≤ Simplex

True*Alert*® Notification Appliances

SmartSync™ 2-Wire Operation,
Non-Addressable Multi-Tone Horns

Features

Low current, 24 VDC Simplex® SmartSync operation electronic multi-tone horns provide:

- Per appliance tone selection of: Horn, Bell, 500 Hz Horn, Canadian Horn, Slow Whoop, Siren, or Hi/Lo; selected using an on-board DIP Switch

- Output level selectable as standard or high

- Rugged, high impact, flame retardant thermoplastic housings, available in red with white "FIRE" lettering or white with red "FIRE" lettering

- Diode polarized input for connection to reverse polarity, supervised SmartSync control Notification Appliance Circuits (NACs)

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

- Control of horn and bell tones as Temporal Pattern, March Time pattern, or on continuously; controlled separately from visible appliances on the same circuit**

- Slow Whoop, Siren, and Hi/Lo tone selections sound their tones continuously, synchronized to each other, when receiving Temporal Pattern, March Time, or continuous SmartSync commands

- SmartSync March Time pattern produces a 60 BPM output for the Horn, 500 Hz Horn, and the Bell tone; Canadian Horn produces a 20 BPM output from the SmartSync March Time pattern command

- Visible appliances on the same circuit operate at a synchronized 1 Hz flash rate

- Refer to page 2 for SmartSync control list and additional operation information

TrueAlert notification appliance design provides flexible, easy, and convenient semi-flush or surface wall mounting:

- Easily mounts to single gang, double gang, or 4-inch square electrical box

- In/out wiring terminals, 18 AWG to 12 AWG

- Rear of housing does not extend into box

Optional Accessories:

- Mounting adapters to cover surface mounted electrical boxes and to adapt to Simplex 2975-9145 boxes

- UL listed wire guard

- UL/ULC listed sound damper for locations requiring attenuation of 5 to 6 dBA (stairwells, small rooms, highly reverberant areas, etc.)

- Covers are available separately to change color or for replacement

Listing reference:

- UL listed to Standard 464

- ULC listed to Standard S525

TrueAlert Multi-Tone Horns are Available as White with Red Lettering or Red with White Lettering

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 tone output details on page 3.)

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 page 3 for sound output ratings.)

Canadian two-stage alarm applications. The Canadian Horn setting allows the SmartSync March Time pattern input to be produced as 20 BPM. 20 BPM is typically required for Canadian two-stage alarm applications as the pre-signal, followed by the Temporal Pattern. Two-stage alarm operation requires a 4010 or 4100U as the control panel.

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.

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* Refer to page 2 for guard listing. 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 7135-0026:334 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Safety Products Westminster.

** SmartSync two-wire horn/strobe operation is protected under U.S. Patent No. 6,281,789.

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:

- 4006, 4008, 4100U, and 4010 Fire Alarm Control Panels (refer to individual product data sheets for more information)
- 4009 IDNet™ NAC Extenders (refer to data sheet S4009-0002)
- SmartSync Control Module (SCM) Model 4905-9938 (refer to data sheet S4905-0003)

Product Selection

Model	Cover	FIRE Lettering	Description	Dimensions
4901-9856	Red	White	TrueAlert non-addressable multi-tone horn	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4901-9857	White	Red		

Sound Damper and Adapters

Model	Description		Dimensions
4905-9838	Optional Sound Damper; package of 20; field installed adhesive backed horn output attenuator; reduces output 5 to 6 dBA **NOTE:** After Sound Damper installation, measure sound level to ensure compliance with applicable code requirements		1-3/4" Diameter (44.5 mm) with 0.31" (8 mm) sound opening
4905-9937	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)
4905-9940	Surface mount white adapter skirt		
4905-9931	Adapter Plate, red, for mounting to Simplex 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 4905-9931		7-7/8" x 5-1/8" x 2-3/4" D (200 mm x 130 mm x 70 mm)

Synchronization Control Module

Model	Description	Dimensions
4905-9938	SmartSync Control Module, Class A or Class B, installs in 4" square box	4" x 4-1/8" x 1-1/4" D (102 mm x 105 mm x 32 mm)

Covers and Guard

Model	Description	Dimensions
4905-9988	Red horn cover with white "FIRE" lettering	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4905-9989	White horn cover with red "FIRE" lettering	
4905-9961*	Wire guard with mounting plate, red, compatible with semi-flush or surface mounted boxes	6-1/16" H x 6-1/16" W x 3-1/8" D (154 mm x 154 mm x 79 mm)

* UL listed by Space Age Electronics Inc.

Multi-Tone Horn Specifications

Rated Voltage Range	16 VDC to 33 VDC
Rated Current	35 mA
Temperature Range	32° to 122° F (0° to 50° C)
Humidity Range	10% to 93%, non-condensing @ 100° F (38° C)
Connections	Terminal blocks for 18 AWG to 12 AWG (0.82 mm^2 to 3.31 mm^2); two wires per terminal for in/out wiring

Multi-Tone Horn Sound Output Characteristics (see notes as indicated)

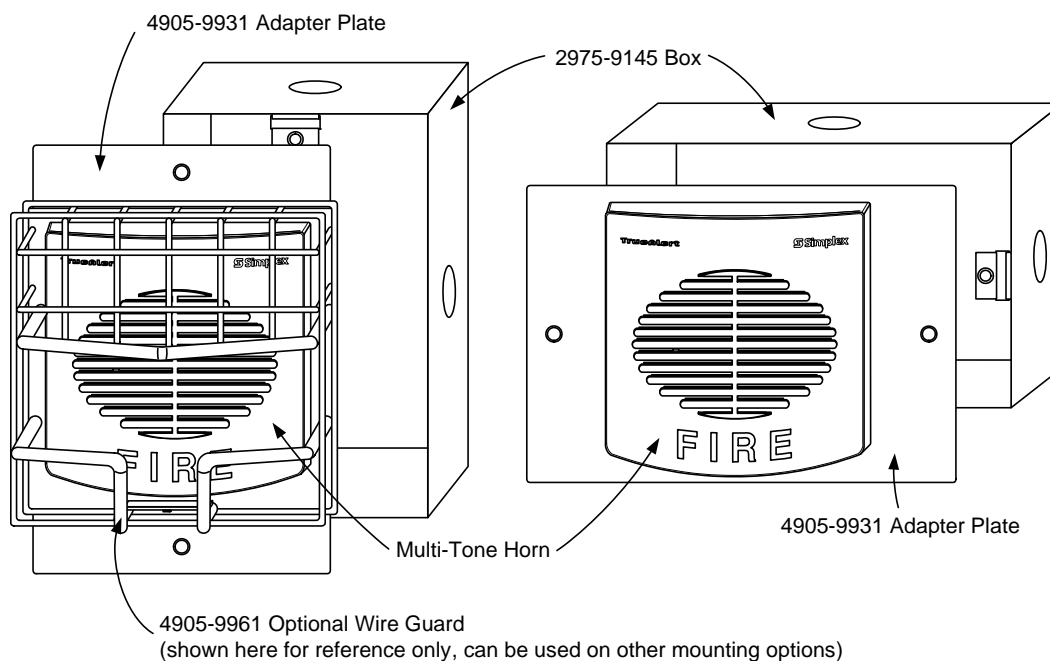|		Sound Output Ratings per **UL 464** Reverberant Chamber test @ 10 ft (~3 m)		Sound Output Ratings per **ULC S525** Anechoic Chamber test @ 3 m (~10 ft)	
Tone	Description	Standard Output	High Output	Standard Output	High Output
Horn[1] or Canadian Horn[1]	2400 to 3700 Hz sweep, modulated at 120 Hz rate	77 dBA	86 dBA	92 dBA	102 dBA
Bell[1]	1560 Hz modulated at 7 ms intervals	73 dBA*	87 dBA	84 dBA**	99 dBA
500 Hz Horn[1]	500 Hz tone	77 dBA	86 dBA	84 dBA**	99 dBA
Slow Whoop[2]	500 Hz to 1200 Hz sweep	73 dBA*	83 dBA	90 dBA	103 dBA
Siren[2]	600 Hz to 1200 Hz, 1 sec on then repeat	67 dBA*	79 dBA	87 dBA	100 dBA
High/Low[2]	Alternating tones of 1000 Hz and 800 Hz, 250 ms duration	77 dBA	86 dBA	91 dBA	102 dBA
Sound Dispersion per ULC S525 testing	-3 dBA at +/-30° off-axis				
	-6 dBA at +/- 50° off-axis				

* For Private Mode use only. Always test installed sound level against local requirements.

** Tones at this setting are not for use in ULC fire alarm applications.

Notes:

1. These tones are controlled by SmartSync commands to produce Temporal Pattern, March Time Pattern, or Continuous. Selecting Horn, 500 Hz Horn, or Bell mode will produce a 60 BPM March Time Pattern; selecting Canadian Horn mode (CA Horn) will produce a 20 BPM March Time Pattern, typically used for Canadian two-stage alarm applications.

2. Slow Whoop, Siren, and High/Low tones run Continuous when receiving any of the SmartSync ON commands. As with the horn and bell tones, they are synchronized to the controlling SmartSync timing commands, allowing synchronization across multiple NACs.
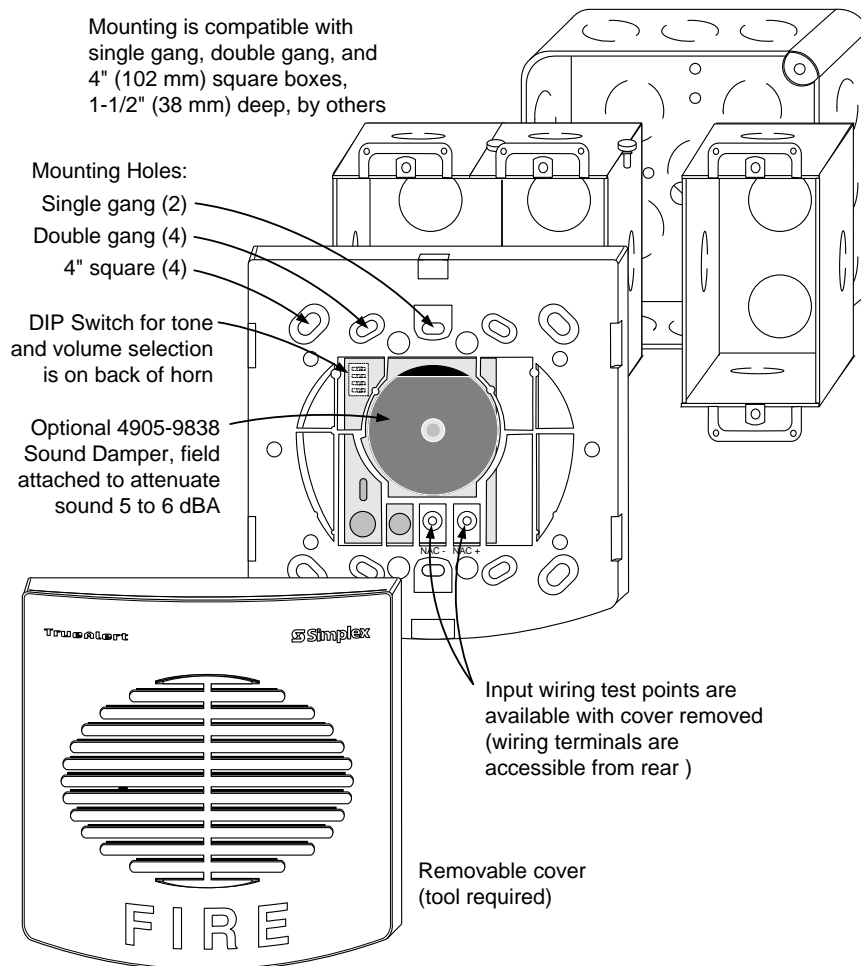
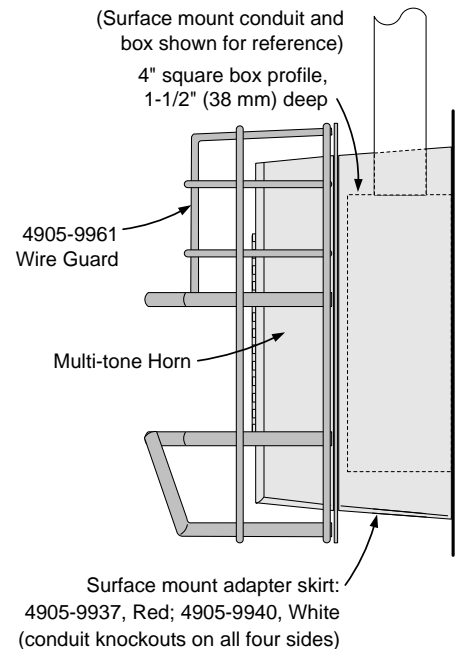## 4905-9931 Adapter Plate Installation Information

4905-9931 Adapter Plate

2975-9145 Box

Multi-Tone Horn

4905-9931 Adapter Plate

4905-9961 Optional Wire Guard
(shown here for reference only, can be used on other mounting options)

For additional information, refer to Installation Instructions 579-869.

Surface or Semi-Flush Multi-Tone Horn Mounting

**Side View of Multi-Tone Horn
with Surface Mount Adapter**

Mounting is compatible with
single gang, double gang, and
4" (102 mm) square boxes,
1-1/2" (38 mm) deep, by others

(Surface mount conduit and
box shown for reference)
4" square box profile,
1-1/2" (38 mm) deep

Mounting Holes:
Single gang (2)
Double gang (4)
4" square (4)

4905-9961
Wire Guard

DIP Switch for tone
and volume selection
is on back of horn

Optional 4905-9838
Sound Damper, field
attached to attenuate
sound 5 to 6 dBA

Multi-tone Horn

NAC - NAC +

Input wiring test points are
available with cover removed
(wiring terminals are
accessible from rear)

Surface mount adapter skirt:
4905-9937, Red; 4905-9940, White
(conduit knockouts on all four sides)

Truealert Simplex

FIRE

Removable cover
(tool required)