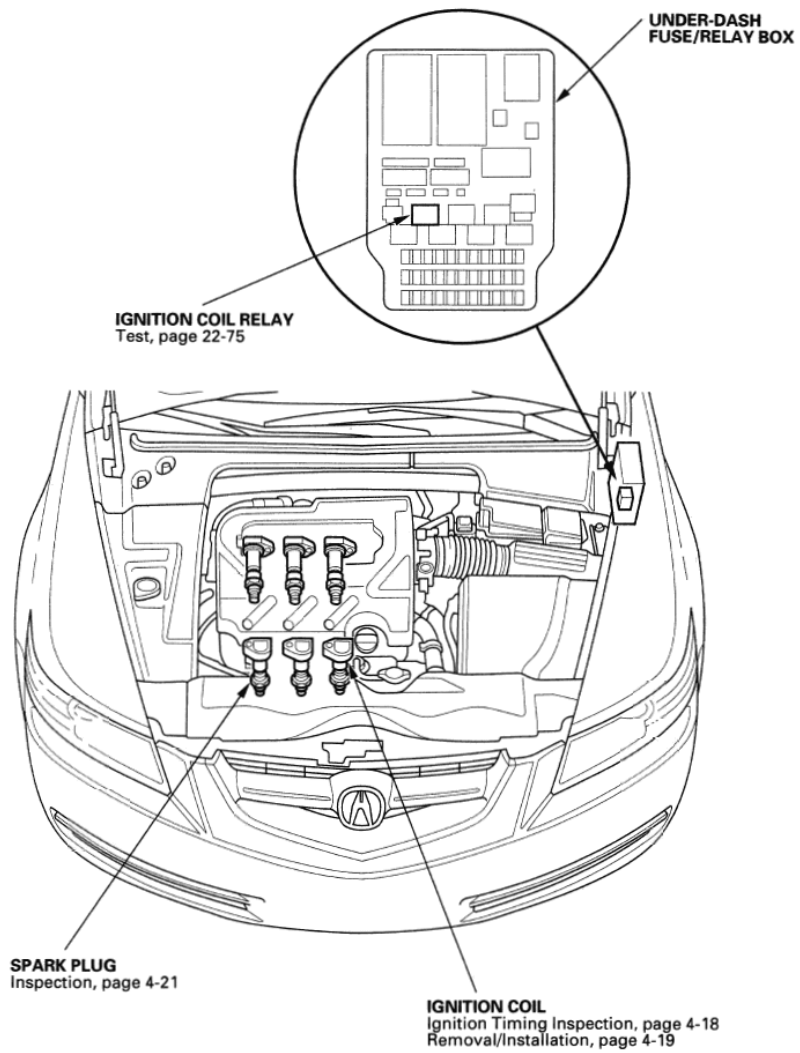
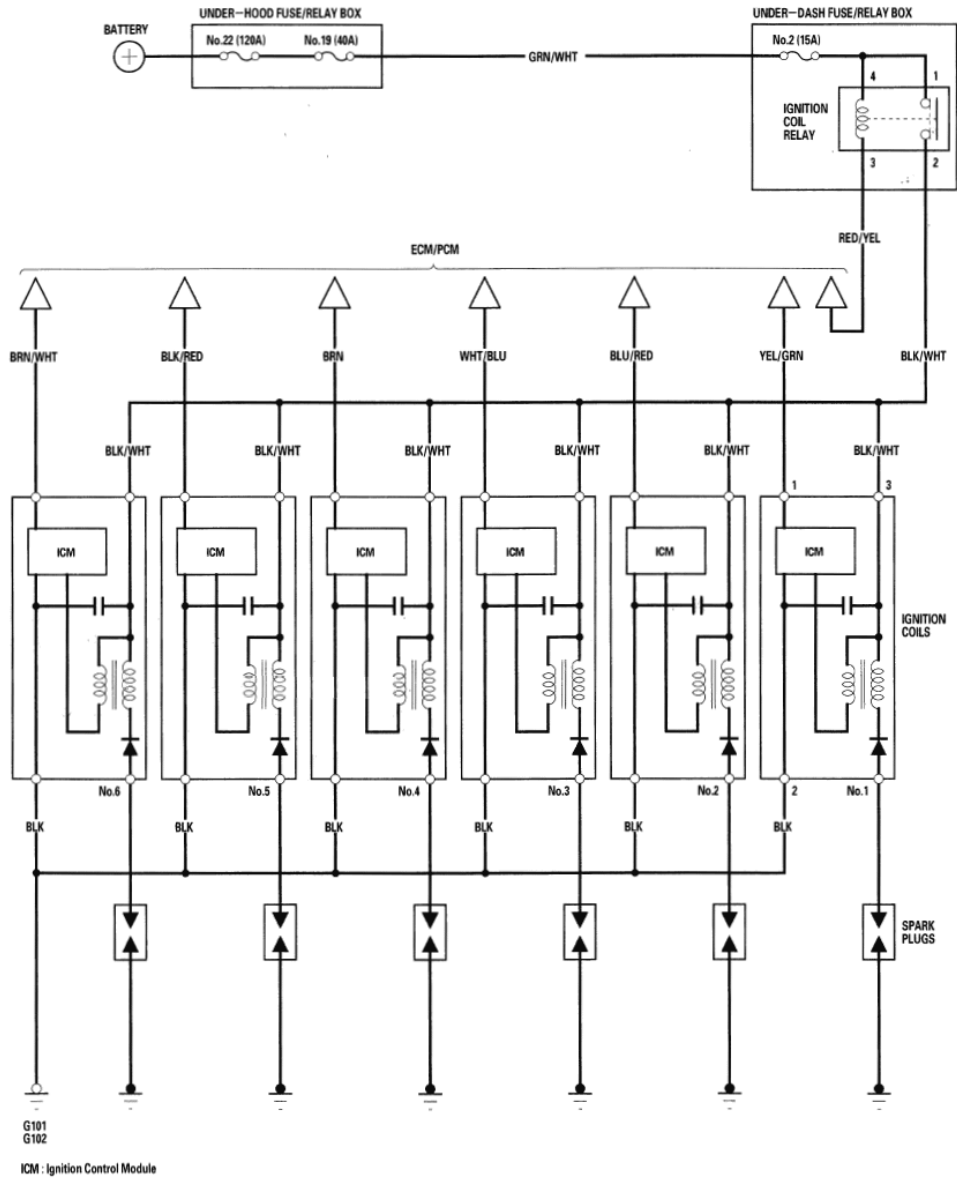


# Ignition System

## Component Location Index



### Circuit Diagram



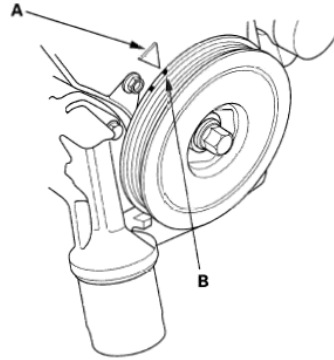
## Ignition Timing Inspection

1. Connect the Honda Diagnostic System (HDS) to the data link connector (DLC) (see step 2 on page 11-3), and check for DTC's. If a DTC is present, diagnose and repair the cause before inspecting the ignition timing.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Neutral) until the radiator fan comes on, then let it idle.
3. Check the idle speed (see page 11-238).
4. Select "SCS" mode using the HDS.
5. Remove the right side engine compartment cover (see step 1 on page 4-29).
6. Connect the timing light to the service loop.
7. Aim the light toward the pointer (A) on the timing belt cover. Check the ignition timing under no load condition: headlights, blower fan, rear window defogger, and air conditioner are not operating.

### Ignition Timing

**M/T:  $10^{\circ} \pm 2^{\circ}$  BTDC (RED mark (B)) at idle in Neutral**

**A/T:  $10^{\circ} \pm 2^{\circ}$  BTDC (RED mark (B)) at idle in Park or Neutral**

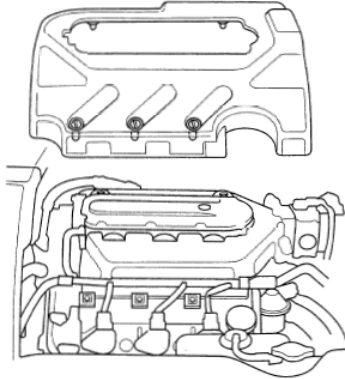


8. If the ignition timing differs from the specification, check cam timing. If cam timing is OK, update the engine control module (ECM)/powertrain control module (PCM) if it does not have the latest software (see page 11-6), or substitute a known-good ECM/PCM (see page 11-7), then recheck. If the system works properly, and the ECM/PCM was substituted, replace the original ECM/PCM (see page 11-171).
9. Disconnect the HDS and the timing light.

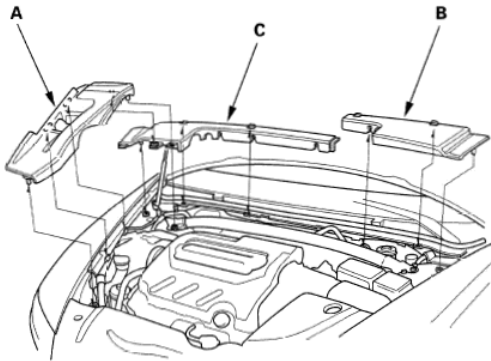
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## Ignition Coil Removal/Installation

1. Remove the intake manifold cover.

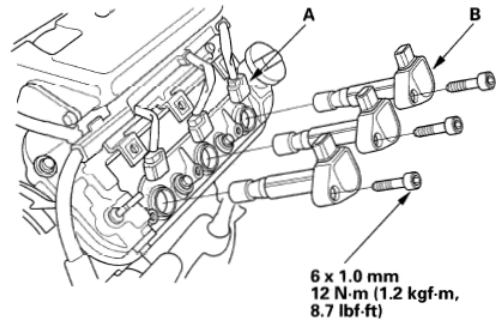


2. Remove the right side engine compartment cover (A), then remove the left rear engine compartment cover (B) and right rear engine compartment cover (C).



3. When removing the No. 6 coil you must remove the reserve tank heat shield and reserve tank.

4. Disconnect the ignition coil connectors (A), then remove the ignition coils (B).



5. Install the ignition coils in the reverse order of removal.

## Ignition Coil Relay Circuit Troubleshooting

1. Check the No. 2 (15A) fuse in the under-dash fuse/relay box.

*Is the fuse OK?*

**YES**—Go to step 2.

**NO**—Replace the fuse. ■

2. Remove the ignition coil relay from the under-dash fuse/relay box and test it (see page 22-75).

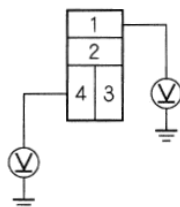
*Is the relay OK?*

**YES**—Go to step 3.

**NO**—Replace the ignition coil relay. ■

3. Measure the voltage between ignition coil relay 4P socket terminal No. 1 and body ground, then terminal No. 4 and body ground.

IGNITION COIL RELAY 4P SOCKET



Terminal side of female terminals

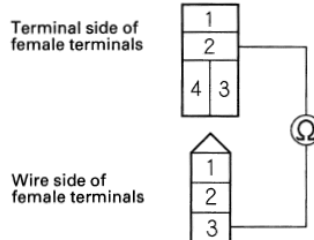
*Is there battery voltage?*

**YES**—Go to step 4.

**NO**—Replace the under-dash fuse/relay box. ■

4. Check for continuity between ignition coil relay 4P socket terminal No. 2 and the No. 1 ignition coil 3P connector terminal No. 3.

IGNITION COIL RELAY 4P SOCKET



No. 1 IGNITION COIL 3P CONNECTOR

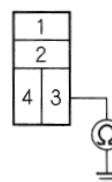
*Is there continuity?*

**YES**—Go to step 5.

**NO**—Repair an open in the wire between ignition coil relay 4P socket terminal No. 2 and ignition coil 3P connector terminal No. 3. ■

5. Check for continuity between ignition coil relay 4P socket terminal No. 3 and body ground.

IGNITION COIL RELAY 4P SOCKET



Terminal side of female terminals

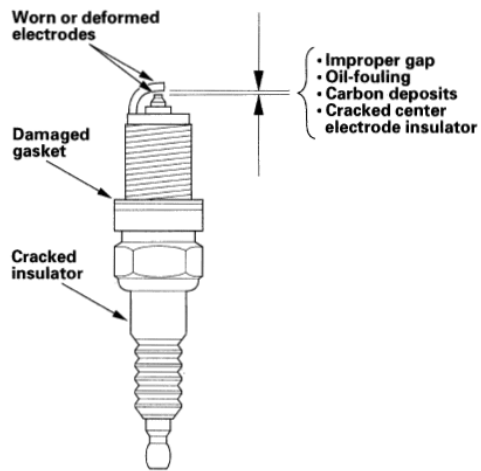
*Is there continuity?*

**YES**—Repair a short in the wire between ignition coil relay 4P socket terminal No. 3 and ECM/PCM. ■

**NO**—Repair an open in the wire between ignition coil relay 4P socket terminal No. 3 and ECM/PCM. ■

## Spark Plug Inspection

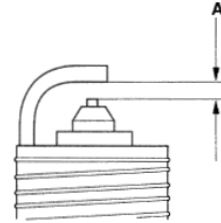
1. Inspect the electrodes and ceramic insulator.
  - Burned or worn electrodes may be caused by:
    - Advanced ignition timing
    - Loose spark plug
    - Plug heat range too hot
    - Insufficient cooling
  - Fouled plug may be caused by:
    - Retarded ignition timing
    - Oil in combustion chamber
    - Incorrect spark plug gap
    - Plug heat range too cold
    - Excessive idling/low speed running
    - Clogged air cleaner element
    - Deteriorated ignition coils



2. Do not adjust the gap (A) of iridium tip plugs ; replace the spark plug if the gap is out of specification.

### Electrode Gap

**Standard (New): 1.0 – 1.1 mm (0.039 – 0.043 in.)**

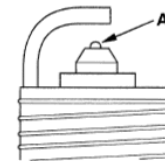


3. Replace the plug at the specified interval or if the center electrode is rounded (A). Use only the spark plugs as listed.

### Spark Plugs

**NGK: IZFR6K-11**

**DENSO: SKJ20DR-M11**



4. Apply a small quantity of anti-seize compound to the plug threads, and screw the plugs into the cylinder head finger-tight. Then torque them to 18 N·m (1.8 kgf·m, 13 lbf·ft).