

OPERATION

The fuel delivery sub-system consists of a high-pressure in-tank mounted electric fuel pump and a fuel filter / reservoir.

A constant fuel pressure drop is maintained across the injector nozzles by a fuel pressure regulator (9C968). The fuel pressure regulator is connected in series with the fuel injector and is positioned downstream from them. Excess fuel supplied by the pump, but not required by the engine, passes through the fuel pressure regulator and returns to the fuel tank through a fuel return line.

The EEC-IV engine control system also provides fuel compensation for the age of the vehicle and its engine. The system will automatically control fuel pressure for changes in altitude (i.e., from sea level to mountain).

Altitude	Pressure
Sea Level	30.0 psi
1000 ft	29.5 psi
2000 ft	29.0 psi
3000 ft	28.5 psi
4000 ft	28.0 psi
5000 ft	27.5 psi
6000 ft	27.0 psi
7000 ft	26.5 psi
8000 ft	26.0 psi
9000 ft	25.5 psi
10000 ft	25.0 psi

All engine use a closed type positive crankcase ventilation (PCV) system and an exhaust gas recirculation (EGR) system to control engine emissions within government specifications.

To maintain the required exhaust emission levels, the monitoring system must be kept in good operating condition and adjusted to specifications listed in the applicable repair or the Powertrain Control/Emissions Diagnosis Manual, the applicable section of this Group, or on the Vehicle Emission Control Manual (VECM) label.

A diesel engine performance check is required to keep the exhaust emissions at the specified minimum level. Refer to the Emission Manual, Section 00-02, for the performance check and adjustment procedure.

Always refer to the Maintenance Label for parts usage and replacement before replacing a throttle body (throttle) component out of a throttle body and always replace a throttle body before replacing a throttle body.

The "Fuel Filter" label, normally, will appear on the instrument cluster. On the fuel filter opening near the fuel filter opening.

Each fuel injector is energized once every other crankshaft revolution in sequence with engine firing order. The period of time that the fuel injectors are energized (injector "on time" or pulse width) is controlled by vehicle's powertrain control module (PCM). Air entering the engine is monitored by speed, pressure and temperature sensors. The outputs of these sensors are processed by the powertrain control module (PCM). The powertrain control module (PCM) determines the needed injector pulse width and outputs a command to the fuel injector to meter the exact quantity of fuel.

The multiport fuel injection (MPI) system is described as a multi-point, carburetorless, direct injection fuel injection system. Fuel is metered into the fuel injectors in a sequential order. The fuel pressure is maintained in a sequential order. The fuel pressure is maintained in a sequential order.

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WARNING: DO NOT SMOKE, EAT, DRINK, OR USE TOBACCO OR OPEN FLAME OF ANYTYPE WHEN WORKING ON OR NEAR ANY FUEL-BELIEVED COMPONENT HIGHLY FLAMMABLE MIXTURES ARE ALWAYS PRESENT AND MAY BE IGNITED. RECALL IN POSSIBLE PERSONAL INJURY.

An on-board vehicle powertrain control module (PCM) receives inputs from various engine sensors to compute the required fuel flow rate necessary to maintain a specified air/fuel ratio throughout the engine operating range. The PCM then outputs a command to the fuel injectors to meter the appropriate quantity of fuel.

The base part number of the fuel metering assembly is 9C968. The base part number on 3.8L engines is located on the base near the throttle position sensor (TPS).

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