

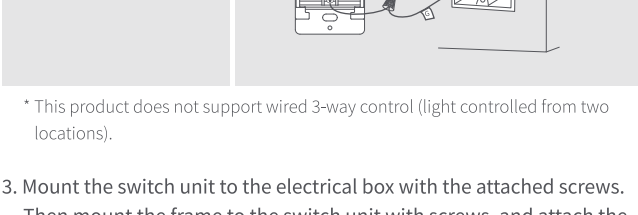


Dimmer Switch H2 US – User Manual

Product Introduction

Aqara Dimmer Switch H2 US is based on the Thread/Zigbee wireless communication protocol and can work with or without a neutral wire. It is compatible with a variety of lamps, including incandescent lamps, halogen lamps, dimmable LEDs, dimmable CFLs and ELV. Users can switch between the forward phase and reverse phase dimming mode based on load type to achieve brightness adjustment and switch control. It allows for remote control via the app, scheduling, power monitoring, power statistics, and other functions. Additionally, it can be used with other smart devices to achieve various interconnected control effects.

*To use the device with a particular Matter ecosystem, a Matter Controller of this ecosystem and a Thread Border Router are required. In most cases, a Thread Border Router is integrated in your Matter Controller, combining both functions in one device.

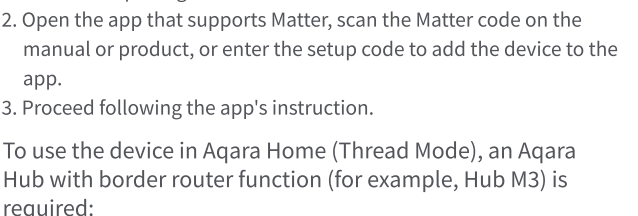


Warnings

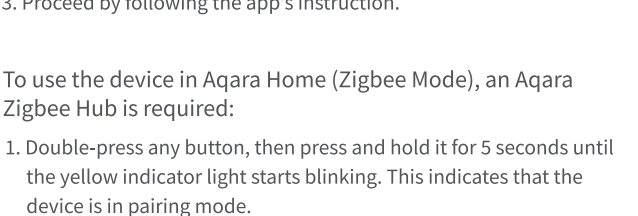
1. This product is not a toy. Please keep it away from children.
2. This product is designed for indoor use only.
3. Do not use in humid environments or outdoors.
4. Moisture will damage the product. Do not spill water or other liquids onto the product.
5. Do not place this product near a heat source. Do not place it in an enclosed area unless there is adequate ventilation.
6. Do not attempt to repair this product by yourself. All repairs should be performed by an authorized professional.
7. This product is suitable for home monitoring and smart home integration. The manufacturer is not responsible for any risks or property losses caused by misuse or failure to follow the product instructions.

Installation Method

1. Please make sure that the power at circuit breaker or fuse box is turned off before wiring!

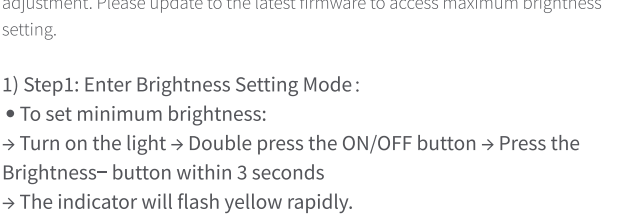


2. For single-pole use of Dimmer Switch H2 US, please follow the corresponding wiring methods according to your product model. It is recommended to seek assistance from a professional electrician to complete this step.

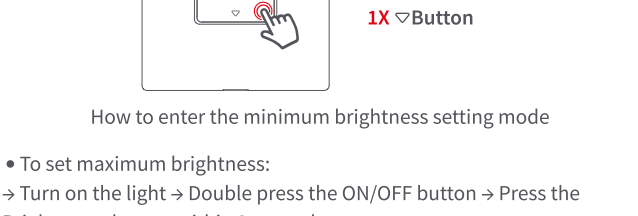


* This product does not support wired 3-way control (light controlled from two locations).

3. Mount the switch unit to the electrical box with the attached screws. Then mount the frame to the switch unit with screws, and attach the faceplate cover to the frame.



4. Turn on the power at the circuit breaker and test the switch by pressing the On/Off and Dimming Buttons. If the wired light can be controlled by the On/Off and Dimming Button, the switch is functioning correctly.



5. In the Aqara Home app, tap Add Accessory, choose Dimmer Switch H2 US. Scan the Matter Code on the printed manual to add the device to the app. The following Quick Setup section will introduce the pairing methods for both Zigbee and Thread protocols.

*If the QR code on the paper manual is lost, you can remove the plastic cover frame and scan the QR code on the mounting bracket of the product.

Quick Setup

To use the device with a particular Matter ecosystem (Thread Mode), a Matter Controller of this ecosystem and a Thread Border Router are required.

1. Double-press any button, then press and hold it for 5 seconds until the green indicator light starts blinking. This indicates that the device is in pairing mode.
2. Open the app that supports Matter, scan the Matter code on the manual or product, or enter the setup code to add the device to the app.
3. Proceed following the app's instruction.

To use the device in Aqara Home (Thread Mode), an Aqara Hub with border router function (for example, Hub M3) is required:

1. Double-press any button, then press and hold it for 5 seconds until the green indicator light starts blinking. This indicates that the device is in pairing mode.
2. In the Aqara Home app, tap Add Accessory, choose Dimmer Switch H2 US, or keep your phone close to the device, and Dimmer Switch H2 US will appear in the app's discovery section (at the top left). Scan the Matter code on the manual or product or enter the setup code to add the device to the app. Select Thread on the Switch Protocol page.
3. Proceed by following the app's instruction.

To use the device in Aqara Home (Zigbee Mode), an Aqara Zigbee Hub is required:

1. Double-press any button, then press and hold it for 5 seconds until the yellow indicator light starts blinking. This indicates that the device is in pairing mode.
2. In the Aqara Home app, tap Add Accessory, keep your phone close to the device, and Dimmer Switch H2 US will appear in the app's discovery section (at the top left). Tap the icon and select Zigbee on the Switch Protocol page.
3. Proceed by following the app's instruction.

How to use

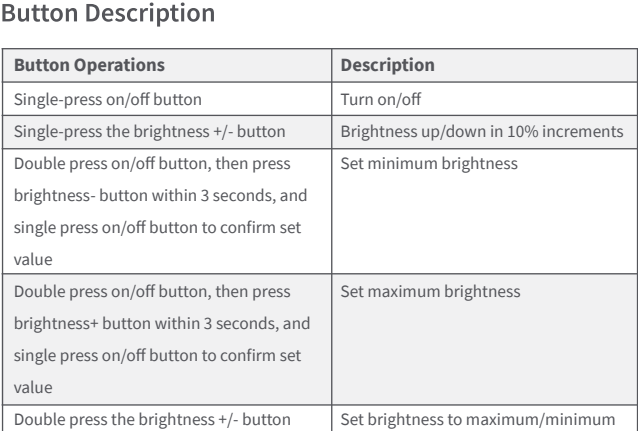
1. Minimum/Maximum Brightness Setting

This feature helps prevent issues such as the LED bulb not lighting up or flickering at the lowest or highest brightness levels. It also allows users to set brightness limits according to personal preferences.

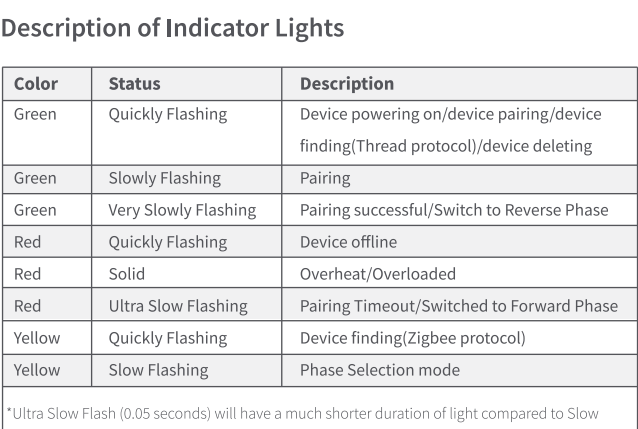
* Matter firmware versions below 1.0.5.0 support only minimum brightness adjustment. Please update to the latest firmware to access maximum brightness setting.

1) Step1: Enter Brightness Setting Mode :

- To set minimum brightness:
→ Turn on the light → Double press the ON/OFF button → Press the Brightness- button within 3 seconds
→ The indicator will flash yellow rapidly.
→ Proceed to Step 2.



- To set maximum brightness:
→ Turn on the light → Double press the ON/OFF button → Press the Brightness+ button within 3 seconds
→ The indicator will flash green rapidly.
→ Proceed to Step 2.



- 2) Step2: Adjust to the minimum brightness via button operation:

Button Operations	Effect
Double press the Brightness+ Double press the Brightness-	Jump to maximum brightness (100%) Jump to minimum brightness (0%)
Long press the Brightness+ Long press the Brightness-	Increase brightness to 100% in 10s Decrease brightness to 0% in 10s
Single press the Brightness+ Single press the Brightness-	Increase brightness by 1% Decrease brightness by 1%

- 3) Step3: Save the Brightness
Single press the On/Off button to save the current brightness as the minimum or maximum level. Double press the On/Off button to cancel and exit this mode.



2. On/Off Transition Setting

This function can prevent the lamp from abruptly turning on at full brightness, which can cause unnecessary light pollution or eye irritation, and can also extend the life of the lamp. Users can adjust these parameters through the dimmer setting interface according to their personal preferences and actual needs. Some lights require a certain power impulse, in order to start below 100% brightness. You can set the brightness level and time at which Dimmer Switch H2 US will turn on. Brightness range: 1 - 100%. Time range: 1 – 10.5s. Default: 500ms.

3. Phase Selection

- 1) Press five times to enter the phase selection mode (ON/OFF button)
- 2) Press to switch the phase (red: Forward Phase, green: Reverse Phase), long press to confirm the setting
Forward/Reverse Phase Dimming
Forward Phase: Used for Incandescent, LED, CFL and some Fluorescent controls (certain fluorescent controls require forward phase.)
Reverse Phase: Used for LED, CFL, ELV (Electronic Low Voltage), and some LED drivers or Incandescent loads. (ELV requires reverse phase dimming.)

Load	Usage	Rating
Incandescent/ Halogen	Compatible with both forward and reverse phase	Incandescent/ Halogens≤360W
CFL	Compatible with both forward and reverse phase	Dimmable CFLs 240W
LED	Compatible with both forward and reverse phase, but reverse phase often provides better performance	Dimmable LEDs 240W
ELV	Use reverse phase to proper function due to electronic transformer characteristics	ELV≤240W
Triac ELV	Use forward phase to proper function due to its characteristics	Triac ELV≤240W

Minimum Power: 4W (Aqara Home), 9W (other Matter platforms)
* When only using a 4W light bulb in Aqara Home, we suggest using Zigbee protocol and set the maximum brightness to 70%-75% to prevent flickering.

Note: Please always follow our load-specific recommendations for optimal Dimmer Switch H2 US performance and safety.

4. Dual Protocol (Thread/Zigbee) Switching

Switch From Thread Protocol to Zigbee Protocol

- 1) Install the Aqara Home app, and enable Wi-Fi and Bluetooth.
- 2) Reset the device network (double-press any button, then press and hold it for 5 seconds until the green indicator light flashes quickly), or reset to factory settings (press any button 10 times continuously) to enter network setup (the first time you add the device it will automatically begin pairing), with its green indicator light flashing quickly.
- 3) In the Aqara Home app, tap Add Accessory, scan the Matter code on the manual or product, then select Zigbee on the Switch Protocol page. Proceed by following the app's instruction.

Switch From Zigbee Protocol to Thread Protocol

- 1) Install the Aqara Home app, and enable Wi-Fi and Bluetooth.
- 2) Reset the device network (double-press any button, then press and hold it for 5 seconds until the yellow indicator light flashes quickly), or reset the device to factory settings (press any button 10 times continuously until yellow indicator light flashes quickly).
- 3) In the Aqara Home app, tap Add Accessory, keep the phone close to the device, and the Dimmer Switch H2 US will show in the app's discovery section (at the top left). Tap the icon and select Thread in the Switch Protocol page. Proceed by following the app's instruction.

Button Description

Button Operations	Description
Single-press on/off button	Turn on/off
Single-press the brightness +/- button	Brightness up/down in 10% increments
Double press on/off button, then press brightness- button within 3 seconds, and single press on/off button to confirm set value	Set minimum brightness
Double press on/off button, then press brightness+ button within 3 seconds, and single press on/off button to confirm set value	Set maximum brightness
Double press the brightness +/- button	Set brightness to maximum/minimum
Long press the brightness +/- button	Linearly adjust the brightness to the brightest/darkest
Press the on/off button 5 times	Enter Phase Selection mode
Double press the on/off button, then hold it for 5 seconds within 3 seconds of the double press	Reset network
Press the on/off button 10 times	Factory reset

Description of Indicator Lights

Color	Status	Description
Green	Quickly Flashing	Device powering on/device pairing/device finding(Thread protocol)/device deleting
Green	Slowly Flashing	Pairing
Green	Very Slowly Flashing	Pairing successful/Switch to Reverse Phase
Red	Quickly Flashing	Device offline
Red	Solid	Overheat/Overloaded
Red	Ultra Slow Flashing	Pairing Timeout/Switched to Forward Phase
Yellow	Quickly Flashing	Device finding(Zigbee protocol)
Yellow	Slow Flashing	Phase Selection mode

* Ultra Slow Flash (0.05 seconds) will have a much shorter duration of light compared to Slow Flash: 0.5 seconds), creating a very subtle visual signal.

Product Specifications

Product Name	Dimmer Switch H2 US
Model	WS-K05E
Wireless Protocols	Thread/Zigbee, Bluetooth
Electrical Rating	120VAC, 60Hz
Rated Load	Incandescent/Halogen ≤ 360W, Dimmable LED/CFL ≤ 240W, ELV ≤ 240W
Rated Type	Incandescent Halogen LED CFL ELV, ε
Minimum Power	4W (Aqara Home), 9W (other Matter platforms)
Dimensions	119 × 74 × 42 mm (4.68 × 2.93 × 1.66 in.)
Operating Temperature	0 °C ~ 40 °C (32 °F ~ 104 °F)
Operating Humidity	0 ~ 95% RH, no condensation
What is in the Box	Dimmer Switch H2 US × 1, User Manual × 1, Compliance Statement × 1, Screw Kit × 1, Wire Nuts Kit × 1, Wiring Sticker Sheet × 1
Bluetooth Operation Frequency	2402-2480 MHz
Bluetooth Maximum Output	≤ 13 dBm
Power	
Thread Operation Frequency	2405-2480 MHz
Thread Maximum Output	≤ 13 dBm
Power	
Zigbee Operation Frequency	2405-2480 MHz
Zigbee Maximum Output	≤ 13 dBm
Power	