

FW2511 Smoke Detector Head



DESCRIPTION

The FW2511 is an intelligent Smoke Detector used UL listed device according to UL 268 and ULC-S529 for Fire Protective Signaling Systems for indoor use. It features a slim design which combines visual appeal with a high standard of reliability. It responds quickly and dependably to a broad range of fires. The detector has a Microcontroller Unit (MCU), performing comprehensive self-diagnostic tests and result analysis. The product has a 3-level alarm sensitivity, users can switch according to their own needs. It has one output node for fire alarm, which can be equipped with remote indicator or small relay. The FW2511 is intelligent, addressable, and takes one address on the Signaling Line Circuit (SLC) of the fire alarm control panel.

ATTENTION

The products must be installed in accordance with NFPA 72, CAN/ULC-S524, and/or Canadian Electrical Code depending on country of installation. Check information of equipment used in the system by other manufacturers for any guidelines or restrictions.



The detector should never be installed in the following locations: areas with excessive exhaust fumes, kitchen areas, near fireplaces, furnace rooms, etc. Smoke detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

NOTE

Do not paint this device.
 Any material extrapolated from this document or from Maple Armor's instructions or other documents describing the product for use in promotional or advertising claims, or for any other use, including description of the product's application, operation, installation, and testing is the sole responsibility of the user. Maple Armor will not assume any liability for such use. In no case will Maple Armor's liability exceed the purchase price paid for a product.

SPECIFICATION

Nominal Voltage	24VDC
Voltage Range	13 to 28VDC
Standby Current	0.13mA
Alarm Current	0.65mA
Smoke Alarm Set-point Range	1.5%/ft-3.0%/ft
Operating Temperature	32°F to 120°F (0°C to 49°C)
Operating Humidity	0% to 93% RH
Diameter	4.13 in. (105mm) (FW2501 Base) 5.90 in. (150mm) (FW2502 Base) 6.77 in. (172mm) (FW2509 Base)
Height (with base)	2.12 in. (54 mm) (FW2501 / FW2502 Base) 2.63 in. (67 mm) (FW2509 Base)
Weight (with base)	4.9oz (141 g) (FW2501 Base)
Mounting	FW2501 / FW2502 / FW2509 Base
Mounting Orientation	Ceiling, Wall
Spacing	30 feet (9.1 m)

INSTALLATION

1. Mount the FW2501 base onto a 2x4'' electrical box, see Figure 1. The installation hole pitch is illustrated in Figure 2.

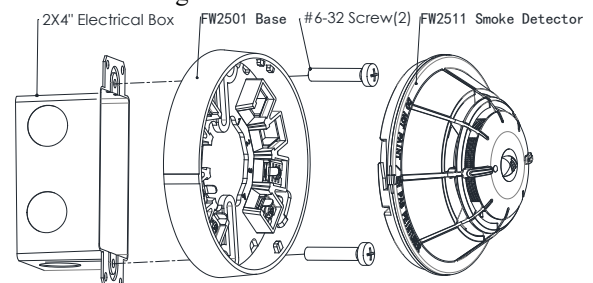


Figure 1. FW2501 Base Installation

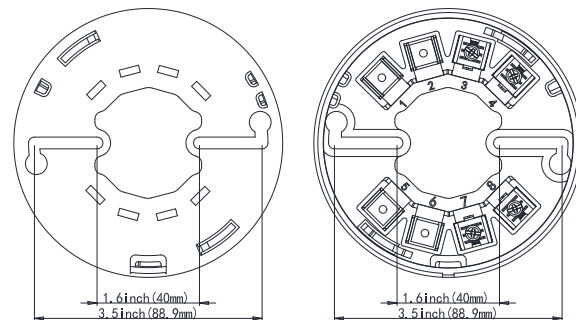


Figure 2. Wiring Terminals and Pitch of Hole

- Wire the SLC to the detector base, as illustrated in Figure 3. There is no polarity distinction between terminal 1 and terminal 2.

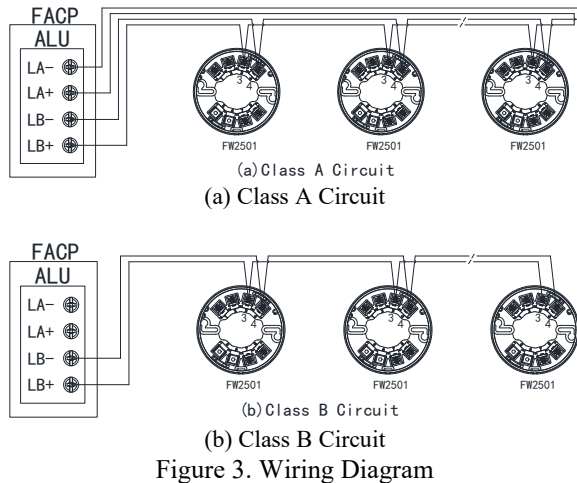


Figure 3. Wiring Diagram

- If the detector needs to work with the remote indicator, connect the base and the remote indicator as illustrated in Figure 4.

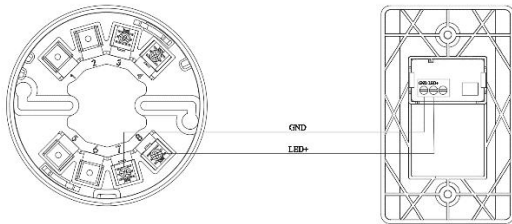


Figure 4. Wiring Base and Remote Indicator

- Set the detector address (1-252) using the Handheld Programmer FW2411. Refer to the FW2411 Manual.
- Set the smoke sensitivity level using the Handheld Programmer FW2411. Refer to the FW2411 Manual.
- Set the smoke sensitivity level using the control panel FW2105. Refer to the FW2105 Manual.
- Put the detector onto its base and secure it into position by turning clockwise.
- Apply power to the control unit to activate the SLC.

TESTING

- Before testing, inform the proper authorities that the system is undergoing maintenance and will temporarily be put out of service. Disable the system to prevent unwanted alarms.
- Make sure the indicator LED on the detector's surface is flashing. Failure to flash indicates a

non-functioning detector or a faulty wiring. Check the wiring and remount the detector.

- Go/No Go Field Test: Use the aerosol. The LED on FW2511 should latch steady-on and the system should go into alarm.
- Once the testing is completed, set the system back to normal operation and inform proper authorities.

MAINTENANCE

The detector needs to be tested on a regular basis. Refer to the Testing section for more information about the procedure. The detector has an automatic-drift-compensation feature to provide accurate-sensitivity detection. When the drift is out of range, the trouble will be displayed on the FACP, which means the sensitivity may be outside the limits and the detector needs cleaning.

The detectors need to be shipped back to factory for cleaning service.

Return the detector for reparation if it fails to flash or alarm during testing. Do not disassemble the detector without permission.