Low Fuel Warning System

Warning Light Test

NOTE: Refer to page 16-112 for wiring description of the low fuel warning circuit.

1. Park car on level ground.

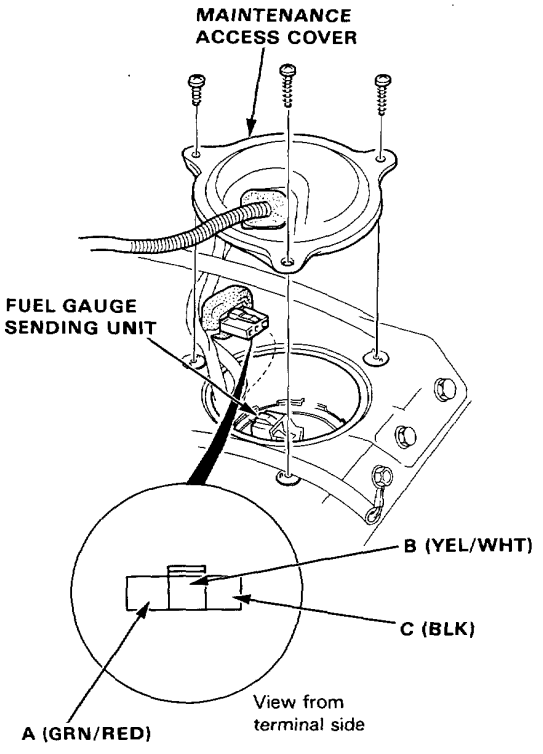
   ⚠WARNING Do not smoke while working on fuel system. Keep open flame away from work area. Drain fuel only into an approved container.

2. Drain fuel tank into an approved container. Then install the drain bolt with a new washer.

3. Add less than 8.6 ℓ (2.2 U.S. Gal, 1.8 Imp. Gal) of fuel and turn the ignition switch on. The low fuel warning light should come on within 4 minutes.

4. Then add one more gallon of fuel [approx. 4 ℓ (1.1 U.S. Gal, 0.9 Imp. Gal)]. The light should go out within 4 minutes.

   - If the warning light did not come on in step 3, remove the maintenance access cover and disconnect the 3-P connector from the fuel gauge sending unit. Connect the A (GRN/RED) terminal to the C (BLK) terminal with a jumper wire.
     - If the light comes on, the problem is either the sending unit or its ground.
     - If the light does not come on, the problem is an open in the GRN/RED wire to the gauge assembly, no power to the gauge or bad bulb.



Oil Pressure Warning System

Description

NOTE: Refer to page 16-112 for wiring description of the oil pressure warning circuit.

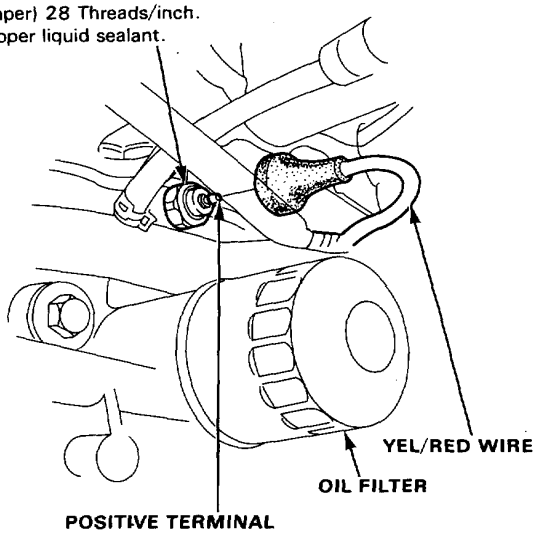
With the engine running and normal oil pressure, the oil pressure switch is open and the oil pressure warning light does not operate. If engine oil pressure falls below 24.5 kpa (0.25 kg/cm², 3.6 psi), the oil pressure switch is closed, current flows through the oil pressure warning light and the oil pressure switch to ground, and the oil pressure light goes on.

Oil Pressure Switch Test

1. Disconnect the YEL/RED wire from the oil pressure switch.

2. There should be continuity between the positive terminal and the engine(ground) with the engine stopped. There should be no continuity when the engine runs.

OIL PRESSURE SWITCH
18 N·m (1.8 kg-m, 13 lb-ft)
1/8 in. BSP (British Standard Pipe Taper) 28 Threads/inch.
Use proper liquid sealant.



3. If the switch fails to operate, check the engine oil level, then inspect the oil pump and pressure if the oil level is correct (see section 5).

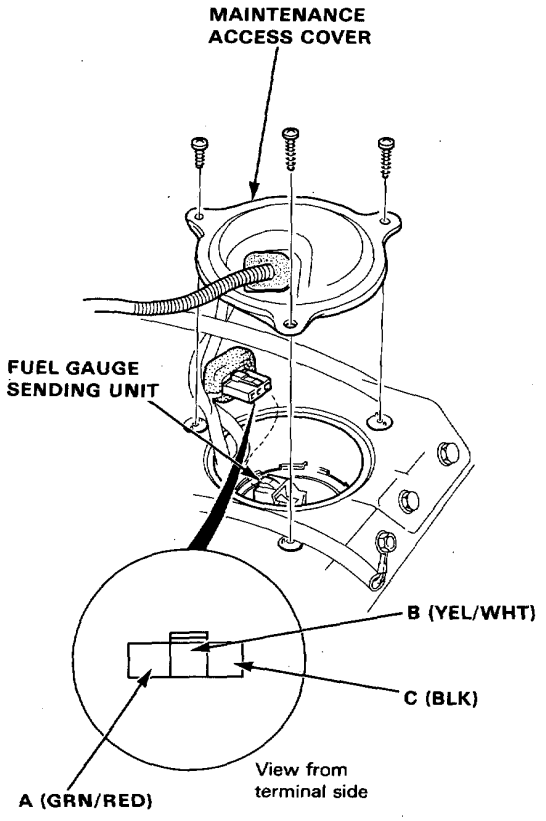
Fuel Gauge

Gauge Test

NOTE:
- Refer to page 16-112 for wiring description of the fuel gauge circuit.
- Check the No.1 (10 A) fuse in the dash fuse box before testing.

1. Remove the maintenance access cover.

2. Disconnect the 3-P connector from the fuel gauge sending unit.



3. Connect the voltmeter positive probe to the B (YEL/WHT) terminal and the negative probe to the C (BLK) terminal, then turn the ignition switch ON.
   There should be between 5 and 8V.

   - If the voltage is as specified, go to step 4.

   - If the voltage is not as specified, check for:
     - An open in the YEL, YEL/WHT or BLK wire.
     - Poor ground (G401).

4. Turn the ignition switch OFF. Attach a jumper wire between the B (YEL/WHT) and C (BLK) terminals.

   Turn the ignition switch ON.
   Check that the pointer of the fuel gauge starts moving toward"F"mark.

   CAUTION: Turn the ignition switch OFF before the pointer reaches "F"mark on the gauge dial. Failure to turn the ignition switch OFF before the pointer reaches the "F"mark may cause damage to the fuel gauge.

   NOTE: The fuel gauge is a bobbin (cross coil) type, hence the fuel level is continuously indicated even when the ignition switch is OFF, and the pointer moves more slowly than that of a bimetal type.

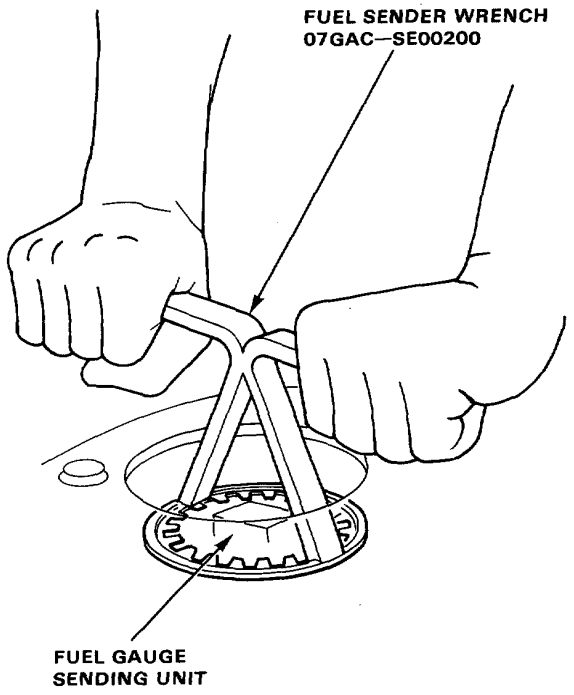
   - If the pointer of the fuel gauge does not swing at all, replace the gauge.

   - Inspect the fuel gauge sending unit if the gauge is OK.

Sending Unit Test/Replacement

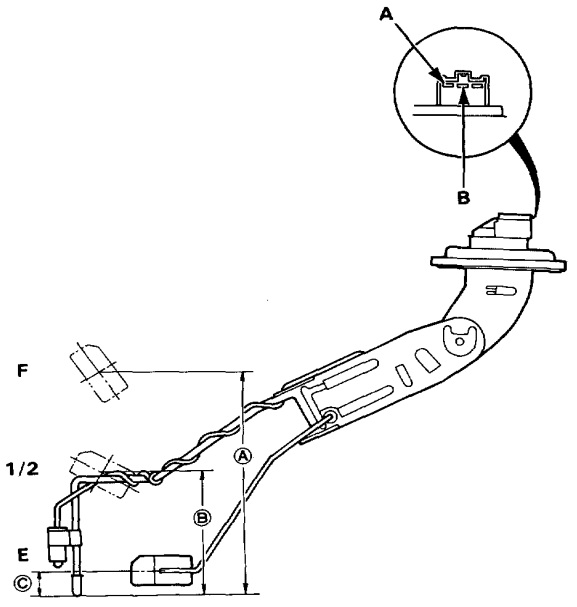
⚠ WARNING Do not smoke while working on fuel system. Keep open flame away from work area.

1. Remove the maintenance access cover.
2. With the ignition switch OFF, disconnect the 3-P connector from the fuel gauge sending unit.
3. Remove the fuel gauge sending unit.



4. Measure resistance between the A and B terminals at E (EMPTY), 1/2 (HALF FULL) and F (FULL) by moving the float.

Float Position	E	1/2	F
Resistance (Ω)	105-110	25.5-39.5	2-5



Float Position	Ⓐ	Ⓑ	Ⓒ
With 4WS	121.5 mm (4.8 in)	70.0 mm (2.8 in)	17.0 mm (0.7 in)
Without 4WS	146.0 mm (5.7 in)	80.0 mm (3.1 in)	17.0 mm (0.7 in)

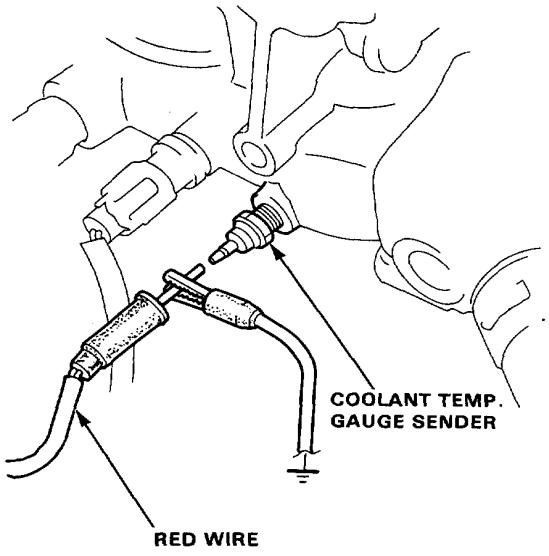
5. If unable to obtain the above readings, replace the fuel gauge sending unit.

Coolant Temperature Gauge

Gauge Test

NOTE:
- Refer to page 16-112 for wiring description of the coolant temperature gauge circuit.
- Check the No.1 (10 A) fuse in the dash fuse box before testing.

1. Make sure the ignition switch is OFF, then disconnect the RED wire from the coolant temperature gauge sender and ground it with a jumper wire.



2. Turn the ignition switch ON.
   Check that the pointer of the coolant temperature gauge starts moving toward "H" mark.

   CAUTION: Turn the ignition switch OFF before the pointer reaches "H" mark on the gauge dial. Failure to turn the ignition OFF quickly enough may cause damage to the gauge.

   - If the pointer of the gauge does not swing at all, check for an open in the YEL or RED wire.

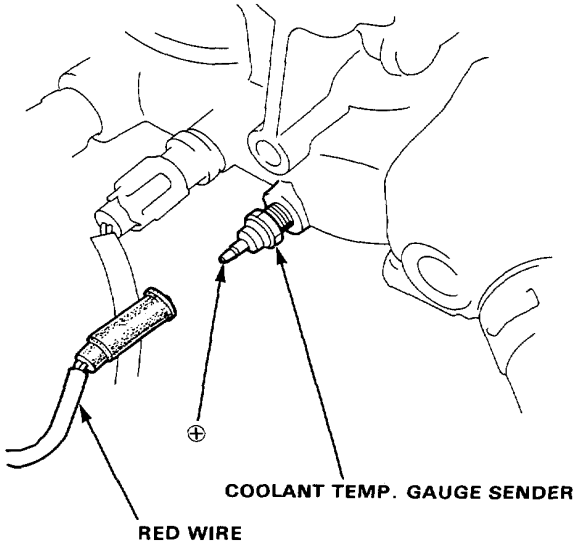
     Replace the coolant temperature gauge if the fuse and wiring are normal.

   - Inspect the gauge sender if the gauge is OK.

Sender Test

1. Disconnect the RED wire from the sender.

2. With the engine cold, use an ohmmeter to measure resistance between the positive terminal and the engine (ground).



3. Check the temperature of the coolant.

4. Run the engine and measure the change in resistance with the engine at operating temperature (cooling fan comes on).

Temperature	56°C (133°F) ["C" mark]	85°C (185°F) – 100°C (212°F)
Resistance (Ω)	142	49 – 32

5. If obtained readings are substantially different from specifications above, replace the gauge sender.

Safety Indicator

Component Location Index