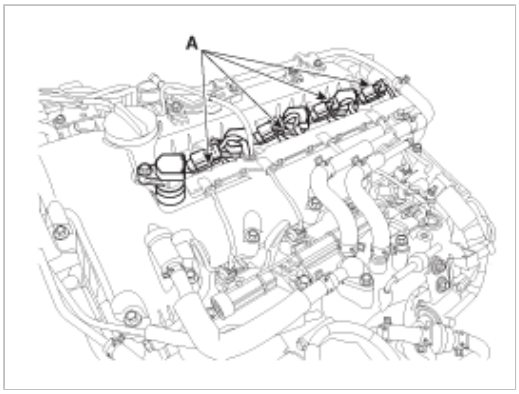
## Description

Ignition timing is controlled by the electronic control ignition timing system. The standard reference ignition timing data for the engine operating conditions are preprogrammed in the memory of the ECM (Engine Control Module). The engine operating conditions (speed, load, warm-up condition, etc.) are detected by the various sensors. Based on these sensor signals and the ignition timing data, signals to interrupt the primary current are sent to the ECM. The ignition coil is activated, and timing is controlled.

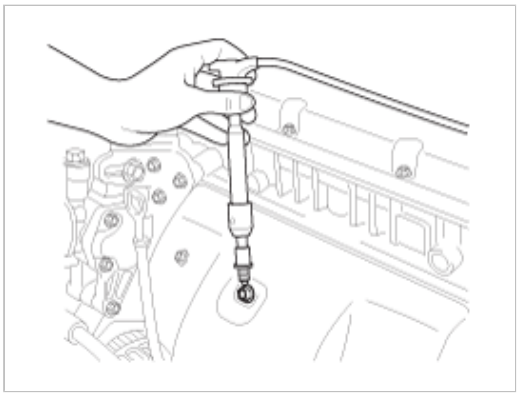
## On-vehicle Inspection

**Spark Test**

1. Remove the ignition coil connector(A) and ignition coil.



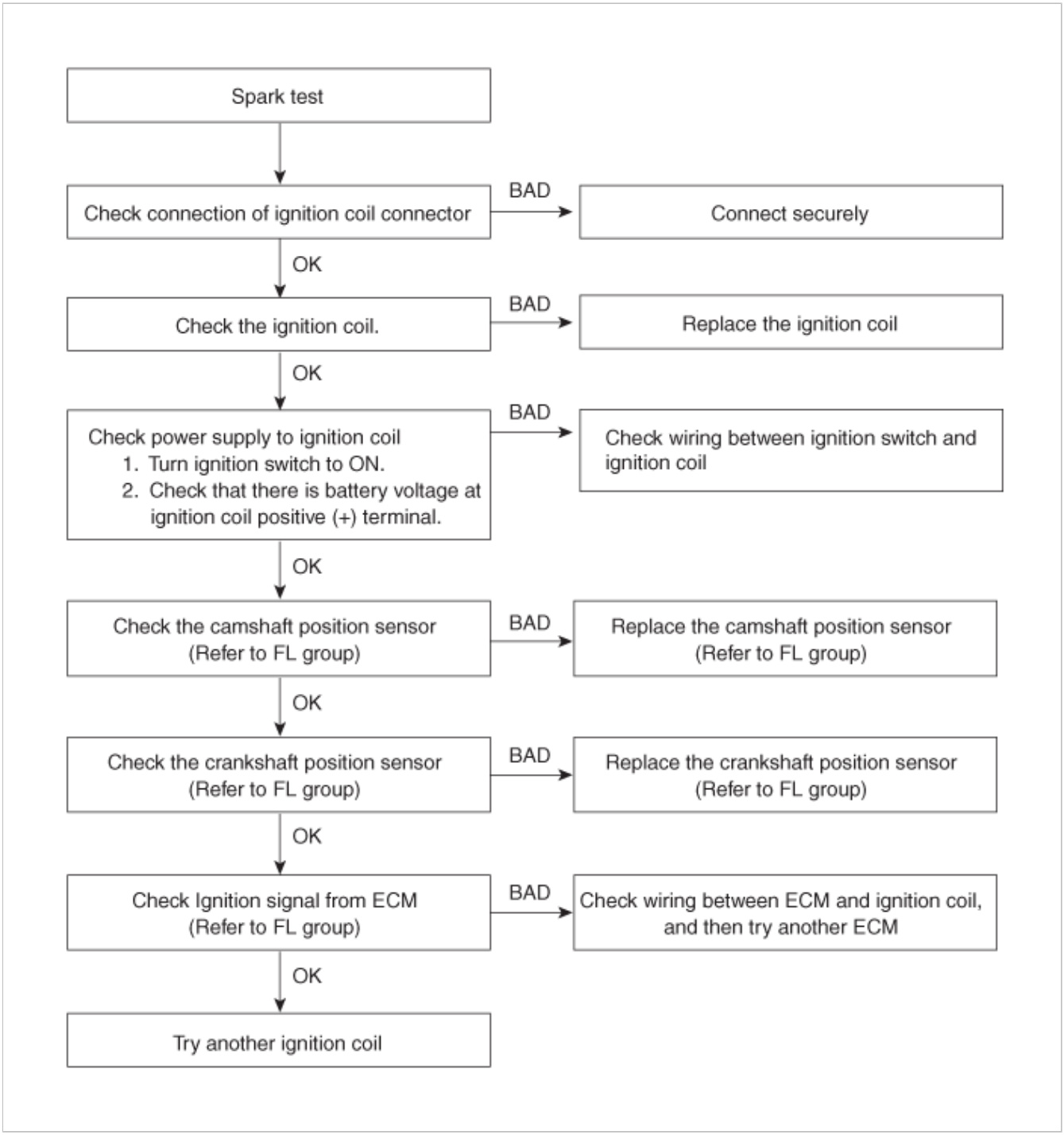

2. Using a spark plug socket, remove the spark plug.
3. Install the spark plug to the ignition coil.
4. Ground the spark plug to the engine.



5. Check if spark occurs while engine is being cranked.

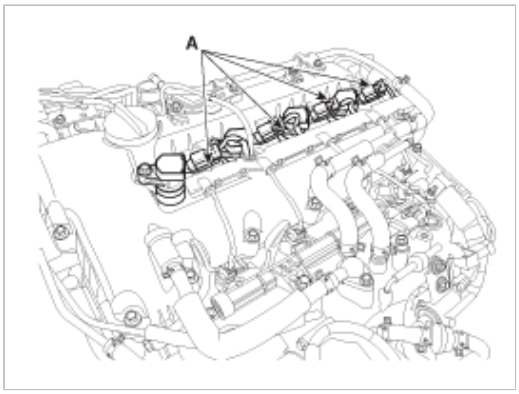
> NOTE
>
> To prevent fuel being injected from injectors while the engine is being cranked, disconnect the injector connectors. Crank the engine for no more than 5 ~ 10 seconds.

6. Inspect all the spark plugs.
7. Using a spark plug socket, install the spark plug.
8. Install the ignition coil.
9. Reconnect the ignition coil connector.




## Inspect Spark Plug

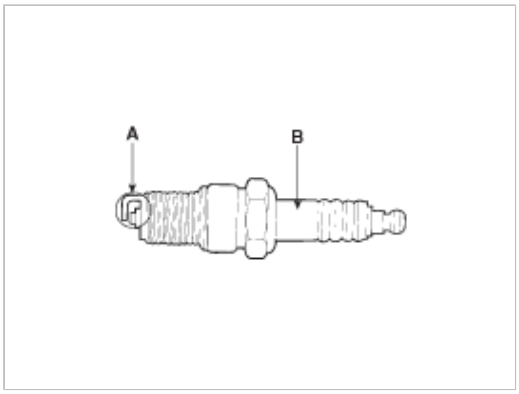
1. Remove the ignition coil connector(A) and ignition coil.




2. Using a spark plug socket, remove the spark plug.

> **CAUTION**
>
> Be careful that no contaminates enter through the spark plug holes.

3. Inspect the electrodes (A) and ceramic insulator (B).

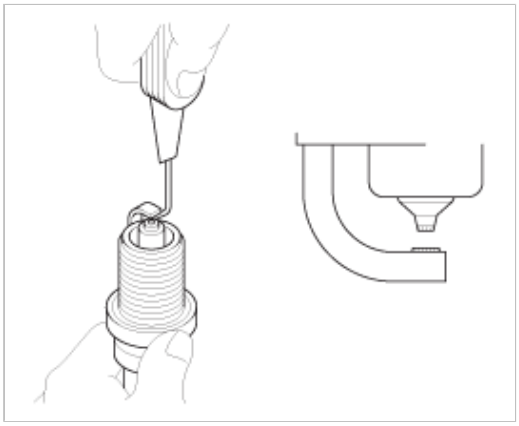



**Inspection Of Electrodes**

| Condition | Dark deposits | White deposits |
|---|---|---|
| Description | - Fuel mixture too rich<br>- Low air intake | - Fuel mixture too lean<br>- Advanced ignition timing<br>- Insufficient plug tightening torque |

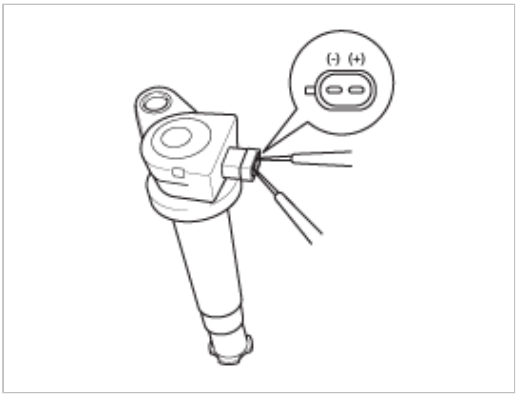
4. Check the electrode gap (A).

**Standard**
Unleaded : 1.0 ~ 1.1 mm (0.0394 ~ 0.0433 in.)



## Inspect Ignition Coil

1. Measure the primary coil resistance between terminals (+) and (-).




**Standard value:** 0.62Ω ± 10%