

NISSAN QUEST

MODEL V41 SERIES

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FOREWORD

This manual contains maintenance and repair procedures for the 1999 NISSAN QUEST.

In order to assure your safety and the efficient functioning of the vehicle, this manual should be read thoroughly. It is especially important that the PRECAUTIONS in the GI section be completely understood before starting any repair task.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the technician and the efficient functioning of the vehicle. The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately. Service varies with the procedures used, the skills of the technician and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first be completely satisfied that neither personal safety nor the vehicle's safety will be jeopardized by the service method selected.



NISSAN NORTH AMERICA, INC.

**Technical Service Information Department
Torrance, California**



PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to NISSAN and will help us to improve our Service Manuals. Use this form to report any issues or comments you may have regarding our Service Manuals. Please photocopy this form and type or print your comments below. Mail or fax to:

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SERVICE MANUAL: Model: _____ **Year:** _____

PUBLICATION NO. (Please photocopy back cover): _____

VEHICLE INFORMATION VIN: _____ **Production Date:** _____

Please describe any issues or problems in detail:

Page number(s) _____ *Note: Please include a copy of each page, marked with your comments.*

Are the trouble diagnosis procedures logical and easy to use? (circle your answer) YES NO

If no, what page number(s)? _____ *Note: Please include a copy of each page, marked with your comments.*

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What information should be included in NISSAN Service Manuals to better support you in servicing or repairing customer vehicles?

DATE: _____ **YOUR NAME:** _____ **POSITION:** _____

DEALER: _____ **DEALER NO.:** _____ **ADDRESS:** _____

CITY: _____ **STATE/PROV./COUNTRY:** _____ **ZIP/POSTAL CODE:** _____

QUICK REFERENCE CHART: QUEST 1999

ENGINE TUNE-UP DATA

Engine model	VG33E		
Firing order	1-2-3-4-5-6		
Idle speed	rpm	700 ± 50	
A/T (in "N" position)			
Ignition timing (degree B.T.D.C. at idle speed)	15° ± 2°		
CO% at idle	Idle mixture screw is preset and sealed at factory.		
Drive belt deflection (Cold)	mm (in)	Used belt	
		Limit	Deflection after adjustment
Generator	12 (0.47)	7.5 - 8.5 (0.295 - 0.335)	6.5 - 7.5 (0.256 - 0.295)
Air conditioner compressor	10 (0.39)	5 - 7 (0.20 - 0.28)	4 - 6 (0.16 - 0.24)
Power steering oil pump	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Applied pushing force	98 N (10 kg, 22 lb)		
Radiator cap relief pressure	kPa (kg/cm ² , psi)	78 - 98 (0.8 - 1.0, 11 - 14)	
Cooling system leakage testing pressure	kPa (kg/cm ² , psi)	157 (1.6, 23)	
Compression pressure	kPa (kg/cm ² , psi)/rpm	Standard	1,196 (12.2, 173)/300
		Minimum	883 (9.0, 128)/300
High tension cable resistance	kΩ	Less than 30	
Spark plug Type		Standard	PFR5G-11
		Cold	PFR6G-11
		Hot	PFR4G-11
Gap	mm (in)	1.0 - 1.1 (0.039 - 0.043)	
Tightening torque		N-m	kg-m
		ft-lb	
Spark plug		20 - 29	2 - 3
Oil pan drain plug		29 - 39	3 - 4
			14 - 22
			22 - 29

REAR WHEEL ALIGNMENT (Unladen*)

Camber	Degree minute (Decimal degree)	Minimum	-15° (-0.25°)
		Nominal	0° (0°)
		Maximum	15° (0.25°)
Total toe-in	mm (in)	Minimum	-4 (-0.16)
		Nominal	0 (0)
		Maximum	4 (0.16)
Distance (A - B)	mm (in)	Minimum	-22° (-0.36°)
		Nominal	0° (0°)
		Maximum	22° (0.37°)
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	-22° (-0.36°)
		Nominal	0° (0°)
		Maximum	22° (0.37°)

* Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

BRAKE

Disc brake		Unit: mm (in)
Pad minimum thickness		2.0 (0.079)
Rotor repair limit		
Minimum thickness		24.0 (0.945)
Drum brake		
Lining minimum thickness		2.0 (0.079)
Drum repair limit		
Maximum inner diameter		251.5 (9.90)
Pedal free height		195 - 205 (7.68 - 8.07)
Pedal depressed height*1		115 - 130 (4.53 - 5.12)
Parking brake		
Number of notches*2		5 - 6

*1 Under force of 490N (50kg, 110lb) with engine running.

*2 Under force of 196N (20kg, 44lb).

FRONT WHEEL ALIGNMENT (Unladen*1)

Camber	Degree minute (Decimal degree)	Minimum	-27° (-0.45°)
		Nominal	18° (0.3°)
		Maximum	1°3' (1.05°)
		Left and right difference	45° (0.75°)
Caster	Degree minute (Decimal degree)	Minimum	3° (0.05°)
		Nominal	-48° (0.8°)
		Maximum	1°33' (1.55°)
		Left and right difference	45° (0.75°)
Kingpin inclination	Degree minute (Decimal degree)	Minimum	12°50' (12.83°)
		Nominal	13°35' (13.58°)
		Maximum	14°20' (14.33°)
Total toe-in	mm (in)	Minimum	2 (0.08)
		Nominal	-3 (0.12)
		Maximum	4 (0.16)
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	11.0° (0.18°)
		Nominal	16.5° (0.26°)
		Maximum	22.0° (0.37°)
Wheel turning angle	Degree minute (Decimal degree)	Minimum	36° (36.00°)
		Nominal	38° (38.00°)
		Maximum	40° (40.00°)
Full turn*2	Degree minute (Decimal degree)	Minimum	28° (28.00°)
		Nominal	30° (30.00°)
		Maximum	32° (32.00°)

*1 Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2 On power steering models, wheel turning force (at circumference of steering wheel) of 98 to 147 N (10 to 15 kg, 22 to 33 lb) with engine idle.

REFILL CAPACITIES

	Unit	Liter	US measure
Fuel tank		75.7	20 gal
Coolant (with reservoir)		10.6	11-1/4 qt
Engine	With oil filter	3.8	4 qt
	Without oil filter	3.6	3-7/8 qt
	Dry engine (engine overhaul)	4.3	4-1/2 qt
Transaxle (with torque converter) *1		9.4	10 qt
Power steering system *2		1.1	1-1/8 qt
Air conditioning system			
With rear A/C			
Lubricant *3		325 ml	11.0 oz
Refrigerant *4		1.587 kg	3.5 lb
Front A/C only			
Lubricant *3		207 ml	7.0 oz
Refrigerant *4		0.907 kg	2.0 lb

*1 Nissan Matic 'D' (Continental U.S. and Alaska) or Genuine Nissan Automatic Transmission Fluid (Canada).

*2 Type F Automatic Transmission Fluid.

*3 Nissan A/C System Lubricant PAG Type F or equivalent.

*4 R-134a.

TEST VALUE AND TEST LIMIT (GST ONLY — NOT APPLICABLE TO CONSULT-II)

The following is the information specified in Mode 6 of SAE J1979.

The test value is a parameter used to determine whether a system/circuit diagnostic test is “OK” or “NG” while being monitored by the ECM during self-diagnosis. The test limit is a reference value which is specified as the maximum or minimum value and is compared with the test value being monitored.

Items for which these data (test value and test limit) are displayed are the same as SRT code items.

These data (test value and test limit) are specified by Test ID (TID) and Component ID (CID) and can be displayed on the GST screen.

SRT item	Self-diagnostic test item	DTC	Test value (GST display)		Test limit	Conversion
			TID	CID		
CATALYST	Three way catalyst function	P0420	01H	01H	Max.	1/128
EVAP SYSTEM	EVAP control system (Small leak)	P0440	05H	03H	Max.	1/128mm ²
		P1440	05H	03H	Max.	1/128mm ²
	EVAP control system purge flow monitoring	P1447	06H	83H	Min.	20mV
HO2S	Heated oxygen sensor 1	P0133	09H	04H	Max.	16ms
		P0131	0AH	84H	Min.	10mV
		P0130	0BH	04H	Max.	10mV
		P0132	0CH	04H	Max.	10mV
	Heated oxygen sensor 2	P0134	0DH	04H	Max.	1s
		P0139	19H	86H	Min.	10mV/500ms
		P0137	1AH	86H	Min.	10mV
		P0140	1BH	06H	Max.	10mV
HO2S HTR	Heated oxygen sensor 1 heater	P0135	29H	08H	Max.	20mV
		P0135	2AH	88H	Min.	20mV
	Heated oxygen sensor 2 heater	P0141	2DH	0AH	Max.	20mV
		P0141	2EH	8AH	Min.	20mV
EGR SYSTEM	EGR function	P0400	31H	8CH	Min.	1°C
		P0400	32H	8CH	Min.	1°C
		P0400	33H	8CH	Min.	1°C
		P0400	34H	8CH	Min.	1°C
	EGRC-BPT valve function	P1402	35H	0CH	Max.	1°C
		P0402	36H	0CH	Max.	1count
		P0402	37H	8CH	Min.	1count