

Trouble shooting Error messages on Pressure and Quantity display lines.

An error message on either Pressure or Quantity display line indicates readings outside allowable normal on the indicated system.

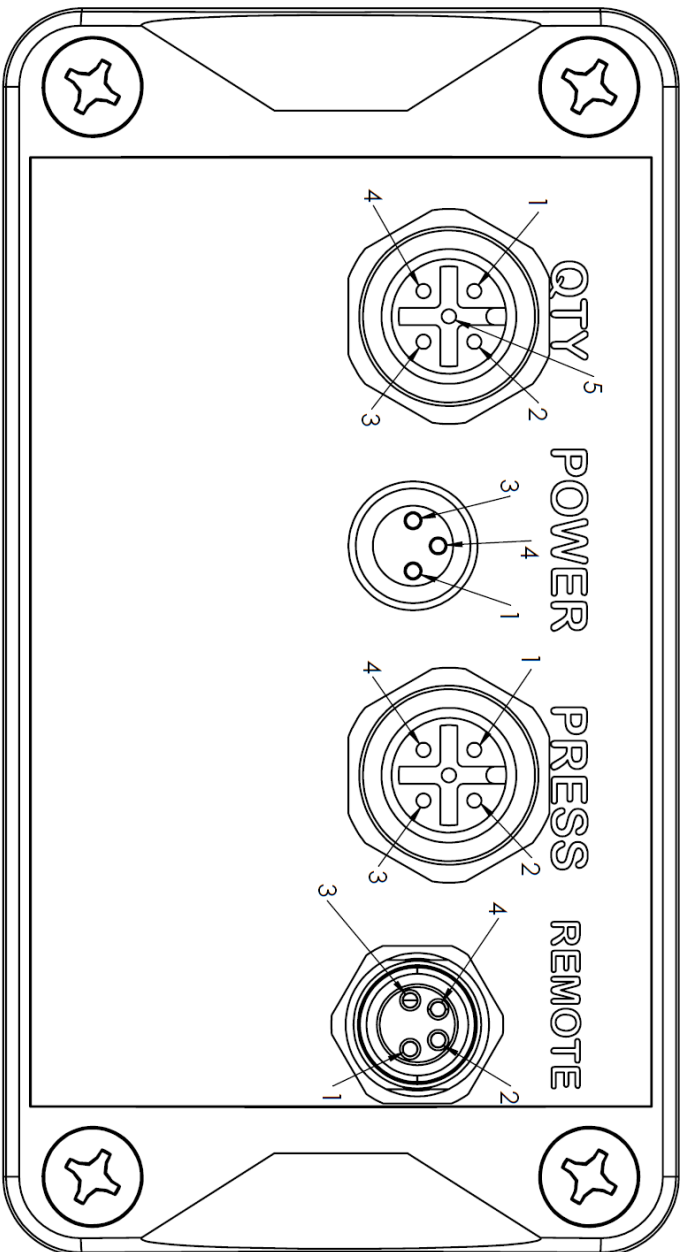
Testing:

You will need have safety wire or paper clips to jumper the leads for readings on multi meter.

Test Voltage before testing either sensor reading

1. Testing the 24V power supply
 - a. Connect the Multi meter to Pin 1 and Pin 3 of the QTY when the unit is powered on you should have a voltage reading of $24 \pm .25$ Volts
 - b. Record Voltage Reading _____
2. Testing Pressure display
 - a. Connect a 4.87K ohm resistor from Pin 1 to Pin 3 on the Press probe connection.
 - b. Hold the Dim button while powering on the display to calibrate to a new zero set by the resistor. (if a pressure reading is attempted to be calibrated but falls outside an acceptable band for a zero pressure display the unit assumes the pressure probe has drifted too far and is outside the acceptable limits, the pressure probe has died. The unit will continue to display error on the pressure display until an acceptable zero set point is accepted during calibration.
 - c. With the resistor still installed the unit should calibrate to a new zero reading and display 0 on the pressure display.
 - d. If the unit still errors in pressure when connecting the probe, check continuity on the pressure cable.
 - i. If there is continuity on the pressure cable and the resistor allow the unit to re calibrate to zero the pressure probe is the most likely the cause and should be replaced.
3. Testing Quantity Display
 - a. Check the rod for any sharp bends or kinks, The rod should be bend with a minimum radius of about 3 feet or 1 meter. (kinks can cause the ring in the line to be lost in the tight bend)
 - b. Connect a 4.87K ohm resistor from Pin 1 to Pin 4; jumper Pin 3 to Pin 5 on the Qty probe connection.
 - c. A 4.87K ohm resistor should give a reading within the normal range, this tests the display box.
 - d. Check continuity on the cable (you can repeat the test with resistor and jumper at the probe end of the Qty cable)
 - e. Re-connect the system together and place a magnet about 6 inches from the head of the qty probe on the rod. (this check if the unit is having trouble tacking the float)
 - i. If the unit fails to work with the resistor and jumper installed (erro) the main box is not working
 - ii. If the unit fails to work with the resistor and jumper installed at the probe end of the cable the cable is bad
 - iii. If the unit works (no error) when testing with the magnet but not when using your float, your float is bad.
 - iv. If the displays error with the qty probe connected and the magnet did not give a reading your qty probe is most likely the cause and should be sent back for warranty or replacement.

PIN #	QTY	POWER	PRESS	REMOTE
1	24V	MODE IN	24V	COM OUT
2	NO CON	-	NO CON	COM IN
3	GND	+V IN	+SIG CH3	+V
4	+SIG CH1	GND	NO CON	GND
5	-SIG CH1	-	-	-



MAIN DISPLAY BOX

TITLE:

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL: ± 1/16
 ANGULAR: ± 1/2°
 TWO PLACE DECIMAL ± 0.15
 THREE PLACE DECIMAL ± 0.005

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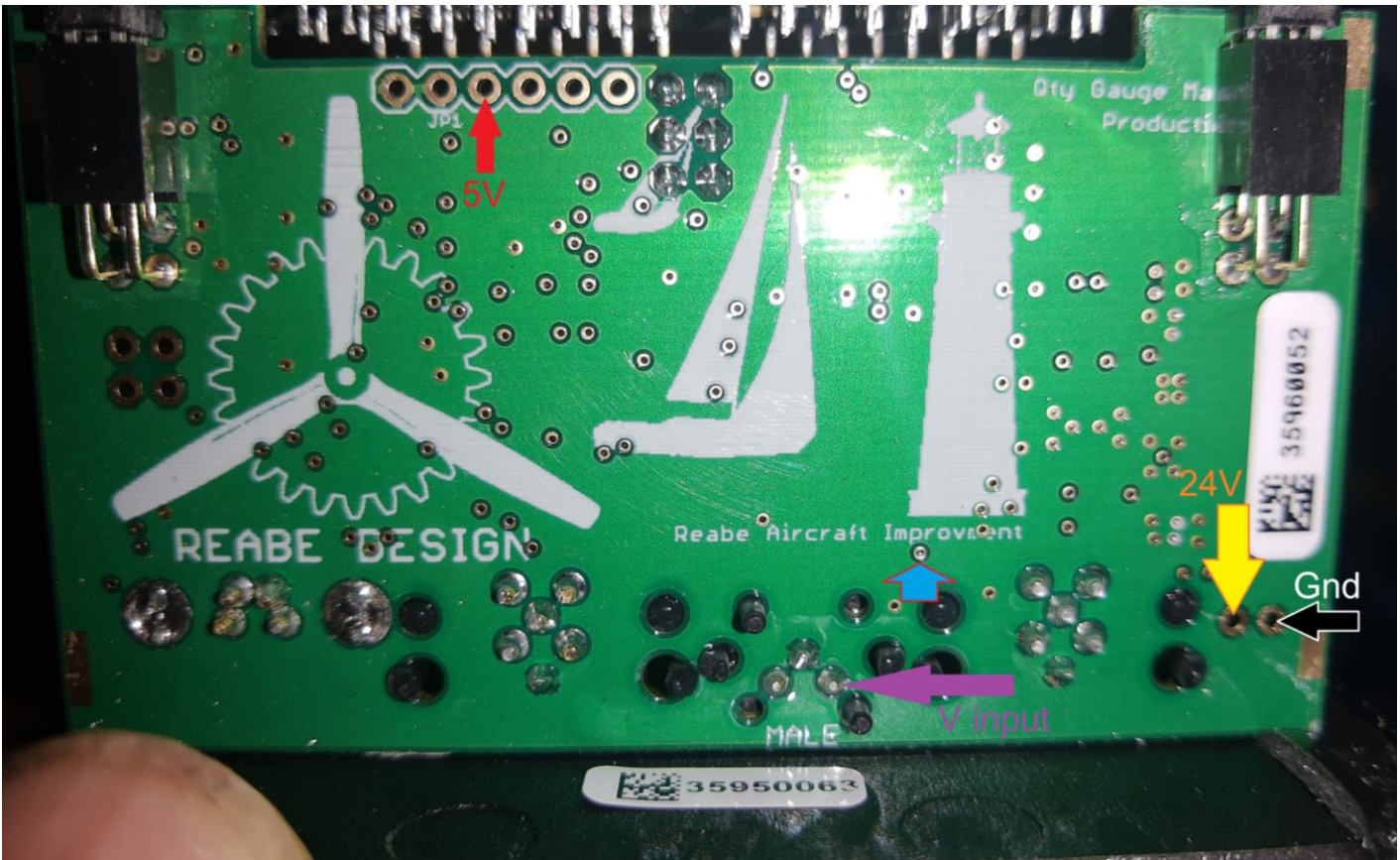
MATERIAL
 DO NOT SCALE DRAWING

NAME	DATE	SIZE	DWG. NO.	REV
DRAWN	TRR	11/20/2010	A	4
CHECKED	TRR	11/20/2010		

SCALE: 2:1 WEIGHT: SHEET 4 OF 4

REABE DESIGN LLC
DULUTH, MN

Checking Power



Power Test Points

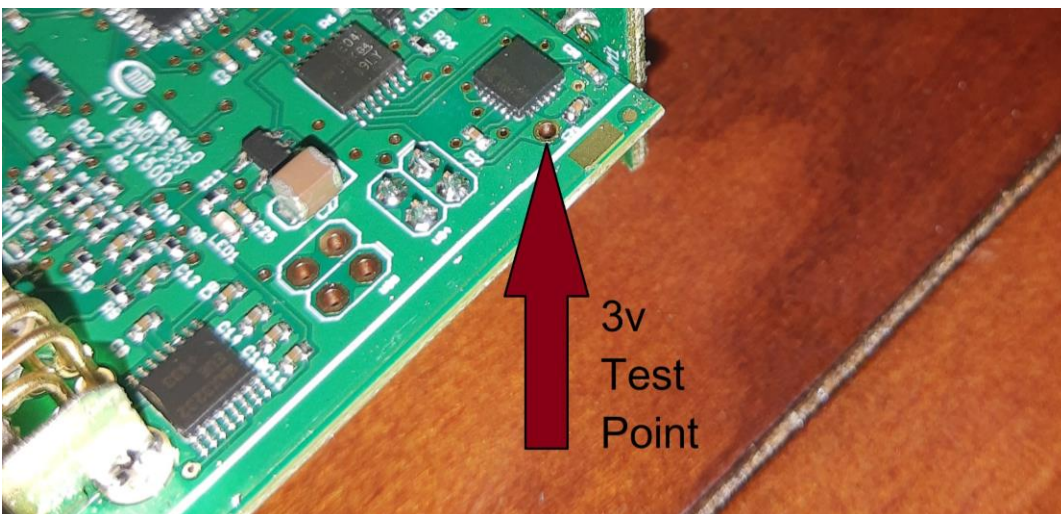
Gnd: Indicated by Black arrow this is a good ground point for all power testing

V input: Indicated by Purple arrow, this is the power coming directly into the unit from aircraft buss

Remote Power: Indicated by Blue arrow, this is the power being fed to the remote display

5V: Indicated by Red arrow, this is the onboard 5v logic power

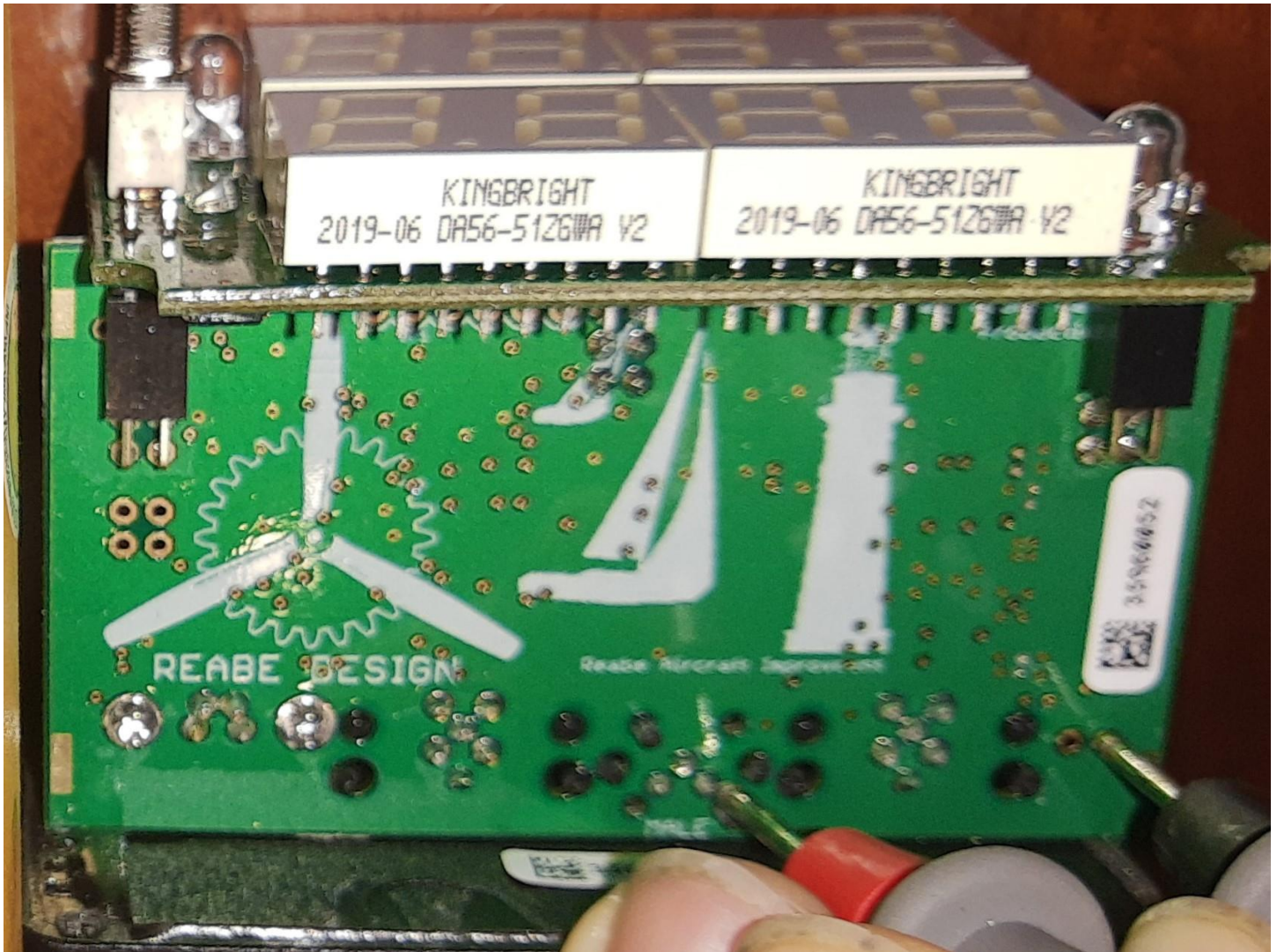
3V: indicated by Marron arrow, this is the onboard 3v logic power



Caution

Be sure not to short test leads across multiple points as unit could be damaged.

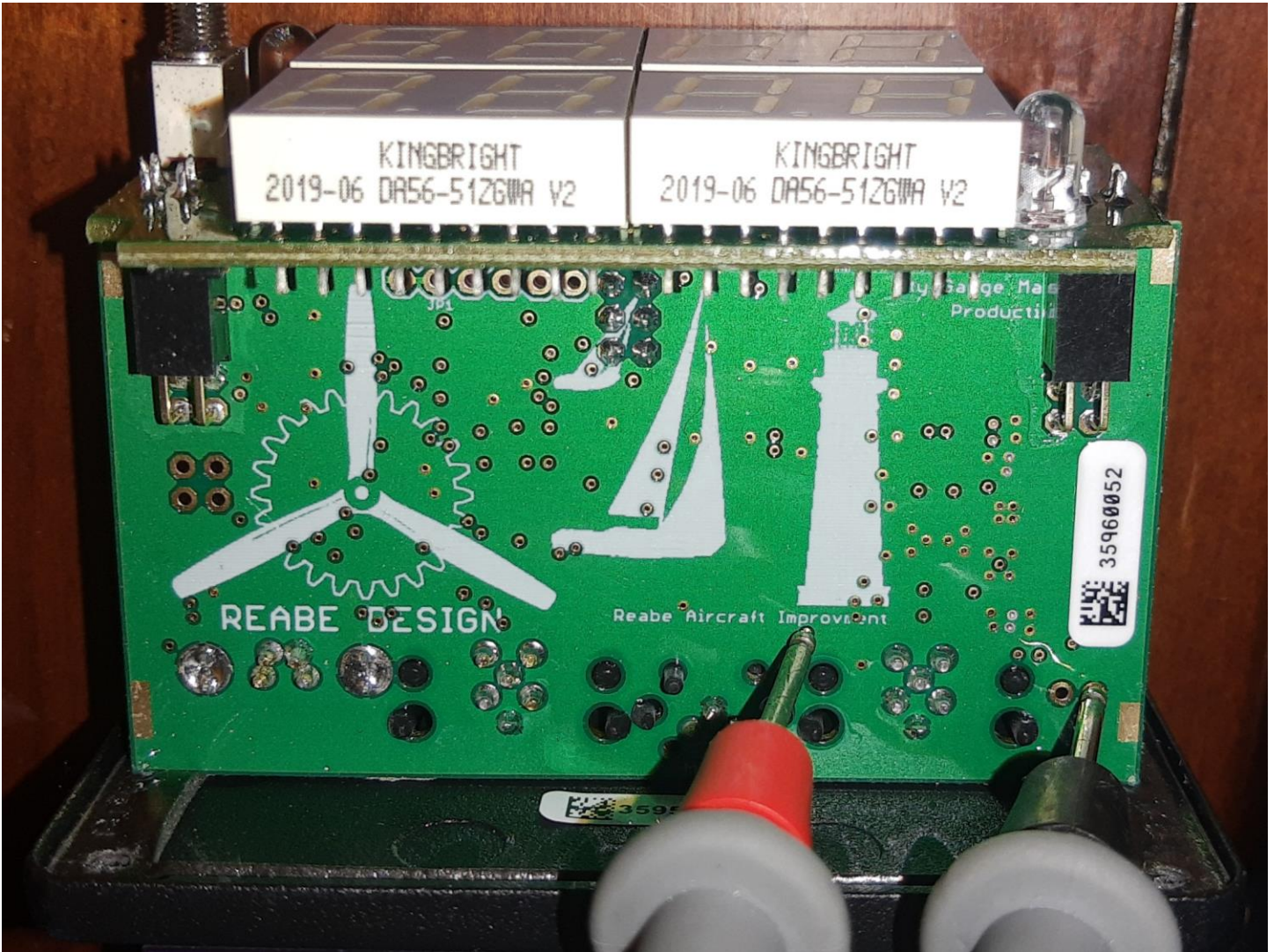
Make sure Multimeter is set to measure Voltage with leads connected in correct locations.



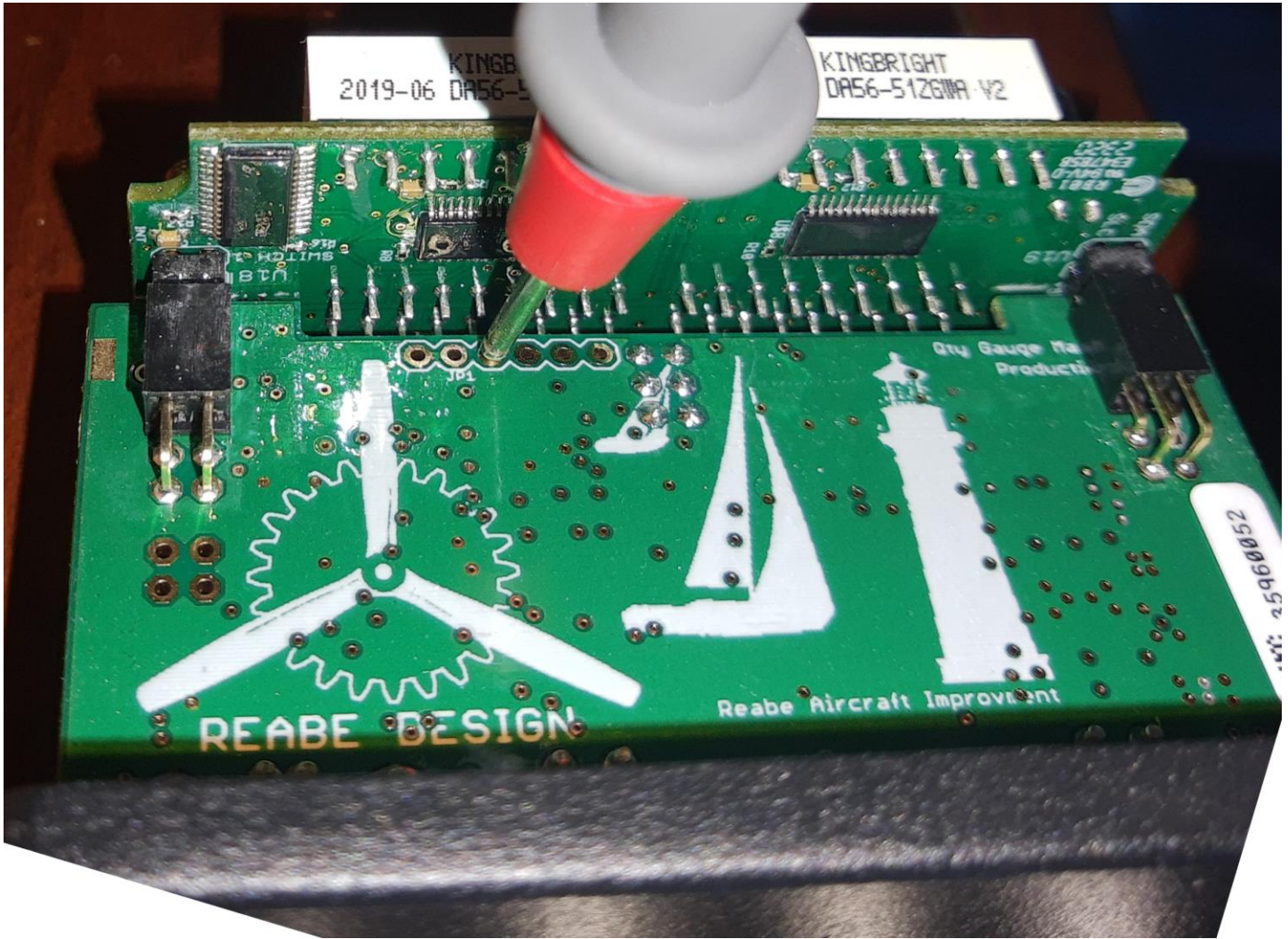
1. Check V input
 - a. This is the power coming directly in off the aircraft bus
 - b. If this reading is lower than expected, check ground and power connections
 - c. You can also use these points to ring the power and ground connections for the unit.



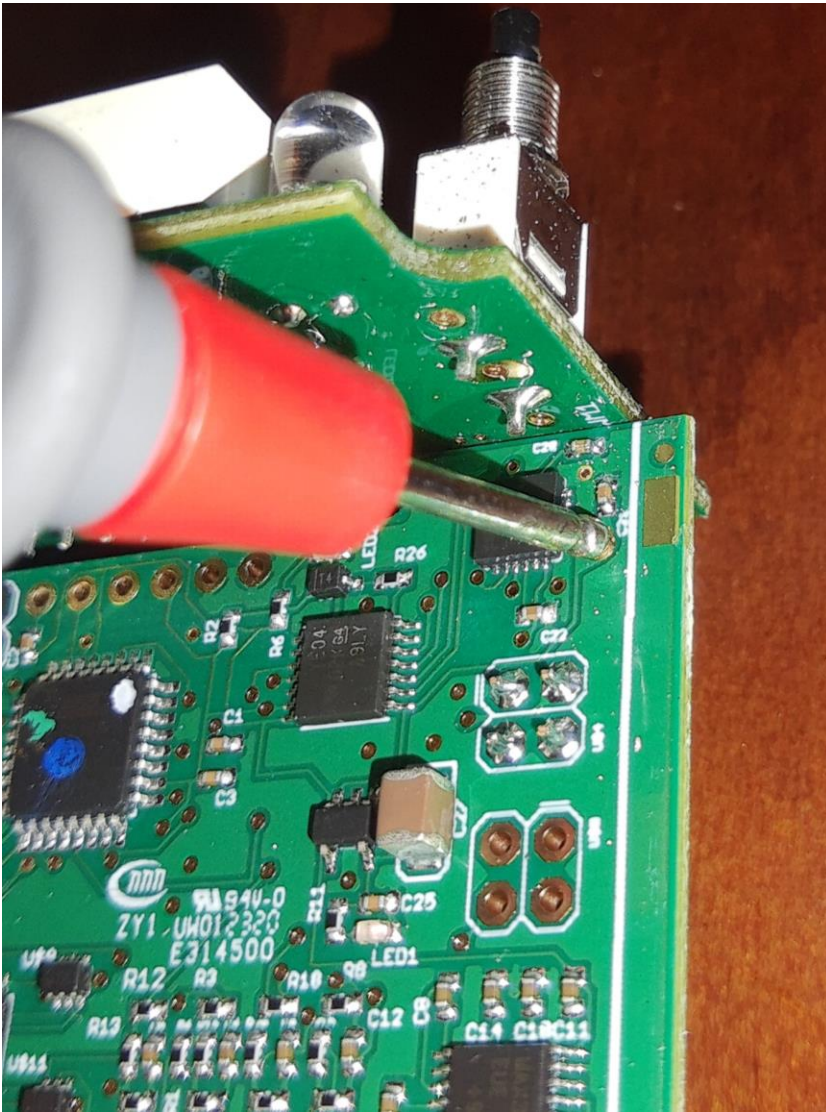
2. Check 24V
 - a. This is the conditioned power for the sensors
 - b. It should be a stable reading independent of buss voltage
 - c. Value should be 24V +/- .5



3. Check Remote Power
 - a. This is the power being sent to the remote display
 - b. It should be about .7V below the V input reading



4. Check 5V
 - a. This is the 5V logic power supply
 - b. It should be 5V +/- .5 but stable and independent of buss voltage



5. Check 3V
 - a. This is the 3V logic power supply
 - b. It should be 3.1V +/- .25 but stable and independent of buss voltage