

NISSAN

SENTRA/200SX

MODEL B14 SERIES

Note:

Due to emission differences for Canadian 1997 Sentras, refer to the 1996 Sentra/200SX Service Manual (Publication No. SM6E-0B14U0/1) when servicing the following components/systems on a Canadian specification 1997 Sentra.

- ABS System - Trouble Diagnoses and Wiring Diagrams (Section BR)
- A/T System Wiring Diagram A/T, RL- (Section AT)
- Cooling Fans (Sections EC and HA)
- Electrical System - All Components and Wiring Diagrams (Section EL)
- Engine Control System - All Components and Wiring Diagrams (Section EC)
- Evaporative Emission System (Sections MA and EC)
- Exhaust Manifold and Exhaust System (Sections EM and FE)
- Fuel Pump (Sections FE, EC and EL)
- Fuel Tank Assembly and Mounting (Section FE)
- Generator (Section EL)
- Intake Manifold (Section EM)
- Throttle Chamber (Section EC)
- Wiring Harness Layout (Section EL)

Use this Service Manual to service all other components/systems on a Canadian specification 1997 Sentra.

QUICK REFERENCE INDEX

GENERAL INFORMATION _____	GI
MAINTENANCE _____	MA
ENGINE MECHANICAL _____	EM
ENGINE LUBRICATION & COOLING SYSTEMS _____	LC
ENGINE CONTROL SYSTEM _____	EC
ACCELERATOR CONTROL, FUEL & EXHAUST SYSTEMS _____	FE
CLUTCH _____	CL
MANUAL TRANSAXLE _____	MT
AUTOMATIC TRANSAXLE _____	AT
FRONT AXLE & FRONT SUSPENSION _____	FA
REAR AXLE & REAR SUSPENSION _____	RA
BRAKE SYSTEM _____	BR
STEERING SYSTEM _____	ST
RESTRAINT SYSTEM _____	RS
BODY & TRIM _____	BT
HEATER & AIR CONDITIONER _____	HA
ELECTRICAL SYSTEM _____	EL
ALPHABETICAL INDEX _____	IDX

FOREWORD

This manual contains maintenance and repair procedures for the 1997 Nissan SENTRA/200SX.

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.*

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/200SX 1997

ENGINE TUNE-UP DATA SR20DE

Model		SR20DE			
Idle speed rpm	M/T	800 ± 50			
	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		
		PFR6B-11	BKR6E		
	Hot	—	BKR5E		
		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 With air conditioner compressor	11.5 - 12.5 (0.463 - 0.492)	7 - 8 (0.28 - 0.31)	6.5 - 7.5 (0.256 - 0.295)
		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	mm (in)	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	mm (in)	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 TUNE-UP DATA GA16DE

Model		GA16DE			
Idle speed rpm	M/T	675 ± 50, 750 ± 50 (For Canada)			
	A/T (in "N" position)	800 ± 50			
	Ignition timing (B.T.D.C. at idle speed)	8° ± 2'			
Valve clearance (Hot)	mm (in)	Intake	0.21 - 0.49 (0.008 - 0.019)		
		Exhaust	0.30 - 0.58 (0.012 - 0.023)		
		Spark plug	Standard BKR5E-11		
Type	Hot	BKR4E-11			
	Cold	BKR6E-11, BKR7E-11			
	Gap	mm (in)	1.0 - 1.1 (0.039 - 0.043)		
Drive belt deflection (Cold)	mm (in)	Used belt			
		Limit	Deflection after adjustment	Deflection of new belt	
		Generator With air conditioner compressor	9.5 (0.374)	6 - 6.5 (0.24 - 0.256)	5 - 6 (0.20 - 0.24)
		Without air conditioner compressor	11.5 (0.453)	7.5 - 8 (0.295 - 0.315)	6.5 - 7 (0.256 - 0.28)
Water pump	mm (in)	7.5 (0.295)	4 - 6 (0.16 - 0.24)	3 - 5 (0.12 - 0.20)	
		With power steering pump			
		Without power steering pump	6 (0.24)	3 - 4.5 (0.12 - 0.177)	3 - 4 (0.12 - 0.16)
Applied pushing force	N (kg, lb)	98 (10, 22)			
Compression pressure kPa (kg/cm ² , psi)/rpm	Standard	1,373 (14.0, 199)/250			
	Minimum	1,177 (12.0, 171)/350			
Tightening torque	mm (in)	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	78 - 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) CL22VD, CL22VE: 2.0 (0.079)
	Rotor minimum thickness	CL7HB: 6.0 (0.236) CL22VD, CL22VE: 16.0 (0.630)
	Drum brake	
Lining minimum thickness	1.5 (0.059)	
	Drum maximum inner diameter	181.0 (7.13)
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	Disc: 8 - 9 Drum: 7 - 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		50.0	13.2 gal	
Coolant	M/T	SR20DE	6.2	6-1/2 qt
		GA16DE	5.2	5-1/2 qt
	A/T	SR20DE	6.2	6-1/2 qt
		GA16DE	5.7	6 qt
Engine	With oil filter	SR20DE	3.4	3-5/8 qt
		GA16DE	3.2	3-3/8 qt
	Without oil filter	SR20DE	3.2	3-3/8 qt
		GA16DE	2.8	3 qt
Transaxle	M/T	RS5F31A	2.9 - 3.2	6-1/8 - 6-3/4 pt
	A/T	RS5F32V	3.7 - 3.9	7-7/8 - 8-1/4 pt
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	

* 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.

: Applicable *: Not applicable

SRT item	Self-diagnostic test item	DTC	Test value (GST display)		Test limit	Application	Unit
			TID	CID			
CATALYST	Three way catalyst function	P0420	01H	01H	Max.	X	-
		P0420*1	02H	81H	Min.	X	-
EVAP SYSTEM	EVAP control system (Small leak)	P0440	05H	03H	Max.	X	-
	EVAP control system purge flow monitoring	P1447	06H	83H	Min.	X	mV
H02S	Heated oxygen sensor 1	P0130	09H	04H	Max.	X	ms
		P0130	0AH	84H	Min.	X	mV
		P0130	0BH	04H	Max.	X	mV
		P0130	0CH	04H	Max.	X	mV
	Heated oxygen sensor 2	P0130	0DH	04H	Max.	X	s
		P0136	19H	86H	Min.	X	mV/500ms
		P0136	1AH	86H	Min.	X	mV
		P0136	1BH	06H	Max.	X	mV
H02S HTR	Heated oxygen sensor 1 heater	P0136	1CH	06H	Max.	X	mV
		P0135	29H	08H	Max.	X	mV
	Heated oxygen sensor 2 heater	P0135	2AH	88H	Min.	X	mV
		P0141	2DH	0AH	Max.	X	mV
		P0141	2EH	8AH	Min.	X	mV
		P0400	31H	8CH	Min.	X	°C
EGR SYSTEM	EGR function	P0400	32H	8CH	Min.	X	°C
		P0400	33H	8CH	Min.	X	°C
		P0400	34H	8CH	Min.	X	°C
		P0400	35H	0CH	Max.	X	°C
	EGRC-BPT valve function	P0402	36H	0CH	Max.	X	-
		P0402	37H	8CH	Min.	X	-

*1 : Models B15 GA16DE engine 1997MY only.