State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-90-3
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That General Motors Corporation exhaust emission control systems for 1977 model-year passenger cars are certified for the engine family described below:

Engine Family: 740E2LU
Engine: 231 CID
Transmission: 3-speed manual, 3-speed automatic
Exhaust Emission Control Systems: Air Injection, Exhaust Gas Recirculation, Oxidation Catalyst, Early Fuel Evaporation.

Models: Pontiac

Phoenix Coupe
Phoenix Sedan

BE IT FURTHER RESOLVED: That this certification is contingent upon General Motors Corporation affixing a permanent catalyst overheat warning label on the driver's sun-visor of all catalyst-equipped vehicles. This label must be approved by the Executive Officer.

BE IT FURTHER RESOLVED: That this certification is also contingent upon General Motors Corporation listing in the owner's manual the operating cautions associated with a catalyst-equipped vehicle. This listing must be approved by the Executive Officer.

These vehicles are in addition to those previously certified for this engine family.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California, this 18 day of February, 1977.

G. C. Hass, Chief
Vehicle Emissions Control Division

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET - GM FORMAT

(X) Passenger Cars ( ) Light-Duty Trucks

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-90 Page 1

Engine Family 740E2LU Engine (CID) 231 Transm. _____

Emission Control System AI,EGR,OC,EFE +10% (A/C) Yes (XX) No ( )

Divisions	Basic Body	Trim	Body Type	Transmission Type	Inertia Weight	Distributor Type HEI C,V Mfgr. Part Number	Fuel System 1-2V Mfgr. Part Number	EGR System Part No. Service*	Engine Code	Tune-Up Label Ident. & Page No.
3	X	B	17	A-3	3500	Delco Remy 1110686	Rochester 17057446	7044098 No Service	1	JD 11
23	X		27							
4	X	B	27							
4	X	W	27							
3	X		69							
2 4	X		17		4000					
3	X	E	17							
2	X		27							
4	X	C	27							
2 4	X		69							
234	B		37							
234	B		69							
2	X	Y	17		3500		17057448 17057446		3	
3	X		17							
4	X	B	17							
234	X		27							
234	X		69							
2	X	Z	17		4000					
4	X	C	17							
2	X		69							

Comments See page 3 for model codes and names. Some models have special road load HP settings.

Date of Issue 081776. Was pages 1 thru 5, 17057446 opt. carb. added to E.C. 3 by RC 74-133, format revised 120276. Inertia Wt. was 4000 for 2XY17 before RC 74-168 on 010777. Inertia Wt. was 4000 for 3XB17, 4XBW27, 3X69 in E.C. 1 and 4XB17, 4X27, 4X69 in E.C. 3 before RC 74-217, last 3 lines moved to page 2 on 042877.

Abbreviations

Distributor
C-Centrifugal Advance
V-Vacuum Advance
HEI-High Energy Ignition
EI-Electronic Ignition

Fuel System
EFI, Electronic Fuel Injection

Exhaust Emission Control System
AI-Air Injection
CAI-Catalyst Air Injection
EFI-Electronic Fuel Injection
EGR-Exhaust Gas Recirculation
EM-Engine Modification
EFE-Early Fuel Evaporation
ESAC-Electronic Spark Advance Control
FI-Fuel Injection
OC-Oxidation Catalyst

*Service
I-Inspect, repair/replace as needed
R-Replace

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET - GM FORMAT

(X) Passenger Cars ( ) Light-Duty Trucks

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-90 Page 2

Engine Family 740E2LU Engine (CID) 231 Transm.

Emission Control System AI, EGR, OC, EFE +10% (A/C) Yes (X) No ( )

Divisions	Basic Body	Trim	Body Type	Transmission Type	Inertia Weight	Distributor Type HEI C,V Mfgr. Part Number	Fuel System 1-2V Mfgr. Part Number	EGR System Part No. Service*	Engine Code	Tune-Up Label Ident. & Page No.
234	A		29	A-3	4000	1110686	17057448	7044098	3	
234	A		37				17057446			
34	A		57							
234	B		37							
234	B		69							
2	F		87							
234	H		07		3500		17057448	7044296	4	
2	H		27							
234	H		07	M-4,M-5		1110677	17057447	7044479	5	JC 11
2	H		27							
23	X		27	M-3			17057445		6	
4	X	B	27							
4	X	W	27							
3	X	B	69							
234	X		17		4000					
2	X		27							
4	X	C	27							
2 4	X		69							
3	X	E	69							
234	A		29							
234	A		37							
34	A		57							
2	F		87							

Comments See page 3 for model codes and names. Some models have special road load HP settings.

Issue Date 081776. 23A29, 3A57 added to E.C. 3 & 6 by RC 74-60 & 88 on 101376. Was pages 6 thru 10, 1705446 opt. carb. added to E.C. 3 by RC 74-133, format revised 120276. 2H07 added by RC 74-170 on 010777. Inertia Wt. was 4000 for 3XBE27, 4XBW27, 3XB69 before RC 74-217, first 3 lines moved from page 1 on 042877.

See page 1 for index to abbreviations

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
Passenger Cars

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-90 Page 3

Engine Family 740E2LU

Model Code Breakdown: 2 A D 29
Division — Basic Body — Trim — Body Type

Division	Basic Body	Trim	Body Type		
2				PONTIAC	
	A	G	29	Grand LeMans	Sedan
		D	29	LeMans	Sedan
		G	37	Grand LeMans	Coupe
		F	37	LeMans Sport	Coupe
		D	37	LeMans	Coupe
	B	N	37	Bonneville	Coupe
		L	37	Catalina	Coupe
		N	69	Bonneville	Sedan
		L	69	Catalina	Sedan
	F	S	87	Firebird	
		T	87	Firebird Esprit	
	H	M	07	Sunbird Hatchback	Coupe
		M	27	Sunbird	
	X	Z	17	Ventura 'SJ' Hatchback	Coupe
		Y	17	Ventura Hatchback	Coupe
		X	27	Phoenix	Coupe
		Z	27	Ventura 'SJ'	Coupe
		Y	27	Ventura	Coupe
		X	69	Phoenix	Sedan
		Z	69	Ventura 'SJ'	Sedan
		Y	69	Ventura	Sedan
3				OLDSMOBILE	
	A	M	29	Cutlass Brougham Hardtop	Sedan
		G	29	Cutlass Hardtop	Sedan
		J	29	Cutlass Supreme Hardtop	Sedan
		J	37	Cutlass Supreme Hardtop	Coupe
		G	37	Cutlass 'S' Hardtop	Coupe
		M	57	Cutlass Brougham Hardtop	Coupe

3 (Cont'd.)

B	N	37	Delta 88 Royale Pillar		Coupe
	L	37	Delta 88 Pillar		Coupe
	N	69	Delta 88 Royale Pillar		Sedan
	L	69	Delta 88 ~~Royale~~ Pillar		Sedan
H	T	07	Starfire		
	D	07	Starfire SX		
X	E	17	Omega Brougham	Hatchback	Coupe
	B	17	Omega	Hatchback	Coupe
	E	27	Omega Brougham		Coupe
	B	27	Omega		Coupe
	S	27	F-85		Coupe
	E	69	Omega Brougham	Sedan	
	B	69	Omega	Sedan	
4				BUICK	
A	H	29	Century Custom	Sedan	
	D	29	Century	Sedan	
	E	37	Century Special	Coupe	
	D	37	Century	Coupe	
	H	57	Century Custom	Coupe	
	J	57	Regal	Coupe	
B	P	37	LeSabre Custom	Coupe	
	N	37	LeSabre	Coupe	
	P	69	LeSabre Custom	Sedan	
	N	69	LeSabre Sedan		
H	S	07	Skyhawk		
	T	07	Skyhawk'S'		
X	C	17	Skylark 'SR'	Hatchback	Coupe
	B	17	Skylark	Hatchback	Coupe
	C	27	Skylark 'SR'		Coupe
	W	27	Skylark 'S'		Coupe
	B	27	Skylark		Coupe
	C	69	Skylark 'SR'	Sedan	
	B	69	Skylark	Sedan	

2 AG29, 3AM29 and 3AM57 added by RC74-60 & 88 on 101376.
Was last page, format revised 120276.
2HM07 added by RC 74-170 on 010777.
2XX27 & 69 added by RC74-175 on 021077.

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

[x] Passenger Cars [ ] Light-Duty Trucks

Engine Family 740E2LU

TUNE-UP LABELS

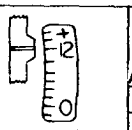
JC
231 CU. IN.
740E2LU

VEHICLE EMISSION CONTROL INFORMATION
GENERAL MOTORS CORPORATION
GM

MAKE ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, CHOKE OPEN, AIR CLEANER ON, AND AIR CONDITIONING OFF. PLUG DISCONNECTED VACUUM FITTINGS AND/OR HOSES.

SET PARKING BRAKE AND BLOCK WHEELS

1. DISCONNECT EVAPORATIVE PURGE HOSE TO VAPOR CANISTER.
2. DISCONNECT AND PLUG DISTRIBUTOR VACUUM HOSE TO CARB., AND EGR HOSE TO EGR VALVE
3. SET TIMING AT SPECIFIED RPM. DISCONNECT THROTTLE SOLENOID WIRE (WHERE APPLICABLE).
4. ADJUST CARBURETOR SPEED SCREW TO SPECIFIED RPM.
5. RECONNECT SOLENOID WIRE. MANULALLY EXTEND SOLENOID SCREW AND ADJUST TO SPECIFIED RPM. (WHERE APPLICABLE).
6. RECONNECT DISTRIBUTOR, CANISTER, AND EGR HOSES. (SEE SERVICE MANUAL AND MAINTENANCE SCHEDULE II FOR ADDITIONAL INFORMATION).



TIMING MARK

CATALYST
EGR-EFE-RAIR LOW ALTITUDE CERTIFICATION

	TRANSMISSION	
	AUTO.	MAN.
TIMING (°B.T.D.C. @RPM)	12° @600	12° @800
SPARK PLUG GAP	.040	.040
CARB. SCREW (RPM)	600 (DRIVE)	600(NEUT)
SOLENOID SCREW (RPM)		800(NEUT)

IDLE MIXTURE SCREWS ARE PRESET AND CAPPED AT FACTORY - DO NOT BREAK CAPS - ADJUSTMENT DURING TUNE-UP IS NOT RECOMMENDED.

FOR MAJOR REPAIR, ADJUSTING MIXTURE SETTING BY OTHER THAN APPROVED SERVICE MANUAL PROCEDURE MAY VIOLATE FEDERAL AND/OR CALIFORNIA OR OTHER STATE LAWS.

PART NO. 1256396

THIS VEHICLE CONFORMS TO U.S. EPA, AND WHERE APPLICABLE CALIFORNIA, REGULATIONS APPLICABLE TO 1977 MODEL YEAR NEW MOTOR VEHICLES.

Label Location

"A", "X", "F" and "H" Bodies - On sheet metal cover over radiator support.

JD
231 CU. IN.
740E2LU

VEHICLE EMISSION CONTROL INFORMATION
GENERAL MOTORS CORPORATION
GM

MAKE ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, CHOKE OPEN AND WHERE APPLICABLE, AIR CONDITIONING OFF. PLUG DISCONNECTED VACUUM FITTINGS AND/OR HOSES.

SET PARKING BRAKE AND BLOCK WHEELS

1. DISCONNECT EVAPORATIVE PURGE HOSE TO VAPOR CANISTER.
2. DISCONNECT AND PLUG DISTRIBUTOR VACUUM HOSE TO CARB., AND EGR HOSE TO EGR VALVE.
3. SET TIMING AT SPECIFIED R.P.M.
4. ADJUST CARBURETOR SPEED SCREW TO SPECIFIED R.P.M., IN DRIVE.
5. ON AIR CONDITIONING CARS - AFTER COMPLETING ABOVE ADJUSTMENTS, A/C ON, DISCONNECT ELECTRICAL CONNECTOR AT A/C COMPRESSOR CLUTCH AND ADJUST SOLENOID (ENERGIZED) SCREW TO SPECIFIED R.P.M. IN DRIVE. RECONNECT ELECTRICAL CONNECTOR.
6. RECONNECT DISTRIBUTOR, CANISTER, AND EGR VALVE HOSES. (SEE SERVICE MANUAL AND MAINTENANCE SCHEDULE II FOR ADDITIONAL INFORMATION)

TIMING MARK

CATALYST
EGR-EFE-RAIR LOW ALTITUDE CERTIFICATION

	TRANSMISSION	
	AUTO.	MAN.
TIMING (°B.T.D.C. @RPM)	12° @600	
SPARK PLUG GAP	.040	
CARB. SCREW (RPM)	600 (DRIVE)	
SOLENOID SCREW (RPM)	670 (DRIVE)	

IDLE MIXTURE SCREWS ARE PRESET AND CAPPED AT FACTORY - DO NOT BREAK CAPS - ADJUSTMENT DURING TUNE-UP IS NOT RECOMMENDED.

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