

Introduction

Ceiling Mount Addressable Speaker Visible (S/V) Notification Appliances

Appliances are individually powered, addressed, and controlled from the Autocall Fire Alarm Control Unit IDNAC Signaling Line Circuit (SLC). Audio is supplied from a separate compatible Autocall Fire Alarm Control Unit audio NAC. Wiring supervision is electronically monitored allowing audio and IDNAC wiring to be T-tapped for Class B wiring, reducing wiring costs and wiring distances.

Installation on standard 4 inch square 2 1/8 inch deep USA electrical boxes for flush installations (provided by others) or surface/WP backboxes (order below) for surface or WP installations.

Appliances are available in 400 - 4000 Hz and 200 - 10000 Hz high fidelity models. Separate appliance and cover selection greatly simplifies the ordering and installation process. Model numbers ending in -BA are assembled in the USA. Separate appliance and cover selection greatly simplifies the ordering and installation process. For more detailed information, please consult datasheet AC49SWC-0001.



Figure 1: Ceiling Mount Addressable Speaker/Visible Notification Appliance

Ceiling Mount Addressable Speaker Product Selection

Table 1: Ceiling Mount Addressable Speaker S/V Appliances

SKU	Description	Installation Instructions
A49SV-APPLC	S/V appliance only. Select cover and surface/WP box (if required) separately.	579-1203AC
A49SV-APPLC-BA		

Table 2: High Fidelity Appliances

SKU	Description	Installation Instructions
A49HFV-APPLC	High Fidelity S/V appliance only. Select cover and surface/WP box (if required) separately.	579-1203AC
A49HFV-APPLC-BA		

Table 3: High Candela Appliances

SKU	Description	Installation Instructions
A49SVH-APPLC-BA	High Candela S/V appliance only. Select cover and weatherproof box (if required) separately.	579-1203AC
A49SVH-APPLC		

Table 4: High Fidelity High Candela Appliances

SKU	Description	Installation Instructions
A49HFVH-APPLC	High Fidelity High Candela S/V Appliance Only. Select cover and surface/WP box (if required) separately.	579-1203AC
A49HFVH-APPLC-BA		
A49HFVH-APLCA-BA	High Fidelity High Candela S/V Appliance with amber colored lens. Select cover and surface/WP box (if required) separately.	
A49HFVH-APLCB-BA	High Fidelity High Candela S/V Appliance with blue colored lens. Select cover and surface/WP box (if required) separately.	

Table 5: S/V Covers (Required when ordering APPLC models)

SKU	Color	Wording
A49SVC-CRALT	Red	ALERT
A49SVC-CWALT	White	
A49SVC-CRBA	Red	حريق/FIRE
A49SVC-CWBA	White	
A49SVC-CRFIRE	Red	FIRE
A49SVC-CWFIRE	White	
A49SVC-CRS	Red	Autocall logo only
A49SVC-CWS	White	
A49SVC-CK	Black	No logo or lettering

* Additional listings may be applicable; contact your local product supplier for the latest status.

Weatherproof Product Selection

Table 6: Weatherproof Ceiling Mount Addressable S/V Appliances

SKU	Description	Installation instructions
A49SVH-APPLC-O	S/V Appliance Only. Select cover and surface/WP box separately	579-1241AC

Table 7: S/V Covers (Required when ordering APPLC-O models)

SKU	Color	Wording
A49SVC-CRALT-O	Red	ALERT
A49SVC-CWALT-O	White	
A49SVC-CRBA-O	Red	حريق/FIRE
A49SVC-CWBA-O	White	
A49SVC-CRBC-O	Red	火警/FIRE ALARM
A49SVC-CWBC-O	White	
A49SVC-CRBF-O	Red	FEU/FIRE
A49SVC-CWBF-O	White	
A49SVC-CRFEU-O	Red	FEU
A49SVC-CWFEU-O	White	
A49SVC-CRFIRE-O	Red	FIRE
A49SVC-CWFIRE-O	White	
A49SVC-CRS-O	Red	
A49SVC-CWS-O	White	Autocall logo only
A49SVC-CK-O	Black	

Table 8: Surface/WP Back Boxes

SKU	Color	Description	Installation instructions
A49WPBB-SVCR	Red	Surface/WP back box in Red	579-1240AC
A49WPBB-SVCW	White	Surface/WP back box in White	

Table 9: Wire Guards and Wire Guard Back Boxes

SKU	Description
A49WGBB-SVCR-O	Wire Guard Back Box, Ceiling, Red, WP
A49WG-SVWCR	Wire Guard, Ceiling, Red

Ceiling Mount S/V Specifications

Table 10: Appliance General Specifications

Specification	Rating
Dimensions	8 1/8" H x 7 1/8" W x 3" D (206mm x 180mm x 76mm)
Environmental	32° to 120° F (0° to 49° C); 10% to 93%, non-condensing at 104° F (40° C)
Connections	Terminal blocks for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²); two wires per terminal for in/out wiring. Use Unshielded Twisted Pair (UTP) for IDNAC and audio wiring.

Table 11: Speaker Audio Specifications

Specification	Rating
Input Voltage	25 or 70.7 Vrms
Power Taps	¼, ½, 1, and 2 W
Frequency Response	400 to 4000 Hz (S/V, S/VH), 200 to 10000 Hz (H/F, HF/VH) General Signaling = 125 to 12 kHz

Table 12: Speaker Output Ratings

Wattage Tap	¼ W		½ W		1 W		2 W	
SKU	S/V	H/F	S/V	H/F	S/V	H/F	S/V	H/F
Reverberant Chamber Test, per UL 1480 (dBA)	79	76	83	80	86*	84	89*	87*
Anechoic Chamber Test, per ULC-S541 (dBA)*	79	78	83	82	86*	85*	89*	88*
* Select taps as indicated to satisfy the ULC fire alarm applications requirement of 85 dBA minimum								
Polar Dispersion Reference (per ULC-S541 Anechoic Chamber Testing)	Attenuation		Angle		Attenuation		Angle	
	-3 dB		70°		-6 dB		80°	

Table 13: Percentage of rated light

Angle	On-Axis	Vertical, Below Axis		Horizontal, Left/Right of Axis	
	0°	45°	90°	45°	90°
UL required output	100%	45%	25%	45%	25%
Typical output	327%	134%	83%	129%	47%

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Table 14: IDNAC SLC Specifications

Specification	Rating
Typical Operating Voltage Range	23 VDC to 30 VDC, Special Application
Appliance voltage design reference	23VDC (with 6VDC drop)
Supervisory Requirements	1 unit load (= 0.8 mA control unit current)
Flash Rate and Synchronized SLC Loading	1 Hz; with up to 63 synchronized strobes maximum per powered circuit, max 127 S/V appliances per IDNAC channel
IDNAC SLC Loading	Maximum of 127 addresses per SLC, 139 unit loads. See device and compatible Fire Control Unit Installation Instructions for circuit current load limits.
IDNAC SLC Wiring Specifications (refer to control unit installation instructions for more information)	UTP, unshielded twisted pair recommended
	Maximum wire length allowed with "T-Taps" for Class B wiring per SLC = 10,000 ft (3048 m)
	Maximum wire length to any appliance = 4000 ft (1219 m). This can be doubled to 8000ft (2438m) by using a 4009 IDNAC Repeater.

Table 15: Current consumption**

Candela Setting	15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
A49SV and A49HFV models	59 mA	82 mA	145 mA	193 mA	N/A	N/A
A49SVH and A49HFVH models	N/A	N/A	N/A	235 mA	255 mA	295 mA
Weatherproof SV appliances	N/A	N/A	320 mA	360 mA	N/A	400 mA

** Measured at 23VDC on IDNAC Addressable SLC

Speakers are for connection to compatible fire alarm audio circuits. Anechoic speaker output ratings are typically more representative of actual installed sound output.

Table 16: Equipment Compatibility References

Compatible Equipment	Data Sheet Reference
4100ES with EPS+ or EPS Power Supply	AC4100-0100
4009 IDNAC Repeater	AC4009-0004
4100ES Flex 35 and 50 Watt Amplifiers	AC4100-0034
4100ES 100 Watt Amplifiers	
4100ES Constant Supervision and Signal Cards	

Ceiling Mount S/V Installation Reference

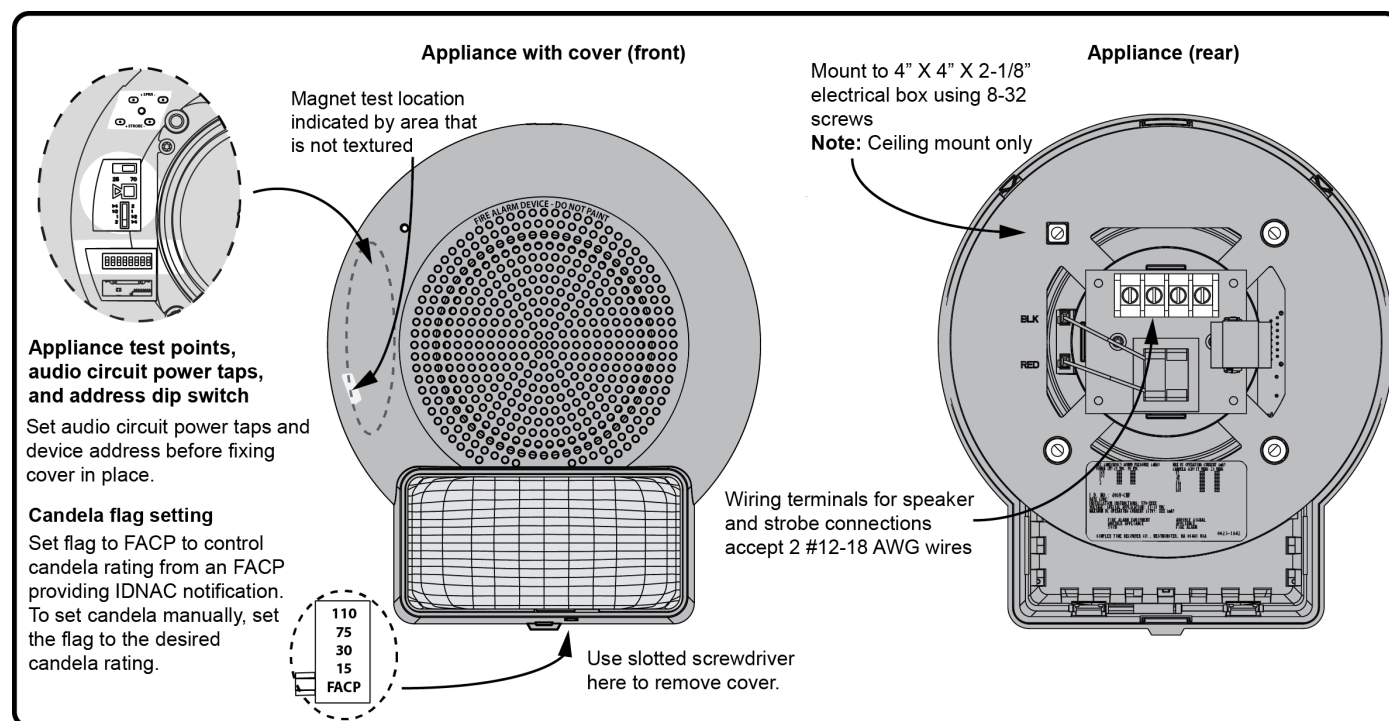


Figure 2: Installation reference