Simplex®

True*Alert* Notification Appliances

*UL, ULC Listed**

Audible/Visible Notification Appliances; Multi-Tone Horn/Strobe with 520 Hz Output, Non-Addressable

Features

Simplex® 24 VDC multi-tone multi-candela horn/strobes provide:

- Multi-candela xenon strobe with synchronized 1 Hz flash rate jumper selected as 15, 30, 75, 110, 135, or 185 cd
- Per appliance tone selection of: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, or Siren; selected using an on-board DIP Switch (refer to sound output details on page 4)
- 520 Hz tone is compliant with NFPA 72 Low Frequency Signal Requirements for Sleeping Areas
- Operation is selectable for SmartSync two-wire control or asynchronous, free-run operation
- Tone output level is selectable as high or low
- Diode polarized input for connection to reverse polarity, supervised Notification Appliance Circuits (NACs)
- Compatibility with ADA requirements; (refer to important installation information on page 3)
- Electrical test point access without removing cover

SmartSync two-wire control of audible and visible notification appliance provides:

- Control of Horn, Bell, and Chime tones as Temporal Pattern, March Time pattern, or on continuously; controlled separately from visible appliances on the same circuit
- Slow Whoop, Siren, and High/Low tone selections sound their tones continuously, synchronized to each other, when receiving Temporal Pattern, March Time, or continuous SmartSync commands
- SmartSync March Time pattern is selectable per appliance to produce 60 BPM or 20 BPM
- Visible appliances on the same SmartSync circuit operate at a synchronized 1 Hz flash rate
- Refer to page 2 for SmartSync control list and additional operation information
- Strobe operation is listed to UL Standard 1971 and ULC Standard S526
- Horn operation is listed to UL Standard 464 and ULC Standard S525

Mechanical design features include:

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters, with clear lens, available with FIRE, FEU, ALERT, FEU/FIRE, or blank lettering
- Separate covers are available to change application type on-site or for replacement; covers can be easily removed without disturbing the connected housing and avoiding trouble conditions
- A separate mounting plate allows wiring to be completed before appliance is mounted; use with single gang, double gang, or 4-inch square box, flush or surface mount
- In/out wiring terminals for 18 AWG to 12 AWG
- Optional mounting adapters are available to cover surface mounted electrical boxes and to adapt to Simplex 2975-9145 boxes

TrueAlert Multi-Tone A/Vs are Available in Red with White Lettering and White with Red Lettering

Description

TrueAlert non-addressable multi-tone multi-candela horn/strobes provide a flexible selection of output tones and strobe intensity for fire alarm audible notification. Tone selection, output level, and strobe intensity is set per appliance, allowing notification needs to be tailored to specific area requirements. (Refer to tone output details on page 4.)

Local Tone Selection. DIP Switch selection determines the local tone choice. A separate DIP Switch position allows selection of a standard or a high output sound level, selectable appropriate to the location. (See page 4 for sound output ratings.)

Canadian two-stage alarm applications. A DIP Switch selection per appliance allows the SmartSync March Time pattern input to be produced as 60 BPM or 20 BPM. The 20 BPM rate is typically required for Canadian two-stage alarm applications as the pre-signal, followed by the Temporal Pattern. Two-stage alarm operation requires a 4010, 4010ES, 4100ES, or 4100U as the control panel.

Flexible mounting. Multi-tone horn/strobes can be semi-flush or surface mounted on a standard single gang, double gang, or 4" square (102 mm) electrical box. Optional accessories are available to increase mounting and application flexibility.

* 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 Selection

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).

Synchronized Strobes

Multiple Strobes. When multiple strobes and their reflections can be seen from one location, synchronized flashes reduce the probability of photo-sensitive reactions as well as the annoyance and possible distraction of random flashing. The multi-candela strobes of these multi-tone horn/strobes are synchronized by the controlling SmartSync operation NAC.

SmartSync Two-Wire Control

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

SmartSync Control Sources

- 4006, 4008, 4010, 4010ES, and 4100ES/4100U Fire Alarm Control Panels (refer to individual product data sheets for more information)
- 4009 IDNet NAC Extender (refer to data sheet S4009-0002)
- SmartSync Control Module (SCM) 4905-9938 (refer to data sheet S4905-0003)

Additional SmartSync compatible notification appliances include separate multi-tone horns and combination multi-tone horn/strobe notification appliances.

Product Selection

Multi-Tone Multi-Candela Horn/Strobes

Model*	Cover Color	Wording	Description	Dimensions with Cover
49CMTV-WRF(-BA)	Red	FIRE	Multi-Tone multi-candela horn/strobe for SmartSync or Free-run control; includes cover and matching mounting plate	5 ⅛" H x 5" W x 1 ½" D (130 mm x 127 mm x 38 mm)
49CMTV-WWF(-BA)	White			
49CMTV-APPLW	Select cover and mounting plate separately			

Separate Mounting Plate (Required when ordering model 49CMTV-APPLW)

Model*	Color	Description
49CMP-MTWR	Red	Mounting plate, select color to match cover
49CMP-MTWW	White	

Separate Covers (Required when ordering model 49CMTV-APPLW)

Model*	Color	Wording	Model*	Color	Wording
49CMTVC-WRFIRE	Red	FIRE	49CMTVC-WRBLNG	Red	FEU/FIRE
49CMTVC-WWFIRE	White		49CMTVC-WWBLNG	White	
49CMTVC-WRFEU	Red	FEU	49CMTVC-WRS	Red	Blank
49CMTVC-WWFEU	White		49CMTVC-WWS	White	

*** Note:** (-BA) indicates model is available either with or without the -BA suffix. Model numbers ending in -BA, APPLW models, and separate mounting plates are assembled in the USA.

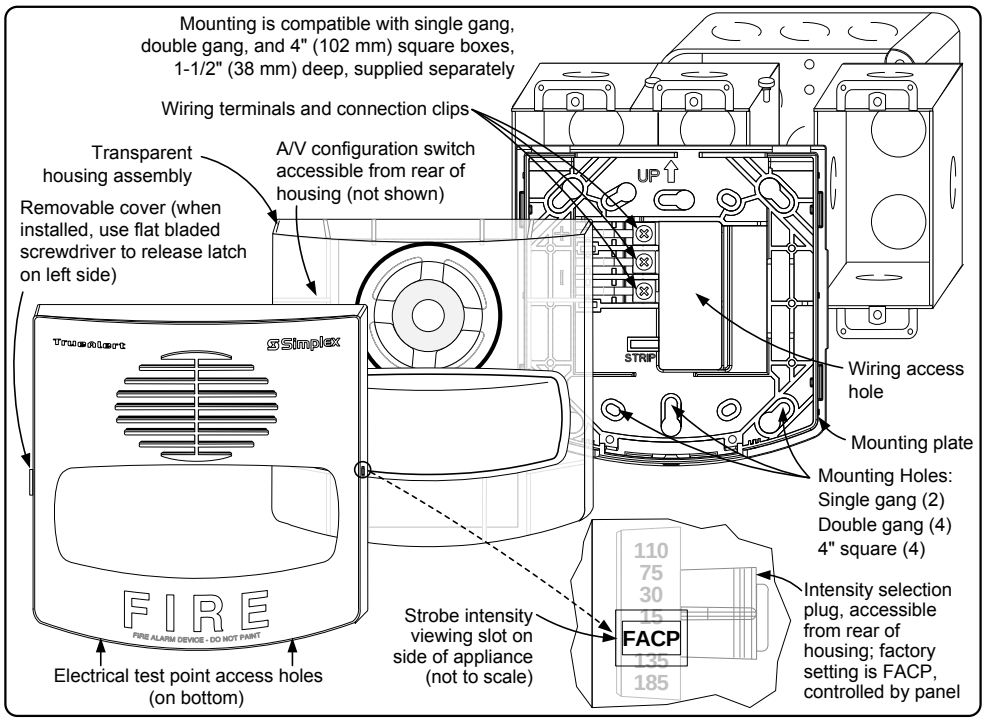
Mounting Adapters

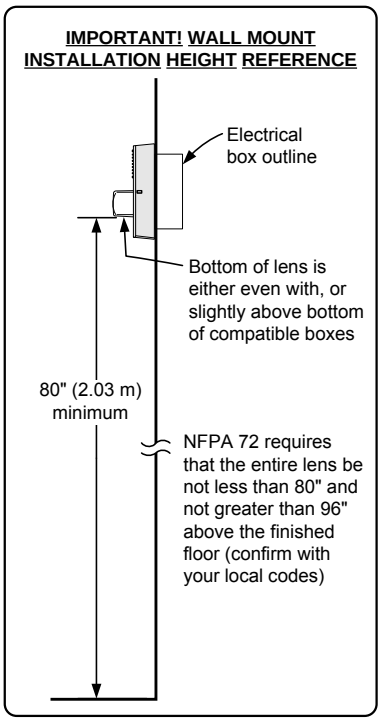
Model	Description		Dimensions
4905-9937	Surface mount red adapter skirt	Use to cover 1-1/2" deep surface mounted boxes	5 ⅜" H x 5 ¼" W x 1 ⅝" D (136 mm x 133 mm x 41 mm) Total depth with horn = 3 ⅛" (79 mm)
4905-9940	Surface mount white adapter skirt		
4905-9931	Adapter Plate, red, for mounting to Simplex 2975-9145 box (typically for retrofit, may be mounted vertical or horizontal)		8 $^{5}/_{16}$" x 5 ¾" x 0.060" Thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red mounting box, requires Adapter Plate 4905-9931		7 ⅞" x 5 ⅛" x 2 ¾" D (200 mm x 130 mm x 70 mm)

Synchronization Control Module

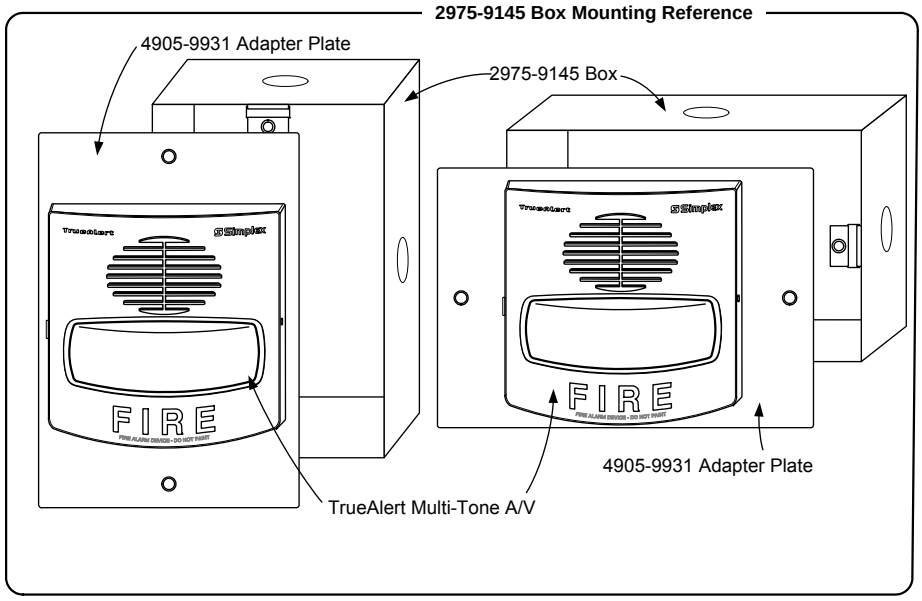
Model	Description	Dimensions
4905-9938	SmartSync Control Module, Class A or Class B, installs in 4" square box; for use with control panels not providing SmartSync control	4" x 4 ⅛" x 1 ¼" D (102 mm x 105 mm x 32 mm)

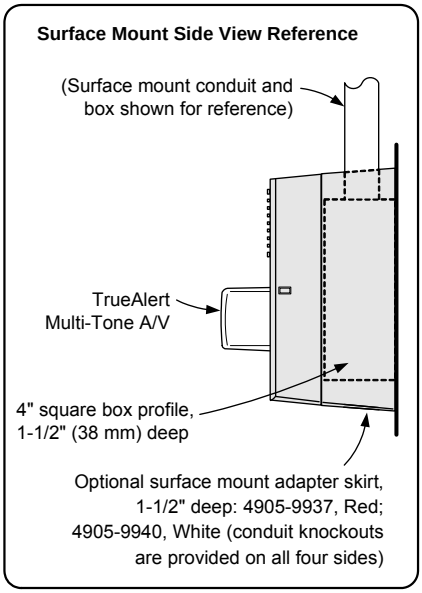
Installation Reference





Adapter Plate and Surface Mount Installation Reference





Specifications

Rated Voltage Range	16 VDC to 33 VDC, Special Application
Wiring Reference	Maximum of 16 active appliances per circuit
	Maximum wiring resistance between compatible appliances = 16 Ω
Temperature Range	32° to 122° F (0° to 50° C)
Humidity Range	10% to 93%, non-condensing @ 104° F (40° C)
Connections	Terminal blocks on mounting plate 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	579-1158 for 49CMTV Series Horn/Strobes
	579-1159 for 49CMP Mounting Plates

Tone Characteristics

520 Hz Horn	520 Hz tone	Tones compatible with control panel SmartSync commands for operation as Temporal Code 3, March Time (selected at appliance for 20 or 60 bpm), or Continuous operation
Broadband Horn	Combination 600/3000 Hz signal	
Bell	Synthesized Bell tone	
Chime*	Multi-phase signal with a peak and decay time of 1 s	
Slow Whoop	Modulated 520 Hz to 1200 Hz sweep with 2 s duration	Tones that operate as Continuous with synchronization with control panel SmartSync commands
Siren	Modulated 600 Hz to 1200 Hz to 600 Hz sweep, with 2 s duration	
High/Low	Alternating modulated tones with fundamentals of 1000 Hz and 800 Hz, 250 ms duration each	

TrueAlert Multi-Tone Horn/Strobe Current Ratings

	Current Ratings @ 16 VDC, in mA											
	15 cd		30 cd		75 cd		110 cd		135 cd		185 cd	
Tone	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**
520 Hz Horn and High/Low	207	161	220	177	281	236	329	288	367	321	438	392
Broadband Horn, Bell, Chime, Slow Whoop, and Siren	185	145	198	155	259	213	309	264	348	303	425	380

TrueAlert Multi-Tone Horn/Strobe Horn Output

		UL 464 Output Ratings @ 16 VDC and 33 VDC (dBA)**								ULC S525 Output Ratings @ 16 VDC and 33 VDC (dBA)**							
		Steady High		Steady Low		Coded High		Coded Low		Steady High		Steady Low		Coded High		Coded Low	
Tone	**Voltage**	**16**	**33**	**16**	**33**	**16**	**33**	**16**	**33**	**16**	**33**	**16**	**33**	**16**	**33**	**16**	**33**
520 Hz Horn		80	80	74†	75	76	76	70†	71†	83†		79†		83†		78†	
High/Low		81	82	77	77	75	76	70†	71†	87		82†		86†		82†	
Broadband Horn		84	84	79	79	81	81	74†	75	88		84†		87†		83†	
Bell		80	80	75	75	76	76	71†	71†	85		80†		85†		80†	
Slow Whoop		79	80	74†	75	these tones are not used for coded operation				85		80†		these tones are not used for coded operation			
Siren		79	80	74†	75					85		80†					
Chime*		67†	67†	62†	62†					82†		77†					

* Chime tone is for Private Mode use only.

** Ratings are at 10 ft (3 m); UL 464 ratings are per UL Reverberant Chamber testing; ULC S525 ratings are per ULC Anechoic Chamber testing. The tone generator circuit is DC-DC converter powered and provides essentially constant output over the rated voltage range.

† UL ratings below 75 dBA and ULC ratings below 85 dBA do not meet requirements for Public Notification.

Sound Output Dispersion per ULC S541 Anechoic Testing	Horizontal	-3 dBA @ ±37°	-6 dBA @ ±40°	-9.4 dBA @ ±90°
	Vertical	-3 dBA @ -24°, +42°	-6 dBA @ -59°, +50°	-8.6 dBA @ ±90°

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