

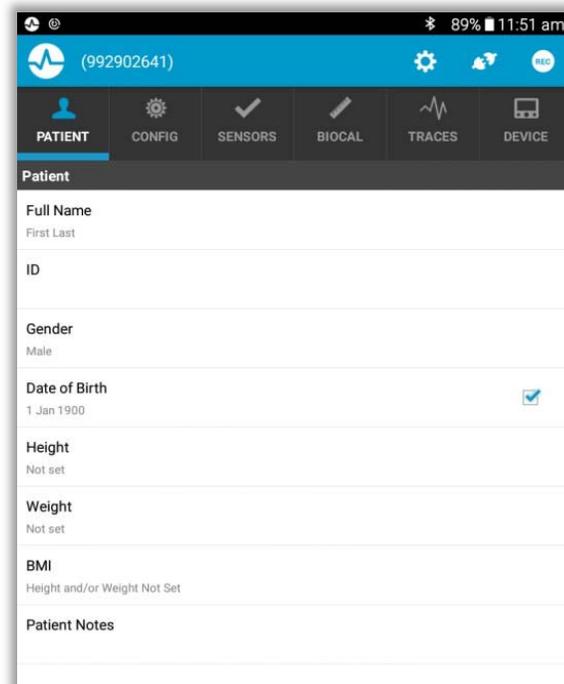
# HOW TO PERFORM BIOCALIBRATIONS USING NOXTURNAL APP

## 1. Connect the Nox A1 recorder to your device using the Noxturnal App

Following completion of patient set up, the signals need to be checked for technical adequacy.

Open the **Noxturnal App** on your tablet or device, power on the Nox A1 recorder by pressing the **centre** button and connect the Nox unit to your device by selecting the Nox A1 recorder serial number (you can check the SN on the back of the A1 Nox recorder).

On the **PATIENT** tab, check the patient's details are correct and click **save**. In the event any information is incorrect or needs to be added/modified, you can select the appropriate field and click on **modify existing** to make any corrections, then click **save**.

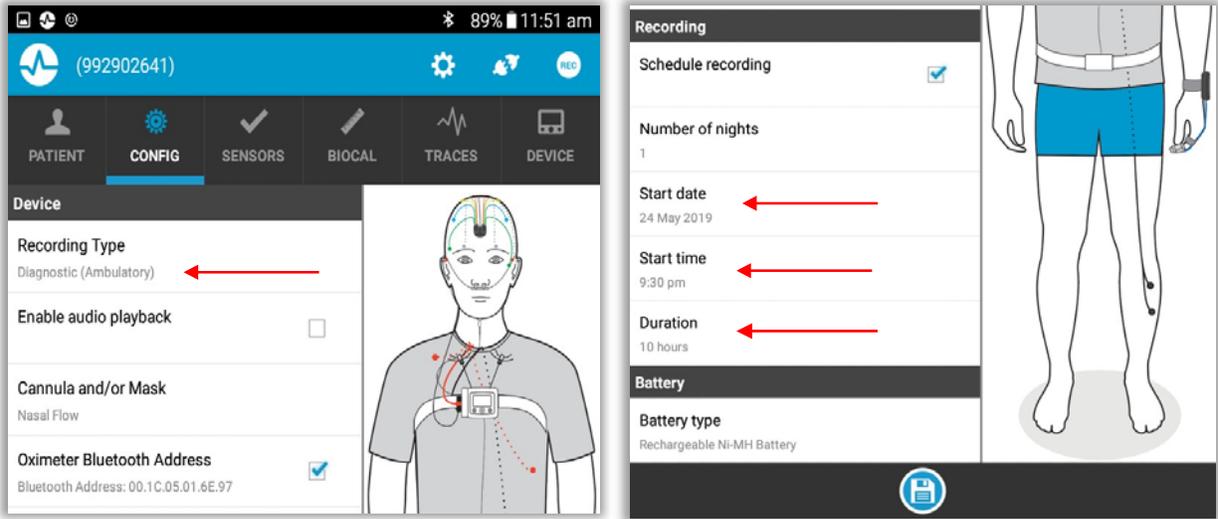


## 2. Check the study configuration is correct

Select the **CONFIG** tab and check the **recording type**, the **oximeter's BDA** (located on the back of the Nonin 3150 oximeter), the **Battery type**, as well as the **Start date**, **Start time** and **Duration** scheduled to start the recording are correct.

**Note:** Duration hours MUST be defined (NOT set to undefined).

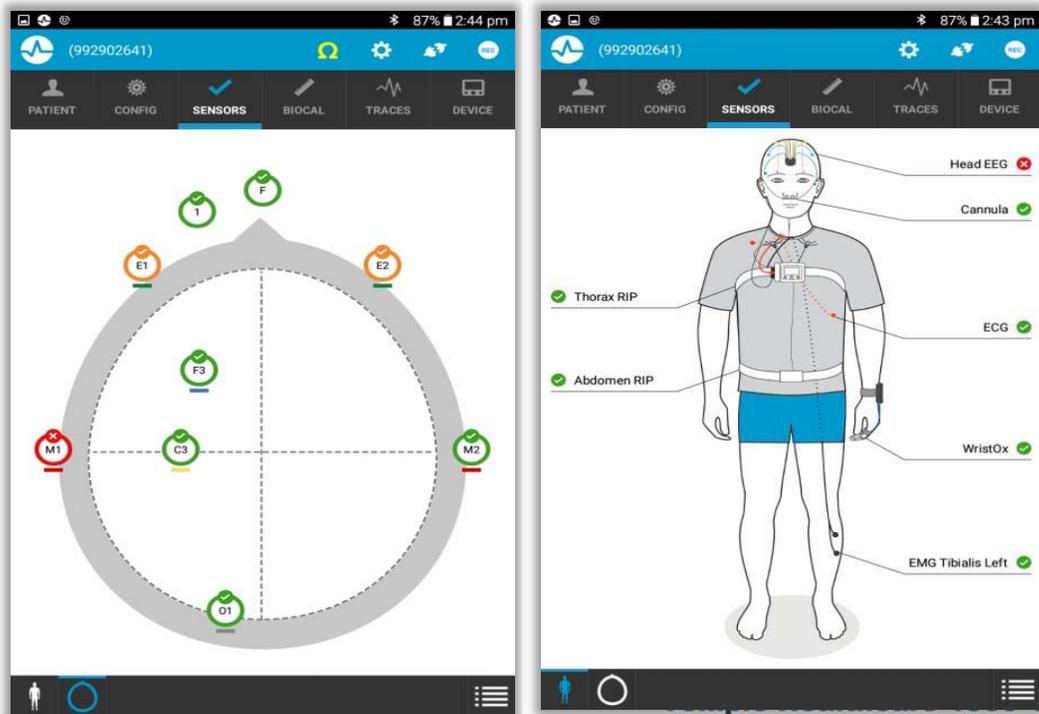
**Note:** If using a *Lithium Battery*, **Battery type** can be set to either Rechargeable OR Lithium. If using a *Rechargeable Battery*, **Battery type** MUST be set to Rechargeable.



### 3. Check signal quality is appropriate

Select the **SENSORS** tab and check that the sensors already connected to the patient are **green**. If any signals are showing in **orange** or **red** you should troubleshoot the site accordingly.

*NOTE: The head EEG will ALWAYS display a red x unless you have a full head EEG set up (F3, F4, C3, C4, O1, O2, M1, M2, ROC and LOC). If performing a study using fewer EEG channels, please **ignore** this and check the **impedance of each EEG channel** individually (left picture below).*

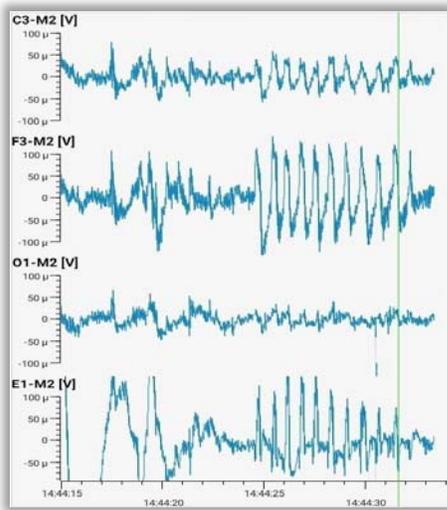


#### 4. Start recording and perform biocalibration

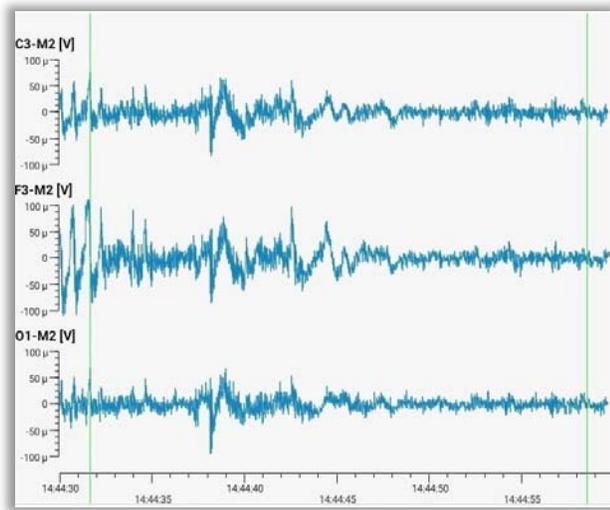
Select the **BIOCAL** tab and click **Start Recording** to see the live traces and ensure signal quality and appropriate sensor placement.

Go through the below biocalibration instructions with the patient and click **Score event** prior to each instruction. Select the blue left and right arrows to navigate through the tasks.

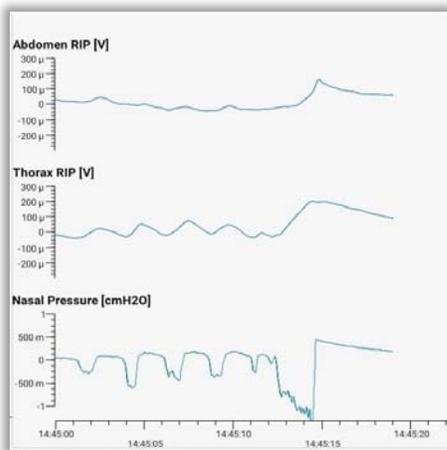
1. Blink eyes 5 times
2. Close eyes and relax for 1 minute
3. Hold breathe for 10 seconds
4. Breath in and out 2 times
5. Grit teeth and open and close mouth 2 times
6. Flex toes on corresponding leg 2 times



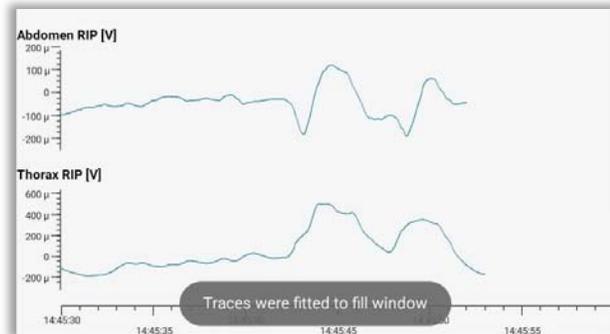
**Blink eyes 5 times**



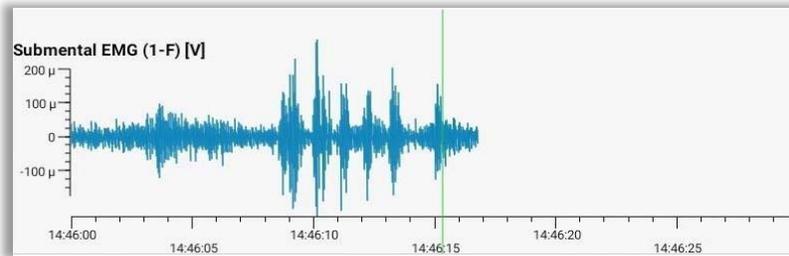
**Close eyes and relax for 1 minute**



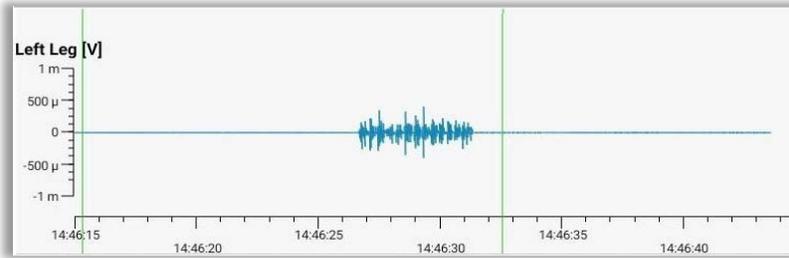
**Hold breath for 10 seconds**



**Breath in and out two times**



**Grit teeth 2 times and open and close mouth two times**



**Flex toes on corresponding leg 2 times**

## 5. Check recording signals

Select the **TRACES** tab to confirm all signal traces are recording properly. All signals being recorded by the Nox unit should be displayed, including SpO<sub>2</sub> and pulse from the WristOx oximeter. Use the scroll down sliding bar to view all available signals.

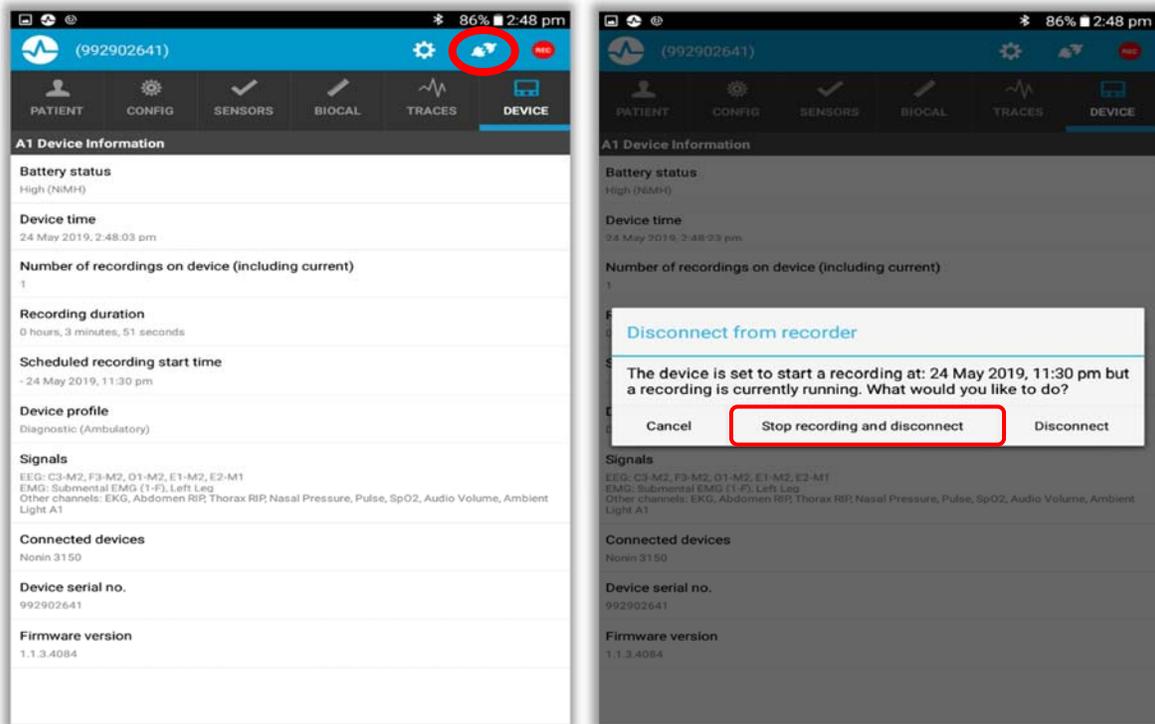
## 6. Check battery status and study scheduled time

Select the **DEVICE** tab to confirm the final details.

1. Check the battery status displays **High**
2. Confirm the time is correct on the device
3. Confirm the scheduled recording start time

## 7. Stop recording

Click on the **disconnect** button located on the top right corner, adjacent to **REC**, and proceed to pause the recording by clicking on **Stop recording and disconnect**. The device will automatically resume recording at the scheduled recording start time.



## TROUBLESHOOTING

### 1. “No signals” message

- a) Disconnect and reconnect the Nox unit from the tablet
- b) Restart the tablet and try reconnecting the Nox unit to the tablet application

### 2. Red x on SENSORS tab – impedance is too high

- a) Remove the electrode, clean the area with alcohol wipe and rescrub
- b) Ensure the area is dry before reapplying the electrode

### 3. Incorrect scheduled recording start time on Nox unit

- a) Confirm the tablet has the correct device time and date

### 4. No Nox unit available to connect to

- a) Disconnect and reconnect the Nox unit from the tablet
- b) Turn the Tablet on flight mode and then off again. Try reconnecting the Nox unit to the tablet application.
- c) Restart the tablet and try reconnecting the Nox unit to the tablet application

- d) Remove the A1 from the available list (On the Tablet, select and hold listed A1 for 2 seconds for a delete message to appear) on the application home page and add back to list (add Bluetooth device).

**5. No available recording to download**

- a) Disconnect the Nox unit and close the software
- b) Connect the Nox unit to USB **before** reopening Noxturnal application