

Troubleshooting

Problem	Possible Cause
No response or missing	Incorrect address setting
Device fails to operate	Incorrect loop wiring (polarity reversed) Control panel has incorrect cause and effect programming



Audibility Table

Measurements are db(A) at 10 Ft.

Tone pair	Alert Range	Evac Range
1	48.2-73.8	48.8-77.0
2	49.9-75.3	48.1-73.8
3	50.3-73.8	49.3-76.3
4	49.8-73.4	52.5-76.3
5	50.3-76.7	44.2-72.9
6	49.6-77.3	46.2-73.4
7	50.2-77.3	46.2-74.0
8	43.6-70.7	43.2-69.8
9	44.0-70.9	43.4-73.7
10	43.4-75.1	43.4-70.0
11	49.0-74.9	47.3-71.5
12	49.0-71.7	52.0-74.7
13	46.8-75.2	47.4-74.9
14	47.5-71.7	50.2-74.8
15	51.7-76.9	49.0-73.4

Note: For local identification, not for evacuation use.
Figures derived from UL464 conversion

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Discovery® Open Area Sounder Beacon Installation Guide

General

This guide refers to the products in the table below.

Part number	Product Name
58000-011	Discovery Open Area Sounder Beacon (Red Lens)
58000-012	Discovery Open Area Sounder Beacon (Clear Lens)

Important note

The Discovery Open Area Sounder Beacon requires compatible control panel software to operate. Please check with the panel manufacturer for compatibility before installation.

Function

The Open Area Sounder is provided in IP65 rated housing. It has up to 15 tone pairs, 7 volume settings, independent control of sounder and fast turn-on functions. The configuration of the sounder is set by the control panel. Please refer to the panel literature for details.

Installation

1. Drill out the cable entries as required on the base, taking care not to damage the electronics. Do not attempt to knock these out as the base could be damaged.
2. Secure the base to the mounting surface with pan-head screws and the rubber o-rings provided; install all cables and terminate as shown in Fig 1.
3. Set the sounder address using the table overleaf.
4. To lock the sounder in the base, snip the break-out on the base rim. Fit the sounder to the base.

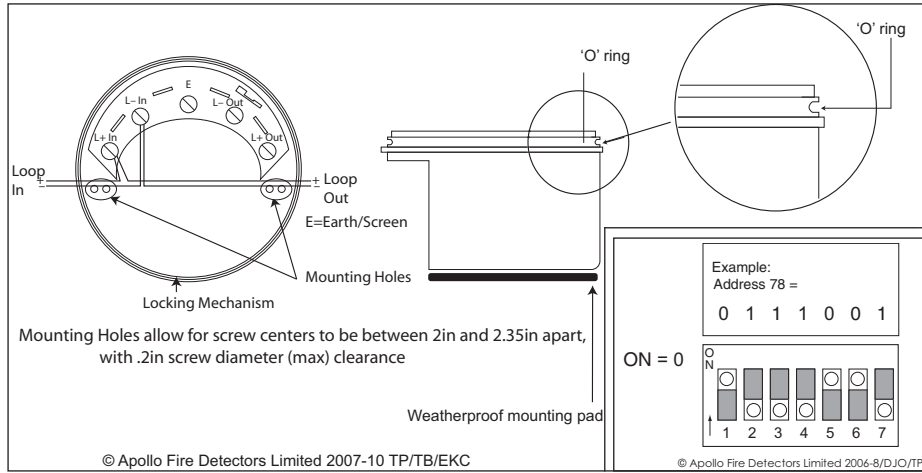


Fig 1. Wiring diagram

Fig 2. Example of Address

Individual Address Setting

The address of the open area sounder beacon is set using segments 1-7 of the DIP switch. Each switch is set to "0" (ON) or "1", using a small screwdriver or similar tool. A complete list of address settings is shown below.

addr	DIP switch setting 1234567	addr	DIP switch setting 1234567	addr	DIP switch setting 1234567	addr	DIP switch setting 1234567	addr	DIP switch setting 1234567
1	1000000	11	1101000	21	1010100	31	1111100	41	1001010
2	0100000	12	0011000	22	0110100	32	0000010	42	0101010
3	1100000	13	1011000	23	1110100	33	1000010	43	1101010
4	0010000	14	0111000	24	0001100	34	0100010	44	0011010
5	1010000	15	1111000	25	1001100	35	1100010	45	1011010
6	0110000	16	0000100	26	0101100	36	0010010	46	0111010
7	1110000	17	1000100	27	1101100	37	1010010	47	1111010
8	0001000	18	0100100	28	0011100	38	0110010	48	0000110
9	1001000	19	1100100	29	1011100	39	1110010	49	1000110
10	0101000	20	0101000	30	0111100	40	0001010	50	0100110
51	1100110	61	1011110	71	1110001	81	1000101	91	1101101
52	0010110	62	0111110	72	0001001	82	0100101	92	0011101
53	1010110	63	1111110	73	1001001	83	1100101	93	1011101
54	0110110	64	0000001	74	0101001	84	0010101	94	0111101
55	1110110	65	1000001	75	1101001	85	1010101	95	1111101
56	0001110	66	0100001	76	0011001	86	0110101	96	0000011
57	1001110	67	1100001	77	1011001	87	1110101	97	1000011
58	0101110	68	0010001	78	0111001	88	0001101	98	0100011
59	1101110	69	1010001	79	1111001	89	1001101	99	1100011
60	0011110	70	0110001	80	0000101	90	0101101	100	0010011
101	1010011	106	0101011	111	1111011	116	0010111	121	1001111
102	0110011	107	1101011	112	0000111	117	1010111	122	0101111
103	1110011	108	0011011	113	1000111	118	0110111	123	1101111
104	0001011	109	1011011	114	0100111	119	1110111	124	0011111
105	1001011	110	0111011	115	1100111	120	0001111	125	1011111
								126	0111111

Commissioning

It is important that the device be fully tested in accordance with chapters 14 and 18 of the 2010 edition of the NFPA 72 after installation. Many fault condition are the result of simple wiring errors.

Setup and Test Mode

These modes allow volume adjustment and functional testing locally. No volume adjustment is possible in test mode.

The required mode is entered via the control panel and is confirmed by a red LED which flashes once a second on the sounder beacon. Sounder state is controlled by placing a magnet adjacent to the flashing LED. When all LEDs flash, withdraw the magnet. A suitable extendable magnetic wand is available, part no. 29650-001.

In setup mode the volume can be adjusted by holding the magnet adjacent to the flashing LED and removing it at the desired volume level. If min or max volume is reached, the LEDs stop flashing. To alter the direction of adjustment, remove the magnet for one second and re-apply. Saving the volume setting is performed at the control panel.

Please check with panel manufacturer for compatibility of the above setup/test modes.

Technical Data, Sounder

Operating Voltage	17-28V DC*
* Special application per UL 464. Requires a Compatible Control Unit for Proper Operation	
Switch on surge	<2.6 mA for 1 s
Normal standby	<750µA
Sounder operating	Variable
IP rating	65

Alarm Current Measurements (mA)

Tone Pair 1	Alert	Evac
Level 1	2.845	1.582
Level 2	3.507	3.881
Level 3	3.538	3.972
Level 4	3.652	4.198
Level 5	4.075	4.682
Level 6	4.942	5.733
Level 7	7.624	8.378

Analogue Values

Analogue Value	Status	Analogue Value	Status
0	Flash Memory Fail	17	Sounder Volume 1
1	Sounder Fail	18	Sounder Volume 2
2	Beacon Fail	19	Sounder Volume 3
3	Sounder and Beacon Fail	20	Sounder Volume 4
4	General Fault	21	Sounder Volume 5
		22	Sounder Volume 6
		23	Sounder Volume 7