

Engine Mechanical



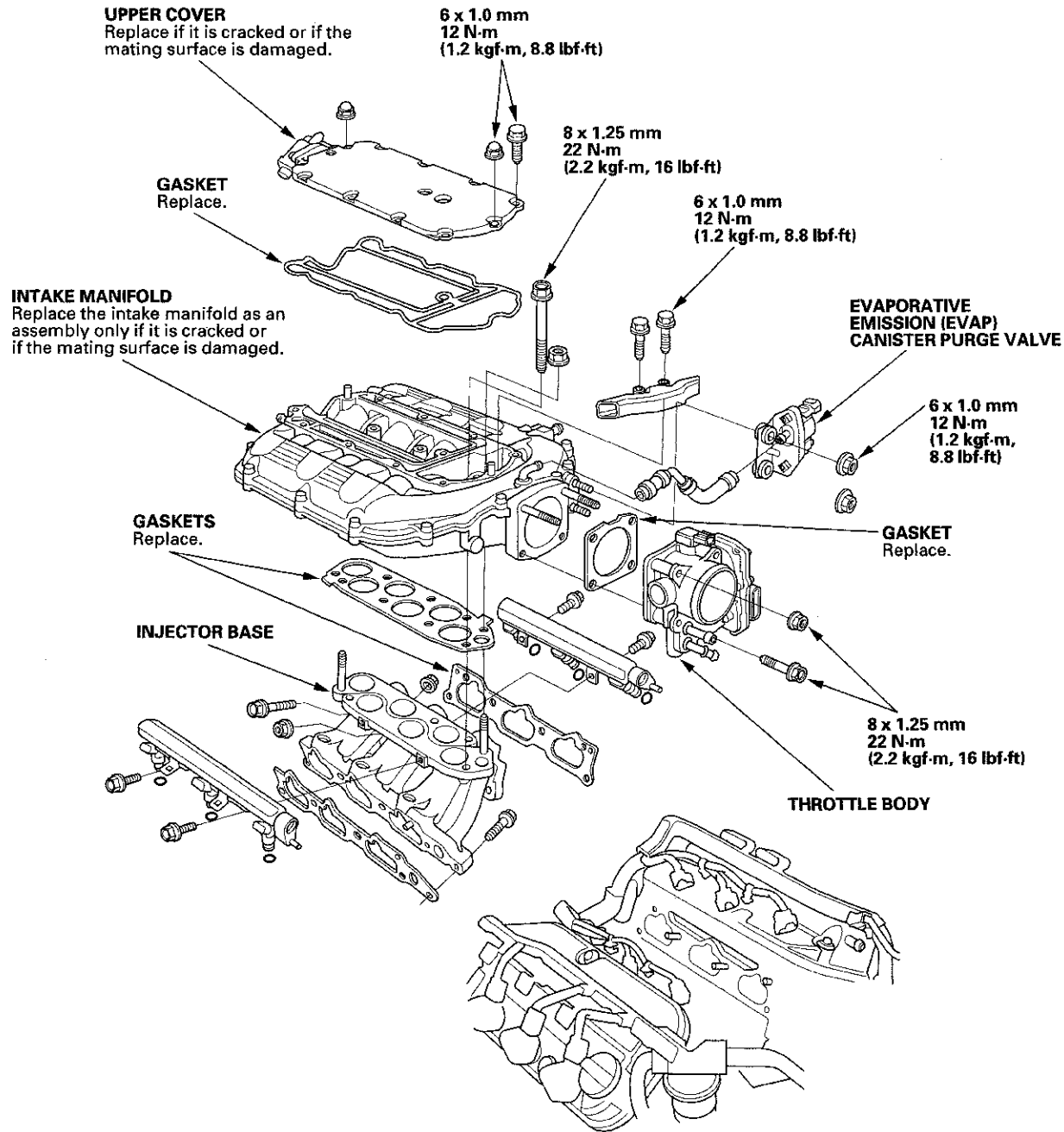
Intake Manifold and Exhaust System

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Intake Manifold and Exhaust System

Intake Manifold Removal and Installation

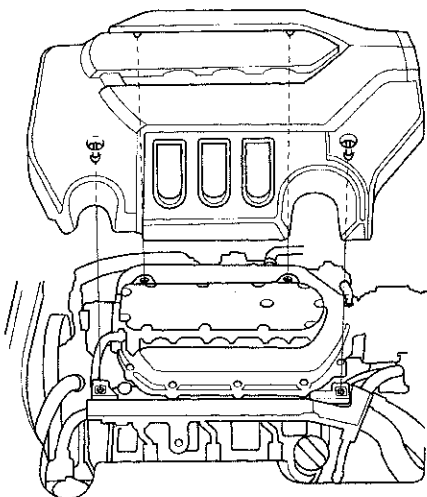
Exploded View



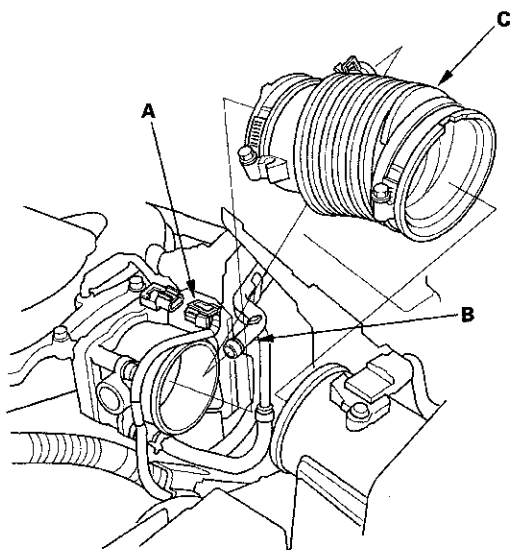


Removal

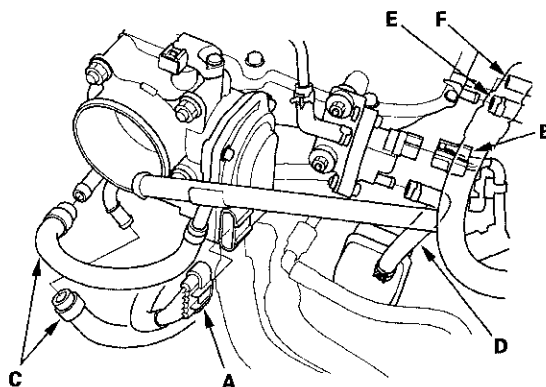
1. Remove the battery trim (see step 2 on page 20-162).
2. Remove the engine cover.



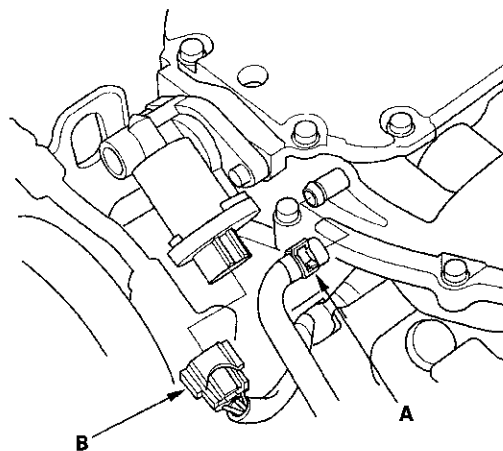
3. Disconnect the manifold absolute pressure (MAP) sensor connector (A), then remove the breather pipe (B) and the intake air duct (C).



4. Disconnect the throttle actuator connector (A) and the evaporative emission (EVAP) canister purge valve connector (B), then remove the water bypass hoses (C), the EVAP hose (D), the brake booster vacuum hose (E), and the vacuum hose (F).



5. Remove the positive crankcase ventilation (PCV) hose (A), and disconnect the intake manifold tuning (IMT) actuator connector (B).

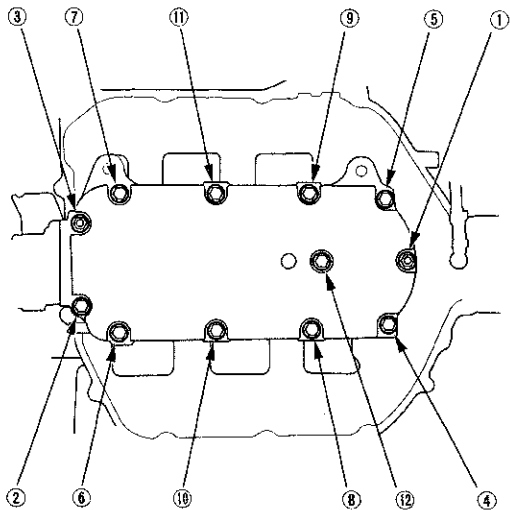


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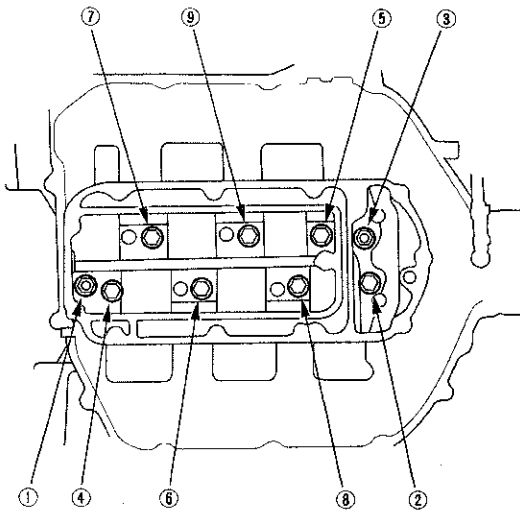
Intake Manifold and Exhaust System

Intake Manifold Removal and Installation (cont'd)

6. Remove the upper cover mounting bolts and nuts sequentially in three steps, then remove the upper cover.



7. Remove the intake manifold mounting bolts and nuts sequentially in three steps, then remove the intake manifold.

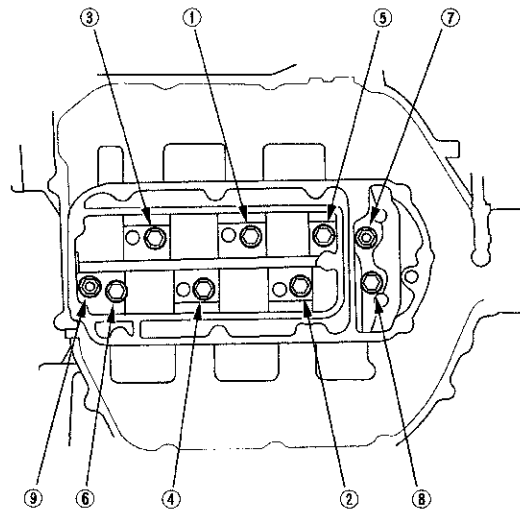


Installation

1. Install the intake manifold. Tighten the bolts and nuts sequentially in three steps. Always use a new intake manifold gasket.

Specified Torque

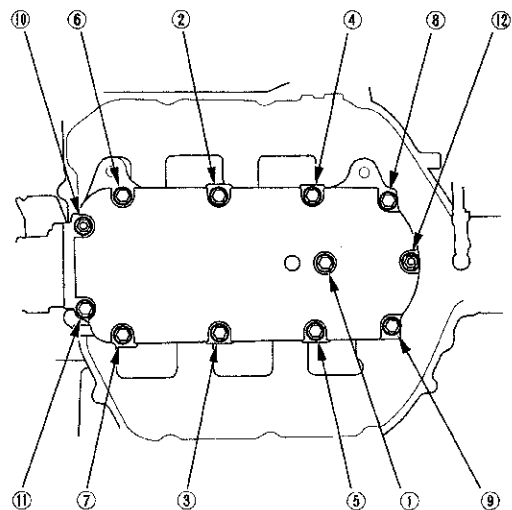
8 x 1.25 mm: 22 N·m (2.2 kgf·m, 16 lbf·ft)



2. Install the upper cover. Tighten the bolts and nuts sequentially in three steps. Always use a new gasket.

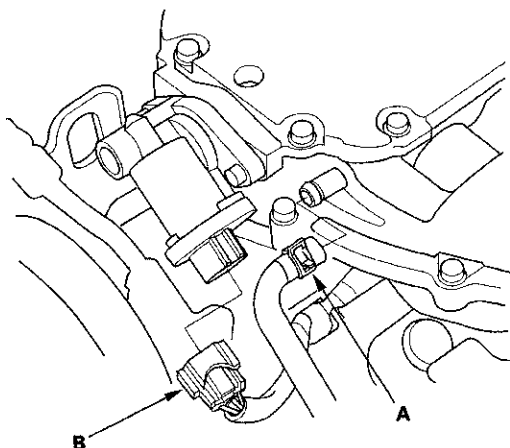
Specified Torque

6 x 1.0 mm: 12 N·m (1.2 kgf·m, 8.8 lbf·ft)

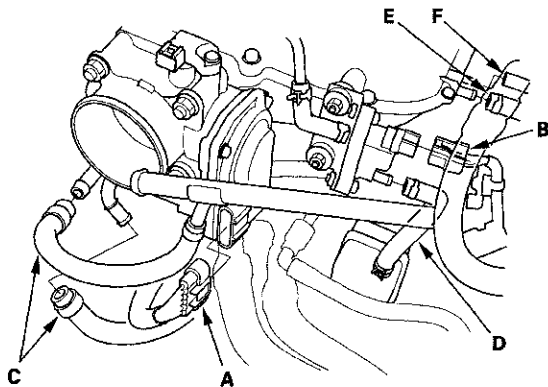




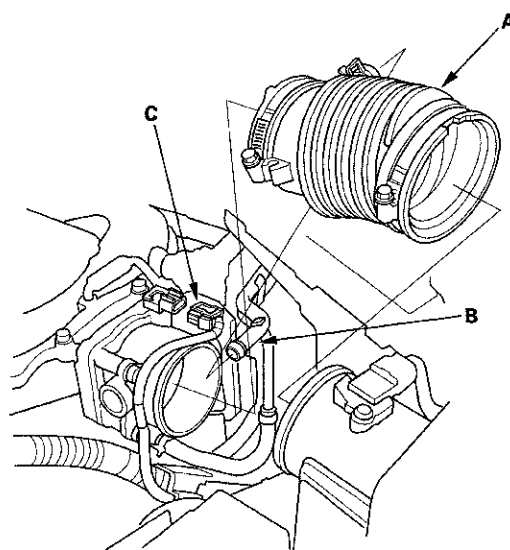
3. Install the PCV hose (A), and connect the IMT actuator connector (B).



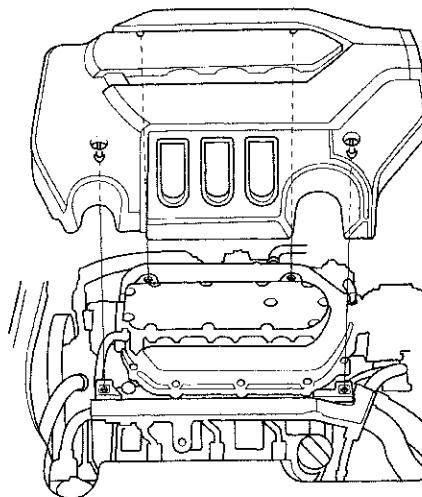
4. Connect the throttle actuator connector (A) and the EVAP canister purge valve connector (B), then install the water bypass hoses (C), the EVAP hose (D), the brake booster vacuum hose (E), and the vacuum hose (F).



5. Install the intake air duct (A) and the breather pipe (B), then connect the MAP sensor connector (C).



6. Clean up any spilled engine coolant.
7. After installation, check that all tubes, hoses, and connectors are installed correctly.
8. Install the engine cover.



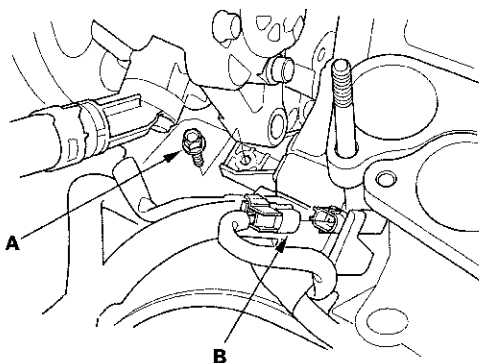
9. Refill the radiator with engine coolant, and bleed the air from the cooling system with the heater valve open (see step 8 on page 10-7).

Intake Manifold and Exhaust System

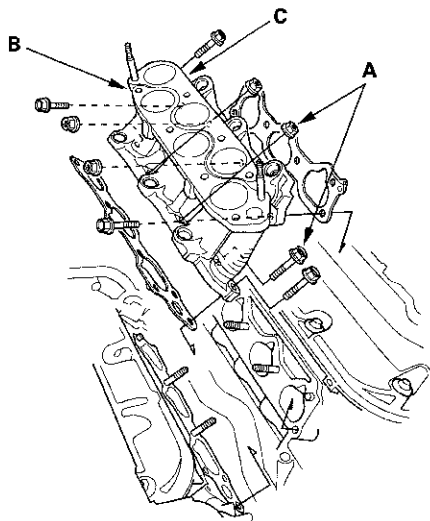
Injector Base Removal and Installation

Removal

1. Relieve the fuel pressure (see page 11-332).
2. Remove the power steering (P/S) pump and the P/S hose clamp (see step 5 on page 6-34).
3. Remove the intake manifold (see page 9-3).
4. Remove the injectors (see page 11-223).
5. Remove the harness holder mounting bolt (A) and the knock sensor connector (B).



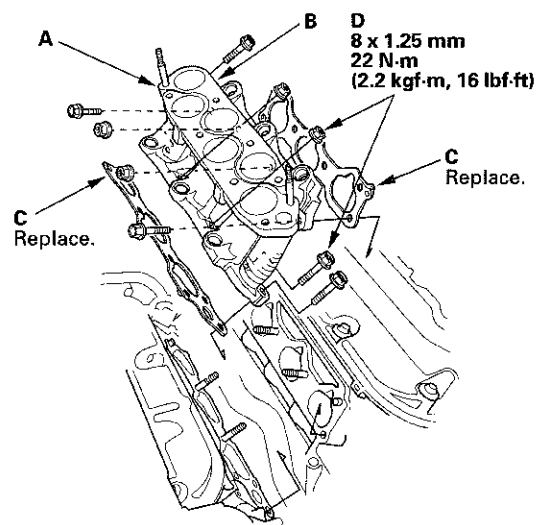
6. Remove the injector base mounting bolts/nuts (A), then remove the front injector base (B) and the rear injector base (C).



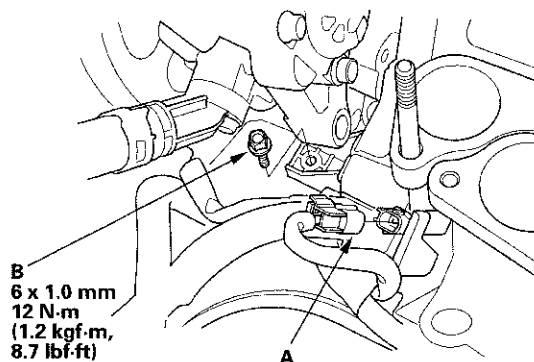
Installation

1. Install the front injector base (A) and the rear injector base (B) with new gaskets (C), and tighten the injector base mounting bolts/nuts (D) in a crisscross pattern in three steps, beginning with the inner nuts.

NOTE: The front injector base gasket is different from the rear one. Do not mix injector base gasket types.



2. Connect the knock sensor connector (A), then install the harness holder mounting bolt (B).





3. Install the injectors (see page 11-223).
4. Install the intake manifold (see page 9-4).
5. Install the P/S pump and the P/S hose clamp (see step 26 on page 6-62)
6. Inspect for fuel leaks. Turn the ignition switch to ON (II) (do not operate the starter) so the fuel pump runs for about 2 seconds and pressurizes the fuel line. Repeat this operation three times, then check for fuel leakage at any point in the fuel line.

Intake Manifold and Exhaust System

Exhaust Pipe and Muffler Replacement

NOTE: Use new gaskets and self-locking nuts when reassembling.

