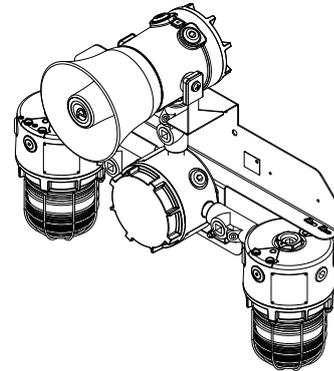
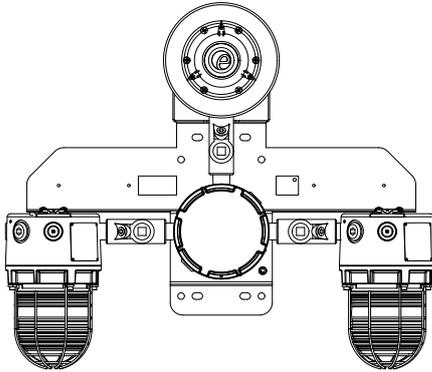


INSTRUCTION MANUAL

D1xC4 Alarm Bar

Dual Beacons & Alarm Horn with Junction Box



1) Warnings

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

2) Rating & Marking Information

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

All individual unit ratings must be suitable for the installation.

3) Type Approval Standards

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

4) Installation Requirements

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

5) Special Conditions of Use

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

6) Part Coding

Part Code:	Identifier - Description
Product Type	D1xC4
Junction Box	J2 = Junction Box
Beacon Type (Add Code for each Beacon in stack)	1Y = D1xB2X05 2Y = D1xB2X10 3Y = D1xB2X15 4Y = D1xB2X21 5Y = D1xB2LD2 Where Y = Lens Colour, choose from: A = Amber, B = Blue, C = Clear, G = Green, M = Magenta, R = Red, Y = Yellow
Sounder Type	S1F = D1xS1 Flare Sounder S1R = D1xS1 Radial Sounder S2F = D1xS2 Flare Sounder S2H = D1xS2H Flare Horn Alarm Sounder
Voltage	DC024 = 24Vdc AC115 = 115-120Vac 50/60Hz AC230 = 220-230Vac 50/60Hz
Cable Entries [e]	A = 1 x M20x1.5mm (Adaptor) B = 1 x 1/2" NPT (Adaptor) C = 1 x 3/4" NPT D = 1 x M25x1.5mm (Adaptor)
Stopping Plug / Adaptor Material [m]	B = Brass N = Nickel Plated S = Stainless Steel
Guard / Tag Material [s]	1 = 316 St. Steel Guard & 316 Tag 3 = 316 St. Steel Guard, 316 Tag & Duty Labels 5 = 316 St. Steel Guard, 316 Tag & Duty Labels attached with steel wire
Product Version [v]	A = IECEx/ ATEX/ SIL2/ UL/ cUL Class I Zone 1 C = UL/ cUL Class Div 1 T = Relay Initiation ATEX / IECEx
Production Option [o]	1 = Standard W = Special Wiring X = Custom configuration
Assembly Colour [x]	R = Red, G = Grey Other colours also possible, contact E2S sales

Component Part Code Reference	Component Description	Document Number
D1XJ2	Junction Box	D191-00-501-IS
D1XB2X05	5J Xenon Strobe Beacon	D191-00-201-IS
D1XB2X10	10J Xenon Strobe Beacon	
D1XB2X15	15J Xenon Strobe Beacon	
D1XB2X21	21J Xenon Strobe Beacon	
D1XB2LD2	LED Beacon	D191-00-401-IS
D1XS1	Alarm Horn Sounder	D190-00-001-IS
D1XS2	Alarm Horn Sounder	D190-00-101-IS

Table 1: Product Instruction Manual Reference

7) Location and Mounting

The location of the Alarm Bar should be made with due regard to the area over which the warning signal must be visible/audible. They should only be fixed to poles that can bear the weight of the unit.

The Alarm Bar should be secured to a pole using supplied Pole Mounting Kit (Pole sizes up to 4" NPS).

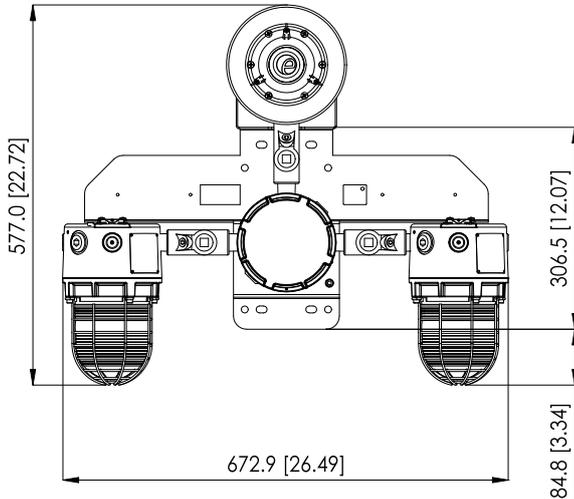


Fig.1a: Dimensions of D1xC4

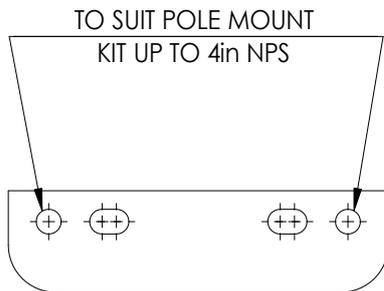


Fig. 1b: Pole mount Positions

To mount the unit to poles up to size NPS 4", the pole mount kit should be used in positions shown in Fig. 1b. The unit should be mounted using all supplied clamps as shown in Fig. 1c.

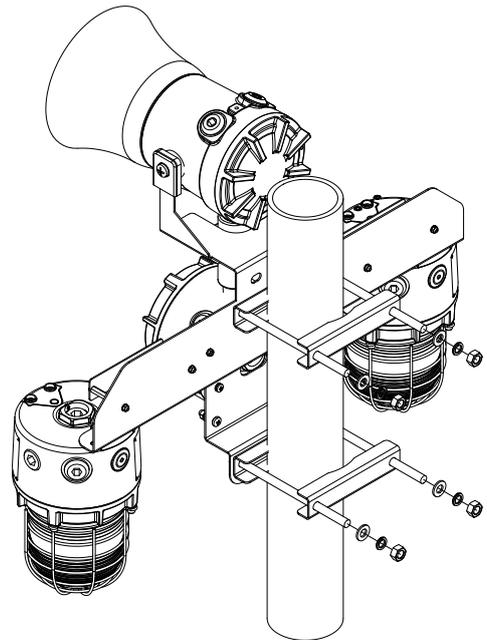


Fig. 1c: Pole Mount Kit Assembly

8) Access to the Enclosure



Warning – High voltage may be present, risk of electric shock. DO NOT open when energised, disconnect power before opening.



Warning – Hot surfaces. External surfaces and internal components may be hot after operation, take care when handling the equipment.

In order to connect the electrical supply cables, it is necessary to open the explosion proof enclosure. Loosen the locking grub screw in the cover and then remove the junction box cover to gain access to the chamber. This can be achieved by unscrewing the junction box cover, taking extreme care not to damage the threads when doing so.

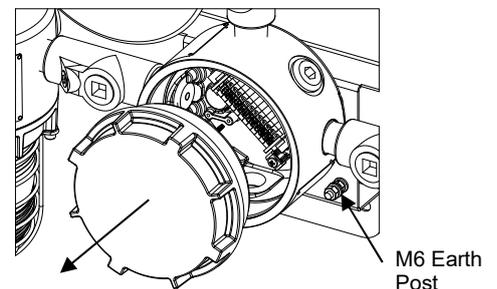


Fig. 2: Accessing the Junction Box

9) Power Supply Selection

For Voltage ranges of complete units, take the highest Minimum value and lowest Maximum value in the ranges of the component units. For Current and Max Current ratings of complete units, add the ratings from the component units.

E.g. D1xC4 J1 2A 2R S1F AC115....:

Unit Type	D1xB2X10	D1xB2X10	D1xS1	D1xC4 Total
Voltage Range	110-120Vac 50/60Hz	110-120Vac 50/60Hz	110 - 240Vac 50/60Hz	110-120Vac 50/60Hz
Current	220mA	220mA	77mA	517mA
Max Current	300mA	300mA	82mA	682mA

Please see individual product instruction manual for Voltage Range, Current and Max Current values.

10) Selection of Cable, Cable Glands, Blanking Elements & Adapters

Please see individual product instruction manual.

The D1xC4 Alarm Bar can be supplied with the following types of adaptors:

- 3/4" NPT to M20x1.5mm
- 3/4" NPT to 1/2" NPT
- 3/4" NPT to M25x1.5mm

NOTE: Stopping plugs cannot be fitted in adaptors.

11) Earthing

The Stack is provided with an M6 earth screw on the mounting plate. Earthing connections should be made to the M6 earth screw, using a ring crimp terminal to secure the earth conductor.

Please see individual product instruction manual for details of earthing each beacon.

12) Cable Connections

Electrical connections are to be made into the DIN terminals in the junction box. See section 8 of this manual for access to the enclosure. See also individual manuals for detail on wiring into PCBA terminals.

Wires having a cross sectional area between 0.5 mm² to 2.5mm² can be connected to each terminal way. Strip wires to 8mm. Wires may also be fitted using ferrules. Terminal screws need to be tightened down with a tightening torque of 0.45 Nm / 5 Lb-in. When connecting wires to the terminals great care should be taken to dress the wires so that when the cover is inserted into the chamber the wires do not exert excess pressure on the terminal blocks. This is particularly important when using cables with large cross-sectional areas such as 2.5mm².

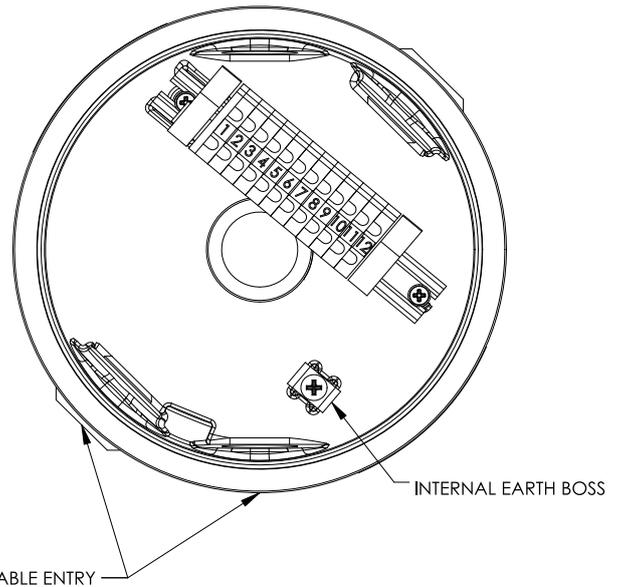


Fig. 4: Junction Box Internal Detail and DIN Terminals

13) Wiring

For wiring diagrams, see schematic document D225-06-001

Note:

For units with part code where Product Option = X or W, please see special wiring schematic supplied with the unit documentation.

14) Interchangeable & Spare Parts

The Beacon lens cover is interchangeable, contact E2S Ltd for a replacement lens cover available in various colours.

To change the lens cover, unscrew the 4-off M5 socket head screws, spring and flat washers using a 4mm Hex key. Remove the wire guard and replace the old lens cover with the new lens cover.

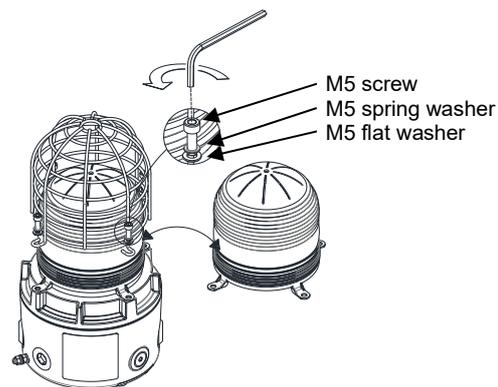


Fig. 5: Replacement of beacon lens cover

Fit the wire guard back onto the housing, over the new lens cover aligning the fixing holes of the guard, lens cover and housing. Refit the fixings to hold into place, the fixings MUST be fitted in the order shown above.

15) Maintenance, Overhaul and Repair

Please see individual product instruction manual. See Table 1 for Instruction Manual Document Number.

16) SIL Approval

Beacons and Sounders have been assessed for Reliability and Functional safety under IEC/EN61508 and are considered suitable for use in low demand safety functions:

1. Random Hardware Failures and Architectural constraints (route 2_H).
2. As an unvoted item (i.e. hardware fault tolerance of 0) at SIL 2.

Please see individual product instruction manual in Table 1 for information on reliability data.

17) Telephone/ Relay Module Configuration

For plated stacks with Product Version T, the beacons and sounder can be powered using the relay board. This can be configured to be either relay operated (DC) or initiated by a telephone signal.

See Document D225-06-701 for full details.

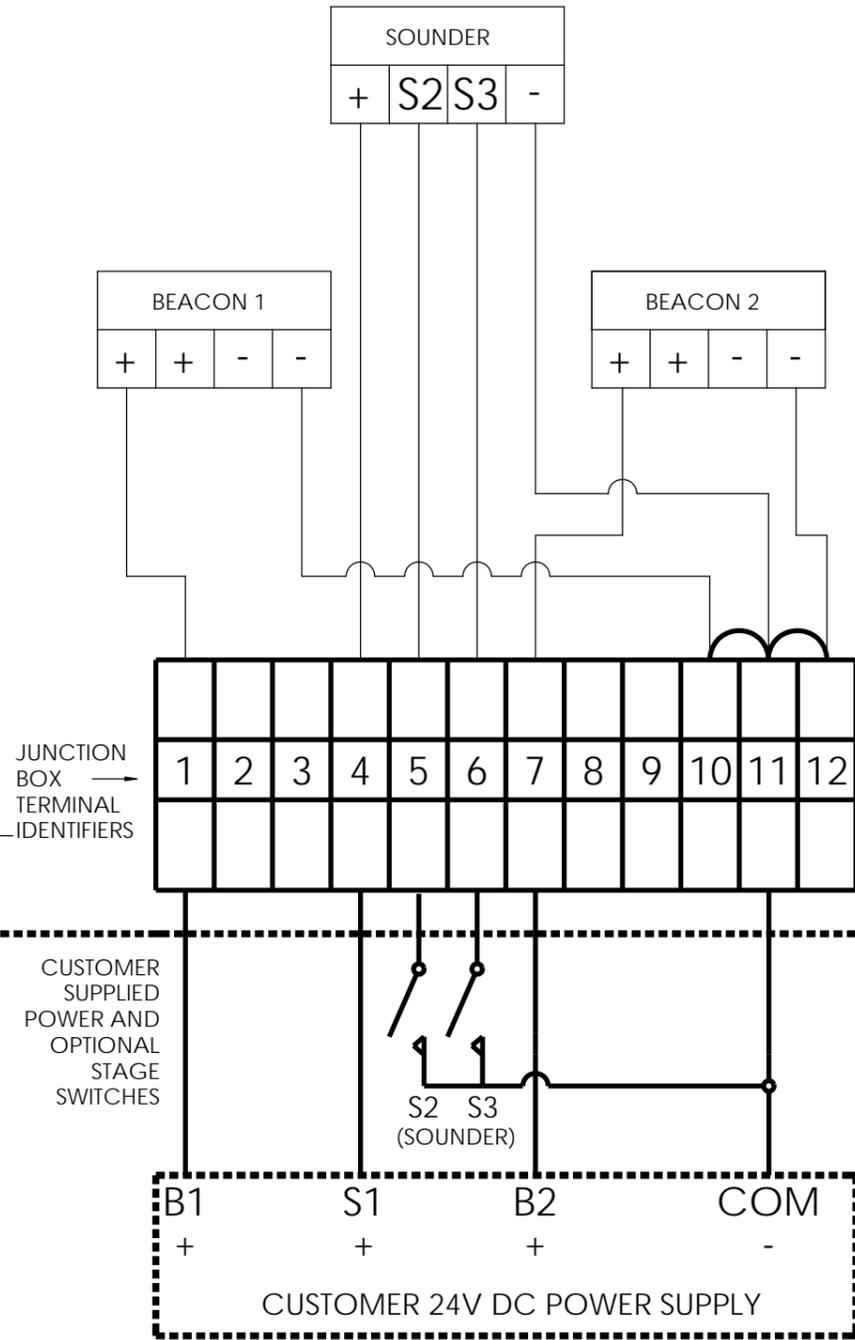
E2S PART NO.
D1xC4[J1][XX][XX][XXX]

DESCRIPTION
D1xC4 ALARM BAR

DATA REFERENCE
1-26-090

ISSUE	MOD No.	REASON - INITIAL - DATE
1		Introduction DAH 19/09/2019
2		Sounder Common Terminal 3 Added to AC DAH 24/09/2021

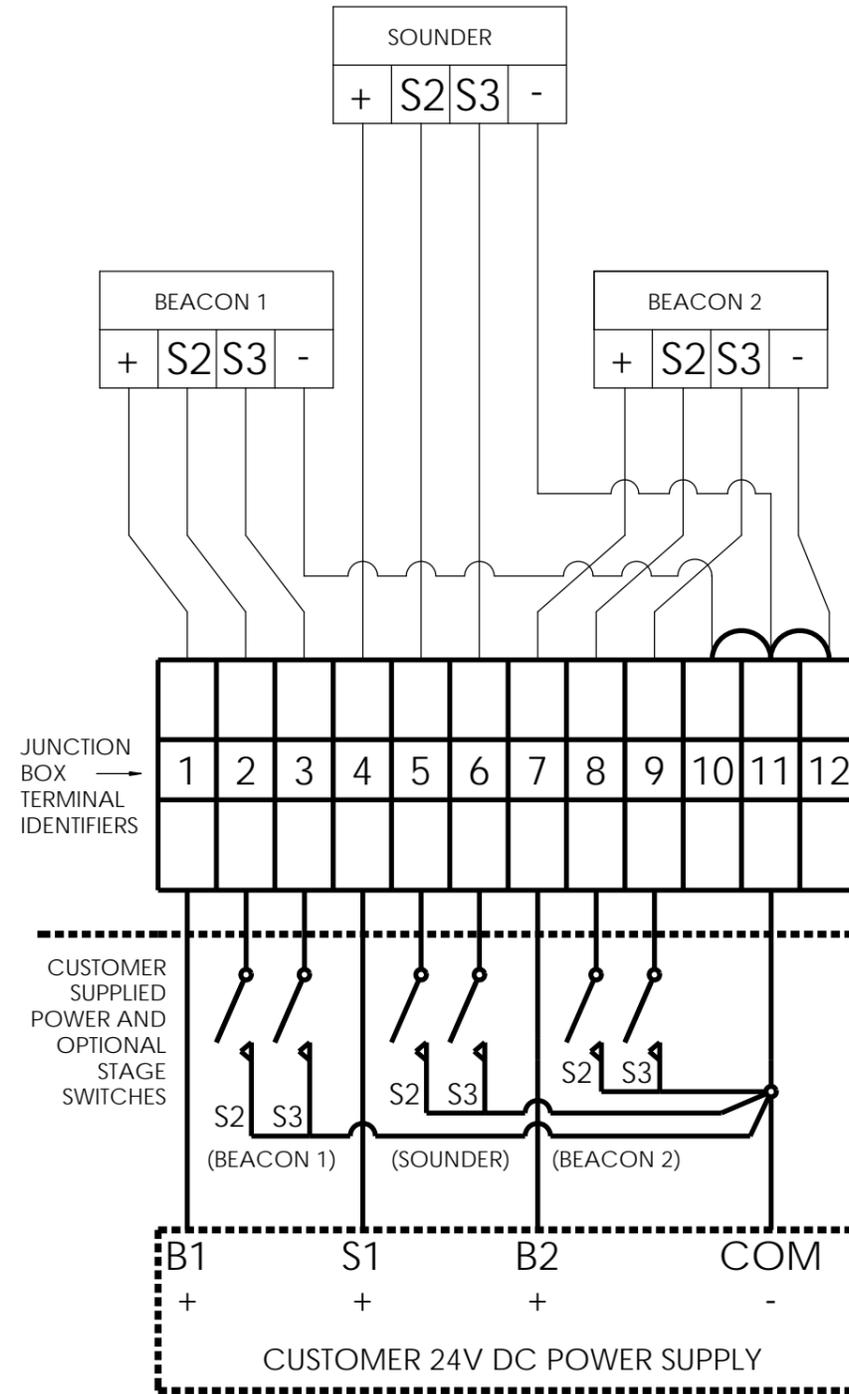
ALARM BAR WITH DC XENON BEACONS



Legend			
Abbreviation	Description	Terminal	
B1	BEACON 1 POSITIVE	1	
+			
S1	SOUNDER POSITIVE	4	
+			
Optional	S2	SOUNDER STAGE 2 SWITCH	5
	S3	SOUNDER STAGE 3 SWITCH	6
B2	BEACON 2 POSITIVE	7	
+			
COM	COMMON NEGATIVE	10, 11 OR 12	
-			

Note:
All switches shown
to be supplied by
customer

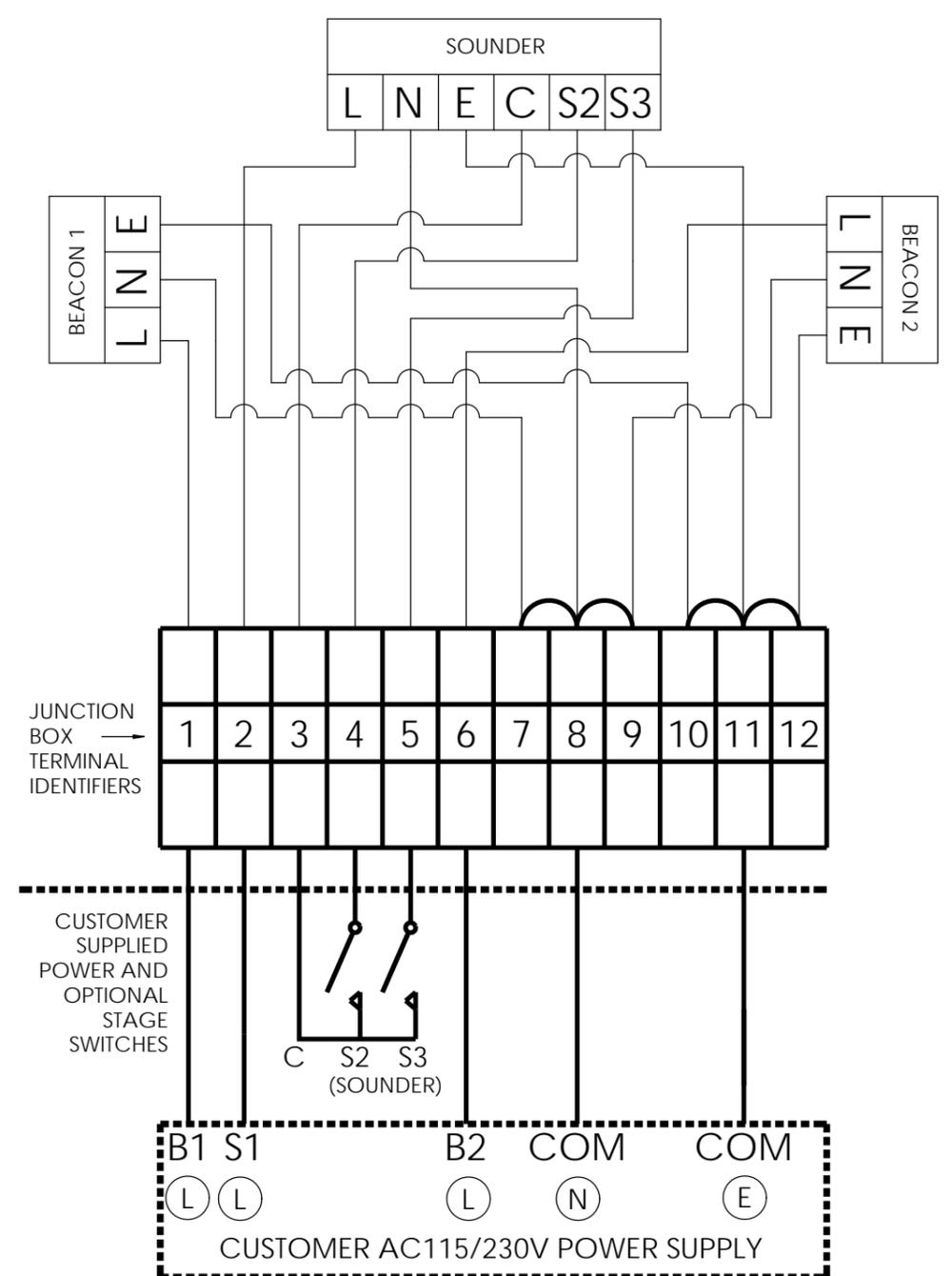
ALARM BAR WITH DC LED BEACONS



Legend			
Abbreviation	Description	Terminal	
B1	BEACON 1 POSITIVE	1	
+			
Optional	S2	BEACON 1 STAGE 2 SWITCH	2
	S3	BEACON 1 STAGE 3 SWITCH	3
S1	SOUNDER POSITIVE	4	
+			
Optional	S2	SOUNDER STAGE 2 SWITCH	5
	S3	SOUNDER STAGE 3 SWITCH	6
B2	BEACON 2 POSITIVE	7	
+			
Optional	S2	BEACON 2 STAGE 2 SWITCH	8
	S3	BEACON 2 STAGE 3 SWITCH	9
COM	COMMON NEGATIVE	10, 11 OR 12	
-			

Note:
All switches shown
to be supplied by
customer

ALARM BAR WITH AC SUPPLY (ALL BEACON TYPES)



Legend			
Abbreviation	Description	Terminal	
B1	BEACON 1 LIVE	1	
(L)			
S1	SOUNDER LIVE	2	
(L)			
Optional	C	COMMON	3
	S2	SOUNDER STAGE 2 SWITCH	4
	S3	SOUNDER STAGE 3 SWITCH	5
B2	BEACON 2 LIVE	6	
(L)			
COM	COMMON NEUTRAL	7, 8 OR 9	
(N)			
COM	COMMON EARTH	10, 11 OR 12	
(E)			

Note:
All switches shown
to be supplied by
customer