

Installation Manual
P/N M35-001-FHDK



M35A2 Multifuel Flame Heater **Delete Kit**

P/N M35-001-FHDK

RTT Single Filter Kit Installation Manual

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!

Multifuel Flame Heater Delete Kit Contents



<u>Qty</u>	<u>Item Description</u>
1	Flame Heater Nozzle Plug
1	Flame Heater Igniter Plug
1	1/4" Compression Plug
1	1/4" Air Brake Tubing (per foot)
2	Compression Nut/Sleeve Combo Fitting
2	1/4" Brass Tubing Insert
1	Loctite 242 .5ML Capsule

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 hood and secure using safety rod.
- 4) Prepare fuel catch container.

Multifuel Flame Heater Delete Kit Installation

- 5) Begin by removing the flame heater control cover. (Figure 1)
- 6) This will expose the ignition coil and fuel pump. (Figure 2)
- 7) Disconnect the electrical connector. (Center of photo in Figure 3)



Figure 1



Figure 2



Figure 3

- 8) Disconnect the fuel feed line. (Figure 4)
- 9) Trace this line back to the driver side of the engine and remove the line clamp at the back of the oil cooler. Reinstall the mounting bolt in the cooler housing and retighten. (Center of the photo in Figure 5)
- 10) Follow this line down to the lower side of the engine block. Remove the bolt holding the fuel filter and fuel injection pump feed line. Pull the fuel filter out of the way and reattach the clamp holding the fuel line using the original bolt. (Figure 6)



Figure 4



Figure 5

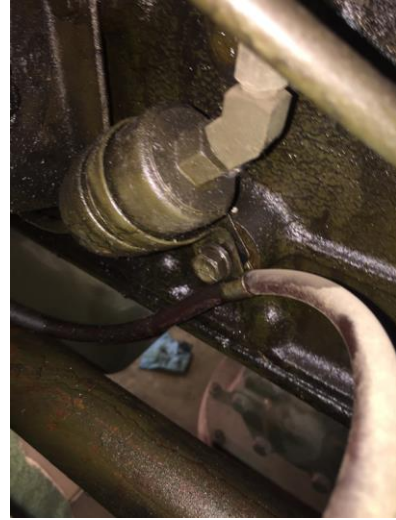


Figure 6

- 11) Follow the line forward to the front lower section of the injection pump. Place a rag under the fitting to catch any spilled fuel. Disconnect the line and remove the entire fuel line and filter assembly. (Figure 7)
- 12) Install the supplied 1/4" compression plug and tighten. No sealant is required for this plug. (Figure 8)
- 13) Back on the top side of the engine locate the return line tee at the injectors. (Center of Figure 9). Remove the tee and the line that runs between the rocker covers and over to the flame heater nozzle. If you are preserving the original lines disconnect at the nozzle. If not these plastic line can simply be cut at the nozzle end.



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12

- 14) We supply 12" of return line. That should give you enough to make a second line if you make a mistake on the first try. Cut a 5-3/4" section and start test fitting the line. Trim small amounts from the ends until you get the line to fit between the return line fittings with slight to no pressure. (Figure 10)

Installation Note: Inside of the return line fittings on the top of the injectors there is a stepped lip around the center hole. When test fitting the line you **must** make sure that the line drops into the center hole of the fitting. If the line is resting on the internal lip it will give you a false length and the completed line will be too short.

- 15) Lay out the parts to assemble the line (Figure 11). To prepare the line for installation slide a compression nut/ferrule fitting on each end of the cut tubing and install an anti-crush brass insert in each end of the tube. (Figure 12)



Figure 13



Figure 14

- 16) Insert the line between the return line fittings (Figure 13). Make sure that the line is inside of the center cavity of the fitting and not caught on the internal lip.
- 17) Tighten the compression nuts. The return line is now complete. (Figure 14)
- 18) Move to the other side of the engine. To prepare for this portion of the installation you will need to remove the road draft tube for clearance. (Figure 15)
- 19) Disconnect the vent line at the back of the road draft tube. (Figure 16)
- 20) Remove the tube support bolt from the lower outside of the turbo. This bolt can be reached with a ratchet from the top side of the engine bay or from below. Whatever you prefer. (Center of photo Figure 17)



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20

- 21) Disconnect the ignition wire from the spark plug by loosening the nut at the top of the plug and pulling the ignition wire free. Now the spark plug assembly can be removed from the intake elbow. (Figure 18)
- 22) You can now eliminate the entire ignition and fuel pump assembly from the top of the engine by removing the 3 mounting bolts and lifting the entire unit out of the engine bay. (Figure 19)
- 23) Disconnect the lines at the fuel nozzle (Figure 20). If you are not saving the stock lines these can simply be cut.
- 24) Remove the fuel nozzle by loosening the jam nut and unthreading the nozzle from the intake elbow.
- 25) You will be left with a clean intake elbow as shown. (Figure 21) You are now ready to complete the installation.



Figure 21



Figure 22



Figure 23

- 26) Apply a small amount of the supplied Loctite 242 to the smaller stainless plug with the shoulder. This plug will be used in the spark plug hole. Install the plug and tighten. (Figure 22)
- 27) Do the same to the larger plug without the shoulder. This plug replaces the flame heater nozzle. Loctite, install, and tighten. The completed installation is shown above. (Figure 23)
- 28) Reinstall the road draft tube and the vent line going to the back of the tube.

Finishing Up

- 29) Reconnect the batteries.
- 30) Do your safety walk around.
- 31) Start the engine.
- 32) Check all new connections for leaks.
- 33) Test drive the vehicle.

Thank you for your purchase. Enjoy the piece of mind that comes from knowing you've eliminated a known trouble area on your truck. One more thing off the list.

If you have any questions please don't hesitate to contact us for technical support.

Richard Martin

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