



DINAN

335i Upgrade Intercooler Installation Instructions

Part Number: D330-0015

Applications: 2011-12 E90/E92/E93 335i (N55)
2011-12 E92/E93 335is (N54)
2011-12 E90 335i (N55) with M-Technic bumpers
(Except cars with "Active Cruise Control")

PARTS LIST

<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	D333-0005	Intercooler Assembly
3	07 14 7 154 447	Sheet metal captive nuts

Software download: After installing the Upgrade Intercooler you will be safe to install 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.

Note: This kit is designed for the specific cars equipped with standard or M-Technic bumpers listed above. This kit will not fit other cars equipped with other bumpers.

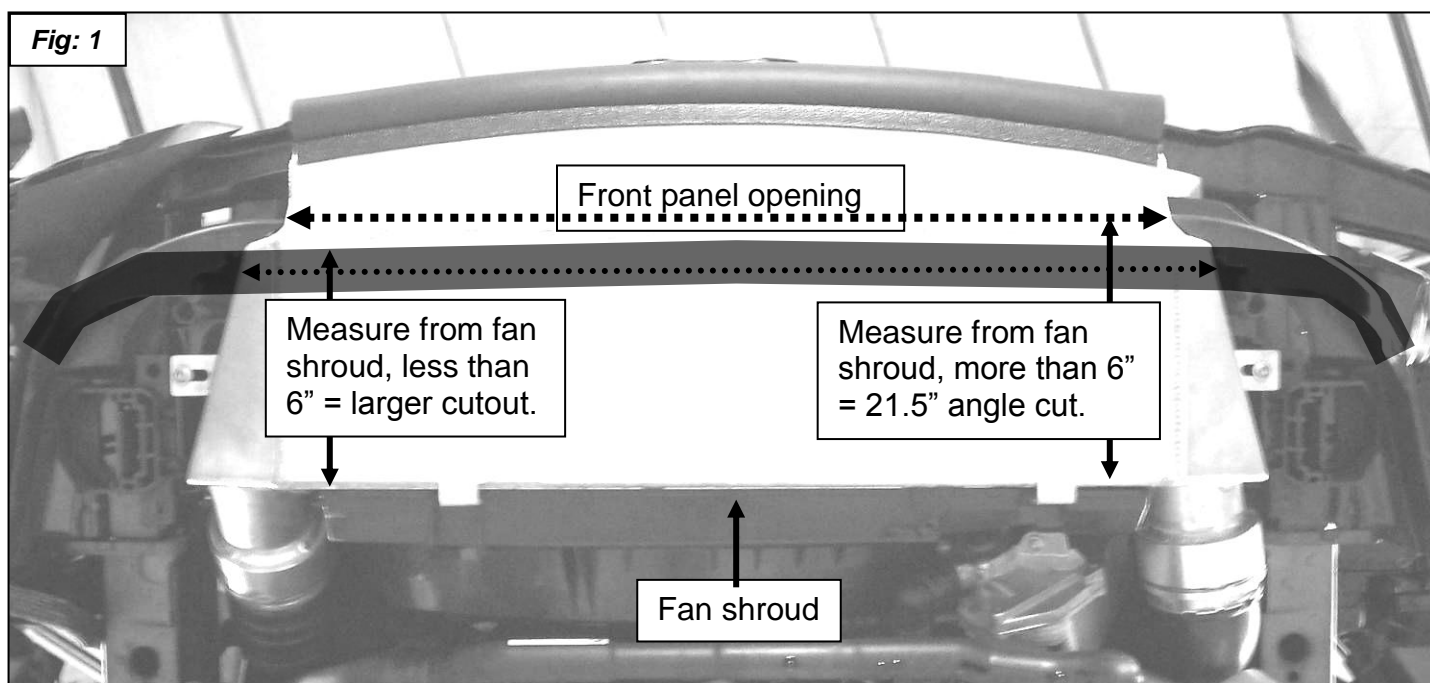
REMOVE THE STOCK INTERCOOLER

1. 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 (spring clips). See also BMW TIS procedure # 11 61 365
2. Remove the hose coupler latches from the stock intercooler and save for installation on the Dinan intercooler.
3. The new intercooler will connect to the stock hose's the same way as the stock intercooler.
4. You can stuff a rag into each open tube to keep chips out when you cut the opening for the Intercooler.

5. Temporarily remove both of the brake duct scoops. There is just one screw for each scoop.

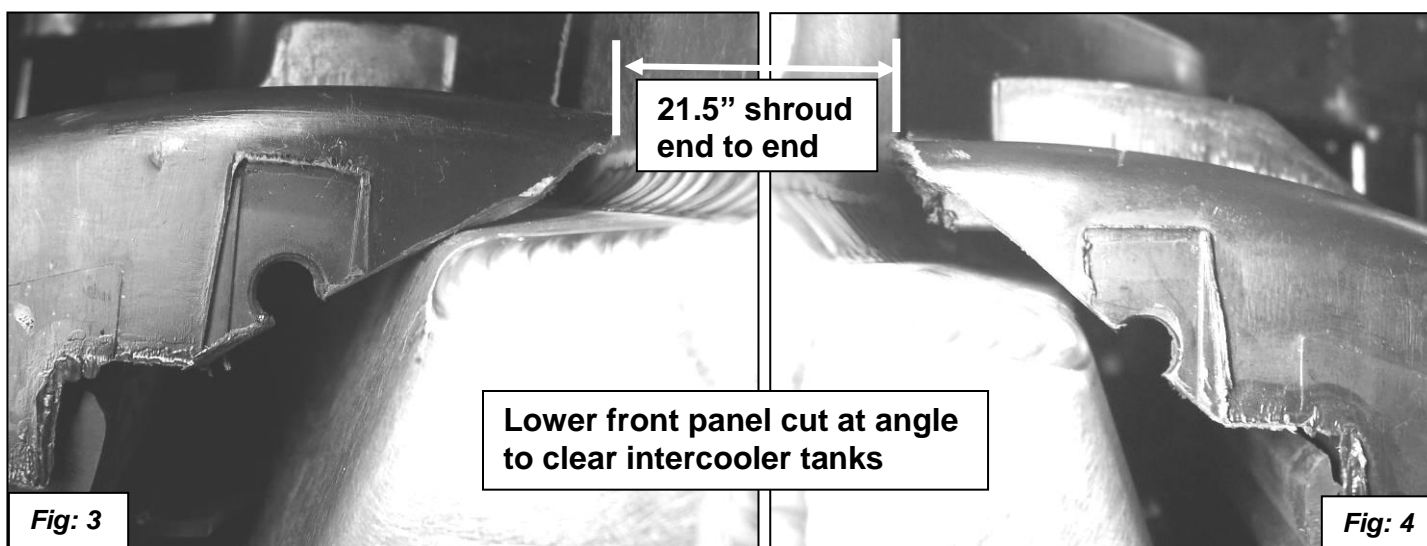
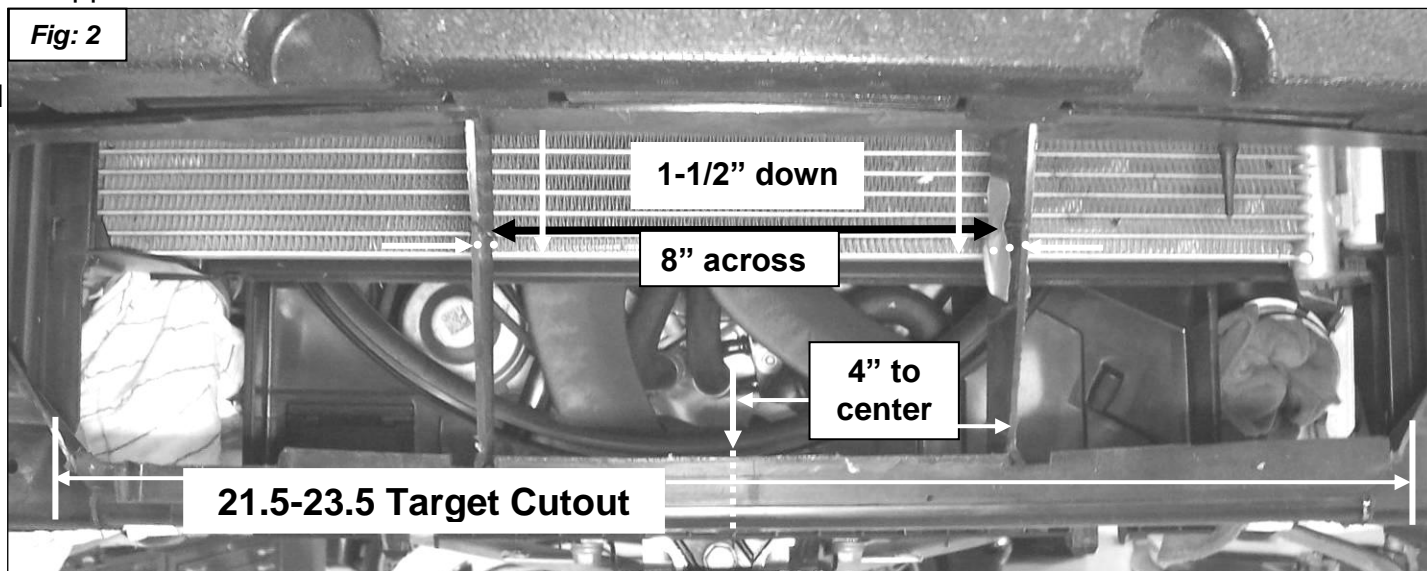
MAKE SPACE FOR THE DINAN INTERCOOLER

6. Remove the long plastic lip piece that is attached to the lower edge of the front panel. It is held in place with four screws.
7. You will need to trim out a rectangular area of the radiator shroud as shown below. You can use a cutting tool or tools such as a hacksaw, jab-saw or a fiberglass cutting disc held in a die grinder. A file or pocket knife can be used to deburr the cut areas. Study the following photo before doing any cutting.
8. Due to the different combinations of bumpers on the different year models of 335's I have decided to have the installer take a quick measurement **BEFORE** marking and cutting out for the intercooler. The reason each cutout may not need to be exactly the same is that where the intercooler is mounted in relationship to the lower section of the front panel is not the same with each bumper style. Some cars need the opening trimmed just for the duct portion of the Intercooler (21.5") and others need a larger opening to accommodate portions of the end tanks (22.5" – 23.5"). You will simply need to take a measurement from the **front lower edge of the fan shroud** as shown below in figure 1 to the **front face of the bottom section of the front panel**. Next you will measure from the rear lower edge of the Dinan Intercooler where it mates with the fan shroud forward the same distance as the measurement you took and check the width of the Intercooler at that distance. Now **add ½"** to that measurement for clearance -- this will be your **"target cut-out dimension"**. Carefully observe the following photo figure 1. I have shown an installed Intercooler for clarification reasons. I have also photo shopped in a where a different panel would be that needs the larger cutout to clear the side tanks.



9. Continue to the next few steps before marking and cutting using your target cutout dimension.

10. The photo figure 2 below shows where to do the basic cutout from the front view. Locate the center between the two vertical supports and mark it. The gap is probably about 8"; if so make a mark at 4". Now measure over **half of your target dimension + 1/4"** from center in both directions. You should have a gap equal to your target cutout dimension between the cut marks. These cuts can be straight up and straight back or angled if necessary depending on what area of the Intercooler will go through the front panel. If the Intercooler tanks are in the way you will have to do an angle cut as shown in figures 3 and 4. This material is very easily cut using a hacksaw or "jab saw". You can assemble a home-made jab saw using just a bare hacksaw blade held with a vise-grip pliers with about 6" of blade sticking out with the teeth pointing back at the vise-grip so as to cut on the pull stroke. The two vertical supports will need to be cut at 1-1/2" from their upper mounting points as shown in figure 2. The vertical supports are not really close to the AC condenser (heat exchanger) but please be careful to not damage it when cutting the supports. I use a fiberglass cutting disc in a 90° die-grinder to cut these easily. If you are concerned that you might damage the AC condenser, you can place a piece of cardboard or sheetmetal between the supports and the condenser.



Use the Dinan Intercooler to check fit your trimming efforts. Lift the Intercooler into place while guiding the hoses into the Intercooler tubes. 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 figure 5 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 hoses and replace if needed.
13. Apply a very thin film of grease to the bores of the hose receivers on the intercooler to ensure that the O-rings slip in without binding or tearing.

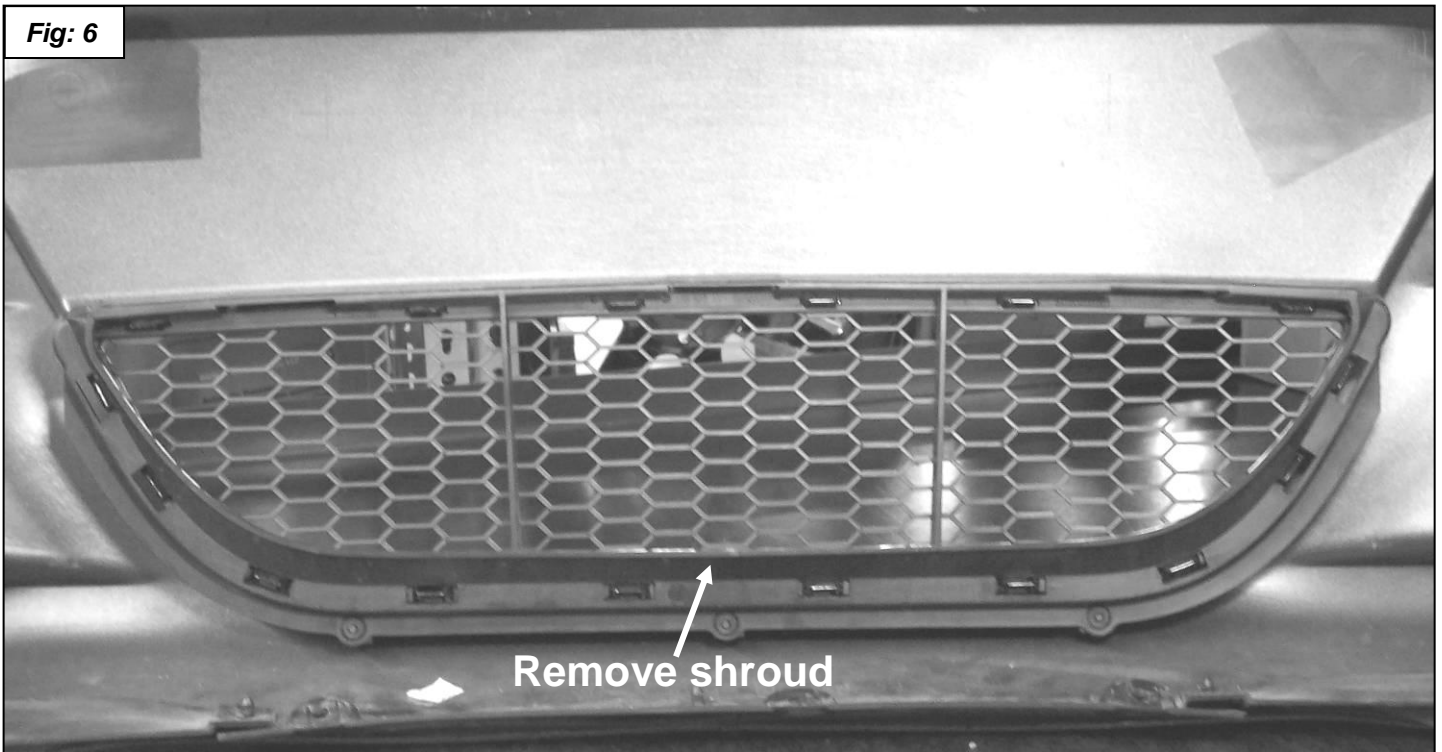
INSTALL THE DINAN INTERCOOLER

14. Now you should be ready to install the Intercooler. 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! I like to use a large pair of “channel-lock” pliers to squeeze the hose ends into the receivers all the way to ensure a secure connection.**
15. 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!
16. Reassemble the car in reverse order of disassembly. See additional bumper notes below.

Bumper Notes

17. If your bumper has this additional shroud as shown in figure 6 you will need to remove it. Remove the plastic shroud from the grill and bumper. Unclip the shroud leaving the grill attached to the bumper. Make sure the grill is still fully clipped to the bumper.

Fig: 6



18. 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 replaced with the three earlier style "low-profile" captive nuts supplied. As you install the undertray check the clearance between the center screw and the intercooler. On some cars you may need to remove the front center captive nut and screw of the lower undertray completely. See figure 7.



Tent shaped
Captive nut

Fig: 7

