EDWARDS

LIFE SAFETY & INCIDENT MANAGEMENT

Genesis LED
G1 EN54 Series
Compact Notification Devices



CE UK CA

Overview

Genesis LED G1 EN54 Series horns and LED strobes feature a sleek low profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High performance LEDs require fewer circuits and power supplies. These new appliances are designed with energy-efficiency and life safety in mind.

Genesis LED G1 Series uses high efficiency optics, combined with patented electronics, to deliver a highly controlled and efficiently focused light distribution pattern in exchange for lower current requirements.

Compared with Xenon-type strobes, Genesis LED G1 Series appliances need fewer power supplies and often smaller wire gauge, which lightens conduit requirements. They are also backwards compatible with legacy strobes, so there's no need to replace all your existing devices to upgrade to new LED technology. In fact, G1 strobes can be mixed on the same circuit and used in the same field of view as Xenon-based strobes. This makes Genesis LED G1 Series ideal for new installations and retrofits alike.

Field-configurable sound output levels provide the flexibility modern life safety projects demand, while the Genesis LED control protocol keeps multiple strobes on compatible NAC circuits synchronized to well within NFPA 72 and EN54-23 requirements.

Serviceability is another area where G1 Series appliances shine. The innovative under-cover diagnostic test points provide easy access to device circuit testing while mounted.

Standard Features

- **High Performance LED Strobe Technology**
  - Ultra low device current consumption
  - High efficiency optics
  - Enhanced synchronization circuitry to comply with the latest requirements of EN54-3 and EN54-23
- **Efficient Audible Output**
  - Selectable high or low dB horn output
  - Selectable temporal or steady horn output
  - Improved audio frequency range for better wall penetration
- **Low-profile Design**
  - Compact design... single gang mounting
  - Ultra-slim... protrudes about 3 cm from the mounting surface
  - Attractive appearance... no visible mounting screws
- **Multiple "FIRE" Marking Options**
  - Order English, French, Spanish or no FIRE markings
  - Change markings at any time with quick-swap covers
- **Easy to Install**
  - Diagnostic test points streamline device circuit testing
  - To meet IP21C requirements, G1RB-E or G1WB-E electrical box required
  - Slide switches for field configuration
  - 12 to 18 AWG in-out screw terminals for quick wiring

Application

Strobes

Genesis LED G1 EN54 Series strobes are synchronized in order to avoid epileptic sensitivity. All Genesis LED strobes exceed UL synchronization requirements (within 10 milliseconds over a two-hour period) when used with a synchronization source. See the specifications table for a list of compatible sources.

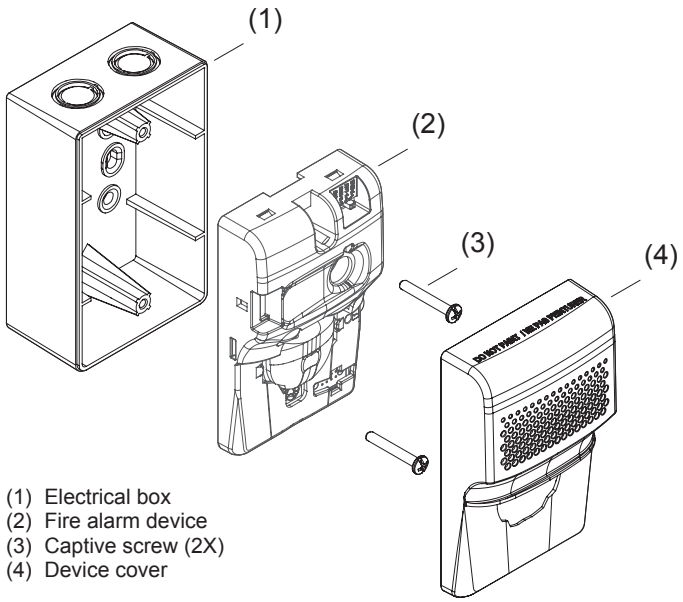
Horns

Genesis LED horn output reaches as high as 103.8 dBA and features an improved audio frequency range compared with other Genesis LED horns. This results in excellent sound penetration through walls and a clear warning of danger. They can also be set for high or low dBA output. This setting reduces horn output by about 6 dBA. Horn-only models may be ceiling-mounted or wall-mounted and may be configured for either coded or non-coded notification appliance circuits.

The suggested sound pressure level for each signaling zone used with alarm signals is atgreater than 65dB or 5dB above background if background is over 60dB. These values are measured at (1.5m) above the floor. The average ambient sound level is A-weighted, fast response sound pressure measured over a 24-hour period.

Doubling the distance from the signal to the ear will theoretically result in a 6 dBA reduction of the received sound pressure level. The actual effect depends on the acoustic properties of materials in the space. A 3 dBA difference represents a barely noticeable change in volume.

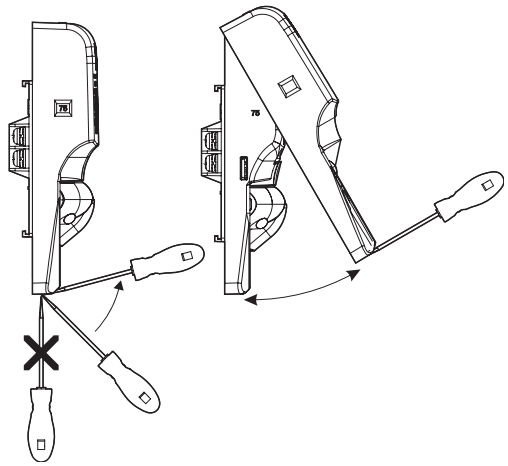
Genesis LED G1 Series horns and strobes mount to any standard one-gang surface or flush electrical box. Matching optional G1T trim rings are available to cover oversized openings and can accommodate one-gang or four-inch square boxes. Optional color matched single-gang surface boxes are also available.



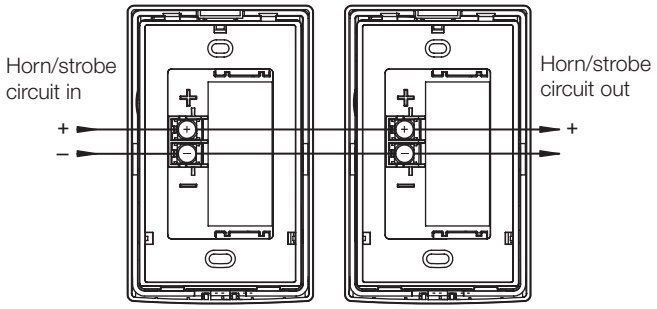
(1) Electrical box
(2) Fire alarm device
(3) Captive screw (2X)
(4) Device cover

Installation

All Genesis LED devices come with mounting screws for easy installation. The tab at the bottom of the device unlocks the cover to reveal the mounting holes. The shallow depth of Genesis LED devices leaves ample room behind them for extra wiring. Once installed with the cover in place, no mounting screws are visible.



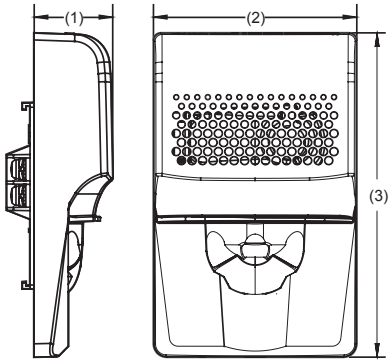
Wiring



Signal polarity shown in the active condition.

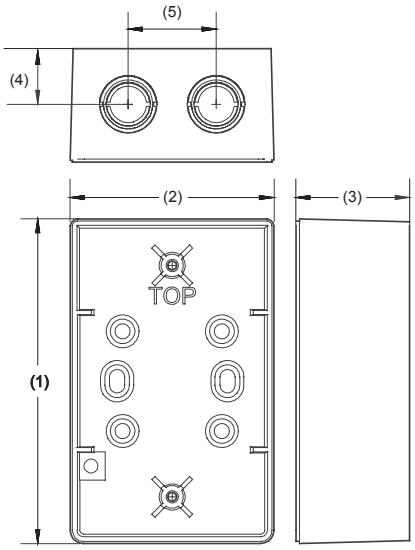
Dimensions

G1 Dimensions



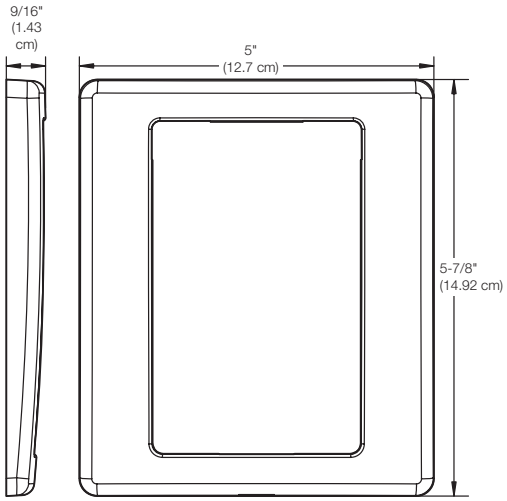
(1) 2.86 cm (1-1/8 in.)
(2) 7.62 cm (3 in.)
(3) 11.75 cm (4-5/8 in.)

G1(R/W)B-E surface box dimensions



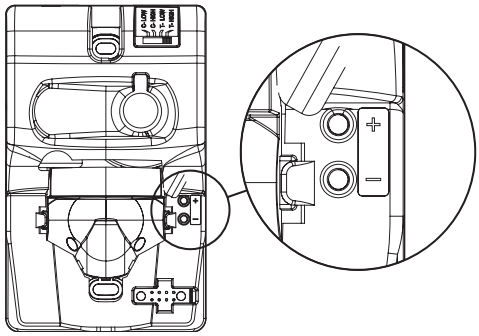
(1) 11.75 cm (4-5/8 in.)
(2) 7.62 cm (3 in.)
(3) 4.12 cm (1-5/8 in.)
(4) 2.00 cm (3/4 in.)
(5) 3.12 cm (1-1/4 in.)

G1T Trim Ring



Diagnostics

Test points indicated below are used to validate the Notification Appliance Circuit and verify device function.

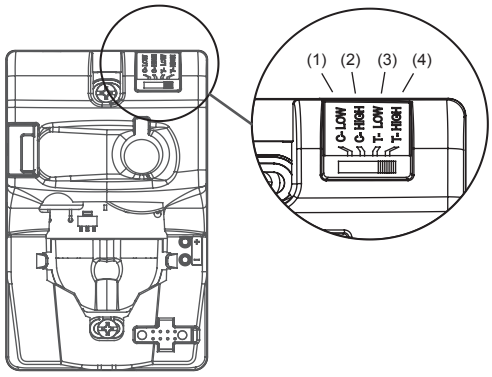


Field Configuration

Temporal horn and horn-strobe models are factory set to sound in a three-pulse temporal pattern. By sliding the tone selector switch, units may be configured for constant horn output that can be coded at precise intervals by EDWARDS control panels and control modules.

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).

Horns and horn-strobes are factory set for high dB output. Low dB output may be selected by sliding the tone selector switch. This reduces the output by about 6 dBA.



(1) Constant, low dB
(2) Constant, high dB
(3) T3 temporal, low dB
(4) T3 temporal, high dB

Operating current

Horns

Sound setting	16 to 33 VDC
C-Low T-Low	13 mA
C-High T-High	23 mA

Horn-Strobes

Light Output	Sound setting
W-2.4-8.5	C-Low, T-Low
	C-High, T-High

Strobes

Light Output	16 to 33 VDC
W-2.4-8.5	24 mA

Sound Output

Operational performance, 16-33 V continuous or temporal tone in a G1(R/W)B-E surface box, high volume (dBA)

Angle	DBA
15°	98.9
45°	103.8
75°	99.5
105°	101.1
135°	103.1
165°	93.4

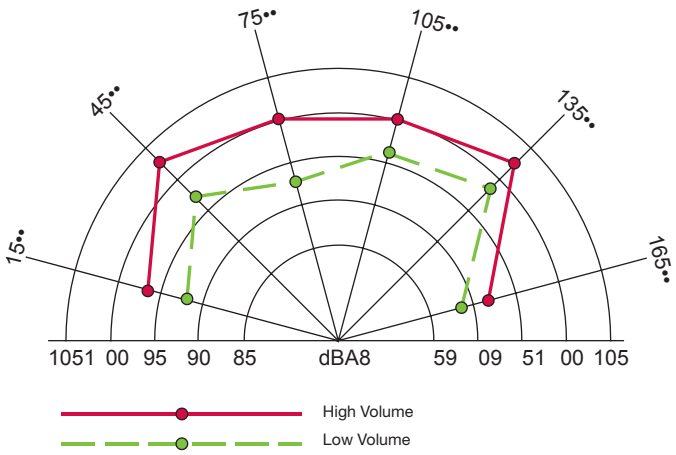
Operational performance, 16-33 V continuous or temporal tone in a G1(R/W)B-E surface box, low volume (dBA)

Angle	DBA
15°	98.9
45°	103.8
75°	99.5
105°	101.1
135°	103.1
165°	93.4

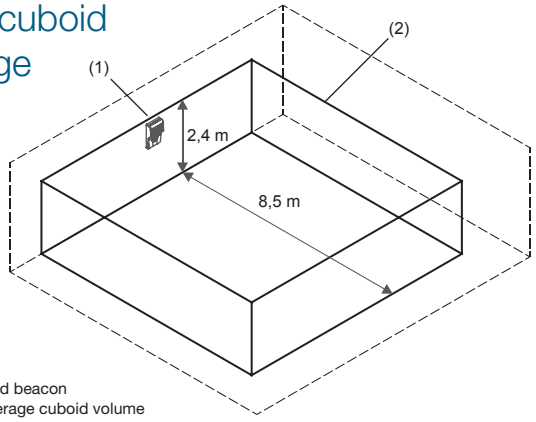
Operating current (beacon models)

Light output	16 to 33 VDC
W-2.4-8.5	24 mA

Sound Level Patterns



W–x-y cuboid coverage



(1) Wall-mounted beacon
(2) Beacon coverage cuboid volume

Specifications

Operating voltage	16 to 33 VDC
Operating current	See Operating Current, page 3.
Sound signal pattern	Constant or T3 temporal
Sound level output	See Sound Output Tables, above.
Light output	W-2.4-8.5
W–x-y cuboid coverage	2.4 m × 8.5 m × 8.5 m. See above.
Flash rate	1 fps (flash per second) approx.
Synchronization	20 Ω max. between any two devices. To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source.
Wire size	0.75 to 2.50 mm² (12 to 18 AWG)
Screw torque Mounting screws Terminal screws	 15 lbf-in (1.8 N-m) max. 12 lbf-in (1.4 N-m) max.
Dimensions	See G1 dimensions, page 3.
Light-to-box center offset	–1.8 cm
Compatible electrical boxes [1]	G1RB-E, G1WB-E
Operating environment Temperature Relative humidity	 –10 to 55°C 0 to 93% noncondensing
Storage temperature	–40 to 70°C
Housing Color	White (RAL9002) Red (RAL3013)

[1] Electrical boxes must be at least 3.81 cm deep. Electrical boxes greater than 7.62 cm wide require a trim ring.

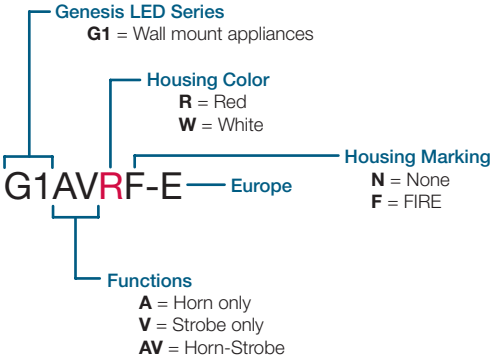
Ordering Information

Notification Appliances	Number	Descriptions
 **Sounders** Selectable High/low dB	G1ARF-E	Compact wall sounder, red, FIRE, EN54
	G1ARN-E	Compact wall sounder, red, no marking, EN54
	G1AWF-E	Compact wall sounder, white, FIRE, EN54
	G1AWN-E	Compact wall sounder, white, no marking, EN54
 **Beacons**	G1VRF-E	Compact wall beacon, red, FIRE, EN54
	G1VRN-E	Compact wall beacon, red, no marking, EN54
	G1VWF-E	Compact wall beacon, white, FIRE, EN54
	G1VWN-E	Compact wall beacon, white, no marking, EN54
 **Sounder-beacons** High/low dB	G1AVRF-E	Compact wall sounder-beacon, red, FIRE, EN54
	G1AVRN-E	Compact wall sounder-beacon, red, no marking, EN54
	G1AVWF-E	Compact wall sounder-beacon, white, FIRE, EN54
	G1AVWN-E	Compact wall sounder-beacon, white, no marking, EN54

Accessories

	G1TR	Trim ring, G1 Series, red
	G1RB-E	One-gang surface mount box, red
	G1TW	Trim ring, G1 Series, white
	G1WB-E	One-gang surface mount box, white

Model Number Syntax, Appliances



LIFE SAFETY & INCIDENT MANAGEMENT

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