State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-421
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:

Engine Family	Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems (Special Features)
J1G2.0V5TDG1	2.0	(122)	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Central Fuel Injection) (On-Board Diagnostics)

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

The following are the emission standards for this engine family:

Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per mile
0.39	7.0	0.7

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

Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
0.23	1.5	0.2

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 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-J1G2.0V5TDG1-1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Executive Order No.: A-6-421

Engine Family: J1G2.0V5TDG1

Evaporative Family: JAO-1D

Engine Displacement Liters (Cubic Inches) - Type: 2.0 (122) - I4

Exhaust Emission Control System (Special Features): EGR, TWC, OS (CFI, OBD)

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
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: 01-22-87 REV. NO.:

0243T

17-J1G2.0V5TDG1-2A

(For CARB Use Only)
(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS

Executive Order No. A-6-421

VEHICLE MODELS: 1 J U 2 7 (EXAMPLE)

Digit 1 Selling Division	Digit 2 - Body Designation
1-Chevrolet	A-Celebrity, 6000, Cutlass Ciera, Cutlass Cruiser, Century
2-Pontiac	B-Caprice, Safari Wagon, Custom Cruiser, LeSabre/Electra Wagon
3-Oldsmobile	C-Ninety-Eight Regency, Electra, DeVille, Fleetwood, Limousine
4-Buick	D-Brougham
6-Cadillac	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: 01-22-87 REV. NO.:

0243T

17-J1G2.0V5TDG1-3A

(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-6-421

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (CFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	3JC27, 3JD27	A3	2750	16066682(1) 16066702(2)	17087061 17088022	17087268	25102328
	2JB37, 2JD37 2JB69, 2JD69 2JD35, 3JC35 3JC69, 3JD69 4JS27, 4JS69 2JU37		2875				
	2JU67, 2JD67 4JS35		3000				
1A				16066492(1) 16066512(2)		17088107	
1B				16085992(1) 16086002(2)			
2	2JB37, 2JD37 2JD69, 3JC27 3JC69, 3JD27 3JD69, 4JS27 2JU37	M5	2750	16066692(1) 16066712(2)		17087267	
	2JB69, 2JD35 2JD67, 3JC35 4JS35, 4JS69		2875				
	2JU67		3000				
2A				16066502(1) 16066522(2)		17088108	
2C				16089802(1) 16089812(2)			

(1) Pontiac
(2) Buick, Oldsmobile

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: 01-22-87 REV. NO.: 001, 002, 003
0243T/24T

17-J1G2.0V5TDG1-4A

(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-6-421

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (CFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
3	2JB37, 2JD37 2JD69, 3JC27 3JC69, 3JD27 3JD69, 4JS27 2JU37	A3	2750	16066682(1) 16066702(2)	17087061 17088022	17087268	25102328
	2JB69, 2JD35 3JC35, 4JS69 4JS35		2875				
	2JD67, 2JU67		3000				
3A				16066492(1) 16066512(2)		17088107	
3B				16085992(1) 16086002(2)			
4	2JB37, 2JD37 2JB69, 2JD69 2JD35, 3JC27 3JC35, 3JC69 3JD27, 3JD69 4JS27, 4JS69 2JU37	M5	2750	16066692(1) 16066712(2)		17087267	
	2JU67, 2JD67 4JS35		2875				
4A				16066502(1) 16066522(2)		17088108	
4C				16089802(1) 16089812(2)			

(1) Pontiac
(2) Buick, Oldsmobile

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: 01-22-87 REV. NO.: 001 003 002

0243T/24T