

# Idle Speed and Mixture

## Adjustment

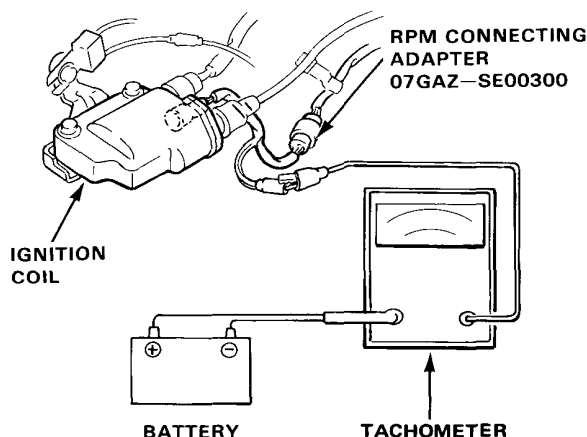
**NOTE:** The following inspections and adjustments should be completed before measurement.

Air cleaner element  
Ignition timing and control system  
Spark plugs  
Idle speed  
Valve clearance  
Intake air control system  
PCV valve

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

### CO Meter Method

1. Warm-up and calibrate the NDIR CO Meter in accordance with the manufacturer's recommended procedures.
2. Insert exhaust gas sampling probe into the tail pipe at least 40 cm (16-inches), and connect a tachometer.



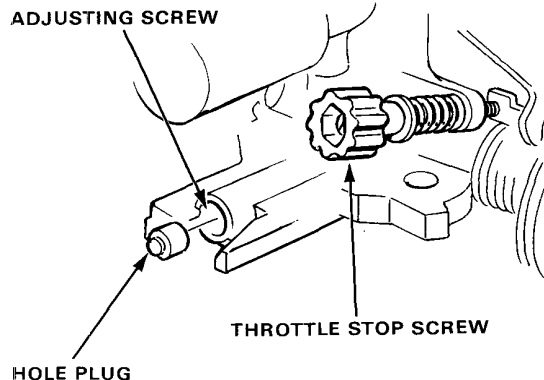
3. Check specification for idle speed and CO with the headlights and cooling fan OFF.

**Idle Speed**  $750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$

- If not within specification, adjust by turning throttle stop screw to obtain proper idle speed.
  - If idle speed cannot be adjusted properly, check for proper throttle cable adjustment.
4. Check specification for idle CO with cooling fan and headlights OFF.

**Specified CO% : below 1.0%**

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

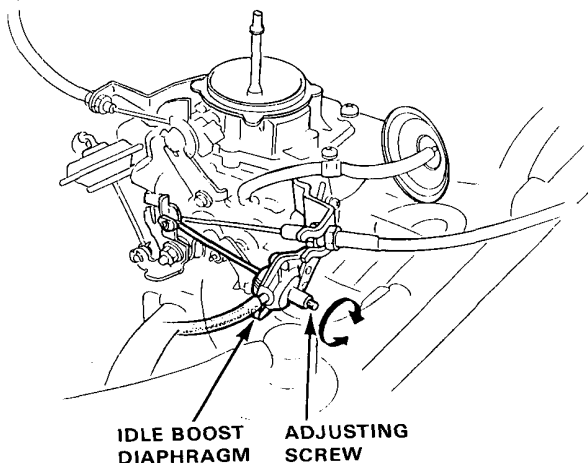


Turning mixture adjusting screw  
clockwise: CO reading decreases  
counterclockwise: CO reading increases  
— Readjust idle speed if necessary, and recheck idle CO.

5. Install a new hole plug.

If unable to obtain a CO reading of specified % by this procedure, check the engine tune up condition.

6. If car is equipped with air conditioning, recheck idle speed with A/C on: Speed should still be within specification.
  - If the speed is outside the spec, remove the rubber cap on the idle boost diaphragm and adjust by turning adjusting screw.





# Choke Fast Idle

## Adjustment

7. If the idle boost diaphragm does not operate with the air conditioner on, disconnect the hose from the idle boost diaphragm and check for vacuum.

- If there is vacuum, replace the idle boost diaphragm.
- If there is no vacuum, check for voltage at the idle boost solenoid valve
  - If there is no voltage, check the wiring and fuse, and repair or replace as necessary.
  - If there is voltage, disconnect the hose routed to the intake manifold at the idle boost solenoid valve and check for vacuum.
    - If there is vacuum, replace the idle boost solenoid valve.
    - If there is no vacuum, check the vacuum line to the intake manifold.

### Idle-Drop Method

1. Start the engine and warm up to the normal operating temperature (cooling fan comes on).
2. Remove the hole plug.
3. With the headlights OFF and the cooling fan OFF, adjust the engine speed and mixture to proper idle as below:

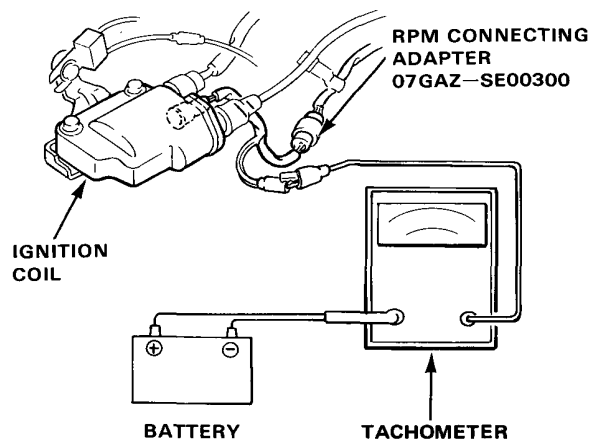
Idle Speed  $820\text{min}^{-1}$  (rpm)

4. Turn the mixture adjusting screw clockwise until engine speed drops as below:

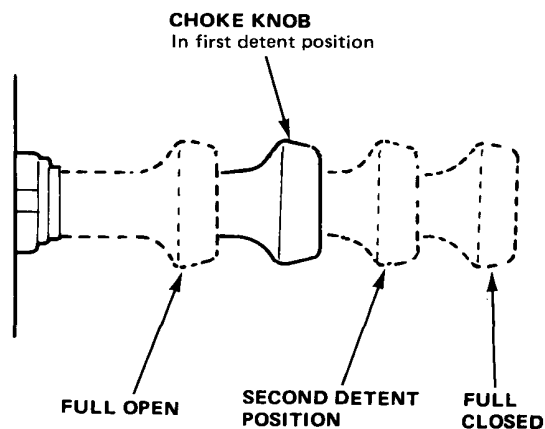
Idle Speed  $750\text{min}^{-1}$  (rpm)

5. Replace the hole plug.

1. Connect a tachometer.



2. Start engine and allow to warm up.
3. Place choke control knob in first detent position.



Fast idle should be:  $1,500-2,500\text{ min}^{-1}$  (rpm)

(cont'd)