

#### Features

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

- Four inch 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

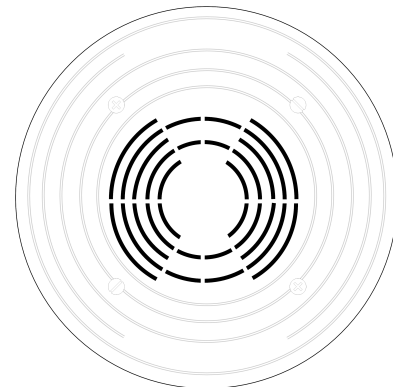


Figure 2: Round speakers are available in off-white (no lettering)

\* 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 to 12 AWG or 0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup>
Frequency response	Fire alarm
	General signaling
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 *			Red with white <b>FIRE</b> lettering
4902-9717 *			White with red <b>FIRE</b> lettering
4902-9717CA *			
4902-9721 *	Round housing speaker, ceiling or wall mount	7 1/2 in. Diameter x 1/2 in. D or 191 mm x 13 mm	
4902-9721CA *			Off-white with no lettering

\* 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 Installation Instructions 574-765 for non-suffix model numbers and to Installation Instructions 579-324 for CA suffix model numbers.

**Table 5: Mounting adapters**

Model	Description	Dimensions
4905-9941 **	Red	Surface mount adapter skirt 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	
4905-9931 **	Adapter plate, red, for mounting to 2975-9145 box. Typically for retrofit, may be mounted vertically or horizontally.	
2975-9145 **	Red mounting box, requires Adapter plate 4905-9931	

\*\* 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 5 1/8 in. H x 5 in. W x 1 1/2 in. D or 130 mm x 127 mm x 38 mm
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.

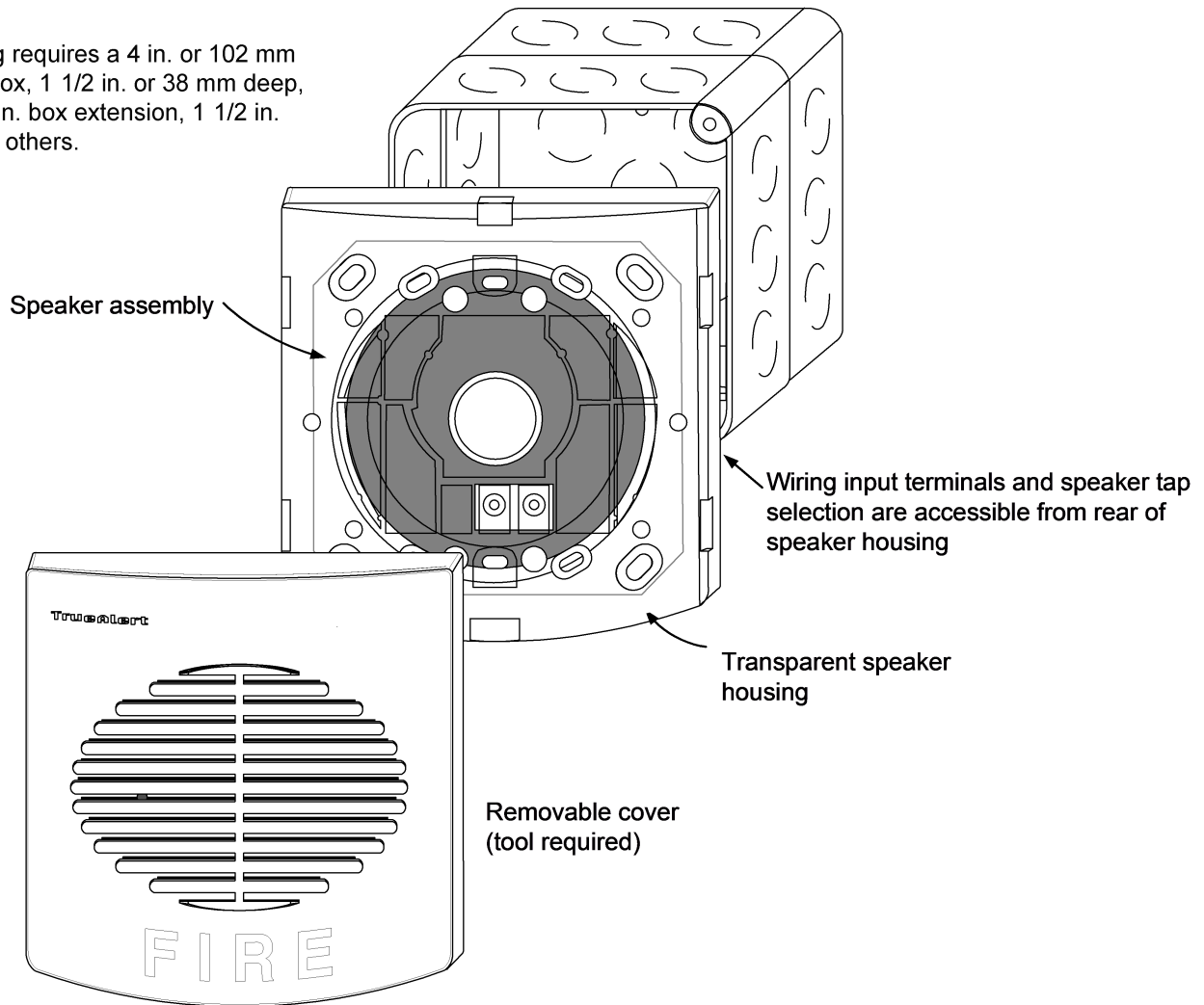


Figure 3: Wall mount speakers, installation reference

**Round speaker installation reference (typically ceiling mount, can be wall mounted)**

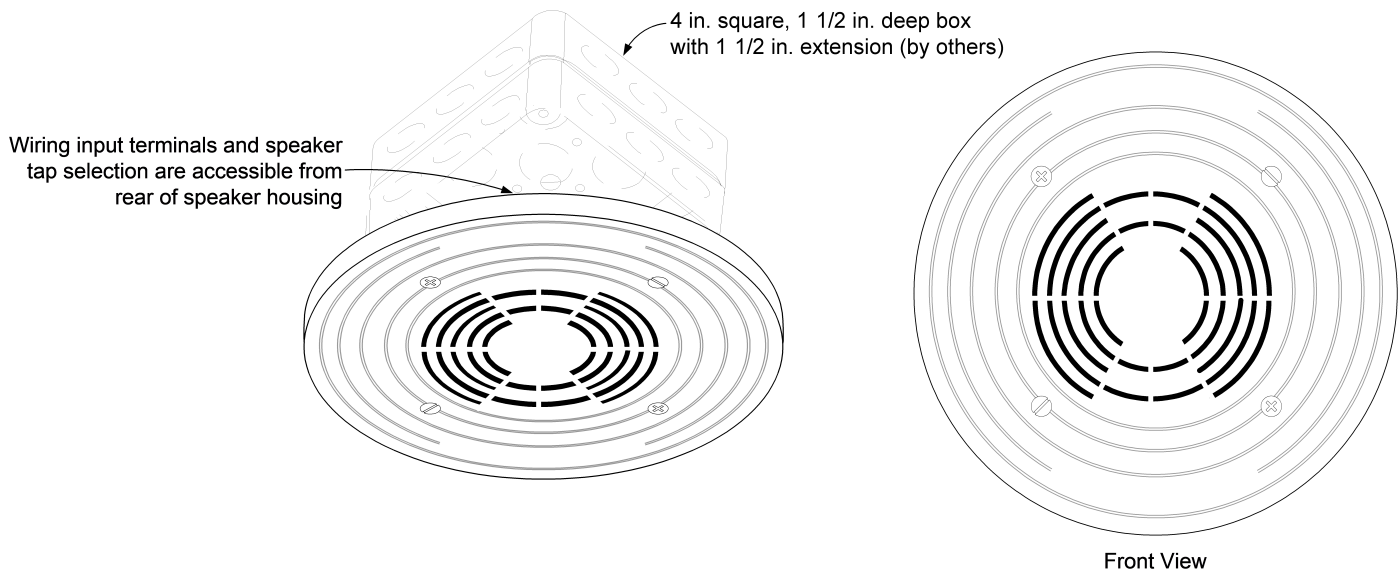
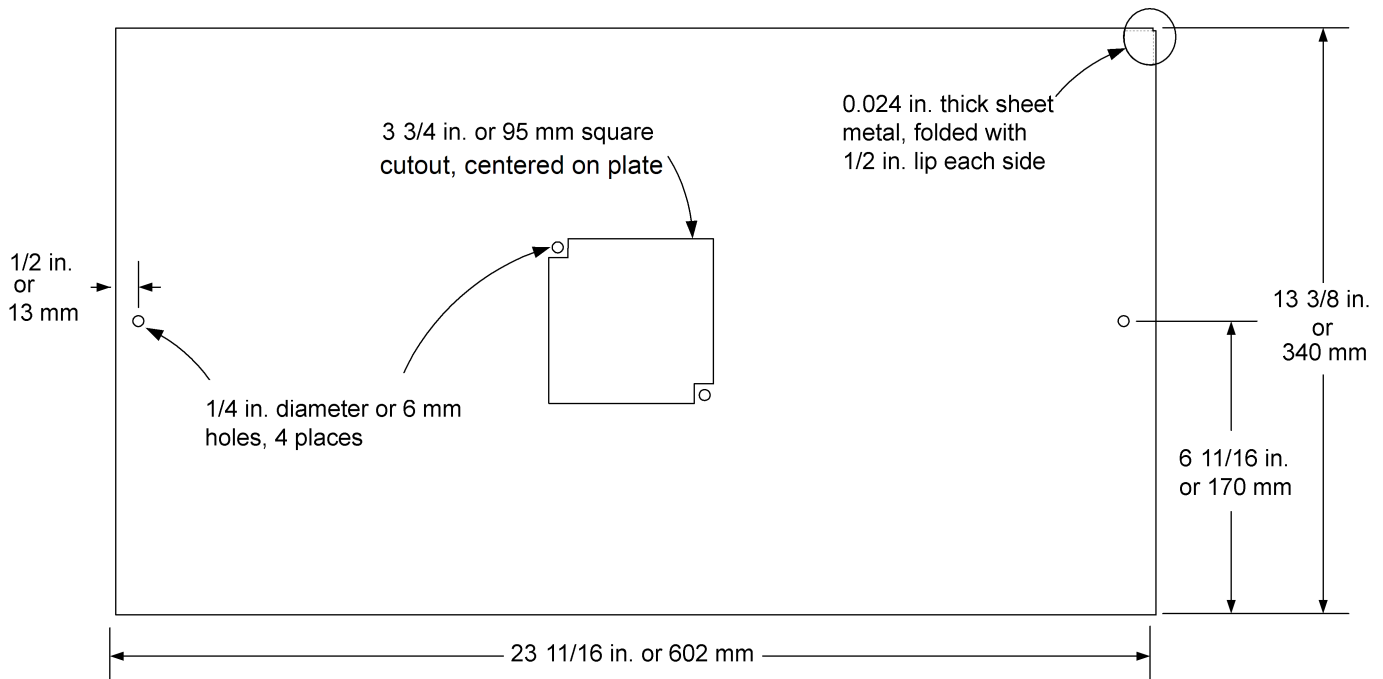


Figure 4: Round speaker installation reference

**2905-9946 Tile bridge dimensions**



### Surface mounted speaker reference

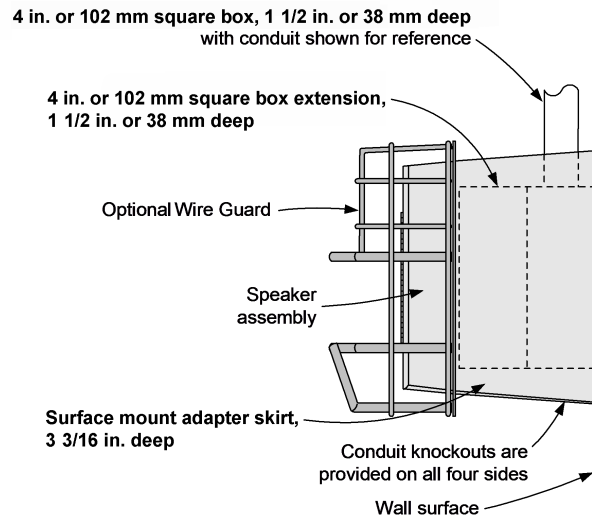


Figure 5: Surface mounted speaker reference

**Note:** Figure 5 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 @ 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

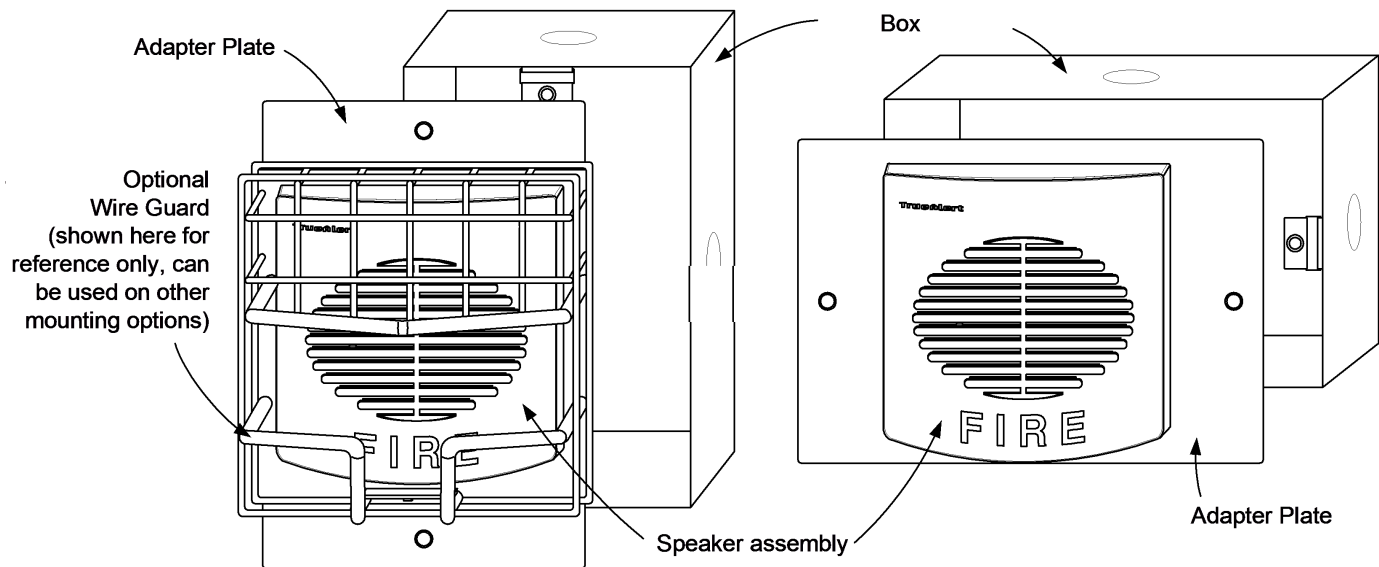
**Table 8: Sound output ratings @ 3 m (~10 ft) per ULC S541 Anechoic Chamber Testing**

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		25 VRMS or 70.7 VRMS	77 dBA	80 dBA	83 dBA	86 dBA
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 6: 4905-9931 Adapter plate installation reference**

**Note:** Figure 6 shows:

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

