

Genesis Low Frequency (520 Hz) Horn-Strobe Installation Sheet

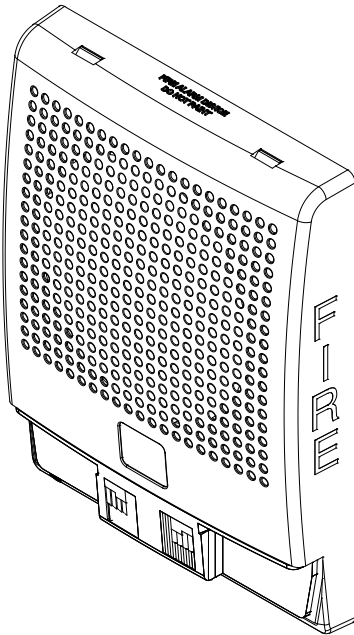


Table 1: Models

Description	Number
Low frequency (520 Hz) horn, white housing, no FIRE marking, standard output clear strobe light	G4LFWN-HVM
Low frequency (520 Hz) horn, white housing, with FIRE marking, standard output clear strobe light	G4LFWF-HVM
Low frequency (520 Hz) horn, red housing, no FIRE marking, standard output clear strobe light	G4LFRN-HVM
Low frequency (520 Hz) horn, red housing, with FIRE marking, standard output clear strobe light	G4LFRF-HVM
Surface wall mount box, white housing	G4B
Surface wall mount box, red housing	G4RB

This strobe features an enhanced synchronization circuit to comply with the latest requirements of UL 1971. Synchronized operation requires a separately installed synchronization device. See the control panel or power supply compatibility list for compatible synchronization devices.

Description

The Genesis Low Frequency (520 Hz) Horn-Strobe can be used for applications where a low frequency alarm notification appliance with strobe light output is required. The device is designed for wall mounting and indoor use only. See Table 1 for a list of model numbers.

When this device is used as a low frequency sounder in sleeping quarters, the strobe's candela switch (Figure 1) must be set to 110 cd.

The horn-strobe includes field-configurable jumper options for selecting:

- Temporal or steady horn output
- Low dB or high dB output
- Temporal or continuous pattern strobe

The horn-strobe also includes a field-configurable switch for setting the strobe candela level. This setting is locked in place and is visible after final installation.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

The horn-strobe should be mounted so that the entire lens is not less than 80 in. (2.03 m) and not greater than 96 in. (2.44 m) above the finished floor. The entire lens should also be 24 in. (61 cm) or more from the finished ceiling.

WARNING: Electrocutation hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

Note: Electrical supervision requires that you break the wire run at each terminal. Do not loop wires around the terminals.

To install the horn-strobe:

1. Remove the cover by using a screwdriver to depress and slightly twist both tabs on top of the unit.
2. Set the horn signal, sound output level, and strobe signal to the desired settings. See Figure 1.

To change the horn output level from high dB to low dB, cut jumper JP3.

To change the horn signal from temporal to steady, cut jumper JP2.

To change the strobe pattern from continuous to temporal (private mode), cut jumper JP1.

3. Set the candela output.

Slide the candela switch to the desired candela output by aligning it with the indicator notch below the switch. See Figure 1.

4. Mount the horn-strobe as follows.

Note: Route the signal circuit field wiring through the cutout in the center of the horn-strobe.

Flush mount: Mount the horn-strobe and flush mount spacer onto a compatible electrical box (Figure 2), making sure not to overtighten the mounting screws. See "Specifications" for compatible electrical boxes.

Surface mount: Mount the G4B or G4RB surface mount box on the wall (Figure 3), and then secure the appliance to the box using the fasteners provided with the box.

5. Connect the signal circuit field wiring to the horn-strobe terminals (Figure 4). Observe polarity for the unit to function properly.
6. Replace the cover by aligning it at the bottom, and then snapping it in at the top.
7. Test the unit for proper operation.

Maintenance

Caution: To maintain the required agency listings, do not change factory-applied finishes.

This unit is not serviceable or repairable. Should the unit fail to operate, contact the supplier for a replacement.

Perform a visual inspection and an operational test twice a year or as directed by the local authority having jurisdiction.

Figure 1: Horn-strobe settings

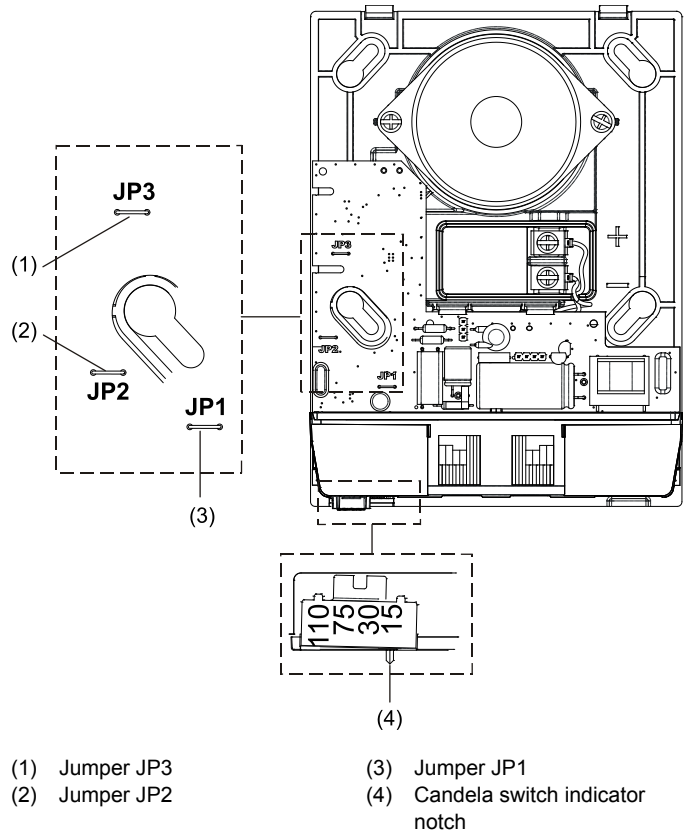


Figure 2: Flush mount

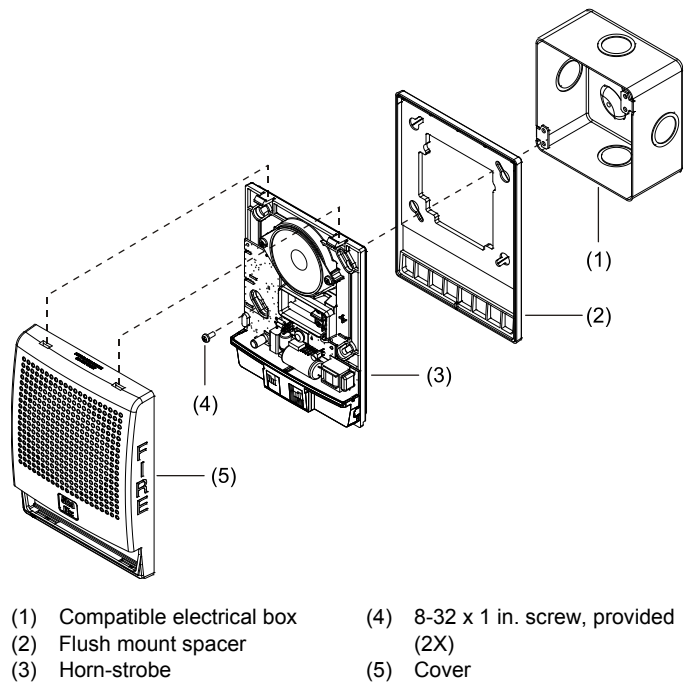


Figure 3: Surface mount

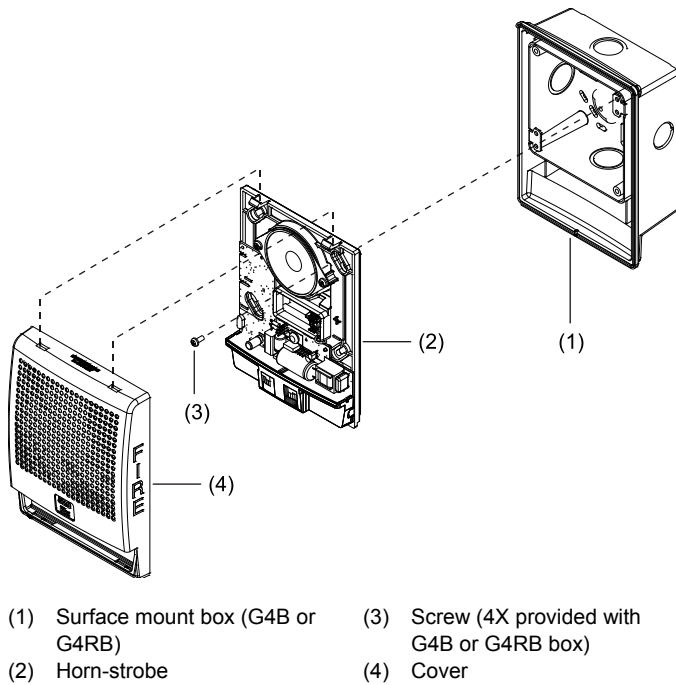
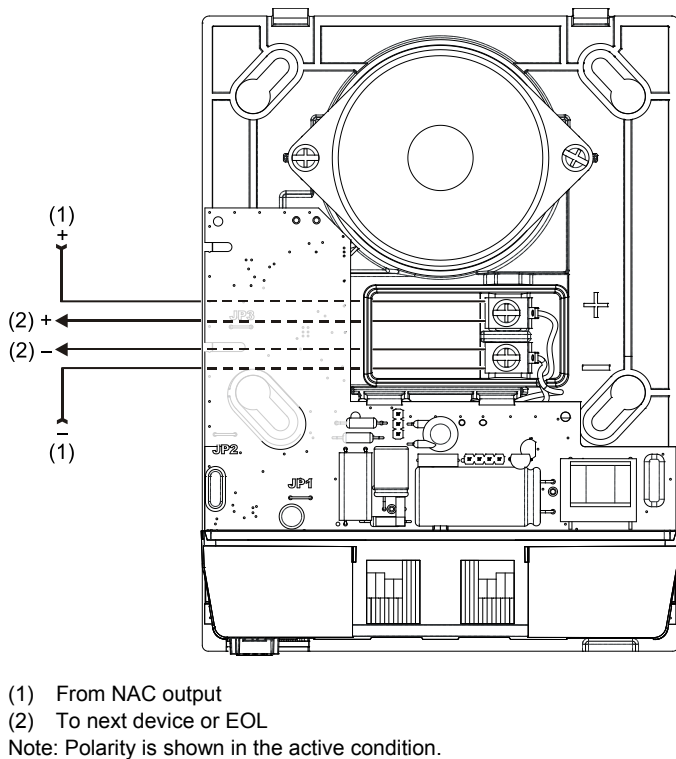


Figure 4: Wiring diagram



(1) From NAC output
 (2) To next device or EOL
 Note: Polarity is shown in the active condition.

Specifications

Operating voltage	24 VDC or 24 VFWR [1]
Operating horn-strobe current	See Table 6
Sound level output	See Table 2 and Table 3
Audible directional characteristics	See Table 4 and Table 5
Light output	Selectable at 15, 30, 75, and 110 cd (see Figure 5, Figure 6, and Figure 7) [2]
Synchronization	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.
Default settings	1 flash per second (fps)
Wire size	12 to 18 AWG (1.0 to 4.0 mm ²)
Compatible electrical boxes	Standard 4 in. square box 1-1/2 in. (38 mm), 2-1/8 in. (54 mm) deep, or G4B/G4RB surface mount box
Operating environment	Temperature 32 to 120°F (0 to 49°C) Relative humidity 0 to 93% noncondensing

[1] 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.

[2] When this device is used as a low frequency sounder in sleeping quarters, the strobe's candela switch (Figure 1) must be set to 110 cd.

Table 2: UL sound level output (dBA) [1]

Signal and voltage	Low	High	
Temporal	16 VDC	72.4	76.0
	24 VDC	72.3	75.7
	33 VDC	73.3	75.4
Continuous	16 VDC	75.7	79.8
	24 VDC	76.1	78.6
	33 VDC	75.4	78.8

[1] UL 464: Sound level output at 10 ft. (3.05 m) measured in a reverberant room.

Table 3: Nominal sound level output (dBA, temporal tone) [1]

Voltage	Low	High
16 VDC	84.0	85.5
24 VDC	83.9	85.4
33 VDC	83.7	85.5
16 VFWR	83.7	86.1
24 VFWR	83.9	85.9
33 VFWR	84.0	85.9

[1] Measured in an anechoic chamber at 10 ft. (3.05 m).

Table 4: Audible directional characteristics (horizontal pattern)

Angle (°) [1]	Output (dB) [2]
0	85
+90	82
-90	82

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

[2] Peak output at 16 VDC, set for steady tone.

Table 5: Audible directional characteristics (vertical pattern)

Angle (°) [1]	Output (dB) [2]
0	85
+90	82
-90	82

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

[2] Peak output at 16 VDC, set for steady tone.

Table 6: Nominal operating horn-strobe current in RMS (mA)

Voltage	Strobe output (cd)			
	15	30	75	110
Temporal				
16 VDC	219	266	381	437
16 VFWR	308	362	510	579
24 VDC	151	176	243	278
24 VFWR	228	258	349	395
33 VDC	112	132	177	199
33 VFWR	186	208	267	291
Continuous				
16 VDC	221	258	371	433
16 VFWR	305	358	514	576
24 VDC	147	171	239	274
24 VFWR	211	247	335	377
33 VDC	110	129	175	196
33 VFWR	178	199	257	287

VDC = Volts direct current, regulated and filtered

VFWR = Volts full wave rectified

Figure 5: UL 1971 minimum light output (% of rating vs. angle)

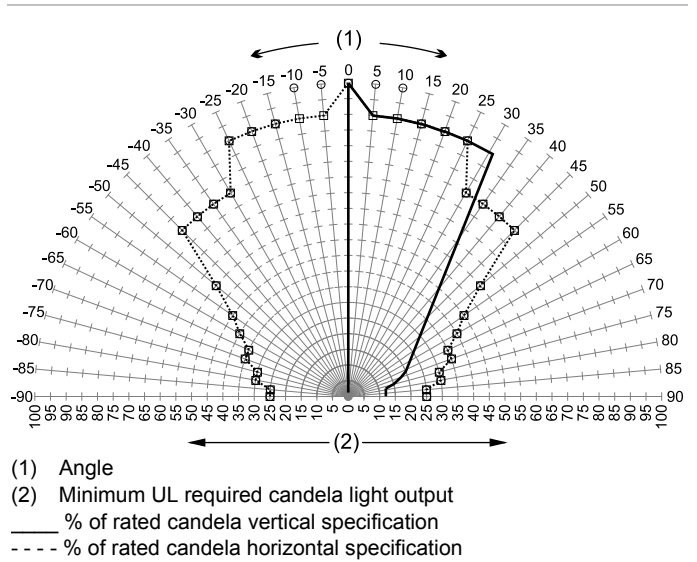


Figure 6: Typical horizontal light output profile, 110 cd setting

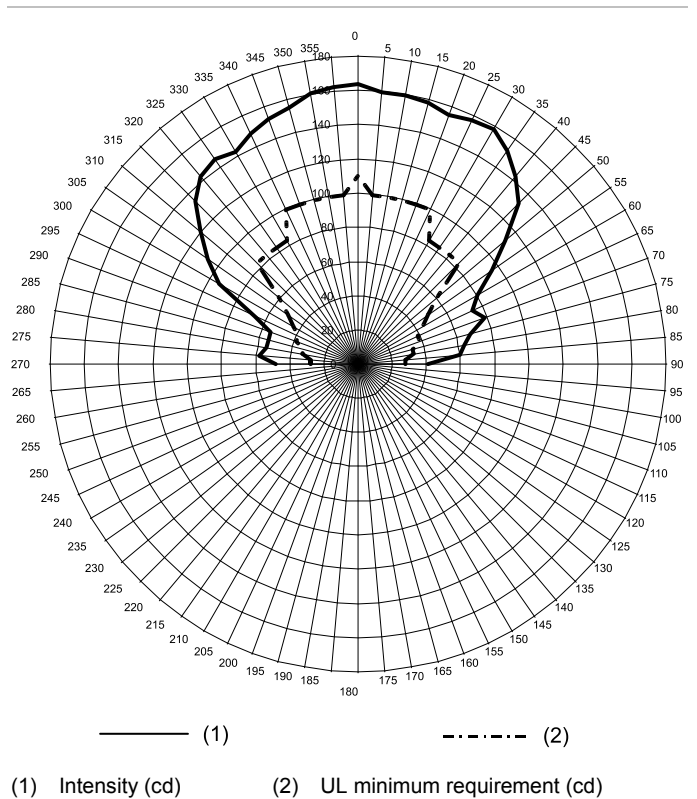
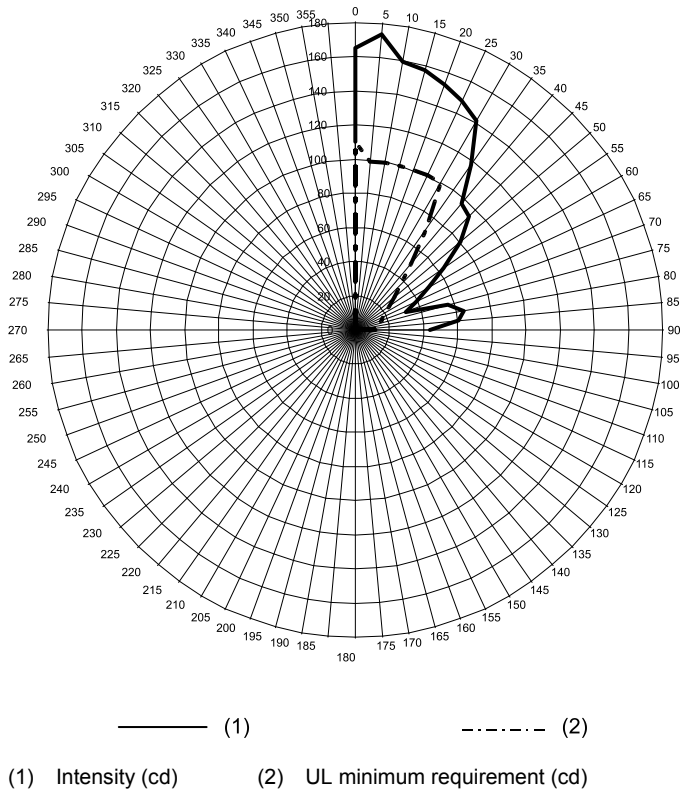


Figure 7: Typical vertical light output profile, 110 cd setting



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 code (located on the product identification label) are the year of manufacture.
UL rating	Regulated 24 DC and 24 FWR
North American standards	Meets UL requirements for standards UL 464, UL 1638, and UL 1971

Contact information

For contact information, see www.edwardsutcfs.com.

