

CO/HC INSPECTION

EM02I-04

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

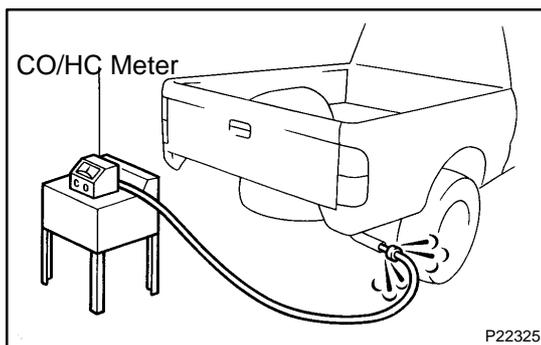
HINT:

All vacuum hoses for EGR systems, etc. should be properly connected.

- (f) SFI system wiring connectors fully plugged
- (g) Ignition timing check correctly
- (h) Transmission in neutral position
- (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 doing the 2 mode (idle and 2,500 rpm) test, these measurement order prescribed by the applicable local regulations.

6. TROUBLESHOOTING

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

- (1) Check heated oxygen sensor operation (See page [DI-64](#)).
- (2) See the table below for possible causes, then inspect and correct the applicable causes if necessary.

CO	HC	Symptoms	Causes
Normal	High	Rough idle	1. Faulty ignition: <ul style="list-style-type: none"> • Incorrect timing • Fouled, shorted or improperly gapped plugs • Open or crossed high-tension cords 2. Incorrect valve clearance 3. Leaky EGR valve 4. Leaky exhaust valves 5. Leaky cylinder
Low	High	Rough idle (Fluctuating HC reading)	1. Vacuum leak: <ul style="list-style-type: none"> • Vacuum hose • Intake manifold • Intake chamber • PCV line • Throttle body
High	High	Rough idle (Black smoke from exhaust)	1. Clogged air filter 2. Plugged PCV valve 3. Faulty SFI system <ul style="list-style-type: none"> • Faulty fuel pressure regulator • Clogged fuel return line • Faulty MAF meter • Defective ECT sensor • Defective IAT sensor • Faulty engine control module (ECM) • Faulty injector