

Edition: July 2011
Revision: February 2013
Publication No. SM2E-1V36U1

QUICK REFERENCE INDEX

A GENERAL INFORMATION

B ENGINE

C ELECTRIC POWER TRAIN

D TRANSMISSION & DRIVELINE

E SUSPENSION

F BRAKES

G STEERING

H RESTRAINTS

I VENTILATION, HEATER & AIR CONDITIONER

J BODY INTERIOR

K BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY

L DRIVER CONTROLS

M ELECTRICAL & POWER CONTROL

N DRIVER INFORMATION & MULTIMEDIA

O CRUISE CONTROL & DRIVER ASSISTANCE

P MAINTENANCE

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



INFINITI®

G Sedan

MODEL V36 SERIES

All Rights Reserved. No part of this Service Manual may be reproduced or stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, recording or otherwise, without the prior written permission of NISSAN MOTOR CO., LTD.

A

B

D

E

F

G

H

I

J

K

L

M

N

O

P

FOREWORD

This manual contains maintenance and repair procedure for the 2012 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.



INFINITI®



PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

INFINITI®

Your comments are important to INFINITI 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 print this form and type or write 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: (248) 488-3880

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 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 A/T (In "P or N" position) M/T (In Neutral position)	rpm	650 ± 50
Ignition timing A/T (In "P or N" position) M/T (In Neutral position)		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 (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		98 (1.0, 14)/200
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 A/T (In "P or N" position)		14° ± 2°
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 (kg/cm ² , psi)/rpm	
Standard		1,320 (13.5, 191)/300
Minimum		1,030 (10.5, 149)/300
Differential limit between cylinders		100(1.0, 14.5)/300
Spark plug (Iridium-tipped type)	Make	DENSO
	Standard type	FXE22HR11
	Gap (Nominal) mm (in)	1.1 (0.043)

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 (In 0.110 in)	
		Maximum	In 5.6 mm (In 0.220 in)	
	Total toe-angle Degree minute (Decimal degree)	Minimum	0° 00' (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)
Depressed brake pedal 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

2012

REFILL CAPACITIES

ELS00040

UNIT			Liter	US measure
Fuel tank			75.6	20 gal
Engine coolant (With reservoir tank) at MAX level	VQ25HR	2WD models	8.3	8-6/8 qt
		AWD models	8.8	9-2/8 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