I-9403
Intelligent Sounder Strobe

Features

- ✧ Providing 16 tones.
- ✧ Using ultra bright LEDs as source for light indication. Optional transparent colorless lens (C-94WL) available.
- ✧ Loop powered or external 24V powered.
- ✧ Power-saving consumption mode and normal consumption mode (factory default).
- ✧ Single/dual address programmable.
- ✧ Working modes: sounder & strobe / strobe only / sounder only.
- ✧ Standard: EN 54-3.

548e/02

0832-CPD-0448

Description

I-9403 Intelligent Sounder Strobe is an audible and visual 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 and visual alarm signal to warn people in field.

A 25.5mm high shallow base and a 40mm high deep base are available. The sounder strobe 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.

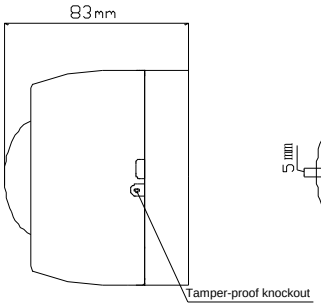

Fig. 1

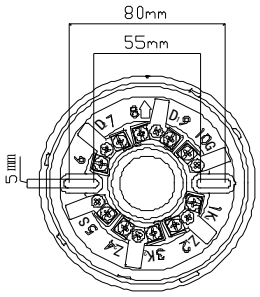

Fig. 2

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^2 or above fire cable for D1, D2, Z1 and Z2, subject to local codes.

Installation

- ✧ When surface mounted, the sounder strobe 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 strobe are twisted together. When mounting, remove the sounder strobe, thread cables through the cable entry in the base and connect with corresponding terminals, then twist the sounder strobe onto the base.

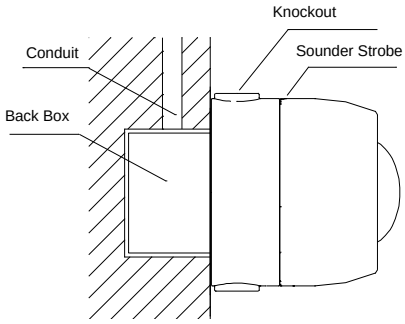

Fig. 3a

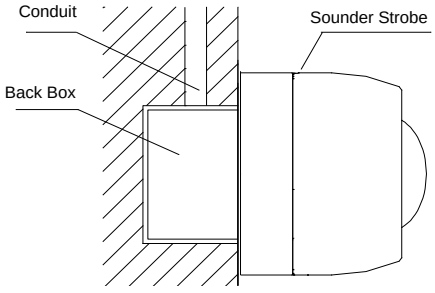

Fig. 3b

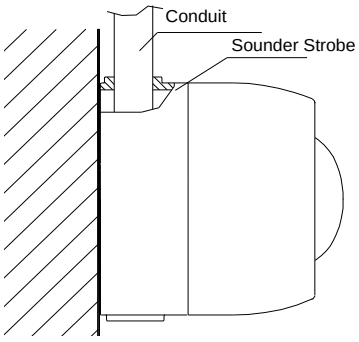

Fig. 4

- ✧ If the sounder strobe 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, working mode, consumption mode can be set through P-9910B programmer.

- ✧ Tone, single/dual address mode and consumption mode can be set with the same method as programming the parameter of a module by GST-BMQ-1B programmer. Refer to Table 1 for parameters and P-9910B *Installation and Operation Manual* for details.
- ✧ Working mode can be set with the same method as programming device type by the programmer, refer to P-9910B *Installation and Operation Manual* for details.
  - ➢ Sounder and strobe (default): 24;
  - ➢ Sounder only: 20;
  - ➢ Strobe only: 21.
- ✧ In single address mode, the sounder strobe will sound the preset tone (refer to Table 1) with flash frequency 1.4× (1±20%) Hz when activated.
- ✧ In dual addresses mode,
  - ➢ The sounder strobe will sound the pre-alarm tone (refer to Table 1) with flash frequency 0.7× (1±20%) Hz when activating the first address;
  - ➢ The sounder strobe will sound a preset tone (refer to Table 1) with flash frequency 1.4× (1±20%) Hz when activating the second address;
  - ➢ The sounder strobe will sound the preset tone (refer to Table 1) with flash frequency 1.4× (1±20%) Hz when activating the first and second address together.
- ✧ Wiring diagram
  - ➢ Fig.5 shows that the sounder strobe is loop-powered.

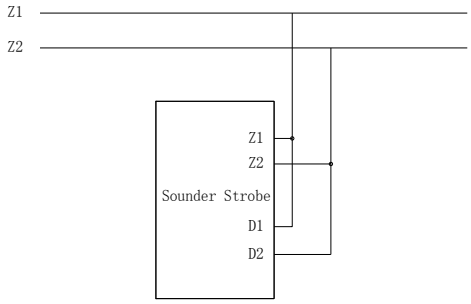

Fig. 5

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

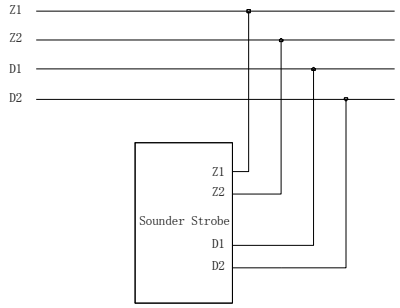

Fig. 6

- ✧ Below is an example showing how to set the sounder strobe addressed 25 as dual addresses, tone 15 and normal consumption mode.

Switch on the GST-BMQ-1B 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 strobe is now to be programmed Address No. 25 and 26.

Table 1 shows tone mode, programming method, consumption for the sounder strobe. (Factory default is single address Tone 14 under normal consumption mode. Tone 14, Tone 16 and Pre-alarm are recognized by LPCB).

Table 1

Para-meter	Tone	Sound Level 1m Ahead/24V (dB)	Address Setting	Consump-tion 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≤9mA ✧ External 24V powered Loop monitor current≤1mA Start current≤2mA Power monitor current≤1mA Start current≤9mA Note: The sounder strobe can only work at power-saving mode when loop-powered with maximum 20 sounder strobes in the loop. Normal mode: ✧ Loop powered Loop monitor current≤2mA Start current≤35mA ✧ External 24V powered Loop monitor current≤1mA Start current≤2mA Power monitor current≤1mA Start current≤35mA
Flash Frequency	✧ Single address: 1.4×(1±20%) Hz ✧ Dual addresses: First address activated: 0.7×(1±20%) Hz Second address activated: 1.4×(1±20%) Hz
Programming Method	Single / dual address (refer to Table 1)
Programming Range	1~242
Ingress Protection Rating	IP33
Operating Temperature	-10℃～+50℃
Relative Humanity	≤95%, non condensing
Enclosure Material	ABS
Dimension (L×W×H)	φ110mm×97.5mm (deep base) φ110mm×83mm (shallow base)
Mounting Hole Spacing	55mm～80mm
Weight	About 355g (deep base) About 327.2g (shallow base)

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 - 1200Hz×3, 3.5s on / 0.5s off
07	2850Hz, 0.5s on / 0.5s off×3 / 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	800Hz-970Hz @ 3Hz
16	500Hz-1200Hz, 3.75s / 0.25s off
Pre-alarm	800Hz 1s off / 1s on

Accessories and Tools

Model	Name	Remarks
C-94DB	Deep Base	Order separately
C-94WL	Transparent Colorless Lens	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 Operational Performance Data for LPCB Approved Tones

1. Tone 14 - Maximum Volume dB(A)

Angle	Normal Mode				Power Saving Mode			
	Horizontal Plane		Vertical Plane		Horizontal Plane		Vertical Plane	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	81.1	78.5	83.7	80.7	71.8	72.3	73.2	73.6
45°	89.4	87.2	89.7	86.9	78.0	77.9	77.4	77.7
75°	88.9	86.6	89.3	86.6	81.3	80.9	81.0	81.2
105°	89.4	86.9	89.4	86.6	81.6	80.8	80.8	81.2
135°	89.4	87.0	89.2	86.1	78.2	78.0	77.1	77.1
165°	83.4	81.3	82.2	79.3	75.1	75.0	72.9	71.9

2. Tone 16 - Maximum Volume dB(A)

Angle	Normal Mode				Power Saving Mode			
	Horizontal Plane		Vertical Plane		Horizontal Plane		Vertical Plane	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	82.8	80.3	86.1	83.9	80.4	79.1	82.1	81.9
45°	93.2	92.0	94.5	92.7	86.8	86.7	87.9	87.8
75°	99.7	98.2	100.3	98.6	91.2	91.4	91.9	92.0
105°	98.3	97.3	97.8	95.8	92.4	92.5	92.0	91.8
135°	94.4	92.8	92.0	90.4	88.4	88.3	87.0	87.1
165°	84.3	82.3	83.6	81.7	77.1	77.3	77.8	77.7

3. Pre-alarm - Maximum Volume dB(A)

Angle	Normal Mode				Power Saving Mode			
	Horizontal Plane		Vertical Plane		Horizontal Plane		Vertical Plane	
	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V	Max 28V	Min 20V
15°	77.1	74.1	79.5	76.3	72.6	73.8	70.7	71.4
45°	88.2	86.4	89.1	87.8	82.6	82.4	83.5	83.4
75°	96.1	94.2	95.9	94.4	87.4	87.7	87.8	87.6
105°	94.2	92.5	94.5	92.9	87.1	87.0	87.3	87.5
135°	87.5	85.6	87.6	85.8	81.5	81.4	81.5	81.5
165°	77.8	75.7	77.6	76.5	72.6	72.6	71.8	72.1

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