

EMISSION COMPONENT IDENTIFICATION

1988 Jeep Cherokee

1988 Exhaust Emission Systems
JEEP SYSTEMS

NOTE: Information not available from manufacturer for Jeep 2.5L TBI and 4.0L MPFI emission systems.

DESCRIPTION

Several systems are used to control emissions. System usage depends on model, engine and transmission combinations. Each system is designed to control vehicle emissions. In addition, specially calibrated carburetors (carbureted models), fuel injection system, distributors and modified combustion chambers are used with these systems.

AIR INJECTION

Air injection system consists of air pump, diverter valve, check valve, and various air distribution lines necessary to inject fresh air adjacent to exhaust valves. Injection of fresh air adjacent to exhaust valves creates an afterburn which further consumes unburned gases in engine's exhaust.

CATALYTIC CONVERTER (CAT)

Converter is installed in vehicle's exhaust system to aid in reduction of exhaust emissions. This unit changes unburned hydrocarbons (HC) and carbon monoxide (CO) into water vapor and carbon dioxide.

COMPUTERIZED EMISSION CONTROL (CEC) SYSTEM

CEC system closely controls air/fuel ratio through a feedback system from an oxygen sensor in exhaust system. Major components of this system include exhaust gas oxygen sensor, vacuum switches, temperature switches, Micro Computer Unit (MCU), fuel injection system or computer controlled carburetor (carbureted models) to maintain a constant air/fuel mixture. For additional information, see appropriate article in COMPUTERIZED ENGINE CONTROL section.

EVAPORATIVE EMISSION CONTROL

All models use closed tank (sealed) system, which returns raw fuel vapors and routes them to intake manifold for burning. Carbon canister stores vapors until engine draws them off for burning.

OTHER EMISSION SYSTEMS

For additional information on description, operation, testing and adjusting other exhaust emission systems, refer to the following articles in this section.