



BULLETPROOFDIESEL[®]
.COM

INSTALLATION MANUAL

**BULLETPROOF OIL COOLER RELOCATION KIT
6.4L FORD 2008-2010
F-SERIES**

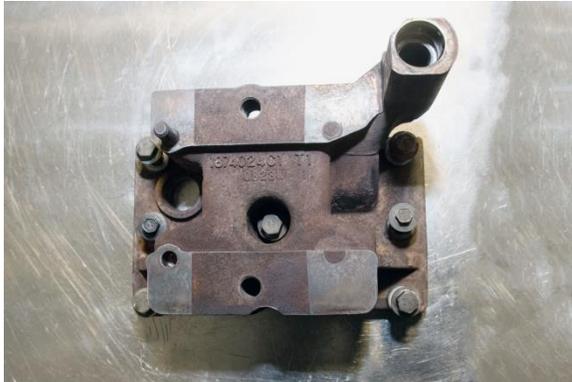
NEAL TECHNOLOGIES INC.
UPDATED 6/19/2017

These are the parts included in your kit. Please locate and identify each part prior to starting the installation process. There are some drawings in the back of this manual that can aid you in identifying the proper pieces.

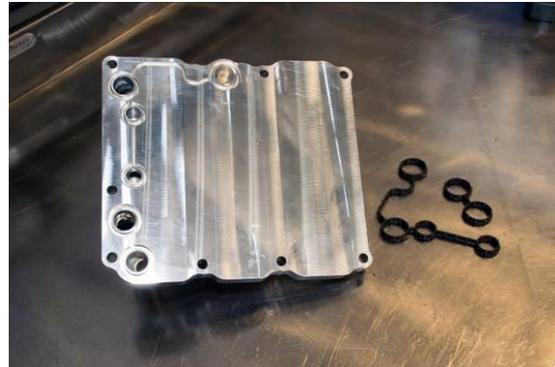
Part Number	Description	Quantity
90201143	BulletProof Oil Cooler Delete Adapter Transfer Plate Assembly, 6.4L Ford	1
90201141	OE Oil Cooler Adapter Plate Assembly, W/Oil Cooler, 6.4L Ford	1
90201145	Hose Pre-Pack, BulletProof Oil Cooler Kit, 6.4L Ford	1
90100119	Hardware Prepack, BulletProof Oil Cooler Kit, 6.4L Ford	1
6000013	Diesel Oil Filter; WIX P/N 51832	1
6000092	Intake Gasket; Ford 6.0L Bag of 2, (3C3Z-9439-AA)	1
6502039	Oil Filter Adapter; Black Anodized, Ford, 6.0L	1
6502268	6.4L OE Oil Cooler Remote Mount Bracket, Fuse Box	1
6502269	2008-10 Super Duty Under Cab Remote Oil Filter Bracket	1

Installation Stage 1: The Oil Transfer Plate

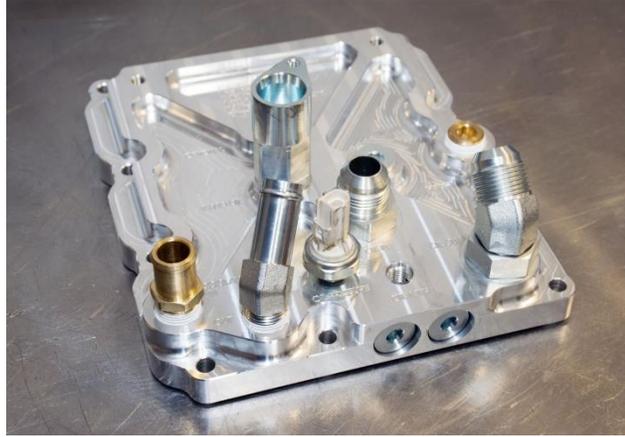
1. Follow the OE oil cooler removal procedure, which includes the removal of the intake manifold and turbo chargers.
2. Remove the turbo pedestal.



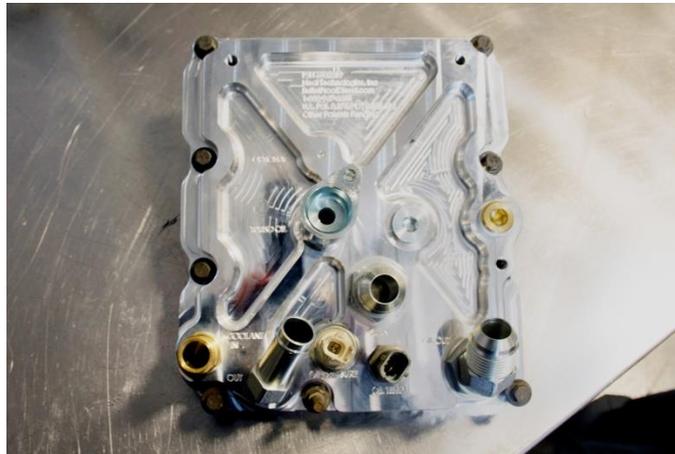
3. Install the provided seals into the bottom of the oil transfer plate; be sure to fully seat the seals into the transfer plate.



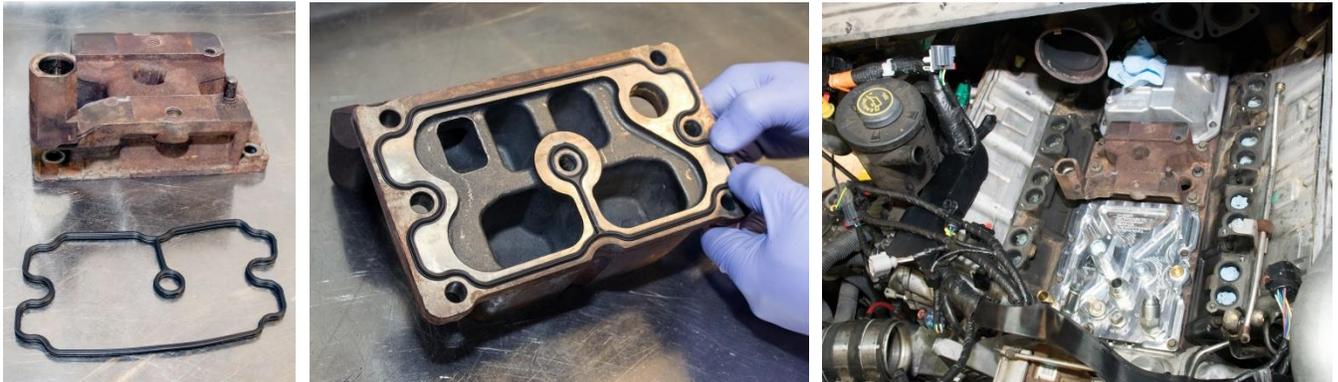
4. Remove your existing oil temperature sensor and oil pressure sender from the OE oil cooler cover and install those into their respective holes in the oil transfer block.



5. Using the OE oil cooler housing hardware, install the transfer plate onto engine.



- Using the provided seal, remove and replace turbo pedestal mounting seal. Reinstall turbo pedestal.



- Once the oil transfer block and turbo pedestal have been reinstalled, reinstall the intake manifold and the turbo chargers as per OE procedures.



Note: Leave the u shaped portion of the turbos on the driver's side of the engine off until the oil cooler/oil cooler plate is installed and hoses are hooked up, this will come in the next section of the manual.

TIP: Leave the oil feed lines to turbos off until all hoses are installed on the plate, it makes installation easier.

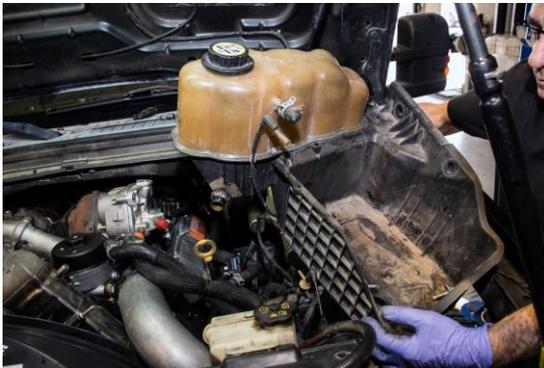


Installation Stage 2: Oil Cooler Placement

1. Remove the driver's side inner fender.



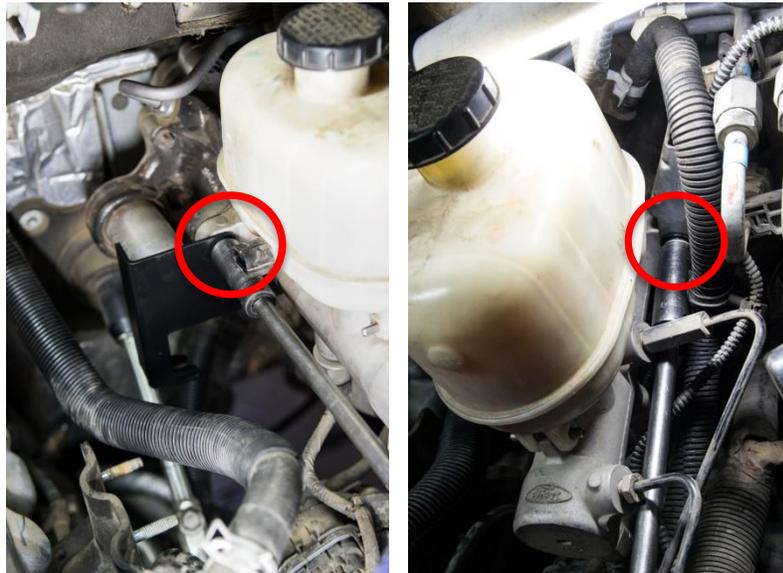
2. Remove the battery box and degas bottle assembly.



3. Remove the 2 (two) retaining nuts from the brake master cylinder.



4. Using the supplied bracket, install over the brake master cylinder studs and replace the two retaining nuts.



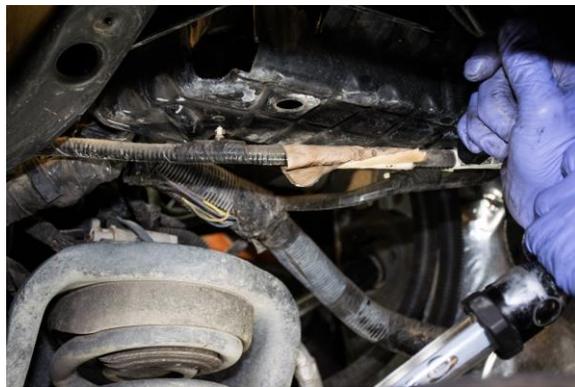
5. Remove the vacuum pump, unclip and lay to the side.



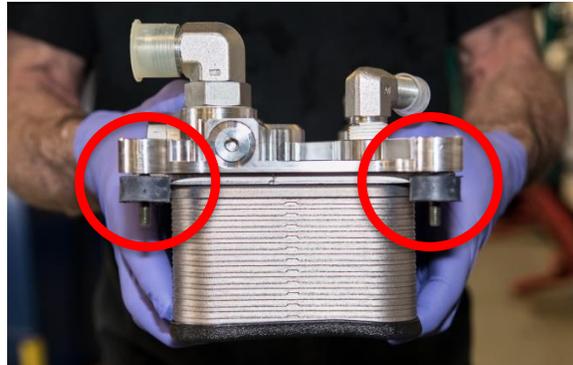
6. Unclip all four retainers to release the fuse box from its bracket.



7. Accessing from the inner fender well, unclip wiring harness from the fuse box bracket.



- Use the three supplied nylock nuts and washers to attach the three rubber isolators to the oil cooler assembly as shown.



- Install the coolant hoses onto oil cooler assembly.
36.5" hose connects to the "Coolant In"
45.5" hose connects to the "Coolant Out"

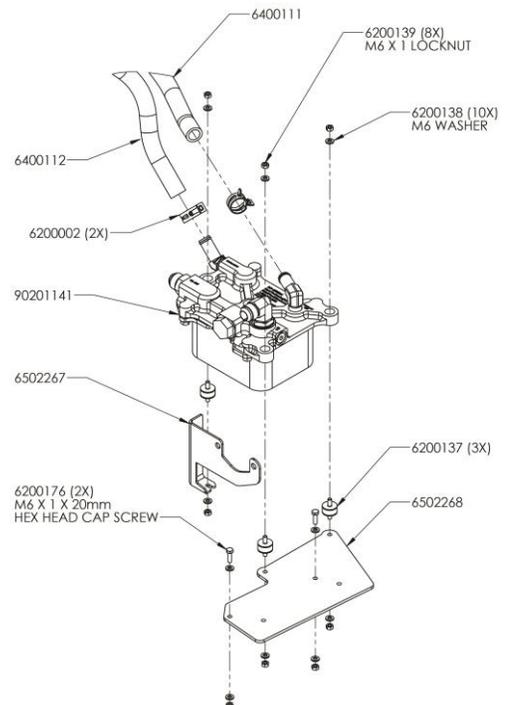
NOTE: Be sure the spring clamps do not rub on anything once the oil cooler is installed. Be sure to check this before finalizing installation.



10. With coolant hoses installed, slide the oil cooler / hose assembly through the void on the inner fender on the driver's side. Guide coolant hoses over turbo while sliding oil cooler into place.



11. Slide the oil cooler into place before installing the bracket.



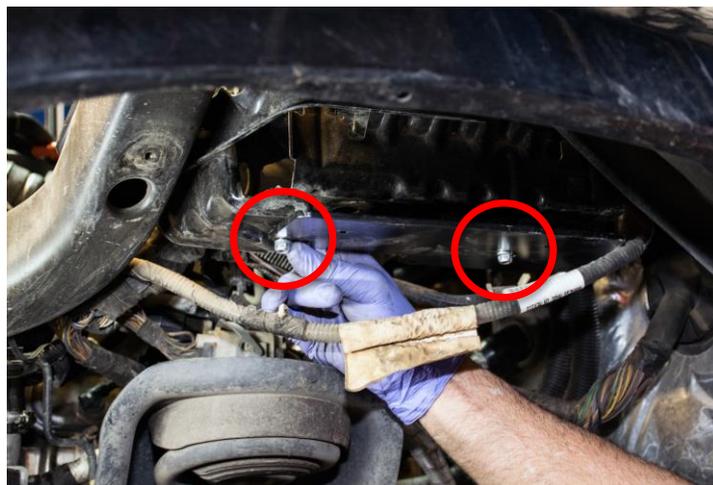
12. Using the supplied hardware, drop the 2 (two) bolts through the existing holes in the fuse box bracket.



13. Slide the oil cooler bracket into place, making sure to locate the rubber isolator with the appropriate holes in the oil cooler bracket.



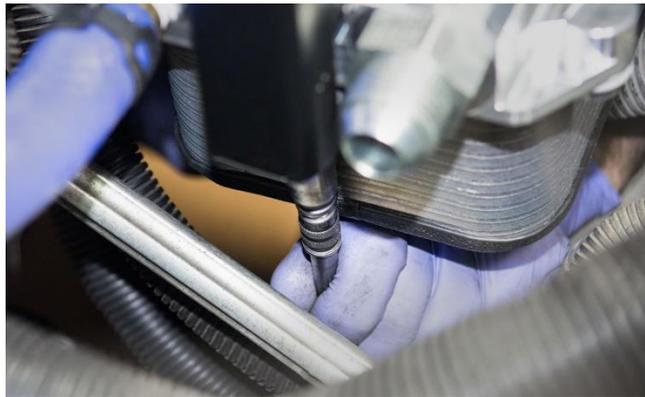
14. Once the bracket is in place, install the two retaining nuts on the bracket.



15. Now install and tighten the two nuts onto the rubber isolator studs.



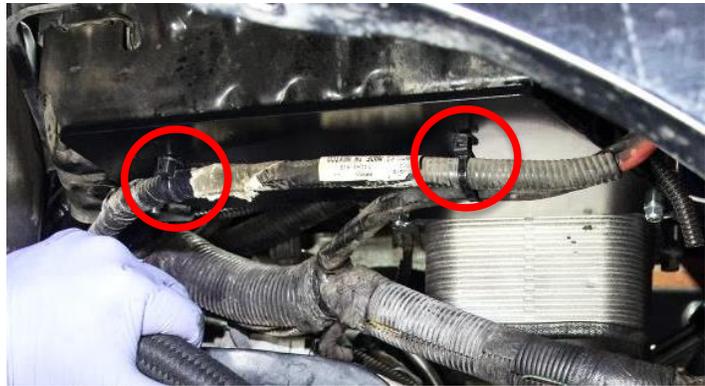
16. Now tighten the remaining lock nut on rubber isolator.



17. Push the fuse box back into the retaining clips.



18. Use the two provided zip tie connectors to re-secure the wiring harness to the newly installed plate.



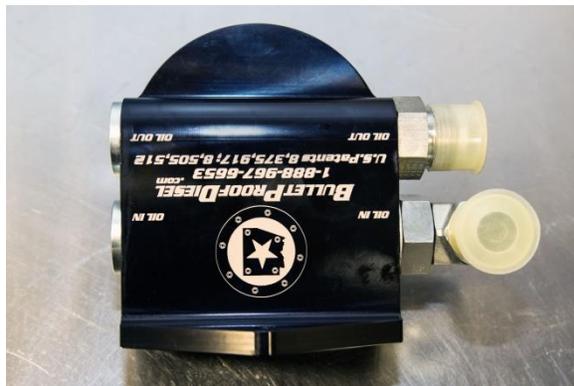
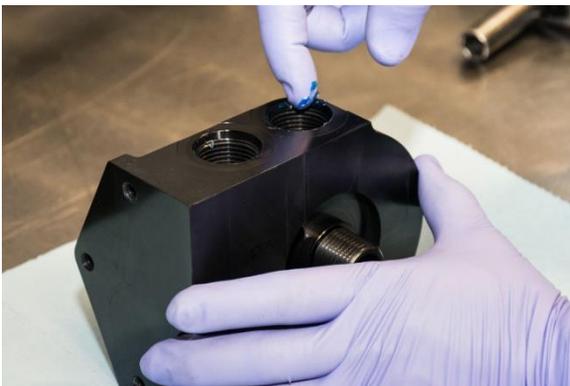
19. Reinstall the vacuum pump.



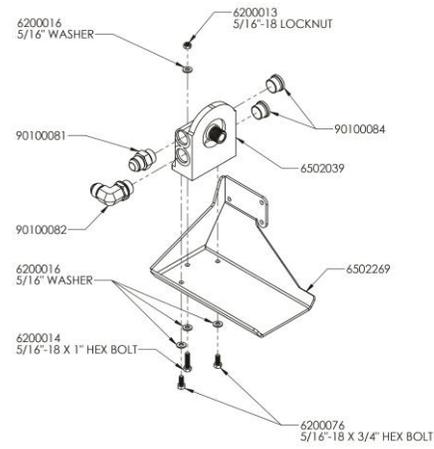
Installation Stage 3: Oil Filter and Adapter Housing



1. Install the fittings and the plugs into the oil filter adapter. We recommend using a lubricant on the O-rings to help seat the fittings. Leave the 90 degree fitting clocked as shown; do not tighten the jam nut all the way, this will allow you to re-position the fitting during the hose installation.



- Using the supplied hardware install the oil filter adapter onto the oil filter mounting bracket. Be sure the longer of the 3 (three) bolts is installed into the middle hole on the oil filter adapter, using the washer and nut on this bolt only.



- Remove the 3 (three) nuts from the drivers' side frame rail.



- Slide the oil filter adapter bracket onto the three studs and reinstall the three nuts.



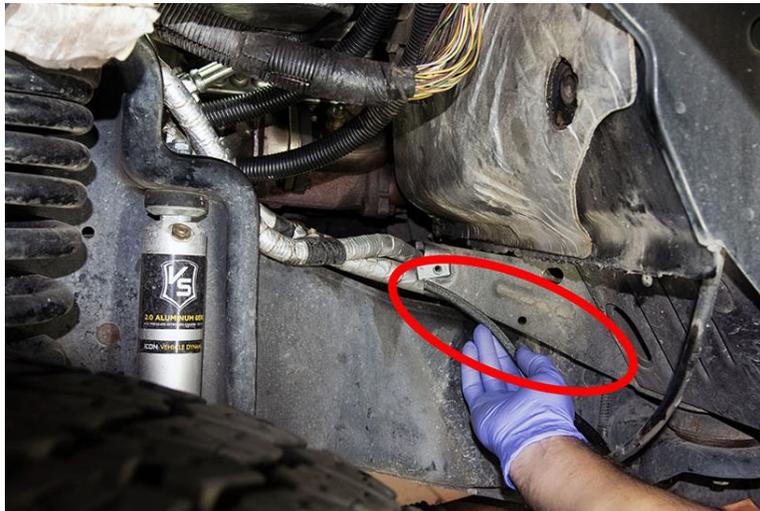


5. Install the provided filter onto the oil filter adapter.



Installation Stage 4: Oil Hose Routing

1. Install the provided protective weather strip onto the sharp edge of the body .



2. Install the 45°x0°, 45.5" hose by connecting the 45 degree fitting to the "Oil Out" fitting on the engine block as shown.



3. Route the hose around the fuel filter cap and under the CAC (Charge Air Cooler) pipe, continue the routing under the degas bottle hose elbow and tubes as shown. Tighten the straight end to the "Oil In" fitting on the OEM Engine Oil Cooler Plate as shown.



4. Install the 90°x0° 38.5" hose by guiding the straight end of the hose down towards the oil filter housing, guide the hose to the left of the steering rod as shown.



5. Connect the 90° fitting on the top side to the "Oil Out" fitting on the OEM Engine Oil Cooler Plate.



6. Connect the straight fitting on the underside to the 90 degree fitting, or the "Oil In" on the Oil Filter Housing.



7. Next, connect the 90°x0°, 88" hose by guiding the straight end of the hose up into the engine compartment through the wheel well as shown. Guide the 90° fitting alongside the other oil line to the oil filter housing. Tighten the 90 degree end of the hose to the straight fitting, or the "Oil Out" on the Oil Filter Housing.



NOTE: It may be beneficial to apply an undercoat to protect the fittings from the elements at this time.

NOTE: When tightening the 90° fitting and 90° hose, aim both slightly up towards the body of the truck to keep from drooping and to aid in properly positioning the hose. Be sure to tighten the 90° fitting jam nut on the Oil Filter Adapter.

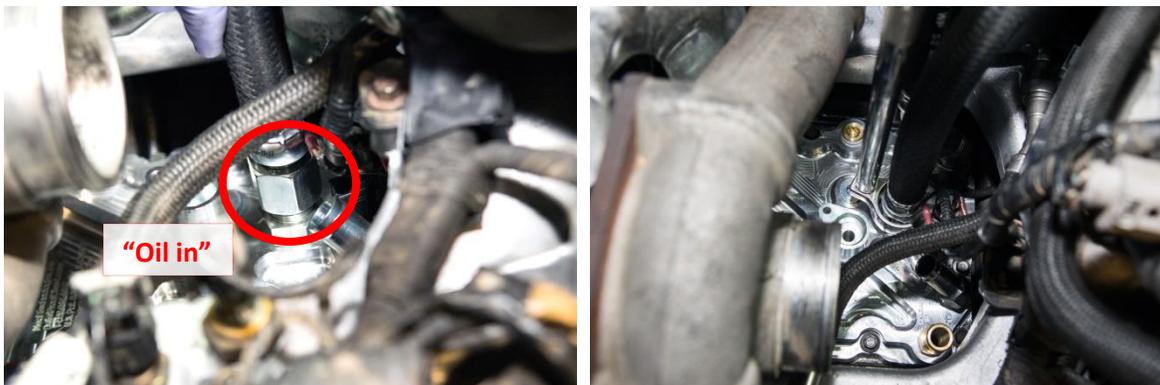
8. Guide the hose up alongside the other oil hose in the wheel well.



9. Follow the routing as pictured.



10. Attach the straight end of the hose to the straight "Oil In" Fitting on the Engine Oil Block. Use the supplied 32mm crow's foot wrench for this install.



NOTE: With all hoses and fittings installed and tightened, check clearances with anything they might rub on and adjust accordingly, you may need to loosen and retighten hoses to properly readjust.

11. Use the three supplied rubber caps to cover the three screws on the EGR clamps.

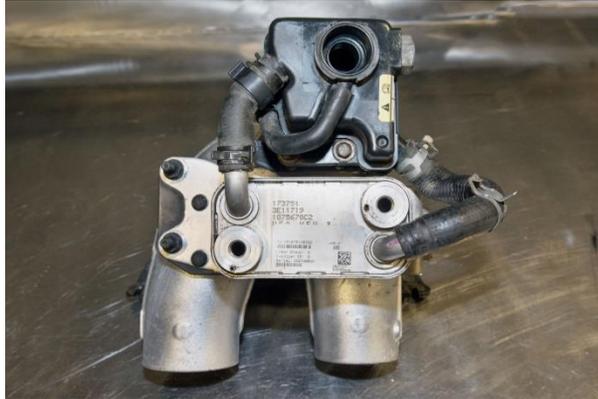


12. Re-install the driver's side inner fender covering.



Installation Stage 5: Cooler Hose Routing

NOTE: Before the coolant hoses can be hooked to the plate, the U shaped section from the turbos needs to be reinstalled first.



1. Install the extruded u nut onto bracket as shown.



2. Index the bracket on to the fuel cooler mounting studs. Install the two retaining nuts.



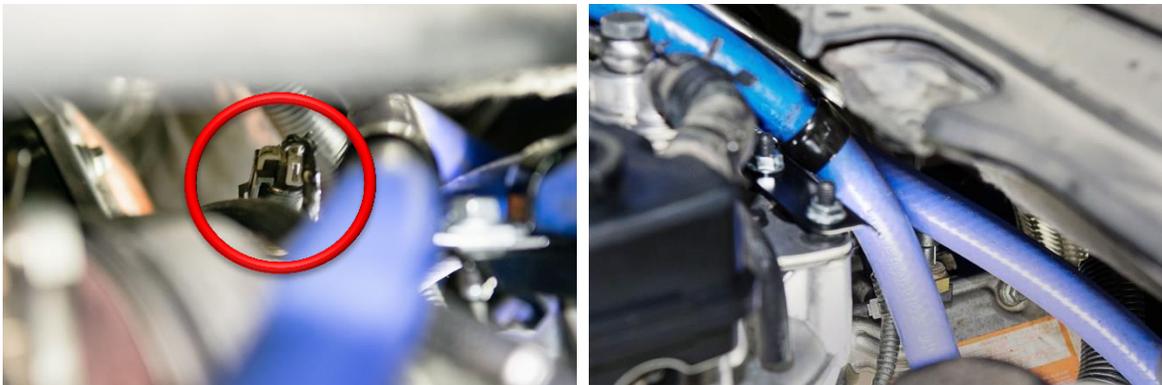
3. Install the rubber dipped clamps on to the coolant hoses, then slide the bolt through the rubber dipped clamps and tighten to the bracket.





TIP: Check lines by the heater hose: the front hose (shorter) may go over or under the heater hose to prevent kinking. Use whichever method works best on your vehicle.

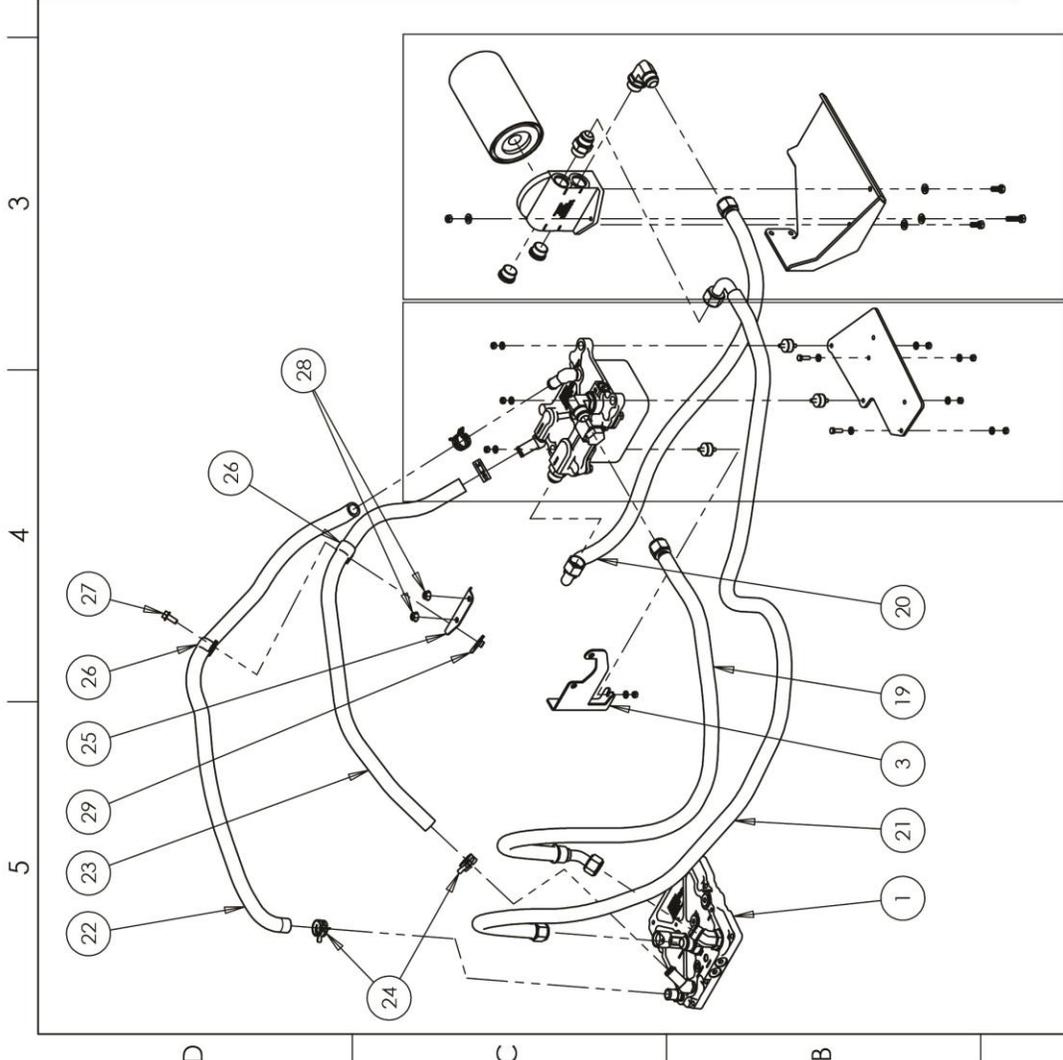
4. Be sure to leave space around the exhaust pressure sensor and wiring connector to prevent damage to it. The hoses pictured ended up resting on the driver's side of the wiring.



5. Install the coolant hoses onto the transfer block.
36.5" hose connects to the "Coolant Out"
45.5" hose connects to the "Coolant In"



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	90201143	OIL COOLER DELETE ADAPTER PLATE ASSEMBLY, 6.4L FORD	1
2	90201141	OE OIL COOLER ADAPTER ASSEMBLY, 6.4L FORD	1
3	6502267	OE OIL COOLER REMOTE MOUNT BRACKET, MASTER CYLINDER, 6.4L FORD	1
4	6502268	OE OIL COOLER REMOTE MOUNT BRACKET, FUSE BOX, 6.4L FORD	1
5	6200137	VIBRATION ISOLATOR	3
6	6200176	M6 x 1.0 x 20mm LONG BOLT, GRADE 10.9	2
7	6200138	6MM WASHER	10
8	6200139	6MM NUT	8
9	6502269	UNDER CAB REMOTE OIL FILTER BRACKET	1
10	6502039	OIL FILTER ADAPTER	1
11	6000013	OIL FILTER	1
12	90100081	STRAIGHT FITTING, -12 JIC x -12 ORB	1
13	90100082	90° ELBOW, -12 JIC x -12 ORB	1
14	90100084	-12 JIC PLUG	2
15	6200014	5/16"-18 x 1-1/4" HEX BOLT	1
16	6200076	5/16"-18 x 3/4" HEX BOLT	2
17	6200016	5/16" WASHER	4
18	6200013	5/16"-18 LOCKNUT	1
19	90100111	OIL HOSE: 45.5" x 45° x STR	1
20	90100112	OIL HOSE: 38.5" x 90° x STR	1
21	90100113	OIL HOSE: 88" x 90° x STR	1
22	6400111	3/4" SILICONE HEATER HOSE, BLUE, 45.5" LONG	1
23	6400112	3/4" SILICONE HEATER HOSE, BLUE, 36.5" LONG	1
24	6200002	1-1/16" SPRING CLAMP	4
25	6502270	COOLANT HOSE SUPPORT BRACKET, 6.4L FORD	1
26	6200180	1" ID VINYL COATED LOOP CLAMP	2
27	6200181	M8 x 1.25 x 20mm LONG SERRATED FLANGE BOLT	1
28	6200182	M8 x 1.25 SERRATED FLANGE LOCK NUT	2
29	6200183	M8 x 1.25 EXTRUDED U-NUT	1
NOT SHOWN	6000186	POWERSTROKE TURBO SEAL KIT, 6.4L FORD	1
NOT SHOWN	6000123	EXHAUST UP-PIPE GASKET, 6.4L FORD	1
NOT SHOWN	6000187	TURBO PEDESTAL GASKET, 6.4L FORD	1
NOT SHOWN	6000092	INTAKE GASKET, FORD 6.0L BAG OF 2	1
NOT SHOWN	6502186	1-1/4" 12 POINT CROWFOOT WRENCH, 1/2" DRIVE	1



NEAL TECHNOLOGIES, INC. 6245 E. PALM STREET MESA, ARIZONA 85215 PHONE: 888-967-6655 FAX: 480-268-7544	
BULLET PROOF OIL COOLER RELOCATION KIT, 6.4L FORD	
WEIGHT	54 LBS
DATE	2017-04-28
SIZE	A
DWG #	90409200
REV.	0
SHEET	1 of 2

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF NEAL TECHNOLOGIES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF NEAL TECHNOLOGIES, INC. IS PROHIBITED.
©2009-2017 NEAL TECHNOLOGIES, INC.

