State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-361
Relating to Certification of New Motor Vehicles

TOYOTA 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 2000 model-year Toyota Motor Corporation exhaust emission control systems are certified as described below for passenger cars:

Exhaust Emission Standard Category: Low-Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: YTYXV01.8FFD Displacement: 1.8 Liters (110 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Dual Three Way Catalytic Converters
Three Way Catalytic Converter
Dual Heated Oxygen Sensors
Heated Oxygen Sensor
Sequential Multiport Fuel Injection

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

| Miles | Non-Methane Organic Gases | Carbon Monoxide | Oxides of Nitrogen | Formaldehyde | Carbon Monoxide (20°F) |
|---|---|---|---|---|---|
| 50,000 | 0.075 | 3.4 | 0.2 | 0.015 | 10.0 |
| 100,000 | 0.090 | 4.2 | 0.3 | 0.018 | n/a |

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.94

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.94 RAF for 2000 model-year LEVs. The certification exhaust emission values for this engine family in grams per mile are:

| Miles | Non-Methane Organic Gases | Carbon Monoxide | Oxides of Nitrogen | Formaldehyde | Carbon Monoxide (20°F) |
|---|---|---|---|---|---|
| 50,000 | 0.038 | 1.0 | 0.1 | 0.0003 | 3.5 |
| 100,000 | 0.047 | 1.1 | 0.2 | 0.0004 | 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 set forth in Title 13, California Code of Regulations, Section 1960.1 ("California Exhaust Emission Standards and Test Procedures for 1988 Through 2000 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 an 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 NMOG debits incurred 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 through 2005 model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 Through 2000 Model Motor Vehicles," and that the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 Through 2000 Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, 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 models also comply with the Board's high-altitude requirements and highway emission standards, and with the Inspection and Maintenance standards in place at the time of certification as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 Through 2000 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 Through 2000 Model Passengers Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "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 listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) 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 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 21 day of December 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

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# 2000 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
## PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA  Exh Eng Fam: YTYXV01.8FFD  Evap Fam: YTYXR0115AK1
All Eng Codes in Eng Fam: CA __ 49S __ 50S x AB965 __ ,
Exh Std: CA Tier-1 __ TLEV __ LEV x ULEV __ SULEV __ , ORVR: YES x NO __
Veh Class(es): PC x LDT1 __ LDT2 __ MDV1 __ MDV2 __ MDV3 __ MDV4 __ MDV5 __ US EPA Tier-1 __
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 __ Dual-Fuel __ Bi-Fuel __ Gasoline x Diesel __
CNG __ LNG __ LPG __ M85 __ Other (specify) __
Exh Emiss Test Fuel(s): Indo __ CBG x CNG __ LPG __ M85 __ Other (specify) __
Diesel: 13 CCR 2282 __ 40 CFR 86.113-90 __ 40 CFR 86.113-94 __
Evaporative Emission Test Procedure: California __ Federal x
Service Accum: Std AMA __ Mod AMA __ Mfr ADP x Other (specify) __
NMOG Test Procedure: N/A __ Std x Equiv __ R/L Test Proc: SHED x Pt Source __
Engine Configuration I-4 Displacement: 1.8 Liters 109.5 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 138@6,400 RPM
Engine: Front __ Mid x Rear __ Drive: FWD __ WD x 4WD-FT __ 4WD-PT __
Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,2H02S,2TWC,TWC,HO2S
(use abbreviations per SAE J1930 JUN93)

| Engine Code (also list CA/49S/ 50ST | Vehicle Models (if coded see attachment) | Trans. (M5, A4, etc.) | ETW or Test Wt | DPA or RLHP | Ignition (ECM/PCM) Part No. | EGR system Part No. | Catalytic Converter Part No. |
|---|---|---|---|---|---|---|---|
| 1 | ZZW30L-AKMQHA | M5 | 2625 | 7.9 | 89661-17600 | N/A | X05 ZZ001 |

Comments : Please refer to manufacturer's HP list for correct dyno test HP setting based on model and equipment.

VEHICLE MODELS:

MR2
ZZW30L-AKMQHA