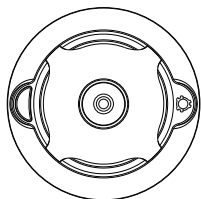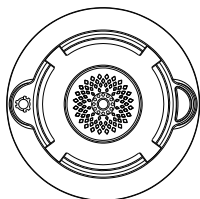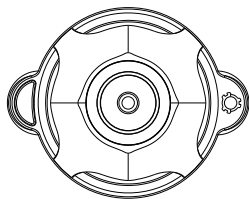# Manual of standalone photoelectric smoke detector

LS-828-27 LS-828-28 LS-828-29

Thank you for using Longsin's standalone photoelectric smoke detector.Please thoroughly read this manual before using the product to make sure the proper installation and avoid the damage on the product or other accidents causing by the misoperation.
Please keep this manual for the daily use.

I. Overview

Standalone photoelectric smoke detector (hereinafter referred to as detector） use high-performance ultra-low power consumption smart microprocessor working with the
precise photoelectric sensor to process the collecting smoke concentration independently:Low-power consumption , stable performance, beautiful and durable casing. The smoke detector is powered by 1pc 3V CR17335 lithium battery, continuous for more than 10 years.This detector is widely used in internet bars, dancing halls, cafes, leisure rooms, residential areas etc.

The detector is not suitable in the following locations:
·There is smoke under the normal circumstances.
. The place is dusty,misty,greasy or have corrosive gas.
· The relative humidity is more than 95% or the place is extremely cold or extremely hot.
·The ventilating speed is more than 5m /s

II.Working principle

The detector adopts the principle of infrared light scattering to detect the smoke.the infrared emitting tube and the receiving tube are installed on the smoke chamber at an angle. Under the smoke-free environment, the infrared receiver tube can hardly receive the signal from the infrared emitting tube. when there is a fire ,the smoke will come into the chamber.

Since the response of the smoke to the infrared light scattering effect,the infrared receiver tube can receive a weak signal amplied by the amplier,then the smart micro processor will identify the threshold level.when arrives or exceeds the threshold level,the buzzer will emit a alarm sound .

III.Technical parameters

Power supply: 1PC 3V Cr17335 lithium battery
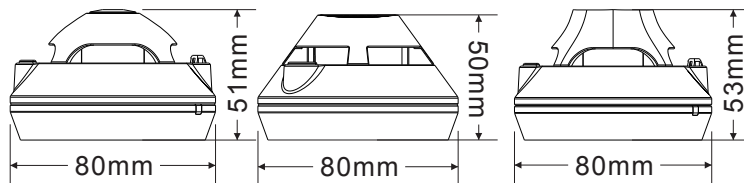
Alarm sound pressure: 80dB at 3m straight ahead

Battery life: 10 years

Working environment: -10 ℃ ~ 50 ℃, <95% RH (no condensation)

Output method: sound and flash

Performance standard: GB20517-2006

IV.Dimension

LS-828-27 LS-828-28 LS-828-29
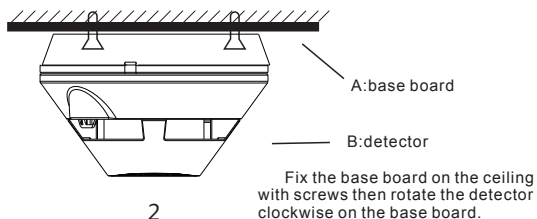
V. Installation and adjustment

Installation environment: For the general places,the height is below 6m,the protection areas is 60m ². The alarm should be installed on the ceiling. The specic parameters should be based on the (GB50116-2013) Code for Design of Automatic Fire Alarm System.

installation method:

• Place the alarm base on the chosen areas on the ceiling and mark notes along with the installation holes with a pencil.Then take out the bottom cover and dig two installation holes in the middle of the notes.And x the base with expansion plugs and tapping screws.

• Press and hold the self-test button, the alarm led indicator ashes fast with harsh alarm sound which means the detector works properly. and screw the hole of the base screw on the 1.7*6ka screw If it is not normal,please check the battery asembling   .

After the test,, rotate the detector counterclockwise on the mounting base then fasten it.

A:base board

B:detector

Fix the base board on the ceiling
with screws then rotate the detector
clockwise on the base board.

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VI.Instructions

• Normal state: the detector starts working when the batteries are properly assembled. The red led indicator flashes once every 340seconds .

• Self-test state: press and hold the self-test button, the red LED indicator flashes quickly, the detector beeps 3 times every each 1.5 seconds.

• Fault state: the red LED flashed once every 45 seconds along with a "beep" which means the battery voltage and power is low.Please change the battery or it will affect the detector's working.

Alarm state:when the detector detects the smokes for the certain concentration,the detector emits alarm sound(alarm signal is the same as the self-test state)

Alarm memory function:when the detector detects the smoke and alarms,then the smoke is cleared,the green LED indicator flashs 3times(about 1s) every minute.In order to reduce the power consumption,the green LED will stop flashing automatically after 24hs.Or you can press the self-test button,the green LED is flashing.After short and continuous sound, release the button.The detector exits the memory state.

Silence state:Under the alarm state,press the self-test button,the detector will come into the silence state.The red LED will flash   once every 10 seconds.The silence state exits after about 70seconds.If the detector detects the higher smoke concentration,it will alarm again.

VII Fault analysis and troubleshooting

The red LED flashs once every 45 seconds along with a "beep" which means the battery voltage and power is low.Please change the battery.
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Frequent false alarm:it means there is too much dust in the sensor.Please use the vacuum cleaner to clean the chamber (the black plastic shell).

No response when press the button: Please check the battery installation to see if it is reversed, poor connection ,weeping or the connector is rusty.Or the battery power is low ,you can check with the new battery.

VIII Maintenance

During using,if there is any fault happens,please contact the supplier immediately.Do not uninstall it and fix it by yourself in case of any accidents.

Please press the self-test button to test the detector once a month.If there are faults,please get fixed immediately.

IX. Transportation and storage

The detectors should be transported or stored according to the regulation of the GB / T13384 - 2008 of(General specifications for packing of mechanical and electrical product)

The original packing and seal should be maintained the same as the factory supplying and make sure there is no strong impact on the detectors.
Avoid an abrupt change of ambient air temperature
Do not stack up more than 6 cartons.
Do not stack up more than 5 pieces.

X. Accessories

1*Alarm (including base)   1 * manual
2 *Expansion plugs   2* Self-tapping screws
1* Base fixing bolt

XI.Manufacturer information

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