

DRIVEN DIESEL PERFORMANCE

03-07 6.0L FBD V2 TO V3 UPDATE KIT



* DD - 60FS - FBD - V2V3UPDATE *



MUST HAVE DRIVEN DIESEL
60FS-FBD-RRK-V2
REGULATED RETURN ALREADY INSTALLED!

6.0L FUEL BOWL DELETE V2 TO V3 UPDATE KIT
Fits 2003-2007 6.0L Powerstroke Diesel F250/F350/Excursion



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!

Thank You for purchasing the Driven Diesel FUEL BOWL DELETE V2 TO V3 UPDATE KIT for your existing Driven Diesel V2 Fuel Bowl Delete Regulated Return fuel system! 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.

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!

Please don't hesitate to contact Driven Diesel should you have any questions.

Contents of Driven Diesel 6.0L Fuel Bowl Delete V2 to V3 Update Kit

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. Please notify us if you are missing any parts **BEFORE** starting your installation! We will refer to the different fittings by their part number throughout the installation.

<u>Qty:</u>	<u>Part Number:</u>	<u>Description:</u>
1	60FS-FBDDSF-TUBE-V2	Driver Side Feed Tube Assembly – Fuel Bowl Delete Specific
2	12-BWasher	12mm Copper Banjo Bolt Washers
2	3/4" Diameter Spacers	(1) 3/4" x 5/16" & (1) 3/4" x 5/32" Aluminum Spacers
1	M8 Flat Washer	M8 Flat Washer

Some of the Basic Tools Needed for Installation:

Standard Combination Wrench Set
3/8" Drive Metric Socket Set
T-27, T-30 and T-45 Torx Wrenches

Metric Combination Wrench Set
1/4" Drive Metric Socket Set

Let The Fun Begin!

This update involves simply replacing one fuel line with an updated design that provides more clearance. We have provided new banjo bolt copper washers to ensure that there are no leaks after installing the updated fuel line.

It may be necessary, depending on the vehicle and the size of your hands, to remove components such as the intake system or air box in order to have the clearance necessary to change the line. These instructions will assume that you have gained access to the necessary locations before proceeding.

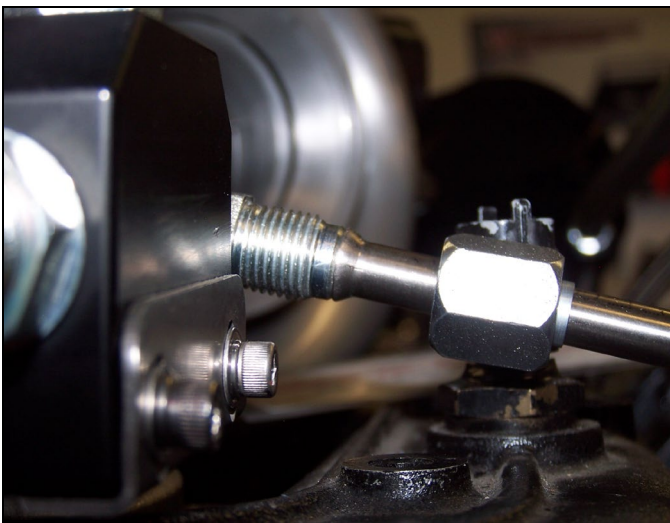
The fuel line in question is at the LEFT (drivers) FRONT corner of the engine. The bottom of the line is connected to the front of the cylinder head with a Driven Diesel Stainless Steel Banjo Bolt. The top of the line is connected to the Driven Diesel Fuel Bowl Delete Distribution Block. The line you are removing will NOT have the same rubber bumper that is installed on the new line.

1. Loosen and Disconnect the Tube Nut that connects the existing drivers front fuel line to the fitting on the Fuel Bowl Delete Distribution Block.
2. Loosen and Remove the Driven Diesel Stainless Steel Banjo Bolt from the bottom of the drivers front fuel line. Make sure you remove the copper washer that is against the cylinder head, as the new line and copper washer may not align and seal properly if the copper washer gets doubled up.
3. Remove the existing fuel line from the vehicle and set it aside, it will NOT be reused.
4. Loosen the Jam Nut on the open 90° Fitting on the Distribution Block.
5. Loosely Install the BANJO END of the new 60FS-FBDDSF-TUBE-V2, using the (2) new Copper Washers (one on each side of the tube end). Finger tight is adequate for now.
6. Compare the height of the top end of the new fuel line to the open 90° fitting, the distribution block should be too low at this point. Adjust the spacers under the distribution block bracket to match the configurations described below. See the yellow box for additional notes about adjusting spacer height for your specific engine.
 - a. **OEM OIL COOLER** : Use (1) of each size aluminum spacer (3/4", 5/16" and 5/32").
 - b. **BULLETPROOF DIESEL OIL COOLER KIT** : Use (4) aluminum spacers (2 x 3/4", 5/16" and 5/32").

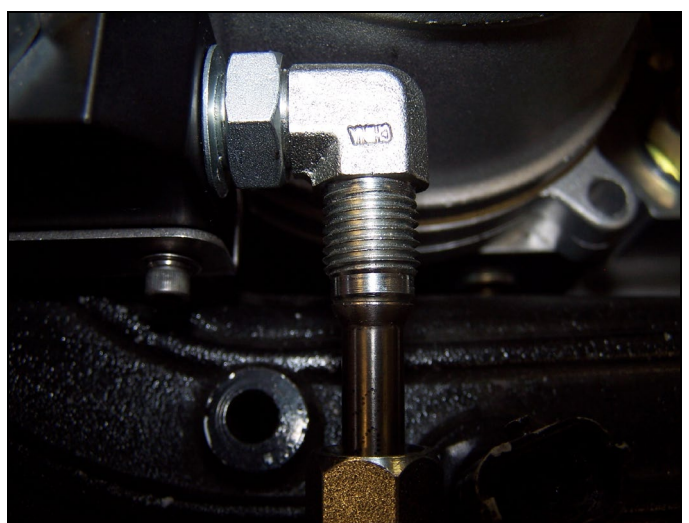
Due to variances in castings, cylinder head machining or other aftermarket part usage, the next step may require a little bit of adjustment to get things aligned properly. Alignment adjustments will be made by rotating the rear 90° fitting on the bowl delete block and/or changing the spacers under the mounting bracket. If the bracket needs to go up more, add 1 washer at a time on top of the spacers (but under the bracket). If the bracket needs to go down, remove the small aluminum spacer, replace it with 2 washers and check again. Remove 1 washer at a time to further adjust.

The ultimate goal is to get the tube and the 90° fitting aligned so that they are in a straight line and the tube nut starts easily. When properly aligned, the bracket should be sitting flat on the spacers such that tightening the nut doesn't put any significant stress in the assembly.

See the images below for further clarification.



Side View – Tube and Fitting Aligned



Top View – Tube and Fitting Aligned

7. Once you get the tube nut at the top of the 60FS-FBDDSF-TUBE-V2 started, tighten it Hand Tight. At this point, the tube should properly aligned, and the bracket resting on the spacers.
8. Tighten the banjo bolt to **20ft/lbs MAX (1/16-1/8 turn past “finger tight”!)** **If you do not have an accurate, short handled, small drive torque wrench for this, please just tighten with a wrench to the point that it stops, then just a “bump” tighter to seal the washers.**
9. Tighten the tube nut at the top of the 60FS-FBDDSF-TUBE-V2. It's a good idea to use a second wrench on the 90° fitting so the bracket and/or tube doesn't get bent. You can also tighten the jam nut on the 90° fitting in the rear port of the fuel bowl delete block.
10. Tighten the nylok nut that retains the fuel bowl delete bracket to the stud.

YOU'RE ALMOST DONE!

Before proceeding, it's time to DOUBLE CHECK **EVERY** fitting and bolt for proper tightness. Carefully go over each of the fuel lines that were touched for this upgrade, 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!

11. 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. You will need to temporarily reconnect the battery cables for this.
12. Repeat the above 8-10 times to refill fuel lines and rails and purge them of air.
13. Now, cycle the key to the “on” position and that your fuel pressure is still 65psi. Adjust if necessary, but you shouldn't need to because we didn't touch the regulator adjustment.
14. Cycle the key to the “on” position and re-check the new parts for leaks. The system is under pressure now so they should be pretty apparent...take your time, this is important!
15. If any leaks are found, resolve them before proceeding. It's much easier to address them now than when everything is back together later.
16. Reinstall any vehicle components removed.
17. 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.
18. If any leaks are detected, shut the truck off and resolve them before proceeding. Come back and perform another leak check and proceed once the problem has been resolved.
19. 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 (if necessary). We recommend starting with the pressure set to 65psi at operating temperature.

IMPORTANT!

DO NOT LOSE THIS LABEL!!!



The attached product information label is mandated by the CALIFORNIA AIR RESOURCES BOARD (C.A.R.B.) to aid in the emissions inspection of vehicles under the California Smog Check program. Some states outside of California follow C.A.R.B. standards for emissions testing and may also require labeling (check your local statutes for confirmation).

Affix this label in a clean location under the hood that is **READILY VISIBLE TO THE AVERAGE PERSON**. We have marked a few suggested locations **IN GREEN** in the picture above. This label applies **ONLY** to the following **DRIVEN DIESEL** Part Numbers: DD-60FS-FBD-UPGRADE-V3 and DD-60FS-FBD-V2V3UPDATE

ATTACH
D-872-5
LABEL
HERE

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 / jamnut. It is best to adjust the **DRIVEN DIESEL** fuel pressure regulator up (clockwise) several turns past the max pressure, **THEN** have someone adjust the AirDog pressure adjuster until the **DRIVEN DIESEL** gauge shows about 75-80psi. Finally, adjust the **DRIVEN DIESEL** regulator down to 60-65psi. This will leave you with about 10-15psi 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. Check your Driven Diesel dealer for the “FASS Pump 75psi Regulator Kit”.
2. **FUEL LEAKING FROM BRASS NIPPLE OR RUBBER 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.

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

MOST 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).