

Features



Fig 1: TrueAlert Multi-Tone Horns are Available in White with Red Lettering or Red with White Lettering

TrueAlert 24 VDC multi-tone horns provide:

- Per appliance tone selection of: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, or Siren; selected using an on-board DIP Switch (refer to sound output details on [Multi-Tone Horn Specifications](#) on page 3 for details)
- 520 Hz tone is compliant with NFPA 72 Low Frequency Signal Requirements for Sleeping Areas
- Listed for wall **or ceiling** mount applications (blank covers are recommended for ceiling mount applications)
- Operation is selectable for SmartSync two-wire control or free-run operation
- Output level is selectable as high or low
- Diode polarized input for connection to reverse polarity, supervised Notification Appliance Circuits (NACs)
- Electrical test point access without removing cover

SmartSync two-wire control of audible and visible notification appliance provides:

- Control of Horn, Bell, and High/Low tones as Temporal Pattern, March Time pattern, or on continuously, controlled separately from visible appliances on the same circuit
- Control of Slow Whoop, Siren, and Chime tones as synchronized continuous signals when receiving SmartSync continuous commands
- SmartSync March Time pattern is selectable per appliance to produce 60 bpm or 20 bpm
- Visible appliances on the same SmartSync circuit operate at a synchronized 1 Hz flash rate
- Refer to [SmartSync Two-Wire Control](#) on page 1 for SmartSync control list and additional operation information

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters available with FIRE, FEU, FEU/FIRE or blank lettering
- Separate covers are available to change application type on-site or for replacement; covers can be easily removed without disturbing the

connected housing and avoiding trouble conditions

- A separate mounting plate allows wiring to be completed before appliance is mounted; use with single gang, double gang, or 4-inch square box, flush or surface mount
- In/out wiring terminals for 18 AWG to 12 AWG
- Optional mounting adapters are available to cover surface mounted electrical boxes and to adapt to 2975-9145 boxes

Listing reference:

- UL listed to Standard 464
- ULC listed to Standard S525

Description

TrueAlert non-addressable multi-tone horns

provide a flexible selection of output tones for fire alarm audible notification. Tone selection and output level is set per appliance, allowing notification needs to be tailored to specific area requirements (Refer to [Multi-Tone Horn Specifications](#) on page 3 for details).

Local Tone Selection.

DIP Switch selection determines the local tone choice. A separate DIP Switch position allows selection of a standard or a high output sound level, selectable appropriate to the location. See [Multi-Tone Horn Specifications](#) on page 3 for sound output ratings.

Canadian two-stage alarm applications.

A DIP Switch selection per appliance allows the SmartSync March Time pattern input to be produced as 60 bpm or 20 bpm. The 20 bpm rate is typically required for Canadian two-stage alarm applications as the pre-signal, followed by the Temporal Pattern. Two-stage alarm operation requires a 4010ES, 4100ES as the control panel. See the section on tone characteristics for functional limitations by tone type.

Flexible mounting.

Multi-tone horns can be semi-flush or surface mounted on a standard single gang, double gang, or 4" square (102 mm) electrical box. Optional accessories are available to increase mounting and application flexibility.

SmartSync Two-Wire Control

SmartSync operation mode allows a two-wire circuit to provide the ability to activate both the horn and strobe on the same NAC and then allow the horn to be silenced while the strobe remains flashing. The horn operates as "on-until-silenced" while the strobe operation is "on-until-reset."

SmartSync Control Sources

SmartSync two-wire control is available from:

4007ES Hybrid, 4010ES, 4100ES, Fire Alarm Control Panels (refer to individual product data sheets for more information)

4009 IDNet NAC Extenders (refer to data sheet AC4009-0002)

SmartSync Control Module (SCM) Model A4905-9938 (refer to data sheet AC4905-0003)

Product Selection

Table 1: Multi-Tone Horns

SKU	Description
A49CMT-APPLW	Select cover and mounting plate separately

Table 2: Separate Mounting Plate (Required when ordering model A49CMT-APPLW)

SKU	Color	Description
A49CMP-MTWR	Red	Mounting plate, select color to match cover
A49CMP-MTWW	White	
Note: Model numbers ending in -BA, APPLW models, and separate mounting plates are assembled in the USA.		

Table 3: Separate Covers (Required when ordering model A49CMT-APPLW)

SKU	Color	Wording	SKU	Color	Wording
A49CMT-WRFIRE	Red	FIRE	A49CMT-WRS	Red	Logos Only
A49CMT-WWFIRE	White		A49CMT-WWS	White	

Table 4: Mounting Adapters

SKU	Description	Dimensions
A4905-9937	Surface mount red adapter skirt	Use to cover 1-1/2" deep surface mounted boxes 5 3/8" H x 5 1/4" W x 1 5/8" D (136 mm x 133 mm x 41 mm) Total depth with horn = 3 1/8" (79 mm)
A4905-9940	Surface mount white adapter skirt	
A4905-9931	Adapter Plate, red, for mounting to Autocall 2975-9145 box (typically for retrofit, may be mounted vertical or horizontal)	8 5/16" x 5 3/4" x 0.060" Thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red mounting box, requires Adapter Plate A4905-9931	7 7/8" x 5 1/8" x 2 3/4" D (200 mm x 130 mm x 70 mm)

Table 5: Synchronization Control Module

SKU	Description	Dimensions
A4905-9938	SmartSync Control Module, Class A or Class B, installs in 4" square box; for use with control panels not providing SmartSync control	4" x 4 1/8" x 1 1/4" D (102 mm x 105 mm x 32 mm)

Multi-Tone Horn Specifications

Table 6: Electrical specifications

Specification	Rating
Rated Voltage Range	16 VDC to 33 VDC, Special Application
NAC Loading	Maximum of 13, A49CMT Series appliances per NAC
Temperature Range	32° to 122° F (0° to 50° C)
Humidity Range	10% to 93%, non-condensing @ 104° F (40° C)
Connections	Terminal blocks on mounting plate for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²); two wires per terminal for in/out wiring

Table 7: Installation Instructions

Document	Description
Installation Instructions	579-1157AC for A49CMT Series Horn
	579-1159AC for A49CMP Mounting Plates

Table 8: Tone Characteristics

Specification	Rating
520 Hz Horn	520 Hz tone
Broadband Horn	Combination 600/3000 Hz signal
Bell	Synthesized Bell tone
High/Low	Alternating modulated tones with fundamentals of 1000 Hz and 800 Hz, 250 ms duration each
Slow Whoop	Modulated 520 Hz to 1200 Hz sweep with 2 s duration
Siren	Modulated 600 Hz to 1200 Hz to 600 Hz sweep, with 2 s duration
Chime	Multi-phase signal with a peak and decay time of 1 s
	Tones compatible with control panel SmartSync commands for operation as Temporal Code 3, March Time (selected at appliance for 20 or 60 bpm), or Continuous operation
	Tones that operate as Continuous with synchronization with control panel SmartSync commands

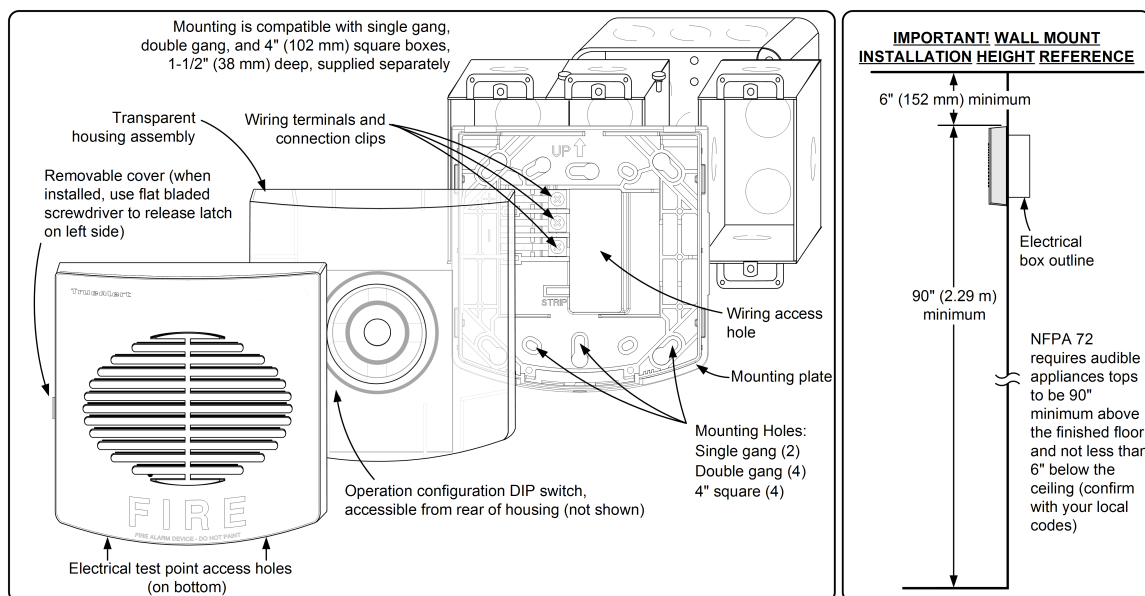
Table 9: TrueAlert Multi-Tone Horn Output and Current Ratings

UL 464 Output Ratings @ 16 VDC and 33 VDC (dBA)*										ULC S525 Output Ratings @ 16 VDC and 33 VDC (dBA)*								Current Ratings @ 16 VDC	
		Steady High		Steady Low		Coded High		Coded Low		Steady High		Steady Low		Coded High		Coded Low		High	Low
Tone	Voltage	16 V	33 V	16 V	33 V	16 V	33 V	16 V	33 V	16 V	33 V	16 V	33 V	16 V	33 V	16 V	33 V		
520 Hz Horn		80	80	74**	75	76	76	70**	71**	83†		79†		83†		78†		139 mA	70 mA
High/Low		81	82	77	77	75	76	70**	71**	87		82†		86		82†			
Broadband Horn		84	84	79	79	81	81	74**	75	88		84†		87		83†			
Bell		80	80	75	75	76	76	71**	71**	85		80†		85		80†		120 mA	62 mA
Slow Whoop		79	80	74**	75	These tones are not used for coded operation				85		80†		these tones are not used for coded operation					
Siren		79	80	74**	75					85		80†							
Chime**		67**	67**	62**	62**					82†		77†							
Note: <ul style="list-style-type: none">• * Output ratings are at 10 ft (3 m); UL 464 ratings are per UL Reverberant Chamber testing; ULC S525 ratings are per ULC Anechoic Chamber testing. The tone generator circuit is DC-DC converter powered and provides essentially constant output over the rated voltage range.• ** UL output ratings below 75 dBA are for NFPA 72 Private Mode applications.• † ULC output ratings below 85 dBA are for use in applications per applicable local codes.																			

Table 10: Sound Output Dispersion per ULC S541 Anechoic Testing

Specification	Rating		
Horizontal from Center	-3 dBA @ $\pm 37^\circ$	-6 dBA @ $\pm 40^\circ$	-9.4 dBA @ $\pm 90^\circ$
Vertical from Center	-3 dBA @ $-24^\circ, +42^\circ$	-6 dBA @ $-59^\circ, +50^\circ$	-8.6 dBA @ $\pm 90^\circ$

Installation Reference



A4905-9931 Adapter Plate Installation Information

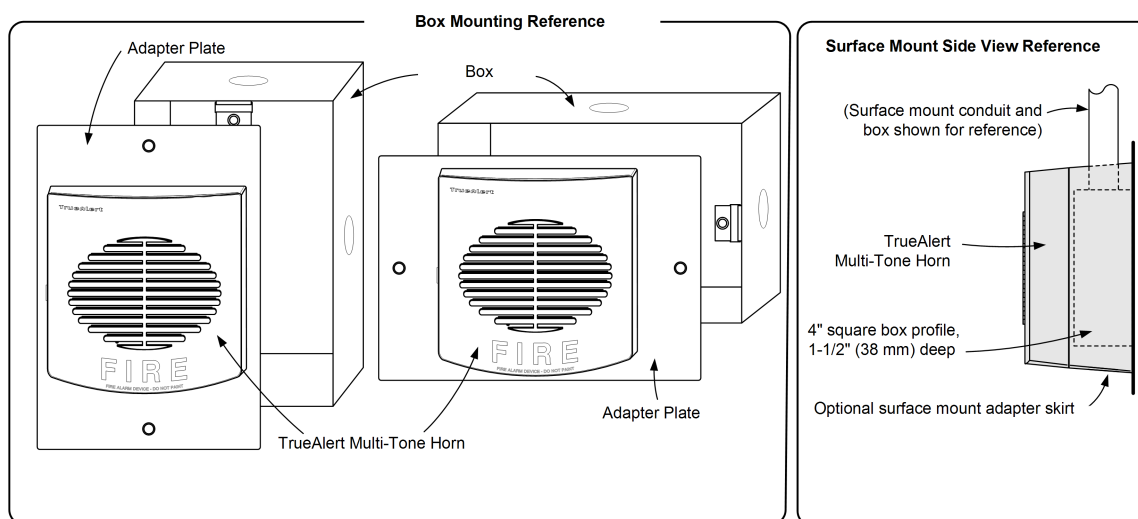


Fig 2: A4905-9931 Adapter Plate Installation Information

Note: Figure 2 shows:

1. A4905-9931 Adapter Plate
2. 2975-9145 Box
3. Surface Mount Side View Reference shows optional surface mount adapter skirt, 1-1/2" deep: A4905-9937, Red; A4905-9940, White (conduit knockouts are provided on all four sides)