



Genesis High Candela Ceiling Horn-Strobe Installation Sheet

Description

The Genesis High Candela Ceiling Horn-Strobe is a fire alarm notification appliance designed for indoor ceilings and walls. See Table 1 for a list of model numbers.

Table 1: Models

Description	Number	
Horn-strobe, 95 to 177 multi-cd, white	ADTGC-HDVMH	MGC-HDVMH
	EGC-HDVMH	XLSGC-HDVMH
	GC-HDVMH	ZGC-HDVMH
Horn-strobe, 95 to 177 multi-cd, white, with FIRE marking	ADTGCF-HDVMH	MGCF-HDVMH
	EGCF-HDVMH	XLSGCF-HDVMH
	GCF-HDVMH	ZGCF-HDVMH

Field configurable jumper options are available for selecting the desired dB output, temporal or steady horn output, and strobe signal output.

The horn-strobe includes a field configurable switch for selecting the desired candela output. The candela output setting is locked in place and remains visible after final installation.

This strobe features an enhanced synchronization circuit to comply with the latest requirements of UL 1971 *Signaling Devices for the Hearing Impaired* and the latest Canadian standard CAN/ULC-S526. Synchronized operation requires a separately installed synchronization control module. See Table 2 for a list of compatible synchronization modules.

Install this device in accordance with applicable requirements in the latest editions of the NFPA codes and standards and *Canadian Electrical Code, Part 1, Section 32* and CAN/ULC-S524, *Standard for the Installation of Fire Alarm Systems*, and in accordance with the local authorities having jurisdiction.

Table 2: Compatible synchronization module models

Model name	Number	
Auto-Sync Output Module	SIGA-CC1S	SIGA-MCC1S
	GSA-CC1S	GSA-MCC1S
Genesis Signal Master - Remote Mount	ADTG1M-RM	MG1M-RM
	EG1M-RM	XLSG1M-RM
	G1M-RM	ZG1M-RM

Installation

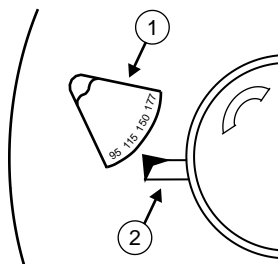
WARNING: To reduce the risk of shock, disconnect all power and allow 10 minutes for stored energy to dissipate before handling.

Caution: Electrical supervision requires the wire run to be broken at each terminal. Do not loop the signaling circuit field wires around the terminals.

To install the horn-strobe:

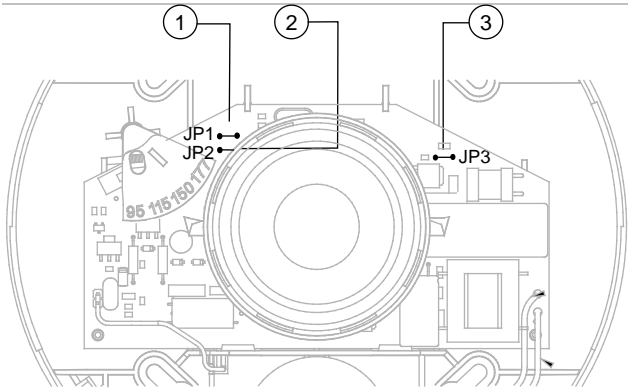
1. Remove the cover by depressing the tab on the side of the unit with a small screwdriver. Turn the cover counterclockwise to release.
2. Set the horn signal, sound output level, and strobe signal to the desired settings. See Figure 2.
3. Connect the strobe terminals to the signal circuit field wiring. You must observe polarity for the unit to function properly. See Figure 4.
4. Slide the candela switch to the desired candela output (95, 115, 150, or 177 cd) by aligning it with the indicator below the switch. See Figure 1.
5. Mount the unit onto a compatible electrical box. See Figure 5.
6. Replace the cover by positioning the alignment arrows together and rotating the cover clockwise.
7. Test the unit for proper operation.

Figure 1: Candela switch



1. Candela switch
2. Indicator

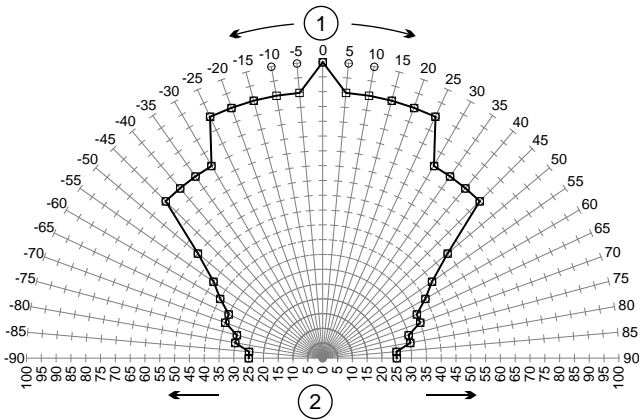
Figure 2: Horn and strobe settings



1. JP1: Horn signal jumper: Cut to change from temporal to steady
2. JP2: Strobe signal output: Cut to change from 1 flash per second (public mode) to temporal (private mode)
3. JP3: Horn sound output: Cut to change from high dB to low dB

Note: If the strobe is set to temporal (private mode), this device is no longer UL 1971 or ULC-S526 Listed or FM Approved but is UL 1638 Listed.

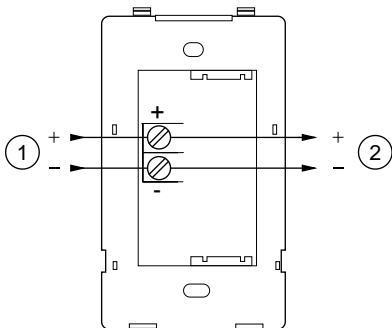
Figure 3: UL 1971 minimum light output (% of rating vs. angle)



1. Angle
 2. Percentage of rated output
- Note: Horizontal and vertical outputs have the same pattern

Wiring

Figure 4: Wiring diagram



1. From NAC output
 2. To next device
- Note: Signal polarity is shown in the alarm condition.

Figure 5: Mounting diagram

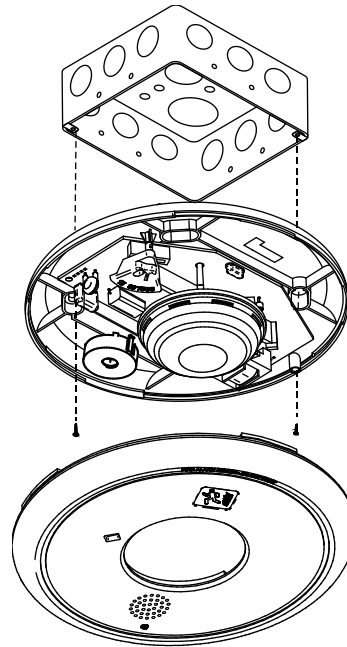


Table 3: Strobe operating current in RMS (A)

	95 cd	115 cd	150 cd	177 cd
VDC	0.341	0.406	0.506	0.570
VFWR	0.487	0.578	0.670	0.730

VDC = Volts direct current, regulated and filtered

VFWR = Volts full wave rectified

Operating currents shown above were measured by UL at 16 VDC and 16 VFWR.

Table 4: Sound level output (dBA)

Signal	VDC	High db	Low db
Temporal	16	79.8	75.0
	24	83.3	78.0
	33	85.0	80.9
Steady	16	83.2	79.3
	24	85.4	83.0
	33	87.8	85.9

UL464: Sound level output at 10 ft. (3.05 m) measured in a reverberant room.

Table 5: Minimum sound level output per ULC-S525 (dBA, peak)

Signal	Voltage	High db	Low db
Temporal	Reg. 24 VDC	91	89
	Reg. 24 VFWR	96	93
Steady	Reg. 24 VDC	93	89
	Reg. 24 VFWR	96	93

ULC-S525: Meets or exceeds 85 dBA in an anechoic chamber at 10 ft. (3.05 m).

Table 6: Audible directional characteristics (horizontal pattern)

Angle (°) [1]	Sound output (dBA) [2]
90 (Ref)	0 (Ref)
75 and 115	-3
70 and 120	-6

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

[2] Peak output at regulated 24 VDC, set for temporal tone.

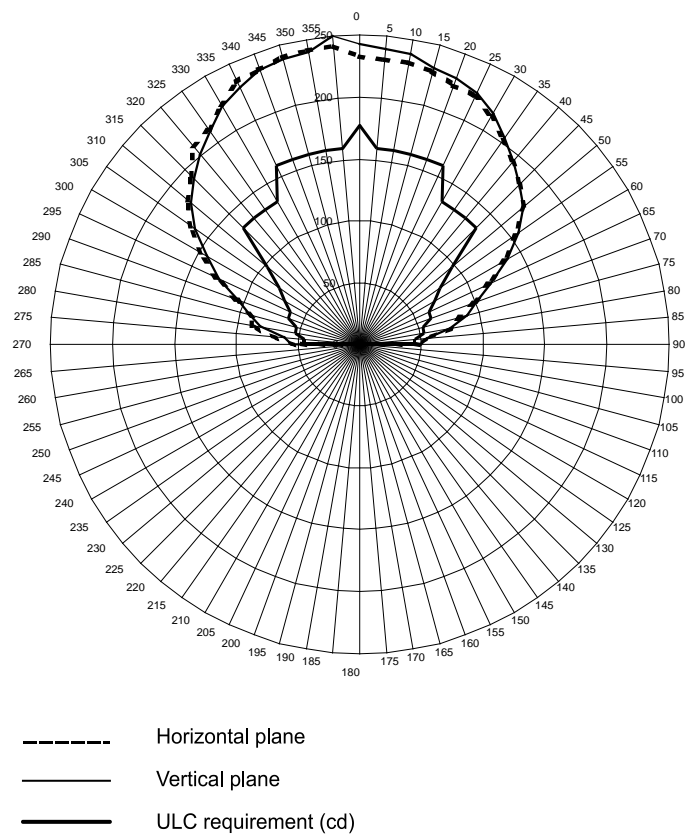
Table 7: Audible directional characteristics (vertical pattern)

Angle (°) [1]	Sound output (dBA) [2]
90 (Ref)	0 (Ref)
65 and 135	-3
55 and 140	-6

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

[2] Peak output at 24 regulated VDC, set for temporal tone.

Figure 6: Light output profile



Maintenance

Do not change the factory-applied finish.

Specifications

Voltage	16 to 33 VDC and 16 to 33 VFWR
Strobe operating current	See Table 3
Light output	Selectable at 95, 115, 150, and 177 cd
Sound level output	See Table 4
Default settings	
Signal	Temporal
Sound level	High dB
output	1 flash per second (fps)
Strobe signal output	
Wire size	12 to 18 AWG (0.75 TO 2.50 mm ²)
Compatible electrical boxes	North American 4 in. square electrical box, 2-1/8 in. deep (no extension ring)
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

Regulatory information

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA
Year of manufacture	The first two digits of the DATE MFG number (located on the product identification label) are the year of manufacture
UL/ULC rating	Regulated 24 DC, regulated 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.
Environmental class	UL: Indoor
Synchronization	Meets UL 1971 requirements. Maximum allowed resistance between any two devices is 20 Ω . Refer to specifications for the synchronization control module, this strobe, and the control panel to determine allowed wire resistance.
Agency listings	Meets ULC-S525. ULC-S526 UL 464, UL 1638, and UL 1971

Contact information

For contact information, see www.edwardsutcfs.com.