Simplex

True*Alert* **Multi-Candela Notification Appliances**

Weatherproof Notification Appliances (non-addressable)
Wall Mount Visible Only (V/O) and Audible/Visible (A/V)

Features

Weatherproof 24 VDC notification appliances for extended temperature and extended humidity operation:

- NEMA 3R rated enclosure with ratings for indoor or outdoor applications

- Rugged, high impact, flame retardant thermoplastic housings are available in red or white with clear lens

- Red housings are for indoor or outdoor applications and provide UV light stable color

- White housings are for indoor applications with limited UV light exposure

- Mounting is to matching weatherproof boxes (required), ordered separately

- Wiring terminals are accessible from the front of the housing providing easy access for installation, inspection, and testing

Agency listings reference:

- UL listed to Standard 1638 for outdoor applications with strobe rated at 75 cd (WP75)

- UL listed to Standard 1971 for indoor applications with strobe intensity selectable as 15, 60, or 75 candela; indoor applications are compatible with ADA requirements (refer to important installation information on page 4)

- Separate models are ULC listed to Standard S526 (strobes) and S525 (horns) for outdoor applications with strobe intensity selectable as 5, 20, or 30 candela (available in red only)

Operation details:

- A visible intensity selection jumper is secured behind the strobe housing

- Polarized input allows connection to compatible reverse polarity, supervised notification appliance circuit (NAC)

- Regulated circuit design ensures consistent flash output and provides controlled inrush current

- A/V appliances have an efficient electronic horn

Synchronized strobe compatibility:

- Simplex® fire alarm control panels and NAC Extenders when selected to provide strobe synchronization or SmartSync two-wire control

- Separate strobe Synchronization Modules or SmartSync Control Modules (SCMs) that convert conventional NAC inputs to a Smartsync output

SmartSync two-wire operation provides:

- Horns controlled separately from strobes on the same two-wire circuit, activated as Temporal pattern, March Time pattern (at 60 BPM), or on continuously

Weatherproof A/V (top) and Strobe (middle), side view of A/V on Weatherproof Mounting Boxes (bottom)

Description

Weatherproof multi-candela TrueAlert appliances provide V/O and A/V SmartSync operation for indoor and outdoor, extended temperature and extended humidity applications. The enclosures are impact and vandal resistant and provide a convenient strobe intensity selection. Since each model can be selected for intensity output, on-site model inventory is minimized and changes encountered during construction can be easily accommodated.

Strobe Intensity Selection

During installation, a selection plug at the back of the housing determines the desired strobe intensity. An attached flag with black letters on a yellow background allows the selected intensity to be seen at the side of the strobe lens.

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* 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 7125-0026:331 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.

Strobe Application Reference

Proper selection of weatherproof notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm and Signaling 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). Requirements may differ from indoor appliance applications, contact your local authority having jurisdiction (AHJ) to assist in determining requirements.

SmartSync Two-Wire Control

SmartSync operation mode allows a two-wire circuit to provide the ability to activate both the horn and strobe on the same NAC and then allow the horn to be silenced while the strobe remains flashing. The horn operates as "on-until-silenced" while the strobe operation is "on-until-reset."

SmartSync Control Sources

SmartSync two-wire control is available from:

- 4006, 4007ES Hybrid, 4008, 4010, 4010ES, 4100ES, and 4100U Fire Alarm Control Panels (refer to individual product data sheets for more information)
- 4009 IDNet NAC Extenders (refer to data sheet S4009-0002)
- SmartSync Control Module (SCM) Model 4905-9938 (refer to data sheet S4905-0003)
- Additional SmartSync compatible notification appliances include separate horns and combination horn/strobe notification appliances.

Product Selection

UL Listed TrueAlert Weatherproof Multi-Candela Notification Appliances

Model	Type	Housing	"FIRE" Lettering	Description	UL 1971 Intensity Rating	UL 1638 Intensity Rating
4906-9105	Strobe (V/O)	Red	White	UL listed weatherproof appliance with multi-candela strobe; requires weatherproof box below	15, 60, or 75 cd	75 cd (setting WP75)
4906-9106		White	Red			
4906-9131	Horn/Strobe (A/V)	Red	White			
4906-9132		White	Red			

ULC Listed TrueAlert Weatherproof Multi-Candela Notification Appliances

Model	Type	Housing	"FIRE" Lettering	Description	ULC Intensity Ratings
4906-9113	Strobe (V/O)	Red	White	ULC listed weatherproof appliance with multi-candela strobe; requires weatherproof box below	5, 20, or 30 cd
4906-9143	Horn/Strobe (A/V)				

Wall Mount Weatherproof Boxes (Required)

Model	Description		Dimensions
49WPBB-AVVOWR	Red	Surface Mount Weatherproof Mounting boxes	5 ½" H x 6 ⅛" W x 1 ⅝" D (140 mm x 156 mm x 41 mm)
4905-9829	White		

Aftermarket Red Bilingual (French/English) Covers (for field installation)

Model	Description	
4905-9832	Red strobe (V/O) cover	White "FEU/FIRE" lettering
4905-9833	Red horn/strobe (A/V) cover	

Synchronization Module Reference (refer to data sheet S4905-0003 for additional information)

Model	Description		Dimensions
4905-9914	Class B	Synchronized Flash Module; epoxy encapsulated with in/out 18 AWG (0.82 mm^2) wire leads, rated for 2 A NAC, requires 10 mA for power	1 ⅜" x 2 ⁷⁄₁₆" x ¹³⁄₁₆" (35 mm x 62 mm x 20 mm)
4905-9922	Class A		
4905-9938	SmartSync Control Module with Class B or Class A output; mounts in 4" (102 mm) square box		4" x 4 ⅛" x 1 ¼" D (102 mm x 105 mm x 32 mm)

Specifications

Rated Voltage Range		Regulated 24 VDC; see Note 1 below
Flash Rate		1 Hz; up to 24 synchronized strobes maximum per NAC
Temperature Range	UL 1971 Listed Rating	32° to 122° F (0° to 50° C); selectable 15/30/75 cd
	UL 1638 Listed Rating	-31°F to 150°F (-35° C to 66°C); 75 cd rating
	ULC S526 & S525 Listed Rating	-40°F to 150°F (-40° C to 66°C); 5/20/30 cd rating
Humidity Range	UL 1971 Listed Rating	10% to 93%, at 100° F (38° C)
	UL 1638, ULC S526, & ULC S525	up to 98%, at 104 °F (40° C)
Wiring 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

Horn Output; Models 4906-9131, 4906-9132, & 4906-9143; UL & ULC Ratings as noted

	Output Sound Characteristics		2400 to 3700 Hz sweep, modulated at 120 Hz rate				
Horn Output Ratings @ 10 ft (3 m) (see Note 2)	Voltage	**16 VDC**		**24 VDC**		**33 VDC**	
	Sound Type (see Note 2)	**Steady**	**Coded**	**Steady**	**Coded**	**Steady**	**Coded**
	UL 464 Reverberant Chamber	80 dBA	76 dBA	83 dBA	79 dBA	86 dBA	81 dBA
	ULC S525 Anechoic Chamber	96 dBA	96 dBA	99 dBA	99 dBA	101 dBA	101 dBA

Maximum RMS Current Ratings (see Note 3 below)

		UL 1971 Ratings (32° F to 122° F)			UL 1638 Ratings 75 cd (WP75)	
Model	**Intensity Selection/Temperature**	**15 cd**	**60 cd**	**75 cd**	**32° F to 150°F** (0° C to 66°C)	**-31° F to below 32°F** (-35° C to 0° C)
V/O Models 4906-9105 & 4906-9106		77 mA	192 mA	231 mA	189 mA	273 mA
A/V Models 4906-9131 & 4906-9132		91 mA	204 mA	249 mA	205 mA	277 mA

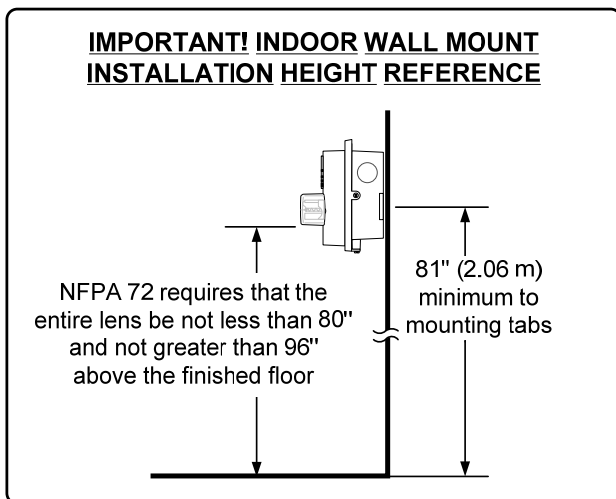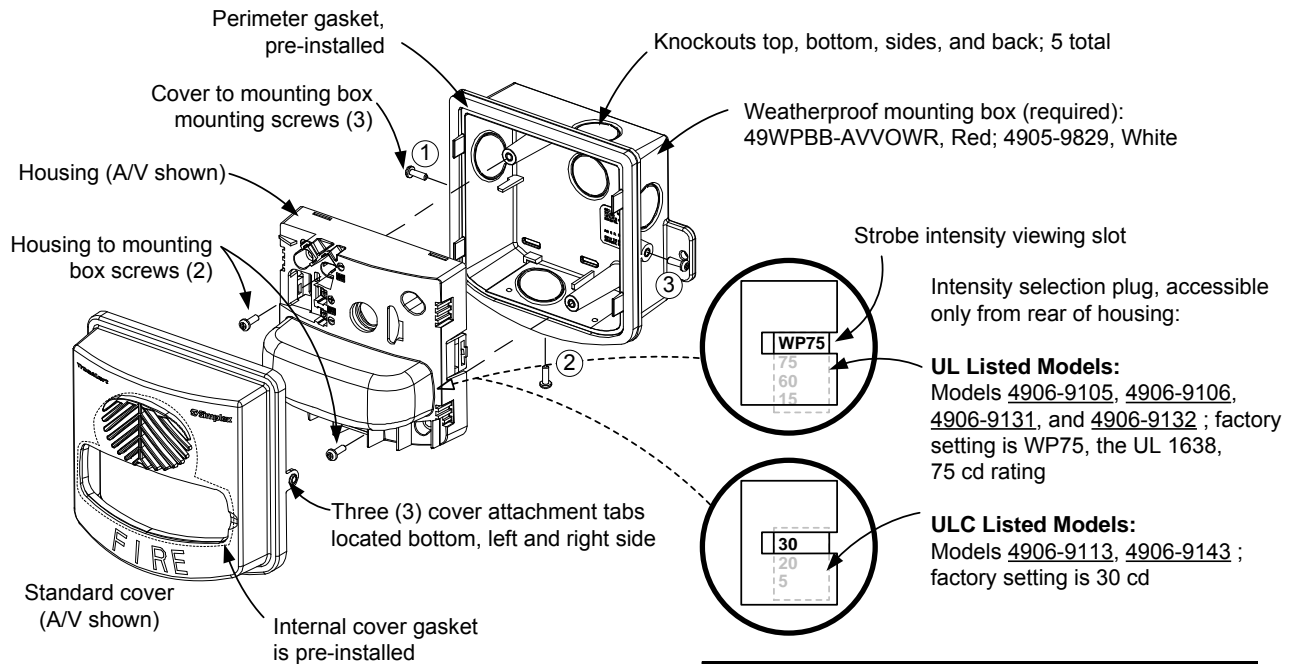|	ULC S526/S525 Ratings per Intensity Selection		
Model	**5 cd**	**20 cd**	**30 cd**
V/O Model 4906-9113	115 mA	270 mA	295 mA
A/V Model 4906-9143	125 mA	275 mA	322 mA

NOTES:

1. "Regulated 24 VDC" refers to the voltage range of 16 to 33 VDC per UL 1971 and UL 1638. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the strobe. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions.

2. Coded values are typical of the output measured with a Temporal coded or a March Time coded pulse 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

3. Currents of A/Vs are with horn on steady. The maximum RMS current listed is the device 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.)

Dimension and Optional Cover Reference

5-3/8" (137 mm)

4-11/32" (110 mm) total depth

1-21/32" (42 mm)

5-17/32" (140 mm) total height

4-1/2" (114 mm)

5-9/16" (141 mm) between mounting holes

6-1/8" (156 mm)

FIRE

Optional Bilingual Covers (field installed)

FEU/FIRE
4905-9832
Strobe Cover (red)
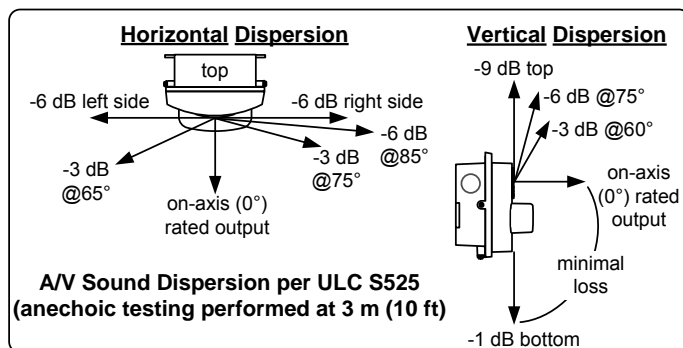
FEU/FIRE
4905-9833
A/V Cover (red)
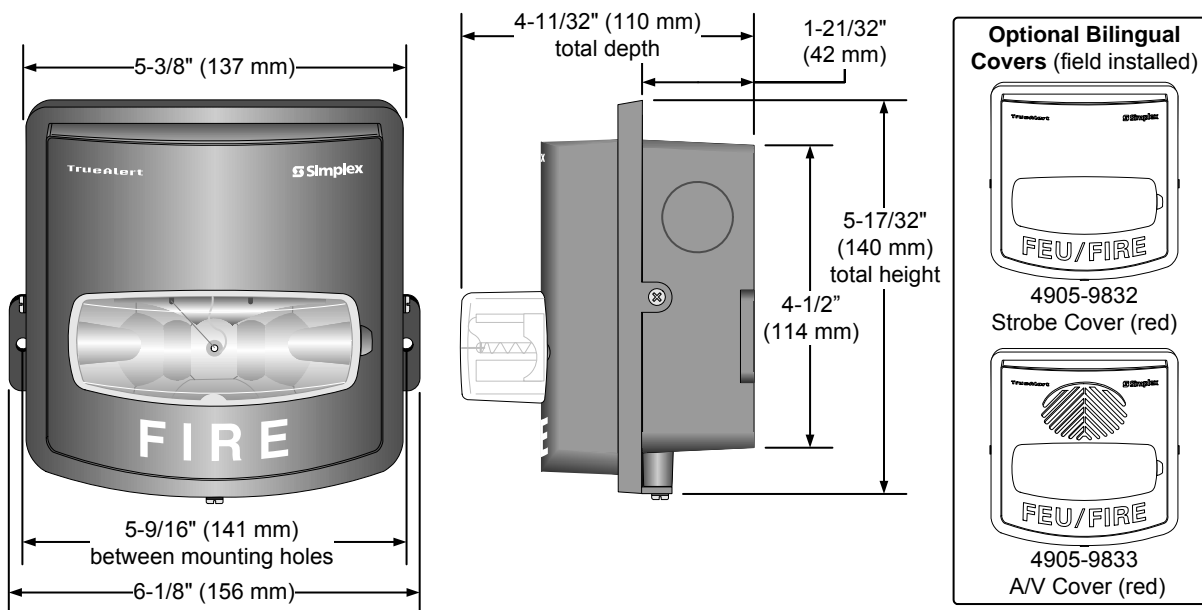
Weatherproof Appliance Installation Reference

NOTE: For detailed installation information, refer to Installation Instructions 579-857 for UL listed products, and Installation Instructions 579-885 for ULC listed products.

Perimeter gasket, pre-installed

Knockouts top, bottom, sides, and back; 5 total

Cover to mounting box mounting screws (3)

Weatherproof mounting box (required): 49WPBB-AVVOWR, Red; 4905-9829, White

Housing (A/V shown)

Housing to mounting box screws (2)

Strobe intensity viewing slot

Intensity selection plug, accessible only from rear of housing:

WP75
75
60
15

UL Listed Models:
Models 4906-9105, 4906-9106, 4906-9131, and 4906-9132 ; factory setting is WP75, the UL 1638, 75 cd rating

Three (3) cover attachment tabs located bottom, left and right side

30
20
5

ULC Listed Models:
Models 4906-9113, 4906-9143 ; factory setting is 30 cd

Standard cover (A/V shown)

Internal cover gasket is pre-installed

IMPORTANT! INDOOR WALL MOUNT INSTALLATION HEIGHT REFERENCE

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

81" (2.06 m) minimum to mounting tabs

Polar Light Dispersion Reference, Each Intensity Selection; Percent of Rated Light Output at 77° F (25° C)					
Vertical Dispersion			Horizontal Dispersion		
Angle Below Axis	UL 1971 Minimum	Typical Output	Angle from Axis	UL 1971 Minimum	Typical Output
0	100%	322%	0	100%	320%
5	90%	217%	±5	90%	214%
10	90%	168%	±10	90%	177%
15	90%	179%	±15	90%	175%
20	90%	210%	±20	90%	174%
25	90%	184%	±25	90%	170%
30	90%	149%	±30	75%	169%
35	65%	172%	±35	75%	157%
40	46%	189%	±40	75%	151%
45	34%	203%	±45	75%	138%
50	27%	152%	±50	55%	130%
55	22%	166%	±55	45%	121%
60	18%	166%	±60	40%	117%
65	16%	164%	±65	35%	109%
70	15%	163%	±70	35%	105%
75	13%	159%	±75	30%	98%
80	12%	138%	±80	30%	90%
85	12%	113%	±85	25%	78%
90	12%	88%	±90	25%	67%

Horizontal Dispersion

top

-6 dB left side

-6 dB right side

-6 dB @85°

-3 dB @65°

-3 dB @75°

on-axis (0°) rated output

Vertical Dispersion

-9 dB top

-6 dB @75°

-3 dB @60°

on-axis (0°) rated output

minimal loss

-1 dB bottom

A/V Sound Dispersion per ULC S525 (anechoic testing performed at 3 m (10 ft)

WP75 Intensity Selection Light Output Reference					
Angle	On-Axis	Vertical, Below Axis		Horizontal, Left/Right of Axis	
	0°	45°	90°	45°	90°
UL 1638 Minimum Candela Rating (over temperature range)	75	35	10	32	15
Typical Candela at 77° F (25° C)	215	103	24	94	39