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 a 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.

Figure 1: Weatherproof A/V (top) and strobe (middle), side view of A/V on weatherproof mounting boxes (bottom)

Description

Weatherproof multi-candela TrueAlert appliances provide VO 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. Because each model can be selected for intensity output, on-site model inventory is minimized and changes encountered during construction are easily accommodated.

Strobe intensity selection

During installation, use the selection plug at the back of the housing to determine the strobe intensity. Use the attached flag with black letters on a yellow background to see the selected intensity at the side of the strobe lens.

Strobe application reference

Correct selection of weatherproof notification is dependent on occupancy, location, local codes, and correct 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 means that a two-wire circuit can activate both the horn and strobe on the same NAC, then the horn can 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

Table 1: UL Listed TrueAlert Weatherproof Multi-Candela Notification Appliances

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

Table 2: 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 cd, 20 cd, or 30 cd
4906-9143	Horn/Strobe (A/V)				

Table 3: Wall mount weatherproof boxes, required

SKU	Description		Dimensions
49WPBB-AVVOWR	Red	Surface mount weatherproof mounting boxes	5 1/2 in. H x 6 1/8 in. W x 1 5/8 in. D (140 mm x 156 mm x 41 mm)
49WPBB-AVVOWW	White	Surface mount weatherproof mounting boxes	5 1/2 in. H x 6 1/8 in. W x 1 5/8 in. D (140 mm x 156 mm x 41 mm)

Table 4: 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	

Table 5: Synchronization Module Reference, refer to data sheet *S4905-0003* **for additional information**

SKU	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 3/8 in. x 2 7/16 in. x 13/16 in. (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 in. (102 mm) square box		4 in. x 4 1/8 in. x 1 1/4 in. D (102 mm x 105 mm x 32 mm)

Specifications

Specifications	
Rated voltage range	Regulated 24 VDC; see Note 1
Flash rate	1 Hz; up to 24 synchronized strobes maximum for each NAC
Temperature range UL 1971 listed rating	32° F to 122° F (0° to 50° C); selectable 15 cd/30 cd/75 cd

Specifications		
	UL 1638 listed rating	-31°F to 150°F (-35° C to 66°C); 75 cd rating
	ULC S526 and S525 listed rating	-40°F to 150°F (-40° C to 66°C); 5 cd/20 cd /30 cd rating
Humidity range	UL 1971 listed rating	10% to 93%, at 100° F (38° C)
	UL 1638, ULC S526, and 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 for each terminal for in/out wiring

**Table 6: Horn output; Models 4906-9131, 4906-9132, and 4906-9143; UL and ULC ratings as noted**

Output sound characteristics		2400 Hz 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

Table 7: Maximum RMS current ratings, see Note 3

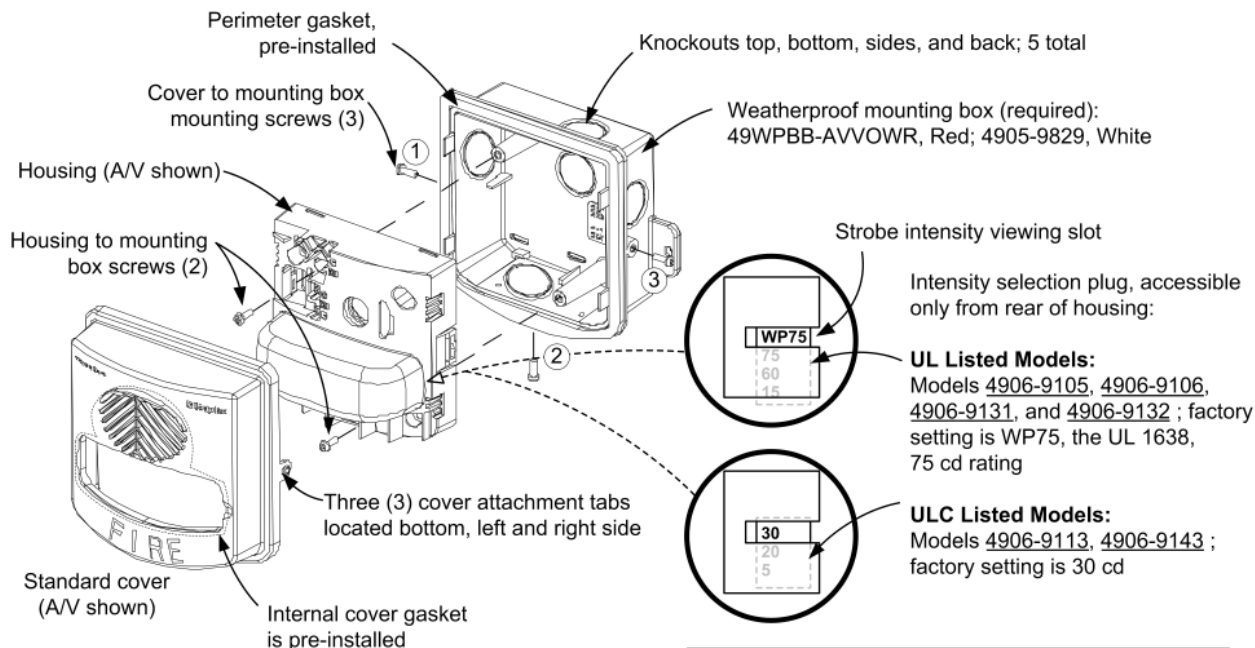|		UL 1971 ratings (32° F to 122° F)			UL 1638 ratings 75 cd (WP75)	
SKU	Intensity selection/temperature	15 cd	60 cd	75 cd	32° F to 150°F (0° C to 66°C)	-31° F to below 32°F (-35° C to 0° C)
VO Models 4906-9105 and 4906-9106		77 mA	192 mA	231 mA	189 mA	273 mA
A/V Models 4906-9131 and 4906-9132		91 mA	204 mA	249 mA	205 mA	277 mA
		ULC S526/S525 ratings according to intensity selection				
Model		5 cd		20 cd		30 cd
VO Model 4906-9113		115 mA		270 mA		295 mA
A/V Model 4906-9143		125 mA		275 mA		322 mA

Note:

1. "Regulated 24 VDC" refers to the voltage range of 16 VDC to 33 VDC in accordance with 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
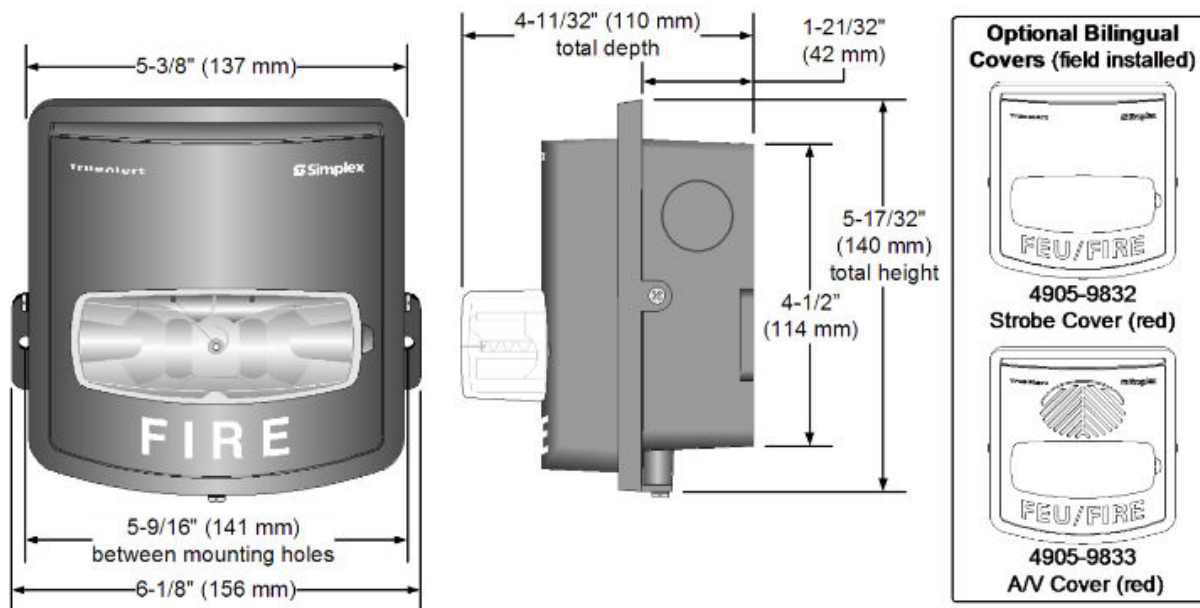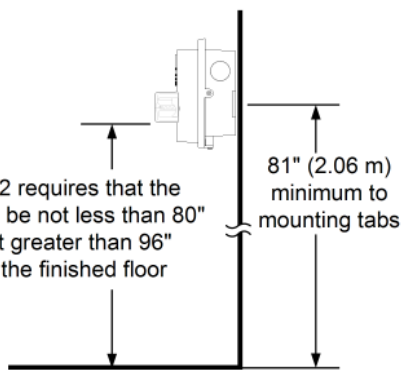
Weatherproof appliance installation reference

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

Cover to mounting box mounting screws (3)

Housing (A/V shown)

Housing to mounting box screws (2)

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

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

Strobe intensity viewing slot

Intensity selection plug, accessible only from rear of housing:

WP75

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

30

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

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

Standard cover (A/V shown)

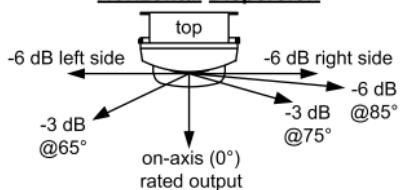Internal cover gasket is pre-installed

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

Horizontal Dispersion

top

-6 dB left side

-6 dB right side

-3 dB @65°

-3 dB @75°

-6 dB @85°

on-axis (0°) rated output
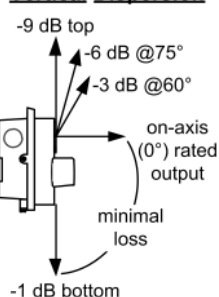
A/V Sound Dispersion per ULC S525 (anechoic testing performed at 3 m (10 ft)

Vertical Dispersion

-9 dB top

-6 dB @75°

-3 dB @60°

on-axis (0°) rated output

minimal loss

-1 dB bottom

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%

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