



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. 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 Whoop (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 (680Hz, 150ms on, 150ms off)	Spare	M13	Swedish all clear signal (Continuous 825Hz)	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.

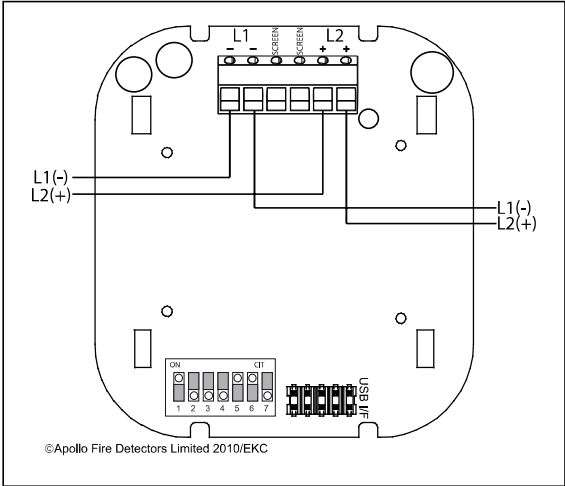


Fig 1. PCB outline

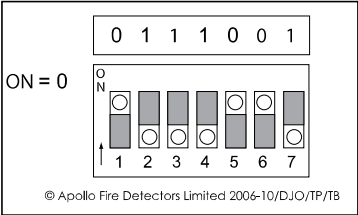


Fig 2. Example of Address 78

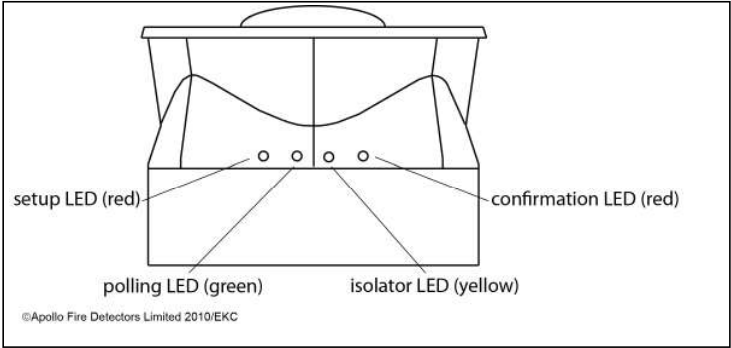


Fig 3. Discovery Open Area Voice Sounder

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.

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	1	11 1101000	11	1010100	21	1111100	31	1001010	41
2 0100000	2	12 0011000	12	0110100	22	0000010	32	0101010	42
3 1100000	3	13 1011000	13	1110100	23	1000010	33	1101010	43
4 0010000	4	14 0111000	14	0001100	24	0100010	34	0011010	44
5 1010000	5	15 1111000	15	1001100	25	1100010	35	1011010	45
6 0110000	6	16 0000100	16	0101100	26	0010010	36	0111010	46
7 1110000	7	17 1000100	17	1101100	27	1010010	37	1111010	47
8 0001000	8	18 0100100	18	0011100	28	0110010	38	0000110	48
9 1001000	9	19 1100100	19	1011100	29	1110010	39	1000110	49
10 0101000	10	20 0010100	20	0111100	30	0001010	40	0100110	50
51 1100110	51	61 1011110	61	1110001	71	1000101	81	1101101	91
52 0010110	52	62 0111110	62	0001001	72	0100101	82	0011101	92
53 1010110	53	63 1111110	63	1001001	73	1100101	83	1011101	93
54 0110110	54	64 0000001	64	0101001	74	0010101	84	0111101	94
55 1110110	55	65 1000001	65	1101001	75	1010101	85	1111101	95
56 0001110	56	66 0100001	66	0011001	76	0110101	86	0000011	96
57 1001110	57	67 1100001	67	1011001	77	1110101	87	1000011	97
58 0101110	58	68 0010001	68	0111001	78	0001101	88	0100011	98
59 1101110	59	69 1010001	69	1111001	79	1001101	89	1100011	99
60 0011110	60	70 0110001	70	0000101	80	0101101	90	0010011	100
101 1010011	101	106 0101011	106	1111011	111	0010111	116	1001111	121
102 0110011	102	107 1101011	107	0000111	112	1010111	117	0101111	122
103 1110011	103	108 0011011	108	1000111	113	0110111	118	1101111	123
104 0001011	104	109 1011011	109	0100111	114	1110111	119	0011111	124
105 1001011	105	110 0111011	110	1100111	115	0001111	120	1011111	125
								0111111	126

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