ZSC Bluetooth interface

user manual

Version 1.1 (18-02-2021)

INTRODUCTION

This manual explains how to use the ZSC Bluetooth sensor to :

1. Investigate the Atmos-41 sensor suit battery drainage problem.
2. Update sensor firmware
3. Calibrate the pyranometer after funnel change
4. Re-zeroing the wind speed after sensor firmware update (only when the old firmware is less than 5.0)

General

1. Downlaod zentra mobile app from the links below and install it on your mobile.
   ZENTRA Utility App (Android)
   ZENTRA Utility App (iOS)

2. Install two AA batteries in the zsc battery port and close it.
3. The led should blink blue. If not press the button on the zsc left to the led.
4. Disconnect the sensor from the logger and Connect it with the zsc using the cable
5. Open zentra utility app on your mobile and select the zsc. Your mobile phone Bluetooth should be on.
6. Now you can view the sensor measurements.

To investigating the Atmo_41 sensor suit battery drainage problem

7. Click on the **three lines** at the top left corner.
8. From the dropdown click on "**sensor tools**"
9. Then select "**sensor current draw**".
10. You can see it inactive. So activate it by moving the button to the other side then it will change to blue.
11. Then return back to the measurement overview. Here at the top you can see the active current and idle current.
12. If the idle current is **above 0.2 mA** (200 uA), that means the sensor is drained a lot of battery and it needs to be replaced.

To update the sensor firmware.

7. At the middle of the window near "air temperature" you see a notification with a number in a circle.
8. Click on it and follow the instruction

To calibrate the pyranometer after funnel change
(This is needed only if you change the funnel (the upper part of the sensor))

7. Click on the three lines at the top left corner.
8. From the dropdown click on "sensor tools"
9. select Atmos-41 pyranometer calibration
10. enter the new calibration factor. (located on the underside of the rain funnel).
11. then click on update.

To re-zeroing the wind speed after sensor firmware update
(this is needed only when you have updated a firmware version of less than 5.0 to 5.0 or above 5.0)

7. Click on the three lines at the top left corner.
8. From the dropdown click on "sensor tools"
9. Select Atmos-22/41 wind speed zero. (this test requires that the anemometer to be covered so that there is no air movement).
10. first cover the anemometer with paper or cardboard and then cover the whole sensor with a fleece blanket.