Features

Individually addressed and controlled low power

TrueAlert ES Audible Only (A/O) Notification Appliances:

- Advanced addressable notification controlled by *IDNAC* signaling line circuit (SLC).
- *IDNAC* SLCs provide *regulated 29 VDC* to allow horns to operate with lower current.
- Wiring supervision to each appliance to allow T-tap connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring).
- *Self-Test Mode* uses an on-board sensor to detect the horn output and report the status to the control panel.
- Horns are controlled separately from visible appliances on the same SLC with control panel selection of operation as: **Temporal Code 3**, **March Time** (selectable as 20 beats per minute (bpm), 60 bpm, or 120 bpm), **Continuous**, or **Temporal Code 4**.
- Select a high or low output (~6 dBA difference) 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 the appliances and wiring.
- Remove the cover to access the electrical test point.
- Compatibility with ADA requirements, see Installation reference.
- 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 can also be set to briefly sound the horn to confirm operation.

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing available in a variety of colors and lettering.
- Separate covers are available for replacement, or to change the application type onsite.
- Covers can be easily removed without disturbing the connected housing, avoiding trouble conditions.
- Optional wire guards, see Table 4.

Description

TrueAlert ES addressable horns

TrueAlert ES addressable horns are individually addressed audible notification appliances that receive power, supervision, and control signals from a Simplex fire alarm control panel providing **IDNAC** Signaling Line Circuits (SLCs), see Table 5.

Figure 1: TrueAlert ES Addressable Horn

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, to allow horns 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 may include the following:

- Wiring distances up to three times farther than with conventional notification.
- Support for more appliances for each IDNAC SLC.
- Use of smaller gauge wiring.

This provides 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, to allow 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 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 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 a list in IDNAC SLC controller compatibility reference.

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 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 correct operation.

TrueStart Instrument Two (TSIT)

The second 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. Contact your local Simplex representative for additional information.

TrueAlert addressable wiring isolator

Isolator Model 4905-9929

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*.

Product selection

Ceiling Mount Addressable Audible Only A/O Appliances

TrueAlert ES Addressable A/O appliance dimensions with cover: 7 ⅛ in. H x 7 ⅛ in. W x 1 ¼ in. D (180 mm x 180 mm x 32 mm).

Table 1: Audible Only A/O Appliances

Model	Description
49AO-APPLC-O	AO appliance only. Select cover and weatherproof backbox separately.

Table 2: Back boxes

Model	Color
49WPBB-SOCR	Red
49WPBB-SOCW	White

Table 3: Separate Covers (required when ordering model 49AO-APPLC-O)

Model	Color	Wording
49SOC-CRFIRE-O	Red	**FIRE**
49SOC-CWFIRE-O	White	
49SOC-CWALT-O	White	**ALERT**
49SOC-CRS-O	Red	**Simplex** logo only
49SOC-CWS-O	White	

Table 4: Wire Guard

Model	Description
49WG-SOCR-O	SO ceiling mount red wire guard

IDNAC SLC controller compatibility reference

Table 5: 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			

TrueAlert ES horn specifications

Table 6: Electrical ratings

Specification	Rating
Typical operating voltage range	Special Application, 23 VDC to 30 VDC
RMS current rating	18 mA maximum @ 23 V rating VDC
Supervisory requirements	1 unit load (= 0.8 mA control panel current)
IDNAC SLC loading	Maximum of 127 addresses for each SLC, 139 unit loads

Table 7: UL rated sound pressure level (SPL) measurement (dBA)

Reverberant room at 10 feet (3.048 m) in accordance with UL464, see note 2	Voltage (VDC)	Horn See note 1
High volume setting using addressable controller, see note 3	23	87
	30 (Max.)	89
Low volume setting using addressable controller, see note 3	23	82
	30 (Max.)	84
Anechoic room at 10 feet (3.048 m) in accordance with ULC S525		
High volume setting	23	90
	30 (Max.)	93
Low volume setting	23	85
	30 (Max.)	87

Note:

1. Representative of all tones: steady, temporal, march.

2. <u>Reverberant</u> dBA measurements are a minimum UL rating based on sound power level measurements made in UL's reverberant test chamber.

3. High and low volume settings are configured using the DIP Switch (CFIG1) on the controller.

4. Subtract 4 dB from anechoic SPL levels above to obtain Factory Mutual SPL ratings.

Table 8: ULC directional characteristics for horn (AO)

Specifications
Both axes 45° for -3 dBA
Both axes 85° for -6 dBA

Table 9: Environmental specifications

Specifications	Details
Rated DC control/strobe voltage range	Special application 23 VDC - 30 VDC
UL/ULC temperature rating - W110 CD/W135 CD/W185 CD	-40 °F to 151 °F (-40 °C to 66 °C)
UL/ULC temperature rating for indoor and uncontrolled wet Public Mode - 110 CD	0 °F to 120 °F (0 °C to 49 °C)
FM temperature rating	-40 °F to 120 °F (-40 °C to 49 °C)
UL/ULC humidity range	95 %, non-condensing at 140 °F (60 °C)
Connections	Terminal for 18 AWG to 12 AWG (0.82 mm^2 to 3.31 mm^2)
CAUTION: The appliance covers and backboxes are available in red and white. Do not paint or otherwise alter the factory finishes in any way.	
Installation instructions *579-1228 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 for each SLC = 10,000 ft (3048 m)
	Maximum wire length to any appliance = 4000 ft (1219 m)
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.	

TrueAlert device reports reference

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

                                                  DEVICE
POINT ID    CUSTOM LABEL                           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
```
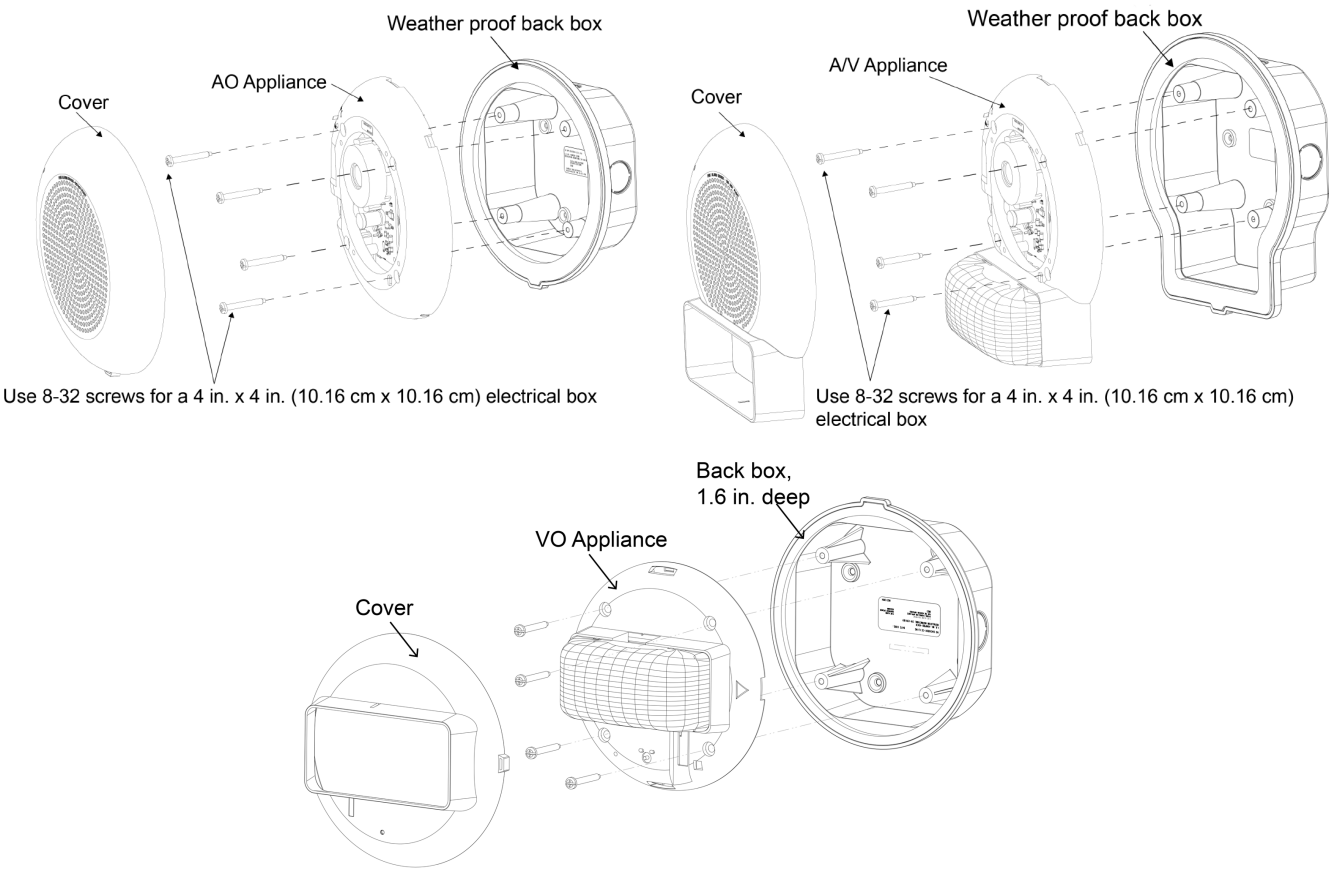
Figure 2: Device reports reference

Installation reference

Figure 3: Installation reference