



# User Manual

## Photoelectric Smoke Alarm ZA258A

Thank you for purchasing our smoke alarm. Please take a few minutes to read the user's manual thoroughly and familiarize yourself and your family with its operation. Please keep the user manual for the entire life of the product.



**CE**  
**ZA258-CPR-001**  
**1008-CPR-#####**  
**EN14604:2005/AC:2008**

### Product Specifications

- **Power:** 2PCS AA DC1.5V battery (included & replaceable)
- **Operating temperature:** 0 °C - 40 °C
- **Operating humidity:** < 93 %
- **Operation current:** <30uA(standby), <85mA (alarm)
- **Alarm Volume:** >85dB(A) at 3 meters.
- **Alarm sensitivity:** 0.100-0.160dB/m
- **Silence Mode:** silence approx 10 minutes
- **Wireless frequency:** 915MHz
- **Wireless distance:** >100 meters (open area)
- **Suggest interconnected quantity:** 48pcs
- **Sound pattern of the first alarming unit:** BI 0.5s - pause 0.5s – BI 0.5s – pause 0.5s – BI 0.5s – pause 1.5s, with the red LED flashing and repeat as above
- **Sound pattern of alarming unit triggered by wireless alarming signal:** BI 0.02s - pause 0.1s - BI 0.02s - pause 0.9s, without red LED flashing and repeat as above.
- **Test sound pattern:** 3 short beeps, pause 1.5 seconds and then as above..
- **Complied Standard:** EN14604:2005/AC:2008

Characteristics Certified	
Main Function	Smoke Alarm
Power Source	2PCS AA DC1.5V battery (included & replaceable)
Autonomy	10 year
Method of mounting	On wall or ceiling
Interconnectable	by radio
Suitable for leisure accommodation vehicles	yes
Individual alarm indicator	yes
Temporary deactivation facility	yes, silence for approx 10 minutes

### Description

The unit is a photoelectric smoke alarm. With the photoelectric technology, it is more sensitive to detecting slow smolder fires which is general thick and black smoke along with a little heat and may smolder for hours before bursting into flames. The smoke alarm does not contain the radioactive material, which is harmless to the environment.

### Important Safety Information

1. Press the test button to test smoke alarm function. Do not use any other test method. Test smoke alarm weekly to ensure proper operation.
2. When the smoke alarm is alarming, if you're sure it isn't a really alarm, open windows or fan the air around smoke alarm to silence it. Do not remove or disconnect battery. This will take your protection away.
3. Observe and follow all local and national electrical and building codes for installation.
4. This smoke alarm is designed to be used inside a single family only. In multifamily buildings, each individual living unit should have its own smoke alarms. Do not install in non-residential buildings. And this smoke alarm is not a substitute for a complete alarm system.
5. Install a smoke alarm in every room and on every level of the house. Smoke may not reach the smoke alarm for many reasons. For example, if a fire starts in a remote part of the house, on another floor, in a chimney, or on the other side of a closed door, wall or roof, smoke may not reach the smoke alarm in time to alert household members. A smoke alarm will not promptly detect a fire except in the area or room in which it is installed.
6. Smoke alarm may not alert every household member every time. The alarm horn is loud in order to alert individuals to a potential danger. However, there may be some circumstances where a household member may not hear the alarm (i.e. outdoor or indoor noise, sound sleepers, drug or alcohol usage, bad hearing, etc.). If you suspect that this smoke alarm may not alert a household member, install and maintain specialty smoke alarms. Household member must hear the alarm and quickly respond to it to reduce the risk of damage, injury or death that may result from fire. If a household member is with bad hearing, install special smoke alarms with lights or vibrating devices to alert occupants.
7. Smoke alarms can only alarm when they detect smoke or combustion particles in the air. They do not sense heat, flame or gas. This smoke alarm is designed to give audible warning of a developing fire. However, many fires are fast - burning, explosive, intentional or caused by carelessness or safety hazards. In this circs, smoke may not remake the unit alarm **QUICKLY ENOUGH** to ensure safe escape.
8. Smoke alarms have limitations. This smoke alarm is not foolproof and is not warranted to protect lives or property from fire. Smoke alarms are not a substitute for insurance. Homeowners and renters should insure their lives and property. In addition, it is possible for the smoke alarm to fail at any time. For this reason, you must test the smoke alarm weekly and replace the unit every 10 years.

### Indication of Different Status

**Standby Status:** red LED flashes once every 40 seconds indicating the smoke alarm is operating properly.

**Alarm & Test Status:** when the test button is pressed or when the smoke alarm senses particles of combustion and goes into alarm (constant pulsed sound), the red LED will flash once per second. The flashes of LED and pulsating alarm will continue until the air is cleared or the test button is release.

**Low Battery Voltage Status:** An intermittent chirp with red LED flashes once every 40 seconds.

**Fault Status:** the alarm chirps between two flashes every 40 seconds.

**Silence Mode Status:** the red LED will flash once every 8 seconds after pressing the test button in alarm status

### Operation

#### Activation

Activate the unit by putting the new battery into battery compartment, fit alarm body to bracket and turn the alarm body clockwise.

**Recommended battery:** AA alkaline battery Gold Peak 15A LR6 or Raymax LR6

**DO NOT** take out the battery unless you'll replace the battery immediately.

**NOTE:** The bracket can't be matched to the unit without battery.

#### Test

Test is necessary after activation.

Test the unit to ensure proper operation by pressing the test button for at least 5 seconds, this will trigger alarm if the electronic circuitry, horn and battery are working properly.

If no alarm, the unit has a defective battery or other failure. Refer to **Trouble Shooting** section for a solution.

**DO NOT** use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and start a fire.

**CAUTION:** Due to the sound volume (85 decibels) of the alarm, always stand an-arm-length away from the unit when testing.

Erratic or low sound volume coming from your alarm may indicate a defective alarm, you can refer to **Trouble Shooting** section for solution.

**NOTE: WEEKLY TEST IS REQUIRED.**

#### Interconnection

Following are 3 interconnecting situations:

##### A. Set up a new group

Step	Operation	Response of the Alarm
1	Choose one alarm as the signal receiving device, mark it (here mark this alarm as 1) and then power it.	Alarm 1 enters into signal receiving status for 30 seconds with red LED on.  NOTE: If it doesn't receive any interconnecting requests in 30 seconds, it will transfer to standby status.
2	Power another alarm (here call this alarm as alarm 2) during alarm 1's signal receiving status.	In 2 seconds after alarm 2 being powered, the red LEDs of alarm 1 and alarm 2 both flash once, which means the interconnection is successful.  And then alarm 2 goes into standby status and alarm 1 goes back to signal receiving status for another 30 seconds.
3	Repeat step 2 to add more alarms into the group.	Same as above
4	Finish the interconnection by pressing the test button of alarm 1 once during its signal receiving status or by waiting 30 seconds.	Alarm 1 enters into standby status.

##### B. Add new smoke alarms into the existing group

1. Take out the battery of the alarm 1 and then repower it.
2. Repeat Step 2 in Situation A to add the new smoke alarms

##### C. Add the interconnected smoke alarms into another group

1. Disconnect the interconnected smoke alarms referring to **Disconnection**.
2. Repeat Situation A or B to add the interconnected smoke alarms into another group.

**Note:** alarms from other companies can't be interconnected with this alarm.

#### Disconnection

Step	Operation	Response of the Alarm
1	Press the test button while powering the alarm for 3 second.	The red LED is on.
2	Release the test button.	The red LED is off.
3	Press the test button twice in 3 seconds	The alarm chirps once which means disconnection is successful.  And then the alarm goes into standby status.

#### Silence Mode (Hush Mode)

The Silence Mode has the capability of temporarily forbidding the alarm circuit to detect smoke for about 8 minutes. This feature is to be used to minimize nuisance alarms only when a known alarm condition, such as smoke from cooking activates the alarm.

Press the test button on the top cover for at least 5 seconds (or until the unit sounds) to active Silence Mode, if the smoke is not too dense, the alarm will enter into Silence Mode for approx 8 minutes and the alarm is temporarily in desensitized condition.

The smoke alarm will automatically reset after approximately 8 minutes. If particles of combustion still exists after this period, the smoke alarm will alarm again.

The Silence Mode can be repeated until the air has been cleared. Combustion particles from cooking may set off the alarm if the alarm is located close to the cooking area. Using a fan on a range hood venting to outside (non-recirculation type) will help remove these combustible particles from the kitchen. So the Silence Mode is extremely useful in a kitchen area or other areas prone to nuisance alarms.

**Note:** silence mode can only be set one by one even alarms are in the same group.

**CAUTION:** Before activating the Silence Mode, identify the source of the smoke and be certain the condition is safe.

**DANGER:** If the detector pulsed alarms constantly and not because of test, the unit is sensing smoke, **THE SOUND OF THE ALARM REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.**

**DO NOT** silence the alarm by taking out the battery.

### Trouble Shooting

Problem	Method of Disposal
Smoke alarm does not sound when testing NOTE: Push test button for at least 5 seconds while testing.	Remove smoke alarm from bracket and check the battery is properly connected to battery connector. Replace the battery. If there are still failures during warranty, you can return to your retailer. If the unit is out of warranty, please replace a new alarm.
The alarm chirps with red LED flashing once every 40 seconds.	The battery is under low battery voltage status, please replace the battery referring to <b>Replace Battery</b> section.
The alarm chirps every 40 seconds. (The alarm goes into fault mode)	Clean smoke alarm referring to the <b>Maintenance and Cleaning</b> section. Change a new smoke alarm if the problem still exists.

Smoke alarm sounds unwanted alarms intermittently or when residents are cooking, taking showers, etc.	Press test button to pause alarm. Clean smoke alarm. Please refer to the <b>Maintenance and Cleaning</b> section. Move smoke alarm to new location and press test button.
The alarm sounds different from it is used to. It starts and stops.	Clean smoke alarm. Please refer to the <b>Maintenance and Cleaning</b> section. If there are still failures during warranty, you can return to your retailer. If the unit is out of warranty, please replace a new alarm.

Installation

The smoke alarm should be installed in every room (except the bathroom and kitchen) and every other area of the home, making sure the people in the home will be able to hear and respond to the alarm. For minimum protection you should fit an alarm in the hallway between the living areas and sleeping areas. Place the unit near the living areas as possible and ensure the alarm is audible in bedrooms.

Recommendation on typical single storey dwelling

Install a smoke alarm on the ceiling of each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end. If there is a basement: install a smoke alarm on the basement ceiling at the bottom of the stairwell.

Recommendation on typical multi-storey dwelling

Install a smoke alarm on the ceiling of each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end. Install a smoke alarm at the top of a first – to- second floor stairwell.

Don’t install smoke alarms in the following places

- 1. Near appliances or areas where normal combustion regularly occurs (kitchens, near furnaces, water heaters). Use special smoke alarm with unwanted alarm to control for this areas.
- 2. In areas with high humidity, like bathrooms or areas near dishwashers or washing machines. Install at least 10 feet away from these areas.
- 3. Near return air or heating and cooling vents. Install at least 3 feet away from these areas. The air could blow smoke away from the detector and interrupting its alarm.
- 4. In rooms where temperatures may fall below 0°C or rise above 40°C, or in humidity higher than 93%. These conditions will reduce battery life or cause fault alarm.
- 5. In extremely dusty, dirty, or insect – infested areas, influence particles can interfere with smoke alarm operation.

Where is the best installation place

- At first you need install an alarm in the bedroom and route way. In the case of several bedrooms, you shall install an alarm in every bedroom.
- Install it in the stairway and in every floor.
- Smoke, heat and burning things spread horizontally after rising to the ceiling, so install the alarm on middle of the ceiling of ordinary structure house.
- If alarm couldn’t be installed in the middle of the ceiling for some reasons, the distance which the alarm from the wall corner should be beyond 50cm. (See Diagram 1).
- If the length of the room or the hall is beyond 30 feet, you need install several alarms in the hall.

- Smoke alarms in rooms with ceiling slopes higher than 1m in 8m horizontally shall be located on the high side of the room. Install a smoke alarm on sloping, peak or cathedral ceiling between 500mm and 1500mm from the highest point of the ceiling. (See Diagram 2).
- For single storey dwelling and multiple storey dwelling, please refer to Diagram 3

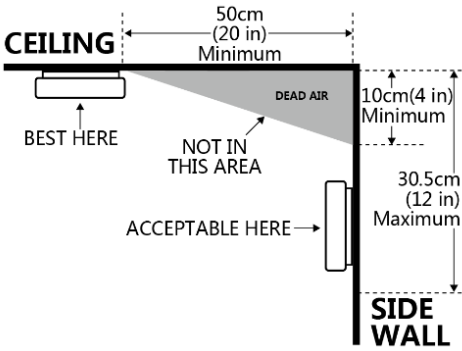


Diagram 1

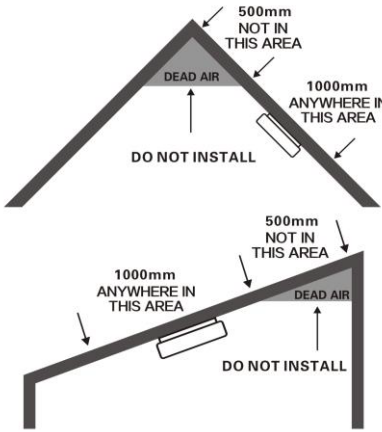
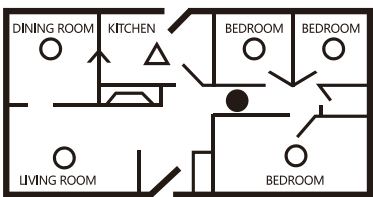


Diagram 2

SINGLE FLOOR PLAN



- Smoke Alarms for Minimum Protection
- Smoke Alarms for Additional Protection
- △ Ionisation Type Smoke Alarm with Alarm Silencer or Photoelectric Type

MULTIPLE FLOOR PLAN

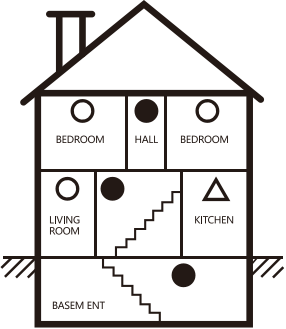


Diagram 3

Installation Steps (Please refer to Diagram 4)

- Remove the fixing plug from the mounting plate (if necessary, use a screw driver for this);
  - Place the bracket on the desired installation place and mark the installation holes on the wall with pencil.
  - Bore two installation holes with diameter 5mm with electric drill.
  - Strike the two plastic plugs into holes with hammer.
  - Insert the screws into bracket and tighten them firmly into plastic plugs
  - Fit the alarm on the bracket and turn the alarm body clockwise, until matching well on the bracket.
  - Insert the fixing plug into the hole between the mounting plate and the smoke alarm to fix your alarm.
  - Press the button for test. If no sound, please replace a new one.
- If you have any questions on installation, you can contact your retailer.

**WARNING:** To prevent injury, this unit must be securely attached to the ceiling in accordance with the installation instructions.

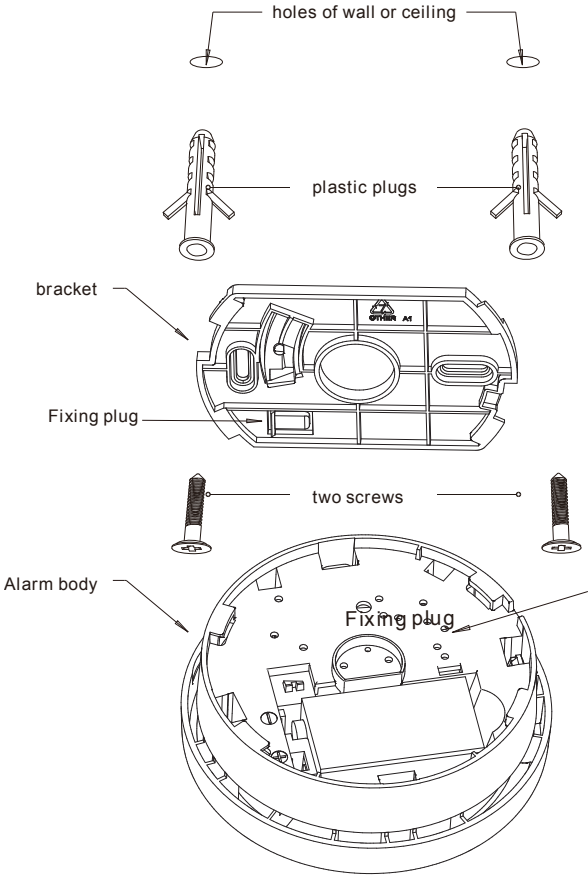


Diagram 4

Maintenance and Cleaning

- In addition to weekly testing, the alarm requires periodic clean to remove dust, dirt and debris. Clean the alarm at least once a month.
- Vacuum all sides of smoke alarm by a vacuum cleaner with the soft brush. Be sure all the vents are free of debris. Use a damp cloth to clean the alarm’s cover.
- This alarm has a low battery voltage monitor which will cause the alarm to chirp and at the same time the red LED flashes approx every 32 seconds for a

minimum of 30 days when the battery voltage gets low. Replace the battery when this condition occurs. Please refer to **Replace Battery**.  
**IMPORTANT:** Do not attempt to remove the cover to clean inside. This will affect warranty.

Repair

**DO NOT** attempt to repair the alarm. It will affect your warranty.  
If the alarm is not operating properly and is still under warranty, return it to the original place you bought by packing it in a well-padded carton.  
If the alarm is no longer under warranty, replace it immediately with a comparable alarm.

Practice Fire Safety

- If the detector pulsed alarms constantly and you have not pushed the test button, it is warning of a dangerous situation, your immediate response is necessary. Please prepare for such occurrences by developing family escape plans with all household members and practice them regularly.
- 1: Expose everyone to the sound of a smoke alarm and explain what the sound means.
  - 2: Determine two exits of each room and an escape route to the outside from each exit.
  - 3: Teach all household members to touch the doors before opening them. Instruct them not to open the door and use an alternate exit when the door is hot.
  - 4: Teach household members to crawl along the floor to stay below dangerous smoke, fumes and gases.
  - 5: Determine a safe meeting place for all members outside the building.

What to do in case of fire

- 1. Do not be panic and stay calm.
  - 2. Leave the building as quickly as possible. Touch doors to feel if they are hot before opening them. Use an alternate exit if necessary. Crawl along the floor and do stop to collect anything.
  - 3. Meet at a pre-arranged meeting place outside the building.
  - 4. Call the fire department from outside the building.
  - 5. Do not go back inside a burning building. Wait for the fire department to arrive.
- Note:** These guidelines will assist you in the event of a fire, however, to rise the rate of safe escape, please practice fire safety rules and prevent hazardous situations.

Warranty Information

Company warrants to the original consumer.  
New smoke alarm free from defects in material and workmanship and under correct operation has a period of 3-year warranty from the date of purchase. This warranty does not cover damage resulting from accident, misuse, abuse or lack of reasonable care of the product.  
In no case shall company be liable for any incidental or consequential damages by breach of this or any other warranty expressed or implied, whatsoever.  
The bad product can be mailed to the following address with a detail explanation of problem.

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 warning:**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 or more 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 equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**Manufacturer**

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