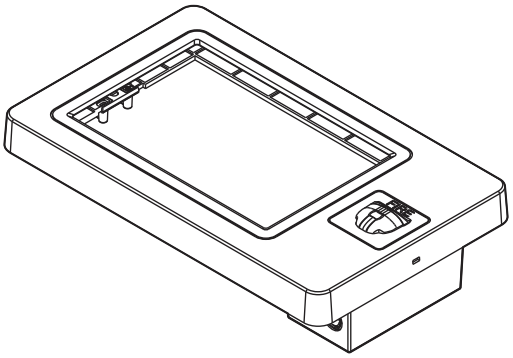
Genesis LED EN54 Strobe Expander Installation Sheet



Description

Genesis LED EN54 strobe expanders add a synchronized visual alarm device (VAD) to compatible loudspeakers. Genesis LED EN54 strobe expanders may be surface mounted (on wall) or semiflush mounted (in wall).

Note: Synchronized operation requires a separately installed synchronization device. See the control unit or power supply compatibility list for compatible synchronization devices.

Genesis LED EN54 strobe expanders consist of a wiring plate and pre-attached conduit adaptor, and a strobe. Loudspeakers are ordered separately.

This document provides installation instructions for the Genesis LED EN54 strobe expander models listed in Table 1 below.

Table 1: Models

Number	Description
GSEFT-E	Strobe expander, white, FIRE, vertical, strobe top
GSEFB-E	Strobe expander, white, FIRE, vertical, strobe bottom
GSEFL-E	Strobe expander, white, FIRE, horizontal, strobe left
GSEFR-E	Strobe expander, white, FIRE, horizontal, strobe right
GSENT-E	Strobe expander, white, none, vertical, strobe top
GSENB-E	Strobe expander, white, none, vertical, strobe bottom
GSENL-E	Strobe expander, white, none, horizontal, strobe left
GSENR-E	Strobe expander, white, none, horizontal, strobe right

Installation

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

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

Notes:

- The loudspeaker remains attached to its backbox by way of a safety lanyard and speaker wires. Be careful not to disconnect any of the speaker wires.
- You may need to pull the field wiring into the loudspeaker backbox and into the wiring plate's conduit adapter before securing the assembly to the wall.

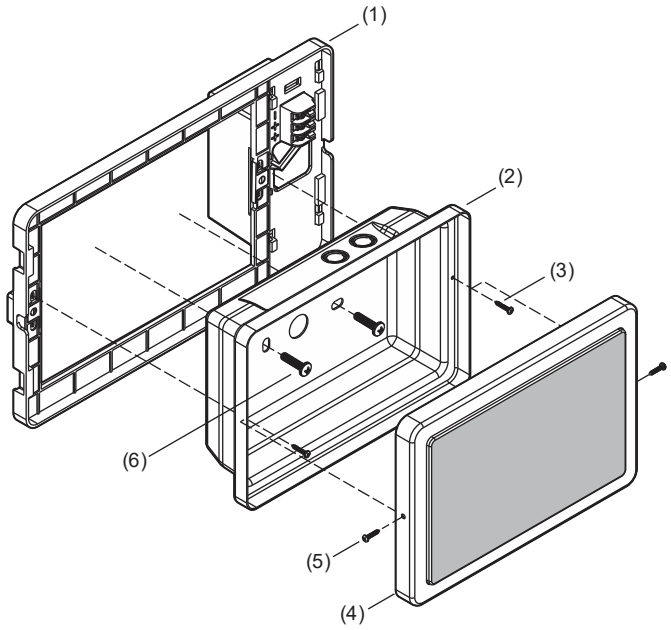
To surface mount the loudspeaker and strobe expander:

1. Open the loudspeaker by removing the two screws on the sides of the loudspeaker. See Figure 1, item 5.
2. Attach the loudspeaker to the wiring plate. See Figure 1, item 3.
3. Screw the loudspeaker backbox to the wall surface. See Figure 1, item 6.
4. Pull the speaker circuit wires into the loudspeaker backbox.

   Connect the wires to the terminal block, and then select the speaker's power tap. Refer to the loudspeaker's installation instructions.
5. Secure the loudspeaker to the backbox.
6. Pull the strobe circuit wires into the conduit adapter attached to the back of the wiring plate and through the opening.

   Connect the wires to the terminal block. See Figure 4.
7. Plug the strobe expander into the wiring plate. See Figure 3.

Figure 1: Typical surface mount installation



(1) Wiring plate
(2) Loudspeaker backbox
(3) Backbox screw (2X)
(4) Loudspeaker
(5) Loudspeaker screw (2X)
(6) Wall screw (2X)

Note: If lost, replace backbox screws with M2.9 × 16 sheet metal screws.

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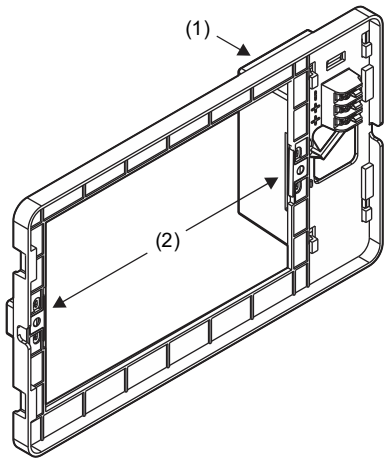
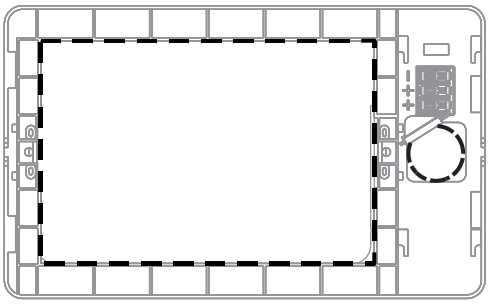
To semiflush mount the loudspeaker and strobe expander:

1. Remove the conduit adapter (1) and the screw clips (2) from the wiring plate.



2. At the proper mounting location, hold the wiring plate against the finished wall surface, mark and then cut the drywall where indicated in the figure below.

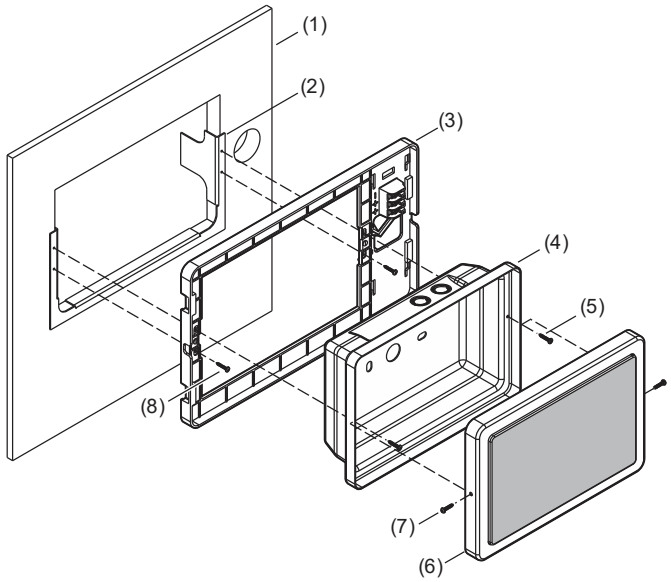
   Make the round cut only large enough to pull the strobe field wires through.



3. Set the drywall frame onto the drywall opening, and then using the two wiring plate screws (Figure 2, item 8), attach the wiring plate to the drywall frame.
4. Open the loudspeaker by removing the two screws on the sides of the loudspeaker (Figure 2, item 7), and then insert the loudspeaker backbox into the wall opening.
5. Using the two backbox screws (Figure 2, item 5), attach the backbox to the drywall frame.
6. Pull the speaker circuit wires into the loudspeaker backbox.

   Connect the wires to the terminal block, and then select the speaker's power tap. Refer to the loudspeaker's installation instructions.
7. Secure the loudspeaker to the backbox.
8. Pull the strobe circuit wires into through the round opening, and then connect the wires to the terminal block. See Figure 4.
9. Plug the strobe expander into the wiring plate. See Figure 3.

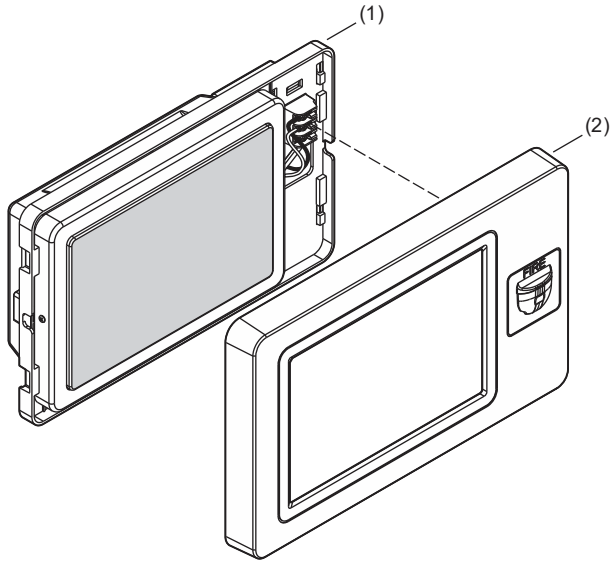
Figure 2: Typical semiflush mount installation



(1) Wall
(2) Drywall frame (ordered separately)
(3) Wiring plate
(4) Loudspeaker backbox
(5) Backbox screw (2X)
(6) Loudspeaker
(7) Loudspeaker screw (2X)
(8) Wiring plate screws (2X)

Note: For in-wall mounting, use a drywall frame (ABT-W6 FRAME) or use a wall box (ABT-W6 BOX), both ordered separately.

Figure 3: Strobe expander installation



(1) Wiring plate
(2) Strobe expander

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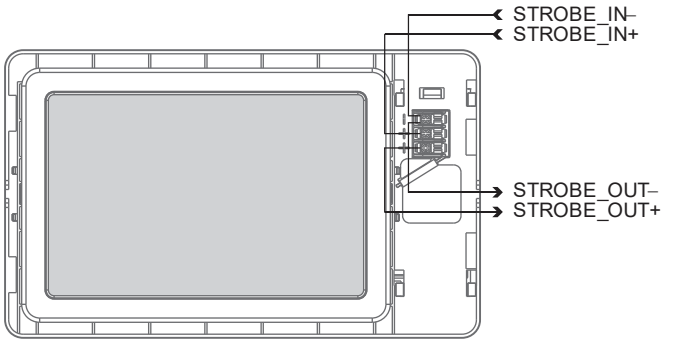
Wiring

Wire the strobe expander as shown in Figure 4. For loudspeaker wiring instructions, see the loudspeaker's product documentation.

Figure 4: Wiring



Maintenance and testing

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

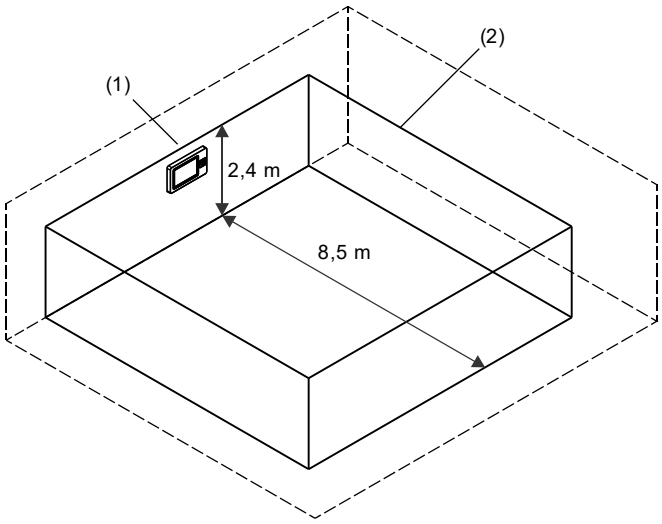
Perform a visual inspection and operational testing upon completion of installation and annually thereafter or as directed by the local authority having jurisdiction.

Specifications

Operating voltage	16 to 33 VDC
Operating current 16 to 33 VDC	 24 mA
Light output	W-2.4 - 8.5
W–x-y cuboid coverage	2.4 m × 8.5 m × 8.5 m. See Figure 5.
Strobe flash rate	1 fps (flash per second) approx.
Light distribution	See Figure 5
Synchronization	20 Ω max. between any two devices. To determine allowed wire resistance, refer to these specifications, and the specifications for the synchronized signal source.
Wire size	0.75 to 2.50 mm^2 (12 to 18 AWG)
Dimensions	See Figure 6
Compatible loudspeakers	EST-W6, EST-W6C, ABT-W6, ABT-W6/AB
Compatible accessories Drywall frame Wall box	 ABT-W6 FRAME ABT-W6 BOX
Operating environment Temperature Relative humidity	 32 to 122°F (0 to 50°C) 0 to 93% noncondensing
Storage temperature	-40 to 158°F (-40 to 70°C)

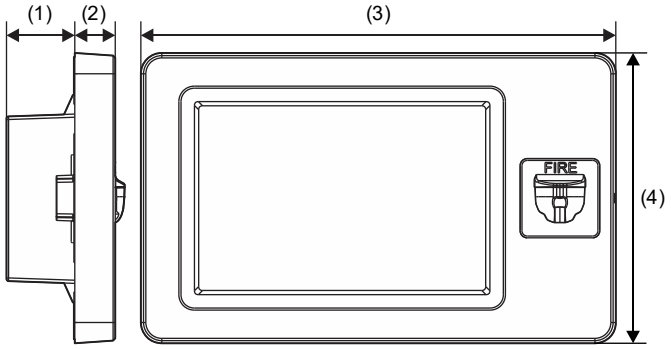
Note: This device was tested to the regulated 24 VDC operating voltage limits of 16 V and 33 V.

Figure 5: W–x-y cuboid coverage



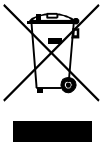
(1) Strobe expander
(2) Beacon coverage cuboid volume

Figure 6: Dimensions



(1) 4.93 cm (1.94 in.)
(2) 2.92 cm (1.15 in.)
(3) 34.16 cm (13.45 in.)
(4) 20.98 cm (8.26 in.)

Regulatory information

EU compliance	CE
EU certificates	2831-CPR-F4695
EN 54	EN 54-23 Type A (IP21C to EN 60529:1991)
UK compliance	UKCA 0832
UKCA certificates	0832-UKCA-CPR-F0852
European Union directives	2014/53/EU (RED directive): Hereby, Carrier declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
	2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

Contact information

For contact information, see www.edwardsfiresafety.com.