



# 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 2.5mm<sup>2</sup>.

## 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 Whopop (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.

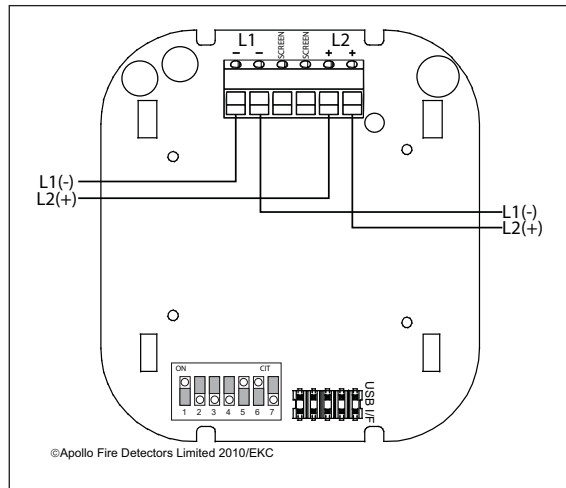


Fig 1. PCB outline

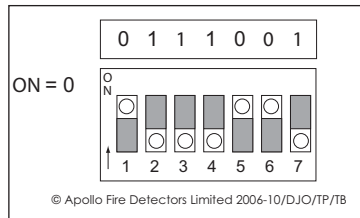


Fig 2. Example of Address 78

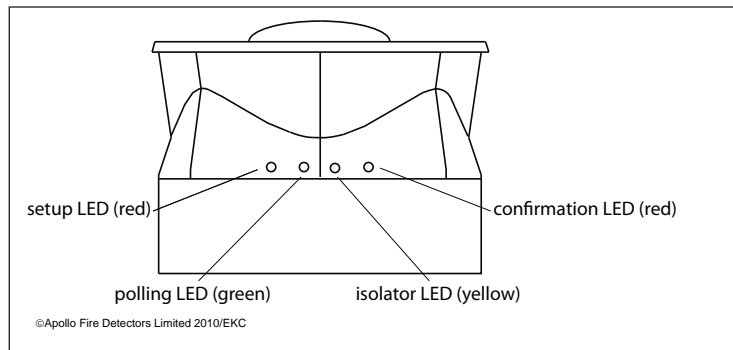


Fig 3. Discovery Open Area Voice Sounder

**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	DIL switch setting	DIL switch setting	DIL switch setting	DIL switch setting
1234567	1234567	1234567	1234567	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 0100100	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