



## **INTERCOOLER UPGRADE INSTALLATION INSTRUCTIONS**

PART NUMBER D330-0026

APPLICATION: 2016-17 F87 M2

Congratulations for being selective enough to use a Dinan Intercooler Upgrade Kit. We have spent many hours developing this kit to assure that you will receive maximum performance and durability with minimum difficulty in installation. Please take the time to read these instructions and call us if you have any difficulties during the installation.

Familiarity with BMW recommended procedures is required to install this kit. These documents are available at <http://www.bmwtechinfo.com/>

**DO NOT WORK ON VEHICLES SUPPORTED BY A JACK ONLY. USE SECURE JACK STANDS!**

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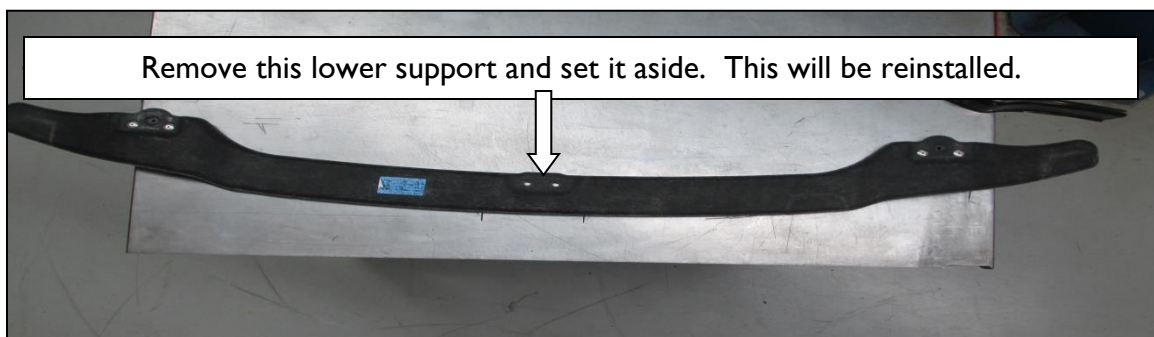
### **PARTS LIST**

<b>Qty</b>	<b>Part #</b>	<b>Description</b>
1	D333-0026	Intercooler Assembly
1	D332-0074	Diffuser; Undercar
1	D333-0028	Hardware Kit

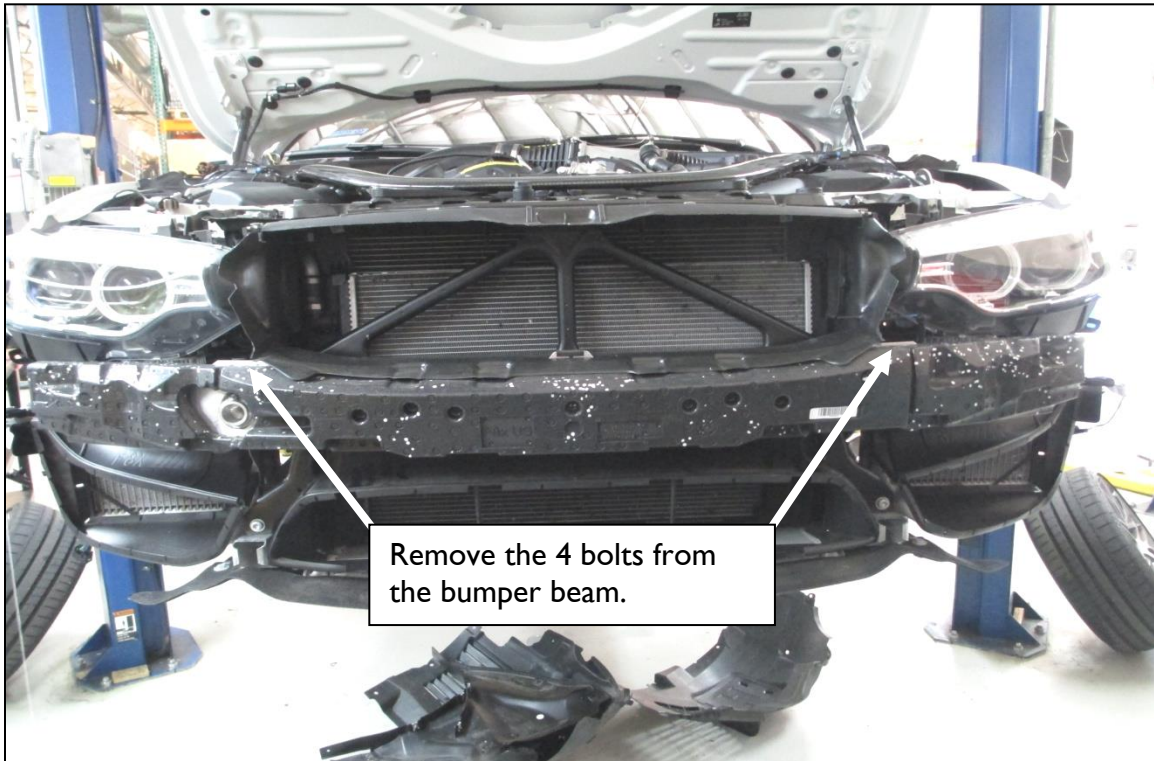
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### **REMOVE THE STOCK INTERCOOLER:**

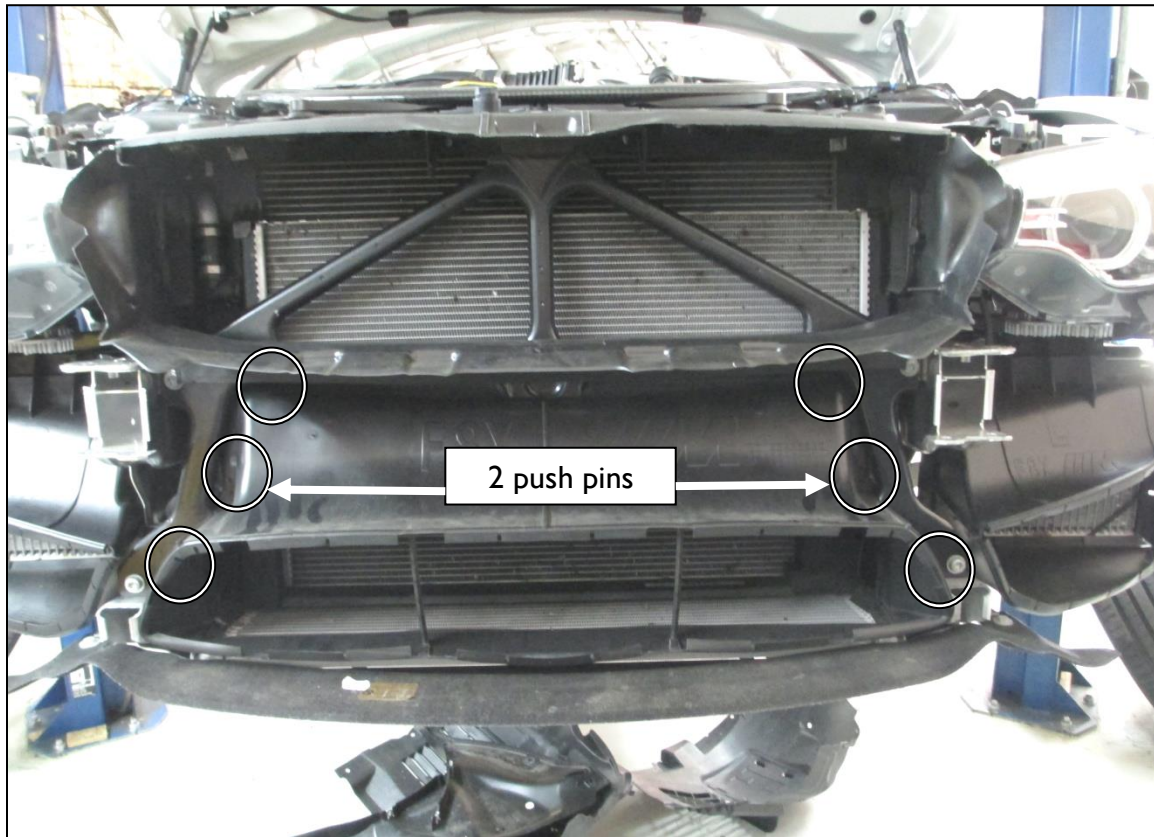
1. Remove the front bumper per BMW recommended procedure.
2. With the bumper removed, remove the lower cross piece.



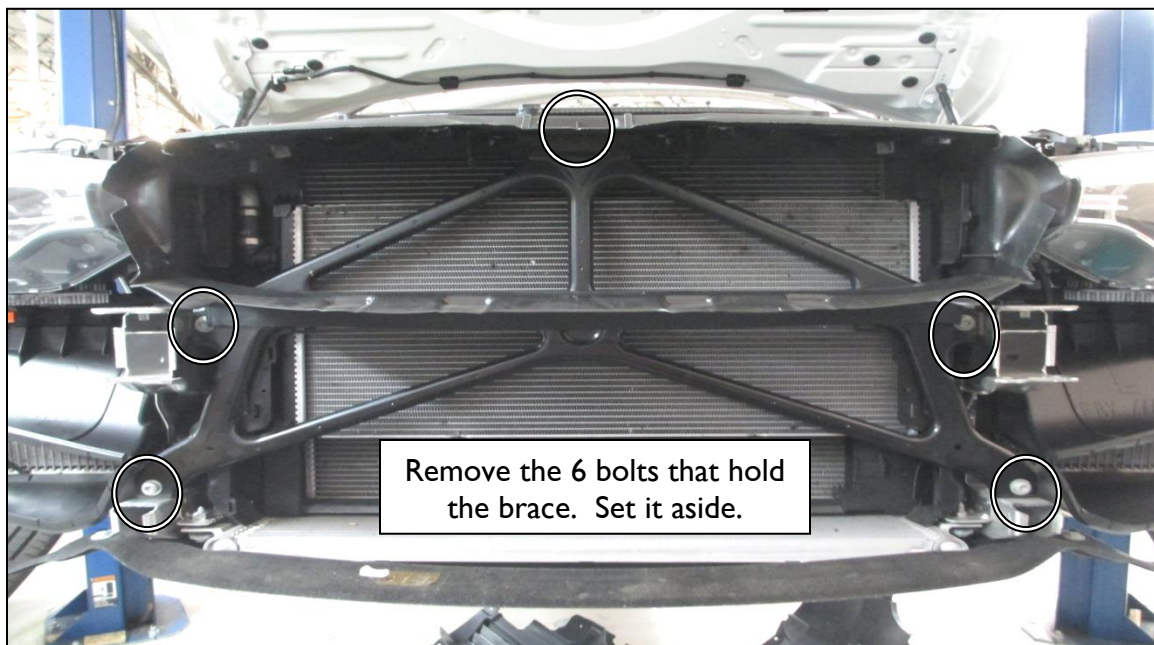
3. Remove the 4 bolts that hold the bumper beam onto the car. Note -- headlight removal is not required for this step.



4. Remove the lower air duct. It is secured with 6 tabs and 2 push pins:

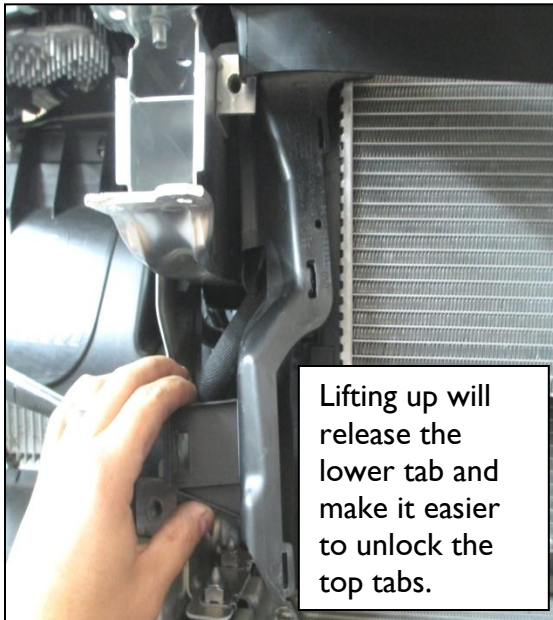


5. Remove the 6 bolts that secure the front brace and remove brace from car. Note that the top two bolts come in from the top. Take care to avoid damaging the fins on the radiator as you slide it past the upper air duct.

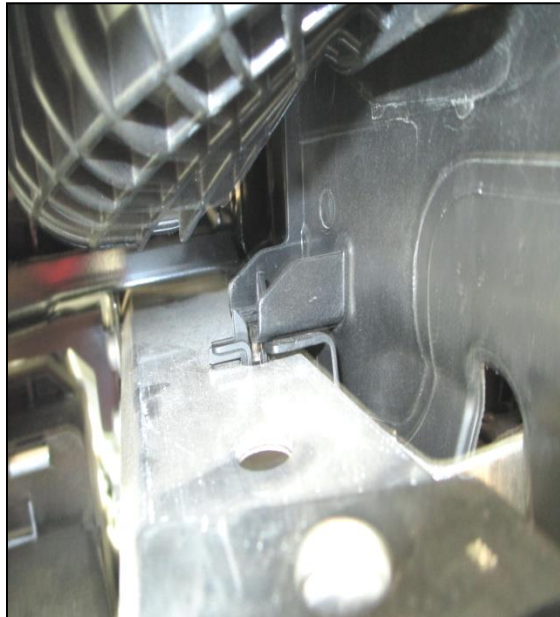


6. Remove the two plastic pieces where the lower air duct was attached to:

- Push up to release the lower tab.
- Then you will need to release the upper tabs.

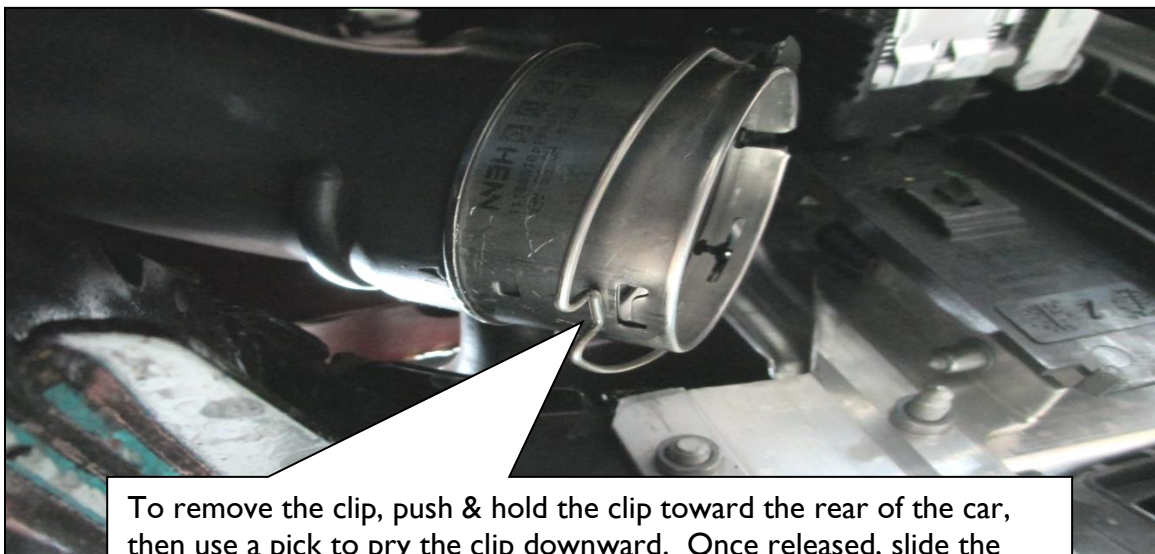


Lifting up will release the lower tab and make it easier to unlock the top tabs.



7. Remove the inlet and outlet pipes that are attached to the intercooler:

- Push the tubes toward the front of the car, then release the clip (see photo below).
- With the hoses disconnected, remove the 2 bolts from the stock intercooler and remove the unit from the car.



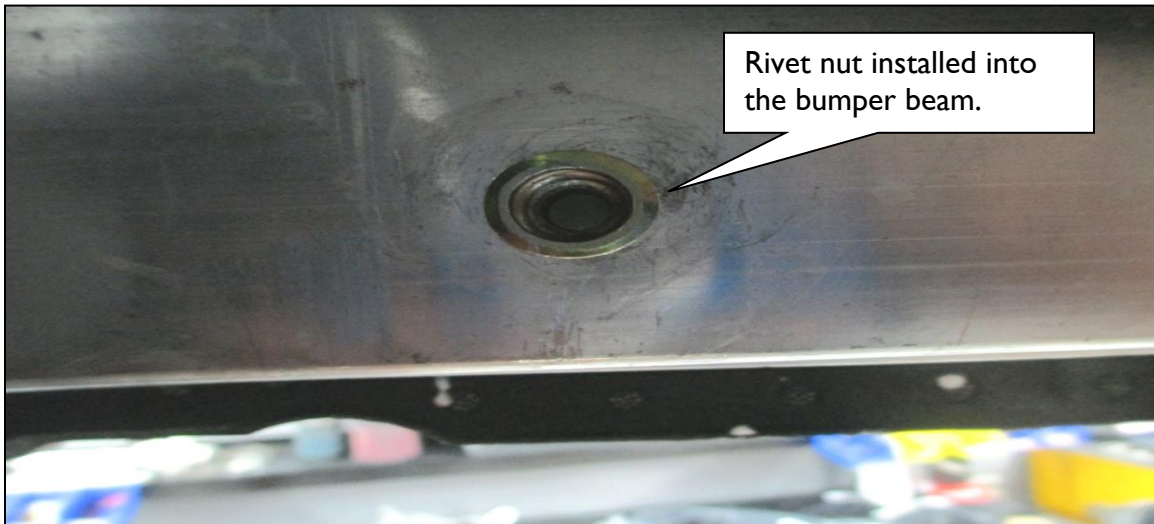
To remove the clip, push & hold the clip toward the rear of the car, then use a pick to pry the clip downward. Once released, slide the clip back as shown. Now pull the tube off of the intercooler. During installation, push the hose back on and the clip back into place. Pull on the hose to confirm it is secure.

## **INSTALL THE DINAN INTERCOOLER:**

8. On the bumper beam, locate the 2 holes that held the upper radiator duct. Drill out these holes to 17/32 drill bit.

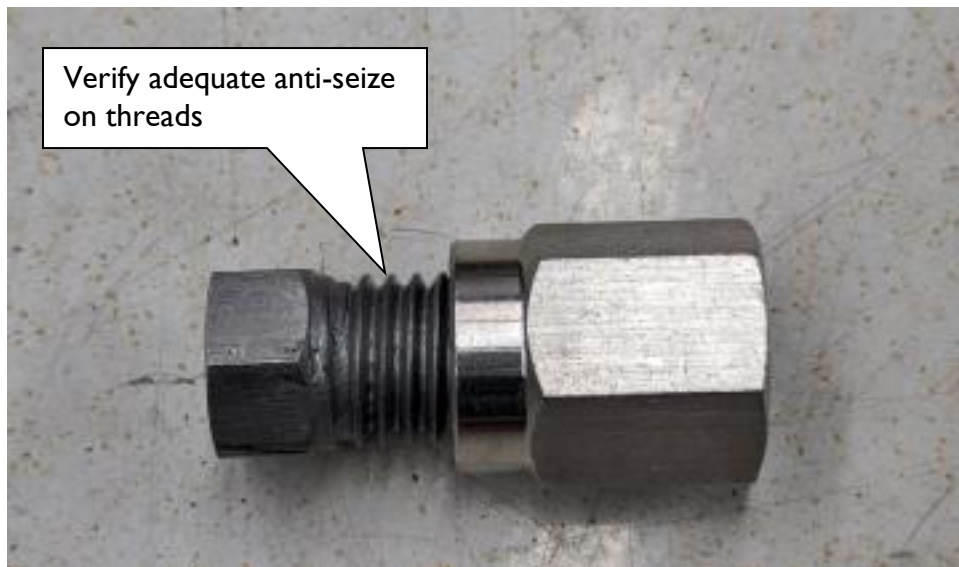


9. Referring to the following steps, install a rivet nut into each hole using the included installation tool. Spare rivet nuts are provided for your use if necessary.



### **Rivet Nut Installation:**

- a) Disassemble tool and verify the threads are coated with anti-seize. Reapply anti-seize as needed. Note that these are left-hand threads.



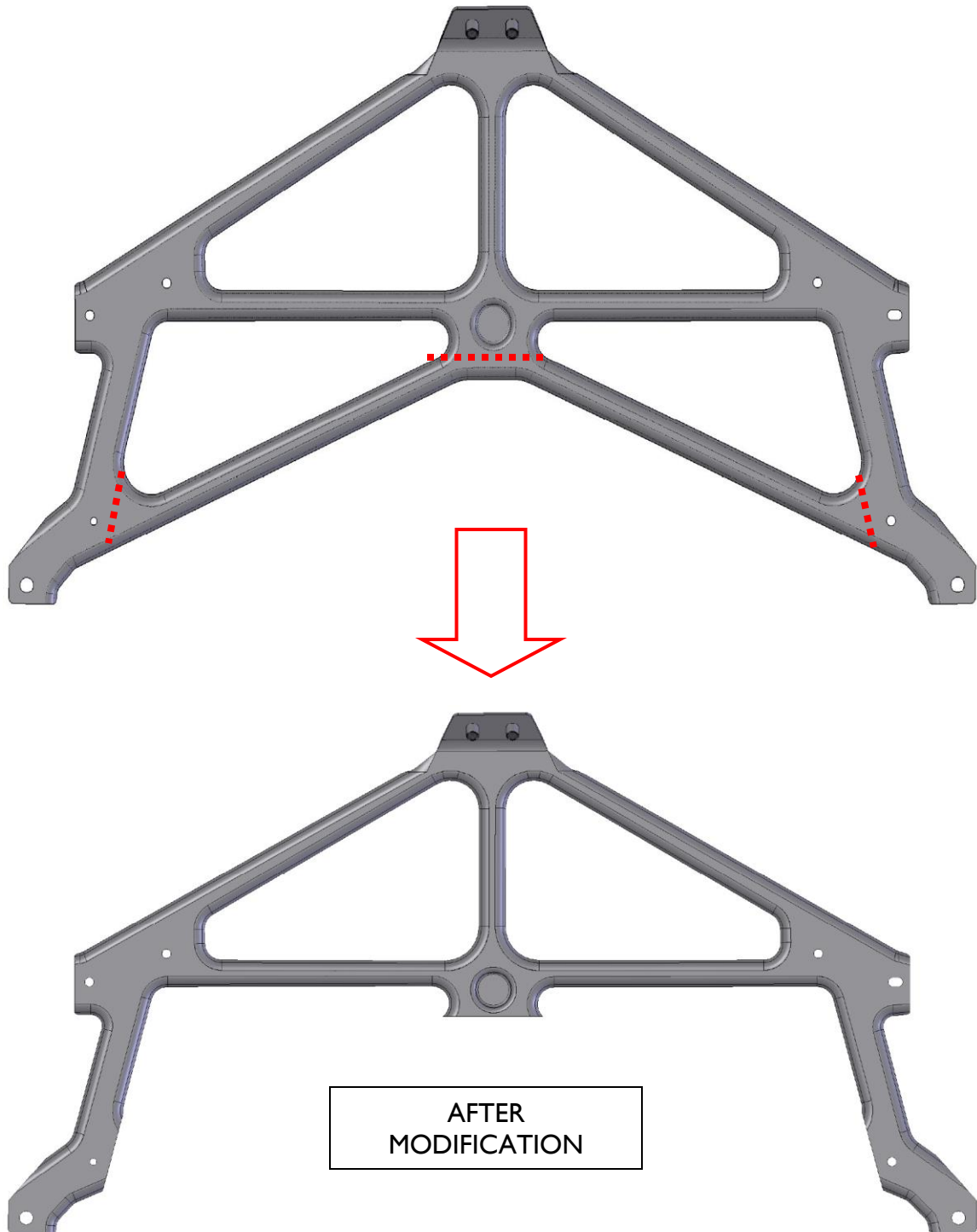
- b) Assemble tool with rivet nut as shown.



- c) Insert assembly into the bumper beam hole.  
d) Hold large hex to prevent from turning. Turn small hex clockwise to expand the nut and secure into place.  
e) Loosen the socket head screw to release the tool from the installed rivet nut.

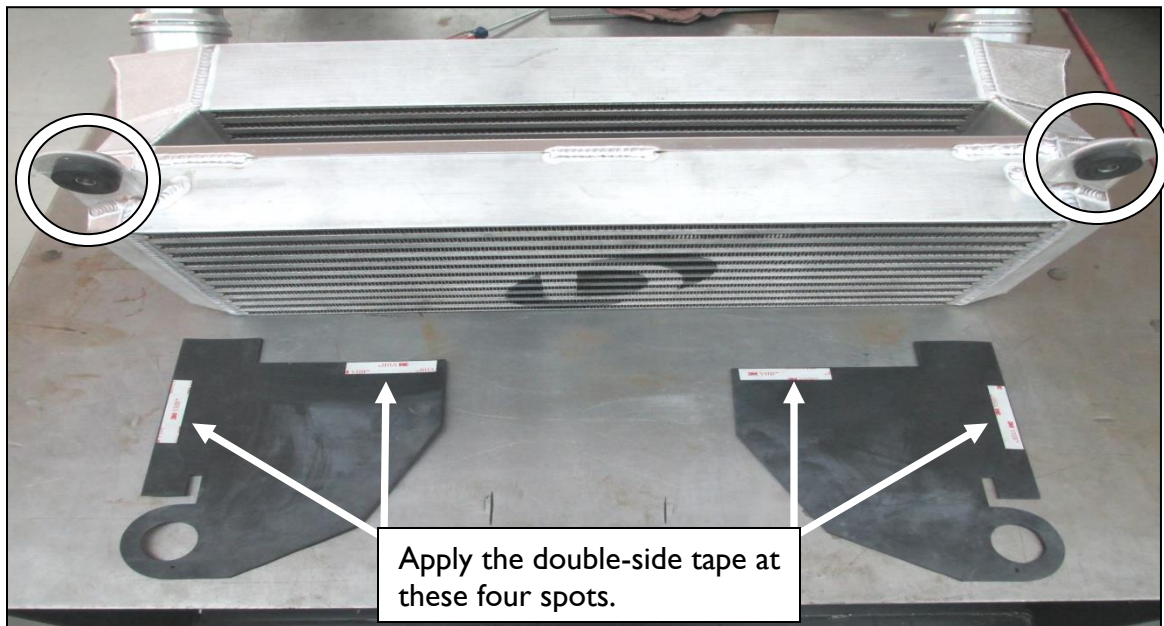
10. Modify front brace:

- Align a straight-edge with the side edges shown and make the two marks.
- In the center of the brace make a mark about 1/8" below the circle.
- Cut out lower portion of brace and clean up the edges.



## 11. Prepare Dinan intercooler for installation:

- Insert the 2 rubber mounts and metal sleeves into the top mounts of the Dinan Intercooler.
- Locate the 2 rubber flaps included in the kit and lay them out in front of the intercooler.
- Clean the flap using the included alcohol wipes and apply the strips of double sided tape at the indicated locations.

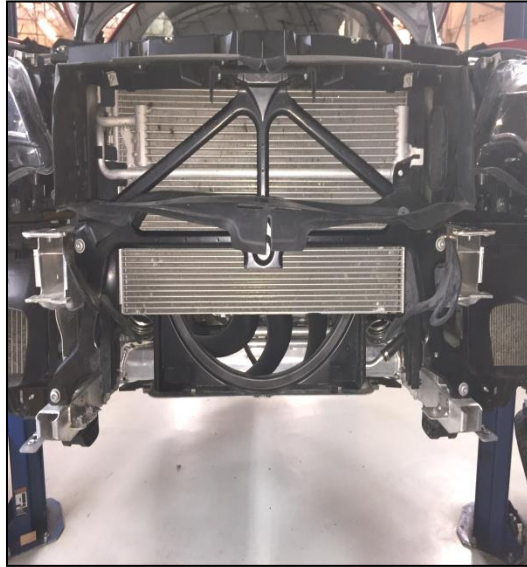


- Take the flap that is shown on the right side of the photo above. Slip the brace through the middle slot, with the big hole toward the front of the brace, and the double side tape facing down. Repeat on the other side.
- Reinstall the brace into vehicle.

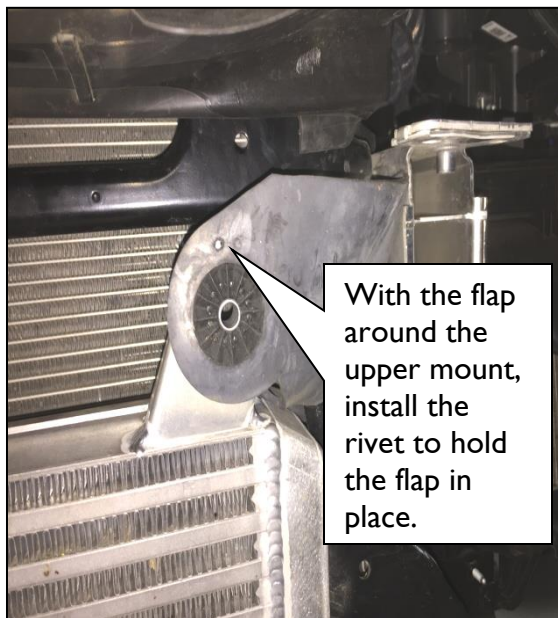
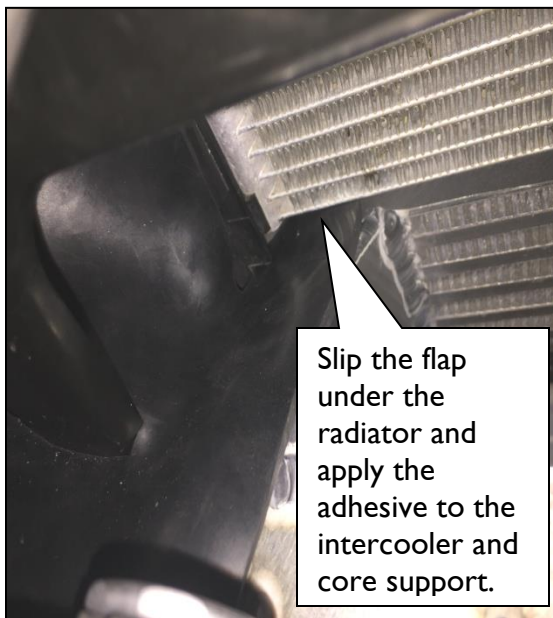


12. With the brace installed...

- Take the open slot, and have it straddle the brace and the bracket where the brace bolts onto.
- Install the intercooler. Leave the 2 lower mounting screws loose.



- Slip the flap in between the intercooler and radiator as shown in the photo, then tighten the 2 screws. Apply the adhesive to the intercooler and core support.
- Then place the flap around the upper mount, and install the rivet.



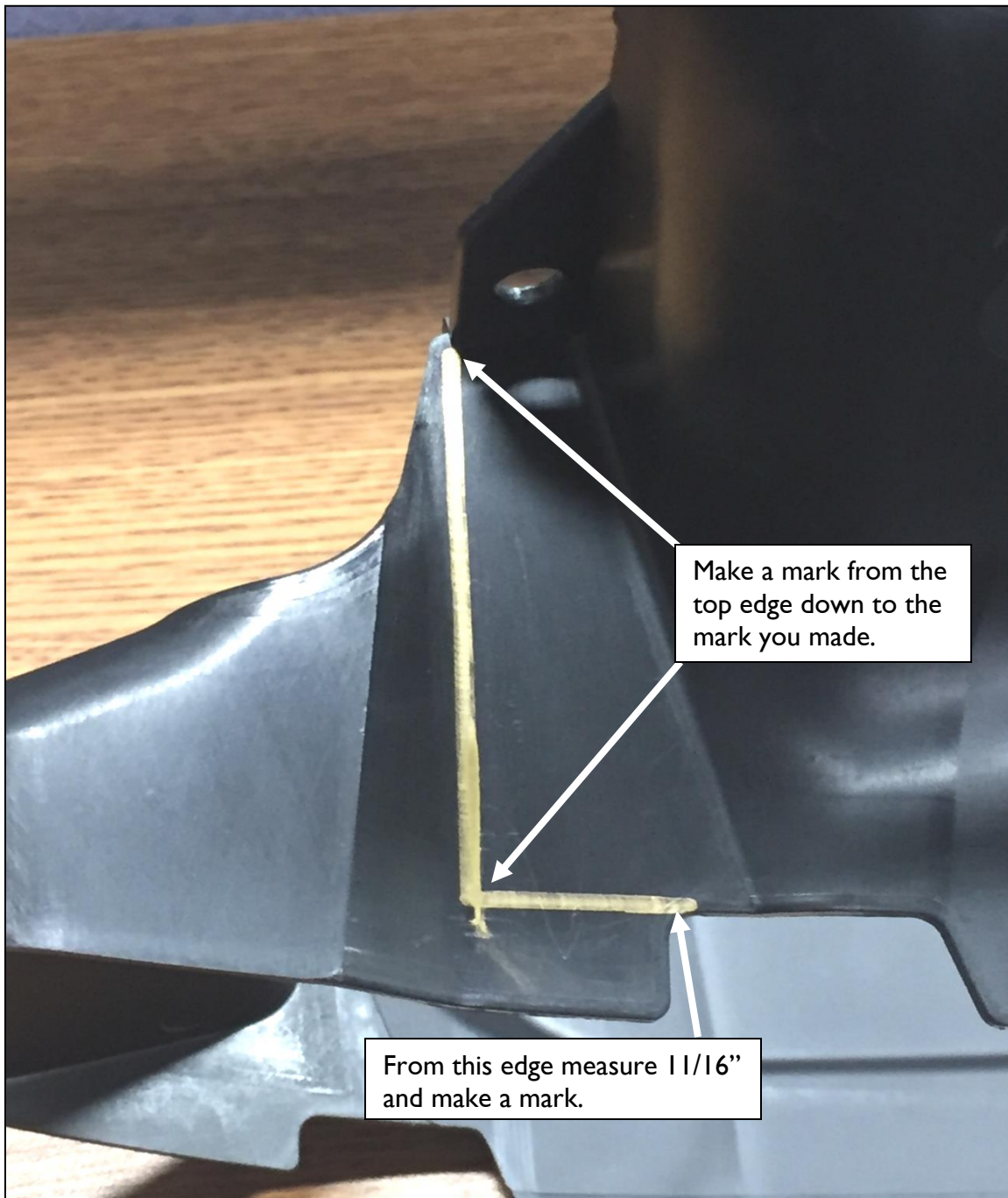
13. Reinstall the bumper beam:

- Use the 4 stock bolts to hold the bumper beam in place, but leave them loose and do not tighten yet.
- Locate the two 8mm bolts from the hardware from the kit.
- Take the two bolts and washer. Slip them through the upper holes located on the upper air duct as shown in the photo.
- Tighten the 8mm bolts, then tighten the bumper beam bolts.

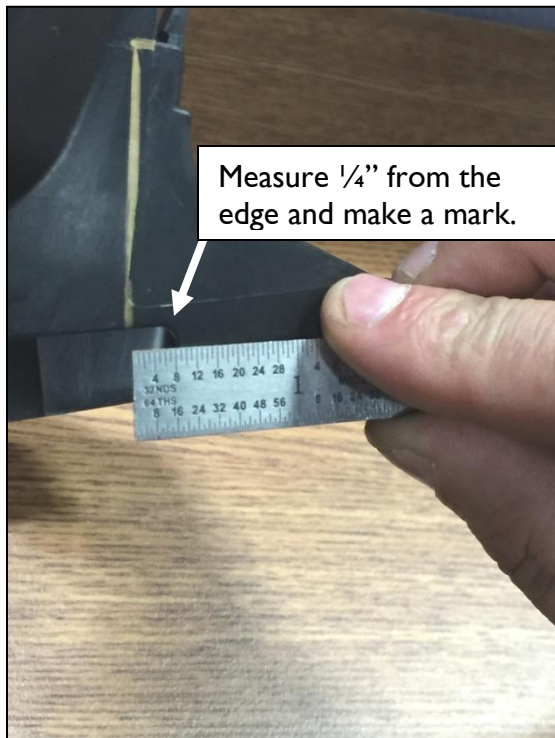


### **Cutting the lower air duct:**

14. Take the lower air duct that was previously removed from the car, and make marks:
- Align a straight edge along the front edge, make a mark from the edge of the cutout, measuring  $11/16"$ .
  - Then align the straight edge from the top edge to your mark as shown in the photo.



- Flip over the air duct.
- From the edge measure out  $\frac{1}{4}$ " and make a mark.
- Then measure out a  $\frac{1}{4}$ " from the cutout and make another mark.



- Repeat for other side.
- Cut along your marks.
- Save the cut pieces as they will be used later.



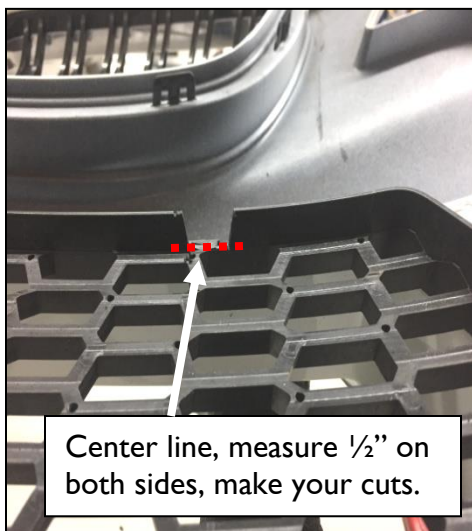
### Trimming the grill:

15. Place bumper on a body stand:

- From the outside of the grill, count inward 3 rows, and make a marks on both sides, top and bottom.

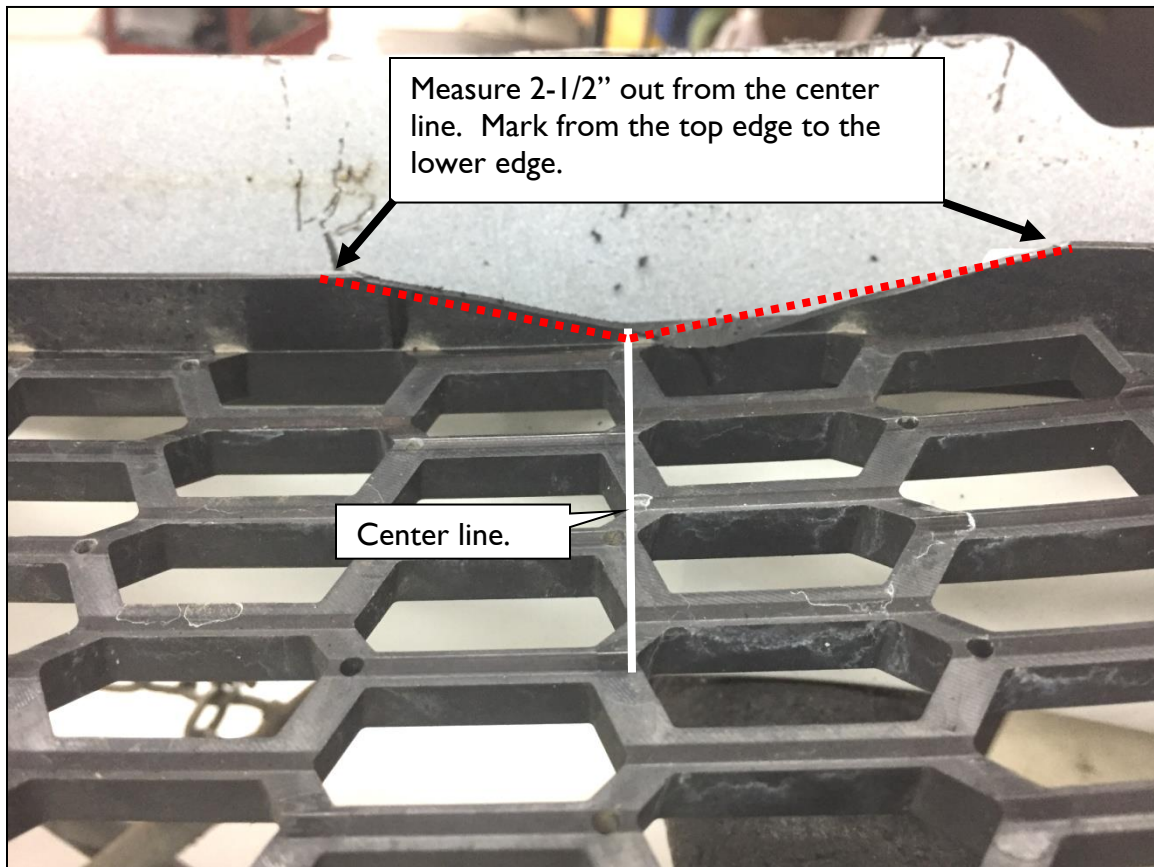


- Measure on the top side of the grill  $\frac{1}{2}$ " on both sides of the center line of the row, as shown in the photo below.



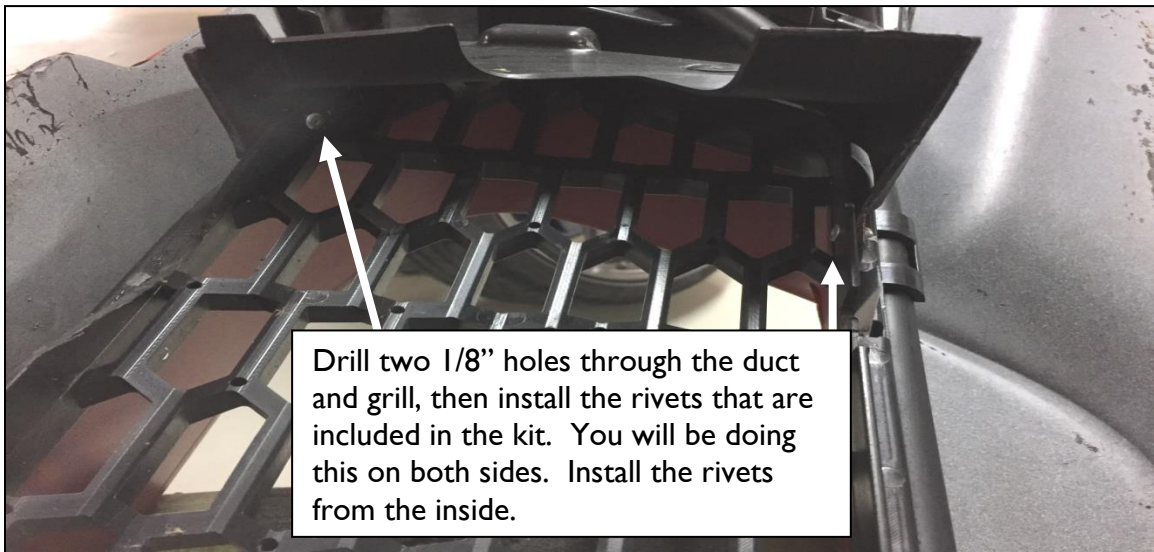
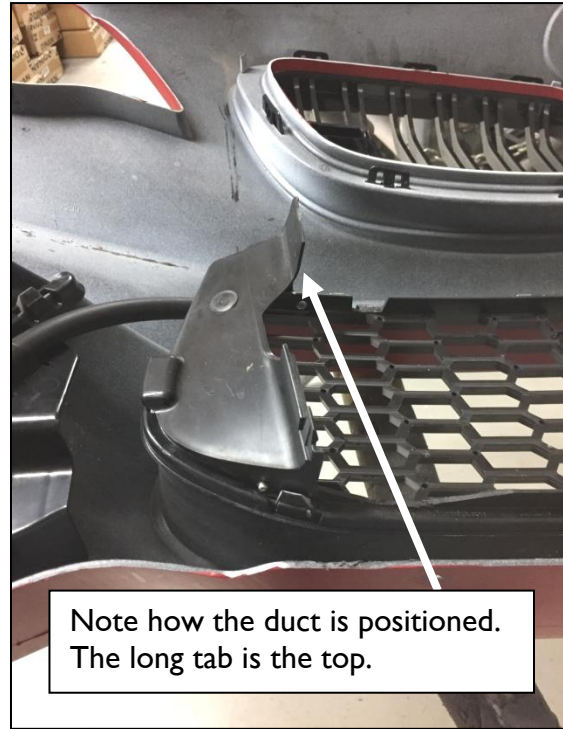
16. On the bottom side of the grill:

- Mark the center line of the grille.
- Measure out on both sides of the center line 2-1/2" as shown in the photos below, and mark a connecting line.
- Repeat marks on the other side, then cut.



17. Take the 2 pieces that were cut out during step 14:

- Using a 1/8" drill bit, match drill 2 holes, one on top and one on bottom. As you are drilling, you will need to drill through both the duct and the grill at the same time (see photos below).
- Repeat on the other side.
- Secure the 2 pieces using the rivets included in the kit.



18. Reinstall the bumper.

- Make sure the two trim pieces sit on the side of the intercooler tanks, as they can get held up when the bumper is installed.
- Don't forget to reinstall the lower support.

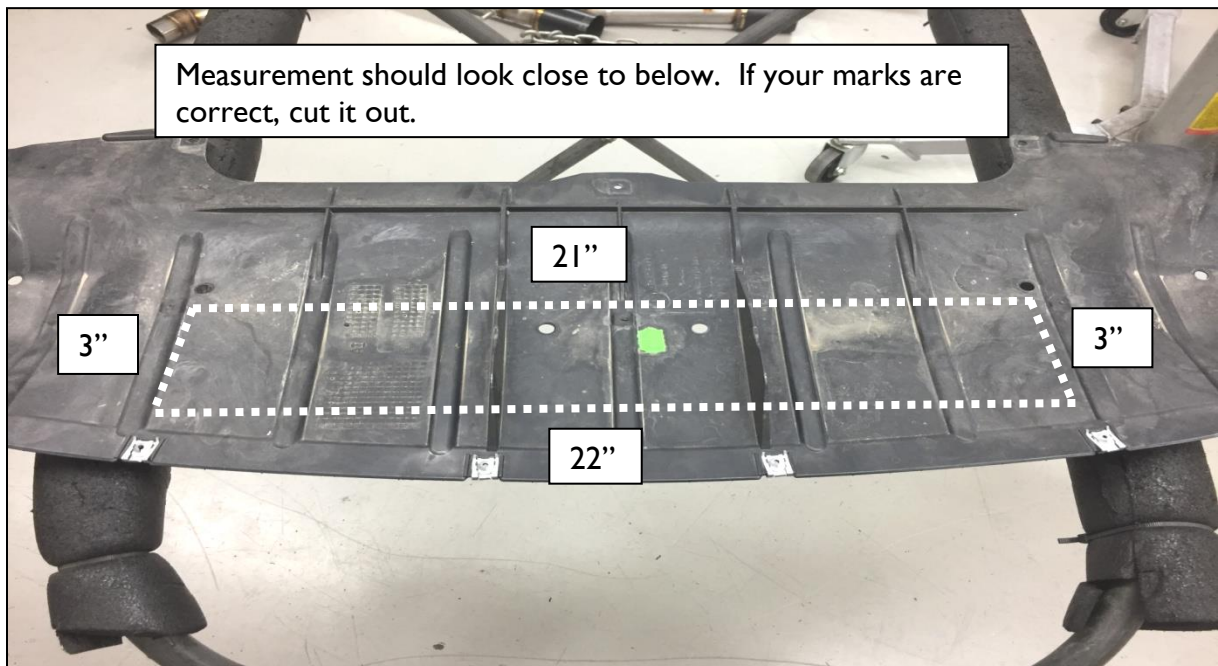
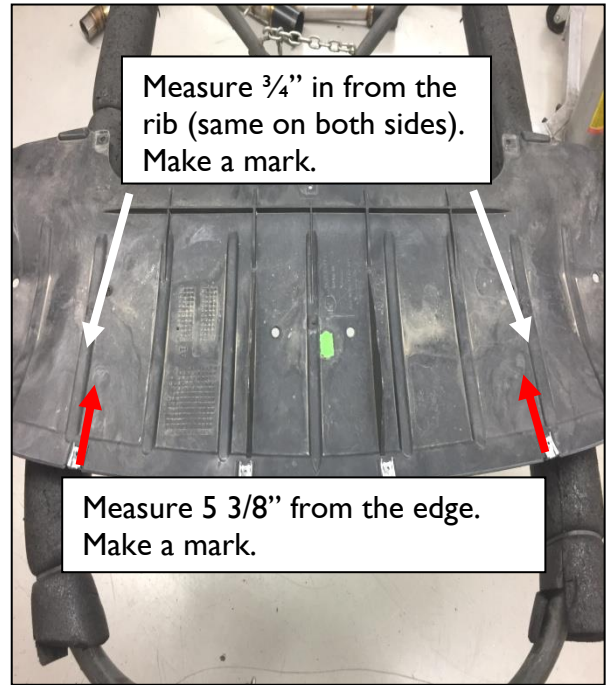
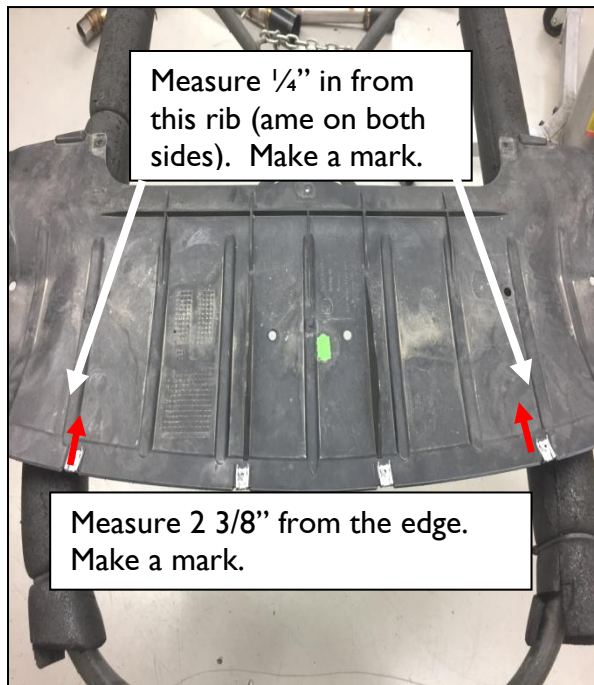
**Modify the lower cover:**

19. Place lower cover on a workbench and cut off the two tabs as shown. Make sure they are flush with the surface.



20. Make additional marks as shown in the photos below:

- Measure down  $2\frac{3}{8}$ " through the center of the clip, and make a mark as shown.
- Measure  $5\frac{3}{8}$ " through the center of the same clip, and make another mark.
- On your top mark, measure from the inside of the rib  $\frac{1}{4}$ ", and make a mark.
- On the bottom mark, measure from the inside of the rib  $\frac{3}{4}$ ", and make a mark.
- Connect your marks using a long straight edge.
- With your trapezoid marked out, double check your measurement.
- Cut out the marked section.



21. Mount the undercar diffuser:

- Place the Dinan diffuser into the cut out as shown.
- Make sure it lines up, and mark the mounting holes.
- Drill the 4 holes using a 3/16" drill bit.
- Using the hardware supplied in the kit, bolt the air diffuser to the lower slash cover.



22. Install lower cover into car:

- As you install the cover, make sure the back part of the opening slides into the groove.
- If you encounter difficulty sliding the cover into the groove, take a small pry bar and lightly pry down, working your way from one end to the other.



23. For best performance, please also install the appropriate DINANTronics ECU and software.
24. Using a scan tool or equivalent, clear fault memory after installation is complete.
25. Happy Motoring!

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**PARTS LIST**

<b>Qty</b>	<b>Part #</b>	<b>Description</b>
1	D333-0028	Hardware Kit
	Contains:	
2	17 21 7 567 089	Bushing
4	D331-0003	Alcohol Wipe
2	D332-0071	Side Cover
2	D572-0060	Oil Cooler Bushing
8	D671-0347	Flange Rivet
1	D673-0068	Foam Strip; Adhesive
1	D673-0069A	Nut Insert Tool 8MM
4		M5 Nylok Nut
4		M5 x 16 Bolt
8		M5 x 20 Washer
2		M8 Wave Washer
2		M8 x 35 Bolt

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