

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-707  
Relating to Certification of New Motor Vehicles

FORD MOTOR COMPANY

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 Ford Motor Company 1997 model-year exhaust emission control systems are certified as described below for light-duty trucks:

Fuel Type: Gasoline

Engine Family: VFM4.018G1EK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Three Way Catalytic Converters (two)
- Dual Heated Oxygen Sensors
- Heated Oxygen Sensor
- 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>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
0-3750	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>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
0-3750	50,000	0.11	1.5	0.2	4.2
	100,000	0.15	2.1	0.3	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 non-methane organic gases (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 50,000-mile evaporative emission standards applicable to 1980 through 1994 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, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model 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" 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 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.).


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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 27<sup>th</sup> day of June 1996.

  
R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

**1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**  
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Ford Motor Company                      Exhaust Engine Family: VFM4.018G1EK

Evap Standard: 50K  Useful Life with R/L \_\_\_\_\_ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0  Tier 1  TLEV  LEV  ULEV  ZEV  ; EPA Tier 0  Tier 1

Vehicle 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)

Exh Cert Fuel(s): Indo  Ph2  Diesel: 13 CCR 2282  or 40 CFR 86.113-90  or -94   
M85  CNG  LPG  Other (specify) \_\_\_\_\_

Fuel Type(s): Dedicated  Flex-Fuel  Dual-Fuel  Gasoline  Diesel  M85   
CNG  LNG  LPG  Other (specify) \_\_\_\_\_

Hybrid: Type A  B  C . APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_

Engine Config: V-6                      Liter (CID): 4.0 (244.1)

Engine: Front  Mid  Rear  Drive: FWD  RWD  4WD-FT  4WD-PT

Exhaust ECS & Special Features: SFI/2HO2S/EGR/TWC(2)/HO2S  
(Use abbreviations per SAE J1930, Sep 91)

Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (PCM) Part No. <del>-12A650-</del>	EGR System Part No. <del>-9D475-</del>	Catalyst Part No. <del>-5E212-</del>
757SR00A	Ranger 4x2 RKL	M5	3625	12.3	F77F-ADA	F37E-CA	F77A-RB
	Ranger 4x2 RKS	M5	3500*	12.3	F77F-ADA	F37E-CA	F77A-RB
	Mazda 4x2 RKL	M5	3625	12.3	F77F-ADA	F37E-CA	F77A-RB
	Mazda 4x2 RKS	M5	3625	12.3	F77F-ADA	F37E-CA	F77A-RB
757SR00N	Ranger 4x2 RKL	M5	3625	11.2	F77F-ADA	F37E-CA	F77A-RB
	Ranger 4x2 RKS	M5	3500	11.2	F77F-ADA	F37E-CA	F77A-RB
	Mazda 4x2 RKL	M5	3500	11.2	F77F-ADA	F37E-CA	F77A-RB
	Mazda 4x2 RKS	M5	3500	11.2	F77F-ADA	F37E-CA	F77A-RB

\* Ford elects to conduct certification tests in the next higher ETW.



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

Manufacturer: Ford Motor Company Exhaust Engine Family: VFM4.018G1EK

Evap Standard: 50K  Useful Life with R/L \_\_\_\_\_ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0  Tier 1  TLEV  LEV  ULEV  ZEV ; EPA Tier 0  Tier 1

Vehicle 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)

Exh Cert Fuel(s): Indo  Ph2  Diesel: 13 CCR 2282  or 40 CFR 86.113-90  or -94   
M85  CNG  LPG  Other (specify) \_\_\_\_\_

Fuel Type(s): Dedicated  Flex-Fuel  Dual-Fuel  Gasoline  Diesel  M85   
CNG  LNG  LPG  Other (specify) \_\_\_\_\_

Hybrid: Type A  B  C  APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_

Engine Config: V-6 Liter (CID): 4.0 (244.1)

Engine: Front  Mid  Rear  Drive: FWD  RWD  4WD-FT  4WD-PT

Exhaust ECS & Special Features: SFI/2HO2S/EGR/TWC(2)/HO2S  
(Use abbreviations per SAE J1930, Sep 91)

Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (PCM) Part No. <del>-12A650-</del>	EGR System Part No. <del>-9D475-</del>	Catalyst Part No. <del>-5E212-</del>
757SR05A	Ranger 4x2 RKL	M5	3625	12.3	F77F-ADA	F37E-CA	F77A-RB
	Ranger 4x2 RKS	M5	3500*	12.3	F77F-ADA	F37E-CA	F77A-RB
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Evap Standard: 50K  Useful Life with R/L \_\_\_\_\_ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0  Tier 1  TLEV  LEV  ULEV  ZEV  ; EPA Tier 0  Tier 1

Vehicle 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)

Exh Cert Fuel(s): Indo  Ph2  Diesel: 13 CCR 2282  or 40 CFR 86.113-90  or -94   
M85  CNG  LPG  Other (specify) \_\_\_\_\_

Fuel Type(s): Dedicated  Flex-Fuel  Dual-Fuel  Gasoline  Diesel  M85   
CNG  LNG  LPG  Other (specify) \_\_\_\_\_

Hybrid: Type A  B  C  APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_

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Engine: Front  Mid  Rear  Drive: FWD  RWD  4WD-FT  4WD-PT

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 Evap Standard: 50K  Useful Life with R/L \_\_\_\_\_ Evap Family: VFM1045AYPBA  
 Exhaust Std: Tier 0  Tier 1  TLEV  LEV  ULEV  ZEV  ; EPA Tier 0  Tier 1   
 Vehicle 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)  
 Exh Cert Fuel(s): Indo  Ph2  Diesel: 13 CCR 2282  or 40 CFR 86.113-90  or -94   
 M85  CNG  LPG  Other (specify) \_\_\_\_\_  
 Fuel Type(s): Dedicated  Flex-Fuel  Dual-Fuel  Gasoline  Diesel  M85   
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 Hybrid: Type A  B  C  , APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_  
 Engine Config: V-6 Liter (CID): 4.0 (244.1)  
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Single Cert Std for Multi-Class Eng Fam: N/A (specify N/A, LDT1, MDV1, MDV2, MDV3, MDV4)

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