



INSTALLATION INSTRUCTIONS / OWNER'S MANUAL:
AUDIO SHADE
OFF-ROAD TOP FOR CAN-AM DEFENDER
(SINGLE ROW SEATING MODELS)

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Thank you for choosing the Hoppe *Audio Shade* off-road top. We hope you enjoy the off-road top and we ask that you follow these instructions very closely. Doing so will save you time and ensure that your experience with the new *Audio Shade* is a positive one.

We strongly suggest that you read the complete instructions before beginning the installation process to eliminate the possibility of performing unnecessary work.

Having a safe and clean environment and using the proper tools is essential for a successful installation.

It is critical that proper eye wear, ear protection, and protective clothing is worn throughout the top installation.

When you receive your *Audio Shade* off-road top, please check to ensure that all parts and hardware are included. If there are any parts missing or if you have any questions concerning the top at this time call Hoppe at (262)-552-2770 Mon-Thur. 8am-5pm CST. Or you can email us at tech@hoppeindustries.com.

Hoppe reserves the right to change specifications, equipment, or designs at any time without notice and without incurring obligation.

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SECTION 1 – Tools Required

- Socket wrench set
- Combination wrench set
- Wire cutters
- Drill with 3/8” bit

In addition to the above items, you may need shop supplies such as electrical tape, wire ties, thread locking compound.

SECTION 2 – About your Audio Shade Top

2.1 Applicable Year Models:

This *Audio Shade* off-road top is designed to fit the following single row Defender models:

- 2016-2021 DEFENDER, (all versions)
- All versions means it includes sub models such as 6x6, PRO, DPS, XT, XT-P, XMR, LIMITED, and Lone Star editions.
- This top is compatible with factory front / rear windshield, doors, and cab systems.
- Some modification of wiring may be required for power windows and / or windshield wiper systems.

2.2 Audio Equipment Details:

Your *Audio Shade* off-road top is powered by  using their premium quality power sports series audio equipment. This equipment is designed to function in all weather conditions with an IPX6 water resistance (powerful water jet) rating. The stereo is specifically engineered to provide excellent sound quality and volume in an open air power sports environment so you can enjoy your music on the go.

To learn more details about your stereo system, you can access product information and manuals for the stereo equipment here:

- KMC2 receiver: <https://www.kicker.com/kmc2>
- Sub-woofer amplifier: <https://www.kicker.com/pxa5001-500-watt-compact-powersports-mono-amplifier>
- Speaker amplifier: <https://www.kicker.com/pxa3004-4-channel-compact-powersports-amplifier>
- Sub-woofer: <https://www.kicker.com/comp-rt-10-2-ohm-subwoofer>
- Speakers: <https://www.kicker.com/42PSC654>

Your amplifier gains comes pre-adjusted from the factory and are tuned for optimum sound quality and system protection. This means you can feel free to crank the volume

without much worry of harming your system. However, it is wise to use a little common sense. If you hear any distortion, back off a little. We recommend you do not adjust the gains from the factory settings without first consulting Hoppe.

Please note that your subwoofer will take 20 to 30 hours of play time to fully break in and reach its maximum output. You do not need to do anything different during this break in period. In fact, the more you listen and the louder you turn it up, the quicker you will reach the maximum potential. Use the equalizer settings in your KMC2 receiver to adjust the bass as needed throughout the break in period.

2.3 Warranty:

Your *Audio Shade* comes equipped with a 1 year limited warranty covering the lights, the stereo equipment, and the fiberglass top. The date of warranty coverage will be determined by the registration date of the warranty card or online warranty registration.

<http://www.motortrike.com/TrikeAccWarranty.aspx>

If the warranty is not registered with Hoppe, the warranty period will begin when the Audio Shade was shipped from Hoppe's factory.

2.4 Care and Maintenance:

Your off-road top does not require any maintenance other than an occasional cleaning. To clean your top, simply hose off or power wash from a distance. If needed, use a mild automotive soap and sponge or brush. Use common sense. Do not use a high pressure power washer up close where it could cut, scar, or force water beyond the design intent of the top, lights, or stereo equipment.

The fuse boxes can be accessed by removing the fuse cover plate located just behind the sub-woofer and rear roll hoop.

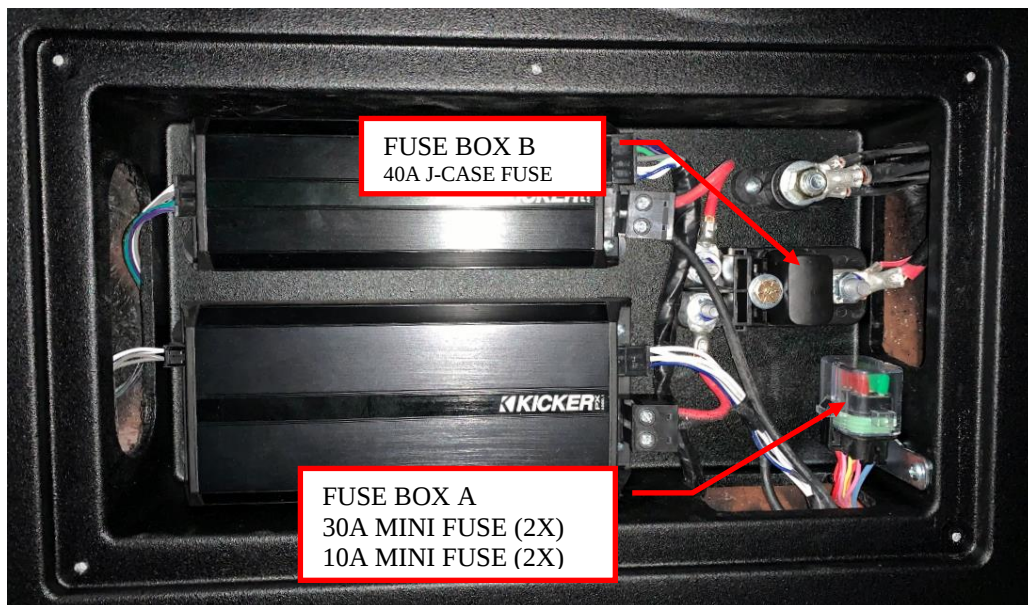


Figure 1: Fuse locations.

- Fuse 1 Box A: 30 amp mini fuse for rear light bar
- Fuse 2 Box A: 10 amp mini fuse for interior light
- Fuse 3 Box A: 30 amp mini fuse for front light bar / radio receiver power.
- Fuse 4 Box A: 10 amp mini fuse for illumination / radio receiver ignition.
- Fuse Box B: Each amplifier uses a 40 amp J-Case fuse located under the black plastic cover shown in Figure 1.

2.5 Warnings:

This off-road top adds up to 100 lbs. to your vehicle and is located up high on the roll cage. This increases the vehicles center of gravity and changes the vehicle dynamics and handling characteristics. Use extra caution as you learn the driving characteristics of your vehicles performance with your new off-road top installed. High speed cornering, off camber or side hill, acceleration, and braking performance will be negatively impacted by the weight of the top.

Do not listen to your stereo at an uncomfortable volume for extended periods of time. Potential hearing loss may result.

The driving lights provided with your Audio Shade are blinding to oncoming drivers. These are made for off road use only, and should be turned off when another vehicle is approaching on the trail.

SECTION 3 – Pre-Installation Inspection

Included in your off-road top are the following components:

- Pre-assembled *Audio Shade* off-road top. (All speakers and electronics come preinstalled with interior wire harness.)
- Chassis wire harness.
- Hardware bag.

If any of the parts are missing, damaged, or you have any questions concerning them, please call Hoppe at (262)-552-2770 Mon-Thur. 8am-5pm CST.

In addition to accounting for all of the parts that you should receive with the top, you should inspect the vehicle in the following ways.

- Ensure that the vehicle is equipped with the factory roll cage, and the roll cage has not been bent out of shape in a roll over.
- Make sure the vehicle does not have any aftermarket accessories that are incompatible with the top. **Note: This top fits over the factory windshield visor and is compatible with windshields that interface with this visor.**
- Make sure the battery is in good condition and holds a charge.
- Make sure the charging system is in good condition.

SECTION 4 – Installation

1. Remove the cage clamps and 3/8"-16 bolts and washers that come pre-installed on the top. Save the hardware for installation. See Figure 2 and Figure 3.

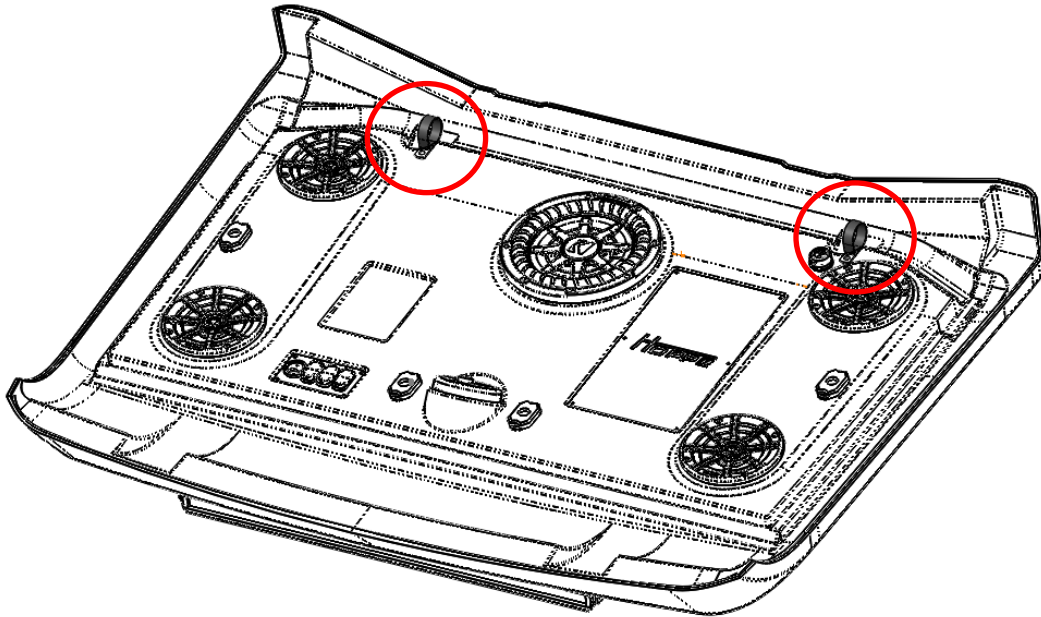


Figure 2: Remove the clamps from the top.

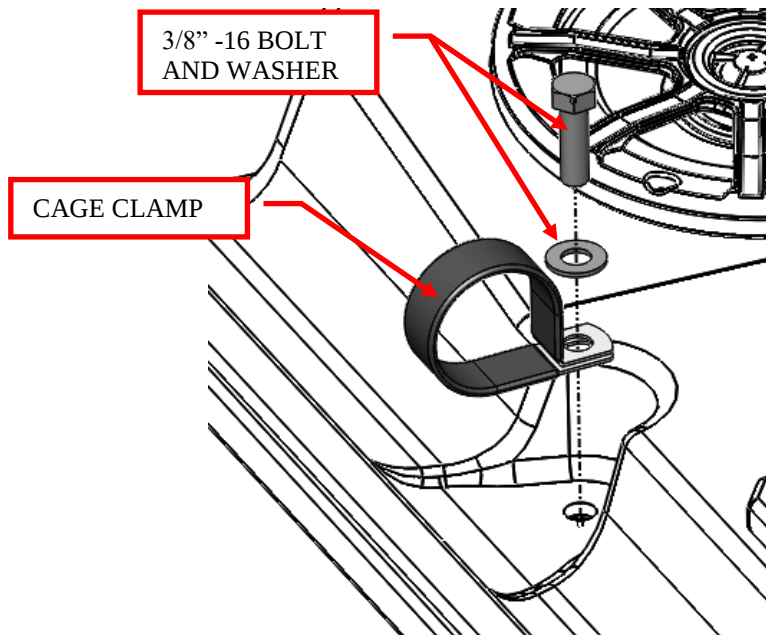


Figure 3: Close up of cage clamp hardware.

2. Spread the clamps by hand and slide them over the cage tubing. Place them on the cage in the approximate locations shown in Figure 4. Note the orientation of the

clamp tab pointing toward the front of the vehicle for the rear tube. It must line up flat against the top on the correct side of the tubing.

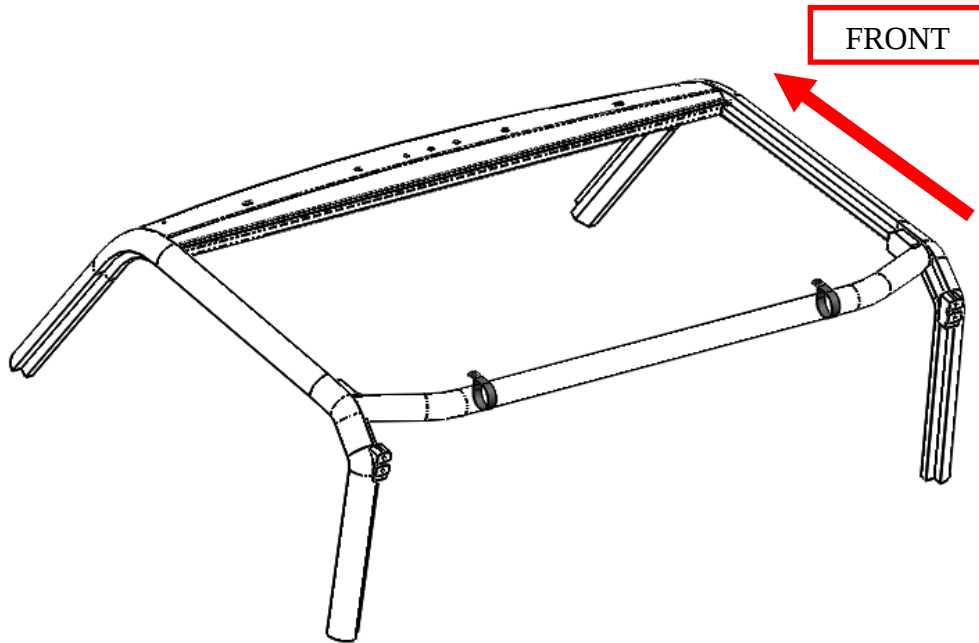


Figure 4: Approximate clamp locations.

3. Clean the surface of the cage to remove dirt and residue before installing the foam cab sealing tape. Use a mild detergent or paint safe solvent and allow to completely dry. Place the supplied foam tape across the surfaces highlighted in Figure 5 below.

Note: This step is critical to sealing a cab system with windshields and doors.

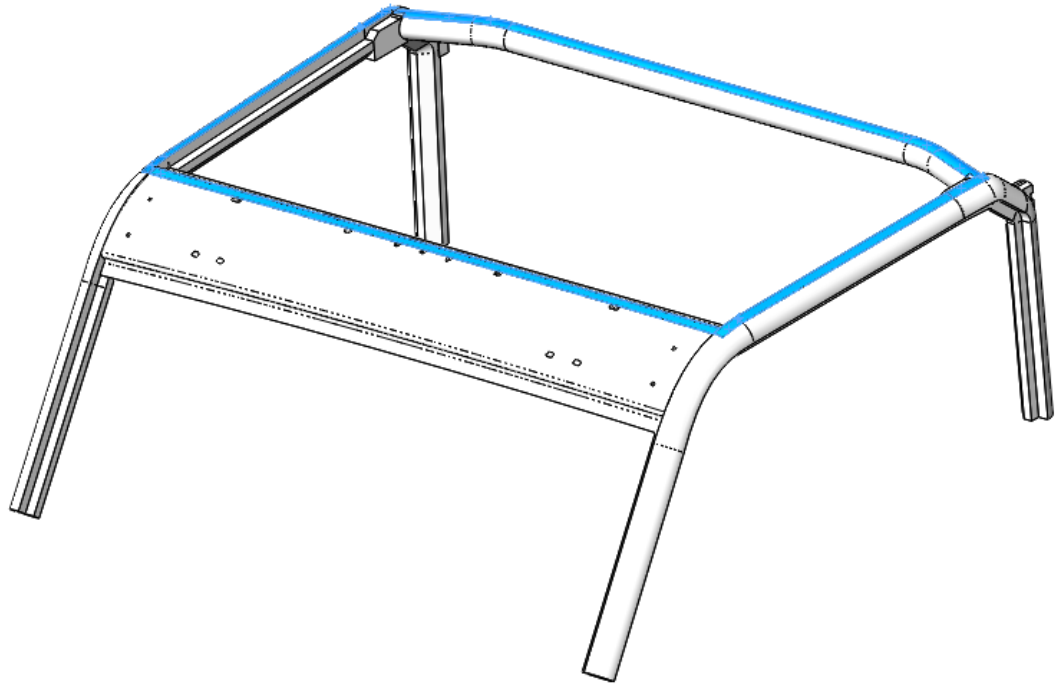


Figure 5: Areas to apply foam tape.

4. Using a few assistants, set the *Audio Shade* off-road top on the cage. The top is contoured such that the cage fits inside the grooves on the top. **Note: The top weighs up to 100 lbs. depending on your configuration. Since you will have to lift and reach, it is helpful to have at least 4 people for this step.** See Figure 6.
5. Slide the loop clamps into position so they line up with the threaded holes in the top. For all clamps, install the 3/8-16 bolt with washer through both clamp tabs and into the threaded hole in the top. Use blue Loctite 243 (medium strength) and torque the bolts to 25 ft.*lbs. See Figure 3.

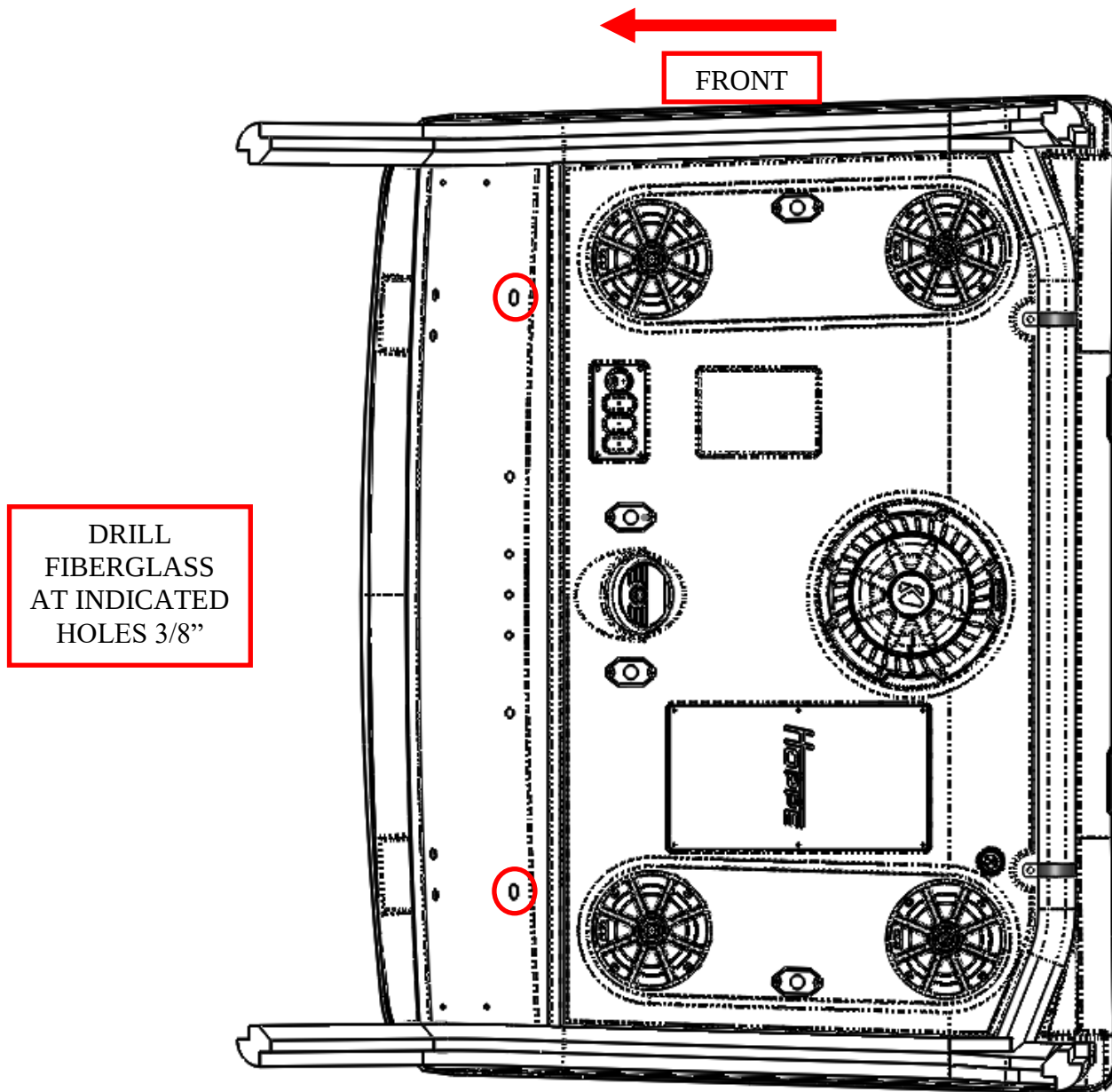


Figure 6: Install the top on the cage.

6. Remove the two front most 6.5" speakers so you can reach your hand inside the top. The speakers are held in place with Philips screws. Once the screws are removed, lower the speaker by hand to reach behind and disconnect the speaker wires.
7. The top is mounted using the indicated holes in the factory cage. See Figure 6. Be sure the top is fully seated on the cage and in its final position. Drill a 3/8" hole through the fiberglass using the cage as a template at each location.

8. Bolt the top to the cage using the supplied 5/16" hardware. Make sure and use the nylock nut and washer inside the top and use a bolt and washer outside. Torque to 15 to 20 ft.*lbs. See Figure 7.

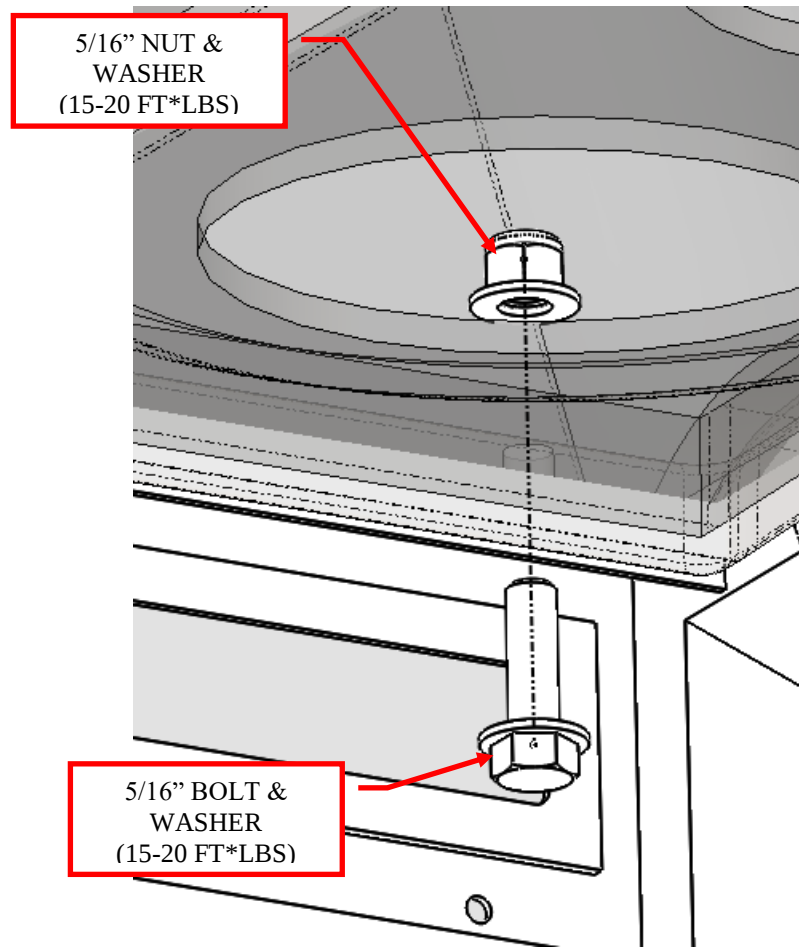


Figure 7: Install the hardware in the top.

9. Re-install the speakers. Be sure to place the large quick disconnect on the 1/4" speaker tab and the small quick disconnect on the 3/16" speaker tab. Re-use the Philips head screws you removed previously. Do not over torque the speaker screws with an impact driver (hand tighten only). See Figure 8.

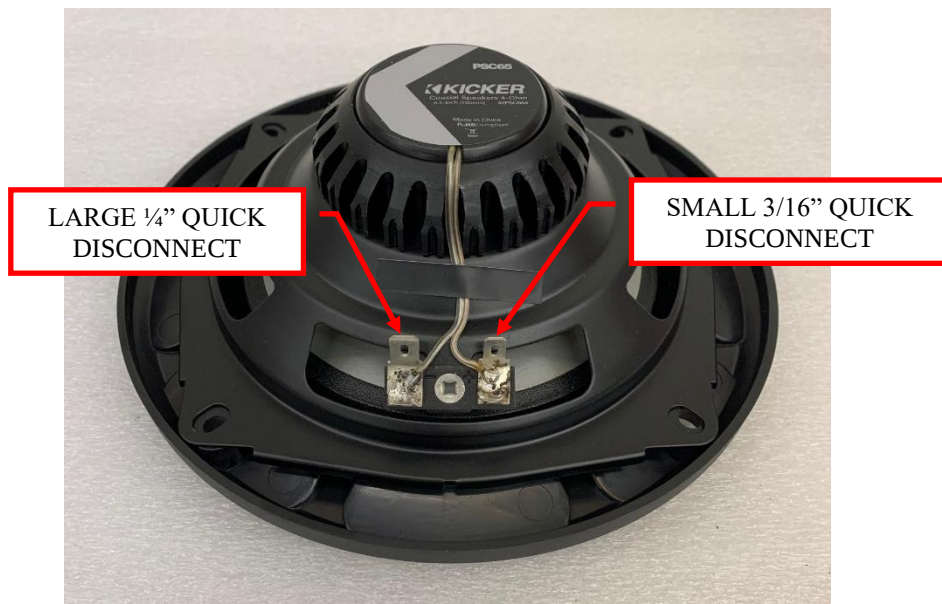


Figure 8: Speaker wire orientation.

10. Fold the passenger seat up to access the battery. With the seat folded up, remove the passenger side battery access panel by turning the $\frac{1}{4}$ turn latches. See Figure 9.

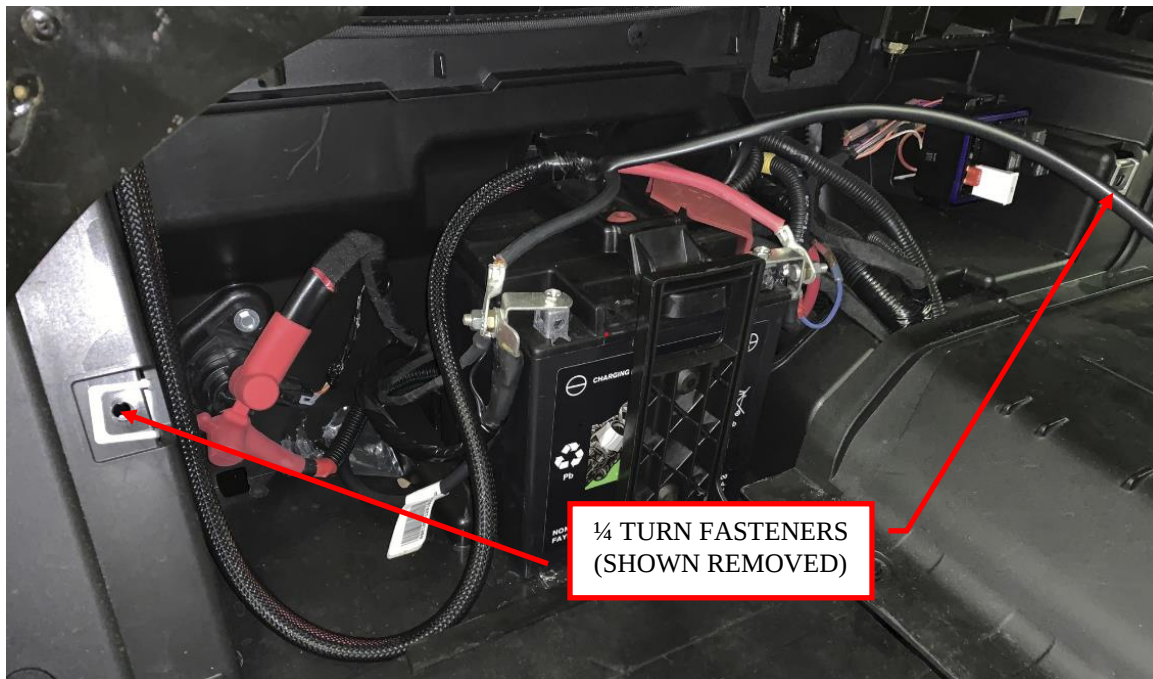


Figure 9: Fold seat up and remove panel for battery access.

11. Route the chassis wiring harness along the down tube on the passenger's side rear corner of the cage. The ends with the battery terminals extend behind the seat backrest and into the corner of the battery compartment. See Figure 10.

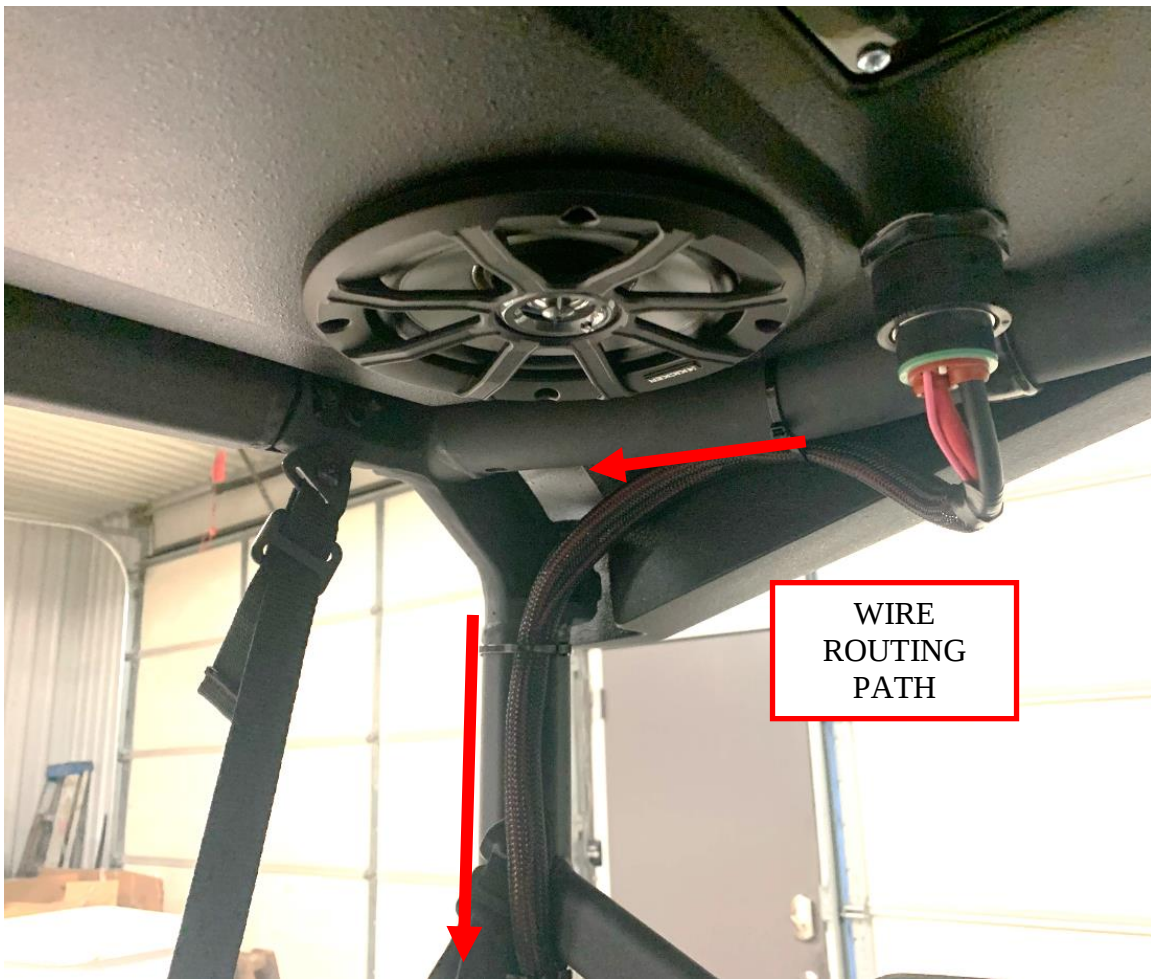


Figure 10: Route the battery cable wiring.

12. Connect the red power wire to the positive terminal of the battery. Connect the black ground wire to the negative terminal of the battery. Use the supplied M6 nut to clamp the cable down to the accessory posts on the battery terminal. See Figure 11.

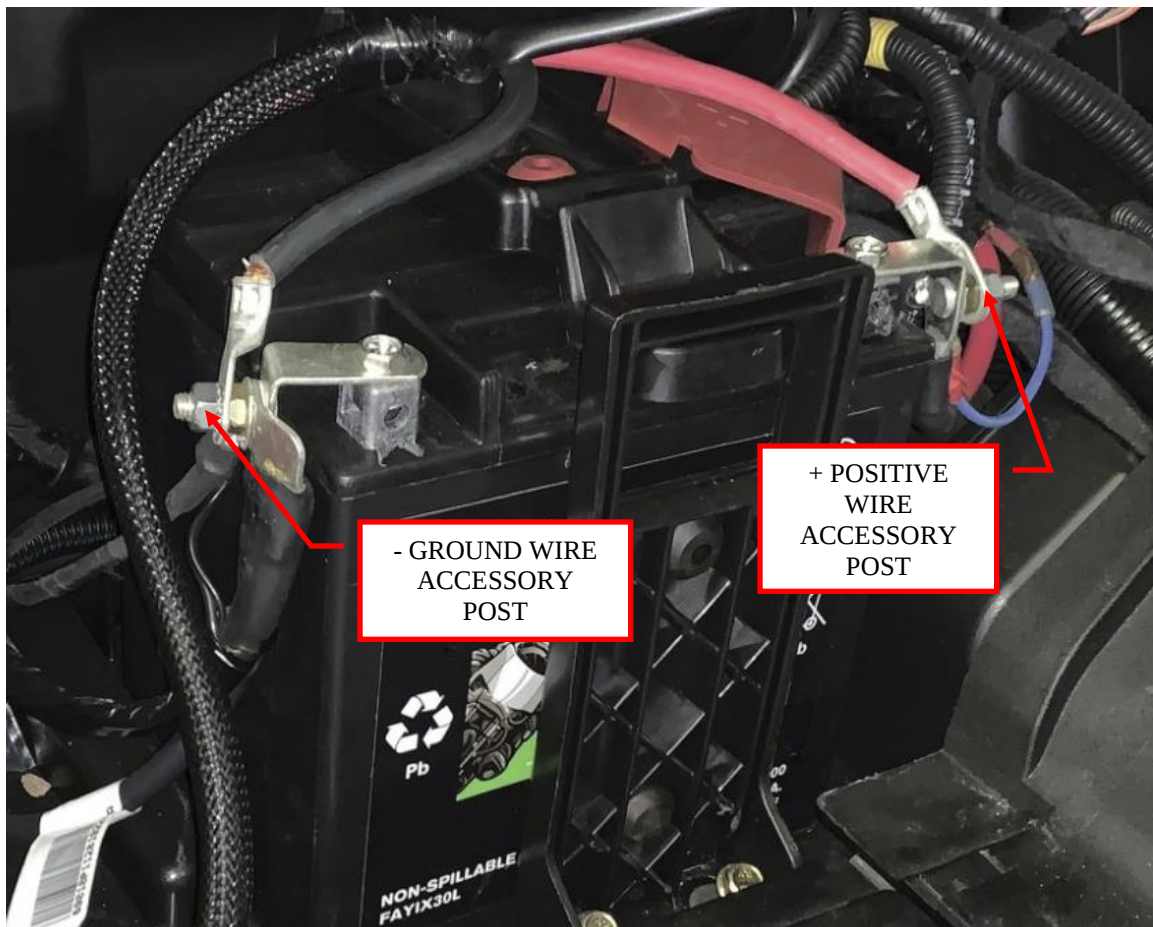


Figure 11: Attach the power wires.

13. Lift the hood access panel from the front of the vehicle by pulling forward and then lifting up. See Figure 12.



Figure 12: Remove the radiator hood access panel.

14. Remove the floor board wire access tunnel cover. The cover is held in place with 3 plastic rivets. Pry the inside circle of the plastic rivet up to release it. See Figure 13.

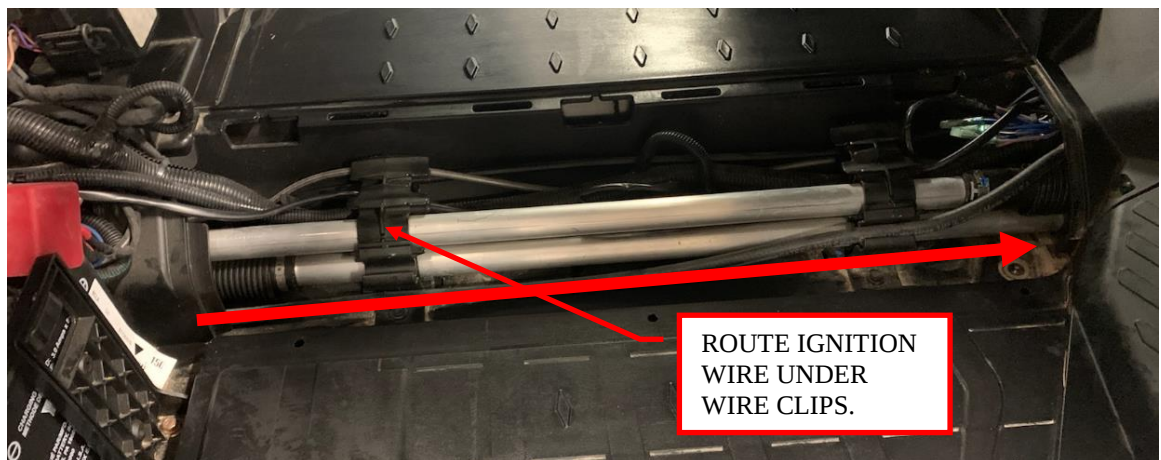


Figure 13: Wire access tunnel removed (front shown, rear similar).

15. Route the ignition wire from the chassis harness (near the area where you made the battery connections in Figure 11) through the wire access tunnel and up the frame inside the wheel well. Finally tuck the wires into the area under the hood. See Figure 13, Figure 14, and Figure 15.

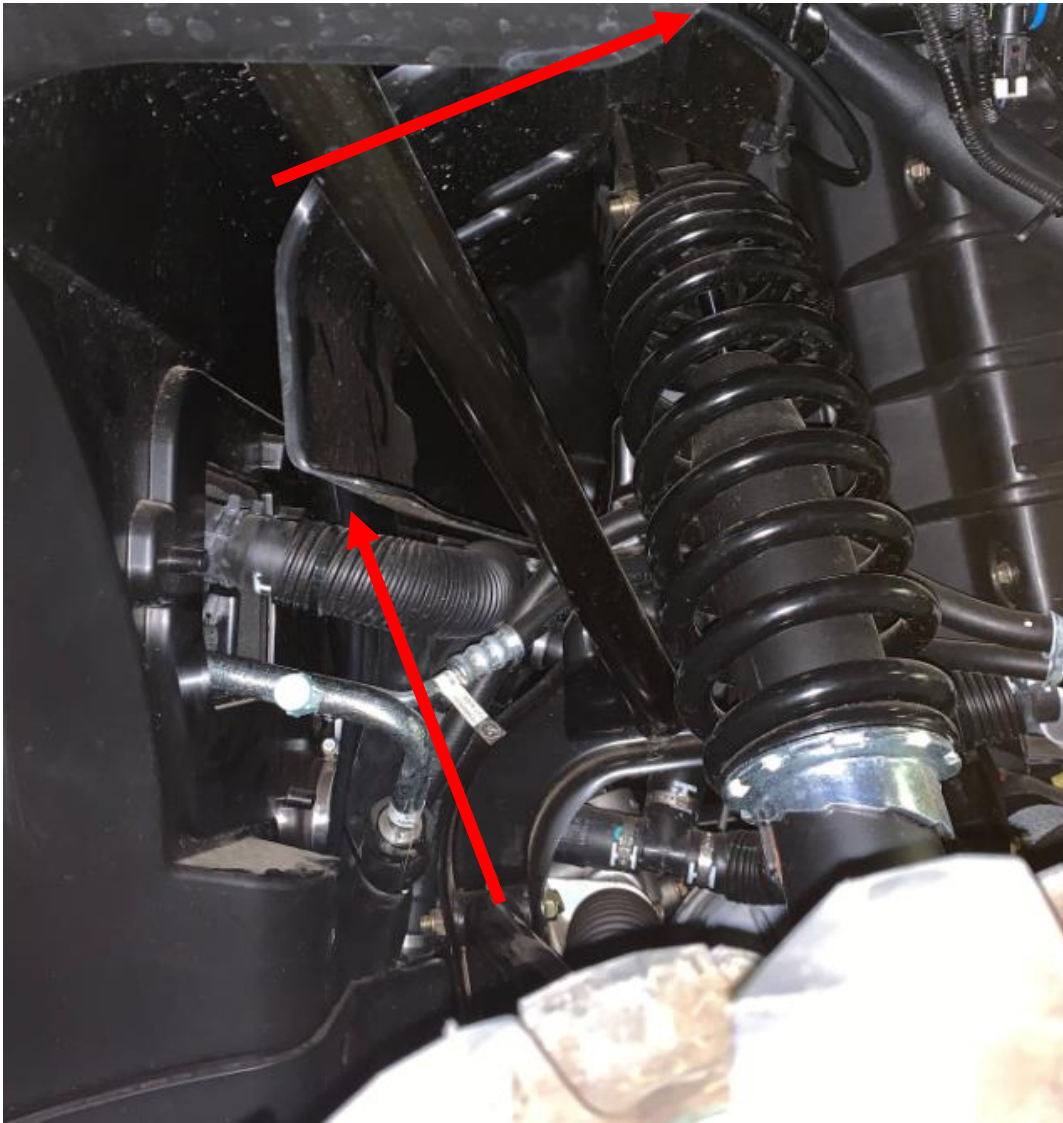


Figure 14: Wire routing in front fender.

16. Unplug the factory fuse holder in the port labeled PF4. See Figure 15.

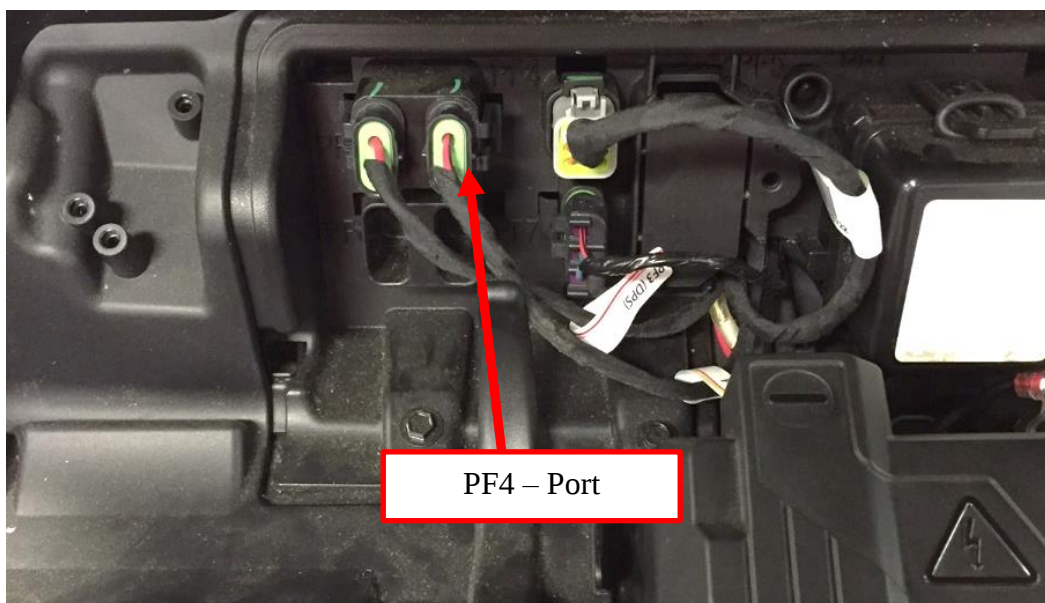


Figure 15: Accessory port connection.

17. Remove the 40 amp fuse from the factory fuse holder and place into the matching connector on the Audio Shade harness. This process keeps the factory fuse protection and allows the radio to turn on / off with the ignition switch. See Figure 16 and Figure 17.

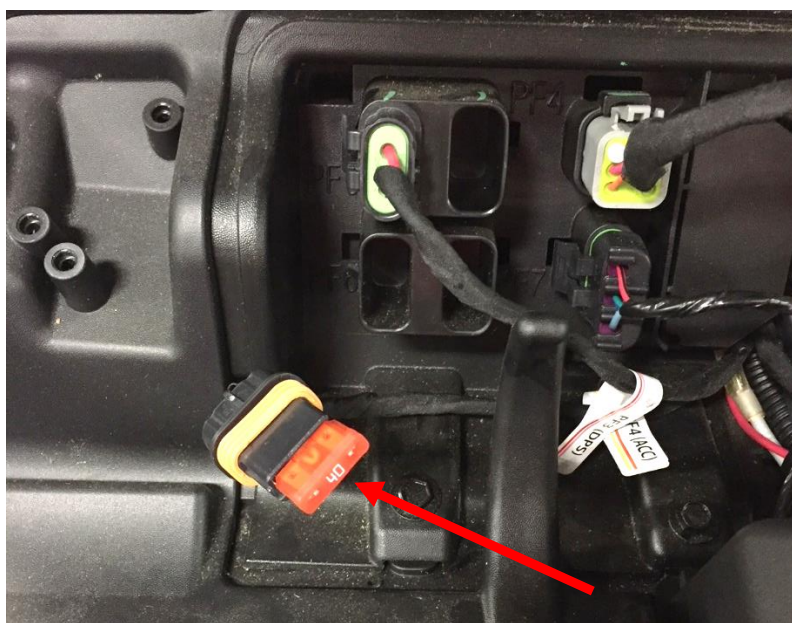


Figure 16: Factory fuse and fuse holder.

18. Place the chassis connector with the fuse back into port PF4. Connect the factory fuse holder with the mating Audio Shade harness connector. See Figure 17.

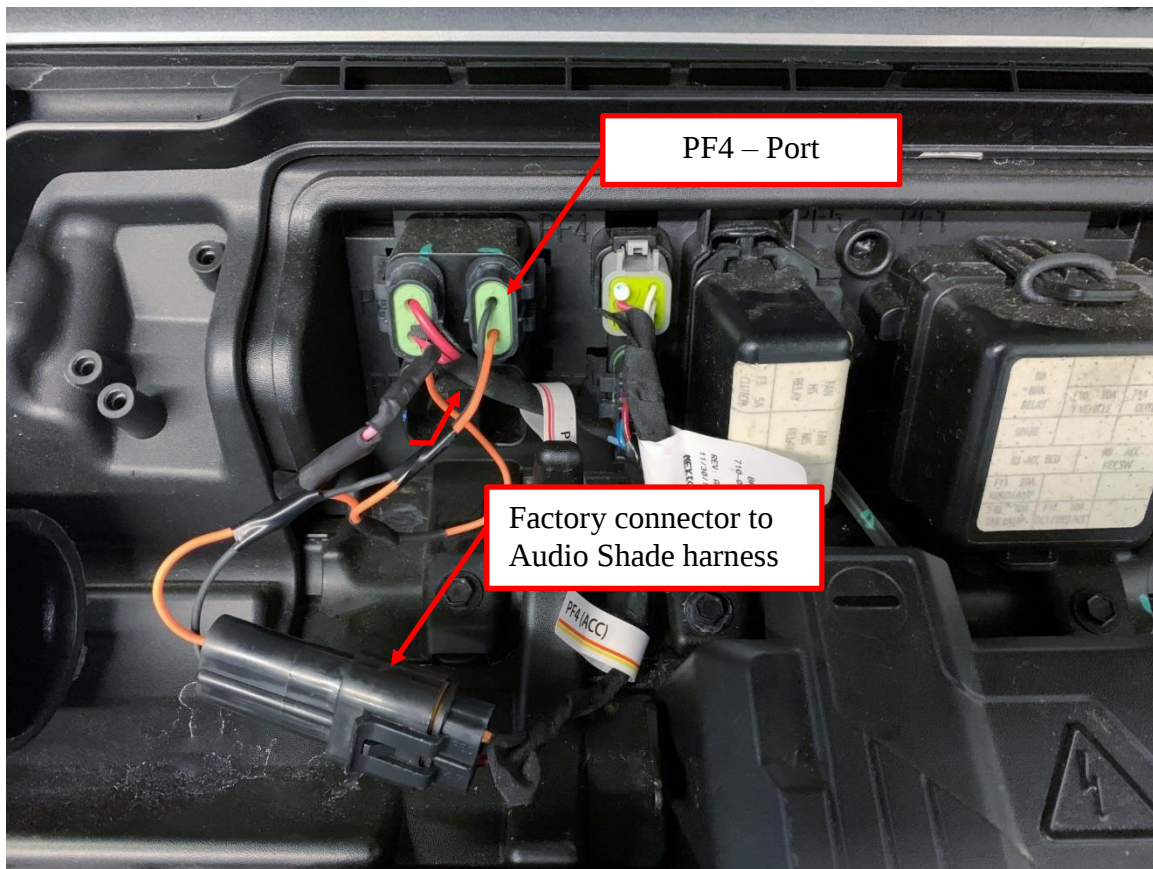


Figure 17: Attach the chassis harness and power wires.

19. Line up the terminals on the chassis harness connector with the bulk head connector located on the back driver's side corner of the top. Plug the connector in and rotate the ¼ turn collar to lock the connector together. See Figure 18.

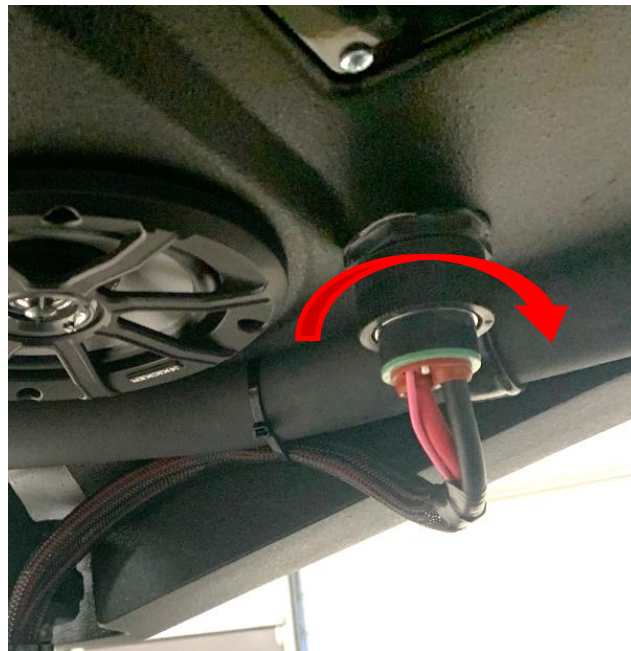


Figure 18: Align connector terminals and rotate 1/4 turn.

20. Use zip ties to secure the chassis harness to the frame and cage. Make sure the wires are secured away from any moving suspension components or hot exhaust. Work your way from the bulk head connector on the top, to the battery, then up to the accessory terminal under the hood.
21. Close the hood, reinstall the wire access tunnel cover, and battery cover. The corner of the battery cover can be trimmed to allow the Audio Shade harness to pass through for a better fit. See Figure 12 and Figure 9.

NOTE: Some additional work may be required depending on how your vehicle is equipped. Wires for Can-am accessories such as window motors or windshield wipers may need to be re-routed or lengthened to work properly.

22. You are now ready to enjoy the music, lighting, and shade provided by your *Audio Shade* off-road top. Basic operation works as follows:
 - Turn the vehicle ignition switch on to power up the stereo system.
 - Press the mode button on the stereo receiver to select the input source from AM/FM radio, Bluetooth, or Auxiliary.
 - Hold the mode button to access additional menus.
 - The front and rear light bars can be used with or without the vehicle's ignition switch on. Press the toggle switches to activate each component. Warning: extended use of the light bars without the vehicle's charging system functioning will deplete the battery and the engine may not start.
 - To control the interior light color or make them dance to the music, download the Bluetooth app to your iOS or Android device. The app information is included with your Audio Shade and is located in the zipper pocket.

SECTION 4 – Installation of Rear Windshield Bracket (if equipped)

If your Defender is equipped with a rear windshield, you will need the optional rear windshield bracket with Hoppe Part number MTBY-0758. This will allow your roof to be compatible with the factory Defender rear glass. Installation of the rear glass is identical to use with a factory roof once the bracket is installed. If you do NOT have a rear windshield, you can skip this part of the installation.

1. Raise the windshield bracket into position against the underside of the roof along the back edge. Make sure the horizontal flange of the bracket is pressed against the bottom edge of the roof and the vertical flange of the bracket is pressed against the vertical flange on the back of the cage. See Figure 19.

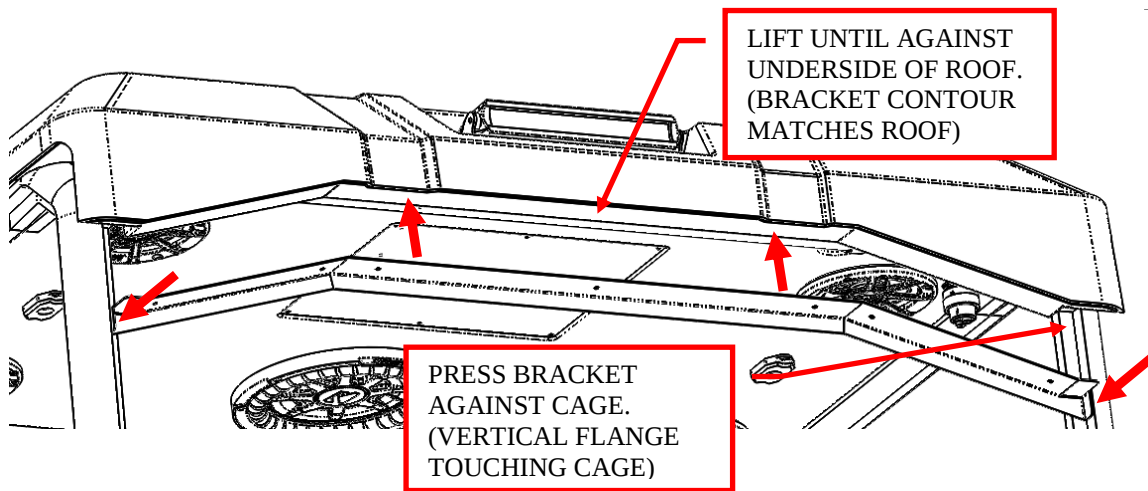


Figure 19: Move the windshield bracket into position.

2. Use masking tape to temporarily hold the bracket in position as shown in Figure 20.
3. With the bracket in position, drill at least 1" deep into the fiberglass with a 1/8" drill bit. Use the windshield bracket as a template for the hole locations.

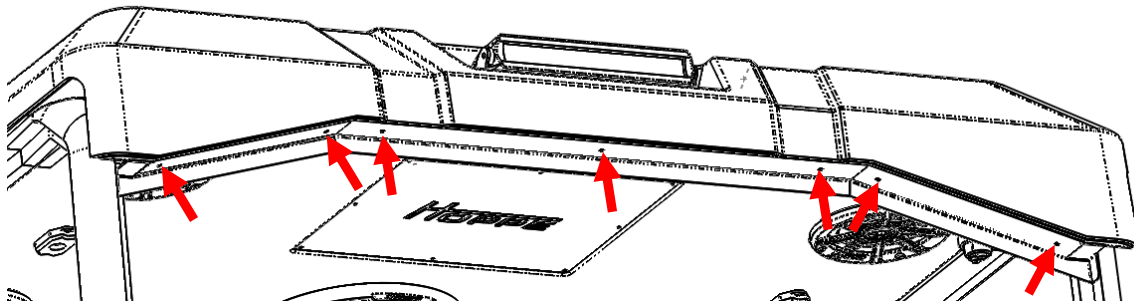


Figure 20: With the bracket in position, secure it to the roof.

4. Attach the bracket to the fiberglass roof using seven of the supplied #8 sheet metal screws as shown in Figure 21.

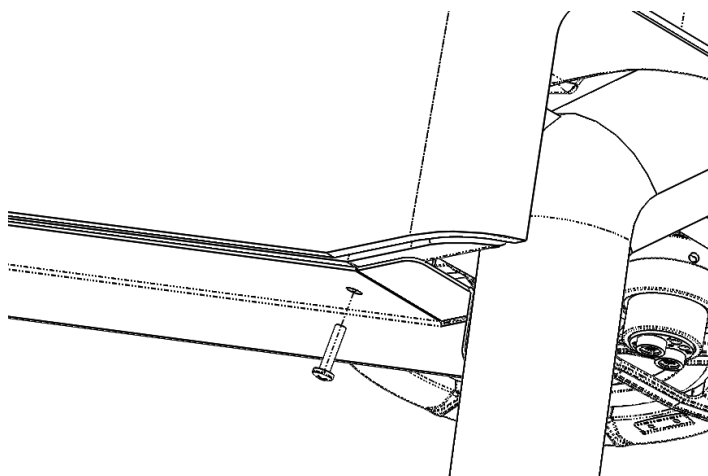


Figure 21: Attach the bracket to the roof using #8 sheet metal screws.

5. The rear windshield can be installed exactly as it was installed with the factory plastic roof.

To learn about the more advanced features and operation of your stereo, visit the Kicker website links found in SECTION 2 – About your Audio Shade Top of this document.

Thank you for choosing Hoppe *Audio Shade* off-road top for your Can-Am Defender UTV. We hope you enjoy your new sound system, top, and lighting. We invite you, in your travels, to stop by our manufacturing plant in Troup, Texas, for a factory tour and to meet the people who designed and manufactured your Audio Shade off-road top. This

will also give you an opportunity to check out our sister company  and our extensive line of trike conversions, motorcycle, and power sports accessories.

We believe you will be impressed by what you witness and the people you will meet.