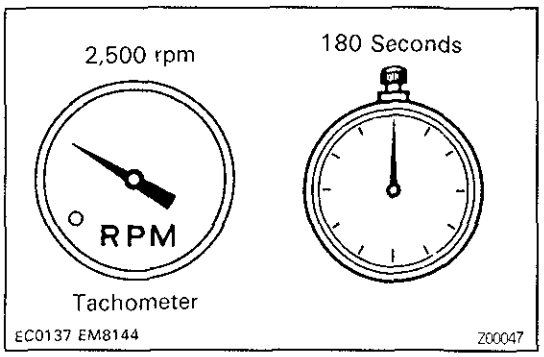
IDLE CO/HC CHECK (1FZ–FE)

EG1JU-04

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

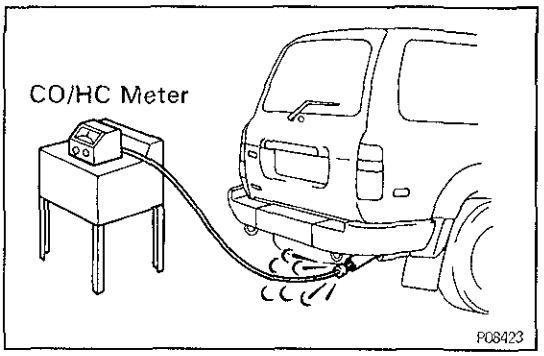
1. INITIAL CONDITIONS

(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) EFI system wiring connectors fully plugged
(g) Ignition timing set 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 INTO TAILPIPE AT LEAST 40 cm (1.3 ft) DURING IDLING

5. IMMEDIATTELY CHECK CO/HC CONCENTRATION AT IDLE

HINT: When performing the test, follow the measurement order prescribed by the applicable local regulations.

Troubleshooting

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

(a) Check oxygen sensor operation.
(See page EG−290)

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

HC	CO	Problems	Causes
High	Normal	Rough idle	1. Faulty ignitions: • Incorrect timing • Fouled, shorted or improperly gapped plugs • Open or crossed high-tension cords • Cracked distributor cap 2. Incorrect valve clearance 3. Leaky EGR valve 4. Leaky intake and exhaust valves 5. Leaky cylinder
High	Low	Rough idle (Fluctuating HC reading)	1. Vacuum leaks: • PCV hose • EGR valve • Intake manifold • Air intake chamber • Throttle body • ISC valve • Brake booster line 2. Lean mixture causing misfire
High	High	Rough Idle (Black smoke from exhaust)	1. Restricted air filter 2. Faulty EFI systems: • Faulty pressure regulator • Clogged fuel return line • Defective water temp. sensor • Faulty ECU • Faulty injector • Faulty throttle position sensor • Faulty air flow meter

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