

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-397
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>
J1G2.0V9T4B1	2.0 (122)	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Electronic Fuel Injection) (On Board Diagnostics) (Turbocharger)

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>
0.27	2.6	0.5

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 loaded vehicle weight class 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 also comply with 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.

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

Executed at El Monte, California this 23rd day of February, 1987.


K. D. Drachand, Chief
Mobile Source Division

17-J1G2.0V9T4B1-1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation Executive Order No.: A-6-397
Engine Family: J1G2.0V9T4B1 Evaporative Family: J80-1J
Engine Displacement Liters (Cubic Inches) - Type: 2.0 (122) - I4
Exhaust Emission Control System (Special Features): EGR, TWC, OS (EFI, OBD, TC)

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

I, CL, DID, DIP, EFI, MFI
nv-nVenturi Carburetor
VV-Variable Venturi

Other 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

ISSUED: 12-18-86

REV. NO.:

U234T

17-J1G2.0V9T481-2A

(For CARB Use Only)
(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS

Executive Order No. A-6-397

VEHICLE MODELS:

1 U 2 7 (EXAMPLE)

Digit 1
Selling Division

Digit 2 - Body Designation

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

- 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, Firenza, 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

ISSUED: 12-18-86

REV. NO.:

0234T

17-J1G2.0V9T4B1-3A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.
				(ECU) PART NO.	(PFI) PART NO.		
11	3JC27 3JC69 4JS27 2JB37 2JB69 2JD37 2JD69 2JU37 2JD67 2NE27 2NV27 4JS69 2JU67 2NE69 2NV69 2NW27 2NW69	A3	2875 3000 	16062122 16056422 16062122 16056422 	10042029	17087206	25101707

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: 12-18-86

REV. NO.:

0234T

17-J1G2.0V9T4B1-3.1A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.
				(ECU) PART NO.	(PFI) PART NO.		
11A	3JC27	A3	2875	16082262	10042029	17087206	25101707
	3JC69						
	4JS27						
	2JB37			16082242			
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NV27						
	4JS69			16082262			
	2JU67		3125	16082242			
	2NE69						
	2NV69						
	2NW27						
	2NW69						

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: 001

REV. NO.:

0234T/25T

17-J1G2.0V9T4B1-3.2A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.
				(ECU) PART NO.	(PFI) PART NO.		
11B	3JC27	A3	2875	16084282	10042029	17087206	25101707
	3JC69						
	4JS27						
	2JB37			16084262			
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NV27						
	4JS69			16084282			
	2JU67		3125	16084262			
	2NE69						
	2NV69						
	2NW27						
	2NW69						

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: 002

REV. NO.:

0234T/25T

17-J1G2.0V9T4B1-3.3A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (PFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
11C	2JB37	A3	2875	16120002	10042029	17087206	25101707
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NV27						
	2JU67		3125				
	2NE69						
	2NV69						
	2NW27						
	2NW69						

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: 003

REV. NO.:

J4T/25T

17-J1G2.0V9T4B1-4A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (PFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
12	3JC27	M5	2875	16062132	10042029	17087206	25101707
	3JC69						
	4JS27						
	4JS69						
	2JB37			16056432			
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NE69						
	2NV27						
	2NV69						
	2NW27						
	2JU67		3125				
	2NW69						

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.

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REV. NO.:

0234T

17-J1G2.0V9T4B1-4.1A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (PFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
12A	3JC27	M5	2875	16082272	10042029	17087206	25101707
	3JC69						
	4JS27						
	4JS69						
	2JB37			16082252			
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NE69						
	2NV27						
	2NV69						
	2NW27						
	2JU67		3125				
	2NW69						

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.

ISS: 001

REV. NO.:

0234T/25T

17-J1G2.OV9T4B1-4.2A

(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-6-397

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.
				(ECU) PART NO.	(PFI) PART NO.		
12B	3JC27	M5	2875	16084292	10042029	17087206	25101707
	3JC69						
	4JS27						
	4JS69						
	2JB37			16084272			
	2JB69						
	2JD37						
	2JD69						
	2JU37						
	2JD67		3000				
	2NE27						
	2NE69						
	2NV27						
	2NV69						
	2NW27						
	2JU67		3125				
	2NW69						

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: 002

REV. NO.:

0234T/25T