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INFINITI®
G Sedan
MODEL V36 SERIES



## QUICK REFERENCE INDEX

# FOREWORD

**This manual contains maintenance and repair procedure for the 2011 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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## PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

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.*

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**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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**Is the organization of the manual clear and easy to follow? (circle your answer) YES NO**

Please comment: _____

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**What information should be included in INFINITI Service Manuals to better support you in servicing or repairing customer vehicles?**

_____

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DATE: _____ YOUR NAME: _____ POSITION: _____

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# 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<br>A/T (In “P or N” position)<br>M/T (In Neutral position) | | rpm | 650 ± 50 |
| Ignition timing<br>(BTDC at idle speed) | | | 10° ± 5° |
| Tensions of drive belt | | | Auto adjustment by auto tensioner |
| Radiater 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<br>(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<br>A/T (In “P or N” position) | | rpm | 650 ± 50 |
| Ignition timing<br>(BTDC at idle speed) | | | 14° ± 2° |
| Tensions of drive belt | | | Auto adjustment by auto tensioner |
| Radiater 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 | | 1320 (13.5, 191)/300 |
| | Minimum | | 1030 (10.5, 149)/300 |
| | Differential limit between cylinders | | 100 (1.0, 14.5)/300 |
| Spark plug<br>(Iridium-tipped type) | Make | | DENSO |
| | Standard type | | FXE22HR11 |
| | Gap (Nominal) | mm (in) | 1.1 (0.043) |

# FRONT WHEEL ALIGNMENT

ELS0003X

## 2WD

| Applied model | | | Except for sports models | For sports models |
|---|---|---|---|---|
| Camber<br>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<br>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<br>Degree minute (Decimal degree) | | Minimum | 6° 35′ (6.58°) | |
| | | Nominal | 7° 20′ (7.33°) | |
| | | Maximum | 8° 05′ (8.08°) | |
| Toe-in | Total toe-in<br>Distance | Minimum | 0 mm (0 in) | |
| | | Nominal | In 1 mm (0.04 in) | |
| | | Maximum | In 2 mm (0.08 in) | |
| | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum | 0° 00′ (0.00°) | |
| | | Nominal | In 0° 02′ 30″ (0.04°) | |
| | | Maximum | In 0° 05′ (0.08°) | |

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<br>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<br>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<br>Degree minute (Decimal degree) | | Minimum | 6° 40′ (6.67°) | |
| | | Nominal | 7° 25′ (7.42°) | |
| | | Maximum | 8° 10′ (8.16°) | |
| Toe-in | Total toe-in<br>Distance | Minimum | 0 mm (0 in) | |
| | | Nominal | In 1 mm (0.04 in) | |
| | | Maximum | In 2 mm (0.08 in) | |
| | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum | 0° 00′ (0.00°) | |
| | | Nominal | In 0° 02′ 30″ (0.04°) | |
| | | Maximum | In 0° 05′ (0.08°) | |

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<br>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<br>Distance | Minimum | 0 mm (0 in) | | |
| | | Nominal | In 2.8 mm (0.110 in) | | |
| | | Maximum | In 5.6 mm (0.220 in) | | |
| | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum | 0° 00′ (0.00°) | | |
| | | Nominal | In 0° 07′ (0.12°) | | |
| | | Maximum | In 0° 14′ (0.23°) | | |

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)

| | |
|---|---|
| Depressed brake pedal height ($H_1$) | 171.5 - 181.5 (6.75 - 7.15) |
| Brake pedal reserve height ($H_2$)<br>[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) |

# 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 |
| | | 4WD 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 | 6.5 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 |