

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-107-1
Relating to Certification of New Motor Vehicles

TOYOTA MOTORS 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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year Toyota Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

| <u>Engine Family</u> | <u>Displacement Liters (Cubic Inches)</u> | | <u>Exhaust Emission Control Systems (Special Features)</u> |
|----------------------|---|--------|---|
| JTY1.6V2FCC5 | 1.6 | (96.8) | Air Injection - Valve Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (On-Board Diagnostics) |

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 Grams per Mile</u> | <u>Carbon Monoxide Grams per mile</u> | <u>Nitrogen Oxides Grams per Mile</u> |
|--|---|---|
| 0.39 | 7.0 | 0.7 |

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

| <u>Hydrocarbons Grams per Mile</u> | <u>Carbon Monoxide Grams per Mile</u> | <u>Nitrogen Oxides Grams per Mile</u> |
|--|---|---|
| 0.19 | 1.8 | 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 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 Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) 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.) and with Health and Safety Code Section 43204.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order supersedes Executive Order A-14-107 dated August 26, 1987.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 15th day of October, 1987.

A.F. Donnelly (for KDD)
K. D. Drachand, Chief
Mobile Source Division

Manufacturer Toyota Motor Corporation Engine Family JTY1.6V2FCC5
 Evaporative Family EV-A Engine Type 4 cyl. in-line
 Liters (CID) 1.6 (96.8)

ABBREVIATIONS

| <u>Ignition System</u> | <u>Exhaust Emissions Control System</u> | <u>Special Features</u> |
|---------------------------------------|--|---------------------------------|
| CA-Centrifugal Advance | AIP-Air Injection-Pump | CCV-Combustion Chamber Valve |
| ECU-Electronic Control Unit | AIV-Air Injection-Valve | CFI-Central Fuel Injection |
| EI-Electronic Ignition | DBC-Dual Bed Catalyst | DID-Diesel Injection-Direct |
| ESAC-Electronic Spark Advance Control | EGR-Exhaust Gas Recirculation | DIP-Diesel Injection-Prechamber |
| VA-Vacuum Advance | EIC-Electronic Injection Control | EFI-Electronic Fuel Injection |
| VR-Vacuum Retard | EM-Engine Modification | IC-Intercooler or aftercooler |
| | OC-Oxidation Catalyst | MFI-Mechanical Fuel Injection |
| | OS-Oxygen sensor | OBD-On-Board Diagnostics |
| | HOS-Heated Oxygen Sensor | TC-Turbocharger |
| | SPL-Smoke Puff Limiter or Throttle Delay | |
| | TOC-Trap Oxidizer, Continual | |
| | TOP-Trap Oxidizer, Periodical | |
| | TWC-Three-Way Catalyst | |
| | WUOC-Warm-Up Oxidation Catalyst | |
| | WUTWC-Warm-Up Three-Way Catalyst | |

Fuel System
 CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor

VEHICLE MODELS :

| <u>Corolla</u> | <u>Corolla wagon</u> |
|----------------|----------------------|
| AE92L-AEMDUA | AE92L-AWMDUA |
| -AEMNUA | -AWHDUA |
| -AEHDUA | |
| -AEPNUA | |
| -ACMDUA | |
| -ACMXUA | |
| -ACHDUA | |
| -ACPXUA | |

Engine: Front x Mid. Rear
 Drive: FWD x RWD 4WD Full time 4WD Part time

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 2Passenger Cars Light-Duty Trucks Medium-Duty Vehicles Gas Diesel Manufacturer Toyota Motor Corporation Engine family JTY1.6V2FCC5Liter (CID) 1.6 (96.8) Eng. Type 4 cyl. in-lineEmission Control Sys. (Special Features) AIV + BGR + OS + TWC (OBD)

| Engine code | Vehicle Models (IF Coded see attachment) (Dyno Hp: Refer to 08.13.03.00) | Trans. Type | Equiv. Test Weight | Ign. System EI, CA, VA Part No. [Distributor] | Fuel System 2V, CL Part No. [Carburetor] | EGR Valve Part No. | Catalyst Part No. |
|-------------------------|--|----------------|--------------------|---|--|--------------------|-------------------|
| 1 thru 4 & 1R1 thru 4R1 | AE92L-AEMDUA -AEMNUA -ACMDUA -ACMXUA -AWMDUA | M5 | 2,500 2,625 | 19030-16120 | 21100-16340 | 25620-16070 | 18450-16220 |
| 5 thru 8 & 5R1 thru 8R1 | AE92L-AEHDUA -ACHDUA -AWHDUA -AEPNUA -ACPXUA | A3 <hr/> A4 | 2,625 2,750 | | 21100-16350 | 25620-16080 | |

Comments : See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.