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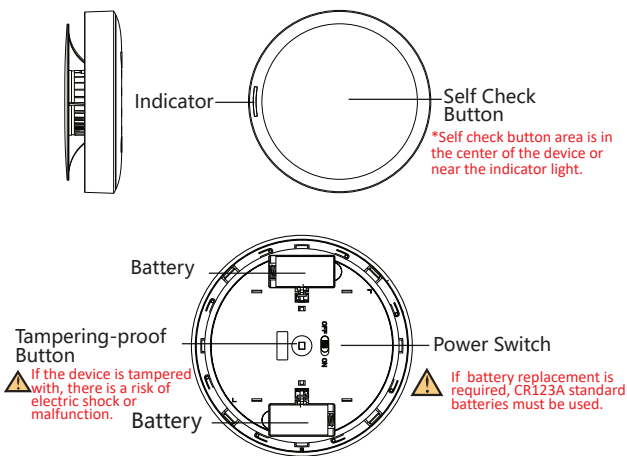# Wireless Smoke Alarm Detector

User Manual

English

Product Information

1 Appearance

*The pictures in this manual are all product diagram, please refer to the actual product.

Indicator — Self Check Button
*Self check button area is in the center of the device or near the indicator light.

Battery
Tampering-proof Button
⚠ If the device is tampered with, there is a risk of electric shock or malfunction.
Battery
Power Switch
⚠ If battery replacement is required, CR123A standard batteries must be used.

2 Indicator & Buzzer

■ Buzzer Description

Mode	Voice Alarm
Low Battery	Beep/40 s
Fault	Two rapid beeps/min
End of Service Life	Three rapid beeps/min
Self Check	Beep every 500 ms
CO Alarm	Beep 3 times every 3 s, pause for 1.5 s
Alarm by smoke	
Alarm by rapid temperature rise	
Alarm by temperature threshold exceeded	Beep every 400 ms
Tamper-proof	\
Normal Operation	\
Signal Query	\

■ Indicator Description

Mode	Alarm Light (Red)	Power Light (Green)	Fault Light (Yellow)
Low Battery	\	\	Flash/40 s
Fault	\	\	Two quick flash/min
End of Service Life	\	\	Three quick flash/min
Self Check	Green, red, yellow and orange lights flash for 1 s each, duration is 5 s.		
CO Alarm	Flash 3 times every 3 s		
Alarm by smoke			
Alarm by rapid temperature rise	Flash every 400 ms	\	\
Alarm by temperature threshold exceeded			
Tamper-proof	\	\	\
Normal Operation	\	Once/min	\
Signal Query	Green: Strong; Orange: Medium; Red: Weak; Flash every 2 s, total 3		

3 Installation

■ Notification

1. Before installation, confirm that the detector and other mounting parts are in good condition.
2. The device should be operated by qualified personnel.
3. Do not install the detector in new or renovated buildings until all work is completed. (Dust and debris from building work can contaminate the smoke chamber).
4. Install multiple detectors if the installation location (such as ceiling) is longer than 32.81 ft (10 meters).
5. The installation location should be at least 30 cm away from the path of strong electrical wires to prevent small insects from gathering due to phototaxis, causing smoke maze pollution and alarms.
6. The installation of the apparatus should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.
• Where Not to Install:
  - Damp and humid areas such as kitchen, hot water heater, and bathroom.
  - Forced air supply ducts for heating or cooling, ventilating fans, or other high air flow areas.
  - Dusty, dirty, or insect infested areas.
  - Hot and greasy areas such as stoves.
  - Places within 1.64 ft (0.5 meters) of the alarm that is obstructed by an object..
  - Within 4.92 ft (1.5 meters) of fluorescent lights.
  - Dead air spaces such as apexes of ceilings, corners of the rooms.
  - Places with significant temperature changes or with temperatures below 0 ˚C.
  - Places that may generate smoldering fires or cause significant losses if a fire is not reported in a timely manner.
7. A list of commonly occurring materials, vapours or gases, e.g. in cleaning fluids, polishes, paints, cooking operations, etc., which may affect the reliability of the apparatus in the short or long term.

■ Pack List

Anchor plug × 4
Screw × 4 (KA3.5×25)

Battery

Drill Template

Adhesive × 1

Detector × 1

Product Instruction × 1
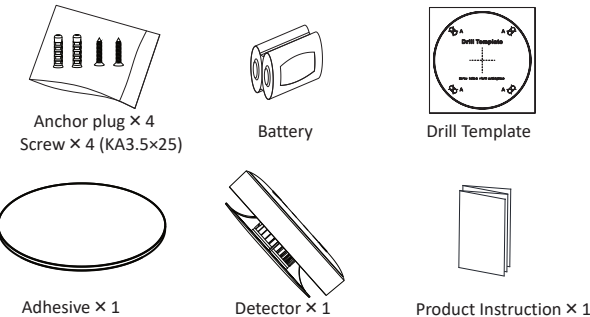
■ Pre-Installaion

1 Install the batteries and switch the power switch

2 Connect and configure device

■ Method 1: Add device via APP
Step 1: Scan to download the APP and enroll the control panel.
Step 2: On the device list page, tap **Add Device**.
Step 3: Tap Device → +.
Step 4: Select adding method and finish adding.
- Select **Manual Adding**, scan the QR code on the back cover of the device or enter the serial No.
- Select **Batch Adding**, the device will be enrolled to the control panel automatically.

■ Method 2: Add device via network
Step 1: Add detector to host
Log in the web, go to **Device-+Add-Manually Add** to add the detector. Set **Device Type**, **Device Connection Mode**, **Serial No.** and **Model** to finish adding detector.
Step 2: Configure device
After adding the device, go to **Device** interface, select the device and click ✎ to configure the detector.

3 Self check
Short press the button to perform device self check.
The buzzer sounds 5 times and the four lights flash for 100 ms each, indicating that the alarm buzzer and indicator light are working properly and can be installed.
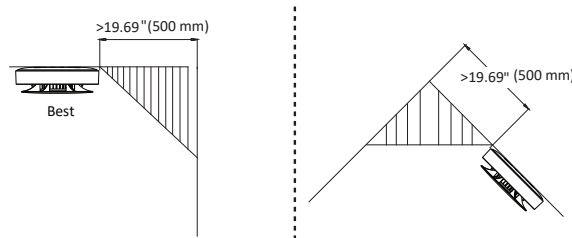
4 Check signal strength
Enter the signal checking mode by operating on the control panel.
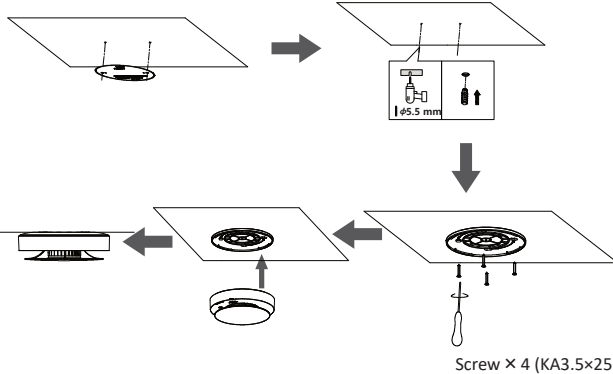Strong signal - Green light is on for 3 seconds.
Medium signal - Orange light is on for 3 seconds.
Weak signal - Red light is on for 3 seconds.
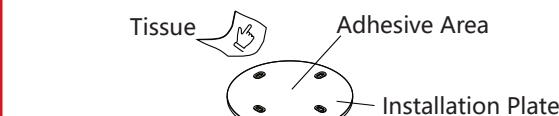
■ Installation Location

>19.69"(500 mm)
Best
>19.69" (500 mm)

■ Installation method 1: Installation with screws

φ5.5 mm

Screw × 4 (KA3.5×25)

■ Installation method 2: Installation with adhesive
*The optimal temperature range for adhesive bonding is 21 ° C to 38 ° C, and temperatures below 10 ° C are not suitable for bonding.

1 Clean the adhesive area corresponding to the installation plate.

Tissue — Adhesive Area — Installation Plate

2 After cleaning, immediately remove one side of the release paper from the adhesive and stick it to the corresponding area of the installation plate. Do not touch the adhesive with fingers.
Adhesive — Release Paper
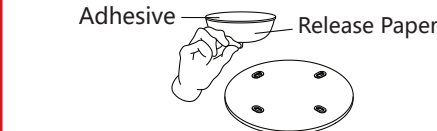
3 Press the adhesive back and forth with your fingers to remove air between the adhesive and the installation plate, improving the adhesive strength.
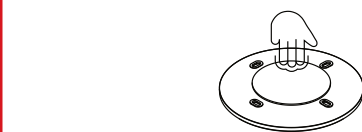
4 Clean the installation surface to remove dust, oil, and water stains.
*The recommended installation surface is a smooth glass surface, metal surface, wooden surface, or a reliable latex paint surface; Do not choose a place directly facing the air-conditioning outlet where water vapor or wind appears; For rough walls or other rough walls that are not suitable for using adhesive, please use screws to fix them.

5 Tear off the other side of release paper on the installation plate, immediately stick it onto the clean installation surface, and press the installation plate to remove air.

6 Rotate the alarm in the direction shown in the diagram, fix it to the installation base, and complete the installation.
*The adhesive strength can only reach 50% within 20 minutes, 90% within 24 hours, and 100% within 72 hours. It is recommended to install the alarm on the installation plate after 24 hours.
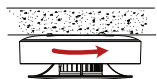
4 Function

■ Temperature Alarm
In standby mode, when the temperature reaches the response threshold, the alarm will generate an alarm signal.
Alarm status: The buzzer beeps every 400 ms; The indicator light is red and flashes every 400 ms.
*Alarm temperature: 55 ˚C (typical value) or temperature rising by more than 10 ˚C within one minute.

■ Smoke Alarm
In standby mode, when the smoke concentration reaches the response threshold, the alarm will generate an alarm signal.
Alarm status: The buzzer beeps every 400 ms; The indicator light is red and flashes every 400 ms.

■ CO Alarms (Applicable to detectors with CO detection function)
In standby mode, when the CO concentration reaches the response threshold, the alarm will generate an alarm signal.
Alarm status: The buzzer beeps 3 times every 3 s, pause for 1.5 s; The indicator light is red and flashes 3 times every 3 s.

■ Silence Feature
During the temperature\smoke\CO alarm process, short press the button to silence the alarm.
Silencing state: The buzzer will stop alarm; The red alarm light of CO alarm flashes 3 times every 3 s, the red alarm light of smoke alarm flashes every 400 ms.
Silencing cycle: After the alarm is silenced, it continues to be in a temperature\smoke\CO concentration higher than the response threshold, the alarm will sound again after 12 mins.
*1. Any remote silencing function should only be used within the line of sight of the CO alarm.
2. If accumulated dose of CO is exceeded 300ppm, the buzzer cannot be silenced.

■ Self-check
In standby mode, short press the button to enter the self check mode of the detector. Check whether the detector's buzzer and indicator light are working properly; After self checking, the detector will automatically exit the self checking state.
Self-check state: The buzzer beeps for 5 times, and four lights flash for 1 s each.
*The self-check status lasts for about 5 seconds and cannot be performed again during the self-check period.

■ Low Battery Warning
When the batteries are low and need to be replaced, the device will beep once and the yellow light will flash once every 40 seconds. This warning should last for up to 30 days, the detector must be replaced and deactivated immediately.

■ End of Service Life
The device will beep 3 times in one minute and the yellow light will flash 3 times quickly every one minute. This indicates that the detector must be replaced and deactivated immediately.

■ Faults Warning
When the faults (CO sensor fault, smoke sensor fault, temperature sensor fault, CO sensor not calibrated, maze pollution fault) occurr, the device will beep twice in one minute and the yellow light will flash twice quickly every one minute. This pattern indicates the unit needs to be replaced.

5 Maintenance

To maintain the normal operation of the detector, it is recommended to regularly maintain the device. Test the detector for normal alarm operation at least every six months. Perform maze cleaning at least once a year. And provide appropriate ventilation for the device.

6 Specifications

General	Wireless Smoke Alarm Detector (With CO detection function)	Wireless Smoke Alarm Detector (Without CO detection function)
Model	DS-PD452SMK-WE DS-PD452SMK-WB	DS-PD451SMK-WE DS-PD451SMK-WB
Colours	Black;White	
Standby current	≤ 75 µA	≤ 65 µA
Alarm current	≤ 50 mA	≤ 50 mA
Alarm mode	Audible & visual alarm	
Alarm sound level	≥85 dB@3 m (A-Weighted)	
Power supply	3 VDC, battery CR123A	
Battery capacity	3000 mAh	
Battery life	Three-year battery life under normal operation	Five-year battery life under normal operation
Operation temperature	-10 ℃ to 55 ℃ (14 °F to 131 °F)	
Operation humidity	≤ 95% relative humidity (RH)	
Dimension (φ × H)	125 mm × 39 mm (4.9" × 1.5")	
Weight	251 g (including batteries, screws bag and adhesive)	
Installation	Ceiling mounted	
Function		
Smoke alarm	Yes	
CO (carbon monoxide) alarm	Yes	No
Heat alarm	Yes	
Alarm if accumulated dose of CO is exceeded	50 ppm (0.005%) and above- within 90 minutes 100 ppm (0.01%) and above- within 40 minutes 300 ppm (0.03%) and above- no more than 3 minutes	/
Constant temperature alarm	＞55 ℃	
Differential temperature alarm	△T＞10 ℃/min	
Vapor resistance	Yes	
Buzzer	Yes	
Maze dirty alarm	Yes	
Low voltage alarm	Yes	
Test	Yes	
Battery uninstalled indicator	Yes	
Expected replacement time	10 years	

Scan for more multiple language

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