Installation Manual P/N MK-109852-BLK (non-heated, FS1001 Filter) P/N MK-109852-BLKH (heated, FS1001 Filter)



# 1998.5-2002 DODGE CUMMINS MK-10 High Flow Fuel Filter Kit

**Installation Instructions** 

P/N MK-109852-BLK (non-heated) P/N MK-109852-BLKH (heated)

GDP MK-10 High Flow Fuel Filter Kit Installation

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

# **Safety Guidelines!**

**WARNING!** Always secure the vehicle from rolling.

**WARNING!** Always disconnect vehicle batteries before working on electrical components.

**WARNING!** Always wear safety glasses when operating power tools such as drills and

grinders or using punches and chisels.

**WARNING!** Always properly secure fuel lines and wiring to prevent chaffing.

**WARNING!** Always have a fire extinguisher available when working with fuel systems.

## **PLEASE WORK SAFELY!**

# MK-10 High Flow Fuel Filter Kit Contents



#### **Qty** Item Description

1	GDP Cylinder Head Mounting Bracket
1	Red Backing Plate
1	Fleetguard Filter Head
1	FS1001 - 10 Micron F/W Separator
1*	Fuel Heater Kit
4	3/8" Mounting Bolts and Lock Washers
2	M8-1.25 x 30 MM Plated Filter Mounting Bolts
2	90° FJIC x 3/8" PushLok Fittings
1	45° FJIC x 3/8" PushLok Fitting
2	1/2" MPT x MJIC Adapters
1	GDP Stainless Metric to MJIC Adapters
1	Cummins Sealing Washer
1	GDP Aluminum Sender Tee
2	3/8" Hose Clamps
1	5' Section 3/8" Parker PushLok Hose

<sup>\*</sup> Optional Item

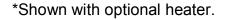
Please check your parts inventory against the above parts list before beginning your installation.

### Preparation

- 1) Secure vehicle from rolling.
- 2) Disconnect both batteries.
- 3) Raise vehicle and support safely if needed.
- 4) <u>Drain fuel filter housing into an approved container via the water/fuel separator.</u>
- 5) Disconnect the electrical connectors for the stock WIF (water in fuel) sensor and fuel heater located on the front of the stock fuel filter housing.
- 6) Remove the entire supply line assembly from the stock filter housing to the injection pump inlet.
- 7) Disconnect the feed line to the stock filter housing.
- 8) Remove the two bolts that mount the stock filter housing to the cylinder head and remove the entire housing.

# MK-10 High Flow Fuel Filter Installation

9) Attach the filter head and backing plate to the mounting bracket using the supplied bolts and lock washers and tighten. Make sure that the flow direction arrows on the filter head will be facing forward when the head and bracket are installed on the truck.



- 10) Install the 1/2" MPT to MJIC adapters in the filter head and tighten. We strongly recommend the use of a thread sealer on the adapter to filter head threads to avoid minor leakage.
- 11) Install the new head and bracket assembly in the stock location using the supplied metric bolts and tighten.
- 12) For the following steps you will be using PushLok hose fittings. To make these fittings easier to assemble heat the hose end with a heat gun or place the hose end in a cup of near boiling water. Apply a single drop of light oil such as motor oil



or transmission fluid to the barbed end of the fittings. These two steps will make the hose <u>much</u> easier to push over the fitting barbs.

## Lift Pump to Filter Canister Line Installation

13) **Aftermarket lift pumps:** Depending on the inlet fitting option you ordered with your kit you can now make the filter inlet connection. When complete, proceed to step 18.

Stock Lift Pumps: For stock lift pumps on the block proceed to step 14.

- 14) Remove the banjo bolts from the fuel pump to fuel filter canister line. Remove the stock supply line from the truck.
- 15) Install one stainless metric to JIC adapter in the fuel pump outlet and tighten.
- 16) Install one of the 90° PushLok fittings in the end of the supplied hose and loosely attach this fitting to the adapter in the fuel pump outlet. Loosely install another 90° PushLok fitting on the adapter at the fuel filter inlet. Route the hose in a loose arc from the fuel pump outlet up to the 90° PushLok installed at the filter inlet. Cut the hose to length by measuring against the yellow stop collar.
- 17) Remove the hose and fittings from the vehicle for final assembly. Install the 90° PushLok fitting in the end of the new pump to filter supply line making sure to fully seat the hose. Don't worry about the fitting orientation at this point. The fittings can be rotated in the hose after they are seated. Install the new supply line and tighten both fittings.

## Big Line Kit Installation

- 18) Install the supplied metric adapter in the injection pump inlet using the sealing washer. Snug the adapter. There is no need to over-tighten.
- 19) Install 45° PushLok fitting in the supplied hose making sure that it is fully seated. Loosely connect this fitting to the adapter at the front of the MK-10 filter head.
- 20) Loosely install a 90° PushLok fitting on the adapter at injection pump inlet to measure for hose length. Measure the new hose coming from the MK-10 Filter outlet and cut to length. Remove the 90° PushLok fitting and install in the end of the new line.
- 21) Reattach the 90° fitting to the inlet of the injection pump and tighten. Tighten the 45° PushLok fitting at the MK-10 outlet.

- 22) **Heater Option:** If you have purchased the heated version of the MK-10 you can now plug the heater into the factory harness.
- 23) Install the supplied FS1001filter and tighten.
- 24) Secure all hoses.
- 25) For fast priming we recommend disconnecting the line from the injector pump inlet and placing it in a catch container. Bump the starter but do not allow the vehicle to start. Wait 20 seconds or until you see fuel in the container. If no fuel is present repeat this step until remaining air is purged from the system. Once fuel is present, reconnect the line to the injection pump inlet and tighten.
- 26) Start the engine and verify fuel pressure.
- 27) Check all connections for leaks and make sure all hoses are clear of moving parts.
- 28) Test drive the vehicle.

The supplied aluminum pressure tee can be placed anywhere in the new fuel lines that offers easy sender access.



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