

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-326  
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 1998 model-year Toyota Motor Corporation exhaust emission control systems are certified as described below for light-duty trucks:

Emission Standard Category: Low Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: WTYXT02.0GXJ Displacement: 2.0 Liters (121.9 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Sequential Multiport Fuel Injection
- Exhaust Gas Recirculation
- Air Fuel Ratio Sensor
- Warm Up Three Way Catalytic Converter
- Three Way Catalytic Converter
- Heated Oxygen Sensor

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

The non-methane organic gas (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) LEV certification exhaust emission standards for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	CO	NOx	HCHO	CO (20°F)
0-3750	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 NMOG reflect application of a 0.94 RAF for 1998 model-year LEVs. The LEV certification exhaust emission values for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	CO	NOx	HCHO	CO (20°F)
0-3750	50,000	0.032	0.3	0.1	0.001	2.9
	100,000	0.034	0.3	0.2	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 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 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 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.).

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.

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 August 1997.



R. B. Summerfield, Chief  
Mobile Source Operations Division

1998 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: WTYXT02.0GXJ Evap Fam: WTYXE0095AE1  
 All Eng Codes in Eng Fam: CA  49S  50S  AB965  , ORVR: YES  NO   
 Exh Std: CA Tier-1  TLEV  LEV  ULEV  SULEV  , US EPA Tier-1   
 Veh Class(es): PC  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  Flex-Fuel  Dual-Fuel  Bi-Fuel  Gasoline  Diesel   
                   CNG  LNG  LPG  M85  Other (specify) \_\_\_\_\_  
 Exh Emiss Test Fuel(s): Indo  CBG  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   
 Service Accum: Std AMA  Mod AMA  Mfr ADP  Other (specify) \_\_\_\_\_  
 NMOG Test Procedure: N/A  Std  Equip  R/L Test Proc: SHED  Pt Source   
 Engine Configuration: I-4 Displacement: 2.0 Liters 121.9 Cubic Inches  
 Valves per Cylinder: 4 Rated HP1: 120@5400 \_\_\_\_\_ RPM  
 Engine: Front  Mid  Rear  Drive: FWD  RWD  4WD-FT  4WD-PT   
 Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,EGR,A/F S(\*3),WU-TWC,TWC,HO2S  
 (use abbreviations per SAE J1930 JUN93)

Note \*1 : Applied to RAV4 2WD.  
 Note \*2 : Applied to RAV4 4WD.  
 Note \*3 : A/F S means Air-flow sensor

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	SXA10L-AKMGKA	M5	3125	10.0/11.2	89661-42420	25620-74320	Front : S25 Rear : U11
	SXA10L-AZMGKA			9.7/10.4			
	SXA11L-AWMGKA		3250		89661-42400		
	SXA15L-AKMGKA		3000	8.7			
	SXA15L-AZMGKA		3125				
2	SXA10L-AKMGKA	M5	3125,	11.1	89661-42420	25620-74320	Front : S25 Rear : U11
			3250	12.3			
	SXA10L-AZMGKA		3125,	10.7			
			3250	11.4			
	SXA11L-AWMGKA		3375	10.7/11.4			
	SXA15L-AKMGKA		3000	9.6	89661-42400		
SXA15L-AZMGKA							
	SXA16L-AWMGKA		3125				

1998 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
 PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA

Exh Eng Fam: WTYXT02.0GXJ

Evap Fam: WTYXE0095AE1

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.
3	SXA10L-AKPGKA	L4	3250	10.0/11.2	89661-42430	25620-74330	Front : S25 Rear : U11
	SXA11L-AWPGKA		3375	9.7/10.4			
	SXA15L-AKPGKA		3000	8.7	89661-42410		
	SXA15L-AZPGKA						
	SXA16L-AWPGKA		3125				
4	SXA10L-AKPGKA		3250	11.1/12.3	89661-42430		
	SXA11L-AWPGKA		3375	10.7/11.4			
	SXA15L-AKPGKA		3000	9.6	89661-42410		
	SXA15L-AZPGKA						
	SXA16L-AWPGKA		3125				

VEHICLE MODELS:

RAV4 2WD

SXA15L-AZMGKA  
 SXA15L-AZPGKA  
 SXA16L-AWMGKA  
 SXA16L-AWPGKA

RAV4 4WD

SXA10L-AZMGKA  
 SXA11L-AWMGKA  
 SXA11L-AWPGKA

RAV4 SOFT TOP 2WD

SXA15L-AKMGKA  
 SXA15L-AKPGKA

RAV4 SOFT TOP 4WD

SXA10L-AKMGKA  
 SXA10L-AKPGKA