Calibrating the Barometer on the DAQ of the QuarkNet Detector

The barometer is calibrated with the actual pressure, not the corrected or sea level pressure. Most smartphones have barometers in them, although not all. A good free app to access the sensors isPhysics Toolbox Suite by Vieyra Software. After downloading and installing, the tools are found on the left hand drop-down menu. Only the sensors available on your device will show up. If showing, select the barometer. The pressure is typically shown in Pascals. Divide by 100 to get it into millibars, which is how EQUIP interacts with the DAQ board barometer.

Connect to the DAQ using EQUIP. On the command line at the bottom, enter BA   {enter};. In the data viewer, the current pressure setting will be shown. If the value shown matches your phone's value, you have nothing more to do. If not, you need to adjust the voltage. The command, BA xxxx will do that.
Start with about 1500 for xxxx, making the command line: BA 1500 {enter}. You need to repeat the BA(plain) command to see where your new pressure is in the data display window. By successive approximations of larger or smaller numbers than 1500, try to get within a millibar, or so. It takes a little patience. Once the correct pressure shows, be sure to save the setting through the SA 1 command.

Near the top of the EQUIP screen there are Help Buttons. One of the screens has the code for Barometer Help, should you need further information.

If you are unable to set the pressure, submit the problem on a Help Desk ticket.