

Features
Individually addressed and controlled Speaker (S/O) and Speaker Visible (S/V) notification appliances

- Advanced addressable notification controlled by IDNAC SLCs provides regulated 29 VDC for low current operation even under battery backup.
- Wiring supervision is electronically monitored and allows audio wiring to be T-tapped for class B wiring, reducing wiring costs and wiring distances.
- Speaker selectivity is controlled by the panel. Only those speakers that are needed are connected to the audio NAC.
- Separate appliance and cover selection greatly simplifies the ordering and installation process.
- Strobe intensity can be programmed from the control panel or the device for S/V models.
- Self-Test Mode allows on-board sensors to detect the strobe and speaker output and then report their status to the control panel.
- Wiring terminals separate from the Audio terminals.
- TrueAlert Device Reports at the control panel detailing appliance point ID, custom label, type, and candela setting.
- Magnet test diagnostics to assist checkout and testing of appliances and wiring.
- Compatibility with ADA requirements.

LED indicator and magnet test feature

- Appliance LED can be selected to display each polling cycle to indicate appliance supervision
- In diagnostic mode, the magnet test pulses the LED to indicate appliance address and pulses to indicate the intensity selection; a brief output of the strobe is also selectable to confirm operation

Mechanical design features

- Rugged, high impact, flame retardant thermoplastic housings are available for wall or ceiling mount models
- Covers are available in red or white with various lettering options
- Covers can be easily removed without disturbing the connected housing and avoiding trouble conditions
- In/out wiring terminals for 18 AWG to 12 AWG
- Mounts to 4" square 2 1/8" gang US electrical boxes

Speaker design features

- High quality voice and tone reproduction with taps for 1/4, 1/2, 1, or 2 W, at 25 or 70.7 VRMS
- Speakers have capacitor input for connection to DC supervised NACs and are wired separately from strobes
- Listed to UL 1480 and ULC S541*
- Compliant with NFPA 72, 520 Hz Low Frequency Signal Requirements for Sleeping Areas
- High and low frequency response models available, 200-10000 Hz and 400-4000 Hz respectively.

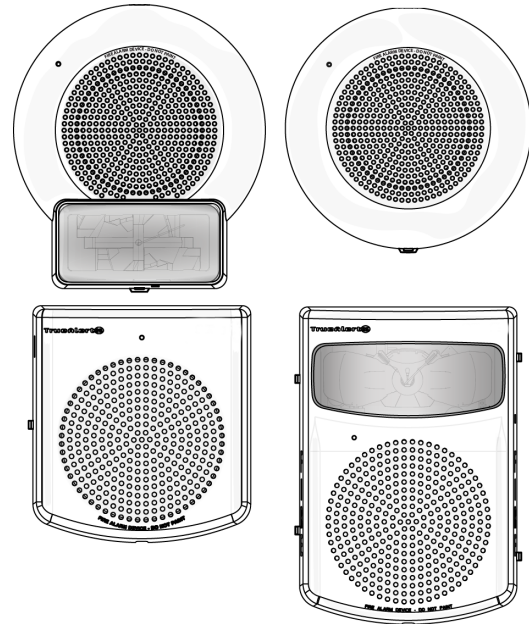


Fig 1: Ceiling and Wall Mount Addressable Speaker Only and Speaker Visible Strobes

Description
Wall and ceiling mount addressable speaker and speaker visible appliances

provide convenient installation to standard electrical boxes. The speaker is individually addressed and individually controlled with power, supervision, and control supplied from the Autocall fire alarm control panel IDNAC Signaling Line Circuit (SLC). Audio is provided by a panel that supports audio output or from a separate audio source. Appliances use a multi-tapped speaker for audio/tone notification.

Strobe Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the *National Fire Alarm and Signaling Code* (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

IDNAC SLC Operation Advantage

TrueAlert Addressable speaker and speaker visible appliances on IDNAC SLCs provide visible and audio notification using two separate two-wire circuits that also confirms connection to the individual notification appliance's electronic circuit. This operation increases circuit supervision integrity by providing supervision that extends beyond the appliance wiring connections.

Reduced current usage on IDNAC SLCs

A constant 29 VDC source voltage is maintained, even during battery standby. This allows appliances to operate at higher voltage with lower current and ensuring a consistent current draw and voltage drop margin under both primary power and secondary battery standby. Efficiencies include wiring distances up to 2 to 3 times farther than with conventional notification, support for more appliances per IDNAC SLC, use of smaller gauge wiring, or combinations of these benefits.

Reducing Installation and Testing Time

With separate controls on the same two-wire SLC, installation time and expense for both retrofit and new construction can be significantly reduced. When Class B wiring is used, wiring can be "T" tapped, allowing more savings in distance, wire, conduit (size and utilization), and overall installation efficiency. Use of the magnet test feature improves installation efficiency. TrueAlert device reports conveniently identify information about each connected appliance.

TrueAlert Addressable Wiring Isolator

Isolator Model A4905-9929 is available for remote mounting on TrueAlert addressable circuits to isolate short circuited wiring from functioning wiring. Refer to data sheet AC4905-0001 for additional information.

TrueAlert ES Diagnostics

Test Features

Controllers can be selected to pulse each appliance's LED when it receives a supervision poll. When the controller is selected for diagnostic mode, the appliance magnet test feature provides a response at the individual appliance being tested.

Silent Appliance Magnet Test

The appliance LED pulses sequentially to conveniently indicate the appliance's address when a magnet is applied.

Operational Appliance Testing

In this test mode, after the address is indicated by pulsing the appliance LED, the strobe will briefly flash to indicate proper operation.

TrueStart Instrument Two (TSIT)

The 2nd generation of the Autocall TrueStart Test Instrument adds testing of IDNAC SLC wiring and TrueAlert (and TrueAlert ES) appliances to its ability to test IDCs, NACs, and IDNet communications *before connection to the control panel*. Please contact your local Autocall representative for additional information.

Wall Mount Appliance Product Selection

Table 1: Wall Mount S/O Appliances* (Refer to data sheet AC49SOW-0001 for full product selection including covers and mounting plates)

SKU	Dimensions	Description	Data Sheet Reference
A49SO-APPLW	5 ½" H x 5" W x 1 ½" D (139 mm x 128 mm x 38 mm)	S/O appliance only	AC49SOW-0001
A49SO-APPLW-BA			
A49HF-APPLW		High fidelity S/O appliance only	
A49HF-APPLW-BA			

Table 2: Wall Mount S/V Appliances* (Refer to data sheet AC49SVW-0001 for full product selection including covers, mounting plates, and multi-color strobe lens)

SKU Series	Dimensions	Description	Data Sheet Reference
A49SV-APPLW	7 ¾" H x 5" W x 1 ¾" D (187 mm x 128 mm x 43 mm)	S/V appliance only	AC49SVW-0001
A49SV-APPLW-BA			
A49HFV-APPLW		High fidelity S/V appliance only	
A49HFV-APPLW-BA			

Note: *Wall mount models require separately ordered back plate. See related datasheet for details.

Ceiling Mount Appliance Product Selection

Table 3: Ceiling Mount S/O Appliances (Refer to data sheet AC49SOC-0001 for full product selection and installation requirements)

SKU	Dimensions	Description	Data Sheet Reference
A49SO-APPLC	7 1/8" H x 7 1/8" W x 1 1/4" D (180 mm x 180 mm x 32 mm)	S/O appliance only	AC49SOC-0001
A49SO-APPLC-BA			
A49HF-APPLC		High fidelity S/O appliance only	
A49HF-APPLC-BA			

Table 4: Ceiling Mount S/V Appliances (Refer to data sheet AC49SVC-0001 for full product selection and installation requirements)

SKU Series	Dimensions	Description	Data Sheet Reference
A49SV-APPLC	8 1/8" H x 7 1/8" W x 3" D (206 mm x 180 mm x 76 mm)	S/V appliance only	AC49SVC-0001
A49SV-APPLC-BA			
A49HFV-APPLC		High fidelity S/V appliance only	
A49HFV-APPLC-BA			
A49SVH-APPLC		High candela S/V appliance only	
A49SVH-APPLC-BA			
A49HFVH-APPLC		Clear lens high fidelity high candela S/V appliance only	
A49HFVH-APLCA-BA		Amber lens high fidelity high candela S/V appliance only	
A49HFVH-APLCB-BA	Blue lens high fidelity high candela S/V appliance only		

Note: Select appliance, cover and mounting back plate (where required) separately. -BA indicates model is available either with or without the -BA suffix. Model numbers ending in -BA are assembled in the USA.

IDNAC SLC Controller Compatibility Reference

Compatible Controllers	Data Sheet Reference	Controller Output	IDNAC SLC Output Voltage	Appliance Voltage Design Reference
4100ES with EPS+ or EPS Power Supply	AC4100-0100	IDNAC SLC	29 VDC (regulated)	23 VDC (with 6 VDC drop)
4009 IDNAC Repeater	AC4009-0004			
4100ES Flex 35, 50, and 100 Amplifiers	AC4100-0034			
4100ES Constant Supervision and Signal Cards				

Specifications

Table 5: General Specifications (refer to individual model data sheets for further specifications, install and operation details)

Typical Operating Voltage Range	23 - 30 VDC, Special Application
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.
IDNAC SLC Loading	Maximum of 127 addresses per SLC, 139 unit loads. See device and compatible fire panel installation instructions for circuit current load limits.

Table 6: Speaker Specifications

Input Voltage	25 or 70.7 Vrms	
Power Taps	¼, ½, 1, and 2 W	
Frequency Response	400 to 4000 Hz and 200 to 10000 Hz, respectively.	General Signaling = 125 to 12 kHz

Table 7: Strobe Specifications

Typical Operating Voltage Range	23 - 30 VDC, Special Application	
Supervisory Requirements	1 unit load (= 0.8 mA control panel current)	
Flash Rate	1 Hz	
IDNAC SLC Wiring Specifications (refer to control panel 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.	
Note: Speakers are for connection to compatible fire alarm audio circuits only.		

S49 Series Speaker Datasheet Reference

SKU	Data Sheet Reference
Wall Mount Speaker Only Appliance	AC49SOW-0001
Wall Mount Speaker Visible Appliance	AC49SVW-0001
Ceiling Mount Speaker Only Appliance	AC49SOC-0001
Ceiling Mount Speaker Visible Appliance	AC49SVC-0001