

## Overview

The Genesis line of signals are the smallest, most compact audible-visible emergency signaling devices in the world. Protruding no more than one inch from the wall, Genesis speakers and speaker-strobes blend with any decor.

Signals feature textured housings in architecturally neutral white or traditional fire alarm red. An ingenious iconographic symbol indicates the purpose of the device. This universal symbol is code-compliant and is easily recognized by all building occupants regardless of what language they speak.



Speaker-only unit

Thanks to patented breakthrough technology, Genesis strobes do not require bulky specular reflectors. Instead, an exclusive mask-and-cavity design channels and conditions light to produce a highly controllable distribution pattern. Intensive development efforts employing this new technology have given rise to a new benchmark in strobe performance – FullLight™ technology.

Speaker-strobes feature 15, 30, 75 or 110 candela output, selectable with a conveniently-located switch on the bottom of the device. The candela setting remains clearly visible even after final installation. Models are also available that offer fixed 15/75 cd output.

All Genesis speakers include a DC blocking capacitor to allow electrical supervision of the audio distribution circuit. Models for 25 V<sub>RMS</sub> and 70 V<sub>RMS</sub> circuits are available. The mylar speaker with its sealed back construction provides extra durability and improved audibility. ¼ W to 2 W operation is selectable with a conveniently-located switch on the bottom of the device. The wattage tap setting remains clearly visible even after final installation.

## Standard Features

- **Unique low-profile design**
  - The most compact UL/ULC listed speaker-strobe available
  - Ultra-slim, protrudes a mere one inch from the wall
  - Attractive appearance, no visible mounting screws
- **Field configurable – no need to remove the device!**
  - Select ¼, ½, 1, or 2 watt operation and 15, 30, 75, or 110 candela output with convenient switches that remain visible even after the unit is installed
- **Fixed 15/75 cd models available**
- **Unparalleled performance**
  - loud 90 dBA output ensures clear, crisp audio
  - Exclusive FullLight strobe technology produces the industry's most even light distribution
  - Precision timing electronics meet tough new synchronizing standards for strobes when used with compatible modules
  - Low current draw minimizes system overhead
  - Highly regulated in-rush current allows the maximum number of strobes on a circuit
  - Industry's first temporal strobe output
  - 25 Vrms and 70 Vrms models available, all supplied with a DC blocking capacitor for audio circuit supervision
- **Easy to install**
  - Fits all standard 4" square electrical boxes with plenty of room behind the signal for extra wire – no extension ring or trim plate needed
  - Simple jumper snips set strobe flash rates
  - #18 - #12 AWG terminals – ideal for long runs, existing wiring

# Genesis Speakers and Strobes

## Genesis G4 Series



MEA



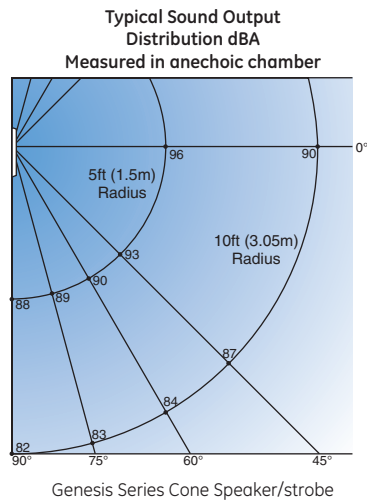
PENDING

Patents pending

## Speaker Application

The suggested sound pressure level for each signaling zone used with alert or alarm signals is a minimum of 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds, whichever is greater. This is measured 5 feet (1.5 m) above the floor. The average ambient sound level is the RMS, A-weighted sound pressure measured over a 24-hour period.

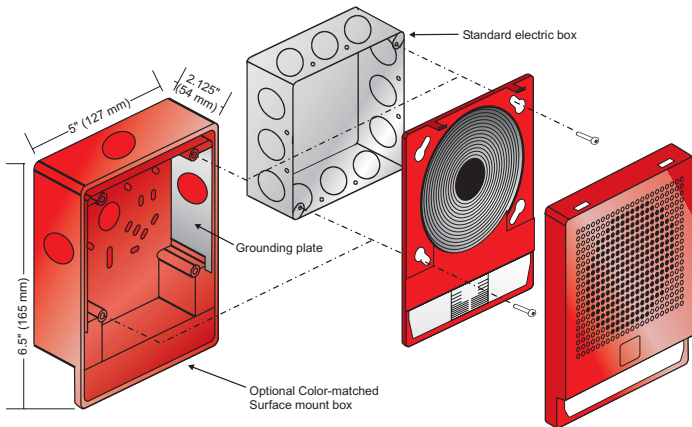
Doubling the distance from the signal to the ear will theoretically cause a 6dB reduction in the received sound pressure level. The actual effect depends on the acoustic properties of materials in the space. Doubling the power output of a device (e.g.: a speaker from 1W to 2W) will increase the sound pressure level by 3dBA. A 3dBA difference represents a barely noticeable change in volume.



## Installation and Mounting

All models are intended for indoor wall mounted applications only. Speakers and speaker-strobes are flush mounted to a North-American 4" square electrical box, 2 1/8" (54 mm) deep or a European 100 mm square box. Signals may be surface mounted to a Genesis surface-mount box (see ordering information for details).

Two tabs at the top of the signal unlock the cover to facilitate mounting. The shallow depth of Genesis devices leaves ample room behind the signal for extra wiring. Once installed with the cover in place, no mounting screws are visible.



GE Security recommends that these fire alarm speaker-strobes always be installed in accordance with the latest recognized edition of national and local fire alarm codes.

## Strobe Application

Genesis strobes are UL 1971-listed for use indoors as wall-mounted public-mode notification appliances for the hearing impaired. Prevailing codes require strobes to be used where ambient noise conditions exceed specified levels, where occupants use hearing protection, and in areas of public accommodation. Consult with your Authority Having Jurisdiction for details.

All Genesis strobes exceed UL synchronization requirements (within 10 milliseconds other over a two-hour period) when used with a synchronization source. Synchronization is important in order to avoid epileptic sensitivity.

**NOTE:** The flash intensity of some visible signals may not be adequate to alert or waken occupants in the protected area. Research indicates that the intensity of strobe needed to awaken 90% of sleeping persons is approximately 100 cd. GE Security recommends that strobes in sleeping rooms be rated at least 110 cd.

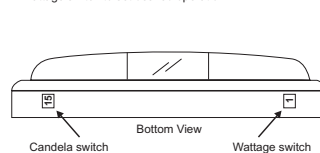
**WARNING:** These devices will not operate without electrical power. As fires frequently cause power interruptions, further safeguards such as backup power supplies may be required.

### Field Configuration

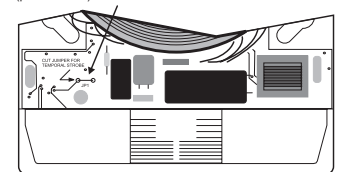
Genesis speakers may be set for 1/4, 1/2, 1, or 2 watt operation. The wattage setting is visible through a small window on the bottom of the device and is changed by simply sliding the switch until the desired setting appears in the window. The speaker does not have to be removed to change the wattage.

Genesis speaker-strobes may be set for 15, 30, 75, or 110 candela output. The output setting is visible through a small window on the bottom of the device and is changed by simply sliding the switch until the desired setting appears in the window. The speaker-strobe does not have to be removed to change the output.

Use the Candela Switch and the Wattage switch to set desired operation.



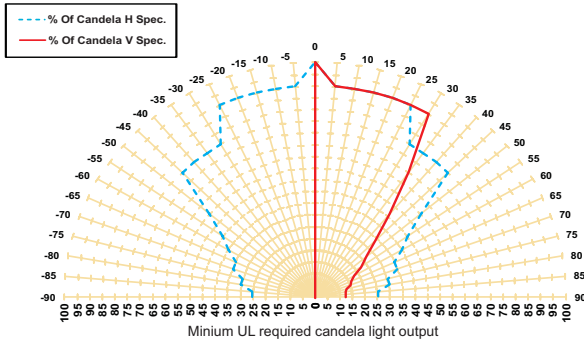
To change strobe to temporal (private mode) cut JP1



Genesis speaker-strobes may also be configured for temporal flash. This battery-saving feature is intended for private mode signaling only. To set the device for temporal flash, snip the circuit board as shown in the Jumper Locations diagram above.

## Light output

Per cent of UL rating versus angle



### UL name plate maximum operating current (RMS-mA)

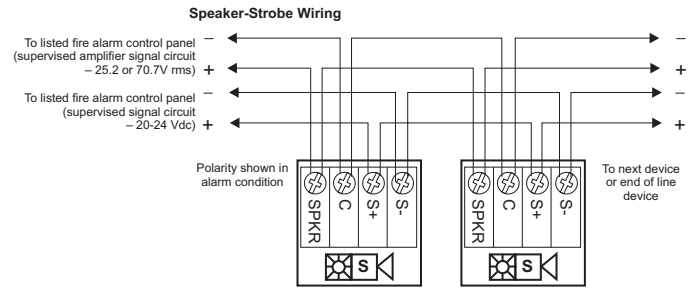
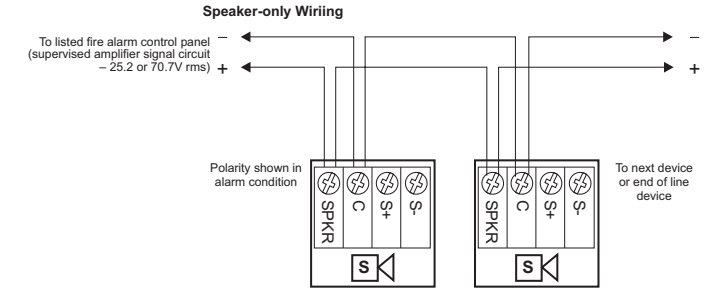
Cd rating	15	30	15/75	75	110
16 Vdc	96	130	106	239	294
16 Vfwr	120	169	170	329	375

### Typical current, milliamps - average (RMS)

Cd rating	15	30	15/75	75	110
20 Vdc	65 (78)	93 (101)	114 (123)	182 (188)	238 (245)
24 Vdc	55 (65)	78 (86)	97 (104)	153 (159)	196 (203)
31 Vdc	45 (53)	63 (69)	77 (84)	120 (124)	151 (157)
20 Vfwr	56 (106)	79 (147)	100 (189)	147 (264)	197 (342)
24 Vfwr	50 (95)	68 (130)	85 (169)	121 (225)	155 (283)
27 Vfwr	44 (84)	60 (115)	68 (148)	107 (200)	137 (251)

## Wiring

Field wiring is connected to Genesis signals with terminals that accommodate #18 to #12 AWG (0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup>) wiring.



**WARNING:** These devices will not operate without electrical power. As fires frequently cause power interruptions, we suggest you discuss further safeguards with your local fire protection specialist. Research indicates that the intensity of strobe needed to awaken 90% of sleeping persons is approximately 100 cd. GE Security recommends that strobes in sleeping rooms be set to 110 cd minimum.

## Specifications

### Genesis Speakers and Speaker-Strobes

Housing	Red or white textured UV stabilized, color impregnated engineered plastic. Exceeds 94V-0 UL flammability rating.
Dimensions	Height: 6.5" (165 mm). Width: 5" (127 mm). Depth to wall: 1" (25 mm).
Mounting (indoor wall mount only)	Flush: North-American 4" square box, 2 1/8" (54 mm) deep. Surface: model G4B (white) or G4RB (red) surface mount box.
Wire Connections	Screw terminals: separate polarized inputs for speaker and strobe, #18 to #12 AWG (0.75 mm <sup>2</sup> to 2.5 mm <sup>2</sup> ) wire size
Operating environment	32-120° F (0-49° C) ambient temperature; 0-93% relative humidity.
Agency Listings	UL 1971, UL 1638, UL 1480, ULC S526, ULC S541, CSFM, MEA (FM pending) (All models comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule.)

### Speakers

Input/Operating Volts	25 VRMS or 70 VRMS. See ordering information.
Speaker Taps/Output*	2 W = 89 dBA; 1 W = 86 dBA; 1/2 W = 83 dBA; 1/4 W = 80 dBA
Speaker Cone	Speaker frequency response: 250 to 5,000 Hz. Optimized for voice intelligibility. 4-inch (102mm) mylar cone, sealed back construction, rated for 8 watts, 8 ohm voice coil.

### Strobes

Strobe Output Rating	UL 1971, UL 1638, ULC S526: selectable 15 cd, 30 cd, 75 cd, or 110 cd output UL 1971: 15 cd (fixed 15/75 cd models) UL 1638, ULCS526: 75 cd (fixed 15/75 cd models)
Strobe Operating Voltage	16 - 33 Vdc Regulated, 16-33 V Full wave rectified (UL Voltage Designations "Regulated 24" and "24 fwr")
Strobe Flash Rate	One flash per second.
Strobe Flash Synchronization	All strobes: one flash per second (fps) within 200 milliseconds over 30 minutes on common circuit. With optional synchronization module: one fps within 10 milliseconds indefinitely (exceeds UL 1971). Temporal setting (private mode only): synchronized to temporal output on the same circuit.
Synchronization Sources	G1M-RM, SIGA-CC1S, SIGA-MCC1S, BPS6A, BPS10A
Strobe Lens Material	Clear polycarbonate

\* Measured in reverberation room using 400-4,000 Hz band limited pink noise per UL 1480.

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## Ordering Information

Catalog Number		Description	Ship Wt., lbs (kg)
White	Red		

Speakers and Speaker-Strobes			
G4-S2	G4R-S2	25 Volt Speaker	1.5 (0.68)
G4-S2VM	G4R-S2VM	25 Volt Speaker-strobe with selectable 15, 30, 75, or 110 cd output	
G4F-S2V1575	G4RF-S2V1575	25 Volt Speaker-strobe with 15/75 cd output. Available with FIRE marking only.	
G4-S7	G4R-S7	70 Volt Speaker	
G4-S7VM	G4R-S7VM	70 Volt Speaker with selectable 15, 30, 75, or 110 cd output	
G4F-S7V1575	G4RF-S7V1575	70 Volt Speaker-strobe with 15/75 cd output. Available with FIRE marking only.	

Accessories			
G1M-RM		Synchronization Output Module (1-gang)	0.2 (0.1)
SIGA-CC1S		Intelligent Synchronization Output Module (2-gang)	0.5 (0.23)
SIGA-MCC1S		Synchronization Output Module (Plug-in UIO)	0.18 (0.08)
G4B	G4RB	Surface mount box	0.7 (0.32)



### Housings available with "FIRE" markings

To specify housings with "FIRE" markings, insert an "F" before the hyphen in the model number.

Add an "F" here

G4F-S2  
G4RF-S7VM

**Note:** 15/75 cd models provide fixed output and are not multi-candela devices. The 15 cd output component complies with UL1971, while the 75 cd output component complies with UL 1638. These models are available with FIRE marking only.



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