

NISSAN PATHFINDER

MODEL R50 SERIES

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FOREWORD

This manual contains maintenance and repair procedures for the 1996 Nissan PATHFINDER.

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 MOTOR CO., LTD.

Overseas Service Department

Tokyo, Japan

QUICK REFERENCE CHART: PATHFINDER 1996

ENGINE TUNE-UP DATA

Engine model		VG33E	
Firing order		1-2-3-4-5-6	
Idle speed	rpm	750±50	
	M/T (in "N" position)	750±50	
Ignition timing (degree BTDC at idle speed)		15°±2°	
CO% at idle		Idle mixture screw is preset and sealed at factory.	
Drive belt deflection (Cold)		mm (in)	
Alternator	Used belt		Deflection of new belt
	Limit	Deflection after adjustment	
	With air conditioner compressor	10.5 - 11.5 (0.413 - 0.453)	
Without air conditioner compressor	10.5 (0.413)	6 - 7 (0.24 - 0.28)	5.5 - 6.5 (0.217 - 0.256)
Power steering oil pump	18 (0.71)	11 - 13 (0.43 - 0.51)	9 - 10 (0.35 - 0.39)
Applied pressed force		N (kg, lb)	
		98 (10, 22)	
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 (12.20, 173.4)/300	
Minimum		883 (9.01, 128.0)/300	
Spark plug		Type	
		BKR5ES-II	
Gap		mm (in)	
		1.0 - 1.1 (0.039 - 0.043)	

CLUTCH PEDAL

Unit: mm (in)

Pedal height	181 - 191 (7.13 - 7.52)
Pedal free play	9 - 16 (0.35 - 0.63)

WHEEL ALIGNMENT (Unladen*)

Applied model		285/70 R15 tire	235/70 R15 tire
Camber	Minimum	-0°35' (-0.58°)	
	Nominal	0°10' (0.17°)	
	Maximum	0°55' (0.92°)	
Degree minute (Decimal degree)	Left and right difference	45' (0.75°) or less	
Caster	Minimum	2°15' (2.25°)	
	Nominal	3°00' (3.00°)	
	Maximum	3°45' (3.75°)	
Degree minute (Decimal degree)	Left and right difference	45' (0.75°) or less	
Total toe-in	Minimum	1 (0.04)	
	Nominal	2 (0.08)	
	Maximum	3 (0.12)	
Distance (A - B)	mm (in)		
	Angle (left plus right)		
Degree minute (Decimal degree)	Minimum	5' (0.08°)	
	Nominal	10' (0.17°)	
	Maximum	15' (0.25°)	
Wheel turning angle (Full turn)	Minimum	30°00' (30.00°)	32°00' (32.00°)
	Inside		
Degree minute (Decimal degree)	Minimum	33°00' (33.00°)	35°00' (35.00°)
	Nominal		
	Maximum	34°00' (34.00°)	36°00' (36.00°)
Degree minute (Decimal degree)	Minimum	28°00' (28.00°)	30°00' (30.00°)
	Nominal		
	Maximum	31°00' (31.00°)	33°00' (33.00°)

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

BRAKE

Unit: mm (in)

Front brake		
Pad wear limit		2.0 (0.079)
Rotor repair limit		26.0 (1.024)
Rear brake		
Lining wear limit		1.5 (0.059)
Drum repair limit		296.5 (11.67)
Pedal free height		
M/T		165 - 175 (6.50 - 6.89)
A/T		175 - 185 (6.89 - 7.28)
Pedal depressed height*1		
M/T		65 (2.56)
A/T		70 (2.76)
Parking brake		
Number of notches*2		6 - 8

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

*2 At pulling force: 196 N (20 kg, 44 lb)

REFILL CAPACITIES

Unit	Liter	US measure		
Fuel tank	80	21-1/8 gal		
Coolant with reservoir	10.8	11-1/4 qt		
Engine	With oil filter	3.7	3-7/8 qt	
	Without oil filter	3.4	3-5/8 qt	
Transmission	M/T	2WD	2.4	5-1/8 pt
		4WD	5.1	10-3/4 pt
	A/T	2WD	8.3	8-3/4 qt
		4WD	8.5	9 qt
Transfer		2.2	2-3/8 qt	
Differential carrier	Front	2.05	4-3/8 pt	
	Rear	2.8	5-7/8 pt	
Power steering system		0.9	1 qt	
Air conditioning system	Refrigerant	0.60 - 0.70 kg	1.32 - 1.54 lb	
	Compressor oil	0.25	8.5 fl oz	

FRONT WHEEL BEARING

Preload (At hub bolt) N (kg, lb)	Wheel bearing lock nut	
	Tightening torque	78 - 98 (8 - 10, 58 - 72)
	Retightening torque after loosening wheel bearing lock nut	0.5 - 1.5 (0.05 - 0.15, 4.3 - 13.0)
	Axial end play	mm (in)
	Starting force at wheel hub bolt	A
	Turning angle	degree
	Starting force at wheel hub bolt	B
Wheel bearing preload at wheel hub bolt	7.06 - 20.99 (0.72 - 2.14, 1.59 - 4.72)	
B - A	N (kg, lb)	