



# INSTRUCTIONS

## INTERCOOLER UPGRADE

BMW E82 135i 2008-

### Parts Included:

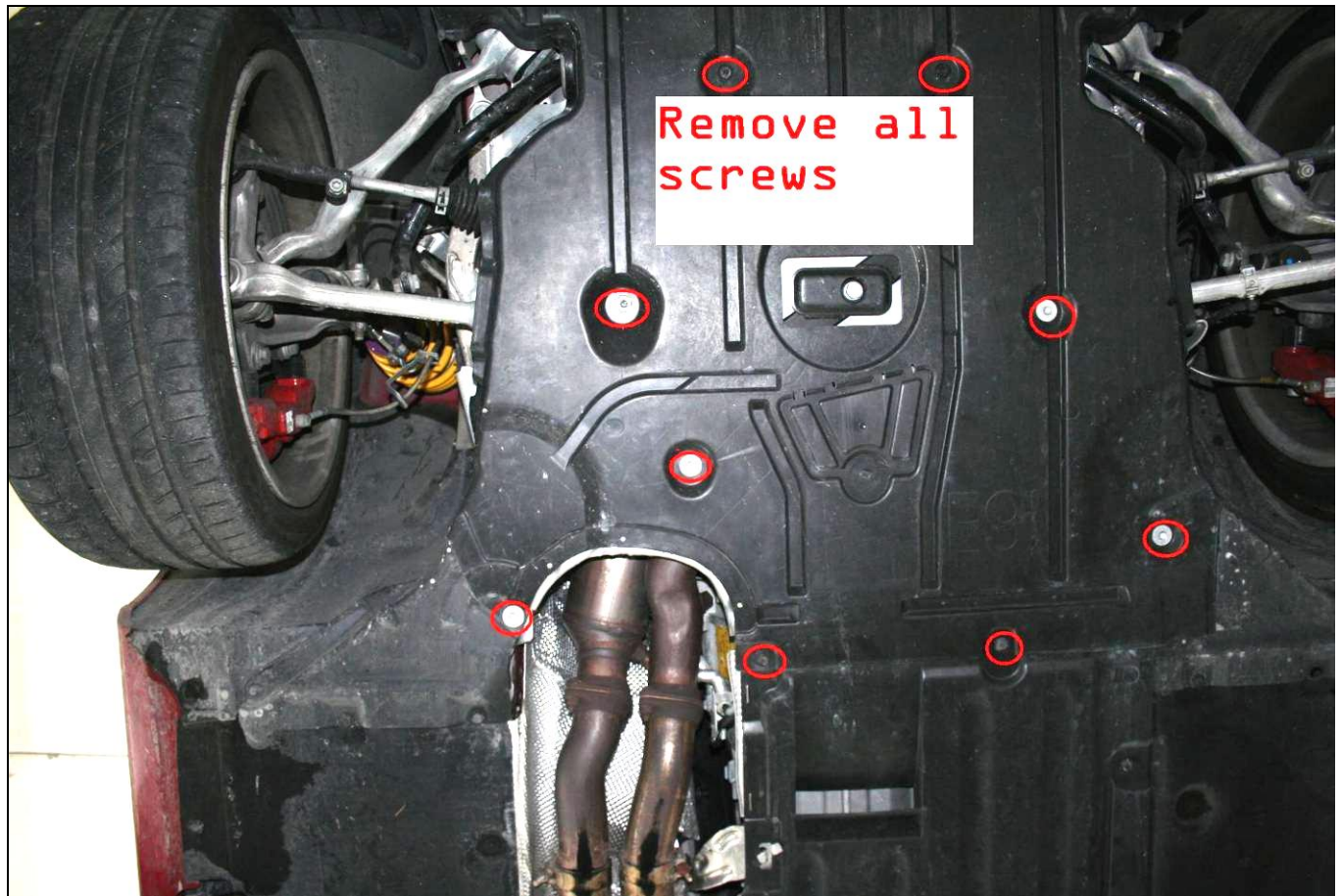
- Intercooler
- 4 door shield
- 2 - 45 degree Silicone Hoses ( 2.5" x 3 ")
- 1 – 2.5x3" silicone straight hose.
- 1 – 45 degree aluminum pipe
- 1 – multiple bend aluminum pipe
- 8 Hose clamps # 40
- Left and right side mounting brackets
- 2 Hex bolts ( 8 x 90mm)
- 2 – 8mm Hex nuts
- Intercooler under panel.

### Installation:

It is recommended to use a lift to help perform installation or use of professional grade jack stands to properly raise and secure car

### Tools:

- Basic metric sockets
- Ratchet handle & extensions
- Screwdrivers – Phillips and Flat head
- Torx bit # 25, #30
- Die grinder or air saw
- Drill with a 8mm bit



Remove under panel from belly of car. All screws have to be removed.

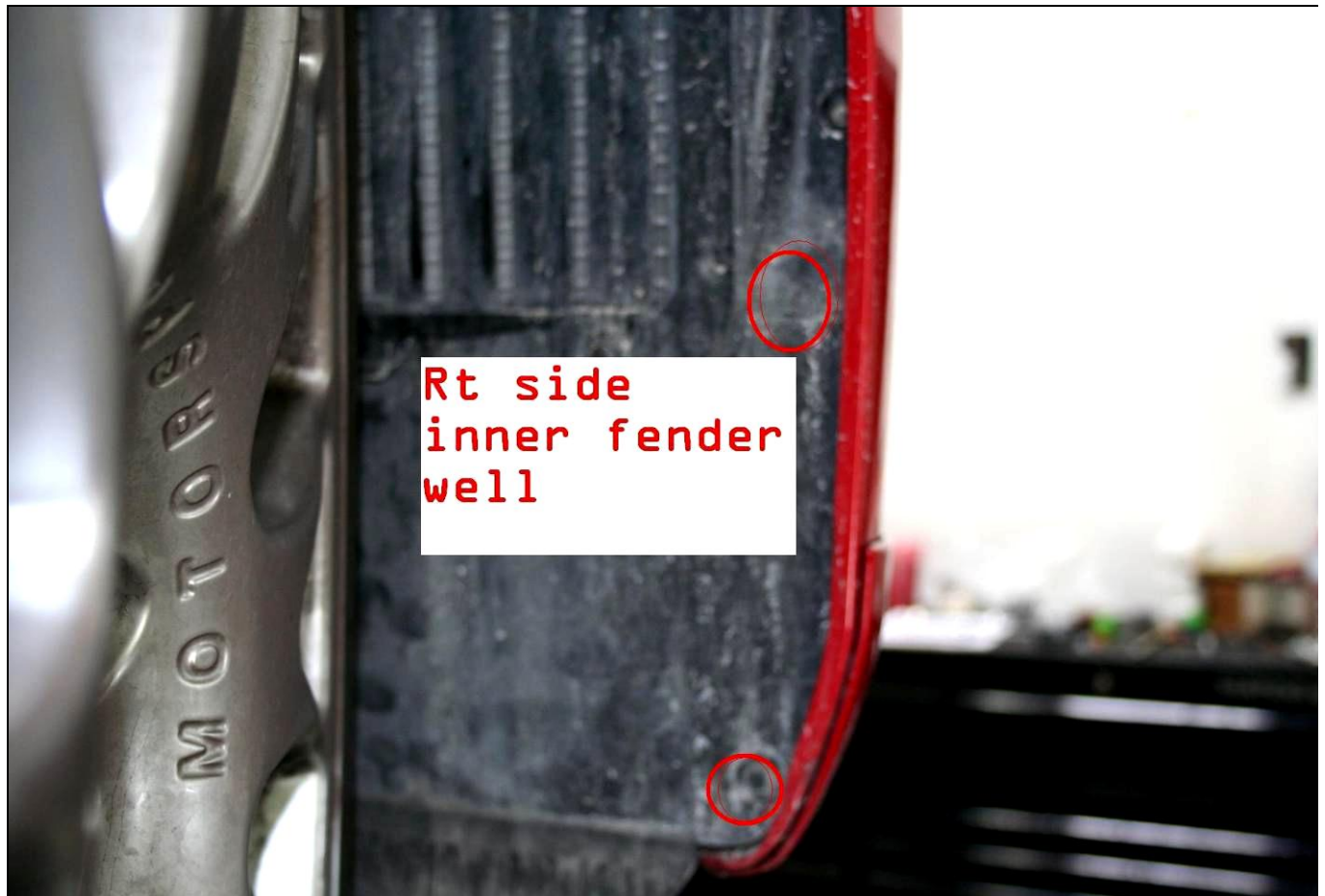


NOTE: Not all screws are shown in picture above.



Remove the front bumper cover side screws located under the headlamps and inner fender.  
Remove screws from under panel (Pork Chop).





Rt side  
inner fender  
well

Remove screws from passenger side inner fender.



Remove screws for driver's side inner fender.



Remove 1 screw from underside and unsnap bumper from the fender.



Repeat bolt removal for passenger side.

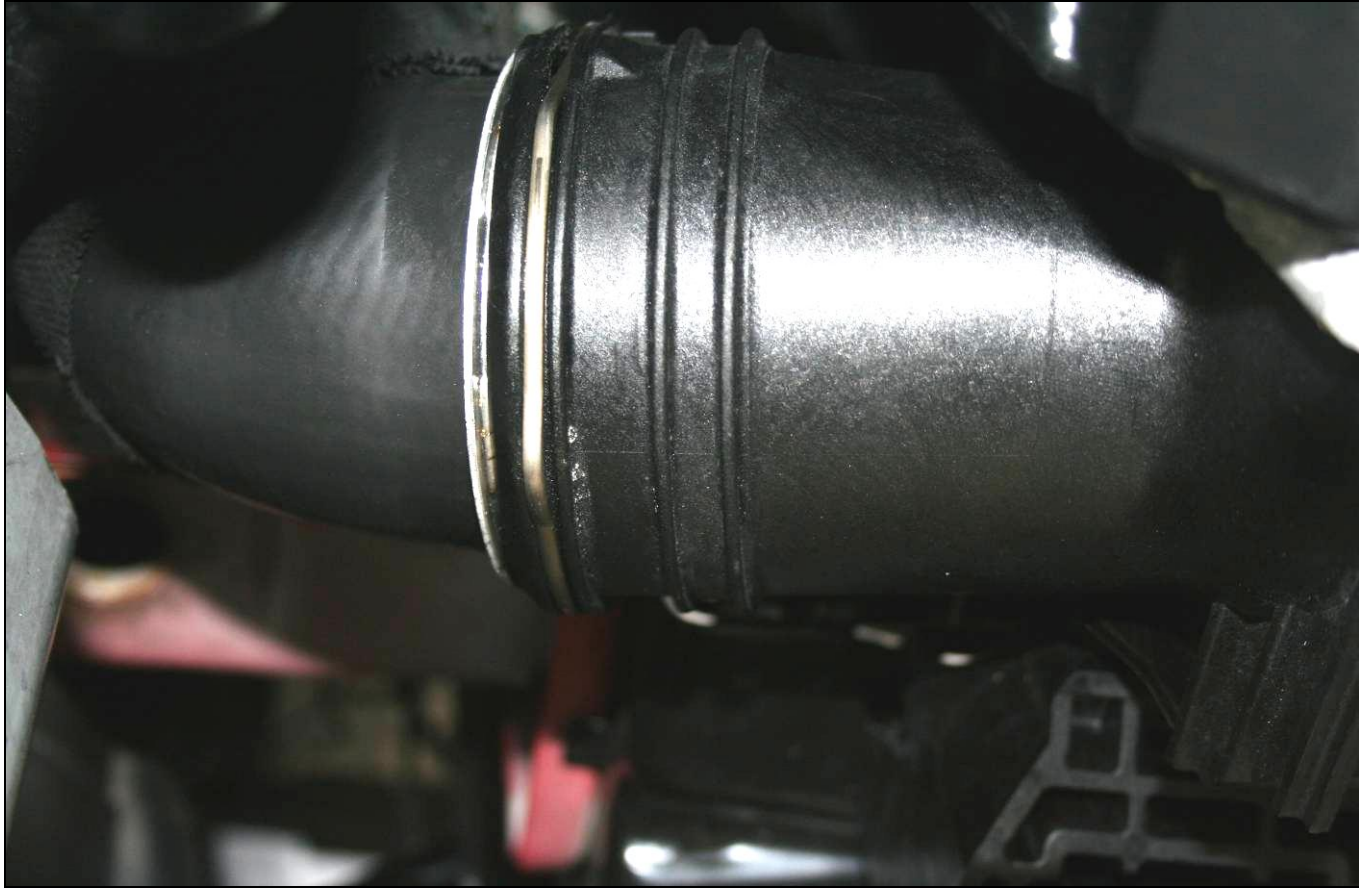


Remove the 4 remaining screws at the top

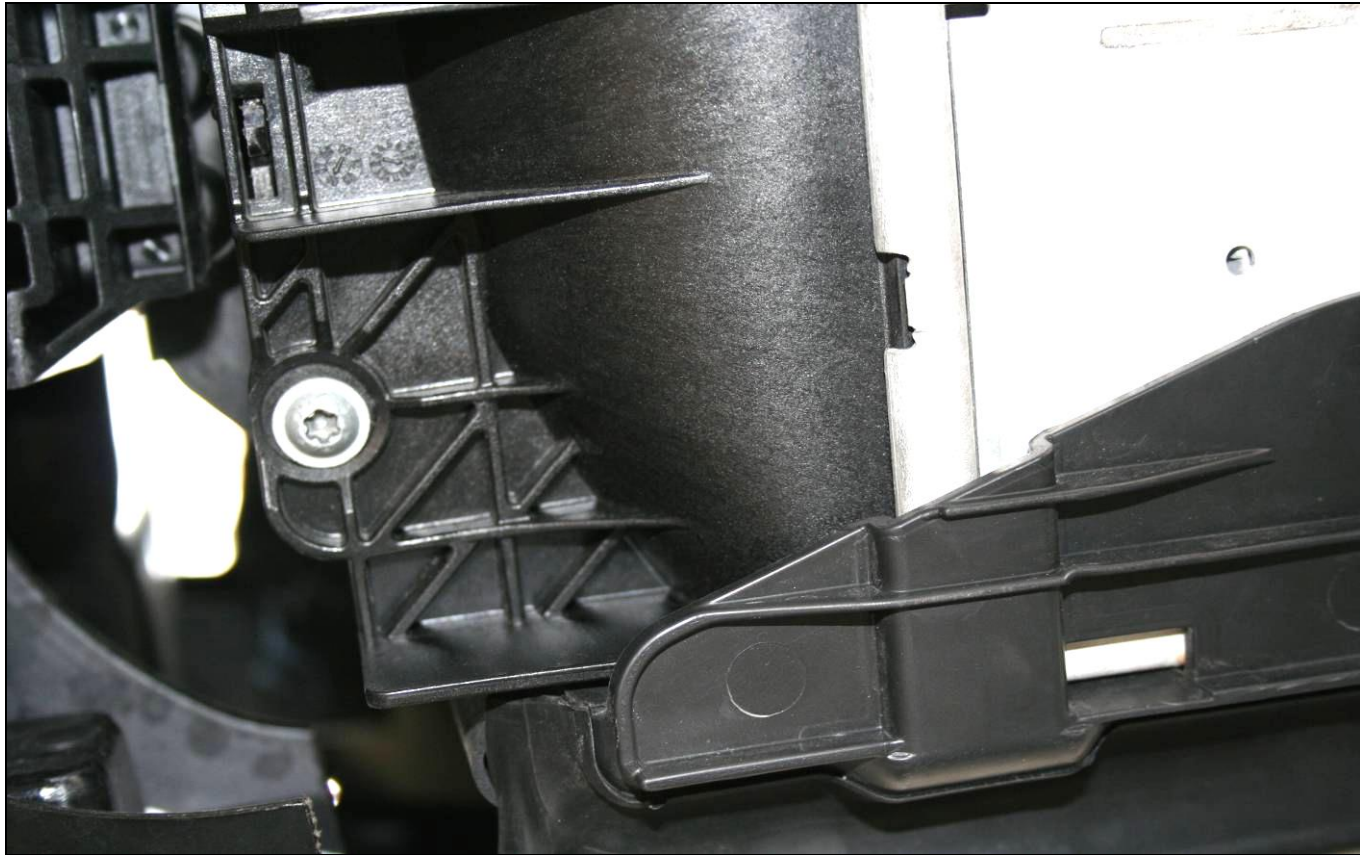




Unplug wiring to fog lamps. Then remove bumper cover.

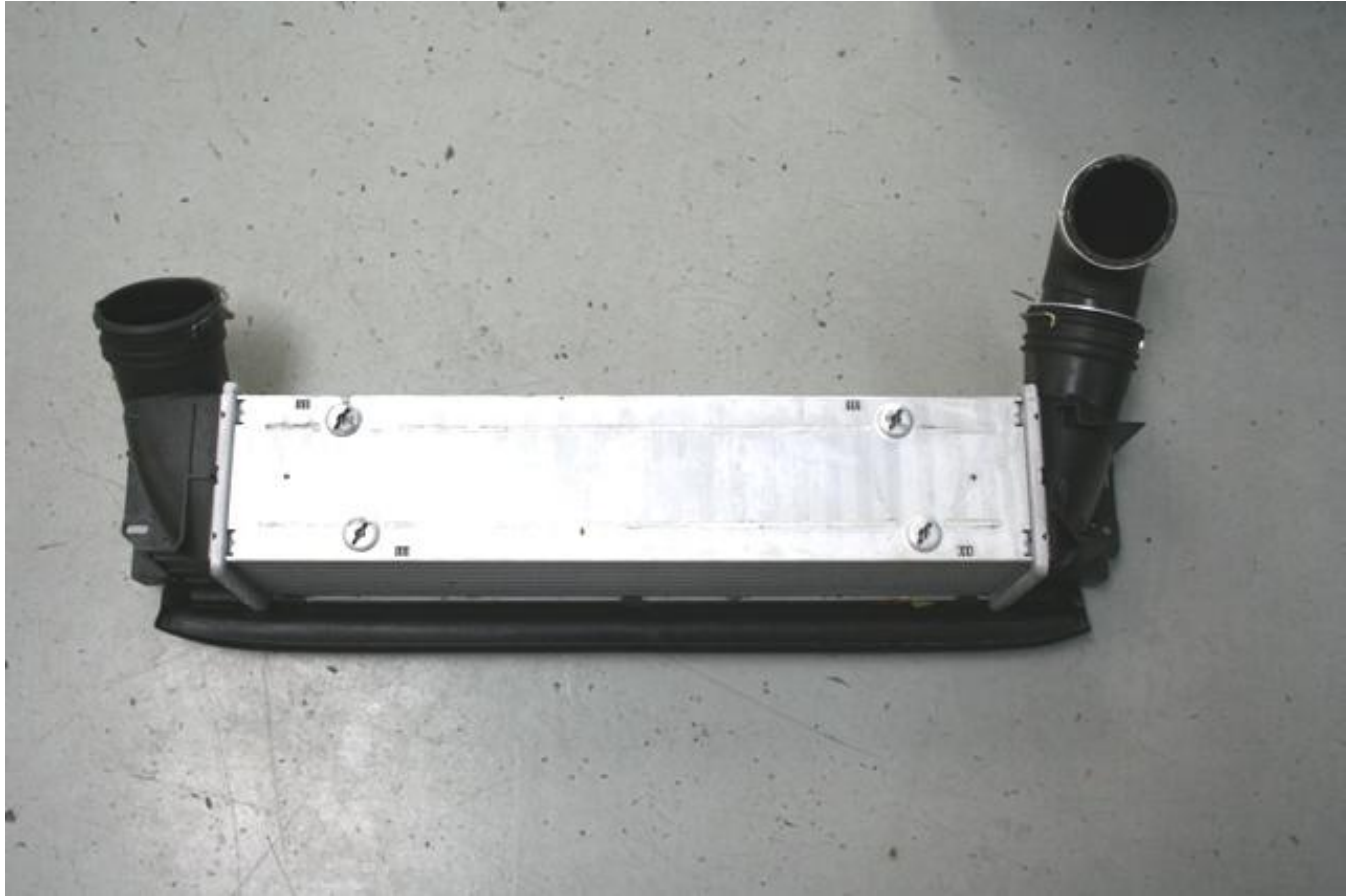


Pull release clips for left and right intercooler pipes. Pull back pipes away from intercooler



Remove mounting screws on the left and right side of the intercooler

These screw will be used back to mount the intercooler under panel



Stock intercooler removed





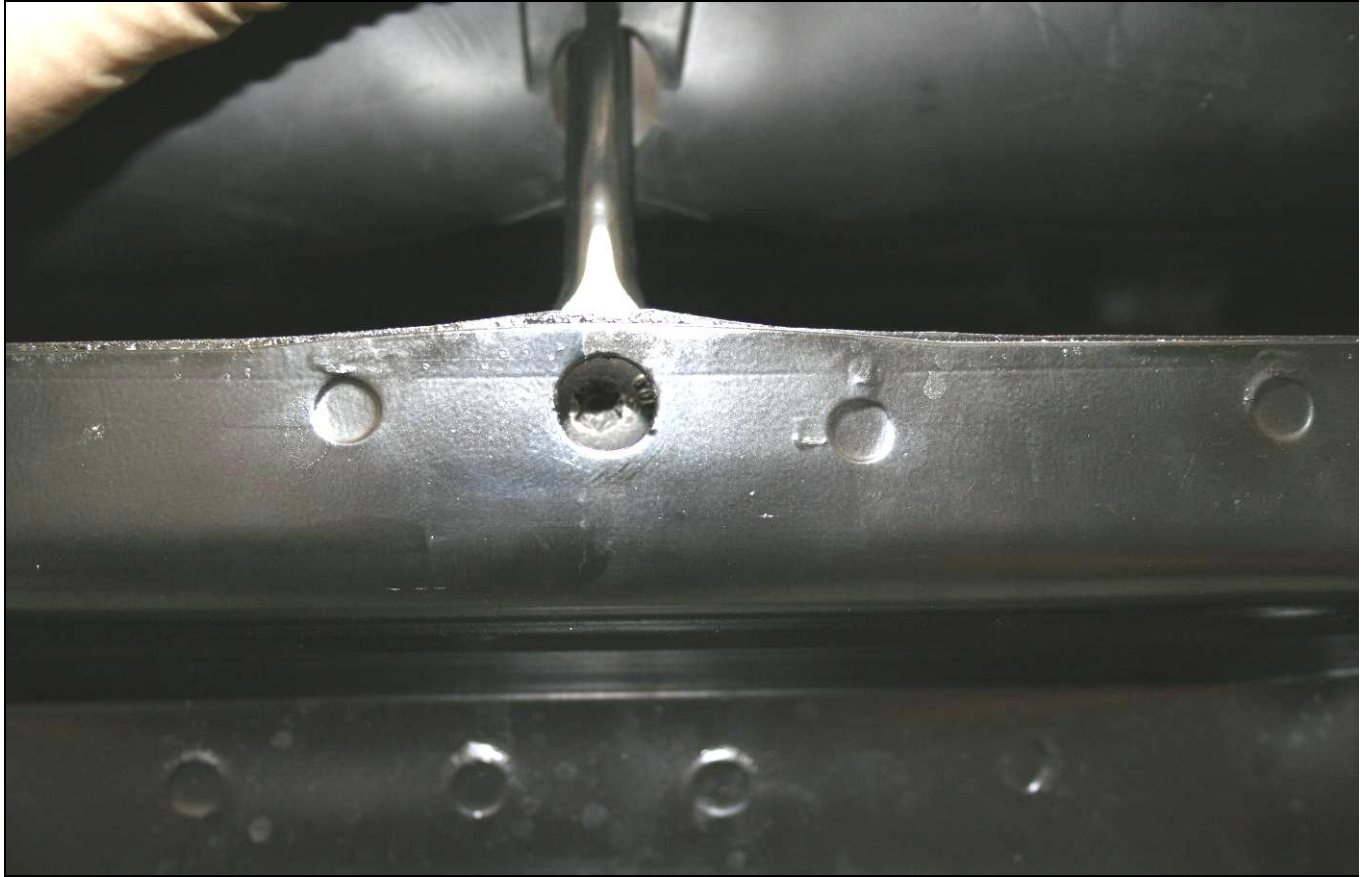
Intercooler removed



The factory plastic shroud will need to be modified for the new intercooler. The modification can be done in the car but the bumper has to be lowered to get space to cut the shroud.  
Loosen the 2 bumper supports (4 bolts) and drill rivets.<sup>21</sup>



Bumper also has a center support brace that will have to be loosened



Remove bolt for center support brace

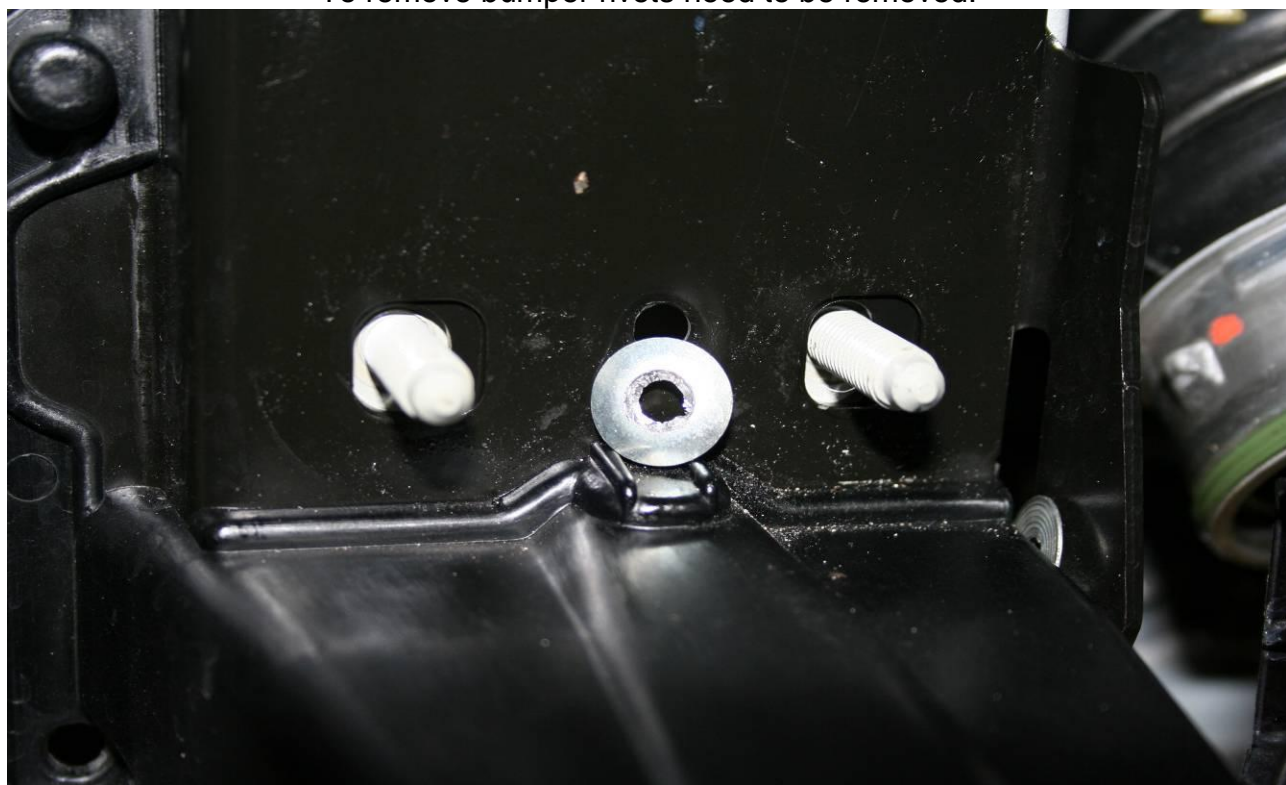




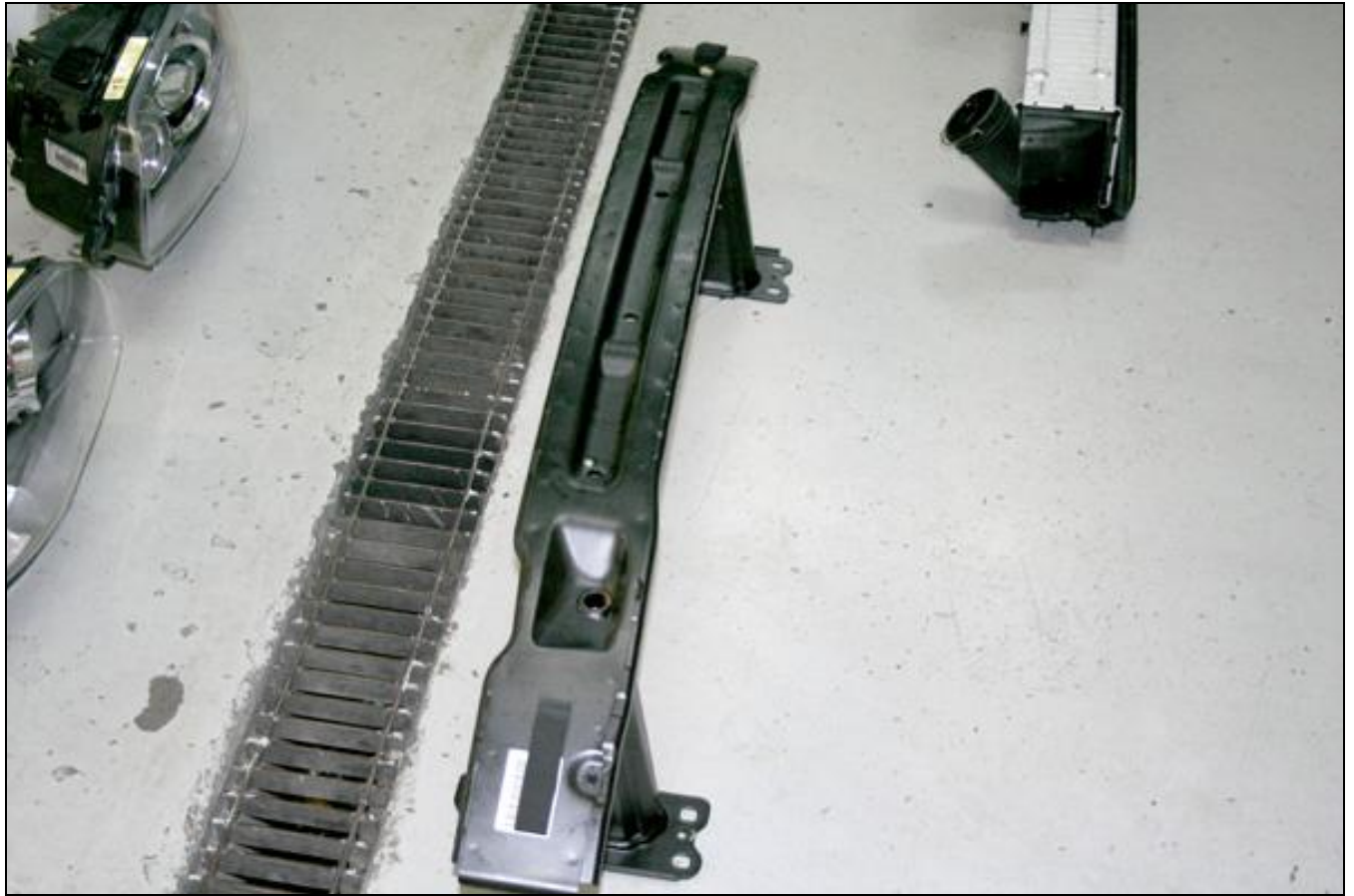
Remove headlight assembly to drill out rivets for bumper.  
Headlight assemblies removed both Left and Right. Also the reinforcement bar located  
in the middle



To remove bumper rivets need to be removed.

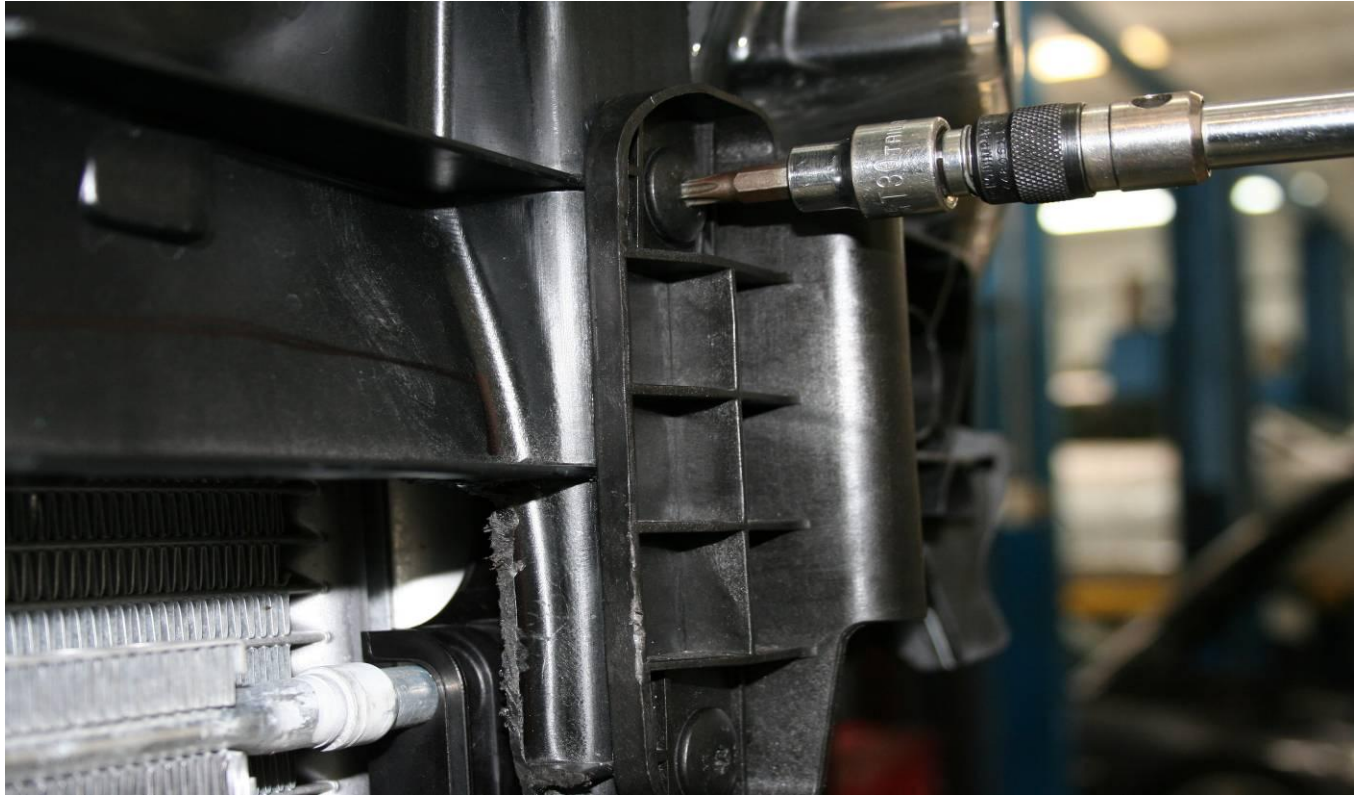


Drill out rivets



Bumper removed





Loosen headlight support screws

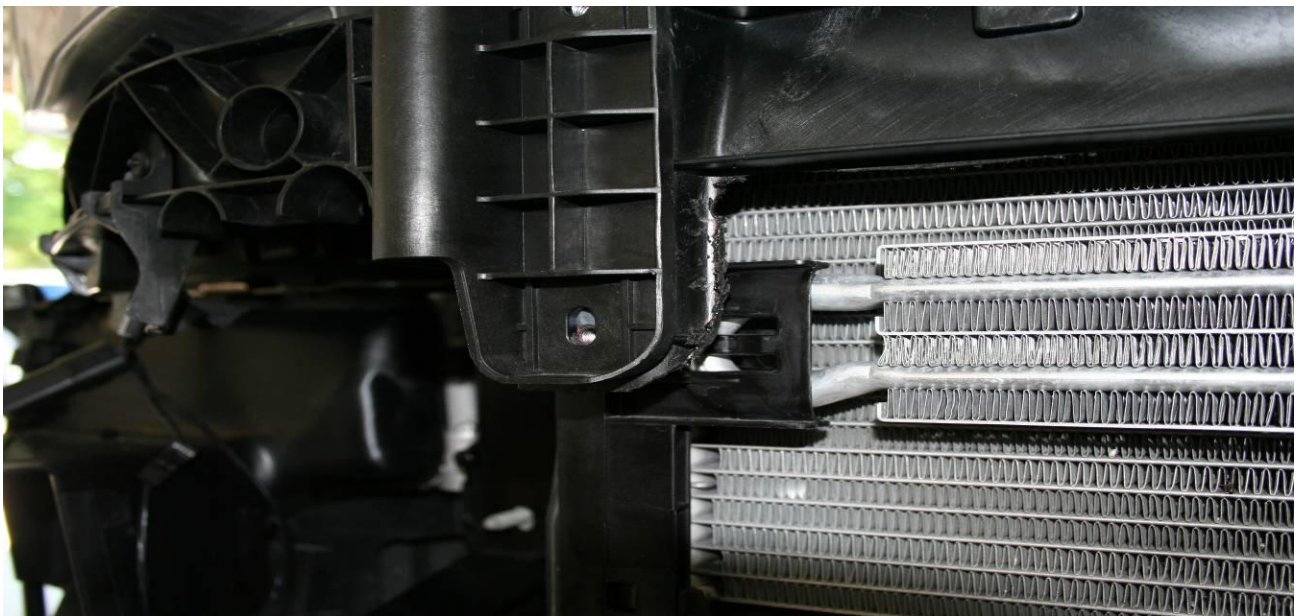




Pull shroud forward and cut carefully just below the upper most rib. Make sure not to hit the cores behind it, this will cause severe damage.



Cut left and right sides



Cut around head light support.

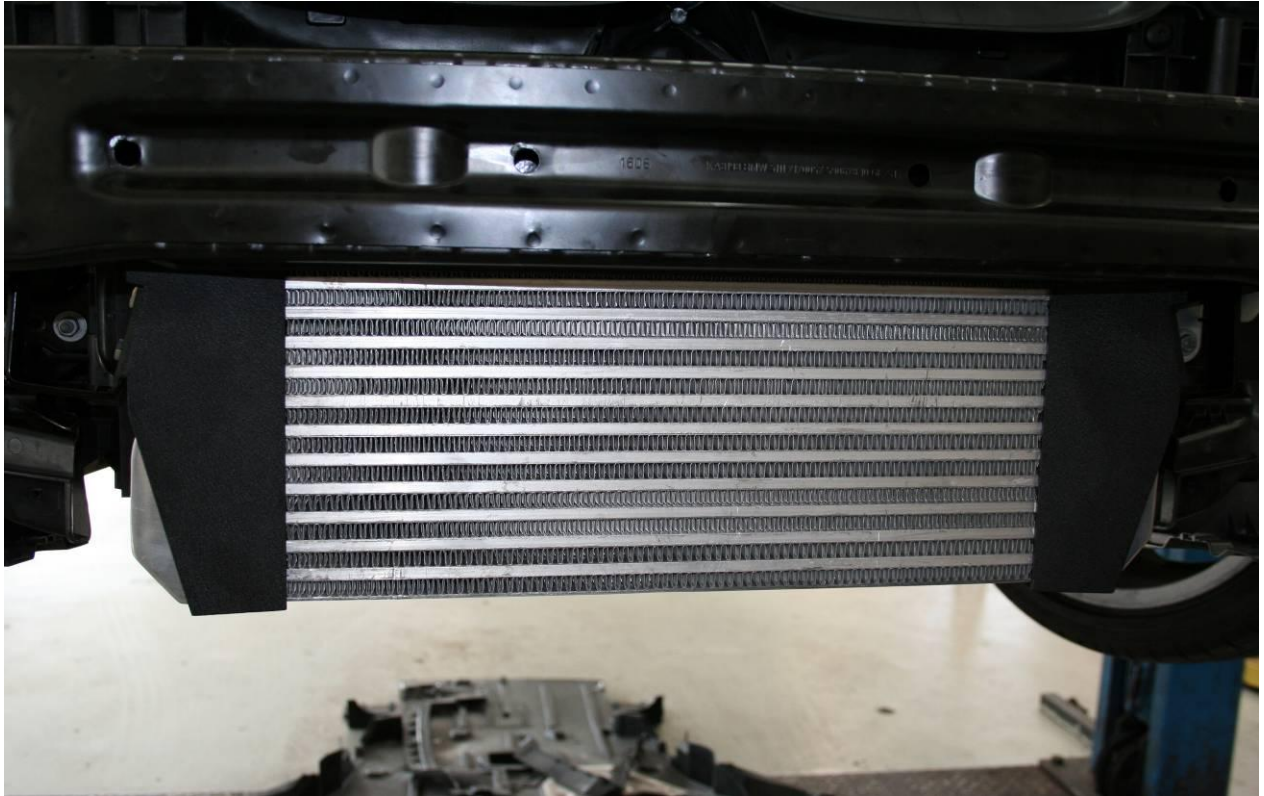




Shroud removed



Fit inter cooler under fan shroud



Replace bumper with 2 nuts then fit intercooler and brackets between bumper support. Push intercooler against Transmission cooler and level height against bottom of the cut shroud.  
MARK HOLES FOR INTER COOLER BRACKETS.

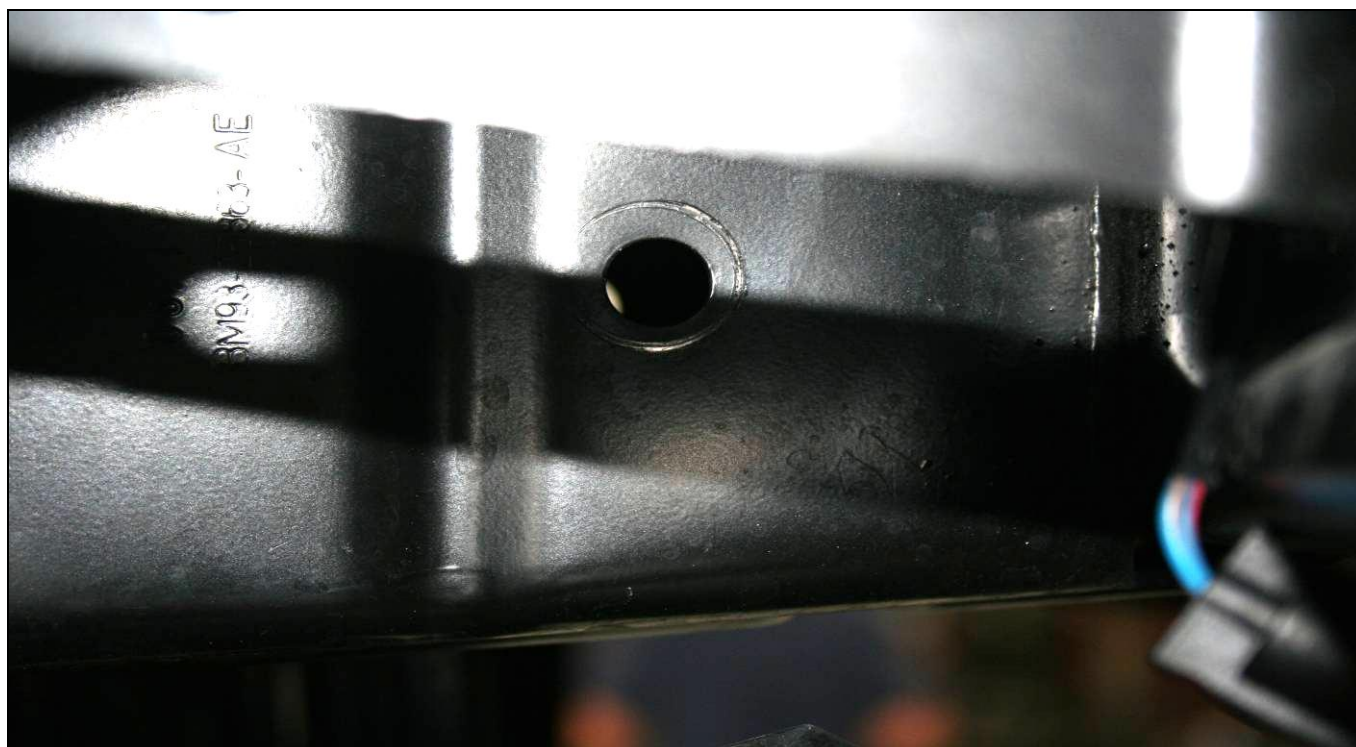




Mark bumper support through holes of intercooler brackets.



Remove bumper and drill 8mm hole in bumper legs.







Install 90mm nut and bolts

Brackets must slope back towards radiator when mounted. (Swap left to right if they face forward). BRACKETS MAY VARY IN APPEARANCE EARLY KITS HAD CROSS BRACE



Driver's side (left side) pipe to Blow off valve (2010 and later). Pre 2010 may be in two pieces.

Remove original IC pipes from both sides.

A small die grinder (Dremel) will have to be used to cut clamps.



Right side pipe (passenger). New pipes will be supplied with the AA intercooler.





Install driver's side pipe with elbow (45 degree hose towards intercooler). 90 DEGREE GOES TOWARDS BLOW OFF VALVE PIPE.





Install passenger side pipe (Longer side of aluminum pipe towards Turbo and 45 degree silicone bend towards intercooler).

## HOSE POSITIONS







Drivers side hose and pipe installed to intercooler



Passenger side hose and pipe installed to intercooler



Attach passenger side pipe from turbo. Reposition hoses for a comfortable fit. Position and tighten clamps.





Remove lower grill from front bumper ( can be cut while still installed, with proper tools)



Modify grill as shown by cutting off tab on both Left and Right sides.

Using an air saw makes easy work. Clean the cut with a sander when finished



Install under panel plate using back original screws

The intercooler is now installed.  
Reverse procedure and reinstall bumper cover and under panels components  
Thoroughly check all clamps and bolts, then perform a road test.



Thank you for purchasing one of the finest performance upgrades made for the BMW 135i Twin Turbo.

If you have any questions or concerns, just give us a call at 305.233.9300 or via [info@activeautowerke.com](mailto:info@activeautowerke.com).

Through your inputs and concerns, this is how Active Autowerke tries to improve on the minor details.