

Introduction

Ceiling mount Addressable Speaker (SO) Notification Appliances are individually powered, addressed, and controlled using the Simplex Fire Alarm Control Unit IDNAC Signaling Line Circuit (SLC). Audio is supplied using a separate compatible Simplex Fire Alarm Control Unit audio NAC. Wiring supervision is electronically monitored to allow audio and IDNAC wiring to be T-tapped for Class B wiring, reducing wiring costs and wiring distances.

Install on a standard 4 in. or 101.6 mm square 2 1/8 in. or 53.97 mm deep electrical box, provided by others, for flush installations. Install on a surface/weatherproof backbox, see Table 6, for surface or weatherproof (WP) installations.

Appliances are available in 400 Hz to 4000 Hz and 200 Hz to 10000 Hz high fidelity models. Select the appliance and cover separately to simplify the ordering and installation process. Model numbers ending in -BA are assembled in the USA.

For more information, refer to datasheet *S49SWC-0001*.

Table 3: SO ceiling mount covers (required when ordering APPLC models)

Model	Color	Wording
49SOC-CK	Black	No logo or label
49SOC-CR	Red	
49SOC-CW	White	
49SOC-CRALT	Red	ALERT
49SOC-CWALT	White	
49SOC-CRFIRE	Red	FIRE
49SOC-CWFIRE	White	
49SOC-CRS	Red	Simplex
49SOC-CWS	White	

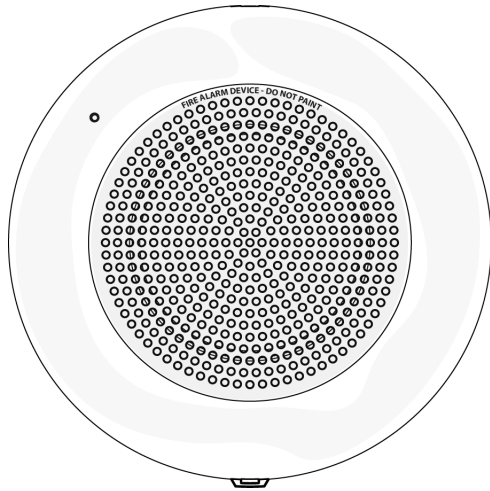


Figure 1: Ceiling mount addressable speaker notification appliance

Ceiling mount addressable speaker product selection

Table 1: Ceiling mount SO appliances

Model	Description	Installation instructions
49SO-APPLC 49SO-APPLC-BA	SO appliance only. If required, select the cover and surface/WP box separately.	579-1203

Table 2: High fidelity ceiling mount SO appliances

Model	Description	Installation instructions
49HF-APPLC 49HF-APPLC-BA	High fidelity SO appliance only. If required, select the cover and surface/WP box separately.	579-1203

* Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co.

Weatherproof product selection

Table 4: Weatherproof ceiling mount addressable SO appliances

Model	Description	Installation instructions
49SO-APPLC-O 49SO-APPLC-O-BA	High fidelity S/O appliance only. If required, select the cover and weatherproof box separately.	579-1241

Table 5: S/O covers (required when ordering APPLC-O models)

Model	Color	Wording
49SOC-CR-O	Red	No logo or label
49SOC-CW-O	White	
49SOC-CRALT-O	Red	ALERT
49SOC-CWALT-O	White	
49SOC-CRFIRE-O	Red	FIRE
49SOC-CWFIRE-O	White	
49SOC-CRS-O	Red	Simplex
49SOC-CWS-O	White	

Table 6: Surface/WP back boxes

Model	Color	Description	Installation instructions
49WPBB-SOCR	Red	Surface/WP back box in red.	579-1240
49WPBB-SOCW	White	Surface/WP back box in white.	

Table 7: Wire guards and wire guard back boxes

Model	Description
49WG-SOCR-O	Wire guard back box, ceiling, red, WP.
49WG-SOCR	Wire guard, ceiling, red.

Ceiling mount speaker specifications

Table 8: Appliance general specifications

Specification	Rating
Dimensions	7 1/8 in. H x 7 1/8 in. W x 1 1/4 in. D or 180 mm x 180 mm x 32 mm
Environmental	32°F to 120°F or 0°C to 49°C; 10% to 93%, non-condensing at 104°F or 40°C
Connections	Terminal blocks for 18 AWG to 12 AWG or 0.82 mm ² to 3.31 mm ² ; two wires for each terminal for in/out wiring. Use unshielded twisted pair (UTP) for IDNAC and audio wiring.

Table 9: Speaker audio specifications

Specification	Rating
Input voltage	25 VRMS or 70.7 VRMS
Power taps	1/4 W, 1/2 W, 1 W, and 2 W
Frequency response	400 Hz to 4000 Hz (SO), 200 Hz to 10000 Hz (H/F) General signaling = 125 kHz to 12 kHz

Table 10: Speaker output ratings

	Wattage tap		1/4 W		1/2 W		1 W		2 W	
	Model	SO	H/F	SO	H/F	SO	H/F	SO	H/F	
Reverberant Chamber Test, in accordance with UL 1480 (dBA)		79	77	83	81	86	84	90	87	
Anechoic Chamber Test, in accordance with ULC-S541 (dBA)		81	78	85	82	88	85	91	88	

Table 11: Polar dispersion

Attenuation	Angle
-3 dB	70°
-6 dB	80°

Table 12: IDNAC SLC specifications

Specification	Rating
Typical operating voltage range	23 VDC to 30 VDC, special application
Appliance voltage design reference	23 VDC (with 6 VDC drop)
Current consumption	9 mA
Supervisory requirements	1 unit load (= 0.8 mA control unit current)
IDNAC SLC loading	Maximum of 127 addresses for each SLC, 139 unit loads. See device and compatible fire control unit installation instructions for circuit current load limits.

Table 12: IDNAC SLC specifications

Specification	Rating
IDNAC SLC wiring specifications refer to the control unit installation instructions for more information.	UTP, unshielded twisted pair recommended
	Maximum wire length allowed with T-Taps for Class B wiring for each SLC = 10,000 ft or 3048 m
	Maximum wire length to any appliance = 4000 ft or 1219 m. This can be doubled to 8000 ft or 2438 m by using a 4009 IDNAC Repeater.

Table 13: Equipment compatibility references

Compatible equipment	Data sheet reference
4100ES with EPS+ or EPS Power Supply	S4100-0100
4009 IDNAC Repeater	S4009-0004
4100ES Flex 35, and 50 Watt Amplifiers	S4100-0034
4100ES 100 Watt Amplifiers	
4100ES Constant Supervision and Audio NACs	

Ceiling mount speaker installation reference

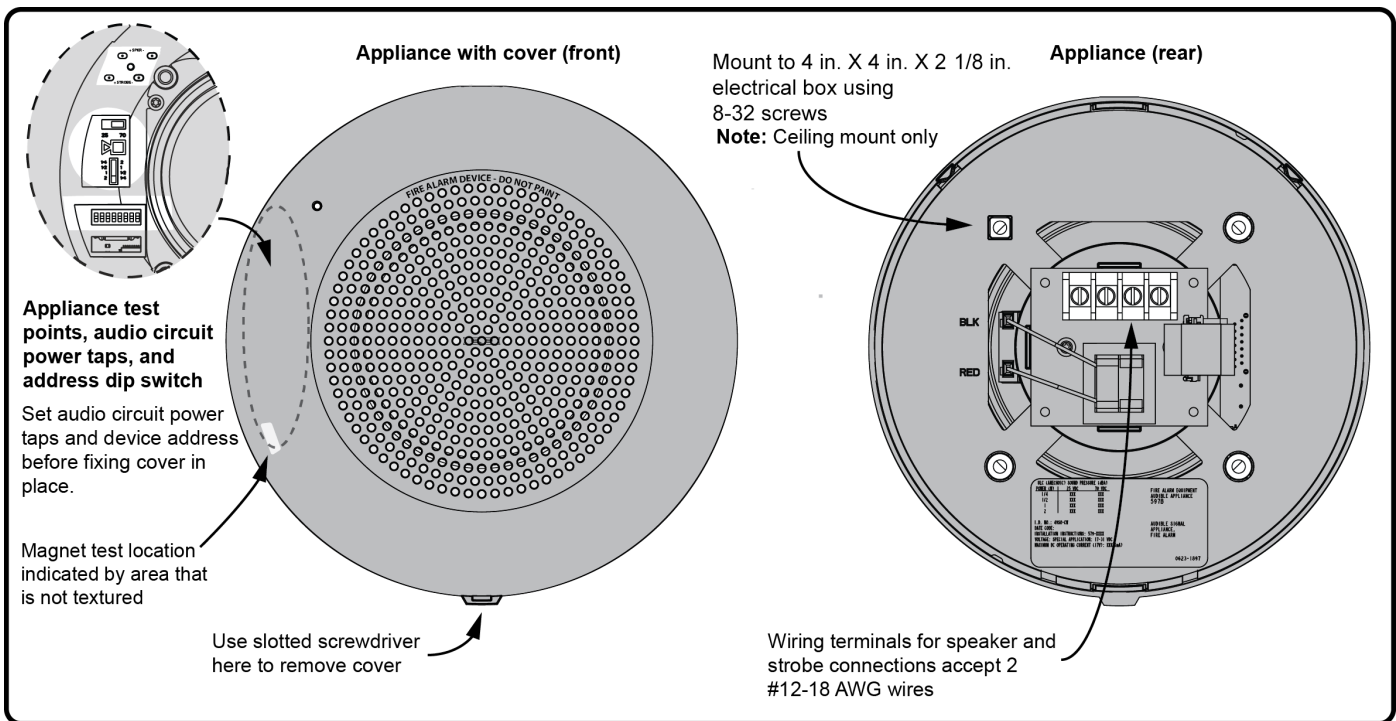


Figure 2: Installation reference

