

**HYBRID DEVELOPMENT INTERNATIONAL
RACING INTERCOOLER KIT
INSTALLATION MANUAL**



Please read before continuing

Please read through all the instruction and practice all precaution in all aspect of safety and every step prior and during the installation. This installation manual is purely for **HYBRID DEVELOPMENT INTERNATIONAL RACING INTERCOOLER KIT**

And is used as guide only. As different vehicles in different countries may have different specifications and component layout. Therefore, it is important to make sure the connection is properly done by authorized technician or HDi Technical Dealers.

Warning

- Check and clean all open area for foreign object inside.
- Installation should only be carried out by authorized dealer or agent only.
- Avoiding water, liquid or fluid during and post installation.
- Do not install the unit in a place that will interface the driver.
- This product is for off road use only not for public road.
- Never adjust the fitment when the car is moving or on public road ,doing so is dangerous to yourselves and others
- Make sure there is adequate ventilation if you are installing or setting it indoors.

LIMITED WARRANTY

Hybrid Development (HK) ltd will warranty for the period of 1 year from original purchase against all defects in workmanship and materials. Hybrid Development (HK) ltd is not responsible for expenses incurred for labor, personal injury or inconvenience. Hybrid Development (HK) ltd sole responsibility is to offer a replacement product or to repair the damaged product. Hybrid Development (HK) ltd cannot warranty products damaged by improper installation. All other products sold by Hybrid Development (HK) ltd are warranted by the original manufactures and is not the responsibility of Hybrid Development (HK) ltd.

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This installation manual is a guide only. Pictures are for illustration purposes only as the vehicles and product may vary in different countries / regions.

Place the vehicle on a level surface and use a trolley jack place the vehicle on car stands



Carefully remove the grill by removing the 6 plastic screw clips



Remove the 3 screw clips from the top of the bumper bar



Remove the drivers and passenger side headlights. Unbolt from the brackets and carefully slide light outwards. Remove electrical plug from behind.



Headlights are now removed to prepare for the removal of the bumper bar.



Remove clips under headlights

On both the passenger and drivers side remove the screw clips from the headlight position



Remove lower bumper clips

Remove the lower bumper bar clips from lower edge of the bumper bar

Remove screw from inner guard



Remove the screw from behind the inner splash guard on both sides of the vehicle

Remove screw behind bumper



Carefully push the inner splash guard for clearance and remove the internal screw



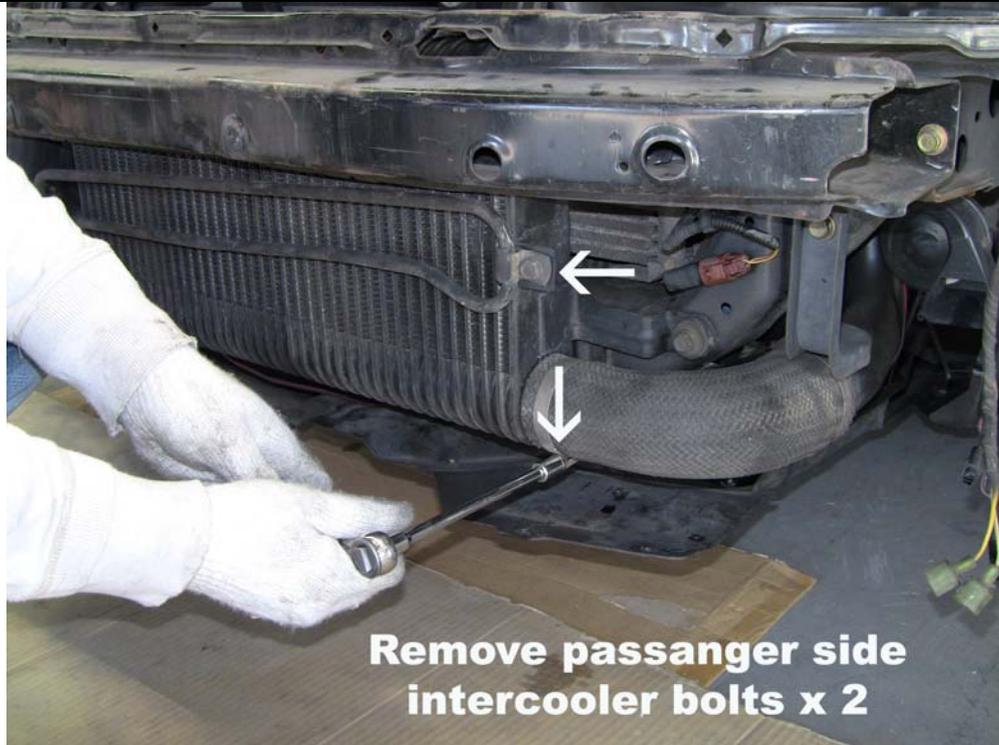
**Unclip fog lights from harness
and remove from bumper bar**

Gently slide the bumper forward to remove. Unclip the fog lights from the harness and remove from bumper bar

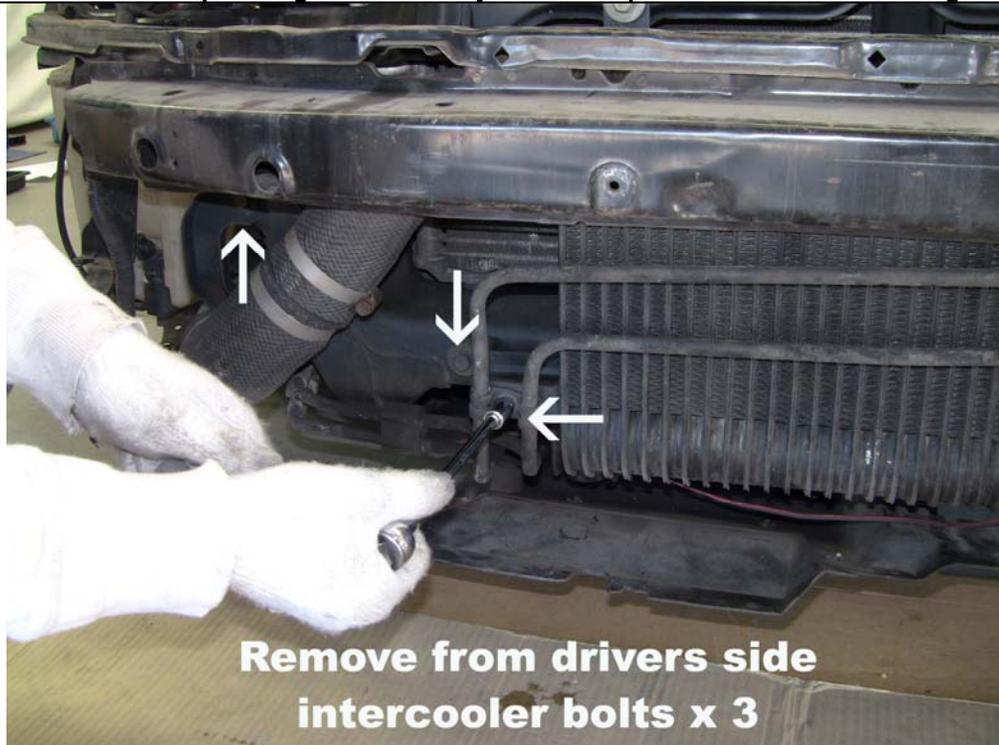


Bumper bar removed

Picture illustrates the bumper bar has been removed



Loosen the passenger side factory hose clamp and Oil Cooler mounting



Remove the Oil Cooler bracket bolt, factory intercooler bracket and factory intercooler piping bracket. Loosen the clamp from the metal factory intercooler pipe.



Remove top intercooler bolts x 2

Remove the top factory intercooler mounting bolts



**Slide factory intercooler down
and remove**

Slide factory intercooler down from behind the reinforcement bar and permanently remove



Remove the metal reinforcement bar

Unbolt the reinforcement bar on drivers and passenger side through the hole



Remove the metal reinforcement

Remove the outer edge bolts from the drivers and passenger side reinforcement bar



Reinforcement bar and factory intercooler is now removed



Cut the inside of the reinforcement bar as highlighted. Area may vary depending on model and vehicle alignment. Check for HDi intercooler clearance



Remove drivers side intercooler pipe bolt from behind the washer bottle

Remove the drivers side intercooler piping bolt from behind the washer bottle



Remove the washer bottle 3 bolts

The washer bottle will need to be removed to clear for the removal of the factory intercooler pipe removal.



Remove Washer bottle

Remove the front washer bottle bolt



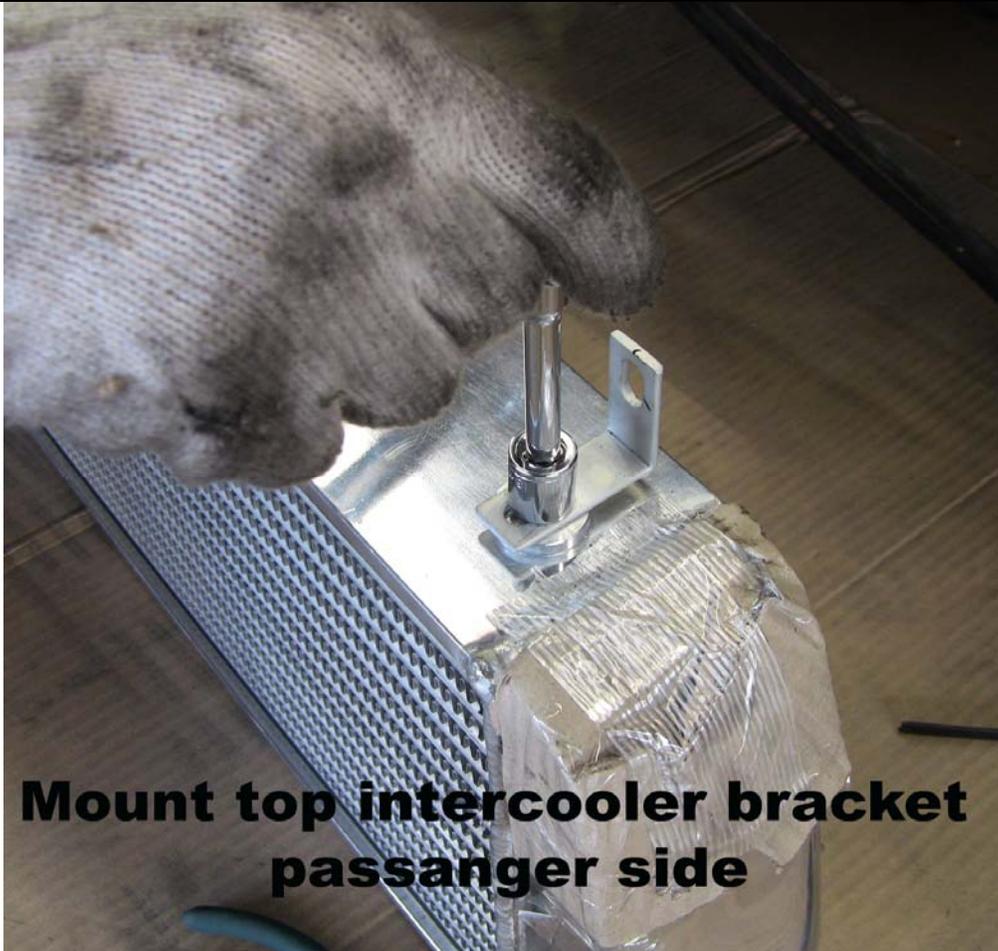
Remove washer bottle bolt

Remove the rear washer bottle bolt



Remove drivers side intercooler pipe

Move the washer bottle clear of the factory intercooler pipe. Slide the pipe downwards and outwards and permanently remove the intercooler pipe.



**Mount top intercooler bracket
passanger side**

Mount the supplied HDi top intercooler brackets using the supplied M8 bolt to the passenger side



**Install Drivers side top intercooler
bracket**

Mount the supplied HDi top intercooler brackets using the supplied M8 bolt to the drivers side



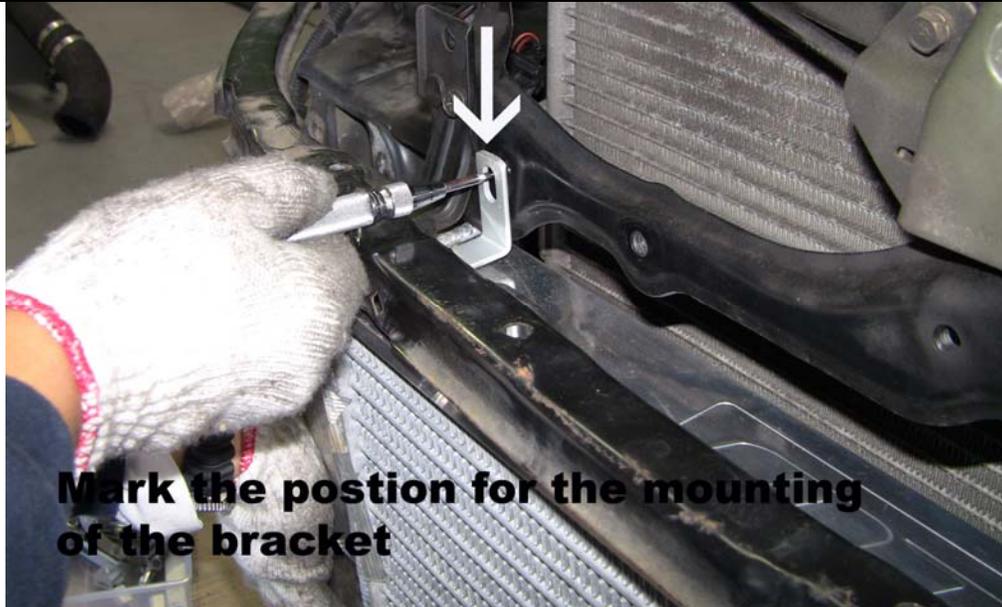
Position the HDi intercooler

Carefully position the HDi Intercooler under the metal bar and make sure it is centered.



**Using a drill punch mark the position
for drilling**

Using a drill punch or marker, mark the position to drill a hole for the M8 bolt on the passenger side



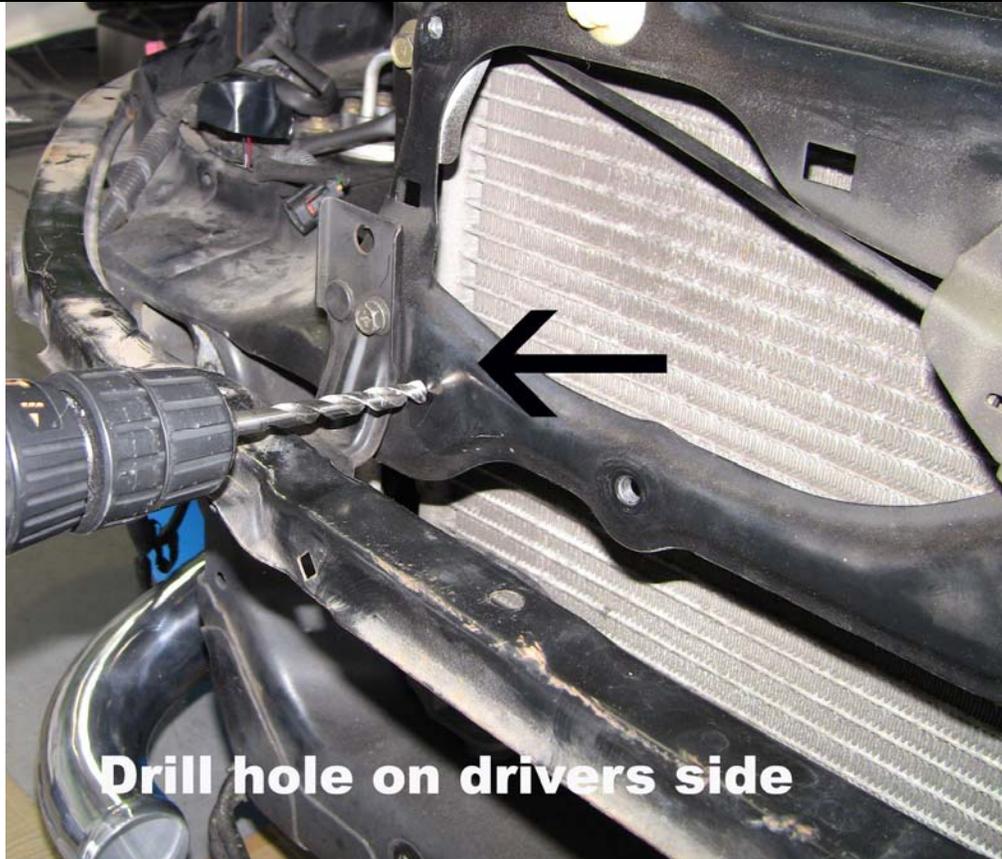
Mark the position for the mounting of the bracket

Using a drill punch or marker, mark the position to drill a hole for the M8 bolt on the drivers side



Drill hole on the passenger side

Now drill a hole in the marked position on the passenger side



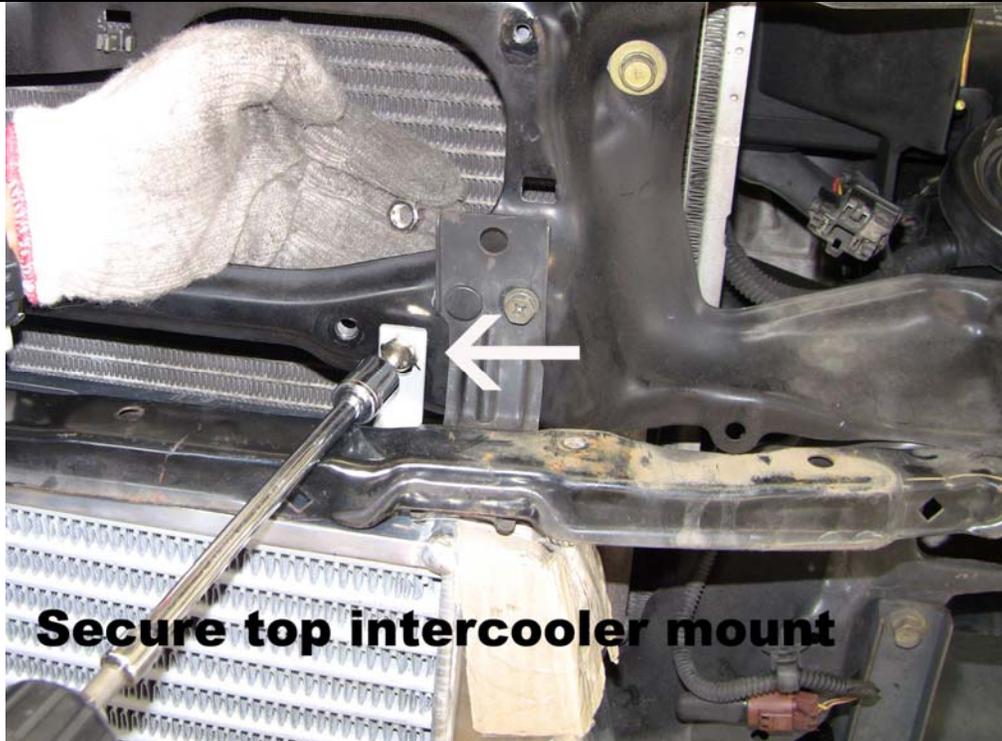
Drill hole on drivers side

Now drill a hole in the marked position on the drivers side



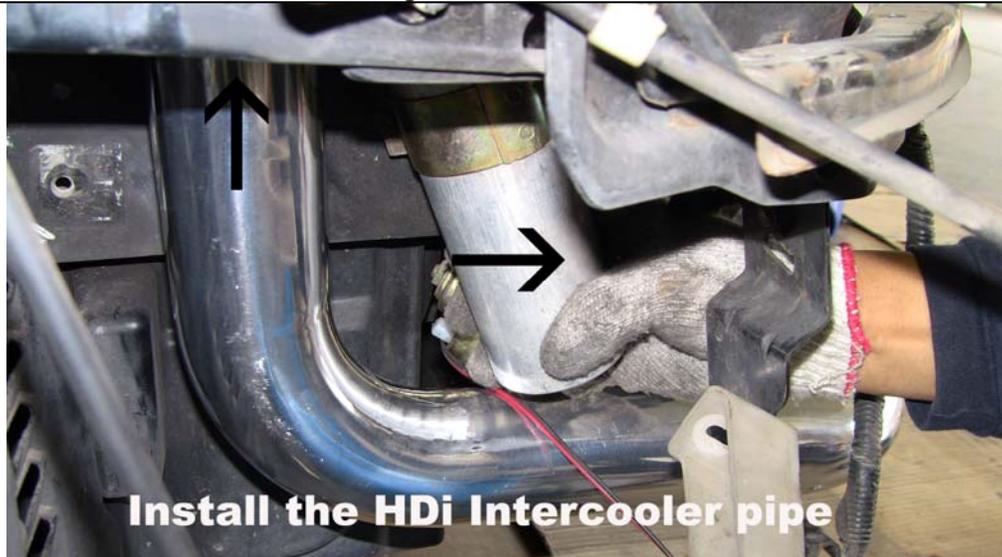
Secure top intercooler mount

Secure the drivers side HDi intercooler bracket using the supplied M8 nut and bolt. Fasten tightly



Secure top intercooler mount

Secure the passenger side HDi intercooler bracket using the supplied M8 nut and bolt. Fasten tightly
Check the alignment of the HDi intercooler



Install the HDi Intercooler pipe

DRIVERS SIDE: Install the HDi intercooler pipe through the factory pipe hole to connect with the factory rubber hose. Gently by hand pull the air conditioning condenser forward for pipe clearance.



DRIVERS SIDE: Slide a supplied HDi 2.5" Super Clamp onto the HDi intercooler pipe. Insert the HDi intercooler pipe into the factory rubber hose and slide the HDi Super Clamp over the rubber hose and secure tightly.



DRIVERS SIDE: Slide the supplied HDi 3" Super Clamp onto the HDi intercooler inlet then slide the supplied HDi 3 – 2.5" Silicon reducer on. Slide the HDi Super Clamp over the HDi Silicon hose and secure. Slide the supplied HDi 2.5" Super Clamp onto the HDi Intercooler pipe. Insert the Intercooler Pipe into the Silicon Hose and slide the Super Clamp over the Silicon Hose and secure.

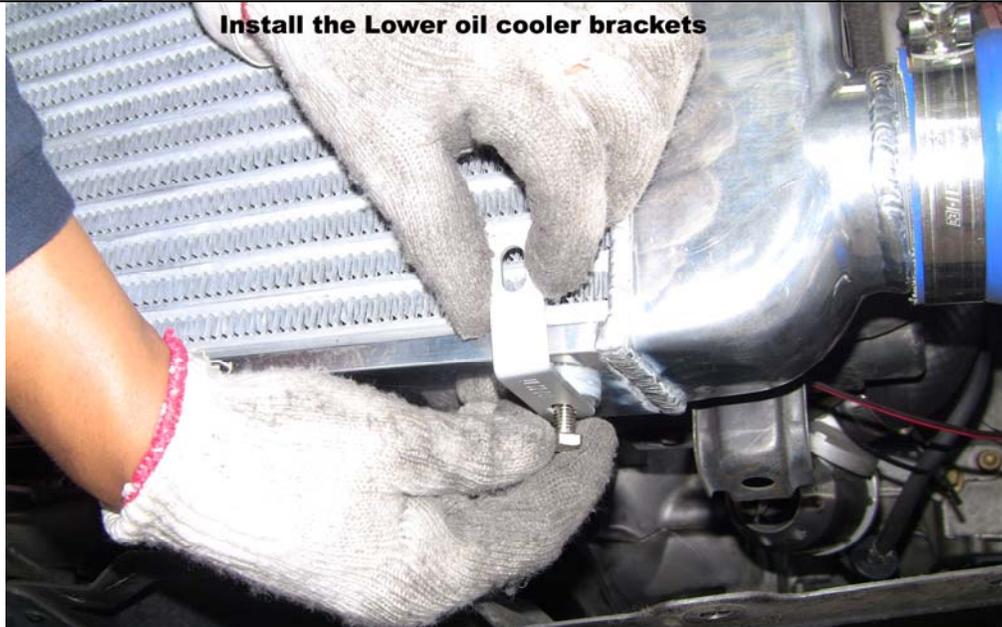
Check the alignment of the HDi Intercooler pipe and secure all Super Clamps tightly.



Connect the HDi silicon hose to the HDi Intercooler and factory pipe

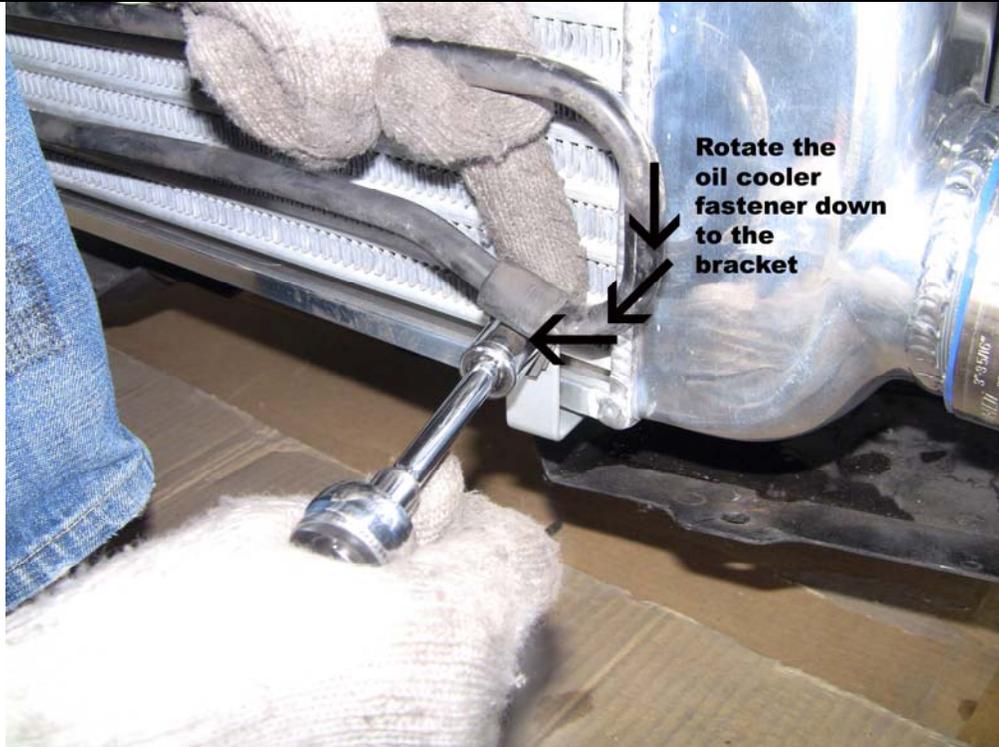
PASSENGER SIDE: Slide the supplied HDi 3" Super Clamp onto the HDi Intercooler outlet then slide the supplied HDi 3-2.5" silicon reducer onto the intercooler. Slide the clamp over the silicon hose and secure. Slide the supplied HDi 2.5" Super Clamp onto the factory intercooler pipe. Insert the factory intercooler pipe into the silicon hose. Slide the Super Clamp over the silicon hose and secure.

Check the alignment of the HDi Silicon Hose and secure all Super Clamps tightly.



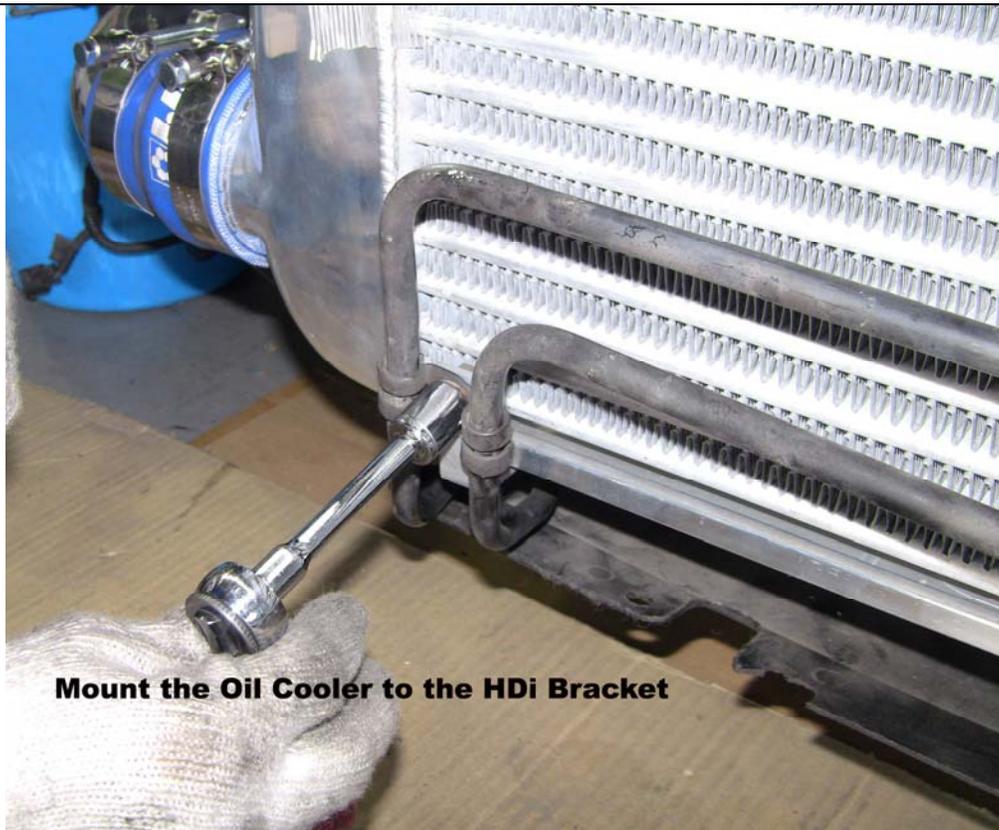
Install the Lower oil cooler brackets

Using the supplied HDi Bracket and M8 Nut install into the lower mounting on the HDi Intercooler of the Drivers and Passenger side.



**Rotate the
oil cooler
fastener down
to the
bracket**

Loosen the Oil Cooler fastener and rotate it down to the HDi bracket and secure using the supplied nut and bolt.



Mount the Oil Cooler to the HDi Bracket

Mount the Drivers Side Oil Cooler Fastener to the HDi Bracket and secure with the supplied nut and bolt. It will need to be as close to the HDi Intercooler as possible.

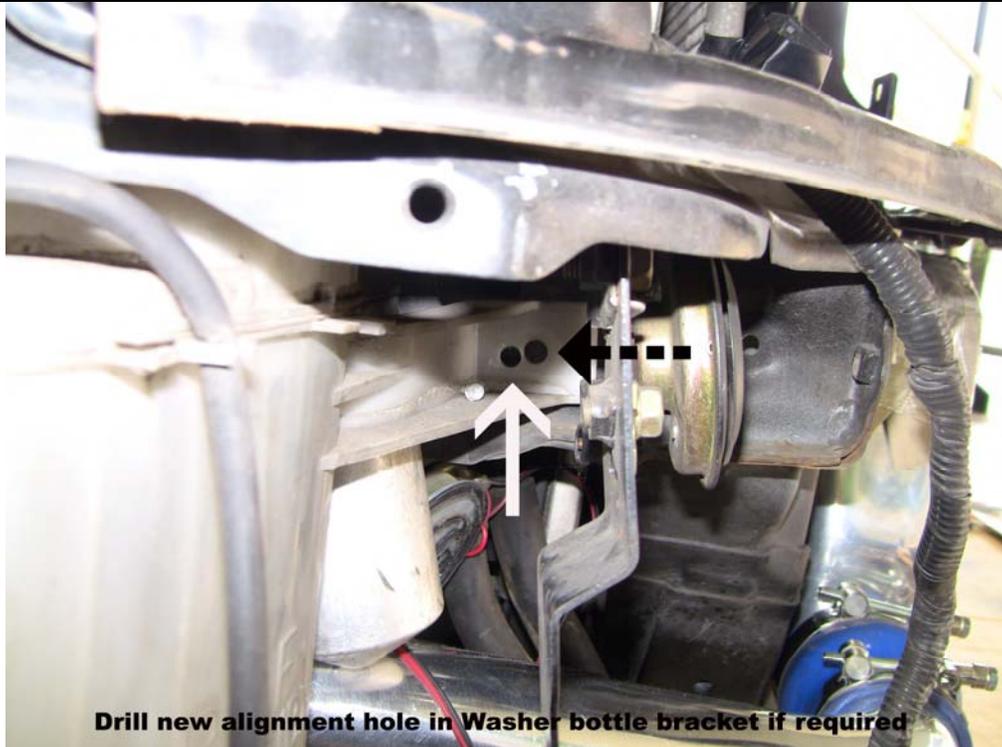


Oil Cooler mounting completed



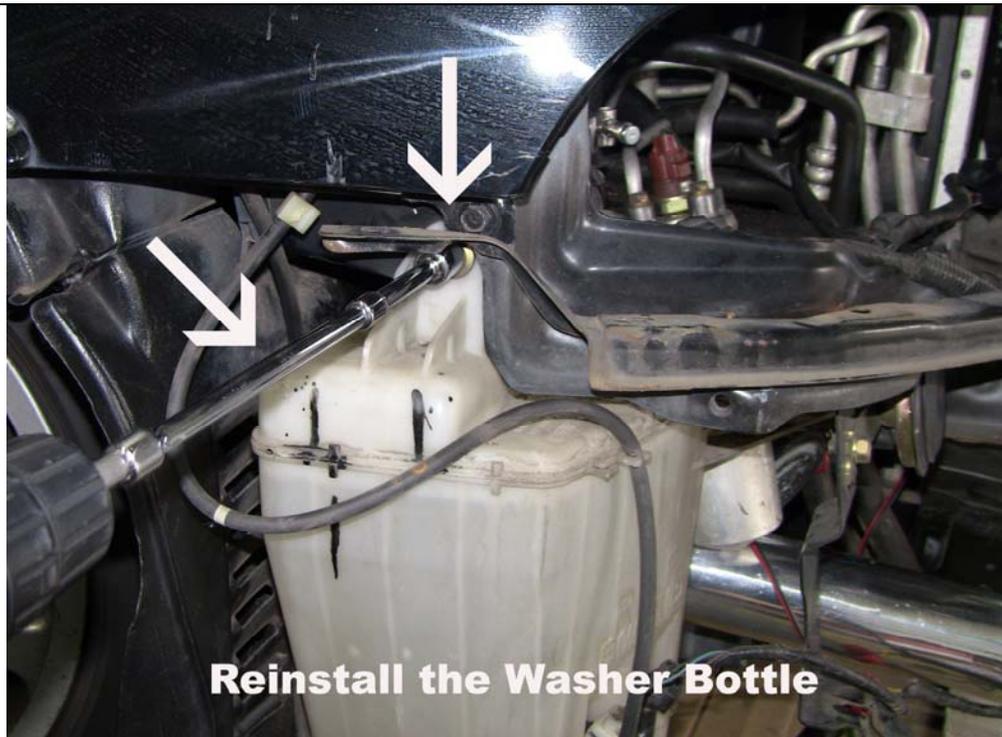
**Insert washer bottle into
filler cap**

Re Install the washer bottle by inserting the bottle neck into the filler cap



Drill new alignment hole in Washer bottle bracket if required

A new hole may need to be drilled on the washer bottle bracket to align with the bolt hole. This will vary on each model. Insert bolt and secure.



Reinstall the Washer Bottle

Fasten the washer bottle back into position.



Re Install the Reinforcement bar. Check for intercooler clearance. Make changes as required. Secure the 4 bolts in position.

The HDi Intercooler installation is now complete. Reinstall the Bumper Bar, fog lights, head lights and grill to fully complete the installation



Note:

Due to the high flow and low pressure drop characteristic of the HDi intercoolers – the turbo efficiency may increase and the factory boost limiter maybe reached. If this is experienced, please consult an HDi Technical Dealer.

Finished