

State of California  
AIR RESOURCES BOARD.

EXECUTIVE ORDER A-8-37  
Relating to Certification of New Motor Vehicles

BAYERISCHE MOTOREN WERKE AG

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 Bayerische Motoren Werke AG 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>
GBM3.4V5F570	209 (3.4)	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>
0.24	2.4	0.2

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 29<sup>th</sup> day of August, 1985.

  
K. D. Drachand, Chief  
Mobile Source Division

Section 17.03.00 ARB Supplemental Data Sheets

Manufacturer BMW  
 Engine Family GBM3.4V5F570

Executive Order No. A-8-37  
 Evaporative Family EV 30  
 Engine CID (Liters) 3.4 l

**ABBREVIATIONS**

Ignition System

CA-Centrifugal Advance  
 EEC-Electronic Engine Control  
 EI-Electronic Ignition  
 ESAC-Electronic Spark Advance Control  
 VA-Vacuum Advance  
 VR-Vacuum Retard  
 BMCU-Bosch Motronic Control Unit  
 EID-Electronic Ignition Distributor

Exhaust Emission 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

Special Features

CCV-Combustion Chamber Valve  
 CFI-Central Fuel Injection  
 DID-Diesel Injection-Direct  
 DIP-Diesel Injection-Prechamber  
 MFI-Mechanical Fuel Injection  
 TC-Turbocharged

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV-nVenturi Carburetor  
 VV-Variable Venturi  
 FI-Fuel Injection Valves  
 BMCU-Bosch Motronic Control Unit  
 AFM-Air Flow Meter

Vehicle Models: 535i, 635 CSi, 735i

DRIVE SYSTEM: Front engine, rear wheel drive

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2/13/85	DATE				DATE	NAME

**AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**

Passengers Cars     Light-Duty Trucks     Medium-Duty Vehicles

Gas     Diesel

Manufacturer BMW    E.O. A-8-37

Engine Family GBM3.4V5F570    CID (liter)-Type 3.4 - inline six cyl.

ECS (Special Features) EFI, TWC, CL

Engine Code	Vehicle Models (If Coded see attachment)	Trans.	Ign.System Part No.	Fuel System Part No.	Label Ident. Part No.
3.4 M5	535i	M5	BMCU 0 261 200 059	EFI BMCU 0 261 200 059	2 121 558
3.4 A4/EH	635CSi 735i	A4	EID 1 235 522 365	AFM 0 280 203 027 FI 0 280 150 203	

Comments: See page 17-28 for abbreviations and evaporative emission family identification -

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# ENGINEERING EMISSION CONTROL

## TEST VEHICLE REQUIREMENTS

Engine Family	Model Type	Equip. Test Weight (lbs.)	Actual Road Load Power (hp)
GBM3.4V5F570	5351	3 500	9.6
	5351A	3 625	9.6
	635 CS1	3 625	10.0
	635 CS1A	3 750	10.0
	7351	3 875	11.4
	7351A	3 875	11.4

(automatic transmission: Economy Position)

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