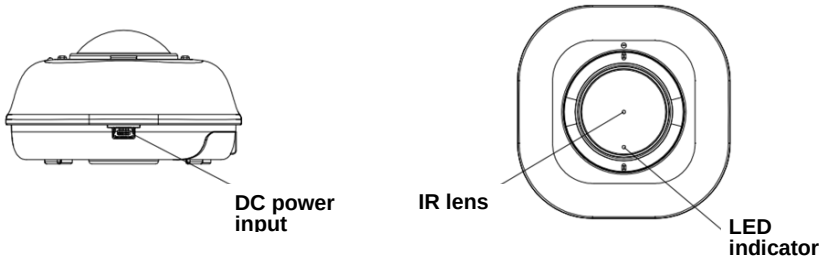
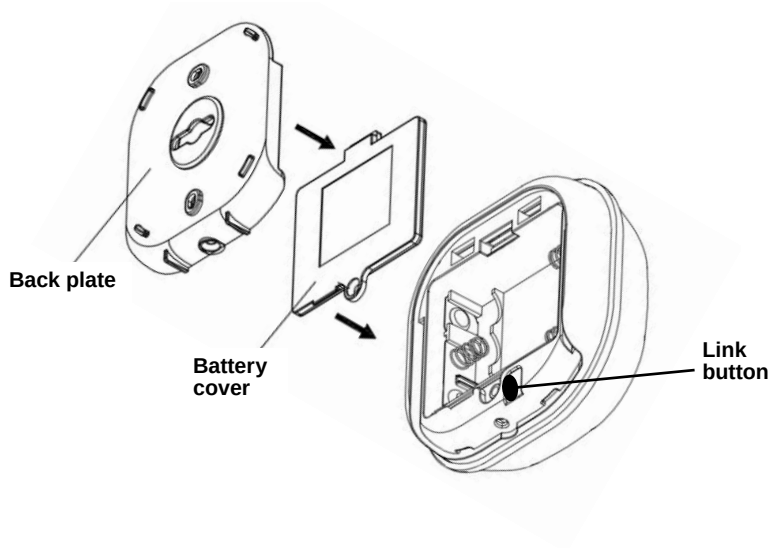
AC134 IR Controller

General Introduction

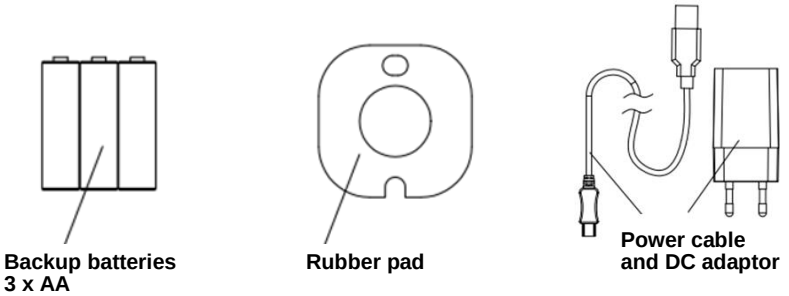
The AC134 is an IR Controller based on U-Net wireless technology to control home appliances such as TV, audio equipment and air conditioner that are typically operated by a handheld IR remote control. Through a U-Net compatible gateway and Homesys cloud platform, the AC134 can be programmed to substitute this handheld remote control. This allows the user to operate home appliances from a smartphone App even when they are not at home.

Product Layout





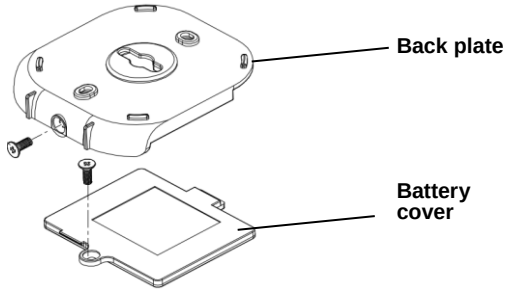
Accessories :



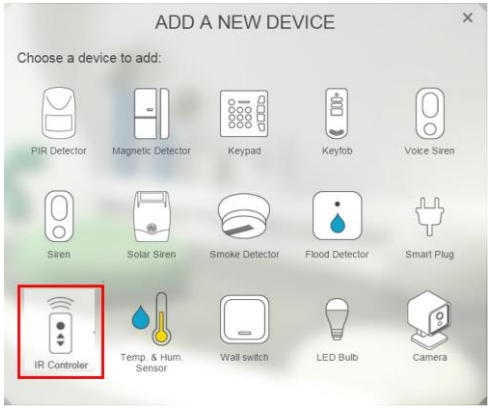
Binding with Homesys

AC134 will start pairing to the U-Net gateway when batteries are inserted into the device.

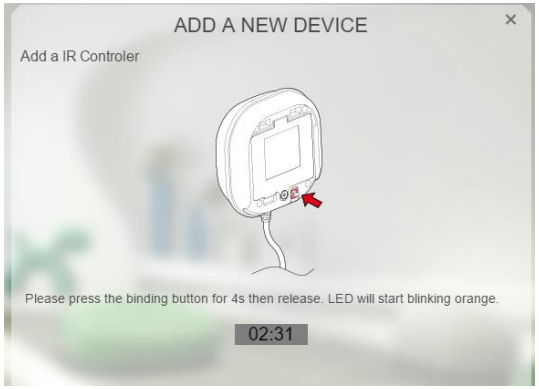
1. First remove the back plate by undoing the screw at the side.



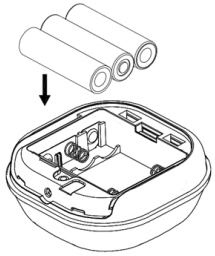
2. Unscrew the battery cover to expose the battery slots. Do not insert the batteries just yet
3. Log into the Homesys account from a web browser.
4. Select “System”.
5. Select “Add a New Device”, then “IR Controller”.



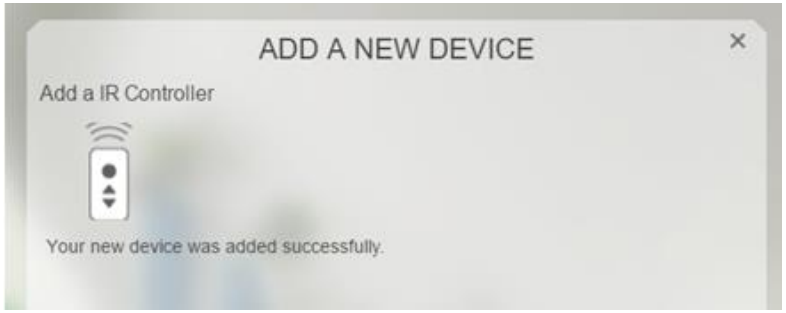
6. The following screen will appear. This means the gateway is entering binding mode.



7. At this point, insert the batteries into the AC134 and it will automatically bind with the gateway.



8. The screen below will appear in 10 seconds if the process is successful.

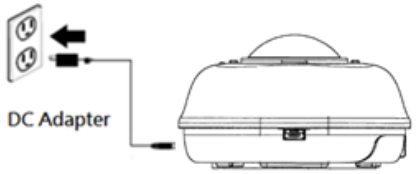


Note: Time-out will occur if the binding process was unsuccessful. Please refer to the “Manual Binding” in the Troubleshooting section.

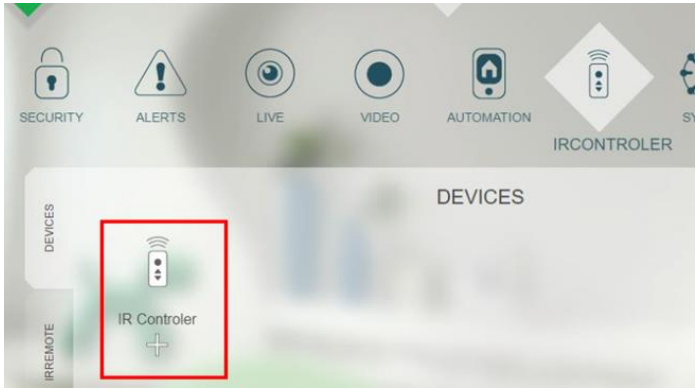
IR Code Learning

The AC134 can now be programmed to learn the IR codes from the appliance’s remote control.

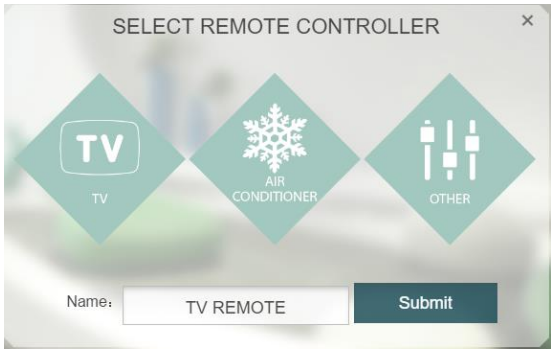
1. Plug the device to the AC mains using the DC adaptor and power cable provided while still leaving the batteries inside.



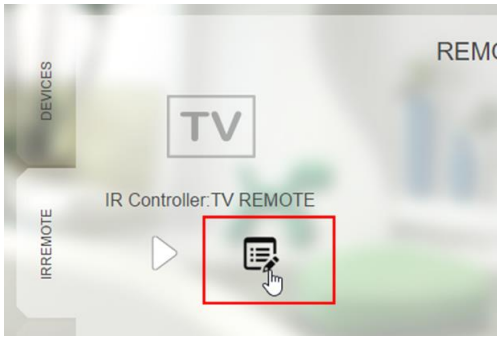
2. On the Homesys main page, select “IR controller” icon at the top.
3. In the “DEVICES” tab, click the “+” under “IR Controller”.



4. Then select the appliance type to learn its remote control from.

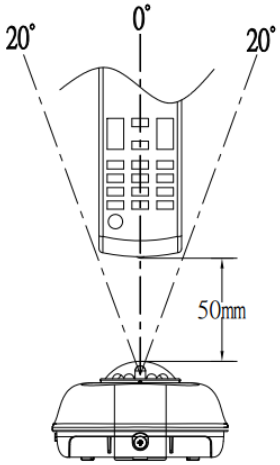


5. In this example, selecting “TV” will create an icon in the “IRREMOTE” tab for the TV’s remote control. Click on the edit icon as shown below.



6. This brings up a virtual remote control page with icon buttons representing the actual buttons on the remote control. To start leaning the IR code, click on a button, for example the Power On button.

7. The red LED on AC134 will start to flash, implying that it is ready to receive up any IR code.
8. Hold the appliance’s remote control vertically over the AC134’s lens at a close distance of <5cm as shown below and press a button to be learned such as the Power ON button.



9. The red LED will turn off if AC134 has successfully learned the button within 30 seconds. If learning was unsuccessful, it will flash three times rapidly.
10. If more buttons to be learned for the same remote control, repeat again from step 6.
11. If a different remote control type needs to be learned (e.g. switching from TV remote to air conditioning remote), repeat from step 3 to first select the appliance type.

Note: A total maximum of 64 IR codes (buttons) can be learned for each AC134.

Operation & Testing

Once the IR code learning has completed, conduct a quick test using the Homesys App or web interface.

1. Unplug the power cable from AC134 and bring the AC134 close to the appliance (under 2m).
2. From the “IRREMOTE” tab, click on the play icon.

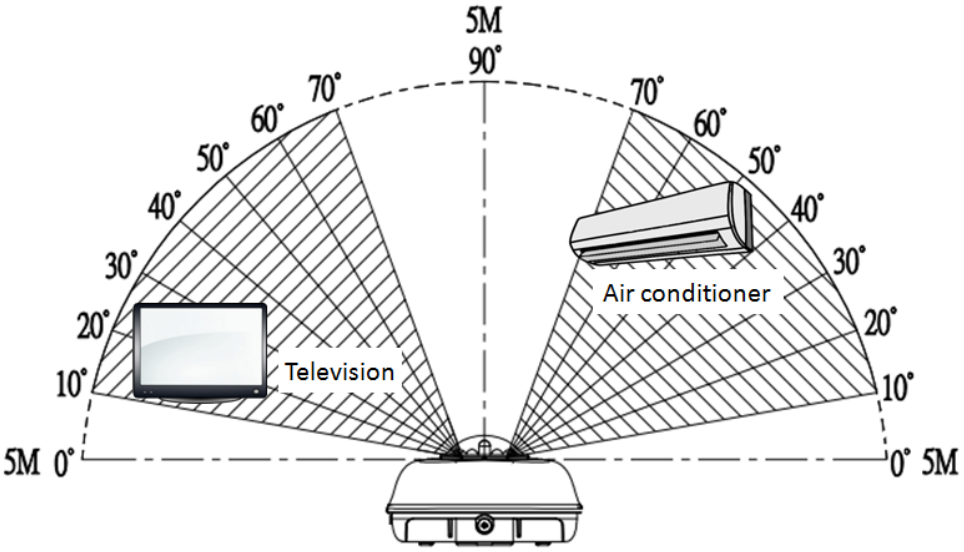
3. The virtual remote control will appear. Tap a button on the virtual remote (for example Power ON button) and AC134 will start emitting the IR code, indicated by its blinking LED.

4. The appliance should be activated and respond exactly the same as when controlled by its handheld remote control. If there is no response from the appliance, check the IR code learning procedure again.

   Note: The AC134 can operate from its backup battery for up to 1 year. When running on battery the response time will be slower and not suitable for certain applications which require immediate response such as switching channels on the TV. For such applications the AC134 should be powered by the provided DC adaptor for faster response.

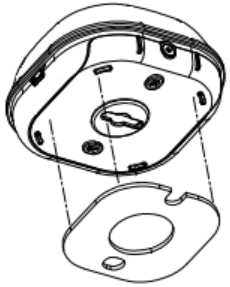
Location & Placement

1. The AC134 should be placed on a flat surface, preferably on a table, at a height lower than the appliance to control.
2. For best results the target appliance should be not more than 5m away from AC134 and at an elevation angle of anywhere between 10° to 70° around its lens. This is shown in the shaded area below.



Note: Avoid the vertical angle between 70° to 90° as this is reserved for learning IR code.

3. For longer range beyond 5m and up to 8m, the target appliance should be located at a narrower elevation angle between 30° to 40° of AC134.
4. Once a location has been identified, stick the provided anti-slip rubber pad below the base plate for better surface grip.

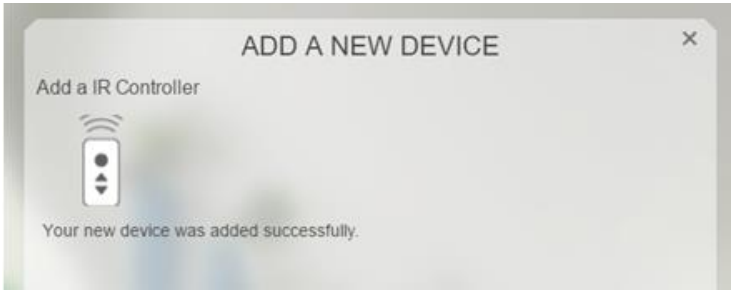


Trouble Shooting

Symptoms	Possible Cause	Recommendation
Device does not work, LED does not illuminate.	No batteries attached or no power.	Check if batteries are attached or replace with new ones.
LED does illuminate, appliance does not respond	Binding with gateway did not complete successfully.	Bind again using manual binding (see next chapter)
	IR code learning did not complete successfully.	Redo IR code learning again.
	The device is too far from the gateway and cannot communicate with it.	Place the device nearer to the gateway.

Manual Binding

1. Repeat steps 3 to 5 of the Binding with Homesys section.
2. Press and hold the Link button for 3 seconds until the LED flashes moderately (on for 0.5 second; off for 0.5 second). This implies AC134 has now entered the binding mode and is waiting to receive binding signals from the gateway.
3. Within 5 seconds, the LED indicator will stop flashing and turn off, indicating the learning procedure is completed. The screen below will appear indicating the process is successful.



4. If after 30 seconds the LED flashes rapidly for 3 times, it means the AC134 failed the binding process.

Reset to Factory Settings

To reset AC134 back to factory default state:

1. Press and hold the link button for 3 seconds until the LED flashes moderately then release the button.
2. Within 30 seconds, press and hold the link button again, this time for more than 6 seconds until the LED turns off then release the button.
3. Unplug the DC adapter and remove the batteries.
4. Re-insert the batteries, if the LED blinks repeatedly once every 30 seconds this implies the device is reset back to factory mode.

Specifications

Operating temperature range	0°C to 40°C
Operating humidity	85% RH at 30°C
Adapter	DC 5V 1A
Battery type	AA alkaline 1.5V *3
IR transmission range	Up to 8m
IR compatible bitrates	32.0 - 50.0 KHz
RF Frequency	868.30 MHz(EU)/923.00MHz(US)
RF transmission range	Outdoors >150m (Open space)

*****Specifications are subject to change without notice.

WARNING:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal free of charge.

CAUTION:

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can

radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.