# IDLE CO CHECK AND ADJUST (Hardtop)

HINT: This check is used only to determine whether or not the idle CO 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
- (f) EFI system wiring connectors fully plugged
- (g) Ignition timing set correctly

#### 2. CONNECT TACHOMETER TO ENGINE

Connect the test probe of a tachometer to terminal IG  $\ominus$  of the check connector.

#### NOTICE:

- NEVER allow the tachometer terminal to touch ground as it could result in damage to the igniter and/or ignition coil.
- As some tachometers are not compatible with this ignition system, we recommend that you confirm the compatibility of your unit before use.

#### 3. CHECK IDLE SPEED

Idle speed:

650 ± 50 rpm

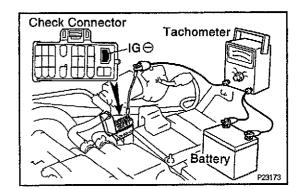
## 4. CHECK AND ADJUST CO CONCENTRATION AT IDLE

#### NOTICE:

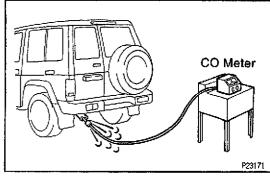
- Always use a CO meter when adjusting the idle mixture. It is not necessary to adjust with the idle mixture adjusting screw in most vehicles if they are in good condition. If a CO meter is not available, DO NOT ATTEMPT TO ADJUST WITH THE SCREW.
- If a CO meter is not available and it is absolutely necessary to adjust with the idle mixture adjusting screw, or if the air flow meter is replaced, use the alternative method.

#### A. Method with CO meter

- (a) Check that the CO meter is properly calibrated.
- (b) Race the engine for approx. 120 seconds at approx. 2,500 rpm before measuring the concentration.
- (c) Wait 1 3 minutes after racing the engine to allow the concentration to stabilize.







(d) Insert a testing probe at least 40 cm (1.3 ft) into the tailpipe, and measure the concentration with a short time.

Idle CO concentration:

 $1.5 \pm 0.5 \%$ 

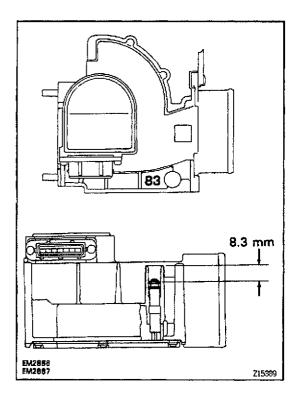
If the CO concentration is not as specified, adjust the idle mixture by turning the idle mixture adjusting screw with SST.

SST 09243-00020

- If the CO concentration is within specification, this adjustment is complete.
- If the CO concentration cannot be corrected by idle mixture adjustment, see the table below for other possible causes.

### Troubleshooting

CO	Phenomenon	Causes
High	Rough idle (Black smoke from exhaust)	1. Clogged air filter 2. Plugged PCV valve 3. Faulty EFI systems:  • Faulty pressure regulator  • Clogged fuel return line  • Defective water temperature sensor  • Faulty engine ECU  • Faulty injectors  • Faulty throttle position sensor  • Faulty air flow meter



- (e) Reinstall the rubber plug into the hole of the idle mixture adjusting screw.
- B. Alternative method

HINT:

- This method is to be used ONLY when it is absolutely necessary to adjust the idle mixture screw or if the air flow meter is replaced without the aid of a CO meter.
- The inscribed number shows the depth of the idle mixture screw positioned for presetting.

Example:

Inscribed number 83

8.3 mm (0.326 in.) Depth

Depth over 10 mm with a decimal point are abbreviated.

Example:

Inscribed number

11.5 mm (0.453 in.) Depth

EG