Simplex

Multi-Application Peripherals

Audible Notification Appliances
Speakers, 25 or 70.7 VRMS, Wall or Ceiling Mount

Features

Fire alarm speakers with models for ceiling or wall mount:

- UL listed to Standard 1480
- Four inch cone (102 mm) provides high quality tone and voice reproduction
- Multi-tapped design provides output power of 1/4, 1/2, 1, or 2 W with either 25 or 70.7 VRMS input
- In/out wiring terminals for 18 AWG to 12 AWG
- Mounts to 4" square outlet box, 1-1/2" deep with 1-1/2" deep box extension
- Capacitor input for connection to supervised notification appliance circuits
- Rugged, high impact, flame retardant thermoplastic housings

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 (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 or 70.7 VRMS and provides an output of from 1/4 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.

Rectangular Wall Mount Speakers are Available as Red with White "Fire" Lettering and White with Red "Fire" Lettering
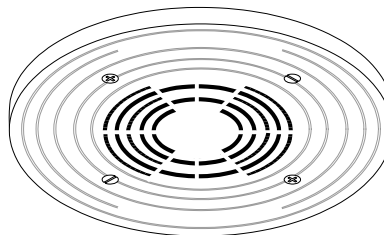
Round Speakers are Available in Off-White (no lettering)

Specifications

Dimensions, Rectangular Wall Mount Housings	
Housing Dimensions	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
Depth into Box	2-3/4" (70 mm)
Dimensions, Round Housings	
Housing Dimensions	7-1/2" Diameter, 1/2" D (191 mm x 13 mm)
Depth into Box	2-3/4" (70 mm)
General Specifications	
Input Voltage	25 or 70.7 VRMS
Power Taps	1/4, 1/2, 1, and 2 W
Input Terminal Ratings	18 to 12 AWG (0.82 mm² to 3.31 mm²)
Frequency Response — Fire Alarm	400 to 4000 Hz
Frequency Response — General Signaling	125 to 12 kHz
Sound Output	See information on page 4
Temperature Range	32° to 100° F (0° to 38° C)
Humidity Range	10% to 95% RH from 32° to 122° F (0° to 50° C)

Product Selection

Speakers

Model*	Description		Dimensions
4902-9716(CA)	Rectangular housing, wall mount speaker	Red with white "FIRE" lettering	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4902-9717(CA)		White with red "FIRE" lettering	
4902-9721(CA)	Round housing speaker, ceiling or wall mount	Off-white (no lettering)	7-1/2" Diameter x 1/2" D (191 mm x 13 mm)

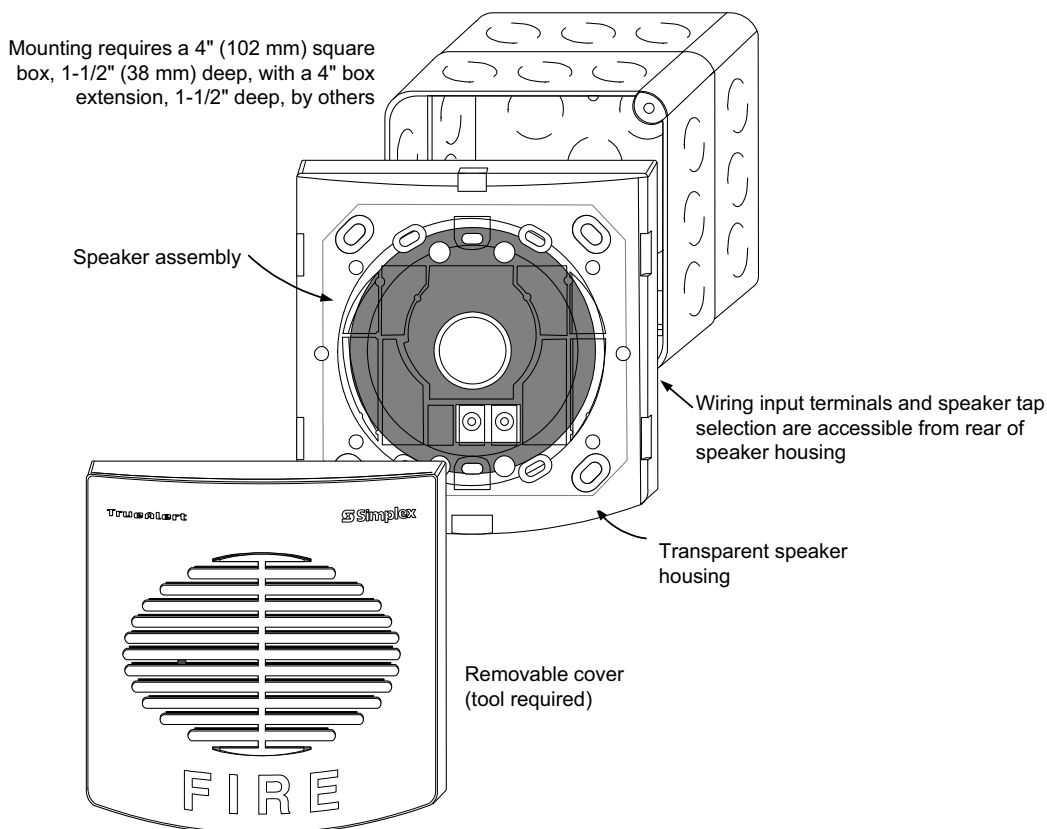* ULC listed model are designated with a CA suffix.

Mounting Adapters

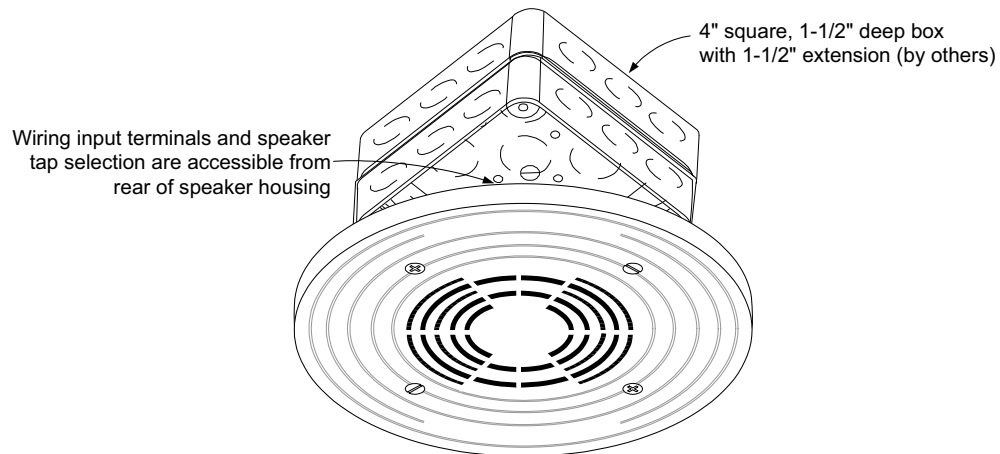| Model	Description			Dimensions
4905-9941	Red	Surface mount adapter skirt	Use to cover surface mounted 1-1/2" deep box with 1-1/2" deep extension external to wall (see diagram on page 3)	5-3/8" H x 5-1/4" W x 3-3/16" D (136 mm x 133 mm x 81 mm)
4905-9942	White			Total surface depth with speaker = 4-5/8" (117 mm)
2905-9946	Tile bridge for 4902-9721 Speaker			See diagram on page 3
4905-9931	Adapter Plate, red, for mounting to 2975-9145 box (typically for retrofit, may be mounted vertical or horizontal)			8-5/16" x 5-3/4" x 0.060" Thick (211 mm x 146 mm x 1.5 mm)
2975-9145	Red mounting box, requires Adapter Plate 4905-9931			7-7/8" x 5-1/8" x 2-3/4" D (200 mm x 130 mm x 70 mm)

Covers and Guard

Model	Description		Dimensions
4905-9988	Red speaker cover with white "FIRE" lettering	Interchangeable with TrueAlert horns	5-1/8" H x 5" W x 1-1/2" D (130 mm x 127 mm x 38 mm)
4905-9989	White speaker cover with red "FIRE" lettering		
4905-9999	Red wire guard with mounting plate; compatible with semi-flush or surface mounted boxes; for use with 4" square electrical box mounting hole patterns only (UL listed by Space Age Electronics Inc.)		6-1/16" H x 6-1/16" W x 3-1/8" D (154 mm x 154 mm x 79 mm)

Wall Mount Speakers, Installation Reference

Mounting requires a 4" (102 mm) square box, 1-1/2" (38 mm) deep, with a 4" box extension, 1-1/2" deep, by others

Speaker assembly

Wiring input terminals and speaker tap selection are accessible from rear of speaker housing

Transparent speaker housing

Removable cover (tool required)

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FIRE

Ceiling Mount Speaker Installation Reference

4" square, 1-1/2" deep box
with 1-1/2" extension (by others)

Wiring input terminals and speaker
tap selection are accessible from
rear of speaker housing

2905-9946 Tile Bridge Dimensions

3-3/4" (95 mm) square
cutout, centered on plate

0.024" thick sheet
metal, folded with
1/2" lip each side

1/2"
(13 mm)

1/4" diameter (6 mm)
holes, 4 places

13-3/8"
(340 mm)

6-11/16"
(170 mm)

23-11/16" (602 mm)
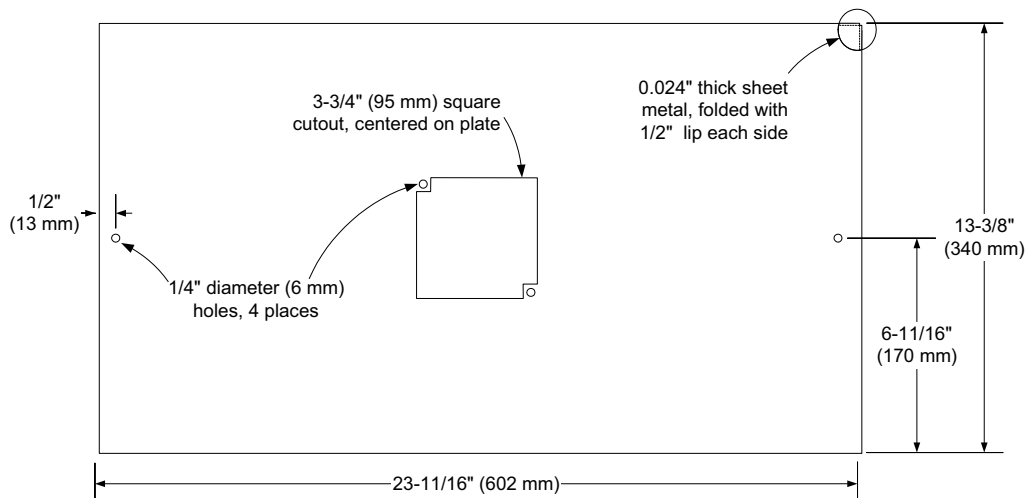
Surface Mounted Speaker Reference

4" (102 mm) square box, 1-1/2" (38 mm) deep
with conduit shown for reference

4" (102 mm) square box
extension, 1-1/2" (38 mm) deep

Optional 4905-9999 Wire Guard

Speaker
assembly

Surface mount adapter skirt, 3-3/16" deep:
4905-9941, Red; 4905-9942, White

Conduit knockouts are
provided on all four sides

Wall surface
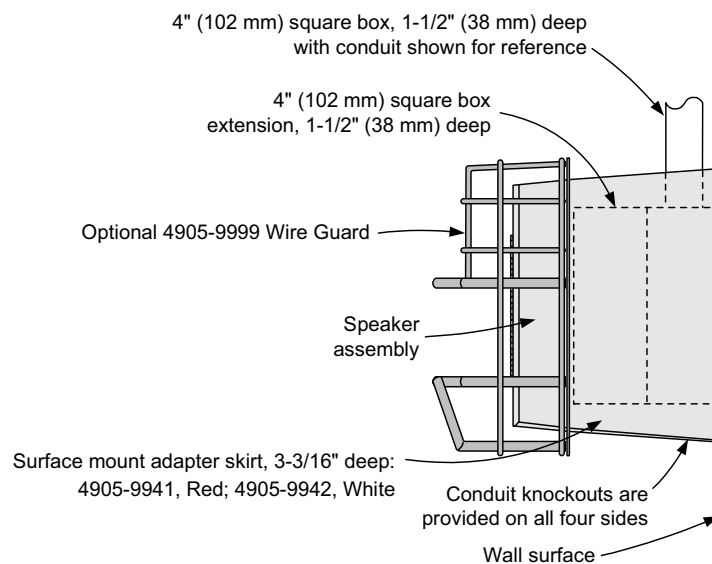
Speaker Sound Output Specifications

Sound Output Ratings @ 10 ft (3 m) per UL 1480 Reverberant Chamber Testing

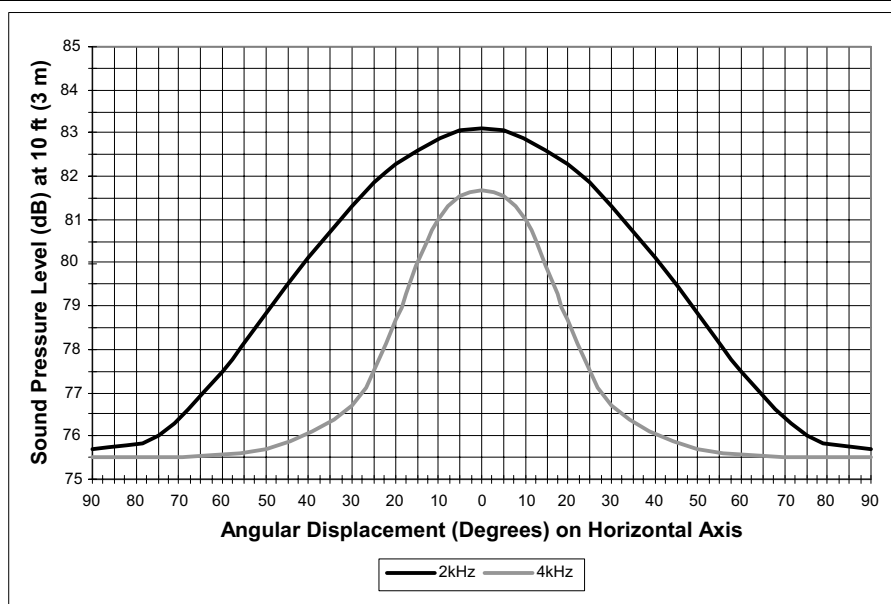| Model	Type	Input Voltage	Selected Tap			
			1/4 W	1/2 W	1 W	2 W
4902-9716 4902-9717	Rectangular Housing	25 VRMS	80 dBA	83 dBA	85 dBA	88 dBA
		70.7 VRMS	79 dBA	82 dBA	85 dBA	88 dBA
4902-9721	Round Housing	either 25 or 70.7 VRMS	79 dBA	82 dBA	85 dBA	88 dBA

Sound Output Ratings @ 10 ft (3 m) per ULC S-541 Testing and per Anechoic Chamber Testing
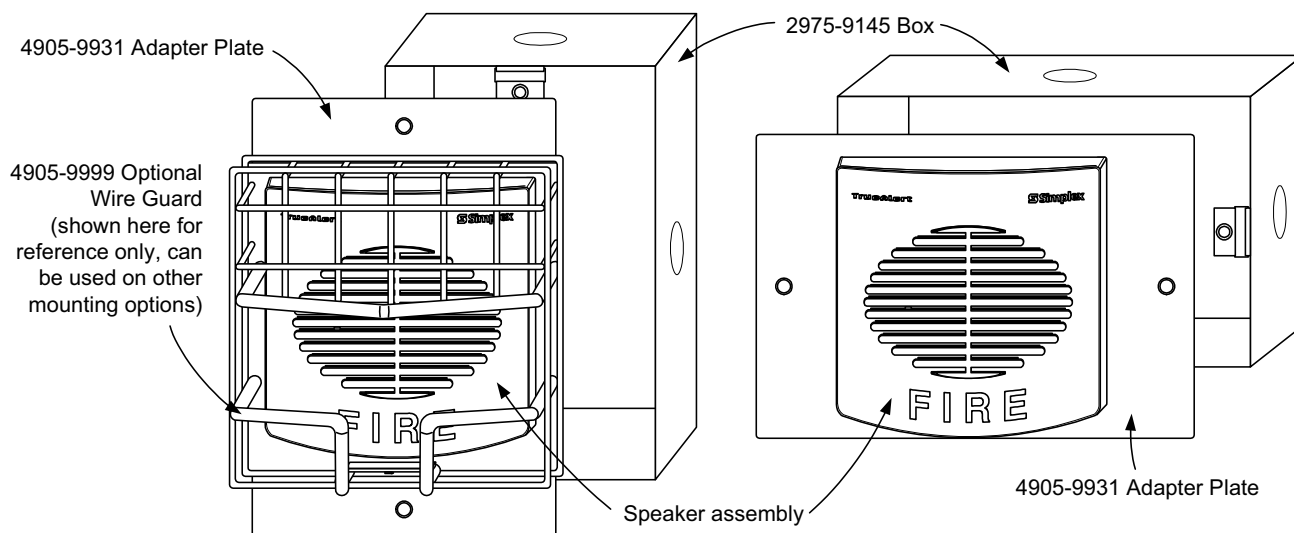
Model	Test	Selected Tap			
		1/4 W	1/2 W	1 W	2 W
4902-9716, 4902-9717, & 4902-9721; with either 25 VRMS or 70.7 VRMS input voltage	Output Test per ULC S-541	78 dBA	81 dBA	84 dBA	87 dBA
	Anechoic Chamber, 1 kHz input, on-axis*	87 dBA	90 dBA	93 dBA	96 dBA

* Anechoic speaker output ratings are typically more representative of actual installed sound output.

Speaker Directional Characteristics

4905-9931 Adapter Plate Installation Reference

4905-9931 Adapter Plate

2975-9145 Box

4905-9999 Optional Wire Guard (shown here for reference only, can be used on other mounting options)

Speaker assembly

4905-9931 Adapter Plate

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