

N - REMOVE/INSTALL/OVERHAUL

1994 Mitsubishi 3000GT

1994 ENGINE PERFORMANCE

Chrysler Corp./Mitsubishi Removal, Overhaul & Installation

Dodge; Stealth

Mitsubishi; 3000GT

INTRODUCTION

Removal, overhaul and installation procedures 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

NOTE: Stealth 3.0L DOHC & 3000GT use Distributorless Ignition System (DIS).

FUEL SYSTEM

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

FUEL SYSTEM PRESSURE RELEASE

Relieving Fuel Pressure

1) On all models remove rear seat cushion and remove access plate if required to disconnect fuel pump harness connector.

2) On all models, start engine. Let engine run until it stops. Turn ignition off. Disconnect negative battery terminal. Connect fuel pump harness connector. Reinstall rear seat (if necessary.)

WARNING: Before disconnecting high pressure fuel hose at fuel delivery pipe, cover fuel hose connection with a rag. Some residual fuel pressure may still be in system.

FUEL PUMP

Removal & Installation

1) Fuel pump assembly is located inside fuel tank. Release fuel pressure. See FUEL SYSTEM PRESSURE RELEASE. Remove access panel under seat, in trunk or in rear cargo area. Disconnect electrical connectors and fuel hoses at fuel tank.

2) Remove fuel filler hose from fuel tank. Remove fuel pump assembly. To install, reverse removal procedure. Tighten nuts to specification. See TORQUE SPECIFICATIONS.

FUEL RAILS & INJECTORS

WARNING: Use a rag to cover fuel hose connection before disconnecting high pressure fuel hose

at fuel rail. Some residual fuel pressure may still be in system.

Removal

1) Relieve fuel pressure. See FUEL SYSTEM PRESSURE RELEASE. Disconnect negative battery cable. Drain coolant. Remove air intake hose. Remove throttle body and gasket with control cables and vacuum hoses attached.

2) Remove EGR pipe (if equipped). Disconnect power brake hose. Label and disconnect vacuum hoses and wiring harness connectors as necessary. Remove intake plenum brackets and mounting bolts. Remove intake plenum and gasket.

3) Disconnect high pressure fuel hose at fuel rail. Disconnect fuel return hose. Disconnect vacuum hoses. Disconnect injector electrical connectors. Remove fuel rail bolts, and lift fuel rail and injectors from engine. Injectors may be removed after fuel rail is removed from intake manifold.

Installation

To install, reverse removal procedure. Use new insulators and "O" rings when installing injectors. Install injectors into fuel rail with a twisting motion. Ensure injectors rotate smoothly when installing. DO NOT drop injectors while removing or installing fuel rail. Refill cooling system.

OXYGEN (O₂) SENSOR

Removal & Installation

1) O₂ sensor is mounted in exhaust pipe below exhaust header. It is equipped with a permanent pigtail which must be protected from damage when sensor is removed. Ensure sensor is free of contaminants. Avoid using cleaning solvents of any type.

2) Sensor may be difficult to remove when engine temperature is less than 120°F (48°C). Always use anti-seize compound on threads before installation. Tighten O₂ sensor to specification. See TORQUE SPECIFICATIONS.

THROTTLE BODY

Removal

Disconnect air intake hose. Remove accelerator, cruise control and A/T throttle valve cables (if equipped). Disconnect fuel vapor hose, electrical harness connector, vacuum hose and coolant hoses. Remove throttle body retaining bolts.

Disassembly

Remove throttle position sensor. Remove idle speed control motor. Remove throttle bracket and connector bracket (if equipped). Remove idle position switch and adjusting nut (if equipped).

NOTE: DO NOT remove throttle valve. DO NOT use cleaning solvents on throttle position sensor, idle speed control motor or idle position switch.

Cleaning

Clean all parts except throttle position sensor, idle speed control motor and idle position switch in solvent. Check vacuum port and passage for clogging. Clean vacuum, vapor and fuel passages using compressed air.

Reassembly

To reassemble, reverse disassembly procedure.

Installation
To install, reverse removal procedure.

THROTTLE POSITION SENSOR

Removal & Installation

Throttle Position Sensor (TPS) is located on throttle body. Disconnect TPS electrical connector. Remove TPS screws and TPS. To install, reverse removal procedure. Tighten TPS screws to specification. See TORQUE SPECIFICATIONS. For TPS adjustment procedure, see D - ADJUSTMENTS article in the ENGINE PERFORMANCE Section.

TURBOCHARGERS

Removal (Front)

1) Disconnect negative battery cable. Drain engine oil and coolant. Remove radiator. Disconnect exhaust pipe. Remove air intake hose, air hoses and air pipe. Remove alternator and belt. Remove oil dipstick guide.
2) Remove heat protector. Disconnect oxygen sensor electrical connector. Remove oil return pipe. Remove turbocharger support bracket, and remove turbocharger from exhaust manifold.

Removal (Rear)

1) Disconnect battery cables, and remove battery. Drain engine oil and cooling system. Remove accelerator cable. Remove air hose, air pipe and heat protectors. Disconnect clutch booster vacuum hose. Remove air intake hoses and EGR pipe. Disconnect O2 sensor electrical connector.
2) Remove oil pipe and EGR valve. Disconnect exhaust fitting, and remove rear heat protector. Remove oil return pipe. Remove turbocharger assembly.

Inspection

Check turbine and compressor wheels for cracking and other damage. Ensure turbine and compressor wheels turn smoothly. Check for oil leakage from turbocharger assembly. Check for proper wastegate valve operation. See I - SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE Section.

Installation

1) To install, reverse removal procedure. Before oil pipe flare nut (above turbocharger) is installed, pour clean engine oil into oil pipe installation hole of turbocharger. Ensure oil and air hoses are properly installed and securely clamped.
2) Use new gaskets. Adjust accelerator cable (if necessary). Refill engine oil and coolant. Check for oil and coolant leaks. Tighten all bolts to specification. See TORQUE SPECIFICATIONS table.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Applications	Ft. Lbs. (N.m)
Coolant Temperature Sensor	22 (29)
Exhaust Manifold-To-Engine Nuts	18-22 (24-29)
Exhaust Manifold-To-Turbocharger Bolts	40-47 (54-64)
Exhaust Pipe Bolts	22-29 (29-39)
Fuel Tank Drain Plug	11-18 (15-24)

Fuel Tank Nuts	15-22	(20-29)
Knock Sensor	15-18	(20-24)
Oil Pipe-To-Engine	10-14	(14-19)
Oxygen (O2) Sensor	29-36	(39-49)
Plenum-To-Intake Manifold Bolts	11-15	(15-20)
Water Pipe-To-Turbocharger	22	(30)

INCH Lbs. (N.m)

Camshaft Position Sensor	84	(9)
Crankshaft Position Sensor	84	(9)
Distributor Hold-Down Bolt	108	(12)
EGR Temperature Sensor	89	(10)
Fuel Rail Bolts	84-108	(9.0-12.0)
Heat Protector Bolts	108-132	(12.0-15.0)
ISC Switch Screws	20-54	(2.5-4.5)
TPS Switch Screws	13-20	(1.5-2.5)
Wastegate Actuator Bolts	84-108	(9.0-12.0)
