

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-8-35  
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<br/>Cubic Inches (Liters)</u> | <u>Exhaust Emission Control Systems<br/>(Special Features)</u>     |
|----------------------|---|--|
| GBM2.7V5FAB8         | 164.3 (2.7)                                   | Three-Way Catalyst with Closed Loop<br>(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<br/>Grams per Mile</u> | <u>Carbon Monoxide<br/>Grams per Mile</u> | <u>Nitrogen Oxides<br/>Grams per mile</u> |
|--|---|---|
| 0.41                                   | 7.0                                       | 0.7                                       |

The following are the certification emission values for this engine family:

| <u>Hydrocarbons<br/>Grams per Mile</u> | <u>Carbon Monoxide<br/>Grams per Mile</u> | <u>Nitrogen Oxides<br/>Grams per Mile</u> |
|--|---|---|
| 0.31                                   | 2.5                                       | 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 26<sup>th</sup> day of July, 1985.

  
K. D. Drachand, Chief  
Mobile Source Division

Manufacturer BMW Executive Order No. A-8-35  
 Engine Family GBM2.7V5FAB8 Evaporative Family EV 10  
 Engine CID (Liters) 2.7 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 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

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 Injectors  
 BMCU - Bosch Motronic Control Unit  
 AFM - Air Flow Meter

Vehicle Models

BMW 528e

DRIVE SYSTEM: Front engine, rear wheel drive

| ISSUE DATE: | REV. |  |  |  | SATISFACTORY | UNSATISFACTORY |
|-------------|------|--|--|--|--------------|----------------|
| 2/13/85     | DATE |  |  |  | DATE         | NAME           |

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

Manufacturer BMW E.O. #A-8-35

Engine Family GBM2.7V5FAB8 CID (liter) - Type 2.7 l - inline six cyl.

ECS (Special Features) TWC, CL (EFI)

| Engine Code          | Vehicle Models (If Coded see attachment) | Trans.   | Ign. System           | Fuel System                                 | EGR Valve | Label Ident.           |
|----------------------|--|----------|-----------------------|---|-----------|------------------------|
|                      |  |          | Part No.              | Part No.                                    | Part No.  | Part No.               |
| 2.7/5 M5<br>2.7/5 A4 | BMW 528e                                 | M5<br>A4 | BMCU<br>0 261 200 027 | EFI<br>BMCU<br>0 261 200 027                | n.o.      | 2 121 505<br>1 874 981 |
|                      |  |          | EID<br>1 235 522 365  | AFM<br>0 280 202 066<br>FI<br>0 280 150 126 |           |                        |

Comments: See page 17-26 for abbreviations and evaporative emission family identification.

|            |      |  |  |  |              |                |
|------------|------|--|--|--|--------------|----------------|
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