

Features

Simplex 24 VDC multi-tone multi-candela horn/strobes

- A multi-candela xenon strobe with synchronized 1 Hz flash rate jumper. You can select the following candela values: 15 cd, 30 cd, 75 cd, 110 cd, 135 cd, 185 cd.
- You can select the tone for each appliance with an on-board DIP switch. You can select from the following tones: 520 Hz Horn, Broadband Horn, Bell, Chime, High/Low, Slow Whoop, Siren. For details, see [Specifications](#).
- You can select tone output level as high or low.
- The 520 Hz tone is compliant with NFPA 72 Low Frequency Signal Requirements for Sleeping Areas.
- You can select SmartSync two-wire control or free-run operation.
- You can use diode polarized input to connect to reverse polarity, supervised Notification Appliance Circuits (NACs).
- Compatible with ADA requirements. For details, see [Installation reference](#).
- You can access the electrical test point without removing the cover.

SmartSync two-wire control of audible and visible notification appliance

- You can control the Horn, Bell, and High/Low tones as Temporal Pattern, March Time pattern, or on continuously. You can control them separately from visible appliances on the same circuit
- You can control the Slow Whoop, Siren, and Chime tones as synchronized continuous signals when receiving SmartSync continuous commands
- Visible appliances on the same SmartSync circuit operate at a synchronized 1 Hz flash rate
- For SmartSync control list and additional operation information, see [Synchronized strobes](#)
- 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

- 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. You can remove the covers without disturbing the connected housing and causing trouble conditions
- You can use a separate mounting plate to complete wiring before you mount the appliance. You can use it with a single gang, double gang, or 4-inch square box, flush or surface mount
- In/out wiring terminals for 18 AWG to 12 AWG
- You can select optional mounting adapters to cover surface-mounted electrical boxes and to adapt to Simplex, 2975-9145 boxes

Figure 1: 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

TrueAlert non-addressable multi-tone multi-candela horn/strobes have a flexible selection of output tones and strobe intensity for fire alarm audible notification. You can set tone selection, output level, and strobe intensity for each appliance to tailor notification needs to specific area requirements. For details, see [Specifications](#).

Local tone selection

You can use the DIP switch to locally select the tone. You can use a separate DIP switch position to select standard or a high output sound level, appropriate to the location. For details, see [Specifications](#).

Flexible mounting

You can mount multi-tone horn/strobes on a standard single gang, double gang, or 4 in. (102 mm) square electrical box with semi-flush or surface mounting. You can select optional accessories to increase mounting and application flexibility.

* 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 7135-0026:0380 for allowable values and/or conditions concerning material presented in this document. Additional listings may be applicable; contact your local product supplier for the latest status. Listings and approvals under Time Recorder Co. are the property of Tyco Fire Protection Products.

Strobe application selection

To select the correct visible notification you must consider the following factors:

- Occupancy
- Location
- Local codes
- The correct application of the following codes and guidelines:
 - *The National Fire Alarm Code* (NFPA 72)
 - ANSI A117.1
 - The appropriate model building code: BOCA, ICBO, or SBCCI
 - The application guidelines of the Americans with Disabilities Act (ADA)

Synchronized strobes

Multiple strobes

When multiple strobes and their reflections are visible from one location, synchronized flashes reduce the probability of photo-sensitive reactions. They also reduce the annoyance and possible distraction of random flashing. You can use the controlling SmartSync operation NAC to synchronize the multi-candela strobes of these multi-tone horn/strobes.

SmartSync two-wire control

With SmartSync operation mode, you can use a two-wire circuit to activate both the multi-tone horn and strobe on the same NAC. This means you can silence the multi-tone horn 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

- 4007ES Hybrid, 4010ES, 4100ES, and 4100U Fire Alarm Control Panels. For more information, refer to individual product data sheets.
- 4009 IDNet NAC Extender. For details, refer to the *4009 IDNet NAC Extender for Control with IDNet Communications or Conventional NACs (S4009-0002)* data sheet
- SmartSync Control Module (SCM) 4905-9938. For details, refer to the *SmartSync Control Module and Strobe Synchronization Modules (S4905-0003)* data sheet

Additional SmartSync compatible notification appliances

Compatible notification appliances include separate multi-tone horns and combination multi-tone horn/strobe notification appliances.

Product selection

Table 1: Multi-tone multi-candela horn/strobes

Model	Cover color	Wording	Description	Dimensions with cover		
49CMTV-WRF	Red	FIRE	Multi-Tone multi-candela horn/strobe for SmartSync or free-run control. Includes cover and matching mounting plate	5 1/8 in. H x 5 in. W x 1 1/2 in. D (130 mm x 127 mm x 38 mm)		
49CMTV-WRF-BA						
49CMTV-WWF	White	FIRE	Multi-Tone multi-candela horn/strobe for SmartSync or free-run control. Includes cover and matching mounting plate	5 1/8 in. H x 5 in. W x 1 1/2 in. D (130 mm x 127 mm x 38 mm)		
49CMTV-WWF-BA						
49CMTV-APPLW	Select the cover and mounting plate separately					
49CMTV-APPLW-BA						
Note: Model numbers that end in -BA, APPLW models, and separate mounting plates are assembled in the USA.						

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Table 2: Separate mounting plate, required with 49CMTV-APPLW-BA and 49CMTV-APPLW

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

Table 3: Separate covers, required with 49CMTV-APPLW-BA and 49CMTV-APPLW

Model	Color	Wording
49CMTVC-WRFIRE	Red	FIRE
49CMTVC-WWFIRE	White	
49CMTVC-WWALT	White	ALERT
49CMTVC-WRBLNG	Red	FEU/FIRE
49CMTVC-WWBLNG	White	
49CMTVC-WRFEU	Red	FEU
49CMTVC-WWFEU	White	

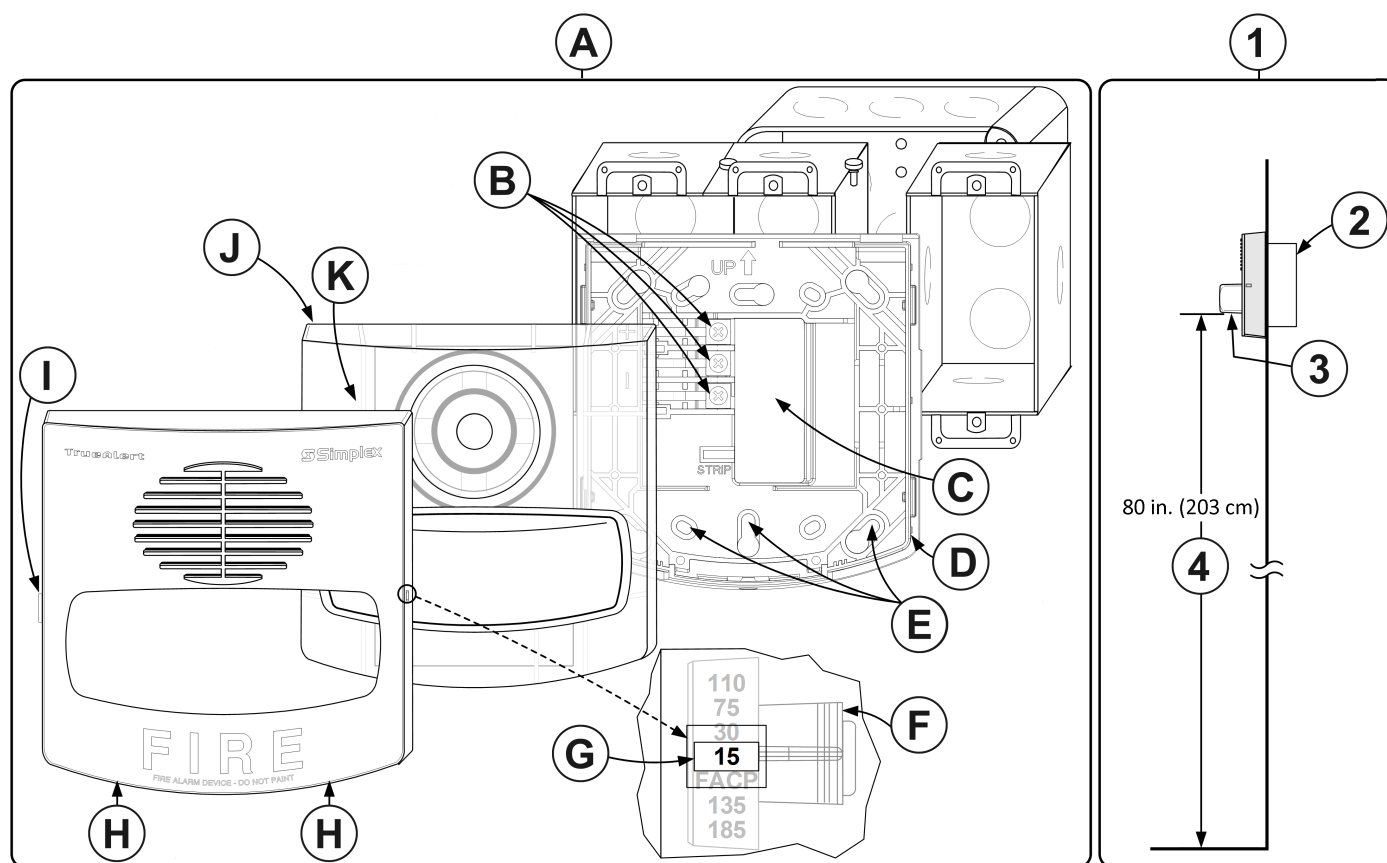
Table 4: Mounting adapters

Model	Description	Dimensions
4905-9937	Surface mount red adapter skirt	5 3/8 in. H x 5 1/4 in. W x 1 5/8 in. D (136 mm x 133 mm x 41 mm). Total depth with horn = 3 1/8 in. (79 mm)
4905-9940	Surface mount white adapter skirt	
4905-9931	Adapter Plate, red, for mounting to Simplex 2975-9145 box, typically for retrofit, mounted vertically or horizontally	8 5/16 in. x 5 3/4 in. x 0.060 in. thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red mounting box, requires Adapter Plate 4905-9931	7 7/8 in. x 5 1/8 in. x 2 3/4 in. D (200 mm x 130 mm x 70 mm)

Table 5: Synchronization control module

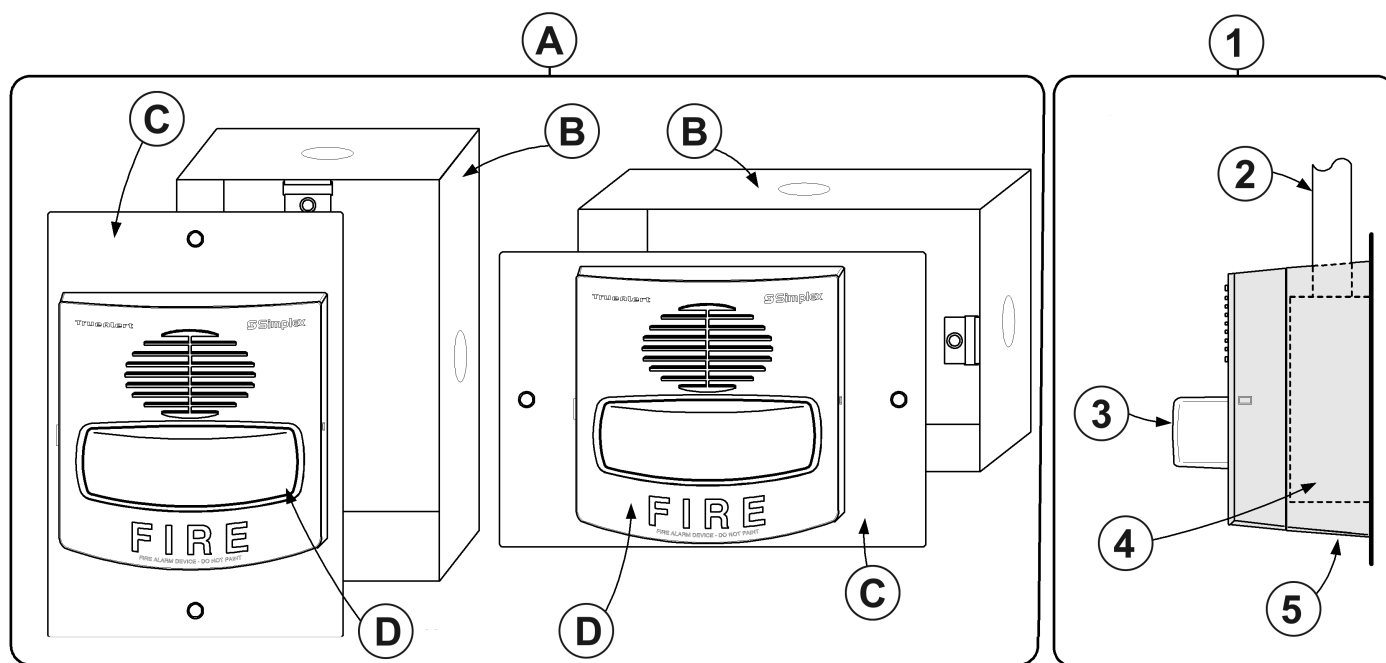
Model	Description	Dimensions
4905-9938	SmartSync control module, class A or class B, installs in a 4 in. square box. For use with control panels that do not have SmartSync control.	4 in. x 4 1/8 in. x 1 1/4 in. D (102 mm x 105 mm x 32 mm)

Installation reference



Callout	Description
A	Mounting is compatible with single gang, double gang, and 4 in (102 mm) square boxes, 1 1/2 in. (38 mm) deep, supplied separately
B	Wiring terminals and connection clips
C	Wiring access hole
D	Mounting plate
E	Mounting holes: Single gang, two Double gang, four 4 in. square, four
F	Intensity selection plug, accessible from the rear of the housing. The factory setting is 15 cd
G	Strobe intensity viewing slot on the side of the appliance, not to scale
H	Electrical test point access holes, on the bottom of the housing
I	Removable cover. When installed, use a flat bladed screwdriver to release the latch on the left side
J	Transparent housing assembly
K	A/V configuration switch, accessible from the rear of the housing, not shown in image
1	Important wall mount installation height reference
2	Electrical box outline
3	The bottom of the lens is either even with, or slightly above the bottom of compatible boxes
4	NFPA 72 requires that the entire lens is not less than 80 in. and not greater than 96 in. above the finished floor. Confirm with your local codes

Adapter plate and surface mount installation reference



Callout	Description	Callout	Description
A	2975-9145 box mounting reference	1	Surface mount side view reference
B	2975-9145 box	2	Surface mount conduit and box shown for reference
C	4905-9931 adapter plate	3	TrueAlert multi-tone A/V
D	TrueAlert multi-tone A/V	4	4 in. square box profile, 1 1/2 in. (38 mm) deep
—	—	5	Optimal surface mount adapter skirt, 1 1/2 in. deep: 4905-9937, red 4905-9940, white Conduit knockouts are on all four sides

Specifications

Table 6: General specifications

Specification	Rating
Rated voltage range	16 VDC to 33 VDC, special application
NAC loading	A maximum of 13, 49CMT series appliances for each NAC
Temperature range	32° F to 122° F (0° C to 50° C)
Humidity range	10% to 93%, non-condensing at 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 for each terminal for in/out wiring
Installation instructions	579-1158 for 49CMTV series horn/strobes 579-1159 for 49CMP mounting plates

Table 7: Tone characteristics

Specification	Rating
520 Hz Horn	520 Hz tone
Broadband Horn	Combination 600/3000 Hz signal
Bell	Synthesized bell tone
High/Low	Alternating modulated tones with fundamentals of 1000 Hz and 800 Hz, 250 ms duration each
Slow Whoop	Modulated 520 Hz to 1200 Hz sweep with 2 s duration
Siren	Modulated 600 Hz to 1200 Hz to 600 Hz sweep, with 2 s duration
Chime	Multi-phase signal with a peak and decay time of 1 s

Table 8: TrueAlert multi-tone horn/strobe current ratings

Tone	Current ratings at 16 VDC, in mA											
	15 cd		30 cd		75 cd		110 cd		135 cd		185 cd	
	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 current ratings

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

Table 9: UL 464 output ratings at 16 VDC and 33 VDC (dBA)

Tone	Voltage	Steady high		Steady low		Coded high		Coded low	
		16	33	16	33	16	33	16	33
520 Hz Horn		80	80	74	75	76	76	70	71
High/Low		81	82	77	77	75	76	70	71
Broadband Horn		84	84	79	79	81	81	74	75
Bell		80	80	75	75	76	76	71	71
Slow Whoop		79	80	74	75	These tones are not used for coded operation			
Siren		79	80	74	75				
Chime		67	67	62	62				

Note: UL output ratings below 75 dBA are for NFPA 72 Private Mode applications.

Table 10: ULC S525 output ratings at 16 VDC and 33 VDC (dBA)

Tone	Voltage	Steady high		Steady low		Coded high		Coded low	
		16	33	16	33	16	33	16	33
520 Hz Horn		83		79		83		78	
High/Low		87		82		86		82	
Broadband Horn		88		84		87		83	
Bell		85		80		85		80	
Slow Whoop		85		80		These tones are not used for coded operation			
Siren		85		80					
Chime		82		77					

Note: ULC output ratings below 85 dBA are for use in applications in accordance with applicable local codes.

Table 11: Sound output dispersion in accordance with ULC S541 Anechoic Testing

Specification	Rating		
Horizontal	-3 dBA at $\pm 37^\circ$	-6 dBA at $\pm 40^\circ$	-9.4 dBA at $\pm 90^\circ$
Vertical	-3 dBA at -24° , $+42^\circ$	-6 dBA at -59° , $+50^\circ$	-8.6 dBA at $\pm 90^\circ$