

NISSAN 240SX

MODEL S14 SERIES

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FOREWORD

This manual contains maintenance and repair procedures for the 1997 Nissan 240SX.

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



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.
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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: 240SX 1997

ENGINE TUNE-UP DATA

Engine model	KA24DE		
Firing order	1-3-4-2		
Idle speed rpm			
M/T	700±50		
A/T (in "N" position)	700±50		
Ignition timing (degree BTDC at idle speed)	20°±2°		
Idle "CO" (% at idle speed)	Idle mixture screw is preset and sealed at factory.		
Valve clearance (Hot) mm (in)			
Intake & Exhaust	0.33 - 0.41 (0.013 - 0.016)		
High tension cable resistance kΩ	Less than 30		
Spark plug			
Standard	PFR5C-11		
Type Cold	PFR6C-11		
	PFR7C-11		
Drive belt deflection (Cold) mm (in)			
	Used belt deflection		Deflection of new belt
	Limit	Deflection after adjustment	
Alternator	11 (0.43)	7 - 8 (0.28 - 0.31)	6 - 7 (0.24 - 0.28)
Air conditioner compressor	12 (0.47)	7.5 - 8.5 (0.295 - 0.335)	6.5 - 7.5 (0.256 - 0.295)
Power steering pump	13 (0.51)	7.5 - 8.5 (0.295 - 0.335)	6.5 - 7.5 (0.256 - 0.295)
Applied pressed force N (kg, lb)	98 (10, 22)		
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

REAR WHEEL ALIGNMENT (Unladen*)

Camber	Degree minute (Decimal degree)	Minimum	-1°40' (-1.67°)
		Nominal	-1°10' (-1.17°)
		Maximum	-0°40' (-0.67°)
Total toe-in	Distance (A - B) mm (in)	Minimum	0 (0)
		Nominal	2.5 (0.098)
		Maximum	5.0 (0.196)
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	0' (0.00°)
		Nominal	14' (0.23°)
		Maximum	28' (0.47°)

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

BRAKE

Unit: mm (in)

Disc brake		
Pad repair limit	Front side	2.0 (0.079)
	Rear side	2.0 (0.079)
Rotor thickness repair limit	Front	20.0 (0.787)
	Rear	8.0 (0.315)
Pedal free height		
M/T model	181 - 191 (7.13 - 7.52)	
A/T model	191 - 201 (7.52 - 7.91)	
Pedal depressed height*1		
M/T model	Without ABS	100 (3.94)
	With ABS	110 (4.33)
A/T model	Without ABS	115 (4.53)
	With ABS	115 (4.53)
Parking brake		
Number of notches*2		7 - 9

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

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

CLUTCH PEDAL

Unit: mm (in)	
Pedal height	192 - 202 (7.56 - 7.95)
Pedal free play	9 - 16 (0.35 - 0.63)

FRONT WHEEL ALIGNMENT (Unladen*)

Camber	Degree minute (Decimal degree)	Minimum	-1°30' (-1.50°)
		Nominal	-0°45' (-0.75°)
		Maximum	0°00' (0.00°)
		Left and right difference	45' (0.75°) or less
Caster	Degree minute (Decimal degree)	Minimum	6°00' (6.00°)
		Nominal	6°45' (6.75°)
		Maximum	7°30' (7.50°)
		Left and right difference	45' (0.75°) or less
Total toe-in	Distance (A — B) mm (in)	Minimum	1.5 (0.059)
		Nominal	2.5 (0.098)
		Maximum	3.5 (0.138)
Angle (left plus right)	Degree minute (Decimal degree)	Minimum	8' (0.13°)
		Nominal	14' (0.23°)
		Maximum	20' (0.33°)
Wheel turning angle (Full turn)	Degree minute (Decimal degree)	Minimum	35°00' (39.00°)
		Nominal	42°00' (42.00°)
		Maximum	43°00' (43.00°)
Outside	Degree minute (Decimal degree)	Nominal	33°10' (33.17°)

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

REFILL CAPACITIES

Unit	Liter		US measure
Engine model	KA24DE		
Fuel tank	65		17-1/8 gal
Coolant	With reservoir tank	6.9	7-1/4 qt
	Without oil filter	3.8	4 qt
Engine	With oil filter	3.5	3-3/4 qt
	Without oil filter	3.5	3-3/4 qt
Transmission	M/T	2.5	5-1/4 pt
	A/T	8.3	8-3/4 qt
Differential carrier	R200	1.3±0.1	2-3/4±1/4 pt
	R200V	1.3±0.1	2-3/4±1/4 pt
Power steering system	0.9		1 qt
Air conditioning system	Lubricant	0.25	8.5 fl oz
	Refrigerant	0.60 - 0.70 kg	1.32 - 1.54 lb

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
		P0130	0DH	04H	Max.	X	s
	Heated oxygen sensor 2	P0136	19H	86H	Min.	X	mV/500ms
		P0136	1AH	86H	Min.	X	mV
		P0136	1BH	06H	Max.	X	mV
		P0136	1CH	06H	Max.	X	mV
		P0135	29H	08H	Max.	X	mV
H02S HTR	Heated oxygen sensor 1 heater	P0135	2AH	88H	Min.	X	mV
		P0141	2DH	0AH	Max.	X	mV
	Heated oxygen sensor 2 heater	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
		P0402	36H	0CH	Max.	X	—
	EGRC-BPT valve function	P0402	37H	8CH	Min.	X	—

*1 : Models B15 GA16DE engine 1997MY only.