

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-338
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 1986 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 Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
G4G3.8V8XEB4	181/231 (3.0/3.8)	Exhaust Gas Recirculation Three-Way Catalyst with Closed Loop (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 Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per mile</u>
0.41	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>
0.32	2.0	0.7

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 1973 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 1981 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 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 3rd day of June, 1985.



K. D. Drachand, Chief
Mobile Source Division

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Manufacturer General Motors Corporation Executive Order No. A-6-338 Page 1

Engine Family G4G3.8V8XEB4 Evaporative Family 6B0-4A

Engine CID (Liters) - Type 231 (3.8) (3.0/2.3) (3.0/3.8)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard

Exhaust Emissions Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 CL-Closed Loop
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 OC-Oxidation Catalyst System
 TR-Thermal Reactor
 TWC-Three Way Catalyst System

Headings

AIR COND-Air Conditioning
 BB-Basic Body
 BT-Body Type
 DI-Diesel Injection
 DIN-Diesel Injector Nozzles
 DIV-Division
 ECM-Electronic Control Module
 ETW-Equivalent Test Weight
 TLC-Tune-Up Label Code
 TNS-Transmission
 TM-Trim

Fuel System

CFI, CL, DID, DIP, EFI, MFI, TBI
 nV-nVenturi Carburetor
 VV-Variable Venturi

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 MFI-Mechanical Fuel Injection
 TC-Turbocharged
 TBI-Throttle Body Injection
 EFI-Electronic Fuel Injection

DIV	BB	TM	BT	MODEL NAME	DIV	BB	TM	BT	MODEL NAME
2				PONTIAC	3				OLDSMOBILE
	N	E	27	Grand Am Coupe		E	Z	57	Toronado Brougham Coupe
			69	Grand Am Sedan		H	N	37	Delta 88 Royale Coupe
	V		27	Grand Am LE Coupe				69	Delta 88 Royale Sedan
			69	Grand Am LE Sedan	3.0		Y	37	Delta 88 Royale Brougham Coupe
	W		27	Grand Am SE Coupe				69	Delta 88 Royale Brougham Sedan
			69	Grand Am SE Sedan					
3				OLDSMOBILE		N	F	27	Calais Coupe
	A	J	19	Cutlass Ciera LS Sedan				69	Calais Sedan
			27	Cutlass Ciera LS Coupe			T	27	Calais Supreme Coupe
			37	Cutlass Ciera S Coupe				69	Calais Supreme Sedan
	C	W	11	Ninety-Eight Regency Brougham Coupe					
			69	Ninety-Eight Regency Brougham Sedan					
	X		11	Ninety-Eight Regency Coupe					
			69	Ninety-Eight Regency Sedan					

DRIVE AXLE: Front Wheel Drive

ISSUED:

REVISIONS:

1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer General Motors Corporation Executive Order No. A-6-338 Page 2Engine Family G4G3.8V8XE84 Evaporative Family 6B0-4AEngine CID (Liters) - Type 231 (3.8) 281/231 (3.0/3.8)

<u>DIV</u>	<u>BB</u>	<u>TM</u>	<u>BT</u>	<u>MODEL NAME</u>	<u>DIV</u>	<u>BB</u>	<u>TM</u>	<u>BT</u>	<u>MODEL NAME</u>
4				BUICK					
A	G		19	Century T Type Sedan					
	H		19	Century Custom Sedan					
			27	Century Custom Coupe					
			35	Century Custom Wagon					
	L		19	Century Limited Sedan					
			27	Century Limited Coupe					
			35	Century Estate Wagon					
C	F		69	Electra T Type 4 Dr Sedan					
	W		11	Electra Park Avenue 2 Dr Sedan					
			69	Electra Park Avenue 4 Dr Sedan					
	X		11	Electra 380 2 Dr Sedan					
			69	Electra 380 4 Dr Sedan					
E	Y		57	Riviera T Type Coupe					
	Z		57	Riviera Coupe					
H	P		37	LeSabre Custom Coupe					
			69	LeSabre Custom Sedan					
	R		37	LeSabre Limited Coupe					
			69	LeSabre Limited Sedan					
N	J		27	Somerset Custom Coupe					
			69	Skylark Custom Sedan					
	K		27	Somerset T Type Coupe					
	M		27	Somerset Limited Coupe					
			69	Skylark Limited Sedan					

DRIVE AXLE: Front Wheel Drive

ISSUED:

REVISIONS:

0116N

1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS

Form 2

Manufacturer General Motors Corporation Executive Order No. A-6-338 Page 3
Engine Family G4G3.8V8XEB4 Exhaust Emission Control System CL (EFI) EGR-TWC

ENG. CID	ENG. CODE	AIR COND	ECM PART NO.	RAIL & INJECTOR PART NO.	EGR VALVE PART NO.	ETW	DIV	B	T	BT	TNS	TLC	REV. NOTES
181	7	W & WO	16054694	25525040 25526958	17085910	3000	234 3	N N		27 69	A-3	BNK	
	7A		16059814			3125	2 4	N		69			E B
	8	W	16054704		17086022	3500	34	H		37	A-4	BNB	
	8A		16060324				34	H		69			G
	12	W & WO	16043454		17086704	3000	234 3	N N		27 69	A-3	BNK	
						3125	2 4	N		69			B
231	1	W	16054724	25525639	17086704	3625	34	C		11	A-4	BGB	C
	1A		16059144				34	C		69			D
	1B		16060374	25526959									J
	1C		16068334										
	2,6, 2A,6A, 2B,6B 2C,6C	W & WO	16060384			3250	4	A	H	19		BGU	
							4	A	L	19			F
							4	A		27			H
						3375	3	A		19			J
							4	A	G	19			
							3	A		27			
							3	A		37			
						3500	4	A		35			
	14	W	16057774			3500	34	H		37		BGB	A
	14A		16060334				34	H		69			
	14B		16068314										J
	15	W	16060344			3500	34	H		37			I
							3	H	N	69			
						3625	3	H	Y	69			
							4	H		69			

Comments: See page one for abbreviations and evaporative emission family identification
Please refer to manufacturer's HP lists for correct dyno test HP settings
based on model and equipment.

ISSUED: 06-03-85 REVISIONS: A. Engine code 3 deleted; engine code 14 added by RC 64-032 on 06-11-85. B. Updated 2N 69 models from 3000 to 3125 ETW on 06-14-85. C. Added 34 C T1 and 34 C 69 models by RC 64-042 on 06-24-85. D. Engine code 1A added by RC 64-079 on 08-12-85. E. Engine code 7A added by RC 64-115 on 11-07-85. F. Engine codes 2A and 6A added by RC 64-122 on 10-31-85. G. Engine code 8A added by RC 64-123 on 11-11-85. H. Engine codes 2B and 6B added by RC 64-137 on 01-10-86. I. Engine code 15 added by RC 64-150 on 02-27-86. J. Engine codes 1C, 2C, 6C and 14B added by RC 64-161 on 04-11-86.

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GASOLINE-FUELED PASSENGER CARS

Manufacturer General Motors Corporation Executive Order No. A-6-338 Page 4

Engine Family G4G3.8V8XEB4 Exhaust Emission Control System CL (EFI) EGR-TWC

ENG. CID	ENG. CODE	AIR COND	ECM PART NO.	RAIL & INJECTOR		EGR VALVE PART NO.	ETW	DIV	B T		BT	TNS	TLC	REV. NOTES					
				INJECTOR PART NO.					B	T									
231	4	W	16055334	25525639	17086704	3500	34	H		37	A-4	BGB							
	4A, 4B, 4C		16060354	25526959					3	H			N	69			CE		
									3625	3			H	Y	69			D	
										4			H		69				
	5		16053734						3625	34			E		57				
	5A		16060414																C
	5B		16065104																F
	5C		16068364																G
	9		16054714						3500	34			H		37				
	9A		16059134							34			H		69				B
	9B		16060364																C
9C	16068324				3625	34	C		11				G						
						34	C		69										
10	16053744				3625	34	E		57				A						
10A	16060404												C						
10B	16065094												F						
10C	16068354												G						
11	16045784				3625	34	E		57										

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment.

ISSUED: 06-03-85

REVISIONS: A. Added 3EZ57 models to engine code 10 by RC 64-049 on 07-03-85. B. Engine code 9A added by RC 64-079 on 08-12-85. C. Engine codes 4A, 5A, 9B and 10A added by RC 64-122 on 11-06-85. D. Updated 3HY69, 4HP69 and 4HR69 models from 3500 to 3625 ETW on 01-17-86. E. Engine code 4B added by RC 64-150 on 02-27-86. F. Engine codes 5B and 10B added by RC 64-157 on 03-17-86. G. Engine codes 4C, 5C, 9C and 10C added by RC 64-161 on 04-11-86.

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