

2007-08 ENGINE

Intake Manifold and Exhaust System - Element

INTAKE MANIFOLD REMOVAL AND INSTALLATION

EXPLODED VIEW

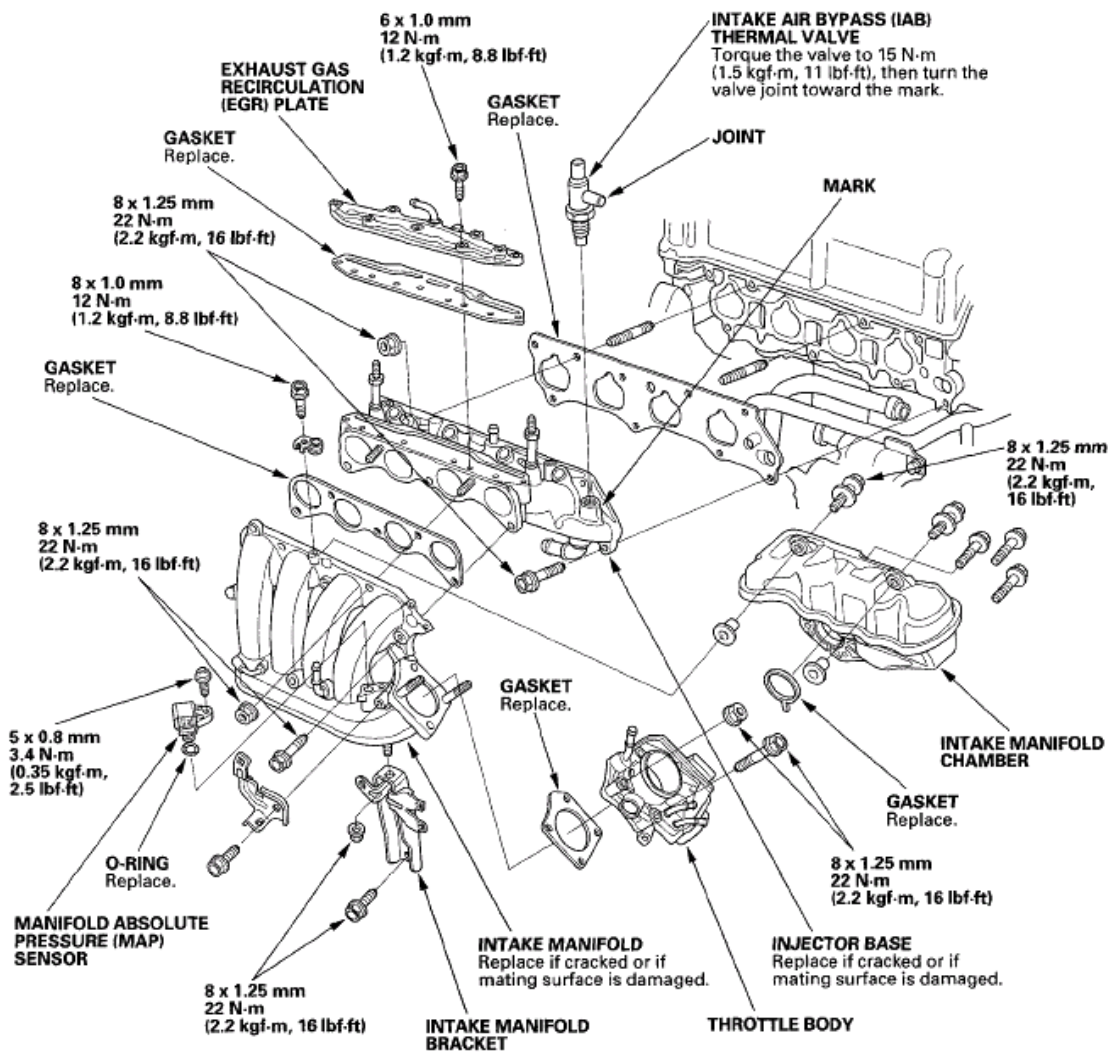


Fig. 1: Exploded View Of Intake Manifold With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

REMOVAL

1. Disconnect the mass air flow (MAF) sensor/intake air temperature (IAT) sensor connector (A).

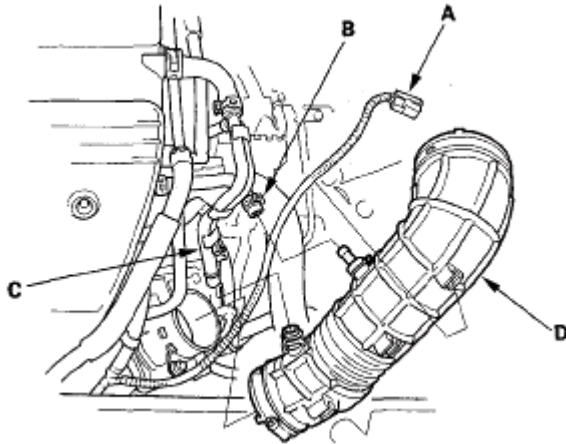


Fig. 2: Identifying Mass Air Flow (MAF) Sensor/Intake Air Temperature (IAT) Sensor Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Disconnect the vacuum hose (B) and breather pipe (C), then remove the intake air duct (D).
3. Remove the engine cover.

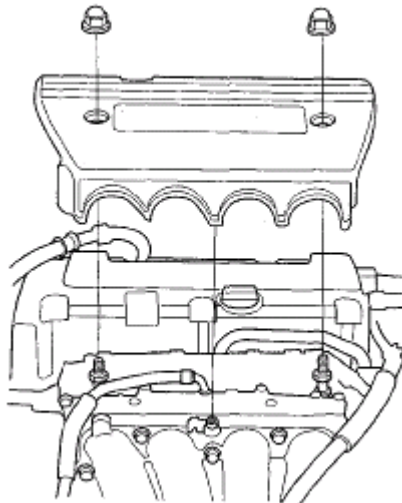


Fig. 3: Identifying Engine Cover
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the evaporative emission (EVAP) canister hose (A) manifold absolute pressure (MAP) sensor connector (B) and brake booster vacuum hose (C).

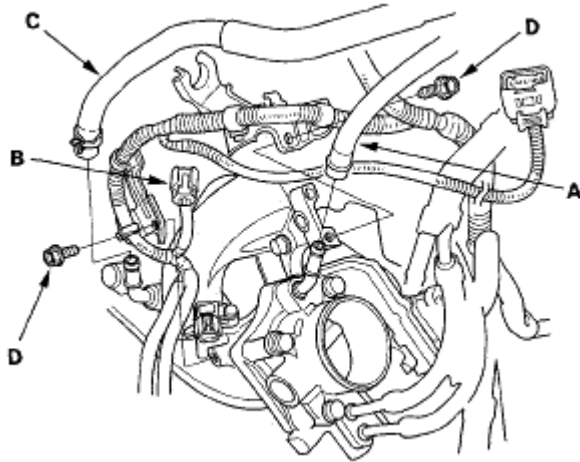


Fig. 4: Identifying Evaporative Emission Canister Hose, Manifold Absolute Pressure Sensor Connector And Brake Booster Vacuum Hose
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Remove the harness bracket mounting bolts (D).
6. Remove the water bypass hoses, then plug the water bypass hoses.
7. Disconnect the throttle actuator connector (A).

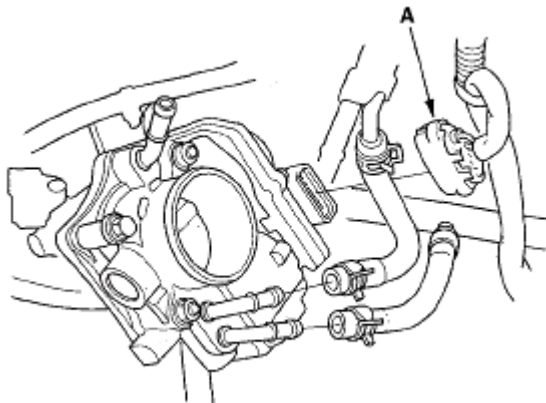


Fig. 5: Identifying Throttle Actuator Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Remove the front grille cover.

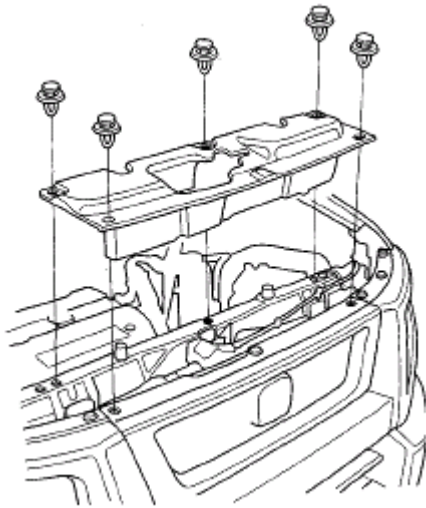


Fig. 6: Identifying Front Grille Cover

Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Disconnect the fan motor connectors (A) and engine coolant temperature (ECT) sensor 2 connector (B), then remove the harness clamps (C) and A/C compressor clutch connector (D).

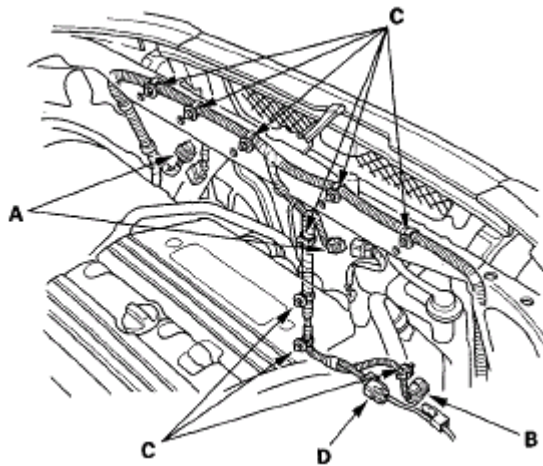


Fig. 7: Identifying Fan Motor Connectors, Engine Coolant Temperature Sensor Connector, Harness Clamps And A/C Compressor Clutch Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Remove the upper brackets and cushions (A), then remove the bulkhead (B).

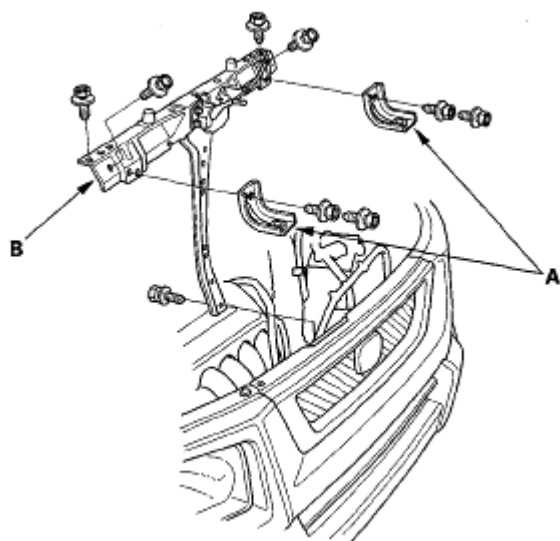


Fig. 8: Identifying Upper Brackets And Cushions Bulkhead
Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Remove the coolant reservoir (A), then remove the A/C condenser fan shroud (B).

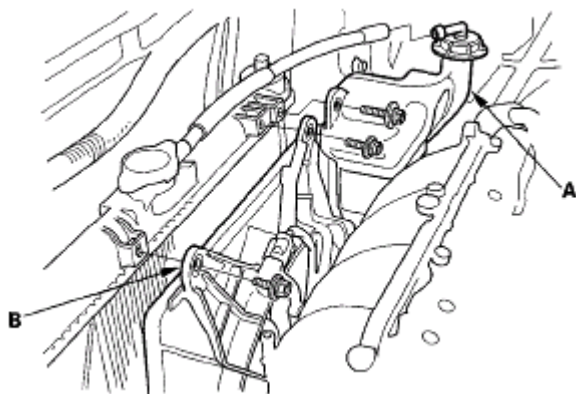


Fig. 9: Identifying Coolant Reservoir And A/C Condenser Fan Shroud
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Raise the vehicle on the lift.
13. Remove the connectors (A), then remove the intake manifold bracket (B).

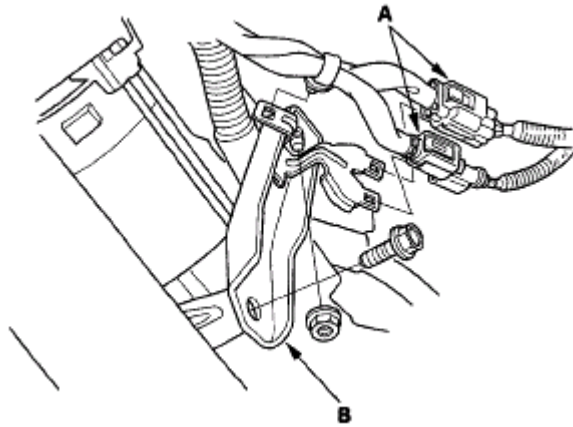


Fig. 10: Identifying Connectors And Intake Manifold Bracket
Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Lower the vehicle on the lift.
15. Remove the intake manifold.

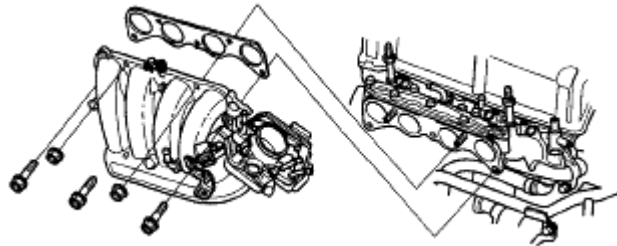


Fig. 11: Identifying Intake Manifold
Courtesy of AMERICAN HONDA MOTOR CO., INC.

INSTALLATION

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

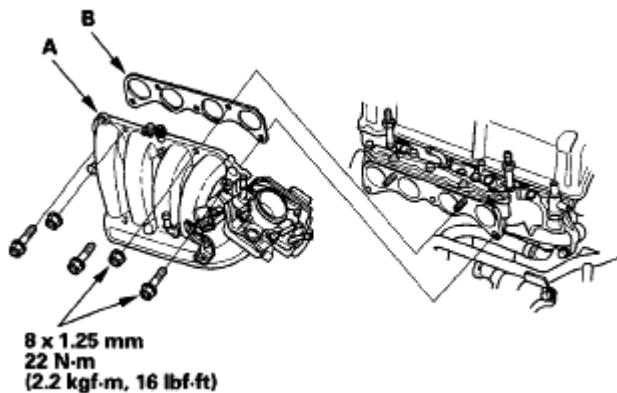


Fig. 12: Identifying Intake Manifold With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Raise the vehicle on the lift to full height.
3. Install the intake manifold bracket (A), then install the connectors (B).

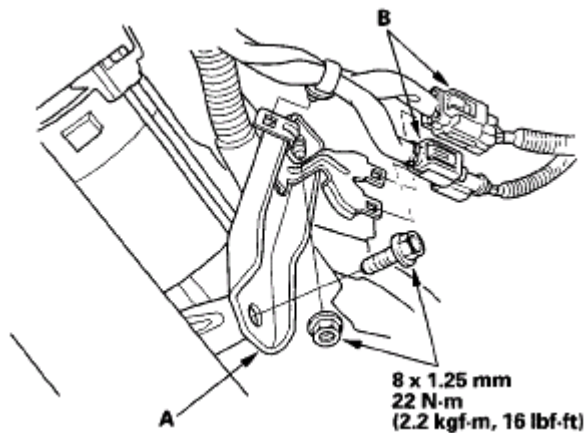


Fig. 13: Identifying Intake Manifold Bracket And Connectors With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Lower the vehicle on the lift.
5. Install the A/C condenser fan shroud (A), then install the coolant reservoir (B).

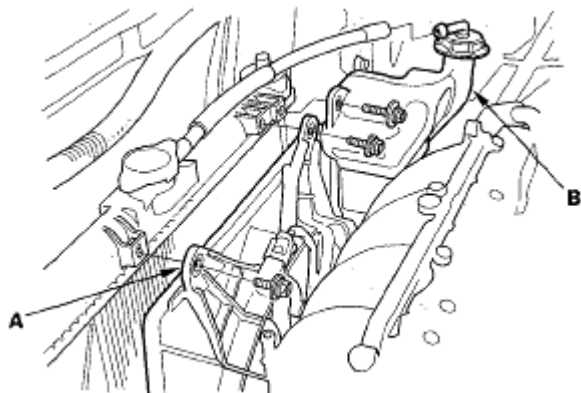


Fig. 14: Identifying A/C Condenser Fan Shroud And Coolant Reservoir
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the bulkhead (A), then install the upper bracket and cushions (B).

2007 Honda Element EX

2007-08 ENGINE Intake Manifold and Exhaust System - Element

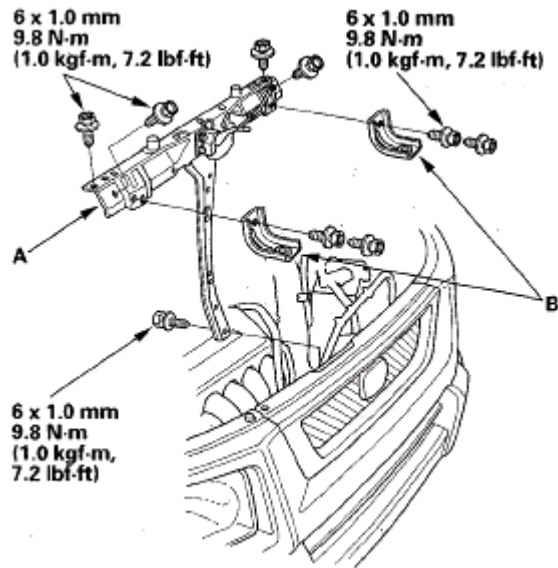


Fig. 15: Identifying Bulkhead, Upper Bracket And Cushions With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the A/C compressor clutch connector (A) and harness clamps (B), then connect the engine coolant temperature (ECT) sensor 2 connector (C) and fan motor connectors (D).

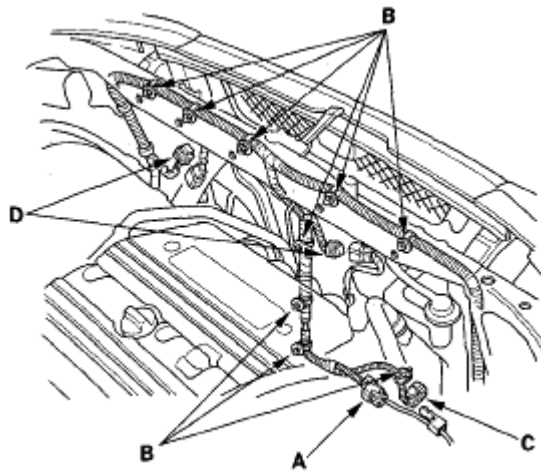


Fig. 16: Identifying A/C Compressor Clutch Connector, Harness Clamps, And Engine Coolant Temperature (ECT) Sensor Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Install the front grille cover.

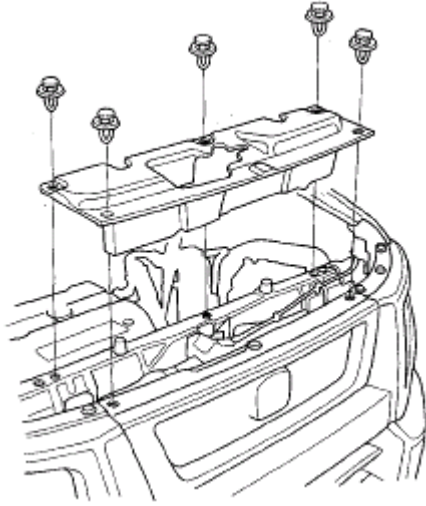


Fig. 17: Identifying Front Grille Cover

Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Install the water bypass hoses.
10. Connect the throttle actuator connector (A).

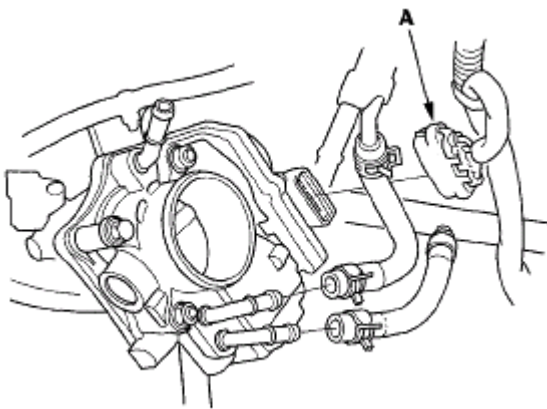


Fig. 18: Identifying Throttle Actuator Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Install the evaporative emission (EVAP) canister hose (A), manifold absolute pressure (MAP) sensor connector (B) and brake booster vacuum hose (C).

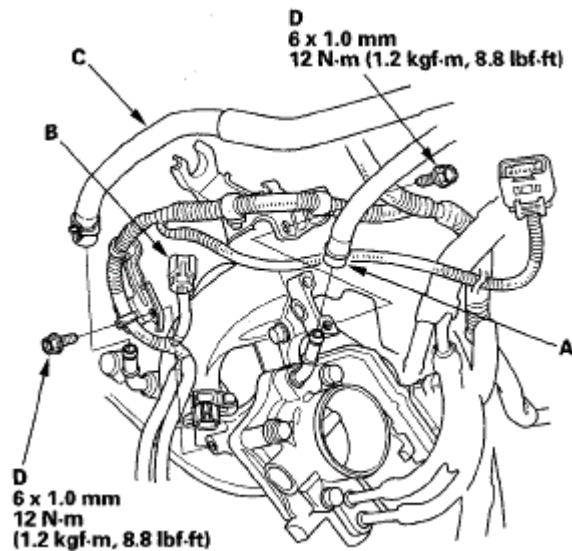


Fig. 19: Identifying Evaporative Emission Canister Hose, Manifold Absolute Pressure Sensor Connector And Brake Booster Vacuum Hose With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Install the harness bracket mounting bolts (D).

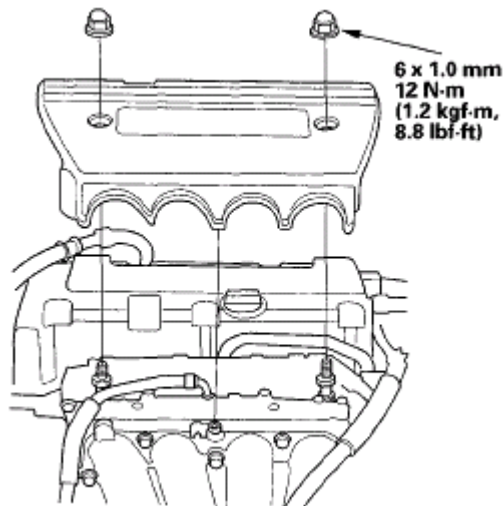


Fig. 20: Identifying Harness Bracket Mounting Bolts With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

13. Install the engine cover.
14. Install the intake air duct (A), then connect the mass airflow (MAF) sensor/intake air temperature (IAT) sensor connector (B), and connect the vacuum hose (C) and breather pipe (D).

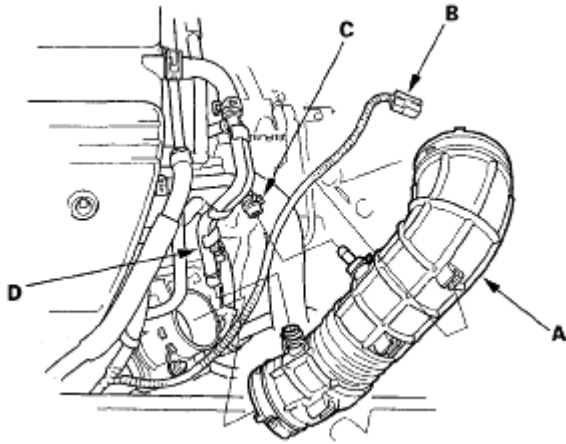


Fig. 21: Identifying Intake Air Duct, Mass Airflow Sensor/Intake Air Temperature Sensor Connector And Vacuum Hose

Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Clean up any spilled engine coolant.
16. After installation, check that all tubes, hoses, and connectors are installed correctly.
17. Refill the radiator with engine coolant, and bleed air from the cooling system with the heater valve open (see step 7 on **COOLANT REPLACEMENT**).

EXHAUST MANIFOLD REMOVAL AND INSTALLATION

1. Remove the rocker arm oil control solenoid (VTEC solenoid valve) (see **ROCKER ARM OIL CONTROL VALVE REMOVAL/INSTALLATION**).
2. Remove the intermediate shaft heat cover (see step 3 on **INTERMEDIATE SHAFT REMOVAL**).
3. Remove the cover and exhaust manifold bracket, then remove the exhaust manifold.

2007 Honda Element EX

2007-08 ENGINE Intake Manifold and Exhaust System - Element

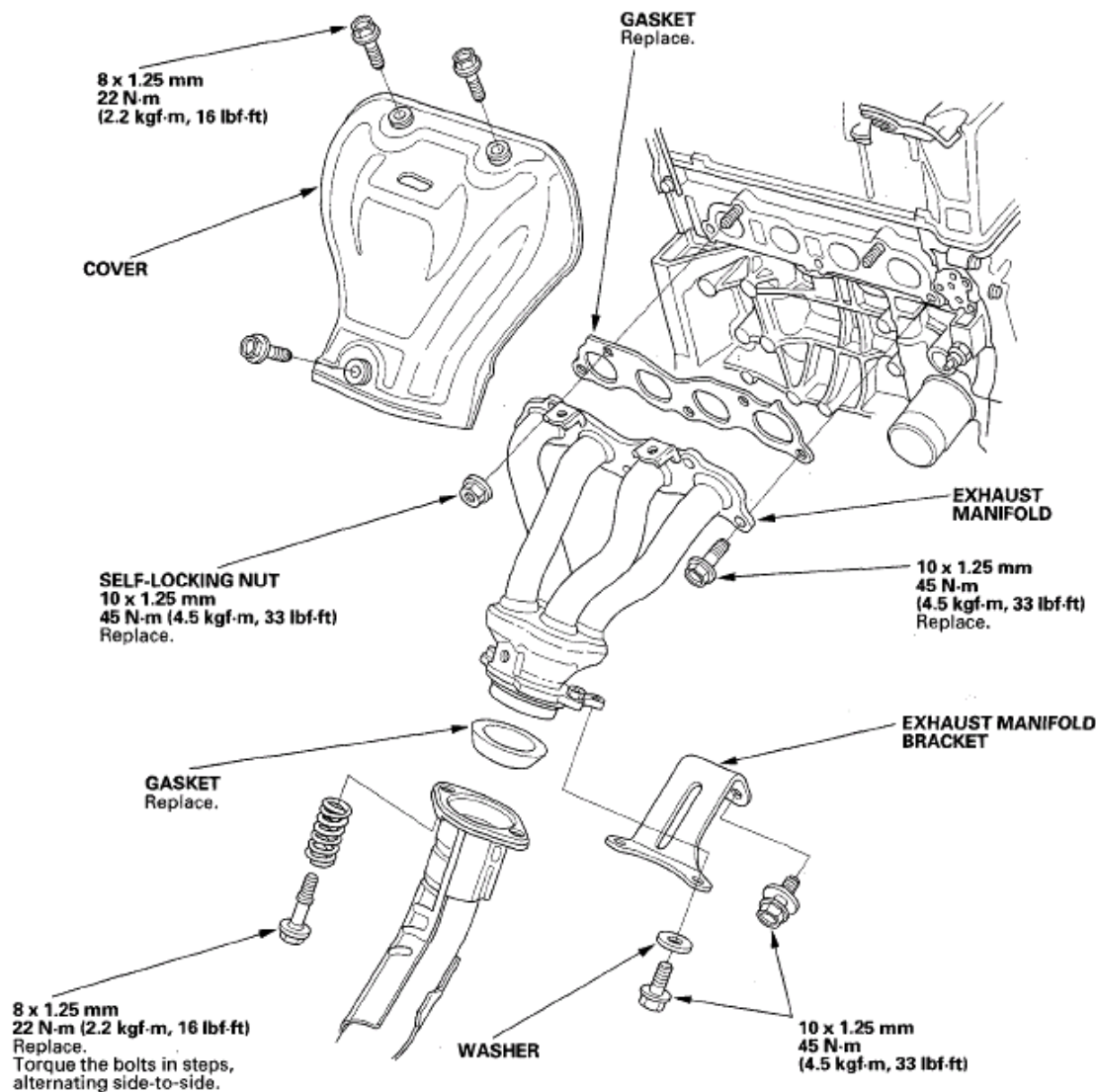


Fig. 22: Identifying Exhaust Manifold Components With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the exhaust manifold and torque the bolts/nuts in a crisscross pattern in two or three steps, beginning with the inner bolt.
5. Install the exhaust manifold in the reverse order of removal.

EXHAUST PIPE AND MUFFLER REPLACEMENT

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

2007 Honda Element EX

2007-08 ENGINE Intake Manifold and Exhaust System - Element

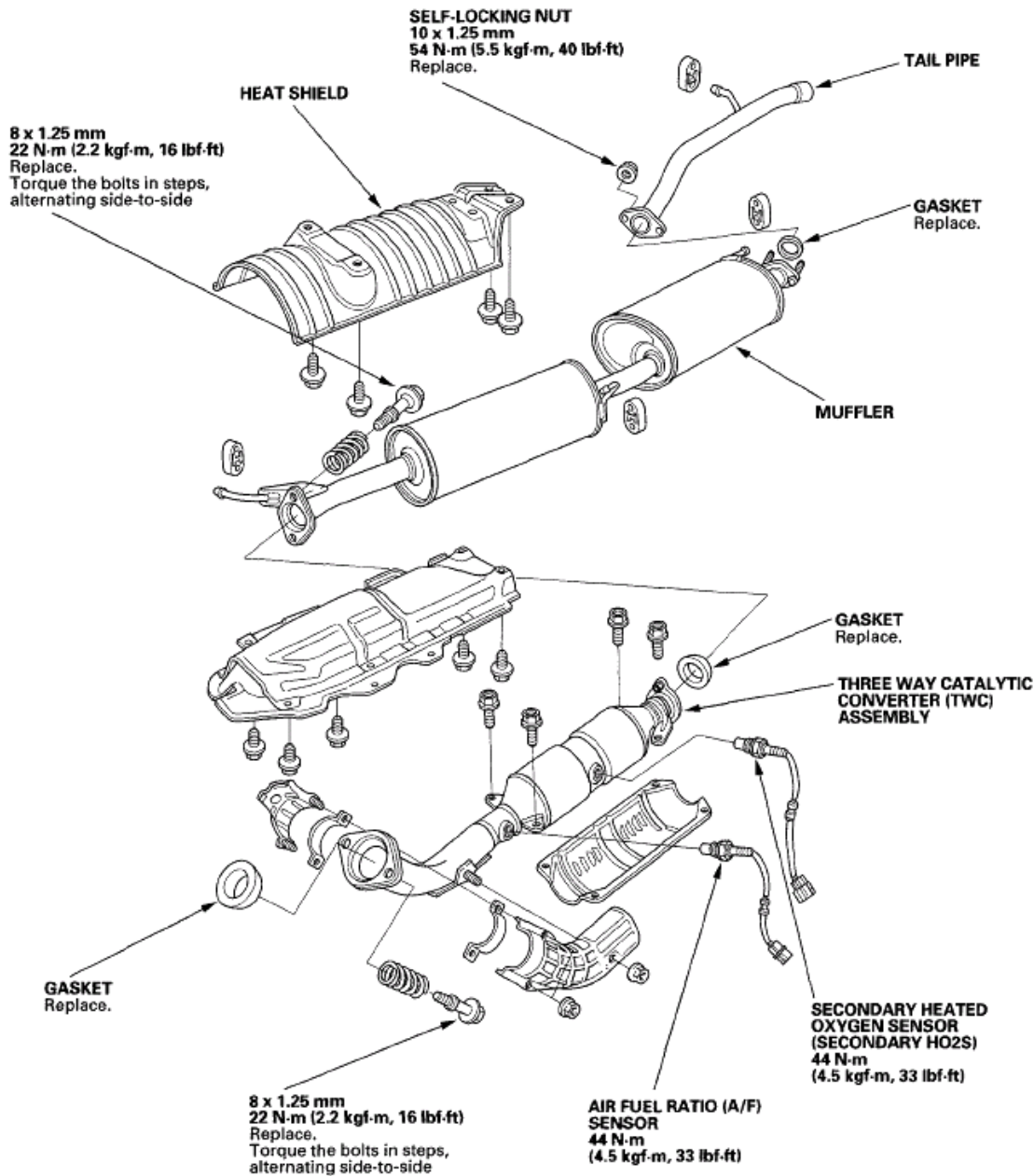


Fig. 23: Identifying Exhaust Pipe And Muffler Components With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.