

**Speed sensor**

## 1. Check:

- Speed sensor output voltage and pulses  
Out of specification → Replace.

**Speed sensor output voltage (dependant on the paddlewheel position):**

Less than 400 mV/11.6 - 12 V  
Output pulse:  
2 pulses/one-full turn

**Checking steps:**

- Apply DC voltage (12 V) to the white three-pin connector (between the red/white and black leads).
- Rotate the paddlewheel by hand and measure the voltage between the black and yellow leads.

**NOTE:**

As the paddlewheel is rotated, a square-wave voltage signal @ is produced.

- Two pulses occur everytime the paddlewheel makes one-full turn.

## 2. Replace:

- Speed sensor ①

**Replacement steps:**

- Remove the two nuts ②.
- Replace the speed sensor and finger tighten the nuts.
- Adjust the paddlewheel by moving it up so it is within 1 mm (0.04 in) @ from the bottom of the hull as shown.
- Hold the paddlewheel so its position does not change and then tighten the two nuts.

**NOTE:**

If the leading edge of the paddlewheel protrudes below the hull, the speedometer will display a lower than actual speed. Therefore, trim the leading edge of the paddlewheel no more than 1 mm (0.04 in).

Ⓐ : Incorrect

Ⓑ : Correct