ENGINEERING CHANGE ORDER

REQUEST DATE	1/22/2024	REQUESTED BY	H. AMEZQUITA	REQUESTED RELEASE DATE	1/26/2024	ECO #	ECO-00118

AFFECTED PRODUCT LINES	ALL MOTORIZED PRODUCTS (A-OK)
REASON FOR CHANGE	INTRODUCTION OF NEW MOTOR AND MINI HUB
DESCRIPTION OF CHANGE	RELEASE NEW PART NUMBERS FOR AM25 TYPE C RADIO FREQUENCY (RF) + BLUETOOTH LOW ENERGY (BLE) MOTORS AND MINI MULTI-MODE GATEWAY DEVICE HUB
COST IMPACT	N/A

DOCUMENT / PART NUMBER	OLD REV	NEW REV	DOCUMENT/ PART DESCRIPTION	CHANGE DESCRIPTION	FORM, FIT, OR FUNCTION AFFECTED Yes, or No	PART DISPOSITION (USE AS IS) (REWORK) (SCRAP) (OBSOLETE) (RETURN TO VENDOR) (OTHER)
MPMI1542	-	-	MOTOR ASSY, AM25 TYPE C RF BLE 38MM	RELEASE NEW PART NUMBER	NO	N/A
MPMI1543	-	-	HUB, MINI MULTI MODE GATEWAY, WHITE	RELEASE NEW PART NUMBER	NO	N/A

ADDITIONAL INFORMATION	

AFFECTED DOCUMENTS / PROCESSES (CHECK ALL THAT APPLY)

BOM / CONFIG	☒	PRODUCT / PART SPEC	☒	QC CHECKLIST	☐	PART DRAWING	☐	ASSEMBLY DRAWING	☐	INSTR SHEET	☒	PROCESS VISUAL AIDS	☒	WORK INSTRUCTIONS	☒

ECO APPROVALS ROUTING

APPROVER	APPROVAL REQUIRED	APPROVER NAME	APPROVAL STATUS	APPROVED ON	NOTES
PHASE II MANAGEMENT (US - DL)	☒	T. DAVIDSON	APPROVED	01/22/2024	
PHASE II PROD DEV (US - NY)	☒	L. HUNT	APPROVED	01/22/2024	
MANAGEMENT (MX)	☒	L. MONTEJO	APPROVED	01/22/2024	
QC / ENG (MX)	☒	H. AMEZQUITA	APPROVED	01/22/2024	
IT (MX)	☒	E. CASTELLANOS	APPROVED	01/22/2024	
PRODUCTION (MX)	☐				
MATERIALS (MX)	☐				

ACTIONS REQUIRED

|		
BOM / CONFIG	☒	WILL BE MODIFIED BY IT (MX)
PRODUCT / PART SPEC	☒	WILL BE MODIFIED QC / ENG (MX)
QC CHECKLIST	☐	WILL BE MODIFIED QC / ENG (MX)
PART DRAWING	☐	WILL BE MODIFIED QC / ENG (MX)
ASSEMBLY DRAWING	☐	WILL BE MODIFIED QC / ENG (MX)
INSTR SHEET	☒	WILL BE MODIFIED PHASE II (USA)
PROCESS VISUAL AIDS	☒	WILL BE MODIFIED QC / ENG (MX)
WORK INSTRUCTIONS	☒	WILL BE MODIFIED QC / ENG (MX)

PICTURES, DRAWINGS, ETC.
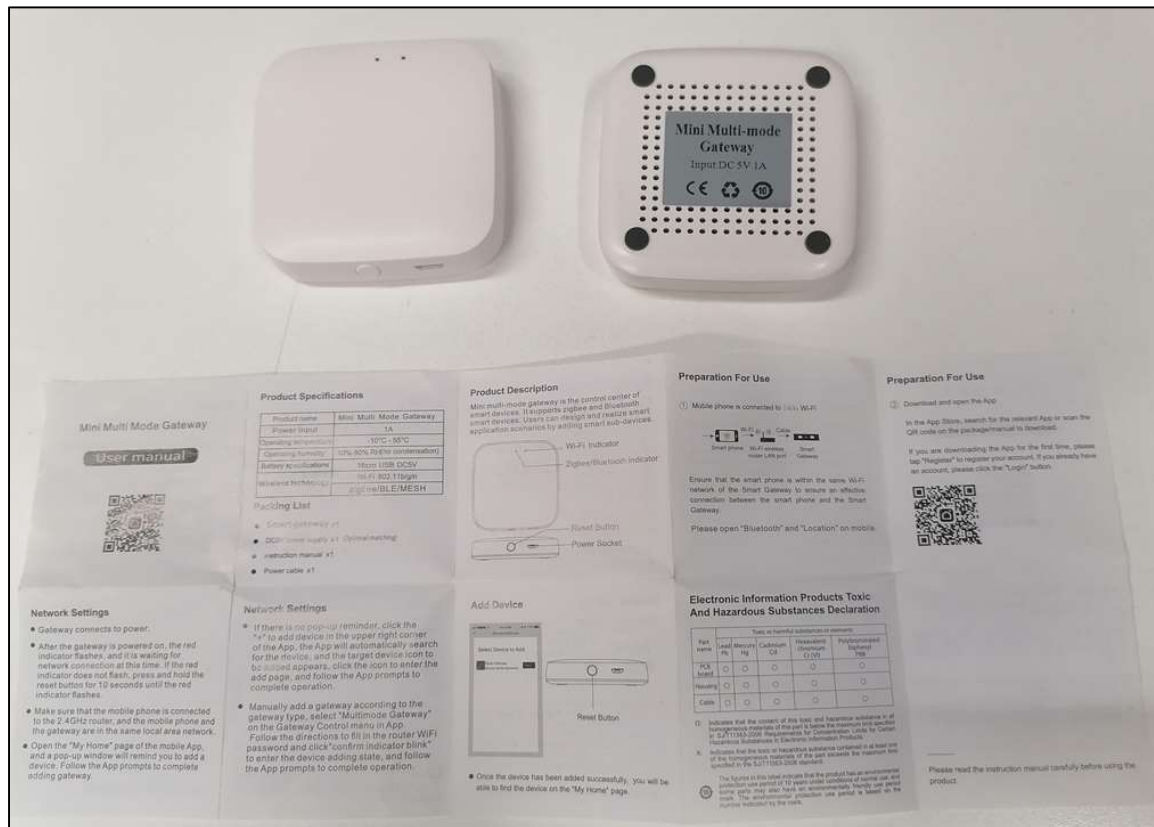
MPMI1543 HUB, MINI MULTI MODE GATEWAY, WHITE

MOTOR PROGRAM INSTRUCTION

MOTOR FEATURES

- Energy saving design, powered by large capacity Li-ion battery;
  Motor can be control by RF remote and APP control via Bluetooth communication protocol
- Easy operation intelligent motor; Motor program settings can be do either by remote or by smart phone APP
- Patented smooth and quiet design; soft start and soft stop; running noise level lower to 35dB
- Low battery warning mode remind customer to charge motor in time
- motor can set 6 limits, include top/bottom limits and 4 favorite intermediate limits
- various user friendly features on APP control via Bluetooth
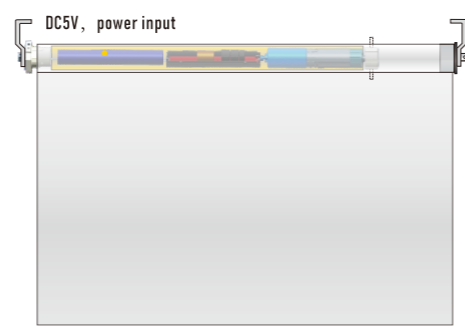
POWER SOURCE & CHARGING

DC5V， power input

- Built-in Li-ion battery supply. Recharged using an external charging kit include a charger block and one USB-C charging cable.
- Motor one full charge ca be used for 4-6 months vary with shade use frequency.
- Charging time is 6-8 hours;

Tips:
1.For longer life service of the motorized shade, we suggest all li-ion battery motor need to charge battery every 6 months to avoid battery over discharge
2. Please charge the motor for around 6 hours until you see the green light before first use
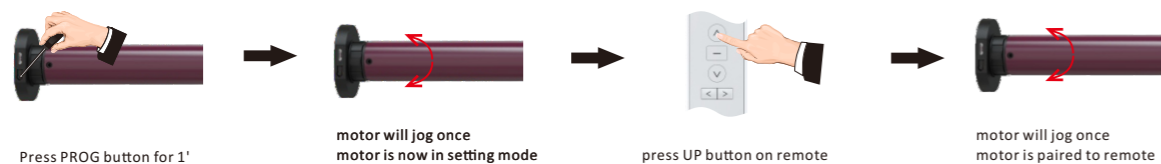
remote illustration

UP
STOP
DOWN
select channel

Learn
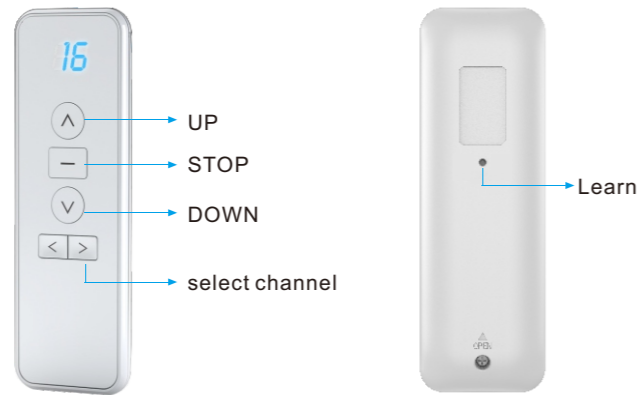
Operation Instruction

1.Power ON/OFF   ∗ After switching off power, the motor will not be able to receive remote signals.

Power ON

Press the PROG button on motor head for 1'', motor flash red one time

Power OFF

Press the PROG button on motor head for 7'', motor flash red 3 times

2. Pairing remote   ∗ If there is no action in 10 seconds, the motor will exit programming automatically.

Press PROG button for 1'

motor will jog once motor is now in setting mode

press UP button on remote

motor will jog once motor is paired to remote

3. Copy new remote

press STOP button of the paired remote for 5''

motor will jog once motor is now in setting mode

press UP button on new remote that you want to add. motor will jog and copy a new remote to control motor
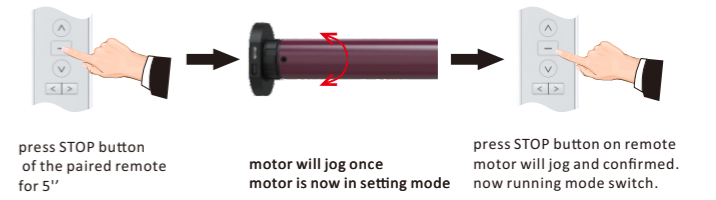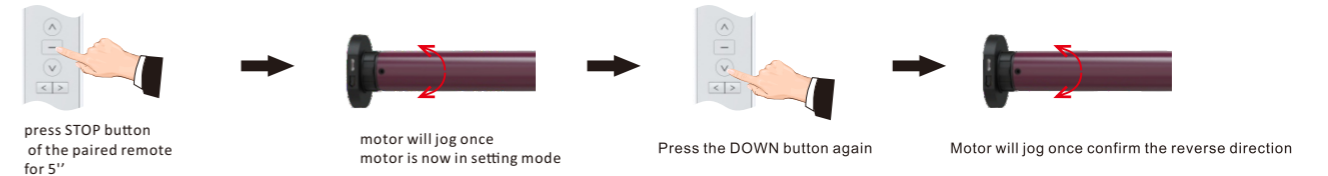
4.Change running mode (two modes)

(Continuously mode: when you hit the up/down button, motor will immediately run to next limit)
(Jogging move mode: when you hit the up/down button less than 1'', motor only jog, keep press for more than1'', motor will keep running)
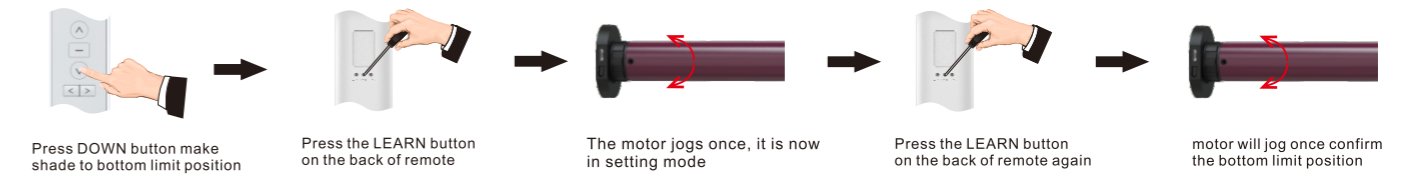
press STOP button of the paired remote for 5''

motor will jog once motor is now in setting mode

press STOP button on remote motor will jog and confirmed. now running mode switch.

5.Change direction

press STOP button of the paired remote for 5''

motor will jog once motor is now in setting mode

Press the DOWN button again

Motor will jog once confirm the reverse direction

6.TOP limit setting

Press the LEARN button on the back of remote

The motor jogs once, it is now in setting mode

Press UP button make shade to top limit position

Press the LEARN button on the back of remote again

motor will jog once confirm the top limit position

7.Bottom limit setting

Press DOWN button make shade to bottom limit position

Press the LEARN button on the back of remote

The motor jogs once, it is now in setting mode

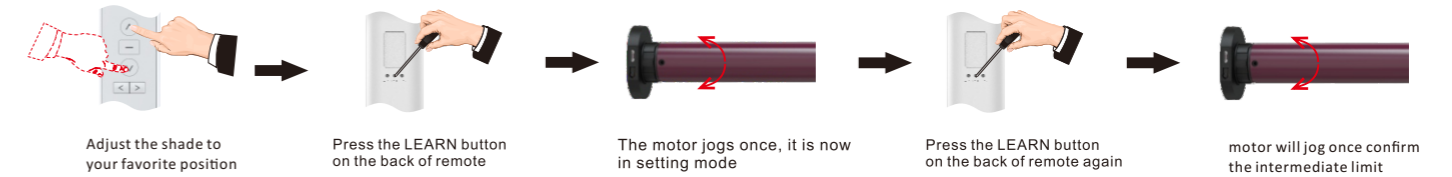Press the LEARN button on the back of remote again
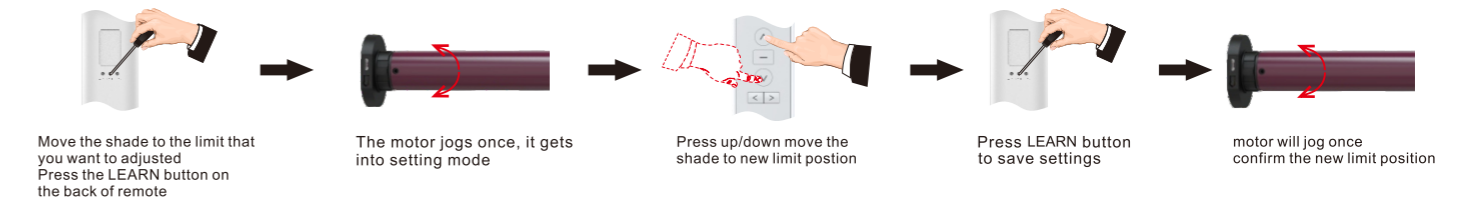
motor will jog once confirm the bottom limit position

8. Other limit position setting   ∗ If there's no any action within 30's,the motor will exit from limit position preparation automatically
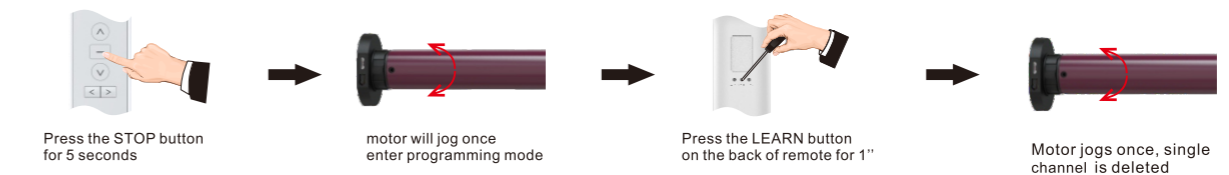
You can set 4 limits between top and bottom limits

Adjust the shade to your favorite position

Press the LEARN button on the back of remote

The motor jogs once, it is now in setting mode

Press the LEARN button on the back of remote again

motor will jog once confirm the intermediate limit

9.Limit position fine-tuning

Move the shade to the limit that you want to adjusted Press the LEARN button on the back of remote

The motor jogs once, it gets into setting mode

Press up/down move the shade to new limit postion

Press LEARN button to save settings

motor will jog once confirm the new limit position

10.Delete Single Channel program   (if you want to remove one channel's setting, pls do as follow)

Press the STOP button for 5 seconds

motor will jog once enter programming mode

Press the LEARN button on the back of remote for 1''

Motor jogs once, single channel is deleted

11.Delete the limit position   tips: the first limit can't be deleted until you delete all the settings(restore to factory mode)
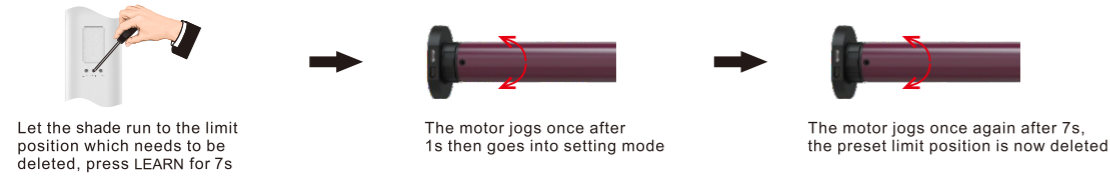
Let the shade run to the limit position which needs to be deleted, press LEARN for 7s
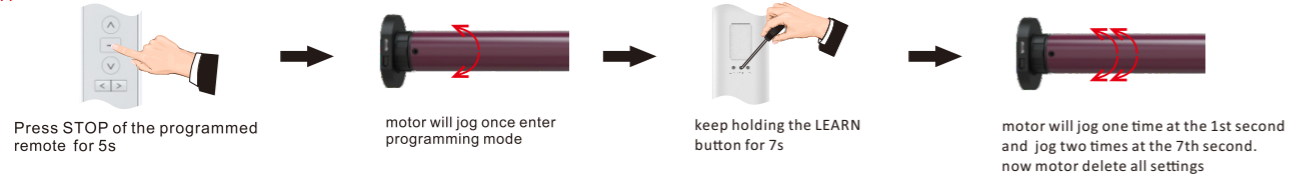
The motor jogs once after 1s then goes into setting mode

The motor jogs once again after 7s, the preset limit position is now deleted

12. Delete all settings (restore to factory mode)

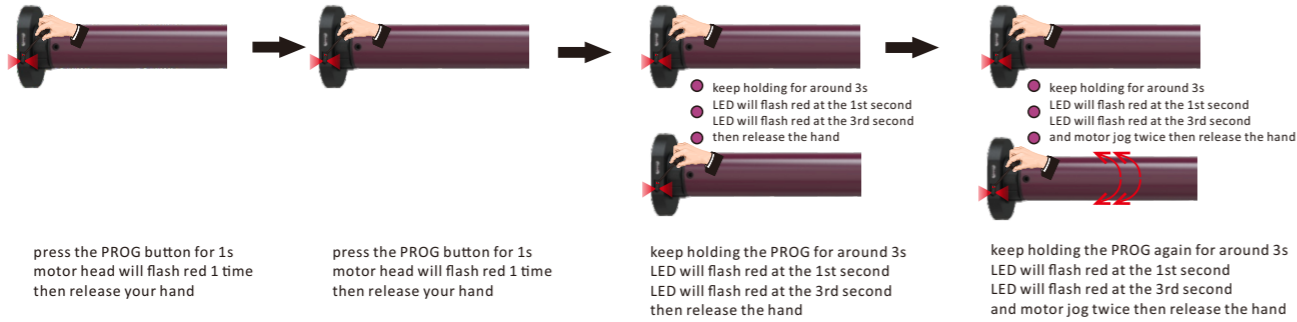(Two methods, one on the remote, another one on motor head)

Method A

Press STOP of the programmed remote for 5s

motor will jog once enter programming mode

keep holding the LEARN button for 7s

motor will jog one time at the 1st second and jog two times at the 7th second. now motor delete all settings

Method B

press the PROG button for 1s motor head will flash red 1 time then release your hand

press the PROG button for 1s motor head will flash red 1 time then release your hand

keep holding for around 3s
LED will flash red at the 1st second
LED will flash red at the 3rd second
then release the hand

keep holding the PROG for around 3s
LED will flash red at the 1st second
LED will flash red at the 3rd second
then release the hand

keep holding for around 3s
LED will flash red at the 1st second
LED will flash red at the 3rd second
and motor jog twice then release the hand

keep holding the PROG again for around 3s
LED will flash red at the 1st second
LED will flash red at the 3rd second
and motor jog twice then release the hand

13. Reset motor Bluetooth   ✴ Make sure the interval between every actions less than 1s

when you receive your motor, usually you don't need to reset motor Bluetooth. Just open your APP and scan devices, the APP will automatically scan the Bluetooth motor around you. If your APP can't find the Bluetooth motor around you. then you can reset the motor Bluetooth. Motor will refresh the Bluetooth signal.

press the PROG button for 1s motor head will flash red 1 time then release your hand

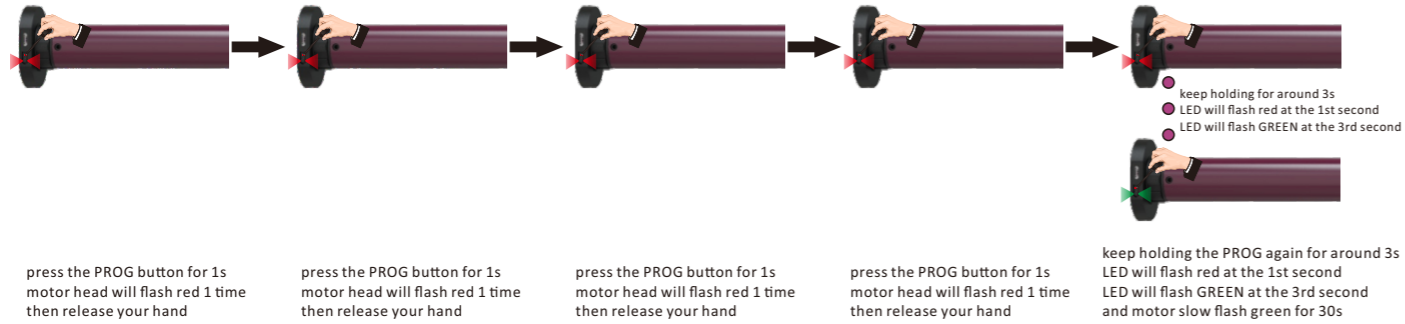press the PROG button for 1s motor head will flash red 1 time then release your hand

press the PROG button for 1s motor head will flash red 1 time then release your hand

press the PROG button for 1s motor head will flash red 1 time then release your hand

keep holding for around 3s
LED will flash red at the 1st second
LED will flash GREEN at the 3rd second

keep holding the PROG again for around 3s
LED will flash red at the 1st second
LED will flash GREEN at the 3rd second
and motor slow flash green for 30s

Supplemental Instruction

a. Max. 6 limit stop positions. (Upper limit/ Lower limit and 4 intermediate limit positions)
b. When the first limit position is the up limit position, all other limit positions can only below this position; the same thing, when the first limit position is the down limit position, all other limit positions can only be set above this position. can't be delete
c. Every limit position can be fine-turned or deleted separately (the first limit position can only be fine-tuned but can't be deleted separately. It can be deleted when delete all memories)
d. Under the jog mode, short press the up or down button, motor jogs once. Press the up or down button for more than 1s, and the engine moves to the limit
e. Under the continuous move mode, quickly press the up or down button twice on the transmitter, and the motor will go directly to the up or down limit stop position without stopping at the middle limit position.
f. The light is red when charging and will turn to green when fully charged.

Battery shortage alarm:

The motor will step into jog mode and continuously beep when the battery capacity is below 6.8V, which means you must charge the motor now.
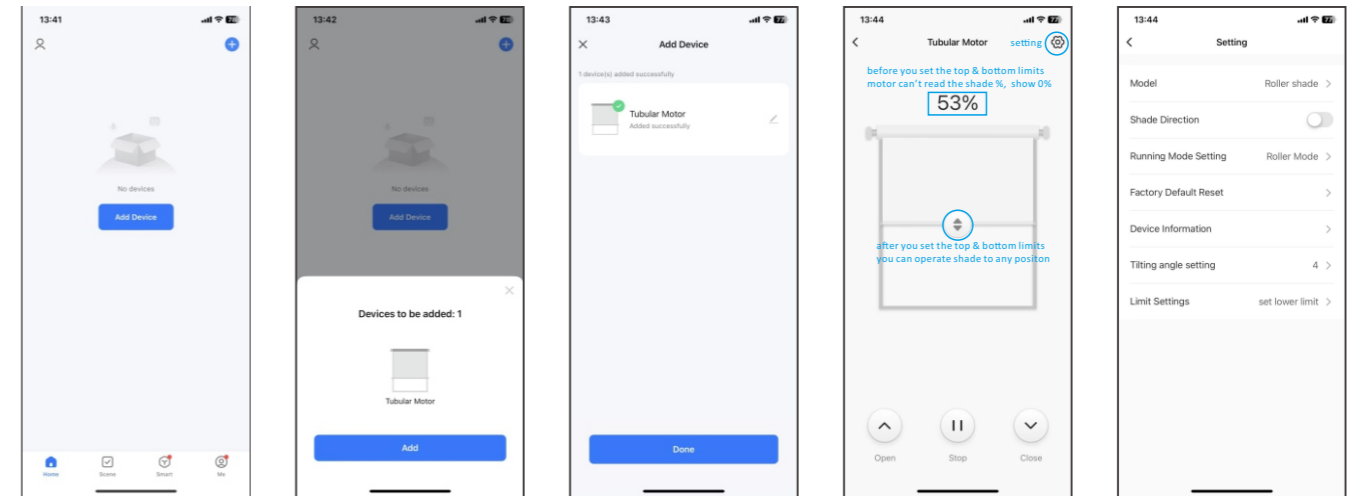
Trouble Shooting

Item	Problem	Matter	Shooting
1	The motor doesn't work and no any move	A. Power is cut off B. Shortage voltage protection C.Incorrect installation leads to motor stucking	A. Switch it on by button B. Start the motor after charging it for 6 hours C.Check and make sure all parts are installed properly
2	The motor stops suddenly during operation	A.Shortage voltage protection B.Protect the motor when encounter obstacle	A.The motor will resume to work after being charged B.Check if there is something stuck or overloading

3.

APP control operation instruction

Smart Life - Smart Living
Smart Living
Volcano Technology Limited
#46 in Lifestyle
★★★★★ 4.7 • 265.2K Ratings
Free - Offers In-App Purchases

Apple Store(iOS)   Google Play(Android)

Set up preparatory work:

1. Power on Multi-Mode Gateway hub
2. Download and install "Smart Life" APP on phone

Bluetooth local control

before you set the top & bottom limits motor can't read the shade %, show 0%

53%

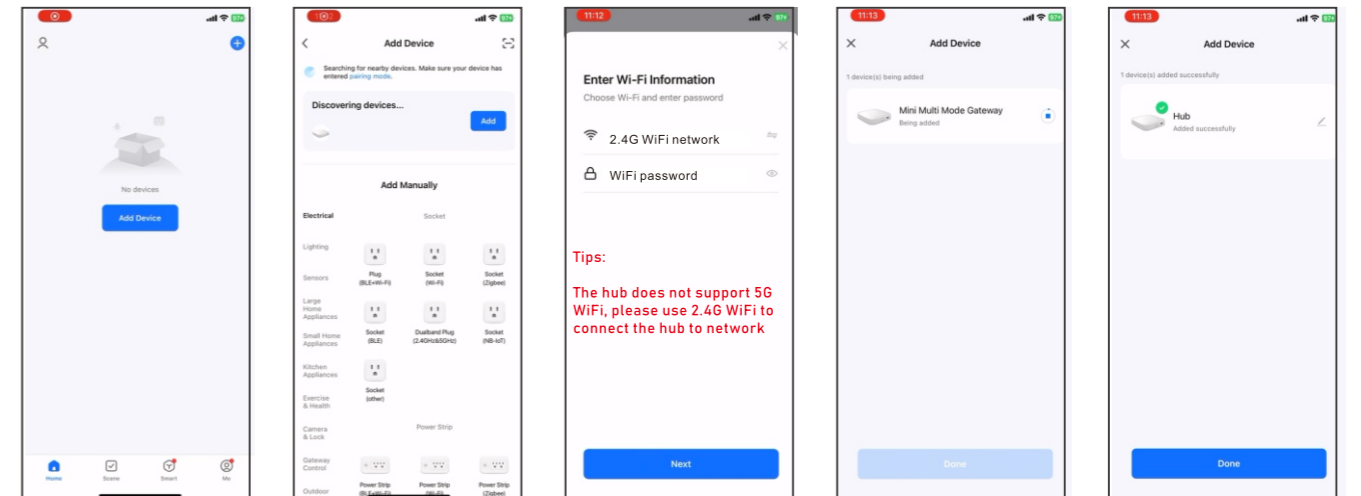after you set the top & bottom limits you can operate shade to any position

1. Register and login **"Smart Life" APP**
2. Click **"Add Device"** the APP will search devices.
3. When the APP discover BLE motor, choose **"Add"**

4. Choose **"Done"** when motor successfully add to the APP. Now you can control motor

5. now you can click **"open" "stop" "close"** to control your shade.
6. Make sure to check your shade had set the limits with remote, if not you can also set the limits under setting menu. then **you could slide the shade to any favorite position.** Enjoy your smart BLE local control

Bluetooth remote control (To achieve remote access control shades outside your home, you must need to buy a Bluetooth Gateway Hub)

Enter Wi-Fi Information
Choose Wi-Fi and enter password

2.4G WiFi network
WiFi password

Tips:

The hub does not support 5G WiFi, please use 2.4G WiFi to connect the hub to network

1. Register and login **"Smart Life" APP**
2. Click **"Add Device"**, the APP will search devices.
3. When the APP discover the hub, choose **"Add"**

4. Choose 2.4G WiFi and input WiFi password to enable the hub to network.
5. Click **"Next"**, the APP will automatically add the hub.
   When the hub successfully added, click "Done"

Step2:associate BLE devices
Associate Bluetooth devices
Add new devices
Cancel
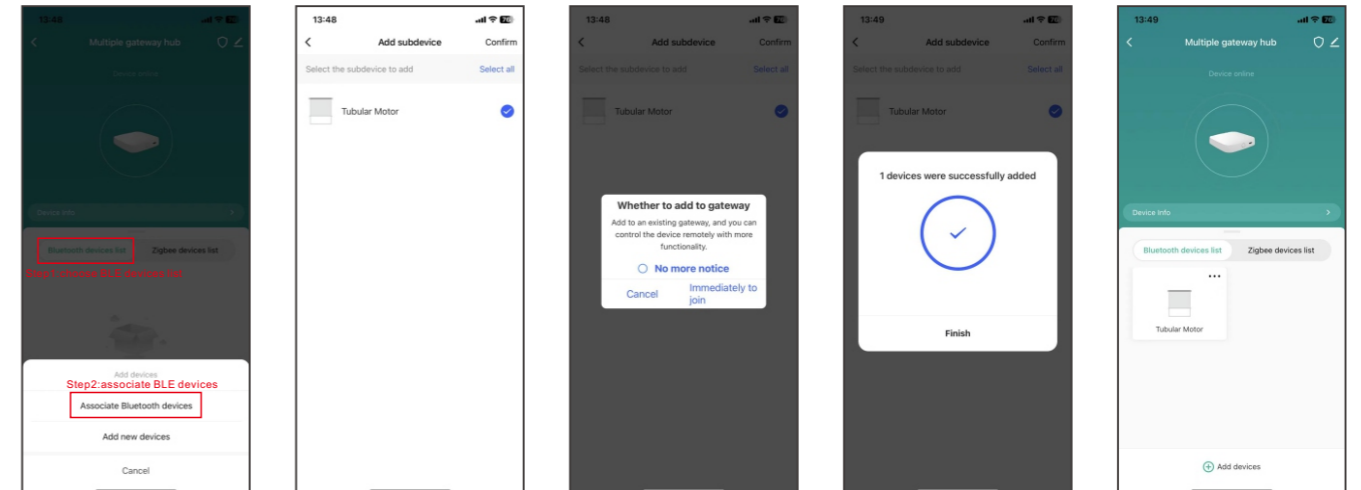
6. Choose **"Bluetooth devices list"**
7. Click **"Add Device"** .
8. Choose **"Associate Bluetooth devices"**

9. Choose the local control shades that you want to do remote access control
10. Click **"Immediately to join"** then these shades will bonded to this hub
11. Now you can control your shades outside home under the Bluetooth devices list

Mini Multi Mode Gateway

User manual

Product Specifications

Product name	Mini Multi Mode Gateway
Power input	1A
Operating temperature	-10°C - 55°C
Operating humidity	10%-90% RH(no condensation)
Battery specifications	Micro USB DC5V
Wireless technology	Wi-Fi 802.11b/g/n
	zigbee/BLE/MESH

Packing List

- Smart gateway x1
- DC5V power supply x1 (Optional matching)
- Instruction manual x1
- Power cable x1

Product Description

Mini multi-mode gateway is the control center of smart devices. It supports zigbee and Bluetooth smart devices. Users can design and realize smart application scenarios by adding smart sub-devices.

Wi-Fi Indicator

Zigbee/Bluetooth indicator

Reset Button

Power Socket

Preparation For Use

① Mobile phone is connected to 2.4GHz Wi-Fi

Smart phone — Wi-Fi wireless router LAN port — Smart Gateway

Ensure that the smart phone is within the same Wi-Fi network of the Smart Gateway to ensure an effective connection between the smart phone and the Smart Gateway.

Please open "Bluetooth" and "Location" on mobile.

Preparation For Use

② Download and open the App

In the App Store, search for the relevant App or scan the QR code on the package/manual to download.

If you are downloading the App for the first time, please tap "Register" to register your account. If you already have an account, please click the "Login" button.
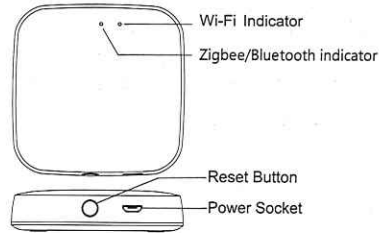

Network Settings

- Gateway connects to power.
- After the gateway is powered on, the red indicator flashes, and it is waiting for network connection at this time. If the red indicator does not flash, press and hold the reset button for 10 seconds until the red indicator flashes.
- Make sure that the mobile phone is connected to the 2.4GHz router, and the mobile phone and the gateway are in the same local area network.
- Open the "My Home" page of the mobile App, and a pop-up window will remind you to add a device. Follow the App prompts to complete adding gateway.
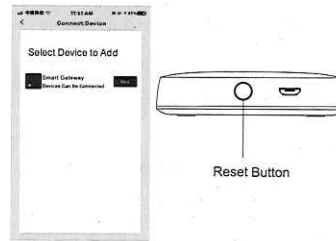
Network Settings

- If there is no pop-up reminder, click the "+" to add device in the upper right corner of the App, the App will automatically search for the device, and the target device icon to be added appears, click the icon to enter the add page, and follow the App prompts to complete operation.
- Manually add a gateway according to the gateway type, select "Multimode Gateway" on the Gateway Control menu in App. Follow the directions to fill in the router WiFi password and click"confirm indicator blink" to enter the device adding state, and follow the App prompts to complete operation.

Add Device

Select Device to Add

Reset Button

- Once the device has been added successfully, you will be able to find the device on the "My Home" page.

Electronic Information Products Toxic And Hazardous Substances Declaration

Part name	Toxic or harmful substances or elements				
	Lead Pb	Mercury Hg	Cadmium Cd	Hexavalent chromium Cr (VI)	Polybrominated biphenyl PBB
PCB board	O	O	O	O	O
Housing	O	O	O	O	O
Cable	O	O	O	O	O

O: Indicates that the content of this toxic and hazardous substance in all homogeneous materials of this part is below the maximum limit specified in SJ/T11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products;

X: Indicates that the toxic or hazardous substance contained in at least one of the homogeneous materials of the part exceeds the maximum limit specified in the SJ/T11363-2006 standard.

The figures in this label indicate that the product has an environmental protection use period of 10 years under conditions of normal use, and some parts may also have an environmentally friendly use period mark. The environmental protection use period is based on the number indicated by the mark.

Please read the instruction manual carefully before using the product