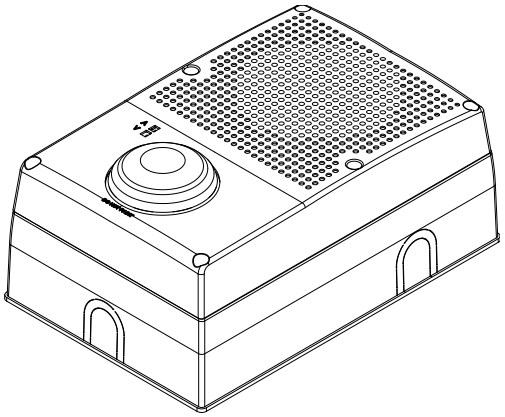
Genesis WG4 Outdoor High Candela Horn-Strobe Installation Sheet



Description

The Genesis WG4 Outdoor High Candela Horn-Strobe is a life safety notification appliance designed for indoor or outdoor use on ceilings or walls. See Table 1 for a list of models and Table 2 for a list of accessories.

For surface mount applications, mount the WG4 onto a Model 449 electrical box using the gasket shipped with the appliance. For flush mount applications where the mounting surface is flush with the surface of the wall or ceiling, use the WG4GSKT gasket kit.

Note that you need a Model 449 electrical box for waterproof applications, or a standard mount 4 in. square box for all other applications.

The horn-strobe includes field-configurable jumper options that allow you to set the strobe pattern to temporal or continuous, the horn pattern to temporal or continuous, and the horn volume to low or high. The horn-strobe also includes a field-configurable switch for setting the strobe candela level. This setting is locked in place and is visible after final installation.

Table 1: Models

Number	Description
WG4WF-HVMHC	Outdoor rated wall/ceiling horn-strobe, white with FIRE marking, high output strobe, clear lens
WG4WN-HVMHC	Outdoor rated wall/ceiling horn-strobe, white without marking, high output strobe, clear lens
WG4RF-HVMHC	Outdoor rated wall/ceiling horn-strobe, red with FIRE marking, high output strobe, clear lens
WG4RN-HVMHC	Outdoor rated wall/ceiling horn-strobe, red without marking, high output strobe, clear lens

Table 2: Accessories

Number	Description
WG4WTS [1]	Outdoor-rated surface skirt, white, for Genesis WG4 horn or horn-strobe
WG4RTS [1]	Outdoor-rated surface skirt, red, for Genesis WG4 horn or horn-strobe
WG4GSKT [2]	Appliance replacement gasket, flush mount

[1] The trim skirt is outdoor-rated when used with the Model 449 electrical box

[2] Not compatible with the trim skirts

To synchronize horn-strobe operation, you must install a separate synchronization source. See Table 3. When connecting the horn-strobe to a listed control panel, verify synchronization operation on the compatibility list for the corresponding panel.

Table 3: Compatible synchronization source models

Number		Description
SIGA-CC1S GSA-CC1S SIGA-MCC1S	GSA-MCC1S SIGA-CC2A SIGA-MCC2A	Auto-sync output module
G1M-RM XLSG1M-RM EG1M-RM	ADTG1M-RM MG1M-RM ZG1M-RM	Genesis signal master - remote mount
APS6* EAPS6* APS10 EAPS10* BPS6* EBPS6*	MIRBPS6* BPS10* EBPS10* MIRBPS10* XLS-BPS10* XLS-BPS	Booster or auxiliary power supply

* Represents any number of additional characters

Installation

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

WARNING: Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

Notes

- Electrical supervision requires that you break the wire run at each terminal. Do not loop wires around the terminals.
- You can mount the WG4 horn-strobe horizontally or vertically on either the wall or ceiling; place the electrical box accordingly. See Figure 1.
- When using a 449 electrical box, discard the gasket that is shipped with the box.
- When using a trim skirt or a surface mount application, use the gasket that comes with the WG4 unit.

  — or —

  For flush mount applications on a flat surface, use the WG4GSKT gasket accessory.

To install the horn-strobe:

1. Remove the cover from the horn-strobe by first removing the six cover screws. See Figure 2, item 1.

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2. Position the appropriate gasket over the backplate, ensuring that the wire slot and other holes line up properly.

   Remove the protective backing from the gasket surface and carefully apply the gasket to the WG4, with the adhesive side towards the appliance.

   Press the gasket firmly against the back surface of the appliance so that the gasket seats properly.

3. Place the optional trim skirt over the electrical box, if desired. See Figure 2, items 4, 5, and 6. Also see “Specifications” on page 3 for a list of compatible boxes.

4. Feed the field wiring through the wire slots on the gasket and the backplate. See Figure 2, item 3 and Figure 3, item 1.

5. Align the appliance and trim skirt (if applicable), and then secure the backplate to the electrical box with the supplied screws.

   Check the assembly to ensure that it is securely mounted.

6. Set the candela output.

   The default candela setting is D. To select a different candela output, align the S2 indicator to the desired candela output. See Figure 3, item 6. For candela output ratings, see Table 9 and Table 10.

7. Set the strobe pattern.

   The default strobe pattern setting is continuous. To use the temporal strobe (private mode, which is not ULC listed), cut jumper JP4. See Figure 3, item 4.

8. Set the horn volume.

   The default horn volume setting is high. To set the horn to low volume, cut jumper JP3. See Figure 3, item 2.

9. Set the horn pattern.

   The default horn pattern is temporal. To use a continuous horn pattern, cut jumper JP1. See Figure 3, item 5.

10. Connect the signal circuit field wiring to the appropriate terminals, noting that both the horn and the strobe are powered from the same NAC.

    You must observe polarity for the unit to function properly. See “Wiring” on page 3.

11. Remove the strobe protective cover shown in Figure 3, item 3.

    Note: Do not touch the glass of the strobe tube underneath, as this can shorten the life of glass tube.

12. Position the cover over the backplate and secure with the six cover screws.

13. Test the unit for proper operation.

Figure 1: Horn-strobe mounting positions

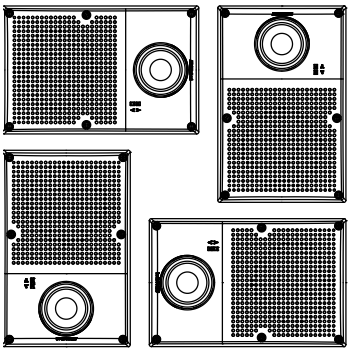
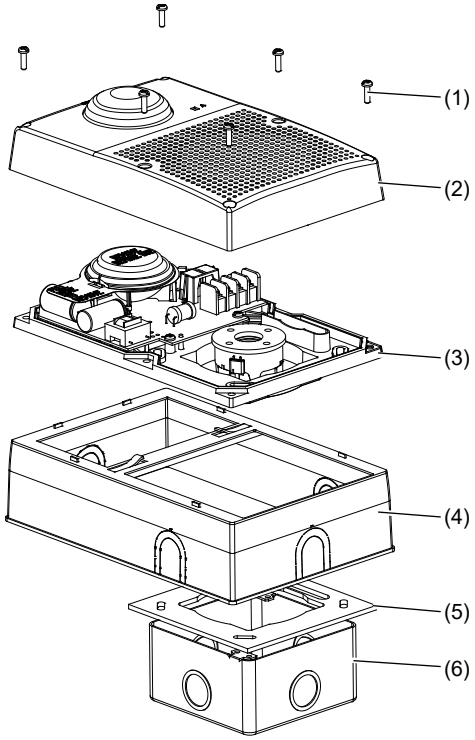
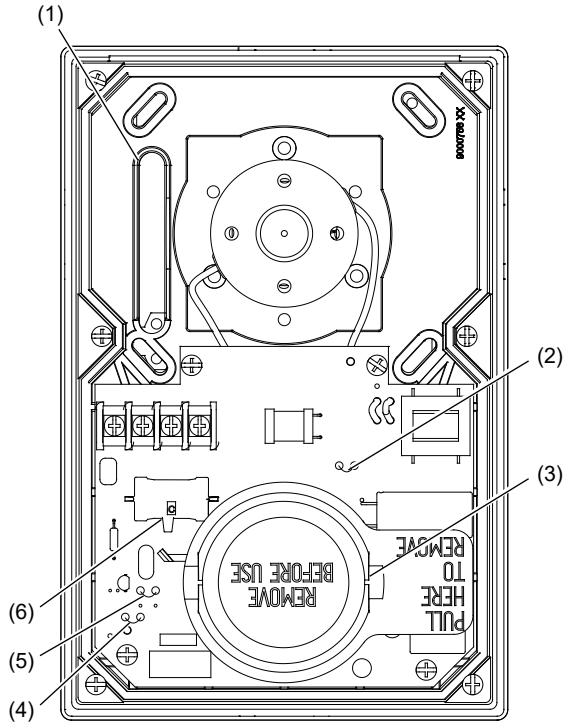


Figure 2: Exploded view of the assembly



(1) Cover screws (6X)
(2) Front cover
(3) Backplate
(4) Optional trim skirt
(5) WG4 gasket
(6) Electrical box

Figure 3: Jumper, switch, and protective cap locations



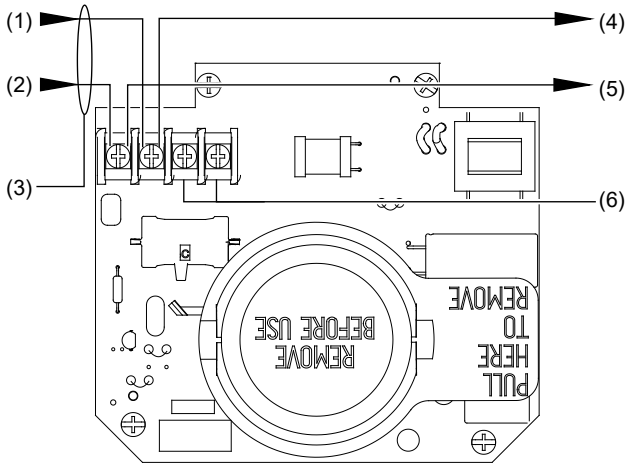
(1) Wire slot
(2) JP3 horn volume jumper
(3) Protective cap
(4) JP4 strobe pattern jumper
(5) JP1 horn pattern jumper
(6) S2 candela-setting switch

Wiring

See Figure 4. Connect all wiring in accordance with national electrical codes and applicable local requirements.

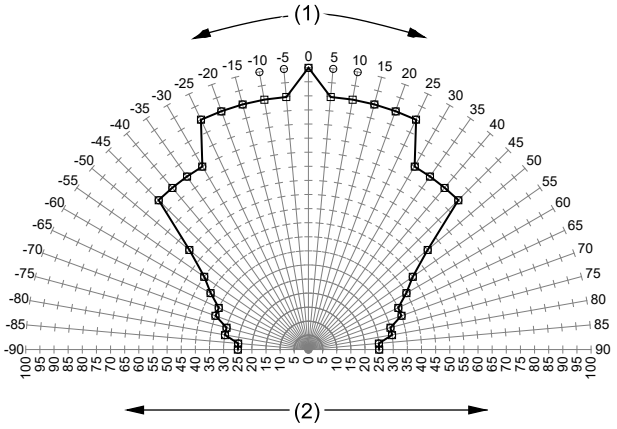
Caution: Equipment hazard. To avoid equipment damage, ensure that the signal voltage does not exceed the voltage rating of the device.

Figure 4: Wiring diagram



(1) Horn-strobe in −
(2) Horn-strobe in +
(3) Marking indicates the signal polarity required to activate the device
(4) Horn-strobe out −
(5) Horn-strobe out +
(6) Not used

Figure 5: UL 1971 minimum light output (% of rating vs. angle)



(1) Angle
(2) Percentage of rated output

Note: Horizontal plot

Maintenance

Do not change the factory finish.

Perform a visual inspection and an operational test twice a year, or as directed by the local authority having jurisdiction.

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

Specifications

Operating voltage Horn-strobe	 24 VDC, 24 VFWR nominal
Dimensions (W × H × D)	5.6 × 8.5 × 1.4 in. (142 × 216 × 36 mm)
Sound level output	See Table 4, Table 5, Table 6, and Table 7
Horn tone	3.2 kHz
Strobe operating current	See Table 11
Light output	See Table 8, Table 9, Table 10, and Figure 5
Wire size	12 to 18 AWG (0.75 to 2.50 mm²)
Compatible electrical box Outdoor Indoor	 Model 449 4 in. square by 1.5 in. deep box
Operating environment Temperature Relative humidity	 −40 to 151°F (−40 to 66°C) 0 to 95% noncondensing

Table 4: Sound level output (dBA), per UL 464

Volume setting	16V	24V	33V
Continuous High	89.7	94.7	97.4
Continuous Low	85.4	89.5	92.5
Temporal High	84.2	90.5	93.5
Temporal Low	81.7	85.4	88.1

dBA = Decibels, A-weighted

UL 464: Sound level output measured in a reverberant room at 10 ft. (3.05m)

Table 5: Sound level output (dBA), per CAN/ULC-S525

Volume setting	16V	24V	33V
Continuous High	94.0	99.6	102.9
Continuous Low	92.8	97.2	98.6
Temporal High	96.5	100.5	104.2
Temporal Low	90.3	94.2	97.0

dBA = Decibels, A-weighted

CAN/ULC-S525: Sound level output measured in an anechoic room at 10 ft. (3.05m)

Table 6: Directional sound characteristics (horizontal pattern), per CAN/ULC-S525

Angle (°) [1]	Sound output (dBA)
90 (Ref)	0 (Ref)
60 and 115	−3
45 and 132	−6

[1] Angles are measured from a perpendicular axis; positive angles to the right

Table 7: Directional sound characteristics (vertical pattern), per CAN/ULC-S525

Angle (°) [1]	Sound output (dBA)
90 (Ref)	0 (Ref)
80 and 110	−3
39 and 125	−6

[1] Angles are measured from a perpendicular axis; positive angles are up

Table 8: Indoor strobe output (candela)

Lens	Standard	D	C	B	A
Clear	UL 1971	102	123	147	161

Table 9: Outdoor strobe output (candela at −35°C)

Lens	Standard	D	C	B	A
Clear	UL 1638	41	50	60	65

Table 10: Outdoor strobe output (candela at −40°C)

Lens	Standard	D	C	B	A
Clear	CAN/ULC-S526	11	14	17	18

Table 11: Horn-strobe operating current in RMS (mA), continuous

Setting	D	C	B	A
16 to 33 VDC	342	408	517	530
16 to 33 VFWR	447	502	614	679
24 VDC	240	271	327	365
24 VFWR	390	400	486	540

Regulatory information

UL/ULC rating	Horn-strobe: Regulated 24 DC and 24 FWR. This device was tested to the regulated 24 DC/FWR operating voltage limits of 16 V and 33 V. Do not apply 80% and 110% of these values for system operation.
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.
ICES compliance	This Class B digital apparatus complies with Canadian ICES-003.
Environmental class	Indoor and outdoor
Synchronization	Meets UL 1971 and CAN/ULC-S525 requirements. Maximum allowed resistance between any two devices is 20 Ω. Refer to specifications for compatible synchronization sources, this strobe, and the control panel to determine allowed wire resistance.
Agency listings	UL 1971, UL 1638, UL 464, CAN/ULC-S525, CAN/ULC-S526

Contact information

For contact information, see www.edwardsfiresafety.com.