AUTOCALL

*UL, ULC, CSFM Listed, FM Approved**

**Datasheet**

# TrueAlert Notification Appliances

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

## Features

**Autocall 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 Specifications)
- 520 Hz tone is compliant with NFPA 72 Low Frequency Signal Requirements for Sleeping Areas
- Operation is selectable for SmartSync two-wire control or 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 Installation Reference)
- Electrical test point access without removing cover

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

- Control of Horn, Bell, and High/Low tones as Temporal Pattern, March Time pattern, or on continuously, controlled separately from visible appliances on the same circuit
- Control of Slow Whoop, Siren, and Chime tones as synchronized continuous signals when receiving SmartSync continuous 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 Synchronized Strobes 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 Autocall, 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**

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 Specifications.)

**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 Specifications.)

**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.

Two-stage alarm operation requires a 4010ES, 4100ES, or 4007ES as the control panel. See Table 7 for functional limitations by tone type.

**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.

* 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 Listings 7125-2269:0520 and 7125-2269:0527 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.

## 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**

- 4007ES Hybrid, 4010ES, 4100ES Fire Alarm Control Panels (refer to individual product data sheets for more information)
- 4009 IDNet NAC Extender (refer to data sheet *AC4009-0002* )
- SmartSync Control Module (SCM) A4905-9938 (refer to data sheet *AC4905-0003* )

**Additional SmartSync** 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**

| SKU | Cover Color | Wording | Description | Dimensions with Cover |
|---|---|---|---|---|
| A49CMTV-APPLW | Select cover and mounting plate separately | | | |

**Table 2: Separate Mounting Plate (Required when ordering model 49CMTV-APPLW(-BA))**

| SKU | Color | Description |
|---|---|---|
| A49CMP-MTWR | Red | Mounting plate, select color to match cover |
| A49CMP-MTWW | 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. | | |

**Table 3: Separate Covers (Required when ordering model 49CMTV-APPLW(-BA))**

| SKU | Color | Wording |
|---|---|---|
| A49CMTVC-WRFIRE | Red | FIRE |
| A49CMTVC-WWFIRE | White | |
| A49CMTVC-WRALT | Red | ALERT |
| A49CMTVC-WWALT | White | |
| A49CMTVC-WRS | Red | Logos Only |
| A49CMTVC-WWS | White | |

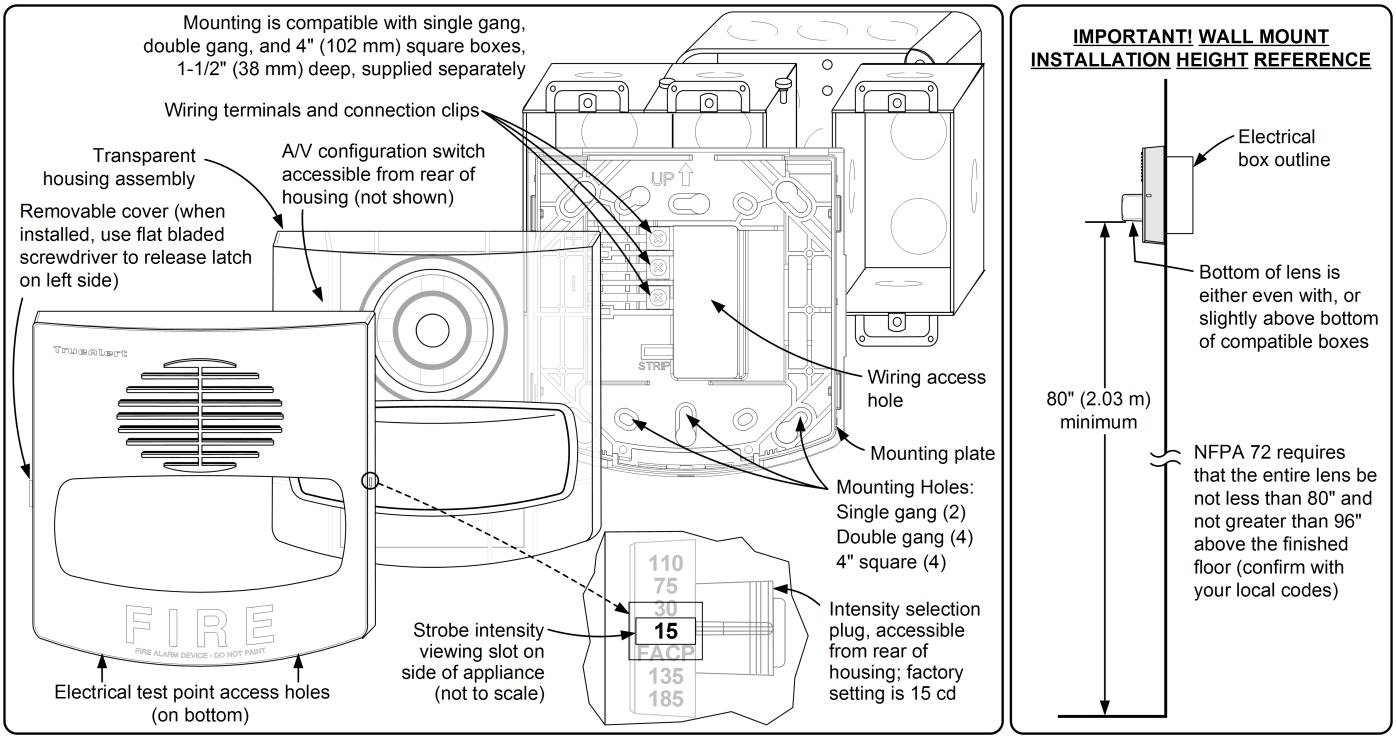
**Table 4: Mounting Adapters**

| SKU | Description | | Dimensions |
|---|---|---|---|
| A4905-9937 | 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) |
| A4905-9940 | Surface mount white adapter skirt | | |
| A4905-9931 | Adapter Plate, red, for mounting to Autocall 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 A4905-9931 | | 7 ⅞" x 5 ⅛" x 2 ¾" D (200 mm x 130 mm x 70 mm) |

**Table 5: Synchronization Control Module**

| SKU | Description | Dimensions |
|---|---|---|
| A4905-9938 | 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




## Specifications

**Table 6: General Specifications**

| Specification | Rating |
|---|---|
| Rated Voltage Range | 16 VDC to 33 VDC, Special Application |
| NAC Loading | Maximum of 13, A49CMT Series appliances per NAC |
| 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 mm2 to 3.31 mm2); two wires per terminal for in/out wiring |
| Installation Instructions | 579-1158AC for A49CMTV Series Horn/Strobes |
| | 579-1159AC for A49CMP Mounting Plates |

**Table 7: Tone Characteristics**

| Specification | | Rating |
|---|---|---|
| **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 | |
| **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 | 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 | |
| **Chime** | Multi-phase signal with a peak and decay time of 1 s | |

**Table 8: 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 Current Ratings

**Table 9: UL 464 Output Ratings @ 16 VDC and 33 VDC (dBA)***

| | | Steady High | | Steady Low | | Coded High | | Coded Low | |
|---|---|---|---|---|---|---|---|---|---|
| **Tone** | **Voltage** | **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** | | | | |

**Table 10: ULC S525 Output Ratings @ 16 VDC and 33 VDC (dBA)***

| | | Steady High | | Steady Low | | Coded High | | Coded Low | |
|---|---|---|---|---|---|---|---|---|---|
| **Tone** | **Voltage** | **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:**

* Output 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 output ratings below 75 dBA are for NFPA 72 Private Mode applications.

† ULC output ratings below 85 dBA are for use in applications per applicable local codes.

**Table 11: Sound Output Dispersion per ULC S541 Anechoic Testing**

| Specification | Rating | | |
|---|---|---|---|
| **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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