Simplex

True*Alert* ES LED Addressable Notification Appliances

UL, ULC, CSFM Listed*
FM Approved*

Weatherproof Notification Appliances, Wall Mount,
Visible Only, Audible/Visible, Model Series 59WP

Features

Individually addressable multi-candela TrueAlert ES weatherproof notification appliances

- Multi candela LED strobe available in low (15, 30 and 75 cd) and high (110, 135 and 185 cd) range candela models

- Available in Visible Only (V/O) and Audible/Visible (A/V) models

- Small compact design and low current draw due to energy efficient strobe LEDs

- Strobe intensity can be programmed from the control panel or the device

- Advanced addressable notification controlled by IDNAC Signaling Line Circuits (SLCs) provides regulated 29 VDC which allows strobes to operate with lower current even under battery backup

- Wiring supervision to each appliance allows "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/or horn output and then report their status to the control panel

- TrueAlert Device Reports at the control panel detail appliance point ID, custom label, type, and candela setting (see sample on page 3)

- Magnet Test diagnostics assist checkout and testing of appliances and wiring

- Synchronized LED strobe and piezo operation on the same IDNAC channel

Agency listings reference

- Meets environmental requirements for UL1638 and light distribution requirements for UL1971

- UL 1638 listed for outdoor applications

- UL 1971 listed for indoor applications; indoor applications are compatible with ADA requirements (refer to important mounting information on page 3)

- Horn operation is listed to UL Standard 464

- Strobe operation listed to UL Standard 1971 and ULC Standard S526

LED Indicator and Magnet Test

- Indicator LED indicates magnet test acknowledgment, 3 digit IDNAC address, and candela rating

- Indicator LED can be configured to blink on every 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 briefly flash the strobe

A/V Models with horn

- Horns controlled separately from visible appliances on the same two-wire circuit

- Selectable March Time rates of 20, 60, or 120 BPM

- Output is "high" or "low" (~5 dBA difference) selectable at the appliance or from the controller

TrueAlert ES 59WP Series LED Addressable Strobes are Available in Red with White Lettering and White with Red Lettering

Mechanical design features

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters

- Various covers options and lettering combinations are available – red with white letters or white with red letters

- Surface mounts to a single gang weatherproof electrical box

- Covers can be easily removed without disturbing the connected housing and avoiding trouble conditions

- In/out wiring terminals for 18 AWG to 12 AWG

Description

TrueAlert ES 59 Series weatherproof addressable appliances provide visible only 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 IDNAC SLC. LED and xenon tube strobes require operation on separate IDNAC channels.

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).

TrueAlert ES Diagnostics

Magnet Test allows individual appliances to be tested when IDNAC SLCs are in diagnostic mode.

Self-Test allows selected devices to detect their own strobe and/or horn output and then report their status to the control panel. Operation is by selected VNAC appliance groups and is automatic or individually activated by applying a magnet.

Silent Appliance Magnet Test pulses the appliance indicator LED sequentially in response to an applied magnet to conveniently indicate the appliance's address.

Operational Appliance Magnet Test indicates device location by pulsing the indicator LED briefly and then flashes the strobe LEDs and sounds the horn to indicate proper operation.

TrueAlert ES Diagnostics *(Continued)*

TrueStart Instrument Two (TSIT) can be used to test IDNAC SLC wiring and TrueAlert ES appliance IDC, NAC, 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 4905-0001 for more information.

Product Selection

TrueAlert ES 59 Series Weatherproof Appliances
(Requires surface mount box and gasket. Dimensions with cover = 5 ¼" H x 3 ½ " W x 1 ⅝" D / 132 mm x 86 mm x 39 mm)

Audible/Visible

Model*	Color	Wording	Candela rating	Model*	Color	Wording	Candela rating
59AV-WRFO (-BA)	Red	FIRE	Low (15, 30 and 75 cd)	59AV-WWFO-BA	White	FIRE	Low

Visible Only

Model*	Color	Wording	Candela rating	Model*	Color	Wording	Candela rating
59VO-WRFO(-BA)	Red	FIRE	Low	59VO-WWFO-BA	White	FIRE	Low

Appliance Only

Model	Color	Candela rating	Model	Color	Candela rating
59AV-APPLWR-O	Red	Low	59VO-APPLWR-O	Red	Low
59AV-APPLWW-O	White	Low	59VO-APPLWW-O	White	Low
59AV-APPLWRH-O	Red	High (110, 135 and 185 cd)	59VO-APPLWRH-O	Red	High
59AV-APPLWWH-O	White	High (110, 135 and 185 cd)	59VO-APPLWWH-O	White	High

Separate weatherproof covers (Required when ordering appliance only models)

Model	Color	Wording	Description	Model	Color	Wording	Description
59AVC-WRFO	Red	FIRE	Audible/Visual	59VOC-WRFO	Red	FIRE	Visual Only
59AVC-WWFO	White	FIRE	Audible/Visual	59VOC-WWFO	White	FIRE	Visual Only
59AVC-WRAO	Red	ALERT	Audible/Visual	59VOC-WRAO	Red	ALERT	Visual Only
59AVC-WWAO	White	ALERT	Audible/Visual	59VOC-WWAO	White	ALERT	Visual Only
59AVC-WRSO	Red	Logos only	Audible/Visual	59VOC-WRSO	Red	Logos only	Visual Only
59AVC-WWSO	White	Logos only	Audible/Visual	59VOC-WWSO	White	Logos only	Visual Only

Surface Mount Weatherproof Boxes (Required, ordered separately)

Model	Color	Description	Dimensions
59WPBB-WR	Red	Surface mount weatherproof single-gang mounting box, includes weatherproof gasket and painted versions of Model 72219K23 (below). Order from your Simplex product representative. See install instructions 579-1224 for more information.	4 ½" H x 2 ¾" W x 2" D (114 mm x 70 mm x 51 mm)
59WPBB-WW	White	Surface mount weatherproof single-gang mounting box, includes weatherproof gasket and painted versions of Model 72219K23 (below). Order from your Simplex product representative. See install instructions 579-1224 for more information.	4 ½" H x 2 ¾" W x 2" D (114 mm x 70 mm x 51 mm)
7219K23	Gray	Surface mount weatherproof single-gang mounting box; order blank cover (below) to get matching weatherproof gasket	Manufactured by McMaster-Carr; order from electrical product supplier — 4 ½" H x 2 ¾" W x 2" D (114 mm x 70 mm x 51 mm)
7219K5	Gray	Blank cover with weatherproof gasket	N/A, cover is not used

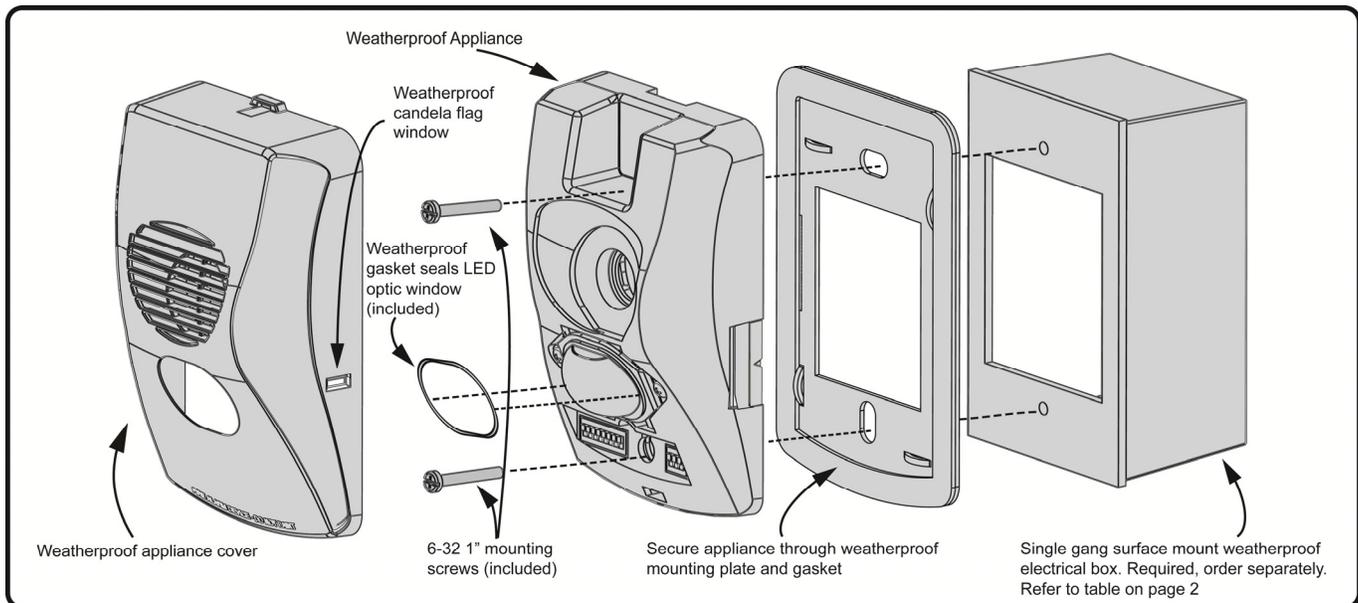**Separate European adapter back plate**

Model	Color	Description
59AP-EUROBB	Black	Wall mounting plate for mounting to UK (Deta DB164), Swiss (Kaiser 9063-01), or German (HSB, NIS Kombi 372501686) back boxes.

* Note: (-BA) indicates model is available either with or without the -BA suffix. Model numbers ending in –BA are assembled in the USA

TrueAlert Device Reports Reference

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Service Port                                                          Page 1
REPORT 5 : TrueAlert Device Report                    12:34:56am  Fri  8-May-15
                                                   DEVICE
POINT ID    CUSTOM LABEL                           TYPE     CANDELA
T14-1-1     Location Label . . . up to 40 characters    AV-LH       15
T14-1-2     Break Room 5                           AV-L         110
T14-1-3     Boiler Room                            VO-LH        75
T14-1-4     Elec. Room 7                           VO-LH       135
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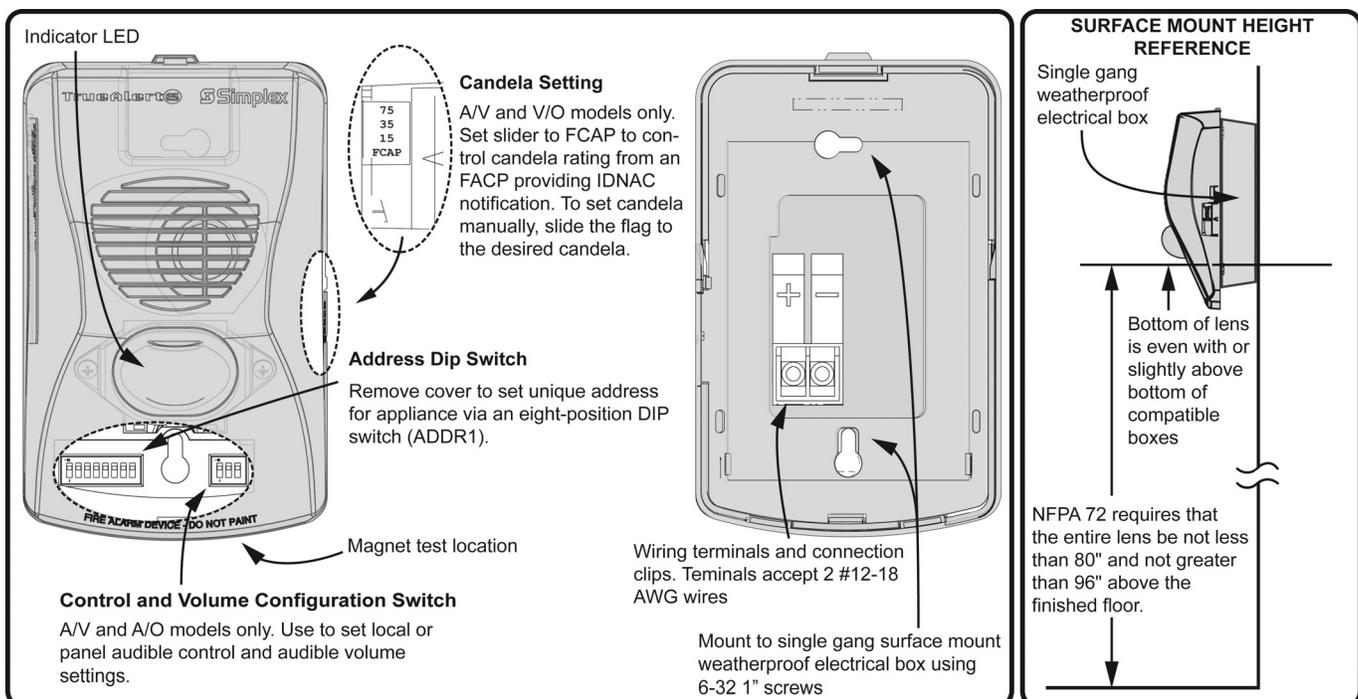
Weatherproof Appliance Installation Reference

Weatherproof Appliance

Weatherproof candela flag window

Weatherproof gasket seals LED optic window (included)

Weatherproof appliance cover

6-32 1" mounting screws (included)

Secure appliance through weatherproof mounting plate and gasket

Single gang surface mount weatherproof electrical box. Required, order separately. Refer to table on page 2

Installation and Mounting Height Reference

Indicator LED

Candela Setting

A/V and V/O models only. Set slider to FCAP to control candela rating from an FACP providing IDNAC notification. To set candela manually, slide the flag to the desired candela.

75
35
15
FCAP

Address Dip Switch

Remove cover to set unique address for appliance via an eight-position DIP switch (ADDR1).

Magnet test location

Control and Volume Configuration Switch

A/V and A/O models only. Use to set local or panel audible control and audible volume settings.

Wiring terminals and connection clips. Terminals accept 2 #12-18 AWG wires

Mount to single gang surface mount weatherproof electrical box using 6-32 1" screws

SURFACE MOUNT HEIGHT REFERENCE

Single gang weatherproof electrical box

Bottom of lens is even with or slightly above bottom of compatible boxes

NFPA 72 requires that the entire lens be not less than 80" and not greater than 96" above the finished floor.

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

Electrical Ratings

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° to 150° F (-40° to 66° C)
Humidity Range	10% to 93%, non-condensing 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)
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	579-1182

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
	Reverberant Chamber, UL 464 Test	85.2 dB	80.4 dB	81.5 dB	77.3 dB
	Anechoic Chamber, ULC 525 Test	91.5 dB	86.2 dB	91.2 dB	85.9 dB

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.

23 VDC RMS Current ratings (UL1971/ULCS526)

Model	Temperature Candela	15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
V/O	-40° to below 32° F (-40° to below 0° C)	36 mA	50 mA	70 mA	143 mA		
A/V		58 mA	71 mA	91 mA	167 mA		
V/O	32° F to 150° F (0° C to 66° C)	31 mA	44 mA	60 mA	125 mA		
A/V		51 mA	63 mA	81 mA	143 mA		

Percentage of rated light output at room temperature

Angle	On-Axis	Vertical, Below Axis		Horizontal, Left/Right of Axis	
	0°	45°	90°	45°	90°
UL required output	100%	34%	12%	75%	25%
Typical output	145%	84%	21%	102%	47%

A/V Sound Dispersion per ULC-S525 Anechoic testing performed at 3 m (10 ft); referenced to on-axis = 0°	Level Decrease	Vertical Angle	Horizontal Angle
	-3 dB	+20° (above axis)	+50° (to right)
		-48° (below axis)	-50° (to left)
	-6 dB	+65° (above axis)	+63° (to right)
		-60° (below axis)	-63° (to left)