

File

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-16-213  
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 1997 model-year Mazda Motor Corporation exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: VTK1.5VJG2EK Displacement: 1.5 Liters (91 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Warm Up Three Way Catalytic Converter
- 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 TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.125	3.4	0.4	0.015	10.0
100,000	0.156	4.2	0.6	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.98 RAF for 1997 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.089	0.8	0.04	0.001	3.5
100,000	0.095	0.8	0.04	0.001	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 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 vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit 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 Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BBE 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 2<sup>nd</sup> day of July 1996.



*for* R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Mazda Motor Corporation Engine Family VTK1.5VJG2EK  
 Evap Family VTK1104BYME1  
 All Eng Codes in Eng Fam: CA X 49S 50S  
 Stds. Type : CA Tier-1 AB965 TLEV X LEV ULEV ZEV US EPA Tier 1  
 Evap Std: Useful Life with R/L In-Use Exh Std: Full In Use  
 Veh. Calss: LDV Single Cert Std for Multi-Class Eng Fam: N/A  
 Fuel Type(s): Gasoline Emission Test Fuel(s): Phase II  
 Service Accum: Std AMA  
 NMOG Test Procedure: Std R/L Test Procedure: Pt Source  
 Hybrid: N/A APU Cycle: Otto Spark  
 Engine Config : I-4 Displacement 1.5 Liters (90.9) Cu. inches  
 Valves/Cly. 4 Rated HP 90 @ 5500 RPM  
 Engine : Front X Mid. Rear Drive: FWD X RWD 4WD-FT 4WD-PT

Exhaust ECS & Special Feature (incl. CARB, MFI, etc.) HO2S/WU-TWC/TWC/EGR/SFI  
 (Use abbreviations per SAE J1930 MAY91)

Engine Code (Cert, Std.)	Vehicle Model (if coded see attachment)	Trans. Type A-automatc M-manual	ETW	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
2Z5D2AA7 <i>No A/C</i>	Protege	M5	2750	6.3 *1	Distributor:	EGR Control Valve: BP3C 20 300	B6GD 20 500B Z5A8 20 600B
2Z5D2AAV <i>A/C</i>				6.2 *2	BP1A 18 200		
2Z5DTAA7 <i>No A/C</i>				6.9 *1	ECU:		
2Z5DTAAV <i>A/C</i>				6.8 *2	Z5A8 18 881		
		L4	2875	6.3 *1	Distributor:		
				6.2 *2	BP1A 18 200		
				6.9 *1	ECU:		
				6.8 *2	Z5A9 18 881		

Revisions: \*1:175 tire  
 1290 \*2:185 tire

Issue date:	May 10, 1996				
Rev. No.					
Date					