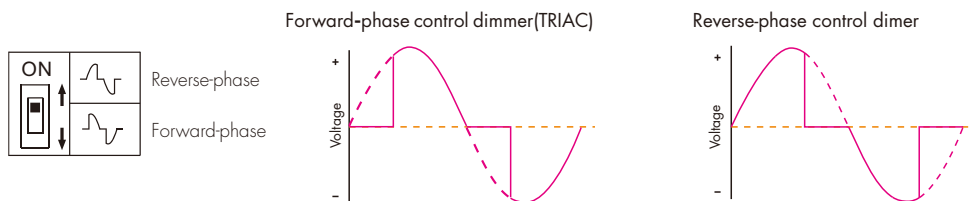
Restore factory setting using one of the following two methods:

- Use the On/off button: Short press to turn on the light, short press to turn off the light, then press the button for 1.5s immediately, the output light blinks 10 times, complete the factory reset.
- Use the Match key: Long press the Match key 10s, the output light blinks 10 times, complete the factory reset.

Factory default parameters: 0.5s light on/off fade time, scene button not locked, min brightness 5%, no matched RF remote control, no matched Tuya Smart APP.

## Leading Edge or Trailing Edge Dimming Setting

Select leading edge(forward-phase) dimmer or trailing edge(reverse-phase) dimmer according to dimmable LED light or driver.



Caution: before power on, you must confirm the selection of dip switch.

## Match RF Remote

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

### Use On/off button:

Match:

Short press to turn on the light, short press to turn off the light, immediately long press button 5s, the button indicator light blinks 3 times means match is successful.

Delete:

Short press to turn on the light, short press to turn off the light, immediately long press button 10s, the button indicator light blinks 3 times and the output light blinks 5 times means all matched remotes were deleted.

### Use Power Restart:

Match:

Switch off the power, then switch on power, repeat again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote.  
The output light blinks 3 times means match is successful.

Delete:

Switch off the power, then switch on power, repeat again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote.  
The output light blinks 5 times means all matched remotes were deleted.

### Use the Match key:

Match: Short press match key, immediately press on/off key(single zone remote) or zone key(multiple zone remote) of the remote.  
Delete: Press and hold Match key for 5s, the output light blinks 5 times means all matched remotes were deleted.