wavelet

Wristband & Pod

Product Manual

VERSION 1.0

Table of Contents

Introduction

Overview 1

Getting Started

What's in the box 2

Charging the Wristband and Pod 3

Connecting to the Wristband and Pod 4

App Compatibility 4

Creating a Profile 4

Using the Devices

Wearing the Wristband Properly 5

Wearing the Pod Properly 6

Checking the Current Battery Level 7

Caring for the Wristband and Pod 7

Updating the Devices' Firmware 7

The Wavelet App: Overview

Syncing the Wristband and Pod 8

Tracking with the Wavelet wristband 8

Navigating the Wavelet app 8

The App: Dashboard 9

The App: Dashboard - Metric Details Pages 10

The App: Recording 11

The App: Recording Sleep 12

The App: Profile 13

The App: Profile – Manage Devices 14

Troubleshooting

Charging 15

Connecting 15

Resetting the Devices 16

FAQs

Is my mobile device compatible? 17

Are the Wavelet devices waterproof? 17

How does Wavelet calculate calories burned? 17

When should I wear my devices? 17

What is biometric detection? 18

Wristband Specifications 19

Pod Specifications 20

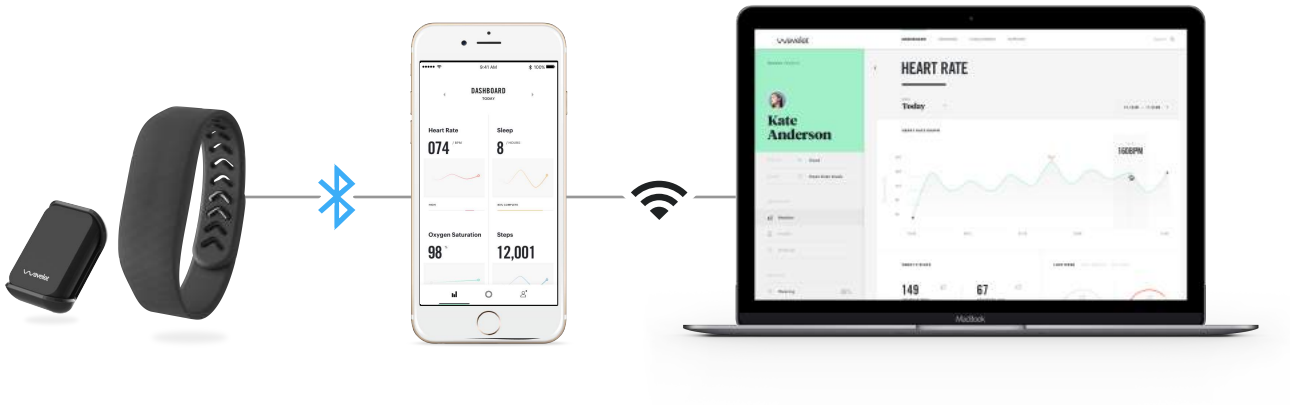
Introduction

Thank you for using the Wavelet Wristband and Pod!
This user manual will help you get started using your new devices.

Overview

Your Wavelet Wristband and Pod track all of your daily activity. The Wristband records your steps, sleep, calories burned, heart rate, and blood oxygen saturation among other metrics. The Pod is useful for tracking activity and can be used in conjunction with the Wristband for full-body motion analysis.

This collected information will be available to you on your mobile device and a more detailed analysis will be relayed to your doctor and/or study coordinator. They will use this information to understand your body's overall wellbeing.

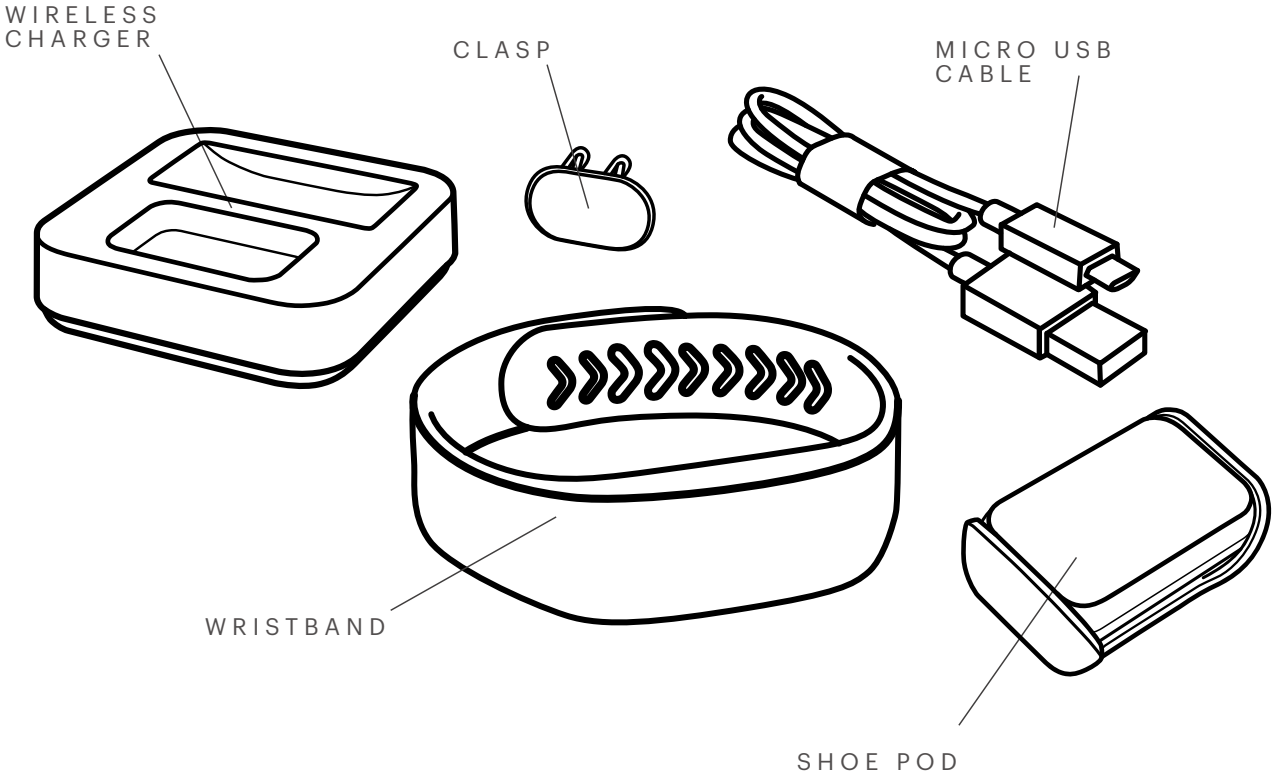


Getting Started

This section will guide you through all of the steps necessary to start using your Wavelet Wristband and Pod.

What's in the box

Your package should include the following items. You will need all of these items to set up and use your devices.



Charging the Wristband and Pod

Before using your devices you will need to fully charge them and update their firmware.

Plug in your charger to a powered USB port. The LEDs should light up white. Place the Wristband in the slot towards the back of the charger as shown in the illustration below, and the Pod in the slot towards the front of the charger with the Wavelet logo facing UP. The white lights on the charger will turn orange next to each device when charging properly. Each LED will blink or remain white if not charging properly or if the device is not placed properly.

Your devices requires about 90 minutes to fully charge their lithium-polymer batteries. Once fully charged, the LEDs on the charger will change back to white. It is recommended to fully charge your device as you finish the rest of the setup process. With normal use, your Wristband should last about four days on a single charge, while your Pod should last about 5 days, both depending on use.

Connecting to the Wristband and Pod

The Wavelet app is your link to the Wavelet devices. Use it to interact with your Wristband and Pod, transfer data, and see your analyzed data.

You will need a compatible mobile device to use the Wavelet devices. Download the app on your iOS or Android mobile device; it will guide you through the setup process and help you connect to your Wristband.

Note that you will need an account with the applicable store to download even a free app such as Wavelet. You will need your apple ID to download from the App Store, and your Google ID to download from the Google Play Store.

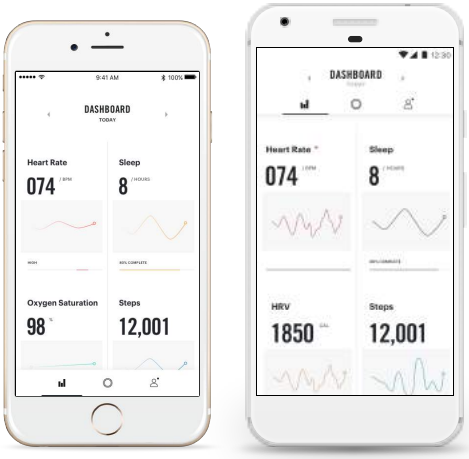
To connect with you Wristband, you must turn on Bluetooth on your mobile device. This setting can be found in your mobile device's settings.

App Compatibility

The Wavelet Wristband and Pod are compatible with select iOS and Android devices, including:

iOS – iPhone 4s, 5, 5c, 5s, 6, 6+, 6s, 6s+, iPod 5th gen, iPad mini, iPad 3, iPad 4 and iPad air.

Android – Samsung Galaxy S4, S4 Mini, S4 Active, S5, Samsung Galaxy Note II, III, 10.1; the Nexus 4, Nexus 5, Nexus 7; HTC One; Motorola Moto X, Moto G; DROID MINI, Ultra, MAXX, RAZR M, HD, HD MAXX and the LG G2. All android devices must have Android 4.3 or higher.



Download on the App Store

GET IT ON Google Play

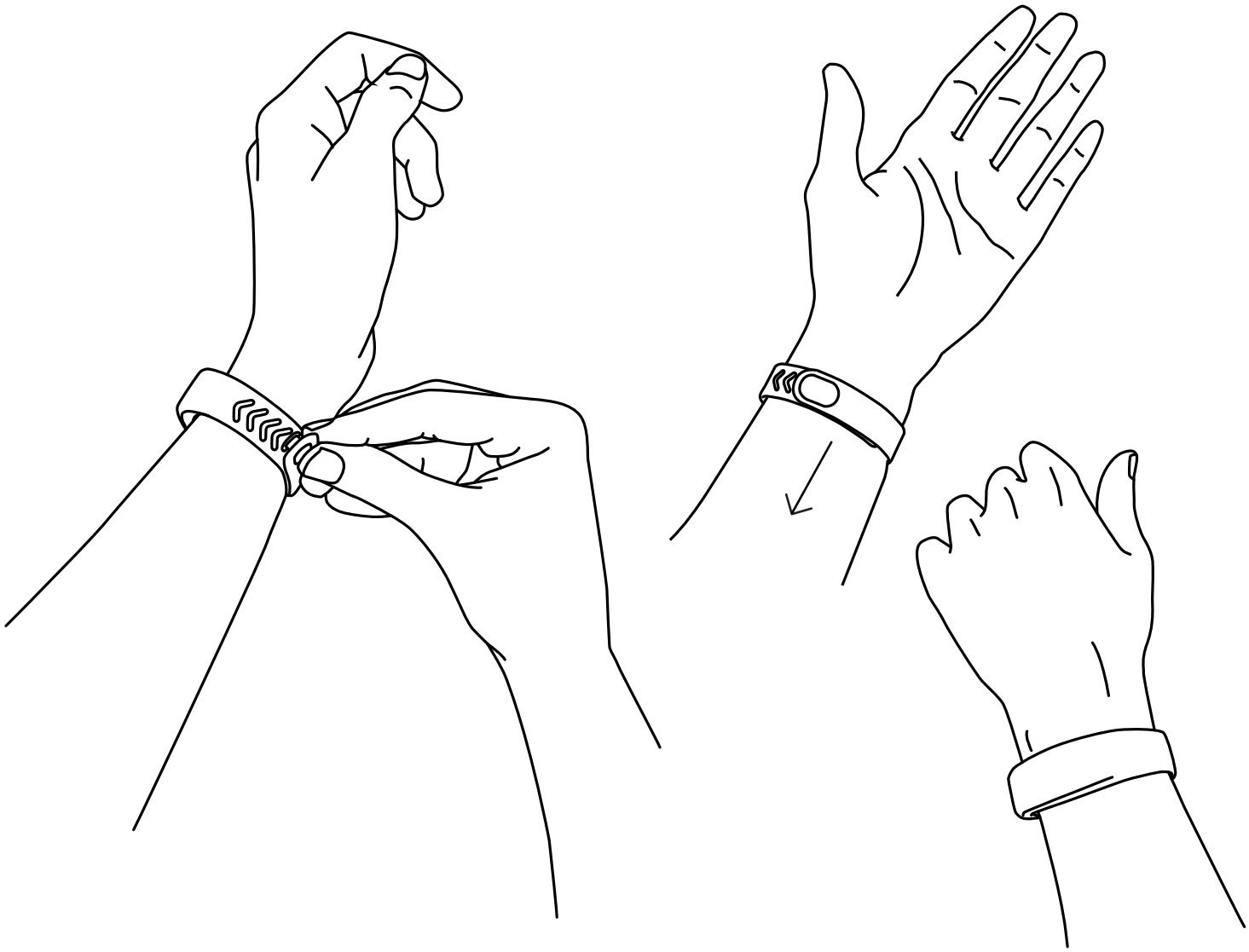
Creating a Profile

You may be asked to set up a profile including your height, and weight. Or you may be asked to input a code provided by your study administrator. Any private information is kept completely private and stored on a secure server. These measurements are helpful for getting the most out of the Wavelet devices. If provided, your height, weight, gender, and age will be used to calculate your BMR, or calories burned.

Using the Devices

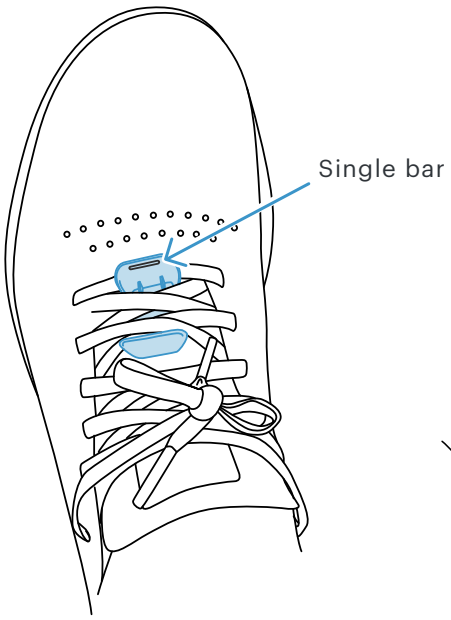
Wearing the Wristband Properly

Wearing your Wristband properly is critical to getting reliable data. When worn properly, both of the teeth on the clasp should engage with the Wristband fully. The device should sit above the wrist bone (towards the elbow) as illustrated below. The sensor unit inside the Wristband should sit snug against the skin so the sensors can get an accurate heart reading. The most comfortable fit is often achieved by securing the device with some slack and then sliding it up (towards your elbow) until it is snug.

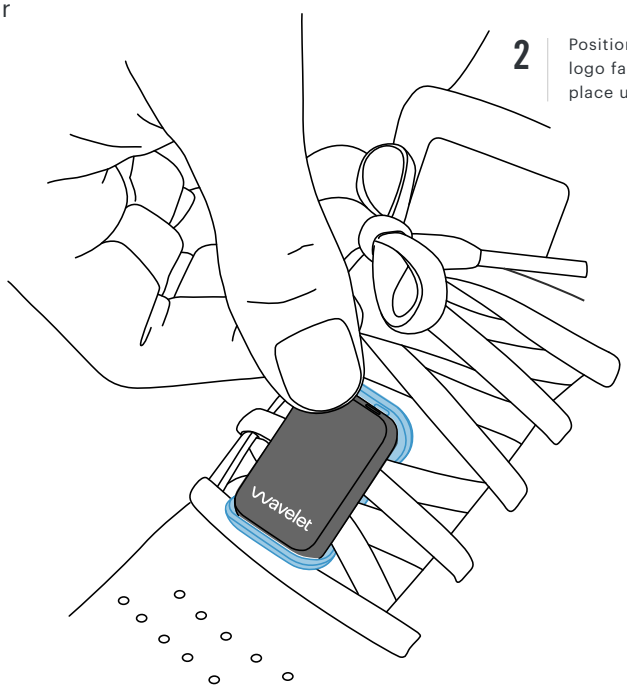


Wearing the Pod Properly

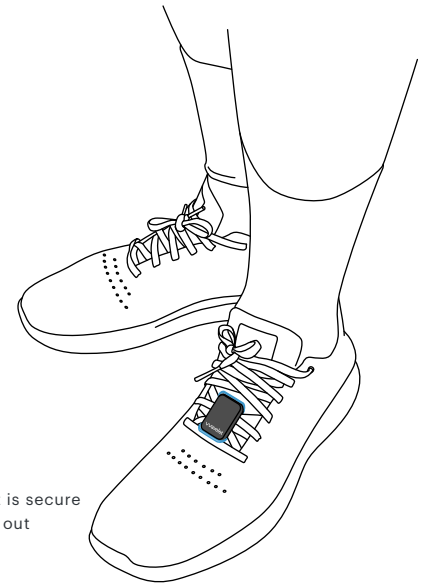
Wearing your device properly is critical to getting reliable data. When worn properly, both of the teeth on the clasp should engage with the Wristband fully. The device should sit above the wrist bone as illustrated below. The sensor unit inside the wristband should sit snug against the skin so the sensors can get an accurate heart reading. The most comfortable fit is often achieved by securing the device with some slack and then sliding it up (towards your elbow) until it is snug.



1 The shoe clip is directional. Place the shoe clip harness beneath several rows of laces so the single bar is visible as shown above.



2 Position the shoe pod so the Wavelet logo faces away from you. Press it into place until it snaps firmly in place.



3 Tug on the pod to make sure it is secure in the clip. It should not come out easily.

Checking the current battery level

You can check the level of your devices' batteries by visiting the profile section in the Wavelet app. See the page "The App: Profile" for more details.

Caring for the Wristband and Pod

The lenses of the Wristband should be cleaned periodically. a simple wipe with a damp cloth is sufficient to clean both devices. Do not use alcohol, harsh chemicals, or solvents on the device.

The Wristband is fully waterproof and can be left on while you bathe or shower. It is, however, recommended to remove the wristband periodically so your skin can have a break.

Updating the Devices' Firmware

When you first launch the Wavelet app and connect to your devices it will automatically update the devices' firmware. To update the firmware manually, enable the Bluetooth on your mobile device and find your devices your profile page. Select your device and tap "update firmware" and the firmware will update. You do not need to fully charge the device to update the firmware, but it is recommended to fully charge the device before use. DO NOT remove a device from the charger during a firmware update.

The Wavelet App: Overview

The Wavelet app is the link to your Wristband and Pod. All data captured on the on these devices must be transferred to your smart device for processing and viewing the gathered information.

Syncing the Wristband and Pod

It is important to sync your data to your mobile device often. Syncing occurs when you are near your mobile device that has bluetooth turned on and the Wavelet app is either open or running in the background. The app will automatically sync with your device periodically when these conditions are met. The more often your device is sync'd, the quicker each sync will be. To sync manually, pull down on the Dashboard page or select your device on the Profile page and tap "sync now".

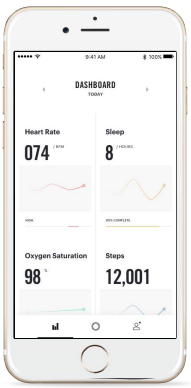
Tracking with the Wavelet Wristband

The Wavelet Wristband tracks the following activities, and depending on your specific situation may include others:

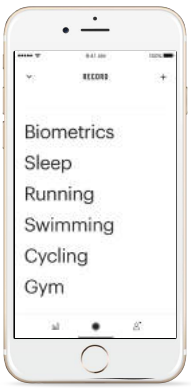
- Steps
- Sleep
- Calories Burned
- Heart Rate
- Blood Oxygen Saturation

Navigating the Wavelet App

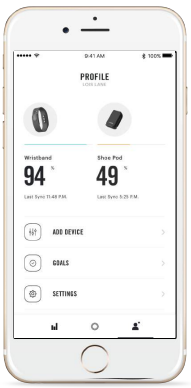
The Wavelet app is broken into three sections: Dashboard, Recording, and Profile. This guide will show you how to navigate each of these sections.



Dashboard



Recording

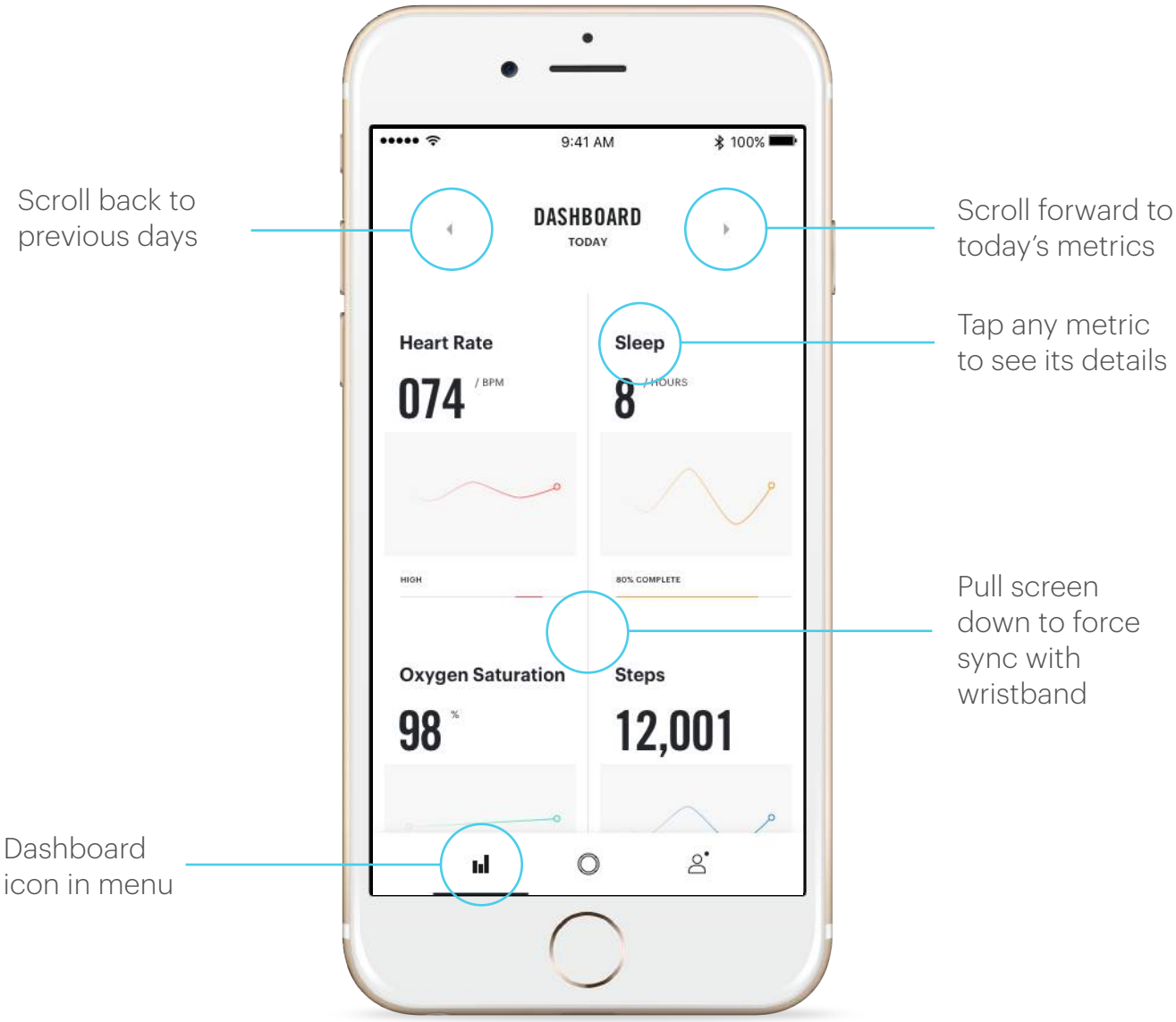


Profile

The App: Dashboard

The dashboard can be navigated to by tapping the far left icon in the menu (on the bottom of the screen):

This screen shows all of the metrics collected by your Wavelet Wristband. Scroll down to see additional metrics. Click on any statistic or graph to see a more detailed explanation of that metric (the metric's detail page). Your app may vary slightly from the image below.



Dashboard

The App: Dashboard – Metric Details Pages

Tapping on any metric or graph on the Dashboard will show the details of that particular metric. Here you can get a deeper understanding of that metric and compare it to your averages or previous statistics.

Each metric is color coded for easy recognition. The illustration below shows the steps page as an example.

Tap here to return to your Dashboard

A timeline showing the metric's data over time.

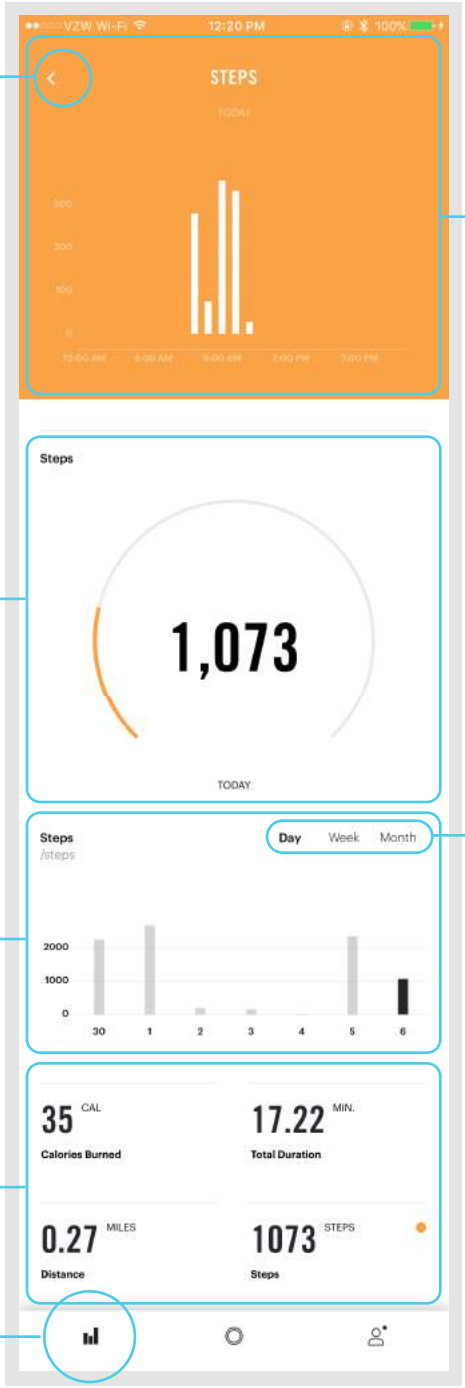
The day's total steps and goal progress. Adjust your goal in the Profile section

Toggle timeline time range

Your steps compared to previous statistics

Various statistics such as maximums and minimums

Dashboard

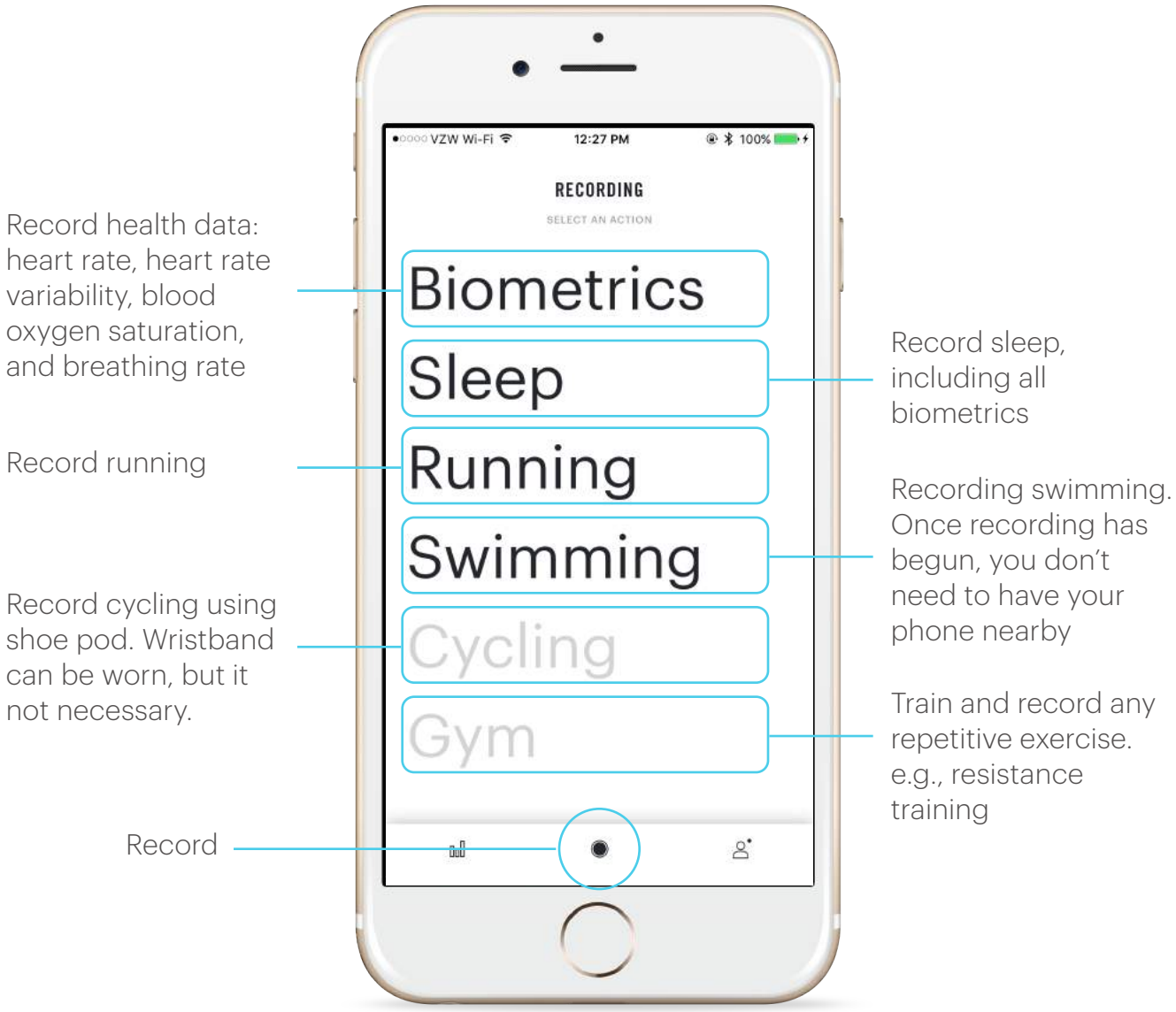


Tip: For more information about any metrics captured by your wristband, consult your program coordinator or associated doctor.

The App: Recording

The recording page can be navigated to by tapping the center icon in the menu (on the bottom of the screen): ◎

This page allows you to manually record data from your Wristband. This data will then be accessible on the Dashboard page. Depending on your situation, not all types of recording may be available to you. Be sure that you device is worn properly while recording. See the wearing guide (page 5) for details on how to wear your device properly.

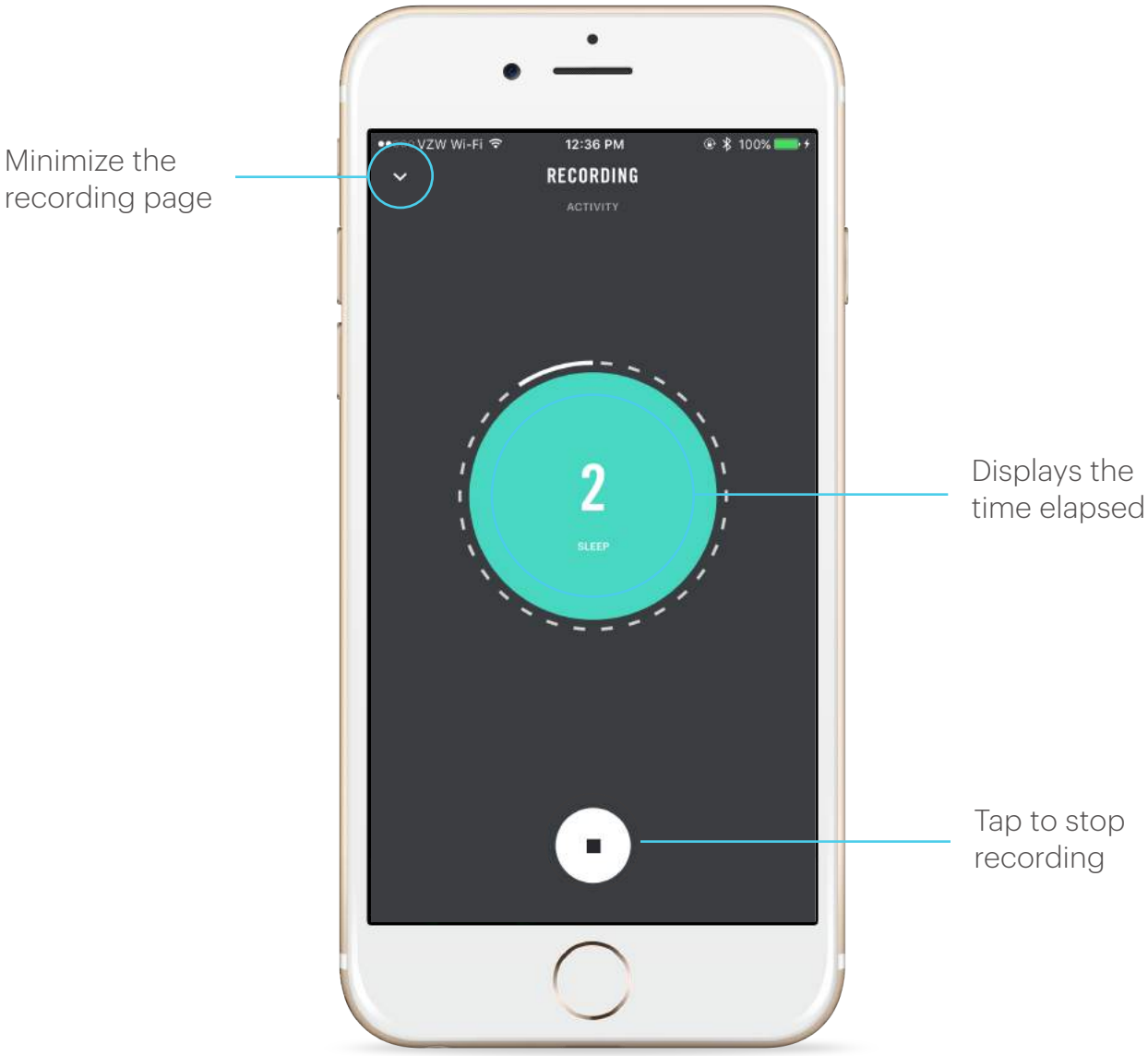


Recording (Select Activity)

The App: Record Sleep

The record sleep page can be navigated to by tapping the center icon in the menu (on the bottom of the screen): ◎ and selecting sleep.

Make sure that your device is more than 50% charged before recording sleep. If the device loses its charge during a recording then the data from that recording will be lost. If this happens you will need to charge your device in order to connect to it again.



Recording

The App: Profile

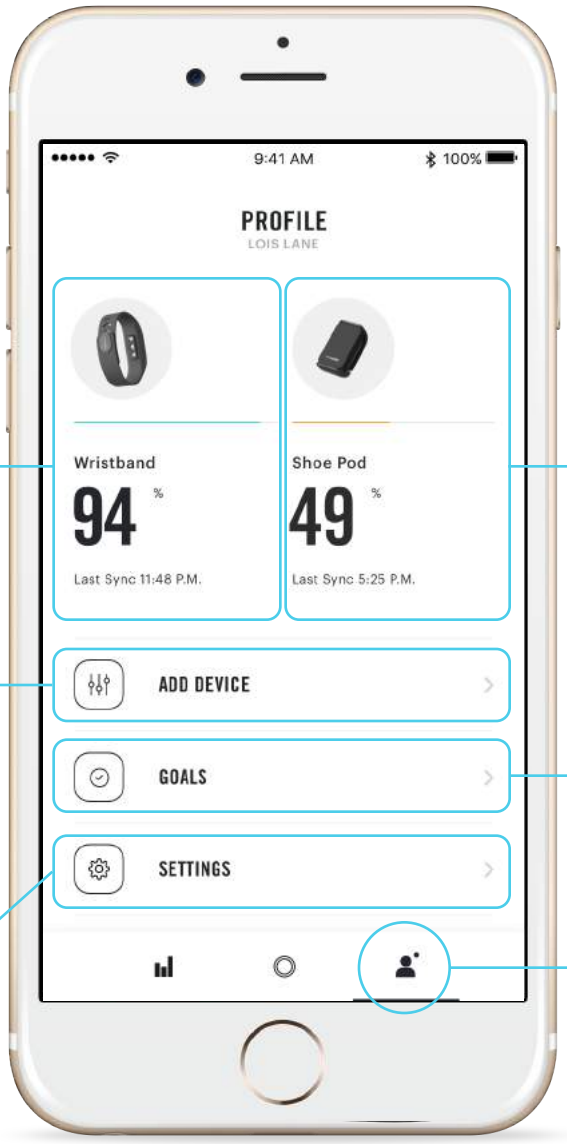
Your profile can be navigated to by tapping the far right icon in the menu (on the bottom of the screen):

This screen shows your basic profile and device information. It allows you to access settings, goals, and to manage your device settings.

The battery status of your Wristband and the time it was last sync'd. Tap here to manage device.

Add a new device. Only two devices can be connected to the app at once. To change devices, first remove a current device.

Adjust app and profile settings



The battery status of your Pod and the time it was last sync'd. Tap here to manage device.

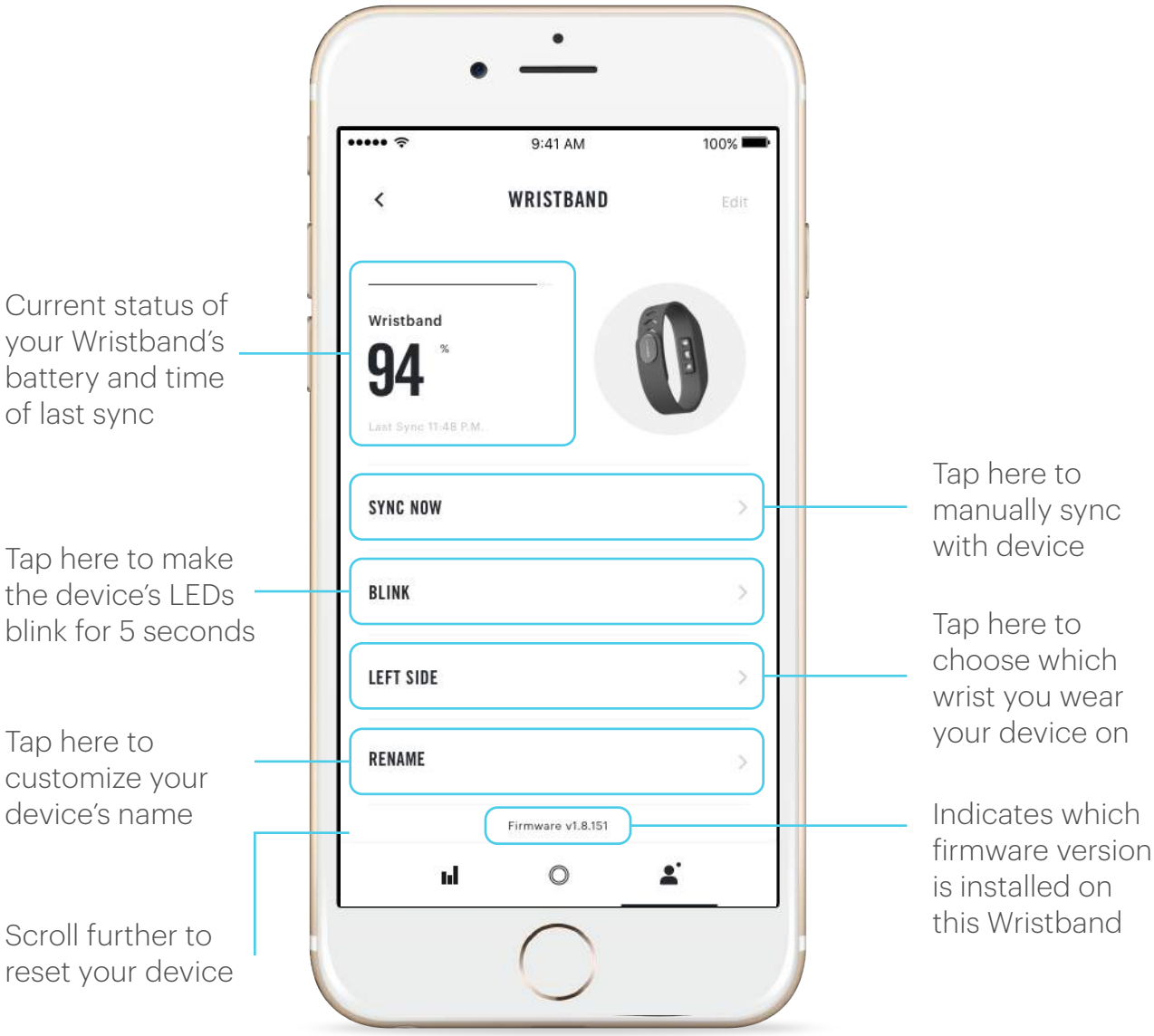
Adjust your daily goals

Profile

Profile

The App: Profile – Manage Device

From the profile screen you can tap “MANAGE DEVICES” then select your device to see and manage the device’s details.



Manage Devices

Troubleshooting

Use this section to diagnose issues that you may face during setup and use of this product. If these methods prove unsuccessful, please contact support at hi@wavelet.co. For fastest support, please include photos or screen shots illustrating your problem.

Charging

Device is not charging, or the charger LED won't change color

• Ensure that the charger is plugged in properly and that the cable is properly inserted into a computer or supported base and the charging pad.

• Ensure that the devices are placed properly as shown on page 3

• The LED is white when NOT charging; it will turn ORANGE when it is engaged. If it is flashing orange then it is not properly placed.

• The app shows the approximate battery level once you are connected to the device. The battery should last four days, depending on use.

• Contact support at hi@wavelet.co if you are unable to properly charge your device while following these troubleshooting steps. Please include photos illustrating how you are charging the device for the fastest support.

Connecting

My device is not discoverable by the app

• Ensure that your mobile device is supported by the app.

• Ensure that the battery is not dead or nearly depleted.

• Restart your mobile device (smart phone) and try connecting again.

• If the device is not showing up after restarting your mobile device and charging the Wristband, contact hi@wavelet.co for additional support. Please include screenshots or photos of what you are seeing for the fastest support.

Resetting the Devices

If your devices seem to be having any other issues, sometimes resetting them will help. This function can be found in the “Manage Device” , accessible by tapping on a connected device in the Profile page. Resetting a device will cause all data to be wiped from it and will restart the paired device.

FAQs

Is my mobile device compatible?

Wavelet is compatible with select iOS and Android devices.

For iOS this includes iPhone 4s, 5, 5c, 5s, 6, 6+, 6s, 6s+, iPod 5th gen., iPad mini, iPad 3, iPad 4 and iPad air.

For Android, this includes Samsung Galaxy S4, S4 Mini, S4 Active, S5, Samsung Galaxy Note II, III, 10.1; the Nexus 4, Nexus 5, Nexus 7; HTC One; Motorola Moto X, Moto G; DROID MINI, Ultra, MAXX, RAZR M, HD, HD MAXX and the LG G2. All android devices must have Android 4.3 or higher.

Are the Wavelet devices waterproof?

The Wavelet Wristband is waterproof up to 3 meters and can be worn swimming. it is recommended to remove the device periodically as anything contacting your skin for prolonged periods can cause irritation. Discontinue use and contact support at hi@wavelet.co if irritation persists. The Wavelet Pod is also waterproof.

How does Wavelet calculate calories burned?

Wavelet calculates how many calories you burn each day and night. It uses your height, weight, gender, and age to calculate your BMR. Wavelet also considers activity type, reps, speed, and duration to calculate how many calories you burn while active. *Your Wavelet app will estimate calories burned throughout the day even when a Wavelet device is not worn, based on your BMR.

When should I wear my devices?

The Wavelet Wristband is designed to be effortlessly worn 24/7 (besides during charging). Wearing the device while you sleep is especially important. Be sure to wear according to the guide shown in the wearing guide. For greater accuracy, wrist placement can be specified in the “profile” page of the app. Tap “Right side” or “Left side” to toggle this setting. The Wavelet Pod can also be worn whenever you wear shoes, but is only necessary during activities that record data from the device, i.e., cycling and gym.

FAQs cont.

What is biometric detection?

The Wavelet Wristband analyzes thousands of heart beats every 24 hour period, telling you more about your health, and your body's most important organ – the heart. Wavelet can display resting heart rate, heart rate variability, blood oxygen saturation, respiratory rate, blood pressure variation and pulse pressure variations. These metrics may not be displayed to you, depending on your program's chosen options.

Wristband Specifications

Manufacturer	Wavelet
Head Office	Mountain View, CA
Origin	China
Sensor Size	2mm x 2mm
LEDs	2 red LEDs, 2 IR LEDs
Wristband Weight	23 grams
Shipping Weight	150 grams
Shipping Dimensions	70 x 70 x 95 mm
Communication Interface	Bluetooth LE
Display	Mobile device display / app
HRV Accuracy	+/- 5.9 milliseconds
Heart Rate Accuracy	+/- 3 BPM
Battery	130 mAh Li-ion
Operating Time	Up to 5 days
Operating Temperature	-20 – 150 degrees F
Water Resistance	Fully submersible 5 ATM
Band	Silicone, fully replaceable
Other components	3-axis accelerometer, temperature sensor

Pod Specifications

Specification	Wavelet Pod
Manufacturer	Wavelet
Head Office	Mountain View, CA
Origin	China / USA
Pod Weight	18 grams
Shipping Weight	150 grams
Shipping Dimensions	70 x 70 x 95 mm
Communication Interface	Bluetooth LE
Display	Mobile device display / app
Battery	90 mAh Li-ion
Operating Time	Up to 7 days
Operating Temperature	-20 – 150 degrees F
Water Resistance	Fully submersible 5 ATM
Clip	PC, interchangeable
Other components	3-axis accelerometer, Gyro

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.