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QUICK REFERENCE INDEX

NISSAN MAXIMA

MODEL A35 SERIES

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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	CL Clutch System
	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
	VTL Ventilation System
I VENTILATION, HEATER & AIR CONDITIONER	HA Heater & Air Conditioning System
	HAC Heater & Air Conditioning Control System
J BODY INTERIOR	INT Interior
	IP Instrument Panel
	SE Seat
	ADP Automatic Drive Positioner
	DLK Door & Lock
K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	SEC Security Control System
	GW Glass & Window System
	PWC Power Window Control System
	RF Roof
	EXT Exterior
	BRM Body Repair Manual
	MIR Mirrors
L DRIVER CONTROLS	EXL Exterior Lighting System
	INL Interior Lighting System
	WW Wiper & Washer
	DEF Defogger
	HRN Horn
	PWO Power Outlet
	BCS Body Control System
	LAN LAN System
	PCS Power Control System
	CHG Charging System
M ELECTRICAL & POWER CONTROL	PG Power Supply, Ground & Circuit Elements
	MWI Meter, Warning Lamp & Indicator
	WCS Warning Chime System
	SN Sonar System
	AV Audio, Visual & Navigation System
O CRUISE CONTROL	CCS Cruise Control System
P MAINTENANCE	MA Maintenance

A

B

C

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FOREWORD

This manual contains maintenance and repair procedure for the 2012 NISSAN Maxima.

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: _____

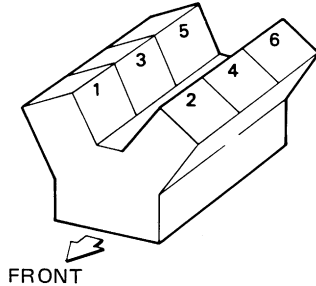
QUICK REFERENCE CHART: MAXIMA

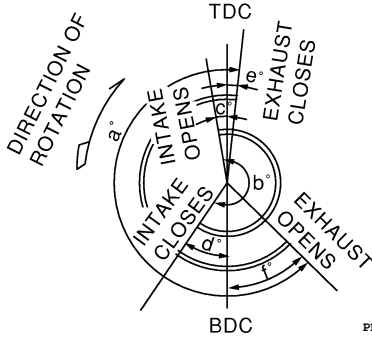
Engine Tune-up Data

INFOID:000000007830427

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
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Valve timing (Valve timing control - "OFF")	 PBIC0187E
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Unit: degree

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

Drive Belt

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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

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SPARK PLUG

Unit: mm (in)

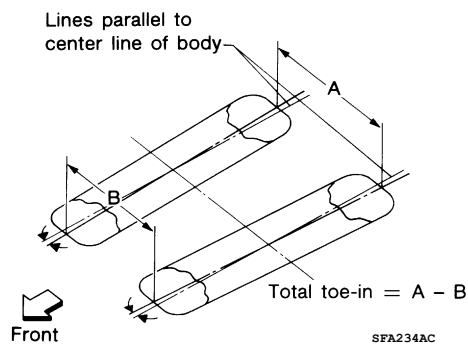
Make		DENSO
Standard type*		FXE22HR11
Gap	Standard	1.1 (0.043)
	Limit	1.4 (0.055)

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

Front Wheel Alignment (Unladen*)

INFOID:000000007830426

Market			United States/Canada		Mexico	
Tire size			P245/45R18	P245/40R19	P245/45R18	P245/40R19
Camber Degree minute (Decimal de- gree)	LH	Minimum	-1°05' (-1.10°)	-1°10' (-1.15°)	-0°55' (-0.95°)	
		Nominal	-0°20' (-0.35°)	-0°25' (-0.40°)	-0°10' (-0.20°)	
		Maximum	0°25' (0.40°)	0°20' (0.35°)	0°35' (0.55°)	
	RH	Minimum	-1°20' (-1.35°)	-1°25' (-1.40°)	-1°10' (-1.20°)	
		Nominal	-0°35' (-0.60°)	-0°40' (-0.65°)	-0°25' (-0.45°)	
		Maximum	0°10' (0.15°)	0°05' (0.10°)	0°20' (0.30°)	
	RH with respect to LH		0°15' ± 0°33' (0.25± 0.55°)			
Caster Degree minute (Decimal degree) Against ground surface		Minimum	4°10' (4.20°)	4°15' (4.25°)	3°45' (3.75°)	
		Nominal	4°55' (4.95°)	5°00' (5.00°)	4°30' (4.50°)	
		Maximum	5°40' (5.70°)	5°45' (5.75°)	5°15' (5.25°)	
		Maximum left and right dif- ference	0°33' (0.55°)			
Kingpin offset Degree minute (Decimal degree)			14°25' (14.42°)		14°05' (14.10°)	



Toe-in	Distance (A - B)	Minimum	Out 1 mm (Out 0.03 in)
		Nominal	In 1 mm (In 0.03 in)
		Maximum	In 3 mm (In 0.11 in)
	Angle Degree minute (Decimal Degree)	Minimum	Out 0°4'48" (Out 0.08°)
		Nominal	In 0°4'48" (In 0.08°)
		Maximum	In 0°14'24" (In 0.24°)

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

QUICK REFERENCE CHART: MAXIMA

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Rear Wheel Alignment (Unladen*)

INFOID:000000007830424

Market		USA*1	USA*2	Canada*1	Canada*2	Mexico
Camber Degree minute (Decimal degree)	Minimum	-0° 55' (-0.92°)	-1° 02' (-1.03°)	-0° 52' (-0.87°)	-1° 02' (-1.03°)	-0° 10' (-0.2°)
	Nominal	-0° 25' (-0.42°)	-0° 32' (-0.53°)	-0° 22' (-0.37°)	-0° 32' (-0.53°)	0° 20' (0.3°)
	Maximum	0° 05' (0.08°)	-0° 02' (-0.03°)	0° 8' (0.13°)	-0° 02' (-0.03°)	0° 50' (0.8°)
Toe-in	Distance	Minimum	Out 1.4 mm (Out 0.05 in)	Out 1.1 mm (Out 0.04 in)	Out 1.4 mm (Out 0.05 in)	Out 1.4 mm (Out 0.05 in)
		Nominal	In 1.6 mm (In 0.06 in)	In 1.9 mm (In 0.07 in)	In 1.6 mm (In 0.06 in)	In 1.6 mm (In 0.06 in)
		Maximum	In 4.6 mm (In 0.18 in)	In 4.9 mm (In 0.19 in)	In 4.6 mm (In 0.18 in)	In 4.6 mm (In 0.18 in)
	Angle Degree minute (decimal degree)	Minimum	Out 0° 3' 36" (Out 0.06°)	Out 0° 2' 24" (Out 0.04°)	Out 0° 3' 36" (Out 0.06°)	Out 0° 3' 36" (Out 0.06°)
		Nominal	In 0° 8' 24" (In 0.14°)	In 0° 9' 36" (In 0.16°)	In 0° 8' 24" (In 0.14°)	In 0° 8' 24" (In 0.14°)
		Maximum	In 0° 20' 24" (In 0.34°)	In 0° 21' 36" (In 0.36°)	In 0° 20' 24" (In 0.34°)	In 0° 20' 24" (In 0.34°)

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

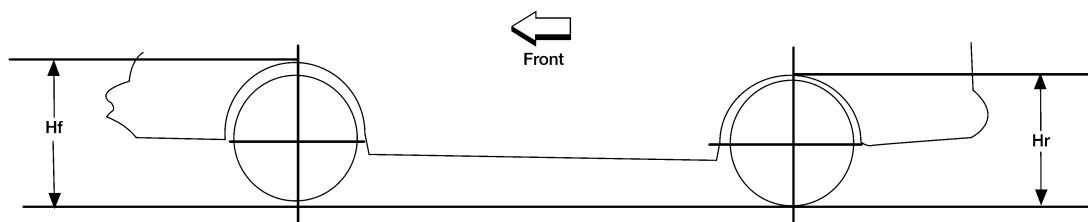
*1: 18" tire.

*2: 19" tire.

Wheelarch Height (Unladen*1)

INFOID:000000007830425

Unit: mm (in)



LEIA0085E

Market	United States			Canada			Mexico	
Tire size	P245/45R18*2	P245/45R18*3	P245/40R19*2	P245/45R18*2	P245/45R18*3	P245/40R19*2	P245/45R18*2	P245/40R19*2
Front (Hf)	719 (28.31)	719 (28.31)	723 (28.46)	720 (28.35)	719 (28.31)	723 (28.46)	729 (28.70)	732 (28.82)
Rear (Hr)	728 (28.66)	727 (28.62)	730 (28.74)	728 (28.66)	727 (28.62)	730 (28.74)	747 (29.41)	750 (29.53)

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

*2: Without top load sunroof

*3: With top load sunroof

Brake Specifications

INFOID:000000007830422

Unit: mm (in)

Brake model	Kiriu
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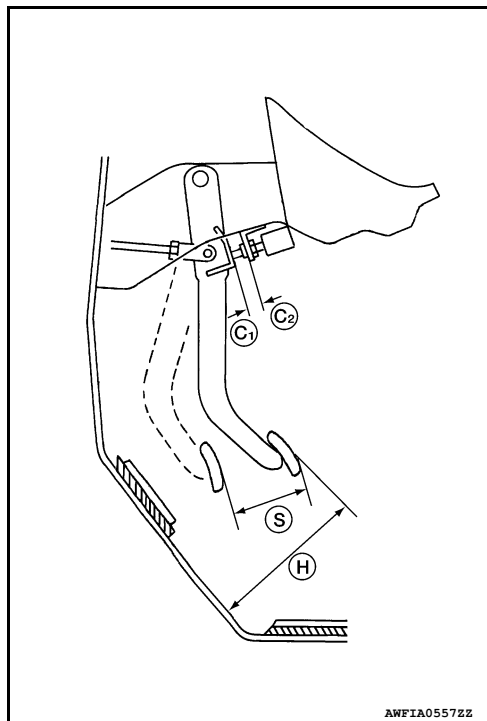
2012

Front brake	Cylinder bore diameter	57.15 (2.250)
	Pad length × width × thickness	123.6 × 47.5 × 11 (4.866 × 1.870 × 0.433)
	Rotor outer diameter × thickness	320 × 28 (12.598 × 1.102)
Rear brake	Brake model	Kiriu
	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	308 × 16 (12.126 × 0.630)
Master cylinder	Cylinder bore diameter	23.81 (0.937)
Control valve	Valve model	Electric brake force distribution
Brake booster	Booster model	Bosch

Brake Pedal

INFOID:000000007830423

Unit: mm (in)



Brake pedal free height (H)	190.7 - 202.7 (7.51 - 7.98)
Brake pedal full stroke (S)	130.0 (5.12)
Clearance between brake pedal bracket (C1) and threaded end of stop lamp switch and ASCD cancel switch (C2)	0.74 - 1.96 (0.0291 - 0.0772)

Front Disc Brake

INFOID:000000007830420

Unit: mm (in)

Brake model		Kiriu
Brake pad	Standard thickness (new)	11.0 (0.433)
	Minimum thickness	2.0 (0.079)
Disc rotor	Standard thickness (new)	28.0 (1.102)
	Minimum thickness	26.0 (1.024)
	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Maximum runout (with it attached to the vehicle)	0.035 (0.0014)

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Rear Disc Brake

INFOID:000000007830421

Unit: mm (in)

Brake model		Kiriu
Brake pad	Standard thickness (new)	8.5 (0.335)
	Minimum thickness	1.0 (0.039)
Disc rotor	Standard thickness (new)	16.0 (0.630)
	Minimum thickness	14.0 (0.551)
	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Maximum runout (with it attached to the vehicle)	0.05 (0.002)

FOR USA AND CANADA : Fluids and Lubricants

INFOID:0000000007830413

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		75.6 ℓ	20 gal	16 5/8 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)	5.3 ℓ	5 5/8 qt	4 5/8 qt
Cooling system (with reservoir at MAX level)		9.0 ℓ	9 1/2 qt	7 7/8 qt
CVT fluid		10.2 ℓ	10 3/4 qt	9 qt
Power steering fluid (PSF)		1.0 ℓ	1 1/8 qt	7/8 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—
Windshield washer fluid		4.5 ℓ	4 3/4 qt	4 qt
Air conditioning system refrigerant		0.55 ± 0.025 kg	1.21 ± 0.055 lb	1.21 ± 0.055 lb
Air conditioning system oil		150 m ℓ	5.03 fl oz	5.03 fl oz

FOR MEXICO : Fluids and Lubricants

INFOID:0000000007830416

Description		Capacity (Approximate)		
		Metric	US measure	Imp measure
Fuel		75.6 ℓ	20 gal	16-5/8 gal
Engine oil Drain and refill	With oil filter change	4.8 ℓ	5-1/8 qt	4 14 qt
	Without oil filter change	4.5 ℓ	4-3/4 qt	4 qt
	Dry engine (engine overhaul)	5.3 ℓ	5-5/8 qt	4 5/8 qt
Cooling system (with reservoir at MAX level)		9.0 ℓ	9-1/2 qt	7-7/8 qt
CVT fluid		10.2 ℓ	10-3/4 qt	9 qt
Power steering fluid		1.0 ℓ	1-1/8 qt	7/8 qt
Brake fluid		—	—	—
Multi-purpose grease		—	—	—

QUICK REFERENCE CHART: MAXIMA

2012

Description	Capacity (Approximate)		
	Metric	US measure	Imp measure
Air conditioning system refrigerant	0.55 ± 0.025 kg	1.21 ± 0.055 lb	1.21 ± 0.055 lb
Air conditioning system oil	150 mℓ	5.03 fl oz	5.03 fl oz
Windshield washer fluid	4.5 ℓ	4-3/4 qt	4 qt