UV-badge User's Guide

First Steps

Pull the cellophane strip out from the device to activate the coin cell battery

Understanding the Display

The device continuously measures the following environmental characteristics:

- Air pressure (mbar) / Altimeter (m / ft)
- Ambient temperature (°C / °F)
- Humidity (RH%)
- UV index (UVI)

Measurements are taken in every ~2 seconds.

Additional features

- Chart of the selected characteristic

  The average value is drawn on the chart every half-an-hour, resulting in a maximum 12-hour history

- Low battery alert - The UV measurement will get unreliable first when running on exhausted battery, change it as soon it's possible

Selecting a Characteristic

Simply press the right-hand button briefly to change the selection

Sleep Mode

The device automatically turns on the sleep mode after 1 minute left unattended, however it keeps taking measurement in every 30 minutes.
To turn on the device again briefly push any button.

Altimeter

When the top-left characteristic (pressure) is selected press the right-hand button briefly to change between the pressure / altitude in meter / altitude in feet values.
The altimeter 0 level can be set by a long (8-10s) press on the left-hand button. After releasing the button the altitude value should show 0. From this point the pressure change will be shown as an altitude change.

UV index

If the device displays a non-zero UV index value with the UV sensor covered, it means, that the sensor offset should be zeroed. To do this:

- Select the UV index characteristic (left click)
- Cover the UV sensor
- Hold down the right-hand button for 8-10s, after releasing it, the UV index value should show 0.

Battery

When the battery power is almost exhausted, a small battery icon appears on the screen. While this means that the UV index measurement will become more inaccurate, other measurements can still be taken accurately at lower battery levels.

To change the battery, follow these steps:

- Carefully pull the top and bottom covers apart
- Use a nonconductive stick (e.g. toothpick or match) to push the battery out
- Install the new battery
- Carefully put the parts together paying attention to the position of the buttons

Tips

- The device is not waterproof
- Temperature and humidity sensors are very sensitive; by holding the device in your palm the measurements will be highly affected by your body heat and skin moisture
- To measure the UV index, the sensor should directly face the sun

https://hackaday.io/project/4706-uv-badge
UV-badge by x-labz