

WHELEN[®]

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Installation Guide: Howler™/SA315 Siren Speaker Mounting Bracket 2018 Ford Expedition SSV

DANGER! Sirens produce extremely loud emergency warning tones! Exposure to these tones without proper and adequate hearing protection, could cause ear damage and/or hearing loss! The Occupational Safety & Health Administration (www.osha.gov) provides information necessary to determine safe exposure times in Occupational Noise Exposure Section 1910.95. Until you have determined the safe exposure times for your specific application, operators and anyone else in the immediate vicinity should be required to wear an approved hearing protection device. **FAILURE TO FOLLOW THIS RECOMMENDATION COULD CAUSE HEARING LOSS!**

Warnings to Installers

Whelen's emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen's written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that they can operate the system without taking their eyes off the roadway. Emergency warning devices can require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. **PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.**

Warnings to Users

Whelen's emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning device does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen's audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained periodic exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.**
- **Any holes, either created or utilized by this product, should be made both air- and watertight using a sealant recommended by your vehicle manufacturer.**
- **Failure to use specified installation parts and/or hardware will void the product warranty.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr the holes and remove any metal shards or remnants. Install grommets into all wire passage holes.**
- **If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro®, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.**
- **Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.**
- **For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post (this does not include products that use cigar power cords).**
- **If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device to be operated safely in any driving condition.**
- **It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.**
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

ACTIVATION OF THIS SIREN MAY DAMAGE UNPROTECTED EARS!	
 Wear Protection!	CAUTION Loud siren noise can cause hearing damage and/or loss. Refer to OSHA Section 1910.95 prior to putting ANY siren into service!

IMPORTANT! READ THESE WARNINGS BEFORE CONTINUING!

The Howler™ Supplemental Siren was designed for use in high-risk areas such as an intersection. It is not intended to be, nor should be operated as a replacement or alternative to the vehicle's primary siren.

The low-frequency tones of the Howler™ demonstrate significantly different audio characteristics as compared to those of a traditional higher-frequency siren. While the low-frequency tones are better able to penetrate other vehicles, thus alerting drivers to the presence of the responding emergency vehicle, these tones may also penetrate into the responding vehicle itself. This could potentially expose the operator to increased noise levels.

To help eliminate overexposure, the Howler™ siren has been designed with a built-in timing circuit. The Occupational Safety & Health Administration (OSHA) (www.osha.gov) provides information necessary to determine safe exposure times in Noise and Hearing Conservation, Section 1910.95 (Occupational Noise Exposure). Until you have determined the safe exposure times for your specific application, this siren should be configured for the minimum operating time and operators should be required to use an approved hearing protection device. **FAILURE TO FOLLOW THIS RECOMMENDATION COULD CAUSE HEARING LOSS!**

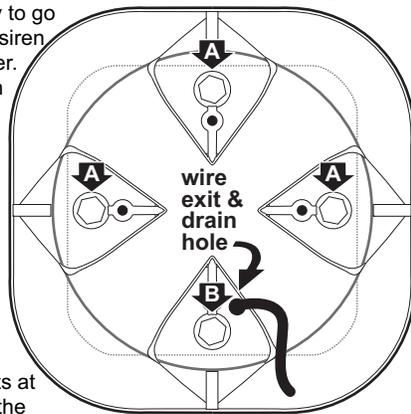
Mounting 2018 Expedition:

Mounting the SA315:

The SA315 mounting kit comes with three 1/4-20 X 1-1/2 mounting bolts. The longer bolts are necessary to go through the mounting bracket, siren housing and into the siren driver. The long bolts ("A") are used in 3 of the 4 mounting holes and secure the siren driver to the speaker housing.

Your speaker is shipped with two 1/4-20 X 1-1/4 bolts installed. A short bolt ("B") *must* be used in the hole that doesn't go through the bracket so that it will properly secure driver to housing.

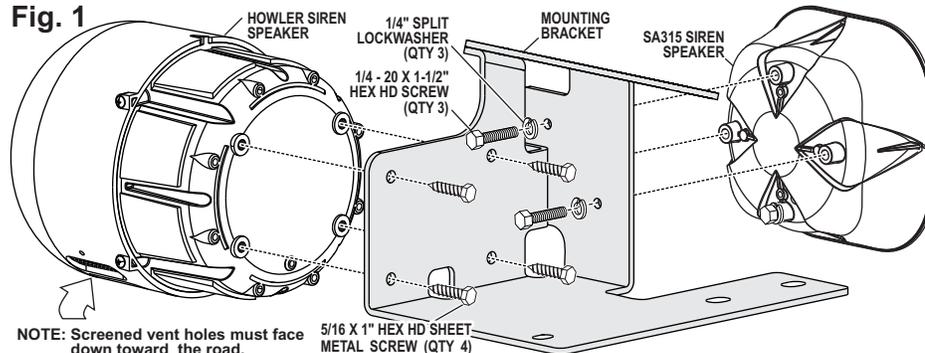
If you need to remove all 4 bolts at the same time be sure to hold the driver securely in place.



SA315 / Rear View

IMPORTANT: For drainage purposes, the speaker must be oriented so that the wire passage hole is in the "6 o'clock" position (closest to the road). This is the drain hole for the siren. Improper mounting will result in premature driver failure and void the product warranty.

Fig. 1



NOTE: Screened vent holes must face down toward the road.
5/16 X 1" HEX HD SHEET METAL SCREW (QTY 4)

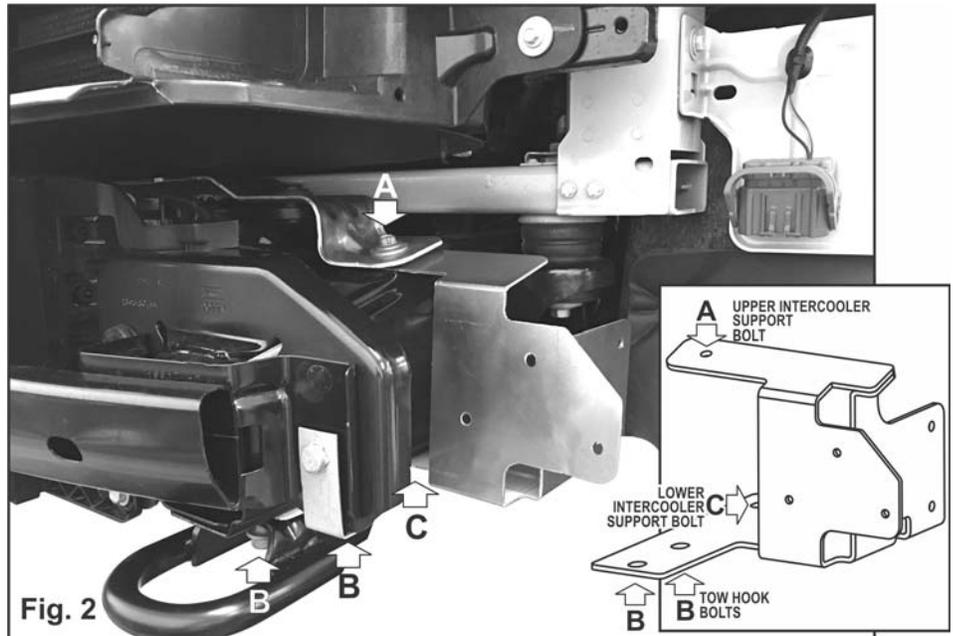


Fig. 2

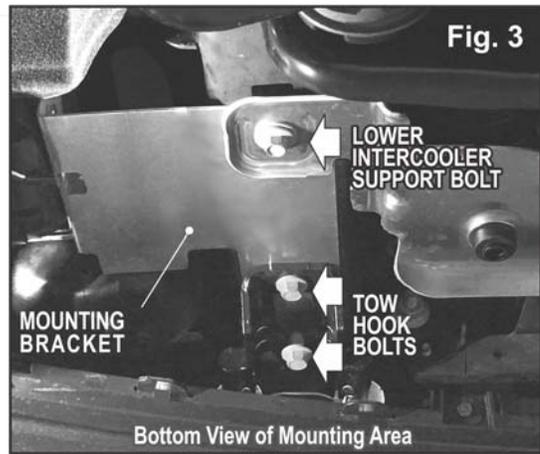


Fig. 3

1. Follow factory instructions to remove front nose assembly from vehicle.
2. Mount both speakers to mounting bracket and tighten hardware (Fig. 1).
3. On the vehicle, remove the mounting hardware from the *Upper Intercooler Support* (A) the *Lower Intercooler Support* (C) and the *Tow Hook* (B) (Fig. 2). Figure 3 shows the bottom view of the mounting area with the bracket mounting under the tow hook and *Intercooler support*.
4. Loosely secure the top of the mounting bracket under the *Upper Intercooler Support* using the hardware you removed.
5. Line the other bracket mounting holes up under the *Lower Intercooler Support*, replace the mounting hardware and tighten loosely.
6. Line the bracket up to the *Tow Hooks* and reinstall the tow hook loosely.
7. Check to make sure the bracket is in position and tighten all mounting hardware to secure the bracket to the vehicle.
8. Repeat steps 3 - 7 for the other side of the vehicle.
9. Extend the WHITE (positive) and BLACK (negative) speaker wires to your siren amplifier and refer to the amplifiers instructions for connections.
10. Replace the vehicle nose assembly following factory instructions and installation is complete.