

NISSAN

SENTRA

MODEL B14 SERIES

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FOREWORD

This manual contains maintenance and repair procedures for the 1999 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.



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.*

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: SENTRA 1999

ENGINE TUNE-UP DATA

Idle speed	rpm	800 ± 50		
M/T				
A/T (in "N" position)		800 ± 50		
Ignition timing (B.T.D.C. at idle speed)		15° ± 2°		
Spark plug	Standard	Platinum tipped type	Conventional type	
		PFR5B-11	BKR6E	
Type	Hot	—		BKR6E
	Cold	PFR6B-11, PFR7B-11	BKR7E	
Gap	mm (in)	— 0.8 - 0.9 (0.031 - 0.035)		
Drive belt deflection (Cold)	mm (in)	Used belt		
		Limit	Deflection after adjustment	Deflection of new belt
Generator		11.5 - 12.5 (0.463 - 0.492)	7 - 8 (0.28 - 0.31)	6.5 - 7.5 (0.256 - 0.295)
With air conditioner compressor				
Without air conditioner compressor		12 - 13 (0.47 - 0.51)	8 - 9 (0.31 - 0.35)	7 - 8 (0.28 - 0.31)
Power steering pump		6 - 7 (0.24 - 0.28)	4 - 5 (0.16 - 0.20)	3.5 - 4.5 (0.138 - 0.177)
Applied pushing force	N (kg, lb)	98 (10, 22)		
Compression pressure kPa (kg/cm ² , psi)/rpm	Standard	1,226 (12.5, 178)/300		
	Minimum	1,030 (10.5, 149)/300		
Tightening torque		N·m	kg·m	ft·lb
	Spark plug	20 - 29	2.0 - 3.0	14 - 22
Oil pan drain plug		29 - 39	3.0 - 4.0	22 - 29

ENGINE COOLING SYSTEM

Thermostat valve opening temperature	C°(F°)	76.5 (170)
Radiator cap relief pressure kPa(kg/cm ² , psi)	Standard	76 - 98 (0.8 - 1.0, 11 - 14)
	Limit	59 - 98 (0.6 - 1.0, 9 - 14)
Cooling system leakage testing pressure	kPa (kg/cm ² , psi)	157 (1.6, 23)

CLUTCH PEDAL

	Unit: mm (in)
Pedal height	153 - 163 (6.02 - 6.42)
Pedal free travel	11.0 - 15.0 (0.433 - 0.591)
Withdrawal lever play	2.5 - 3.5 (0.098 - 0.138)

BRAKE

	Unit: mm (in)
Disc brake	
Pad minimum thickness	CL7HB: 1.5 (0.059) CL22VE: 2.0 (0.079)
Rotor minimum thickness	CL7HB: 6.0 (0.236) CL22VE: 16.0 (0.630)
Pedal free height	
M/T models	148 - 158 (5.83 - 6.22)
A/T models	157 - 167 (6.18 - 6.57)
Pedal depressed height (minimum) *1	
M/T models	75 (2.95) or more
A/T models	85 (3.35) or more
Parking brake	
Number of notches*2	8 - 9

*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		50.0	13.2 gal
Coolant	M/T	6.2	6-1/2 qt
	A/T	6.2	6-1/2 qt
Engine*	Drain and refill		
	With oil filter change	3.4	3-5/8 qt
	Without oil filter change	3.2	3-3/8 qt
	Dry engine (engine overhaul)	3.6	3-7/8 qt
Transaxle	M/T	3.6-3.8	7-5/8 - 8 pt
	A/T	7.0	7-3/8 qt
Power steering system		1.0	1-1/8 qt
Air conditioning system	Lubricant	0.2	6.8 fl oz
	Refrigerant**	0.60 - 0.70 kg	1.32 - 1.54 lb

* For further details, see "Changing Engine Oil" in MA section.

** 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.	10ms
		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