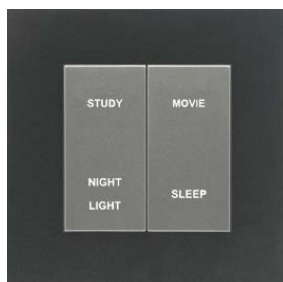


# **CG800 SERIES**

***ZIGBEE WIRELESS SWITCH***

# **USER MANUAL**



CG800 SERIES

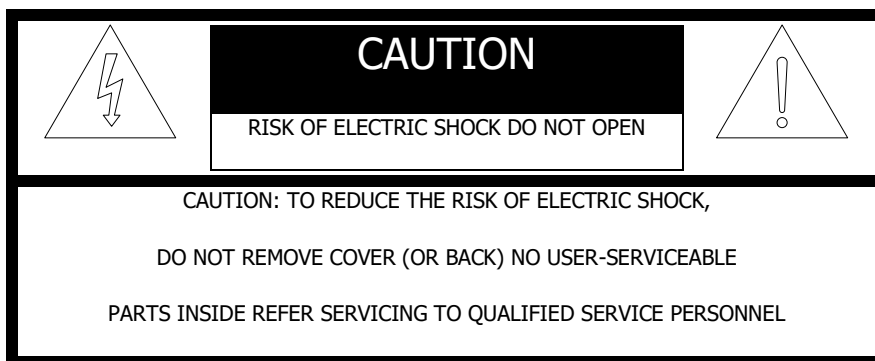
VERSION 1.2

10 JANUARY, 2020

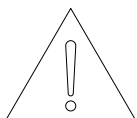
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The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

## **IMPORTANT SAFETY INSTRUCTIONS**

### **READ BEFORE OPERATING EQUIPMENT**

*This product was designed and manufactured to meet strict quality and safety standards.*

There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. If the provided plug does not fit into your outlet, consult an electrician for replacement of the outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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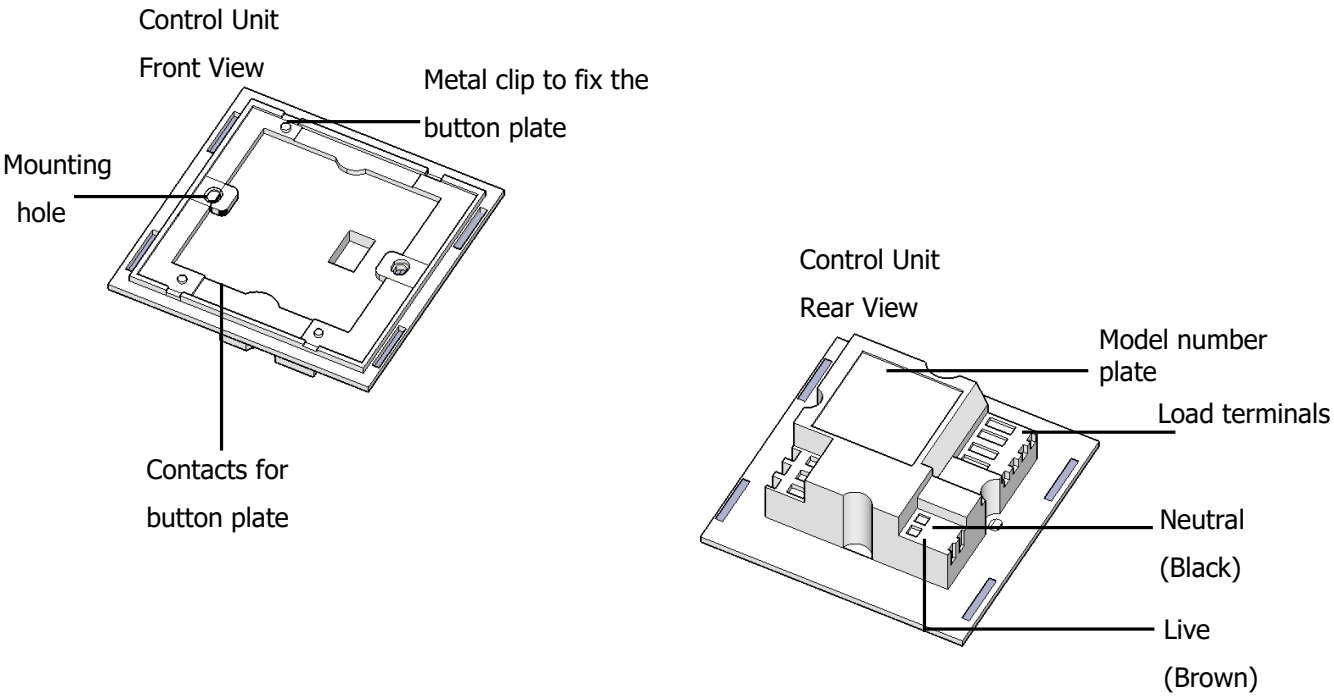
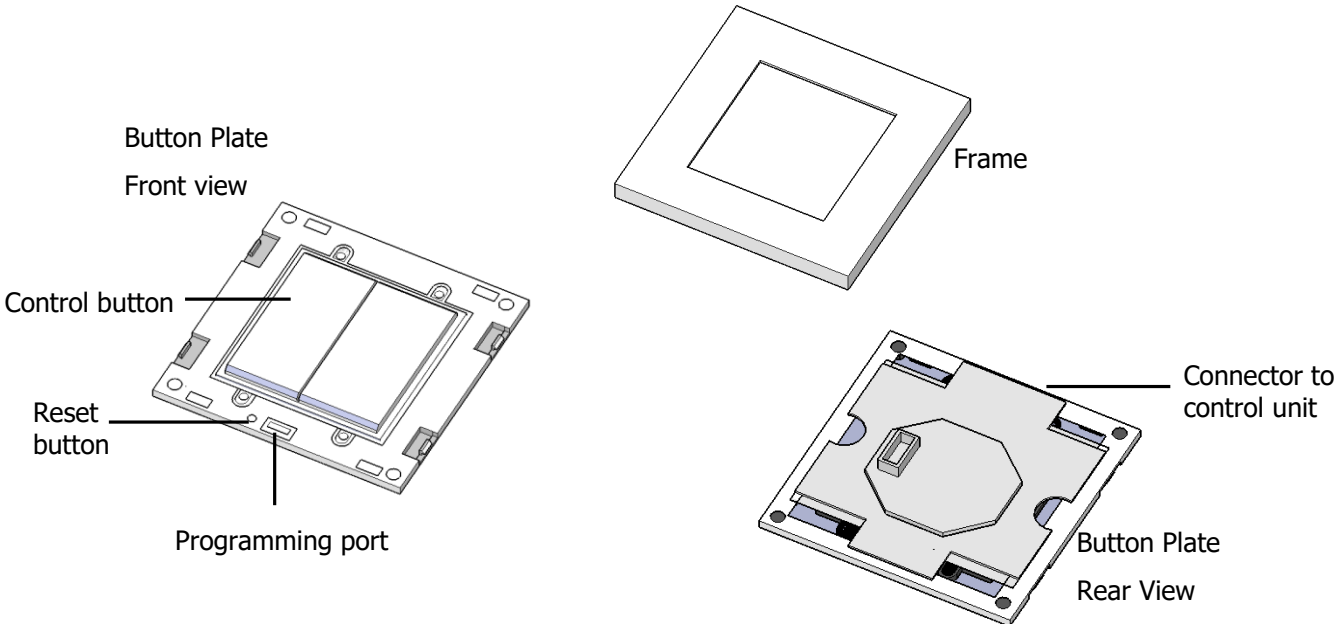
# 1. Introduction

Thank you for choosing CityGrow's product. CG800 Series is highly-functional, user-friendly and installation-friendly. It is specially designed for wireless Home Automation control purpose.

## Description

1. ZigBee wireless remote control.
2. Based on IEEE 802.15.4.
3. 2.4GHz radio frequency.
4. CG800S1/S2/S4/DM – lighting control.
5. CG800S2/S4-CCP – Open/Close control for electric or motorized curtain and window blind.
6. CG800xxH2 – 4 functions control.
7. LED indicator for status indication.
8. Plate button can perform two-way function.
9. Plate button can perform scene control function.
10. Button graphics can be customized.
11. With CG102BS-R Base Station, all devices support iOS/Android App control.
12. Easy to install.

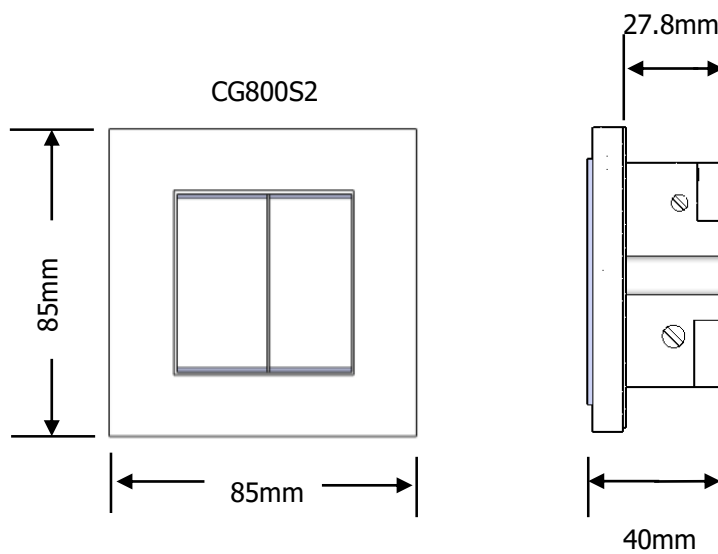
## 2. Understanding the product



### Load terminals to model number chart






Load terminals	1	2	3	4
CG800S1 One Gang Switch	Load1	NC	NC	NC
CG800S2 Two Gang Switch	Load 1	Load 2	NC	NC
CG800S4 Four Gang Switch	Load 1	Load 2	Load3	Load 4
CG800DM One Gang Dimmer	Load 1	NC	NC	NC
CG800DM2 Two Gang Dimmer	Load 1	Load 2	NC	NC
CG800S2-CCP One Gang Curtain Control Switch	Motor 1 Backward	Motor 1 Forward	NC	NC
CG800S4-CCP Two Gang Curtain Control Switch	Motor 1 Forward	Motor 1 Backward	Motor 2 Forward	Motor 2 Backward

### 3. Dimensions



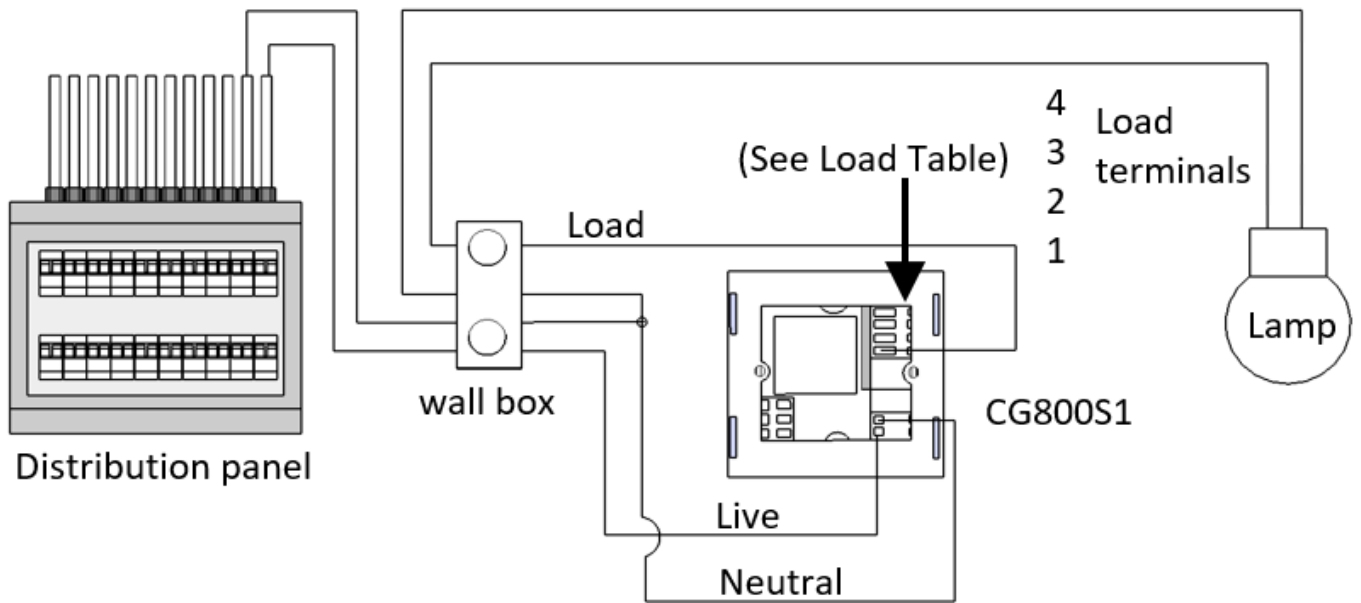
## 4. Wiring for CG800S1xx, CG800S2, CG800S4, CG800DMxx and CG800DM2xx

### Before getting started

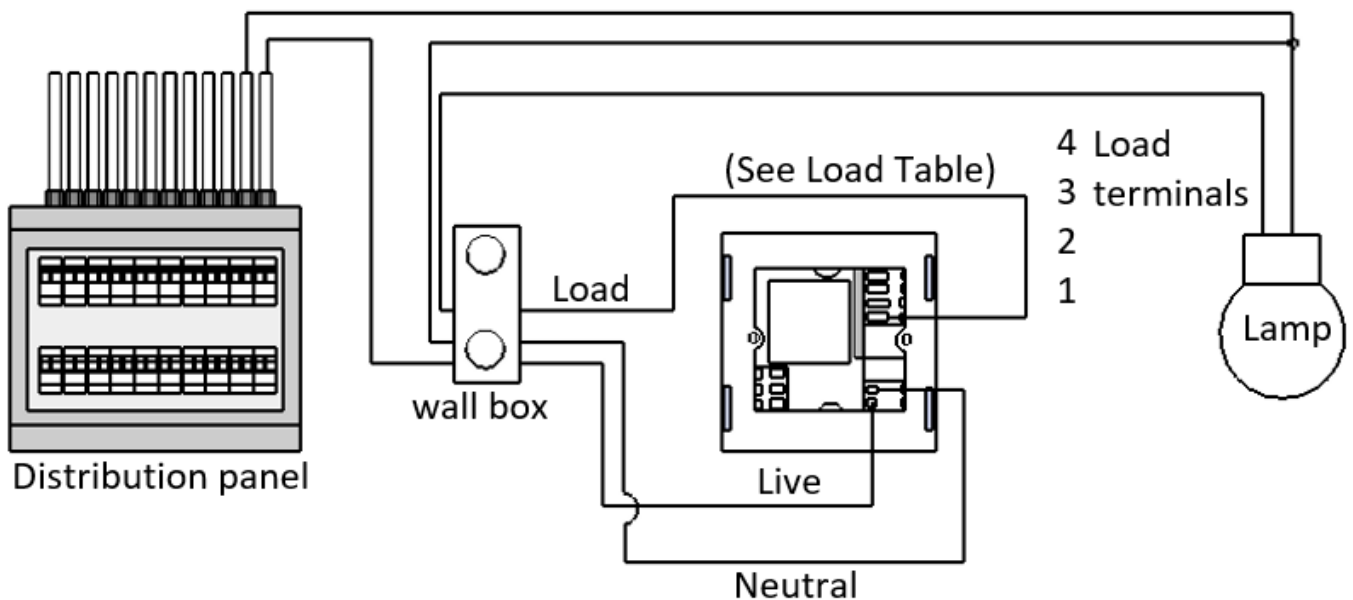
-  WARNING! It must be installed by a qualified electrician in accordance to all applicable regulations and building codes. Improper wiring can result in personal injury or damage to control units or other equipment. Always turn off circuit breaker or remove main fuse from power line before doing any work. To avoid overheating and possible damage to equipment.
-  WARNING! Do not operate when any lamps removed or burned out; replace any burned out lamps immediately; use only transformers that incorporate thermal protection or fused primary windings. This product is designed for residential and commercial use, for indoor use only.
-  WARNING! Install in accordance to all national and local electrical codes.
-  IMPORTANT! CityGrow® is not liable for any damage incurred with the misuse of the product.
-  IMPORTANT! Pre-setup can only be done by a professional technician or manufacturer agent.

Reminder: The Neutral wire of load is closely connected to the Neutral point of CG800.

**Situation 1: Live, Neutral and Load wires are ready at wall box**

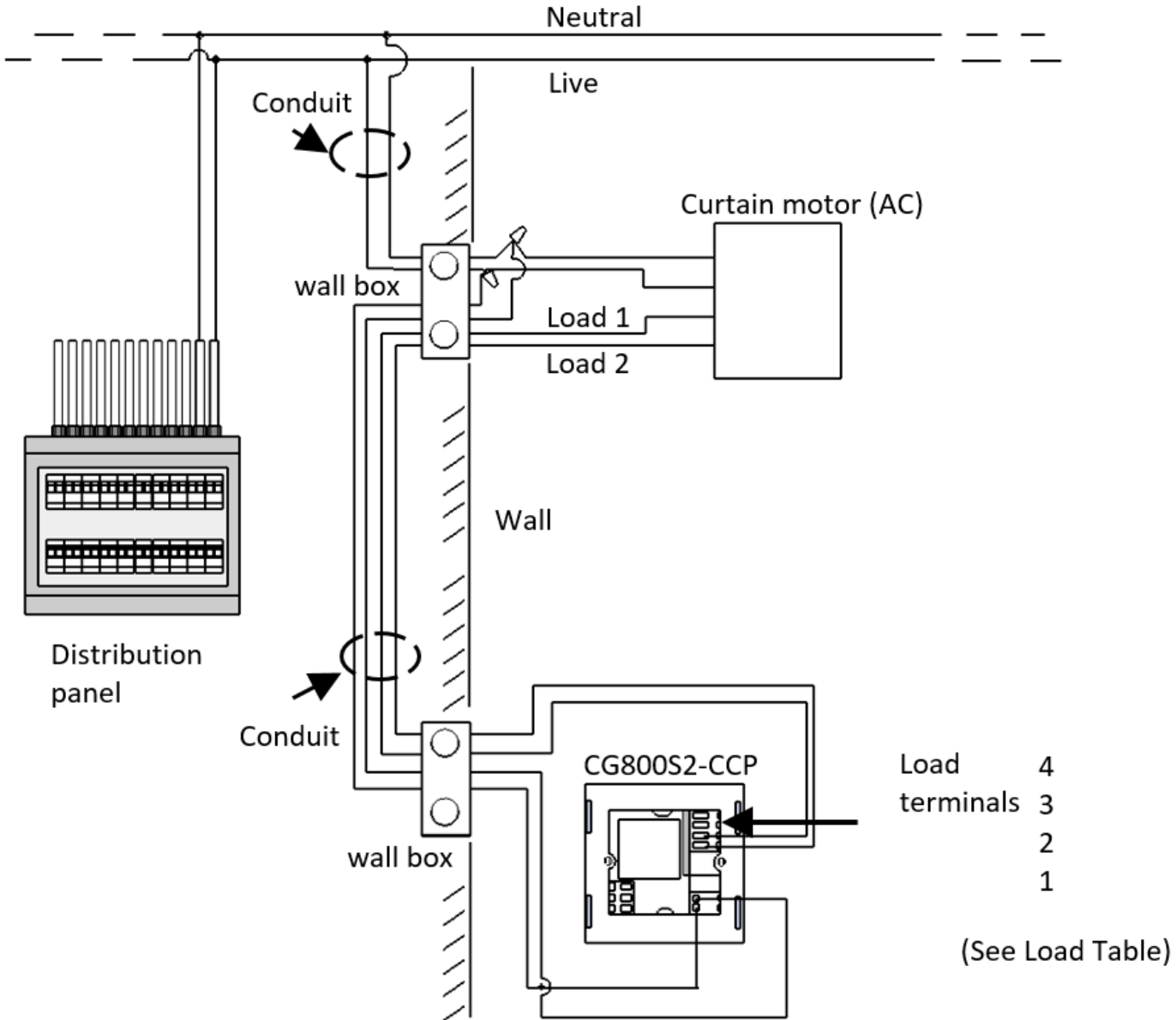


**Situation 2: Live and Load wires are ready at wall box, Neutral wire is only ready at ceiling**





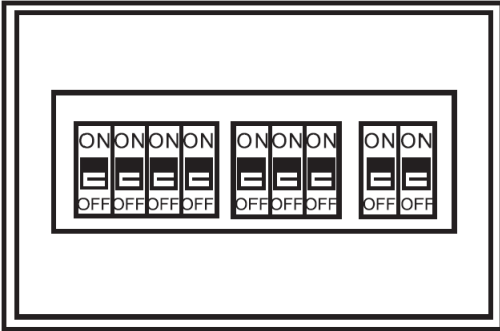
### 5. Wiring for CG800S2-CCP and CG800S4-CCP



## 6. Installation

Please follow the instructions to install the product.

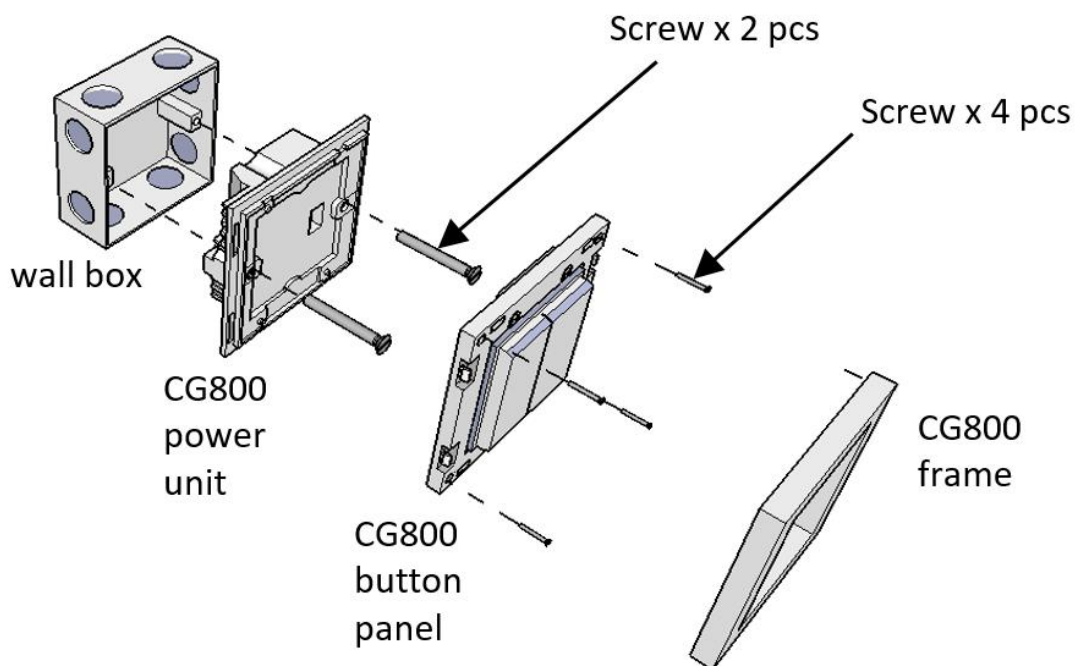
**STEP 1: IMPORTANT!** Turn off main power at the main switch board.



**STEP 2:** Loosen the screws of the original wall switch. Remove the switch and disassemble the wiring.

**STEP 3:** Connect the main power cable to the Live and Neutral terminals and the load cable to the load terminals at the rear cabinet of the product.

**STEP 4:** Fasten the screws of all terminals and check that the wires are properly secured. Retrofit the switch into the standard switch box and mount it on the wall by fastening the two screws at the rear of the switch box.



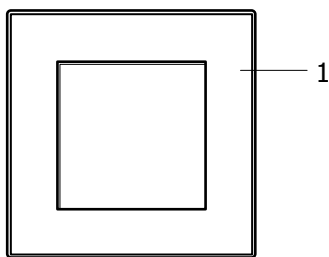
**STEP 5:** Press the ON/OFF button, to test whether the wiring has been connected correctly. If the ON/OFF Button does not function as expected, please check the wiring connection again.

Notes: Use Standard UK (BS4662) wall box for installation. It is recommended to embed the wall box with maximum depth fixed inside the wall for more sufficient installation space.

## 7. Operation instruction

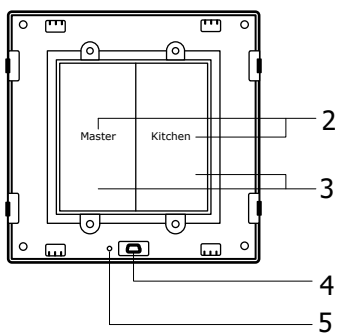
### 7.1. CG800S1xx, CG800S2 and CG800S4

#### CONTROL BUTTON



1. Cover

#### BUTTON PLATE

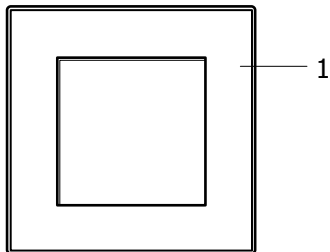


2. Label/LED Indicators  
3. ON/OFF Buttons  
4. Programming Port  
5. Reset Button

- Press ON/OFF Button once to toggle between ON and OFF.
  - **BRIGHT** LED indicates that the Switch is ON.
  - **DIMMED** LED indicates that the Switch is OFF.

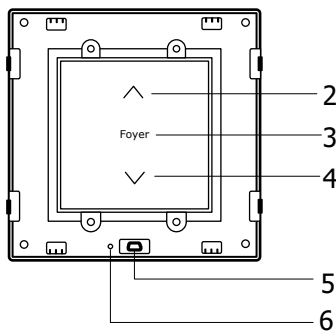
## 7.2. CG800DMxx and CG800DM2

### CONTROL BUTTON



1. Cover

### BUTTON PLATE

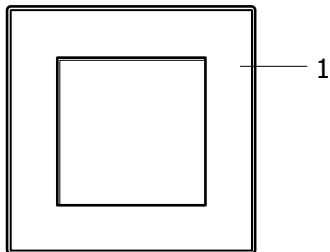


2. Dim Up/ LED Indicator
3. Label/LED Indicator
4. Dim Down/ LED Indicator
5. Programming Port
6. Reset Button

- Press the Dim Up/Dim Down button **ONCE** to Toggle between ON and OFF.
  - LED **FLASHING** indicates that that the Button was pressed and dimming is in progress.
  - When the LED stopped flashing, it indicates that the dimming is completed.
- Press and **HOLD** the Dim Up/Dim Down button to begin dimming.
  - Release the button at the desired dimming level.

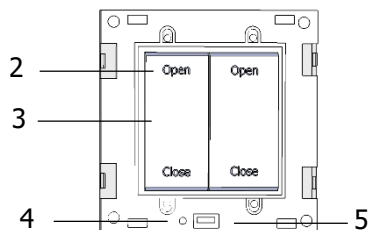
### 7.3. CG800S2-CCP and CG800S4-CCP

#### CONTROL BUTTON



1. Cover

#### BUTTON PLATE



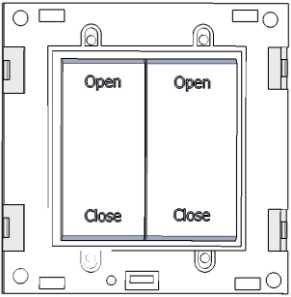
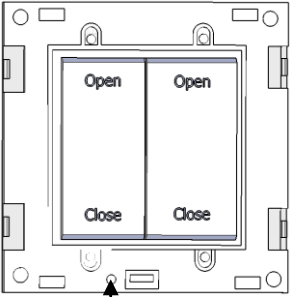
2. LED Indicator  
3. Open/Close Button  
4. Reset Button  
5. Programming Port

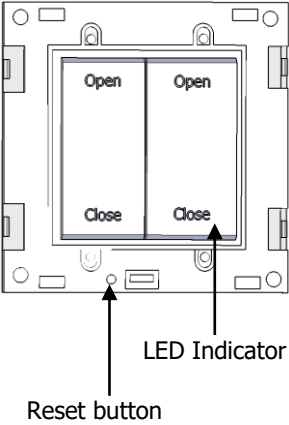
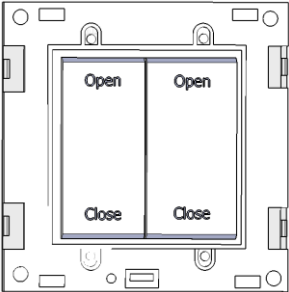
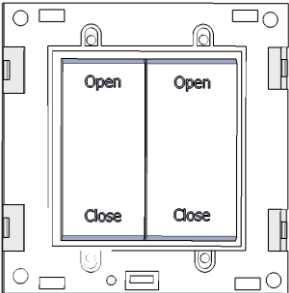
- Press the Open/Close Button once to control the electric curtain.
  - Press the **OPEN** button to open the stopped electric curtain.
  - Press the **CLOSE** button to close the stopped electric curtain.
  - When the electric curtain is running, press **ANY** button to stop the electric curtain.

- Set the open and close travel distance for the curtain.

The function of the Learning Mode in the CG800S2-CCP and CG800S4-CCP is to program the duration of the curtain Opening/Closing time.

Please follow the instructions below to perform the Learning Mode function.

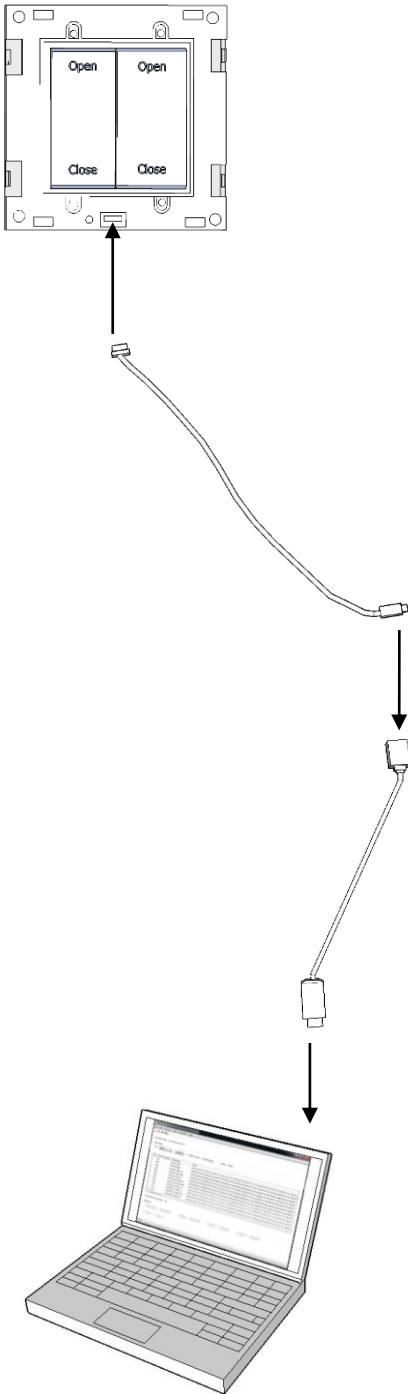
 <p>A diagram of a rectangular remote control. It features a central area with four buttons: two labeled 'Open' at the top and two labeled 'Close' at the bottom. The remote has several small circular indicators and a small rectangular button at the bottom center.</p>	<p><b>STEP 1</b></p> <ul style="list-style-type: none"> <li>- Press the <b>CLOSE</b> Button until the curtain is completely closed.</li> </ul> <p><b>NOTE:</b> You may have to press the Button more than once to close the curtain completely.</p>
 <p>Reset button</p> <p>A diagram of the same remote control as in Step 1. An arrow points from the text 'Reset button' below to a small rectangular button located at the bottom center of the remote's face.</p>	<p><b>STEP 2</b></p> <ul style="list-style-type: none"> <li>- Press and <b>HOLD</b> the Reset Button.</li> <li>- While still holding the Reset Button, press and <b>HOLD</b> the <b>OPEN</b> Button.</li> </ul>

 <p>Reset button</p> <p>LED Indicator</p>	<p><b>STEP 3</b></p> <ul style="list-style-type: none"> <li>- Release the Reset Button.</li> <li>- Wait until the LED Indicators begins to <b>BLINK</b>.</li> <li>- Release the <b>Open</b> Button.</li> </ul> <p><b>NOTE:</b> The curtain should be opening at this moment.</p>
	<p><b>STEP 4</b></p> <ul style="list-style-type: none"> <li>- Once the curtain is completely opened, press and release any Button.</li> </ul> <p><b>NOTE:</b> The duration of the Opening/Closing time will be stored when a Button is pressed.</p>
	<p><b>STEP 5</b></p> <ul style="list-style-type: none"> <li>- Use a pointed-object to press the Reset Button again.</li> <li>- The learning mode of the CG800S2-CCP is now completed.</li> </ul>

Notes: CG080S4-CCP is designed to control 2 curtain motors. Please complete the learning mode for both buttons of the CG800S4-CCP.



## 8. Adding the product to your Home Wireless ZigBee Network

 <p>The diagram illustrates the connection process. At the top, a device with a front cover is shown. The cover has two panels labeled 'Open' and 'Close'. A cable is shown connecting the device to a laptop. The cable has a 5-pin connector on one end and a mini USB connector on the other. Arrows indicate the flow of the cable from the device to the laptop.</p>	<p><b>STEP 1</b></p> <p>Open the front cover, you will see a 5-pin connector.</p> <p><b>STEP 2</b></p> <p>Plug the CG101UT5 cable into the 5-pin connector of the product, and then plug the other end of the CG101UT5 cable into the mini USB end of the CG101UTC cable.</p> <p><b>STEP 3</b></p> <p>Plug the CG101UTC cable into the USB port of a PC which has been installed with CityGrow's "HomeNET Planner 2" Software.</p> <p><b>STEP 4</b></p> <p>Refer to the user manual of "HomeNET Planner 2" Software to program and set the address of the product.</p>
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## 9. Specification

	<b>CG800S1 CG800S1H2</b>	<b>CG800S2</b>	<b>CG800S4</b>	<b>CG800DM CG800DMH2</b>	<b>CG800DM2</b>	<b>CG800S2-CCP</b>	<b>CG800S4-CCP</b>
<b>Description</b>	One-Gang Switch	Two-Gang Switch	Four-Gang Switch	One-Gang Dimmer (Leading edge dimming)	Two-Gang Dimmer (Leading edge dimming)	One-Gang Curtain Control Switch	Two-Gang Curtain Control Switch
<b>Operating voltage</b>	AC220-240V, 50Hz						
<b>Maximum number of devices can be programmed in scene setting</b>	50					N/A	
	<b>Remarks:</b> <ol style="list-style-type: none"> <li>When "Up" button has been programmed as dimming up function, the "Down" button cannot be programmed with scene function.</li> <li>Each product can be programmed and control up to 50 devices.</li> <li>The maximum load requirements for fluorescent, CFL and LED loads may vary depends on the specific fixture and/or bulb being used.</li> <li>CG800 dimmers are compatible with leading edge dimmable lights. The dimming performance varies between devices, models and different manufacturers. Advance performance test is recommended before proceeding with the mass deployment.</li> </ol>					N/A	
<b>Minimum dimming level setting</b>	N/A			Support		N/A	
<b>Memory dim function</b>	N/A			Support		N/A	
<b>Two-way control function</b>	Support						
<b>Control communications</b>	ZigBee, IEEE 802.15.4						
<b>Radio frequency</b>	2.4 GHz, 15 channels						
<b>Remote control distance (line of sight)</b>	100M						
<b>Operational temperature</b>	0°C to 40°C						
<b>Humidity</b>	5% to 95% non-condensing						
<b>Storage</b>	-20°C to 70°C						
<b>Dimension L X W x D (mm)</b>	85x85x39						

## Specifications – Loads

	CG800S1 CG800S1H2	CG800S2	CG800S4	CG800DM CG800DMH2	CG800DM2	CG800S2-CCP	CG800S4-CCP
<b>Description</b>	One-Gang Switch	Two-Gang Switch	Four-Gang Switch	One-Gang Dimmer (Leading edge dimming)	Two-Gang Dimmer (Leading edge dimming)	One-Gang Curtain Control Switch	Two-Gang Curtain Control Switch
<b>Resistive load (Per Gang)</b> 1. Incandescent 2. Halogen Electronic low voltage – ELV transformer	2000W	1000W	500W	600W	300W	N/A	
<b>Inductive load (Per Gang)</b> 1. Magnetic low voltage – MLV transformer. 2. Iron core / Inductive transformer	2000VA	1000VA	500VA	600VA	300VA	N/A	
<b>Fluorescent (Per Gang)</b>	1400W	700W	350W	N/A		N/A	
<b>Compact fluorescent - CFL (Per Gang)</b>	400W Max. 24 pcs CFL**	400W Max. 24 pcs CFL**	200W Max. 12 pcs CFL**	400W Dimmable CFL Max. 20 pcs CFL**	200W Dimmable CFL Max. 20 pcs CFL**	N/A	
<b>LED – GU10 (Per Gang)</b>	200W	200W	100W	60W	30W	N/A	
<b>LED – MR16, MR11 (Per Gang) With electronic low voltage LED driver</b>	400W Max.24 pcs ELV LED driver*	400W Max.24 pcs ELV LED driver*	200W Max.12 pcs ELV LED driver*	120W Max. 15 pcs ELV LED driver**	60W Max. 15 pcs ELV LED driver**	N/A	
<b>LED strip (Per Gang) With electronic low voltage driver</b>	400W Max. 10 pcs ELV LED driver**	400W Max. 10 pcs ELV LED driver**	200W Max. 5 pcs ELV LED driver**	N/A		N/A	
<b>Exhaust fan (Per Gang)</b>	300VA	300VA	200VA	N/A		N/A	
<b>3 wire type AC curtain motor</b>	N/A					300VA	300VA
<b>Minimum load</b>	N/A			5W	5W	N/A	

\*\*Remarks: The maximum load requirements for fluorescent, CFL and LED loads may vary depends on the specific fixture and /or bulb being used.