

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-325-18
Relating to Certification of New Motor Vehicles

GFI CONTROL SYSTEMS, INC.

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 1999 model-year GFI Control Systems, Inc. exhaust emission control systems are certified as described below for medium-duty vehicles:

Emission Standard Category: Ultra-Low-Emission Vehicle (ULEV)

Fuel Type: Dual-Fuel Liquefied Petroleum Gas (LPG) or Gasoline (Indolene)

Engine Family: XG9XA05.4HGP Displacement: 5.4 Liters (330 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Dual Warm-Up Three Way Catalytic Converters
- 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 non-methane organic gases (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) ULEV certification exhaust emission standards for this engine family in grams per mile are: (The standards in parentheses are for gasoline.)

| Test Weight (lbs.) | Miles | NMOG | CO | NOx | HCHO | CO (20°F) |
|-----------------------|---------|---------------|-----------|-----------|---------------|-------------|
| 3751-5750 | 50,000 | 0.100 (0.143) | 4.4 (4.4) | 0.4 (0.4) | 0.009 (0.009) | 12.5 (12.5) |
| | 120,000 | 0.160 (0.230) | 6.4 (6.4) | 0.6 (0.6) | 0.013 (0.013) | n/a |

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.50 (LPG)
1.00 (Indolene)

The certification exhaust emission values set forth for NMOG reflect application of a 0.50 or 1.00 RAF for 1999 model-year ULEVs. The ULEV certification exhaust emission values for this engine family in grams per mile are: (The values in parentheses are for gasoline.)

| Test Weight (lbs.) | Miles | NMOG | CO | NOx | HCHO | CO (20°F) |
|-----------------------|---------|---------------|-----------|------------|---------------|-----------|
| 3751-5750 | 50,000 | 0.049 (0.123) | 1.9 (2.2) | 0.05 (0.2) | 0.001 (0.001) | 4.6 (6.0) |
| | 120,000 | 0.057 (0.180) | 2.2 (4.6) | 0.05 (0.3) | 0.002 (0.001) | n/a |

BE IT FURTHER RESOLVED: That the manufacturer shall not be subject to the phase-in requirement as specified in Title 13, California Code of Regulations, Section 1960.1(h)(2) Endnote (10)(d) applicable to small-volume manufacturers of medium-duty vehicles.

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 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 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.).

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 5th day of April 1999.



R. B. Summerfield, Chief
Mobile Source Operations Division

ED A-325-18

**Air Resources Board Certification Review Sheet
Passenger Cars, Light Duty Trucks and Medium Duty Vehicles
Model Year 1999**

Manufacturer: GFI CONTROL SYSTEMS INC. Exh Eng Fam: XG9XA05-4HGP Evap Fam: XFMXF0155BAG
 All Engine Codes in Engine Family: CA X 49% 50% AB965 _____, ORVR: same as OEM
 Exh Std: CA Tier-1 TLEV LEV ULEV X SULEV _____, USEPA Tier-1 _____
 Veh Class(es): PC LDT1 LDT2 MDV1 MDV2 X MDV3 MDV4 MDV5 _____
 Single Cert Standard for Multi-Class Eng Family: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
 Fuel Type(s): Dedicated _____ Flex Fuel _____ Dual Fuel X Bi-Fuel _____ Gasoline X Diesel _____
 CNG _____ LNG _____ LPG X M85 _____ Other (specify) _____
 Exh Emission Test Fuel(s): Indo X CBG _____ CNG _____ LPG X M85 _____ Other (specify) _____
 Diesel: 13 CCR 2282 _____ 40 CFR 86.113-90 _____ 40 CFR 86.113-90 _____
 Volaportive Emissions Test Procedure: California X Federal _____
 Service Accum: Std AMA _____ Mod AMA _____ Mfr ADP _____ Other (specify) _____
 NMOG Test Procedure: N/A _____ Std X Equip _____ R/L Test Proc: SHEU X Ft Source _____
 Engine Configuration: V8 Displacement: 5.4 Liters 330 Cubic inches
 Valves Per Cylinder: 2 Rated HP 235 @ 4250 RPM
 Engine: Front X Mid _____ Rear _____ Drive: FWD _____ RWD X 4WD-FT _____ 4WD-PT _____
 Exhaust ECS (e.g., MFI, EGR, TC, CAC): SELEGR-2HQ287, 2WU-TWC-2TWC-TWC

(Use abbreviations per SAE J1930 Jun93)

| Engine Code (also list CA/49%/50%) | Vehicle Models (If coded see attachments) | Trans. (M6, A4 etc.) | FTW or Test Wt. | DPA or RLHP | Ignition (RCM/PCM) Part No. | EGR System Part No. | Catalytic Converter Part No. |
|---|---|----------------------------|-----------------------|-------------------|--|---------------------------|--|
| 00000/26ft/lb Calibration: 6F1F1P01 R99 | F-150 PickUp 4X2, Regular & Supercab. | A4 | 5750 lbs | 16.9hp | XL3F-12A650-AKE (gasoline) V23-100 (LNG) | F75E-9D475 CA | XL34-5E214-GH XL34-5E214-HB XL34-5G218-GB XL34-5G218-HB F858-5E212- ALXG1 |
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