DRIVEN DIESEL
PERFORMANCE

"FUEL BOWL DELETE"
REGULATED RETURN FUEL SYSTEM KIT

Fits 99-03 7.3L Powerstroke Diesel – Eliminates Stock Filter Bowl

Installation Guide

INSPECT CONTENTS OF THIS KIT THOROUGHLY BEFORE STARTING THE INSTALLATION PROCESS!

IF YOU FIND A PROBLEM WITH YOUR PACKAGE:

- KEEP ALL OF THE PARTS & PACKAGING TOGETHER
- DO NOT ATTEMPT INSTALLATION OF THE PRODUCT
- PROMPTLY NOTIFY YOUR SELLING DEALER
- PROVIDE DEALER WITH PHOTOGRAPHS IF REQ'D*
- WAIT FOR FURTHER INSTRUCTIONS FROM DEALER

***WE RESERVE THE RIGHT TO REQUEST PHOTOGRAPHS OF PACKAGING OR PARTS IN ORDER TO PROPERLY ADDRESS ANY SITUATION INVOLVING EITHER DAMAGED OR MISSING ITEMS.**

THANK YOU FOR YOUR COOPERATION!

INSTALLATION OF A FUEL BOWL DELETE *REQUIRES* THAT THE FUNCTION OF THE ENGINE VALLEY FUEL FILTER BE REPLACED BY ANOTHER 2-MICRON POST-PUMP FUEL FILTER!

PRE-PUMP FUEL FILTRATION IS NOT ADEQUATE FOR A FUEL BOWL DELETE, THE FILTER MEDIA IS TOO LOOSE AND DOESN'T OFFER ENOUGH PROTECTION FOR THE FUEL INJECTORS.

IF YOU ARE UNSURE ABOUT YOUR FILTRATION, PLEASE CONTACT YOUR DEALER TO DISCUSS YOUR PARTICULAR SITUATION BEFORE ATTEMPTING INSTALLATION OF THIS PRODUCT!

Thank You for purchasing the Driven Diesel Fuel Bowl Delete Regulated Return fuel system kit! **Please read and familiarize yourself with this manual fully before proceeding with the installation of the kit.** Also, always work safely. Make sure that there is plenty of light and adequate ventilation, and allow yourself several hours to complete the installation. After reading these instructions, if you feel that the installation is beyond your capability, please have this kit installed by a qualified mechanic.

NOTE: This kit **DOES NOT** INCLUDE EVERYTHING NEEDED FOR INSTALLATION! Due to the CUSTOM nature of the Fuel Bowl Delete setup, you may need to purchase other components from Driven Diesel (such as our PRE/POST Filter Kit) or source them locally, depending on your specific fuel system configuration and needs. These instructions will point out where additional components are required, you must determine what items fit your configuration best. If you are unsure if additional components are needed to complete your installation, please call us to discuss your setup.

Finally, the installation of this kit requires exposing the fuel system. Diesel fuel is flammable, and its vapor is explosive; therefore common sense dictates that there be no smoking or open flame within 50 feet of the workspace. If any fuel spills, contain it and wipe it up immediately. Do not let the fuel stand on any painted surfaces of your vehicle, or damage to the finish may occur. We HIGHLY RECOMMEND having an appropriate fire extinguisher close by!

Driven Diesel 7.3L Fuel Bowl Delete Regulated Return Kit Contents

Please use the following parts list and pictures to become familiar with this kit. ALL of the parts listed below should be contained in your kit.

Qty:	Part Number:	Description:
1	73FS-DSR-TUBE	Driver Side Return (Rear) Tube Assembly
1	73FS-DSR-HOSE-V2	Driver Side Return (Rear) Hose Assembly (2nd longest hose)
1	73FS-PSR-TUBE	Passenger Side Return (Rear) Tube Assembly
1	73FS-PSR-HOSE-V2	Passenger Side Return (Rear) Hose Assembly (longest hose)
1	73FS-FBDDSF-TUBE-V2	Driver Side Bowl Delete Feed Tube
1	73FS-FBDPSF-TUBE-V2	Passenger Side Bowl Delete Feed Tube
1	73FS-FBD-BLOCK-ASSY	Driven Diesel Fuel Bowl Delete Block Assembly
1	73FS-FBDREG-ASSY	Regulator Assembly (with Fittings)
1	73FS-HW-PACK	Hardware Pack (Fittings, Screws, Etc. – See Contents Below)
1	73FS-BLOWDOWN	Black Poly Regulator Blowdown Line
1	Gauge	Liquid Filled Fuel Pressure Gauge
2	Brackets	Driven Diesel Regulator Mounting Bracket & Bowl Delete Bracket
1	Hose	12” Section of Gates 5/16” Fuel Hose

Hardware Pack Contents:

2	02MP-06MJ	1/8” Male Pipe to -06 Male JIC – Straight Fittings
2	02MP-06MJ45	1/8” Male Pipe to -06 Male JIC – 45° Degree Fittings
1	06FJX-05HB	#6 Female AN to 5/16” Hose Barb
2	PC09	Black 5/16” Pinch Style Hose Clamps
*	Nuts/Washers	(2) M8 Nylok Nuts & (6) ¼” Flat Washers (may not be used)
*	Misc	(1) 1/8” Pipe Plug & (1) Tube of Loctite 545 Thread Sealant

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FUEL SYSTEM PARTS

(not all parts pictured – see above list)

Tubes:	73FS-FBDPSF-TUBE-V2 – #1 73FS-FBDDSF-TUBE-V2 – #2 73FS-DSR-TUBE – #3 73FS-PSR-TUBE – #4
Hoses:	73FS-DSR-HOSE-V2 – #5 – Shorter 73FS-PSR-HOSE-V2 – #6 – Longer 12” Long Gates 5/16” Fuel Return Hose – #7
Brackets:	Bowl Delete Block Mounting Bracket – #8 Fuel Pressure Regulator Mounting Bracket – #9
Hardware (not numbered):	06FJX-05HB – Brass Hose Barb Fitting – (top left) 1/8” Pipe Plug – (top center) M8 Nylok Nuts (x2) – (top right) 02MP-06MJ (x2) – (middle left) 02MP-06MJ45 (x2) – (middle center) PC09 Pinch Clamps (x2) – (middle right) ¼” Flat Washers (x6) – (bottom)

Use the above diagram to identify the different hoses and fittings in the kit

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SOME of the Basic Tools Needed for Installation:

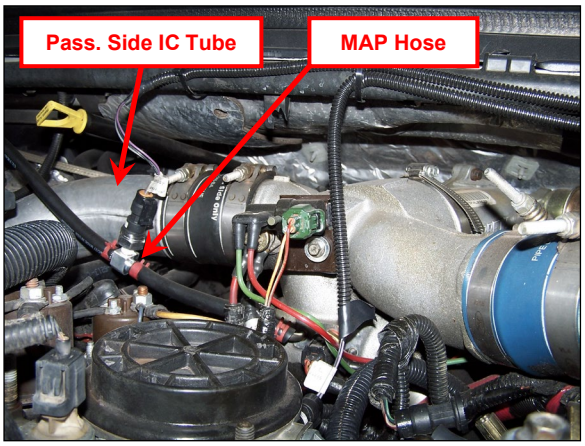
Standard Combination Wrench Set
3/8" Drive Metric Socket Set
T-27 Torx Driver or Bit
Screw Driver Set
"Allen" Wrench Set

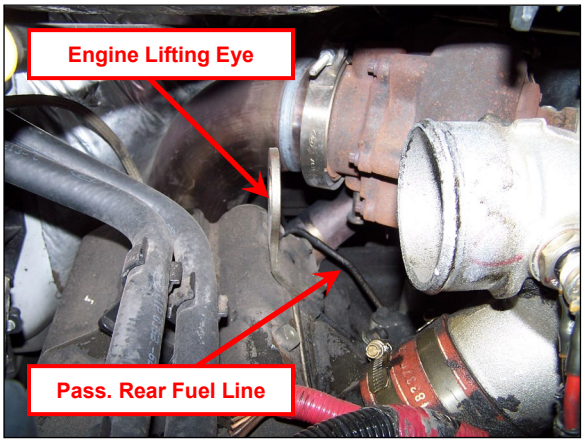
Metric Combination Wrench Set
1/4" Drive Metric Socket Set
½" Drive Breaker Bar
Anti-Seize
Penetrating Oil

Let The Fun Begin!

(note: not all photos taken on same engine/vehicle)

1. Drain Fuel Filter Bowl into a suitable container. The drain valve is yellow and is located on the back of the filter bowl; the drain outlet is a tube located near the passenger side bottom front of the engine. It's usually easiest to slide an extension hose up the drain tube so it reaches the container and doesn't' make a mess.
2. Disconnect both batteries (negative cables first, then positive) using an 8mm socket or wrench. TIP: Write down your radio stations first.
3. Using a ½" drive breaker bar or long handled ratchet, loosen the accessory belt tensioner and lift the serpentine belt off of the alternator and A/C compressor. The belt does not need to be removed completely, just removed from these two components.
4. Disconnect and remove the alternator (drivers side top if dual alternator setup) using a 10mm socket on the electrical connector and 13mm socket on the mounting bolts.
5. Disconnect both electrical connectors from the Air Conditioning compressor. Loosen and remove the 4 mounting bolts that hold the compressor in place using a 10mm socket and ratchet. The compressor can be left in place for now.
6. Remove the Passenger Side Intercooler (IC) Tube using an 11mm deep socket. Removal may require disconnecting the MAP hose at the intake manifold. Use the diagram at right for reference.
7. Remove Passenger Side Rear Engine Lifting Eye using 13mm and 15mm socket or wrench.
8. Disconnect the fuel return line from the filter bowl using 5/8" wrench.
9. Disconnect the Fuel Bowl Inlet Line using a 3/4" wrench, you may find it easier to remove the factory fuel pressure regulator using a T-27 TORX driver. The cap will be under pressure due to the spring underneath.





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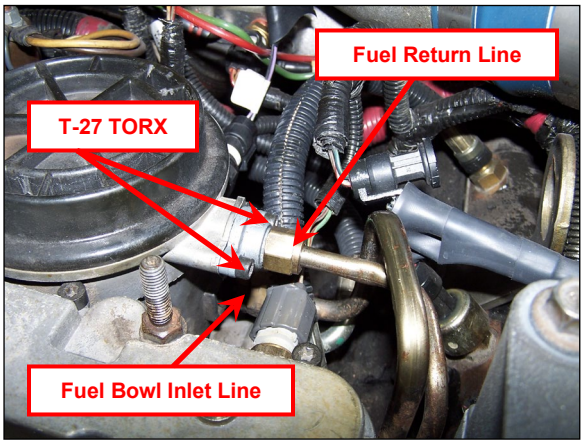
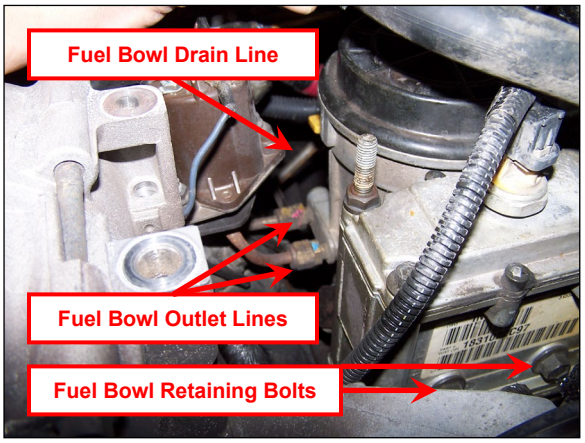
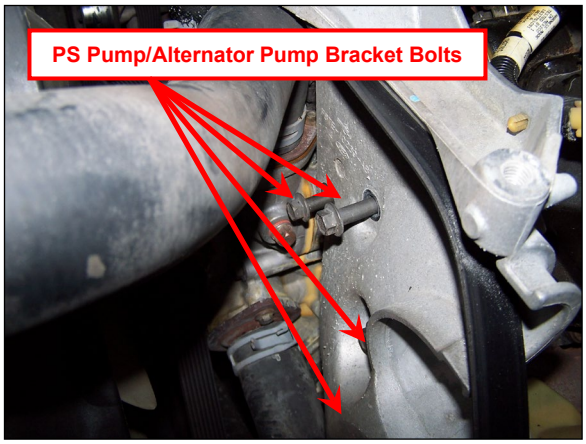
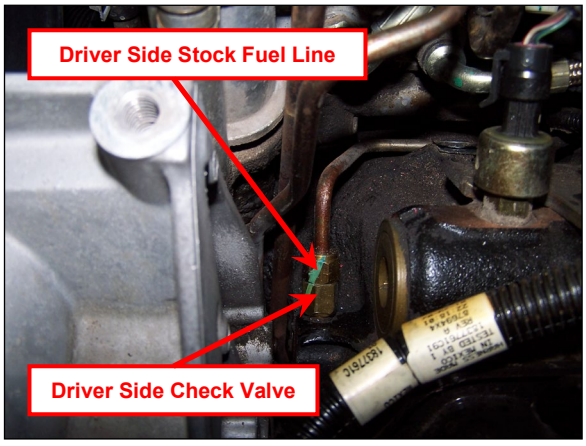
10. Disconnect both Fuel Bowl Outlet Lines using 9/16" wrench.
11. Pull the Fuel Bowl Drain Line off the outlet of the bowl drain valve.
12. Unplug the fuel heater plug from the back of the fuel bowl.
13. Remove both 13mm Fuel Bowl Retaining Bolts
14. You should now be able to remove the fuel filter bowl. Be careful, there is still fuel in the bowl!
15. Loosen the retaining bolts for the Power Steering/Alternator Bracket. Loosen all but the bottom bolt completely, leave the bottom bolt threaded in some to keep the bracket aligned and ease reinstallation of the other bolts later. This bracket will now rotate toward the driver side to ease working on fuel lines in the area.
16. Disconnect the driver side stock fuel line from the check valve. Be sure to loosen the nut at the top of the assembly; don't try to remove the fitting from the head with the tube installed.
17. Disconnect the passenger side stock fuel line from the check valve. Just like the driver side, remove the tube from the check valve, leaving the check valve in the head.
18. Locate the retaining clamps in the middle of each of the stock fuel lines and remove them using a 13mm and 10mm wrench.
19. Remove both stock fuel lines. Some twisting may be required but they will come out.







Note: The check valves and plugs you will be removing in the next series of steps can be stubborn. You may need to spray them with some penetrating oil and give it some time to work before proceeding with the removal.



20. Using a 9/16" deep SOCKET and ratchet, remove the check valves from the heads. BE CAREFUL! Applying a sideways force can snap the threads off the check valve and leave them in the cylinder head! You want to hold the socket square with the head with one hand and use the ratchet to rotate the socket and break the check valve loose.

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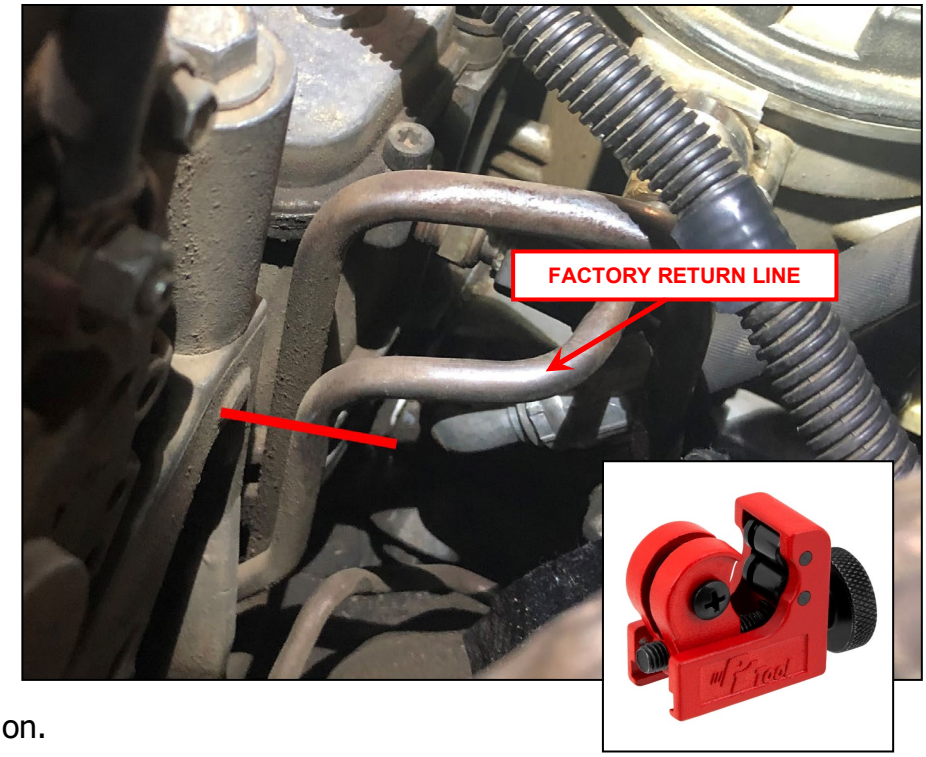
21. Locate and remove both square head fuel rail plugs. One is at the front of the passenger side cylinder head and the other at the rear of the driver side cylinder head. These are just off the end of the sheet metal intake plenums. Removal is easiest with a 9/32" square socket, 7mm open end wrench or adjustable wrench (tightened completely on the plug). In any case, make sure that the tool is all the way down on the plug to prevent rounding the head. It may be necessary to lift the A/C compressor off the bracket and set it off to the side to access the passenger side front port.

Before beginning assembly, now is the easiest time to modify the OEM supply and return lines that were previously connected to the drivers side of the filter bowl. The larger line that loops over the top is the supply. The supply line will not be re-used at all.

The smaller diameter line is the RETURN. This line will be reused in a later step and need to be trimmed to length at this time.



22. Using the cut line drawn in the image at right, trim the 5/16" return tube just below the bend using a small tubing cutter (inset). The straight section below the cut line will be used to secure a return hose with a clamp in a later step.

23. Once the return line is trimmed, use the same tubing cutter to cut the factory supply line in approximately the same location.

If your truck has a return line that is rusted/leaking/about to leak, and you would prefer NOT to reuse it, you can run fresh 5/16" fuel rated (30R7) hose from the regulator all the way back to the fuel tank. We offer this hose as an upgrade to this kit on our website, or you can get it from any good auto parts store. We will cover both return line options in a later step. In this case, instead of following steps 22 & 23 above, you can simply remove the supply/return tube assembly completely. You will need to disconnect the supply hoses at the bottom (quick disconnect tools required) and unbolt the tubing assembly from the block (make sure you replace the bolt and anything else it may be securing).

IMPORTANT NOTE: When installing tapered pipe thread fittings in pipe thread ports, DO NOT FORCE them into the desired position…this can lead to cracking the port! If you are using Teflon Tape and it gets tight in the wrong position, you will need to use more or less Teflon tape to get it oriented properly. More tape will obviously stop the rotation sooner, less will let it rotate more. Always clean off the old Teflon tape before applying fresh tape. If you are using a liquid sealant, tighten slowly once you feel the resistance

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increasing and stop in the desired position without over-rotating. Then let the sealant cure before running the engine and exposing it to fuel.

24. Locate the (2) 02MP-06MJ and (2) 02MP-06MJ45 fittings.

25. Apply your preferred thread sealant to the tapered pipe threads of these fittings. We've had the best luck with Loctite 545 (incl), but Teflon tape and other thread sealants also work fine.

EARLY 99 MODEL YEAR ONLY:

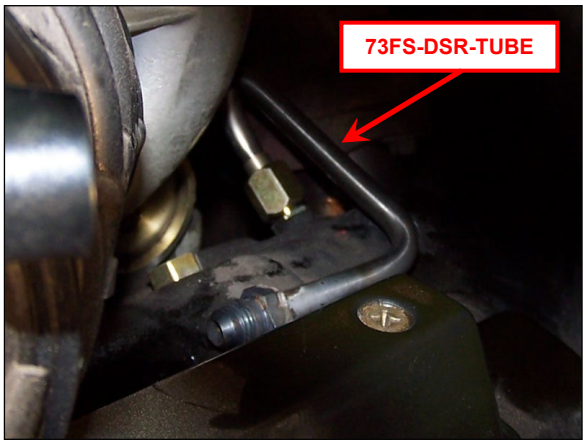
The turbocharger inlet manifold on early 1999 model year trucks sits VERY CLOSE to the drivers side rear fuel port. In order to install the 73FS-DSR-TUBE in the steps below, it will be necessary to clearance the flange on the turbo inlet. Loosely install one of the 02MP-06MJ fittings into the drivers side rear port, then attempt to connect the 73FS-DSR-TUBE (see left photo below). Mark the exhaust flange so you know where the interference is located and remove the tube and fitting. COVER THE EXPOSED FUEL PORT WITH DUCT TAPE OR REINSTALL THE FACTORY PLUG FIRST, then use a dremel tool or similar to clearance the flange. Make sure to clean up any grinding debris before exposing the fuel port and test fitting again.

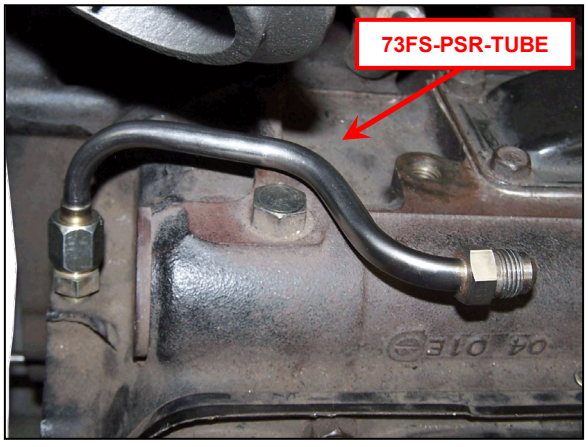
26. Install (1) 02MP-06MJ (straight) fitting into each of the open REAR fuel ports. Tighten securely using a 5/8" wrench, but do not over tighten.

27. Install (1) 02MP-06MJ45 fitting into each of the open front ports. The passenger side fitting needs to be pointing UP AND SLIGHTLY REARWARD when tightened, with the ability to tighten it just a bit further in a later step if needed. Use of a "stubby" wrench is helpful with this fitting. The driver side fittings needs to be pointing straight up.

28. Locate the 73FS-DSR-TUBE and install onto the driver side cylinder head fitting as shown in the top left photo on the next page. Snug the tube nut but don't tighten it completely yet.

29. Locate the 73FS-PSR-TUBE and install onto the passenger side cylinder head fitting as shown in the top right photo on the next page. Snug the tube nut but don't tighten it completely yet.





NOTE: Some of the hoses shown in these installation instructions may not have the protective covering installed in order to make them more visible in the photos. We highly recommend leaving the covering on the hoses to prevent chaffing adjacent components as the S.S. braiding is quite abrasive.

30. Locate the 73FS-FBD-BLOCK-ASSY and BOWL DELETE BLOCK MOUNTING BRACKET. Using the included screws and washers, attach the fuel bowl delete block to the bowl delete bracket and

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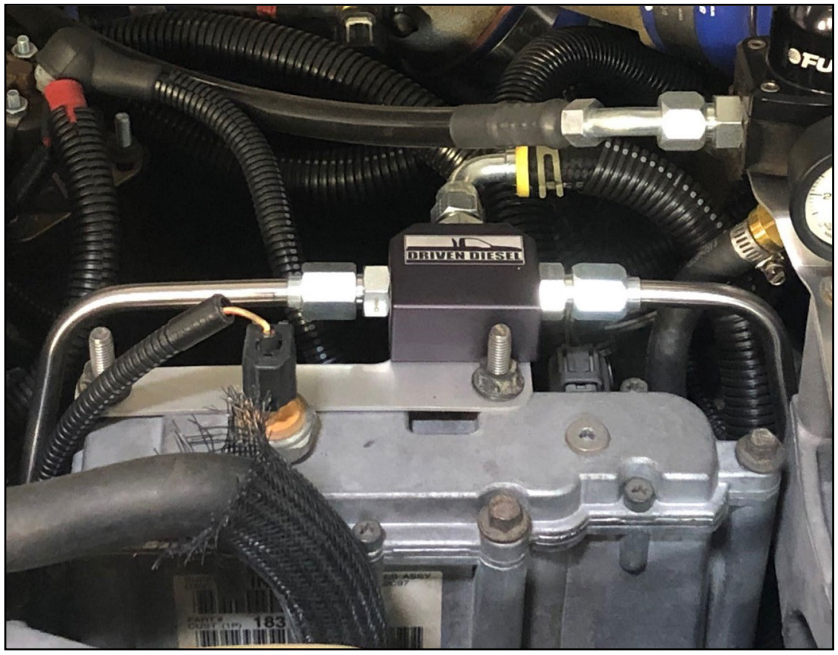
FINGER TIGHTEN the screws. Install the assembled fuel bowl delete unit onto the factory studs as shown below and START (do not tighten) either your factory nuts or the incl. M8 Nylok nuts.

31. Using the picture below as a guide, locate the 73FS-FBDPSF-TUBE-V2 and loosely install it onto the fitting in the passenger side head. In order to get the other end to line up with the bowl delete block, you may need to tighten the 45° fitting in the head. Loosely attach the tube at the bowl delete block, but do not tighten at this time.
32. Now locate the 73FS-FBDDSF-TUBE-V2 and loosely install it onto the fitting in the drivers side head. Again, slight adjustment of the 45° fitting in the head may be necessary for proper alignment with the bowl delete block. Attach the tube at the bowl delete block and FINGER TIGHTEN all of the tube nuts on both tubes.

NOTE: Due to production variances between engines and our parts, it may be necessary to put washers under the fuel bowl delete bracket. If, after completing steps 29 & 30, the bracket isn't sitting FLAT on the top of the reservoir as shown at right, disconnect both tubes and put flat washers over the studs (under the bowl delete bracket). Usually 1 washer per side will be enough. The goal is to prevent stress in the bracket or the fuel lines when you tighten the nuts holding the bracket. TIGHTEN BRACKET NUTS once you are happy with the fit of the bracket.



INSTALLING A SET OF DRIVEN DIESEL 7.3L BANJO BOLTS?
NOW WOULD BE A GREAT TIME! COME BACK TO THIS SPOT WHEN FINISHED.

IF YOU WILL BE USING AN ELECTRIC FUEL PRESSURE GAUGE / SENDING UNIT, SUBSTITUTE THE SENDING UNIT FOR THE MECHANICAL GAUGE IN STEP 35.

33. Using the included screws and washers, attach the regulator to the regulator mounting bracket.
34. Set the alternator back on its bracket, lay the Driven Diesel regulator mounting bracket across the 2 holes in the alternator and install the mounting bolts for the alternator. See picture on the front cover for reference. We recommend leaving the alternator mounting bracket bolts loose at this point as you may need to access the fitting in the head during the leak check.
35. Locate the Liquid Filled Pressure Gauge. Apply your preferred thread sealant to the threads of the gauge (don't get any over the end where the inlet hole is). Screw the gauge into the port on the front of the fuel pressure regulator and tighten.
36. Locate the 73FS-DSR-HOSE-V2. Connect the 45° end to the regulator. Route the hose under the main engine harness and driver side of the intake "Y" and connect the straight end to the previously installed 73FS-DSR-TUBE. The 90° fitting on the drivers side of the regulator should be pointing slightly toward the rear of the truck. Verify clearances around the hose and tighten both ends, making sure to use a backup wrench on the end of the tube. It can be helpful to

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use a wrench on the small nut behind the straight hose end to keep the hose from twisting.

37. Locate the 73FS-PSR-HOSE-V2. Connect the 45° end to the regulator. Route the hose under the passenger side of the intake "Y" and connect the other end to the previously installed 73FS-PSR-TUBE. Use the photo on the cover of this document as a reference if needed. Verify clearances around the hose and tighten both ends, making sure to use a backup wrench on the end of the tube. It can be helpful to use a wrench on the small nut behind the straight hose end to keep the hose from twisting.
38. With the hoses installed, tighten the 73FS-DSR-TUBE and 73FS-PSR-TUBE at the cylinder head connections, making sure that they are positioned to prevent the tubes from contacting any other engine parts, and they are not under any stress from the hose.
39. Double check clearances around ALL of the hoses and tubes, reposition as necessary and then verify that all of the hose/tube ends and jamb nuts (regulator fittings) have been tightened.

Now you will be making the "return" connection. As discussed between steps 21 and 24, there are a few ways of doing this, depending on your specific truck and the condition of your stock fuel lines. <u>If you trimmed your stock metal return line as shown in step 22, and will be using the stock return line along the frame, skip the rest of this note and go right to step 40</u>.

If you will be replacing the entire return line along the frame, you will need a long length of 5/16" 30R7 (or higher) rated rubber fuel hose (we recommend 18' for a crew cab/long bed). You may have purchased this from us as an upgrade to your kit, or elected to supply it yourself from your local parts store. You will also need some cable ties to secure the new hose once it is in place. To prepare your long length of hose, follow steps 41-44 below. This will result in your hose having a fitting assembled at one end, and nothing at the other.

Using the photo on the next page as a guide, feed your hose down the front of the engine where the factory supply/return lines ran and connect the fitting to the bottom of the regulator. Route the hose along the same path the factory lines followed, making sure to secure it with cable ties so it is away from sources of heat and moving parts. When you reach the top of the fuel tank, trim it to length and secure it to the return port on the sending unit with the other PC09 clamp. It is a good idea to leave some slack at the fuel tank end, as this will help if you need to drop the tank in the future.

40. Locate the 12" section of 5/16" Gates rubber hose, the brass 06FJX-05HB fitting and the (2) PC09 hose clamps.\
41. Using a pair of pliers, open one of the clamps and slide it about 2" up the hose.
42. With the brass nut STILL INSTALLED ON THE HOSE BARB, push the same end of the hose all the way over the hose barb. Since this fitting is 2 pieces, you may find it easier to do this if you remove the hose from the passenger side of the regulator and loosely install the brass fitting in its place (make sure you reinstall the passenger side hose if you do this). The hose should "almost" contact the brass nut, you need just enough gap for the nut to spin freely.
43. Using a pair of pliers, open the previously installed clamp and move it to within ¼" of the end of the hose, it should be right over the barbed portion of the fitting.

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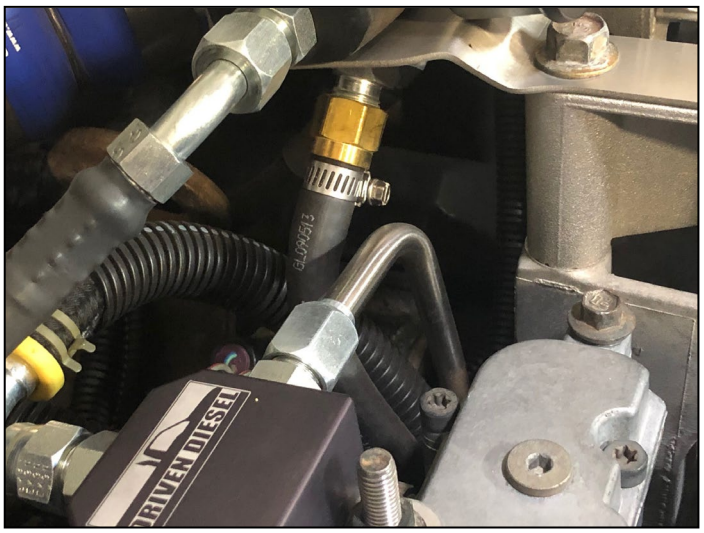
44. Position the 45° fitting on the bottom of the regulator so it is pointing toward the passenger side of the engine. You may have to loosen the jamb nut.
45. Loosely install the newly assembled hose and brass fitting onto the 45° fitting in the bottom of the regulator and feed the hose down between the engine and the alternator bracket where the return tube is running. It will look something like the photo at right (we didn't have the black PC09 clamps in stock at the time the instruction photos were taken).



46. Align the hose with the straight portion of the previously trimmed factory return line. The hose will need to slip about 1" over the tube without being pulled tight. Identify where the hose needs to be trimmed and mark it with a pen or similar.
47. Remove the hose from the regulator fitting and trim it squarely at the indicated position.
48. Slip the remaining PC09 clamp about 2" up the freshly cut hose.
49. Push the hose about 1" down the factory return tube (it may be helpful to lube the tube with diesel fuel) and then using a pair of needle nose pliers, locate the clamp within ¼" of the end of the hose, it should be completely over the end of the previously cut off tubing.
50. If needed, reposition the 45° fitting on the bottom of the fuel pressure regulator to ensure that the return hose is not rubbing on the fuel supply tube. Tighten the jamb nut when done.

You are now left with needing to make the connection to the fuel supply port. Fuel supply (from your fuel pump) will enter the rear facing port of the Driven Diesel Fuel Bowl Delete block. We've supplied a #6 Male JIC fitting and recommend using a hose with a 90° end to make the cleanest connection (see image above for orientation). We do prefer to route this line down the front of the engine with the return line, then over to the frame, as this path keeps the installation clean and the hoses away from heat and moving parts. If you are using a Driven Diesel Post Pump Filter Kit or High Performance Fuel Delivery Kit, this is where you will make your connection from the filter outlet to the bowl delete. If you are using a FASS or AirDog pump, you may need our "F/A Install Kit" or some additional hose/fittings, as those pump systems are designed to re-use the factory supply lines.

51. Once you've connected your fuel supply and return lines to their respective locations (pump to bowl delete and regulator to fuel tank), proceed with the steps below.

YOU'RE ALMOST DONE!

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Before proceeding, it's time to DOUBLE CHECK **EVERY** fitting and bolt for proper tightness. Carefully go over each fuel line at both ends, checking both the line and the fittings for tightness. Once you've verified all of the fuel lines and fittings, check any bolts that have been removed and reinstalled up to this point. Once reassembly is complete, some of these fittings and hoses will not be easily accessible should you miss one and leave it loose!

52. Now we need to check for leaks. Start by turning the key to the "on" position (do not crank or start the engine) and let the fuel pump run until it shuts off. When the fuel pump shuts off, turn the key to the "off" position.
53. Repeat the above 8-10 times to refill the fuel lines and rails and purge them of air.
54. Now, cycle the key to the "on" position and adjust the fuel pressure by turning the set screw in the middle of the regulator CLOCKWISE (in) until the pressure reaches 60-70psi. You may have to loosen the locknut on the regulator in order to turn it far enough and you may have to cycle the key more than once if the pump shuts off before you have it set.
55. Cycle the key to the "on" position and check each fitting and hose for leaks. The system is under pressure now so they should be pretty apparent. You may have to cycle the key several times to inspect every fitting and hose connection…take your time, this is important!
56. If any leaks are found, resolve them before proceeding. It's much easier to address them now then when everything is back together later.
57. Locate the 73FS-BLOWDOWN line. Connect the line to the brass nipple in the top half of the fuel pressure regulator. Route and secure this line, avoiding heat sources that could damage it, so that the other end is under the truck and is pointing down at the ground. See #2 on the Troubleshooting Page for details.
58. Starting with step 6, reverse the disassembly steps and reinstall the alternator bracket, intercooler tube, MAP hose, A/C compressor, accessory drive belt and battery cables. The passenger side rear engine lifting eye will NOT be reinstalled.
59. Start the engine and allow it to idle. While it's idling, thoroughly inspect for leaks one more time as everything is once again under pressure and flowing constantly. Any remaining air in the system will also be purged during this time.
60. If any leaks are detected, shut the truck off and resolve them before proceeding. Come back and perform another leak check (step 46) and proceed once the problem has been resolved.
61. Once the system is leak free and the truck has had a few minutes to purge any remaining air and start to build some engine heat, adjust the fuel pressure and tighten the fuel pressure lock nut. We recommend starting with the pressure in the 65psi range at operating temperature.

CONGRATULATIONS!
You've just completed the installation of the
Driven Diesel 7.3L Fuel Bowl Delete Regulated Return Fuel System Kit!

EVERY SINGLE LIQUID FILLED GAUGE WE HAVE TESTED has failed over time in the harsh environment of a diesel engine bay. As such, we do not recommend leaving the gauge installed long term. Once you are satisfied with the installation and pressure setting, we recommend removing the gauge and replacing it with the included 1/8" pipe plug or an in-cab gauge that uses an electric sending unit.

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Common Fuel System Issues – Troubleshooting Guide

If you run into any problems after the installation of your fuel system, please check this page for guidance before calling your dealer or Driven Diesel for help. The issues below represent the most common causes for technical support calls.

1. **THE REGULATOR MUST BE BROKEN – PRESSURE IS LOWER THAN DESIRED** – This is a multi-part problem, but the first thing you need to know is that if you don't have fuel spraying out of the hose connected to the brass nipple in the top half of the regulator, the regulator is **NOT** broken and is working fine. The fuel pressure regulator supplied with our kits is extremely simple, and the ONLY failure we have ever seen, since we started building fuel systems in 2001, has been a punctured diaphragm…which will leak fuel from the brass nipple. See below for some specific examples of where to look for your fuel pressure problem:

    a. **AIRDOG II** – If you have an AirDog II/4G/5G pump that has replaced your factory fuel pump, you will need to adjust the fuel pressure at the pump. The ADII pumps are delivered from the manufacturer with the internal regulator set at 55psi. Locate the adjuster screw / jambnut. It is best to adjust the DRIVEN DIESEL fuel pressure regulator up (clockwise) several turns past the max pressure, THEN have someone adjust the ADII pressure adjuster until the DRIVEN DIESEL gauge shows about 70-75psi. Finally, adjust the DRIVEN DIESEL regulator down to 60-65psi. This will leave you with about 5-10psi of "overhead" pressure, which will help keep the pressure at the desired level when you are heavy on the throttle and the injectors are using more fuel from the rails.

    b. **FASS** – If you have a high pressure FASS pump and are unable to get 65psi at the Driven Diesel fuel pressure regulator, you may need to update the regulator in your FASS pump. Older Grey or Black High Pressure FASS pumps were delivered with a 55psi regulator spring. Newer Black FASS pumps (Serial Number S399570 OR HIGHER) have a 65psi regulator spring. ALL of them can benefit from our 75psi regulator upgrade, to ensure that you are able to get the proper 65psi at the engine, with pressure overhead for high demand situations. See our website for help determining which upgrade you need.

    c. **OTHER FUEL PUMP –** If you are running a stock fuel pump, or another "100% Duty Cycle" pump that doesn't have an integrated fuel pressure regulator (Fuelab Prodigy, Aeromotive A1000, etc), and you are still having fuel pressure problems, you need to check you plumbing for restrictions in the inlet line to the fuel pump (causing the pump to not be able to efficiently get fuel from the tank), and you may need to have your fuel pump checked for proper operation. Low fuel pressure is caused by a lack of fuel volume from the pump, you need to determine why the volume of fuel being moved by your pump is not adequate. Pumps like the Fuelab Prodigy and Aeromotive A1000 REQUIRE a minimum of 5/8" fuel supply line between the fuel tank and the pump inlet, and any filters on the inlet side of the pump need to support high flow rates with low pressure drop across the filter. Another common issue with some larger aftermarket pumps is trying to run them from the factory fuel pump wiring. The factory pump wiring is NOT large enough to run a Fuelab or Aeromotive (or similar) pump. These large pumps MUST have a heavy gauge, relay controlled wiring harness or they will not function properly.

2. **FUEL LEAKING FROM BRASS NIPPLE OR POLY TUBING UNDER TRUCK –** The brass nipple in the top half of the fuel pressure regulator is a "boost reference port". This is used to increase fuel pressure as boost increases…IN GASOLINE APPLICATIONS! We do NOT use this port in diesel applications because it poses serious risk of a "runaway" situation should the diaphragm in the regulator fail. Instead, we run a long piece of poly tubing from this port to a location under the truck, to make sure that fuel is not sprayed all over the engine in the event of a diaphragm puncture. In the event of a punctured diaphragm, contact us at 623-582-4404 to purchase a replacement.

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S DIESEL, LLC (dba STRICTLY DIESEL AND/OR DRIVEN DIESEL*) WARRANTY AND LIABILITY POLICY

MANY OF THE PRODUCTS SOLD BY S DIESEL, LLC, ARE DESIGNED TO INCREASE VEHICLE PERFORMANCE…USE AT YOUR OWN RISK!

Do not install or use any product(s) purchased from S DIESEL, LLC ("S DIESEL")
until you have carefully read the following Warranty and Liability Policy (the "Warranty").

PRODUCT WARRANTY POLICY

Subject to the limitations, exclusions, and qualifications set forth below, the product or the products made and sold by S DIESEL (the "S Diesel Product" or "S Diesel Products") are warranted to Buyer as set forth in this Warranty. The installation of the S Diesel Products indicates that Buyer has read, understands and agrees to the terms and conditions of this Warranty. Any warranty on products that are made by another manufacturer which are resold by S DIESEL to Buyer is made to Buyer by the manufacturer of such products in accordance with and subject to all conditions and limitations of the manufacturer's warranty in effect on the date of the purchase by Buyer. S DIESEL makes no warranties to Buyer, express or implied, with respect to such products that are made by another manufacturer.

LIMITED WARRANTY

The S Diesel Products (except S Diesel Products specified to have different warranty terms) are warranted to be free from defects in material and workmanship, under normal use and service for a period (the "Product Warranty Period") of one (1) year from date of delivery to Buyer, unless S DIESEL performs the work installing the S Diesel Products, in which case the Product Warranty Period shall be extended to equal the Service Warranty Period (as defined below under "SERVICE WARRANTY POLICY"). S DIESEL's liability under this Warranty is limited to repair or replacement at its option, subject to the provisions set forth herein, of any S Diesel Products which upon examination S DIESEL are found to be defective. Buyer shall prepay cost of transportation of defective S Diesel Products to S DIESEL for inspection.

S DIESEL shall not have any responsibility under this Warranty unless (1) the defect in an S Diesel Product results in a claim arising within the Product Warranty Period, measured from the date of delivery to Buyer, (2) the S Diesel Product, if installed by an installer other than S DIESEL, was properly installed, (3) the S Diesel Product was normally maintained and not subject to misuse, negligence or accident, and (4) the S Diesel Product, system components and/or accessories were not repaired or altered in such a way that in the judgment of S DIESEL the S Diesel Product's performance or reliability was adversely affected.

EXCLUSIONS

Any of the above warranties by S DIESEL shall not apply if Buyer's vehicle is in an accident, misused, neglected, altered from the S Diesel Product's manufacturer original designs or specifications or serviced in connection with a warranty claim hereunder without prior written approval of S DIESEL.

REMEDIES EXCLUSIVE

Repair or replacement of defective S Diesel Products in accordance with the Limited Warranty above shall be Buyer's exclusive remedy for and shall constitute satisfaction of any and all liabilities of S DIESEL with respect to any defect in any S Diesel Product whether based in warranty, contract, tort, negligence, strict liability or otherwise.

DISCLAIMERS AND LIMITATIONS

THE EXPRESS WARRANTIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS AND TERMS AS TO QUALITY OR FITNESS OF ALL PRODUCTS SUPPLIED BY S DIESEL TO BUYER, WHETHER WRITTEN, ORAL OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL SUCH OTHER WARRANTIES, CONDITIONS AND TERMS ARE HEREBY DISCLAIMED AND EXCLUDED BY S DIESEL. IN NO EVENT SHALL S DIESEL BE LIABLE FOR ANY LOSS OF ACTUAL OR ANTICIPATED PROFITS, LOSS OF ANTICIPATED BUSINESS, COST OF SUBSTITUTE PRODUCTS, LOSS OF USE OR DOWNTIME COSTS OR DELAY CLAIMS (WHETHER DIRECT OR INDIRECT) NOR FOR ANY OTHER SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR RELATING TO THIS WARRANTY OR THE SUPPLY OF S DIESEL PRODUCTS TO BUYER, WHETHER BASED IN WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. BUYER ACKNOWLEDGES THAT (A) THE PRODUCTS PURCHASED FROM S DIESEL WILL BE USED IN CONNECTION WITH ACTIVITIES, UNDER EXTREME CONDITIONS AND/OR SUBJECT TO MODIFICATIONS REQUESTED BY BUYER FOR WHICH THE PRODUCTS MAY OR MAY NOT BE SUITABLE; (B) THE WARRANTY OF SUCH PRODUCTS FOR PERFORMANCE IN CONNECTION WITH SUCH ACTIVITIES, UNDER SUCH EXTREME CONDITIONS AND/OR SUBJECT TO SUCH MODIFICATIONS REQUESTED BY BUYER IS NOT POSSIBLE; AND (C) ANY MANUFACTURER'S WARRANTY MAY BE VOIDED BY USE OF THE PRODUCTS IN CONNECTION WITH SUCH ACTIVITIES, UNDER SUCH EXTREME CONDITIONS AND/OR SUBJECT TO SUCH MODIFICATIONS REQUESTED BY BUYER. BUYER ACKNOWLEDGES THAT THE INSTALLATION OF ANY S DIESEL PRODUCTS THAT ARE NOT LEGAL FOR USE ON POLLUTION CONTROLLED MOTOR VEHICLES IS DONE SOLELY AT THE REQUEST OF BUYER AND ALL RESPONSIBILITY FOR ANY EFFECTS ON THE ORIGINAL VEHICLE MANUFACTURERS WARRANTY, ABILITY TO PASS ANY EMISSIONS INSPECTIONS OR FOR ANY FINES THAT MAY OCCUR DUE TO THE REMOVAL OF FEDERALLY MANDATED EMISSION CONTROL EQUIPMENT IS ON BUYER. No employee or representative of S Diesel has the authority to make any representation, promise or agreement which in any way varies from the terms and conditions of this Warranty. No suit or claim based on any cause of action, regardless of form, arising out of or relating to this Warranty or any of the S Diesel Products supplied by S DIESEL may be brought by Buyer or anyone claiming by, through or under Buyer against S DIESEL more than one year after the date that such cause of action arose.

IN THE EVENT BUYER DOES NOT AGREE WITH THE TERMS AND CONDITIONS OF THIS WARRANTY, BUYER MAY PROMPTLY RETURN THE PRODUCT TO S DIESEL FOR A FULL REFUND. THE PRODUCT MUST BE IN NEW, UNUSED AND RESELLABLE CONDITION, BE RECEIVED WITHIN FIFTEEN (15) DAYS OF THE ORIGINAL PURCHASE AND BE ACCOMPANIED BY A DATED PROOF OF PURCHASE (RECEIPT). PRODUCTS RETURNED IN NEW, UNUSED AND RESELLABLE CONDITION MAY STILL BE SUBJECT TO RESTOCKING/REPACKAGING FEES.

THE INSTALLATION OR USE OF ANY PRODUCT PURCHASED FROM S DIESEL INDICATES THAT BUYER HAS READ, UNDERSTANDS AND AGREES TO THE TERMS AND CONDITIONS OF THIS WARRANTY.

ASSIGNABILITY OF WARRANTY

This Warranty is for the exclusive benefit of Buyer and is not assignable.

WARRANTY CLAIMS PROCEDURE

Warranty claim forms can be printed from the company websites (http://www.drivendiesel.com (Products) and http://www.strictlydiesel.com (Services)). A properly completed warranty claim form and a copy of the invoice for any defective Product or Service must be received by the Seller within the earlier of 30 days after the expiration of the Warranty Period or the incident giving rise to the claim. To qualify for an adjustment under this Warranty a defective Product must be returned prepaid to the Seller for inspection and must be accompanied by a dated proof of purchase receipt. In addition, the serial number of the defective Product, if any, must match the serial number on Buyer's invoice. All Warranty claims are subject to approval by the Seller and/or the Product's manufacturer. Buyer must pay all applicable service charges and taxes. Defective Products accepted for warranty compensation become the property of the Seller. To qualify for an adjustment under this Warranty a vehicle upon which S Diesel Services have been performed must be delivered to the Seller during Seller's hours of operation for inspection and must be accompanied by a dated proof of purchase receipt.

WAIVER

Any failure of the part of S Diesel to insist on strict compliance with the Warranty Provisions shall no way constitute a waiver of such right. No claim or rights arising out of a breach of the Warranty Provisions by Buyer may be discharged in whole or in part by a waiver of the claim or right, unless the waiver is in writing signed by an authorized representative of S Diesel. S Diesel's waiver or acceptance of any breach by Buyer of any provisions of the Warranty Provisions shall not constitute a waiver of or an excuse for nonperformance as to any other provision of the Warranty Provisions nor as to any prior or subsequent breach of the same provision.

APPLICABLE LAW

The Warranty shall be governed by the laws of the State of Arizona (excluding Arizona law with respect to conflicts of law).

* Driven Diesel was formerly known as ITP Diesel, LLC and Sinister Diesel, LLC.

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