N - REMOVE/INSTALL/OVERHAUL

1992 Infiniti G20

1991-92 ENGINE PERFORMANCE Infiniti Removal, Overhaul & Installation

G20, M30, Q45

INTRODUCTION

Removal, overhaul and installation procedures, when given by manufacturer, are covered in this article. If component removal and installation is primarily an unbolt and bolt-on procedure, only a torque specification may be furnished.

IGNITION SYSTEM

DISTRIBUTOR (G20 & M30)

Removal

Align timing mark(s) to No. 1 piston at TDC on compression stroke. Mark rotor position in relation to distributor housing. Disconnect spark plug wires and wiring harness connectors from distributor. Remove distributor hold-down bolt. Remove distributor.

Installation

To install, reverse removal procedure. Ensure marks or indentations on distributor shaft and housing are aligned. Check rubber "O" ring seal and replace if necessary. After installing distributor, ensure distributor rotor is lined up with mark made during removal, or set at No. 1 cylinder spark plug position. Check and adjust timing. See D - ADJUSTMENTS article in the ENGINE PERFORMANCE Section. Tighten distributor hold-down bolt to 12 ft. lbs. (16 N.m).

CRANK ANGLE SENSOR (Q45)

NOTE: On G20 and M30, crank angle sensor is built into distributor.

Removal & Installation

- 1) Crank angle sensor is located on left front side of engine. Mark crank angle sensor position before removing mounting screws. Disconnect harness connector. Remove mounting screws. Remove crank angle sensor.
- 2) To install, reverse removal procedure. Replace rubber "O" ring seal. Ensure marks made during removal procedure are aligned.

FUEL SYSTEM

FUEL SYSTEM PRESSURE RELEASE

WARNING: ALWAYS relieve fuel pressure before disconnecting any fuel injection-related component. DO NOT allow fuel to contact engine or electrical components.

Remove fuel pump fuse from fuse block. Start engine. Let engine run until it stalls. Crank engine 2-3 times, after engine has stopped, to release all fuel pressure. Turn ignition off and reinstall fuse.

FUEL PUMP

NOTE: Fuel pump removal and installation procedures for M30 and Q45 are not available from manufacturer.

Removal & Installation (G20)

1) Release fuel pressure. See FUEL SYSTEM PRESSURE RELEASE under FUEL SYSTEM. Remove inspection cover beneath rear seat. Remove fuel hoses and harness connector. Using Lock Ring Remover (S.S.T. X38879), unscrew fuel pump lock ring. Remove fuel pump.

2) To install, reverse removal procedure. Install new "O" ring before installing fuel pump into fuel tank.

FUEL RAILS & INJECTORS

Removal & Installation (G20)

- 1) Release fuel pressure. See FUEL SYSTEM PRESSURE RELEASE under FUEL SYSTEM.
- 2) Disconnect injector harness connector. Disconnect fuel pressure regulator vacuum hose. Disconnect fuel hoses from injector fuel rail. Remove fuel rail mounting bolts and remove rail.
- 3) Push fuel injector(s) from fuel rail. DO NOT pinch connector. To install, reverse removal procedure. Install new "O" rings on fuel injectors before installing injectors.

Removal & Installation (M30)

- 1) Release fuel pressure. See FUEL SYSTEM PRESSURE RELEASE under FUEL SYSTEM.
- 2) Disconnect throttle and cruise control cables from intake manifold collector. Remove intake manifold collector from engine. Disconnect vacuum hoses and electrical harness connectors from components on intake manifold and fuel injection system.
- 3) Disconnect coolant hoses to throttle chamber and air relief plug. Disconnect EGR valve flare tubing. Remove injector fuel rail assembly. Pull injector from fuel rail.
- 4) To remove fuel hose from injector, heat a sharp knife or soldering iron, and cut into braided reinforcement. DO NOT allow sharp knife to cut all the way through hose and touch injector tail piece. Pull fuel hose out by hand. See Fig. 1.
- 5) To install, reverse removal procedure. Install new fuel hose and rubber "O" ring on injectors. DO NOT use hose clamps at these connections. Start engine and check for fuel leaks.

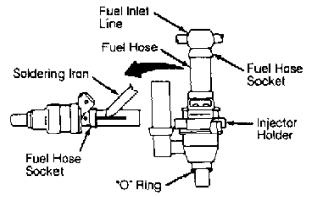


Fig. 1: Removing Fuel Injector Assembly & Fuel Hose (M30) Courtesy of Nissan Motor Co., U.S.A.

Removal & Installation (Q45)

1) Release fuel pressure. See FUEL SYSTEM PRESSURE RELEASE

under FUEL SYSTEM.

- 2) Drain coolant from radiator. Disconnect or remove all electrical and vacuum hose connections from components on intake manifold. Remove intake manifold collector. Remove injectors from fuel rail assembly.
- 3) To install, reverse removal procedure. Replace injector rubber "O" rings. Install injectors on fuel rail. Start engine and check for fuel leaks.

EXHAUST GAS OXYGEN SENSOR

Removal & Installation Exhaust gas oxygen (O2) sensor is mounted in exhaust pipe, below exhaust header (on both sides for Q45). During removal, protect sensor permanent pigtail from damage. Ensure sensor is free of contaminants. DO NOT use cleaning solvents of any type. Sensor may be difficult to remove when engine temperature is less than 120°F (49°C). To install, apply anti-seize compound on sensor threads. Tighten sensor to 30 ft. lbs. (41 N.m).

EXHAUST GAS TEMPERATURE SENSOR

Tighten exhaust gas temperature sensor to 11-18 ft. lbs. (15-25 $\ensuremath{\mathrm{N.m}}).$

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Exhaust Gas Oxygen Sensor Exhaust Gas Temperature Sensor	
	INCH Lbs. (N.m)
Fuel Rail Assembly Bolt 3.0L 4.5L	22-29 (2.4-3.3) 20-26 (2.3-3.0)
(1) - Tighten in 2 steps. First tighten $(9-11 \text{ N.m})$, then tighten to $15-20$ $(21-26 \text{ N.m})$.	