Replace defective RS232/RS485 CONV I-7520 ICP

Does this solve the problem?

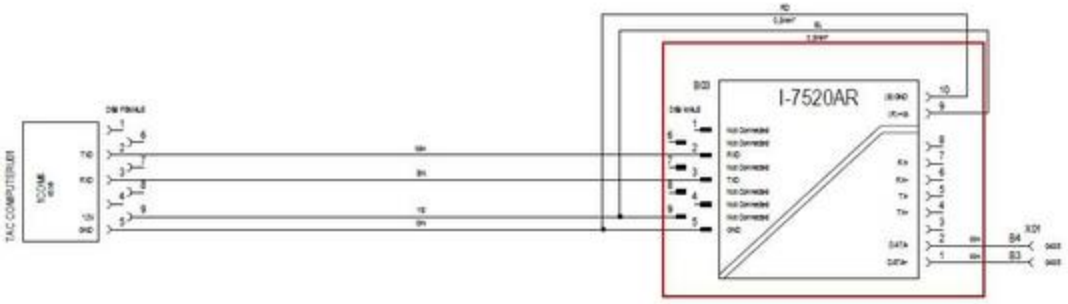
1] Yes

2] No

3] I don't know

- **Explanation**
  +AT2 Panel:

  Check the connections at the ICP RS232/RS485 converter in the AT2 panel. Check for loose wires and plugs or corrosion at the converter.



Relevant spare parts	
Description	**Item No.**
RS232/RS485 CONV I-7520 ICP	60004927

Note:

The below errors also may occur due to this defective cable core;

399 TAC-85 COMMUNICATION FAULT

590 TAC 84 DOWNWIND COM. FAULT

595 TAC 84 LATERAL COM. FAULT

222 WIND SENSOR LEFT FAULT

223 WIND SENSOR RIGHT FAULT

Check & repair cable connections

Does this solve the problem?

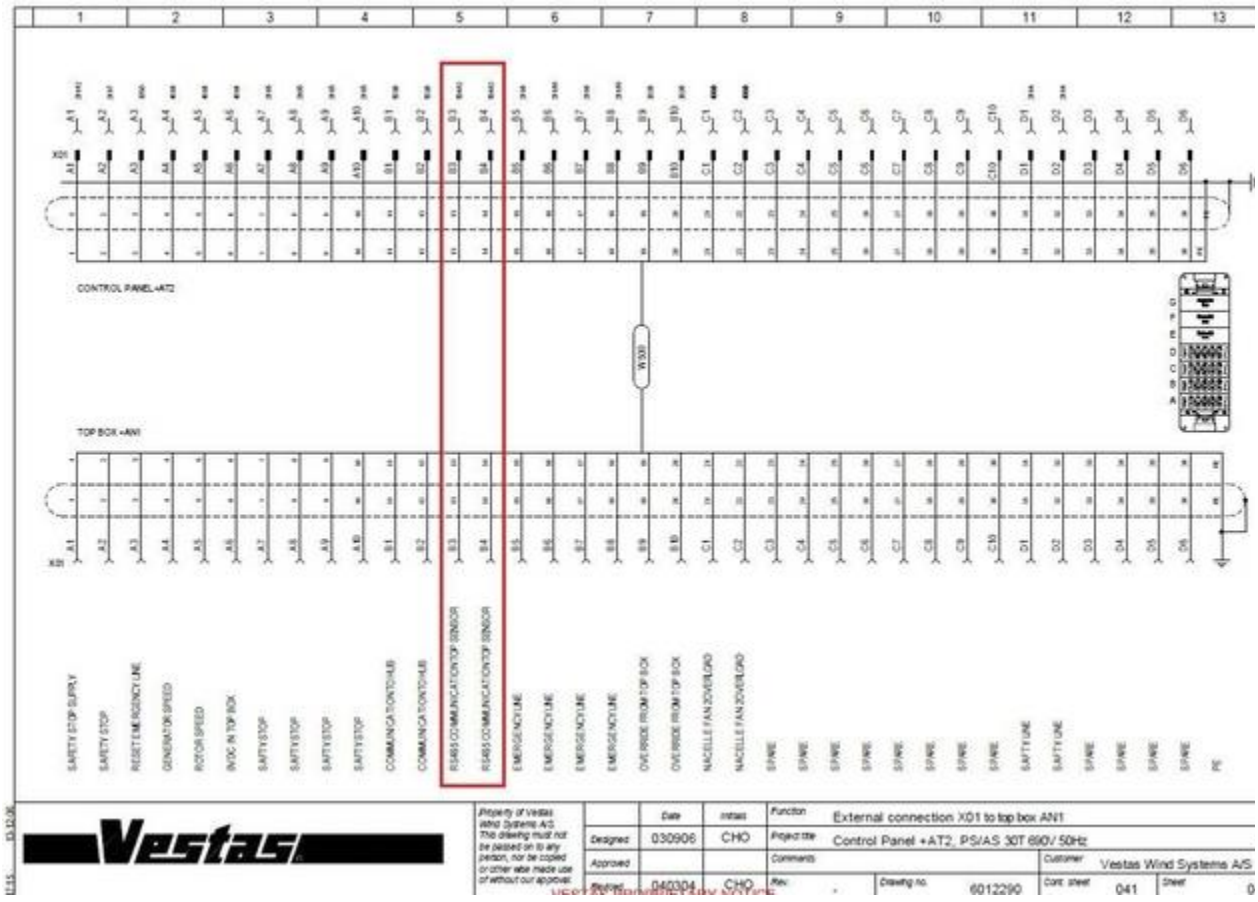
1] Yes

2] No

3] I don't know

- **Explanation**

Check the continuity of B3 & B4 cores in cable W500 and replace with spare core, if no continuity.



Note:

The below errors also may occur due to this defective cable core;

399 TAC-85 COMMUNICATION FAULT

590 TAC 84 DOWNWIND COM. FAULT

595 TAC 84 LATERAL COM. FAULT

222 WIND SENSOR LEFT FAULT

223 WIND SENSOR RIGHT FAULT

Replace RS485/RS485 Repeater

Does this solve the problem?

1] Yes

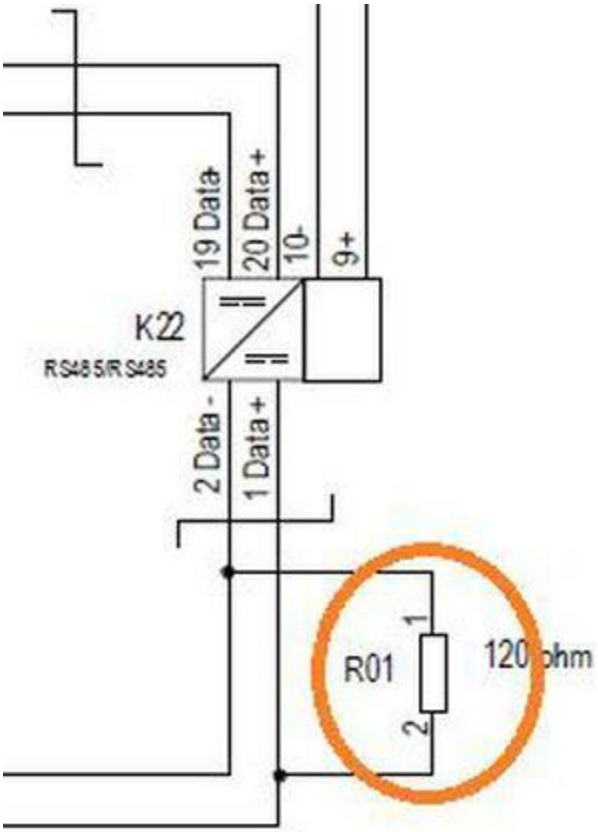
2] No

3] I don't know

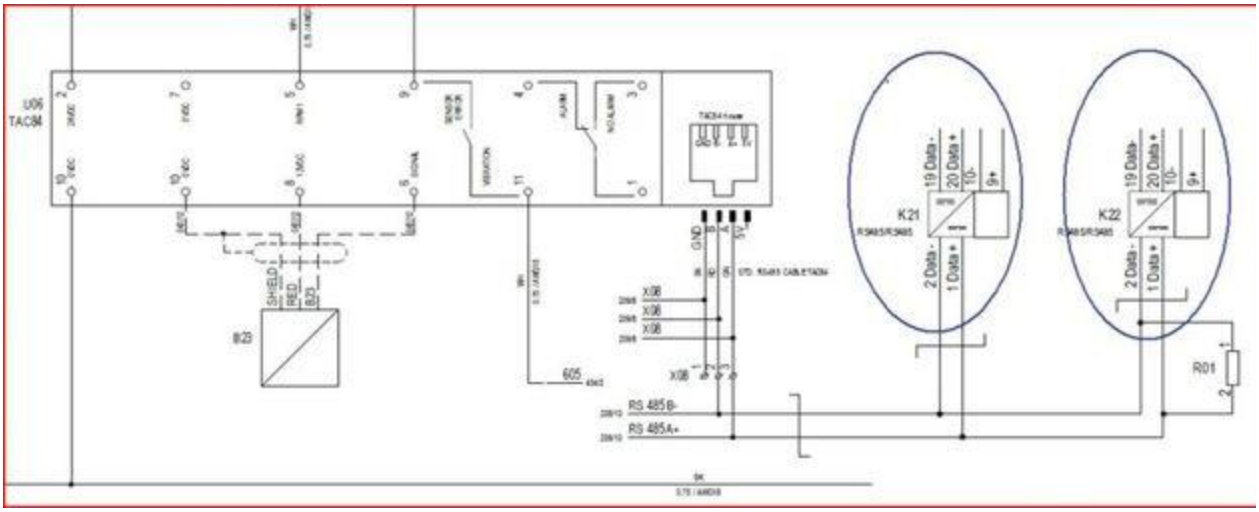
- **Explanation**

Check the connections at the ICP RS485 repeaters (K21 & K22) in the AN1. Check for loose wires and plugs or corrosion at the repeater.

Check the resistor loose connection and value and replace if any deviation



If there is still no communication, switch the ICP RS485 repeaters to see if the communication returns. If communication returns when the repeaters are switched, replace the faulty repeater.



Relevant spare parts	
Description	**Item No.**
RS485/RS485 REPEATER I-7510 ICP	60004933

Check and replace RS485 Cable

Does this solve the problem?

1] Yes

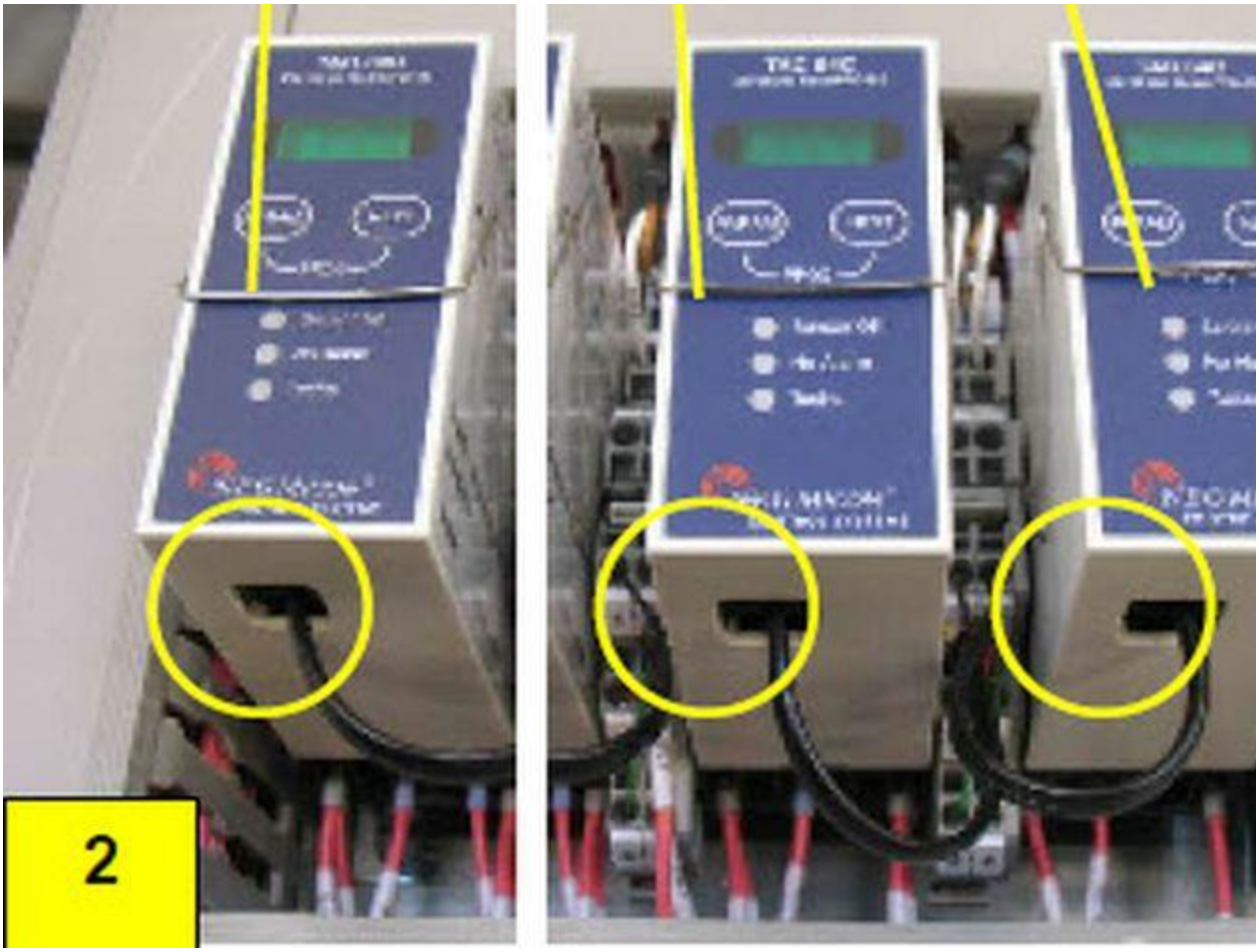
2] No

3] I don't know

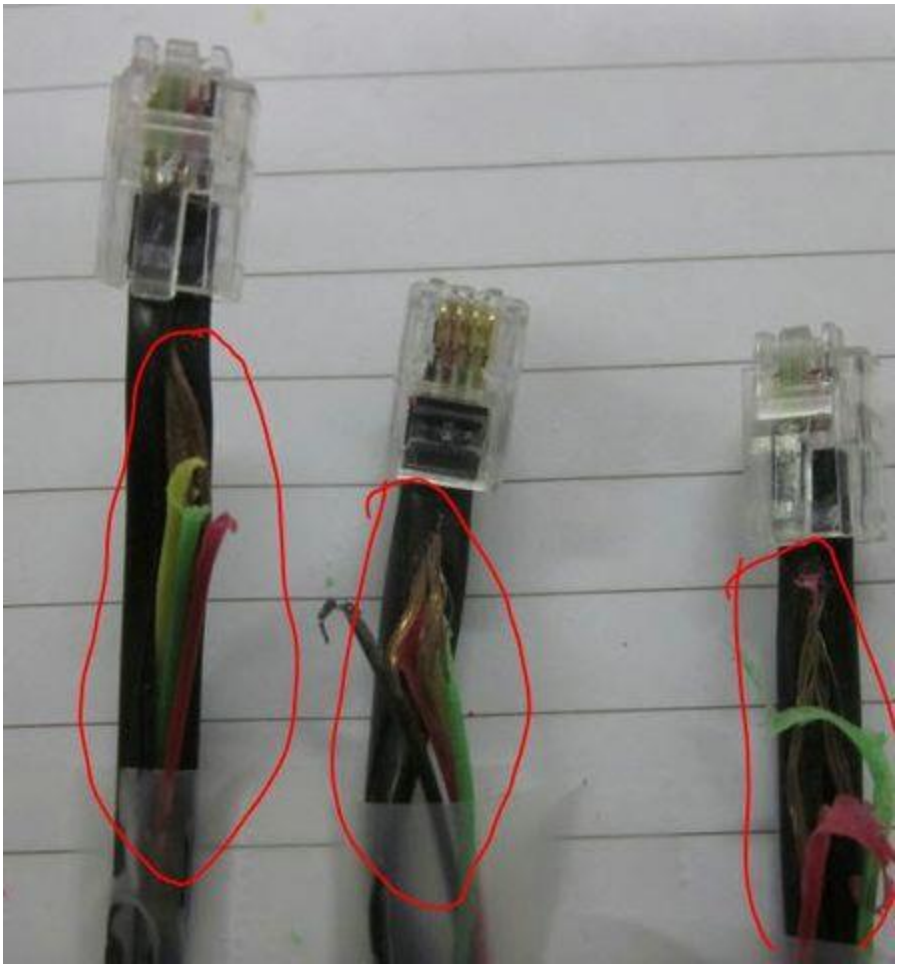
- **Explanation**

  Check RS485 comm. Cables to the UO3 (TAC 84), UO4 (TAC 85), UO6 (TAC 84) and UO7 (TAC 84).

  Wiggling the wires may cause intermittent communication caused by damage with in the wire. After replacing the wire cut the old one apart to see if there are any broken wires.



Broken internal wires on RS485 cable



Relevant spare parts	
Description	**Item No.**
TAC 84C VIB Guard RS485 NMCS	51700101

Troubleshoot generator speed sensor

Does this solve the problem?

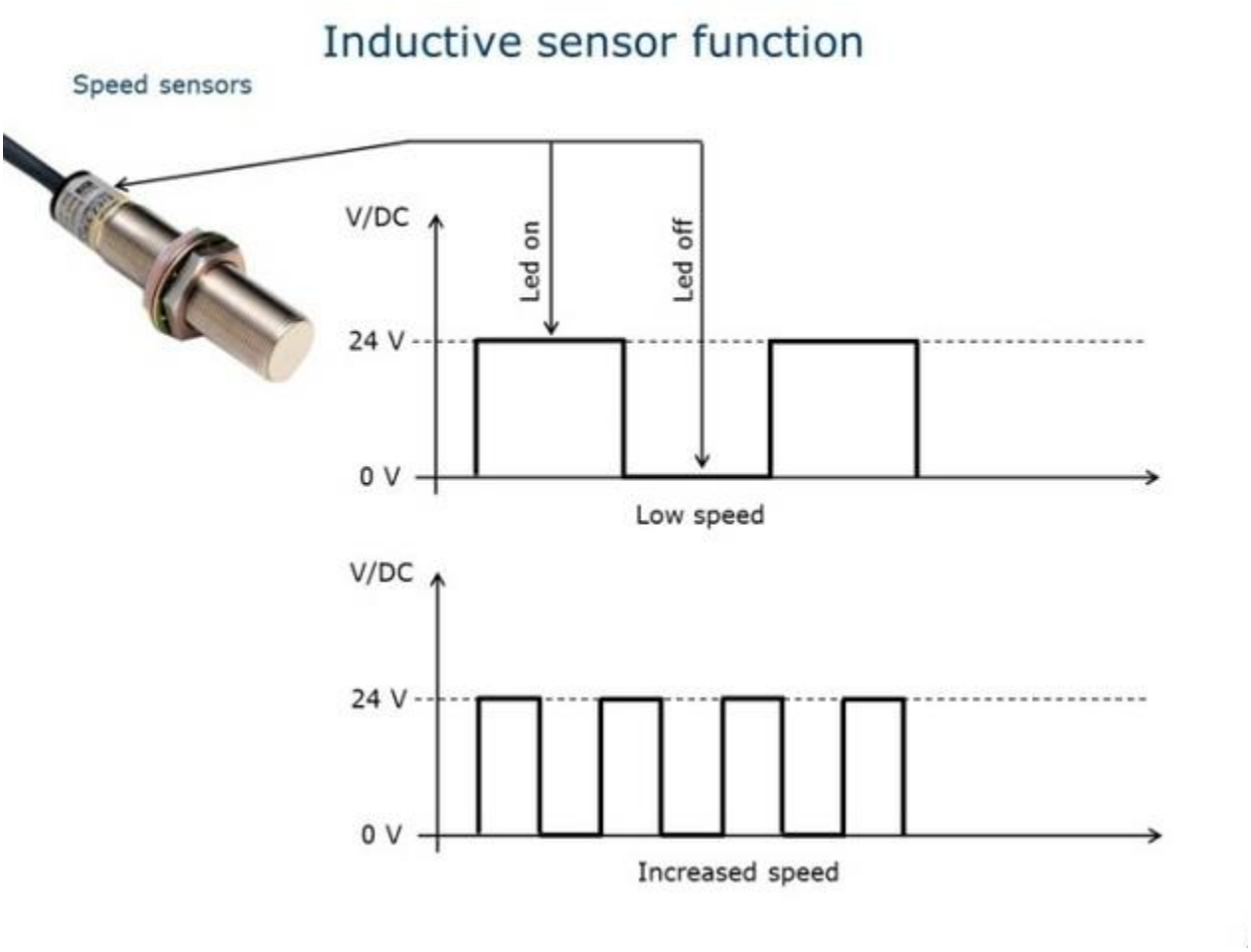
1] Yes

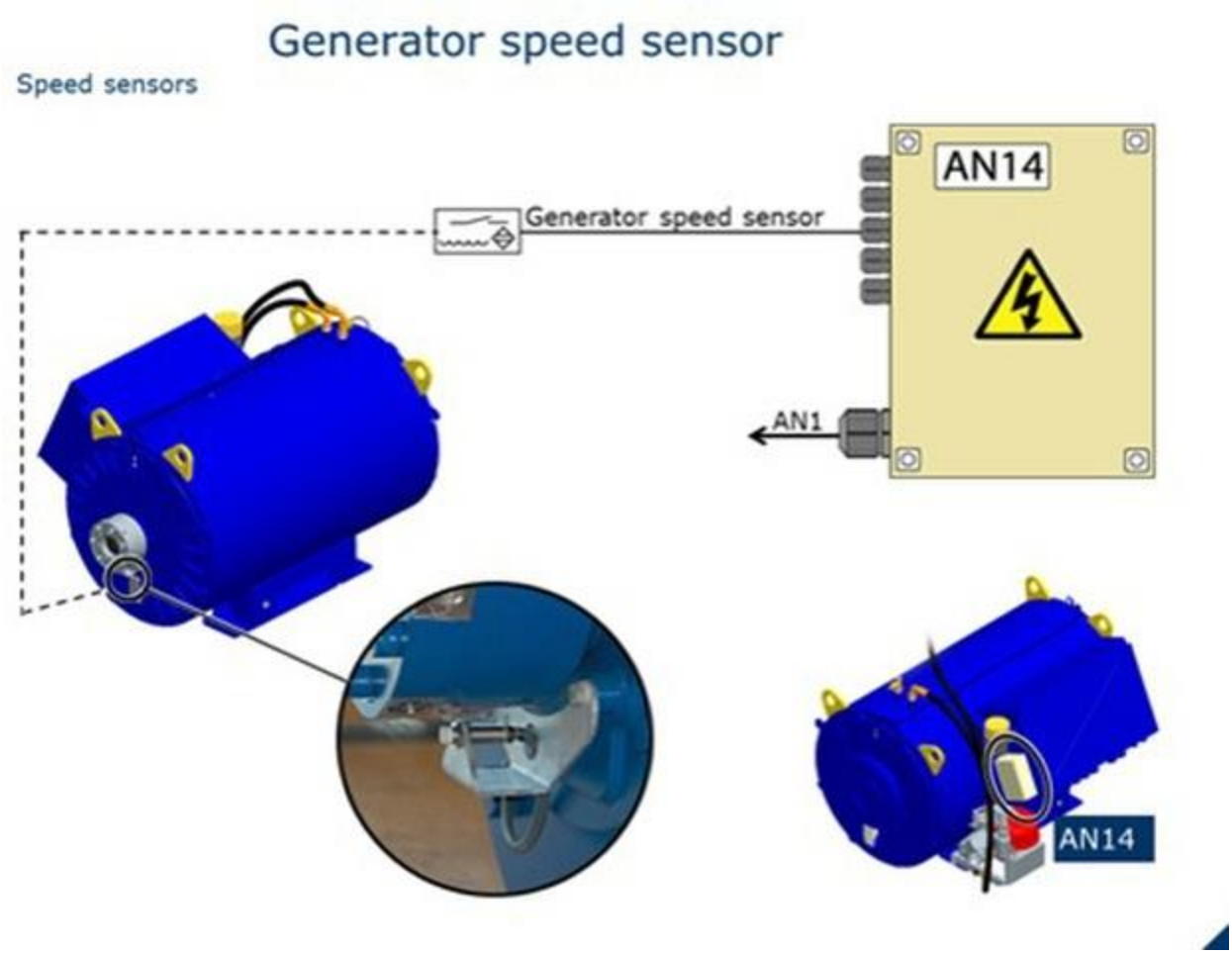
2] No

3] I don't know

- **Explanation**

The generator speed is measured by an inductive proximity sensor which creates a pulse signal as a pickup point passes over it.

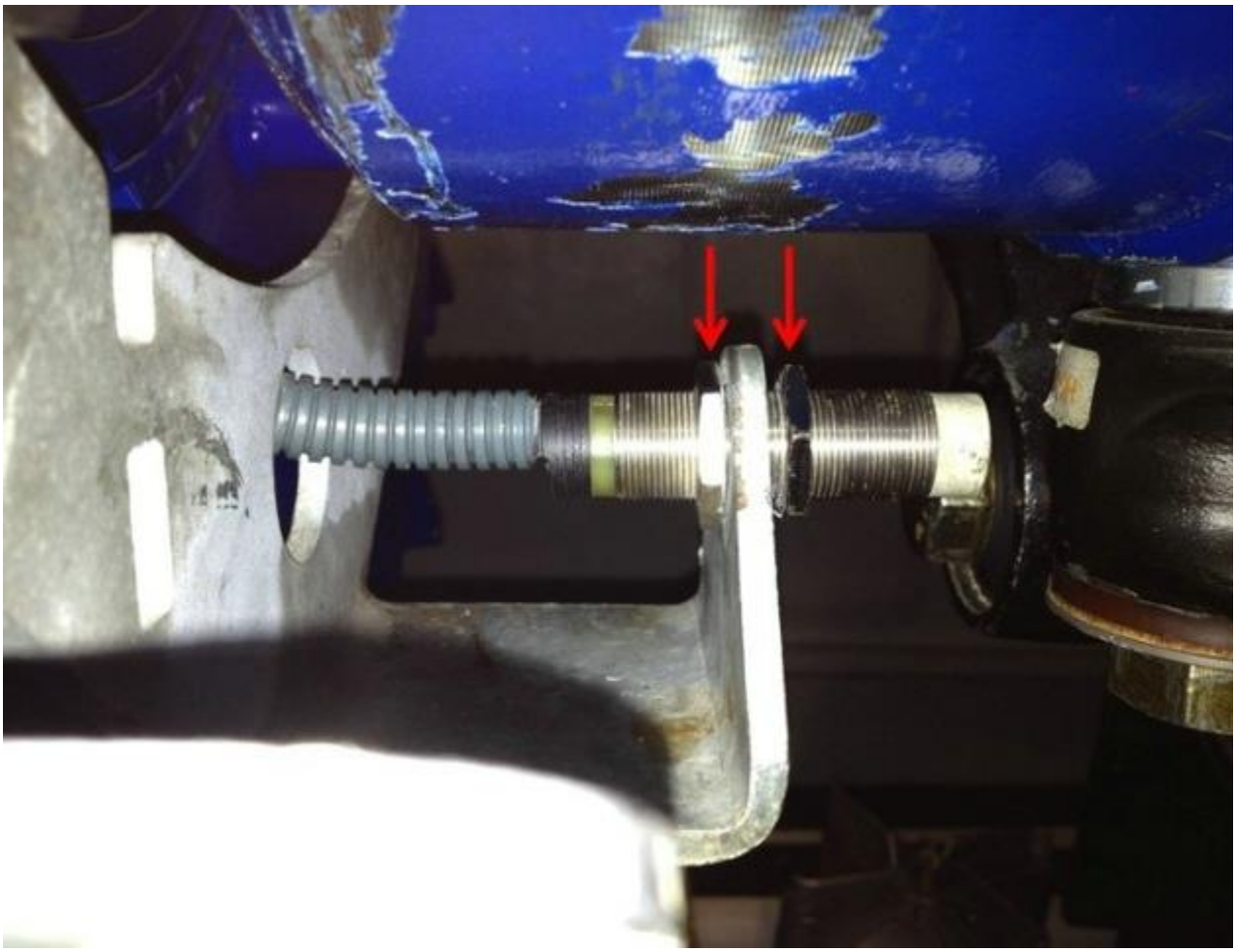




In the case of the generator, there are **seven pickup points** for every rotation of the shaft therefore the speed is calculated as # of pulses/7 =generator RPM. If the sensor is loose or failing it can "flicker" which will simulate a higher RPM than actual. The sensor can be tested by passing a screwdriver or other ferrous object past the sensor. If it consistently emits a light the sensor is likely operational. The sensor can also be tested by rotating the generator shaft and ensuring that the sensor emits a light when each of the (7) link element bolts passes over the sensor.

If the sensor does not emit a light each time a link element bolt passes over it, lock the shaft and check for correct sensor adjustment. Check the bolts on the speed sensor bracket and ensure that they are properly tightened. The end of the sensor should be within 1,5-5 mm from the pickup point. Adjust the sensor by loosening the nuts that clamp it to the mounting bracket and move it forward or back to achieve the required distance from the pickup point.

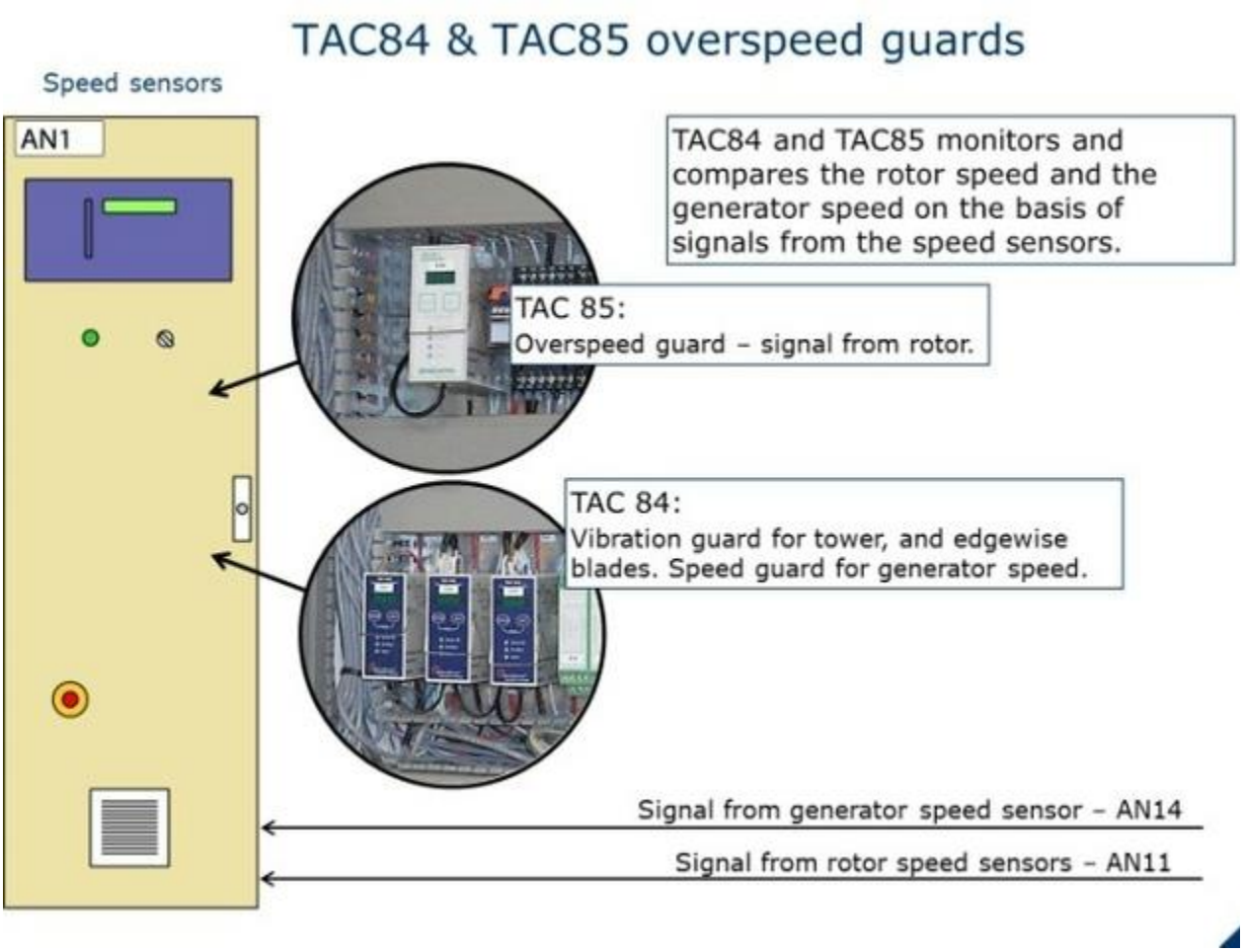
Sensor adjustment nuts:



If after adjustment the sensor still does not light up, or lights up intermittently when passing the pickup point- replace the sensor (sensor and cable are combined-W509)

Relevant spare parts	
Description	**Item No.**
Cable -W509 NM30t. inductive sensor	60021406
PROXI SWITCH I1808PPOS1531 Ø18	60009270

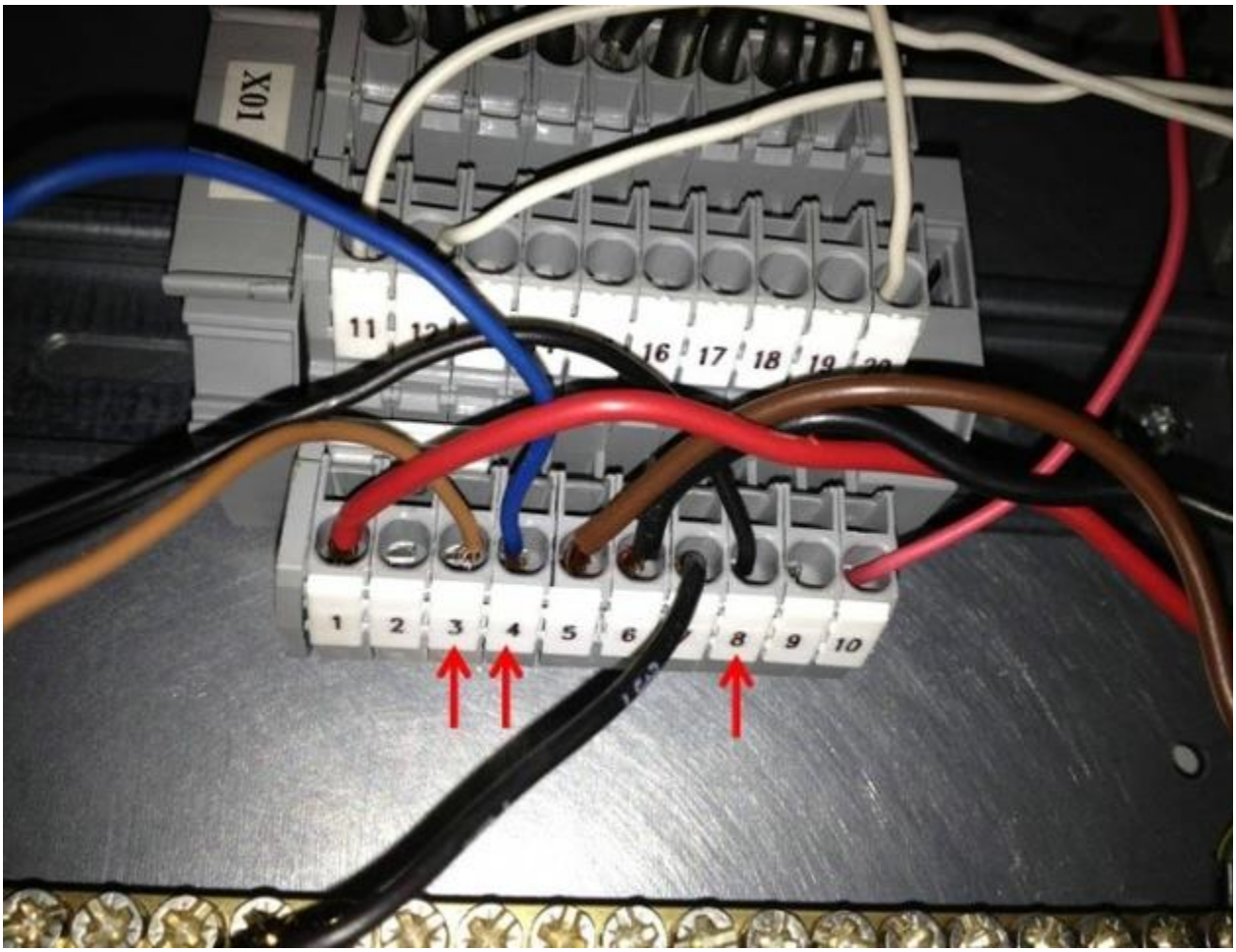
The signal is transmitted to the TACII controller and the three Vibration/overspeed guard modules.



Before replacing the sensor or components, check the circuit for loose connections.

Check for loose sensor terminations in the AN14 panel. (The AN14 terminal panel exists only in V82 1.65 Mw. NM72/82 1650Kw generator speed sensor cables terminate directly at the AN1 Top Box).

Terminal block –X01 terminals 3, 4 & 8:



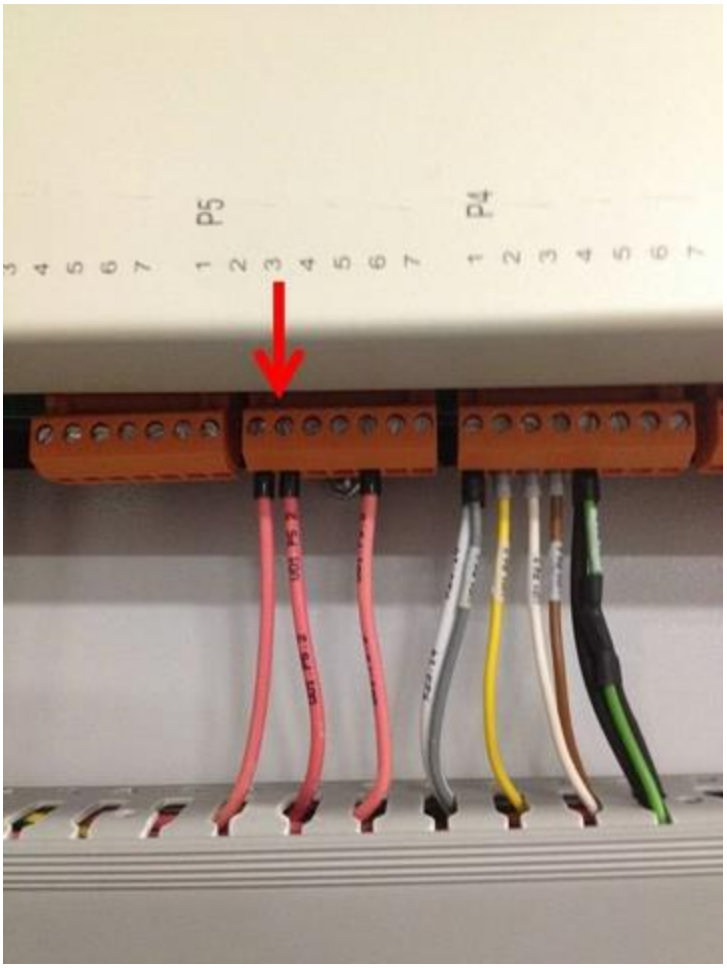
Check for loose wire terminations in the AN1 Top Box (sensor wire from the AN14 terminates into F42 Varistor Box terminal 6:

The signal wires from the F42 varistor box are double stacked, pay close attention to this crimped connection as the wires may be loose:

One of the signal wires from the F42 varistor box is for the TACII Generator Speed signal and can be traced to the X01 Amphenol plug on the side of the AN1 Top Box. The other signal wire from the F42 varistor box is for the TAC 84 overspeed/vibration modules.

Check the termination at the X01 Amphenol plug W500 cable and X01 Amphenol plug at the AT2 cabinet.

Finally check the signal termination at the TAC controller (P5 terminal 2):



Replace the defective TAC84 module

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

IN THE +AN1 CABINET:

Check the TAC84 module following parameters as per instruction at the hidden menu:

- **RX/TX mode**
- **Node ID**

- **Protocol ID**

Relevant documentation	
Description	**DMS No.**
Settings for TAC 84 Edgewise blade vibrations	17000068

If the module (U03) is found to be defective, replace with new.

Relevant spare parts	
Description	**Item No.**
TAC 84C VIB GUARD 2 FILTERS	51701001