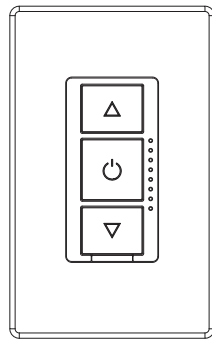


420 × 285mm

# Installation Instructions for Smart LED Dimmer Switch

Works with DIMMABLE LED, CFL, Incandescent and halogen bulbs

Part#: M520141



Model No.	M520141
Rated Voltage	120V, 60Hz
Load Range	LED: 3W-300W; INCAN.: 15W-300W
Dimming Mode	Phase cut
Compatible Loads	1. Dimmable LED lamp 2. Dimmable LED lamp with electronic transformer 3. Incandescent or medium voltage halogen lamp 4. Low voltage halogen lamp with electronic transformer
Working Temperature	-10°C ~ 40°C
Operation Humidity	10% R.H. - 90% R.H.

## WARNINGS AND CAUTIONS

- Risk of fire and electrical shock, products should be installed in accordance with appropriate electrical codes and regulations.
- The product shall be used together with an upstream air-gap switch.
- Turn power off at circuit breaker or fuse and test that power is off before installing.
- After installed the dimmer, it is recommended to set the minimum brightness level to make bulbs turn on immediately and the dimmer with maximum dimming range.
- If you are unsure about any part of these instructions, consult a licensed electrician.
- To reduce the risk of overheating and possible damage to other equipment, do not install to control a receptacle, a motor-operated appliance or a transformer-supplied appliance.
- Use with compatible dimmable LED, CFL bulbs, Incandescent or halogen bulbs only.
- When multiple bulbs are used with one dimmer DO NOT mix bulb types. All bulbs shall be either LED, CFL or incandescent. Using the same model of each bulb will enhance dimmer performance.

## FCC Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## FCC CAUTION

Any changes or modifications to this unit not expressly approved by the manufacturer could void the user's authority to operate the equipment.

## RF EXPOSURE STATEMENT

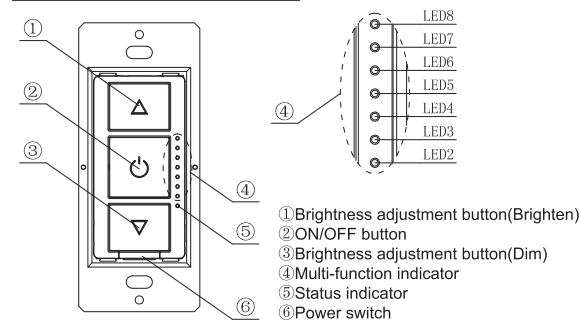
This equipment meets the exemption from the routine evaluation limits in section 2.5 of RSS-102. It should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

## IC Information

This device contains licence-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

## Functional parts instructions



## Status indicator

- Indicator lights red : The load light is OFF and no App connect.
- Indicator lights yellow : The load light is ON and no App connect.
- Indicator lights green : App connected.
- Indicator lights green and flash : Enter the EZ mode connection, indicator lights green and flashes quickly (flash once every 2s); Enter the AP mode connection, indicator lights green and flashes slowly (flash once every 4s).

Short press: within 0.5s;  
Long press: over 0.5s;  
Continuous short press: each interval of short press should within 1s.

## On/off switch button

- Turn on the light : Press ON/OFF button once when the light is off.
- Turn off the light : Press ON/OFF button once when the light is on.
- Quick to the Max. brightness: Continuous press ON/OFF button twice.
- Set the Min. brightness : Turn on the light and dimming to the Min. brightness you desire, continuous press ON/OFF button 6 times then finished the Min. brightness setting.
- Recover to the factory default Min. brightness: Turn on the light, continuous press ON/OFF button 9 times.
- Enter to the EZ mode network connection: Turn on the light, continuous press ON/OFF button 5 times, status indicator will flash quickly (flash once every 2s), then your phone can connect to the dimmer. The load light will flash once when succeeded the connection. (If there is no connection, exit network connection after 3 minutes.)
- Enter to the AP mode network connection: Turn on the light, continuous press ON/OFF button 7 times, status indicator will flash slowly (flash once every 4s), then your phone can connect to the dimmer. The load light will flash once when succeeded the connection. (If there is no connection, exit network configuration mode after 3 minutes.)
- Switch the wiring application: Continuous press ON/OFF button 8 times, if the load light flash twice, switching to Single-Pole/3-way; if the load light flash 3 times, switching to Multi-way.
- Recover to factory default: Turn on the light, continuous press ON/OFF button 10 times, the load light will flash once. (1. Turn on the light will at Max. brightness; 2. the min. brightness at 1%; 3. Current at EZ network connection mode; 4. Single-pole/3-Way wiring application.
- Night light: Continuous press ON/OFF button 3 times, switching ON/OFF the night light function. Finish the operation: if multi-function indicator flash once, turn off the night light; if multi-function indicator flash 3 times, turn on the night light.

## Brightness adjustment button

- Brightness increase: When the light is on, short press the up button to increase the brightness by one level;
- Brightness decrease: When the light is on, short press the down button once to decrease the brightness by one level;
- Brightness increases continuously: When the light is on, press and hold the up button to increase the brightness continuously until it is released or reaches the maximum brightness.
- Brightness decrease continuously: When the light is on, press and hold the down button to decrease the brightness continuously until it is released or reaches the minimum brightness.

## Power switch

- Plug in the power switch to turn on the power;
- Pull out the power switch to turn off the power.

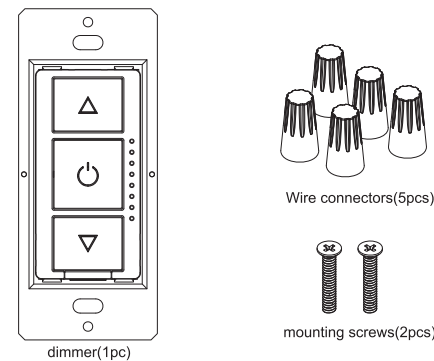
## Multi-function indicator

- Function 1: night light;
- Function 2: brightness indicator for load light.

Table of the brightness indication

S/N	brightness level	online operation brightness interval	LED indicator
1	brightness level 1	When the brightness level is between two gears, the current brightness indication state is not changed.	LED2 brighting
2	brightness level 4		LED2~LED3 brighting
3	brightness level 7		LED2~LED4 brighting
4	brightness level 10		LED2~LED5 brighting
5	brightness level 13		LED2~LED6 brighting
6	brightness level 16		LED2~LED7 brighting
7	brightness level 19		LED2~LED8 brighting

## Parts information



## Tools needed to install your Dimmer

Φ5mm Philips Screwdriver	Electrical Tape	Cutters
Pliers	Test Pencil	Ruler

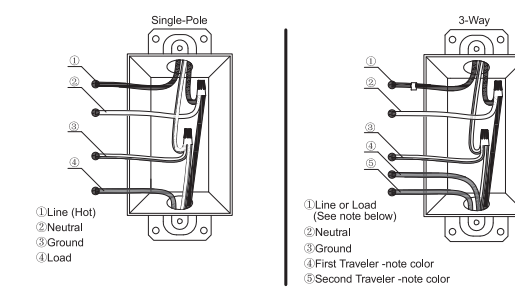
## Installation and testing

**Step 1** **WARNING:** To avoid fire and electrical shock, TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring.

**Step 2** Removing existing switch: Remove existing wall plate and switch mounting screws. Carefully pull switch from wall box, identify and take out the wires attached to the switch, then remove the switch. DO NOT remove wires which are taken out from the switch at this time. (If new configuration is without this step)

**Step 3** Identifying your wiring application

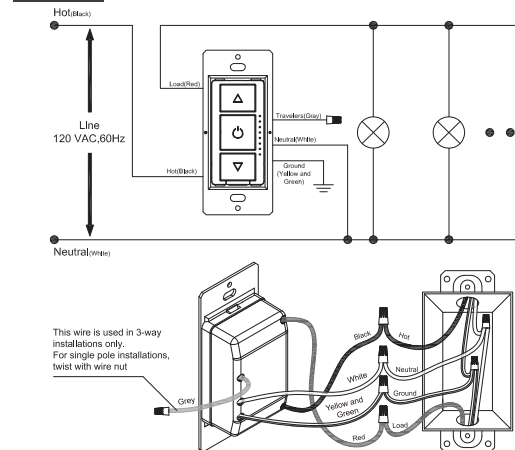
**NOTE:** If the wiring in the wall box does not resemble any of these configurations, consult an electrician.



**IMPORTANT:** For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the common (Line or Load) in both the dimmer wall box and 3-way wall box.

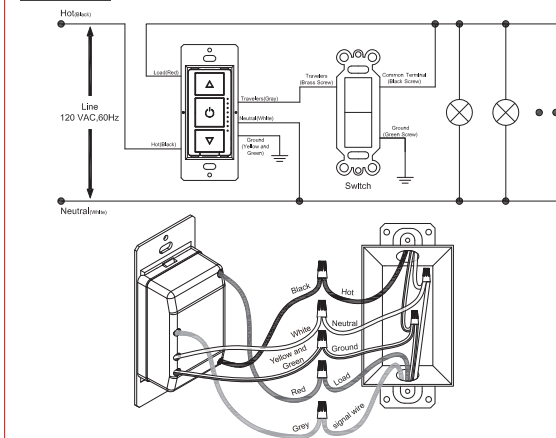
## Step 4 Typical Wiring Application

### Step 4a Single-Pole Wiring Application



- Connect the yellow and green dimmer wire to the green or bare copper ground wire in the wall-box, and twist them with wire connector.
- Connect the black dimmer wire to the hot input wire removed from the switch, and twist them with wire connector.
- Connect the white dimmer wire to the neutral wire, and twist them with wire connector.
- Connect the red dimmer wire to the load wire removed from the switch, and twist them with wire connector.
- Use remaining wire connector to cap the remaining grey wire of the dimmer.

### Step 4b 3-Way Wiring Application:



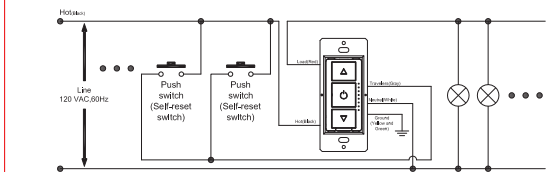
**IMPORTANT:** In a 3-way circuit, only one dimmer can be used.

- Connect the yellow and green dimmer wire to the green or bare copper ground wire in the wall-box, and twist them with wire nut.
- Connect the black dimmer wire to the hot input wire with tag removed from the switch, and twist them with wire nut.
- Connect the white dimmer wire to the neutral wire, and twist them with wire connector.
- Connect the red dimmer wire, gray dimmer wire to the remaining 3-way switch's two wires removed from the switch, and twist them with wire nuts. (Note: The red wire on the dimmer is connected to the load wire on the 3-way Switch.)

### Step 4c Multi-Way Wiring Application:

[Switching wire circuit connection way: Continuous short press the button 8 times]

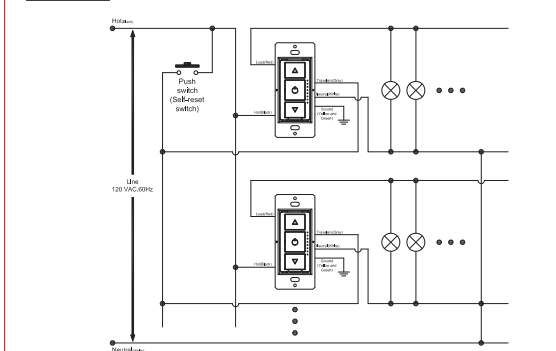
#### Step 4c-1 Multiple self-reset switches control one dimmer wiring diagram



**NOTE:**

- Dimmer must always be connected to the side with electricity of the load to ensure normal work.
- Multi-way self-reset switch can control up to 20pcs of dimmer for UP/DOWN dim and ON/OFF at the same time.
- Two or more dimmers must not be connected in parallel or series to control the same load from two different locations.

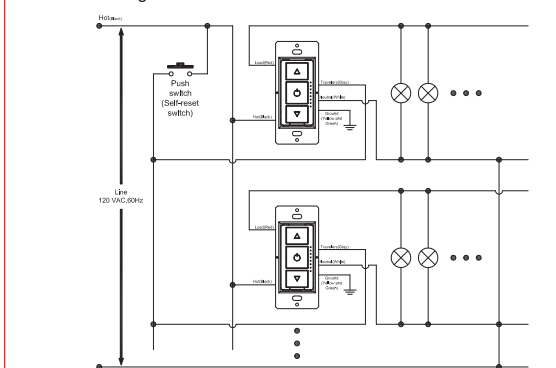
#### Step 4c-2 One self-reset switch control Multiple dimmer wiring diagram



**NOTE:**

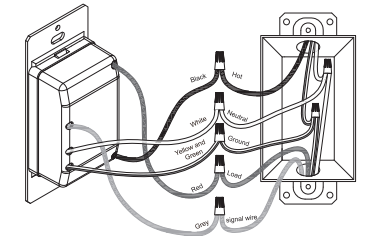
- One self-reset switch can control up to 20pcs of dimmer for UP/DOWN dim and ON/OFF at the same time.

#### Step 4c-3 Multiple self-reset switches control multi-way dimmers wiring diagram



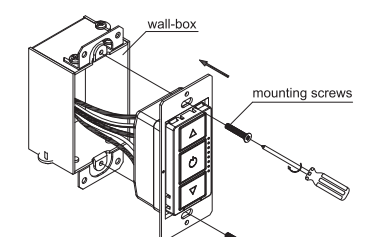
**NOTE:**

- Multi-way self-reset switch can control up to 20pcs of dimmer for UP/DOWN dim and ON/OFF at the same time.



- Connect the yellow and green dimmer wire to the green or bare copper ground wire in the wall-box, and twist them with wire nut.
- Connect the black dimmer wire to the hot input wire with tag removed from the switch, and twist them with wire nut.
- Connect the white dimmer wire to the neutral wire, and twist them with wire connector.
- Connect the red dimmer wire, gray dimmer wire to the remaining 3-way switch's two wires removed from the switch, and twist them with wire nuts. (Note: The red wire on the dimmer is connected to the load wire on the 3-way Switch.)

## Step 5 Installing and fixing the dimmer

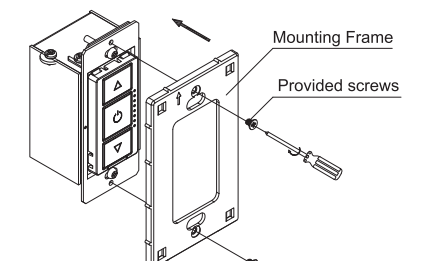


- Carefully position all wires inside the wall-box, leaving enough room to insert the dimmer housing. Put the dimmer inside the wall-box.
- Mount the dimmer securely inside the wall-box using the provided mounting screws.

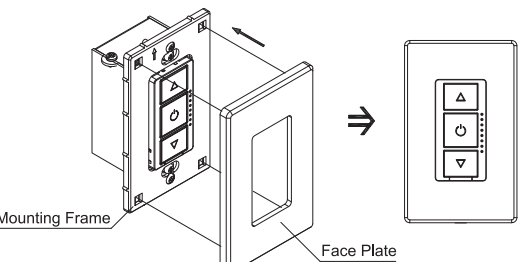
## Step 6 Installing wall plate

### Step 6a Separated plate

- Place the mounting frame over your installed dimmer and secure it using provided screws.

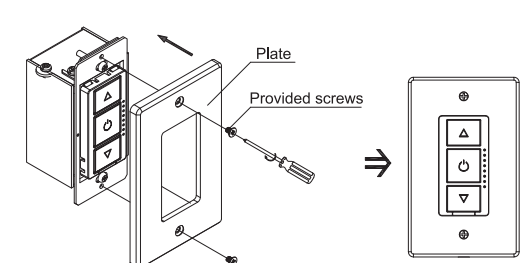


- Cover the face plate over the installed mounting frame and gently push it to ensure flush fit.



### Step 6b Integrated plate

- Place the plate over your installed dimmer and secure it using provided screws.



## Using Description

### Function Description

Table of the function in Single-pole wiring application

Wiring method	Function	Dimmer operation	Dimmer operation	phone operation
Single-pole	Turn on/off the light	Press once	√	√
	Dimming	Press/Press and hold	√	√
	Quick to the Max. brightness	Press twice	√	√
	Set the Min. brightness	Press 6 times	√	√
	Reset the default brightness	Press 9 times	√	√
	AP mode network connection	Press 5 times	√	x
	EZ mode network connection	Press 7 times	√	x
	Switching wiring method	Press 8 times	√	x
	Reset to the factory default	Press 10 times	√	x
	Schedule on/off the light	-	x	√
	Share device	-	x	√
Group control	-	x	√	

Table of the function in 3-Way wiring application

Wiring method	Function	Dimmer operation	Dimmer operation	On/off switch operation	phone operation
3-Way	Turn on/off the light	Press ② once	√	√	√
	Dimming	Press/Press and hold 1./③	√	x	√
	Quick to the Max. brightness	Press ② twice	√	x	√
	Set the Min. brightness	Press ② 6 times	√	x	√
	Reset the default brightness	Press ② 9 times	√	x	√
	AP mode network connection	Press ② 5 times	√	x	x
	EZ mode network connection	Press ② 7 times	√	x	x
	Switching wiring method	Press ② 8 times	√	x	x
	Reset to the factory default	Press ② 10 times	√	x	x
	Schedule on/off the light	-	x	x	√
	Share device	-	x	x	√
Group control	-	x	√	√	

### Operation of On/off switch

- Turn on the light: Press to turn on the light when it is off;
- Turn off the light: Press to turn off the light when it is on;

Table of the function in Multi-Way wiring

Wiring method	Function	Dimmer operation	Dimmer operation	Self-reset switch operation	phone operation
Multi-Way	Turn on/off the light	Press ② once	√	√	√
	Dimming	Press/Press and hold 1./③	√	x	√
	Quick to the Max. brightness	Press ② twice	√	x	√
	Set the Min. brightness	Press ② 6 times	√	x	√
	Reset the default brightness	Press ② 9 times	√	x	√
	AP mode network connection	Press ② 5 times	√	x	x
	EZ mode network connection	Press ② 7 times	√	x	x
	Switching wiring method	Press ② 8 times	√	x	x
	Reset to the factory default	Press ② 10 times	√	x	x
	Schedule on/off the light	-	x	x	√
	Share device	-	x	x	√
Group control	-	x	√	√	

### Operation of self-reset switch

- Turn on the light: Press once to turn on the light when it is off;
- Turn off the light: Press once to turn off the light when it is on;
- Dimming: Press and hold to adjust the brightness of the light, press and hold again to change the direction of the brightness after released.
- Quick to the maximum brightness: Press the switch twice to dimming the light to the maximum brightness.

### Priority

Dimmer/self-reset switch operation can terminate the phone App operation in the current period. When at dimmer/self-reset switch operation, the phone App operation can not work.

### Troubleshooting

Problem	Possible Cause	Solution
Lights flickering	Lamp has a bad connection One dimmer connect to multiple types bulb, incur interference and cause flicker	Reconnect and fix the wires Change bulbs to same type
LED and CFL flickers at low end of dimming range	Load compatibility is not good	Turn up lamp minimum brightness properly
Light does not turn on	Circuit breaker has tripped	Turn power on
	Fuse burn out	Change fuse
	Lamp burned out	Change lamp
Lights out of control or unable to network	Lamp neutral connection is not wired	Reconnect the lamp neutral
	The wiring of the other switch is incorrect when using in a 3-way circuit	Reconnect the circuit
Lights out of control or unable to network	Abnormal	Restart the power switch

### Mobile app operation

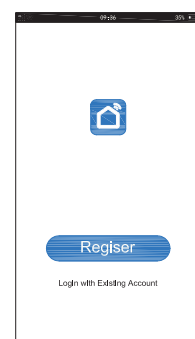
#### Step 1 Download the 'Smart Life' App

- Scan the QR code below to download the 'Smart Life' App.
- You can also download this app in the app store/Android app market search "Smart Life"



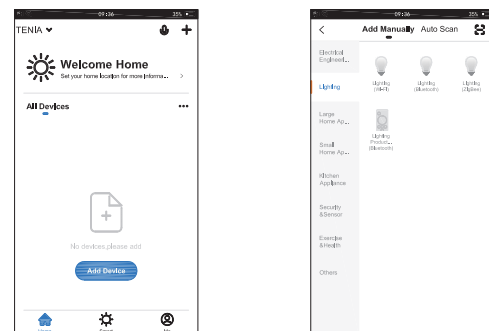
#### Step 2 Register an account and Login

- Open the Smart Life app,click Register to create an account and login.



#### Step 3 Connect with the dimmer

- Click 'Add Device' or the top right-hand corner '+' ;
- Click 'lighting' then to enter the device connection interface;

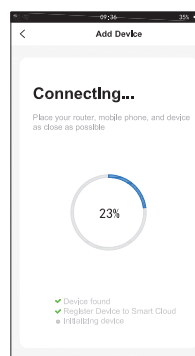
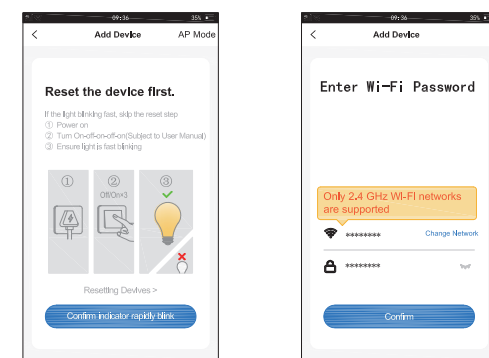


#### Step 4 Mobile phone connection

##### Step 4a EZ mode connection:

When the light is on, short press the switch 5 times(each interval within 1s), enter the EZ mode connection, Status indicator lights green and flash quickly(flash once every 2s),then your phone can connect to the dimmer.The load light will flash once when succeeded the connection (If there is no connection, exit network configuration mode after 3 min.)

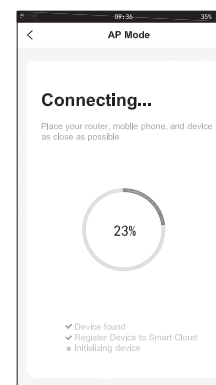
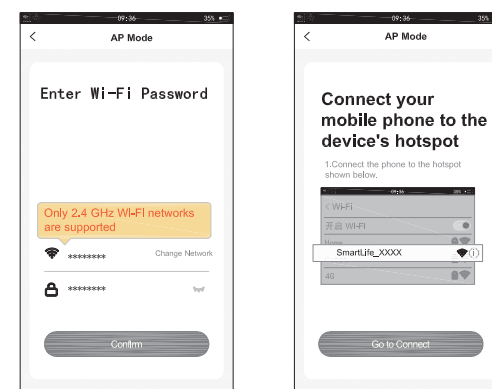
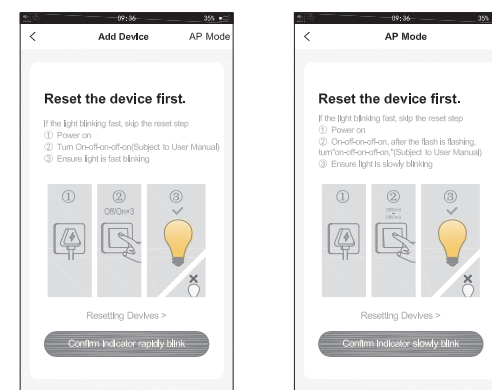
- Confirm the Status indicator ⑤ flashes quickly, click to enter the connection interface;
- Enter the Wi-Fi password in your home and click to waiting for the connection.



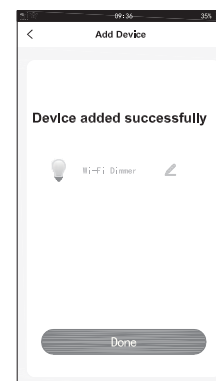
##### Step 4b AP mode connection:

When the light is on,short press the switch 7 times(each interval within 1s), enter the AP mode connection,Status indicator lights green and flash slowly (flash once every 4s) , then your phone can connect to the dimmer. The load light will flash once when succeeded the connection (If there is no connection, exit network configuration mode after 3 min.)

- Click 'APMode' to enter the operation interface.
- Confirm the Status indicator ⑤ flashes slowly, click to enter the connection interface;
- Enter the Wi-Fi password in your home and click to enter the connection interface;
- Click to connect to the Wi-Fi that comes with the dimmer and return, waiting for the connection.



- Click to enter the operation interface.

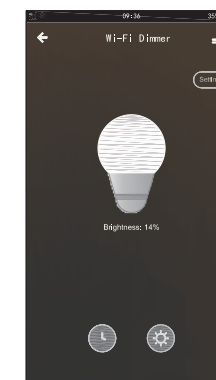


##### Step 5 Mobile phone app control outlet dimmer

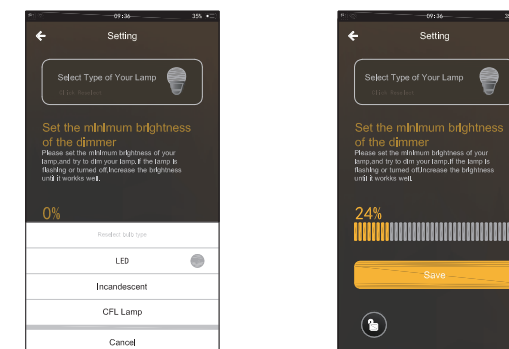
- Click to control the light on/off function of the dimmer.
- Click to enter the dimming interface for dimming.



- Click to enter the lowest brightness interface for setting dimmer.



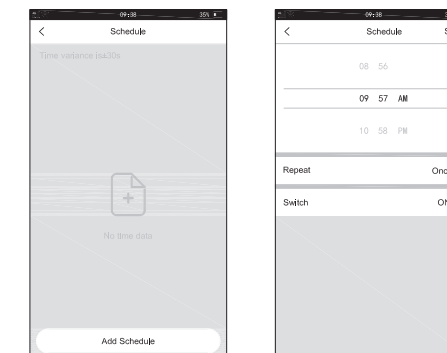
- Select the bulb type which connected with the dimmer.
- Set the lowest brightness of the light and save it.



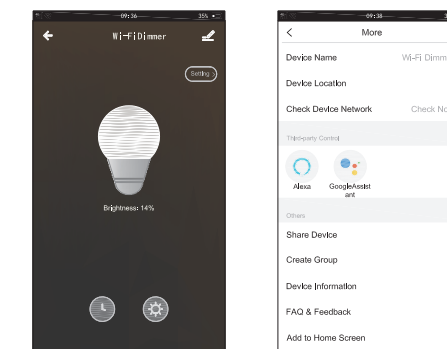
- Click to Set the schedule light on/off function of the dimmer.



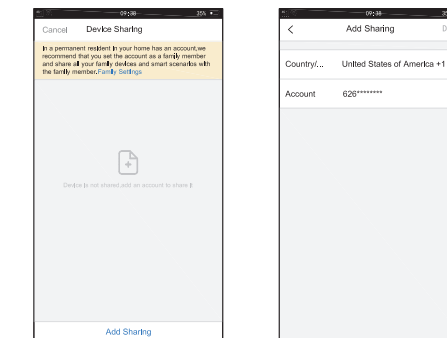
- Add schedule and then save it.



- After the dimmer connection is completed, it can be shared to many people, that is, one dimmer can be controlled by multiple APPs.
- Click to enter the device details interface;
- Click 'Share Device' to enter the device sharing interface.



- Click 'Add Sharing', add the account you are willing to sharing.



### Support Amazon Alexa and Google Home voice control

#### For Amazon Alexa

- Alexa,turn on <device name>
- Alexa,turn off <device name>
- Alexa,set <device name> to percent
- Alexa,brighten/increase <device name>
- Alexa,dim/decrease <device name>

#### For Google Home

- Hey Google,turn on <device name>
- Hey Google,turn off <device name>
- Hey Google,is <device name> on/off?
- Hey Google,brighten/increase <device name>
- Hey Google,Dim/Brighten <device name> by 50%