

# Engine Tune-up



## Tailpipe Emissions Inspection

### Inspection

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

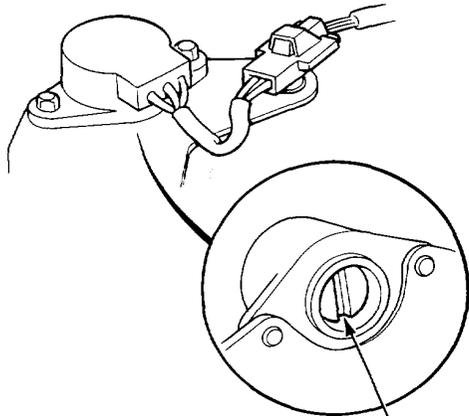
1. Start the engine and warm up to normal operating temperature (cooling fan comes on).
2. Connect tachometer.
3. Check idle speed and adjust the idle speed, if necessary (page 6-69).
4. Warm up and calibrate the CO meter according to the meter manufacturer's instructions.
5. Check idle CO with the headlights, heater blower, rear window defogger, cooling fan, and air conditioner off.

### Specified CO%:

With CATA: 0.1% maximum

Without CATA:  $1.0 \pm 1.0\%$

- If unable to obtain this reading;  
On With CATA, see ECU troubleshooting (page 6-14 or 16).  
On other models, adjust by turning the adjusting screw of the IMA sensor.

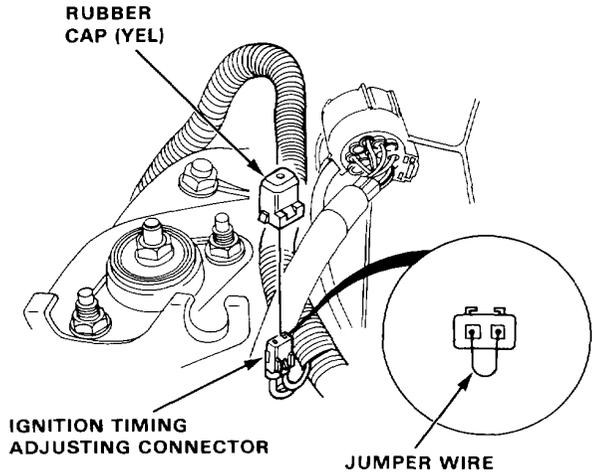


ADJUSTING SCREW

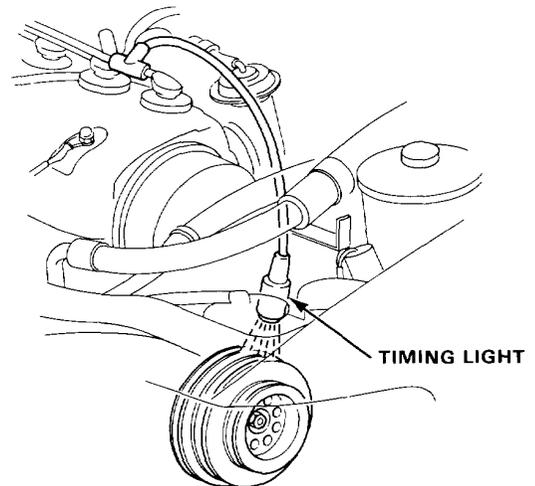
- If unable to obtain a CO reading of specified % by this procedure, check the engine tune-up condition.

## Ignition Timing Inspection and Setting

1. Start the engine and allow it to warm up (cooling fan comes on).
2. Remove the rubber cap (YEL) from the ignition timing adjusting connector located left rear engine compartment and connect the BRN and GRN/WHT terminals with a jumper wire.



3. Connect a timing light to the engine; while the engine idles, point the light toward the pointer on the timing belt cover.



(cont'd)

# Engine Tune-up

## Ignition Timing Inspection and Setting (cont'd)

4. Adjust ignition timing, if necessary, to the following specifications:

### Ignition Timing

#### 1.6 l SOHC (With CATA):

$18^{\circ} \pm 2^{\circ}$  BTDC (RED) at  $750 \pm 50$  min<sup>-1</sup> (rpm) in neutral

#### 1.6 l SOHC (Without CATA):

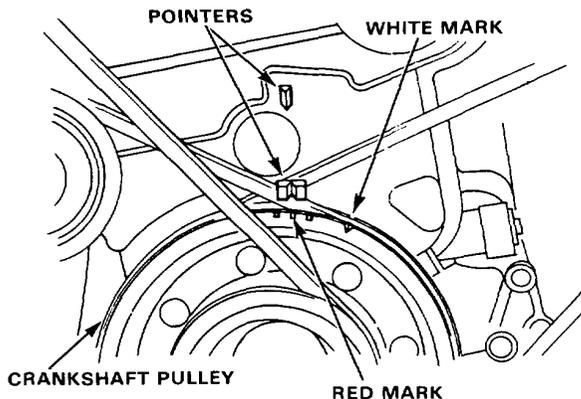
$18^{\circ} \pm 2^{\circ}$  BTDC (RED) at  $780 \pm 50$  min<sup>-1</sup> (rpm) in neutral

#### 1.6 l DOHC (EX. KQ model):

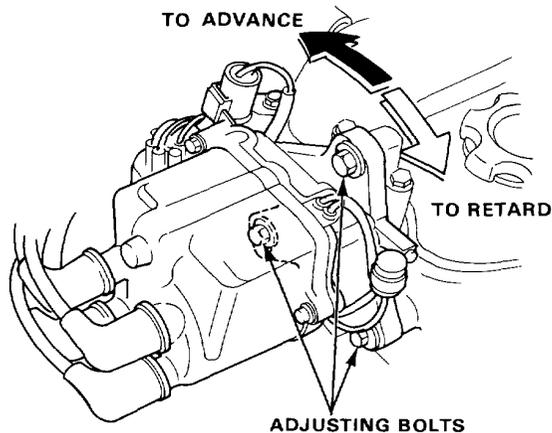
$16^{\circ} \pm 2^{\circ}$  BTDC (RED) at  $800 \pm 50$  min<sup>-1</sup> (rpm) in neutral

#### 1.6 l DOHC (KQ model):

$16^{\circ} \pm 2^{\circ}$  BTDC (RED) at  $750 \pm 50$  min<sup>-1</sup> (rpm) in neutral



5. Adjust as necessary by loosening the distributor adjusting bolts, and turn the distributor housing counter-clockwise to advance the timing, or clockwise to retard the timing.



6. Tighten the adjusting bolts and recheck the timing.
7. Remove the jumper wire and install the rubber cap to the ignition timing adjusting connector.