



**Ford Ranger/Mazda Bt50 complete
Automatic transmission cooling kit**

Please read before continue

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 menu is purely for **HYBRID DEVELOPMENT INTERNATIONAL RACING PRODUCTS** 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 personals or 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 off road 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 in door.

Product name: HDi Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit

Product code: HDI-ATF-KIT-RAN/MAZ-PX1-2

HDi Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit is designed for better temperature maintenance of the ATF oil, especially under heavy towing or under a heavy load. Tests have shown 10-15 Degrees C lower in recorded peak temperature as well as more solid in-gear torque transfer.

The better maintaining in transmission oil temperature is known as an effective way for extension of the transmission's life.

The HDi Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit is to replacing the regular standard water to oil factory unit via a Design registered adaptor make it easy to fit and make it a perfect integration with the standard OEM ATF cooler.

This is another HDi innovation From HDI to produce effective high quality product.

Performance guaranteed!:

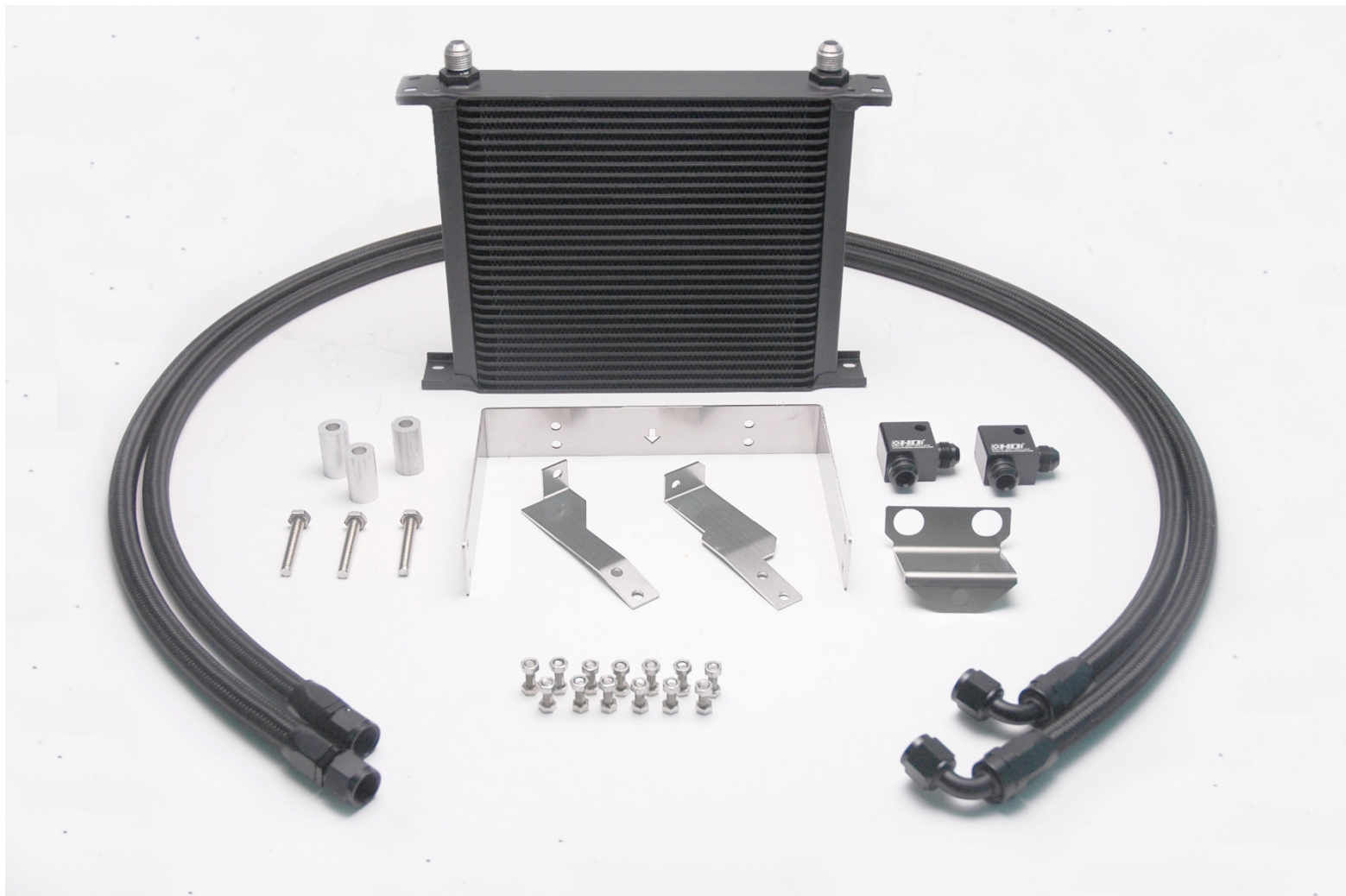
After hundreds of hours in design and testing, tests have shown 10-15 Degrees C lower in recorded peak temperature as well as more solid in-gear torque transfer.

Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit benefit as below:

- Reduce heavy load peak temperature
- Solid transmission torque transfer
- Reduce torque slip due to overheating
- Easy to install
- Extend transmission operation life
- Improve fuel efficiency by reducing transmission losses
- Best value for money

The HDi Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit comes with all needed components for completing installation. Including HDi high quality oil cooler Braided hose and professional fittings in order to take care of toughest condition. The Full stainless steel screws and brackets the best durability against water and salt corrosion. The special design allowing enough area for aftermarket 4wd winch to be installed. It also allows good air flow to the radiator! Perfect for installing with HDi GT2 intercooler kit (www.hdiranger.com) The reduced inlet restriction and inlet temperature provides higher density of oxygen for better combustion with the same amount of fuel. Hence, increase mileage!

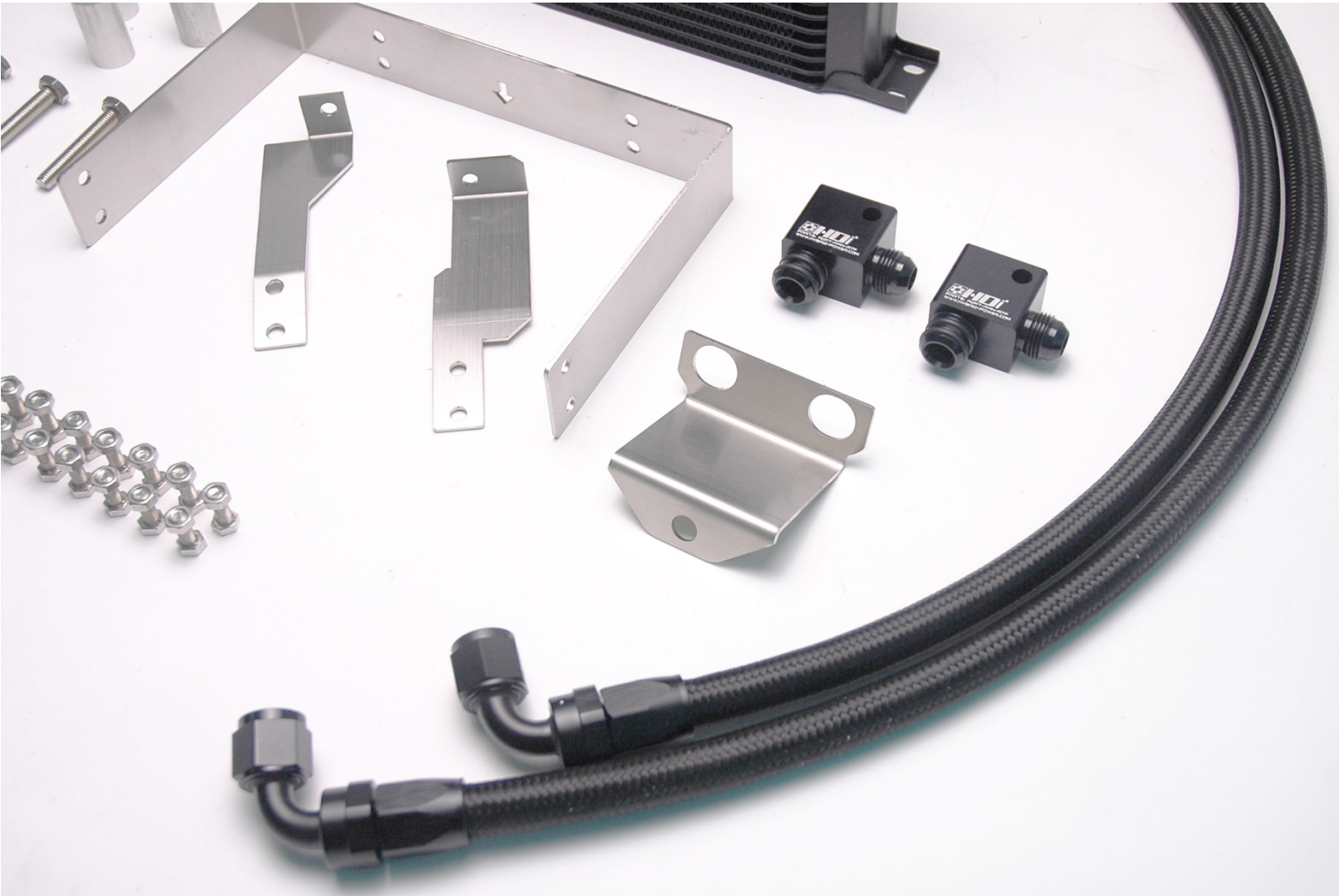
Product parts list



{All pictures in this manual is for reference only actual products may be different.}

Part #	Description	quantity	note
HDi-OC-23	HDi High efficient Oil cooler 23 rows	1	
HDi- ADPT-RAN-ATF	HDi Ford Ranger/Mazda Bt50 AFT Adaptor	2	
RAN-TRAN-HOSE-165	HDi Ford Ranger/Mazda Bt50 AFT hose	1	
RAN-TRAN-HOSE-185	HDi Ford Ranger/Mazda Bt50 AFT hose	1	
BK76	HDi Ford Ranger/Mazda Bt50 AFT cooler kit top left bracket	1	
BK75	HDi Ford Ranger/Mazda Bt50 AFT cooler kit top right bracket	1	
BK72	OEM cooler adaptor holding bracket	1	
BK77	HDi Ford Ranger/Mazda Bt50 AFT cooler kit Lower bracket	1	
BK69 A	OEM cooler extension holding bracket	3	
M6 X 15 Bolt Set	Stainless M6 bolts with nuts set	15	
M8 X 58 Bolt	Stainless M 8 Bolts	3	
O-Rings-ID-14-3T	Oil seal O-rings	4	
	Fitting instruction	1	



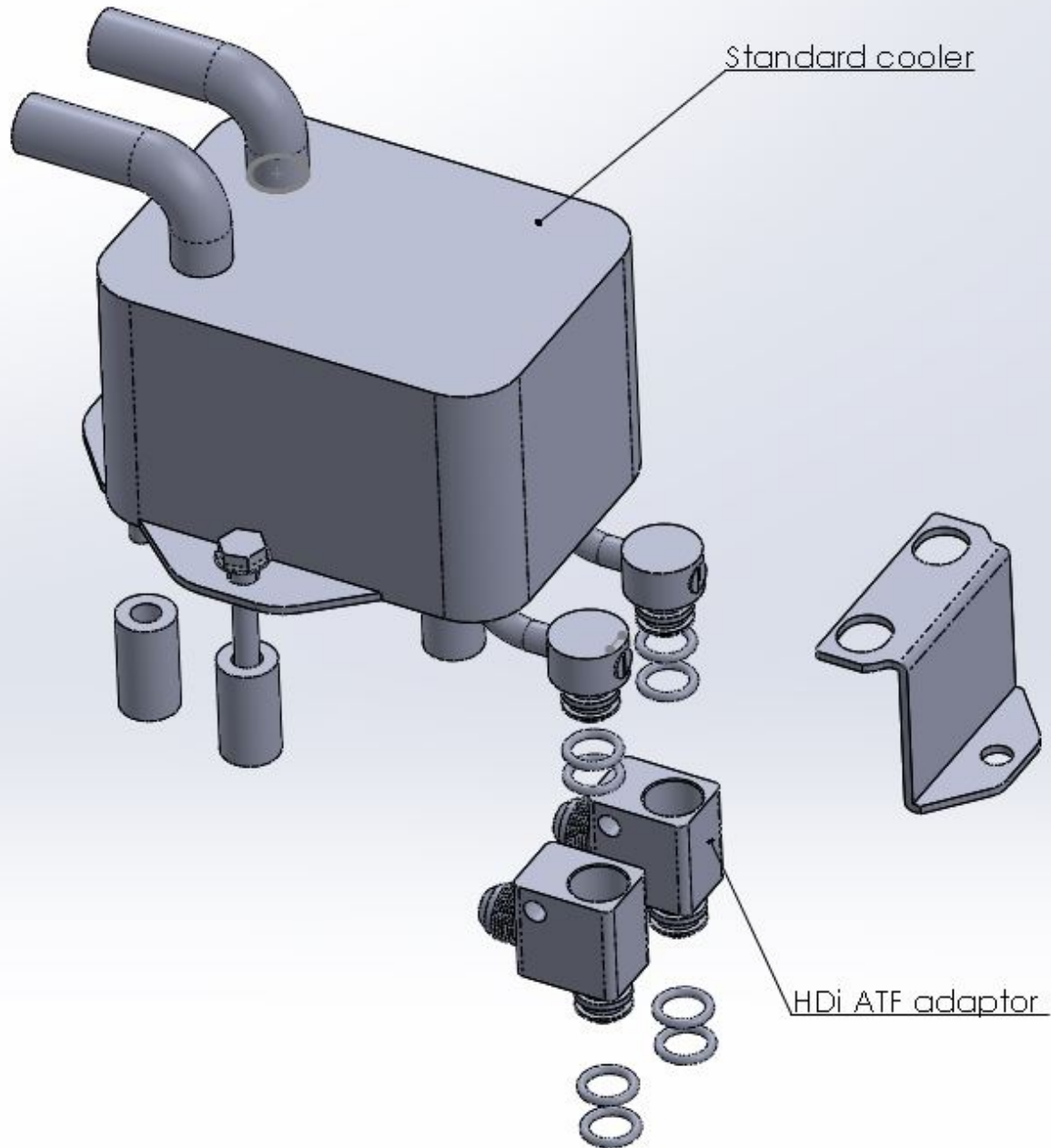


Installation:

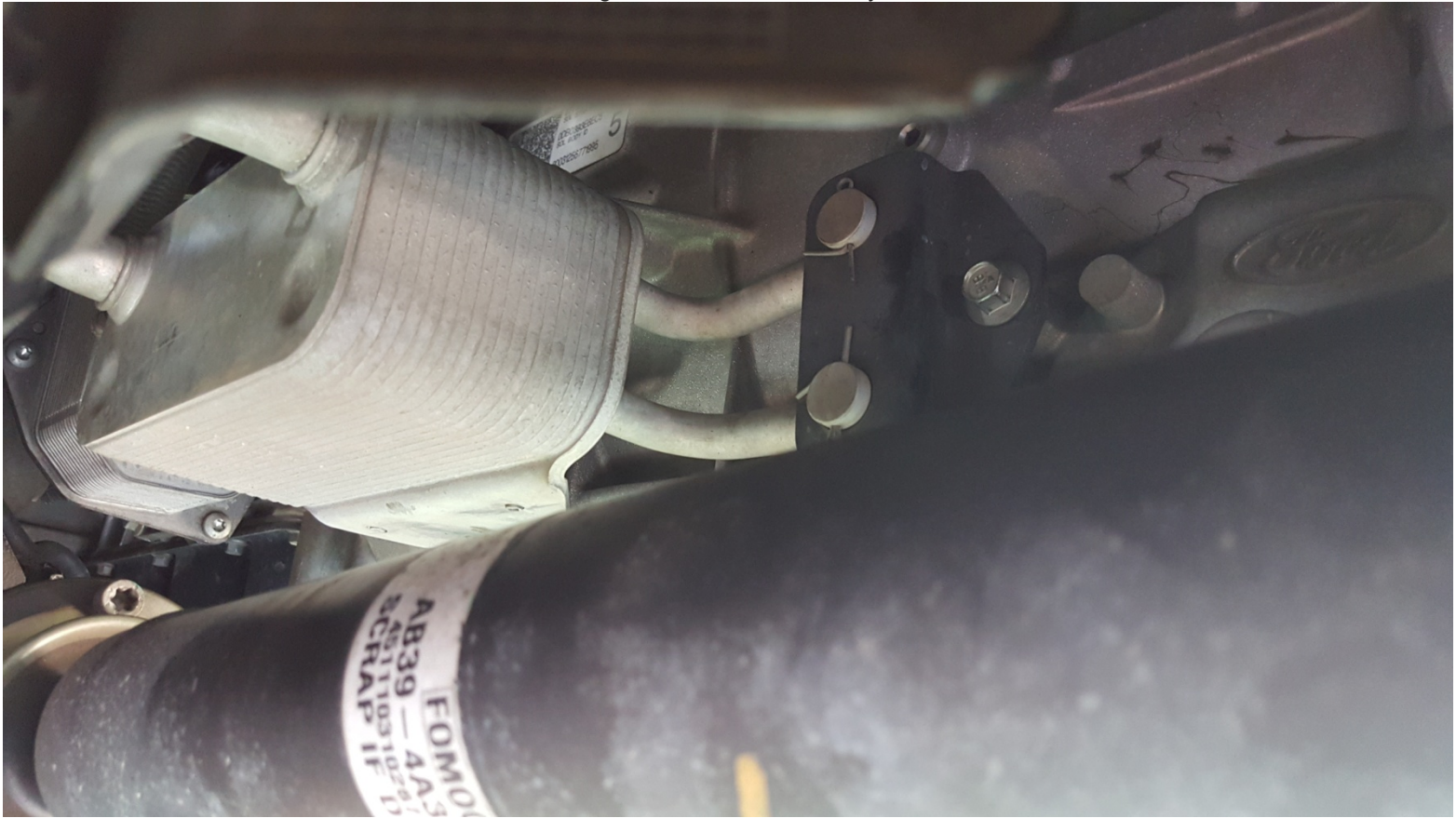
Installation of HDi Ford Ranger/Mazda Bt50 complete Automatic transmission cooling kit is simple. It is easily installed with basic workshop tools, installation is a quick and easy process normally it takes less than 1-2 hours.

The below installation are mixed photos from with Ford Ranger PX1, PX2 , and Mazda BT50 because they are very similar in installation process.

HDi Oil cooler adaptor and support brackets assembly as below:



Original AFT cooler Assembly



HdI AFT cooler kit installed



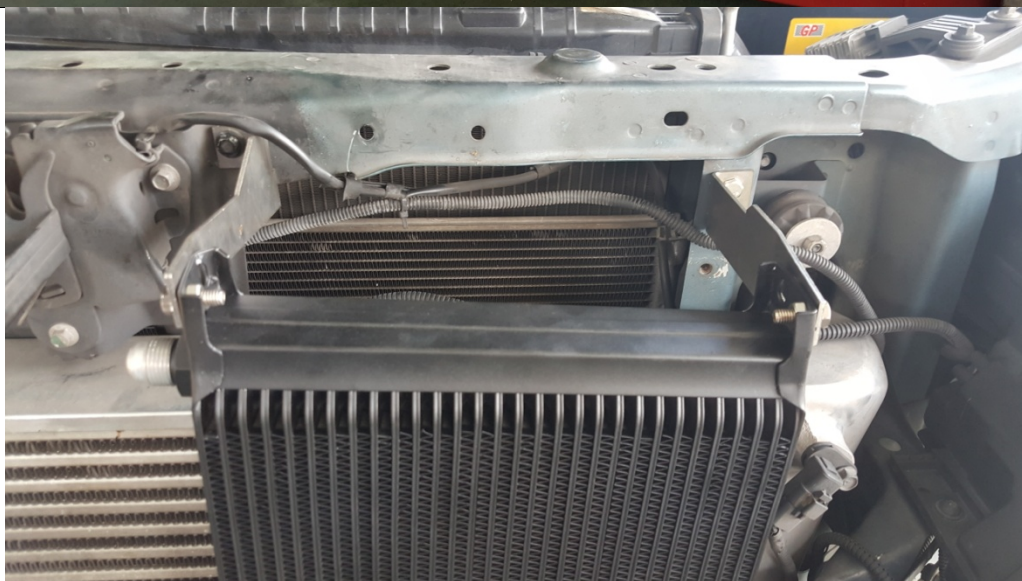
Please note: by using the HDi ATF cooler adaptor the standard water to oil cooler is by passed and raised from its original position, after installed the HDi ATF cooler kit please top up ATF to compensate the extra volume that the HDi AFT kit carry as well as the oil lost during the installation. Please contact the manufacturer for the oil type that is recommended.

Installation procedure:

Remove the front grille



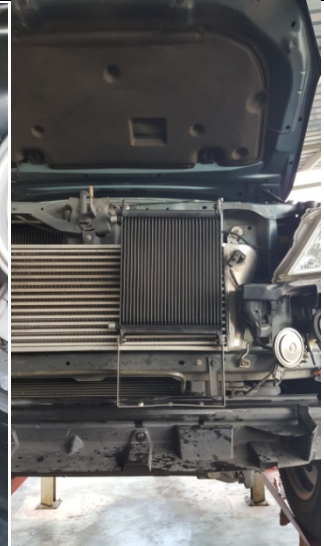
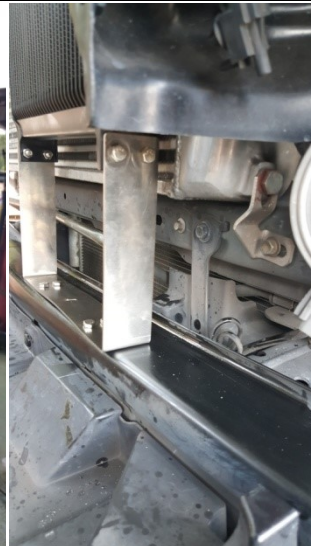
Install HDi ATF cooler kit top mounting brackets as shown.



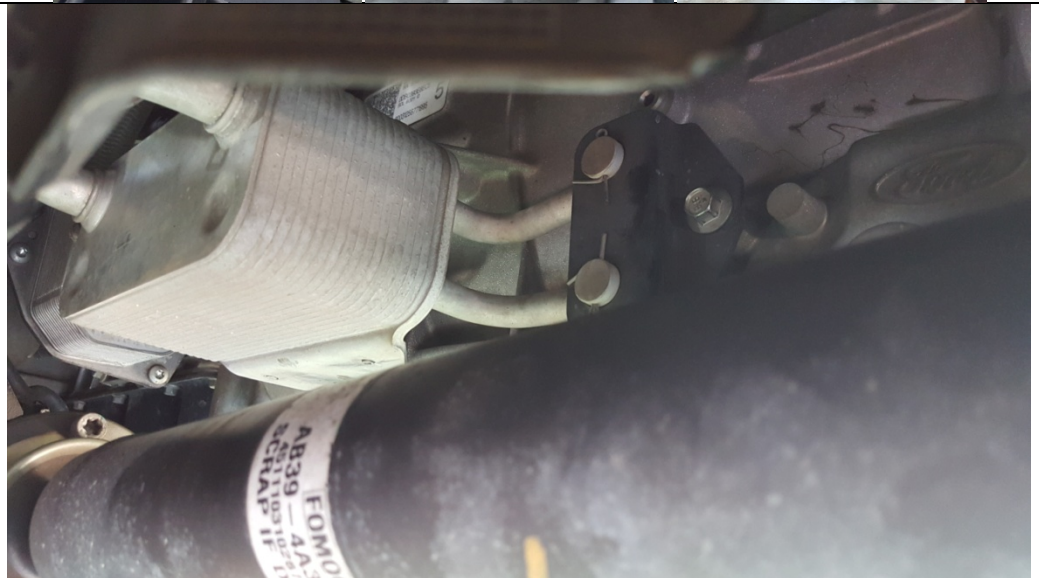
Install HDi ATF cooler kit lower mounting bracket, mark the best position and drill 4 holes for mounting bolts
(make sure the arrow is pointing to the front and have proper clearance with other parts)



Front bar does not need to be removed for the installation picture shown is for reference with a clear view only.



Locate the Standard AFT cooler next to the Gear box above the Drive Shaft



Remove the Drive shaft for better clearance and easier installation.



Install supplied ATF cooler brackets and HDI Adaptors.



Carefully remove the standard ATF cooler brackets, (DO NOT Disconnect the Standard ATF cooler's Top water hoses!)

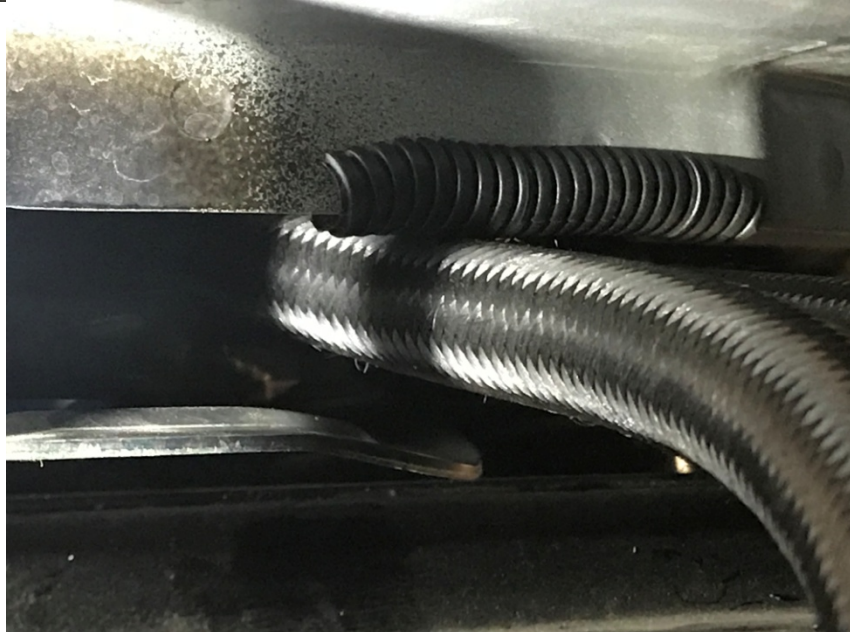
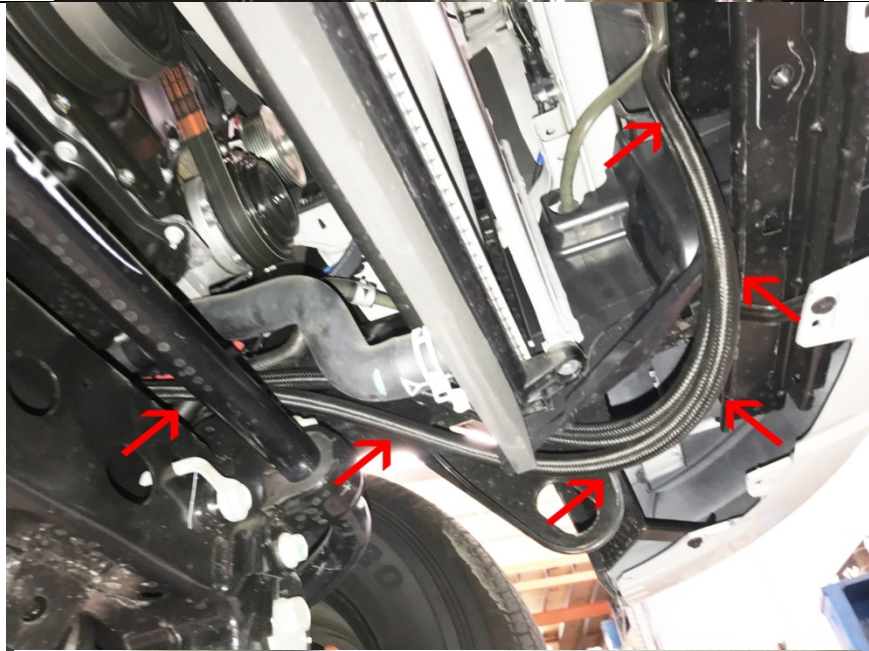




Run the supplied HDi
Braded Race ATF
hoses to the front ATF
cooler (Make sure
away from any rotating
components)



Avoid Sharp edges
rubbing against the
hoses
Edges protection may
needed.



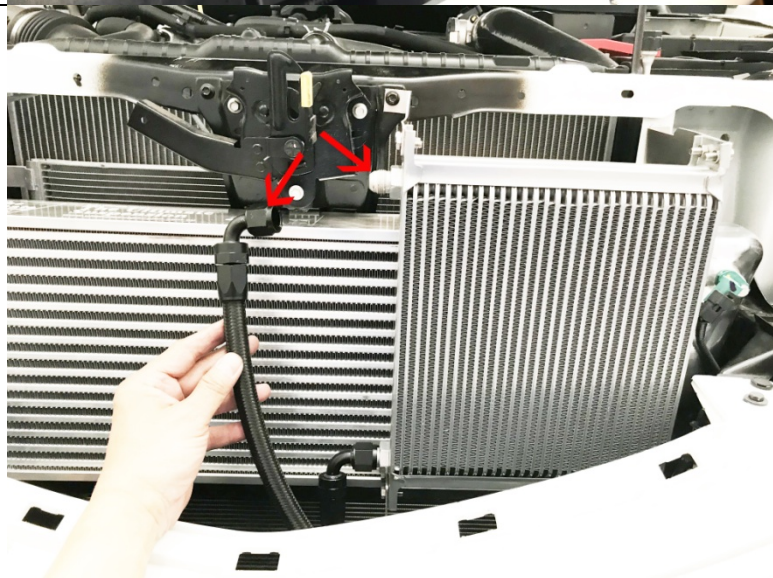
Push the Steering cooler pipe back to make clearance if necessary.



Re check the hoses and the ATF cooler's inlets and outlets to make sure no foreign object fall in inside then connect the lower HDi AFT cooler hose



Top Up Approximately 1.2 L from the top HDi ATF cooler and cooler hose



Connect the top HDi
ATF cooler hose,
tighten and recheck all
connections, bolts and
nuts, clean all area.
Start the engine check
if there are any oil
leaks.

Recheck transmission
oil level
Reinstall the front grill.
Installation finished



Special thanks

- Castlehill Performance Australia

www.castlehillperformance.com.au

- Ultimate suspension Australia

www.ultimatesuspension.com.au/

- Enduro Motorsport Malaysia

Facebook: HDi 4wd Performance Malaysia

For more information please email Sales@hybrid-power.com

LIMITED WARRANTY

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