

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 [TrueAlert ES Multi-Tone Horn Specifications](#) on page 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 Autocall, 2975-9145 boxes



Fig 1: TrueAlert ES Multi-Tone Addressable Horns are Available in Red with White Lettering and White with Red Lettering

Description

TrueAlert ES multi-tone horns

TrueAlert ES multi-tone horns are individually addressed audible notification appliances that receive power, supervision, and control signals from a Autocall fire alarm control panel providing IDNAC Signaling Line Circuits (SLCs). (See [IDNAC SLC Controller Compatibility Reference](#) on page 3.)

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.

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.

* Additional listings may be applicable; contact your local product supplier for the latest status.

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 [IDNAC SLC Controller Compatibility Reference](#) on page 3.)

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 Autocall 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 Autocall representative for additional information.

TrueAlert Addressable Wiring Isolator

Isolator Model A4905-9929 is available for remote mounting on TrueAlert addressable circuits to isolate short circuited wiring from functioning wiring. (See data sheet [AC4905-0001](#).)

Product Selection

Table 1: TrueAlert ES Addressable Multi-Tone Horns

SKU	Cover Color	Wording	Description	Dimensions with Cover
A49MT-APPLW	Select cover and mounting plate separately			

Note: Model numbers ending in -BA, APPLW models, and separate mounting plates are assembled in the USA.

Table 2: Separate Mounting Plate

SKU	Color	Description
A49MP-AWVOWR	Red	Mounting plate, select color to match cover
A49MP-AWVOWW	White	

Note: Separate mounting plate required when ordering model A49MT-APPLW.

Table 3: Separate Covers

SKU	Color	Wording	SKU	Color	Wording
A49AOC-WRFIRE	Red	FIRE	A49AOC-WRS	Red	Logos Only
A49AOC-WWFIRE	White		A49AOC-WWS	White	

Note: Separate cover required when ordering model A49MT-APPLW uses same cover as A49AO series fixed tone horns.

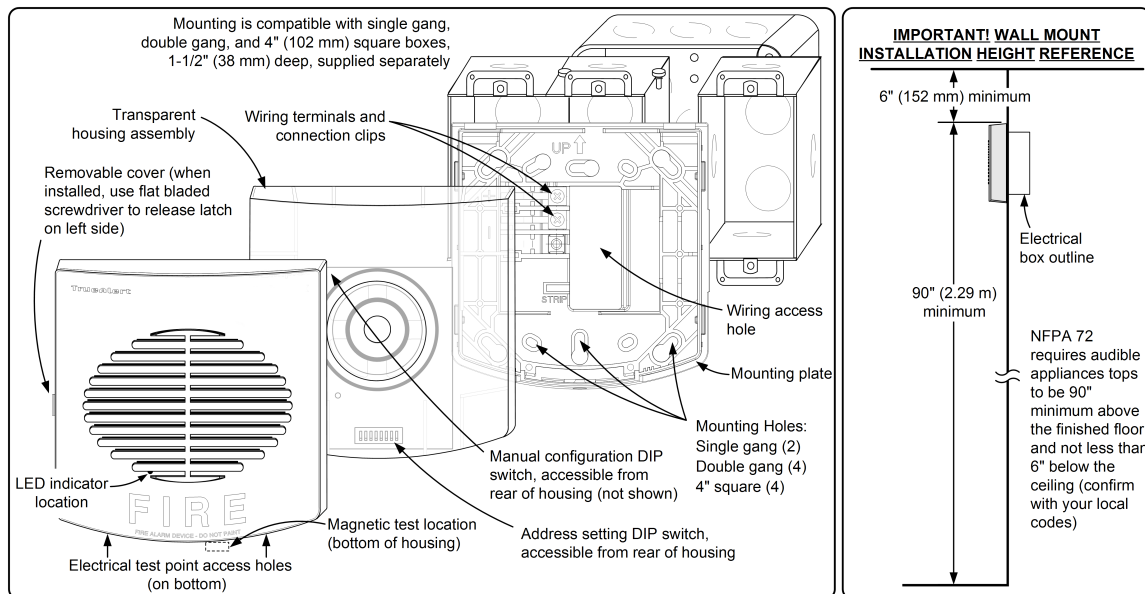
Table 4: Mounting Adapters

SKU	Color	Description	Dimensions
A4905-9937	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)
A4905-9940	White		
A4905-9931	Red Adapter Plate for mounting to Autocall2975-9145 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)

Table 4: Mounting Adapters

SKU	Color	Description	Dimensions
2975-9145	Red	Mounting Box, requires A4905-9931 Adapter Plate	7 7/8" x 5 1/8" x 2 3/4" D (200 mm x 130 mm x 70 mm)

Installation Reference



Adapter Plate and Surface Mount Installation Reference

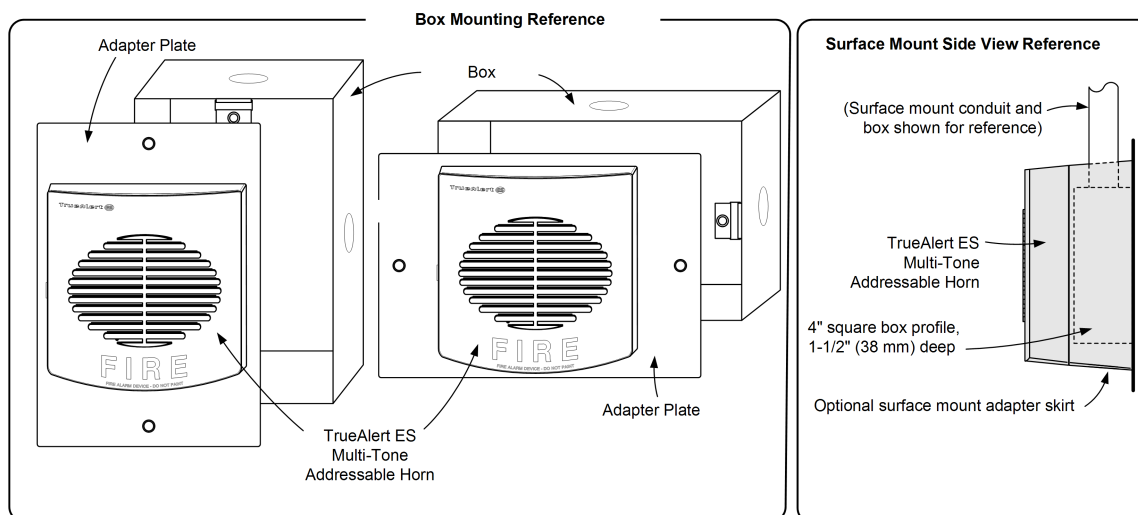


Fig 2: Adapter Plate and Surface Mount Installation Reference

Note: Figure 2 shows:

- 2975-9145 Box
- A4905-9931 Adapter Plate
- 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)

IDNAC SLC Controller Compatibility Reference

Table 5: 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	AC4100-0100	IDNAC SLC	29 VDC (regulated)	23 VDC (with 6 VDC drop)
4009 IDNAC Repeater	AC4009-0004			
4007ES with IDNAC Notification	AC4007-0002			
4010ES with ESS Enhanced System Supply	AC4010-0011			

TrueAlert ES Multi-Tone Horn Specifications

Table 6: Electrical specifications

Specification	Rating
Electrical Ratings	
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)
A49MT 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
IDNAC SLC Wiring Specifications (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)

Table 7: 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
	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
	These tones operate as Continuous with synchronization

Table 8: TrueAlert ES Multi-Tone Horn Output and Current Ratings

		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
Tone	Voltage	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5	23	29.5		
520 Hz Horn		80	80	74**	75	76	76	70**	71**	83†		79†		83†		78†		99 mA	55 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†		90 mA	50 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†							

* 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 9: Sound Output Dispersion per ULC S541 Anechoic Testing

Specification	Rating		
Horizontal from Center	-3 dBA @ $\pm 34^\circ$	-6 dBA @ $\pm 37^\circ$	-8.8 dBA @ $\pm 90^\circ$
Vertical from Center	-3 dBA @ $-39^\circ, +42^\circ$	-6 dBA @ $-54^\circ, +50^\circ$	-8.4 dBA @ $\pm 90^\circ$

Table 10: General Specifications

Specification	Rating
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
Installation Instructions	579-1152AC for A49MTV Series A/V appliances
	579-1100AC for A49MP Series mounting plates

