

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-516
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 1991 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

Engine Family: M4G1.9V5JPH4 Displacement: 1.9 Liters (116 Cu. In.)

Exhaust Emission Control Systems (Special Features):

- Three-Way Catalyst
- Oxygen Sensor
- Exhaust Gas Recirculation
- Throttle Body Electronic 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</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
0.39	7.0	0.4

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

<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
0.17	3.0	0.3

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 Code of Regulations, 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 Emission Control Label Specifications" (Title 13, California Code of Regulations, Section 1965) for the aforementioned model year.

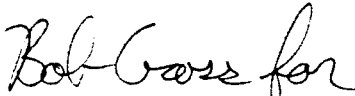
BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Code of Regulations, Section 1968) for the aforementioned model year.

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 provisions (California Health and Safety Code Section 43205).

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 5th day of April, 1990.


K. D. Drachand, Chief
Mobile Source Division

(FOR CARB USE ONLY)

16.03.00.00

EXECUTIVE ORDER INFORMATION

ENGINE FAMILY..... M4G1.9V5JPH4

EVAPORATIVE FAMILY..... MAO-4B

CARLINES TO BE COVERED:

CARLINE NAME	CARLINE CODE
SATURN SEDAN	37320

ISSUED: 01-17-90

16-M4G1.9V5JPH4-2

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

- A-Celebrity, 6000, Cutlass Ciera, Cutlass Cruiser, Century
- B-Caprice, Safari Wagon, Custom Cruiser, LeSabre/Electra Wagon, Coachbuilder Wagon
- C-Ninety-Eight, Touring, Electra, DeVille, Fleetwood, Commercial Chassis
- D-Brougham
- E-Toronado, Riviera, Eldorado, Reatta
- F-Camaro, Firebird, Trans Am
- H-Bonneville, Eighty-Eight, LeSabre
- J-Cavalier, Sunbird, Skyhawk
- K-Seville
- L-Corsica, Beretta
- N-Grand Am, Cutlass Calais, Skylark
- T-Lemans
- V-Allante
- W-Grand Prix, Regal, Cutlass Supreme, Lumina
- Y-Corvette
- Z-Saturn

Digit 3
Trim Level

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

Digits 4 & 5 - Body Style

- 07-2Dr Sport Coupe
- 08-2Dr Hatchback Coupe
- 19-4Dr Sedan
- 27-2Dr (Notchback) Coupe
- 35-4Dr Station Wagon
- 37-2Dr Hardtop Coupe
- 47-2Dr Hardtop Coupe
- 57-Dr Hardtop Coupe
- 67-2Dr Convertible Coupe
- 68-4Dr Hatchback Sedan
- 69-4Dr (Notchback) Sedan
- 87-2Dr Hatchback Coupe
- 90-Commercial Chassis
- 97-2Dr Hardtop Coupe

ISSUED: 01-17-90

REV. NO.:

17-M4G1.9V5JPH4-1
(1991)

(FOR CARB USE ONLY)

E.O. # A-6-516

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: M4G1.9V5JPH4

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

ENGINE TYPE: L4 LITER (CID): 1.9 (116)

EVAP FAMILY: MA0-4B

EMISSION CONTROL SYSTEM: EGR, O2S, TWC, TBI

ENGINE: FRONT X MID REAR DRIVE: FWD X RWD 4WD-FT 4WD-PT

CERTIFICATION STANDARDS: .39 HC, .4 NOx

DPA: SEE ATTACHMENT I

<u>ENG</u> <u>CODE</u>	<u>VEH MODELS</u> <u>(SEE PAGE 1A)</u>	<u>TRANS TYPE:</u> <u>A-AUTO</u> <u>M-MAN</u>	<u>EQUIV</u> <u>TEST</u> <u>WEIGHT</u>	<u>IGN SYSTEM</u> <u>(ECU/PROM)</u> <u>PART NO.</u>	<u>EGR</u> <u>SYSTEM</u> <u>PART NO.</u>	<u>CATALYST</u> <u>PART NO.</u>	<u>TLC</u>
1	8ZB69	A4	2625	21020691/ ECM 0300 TCM 0302	21000122	25128076 (MS 9307)	19V5JPHU
2	8ZB69						
3	8ZB69	M5		21020690/ 9873			
4	8ZB69						

ISSUED: 01-17-90

REV. NO.:

17-M4G1.9V5JPH4-1
(1991)

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E.O. # A-6-516

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: M4G1.9V5JPH4

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

ENGINE TYPE: L4 LITER (CID): 1.9 (116)

EVAP FAMILY: MA0-4B

EMISSION CONTROL SYSTEM: EGR, O2S, TWC, TBI

ENGINE: FRONT X MID___ REAR___ DRIVE: FWD X RWD___ 4WD-FT___ 4WD-PT___

CERTIFICATION STANDARDS: .39 HC, .4 NOx

DPA: SEE ATTACHMENT I

<u>ENG CODE</u>	<u>VEH MODELS (SEE PAGE 1A)</u>	<u>TRANS TYPE:</u> A-AUTO M-MAN	<u>EQUIV TEST WEIGHT</u>	<u>IGN SYSTEM (ECU/PROM) PART NO.</u>	<u>EGR SYSTEM PART NO.</u>	<u>CATALYST PART NO.</u>	<u>TLC</u>
1	8ZB69	A4	2625	21020691/ ECM 0300 TCM 0302	21000122	25128076 (MS 9307)	19V5JPHU
2	8ZB69						
3	8ZB69	M5		21020690/ 9873			
4	8ZB69						
1A	8ZB69	A4		21020756/ ECM 0300 TCM 2656			
2A	8ZB69						

ISSUED: 01-17-90

REV. NO.: 001

17-M4G1.9V5JPH4-2
(1991)

(FOR CARB USE ONLY)

E.O. # A-6-516

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: M4G1.9V5JPH4

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

ENGINE TYPE: L4 LITER (CID): 1.9 (116) EVAP FAMILY: MA0-4B

EMISSION CONTROL SYSTEM: EGR, O2S, TWC, TBI

ENGINE: FRONT X MID___ REAR___ DRIVE: FWD X RWD___ 4WD-FT___ 4WD-PT___

CERTIFICATION STANDARDS: .39 HC, .4 NOx DPA: SEE ATTACHMENT I

ENG CODE	VEH MODELS (SEE PAGE 1A)	TRANS TYPE: A-AUTO M-MAN	EQUIV TEST WEIGHT	IGN SYSTEM (ECU/PROM) PART NO.	EGR SYSTEM PART NO.	CATALYST PART NO.	TLC
1B	8ZH69	A4	2625	21020815/ ECM 6074 TCM 6075	21000122	25128076 (MS 9307)	19V5JPHU
2B	8ZH69						
3B	8ZG69 8ZF69	M5		21020802/ 5135			
4B	8ZF69 8ZG69						
1C	8ZH69	A4		21020819/ ECM 7302 TCM 7308			
2C	8ZH69						
3C	8ZG69 8ZF69	M5		21020818/ 7306			
4C	8ZG69 8ZF69						

ISSUED: 002

REV. NO.: 003

17-M4G1.9V5JPH4-2.1
(1991)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: M4G1.9V5JPH4

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

ENGINE TYPE: L4 LITER (CID): 1.9 (116) EVAP FAMILY: MA0-4B

EMISSION CONTROL SYSTEM: EGR, O2S, TWC, TBI

ENGINE: FRONT X MID___ REAR___ DRIVE: FWD X RWD___ 4WD-FT___ 4WD-PT___

CERTIFICATION STANDARDS: .39 HC, .4 NOx DPA: SEE ATTACHMENT I

ENG CODE	VEH MODELS (SEE PAGE 1A)	TRANS TYPE: A-AUTO M-MAN	EQUIV TEST WEIGHT	IGN SYSTEM (ECU/PROM) PART NO.	EGR SYSTEM PART NO.	CATALYST PART NO.	TLC
1D	8ZH69	A4	2625	21021190/ ECM 0242 TCM 0243	21000122	25128076 (MS 9307)	19V5JPHU
2D	8ZH69						
1E	8ZH69			21021217/ ECM 1291 TCM 1292			
2E	8ZH69						
1F	8ZH69			21021219/ ECM 1291 TCM 1582			
2F	8ZH69						

ISSUED: 004

REV. NO.: 005, 006

17-M4G1.9V5JPH4-2.2
(1991)

ATTACHMENT I

TEST HORSEPOWER VALUES

Body Style	Test Weight Classes	50mph Road Load Hp	without.AC Coast Dyno Down Hp	Time	.with..AC. Coast Dyno Down Hp	Time	CD, CA or FA
***** SATURN BODY (FWD) *****							
SATURN 2+2 COUPE (8ZB27)							
w/auto trans & P195/60R15 AL3	0-2750	11.80	5.5	14.38	6.0	13.74	CA
w/man. trans & P195/60R15 AL3	0-2750	11.30	6.4	14.98	7.0	14.32	CA
SATURN SEDAN (8ZB69) (MODEL I)							
w/auto trans & P175/70R14 ALS	0-2750	10.70	5.8	15.79	6.4	14.98	CD
w/man. trans & P175/70R14 ALS	0-2625	10.30	5.8	15.83	6.4	15.02	CD
SATURN SEDAN (8ZD69) (MODEL II)							
w/auto trans & P195/60R15 AL3	0-2875	11.80	5.5	15.01	6.0	14.35	CA
w/man. trans & P195/60R15 AL3	0-2750	11.30	6.4	14.98	7.0	14.32	CA