

## smoke sensor user manual

Smoke sensor apply to places with less smoke, no smoke to detect smoke ion. Be able to accurately detect smoke when the smoke concentration over the limit. The sensor will give out sound and light alarm, and export alarm signals to the collector.

### One. Technical parameters

- Power supply: 9 V alkaline batteries or carbon battery
- Working current: static current less than 10  $\mu$ A, alarm working current between 10-30 mA
- Frequency: (wireless type) 315 or 433 MHz; transmitting distance  $\geq$  100 meters (open area, no interference)
- Output: (wired type) dry contact, on guard, output close circuit, on alarm, output short circuit, Impedance less than 50  $\Omega$
- Smoke sensitivity: fits UL 217, when the standard factory testing value is each feet 3.2% of weak dust, the sensor reacts.
- Work environment:  $-5^{\circ}\text{C}$ - $50^{\circ}\text{C}$ , 10-90% no condensation
- Buzzer volume strength: 85DB within 10 feet
- Battery life: at least one year without self-checking function
- Inside the room every 25 to 40 square meters installs a smoke detector, important equipment above 0.5-2.5 meters installs a smoke detector

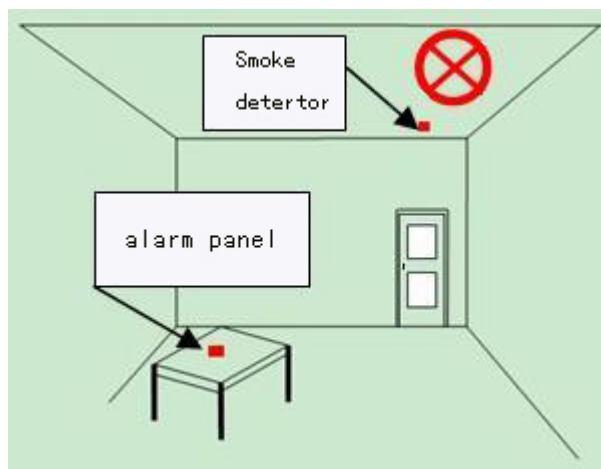
### Two. Introductions for installing locations

#### a) Places avoid installing

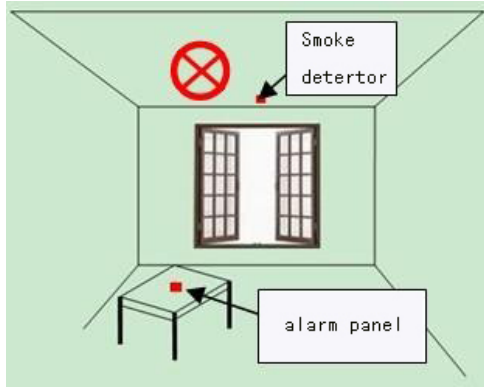
1. Too close to the door, window, fan etc all can affect sensor sensitivity, because these places generally have quick air circulation
2. Do not install in high temperature and wet places, such as the bathroom, the roof or higher temperatures more than  $39^{\circ}\text{C}$  or less than  $5^{\circ}\text{C}$  places

Avoid installation in the places showed in the following pictures

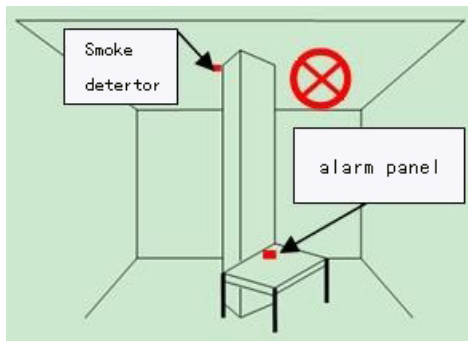
- 1) Places too close to the doors



- 2) Places too close to the windows



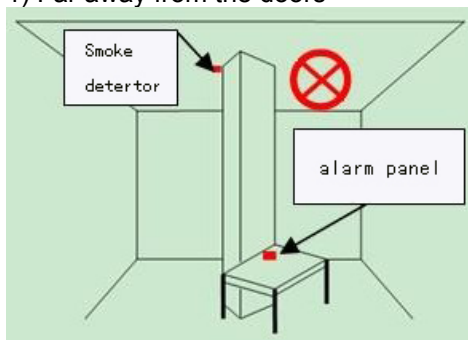
3) Places too close to the wall columns



**b) Installing locations for reference**

Smoke sensor should be installed in open area far away doors, windows, wall columns etc all can affect sensor sensitivity. It works well when there is no barriers between alarm main panel and smoke sensor. Besides, before making positioning hole, calling test must be carried out, that is whether the communication between smoke sensor and alarm main panel is smooth. Installations are showed in the following pictures:

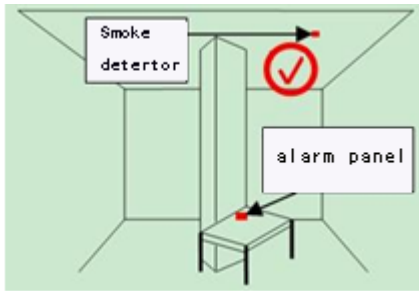
1) Far away from the doors



2) Far away from the windows



3) Far away from the wall columns as possible as you can



### c) Installing steps

Attentions before installing: Before installation, check and assure smoke sensor to work properly and communicate right with the alarm main panel.

#### 1) Tools for installation



#### 3) Take out battery to connect powerline, then put in battery jar



4) Press the testing button on the smoke sensor for 3-5 seconds, the smoke sensor will make "BBBB" sound and flash the indicator light, that prove the smoke sensor work well. ( Attentions: firstly assure the smoke sensor can work properly )



5) when smoke sensor connected with the alarm main panel and start the alarm main panel as the user manual and repeat the step 4, the main panel will issue a siren which proves the sensor and main panel can work well.

6) Choose an appropriate area showing in the following picture and mark two mounting holes as the red arrows showed.



7) Punch two holes ( 3.5cm deep, 6mm wide ) at the marks with a percussion drill



8) Make the two plastic nails into holes with a hammer



9)Screw up to about 1 cm left with a screwdriver as the direction (anticlockwise) of red arrow in the following picture



10) Rotating the bracket to the other hole as the direction (anticlockwise) of red arrow in the following picture



11) Then screw up according to anticlockwise



12) Aim the sensor at the fastener on the bracket and make it into the waist-shaped hole of the back cover then check and confirm it. Rotate the back cover as the direction (clockwise) of red arrow in the following picture. Repeat step 4 to assure the sensor to work well.



#### Four. Working and testing program

**Working:** This sensor will be in working status once it is installed and powered on, in working status, LEDs flash once per minute, when the smoke particles concentration reach the testing range, this sensor will give out clear alarm sound and send alarm signals or export alarm signals to capture card till the smoke clears away.

**Teating:** Press the test button and maintain it for 3 seconds or above, the smoke sensor will give out clear alarm signals or export it to capture card, you can also insufflate smoke into the smoke sensor to test it. ( Every week to make a test to ensure the reliability of the sensor)

**Five. Maintain and matters need attention**

To maintain the sensor working efficiency is good, every 6 months need to clean the sensor, first take the battery off, then clean the dust with brush, then put the battery pack

**Attentions:**

Abnomal temperature might lead to false alarm, but it will stop alarming as long as the ventilation is good. Besides, dust also can reduce the sensitivity of sensor. So please improve this situation as mentioned above.

FCC warning:

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. 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 generate, 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.