

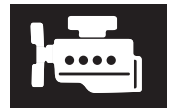
## Engine Mechanical



### Intake Manifold and Exhaust System

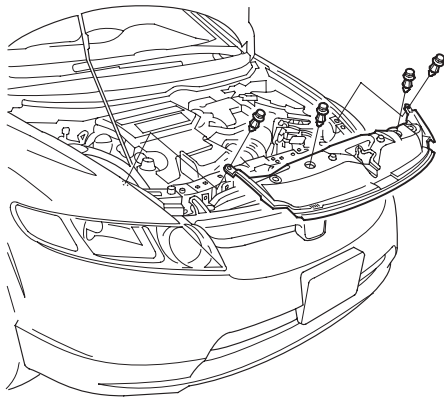
Intake Manifold Removal and Installation .....	9-2
Three Way Catalytic Converter Removal and Installation .....	9-8
Exhaust Pipe and Muffler Replacement .....	9-12



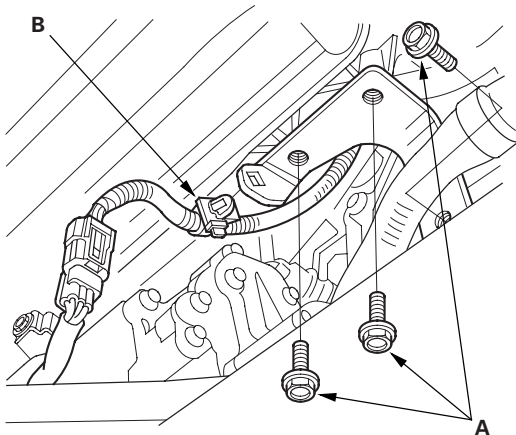


## Removal

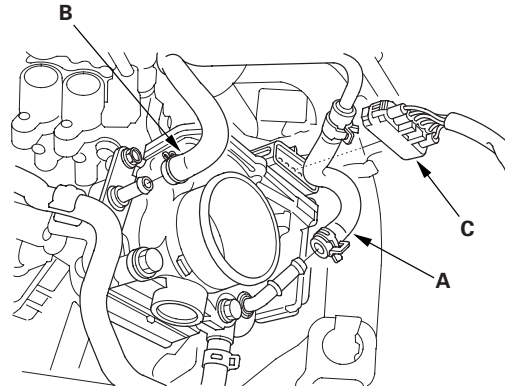
1. Drain the engine coolant (see page 10-6).
2. Remove the engine cover (see step 7 on page 5-3).
3. Remove the resonator (see page 11-383).
4. Remove the intake air duct (see step 9 on page 5-3).
5. Remove the air cleaner assembly (see page 11-381).
6. Remove the front grill cover.



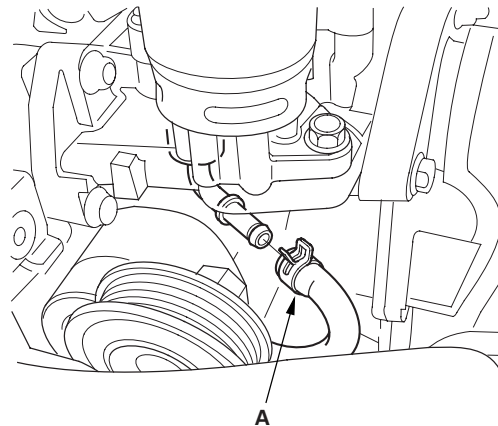
7. Raise the vehicle on the lift to full height.
8. Remove the front wheels.
9. Remove the splash shield (see step 22 on page 5-5).
10. Remove the intake manifold stay bolts (A) and the A/C compressor harness clamp (B).



11. Lower the vehicle on the lift.
12. Remove the water bypass hose (A) and the vacuum hose (B), then disconnect the throttle body connector (C).



13. Remove the water bypass hose (A).

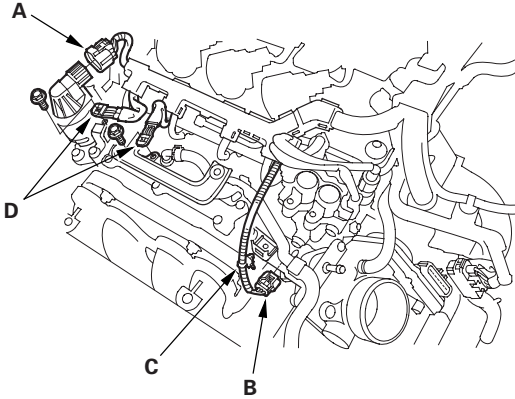


(cont'd)

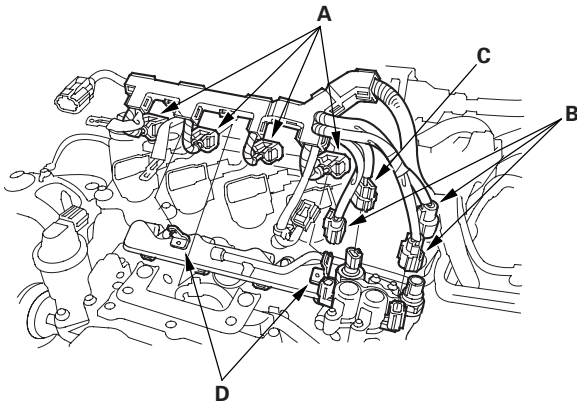
# Intake Manifold and Exhaust System

## Intake Manifold Removal and Installation (cont'd)

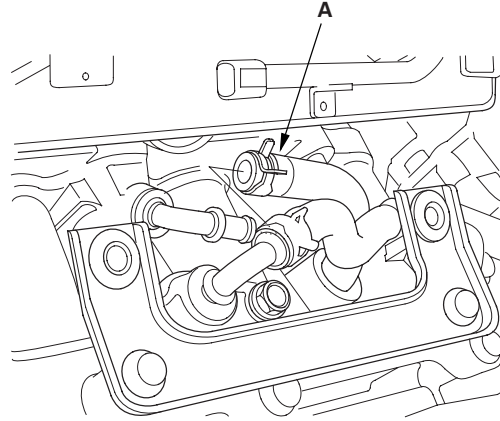
14. Disconnect the EGR harness connector (A), the intake manifold sub-harness connector (B), and the clamp (C), then remove the ground cables (D).



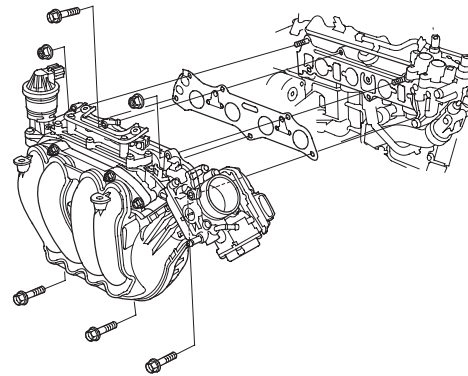
15. Disconnect the fuel injector harness connectors (A), rocker arm oil control solenoid valve connectors (B), and the engine oil pressure (EOP) sensor connector (C), then remove the engine wire harness from the clamps (D).

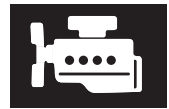


16. Remove the positive crankcase ventilation (PCV) hose (A).



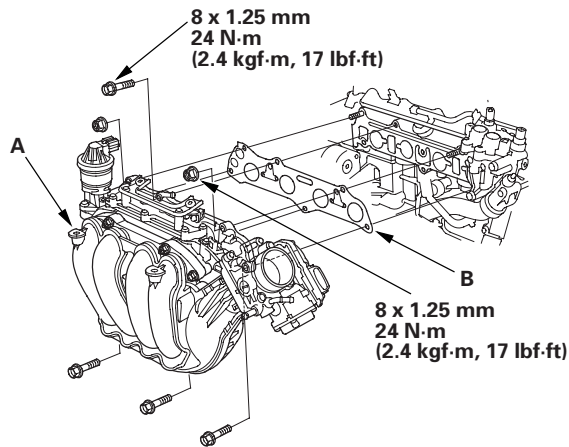
17. Remove the intake manifold assembly.



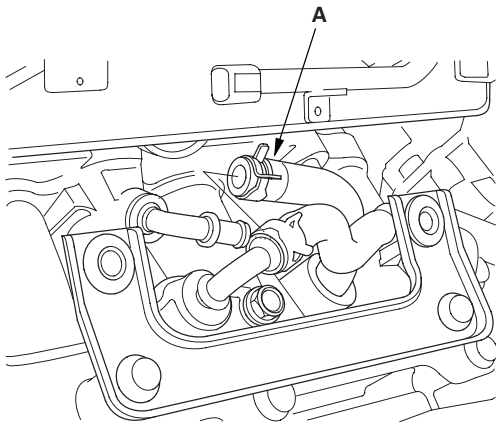


## Installation

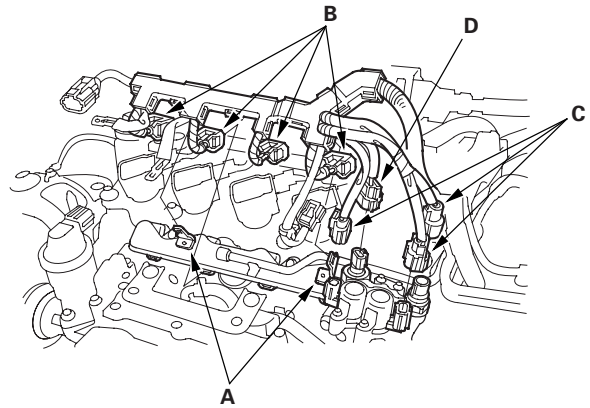
1. Install the intake manifold assembly (A) and tighten the bolts/nuts in a crisscross pattern in two or three steps, beginning with the inner bolt. Use a new gasket (B).



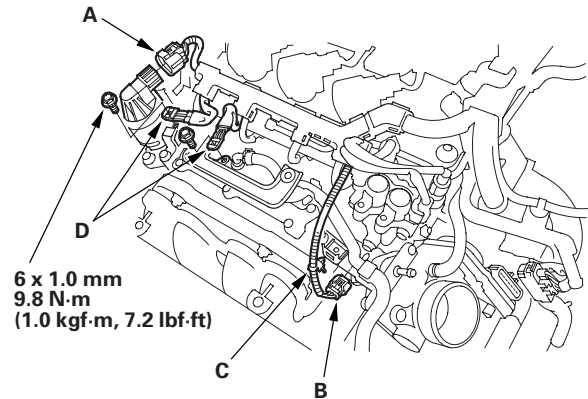
2. Install the PCV hose (A).



3. Connect the engine wire harness to the clamps (A), then connect the fuel injector harness connectors (B), rocker arm oil control solenoid valve connectors (C) and EOP sensor connector (D).



4. Connect the EGR harness connector (A), the intake manifold sub-harness connector (B), and the clamp (C), then install the ground cables (D).

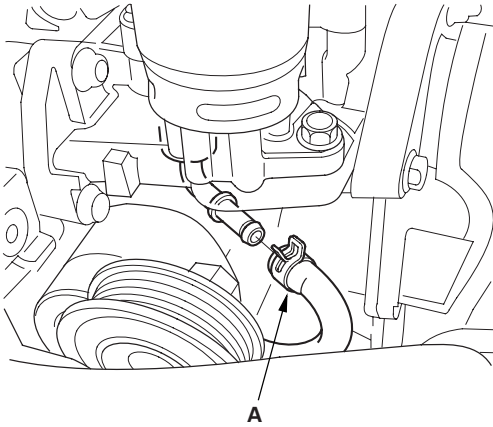


(cont'd)

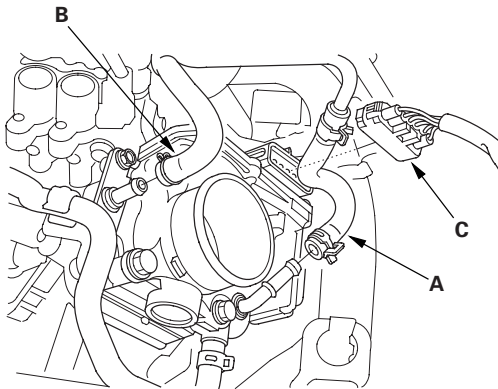
# Intake Manifold and Exhaust System

## Intake Manifold Removal and Installation (cont'd)

5. Install the water bypass hose (A).

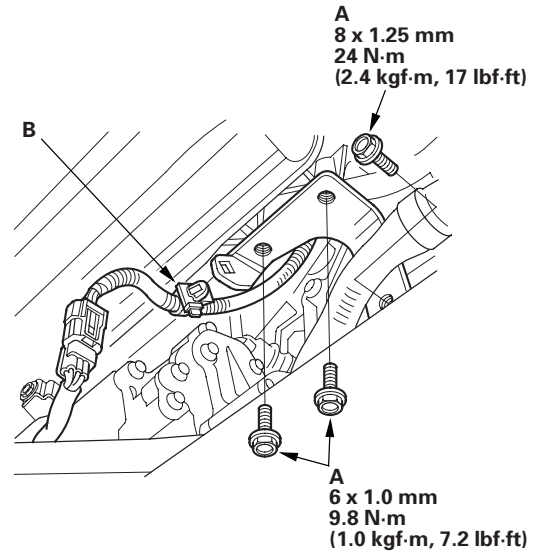


6. Install the water bypass hose (A) and the vacuum hose (B), then connect the throttle body connector (C).



7. Raise the vehicle on the lift to full height.

8. Install the intake manifold stay bolts (A), then install the A/C compressor harness clamp (B).

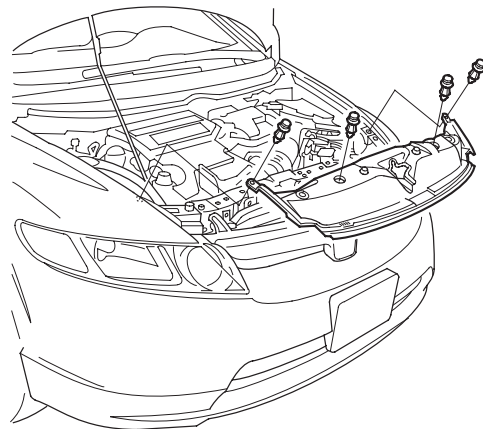


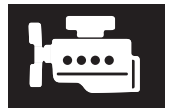
9. Install the splash shield (see step 42 on page 5-19).

10. Install the front wheels.

11. Lower the vehicle on the lift.

12. Install the front grill cover.





- 
13. Install the air cleaner assembly (see page 11-381).
  14. Install the intake air duct (see step 53 on page 5-20).
  15. Install the resonator (see page 11-383).
  16. Install the engine cover (see step 55 on page 5-21).
  17. Clean up any spilled engine coolant.
  18. After installation, check that all tubes, hoses, and connectors are installed correctly.
  19. Refill the radiator with engine coolant, and bleed air from the cooling system with the heater valve open (see step 8 on page 10-7).