



Discovery® Sounder Beacon Base Installation Guide

General

This guide describes the installation of the following base

Part number	Product Description
45681-524	Discovery Sounder Beacon Base (Red LED's)
45681-527	Discovery Sounder Beacon Base (Yellow LED's)
45681-292	White Cap only (Lockable)
45681-293	Red Cap only (Lockable)

Connect the device only to control panels using the Discovery protocol.

Function

The Discovery Sounder Beacon Base combines a sounder with a beacon and a detector base in one unit. It has up to 15 tone pairs, 7 volume settings, independent control of sounder and beacon and fast turn-on functions. The configuration of the sounder is set by the control panel. Please refer to the panel literature for details. The Discovery Sounder Beacon Base does not have an isolator.

Note: The Discovery Sounder Beacon Base is not suitable for outdoor use, nor is it intended for evacuation notification use.

Installation of Mounting Plate:

On a single gang electrical work box, align the recessed mounting grooves at each side of the included mounting plate over the screw holes of the work box and tighten screws until the plate is secure.

On dual gang and octagon electrical work boxes, make sure that two screws at opposing corners of the box are tightened halfway down. Align the screw slot on the mounting plate within the longer mounting groove over one of the screws. Slide the mounting plate slightly to allow the remaining screw to come through the appropriate slot. For a dual gang work box, this will be the outer screw slot, allowing the screw to slide securely into the outer rim mounting notch. Tighten the screws until the mounting plate is secure. Drill included self-tapping screws halfway down into the .125in diameter holes on the inner tabs of the mounting plate. Make sure both hinged screw covers snap closed before placing the Sounder Beacon Base on the mounting plate. Hold the Sounder Beacon Base over the raised screws at a slight angle, allowing the screws to catch the mounting notches on the underside of the base. Tighten the base mounting screws as necessary. Once the base is secure, make sure that all wiring is pulled through. Terminate all wiring as shown in Fig 2.



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Wiring Details

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

All Discovery base variants

Connect the positive and negative loop cables to the L2 and L1 terminals respectively, observing polarity. The wiring terminals accept solid or stranded cables up to 24AWG -14AWG. Functional earth or screen cables may be terminated to the EARTH connection. When using as a stand-alone unit, a cap is available (red cap part no 45681-293 or white cap part no 45681-292) and is secured with a 1.5mm, Allen screw. A Allen Wrench (part no 29600-095) is available from Apollo.

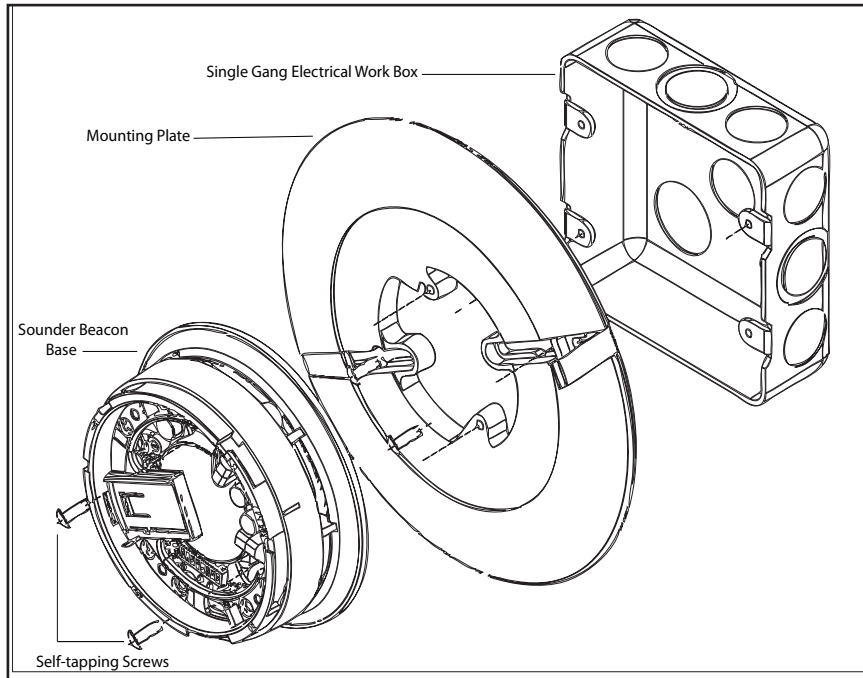


Fig. 1 Adaptor plate

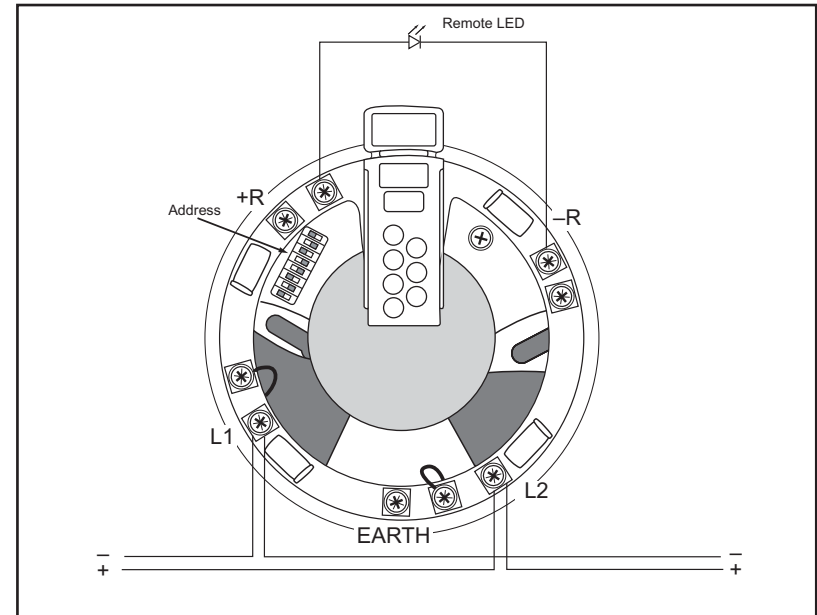


Fig. 2 Sounder Beacon Base wiring

Audibility Table

Measurements are db(A) at 10 Ft

Tone Pair	Alert Range	Evac Range
1	45-71	48.1-70.8
2	53.6-70.8	53.6-70.8
3	50.6-73.3	51.5-71.8
4	50.9-80.1	54.3-81.6
5	48.1-80	48.3-81.6
6	47.9-70.9	49.8-70.8
7	51.3-70.6	50.9-69.2
8	41.5-63.9	46.2-66.7
9	41.2-64.2	48.5-70.5
10	50.6-70.8	47.7-70.4
11	51.0-79.5	48.8-76.2
12	47.0-71.7	50.1-76.4
13	48.3-73.1	50.5-73.5
14	47.5-69.7	51.7-73.3
15	49.1-79.3	46.6-75.5

Note: For local identification, not for evacuation use.

Address Setting

The address of the Discovery Sounder Beacon Base is set using segments 1-7 of the DIP switch and are set to "0" (ON) or "1", using a small screwdriver or similar tool. A complete list of address settings is shown below. If a detector is to be fitted, set the address as described on page 4.

DIP switch setting		DIP switch setting		DIP switch setting		DIP switch setting		DIP switch setting	
addr	1234567	addr	1234567	addr	1234567	addr	1234567	addr	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	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

XPERT Card Addressing

Select the desired address for the detector and remove the pips indicated in black. Remove pips with a small screwdriver.



Commissioning

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

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 LED which flashes once a second on the sounder beacon. Sounder state (on/off) 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.

Troubleshooting

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

Technical Data (with Protocol Polling)

Operating voltage	17—28V DC
Switch on surge	1.2mA for 1s
Normal standby	<1.3mA
Beacon only Operating @28V	4.12mA
Audible Alarm only Operating @28V	6.36 mA

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