

## Features

- ✧ Providing 16 tones.
- ✧ Loop powered or external 24V powered.
- ✧ Power-saving consumption mode and normal consumption mode (factory default).
- ✧ Single/dual address programmable.
- ✧ Standard: EN 54-3.

## Description

I-9404 Intelligent Sounder is an audible alarm device installed in field, which can be activated by fire alarm control panel in fire control center. After activated, it will generate strong audible alarm signal to warn people in field.

A 25.5mm high shallow base and a 40mm high deep base are available. The sounder comes with the shallow base. The deep base C-94DB should be ordered separately. Unless otherwise stated, all descriptions in this manual take the shallow base as example.

## Connection & Cabling

Terminals on the base are shown in Fig. 2.

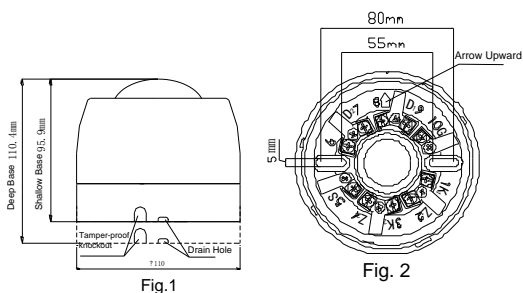


Fig. 1

Fig. 2

Z1 (2), Z2 (4): Loop of the control panel, polarity-insensitive.

D1 (9), D2 (7): To external 24VDC power, polarity-insensitive.

### Recommended Wiring

1.5mm<sup>2</sup> or above fire cable for D1, D2, Z1 and Z2, subject to local codes.

## Installation

- ✧ When surface mounted, the sounder should be placed 0.2m from the ceiling for normal space height. When the conduit is embedded, the base can be mounted on the back box. When the conduit is surface mounted, the deep base should be adopted. Knock the knockout hole, and connect the conduit with it. The mounting hole spacing and mounting direction are shown in Fig. 2. Mounting method is shown in Fig. 3a and Fig. 4. The conduit must be embedded when the shallow base is used, as shown in Fig. 3b.
- ✧ The base and the sounder are twisted together. When mounting, remove the sounder, thread cables through the cable entry in the base and connect with corresponding terminals, then twist the sounder onto the base.



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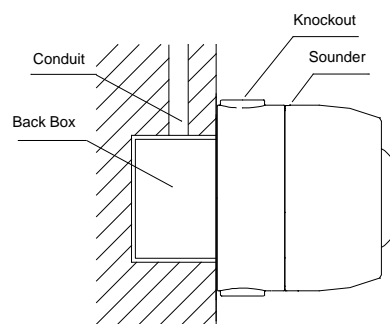


Fig. 3a

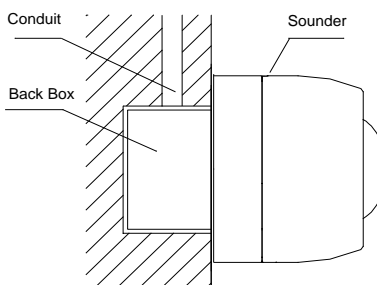


Fig. 3b

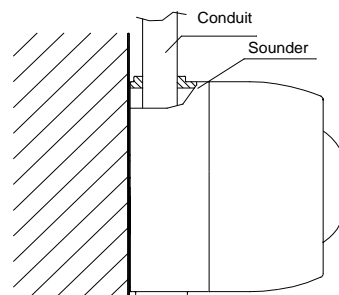


Fig. 4

- ✧ If the sounder is required to be tamper-proof, knock down the arch knockout as shown in Fig. 1 and fix it with ST2.9×6.5 self-tapping screws (in this case, it can only be removed by a cross screwdriver).

## Application

Address, tone, programming method, consumption mode can be set through P-9910B programmer (refer to *P-9910B Hand Held Programmer Installation and Operation Manual*).

- ✧ Tone, single/dual address mode and consumption mode can be set by changing the parameter of a sounder using P-9910B programmer. Refer to Table 1 for parameters and *P-9910B Hand Programmer Installation and Operation Manual* for details.
- ✧ In single address mode, the sounder will sound the preset tone when activated.
- ✧ In dual addresses mode,
  - The sounder will sound the pre-alarm tone when activating the first address;
  - The sounder will sound a preset tone (refer to Table 1) when activating the second address;
  - The sounder will sound the preset tone (refer to Table 1) when activating the first and second address together.
- ✧ Wiring diagram
  - Fig.5 shows that the sounder is loop-powered.

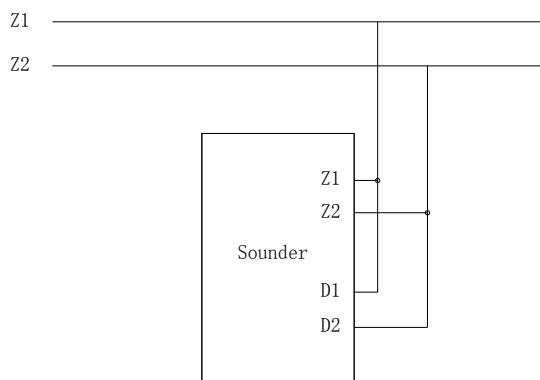


Fig. 5

- Fig. 6 shows that the sounder is supplied by an external 24V power.

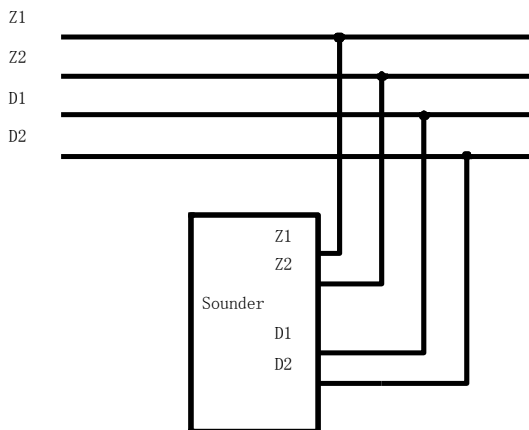


Fig. 6

- ✧ Below is an example showing how to set the sounder addressed 25 as dual addresses, tone 15 and normal consumption mode.
- Switch on the P-9910B programmer, input the password and press the *Function* key and number 3. Enter 63 and the *Program* key. The setting is successful when P appears on the display. The sounder is now to be programmed Address No. 25 and 26.
- Table 1 shows tone, programming method, consumption mode for the sounder (Factory default is single address Tone 14 under normal consumption mode).

Table 1

Parameter	Tone	Min. Sound Level (in dB) at 1 Meter	Programming method	Consumption mode
01	01	79	Single address	Power-Saving
02	02	81		
03	03	79		
04	04	81		
05	05	80		
06	06	78		
07	07	75		
08	08	78		
09	09	80		
10	10	79		
11	11	77		
12	12	80		
13	13	77		
14	14	79		
15	15	77		
16	16	82		
17	01	79	Dual addresses	
18	02	81		
19	03	79		
20	04	81		
21	05	80		
22	06	78		
23	07	75		
24	08	78		
25	09	80		
26	10	79		
27	11	77		
28	12	80		
29	13	77		
30	14	79		
31	15	77		
32	16	82		
Pre-alarm		75		
33	01	89	Single address	Normal
34	02	86		
35	03	84		
36	04	86		
37	05	86		
38	06	85		
39	07	85		
40	08	88		
41	09	83		
42	10	85		
43	11	87		
44	12	84		
45	13	84		
46	14	86		
47	15	83		
48	16	84		
49	01	89	Dual addresses	
50	02	86		
51	03	84		
52	04	86		
53	05	86		
54	06	85		
55	07	85		
56	08	88		
57	09	83		
58	10	85		
59	11	87		
60	12	84		
61	13	84		
62	14	86		
63	15	83		
64	16	84		
Pre-alarm		76		

## Specification

Operating Voltage	Loop: 24V (20V~28V) Power: 24V (20V~28V)
Standby Current	Power-saving mode: ◇ Loop-powered: Loop monitor current ≤ 2mA Start current ≤ 7mA ◇ External 24V powered Loop monitor current ≤ 1mA Start current ≤ 2.5mA Power monitor current ≤ 1.5mA Start current ≤ 7mA Note: The sounder can only work at power-saving mode when loop-powered with maximum 20 sounders in the loop. Normal mode: ◇ Loop powered Loop monitor current ≤ 2mA Start current ≤ 25mA ◇ External 24V powered Loop monitor current ≤ 1mA Start current ≤ 2mA Power monitor current ≤ 1mA Start current ≤ 25mA
Power Consumption	0.84W
Programming Method	Single / dual address (refer to Table 1)
Programming Range	1~242
Indoor Application	Type A
Ingress Protection Rating	IP33C
Operating Temperature	-10°C ~ +50°C
Relative Humidity	≤ 95%, non condensing
Enclosure Material and Color	ABS, red
Dimension (L×W×H)	φ 110mm × 110.4mm (deep base) φ 110mm × 95.9mm (shallow base)
Mounting Hole Spacing	55mm ~ 80mm
Weight	About 355g (deep base) About 327.2g (shallow base)

## 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.

## Tone Type

Tone	Description
01	970Hz
02	800Hz / 970Hz @ 2Hz
03	800Hz -970Hz @ 1Hz
04	970Hz 1s off / 1s on
05	970Hz, 0.5s / 630Hz, 0.5s
06	500Hz - 1200Hzx3, 3.5s on / 0.5s off
07	2850Hz, 0.5s on / 0.5s offx3 / 1.5s off
08	2850Hz 0.4s on, 0.3s off
09	550Hz, 0.7s / 1000Hz, 0.33s
10	1500Hz -2700Hz @ 3Hz
11	2400Hz
12	500Hz -1200Hz @ 0.33Hz
13	2400Hz -2900Hz @ 9Hz
14*	2400Hz -2900Hz @ 3Hz
15	2800Hz 0.4s on, 0.34s off
16*	500Hz-1200Hz, 3.75s / 0.25s off
Pre-alarm*	800Hz 1s off / 1s on
* EN54 Compliant	

## Accessories and Tools

Model	Name	Remarks
C-94DB	Deep Base	Order separately
P-9910B	Hand Held Programmer	Order separately

## 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 Tones Recognized by LPCB

### 1. Tone 14 – Sound Level dB(A)

Angle	Normal Mode				Power-saving Mode			
	Horizontal		Vertical		Horizontal		Vertical	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	87.0	85.2	85.7	83.3	81.7	78.6	78.6	75.8
45°	93.3	91.6	90.7	88.1	88.2	85.5	86.7	84.2
75°	93.4	91.4	92.8	90.6	88.5	85.5	88.9	86.2
105°	93.4	90.8	93.2	90.7	88.0	85.3	88.9	86.2
135°	92.4	90.1	92.5	89.9	85.9	83.7	86.9	84.3
165°	90.6	88.4	85.6	82.5	81.4	79.4	81.2	78.7

### 2. Tone 16 – Sound Level dB(A)

Angle	Normal Mode				Power-saving Mode			
	Horizontal		Vertical		Horizontal		Vertical	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	84.3	83.5	92.4	89.7	83.2	82.0	82.5	82.4
45°	92.6	88.7	92.2	89.9	88.3	90.1	89.5	89.2
75°	94.1	92.9	95.2	92.5	93.1	91.6	94.4	91.7
105°	95.3	95.3	94.8	92.2	89.6	92.5	91.6	94.4
135°	92.4	90.4	92.4	89.8	88.3	89.9	89.6	89.3
165°	87.9	86.3	85.7	83.4	84.2	85.2	83.7	80.4

### 3. Pre-alarm Tone -Sound Level dB(A)

Angle	Normal Mode				Power-saving Mode			
	Horizontal		Vertical		Horizontal		Vertical	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	76.2	76.4	77.0	77.3	73.6	74.0	73.7	77.7
45°	83.6	83.7	82.5	82.7	82.3	82.8	81.3	81.6
75°	85.5	85.2	85.3	85.0	85.8	85.8	85.0	85.1
105°	85.1	84.6	85.3	85.1	85.1	85.1	85.7	85.6
135°	81.7	81.6	82.5	82.1	81.6	81.4	82.2	82.2
165°	75.2	74.4	79.1	78.2	75.5	74.6	77.7	76.8

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