



Service data bulletin

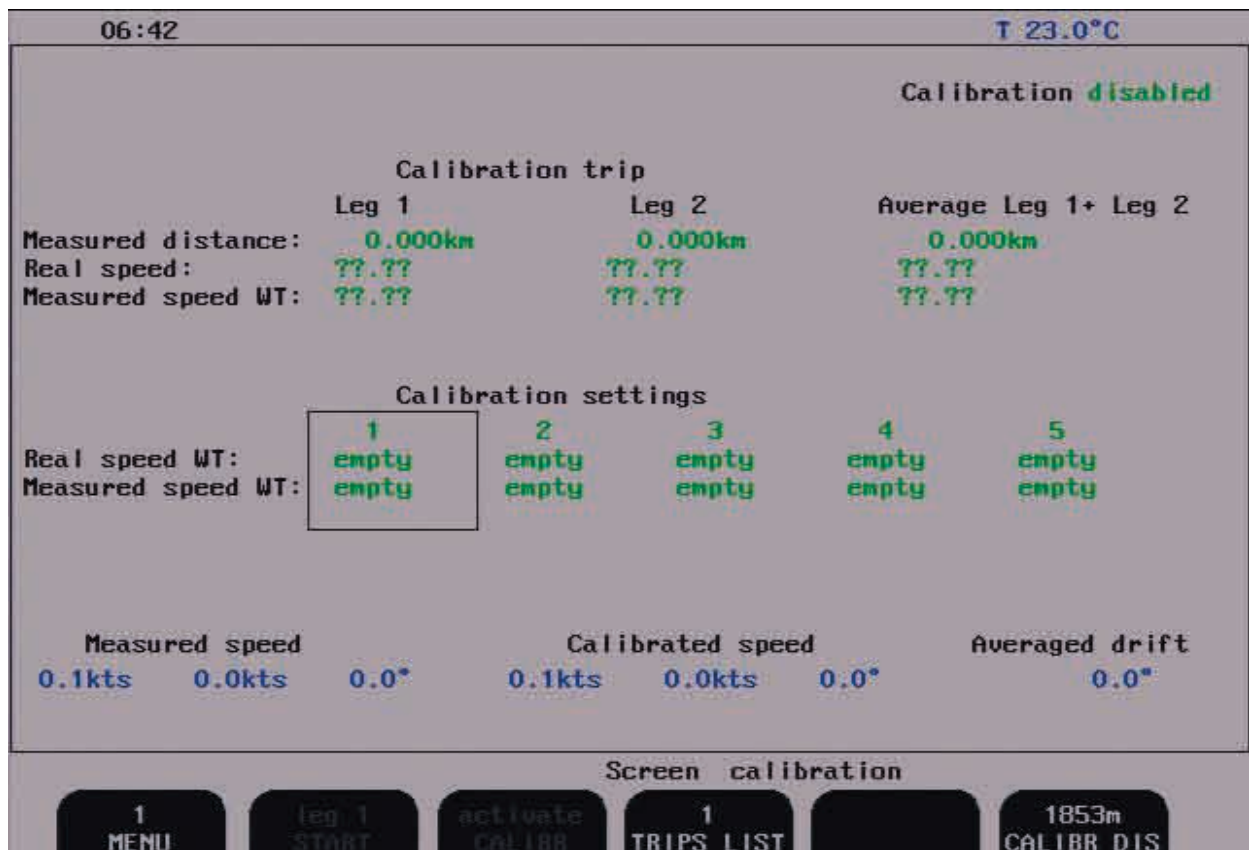
Instrument: EML224

Date: 17.07.2008

Created by: Geir Theodorsen

TROUBLE SHOOTING GUIDE: WRONG SPEED INDICATION

Step 1 Check “screen calibration”

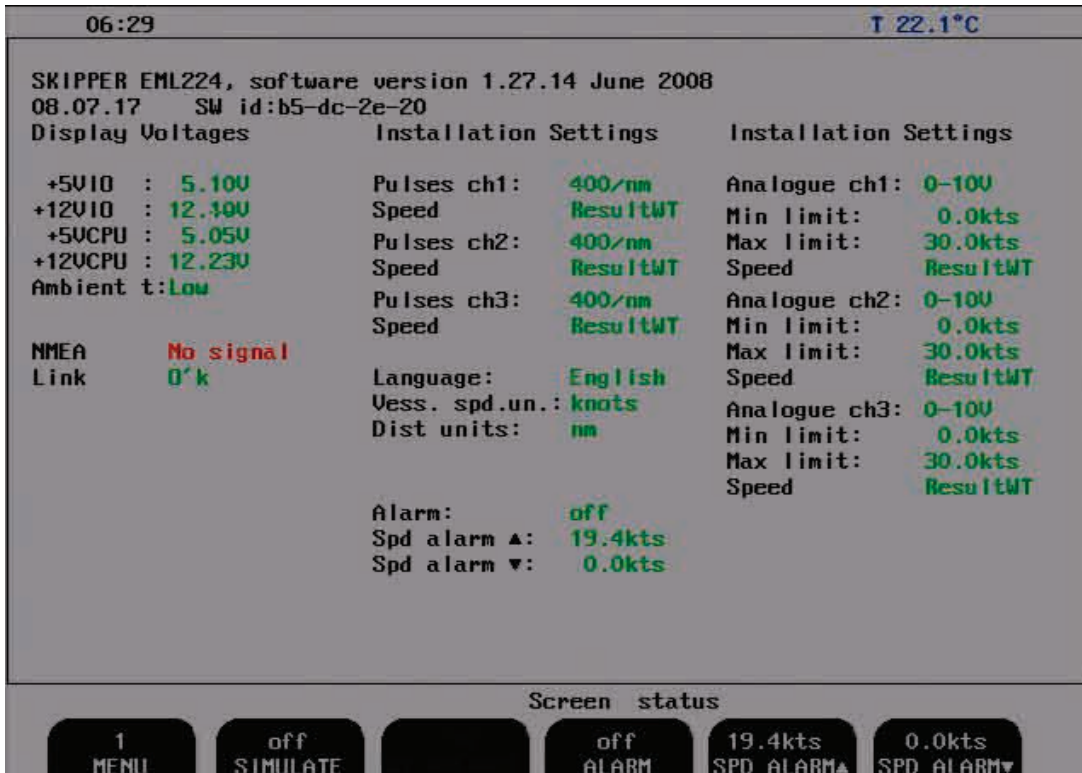


The calibration setting will show real speed and measured speed. The difference factor should be about similar on all speeds.

Some sensors may have up to 40% lower number on measured speed compared to real speed.

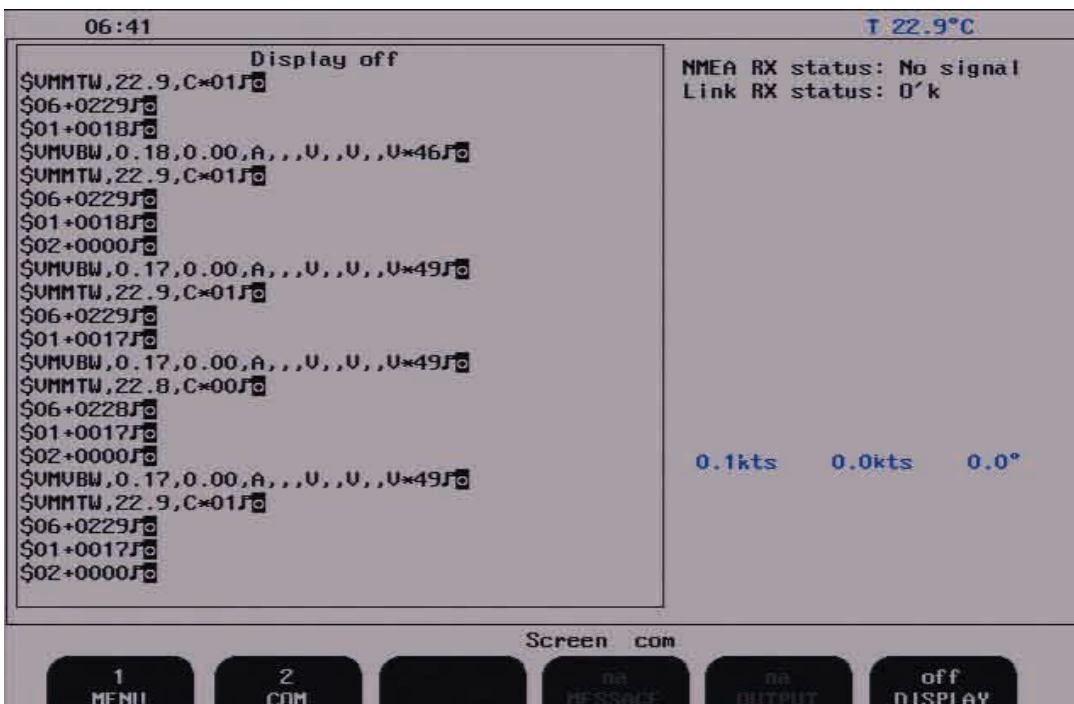
If “empty” then no calibration is performed.

Step 2 “Screen status”



Link OK indicates signal from junction box/Electronic unit.

Step 3 “Screen com”



Switch to “Com2”. Input display.

This picture is showing “off display” just for capturing the picture.

Com 1 is NMEA signal, Com 2 is sensor signal from junction box/Electronic unit.

VMVBW is showing uncalibrated speed input. In this case 0,18 knot longitude and 0,0 transversial.

VMMTW is showing water temp. In this case 22,8 C.

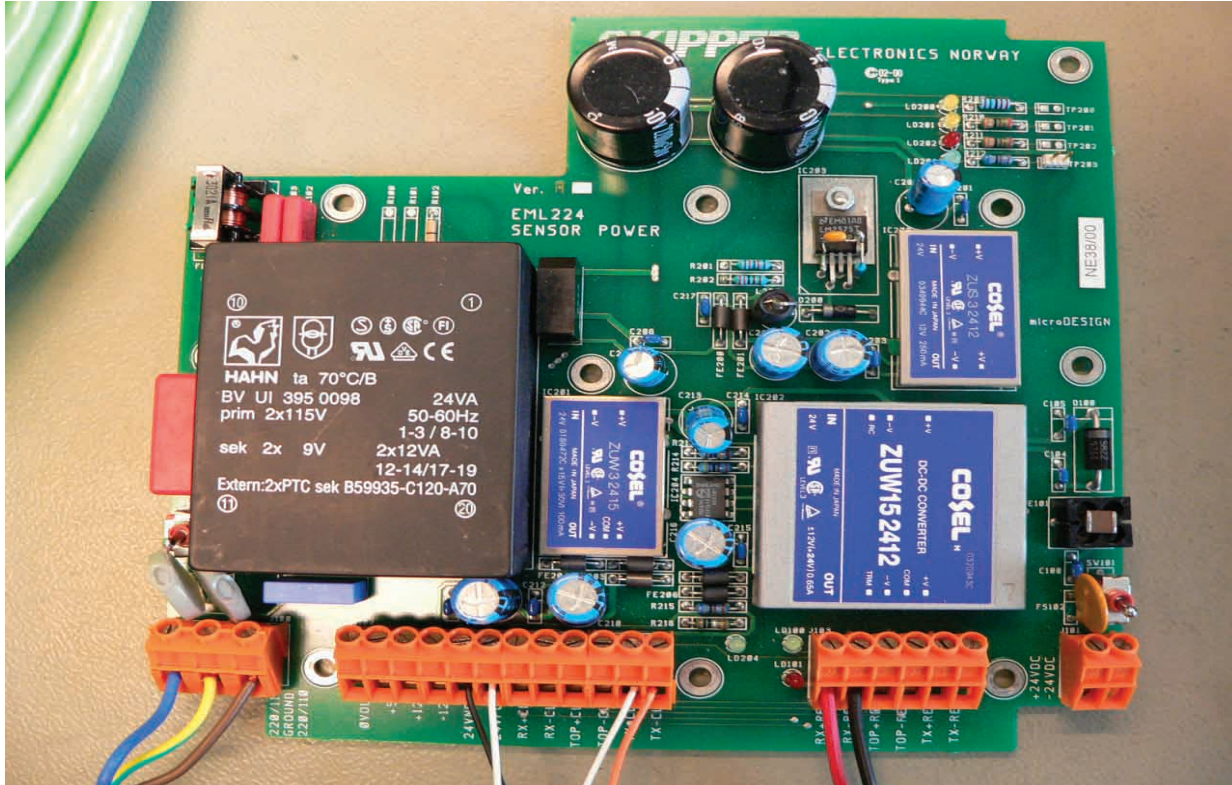
Step 4. Locate and inspect Junction box/Electronic unit.

There are 2 versions of this PCB.

“Sensor Power” is used in all SKIPPER “operator units” produced 1990 to 2007.

“Sensor power 2” is backward compatible with “sensor power”. This unit supports the “Compact operator unit”. (Introduced 2008). Also “SAM 4642 Operator unit” (Introduced 2007).

SENSOR POWER

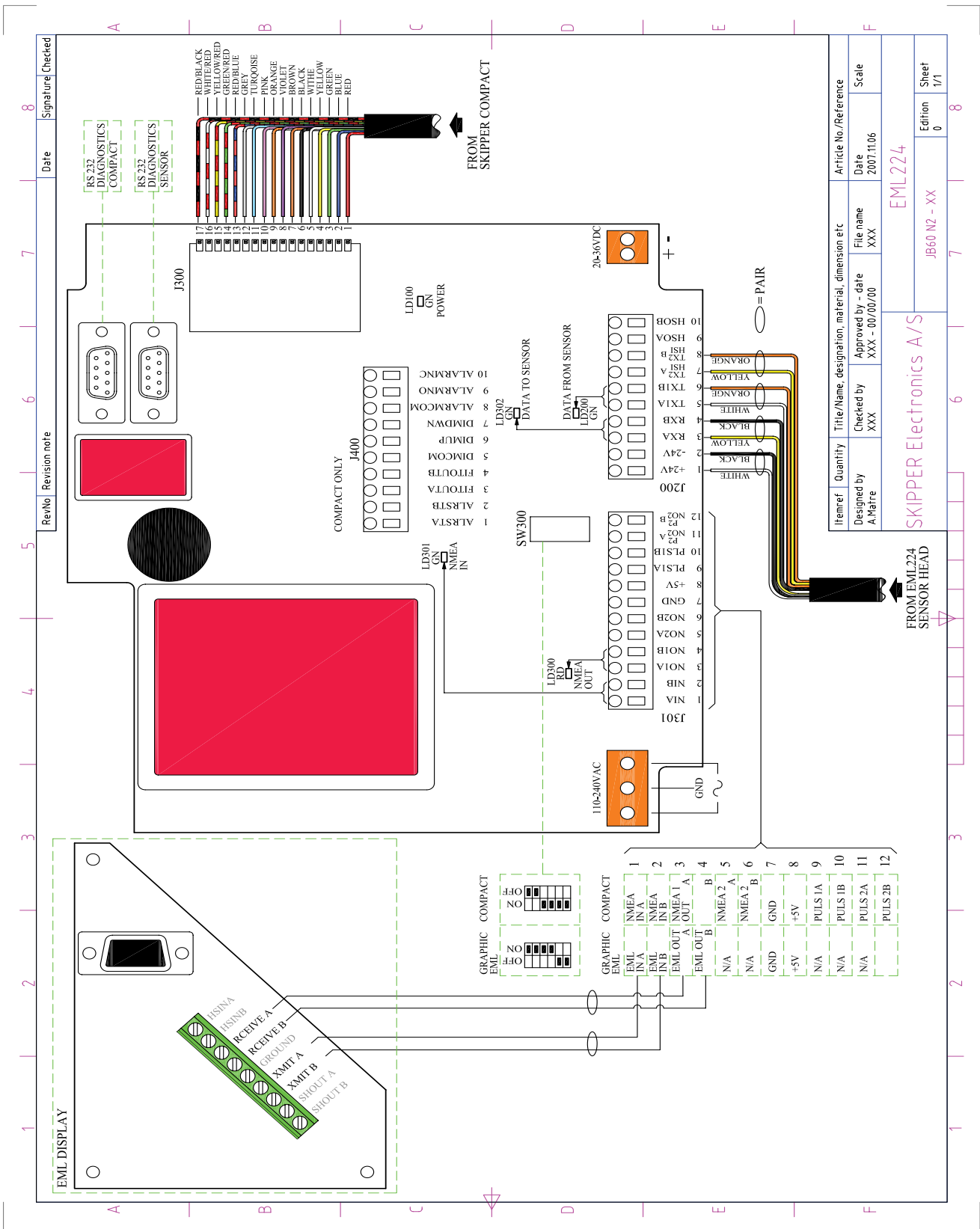


Green LED LD100 blinking is indicating transmit signal to coil in sensor.
If this is not blinking check input voltage 220V, 24V.

Green LED LD204 is indicating signal from sensor to “Operator unit”

Note! The signal from sensor is NMEA. This is only going through LD204 and then directly to operator unit. The signal will drop signal with about 1,1V. In case of long distance from sensor to operator unit (above 100m) the NMEA signal to operator unit may become low and noisy. It may help to directly connect the input signal to output. Then LD204 will not drop the signal.

SENSOR POWER 2



Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
Designed by	A.Maire	Checked by	XXX
Approved by - date	XXX - 00/00/00	File name	XXX
Date	2007.11.06	Scale	

EML224
 SKIPPER Electronics A/S
 JB60 N2 - XX
 Edition 0
 Sheet 1/1

If no error is found in these steps then sensor is most probably causing the error.
 No speed indicates defective sensor.
 Low speed may indicate fouling of sensor.
 Unstabil speed may indicate defective or fouling sensor.