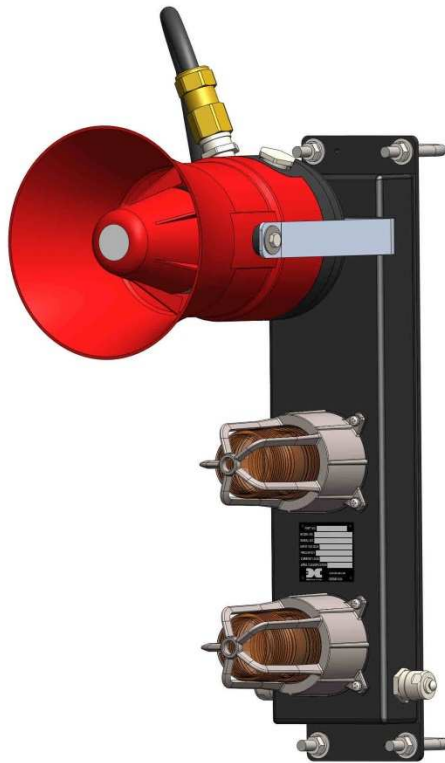




C1D2 Dual Alarm Bar

2 Strobe with Horn Alarm Station



Operator's Installation and Instruction Manual

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1.0 Description

The Detcon Dual Alarm Bar audiovisual alarm stations are designed for installation and use in industrial environments. The alarm station consists of a strobe and siren. The strobe can consist of any dome color such as amber, blue, clear, green, Purple and Red. The siren is capable of producing coded blasts or sustained tones. The Dual Alarm Bar alarm assemblies are specifically designed for locations or environments where a very bright visual and high decibel alarm signal is required. The high-intensity strobe light provides 60-80 flashes per minute. The siren produces a noise level of 105db(A) @ 10 feet. The Horn and Strobes are UL listed and CSA Certified and meet NEMA 4X watertight, dust-tight requirements. Alarm components are pre-assembled on a NEMA 4 enclosure that is designed for C1D2 Groups B, C, and D locations.

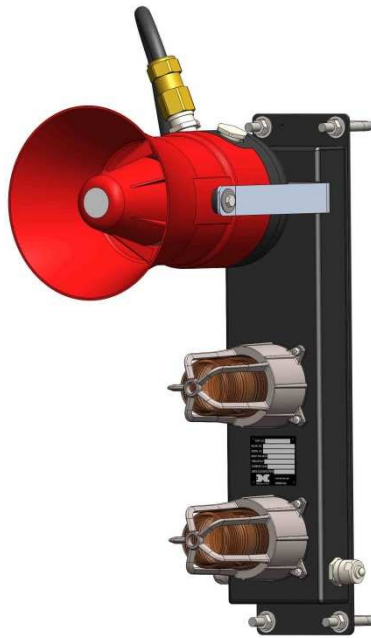


Figure 1 Unit

The alarm station is pre-wired to control circuit alarm devices for the purpose of warning personnel of hazardous conditions. When used in conjunction with Detcon Sentinel or other Detcon Controllers, the alarm station is typically used to provide an alarm 1 (strobe1), alarm2 (strobe2), and alarm 3 (horn) for predetermined hazardous environmental gas levels (toxic or flammable) as indicated by remote mount gas sensors.

1.1 Strobe

The alarm station strobe is configured with choice of dome colors such as amber, blue, clear, green, magenta, or red. The strobes are rated NEMA4x for C1D2 Groups A, B, C, and D locations, and utilize a Strobe Guard, and gasket to complete the NEMA4 rating. The strobes produce 1.9 joules per flash while drawing relatively low current and have a flash rate of 60~80 per second.



Figure 2 Strobe

1.2 Horn

This range of light weight all GRP, flameproof sounders is intended for use in potentially explosive gas and dust atmospheres and has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries. The Horn is rated for Class I, Zone 1. The Horn has the ability to produce up to 125db(A) output dependent upon the tone settings (refer to the Sound Signals Table).



Figure 3 Horn

2.0 Installation



NOTE: DO NOT handle the unit by the cable. The cable is not meant to be used as a handle, and damage may occur to the unit if the cable is used to carry the unit.

The unit comes with U-Bolt hardware provided for mounting on 2~3 inch poles. Mount on pole at appropriate height, and ensure hardware is tightened down so that the unit is not capable of moving. There are two possible cables that may be connected to the unit. Connect the cable provided to the Control Unit and to the Alarm Bar. This cable can only be connected one way. No other customer wiring is necessary.

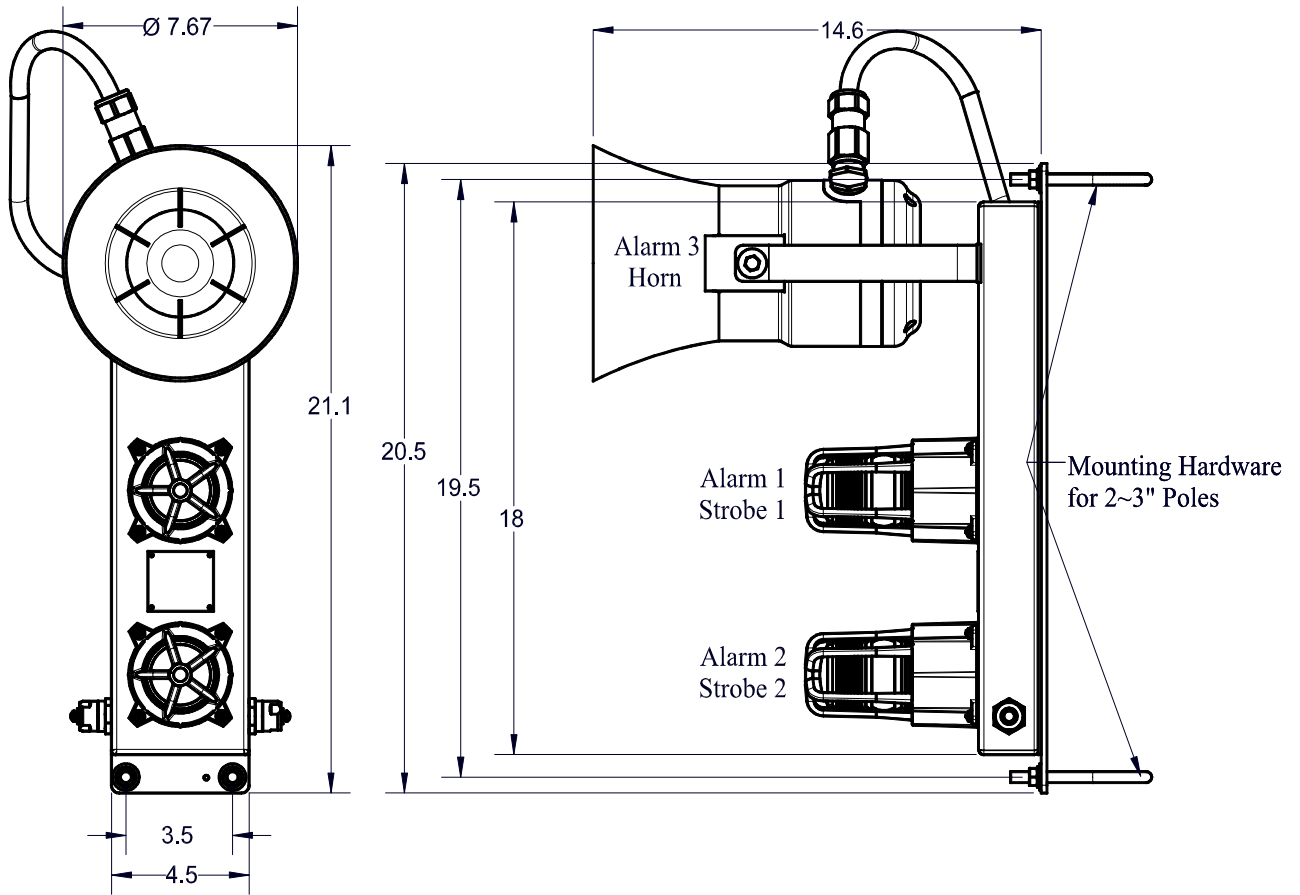


Figure 4 Alarm Station Dimensions

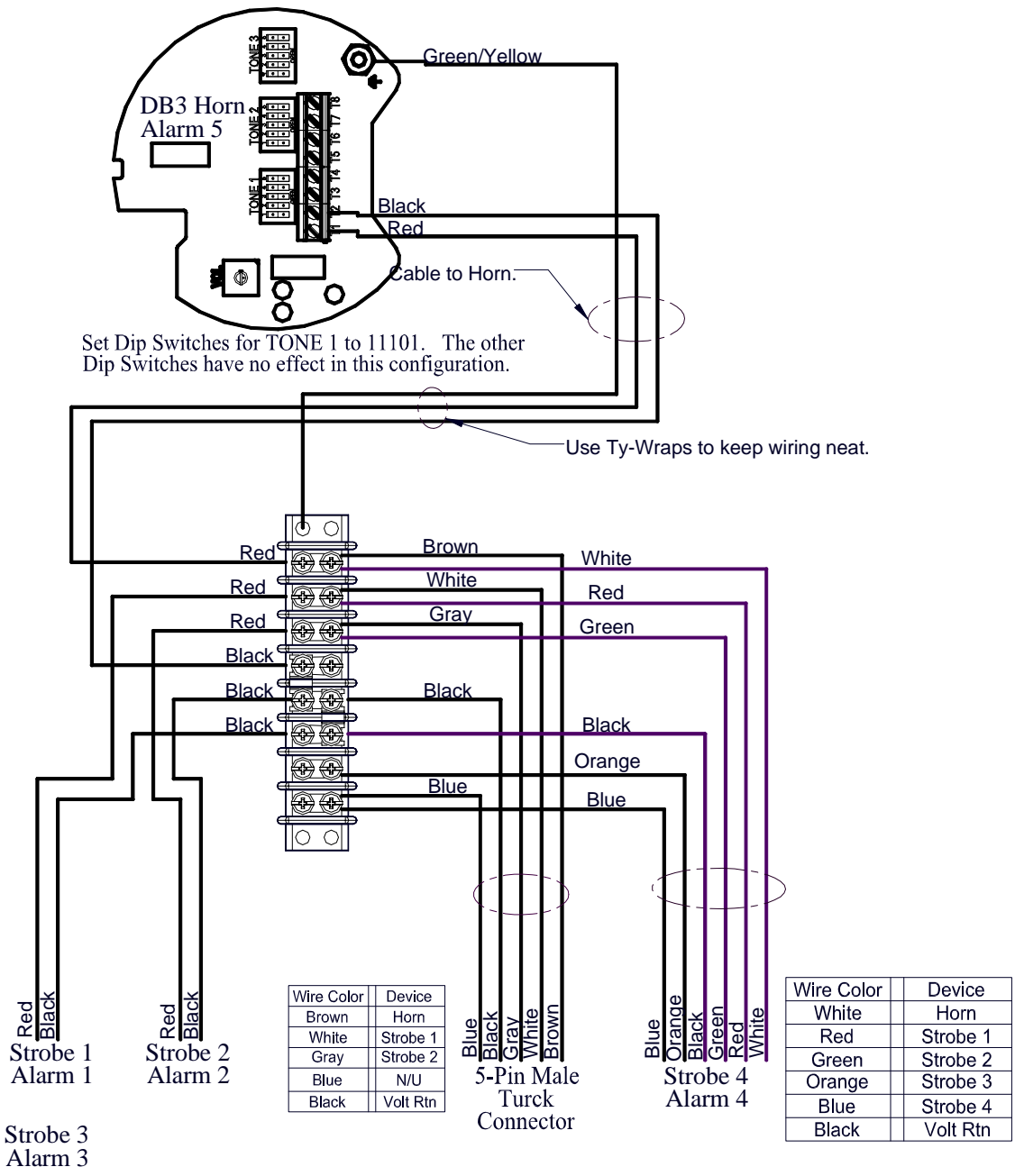


Figure 5 Wiring Diagram

3.0 Operation

The Quad Alarm Bar provides four strobes and an alarm horn. The wireless alarm station is set to respond to alarms from the controlling unit. The controller has independent control over the strobes and the Horns, and they will be activated when the appropriate alarm is activated.

The horn has up to 32 possible settings, for use in different configurations. The default settings of the horn are factory set. The default setting for the horn is 3 (11101). To change the setting of the horn, remove the rear cover of the horn, and set the dip switches (TONE 1) according to the Sound Signals Table. TONE 1 has a 5 position dip switch used to set the horn sound signal.

Table 1 Sound Signals

	Switch Setting	Tone	Tone Description
1	11111	Alt Tones 800/970 Hz at 1/4 sec	
2	11110	Sweeping 800/970 Hz at 7Hz	Fast Sweep(LF)
3	11101	Sweeping 800/1000 Hz at 1 Hz	Med Sweep(LF)
4	11100	Continuous at 2850 Hz	
5	11011	Sweeping 2400-2850 Hz at 7 Hz	Fast Sweep
6	11010	Sweeping 2400-2850 Hz at 1 Hz	
7	11001	Slow Whoop	Slow Whoop
8	11000	Sweep 1200-500 Hz at 1 Hz	Din Tone
9	10111	Int. Tone of 970 Hz at 1 Hz	
10	10110	Swept 500 Hz 770 Hz in 0.5 second.	Back-Up Alarm(LF)
11	10101	Alt. Tones 800/970 Hz at 7/8 Hz	
12	10100	Int. Tone at 2850 Hz at 1Hz	Back Up Alarm(HF)
13	10011	970Hz at 1/4 sec on 1 sec off	
14	10010	Continuous at 970 Hz	
15	10001	554Hz for 100ms / 440 Hz for 400ms	French Fire Sound
16	10000	Int. 660 Hz 150 ms on 150 ms off	Swedish Fire Alarm
17	01111	Int. 660 Hz 1.8 sec on 1.8 sec off	Swedish Fire Alarm
18	01110	Int. 660 Hz 6.5 sec on 13 sec off	Swedish Fire Alarm
19	01101	Continuous 660 Hz	Swedish Fire Alarm
20	01100	Alt 554/440 Hz at 1 Hz	Swedish Fire Alarm
21	01011	Int. 660 Hz at 7/8 Hz	Swedish Fire Alarm
22	01010	Int. 2850 Hz 150 ms on 100 ms off	Pelican Crossing
23	01001	Sweep 800-970 Hz at 50 Hz	Low Freq Buzz
24	01000	Sweep 2400-2850 Hz at 50 Hz	High Freq Buzz
25	00111	3 970Hz pulses 0.5on/0.5off, 1.5 off	
26	00110	3 2850Hz pulses 0.5on/0.5off, 1.5 off	
27	00101	Int. 3100 Hz 0.32s on / 0.68s off	
28	00100	Spare/Customer Tone	
29	00011	Spare/Customer Tone	
30	00010	Spare/Customer Tone	
31	00001	Spare/Customer Tone	
32	00000	Spare/Customer Tone	

4.0 Specifications

Dual Alarm Bar

Voltage:	12VDC
Current :	1.5A Max
Mount:	Wall Mount or 2~3" Pipe Mount
Environment Rating:	Designed to meet NEMA 4 specifications
Area Classification:	Designed for use in C1D2 Groups B, C, D locations
Ambient Temperature Range:	-40°C to 65°C
Dimensions:	21"H X 7.67"W X 14.6"D
Weight:	18lbs approx.
Dome Colors:	Amber, Blue, Clear, Green, Purple and Red
Light Source/Lamp Style:	Xenon Strobe Lamp
Lamp Life:	7,000 Hours
Candle Power:	50 effective candlepower (EFC)
Flash Rate/Minute:	60-80
Joules per Flash:	1.9
Sound Output:	Up to 125dB(A) @ 1 meter (Tone dependent)

5.0 Spare Parts List

354-4900x6-024	12-80VDC Strobe (x represents color of lamp) Strobe colors: Red (2), Amber (4), Green (5), Blue (6), Magenta (7), and Clear (9)
356-DB3007-024	MEDC DB3 Horn – 12-48VDC
980-RSRK63-xxM	Turck 6 conductor cable (for Quad and Dual Alarm Bar) Where xxM= length: 02M=2meter, 10M=10meter, 15M=15meter
980-RSMRKM-xxM	Turck 5 Conductor cable (Specifically for the Dual Alarm Bar) Where xxM= length: 02M=2meter, 10M=10meter, 15M=15meter

6.0 Warranty

Detcon Inc., as manufacturer, warrants under intended normal use each new Quad Alarm Bar NEMA 4X alarm stations to be free from defects in material and workmanship for a period of one year. The warranty period begins from the date of shipment to the original purchaser and ends one year thereafter. All warranties and service policies are FOB the Detcon Inc. facility located in The Woodlands, Texas.

7.0 Revision Log

Revision	Date	Changes made	Approval
0.0	02/04/15	Initial Release	LU
1.0	08/04/15	Redesign for DB3B Horn	LU

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