

Setting the Gap on the Speedo Sensor

The gap between the sensor (A. Fig. 3) and the park brake drum lugs (B) should be 5mm as shown in figure 3 below. All the lugs should have the same 5mm gap between the sensors to register correct road speed.

NOTE: If there is a lug missing off the park brake drum or a lug is bent out of shape, the speed sensor will not register speed accurately.

Checking Sensor Operation

With the ignition on, vehicle in 2WD and the rear wheels off the ground, spin the brake drum and observe the Led Light (C. Fig. 3). The Led Light should flash and Speedo should operate, if the Led Light does not flash the gap between the lugs and sensor need setting or the sensor is faulty. If Speedo does not operate and the sensor flashes, there is a fault in the wiring or the Speedo is faulty.

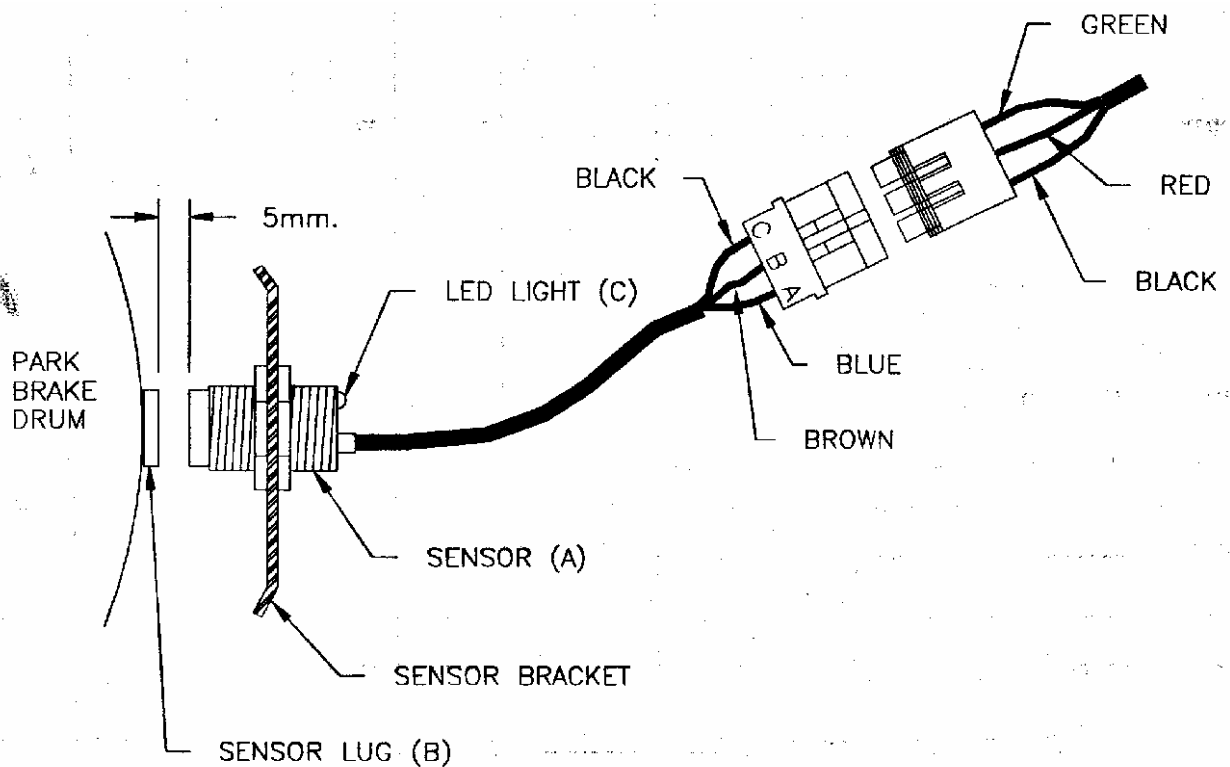


Fig. 3 - Speedo Sensor

Adjustment of Speedometer

General

When different profile tyres are fitted to the vehicle, there may be a need to alter the accuracy of the speedometer reading. Tyre sizes that would create that need are; 8.25 - 16, 9.00 - 16 and 11.00 - 16.

With a vehicle fitted originally with 8.25 - 16 tyres and then changed to 9.00 - 16 tyres, the speedometer reading will be too low in relation to actual speed of the vehicle

The odometer reading and fuel consumption calculations would also be inaccurate.

Adjustment of the Speedometer with Vehicle on Axle Stands

1. Put the transfer case into 2wd.
2. Chock the vehicles front wheels.
3. Raise the rear of the vehicle and locate axle stands under the rear axle.

4. Lower the vehicle onto the stands and ensure the rear wheels are clear of the ground by at least 50 mm.
5. Lift up the instrument panel and position a mirror, as shown in Fig. 8, to view the back of the speedometer.
6. Start the vehicle engine and change through the gears to 4th gear.
7. Hold the engine revolutions to 2,000 rpm and note the speedometer reading.
8. With a standard differential ratio of 4.88A, the speedometer should read as follows:

Tyre Size

8.25 R 16 LT

9.00 R 16 XZ L

9.00 R 16 XY

Speedometer Reading

64.5 km/h

68.5 km/h

68.5 km/h

9. Using a small flat screwdriver move the switches, (on the switch panel at the back of the speedometer) one at a time and observe the speedometer reading as each switch is operated.

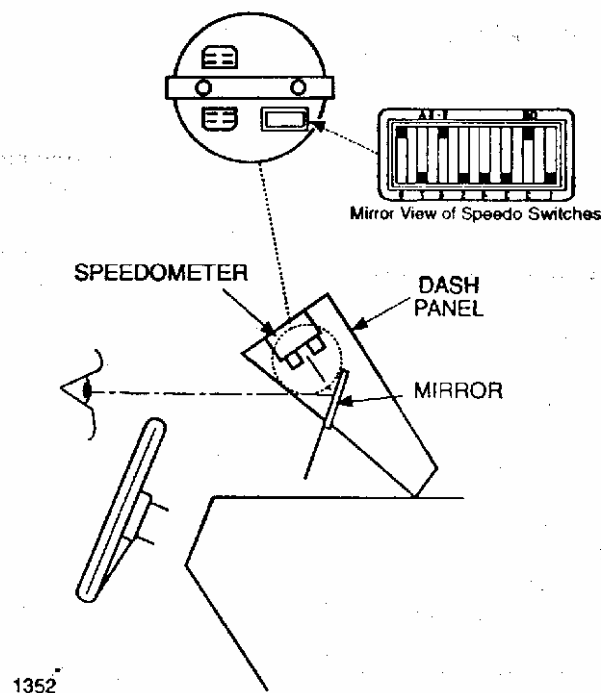


Fig. 8 - Rear View of Speedometer in the Instrument Panel

Notes:

- a) The switches viewed through the mirror read from left to right: 8; 7; 6; 5; 4; 3; 2; 1.
- b) The larger numbers (5 to 8) adjust the speedometer reading in large increments.
- c) The smaller numbers (1 to 4) adjust the speedometer in small increments.
- d) To adjust the speedometer reading up, move the switches up by one.
- e) To adjust the speedometer reading down, move the switches down by one.
- f) If necessary, to start from the beginning, carry out the following adjustment procedures:-
 - i) Move all the switches down. The speedometer reading will drop to zero.
 - ii) To obtain a coarse adjustment, move the large number switches up.
 - iii) To obtain a fine adjustment move the smaller number switches until the speedometer readings are correct for the tyre size fitted.
- g) Moving the switches up is the ON position.
- h) Moving the switches down is the OFF position.

- b) Using a small flat screwdriver move the appropriate switches.

Example: If the speedometer reading needs to be raised, move the lowest number (switched ON) to the OFF position. Move the next highest number to the ON position. Test vehicle speed and adjust the switches to read correct speed as per specification.

Note: Always record the switch positions prior to moving them, so that they can be moved back to their original positions if the adjustment is not correct. Refer to the diagram on the rear of the speedometer.

Adjustment of the Speedometer with Vehicle on the Road

1. Ensure the tyre pressures are to specification.
2. Drive the vehicle on the road and record the speedometer reading at the correct rpm for the tyre size, as detailed in the following table:

Tacho Reading (Rpm)	Speedo Reading (Km/h)	Tyre Size	Switch Position	
			On	Off
2165	70	8.25-16		
2048	70	9.00-16	8	1 To 7
1898	70	11.00-16	4 & 8	1, 2, 3, 4, 5, 6 & 7

Note: The above table gives an example of the correct switch positions, for the tyres fitted.

3. If adjustment is required carry out the following procedures:-

CAUTION: Do not attempt to adjust the speedometer reading whilst the vehicle is moving. Always park the vehicle safely prior to making adjustments.

- a) With the vehicle stopped, lift the instrument panel and position a mirror, as shown in Fig. 8, to view the back of the speedometer.

Alternative Method

1. Park the vehicle safely.
2. Move all the speedometer switches to their OFF positions.
3. Move a large numbered switch to its ON position and test drive the vehicle.
4. Adjust the speedometer reading with the larger numbered switches, until the speedometer reading is close to specification.
5. Finely adjust the accuracy with smaller numbered switches to the ON position.
6. Test drive the vehicle and observe the tachometer reading and the speedometer reading. Compare these readings with the specifications.