

### Features

- ✧ With "sandwich" structure, it is easy to be installed between DB-01 base and a detector.
- ✧ Three working modes settable (Mode I, II, III, and the latter two available with pre-alarm state).
- ✧ 16 tones of sound.
- ✧ Electronically addressed. The address and tones can be modified in field.
- ✧ Tone 14 and 16 are certified by EN54-3.

### Description

DI-9405 Addressable Sounder Base is integrated with a buzzer. When there is a confirmed fire, it will give audible alarm signal to warn people in field. With a built-in microprocessor, the sounder base can communicate with fire alarm control panel (FACP). On receiving a start command from the FACP, the microprocessor will control the buzzer to generate pre-alarm or fire alarm sound according to the pre-set working mode.

### Wiring and Connection

Terminals of the sounder base are shown in Fig. 1.

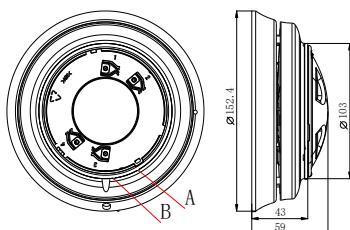


Fig. 1

Z1(1), Z2(3): Signal loop of FACP, polarity-insensitive.

#### Recommended Wiring

1.0mm<sup>2</sup> or above fire cable, subject to local codes.

### Installation

**Warning: Before installing the sounder base, disconnect the power from the loop and verify that all the bases are securely fixed and that the wiring is correct on each base.**

- Before installation, make sure the enclosure is free from scratch or distortion, and labels are complete.
- Mounting of the sounder base is shown in Fig. 2.
- Secure the sounder base to detector base (Fig. 4) with 2 tapping screws, and wire them properly. Align the orientation mark B on the sounder base to mark C of the base, and rotate the sounder base clockwise to D. Refer to Fig. 3 and 4.
- If the sounder base comes with a cover, align the orientation mark on the cover to mark A of the sounder base (Fig. 1), and rotate the cover clockwise to B. If it's used as detector base, remove the cover and install the detector on it with the same method.

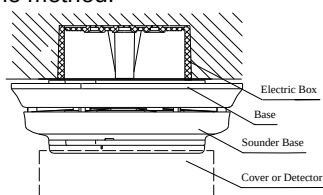


Fig. 2



Fig. 3 Sounder Base

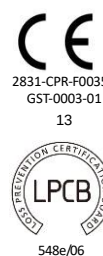
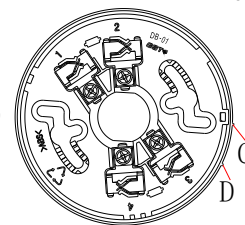


Fig. 4 DB-01 Base

### Application

The sounder base can be used as the base of intelligent heat and smoke detectors to combine detection and alarm in a single device. It can be connected to the loop of FACP without additional power supply.

#### Working Mode Setup and Tone Selection:

The sounder base has three working modes. The factory default is tone 14, mode I.

The sounder base has 16 tones, the setup of which also decides the setup of working modes.

- If the sounder base is set with one of the tones from No. 1 to 16, it works in Mode I.
- If it is set with one of the tones from No. 17 to 32, it works in Mode II.
- If it is set with one of the tones from No. 33 to 48, it works in Mode III.
- Tone 1~16, 17~32 and tone 33~48 are completely the same by one-to-one correspondence, with the only difference that they work in different modes. Please refer to the table of tones.

Working Modes:

| Mode | Address                                                                                                            | Type of fire alarm                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| I    | Single address, occupying one loop point<br><b>Note: Detector &amp; beacon base must have different addresses.</b> | Standalone. The sounder base sends alarm signal when started.                                                           |
| II   | Dual addresses, sharing higher address with detector                                                               | The sounder base sends pre-alarm signal when starting higher address and fire alarm signal when starting lower address. |
| III  | Occupying dual addresses individually                                                                              | The sounder base sends pre-alarm signal when starting lower address and fire alarm signal when starting higher address. |

#### Operation:

The address, working mode and tone of the sounder base can be programmed using P-9910B programmer in field.

### ✦ Address Programming

Connect the programmer with Terminal 1 and 3 of the sounder base. Turn on the programmer, enter the address code (1 to 242), pressing *Program*, the screen will show a "P" meaning the address is programmed. Refer to *P-9910B Hand Held Programmer Installation and Operation Manual* for details.

### ✦ Setting Tone and Working Mode

In standby state of the programmer, entering password followed by *Clear*, the screen will show "0". Pressing *Function*, the screen still shows "0". Pressing "3" then, the screen shows "-". Entering the tone number, and pressing *Program*, "P" will show on the screen, meaning the tone number has been set. Pressing *Clear*, the screen shows "0", further operation can be done. If the tone number falls into the range of 1 to 16, the flashing beacon base works in Mode I; if the number falls into the range of 17 to 32, it works in Mode II; if the number falls into the range of 33-48, it works in Mode III. Numbers outside these three ranges will not be accepted, in which case, the number will be defaulted to be "46".

### Application Method

- The sounder base can be used as a detector base to mount intelligent detectors, so that the detector can carry out both fire detection and alarm.
- It can also be directly connected into fire alarm system. In case of a fire alarm, it will generate the pre-set alarm sound.

### Caution:

- Please read this manual carefully before operation.
- DB-01 base should be used together with this product.
- A loop can have maximum 30 sounder bases due to their current consumption.
- Please order the special top cover if it's not connected with fire detector.
- Never try to repair it by yourself. Always contact your distributor in case of any trouble.

## Specifications

|                           |                                                              |
|---------------------------|--------------------------------------------------------------|
| Operating Voltage         | Loop 24V (20V~28V)                                           |
| Standby Current           | ≤1mA                                                         |
| Alarm Current             | ≤6mA                                                         |
| Standby Power Consumption | ≤0.024W                                                      |
| Alarm Power Consumption   | ≤0.144W                                                      |
| Sound Level               | Refer to attached table (1m ahead horizontally (A weighted)) |
| Mode                      | Mode I, II & III                                             |
| Alarm tones               | Optional 16 tones. Please refer to the table of tones.       |
| Programming               | Electronically programmed                                    |
| Code Range                | 1~242                                                        |
| Wiring                    | Two-wire                                                     |
| Application Environment   | Type A                                                       |
| Ingress Protection Rating | IP21C                                                        |
| Operating Temperature     | -10°C~+50°C                                                  |
| Relative Humidity         | ≤95%, non condensing                                         |
| Material of Enclosure     | ABS                                                          |
| Dimension                 | Diameter: 152.4mm<br>Height: 43mm (without cover)            |
| Mounting Hole Distance    | 45mm~80mm                                                    |
| Weight                    | About 233g                                                   |

## Accessories and Tools

| Model   | Name                 | Remark           |
|---------|----------------------|------------------|
| P-9910B | Hand Held Programmer | Order separately |

## WEEE Information



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

## Limited Warranty

**GST** warrants that the product will be free from defects in design, materials and workmanship during the warranty period. This warranty shall not apply to any product that is found to have been improperly installed or used in any way not in accordance with the instructions supplied with the product. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty. Please contact your local distributor for products not covered by this warranty.

## Appendix Table of Tones

| Mode             |    |     | Tone Description                    | Sound Level<br>1m<br>Ahead/<br>24V<br>(dB) |
|------------------|----|-----|-------------------------------------|--------------------------------------------|
| I                | II | III |                                     |                                            |
| 1                | 17 | 33  | 970Hz                               | 85                                         |
| 2                | 18 | 34  | 800Hz /970Hz @ 2Hz                  | 88                                         |
| 3                | 19 | 35  | 800Hz-970Hz@1Hz                     | 86                                         |
| 4                | 20 | 36  | 970Hz 1s on /1s off                 | 86                                         |
| 5                | 21 | 37  | 970Hz, 0.5s/630Hz, 0.5s             | 86                                         |
| 6                | 22 | 38  | 500Hz -1200Hz, 3.5s on/0.5s off     | 85                                         |
| 7                | 23 | 39  | 2850Hz, 0.5s on/0.5s off×3/1.5s off | 86                                         |
| 8                | 24 | 40  | 2850Hz 0.4s on/0.3s off             | 87                                         |
| 9                | 25 | 41  | 550Hz,0.7s/1000Hz,0.33s             | 92                                         |
| 10               | 26 | 42  | 1500Hz -2700Hz @3Hz                 | 80                                         |
| 11               | 27 | 43  | 2400Hz                              | 79                                         |
| 12               | 28 | 44  | 500Hz -1200Hz @0.33Hz               | 85                                         |
| 13               | 29 | 45  | 2400Hz-2900Hz @9Hz                  | 84                                         |
| 14*              | 30 | 46  | 2400Hz-2900Hz @3Hz                  | 75                                         |
| 15               | 31 | 47  | 800Hz-970Hz@3Hz                     | 86                                         |
| 16*              | 32 | 48  | 500Hz-1200Hz,3.75s on /0.25s off    | 72                                         |
| Pre-alarm        |    |     | 800Hz 1s on/1s off                  | 80                                         |
| * EN54 Compliant |    |     |                                     |                                            |

## Appendix Operation Performance Data for LPCB Approved Tones

### 1. Operational performance Tone 14

| Operational performance |                  |            |                |            |
|-------------------------|------------------|------------|----------------|------------|
| Maximum Volume dB(A)    |                  |            |                |            |
| Angle                   | Horizontal Plane |            | Vertical Plane |            |
|                         | Max 28 V         | Min 20V    | Max 28V        | Min 20V    |
| 15°                     | 82.6 dB(A)       | 83.7 dB(A) | 79.2 dB(A)     | 79.3 dB(A) |
| 45°                     | 77.0 dB(A)       | 77.9 dB(A) | 75.1 dB(A)     | 75.6 dB(A) |
| 75°                     | 83.7 dB(A)       | 84.7 dB(A) | 81.3 dB(A)     | 81.9 dB(A) |
| 105°                    | 84.2 dB(A)       | 85.7 dB(A) | 80.2 dB(A)     | 81.4 dB(A) |
| 135°                    | 78.8 dB(A)       | 80.4 dB(A) | 76.3 dB(A)     | 76.5 dB(A) |
| 165°                    | 81.9 dB(A)       | 82.4 dB(A) | 78.6 dB(A)     | 79.3 dB(A) |

### 2. Operational performance Tone 16

| Operational performance |                  |            |                |            |
|-------------------------|------------------|------------|----------------|------------|
| Maximum Volume dB(A)    |                  |            |                |            |
| Angle                   | Horizontal Plane |            | Vertical Plane |            |
|                         | Max 28V          | Min 20V    | Max 28V        | Min 20V    |
| 15°                     | 79.1 dB(A)       | 76.5 dB(A) | 76.6 dB(A)     | 74.5 dB(A) |
| 45°                     | 75.8 dB(A)       | 73.2 dB(A) | 74.3 dB(A)     | 72.6 dB(A) |
| 75°                     | 78.9 dB(A)       | 76.4 dB(A) | 78.6 dB(A)     | 75.3 dB(A) |
| 105°                    | 78.8 dB(A)       | 75.6 dB(A) | 78.3 dB(A)     | 76.0 dB(A) |
| 135°                    | 74.9 dB(A)       | 72.2 dB(A) | 74.8 dB(A)     | 72.4 dB(A) |
| 165°                    | 77.1 dB(A)       | 74.7 dB(A) | 77.7 dB(A)     | 75.3 dB(A) |

This Data Sheet is subject to change without notice. Please contact GST for more information or questions.

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