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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

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

AV Audio, Visual & Navigation System

CCS Cruise Control System

MA Maintenance

# NISSAN

## 370Z

## MODEL Z34 SERIES

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# FOREWORD

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This manual contains maintenance and repair procedure for the 2011 NISSAN 370Z.

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

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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.

**NISSAN MOTOR CO., LTD.**



## PLEASE HELP MAKE THIS SERVICE MANUAL BETTER!

Your comments are important to NISSAN 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.*

Please describe the issue or problem in detail: \_\_\_\_\_

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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 NISSAN Service Manuals to better support you in servicing or repairing customer vehicles?**

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DATE: \_\_\_\_\_ YOUR NAME: \_\_\_\_\_ POSITION: \_\_\_\_\_

DEALER: \_\_\_\_\_ DEALER NO.: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE/PROV./COUNTRY: \_\_\_\_\_ ZIP/POSTAL CODE: \_\_\_\_\_

## QUICK REFERENCE CHART 370Z

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  |
| 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 (kg/cm <sup>2</sup> , psi)/200 rpm |                                    |
| Standard                                                              |                                        | 1,667 - 2,354 (17 - 24, 242 - 341) |
| Minimum                                                               |                                        | 1,226 (12.5, 178)                  |
| Differential limit between cylinders                                  |                                        | 98 (1.0, 14)                       |
| Spark plug<br>(Iridium-tipped type)                                   | Make                                   | DENSO                              |
|                                                                       | Standard type                          | FXE24HR11                          |
|                                                                       | Gap (Nominal)                          | 1.1 (0.043)                        |

## FRONT WHEEL ALIGNMENT

ELS0003X

|                                                       |                                                                         |                           |                        |
|-------------------------------------------------------|-------------------------------------------------------------------------|---------------------------|------------------------|
| Camber<br>Degree minute (Decimal degree)              |                                                                         | Minimum                   | -1° 25' (-1.41°)       |
|                                                       |                                                                         | Nominal                   | -0° 40' (-0.67°)       |
|                                                       |                                                                         | Maximum                   | 0° 05' (0.08°)         |
|                                                       |                                                                         | Left and right difference | 0° 33' (0.55°) or less |
| Caster<br>Degree minute (Decimal degree)              |                                                                         | Minimum                   | 4° 25' (4.42°)         |
|                                                       |                                                                         | Nominal                   | 5° 10' (5.17°)         |
|                                                       |                                                                         | Maximum                   | 5° 55' (5.91°)         |
|                                                       |                                                                         | Left and right difference | 0° 39' (0.65°) or less |
| Kingpin inclination<br>Degree minute (Decimal degree) |                                                                         | Minimum                   | 6° 55' (6.92°)         |
|                                                       |                                                                         | Nominal                   | 7° 40' (7.67°)         |
|                                                       |                                                                         | Maximum                   | 8° 25' (8.41°)         |
| Toe-in                                                | Total toe-in<br>Distance                                                | Minimum                   | In 1 mm (0.04 in)      |
|                                                       |                                                                         | Nominal                   | In 2 mm (0.08 in)      |
|                                                       |                                                                         | Maximum                   | In 3 mm (0.11 in)      |
|                                                       | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum                   | In 0° 03' (0.05°)      |
|                                                       |                                                                         | Nominal                   | In 0° 05' (0.08°)      |
|                                                       |                                                                         | Maximum                   | In 0° 07' (0.11°)      |

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

| Wheel size                               |                                                                         | 18 inch          |                      | 19 inch              |
|------------------------------------------|-------------------------------------------------------------------------|------------------|----------------------|----------------------|
| Camber<br>Degree minute (Decimal degree) | Minimum                                                                 | -2° 10' (-2.16°) |                      |                      |
|                                          | Nominal                                                                 | -1° 40' (-1.67°) |                      |                      |
|                                          | Maximum                                                                 | -1° 10' (-1.17°) |                      |                      |
| Toe-in                                   | Total toe-in<br>Distance                                                | Minimum          | In 2.0 mm (0.079 in) | In 2.0 mm (0.079 in) |
|                                          |                                                                         | Nominal          | In 3.8 mm (0.150 in) | In 3.7 mm (0.146 in) |
|                                          |                                                                         | Maximum          | In 5.6 mm (0.221 in) | In 5.4 mm (0.213 in) |
|                                          | Toe angle (Left wheel or right wheel)<br>Degree minute (Decimal degree) | Minimum          | In 0° 05' (0.09°)    |                      |
|                                          |                                                                         | Nominal          | In 0° 09' (0.15°)    |                      |
|                                          |                                                                         | Maximum          | In 0° 13' (0.21°)    |                      |

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 (H1)                                                                             | 171.5 - 181.5 (6.75 - 7.15) |
| Depressed brake pedal height (H2)<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 | Imp measure |
|---------------------------------------------------|---------------------------|--------|------------|-------------|
| Fuel tank                                         |                           | 71.9   | 19 gal     | 15-7/8 gal  |
| Engine Coolant (With reservoir tank) at MAX level | A/T models                | 8.5    | 9 qt       | 7-1/2 qt    |
|                                                   | M/T models                | 8.6    | 9-1/8 qt   | 7-5/8 qt    |
| Engine oil                                        | Drain and refill          |        |            |             |
|                                                   | With oil filter change    | 4.9    | 5-1/8 qt   | 4-1/4 qt    |
|                                                   | Without oil filter change | 4.6    | 4-7/8 qt   | 4 qt        |
| Transmission                                      | Dry engine (Overhaul)     | 5.7    | 6 qt       | 5 qt        |
|                                                   | A/T                       | 9.2    | 9-3/4 qt   | 8-1/8 qt    |
| Final drive                                       | M/T                       | 2.83   | 6 pt       | 5 pt        |
|                                                   | Rear                      | 1.4    | 3 pt       | 2-1/2 pt    |
| Power steering system                             |                           | 1.0    | 1-1/8 qt   | 7/8 qt      |
| Air conditioning system                           | Compressor oil            | 0.15   | 5.07 fl oz | 5.3 fl oz   |
|                                                   | Refrigerant               | 0.5 kg | 1.1 lb     | 1.1 lb      |