

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-646  
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 1996 model-year Ford Motor Company exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: TFM4.6V8G1EK Displacement: 4.6 Liters (280 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Dual Three Way Catalytic Converters  
Three Way Catalytic Converter  
Dual 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 certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
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>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.11	2.0	0.1	4.4
100,000	0.15	2.9	0.2	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 gas (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).

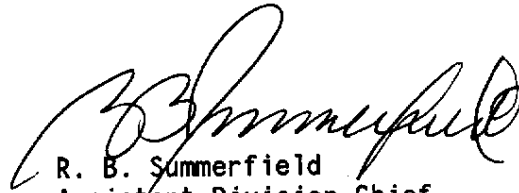
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned 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 13<sup>th</sup> day of July 1995.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

E.O.# A-10-646

### 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: TFM4.6V8G1EK  
 Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)  
 Standards Type: I-1 (Tier 0/1, AB965, TLEV,LEV,ULEV) Vehicle Type: (FFV,HEV(type A/B/C))  
 Fuel Type: Gasoline Evaporative Family: TFM1045AYPAA  
 Engine Config: V-8 Liter (CID): 4.6L (280)  
 Engine: Front X Mid.     Rear     Drive: FWD     RWD X 4WD-FT     4WD-PT      
 Exhaust ECS & Special Features:(Incl. CARB, MFI) 2TWC/TWC/2HO2S(2)/EGR/SFI  
 (Use abbreviations per SAE J1930 May91)

Engine Code (Cert Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
618P00A	COUGAR	A	4000	9.4 <sup>1</sup> 9.4 <sup>3</sup>	F6SF-DA	F6ZE-DA	F6SC-BD
618P00A	THUNDERBIRD	A	4000	9.0 <sup>1</sup> 9.0 <sup>3</sup> 8.4 <sup>2</sup>	F6SF-DA	F6ZE-DA	F6SC-DD

<sup>1</sup> WITH P215/70R15 TIRES  
<sup>2</sup> WITH P225/60R16 TIRES  
<sup>3</sup> WITH P205/70R15 TIRES

**1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**  
**PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

Manufacturer: Ford Motor Company Exhaust Engine Family: TFM4.6V8G1EK  
 Evap Standard: 50K  Useful Life with R/L \_\_\_\_\_ Evap Family: TFM1045AYPAA  
 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-8 Liter (CID): 4.6 (280)  
 Engine: Front  Mid. \_\_\_ Rear \_\_\_ Drive: FWD  RWD \_\_\_ 4WD-FT \_\_\_ 4WD-PT \_\_\_  
 Exhaust ECS & Special Features: SFI/2HO2S(2)/EGR/2TWC/TWC  
 (Use abbreviations per SAE J1930, Sep 91)

Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual	ETW 12A650	DPA -9D475-	Ignition (PCM) Part No. -5F250-	EGR System Part No.	Catalyst Part No.
618PRO5A	COUGAR	A	4000	9.4 <sup>*1</sup> 9.4 <sup>*2</sup>	F6SF-DB	F6SF-DA	F6SC-BD
618PRO5A	THUNDERBIRD	A	4000	9.0 <sup>*1</sup> 8.4 <sup>*2</sup> 9.0 <sup>*3</sup>	F6SF-DB	F6SF-DA	F6SF-BD

\*1 P215/70R15

\*2 P225/60R16

\*3 P205/70R15

## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: TFM4.6V8G1EK  
 Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)  
 Standards Type: T-1 (Tier 0/1, AB965, TLEV,LEV,ULEV) Vehicle Type: (FFV,HEV(type A/B/C))  
 Fuel Type: Gasoline Evaporative Family: TFM1045AYPAA  
 Engine Config: V-8 Liter (CID): 4.6L (280)  
 Engine: Front X Mid.     Rear     Drive: FWD     RWD X 4WD-FT     4WD-PT      
 Exhaust ECS & Special Features:(incl. CARB, MFI) 2TWC/TWC/2HO2S(2)/EGR/SFI  
 (Use abbreviations per SAE J1930 May91)

Engine Code (Cert Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
					-12A650-	-9D475- -9D477-	-5F250-
618PR06A	COUGAR	A	4000	9.4 <sup>1</sup> 9.4 <sup>3</sup>	F6SF-DC	F6ZE-DA F6SE-CF	F6SC-BD
618PR06A	THUNDERBIRD	A	4000	9.0 <sup>1</sup> 9.0 <sup>3</sup> 8.4 <sup>2</sup>	F6SF-DC	F6ZE-DA F6SE-CF	F6SC-BD

<sup>1</sup> WITH P215/70R15 TIRES<sup>2</sup> WITH P225/60R16 TIRES<sup>3</sup> WITH P205/70R15 TIRES

ENGINE FAMILY: TFM4.6V8G1EK  
 ISSUED: 8/14/95  
 REVISED:

20.09.17.02 - 3

R/C 4.6-2V-016

## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: TFM4.6V8G1EK  
 Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)  
 Standards Type: T-1 (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))

Fuel Type: Gasoline Evaporative Family: TFM1045AYPAA  
 Engine Config: V-8 Liter (CID): 4.6L (280)  
 Engine: Front X Mid     Rear     Drive: FWD     RWD X 4WD-FT     4WD-PT    

Exhaust ECS & Special Features: (incl. CARB, MFI) 2TWC/TWC/2HO2S(2)/EGR/SFI  
 (Use abbreviations per SAE J1930 May91)

Engine Code (Cert Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
					-12A650-	-9D475- -9D477-	-5F250-
618PR10A	COUGAR	A	4000	9.4 <sup>1</sup> 9.4 <sup>3</sup>	F6SF-DC	F6ZE-DA <b>F6SE-CF</b>	F6SC-BD
618PR10A	THUNDERBIRD	A	4000	9.0 <sup>1</sup> 9.0 <sup>3</sup> 8.4 <sup>2</sup>	F6SF-DC	F6ZE-DA <b>F6SE-CF</b>	F6SC-BD

- <sup>1</sup> WITH P215/70R15 TIRES  
<sup>2</sup> WITH P225/60R16 TIRES  
<sup>3</sup> WITH P205/70R15 TIRES

ENGINE FAMILY: TFM4.6V8G1EK  
 ISSUED: 10/30/95  
 REVISED:

20.09.17.02 - 4

R/C 4.6-2V-021

## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANYEng. Family: TFM4.6V8G1EKPass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)Standards Type: T-1 (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))Fuel Type: GasolineEvaporative Family: TFM1045AYPAAEngine Config: V-8Liter (CID): 4.6L (280)Engine: Front X Mid     Rear     Drive: FWD     RWD X 4WD-FT     4WD-PT    Exhaust ECS & Special Features: (incl. CARB, MFI) 2TWC/TWC/2HO2S(2)/EGR/SFI  
(Use abbreviations per SAE J1930 May91)

Engine Code (Cert Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No.
					-12A650-	-9D475- -9D477-	-5F250-
618PR10A	COUGAR	A	4000	9.4 <sup>1</sup> 9.4 <sup>3</sup> 8.7 <sup>2</sup>	F6SF-DC	F6ZE-DA F6SE-CF	F6SC-BD
618PR10A	THUNDERBIRD	A	4000	9.0 <sup>1</sup> 9.0 <sup>3</sup> 8.4 <sup>2</sup>	F6SF-DC	F6ZE-DA F6SE-CF	F6SC-BD

<sup>1</sup> WITH P215/70R15 TIRES<sup>2</sup> WITH P225/60R16 TIRES<sup>3</sup> WITH P205/70R15 TIRESENGINE FAMILY: TFM4.6V8G1EK  
ISSUED: 5/8/96  
REVISED:

20.09.17.02 - 5

R/C 4.6-2V-050