

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-336  
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>
G1G2.8W8XGZ4	173 (2.8)	Air Injection - Pump 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>
0.39	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>
0.34	2.5	0.6

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 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 22<sup>nd</sup> day of July, 1985.

  
K. D. Drachand, Chief  
Mobile Source Division

## 1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 1Engine Family G1G2.8W8XGZ4 Evaporative Family 6A0-1B, 6B0-1FEngine CID (Liters) - Type 173 (2.8) - V6

## 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

<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>
1				CHEVROLET	2				PONTIAC
	A	W	19	Celebrity Sedan	A	E	19	6000 SE Sedan	
			27	Celebrity Coupe			35	6000 SE Wagon	
			35	Celebrity Station Wagon		F	19	6000 Sedan	
	F	P	87	Camaro Sport Coupe			27	6000 Coupe	
		S	87	Camaro Berlinetta Sport Coupe			35	6000 Wagon	
	J	C	27	Cavalier Notchback Coupe		G	19	6000 LE Sedan	
			35	Cavalier Station Wagon			27	6000 LE Coupe	
			69	Cavalier Notchback Sedan			35	6000 LE Wagon	
		D	35	Cavalier CS Station Wagon		H	19	STE Sedan	
			69	Cavalier CS Notchback Sedan	F	S	87	Firebird	
			77	Cavalier CS Hatchback Coupe		X	87	Firebird SE	
	E		27	Cavalier Eurosport Notchback Coupe	P	F	37	Fiero SE Coupe	
			35	Cavalier Eurosport Station Wagon		G	97	Fiero GT Coupe	
			67	Cavalier Convertible Coupe		M	37	Fiero Sport Coupe	
			69	Cavalier Eurosport Notchback Sedan					
			77	Cavalier Eurosport Hatchback Coupe					
	F		27	Cavalier Z24 Notchback Coupe					
			77	Cavalier Z24 Hatchback Coupe					

DRIVE AXLE: Front Wheel Drive for A & J basic body.  
 Rear Wheel Drive for F & P basic body.

ISSUED:

REVISIONS:

0159N/

## 1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 2

Engine Family G1G2.8W8XGZ4 Evaporative Family 6A0-1B, 680-1F

Engine CID (Liters) - Type 173 (2.8) - V6

<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>
3				OLDSMOBILE					
	A	J	19	Cutlass Ciera LS Sedan					
			27	Cutlass Ciera LS Coupe					
			35	Cutlass Cruiser					
			37	Cutlass Ciera S Coupe					
		M	19	Cutlass Ciera Brougham Sedan					
			27	Cutlass Ciera Brougham Coupe					
			37	Cutlass Ciera SL Coupe					
	J	C	27	Firenza Coupe					
			35	Firenza Cruiser					
			69	Firenza Sedan					
			77	Firenza S Hatchback					
		D	27	Firenza LC Coupe					
			35	Firenza LX Cruiser					
			69	Firenza LX Sedan					
			77	Firenza GT Hatchback					

6				CADILLAC					
	J	G	69	Cimarron Sedan					

ISSUED: 07-22-85

REVISIONS: Oldsmobile "A" models added by RC 61-068 on 08-09-85.

0159N/14N

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

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 3

Engine Family G1G2.8W8XGZ4 Exhaust Emission Control System EGR-TWC-CL (EFI)  
AIP-EGR-TWC-CL (EFI) (1)

ENG. CID	ENG. CODE	AIR COND	ECM PART NO.	RAIL & INJECTOR		EGR VALVE PART NO.	ETW	DIV	B T		BT	TNS	TLC	REV. NOTES						
				PART NO.	PART NO.				B	T										
173	51	Yes	16052941	17085038	17086160	17085913	3125	1	A		27	A3	YBU	A						
52	No	16053081					3125	1	A		19			A						
53	Yes	16053091					3125	1	A		27			A						
54	No	16053101					3125	1	A		19			A						
55	Yes	16054971					3125	1	A		27			A						
57	Yes	16053111					3250	123	A		19	AA		A						

(1) Only for F cars with manual transmission.

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: 07-22-85

REVISIONS: A. Oldsmobile "A" models added and misc. ETW's  
changed by RC 61-068 on 08-09-85.

0159N/14N

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

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 4

Engine Family G1G2.8W8XGZ4 Exhaust Emission Control System AIP-EGR-TWC-CL (EFI) (1)  
EGR-TWC-CL (EFI)

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
173	58	No	16053121	17085038 17086160	17085913	3125	1 3	A		27	A4	YBU	A
						3250	123	A		19			A
							2	A		27			
							3	A		37			
59	Yes		16054861			3250	1 3	A		19			A
							1 3	A		27			
							3	A		37			
60	No		16054871			3125	1 3	A		27			A
						3250	123	A		19			A
							2	A		27			
							3	A		37			
61	Yes		16053131			3375	2	A		19	A3		A
							1 3	A		35			
						3500	2	A		35			A
62	No		16053141			3375	123	A		35			A
63	Yes		16053151			3375	2	A		19			A
							1 3	A		35			
						3500	2	A		35			A
64	No		16053161			3375	123	A		35			A
67	Yes		16053331			3375	2	A		19	A4		A
							2	A		27			
							1	A		35			
						3500	23	A		35			A

(1) Only for F cars with manual transmission.

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: 07-22-85

REVISIONS: A. Oldsmobile "A" models added and misc. ETW's changed by RC 61-068 on 08-09-85.

0159N/14N

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

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 5

Engine Family G1G2.8W8XGZ4 Exhaust Emission Control System EGR-TWC-CL (EFI)  
AIP-EGR-TWC-CL (EFI) (1)

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
173	68	No	16053341	17085038 17086160	17085913	3375	1 3	A		35	A4	YBU	A
						3500	2	A		35			A
	69	Yes	16054941			3375	2	A		19			A
							2	A		27			
							1	A		35			
						3500	23	A		35			A
	70	No	16054951			3375	1 3	A		35			A
						3500	2	A		35			A
	75	Yes	16054901		17085914	3125	1	A		27	M5	YBM	
						3250	1	A		19			
							2	A	EFG	19			
							2	A		27			
						3375	2	A	H	19			
	76	No	16054911			3125	1	A		19			A
							1	A		27			
						3250	2	A		19			A
							2	A		27			
	77	Both	16055002	17085038	17085897	3125	2	P		37	A3	R8T	
							2	P		97			
	78	Both	16055022 16060052			3000	2	P		37	M4		B
						3125	2	P		97			
	79	Both	16055012 16060032			3000	2	P		37	M5		B
						3125	2	P		97			

(1) Only for F cars with manual transmission.

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: 07-22-85

REVISIONS: A. Oldsmobile "A" models added and misc. ETW's changed by RC 61-068 on  
B. Alternate ECM part numbers added by RC 61-126 on 01-22-86

0159N/14N





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

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 7

Engine Family G1G2.8W8XGZ4 Exhaust Emission Control System AIP-EGR-TWC-CL (EFI) (1)  
EGR-TWC-CL (EFI)

ENG. CID	ENG. CODE	AIR COND	ECM PART NO.	RAIL & INJECTOR		EGR VALVE PART NO.	ETW	DIV	B T		BT	TNS	TLC	REV. NOTES
				PART NO.	PART NO.				B	M				
173	84	No	16052481	17085038	17086160	17085735	2750	1 3	J		27	A4	YBW	
								1	J		69			
							2875	1 3	J		35			
								1	J		67			
								3	J		69			
								1 3	J		77			
	85	Yes	16048861				2875	1 3	J		27	M5		
								1	J		35			
								1 3	J		69			
								1 3	J C		77			A
							3000	3	J		35			
								1	J		67			
								6	J		69			
								3	J D		77			A
	86	No	16048871				2750	1	J		27			
								3	J C		27			
								1	J C		69			
							2875	3	J D		27			
								1 3	J		35			
								1	J		67			
								1	J DE		69			
								3	J		69			
								1 3	J		77			

(1) Only for F cars with manual transmission.

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: 07-22-85

REVISIONS: A. Model 3JD77 ETW changed to 3000 by RC 61-068 on  
08-09-85.

0159N/14N

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

Manufacturer General Motors Corporation Executive Order No. A-6-336 Page 8

Engine Family G1G2.8WBXGZ4 Exhaust Emission Control System EGR-TWC-CL (EFI)  
AIP-EGR-TWC-CL (EFI) (1)

ENG. CID	ENG. CODE	AIR COND	ECM PART NO.	RAIL & INJECTOR		EGR VALVE		B T				REV. NOTES
				PART NO.	PART NO.	ETW	DIV	B	T	BT	TNS	
173	91	Yes	16052991	17085039	17085913	3375	1	F		87	A4	YCF
	92	No	16053391			3375	1	F		87		
	93	Yes	16053401			3375	2	F		87		YCH
	94	No	16053411			3375	2	F		87		
	95	Yes	16053011		17085914	3375	1	F	S	87	M5	YCC
						3500	1	F	P	87		A
	96	No	16053421			3375	1	F	S	87		
						3500	1	F	P	87		A
	97	Yes	16053431			3375	2	F		87		YCD
	98	No	16053441			3375	2	F		87		

(1) Only for F cars with manual transmission.

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: 07-22-85

REVISIONS: A. Test weight for model 1FP87 increased to 3500  
by RC 61-093 on 10-07-85.

0159N/14N