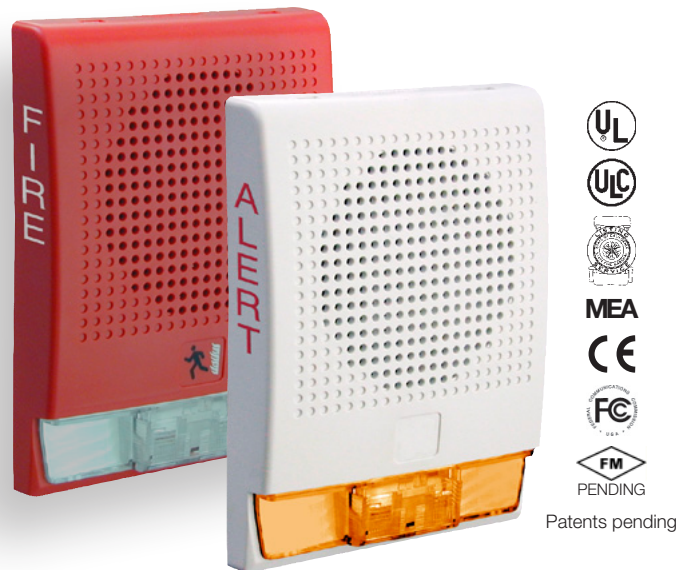




Genesis Speakers and Strobes

Genesis G4 Series



Overview

The Genesis line of life safety and mass notification/emergency communications (ECS/MNS) 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.

Life safety appliances feature textured housings in architecturally neutral white or traditional life safety red.

ECS/MNS appliances offer emergency signaling with clear or amber lenses, white housings, and optional ALERT housing labels. They are ideal for applications that require differentiation between life safety and mass notification signals.

Thanks to patented breakthrough technology, Genesis strobes do not require bulky specular reflectors. Instead, an exclusive design channels and conditions light to produce a highly controllable distribution pattern.

Speaker-strobes feature selectable candela output with a conveniently-located switch on the bottom of the device. The candela setting remains clearly visible even after final installation.

All Genesis speakers include a DC blocking capacitor to allow electrical supervision of the audio distribution circuit. The speaker with its sealed back construction provides extra durability and improved audibility.

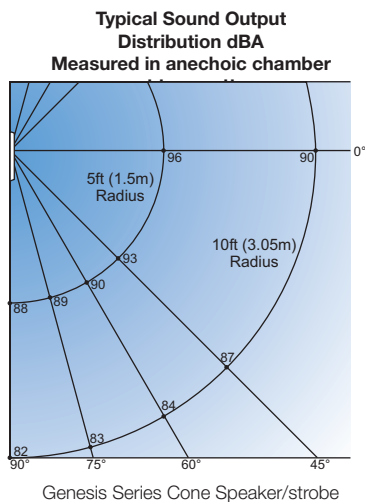
Standard Features

- **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!**
 - ¼, ½, 1, or 2 watt operation and selectable candela output with convenient switches that remain visible even after the unit is installed
- **ECS/MNS 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
 - Optional field-configurable 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
 - #18 - #12 AWG terminals – ideal for long runs or using existing wiring

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.

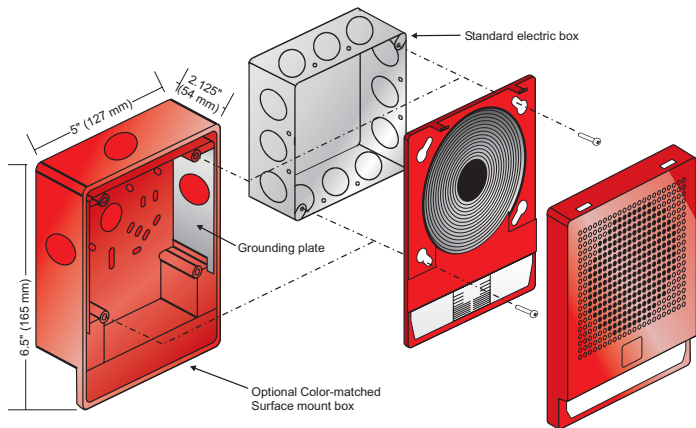
Doubling the distance from the signal to the ear will theoretically cause a 6dB reduction in the received sound pressure level. The actual effect depends on the acoustic properties of materials in the space. Doubling the power output of a device (e.g.: a speaker from 1W to 2W) will increase the sound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



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, 2¹/₈" (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 room behind the signal for extra wiring. Once installed with the cover in place, no mounting screws are visible.



Edwards recommends that these speaker-strobes always be installed in accordance with the latest recognized edition of national and local codes. Refer to installation sheet for mounting height information.

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.

Strobe Application

Genesis clear-lensed 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. UL 1638-listed colored-lensed strobe lights are available for ECS/MNS applications. Consult with your Authority Having Jurisdiction for details.

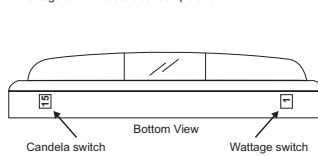
All Genesis strobes meet UL synchronization requirements (within 10 milliseconds over a two-hour period) when used with a synchronization source. Synchronization is important in order to avoid epileptic sensitivity.

Field Configuration

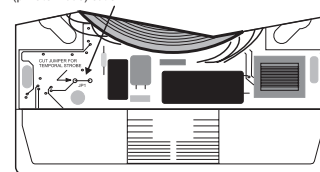
Genesis speakers may be set for 1/4, 1/2, 1, or 2 watt operation. The wattage setting is visible through a small window on the bottom of the device and is changed by simply sliding the switch until the desired setting appears in the window. The speaker does not have to be removed to change the wattage.

Genesis speaker-strobes feature selectable 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.

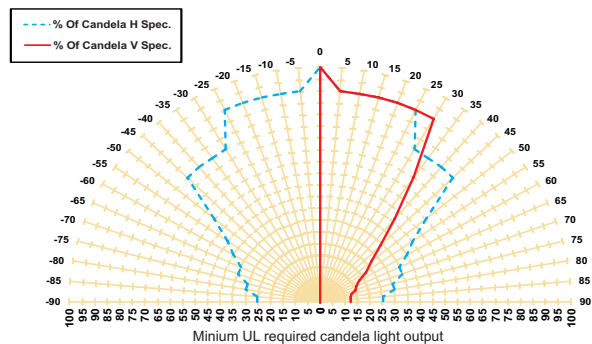
ECS/MNS Applications

Genesis ECS/MNS appliances bring the same high-performance life safety features and unobtrusive design to mass notification applications. Standard models are available with clear or amber lenses and optional ALERT housing labels, they are ideal for applications that require differentiation between life safety and mass notification alerts. Appliances with red, green or blue lenses are available. Contact Edwards Customer Service for details.



Light output

Per cent of UL rating versus angle



UL name plate maximum operating current (RMS-mA)

Cd rating	"15" or "A"	"30" or "B"	"75" or "C"	"110" or "D"
16 Vdc	96	130	239	294
16 Vfwr	120	169	329	375

Typical current, milliamps - average (RMS)

Cd rating	"15" or "A"	"30" or "B"	"75" or "C"	"110" or "D"
20 Vdc	65 (78)	93 (101)	182 (188)	238 (245)
24 Vdc	55 (65)	78 (86)	153 (159)	196 (203)
31 Vdc	45 (53)	63 (69)	120 (124)	151 (157)
20 Vfwr	56 (106)	79 (147)	147 (264)	197 (342)
24 Vfwr	50 (95)	68 (130)	121 (225)	155 (283)
27 Vfwr	44 (84)	60 (115)	107 (200)	137 (251)

Light output switch settings for UL 1971 listed models are selectable by numeric candela value. ECS/MNS appliances are selectable by A, B, C, or D designations.

Specifications

Genesis Speakers and Speaker-Strobes

Housing	Red or white textured UV stabilized, color impregnated engineered plastic.
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 ² to 2.5 mm ²) 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.

Strobes

Clear Strobe Output Rating	UL 1971, 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)
Amber Strobe Output Rating	UL 1638: 13 (D), 26 (C), 65 (B), 95 (A)
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. All strobes: Synchronization source required to comply with UL 1971 synchronization standard. Temporal setting (private mode only): synchronized to temporal output on the same circuit.
Synchronization Sources	SIGA-CC1S, SIGA-MCC1S, SIGA-CC2A, SIGA-MCC2A, G1M-RM BPS6A, BPS10A, APS6A, APS10A, iO64, iO500, Fireshield Plus 3, 5 and 10 zone.
Strobe Lens Material	Polycarbonate

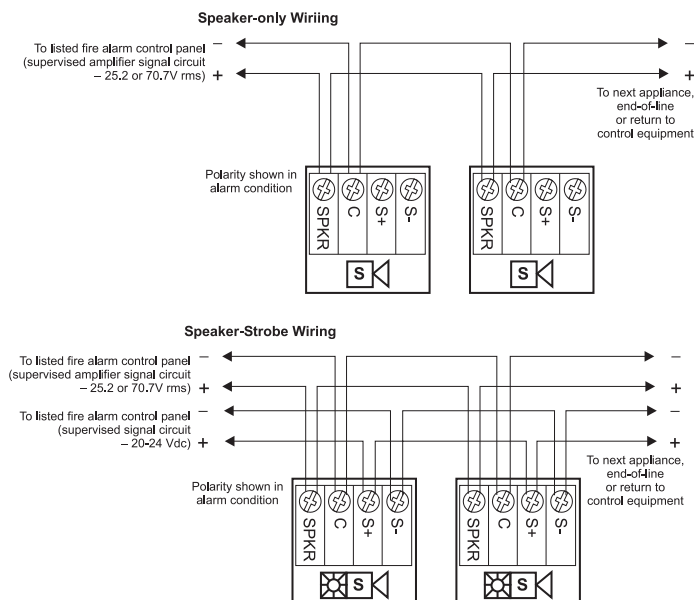
* Measured in reverberant room using 400-4,000 Hz band limited pink noise per UL 1480.

Lens Color	Rating	Switch Position A	Switch Position B	Switch Position C	Switch Position D
Amber	UL 1638	110 cd	75 cd	30 cd	15 cd
Amber	UL 1971*	88 cd	60 cd	24 cd	12 cd
Clear	UL 1971	110 cd	75 cd	30 cd	15 cd

* Equivalent Rating

Wiring

Field wiring is connected to Genesis signals with terminals that accommodate #18 to #12 AWG (0.75 mm² to 2.5 mm²) wiring.





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Ordering Information

Light output switch settings for UL 1971 listed models are selectable by numeric candela value.
ECS/MNS appliances are selectable by A, B, C, or D designations.
All speaker-strobes include field-selectable ¼, ½, 1, or 2 watt taps

Model	Housing	Marking	Lens	Strobe	Speaker	Ship Wt.
Life safety Appliances (c/w running man icon screen printed on housing)						
G4-S2	White	None	Clear	Selectable 15, 30, 75, or 110 cd	25 Volt	1.5 lbs. (0.68 kg)
G4R-S2	Red	None				
G4F-S2	White	FIRE				
G4RF-S2	Red	FIRE				
G4-S2VM	White	None				
G4R-S2VM	Red	None				
G4F-S2VM	White	FIRE		Selectable 15, 30, 75, or 110 cd	70 Volt	
G4RF-S2VM	Red	FIRE				
G4-S7	White	None				
G4R-S7	Red	None				
G4F-S7	White	FIRE				
G4RF-S7	Red	FIRE				
G4-S7VM	White	None		15/75 cd ¹		
G4R-S7VM	Red	None				
G4F-S7VM	White	FIRE				
G4RF-S7VM	Red	FIRE				
G4F-S7V1575	White	FIRE				
G4RF-S7V1575	Red	FIRE				

ECS/MNS Appliances (no running man icon on housing)							
G4WA-S2VMA	White	Alert	Amber	Selectable A, B, C or D	25 Volt	1.5 lbs. (0.68 kg)	
G4WA-S2VMC		Alert	Clear				
G4WN-S2VMA		None	Amber				
G4WN-S2VMC		None	Clear				
G4WA-S2		Alert	None				Speaker only
G4WN-S2		None	None				
G4WA-S7VMA		Alert	Amber	Selectable A, B, C or D	70 Volt		
G4WA-S7VMC		Alert	Clear				
G4WN-S7VMA		None	Amber				
G4WN-S7VMC		None	Clear				
G4WA-S7		Alert	None				Speaker only
G4WN-S7		None	None				

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	Surface mount box, white	0.7 (0.32)
G4RB	Surface mount box, red	0.7 (0.32)