



Idle Speed/Mixture

[KS model]

Inspection/Adjustment

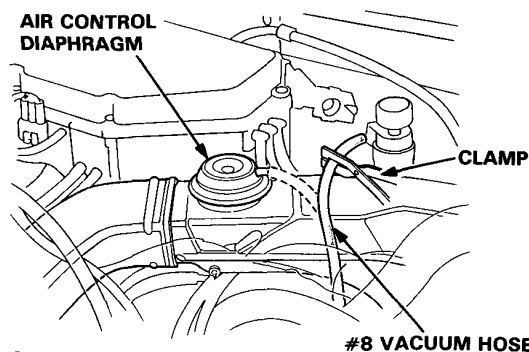
Propane Enrichment Method

WARNING Do not smoke during this procedure.
Keep any open flame away from your work area.

NOTE:

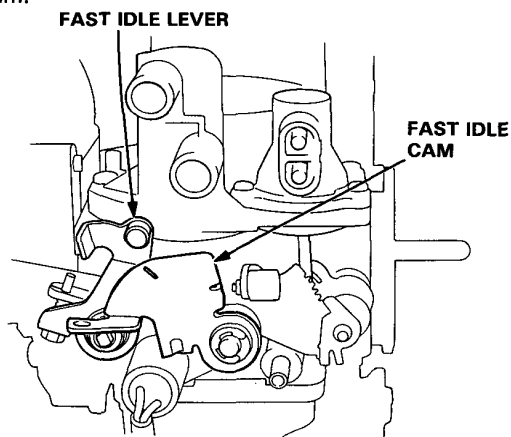
- This procedure requires a propane enrichment kit.
- Check that the carburetors are synchronized properly, self diagnosis indicator before making idle speed and mixture inspections.

1. Start the engine and warm up to normal operating temperature (the cooling fan comes on).
2. Disconnect the #8 vacuum hose from the intake air control diaphragm and clamp the hose end.



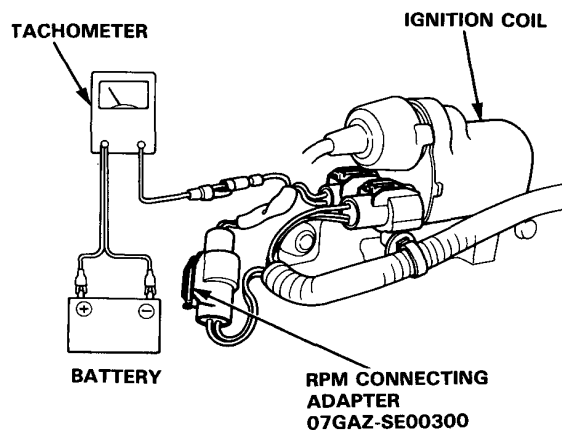
3. Check the fast idle lever.

Fast idle lever should not be seated against fast idle cam.



- If the fast idle lever is against the fast idle cam, replace the left carburetor.

4. Connect a tachometer.



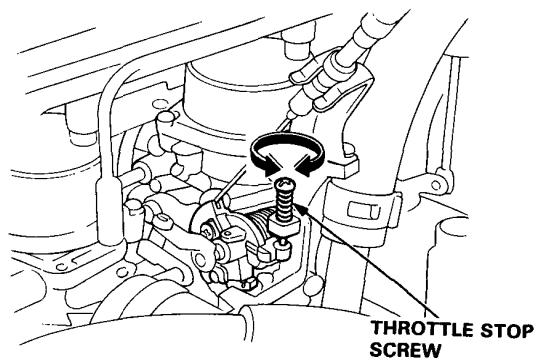
5. Check idle speed with the headlights, heater blower, rear window defogger, cooling fan and air conditioner off.

Idle speed should be:

Manual	800 \pm 50 min ⁻¹ (rpm)
Automatic	750 \pm 50 min ⁻¹ (rpm) (except "N" or "P")

Adjust the idle speed, if necessary, by turning the throttle stop screw.

NOTE: If the idle speed is excessively high, check the dashpot system.

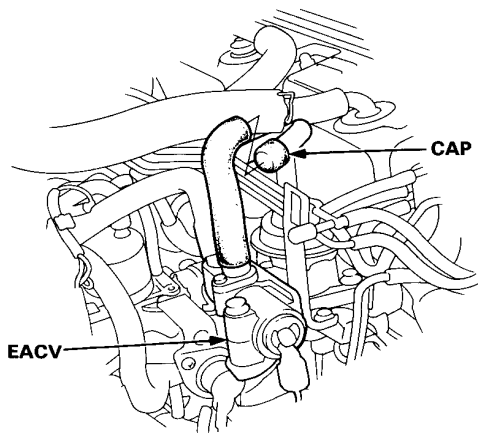


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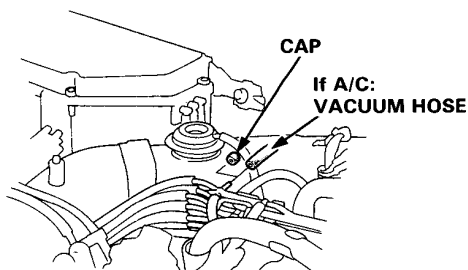
Carburetor

Idle Speed/Mixture (cont'd)

6. Disconnect the 2P connector from the EACV and disconnect the hose from vacuum hose manifold, then cap the hose end.

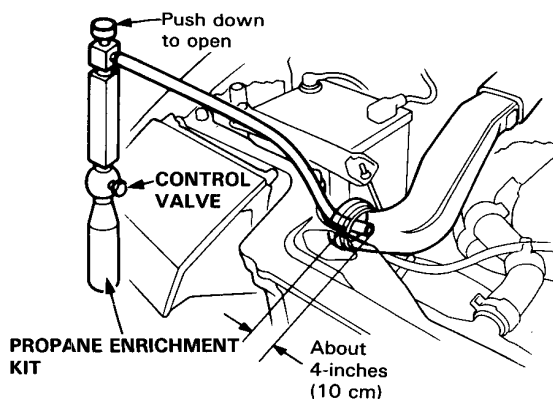


7. Disconnect the cap from vacuum hose manifold. If equipped with air conditioner, disconnect the vacuum hose from vacuum hose manifold. Disconnect air cleaner intake tube from air intake duct. Note the engine speed when starting the engine.



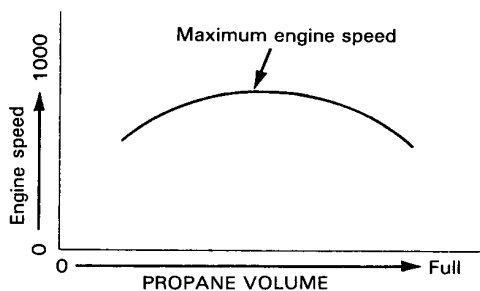
8. Insert the hose of the propane enrichment kit into the intake tube about 4-inches (10 cm).

NOTE: Check that propane bottle has adequate gas before beginning test.



9. With engine idling, depress push button on top of propane device, then slowly open the propane control valve to obtain maximum engine speed. Engine speed should increase as percentage of propane injected goes up.

NOTE: Open the propane control valve slowly; a sudden burst of propane may stall the engine.



Compared to the idle speed noted in step 7.

Engine speed increase should be;

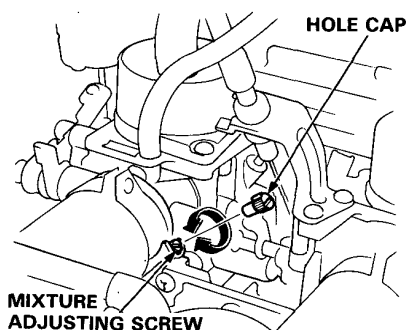
M/T: $170 \pm 20 \text{ min}^{-1} (\text{rpm})$

A/T: $50 \pm 10 \text{ min}^{-1} (\text{rpm})$ (in "D")

- If engine speed does not increase per specification, mixture is improperly adjusted. Go to step 10.
- If engine speed increases per specification, go to step 11.



10. Remove the mixture adjusting screw hole caps, and recheck maximum propane enriched engine speed.



- If the propane enriched speed is too low, mixture is too rich: turn both mixture screws 1/4-turn clockwise and recheck.
 - If the propane enriched speed is too high, mixture is too lean: turn both mixture screws 1/4-turn counterclockwise and recheck.
11. Reconnect the connector and cap or hose. Close the propane control valve.
12. Remove EFI•ECU fuse for 10 seconds to reset control unit and recheck idle speed.

Idle speed should be:

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

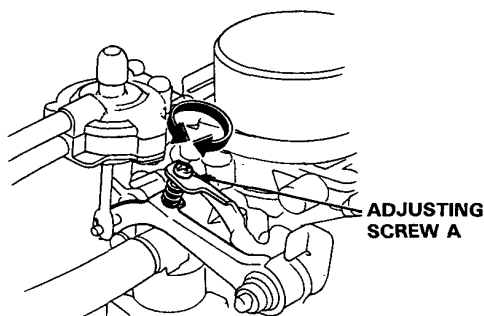
- If idle speed is as specified (step 5), go to step 13.
 - If idle speed is not as specified, adjust by turning throttle stop screw, then repeat step 10.
13. Remove propane enrichment kit and reconnect air cleaner intake tube on the air intake duct.
14. Reinstall the mixture adjusting screw hole cap.

15. If equipped with 4WS, check the idle speed when the 2P connector on the P/S oil pressure switch is disconnected.

Idle speed should be:

Manual	$950 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$830 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

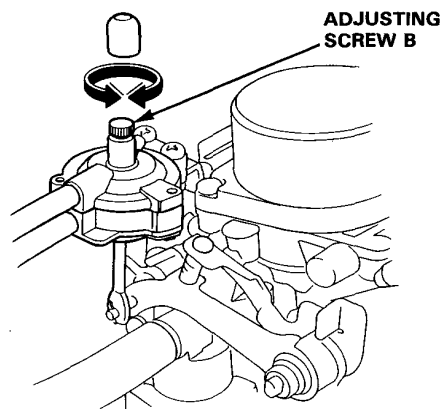
Adjust the idle speed, if necessary, by turning the adjusting screw A.



16. If equipped with 4WS, connect the 2P connector on the P/S oil pressure switch. And check the idle speed while the steering wheel is turning.
- Idle speed should be:**

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

17. If equipped with air conditioner, check the idle 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 the adjusting screw B.

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Carburetor

Idle Speed/Mixture (cont'd)

[Except KS model]

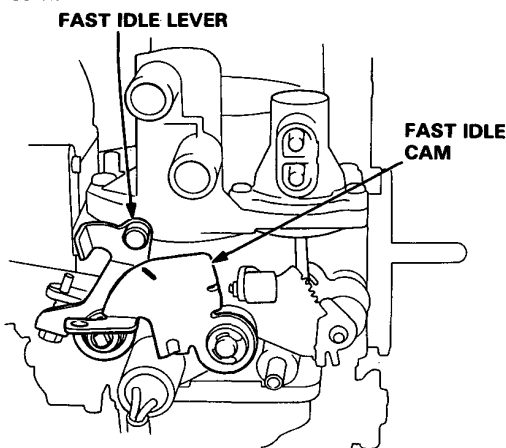
CO Meter Method

WARNING Do not smoke during this procedure. Keep any open flame away from your work area.

NOTE: Check that the carburetors are synchronized properly, self-diagnosis indicator (KX model) before making idle speed and mixture inspections.

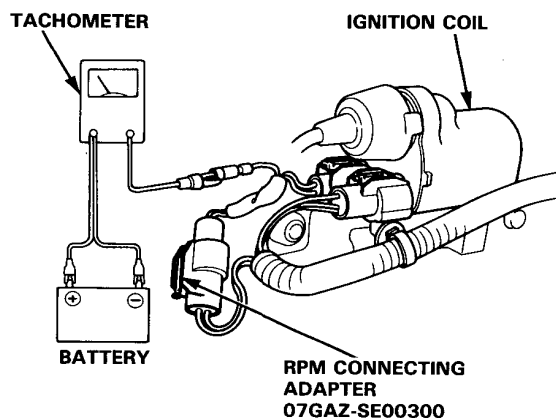
1. Start the engine and warm it up to normal operating temperature (the cooling fan comes on).
2. Check the fast idle lever.

Fast idle lever should not be seated against fast idle cam.



- If not, replace the left carburetor.

3. Connect a tachometer.



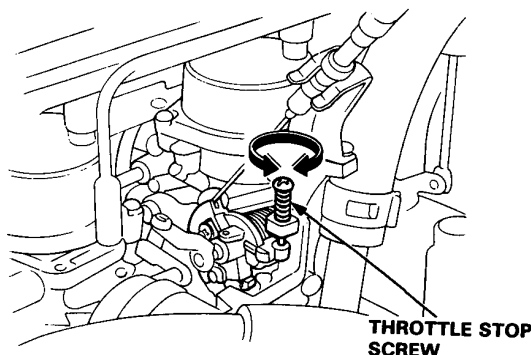
4. Check idle speed with the headlights, heater blower, rear window defogger, cooling fan and air conditioner off.

Idle Speed should be:

Manual	800 ± 50 min ⁻¹ (rpm)
Automatic	750 ± 50 min ⁻¹ (rpm) (except "N" or "P")

Adjust the idle speed, if necessary, by turning the throttle stop screw.

NOTE: If the idle speed is excessively high, check the dashpot system.



5. Calibrate the NDIR CO Meter in accordance with the manufacturer's recommended procedures. Insert exhaust gas sampling probe into the tailpipe at least 40 cm.
6. Check specification for idle CO with cooling fan, air conditioner OFF and headlights OFF.

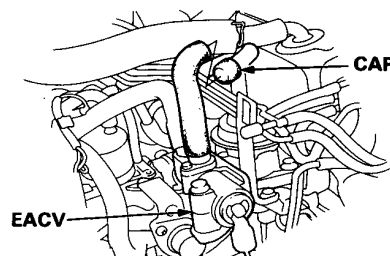
Specified CO %:

KX, KZ model: 0.1 %

Except KX, KZ model: 1 ± 1 %

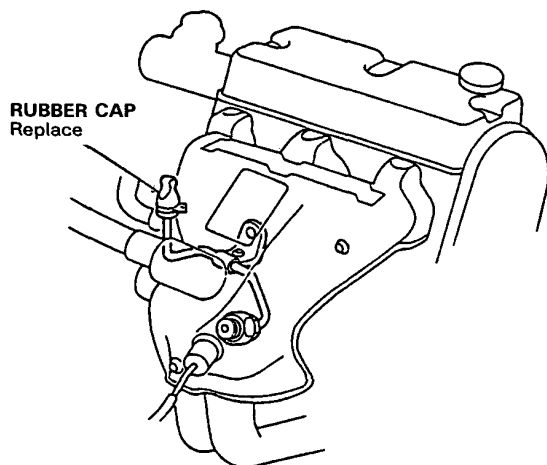
- If idle CO is as specified, go to step 14.
- If not, go to step 7 through 13.

7. KX, KZ model;
Disconnect the 2P connector from the EACV and disconnect the hose from vacuum hose manifold, then cap the hose end.





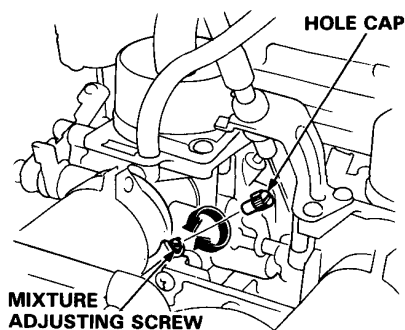
8. Remove the rubber cap from the gas pipe.



9. Check specification for idle CO.

Specified CO % : 2.0 ± 1.0 %

- If not within specification, remove mixture adjusting screw hole caps and adjust by turning both mixture adjusting screws to obtain proper CO reading.



- Turning both mixture adjusting screws

clockwise: CO reading decreases
counterclockwise: CO reading increases

Readjust idle speed if necessary, and recheck idle CO.

10. KX model;
Reconnect the connector and hose.
Remove EFI. ECU fuse for 10 seconds to reset control unit.

11. KX, KZ model:
Recheck idle CO.

Specified CO % : 0.1 %

- If idle CO is as specified (step 6), go to step 11.
- If not, check the self-diagnosis indicator. If not, replace the EACV, then repeat step 6.

12. Recheck idle speed.

Idle speed should be:

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

- If idle speed is as specified (step 4), go to step 13.
- If idle speed is not as specified, adjust by turning throttle stop screw, then repeat step 6.

13. Reinstall the mixture adjusting screw hole cap.

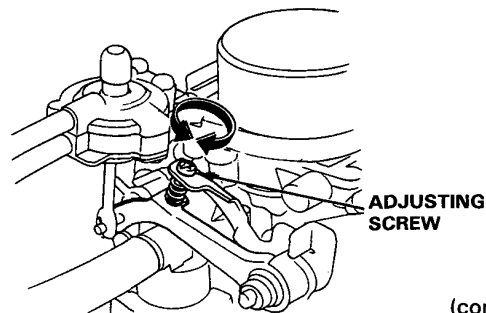
14. KF, KG, KW, KB, KE model: If equipped with 4WS, disconnect the 2P connector on the P/S oil pressure switch, and connect a jumper wire between the 2 terminals on the wire harness. Then check the idle speed.

KX, KZ model: If equipped with 4WS, check the idle speed when the 2P connector on the P/S oil pressure switch is disconnected.

Idle speed should be:

Manual	$950 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$830 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

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



(cont'd)

Carburetor

Idle Speed/Mixture (cont'd)

5. KX, KZ model: If equipped with 4WS, connect the 2P connector on the P/S oil pressure switch. And check the idle speed while the steering wheel is turning.

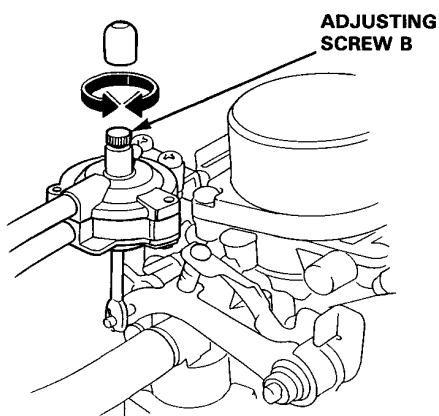
Idle speed should be:

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (except "N" or "P")

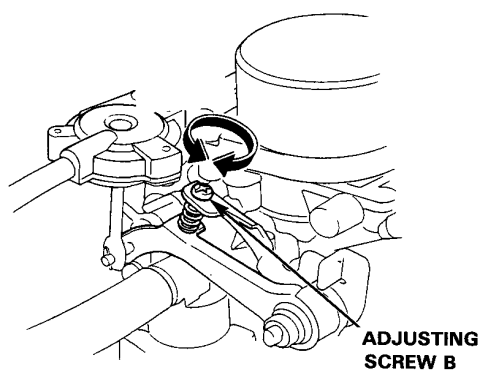
16. If equipped with air conditioner, check the idle speed with the A/C on.

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

4WS:



Except 4WS:



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

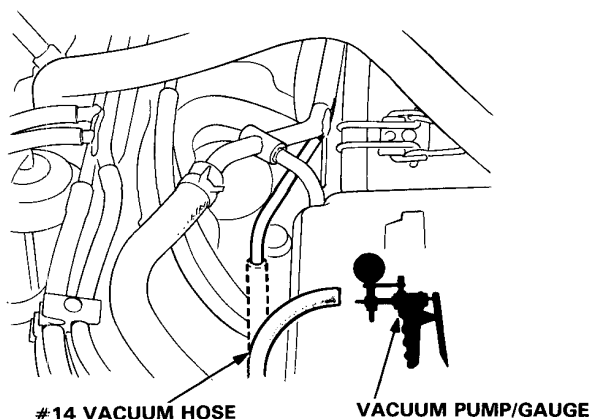
Power Valve [Except KY, KT]

Testing (COLD ENGINE)

NOTE: Intake air temperature must be below 20.5°C (68.5°F)

1. Disconnect the #14 vacuum hose from the vacuum hose manifold and connect a vacuum pump. Apply vacuum.

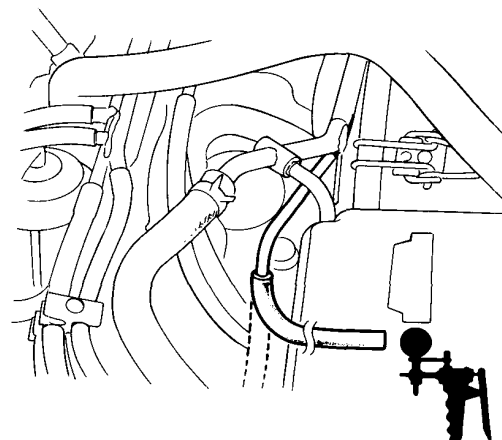
It should hold vacuum.



- If it does not hold vacuum, replace the diaphragm and retest.

2. Start the engine and disconnect the #14 vacuum hose from the vacuum hose manifold, and connect a vacuum pump.

There should be no vacuum.



- If there is vacuum, check the vacuum hose for proper connection, cracks, blockage or disconnected hose, and replace the air bleed valve B.