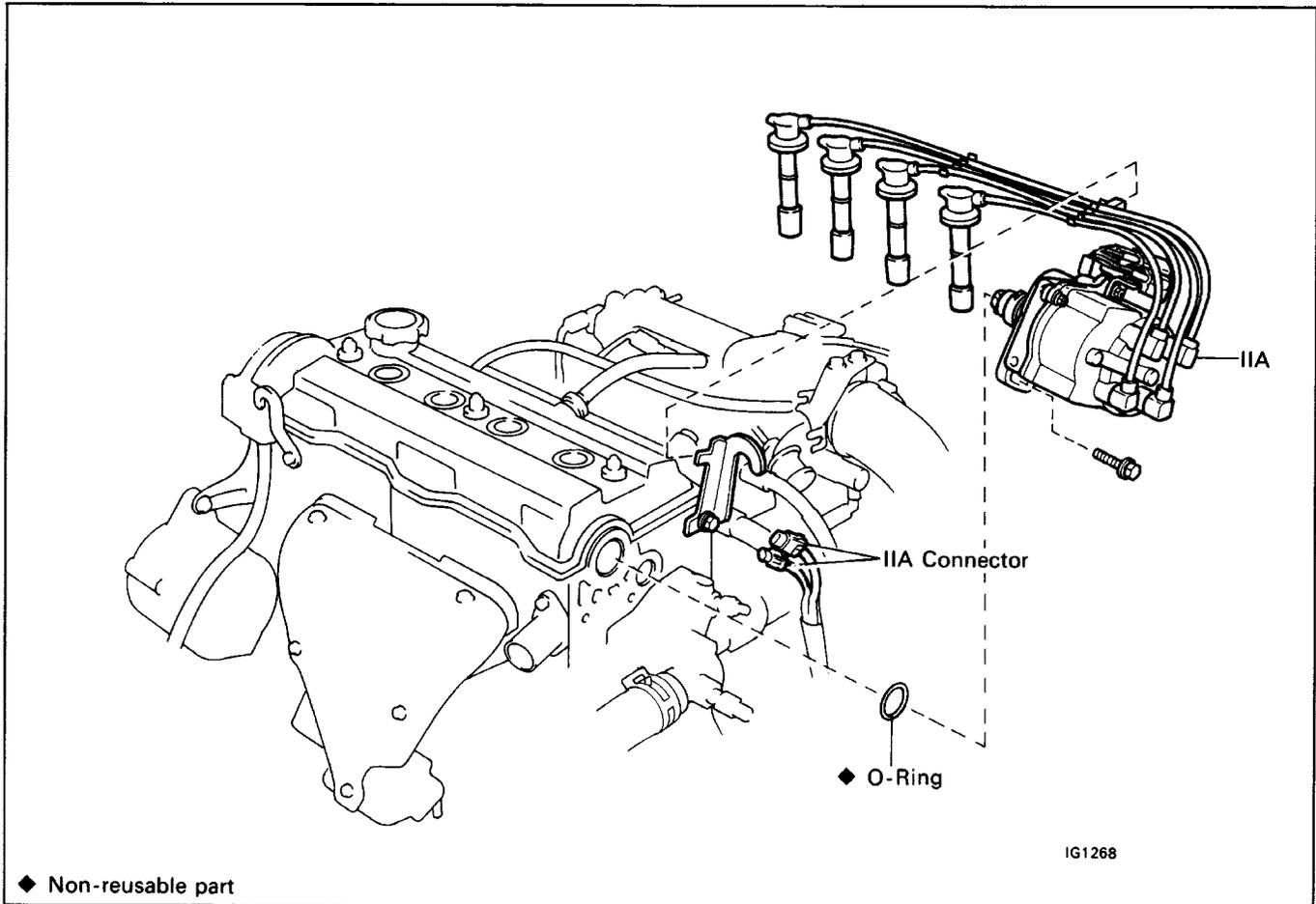


INTEGRATED IGNITION ASSEMBLY (IIA) (4A-FE) REMOVAL OF IIA



1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY

CAUTION: Work must be started after approx. 20 seconds or longer from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

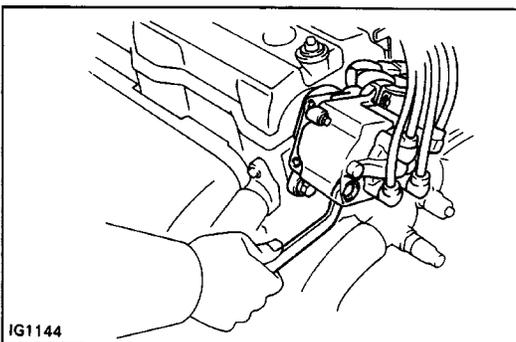
2. DISCONNECT IIA CONNECTORS

3. DISCONNECT HIGH-TENSION CORDS FROM SPARK PLUGS

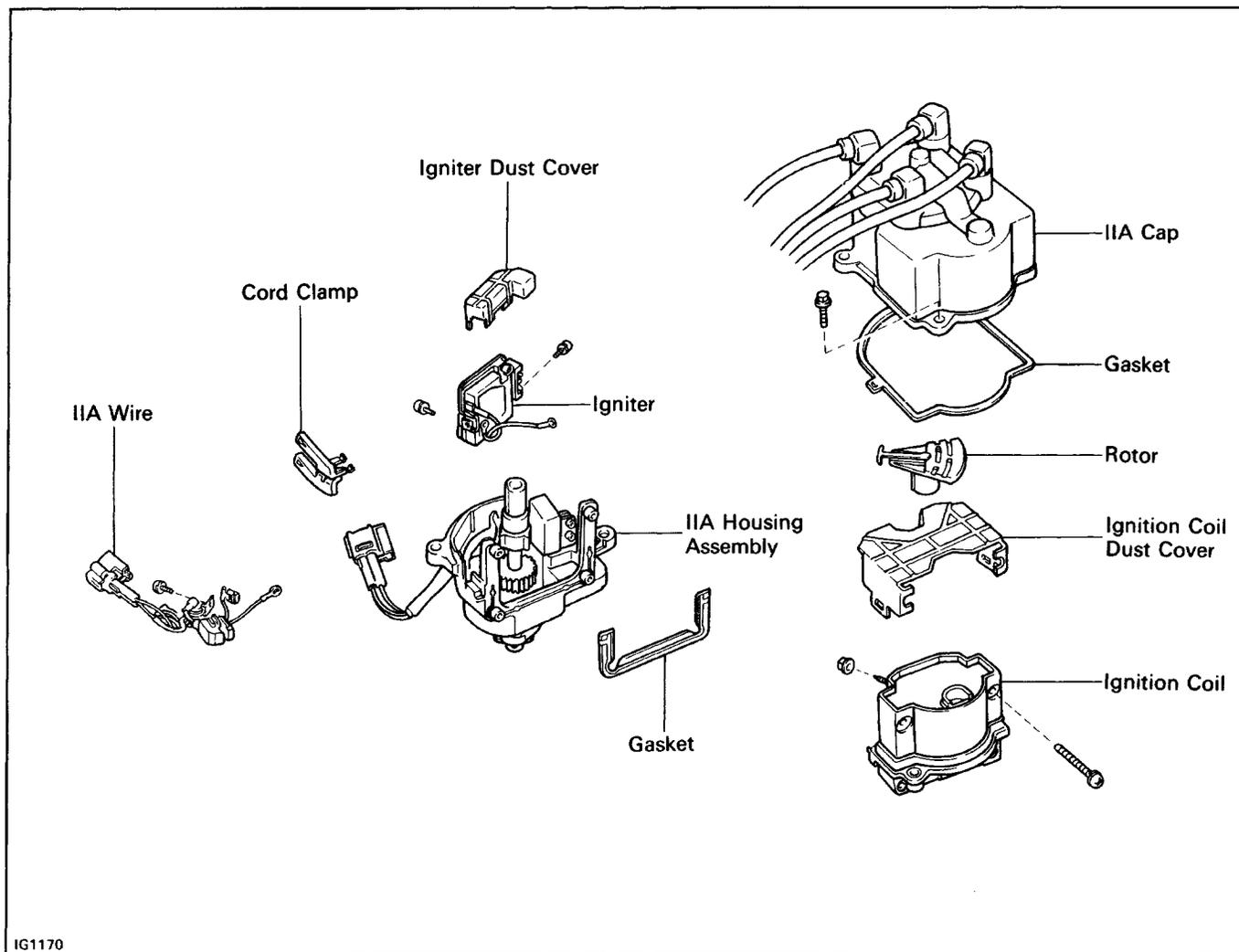
- Disconnect the cord clamp from the engine hanger.
- Disconnect the four high-tension cords from the spark plugs. (See page [IG-7](#))

4. REMOVE IIA

- Remove the two hold-down bolts, and pull out the IIA.
- Remove the O-ring from the IIA housing.



COMPONENTS



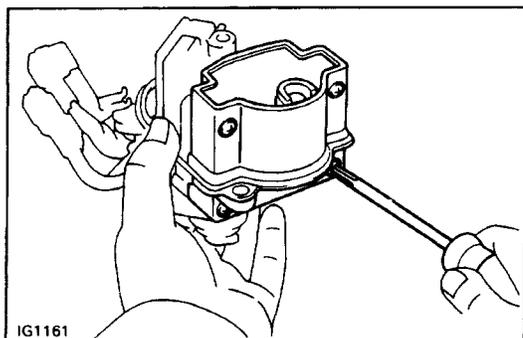
IG1170

DISASSEMBLY OF IIA

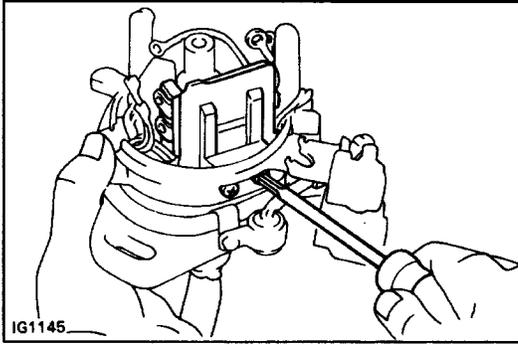
1. REMOVE IIA CAP WITHOUT DISCONNECTING HIGH-TENSION CORDS
2. REMOVE ROTOR
3. REMOVE IGNITION COIL DUST COVER
4. REMOVE IGNITER DUST COVER

5. REMOVE IGNITION COIL

- (a) Remove the two nuts, and disconnect the three wires from the ignition coil terminals.
- (b) Remove the four screws, ignition coil and gasket.

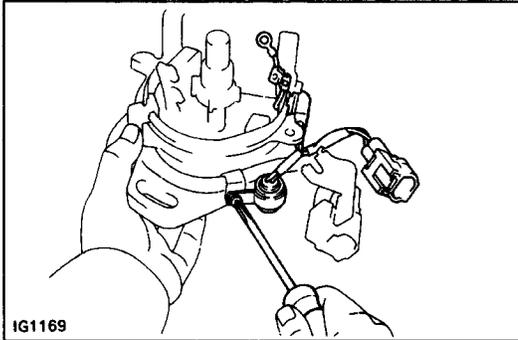


IG1161



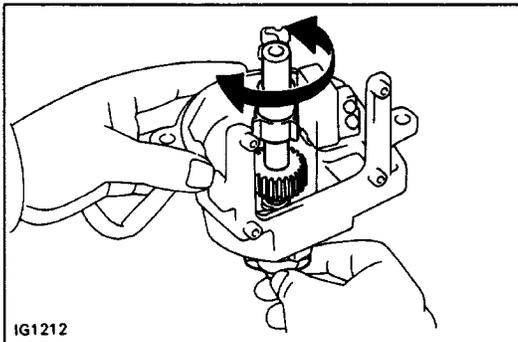
6. REMOVE IGNITER

- (a) Remove the two nuts, and disconnect the three wires from the ignite terminals.
- (b) Remove the two screws and igniter.



7. REMOVE IIA WIRE

- (a) Disconnect the connector from the cord clamp.
- (b) Disconnect the wire grommet from the IIA housing.
- (c) Remove the screw and IIA wire.

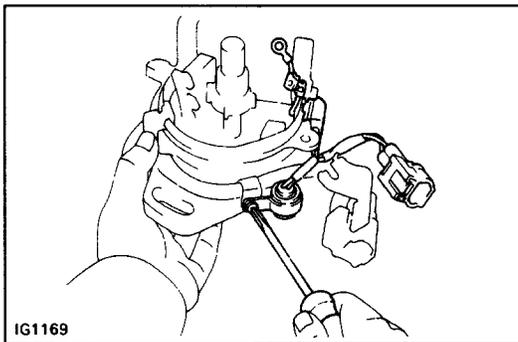


INSPECTION OF IIA

INSPECT GOVERNOR SHAFT

Turn the governor shaft and check that it is not rough or worn.

If it feels rough or worn, replace the IIA housing assembly.

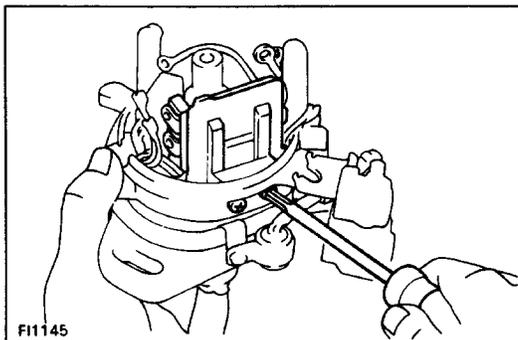


ASSEMBLY OF IIA

(See page [IG-21](#))

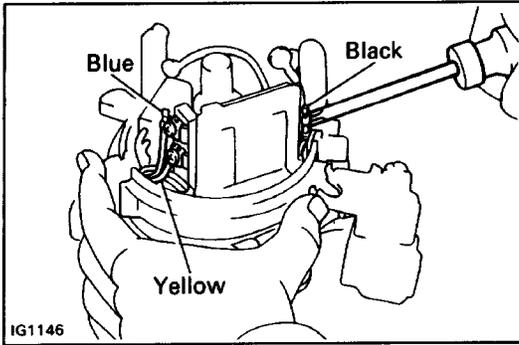
1. INSTALL IIA WIRE

- (a) Fit the wire grommet to the IIA housing.
- (b) Install the IIA wire with the screw.
- (c) Install the connector to the cord clamp.

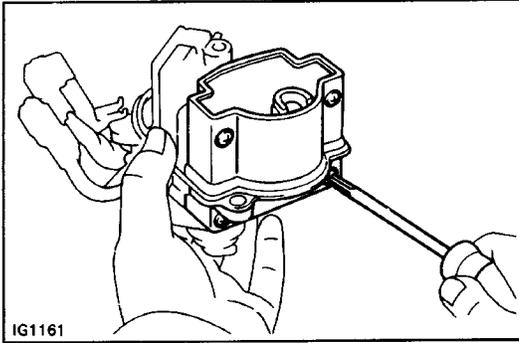


2. INSTALL IGNITER

- (a) Install the igniter with the two screws.

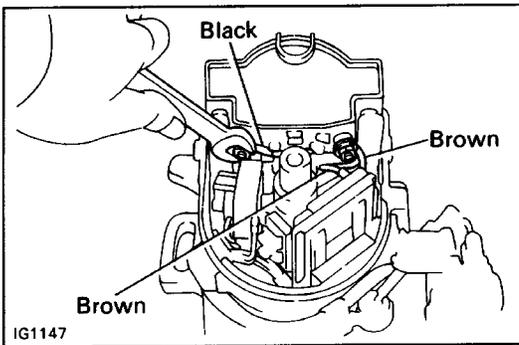


- (b) Connect the three wires to the igniter terminals with the three screws.

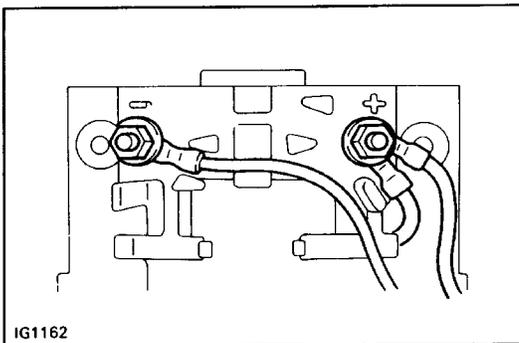


3. INSTALL IGNITION COIL

- (a) Install the gasket and ignition coil with the four screws.



- (b) Connect the three wires to the ignition coil terminals with the two nuts.



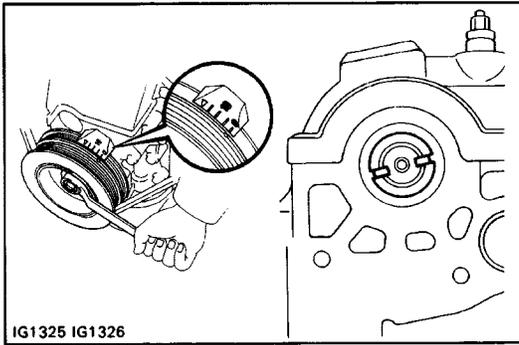
NOTICE:

- When connecting the wires to the ignition coil, insert both properly into their grooves found on the side of the ignition coil.
- Be sure the wires do not contact with signal rotor or IIA housing.

4. INSTALL IGNITION COIL DUST COVER

5. INSTALL ROTOR

6. INSTALL IIA CAP AND HIGH-TENSION CORDS

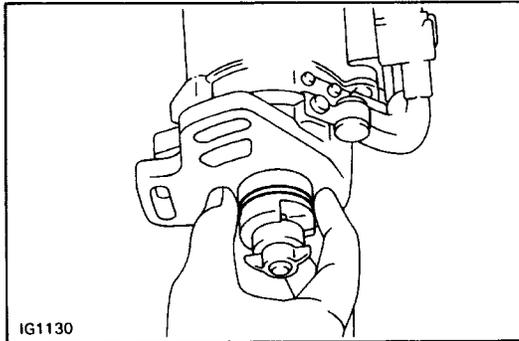


INSTALLATION OF IIA

(See page [IG-20](#))

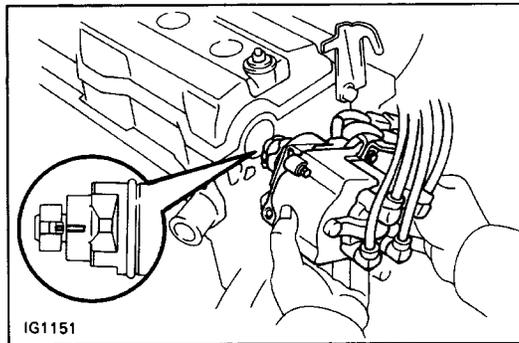
1. SET NO.1 CYLINDER TO TDC/COMPRESSION

Turn the crankshaft clockwise, and position the slit of the intake camshaft as shown in the illustration.



2. INSTALL IIA

- (a) Install a new O-ring to the housing.
- (b) Apply a light coat of engine oil on the O-ring.



- (c) Align the cutout of the coupling with the line of the housing.
- (d) Insert the IIA, aligning the center of the flange with that of bolt hole on the cylinder head.
- (e) Lightly tighten the two hold-down bolts.

3. CONNECT HIGH-TENSION CORDS TO SPARK PLUGS

Firing order: 1 - 3 - 4 - 2

4. CONNECT IIA CONNECTORS

5. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY

6. WARM UP ENGINE

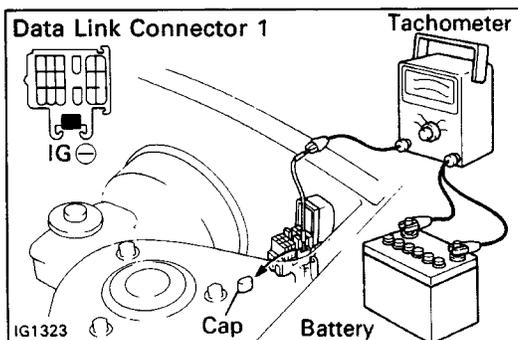
Allow the engine to warm up to normal operating temperature.

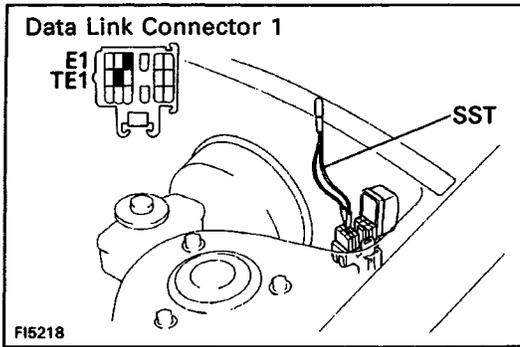
7. CONNECT TACHOMETER

Connect the test probe of a tachometer to terminal IG₂₂ of the data link connector 1.

NOTICE:

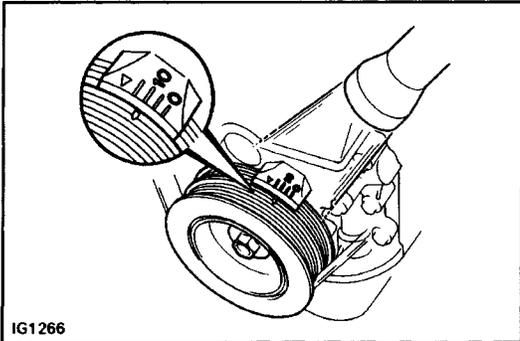
- NEVER allow the tachometer terminal to touch ground as it could result in damage to the igniter and/or ignition coil.
- As some tachometers are not compatible with this ignition system, we recommend that you confirm the compatibility of your unit before use.





8. ADJUST IGNITION TIMING

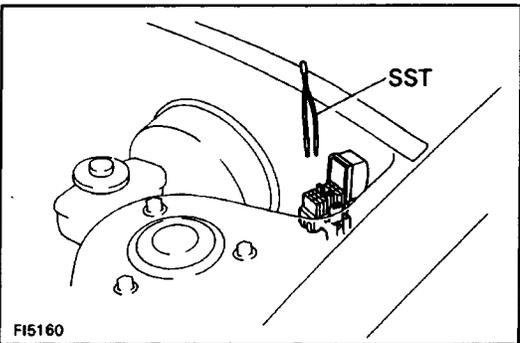
- (a) Using SST, connect terminals TE1 and E1 of the data link connector 1.
SST 09843-18020



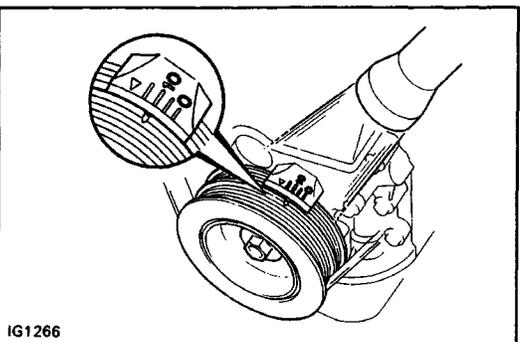
- (b) Using a timing light, check the ignition timing.
Ignition timing: 10° BTDC @ idle
(Transmission in neutral range)

- (c) Loosen the two hold-down bolts, and adjust by turning the IIA.
(d) Tighten the hold-down bolts, and recheck the ignition timing.

Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)



- (e) Remove the SST.
SST 09843-18020



9. FURTHER CHECK IGNITION TIMING

Ignition timing: 0 – 20° BTDC @ idle
(Transmission in neutral range)

HINT: The timing mark moves in a range between 0° and 20°.

10. DISCONNECT TACHOMETER AND TIMING LIGHT FROM ENGINE