NISSAN QUEST

MODEL V40 SERIES

QUICK REFERENCE INDEX

FOREWORD

This manual contains maintenance and repair procedures for the 1997 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:

Nissan North America, Inc.
Technical Service Information
39001 Sunrise Drive, P.O. Box 9200
Farmington Hills, MI USA 48331
FAX: (810) 488-3910

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.*

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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.*

Please describe the issue or problem in detail:_____

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Is the organization of the manual clear and easy to follow? (circle your answer) YES NO

Please comment:_____

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

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DATE:_____ YOUR NAME:_____ POSITION:_____

DEALER:_____ DEALER NO.:_____ ADDRESS:_____

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

QUICK REFERENCE CHART: QUEST [ ] 1997

ENGINE TUNE-UP DATA

Engine model		VG30E		
Firing order		1-2-3-4-5-6		
Idle speed rpm A/T (in "N" position)		750 ± 50		
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	Deflection of new belt
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/cm², psi)		81.4 - 108.9 (0.83 - 1.11, 11.8 - 15.8)		
Cooling system leakage testing pressure kPa (kg/cm², psi)		157 (1.6, 23)		
Compression pressure kPa (kg/cm², 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	BKR5EY		
	Cold	BKR6EY		
Gap mm (in)		0.8 - 0.9 (0.031 - 0.035)		
Tightening torque		N-m	kg-m	ft-lb
Spark plug		20 - 29	2 - 3	14 - 22
Oil pan drain plug		29 - 39	3 - 4	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		Minimum	−4 (−0.16)
Distance (A − B)	mm (in)	Nominal	0 (0)
		Maximum	4 (0.16)
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	−22' (−0.36°)
		Nominal	0° (0°)
		Maximum	22' (0.36°)

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

BRAKE

Unit: mm (in)

Disc brake 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	11 - 12

*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°0.3' (1.0°)
		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		Minimum	2 (0.08)
Distance (A - B)	mm (in)	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' (0.36°)
Wheel turning angle		Minimum	36° (36.00°)
Inside	Degree minute (Decimal degree)	Nominal	38° (38.00°)
		Maximum	40° (40.00°)
Full turn*2		Minimum	28° (28.00°)
Outside	Degree minute (Decimal degree)	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)			
Front heater only		10.7	11-3/8qt
With rear heater		12.1	12-3/4qt
Engine	With oil filter	4.0	4-1/4qt
	Without oil filter	3.6	3-7/8qt
Transaxle (with torque converter) *1		9.4	10qt
Power steering system *2		1.1	1-1/8qt
Air conditioning system			
With rear A/C			
Lubricant *3		296 ml	10.0 oz
Refrigerant *4		1.474 kg	3.25 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
	EVAP control system purge flow monitoring	P1447	06H	83H	Min.	20mV
HO2S	Heated oxygen sensor 1	P0130	09H	04H	Max.	10ms
		P0130	0AH	84H	Min.	10mV
		P0130	0BH	04H	Max.	10mV
		P0130	0CH	04H	Max.	10mV
		P0130	0DH	04H	Max.	1s
	Heated oxygen sensor 2	P0136	19H	86H	Min.	10mV/500ms
		P0136	1AH	86H	Min.	10mV
		P0136	1BH	06H	Max.	10mV
		P0136	1CH	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℃
		P0400	32H	8CH	Min.	1℃
		P0400	33H	8CH	Min.	1℃
		P0400	34H	8CH	Min.	1℃
		P0400	35H	0CH	Max.	1℃
	EGRC-BPT valve function	P0402	36H	0CH	Max.	1count
		P0402	37H	8CH	Min.	1count