

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-789  
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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1998 model-year General Motors Corporation exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: WGMXV02.4026 Displacement: 2.4 Liters (145 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converter  
Heated Oxygen Sensor  
Oxygen Sensor  
Exhaust Gas Recirculation  
Sequential Multiport Fuel Injection

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

The TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.125	3.4	0.4	0.015	10.0
100,000	0.156	4.2	0.6	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.98 RAF for 1998 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.076	1.5	0.1	0.002	5.5
100,000	0.092	2.2	0.2	0.002	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth 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 under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

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" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, 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 vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit 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 Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).


BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) 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 provisions (Title 13, California Code of Regulations, 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 13<sup>th</sup> day of May 1997.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

**AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
GASOLINE-FUELED PASSENGER CARS**

VEHICLE MODELS:

1 J C 3 7 (EXAMPLE)

**Digit 1 - Selling Division**

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

**Digit 2 - Body Designation**

- C - Park Avenue
- E - Eldorado
- F - Camaro, Firebird/Formula
- G - Riviera, Aurora
- H - Bonneville, Eighty-Eight/Regency, LeSabre
- J - Cavalier, Sunfire
- K - Seville
- Ksp - Deville, Limousine, Funeral Coach/Hearse
- N - Grand Am, Achieva, Skylark, Malibu, Cutlass
- V - Catera
- W - Grand Prix, Regal, Century, Lumina, Monte Carlo, Intrigue
- Y - Corvette
- Z - Saturn SC, SL, SW, EV1

**Digit 3 - Trim Level (Examples)**

B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z

**Digits 4 & 5 - Body Style (Examples)**

- |                            |                            |
|----------------------------|----------------------------|
| 07 - 2Dr Sport Coupe       | 37 - 2Dr Hardtop Coupe     |
| 08 - 2Dr Hatchback Coupe   | 47 - 2Dr Hardtop Coupe     |
| 11 - 2Dr Notchback         | 57 - 2Dr Hardtop Coupe     |
| 15 - 2Dr Station Wagon     | 67 - 2Dr Convertible Coupe |
| 19 - 4Dr Sedan             | 68 - 4Dr Hatchback Sedan   |
| 23 - 4Dr Aux. Seat Sedan   | 69 - 4Dr (Notchback) Sedan |
| 27 - 2Dr (Notchback) Coupe | 77 - 2Dr Hatchback Coupe   |
| 29 - 4Dr Sedan             | 87 - 2Dr Hatchback Coupe   |
| 35 - 4Dr Station Wagon     | 90 - Commercial Chassis    |

ISSUED: ML-WP079

REVISED:

17-WGMXV02.4026-1  
(1998)

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXV02.4026 EVAP FAMILY: WGMXE0095904  
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S ( ) 50S ( ) AB965 ( ) ORVR: YES ( ) NO (X)  
 EXH STD: CA TIER-1 ( ) TLEV (X) LEV ( ) ULEV ( ) SULEV ( ); U.S. EPA TIER-1 ( )  
 VEH CLASS(ES): PC (X) LDT1 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 ( ) MDV4 ( ) MDV5 ( )  
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA  
 FUEL TYPE(S): DEDICATED (X) GASOLINE (X); EXH EMIS TEST FUEL(S): INDOLINE ( ) CBG (X)  
 EVAP EMIS TEST PROCEDURE: CALIF ( ) FED (X)  
 SERVICE ACCUMULATION: STD AMA ( ) MFR ADP (X); NMOG TEST PROCEDURE: NA ( ) EQUIV (X)  
 R/L TEST PROCEDURE: PT SOURCE (X)  
 ENGINE CONFIGURATION: I4 (X) V6 ( ) V8 ( ) DISPLACEMENT: 2.4 LITERS / 145 CU. IN.  
 VALVES / CYLINDER: 2 ( ) 4 (X) RATED HP: 150 @ 5600 RPM  
 ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD ( ) 4WD-FT ( ) 4WD-PT ( )  
 EXHAUST EMISSION CONTROL SYSTEM: EGR, O2S, HO2S, SFI, TWC  
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
1	C	2NE37 2NE69 3NL37 3NL69 4NJ37 4NJ69 2NW37 2NW69	A4	3250      3375	17096306, 17096100	25160529, 25317336

\*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
GRAND AM	07025
ACHIEVA	06010
SKYLARK	01055

## 1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

R: GENERAL MOTORS CORP.

ENGINE FAMILY: WGMXV02.4026

EVAP FAMILY: WGMXE0095904

<u>ENGINE CODE &amp; LETTER DERIVATIVES*1</u>	<u>LOC (C/F/NW)</u>	<u>VEH MODELS (SEE PAGE 1)</u>	<u>TRANS (M5,A4,ETC.)</u>	<u>EQUIV. TEST WEIGHT</u>	<u>EGR - SYSTEM PART NO.</u>	<u>CATALYTIC CONVERTER PART NO.</u>
2	C	1JF37	A4	3125	17096306, 17096100	25160527, 25317335
		1JF69				
		2JB37		3250		
		2JB69				
		2JD37				
		2JB67				
		1JF67				
5	C	1ND69				
		3NB69				
		3NG69				

\*1 Base engine codes are the same as letter derivatives unless otherwise noted (see page 2.1 for engine code 5A information). Refer to PCM/VCM part number page for additional engine code letter derivative information.

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
CAVALIER	03160
SUNFIRE	07060
MALIBU	03130
CUTLASS	06030

ISSUED: ML-WP079

REVISED: ML-WR018, ML-WR063

17-WGMXV02.4026-3  
(1998)

(FOR CARB USE ONLY)

E.O. #A-6-789

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PCM AND CALIBRATION PART NUMBERS

MFR: GENERAL MOTORS CORP.

ENGINE FAMILY: WGMXV02.4026

EVAP FAMILY: WGMXE0095904

<u>ENGINE CODE</u>	<u>PCM/VCM PART NUMBER</u>	<u>ENGINE CALIB</u>	<u>OPER CALIB</u>	<u>TRANS CALIB</u>
1	16204850	16250113	NA	NA
1A		16267453		
1B		09351453		
1C		09353893		
2		16252563		
2A		16267393		
2B		09351393		
2C		09353823		
2D		09364423		
5		16250003		

ISSUED: ML-WP079

REVISED: ML-WR018, ML-WR031, ML-WR052, ML-WR094

17-WGMXV02.4026-4  
(1998)