

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-16-223  
Relating to Certification of New Motor Vehicles

MAZDA MOTOR 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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That Mazda Motor Corporation 1998 model-year exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: WTKXV01.8VB2 Displacement: 1.8 Liters (112 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Three Way Catalytic Converter
- Heated Oxygen Sensors (two)
- Exhaust Gas Recirculation
- Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.25	3.4	0.4	10.0
100,000	0.31	4.2	0.6	n/a

The certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.13	1.7	0.2	7.0
100,000	0.14	2.1	0.2	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth 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 under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

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" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, 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 Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).


BE IT FURTHER RESOLVED: That the manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty vehicles and Engines").

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 provisions (Title 13, California Code of Regulations, 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 July 1997.

  
for R. B. Summerfield, Chief  
Mobile Source Operations Division

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Mazda Motor Corporation Exh Eng Fam: WTKXV01.8VB2 Evap Fam: WTKXE0104BFA  
 All Engine Codes in Engine Family: CA 49S 50S X AB965, ORVR: YES NO X  
 Exh Std: CA Tier-1 X TLEV LEV ULEV SULEV, US EPA Tier-1 PC X LDT1 LDT2 MDV1 MDV2 MDV3 MDV4 MDV5  
 Veh Class (es): PC X LDT1 LDT2 MDV1 MDV2 MDV3 MDV4 MDV5  
 Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)  
 Fuel Type (s): Dedicated X Flex-Fuel Duel-Fuel Bi-Fuel Gasoline X Diesel CNG LNG LPG M85 Other (specify) Phase II  
 Exh Emiss Test Fuel (s): Indo CBG CNG LPG M85 Other (specify) Phase II  
 Diesel: 13 CCR 2282 40CFR 86.113-90 40 CFR 86.113-94  
 Evaporative Emission Test Procedure: California X Federal Std. AMA X Mod AMA Mfr ADP Other (specify) N/A X Std Equiv R/L Test Proc: SHED PT Source X  
 NMOG Test Procedure: N/A X Std Equiv R/L Test Proc: SHED PT Source X  
 Engine Configuration: I-4 Displacement: 1.8 / 112.3 Liters / Cubic Inches  
 Valves per Cylinder: 4 Rated HP: 122 @ 6000 RPM  
 Engine: Front X Mid. Rear Drive: FWD X RWD 4WD-FT 4WD-PT  
 Exhaust ECS (e.g., MFI, EGR, TC, CAC): HO2S/TWC/EGR/SFI

(Use abbreviations per SAE J1930 MAY91)

Engine Code (also list CA/ 49ST/50ST)	Vehicle Models (if coded see attachment)	Trans. Type (M5, A4 etc.)	ETW or Test Wt.	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
KBPD2AA7	Protege	M5	2875	6.3	Distrubutor: BP1A	EGR Control Valve: BP3C	BP3C
KBPD2AAV (A/C)				6.9	ECU: BP3C		
KBPD2AA7		A4	2875	6.3	Distrubutor: BP1A		
KBPD2AAV (A/C)				6.9	ECU: BP3D		
<b>Certification Standards (50,000 mile/ 100,000 mile/120,000 mile)</b>							
HC (g/mi)	0.41	, ...	, ...				
Non-methane HC (g/mi)	0.25	, 0.31	, ...				
CO (g/mi)	3.4	, 4.2	, ...				
NOx (g/mi)	0.4	, 0.6	, ...				
HWFET NOx (g/mi)	0.5	, 0.8	, ...				
Evap. (EPA : g/test)	...	, 2.0	, ...				
Evap. (ARB : g/test)	...	, 2.0	, ...				
Evap. (Abbrev : g/test)	...	, 2.5	, ...				
Running Loss (g/test)	...	, 0.05	, ...				
Spit Back (g/test)	...	, 1.0	, ...				
Cold CO (g/mi)	10.0	, ...	, ...				
CST +HC	at Idle: 100at 2500rpm: 100						
CST -CO	at Idle: 0.5at 2500rpm: 0.5						

Revisions:

1290

Issue date:	April 25, 1997			
Rev. No.				
Date				