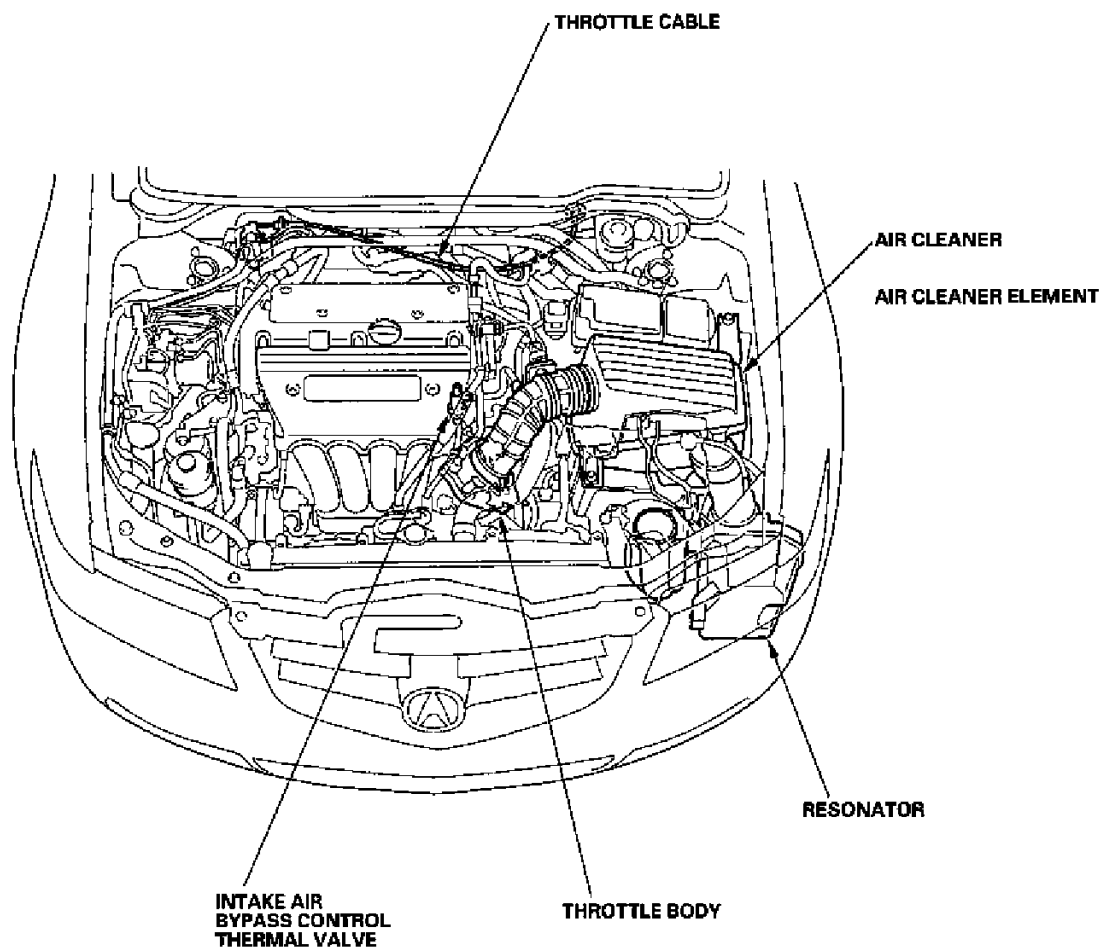


2004 ENGINE PERFORMANCE

Intake Air System - TSX

COMPONENT LOCATION INDEX

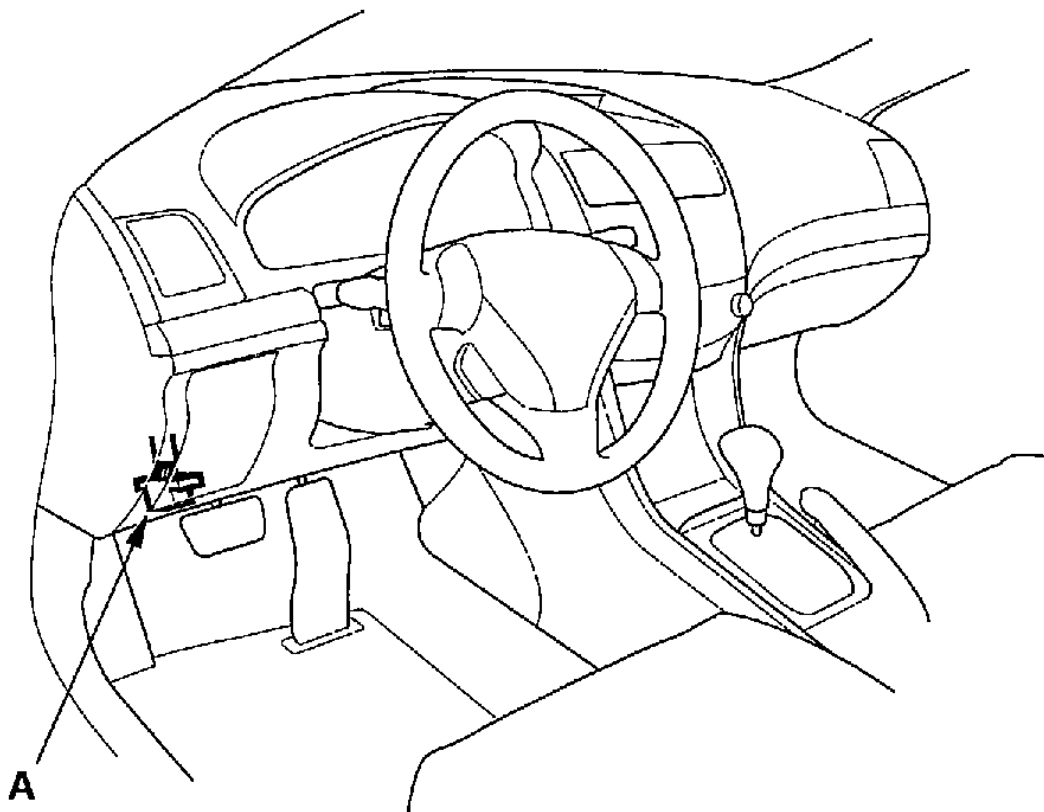


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Fig. 1: Locating Intake Air System Components

THROTTLE BODY TEST

1. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.



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Fig. 2: Connecting The HDS To The Data Link Connector (DLC) Located Under The Driver's Side Of The Dashboard

2. Start the engine. Hold the engine at 3,000 RPM with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Check the TP SENSOR A in the DATA LIST with the HDS. The reading should be above 2.73%. If it is not, clean the throttle body (see **THROTTLE BODY CLEANING**).

THROTTLE BODY CLEANING

CAUTION:

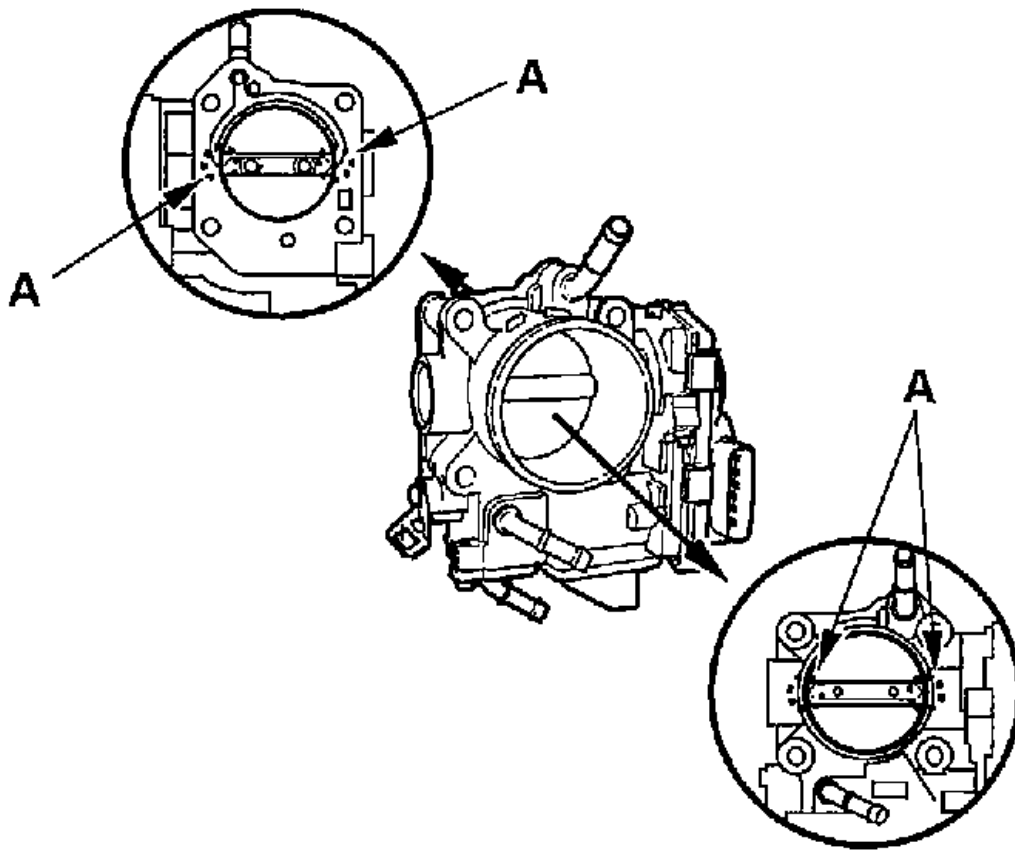
- Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, there will be serious injury to your fingers if the throttle body is activated.

1. Check for damage to the air cleaner.
2. Remove the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).

3. Wipe off the carbon from the throttle valve and inside the throttle body with a paper towel soaked in carburetor cleaner.

NOTE:

- Remove the throttle body, while cleaning it.
- Be careful not to pinch your fingers.
- To avoid removing the molybdenum coating, do not clean the bearing area of the throttle shaft (A).
- Do not spray carburetor cleaner directly on the throttle body.
- Use Honda genuine carburetor cleaner.



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Fig. 3: Do Not Clean The Bearing Area Of The Throttle Shaft

4. Install the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).

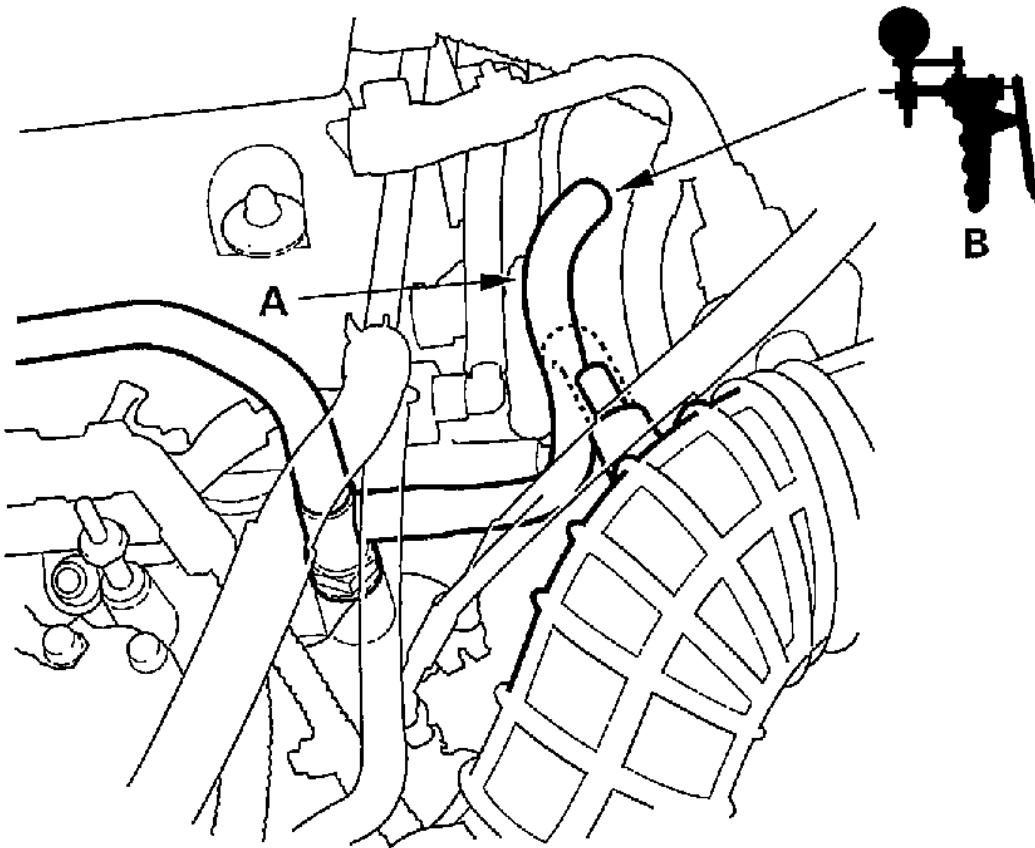
5. Reset the ECM/PCM with the HDS.
6. Turn the ignition switch ON (II), and wait for 2 seconds.
7. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).

INTAKE AIR BYPASS CONTROL THERMAL VALVE TEST

1. Start the engine, and let it idle.

NOTE: The engine coolant temperature must be below 131°F (55°C).

2. Remove the vacuum hose (A) from the intake air duct, and connect a vacuum pump/gauge (B) to the hose.



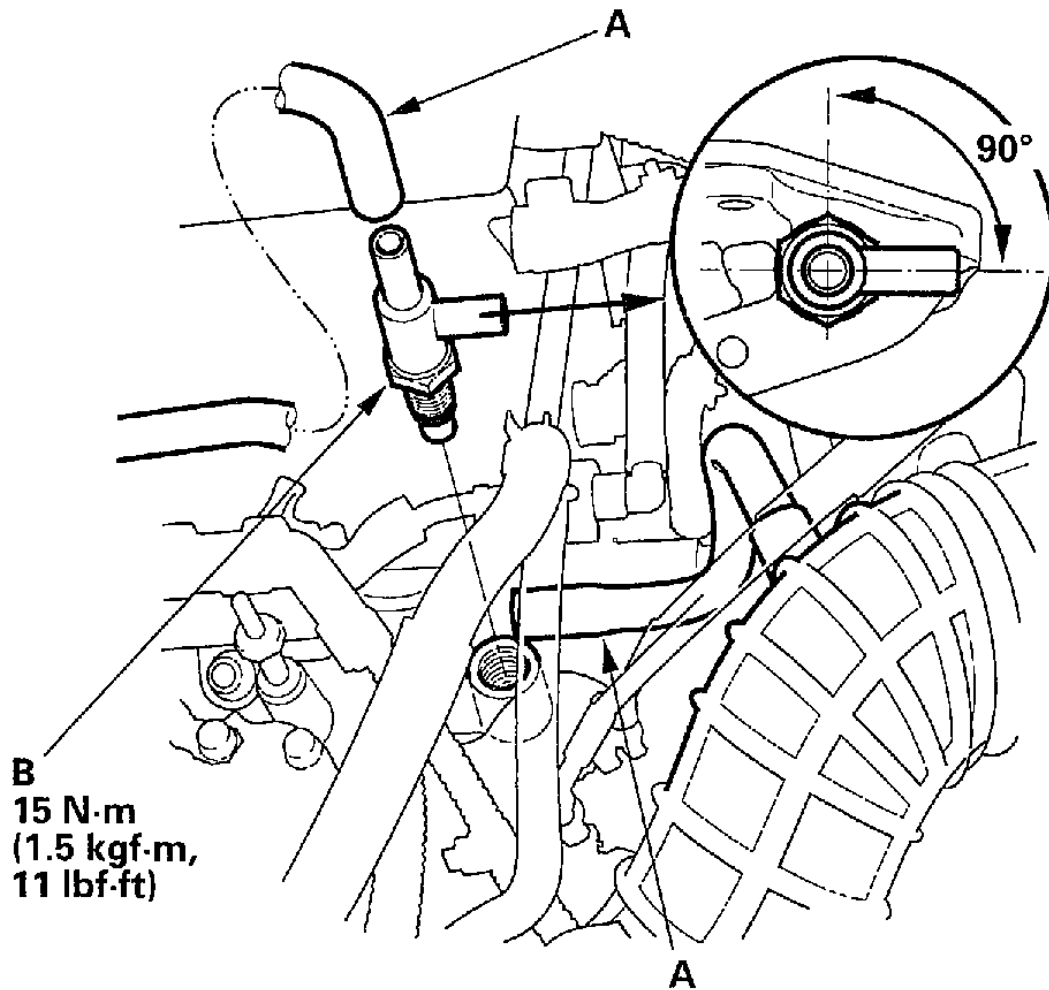
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Fig. 4: Testing Intake Air Bypass Control Thermal Valve

3. Raise and lower the engine speed; the vacuum gauge reading should change as the engine speed changes. If the vacuum reading does not change, check for these problems:
 - Misrouted, leaking, broken, or clogged intake air bypass control system vacuum lines.
 - A cracked or damaged intake air bypass control thermal valve.
4. Hold the engine at 3,000 RPM with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
5. Raise and lower the engine speed; the vacuum gauge reading should be zero. If there is a vacuum reading, check for these problems:
 - Misrouted, leaking, broken, or clogged intake air bypass control system vacuum lines.
 - A cracked or damaged intake air bypass control thermal valve.

INTAKE AIR BYPASS CONTROL THERMAL VALVE REPLACEMENT

1. Remove the intake manifold cover (see step 3 of **REMOVAL**).
2. Remove the air intake boot.
3. Remove the throttle cable bracket.
4. Disconnect the hoses (A).



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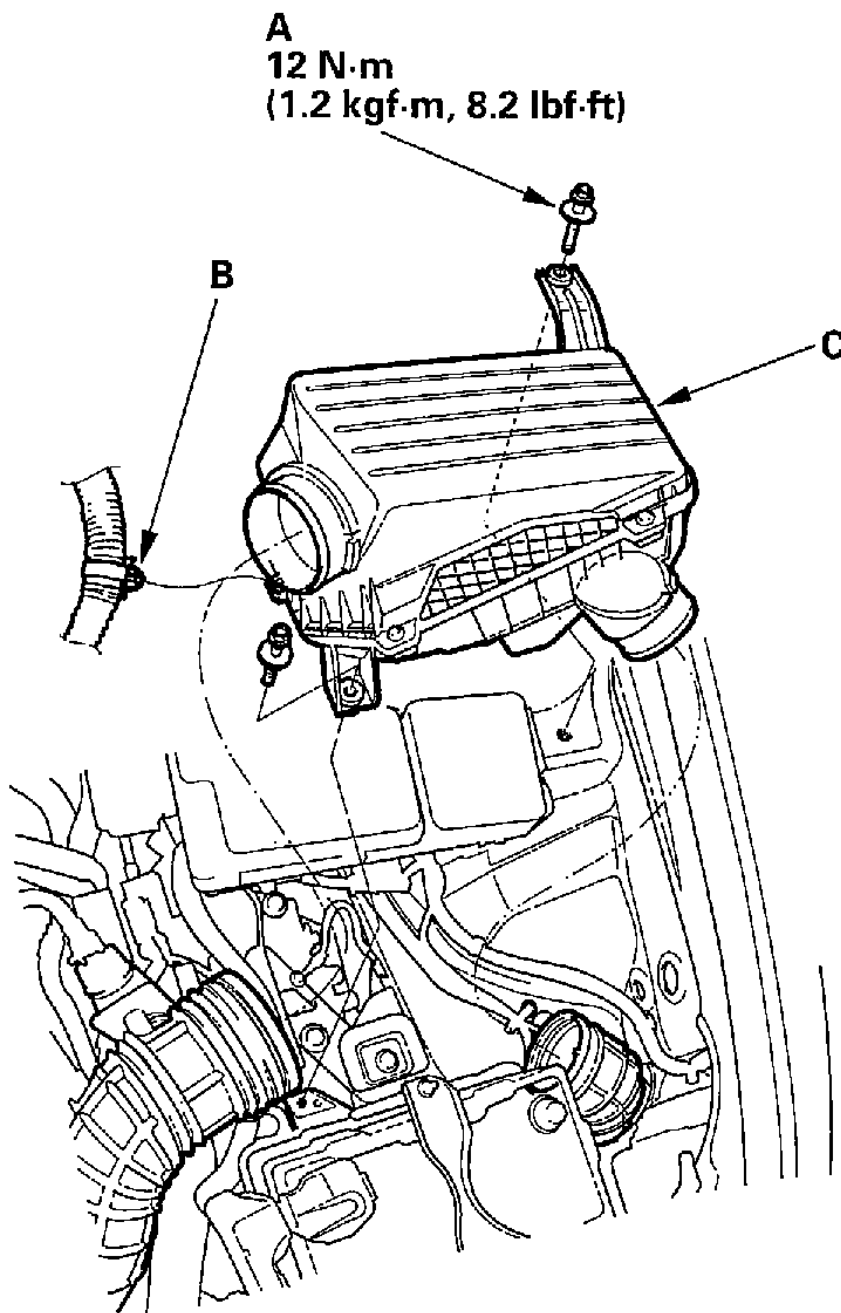
Fig. 5: Removing The Intake Air Bypass Control Thermal Valve

5. Remove the intake air bypass control thermal valve (B).
6. Install the valve in the reverse order of removal.

NOTE: Position the valve angle as shown.

AIR CLEANER REMOVAL/INSTALLATION

1. Remove the bolts (A) and clamp (B).



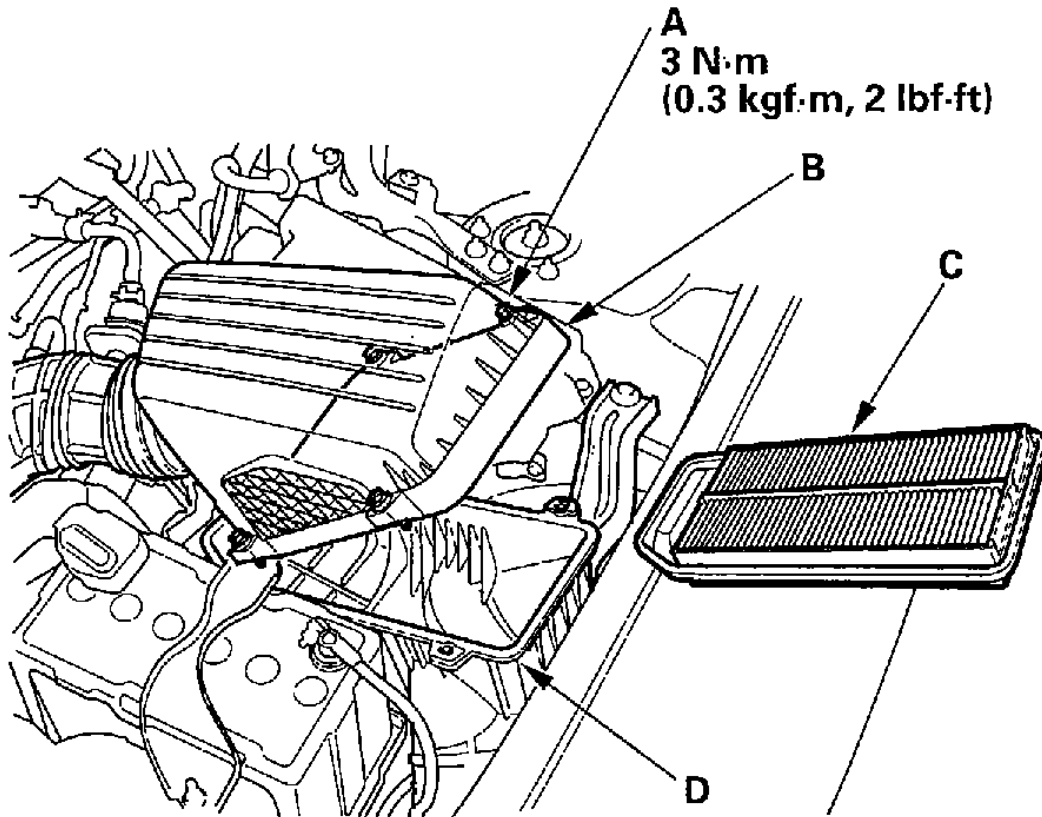
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Fig. 6: Removing The Air Cleaner

2. Remove the air cleaner (C).
3. Install the parts in the reverse order of removal.

AIR CLEANER ELEMENT REPLACEMENT

1. Remove the air cleaner bolts (A) and the air cleaner housing cover (B).



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Fig. 7: Removing The Air Cleaner Element

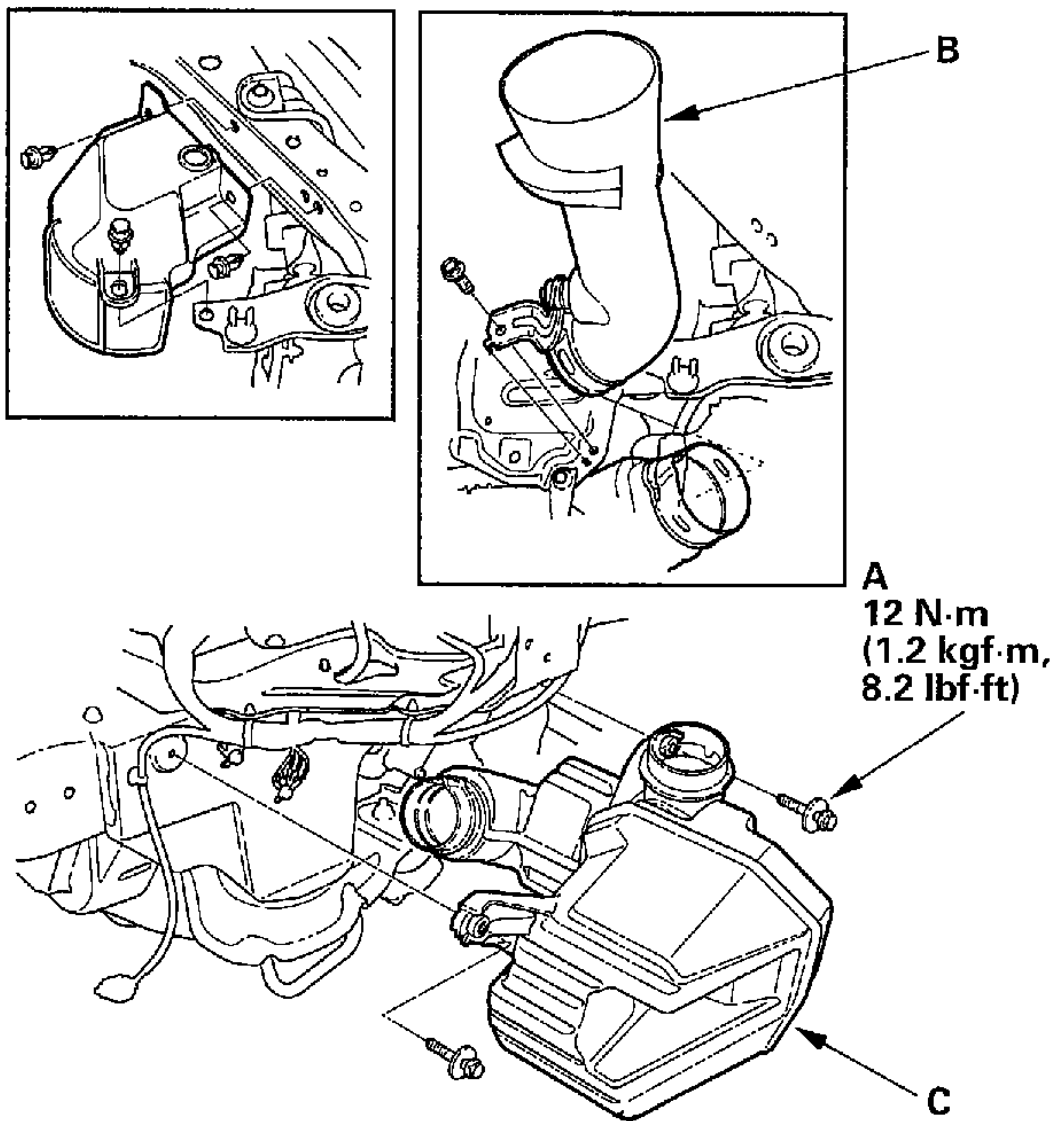
2. Remove the air cleaner element (C) from the air cleaner housing (D).

NOTE: Do not use compressed air to clean the air cleaner element.

3. Install the parts in the reverse order of removal.

RESONATOR REMOVAL/INSTALLATION

1. Remove the front bumper (see **FRONT BUMPER REMOVAL/INSTALLATION**).
2. Remove the bolts (A), and the intake air duct (B).



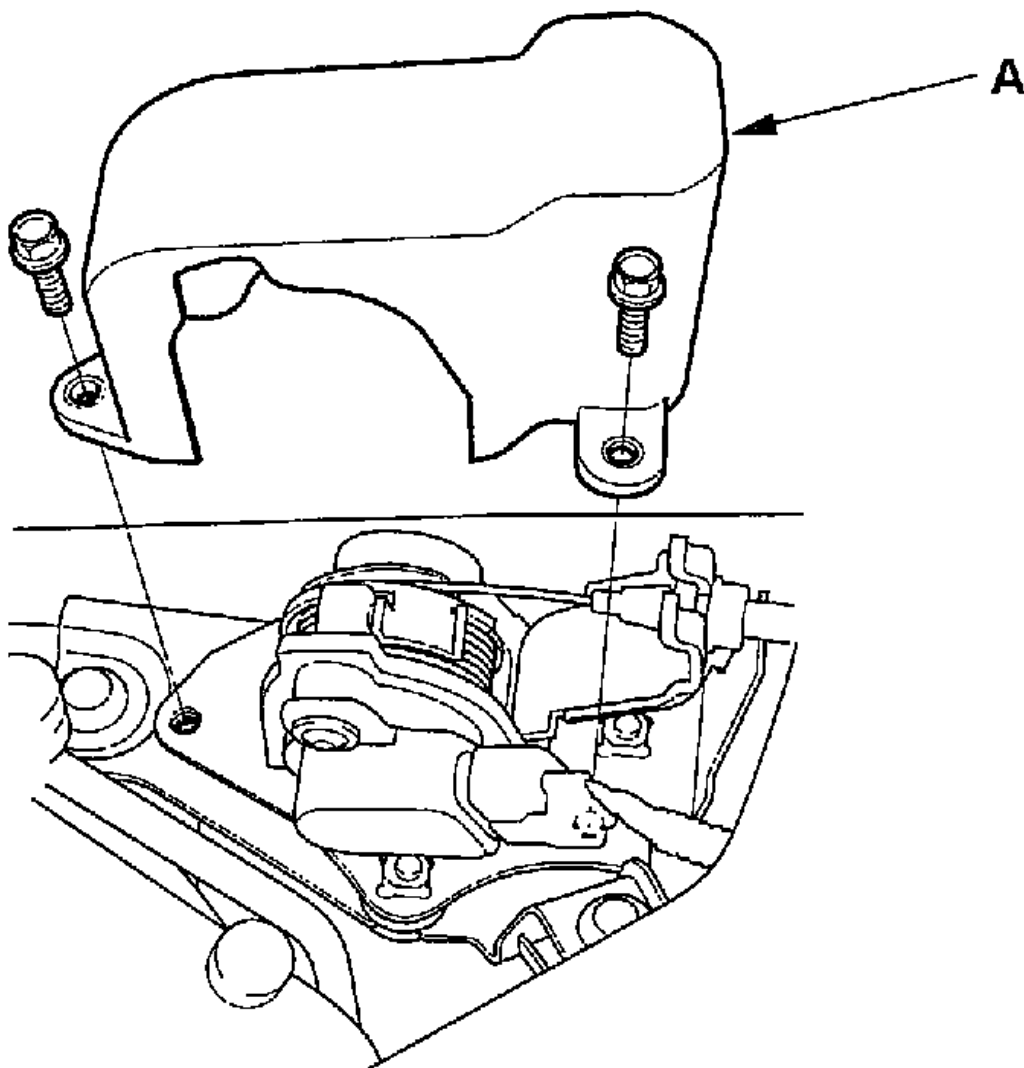
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Fig. 8: Removing The Resonator

3. Remove the resonator (C).
4. Install the parts in the reverse order of removal.

THROTTLE CABLE ADJUSTMENT

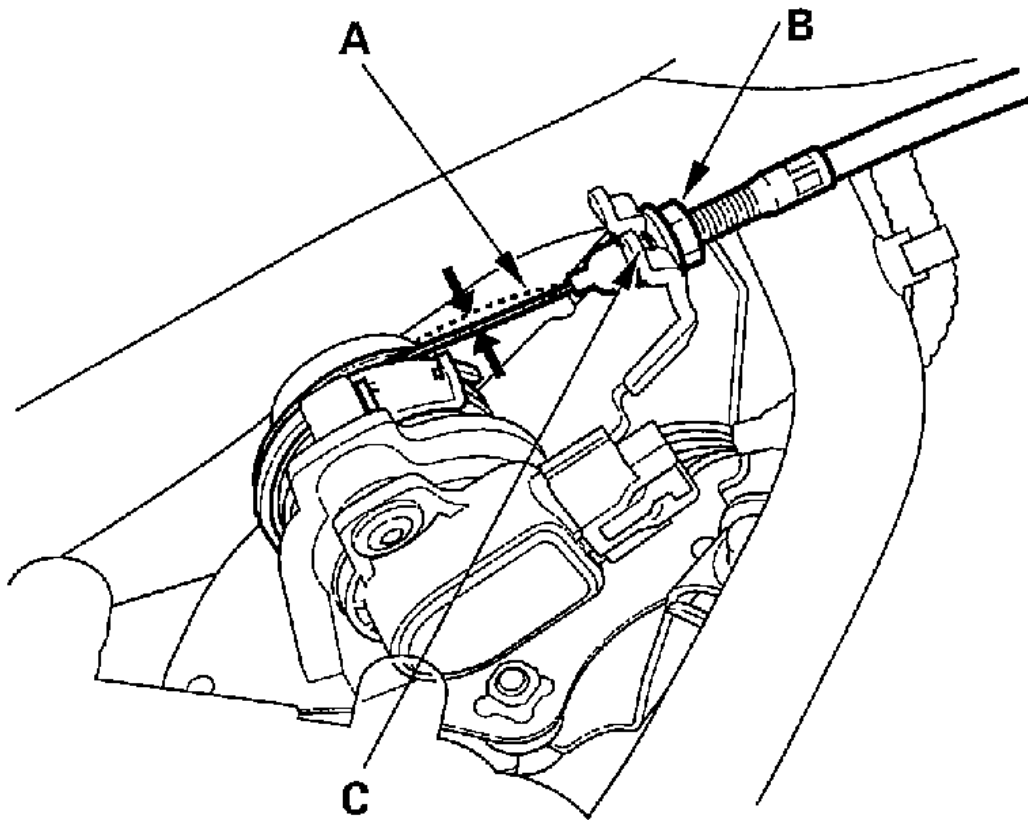
1. Remove the throttle cable cover (A).



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Fig. 9: Removing The Throttle Cable Cover

2. Check cable free play at the throttle linkage. Cable free play (A) should be 15-18 mm (9/16-11/16 in.).



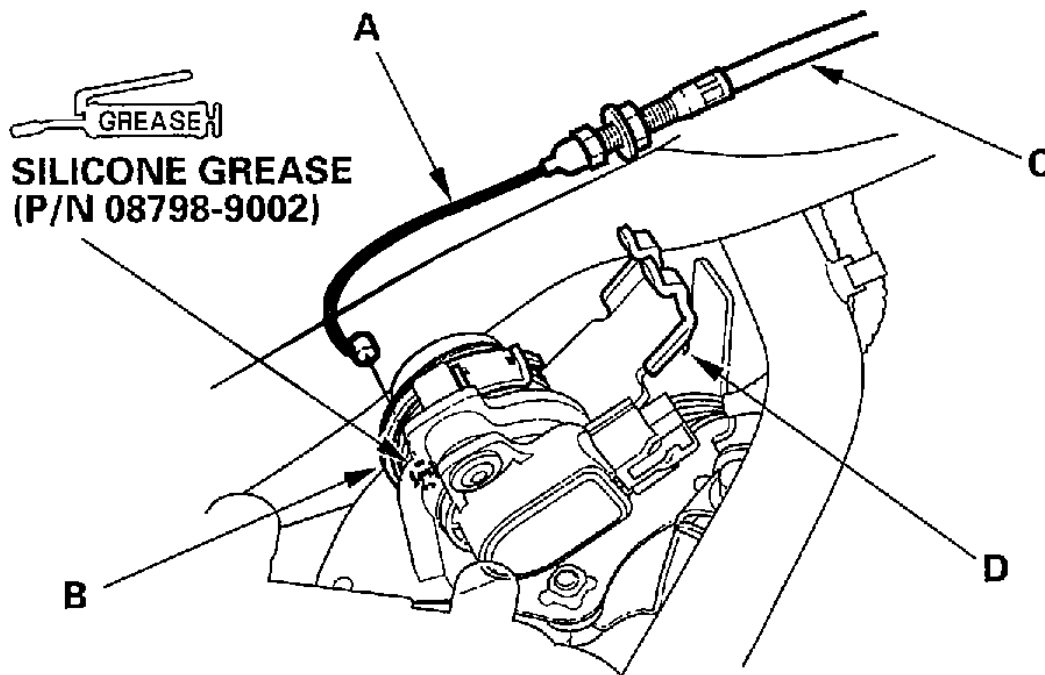
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Fig. 10: Checking Cable Free Play

3. If the free play is not within spec (15-18 mm, 9/16-11/16 in.), loosen the locknut (B), turn the adjusting nut (C) until the deflection is as specified, then retighten the locknut.
4. With the cable properly adjusted, check the throttle valve to be sure it opens fully when you push the accelerator pedal to the floor. Also check the throttle valve to be sure it returns to the idle position whenever you release the accelerator pedal.

THROTTLE CABLE REMOVAL/INSTALLATION

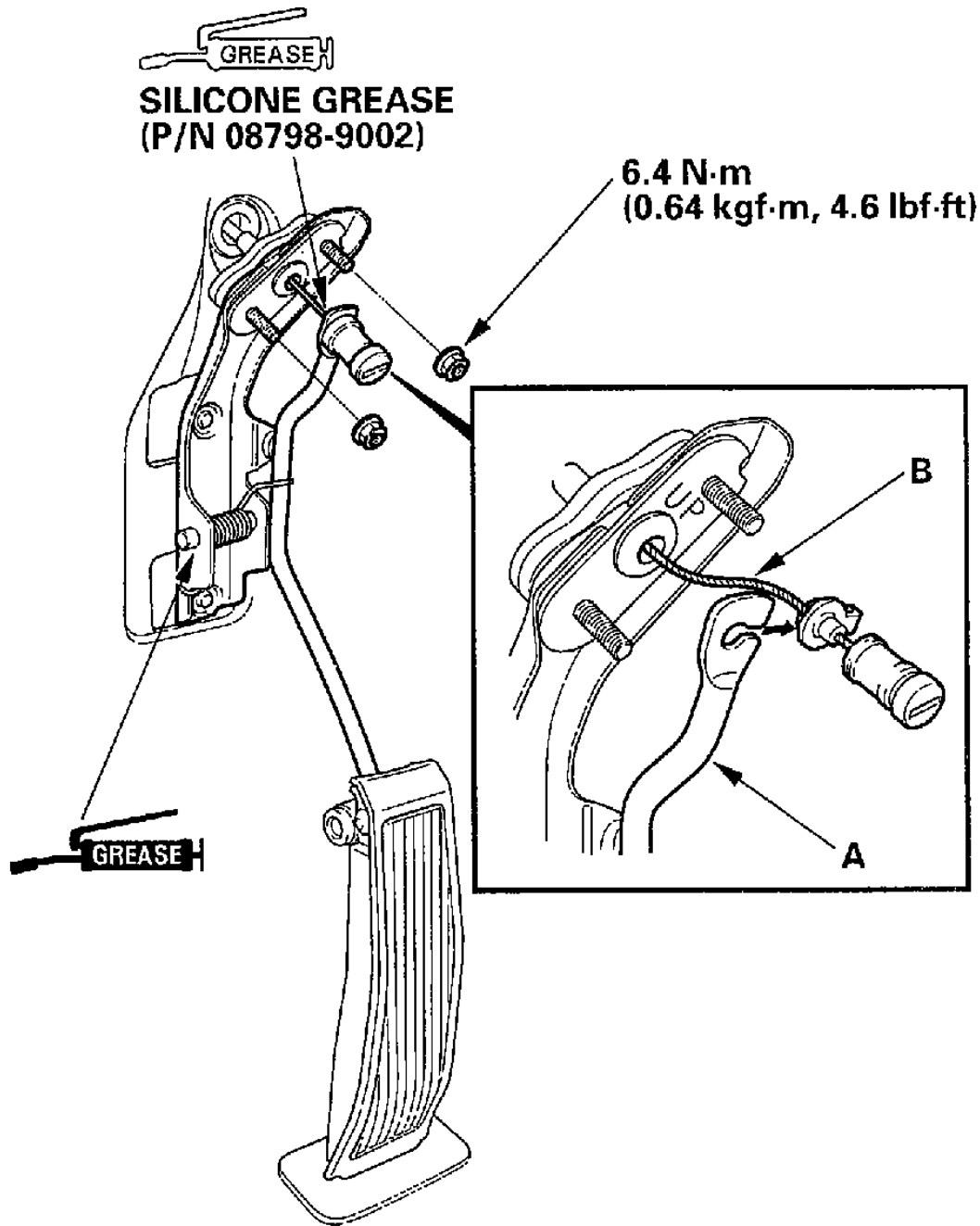
1. Remove the throttle cable cover (see **THROTTLE CABLE ADJUSTMENT**).
2. Fully open the throttle valve, then remove the throttle cable (A) from the throttle link (B).



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Fig. 11: Removing The Throttle Cable From The Throttle Link

3. Remove the cable housing (C) from the cable bracket (D).
4. Remove the throttle cable (B) from the accelerator (A).



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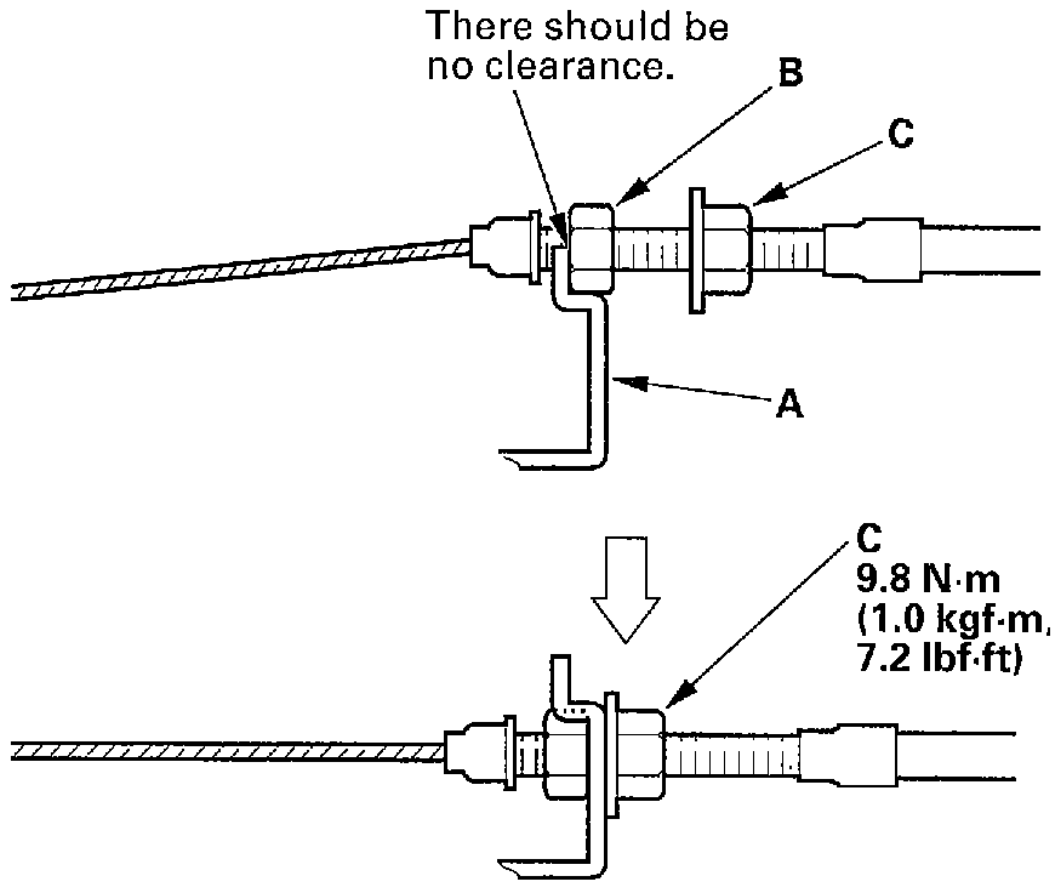
Fig. 12: Removing The Throttle Cable From The Accelerator

5. Install the cable in the reverse order of removal.
6. Start the engine. Hold the engine at 3,000 RPM with no load (in park or neutral) until the radiator fan

comes on, then let it idle.

7. Hold the cable, removing all slack from it.
8. Set the cable on the bracket (A).

Turn the adjusting nut (B) so that its free play is 0 mm.



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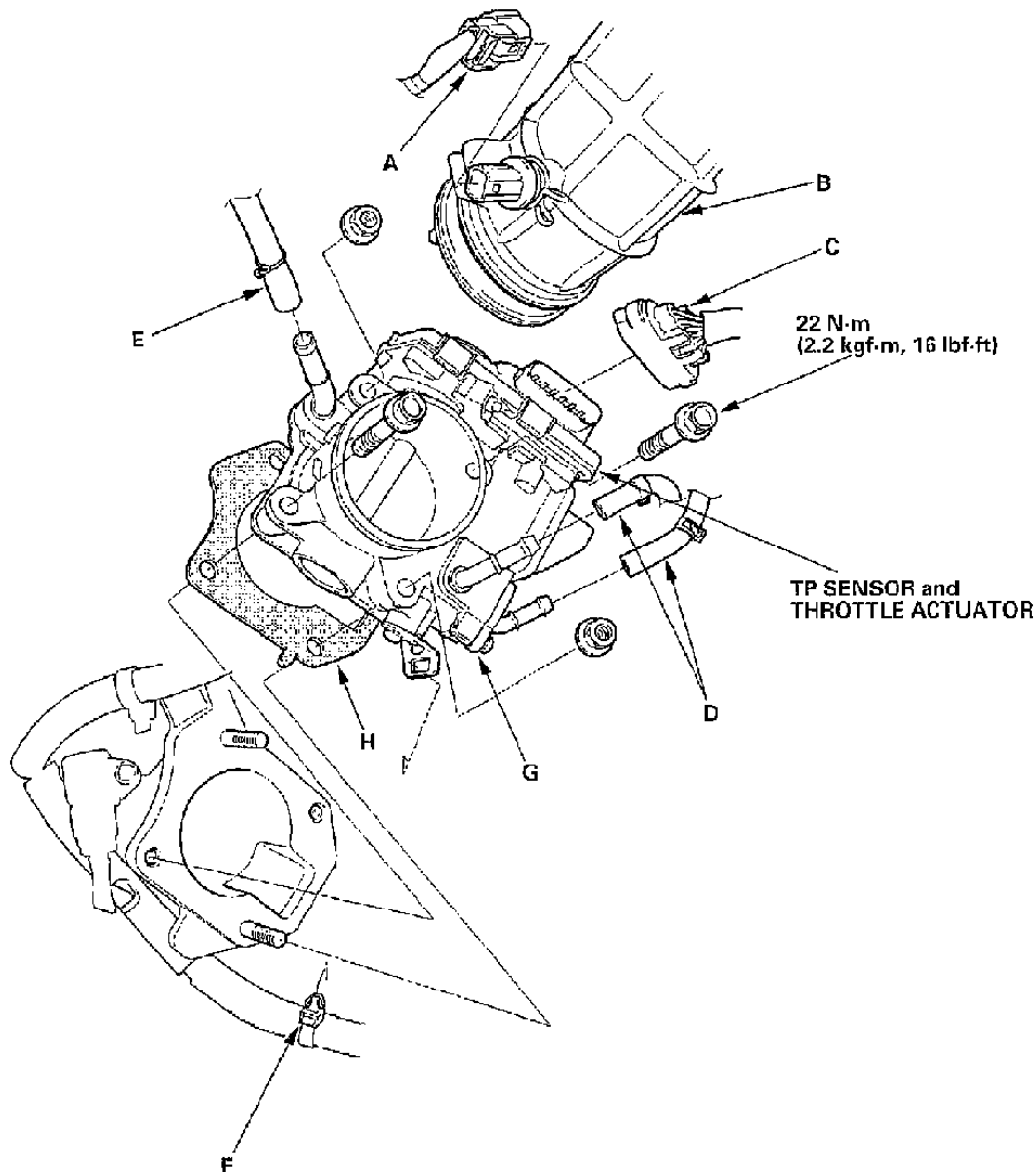
Fig. 13: Adjusting Throttle Cable

9. Position the adjusting nut on the other side of the bracket (A), then tighten the locknut (C).
10. With the cable properly adjusted, check the throttle link to be sure it opens fully when you push the accelerator pedal to the floor. Also check the throttle link to be sure it returns whenever you release the accelerator pedal.

THROTTLE BODY REMOVAL/INSTALLATION

CAUTION: Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, there will be serious injury to your fingers if the throttle valve is activated.

1. Disconnect the IAT sensor connector (A).

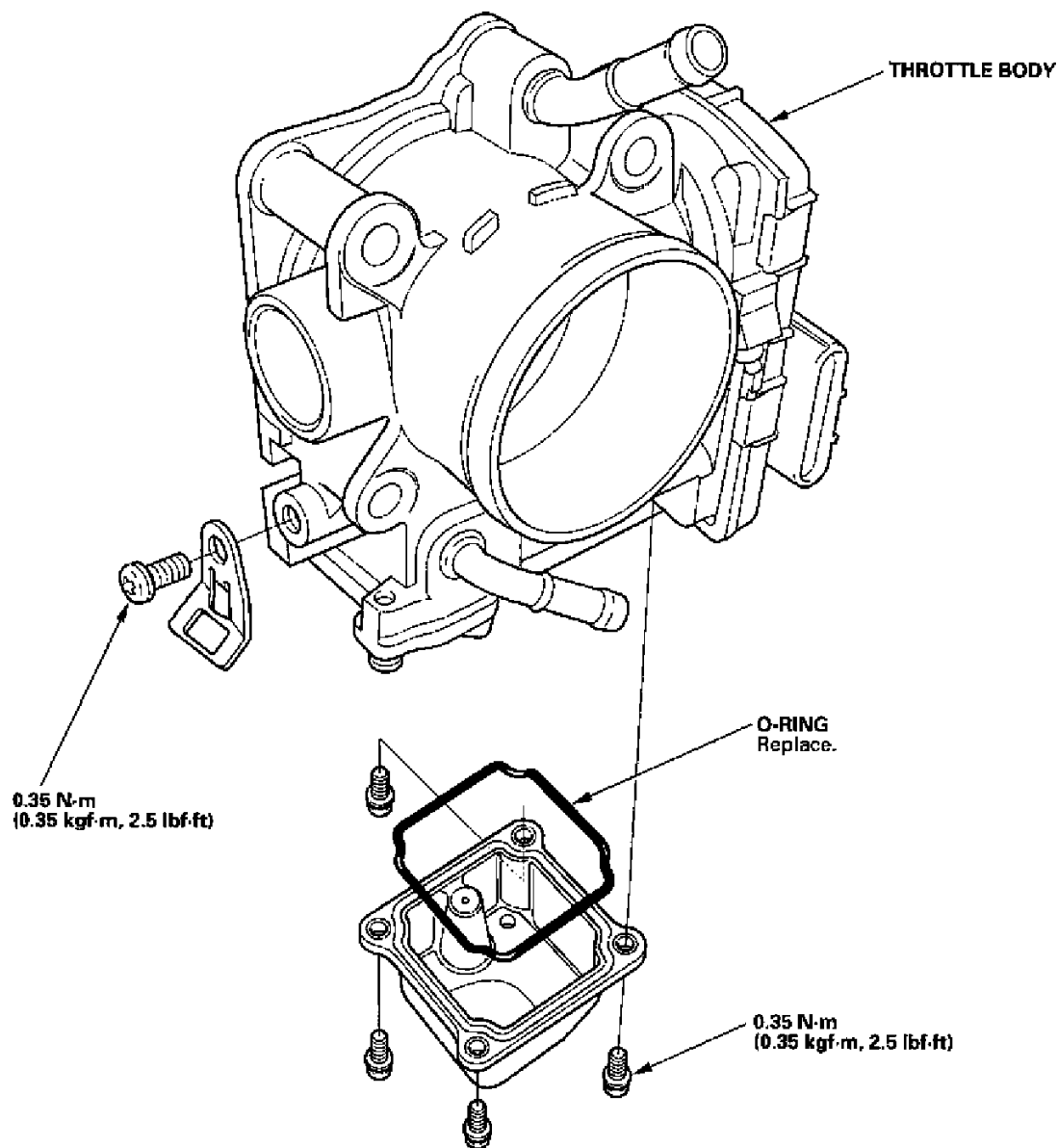


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Fig. 14: Removing Throttle Body

2. Remove the intake air duct (B).
3. Disconnect the throttle body connector (C).
4. Disconnect the water bypass hoses (D), and plug the water bypass hoses.
5. Disconnect the vacuum hose (E).
6. Remove the harness clip (F) and the throttle body (G).
7. Install the parts in the reverse order of removal with a new gasket (H), then check these items:
 - Do the ECM/PCM idle learn procedure after the throttle body has been replaced (see **ECM/PCM IDLE LEARN PROCEDURE**).
 - Refill the radiator with engine coolant (see **COOLANT REPLACEMENT**), and bleed air from the cooling system with the heater valve open.

THROTTLE BODY DISASSEMBLY/REASSEMBLY



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Fig. 15: Exploded View Of Throttle Body Components