Zigbee Curtain Motor Controller
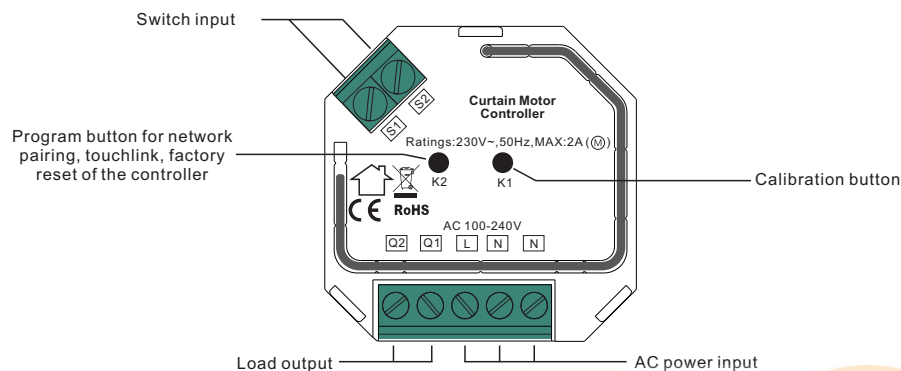
ROB_200-029-0

Important: *Read All Instructions Prior to Installation*

Function introduction

Switch input

Program button for network pairing, touchlink, factory reset of the controller

Curtain Motor Controller
Ratings:230V~,50Hz,MAX:2A (M)

K2   K1

Calibration button

AC 100-240V
Q2 Q1 L N N

Load output

AC power input

Product Data

Zigbee Protocol	Input Voltage	Output Voltage	Max. Load Current	Operating Temperature	Relative Humidity	Dimension (LxWxH)
Zigbee 3.0	AC100-240V	AC100-240V	2A	0 to 40°C	8% to 80%	45.5x45x20.3mm

• Zigbee curtain motor controller based on latest ZigBee 3.0 protocol

• Full support for various curtain types: roller blinds, shutter blinds, drapes, etc.

• Controlled by smart app or directly by zigbee remote

• Local control with external switches even if not added to a zigbee network

• Accurate control, supports both ON/OFF and level control

• ZigBee end device that supports Touchlink commissioning

• Supports self-forming zigbee network without coordinator

• Supports find and bind mode to bind a ZigBee remote

• Supports zigbee green power feature and can bind max. 20 zigbee green power remotes

• Compatible with universal ZigBee gateway products

• Waterproof grade: IP20

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 ZigBee device is a wireless receiver that communicates with a variety of ZigBee compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible ZigBee system.
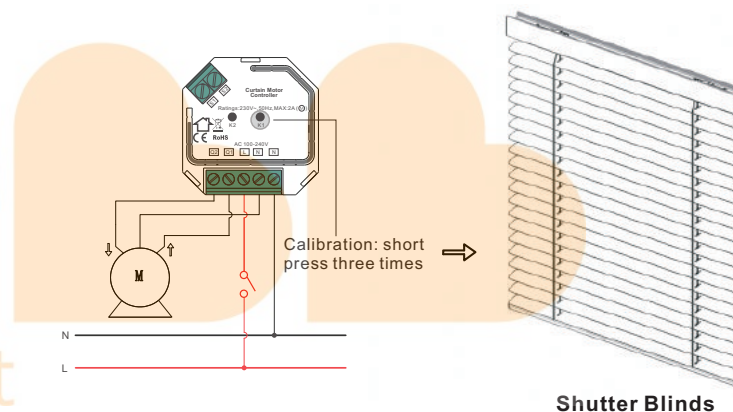
3. Positioning Calibration

Calibration is a process during which a curtain motor controller learns the position of the limit switches and a motor characteristic. Calibration is mandatory. Connect the controller to the motor according to wiring diagram, the calibration for different types of curtain are as follows:

1. Roller blinds and drapery type: short press button K1 twice, calibration starts automatically.

Calibration: short press twice

Roller Blinds   **Drapes**
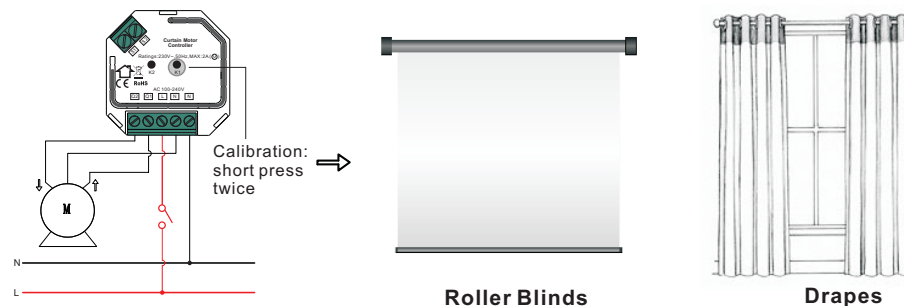
2. Shutter blinds type curtain: short press button K1 three times, calibration starts automatically.

Calibration: short press three times

Shutter Blinds

Note: to control another curtain motor, positioning calibration shall be done again.

4. Zigbee Network Pairing through Coordinator or Hub (Added to a Zigbee Network)

Step 1: Remove the device from previous zigbee network if it has already been added to, otherwise pairing will fail. Please refer to the part "**Factory Reset Manually**".

Step 2: From your ZigBee Controller or hub interface, choose to add device and enter Pairing mode as instructed by the controller.

Step 3: Reset power of the device to set it into network pairing mode, which lasts for 15 seconds, once timeout, repeat this step.
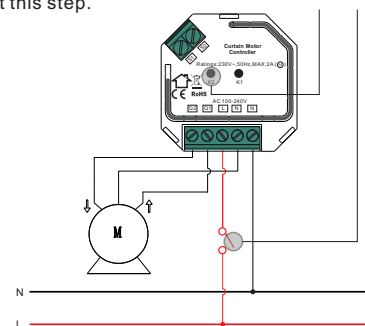
Step 4: There shall be response from the motor that the controller is added to the network successfully. Then the device will appear in your hub's menu and can be controlled through controller or hub interface.
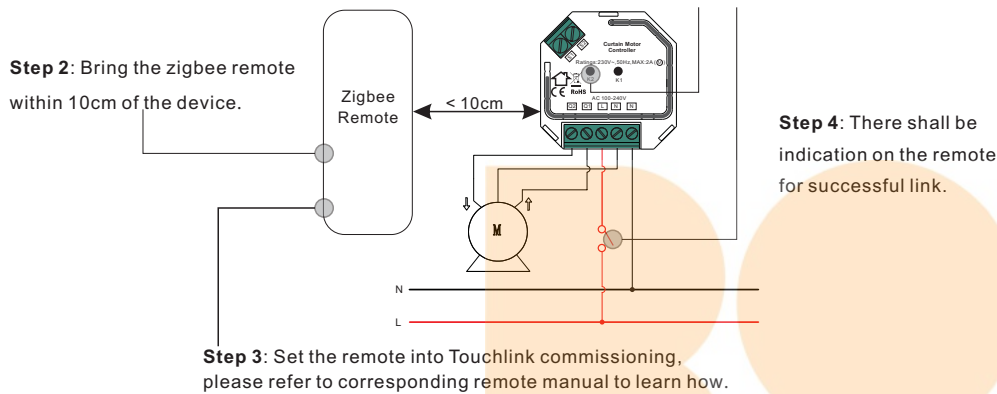
5. Controlled through Philips Hue bridge

This device can be discovered and controlled by Philips Hue bridge as a light device, slide the brightness slider to control it after added to the bridge:

1) Open the shutter or roller: slide the brightness slider to any value between 70% and 100% and release to open.
2) Close the shutter or roller: slide the brightness slider to any value between 0% and 30% and release to close.
3) Suspend the shutter or roller at a certain position: during open or close process, slide the brightness slider to any value between 31% and 69% and release to suspend.

6. TouchLink to a Zigbee Remote

Step 1: Method 1: Short press button K2 4 times (Or reset power of the device 4 times to start Touchlink commissioning immediately under any circumstance, touchlink commissioning will last for 180 seconds, once timeout repeat this step.

Method 2: Reset power of the device, to start touchlink commissioning after 15S if the device has not been added to a zigbee network, touchlink lasts for 165S. Or start immediately if it's already been added to a network, touchlink lasts for 180S. Once timeout, repeat this step.

Step 2: Bring the zigbee remote within 10cm of the device.

< 10cm

Step 4: There shall be indication on the remote for successful link.

Step 3: Set the remote into Touchlink commissioning, please refer to corresponding remote manual to learn how.

Note: 1) Directly TouchLink (both not added to a ZigBee network), each device can link with 1 remote.

2) TouchLink after both added to a ZigBee network, each device can link with max. 30 remotes.

3) To control by both remote and hub, add both remote and device to network first then TouchLink.

4) After TouchLink, the device can be controlled by the linked remotes and Zigbee hub together.

7. Removed from a Zigbee Network through Coordinator or Hub Interface

From your ZigBee controller or hub interface, choose to delete or reset device as instructed.

8. Factory Reset Manually

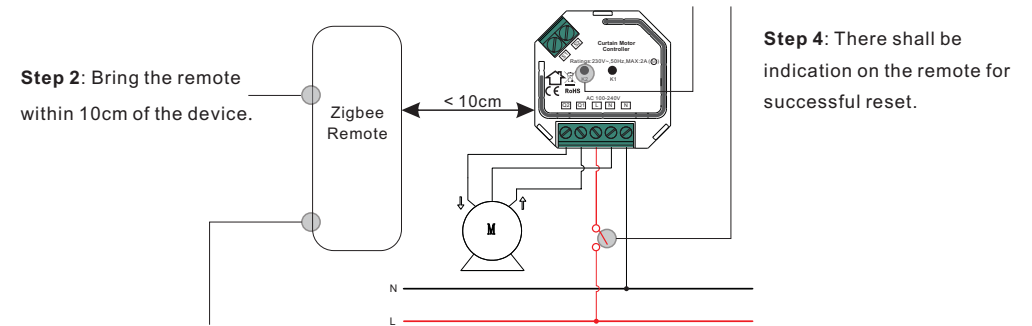**Step 1**: Short press button K2 5 times continuously (Or reset power of the device for 5 times continuously).
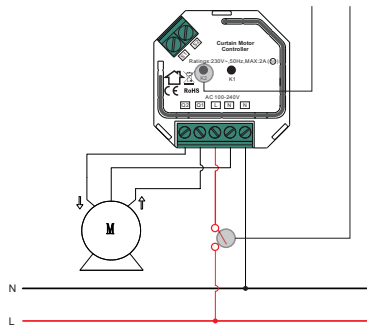
Note: 1) If the device is already at factory default setting, there is no indication when factory reset again.

2) All configuration parameters will be reset after the device is reset or removed from the network.

9. Factory Reset through a Zigbee Remote (Touch Reset)

Note: Make sure the device already added to a network, the remote added to the same network or not added to any network.
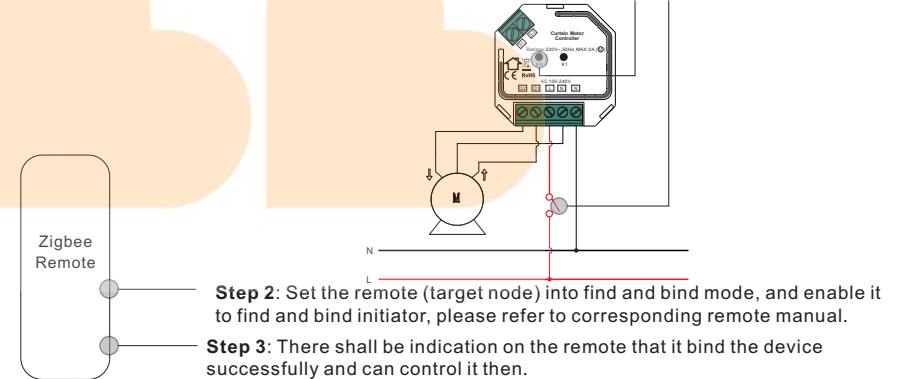
Step 1: Short press button K2 4 times continuously (Or reset power of the device 4 times) to start TouchLink Commissioning, which lasts for 180S, once timeout, repeat this step.

Step 2: Bring the remote within 10cm of the device.

< 10cm

Step 4: There shall be indication on the remote for successful reset.

Step 3: Set the remote into Touch Reset procedure to reset the device, please refer to corresponding remote manual to learn how.
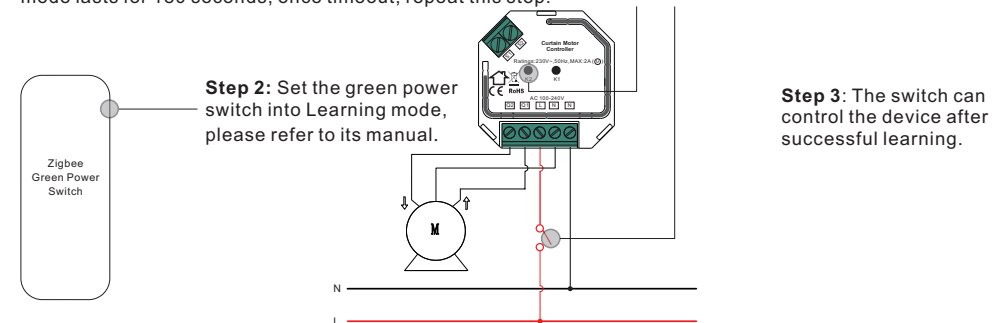
10. Find and Bind Mode

Step 1: Short press button K2 3 times (Or reset power of the device (initiator node) 3 times) to start Find and Bind mode to find and bind target node, find and bind mode lasts for 180S, once timeout, repeat this step.

Step 2: Set the remote (target node) into find and bind mode, and enable it to find and bind initiator, please refer to corresponding remote manual.

Step 3: There shall be indication on the remote that it bind the device successfully and can control it then.

Note: Make sure the device and the remote already added to the same Zigbee hub which supports find and bind.

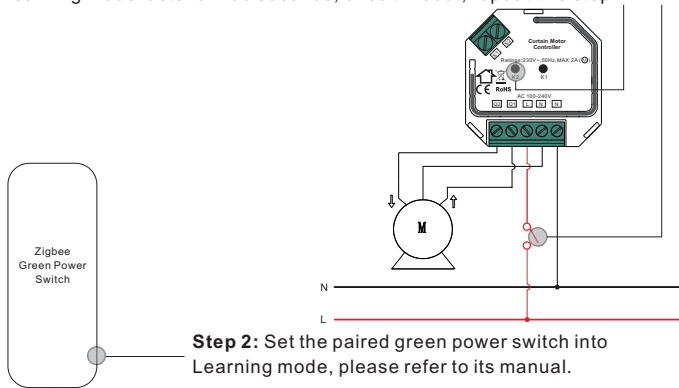## 11. Learning to a Zigbee Green Power Switch

Step 1: Short press button K2 4 times (Or reset power of the device 4 times) to start Learning mode, learning mode lasts for 180 seconds, once timeout, repeat this step.

Step 2: Set the green power switch into Learning mode, please refer to its manual.

Step 3: The switch can control the device after successful learning.

Note: Each device can learn to max. 20 zigbee green power switches.

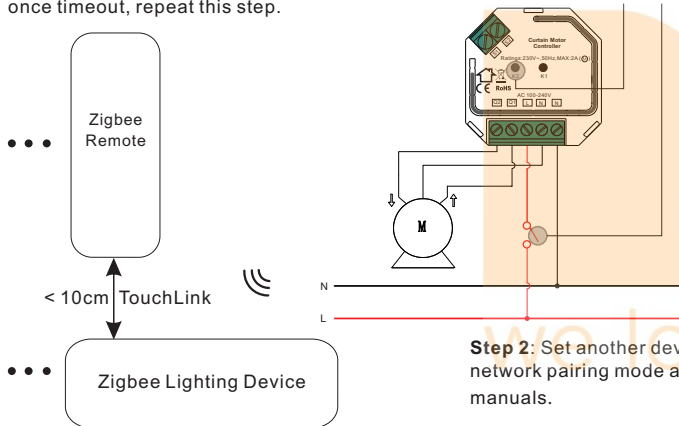## 11. Delete Learning to a Zigbee Green Power Switch

Step 1: Short press button K2 3 times (Or reset power of the device 3 times) to start delete Learning mode, delete learning mode lasts for 180 seconds, once timeout, repeat this step.

Step 3: Learning will be deleted successfully and the switch can not control the device.

Step 2: Set the paired green power switch into Learning mode, please refer to its manual.

12. Setup a Zigbee Network & Add Other Devices to the Network (No Coordinator Required)

Step 1: Short press button K2 4 times (Or reset power of the device 4 times) to enable the device to setup a zigbee network to discover and add other devices, the discovering and adding mode lasts for 180 seconds, once timeout, repeat this step.

Step 2: Set another device or remote or touch panel into network pairing mode and pair to the network, refer to their manuals.

Step 3: Pair more devices and remotes to the network as you would like, refer to their manuals.
Step 4: Bind the added devices and remotes through Touchlink so that the devices can be controlled by the remotes, refer to their manuals.

Note: 1) Each added device can link and be controlled by max. 30 added remotes.

2) Each added remote can link and control max. 30 added devices.

14. ZigBee Clusters the device supports are as follows:

Input Clusters

• 0x0000: Basic   • 0x0003: Identify   • 0x0004: Groups   • 0x0005: Scenes   • 0x0006: On/off

• 0x0008: Level Control   • 0x0102 : Window Covering   • 0x0b05: Diagnostics   • 0x0b05: ZLL Commissioning

Output Clusters

• 0x0019: OTA

15. OTA

The device supports firmware updating through OTA, and will acquire new firmware from zigbee controller or

hub every 10 minutes automatically.

Wiring Diagram

Notes for the diagrams:

L - terminal for live lead

N - terminal for neutral lead

S1 - terminal for switch key No. 1

S2 - terminal for switch key No. 2

Q1 - output terminal no. 1 for electrical motor

Q2 - output terminal no. 2 for electrical motor

K1 - positioning calibration button

K2 - program button for network pairing, touchlink, factory reset