

Features



Figure 1: TrueAlert Multi-Tone Horns

TrueAlert 24 VDC multi-tone horns provide the following features:

- Available in white with red lettering or red with white lettering
- A selection of the following tones for each appliance: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, Siren. Use an onboard DIP Switch to select. See [Multi-Tone Horn Specifications](#) 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 the following features:

- 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.
- Visible appliances on the same SmartSync circuit operate at a synchronized 1 Hz flash rate.
- See [SmartSync Two-Wire Control](#) for SmartSync control list and additional operation information.

Mechanical design features:

- 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. You can easily remove covers without disturbance to the connected housing to avoid trouble conditions.
- A separate mounting plate you can use to complete wiring before

the appliance is mounted. Use with single gang, double gang, or 4 in. 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

The TrueAlert non-addressable multi-tone horns provide a flexible selection of output tones for fire alarm audible notification. You can set the output level and tone selection for each appliance to tailor notification needs to specific area requirements.

Local Tone Selection

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

Flexible mounting

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

SmartSync Two-Wire Control

Use SmartSync operation mode to allow a two-wire circuit to activate both the horn and strobe on the same NAC, and then allow the horn to silence while the strobe flashes. 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 the following products:

- 4007ES Hybrid, 4010ES, 4100ES, Fire Alarm Control Units. Refer to individual product data sheets for more information
- 4009 IDNet NAC Extenders. Refer to [4009 IDNet NAC Extender for Control with IDNet Communications or Conventional NACs \(S4009-0002\)](#)
- SmartSync Control Module (SCM) Model 4905-9938. Refer [SmartSync Control Module and Strobe Synchronization Modules \(S4905-0003\)](#)

* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7135-0026:0379 for allowable values and/or conditions concerning material presented in this document. Additional listings may be applicable; contact your local product supplier for the latest status.

Product Selection

Table 1: Multi-tone horns

Model	Cover color	Wording	Description	Dimensions with cover: Height x Width x Depth
49CMT-WRF	Red	FIRE	Multi-Tone horn for SmartSync or Free-run control. Includes cover and matching mounting plate	5 1/8 in. x 5 in. x 1 1/2 in. (130 mm x 127 mm x 38 mm)
49CMT-WRF-BA				
49CMT-WWF	White			
49CMT-WWF-BA				
49CMT-APPLW	Select cover and mounting plate separately			
49CMT-APPLW-BA				
Note: Model numbers ending in -BA, APPLW models, and separate mounting plates are assembled in the USA.				

Table 2: Separate mounting plate, required when ordering model 49CMT-APPLW or 49CMT-APPLW-BA

SKU	Color	Description
49CMP-MTWR	Red	Mounting plate, select color to match cover
49CMP-MTWW	White	

Table 3: Separate covers, required when ordering model 49CMT-APPLW or 49CMT-APPLW-BA

SKU	Color	Wording	SKU	Color	Wording
49CMT-C-WRFIRE	Red	FIRE	49CMT-C-WRS	Red	Logos Only
49CMT-C-WWFIRE	White		49CMT-C-WWS	White	
49CMT-C-WRFEU	Red	FEU	49AOC-RBLANK	Red	Blank
49CMT-C-WWFEU	White		49AOC-WBLANK	White	
49CMT-C-WRBLNG	Red	FEU/FIRE	—	—	—
49CMT-C-WWBLNG	White	FEU/FIRE	—	—	—

Table 4: Mounting adapters

SKU	Description	Dimensions: Height x Width x Depth
4905-9937	Surface mount red adapter skirt Use to cover 1 1/2 in. deep surface mounted boxes	5 3/8 in. x 5 1/4 in. x 1 5/8 in. (136 mm x 133 mm x 41 mm) Total depth with horn = 3 1/8 in. (79 mm)
4905-9940	Surface mount white adapter skirt Use to cover 1 1/2 in. deep surface mounted boxes	
4905-9931	Adapter Plate, red, for mounting to Simplex 2975-9145 box. Typically for retrofit, may be mounted vertical or horizontal.	8 5/16 in. x 5 3/4 in. x 0.060 in. (211 mm x 146 mm x 1.5 mm)
2975-9145	Red mounting box, requires Adapter Plate 4905-9931	7 7/8 in. x 5 1/8 in. x 2 3/4 in. (200 mm x 130 mm x 70 mm)

Table 5: Synchronization control module

SKU	Description	Dimensions: Height x Width x Depth
4905-9938	SmartSync Control Module, Class A or Class B. Installs in 4 in. square box. For use with control panels not providing SmartSync control	4 in. x 4 1/8 in. x 1 1/4 in. (102 mm x 105 mm x 32 mm)

Installation reference

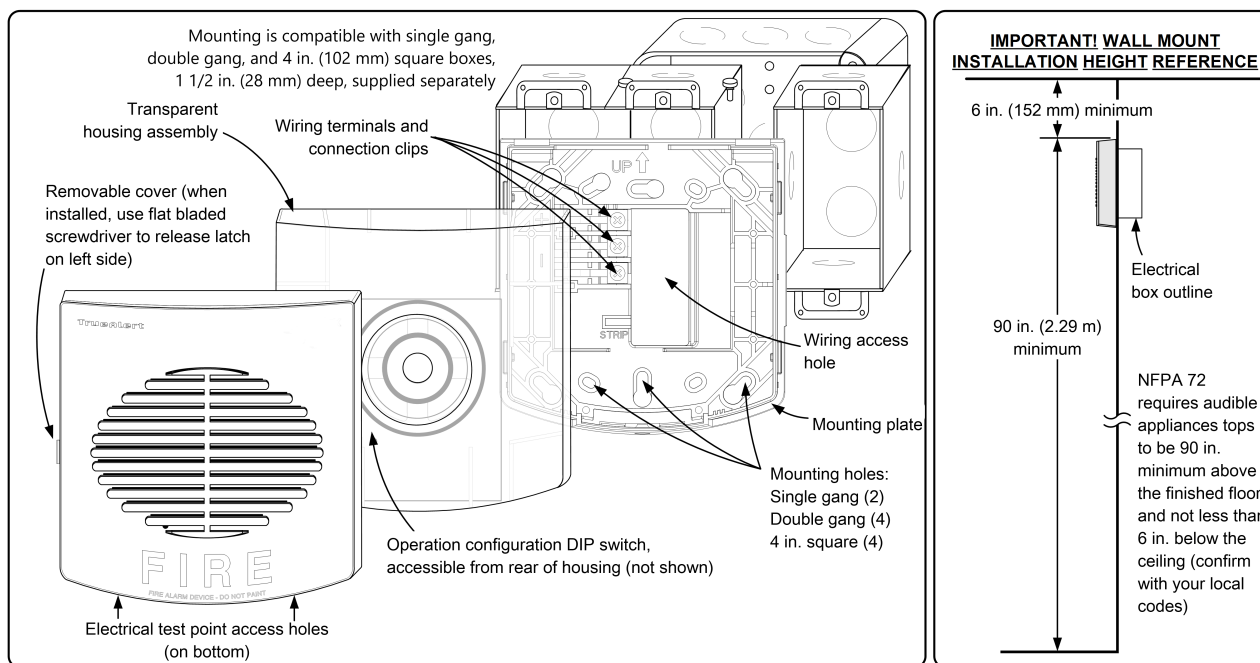


Figure 2: Installation reference

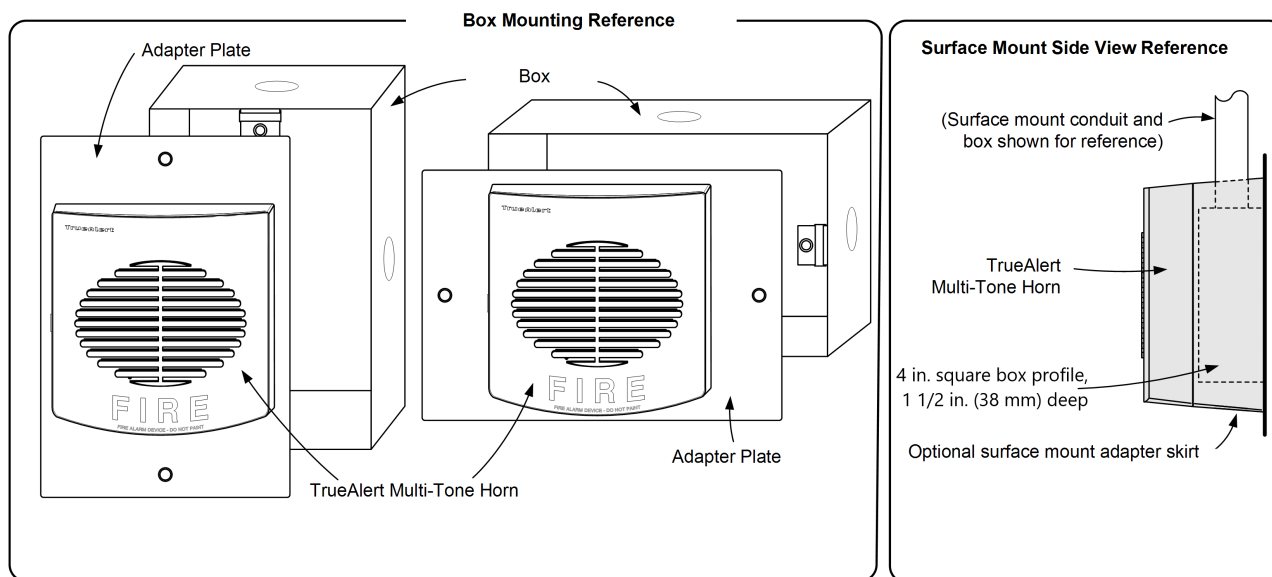


Figure 3: 4905-9931 Adapter Plate Installation

Note: Figure 3 shows:

1. 4905-9931 Adapter Plate
2. 2975-9145 Box
3. Surface Mount Side View Reference shows optional surface mount adapter skirt, 1 1/2 in. deep: 4905-9937, Red; 4905-9940, White. Conduit knockouts are provided on all four sides.

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 49CMT Series appliances for each NAC
Temperature Range	32°F to 122°F (0°C 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	<i>TrueAlert Indoor Non-Addressable Multi-Tone Notification Appliance Installation Instructions (579-1157)</i> for 49CMT Series Horn
	<i>TrueAlert Backplate for Non-Addressable Multi-Candela and Multi-Tone Indoor Notification Appliances Installation Instructions (579-1159)</i> for 49CMP 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

Table 9: TrueAlert Multi-Tone Horn Current Ratings @ 16 VDC

Tones	High	Low
HiLo and 520 Hz	139 mA	70 mA
Tone group 1	120 mA	62 mA
Note: Tone group 1 is Bell, Whoop, Siren, Broadband, or Chime		

TrueAlert Multi-Tone Horn Output Ratings

Table 10: UL 464 Output Ratings @ 16 VDC and 33 VDC (dBA)*

Tone	Voltage	Steady High		Steady Low		Coded High		Coded Low	
		16	33	16	33	16	33	16	33
520 Hz Horn		80	80	74**	75	76	76	70**	71**
High/Low		81	82	77	77	75	76	70**	71**
Broadband Horn		84	84	79	79	81	81	74**	75
Bell		80	80	75	75	76	76	71**	71**
Slow Whoop		79	80	74†	75	These tones are not used for coded operation			
Siren		79	80	74†	75				
Chime**		67**	67**	62**	62**				

Table 11: ULC S525 Output Ratings @ 16 VDC and 33 VDC (dBA)*

Tone	Voltage	Steady High		Steady Low		Coded High		Coded Low	
		16	33	16	33	16	33	16	33
520 Hz Horn		83†		79†		83†		78†	
High/Low		87		82†		86†		82†	
Broadband Horn		88		84†		87†		83†	
Bell		85		80†		85†		80†	
Slow Whoop		85		80†		These tones are not used for coded operation			
Siren		85		80†					
Chime**		82†		77†					

Note:

* 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 12: 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 @ $\pm 90^\circ$

