

EFI PLUMBING

NOTE:
Check out your electrical system to be sure it will support the ampere draw of two pumps, EFI management system, ignition, radio, cooling fan(s), etc.

PLUMBING OF EFI SYSTEM WITH 2- ELECTRIC FUEL PUMPS AND 2 - PRESSURE RELIEF VALVES

PLUMBING TWO ELECTRIC FUEL PUMPS:

Should the fuel demand require two fuel pumps it is best to plumb them per Fig. 24.0. Pump #1 will start and run the engine under light load conditions. You will need to wire in a separate switch to activate each pump — *Don't Forget to Turn the Second Pump 'ON'* when operating at higher demands. The check valve is so when Pump #1 is running and #2 isn't, fuel will not back flow through #2 back into the fuel tank.

BACKUP PUMP: if you are installing a second fuel pump as an auxiliary. You will need to install a check valve on the outlet of both fuel pumps, so no matter which pump is 'ON' it will not backflow through the other.

PUMP INTERNAL CHECK VALVES: some pumps have an internal check valve/ball. We have experienced some internal check valve "sticking" on systems operating in excess of 50 PSI. It may be necessary to remove the internal check valve and install an external valve that can handle the pressure loads without sticking, CHECK VALVES, see Page 81-M.

PLUMBING TWO PRESSURE RELIEF VALVES:

We recommend installing two pressure relief valves on any system utilizing a electric pump(s) where the pump output exceeds approximately 1000 lbs/hr. Using two pressure relief valves allows additional volume to be dumped off and maintain good pressure sensitivity, if only one pressure relief valve were installed there would be excessive pressure rise in the system at low fuel demand conditions.

MECHANICAL INJECTION PUMP WITH ELECTRIC "STARTING" FUEL PUMP SYSTEM:

This type of supply system can provide large amounts of volume at high rail pressures for high horsepower applications and alternate fuels, such as ethanol, methanol, and nitro combinations. It eliminates the high amperage draw associated with large or multiple electric pump installations. The electric pump is used to start the engine. Once the engine is started and at sufficient RPM, the mechanical pump will supply fuel. Sometimes the electric pump can be eliminated.

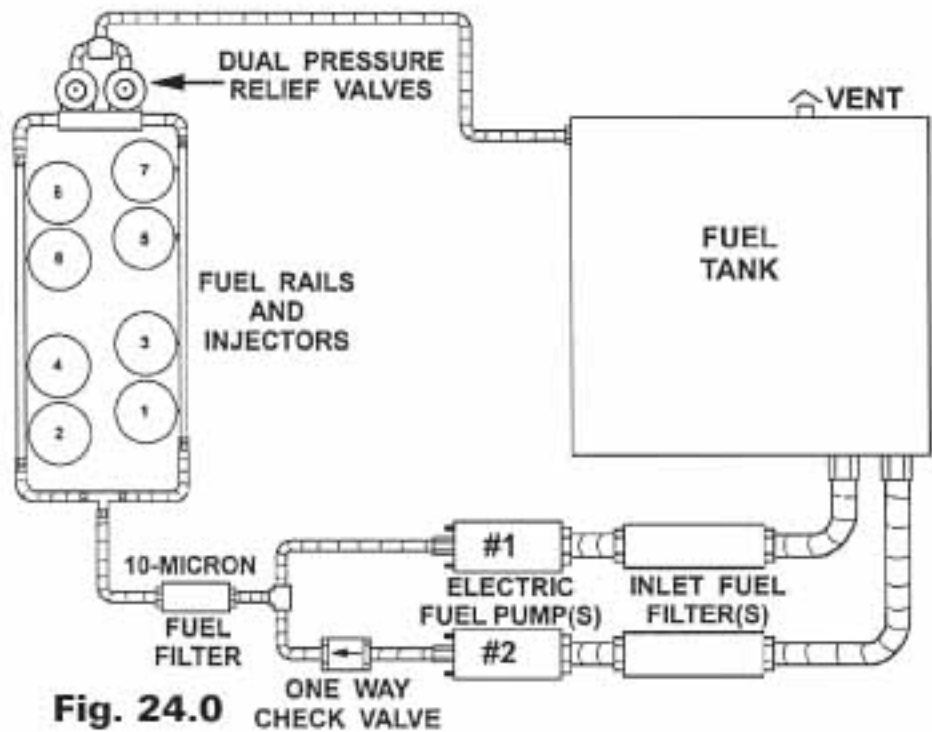


Fig. 24.0 ONE WAY CHECK VALVE



© 2002

72-M Kinsler Fuel Injection, Inc. 1834 THUNDERBIRD TROY, MICHIGAN 48064 U.S.A. Phone (248) 362-1145 Fax (248) 362-1032