

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER P-6-20  
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 federally-certified emission control systems are certified for sale in California 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>
J2G4.5V5NKA9	4.5 (273)	Air Injection - Pump Exhaust Gas Recirculation Dual Bed 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>
0.41	3.4	1.0

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	2.3	0.7

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 "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 Executive Officer has been provided evidence of federal certification of vehicle models listed in the attachments which are not available as California-certified models.

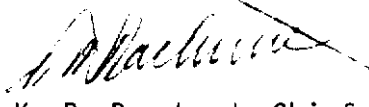
BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate that the vehicle manufacturer has sufficient emissions credits for its estimated California sales of federally-certified 1988 model-year vehicles using the "Guidelines for Certification of 1983 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles For Sale in California" (Title 13, California Administrative Code, Section 1960.5).

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 21<sup>st</sup> day of May, 1987.

  
K. D. Drachand, Chief  
Mobile Source Division

17-J2G4.5V5NKA9-1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Executive Order No.: P-6-20

Engine Family: J2G4.5V5NKA9

Evaporative Family: JBO-2B

Engine Displacement Liters (Cubic Inches) - Type: 273 (4.5L) - V8

Exhaust Emission Control System (Special Features): AIP, EGR, DBC, 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

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: 05-06-87

REV. NO.: 001  
002

0286T

17-J2G4.5V5NKA9-2A

(For CARB Use Only)  
(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
GASOLINE-FUELED PASSENGER CARS

Executive Order No. P-6-20

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, 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

SUED: 05-06-87

REV. NO.: 002

0286T

17-J2G4.5V5NKA9-3A

(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): 4.5L (273)

Type: V8

Executive Order No. P-6-20

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (CFI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
2	6CH33 6CH23	A4	4250 4000	16066266 16066276	17088030	17088047	25101933, 25103959
2A				16071036			

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.

SUED: 05-06-87

REV. NO.: 001  
002

0286T