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QUICK REFERENCE INDEX

NISSAN MAXIMA

MODEL A35 SERIES

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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
		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	
H RESTRAINTS	STC Steering Control System	
	SB Seat Belt	
	SBC Seat Belt Control System	
	SR SRS Airbag	
	SRC SRS Airbag Control System	
I VENTILATION, HEATER & AIR CONDITIONER	VTL Ventilation System	
	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	
	SEC Security Control System	
K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY	GW Glass & Window System	
	PWC Power Window Control System	
	RF Roof	
	EXT Exterior	
	BRM Body Repair Manual	
	MIR Mirrors	
	EXL Exterior Lighting System	
	INL Interior Lighting System	
L DRIVER CONTROLS	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	

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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

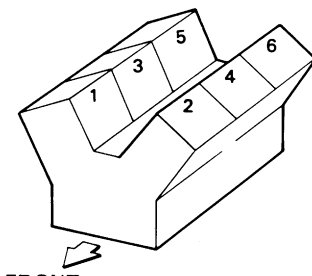
Engine Tune-up Data

INFOID:000000007830427

GENERAL SPECIFICATIONS

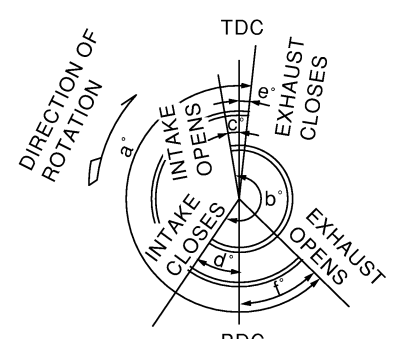
Cylinder arrangement		V-6
Displacement cm ³ (cu in)		3,498 (213.45)
Bore and stroke mm (in)		95.5 x 81.4 (3.760 x 3.205)
Valve arrangement		DOHC
Firing order		1-2-3-4-5-6
Number of piston rings	Compression	2
	Oil	1
Number of main bearings		4
Compression ratio		10.6:1
Compression pressure kPa (kg/cm ² , 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

Valve timing
(Valve timing control - "OFF")



PBIC0187E

Unit: degree

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

Drive Belt

INFOID:000000007830428

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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QUICK REFERENCE CHART: MAXIMA

2012

Spark Plug

INFOID:000000007830429

SPARK PLUG

Unit: mm (in)

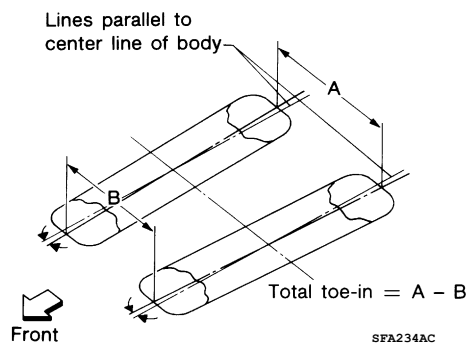
Make	DENSO		
Standard type*	FXE22HR11		
Gap	Standard	1.1 (0.043)	
	Limit	1.4 (0.055)	

*: 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 degree)	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 difference		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

2012

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 1.1 mm (Out 0.04 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 1.9 mm (In 0.07 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 4.9 mm (In 0.19 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° 2' 24" (Out 0.04°)	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° 9' 36" (In 0.16°)	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° 21' 36" (In 0.36°)	In 0° 20' 24" (In 0.34°)

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

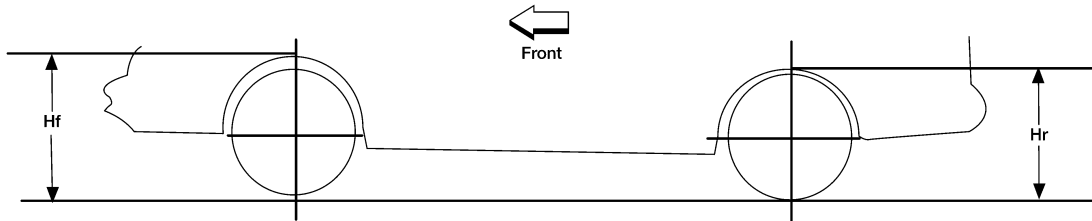
*1: 18" tire.

*2: 19" tire.

Wheelarch Height (Unladen*1)

INFOID:000000007830425

Unit: mm (in)



LE1A0085E

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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QUICK REFERENCE CHART: MAXIMA

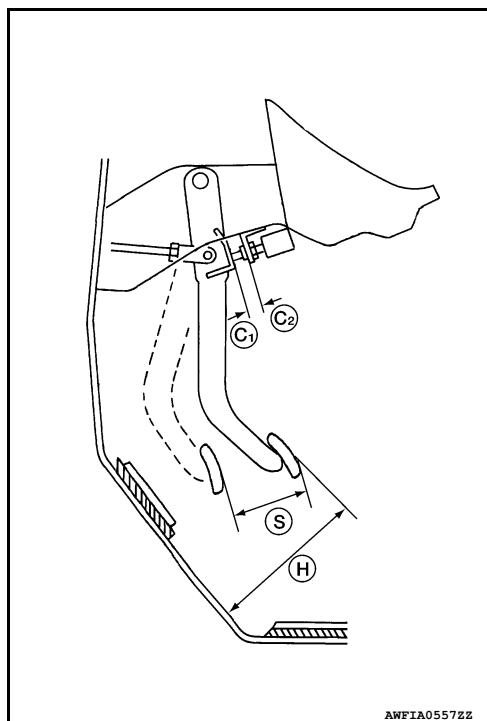
2012

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)

QUICK REFERENCE CHART: MAXIMA

2012

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:000000007830413

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:000000007830416

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