1982 Exhaust Emission Systems

CHRYSLER CORP. SYSTEMS

DESCRIPTION

Control of exhaust emission is accomplished by a combination of engine modifications and special system components. Component usage varies according to model, engine, states, and emissions cycle application.

NOTE: There are 2 light duty truck emission control standards classifications: Light Duty and Heavy Duty. Light Duty refers to vehicles up through 8,500 lbs. GVW; Heavy Duty refers to vehicles over 8,500 lbs. GVW.

CHRYSLER VACUUM DIAGRAMS NO LONGER PROVIDED

NOTE: Chrysler Corp. vehicles use a new type of vacuum harness with connectors at each end. This harness prevents incorrect routing, so Chrysler Corp. no longer provides vacuum hose diagrams.

THERMOSTATIC AIR CLEANER (TAC)

System provides heated air to carburetor (from stove on exhaust manifold) in combination with underhood air. This maintains a constant intake air temperature for more efficient combustion and emission control.

AIR INJECTION

System consists of an air pump, diverter valve, check valves and various air distribution lines. Injection of fresh air adjacent to the exhaust valves creates an afterburn effect, which results in lower emission levels. *For additional information, see "Air Injection Systems — Air Pump Type" in this section.*

ASPIRATOR AIR SYSTEM

System is used to reduce carbon monoxide and hydrocarbon emissions by drawing fresh air from the air cleaner, and allowing it to mix with exhaust gases. System consists of an aspirator air valve and connecting tubes to the air cleaner and exhaust manifold.

EXHAUST GAS RECIRCULATION (EGR)

System allows a predetermined amount of hot exhaust gas to recirculate and dilute air/fuel mixture. This aids combustion and reduces NOx emissions.

ELECTRIC ASSIST CHOKE

System is designed to give faster choke openings at temperatures above 60°F (16°C) and slower choke openings below 60°F (16°C).

ORIFICE SPARK ADVANCE CONTROL (OSAC)

System is used on some Light Duty Emission engines to aid in control of oxides of nitrogen (NOx). It controls vacuum to distributor vacuum advance unit in response to changes in throttle position.

IDLE ENRICHMENT SYSTEM

System is used on some Light Duty Emission models with automatic transmission to reduce cold engine stalling. During cold or semi-cold operation, system enriches carburetor mixture at curb idle and fast idle.

VACUUM THROTTLE POSITIONER

System is used on Heavy Duty Emission vehicles. Throttle positioner prevents unburned hydrocarbons from entering atmosphere. It does so by preventing full throttle closure during deceleration from high engine speeds.

CATALYTIC CONVERTER

Converter brings about combustion-type reaction to further consume unburned elements in the engine exhaust. Converter is located in exhaust system ahead of muffler. Vehicles equipped with catalytic converters must use unleaded fuel only. *For additional information, see Catalytic Converter article in this section.*

POSITIVE CRANKCASE VENTILATION (PCV)

System is used on all cars to eliminate fumes and vapors from crankcase. It does so by directing them back through the combustion chamber to be burned. *For additional information, see Crankcase Ventilation article in this section.*

EVAPORATION CONTROL SYSTEM

The dual canister evaporation control system is used on all vehicles. The system routes fuel vapors from fuel tank through filter canisters to engine for burning. This closed system prevents vapors from venting to the atmosphere. *For additional information see appropriate Fuel Evaporation System article in this section.*

ELECTRONIC SPARK CONTROL

System is sometimes referred to as Electronic Fuel Control or Electronic Spark Advance. Used on 6-cylinder engines, system operates through a computer, a specially calibrated carburetor, and various engine sensors. System permits igniting fuel mixture according to different modes of engine operation, while delivering an infinite number of variable advance curves.