



BULLETPROOFDIESEL[®]
.COM

INSTALLATION MANUAL

**BULLET PROOF OIL BYPASS KIT
WITH BULLET PROOF OIL COOLER
2003-2007
F-SERIES**

NEAL TECHNOLOGIES, INC.
(PATENT PENDING)
UPDATED 12/30/2020

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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 |
|-------------|---|----------|
| 6400028 | #4 JIC to 1/8" MPT | 2 |
| 6400055 | 1/8" Brass Pipe Plug | 2 |
| 6200016 | 5/16" Washer | 4 |
| 6200014 | 5/16" x 1.25" Bolt | 3 |
| 6000017 | Bypass Oil Filter | 1 |
| 6502074 | Bypass Filter Adapter | 1 |
| 6200013 | 5/16" Lock Nut | 3 |
| 6400056 | #4 JIC to 1/8" MPT Swivel 90° | 1 |
| 6502022 | Oil Fill Cap | 1 |
| 6400048 | #4 JIC to 1/4" MPT 90° | 1 |
| Misc. | Hoses with Fittings Attached (per Hose Routing Diagram) | 2 |

Unique Parts for 2003-2004 Installation:

| | | |
|---------|---------------------------------|---|
| 6502035 | 03-04 Bypass Oil Filter Bracket | 1 |
| 6502027 | 03-04 Bypass Rock Shield | 1 |

Unique Parts for 2005-2007 Installation:

| | | |
|---------|---------------------------------|---|
| 6502038 | 05-07 Bypass Oil Filter Bracket | 1 |
| 6502026 | 05-07 Bypass Rock Shield | 1 |

Optional Parts

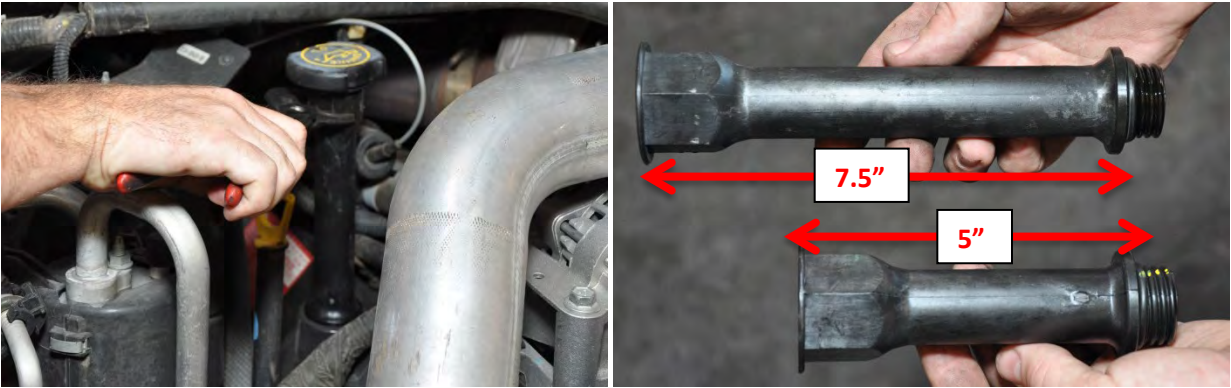
| | | |
|---------|------------------|---|
| 6400084 | Threaded Adapter | 1 |
| 6000120 | Amsoil Filter | 1 |

Installation Stage 1: Removing the stock parts

NOTE: Removing the OEM parts is best done when the engine is cool to avoid injury by hot engine oil.

1. Remove the OEM oil fill cap.

NOTE: Some trucks have a 7.5" standpipe this needs to be replaced with the provided 5" standpipe.



Installation Stage 2: Installing Bullet Proof Diesel Caps

1. Apply the Teflon pipe-sealing tape to the swivel fitting.



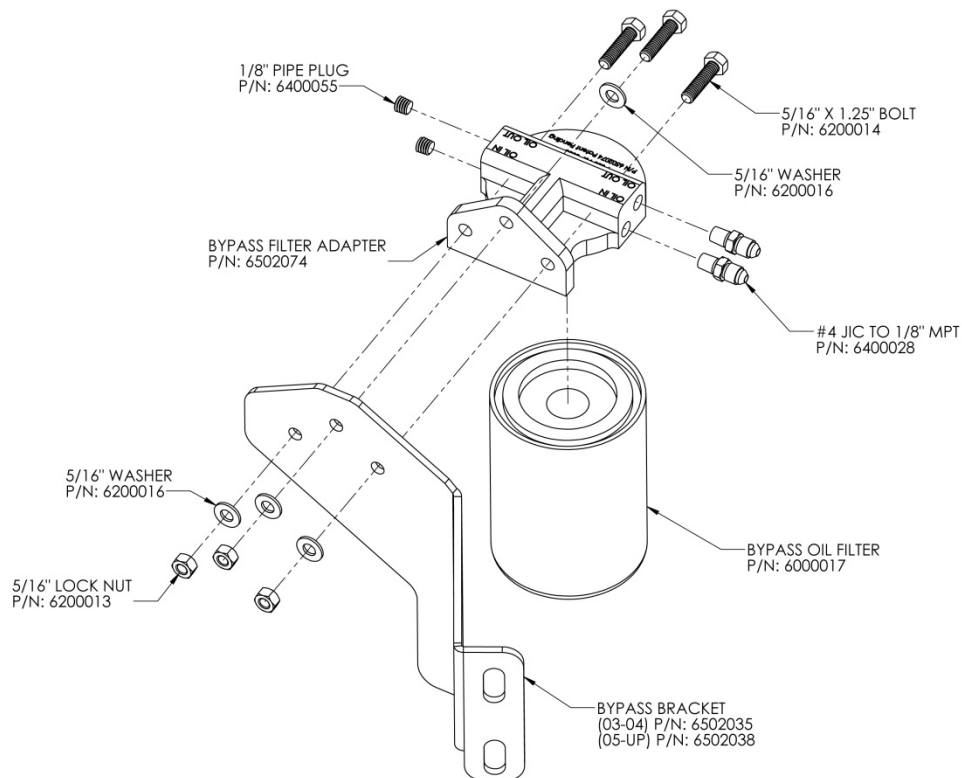
2. Install the swivel fitting into the Bullet Proof Diesel Oil Fill Cap.

3. Install the Bullet Proof Diesel Oil Fill Cap on the standpipe.



NOTE: Make sure the O-ring on the bottom of the Oil Fill Cap is in place before installation.

Installation Stage 3: Assembling the Bypass Oil Filter Bracket



1. Apply Teflon pipe-sealing tape to all of the fittings; two 1/8" brass pipe plugs and two #4 JIC to 1/8" MPT.

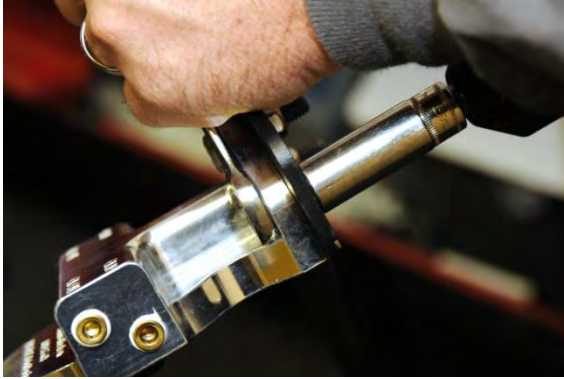


2. Install both #4 JIC to 1/8" MPT fittings on the same side as shown:



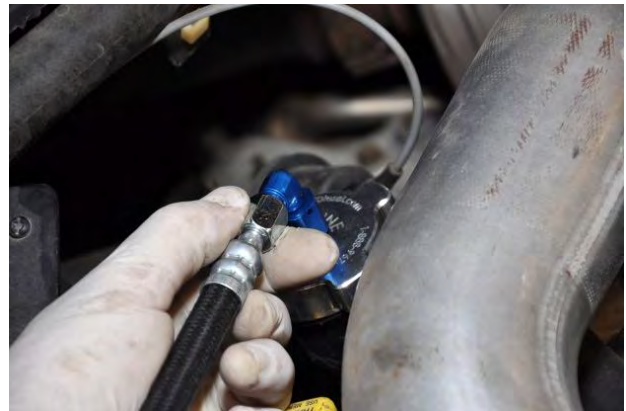
3. Install both 1/8" brass pipe plugs on the other side of Oil Filter Adaptor.

4. Mount the Oil Filter Adapter onto the bracket with provided hardware.



Installation Stage 4: Routing the Oil Hose From Oil Fill Cap

1. Connect the oil hose to Bullet Proof Diesel Oil Fill Cap.



2. Route the oil hose as shown under the intercooler pipe down to rubber barrier.

3. Push hose through the rubber barrier and down towards the bypass filter.



Installation Stage 5: Adapting Bypass Kit to the Bullet Proof Oil Cooler

NOTE: If a Bullet Proof Oil Cooler has been previously installed it must be removed to adapt the Bypass kit. Please refer to the Fully Bullet Proof manual for condenser/cooler removal.

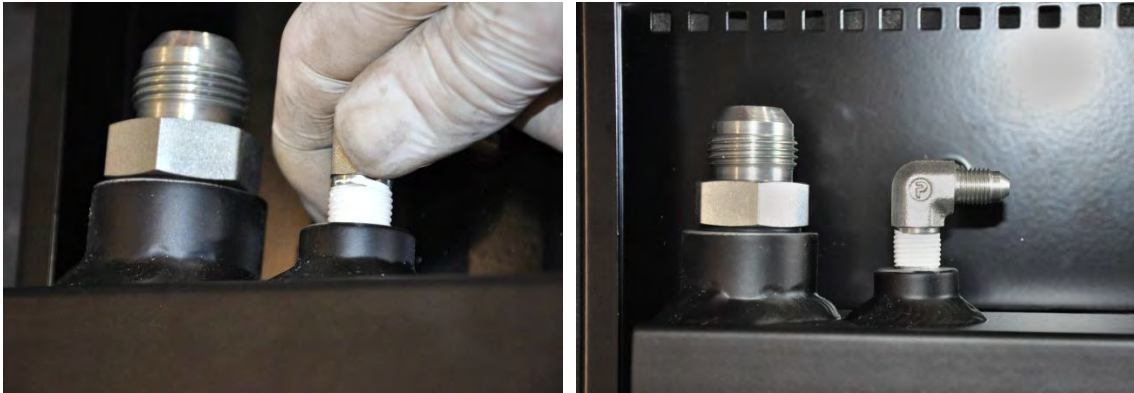
1. Apply Teflon pipe-sealing tape to #4 JIC to 1/4" MPT 90° fitting.



2. If the cooler has been previously installed remove the 1/4" brass pipe plug from the Bullet Proof Oil Cooler.

NOTE: Make sure the threads in the oil cooler are not damaged in the removal of the pipe plug.

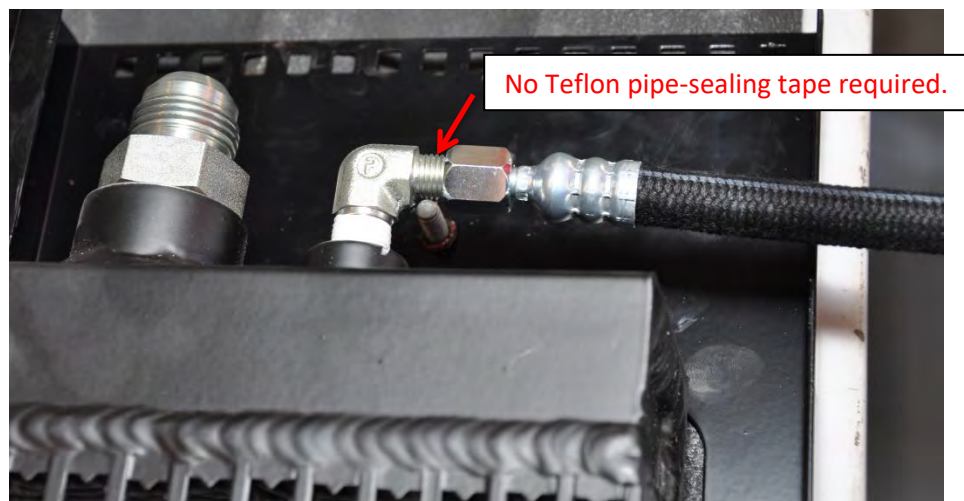
3. Install the #4 JIC to 1/4" MPT 90° fitting into the Bullet Proof Oil Cooler. **DO NOT OVER TIGHTEN.**



NOTE: If a Cold Weather Kit is installed it will look like the picture below:



4. Before re-installing the oil cooler attach the 22 inch hose to the 90° fitting.



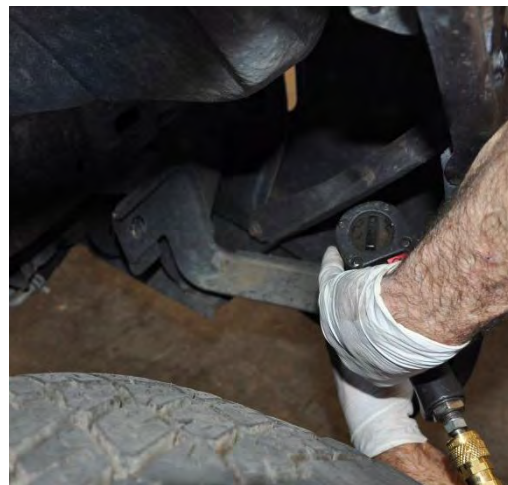
5. Re-install the condenser/oil cooler. Refer to the Fully Bullet Proof Kit Manual for further instruction.
6. Once the condenser/oil cooler is back in place, route the oil hose from the oil cooler **OVER THE FRAME RAIL** to the passenger side where the Oil Filter Adapter will be mounted.

Installation Stage 6: Installing the Bypass Filter Assembly

1. Remove the bumper mounting bolts on the passenger side.



2. Remove the stock bumper support bracket. This will be replaced with a new rock shield.

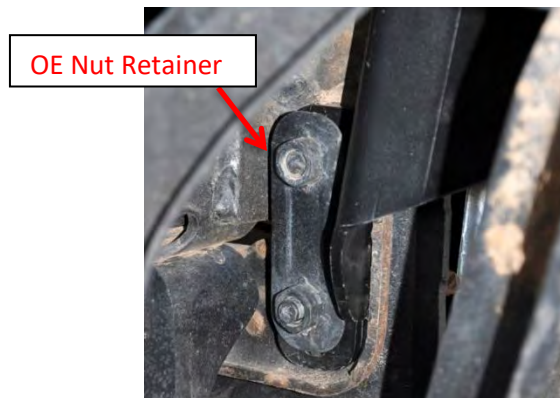


NOTE: 03-early 04 bracket looks slightly different then the above.

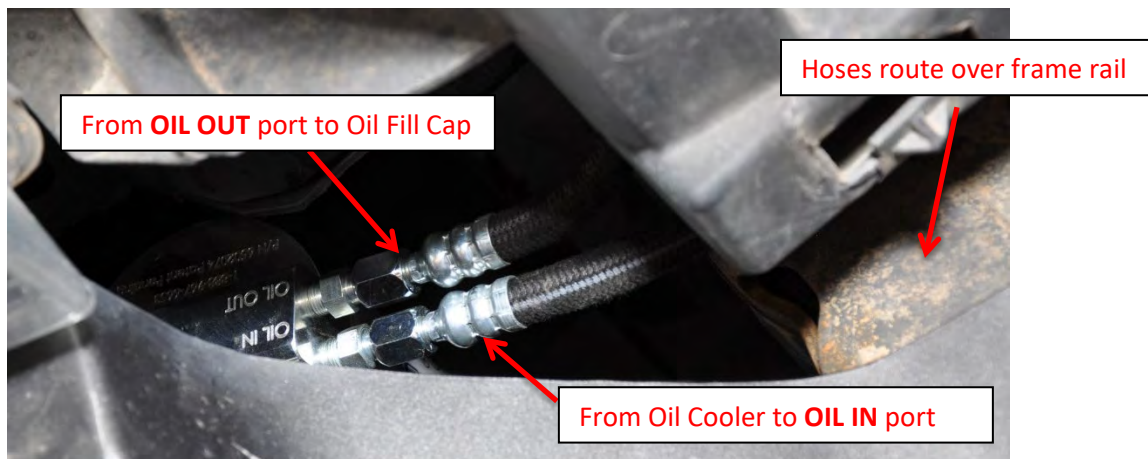
3. Attach the hoses from the oil cooler and oil fill cap to the oil filter.



4. Place the assembled bracket behind the bumper supports. Make sure to place the bracket between the backside of the bumper mounting bracket and stock nut retainer as shown below:



NOTE: Make sure the hoses are connected to the oil filter adapter correctly.



5. Install the Bypass Filter.



OPTIONAL AMSOIL UPGRADE



Installation Stage 7: Rock panel

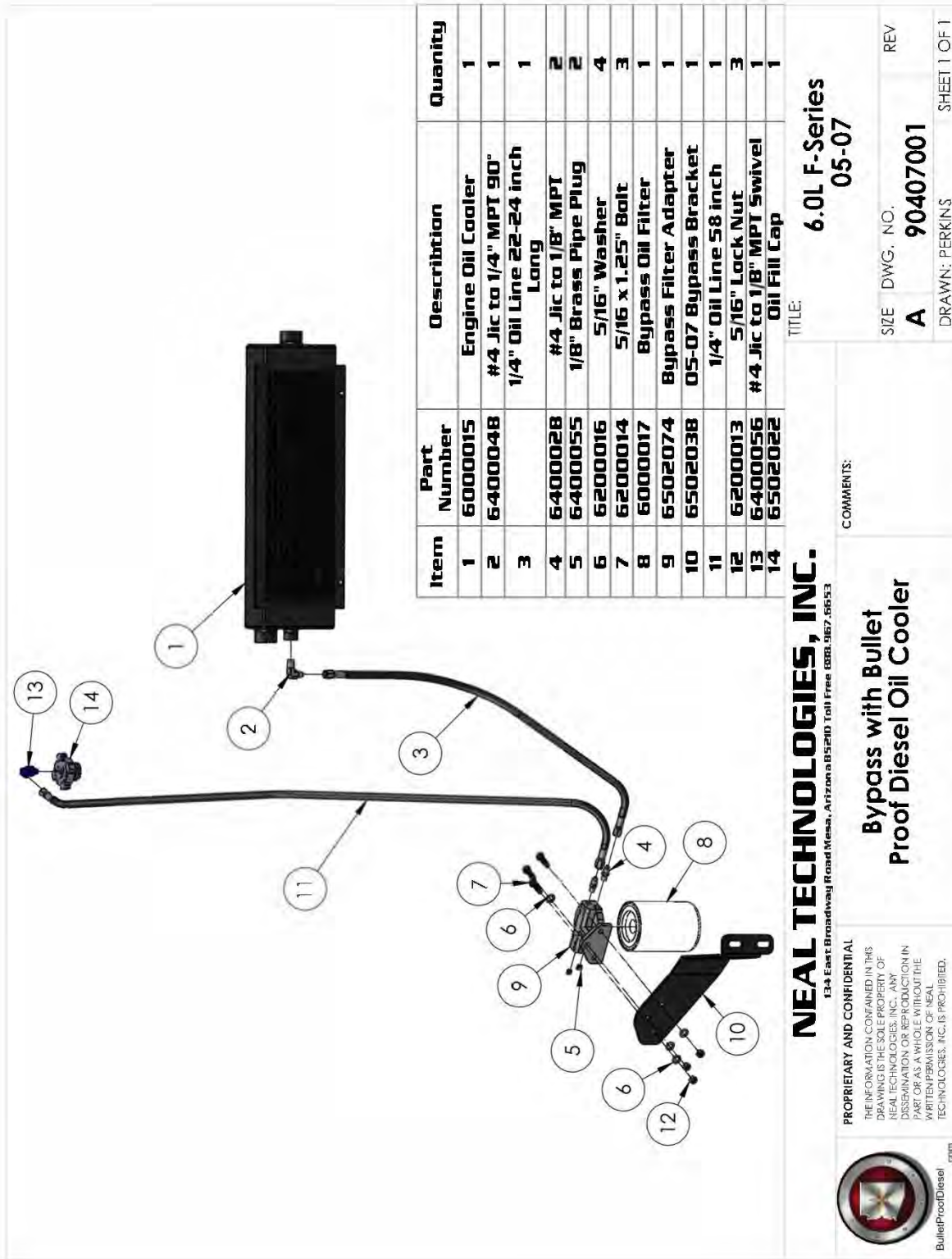
1. After the all hardware is tight and the hoses are connected, install the rock guard.



NOTE: 03-early 04 versions have a rock panel, too. It serves a similar purpose but looks and fits a bit differently.

12 Bypass Diagram | BulletProofDiesel.com





NOTE: HOSE LENGTH IS MEASURED BY THE CUT LENGTH OF THE HOSE NOT INCLUDING FITTINGS.

Hose Routing Diagram

