

BluLite Calibration Instructions

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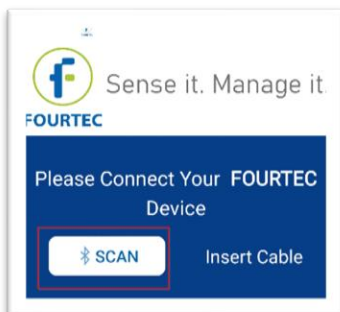
Required Equipment

- FourtecLite app Andriod application.
- DataSuite Desktop application.
- Calibration chamber.

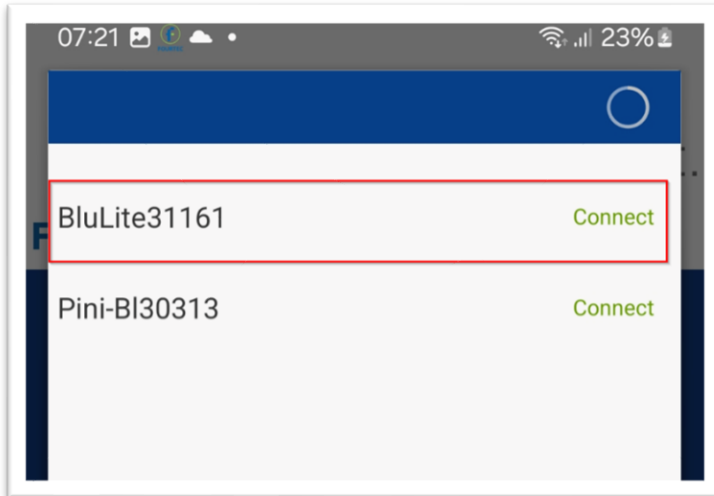
Running BluLite in controlled environments (Chamber)

Connect BluLite to FourtecLite

1. Launch FourtecLite app with the android device.
2. Please press on the “SCAN” button.



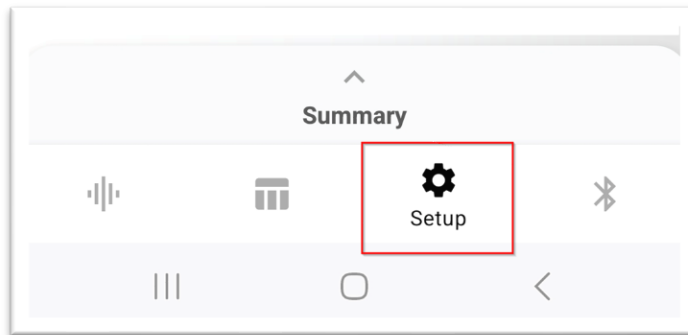
3. Find the specific BLuLite in the list and connect to it by pressing "Connect" button.



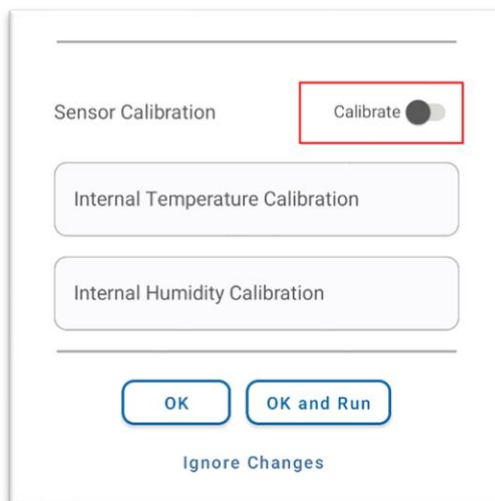
The BLuLite is connected.

Reset Calibration

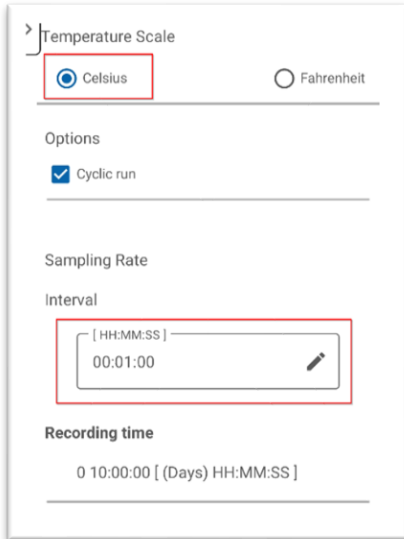
1. Click on the mechanical wheel icon (“Setup”).



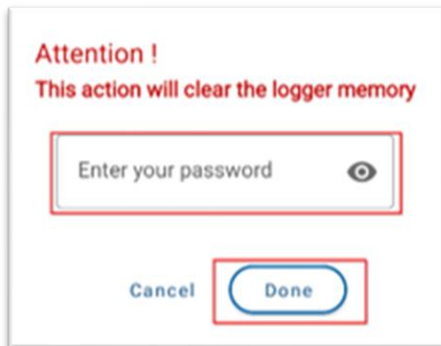
2. Setup logger: click on the “Calibrate” toggle and enter the password “1234” in order to reset the



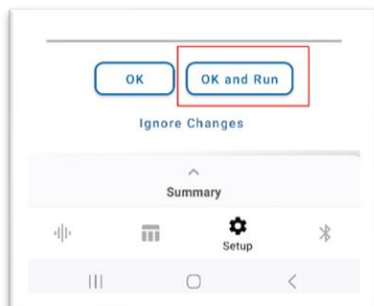
calibration.

A screenshot of the 'Temperature Scale' settings screen. The 'Celsius' radio button is selected and highlighted with a red box. Below it, the 'Options' section has the 'Cyclic run' checkbox checked. The 'Sampling Rate' section has an 'Interval' field set to '00:01:00', which is also highlighted with a red box. At the bottom, the 'Recording time' is set to '0 10:00:00 [(Days) HH:MM:SS]'.

3. Set the logger parameters: Temperature scale °C and Interval of 1 minute, as shown below:
4. Please note, that the reset calibration process delete the previous calibration values.

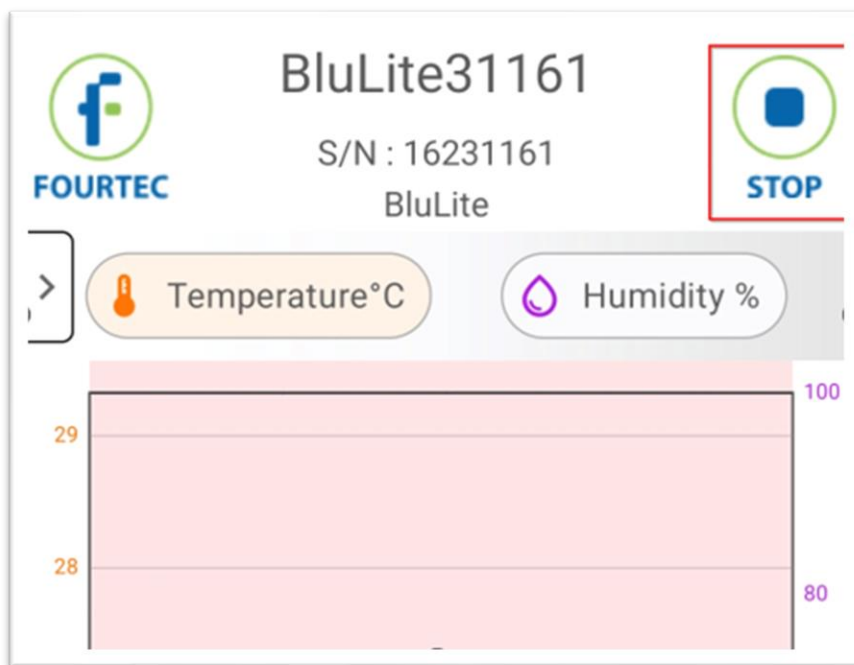
A screenshot of an 'Attention!' dialog box. The text reads 'Attention!' and 'This action will clear the logger memory'. Below this is a password input field with the placeholder text 'Enter your password' and an eye icon. At the bottom, there are two buttons: 'Cancel' and 'Done', with the 'Done' button highlighted by a red box.

5. Press "Ok and Run" button.

A screenshot of a summary screen. At the top, there are two buttons: 'OK' and 'OK and Run', with the 'OK and Run' button highlighted by a red box. Below the buttons is the text 'Ignore Changes'. The screen has a 'Summary' title and a navigation bar at the bottom with icons for volume, home, setup, and back.

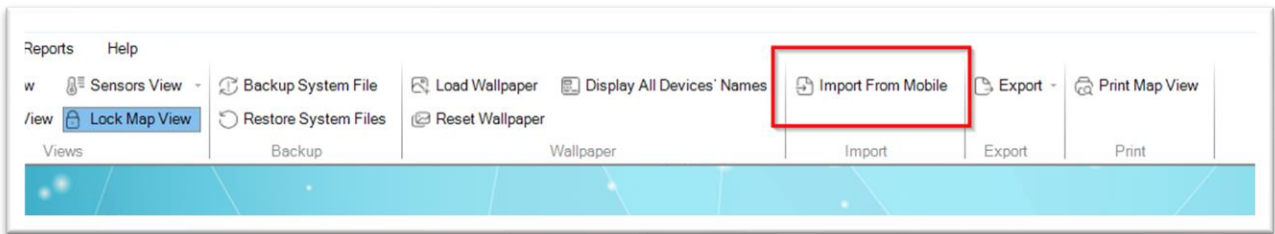
Measuring with BluLite

1. First point - Set the chamber for 90 minutes with the first temperature value and place the running data logger into the chamber.
2. Second point - Change the temperature settings of the chamber to second temperature value and resume logging data for another 60 minutes (**wait until the chamber is stabilized**).
3. Stop the measurement in the BluLite



Import data from FourtecLite

1. Connect the USB cable from your mobile to your PC (with data transfer mode).
2. Press on "Import From Mobile" on DataSuite software (as shown in the picture below) and wait few minutes until success message.

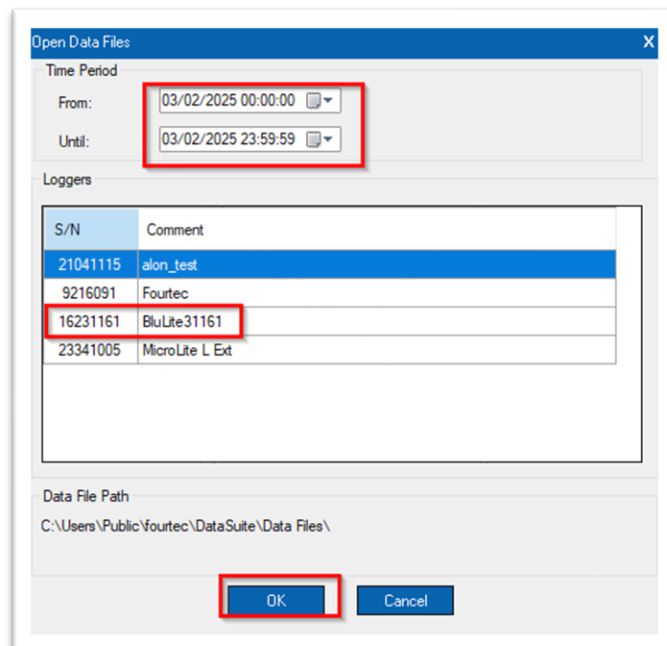


Preparing Excel

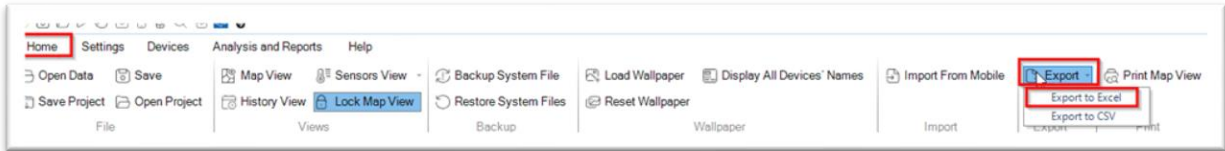
Two Excel tables should be prepared.

One with the data from the reference device (chamber) and another one with the data downloaded from the logger .

- a. To prepare the table with logged data go to **File => Open** menu of the DataSuite software. You will get the window where you should set the Time Period and choose up to 14 data loggers (using Ctrl + Left click) according to their serial numbers (locate the units you imported from FourtecLite) as shown in a picture below and click OK.



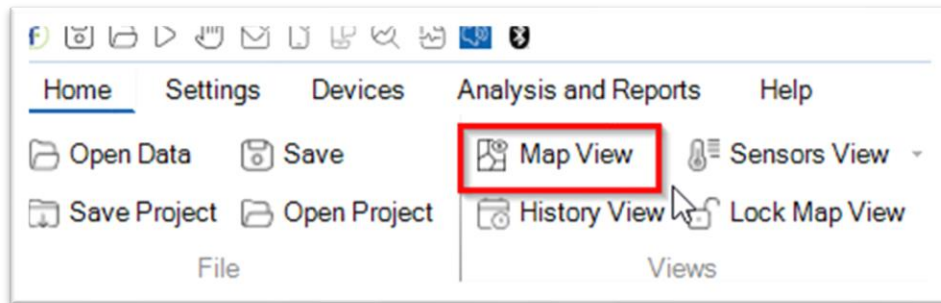
- b. In the next window the Display rate 00:01:00 and Close sample settings to be chosen.



- c. Export the data to Excel table through **Home => Export => Export to Excel** menu.
 d. The table in the Excel file (as shown in the picture below) will include sensor's serial numbers, sensor's type, time and the logged values comparing between the logger data to data measurements if the reference .

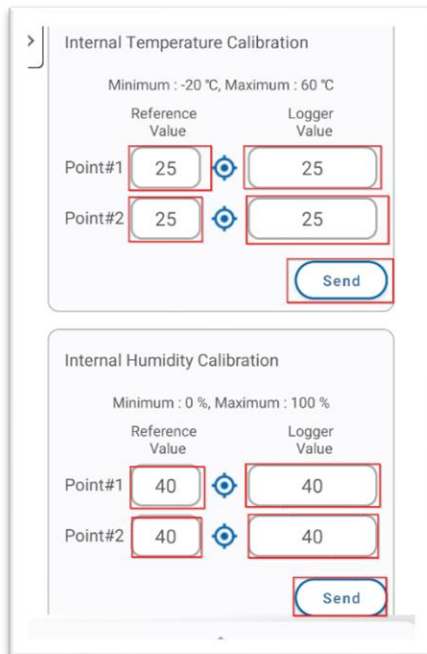
	A	B	G	H	I	J
2	S/N		BluLite		REF	
3	Sensor					
339	06/06/2018	10:07:30 AM	24.57			24.8
340	06/06/2018	11:18:00 AM	23.2			23.74
341	06/06/2018	12:28:30 PM	23.23			23.29
342	06/06/2018	1:39:00 PM	24			23.52
343	06/06/2018	2:49:30 PM	22.67			23.37
344	06/06/2018	4:00:00 PM	22			22.79
345	06/06/2018	5:10:30 PM	21.83			22.7
346	06/06/2018	6:21:00 PM	21.67			23.96

- e. Calculate the average temperature value for each logger for the last 20 minutes (samples) before changing the temperature or stopping – these should be the most accurate values; do the same for reference value.
 f. Repeat step e for each additional temperature point (minimum 2 points).
 g. Review the data in Map View at the DataSuite .



Go to Calibration

6. Connect the logger through the Bluetooth, Click on the mechanical wheel icon ("Setup").=>



The screenshot shows the calibration screen with two sections: 'Internal Temperature Calibration' and 'Internal Humidity Calibration'. Each section has a 'Send' button at the bottom.

Internal Temperature Calibration
Minimum : -20 °C, Maximum : 60 °C

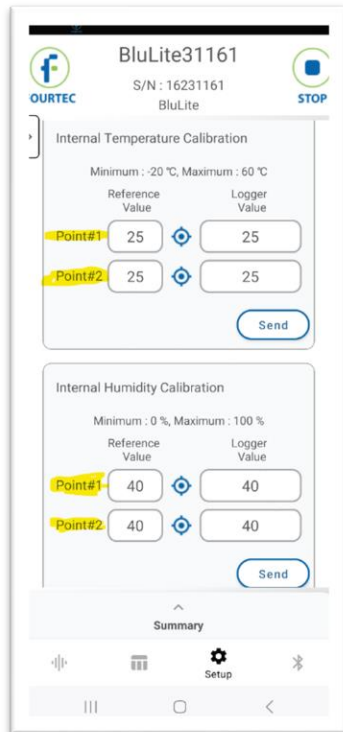
	Reference Value	Logger Value
Point#1	25	25
Point#2	25	25

Internal Humidity Calibration
Minimum : 0 %, Maximum : 100 %

	Reference Value	Logger Value
Point#1	40	40
Point#2	40	40

Calibrate, the following screen will appear:

- Once you finished to put the correct values inside “Logger Value” press the “Send” button.

A screenshot of a mobile application interface for a device named 'BluLite31161'. The interface is divided into two main sections: 'Internal Temperature Calibration' and 'Internal Humidity Calibration'. Each section has a 'Reference Value' and a 'Logger Value' input field for two points. The 'Reference Value' fields are highlighted in yellow. A 'Send' button is located at the bottom of each section. The top of the screen shows the device name, S/N: 16231161, and the 'OURTEC' and 'STOP' logos. The bottom of the screen shows a navigation bar with a 'Setup' icon and a 'Summary' button.

OURTEC BluLite31161 STOP
S/N : 16231161
BluLite

Internal Temperature Calibration
Minimum : -20 °C, Maximum : 60 °C

	Reference Value	Logger Value
Point#1	25	25
Point#2	25	25

Send

Internal Humidity Calibration
Minimum : 0 %, Maximum : 100 %

	Reference Value	Logger Value
Point#1	40	40
Point#2	40	40

Send

Summary

Setup

Enter values: **reference value** (the average for the chamber data) and **logger value** (the average for the logger's data) for points **#1** and **#2** as marked in yellow.

The logger value should correspond to each logger according to its serial number.

Press **Send Calibration** to finish.