State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-325-26 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 2000 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)

<u>Fuel Type</u>: Dual-Fuel Compressed Natural Gas (CNG) or Gasoline (Indolene)

Engine Family: YG9XT05.46NN <u>Displacement</u>: 5.4 Liters (331 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Dual Three Way Catalytic Converters (two)
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_	<u>HCHO</u>	CO (20°F)
5751-8500		0.117 (0.195) 0.167 (0.280)			0.011 (0.011) 0.016 (0.016)	n/a (12.5) n/a

The CNG certification exhaust emission values set forth for NMOG reflect application of a reactivity adjustment factor (RAF) for CNG-fueled medium-duty ULEVs, and the addition of the product of the methane exhaust emission value and a RAF for methane emission of CNG-fueled medium-duty ULEVs.

Reactivity Adjustment Factor for NMOG Mass Emission: 0.43

Reactivity Adjustment Factor for Methane Mass Emission: 0.0047

The certification exhaust emission values for this engine family in grams per mile are: (The values in parentheses are for gasoline.)

(lbs.)	Miles	NMOG	<u>CO</u>	NOx_	НСНО	<u>CO (20°F)</u>
5751-8500	50,000	0.006 (0.114)	2.0 (1.2)	0.1 (0.3)	0.0004 (0.001)	n/a (4.3)
	120,000	0.006 (0.153)	2.3 (1.7)	0.1 (0.4)	0.001 (0.002)	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 1995-2005 model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978-2000 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 1988-2000 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 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 $_{\it -28}$

day of February 2000.

R. B. Sammerfield, Chief

Mobile Source Operations Division

Air Resources Board Certification Review Sheet Passenger Cars, Light Duty Trucks and Medium Duty Vehicles Model Year 2000

Manufacturer: GFI CONTROL SYSTEMS INC. Exh Eng Fam: YG9XT05.46NN Evap Fam: YG9XE0155BAF	•
All Engine Codes in Engine Family: CA X 49s 50s AB965 ORVR: same as OEM No	
Exh Std: CA Tier-! TLEV LEV ULEV X SULEV US EPA	Exhibe
Veh Class(es): PCLDT1LDT2MDV1MDV2MDV3_X MDV4MDV5	Standards:
Single Cert Standard for Multi-Class Eng Family: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)	Intermedial
Fuel Type(s): Dedicated Flex Fuel Dual Fuel X Bi-Fuel Gasoline X Diesel	·
CNG_X_LNGLPGM85Other (specify)	
Exh Emiss Test Fuel(s): Indo X CBG CNG X LPG M85 Other (specify)	
Diesel: 13 CCR 2282 40 CFR 86.113-90 40 CFR 86.113-90	
Evaporative Emissions Test Procedure: California Federal X Gos: Glo from Ford	
Service Accum: Std AMA Mod AMA Mfr ADP Other (specify) CN6: Assigned of S	
NMOG Test Procedure: N/A Std X Equiv R/L Test Proc: SHED X Pt Source	
Engine Configuration: V-8 Displacement: 5.4 Liters 331 Cubic Inches	
Valves Per Cylinder: 2 Rated HP 205 @ 4250 RPM	
Engine: Front X Mid Rear Drive: FWD RWD X 4WD-FT 4WD-PT X	
xhaust ECS (e.g., MFI, EGR, TC, CAC): SFL 2H02S(2), EGR, 2TWC(2), TWC	
(use abbreviations per SAE J1930 Jun93)	

Engine Code (also list CA/49/50st)	Vehicle Models (if coded see attachment)	Tra ns. (M5, A4 etc.)	ETW or Test Wt.	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
0F51420-B00 Calibration: 2KFCNG01.F4	F-150 (2WD)	A4	6875 lbs.	16.2	YL3F-12A650- ASA (gasoline) V31-100 (CNG)	XL3E-9D475-CA	YL3C-5G218-GA YL3C-5E21+GA A3-145
0F51420-B00 Calibration: 2KFCNG01.F4	F-150 (4WD)	A4	6875 lbs.	16.2	YL3F-12A650- ASA (gasoline) V31-100 (CNG)	XL3E-9D475-CA	YL3C-5G218-GA YL3C-5E214-GA A3-145
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Air Resources Board Cortification Bertier Sheet Passenger Cars, Light Duty Trucks and Medium Duty Vehicles Model Year 2000

Manufacturer: GFI CONTROL SYSTEMS INC. Exh Eng Fam: YG9XT05.46NN Evap Fam: YG9XE0155B	AG
All Engine Codes in Engine Family: CA X 49s 50s AB965 , ORVR: 3ame as OE	No
Exh Std: CA Tier-1 TLEV LEV ULEV X SULEV US EPA	
Veh Class(es): PCLDT1 LDT2 MDV1 MDV2 MDV3_X _ MDV4 MDV5	•
Single Cert Standard for Multi-Class Eng Family: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV	
Fuel Type(s): DedicatedFlex FuelDual FuelX_Bi-FuelGasoline_X_Diesel	Exh.Tn-16e
CNG_X_LNGLPGM85Other (specify)	Strub: Intermediate
Exh Emiss Test Fuel(s): Indo X CBG CNG X LPG M85 Other (specify)	
Diesel: 13 CCR 2282 40 CFR 86.113-90 40 CFR 86.113-90	
Evaporative Emissions Test Procedure: California Federal Kasi Clo from Poco	
Service Accum: Std AMA Mod AMA Mfr ADP Other (specify) CNG: ASSIGNED AS	
NMOG Test Procedure: N/A Std X Equiv R/L Test Proc: SHED X Pt Source	· · · · · ·
Engine Configuration: V-8 Displacement: 5.4 Liters 331 Cubic In	ches
Valves Per Cylinder: 2 Rated HP 205 @ 4250 RPM	
Engine: Front X Mid Rear Drive: FWD RWD X 4WD-FT 4WD-PT X	<u>X</u>
xhaust ECS (e.g., MFI, EGR, TC, CAC): SFI, 2HO2S(2), EGR, 2TWC(2), TWC	-
(use abbreviations per SAE J1930 Jun93)	

EGR Catalytic (also list Models ns. System OГ or (ECM/PCM) Converter CA/49/50st) (if coded see (M5,Test Wt. **RLHP** Part No. Part No. Part No. attachment) A4etc.) 0F51420-B00 F-150 (2WD) A4 6875 lbs. 16.2 YL3F-12A650-XL3E-9D475-CA YL3C-5G218-GA YL3C-5E214-GA A3-145 Calibration: ASA (gasoline) 2KFCNG01.F4 V31-100 (CNG) 0F51420-B00 YL3C-5G218-GA YL3C-5E214-GA F-150 (4WD) A4 6875 lbs. YL3F-12A650-16.2 XL3E-9D475-CA Calibration: ASA (gasoline) A3-145 2KFCNG01.F4 V31-100 (CNG)

DPA

Ignition

Engine Code

Vehicle

Tra

ETW