

Engine Mechanical

Intake Manifold and Exhaust System

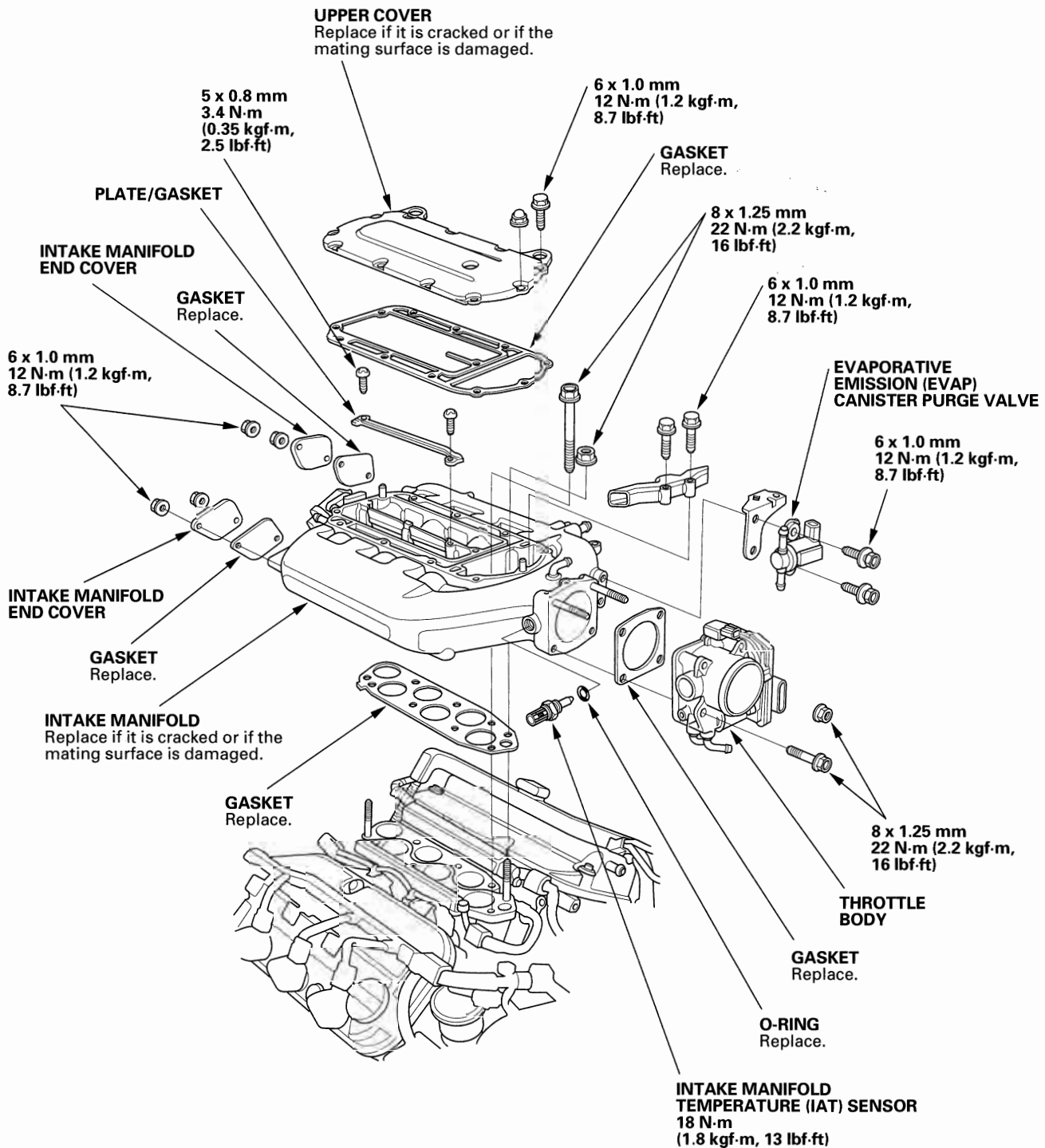
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| Intake Manifold Removal and Installation | 9-2 |
| Exhaust Pipe and Muffler Replacement | 9-6 |



Intake Manifold and Exhaust System

Intake Manifold Removal and Installation

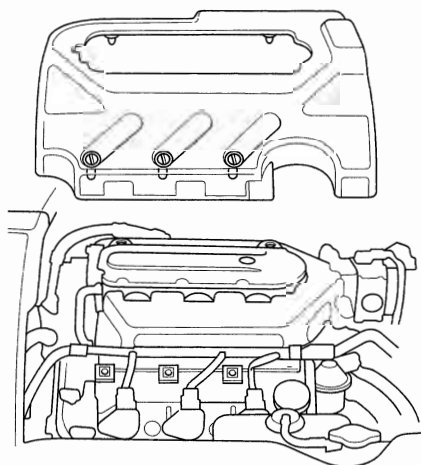
Exploded View



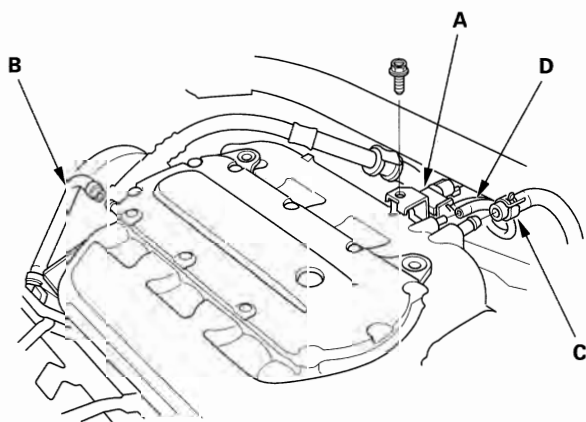


Removal

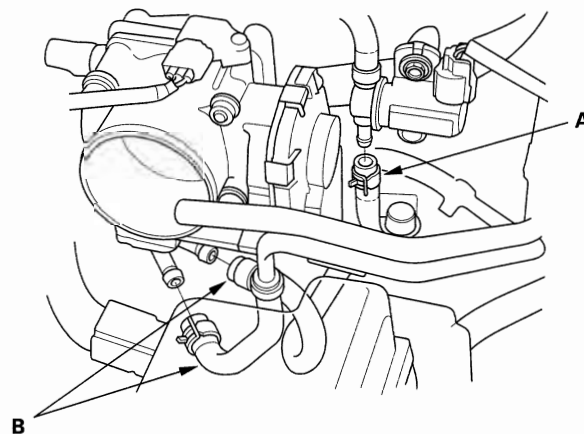
1. Remove the intake manifold cover.



2. Remove the air intake duct.
3. Remove the engine mount control solenoid valve (A), positive crankcase ventilation (PCV) hose (B), brake booster vacuum hose (C), and vacuum hose (D).



4. Remove the evaporative emission (EVAP) canister purge hose (A) and water bypass hoses (B), then plug the water bypass hoses.



5. Remove the engine wire harness connectors and wire harness clamps from the intake manifold.

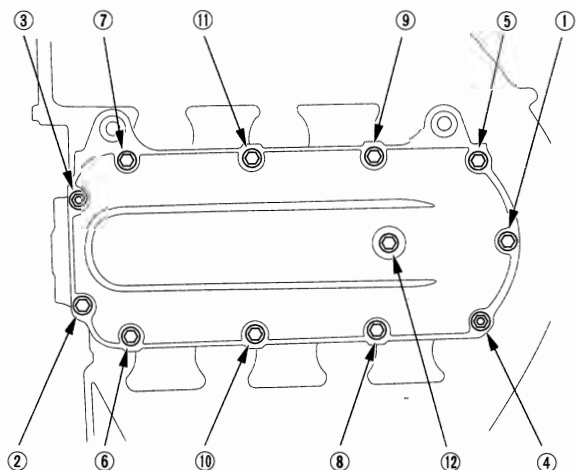
- Intake air temperature (IAT) sensor connector
- Idle air control (IAC) valve connector
- Throttle actuator connector
- Manifold absolute pressure (MAP) sensor connector
- Evaporative emission (EVAP) canister purge valve connector
- Intake manifold runner control (IMRC) solenoid valve connector

(cont'd)

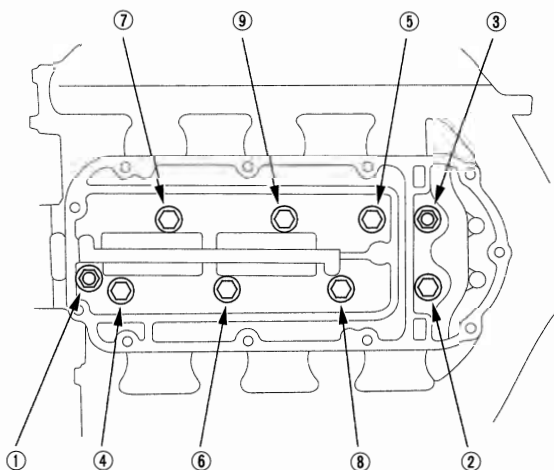
Intake Manifold and Exhaust System

Intake Manifold Removal and Installation (cont'd)

6. Remove the upper cover mounting bolts and nuts sequentially in two or three steps.



7. Remove the intake manifold mounting bolts and nuts sequentially in two or three steps.



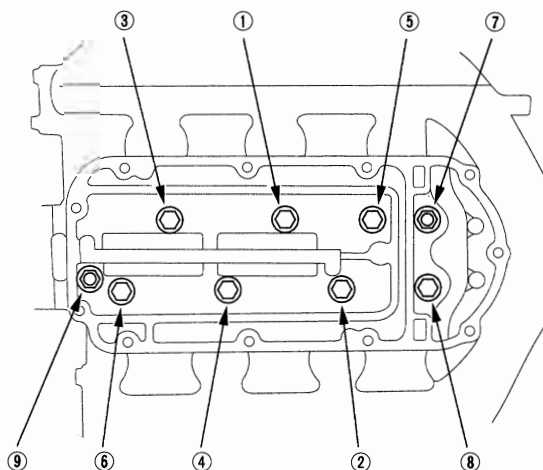
Installation

1. Install the intake manifold. Tighten the bolts and nuts sequentially in two or 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)

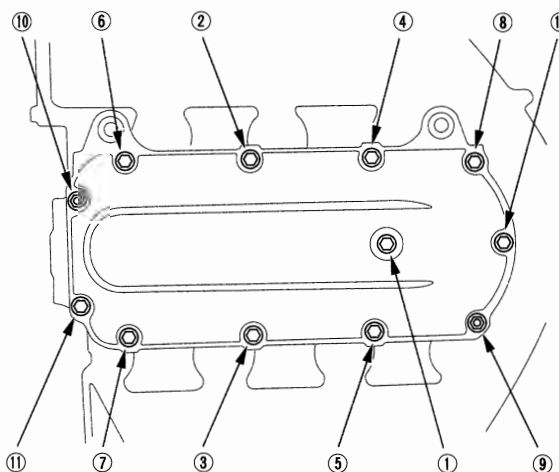


2. Install the upper cover. Tighten the bolts and nuts sequentially in two or three steps. Always use a new gasket.

Specified torque:

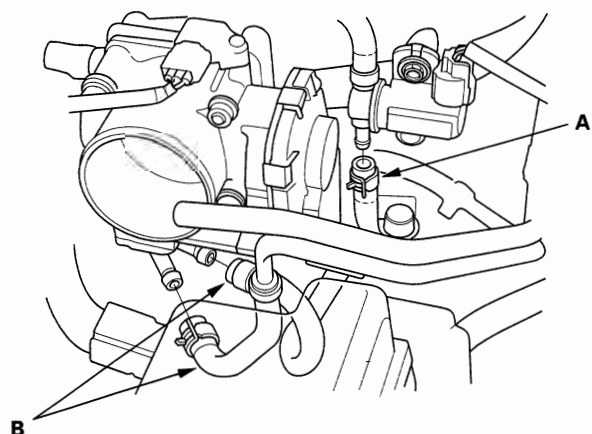
6 x 1.0 mm

12 N·m (1.2 kgf·m, 8.7 lbf·ft)

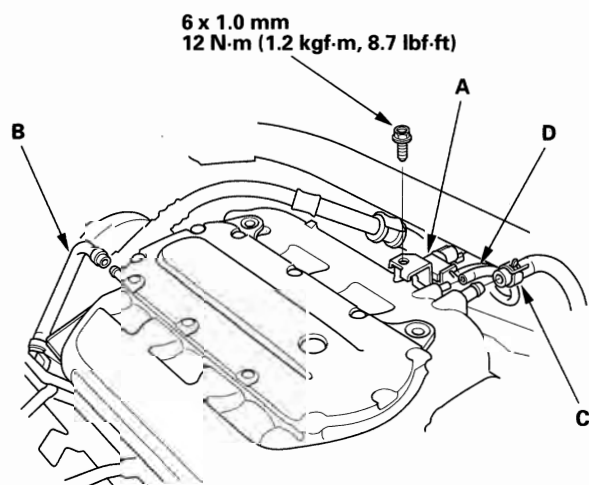




3. Install the EVAP canister purge hose (A) and water bypass hoses (B).



4. Install the engine mount control solenoid valve (A), positive crankcase ventilation (PCV) hose (B), brake booster vacuum hose (C), and vacuum hose (D).

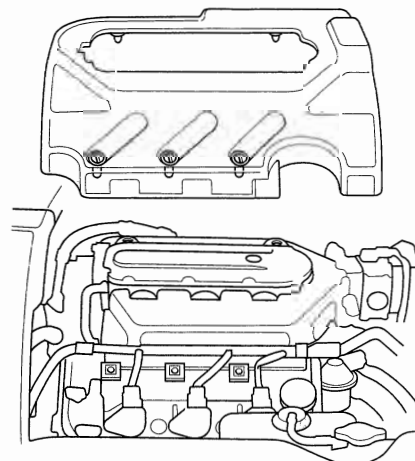


5. Install the intake air duct.

6. Clean up any spilled engine coolant.

7. After installation, check that all tubes, hoses and connectors are installed correctly.

8. Install the intake manifold cover.



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

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Exhaust Pipe and Muffler Replacement

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

