Ⴝ Simplex

Features

Audible/visible notification appliances with efficient electronic horn and high output xenon strobe

Xenon strobe visible notification appliance:

- UL listed to Standard 1971
- Models are available with 15, 30, or 110 candela
- 24 VDC operation with switch selection for free-run or synchronized flash**
- Compatible with ADA requirements (refer to important installation information on page 3)
- Strobe candela rating is clearly indicated on reflector
- Wiring terminals are separate from audible notification appliance
- Impact resistant polycarbonate lens

Electronic horn notification appliance:

- 24 VDC efficient electronic design
- Harmonically rich output sound suitable for either coded or steady operation
- Diode polarized input for connection to reverse polarity, supervised notification appliance circuit
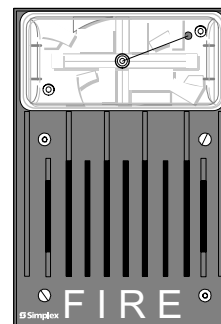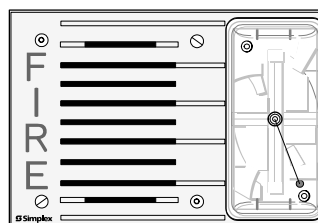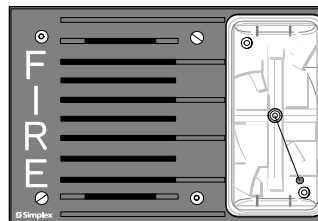- UL listed to Standard 464

Housing Options:

- Red with white "FIRE" lettering, for horizontal or vertical mounting
- White with red "FIRE" lettering, for horizontal mounting

Audible/Visible Notification Appliances with Electronic Horns are Available for Horizontal or Vertical Mounting

Strobe Synchronization

The strobes of these S/V notification appliances can be set for free-run operation or synchronized operation using an on-board selection switch. When selected for *synchronized operation*, flash operation is controlled from:

- **Synchronized Flash Modules**, 4905-9914 (Class B) or 4905-9922 (Class A)[†]
- **4006, 4008, 4100U, and 4010 Fire Alarm Control Panels** (refer to individual product data sheets for details)
- **4009 IDNet™ NAC Extender**, models 4009-9201 and 4009-9301 (refer to data sheet S4009-0002)

Description

Horn/visible (A/V) notification appliances combine a high intensity strobe with a low current electronic horn. The horn output provides a steady, harmonically rich sound that can be easily coded by the controlling notification appliance circuit (NAC).

The combination horn and strobe can be wired to the same NAC, or for applications requiring separate audible and visible circuits, jumpers located at the wiring terminals can be easily removed.

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* Refer to page 2 for guard listing. These A/V 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 7125-0026:249 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Accepted for use – City of New York Department of Buildings – MEA35-93E. This product was not ULC listed or FM approved as of document revision date. 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.

** Simplex two-wire strobe synchronization operation is protected by U.S. patent No. 5,559,492.

† Refer to data sheet S4905-0003 for additional information on Synchronized Flash Modules.

Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper application 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).

Product Selection

Model Number	Strobe Output (Candela)			Color	Mounting Style
	15	30	110		
4903-9252	✓			Red	Horizontal Wall Mount
4903-9253		✓		Red	Horizontal Wall Mount
4903-9254			✓	Red	Horizontal Wall Mount
4903-9257	✓			White	Horizontal Wall Mount
4903-9258		✓		White	Horizontal Wall Mount
4903-9255	✓			Red	Vertical Wall Mount
4903-9256			✓	Red	Vertical Wall Mount

Accessories

Mounting Boxes (see illustrations on page 4)

Model	Description	Dimensions
4905-9923	Red Surface Mount Box	4-5/16" x 6-5/8" x 2-3/4" (110 mm x 168 x 70 mm)
4905-9924	White Surface Mount Box	4-5/16" x 6-5/8" x 2-3/4" (110 mm x 168 x 70 mm)
2975-9145	Red Box for vertical or horizontal mount, requires adapter plate 4905-9903 (this box may be available for retrofit applications)	5-1/8" x 7-7/8" x 2-3/4" Deep (130 mm x 200 mm x 70 mm)

Adapter Plates and Box Extension Rings (see illustrations on pages 3 and 4)

Model	Description	Dimensions
4905-9903	Red Adapter Plate, **required to mount on 2975-9145 box**	5-3/4" x 8-5/16" (146 mm x 211 mm)
4905-9939	Adapter Plate, zinc plated; **required for surface mounted** three gang Wiremold® box no. V5744-3 (or equal) and for double gang boxes (typically for retrofit applications); NOTE: For surface mounted 4" square electrical boxes, either Adapter Plate 4905-9939 or an Adapter Ring Box Extensions is required (see below)	7" x 4-7/8" (178 mm x 124 mm)
4905-9915	White Adapter Ring Box Extension	Use to mount onto and cover surface mount 4" electrical box → 4-3/4" x 6-7/8" x 1-1/2" deep, (121 mm x 175 mm x 38 mm)
4905-9916	Red Adapter Ring Box Extension	Use to mount onto and cover surface mount 4" electrical box → 4-3/4" x 6-7/8" x 1-1/2" deep, (121 mm x 175 mm x 38 mm)

Synchronized Flash Modules (Refer to data sheet S4905-0003 for additional details)

Model	Description	Dimensions
4905-9914	Synchronized Flash Module, Class B/Style Y operation	Epoxy encapsulated with in/out 18 AWG (0.82 mm^2) wire leads, rated for 2 A NAC; requires 5 mA for power → 1-3/8" W x 2-7/16" L x 13/16" H (35 mm x 62 mm x 20 mm)
4905-9922	Synchronized Flash Module, Class A/Style Z operation	Epoxy encapsulated with in/out 18 AWG (0.82 mm^2) wire leads, rated for 2 A NAC; requires 5 mA for power → 1-3/8" W x 2-7/16" L x 13/16" H (35 mm x 62 mm x 20 mm)

Wire Guard (see illustrations on page 4)

Model	Description	Listing Reference	Dimensions
4905-9927	Red Wire Guard for semi-flush mounting; requires 4905-9928 mounting plate for use with 4905-9923, 4905-9924, or 2975-9145 boxes	Space Age Model SWG-AV	8-1/2" x 6-1/8" x 3" (216 mm x 156 mm x 76 mm)
4905-9928	Red Adapter Plate, required to mount wire guard to 4905-9923, 4905-9924, or 2975-9145 boxes	Space Age Model SWG-PK	9" x 7" (229 mm x 178 mm)

A/V Accessories

Strobe Specifications

Rated Voltage Range	UL Listed Range	Regulated 24 VDC; see Note 1 below		
	ULC Listed Range	20 VDC to 30 VDC per ULC S526-M87		
Flash Rate and Synchronized NAC Loading		1 Hz; with up to 35 synchronized strobes maximum per NAC		
Maximum RMS Current Rating per Strobe Output (see Note 2 below)		**15 cd**	**30 cd**	**110 cd**
		90 mA	**128 mA**	**285 mA**
Reference Currents at other voltages	18 VDC	80 mA	114 mA	253 mA
	24 VDC	60 mA	85 mA	190 mA

Horn Specifications (see Note 3)

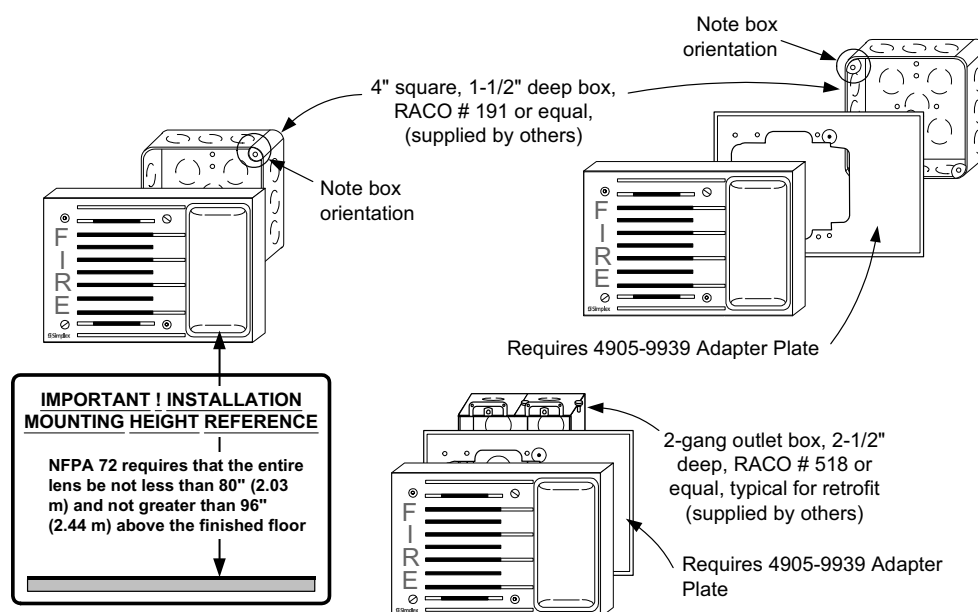| Rated Voltage Range	UL Listed Range	16 VDC to 33 VDC, see Notes 3 and 4 below	
	ULC Listed Range	20 VDC to 30 VDC per ULC S526-M878	
Horn Current		13 mA @ 16 VDC	16 mA @ 33 VDC
Horn Output @ 10 ft per UL Standard 464 reverberant room testing		80.6 dBA @ 16 VDC	84.8 dBA @ 33 VDC
Frequency Output		2400 Hz to 3700 Hz sweep, modulated at 120 Hz rate	

General Specifications

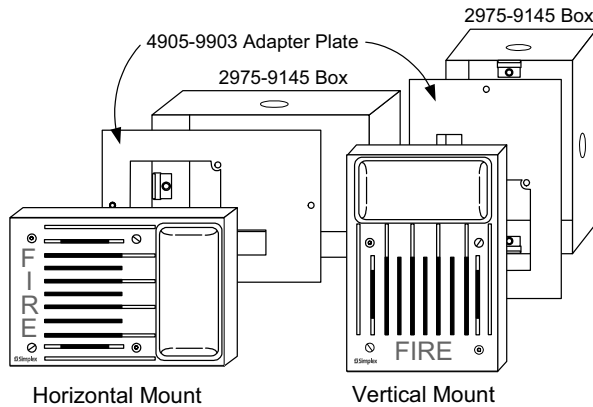|	
Housing Dimensions (with lens)	4-3/4" x 6-7/8" x 2-5/8" D (121 mm x 175 mm x 67 mm)
Depth into Box	11/16" (17 mm)
Connections	Terminals for in/out wiring, 18 to 12 AWG (0.82 to 3.31 mm^2) , separable if required
Operating Temperature Range	32° to 120° F (0° to 49° C)
Humidity Range	10% to 95%, Non-condensing at 86° F (30° C)

NOTES:

1. "Regulated 24 VDC" refers to the voltage range of 16 to 33 VDC per UL Standard 1971, Signaling Devices for the Hearing Impaired, changes effective May 1, 2004. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the appliance. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions. The strobe of this A/V is field selectable for free-run or synchronized operation.

2. 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.)

3. Horns may be connected to either the same circuit as the strobe or may be separated for connection to separate NACs that provide individual control.
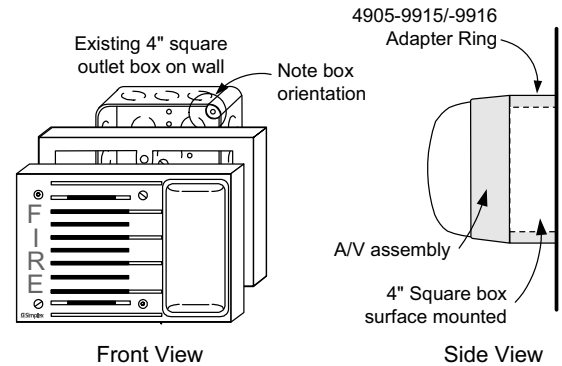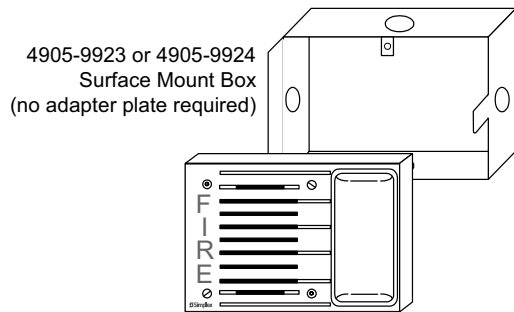
A/V with Electronic Horn, Semi-Flush Mounting

4" square, 1-1/2" deep box, RACO # 191 or equal, (supplied by others)

Note box orientation

IMPORTANT ! INSTALLATION MOUNTING HEIGHT REFERENCE

NFPA 72 requires that the entire lens be not less than 80" (2.03 m) and not greater than 96" (2.44 m) above the finished floor

Requires 4905-9939 Adapter Plate

2-gang outlet box, 2-1/2" deep, RACO # 518 or equal, typical for retrofit (supplied by others)

Requires 4905-9939 Adapter Plate

A/V with Electronic Horn, Surface Mounting

4905-9903 Adapter Plate

2975-9145 Box

2975-9145 Box

Horizontal Mount

Vertical Mount

Surface Mount using 2975-9145 Box

Existing 4" square outlet box on wall

Note box orientation

Front View

4905-9915/-9916 Adapter Ring

A/V assembly

4" Square box surface mounted

Side View

Surface Mount to 4" Box with Adapter Ring Extension

4905-9923 or 4905-9924 Surface Mount Box (no adapter plate required)

Surface Mount using 4905-9923 or 4905-9924 Box

3-Gang box, 2 3/4" deep, Wiremold No. 5744-3 or equal, requires 4905-9939 Adapter Plate (supplied by others)

4905-9939 Adapter Plate
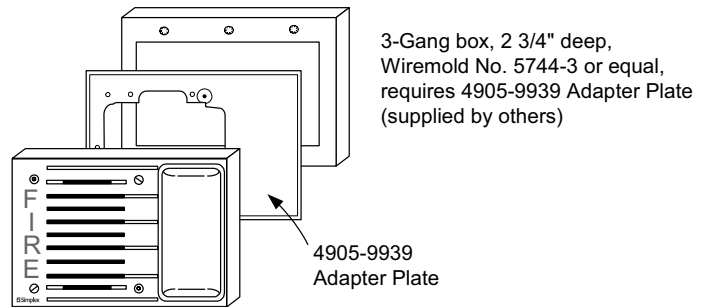
Surface Mount using Wiremold Box

A/V with Optional 4905-9927 Guard

Semi-Flush Mount (no adapter plate required)

4905-9903 Adapter Plate

4905-9928 Adapter Plate

Surface Mount (requires adapter plates as shown)

2975-9145 Box

4905-9923 Box