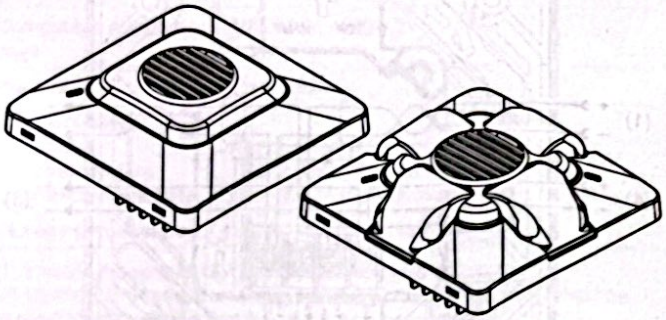
# Genesis LED Outdoor Speaker-Strobe Installation Sheet



## Description

Genesis LED outdoor speakers and speaker-strobes are wall or ceiling mounted fire alarm notification appliances designed for outdoor wet applications and are suitable for use with 25 or 70 VRMS distributed speaker systems. See Table 1 for a list of models.

**Table 1: Models**

| Number | Description |
|---|---|
| WGSRA | Speaker, outdoor, red, ALERT |
| WGSRF | Speaker, outdoor, red, FIRE |
| WGSRF-FR | Speaker, outdoor, red, FIRE FEU |
| WGSRF-SP | Speaker, outdoor, red, FUEGO |
| WGSRN | Speaker, outdoor, red, no marking |
| WGSWA | Speaker, outdoor, white, ALERT |
| WGSWF | Speaker, outdoor, white, FIRE |
| WGSWF-FR | Speaker, outdoor, white, FIRE FEU |
| WGSWF-SP | Speaker, outdoor, white, FUEGO |
| WGSWN | Speaker, outdoor, white, no marking |
| WGSVRA | Speaker-strobe, outdoor, red, ALERT |
| WGSVRF | Speaker-strobe, outdoor, red, FIRE |
| WGSVRF-FR | Speaker-strobe, outdoor, red, FIRE FEU |
| WGSVRF-SP | Speaker-strobe, outdoor, red, FUEGO |
| WGSVRN | Speaker-strobe, outdoor, red, no marking |
| WGSVWA | Speaker-strobe, outdoor, white, ALERT |
| WGSVWF | Speaker-strobe, outdoor, white, FIRE |
| WGSVWF-FR | Speaker-strobe, outdoor, white, FIRE FEU |
| WGSVWF-SP | Speaker-strobe, outdoor, white, FUEGO |
| WGSVWN | Speaker-strobe, outdoor, white, no marking |

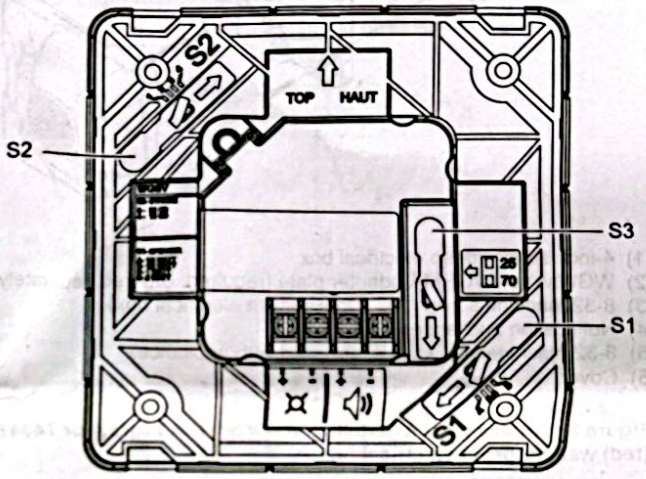
## Configuration

**Caution:** Equipment damage hazard. Configuration switches are protected by a rubber cover that is attached at the end opposite the arrow. Lift the end indicated by the arrow to access the switch underneath. When you lift the cover, be careful not to detach it from the appliance.

1. Select the speaker wattage by lifting the cover on S1, and then sliding the switch to the required setting. See Figure 1.
2. Select the speaker voltage by lifting the cover on S3, and then sliding the switch to the required setting. See Figure 1.
3. On speaker-strobes, select the strobe candela by lifting the cover on S2, and then sliding the switch to the required setting. See Figure 1.

   **Note:** Switch S2 is not available on speaker-only models.

**Figure 1: Light and sound output settings**




| S1 switch settings | S2 switch settings | S3 switch settings |
|---|---|---|
| A 1/4 Watt | 1 Not used | 25 25 VRMS |
| B 1/2 Watt | 2 Not used | 70 70 VRMS |
| C 1 Watt | 3 30 candela | |
| D 2 Watt | 4 15 candela | |

**Note:** Temporal 3 coding is the required output for fire notification devices per NFPA 72. Any device coding other than temporal 3 is at the discretion and approval of the local authority having jurisdiction (AHJ).

## Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

Connect the field wires as shown in Figure 4, and then attach to the wall box as shown in Figure 2 and Figure 3.

When installing the notification appliance on a 4-inch square deep electrical box, remove the trim skirt from the adapter ring by removing the two screws from the back of the adapter ring.

Synchronized operation requires a separately installed synchronization device. See the control unit or power supply compatibility list for compatible synchronization devices.

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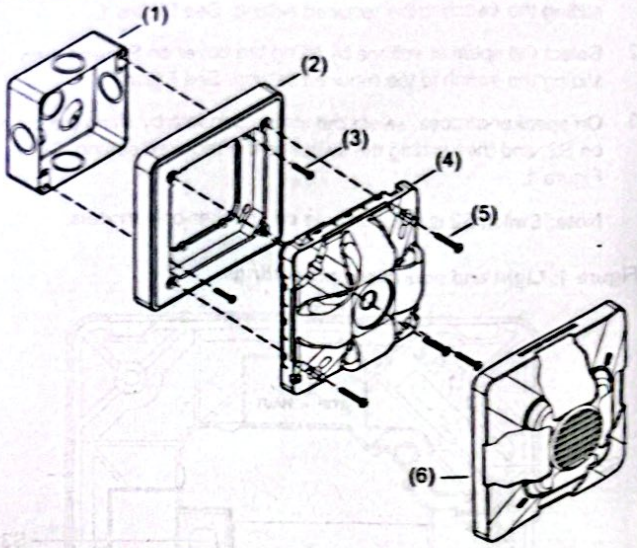
**Notes**

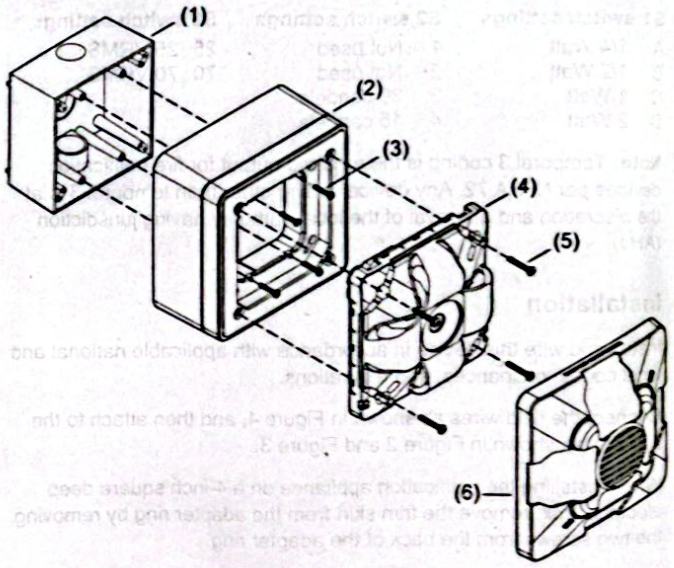
- See "Specifications" below for a list of compatible electrical boxes that meet UL/ULC, IP66, and NEMA 4X requirements.
- To meet IP66 requirements, plumbing tape (Teflon tape) must be applied to all threaded conduit plugs and connectors.

**Figure 2: Flush mount installation – 4-inch square deep electrical box**




(1) 4-inch square deep electrical box
(2) WGWMA or WGRMA adapter plate (required, ordered separately)
(3) 8-32 machine screw (2X, supplied with electrical box)
(4) Notification appliance
(5) 8-32 machine screws (4X, supplied with appliance)
(6) Cover

***Figure 3: Surface mount installation – Model 449 (gray) or 74347U (red) weatherproof electrical box***



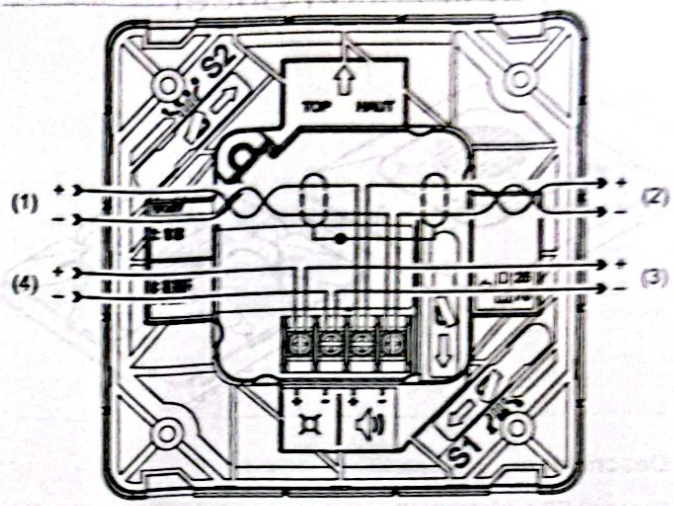

(1) Model 449 or 74347U weatherproof surface mount box
(2) WGWMA or WGRMA adapter plate with ring (required, ordered separately)
(3) 6-32 machine screw (4X, supplied with appliance)
(4) Notification appliance
(5) 8-32 machine screws (4X, supplied with appliance)
(6) Cover

## Wiring

Wire as shown in Figure 4.

**Caution:** Electrical supervision requires that you break the wire run at each terminal. Do not loop field wires around the terminals.

**Figure 4: Speaker and-strobe wiring**




(1) Speaker circuit in (shields, if used, must be continuous and free from earth ground except at the signal source)
(2) Speaker circuit out
(3) Strobe circuit out
(4) Strobe circuit in (signal polarity shown in the active condition)

## Maintenance and testing

**Caution:** Equipment damage hazard. To maintain the required agency listings, do not change factory-applied finishes.

This unit is not serviceable or repairable. Should the unit fail to operate, contact the supplier for replacement.

Perform a visual and operational inspection in accordance with applicable codes and standards or as directed by the local authority having jurisdiction.

## Specifications

| | |
|---|---|
| Operating voltage | |
| Strobe | 16 to 33 VDC |
| Speaker | 25 VRMS, 70 VRMS |
| Operating current | See Table 2 |
| Supervisory voltage | 30 V max. |
| Sound output | See Table 3 and Table 4 |
| Speaker response | 400 to 4,000 Hz |
| Resonant frequency | 520 Hz |
| Light output | 15, 30 cd |
| Strobe flash rate | 1 fps (flash per second) approx. |
| Light distribution | See Figure 5 |
| Synchronization | 20 Ω max. between any two devices.<br>To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source. |
| Wire size | 12 to 18 AWG (0.75 to 2.50 mm²) |

| | |
|---|---|
| Screw torque | |
| Mounting screws | 15 lbf-in (1.8 N-m) max. |
| Terminal screws | 12 lbf-in (1.4 N-m) max. |
| Dimensions | See Figure 6 |
| Compatible electrical boxes [1] | |
| Surface mount [2] | |
| UL/ULC, IP66, NEMA 4X | Model 449 (gray) or 74347U (red) electrical box with WGWMA or WGRMA adapter plate with ring |
| Flush mount [2] | |
| UL/ULC, IP66, NEMA 4X | Deep 4-inch square electrical box with WGWMA or WGRMA adapter plate |
| Compatible adapter rings | WGWMA, WGRMA |
| Replacement covers | See Table 5 |
| Operating environment | |
| Class | Outdoor, wet |
| Temperature | -40 to 150.8°F (-40 to 66°C) |
| Relative humidity | 0 to 95% noncondensing |
| Storage temperature | -40 to 158°F (-40 to 70°C) |

[1] Electrical boxes must be at least 2 in. (5.08 cm) deep.
[2] To meet IP66 requirements, plumbing tape (Teflon tape) must be applied to all threaded conduit plugs and connectors.

**Table 2: Operating current (speaker-strobe models)**

| Strobe setting | 16 to 33 VDC |
|---|---|
| 15, 30 | 35 mA |

**Table 3: Sound level (dBA) at 3.05 m (10 ft.)**

| Voltage setting | Wattage setting | Reverberant (UL 1480) | Anechoic (CAN/ULC-S541) |
|---|---|---|---|
| 25V / 70V | 1/4W | 78 | 76 |
| | 1/2W | 81 | 79 |
| | 1W | 84 | 82 |
| | 2W | 87 | 85 |

**Table 4: Sound pattern (speaker-strobe models)**

| Axis | Angle | Change in output |
|---|---|---|
| Horizontal | ± 50° | -3 dBA |
| | ± 73° | -6 dBA |
| | ± 90° | -9 dBA |
| Vertical | ± 49° | -3 dBA |
| | ± 71° | -6 dBA |
| | ± 90° | -9 dBA |

**Table 5: Replacement covers**

| Number | Description |
|---|---|
| WGARA-CVR | Outdoor cover, audible, red, ALERT |
| WGAVRA-CVR | Outdoor cover, audible/visual, red, ALERT |
| WGARF-CVR | Outdoor cover, audible, red, FIRE |
| WGARF-SP-CVR | Outdoor cover, audible, red, FUEGO |
| WGARF-FR-CVR | Outdoor cover, audible, red, FIRE FEU |
| WGAVRF-CVR | Outdoor cover, audible/visual, red, FIRE |
| WGAVRF-SP-CVR | Outdoor cover, audible/visual, red, FUEGO |
| WGAVRF-FR-CVR | Outdoor cover, audible/visual, red, FIRE FEU |
| WGARN-CVR | Outdoor cover, audible, red, no marking |
| WGAVRN-CVR | Outdoor cover, audible/visual, red, no marking |
| WGAWA-CVR | Outdoor cover, audible, white, ALERT |
| WGAVWA-CVR | Outdoor cover, audible/visual, white, ALERT |
| WGAWF-CVR | Outdoor cover, audible, white, FIRE |
| WGAWF-SP-CVR | Outdoor cover, audible, white, FUEGO |
| WGAWF-FR-CVR | Outdoor cover, audible, white, FIRE FEU |
| WGAVWF-CVR | Outdoor cover, audible/visual, white, FIRE |
| WGAVWF-SP-CVR | Outdoor cover, audible/visual, white, FUEGO |
| WGAVWF-FR-CVR | Outdoor cover, audible/visual, white, FIRE FEU |
| WGAWN-CVR | Outdoor cover, audible, white, no marking |
| WGAVWN-CVR | Outdoor cover, audible/visual, white, no marking |

**Figure 5: Light distribution**

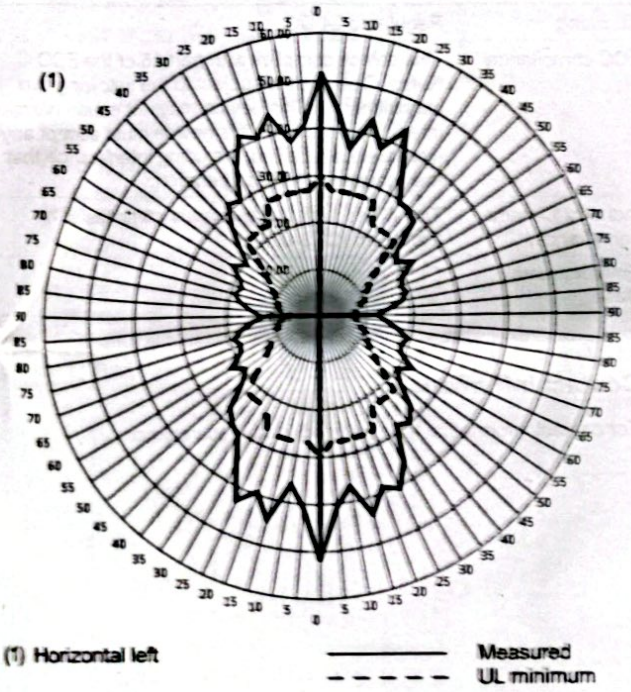
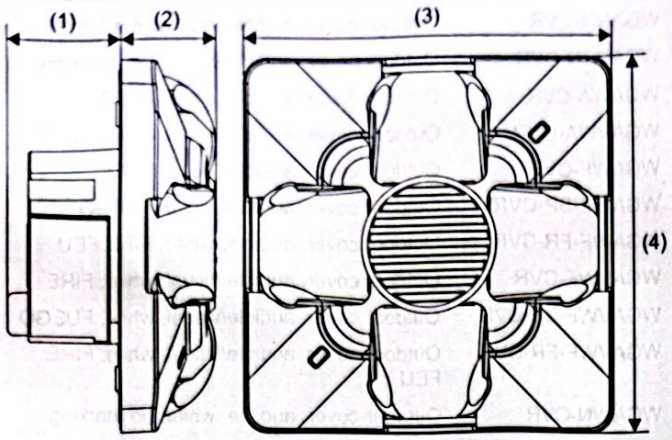


Figure 6: Dimensions




(1) 1.8 in. (4.57 cm)
(2) 1.55 in. (3.94 cm)
(3) 6.0 in. (15.24 cm)
(4) 6.0 in. (15.24 cm)

## Regulatory information

| | |
|---|---|
| UL rating | Regulated 24 DC |
| FCC compliance | This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. |
| Industry Canada compliance | This Class A digital apparatus complies with Canadian ICES-003. |
| Environmental class | Outdoor, wet |

## Contact information

For contact information, see www.edwardsfiresafety.com.



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