

Introduction

Ceiling Mount Addressable Speaker Visible (S/V) Notification Appliances are individually powered, addressed, and controlled from the Simplex Fire Alarm Control Unit IDNAC Signaling Line Circuit (SLC). Audio is supplied from a separate compatible Simplex 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 S49SWC-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

| Model | Description | Installation Instructions |
|---------------|---|---------------------------|
| 49SV-APPLC | S/V appliance only. Select cover and surface/WP box (if required) separately. | 579-1203 |
| 49SV-APPLC-BA | | |

Table 2: High Fidelity Appliances

| Model | Description | Installation instructions |
|----------------|---|---------------------------|
| 49HFV-APPLC | High Fidelity S/V appliance only. Select cover and surface/WP box (if required) separately. | 579-1203 |
| 49HFV-APPLC-BA | | |

Table 3: High Candela Appliances

| Model | Description | Installation instructions |
|----------------|--|---------------------------|
| 49SVH-APPLC-BA | High Candela S/V appliance only. Select cover and weatherproof box (if required) separately. | 579-1203 |
| 49SVH-APPLC | | |

Table 4: High Fidelity High Candela Appliances

| SKU | Description | Installation instructions |
|-----------------|---|---------------------------|
| 49HFVH-APPLC | High Fidelity High Candela S/V Appliance Only. Select cover and surface/WP box (if required) separately. | 579-1203 |
| 49HFVH-APPLC-BA | | |
| 49HFVH-APLCA-BA | High Fidelity High Candela S/V Appliance with amber colored lens. Select cover and surface/WP box (if required) separately. | |
| 49HFVH-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 |
|--------------|-------|----------------------|
| 49SVC-CRALT | Red | ALERT |
| 49SVC-CWALT | White | |
| 49SVC-CRBA | Red | حريق/FIRE |
| 49SVC-CWBA | White | |
| 49SVC-CRBC | Red | 火警 /FIRE ALARM |
| 49SVC-CWBC | White | |
| 49SVC-CRBF | Red | FEU/FIRE |
| 49SVC-CWBF | White | |
| 49SVC-CRFEU | Red | FEU |
| 49SVC-CWFEU | White | |
| 49SVC-CRFIRE | Red | FIRE |
| 49SVC-CWFIRE | White | |
| 49SVC-CRS | Red | Simplex logo only |
| 49SVC-CWS | White | |
| 49SVC-CK | Black | No logo or lettering |

* 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 6: Weatherproof Ceiling Mount Addressable S/V Appliances

| SKU | Description | Installation instructions |
|------------------------------|--|---------------------------|
| 49SVH-APPLC-O | S/V Appliance Only. Select cover and surface/WP box separately | 579-1241 |
| 49SVH-APPLC-CO (Canada only) | | |

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

| SKU | Color | Wording |
|----------------|-------|-------------------|
| 49SVC-CRALT-O | Red | ALERT |
| 49SVC-CWALT-O | White | |
| 49SVC-CRBA-O | Red | حريق/FIRE |
| 49SVC-CWBA-O | White | |
| 49SVC-CRBC-O | Red | 火警/FIRE ALARM |
| 49SVC-CWBC-O | White | |
| 49SVC-CRBF-O | Red | FEU/FIRE |
| 49SVC-CWBF-O | White | |
| 49SVC-CRFEU-O | Red | FEU |
| 49SVC-CWFEU-O | White | |
| 49SVC-CRFIRE-O | Red | FIRE |
| 49SVC-CWFIRE-O | White | |
| 49SVC-CRS-O | Red | Simplex logo only |
| 49SVC-CWS-O | White | |
| 49SVC-CK-O | Black | |

Table 8: Surface/WP Back Boxes

| SKU | Color | Description | Installation instructions |
|-------------|-------|------------------------------|---------------------------|
| 49WPBB-SVCR | Red | Surface/WP back box in Red | 579-1240 |
| 49WPBB-SVCW | White | Surface/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: 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 Model | ¼ W | | ½ W | | 1 W | | 2 W | |
|---|-------------|-----|-------|-----|-------------|-----|-------|-----|
| | 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° | |

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

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% |

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 |
|----------------------------|-------|-------|--------|---|--------|--------|
| 49SV and 49HFV models | 59 mA | 82 mA | 145 mA | 193 mA | N/A | N/A |
| 49SVH and 49HFVH 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 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 | S4100-0100 |
| 4009 IDNAC Repeater | S4009-0004 |
| 4100ES Flex 35 and 50 Watt Amplifiers | S4100-0034 |
| 4100ES 100 Watt Amplifiers | |
| 4100ES Constant Supervision and Signal Cards | |

Ceiling Mount S/V Installation Reference

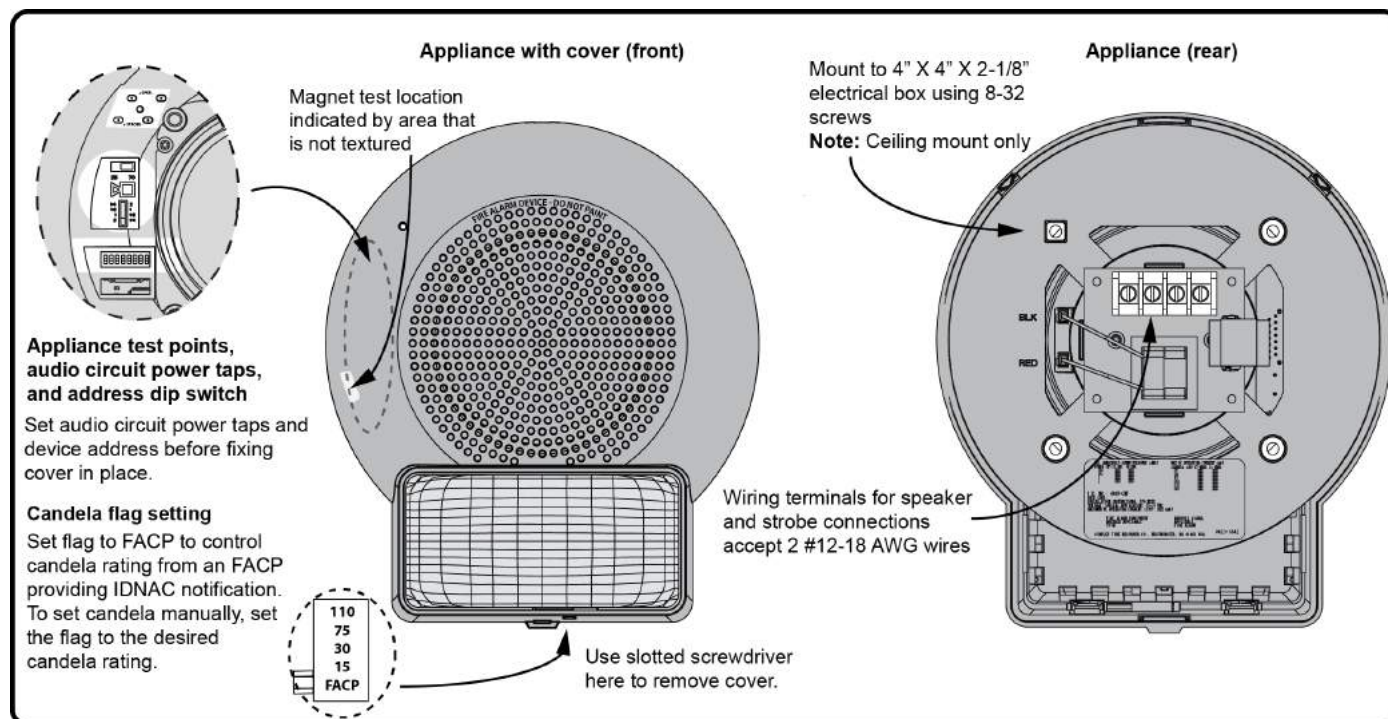


Figure 2: Installation reference