



SNORKEL

2019+ RAM 2500/3500

PLEASE READ ENTIRELY BEFORE YOU START

To guarantee a quality installation, we recommend reading these instructions thoroughly before beginning any work. These instructions assume a certain amount of mechanical ability and are not written nor intended for someone not familiar with auto repair.

NOTE: It is strongly recommended to install this snorkel system before the AEV front bumper. If you already have the AEV Front bumper installed, it will require unbolting the bumper from the truck to allow for disassembly.

REQUIRED TOOLS

Common Hand Tools

Drill

1/16" Drill Bit

1/2" Step Bit

5/32" Drill Bit

1" Hole Saw

Air or Electric Cut-off Wheel

Die Grinder with Carbide Bit

Center Punch

Deburring Tool

Rivet Tool

Rust Preventative such as Permatex 81773 Rust Treatment

Masking Tape

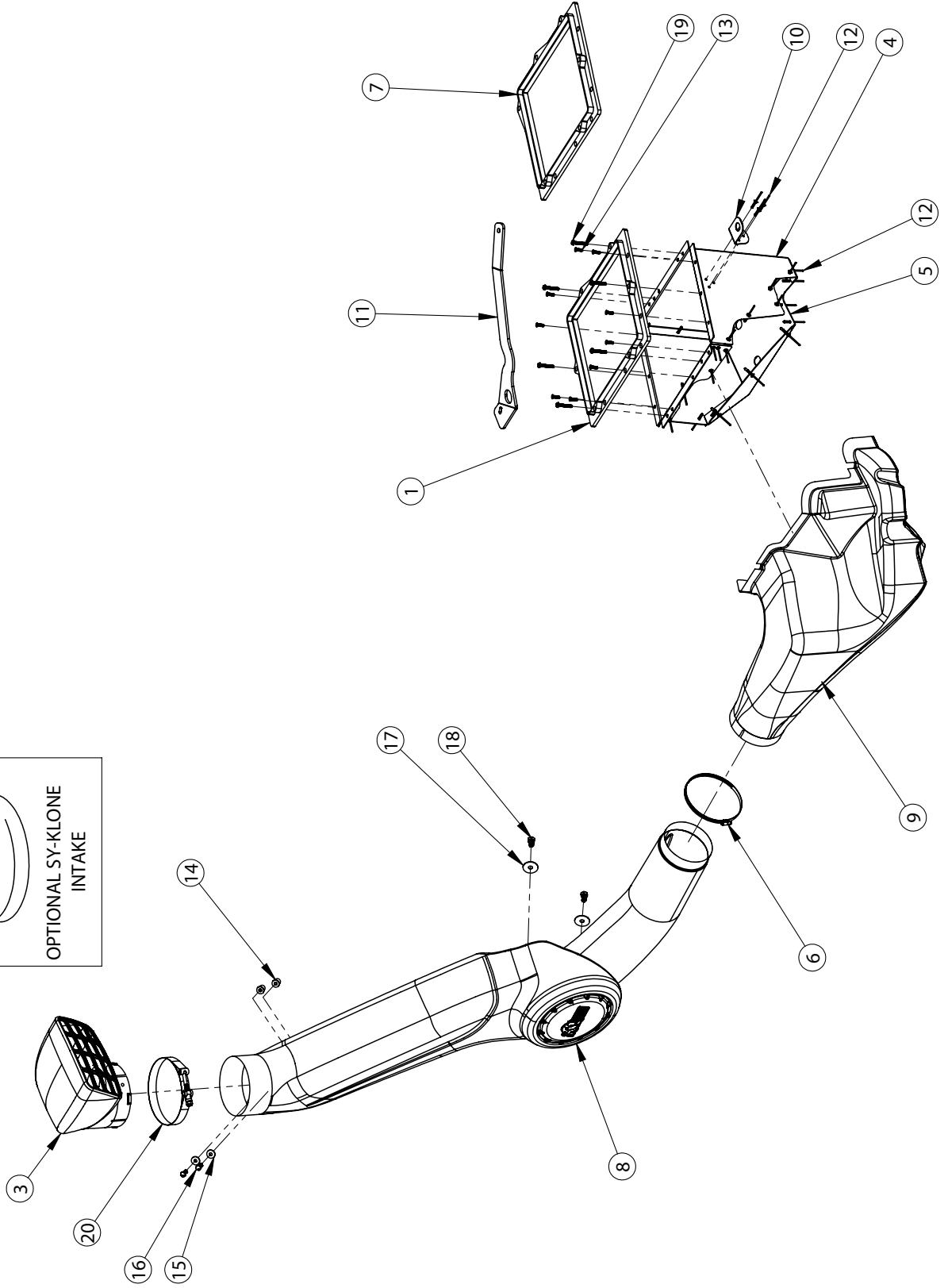
AEV30452AC

Last Updated: 01/26/24



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ITEM NO.	PartNo	DESCRIPTION	QTY.
1	ARMZ2022AA	ADAPTER, RAM HD 2019+ SNORKEL, AIRBOX DIESEL	1
2	40306140AA	5" SY-KLONE SERIES 9000 PRECLEANER	1
3	ARMZ2002AA	AIR RAM, RAM SNORKEL	1
4	ARMZ0200AA	ASSEMBLY, RAM HD 2019+ SNORKEL, AIRBOX FRONT	1
5	ARMZ0201AA	ASSEMBLY, RAM HD 2019+ SNORKEL, AIRBOX REAR	1
6	AEV97005AA	CLAMP, MAIN BODY TO AIR BOX, RAM SNORKEL (5IN DIA)	1
7	ARMZ2023AA	AIRBOX ADAPTER GAS, RAM HD 2019+ SNORKEL	1
8	ARMZ2020AA	SNORKEL, RAM 2019+, MAIN BODY	1
9	ARMZ2021AA	SNORKEL, RAM HD 2019+, AIRBOX CONNECTION	1
10	ARMZ2026AA	BRACKET, RAM HD 2019+ SNORKEL, FRONT ATTACH	1
11	ARMZ2027AA	BRACKET, RAM HD 2019+, SNORKEL, CORE SUPPORT	1
12	P-15R25RSL/AA	5/32 x 1/4 aluminum split rivet (.125 - .250 grip range)	32
13	AEV91183AA	#10-32 X 5/8" STAINLESS FLAT HEAD SCREW PHILIPS 82° COUNTERSINK	9
14	AEV93005AA	M6 X 1.0 WELL NUT (0.4-2.8 THICK MATERIAL)	2
15	AEV98016AB	M6 FLAT WASHER 18MM OD WIDE FENDER (PS11036-SILVER)	2
16	AEV91017AA	M6 X 1.0 X 20 HEX CAP SCREW (SILVER)	2
17	AEV98015AA	WASHER, FENDER, M8 W/ 1.25" OD-PS5873/SILVER	2
18	AEV91024AA	M8 X 1.25 X 16 HCS (PS5873/SILVER)	2
19	AEV91182AA	10-32 X 1.25 LONG FLANGED HEX HEAD SCREW WITH SLOT DRIVE	6
20	AEV98013AA	HOSE CLAMP, BOLT STYLE (5.28-5.59 DIA)	1



I. TRUCK PREPARATION

1. Clean the vehicle including the fender liner area.
2. Remove the radiator cover by removing the 14 push clips (fig. 1).

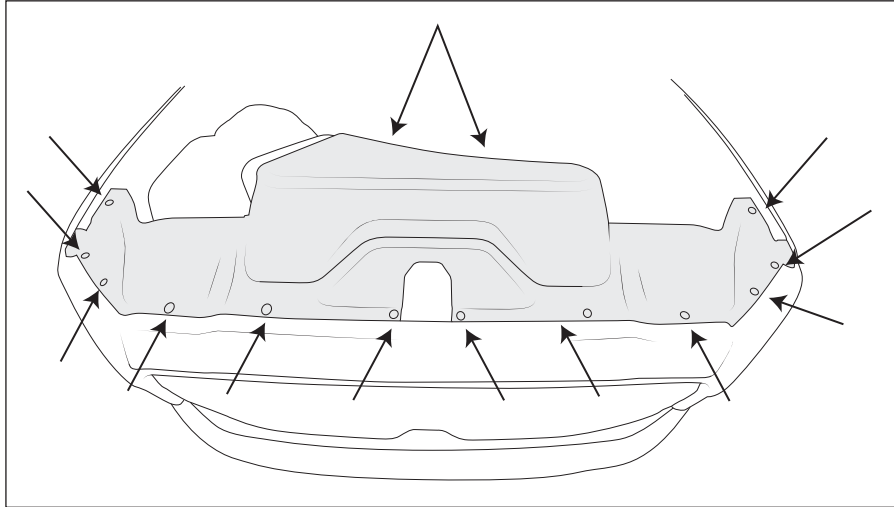


Figure 1

3. Remove the upper grille trim by removing the 10 bolts (fig. 2).

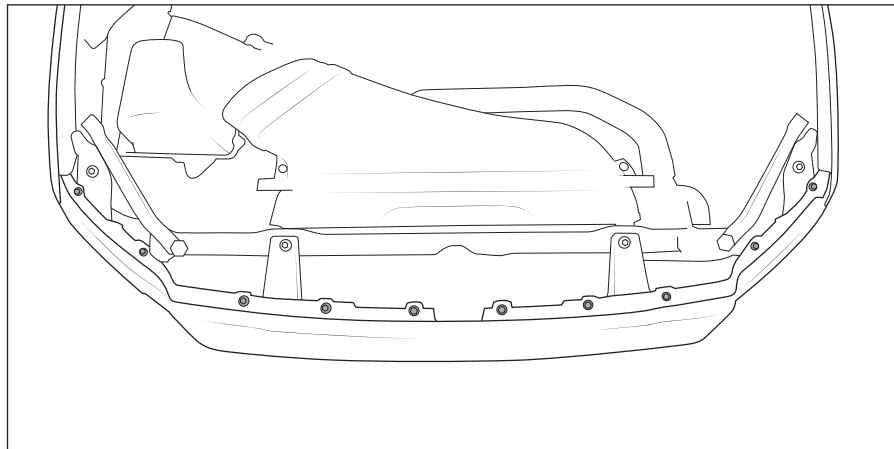


Figure 2



4. Remove lower grille trim.

- A. The trim pieces beneath the headlamps are removed using a pry tool, being careful not to damage paint.
- B. The center section has 7 bolts securing it to the grille (these will need to be loosened from below the vehicle but not fully removed) from underneath the vehicle, and 2 bolts below each headlamp (these need to be fully removed)(fig. 3).

NOTE: If you already have an AEV Bumper installed, it will be required to unbolt the bumper assembly and slide it forward to allow for this trim piece to be removed.

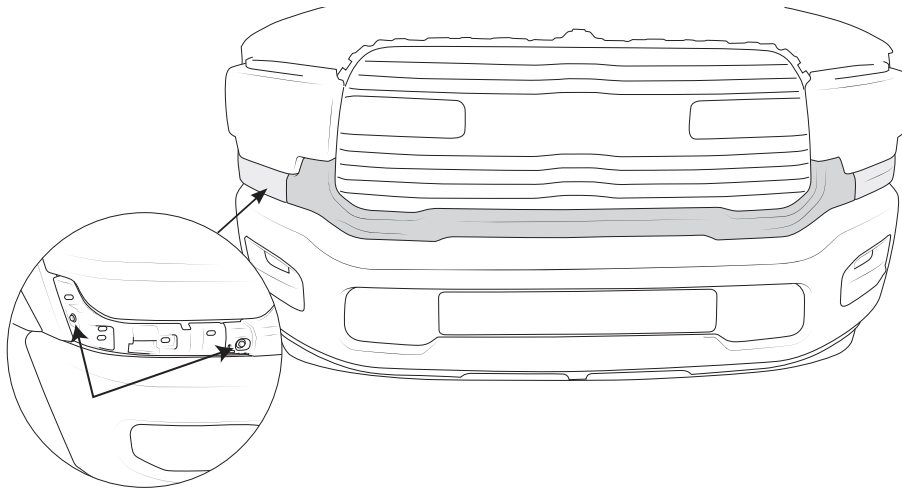


Figure 3

- 5. Remove the right front fender liner. Factory fender flares do not need to be removed.
- 6. Remove the right-side headlamp assembly. This will require removing the grille assembly.
- 7. Remove the factory radiator core support bracket, save the hardware.
- 8. Remove the factory intake components shown below by removing 2 bolts, SAVE the shaded portion, this will be re-installed (fig. 4). SAVE the three rubber grommets from the lower factory lower airbox.

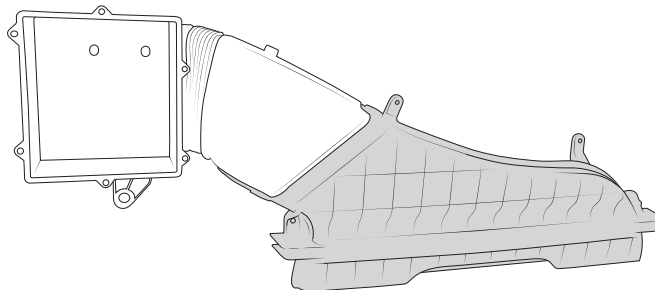


Figure 4



II. PREPARE TEMPLATE & FENDER CUTTING

1. A cut template is provided in this kit, but if a replacement template is needed, they can be downloaded and printed from the AEV website. Template Part Number: AEV30394AA. (Be sure to print on 11x17" paper and check the scale before using).
2. Trim the template per the instructions and tape to the fender (fig. 5).

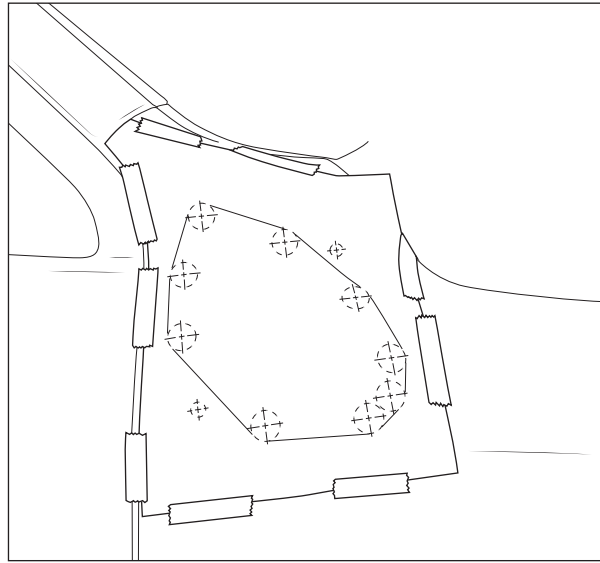


Figure 5

3. Protect surrounding area and center punch the drill points.
4. Drill holes and use air saw to cut the large opening. Be careful not to cut into the backside structure on the upper portion of the template.
5. Use a rust preventative on all bare surfaces.
6. Remove the fender entirely after cutting is complete and rust preventative has been applied.

NOTE: 2021+ trucks will need to grind down the shown vertical bracket as shown (fig. 6) – Treat all bare metal with rust preventative.

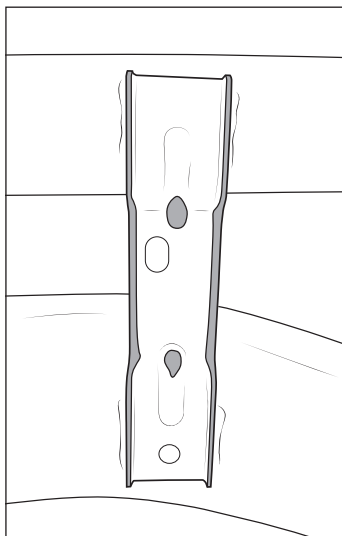


Figure 6



III. MAIN BODY INSTALLATION

1. Protect the A-pillar using tape.
2. Loosely install the snorkel main body onto the fender using the two supplied M8 x 16 bolts and washers.
3. Bring the assembled fender and snorkel body back to the truck and ensure that it is sitting against the fender and the A-pillar appropriately (fig. 7).

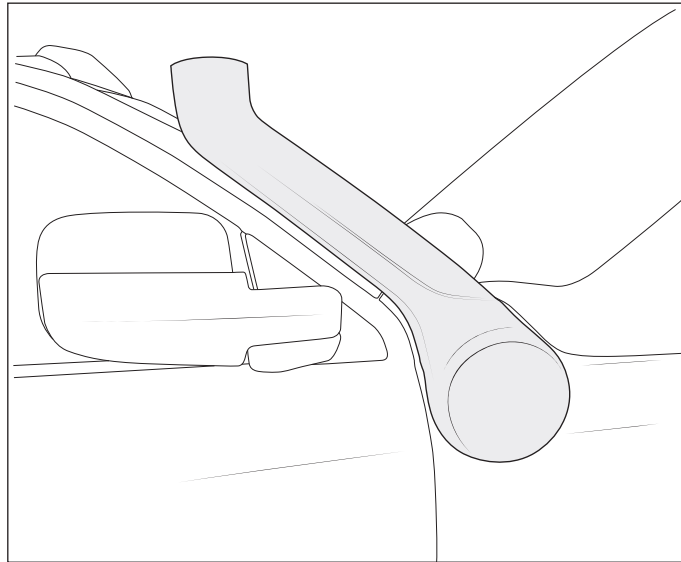


Figure 7

4. Install the fender onto the truck and ensure the panel gaps are appropriate.
5. Using a marker, mark the two upper main body mounting locations.
6. Remove the snorkel and fender from the truck.
7. Center punch and drill the two A-pillar mounting locations out to 1/2" (fig. 8).
 - A. Be careful not to drill into the opposite side of the A-pillar.
 - B. Treat all bare metal with rust preventative.

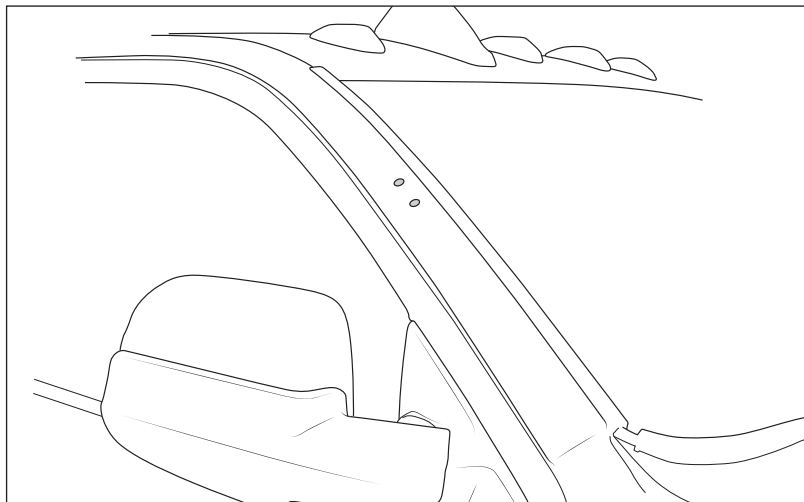


Figure 8



IV. FINAL ASSEMBLY

1. Assemble the lower airbox using the supplied 5/32" x 1/4" rivets. Sensor Safe RTV can be used between the panels (fig. 9).
2. Install the forward mounting tab onto the airbox using the supplied rivets (fig. 9).

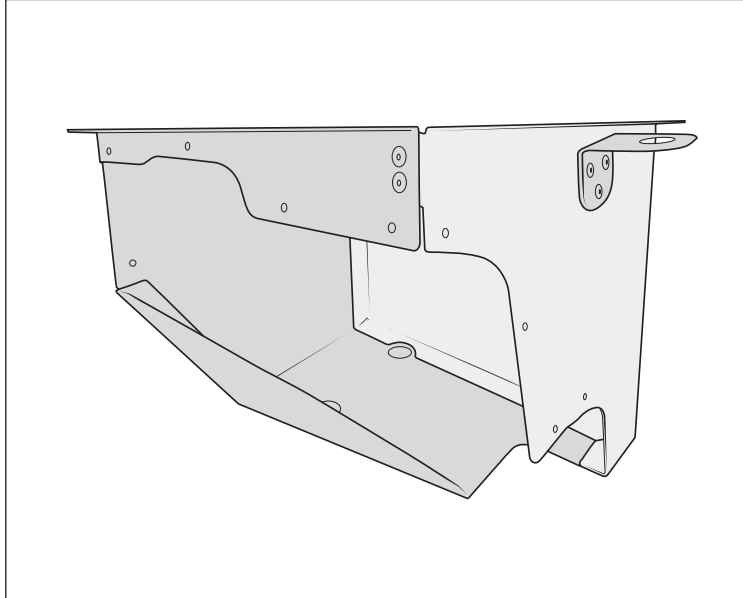


Figure 9

3. Using the 9 supplied screws, attach the adapter ring to the top flange of the airbox (fig. 10).

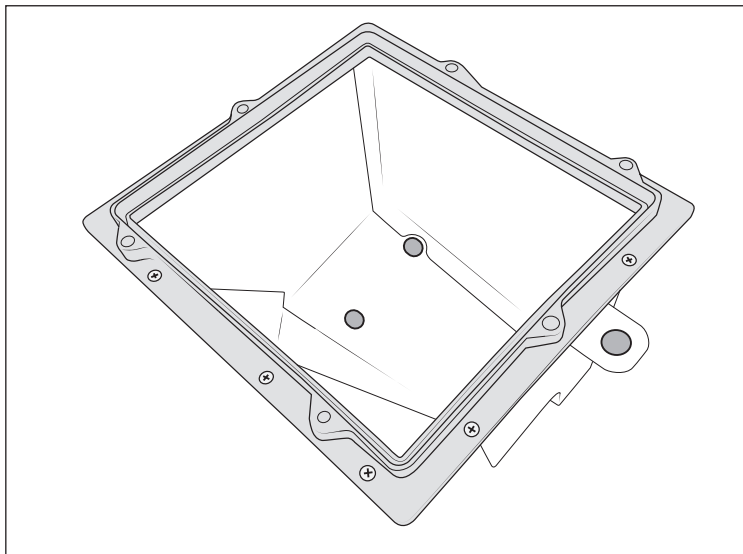


Figure 10

4. Install the three rubber grommets, saved earlier, into the lower airbox (fig 10).



5. Fit the lower air box and plastic airbox connection together and pre-drill the four holes shown (fig. 11)

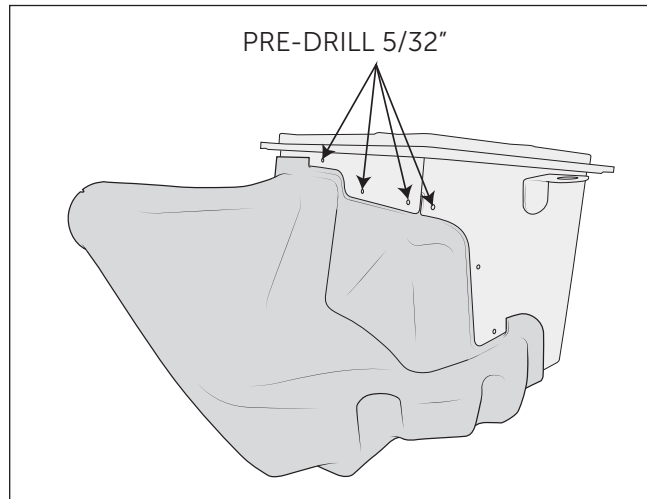


Figure 11

6. Feed the plastic airbox connection part through the fender opening as shown (fig. 12).
 - A. Place the smaller of the two hose clamps supplied onto the inlet of this component.
 - B. Let this part sit loosely in the engine bay for the time being.

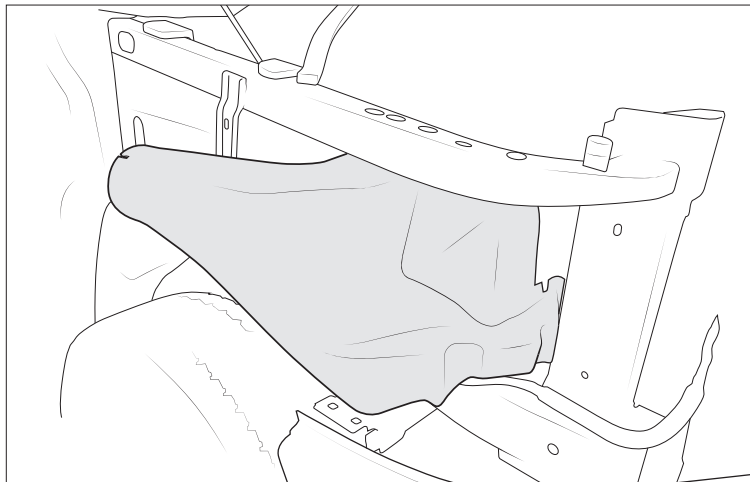


Figure 12



- Place adhesive foam squares onto the backside of the main body as shown (fig. 13).

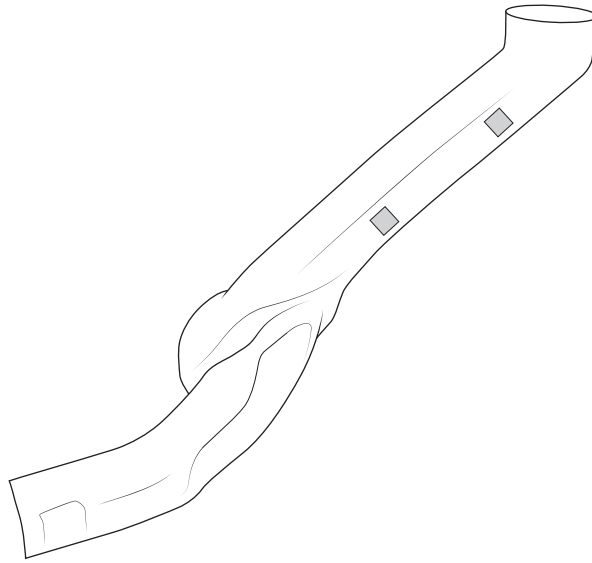


Figure 13

- Reinstall the fender and main body back onto the truck for the final time, being sure to insert the main body outlet into the inlet of the plastic component installed in the previous step (fig. 14).

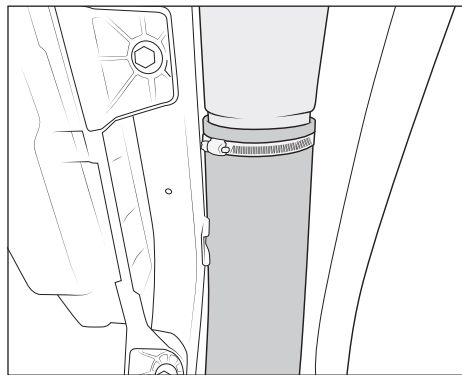


Figure 14 : Shown from below

- Install the lower airbox into the engine bay, being sure to fully seat the rubber grommets onto the mounting studs (fig. 15).

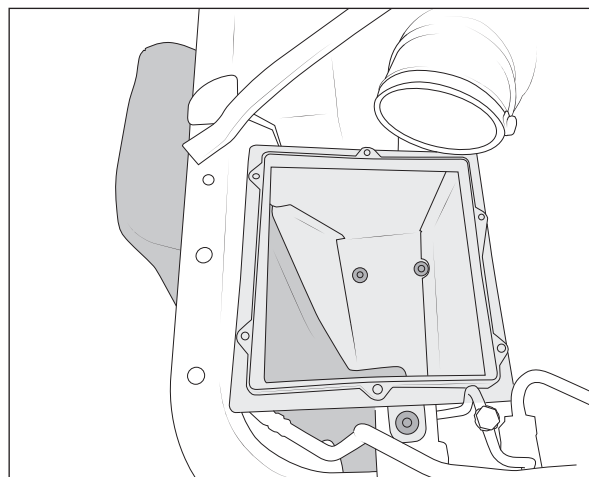


Figure 15



- A. The metal airbox should seat into the plastic airbox connection part installed in the previous step (see figs. 11 & 15).
 - B. Use a 5/32" drill bit to drill out the remaining holes in the plastic component, being sure to full seat the metal airbox before marking and drilling.
 - C. Rivet these components together – Use sensor safe RTV on the interfaces if desired.
10. With the new lower intake system installed, the filter and factory upper airbox lid can be reinstalled using the supplier 1.25" slotted hex head screws (fig.16).

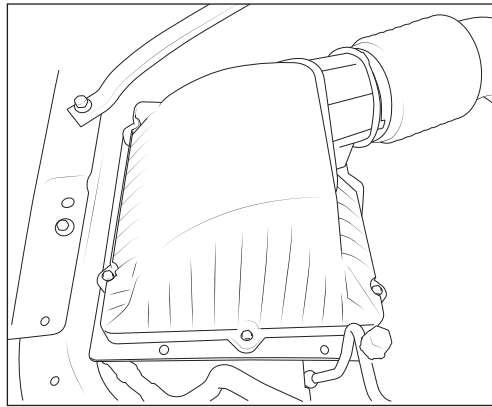


Figure 16

11. Reinstall the component saved in step 8 under truck prep figure 4.
12. Install the AEV provided radiator support bracket using the hardware saved during disassembly (fig 17).

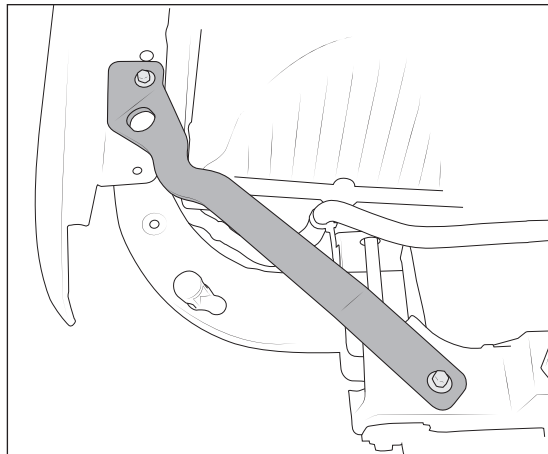


Figure 17



13. Reinstall the plastic radiator cover and trim slightly to clear the AEV radiator support bracket (fig. 18).

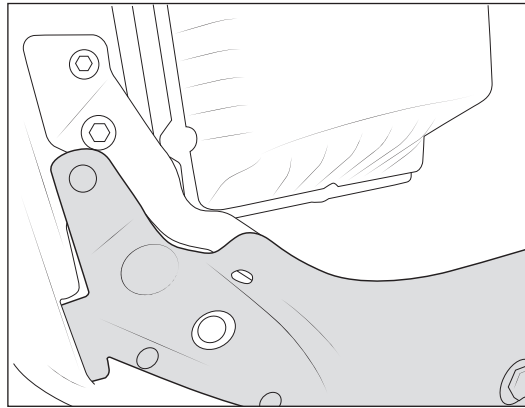


Figure 18

V. INSTALL AIR RAM

1. Slide the supplied hose clamp over the Intake Body.
2. Attach the Air Ram and adjust so it is forward facing.
3. Mark the hole location on the Intake body and drill a 5/16" hole (Fig 19).

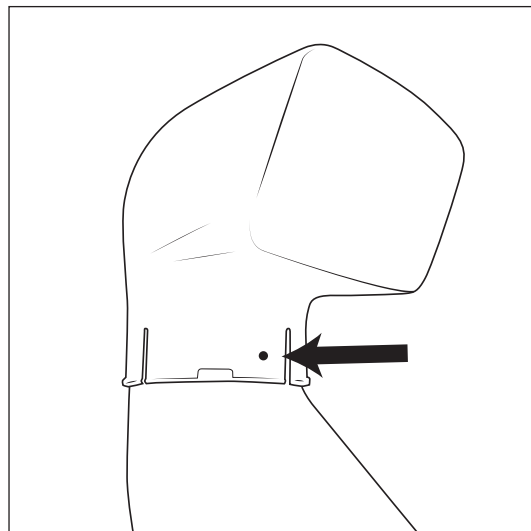


Figure 19

4. Install the push pin
5. If using a hose clamp, refer to steps 6. If using a plastic clamp refer to steps 7, 8 and 9.
6. Slide the hose clamp up around the Air Ram and tighten until snug enough to prevent lifting or twisting of the air ram.
7. Install the plastic snorkel clamp on the backside.
8. Using a 5/16th wrench, tighten until snug enough to prevent lifting or twisting of the air ram, assuring the pin on the bottom side of the "bolt" is all the way through so it holds.
9. Once the clamp is tightened, snip the extra off.



VI. INSTALLING OPTIONAL PRE-FILTER

NOTE: You may wish to trim 5/8" off the top of the Snorkel Body for optimum fit with the pre-filter. However, if you plan on swapping between the air ram and pre-filter DO NOT trim.

1. Slide the supplied hose clamp over the Intake Body. If supplied with a plastic clamp, wait until the end to install.
2. Install the pre-filter. This must be installed with the vent to the rear of the vehicle (Fig. 21).
3. Slide the hose clamp up around the High Dust Filtration System and tighten until snug enough to prevent lifting or twisting of the air ram.
 - a. If supplied with a plastic clamp, install it on the backside of the Pre-Filter. Using a 5/16th wrench, tighten until snug enough to prevent lifting or twisting of the air ram, assuring the pin on the bottom side of the "bolt" is all the way through so it holds. Once the clamp is tightened, snip the extra off (fig. 20).

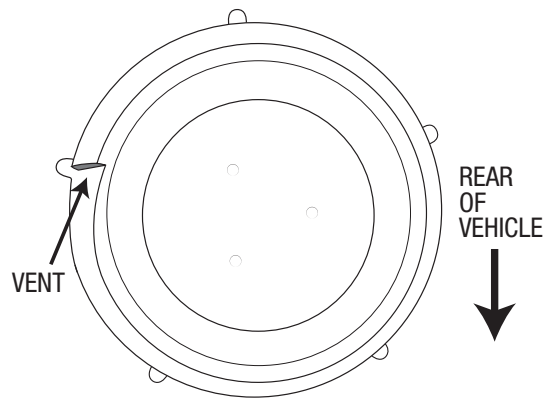


Figure 20