

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

TM Transaxle & Transmission

DLN Driveline

FAX Front Axle

RAX Rear Axle

FSU Front Suspension

RSU Rear Suspension

SCS Suspension Control System

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

AV Audio, Visual & Navigation System

CCS Cruise Control System

DAS Driver Assistance System

MA Maintenance

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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 2013 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

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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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:

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Technical Service Information
39001 Sunrise Drive, P.O. Box 9200
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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 QX
ENGINE TUNE-UP DATA (VK56VD)

PFP:00000

ELS0003W

Engine model		VK56VD	
Firing order		1-8-7-3-6-5-4-2	
Idle speed (In "P or N" position)	rpm	600 ± 50	
Ignition timing (BTDC at idle speed) (In "P or N" position)		12° ± 2°	
Tensions 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	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 ² , psi)	186 (1.9, 27)	
Compression pressure	kPa (kg/cm ² , 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	1.1 mm (0.043 in)
		Limit	1.25 mm (0.049 in)

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°)* ¹	13° 25' (13.42°)* ¹
	Maximum	—	—
Toe-in	Total toe-in Distance	Minimum	In 0.4 mm (In 0.015 in)
		Nominal	In 2.4 mm (In 0.094 in)
		Maximum	In 4.4 mm (In 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*² 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 (In 0.134 in)
		Maximum	In 6.8 mm (In 0.268 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	0° 00' (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
Clearance between stop lamp switch and brake switch threaded end and the brake pedal bracket	0.2 (0.008) - 1.96 (0.0772)
Brake pedal play	3 (0.12) - 11 (0.43)

FRONT DISC BRAKE

Unit: mm (in)

Item	Limit
Brake pad	Wear thickness 1.5 (0.059)
Disc rotor	Wear thickness 28.5 (1.122)
	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)
Disc rotor	Wear thickness 18.0 (0.709)
	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