

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 20, 30, or 75 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 with clear lens
- Standard models are red and available with FIRE or FEU lettering; configured models are available with additional lettering of FEU/FIRE, ALERT, and blank, and in white with each lettering
- 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:

- Strobe operation is listed to ULC-S526
- Horn operation is listed to ULC-S525
- Refer to data sheet S49WP-0001 for UL 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).

* 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

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.

Product Selection

ULC Listed TrueAlert ES Addressable Weatherproof Notification Appliances

Type	Model	Cover Color	Lettering	Description	ULC Intensity Ratings
Strobe (V/O)	49VO-WRFO-C	Red	FIRE	ULC listed weatherproof TrueAlert ES addressable appliance; requires weatherproof box below	20, 30, or 75 cd
	49VO-WRQO-C	Red	FEU		
	49VO-APPLW-CO	order cover separately			
Horn/Strobe (A/V)	49AV-WRFO-C	Red	FIRE		
	49AV-WRQO-C	Red	FEU		
	49AV-APPLW-CO	order cover separately			

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

Lettering	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 ⅞" W x 1 ⅝" D (140 mm x 156 mm x 41 mm)
49WPBB-AVVOWW	White		

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.

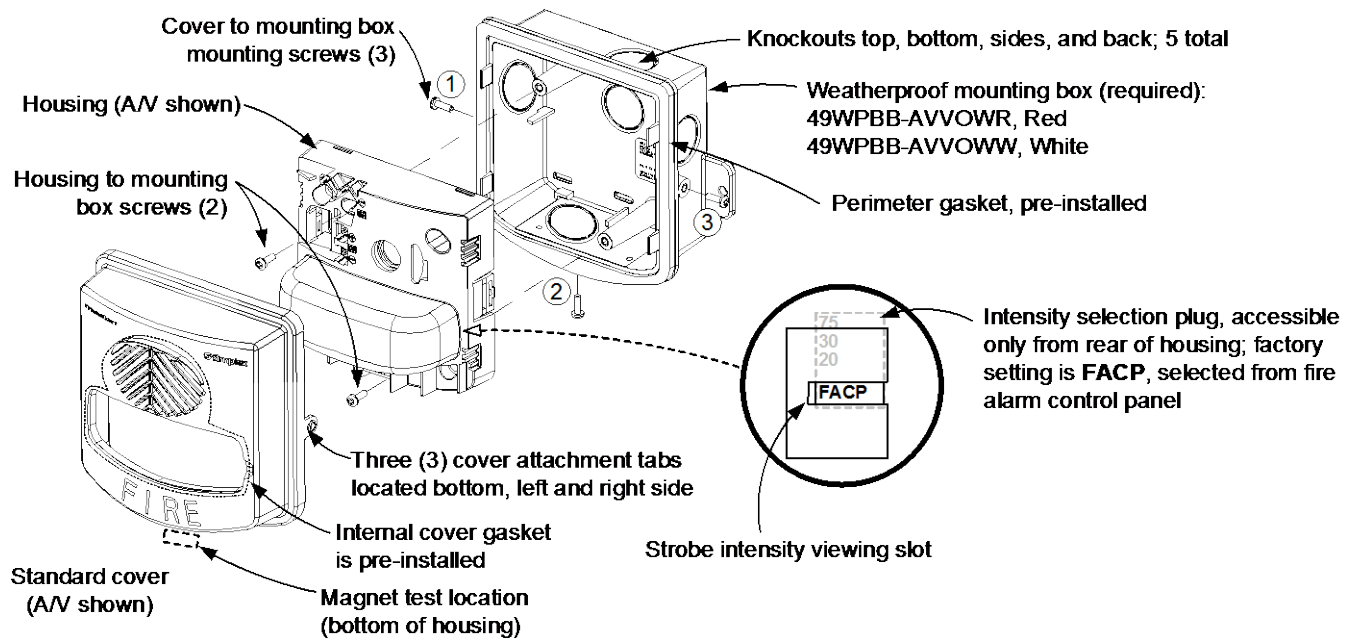
TrueAlert Addressable Wiring Isolator

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.)

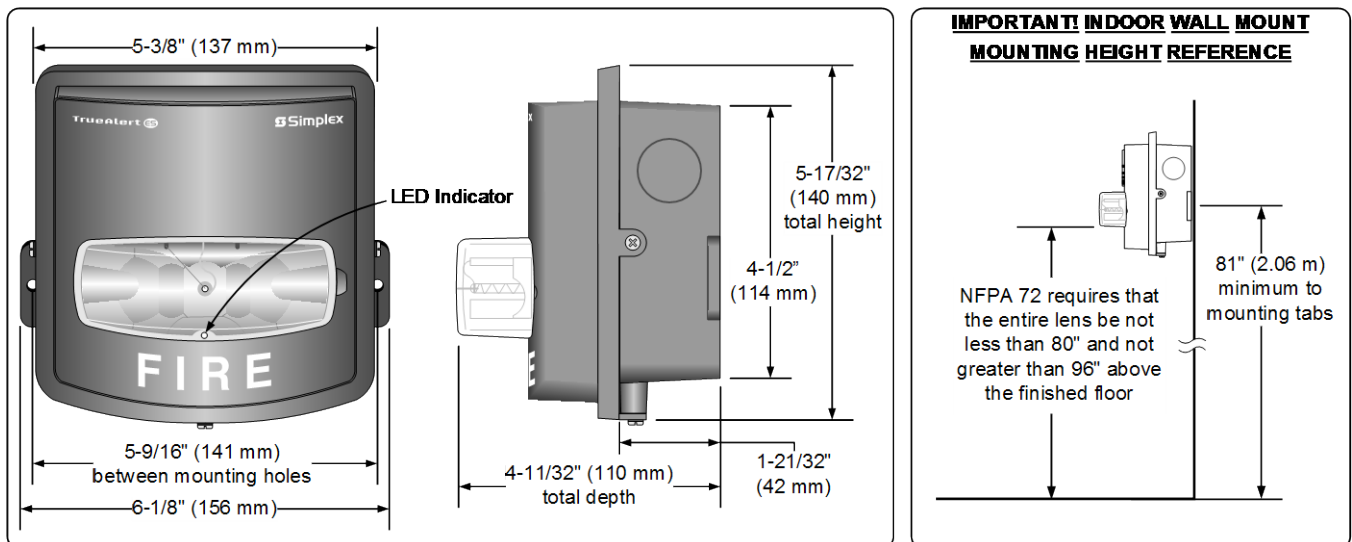
TrueAlert Device Reports Reference

Service Port		Page 1	
REPORT 5 : TrueAlert Device Report		12:34:56am	TUE 27-Jan-15
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



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	-40°F to 150°F (-40° C to 66°C); 20, 30, or 75 cd setting
Humidity Range	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)
Wiring 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	579-1033

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

Horn Output Ratings	Sound Type (see Note)	Steady/High	Steady/Low	Coded/High	Coded/Low
	Anechoic Chamber, ULC 525 Test		87.4 dB	81.0 dB*	87.2 dB

* **Note:** Settings with ratings below 85 dB should not be used for Public Notification. Coded values are typical of the output measured with a Temporal coded or a March Time coded pulse and with a sound level meter reading on a "fast" setting.

23 VDC Current Ratings

Model	20 cd	30 cd	75 cd
V/O Model 40VO-APPLW-CO	143 mA	150 mA	168 mA
A/V Model 40AV-APPLW-CO, horn on continuous, high setting	161 mA	165 mA	181 mA
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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