Tone Table

Item Number	Primary Tone	Secondary Tone
4107-6002	Australian AS7240-3 Evacuation Tone	Australian AS7240-3 Alert Tone

XPERT Card Addressing

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

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XP95 Base VAD and Sounder VAD Installation Guide

General

This guide describes the installation of the following base variants

Item Number	Product Description	Category
4107-6002	XP95 Base Sounder VAD Cat O (AS7240-3 & 23)	O
4107-2007	XP95 Base VAD Cat O (AS7240-23)	O
201-114	White Cap only (Lockable)	N/A
201-119	Red Cap only (Lockable)	N/A

Connect the devices only to control panels using the XP95 protocol.

The XP95 Base Sounder VADs combine a sounder with a visual alarm and a detector base in one unit. The VAD is activated whenever the sounder is active and cannot be controlled separately.

All XP95 Base VAD and Sounder VAD variants with short circuit isolator have a yellow LED which illuminates through the moulding if a short circuit is detected on the loop wiring (see Fig. 1).

Note: All XP95 Base VAD and Sounder VAD *variants are not suitable for outdoor use.*

Mounting Instructions

All base variants may be secured to a UK standard conduit box or surface mounted (providing there is access through the surface for cabling). If a detector is fitted, lock it if required by screwing in the grub screw in the detector with a 1.5mm hex driver. The XP95 Sounder VAD Bases are ceiling mounted devices. For coverage volume information please refer to PDS4107-6002 and PDS4107-2007

Wiring Details

Note: These products are polarity sensitive (supply reversal protected) and will not function if wired incorrectly.

Terminate all loop cables in the two way terminal blocks. Connect the incoming loop cables to L1 IN (–) and L2 (+) and the outgoing cables to L1 OUT (–) and L2 (+). Functional earth or screen may be connected to the EARTH connection. The isolator LED can be seen through the moulding as shown in Fig. 1.

DO NOT CONNECT LOOP CABLES TO THE OUTER TERMINALS OF ISOLATED MODELS.
When using as a stand-alone unit, a cap is available (red cap Part No 201-119 or white cap Part No 201-114) and is secured with a 1.5mm, AF hexagon socket head screw.

Technical Data

Operating Voltage	17—28V dc
Sounder Output	
High Tone Setting Volume	nominally 71dB(A) to 88dB(A)*
Low Tone Setting Volume	nominally 58dB(A) to 73dB(A)

**Complies with AS7240-3*

Sound pressure level information published in document PDS4107-6002 and isolator operation information published in document PDS201-9001, both available on request. Low volume setting does not comply to AS7240-3 and should not be used for fire alarm applications.

Current Consumption at 24V dc	
Quiescent	350µA
Switch-on Surge	1.2mA for 1 sec
Sounder/VAD Operating	14mA
VAD Frequency	0.5Hz
IP Rating	IP21C

Commissioning

It is important that the base variants be fully tested after installation.

Fault Finding

Problem	Possible Cause
No response or missing	Incorrect address setting
	Incorrect loop wiring (polarity reversed)
	Too many bases between isolators
Analogue value 1	Sounder failed
Analogue value 2	VAD failed
Analogue value 3	Sounder and VAD failed
Analogue value 4	Incorrect group address or address setting
Failure to operate	Control panel has incorrect cause and effect programming
	Incorrect group address setting

Address Setting

The address of the XP95 Base VAD and Sounder VAD variants are set using seven segments of the eight-segment DIL switch. The eighth segment is used to adjust the volume output. Segments 1-7 of the switch 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.

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

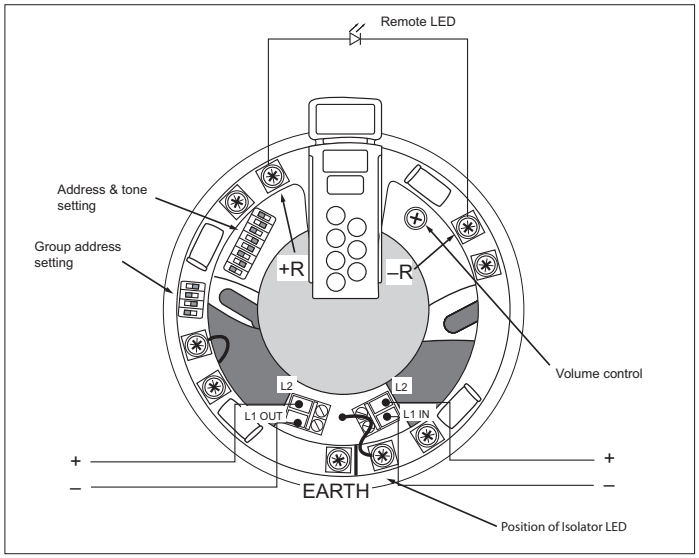

Fig. 1- *Sounder VAD Base with isolator wiring*

Group Address Setting

In group mode the XP95 Base VAD and Sounder VAD variants respond to an additional address referred to as the group address, which is used to activate groups of base variants, Integrated Base Sounders and/or 100dB sounders simultaneously. Individual units continue to respond to their own addresses and report their status in the normal way. A group address is set on a four-segment DIL switch which is factory set to 0000. A group address may be any spare address within–and only within–the range 112 to 126 inclusive. The required group address is set in accordance with the following table. For an illustrated example, please see Fig. 2.

addr	DIL switch setting 1234	addr	DIL switch setting 1234	addr	DIL switch setting 1234
112	1111	117	0101	122	1010
113	0111	118	1001	123	0010
114	1011	119	0001	124	1100
115	0011	120	1110	125	0100
116	1101	121	0110	126	1000

Note: group mode is disabled if the group address DIL switch is set to 0000, irrespective of the protocol message.

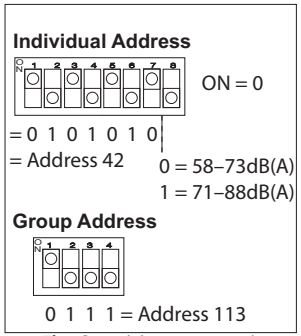

Fig. 2- *Address example*

Functional Test Data

The product is controlled by the control panel using the output bits in the communication protocol.

Protocol bit use:

Output Bit	Function	Input Bit	Function
2	group mode	2	group mode confirmed
	1 = off		1 = group
	0 = on		0 = individual
1	Alert tone	1	Alert tone confirmed
	1 = on		1 = on
	0 = off		0 = off
0	Evacuation tone	0	Evacuation tone confirmed
	1 = on		1 = on
	0 = off		0 = off