

# EMISSION CONTROL SYSTEM

## GENERAL DESCRIPTION

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There are three types of emissions to be controlled.  
The control systems are;

1. Closed type crankcase emission control system.
2. Exhaust emission control system.  
    Exhaust gas recirculation system (E.G.R.)

3. Evaporative emission control system.

Periodic inspection and required servicing of these systems should be carried out at the recommended intervals to reduce harmful exhaust gas emission to a minimum.

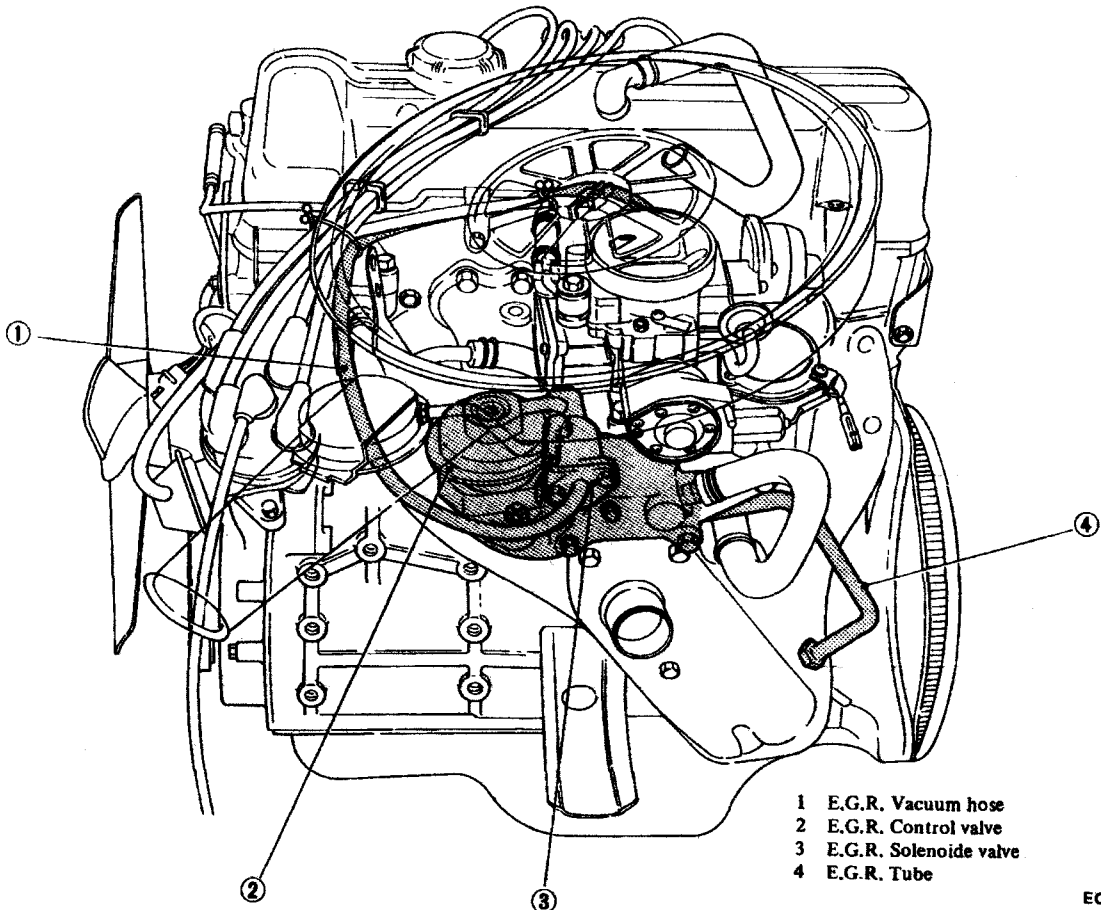
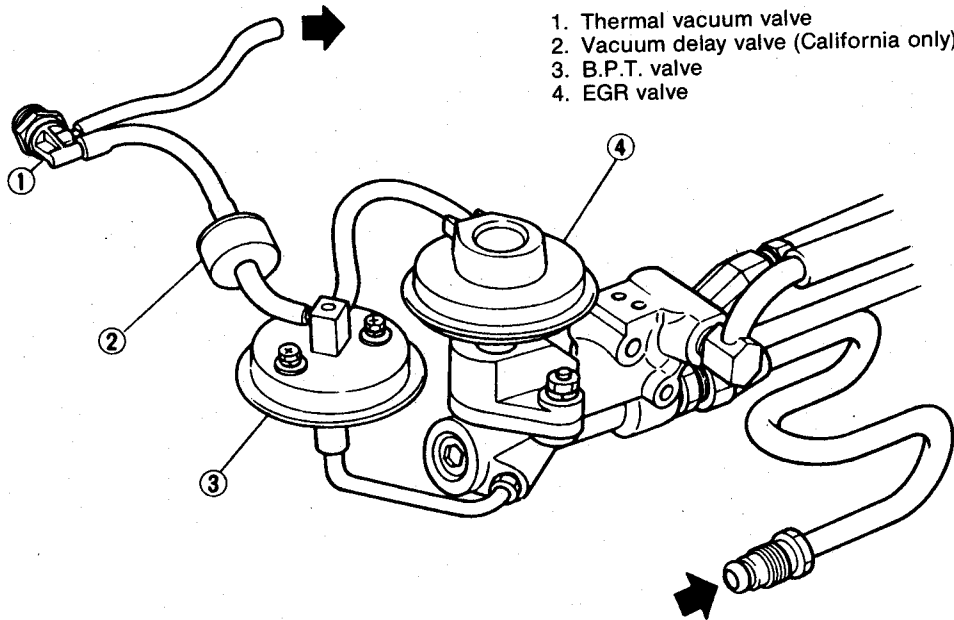


Fig. EC-1 Emission control system piping

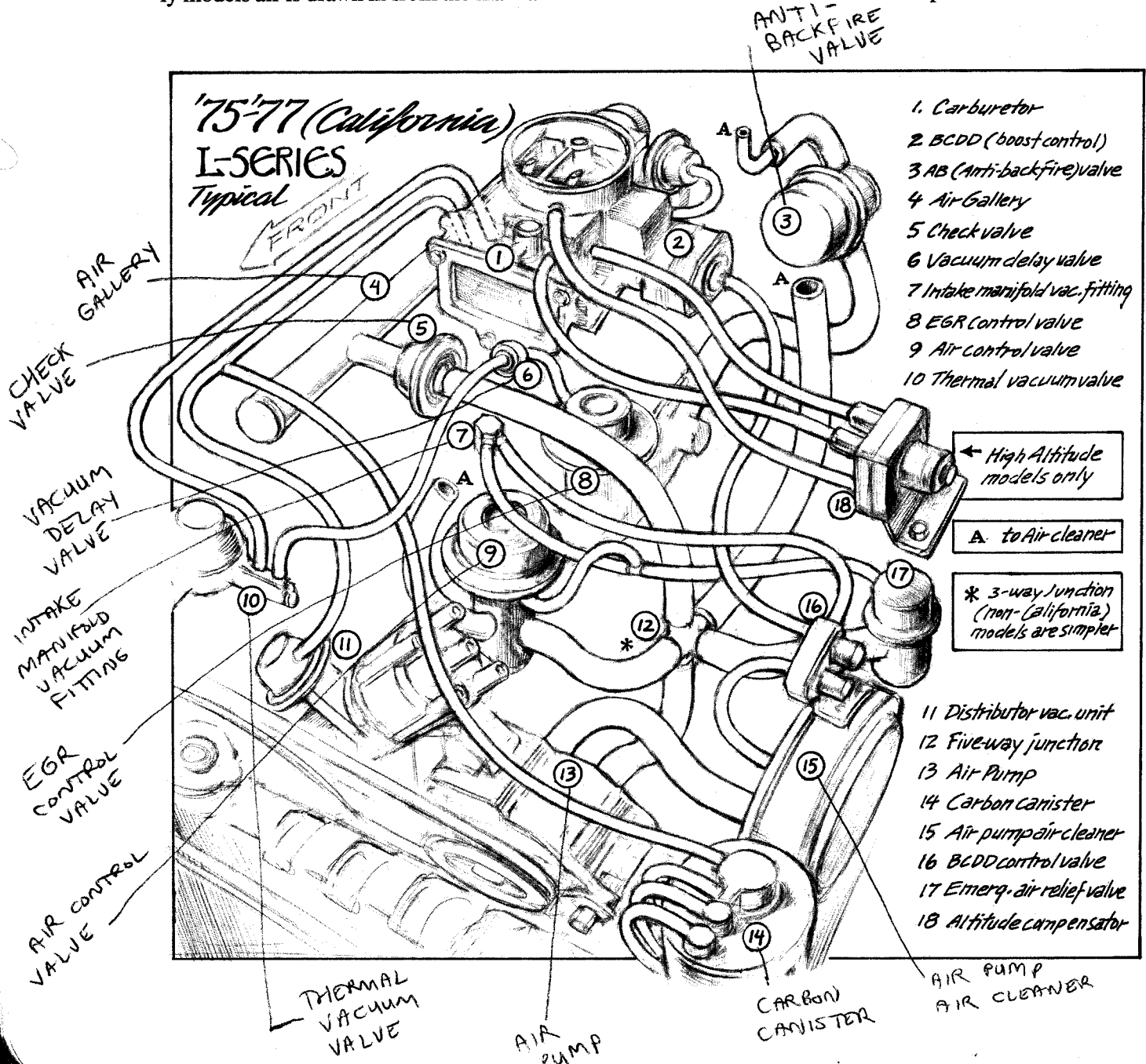
EC214

1. Thermal vacuum valve
2. Vacuum delay valve (California only)
3. B.P.T. valve
4. EGR valve



**1978-79 EGR components; the hose at the top runs to the carburetor, and the tube at the bottom connects to the exhaust manifold**

ly models air is drawn from the main air cleaner and later vehicles have a separate air cleaner on the



'75-'77 (California)  
L-SERIES  
Typical

FRONT

ANTI-BACKFIRE VALVE

- 1. Carburetor
- 2. BCDD (boost control)
- 3. AB (Anti-backfire) valve
- 4. Air Gallery
- 5. Check valve
- 6. Vacuum delay valve
- 7. Intake manifold vac. fitting
- 8. EGR control valve
- 9. Air control valve
- 10. Thermal vacuum valve

AIR GALLERY

CHECK VALVE

VACUUM DELAY VALVE

INTAKE MANIFOLD VACUUM FITTING

EGR CONTROL VALVE

AIR CONTROL VALVE

THERMAL VACUUM VALVE

AIR PUMP

CARBON CANISTER

AIR PUMP AIR CLEANER

← High Altitude models only

A. to Air cleaner

\* 3-way junction (non-California) models are simpler

- 11. Distributor vac. unit
- 12. Five-way junction
- 13. Air Pump
- 14. Carbon canister
- 15. Air pump air cleaner
- 16. BCDD control valve
- 17. Emerg. air relief valve
- 18. Altitude compensator

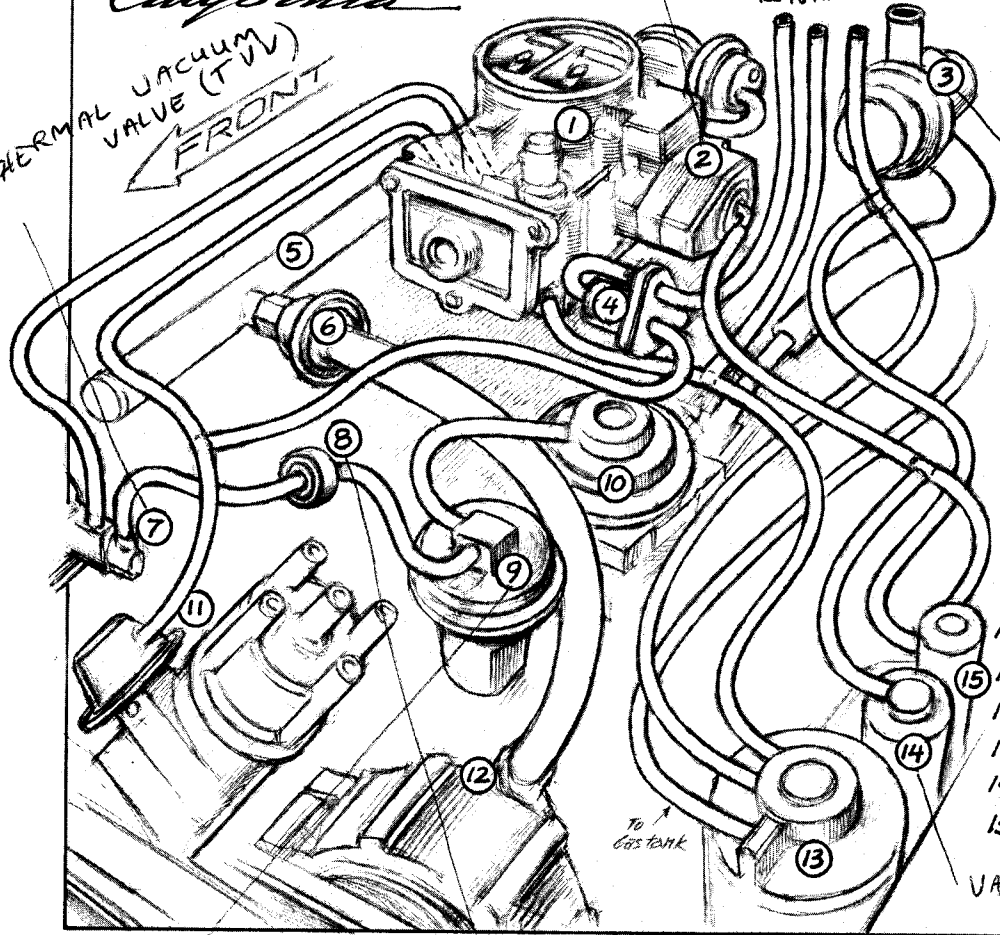
BYPASS AIR CONTROL UNIT

California  
THERMAL VACUUM VALVE (TVV)  
FRONT

ALL TO AIR CLEANER

L-SERIES  
(circa 1980)

Typical  
ANTI-BACKFIRE  
VALVE



- 1 Carburetor
- 2 Bypass air control unit
- 3 AB (Anti-backfire) valve
- 4 vacuum switching valve
- 5 Air Gallery
- 6 Check valve
- 7 Thermal vacuum valve (TVV)
- 8 Vacuum delay valve
- 9 BPT valve (back pressure)
- 10 EGR control valve
- 11 Distributor vacuum unit
- 12 Air pump
- 13 Carbon canister
- 14 vacuum switch
- 15 Boost control unit

VACUUM SWITCH

TO  
GAS TANK

BACK PRESSURE VALVE

VACUUM DELAY VALVE

left side of the engine compartment. Air is pulled through the carburetor and into the intake manifold. The carburetor is connected to the intake manifold through the bypass air control unit. The bypass air control unit is connected to the carburetor through the vacuum switching valve. The vacuum switching valve is connected to the carburetor through the air gallery. The air gallery is connected to the carburetor through the check valve. The check valve is connected to the carburetor through the thermal vacuum valve (TVV). The thermal vacuum valve (TVV) is connected to the carburetor through the vacuum delay valve. The vacuum delay valve is connected to the carburetor through the BPT valve (back pressure). The BPT valve (back pressure) is connected to the carburetor through the EGR control valve. The EGR control valve is connected to the carburetor through the distributor vacuum unit. The distributor vacuum unit is connected to the carburetor through the air pump. The air pump is connected to the carburetor through the carbon canister. The carbon canister is connected to the carburetor through the vacuum switch. The vacuum switch is connected to the carburetor through the boost control unit.

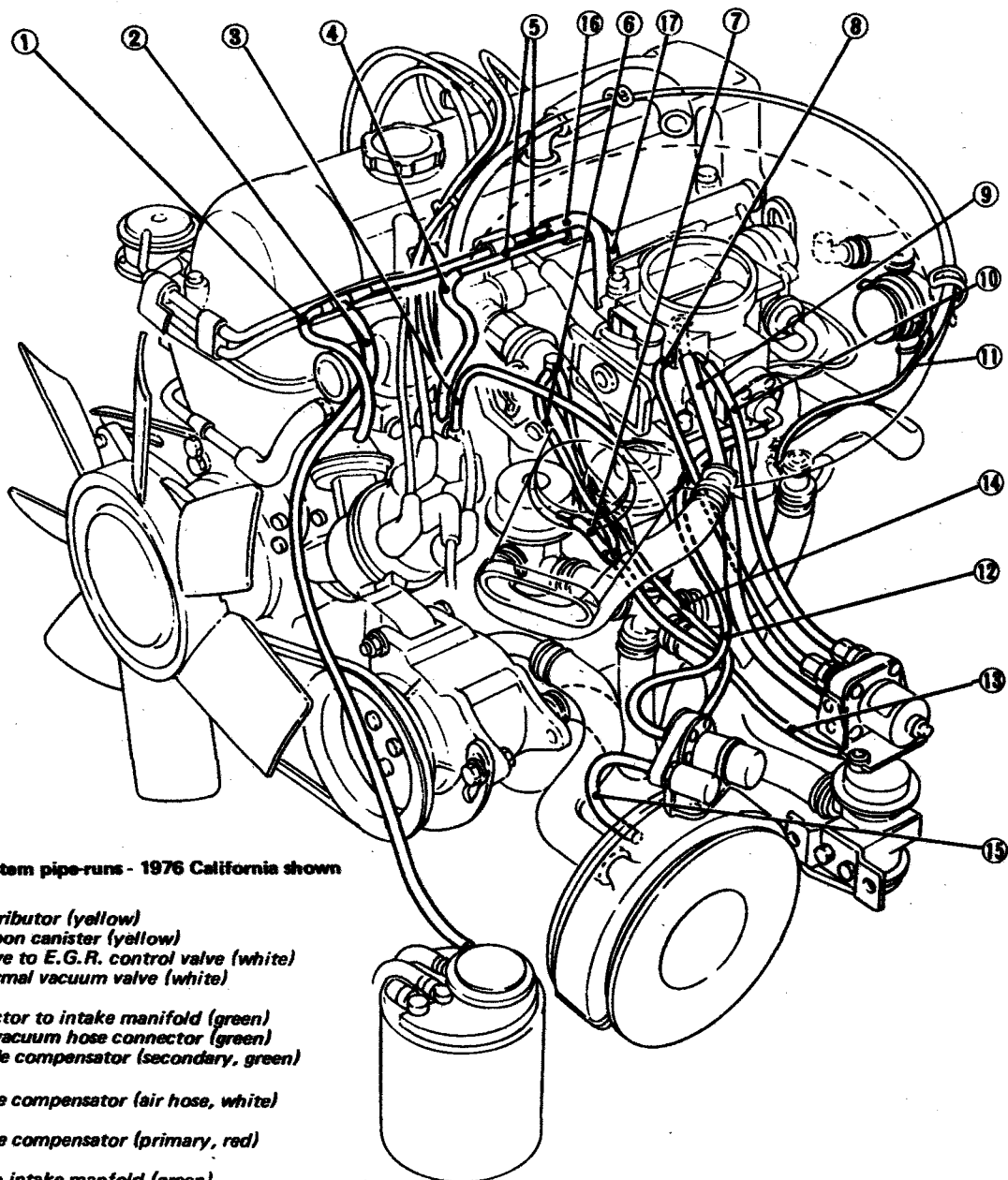


Fig. 1.8. Emission control system pipe-runs - 1976 California shown

- 1 Vacuum tube to distributor (yellow)
- 2 Vacuum tube to carbon canister (yellow)
- 3 Thermal vacuum valve to E.G.R. control valve (white)
- 4 Vacuum tube to thermal vacuum valve (white)
- 5 Vacuum tube
- 6 Vacuum hose connector to intake manifold (green)
- 7 Air control valve to vacuum hose connector (green)
- 8 Carburetor to altitude compensator (secondary, green) (optional)
- 9 Air cleaner to altitude compensator (air hose, white) (optional)
- 10 Carburetor to altitude compensator (primary, red) (optional)
- 11 Anti-backfire valve to intake manifold (green)
- 12 B.C.D.D. to control valve (white)
- 13 Vacuum hose connector to E.A.R. control valve (green)
- 14 B.C.D.D. control valve to intake manifold (green)
- 15 Control valve to air pump air cleaner
- 16 Vacuum tube to carburetor (yellow)
- 17 Vacuum tube to carburetor (white)

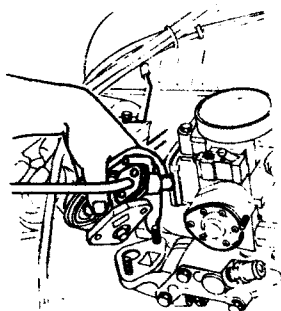


Fig. 1.9. EGR valve removal - 1974 model shown

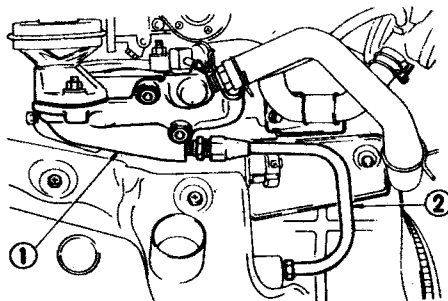


Fig. 1.10. EGR tube and passage removal - 1976 model shown

1 EGR passage

2 EGR tube

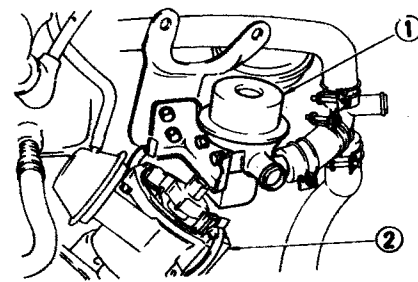


Fig. 1.11. Air control valve (California 1976) - location

1 Air control valve

2 Distributor