

FUEL EVAPORATION SYSTEM

1986 Isuzu Trooper II

1986 Fuel Evaporation Systems
ISUZU

DESCRIPTION

GASOLINE MODELS

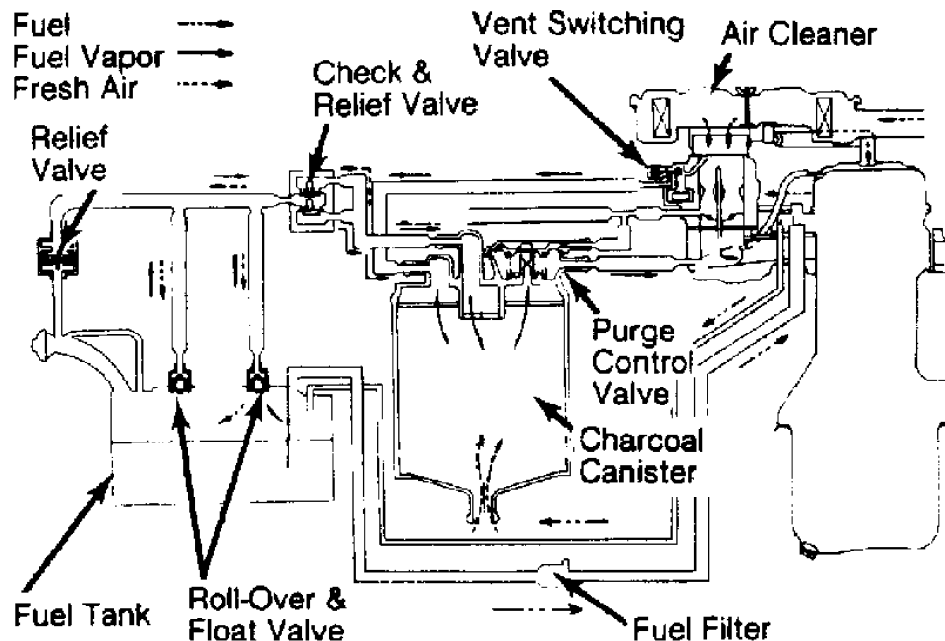
System is designed to route fuel vapor from fuel tank and carburetor into carbon canister where they are stored until intake vacuum draws vapor into combustion chambers for burning.

Components include a sealed filler cap, check and relief valve, charcoal canister and purge control valve, solenoid operated vent switching valve (carbureted engines), relief valve, roll-over and float valve, and connecting lines and hoses.

The roll-over and float valve and relief valves are used to prevent fuel leakage and excessive pressure inside fuel tank in the event of a vehicle roll over. These valves are not relevant to fuel evaporation system.

OPERATION

When engine is not running, fuel vapor from tank vents through check and relief valve, or depending on model, into charcoal canister. On carbureted models, the vent switching valve opens to allow carburetor vapor to vent to charcoal canister. Purge control valve is closed when engine is not running.

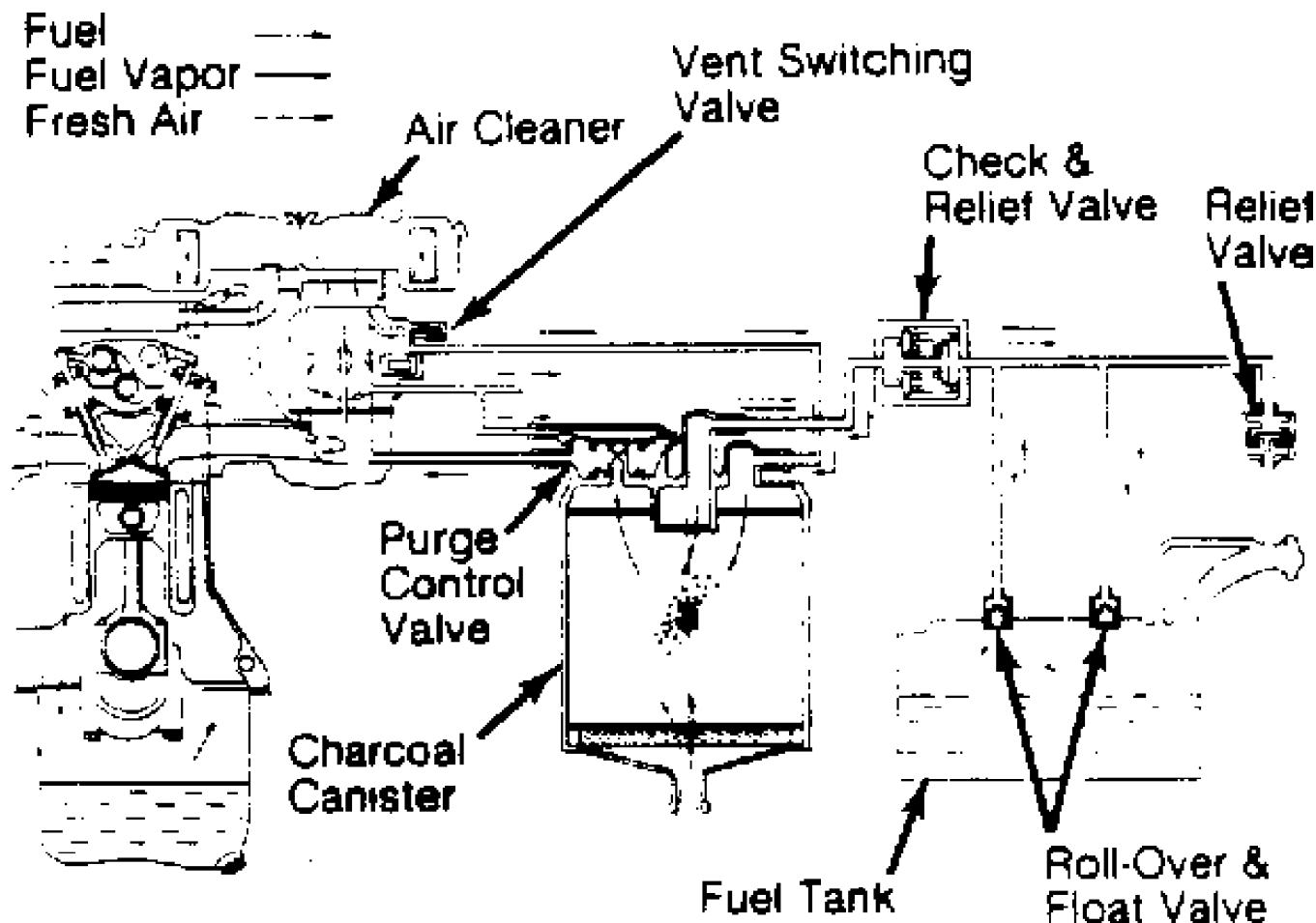


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Fig. 1: P'UP 1.9L Fuel Evaporation System

When engine is running, vent switching valve closes by solenoid action (if equipped). Any vacuum in fuel tank exceeding

.2-.6 in. Hg will open relief side of check and relief valve to atmosphere. Purge control valve opens on vacuum signal from distributor advance mechanism and allows canister vapor to be drawn into intake manifold.



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Fig. 2: P'UP & Trooper II 2.3L Fuel Evaporation System

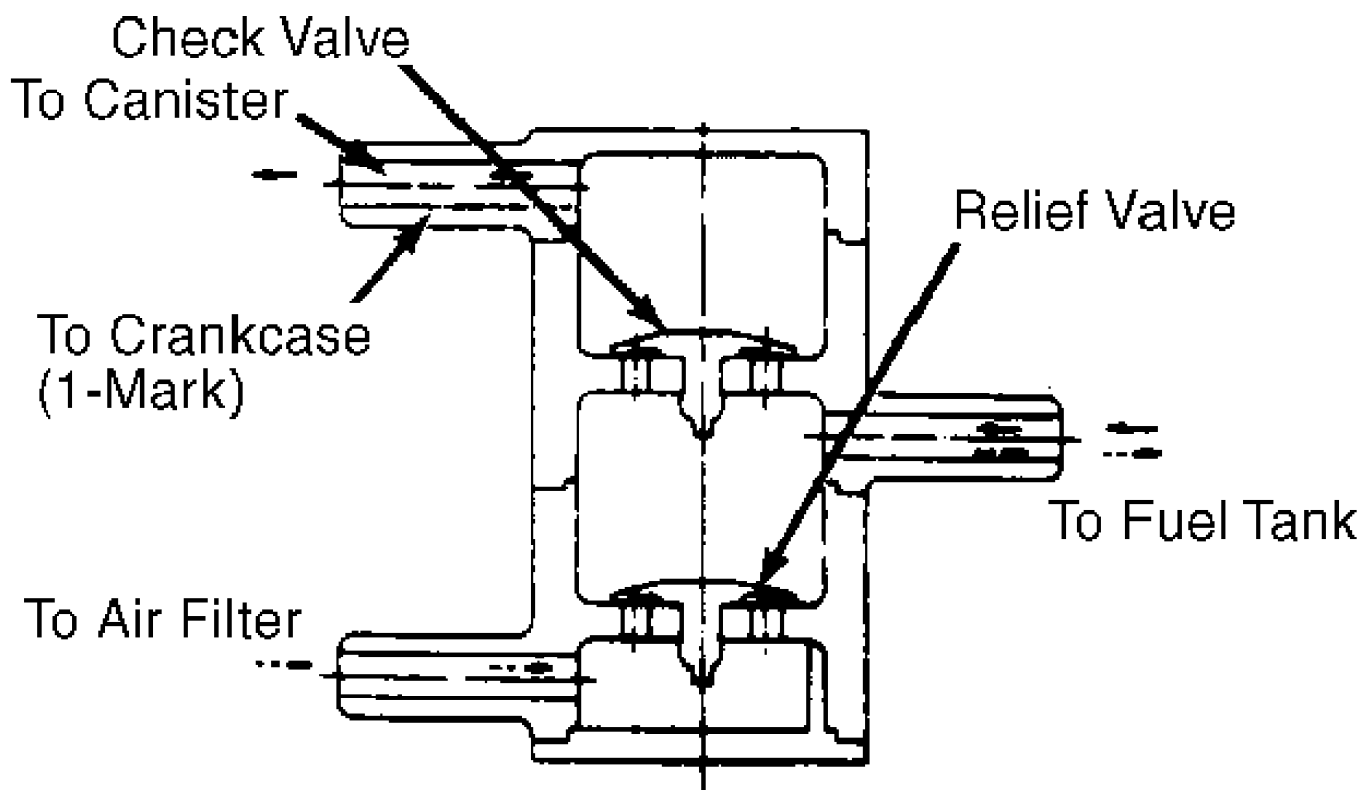
TESTING

CHECK & RELIEF VALVE

1) On 1.9L engine, remove check and relief valve and blow air into valve's fuel tank port. Check that air flows out of canister port and not out air filter port. See Fig. 3.

2) Blow air into canister port and check that air flow is blocked. Blow air into air filter port and check that air flows out of fuel tank port and not out of canister port. Replace valve if it does not operate as outlined.

3) On 2.3L engine, remove check and relief valve and blow into valve. Air should pass from fuel tank port to canister port only. If not, replace valve.



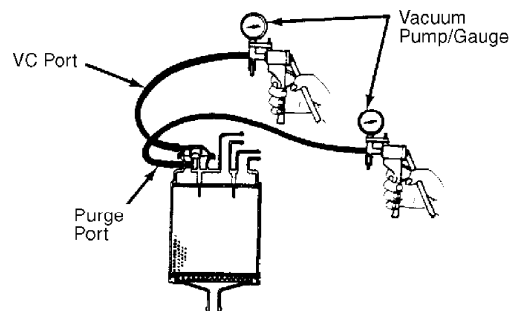
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Fig. 3: Testing P'UP & Trooper II Check & Relief Valve
Check and relief valve for 2.3L engine has only 2 ports.

CANISTER PURGE CONTROL VALVE

1) Remove canister from vehicle. Apply 7.5 psi air pressure to port marked "VC". Air should not leak from diaphragm. See Fig. 4.

2) Apply and maintain 15 in. Hg vacuum to port marked "PURGE". Gradually apply vacuum to "VC" port. Purge valve should begin to open when 7.1-8.7 in. Hg vacuum is applied to port "VC". Replace valve if it does not operate as outlined.



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Fig. 4: Testing Purge Control Valve
This does not apply to Impulse.

MAINTENANCE

The system and all components should be inspected for condition and function every 15,000 miles. Check all hoses and lines for deterioration, damage, and obstructions.