



INSTALLATION AND SERVICING INSTRUCTIONS

6.6 DURAMAX BYPASS SYSTEM KIT

IMPORTANT NOTICE

Please Note - Before Installation

Follow the precautions below for optimal product performance and to reduce the risk of property damage, personal injury, and/or death.

Read All Instructions Before Proceeding

If you are uncomfortable with the instructions or have questions, do not attempt installation. Consult a mechanic or contact our customer service department at 800-341-6516 with any additional questions.

Improper installation of this product may result in damage to the vehicle on which it is installed. For questions regarding installation, contact Frantz customer service at 1-800-341-6516.

Install On Cool Engine

Never work in the engine compartment with the engine running. It is advised that you perform a full oil change with installation of this system.

A. BEFORE YOU BEGIN

1. Confirm all items on the Parts List are included in the system.
2. Ensure you have the required tools for the job.

RECOMMENDED TOOL LIST

- Drill
- 7/32" Drill bit for mounting screws
- 3/8" Socket and wrench for mounting bolts
- 3/8" Wrench for mounting screws
- 7/16" Wrench for male hose fitting
- Utility knife to cut hose
- 1-1/4" or larger crescent wrench
- Common screw driver for clamps

PARTS LIST

6.6L Duramax Frantz Filter Kit (FKDMX66)

| Item | Description | Qty. | Part No. |
|------|---------------------------|------|----------|
| 1. | Mounting Screws | 3 | FSCR |
| 2. | Lock Washer, Bolt & Nut | 2 | FFEM |
| 3. | Base Gasket | 1 | KGBA |
| 4. | T-Bolt & Black Knob | 1 | KTBO |
| 5. | Clamp | 1 | KCLA |
| 6. | Mounting Bracket | 1 | KMOU |
| 7. | Cellulose Filter Media | 1 | FFMD-SP |
| 8. | Polished Canister w/Decal | 1 | KCAN |
| 9. | Pull Ring | 1 | KPUL |
| 10. | Filter Base | 1 | KBAS |

Parts List (Cont.)

| Item | Description | Qty. | Part No. |
|------|-------------------------------|------|----------|
| 11. | 8' Hose | 1 | FHOS |
| 12. | 8' Hose Covering | 1 | FHOS-COV |
| 13. | Male Hose Fittings | 4 | FMAL |
| 14. | Oetiker Clamps | 4 | FOET |
| 15. | 90° Elbows | 2 | FELB90 |
| 16. | 45° Elbows | 2 | FELB45 |
| 17. | Spare Gasket | 2 | KGBA |
| 18. | Thread Seal Package | 1 | FTHR |
| 19. | Large Adapter - C | 1 | FLAD |
| 20. | Large Adapter - C Gasket | 1 | FLADGA |
| 21. | Adapter Nut | 1 | FNUT1316 |
| 22. | Bushing | 1 | FBUS14 |
| 23. | Quick Disconnect - Female | 1 | FPDC=F |
| 24. | Quick Disconnect - Male | 1 | FPDC=M |
| 25. | Duramax Oil Fill Cap w/O-Ring | 1 | FPFC=DMX |

Note: Be sure to use thread sealer at all connections. This is most important for connections with dissimilar metals (i.e. brass to aluminum).

B. INSTALLATION INSTRUCTIONS

1. Locate a good mounting point for the filter. Mount the filter in a place that the hoses will be easy to reach and will not kink. You need enough room to easily separate the canister from the base to replace the filter media. Your kit comes with (3) screws (FSCR) that attach the mounting bracket (KMOU) to the surface you choose. The filter base (KBAS) will attach to the bracket with the (2) Nut, bolt, and lock washer combos (FWBN) found in your hardware bag.
2. Remove your OE spin on filter.
3. Match up your adaptor ring (FLAD) where the filter came off; there is no need to lubricate the gasket on the bottom of the adaptor. The adaptor nut packaged with the ring will fit in the center hole of the adaptor and screw onto the existing port's threads. Tighten to snug, but not overly tight.
4. Screw bushing (FBUS14) into the adaptor ring, and screw your hose fitting (FMAL) into the bushing. This will be the pressure feed for your Frantz Oil Filter.
5. Your kit includes a replacement aluminum oil fill cap with a port already in it (FPFC-DMX) Replace OE cap with Frantz cap, but do not throw away OE cap.
6. Insert male end of quick disconnect into the 90 or 45 degree fitting screwed in the top of the cap. Screw hose fitting (FMAL) into the female end of the quick disconnect. This will be your oil return line.
7. Cut hose (FHOS) to length, and route. Be sure to not run

hoses close the fan blade, or touching any hot exhaust parts. Use zip ties to secure if necessary – not included.

8. The pressure feed line will hook up to the fitting on the center of the filter base bottom labeled “IN,” and the return line will hook up to the fitting on the edge of the filter base labeled “OUT”. Insert fittings (FMAL) into “In” and “Out” ports on the base. Slip hose clamps (FOET) over hose leading from pressure feed; push hose onto “In” fitting. Slip hose clamp over hose leading from oil return and push hose onto “Out” fitting. Tighten clamps.
9. Attach hose to adapter ring fitting using hose clamp. Attach hose to hose fitting on quick disconnect (FQDC) using clamp (FOET).
10. Start engine and run to operating temperature. Shut engine off, check and retighten all fittings.

Note: Upon installation, additional oil may be required. Let your engine run for approximately one minute after installation. This allows your new Frantz Filter to begin absorbing oil in the media and hoses. After one minute, remove your oil dipstick and add accordingly.

C. START UP PROCEDURES

1. Check that all fittings and hoses are securely attached, and that the hoses are routed properly.
2. Check engine oil level. Fill to full mark on engine dipstick.
3. With the equipment secured start the engine and immediately check oil pressure. NOTE: Pressure may initially take a moment or two to rise.

Caution: carefully check for leaks at fittings, hoses and mount. If leaks are observed, **STOP ENGINE IMMEDIATELY**, repair leaks and continue.

4. After engine has warmed, shut off and re-check engine oil level. Fill as necessary.
5. Record vehicle mileage/operating hours and date of installation.

D. PERIODIC MAINTENANCE

1. During the warranty period, annually inspect the fittings and hoses. Check for leaks, hose deterioration and cuts. Repair and/or replace as necessary. See **WARRANTY** for complete information.
2. Refer to recommended filter change intervals for servicing intervals.

E. CHANGING THE FILTER ELEMENT

Caution: Engine should be cold when changing the filter element.

To change the bypass filter element:

1. Ensure the engine is off and use caution as the engine, oil and filter may be hot and can result in personal injury. (Let engine cool down, or start with cold engine.)
2. Loosen the black knob on the clamp and remove the clamp from the unit.
3. Pull filter housing off the filter base.
4. Grab pull ring to remove old filter from the canister, dispose of properly.
5. Clean out the Canister with a lint free rag and inspect filter base gasket, replace if any cuts or imperfections are found. Make sure gasket is sitting correctly in the receiver groove and coat with clean motor oil.
6. Install the new filter media with pull ring in the filter. Install canister back on filter base.
7. Start the engine and check for leaks.
8. Check oil level and refill as needed.
9. Record date of installation and miles/hours of the unit.

THE FRANTZ WARRANTY AND GUARANTEE

The Frantz Warranty

Frantz will replace any part or component that proves defective within 90 days. It will be replaced free of charge (no cost for labor) within that period.

NOTE: If an oil line fails, or an oil leak develops in the Frantz (either through failure of a part, sabotage, or faulty servicing of the unit), and the engine loses its oil supply, Frantz disclaims any responsibility for damage to the engine should it be operated without proper lubrication.

Every vehicle has either a pressure gauge or warning light to indicate that oil pressure is not sufficient to lubricate the engine. When this occurs, it is the responsibility of the driver to stop the vehicle, investigate the problem, and take whatever remedial action is necessary.

The Frantz Guarantee

Frantz unconditionally states that if the Frantz has been installed and serviced in accordance with the manufacturer's instructions, the filter will keep the oil in your vehicle analytically clean. If it fails to do so, the purchase price of the unit will be refunded by the manufacturer, provided the filter, all parts and the original sales receipt are returned to Frantz within 90 days of the original installation.