

QUICK REFERENCE INDEX



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GI	General Information
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
CL	Clutch
TM	Transaxle & Transmission
DLN	Driveline
FAX	Front Axle
RAX	Rear Axle
FSU	Front Suspension
RSU	Rear Suspension
WT	Road Wheels & Tires
BR	Brake System
PB	Parking Brake System
BRC	Brake Control System
ST	Steering System
STC	Steering Control System
SB	Seat Belt
SBC	Seat Belt Control System
SR	SRS Airbag
SRC	SRS Airbag Control System
VTL	Ventilation System
HA	Heater & Air Conditioning System
HAC	Heater & Air Conditioning Control System
INT	Interior
IP	Instrument Panel
SE	Seat
ADP	Automatic Drive Positioner
DLK	Door & Lock
SEC	Security Control System
GW	Glass & Window System
PWC	Power Window Control System
RF	Roof
EXT	Exterior
BRM	Body Repair
MIR	Mirrors
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
PG	Power Supply, Ground & Circuit Elements
MWI	Meter, Warning Lamp & Indicator
WCS	Warning Chime System
SN	Sonar System
AV	Audio, Visual & Navigation System
CCS	Cruise Control System
MA	Maintenance

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FOREWORD

This manual contains maintenance and repair procedure for the 2013 INFINITI G Sedan.

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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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.*

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Please comment: _____

What information should be included in INFINITI 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 G SEDAN

PFP:00000

ENGINE TUNE-UP DATA (VQ37VHR)

ELS0003W

Engine model		VQ37VHR
Firing order		1-2-3-4-5-6
Idle speed	rpm	650 ± 50
A/T (In “P or N” position)		
M/T (In Neutral position)		
Ignition timing (BTDC at idle speed)		10° ± 5°
Tension of drive belt		Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
Radiator cap relief pressure	kPa (kg/cm ² , psi)	
	Standard	122.3 - 151.7 (1.2 - 1.5, 18 - 22)
	Limit	107 (1.1, 16)
Cooling system leakage testing pressure		kPa (kg/cm ² , psi) 157 (1.6, 23)
Compression pressure	kPa (bar, kg/cm ² , psi)/rpm	
	Standard	1,667 - 2,354 (17 - 24, 242 - 341)/200
	Minimum	1,226 (12.5, 178)/200
	Differential limit between cylinders	
Spark plug (Iridium-tipped type)	Make	DENSO
	Standard type	FXE24HR11
	Gap(Nominal)	mm (in) 1.1 (0.043)

ENGINE TUNE-UP DATA (VQ25HR)

ELS0003W

Engine model				VQ25HR				
Firing order				1-2-3-4-5-6				
Idle speed A/T (In “P or N” position) rpm				650 ± 50				
Ignition timing (BTDC at idle speed)				14° ± 2°				
Tension of drive belt	PART	Belt spec	Tension [N (kg)]			Belt tension (mm) [When pushed at 98.1N (10 Kg)]		
			New	Adjustment	Limit of retightening	New	Adjustment	Limit of retightening
	Alternator · power steering oil pump belt	V-ribbed belt (6 ribbs)	838 - 926 (85.5 - 94.5)	730 - 818 (74.5 - 83.5)	294 (30)	6 - 7	7 - 8	12
	A/C compressor belt	V-ribbed belt (4 ribbs)	470 - 559 (48 - 57)	348 - 436 (35.5 - 4.5)	196 (20)	8 - 9	9 - 10	12
Radiator cap relief pressure			kPa (kg/cm ² , psi)					
Standard			122.3 - 151.7 (1.2 - 1.5, 18 - 22)					
Limit			107 (1.1, 16)					
Cooling system leakage testing pressure			kPa (kg/cm ² , psi)		157 (1.6, 23)			
Compression pressure			kPa (bar, kg/cm ² , psi)/rpm					
Standard			1,320 (13.2, 13.5, 191)/300					
Minimum			1,030 (10.3, 10.5, 149)/300					
Differential limit between cylinders			100 (1.0, 1.0, 14.5)/300					
Spark plug (Iridium-tipped type)			Make		DENSO			
			Standard type		FXE22HR11			
			Gap(Nominal) mm (in)		1.4 (0.055)			

FRONT WHEEL ALIGNMENT
2WD

ELS0003X

Applied model		Except for sports models	For sports models
Camber Degree minute (Decimal degree)	Minimum	-1° 05' (-1.08°)	
	Nominal	-0° 20' (-0.33°)	
	Maximum	0° 25' (0.42°)	
	Left and right difference	0° 33' (0.55°) or less	
Caster Degree minute (Decimal degree)	Minimum	3° 50' (3.83°)	3° 55' (3.92°)
	Nominal	4° 35' (4.58°)	4° 40' (4.67°)
	Maximum	5° 20' (5.33°)	5° 25' (5.42°)
	Left and right difference	0° 39' (0.65°) or less	
Kingpin inclination Degree minute (Decimal degree)	Minimum	6° 35' (6.58°)	
	Nominal	7° 20' (7.33°)	
	Maximum	8° 05' (8.08°)	
Toe-in	Total toe-in Distance	Minimum	Out 1 mm (Out 0.03 in)
		Nominal	In 1 mm (In 0.04 in)
		Maximum	In 3 mm (In 0.11 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	Out 0° 04' 48" (Out 0.08°)
		Nominal	In 0° 04' 48" (In 0.08°)
		Maximum	In 0° 15' 00" (In 0.25°)

Measure value under unladen* conditions.

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

AWD

Wheel size		17 inch	18 inch
Camber Degree minute (Decimal degree)	Minimum	-1° 10' (-1.16°)	
	Nominal	-0° 25' (-0.42°)	
	Maximum	0° 20' (0.33°)	
	Left and right difference	0° 33' (0.55°) or less	
Caster Degree minute (Decimal degree)	Minimum	3° 20' (3.34°)	3° 25' (3.42°)
	Nominal	4° 05' (4.08°)	4° 10' (4.17°)
	Maximum	4° 50' (4.83°)	4° 55' (4.91°)
	Left and right difference	0° 39' (0.65°) or less	
Kingpin inclination Degree minute (Decimal degree)	Minimum	6° 40' (6.67°)	
	Nominal	7° 25' (7.42°)	
	Maximum	8° 10' (8.16°)	
Toe-in	Total toe-in Distance	Minimum	Out 1 mm (Out 0.03 in)
		Nominal	In 1 mm (In 0.04 in)
		Maximum	In 3 mm (In 0.11 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	Out 0° 04' 48" (Out 0.08°)
		Nominal	In 0° 04' 48" (In 0.08°)
		Maximum	In 0° 15' 00" (In 0.25°)

Measure value under unladen* conditions.

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

REAR WHEEL ALIGNMENT

ELS0003Y

Applied model		2WD		AWD
		Except for sports models	For sports models	
Camber Degree minute (Decimal degree)	Minimum	−1° 20' (−1.33°)	−1° 25' (−1.42°)	
	Nominal	−0° 50' (−0.83°)	−0° 55' (−0.92°)	
	Maximum	−0° 20' (−0.33°)	−0° 25' (−0.42°)	
Toe-in	Total toe-in Distance	Minimum	0 mm (0 in)	
		Nominal	In 2.8 mm (0.110 in)	
		Maximum	In 5.6 mm (0.220 in)	
	Total toe-angle Degree minute (Decimal degree)	Minimum	In 0° 00' 00" (In 0.00°)	
		Nominal	In 0° 14' 24" (In 0.24°)	
		Maximum	In 0° 28' 12" (In 0.47°)	

Measure value under unladen* conditions.

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

BRAKE PEDAL

Unit: mm (in)

Brake pedal height	171.5 - 181.5 (6.75 - 7.15)
Brake pedal reserve height [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	124.0 (4.88) or more

FRONT DISC BRAKE

2 Piston Type

Unit: mm (in)

Brake pad	Wear limit thickness	2.0 (0.079)
Disc rotor	Wear limit thickness	26.0 (1.024)

4 Piston Type

Unit: mm (in)

Brake pad	Wear limit thickness	2.0 (0.079)
Disc rotor	Wear limit thickness	30.0 (1.181)

REAR DISC BRAKE

1 Piston Type

Unit: mm (in)

Brake pad	Wear limit thickness	2.0 (0.079)
Disc rotor	Wear limit thickness	14.0 (0.551)

2 Piston Type

Unit: mm (in)

Brake pad	Wear limit thickness	2.0 (0.079)
Disc rotor	Wear limit thickness	18.0 (0.709)

QUICK REFERENCE CHART G SEDAN

2013

REFILL CAPACITIES

ELS00040

UNIT			Liter	US measure
Fuel tank			75.6	20 gal
Engine coolant (With reservoir tank) at MAX level	VQ25HR		8.3	8-6/8 qt
	VQ37VHR	A/T models	8.5	9 qt
		M/T models	8.6	9-1/8 qt
Engine oil	VQ25HR	Drain and refill		
		With oil filter change	4.7	5 qt
		Without oil filter change	4.4	4-5/8 qt
		Dry engine (Overhaul)	5.4	5-6/8 qt
	VQ37VHR	Drain and refill		
		With oil filter change	4.9	5-1/8 qt
		Without oil filter change	4.6	4-7/8 qt
		Dry engine (Overhaul)	5.7	6 qt
Transmission	A/T		9.2	9-3/4 qt
	M/T		2.83	6 pt
Transfer			1.0	2-1/8 pt
Final drive	Front		0.65	1-3/8 pt
	Rear		1.4	3 pt
Power steering system			1.0	1-1/8 qt
Air conditioning system	Compressor oil		0.15	5.07 fl oz
	Refrigerant		0.55 kg	1.21 lb