



PPG 100 sensor

User Manual

(Instructions for Use and Technical Information)



1. About PPG 100 sensor

1.1 Intended Use

This product is intended to be used for measuring, displaying and storing adults' pulse oxygen saturation (SpO2), pulse rate of adults in home or healthcare facilities environment.



Figure 1: PPG 100 sensor

2. How to use PPG 100 sensor

2.1 Charging

- ▶ Charge the battery before using.
- ▶ Connect the device to a computer USB or USB charging adapter with a USB cable.
- ▶ Once fully charged, the device will power off automatically.

2.2 Power on/off

- ▶ Power on: Put on the device and it will turn on automatically.
- ▶ Power off: The device turns off automatically after you take it off.

2.3 Typical steps

- ▶ START: Charge the battery. Put on the device to turn it on.
- ▶ STOP: Take off the device, the recording will be over after the countdown.

2.4 Start working

- ▶ Wear the device on your index finger. Try moving the device along your forefinger to find the best fit. Make sure it is not loose, as a loose fit causes inaccurate measuring.
- ▶ The device will turn on automatically. After a few seconds, the device will begin to monitor.



- Keep the device snug enough as loose wearing may cause inaccurate readings.
- DO NOT use the middle finger; if the device is too tight for the forefinger, try your thumb or little finger.
- If the working time is less than 2 minutes, the data will not be saved.
- Please avoid excessive motion.
- Please avoid strong ambient light conditions.

2.5 Stop working & sync data

- ▶ Take off the device and the countdown will begin.
- ▶ If the recording time is less than 2 minutes, there will be no countdown.



During the countdown, if you put on the device again, the recording will be resumed. After the countdown, the data will have been saved in the device and is ready to sync.

2.6 Screen wake up

The screen will go off automatically for saving power in Standard Mode; you can touch the key on top to wake up the screen.

2.7 How to check battery

Touch the key on the top to see the battery level.

3. Maintenance

3.1 Time & Date

After connection with App, the device time will sync from your phone time automatically.

3.2 Cleaning

Use a soft cloth moistened with water or alcohol to clean the device surface.

4. Troubleshooting

PROBLEM	POSSIBLE REASON	WHAT TO DO
Device does not turn on or no response	Battery may be low. Device might be damaged. Software exception.	<ul style="list-style-type: none">· Charge battery and try again.· Please contact your local distributor.· Keep device on charge and touch the key for 8 seconds.

5. Specifications

Environmental	Operating	Storage
Temperature	5 to 40°C	-25 to 70°C
Relative humidity (non-condensing)	10% to 95%	10% to 95%
Barometric	700 to 1060hPa	700 to 1060hPa
Protection against electric shock	Internally powered equipment	
Degree protection against electric shock	Type BF	
Electromagnetic compatibility	Group 1, Class B	
Degree of dust & water resistance	IP22	
Weight	15g	
Size	38x30x38mm	
Battery	3.7Vdc, Rechargeable Lithium-polymer	
Charge time	2-3 hours	
Battery life	12-16 hours for typical use	
Wireless	Bluetooth 4.0 BLE	
Oxygen level range	70% to 99%	
SpO2 Accuracy (arms)	80-99%: $\pm 2\%$, 70-79%: $\pm 3\%$	

Pulse rate range	30 to 250 bpm
Pulse rate accuracy	± 2 bpm or $\pm 2\%$, whichever is greater
Recorded parameters	Oxygen level, pulse rate, motion
Data storage	4 sessions, up to 10 hours for each
Mobile app for iOS	iOS 9 or above, iPhone 4s/iPad 3 or above
Mobile app for Android	Android 5.0 or above, with Bluetooth 4.0 BLE

6. FCC Compliance

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.

Acurable has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

The technical requirements used for original certification remain unchanged to the current requirements.

FCC ID: 2A258-OX100P02



PPG 100 sensor is an electronic device. As for all electronic devices, its operation could be somewhat affected by interference from other electronic devices. Examples of typical devices which may cause interference include RFID tags, televisions, other cell phones, etc. In some cases, since electromagnetic signals are not visible, interference might be the result of non-obvious sources. In extreme cases, this interference might lead to data loss which could result in an invalid test. Should this be the case you can try to prevent this from happening again by:

- Placing all other electronic devices as far as possible from the sensor, as you can in the bedroom; or even better, outside the bedroom, if this is at all possible.
- Placing the mobile phone (or smart device where the app is running) as close as possible to where you are sleeping. The closer the mobile phone is to the sensor the stronger the signal it will get.



PPG 100 sensor 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 and can radiate radio frequency energy and, if not installed and used in accordance with the 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.

7. ISED Compliance

Innovation, Science and Economic Development Canada (ISED) regulatory information

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Avis de conformité à la réglementation d'Innovation, Sciences et Développement économique Canada (ISDE)

Le présent appareil est conforme aux CNR d'Innovation, Science et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage; (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

8. Contact

For questions, problems, feedback, or should you need any help with the system, contact us! We will be happy to hear from you.



Our telephone-hotline offers help at:
Mon-Fri 09:00-18:00 +1 833 502 0261



Send us a message by email at any time:
support@acurable.com



Or send us a letter at:
Acurable, Finsgate, 5-7 Cranwood Street, London EC1V 9EE, United Kingdom

9. Safety Warnings



The device and accessories are provided non-sterile.



Consult your doctor immediately if you experience symptoms that could indicate acute disease.



Use only cables, sensors and other accessories specified in this manual.



Prolonged continuous monitoring may increase the risk of undesirable changes in skin characteristics, such as irritation, reddening, blistering or burns.



DO NOT squeeze the sensor part or apply excessive force to it.



Do not use this device during an MRI examination.



Do not use this device with a defibrillator.



Do not store the device in the following locations: locations in which the device is exposed to direct sunlight, high temperatures or levels of moisture, or heavy contamination; locations near to sources of water or fire; or locations that are subject to strong electromagnetic influences.



Do not use the device in a combustible environment.



Never submerge the device in water or other liquids.



Do not clean the device with acetone or other volatile solutions.



Do not drop this device or subject it to strong impact.



Do not place this device in pressure vessels or gas sterilization device.



Do not dismantle the device, as this could cause damage or malfunctions, or impede the operation of the device.



Do not self-diagnose or self-medicate on the basis of this device without consulting your doctor. In particular, do not start taking any new medication or change the type and/or dosage of any existing medication without prior approval.



Do not open the device cover without authorization. The cover should only be opened by a qualified service personnel.



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