



Discovery® Open Area Voice Sounder Installation Guide

General

This guide describes the installation of the following products:

Part Number	Product Name	Type	Colour
58000-010	Discovery Open Area Voice Sounder with Isolator	Indoor (Type A)	Red
58000-020	Discovery Open Area Voice Sounder with Isolator	Indoor (Type A)	White
58000-030	Discovery Open Area Voice Sounder Visual Indicator with Isolator	Indoor (Type A)	Red
58000-040	Discovery Open Area Voice Sounder Visual Indicator with Isolator	Indoor (Type A)	White

Warning

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

Function*

The Open Area Voice Sounder Visual Indicator has 3 tone/message pairs, 7 volume settings, independent control of sounder and visual indicator and fast turn-on functions. The configuration of the sounder is set by the control panel. Please refer to the panel literature for details.

Mounting the backbox

The backbox is removed by using an unlocking key to press in one of the retaining lugs. The Open Area Voice Sounder has 6 slotted drillable holes in the backbox and can be installed directly to the mounting surface.

Wiring Details

Note: This product is polarity sensitive (supply reversal protected) and will not function if wired incorrectly.

Drill holes for cable entry as appropriate for the installation. Drill guides are marked on the backbox. Connect the loop cables to the terminal block, observing polarity and functional earth/screen if applicable. The wiring terminals accept solid or stranded cables up to 2.5mm².

Commissioning

It is important that the device be fully tested after installation. Many fault conditions are the result of simple wiring errors. Check all connections to the unit.

Setup and Test Mode

These modes allow volume adjustment and functional testing locally. In test mode no volume adjustment is possible.

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

*The Visual Indicator function does not comply with the requirements of EN54-23

Tone Table

Byte Value	Attention Drawing Signal (Tone)	Message	Tone/ Message Number	Attention Drawing Signal (Tone)	Message	Tone/ Message Number
1	Apollo Evacuation Tone (550Hz for 0.5s, 825Hz for 0.5s) *	Attention please. Fire has been reported in the building. Please leave immediately, by the nearest exit. Fire has been reported in the building. Please leave immediately, by the nearest exit.	M1	Apollo Alert Tone (1s off, 825Hz for 1s) *	This is a fire Alert. Await further instructions. This is a fire Alert. This is a fire Alert. Await further instructions.	M0
2	Apollo Evacuation Tone (550Hz for 0.5s, 825Hz for 0.5s) *	In the interests of safety please evacuate the building now. In the interests of safety please evacuate the building now. In the interests of safety please evacuate the building now.	M3	Apollo Alert Tone (1s off, 825Hz for 1s) *	All Clear. The emergency has been resolved. It is safe to resume normal activities. All Clear. The emergency has been resolved. It is safe to resume normal activities.	M2
3	Apollo Evacuation Tone (550Hz for 0.5s, 825Hz for 0.5s)	This is a test of the fire alarm system. Please do not take any action. This is a test of the fire alarm system. Please do not take any action.	M5	Apollo Alert Tone (1s off, 825Hz for 1s)	The fire alarm test is now complete. The fire alarm test is now complete. The fire alarm test is now complete.	M4
4	Fast Sweep (2500Hz -2850Hz at 9Hz)	Spare	M7	Continuous 2850Hz	Spare	M6
5	Dutch Slow Whirrop (Sweep 500Hz - 1200Hz for 3.5s, 0.5s off)	Spare	M9	Continuous 825Hz	Spare	M8
6	DIN Tone (sweep 1200Hz - 500Hz for 1s)	Spare	M11	Continuous 825Hz	Spare	M10
7	Swedish Fire Tone (660Hz, 150ms on, 150ms off)	Spare	M13	Swedish all clear signal (Continuous 660Hz)	Spare	M12
8	Aus (fast rise sweep 3x, (500Hz - 1200Hz for 0.5s), 0.5s off)	Spare	M15	Aus Alert Tone (420Hz, 0.625s, 0.625s off)	Spare	M14
9	NZ (slow rise sweep 500Hz - 1200Hz for 3.75s, 0.25s off)	Spare	M17	NZ Alert Tone (420Hz, 0.625s, 0.625s off)	Spare	M16
10	US Temporal LF (ISO 8201 3x (970Hz, 0.5s on, 0.5s off), 1s off)	Spare	M19	Continuous 970Hz	Spare	M18
11	US Temporal HF (ISO 8201 3x (2850Hz, 0.5s on, 0.5s off), 1s off)	Spare	M21	Continuous 2850Hz	Spare	M20
12	Simulated Bell - Continuous	Spare	M23	Simulated Bell - Intermittent (1s off, 1s on)	Spare	M22
13	Apollo Evacuation Tone (550Hz for 0.5s, 825Hz for 0.5s)	Spare	M25	Apollo Alert Tone (1s off, 825Hz for 1s)	Spare	M24
14	Continuous 970Hz	Spare	M27	Intermittent 970Hz (1s off, 1s on)	Spare	M26
15	Apollo Evacuation Tone (550Hz for 0.5s, 825Hz for 0.5s)	Spare	M29	Apollo Alert Tone (1s off, 825Hz for 1s)	Spare	M28

* These tones are EN54 compliant

Please note: Recording and loading of messages on this device cannot be made.

Synchronisation can be made by group or global mode from the panel when switching on or by address '0' synchronisation.

In setup mode the volume can be adjusted by holding the magnet adjacent to the flashing setup LED and removing it at the desired volume level. If min or max volume is reached, the confirmation LED stops 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.

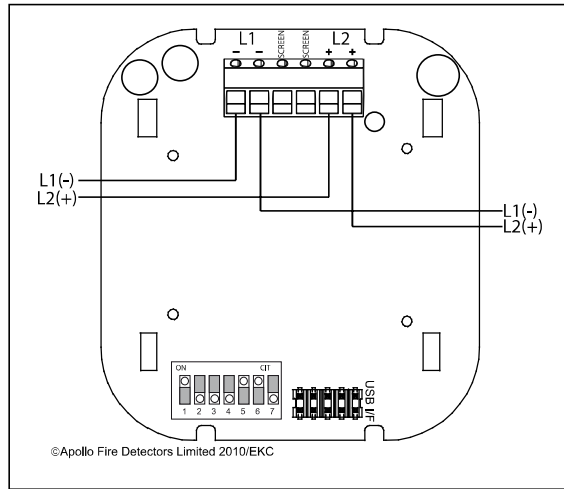


Fig 1. PCB outline

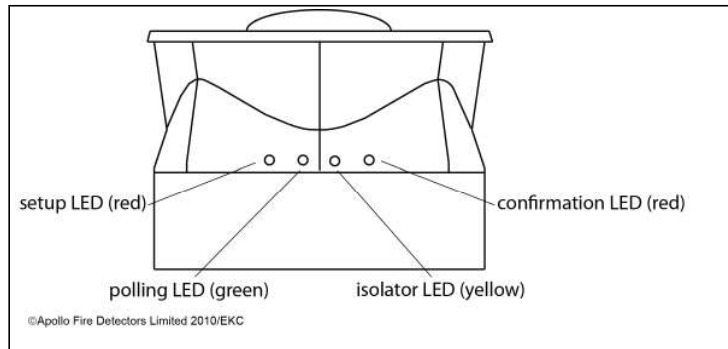


Fig 3. Discovery Open Area Voice Sounder

Technical Data

Operating voltage	17–28V DC
Switch-on surge	1.5 mA < 10s
Quiescent current (non-polling)	1.4 mA Nominal
Alarm current (non-polling) max	
Sounder	9.5 mA
Visual Indicator	8.8 mA
Sounder with Visual Indicator	13.4 mA
Alarm power	
Sounder	266 mW
Visual Indicator	246 mW
Sounder with Visual Indicator	375 mW
IP Rating	21C

For sound pressure levels measured to EN54–3 see document PP2203 and for isolator operation information see document PP2090, both available on request.

Individual Address Setting

The address of the Open Area Voice Sounder is set using segments 1-7 of the DIL 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.

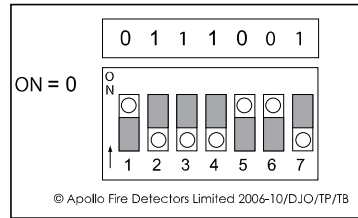


Fig 2. Example of Address 78

DIL switch setting 1234567	addr	DIL switch setting 1234567	addr	DIL switch setting 1234567	addr	DIL switch setting 1234567	addr	DIL switch setting 1234567	addr
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	0010100	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

Fault Finding

Problem	Possible Cause
No response or missing	Incorrect address setting Incorrect loop wiring (polarity reversed)
Analogue value 1	Sounder failed
Analogue value 2	Visual Indicator failed (Sounder with Visual Indicator version only)
Analogue value 3	Sounder with Visual Indicator failed (where visual indicator exists)
Device fails to operate	Control panel has incorrect cause and effect programming

Analogue Values

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

*Volume 1 does not comply with the requirements of EN54-3