

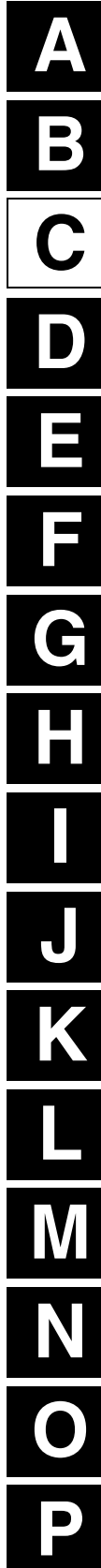
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QUICK REFERENCE INDEX

A GENERAL INFORMATION	GI General Information	
B ENGINE	EM Engine Mechanical	
	LU Engine Lubrication System	
	CO Engine Cooling System	
	EC Engine Control System	
	FL Fuel System	
	EX Exhaust System	
	STR Starting System	
	ACC Accelerator Control System	
	C HYBRID	HBC Hybrid Control System
		HBB Hybrid Battery System
HBR Hybrid Brake System		
D TRANSMISSION & DRIVE-LINE	TM Transaxle & Transmission	
	DLN Driveline	
	FAX Front Axle	
	RAX Rear Axle	
E SUSPENSION	FSU Front Suspension	
	RSU Rear Suspension	
	SCS Suspension Control System	
	WT Road Wheels & Tires	
	F BRAKES	BR Brake System
PB Parking Brake System		
BRC Brake Control System		
G STEERING		ST Steering System
	STC Steering Control System	
	H RESTRAINTS	SB Seat Belt
SBC Seat Belt Control System		
SR SRS Airbag		
SRC SRS Airbag Control System		
I VENTILATION, HEATER & AIR CONDITIONER		VTL Ventilation System
	HA Heater & Air Conditioning System	
	HAC Heater & Air Conditioning Control System	
J BODY INTERIOR	INT Interior	
	IP Instrument Panel	
	SE Seat	
	ADP Automatic Drive Postioner	
	AP Adjustable Pedals	
	K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	DLK Door & Lock
		SEC Security Control System
GW Glass & Window System		
PWC Power Window Control System		
RF Roof		
EXT Exterior		
BRM Body Repair Manual		
L DRIVER CONTROLS	MIR Mirrors	
	EXL Exterior Lighting System	
	INL Interior Lighting System	
	WW Wiper & Washer	
	DEF Defogger	
	HRN Horn	
	M ELECTRICAL & POWER CONTROL	PWO Power Outlet
BCS Body Control System		
LAN LAN System		
PCS Power Control System		
CHG Charging System		
PG Power Supply, Ground & Circuit Elements		
N DRIVER INFORMATION & MULTIMEDIA		MWI Meter, Warning Lamp & Indicator
	WCS Warning Chime System	
	SN Sonar System	
	AV Audio, Visual & Navigation System	
	CCS Cruise Control System	
O CRUISE CONTROL	MA Maintenance	
P MAINTENANCE		

NISSAN
PATHFINDER
MODEL R52 SERIES

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FOREWORD

This manual contains maintenance and repair procedures for the 2014 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.



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Technical Publications Department



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

PUBLICATION NO. (Refer to Quick Reference Index): _____

Please describe any Service Manual 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.*

Please describe the issue or problem in detail: _____

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

Please comment: _____

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: PATHFINDER

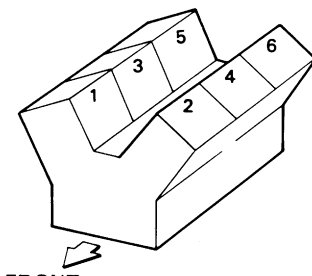
Engine Tune-up Data

INFOID:000000009809602

GENERAL SPECIFICATIONS

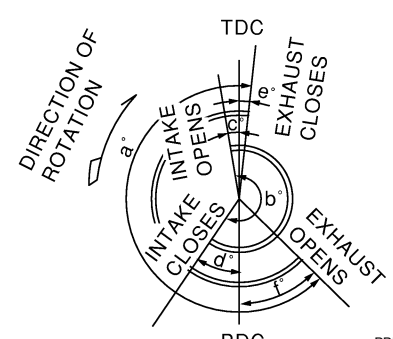
Cylinder arrangement		V-6
Displacement cm ³ (cu in)		3,498 (213.45)
Bore and stroke mm (in)		95.5 x 81.4 (3.760 x 3.205)
Valve arrangement		DOHC
Firing order		1-2-3-4-5-6
Number of piston rings	Compression	2
	Oil	1
Number of main bearings		4
Compression ratio		10.6:1
Compression pressure kPa (kg/cm ² , psi)/300 rpm	Standard	1,275 (13.0, 185)
	Minimum	981 (10.0, 142)
	Differential limit between cylinders	98 (1.0, 14)

Cylinder number



SEM713A

Valve timing
(Valve timing control - "OFF")



PBIC0187E

Unit: degree

a	b	c	d	e	f
240	240	-10	70	10	50

Drive Belt

INFOID:000000009809603

DRIVE BELT

Tension of drive belt	Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
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QUICK REFERENCE CHART: PATHFINDER

2014

Spark Plug

INFOID:000000009809604

SPARK PLUG

Unit: mm (in)

Make	DENSO	
Standard type*	FXE22HR11	
Gap	Standard	1.1 (0.043)

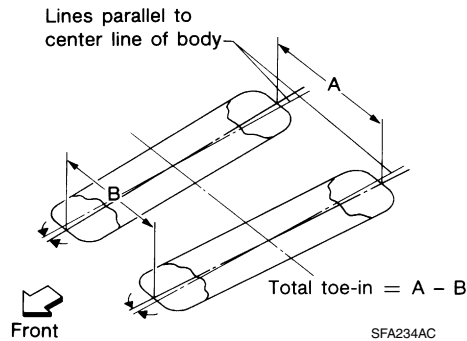
*: Always check with the Parts Department for the latest parts information.

Front Wheel Alignment

INFOID:000000009809600

UNITED STATES and MEXICO

Item		Standard	
Measurement wheel		(LH) side	(RH) side
Camber Degree minute (Decimal degree)	Minimum	-1° 00' (-1.00°)	-1° 15' (-1.25°)
	Nominal	-0° 15' (-0.25°)	-0° 30' (-0.50°)
	Maximum	0° 30' (0.50°)	0° 15' (0.25°)
	Left and right difference* ¹	-0° 15' ± 0° 33' (0.25° ± 0.55°)	
Caster Degree minute (Decimal degree)	Minimum	3° 55' (3.92°)	
	Nominal	4° 40' (4.67°)	
	Maximum	5° 25' (5.42°)	
	Left and right difference* ¹	0.30' (0.50°) Maximum	
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 55' (11.92°)	12° 10' (12.17°)
	Nominal	12° 40' (12.67°)	12° 55' (12.92°)
	Maximum	13° 25' (13.42°)	13° 40' (13.67°)



Total toe-in	Distance (A - B)	Minimum	Out 0.6 mm (Out 0.024 in)
		Nominal	In 1.4 mm (In 0.055 in)
		Maximum	In 3.4 mm (In 0.134 in)
	Angle (left and right) Degree minute (Decimal degree)	Minimum	Out 0° 3' 36" (Out 0.06°)
		Nominal	In 0° 6' 14" (In 0.10°)
		Maximum	In 0° 15' 36" (In 0.26°)

Measure value under unladen conditions (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

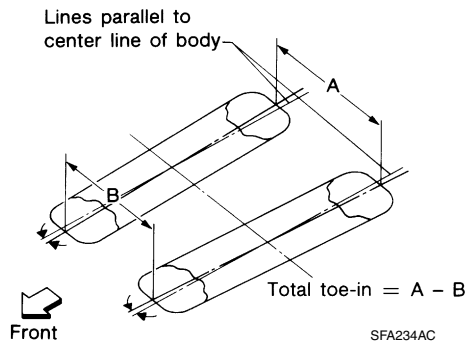
*1: The (RH) camber angle shall be $-0° 15' \pm 0° 33'$ ($0.25° \pm 0.55°$) with respect to the (LH) camber angle.

CANADA

QUICK REFERENCE CHART: PATHFINDER

2014

Item		Standard	
Measurement wheel		(LH) side	(RH) side
Camber Degree minute (Decimal degree)	Minimum	-1° 00' (-1.00°)	-1° 15' (-1.25°)
	Nominal	-0° 15' (-0.25°)	-0° 30' (-0.50°)
	Maximum	0° 30' (0.50°)	0° 15' (0.25°)
	Left and right difference* ¹	-0° 15' ± 0° 33' (0.25° ± 0.55°)	
Caster Degree minute (Decimal degree)	Minimum	4° 00' (4.00°)	
	Nominal	4° 45' (4.75°)	
	Maximum	5° 30' (5.50°)	
	Left and right difference* ¹	0.30' (0.50°) Maximum	
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 55' (11.92°)	12° 10' (12.17°)
	Nominal	12° 40' (12.67°)	12° 55' (12.92°)
	Maximum	13° 25' (13.42°)	13° 40' (13.67°)



Total toe-in	Distance (A - B)	Minimum	Out 0.6 mm (Out 0.024 in)
		Nominal	In 1.4 mm (In 0.055 in)
		Maximum	In 3.4 mm (In 0.134 in)
	Angle (left and right) Degree minute (Decimal degree)	Minimum	Out 0° 3' 36" (Out 0.06°)
		Nominal	In 0° 6' 14" (In 0.10°)
		Maximum	In 0° 15' 36" (In 0.26°)

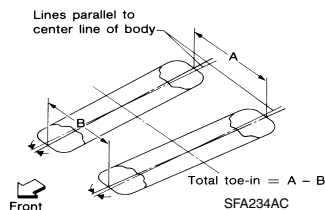
Measure value under unladen conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

*1: The (RH) camber angle shall be -0° 15' ± 0° 33' (0.25° ± 0.55°) with respect to the (LH) camber angle.

Rear Wheel Alignment (Unladen*)

INFOID:000000009809601

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	-1° 05' (-1.08°)
	Nominal	-0° 35' (-0.58°)
	Maximum	-0° 05' (-0.08°)



QUICK REFERENCE CHART: PATHFINDER

2014

Item		Standard	
Total toe-in	Distance (A - B)	Minimum	Out 0.8 mm (Out 0.031 in)
		Nominal	In 2.2 mm (In 0.087 in)
		Maximum	In 5.2 mm (In 0.205 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	Out 0° 2' 24" (Out 0.04°)
		Nominal	In 0° 9' 36" (In 0.16°)
		Maximum	In 0° 21' 36" (In 0.36°)

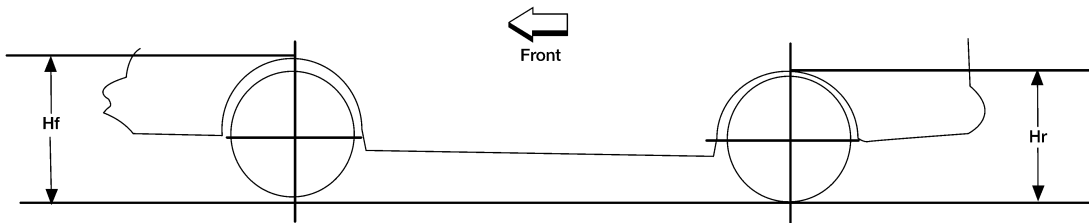
*: Fuel, engine coolant, and lubricants are full. Spare tire, jack, hand tools, and mats are in designated positions.

Wheelarch Height

INFOID:000000009809599

UNITED STATES

Unit: mm (in)



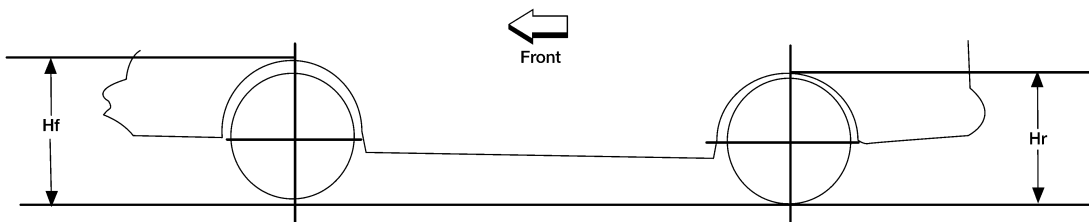
LEIA0085E

Axle type	2WD			4WD	
Wheel size	235/65R18		235/55R20	235/65R18	235/55R20
Grade	S, SV	SL	Platinum	S, SV	SL, Platinum
Front (Hf)	823 (32.40)	823 (32.40)	821 (32.32)	822 (32.36)	822 (32.36)
Rear (Hr)	828 (32.60)	827 (32.56)	825 (32.48)	827 (32.56)	826 (32.52)

Measure value under unladen conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

CANADA

Unit: mm (in)



LEIA0085E

Axle type	2WD			4WD		
Wheel size	235/65R18			235/55R20		
Grade	S	SL	S	SV	SL	Platinum
Front (Hf)	823 (32.40)				822 (32.36)	
Rear (Hr)	829 (32.64)	828 (32.60)			827 (32.56)	

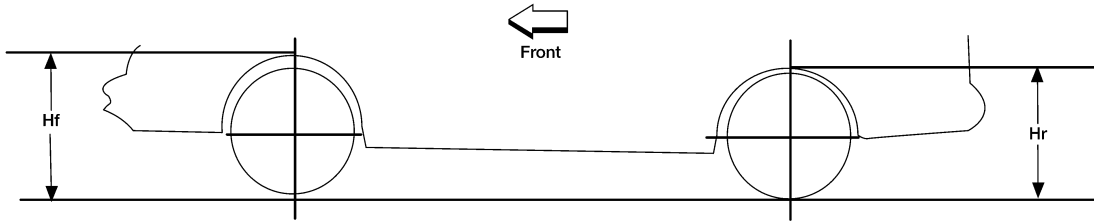
Measure value under unladen* conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

QUICK REFERENCE CHART: PATHFINDER

2014

MEXICO

Unit: mm (in)



LEIA0085E

Axle type	2WD		4WD	
Wheel size	235/65R18		235/55R20	
Grade	Sense	Advance	Exclusive	Exclusive 4WD
Front (Hf)	823 (32.40)		821 (32.32)	
Rear (Hr)	828 (32.60)		826 (32.52)	825 (32.48)

Measure value under unladen* conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

Brake Specifications

INFOID:000000009809598

Unit: mm (in)

Front brake	Cylinder bore diameter	45.0 (1.772) × 2
	Pad length × width × thickness	131.4 (5.173) × 53.0 (2.087) × 10.0 (0.394)
	Rotor outer diameter × thickness	320.0 (12.598) × 28.0 (1.102)
Rear brake	Cylinder bore diameter	42.86 (1.6874)
	Pad length × width × thickness	83.0 (3.268) × 33.0 (1.299) × 8.5 (0.335)
	Rotor outer diameter × thickness	308 (12.126) × 16.0 (0.630)
Master cylinder	Cylinder bore diameter	26.99 (1.063)
Control valve	Valve type	Electric brake force distribution

Brake Pedal

INFOID:000000009809597

Unit: mm (in)

Item	Standard
Brake pedal height (H1)	214.2 – 224.2 (8.43 – 8.82)
Clearance (A) between brake pedal bracket, stop lamp switch and ASCD cancel switch contact ends	0.74 – 1.96 (0.0291 – 0.0772)
Depressed brake pedal height (H2) [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	75.1 (2.96)

Front Disc Brake

INFOID:000000009809596

Unit: mm (in)

Item	Limit	
Brake pad	Wear thickness	2.0 (0.079)
Disc rotor	Wear thickness	26.0 (1.024)
	Thickness variation (measured at 8 positions)	0.008 (0.0003)
	Runout (with disc rotor attached to the vehicle)	0.040 (0.0016) or less

QUICK REFERENCE CHART: PATHFINDER

2014

Rear Disc Brake

INFOID:000000009809595

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
Disc rotor	Wear thickness	14.0 (0.551)
	Thickness variation (measured at 8 positions)	0.020 (0.0008)
	Runout (with disc rotor attached to the vehicle)	0.050 (0.0020) or less

FOR USA AND CANADA : Fluids and Lubricants

INFOID:000000009809592

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		74.0 ℓ	19-1/2 gal	16-1/4 gal
Engine oil Drain and refill	With oil filter change	4.8 ℓ	5-1/8 qt	4-1/4 qt
	Without oil filter change	4.5 ℓ	4-3/4 qt	4 qt
	Dry engine (Overhaul)	5.1 ℓ	5-3/8 qt	4-1/2 qt
Cooling system (with reservoir at MAX level)		9.6 ℓ	10-1/8 qt	8-1/2 qt
CVT fluid		8.8 ℓ	9-1/4 qt	7-3/4 qt
Differential gear oil		0.5 ℓ	1 pt	7/8 pt
Transfer fluid		0.31 ℓ	5/8 pt	1/2 pt
Power steering fluid (PSF)		—	—	—
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.6 ℓ	4-7/8 qt	4 qt
Air conditioning system refrigerant		0.83 ± 0.03 kg	1.83 ± 0.07 lb	1.83 ± 0.07 lb
Air conditioning system oil		230 mℓ	7.8 fl oz	8.1 fl oz

FOR MEXICO : Fluids and Lubricants

INFOID:000000009809589

Description		Capacity (Approximate)		
		Liter	US measure	Imp measure
Fuel		74.0 ℓ	19-1/2 gal	16-1/4 gal
Engine oil Drain and refill	With oil filter change	4.8	5-1/8 qt	4-1/4 qt
	Without oil filter change	4.5	4-3/4 qt	4 qt
	Dry engine (engine over- haul)	5.1	5-3/8 qt	4-1/2 qt
Cooling system (with reservoir at MAX level)		9.6	10-1/8 qt	8-1/2 qt
CVT fluid		8.8	9-1/4 qt	7-3/4 qt
Differential gear oil		0.5	1 pt	7/8 pt

QUICK REFERENCE CHART: PATHFINDER

2014

	Capacity (Approximate)		
	Liter	US measure	Imp measure
Transfer oil	0.31	5/8 pt	1/2 pt
Power steering fluid (PSF)	—	—	—
Brake fluid	—	—	—
Multi-purpose grease	—	—	—
Windshield washer fluid	4.6 ℓ	4-7/8 qt	4 qt
Air conditioning system refrigerant	0.83 ± 0.03 kg	1.83 ± 0.07 lb	1.83 ± 0.07 lb
Air conditioning system oil	230 m ℓ	7.8 fl oz	8.1 fl oz