

**Features****Individually addressed and controlled multi-candela V/O (visible only) notification appliances provide:**

- Amber lens with “ALERT” lettering produces a signal unique from clear lens fire alarm evacuation strobes for use with Emergency Communications Systems
- Separate device type allows connection on same SLC as clear lens strobes with independent operation; clear strobes for Fire Alarm, amber strobes for Alert (Operation is clear/Fire **OR** amber/Alert, **not both**)
- High intensity multi-candela xenon strobe with intensity *programmable from a Simplex® 4100U fire alarm control panel with TrueAlert Addressable Power Supply (TPS)* or jumper selected as 15, 30, 75, or 110 cd
- Strobe flashes at a synchronized 1 Hz rate
- Wiring supervision to each appliance allowing “T-tapped” connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)
- UL listed to Standard 1638 (due to non-white lens); provides light dispersion patterns of UL Standard 1971
- ULC listed to Standard S526
- Refer to important installation information on page 4

Compatible TrueAlert Addressable Host Controls:

- *4100U TrueAlert Addressable Power Supply (TPS)* mounted in the control panel or in a remote cabinet
- *TrueAlert Addressable Controller (4009T)* interface panel

With multi-candela appliances controlled from a 4100U TPS, TrueNAC™ voltage drop diagnostics (on clear lens strobes) provide:

- Individual (clear lens) appliance voltage drop analysis testing as-built SLC wiring (when amber lens strobes are wired with similar quantity, location, and same or lower intensity as clear lens strobes on the same SLC)**
- Device Reports and Status Reports (see details on p. 2)
- Requires 4100U Software Revision 12.04 or higher and compatible TPS version

LED indicator and magnet test feature:

- Appliance LED can be selected to display each polling cycle to indicate appliance supervision
- In diagnostic mode, the magnet test pulses the LED to indicate appliance address **AND pulses to indicate the intensity selection**; a brief output of the strobe is also selectable to confirm operation

Mechanical design features:

- Rugged, high impact, flame retardant thermoplastic housings in red or white for flush or surface wall mount; white for ceiling mount
- Rear of housing does not extend into box and easily mounts to standard electrical boxes
- Wall mount wiring terminal access is from front of housing to assist installation, inspection, and testing
- Options include box adapters and red wire guards

** TrueAlert addressable notification is protected under U.S. Patent Nos. 6,313,744; 6,426,697; 6,693,532; 7,006,003; and 7,091,847. TrueNAC diagnostics are protected under U.S. patent No. 7,333,010.



Wall and Ceiling Mount Addressable Amber Lens V/Os

Description

TrueAlert Addressable Multi-Candela Strobes are individually addressed and individually controlled with power, supervision, and control supplied from a TrueAlert Addressable SLC. These amber lens multi-candela strobes provide non-fire alarm alert notification for use with Emergency Communications systems where additional response information is provided by audio or textual appliances.

4100U Additional Features. When controlled from a Simplex 4100U control panel with TPS, additional features are available such as software selection of strobe intensity, detailed reports of actual appliance intensity selection, TrueNAC voltage drop diagnostics for clear strobes on the same SLC, and additional setup and test diagnostics. (See additional details on page 2).

Strobe Intensity Selection**Selectable at Appliance or Remotely Selected.**

During installation, a plug at the back of the housing (visible after installation) is inserted to select strobe output as 15, 30, 75, or 110 cd; **or FACP**. *FACP is the factory default setting and allows a 4100U control panel with TPS to program the output intensity.*

FACP Selection Advantages. When intensity is selected in software from a 4100U fire alarm panel, it can be easily changed if renovations or other usage conditions are revised, and intensity selection errors at installation are effectively eliminated.

* See page 3 for wire guard listings. 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 7300-0026:325 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. FM approval and MEA acceptance are not applicable. 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 Safety Products Westminster.

Strobe Application Reference

Amber strobes used as part of an Emergency Communications system are located to provide the same area coverage as required of clear lens fire alarm strobes. Specific Emergency Communications requirements are discussed in detail in document UFC 4-021-01 (USA Department of Defense, United Facilities Criteria) and in NFPA 72, 2007 Annex E.

Proper strobe coverage criteria is further described in 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).

TrueAlert Addressable Advantage

TrueAlert Addressable Operation provides separate audible and visible appliance control functions 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 beyond the appliance wiring connections.

Opportunities for Reducing Installation and Testing Time. Separate controls carried on the same two-wire SLC can significantly reduce installation time and expense for both retrofit and new construction. When Class B (Style 4) wiring is used, *wiring can be T-tapped*, allowing savings in distance, wire, junction boxes, and overall installation efficiency. In addition, TrueNAC diagnostics further improve installation efficiency by analyzing individual appliance wiring connections.

Addressable Product Reference

Product	Data Sheet
V/O (strobe)	S4906-0004
A/V (horn/strobe)	S4906-0005
S/V (speaker/strobe)	S4906-0006
TrueAlert Isolator	S4905-0001
TrueAlert Addressable Horn	S4901-0012
TrueAlert Addressable Controller (4009T)	S4009-0003
4100U Fire Alarm Panels	S4100-0031

TrueAlert Device and Device Status Reports

Service Port		DEVICE		Page 1
POINT ID	CUSTOM LABEL	TYPE	CANDELA	
REPORT 5 : TrueAlert Device Report				12:34:56am WED 2-Sep-09
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 Fire	A/V	75	
T14-1-4	Boiler Room Alert	AMB	75	

Service Port		TEST RESULT		Page 1
POINT ID	CUSTOM LABEL			
REPORT 6 : TrueNAC Status Report				12:34:56am WED 2-Sep-09
TPS AT ADDRESS 3				
SLC 1				
T14-1-1	Location Label . . . up to 40 characters		PASSED	
T14-1-3	West Hall South End		PASSED	
T14-1-5	Classroom 2		PASSED	
T14-1-6	Classroom 3		FAILED	-0.6
NOMINAL CURRENT (A) :		1.34		
WORST CASE CURRENT (A) :		1.97		
WORST CASE VOLTAGE ABOVE/BELOW THRESHOLD (V) :		-0.6		
SLC HAS NOT PASSED UNLESS ALL DEVICES ARE MARKED AS PASSED				

TrueAlert Addressable Diagnostics

Appliance Type and Intensity Check. The TrueAlert Addressable Host Control is programmed with address, location, device type, and intensity selection. An incorrect appliance replacement or substitution will produce a location specific trouble allowing easy correction.

LED Communications Indicator. The host control can be selected to pulse each appliance's LED when it receives a supervision poll. This feature can be left on continuously, or activated for system testing.

Silent Mode Appliance Magnet Testing. In this test mode, the local magnet test activates the appliance LED to pulse sequentially to indicate the appliance's address *and* to indicate the appliance's strobe intensity selection.

Operational (non-silent mode) Appliance Magnet Test. When this test mode is selected at the host control, after the address and intensity selection is indicated, the strobe will flash once to indicate proper operation.

4100U TrueNAC Diagnostic Operation

Individual Appliance Performance Analysis. With clear lens appliances on the SLC activated, each measures its terminal voltage and reports it to the 4100U TPS where its address and appliance type is stored in memory. The 4100U TPS measures its output voltage and current and then iteratively analyzes all of this information against known appliance power requirements to determine equivalent impedance to each appliance. TrueNAC diagnostics then analyze each appliance's wiring connection for performance under worst case conditions and identifies problems by appliance address.

TrueAlert Device Reports detail type, candela rating, and location per appliance (see first sample below, amber lens type is AMB). Fixed candela appliances also report, but are not compatible with TrueNAC voltage drop diagnostics.

TrueNAC Status Reports detail the SLC wiring diagnostic results for clear strobes as shown in the second report example below. With amber and clear strobes on the same SLC wiring, the test applies to both types (amber lens strobes list as passed).

Product Selection

Multi-Candela Addressable Strobe with Amber Lens

Model	Mounting	Housing Color	"ALERT" Lettering	Dimensions	Description
4906-9205	Wall	Red	White	5-1/8" H x 5" W x 2-3/4" D (130 mm x 127 mm x 70 mm)	Multi-Candela Addressable Strobe with amber lens; intensity selectable as: 15, 30, 75, or 110 candela
4906-9206		White	Red		
4906-9207	Ceiling	White	Red	4-3/4" x 2-5/16" x 2-5/8" D (121 mm x 75 mm x 67 mm)	

V/O Adapters (see diagram on page 4)

Model	Description	Dimensions
4905-9937	Red	Wall Mount, Surface Mount Adapter Skirt; use to cover 1-1/2" (38 mm) deep surface mounted boxes
4905-9940	White	
4905-9931	Wall Mount, Red Adapter Plate for mounting to Simplex 2975-9145 box (typically for retrofit, may be mounted 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	Wall Mount, Red Mounting Box, requires Adapter Plate 4905-9931	7-7/8" x 5-1/8" x 2-3/4" D (200 mm x 130 mm x 70 mm)
4905-9910	Ceiling Mount, Surface Mount Adapter Plate, zinc plated; required for ceiling surface mount	4-7/8" x 3-1/8" (124 mm x 79 mm)

Wire Guards (see diagram on page 4)

Model	Description	Dimensions
4905-9961*	Wall Mount	Red wire guard with mounting plate, compatible with semi-flush or surface mounted boxes
4905-9926*	Ceiling Mount	
		6-1/16" H x 6-1/16" W x 3-1/8" D (154 mm x 154 mm x 79 mm)
		6-1/8" x 4-3/8" x 2-7/8" (156 mm x 111 mm x 73 mm)

* UL listed by Space Age Electronics Inc.

Addressable V/O Specifications

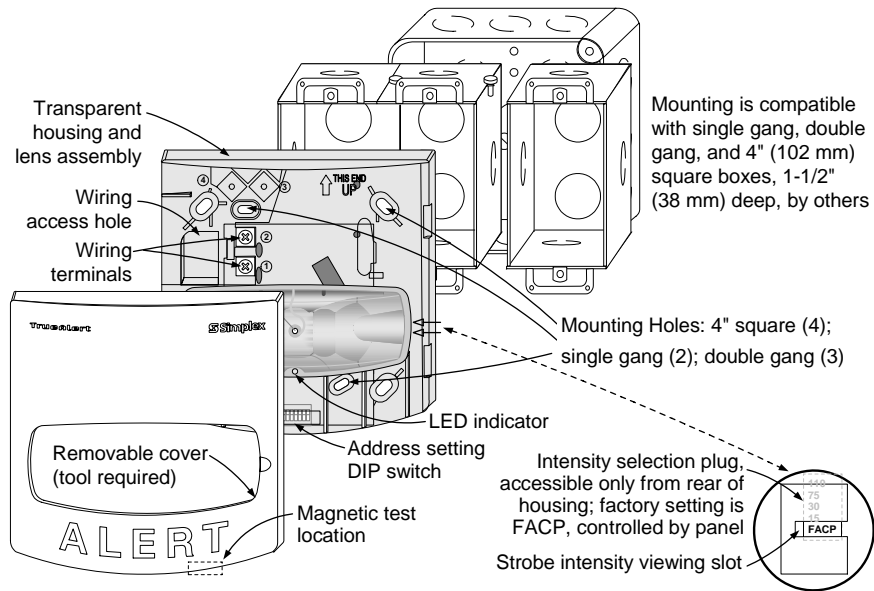
Wall Mount or Ceiling Mount, Common Specifications

Voltage Range	Special Application, 17 to 31 VRMS, see Note 1 below					
Supervisory Requirements	1 unit load					
Strobe Flash Rate and SLC Loading	1 Hz; with up to 46 synchronized addressable strobes maximum per SLC					
Environmental; Temperature and Humidity	32° to 122° F (0° to 50° C); 10% to 93%, non-condensing at 100° F (38° C)					
Terminal Block Connections	18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²); 2 wires per terminal for in/out wiring					
Wall Mount Current	Housing Dimensions (with lens)	5-1/8" H x 5" W x 2-3/4" D (130 mm x 127 mm x 70 mm)				
	Maximum RMS Current Rating per Strobe Intensity (see Note 2)	15 cd	30 cd	75 cd	110 cd	
		64 mA	98 mA	187 mA	253 mA	
	RMS Currents at other voltages (Reference)	18 VRMS	60 mA	93 mA	177 mA	239 mA
		24 VRMS	45 mA	69 mA	132 mA	179 mA
Ceiling Mount Current	Housing Dimensions (with lens)	4-3/4" x 2-5/16" x 2-5/8" D (121 mm x 75 mm x 67 mm)				
	Maximum RMS Current Rating per Strobe Intensity (see Note 2)	15 cd	30 cd	75 cd	110 cd	
		76 mA	128 mA	242 mA	328 mA	
	RMS Currents at other voltages (Reference)	18 VRMS	72 mA	121 mA	229 mA	310 mA
		24 VRMS	54 mA	91 mA	171 mA	232 mA

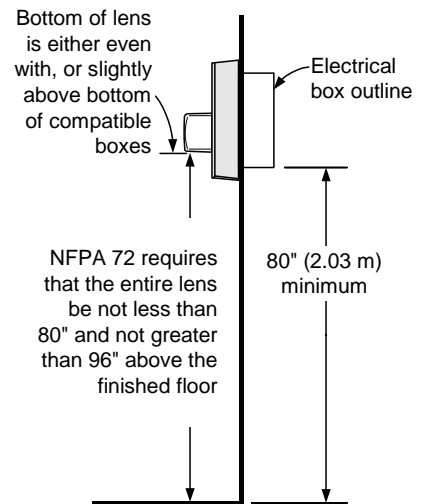
NOTES:

- "Special Application" refers to the operating category under UL Standard 1638, *Visual Signaling Appliances – Private-Mode Emergency and General Utility Signaling*. The rated voltage range listed is the absolute operating range. Operation outside of this range may cause permanent damage to the appliance. Please note that 17 VRMS is the lowest operating voltage allowed at the last appliance on the TrueAlert signaling line circuit under worst case conditions.
- The maximum RMS current listed is the appliance nameplate rating. Strobe designs are constant wattage and the maximum RMS current rating occurs at the lowest allowable operating voltage. (RMS is root mean square and refers to the effective value of a varying current waveform.)

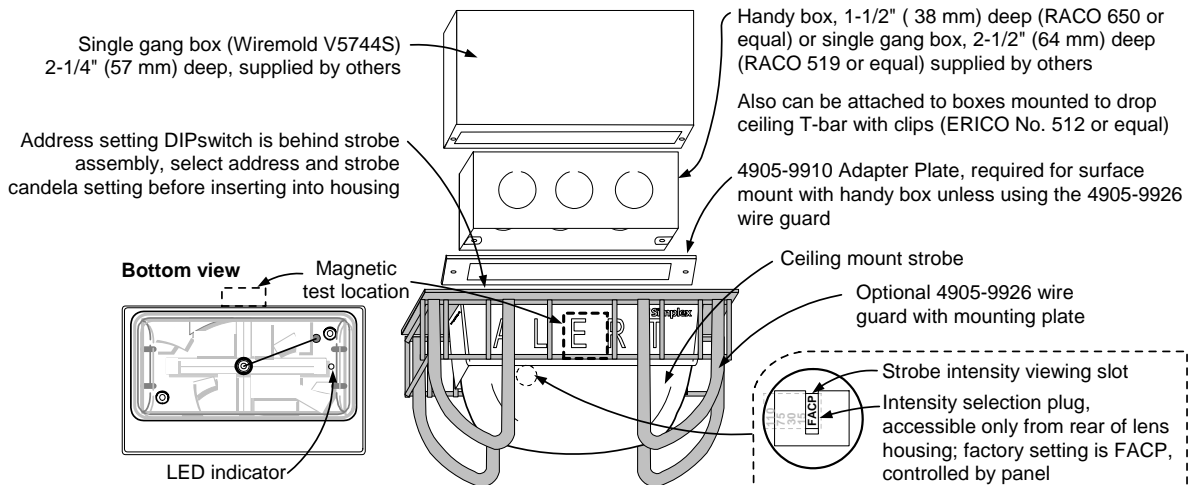
Wall Mount Installation Reference, Surface or Semi-Flush Mounting



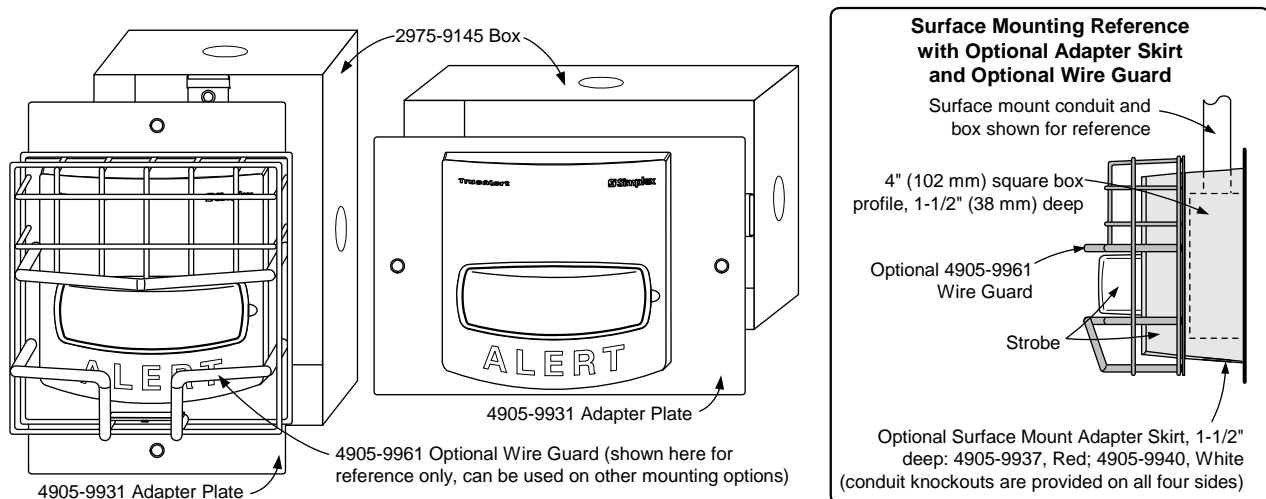
IMPORTANT! WALL MOUNT INSTALLATION HEIGHT REFERENCE



Ceiling Mount V/O and Guard Installation Reference



Wall Mount Installation Reference; Adapter Plate, Guard, and Adapter Skirt



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