1971-72 CHEVROLET VEGA ELECTRIC FUEL PUMP

Chevrolet Vega (1971-72)

DESCRIPTION

1) Pump is located in fuel tank, and is an integral part of the tank unit assembly, which includes the fuel gauge metering unit. Both metering unit and pump are positioned and supported by the fuel tube of the tank unit. *NOTE — Pump is a sealed unit and cannot be disassembled for repair.*

2) A single pole, double throw control switch is located near the oil filter and actuated by engine oil pressure. At approximately 2 psi, one electrical circuit is broken and another circuit established. Three fixed connections are provided on switch to make contact with a matching three terminal wiring connector.

OPERATION

Pump is energized when ignition switch is in the start (cranking) position. After engine starts, pump receives current through oil pressure switch as long as there is approximately 2 psi of oil pressure. If, for any reason, oil pressure drops below 2 psi, contact is broken at the pressure switch and pump is deactiviated. *NOTE — Two fuses are involved in fuel pump operation: One fuse is located in the upper left cavity of the fuse block, and the other fuse in the lower right cavity.*

TESTING & TROUBLE SHOOTING

FUEL FILTER CHECK

If engine appears to be starving for fuel, the cause is more likely to be a plugged fuel filter or a restricted fuel line than a defective fuel pump. Check carburetor inlet filter. If inlet filter is OK, make fuel pump pressure and volume tests as outlined below. If tests indicate fuel pump is operating properly, an ignition system defect should be suspected.

PRESSURE TEST

Disconnect fuel hose from steel pipe at rear of camshaft cover and install suitable pressure gauge. With engine idling, fuel pump pressure should be 3-4 psi at 12.6 volts (minium). If fuel pump pressure is low, check voltage at the fuel tank connector. If voltage is 12 volts or more, ground connection clean and tight, and fuel level in tank is sufficient for test, fuel pump is defective.

VOLUME TEST

If fuel pump pressure was found to be correct, make a fuel flow test by inserting fuel hose in a suitable container. With engine idling, a pint of fuel should be obtained in 45 seconds or less. If only fuel flow is low (pressure OK), remove rubber hose from tank unit tube and repeat flow check. If flow is still low and fuel level in tank is sufficient for test, replace pump. If fuel flow from tank unit tube is OK, check for a dented, pinched or kinked fuel line.

OIL PRESSURE SWITCH & WIRING CHECK

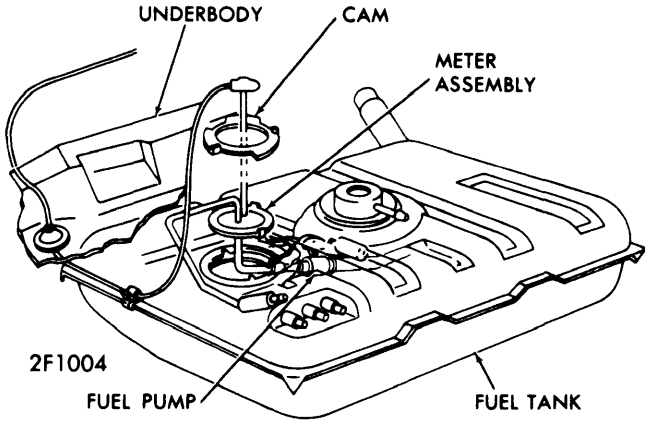
NOTE — Before checking switch or wiring, inspect the two fuses (in upper left or lower right cavities of fuse block), which protect the fuel pump electrical circuits. If either fuse is blown and continues to blow when replaced, a short circuit exists in the system. This condition must be corrected before proceeding further.

1) Turn ignition switch on (engine not running, transmission in neutral or park), and remove connector from oil pressure switch. Place a jumper wire between the "pink" and "dark blue" wire terminals (parallel openings). If pump runs, the oil pressure switch is defective. *NOTE — Listen at the open fuel filler neck to determine whether or not pump is running.*

2) If fuel pump does not run, remove jumper wire from connector and place a test lamp between the "pink" wire terminal and ground. If lamp lights, check the "dark blue" wiring and related circuits. If lamp does not light, check the "pink" wiring and related circuits.

REMOVAL & INSTALLATION

Removal — Disconnect battery negative cable, then disconnect meter and pump wires at rear wiring harness connector. Raise vehicle and drain fuel tank. Disconnect fuel line hose at gauge unit pickup line. Disconnect tank vent lines to vapor separator, then remove gauge ground wire screw. Remove tank strap bolts and lower tank carefully. Unscrew retaining cam ring, using a suitable spanner wrench (J-22554), and remove fuel pump-tank assembly.



CHEVROLET VEGA FUEL PUMP INSTALLATION

Replacement — Remove flat wire conductor from plastic clip on fuel tube. Squeeze clamp and pull straight back (1/2 inch). Remove two nuts, lock washers, and conductor wires from pump terminals. Squeeze clamp and pull pump straight back to remove it from tank unit (do not bend circular support bracket). Slide replacement pump through circular support bracket until it rests against rubber coupling (be sure pump has rubber isolator and saran strainer attached). Attach two conductor wires to pump terminals. *CAUTION — Make certain flat conductor is attached to terminal located on side away from float arm.* Squeeze clamp and push pump into rubber coupling. Replace flat wire conductor in plastic clip on fuel pickup tube.

Installation — Reverse removal procedure.

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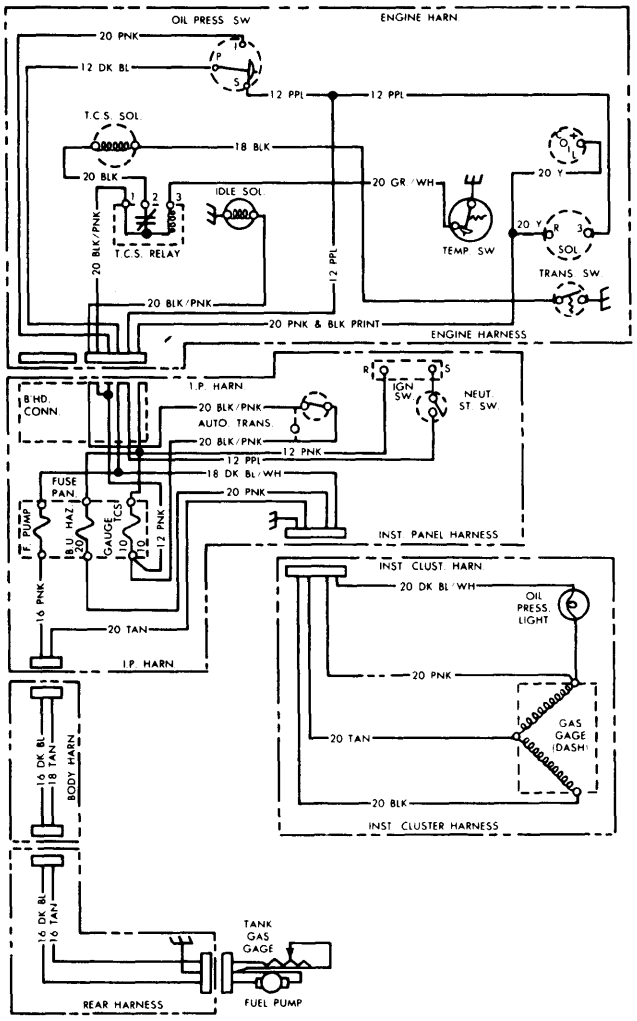
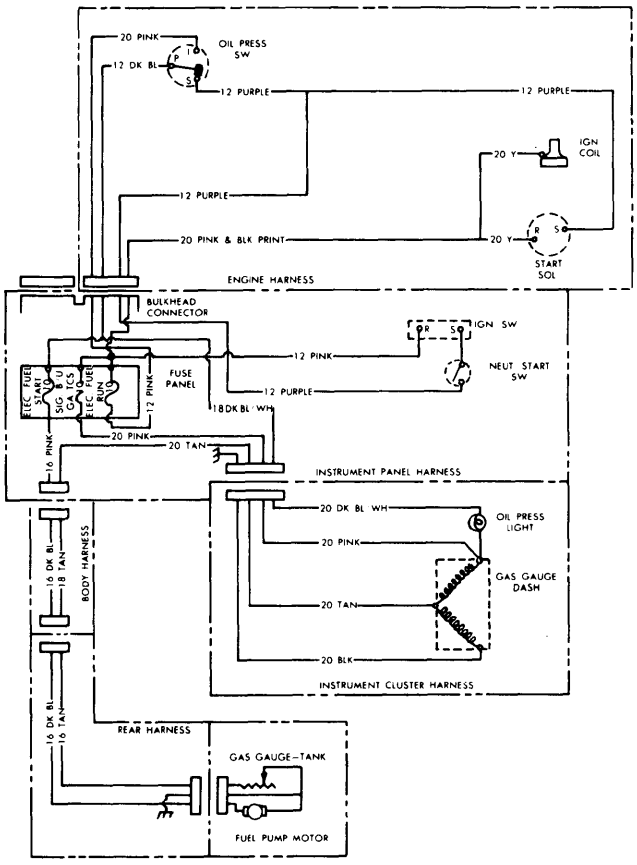


Identify circuit by fuse block. Upper left fuse cavity marked "ELEC" and "FUEL START". Lower right fuse cavity marked "GAUGES" and "TCS".



Identify circuit by fuse block. Upper left fuse cavity marked "ELEC" and "FUEL START". Lower right fuse cavity marked "ELEC. FUEL RUN".

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CHEVROLET VEGA ELECTRIC FUEL PUMP CIRCUITS