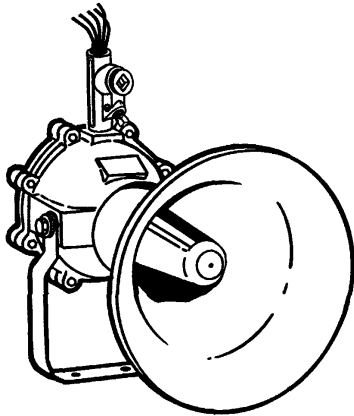


5545M Series Adaptatone Signal Installation Sheet



Description

The 5545M Series Adaptatone Signals are intended for industrial applications where high audible output, safety in a hazardous location, and microcomputer reliability are required.

The 5545M Series speaker-amplifiers are heavy-duty signaling appliances intended primarily for industrial signaling applications. Each unit operates from local power and sounds a tone determined by the programming of a model 5540M Central Tone Generator or other audio source.

Speaker direction and output level are easily adjustable.

The 5545M Series is UL and cUL listed for use in the hazardous locations shown in Table 2.

This equipment is suitable for use in Class I, Division 1, Groups B, C, and D; Class I, Division 2, Groups A, B, C, and D hazardous locations for General Signaling Service.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations, and in a manner that is acceptable to the local authority having jurisdiction.

When the device is used in general signaling applications, you must install it in accordance with these instructions, and with the applicable requirements of NFPA 70 in the US or CSA C22.1 in Canada.

When the device is used in Division 2 applications, you must install it in accordance with the NFPA 70 Article 501-4b.

WARNINGS

- Explosion hazard. Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Explosion hazard. Substitution of any components may impair suitability for Class I, Division 2.
- Explosion hazard. Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- To prevent fire, shock and component damage, no work, including circuit board removal, should be performed while the circuit is energized.
- Keep the mating surfaces of the housing clean and undamaged to maintain the integrity of the hazardous location construction.
- Do not apply power to the unit until installation is completed and housing cover and outlet box cover are secured.
- To prevent fire and shock, do not connect power to the TS1 terminals.

Caution: During installation, take care not to damage components on the printed circuit board.

To install the signal:

1. Mount the signal on any solid surface, using its mounting bracket and three bolts (not supplied). See Figure 1 and Figure 2.
2. Open the signal by removing the eight nuts and bolts, and then lifting off the housing cover. Keep mating surfaces of the housing clean for proper reassembly.
3. Wire the signal as follows:

Check the signal label for the proper operating voltage. Install the power and tone wires through a 1/2 in. conduit attached to an outlet box and nipple.

The outlet box, conduit, and nipple must be suitable for the hazardous location application, with 1/2 - 14 NPT threading at the conduit openings. The outlet box, conduit, and nipple are not supplied.

Remove the cover from the outlet box. Feed five numbered signal wires through a 1/2 - 14 NPT nipple (not supplied) into the outlet box. Secure the outlet box to the signal.

Connect the green ground wire to earth ground.

Connect the external wires to the signal wires as shown in Figure 4. Polarity must be observed for DC applications.
4. Secure the outlet box cover.
5. The sound level is set to maximum at the factory. Adjust the volume level, if desired, by turning potentiometer R72 (Figure 2).
6. Adjust the speaker direction by loosening the two nuts and pivoting the speaker to the desired position (Figure 3). Tighten the nuts.
7. Ensure that the mating surfaces are clean and undamaged. Secure the housing cover, aligning the straight edge of the cover with the straight edge of the housing. Torque the nuts evenly in opposing pairs to 140–150 in-lb.
8. Apply power and verify the operability of the signal.

Figure 1: Signal dimensions

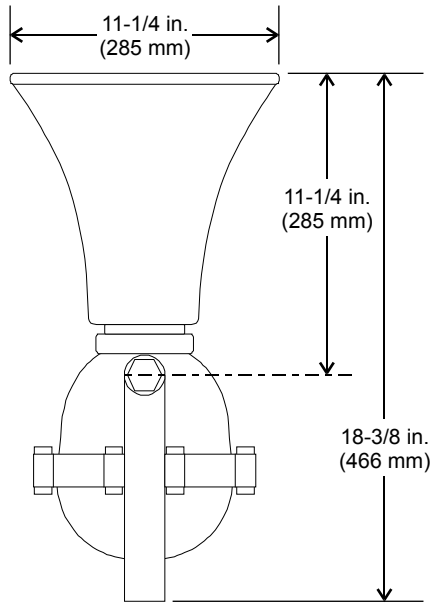
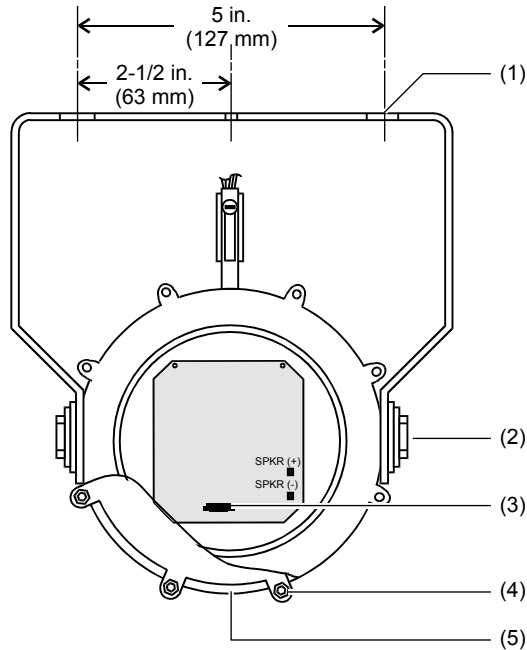
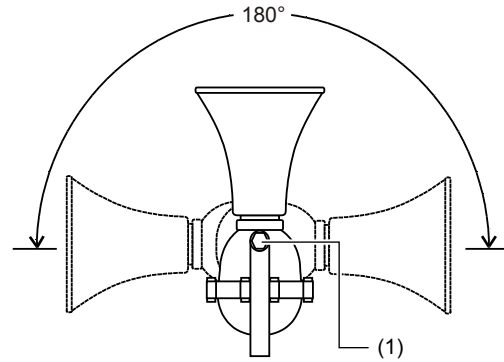


Figure 2: PC board and mounting holes



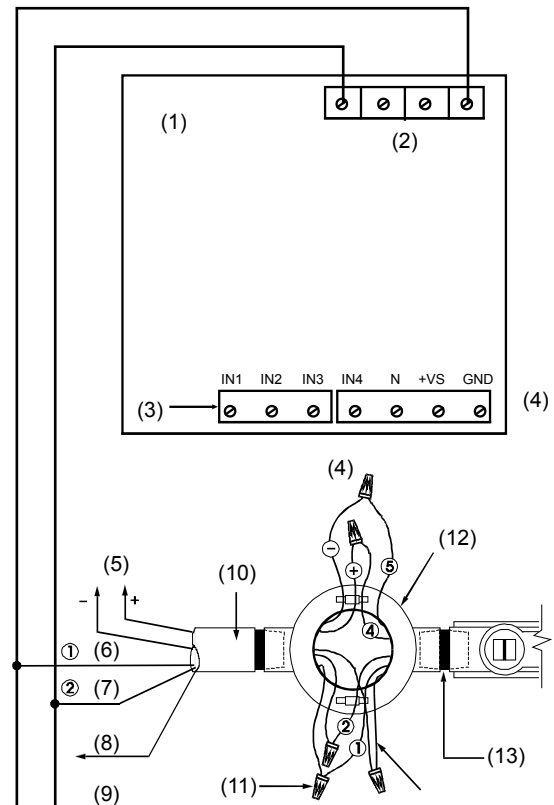
- (1) Mounting holes (3X)
- (2) Speaker adjustment nuts (2X)
- (3) Potentiometer R72 for volume adjustment
- (4) Housing nuts and bolts (8X each)
- (5) Housing cover

Figure 3: Speaker adjustment



- (1) Speaker adjustment nuts (2X)

Figure 4: Wiring diagram



Legend

- (1) 5540M Series Central Tone Generator
- (2) Audio output
- (3) Input board
- (4) Wires 1 and 2 are signal (+) and (-)
Wires 4 and 5 are power (AC or +) and (AC or -)
Green wire is for earth ground
- (5) Power (see Table 1)
- (6) Input (+)
- (7) Input (-)
- (8) To earth ground
- (9) To additional speaker-amplifiers, 2,500 max. per installation
- (10) 1/2 in. conduit (not supplied) attached to outlet box
- (11) Wire nuts (5X, not supplied)
- (12) Conduit outlet box (not supplied) attached to Adaptatone
- (13) 1/2 - 14 NPT nipple (not supplied)

Notes

- For connections to the input board, refer to the instructions provided with the 5540M Central Tone Generator
- The outlet box, conduit, and nipple must be suitable for the hazardous location

Maintenance and testing

WARNING: Do not apply power to the unit until installation is completed and housing cover and outlet box cover are secured.

Examine the unit semi-annually for external accumulation of dirt. Clean if necessary.

The Adaptatone should be tested annually or as required by the local authority having jurisdiction to ensure continuous service.

Specifications

Voltage	See Table 1
Current	See Table 1
Weight	18.4 lb. (8.4 kg)
Variable ambient temp.	32 to 104°F (0 to +40°C)

Table 1: Electrical specifications

Model	Voltage	Current (A) Standby	Tone on
5545M-AQ	24 VDC	0.061	0.250
	24 VAC 50/60 Hz	0.031	0.950
5545M-Y6	125 VDC	0.110	0.130
5545M-25Y6	250 VDC	0.020	0.130
5545M-70Y6	120 VAC 50/60 Hz	0.100	0.260
	240 VAC 50/60 Hz	0.100	0.260

Table 2: Hazardous locations

Model	Hazardous location	Temperature code
5533M-AQ	Class I, Div. 1, Groups B,C, and D	T5 (100°C, 212°F)
5533M-Y6	Class I, Div. 2, Groups A, B, C, D	

Regulatory information

Ratings	ANSI/ISA 12.12.01 CAN/CSA C22.2 No. 30 CAN/CSA C22.2 No. 205 UL 464 UL 1203 UL 1480
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Contact information

For contact information, see www.edwardssignaling.com.

