

# StressLocator & Sleep as Android

## Digital Wrist Pulse Oximeter



## User's Guide

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## **Introduction**

Congratulations on purchasing Digital wrist pulse oximeter. Your new product measures blood oxygenation and heart rate, it is a comfortable, light-weight, portable device for non-invasive, on the spot measuring, able to transmit the data to your smartphone via bluetooth. This guide will help you set up and operate the device.

## **Disclaimer**

The Digital wrist pulse oximeter is no professional medical device and should be used by healthy individuals and only after a proper introduction.

## **Compatibility**

The Digital wrist pulse oximeter is designed to to work with Android devices running the operating system Android 4.3 or higher that are quipped with bluetooth, compatible with StressLocator and Sleep as Android apps.

## **Package content**

- Digital wrist pulse oximeter
- SpO2 sensor
- wrist strap
- charging cable
- user's guide

## Specifications

### Bluetooth

version 4.0

BLE - Bluetooth Low Energy

### Measurement Range

Spo2: 35~100 %

Accuracy:  $\pm 2\%$  (80~100 %);  $\pm 3\%$  (70~79 %)

Pulse Rate: 25~250 BPM

Accuracy:  $\pm 2$  bpm

### Environment

#### Temperature

Working: 5~40 °C

Storage: -10~50 °C

#### Humidity

Working: 15~80%

Storage: 10~90%

## Product description

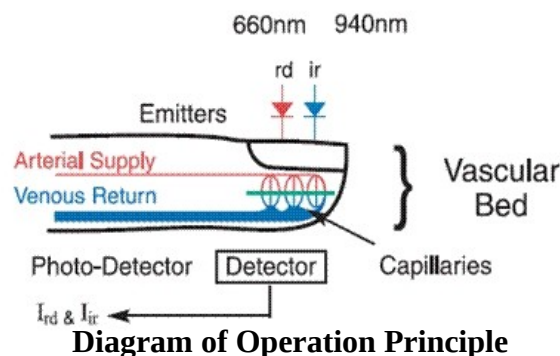
The Digital wrist pulse oximeter measures blood oxygenation and heart rate. The device is optical-based - two beams of different wavelength of light screen the blood vessels and capillaries of your finger; more precisely of the nail tip, and that through the finger sensor.

Results showing 96% - 99% are considered to be normal. Greater height above sea level and other factors may affect the measurement results.

## Measurement Principle

Operation principle of the instrument is Photoelectric Oxyhemoglobin Inspection Technology is adopted in accordance with Capacity Pulse Scanning and Recording Technology, so that two beams of different wavelength of lights (660nm glow and 940nm near infrared light) can be focused onto human nail tip through perspective clamp finger-type sensor. Then measured signal can be obtained by a photosensitive element, information acquired through which will be shown on two groups of LEDs through process in electronic circuits and microprocessor.

Arterial oxygen saturation is measured by a method called pulse oximetry. It is a continuous, non-invasive method based on the different spectra absorption of hemoglobin and oxyhemoglobin (called spectrophotometer principle). It measures how much light, sent from light sources on the other side.



## Advice and warnings

- Do not use the oximeter nearby sources of strong magnetic resonance.
- Do not use the device and a blood pressure monitor with a cuff on the same arm at the same time.
- The oximeter will not warn you if your blood oxygenation is too high or too low.
- To ensure proper functioning, keep the device clean.
- For precise measuring, your finger must be clean.
- The following factor may reduce the accuracy of the measurement:
  - blinking or very strong light
  - strong transmitters (e.g. television, radio) may affect precision of the oximeter
  - low perfusion
  - low hemoglobin level
  - hypotension, severe vasoconstriction, severe anemia or hypothermia
- Use the SpO2 sensor delivered with the device or a sensor which the manufacturer has approved. As a user, you are responsible for checking the compatibility.
- Do not use in flammable environment.
- Do not use in an environment that does not fulfill the operating and storage requirements. (see Specifications)
- The Digital wrist pulse oximeter is fragile, try to avoid any strong pressure, knock or vibration that could damage it.
- The device is not made of any health damaging materials.
- The package of the device is recyclable and must be handled in accordance with local laws.
- All unrecyclable parts of the StressLocator Oximeter must be handled in accordance with local laws.

## First start

### Directions for use

1. Plug the sensor into the body of the wrist pulse oximeter
2. Turn the device on by pressing the on/off button
3. Fix the sensor on patient's finger as shown on the image below



## Display Introduction



## Operating button explanation

**Power on:** Press “POWER/FUNCTION” button, machine starts up and enter main menu.

**Power off:** Press “POWER/FUNCTION” button for 3 seconds, machine power off, or the sensor dropped for 10 seconds, the machine automatically power off.

## Function Description

- When the product is powered on, short press the “POWER/FUNCTION” button, the product will switch to another display mode. (as shown in **Figure 1**)
- Short press the “POWER/FUNCTION” button to switch among the settings, and the cursor follows and moves. Long press the “POWER/FUNCTION” button again to change the current settings of sounds and Bluetooth, on or off. (as shown in **Figure 2**)
- When cursor move to “Exit”, long press the “POWER/FUNCTION” button to exit to measuring display mode.
- The product will automatically be powered off when no finger is in the device for longer than 10 seconds. And switch to another display mode. (as shown in **Figure 3**)



Figure 1



Figure 2



Figure 3

## Usage with applications

### ***Usage with the StressLoctor app***

1. Download and install the StressLocator app from Google Play
2. Turn the device on
3. Go to the settings menu of your Android device
4. Select the “bluetooth” option
5. Switch “bluetooth” to “on”
6. Start the app
7. Select “Start” in the main menu
8. In the Device menu, select “ BLE StressLocator ”, put it on your finger and start measurement

### ***Usage with the Sleep as Android app***

1. Download the Sleep as Android app from Google Play
2. Go to the settings menu of your Android device
3. Select the “bluetooth” option
4. Switch “bluetooth” to “on”
5. Enable **Settings – Wearables – Pulse Oximeter**, put the device on your finger and start sleep tracking

*If you have any problem with this app, please send us a report and we will help you solve it*

## Cleaning and Disinfection

### ***Cleaning***

1. Clean the product with cotton or soft cloth moistened with water.
2. After cleaning, wipe off the water with a soft cloth.
3. Allow the product to air dry.

### ***Disinfection***

The recommended disinfectants include: 70% ethanol, 70% isopropanol, glutaraldehyde (2%) solution disinfectants.

1. Clean the product as instructed above.
2. Disinfect the product with cotton or soft cloth moistened with one of the recommended disinfectants.
3. After disinfection, be sure to wipe off the disinfectant left on the product with a soft cloth moistened with water.
4. Allow the product to air dry.