

### 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 ant-static practices when handling this equipment.

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

### Introduction

447 non-addressable audio/visual alarm devices are multi-tonal alarms, suitable for connection to 2-wire non-addressable and addressable<sup>1</sup> Numens control and indicating equipment. Four distinct alarm tones can be selected during installation.

Activation is initiated upon connection of the operating voltage, allowing connection to either a switched supply at the control and indicating equipment, or via an output module.

These instructions provide trained installation personnel with details to install and commission 447 audio/visual alarm devices for optimum performance.

### 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.

### 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).

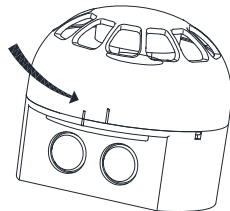


Fig. 1: Disconnect audio/visual alarm device from the backbox

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

Note: Weather-proof models 447-002, 447-004 and 447-006 may be mounted outside.

#### Wiring

The terminals accept (0.4 ~ 2.5) mm<sup>2</sup> conductors.

Note: Wiring for waterproof models (447-002, 447-004 and 447-006) should be multi-strand conductors to improve the flexibility of the conductors.

1. Feed the connection wiring through the knockouts on the side or rear of the backbox.
2. Strip the conductor insulation to expose 5 mm of the conductor.
3. Connect the conductors to the terminal connector (see Fig. 2).



**WARNING:** Take care to ensure the insulation does not get clamped by the terminal contact.

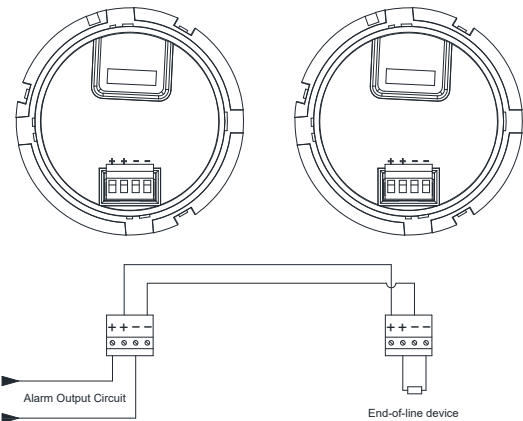


Fig. 2: Terminal loop wiring connections

#### Audio/Visual Device

Notes:

1. DIP switches 1 ~ 6 are not used.
  2. DIP switches 7 and 8 are used to select the audio alarm output signal.
1. For audio output models, select the audio output signal as shown in Table 2 by setting the DIP switches 7 and 8 located on the underside of the body.

Table 2: DIP switch audio output signal setting

Audio Output Signal	Switch 7	Switch 8
<b>United Kingdom</b> Frequency: Alternating 800 / 970 Hz Period: 500 ms each tone	Off	Off
<b>Germany (DIN 33 404)</b> Frequency: Ramp (1200 ~ 500) Hz Period: 1 s	Off	On
<b>France (NFS 32-001)</b> Frequency: Alternating 554 / 440 Hz Period: 100 ms (554 Hz) / 400 ms (440 Hz)	On	Off
<b>General</b> Frequency: Alternating 2400 / 2850 Hz Period: 250 ms on, each tone	On	On

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

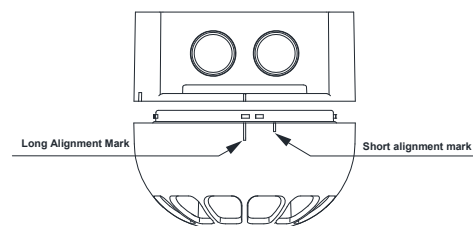


Fig. 3: Fitting the audio/visual alarm device to the backbox

### Commissioning

#### Audio/Visual Alarm Device

1. Ensure all releasing devices and extinguisher systems are disabled during the commissioning period.
2. Activate an Alarm condition at the control and indicating equipment.
3. Check that the audio/visual alarm device operates.
4. Reset the control and indicating equipment.
5. Check that the audio/visual alarm device stops operating.

<sup>1</sup> May be used with Numens addressable output modules.

## Final Conditions

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

## References

Document	Description
31-0129	447 non-addressable audio/visual alarm datasheet

View the complete range of products at [www.numens.com](http://www.numens.com)

