

Technical Data

EATON	AS/S/24/110	AS/S/24/120
CE	06 2831 DoP0071	06 2831 DoP0073

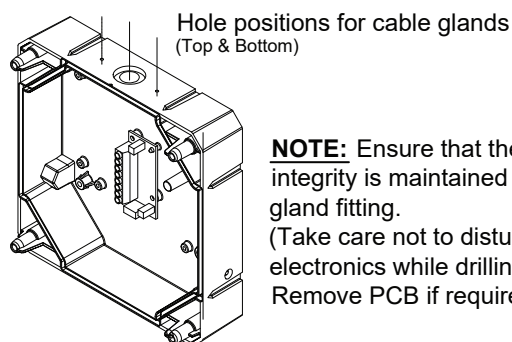
Specification	24Vdc
Operation	Continuous
Operating Voltage Range	18 - 30Vdc
Sound output @1m	See table overleaf
Current Consumption	See table overleaf
Tones	44 - See table overleaf
Operating Temperature	-25°C to +70°C
Live Monitoring Method	Polarised Input
Construction	ABS FR Plastic Case
Ingress Protection	IP33C (IP66*)

Note: Polar dispersion information available in the technical manual.
(Ref:M04-005)

*Device not EN54 certified to IP66. Manufacturer's declaration.

1. Installation

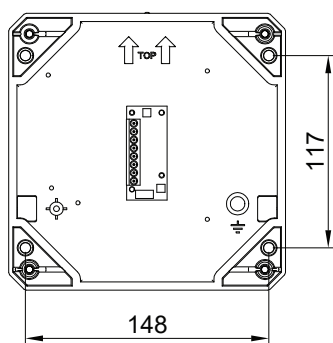
Knockout or drill required cable gland holes, and fix required cable glands.



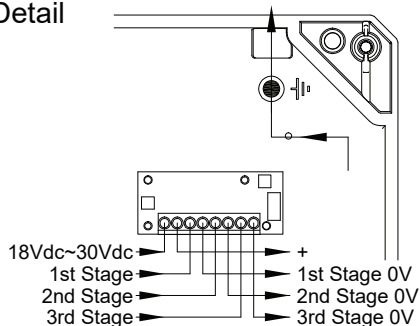
NOTE: Ensure that the IP integrity is maintained during gland fitting.
(Take care not to disturb the electronics while drilling.
Remove PCB if required)

2. Fixing Details

Fix base to wall in 4 positions.



3. Connection Detail



Fire Alarm Device - Sounder for indoor (type A) and outdoor (type B) use

Essential Characteristics

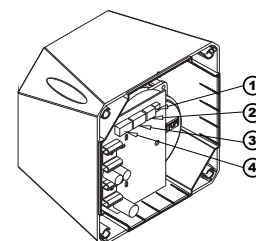
Harmonized Technical Specification: EN54-3:2001+A1:2002+A2:2006

Clause(s)	Performance
4.2, 4.3, 5.2, 5.3	Pass
4.4, 4.5, 4.6, 5.4	Pass
5.5, 5.6, 5.7, 5.8, 5.9	Pass
5.8, 5.9, 5.10	Pass
5.11	Pass
5.12, 5.13, 5.14, 5.15	Pass
5.16	Pass
5.17	Pass

4. Sounder Settings

1. Volume Control

Turn dial clockwise to increase volume.
(20dB Range)



2. Switch 1 (Time out setting)



0 = Open
1 = Closed

BIT 123X	Minutes	BIT 123X	Minutes
111X	5	011X	25
110X	10	010X	30
101X	15	001X	40
100X	20	000X	∞

Switch 1 bit 4 is to select voice (0)/ no voice (1).

3. Switch 2 (Stage1 tone selection)

See table overleaf.



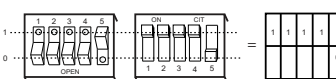
4. Switch 3 (Stage 2 tone selection)

See table overleaf.



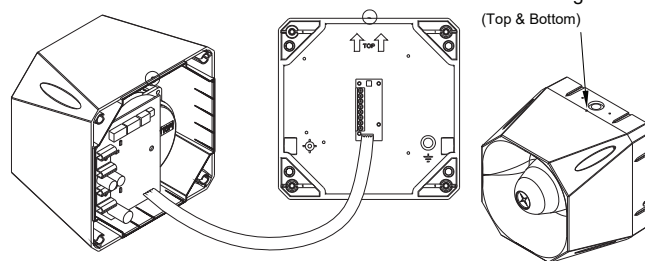
(Stage 3 Tone is dependent on the setting of switch 2)

5. Switch positions

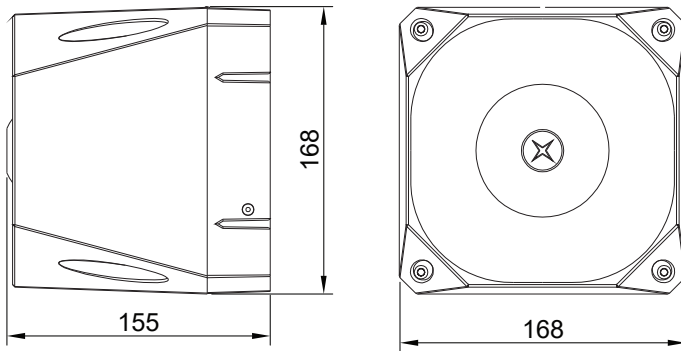


5. Sounder Assembly

Ensure that guide ribs are aligned.
(Top & Bottom)



1. Plug the 5 way ribbon cable into the base header.
2. Ensure that the top indicator on the base is aligned with the top indicator on the sounder, and push the sounder onto the base.
3. Secure the sounder to the base using the bolts provided.



Asserta Sounder Tones Table

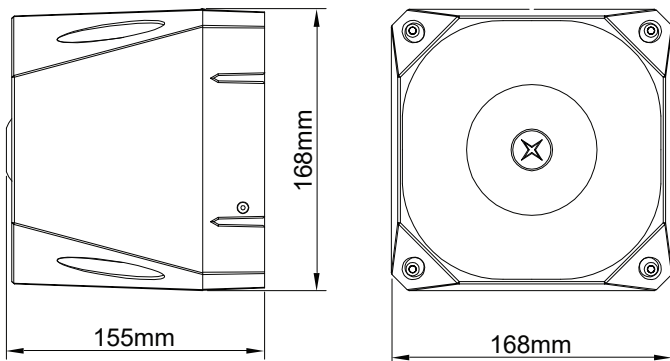
1st & 2nd Tone bank	3rd Tone bank	Switch Setting (0=Open)	Tone Description						Asserta 110			Asserta 120		
									Average current @ max vol @ 24VDC	24Vdc on axis @ 1M	EN54-3 30Vdc see notes	Average current @ max vol @ 24VDC	24Vdc on axis @ 1M	EN54-3 30Vdc see notes
									mA	dB(A)	dB(A)	mA	dB(A)	dB(A)
A 1	A14	111111	Alternating	970 then 800	2Hz (250ms-250ms)	EVIAN		108	111	*		450	117	*
A 2	A14	111110	Sweep	800 to 970	7Hz (1/5s)			103	112	*		450	120	*
A 3	A14	111101	Sweep	800 to 970	1Hz (1/5s)			105	112	112		450	120	116
A 4	A9	111100	Continuous	2850	Steady			122	106	*		445	109	*
A 5	A4	111011	Sweep	2400 to 2850	7Hz			119	103	*		447	109	*
A 6	A4	111010	Sweep	2400 to 2850	1Hz			121	105	*		446	110	*
A 7	A14	111001	Slow whoop	500 to 1200	3s sweep, 0.5 s silence, then repeat (rep)	Slow Whoop Netherlands		115	111	112		340	119	116
A 8	A14	111000	Sweep (DIN)	1200 to 500	1Hz	Din / PFEER (PAFA)		115	111	112		430	119	116
A 9	A4	110111	Alternating	2850 then 2400	2Hz (250ms-250ms)			121	108	*		450	112	*
A 10	A14	110110	Intermittent	970	0.5Hz (1s On/1s Off)	PFEER alert		71	108	*		229	117	*
A 11	A14	110101	Alternating	970 then 800	1Hz (500ms-500ms)			106	109	*		375	116	*
A 12	A4	110100	Intermittent	2850	0.5Hz (1s On/1s Off)			89	107	*		235	109	*
A 13	A14	110011	Intermittent	970	0.8Hz (250ms On/1s Off)	ASP		35	108	*		100	117	*
A 14	A8	110010	Continuous	970	Steady	PFEER - Toxic gas		104	109	111		450	117	115
A 15	A14	110001	Alternating	440 then 554	100ms-400ms	France NFS 32 S 32-001		76	106	*		294	115	*
A 16	A14	110000	Intermittent	660	3.3Hz (150ms On/150ms Off)	Swedish (Air raid)		60	106	*		232	114	*
A 17	A14	101111	Intermittent	660	0.28Hz (1.8s On/1.8s Off)	Swedish (Local warning)		88	106	*		220	115	*
A 18	A14	101110	Intermittent	660	0.05Hz (6.5s On/13s Off)	Swedish (Pre-mess)		101	106	*		150	115	*
A 19	A1	101101	Continuous	660	Steady	Swedish (All clear)		103	107	*		429	116	*
A 20	A19	101100	Alternating	440 then 554	0.5Hz (1s On/1s Off)	Swedish (Turn out)		83	106	*		312	115	*
A 21	A4	101011	Intermittent	660	1Hz (500ms-500ms)	Swedish		66	106	*		220	115	*
A 22	A4	101010	Intermittent	2850	4Hz (150ms On/100ms Off)			83	105	*		286	108	*
A 23	A14	101001	Sweep	800 to 970	50Hz			102	109	*		419	117	*
A 24	A4	101000	Sweep	2400 to 2850	50Hz			120	106	*		440	110	*
A 25	A14	100111	Intermittent	970	3 x 500ms pulses followed by 1.5s silence then repeat	ISO 8201/US Temporal		62	109	*		180	117	*
A 26	A4	100110	Intermittent	2850	3 x 500ms pulses followed by 1.5s silence then repeat	ISO 8201/US Temporal		64	107	*		180	109	*
A 27	A6	100101	Continuous	4000	Steady			109	101	*		450	105	*
A 28	A14	100100	Alternating	970 then 800	2Hz (250ms-250ms)			106	109	*		414	116	*
A 29	A14	100011	Alternating	990 then 650	2Hz (250ms-250ms) (Symphonic tones)			104	109	111		444	117	115
A 30	A14	100010	Alternating	510 then 610	2Hz (250ms-250ms) (Squashini Micro tones)			96	107	109		370	116	113
A 31	A14	100001	Sweep	300 to 1200	1Hz			84	110	*		285	118	*
A32	A3	100000	Continuous	Bell	Steady	See attached for waveform details		120	111	*		450	117	*
A33	A14	111111	Intermittent	Bell	3 x 500ms pulses followed by 1.5s silence then repeat	Bell / US temporal		69	111	*		180	117	*
A34	A4	111110	Alternating	1000 then 2000	1Hz (500ms-500ms)	Singapore		112	107	*		450	115	*
A35	A14	111101	Intermittent	420	6 step ramped start pulsed @ 0.625S ON / 0.625S OFF	Australian alert		46	108	*		140	116	*
A36	A14	111100	Sweep	500 to 1200	Sweep 3.75s followed by 0.25s gap	Australian evac		91	109	*		340	117	*
A37	A14	110111	Sweep	1400 to 1600	Sweep up 1s, sweep down 0.5s	NF C 48-265		122	108	*		448	116	*
A38	A14	110110	Sweep	500 to 1200	Sweep UP & DOWN over 3s	Siren		94	109	*		310	117	*
A39	A14	110011	Intermittent	720	0.7s ON, 0.30FF	German ind alarm		90	110	*		310	117	*
A40	A14	110000	Sweep	422 to 775	Sweep for 0.85s, 1s delay, repeat	NFPA Whoop		60	109	*		180	118	*
A41	A3	101111	Continuous	470	Steady	Horn (USA)		85	104	*		340	114	*
A42	A3	101110	Continuous	370	Steady	Air horn (USA)		76	104	*		272	113	*

Note (a): Tones approved under the Construction Products Regulation for Fire Alarm Applications, are shown in the column marked EN54-3.
 Note (b): EN54-3 measurements shown reflect minimum expected SPL readings at Maximum Volume at the Loudest Point around the EN54-3 defined sounder axis.
 Note (c): All other tone measurements reflect manufacturers data based on 'on axis' measurements, and are not verified by a Notified body.
 Note (d): Detailed EN54-3 polar SPL measurements are available in the Product Manual for the appropriate sounder.
 Note (e): All measurements taken at 20°C operating temperature.

Specification

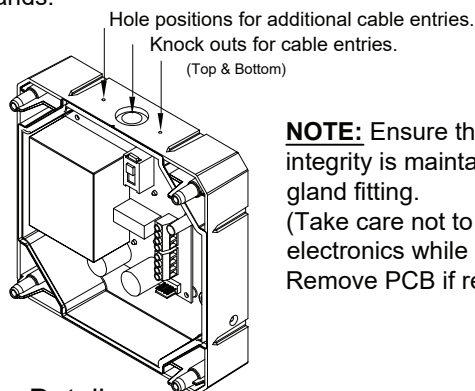
	115Vac/230Vac 110dB(A)	115Vac/230Vac 120dB(A)
Operation	Continuous	Continuous
Operating Voltage Range	115Vac/230Vac 50/60Hz	115Vac/230Vac 50/60Hz
Sound Output @ 1m	See table overleaf	See table overleaf
Current Consumption	0-80mA@115Vac 0-40mA@230Vac	0-130mA@115Vac 0-65mA@230Vac
Maximum Power	9W	15W
Tones	42 see table overleaf	42 see table overleaf
Operating Temperature	-25°C to +75°C	-25°C to +75°C
Construction	ABS /PC Plastic Case	ABS /PC Plastic Case
Ingress Protection	IP66	IP66
Fuse	80mA Anti surge, 20mm	80mA Anti surge, 20mm

Dimensions



1. Installation

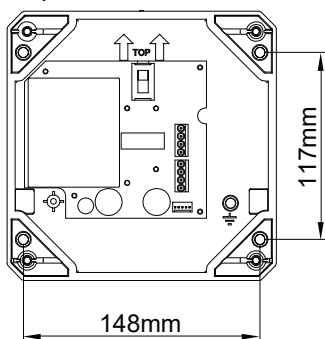
Knockout or drill required cable gland holes, and fix required cable glands.



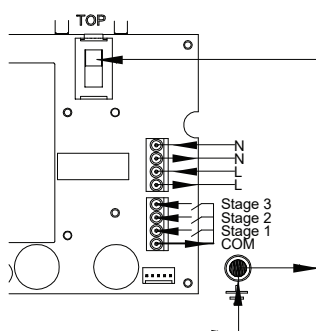
NOTE: Ensure that the IP integrity is maintained during gland fitting.
(Take care not to disturb the electronics while drilling.
Remove PCB if required)

2. Fixing Details

Fix base to wall in 4 positions.



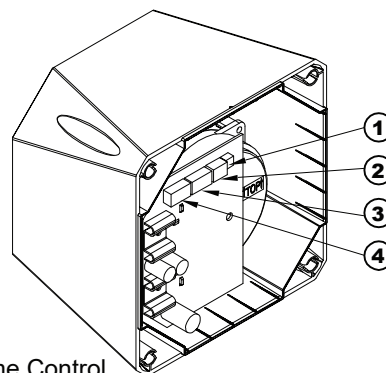
3. Connection Detail



Set switch to correct requirement for installation.
(115Vac or 230Vac)

NOTE: A readily accessible disconnect device must be incorporated in the mains supply wiring to this unit.

4. Sounder Settings



1. Volume Control

Turn dial clockwise to increase volume.
(nominal 20dB Range)

2. Switch 1 (Time out setting)

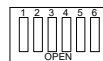


0 = Open
1 = Closed

BIT 123X	Minutes	BIT 123X	Minutes
111X	5	011X	25
110X	10	010X	30
101X	15	001X	40
100X	20	000X	∞

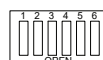
Switch 1 bit 4 is to select voice (0)/ no voice (1). (Where fitted)

3. Switch 2 (Stage1 tone selection)



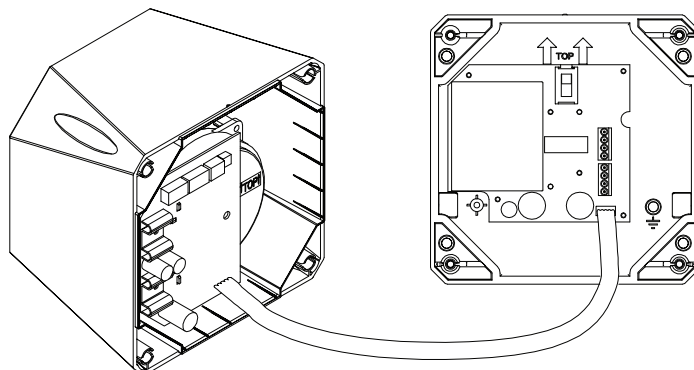
See table overleaf.

4. Switch 3 (Stage 2 tone selection)



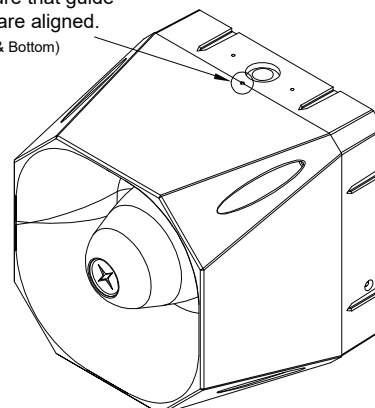
See table overleaf.
(Stage 3 Tone is dependent on the setting of switch 2)

5. Sounder Assembly



1. Plug the 5 way ribbon cable into the base header.
2. Ensure that the top indicator on the base is aligned with the top indicator on the sounder, and push the sounder onto the base.
3. Secure the sounder to the base using the bolts provided.

Ensure that guide ribs are aligned.
(Top & Bottom)



WARNING : On some tones the output level can exceed 120dB(A) @ 1m.
: Consult the relevant or appropriate health and safety regulations for guidelines.
Tones Table overleaf.
: Do not remove cover, refer servicing to qualified personnel.
: High voltage present within this equipment.

NOTE : Polar dispersion information available in the technical manual. (Ref:M03-003)

Industrial Sounder Tones Table

No	CODE 123456	TONE				Stage 1 & 2		STAGE 3
						115Vac/230Vac LP	115Vac/230Vac HP	
		Description	Frequencies	Pattern	Use	dB(A)@1m	dB(A)@1m	
A1	111111	Alternating	800 & 970	2Hz (250ms-250ms)		111	120	A14
A2	111110	Sweep	800 & 970	7Hz (7/s)		112	120	A14
A3	111101	Sweep	800 & 970	1Hz (1/s)		112	120	A14
A4	111100	Continuous	2850	Steady		106	111	A9
A5	111011	Sweep	2400 to 2850	7Hz		103	109	A4
A6	111010	Sweep	2400 to 2850	1Hz		105	110	A4
A7	111001	Slow Whoop	500 to 1200	3s sweep, 0.5s silence, then repeat (rep)	Slow Whoop Netherlands	111	119	A14
A8	111000	Sweep	1200 to 500	1Hz	DIN/PFEER (PAPA)	111	119	A14
A9	110111	Alternating	2400 & 2850	2Hz (250ms-250ms)		108	113	A4
A10	110110	Intermittent	970	0.5Hz (1s On/1s Off)	PFEER alert	108	117	A14
A11	110101	Alternating	800 & 970	1Hz (500ms-500ms)		109	118	A14
A12	110100	Intermittent	2850	0.5Hz (1s On/1s Off)		107	112	A4
A13	110011	Intermittent	970	0.8Hz (250ms On/1s Off)		108	117	A14
A14	110010	Continuous	970	Steady	PFEER - Toxic gas	109	118	A8
A15	110001	Alternating	554 & 440	100ms-400ms	France NFS 32 S 32-001	106	115	A14
A16	110000	Intermittent	660	3.3Hz (150ms On/150ms Off)	Swedish (Air raid)	106	114	A14
A17	101111	Intermittent	660	0.28Hz (1.8s On/1.8s Off)	Swedish (Local warning)	106	115	A14
A18	101110	Intermittent	660	0.05Hz (6.5s On/13s Off)	Swedish (Pre-mess)	106	115	A14
A19	101101	Continuous	660	Steady	Swedish (All clear)	107	116	A1
A20	101100	Alternating	554 & 440	0.5Hz (1s On/1s Off)	Swedish (Turn out)	106	115	A19
A21	101011	Intermittent	660	1HZ (500ms-500ms)	Swedish	106	115	A4
A22	101010	Intermittent	2850	4Hz (150ms On/100ms Off)		105	110	A4
A23	101001	Sweep	800 to 970	50Hz		109	117	A14
A24	101000	Sweep	2400 to 2850	50Hz		106	110	A4
A25	100111	Intermittent	970	3X500ms pulses followed by 1.5s silence then repeat	ISO 8201/US Temporal	109	118	A14
A26	100110	Intermittent	2850	3X500ms pulses followed by 1.5s silence then repeat	ISO 8201/US Temporal	107	112	A4
A27	100101	Continuous	4000	Steady		101	105	A6
A28	100100	Alternating	800 & 970	2Hz (250ms-250ms)		109	118	A14
A29	100011	Alternating	990 & 650	2Hz (250ms-250ms)(Symphoni tones)		109	117	A14
A30	100010	Alternating	510 & 610	2Hz (250ms-250ms)(Squashni Micro tones)		107	116	A14
A31	100001	Sweep	300 to 1200	1Hz		110	118	A14
A32	100000	Continuous	Bell	Steady	See attached for waveform details	111	117	A3
A33	011111	Continuous	Bell	3X500ms pulses followed by 1.5s silence then repeat	Bell/US Temporal	111	117	A14
A34	011110	Alternating	1000 & 2000	1Hz (500ms-500ms)	Singapore	107	115	A4
A35	011101	Intermittent	420	pulsed @ 0.625s	Australian alert	108	118	A14
A36	011100	Sweep	500 to 1200	Sweep 3.75s followed by 0.25s gap	Australian evac	109	117	A14
A37	011011	Sweep	1400 to 1600	Sweep up 1s, sweep down 0.5s	NF C 48-265	108	116	A14
A38	011010	Sweep	500 to 1200	Sweep up & down over 3s	Siren	109	117	A14
A39	011001	Intermittent	720	0.7s On, 0.3 Off	German ind alarm	110	118	A14
A40	011000	Sweep	422 to 775	Sweep for 0.85s, 1s delay, repeat	NFPA Whoop	109	118	A14
A41	010111	Continuous	470	Steady	Horn (USA)	104	114	A3
A42	010110	Continuous	370	Steady	Air Horn (USA)	104	113	A3