

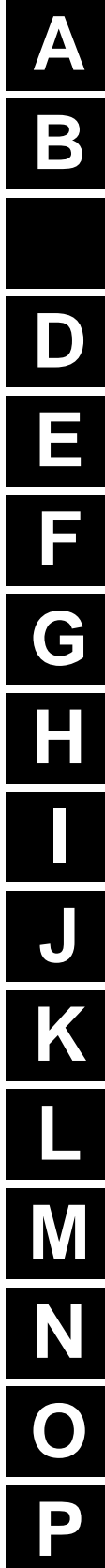
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**QUICK REFERENCE INDEX**



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

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# FOREWORD

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This manual contains maintenance and repair procedure for the 2012 INFINITI QX.

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.



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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.*

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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 INFINITI 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 QX**  
**ENGINE TUNE-UP DATA (VK56VD)**

PFP:00000

ELS0003W

Engine model		VK56VD
Firing order		1-8-7-3-6-5-4-2
Idle speed A/T (In "P or N" position)	rpm	600 ± 50
Ignition timing (BTDC at idle speed)		12° ± 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 <sup>2</sup> , psi)	
	Standard	108.2 - 127.8 (1.1 - 1.3, 15.7 - 18.5)
	Limit	98 (1.0, 14)
Cooling system leakage testing pressure	kPa (kg/cm <sup>2</sup> , psi)	186 (1.9, 27)
Compression pressure	kPa (kg/cm <sup>2</sup> , psi)/rpm	
	Standard	1,667 (17, 242)/200
	Minimum	1,226 (12.5, 178)/200
	Differential limit between cylinders	98 (1.0, 14)/200
Spark plug (Iridium-tipped type)	Make	NGK
	Standard type	DILKAR7B11
	Gap (Standard)	mm (in) 1.1 (0.043)

FRONT WHEEL ALIGNMENT

ELS0003X

Item		Standard	
Measurement wheel		Left side	Right side
Camber Degree minute (Decimal degree)	Minimum	-0°45' (-0.75°)	-0°55' (-0.91°)
	Nominal	0° 00' (0.00°)	-0°10' (-0.17°)
	Maximum	0° 45' (0.75°)	0° 35' (0.58°)
	Left and right difference	0° 33' (0.55°) or less	
Caster Degree minute (Decimal degree)	Minimum	2° 20' (2.34°)	2° 40' (2.67°)
	Nominal	3° 05' (3.08°)	3° 25' (3.42°)
	Maximum	3° 50' (3.83°)	4° 10' (4.16°)
	Left and right difference	0° 45' (0.75°) or less	
Kingpin inclination Degree minute (Decimal degree)	Minimum	—	—
	Nominal	13° 20' (13.33°)* <sup>1</sup>	13° 25' (13.42°)* <sup>1</sup>
	Maximum	—	—
Toe-in	Total toe-in Distance	Minimum	In 0.4 mm (0.015 in)
		Nominal	In 2.4 mm (0.094 in)
		Maximum	In 4.4 mm (0.173 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	In 0° 01' 48" (In 0.03°)
		Nominal	In 0° 10' 12" (In 0.17°)
		Maximum	In 0° 18' 00" (In 0.30°)

Measure value under unladen\*<sup>2</sup> conditions.

\*1: The minimum value and maximum value is the same as the nominal value.

\*2: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

REAR WHEEL ALIGNMENT

ELS0003Y

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	-1° 00' (-1.00°)	
	Nominal	-0° 30' (-0.50°)	
	Maximum	0° 00' (0.00°)	
	Left and right difference	0° 45' (0.75°) or less	
Toe-in	Total toe-in Distance	Minimum	0 mm (0 in)
		Nominal	In 3.4 mm (0.134 in)
		Maximum	In 6.8 mm (0.268 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	In 0° 00' (In 0.00°)
		Nominal	In 0° 13' 48" (In 0.23°)
		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)

Item	Standard
Brake pedal height	168.5 (6.63) – 178.5 (7.03)
Depressed brake pedal height [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	100 (3.94) or more

**FRONT DISC BRAKE**

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	1.5 (0.059)
	Wear thickness	28.5 (1.122)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.053 (0.0021)

**REAR DISC BRAKE**

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	18.0 (0.709)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.05 (0.0020)

**REFILL CAPACITIES**

ELS00040

UNIT	Liter	US measure	
Fuel tank	98.4	26 gal	
Engine Coolant (With reservoir tank) at MAX level	14.9	15-6/8 qt	
Engine oil	Drain and refill		
	With oil filter change	6.5	6-7/8 qt
	Without oil filter change	6.2	6-4/8 qt
	Dry engine (Overhaul)	7.6	8 qt
Transmission	10.0	10-5/8 qt	
Transfer	1.5	3-1/8 pt	
Final drive	Front	0.75	1-5/8 pt
	Rear	1.75	3-3/4 pt
Power steering system	1.0	1-1/8 qt	
Air conditioning system	Compressor oil	0.21	7.1 fl oz
	Refrigerant	1.05 kg	2.32 lb