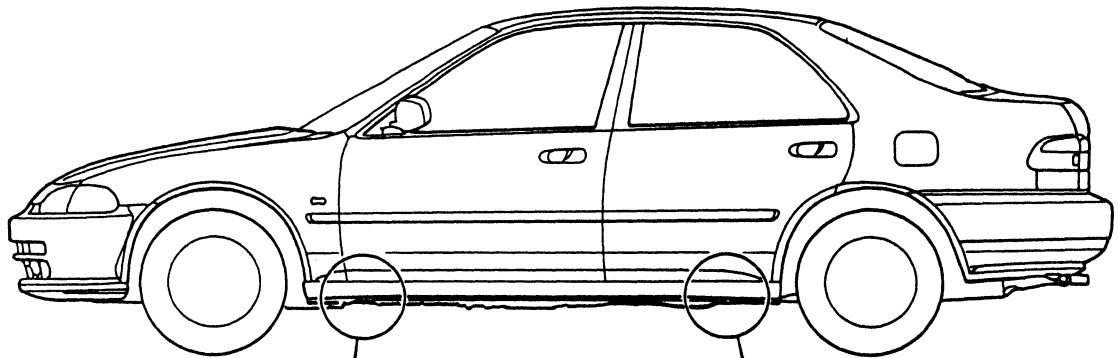
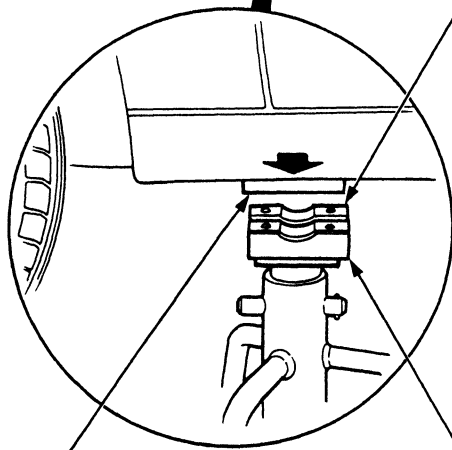


Lift and Support Points (cont'd)

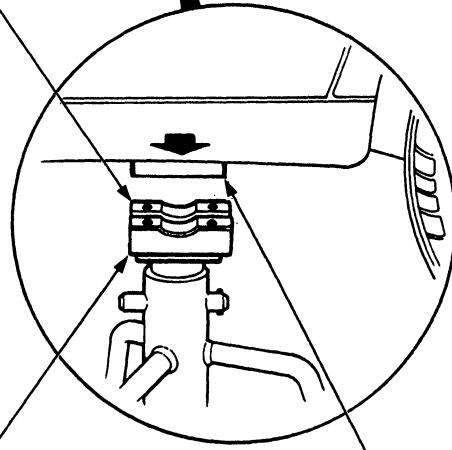
Safety Stands



RUBBER ATTACHMENT



FRONT SUPPORT POINT



REAR SUPPORT POINT

SAFETY STANDS

Outline

Description

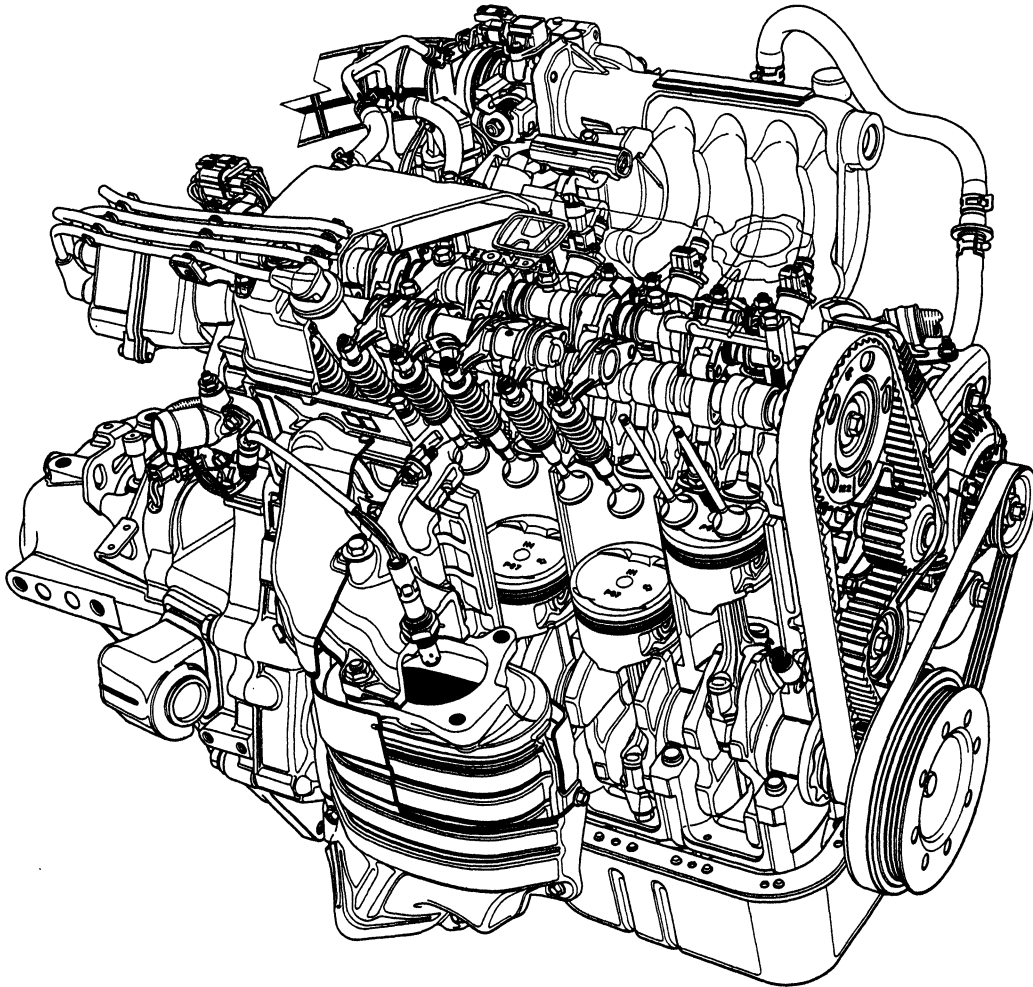
D15Z1 engine: VTEC-E, 1493 cc

D16Z6 engine: VTEC, 1590 cc

Both engines are SOHC, inline 4 cylinder, water cooled, and multi-point injected.

These engines use the Honda Variable Valve Timing and Lift Electronic Control System (VTEC-E or VTEC) which allows the timing and lift of the intake valves to be changed simultaneously.

D15Z1 engine (VTEC-E):



Engine Removal/Installation

⚠ WARNING

- Make sure jacks and safety stands are placed properly and hoist brackets are attached to the correct positions on the engine.
- Make sure the car will not roll off stands and fall while you are working under it.

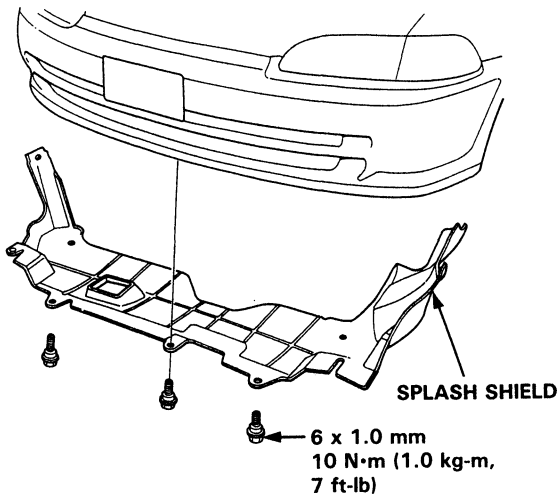
CAUTION:

- Use fender covers to avoid damaging painted surfaces.
- Unspecified items are common.
- Unplug the wiring connectors carefully while holding the connector portion to avoid damage.
- Mark all wiring and hoses to avoid misconnection. Also, be sure that they do not contact other wiring or hoses or interfere with other parts.

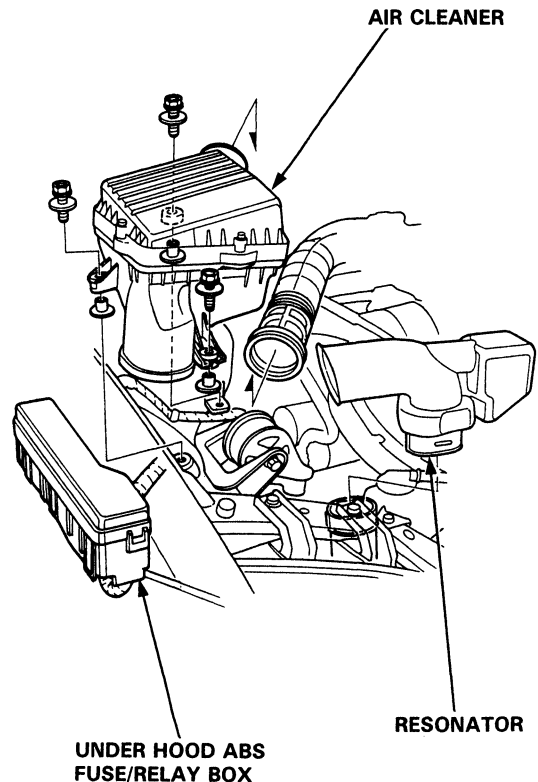
1. Disconnect the battery negative terminal first, then the positive terminal.
2. Remove the radiator cap.

⚠ **WARNING** Use care when removing the radiator cap to avoid scalding by hot coolant or steam.

3. Raise the hoist to full height.
4. Remove the front tires/wheels and the engine splash shield.



5. Drain the coolant (see Section 10).
 - Loosen the drain plug from the radiator lower tank.
6. Drain the transmission oil/fluid. Use a 3/8" drive socket wrench to remove the drain plug. Reinstall the drain plug using a new washer.
7. Drain the engine oil. Reinstall the drain plug using a new washer.
8. Lower the hoist.
9. Secure the hood as far open as possible.
10. Remove the under-hood ABS fuse/relay box.
11. Remove the air intake hose, the resonator and the air cleaner assembly.



Cylinder Head/Valve Train

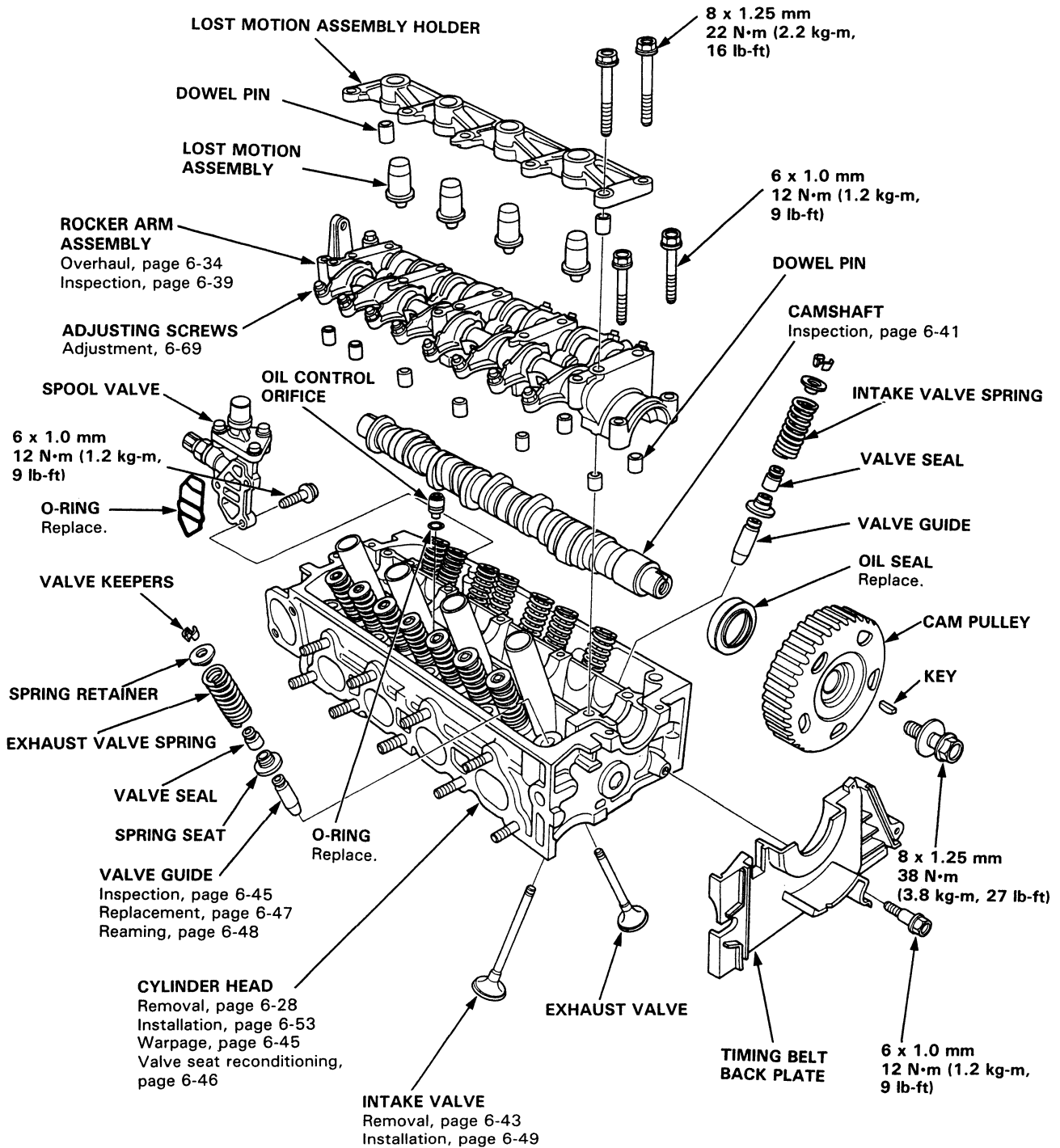
Illustrated Index (cont'd)

D16Z6 engine:

NOTE: Use new O-rings and gaskets when reassembling.



Prior to reassembling, clean all the parts in solvent, dry them, and apply lubricant to any contact parts.



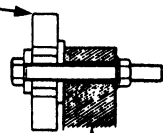
Flywheel and Drive Plate

Replacement

Manual Transmission:

Remove the six flywheel bolts, then separate the flywheel from the crankshaft flange. After installation, tighten the bolts in the criss-cross pattern.

RING GEAR HOLDER
07LAB-PV00100 or
07924-PD20003

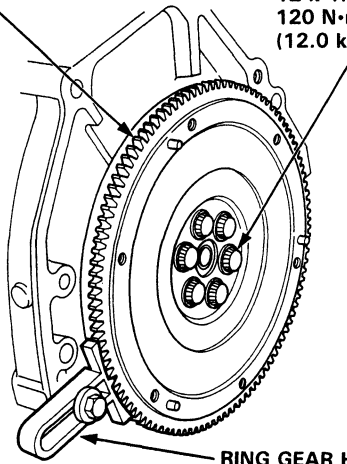


**ENGINE
BLOCK**

RING GEAR

Inspect ring gear teeth for wear or damage.

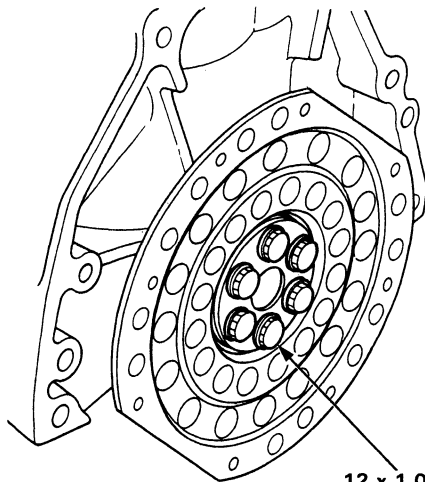
12 x 1.0 mm
120 N·m
(12.0 kg-m, 87 lb-ft)



RING GEAR HOLDER
07LAB-PV00100 or
07924-PD20003

Automatic Transmission:

Remove the six drive plate bolts, then separate the drive plate from the crankshaft flange. After installation, tighten the bolts in the criss-cross pattern.



12 x 1.0 mm
75 N·m
(7.5 kg-m, 54 lb-ft)

Connecting Rod and Crankshaft

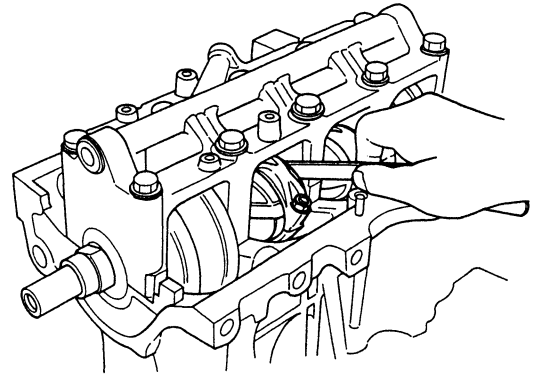


End Play

Connecting Rod End Play:

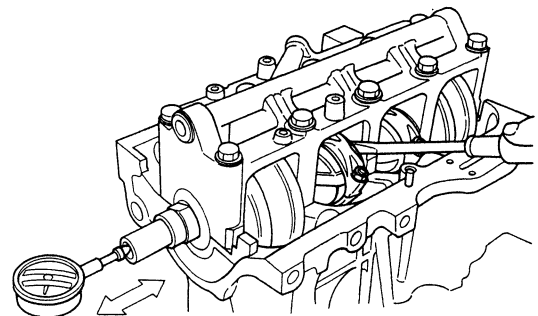
Standard (New): 0.15–0.30 mm
(0.006–0.012 in)

Service Limit: 0.40 mm (0.016 in)



- If out-of-tolerance, install a new connecting rod.
- If still out-of-tolerance, replace the crankshaft (pages 7-8 and 7-18).

Push the crank firmly away from the dial indicator, and zero the dial against the end of the crank. Then pull the crank firmly back toward the indicator; dial reading should not exceed service limit.



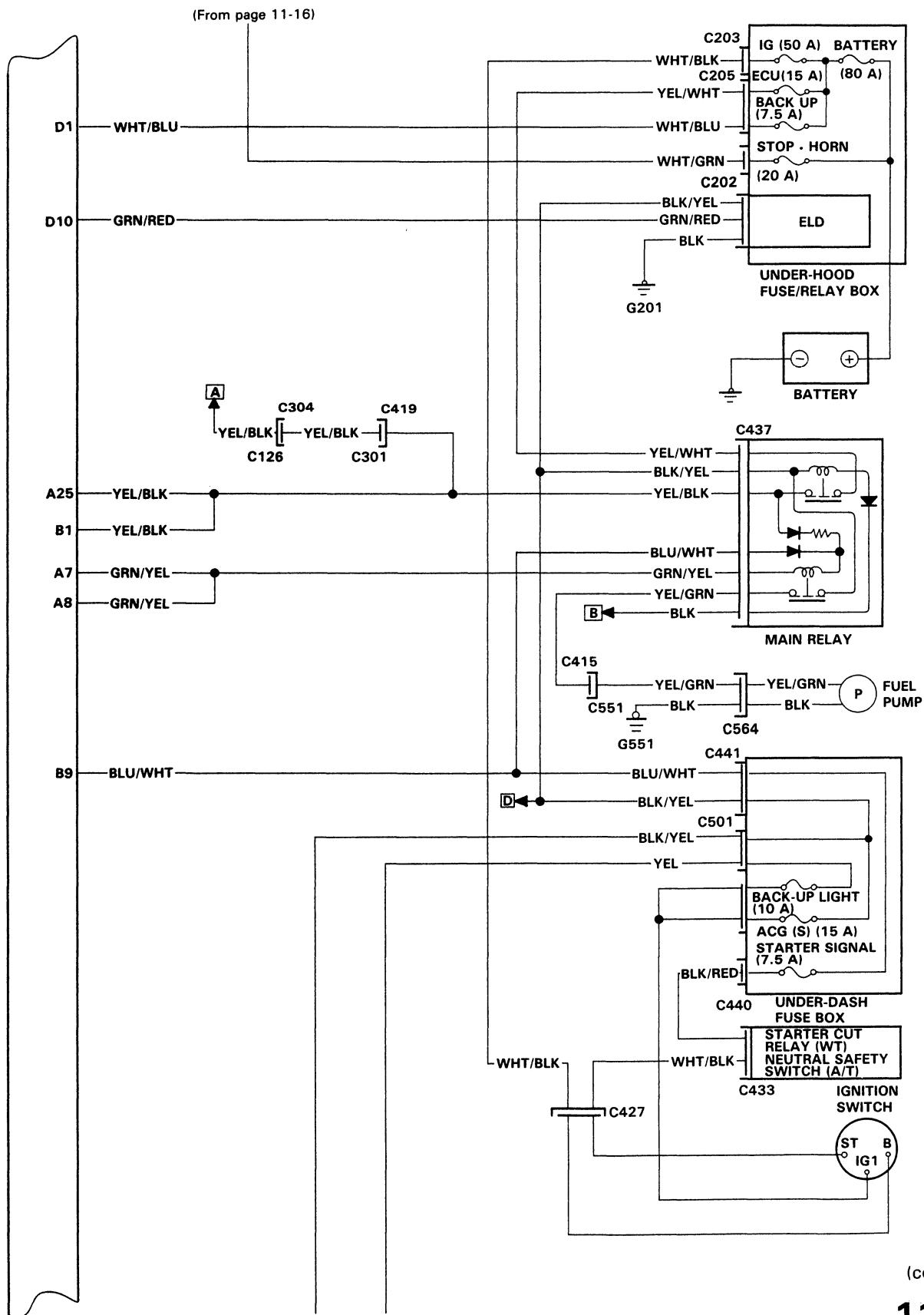
Crankshaft End Play:

Standard (New): 0.10–0.35 mm
(0.004–0.014 in)

Service Limit: 0.45 mm (0.018 in)

- If end play is excessive, inspect the thrust washers and thrust surface on the crankshaft. Replace parts as necessary.

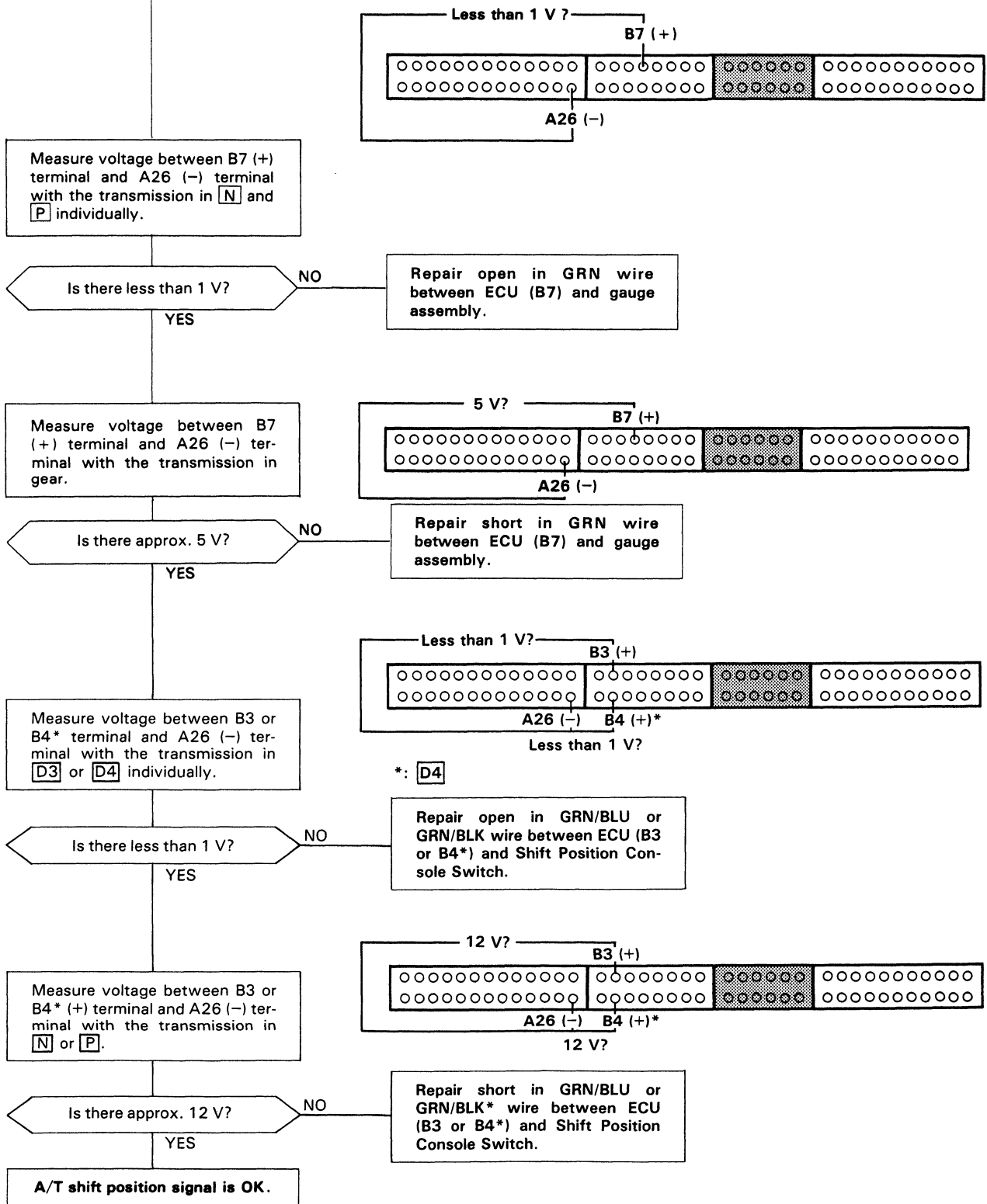
NOTE: Thrust washer thickness is fixed and must not be changed either by grinding or shimming. Thrust washers are installed with grooved side facing outward.



(cont'd)



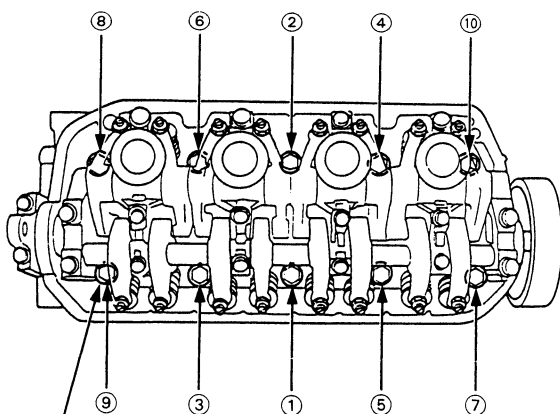
(From page 11-92)





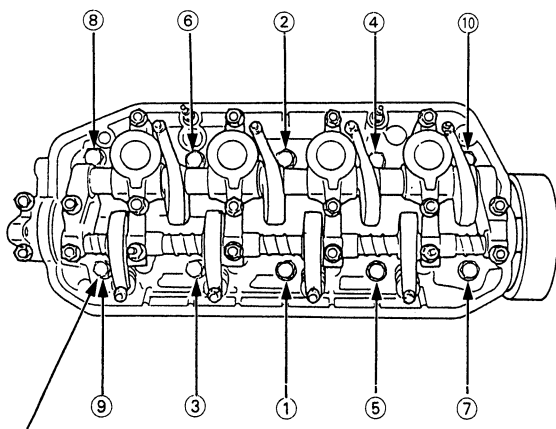
D15B7 engine:

CYLINDER HEAD TORQUE SEQUENCE



CYLINDER HEAD BOLT
10 x 1.25 mm
65 N·m (6.5 kg-m, 47 lb-ft)

D15B8 engine:

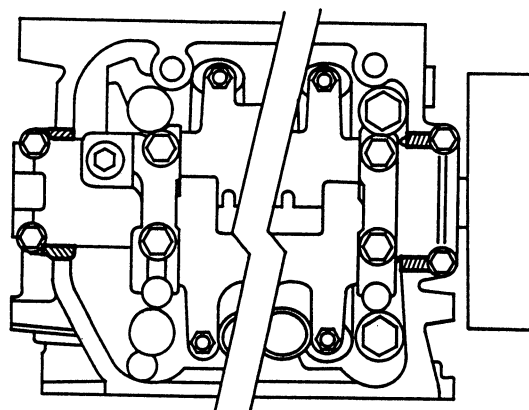


CYLINDER HEAD BOLT
10 x 1.25 mm
65 N·m (6.5 kg-m, 47 lb-ft)

7. Install the exhaust pipe A on the exhaust manifold.
8. Tighten the bolts for intake manifold bracket.
9. Install the exhaust pipe A on its bracket.
10. After the installation, check that the tubes, hoses and connectors are installed correctly.

11. Adjust the valve timing (page 6-63).

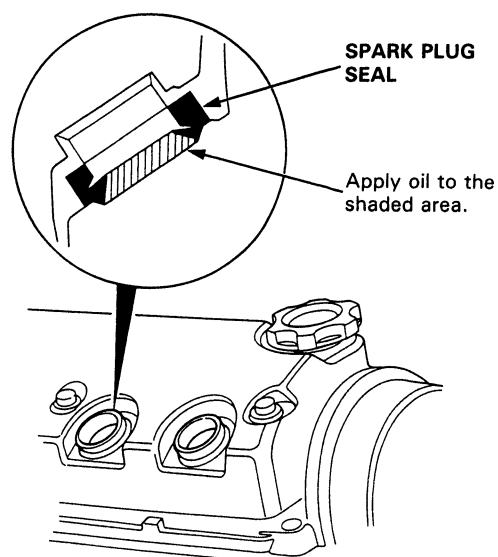
12. Apply liquid gasket to the head mating surface of the No. 1 and No. 5 or No. 6 cam holders, then install the cylinder head cover.



D16Z6, D15Z1 engine:

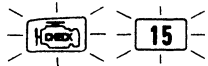
NOTE:

- Carefully apply oil with your finger to the shaded area when installing the cylinder head cover.
- Visually check the spark plug seal for damage.



PGM-FI Control System

Troubleshooting Flowchart — Ignition Output Signal



Self-diagnosis Check Engine light indicates code 15: A problem in the Ignition Output Signal circuit.

— Check Engine light has been reported on.
 — With service check connector jumped (see page 11-22), CODE 15 is indicated.

Do the ECU Reset Procedure (page 11-23).

Start the engine.

NOTE: If the engine won't start, it may take 20 seconds of cranking to set the code.

Is Check Engine light on and does it indicate CODE 15?

NO

Intermittent failure, system is OK at this time (test drive may be necessary).
 Check for poor connections or loose wires at C212 (located at right shock tower), C107 (igniter unit) and ECU.

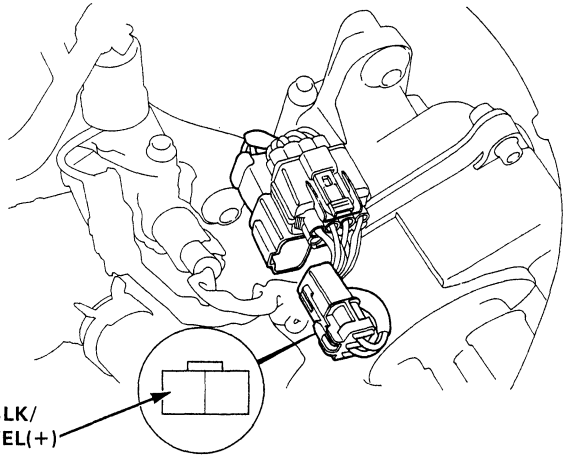
YES

Turn the ignition switch OFF.

Disconnect the 2P connector from the distributor

Turn the ignition switch ON.

Measure voltage between BLK / YEL (+) terminal and body ground.



BLK / YEL(+)

Is there battery voltage ?

NO

Repair open in BLK/YEL wire between the 2P connector and ignition switch.

YES

(To page 11-73)



Component Location

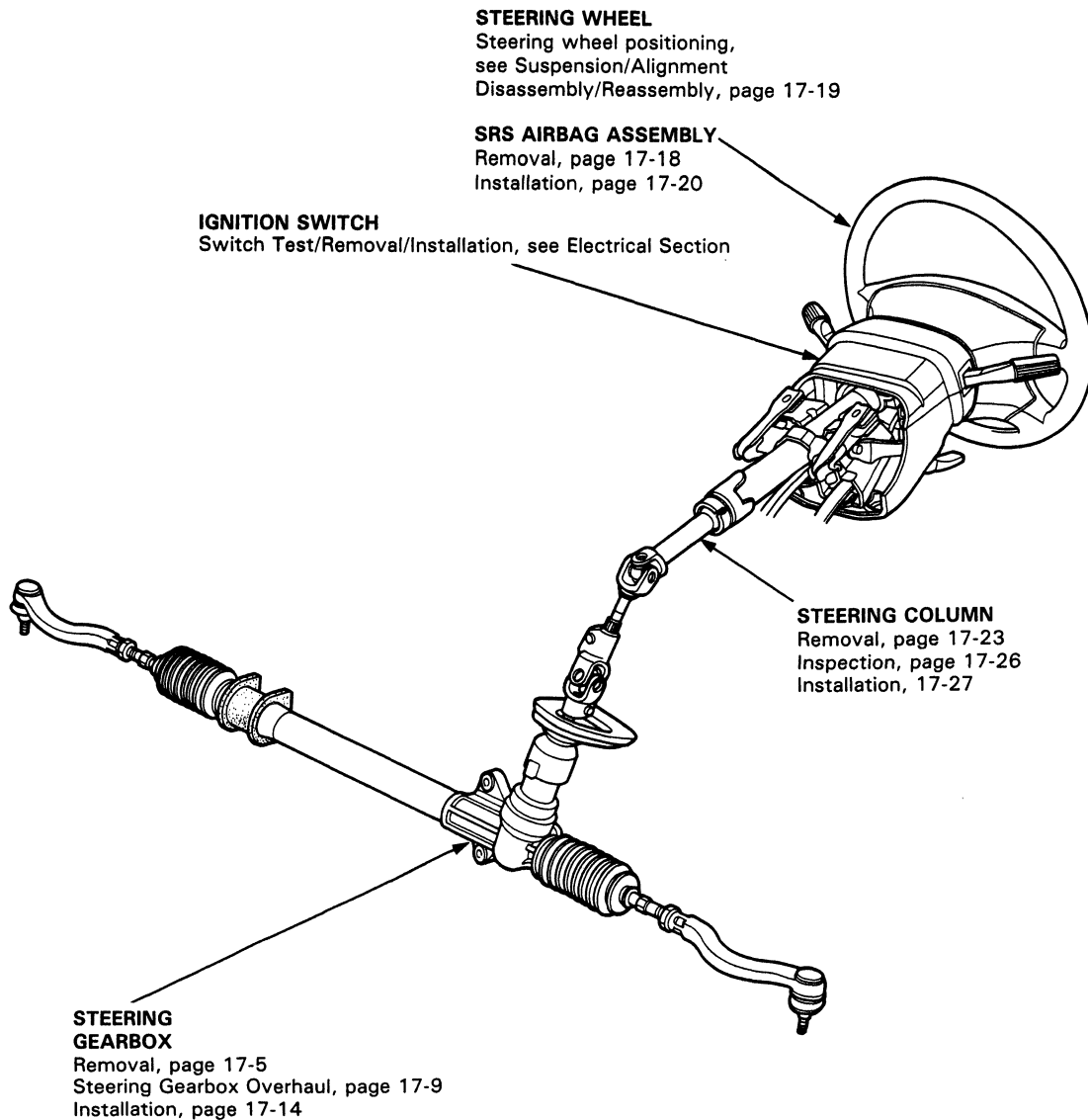
Index

NOTE:

- If an intact airbag assembly has been removed from a scrapped car or has been found defective or damaged during transit, storage or service, it should be deployed (see section 23).
- Before removing the gearbox, remove the ignition key to keep the steering shaft from turning.
- After installing the gearbox, check the wheel alignment and adjust if necessary.
- The tilt steering column is shown; the conventional steering column is similar except for the tilt mechanism.

CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- When disconnecting the SRS wire harness, install the short connector on the airbag, then disconnect the wire harness (see page 23-297).
- Replace the entire affected SRS harness assembly if there is an open circuit or damage to the wiring.






Steering Gearbox

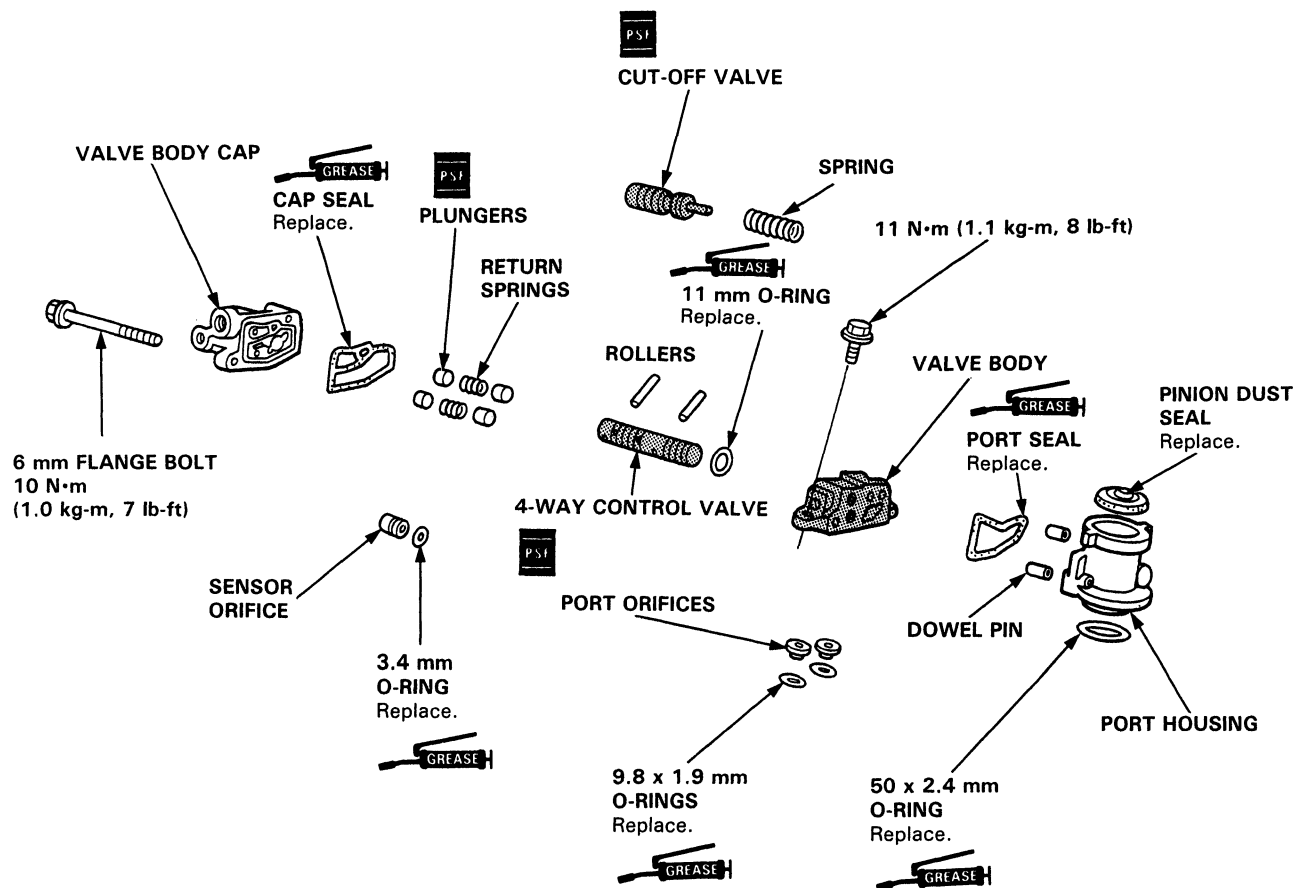
Valve Body Unit Overhaul

NOTE: If the Valve Body is damaged, it must be replaced as a set, with the Cut-off Valve and 4-Way Control Valve (shaded parts).

CAUTION:

- Replace the O-rings and seals with new ones.
- Do not dip the O-rings and seals in solvent.
- Apply grease in the seal grooves to keep the cap and port seals in place.
- Apply grease to the 50 x 2.4 mm and 11 mm O-rings to keep them in place in the valve ports.

-  STEERING GREASE Part Number 08733-B070E



(cont'd)

Troubleshooting

Flowcharts (cont'd)

Problem Code 1-3: High Pressure Leakage

CAUTION: Use only the digital multimeter to check the system.

Pre-test steps:

- Check reservoir fluid level, and if necessary, fill to the MAX level.
- Check for fluid leaks from the functional parts and replace the faulty parts if there is a leak.

Functional parts:

- Modulator
- Pump assembly
- High pressure hose/pipe

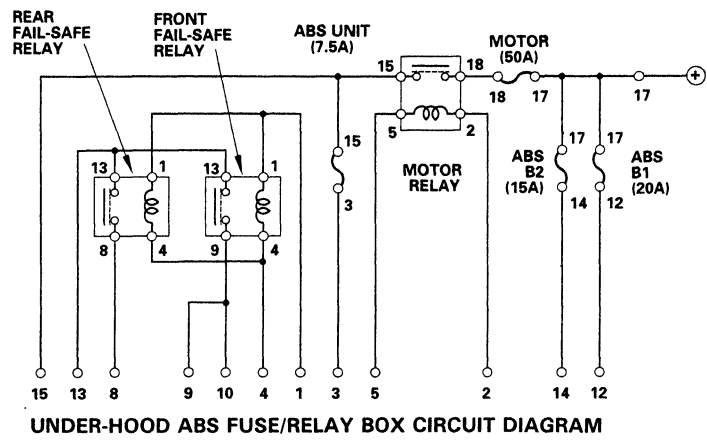
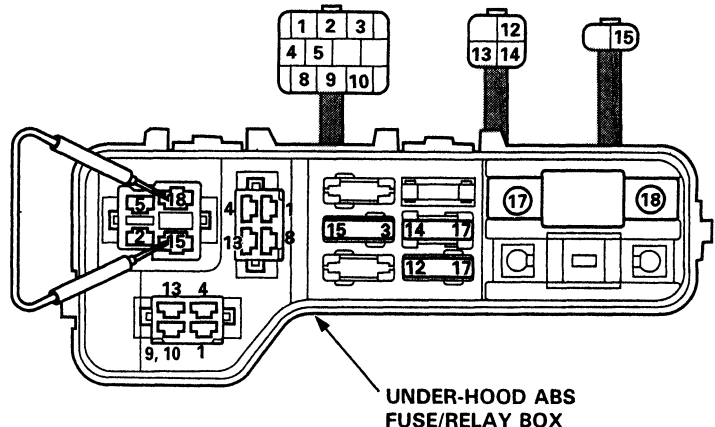
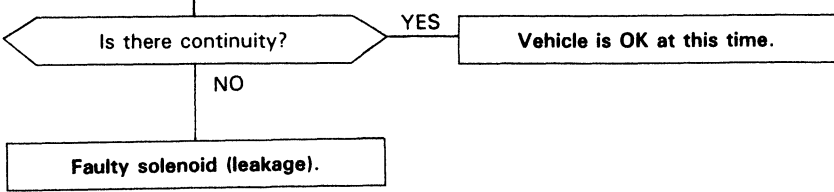
Bleed high pressure fluid from the maintenance bleeder with the Bleeder T-wrench (page 19-81).

Remove the pump motor relay.

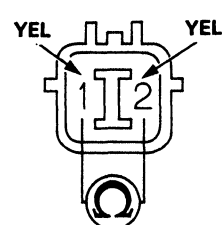
Connect the No. 15 and No. 18 terminals using a jumper wire for about 10 seconds.

Disconnect the 2-P connector from the pressure switch.

After 30 minutes, check for continuity between the No.1 (YEL) and No.2 (YEL) terminals on the switch side of connector.



SWITCH-SIDE CONNECTOR



View from terminal side.

Center Console, Center Lower Cover

Replacement

SRS wire harnesses are routed near the center lower cover.

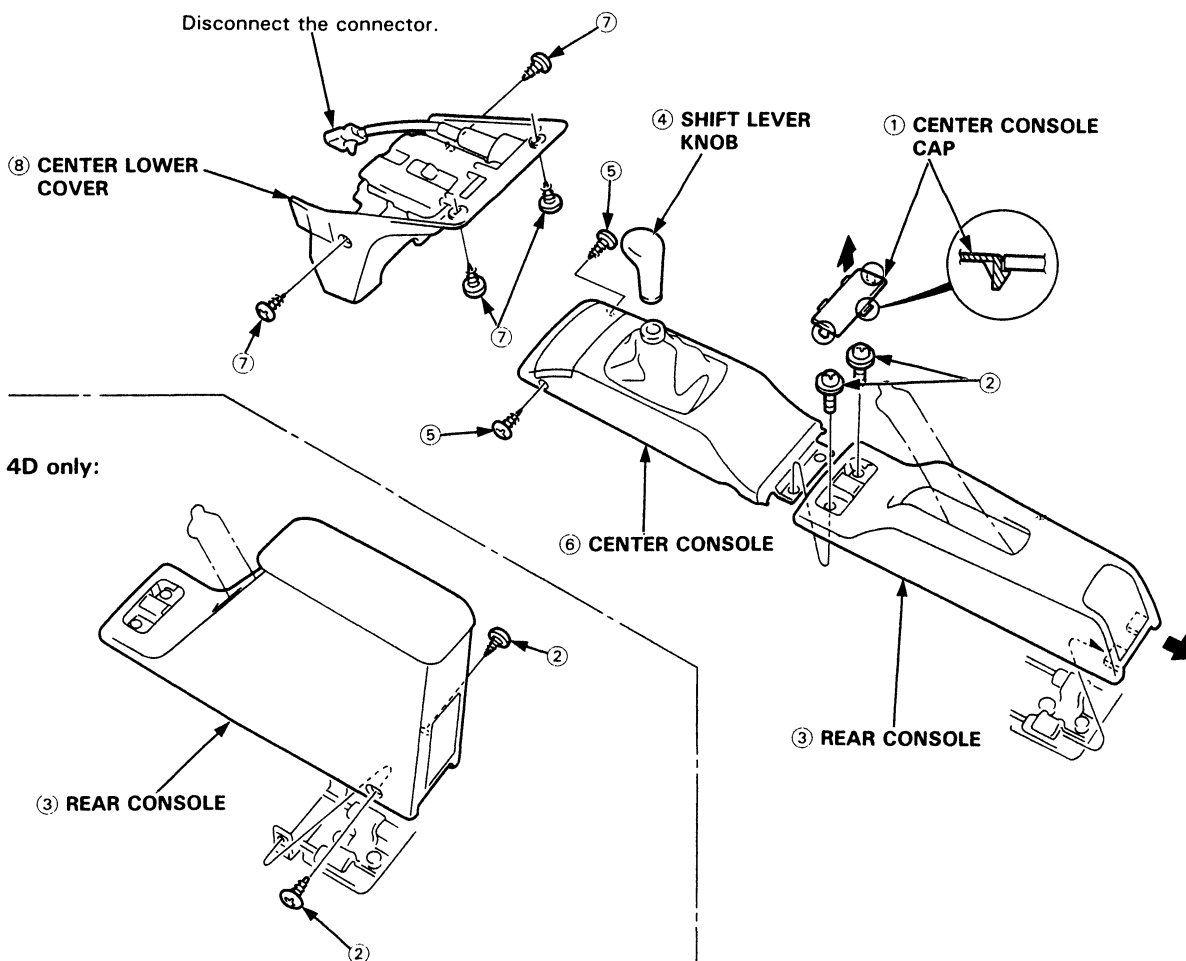
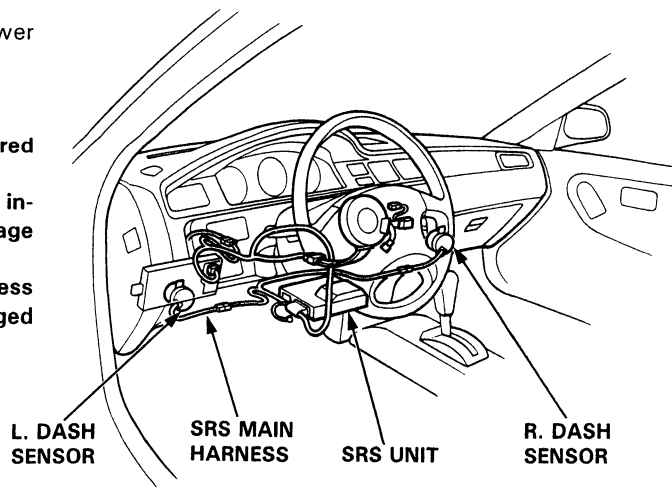
CAUTION:

- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting the SRS wire harness, install the short connector on the airbag (see page 23-273).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

Disassemble in numbered sequence.

NOTE:

- Lift up the parking brake lever.
- Take care not to scratch the consoles and dashboard.
- When prying with a flat tip screwdriver, wrap it with protective tape to prevent damage.

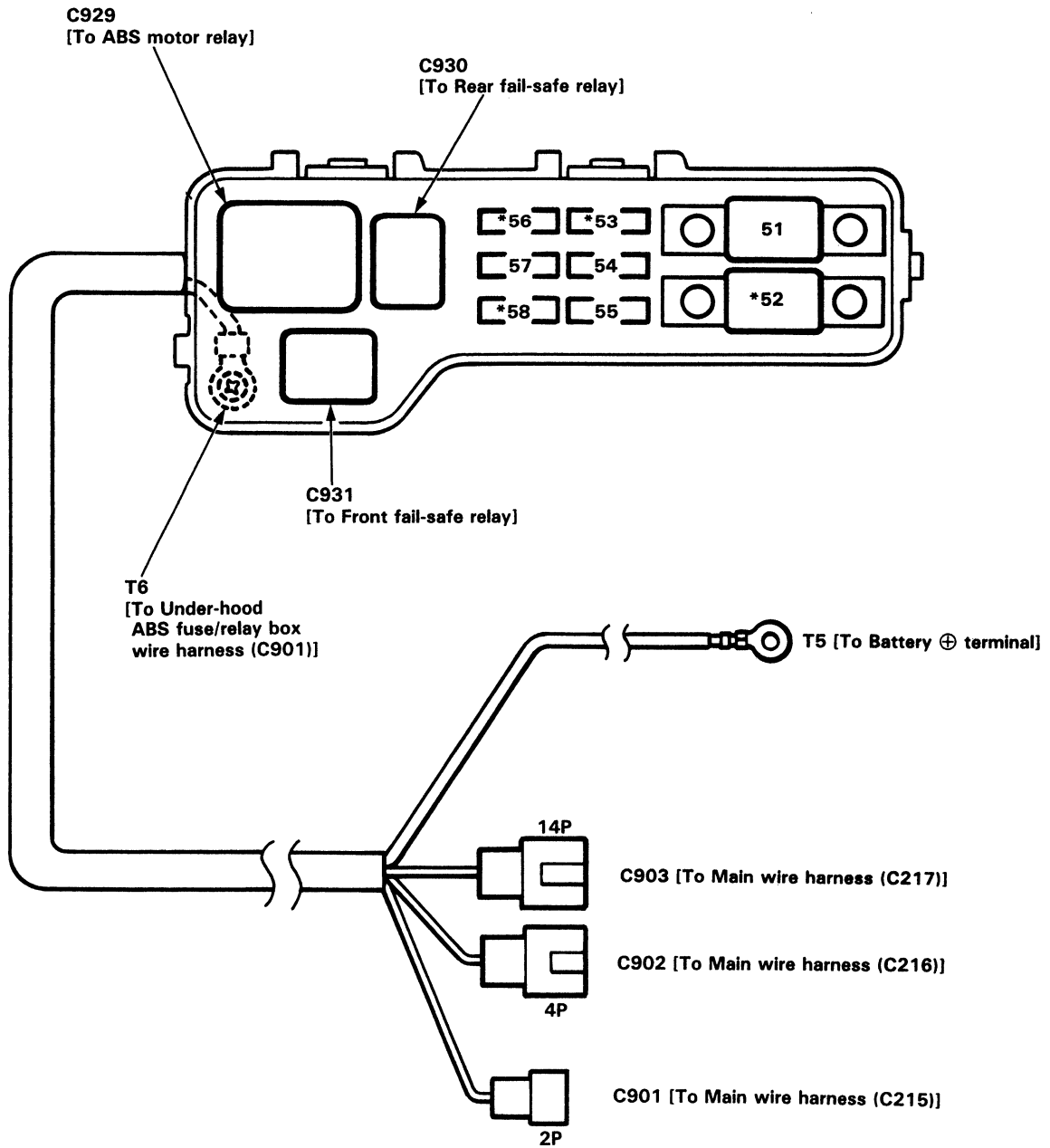


Installation is the reverse of the removal procedure.

Fuses

Under-Hood ABS Fuse/Relay Box

*: Not used

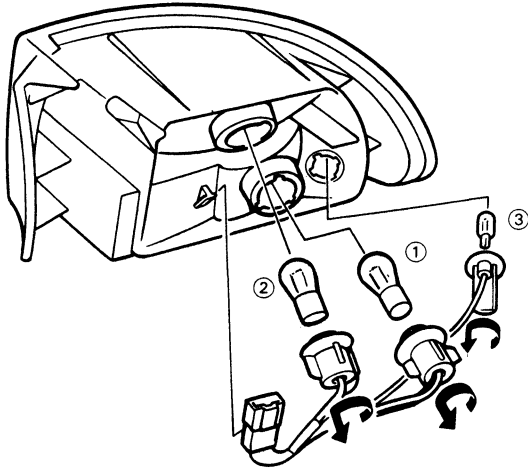




Bulb Replacement

Outer Taillight:

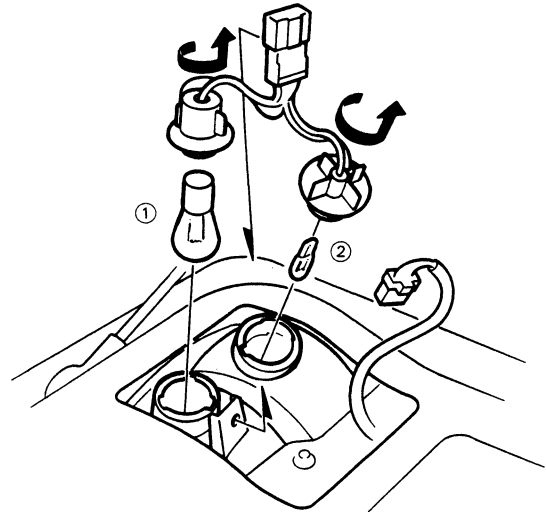
1. Open the rear hatch, then remove the access panel.
2. Remove the bulb from the bulb housing.



- ①: BRAKE/TAILLIGHT BULB (32 CP/2 CP)
②: TURN SIGNAL LIGHT BULB (32 CP)
③: REAR PARKING LIGHT BULB (3 CP)

Inner Taillight:

1. Open the rear hatch and tailgate, then remove the access panel.
2. Remove the bulb from the bulb housing.



- ①: BACK-UP LIGHT BULB (32 CP)
②: TAILLIGHT BULB (3 CP)