

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-17-100  
Relating to Certification of New Motor Vehicles

AMERICAN 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 1988 model-year American Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems</u> <u>(Special Features)</u>
JAM1.4V5FFA8	1.4	(85)	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Central 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	0.7

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>
0.18	2.2	0.4

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 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 Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.


BE IT FURTHER RESOLVED: That the listed vehicle models have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, 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 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 18<sup>th</sup> day of May, 1987.

  
K. D. Drachand, Chief  
Mobile Source Division

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer American Motors Corporation Engine Family JAM 1.4 V5 FF A8  
 Evaporative Family JV-1.4D-1S Engine Type I-4  
 Engine Liters (CID) 1.4 (85)

## ABBREVIATIONS:

Ignition System

CA - Centrifugal Advance  
 ECU - Electronic Control Unit  
 EI - Electronic Ignition  
 ESAC - Electronic Spark Advance Control  
 VA - Vacuum Advance  
 VR - Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV - nVenturi Carburetor

Exhaust Emissions Control System

AIP - Air Injection-Pump  
 AIV - Air Injection-Valve  
 DBC - Dual Bed Catalyst  
 EGR - Exhaust Gas Recirculation  
 EIC - Electronic Injection Control  
 EM - Engine Modification  
 OC - Oxidation Catalyst  
 OS - Oxygen Sensor  
 HOS - Heated Oxygen Sensor  
 SPL - Smoke Puff Limiter or Throttle Delay  
 TOC - Trap Oxidizer, Continual  
 TOP - Trap Oxidizer, Periodical  
 TWC - Three-Way Catalyst  
 WUOC - Warm-Up Oxidation Catalyst  
 WUTWC - Warm-Up Three-Way Catalyst

Special Features

CCV - Combustion Chamber Valve  
 CFI - Central Fuel Injection  
 DID - Diesel Injection-Direct  
 DIP - Diesel Injection-Prechamber  
 EFI - Electronic Fuel Injection  
 IC - Intercooler or Aftercooler  
 MFI - Mechanical Fuel Injection  
 OBD - On-Board Diagnostics  
 TC - Turbocharged

## VEHICLE MODELS:

93 = Alliance 3-Door  
 95 = Alliance 4-Door  
 96 = Alliance 2-Door  
 99 = Alliance 5-Door

ISSUED: 050187.ENGINE: FRONT X MID \_\_\_\_\_ REAR \_\_\_\_\_DRIVE: FWD X RWD \_\_\_\_\_ 4WD FULL TIME \_\_\_\_\_ 4WD PART TIME \_\_\_\_\_

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEETPassenger Cars X Light-Duty Trucks     Medium-Duty Vehicles     Gas X Diesel    Manufacturer American Motors Corporation Engine Family JAM 1.4 V5 FF A8Liter (CID) 1.4 (85) Engine Type I-4Emission Control System  
(Special Features) EGR + OS + TWC (CFI)

Engine Code	Vehicle Models (If Coded See Attachment)(Hp)	Trans Type	Equiv. Test Weight	Ign. System/ECU ESAC Part No.	Fuel System CFI Part No.	EGR Valve Part No.	Catalyst Part No.
5M3	93, 95, 96, 99	M4	2375	8933004443 8933003663	8933004443 8933003663	17083792	25056552
	93, 95, 96	M5					
	99		2500				
5M4	93, 95, 96	M4	2250				
	99		2375				
	93, 96	M5	2250				
	95, 99		2375				
5A3	93, 95, 96	A3	2375	8933004444 8933003664	8933004444 8933003664		
	99		2500				
5A4	96		2250				
	93, 95, 99		2375				

Comments: Ignition system/ECU column identifies ECU part number only.

(See Page 1 for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.)

Date of Issue: 050187

Revisions:

Engine Family: JAM 1.4 V5 FF A8

1988 VEHICLE WEIGHTS AND ROADLOAD HORSEPOWER  
MARCH 18, 1987

VEHICLE	VEHWT1.4					TIRES SHOWN Standard tire listed 1st Optional tires also listed				ROADLOAD HORSEPOWER & COASTDOWN TIMES			
	TOTAL WT.	AXLE WT.	TEST WT.	ENG	TRANS	SIZE MODEL	PRESSURE FR RR		(X) USAGE	A/C (SEC.)	HP.	NON A/C (SEC.)	HP.
	ALLIANCE MODEL 93 3-DOOR	2059	1243	2375	1.4L	M4	P155/80R13 XA4 P155/80R13 CORSA	30	30	95% 5%	13.89 13.71	6.7 7.8	14.68 14.43
	2004	1184	2250			P155/80R13 XA4 P155/80R13 CORSA	30	30	95% 5%			13.96 13.74	5.8 6.1
	2064	1248	2375	1.4L	M5	P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	50% 5% 35% 5% 5%	13.89 13.71 13.36 12.78 11.93	6.7 7.8 7.2 6.9 7.8	14.68 14.43 14.85 13.48 11.59	6.1 6.4 6.5 6.3 7.1
	2009	1188	2250			P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	60% 5% 25% 5% 5%			13.96 13.74 13.51 12.79 11.85	5.8 6.1 6.4 6.2 7.1
	2090	1274	2375	1.4L	A3	P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	70% 5% 15% 5% 5%	13.24 13.15 12.74 12.83 10.24	6.9 7.2 7.3 7.2 8.8		
	2035	1215				P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	80% 5% 5% 5% 5%			13.91 13.84 13.42 12.61 10.75	6.3 6.5 6.6 6.5 7.3
ALLIANCE MODEL 95 4-DOOR	2060	1270	2375	1.4L	M4	P155/80R13 XA4 P155/80R13 CORSA	30	30	95% 5%	13.87 12.92	7.3 7.8	13.75 13.63	6.6 6.8
	2008	1211	2250			P155/80R13 XA4 P155/80R13 CORSA	30	30	95% 5%			13.16 13.14	6.6 6.8
	2073	1274	2375	1.4L	M5	P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	50% 5% 35% 5% 5%	13.87 12.92 12.46 11.99 10.45	7.3 7.8 7.9 7.7 8.4	13.75 13.63 13.18 12.64 11.82	6.6 6.8 7.2 7.8 7.4
	2012	1215	2250			P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	60% 5% 25% 5% 5%			13.16 13.14 12.85 12.11 10.65	6.6 6.8 7.2 7.8 7.4
	2100	1381	2375	1.4L	A3	P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	70% 5% 15% 5% 5%	12.74 12.67 12.28 11.53 10.84	7.5 7.7 8.8 7.8 8.5		
	2045	1242				P155/80R13 XA4 P155/80R13 CORSA P175/70R13 XA4 P175/70R13 CORSA P185/60R14 EAGLE GT	30	30	80% 5% 5% 5% 5%			13.44 13.39 12.98 12.13 10.56	6.8 7.8 7.3 7.1 7.7

Engine Family: JAM 1.4 V5 FF A8

1988 VEHICLE WEIGHTS AND ROADLOAD HORSEPOWER  
MARCH 18, 1987

VEHICLE	VEHWT1.4					TIRES SHOWN Standard tire listed 1st Optional tires also listed				ROADLOAD HORSEPOWER & COASTDOWN TIMES			
	TOTAL WT.	AXLE WT.	TEST WT.	ENG	TRANS	SIZE MODEL	PRESSURE		(%) USAGE	A/C		NON A/C	
							FR	RR		(SEC.)	HP.	(SEC.)	HP.
ALLIANCE MODEL 96 2-DOOR	2031	1239	2375	1.4L	M4	P155/80R13 XA4	30	30	95%	13.87	7.3	13.75	6.6
						P155/80R13 CORSA			5%	12.92	7.5	13.63	6.8
	1976	1188	2258			P155/80R13 XA4	30	30	95%			13.16	6.4
						P155/80R13 CORSA			5%			13.14	6.8
	2048	1243	2375	1.4L	M5	P155/80R13 XA4	30	30	50%	13.87	7.3	13.75	6.6
						P155/80R13 CORSA			5%	12.92	7.5	13.63	6.8
						P175/70R13 XA4			35%	12.46	7.9	13.18	7.2
						P175/70R13 CORSA			5%	11.99	7.7	12.64	7.0
						P185/60R14 EAGLE GT	28	28	5%	10.45	8.4	11.82	7.6
	1988	1184	2258			P155/80R13 XA4	30	30	60%			13.16	6.6
						P155/80R13 CORSA			5%			13.14	6.8
						P175/70R13 XA4			25%			12.85	7.2
P175/70R13 CORSA								5%			12.11	7.8	
P185/60R14 EAGLE GT						28	28	5%			10.65	7.6	
2067	1278	2375	1.4L	A3	P155/80R13 XA4	30	30	70%	12.74	7.5	13.44	6.8	
					P155/80R13 CORSA			5%	12.67	7.7	13.39	7.0	
					P175/70R13 XA4			15%	12.28	8.0	12.98	7.3	
					P175/70R13 CORSA			5%	11.53	7.8	12.13	7.1	
					P185/60R14 EAGLE GT	28	28	5%	10.84	8.5	10.56	7.7	
2087	1211	2258			P155/80R13 XA4	30	30	80%			12.89	6.8	
					P155/80R13 CORSA			5%			12.85	7.0	
					P175/70R13 XA4			5%			12.38	7.3	
					P175/70R13 CORSA			5%			11.71	7.1	
					P185/60R14 EAGLE GT	28	28	5%			10.32	7.7	
ALLIANCE MODEL 99 5-DOOR	2124	1265	2375	1.4L	M4	P155/80R13 XA4	30	30	95%	13.89	6.7		
						P155/80R13 CORSA			5%	13.71	7.0		
	2068	1286				P155/80R13 XA4	30	30	95%			14.68	6.1
						P155/80R13 CORSA			5%			14.43	6.4
	2138	1278	2588	1.4L	M5	P155/80R13 XA4	30	30	50%	14.28	6.7	15.88	6.1
						P155/80R13 CORSA			5%	14.86	7.0	14.88	6.4
						P175/70R13 XA4			35%	13.78	7.2	14.49	6.5
						P175/70R13 CORSA			5%	13.19	6.9	13.83	6.3
						P185/60R14 EAGLE GT	28	28	5%	11.41	7.8	11.98	7.1
	2073	1218	2375			P155/80R13 XA4	30	30	60%			14.68	6.1
						P155/80R13 CORSA			5%			14.43	6.4
						P175/70R13 XA4			25%			14.85	6.5
P175/70R13 CORSA								5%			13.48	6.3	
P185/60R14 EAGLE GT						28	28	5%			11.59	7.1	
2155	1296	2588	1.4L	A3	P155/80R13 XA4	30	30	70%	13.68	7.8	14.31	6.4	
					P155/80R13 CORSA			5%	13.51	7.3	14.24	6.6	
					P175/70R13 XA4			15%	13.17	7.3	13.48	6.6	
					P175/70R13 CORSA			5%	12.41	7.2	13.81	6.5	
					P185/60R14 EAGLE GT	28	28	5%	10.58	8.0	11.88	7.3	
2099	1237	2375			P155/80R13 XA4	30	30	80%			13.91	6.3	
					P155/80R13 CORSA			5%			13.84	6.5	
					P175/70R13 XA4			5%			13.42	6.6	
					P175/70R13 CORSA			5%			12.61	6.5	
					P185/60R14 EAGLE GT	28	28	5%			10.75	7.3	