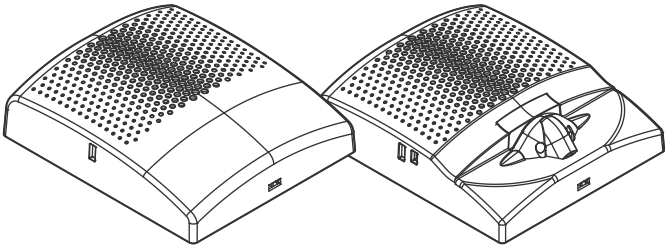
# Genesis LED EG4S Series Wall Speaker-Strobe Installation Sheet



## Description

Genesis LED EG4S speakers and EG4SV speaker-strobes are wall-mounted plug-in fire alarm notification appliances designed for indoor dry applications with 25 or 70 VRMS distributed speaker systems. See the tables below for a list of models.

**Table 1: EG4S speaker models**

| Catalog number | Description |
|---|---|
| EG4SRF | Speaker, wall, red, FIRE |
| EG4SRN | Speaker, wall, red, no marking |
| EG4SWA | Speaker, wall, white, ALERT |
| EG4SWF | Speaker, wall, white, FIRE |
| EG4SWN | Speaker, wall, white, no marking |

**Table 2: EG4SV speaker-strobe models**

| Catalog number | Description |
|---|---|
| EG4SVRF | Speaker-strobe, wall, red, FIRE |
| EG4SVRN | Speaker-strobe, wall, red, no marking |
| EG4SVWA | Speaker-strobe, wall, white, ALERT |
| EG4SVWF | Speaker-strobe, wall, white, FIRE |
| EG4SVWN | Speaker-strobe, wall, white, no marking |

Genesis LED EG4S Series speakers and speaker-strobes feature:

- Field-configurable speaker and strobe outputs. See Figure 2 and Figure 3.
- Enhanced synchronization circuitry to comply with the latest requirements of UL 1638 and CAN/ULC-S526.
- Input wiring test points on the front of the appliance when the cover is removed.
- Speakers that are approved for low frequency sounder applications when used with compatible tone file and systems.

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

## Configuration

**Caution:** Equipment damage hazard. Using excessive force when removing the appliance cover may damage the cover and prevent it from latching in place.

**To configure the notification appliance:**

1. Remove the appliance cover. See Figure 1.

   Insert a small, flat-bladed screwdriver into the slot at the bottom of the appliance.

   Gently pull up on the screwdriver to pry the bottom of the appliance cover down and away from the appliance.

   Lift the bottom of the cover out and over the top of the appliance.
2. On speakers and speaker-strobes, set the speaker wattage and voltage switches for the required values. See Figure 2.
3. On speaker-strobes, set the strobe candela switch for the required value. See Figure 3.
4. Replace the appliance cover.

**Figure 1: Removing and replacing the cover**

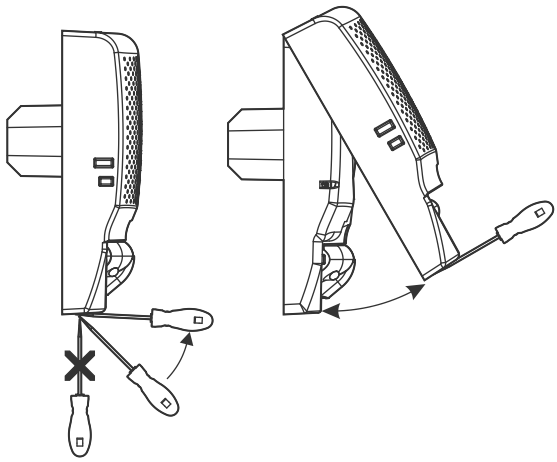


**Figure 2: Speaker switch settings**

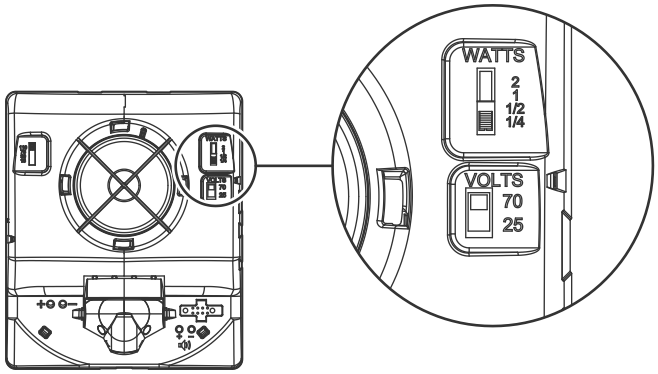





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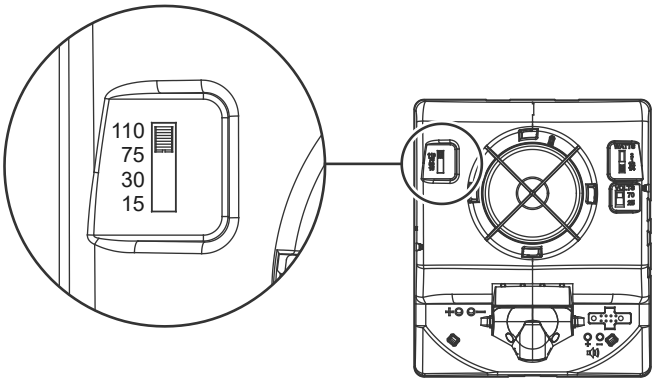
**Figure 3: Strobe switch settings**




## Installation

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

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

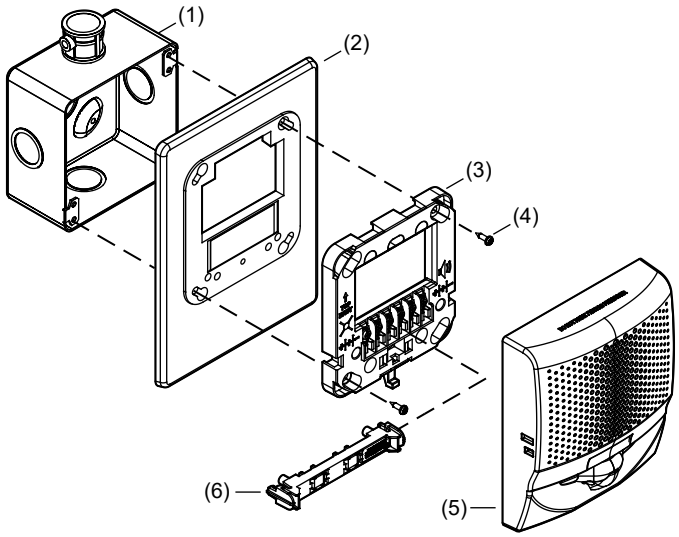
**To install the appliance:**

1. Using the screws supplied with the wiring plate, attach the wiring plate and, if used, the trim plate to the electrical box. See Figure 4. Do not overtighten the screws.

   The trim plate is ordered separately.
2. Connect the field wiring. Observe signal polarity for the appliance to operate properly. See Figure 5.
3. Remove the shorting clip (Figure 5, item 5). Retain for future use.
4. Plug the appliance into the wiring plate by setting the appliance on the top of the wiring plate, and then snapping the bottom into place. See Figure 6.

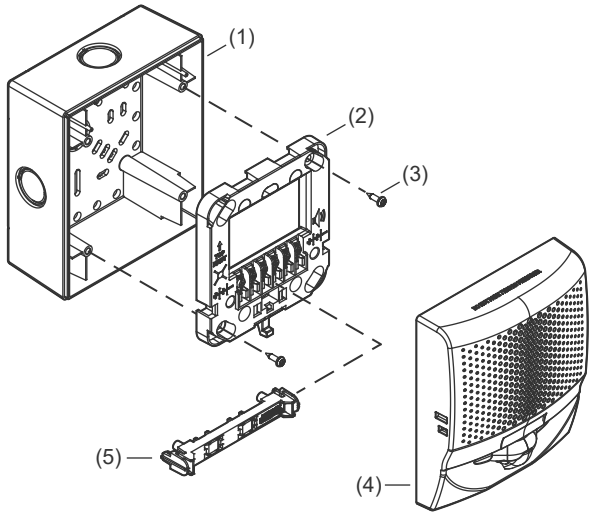
   To unplug the appliance, press the spring clip on the bottom, and then lift the appliance away from the mounting plate.
5. Test the unit for proper operation.

**Figure 4: Typical electrical box mounting**




(1) Electrical box
(2) Trim plate (optional)
(3) Wiring plate (required)
(4) Machine screw (2X, supplied with wiring plate)
(5) Notification appliance
(6) Shorting clip

**Figure 5: Typical surface box mounting**




(1) Surface box
(2) Wiring plate (required)
(3) Machine screw (2X, supplied with wiring plate)
(4) Notification appliance
(5) Shorting clip


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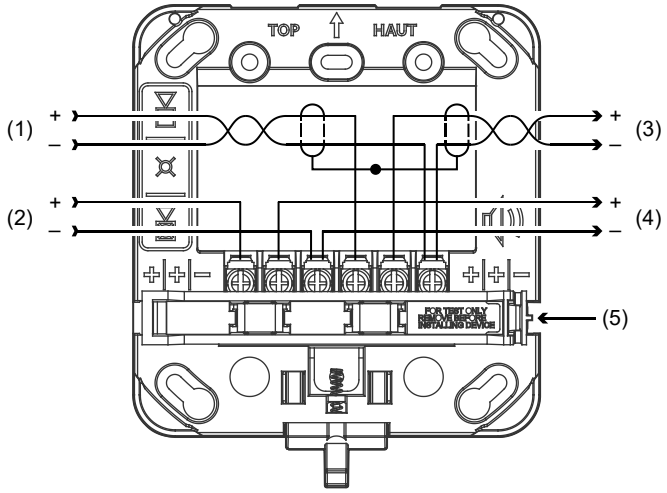
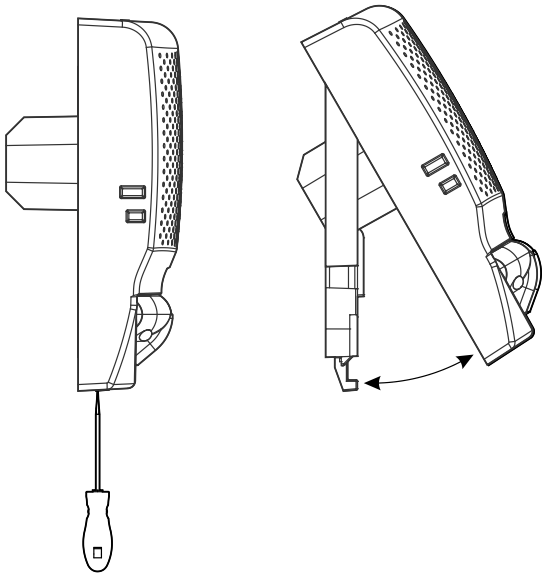
**Figure 6: Wiring**




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

**Note:** To maintain circuit continuity, do not remove the shorting clip (Figure 6, item 5) until you are ready to install the notification appliance.

**Figure 7: Removing and replacing the appliance**



## Maintenance and testing

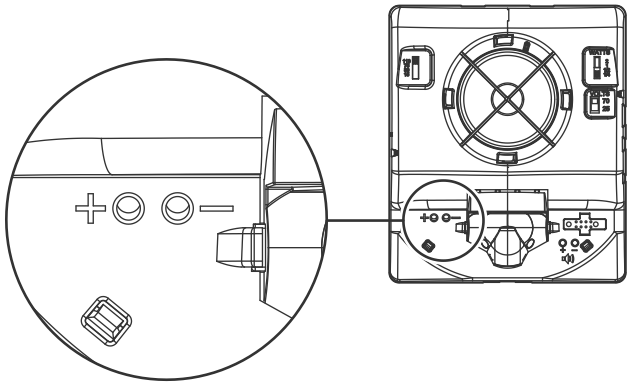
**Caution:** Equipment damage hazard. To maintain the required agency listings, do not change factory-applied finishes.

This unit is not serviceable or repairable. If the unit fails to operate, contact the supplier for a replacement.

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

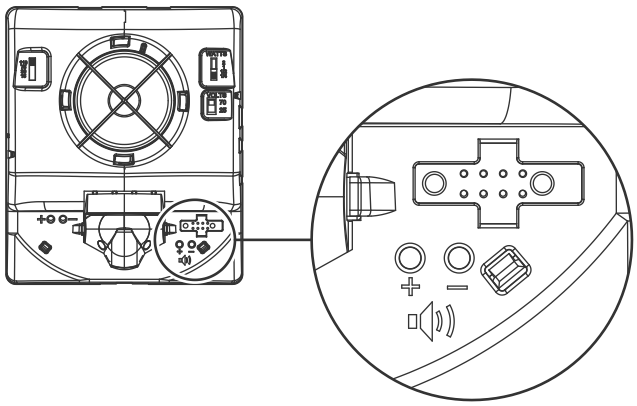
Input wiring test points are available on the front of the appliance when the cover is removed. The test points let you easily spot check the field circuit wiring without the need to remove the appliance from the wall. See Figure 8 and Figure 9.

**Figure 8: Strobe circuit test points**



**Note:** Marking indicates signal polarity when the circuit is active.

**Figure 9: Speaker circuit test points**



## Specifications

| | |
|---|---|
| Operating voltage | |
| Strobe | 16 to 33 VDC, 16 to 33 VFWR |
| Speaker | 25 VRMS, 70 VRMS (field selectable) |
| Operating current | |
| 16 to 33 VDC | 28 mA |
| 16 to 33 VFWR | 36 mA |
| Supervisory voltage | 30 V max. |
| Sound output | See Table 3 and Table 4 |
| Speaker response | 400 to 4,000 Hz |
| Resonant frequency | 520 Hz |
| Strobe flash rate | 1 fps (flash per second) approx. |
| Light output | 15, 30, 75, or 110 cd |
| Light distribution | See Figure 10. |
| 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. |
| Dimensions | See Figure 11 |
| Center offset | −1.70 in (−4.32 cm) |
| Compatible electrical boxes [1] | 2-gang, 4-inch square, G4RSB, G4WSB |
| Wire size | 12 to 18 AWG (0.75 to 2.50 mm²) |
| Screw torque | |
| Mounting screws | 10 lbf-in (1.2 N-m) max. |
| Terminal screws | 12 lbf-in (1.4 N-m) max. |

| | |
|---|---|
| Trim plates | EG4TR, EG4TW |
| Replacement covers | See Table 5 and Table 6 |
| Operating environment<br>Temperature<br>Relative humidity | <br>32 to 122°F (0 to 50°C)<br>0 to 93% noncondensing |
| Storage temperature | -40 to 158°F (-40 to 70°C) |

[1] Minimum box depth: 1.5 in. (3.81 cm)

**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 | 78 |
| | 1/2W | 81 | 81 |
| | 1W | 84 | 84 |
| | 2W | 87 | 87 |

**Table 4: Sound pattern (ULC)**

| Axis | Angle | Change in output |
|---|---|---|
| Horizontal | 117° and 61° | −3 dBA |
| | 134° and 49° | −6 dBA |
| Vertical | 128° and 68° | −3 dBA |
| | 138° and 52° | −6 dBA |

**Table 5: EG4S speaker replacement covers**

| Catalog number | Description |
|---|---|
| EG4SRF-CVR | Cover, wall speaker, red, FIRE |
| EG4SRN-CVR | Cover, wall speaker, red, no marking |
| EG4SWA-CVR | Cover, wall speaker, white, ALERT |
| EG4SWF-CVR | Cover, wall speaker, white, FIRE |
| EG4SWN-CVR | Cover, wall speaker, white, no marking |

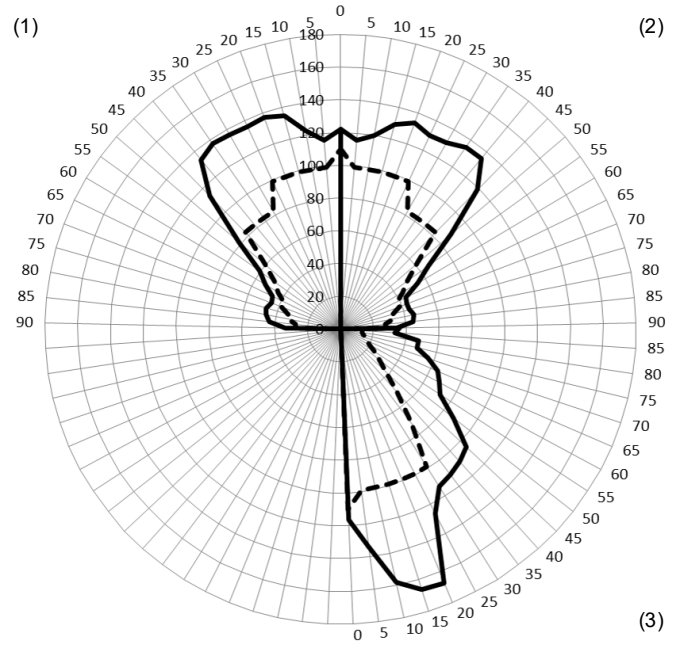
**Table 6: EG4SV speaker-strobe replacement covers**

| Catalog number | Description |
|---|---|
| EG4SVRF-CVR | Cover, wall speaker-strobe, red, FIRE |
| EG4SVRN-CVR | Cover, wall speaker-strobe, red, no marking |
| EG4SVWA-CVR | Cover, wall speaker-strobe, white, ALERT |
| EG4SVWF-CVR | Cover, wall speaker-strobe, white, FIRE |
| EG4SVWN-CVR | Cover, wall speaker-strobe, white, no marking |

## Contact information

For contact information, see www.kidde-esfire.com.

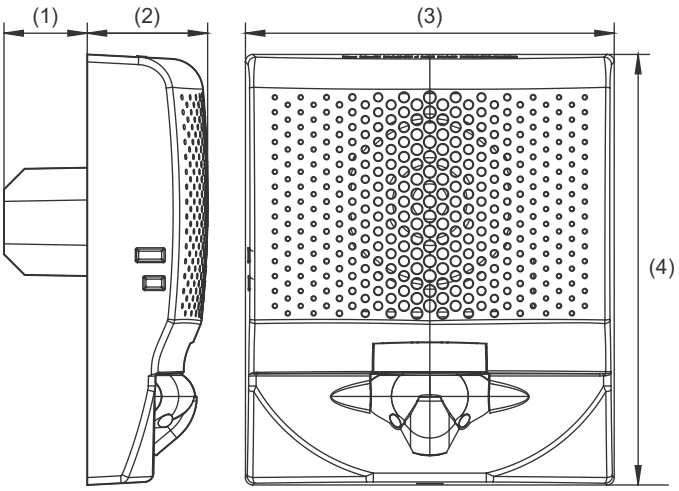
**Figure 10: 110 cd light distribution**




(1) Horizontal left
(2) Horizontal right
(3) Vertical bottom

Measured
UL minimum

**Figure 11: Dimensions**




(1) 1.13 in. (2.87 cm)
(2) 1.62 in. (4.11 cm)
(3) 4.95 in. (12.57 cm)
(4) 5.78 in. (14.68 cm)

## Regulatory information

| | |
|---|---|
| UL rating | Regulated 24 DC and 24 FWR |
| 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 | Indoor, dry |



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