Bittium

HolterPlus™

Patient Instructions
FastFix Recording

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1 DELIVERY CONTENTS

Bittium HolterPlus™ carry case contains the following items:

- Bittium Faros™ ECG recorder
  - USB cable for charging the recorder
- Bittium MedicalSuite™ mobile device
  - Desktop stand for mobile device
- Dual port USB charger
- FastFix electrode patches
- Cleaning wipes
- Patient Instructions

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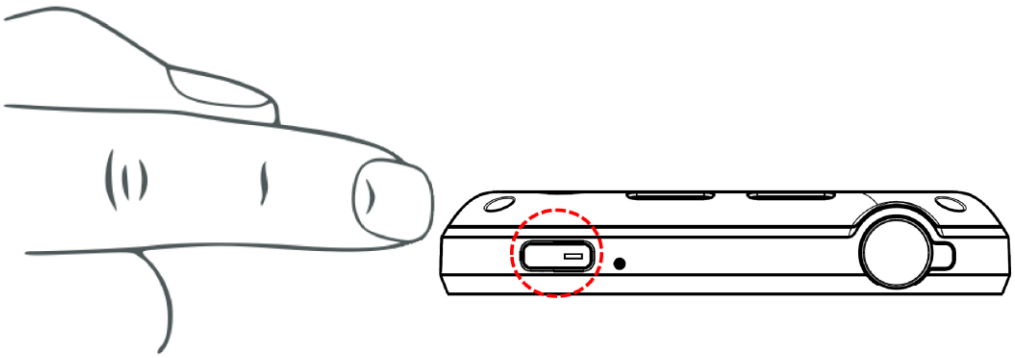
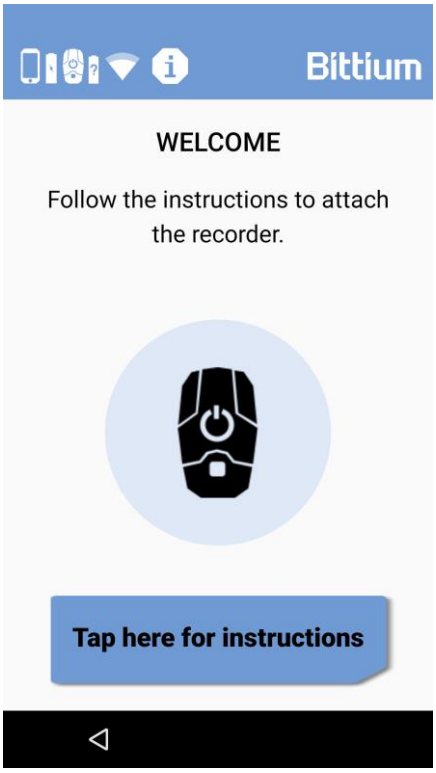
2 STARTING THE MOBILE DEVICE

Start the mobile device before attaching the recorder and the FastFix electrode patch.

1. Press the power button.



2. Wait for the mobile device to start.
3. Following screen will open:



4. Attach the recorder next.

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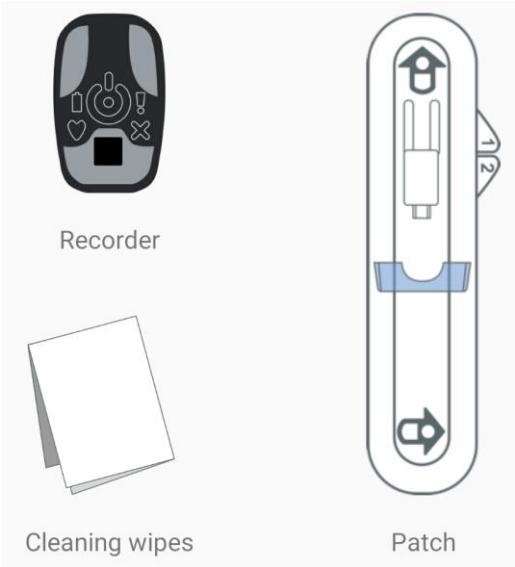
3 STARTING THE RECORDING

3.1 Instructions for FastFix electrode patch recording

This tutorial will give you step-by-step instructions to set up the recording. There are two ways to attach the FastFix electrode patch, choose one that is suitable for you.

Note! Stop using the Faros ECG recorder and remove the FastFix electrode patch from the skin if the Fast-Fix electrode patch causes adverse reactions such as skin irritation or rash. Fast-Fix electrode patch should not be used by patients with metal allergies.

1. Check first that you have all the things you need:



2. If necessary, shave and remove the hairs from the areas shown, depending on where you attach the patch. Do not use lotions.

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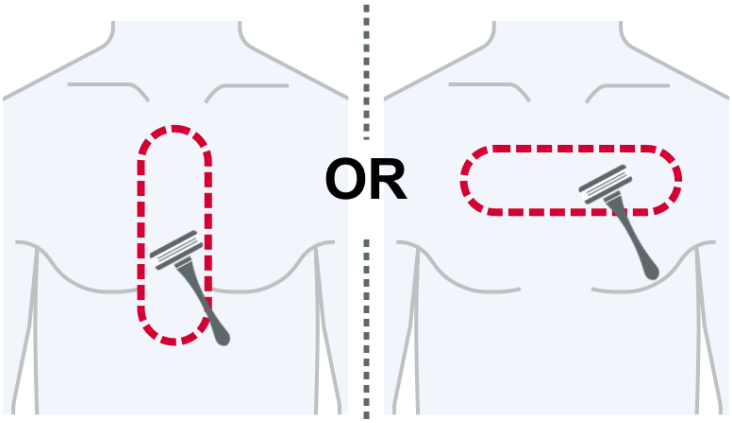
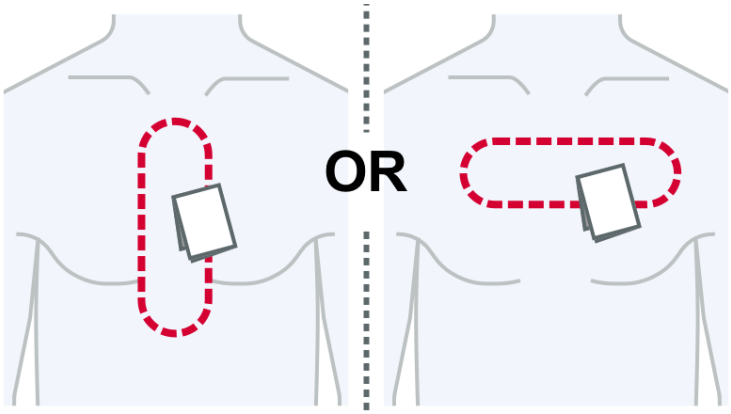
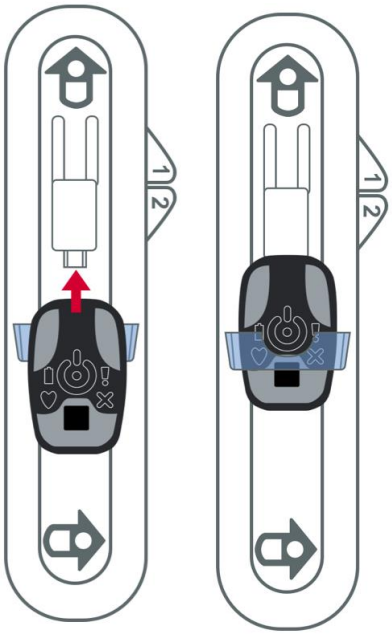


3. Clean the area with the cleaning wipes.



4. Connect recorder to the FastFix electrode patch.



5. Press the Recorder button. A light will blink.

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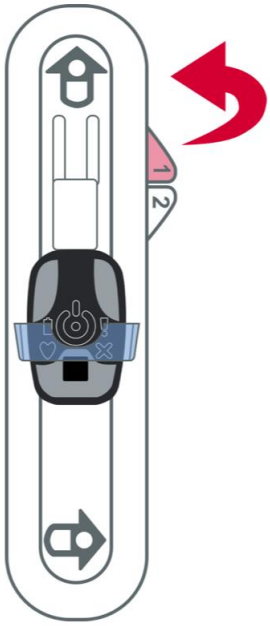
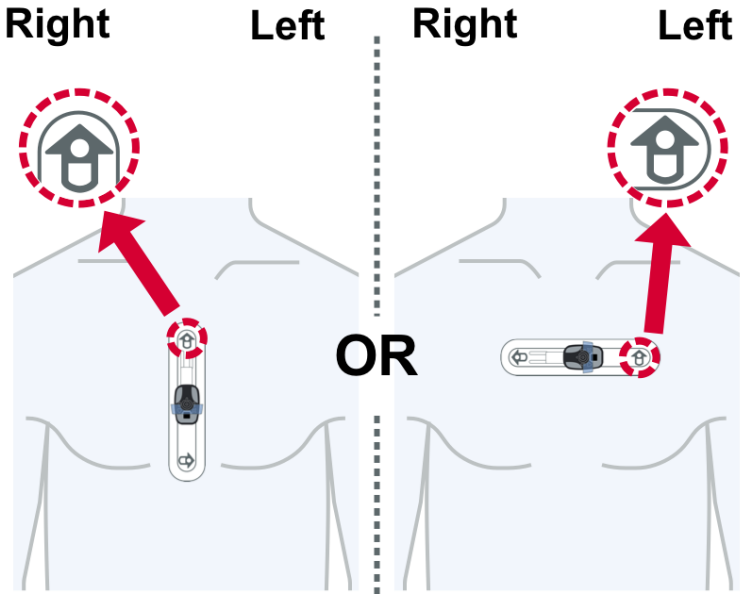
6. Remove tab 1 from the FastFix electrode patch.



7. Place the FastFix electrode patch on your chest, as close to the heart as possible but so that it is not placed over the pectoral muscle or breast.



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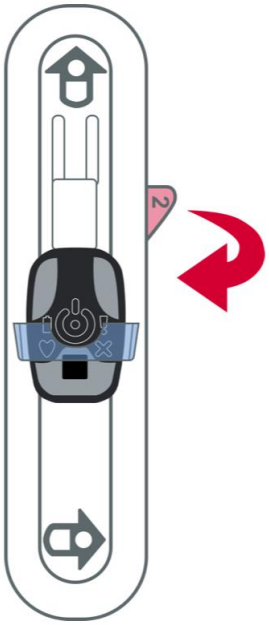
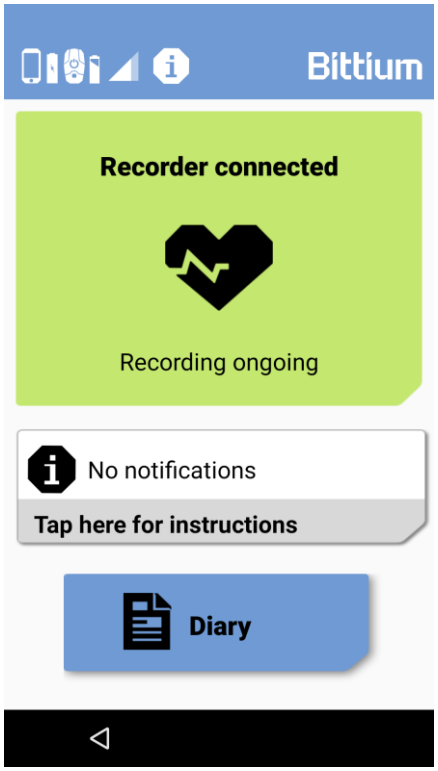
8. Remove tab 2 and ensure the FastFix electrode patch is properly attached by pressing from the sides.



9. All done! Wait for the recording to begin. You will see this screen once the recording is ongoing.



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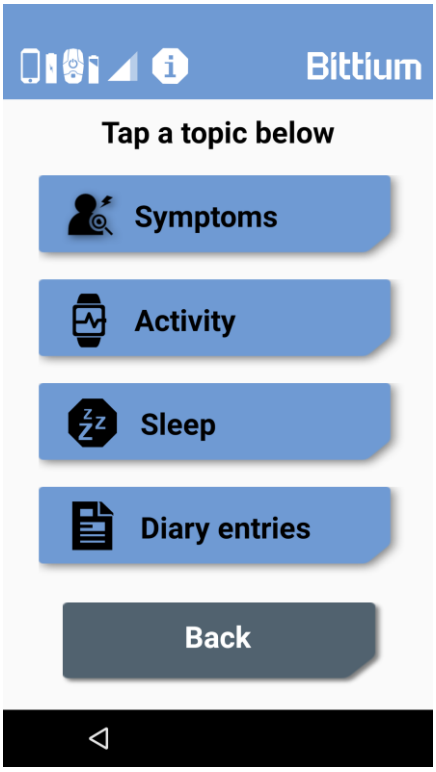
4 DURING THE RECORDING

4.1 Making Diary entries

During the recording you should enter diary markings by tapping the Diary button. These are important for the doctor when he/she analyzes your recording data.

Note that diary entries cannot be deleted, so in case of a wrong entry you can create a new one.

Following screen is shown:



Diary entries are divided to four categories:

- Symptoms, for adding symptoms either by selecting a symptom or describing a symptom yourself
- Activity, for marking times of physical activity
- Sleep, for marking times of sleep
- Diary entries, for viewing diary history

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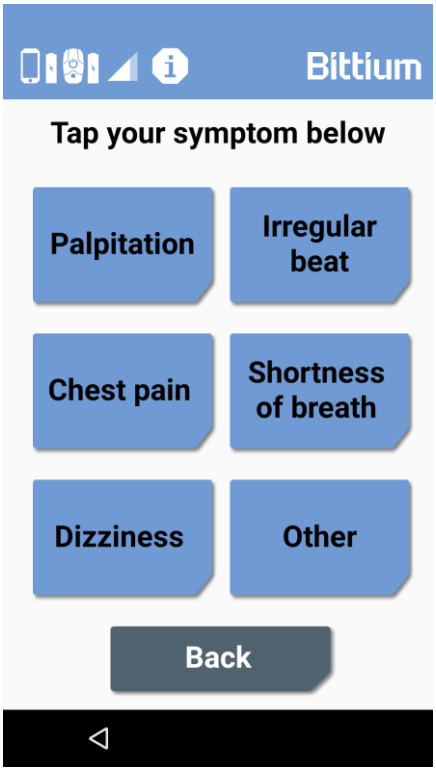
4.1.1 Adding symptoms

To add a symptom, tap the Symptoms button. Following screen is shown:



1. Select your symptom from the list by tapping it. For other type of symptom, tap Other.
2. Enter the date and time when the symptom occurred.

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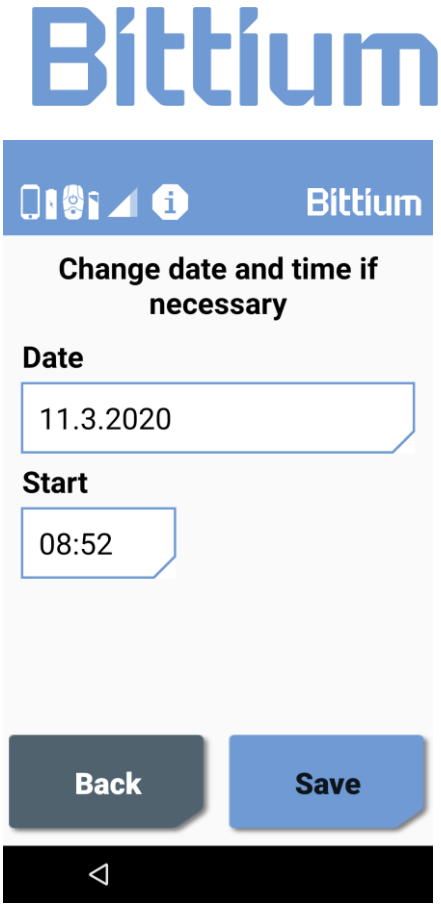

Current time is shown by default, but you can change the date and time by tapping on the date and time to match the start of the symptom.

3. Tap Next. Symptom is now added.

In case you want to add a symptom other than those listed, tap Other.

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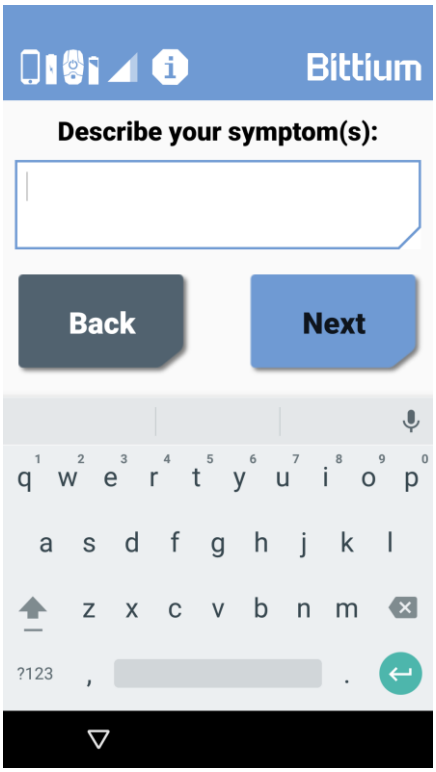

Write what your symptom was, and tap Save. Enter then the time and date when the symptom occurred.

4.1.2 Adding activity time

To add activity time, tap the Activity button. Activity can be any physical exercise like walking, for example.

1. If you are starting the activity, tap the Start activity button.

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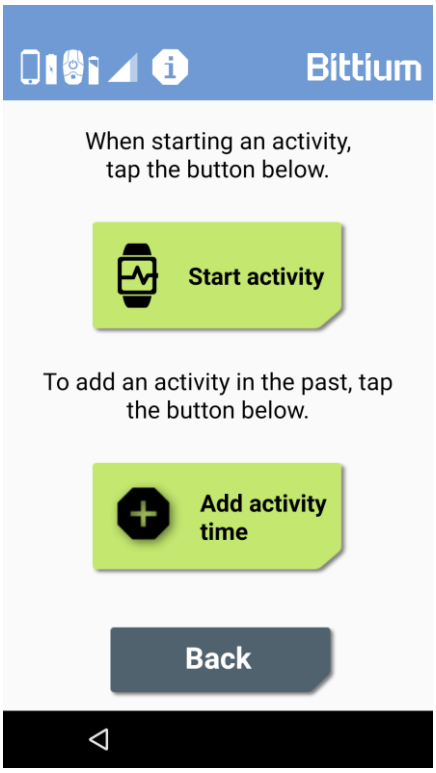
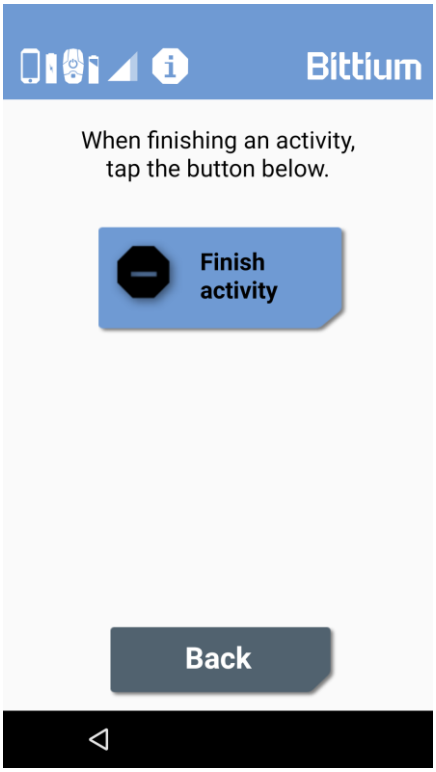


2. When finishing the activity, tap the Tap here to stop button on the main view or go to Diary -> Activity and tap Finish activity.



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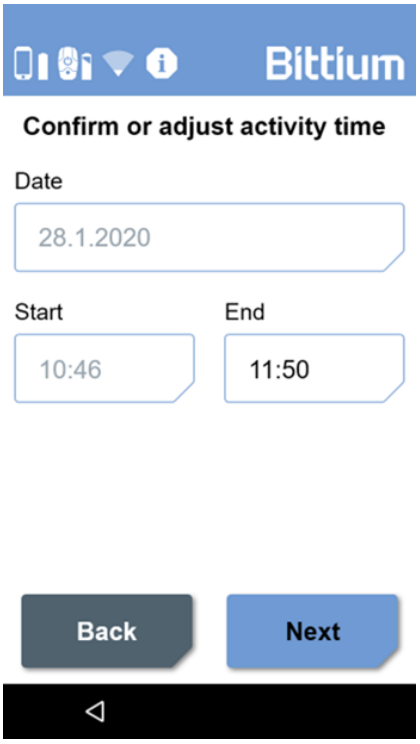
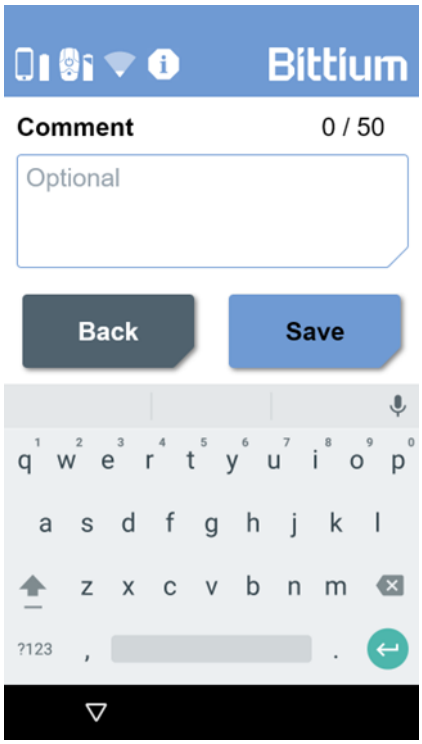
3. Confirm or adjust the activity time.



4. Write an optional comment.



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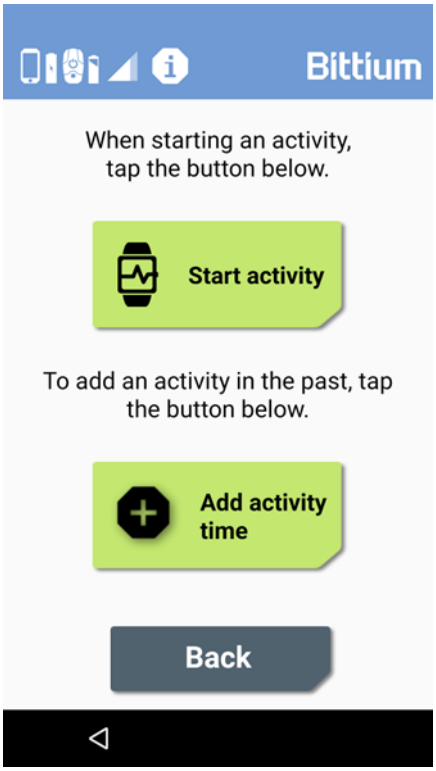
5. Tap the Save button. A confirmation dialog opens asking you to confirm the information you have entered.
6. Tap OK button. Diary entry is automatically created.

Alternatively, you can enter the activity time in the past afterwards by tapping Diary -> Activity and then tapping the Add activity time button:



1. Enter the start date as well as the start and end times.
2. Write an optional comment.
3. Tap Save button. A confirmation dialog opens asking you to confirm the information you have entered.
4. Tap OK button. Diary entry is automatically created.

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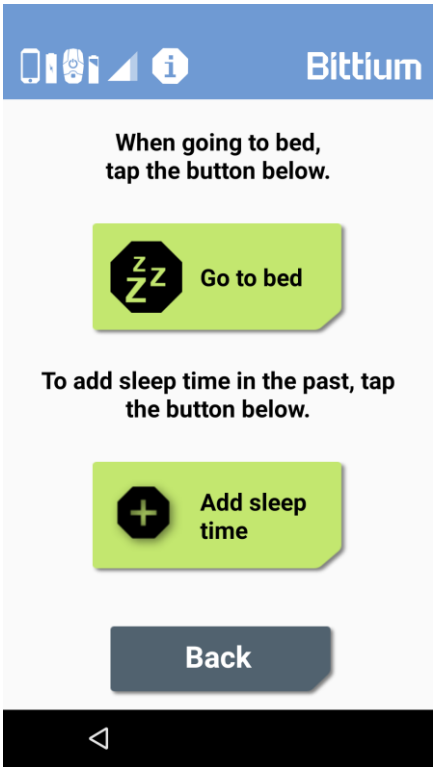
4.1.3 Marking sleep & wake up time

To add sleep and wake up time tap the **Sleep** button.

1. If you are going to sleep, tap Go to bed.



2. When you wake up, tap the Tap here to stop button on the main view or go to Diary and tap Wake up.

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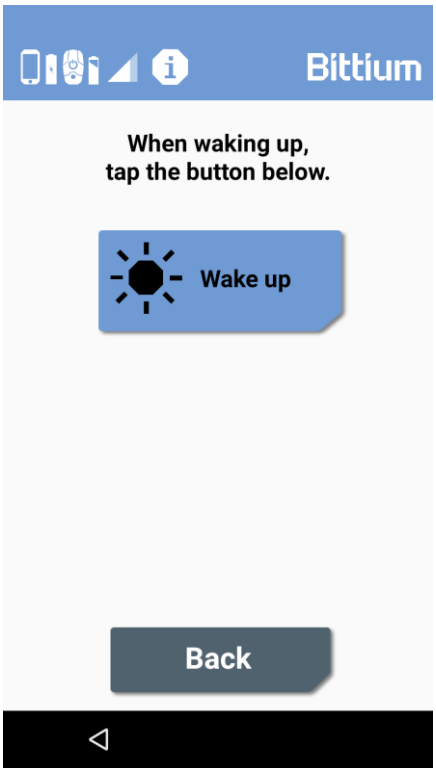
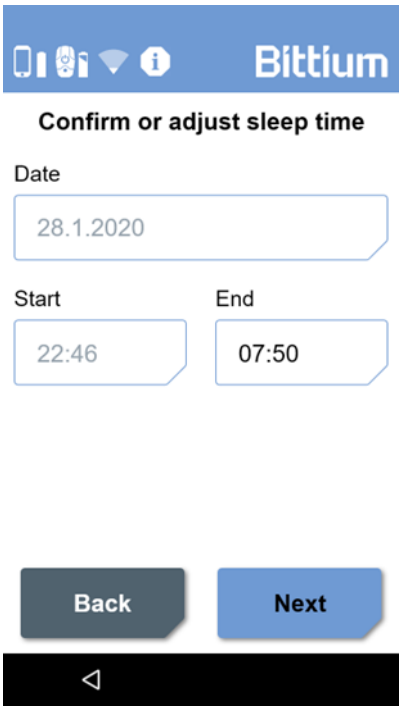


3. Enter the end time.



4. Write an optional comment.

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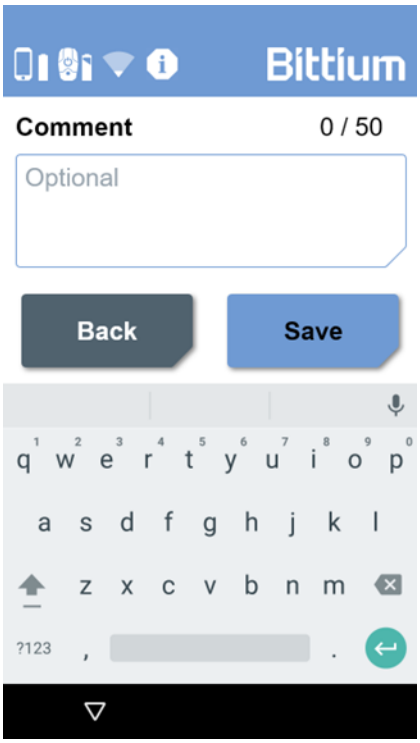
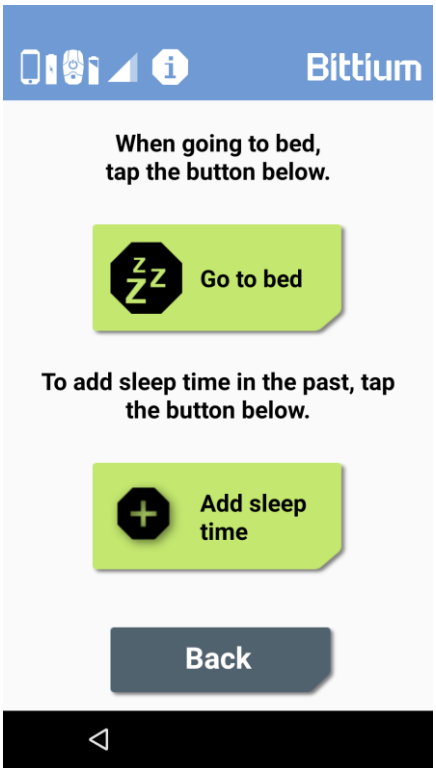


5. Tap the Save button. A confirmation dialog opens asking you to confirm the information you have entered.
6. Tap OK button. Diary entry is automatically created.

Alternatively, you can enter the sleep time in the past afterwards via Diary -> Sleep and tapping the Add sleep time button.



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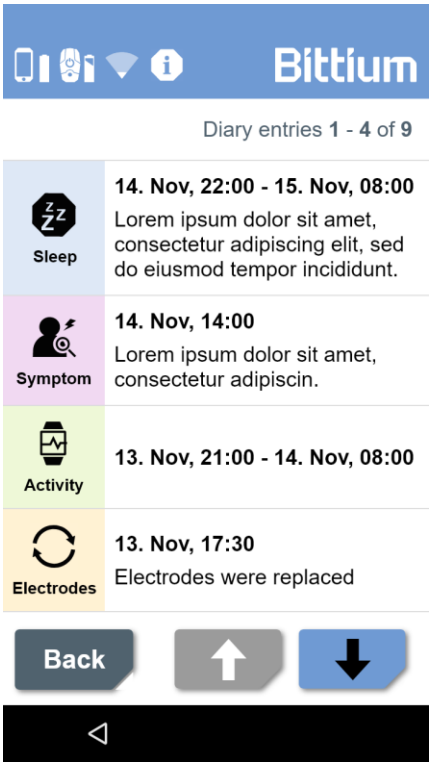
1. Enter the start date as well as the start and end times.
2. Write an optional comment.
3. Tap the Save button. A confirmation dialog opens asking you to confirm the information you have entered.
4. Tap OK button. Diary entry is automatically created.

4.1.4 Viewing diary history

Tap **Diary entries** for viewing diary history. See an example below.



You can use the Up and Down buttons to scroll the list. Tap Back button to return to previous screen.

4.2 Going out

Remember to keep the mobile device with you when leaving home in order to be able to make Diary entries, if necessary. If you are going for a longer time remember to take also the desktop stand with you.

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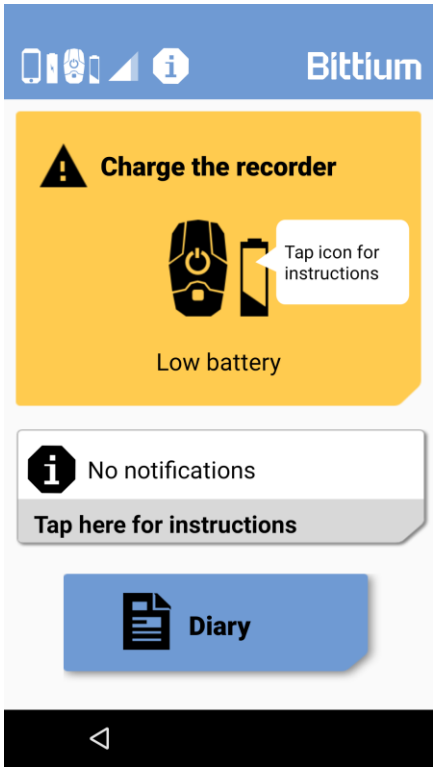
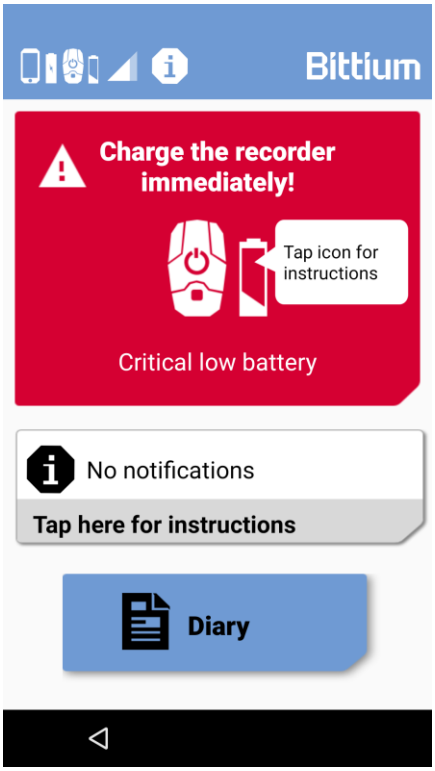
4.3 Having a shower

You can have a shower normally while using the recorder. You cannot go to sauna, however. Note: Do not take the mobile device to shower!

4.4 Charging the recorder

The mobile device will notify you when to charge the recorder. See an example below. When the recorder battery level is extremely low the recorder will start emitting an alert sound.





To charge the recorder, follow the steps below.

1. Remove the recorder from the plastic holder and detach it.

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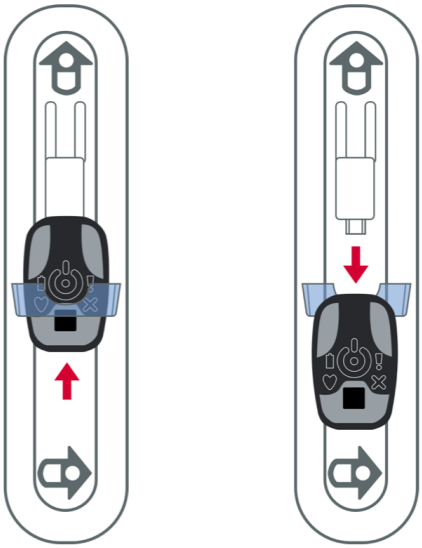

2. Plug in the charger.

3. Press the recorder button.

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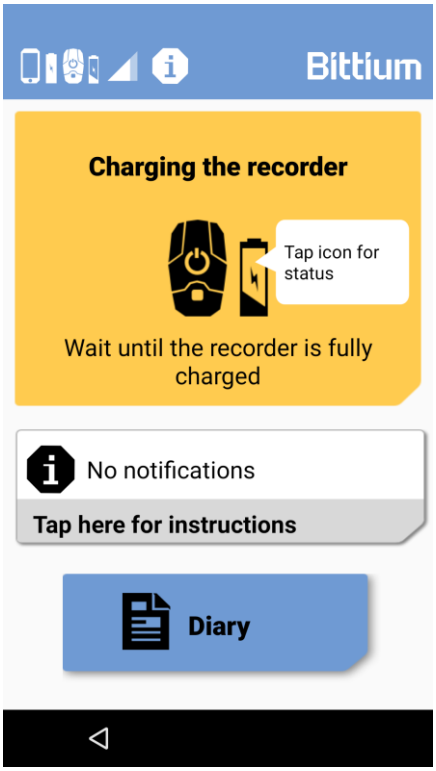
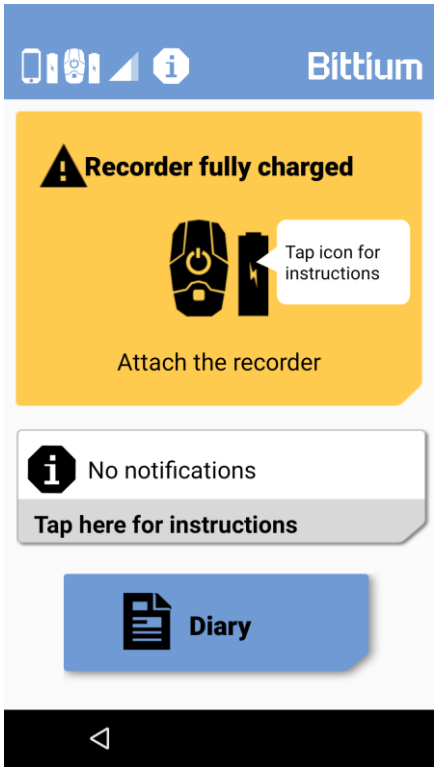
4. Wait until mobile device indicates “recorder fully charged”. The charging takes approximately two (2) hours. Charging progress is shown on the mobile device screen.





To attach the recorder after charging follow the steps below.

5. Attach the recorder to FastFix electrode patch and put it in the plastic holder.

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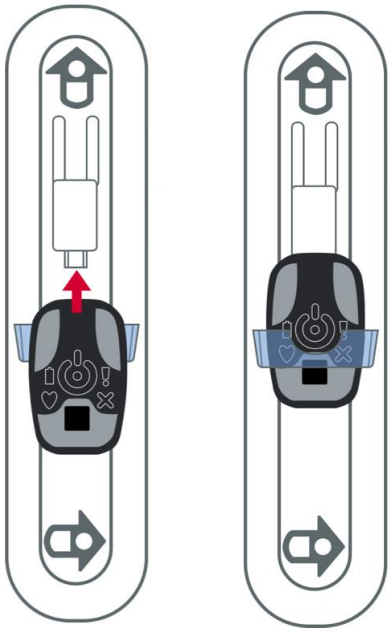
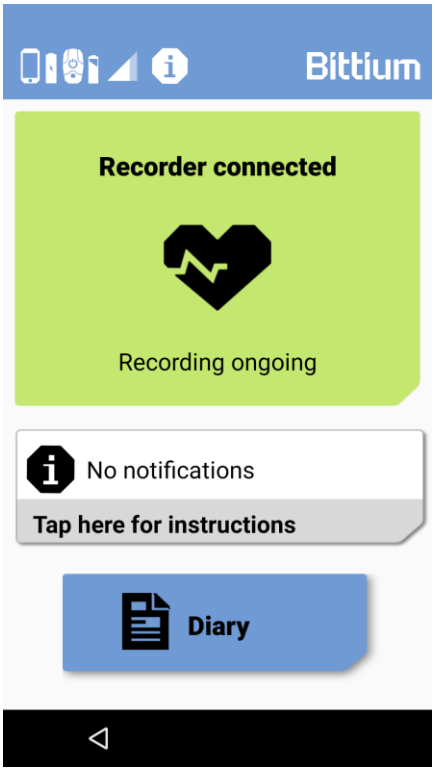


6. Press the recorder button. Recording will continue automatically.



4.5 Charging the mobile device

The mobile device will notify you when to charge it.

1. Set the mobile device to the desktop stand. Battery icon appears as half full.

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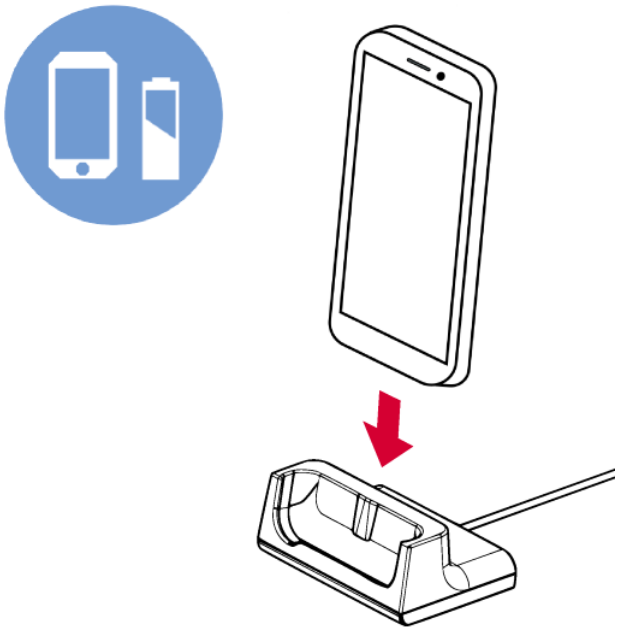
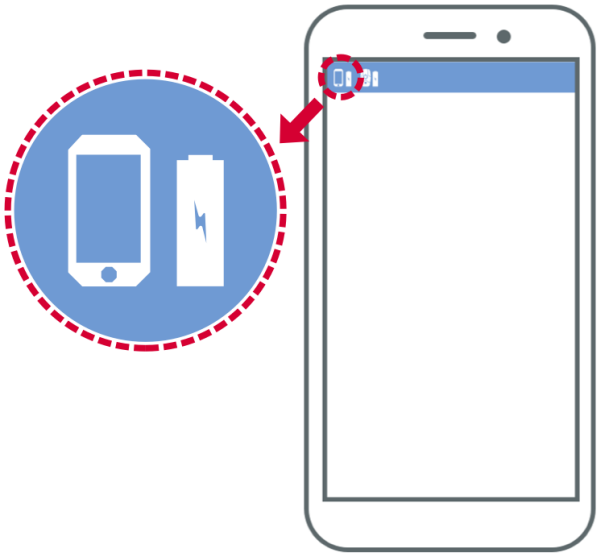


Mobile device is charged when the battery symbol is full on the device display.



4.6 Checking the FastFix electrode patch connection

If mobile device shows a ‘No signal’ warning: Check that the FastFix electrode patch is properly attached and that the recorder light is blinking. Make sure the FastFix electrode patch cable is connected properly and press recorder button.

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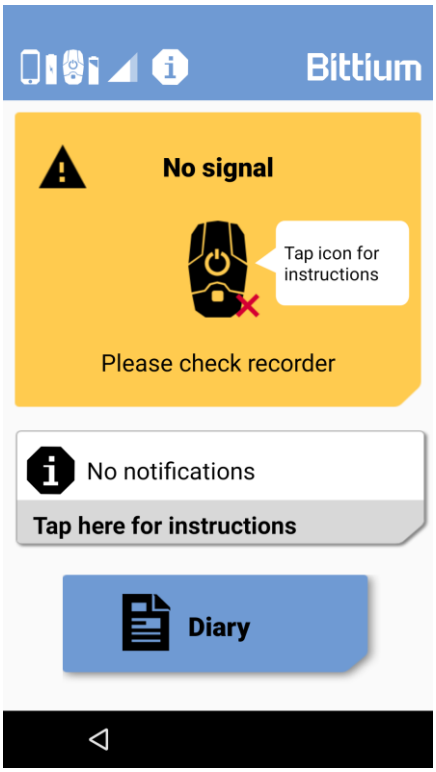

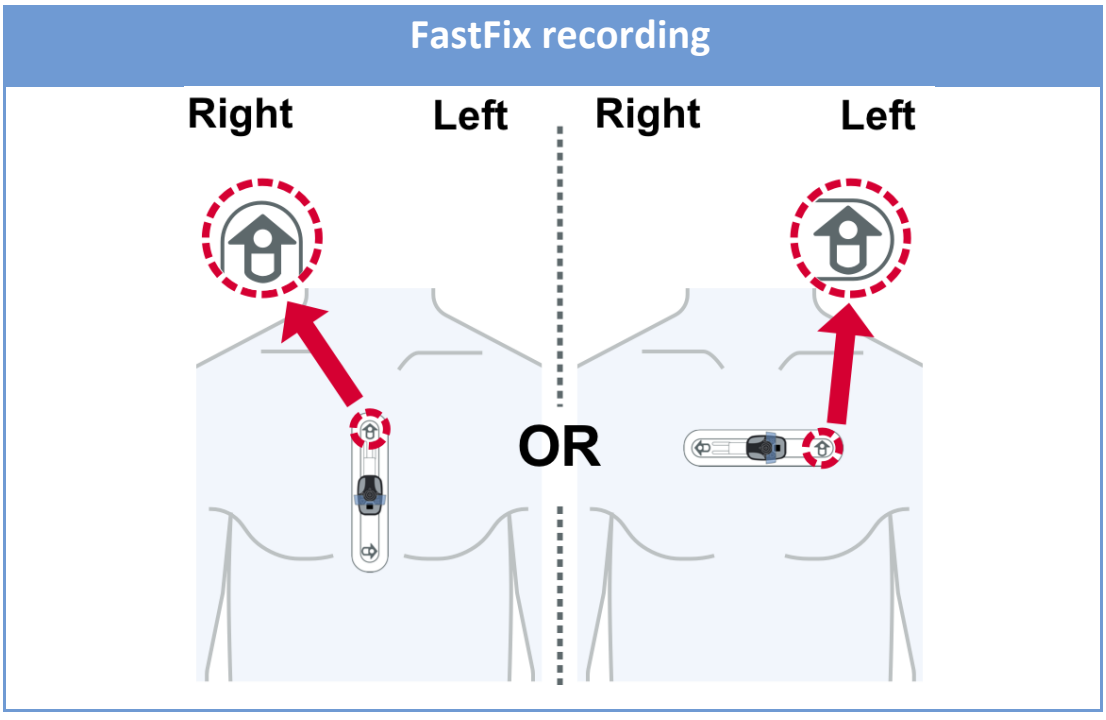

4.6.1 Replacing the FastFix electrode patch

Mobile device will let you know when to replace the FastFix electrode patch. Follow the on-screen instructions.

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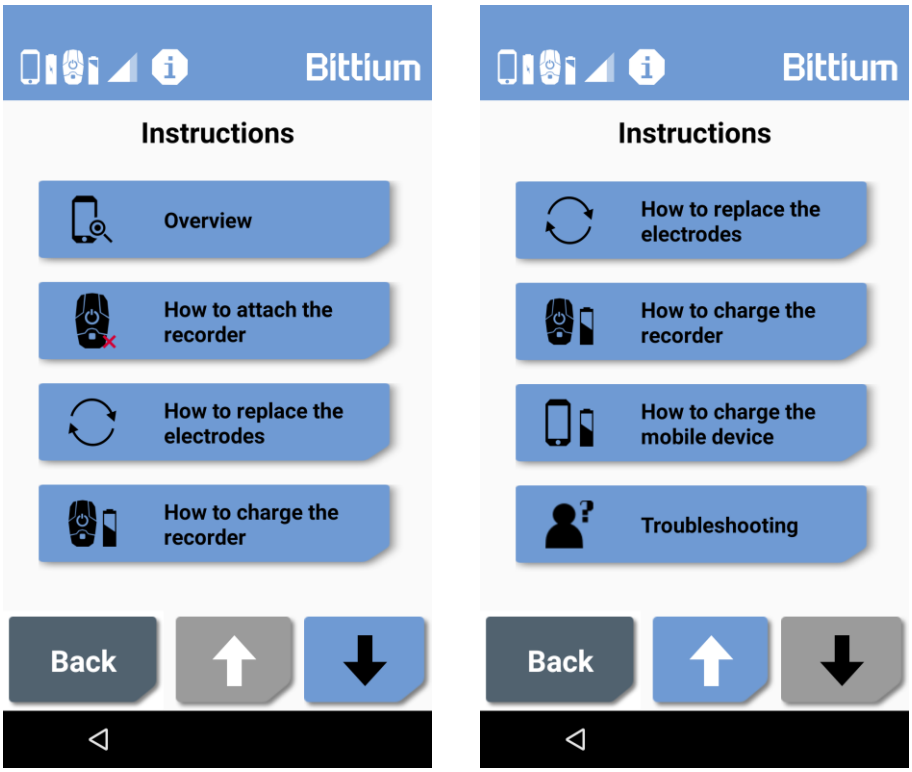
In case the FastFix electrode patch becomes loose or is not properly attached it needs to be replaced. Mobile device has instructions on how to replace the electrodes also under the Info icon. See 4.7. Generally the FastFix electrode patch should be replaced after 7 days of recording.

4.7 Viewing the mobile device instructions

The mobile device includes also instructions to assist in the daily activities during a recording. The instructions can be accessed by tapping the icon at the top of mobile device screen.

Available information includes instructions for attaching the recorder, replacing the electrodes, charging the recorder/mobile device as well as troubleshooting instructions. See 6.1.



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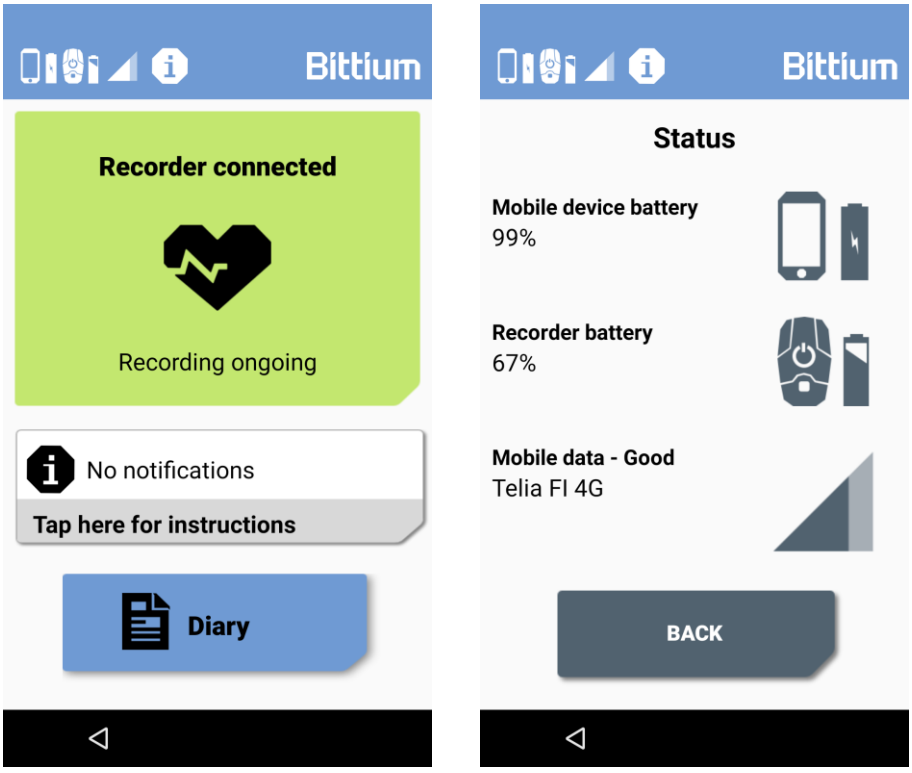
4.8 Viewing the battery level or network status

The mobile device and recorder battery levels as well as the cellular connection or Wi-Fi status can be checked by tapping the icons on the top left-hand corner of the screen.



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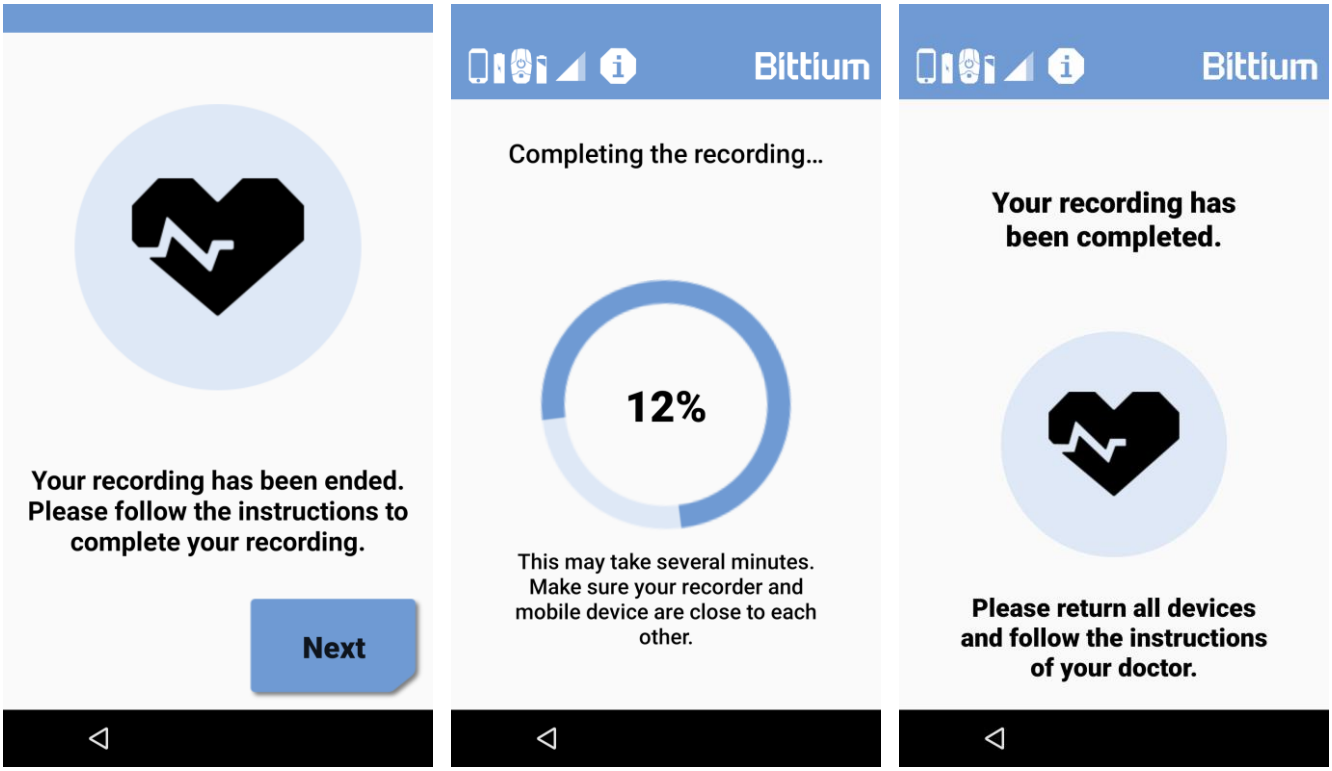
5 AFTER THE RECORDING

When the recording is ended you will get a notification on the mobile device. Follow the instructions from mobile device to complete the recording.



After the recording has been completed follow the steps below.

1. Detach the recorder.
2. Detach the FastFix electrode patch and discard it.
3. Return the carry case together with the devices to the clinic. If the clinic has provided you with instructions, follow them.

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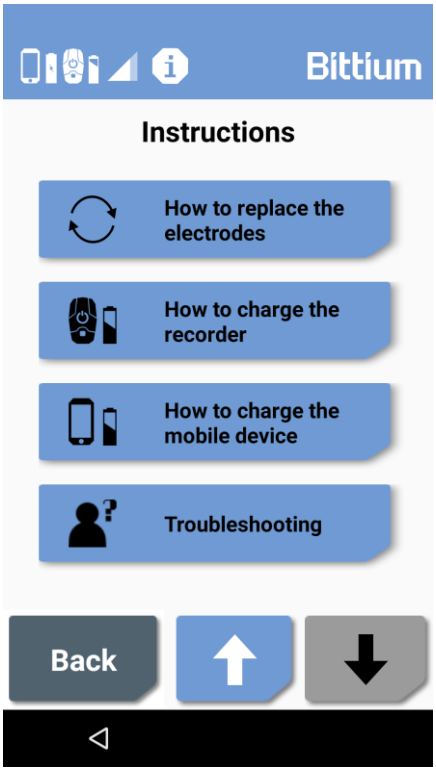
6 TROUBLESHOOTING

6.1 Troubleshooting information via mobile device instructions

Mobile device has a troubleshooting section under Instructions that provides help for some common events that may occur during the recording. You can access this Troubleshooting section by tapping the icon at the top of mobile device screen. Scroll down the list using the arrow button and tap Troubleshooting.



Following view will open.

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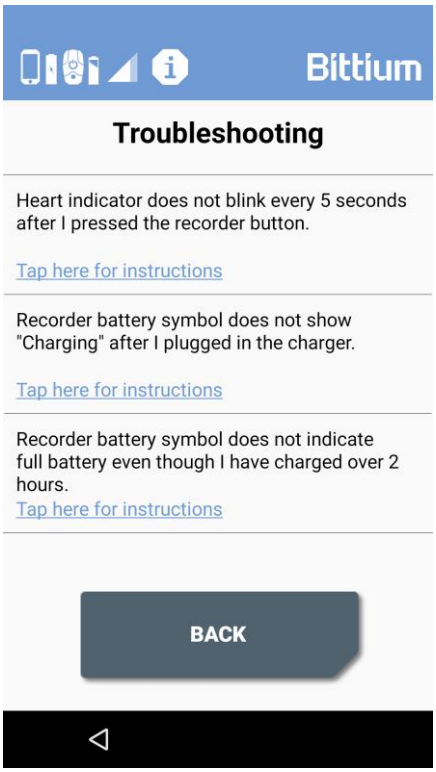

Here you can view instructions in case you have any charging-related problems, for example. You can access the detailed information by tapping Tap here for instructions'. Follow then the on-screen instructions.

6.2 Recorder

6.2.1 Recorder does not start, why?

Most likely the battery is empty. Remember to recharge the recorder when the charge recorder notification is displayed.

6.2.2 No signal

See chapter 4.6 Checking the FastFix electrode patch connection for instructions.

6.3 Mobile device

6.3.1 Battery does not get charged

Inspect the desktop stand for any visual damage. If there is damage do not use it!

Try changing the desktop stand to another one.

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Battery may be completely drained. In this case allow a few hours of charging and then try switching the mobile device on.

If the above does not help, ask to replace the mobile device.

6.3.2 Battery drains fast

Keep the mobile device on the desktop stand to charge it continuously.

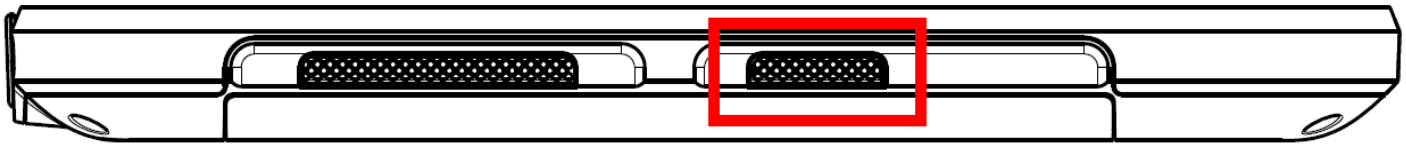
6.3.3 Mobile device does not start

Has the battery been completely drained? If so, recharge the battery. Note that if the battery is drained it may take some time before mobile device can be started.

If the battery is fully charged, but the mobile device does not start the battery may be faulty. Try replacing the mobile device.

6.3.4 Mobile device does not respond

Try waking up the mobile device by pressing the button.



If this does not help, try switching the power off and then on again.

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