

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-8-396-1  
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
J1G1.6V5XRG7	1.6/2.0 (98/122)	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Central Fuel Injection)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per mile</u>
0.39	7.0	0.7

The following are the certification emission values for this engine family:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.19	1.9	0.3

BE IT FURTHER RESOLVED: That the listed models were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed vehicle models have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order supersedes Executive Order A-6-396 dated March 3, 1987.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 28<sup>th</sup> day of January, 1988.

  
K. D. Drachand, Chief  
Mobile Source Division

## AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation                      Executive Order No.: A-6-396-1  
 Engine Family: J1G1.6V5XR7                                      Evaporative Family: JAO-1F  
 Engine Displacement Liters (Cubic Inches) - Type: 1.6 (98)/2.0 (122) - I4  
 Exhaust Emission Control System (Special Features): EGR, TWC, OS (CFI)

## ABBREVIATIONS:

Ignition System

CA-Centrifugal Advance  
 ECU-Electronic Control Unit  
 EI-Electronic Ignition  
 ESAC-Electronic Spark Advance Control  
 VA-Vacuum Advance  
 VR-Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV-nVenturi Carburetor  
 V-Variable Venturi

GM Abbreviations

A/C-Air Conditioning  
 CID Cubic Inch Displacement  
 ETW-Equivalent Test Weight  
 FC Forward Control  
 HD-Heavy Duty  
 RI-Rail & Injector  
 RWD-Rear Wheel Drive  
 TBI-Throttle Body Injection  
 4x2-Two Wheel Drive  
 4x4-Four Wheel Drive  
 6x4-Four Wheel Drive

Exhaust Emission Control System

AIP-Air Injection Pump  
 AIV-Air Injection Valve  
 EGR-Exhaust Gas Recirculation  
 EIC-Electronic Injection Control  
 EM-Engine Modification  
 DBC-Dual Bed Catalyst  
 HOS-Heated Oxygen Sensor  
 OC-Oxidation Catalyst  
 OS-Oxygen Sensor  
 SPL-Smoke Puff Limiter or Throttle Delay  
 TOC-Trap Oxidizer, Continual  
 TOP-Trap Oxidizer, Periodical  
 TR-Thermal Reactor  
 TWC-Three-Way Catalyst  
 WUOC-Warm-up Oxidation Catalyst  
 WUTWC-Warm-up Three-Way Catalyst

Special Features

CCV-Combustion Chamber Valve  
 CFI-Central Fuel Injection  
 DID-Diesel Injection-Direct  
 DIP-Diesel Injection-Prechamber  
 EFI-Electronic Fuel Injection  
 IC-Intercooler/Aftercooler  
 MFI-Mechanical Fuel Injection  
 OBD-On Board Diagnostics  
 TC-Turbocharger

17-J1G1.6V5XRG7-2A

(For CARB Use Only)  
(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
GASOLINE-FUELED PASSENGER CARS

Executive Order No. A-6-396

VEHICLE MODELS:

1 J U 2 7 (EXAMPLE)

Digit 1  
Selling Division

- 1-Chevrolet
- 2-Pontiac
- 3-Oldsmobile
- 4-Buick
- 6-Cadillac

Digit 2 - Body Designation

- A-Celebrity, 6000, Cutlass Ciera, Cutlass Cruiser, Century
- B-Caprice, Safari Wagon, Custom Cruiser, LeSabre/Electra Wagon
- C-Ninety-Eight Regency, Electra, DeVille, Fleetwood, Limousine
- D-Brougham
- E-Toronado, Riviera, Eldorado
- F-Camaro, Firebird, Trans Am, Formula
- G-Monte Carlo, El Camino, Caballero
- H-Bonneville, Delta 88 Royale, LeSabre
- J-Cavalier, Sunbird, Firenze, Skyhawk, Cimarron
- K-Seville
- L-Corsica, Beretta
- N-Grand Am, Calais, Somerset/Skylark
- P-Fiero
- T-Lemans
- V-Allante
- W-Grand Prix, Regal, Cutlass Supreme
- Y-Corvette
- Z-Commercial Chassis

Digit 3  
Trim Level

Digits 4 & 5 - Body Style

- |                              |                          |
|------------------------------|--------------------------|
| 07-2Dr Sport Coupe           | 47-2Dr Hardtop Coupe     |
| 08-2Dr Hatchback Coupe       | 57-2Dr Hardtop Coupe     |
| 11-2Dr Notchback Coupe/Sedan | 67-2Dr Convertible Coupe |
| 19-4Dr Sedan                 | 68-4Dr Hatchback Sedan   |
| 23-4Dr Auxiliary Seat Sedan  | 69-4Dr (Notchback) Sedan |
| 27-2Dr (Notchback) Coupe     | 77-2Dr Hatchback Coupe   |
| 33-4Dr Auxiliary Seat Sedan  | 80-2Dr Sedan Pickup      |
| 35-4Dr Station Wagon         | 87-2Dr Hatchback Coupe   |
| 37-2Dr Hardtop Coupe         | 90-Commercial Chassis    |
|                              | 97-2Dr Hardtop Coupe     |

Engine: Front

Drive: FWD

SUED: 12-10-86

REV. NO.:

0232T

(For CARB Use Only)

(1988)

## AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS\_\_\_ MEDIUM DUTY VEHICLES\_\_\_ GAS X DIESEL\_\_\_

Liters (CID): 1.6 (98)

Type: I4

Executive Order No. A-6-396

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	2TN08,2TS08	A3	2500	16054489	17087077	17087248	25100047
	2TN19,2TR19		2625				
1A				16070539			
1B				16085929			
2	2TN08,2TR19		2500	16054489			
	2TN19,2TS08		2625				
2A				16070539			
2B				16085929			
3	2TN08,2NT19, 2TS08	M5	2500	16070549		17087249	
	2TR19		2625				
3C				16121239			
4	2TN19,2TR19, 2TN08,2TS08		2500	16070549			
	2TX08	M4	2375				
4C				16121239			

Comments: See page one for abbreviations and family information. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 12-10-86

REV. NO.: 002 007  
003  
004  
005

0232T/25T

(For CARB Use Only)

(1988)

## AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS      MEDIUM DUTY VEHICLES      GAS X DIESEL     

Liters (CID): 2.0 (122)

Type: I4

Executive Order No. A-6-396-1

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
6	2TS08	A3	2625	16083549	17088123	17088107	25100047
	2TR19		2750				
7	2TS08,2TR19		2625				
8	2TS08,2TR19	M5	2625	16083559		17088108	
9	2TS08		2500				
	2TR19		2625				

Comments: See page one for abbreviations and family information. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 006

REV. NO.:

0232T/25T