

## Features

### Fire alarm speakers with models for ceiling or wall mount:

- 4 in. cone or 102 mm provides high quality tone and voice reproduction
- Multi-tapped design provides output power of 1/4 W, 1/2 W, 1 W, or 2 W with either 25 VRMS or 70.7 VRMS input
- In/out wiring terminals for 18 AWG to 12 AWG
- Mounts to 4 in. square outlet box, 1 1/2 in. deep with 1 1/2 in. deep box extension
- Capacitor input for connection to supervised notification appliance circuits
- Rugged, high impact, flame retardant thermoplastic housings
- UL listed to Standard 1480
- Compliant with NFPA 72, 520 Hz Low Frequency Signal Requirements for Sleeping Areas
- NEMA 1 rated. See [Product selection](#) for more information.

### Rectangular housing models feature:

- Appearance that complements TrueAlert strobes and speaker/strobes
- Red or white housings with **FIRE** lettering for surface or semi-flush wall mount
- Optional matching adapter skirts for covering surface mounted electrical boxes
- Optional red wire guard

### Round housing models feature:

- Off-white color with no lettering for flush mount on ceiling or wall
- Compatible with optional tile bridge 2905-9946

## Introduction

Simplex 4902 Series speakers provide high quality sound for emergency fire alarm use as well as for background music. The moisture-repellent speaker is designed for smooth frequency response with minimal distortion.

The multi-tapped speaker transformer accommodates either 25 VRMS or 70.7 VRMS and provides an output of from 1/4 W to 2 W to provide flexibility for satisfying the requirements of the installed conditions.

Rectangular housing models are for surface or semi-flush wall mount applications. Round housing models are typically for ceiling applications but can be wall mounted if desired. The rectangular housing speakers are designed to compliment the TrueAlert family of strobes and speaker/strobes, providing conventional, non-addressable speaker operation.



Figure 1: Rectangular wall mount speakers are available as red with white FIRE lettering and white with red FIRE lettering

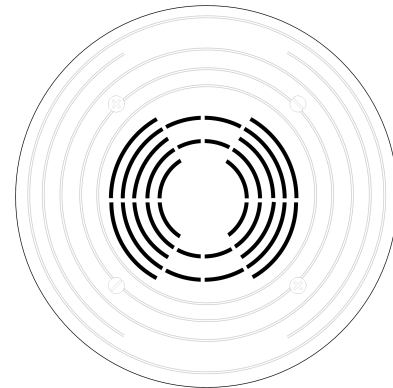


Figure 2: Round speakers are available in off-white (no lettering)

\* 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 7320-0026:242 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.

## Specifications

**Table 1: Dimensions, rectangular wall mount housings**

Specification	Dimensions
Housing dimensions	5 1/8 in. H x 5 in. W x 1 1/2 in. D or 130 mm x 127 mm x 38 mm
Depth into box	2 3/4 in. or 70 mm

**Table 2: Dimensions, round housings**

Specification	Dimensions
Housing dimensions	7 1/2 in. diameter, 1/2 in. D or 191 mm x 13 mm
Depth into box	2 3/4 in. or 70 mm

**Table 3: General specifications**

Specification		Rating
Input voltage		25 VRMS or 70.7 VRMS
Power taps		1/4 W, 1/2 W, 1 W, and 2 W
Input terminal ratings		18 AWG to 12 AWG or 0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup>
Frequency response	Fire alarm	400 Hz to 4000 Hz
	General signaling	125 kHz to 12 kHz
Sound output		See <a href="#">Speaker sound output specifications</a>
Temperature range		32°F to 100°F or 0°C to 38°C
Humidity range		10% to 95% RH from 32°F to 122°F or 0°C to 50°C

## Product selection

**Table 4: Speaker product selection**

Model	Description	Dimensions
4902-9716 *	Rectangular housing, wall mount speaker	5 1/8 in. H x 5 in. W x 1 1/2 in. D or 130 mm x 127 mm x 38 mm
4902-9716CA *		
4902-9717 *		
4902-9717CA *	Round housing speaker, ceiling or wall mount	7 1/2 in. Diameter x 1/2 in. D or 191 mm x 13 mm
4902-9721 *		
4902-9721CA *		
4902-9722 *		

\* NEMA 1 rated when used with 4905-9941 adaptor skirt and mounted on a suitable 4 in. or 102 mm square back box.

**Note:** ULC listed model are designated with a CA suffix (4902-9716CA). Refer to *4902 TrueAlert® Ceiling-Mount and Wall-Mount Speaker Installation Instructions 574-765* for non-suffix model numbers and to *4009-9808 NAC Class A Adapter Option Card Installation Instructions 579-324* for CA suffix model numbers.

**Table 5: Mounting adapters**

Model	Description	Dimensions
4905-9941 **	Red	Use to cover surface mounted 1 1/2 in. deep box with 1 1/2 in. deep extension external to wall, see <a href="#">Wall mount speakers, installation reference</a>
4905-9942 **	White	
2905-9946	Tile bridge for 4902-9721 Speaker	See <a href="#">Wall mount speakers, installation reference</a>
4905-9931 **	Adapter plate, red, for mounting to 2975-9145 box. Typically for retrofit, may be mounted vertically or horizontally.	8 5/16 in. x 5 3/4 in. x 0.060 in. Thick or 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 or 200 mm x 130 mm x 70 mm

\*\* NEMA 1 rated.

**Table 6: Covers and guard**

Model	Description	Dimensions
4905-9988 ***	Red speaker cover with white <b>FIRE</b> lettering	Interchangeable with TrueAlert horns
4905-9989 ***	White speaker cover with red <b>FIRE</b> lettering	
4905-9999	Red wire guard with mounting plate; compatible with semi-flush or surface mounted boxes; for use with 4 in. square electrical box mounting hole patterns only, UL listed by Space Age Electronics Inc.	6 1/16 in. H x 6 1/16 in. W x 3 1/8 in. D or 154 mm x 154 mm x 79 mm

\*\*\* NEMA 1 rated.

## Wall mount speakers, installation reference

Mounting requires a 4 in. or 102 mm square box, 1 1/2 in. or 38 mm deep, with a 4 in. box extension, 1 1/2 in. deep, by others.

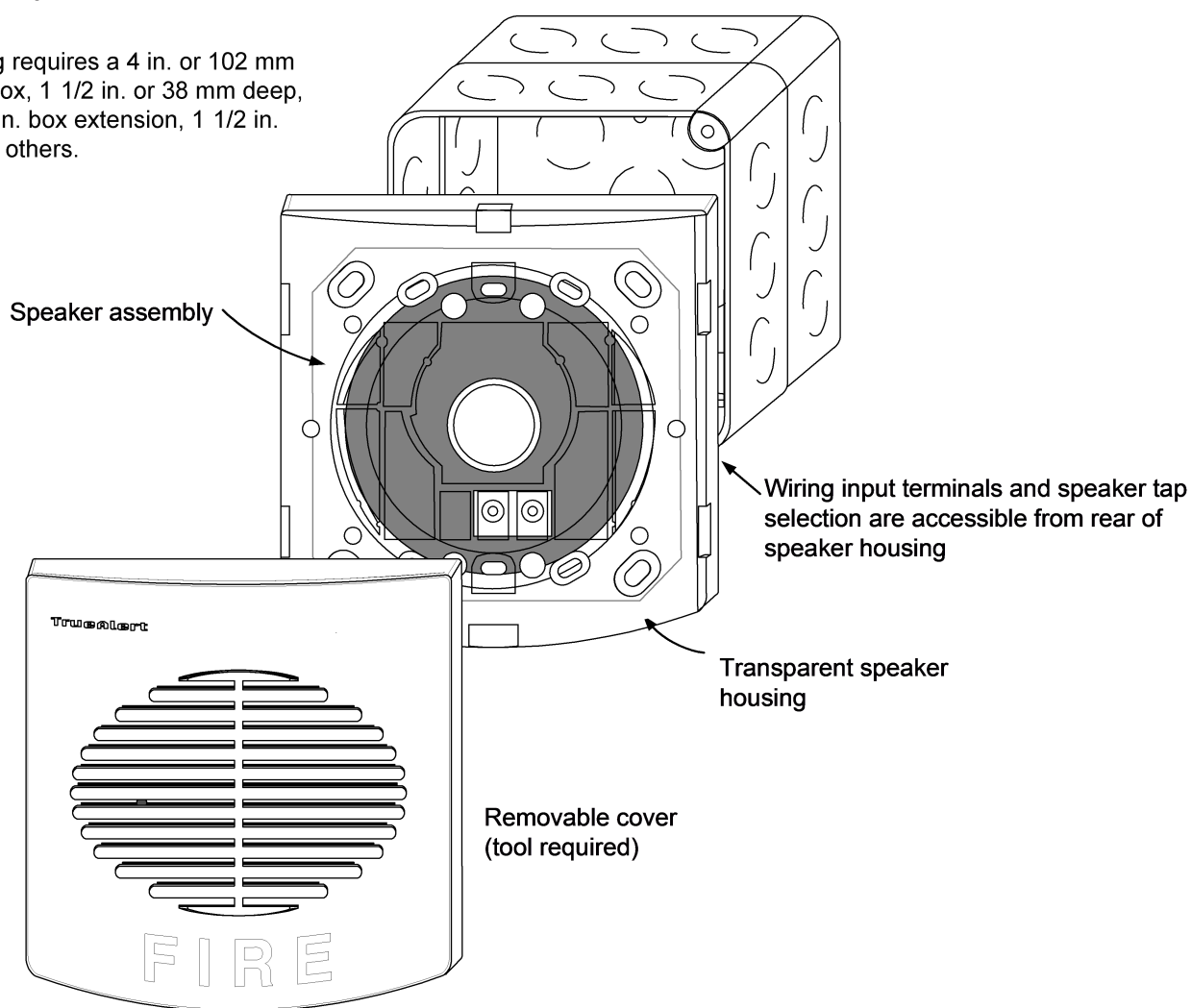


Figure 3: Wall mount speakers, installation reference

### Round speaker installation reference (typically ceiling mount, wall mount is optional)

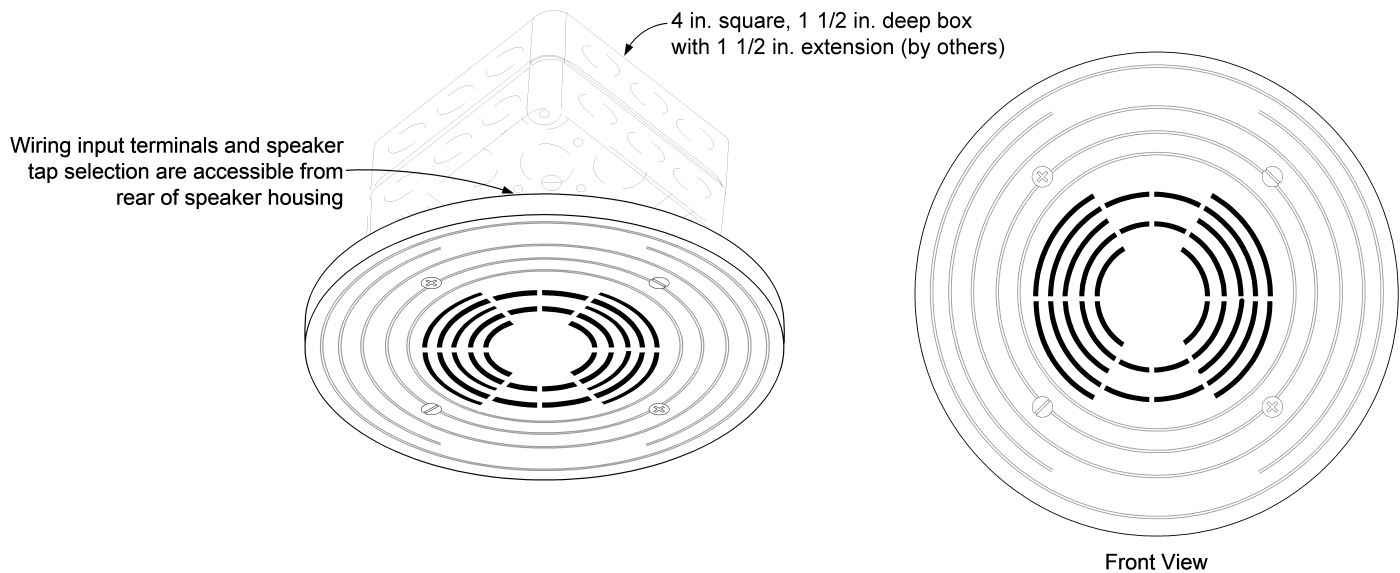


Figure 4: Round speaker installation reference

### 2905-9946 Tile bridge dimensions

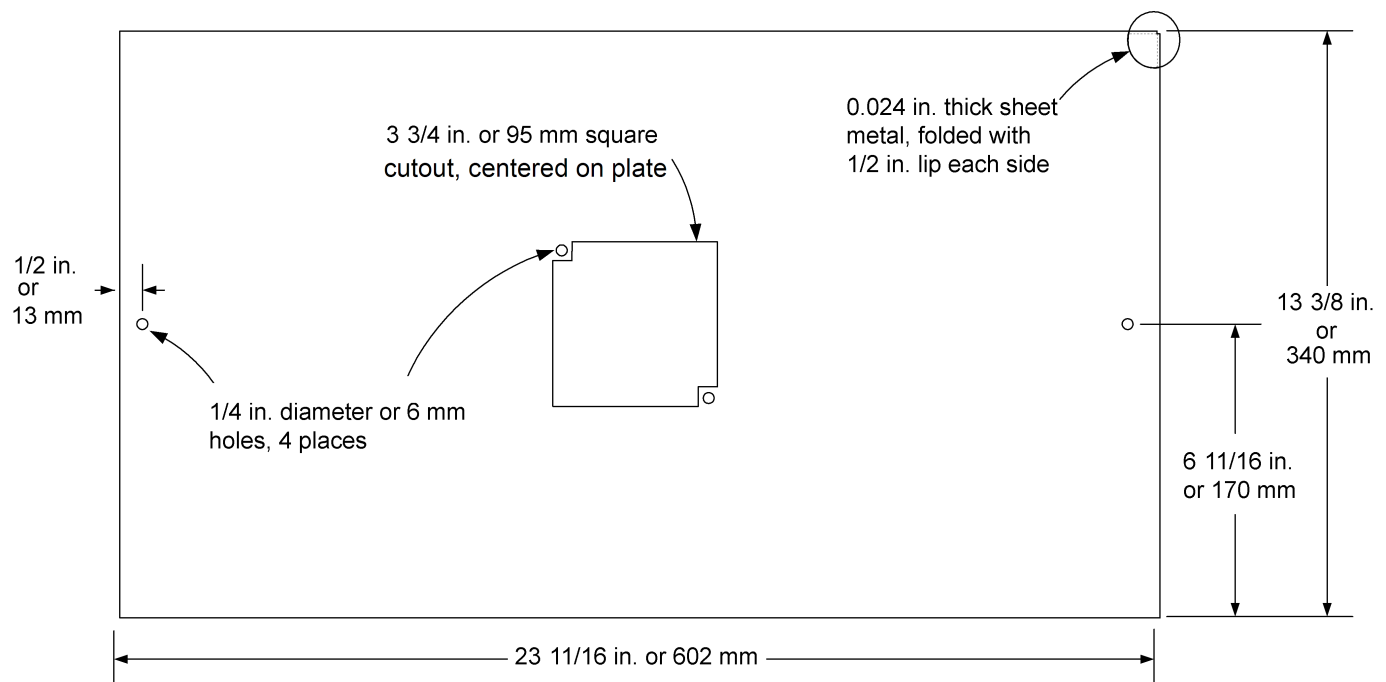


Figure 5: Tile bridge dimensions reference

## Surface mounted speaker reference

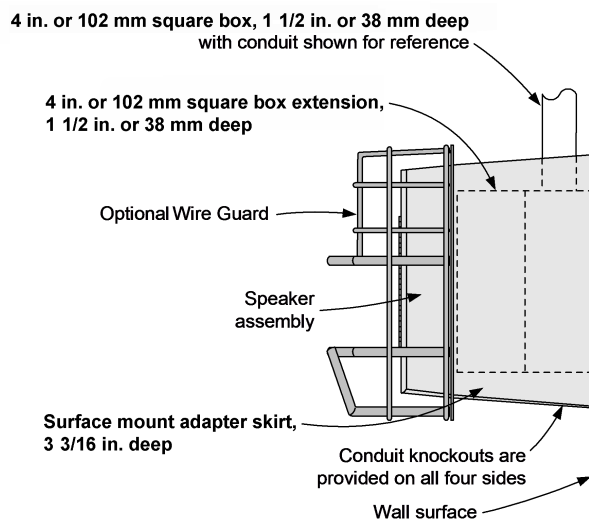


Figure 6: Surface mounted speaker reference

**Note:** Figure 6 shows surface mount adapter skirt available in red (4905-9941), and white (4905-9942). Optional 4905-9999 Wire Guard also shown.

## Speaker sound output specifications

**Table 7: Sound output ratings at 10 ft (~3 m) per UL 1480 Reverberant Chamber Testing**

Model	Type	Input voltage	Selected tap			
			1/4 W	1/2 W	1 W	2 W
4902-9716	Rectangular housing	25 VRMS	80 dBA	83 dBA	85 dBA	88 dBA
4902-9717		70.7 VRMS	79 dBA	82 dBA	85 dBA	88 dBA
4902-9721	Round housing	25 VRMS or 70.7 VRMS	79 dBA	82 dBA	85 dBA	88 dBA
4902-9722						

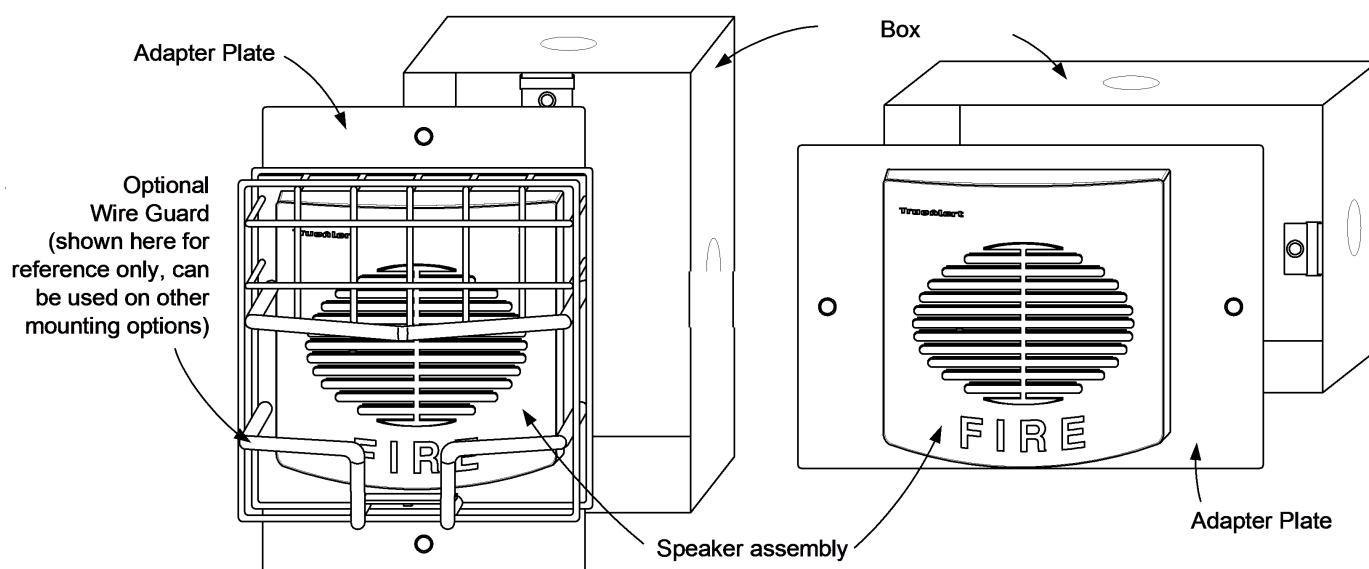
**Table 8: Sound output ratings at 3 m (~10 ft) per ULC S541 Anechoic Chamber Testing**

Model	Type	Input voltage	Selected tap			
			1/4 W	1/2 W	1 W	2 W
4902-9716CACA	Rectangular housing	25 VRMS or 70.7 VRMS	77 dBA	80 dBA	83 dBA	86 dBA
4902-9717CA						
4902-9721CA	Round housing	25 VRMS or 70.7 VRMS	79 dBA	82 dBA	85 dBA	89 dBA

**Table 9: Speaker polar dispersion reference (per ULC S541 Anechoic Chamber Testing)**

Attenuation	Angle
-3 dB	30° off-axis
-6 dB	55° off-axis

## 4905-9931 Adapter plate installation reference



**Figure 7: 4905-9931 Adapter plate installation reference**

**Note:** Figure 7 shows:

- 4905-9931 adapter plate
- 2975-9145 back box
- 4905-9999 Optional wire guard

