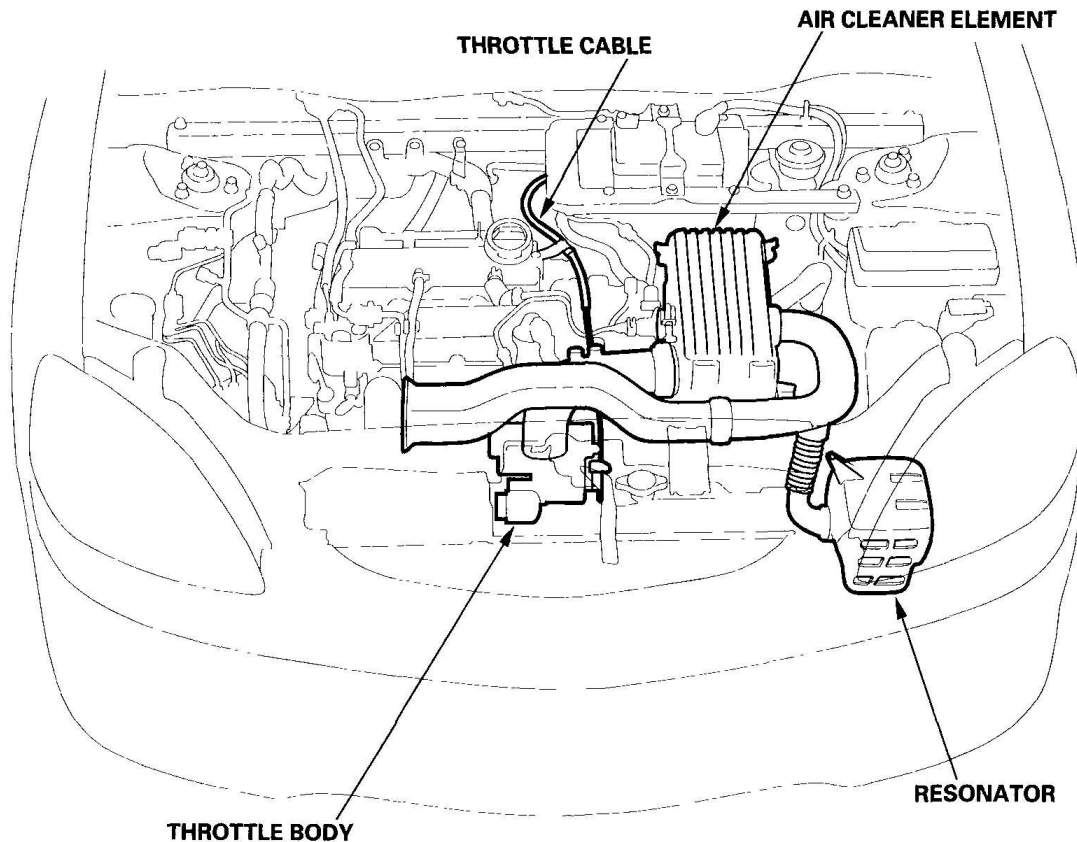


## 2000-06 ENGINE PERFORMANCE

### Intake Air System - Insight

## COMPONENT LOCATION INDEX



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**Fig. 1: Identifying Intake Air System Component Location Index**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

## THROTTLE BODY TEST

### NOTE:

- Do not adjust the throttle stop screw. It is preset at the factory.
- If the malfunction indicator lamp (MIL) has been reported on, check for diagnostic trouble codes (DTCs) (see page 11-3).

1. With the engine off, check the throttle cable operation. The cable should move without binding or sticking.
  - If the cable operates OK, go to step 2.
  - If the cable binds or sticks, check it and its routing. If the cable is faulty, reroute it or replace it, and adjust it (see **THROTTLE CABLE ADJUSTMENT** ), then go to step 2.
2. Operate the throttle lever by hand to see if the throttle valve and/or shaft are too loose or too tight.
  - If there is excessive play in the throttle valve shaft, or any binding in the throttle valve at the fully closed position or fully open, replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION** ).
  - If the throttle valve and shaft are OK, go to step 3.
3. Connect the HDS to the data link connector (DLC).
4. Turn the ignition switch ON (II).
5. Check the throttle position with the HDS. The reading should be about 10 % when the throttle is fully closed and about 90 % when the throttle is fully opened.
  - If the throttle position is correct, the throttle body is OK.
  - If the throttle position is not correct, replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION** ).

## **THROTTLE POSITION SENSOR SIGNAL INSPECTION**

### **NOTE:**

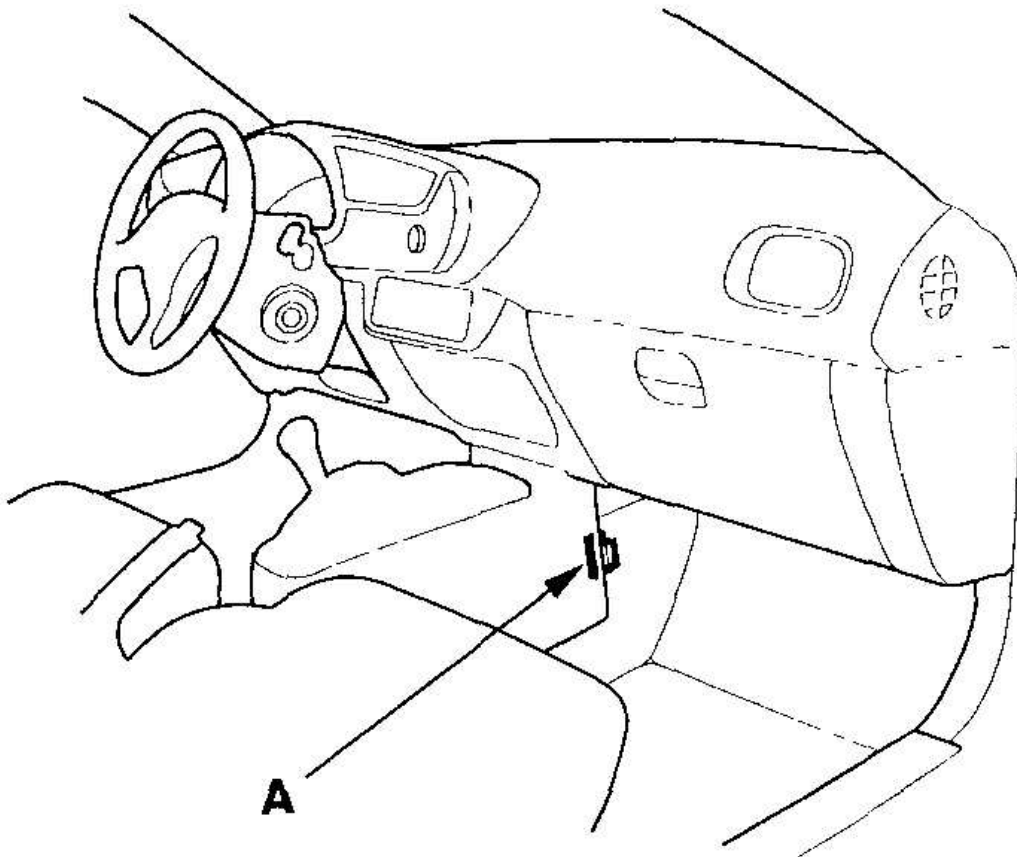
- This procedure check the throttle position sensor in its fully closed position. In any other position, the throttle position sensor stores DTCs which are covered in other troubleshooting procedures.
- Check for Temporary DTCs or DTCs with the HDS before doing this procedure. If any DTCs indicated, troubleshoot them first, then do this procedure.
- Press the accelerator pedal several times, to check its operation. If it does not operate properly check the pedal, the throttle cable, and the throttle linkage

**individually. If you find a problem in one of them, replace the part(s) that caused the problem.**

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

\*: 2000 model

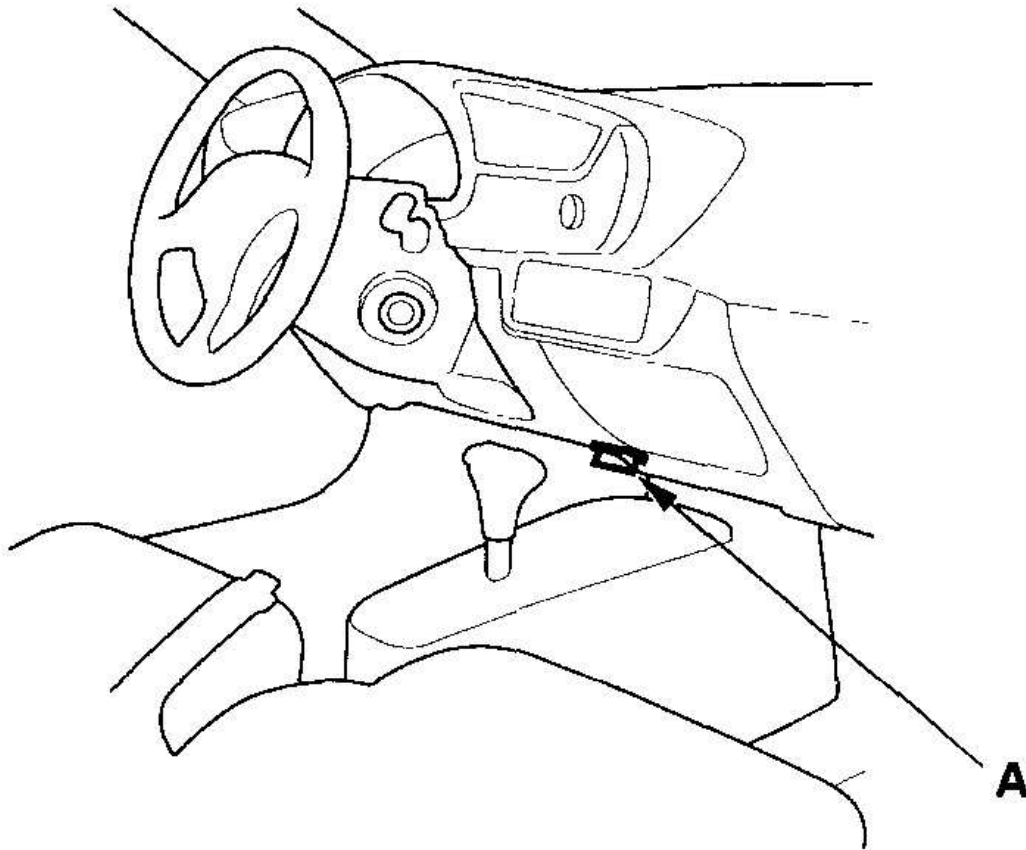
**2000 model**



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**Fig. 2: Identifying Data Link Connector Location (2000 Model)**  
**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

## 2001-2006 models



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**Fig. 3: Identifying Data Link Connector Location (2001-2006 Model)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

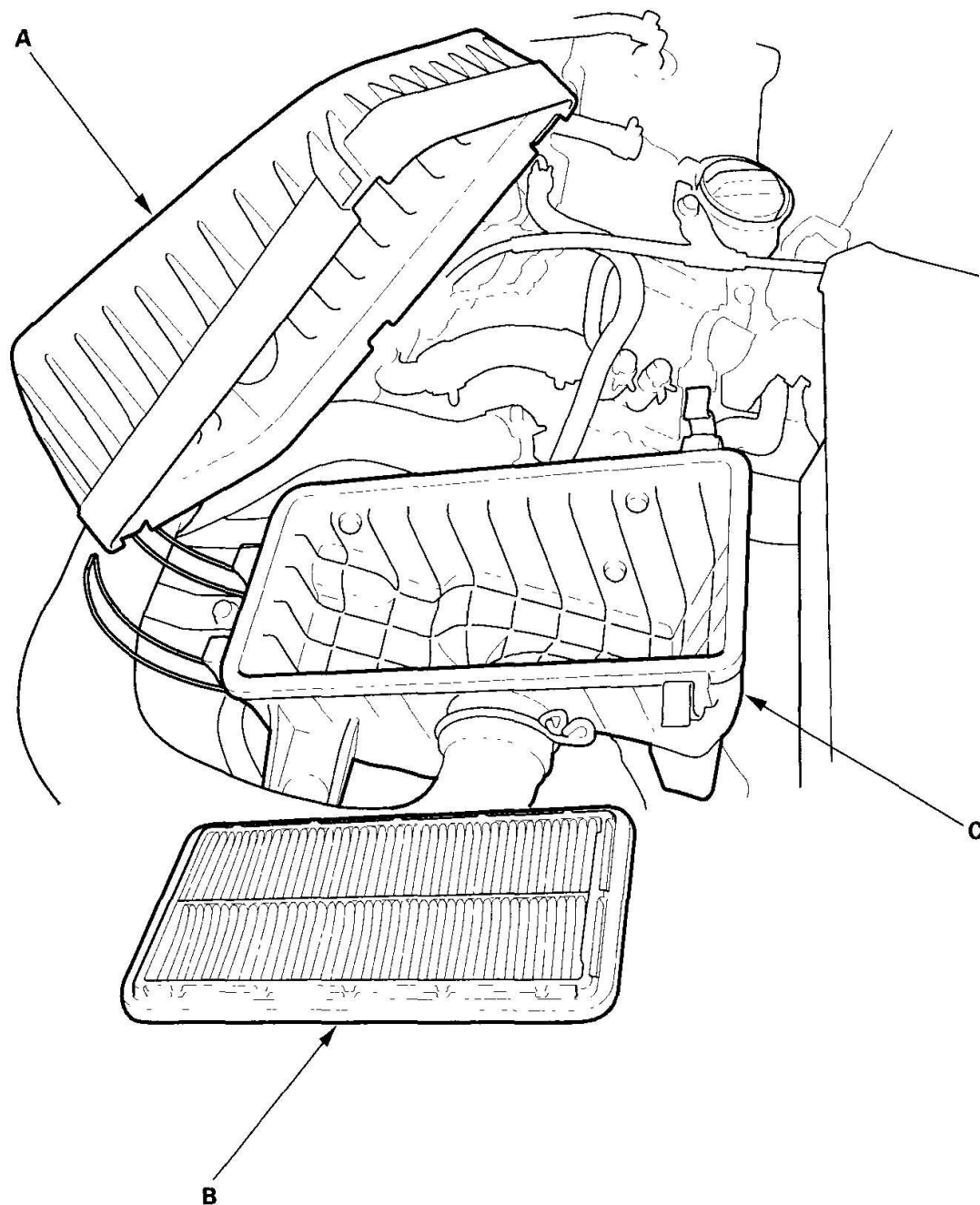
2. Turn the ignition switch ON (II).
3. Make sure the accelerator pedal is not pressed, then check the TP SENSOR in the DATA LIST with the HDS.
  - If it is below 0.5 V, the throttle position sensor is OK.
  - If it is above 0.5 V, adjust the throttle cable (see **THROTTLE CABLE ADJUSTMENT** ), then go to step 4.

4. Make sure the accelerator pedal is not pressed, then check the TP SENSOR in the DATA LIST with the HDS.
  - If it is below 0.5 V, the throttle position sensor is OK.
  - If it is above 0.5 V, update the ECM if it does not have the latest software, or substitute a known-good ECM (see **HOW TO TROUBLESHOOT CIRCUITS AT THE ECM** ), then go to step 5.
5. Make sure the accelerator pedal is not pressed, then check the TP SENSOR in the DATA LIST with the HDS.
  - If it is below 0.5 V, the throttle position sensor is OK.
  - If it is above 0.5 V, replace the throttle body assembly (see **THROTTLE BODY REMOVAL/INSTALLATION** ), then go to step 1 .

## **AIR CLEANER ELEMENT INSPECTION/REPLACEMENT**

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

1. Remove the air cleaner housing cover (A).



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**Fig. 4: Removing Air Cleaner Housing Cover**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

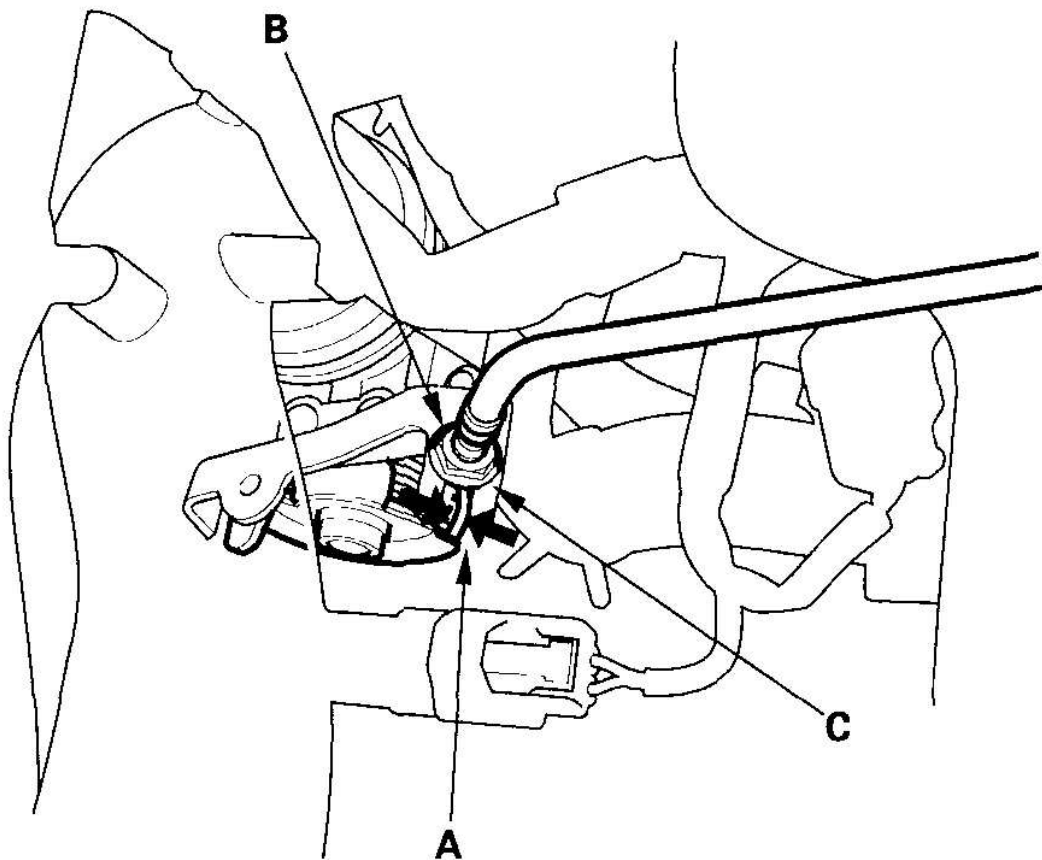
2. Remove the air cleaner element (B) from the air cleaner housing (C).



3. Check the air cleaner element for damage or clogging. If the element is clogged, replace it. Clean and remove any debris from inside the air cleaner housing.
4. Install the parts in the reverse order of removal.

## **THROTTLE CABLE ADJUSTMENT**

1. Remove the throttle link cover.
2. Check cable free play at the throttle linkage. Cable deflection (A) should be 10-12 mm (3/8-1/2 in.).



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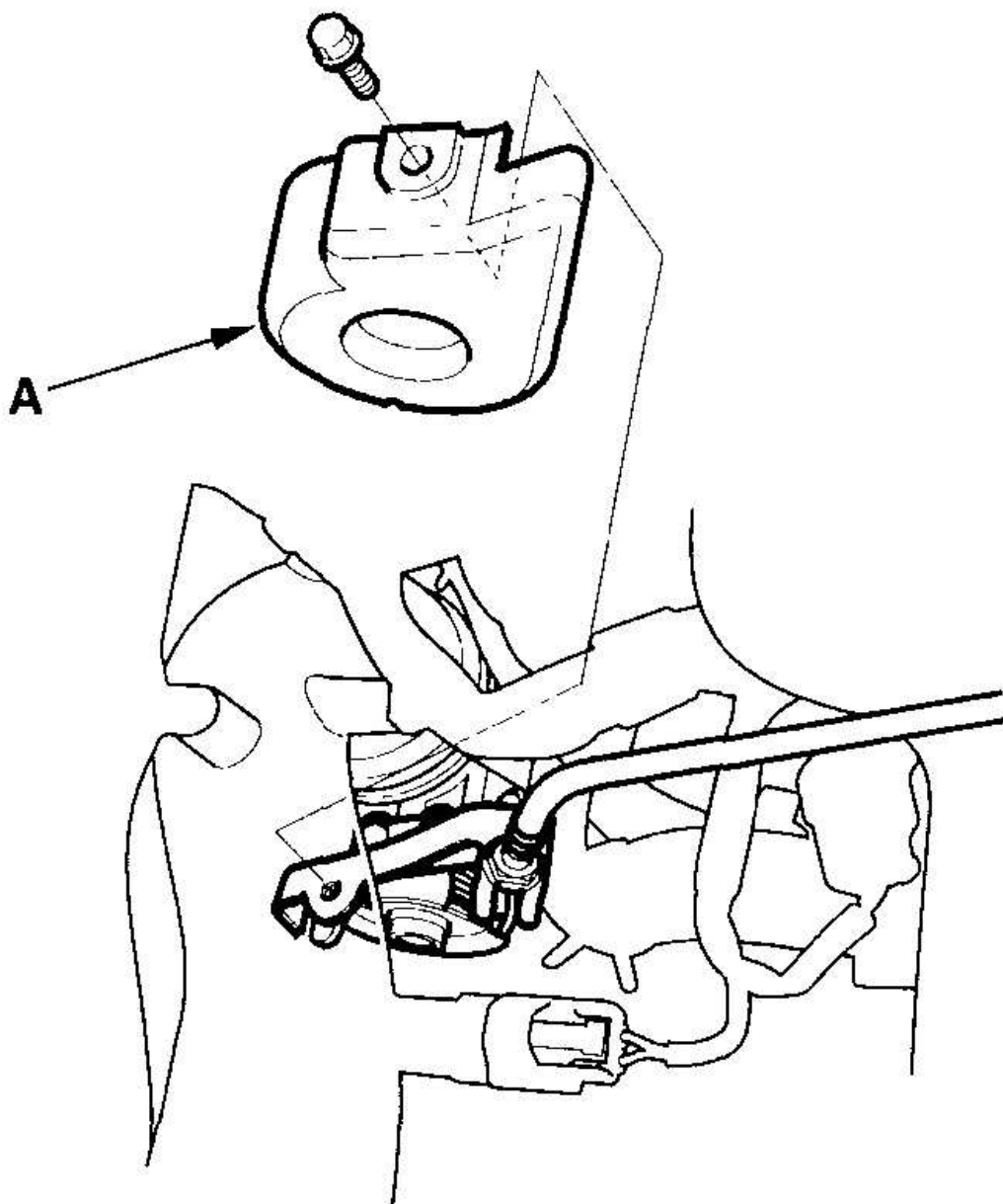
**Fig. 5: Checking Cable Free Play At Throttle Linkage**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If deflection (A) is not within spec (10-12 mm, 3/8-1/2 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 link cover (A).





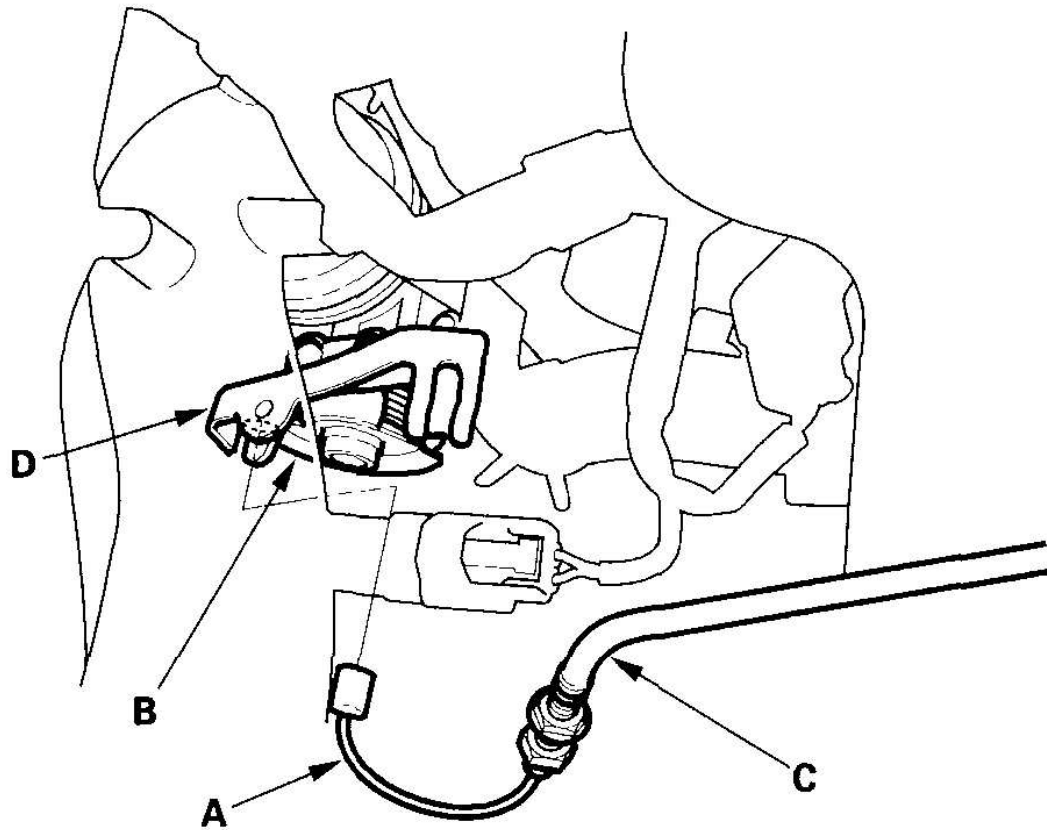
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**Fig. 6: Removing Throttle Link Cover**

**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

2. Fully open the throttle valve, then remove the throttle cable wire (A) from the

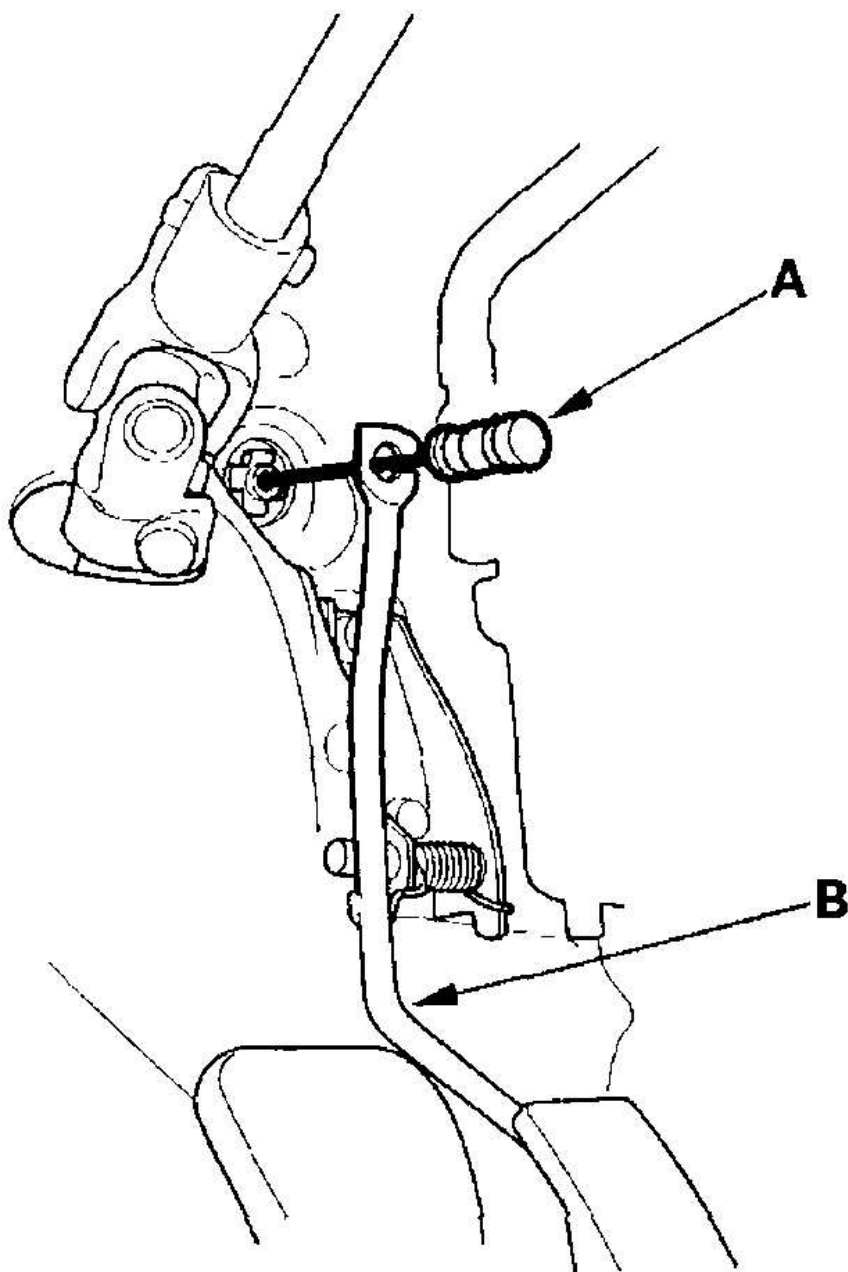
throttle link (B).



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**Fig. 7: Removing Throttle Cable Wire From Throttle Link**  
**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

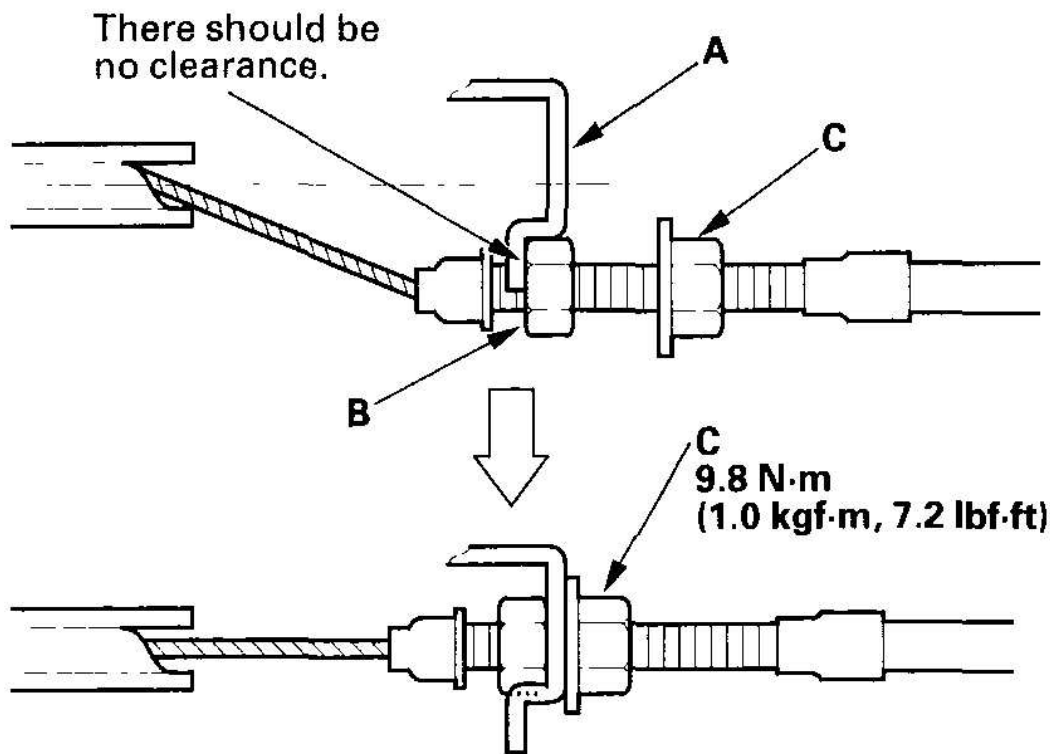
3. Remove the cable (C) from the cable bracket (D).
4. Remove the throttle cable wire (A) from the accelerator pedal (B).



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**Fig. 8: Removing Throttle Cable Wire From Accelerator Pedal**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install in the reverse order of removal.
6. After installing, start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until the radiator fan comes on, then let it idle.
7. Hold the cable, removing all slack from the cable.
8. Set the locknut on the cable bracket (A). Adjust the adjusting nut (B) so that its free play is 0 mm.



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**Fig. 9: Setting Locknut On Cable Bracket And Adjusting Nut**  
**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

9. Remove the cable from the throttle bracket. Reset the adjusting nut and tighten the locknut (C).
10. 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.

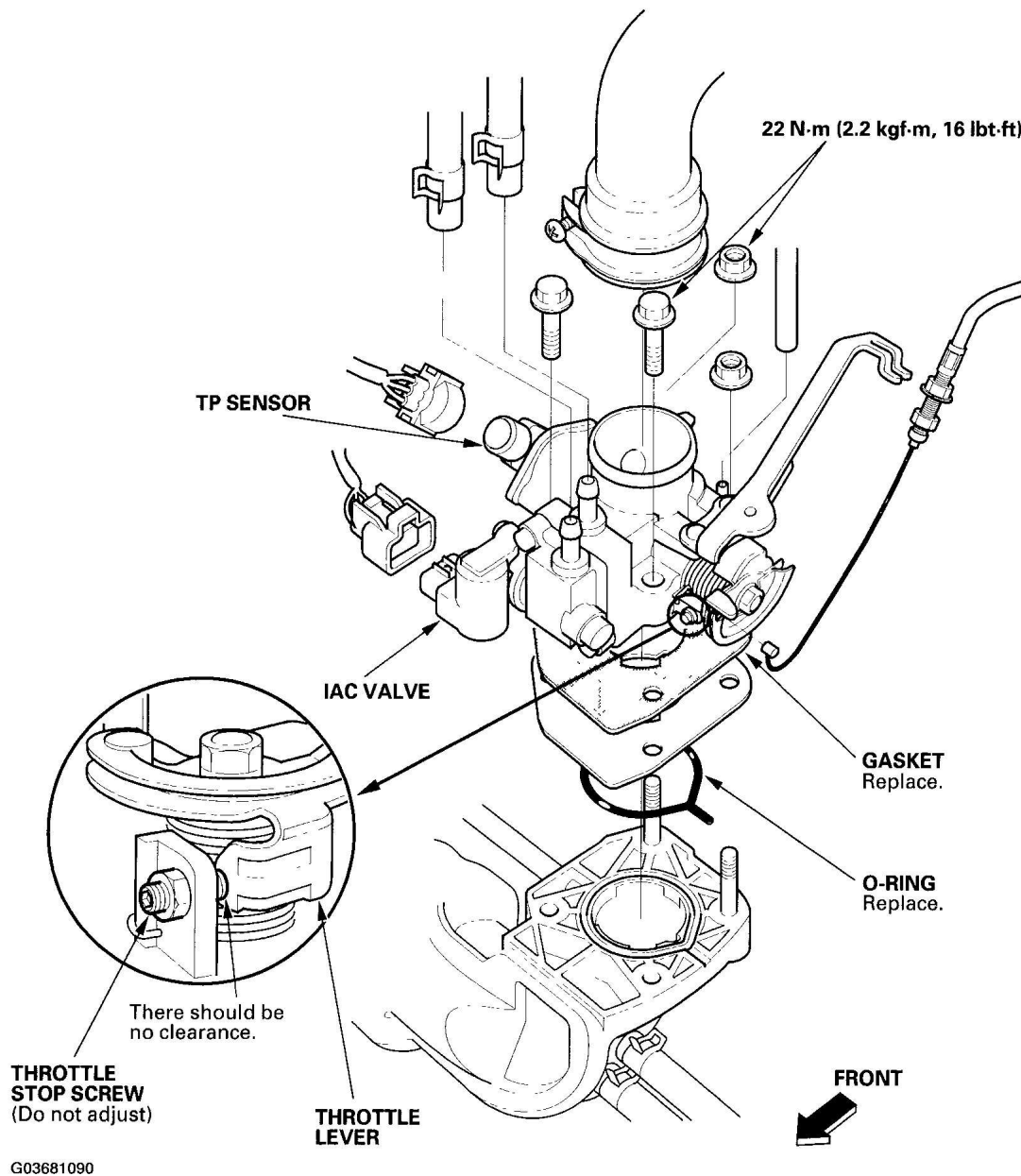
## **THROTTLE BODY REMOVAL/INSTALLATION**

### **NOTE:**

- **Do not adjust the throttle stop screw.**
- **After reassembly, adjust the throttle cable (see THROTTLE CABLE ADJUSTMENT ).**
- **The TP sensor is not removable.**

## 2006 Honda Insight

2000-06 ENGINE PERFORMANCE Intake Air System - Insight

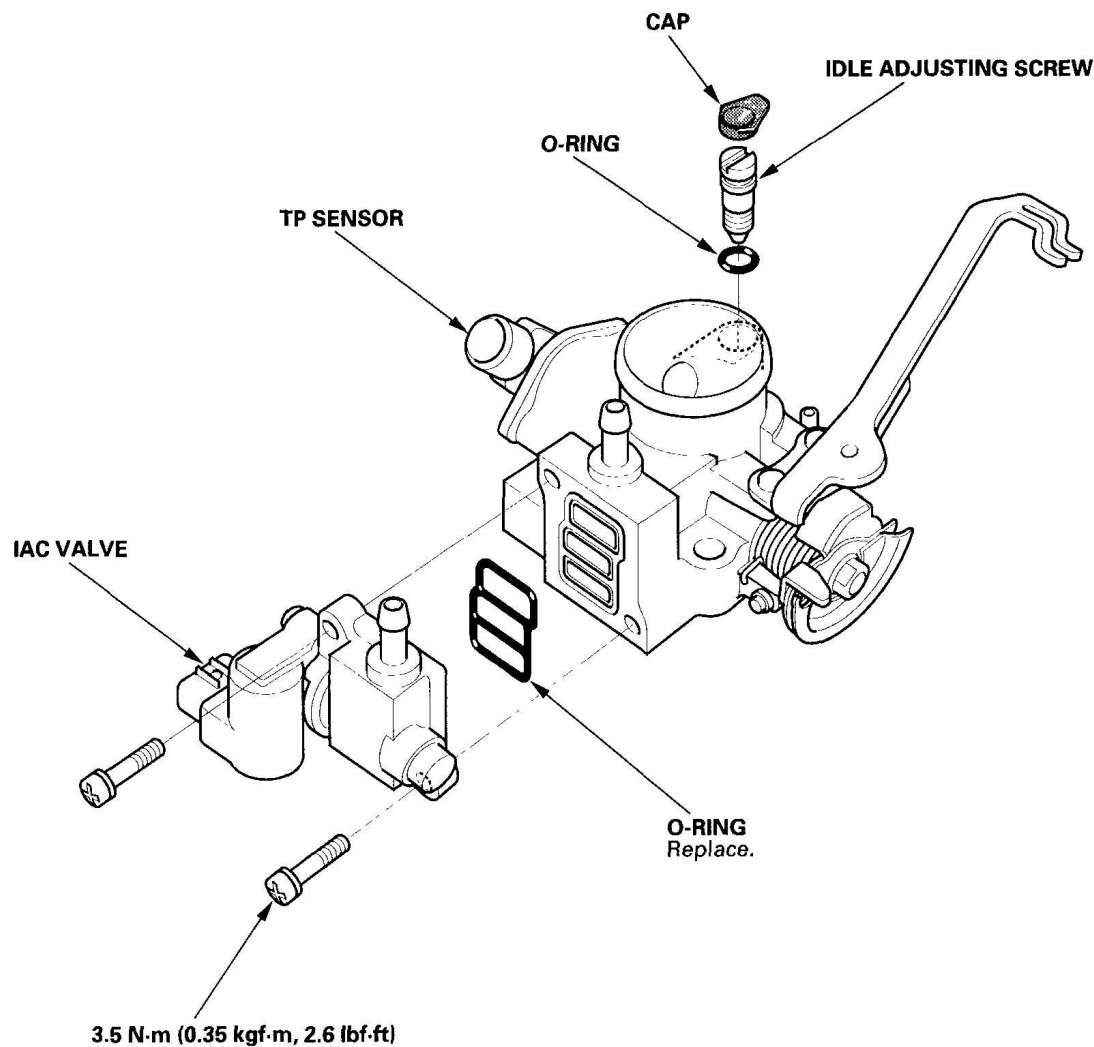


**Fig. 10: Identifying Throttle Body Removal/Installation**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

### THROTTLE BODY DISASSEMBLY/REASSEMBLY

## 2006 Honda Insight

2000-06 ENGINE PERFORMANCE Intake Air System - Insight



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**Fig. 11: Identifying Throttle Body Disassembly/Reassembly**  
**Courtesy of AMERICAN HONDA MOTOR CO., INC.**