

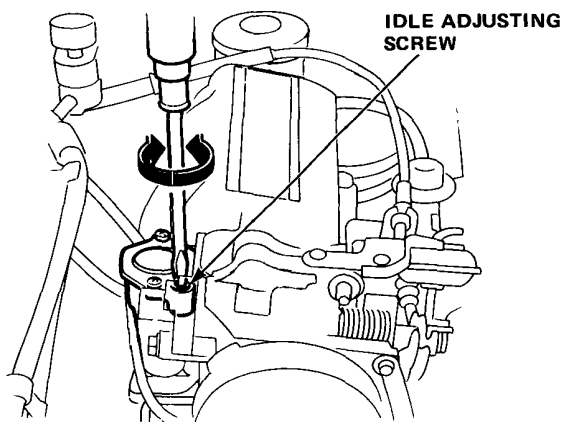
# Air Intake System

## Idle Speed Inspection

### [Except KX model]

1. Start engine and warm-up to normal operating temperature; the cooling fan will come on.
2. Connect a tachometer.
3. Check idle speed with the headlights, heater blower, rear window defroster, cooling fan, and air conditioner off.

Idle speed should be:  $850 \pm 50 \text{ min}^{-1}$  (rpm)

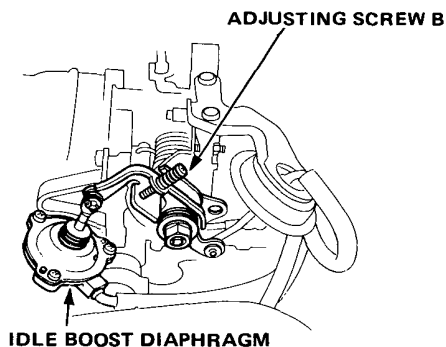


Adjust the idle speed, if necessary, by turning the idle adjusting screw.

- If idle speed cannot be adjusted by turning the idle adjusting screw, check the fast idle valve (page 11-36).

4. Check the idle controller boosted speed with the A/C on.

Idle speed should be:  $750 \pm 50 \text{ min}^{-1}$  (rpm)

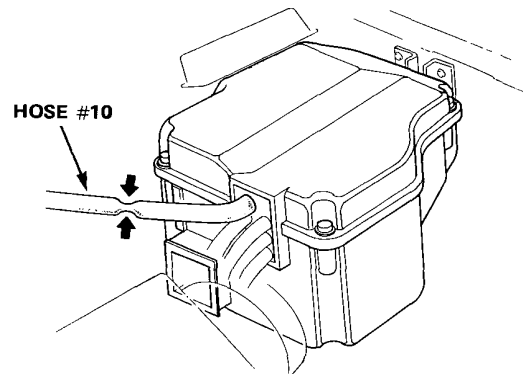


Adjust the idle speed, if necessary, by turning adjusting screw B.

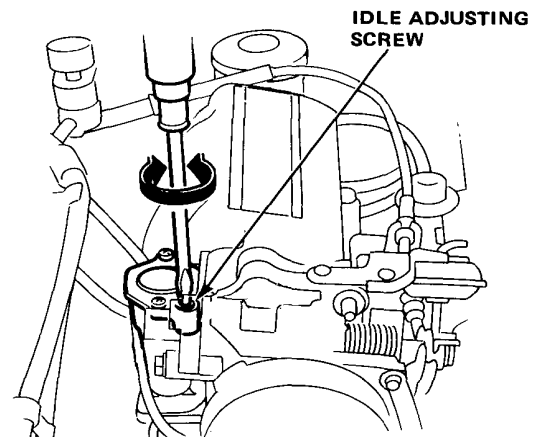
### [KX model]

1. Start engine and warm-up to normal operating temperature; the cooling fan will come on.
2. Connect tachometer.
3. Check idle speed with the headlights, heater blower, rear window defroster, cooling fan, and air conditioner off.

NOTE: To prevent the idle control system from operating pinch the vacuum hose #10.



Idle speed should be:  $750 \pm 50 \text{ rpm min}^{-1}$  (rpm)



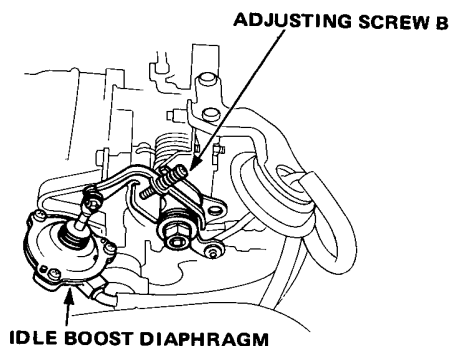
Adjust the idle speed, if necessary, by turning the idle adjusting screw.

- If idle speed cannot be adjusted by turning the idle adjusting screw, check the fast idle valve (page 11-36).



4. Check the idle controller boosted speed with the A/C on.

Idle speed should be:  $750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$



Adjust the idle speed, if necessary, by turning adjusting screw B.

5. Check the idle speed with headlights, heater blower, rear window defroster, and cooling fan on but air conditioner off.

It should be the same as normal idle speed.

**NOTE:** If the idle speed is not within specifications, see Troubleshooting on page 11-24.

## Idle Mixture Inspection

### NOTE:

- Perform the measurement in a place with good ventilation and with no direct exposure to the wind and rain.
- Perform the measurement while the engine is idling. (under no load).
- Use a precise tachometer to check engine speed.
- Use the NDIR CO meter in accordance with the manufactures' recommended procedures.
- The following inspections and adjustments should be completed before the measurement.

Air cleaner element

Ignition timing and control system

Spark plugs

Idling speed

Valve clearance

PCV valve

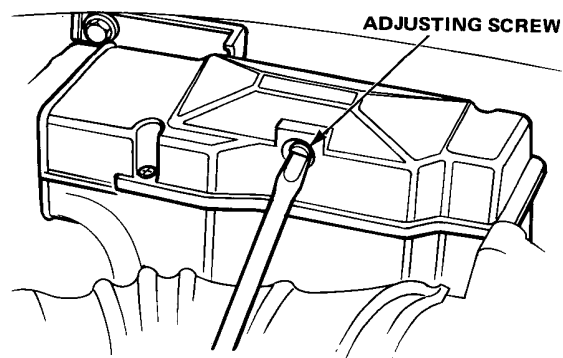
1. Start the engine, and, after the radiator cooling fan works two times, further warm up the engine at  $3,000 \text{ min}^{-1} \text{ (rpm)}$  for two minutes or more.
2. Insert exhaust gas sampling probe into the tail pipe at least 40 cm (16 in.)
3. Check specification for idle speed and CO with the headlights off (On Swedish model: on) and cooling fan off.

Specified CO %:

KX model: 0.5% maximum

Other models: 1.5% maximum

4. On except KX model, if unable to obtain this reading, remove the rubber cap on the control box and remove the hole plug on the IMA sensor. Adjust by turning adjusting screw of the IMA sensor.



- If unable to obtain a CO reading of specified % by this procedure, check the engine tune-up condition.  
Be sure to put the rubber cap and hole plug on when the adjustment is completed.

# Air Intake System

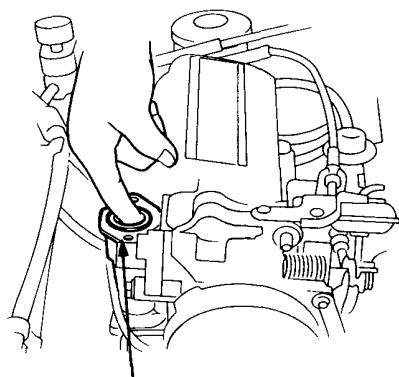
## Fast Idle Valve

### NOTE:

- The fast idle valve is factory adjusted, it should not be disassembled.
- Check the PCV (engine breather) circuit hoses for proper connection and condition.
- Check that the throttle valves are fully closed.

### Idle speed too high after engine is warmed up.

1. Check whether the idling control function is normal (page 11-24).
2. Remove the cover of the fast idle valve.
3. Check that the valve is completely closed. If not, air is being sucked from the valve seat area. It can be detected by putting your finger on the valve seat area.



FAST IDLE VALVE ASSY

- If any sucking is felt, the valve is leaking. Replace the fast idle valve and adjust idle speed (page 11-34).

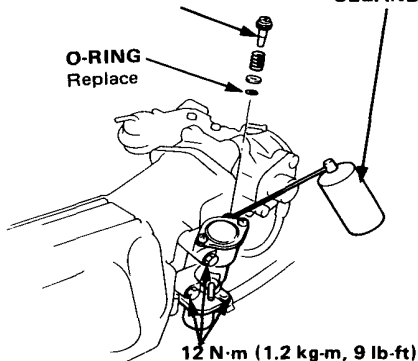
### Idle speed is too low after engine is warmed up.

1. Remove the idle adjusting screw.

### IDLE ADJUSTING SCREW

O-RING  
Replace

### CARBURETOR CLEANER



12 N·m (1.2 kg-m, 9 lb-ft)

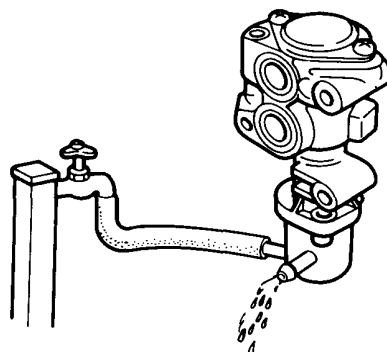
2. Wash the idle adjusting screw and the air bypass channel with carburetor cleaner.

3. Readjust idle speed after cleaning.

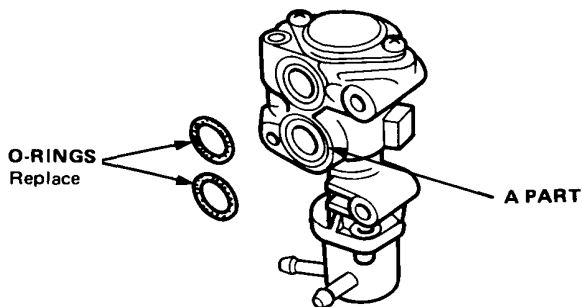
Fast idle speed is low when engine is cold (coolant temperature below 60°C (140°F)). (Fast idle valve may be stuck closed.)

Fast idle speed should be: 1,250–2,250 rpm

1. Remove the fast idle valve assy from the throttle body.
2. Apply cold water and cool down the wax part of the fast idle valve to 5–30°C (41–86°F).



3. Blow through port A of the fast idle valve, and check that a fairly large amount of air flows without resistance.



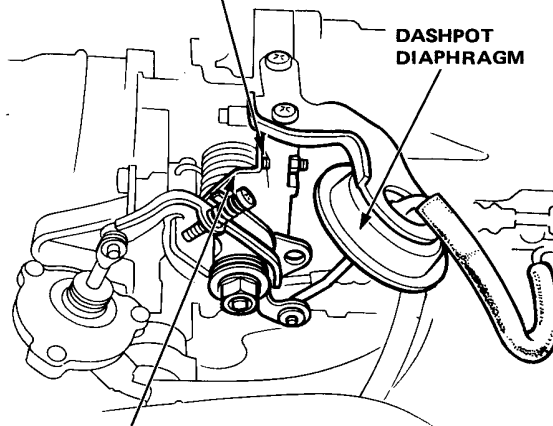
- If air does not flow or the resistance is large, replace the fast idle valve and adjust idle speed.



## Dashpot System

1. With the engine shut off, slowly open the throttle arm until the dashpot rod is raised up as far as it will go.

**THROTTLE STOP SCREW**  
(Non-adjustable)



**THROTTLE ARM**

2. Release the throttle arm and measure the time until the throttle arm contacts the stop screw.

**Time should be: less than 2 seconds**

- If the time is over 2.0 seconds, replace the dashpot check valve and re-test.
- If the rod does not operate, check for bound linkage, or for clogged check valve or vacuum line.
  - If they are OK, replace the dashpot with a new one.

## Fuel System

### Fuel Pressure Relieving

#### WARNING

- Do not smoke while working on the fuel system. Keep open flames or sparks from the work area.
- Be sure to relieve fuel pressure while the engine is off.

**NOTE:** Before disconnecting fuel pipes or hoses, release pressure from the system by loosening the 6 mm service bolt at top of the fuel filter.

1. Disconnect the battery negative cable from the battery negative terminal.
2. Use a box end wrench on the 6 mm service bolt at top of the fuel filter, while holding the special banjo bolt with another wrench.
3. Place a rag or shop towel over the 6 mm service bolt.
4. Slowly loosen the 6 mm service bolt one complete turn.

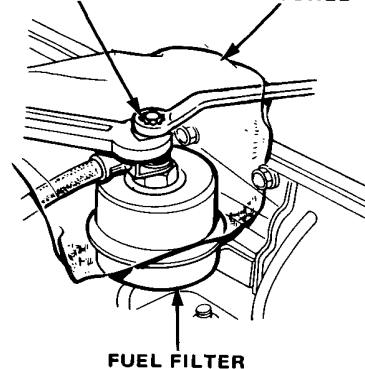
#### NOTE:

- A fuel pressure gauge can be attached at the 6 mm service bolt hole.
- Always replace the washer between the service bolt and the Special Banjo Bolt, whenever the service bolt is loosened to relieve fuel pressure. Replace all washers whenever the bolts are removed to disassemble parts.

#### SERVICE BOLT

12 N·m (1.2 kg-m, 9 lb-ft)

**SHOP TOWEL**



**FUEL FILTER**