



DINAN

135i / 1-M Coupe Upgrade Intercooler Installation Instructions

Part Number: D330-0010B

Applications: 2008-12 E82/E88 135i (N54 & N55 engines)
2011 E82 1-M Coupe (N54 engine)

PARTS LIST

<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	D333-0006	135i/1-M Coupe Intercooler Assembly
2	07 14 7 154 447	sheet metal captive nuts

Software download: After installing the Upgrade Intercooler your car will be safe to run the Stage 3 software download, as long as you also have a Dinan oil cooler. If this kit is not installed at a Dinan dealer you can drive to the nearest Dinan Dealer to receive the tuning and boost increase that is optimized for your new Dinan Intercooler. It is safe to drive the vehicle with the Intercooler Upgrade to the dealer before the new software is installed.

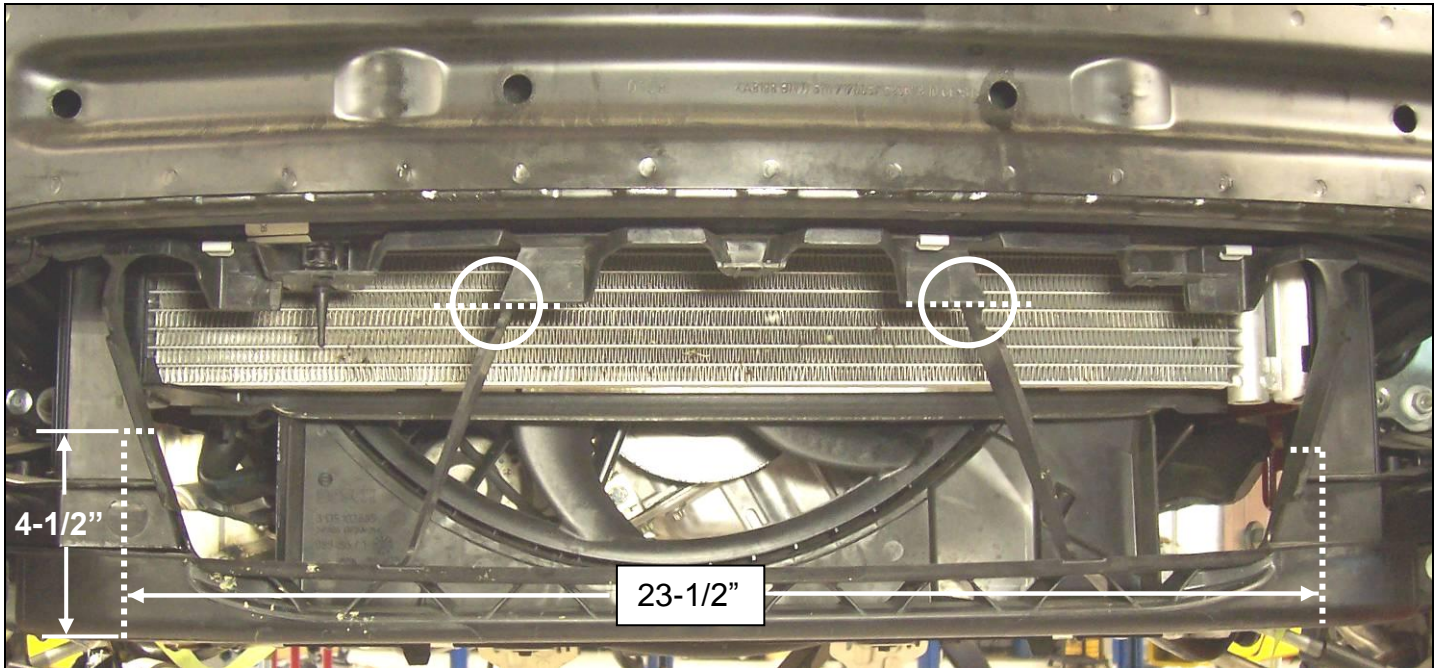
Note: For maximum power output always use premium fuel. Unleaded racing fuel can be used on occasions such as track events when even more power is desired.

REMOVE THE STOCK INTERCOOLER

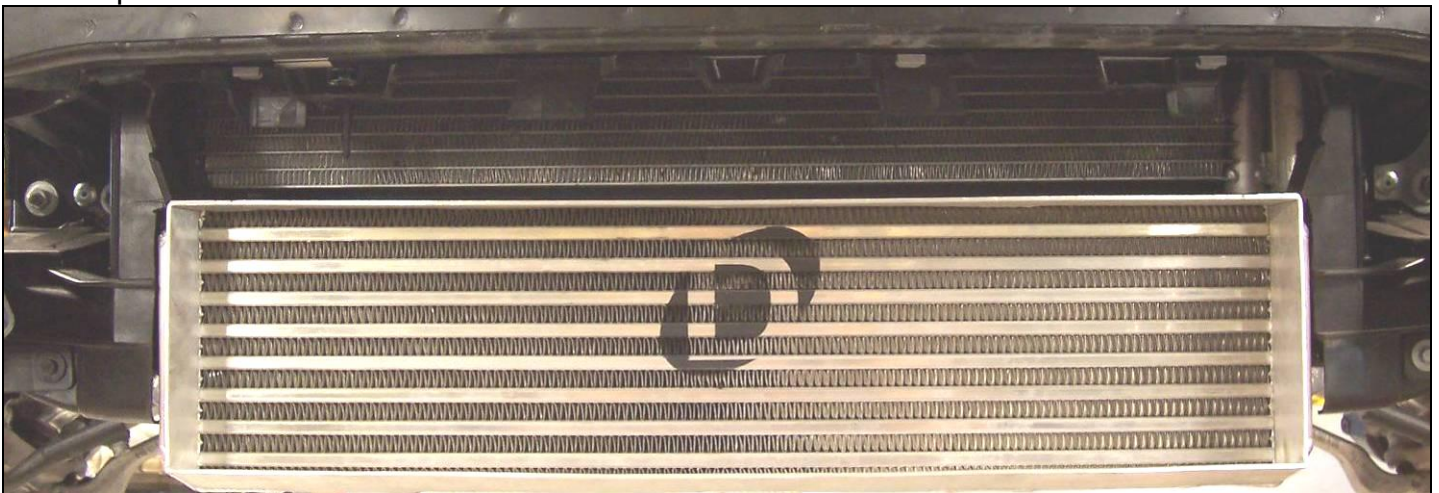
1. Use the TIS #51 11 156 procedure to remove the front bumper trim.
2. Remove the stock intercooler from the car using the BMW TIS procedure # 17 51 000. You can use a bent tipped scribe or similar tool to pull out the hose coupler latches. See also BMW TIS procedure # 11 61 365
3. Remove the hose coupler latches from the stock intercooler and save for installation on the Dinan intercooler.
4. The new intercooler will connect to the stock hose's the same way as the stock intercooler.

MAKE SPACE FOR THE DINAN INTERCOOLER

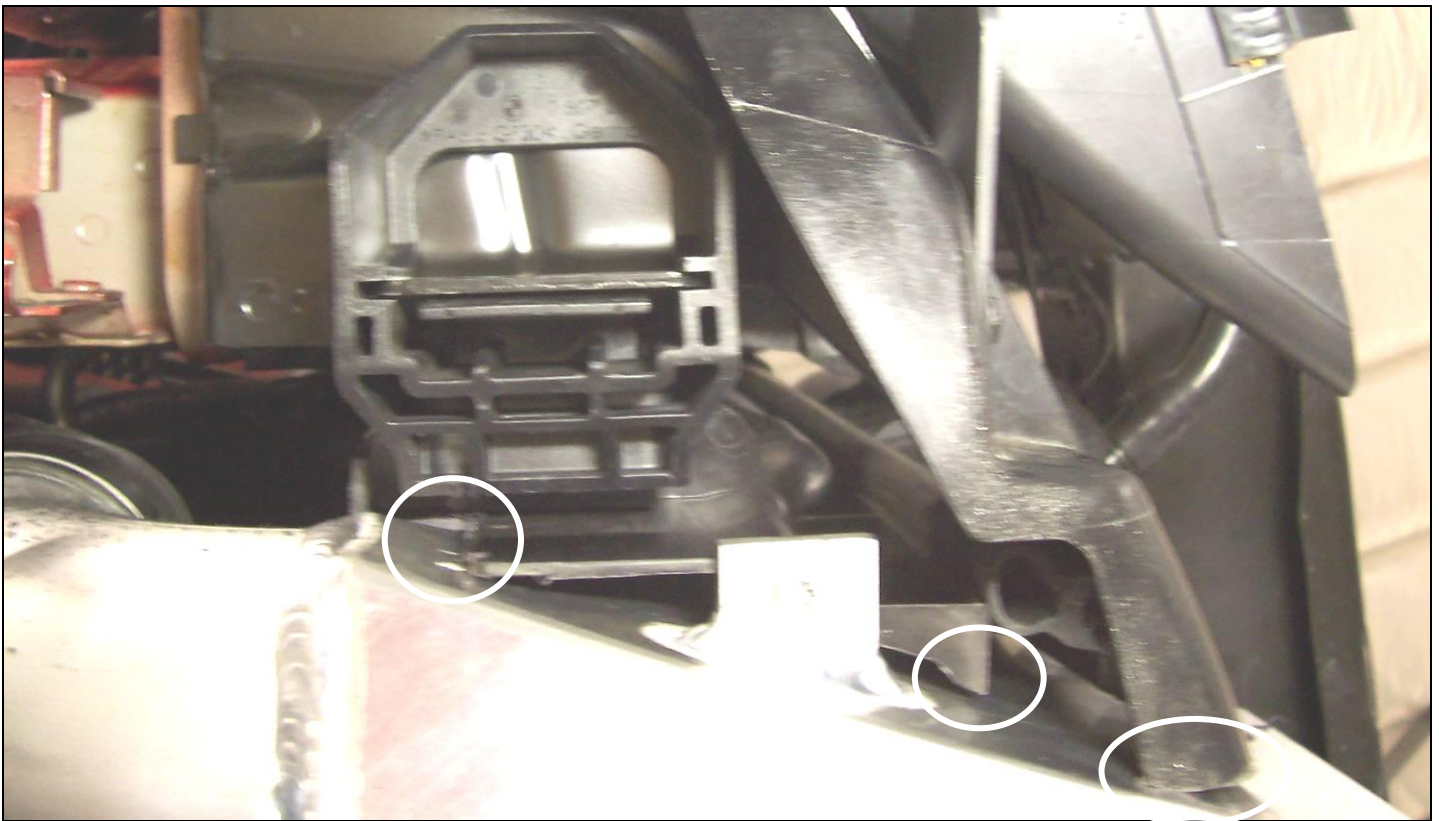
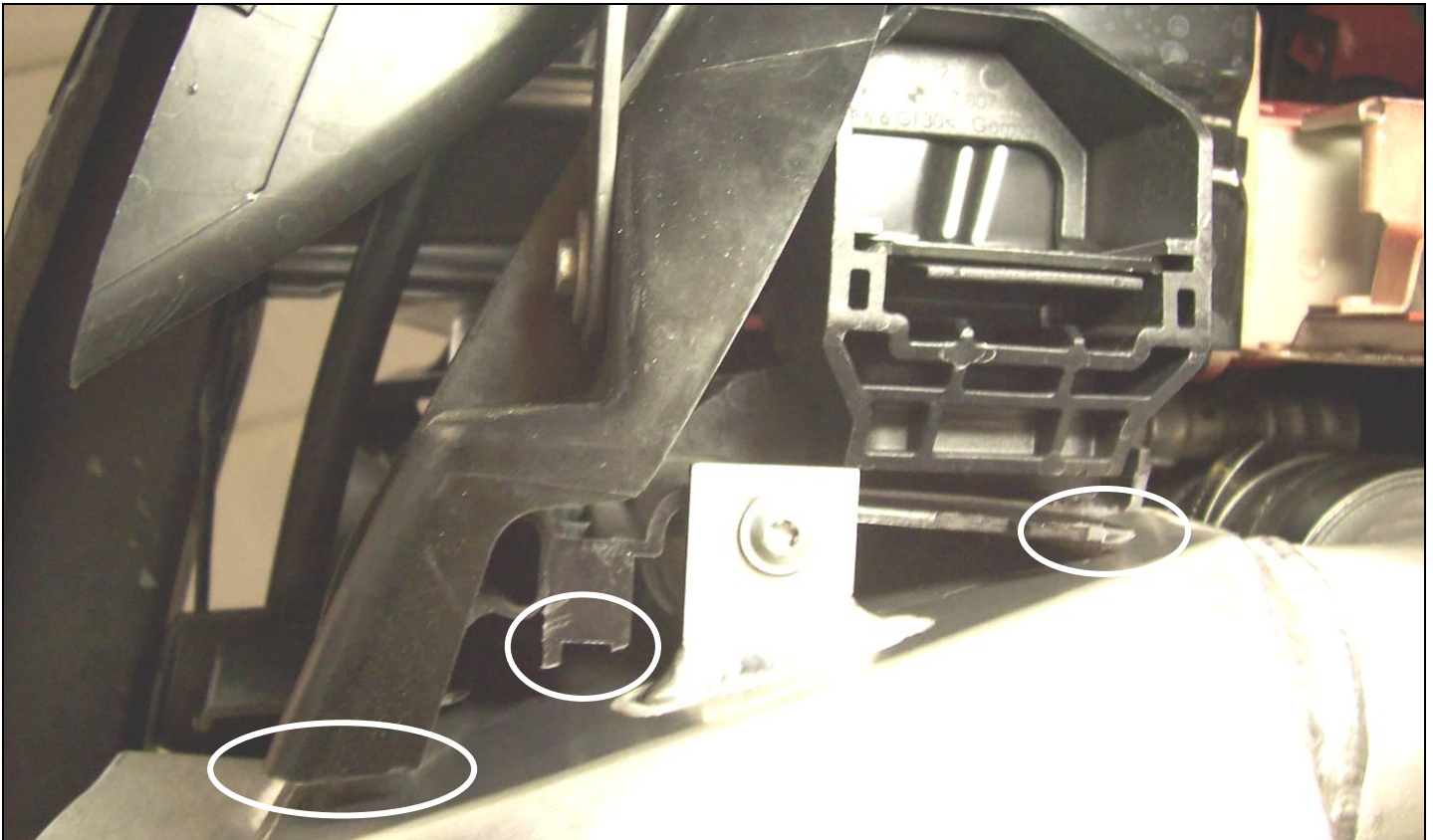
5. You will need to trim out a rectangular area of the radiator shroud as shown below. You will need to use a cutting tool or tools such as a hack saw, a fiberglass cutting disc held in a die grinder. A file can be used to deburr the cut areas. It is hard to get a good photo of the area to be cut out with clear cutting dimensions so I will try by first showing the area where the stock intercooler was removed from and next I will show the installed Intercooler. With everything being so dark in this area it will be a little tough to make out the exact places to cut. Study the following five photos before doing any cutting. A combination square extended to 4-1/2" is handy for marking the ends. Be very careful to not damage the AC condenser or radiator. I strongly advise placing a cardboard or thin sheetmetal barrier in front of the AC condenser to protect it during the front panel trimming process.



6. The photo below shows the basic installation from the front view.



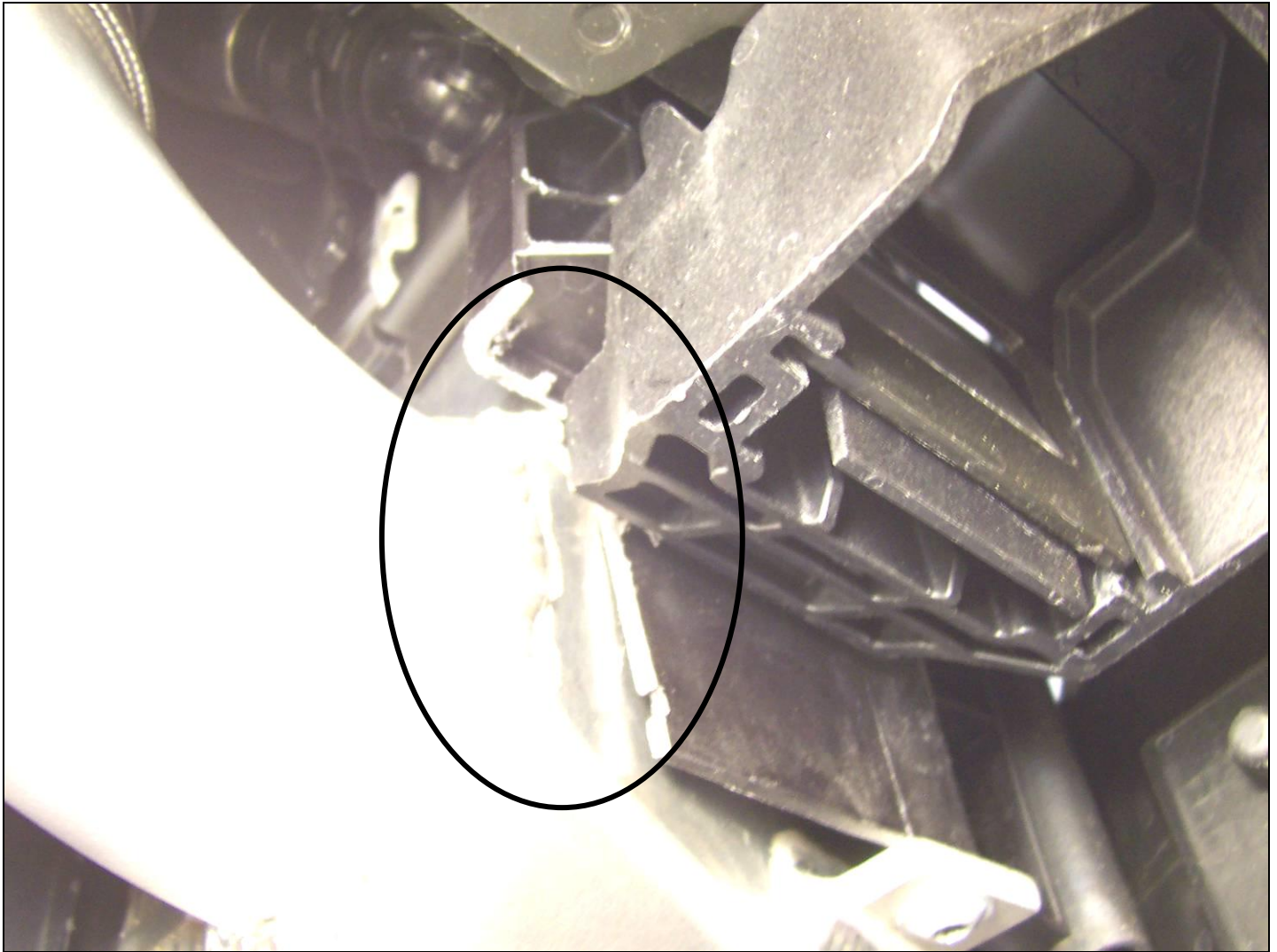
7. Observe the next two photos showing the bottom view of each end of the installed Intercooler **before you cut out the opening**. See where the two mounting screws are for the Intercooler. **You want to be careful to not cut out the two mounting screw holes.**



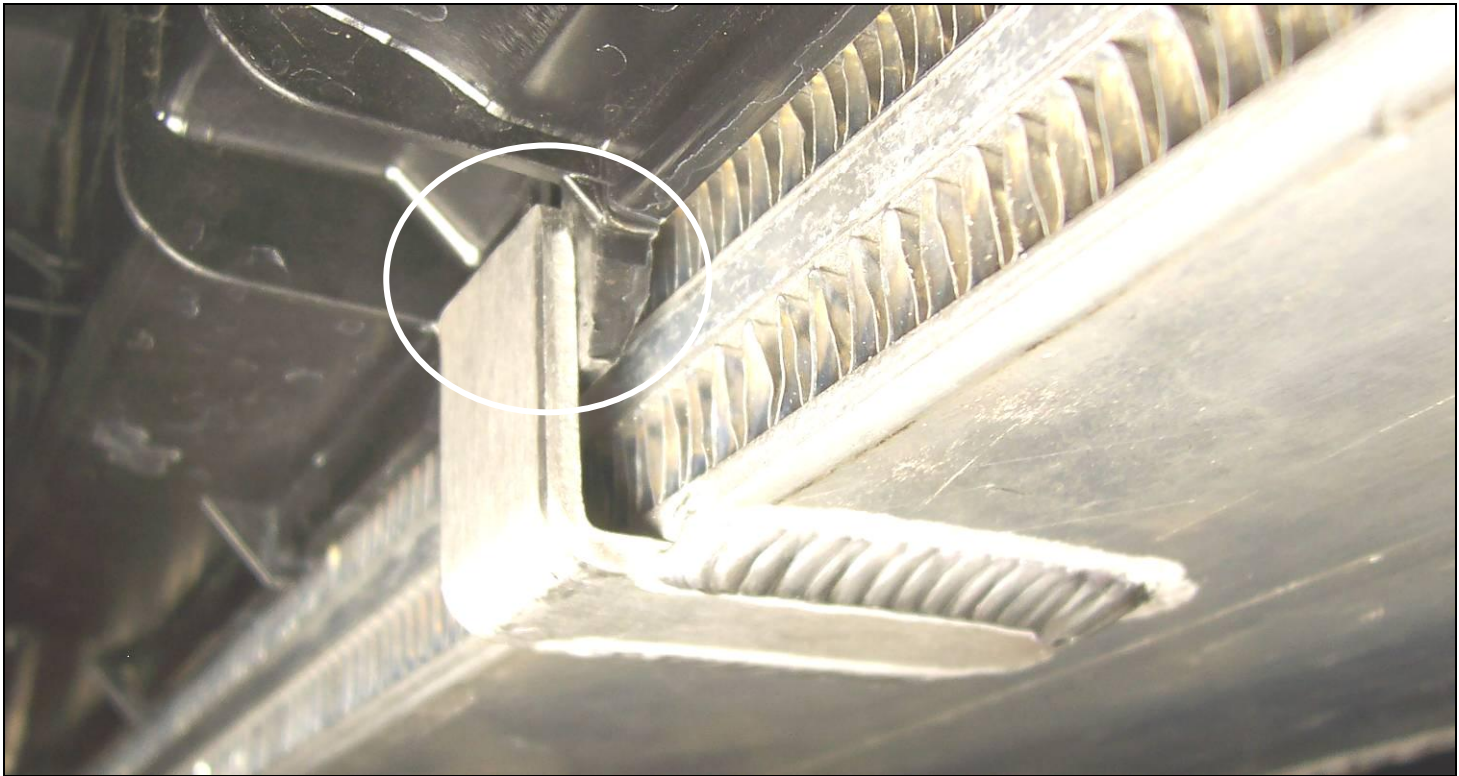
8. The two photos above show where the Intercooler tanks meet the areas to be trimmed. You may be able to trim less than the photo shows, as this was the prototype car install. I purposely overexposed the photo so the “hard to see” black plastic is much more visible. I have circled the areas of contact that require trimming. Intercooler opening will actually need to get larger as you

move rearward to accommodate the tapered tanks. The rear section of the opening will need to be about 26-3/4" wide.

9. At the rear top corner of both sides of the Intercooler you need to cut out a large notch in the plastic to allow the Intercooler to ease into place. See below for a photo of just one of the sides close up. All of the trimming must be done with the Intercooler not in the car.



10. The cutting for most of the plastic can be done using a hacksaw and a jig saw. It is easy to cut so don't go overboard as you can always take a little more off later. Minor trimming can be done with a sanding disc or large diameter die grinder bit.
11. Use the Dinan Intercooler to check fit your trimming efforts. It is important to latch the bent tangs on the lower back edge of the Intercooler onto the two tabs of the radiator shroud. See below.



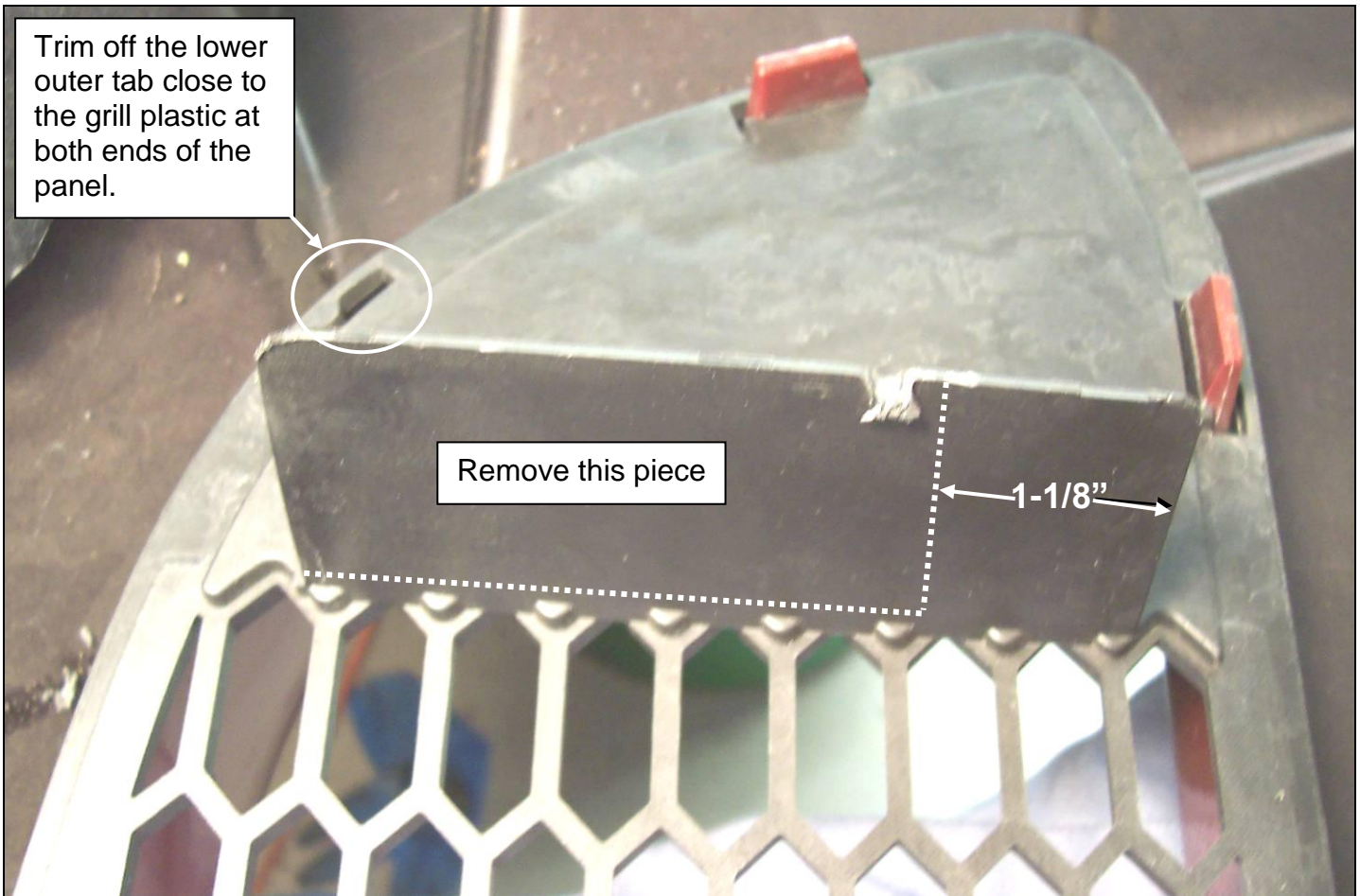
12. When you have the Intercooler opening sufficiently clearanced you will need to install the hose coupler latches from the stock intercooler onto the Dinan intercooler. Check the condition of the O-Rings on the stock hose's and replace if needed.

INSTALL THE DINAN INTERCOOLER

13. Now you should be ready to install the Intercooler. Lift the Intercooler into place while guiding the hoses into the Intercooler tubes. This may be easier for two people to do the first time. **Be sure to get the radiator shroud tabs into the bent tangs on the lower back edge of the Intercooler. Double check that the hoses are fully in the Intercooler tubes and audibly snap into place!**
14. Try to start the two mounting screws onto the same threads that the screws originally cut to avoid weakening the threads. Do not over tighten the two mounting screws!

TRIM OPENING FOR INTERCOOLER SHROUD

15. Use the photo below and some aviation snips or similar cutting tool to remove a rectangular cut-out from both sides of the plastic intercooler intake duct. This is on the backside of the inlet grill. Note that the piece that gets removed is towards the bottom of the bumper skin.
16. Trim off the outer lower tab that holds the brake duct grill in place on the bumper skin. You do not need to remove the grill to do this. This will give additional clearance for the Intercooler.



17. The three sheet metal captive nuts that go in the positions shown may be very large with a tent shaped cover. The captive nut with tent shaped cover hits the bottom of the Intercooler. The cars with the larger sized captive nuts will need the three front captive nuts removed and two outer captive nuts replaced with the three earlier style "low-profile" captive nuts supplied. You will remove the front center captive nut and screw of the lower undertray completely and leave it off. See figure 7.



Tent shaped Captive nut

Fig: 7

