

Features

Individually addressed and controlled multi-candela TrueAlert ES Emergency Communications appliances provide:

- Multi-candela xenon strobe with synchronized 1 Hz flash rate and with intensity *programmable from the control panel* or jumper selected
- Standard strobe models *with amber lens covers*, available with ALERT lettering or blank, and with red or white covers, available with 15, 30, 75, 110, or 135 cd output
- Separate lens covers are available in *amber, blue, green, and red* to configure strobes (V/O) or audible/visible (A/V) appliances (see [Product Selection](#) on page 2 and [TrueAlert ES Strobe with Color Lens LEGACY Compatibility Reference](#) on page 4)
- Advanced addressable notification controlled by *IDNAC SLCs* providing *regulated 29 VDC* allowing strobes to operate with lower current even under battery backup
- Emergency Communications appliances are controlled separately from fire alarm appliances but both can be on the same IDNAC SLC; (only one type activates at a time, either fire alarm or notification, not both)
- Wiring supervision to each appliance allowing "T-tapped" connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)

Provides TrueAlert ES product features:

- Self-Test Mode using on-board sensors
- TrueAlert Device Reports at the control panel
- Magnet Test diagnostics to assist checkout and test
- Compatibility with ADA requirements
- Compatibility with legacy TrueAlert addressable systems for upgrade and replacement (see [IDNAC SLC Controller Compatibility Reference](#) on page 3)
- Appliance LED can be selected to display polling
- UL listed to Standard 1638 (due to non-white lens); verified by UL testing to provide light dispersion patterns of UL Standard 1971 at rated candela (no derating necessary for amber or blue lens)
- ULC listed to Standard S526

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters, available with ALERT or blank lettering
- Separate covers, optional mounting adapters and red wire guards are available
- 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

For clear lens TrueAlert ES appliances:

- Refer to data sheet AC49VO-0001 for strobes
- Refer to data sheet AC49AV-0001 for A/Vs

Description

TrueAlert ES addressable appliances

TrueAlert ES addressable appliances are individually addressed and 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.)



Fig 1: TrueAlert ES Notification Appliances for Emergency Communications are available with ALERT or Blank lettering

Strobe Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the **National Fire Alarm Code** (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

TrueAlert ES Operation Advantage

TrueAlert ES addressable appliances on IDNAC SLCs provide separate visible and audible 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 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.

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.

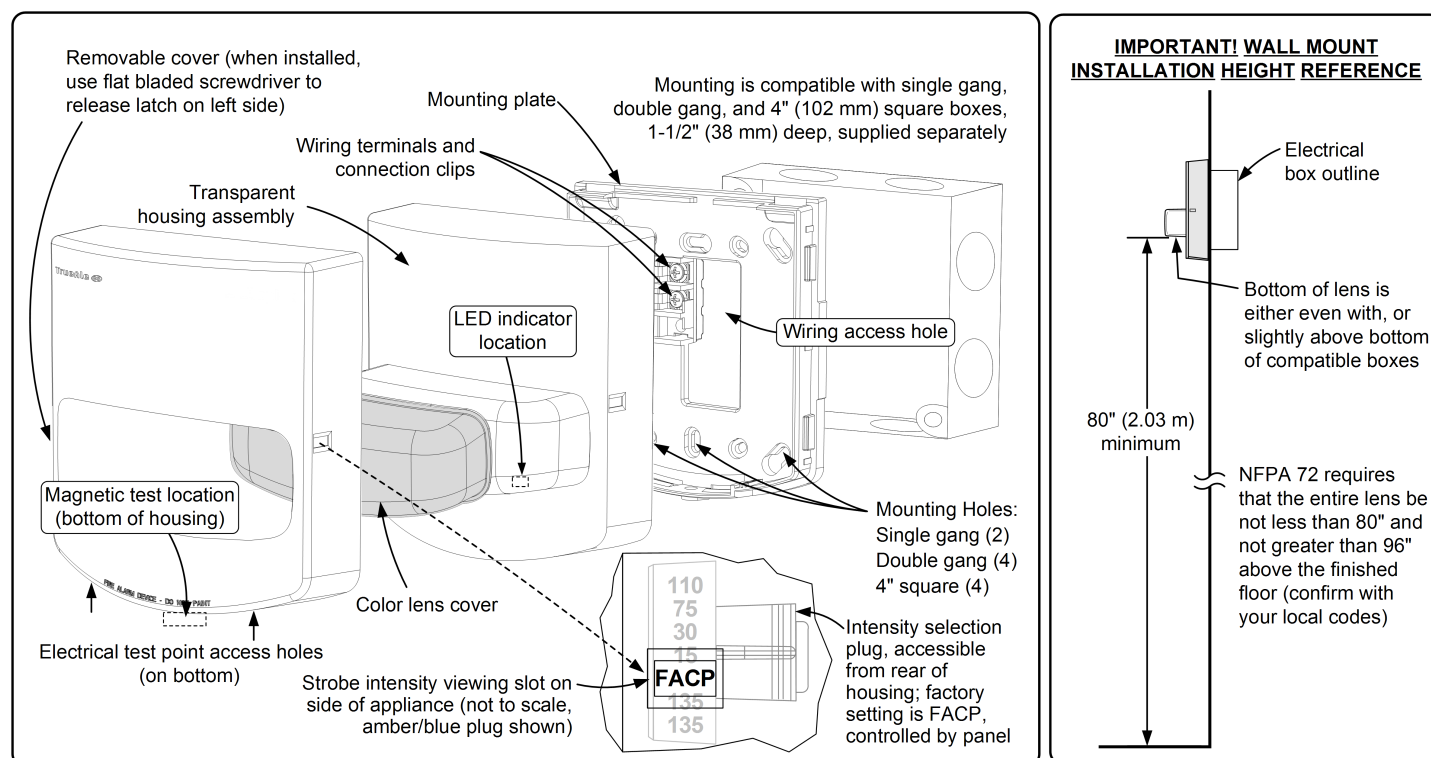
Operational Appliance Magnet Test. In this test mode, after the address is indicated by pulsing the appliance LED, the strobe will briefly flash to indicate proper operation.

TrueStart Instrument Two (TSIT). The 2nd generation of the 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)

Installation Reference



Product Selection

Table 1: Configured Appliance Selection (Lens covers include correct intensity selection plug)

SKU	Description			
A49VO-APPLWE	V/O Housing for color lens Emergency Communications Appliances			Order lens cover, housing cover, and mounting plate separately
A49AV-APPLW	A/V Housing (has setting on-board for selecting color lens applications)			
Color Lens Covers	A49LENS-AMBER	A49LENS-BLUE	A49LENS-GREEN	A49LENS-RED

Wall Mount Visible and Audible/Visible Notification Appliances for Emergency Communications

Table 2: Separate Mounting Plate (Required when ordering model A49VO-APPLWE(-BA) or A49AV-APPLW(-BA))

SKU	Color
A49MP-AVOWR	Red
A49MP-AVOWW	White

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

Table 3: Housing Covers (Required when ordering model A49VO-APPLWE(-BA) or A49AV-APPLW(-BA))

Color	V/O ALERT Lettering	V/O Blank Lettering	A/V ALERT Lettering	A/V Blank Lettering
Red	A49VOC-WRALT	A49VOC-WRS	A49AVC-WRALT	A49AVC-WRS
White	A49VOC-WWALT	A49VOC-WWS	A49AVC-WWALT	A49AVC-WWS

Table 4: Mounting Adapters and Wire Guard

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 strobe = 4 3/8" (111 mm)
A4905-9940	White		
A4905-9931	Red	Red Adapter Plate for mounting to Autocall 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	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)

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 with Color Lens Specifications

Table 5: Electrical Ratings

Typical Operating Voltage Range	23 VDC to 31 VDC, Special Application (see below for 17 VDC rating)
Supervisory Requirements	1 unit load (= 0.8 mA control panel current)
IDNAC SLC Loading	Maximum of 127 addresses per SLC, 139 unit loads

Table 6: Appliance PC Board Marking Reference

		15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
Amber and Blue Lens Output Rating		15 cd	30 cd	75 cd	110 cd	135 cd	Not Available
Green Lens Output Rating		10 cd	20 cd	45 cd	75 cd	95 cd	
Red Lens Output Rating		3 cd	7 cd	15 cd	30 cd	37 cd	
23 VDC RMS Current Ratings, for typical design of IDNAC Addressable SLCs (6 VDC drop)	V/O	54 mA	78 mA	128 mA	184 mA	211 mA	
	A/V	66 mA	88 mA	137 mA	192 mA	219 mA	

Table 7: General Specifications

Temperature Range	32° to 122° F (0° to 50° C)
Humidity Range	10% to 93%, non-condensing @ 104° F (40° C)
IDNAC SLC Wiring Specifications (refer to control panel 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)
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	579-1052AC, TrueAlert ES Addressable Emergency Indoor Notification Appliances 579-1046AC, TrueAlert ES A/V and V/O Colored Lens Kit Installation Instructions

Note: Refer to compatibility table above for fire alarm control panel and power supply operation type.

TrueAlert ES Strobe with Color Lens LEGACY Compatibility Reference

Compatible Controller	Data Sheet Reference	Controller Output	Available Strobe Intensity	Appliance Voltage Minimum
4100ES or 4100U with TrueAlert Power Supply	AC4100-0031	TrueAlert Addressable SLC	15, 30, 75, and 110 cd	17 VDC
4009 TPS, Remote TrueAlert Power Supply	AC4100-0037			
TrueAlert Addressable Controller (4009T)	AC4009-0003			

Table 8: Electrical Ratings Reference for Retrofit Applications

Voltage Range		17 VDC to 31 VDC, Special Application					
Appliance PC Board Marking Reference		15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
Amber and Blue Lens Output Rating		15 cd	30 cd	75 cd	110 cd	Not Available	
Green Lens Output Rating		10 cd	20 cd	45 cd	75 cd		
Red Lens Output Rating		3 cd	7 cd	15 cd	30 cd		
17 VDC RMS Current Ratings, use when connected to TrueAlert Addressable SLCs per above	V/O	67 mA	103 mA	171 mA	250 mA		
	A/V	79 mA	113 mA	180 mA	258 mA		