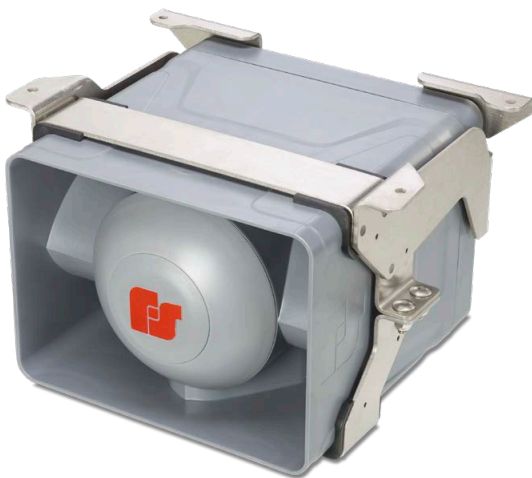


# **Model eHorn-HV**

## **Marine and Indoor/Outdoor Rated Electronic Horn**



---

### **Installation and Service Instructions**

2645 Federal Signal Drive  
University Park, Illinois 60484

[www.fedsig.com](http://www.fedsig.com)

Customer Support 1-800-344-4634 • +1 708-534-4756 • [iordersup@fedsig.com](mailto:iordersup@fedsig.com)  
Technical Support 1-800-755-7621 • +1 708-587-3587 • [signalsupport@fedsig.com](mailto:signalsupport@fedsig.com)

## Limited Warranty

This product is covered by a limited warranty, a copy can be found at [www.fedsig.com/SSG-Warranty](http://www.fedsig.com/SSG-Warranty).

## Safety Messages to Installers and Users

This product should be installed to code in the country of use by qualified personnel following all safety instructions below. Failure to do so may result in property damage, serious injury, or death.

- Read and understand all instructions before installing, operating, or servicing this equipment.
- Sound output will be severely reduced if any object are in front of the horn. Keep front of horn free of obstruction.
- Do not connect this horn to the system or perform maintenance when power is on.
- Do not paint the horn. No finish or coating is required. Paint may obstruct the sound output, reducing the effectiveness of the horn.
- All effective warning horns produce loud sounds, which in certain circumstances, may cause permanent hearing loss. Take appropriate precautions such as wearing hearing protection. Recommendations in OSHA-Sound Level Standard (29 CFR 1910) should not be exceeded.
- Establish a procedure to routinely check the signal system for proper activation and operation.
- Never alter the unit in any manner.
- After installation and completion of initial system test, provide a copy of these instructions to all personnel responsible for operation, periodic testing, and maintenance of the equipment.

## Unpacking the eHorn-HV

After unpacking the eHorn-HV, examine it for damage that may have occurred in transit. If the horn has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of the damage.

Carefully check all envelopes, shipping labels, and tags before removing or discarding them. Disposal of all shipping materials must be carried out in accordance with national and local codes and standards. If any parts are missing, please contact Federal Signal Customer Support at 708-534-4756 or 800-344-4634 or [ordersup@fedsig.com](mailto:ordersup@fedsig.com).

## An Overview of the Model eHorn-HV

The Federal Signal eHorn-HV is a high output, continuous duty, marine and indoor/outdoor-rated electronic horn with volume adjustment. The eHorn-HV is perfect for use in high-ambient noise environments. The horn's non-metallic, polycarbonate housing is corrosion resistant and weatherproof for improved durability in harsh industrial environments.

### Product Specifications

|                        |                        |
|------------------------|------------------------|
| Operating Voltages:    | eHorn-HV-024: 24VDC    |
| Weight:                | eHorn-HV-024: 15.9 lbs |
| Housing Material:      | Polycarbonate          |
| Brackets and Hardware: | 304 Stainless Steel    |

### Sound Pressure Level and Current Data

**NOTICE – DO NOT USE UNSUITABLE TAPS:** Not every tap is suitable for use with all voltages and tones. Use of unsuitable taps significantly reduces the life of the product. The tables below identify the acceptable taps selection. A table is also located on the rear cover of the product for quick reference.

**Table 1** SPL and Current Data: eHorn-HV Model 52 Horn Tone

| 52 Horn Tone (315.6 Hz Steady) |        |        |                     |                         |
|--------------------------------|--------|--------|---------------------|-------------------------|
| LEVEL                          | TAPS   |        | SPL<br>(dBA @10 ft) | DC Current (A)<br>24VDC |
|                                | WIRE 1 | WIRE 2 |                     |                         |
| High                           | P1     | P4     | 116                 | 3.0                     |
| Med                            | P1     | P3     | 109                 | 1.0                     |
| Low                            | P2     | P3     | 100                 | 0.4                     |

**NOTICE:** Apply wires only to the positions designated in Table 1.  
Other variations could cause damage to the eHorn-HV.

**Table 2** SPL and Current Data: eHorn-HV Model 55/56 Horn Tone

| 55/56 Horn Tone (330.0 Hz Steady) |        |        |                     |                         |
|-----------------------------------|--------|--------|---------------------|-------------------------|
| LEVEL                             | TAPS   |        | SPL<br>(dBA @10 ft) | DC Current (A)<br>24VDC |
|                                   | WIRE 1 | WIRE 2 |                     |                         |
| High                              | P1     | P5     | 117                 | 3.3                     |
| Med                               | P1     | P3     | 106                 | 0.5                     |
| Low                               | P2     | P3     | 96                  | 0.24                    |

**NOTICE:** Apply wires only to the positions designated in Table 2.  
Other variations could cause damage to the eHorn-HV.

### Mounting the eHorn-HV

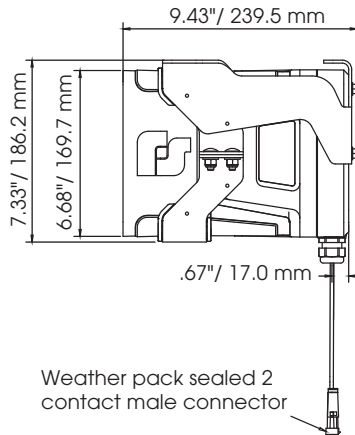
The eHorn-HV can be mounted on any relatively flat surface with the supplied mounting brackets. The mounting surface must be capable of supporting the weight of the eHorn-HV. Four installer-supplied 1/4" screws are required. Use screws that are suitable for the mounting surface.

For dimensions, see Figures 1 and 2.

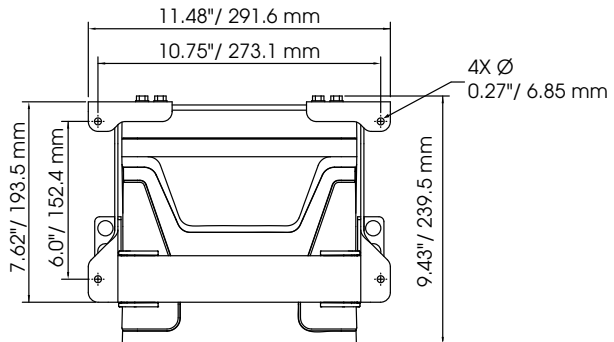
To secure the eHorn-HV to the mounting surface:

1. Hold the eHorn-HV against the mounting surface and use the four mounting holes on the bracket as a template. Scribe drill-position marks on the mounting surface.
2. Remove the eHorn-HV and drill a hole at each mark.
3. Secure the eHorn-HV to the mounting surface using installer-supplied 1/4" screws.

**Figure 1**  
Depth and Height  
with Bracket



**Figure 2**  
Width and Height  
with Brackets



### Opening and Closing the Housing

The factory-supplied leads are strain-relieved to the cover.

#### NOTICE

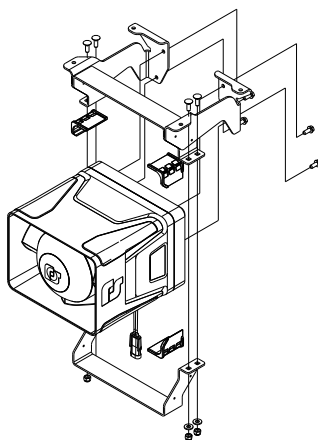
**HOUSING DAMAGE:** Use caution and support the housing when loosening the cover screws. The housing is not supported by any means other than the cover screws. Once they are loosened, the housing will separate from the cover.

### Opening the Housing

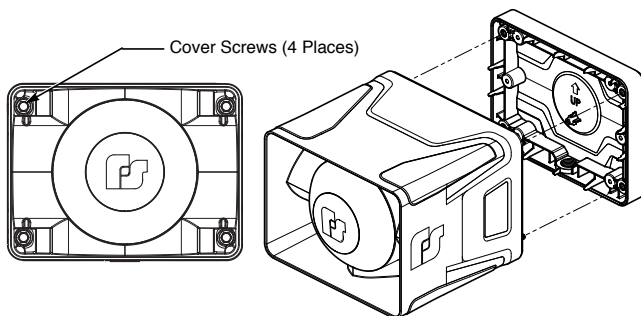
**Tools required:** 7/16" socket, 3/8" socket, 1/4" socket and a 6" extension

1. Remove the four 1/4"-20 locknuts on the bracket assembly to free the lower band bracket.
2. Remove the four 1/4"-20 hex head screws from the back of the bracket assembly to allow the eHorn-HV to be free of the bracket assembly
3. See Figure 4. Loosen the four cover screws while supporting the housing so it does not fall. (The cover screws are retained in the housing).

**Figure 3**  
eHorn-HV Bracket Assembly



**Figure 4** Locations of Housing Screws



### Closing the Housing

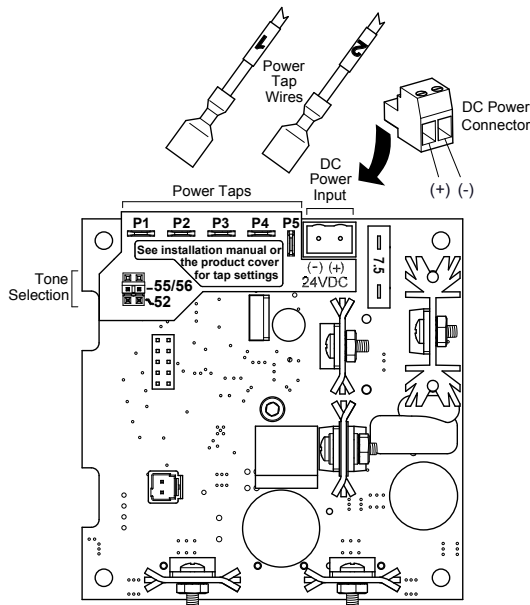
4. Verify that the cover gasket is in the groove around the perimeter of the cover.
5. Align the housing with the cover. Note that the FS logo on the front of the eHorn-HV needs to be oriented correctly with the arrow on the inside of the cover or the two parts will not fit together.
6. See Figure 3 for bracket assembly instructions.
7. Tighten the cover screws hand tight, then torque them to 60 in-lb  $\pm$  10 in-lb.

### Wiring the eHorn-HV

**SHOCK HAZARD: To avoid electrical shock, do not connect wires when the circuits are energized.**

The external leads and connector must be suitably protected to prevent damage. Use grommets, bushings, and wires ties to protect them from abrasion. The horn is provided with 12" 14AWG wire leads with an Aptiv (Delphi) 2P male connector (Aptiv p/n 12010973) for customer connection. Wire polarity is as follows: red + (positive), black - (negative).

**Figure 5**  
Tone Generator/  
Amplifier Board



### **Selecting the Tone**

The eHorn-HV is factory-set to the 52 tone. To select the 55/56 eHorn-HV tone, move the jumper on the tone generator/amplifier board (Figure 5 on page 6).

### **Setting the Tone Volume**

The volume of the eHorn-HV is adjusted by tap selection on the tone generator/amplifier board.

### **Activating the Horn**

To activate the horn, apply the appropriate line voltage to the horn power input connector. The horn remains active as long as line voltage is present.

### **Technical Assistance**

For technical assistance, contact our technical support team at +1-708-587-3587 or [signalsupport@fedsig.com](mailto:signalsupport@fedsig.com).

### **Repair Service**

Product repair service requires a return authorization from Federal Signal. For repair service, contact your Authorized Federal Signal Distributor or Federal Signal customer support at +1 708-534-4756 or [iordersup@fedsig.com](mailto:iordersup@fedsig.com). Defective products that are returned within the warranty period will be repaired or replaced at Federal Signal's sole discretion.

### **Product Returns**

Product returns require a return authorization from Federal Signal prior to returning the product. Please contact your Authorized Federal Signal Distributor for more information regarding our return policy or to request a product return. Products returned for repair require a Return Authorization form from your local distributor or from Federal Signal. To obtain repair service or technical assistance from Federal Signal, call 800-755-7621 or 708-587-3587. For instruction manuals and information on related products, visit: [www.fedsig.com](http://www.fedsig.com)



**FEDERAL SIGNAL**

Safety and Security Systems

**Signaling Devices**

2645 Federal Signal Drive

University Park, IL 60484-3167

Tel: 708-534-4756

Tech Support Tel: 708-587-3587

Email: [signalsupport@fedsig.com](mailto:signalsupport@fedsig.com)

[www.fedsig.com](http://www.fedsig.com)