

# 1966-79 EXHAUST EMISSION SYSTEMS

## General Motors Emission Control Applications

### 1966-79 GENERAL MOTORS

Year, Engine & Fuel System	Emission Control Systems & Devices	Remarks
1966-67 All Models	PCV, AIS <sup>1</sup>	<sup>1</sup> - Light duty Calif. only.
1968 3.8L (230") 6-Cyl. <sup>7</sup> 4.2L (250") 6-Cyl. <sup>7</sup> 4.8L (292") 6-Cyl. <sup>7</sup> 5.0L (307") V8 <sup>7</sup> 5.4L (327") V8 <sup>7</sup> 6.5L (396") V8 <sup>7</sup>	PCV, TAC <sup>3</sup> , AIS <sup>1</sup> , SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC <sup>3</sup> , AIS <sup>1</sup> , SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC <sup>3</sup> , SPK <sup>2</sup> PCV, TAC <sup>3</sup> , AIS <sup>1</sup> , SPK <sup>4</sup> , CCS <sup>4</sup> PCV, TAC <sup>3</sup> , SPK <sup>4</sup> PCV, TAC <sup>3</sup> , AIS <sup>5</sup> , SPK <sup>5</sup> , CCS <sup>6</sup>	<sup>1</sup> - All light duty trucks and El Camino with M/T. <sup>2</sup> - El Camino with A/T <sup>3</sup> - All except oil bath type air cleaner. <sup>4</sup> - A/T vehicles only. <sup>5</sup> - All light duty trucks and El Camino with 396"-350HP. <sup>6</sup> - El Camino with 396"-350HP. <sup>7</sup> - Heavy duty uses PCV only.
1969 3.8L (230") 6-Cyl. <sup>6</sup> 4.2L (250") 6-Cyl. <sup>6</sup> 4.8L (292") 6-Cyl. <sup>6</sup> 5.0L (307") V8 <sup>6</sup> 5.7L (350") V8 <sup>6</sup> 6.5L (396") V8 <sup>6</sup>	PCV, TAC <sup>5</sup> , AIS <sup>1</sup> , SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC <sup>5</sup> , AIS <sup>1</sup> , SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC <sup>5</sup> , AIS <sup>1</sup> , SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC <sup>5</sup> , AIS <sup>3</sup> , SPK <sup>4</sup> , CCS <sup>4</sup> PCV, TAC <sup>5</sup> , AIS <sup>3</sup> , SPK <sup>4</sup> , CCS <sup>4</sup> PCV, TAC <sup>5</sup> , AIS <sup>1</sup> , SPK <sup>4</sup> , CCS <sup>4</sup>	<sup>1</sup> - All light duty trucks and El Camino with M/T. <sup>2</sup> - El Camino with A/T. <sup>3</sup> - M/T light duty trucks only. <sup>4</sup> - A/T light duty trucks only. <sup>5</sup> - All except oil bath type air cleaners. <sup>6</sup> - Heavy duty uses PCV only.
1970 4.2L (250") 6-Cyl. <sup>4</sup> 4.8L (292") 6-Cyl. <sup>4</sup> 5.0L (307") V8 <sup>4</sup> 5.7L (350") V8 <sup>4</sup> 6.5L (396") V8 <sup>4</sup>	PCV, TAC <sup>2</sup> , EVAP <sup>1</sup> , SPK <sup>3</sup> , CCS <sup>3</sup> PCV, TAC <sup>2</sup> , EVAP <sup>1</sup> , SPK <sup>3</sup> , CCS <sup>3</sup> PCV, TAC <sup>1,2</sup> , EVAP <sup>1</sup> , SPK <sup>3</sup> , CCS <sup>3</sup> PCV, TAC <sup>2</sup> , EVAP <sup>1</sup> , SPK <sup>3</sup> , CCS <sup>3</sup> PCV, TAC <sup>2</sup> , EVAP <sup>1</sup> , SPK <sup>3</sup> , CCS <sup>3</sup>	<sup>1</sup> - Calif. light duty trucks and vans. <sup>2</sup> - All except vehicles with oil bath type air cleaners. <sup>3</sup> - All trucks and light duty vans only. <sup>4</sup> - Heavy duty uses PCV only.
1971 Light Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.0L (307") V8 5.7L (350") V8 6.6L (402") V8 Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.0L (307"), 5.7L (350") & 6.6L (402") V8	PCV, TAC <sup>1</sup> , EVAP, SPK, CCS PCV, TAC <sup>1</sup> , EVAP, SPK, CCS PCV, TAC <sup>1</sup> , EVAP, SPK, CCS PCV, TAC <sup>1</sup> , EVAP, SPK, CCS PCV, TAC <sup>1</sup> , EVAP, SPK, CCS PCV, TAC <sup>1</sup> , SPK, CCS PCV, TAC <sup>1</sup> , SPK, CCS PCV, TAC <sup>1</sup> , SPK, CCS	<sup>1</sup> - All air cleaners are thermostatically controlled, except oil bath type air cleaners.
1972 Light Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.0L (307") V8 5.7L (350") V8 6.6L (402") V8 Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") V8 5.0L (307") V8 5.7L (350") V8 6.6L (402") V8	PCV, TAC, AIS <sup>1</sup> , EVAP, SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC, AIS <sup>1</sup> , EVAP, SPK, CCS PCV, TAC, EVAP, SPK, CCS PCV, TAC, AIS <sup>1</sup> , EVAP <sup>2</sup> , SPK <sup>3</sup> , CCS <sup>3</sup> PCV, ATC, AIS <sup>2</sup> , EVAP, SPK PCV, TAC, SPK <sup>2</sup> , CCS <sup>2</sup> PCV, TAC, SPK, CCS PCV, TAC, SPK, CCS PCV, TAC, SPK, CCS PCV, TAC, SPK, CCS	<sup>1</sup> - Calif. models only. <sup>2</sup> - Federal models only. <sup>3</sup> - Some models only.
1973 Light Duty Emissions 4.2L (250") 6-Cyl. 5.0L (307") V8 5.7L (350") V8 7.4L (454") V8 Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.0L (307") V8 5.7L (350") V8 7.4L (454") V8	PCV, TAC, AIS <sup>1</sup> , EVAP, EGR, SPK PCV, TAC, AIS, EVAP, EGR, SPK <sup>2</sup> , CCS PCV, TAC, AIS, EVAP, EGR, SPK <sup>2</sup> , CCS PCV, TAC, AIS, EVAP, EGR, SPK <sup>2</sup> , CCS PCV, TAC, EVAP <sup>3</sup> , CCS <sup>4</sup> PCV, TAC, AIS <sup>3</sup> , EVAP <sup>3</sup> , CCS <sup>4</sup> PCV, TAC <sup>3</sup> , EVAP <sup>3</sup> , CCS PCV, TAC <sup>3</sup> , EVAP <sup>3</sup> , CCS PCV, TAC <sup>3</sup> , AIS <sup>3</sup> , EVAP <sup>3</sup> , CCS <sup>4</sup>	<sup>1</sup> - All Except Fed. A/T models. <sup>2</sup> - M/T models only. <sup>3</sup> - Calif. models only. <sup>4</sup> - Federal models only.

# 1966-79 EXHAUST EMISSION SYSTEMS

## General Motors Emission Control Applications (Cont.)

### 1966-79 GENERAL MOTORS (Cont.)

Year, Engine & Fuel System	Emission Control Systems & Devices	Remarks
<b>1974</b> Light Duty Emissions 4.2L (250") 6-Cyl. 5.7L (350") V8 2-Bbl. <sup>5</sup> 5.7L (350") V8 4-Bbl. 7.4L (454") V8 4-Bbl. Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.7L (350") V8 7.4L (454") V8	PCV, TAC, AIS <sup>1</sup> , EVAP, EGR, SPK <sup>3</sup> , CCS <sup>4</sup> PCV, TAC, AIS, EVAP, EGR, SPK <sup>3</sup> , CCS PCV, TAC, AIS, EVAP, EGR, SPK <sup>3</sup> , CCS PCV, TAC, AIS, EVAP, EGR, SPK <sup>3</sup> , CCS  PCV, TAC, EVAP PCV, TAC, EVAP PCV, TAC <sup>4</sup> , EVAP <sup>4</sup> PCV, TAC, EVAP	<sup>1</sup> - All exc. Federal M/T vehicles only. <sup>2</sup> - A/T vehicles only. <sup>3</sup> - All M/T vehicles. <sup>4</sup> - Calif. models only. <sup>5</sup> - Federal models only.
<b>1975</b> Light Duty Emissions 4.2L (250") 6-Cyl. 5.7L (350") V8 2-Bbl. 5.7L (350") V8 4-Bbl. 7.4L (454") V8 4-Bbl. Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.7L (350") V8 4-Bbl. 6.5L (400") V8 4-Bbl. 7.4L (454") V8 4-Bbl.	PCV, TAC, EVAP, OC, EGR, SPK, CCS, EFE PCV, TAC, EVAP, OC, EGR, SPK, CCS, EFE PCV, TAC, AIS <sup>3</sup> , EVAP, OC, EGR, SPK, CCS, EFE PCV, TAC, EVAP, OC, EGR, SPK, CCS, EFE  PCV, TAC, CCS, EFE PCV, TAC, CCS, EFE PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , CCS <sup>2</sup> , TRC <sup>1</sup> PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , CCS <sup>2</sup> , TRC <sup>1</sup> PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , EGR <sup>1</sup> , CCS <sup>2</sup> , TRC <sup>1</sup>	<sup>1</sup> - Calif. models only. <sup>2</sup> - Federal models only. <sup>3</sup> - Except some Federal.
<b>1976</b> Light Duty Emissions 4.2L (250") 6-Cyl. 5.7L (350") V8 2-Bbl. <sup>1</sup> 5.7L (350") V8 4-Bbl. 7.4L (454") V8 4-Bbl. <sup>1</sup> Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.7L (350") V8 4-Bbl. 6.5L (400") V8 4-Bbl. 7.4L (454") V8 4-Bbl. 7.5L (455") V8 4-Bbl.	PCV, TAC, EVAP, OC <sup>2</sup> , EGR, SPK <sup>1</sup> , CCS <sup>1</sup> , EFE PCV, TAC, EVAP, OC, EGR, SPK, CCS, EFE PCV, TAC, AIS <sup>2</sup> , EVAP, OC, EGR, SPK <sup>1</sup> , CCS <sup>1</sup> , EFE PCV, TAC, EVAP, CCS, EFE  PCV, TAC, EVAP <sup>2</sup> , CCS PCV, TAC, EVAP <sup>2</sup> , CCS PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , CCS PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , CCS, TRC <sup>2</sup> PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , EGR <sup>2</sup> , CCS, TRC <sup>2</sup> PCV, TAC, EVAP <sup>2</sup> , CCS, TRC <sup>2</sup>	<sup>1</sup> - Federal models only. <sup>2</sup> - Calif. models only.
<b>1977</b> Light Duty Emissions 4.2L (250") 6-Cyl. 5.0L (305") V8 5.7L (350") V8 7.4L (454") V8 <sup>1</sup> Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.7L (350") V8 2-Bbl. <sup>1</sup> 5.7L (350") V8 4-Bbl. 6.5L (400") V8 4-Bbl. 7.4L (454") V8 4-Bbl.	PCV, TAC, EVAP, OC, EGR <sup>6</sup> , EFE PCV, TAC, EVAP, OC, EGR <sup>6</sup> , EFE PCV, TAC, AIS <sup>3</sup> , EVAP, OC, EGR <sup>6</sup> , EFE PCV, TAC, AIS, EVAP, EGR <sup>6</sup> , EFE  PCV, TAC PCV, TAC, EVAP <sup>2</sup> , TRC <sup>2</sup> PCV, TAC, TRC PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , SCS <sup>3</sup> , TRC <sup>2</sup> PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , SCS <sup>4</sup> , TRC <sup>2</sup> PCV, TAC, AIS <sup>2</sup> , EVAP <sup>2</sup> , EGR <sup>2</sup> , SCS <sup>5</sup> , TRC <sup>2</sup>	<sup>1</sup> - Federal models only. <sup>2</sup> - Calif. models only. <sup>3</sup> - C, K & G models with A/C only. <sup>4</sup> - Models with A/C only. <sup>5</sup> - C models only. <sup>6</sup> - BP/EGR used on Calif. & High Alt. only.
<b>1978</b> Light Duty Emissions 4.2L (250") 6-Cyl. 1-Bbl. 5.0L (305") V8 2-Bbl. <sup>2</sup> 5.7L (350") V8 4-Bbl. 6.5L (400") V8 4-Bbl. <sup>3</sup> 7.4L (454") V8 4-Bbl. Heavy Duty Emissions 4.2L (250") 6-Cyl. 1-Bbl. 4.8L (292") 6-Cyl. 1-Bbl. 5.0L (305") V8 2-Bbl. 5.7L (350") V8 4-Bbl. 6.5L (400") V8 4-Bbl. 7.4L (454") V8 4-Bbl.	PCV, TAC, AIS <sup>1</sup> , EVAP, OC, EGR <sup>4</sup> , EFE PCV, TAC, EVAP, OC, EGR <sup>4</sup> , EFE PCV, TAC, AIS <sup>1</sup> , EVAP, OC, EGR <sup>4</sup> , EFE PCV, TAC, AIS, EVAP, OC, EGR <sup>4</sup> , EFE PCV, TAC, AIS, EVAP, OC, EGR <sup>4</sup> , EFE  PCV, TAC PCV, TAC, EVAP <sup>1</sup> , TRC <sup>1</sup> PCV, TAC, SPK <sup>1</sup> , TRC PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , SPK <sup>1</sup> , TRC <sup>1</sup> PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , SPK <sup>1</sup> , TRC <sup>1</sup> PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , EGR, SPK <sup>1</sup> , TRC <sup>1</sup>	<sup>1</sup> - Calif. vehicles only. <sup>2</sup> - Not available in Calif. models. <sup>3</sup> - Calif. A/T models only. <sup>4</sup> - BP/EGR used on Calif. & High Alt. only.

# 3-10 1966-79 EXHAUST EMISSION SYSTEMS

## General Motors Emission Control Applications (Cont.)

### 1966-79 GENERAL MOTORS (Cont.)

Year, Engine & Fuel System	Emission Control Systems & Devices	Remarks
1979 Light Duty Emissions 4.2L (250") 6-Cyl. 5.0L (305") V8 5.7L (350") V8 6.5L (400") V8 7.4L (454") V8 Heavy Duty Emissions 4.2L (250") 6-Cyl. 4.8L (292") 6-Cyl. 5.0L (305") V8 5.7L (350") V8 6.5L (400") V8 7.4L (454") V8	PCV, TAC, AIS <sup>1</sup> , EVAP, OC, EGR <sup>3</sup> , SPK, EFE PCV, TAC, EVAP, OC, BP/EGR, SPK, EFE PCV, TAC, AIS <sup>1</sup> , EVAP, OC, BP/EGR, SPK, EFE PCV, TAC, AIS <sup>1</sup> , EVAP, OC, EGR <sup>3</sup> , SPK, EFE PCV, TAC, AIS, EVAP, OC, EGR <sup>3</sup> , SPK, EFE  PCV, TAC, SPK PCV, TAC, AIS, EVAP <sup>1</sup> , SPK PCV, TAC, SPK PCV, TAC, AIS <sup>1</sup> , EVAP <sup>1</sup> , SPK, EFE <sup>2</sup> , TRC PCV, TAC, AIS, EVAP <sup>1</sup> , SPK, EFE, TRC PCV, TAC, AIS, EVAP <sup>1</sup> , EGR, SPK, EFE, TRC	<sup>1</sup> - Calif. models only. <sup>2</sup> - Used on some models. <sup>3</sup> - Refer to emissions label.

#### Light Duty Emissions:

1966-77 vehicles up to 6000 GVW.  
1978 California vehicles to 8500 GVW or Federal vehicles up to 6000 GVW.  
1979-89 vehicles up to 8500 GVW.

#### Heavy Duty Emissions:

1966-77 vehicles over 6000 GVW.  
1978 California vehicles over 8500 GVW or Federal vehicles over 6000 GVW.  
1979-89 vehicles over 8500 GVW.

**AIS** - Air Injection System

**ABAV** - Air Bleed Actuator Valve

**A/CL** - Air Cleaner

**A/CL-BMS** - Air Cleaner  
Bi-Metal Sensor

**A/CL-VM** - Air Cleaner Vacuum Motor

**ACV** - Air Control Valve

**AIR-DVLV** - Air Diverter Valve

**AMgV** - Air Management Valve

**APDV** - Air Pump Diverter Valve

**CCS** - Controlled Comb. System

**CD-REGVLV** - Crankcase Depression  
Regulator Valve

**CKV** - Check Valve

**CLP** - Control Lever  
Position Sensor

**CP-TVS** - Canister Purge Thermal  
Vacuum Switch

**DCD-TVS** - Dist. & Canister  
Purge Thermal Vac. Switch

**DCP-TVS** - Dist. & Canister  
Purge Thermal Vac. Switch

**DCV** - Deceleration Valve

**DC-VLV** - Deceleration Valve

**DCM/C-VLV** - Deceleration Mixture  
Control Valve

**DD-VLV** - Distributor Delay Valve

**DLCK-VLV** - Delay Check Valve

**DLV** - Delay Valve

**DV** - Distributor Vacuum

**DVRV** - Distributor Vacuum  
Regulator Valve

**DVTR-VLV** - Diverter Valve

**DV-TVS** - Distributor Vacuum  
Thermal Vac. Switch

**EFE** - Early Fuel Evaporation

**EFE-TVS** - Early Fuel Evaporation  
Thermal Vacuum Switch

**EGR** - Exhaust Gas Recirculation

**EGR-BLDSOL** - EGR Bleed Solenoid

**EGR-BPTV** - EGR Backpressure  
Transducer Valve

**EGRC** - EGR Controller

**EGRCs** - EGR Control Solenoid

**EGR-DVLV** - EGR Delay Valve

**EGR/EPR** - EGR Exhaust Pressure  
Regulator Valve

**EGR-RST** - EGR Restrictor

**EGR-SOL** - EGR Solenoid

**EGR/TC-TVS** - EGR/Torque Converter  
Thermal Vacuum Switch

**EGR-TVS** - EGR Thermal Vac. Switch

**EPR-SOL** - Exhaust Pressure  
Regulator Solenoid

**EPR-VLV** - Exhaust Pressure  
Regulator Valve

**ESC** - Electronic Spark Control

**ESS** - Engine Speed Sensor

**EVAP** - Evaporative Emiss. Control

**EVRV** - Electronic Vac. Regulator  
Valve

**HIC** - Hot Idle Compensator

**HPCA** - Housing Pressure  
Cold Advance

**IS** - Idle Switch

**MCU** - Micro Computer Unit

**MVS** - Manifold Vacuum Switch

**OC** - Oxidation Catalytic

**ORC** - Oxidation Reduction Catalytic

**O<sub>2</sub>** - Oxygen Sensor

**PAIR** - Pulse Air Injection  
Reactor

**PCV** - Positive Crankcase Vent.

**PTVS** - Purge Thermal Vacuum Switch

**PVBRK** - Primary Vacuum Break

**SADV-TVS** - Spark Advance Thermal  
Vacuum Switch

**SPK** - Spark Control

**SRD-VLV** - Spark Retard Delay Valve

**SVBRK** - Secondary Vacuum  
Break Switch

**SVBRK-TVS** - Secondary Vacuum Break  
Thermal Vacuum Switch

**TAC** - Thermostatic Air Cleaner

**TCC** - Torque Converter Clutch

**TC-DVLV** - Torque Conv. Delay Valve

**TCS** - Trans. Controlled Spark

**TC-TVS** - Torque Converter Thermal  
Vacuum Switch

**TCVS** - Torque Converter Vacuum Switch

**TK** - Throttle Kicker

**TLA** - Throttle Lever Actuator

**TRC** - Throttle Return Control

**TRC-TVS** - Trans. Lock-up Converter  
Thermal Vacuum Switch

**TRC-VS** - Trans. Lock-up Converter  
Vacuum Switch

**TRC-SOL** - Throttle Return Control  
Solenoid

**TRC-SOL-CVLV** - Throttle Return Control  
Solenoid-Control Valve

**TRC-TLA** - Throttle Return Control-  
Throttle Lever Actuator

**TRC-VLV** - Throttle Return Control Valve

**TVS** - Thermal Vacuum Switch

**TWC** - Three-Way Catalyst

**VACP** - Vacuum Pump

**VASC** - Vacuum Advance Spark Control

**VB** - Vacuum Break

**VBRK** - Vacuum Break Acuator

**VCV** - Vacuum Control Valve

**VDVLV** - Vacuum Delay Valve

**VRV** - Vacuum Regulator Valve

**VR-VLV** - Vacuum Regulator Valve

**VSV** - Vacuum Switching Valve

**WOT-SW** - Wide Open Throttle Switch