

Features

Individually addressed and controlled multi-candela S/V (speaker/visible) notification appliances provide:

- Multi-candela xenon strobe with synchronized 1 Hz flash rate and with intensity *programmable from the control unit* or jumper selected as 15 cd, 30 cd, 75 cd, or 110 cd
- 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 strobe allowing T-tapped connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)
- *TrueAlert Device Reports* at the control unit detailing appliance point ID, custom label, type, and candela setting (see sample on page 2)
- *Magnet test diagnostics* to assist checkout and testing of appliances and wiring
- Compatibility with ADA requirements; refer to [Wall mount installation reference](#)
- Compatibility with legacy TrueAlert addressable systems for upgrade and replacement; see [TrueAlert strobe LEGACY compatibility reference](#)
- Strobe operation is listed to UL 1971 and ULC-S526*

LED indicator and magnet test feature:

- Appliance LED can be selected to display each polling cycle to indicate appliance supervision
- In diagnostic mode, the magnet test pulses the LED to indicate appliance address *and pulses to indicate the intensity selection*; a brief output of the strobe is also selectable to confirm operation

Mechanical design features:

- Rugged, high impact, flame retardant thermoplastic housings are available for wall or ceiling mount
- Wall mount housings are available in red or white
- Wall mount options include electrical box adapters, separate covers to convert color, and red wire guards
- Ceiling mount housing is white

Audible notification appliance (speaker):

- High quality voice and tone reproduction with taps for 1/4 W, 1/2 W, 1 W, or 2 W, at 25 VRMS or 70.7 VRMS
- Speakers have capacitor input for connection to DC supervised NACs and are wired separately from strobes
- Listed to UL 1480 and ULC S541*
- Compliant with NFPA 72, 520 Hz Low Frequency Signal Requirements for Sleeping Areas

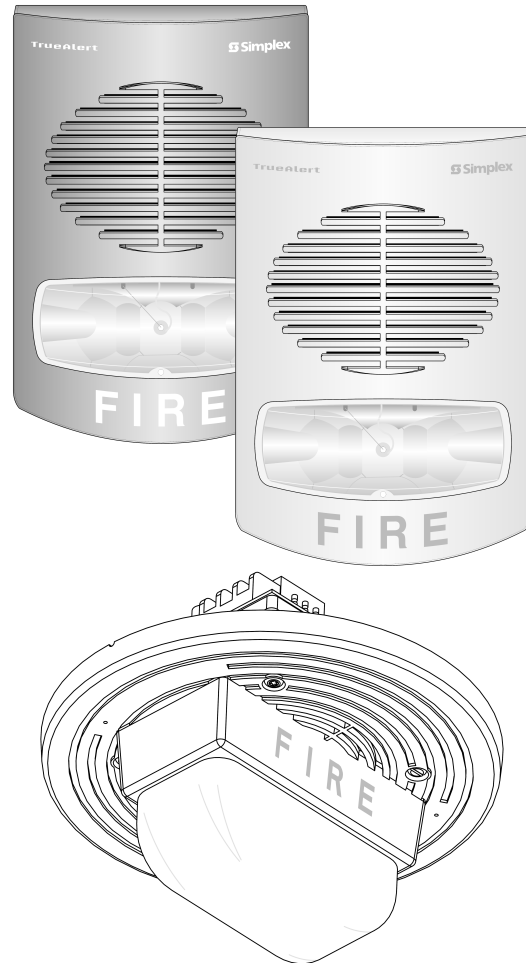


Figure 1: Wall and ceiling mount SVs with addressable strobes

Description

Multi-Candela TrueAlert S/Vs with speaker and addressable strobe

Multi-Candela TrueAlert S/Vs provides convenient installation to standard electrical boxes with extensions. The strobe is individually addressed and individually controlled with power, supervision, and control supplied from Simplex fire alarm control units providing **IDNAC** Signaling Line Circuits (SLCs). See [TrueAlert strobe LEGACY compatibility reference](#) for additional information. Speakers are wired separately.

Strobe application reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm and Signaling 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).

IDNAC SLC operation advantage

TrueAlert S/V appliances with addressable strobes on IDNAC SLCs provide 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 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 for each 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 the magnet test feature improves installation efficiency. TrueAlert device reports conveniently identify information about each connected appliance.

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. Refer to data sheet *S4905-0001* for additional information.

TrueAlert addressable diagnostics

Test Features: The operator can select controllers to pulse each appliance's LED when it receives a supervision poll. When the operator selects a controller for diagnostic mode, the appliance magnet test feature provides a response at the individual appliance being tested.

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

Operational Appliance Testing: 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 second generation of the Simplex TrueStart Test Instrument adds testing of IDNAC SLC wiring and TrueAlert, and TrueAlert ES, appliances to its ability to test IDCs, NACs, and IDNet communications *before connection to the control unit*. Please contact your local Simplex representative for additional information.

Product selection

Table 1: Multi-Candela addressable S/Vs

Model	Lettering	Listings	Housing Color	Mounting	Dimensions	Description
4906-9251	White FIRE	UL and ULC	Red	Wall	7 1/4 in. H x 5 in. W x 2 5/8 in. D or 184 mm x 127 mm x 67 mm	Multi-Tapped Speaker with Multi-Candela Addressable Strobe; intensity selectable as: 15, 30, 75, or 110 candela
4906-9253	Red FIRE		White			
4906-9254	Red FIRE	UL	White	Ceiling	7 1/2 in. or 191 mm diameter speaker housing, 1/2 in. or 13 mm deep; lens extends 2 5/8 in. or 67 mm above housing; extension into box = 2 3/4 in. or 70 mm	
4906-9255	Blank					
4906-9256	Red ALERT					
4906-9257	Red FIRE	ULC				

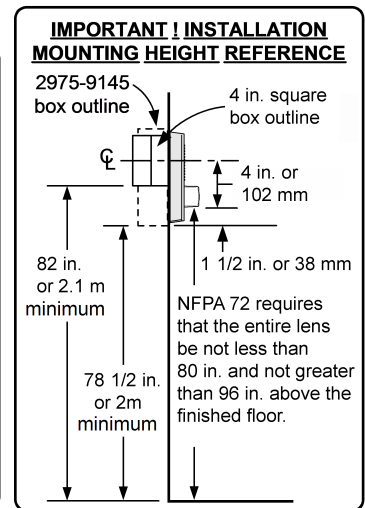
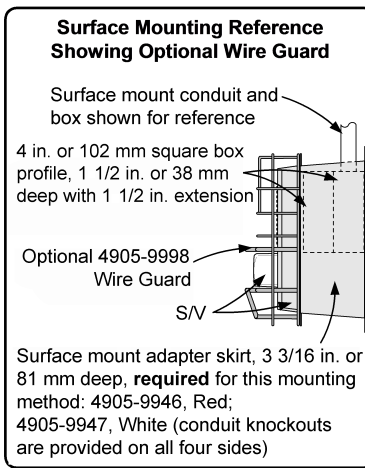
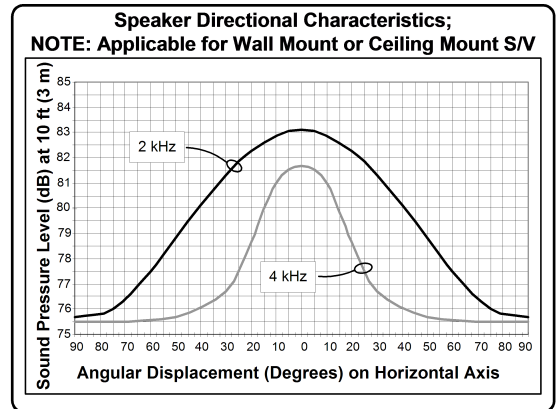
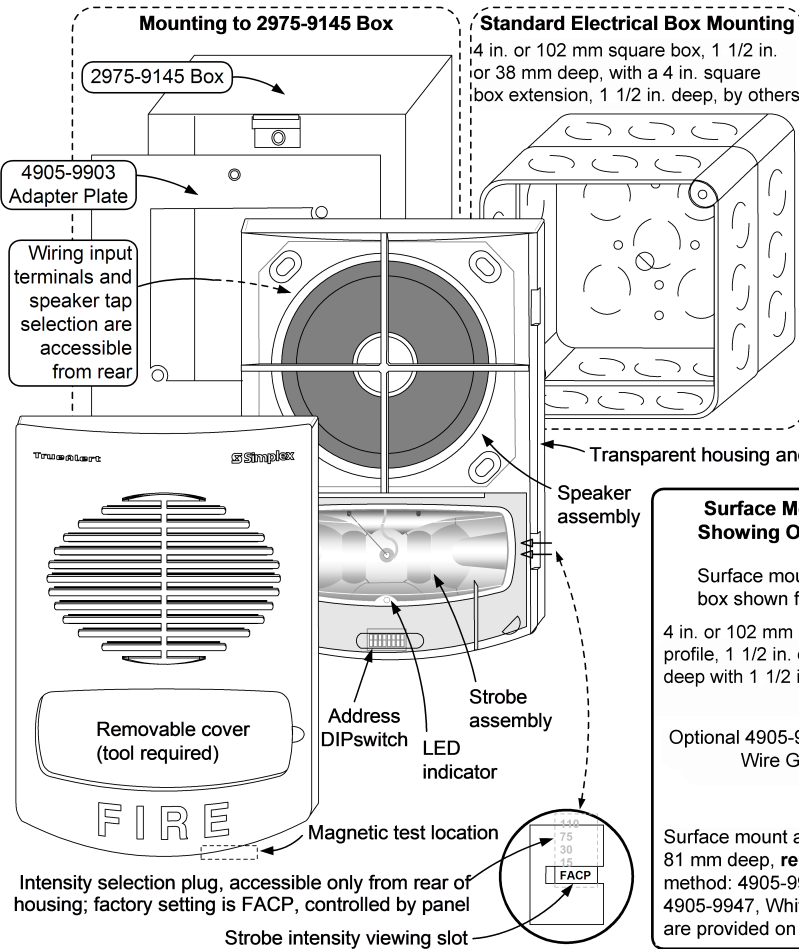
Table 2: Wall mount S/V adapters, replacement covers, wire guard; ceiling mount tile bridge

Model	Description	Dimensions
4905-9946	Surface mount red adapter skirt	7 3/4 in. H x 5 3/8 in. W x 3 3/16 in. D or 197 mm x 137 mm x 81 mm depth with S/V = 5 7/8 in. or 149 mm
4905-9947	Surface mount white adapter skirt	
4905-9903	Adapter plate, red, required to mount S/V on 2975-9145 mounting box (typically for retrofit)	8 5/16 in. H x 5 3/4 in. W x 0.060 in. Thick or 211 mm x 146 mm x 1.5 mm
2975-9145	Mounting box, red, for surface or flush mount, requires adapter plate 4905-9903. This box may be available for retrofit applications.	7 7/8 in. H x 5 1/8 in. W x 2 3/4 in. D or 200 mm x 130 mm x 70 mm
4905-9996	Red wall mount S/V replacement cover with white FIRE lettering	7 1/4 in. H x 5 in. W x 1 3/8 in. D
4905-9997	White wall mount S/V replacement cover with red FIRE lettering	or 184 mm x 127 mm x 35 mm
4905-9998	Red wire guard for wall mount S/V; with mounting plate, compatible with surface and semi-flush boxes (UL listed by Space Age Electronics Inc.)	8 3/8 in. H x 6 1/16 in. W x 3 1/4 in. D or 213 mm x 154 mm x 79 mm
2905-9946	Tile bridge for ceiling mount S/Vs	See Ceiling mount S/V install reference and tile bridge dimensions

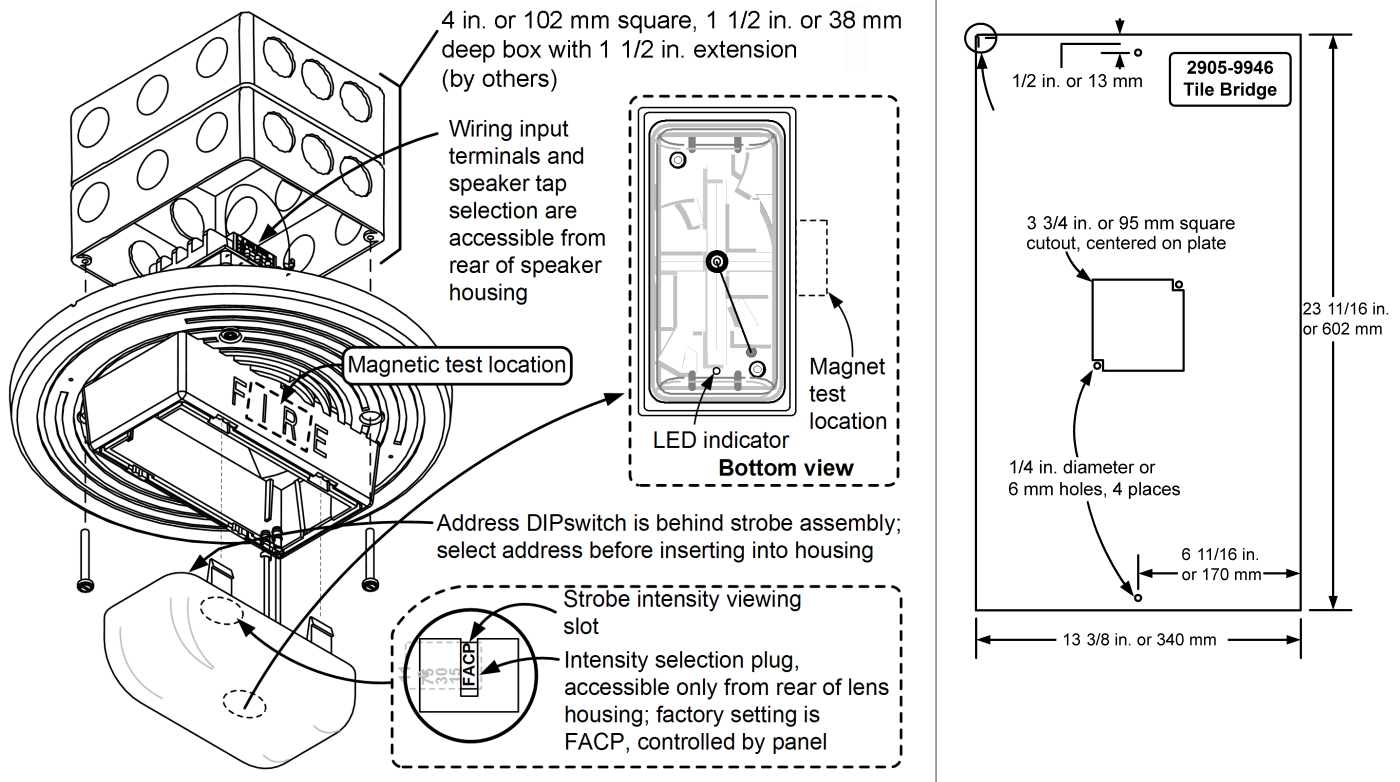
TrueAlert device reports reference

Service Port		Page 1	
REPORT 5 : TrueAlert Device Report		12:34:56am TUE 27-Jan-14	
POINT ID	CUSTOM LABEL	DEVICE TYPE	CANDELA
T14-1-1	Location Label . . . up to 40 characters	V/O	15
T14-1-2	Break Room 5	S/V	110
T14-1-3	Boiler Room	S/V	75
T14-1-4	Elec. Room 7	S/V	30

Wall mount installation reference



Ceiling mount S/V install reference and tile bridge dimensions



IDNAC SLC controller compatibility reference

Table 3: 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			

S/V specifications

Table 4: Common specifications

Specification	Rating
Environmental	32°F to 122°F or 0°C to 50°C; 10% to 93%, non-condensing at 100°F or 38°C
Connections	Terminal blocks for 18 AWG to 12 AWG or 0.82 mm ² to 3.31 mm ² ; two wires for each terminal for in/out wiring
Installation instructions	579-808

Table 5: Speaker general specifications

Specification	Rating
Input voltage	25 VRMS or 70.7 VRMS, see Note 1 below
Power taps	1/4 W, 1/2 W, 1 W, and 2 W
Frequency response	Fire alarm = 400 Hz to 4000 Hz General signaling = 125 kHz to 12 kHz

Table 6: Speaker output ratings @ 10 ft or 3 m

Wattage tap		1/4 W	1/2 W	1 W	2 W	
UL Listed Models, Reverberant Chamber Test, per UL 1480		76 dBA	79 dBA	82 dBA	85 dBA	
Wall Mount Models 4906-9251 and 4906-9253, Anechoic Chamber Test, per ULC-S541		77 dBA	80 dBA	83 dBA	86 dBA	
Ceiling Mount Model 4906-9257, Anechoic Chamber Test per ULC-S541	25 VRMS Input	81.6 dBA	84.3 dBA	87.1 dBA	89.7 dBA	
	70.7 VRMS Input	80.9 dBA	84.1 dBA	87.3 dBA	90.2 dBA	
Polar Dispersion Reference (per ULC-S541 Anechoic Chamber Testing)	Attenuation	-3 dB	Angle	+/- 30° off-axis	Attenuation	Angle
				-6 dB		+/- 55° off-axis

Table 7: Strobe specifications (see Note below)

Specification		Rating			
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 unit current)			
Flash rate and synchronized SLC loading		1 Hz; with up to 46 synchronized strobes maximum for each NAC			
Wall mount appliances	Candela setting	15 cd	30 cd	75 cd	110 cd
	23 VDC RMS current ratings, for connection to IDNAC addressable SLCs	50 mA	75 mA	137 mA	190 mA
Ceiling mount appliances	23 VDC RMS current ratings, for connection to IDNAC addressable SLCs	60 mA	92 mA	180 mA	240 mA
Note: Speakers are for connection to conventional fire alarm audio circuits. Anechoic speaker output ratings are typically more representative of actual installed sound output.					

TrueAlert strobe LEGACY compatibility reference

Compatible controller	Data sheet reference	Controller output	Available strobe intensity	Appliance voltage minimum
4100ES or 4100U with TrueAlert Power Supply	S4100-0031	TrueAlert Addressable SLC	15 cd, 30 cd, 75 cd, and 110 cd	17 VDC
4009 TPS, Remote TrueAlert Power Supply	S4100-0037			
TrueAlert Addressable Controller (4009T)	S4009-0003			

Table 8: Electrical ratings difference for retrofit applications

Voltage Range		17 VDC to 31 VDC, Special Application			
Candela Setting		15 cd	30 cd	75 cd	110 cd
17 VDC RMS Current Ratings, use when connected to TrueAlert Addressable SLCs per above	Wall mount appliances	64 mA	98 mA	187 mA	253 mA
	Ceiling Mount Appliances	76 mA	128 mA	242 mA	328 mA

