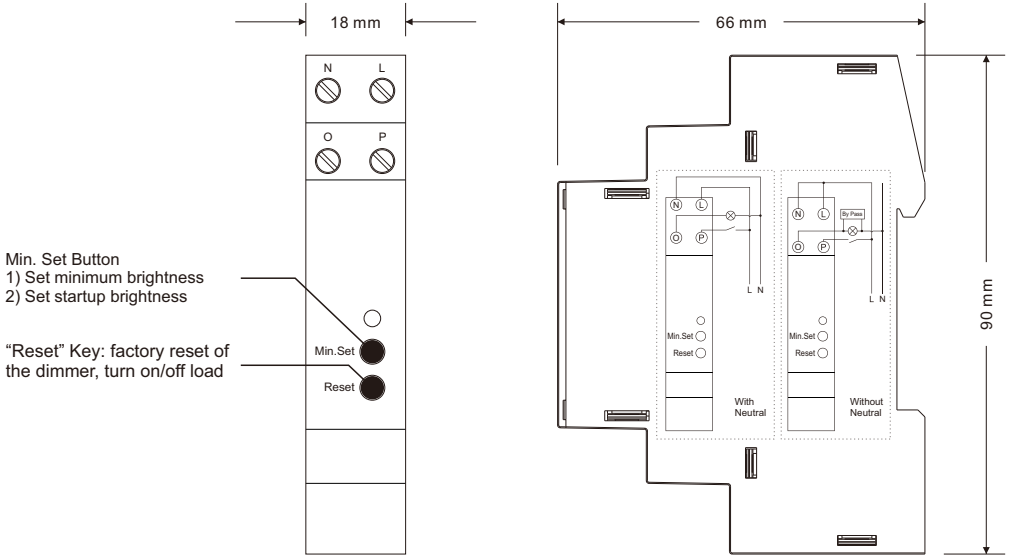
Matter DIN Rail Smart Dimmer

Important: *Read All Instructions Prior to Installation*

Function introduction



Product Data

Input Voltage	Output Voltage	Output Current	Size(LxWxH)
100-240VAC	100-240VAC	0.1-1.8A	90x66x18mm

Compatible Load Types			
Load Symbol	Load Type	Maximum Load	Remarks
	Dimmable LED lamps	200W @ 230V 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.
	Dimmable LED drivers	200W @ 230V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver nameplate power rating.
	Incandescent lighting, HV Halogen lamps	400W @ 230V 200W @ 110V	
	Low voltage halogen lighting with electronic transformers	200W @ 230V 100W @ 110V	

- Matter AC phase cut dimmer
- 100-240VAC Wide Input and Output Voltage
- Supports resistive loads, capacitive loads or inductive loads
- 1 Channel Output, Up to 400W
- Input and Output with Screw Terminals, Safe and Reliable
- Both leading edge version and trailing edge versions are available for choosing, preset by factory setting
- Enables to control ON/OFF and light intensity of connected light source
- App control through Matter (e.g. Apple Home, Amazon Alexa, Google Home)
- Can be voice controlled through Apple Siri, Google Assistant, Amazon Alexa
- Eliminates the shortcoming of Matter having few remote and wall switch devices
- Support power metering

Main Features:

- Can operate under two-wire connection with no neutral lead or three-wire connection with neutral lead
- Advanced microprocessor control
- Implemented algorithm of smart light source detection
- Active power and energy metering functionality
- Soft start function
- Innovative minimum dimming level and startup brightness setting function
- Works with various types of switches – momentary, toggle, three-way, etc.
- Active element: semiconductor electronic switch
- To be installed in wall switch boxes of dimensions allowing for installation, conforming to provisions of applicable regulations
- The Bypass is an extension unit

As a dimmer it operates under the following loads:

- Conventional incandescent and HV halogen light sources
- ELV halogen lamps and dimmable LED bulbs (with electronic transformers)
- MLV halogen lamps (with ferromagnetic transformers)
- Dimmable LED bulbs
- Dimmable compact fluorescent CFL tube lamps
- Supported dimmable light sources (power factor > 0.5) with minimal power of 3VA using the Bypass (depending on the type of load)

Trailing edge or leading edge dimming mode can be preset by factory setting to control following types of loads:

- "Trailing edge" for resistive loads
- "Trailing edge" for capacitive loads
- "Leading edge" for inductive loads

Note: factory default version is trailing edge.

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Operation

1. Do wiring according to connection diagram correctly.

2. This Matter thread device is a wireless receiver that communicates with a variety of Matter compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible Matter system.

3. Add to a Matter platform and control through the platform:

Note: An Apple HomePod mini is used as a Matter border router for adding and controlling the device. For other Matter border routers, please refer to their user manuals to learn how to add and control Matter devices.

Step 1: Prepare an iPhone (iOS 16.2 or later) or iPad (iPadOS 16.2 or later) with the latest version firmware, and prepare an Apple HomePod mini with the latest version firmware.

Step 2: Connect the iPhone or iPad to your home WLAN network. Run the Apple Home app and set up the HomePod mini as instructed by Apple (as shown in **Figure 1** to **Figure 7**).

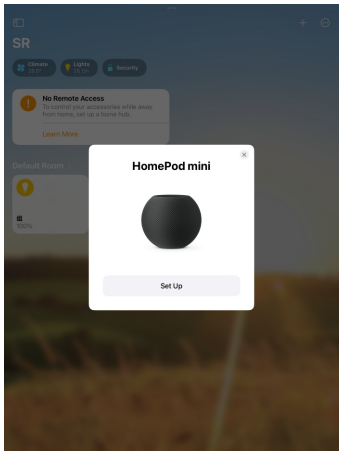


Figure 1

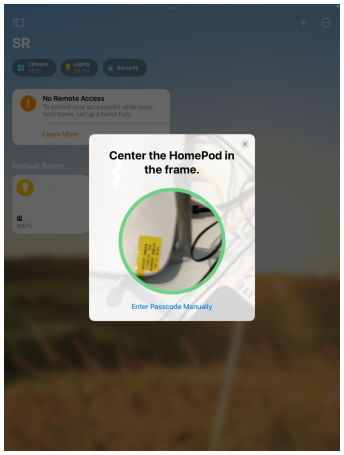


Figure 2

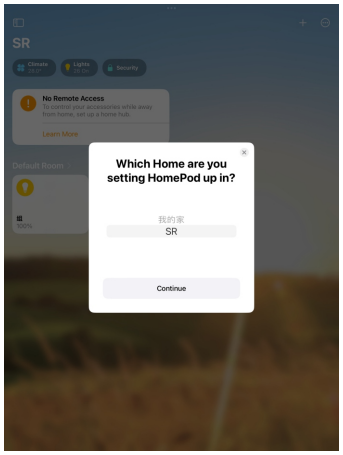


Figure 3

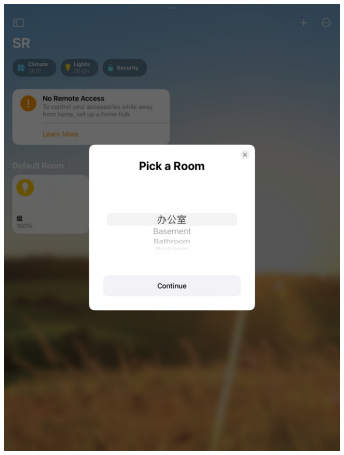


Figure 4

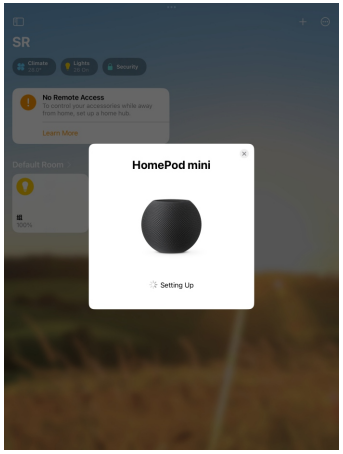


Figure 5

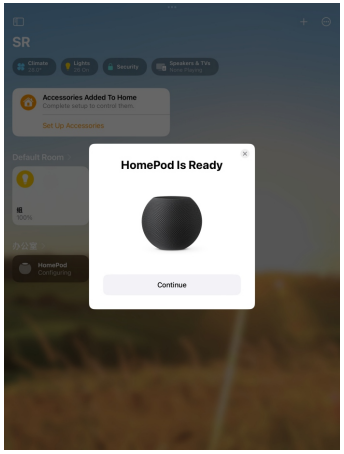


Figure 6

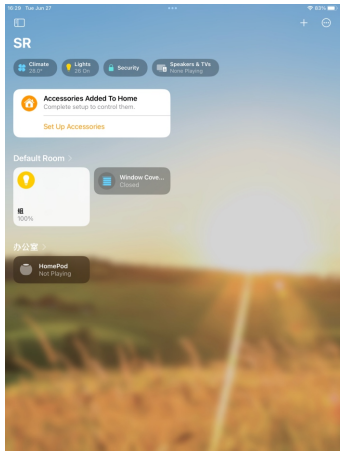


Figure 7

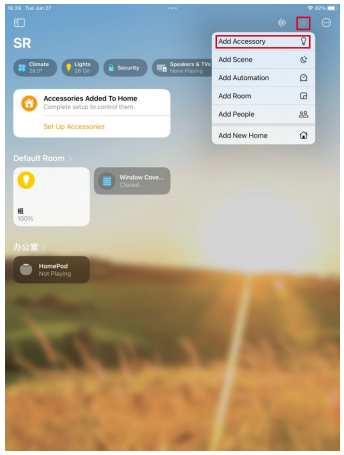


Figure 8

Step 3: Do wiring of the Matter thread dimmer according to the wiring diagram and power on it.

Step 4: Add the Matter thread dimmer to the Apple Home app by scanning the QR code sticker on the dimmer as shown in **Figure 8** to **Figure 15**.

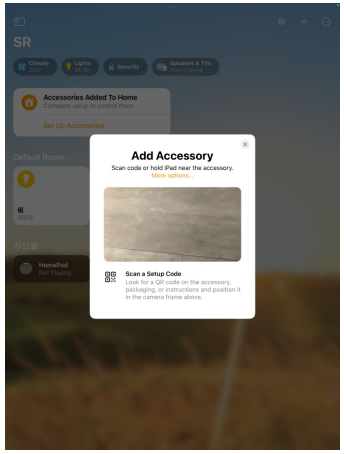


Figure 9

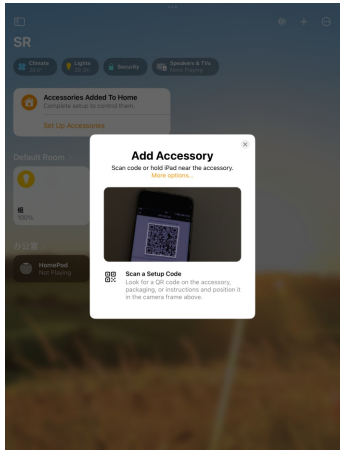


Figure 10

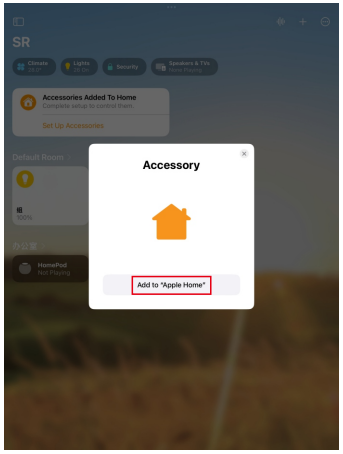


Figure 11

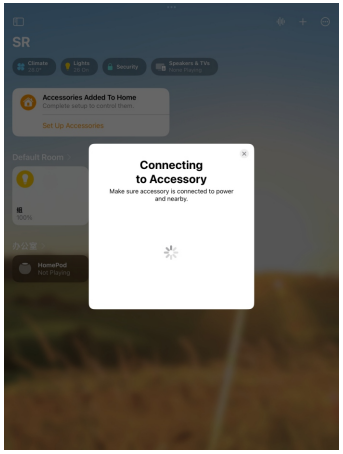


Figure 12

Note: Before scanning the QR coder sticker on the dimmer as shown in Figure 10, short press the reset button 5 times to reset the dimmer so that it can be discovered by the Apple Home app. Otherwise if it has already been added to another gateway, current gateway can not discover and add it.

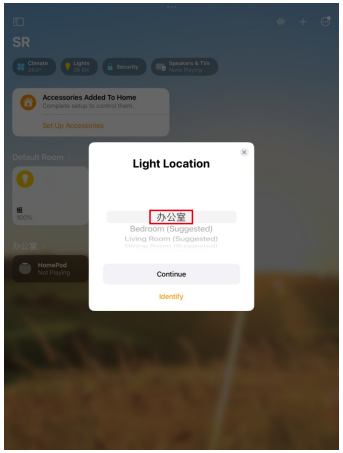


Figure 13

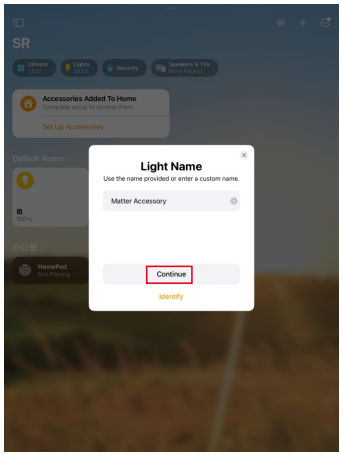


Figure 14

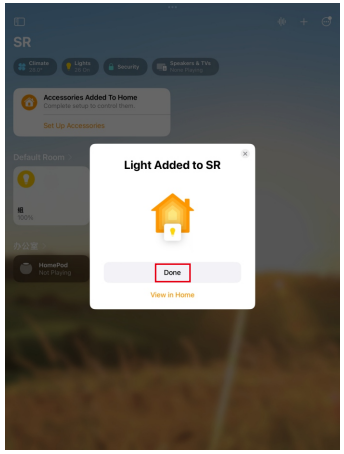


Figure 15

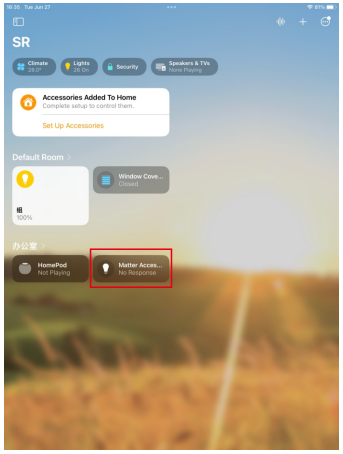


Figure 16

Note: When choose the room that you would like to add the dimmer to, please make sure to choose the same room that the HomePod mini is located as shown in Figure 13.

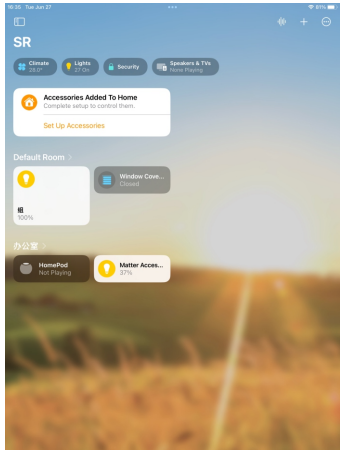


Figure 17

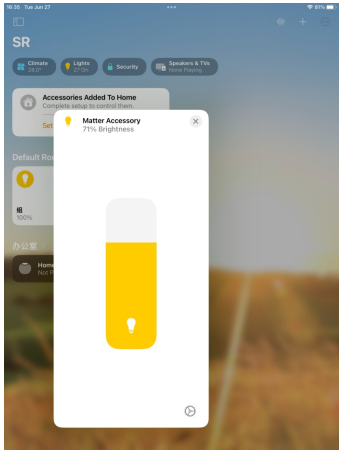
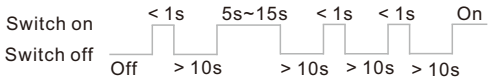


Figure 18

Step 5: once the dimmer is added to the gateway successfully, tap on the device to control on/off and brightness of the dimmer as shown in **Figure 16** to **Figure 18**.

4. Restore factory settings

To restore the factory settings, short press the “Reset” button 5 times or switch the device power on and off in the following sequence. If the device is successfully reset, the connected light will blink 3 times to indicate successful reset.



5. Setting minimum brightness:

Press and hold down “Min. Set ” key for 3s to set minimum brightness: when current brightness value is 1% - 50%, it will be set as minimum brightness. When current brightness value is 100%, previously set minimum brightness will be deleted. Once a minimum brightness is set, the connected load can not be dimmed below this level.

6. Set Startup Brightness

Short press “Min. Set” key twice to set startup brightness: when current brightness value is 1 - 50%, it will be set as startup brightness. When current brightness value is 0%, previously set startup brightness will be deleted.

Note: Startup brightness setting function is to avoid the phenomenon that some dimmable LED drivers can not be turned on after dimmed to a low level and turned off. Once setting a startup brightness, if the startup brightness is higher than dimmed level before turned off, the driver will first go to the startup brightness after turned on then drop down to the dimmed level. If the startup brightness is lower than the dimmed level before turned off, the driver will directly go to the dimmed level after turned on.

7.Controlled by a push switch:

Once connected with a push switch, click the push switch to switch ON/OFF, press and hold down it to increase/decrease light intensity.

Wiring Diagram

Notes for the diagrams:

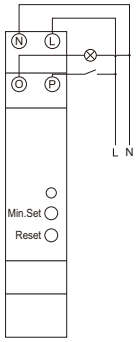
L - terminal for live lead

N - terminal for neutral lead

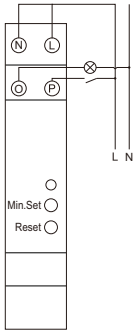
O - output terminal of the dimmer (controlling connected light source)

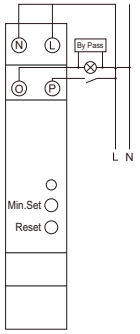
P - terminal for switch

Method 1: With neutral



Method 2: Without neutral





* When using the device without neutral, the smart dimmer requires at least 20W @ 240 VAC of power consumption to operate. If the connected light has a smaller power consumption, then Bypass is needed for the device to work.