1974-79 EXHAUST EMISSION SYSTEMS
Toyota Air Injection System

All Models

NOTE: For 1974-77 models, see AIR INJECTION SYSTEMS article in this section. Also see TOYOTA AIR SUCTION SYSTEM article in this section for information on air suction system.

DESCRIPTION

All models (except 1979 Supra) use an air injection or air suction system to supply fresh air at the exhaust ports to burn HC and CO remaining in the exhaust gases. The following table shows model application of these systems:

AIR INJECTION/AIR SUCTION SYSTEM APPLICATION

Application	System
Celica, Corona, Pickup	Air Injection
Corolla 1600	
Federal	Air Suction
California	Air Injection
High Altitude	Air Injection
Corolla 1200	Air Suction
Cressida	Air Injection
Land Cruiser	Air Injection

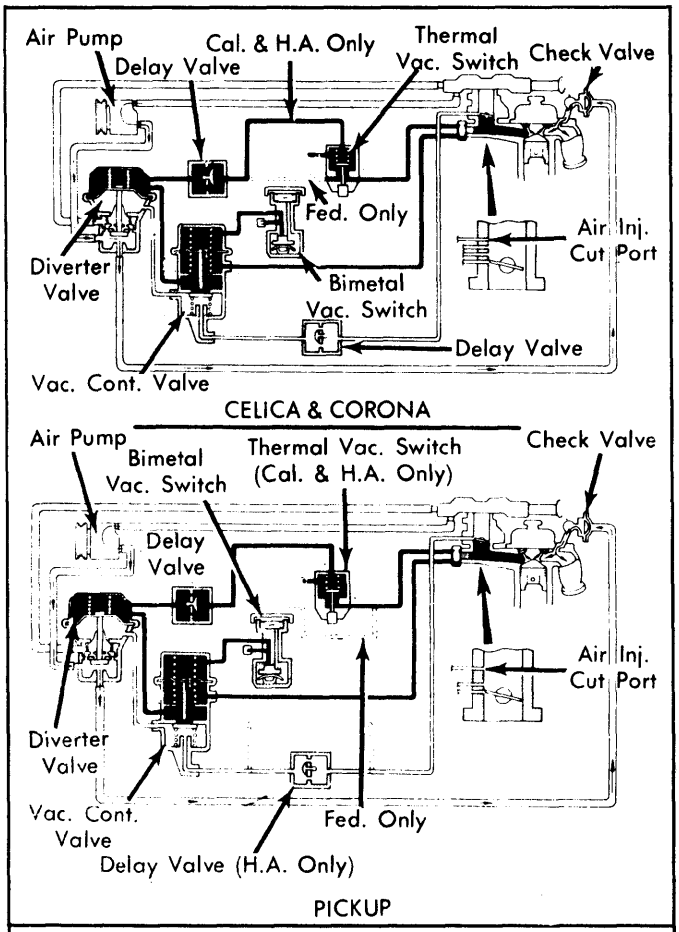

Fig. 1: 1978 Celica, Corona & Pickup (20R Engine) Air Injection System

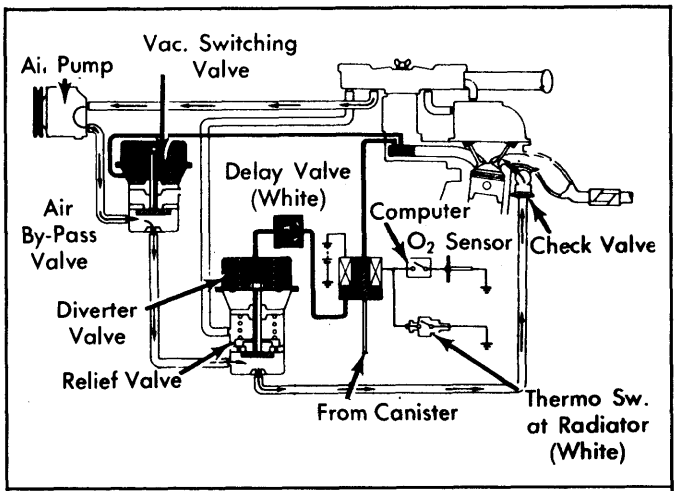

Fig. 2: 1978 Corolla (California & High Altitude 2T-C Engine) Air Injection System

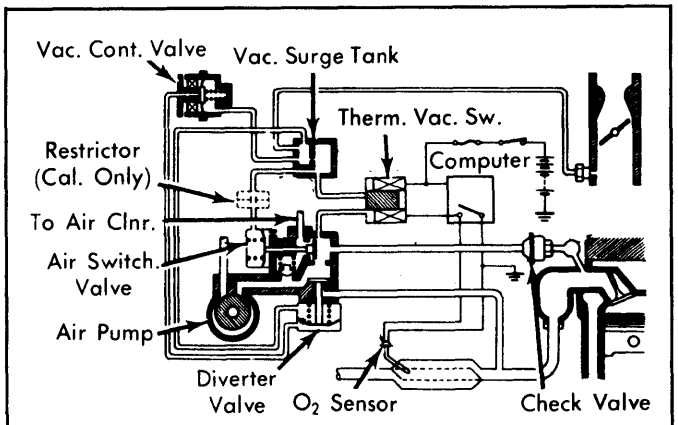

Fig. 3: 1978 Cressida (4M Engine) Air Injection System

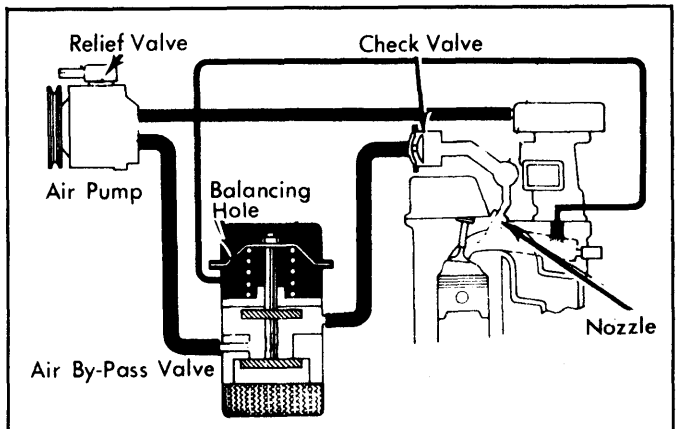

Fig. 4: 1978 Land Cruiser (2F Engine) Air Injection System

AIR INJECTION SYSTEM

Air is drawn from the air cleaner into the air pump. From here, air is sent through system and eventually to the air injection manifold where it is injected into the exhaust ports. A thermal vacuum switch, which responds to coolant temperature, will delay air injection until normal operating temperatures are reached. System components may include air switching valve, diverter valve (relief valve), or delay valve to control air injection operation according to engine operating conditions.

TESTING

DIVERTER VALVE

Disconnect hose at check valve and attach a pressure gauge. Plug opening at other end of gauge. Start engine and raise speed gradually. Pressure relief (air flowing from valve) should occur at pressure specified in RELIEF VALVE OPENING PRESSURE table.

1974-79 EXHAUST EMISSION SYSTEMS
Toyota Air Injection System (Cont.)

RELIEF VALVE OPENING PRESSURE

Application	psi (kg/cm²)
Celica, Corona, Pickup	3.3-5.5 (.23-.39)
Corolla 1600 (Calif.)	3.9-5.0 (.28-.35)
Cressida	4.4-6.3 (.30-.44)
Land Cruiser	
Federal	3.9-6.1 (.28-.43)
California	5.7-8.5 (.40-.63)

CHECK VALVE

Remove check valve from system. Blow into check valve in direction of normal air flow. Air should pass. Turn valve around and blow through other side. No air should pass.

VACUUM SWITCHES

Check vacuum switches by dipping sensing portion in cold water. No air should pass from one nipple to the other. When water is heated, air should pass.

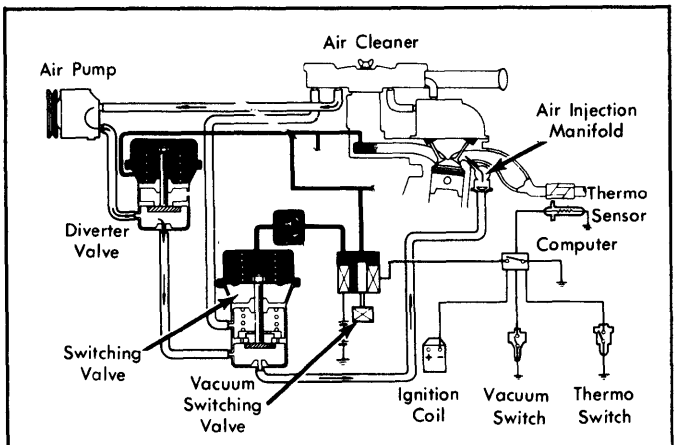

Fig. 5: 1979 Corolla (California 2T-C Engine) Air Injection System

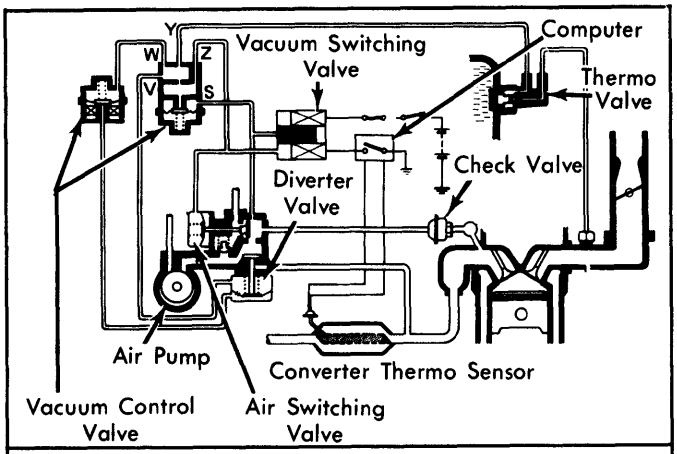

Fig. 7: 1979 Cressida (4M Engine) Air Injection System

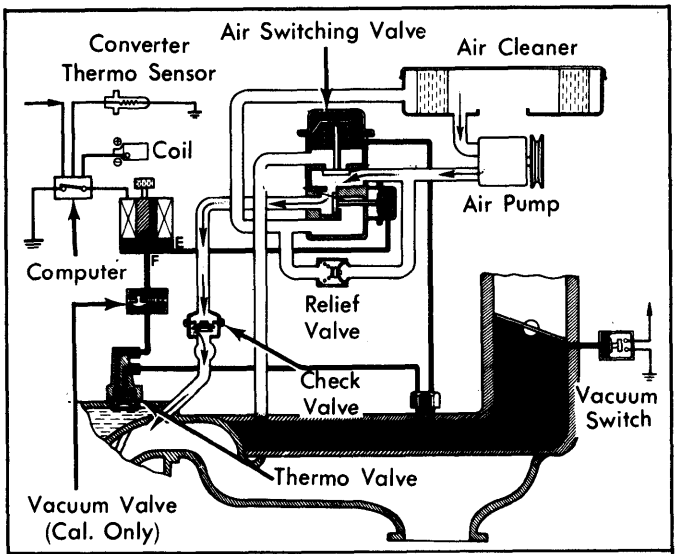

Fig. 8: 1979 Land Cruiser (2F Engine) Air Injection System

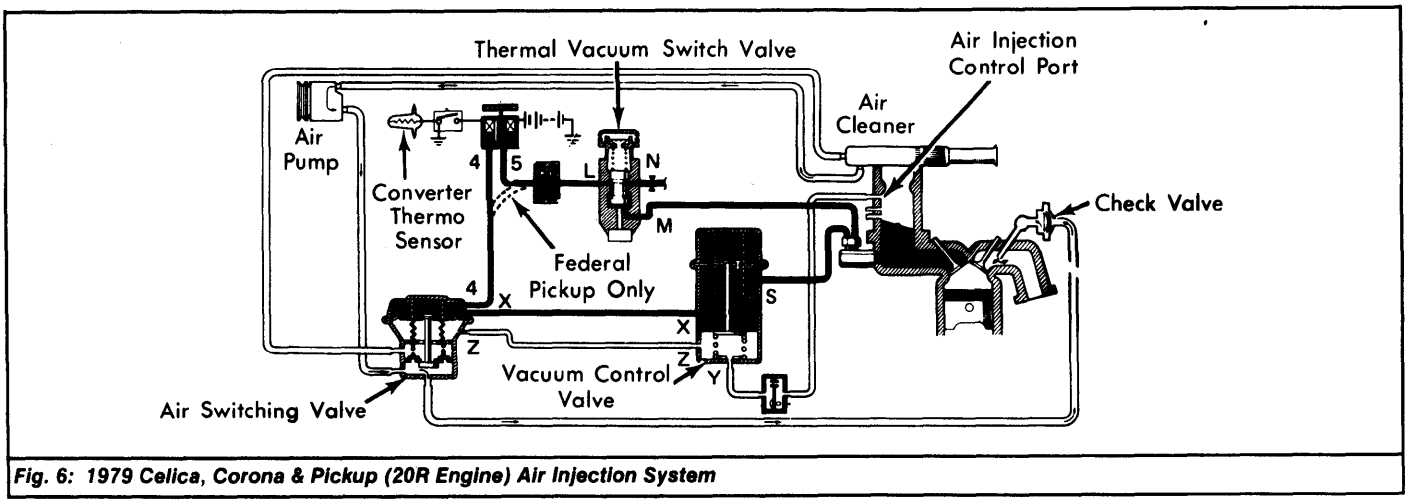

Fig. 6: 1979 Celica, Corona & Pickup (20R Engine) Air Injection System