

Cautions



ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.

FRAGILE: Inspect the equipment prior to installation. Do not install the equipment if damage is apparent. Do not attempt to disassemble this equipment. If damaged, return to the supplier.

ELECTROSTATIC HAZARD: This is sensitive electronic equipment. Apply safe anti-static practices when handling this equipment.

CIRCUIT LIMITATIONS: The maximum number of detectors connected to a single detection zone is limited by the control and indicating equipment, and may be limited by local regulations.

Introduction

603 photoelectric smoke/heat detectors are microprocessor controlled state-of-the-art wireless detectors, suitable for connection to Numens wireless addressable fire detection control and indicating equipment.

603 smoke/heat detectors use a wireless transmission path to connect to a node located on the addressable loop. Up to 125 detectors can be wireless connected to each addressable loop.

An internal battery provides 10 years of normal operation.

Preparation

Before commencing installation, ensure all equipment and tools to mount and connect the equipment are available, such as drills, mounting screws, cables and ladders.

603 wireless address smoke/heat detectors can be installed with the following accessories.

Description	Part number
Lithium battery, 3V, CR17450	282-003

Installation

Backbox

1. Remove the audio/visual alarm device from the backbox using a small screw driver to disable to latch, then twisting the device counter-clockwise (see Fig. 1).

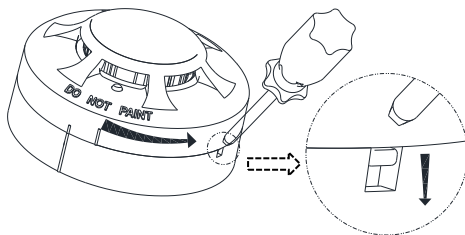


Fig. 1: Disconnect detector head from the backbox

2. Mount the backbox directly onto a flat surface using fixing screws that are suitable to securely fix the backbox to the surface.

Connect to Wireless Node

Refer to the CIE Installation Manual for the detailed commissioning procedure to configure the wireless node and associated devices with the wireless node, and the node should be as close to associated device as possible.

1. Set the NODE ID as shown in Table 1 by adjusting the 5-bit DIP switch settings located on the underside of the device as shown in FIG.2. NODE ID range is **00~ 31**.
2. Set the device address as shown in Table 2 by adjusting the 8-bit DIP switch settings located on the underside of the detector body as shown in FIG. 2. Address range is **1 ~ 125**.
3. Install the battery into the battery box according to the "+" and "-" directions as shown in FIG. 2.
4. To enter configuration mode, quickly press the CONFIG KEY twice. The LEDs can indicate the follow configuration status:
Configuring: A LED flashing every 0.5s for up to 2 minutes.
Completed: A LED continuously lit for up to 2s.

Duplicate address fault: A LED rapidly flashes twice stop 2s for up to 1 minutes.

Note: Press the CONFIG KEY for 2s, then release to quickly exit from the configuration mode. The device will enter into the normal condition.

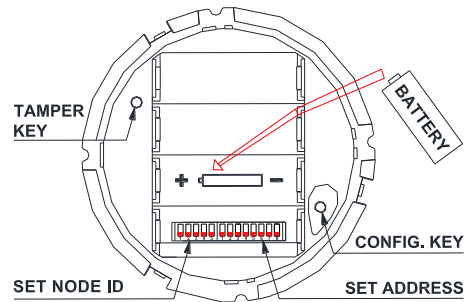


Fig. 2 – Configuration guide diagram

Remove a wireless device from the node

To remove a configured device from the node, press and release the CONFIG KEY 8 times within 5s. The LEDs will flash once every 2s for up to 30s.

Test

Press the CONFIG KEY for 2s, the device enters into the test condition and send a momentary alarm signal to the associated node, the alarm only lasts for 6s, then the device will automatically return to the normal condition.

LED indication

Normal: The two LEDs flash synchronously once every 40s.

Alarm: The two LEDs flash synchronously once every 1s.

Fault / Low battery: A LED rapidly flashes twice every 40s.

WARNING: Do not install the detector head until the area is thoroughly cleaned of construction debris, dust, etc.

Clip to the base

1. Align the detector alignment mark with the short alignment mark in the base, as shown in Fig. 3.
2. Mate the detector head onto the base and rotate it clockwise to secure it. The long alignment marks should be aligned.

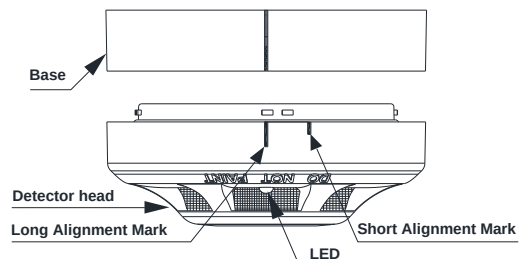


Fig. 3: Fitting the detector to the base

Commissioning

Ensure all the alarm signal services, releasing devices and extinguisher systems are disabled during the commissioning period.

Smoke Detector

1. Check that the device is recognized and in the quiescent condition at the control and indicating equipment.
2. Allow smoke from a cotton wick or a test smoke aerosol to enter the smoke chamber for at least 10s. When sufficient smoke has entered into the chamber, the detector will signal an alarm, with the red LEDs flash rapidly.
3. Upon alarm, immediately remove the smoke source.
4. Reset the detector from the control and indicating equipment.
5. Check that the detector LEDs are back to the normal condition and the control and indicating equipment returns to the normal condition.

Heat Detector

- Subject the detector to a flow of warm air at a temperature of between 65 °C and 80 °C as follows (this requirement can be met by some domestic hair dryers).
 - Start the warm airflow and check whether the temperature is correct and stable.
 - From a distance of approximately 5 cm, direct the airflow at the thermistor for up to 30 s. The device will signal an alarm with the red LEDs flash rapidly.
 - Upon alarm, immediately remove the heat source.
- Reset the device from the control and indicating equipment.

- Check that the detector LEDs are back to the normal condition and the control and indicating equipment returns to the normal condition.

Final Conditions

Ensure all the alarm signal services, releasing devices and extinguisher systems disabled for the commissioning are returned to their previous condition.

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Table 1

NODE ID Settings							

Table 2

Address Settings															