

# **CG102IR**

## ***ZIGBEE IR TRANSMITTER***

# **USER MANUAL**



CG102IR  
ZigBee IR Transmitter



CG101AD  
Mini Power Supply



IR Extension Cable  
(Included)



Power Adaptor  
(Included)

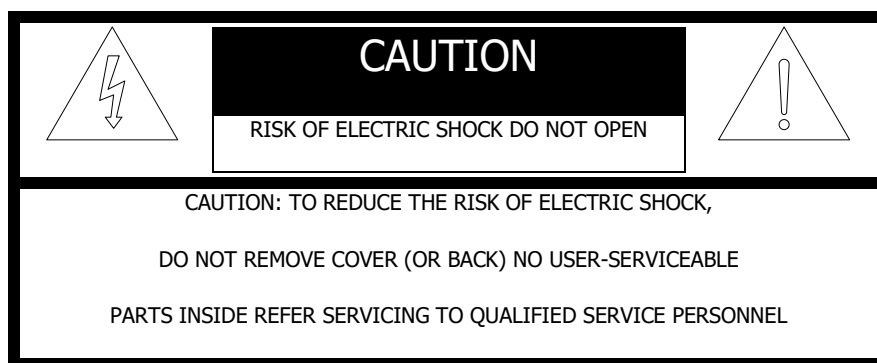
VERSION 1.1

12 FEBRUARY, 2020

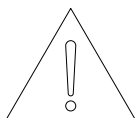
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The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric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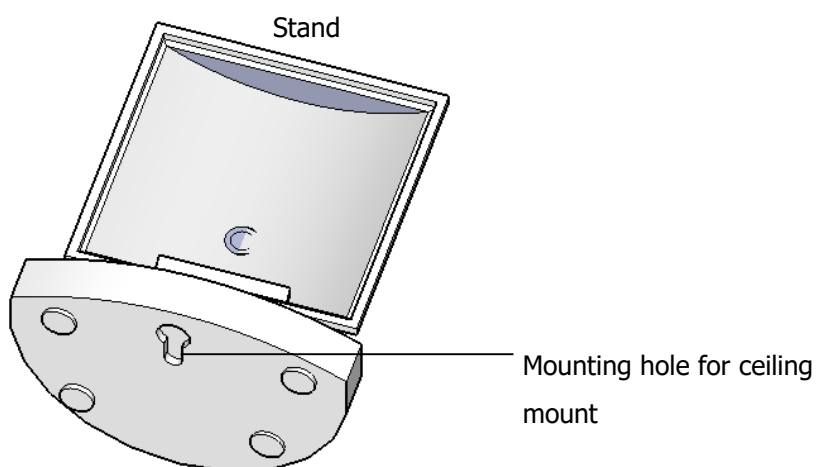
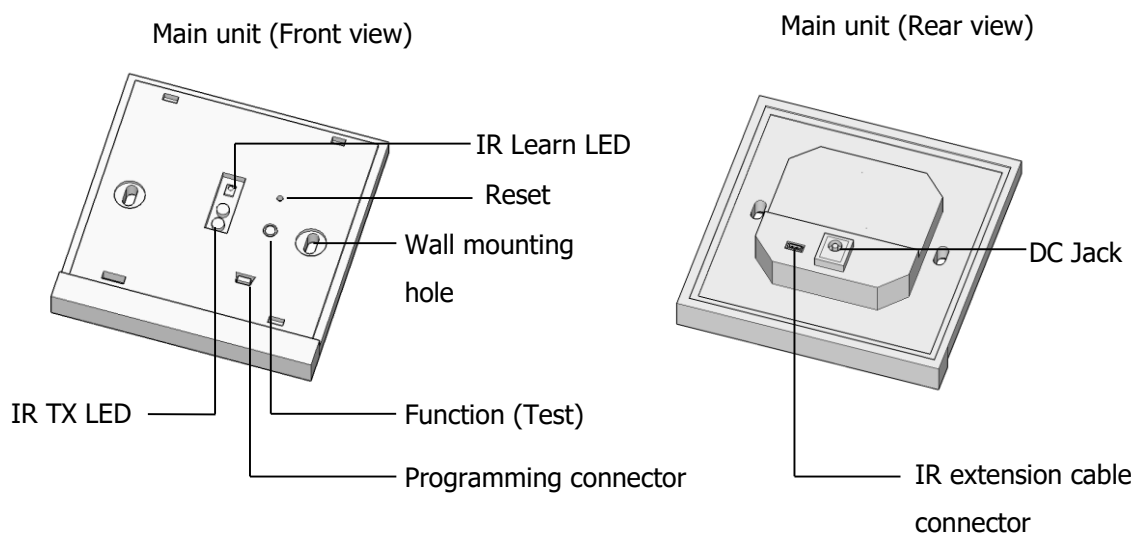
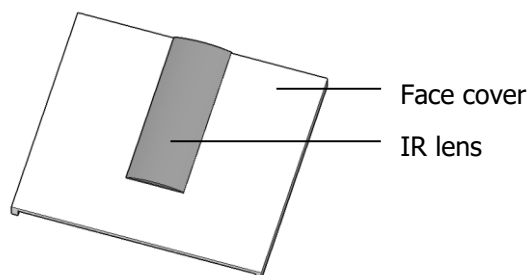
## **1. Introduction**

Thank you for choosing CityGrow's product. CG102IR ZigBee IR Transmitter is highly-functional, user-friendly and installation-friendly. The IR learning function enables to learn most of the IR commands from the IR remote control equipment, for example, audiovisual equipment and air-conditioners.

### **Description**

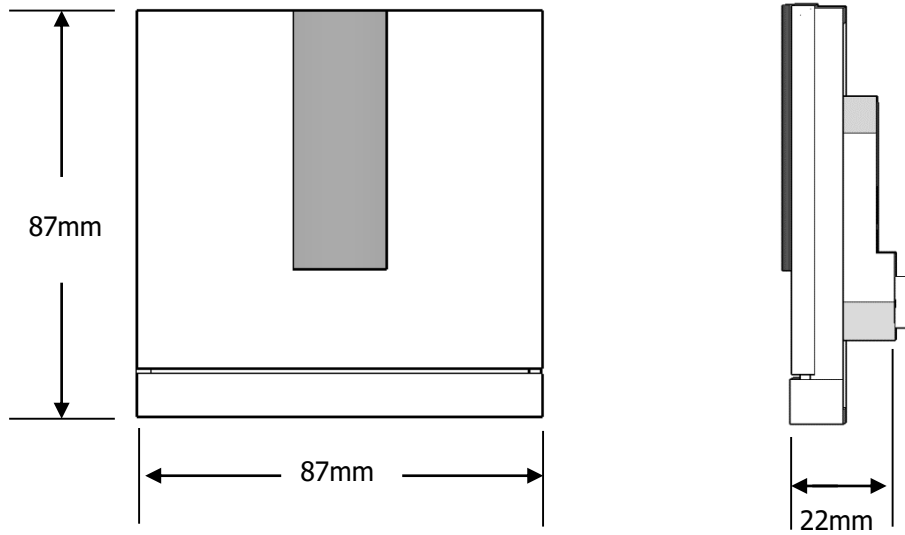
1. ZigBee wireless remote control.
2. Based on IEEE 802.15.4.
3. 2.4GHz radio frequency.
4. IR learning function from original IR remote.
5. IR learning via CityGrow's CG102IR Planner 1.2 PC software.
6. Compatible with CityGrow's CG102BS-R Base Station and HomeNET2 App.
7. Control audio visual equipment, A/C and other IR devices through App.
8. Support multi-room control.
9. Wall mounting on BS4662 Wall box.
10. Can be mounted on ceiling mount with stand.
11. Compatible stand is provided.
12. Install with IR extension cable for hidden mounting.
13. Fully compatible with CG100HTH-AC thermostat panel.
14. Powered by supplied AC/DC power adaptor.

## 2. Understanding the product

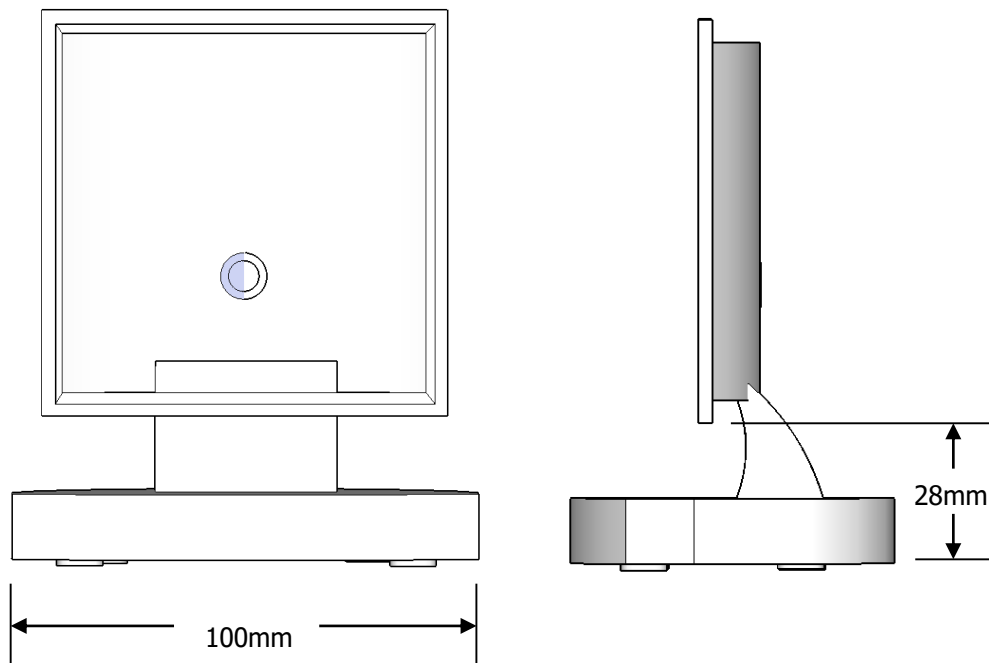


### 3. Dimension

#### Main unit



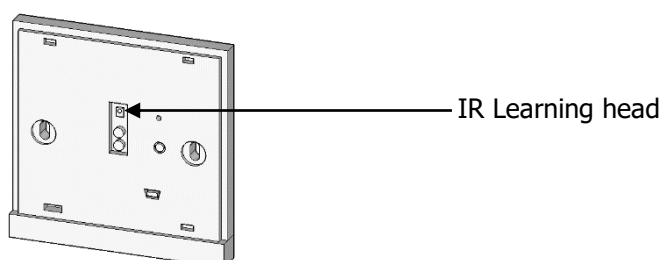
#### Stand



## 4. IR Learning Signal Process

Before installing the CG102IR-AC, the user is recommended to complete the learning IR signal process from the original remote of the air-conditioner to the CG102IR-AC in prior.

**Step 1:** Remove the front cover of CG102IR-AC, you will see the IR learning head.

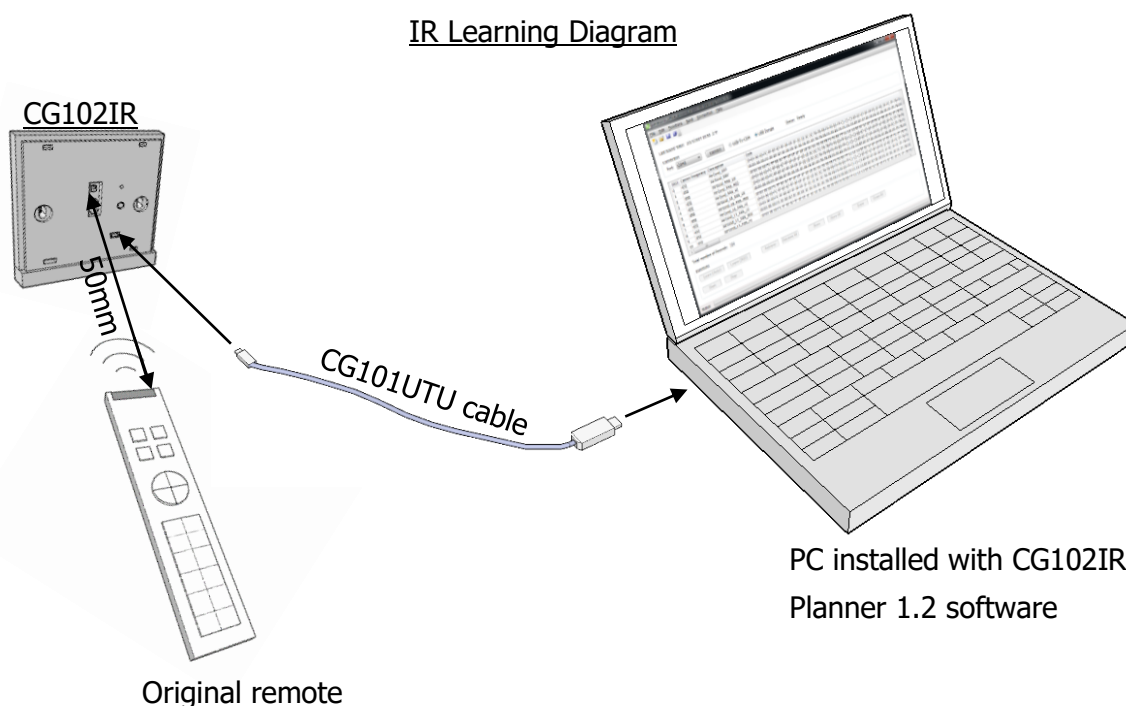


**Step 2:** Download the "CG102IR Planner 1.2" software from the link below and install the software onto the computer.

Link to download the "CG102IR Planner 1.2" software:

<https://citygrowsys.com/zh-HK/download/#software-download>

Install the "CG102IR Planner 1.2" software on any Windows PC. Connect the CG102IR-AC to the PC with the CG101UTU cable (NOT INCLUDED) through the CG102IR-AC USB port. The CG102IR-AC will be powered up by the PC, no AC power adaptor will be required in this procedure. Run the CG102IR Planner 1.2 PC software now.



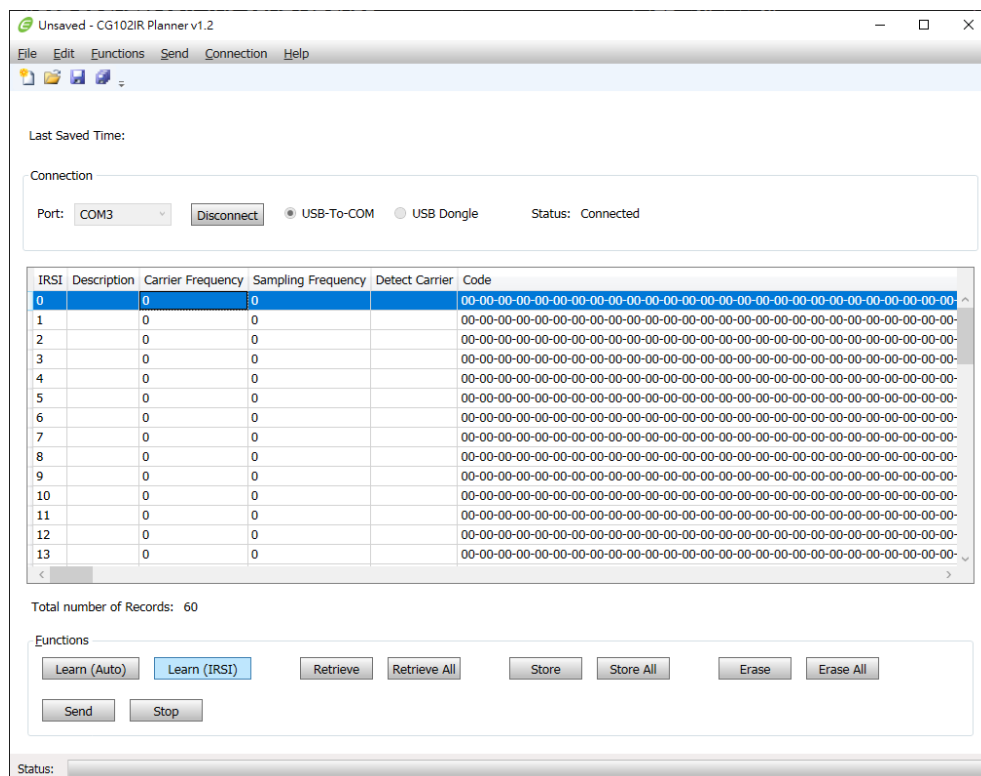




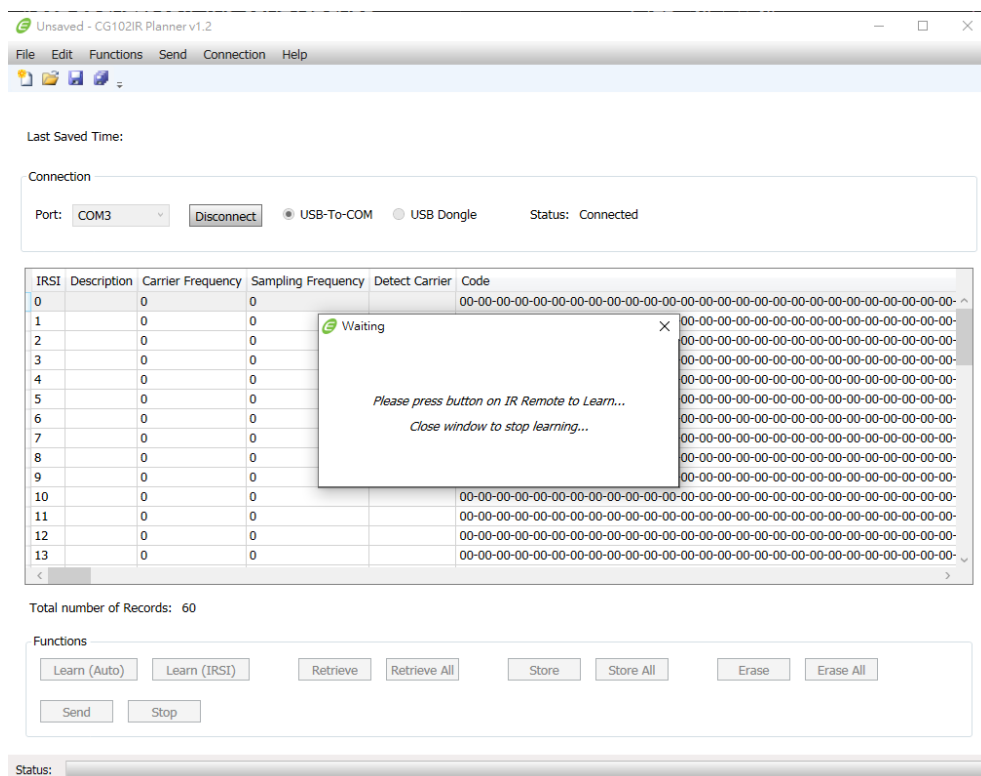


## Option 2 – Learn (IRSI)

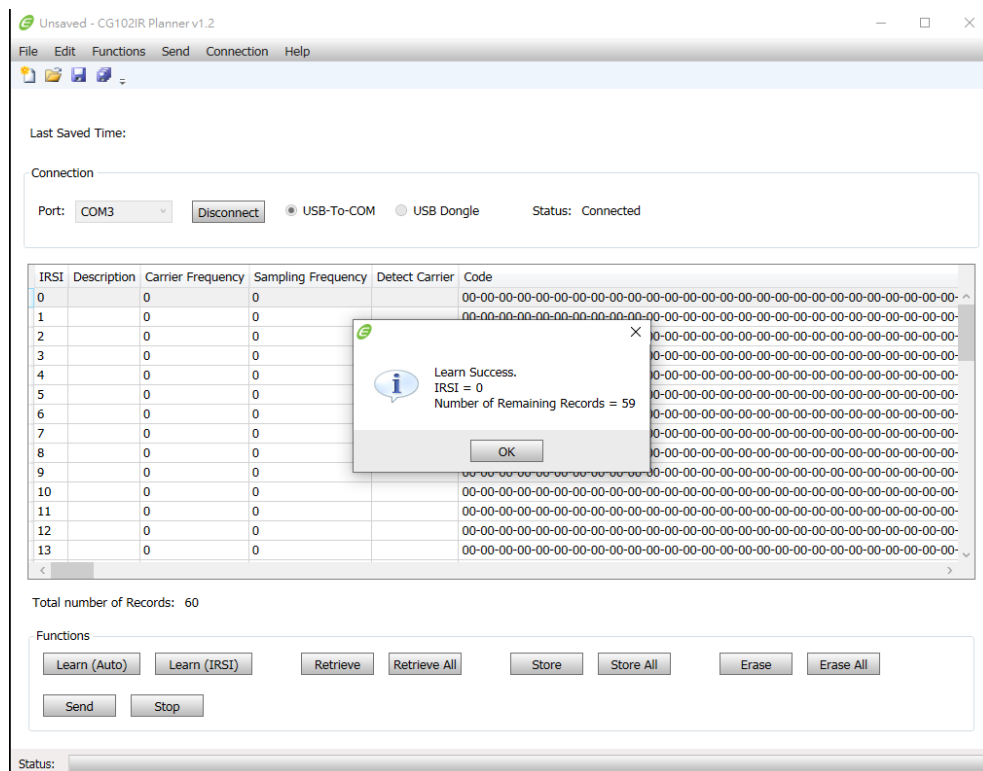
User can also choose “Learn (IRSI)” on the CG102IR Planner 1.2 PC user interface to perform IR signal learning manually.



**Step 8:** Following the instruction and press the button on the remote controller to learn the code.



**Step 9:** When the learning process is successful, you will see the notification as below. Repeat Step 7 and Step 8 to learn all the IR codes onto the CG102IR-AC. You can store up to a maximum of 60 IR codes onto the CG102IR-AC.



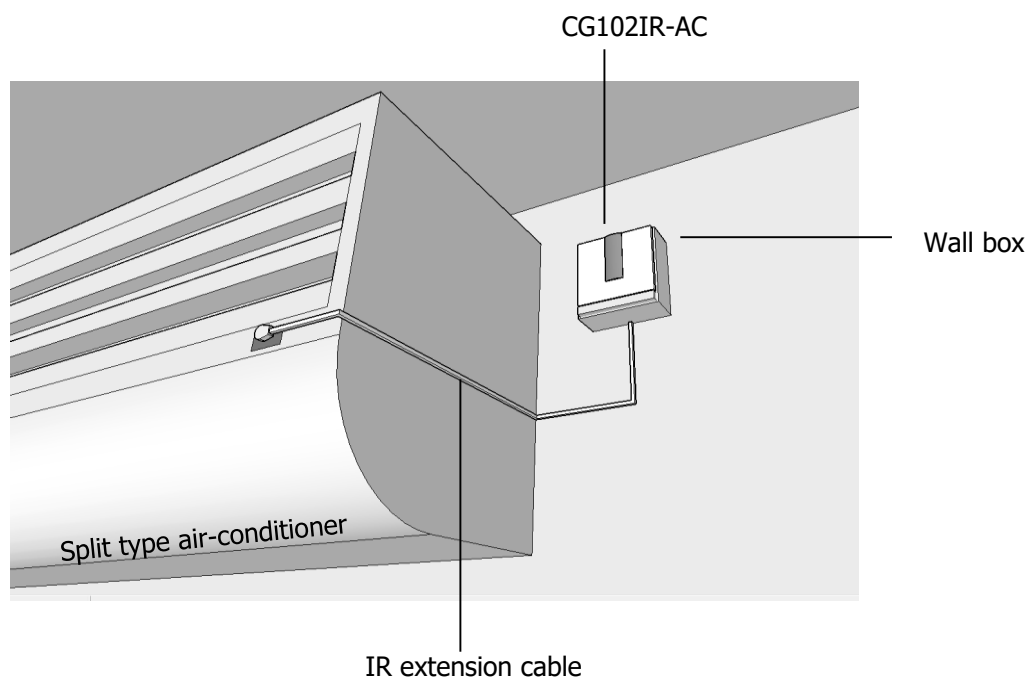
**Step 10:** When all the learning processes are completed, please save the Project file with filename.








## 5. Installation

When the Learning IR signal process is completed, install the CG102IR-AC.

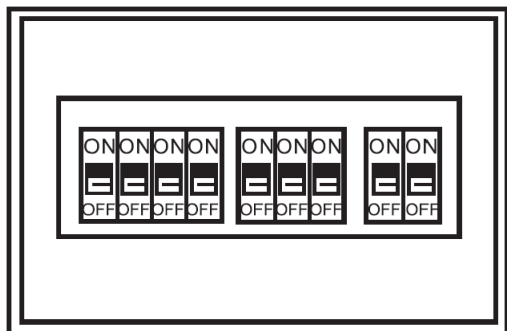
### 5.1 Control the Split type air-conditioner



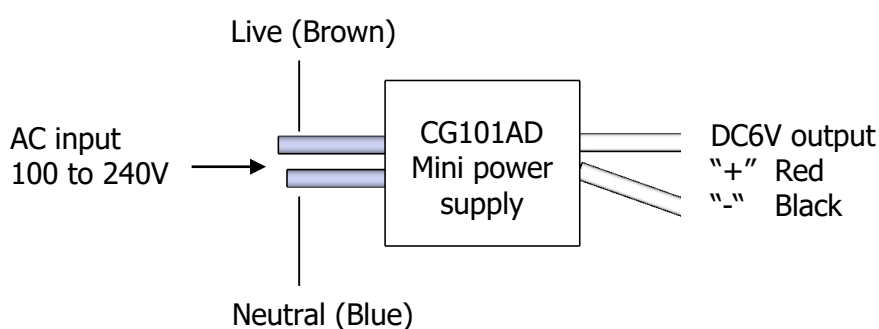
### Before getting started

-  **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.

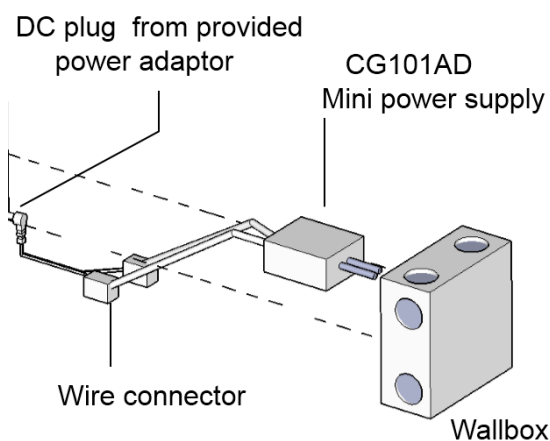
**STEP 1: IMPORTANT!** Turn off main power at the main switch board.



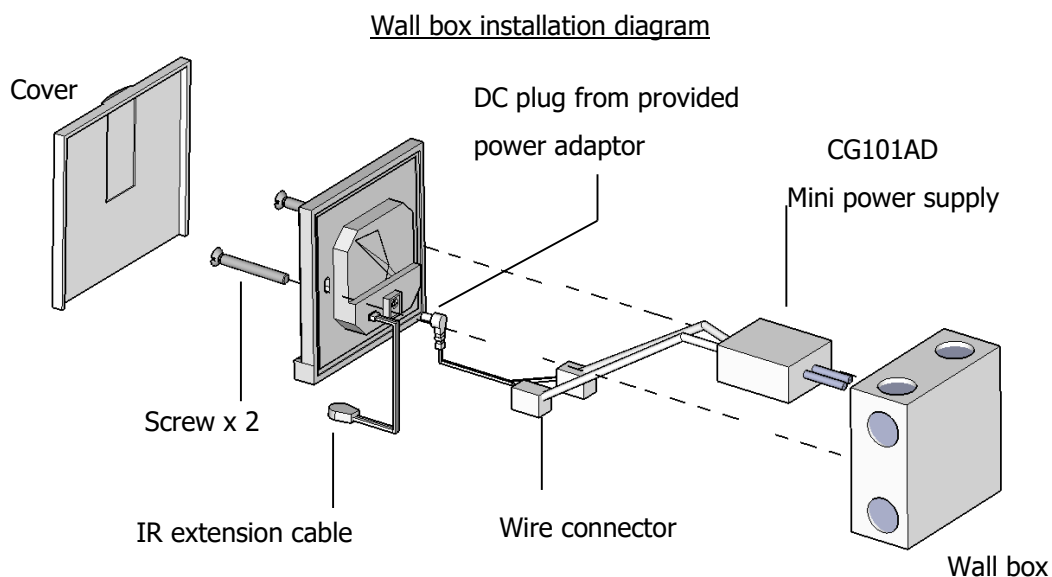
**STEP 2:** Connect the main power cable to the Live and Neutral terminals of the CG101AD Mini Power Supply. The Live (Brown) wire and Neutral (Blue) wire should be connected to the CG101AD Mini Power Supply.



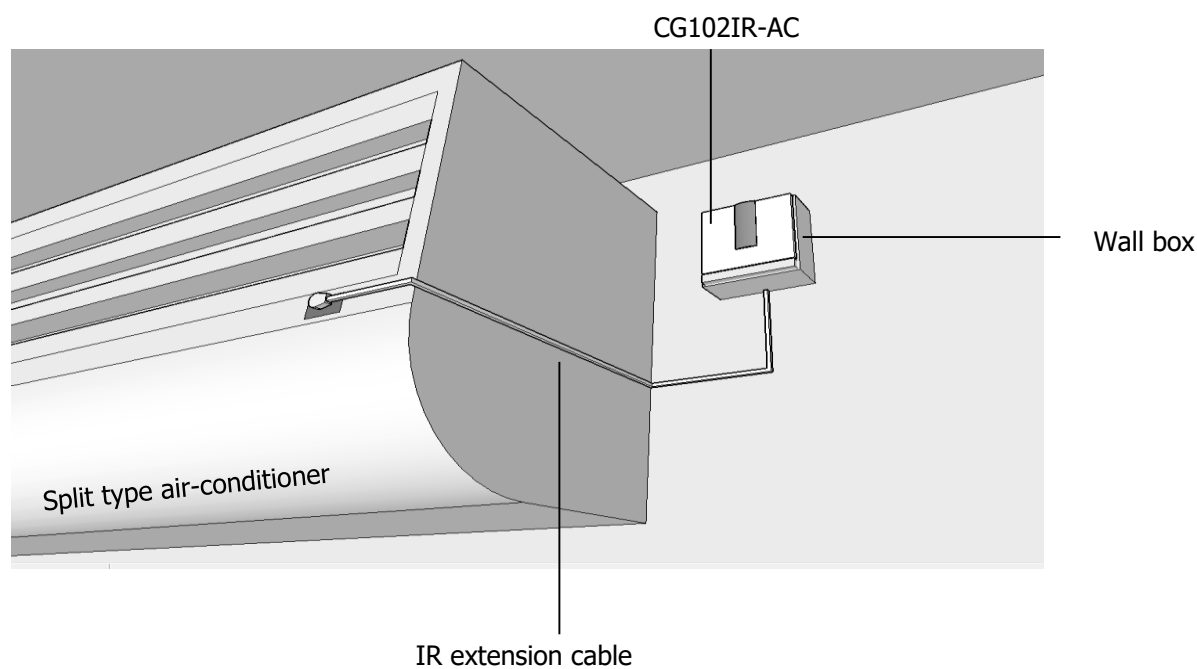
**STEP 3:** The Positive (Red) wire and Negative (Black) wire should be properly connected to the DC plug from the power adaptor. Please refer to the following diagram.



**STEP 4:** Plug the DC plug into the DC jack input of the CG102IR-AC, plug the IR extension cable into the CG102IR-AC IR port on the rear side. Retrofit the CG102IR-AC into the wall box and mount it onto the wall by fastening the two screws at the rear of the switch box.



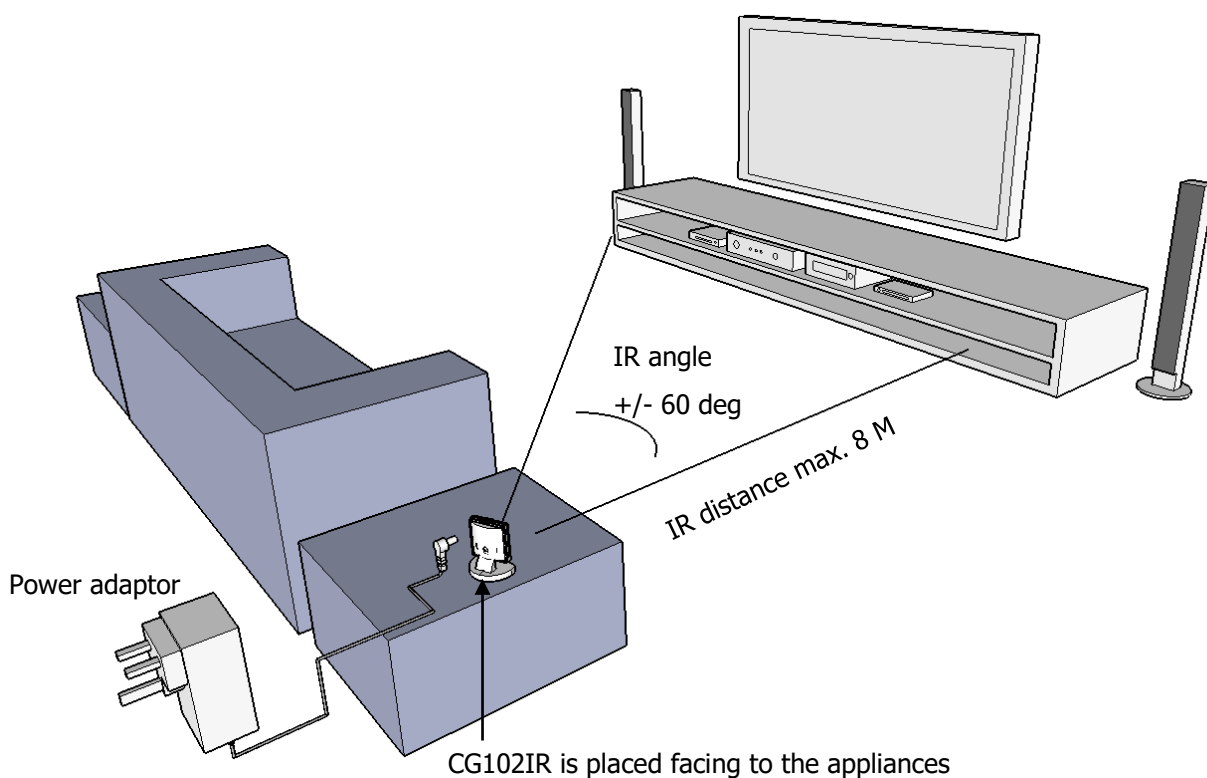
**STEP 5:** Route the IR extension cable to the IR receiver window of the air-conditioner.



## 5.2 Table Stand

**STEP 1:** Select a location to place your CG102IR, the best location would have a maximum of 8-meter distance away from the appliances and the IR angle coverage is  $\pm 60$  degree.

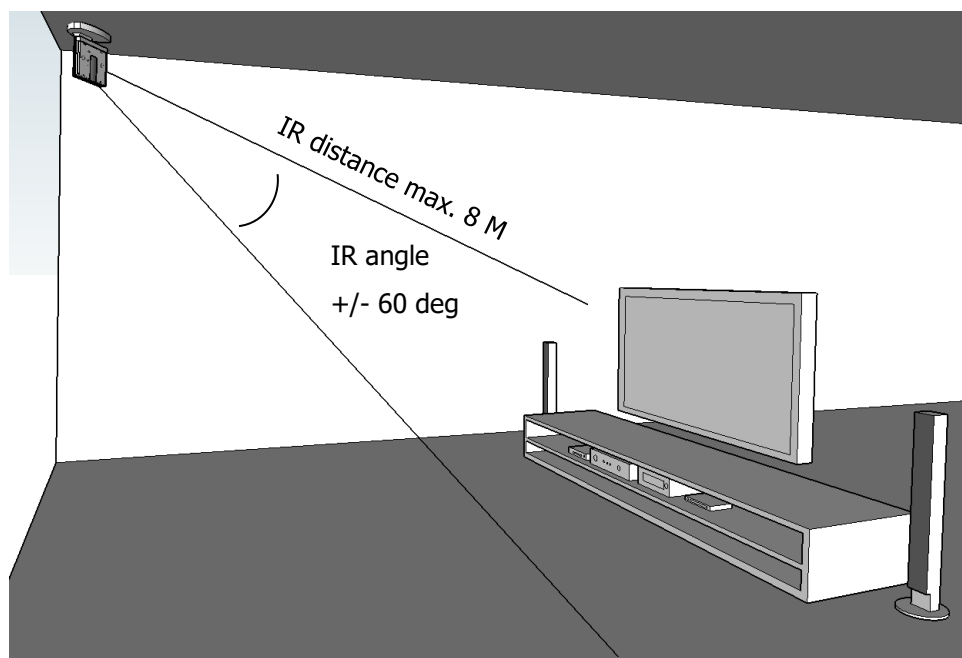
It is recommended to locate the equipment with no IR transmission blockage.





### 5.3 Ceiling mount

**STEP 1:** Select a location to place your CG102IR, the maximum distance would have a maximum of 8-meter distance away from the appliances and the IR angle coverage is +/-60 degree.

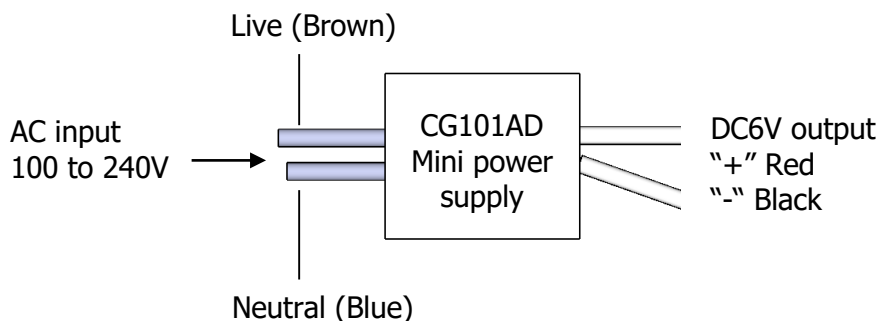


**STEP 2:** Power up the CG102IR with provided power adaptor or CG101AD mini power supply (purchase separately).

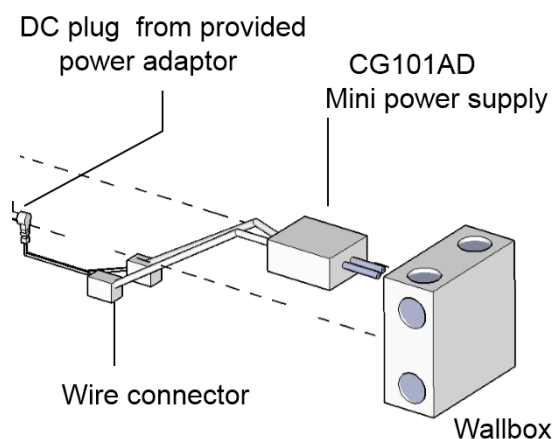
If you decide to use CG101AD mini power supply as the power supply, follow the steps below:

- Connect the main power cable from the wall box to the Live and Neutral wires of the CG101AD Mini Power Supply (purchase separately).

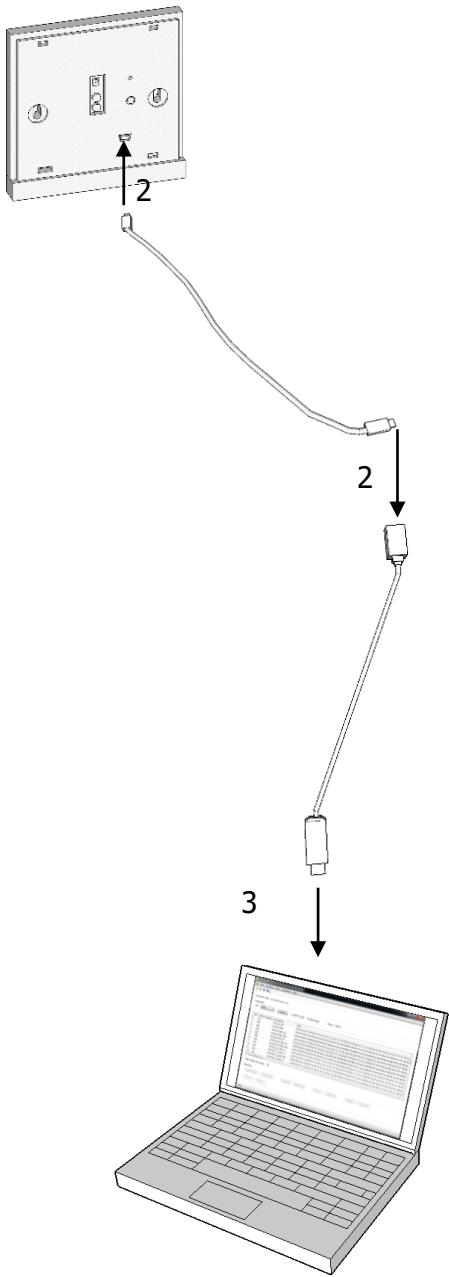
- Connect the main power cable to the Live and Neutral terminals of the CG101AD Mini Power Supply. The Live (Brown) wire and Neutral (Blue) wire should be connected to the CG101AD Mini Power Supply.



- The Positive (Red) wire and Negative (Black) wire should be properly connected to the DC plug from the power adaptor. Please refer to the following diagram.



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

 <p>The diagram illustrates the three-step connection process. Step 1 shows a cable being inserted into the USB port of a device. Step 2 shows the other end of the cable being inserted into the mini USB port of the CG101UTC cable. Step 3 shows the CG101UTC cable being inserted into the USB port of a laptop.</p>	<p><b>STEP 1</b></p> <p>Open the front cover, you will see an USB port.</p> <p><b>STEP 2</b></p> <p>Plug the CG101UTU cable into the USB port of the device, and connect the other end of the CG101UTU cable into the mini USB port 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 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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## 7. Specification

<b>Item</b>	<b>CG102IR-AC ZigBee IR Transmitter</b>
<b>Power supply</b>	AC adaptor Out DC 6V 500mA
<b>IR transmission range</b>	8M
<b>IR transmission angle</b>	+/- 60 degree
<b>Best IR learning distance</b>	15 to 80mm from the IR learn LED
<b>Maximum storage for IR learning code</b>	60 codes
<b>RF frequency</b>	2.4GHZ
<b>RF control distance (line of sight)</b>	100M
<b>Operational temperature</b>	0°C to 40°C
<b>Operational humidity</b>	5% to 95% non-condensing
<b>Dimensions mm (Length x Width x Depth )</b>	87 x 87 x 22
<b>Storage</b>	-20°C to 70°C