

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-86-228  
Relating to Certification of New Motor Vehicles

MITSUBISHI MOTORS 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 1999 model-year Mitsubishi Motors 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: XMTXT02.4G1G Displacement: 2.4 Liters (143.4 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Warm Up Three Way 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:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
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 1999 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
3751-5750	50,000	0.093	1.7	0.2	0.001	9.0
	100,000	0.106	2.1	0.2	0.002	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 and Smog Index 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 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.).

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").

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 July 1998.



R. B. Summerfield, Chief  
Mobile Source Operations Division

17.16.02

E.O.# A-86-228

1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY TRUCKS

Manufacturer : Mitsubishi Motors Corporation  
Exh Engine Family : XMTXT02.4G1G ( 2.4TC )  
Evap Engine Family : XMTXE0130A1A

All Eng Codes in Eng Fam : CA X 49S     50S      
ORVR : Yes     No X  
Exh Std : CA Tier-1     TLEV X LEV     ULEV     SULEV     ;EPA Tier-0     Tier-1      
In-Use Exh Std : Full in use X Alt In Use    

Veh Class(es) : PC     LDT1     LDT2 X  
Single Cert Std for Multi-Class Eng Fam: N/A (specify : N/A, LDT1)  
Fuel Type(s) : Dedicated X Flex-Fuel     Dual-Fuel     Bi-Fuel     Gasoline X  
\*1 Diesel     CNG     LNG     LPG     M85     Other (specify)      
Emis Test Fuel : Indo     Ph2 X CNG     LPG     M85     Other (specify)      
Diesel : 13 CCR 2282     or 40 CFR 86.113-90     or -94      
Evaporative Emission Test Procedure : California     Federal X

Service Accum : Std AMA     Mod AMA X Mfr ADP     Other (specify)      
NMOG Test Proc : N/A     Std X Equiv      
R/L Test Proc : SHED X Pt Source    

Engine Configuration : IL4 Displacement: 2.4 Liters/ 143.4 Cubic Inches  
Valves per Cylinder : 4 Rated HP: 128 @ 5500 RPM  
Engine : Front X Mid     Rear      
Drive : FWD     RWD X 4WD-FT     4WD-PT      
Exhaust ECS (eg., EGR, MFI, TC, CAC) : HO2S(2)+TWC+WUTWC+(SFI)  
(use abbreviations per SAE J1930 SEP91)

Note) \*1: Cert. emission is tested by Phase-II  
Evap. emission is tested by Indolene

E.O.# A-86-228

1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY TRUCKS

Manufacturer : Mitsubishi Motors Corporation  
 Exh Engine Family : XMTXT02.4G1G ( 2.4TC )  
 Evap Engine Family : XMTXE0130A1A

Engine Code (also list CAL/FED /BOTH)	Vehicle Models (if coded see attachment)	Trans. type *1	ETW	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No. *2	Catalytic Converter Part No.
ACM (CAL)	Mitsubishi Montero Sport	M5 (M5RP)	3875	13.6	Distributor: MD330133 (T2T56171)	Valve: N/A	Front: MR224410
CM (CAL)			3750	12.2			

- \*1 : M-Manual transmission  
 L-Automatic transmission with lock-up  
 \*2 : This vehicle is not installed the EGR system.  
 \*3 : With Ni  
 N/A: Not Applicable