## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-15-151 Relating to Certification of New Motor Vehicles

NISSAN MOTOR CO., LTD.

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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Nissan Motor Co., Ltd. exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

Engine Family	Displacement Liters (Cubic inches)	Exhaust Emission Control Systems (Special Features)
KNS2.4T5FACX	2.4 (145.8)	Air Injection - Vaive Exhaust Gas Recirculation Oxygen Sensor Three-Way Catalyst (Central Fuel Injection) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

Loaded Vehicle Weight(lbs.)	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	
	(Grams per Mile)	(Grams per Mile)	(Grams per Mile)	
0 - 3750	0.39	9.0	1.0	

The following are the certification emission values for this engine family:

Loaded Vehicle Weight( bs.)	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides
	(Grams per Mile)	(Grams per Mile)	(Grams per Mile)
0 - 3750	0.17	3.6	0.5

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 lbs. loaded vehicle weight class are certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed models in the 0-3750 ibs. loaded vehicle weight class to the optional NOx standard by providing evidence that there are sufficient projected sales of vehicles certifying to the primary NOx emission standard, or is allowed a delay in implementation under small volume manufacturer provisions, or is allowed a delay in implementation under the "in lieu" standards, or is certifying passenger cars weighing more than 5250 ibs. loaded vehicle weight.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered 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" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high aititude requirements and highway emission standards 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 Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) 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 regulations (Title 13, California Administrative Code, Section 2035 et seq.) and for the listed vehicle models in the 0-3750 ibs. loaded vehicle weight class with the 2 year/24,000 mile warranty provisions of Health and Safety Code Section 43204.

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  $\underline{\mathcal{L}^{\&}}$ 

has a receive

K. D. Drachand, Chief Mobile Source Division

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET Page 1 Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5FACX Engine Type: In-line 4, OHC Evaporative Family: TBI-1 Liters (CID): 2.4 (145.8) **ABBREVIATIONS** Exhaust Emission Control System Special Features Ignition System CA-Centrifugal Advance AIP-Air Injection-Pump CCV-Combustion Chamber ECU-Electronic Control AIV-Air Injection-Valve Valve DBC-Dual Bed Catalyst CFI-Central Fuel EI-Electronic Ignition EGR-Exhaust Gas Recirculation Injection or Throttle ESAC-Electronic Spark OS-Oxygen Sensor **Body Injection** Advance Control HOS-Heated Oxygen Sensor DID-Diesel Injection-VA-Vacuum Advance EM-Engine Modification Direct DIP-Diesel Injection-VR-Vacuum Retard OC-Oxidation Catalyst SPL-Smoke Puff Limiter or Prechamber Throttle Delay IC-Intercooler or TOC-Trap Oxidizer, Continual Aftercooler TOP-Trap Oxidizer, Periodical EPFI-Electronic Port Fuel System EIC-Electronic Injection Control Fuel Injection CFI, SFI, HOS, OS, (Diesel Only) MPFI-Mechanical Port DIP, EPFI, MPFI, DID TWC-Three-Way Catalyst Fuel Injection WUOC-Warm-Up Oxidation Catalyst nV-nVenturi Carburetor SFI-Sequential Fuel VV-Variable Venturi WUTVC-Varm-Up Three-Way Catalyst Injection Carburetor TC-Turbocharger SC-Supercharger OBD-On-Board Diagnostics VEHICLE MODELS: Model Transmission Engine Code AZ24ICM2 ----- NISSAN STANDARD REGULAR BED ----- 4-speed Manual ---- 5-speed Manual NISSAN E REGULAR BED NISSAN E LONG BED NISSAN E KING CAB NISSAN XE KING CAB Engine: Front X Mid. Rear\_\_\_\_

Drive: FWD RWD X 4WD Full Time 4WD Part Time

Issue Date: 04/20/88

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 2

Page 2

Passenger Cars Light-Duty Trucks X Medium-Duty Vehicles Gas X Diesel

Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5FACX Litter (CID): 2.4 (145.8) Eng. Type: In-line 4, OHC Emission Control Sys. (Special Features): AIV/EGR/OS/TWC (CFI/OBD)

Code	  Vehicle Models  (If Coded see   attachment)  (Dyno Hp)	Туре	Equiv.  Test  Veight	i (ECU)	Fuel System   	<u> </u>	***
	  NISSAN  STANDARD  REGULAR BED  (11.7)	   W4 	3125 	ĺ	  SPI  Body Assem-  bly  RGA50-41	AEY76-88   	  xx,xY 
•	NISSAN E   REGULAR BED   (11.7)			  Control   Unit   MECS-G525	•		xx,xE    xx,xF 
•	NISSAN E LONG BED (12.2)	     <b>N</b> 5	     3250		! 		
•	NISSAN E  KING CAB   (10.9)	   					
Ì	NISSAN XE   KING CAB   (10.9)	1     	3375	1   	 	\   	

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

\*\*\*The figures and numbers in the place of the mark x are variable according to lot number and production date.

Issue Date: 04/20/88

## 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET 17.12.00 Page 3 Manufacturer: MISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5FACX Evaporative Family: TBI-1 Engine Type: In-line 4, OHC Liters (CID): 2.4 (145.8) **ABBREVIATIONS** Ignition System : Exhaust Emission Control System Special Features AIP-Air Injection-Pump CA-Centrifugal Advance CCV-Combustion Chamber AIV-Air Injection-Valve ECU-Electronic Control Valve DBC-Dual Bed Catalyst CFI-Central Fuel Injection or Throttle EI-Electronic Ignition EGR-Exhaust Gas Recirculation ESAC-Electronic Spark OS-Oxygen Sensor Body Injection HOS-Heated Oxygen Sensor DID-Diesel Injection-Advance Control VA-Vacuum Advance EM-Engine Modification Direct VR-Vacuum Retard OC-Oxidation Catalyst DIP-Diesel Injection-SPL-Smoke Puff Limiter or Prechamber Throttle Delay IC-Intercooler or TOC-Trap Oxidizer, Continual Aftercooler TOP-Trap Oxidizer, Periodical EPFI-Electronic Port Fuel System Fuel Injection EIC-Electronic Injection Control CFI, SFI, HOS, OS, (Diesel Only) MPFI-Mechanical Port DIP, EPFI, MPFI, DID TVC-Three-Vay Catalyst Fuel Injection WUOC-Warm-Up Oxidation Catalyst nV-nVenturi Carburetor SFI-Sequential Fuel WUTVC-Varm-Up Three-Way Catalyst VV-Variable Venturi Injection Carburetor TC-Turbocharger SC-Supercharger OBD-On-Board Diagnostics VEHICLE MODELS: Transmission Engine Code ---- 4-Speed Manual BZ24ICM2 ----- NISSAN STANDARD REGULAR BED ---- 5-Speed Manual NISSAN E REGULAR BED NISSAN E LONG BED NISSAN E KING CAB NISSAN XE KING CAB Engine: Front X Mid. Rear\_\_\_\_

Drive: FWD \_\_\_\_ RWD \_X 4WD Full Time \_\_\_\_ 4WD Part Time \_\_\_\_

Issue Date: 04/20/88

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 4

Passenger Cars\_\_\_Light-Duty Trucks\_X\_Medium-Duty Vehicles\_\_\_Gas\_X\_Diesel

Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5FACX Litter (CID): 2.4 (145.8) Eng. Type: In-line 4, OHC Emission Control Sys. (Special Features): AIV/EGR/OS/TWC (CFI/OBD)

	Vehicle Models   (If Coded see   attachment)   (Dyno Hp)	Туре	Equiv.   Test   Weight	(ECU)	Fuel System       Part No.	<b> </b> 	
       	I INISSAN ISTANDARD IREGULAR BED I(11.7)	     M4 		1	  SPI  Body Assem-  bly  RGA50-41		  xx,xY 
BZ24 ICM2   	NISSAN E   REGULAR BED   (11.7) 			Unit	  Control   Unit   MECS-G525	 	xx,xE    xx,xF 
	NISSAN E  LONG BED   (12.2)	     M5					
	NISSAN E  KING CAB  (10.9)	 	3250				
	NISSAN XE   KING CAB   (10.9)						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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Issue Date: 04/20/88

Manufacturer: MISSAN MOTOR CO., LTD.   Engine Family: KMS2.4TSFACX			7]
Evaporative Family: TBI-1  Liters (CID): 2.4 (145.8)  Special Features  Special Features  Special Features  CCV-Combustion Chambe Valve Valve Unit  BGR-Dual Bed Catalyst EI-Electronic Spark Advance Control VA-Vacuum Advance VR-Vacuum Retard  Fuel System  Fuel System  CFI. SFI. HOS. OS. DIP, EPFI, MPFI, DID NV-Nerturi Carburetor VY-Variable Venturi Carburetor  VEHICLE MODELS:  Engine Code  Model  AZ24ICA2NISSAN STANDARD REGULAR BED NISSAN E KING CAB NISSAN XE KING CAB  Engine: Front X Mid. Rear	17.12.00 1989 AIR RESO	URCES BOARD SUPPLEMENTAL DATA SHEE	
ABBREVIATIONS  Ignition System	Manufacturer: NISSAN MOT	OR CO., LTD. Engine Family: KNS	2.4T5FACX
ABBREVIATIONS  Ignition System	Evaporative Family: TBI-	Engine Type: In-li	ine 4, OHC
CA-Centrifugal Advance CCU-Clectronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control WA-Vacuum Advance VR-Vacuum Retard  Fuel System  Fuel System  Fuel System  CFI, SFI, HOS, OS, DIP, EPFI, MPFI, DID DIV-Nventuri Carburetor VV-Variable Venturi Carburetor  VEHICLE MODELS:  Engine Code  AZ24ICA2	ABBREVIATIONS	Liters (CID): 2.4	(145.8)
ECU-Electronic Control Unit BI-Electronic Ignition ESAC-Electronic Spark Advance Control WA-Vacuum Advance VR-Vacuum Retard WR-Vacuum Retard  Fuel System  CFI, SFI, HOS, OS, DIP, EPFI, MPFI, DID NP-nVenturi Carburetor  Carburetor  VEHICLE MODELS:  Engine Code  AZ24ICA2  Engine Code  Mid  AIV-Air Injection-Valve DBC-Dual Bed Catalyst EGR-Exhaust Gas Recirculation DS-Oxygen Sensor BOS-Oxygen Sensor BOS-Oxygen Sensor  US-Oxygen Sensor BOD Unjection DID-Diesel Injection DIP-Diesel Injection DIP-Diesel Injection DIP-Diesel Injection DIP-Diesel Injection DIP-Diesel Injection Prechamber IC-Intercooler OR Aftercooler BFFI-Electronic Port Fuel Injection WFFI-Mechanical Port Fuel Injection SFI-Sequential Fuel Injection MFFI-Hechanical Port Fuel Injection SFI-Sequential Fuel Injection TC-Turbocharger SC-Supercharger OBD-On-Board Diagnostics  VEHICLE MODELS:  Engine Code  Model  AZ24ICA2  NISSAN STANDARD REGULAR BED NISSAN E REGULAR BED NISSAN E KING CAB NISSAN XE KING CAB  Engine: Front X Mid.  Rear  RISPI-Central Fuel Injection or Throttl Body Injection DIP-Otesel Injection Prechamber IC-Intercooler OR Aftercooler SFIFI-Electronic Port Fuel Injection OBTO-Diesel Injection Prechamber IC-Intercooler OR Aftercooler SFIFI-Electronic Port Fuel Injection SFI-Sequential Fuel Injection Aftercooler Trunchamber IC-Intercooler Fuel Injection SFI-Sequential Fuel Injection Aftercooler Trunchamber IC-Intercooler INJECTION Aftercooler Trunchamber IC-Intercooler INJECTION Aftercooler INJ	Ignition System	Exhaust Emission Control System	Special Features
AZ24ICA2NISSAN STANDARD REGULAR BED 4-speed Automatic NISSAN E REGULAR BED NISSAN E LONG BED NISSAN E KING CAB NISSAN XE KING CAB Engine: Front X Mid. Rear	ECU-Electronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control VA-Vacuum Advance VR-Vacuum Retard  Fuel System CFI, SFI, HOS, OS, DIP, EPFI, MPFI, DID nV-nVenturi Carburetor VV-Variable Venturi Carburetor	AIV-Air Injection-Valve DBC-Dual Bed Catalyst EGR-Exhaust Gas Recirculation OS-Oxygen Sensor HOS-Heated Oxygen Sensor EM-Engine Modification OC-Oxidation Catalyst SPL-Smoke Puff Limiter or Throttle Delay TOC-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical EIC-Electronic Injection Control (Diesel Only) TVC-Three-Vay Catalyst VUOC-Varm-Up Oxidation Catalyst	Valve CFI-Central Fuel Injection or Throttl Body Injection DID-Diesel Injection- Direct DIP-Diesel Injection- Prechamber IC-Intercooler or Aftercooler EPFI-Electronic Port Fuel Injection MPFI-Mechanical Port Fuel Injection SFI-Sequential Fuel Injection TC-Turbocharger SC-Supercharger OBD-On-Board
NISSAN E REGULAR BED NISSAN E LONG BED NISSAN E KING CAB NISSAN XE KING CAB Engine: Front X Mid. Rear	Engine Code	Model	ransmission
	NI NI NI	SSAN E REGULAR BED SSAN E LONG BED SSAN E KING CAB SSAN XE KING CAB	4-speed Automatic
			Time

Issue Date: 04/20/88

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E.O. # A-15-151

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 6

Passenger Cars Light-Duty Trucks X Medium-Duty Vehicles Gas X Diesel

Manufacturer: NISSAN MOTOR CO., LTD.

Engine Family: KNS2.4T5FACX Eng. Type: In-line 4, OHC

Litter (CID): 2.4 (145.8) Emission Control Sys. (Special Features): AIV/EGR/OS/TWC (CFI/OBD)

	Vehicle Models  (If Coded see   attachment)  (Dyno Hp)	Туре	Equiv.  Test  Veight	(ECU)	Fuel System         Part No.	 	***
İ	NISSAN   STANDARD   REGULAR BED   (11.7)	 	3125	T0T80671	SPI  Body Assem-  bly  RGA50-42		xx,xY
	NISSAN E   REGULAR BED   (11.7)		3250				xx,xE    xx,xF 
	NISSAN E   LONG BED(12.2)     NISSAN E   KING CAB(10.9)		        3375	  Control   Unit   MECS-G535	•		
•	KING CAB(10.9)     NISSAN XE   KING CAB(10.9)		3375	MECS-USSS	MECS-U335		

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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Issue Date: 04/20/88

		E.U. 1	M-12-12
17.12.00 1989 AIR RESO	URCES BOARD SUP	PLEMENTAL DATA SHEE	Page 7
Manufacturer: NISSAN MOT	OR CO., LTD.	Engine Family: KNS	32.4T5FACX
Evaporative Family: TBI-	1	Engine Type: <u>In-li</u>	ine 4, OHC
ABBREVIATIONS		Liters (CID): 2.4	(145.8)
Ignition System	Exhaust Emissi	on Control System	Special Features
CA-Centrifugal Advance ECU-Electronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control VA-Vacuum Advance VR-Vacuum Retard  Fuel System	OS-Oxygen Sens HOS-Heated Oxy EM-Engine Modi OC-Oxidation C SPL-Smoke Puff Throttle De TOC-Trap Oxidi TOP-Trap Oxidi	ion-Valve atalyst s Recirculation or gen Sensor fication atalyst Limiter or	CCV-Combustion Chambe Valve CFI-Central Fuel Injection or Throttle Body Injection DID-Diesel Injection- Direct DIP-Diesel Injection- Prechamber IC-Intercooler or Aftercooler EPFI-Electronic Port Fuel Injection
CFI, SFI, HOS, OS, DIP, EPFI, MPFI, DID nV-nVenturi Carburetor VV-Variable Venturi Carburetor	(Diesel On TWC-Three-Way WUOC-Warm-Up O	ly)	MPFI-Mechanical Port Fuel Injection SFI-Sequential Fuel Injection TC-Turbocharger SC-Supercharger OBD-On-Board Diagnostics
VEHICLE MODELS:			
Engine Code	Model		ransmission
NI NI	SSAN STANDARD R SSAN E REGULAR SSAN E LONG BED SSAN E KING CAB SSAN XE KING CA	BED	4-speed Automatic
Engine: Front X Mid.	Rear		
Drive : FWD RWD_	X 4WD Full T	ime 4WD Part	Time

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E.O. \* A-15-151

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 8

Passenger Cars Light-Duty Trucks X Medium-Duty Vehicles Gas X Diesel

Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5FACX

Litter (CID): 2.4 (145.8) Eng. Type: In-line 4, OHC

Emission Control Sys. (Special Features): AIV/EGR/OS/TWC (CFI/OBD)

Code 	  Vehicle Models  (If Coded see   attachment)  (Dyno Hp)	Туре	Test  Weight	(ECU)	  Fuel System       Part No.		***
    BZ24ICA2 	NISSAN E		3125	T0T80671	Body Assem-	_	  xx,xY
	REGULAR BED   (11.7)     NISSAN E   LONG BED (12.2)		         3250				xx,xF
	ILUNG BED (12.2)		•	  Control   Unit   MECS-G535	Unit		
<u> </u>	NISSAN XE KING CAB(10.9)		3375	.   			

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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