

**TrueAlert Addressable Notification Appliances**

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

**Introduction**
**Ceiling mount addressable speaker visible (S/V) notification appliances**

Use the Autocall fire alarm control unit (FACU) IDNAC signaling line circuit (SLC) to individually power, address and control ceiling mount addressable S/V notification appliances. A separate compatible Autocall FACU audio NAC supplies audio. The electronic monitoring of wiring supervision means you can T-tap audio and IDNAC wiring for Class B wiring, which reduces wiring costs and wiring distances.

Install ceiling mount addressable S/V notification appliances on a standard 4 in. (101.6 mm) square 2 1/8 in. (53.97 mm) deep electrical box, provided by others, for flush installations. Install on a surface or weatherproof backbox, see [Table 8](#) 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.

**Figure 1: Ceiling mount addressable S/V notification appliance**


**Features**
**General**

- Separate appliances, covers, back boxes, and wire guards provide complete flexibility for meeting customers installation requirements.
- The TrueAlert device reports provide important appliance information details including point ID, custom label, type, and candela setting.
- Rugged, high impact flame retardant thermoplastic housings.
- The covers can be easily removed without disturbing the connected housing.
- Terminals for wiring sizes 18 AWG to 12 AWG.
- The appliance LED can be selected to display during each polling cycle indicating appliance supervision.
- Magnet test diagnostics to assist checkout and testing of appliances.
- Compatible with the Americans with Disabilities Act (ADA) requirements

**IDNAC Signalling Line Circuit (SLC)**

- Advanced addressable notification controlled by IDNAC SLCs provides regulated 29 VDC for low current operation even during battery backup conditions.
- The wiring supervision is electronically monitored and allows IDNAC SLC wiring to be T-tapped for Class B wiring, which provides flexibility in reducing wiring sizes and or distance, and which reduces costs for wiring installation.
- The strobe intensity can be selected within programming from the FACU.

**Audio (speaker)**

- The wiring supervision is electronically monitored and allows audio (speaker) wiring to be T-tapped for Class B wiring, which provides flexibility in reducing wiring sizes and or distance, and which reduces costs for wiring installation.
- High quality voice and tone reproduction with taps for 1/4 W, 1/2 W, 1 W, or 2 W at 25 VRMS or 70.7 VRMS.
- The audio (speaker) circuits are wired separately from IDNAC SLCs.
- High fidelity models (200 Hz to 10,000 Hz) are also available.
- Compliant with NFPA 72, 520 Hz Low frequency signal requirements for sleeping areas.
- Listed to UL 1480 and ULC S541\*
- UL 1480 Reverberant dBA measurements (10 ft or 3 m)
- ULC S541 Anechoic dBA measurements (10 ft or 3 m)

**Ceiling mount addressable speaker product selection**

**Table 1: Ceiling mount addressable speaker S/V appliances**

SKU	Description	Installation instructions
A49SV-APPLC A49SV-APPLC-BA	S/V appliance only. If required, select a cover and surface or WP box separately.	579-1203AC

**Table 2: High fidelity appliances**

SKU	Description	Installation instructions
A49HFV-APPLC A49HFV-APPLC-BA	High fidelity S/V appliance only. If required, select a cover and surface or WP box separately.	579-1203AC

**Table 3: High candela appliances**

SKU	Description	Installation instructions
A49SVH-APPLC-BA A49SVH-APPLC	High candela S/V appliance only. If required, select a cover and weatherproof box separately.	579-1203AC

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

**Table 4: High fidelity high candela appliances**

SKU	Description	Installation instructions
A49HFVH-APPLC A49HFVH-APPLC-BA	High fidelity high candela S/V appliance only. If required, select a cover and surface/WP box separately.	579-1203AC
A49HFVH-APLCA-BA	High fidelity high candela S/V appliance with amber colored lens. If required, select a cover and surface or WP box separately.	
A49HFVH-APLCB-BA	High fidelity high candela S/V appliance with blue colored lens. If required, select a cover and surface or WP box separately.	579-1203AC

**Table 5: S/V covers, required when ordering APPLC models**

SKU	Color	Wording
A49SVC-CRALT	Red	ALERT
A49SVC-CWALT	White	
A49SVC-CRBF	Red	FEU/FIRE
A49SVC-CWBF	White	
A49SVC-CRFEU	Red	FEU
A49SVC-CWFEU	White	
49SVC-CRFBL	Red	FUEGO/FOGO
A49SVC-CRFIRE	Red	FIRE
A49SVC-CWFIRE	White	
A49SVC-CRS	Red	Autocall logo only
A49SVC-CWS	White	
A49SVC-CK	Black	No logo or lettering

## Weatherproof product selection

**Table 6: Weatherproof ceiling mount addressable S/V appliances**

SKU	Description	Installation instructions
A49SVH-APPLC-O A49SVH-APPLC-CO (Canada only This device is not FM Approved.)	S/V Appliance Only. Select a cover and surface or WP box separately	579-1241

**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	????/FIRE
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	Autocall logo only
A49SVC-CWS-O	White	Autocall logo only

**Table 8: Surface or WP back boxes**

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

**Table 9: Wire guards and wire guard back boxes**

SKU	Description
49WGBB-SVCR-O	Wire guard back box, ceiling, red, WP
49WG-SVWCR	Wire guard, ceiling, red

## Ceiling mount S/V specifications

**Table 10: Non-weatherproof appliance general specifications**

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

**Table 11: Weatherproof appliance general specifications**

Specification	Rating
<b>Dimensions</b>	8 1/8 in. x 7 1/8 in. x 3in. (206 mm x 180 mm x 76 mm) (H x W x D)
<b>Environmental</b>	UL/ULC temperature rating, W110 CD/W135 CD/W185 CD: -40°F to 150.8°F (-40°C to 66°C)
	UL/ULC temperature rating for indoor and uncontrolled wet Public Mode - 110 CD: 32°F to 120°F (0°C to 49°C)
	FM temperature rating: -40°F to 120°F (-40°C to 49°C)
	UL/ULC humidity range: 95 %, non-condensing at 140°F (60°C)
<b>Connections</b>	Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires for each terminal for in/out wiring. Use unshielded twisted pair (UTP) for IDNAC and audio wiring.

**Table 12: Speaker audio specifications**

Specification	Rating
<b>Input voltage</b>	25 Vrms or 70.7 Vrms
<b>Power taps</b>	1/4 W, 1/2 W, 1 W, and 2 W
<b>Frequency response</b>	400 Hz to 4000 Hz (S/V, S/VH), 200 Hz to 10000 Hz (H/F, HF/VH) <span style="float: right;">General Signaling = 125 Hz to 12 kHz</span>

**Table 13: Speaker output ratings**

Wattage tap SKU	1/4 W		1/2 W		1 W		2 W	
	S/V	H/F	S/V	H/F	S/V	H/F	S/V	H/F
Reverberant chamber test, in accordance with UL 1480 (dBA)	79	76	83	80	86*	84	89*	87*
Anechoic chamber test, in accordance with 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 in accordance with ULC-S541 Anechoic Chamber Testing	<b>Attenuation</b>		<b>Angle</b>		<b>Attenuation</b>		<b>Angle</b>	
	-3 dB		70°		-6 dB		80°	

**Table 14: 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%

**Table 15: IDNAC SLC specifications**

Specification	Rating
<b>Typical operating voltage range</b>	23 VDC to 30 VDC, Special Application
<b>Appliance voltage design reference</b>	23 VDC (with 6 VDC drop)
<b>Supervisory requirements</b>	1 unit load (= 0.8 mA control unit current)
<b>Flash rate and synchronized SLC loading</b>	1 Hz; with up to 63 synchronized strobes maximum for each powered circuit, max 127 S/V appliances for each IDNAC channel
<b>IDNAC SLC loading</b>	Maximum of 127 addresses for each SLC, 139 unit loads. See device and compatible fire control unit installation instructions for circuit current load limits.
<b>IDNAC SLC wiring specifications</b> 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 (3048 m) Maximum wire length to any appliance = 4000 ft (1219 m). This can be doubled to 8000 ft (2438 m) by using a 4009 IDNAC Repeater.

**Table 16: Current consumption\*\***

Candela setting	15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
A49SV and A49HFV models	59 mA	85 mA	171 mA	223 mA	N/A	N/A
A49SVH and A49HFVH models	N/A	N/A	N/A	259 mA	281 mA	325 mA
Weatherproof SV appliances	N/A	N/A	N/A	Inside 110CD = 305 mA Outside 110CD = 308 mA	335 mA	398 mA

\*\* Measured at 23 VDC on IDNAC Addressable SLC

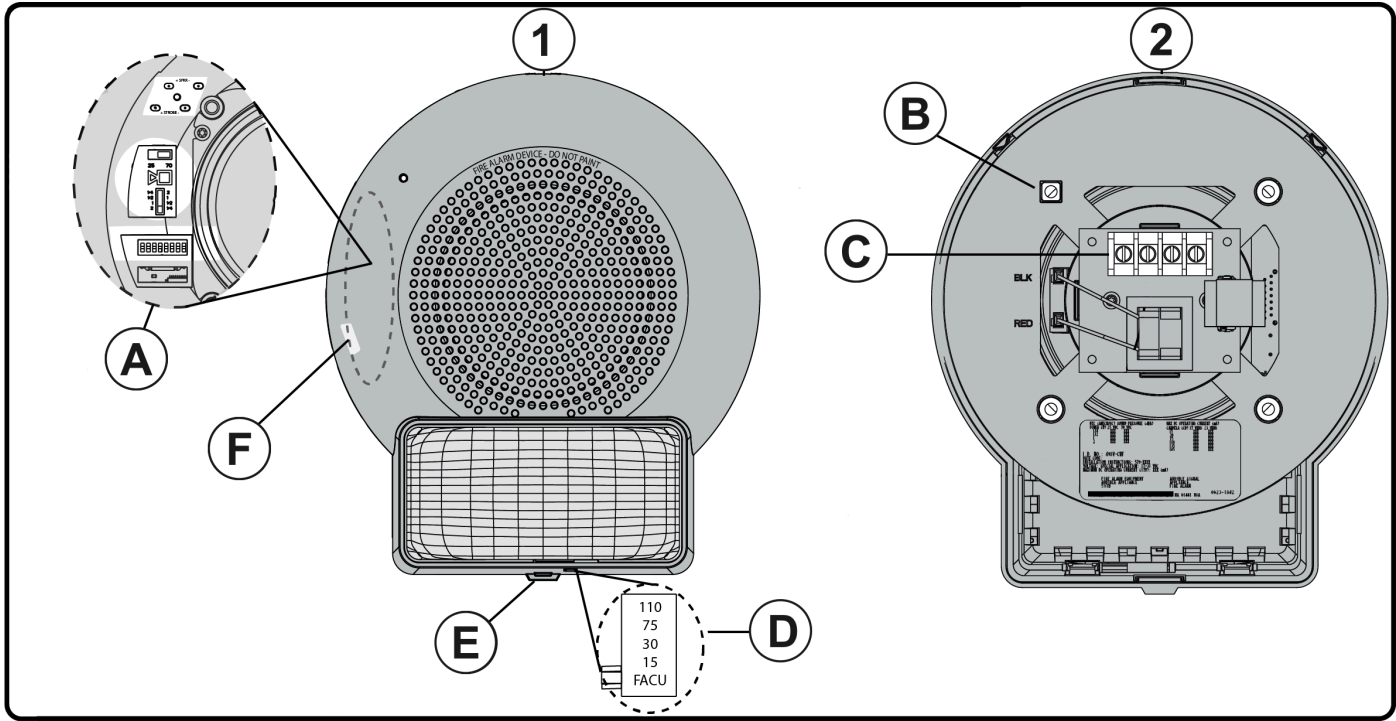
Speakers are for connection to compatible fire alarm audio circuits. Anechoic speaker output ratings are typically more representative of actual installed sound output.

**Table 17: 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



Callout	Description	Callout	Description
1	Appliance with cover, front	2	Appliance, rear
A	Appliance test points, audio circuit power taps, and address dip switch Set audio circuit power taps and device address before fixing cover in place.	B	Mount to 4 in. x 4 in. x 2 1/8 in. electrical box using 8-32 screws. Ceiling mount only.
C	Wiring terminals for speaker and strobe connections. These terminals accept two #12-18 AWG wires.	D	Candela flag setting Set flag to FACU to control candela rating from an FACU providing IDNAC notification. To set candela manually, set the flag to the desired candela rating.
E	Use slotted screwdriver here to remove cover.	F	Magnet test location indicated by area that is not textured.

