

Features

Individually addressed and controlled multi-tone and multi-candela TrueAlert ES A/V (audible/visible) notification appliances provide:

- Multi-candela xenon strobe with synchronized 1 Hz flash rate and with intensity *programmable from the control panel* or jumper selected as 15, 30, 75, 110, 135, or 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
- Per appliance tone selection of: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, or Siren; *programmable from the control panel*, or selected using an on-board DIP Switch (refer to sound output details on page 4)
- 520 Hz tone is compliant with NFPA 72 Low Frequency Signal Requirements for Sleeping Areas
- Horn, Bell, and High/Low tones can be controlled as: Temporal Code 3, Temporal Code 4, March Time (selectable as 20, 60, or 120 bpm), or Continuous
- Slow Whoop, Siren, and Chime tone selections are controlled as synchronized continuous operation
- Output of “high” or “low” (~6 dBA difference) selectable at the appliance or from the controller with FACP mode selected at the appliance
- *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
- Compatibility with ADA requirements; (refer to important installation information on page 3)
- Strobe operation is listed to UL Standard 1971 and ULC Standard S526; Horn operation is 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 be set to also briefly flash the strobe and sound the horn



TrueAlert ES Multi-Tone Addressable A/Vs are Available in Red with White Lettering and White with Red Lettering

Features (Continued)

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters, with clear lens, available with FIRE, FEU, ALERT, FEU/FIRE, or blank lettering
- Separate covers are available to change application type on-site or for replacement; covers can be easily removed without disturbing the connected housing and avoiding trouble conditions
- 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
- Optional mounting adapters are available to cover surface mounted electrical boxes and to adapt to Simplex 2975-9145 boxes

Description

TrueAlert ES addressable multi-tone A/Vs are individually addressed audible/visible notification appliances that 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 7135-0026:0380 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.

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 improve installation efficiency. TrueAlert device reports conveniently identify information about each connected appliance.

Product Selection

TrueAlert ES Wall Mount Multi-Tone Addressable Audible/Visible Appliances

TrueAlert ES multi-tone addressable A/V appliances include cover and matching mounting plate except as noted; Dimensions with Cover = 5 1/8" H x 5" W x 2 5/8" D (130 mm x 127 mm x 67 mm)

| Model* | Cover Color | Wording | Lens Color | Model* | Cover Color | Wording | Lens Color |
|------------------|--|---------|------------|--------------|-------------|---------|------------|
| 49MTV-WRF(-BA) | Red | FIRE | Clear | 49MTV-WRS-BA | Red | Blank | Clear |
| 49MTV-WWF(-BA) | White | | | 49MTV-WWS-BA | White | | |
| 49MTV-APPLW(-BA) | Select cover and mounting plate separately | | | | | | |

Separate Mounting Plate (Required when ordering model 49MTV-APPLW(-BA))

| Model* | Color | Model | Color | Note |
|-------------|-------|-------------|-------|---|
| 49MP-AVVOWR | Red | 49MP-AVVOWW | White | Mounting Plate, select color to match cover |

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

Separate Covers (Required when ordering model 49MTV-APPLW(-BA), uses same covers as 49AV Series fixed tone A/Vs)

| Model | Color | Wording | Model | Color | Wording |
|--------------|-------|------------|--------------|-------|------------|
| 49AVC-WRFIRE | Red | FIRE | 49AVC-WRFEU | Red | FEU |
| 49AVC-WWFIRE | White | | 49AVC-WWFEU | White | |
| 49AVC-WRALT | Red | ALERT | 49AVC-WRBLNG | Red | FEU/FIRE |
| 49AVC-WWALT | White | | 49AVC-WWBLNG | White | |
| 49AVC-WRS | Red | Logos Only | 49AVC-WWS | White | Logos Only |

Mounting Adapters

| Model | Color | Description | Dimensions |
|-----------|--|-----------------------------|---|
| 4905-9937 | 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) |
| 4905-9940 | White | | |
| 4905-9931 | Red Adapter Plate for mounting to Simplex 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 Mounting Box, requires 4905-9931 Adapter Plate | | 7 7/8" x 5 1/8" x 2 3/4" D (200 mm x 130 mm x 70 mm) |

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 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.

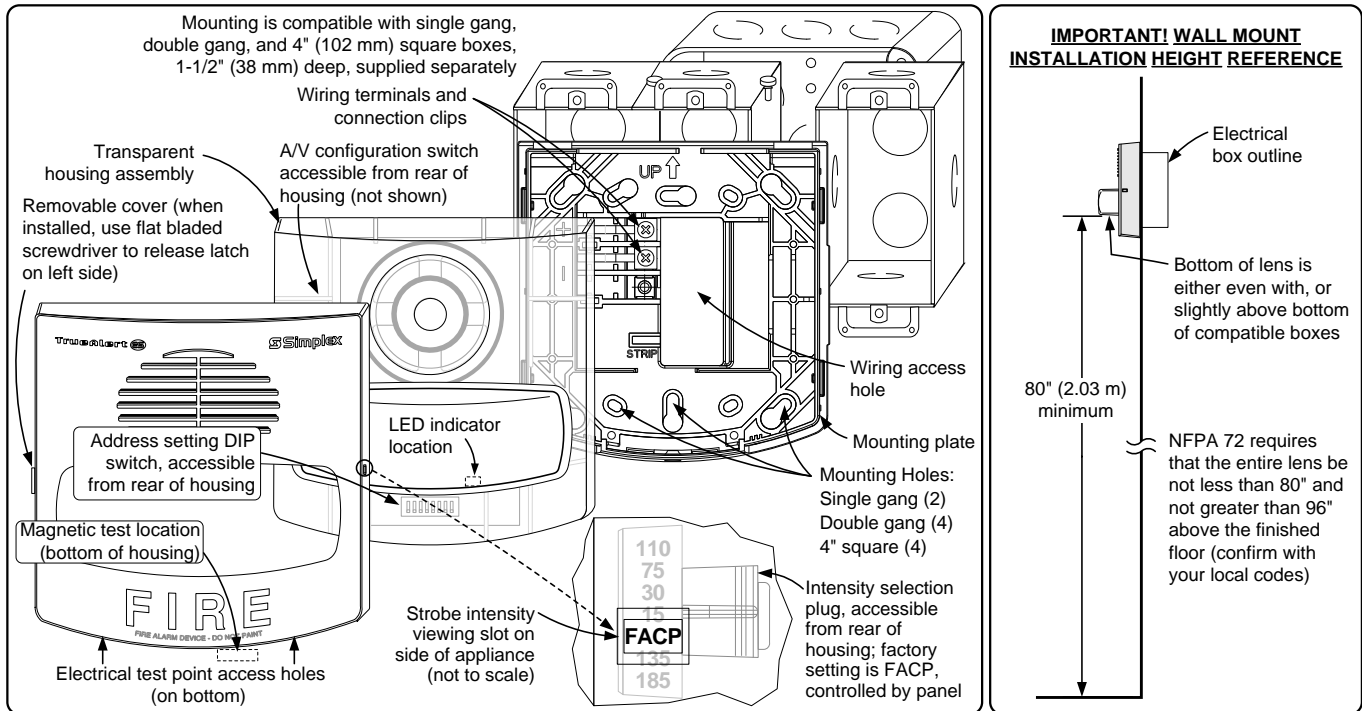
TrueAlert Addressable Wiring Isolator

Isolator Model 4905-9929 is available for remote mounting on TrueAlert addressable circuits to isolate short circuited wiring from functioning wiring. (See data sheet S4905-0001.)

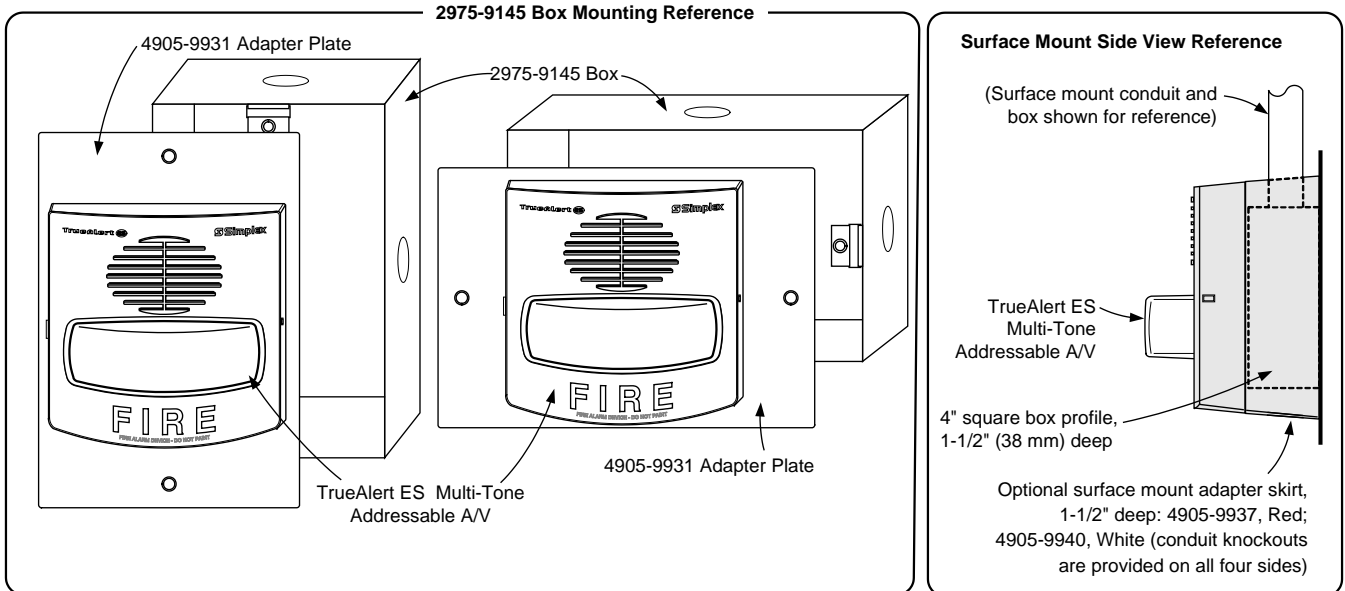
TrueAlert Device Reports Reference

| Service Port | | Page 1 | |
|------------------------------------|--|--------------------------|---------|
| REPORT 5 : TrueAlert Device Report | | 12:34:56am TUE 10-Mar-15 | |
| POINT ID | CUSTOM LABEL | DEVICE TYPE | CANDELA |
| T14-1-1 | Location Label . . . up to 40 characters | MT AV | 15 |
| T14-1-2 | Break Room 5 | MT AV | 110 |
| T14-1-3 | Boiler Room | VO | 75 |
| T14-1-4 | Elec. Room 7 | AV | 135 |

Installation Reference



Adapter Plate and Surface Mount Installation 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 | | | |

TrueAlert ES A/V Specifications

| | |
|---|--|
| Typical Operating Voltage Range | 23 VDC to 29.5 VDC, Special Application |
| Electrical Ratings | Supervisory Requirements |
| 49MTV Series SLC Loading | 2 unit loads (1 unit load = 0.8 mA control panel current) |
| IDNAC SLC Wiring Specifications (refer to control panel or power supply installation instructions for more information) | Up to 21 appliances can connect directly to the panel IDNAC SLC or to a 4009 IDNAC Repeater output, to a maximum of 127 addresses and 139 unit loads per SLC |
| | 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) |

Tone Characteristics

| | | |
|----------------|---|---|
| 520 Hz Horn | 520 Hz tone | These tones are compatible with control panel IDNAC commands for operation as Temporal Code 3, Temporal Code 4, March Time at 20, 60, or 120 bpm, or Continuous operation |
| Broadband Horn | Combination 600/3000 Hz signal | |
| Bell | Synthesized Bell tone | |
| High/Low | Alternating modulated tones with fundamentals of 1000 Hz and 800 Hz, 250 ms duration each | These tones operate as Continuous with synchronization |
| Slow Whoop | Modulated 520 Hz to 1200 Hz sweep with 2 s duration | |
| Siren | Modulated 600 Hz to 1200 Hz to 600 Hz sweep, with 2 s duration | |
| Chime | Multi-phase signal with a peak and decay time of 1 s | |

TrueAlert ES Multi-Tone Horn/Strobe Current Ratings

| Tone | RMS Current Ratings @ 23 VDC, in mA | | | | | | | | | | | |
|--|-------------------------------------|-----|-------|-----|-------|-----|--------|-----|--------|-----|--------|-----|
| | 15 cd | | 30 cd | | 75 cd | | 110 cd | | 135 cd | | 185 cd | |
| | High | Low | High | Low | High | Low | High | Low | High | Low | High | Low |
| 520 Hz Horn and High/Low | 145 | 108 | 163 | 125 | 198 | 158 | 230 | 195 | 262 | 214 | 299 | 257 |
| Broadband Horn, Bell, Chime, Slow Whoop, and Siren | 135 | 99 | 152 | 111 | 185 | 139 | 212 | 172 | 247 | 203 | 284 | 243 |

TrueAlert ES Multi-Tone Horn/Strobe Horn Output

| Tone | Voltage | UL 464 Output Ratings @ 23 VDC and 29.5 VDC (dBA)* | | | | | | | | ULC S525 Output Ratings @ 23 VDC and 29.5 VDC (dBA)* | | | | | | | |
|----------------|---------|--|------|------------|------|--|------|-----------|------|--|------|--|------|------------|------|-----------|------|
| | | Steady High | | Steady Low | | Coded High | | Coded Low | | Steady High | | Steady Low | | Coded High | | Coded Low | |
| | | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 | 23 | 29.5 |
| 520 Hz Horn | | 80 | 80 | 74** | 75 | 76 | 76 | 70** | 71** | 83† | 79† | 83† | 78† | | | | |
| High/Low | | 81 | 82 | 77 | 77 | 75 | 76 | 70** | 71** | 87 | 82† | 86† | 82† | | | | |
| Broadband Horn | | 84 | 84 | 79 | 79 | 81 | 81 | 74** | 75 | 88 | 84† | 87† | 83† | | | | |
| Bell | | 80 | 80 | 75 | 75 | 76 | 76 | 71** | 71** | 85 | 80† | 85† | 80† | | | | |
| Slow Whoop | | 79 | 80 | 74** | 75 | these tones are not used for coded operation | | | | 85 | 80† | these tones are not used for coded operation | | | | | |
| Siren | | 79 | 80 | 74** | 75 | | | | | 85 | 80† | | | | | | |
| Chime** | | 67** | 67** | 62** | 62** | | | | | 82† | 77† | | | | | | |

* Output ratings are at 10 ft (3 m); UL 464 ratings are per UL Reverberant Chamber testing; ULC S525 ratings are per ULC Anechoic Chamber testing. The tone generator circuit is DC-DC converter powered and provides essentially constant output over the rated voltage range.

** UL output ratings below 75 dBA are for NFPA 72 Private Mode applications.

† ULC output ratings below 85 dBA are for use in applications per applicable local codes.

| | | | | |
|---|------------|---------------------|---------------------|-----------------|
| Sound Output Dispersion per ULC S541 Anechoic Testing | Horizontal | -3 dBA @ ±37° | -6 dBA @ ±40° | -9.4 dBA @ ±90° |
| | Vertical | -3 dBA @ -24°, +42° | -6 dBA @ -59°, +50° | -8.6 dBA @ ±90° |

General Specifications

| | |
|---------------------------|--|
| Temperature Range | 32° to 122° F (0° to 50° C) |
| Humidity Range | 10% to 93%, non-condensing @ 104° F (40° C) |
| 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 | 579-1156 for 49MTV Series A/V appliances |
| | 579-1100 for 49MP Series mounting plates |

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