



Field Configurable Ceiling Speaker -strobes

Genesis Series



Overview

Genesis life safety and mass notification/emergency communications (ECS/MNS) ceiling speaker-strobes are small, compact, and attractive audible-visible emergency signaling devices. Protruding no more than 1.6" (41 mm) from the ceiling, Genesis speaker-strobes blend with any decor.

Life safety appliances feature textured housings in architecturally neutral white or eye-catching life safety red.

Genesis 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 alerts.

Thanks to patented breakthrough technology, Edwards Genesis strobes do not require bulky specular reflectors and lenses. Instead, an exclusive cavity design conditions light to produce a highly controlled distribution pattern. FullLight strobe technology produces a smooth light distribution pattern without the spikes and voids characteristic of specular reflectors. This ensures the entire coverage area receives consistent illumination from the strobe flash.

Depending on the model, Genesis clear-lens speaker-strobes feature 15 to 95, or 95 to 177 candela output (see ordering information), which is selectable with a conveniently-located switch. The candela output setting remains clearly visible even after final installation, yet it is locked in place to prevent unauthorized movement after installation.

Standard Features

- **Field configurable – no need to remove the device!**
 - Select ¼, ½, 1, or 2 watt operation
 - 15/30/75/95 cd and 95/115/150/177 cd clear strobe lens models available
 - Switch settings remain visible *even after the unit is installed*
- **ECS/MNS models available**
 - 13/26/65/82 and 82/100/130/155 (1971 equivalent) amber lens models available
- **Unique low-profile design**
 - 30 per cent slimmer profile than comparable signals
 - Available with white or red housings
- **Unparalleled performance**
 - loud 90 dBA output ensures clear, crisp audio
 - Precision timing electronics meet tough synchronizing standards for strobes when used with compatible modules
 - 25 V_{RMS} and 70 V_{RMS} 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 for extra wire – *no extension ring or trim plate needed*
 - #18 - #12 AWG terminals – ideal for long runs, existing wiring
- **Approved for public and private mode applications**
 - UL 1971-listed as signaling devices for the hearing impaired
 - UL 1638-listed as protective visual signaling appliances
 - UL 1480-listed as life safety speaker
 - UL/ULC listed for ceiling or wall use

Strobe Application

Genesis strobes are UL 1971 or 1638 listed for indoor use. 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 over a two-hour period) when used with a synchronization source. Synchronization for multiple strobe lights in a single field of view is required.

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.

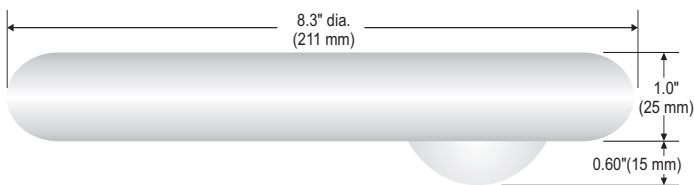
Doubling the distance from the signal to the ear will theoretically cause a 6 dB reduction in the received sound pressure level. The actual effect depends on the acoustic properties of materials in the space. Doubling the power output of a device (e.g.: a speaker from 1 W to 2 W) will increase the sound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

Combination audible/visual signals must be installed in accordance with guidelines established for strobes.

ECS/MNS Applications

Genesis ECS/MNS appliances bring the same high-performance life safety features and unobtrusive design to mass notification applications. Available as standard units with clear or amber lenses with optional ALERT markings, they are ideal for applications that require differentiation between life safety and ECS/MNS signals. Units are also available (special order) with red, blue or green lenses.

Dimensions



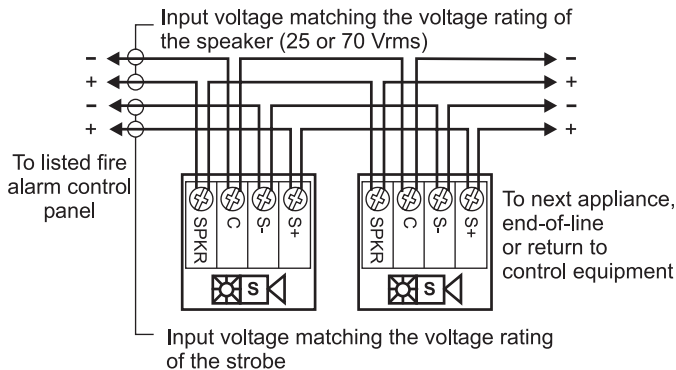
Sound Level Output

Wattage	25V		70V	
	UL Rated*	Typical	UL Rated*	Typical
¼ W	80 dBA	80.7 dBA	80 dBA	81.1 dBA
½ W	84 dBA	83.7 dBA	84 dBA	83.5 dBA
1 W	87 dBA	87.1 dBA	87 dBA	87.2 dBA
2 W	90 dBA	90.1 dBA	91 dBA	90.2 dBA

*Sound level output notes: dBA = Decibels, A-weighted. **UL1480:** Sound level output at 10 ft (3.05 m) measured in a reverberant room using 400 to 4,000 Hz band limited pink noise. **ULC-S541:** Meets or exceeds 85 dBA in an anechoic chamber at 10 ft (3.05 m). **Directional characteristics:** Within 6 dB of on-axis sound level when measured 90° off-axis (horizontal).

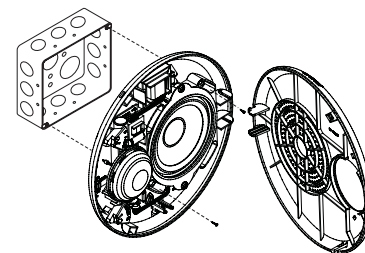
Wiring

Field wiring terminals accommodate #18 to #12 AWG (0.75 mm² to 2.5 mm²) wiring.

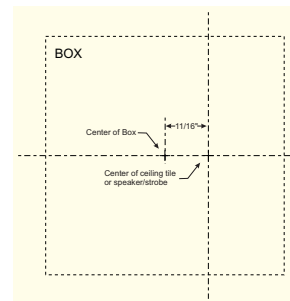


Installation and Mounting

All models are intended for indoor ceiling or wall applications only. Speaker-strobes are mounted to a flush North-American 4" square electrical box, 2 1/8" (54 mm) deep.



Genesis ceiling speaker-strobes simply unclatch and hinge down to open. This gains access to mounting screws and the selectable candela wattage tap switches. 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.

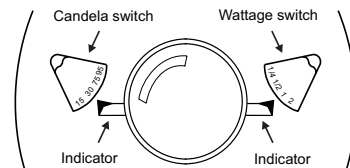


Installation Note:

When installed, these devices are not centered on the electrical box. Make sure boxes are mounted to compensate for this difference. Use the mounting template provided with installation sheet 3100614.

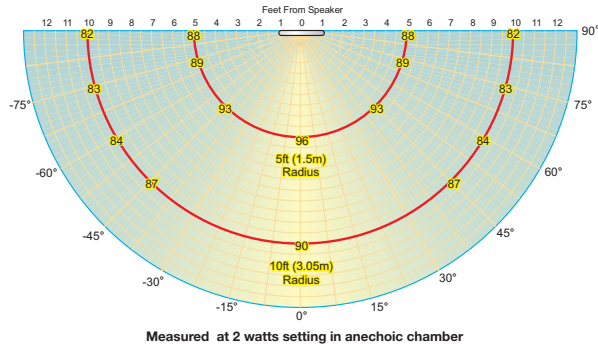
Field Configuration

Genesis ceiling speaker-strobes may be set for ¼, ½, 1, or 2 watt operation. Depending on the model, Genesis ceiling speaker-strobes have multi-candela output (see ordering information).

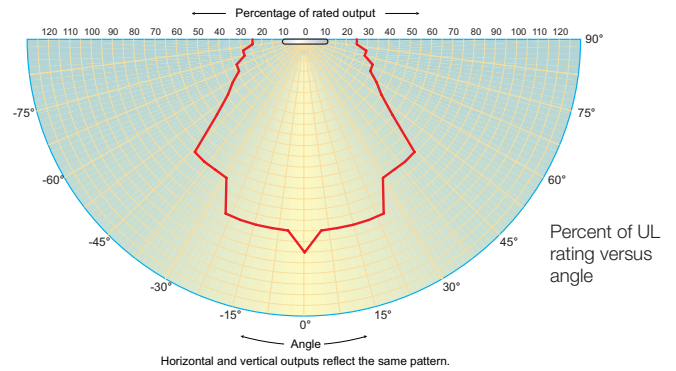


Output settings are changed by simply opening the device and sliding the switches to the desired settings. The speaker-strobe does not have to be removed to change the output settings. The settings remain visible through small windows on the front of the device after the cover is closed.

Typical Sound Output (dBA)



Light output - (effective cd)



Current Draw

UL Nameplate Rating

See note 1	"15" or "D"	"30" or "C"	"75" or "B"	"95" or "A"
	RMS	RMS	RMS	RMS
16 Vdc	109	151	281	318
16 Vfwr	131	194	379	437

Typical Current

See note 1	"15" or "D"	"30" or "C"	"75" or "B"	"95" or "A"
	RMS	RMS	RMS	RMS
16 Vdc	94	140	273	325
20 Vdc	74	108	205	244
24 Vdc	63	90	168	194
33 Vdc	48	70	124	139
16 Vfwr	126	187	368	403
20 Vfwr	108	156	281	333
24 Vfwr	97	139	240	270
33 Vfwr	89	119	197	214

UL Nameplate Rating (high cd output models)

"95" or "D"	"115" or "C"	"150" or "B"	"177" or "A"
RMS	RMS	RMS	RMS
330	392	502	565
432	518	643	693

Typical Current (high cd output models)

95 cd	115 cd	150 cd	177 cd
RMS	RMS	RMS	RMS
333	392	499	551
259	303	378	429
212	245	306	342
155	180	211	236
484	570	673	724
380	438	537	604
318	361	434	484
245	269	308	338

Notes

- 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.
- Current values are shown in mA.

Specifications

Housing	Textured UV stabilized, color impregnated engineered plastic. Exceeds 94V-0 UL flammability rating. Red and white models available.
Mounting	Flush mount to North American 4-inch square electrical box, 2-1/8 (54 mm) inches deep, or 960A-4RF round flush box. No extension ring required. Suitable for indoor wall or ceiling applications.
Wire connections	Screw terminals: polarized inputs for speaker, #18 to #12 AWG (0.75 mm ² to 2.5 mm ²) wire size
Operating environment	Indoor: 32-120° F (0-49° C) ambient temperature; 0-93% relative humidity.
Agency listings/approvals	Meets ULC-S541, year 2004 UL requirements for standards UL1638 and UL1971, FM, MEA, CSFM, and complies with UL1480 Fifth Edition. All speaker-strobes comply with ADA Code of Federal Regulation Chapter 28 Part 36 Final Rule.
Speaker	
Input/Operating Volts	25 Vrms (Model GC-S2VM) or 70 Vrms (Model GC-S7VM).

Strobe	
Strobe output rating	UL 1971, UL 1638, ULC S526: selectable 15/30/75/95 cd (VM models) and 95/115/150/177 cd (VMH models)
Strobe operating voltage	GC-S2VM/-S7VM series speaker-strobes: non-coded, filtered 16-33 Vdc or unfiltered 16-33 Vdc FWR
Strobe flash rate	GC-S2VM/-S7VM series speaker-strobes: one flash per second synchronized with optional G1M Genesis Signal Master indefinitely within 10 milliseconds. Temporal setting (private mode only): synchronized to temporal output of Genesis audible signals on same circuit
Synchronization	Meets or exceeds UL 1971 requirements. Maximum allowed resistance between any two devices is 20 Ohms. Refer to specifications for the synchronization control module, this strobe, and the control panel to determine allowed wire resistance.
Synchronization Sources	SIGA-CC1S, SIGA-MCC1S, SIGA-CC2A, SIGA-MCC2A, G1M-RM BPS6A, BPS10A, APS6A, APS10A, iO64, iO500, Firesield Plus 3, 5 and 10 zone.
Lens	Optical grade polycarbonate



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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.

Model	Housing	Marking	Lens	Strobe	Speaker	Ship Wt.
Life safety Appliances (c/w running man icon screen printed on housing)						
GC-S2VM	White	None	Clear	Selectable 15, 30, 75, or 95 cd	25 Volt	2.25 lb. (1.0 kg.)
GCF-S2VM	White	FIRE		Selectable High Output 95, 115, 150, or 177 cd		
GC-S2VMH	White	None		70 Volt	Selectable 15, 30, 75, or 95 cd	
GCF-S2VMH	White	FIRE				
GC-S7VM	White	None		70 Volt	Selectable High Output 95, 115, 150, or 177 cd	
GCF-S7VM	White	FIRE				
GCFR-S7VM	Red	FIRE				
GC-S7VMH	White	None				
GCF-S7VMH	White	FIRE				

ECS/MNS Appliances (no running man icon on housing)						
GCWA-S2VMA	White	ALERT	Amber	Selectable A, B, C or D	25 Volt	2.25 lb. (1.0 kg.)
GCWA-S2VMC		ALERT	Clear			
GCWN-S2VMA		NONE	Amber			
GCWN-S2VMC		None	Clear			
GCWA-S2VMHA		ALERT	Amber	Selectable High Output A, B, C or D		
GCWA-S2VMHC		ALERT	Clear			
GCWN-S2VMHA		None	Amber			
GCWN-S2VMHC		None	Clear			
GCWA-S7VMA		ALERT	Amber	Selectable A, B, C or D	70 Volt	
GCWA-S7VMC		ALERT	Clear			
GCWN-S7VMA		None	Amber			
GCWN-S7VMC		None	Clear			
GCWA-S7VMHA		ALERT	Amber	Selectable High Output A, B, C or D		
GCWA-S7VMHC		ALERT	Clear			
GCWN-S7VMHA		None	Amber			
GCWN-S7VMHC		None	Clear			

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)

All speaker-strobes include field-selectable ¼, ½, 1, or 2 watt taps

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.

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

