

## Base Unit - Adjusting the voltages in the Base Unit

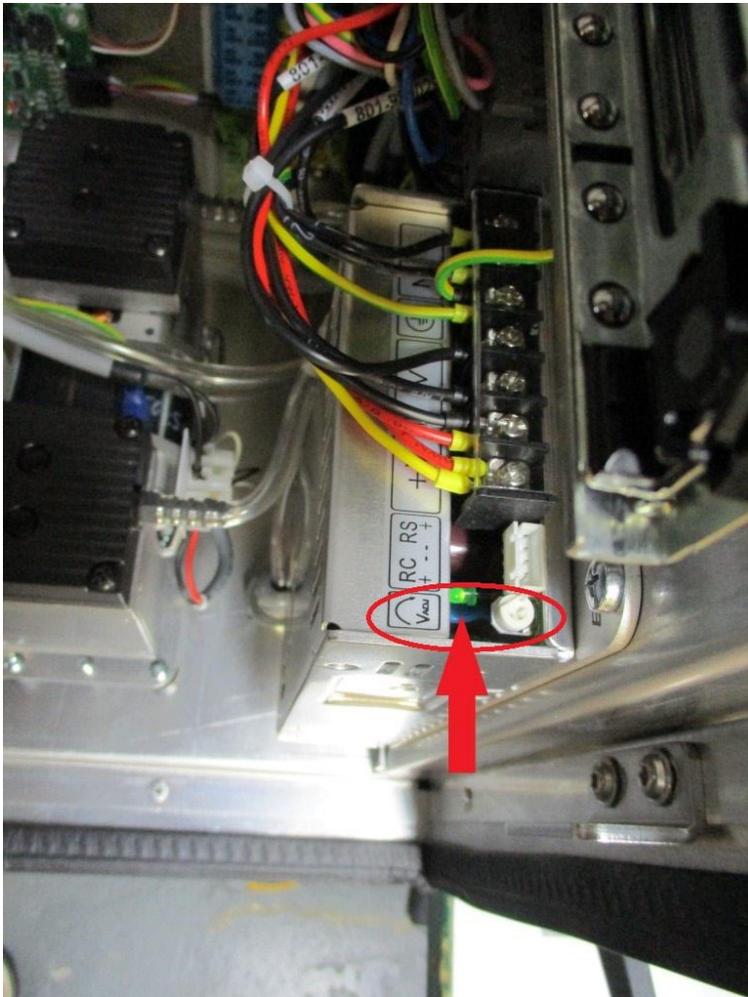
### 1- Checking the voltages on the DC Power Supply

#### 1- Tools you will need

- A medium-sized Phillips Screwdriver
- A multimeter with thin pins
- A trimmer adjustment tool for potentiometers

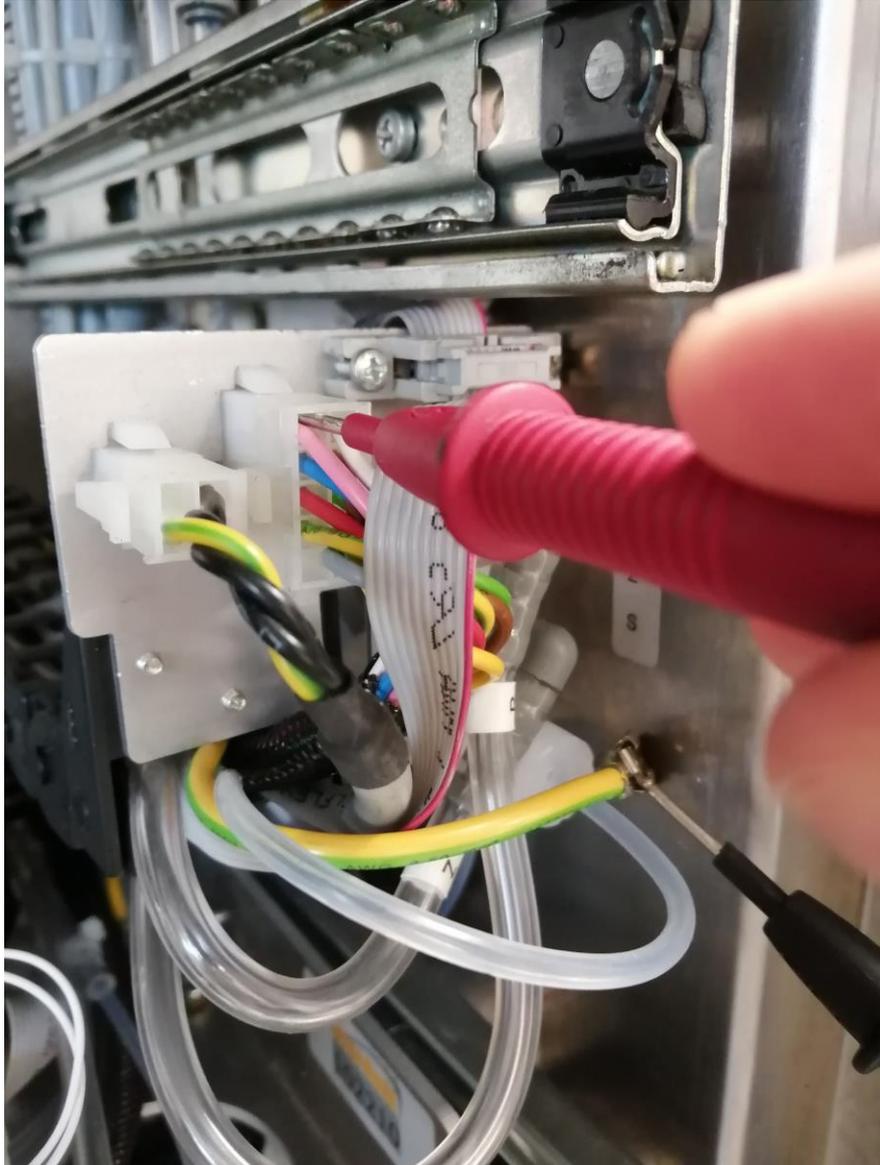
#### 2- Remove the plastic covering the screws of the connectors

- #### 3- Measure the 12V DC voltage on the power supply (screws holding the red cables compared to screws holding the black cables and compared to the screws holding the yellow+green cables), and if necessary, adjust it to 12.3 (+/-0.2) V by turning the potentiometer



## 2- Checking the voltages on the modules

- 1- Check the DC voltages on the right handside of each module. The 10-pins connector is the DC power inlet. Checked against ground, one wire should have a voltage of +5V, one should have +12V, one should have +15V, one should have -15V, and the other ones should have 0V



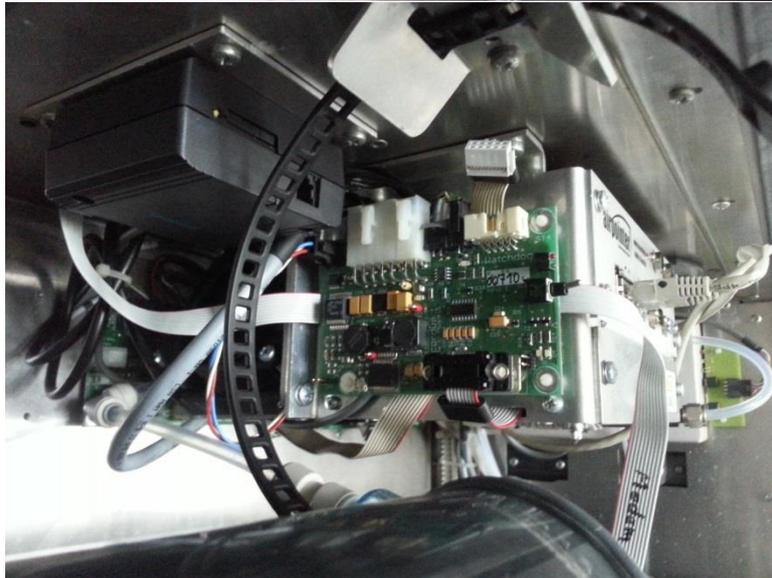
- 2- If any of the voltages are slightly below the nominal level, the voltage can be increased at the DC power supply (cf. paragraph 1). If there is a difference of over 0.5V between the values measured at the power supply and at the module, it is a sign that a connector is loose, dirty, or rusty, and should be therefore be cleaned or replaced.

NB: In older Airpointer design, the connectors can be bent due to tension on the wire. Refer to the procedure “BU17 - Improving the quality of the DC voltages in old airpointers” to fix this issue.

### 3- Checking the voltages on the Watchdog board



When measuring the voltage on the watchdog board, it is recommended to remove the zero air canister to have an easier access to the watchdog board and to be careful not to make a shortcut by touching 2 pins of the board simultaneously. This can destroy the watchdog board and/or the PC

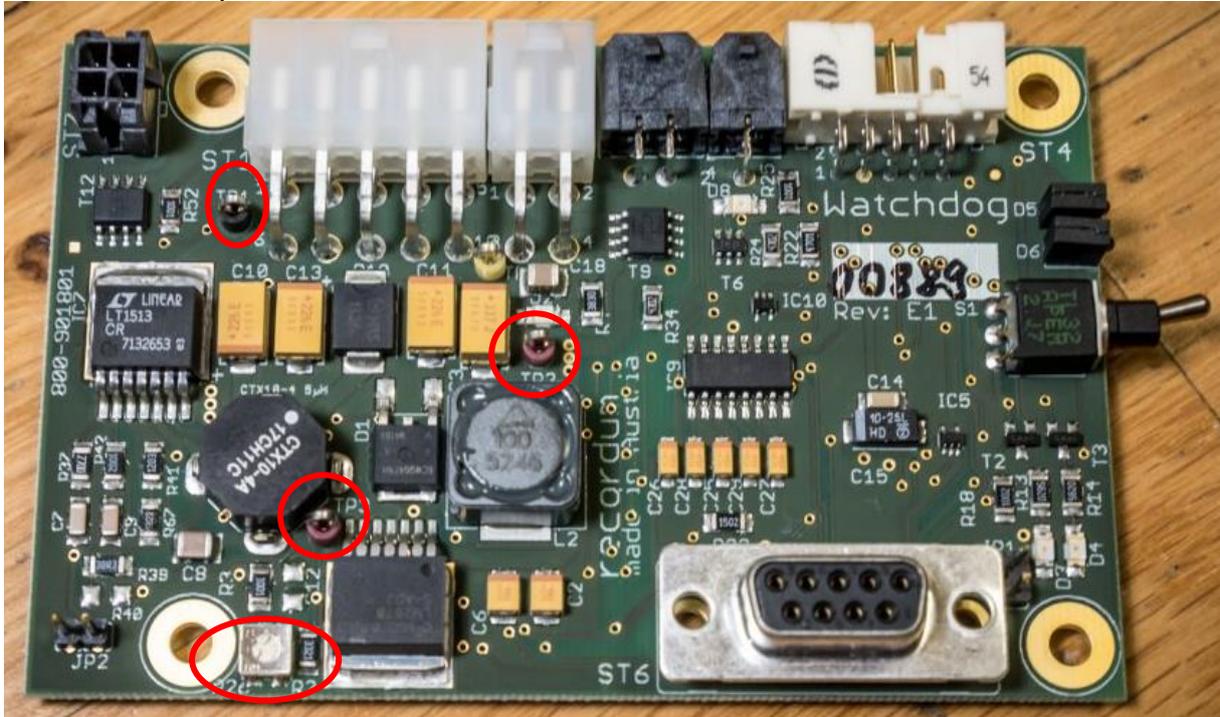


- 1- Measure the DC voltage between Test points 1 and 2, and then between test points 1 and 3

TP1 = ground

TP2 = +5,1 to +5,2V compared to TP1

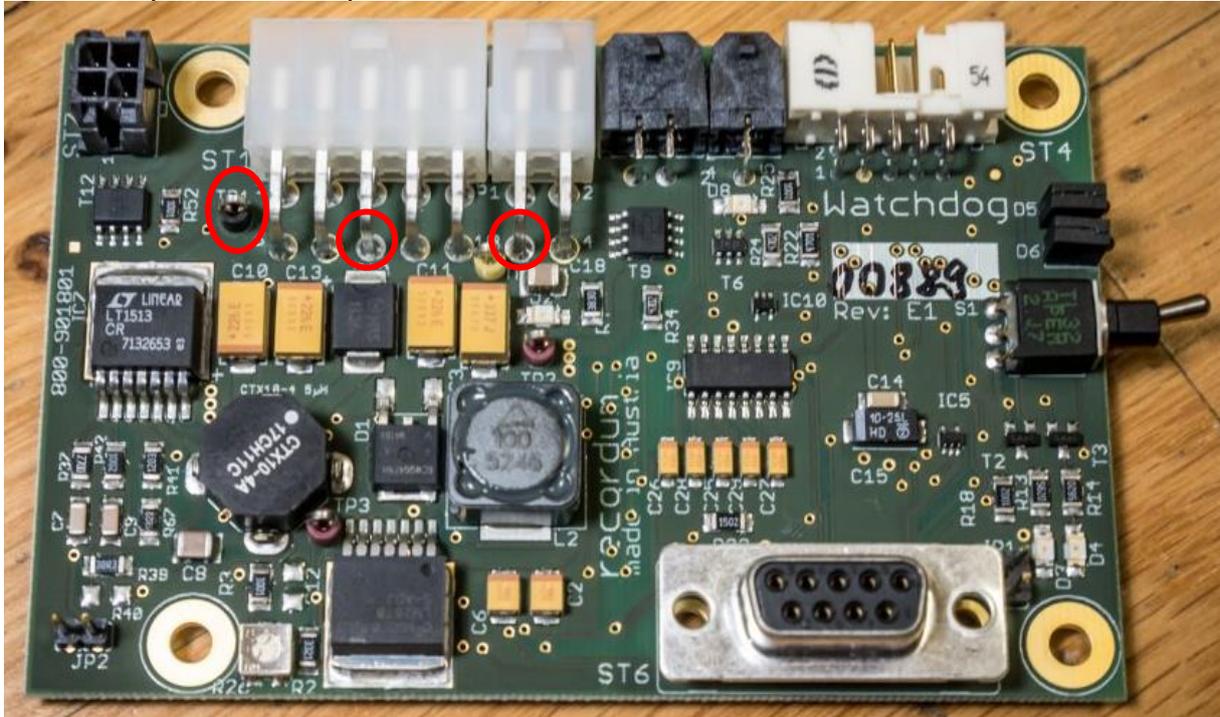
TP3 = +5V compared to TP1



- 2- If necessary, adjust TP2 voltage with R26 potentiometer. If it can't be adjusted, the adjustment must be done on the power supply (cf. paragraph 1)

- 3- In case of doubt that the voltages don't reach the boards because of a bad connection between the DC power supply and the watchdog board, measure the DC voltage between ST1 pin #8 and TP1, and then between ST2 pin#3 and TP1

TP1 = ground  
ST1 pin#8 = +12V compared to TP1  
ST2 pin#3 = +5V compared to TP1



NB: The board shown in the photos above are the newer Watchdog, version D and E. The older Watchdog, version C is shown below. The voltages should be the same

