2000-06 ELECTRICAL 12 Volt Battery - Insight

### 2000-06 ELECTRICAL

12 Volt Battery - Insight

## **12 VOLT BATTERY TEST**

WARNING: A battery can explode if you do not follow the proper procedure, causing serious injury to anyone nearby. Follow all procedures carefully and keep sparks and open flames away from the battery.

- NOTE: If the IMA battery level gauge (BAT) indicates zero in the following cases:
  - When the battery is removed
  - When the gauge assembly is removed
  - When the No. 16 (30 A) fuse in the under-hood fuse/ relay box or No. 18 (7.5 A) fuse in the under-dash fuse/relay box is removed,

Remove the No. 15 (40 A) fuse in the under-hood fuse/relay box.

Start the engine, and hold it between 3,500 RPM and 4,000 RPM without load (in Park or neutral) until the BAT indicates at least three segments.

Then reinstall the No. 15 (40 A) fuse.

Use either a JCI or Bear ARBST tester, and follow the manufacturer's procedures. If you don't have one of these computerized testers, follow this conventional test procedure:

- 1. Be sure the temperature of the electrolyte is between 70°F (21°C) and 100°F (38 °C).
- 2. Inspect the 12 V battery case for cracks or leaks.
  - If the case is damaged, replace the battery.
  - If the case looks OK, go to step 3.

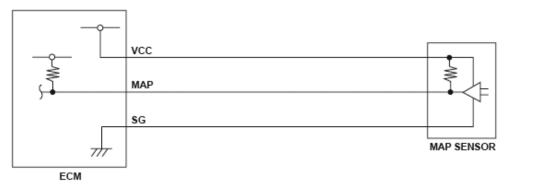
2006 ENGINE PERFORMANCE Advanced Diagnostics - Insight

trips in which the diagnostic runs.

The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.

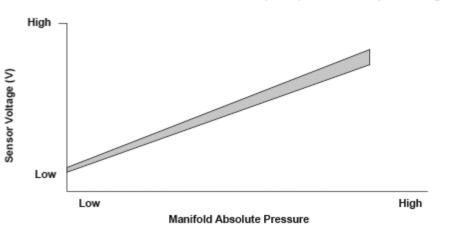
## DTC P0107 (3): ADVANCED DIAGNOSTICS

DTC P0107: MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR CIRCUIT LOW VOLTAGE



P0106-9602

## Fig. 3: Manifold Absolute Pressure (MAP) Sensor Circuit Diagram



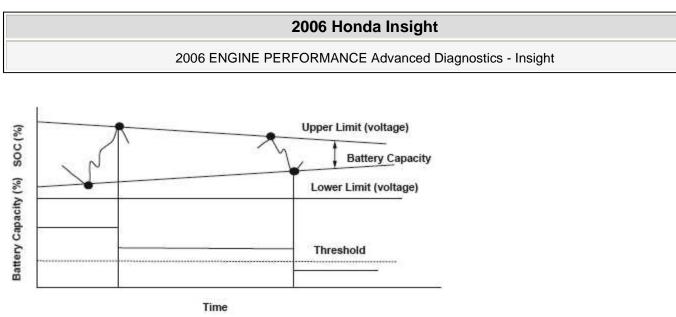
P0107-9671

### Fig. 4: Manifold Absolute Pressure (MAP) Sensor Output Voltage - Graph

### **General Description**

The manifold absolute pressure (MAP) sensor senses manifold absolute pressure

Manifold Absolute Pressure (MAP) Sensor Output Voltage



P1447-0071

## Fig. 132: Battery Module Deterioration Graph

### **General Description**

The high-voltage battery in the IMA (integrated motor assist) system is designed to operate within the upper and lower limits of the SOC (state of charge) voltage and the battery capacity limits. When the battery deteriorates, the voltage is subject to increase or decrease, so the limits of the battery capacity are reduced. Therefore, if the upper and lower limits of the SOC are detected when driving, the BCM (battery condition monitor) calculates the sum of the current and calculates the battery capacity. If the power is less than a set value, a malfunction is detected and a DTC is stored.

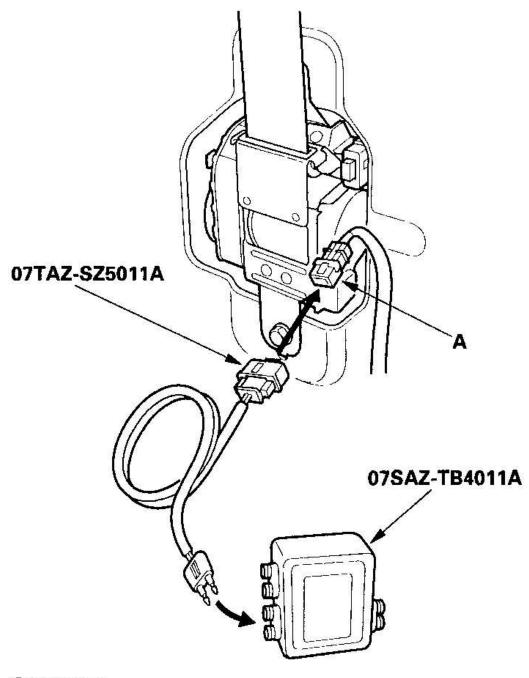
## **MONITOR DESCRIPTION CHART**

Execution	Continuous	
Sequence	Battery module, Battery current circuit, BCM	
Duration	Depending on the driving pattern	
DTC Type	One drive cycle, MIL ON, IMA system indicator ON	

## **ENABLE CONDITIONS CHART**

Condition	Minimum	Maximum
ECU power-		
supply voltage	7.5 V	_
Battery	50°F (10°C)	113°F (45°C)

2000-06 RESTRAINTS SRS (Supplemental Restraint System) - Insight



G03683158

**Fig. 90: Connecting SRS Inflator Simulator And Simulator Lead C To Floor Wire Harness**  2000-06 ENGINE Cooling System - Insight

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

21. Connect the CMP sensor A connector (A), CMP sensor B connector (B), ECT sensor connector (C), IAT sensor connector (D), and EVAP purge control solenoid valve connector (E). Install the harness clamp (F) and water bypass hose (G).

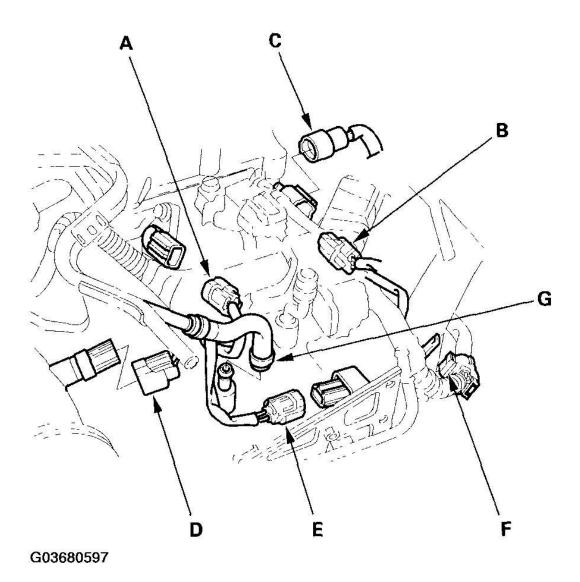
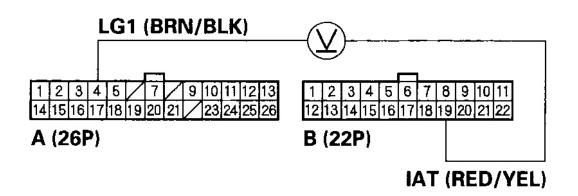


Fig. 33: Connecting CMP Sensor A/B Connector, ECT Sensor Connector, IAT Sensor Connector And EVAP Purge Control Solenoid Valve Connector

2000-06 TRANSMISSION Continuously Variable Transmission (CVT) - Insight

## TCM CONNECTORS



Wire side of female terminals

G03681927

### Fig. 226: Measuring Voltage Between TCM Connector Terminals B19 And A4 Courtesy of AMERICAN HONDA MOTOR CO., INC.

*Is there 0.1-4.8 V?* 

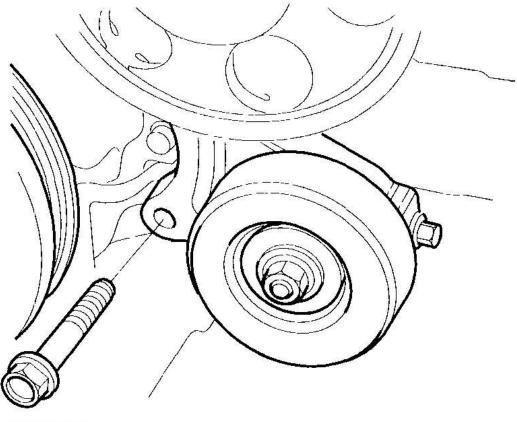
**YES** -Check for loose terminal fit in the TCM connectors. If necessary, substitute a Known-good TCM (see <u>HOW TO TROUBLESHOOT</u> <u>CIRCUIT AT THE TCM</u>), then recheck. If the symptom/indication goes away with a Known-good TCM, replace the original TCM. **NO** -Repair an open or short in the wire between TCM connector terminal B19and the IAT sensor.

DTC P1850: Problem in Creep Aid System Solenoid Valve A Circuit

2005-2006 Models

### NOTE:

2000-06 ENGINE Cylinder Head - Insight



G03680390

### **Fig. 37: Removing Idler Pulley Bracket Mounting Bolt** Courtesy of AMERICAN HONDA MOTOR CO., INC.

- 4. Remove the water pump (see <u>WATER PUMP INSPECTION</u>).
- 5. Hold the pulley with holder handle (A) and holder attachment (B).

2000-06 DRIVELINE/AXLE Driveline/Axle - Insight

### **Fig. 7: Removing Lower Arm Ball Joint** Courtesy of AMERICAN HONDA MOTOR CO., INC.

- 8. Remove the cotter pin from the lower arm ball joint castle nut, and remove the nut, then separate the ball joint from the knuckle with the ball joint thread protector and remover (see step 10 on **FRONT SUSPENSION** ).
  - NOTE: To avoid damaging the ball joint, install the ball joint thread protector onto the threads of the ball joint.
    - Be careful not to damage the ball joint boot when installing the remover.
- 9. Remove the inboard boot heat shield (A).

2000-06 STEERING Electrical Power Steering (EPS) - Insight

11. Turn the ignition switch ON (II).

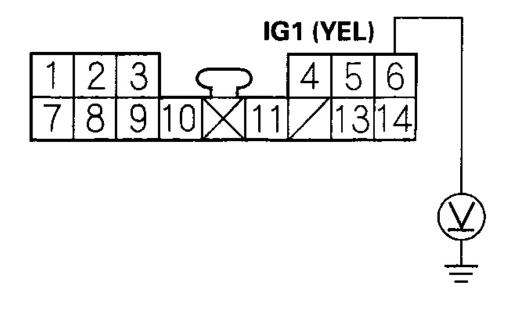
Does EPS indicator come on ?

**YES** -Repair short to ground in the YEL/RED wire between the gauge assembly and the EPS control unit, or replace the gauge assembly (see **GAUGE ASSEMBLY REPLACEMENT**).

NO -Go to step 12.

12. Measure the voltage between the EPS control unit connector B (14P) terminal No. 6 and body ground.

# **EPS CONTROL UNIT CONNECTOR B (14P)**



# Wire side of female terminals

G03682324

## Fig. 64: Measuring Voltage Between EPS Control Unit Connector B (14P)

2000-06 ENGINE Engine Block - Insight

- 20. Install the cam chain (see <u>CAM CHAIN INSTALLATION</u>).
- 21. Install the cylinder head (see <u>CAMSHAFT AND ROCKER ARM</u> <u>INSTALLATION</u>).
- 22. Install the transmission:
  - Manual transmission (M/T) (see <u>MANUAL TRANSMISSION</u>).
  - Continuously variable transmission (CVT) (see <u>TRANSMISSION</u> <u>INSTALLATION</u>).
- 23. Install the engine assembly (see **ENGINE INSTALLATION**).
  - NOTE: Whenever any crankshaft or connecting rod bearing is replaced, it is necessary after reassembly to run the engine at idling speed until it reaches normal operating temperature, then continue to run it for about 15 minutes.

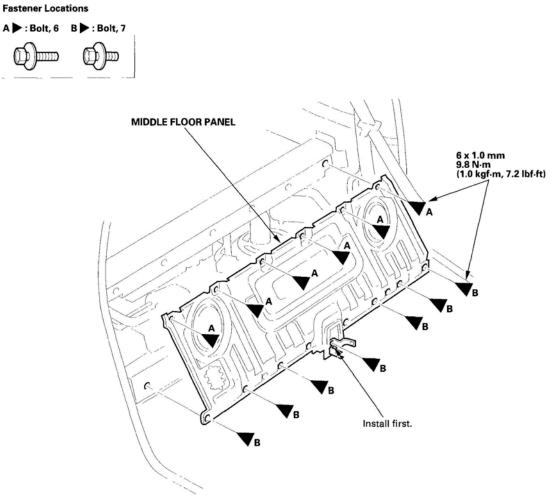
### OIL PAN INSTALLATION

- 1. Clean and dry the oil pan mating surfaces.
- 2. Apply liquid gasket P/N 08718-0001 to the engine block mating surface of the oil pan (see step 8 on <u>CYLINDER HEAD</u>).
  - NOTE: Do not install the parts if 5 minutes or more have elapsed since applying liquid gasket. Instead, reapply liquid gasket after removing the old residue.

2000-06 ACCESSORIES & EQUIPMENT Frame - Insight

# NOTE: • Put on gloves to protect your hands. • Take care not to scratch the seats and interior trim.

- 1. Remove the middle bulkhead carpet (see **MIDDLE BULKHEAD CARPET <u><b>REPLACEMENT**</u> ).
- 2. Remove the middle floor panel as shown.
- 3. Install the middle floor panel in the reverse order of removal, and to align the panel, first install the B bolt in the middle of the panel.



G03682646

**Fig. 2: Removing Middle Bulkhead Carpet And Torque Specifications** Courtesy of AMERICAN HONDA MOTOR CO., INC.

### 2000-06 ENGINE PERFORMANCE Fuel & Emissions Systems - Insight

### ENABLE CRITERIA

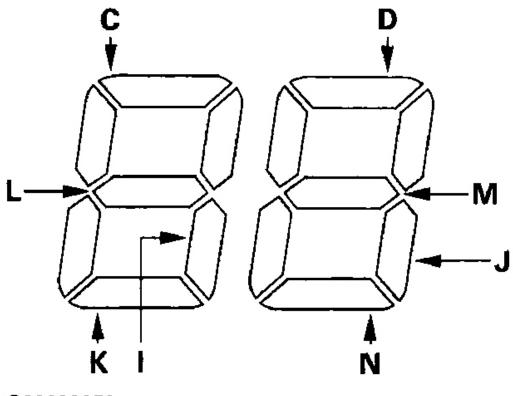
ECT at 176°F (80°C)or higher

### PROCEDURE

- 1. Connect the HDS to the vehicle's data link connector (DLC).
- 2. Start the engine.
- 3. Drive at a steady speed with the CVT in D position or M/T in 4th gear, 50-62 mph (80-100 km/h), or above for more than 10 seconds.
- 4. With the CVT in D position or M/T in 4th gear, decelerate from 62 mph (100 km/h) or above by completely releasing the throttle for at least 5 seconds. If the engine is stopped during this procedure, go to step 3 and do the procedure again.
- 5. Check the OBD status for DTC P0401 in the DTCs MENU with the HDS.
  - If it is passed, readiness is complete.
  - If it is not passed, go to step 3 and retest.

2000-06 HVAC Heating - Insight

# **DTC INDICATOR**



G03682656

## **Fig. 4: Identifying DTC Indicator** Courtesy of AMERICAN HONDA MOTOR CO., INC.

Canceling the self-diagnostic Function

3. Turn the ignition switch OFF to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other malfunctions.

## DTC TROUBLESHOOTING INDEX

To retrieve the DTC, you must run the self-diagnostic function (see CANCELING

2000-06 HVAC Climate Control - Insight

## **Station To High & Low Pressure Service Port Courtesy of AMERICAN HONDA MOTOR CO., INC.**

- 2. Evacuate the system (see **<u>SYSTEM EVACUATION</u>**).
- 3. Add the same amount of new refrigerant oil to the system that was removed during recovery. Use only SANDEN SP-10 refrigerant oil.
- 4. Charge the system with the specified amount of R-134a refrigerant. Do not overcharge the system; the A/C compressor will be damaged.

Select the appropriate units of measure for your refrigerant charging station.

## **Refrigerant Capacity:**

500 to 550 g 0.50 to 0.55 kg 1.1 to 1.2 lbs 17.6 to 19.4 oz

- 5. Check for refrigerant leaks (see **<u>REFRIGERANT LEAK TEST</u>**).
- 6. Check for system performance (see <u>A/C SYSTEM TEST</u>).

## **REFRIGERANT LEAK TEST**

## **Special Tools Required**

Leak detector, Honda Tool and Equipment YGK-H-10PM commercially available

- WARNING: Compressed air mixed with R-134a forms a combustible vapor.
  - The vapor can burn or explode causing serious injury.
  - Never use compressed air to pressure test R-134a service equipment or vehicle air conditioning systems.
- CAUTION: Air conditioning refrigerant or lubricant vapor

#### 2000-06 ELECTRICAL IMA System - Insight

### <u>**TEST**</u> ).

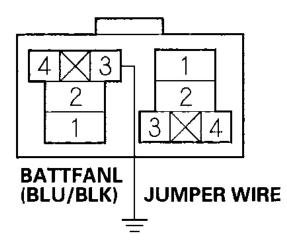
### Is the relay OK?

YES - Go to step 8.

### **NO** - Replace the battery module (see **<u>BATTERY MODULE</u>** <u>**REMOVAL/INSTALLATION**</u>).

- 8. Disconnect BCM module connector A (26P), and remove the low speed battery module fan control relay.
- Connect low speed battery module fan control relay 4P connector terminal No. 3 to body ground with a jumper wire.

### LOW SPEED BATTERY MODULE FAN CONTROL RELAY 4P CONNECTOR



Wire side of female terminals

G03681467

### **Fig. 249: Connecting Low Speed Battery Module Fan Control Relay 4P Connector Terminal No. 3 To Body Ground Using Jumper Wire Courtesy of AMERICAN HONDA MOTOR CO., INC.**

10. Check for continuity between body ground and BCM module connector