

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-254-2  
Relating to Certification of New Motor Vehicles

HYUNDAI MOTOR COMPANY

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 1987 model-year Hyundai Motor Company 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>
HHY1.5V2FCB0	89.6 (1.5)	Air Injection Valve Exhaust Gas Recirculation Three-Way Catalyst (Two) Oxygen Sensor (Combustion Chamber Valve)

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>
0.24	5.2	0.3

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".

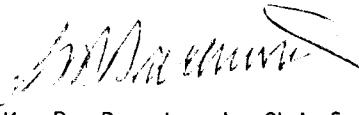
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

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 25<sup>th</sup> day of July, 1986.

  
K. D. Drachand, Chief  
Mobile Source Division

Manufacturer Hyundai Motor Company  
Evaporative Family FC

Engine Family HHY1.5V2FCB0  
Engine Type 4 cyl. In-line  
Liters (CID) 1.5L (89.6)

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  
SPL - Smoke Puff Limiter or  
throttle Delay  
TOC - Trap Oxidizer, Continual  
TOP - Trap Oxidizer, Periodical  
TR - Thermal Reactor  
TWC - Three-Way Catalyst System

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  
TC - Turbocharger

Fuel System

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

VEHICLE MODELS:

Engine: Front   X   Mid.        Rear         
Drive : FWD   X   RWD        4WD Full Time        4WD Part Time       

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E.O. # A-254-2

1987 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Passenger Cars X Light-Duty Trucks     Medium-Duty Vehicles     Gas X Diesel    

Manufacturer Hyundai Engine Family HHY1.5V2FCB0

Liter (CID) 1.5 (89.6) Eng. Type 4 cyl. In-line

Emission Control Sys. (Special Features) AIV+OS+EGR+TWC (CCV)

Engine Code	Vehicle Model	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System Part No.	EGR Valve Part No.	Catalyst Part No.	
							MCC	UCC
CM4	Excel/ Precis	M4	2500	39110	28-32DIDTF	S1	28533	28957
				-21320	-806		-21340	-21325
CM5	"	M5	2500	39110	28-32DIDTF	S1	28533	28957
				-21320	-806		-21340	-21325
CA	"	A3	2500	39110	28-32DIDTF	S3	28533	28957
				-21390	-814		-21340	-21325

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Passenger Cars  Light-Duty Trucks  Medium-Duty Vehicles  Gas  Diesel

Manufacturer Hyundai Engine Family HHY1.5V2FCB0

Liter (CID) 1.5 (89.6) Eng. Type 4 cyl. In-line

Emission Control Sys. (Special Features) AIV+CL+EGR+TWC (CCV)

*705*

Engine Code	Vehicle Model	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System Part No.	EGR Valve Part No.	Catalyst	
							<i>manifold catalytic converter</i> MCC *	<i>underflow catalytic converter</i> UCC *
CM4	Excel	M4	2500	39110	28-32DIDTF	S1	28533	28957
				-21320	-806		-21340	-21325
CM5		M5	2500	39110	28-32DIDTF	S1	28533	28957
				-21320	-806		-21340	-21325
CA		A3	2500	39110	28-32DIDTF	S3	28533	28957
				-21390	-814		-21340	-21325

\* MCC - MANIFOLD (Front) CATALYTIC CONVERTER

\* UCC - UNDERFLOW (Rear) CATALYTIC CONVERTER

08.13.02 - Continued

Applicable to the following emission data and fuel economy data vehicles

<u>Car Line</u> <u>(Engine Family)</u>	<u>Body</u> <u>Style</u>	<u>Trans.</u>	<u>Test</u> <u>Weight</u>	<u>Test HP</u> <u>Without</u> <u>Air Con.</u>	<u>Coastdown</u> <u>Time</u> <u>Without</u> <u>Air Con.</u>	<u>Tire</u>
Excel/Precis (1.5F & 1.5C)	4-HB	M4	2500	7.1	13.87	P155/80R13
		M5	"	"	"	"
		A3(L3)	"	"	"	"
	4-NB	M4	2500	7.1	13.87	P155/80R13
		M5	"	"	"	"
		A3(L3)	"	"	"	"

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