OPERATING MANUAL

IR TRANSCEIVER

HKZW-ACC01-V1.0

ACC01 is an IR Transceiver based on Z-Wave technology. It is used for sending IR codes to infrared communication controlling devices such as TV, air condition and TV box.

IR Transceiver can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.
IR Transceiver is also a security Z-Wave device and supports the Over The Air (OTA) feature for the product's firmware upgrade.
If you want your IR Transceiver to be a security device that use secure/encrypted message to communicate in a Z-Wave network, then a security enabled Z-Wave controller is needed.

The features list:
1) Z-Wave Plus certified for wide compatibility (500 serials product).
2) Infrared max communication distance is about 12meters.
3) Infrared emission angle is about 180°.
4) Support firmware OTA.

Ⅰ. GENERAL INFORMATION ABOUT DOOR/WINDOW SENSOR

1. Product layout

2. Specifications

Power supply:	DC 5V 1A
Storage environment:	-10℃-50℃ 0%-90%
Operational temperature:	0~40℃
Radio protocol:	Z-Wave
Radio frequency:	☐908.42MHz(US) ☐868.42MHz(EU) ☐921.42MHz(AU)
Range:	More than 150m outdoors About 40m indoors (depending on building materials)
Dimensions:	85x85x26cm
Working current:	About 60mA
Standby current:	About 35uA

Ⅱ. INSTALLATION

IR Transceiver is simple to install and it should be installed near the infrared devices as possible as you can.
1) Utilize the screws provided to affix the plastic mount to the surface you desired.

2) After step 1, you can now lock your IR Transceiver to the plastic mount by pressing it as the direction shows below.

3) Firmly connect the 5V/1A Micro USB adaptor to your IR Transceiver and then put the adaptor plug into an AC outlet. IR Transceiver will power on as soon as you plug in the adapter.

Ⅲ. INFRARED INFORMATION

Infrared emission angle has great effect on the communication distance. The communication distance is up to 12 meters when the angle between infrared device and IR Transceiver is 90°(this is the optimal performance). The communication distance is 3 meters when the angle between infrared device and IR Transceiver is 0° or 180°.
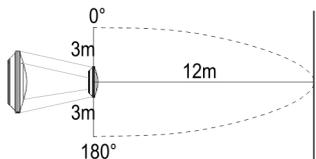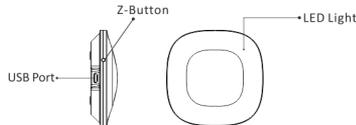
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1. The figure below shows the relation of Infrared emission angle and Infrared communication distance.

2. How to store infrared code on your IR Transceiver.
We offer two ways to store infrared code on your IR Transceiver.
1) You can learn infrared code from your remote.
2) You can download infrared code from the cloud via APP.

3. How to control an infrared device.
After you store infrared code on your IR Transceiver, you can control an infrared device via APP.

Ⅳ. Z-WAVE NETWORK INCLUSION

IR Transceiver can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the networkwill act as repeaters regardless of vendor to increase reliability of the network.

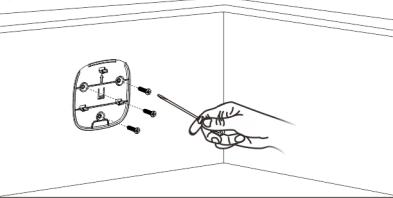To include IR Transceiver into a Z-Wave network as a non-security device:
1) Make sure the power supply is connected and the IR Transceiver is located within a direct Z-Wave network's main controller communication range.
2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).

3) Triple-clicking the Z-Button within 1.5 seconds.
4) If the add for inclusion is successful, the LED will blink fast for less than 5 seconds and then keep on. Otherwise, the LED will blink 5 seconds and then keep blinking slowly, in which case you need to repeat the process from step 2.

To include IR Transceiver into a Z-Wave network as a security device:
1)Make sure the power supply is connected and the IR Transceiver is located within a direct Z-Wave network's main controller communication range.
2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).
3) Pressing and holding the Z-Button for 3 seconds.
4) If the add for inclusion is successful, the LED will blink for less than 5 seconds and then keep on. Otherwise, the LED will blink 5 seconds and then keep blinking slowly, in which case you need to repeat the process from step 2.

> **TIP:**
> If you want your IR TRANSCEIVER to be a security device that use secure/encrypted message to communicate in a Z-Wave network, then a security enabled Z-Wave controller is needed.

Ⅴ. REMOVING FROM Z-WAVE NETWORK

To remove the IR TRANSCEIVER from the Z-Wave network:
1) Make sure the power supply is connected and the IR Transceiver is located within a direct Z-Wave network's main controller communication range.
2) Set the Z-Wave network main controller into exclusion mode.
3) Triple-clicking the Z-Button within 1.5 seconds.
4) If the remove for exclusion is successful, Led will blink fast for less than 5 seconds and keep blinking slowly. Otherwise, led will blink for 5 seconds and then keep on, in which case you need to repeat the process from step 2.

> **NOTE:**
> Remove procedure will clear the IR TRANSCEIVER's memory which means it will erase all information about Z-Wave network and advanced configuration.

Ⅶ. RESET IR TRANSCEIVER

Reset procedure will clear the IR Transceiver's memory, including Z-Wave network information, but not including IR information.

To reset IR Transceiver:
Pressing and holding the Z-button for 20 seconds. Release the button after 20 seconds, Led will be on for 3 seconds, and then led will keep blinking. IR Transceiver will send "Device_Reset_Locally" to the main controller and exclude from the Z-Wave network, this procedure will reset IR Transceiver to factory default.
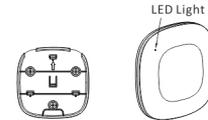
> **NOTE:**
> Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

Ⅷ. ASSOCIATION
IR Transceiver supports only one association group.

Grouping Ldentifier	Max Nodes	Send Commands
Group 1	0x05	NULL

Ⅸ. ADVANCED CONFIGURATION

IR TRANSCEIVER offers a wide variety of advanced configuration settings. Below parameters can be accessed from main controllers configuration interface.

Parameter No.93 Clear IR information
Clear all IR information.
Value: **1431655765**
Default: **1**
Parameter size: **4[byte]**

Parameter No.254 Enable/disable the configuration command
Lock/unlock all configuration parameters.
0 – Unlock.
1 – Lock.
Default setting: **0**
Parameter size: **1[byte]**

Parameter No.255 Reset Scene Controller
Reset to factory default settings and removed from the Z-Wave network.
Value: **1431655765**
Default: **1**
Parameter size: **4[byte]**

Ⅹ. FCC NOTICE (for USA)

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.