

## CO/HC INSPECTION

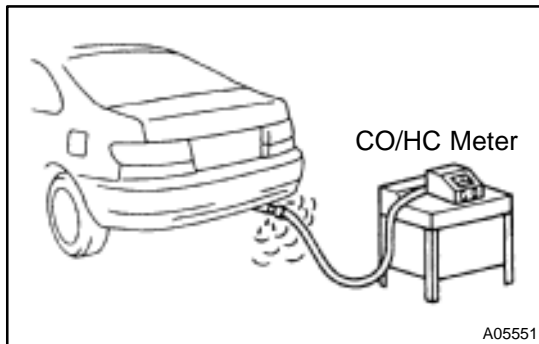
EMOKG-04

**HINT:**

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

**1. INITIAL CONDITIONS**

- (a) Engine coolant 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
- (f) SFI system wiring connectors fully plugged
- (g) Ignition timing set correctly
- (h) Transmission in neutral position
- (i) 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**

Complete the measuring within 3 minutes.

**HINT:**

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

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

- Check heated oxygen sensor operation (See page [DI-44](#)).
- 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> <li>• Open or crossed high-tension cords</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>• IAC valve</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>• Defective IAT sensor</li> <li>• Faulty ECM</li> <li>• Faulty injectors</li> <li>• Faulty throttle position sensor</li> <li>• MAP sensor</li> </ul>