

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-9-356  
Relating to Certification of New Motor Vehicles

CHRYSLER 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 1997 model-year Chrysler Corporation exhaust emission control systems are certified as described below for light-duty trucks:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: VCR24228G2JK Displacement: 4.0 Liters (242 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Warm Up Oxidation Catalytic Converter
- Three Way Catalytic Converter
- Heated Oxygen Sensors (two)
- Sequential Multiport Fuel Injection

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) TLEV 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) |
|------------------------------|---------|-------|-----|-----|-------|-----------|
| 3751-5750                    | 50,000  | 0.160 | 4.4 | 0.7 | 0.018 | 12.5      |
|                              | 100,000 | 0.200 | 5.5 | 0.9 | 0.023 | n/a       |

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for NMOG reflect application of a 0.98 RAF for 1997 model-year TLEVs. The TLEV 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) |
|------------------------------|---------|-------|-----|-----|-------|-----------|
| 3751-5750                    | 50,000  | 0.083 | 0.9 | 0.2 | 0.003 | 3.6       |
|                              | 100,000 | 0.090 | 1.0 | 0.3 | 0.005 | 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 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 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 27<sup>th</sup> day of June 1996.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

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

E.O. # A-9-356  
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Manufacturer: Chrysler Corporation Exh Eng Fam: VCR24228G2JK Evap Fam: VCR1098AYP1N  
 All Eng Codes in Eng Fam: CA X 49S \_\_\_\_\_ 50S \_\_\_\_\_ AB965 \_\_\_\_\_  
 Exh Std: CA Tier-1 \_\_\_\_\_ TLEV X LEV \_\_\_\_\_ ULEV \_\_\_\_\_ ZEV \_\_\_\_\_; US EPA Tier-1 \_\_\_\_\_  
 Evap Std: 50K \_\_\_\_\_ Useful Life with R/L X In-Use Exh Std: Full In Use X Alt In Use \_\_\_\_\_  
 Veh Class(es): PC \_\_\_\_\_ LDT1 \_\_\_\_\_ LDT2 X 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 X Flex-Fuel \_\_\_\_\_ Dual-Fuel \_\_\_\_\_ Bi-Level \_\_\_\_\_ Gasoline X Diesel \_\_\_\_\_  
 CNG \_\_\_\_\_ LNG \_\_\_\_\_ LPG \_\_\_\_\_ M85 \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Emis Test Fuel(s): Indo \_\_\_\_\_ Ph2 X CNG \_\_\_\_\_ LPG \_\_\_\_\_ M85 \_\_\_\_\_ Other(specify) \_\_\_\_\_  
 Diesel: 13 CCR 2282 \_\_\_\_\_ or 40 CFR 86.113-90 \_\_\_\_\_ or 40 CFR 86.113-94 \_\_\_\_\_  
 Service Accum: Std AMA \_\_\_\_\_ Mod AMA X Mfr ADP \_\_\_\_\_ Other (Specify) \_\_\_\_\_  
 NMOG Test Procedure: N/A \_\_\_\_\_ Std \_\_\_\_\_ Equip X R/L Test Proce: SHED \_\_\_\_\_ Pt Source X  
 Hybrid: Type A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_, APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_  
 Engine Configuration: I-6 Displacement: \_\_\_\_\_ / 4.0 Liters \_\_\_\_\_ / 242 Cubic Inches  
 Valves per Cylinder: 2 Rated HP: \_\_\_\_\_ 185 @ \_\_\_\_\_ 4600 RPM  
 Engine: Front X Mid \_\_\_\_\_ Rear \_\_\_\_\_ Drive: FWD \_\_\_\_\_ RWD X 4WD-FT X 4WD-PT \_\_\_\_\_  
 Exhaust ECS (eg., EGR, MFI, TC, CAC): WUOC, TWC, HO2S(2), OBD II, SFI  
 (use abbreviations per SAE J1930 SEP91)

| Engine Code<br>(also list<br>CA/49ST/50ST) | Vehicle Models<br>(if coded see<br>attachment) | Trans. Type<br>M5<br>A4 | ETW<br>or<br>Test Wt. | DPA<br>or<br>RLHP                                       | Ignition<br>(ECM/PCM)<br>Part No. | EGR<br>System<br>Part No. | Catalyst<br>Converter<br>Part No. |
|--|--|-------------------------|-----------------------|---|-----------------------------------|---------------------------|-----------------------------------|
| CA-100<br>(CA)                             | ZJTL74<br><hr/> ZJJL74                         | A4                      | 4000<br><hr/> 4250    | S<br>E<br>E<br><br>A<br>T<br>T<br>A<br>C<br>H<br>E<br>D | 56042399<br>56041399              | None                      | 52018935<br>52101401              |

Date Issued: 04-01-96

Revisions: \_\_\_\_\_

VEHICLE MODELS/CARLINE

Engine Family: VCR24228G2JK  
Evaporative Family: VCR1098AYP1N  
Exhaust Control System: WUOC, TWC, HO2S(2), OBD II, SFI  
Evap. Control System: Canister  
Engine Displacement: 4.0L

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| Carline                  | Model Code |
|--------------------------|------------|
| Jeep® Grand Cherokee 4WD | ZJJL74     |
| Jeep® Grand Cherokee 2WD | ZJTL74     |

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REPORT DATE: 04-01-96

ATTACHMENT TO SDS PAGE 1  
OF EXECUTIVE ORDER A-9-356

1997  
VCR24228G2JK

Chrysler Corporation  
Family Tire Usage

LOADED VEHICLE WEIGHT

| MODEL | ENG | TRANS | A<br>C | MKT<br>GVW | TYPE | LVW | TIRE DESCRIPTION<br>USE YR COD MPG OPT | COAST<br>DOWN  | *DYNO<br>HP | TIRE<br>PRES<br>P R | COLD CO ELECTRIC DYNO COEFFICIENTS<br>(LINE 1 IS 20 DEG COEFFS, LINE 2 IS 50 DEG WHEN NEEDED) |       |   |         |       |         |         |
|-------|-----|-------|--------|------------|------|-----|--|----------------|-------------|---------------------|---|-------|---|---------|-------|---------|---------|
|       |     |       |        |            |      |     |  |                |             |                     | TARGET  | A     | B | C       | SET A | B       | C       |
| ZJL74 | ERH | DGK   | 4A     | Y          | 5300 | C   | 4250                                   | STD 97 TM6 TZA | 13.65       | 13.5                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRD TZA | 13.09       | 13.5                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRH TZA | 12.98       | 14.1                | 36 36   | 66.40 |   | 0.03664 | 51.84 | -1.2268 | 0.04786 |
|       |     |       |        |            |      |     |  | OPT 97 TRL TZA | 13.11       | 13.4                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRT TZA | 13.28       | 13.7                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TYR TZA | 13.22       | 12.8                | 36 36   |       |   |         |       |         |         |
| ZJL74 | ERH | DGK   | 4B     | Y          | 5300 | C   | 4250                                   | STD 97 TM6 TZA | 13.65       | 13.5                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRD TZA | 13.09       | 13.5                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRH TZA | 12.98       | 14.1                | 36 36   | 66.40 |   | 0.03664 | 51.84 | -1.2268 | 0.04786 |
|       |     |       |        |            |      |     |  | OPT 97 TRL TZA | 13.11       | 13.4                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRT TZA | 13.28       | 13.7                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TYR TZA | 13.22       | 12.8                | 36 36   |       |   |         |       |         |         |
| ZJL74 | ERH | DGK   | RW     | Y          | 5000 | C   | 4000                                   | STD 97 TM6 TZA | 14.13       | 12.4                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRH TZA | 13.59       | 13.0                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRL TZA | 13.56       | 12.3                | 36 36   |       |   |         |       |         |         |
|       |     |       |        |            |      |     |  | OPT 97 TRT TZA | 13.75       | 12.3                | 36 36   |       |   |         |       |         |         |

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