

Features

Individually addressed and controlled multi-candela TrueAlert ES V/O (visible only) 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 an on-board sensor to detect the strobe output and then report its status to the control panel
- **TrueAlert Device Reports** at the control panel detailing appliance point ID, custom label, type, and candela setting
- **Magnet Test diagnostics** to assist checkout and testing of appliances and wiring and **Electrical test point access** without removing cover
- Compatibility with ADA requirements; (refer to [Installation Reference](#))
- Compatibility with legacy TrueAlert addressable systems for upgrade and replacement (see [TrueAlert ES Strobe LEGACY Compatibility Reference](#))
- Listed to UL Standard 1971 and ULC Standard S526

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

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, ALERT, FEU, FEU/FIRE, or blank lettering
- Separate covers are available to change appliance 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
- Optional red wire guards (see [Product Selection](#))

Description

TrueAlert ES addressable strobes

TrueAlert ES addressable strobes are individually addressed visible notification appliances that receive power, supervision, and control signals from the Simplex fire alarm control panel providing **IDNAC** Signaling Line Circuits (SLCs). (See [IDNAC SLC Controller Compatibility Reference](#).)

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).



Figure 1: TrueAlert ES Addressable Strobes are Available in Red with White Lettering and White with Red Lettering

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.

* These products have been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7125-0026:0373 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 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 [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'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 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](#) .)

Installation Reference

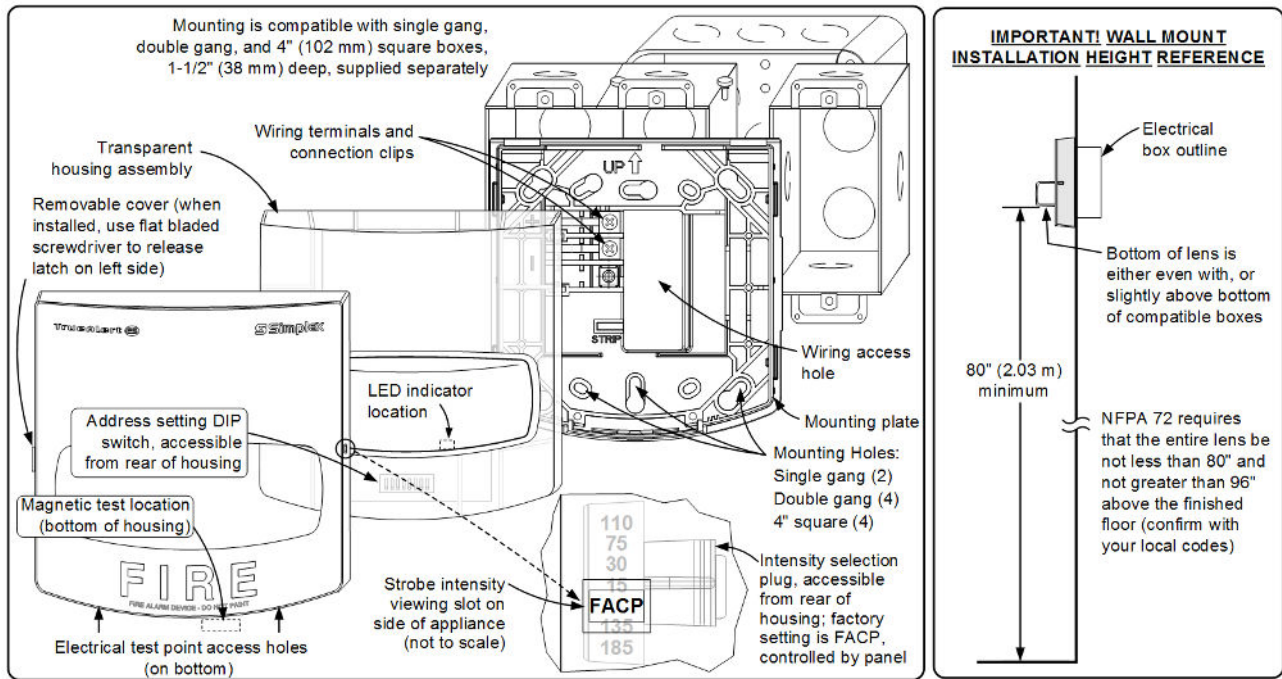


Figure 2: Installation Reference

Adapter Plate and Surface Mount Installation Reference

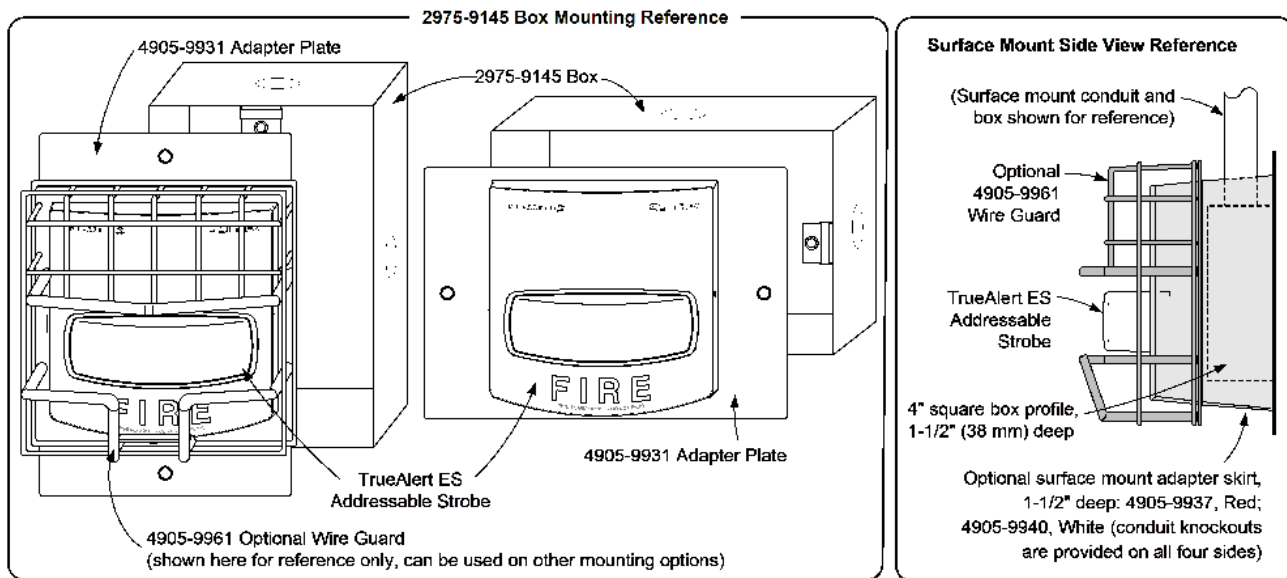


Figure 3: Adapter Plate and Surface Mount Installation Reference

The 2975-9145 box is shown mounted to the 4905-9931 Adapter Plates. Also shown is the optional surface mount adapter skirt (available in red 4905-9937 or white 4905-9940), as well as the 4905-9961 optional wire guard.

Product Selection
Table 1: TrueAlert ES Wall Mount Addressable Strobes

| SKU* | Cover Color | Wording | Lens Color |
|---------------|--|-------------------|------------|
| 49VO-WRF | Red | FIRE | Clear |
| 49VO-WRF-BA | | | |
| 49VO-WWF | White | | |
| 49VO-WWF-BA | | | |
| 49VO-WRA | Red | ALERT | |
| 49VO-WRA-BA | | | |
| 49VO-WWA | White | | |
| 49VO-WWA-BA | | | |
| 49VO-WRQ | Red | FEU | |
| 49VO-WWQ | White | | |
| 49VO-WRS | Red | Simplex logo only | |
| 49VO-WRS-BA | | | |
| 49VO-WWS | White | | |
| 49VO-WWS-BA | | | |
| 49VO-APPLW | Select cover and mounting plate separately | | |
| 49VO-APPLW-BA | | | |

TrueAlert ES addressable VO (strobe) 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)

Table 2: Separate Mounting Plate

| Model | Color | Note |
|------------|-------|---|
| 49MP-AVOWR | Red | Mounting Plate is required when ordering model 49VO-APPLW(-BA) |
| 49MP-AVOWW | White | |

Table 3: Separate Covers (Required when ordering model 49VO-APPLW(-BA))

| SKU* | Color | Wording |
|--------------|-------|-------------------|
| 49VOC-WRFIRE | Red | FIRE |
| 49VOC-WWFIRE | White | |
| 49VOC-WRALT | Red | ALERT |
| 49VOC-WWALT | White | |
| 49VOC-WRFEU | Red | FEU |
| 49VOC-WWFEU | White | |
| 49VOC-WRBLNG | Red | FEU/FIRE |
| 49VOC-WWBLNG | White | |
| 49VOC-WRS | Red | Simplex logo only |
| 49VOC-WWS | White | |

Table 4: Mounting Adapters and Wire Guard

| 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) |
| 4905-9940 | White | | Total depth with strobe = 4 3/8" (111 mm) |
| 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) |
| 4905-9961 | Red wire guard with mounting plate, compatible with semi-flush or surface mount boxes | | 6 1/16" H x 6 1/16" W x 3 1/8" D (154 mm x 154 mm x 79 mm) |

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 Strobe Specifications

Table 5: Electrical Ratings

| 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 panel current) |
| IDNAC SLC Loading | Maximum of 127 addresses per SLC, 139 unit loads |

Table 6: Candela Setting

| Candela | 15 cd | 30 cd | 75 cd | 110 cd | 135 cd | 185 cd |
|--|-------|-------|--------|--------|--------|--------|
| 23 VDC RMS Current Ratings, for typical design of IDNAC Addressable SLCs (6 VDC drop) | 47 mA | 57 mA | 100 mA | 132 mA | 160 mA | 208 mA |

Table 7: General Specifications

| | |
|--|--|
| Temperature Range | 32° to 122° F (0° to 50° C) |
| Humidity Range | 10% to 93%, non-condensing @ 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 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 | 579-1031 |
| Note: Refer to compatibility table above for fire alarm control panel and power supply operation type. | |

TrueAlert ES Strobe LEGACY Compatibility Reference

Table 8: Compatibility Reference

| Compatible Controller | Data Sheet Reference | Controller Output | Available Strobe Intensity | Appliance Voltage Minimum |
|---|----------------------|---------------------------|----------------------------|---------------------------|
| 4100ES or 4100U with TrueAlert Power Supply | <i>S4100-0031</i> | TrueAlert Addressable SLC | 15, 30, 75, and 110 cd | 17 VDC |
| 4009 TPS, Remote TrueAlert Power Supply | <i>S4100-0037</i> | | | |
| TrueAlert Addressable Controller (4009T) | <i>S4009-0003</i> | | | |

Table 9: Electrical Ratings Reference 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 | 62 mA | 75 mA | 133 mA | 178 mA |