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NISSAN SENTRA

MODEL B17 SERIES

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
D TRANSMISSION & DRIVE-LINE	CL Clutch
	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
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	SRS SRS Airbag
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I VENTILATION, HEATER & AIR CONDITIONER	VTL Ventilation System
	HA Heater & Air Conditioning System
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J BODY INTERIOR	INT Interior
	IP Instrument Panel
	SE Seat
	ADP Automatic Drive Positioner
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
O CRUISE CONTROL & DRIVER ASSISTANCE	CCS Cruise Control System
	DMS Drive Mode System
P MAINTENANCE	MA Maintenance

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FOREWORD

This manual contains maintenance and repair procedure for the 2014 NISSAN SENTRA.

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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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 print this form and type or write your comments below. Mail or fax to:

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Technical Service Information
39001 Sunrise Drive, P.O. Box 9200
Farmington Hills, MI USA 48331
FAX: (248) 488-3880

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: 2014 SENTRA NAM

Engine Tune-up Data

INFOID:0000000010409363

GENERAL SPECIFICATIONS

Engine type		MRA8DE
Cylinder arrangement		In-line 4
Displacement cm^3 (cu. in)		1,798 (109.7)
Bore and stroke mm (in)		79.7x90.1 (3.138x3.547)
Valve arrangement		DOHC
Firing order		1-3-4-2
Number of piston rings	Compression	2
	Oil	1
Compression ratio		9.9
Compression pressure kPa (bar, kg/cm ² , psi)/250 rpm	Standard	1,380 (13.8, 14.1, 200.2)
	Minimum	1,220 (12.2, 12.4, 176.9)
	Differential limit between cylinders	100 (1.0, 1.0, 14.5)

Unit: degree

Valve timing ↶ Intake valve ↷ Exhaust valve	JPBIA4228ZZ					
	a	b	c	d	e	f
	220	228	-4 (35) ATDC	52 (13) ABDC	4 (64) ATDC	36 (-24) BBDC

(): Valve timing control "ON"

Drive Belt

INFOID:0000000010409362

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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Spark Plug

INFOID:0000000010409361

SPARK PLUG

Unit: mm (in)

Make		NGK
Standard type*		DILKAR6A-11 (California) or PLZKAR6A-11 (except California)
Gap (Nominal)	Standard	0.9 (0.035)
	Limit	1.1 (0.043)

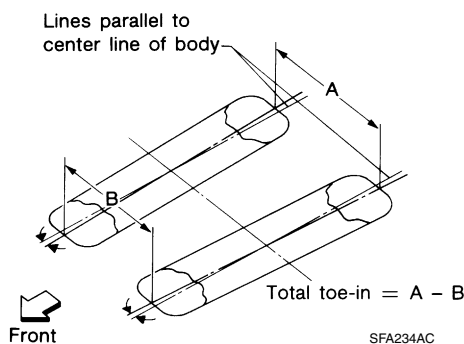
*:Always check with the Parts Department for the latest parts information.

Front Wheel Alignment (Unladen*¹)

INFOID:000000010409360

UNITED STATES and CANADA

Camber Degree minute (Decimal degree)	Minimum	-1° 04' (-1.07°)
	Nominal	-0° 25' (-0.42°)
	Maximum	0° 14' (0.23°)
	(LH) and (RH) difference* ²	-0° 35' (-0.58°) - 0° 35' (0.58°)
Caster Degree minute (Decimal degree)	Minimum	4° 05' (4.08°)
	Nominal	4° 50' (4.83°)
	Maximum	5° 35' (5.58°)
	(LH) and (RH) difference* ²	-0° 45' (-0.75°) - 0° 45' (0.75°)
Kingpin inclination Degree minute (Decimal degree)	Minimum	11° 20' (11.33°)
	Nominal	12° 05' (12.08°)
	Maximum	12° 50' (12.83°)



Total toe-in	Distance (A - B)	Minimum	In 1 mm (In 0.04 in)
		Nominal	In 2 mm (In 0.08 in)
		Maximum	In 3 mm (In 0.12 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	In 0° 04' (In 0.07°)
		Nominal	In 0° 10' (In 0.17°)
		Maximum	In 0° 16' (In 0.27°)

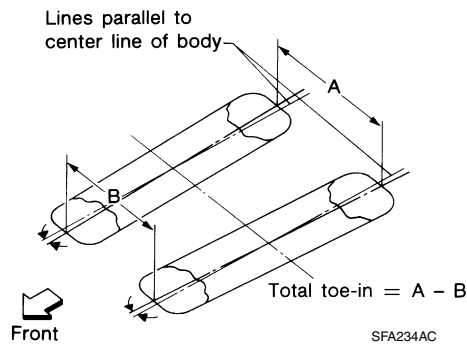
*1: Fuel, engine coolant, and lubricants are full. Spare tire, jack, hand tools, and mats are in designated positions.

*2: The difference when assuming the (LH) side is the standard.

Rear Wheel Alignment (Unladen*¹)

INFOID:000000010409359

Camber Degree minute (Decimal degree)	Minimum	-2° 00' (-2.00°)
	Nominal	-1° 30' (-1.50°)
	Maximum	-1° 00' (-1.00°)



Total toe-in	Distance (A - B)	Nominal	In 3.5 mm (In 0.138 in)
	Angle (LH and RH)*2 Degree minute (Decimal degree)	Minimum	Out 0° 03' (Out 0.05°)
		Nominal	In 0° 20' (In 0.33°)
		Maximum	In 0° 43' (In 0.71°)

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

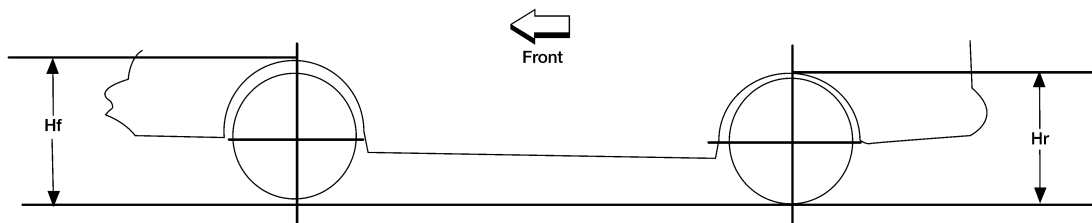
*2: Since an adjustment mechanism is not included, the value of the left and right wheels (both wheels) must be used as the standard value.

Wheelarch Height (Unladen*)

INFOID:000000010409357

UNITED STATES

Unit: mm (in)



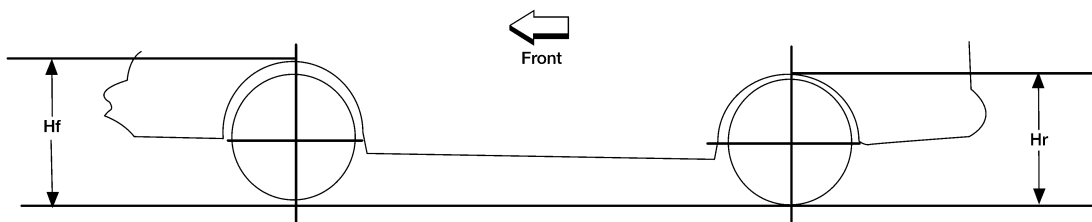
LEIA0085E

Transaxle	6M/T or CVT	CVT	
Tire size	205/55R16 (Except FE)	205/55R16 (FE)	205/50R17
Front (Hf)	703 (27.68)	706 (27.80)	708 (27.87)
Rear (Hr)	703 (27.68)	706 (27.80)	707 (27.83)

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

CANADA

Unit: mm (in)



LEIA0085E

Transaxle	6M/T or CVT	CVT
Tire size	205/55R16	205/50R17

QUICK REFERENCE CHART: 2014 SENTRA NAM

2014

Front (Hf)	704 (27.72)	709 (27.91)
Rear (Hr)	704 (27.72)	708 (27.87)

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

Brake Specifications

INFOID:0000000010409356

Unit: mm (in)

Front brake	Cylinder bore diameter	57.2 (2.252)
	Pad length × width × thickness	123.6 × 50.0 × 11.0 (4.866 × 1.969 × 0.433)
	Rotor outer diameter × thickness	280 × 24.0 (11.024 × 0.945)
Rear brake - drum	Cylinder bore diameter	19.05 (0.750)
	Lining length × width × thickness	Leading: 183.2 × 40 × 4.9 (7.213 × 1.575 × 0.193) Trailing: 219 × 40 × 4.9 (8.622 × 1.575 × 0.193)
	Drum inner diameter - new	228 (8.976)
Rear brake - disc	Cylinder bore diameter	34.93 (1.375)
	Pad length × width × thickness	83.0 × 33.0 × 8.5 (3.268 × 1.299 × 0.335)
	Rotor outer diameter × thickness	292 × 9.0 (11.496 × 0.354)
Master cylinder	Cylinder bore diameter	23.81 (0.937)
Control valve	Valve type	Electric brake force distribution
Brake booster	Diaphragm diameter	257 (10.118)

Brake Pedal

INFOID:0000000010409355

Unit: mm (in)

Item	Standard
Brake pedal height	160.4 – 170.4 (6.31 – 6.71)
Depressed brake pedal height [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	70.0 (2.756) or more
Clearance between stop lamp switch and brake pedal position switch (with brake pedal position switch) threaded end and the brake pedal lever	0.74 – 1.96 (0.03 – 0.08)
Brake pedal play	3 – 11 (0.12 – 0.43)

Front Disc Brake

INFOID:0000000010409353

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	22.0 (0.866)
Disc rotor	Thickness variation (measured at 8 positions)	0.008 (0.0003)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

Rear Drum Brake

INFOID:0000000010409352

Unit: mm (in)

Item		Limit
Brake lining	Wear thickness	1.0 (0.039)
Brake drum	Wear inner diameter- maximum	230 (9.055)

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2014

Rear Disc Brake

INFOID:000000010409351

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	1.0 (0.039)
	Wear thickness	8.0 (0.315)
Disc rotor	Thickness variation (measured at 8 positions)	0.016 (0.0006)
	Runout (with it attached to the vehicle)	0.1 (0.0039)

Fluids and Lubricants

INFOID:000000010409349

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		50.0 ℓ	13-1/4 gal	11 gal
Engine oil Drain and refill	With oil filter change	4.0 ℓ	4-1/4 qt	3-1/2 qt
	Without oil filter change	3.8 ℓ	4 qt	3-3/8 qt
Dry engine (engine overhaul)		4.8 ℓ	5-1/8 qt	4-1/4 qt
Cooling system (with reservoir tank at MAX level)	CVT model	6.6 ℓ	7 qt	5-7/8 qt
	M/T model			
Reservoir tank engine coolant capacity (at MAX level)		0.6 ℓ	5/8 qt	1/2 qt
CVT fluid		6.9 ℓ	7-1/4 qt	6-1/8 qt
Manual transaxle gear oil		2.0 ℓ	4-1/4 pt	3-1/2 pt
Brake and clutch fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.5 ℓ	4-3/4 qt	4 qt
Air conditioner system refrigerant		0.45 ± 0.05 kg	0.992 ± 0.110 lb	0.992 ± 0.110 lb
Air conditioner system oil		90 m ℓ	3.0 fl oz	3.2 fl oz