

# Smart Photoelectric Smoke Sensor



CT-SMZW2007-HM

## Introduction

This product is a Smart Photoelectric Smoke Sensor, with ultra-low-power ZigBee wireless network technology design. It is an warning device, cannot sense gas, heat, or flame, cannot prevent or put out fire. It is capable of real-time detecting the presence of smoke, detection of visible particles (smoldering fire) faster than ionization smoke alarms. Red LED flashes rapidly and detectors sound alarm once detecting smoke fire danger, can alert you and your family timely. Smoke alarms should be installed in all rooms, living room, storage areas, basements and attics unit that fire may happen.

## Technical Information

- Compatible with any ZigBee network controller
- Battery powered and cost savings
- Sensitivity and small size

## Specifications

1. Radio protocol : Z-Wave
2. Operating voltage : DC 3V (CR123A Lithium Battery)
3. Static current :  $\leq 10\mu\text{A}$
4. Alarm current :  $\leq 60\text{mA}$
5. Networking way : Z-Wave Ad-Hoc Network
6. Sound level : 85dB/3m
7. RF range :  $\leq 70\text{m}$  (open area)
8. Working Temperature :  $-10^{\circ}\text{C}\sim+50^{\circ}\text{C}$
9. Working humidity :  $\leq 95\%\text{RH}$
10. Dimension :  $60\times 60\times 49.2\text{mm}$

## Operation

As shown in figure 1, there is a Reset button (which is used to carry out inclusion, exclusion or reset), a Test/Mute button and a network status indicator LED on the surface of the Smart Photoelectric Smoke Sensor, and the functions are introduced as follows:

- Networking Button (Reset Button)
  - (1) If the Smart Photoelectric Smoke Sensor has not been included into the network, short press the Reset button to enter the network inclusion condition, at this time the network status indicator LED flash (3 times/second). If the network inclusion success, the network status indicator LED will long on for 2 seconds and then go out. If the network inclusion failure, the

network status indicator LED will go out.

(2) If the Smart Photoelectric Smoke Sensor has been included into the network, and want to include into the new network, you must reset the device. Please long press the Reset button for 10 seconds, LED will flash slowly for 2 seconds.



Fig.1

- **Network Indicator**

Status	Light	Alarm Sound
Normal	Red LED flashes every 53 seconds	NO
Testing	Red LED flashes quickly	Rapid beeps
Alarm	Red LED flashes quickly	Rapid beeps
Mute mode	Red LED flashes every 10 seconds	NO
Low power	Red LED flashes every 40 seconds	Beep every 40 seconds
Fault	Red LED flashes every 40 seconds	Beep every 40 seconds

- **Test/Mute Button**

Please make sure that there is no real danger of fire when using mute function. Under known and non-fire alarm condition, please do not block or by any other form to prohibit alarming. Press the Test/Mute button to lower sensitivity and relieve alarm.

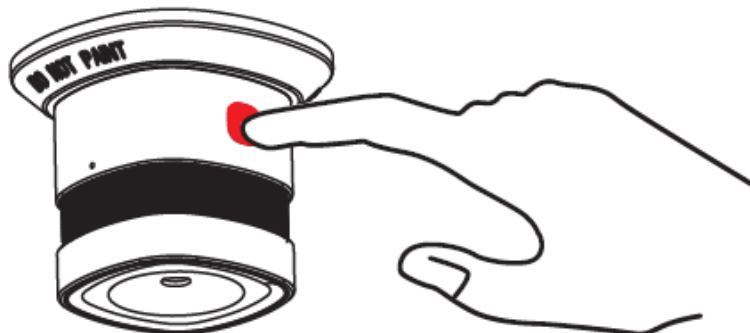


Fig.2

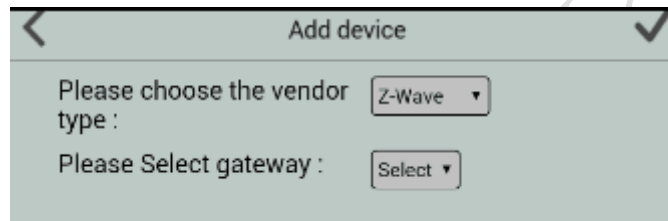
Press and hold the test panel Test/Mute button for 3 seconds, as above picture shows, until alarm status (see status table). Testing is recommended to be done at least once a week. Do not use flame for testing. Once the alarm is sure, please pay attention to it.

## ZIGBEE NETWORK INCLUSION

- 1) Connect the power supply
- 2) Press the Reset button 3 times in 1.5 seconds.

Note: if you need to change the network, you need to check the reset button for 10 seconds

- 3) Choose "Z-wave" to enter the Network Inclusion mode on the APP, then click "✓".



- 4) When prompt a message "Request Access Success", please go to the device list interface, and refresh the device list, the device will be displayed.

## Installation Instructions

After the Smart Photoelectric Smoke Sensor completing the network inclusion, it will enter the detection state. Once the Smart Photoelectric Smoke Sensor detects smoke fire hazard, and smoke concentration reaches the alarm threshold, it will send alarm signal, red LED flashes rapidly and detectors sound alarm, which can alert you and your family timely. In addition, if the user do the SMS alarm or Email alarm configuration. When the alarm is triggered, mobile terminal will receive alarm information, you can clicks the alarm information to view the detailed information.

In order to ensure the detection effect, this product should be placed in a good permeability area, do not install it at positions of rain and snow. In addition, the installation of this wireless

smoke detector is very easy, no additional wiring.

### Installation Renderings

- **Ceiling mounting**

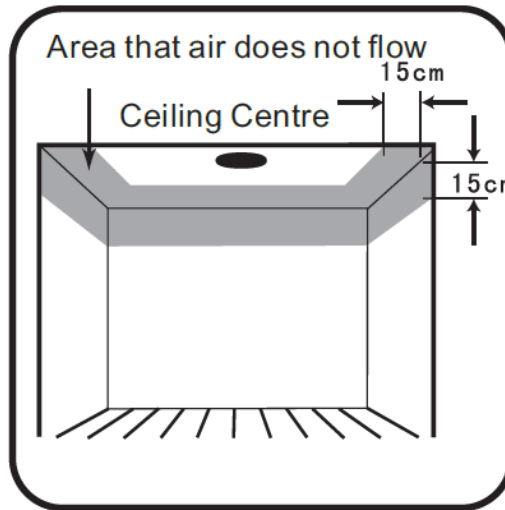


Fig.4 Recommended and Avoided Installation Position

The preferred location to install smoke alarm is in the centre of the ceiling because Smoke, heat and combustion products rise to the ceiling and will lateral spread. Keep at least 30 cm distance from lights or decorations, and at least 15 cm away from walls and corner. If hall is more than 12 meters wide, please install at 2 sides of the hall.

- **Sloping ceiling mounting**

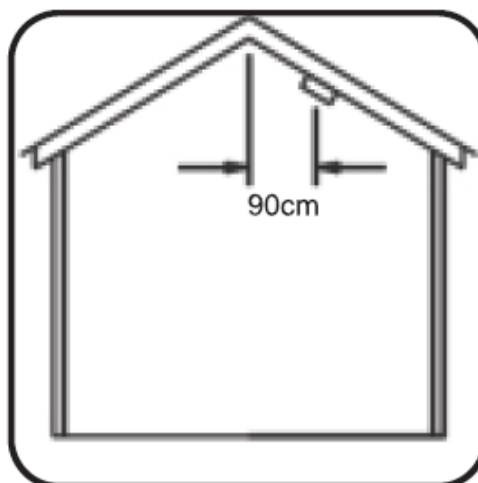


Fig.5 Sloping Ceiling Mounting Position

If ceiling is sloping, please install the smoke alarm at horizontal distance 90cm away from the ceiling top.

## Smart Photoelectric Smoke Sensor Installation

1. Anticlockwise rotating the bracket out from the installation base, then remove the battery insulating strip to make detector on power.

Factory default built in a CR123A 3V lithium battery inside the detector and used a Mylar film to isolate batteries from electric circuit of the detector. Remove the battery Mylar film when ready to let the detector work.

If there is no battery inside the detector or need to replace a new battery, please insert the battery first.

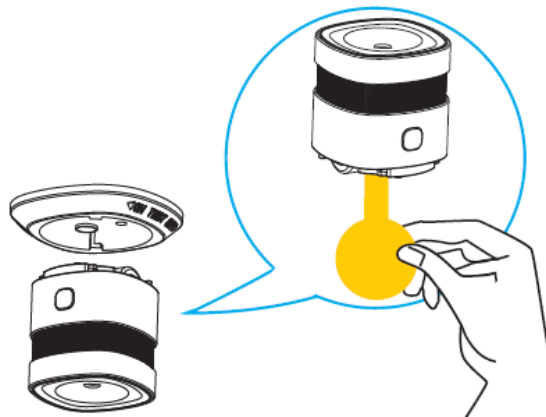


Fig.6

2. Make sure the device has been included into the network normally.
3. Remove the double-sided adhesive membrane on the mounting bracket, and rotating the smoke alarm into the bracket.

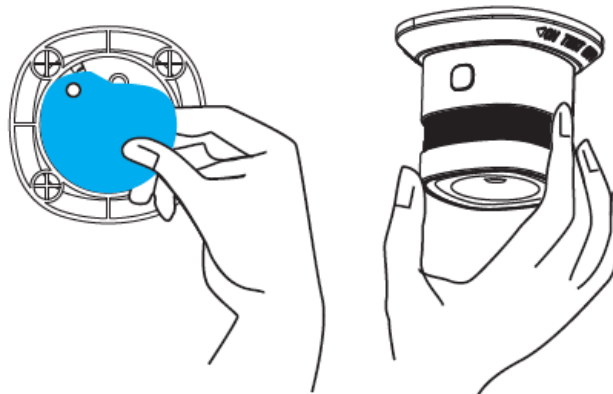


Fig.7

## Safety Notice

- This device is a wireless communication product; please do not place the device to work in the metal container, in case the signal is blocked.
- The working temperature is  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .
- This detector is designed specifically for home use, may not able to provide sufficient fire alert for public areas.
- Please avoid installation in bathrooms and other very humid places, dusty or greasy areas, or very airy place with air conditioning, ceiling fans, etc.
- Please keep detectors clean, and do not let dust accumulated. It is recommended to clean every 6 months with a household cleaner and a soft brush.
- The effective life span is 10 years. Replacement every 10 years, regardless of breakdown or not (battery life: 3 years).
- Please pay attention if it alarms. Besides proper use of alarm, we should also strengthen the consciousness of fire safety.