

## CO/HC INSPECTION

EM09G-02

**HINT:**

This check is used only to determine whether or not the idle CO/HC complies with regulations.

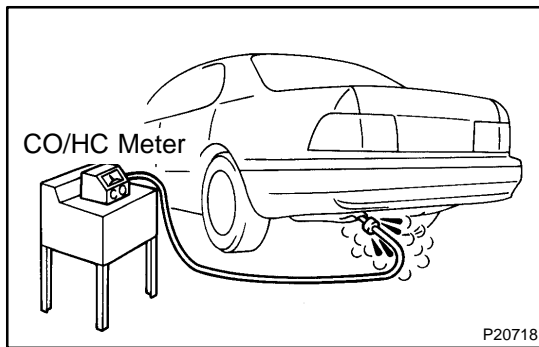
**1. INITIAL CONDITIONS**

- (a) Engine at normal operating temperature
- (b) Air cleaner installed
- (c) All pipes and hoses of air induction system connected
- (d) All accessories switched OFF
- (e) All vacuum lines properly connected

**HINT:**

All vacuum hoses should be properly connected.

- (f) SFI system wiring connectors fully plugged
- (g) Ignition timing set correctly
- (h) Transmission in neutral range
- (i) Tachometer and CO/HC meter calibrated by hand

**2. START ENGINE****3. RACE ENGINE AT 2,500 RPM FOR APPROX. 180 SECONDS**

- 4. INSERT CO/HC METER TESTING PROBE AT LEAST 40 cm (1.3 ft) INTO TAILPIPE DURING IDLING**
- 5. IMMEDIATELY CHECK CO/HC CONCENTRATION AT IDLE AND/OR 2,500 RPM**

**HINT:**

When performing the 2 mode (2,500 rpm and idle) test, follow the measurement order prescribed by the applicable local regulations.

**6. TROUBLESHOOTING**

If the CO/HC concentration does not comply with regulations, perform troubleshooting in the order given below.

See the table below for possible causes, and then inspect and correct the applicable causes if necessary.

CO	HC	Problems	Causes
Normal	High	Rough idle	1. Faulty ignitions: <ul style="list-style-type: none"> <li>• Incorrect timing</li> <li>• Fouled, shorted or improperly gapped plugs</li> </ul> 2. Incorrect valve clearance 3. Leaky intake and exhaust valves 4. Leaky cylinders
Low	High	Rough idle (fluctuating HC reading)	1. Vacuum leaks: <ul style="list-style-type: none"> <li>• PCV hoses</li> <li>• Intake manifold</li> <li>• Throttle body</li> <li>• Brake booster line</li> </ul> 2. Lean mixture causing misfire
High	High	Rough idle (Black smoke from exhaust)	1. Restricted air filter 2. Faulty SFI systems: <ul style="list-style-type: none"> <li>• Faulty pressure regulator</li> <li>• Defective ECT sensor</li> <li>• Faulty ECM</li> <li>• Faulty injectors</li> <li>• Faulty throttle position sensor</li> <li>• Faulty MAF meter</li> </ul>