

**QUICK REFERENCE INDEX**



<b>A GENERAL INFORMATION</b>	<b>GI General Information</b>
<b>B ENGINE</b>	<b>EM Engine Mechanical</b>
	<b>LU Engine Lubrication System</b>
	<b>CO Engine Cooling System</b>
	<b>EC Engine Control System</b>
	<b>FL Fuel System</b>
	<b>EX Exhaust System</b>
	<b>STR Starting System</b>
<b>ACC Accelerator Control System</b>	
<b>C ELECTRIC POWER TRAIN</b>	
<b>D TRANSMISSION &amp; DRIVELINE</b>	<b>CL Clutch</b>
	<b>TM Transaxle &amp; Transmission</b>
	<b>DLN Driveline</b>
	<b>FAX Front Axle</b>
<b>E SUSPENSION</b>	<b>RAX Rear Axle</b>
	<b>FSU Front Suspension</b>
	<b>RSU Rear Suspension</b>
<b>F BRAKES</b>	<b>WT Road Wheels &amp; Tires</b>
	<b>BR Brake System</b>
	<b>PB Parking Brake System</b>
<b>G STEERING</b>	<b>BRC Brake Control System</b>
	<b>ST Steering System</b>
	<b>STC Steering Control System</b>
<b>H RESTRAINTS</b>	<b>SB Seat Belt</b>
	<b>SBC Seat Belt Control System</b>
	<b>SR SRS Airbag</b>
	<b>SRC SRS Airbag Control System</b>
	<b>VTL Ventilation System</b>
<b>I VENTILATION, HEATER &amp; AIR CONDITIONER</b>	<b>HA Heater &amp; Air Conditioning System</b>
	<b>HAC Heater &amp; Air Conditioning Control System</b>
	<b>INT Interior</b>
<b>J BODY INTERIOR</b>	<b>IP Instrument Panel</b>
	<b>SE Seat</b>
	<b>ADP Automatic Drive Positioner</b>
	<b>DLK Door &amp; Lock</b>
	<b>SEC Security Control System</b>
	<b>GW Glass &amp; Window System</b>
	<b>PWC Power Window Control System</b>
	<b>RF Roof</b>
	<b>EXT Exterior</b>
	<b>BRM Body Repair</b>
<b>L DRIVER CONTROLS</b>	<b>MIR Mirrors</b>
	<b>EXL Exterior Lighting System</b>
	<b>INL Interior Lighting System</b>
	<b>WW Wiper &amp; Washer</b>
	<b>DEF Defogger</b>
	<b>HRN Horn</b>
	<b>PWO Power Outlet</b>
<b>M ELECTRICAL &amp; POWER CONTROL</b>	<b>BCS Body Control System</b>
	<b>LAN LAN System</b>
	<b>PCS Power Control System</b>
	<b>CHG Charging System</b>
	<b>PG Power Supply, Ground &amp; Circuit Elements</b>
	<b>MWI Meter, Warning Lamp &amp; Indicator</b>
<b>N DRIVER INFORMATION &amp; MULTIMEDIA</b>	<b>WCS Warning Chime System</b>
	<b>SN Sonar System</b>
	<b>AV Audio, Visual &amp; Navigation System</b>
	<b>CCS Cruise Control System</b>
<b>O CRUISE CONTROL &amp; DRIVER ASSISTANCE</b>	
<b>P MAINTENANCE</b>	<b>MA Maintenance</b>

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.



# 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.



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

**2013**

## QUICK REFERENCE CHART G SEDAN ENGINE TUNE-UP DATA (VQ37VHR)

PFP:00000

*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 (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 <sup>2</sup> , 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 <sup>2</sup> , psi) 157 (1.6, 23)
Compression pressure	kPa (bar, kg/cm <sup>2</sup> , 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)

# QUICK REFERENCE CHART G SEDAN

2013

## 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	Adjust- ment	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 compres- sor 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 pres- sure		kPa (kg/cm <sup>2</sup> , psi)		122.3 - 151.7 (1.2 - 1.5, 18 - 22)				
		Standard						
		Limit	107 (1.1, 16)					
Cooling system leakage testing pressure		kPa (kg/cm <sup>2</sup> , psi)		157 (1.6, 23)				
Compression pressure		kPa (bar, kg/cm <sup>2</sup> , psi)/rpm		1,320 (13.2, 13.5, 191)/300				
		Standard						
		Minimum						
		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**

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

EL500040

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	
	VQ37VHR	Dry engine (Overhaul)	5.4	5-6/8 qt	
		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		
	A/T	9.2	9-3/4 qt		
Transmission	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		