



DETCON MODEL AV2-C1D2C

Hazardous Duty Class I. Div 2, Continuous Tone Alarm Station



Operator's Installation and Instruction Manual

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1.0 Description

Detcon Model AV2-C1D2C audiovisual alarm stations are designed for installation and use in hazardous duty, corrosive work environments. The alarm station consists of two warning lights and a siren.

The station can be wired to control circuit alarm devices for the purpose of warning personnel of hazardous conditions. When used in conjunction with Detcon controllers, the alarm station is typically used to provide a low alarm (strobe) and high alarm (horn) for pre-determined hazardous environmental gas levels (toxic or flammable) as indicated by remote mount sensors.

1.1 Strobe

The alarm station warning lights are configured with any combination of dome colors such as amber, blue, clear, green, magenta, or red. Dome guards are included. The rugged warning light is specifically designed for hazardous locations or corrosive environments where a very bright visual signal is required.

Hazardous location strobes are available in voltage ratings of 120VAC or 240VAC. The strobe light provides 80 high-intensity flashes per minute. UL listed and CSA certified for Class I, Division 2, Groups A, B, C and D; Class II, Division I, Groups E, F, and G; and Class III.

The light meets Type 4X watertight, dust-tight, and corrosion resistant requirements; constructed to IP66. It has an aluminum base coated for corrosion-resistance. The dome guard fits over the plastic dome to protect it against accidental collision with moving equipment.



Figure 1 Strobe

Specifications

Voltage	12-24VDC, 120VAC 50/60HZ, 240VAC 50/60HZ (see specifications label for voltage rating)
Mount	3/4" Pipe
Operating Current	0.60 Amps at 24VDC; 0.32 Amps at 120VAC, 0.16 Amps at 240VAC
Dome Colors	Amber / Blue / Clear / Green / Magenta / Red
Dome Guard	Included
Operating Temperature Minimum	-31°F
Operating Temperature Maximum	150°F
Flash Rate/Minute	80
Effective Candle Power	165

Enclosure Rating	Type 4X, IP66
Height	8.75in
Diameter	5.5in.

1.2 Horn

The alarm station vibratone® horn produces a noise level of a 100dB of sound by the electromechanical vibration of a stainless steel diaphragm. The horn mechanism with diaphragm is attached to the grill and has an effective broadcast range of 200 feet. The rugged water and dust tight backbox is ideal for indoor and outdoor use.

The horn is capable of producing coded blasts or sustained tones, and is excellent for general alarm, start/dismissal, coded paging and process control signaling in areas where their sound output exceeds ambient noise levels.

The hazardous location warning horn is available in voltage ratings of 120VAC or 240VAC-50/60Hz. and accommodates surface, flush or semi-flush mounting on walls, panels, or in cabinets. The horn uses a compact sized die-cast zinc housing with a corrosion resistant polyurethane finish. The rugged outer grill resists vandalism without reducing sound output. UL listed and CSA certified for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F, and G; and Class III.



Figure 2 Horn

Specifications

Voltage	120VAC 50/60HZ, 240VAC 50/60HZ (see specifications label for voltage rating)
Mount	Surface / Panel
Operating Current	0.18 Amps at 120VAC, 0.09 Amps at 240VAC
Operating Temperature Minimum	-65°F
Operating Temperature Maximum	150°F
Db Output	100db @ 10 feet, 110db @ 1 meter
Duty Cycle	Not rated for continuous duty
Enclosure Rating	Type 4X
Height	5.3in.
Width	5.3in. – 6in. to outside of mounting ears
Depth	3.66in.

2.0 Installation

The assembly is mounted on a T-shaped Aluminum bracket with holes pre-drilled to accommodate (2) U-bolt attachments on a 2.5" maximum diameter pipe. U-bolt size is 3/8-16 x 3 inch. Overall Dimensions are 33"H x 16.5"W x 18.5"D (Figure 3).

The alarm comes pre-wired for the voltage ordered from the factory (110 or 220VAC). Wiring is installed through the opening at bottom of junction box. Connect wiring in accordance with the wiring diagram shown in Figure 4. To determine the proper voltage of the strobe and siren, refer to the specifications label on the alarm system enclosure. Use only 12 to 18 AWG wire for power connections. Strip no more than 0.25-inch of insulation from the ends of the power leads. Ground can be connected either to the Condulet Ground Screw or to the Plug on the terminal board. Optionally, each annunciator can be powered independently by removing the jumper between terminal points 5, 6, and 7, and wiring directly to the return path of the annunciator.

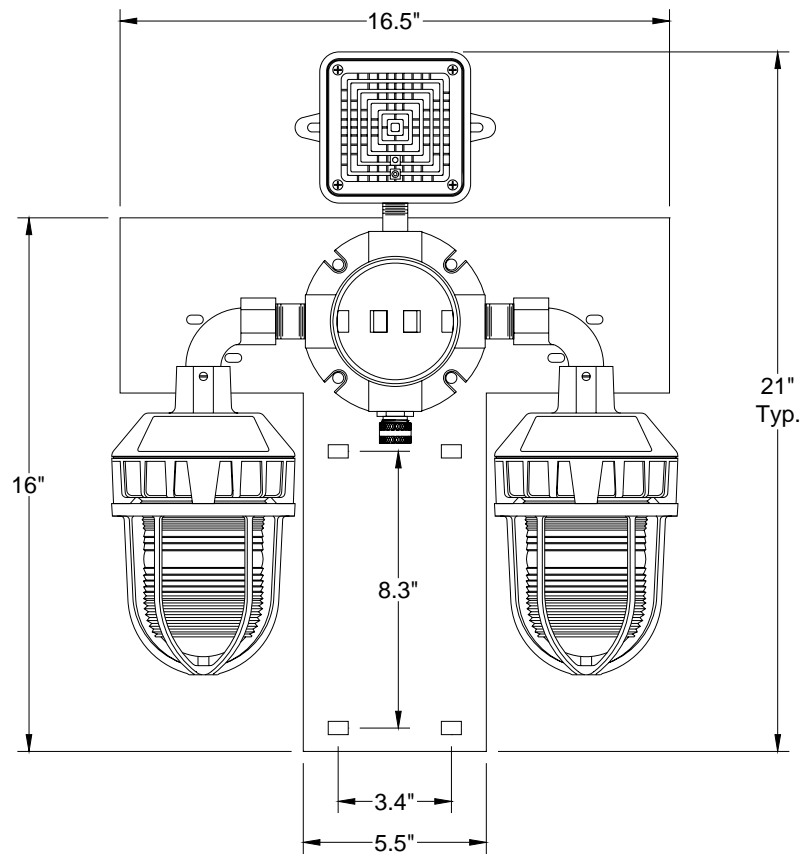


Figure 3 Dimensional

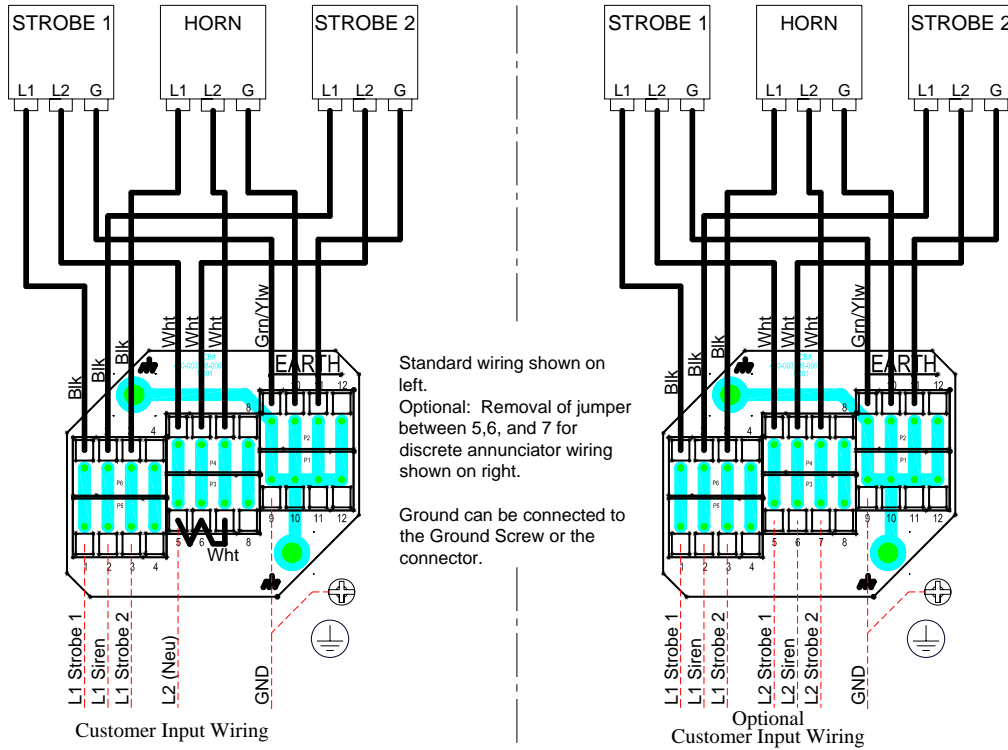


Figure 4 120/240VAC Wiring diagram

3.0 Parts List

Detcon Part #	Description
500-003198-000	Alarm System Terminal Board
356-35W006-120	120 VAC Hazardous location vibrating siren
356-35W006-240	240 VAC Hazardous location vibrating siren
354-1516X6-120	151XST – 120VAC Strobe, Ext Ground (X represents color of lamp)
354-1516X6-240	151XST – 240VAC Strobe, Ext Ground (X represents color of lamp)
	Strobe colors: Red (2), Amber (4), Green (5), Blue (6), Magenta (7), and Clear (9)

4.0 Warranty

Detcon Inc., as manufacturer, warrants under intended normal use each new AV2-C1D2M Alarm station 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.