Simplex

TrueAlert ES Addressable Notification Appliances

UL, CSFM Listed;
*FM Approved**

Wall Mount Weatherproof Notification Appliances
Visible Only (V/O) and Audible/Visible (A/V)

Features

Individually addressed and controlled multi-candela TrueAlert ES weatherproof notification appliances for extended temperature and humidity range provide:

- Multi-candela xenon strobe with synchronized 1 Hz flash rate and with intensity ***programmable from the control panel*** or jumper selected as 15, 75, WP 75, or WP 185 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 appliance allowing "T-tapped" connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)
- ***Self-Test Mode*** allows on-board sensors to detect the strobe and horn output and then report their status to the control panel
- ***TrueAlert Device Reports*** at the control panel detailing appliance point ID, custom label, type, and candela setting (see sample on page 3)
- ***Magnet Test diagnostics*** to assist checkout and testing of appliances and wiring
- ***Electrical test point access*** without removing cover

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 can be set to also briefly flash the strobe and sound the A/V horn

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters, with clear lens
- Standard models are available with FIRE lettering or blank; configured models are available with additional lettering of FEU, FEU/FIRE, ALERT, and blank
- Mounting is to matching weatherproof boxes (required), ordered separately
- Separate covers are available to change application type on-site or for replacement
- In/out wiring terminals for 18 AWG to 12 AWG
- Enclosure is rated NEMA 3R
- Convenient wiring terminal access at front of housing

Agency listings reference:

- UL 1638 listed for outdoor applications with strobe rated at 75 cd (WP75) or 185 cd (WP185)
- UL 1971 listed for indoor applications with strobe intensity selectable as 15 or 75 cd; indoor applications are compatible with ADA requirements (refer to important mounting information on page 3)
- Horn operation is listed to UL Standard 464
- Refer to data sheet S49WP-0002 for ULC listed models



Weatherproof A/V (top) and Strobe (bottom), side view of A/V on Weatherproof Mounting Boxes (right)

For A/V Models with horn:

- Harmonically rich output sound for either coded or steady operation
- Horns sound as Temporal Code 3, March Time pattern, continuous; or Temporal Code 4, controlled separately from visible appliances on the same two-wire circuit
- Selectable March Time rates of 20, 60, or 120 beats per minute
- Output is "high" or "low" (~5 dBA difference) selectable at the appliance or from the controller with FACP mode selected at the appliance

Description

TrueAlert ES weatherproof addressable appliances provide visible and audible/visible notification for indoor and outdoor, extended temperature and extended humidity applications. They are individually addressed and 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.)

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).

* 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 7125-0026:0371 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.

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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 list on page 4.)

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 and the A/V 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. (Refer to data sheet S4905-0001 for additional information.)

Product Selection

UL Listed TrueAlert ES Addressable Weatherproof Notification Appliances

Type	Model	Cover Color	"FIRE" Lettering	Description	Intensity Ratings	
					UL 1971	UL 1638
Strobe (V/O)	49VO-WRFO(-BA)	Red	White	UL listed weatherproof TrueAlert ES addressable appliance; requires weatherproof box, see below **Note:** (-BA) indicates model is available either with or without the -BA suffix; model numbers ending in -BA are assembled in the USA	15 cd or 75 cd	75 cd (setting WP75) or 185 cd (setting WP185)
	49VO-WRSO(-BA)	Red	Blank			
	49VO-WWFO-BA	White	Red			
	49VO-APPLW-O(-BA)	order cover separately				
Horn/Strobe (A/V)	49AV-WRFO(-BA)	Red	White			
	49AV-WWFO-BA	White	Red			
	49AV-APPLW-O(-BA)	order cover separately				

Separate Covers (Required when ordering 49VO-APPLW-O(-BA) or 49AV-APPLW-O(-BA))

Wording	Red VO Cover Models	Red AV Cover Models	White VO Cover Models	White AV Cover Models
FIRE	49VOC-WRFIRE-O	49AVC-WRFIRE-O	49VOC-WWFIRE-O	49AVC-WWFIRE-O
ALERT	49VOC-WRALT-O	49AVC-WRALT-O	49VOC-WWALT-O	49AVC-WWALT-O
FEU	49VOC-WRFEU-O	49AVC-WRFEU-O	49VOC-WWFEU-O	49AVC-WWFEU-O
FEU/FIRE	49VOC-WRBLNG-O	49AVC-WRBLNG-O	49VOC-WWBLNG-O	49AVC-WWBLNG-O
Blank	49VOC-WRS-O	49AVC-WRS-O	49VOC-WWS-O	49AVC-WWS-O

Wall Mount Weatherproof Boxes (Required)

Model	Color	Description	Dimensions
49WPBB-AVVOWR	Red	Surface Mount Weatherproof Mounting Box (required)	5 ½" H x 6 ⅛" W x 1 ⅝" D (140 mm x 156 mm x 41 mm)
49WPBB-AVVOWW	White		

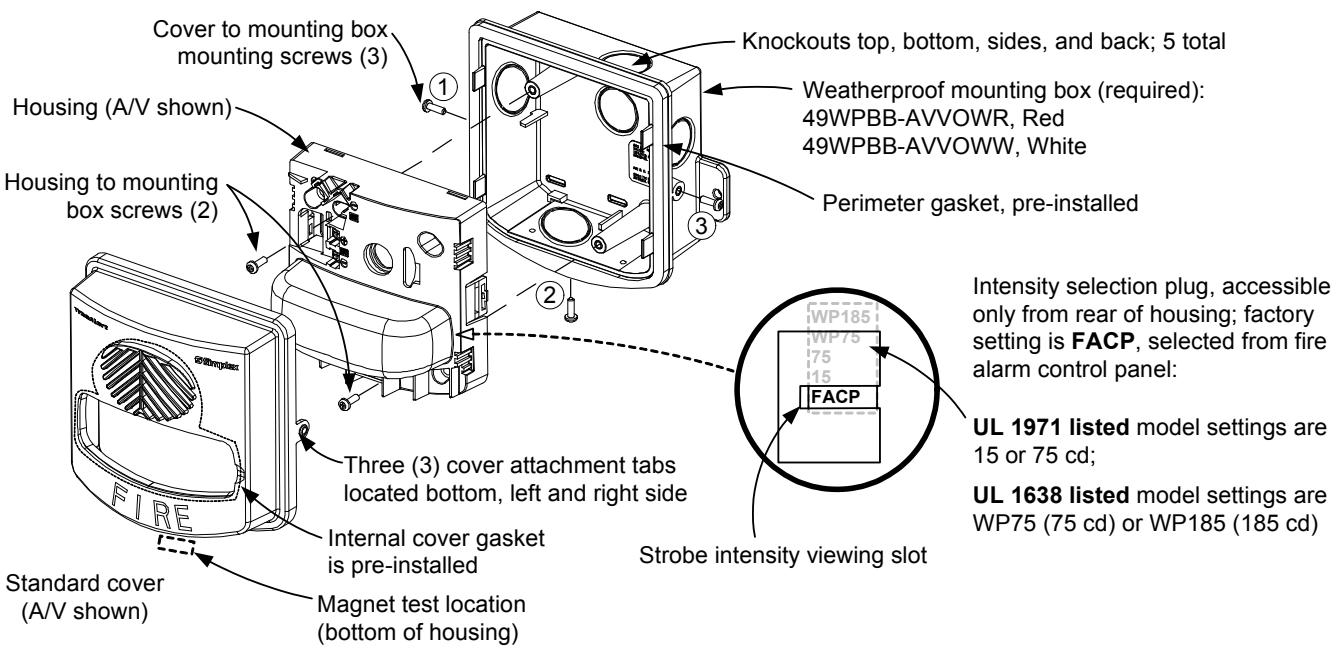
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TrueAlert Device Reports Reference

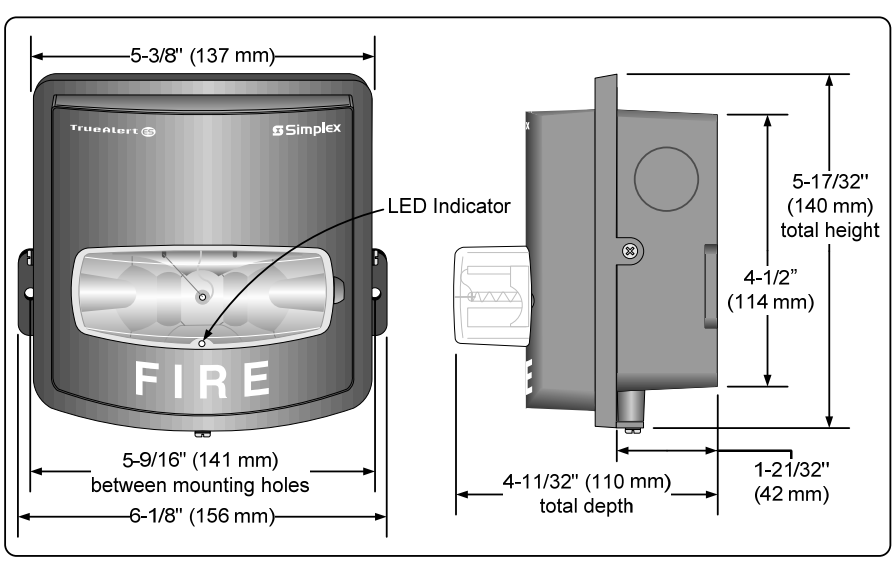
Service Port — Page 1
REPORT 5 : TrueAlert Device Report — 12:34:56am TUE 27-Jan-14

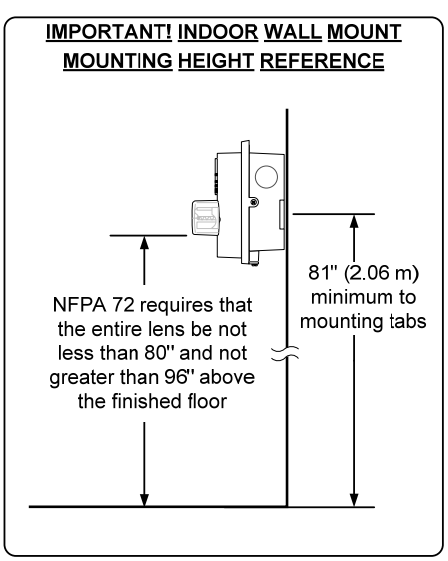
POINT ID	CUSTOM LABEL	DEVICE TYPE	CANDELA
T14-1-1	Location Label . . . up to 40 characters	V/O	15
T14-1-2	Break Room 5	A/V	110
T14-1-3	Boiler Room	A/V	75
T14-1-4	Elec. Room 7	A/V	135

Weatherproof Appliance Installation Reference



Dimension and Mounting Height Reference





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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			

Specifications

Typical Operating Voltage Range		23 VDC to 31 VDC, Special Application
Supervisory Requirements		1 unit load (= 0.8 mA control panel current)
IDNAC SLC Loading		Maximum of 127 addresses per SLC, 139 unit loads
Temperature Range	UL 1971 Listed Rating	32° to 120° F (0° to 49° C); 15 or 75 cd setting
	UL 1638 Listed Rating	-31°F to 150°F (-35° C to 66°C); WP75 or WP185 cd setting
Humidity Range	UL 1971 Listed Rating	10% to 93%, at 100° F (38° C)
	UL 1638 Listed Rating	up to 98%, at 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 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		579-1032

A/V Horn Output Ratings @ 10 ft (3 m) @ 23 VDC

	Sound Type (see Note)	Steady/High	Steady/Low	Coded/High	Coded/Low
Horn Output Ratings	Reverberant Chamber, UL 464 Test	81.3 dB	73.8 dB	76.4 dB	69.9 dB
	Anechoic Chamber, ULC 525 Test	87.4 dB	81.0 dB	87.2 dB	80.6 dB

Note: UL 464 test coded values are typical of the output measured with a Temporal or a March Time pattern and with a sound level meter reading on a "fast" setting. Under the same test conditions, coded horn output "peak" sound level readings are typically 4 dBA higher. Anechoic horn output ratings are typically more representative of actual installed sound output.

23 VDC RMS Current Ratings

Model	Temperature	UL 1971 Ratings: 32° F to 120° F (0° C to 49° C)		UL 1638 Ratings: 32° F to 150°F (0° C to 66° C)		UL 1638 Ratings: -31° F to below 32°F (-35° C to 0° C)	
	Candela Setting	15 cd	75 cd	WP75 cd	WP185 cd	WP75 cd	WP185 cd
V/O Models		60 mA	160 mA	160 mA	185 mA	212 mA	239 mA
A/V Models, horn on continuous, high setting		80 mA	165 mA	163 mA	189 mA	238 mA	274 mA

UL 1638 WP75 and WP185 Light Output Reference

Angle	On-Axis	Vertical, Below Axis		Horizontal, Left/Right of Axis	
	0°	45°	90°	45°	90°
WP75 Minimum Candela Rating (over temp. range)	75 cd	69 cd	17 cd	60 cd	28 cd
WP75 Typical Candela at 77° F (25° C)	142 cd	86 cd	22 cd	74 cd	35 cd
WP185 Minimum Candela Rating (over temp. range)	185 cd	90 cd	21 cd	81 cd	40 cd
WP185 Typical Candela at 77° F (25° C)	220 cd	112 cd	27 cd	101 cd	50 cd

A/V Sound Dispersion per ULC-S525 Anechoic testing performed at 3 m (10 ft); referenced to on-axis = 0°	Level Decrease	Horizontal Angle)	Vertical Angle
	-3 dB	+50° (to right)	+55° (above axis)
		-40° (to left)	-70° (below axis)
	-6 dB	+85° (to right)	+60° (above axis)
		-85° (to left)	-90° (below axis)

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