

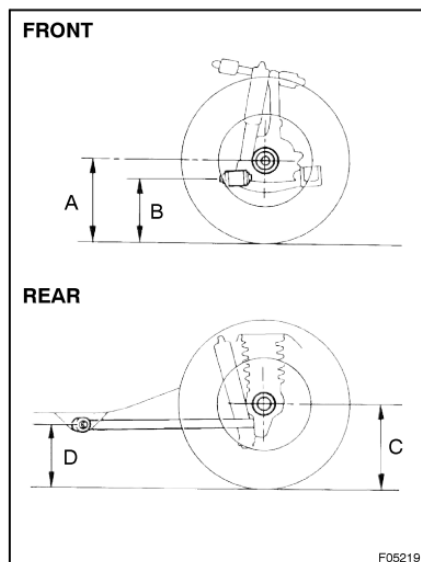
Setting the Vehicle Height for 100 series fitted with Active Height Control (AHC) and Toyota Electronic Modulated Suspension (TEMS) systems

All measurements are made with the vehicle on a level surface, empty of all moveable contents, containing no driver nor passengers, no unevenly distributed additions, with fuel tanks full and with steering straight ahead, height selector set at "N".

The **first step** when checking or adjusting vehicle heights always is to 'cross-level' the vehicle with the engine and AHC/TEMS "OFF". The aim of 'cross-leveling' is equalise the front hub-to-fender heights. (The actual measurement is unimportant in this step). This indicates that both front torsion bars are carrying equal loads. It also avoids building in a 'lean' of the vehicle. If necessary, adjustments are made using the torsion bar adjusters.

The **second step** is to check or adjust the **operating heights** of the vehicle. The ideal suspension settings for the operating height at the front and rear of the vehicle are given in the Factory Service Manual (FSM) as shown as A, B, C, D, in the diagram below. The aim is for the vehicle to arrive at these measurements when the AHC/TEMS is operating (engine "ON", AHC "ON") and the vehicle self-adjusts. If necessary, adjustments are achieved using the Height Control Sensor adjusters (NOT the torsion bar adjusters). [NOTE: The Height Control Sensor adjusters are NOT used to 'cross-level' the vehicle -- could result in confusion, causing ECU to adopt a 'fail safe function'].

The Height Control Sensor readings using Techstream, ELMscan 327, or other suitable scanner should then be close to zero – within a tolerance of +/- 5 millimetres. NOTE: Widely differing sensor readings may cause the AHC/TEMS system to adopt a 'fail safe function' in which there is no adaptive damping, and ride comfort is harsh.



(c) Inspect the vehicle height.

Vehicle height

Front	A – B: 83.0 mm (3.268 in.)
Rear	C – D: 71.0 mm (2.795 in.)

Measuring points:

A: Ground clearance of spindle center

B: Ground clearance of lower suspension arm front bolt center

C: Ground clearance of rear axle shaft center

D: Ground clearance of lower control arm front bolt center

(d) Inspect and adjust the height control sensor to the neutral position.

(1) Read the value of height control sensor on the hand-held tester.

Standard value:

Actual vehicle height \pm 5 mm (0.20 in.)

HINT:

(Example)

When the measurement value of the front vehicle height is 85.0 mm (3.35 in.), the actual value of height control sensor is -2.0 mm (-0.08 in.).

These FSM measurements of A, B, C, D as shown above are fiddly and difficult!! Instead, the illustrated "hub-to-fender" measurements – from the wheel hub centre to the fender lip as shown below – are widely accepted and used as a reasonable approximation of the FSM method, while still aiming for Height Control Sensor readings close to zero – within a tolerance of +/- 5 millimetres:

