

INJECT-A-FLUSH® FOR DIESELS

OPERATING INSTRUCTIONS

For PN 9700-550 and PN 9700-650

BG Diesel Injection Service requires the BG Inject-A-Flush® for Diesels, adaptors to make connection to the vehicle's fuel system and BG Diesel Care Injection Cleaner, PN 229.

Safety Information

- Wear safety glasses or goggles when operating.
- Keep fire extinguisher handy.
- Do not smoke or have ignition source near this tool.
- Read and understand the Safety Data Sheets on products associated with this service.
- Use in a well ventilated area and clean up spills immediately.
- Keep service hoses away from hot and/or moving engine parts.
- Use only BG Diesel Care, PN 229, with this system.

Set-Up Note: BG Inject-A-Flush® for Diesels must be filled to minimum fluid level mark with BG Diesel Care.

Step 1 Disconnect hoses, remove the bottom or top assembly, depending on model, and install new 1.2” 5-Micron Filter, PN 9700-020. Replace filter after each use.

Step 2 Start engine, bring to full operating temperature and then shut off.

Step 3 Hang the BG Inject-A-Flush® for Diesels, from a convenient location above the level of the engine's fuel filter if possible. Connect hoses to tool ports—red to red and black to black. Close ball valve on supply hose (red hose) and remove the top assembly. Add BG Diesel Care, PN 229. This is a complete fuel and cleaner blend, **do not dilute!**

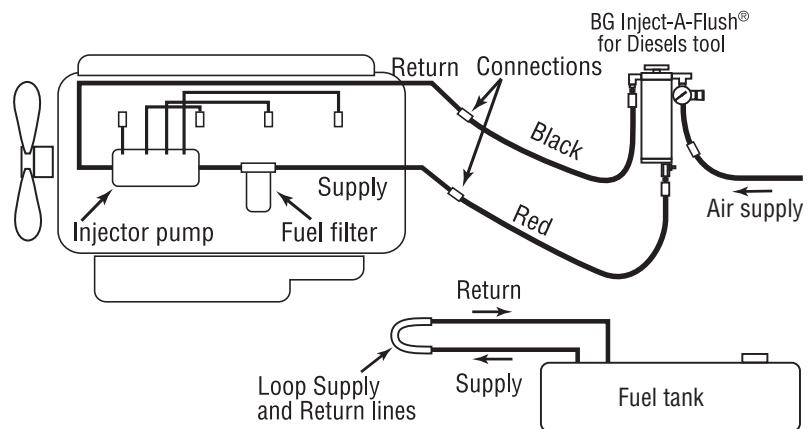
Step 4 Disconnect the engine's fuel system **fuel supply line** at a convenient point between the vehicle fuel tank and the primary filter. If possible, pinch off supply line near connection to prevent fluid loss. Avoid making connection between the filter and the injector pump to prevent air locks in the system.

Connect the appropriate adaptor to the **engine side of the fuel supply line** and connect the other end of the adaptor to the **red hose** from the tool.

Step 5 Disconnect the **fuel return line** at any accessible location and connect the engine end to the **black hose** on the tool using the appropriate adaptor.

Step 6 Use adaptors to connect or loop the ends of the supply and return lines that run back to the vehicle's fuel tank. Often there will be a pump in the tank or in the supply line that will pump fuel out on the ground if the hoses are not looped or the pump is shut off.

Step 7 **Open ball valve** on red supply hose and make sure **vent is open**. Wait 30 seconds for the cleaner to



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fill the hose. Start the engine. In almost every instance the engine will start and run easily without pressurizing the canister.

If the engine fails to start:

Close the vent on top of canister and the ball valve on the red hose. Back out knob on the regulator and attach shop air. Adjust regulator to 10–15 PSI. Once the canister is pressurized, remove the air supply. Open the ball valve on the red hose and start the engine. When the engine starts, **immediately open the vent** on the canister to relieve any remaining pressure and allow gravity flow to resume.

Note: The BG Inject-A-Flush® for Diesels tool may be pressurized at any air source and then transported to the vehicle being serviced allowing service to be performed outside of the shop.

- Step 8** Run the engine at 1200 RPM until the BG Diesel Care has been consumed down to the “Minimum Fluid Level” mark. Shut off engine and then the ball valve on the tool in that order to prevent a vacuum from forming in the vehicle’s fuel supply line. A safety margin of fluid has been calculated into the BG Inject-A-Flush® for Diesels tool to prevent air from being ingested into the engine’s fuel system. After initial fill, several ounces of cleaner will always remain in the canister.
- Step 9** Remove BG Inject-A-Flush® for Diesels service hoses and adaptors. Reconnect fuel lines taking care to prevent supply hose from draining during disconnect. Use pinch-off clamps on soft lines to help keep them from draining.
- Step 10** Always replace fuel filter after BG Diesel Injection Service. Restart engine and check for leaks. If engine has difficulty restarting, follow vehicle manufacturer’s procedure for purging after a fuel filter change.

BG Diesel Injection Service on '98 and newer Ford Power Stroke® Engines

1998 and newer Ford Power Stroke® engines do not have a conventional central injector pump, instead each injector is a pump. The injectors are fed with a conventional-type electric fuel pump building pressure of 80–90 PSI. On the models we have seen, the fuel pump is located along the frame rail under the front edge of the driver’s door.

On these vehicles, hook up the BG Inject-A-Flush® for Diesels, as follows: Connect the red supply hose from the BG Inject-A-Flush® for Diesels to the inlet on the electric fuel pump (the adaptor set includes appropriate fittings). Connect the black return line from the BG Inject-A-Flush® for Diesels at the junction of the engine return line by the firewall. You don’t need to loop the tank in this hook up.

The BG Inject-A-Flush® for Diesels will be used in the vented gravity feed mode and the fuel pump will draw cleaner out of the the tank. If you try to use the BG Inject-A-Flush® for Diesels as a gravity feed tool and do not go through the fuel pump, the engine may or may not run. If it does run, you will have no circulation through the BG Inject-A-Flush® for Diesels and no injector cooling. The cleaner **will not** reach the injectors until tank is empty. If you pressurize the BG Inject-A-Flush® for Diesels, the engine will run but still have no circulation and the same problems exist.

There are probably other similar systems out there with which this arrangement will work.

