

EMISSION CONTROL SYSTEMS INFORMATION AND WARRANTY



GMC MotorHome and Commercial TransMode Vehicle

IMPORTANT: This warranty and information is applicable to the GMC MotorHome and Commercial TransMode Vehicle for a period of 5 years or 50,000 miles, whichever occurs first, and should remain with the vehicle at time of resale.

FOREWORD

FEDERAL CLEAN AIR ACT

The Clean Air Act requires the engine manufacturer to furnish, with each new engine to be installed in a motor vehicle, such written instructions for the maintenance and use of the engine by the ultimate purchaser as are reasonable and necessary to assure the proper functioning of emission control devices and systems installed on the engine. This information, along with your Maintenance Schedule folder are being provided to owners in compliance with the law.

NORMAL ENGINE USE

The owner's maintenance instructions contained in the maintenance schedule are based on the assumption that the engine will be used to power a motor vehicle which will be used as designed:

- To carry passengers and/or cargo within the limitations indicated on the vehicle identification plate affixed under the front access door on the driver's toe panel.
- On reasonable road surfaces within legal operating limits.
- On unleaded or low-lead fuel.

Unusual operating conditions will require more frequent maintenance as specified in the "Explanation of Vehicle Maintenance Schedule" portion of the Maintenance Schedule folder.

MAINTENANCE SOURCE AND EVIDENCE

The required owner emission control systems maintenance operations presented in the Maintenance Schedule should be performed by an authorized GMC MotorHome Dealer or any other qualified service outlet which regularly performs such services. Service manuals, providing greater detail on emission systems, are made available for purchases by owners who desire to perform

their own vehicle maintenance.

Receipts covering the performance of regular maintenance should be retained in the plastic envelope provided, in the event questions arise concerning maintenance. These receipts should be transferred to each subsequent owner of this vehicle.

RECOMMENDATIONS FOR REQUIRED MAINTENANCE SERVICE REPLACEMENT PARTS

The emission control systems on your new vehicle engine were designed, built and tested using genuine GM Parts* and the engine is certified as being in conformity with federal regulations implementing the Clean Air Act. Accordingly, it is recommended that any replacement parts used for required maintenance services or for the repair of emission control systems be new, genuine GM parts. Use of replacement parts which are not of equivalent quality may impair the effectiveness of such systems.

***Genuine GM Parts**, when used in connection with GMC Truck & Coach vehicles, means parts manufactured by or for GMC Truck & Coach Division, designed for use on GMC vehicles and distributed by GMC Truck & Coach Division or any division or subsidiary of General Motors Corporation.

If other than new genuine GM parts are used for required maintenance service replacements or for the repair of components affecting emission control, the owner should assure himself that such parts are warranted by their manufacturer to be equivalent to genuine General Motors parts in performance and durability.

Listed below are the components affecting emissions performance of your GMC vehicle:

- Carburetor
- Carburetor Air Cleaner Element
- Carburetor Fuel Filter
- Spark Plugs and Coil
- Spark Plug and Coil Wires
- Distributor
- Fuel Tanks (Including Liquid-Vapor Separator)

- Fuel Tank Cap
- Evaporation Control System Carbon Canister(s) and Hoses
- Carbon Canister Filter
- Thermostatically Controlled Air Cleaner
- Positive Crankcase Ventilation Valve
- Positive Crankcase Ventilation Filter
- Thermal Vacuum Switch

EMISSION CONTROL SYSTEMS

SOURCE OF EMISSIONS

During the combustion process in an automotive engine, some of the fuel (hydrocarbons) fails to burn completely and is discharged into the engine crankcase or exhaust system. Additional hydrocarbons are emitted into the atmosphere through evaporation of gasoline vapors from the fuel tank and carburetor. Of the total hydrocarbons coming from uncontrolled vehicles, about 20% are emitted from the crankcase, 20% from the fuel system and 60% from the engine exhaust. In addition to hydrocarbons, carbon monoxide and oxides of nitrogen are also formed during the combustion process. These are also discharged into the exhaust system.

WHAT GENERAL MOTORS HAS DONE

Since research on the control of vehicle emissions first began some 20 years ago, General Motors has developed a number of control systems which are highly effective in reducing undesirable emissions.

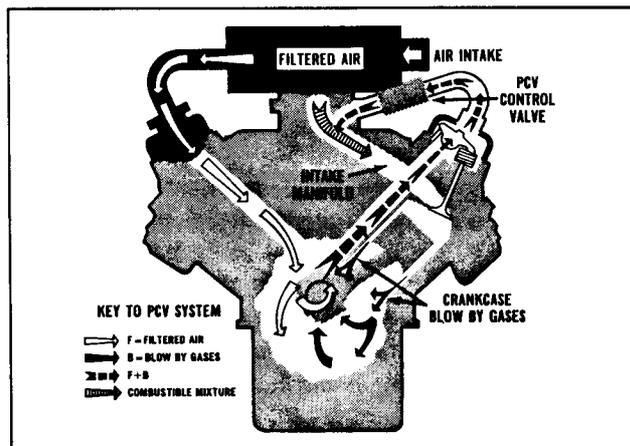
Control of hydrocarbon emissions is important since, when subjected to sunlight under certain conditions, they react with other gases to form photochemical smog, which is prevalent in some geographical areas. Carbon monoxide does not enter into the complex photochemical smog reaction, but it is toxic at high concentrations and, thus, has been controlled to prevent high atmospheric concentrations.

GASOLINE IMPROVEMENTS

Another important advancement in air pollution control has been the reduction in lead level or elimination of lead from some grades of gasoline. (Certain lead compounds have been used for many years as additives to increase octane ratings.) Use of unleaded or low-lead gasoline will keep your engine running efficiently and play an important part in reducing exhaust emissions of hydrocarbons and particulates. See Operating Manual for additional information on fuel requirements.

CRANKCASE CONTROLS

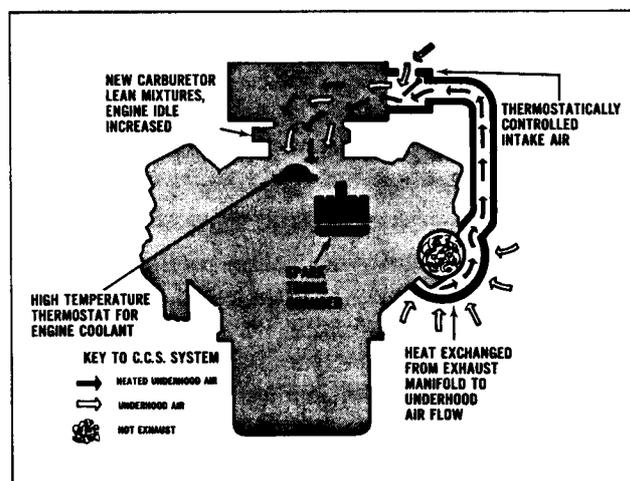
Positive Crankcase Ventilation (PCV)



All General Motors gasoline engines are equipped with Positive Crankcase Ventilation — a system which permits no crankcase emission to be discharged into the atmosphere. To function properly, the system depends on the PCV Valve which returns blow-by gases to the combustion chambers where they are burned.

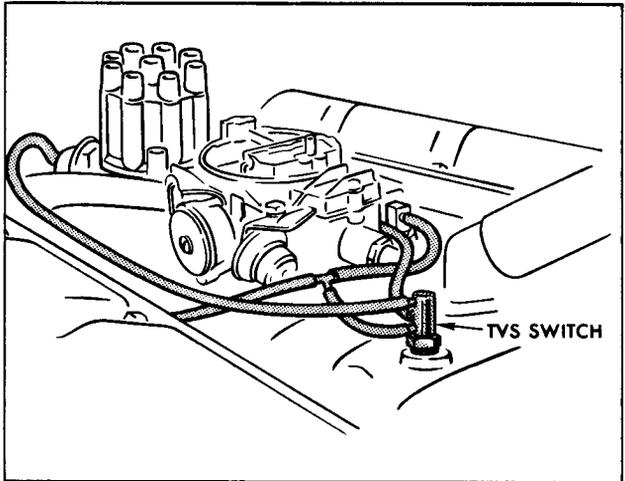
EXHAUST CONTROLS

Controlled Combustion System (CCS)



One method of controlling exhaust emissions involves the Controlled Combustion System (CCS) which is entirely separate from the Positive Crankcase Ventilation System. CCS is designed to reduce pollutants in the exhaust by improving the combustion process. It consists of a combination of design features including a special air cleaner which incorporates thermostatic control of heated air to the carburetor, a special calibrated carburetor and distributor and a modified combustion chamber design.

Thermostatic Vacuum Switch (TVS)



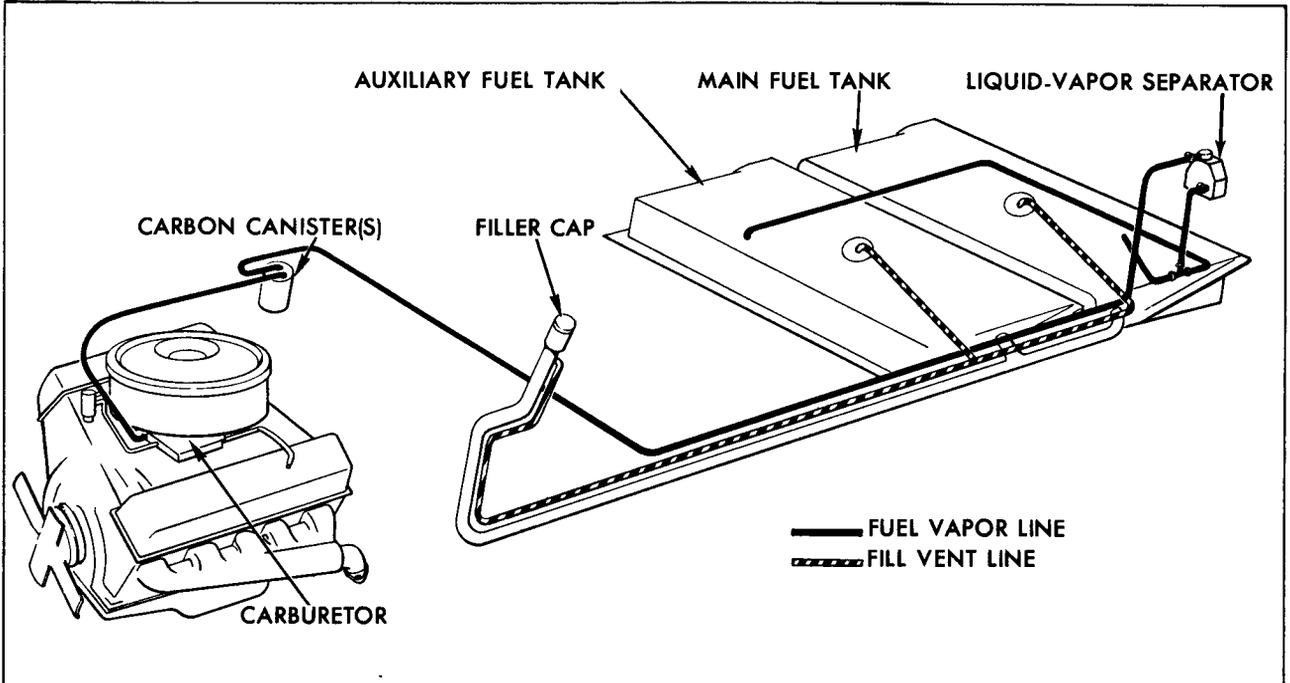
The retarded spark setting at idle speeds required for effective emission control makes engines tend to run hotter during idle or low speed conditions.

To protect against overheating, the engine is equipped with a thermostatic vacuum switch (TVS). This temperature-sensitive switch and valve assembly is mounted in the engine cooling jacket near the front of the engine and connected into the vacuum advance system.

When the engine coolant reaches a specified high temperature, the valve opens against spring pressure and directs manifold vacuum to the advance mechanism. This advances the spark timing slightly and speeds up the engine. The result is less heat rejected to the coolant together with higher fan speeds for better cooling action. When the engine has cooled down, the TVS switch moves the valve back to retard spark timing.

**FUEL EVAPORATION CONTROLS
Evaporation Control System (ECS)**

The vehicle is equipped with an Evaporation Control System (ECS) which is designed to minimize the escape of fuel vapors to the atmosphere. Included in the system are special fuel tanks, liquid-vapor separator, filler cap, carbon canister(s), canister purge hoses, and carburetor modifications. Fuel vapors which would otherwise escape to the atmosphere are directed into the carbon canister(s). The carbon absorbs the vapors and stores them. The vapor is removed from the canister(s) during periods of engine operation as manifold vacuum draws the vapors into the engine and burns them.



Evaporation Control System (ECS)

NOTE: The General Motors Evaporation Control System is designed to control evaporation losses from your vehicle under normal conditions using 9-lb. (Reid Vapor Pressure) fuel specified by Federal and California test requirements. However, if you should use fuel of abnormally high volatility for existing temperature conditions, you

may detect a gasoline odor during or after driving in heavy traffic. If you notice a fuel odor, the fuel system should be inspected and any leaks repaired or damaged parts replaced. If the system is intact and the odor persists, use a lower volatility fuel.

GMC MOTORHOME AND COMMERCIAL TRANSMODE VEHICLE EMISSION CONTROL SYSTEMS WARRANTY

GMC Truck (GMC Truck & Coach Division, General Motors Corporation*) warrants to the original and each subsequent owner of a GMC MotorHome or Commercial TransMode Vehicle (hereinafter called "vehicle") that the engine (1) was designed, built, and equipped so as to conform at the time of sale with applicable regulations of the Federal Environmental Protection Agency, and (2) is free from defects in materials and workmanship at the time of sale which will cause the engine to fail to conform with applicable Federal Environmental Protection Agency regulations for a period of use of 50,000 miles or 5 years, whichever occurs first:

The 5-year/50,000-mile warranty period shall begin on the date the vehicle is delivered to the first retail purchaser or, if the vehicle is first placed in service as a demonstrator or company vehicle prior to sale at retail, on the date the vehicle is first placed in such service.

This warranty does not cover:

1. Malfunctions resulting from misuse, negligence, alteration, accident, or lack of performance of required maintenance services.
2. The replacement of expendable maintenance items which are spark plugs, ignition points, positive crankcase ventilation valve, filters, hoses, belts, wires and coolant made in connection with required emission control maintenance services.
3. Loss of time, inconvenience, loss of use of the vehicle or other consequential damages.
4. Any engine in a vehicle on which the odometer mileage has been altered and the vehicle's actual mileage cannot be readily determined.
5. Any engine in a vehicle registered and normally operated outside the United States and Canada.

GMC Truck & Coach Division's responsibility in respect to claims is limited to making required repairs, and no claim of breach of warranty shall constitute a cause for cancellation of the contract of sale of this vehicle.

Repairs qualifying under this warranty will be performed by any authorized GMC MotorHome Dealer within a reasonable time following delivery of the vehicle to the dealer's place of business during regular business hours. The dealer must be furnished with the New Vehicle Warranty folder for preparation of the work order to be signed by the owner.

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This is the only express emission control systems warranty applicable to the vehicle engine and GMC Truck & Coach Division neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with such systems. This warranty is in addition to the GMC New Vehicle Warranty.

*For vehicles sold in Canada, substitute the name General Motors of Canada, Limited, wherever the name GMC Truck and Coach Division, General Motors Corporation, appears in this folder.