

## Features

### Individually addressed and controlled TrueAlert ES multi-tone electronic horns:

- Advanced addressable notification controlled by **IDNAC SLCs** providing **regulated 29 VDC** allowing strobes to operate with lower current even under battery backup
- Wiring supervision to each appliance allows “T-tapped” connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)
- **Self-Test Mode** allows an on-board sensor to detect the horn output and then report its status to the control panel
- Per appliance tone selection of: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, or Siren; *programmable from the control panel*, or selected using an on-board DIP Switch (see sound output details on p. 4)
- 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)
- Horn, Bell, and High/Low tones can be controlled as: Temporal Code 3, Temporal Code 4, March Time (selectable as 20, 60, or 120 bpm), or Continuous
- Slow Whoop, Siren, and Chime tone selections are controlled as synchronized continuous operation
- Output of “high” or “low” (~6 dBA difference) selectable at the appliance or from the controller with FACP mode selected at the appliance
- **Unobtrusive Magnet Test diagnostics** are available to assist checkout and testing of appliances and wiring
- **Electrical test point access** without removing cover
- Listed to UL Standard 464 and ULC Standard S525

### LED Indicator and Magnet Test feature:

- Appliance LED can be selected to display each polling cycle to indicate appliance supervision
- When the controller is in diagnostic mode, the Magnet Test pulses the LED to indicate appliance address and is selectable to also briefly sound the horn to confirm operation

### 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 Simplex 2975-9145 boxes



TrueAlert ES Multi-Tone Addressable Horns are Available in Red with White Lettering and White with Red Lettering

## Description

**TrueAlert ES multi-tone horns** are individually addressed audible notification appliances that receive power, supervision, and control signals from a Simplex fire alarm control panel providing **IDNAC Signaling Line Circuits (SLCs)**. (See compatibility list on page 4.)

## TrueAlert ES Operation Advantage

**TrueAlert ES addressable appliances on IDNAC SLCs** provide separate audible (and visible) notification using a single two-wire circuit that also *confirms connection to the individual notification appliance's electronic circuit*. This operation increases circuit supervision integrity by providing supervision that extends beyond the appliance wiring connections.

**Reduced current allows efficient IDNAC SLC operation.** With **IDNAC SLCs**, a **constant 29 VDC** source voltage is maintained, even during battery standby, allowing strobes on the same SLC to operate at higher voltage with lower current and ensuring a consistent current draw and voltage drop margin under both primary power and secondary battery standby. Efficiencies include wiring distances up to 2 to 3 times farther than with conventional notification, or support for more appliances per IDNAC SLC, or use of smaller gauge wiring, or combinations of these benefits, all providing installation and maintenance savings with high assurance that appliances that operate during normal system testing will operate during worst case alarm conditions.

\* 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 Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

## TrueAlert ES Operation Advantage (Cont'd)

**Reducing Installation and Testing Time.** With separate controls on the same two-wire SLC, installation time and expense for both retrofit and new construction can be significantly reduced. When Class B wiring is used, *wiring can be "T" tapped*, allowing more savings in distance, wire, conduit (size and utilization), and overall installation efficiency. Use of Self-Test and Magnet Test features improves installation efficiency. TrueAlert device reports conveniently identify information about each connected appliance.

## TrueAlert ES Diagnostics

**Test Features.** When IDNAC SLCs are in diagnostic mode, *Self-Test* and *Magnet Test* features provide individual appliance testing. With the *Self-Test* feature, *appliance operation can be confirmed without leaving the control panel*. Additionally, each appliance's LED can be selected to pulse when it receives a supervision poll during normal operation.

**Self-Test Details.** Selecting Self-Test Mode from the control panel allows on-board sensors, depending on the device type, to detect its own strobe and/or horn output and then report their status to the control panel. Operation is by selected VNAC appliance groups and is either automatic (all briefly simultaneously activated) or individually activated by applying a magnet. (Refer to control panel data sheet for more Self-Test information, see list on page 4.)

## Product Selection

### TrueAlert ES Addressable Multi-Tone Horns

Model*	Cover Color	Wording	Description	Dimensions with Cover
49MT-WRF(-BA)	Red	FIRE	TrueAlert ES addressable multi-tone horns, includes cover and matching mounting plate	5 1/8" H x 5" W x 1 1/2" D (130 mm x 127 mm x 38 mm)
49MT-WWF-BA	White			
49MT-WRS-BA	Red	Blank		
49MT-WWS-BA	White			
49MT-APPLW(-BA)	Select cover and mounting plate separately			

### Separate Mounting Plate (Required when ordering model 49MT-APPLW(-BA))

Model*	Color	Description
49MP-AVVOWR	Red	Mounting plate, select color to match cover
49MP-AVVOWW	White	

\* **Note:** (-BA) indicates model is available either with or without the -BA suffix. Model numbers ending in -BA, APPLW models, and separate mounting plates are assembled in the USA.

### Separate Covers (Required when ordering model 49MT-APPLW(-BA), uses same covers as 49AO Series fixed tone horns)

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

### Mounting Adapters

Model	Color	Description	Dimensions
4905-9937	Red	Surface Mount Adapter Skirt	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	White		
4905-9931		Red Adapter Plate for mounting to Simplex 2975-9145 Box (typically for retrofit, mount 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 4905-9931 Adapter Plate	7 7/8" x 5 1/8" x 2 3/4" D (200 mm x 130 mm x 70 mm)

## TrueAlert ES Diagnostics (Continued)

**Silent Appliance Magnet Test.** In this test mode, in response to application of a magnet, the appliance LED pulses sequentially to conveniently indicate the appliance's address.

**Operational Appliance Magnet Test.** In this test mode, after the address is indicated by pulsing the appliance LED, the horn will briefly sound to indicate proper operation.

**TrueStart Instrument Two (TSIT).** The 2nd generation of the Simplex TrueStart Test Instrument adds testing of IDNAC SLC wiring and TrueAlert ES appliances to its ability to test IDCs, NACs, and IDNet communications *before connection to the control panel*. Please contact your local Simplex representative for additional information.

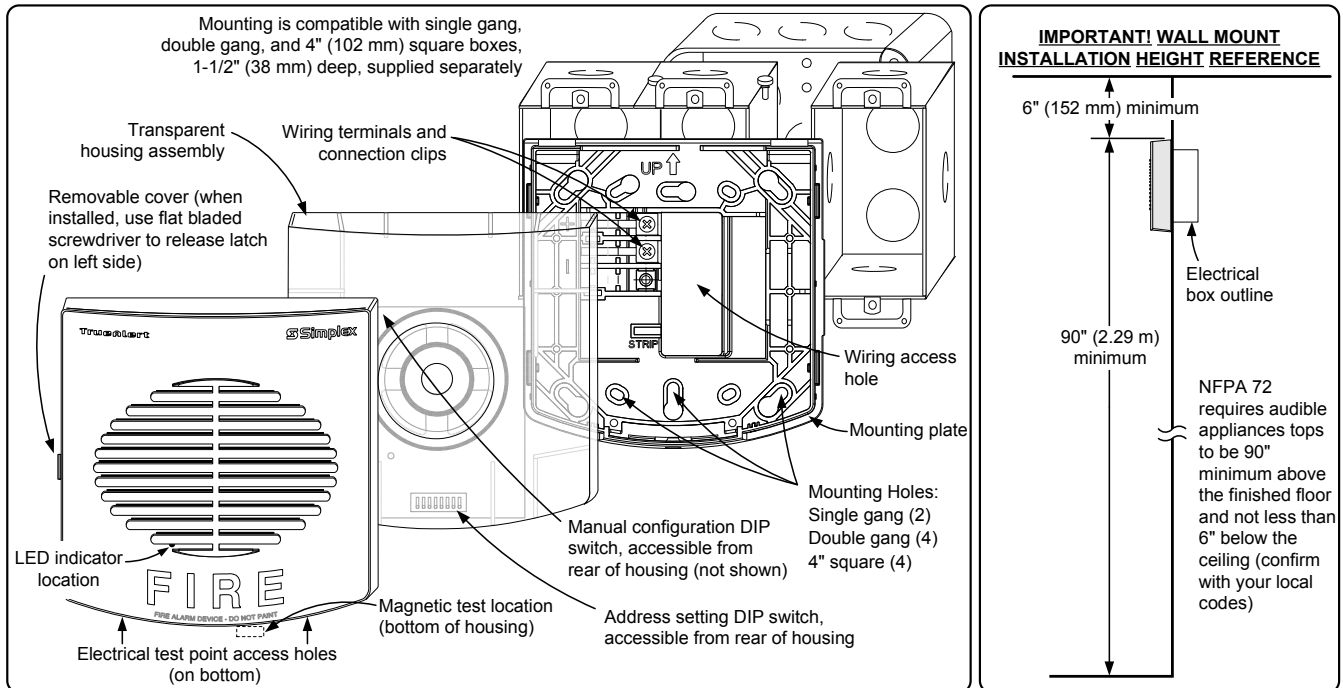
## TrueAlert Addressable Wiring Isolator

**Isolator Model 4905-9929** is available for remote mounting on TrueAlert addressable circuits to isolate short circuited wiring from functioning wiring. (See data sheet S4905-0001.)

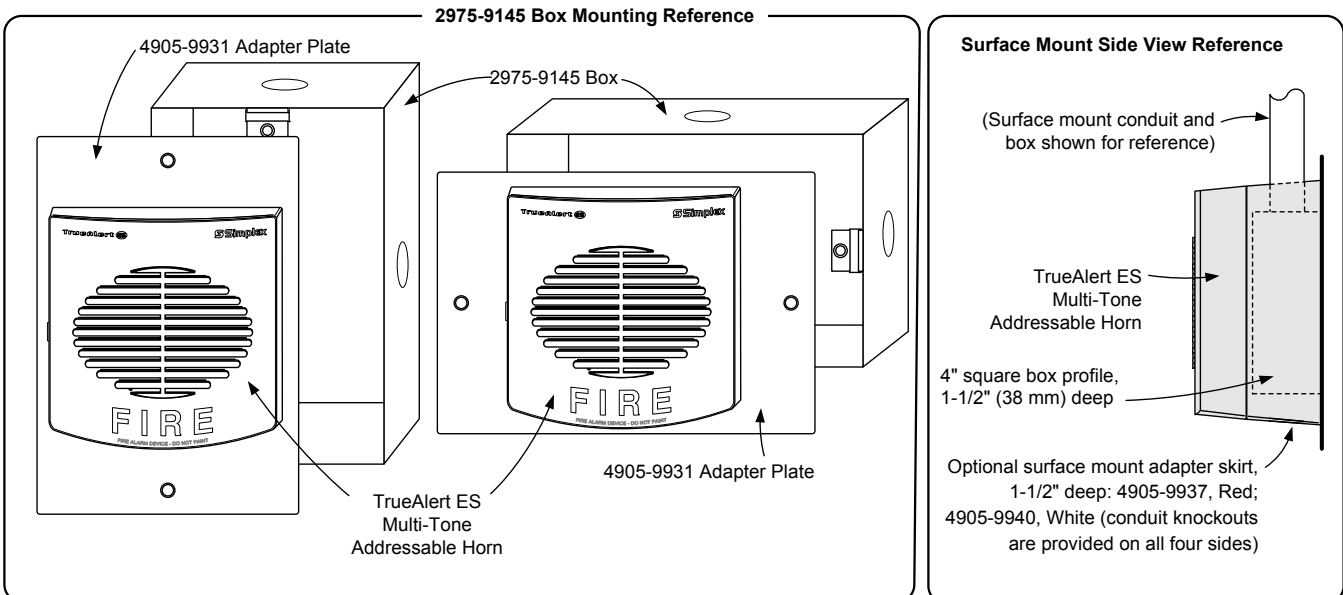
## TrueAlert Device Reports Reference

Service Port		Page 1	
REPORT 5 : TrueAlert Device Report		12:34:56am	TUE 10 Mar-15
POINT ID	CUSTOM LABEL	DEVICE TYPE	CANDELA
T14-1-1	Location Label . . . up to 40 characters	MT AO	NA
T14-1-2	Break Room 5	MT AV	110
T14-1-3	Boiler Room	MT AO	NA
T14-1-4	Elec. Room 7	A/V	135

## Installation Reference



## Adapter Plate and Surface Mount Installation Reference



## IDNAC SLC Controller Compatibility Reference

Compatible Controllers	Data Sheet Reference	Controller Output	IDNAC SLC Output Voltage	Appliance Voltage Design Reference
4100ES with EPS+ or EPS Power Supply	S4100-0100	IDNAC SLC	29 VDC (regulated)	23 VDC (with 6 VDC drop)
4009 IDNAC Repeater	S4009-0004			
4007ES with IDNAC Notification	S4007-0002			
4010ES with ESS Enhanced System Supply	S4010-0011			

## TrueAlert ES Multi-Tone Horn Specifications

<b>Electrical Ratings</b>	Typical Operating Voltage Range	23 VDC to 29.5 VDC, Special Application
	Supervisory Requirements	2 unit loads (1 unit load = 0.8 mA control panel current)
	49MT Series SLC Loading	Up to 32 appliances can connect directly to the panel IDNAC SLC or to a 4009 IDNAC Repeater output, up to a maximum of 127 addresses and 139 unit loads per SLC
<b>IDNAC SLC Wiring Specifications</b> (refer to control panel or power supply installation instructions for more information)		UTP, unshielded twisted pair recommended Maximum wire length allowed with "T-Taps" for Class B wiring per SLC = 10,000 ft (3048 m) Maximum wire length to any appliance = 4000 ft (1219 m)

### Tone Characteristics

<b>520 Hz Horn</b>	520 Hz tone	These tones are compatible with control panel IDNAC commands for operation as Temporal Code 3, Temporal Code 4, March Time at 20, 60, or 120 bpm, or Continuous operation
<b>Broadband Horn</b>	Combination 600/3000 Hz signal	
<b>Bell</b>	Synthesized Bell tone	
<b>High/Low</b>	Alternating modulated tones with fundamentals of 1000 Hz and 800 Hz, 250 ms duration each	
<b>Slow Whoop</b>	Modulated 520 Hz to 1200 Hz sweep with 2 s duration	These tones operate as Continuous with synchronization
<b>Siren</b>	Modulated 600 Hz to 1200 Hz to 600 Hz sweep, with 2 s duration	
<b>Chime</b>	Multi-phase signal with a peak and decay time of 1 s	

### TrueAlert ES Multi-Tone Horn Output and Current Ratings

Tone	Voltage	UL 464 Output Ratings @ 23 VDC and 29.5 VDC (dBA)*								ULC S525 Output Ratings @ 23 VDC and 29.5 VDC (dBA)*								Current Ratings @ 23 VDC	
		Steady High		Steady Low		Coded High		Coded Low		Steady High		Steady Low		Coded High		Coded Low		High	Low
		23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5		
<b>520 Hz Horn</b>		80	80	74**	75	76	76	70**	71**	83†	79†	83†	78†	99 mA	55 mA				
<b>High/Low</b>		81	82	77	77	75	76	70**	71**	87	82†	86	82†						
<b>Broadband Horn</b>		84	84	79	79	81	81	74**	75	88	84†	87	83†	90 mA	50 mA				
<b>Bell</b>		80	80	75	75	76	76	71**	71**	85	80†	85	80†						
<b>Slow Whoop</b>		79	80	74**	75	these tones are not used for coded operation				85	80†	these tones are not used for coded operation							
<b>Siren</b>		79	80	74**	75					85	80†								
<b>Chime**</b>		67**	67**	62**	62**					82†	77†								

\* 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.

Sound Output Dispersion per ULC S541 Anechoic Testing	Horizontal from Center	-3 dBA @ ±34°	-6 dBA @ ±37°	-8.8 dBA @ ±90°
	Vertical from Center	-3 dBA @ -39°, +42°	-6 dBA @ -54°, +50°	-8.4 dBA @ ±90°

### General Specifications

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 <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring
Installation Instructions	579-1152 for 49MTV Series A/V appliances
	579-1100 for 49MP Series mounting plates

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