



COLD AIR INTAKE

INSTALLATION INSTRUCTIONS

D760-0032

Fits: 2011-13 F10 550i, 550i xDrive

PARTS LIST

Left and right carbon fiber air box lids	Left and right tubes/struts
Left and right center tubes	Left and right air box tubes
Filter frames	Filters
	Hardware Kit

Congratulations for being selective enough to use a Dinan Engineering Cold Air Intake. We have spent many hours developing this system to assure that you will receive maximum performance and durability with minimum difficulty in installation.

Please take the time to read these instructions thoroughly before proceeding. When performing the installation, read the entire numbered instruction before working on the car. If you feel that you do not have the requisite skill, please arrange for a qualified repair facility to perform the installation.

If you have any difficulties during the installation, or if these instructions are not clear to you, please call Dinan's Technical Support Staff at (408) 779-8584.

NOTE: Dinan toolkit #DT763-0082 is required for installation of this cold air intake. Contact your Dinan representative for details.



INSTALLATION INSTRUCTIONS

Disassembly

1. Open hood and remove stock acoustic cover (1). Pull up as you work your way around from corner to corner then forward. See figure 1.

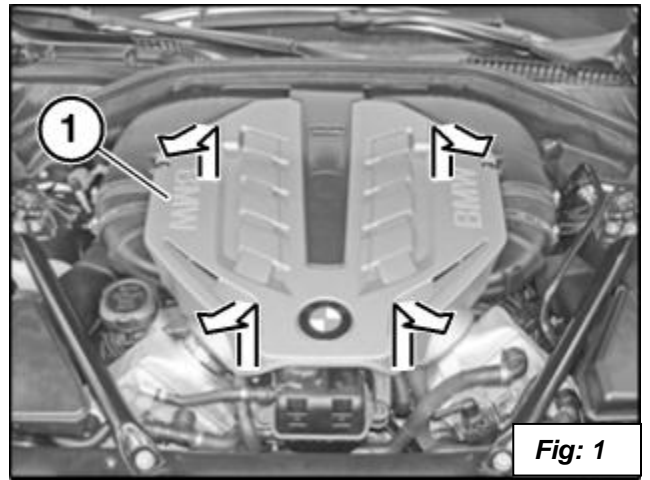


Fig: 1

2. Remove the air box lids. Loosen clamps (1) and slide hose forward off of air box. Disconnect the wire to the air mass meter (2). You can leave the clamp (3) connected. See figure 2. Remove the 8 screws along line (1) and remove lid (2). See figure 3.

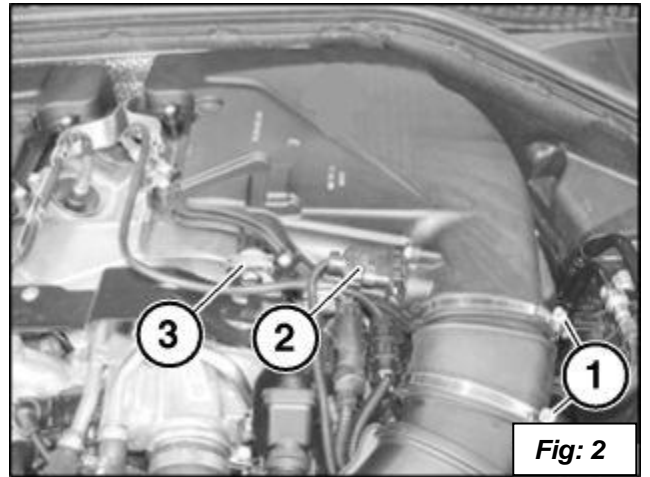


Fig: 2

3. Remove the rubber seal (1) covering the bolts and rivets by pulling it up out of its clips. See figure 4.

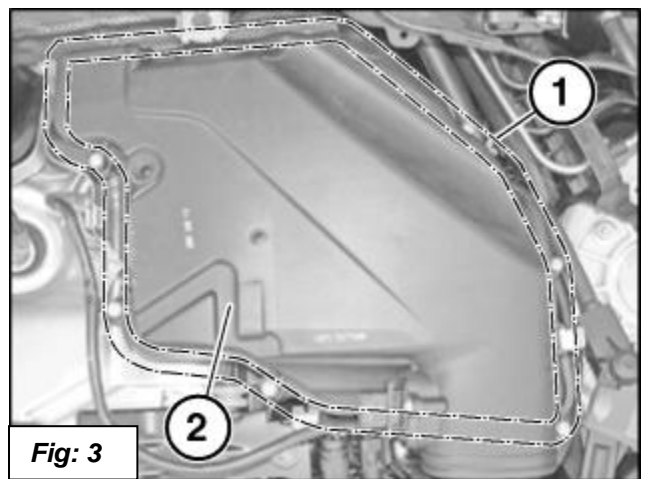


Fig: 3

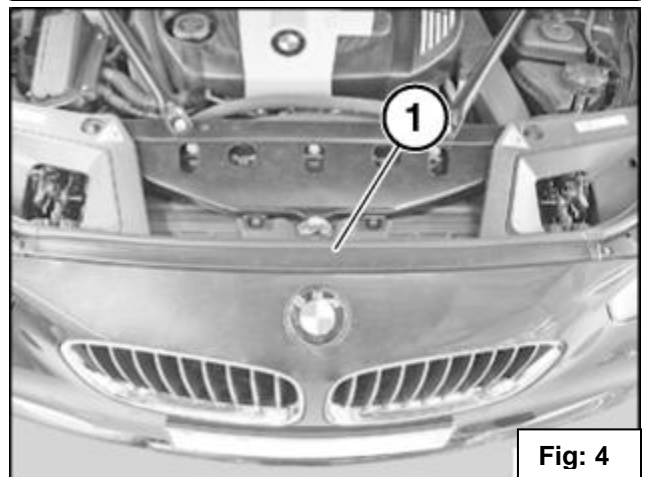
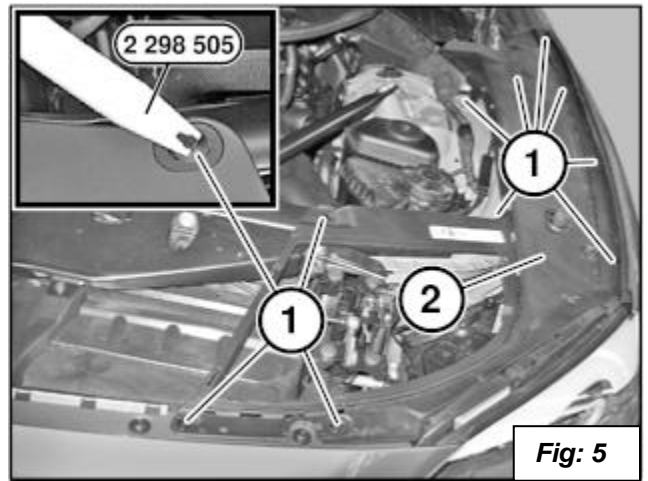
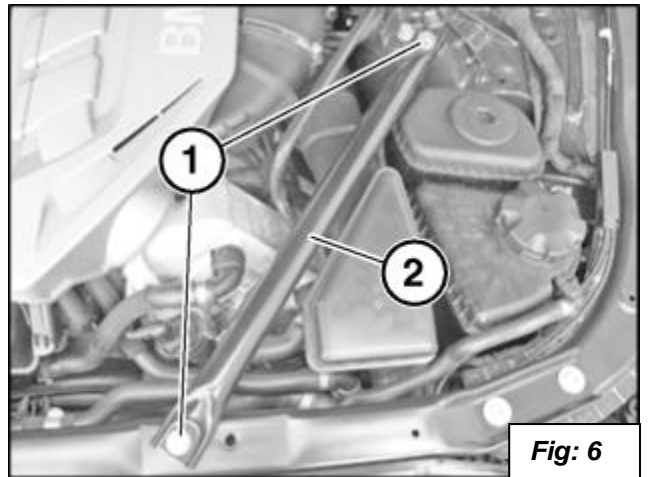


Fig: 4

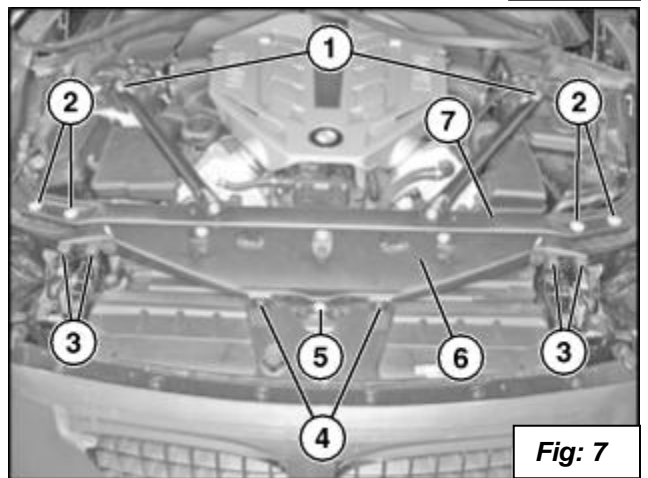
4. Remove the plastic side covers by removing the rubber engine seal and then lever out the expanding rivets (1) using BMW special tool 2 298 505. Remove cover (2). See figure 5.



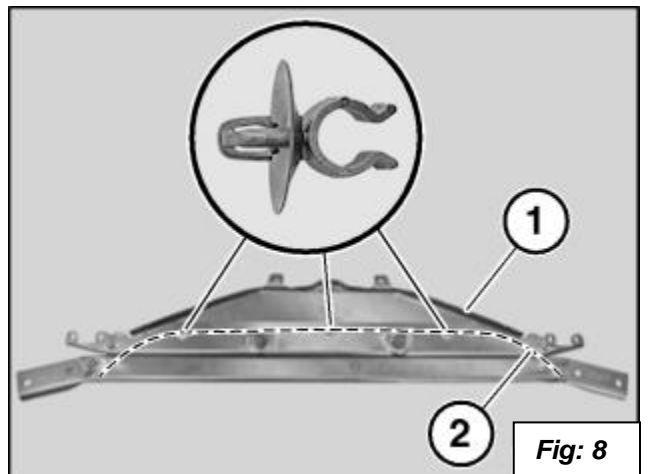
5. Unscrew the bolts (1) and remove the two cross braces (2) as shown in figures 6 and 7.



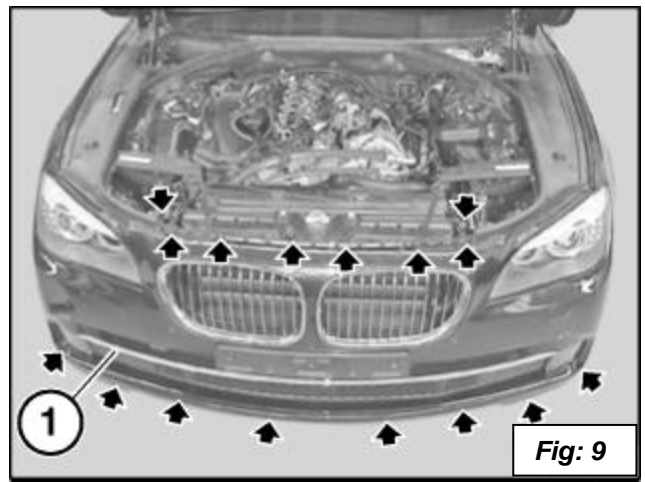
6. Remove the radiator support / cross brace assembly. Unscrew the bolts in positions (2), (3), (4) and (5). Leave the two braces (6) and (7) bolted together. See figure 7.



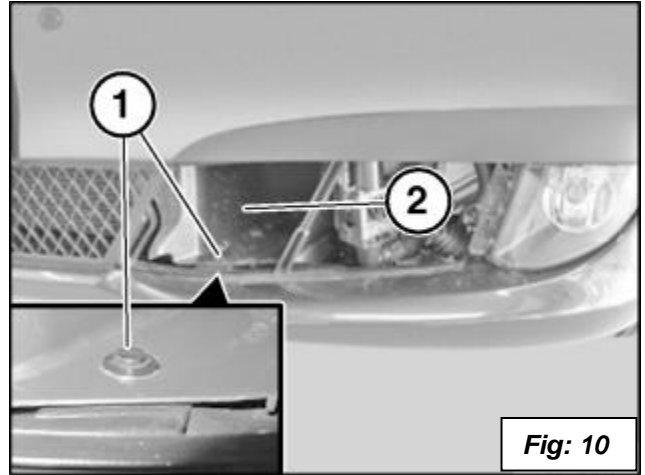
7. Lift up the cross brace assembly slightly so you can unclip the cable (2) from the cross brace assembly (1). See figure 8.



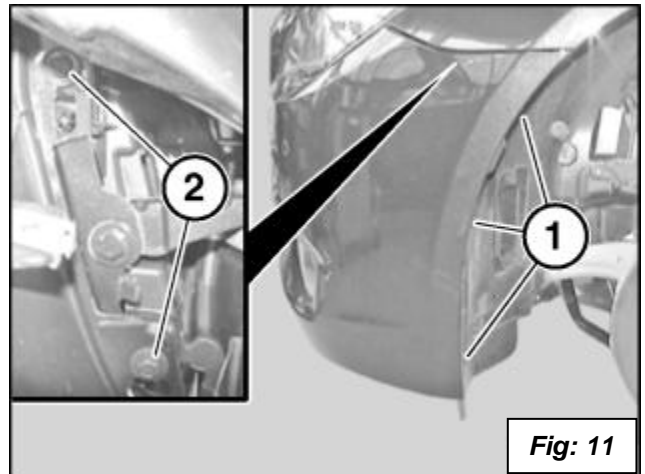
8. Remove the front bumper. Unscrew all the bolts and screws at the top and bottom of the bumper panel as shown by the arrows in figure 9.



9. Remove the grill over the air ducts (2) and release the rivet (1) as shown in figure 10.



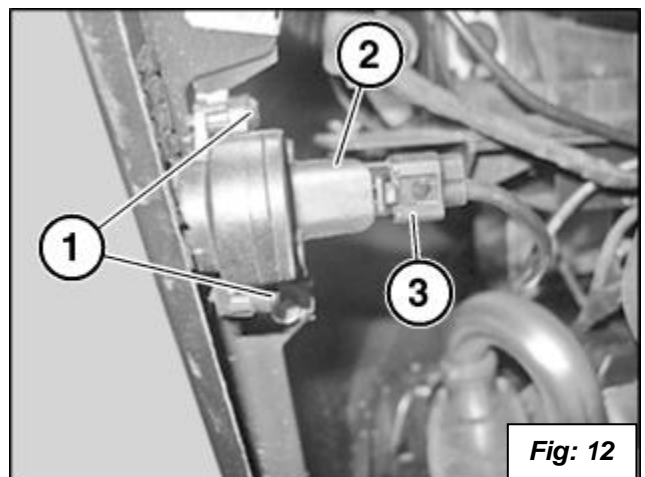
10. Remove the screws (1) from the wheel arch inner fender then pull inner fender back so you can get too the two screws (2) holding the bumper to the fender. See figure 11.



11. *This step is for cars with side view camera only.*

Unlock plug connection (3) from camera on both sides and disconnect.

Warning! Do not pull bumper out sideways -- Risk of damage.



12. *These two steps are for cars with night vision.*

Remove retaining screw (1) holding camera to shroud.

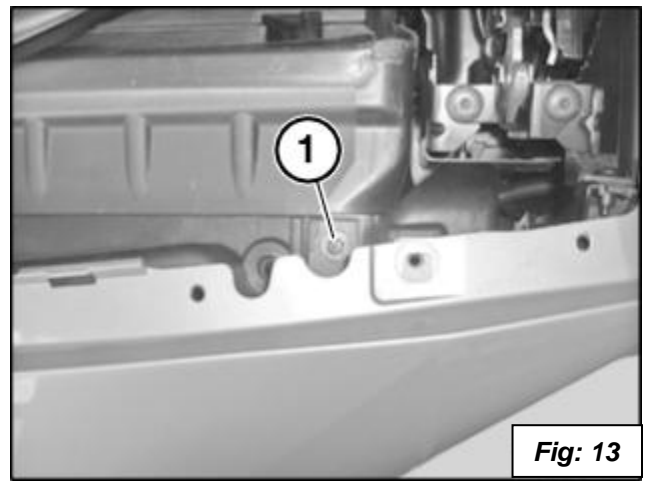


Fig: 13

Release plug connection (2) and high pressure nozzle line (3) from night vision camera (1) and disconnect.

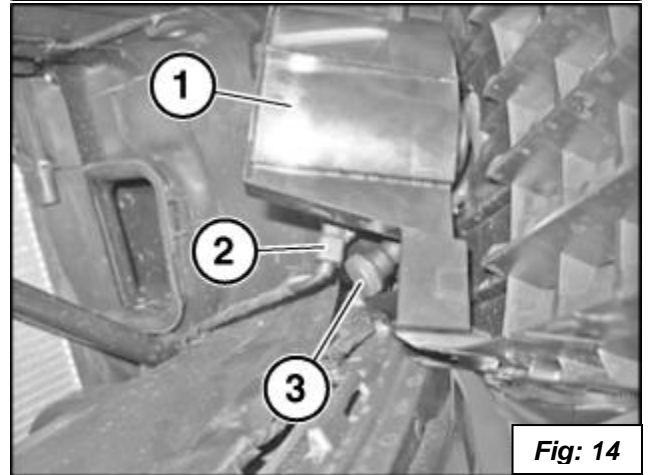


Fig: 14

13. Remove bumper cover straight towards front with aid of a 2nd person.

Modify Parts – Air Box Tube

14. Remove the carbon filters from the air box lids. Use a pick tool as shown to pry the tabs around the nipple as you lift on the corner of the filter. Start with the highest tab and work your way around, keeping slight pressure by lifting the filter, doing one tab at a time. See figures 15 and 16.



Fig 15

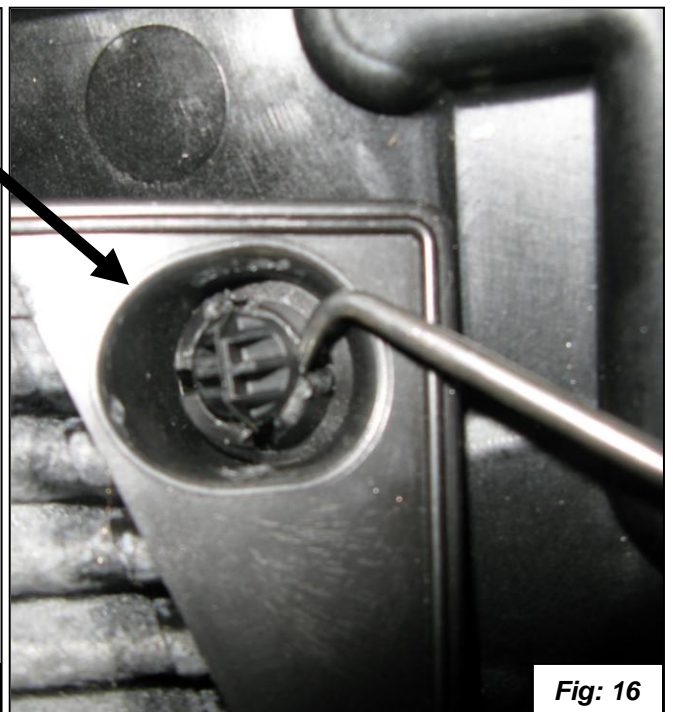


Fig: 16

- **Note:** For racing purposes, removing the charcoal filter will add power. This removal will not affect the vehicle's ability to meet a tailpipe emissions test that is sometimes performed by the sanctioning body after a race. However, the charcoal filter is part of the evaporative emissions system, and as such, it must be retained on any pollution-controlled motor vehicle used upon a public highway. **Warning! Cut off the retaining nipple for the charcoal filter so it does not crack off and go into the turbo.**
15. Trim and sand the support ribs as shown to make room for the inlet tube. Use plastic-cutting pliers or flush side cutting pliers to trim the ribs. The third rib back does not need to be cut all the way to the bottom, leave about 1/2". Sand the ribs flush with the side. See figures 17 thru 20.

Fig: 17

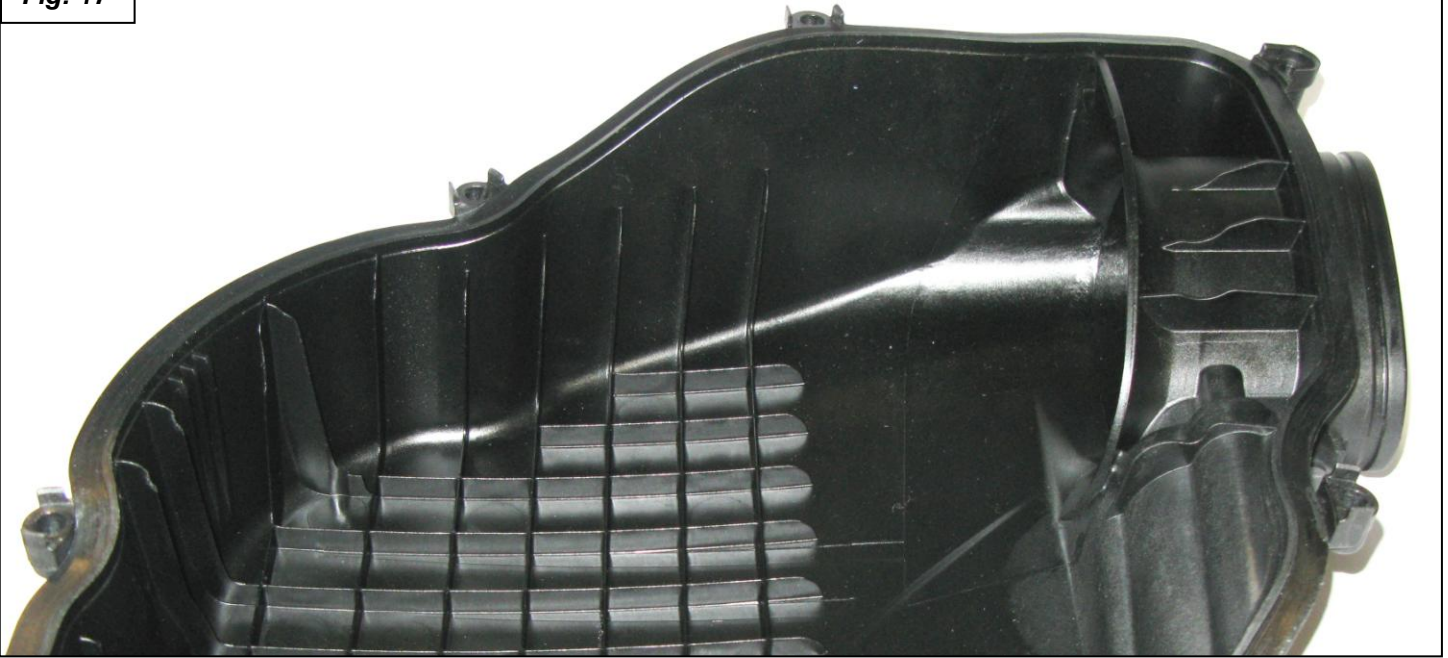


Fig: 18

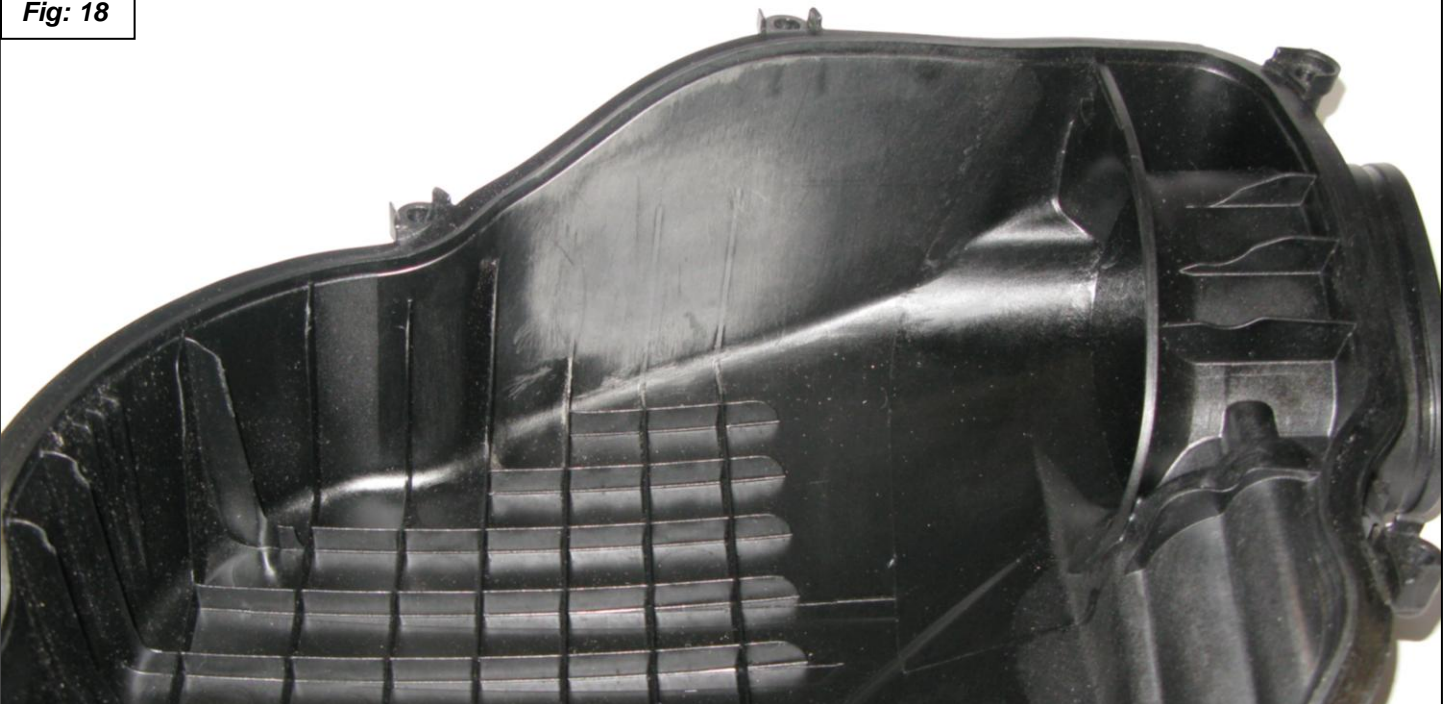


Fig: 19

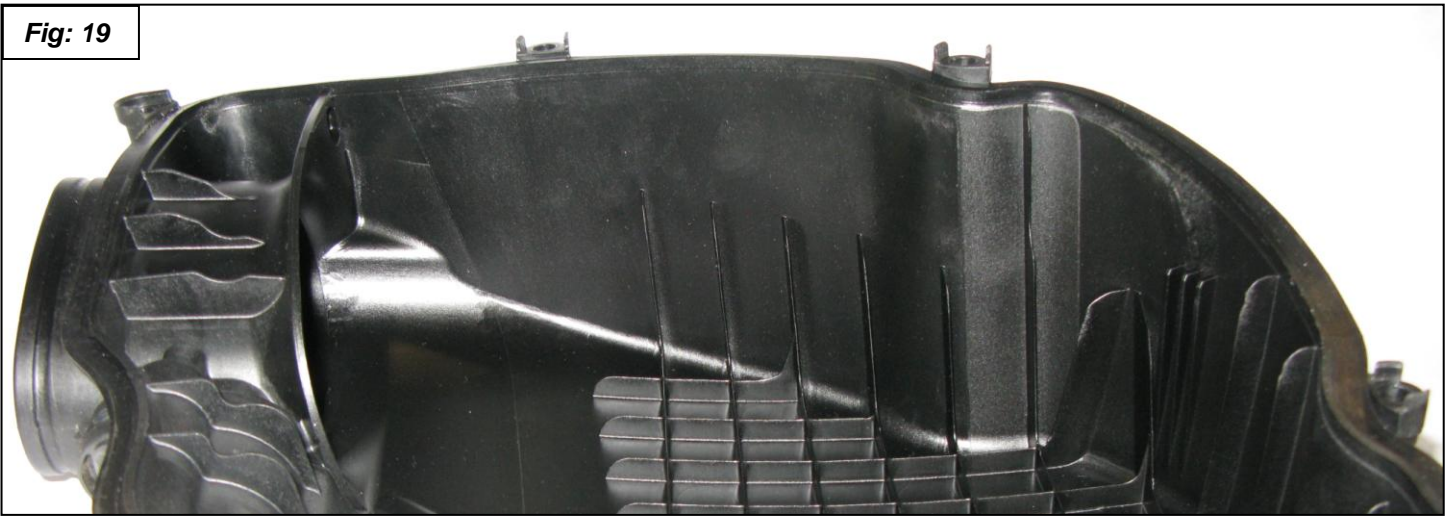


Fig: 20-



16. Fit the hole marking template into the air boxes as shown and use an automatic center punch to mark the holes. There is a right and left template. Line up the top edge with the air box and the side with the rib. Clamp the template to the air box. See figures 21 thru 23. With a 1/16" drill bit you can drill the pilot hole thru the template.

Fig: 21



Fig: 22

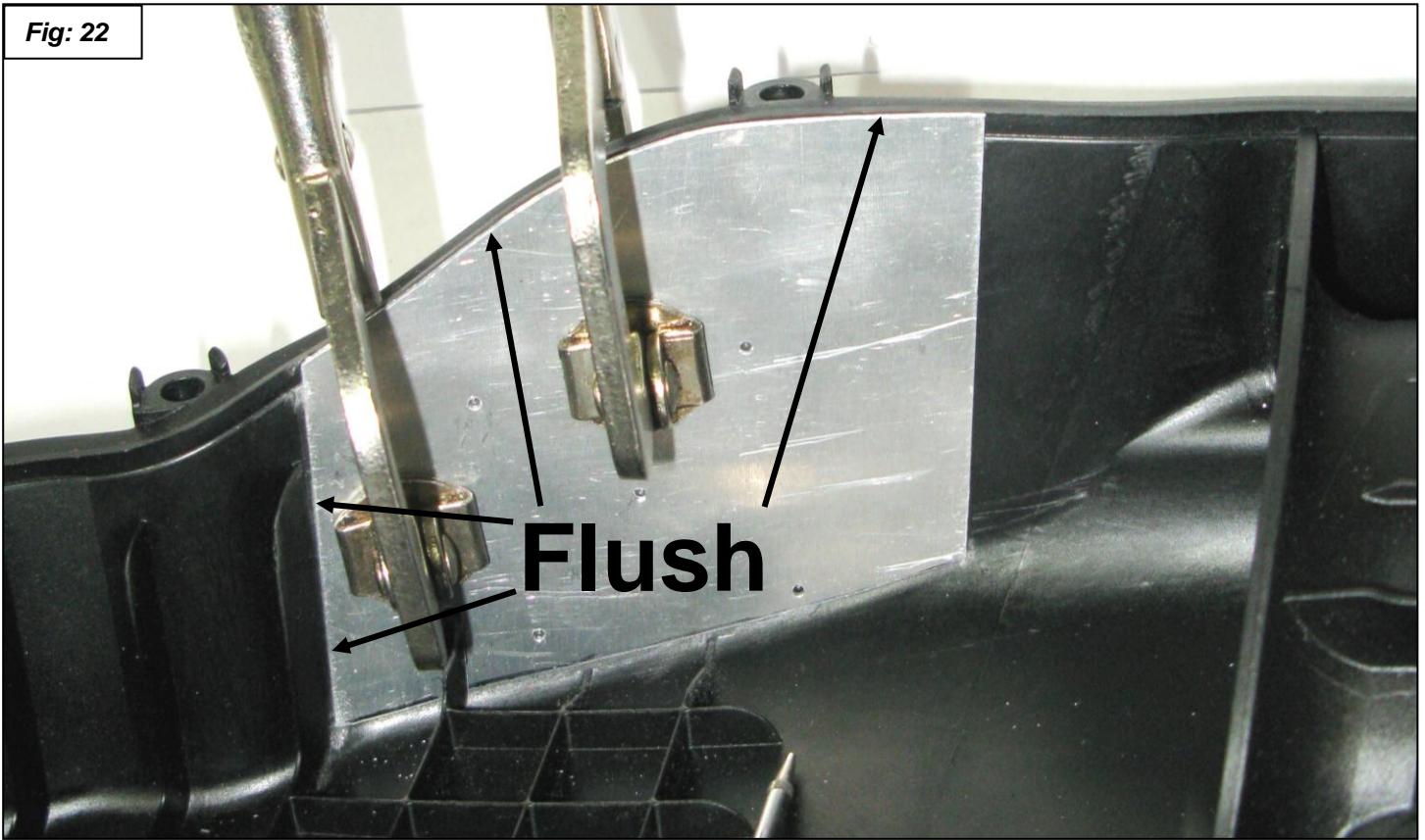
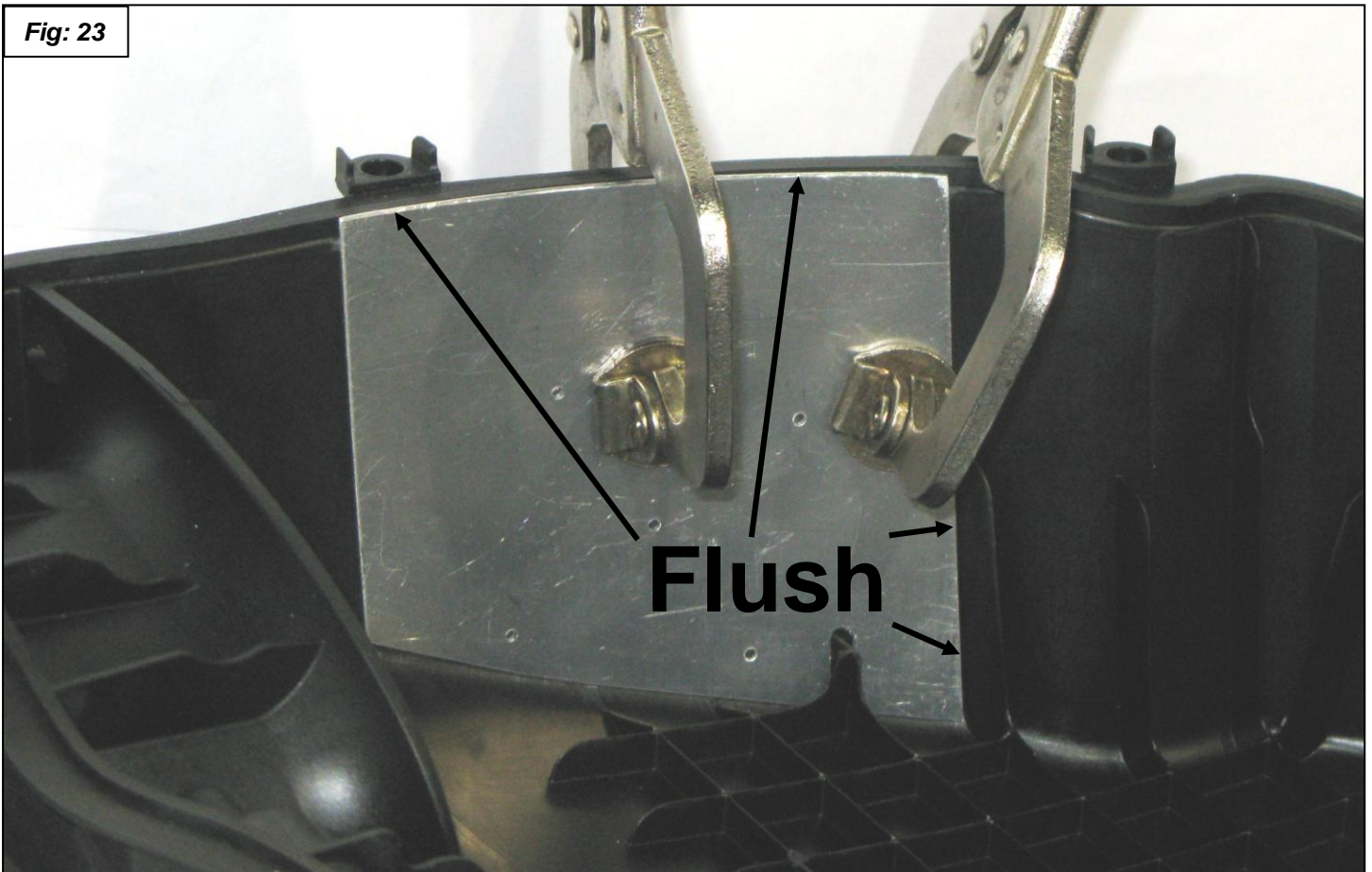


Fig: 23



Make sure that the template is up against the side rib and flush with the top edge of the air box.

17. Drill pilot holes thru from the inside of the air box lid.

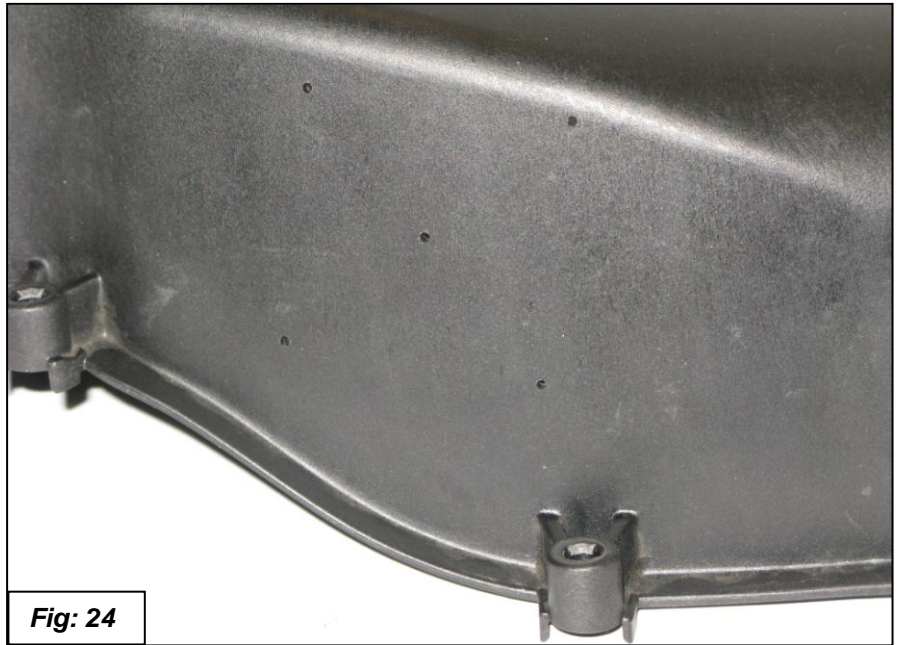


Fig: 24

18. Drill the 5 holes out to 1/4" as shown.



Fig: 25

19. Drill out the center hole to 1-13/16" with a hole saw. Deburr the holes.



Fig: 26

20. Put the rubber gaskets onto Air Box Tubes. Assemble the Air Box Tubes into the air box. Slide the Air Box Adapter Plate over the end of the tube and fasten to the tube base with the M5 x 16 button head screws. Start the 3 easy screws first then let the assembly drop into the air box then thread in the final screw. See figures 27 and 28.

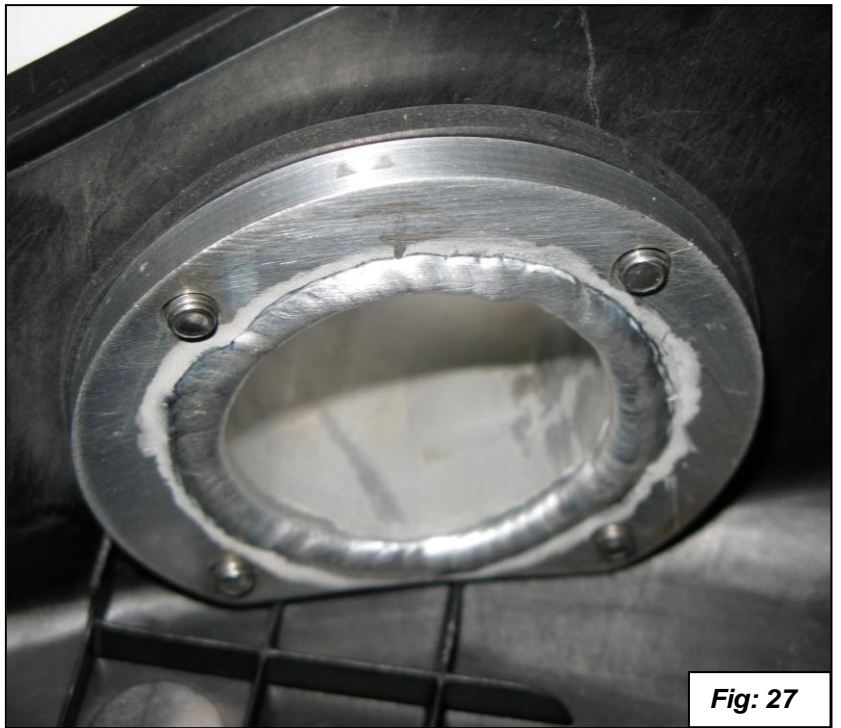


Fig: 27



Fig: 28

Modify Parts – Air Filter Frame

21. The Air Filter Frames mount on top of the shroud in front of the radiator. You will cut two holes and mount the frames to the shroud. The filters fit into the frames then the Dinan carbon fiber air boxes screw to the frames.

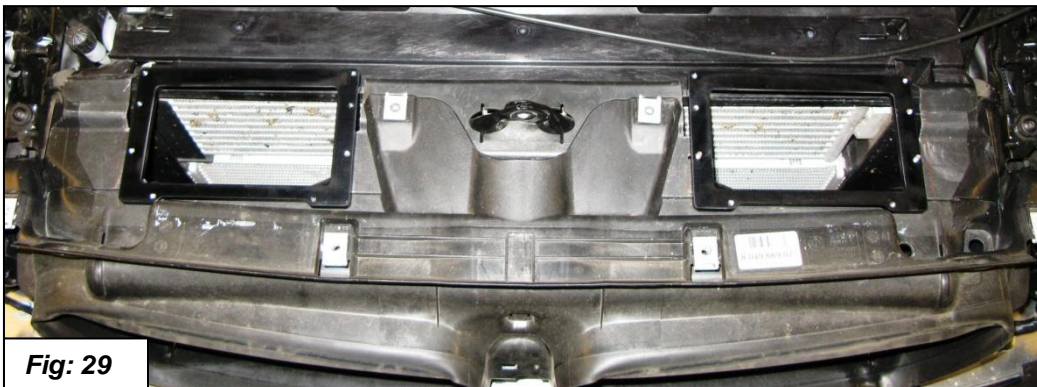
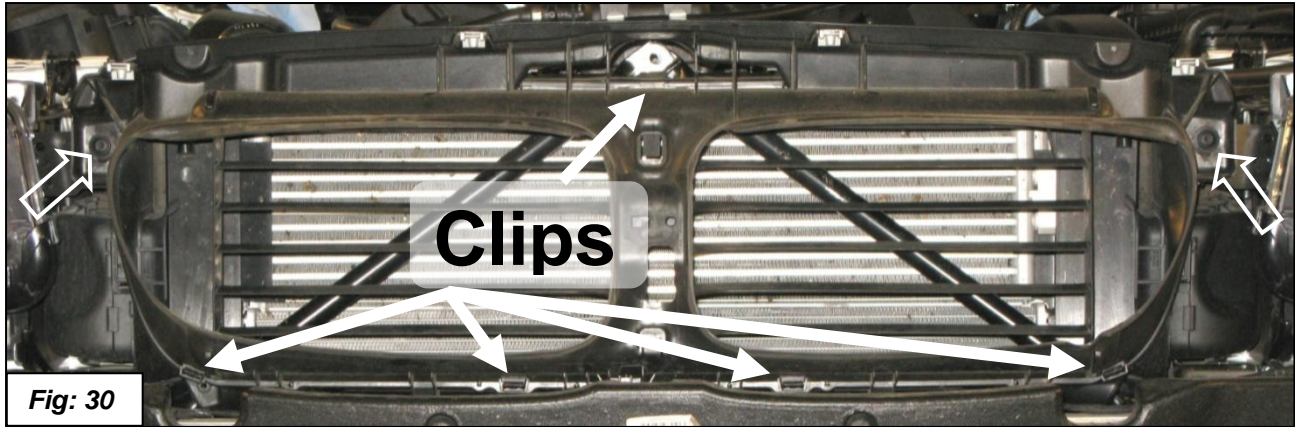
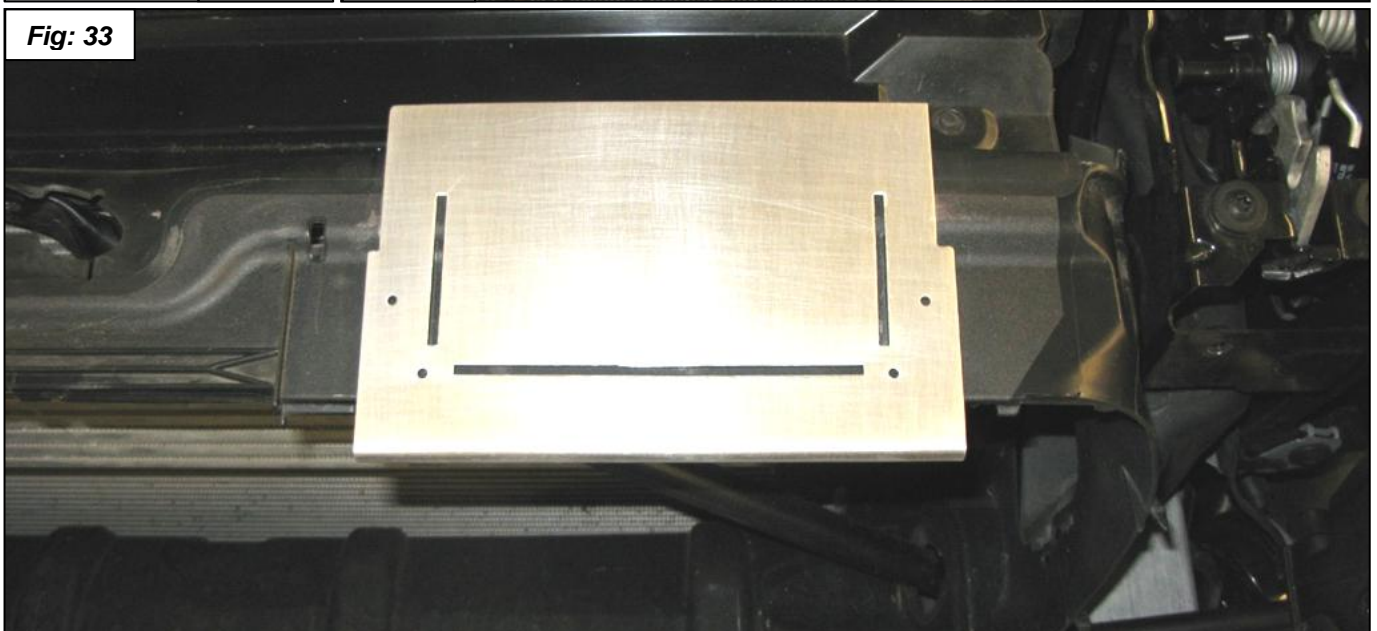


Fig: 29

22. Start by removing the outer air duct. Remove the two screws. Unlatch the five clips and remove the outer air duct. See figure 30. Slide out the air diffuser.



23. Install the Air Filter Mount Template by inserting the mounting tabs into the two slots as shown. See figures 31 thru 33.



24. Drill through the four holes in the template with a 1/8" drill bit. Scribe a line through the three slots of the template. See figures 33 and 34. Repeat on other side.



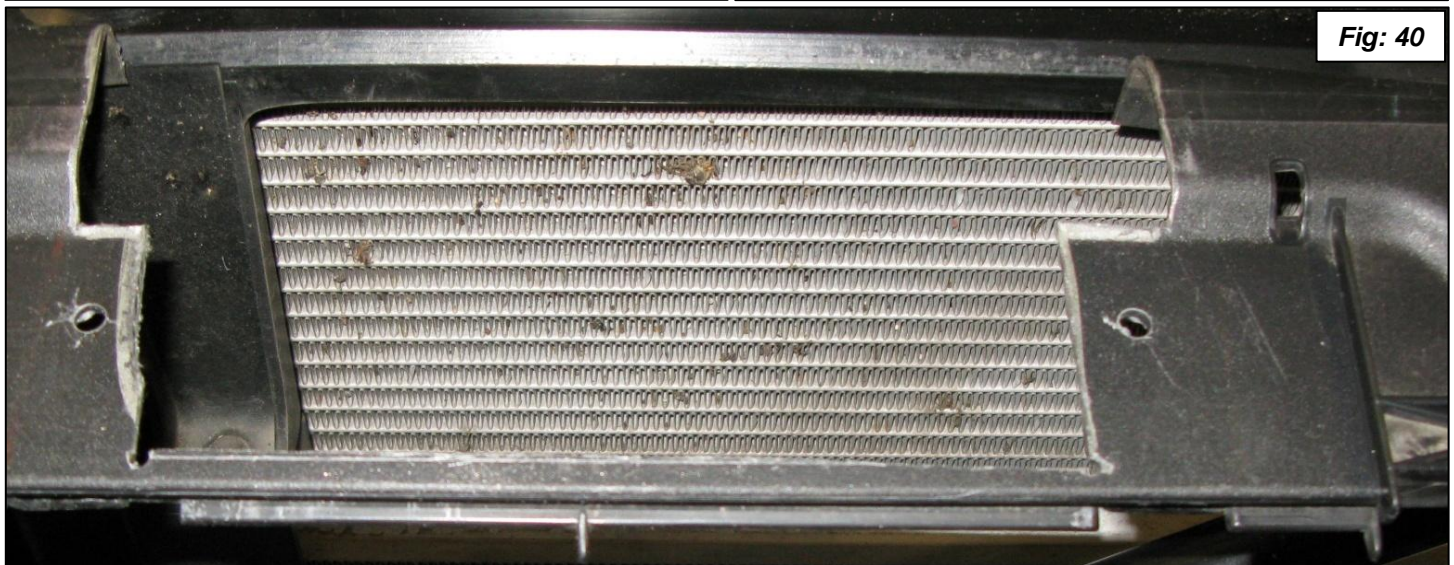
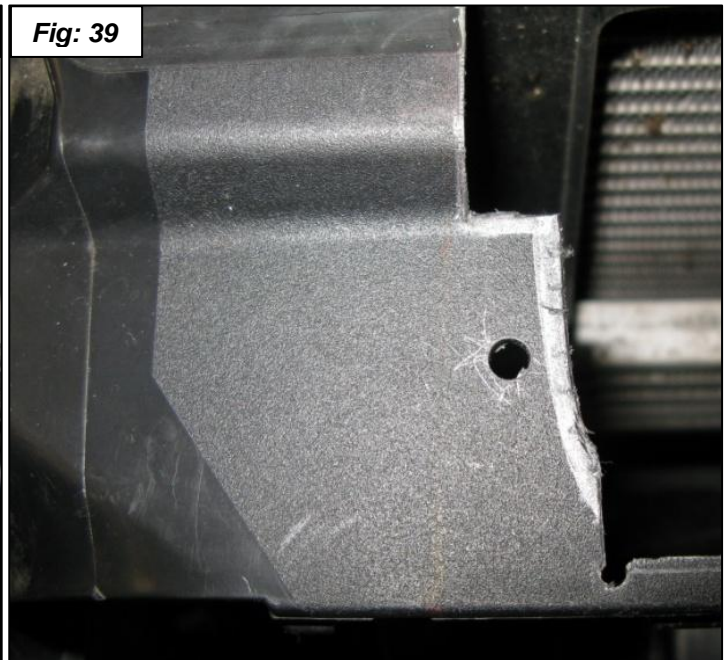
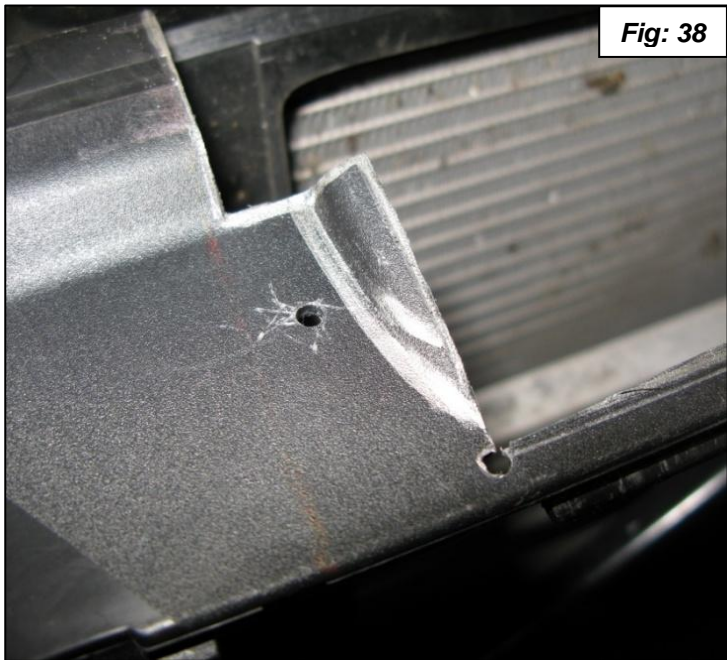
25. Draw a line as shown in figure 35 to help you in cutting the hole for the Air Filter Mount. Repeat on other side.



26. Cut out the holes for the Air Filter Mounts. Use aviation snips and a die grinder with a cut off wheel. First cut the back to front with aviation snips as shown in figure 36.



27. Mark the raised section on the outer side of each cut out as shown in 37 and 38. Cut out the rest of the holes with a die grinder with cut off wheel. Cut from side to side first then cut off the raised section. Drill out the mounting holes to 13/64". Deburr the edges of the plastic. See figures 37 thru 40.



28. Install the air filter frames using the 4mm x 10mm screws and plastic washers. The frame rests on top of the shroud and gets bolted from the underside. See figures 41 and 42.



Fig: 41



Fig: 42

Modify Parts – Radiator Support / Joint

29. Trim the radiator support joint as shown in figures 43 thru 51. First: cut the front of the upper side. Scribe a line down 3/16" from the edge. Go from the flange to the half round notch. Cut away the metal with aviation snips or a die grinder with cut off wheel. File and sand smooth. Apply touch up paint to the cuts.



Fig: 43

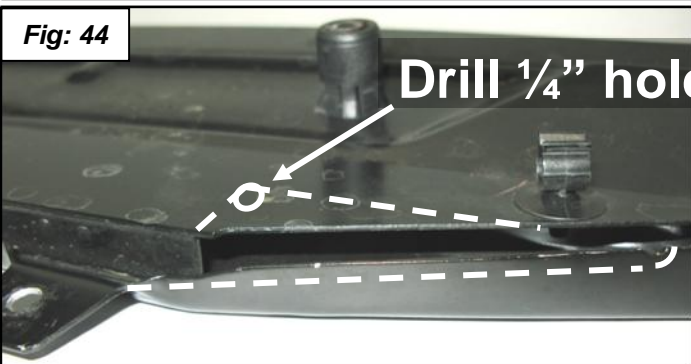


Fig: 44

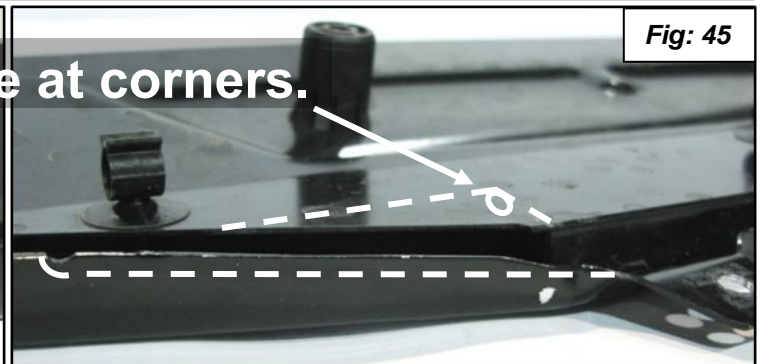


Fig: 45

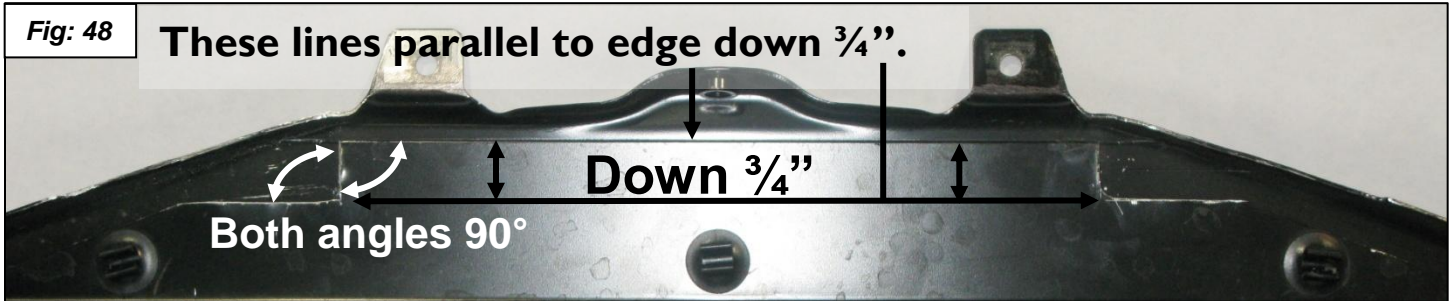


Fig: 46



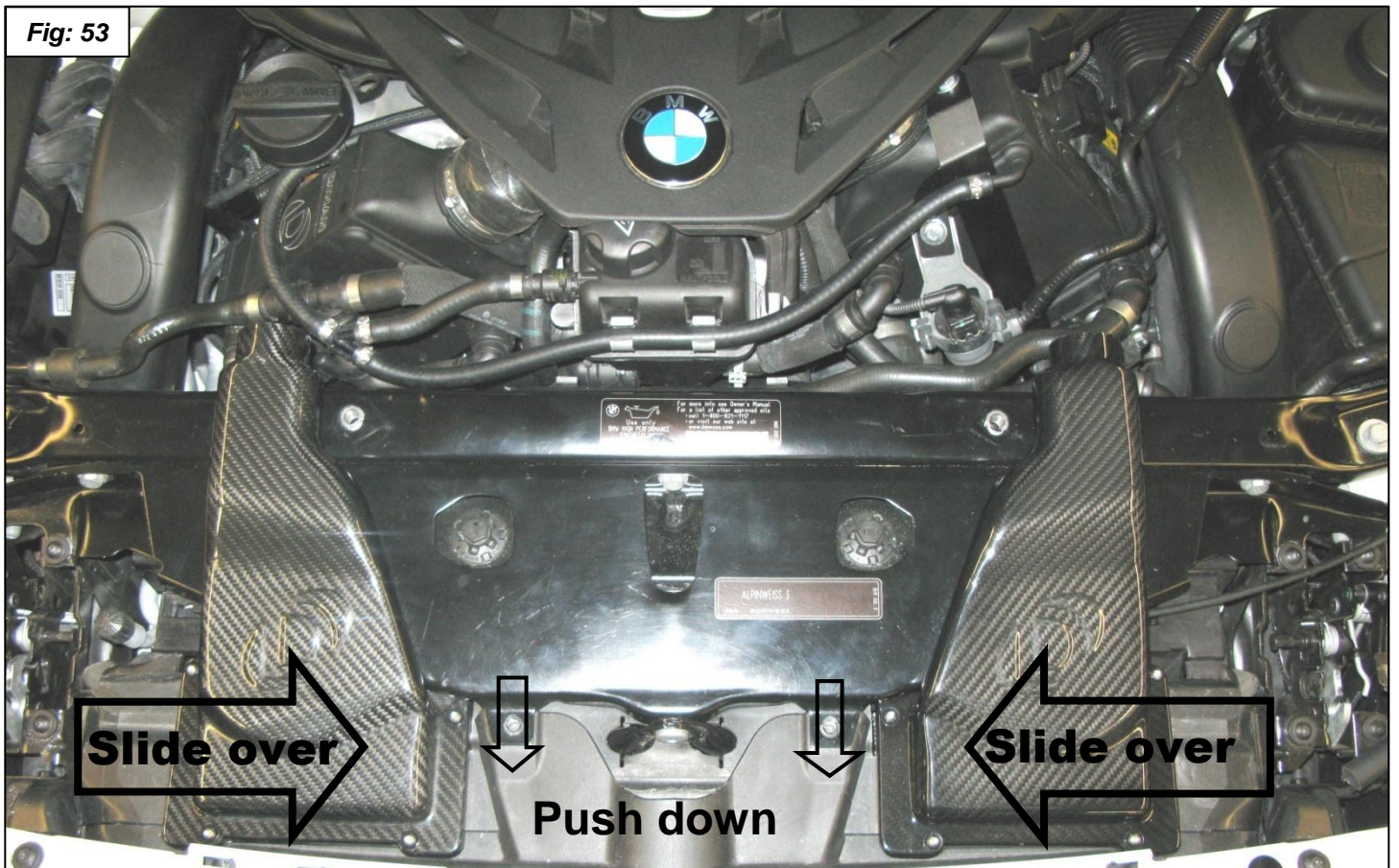
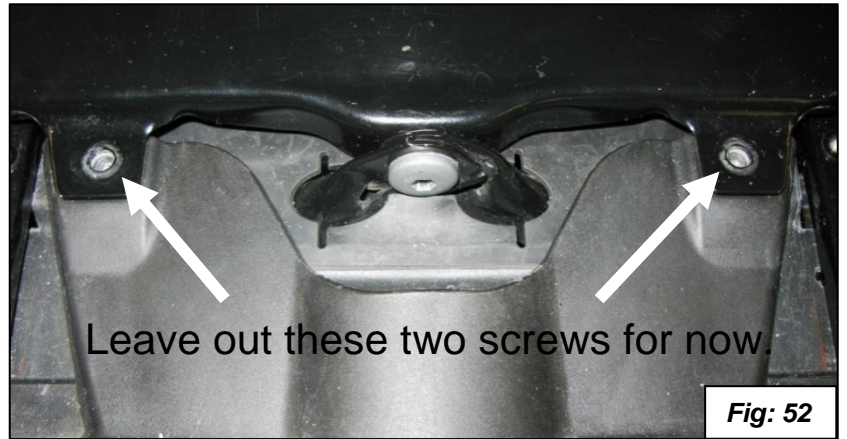
Fig: 47

30. Second: cut a notch in the lower half. Scribe a line 90° from top edge $\frac{3}{4}$ " down, then scribe a line parallel to the top edge out to the notch in the upper half. Drill a $\frac{1}{4}$ " hole in the corner where the two lines intersect. Cut to the hole along the lines with aviation snips or a die grinder with cut off wheel. File and sand smooth. Apply touch up paint to the cuts.



Assembly

31. Reassemble the air diffuser and outer air duct. Latch the four clips and install the two screws.
32. Install the radiator support joint in reverse order of removal. Leave the two screws out for now. See figure 52.
33. Install the bumper in reverse order of removal.
34. Install the air box lids in reverse order of removal.
35. Install the acoustic cover.
36. Install the air filters and carbon fiber air box lids using the 4mm x 16mm screws and plastic washers. Slide the air boxes over the filters from the outside towards the center. If needed, push down on the center of the air duct when sliding the carbon fiber air box lids over the air filters. Now install the two screws holding the radiator support joint to the air duct that you left out in step 31. See figure 53.

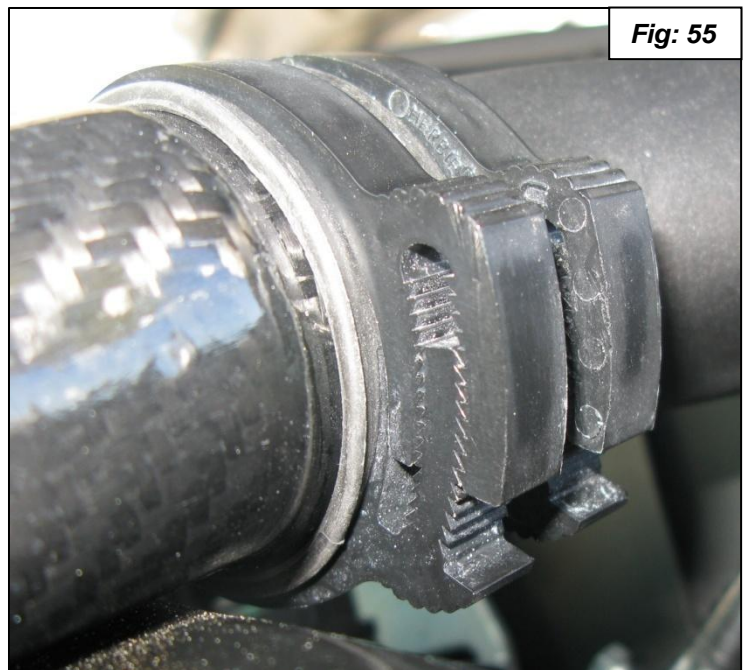


37. Install the plastic side covers in reverse order of removal.
38. Install the hoses without the convolute between the Tube/Struts and the carbon fiber air box lids with the small diameter snap grip clamps pointing out as shown in figure 54. Install the Tube/Struts by sliding the front end into the hose and the hose onto the carbon fiber air box lid. The longer bolt goes in the back position on the strut tower. Make sure the Tube Struts are positioned evenly and there is room to install the hose on driver's side. Torque to BMW specifications.



Warning: Do not over tighten the hose clamp on the carbon fiber air box lid! Only minimal clamp pressure is needed to seal the hoses. Two to three clicks of the snap-grip clamps with pliers is all that is needed. See figure 55.

There are two diameters of hose clamps. The small clamps go between the Tube/Struts and the carbon fiber air box lids. The large diameter clamps go on all the back hose's with convolutes. **The following photo's show old style metal clamps, please substitute with the new style Snap-Grip clamps.**



39. Install the single bellows hose on the driver's side Tube/Strut as shown in figure 56.



40. Install a triple bellows hose on the passenger side Tube/Strut as shown in figure 57.

Fig: 57



41. Install the triple bellows hoses on the Air Box Tubes as shown in figures 58 and 59.

Fig: 58

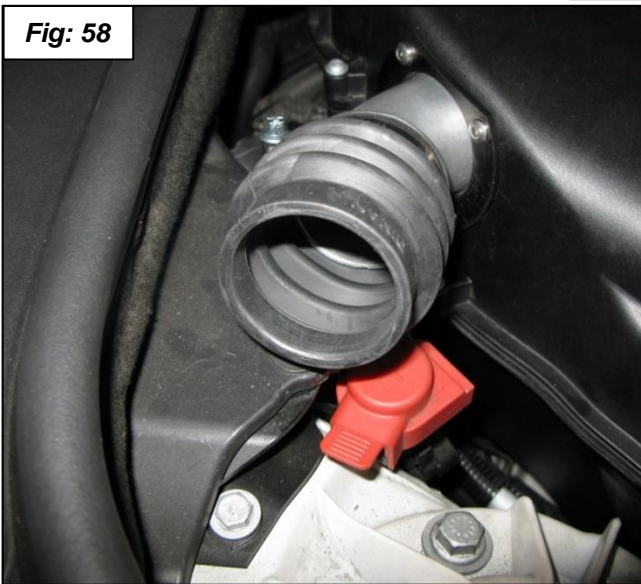
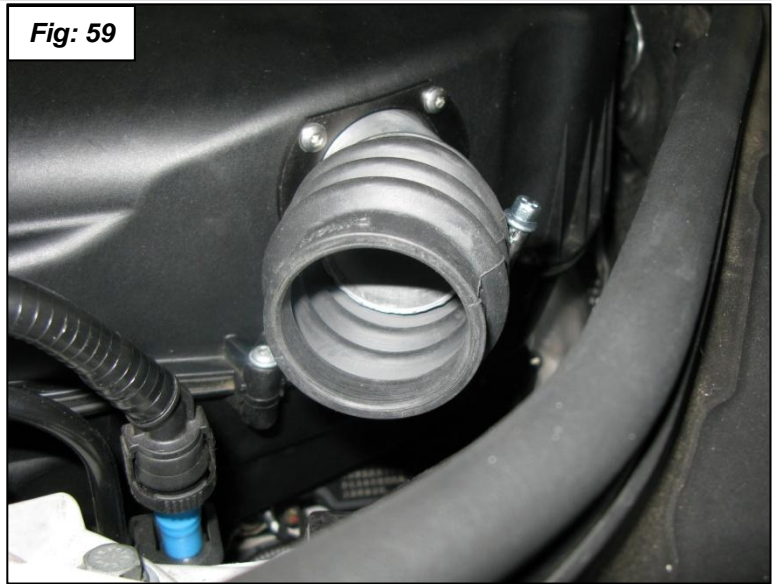
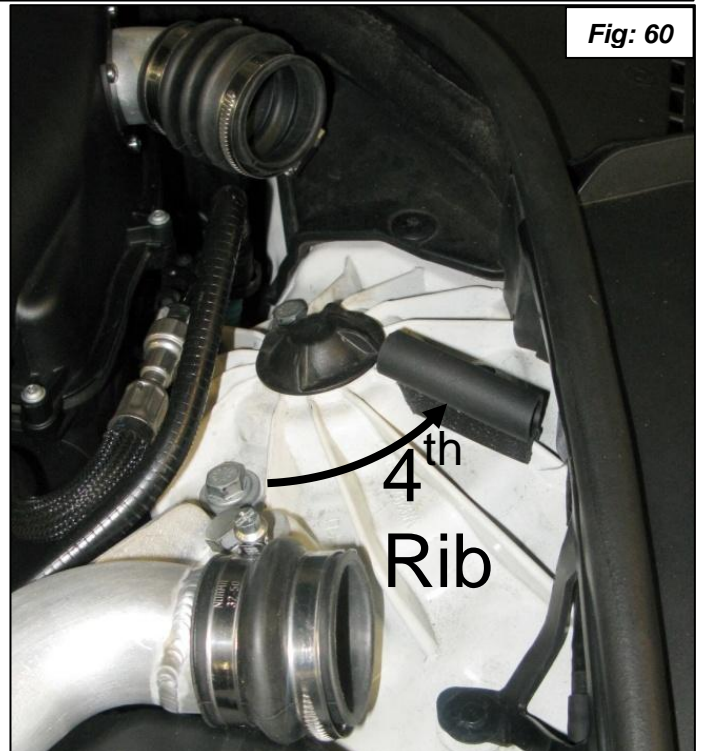


Fig: 59



42. Install the edge trim as shown in figure 60. It goes on the 4th rib from the bolt shown and just before the next bolt.

Fig: 60



43. Install the Center tube on the driver's side by pushing the curved end into the single bellows hose first, then slide the triple bellows hose over the tube. Position for best fit and tighten clamps. See figure 61.



44. Install the Center tube on the passenger side by pushing the curved end into the rear triple bellows hose first, then slide into the front triple bellows hose. Position for best fit and tighten all clamps. See figure 62.



45. Push the tip of the cable retainer up to prevent it scratching the carbon fiber air box lids when you close the hood. Make sure hood is adjusted properly and is not too low. See figure 63.



NOTE:

- We recommend replacing the air filters every 30,000 miles. The Dinan part number is D401-0018