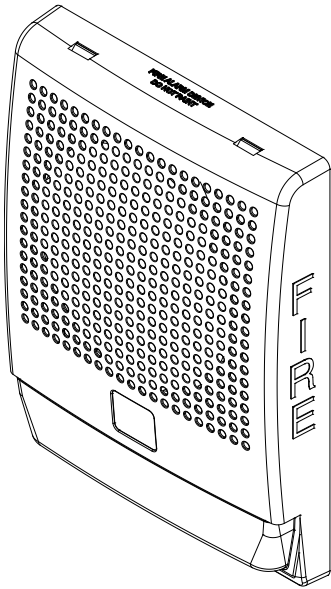


# Genesis Low Frequency (520 Hz) Horn Installation Sheet



## Description

The Genesis Low Frequency (520 Hz) horn can be used for applications where a low frequency alarm notification appliance is required. The device is designed for indoor use only and can be mounted on the wall or ceiling. See Table 1 for a list of model numbers.

The horn includes field-configurable jumper options for selecting:

- Temporal or steady horn output
- High dB or low dB output

**Table 1: Models**

Description	Number
Low frequency (520 Hz) horn, white housing, no FIRE marking	G4LFWN-H
Low frequency (520 Hz) horn, white housing, with FIRE marking	G4LFWF-H
Low frequency (520 Hz) horn, red housing, no FIRE marking	G4LFRN-H
Low frequency (520 Hz) horn, red housing, with FIRE marking	G4LFRF-H
Surface mount box, white housing	G4B
Surface mount box, red housing	G4RB

## Installation

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

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

### To install the horn:

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 and sound output level to 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.

3. Mount the horn as follows.

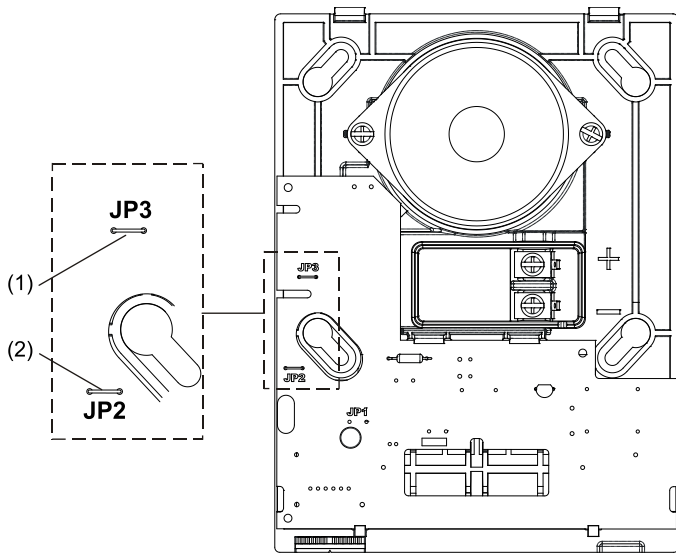
**Note:** Route the signal circuit field wiring through the cutout in the center of the horn.

**Flush mount:** Mount the horn 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 or ceiling (Figure 3), and then secure the appliance to the box using the screws provided with the box.

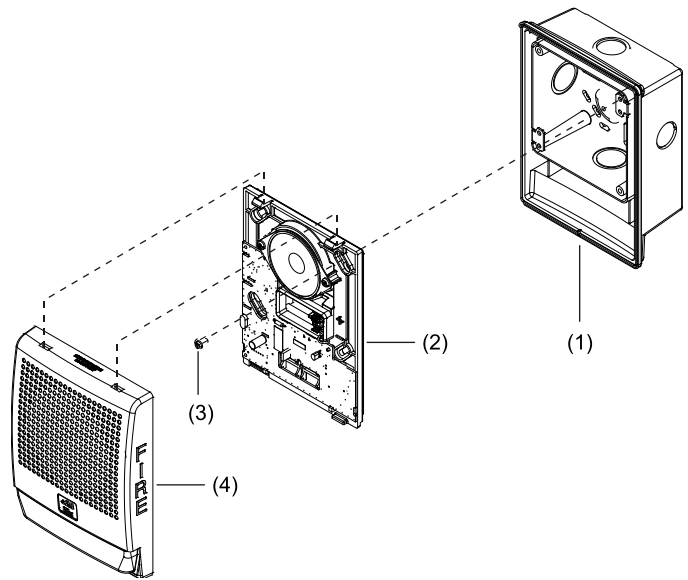
4. Connect the signal circuit field wiring to the horn terminals (Figure 4). Observe polarity for the unit to function properly.
5. Replace the cover by aligning it at the bottom, and then snapping it in at the top (Figure 2 and Figure 3).
6. Test the unit for proper operation.

Figure 1: Horn settings



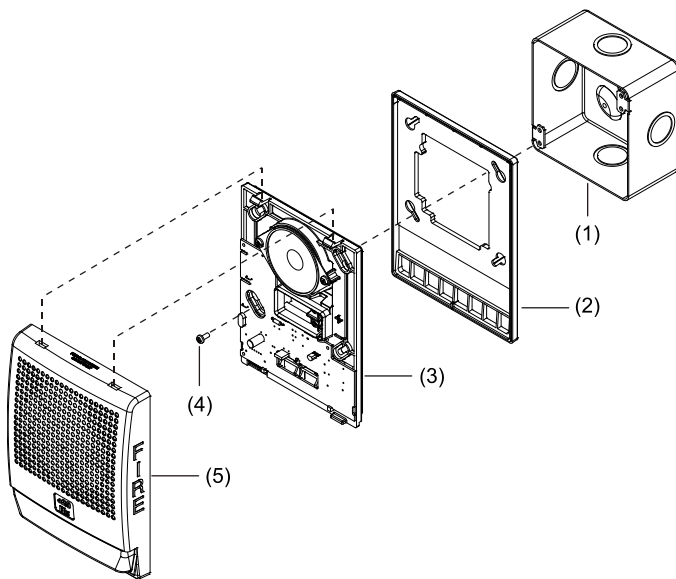
- (1) Jumper JP3
- (2) Jumper JP2

Figure 3: Surface mount



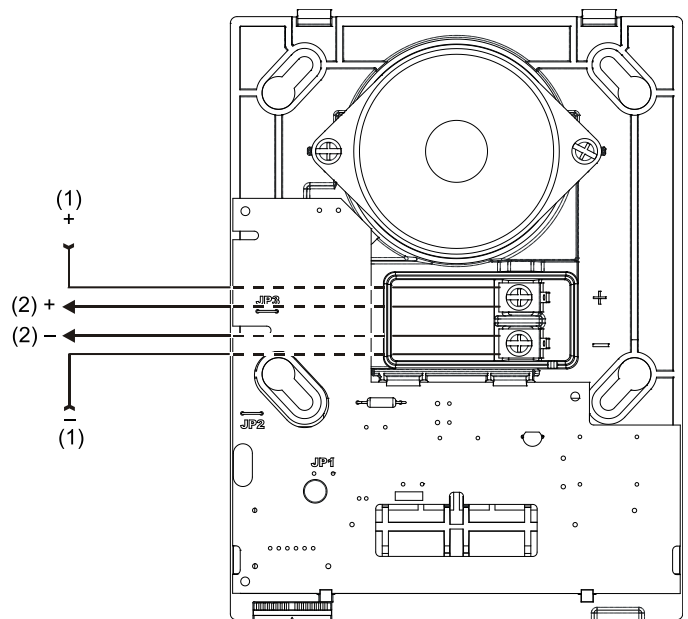
- (1) Surface mount box (G4B or G4RB)
- (2) Horn
- (3) Screw 4X (provided with G4B or G4RB box)
- (4) Cover

Figure 2: Flush mount



- (1) Compatible electrical box
- (2) Flush mount spacer
- (3) Horn
- (4) 8-32 x 1 in. screw 2X (provided)
- (5) Cover

Figure 4: Wiring diagram



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

## 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.

## Specifications

Operating voltage	24 VDC or 24 VFWR [1]
Current	
Alarm	166 mA at 16 VDC, 215 mA at 16 VFWR
Operating	See Table 4
Sound level output	See Table 2 and Table 3
Audible directional characteristics	See Table 5 and Table 6
Wire size	12 to 18 AWG (1.0 to 4.0 mm <sup>2</sup> )
Compatible electrical boxes	Standard 4 in. square box 1-1/2 in. (38 mm), 2-1/8 in. (54 mm) deep box, 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.

**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: Nominal operating current in RMS (mA)**

Signal and voltage	Low	High	
Temporal	16 VDC	86	166
	24 VDC	43	112
	33 VDC	36	87
	16 VFWR	97	215
	24 VFWR	78	159
	33 VFWR	76	140
Continuous	16 VDC	36	160
	24 VDC	45	109
	33 VDC	36	86
	16 VFWR	92	212
	24 VFWR	80	168
	33 VFWR	77	141

VDC = Volts direct current, regulated and filtered

VFWR = Volts full wave rectified

**Table 5: 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 6: 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.

## 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	Regulated 24 DC and 24 FWR
North American standards	UL 464

## Contact information

For contact information, see [www.edwardsutcfs.com](http://www.edwardsutcfs.com).

