



**PULSE  
OXIMETER  
P100**

## INSTRUCTION Manual

### Overview

The pulse oximeter is used to measure arterial oxygen saturation ( $\% \text{SpO}_2$ ), the percentage of oxyhemoglobin ( $\text{HbO}_2$ ) relative to the total hemoglobin (Hb). It also measures the pulse rate (PR, the number of pulse beats per minute), and gives the perfusion index, an indication of pulse strength at the monitoring site.

### Working Principles & Usage

The pulse oximeter uses the non-invasive optical transmittance method to measure arterial oxygen saturation and pulse rate. Do not use it for continuous care for patients.

### Precautions

- Do not attempt to repair the oximeter. Maintenance and repair should only be done by qualified technical professionals.
- Change the contact position between the oximeter probe and the finger periodically if you are monitoring your  $\text{SpO}_2$  levels and pulse rate for more than 2 hours.
- Stop immediately if skin integrity is compromised or the blood circulation of the finger is affected during prolonged use.
- This product is not designed for use by newborn babies.
- The oximeter uses infrared light to measure your  $\text{SpO}_2$  levels. Do not stare at the light-emitting components of the oximeter directly, as that could cause harm to the eyes and/or even lead to blindness.
- $\text{SpO}_2$  and pulse rate information does not constitute a diagnosis or medical advice of any kind. Consult a healthcare professional for medical advice.

The following factors may affect the accuracy of measurement:

- The oximeter is used in an environment involving high-frequency devices, such as high-frequency electric knives and CT apparatuses.
- High ambient light intensity or direct exposure to strong light (such as beams from operating lamps or sunlight) during measurement.
- The probe of the oximeter is placed on the same arm as a blood pressure cuff, arterial catheter or intravenous injection.
- The user suffers from hypotension, severe vascular atrophy, severe anemia, or low oxygen.
- The user is in sudden cardiac arrest or shock state.
- The user is wearing nail polish or artificial nails.

### Power-On Button/ Function Button Operation

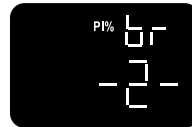
Press the power-on button/function button to turn on the oximeter. Once it is turned on, simply press or hold the button to perform corresponding operations.

Press: Press the button for less than 0.5 seconds.

Hold: Press the button for more than 0.5 seconds.

### Brightness Setting

Hold the power-on button while the oximeter is in powered-on state, then the oximeter shows a brightness setting interface (as shown in *Interface 1* on the right, "br" represents brightness). Hold the power-on button to adjust brightness. There are 3 brightness settings (1,2,3), 3 being the brightest.



*Interface 1*

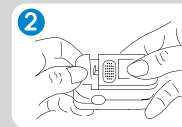
### Operation Guide

Stick one finger completely into the finger chamber of the oximeter. The fingernail should be facing upward. Release the clip and press the power-on button to power on the oximeter.

Measurement will be inaccuracies if finger is not insert into chamber completely.

Keep finger still during measurement as movement may lead to inaccuracies. Once the reading stabilizes, read the measured values of oxygen saturation and pulse rate on the screen.

**NOTE: The oximeter will automatically shut down 10 seconds after finger is removed.**



### Alarm Setting

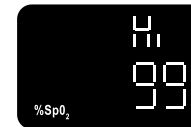
After setting the brightness, press the power-on button to enter the alarm setting interface (as shown in *Interface 2* on the right, "AL" represents alarm). Hold the button to set "AL" to on or off. When "AL" is set to on and the measured values of the blood oxygen saturation or pulse rate go beyond the set upper limit or lower limit, the alarm will go off.



*Interface 2*

### Alert Range Setting

When "AL" is set to "On", you can set the upper limit and lower limit of  $\text{SpO}_2$  Alert and PR Alert. Press the power-on button to switch options.



*Interface 3*

As shown in *Interface 3* above, for  $\text{SpO}_2$  upper limit.



*Interface 4*

As shown in *Interface 4* above, for  $\text{SpO}_2$  lower limit.



*Interface 5*

As shown in *Interface 5* above, for PR upper limit.



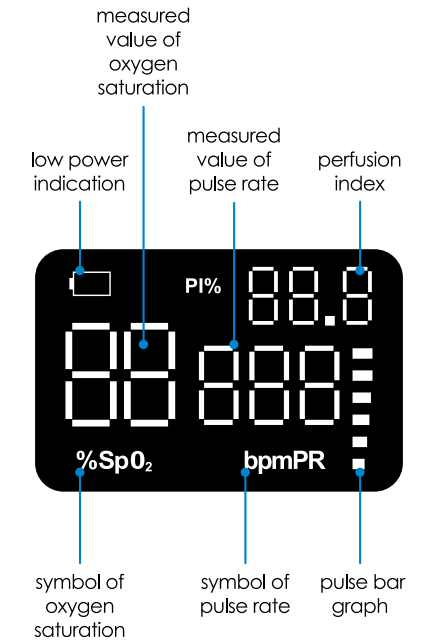
*Interface 6*

As shown in *Interface 6* above, for PR lower limit.

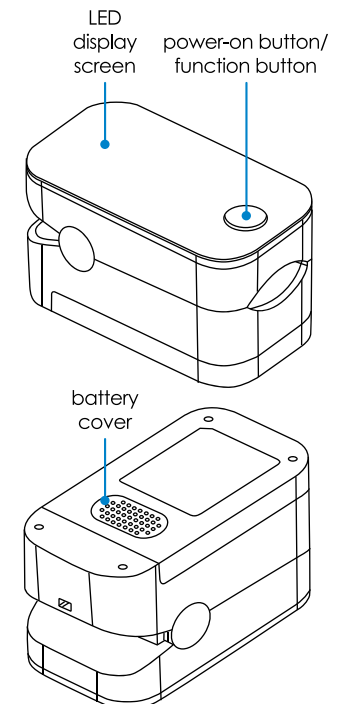
"Hi" represents upper limit, "Lo" represents lower limit.


Hold the power-on button to adjust the limits.

### Display Interface






### Product Diagram



Replace the batteries when they run out of power and the symbol (  ) flickers on the screen. Install two AAA dry batteries into the battery slot according to polarity indication and mount the battery cover.

## Cleaning & Disinfection

Switch off the oximeter and remove the batteries before cleaning. Ensure that the appearance of the oximeter is neat, dust-free and dirt-free. Clean the outer surface of the oximeter (including the LED screen) and the rubber finger pad using a piece of dry soft cloth dipped with medical alcohol.

-  Avoid liquid flowing into the oximeter during cleaning.
-  Do not immerse any part of the oximeter into any liquid.
-  Do not disinfect the oximeter by means of high temperature/high pressure or gas disinfection.




## Maintenance

- Remove the batteries from the battery slot if the oximeter will not be used for a long period of time.
- Avoid using the oximeter in an environment with flammable gases or using it in an environment where the temperature or humidity is excessively high or low.
- Check the accuracy of the oxygen saturation and pulse rate readings by using an appropriate calibration apparatus.

## Warnings

- Warning:** Do not use the oximeter in an environment with any flammable gases, flammable anesthetic, or other flammable substances.
- Warning:** Keep the oximeter and lanyard away from children as the included lanyard may present an entanglement or choking hazard to small children. Adult supervision required; never leave children unattended with the oximeter or lanyard.
- Warning:** Do not throw the batteries into fire, as that could cause an explosion.
- Warning:** Do not attempt to charge the included batteries, as that could cause leakage, fire disaster, or even explosion. Dispose the used batteries in accordance to the local laws and regulations.
- Warning:** Do not use the oximeter in an MRI or CT environment.
- Warning:** Do not operate the oximeter if it is wet.
- Warning:** Install the batteries with the correct polarity. Remove the batteries if the oximeter will not be used for an extended period.
- Warning:** Close the battery cover when the oximeter is in use.

## Symbols

Symbols	Meaning
	Type BF applied part
	Caution: Please refer to the user manual.
%SpO <sub>2</sub>	Symbol of oxygen saturation
bpmPR	Symbol of pulse rate
	When end users abandon this product, they must send the product to the collection place for recycling

## Technical Specification

1. Dimensions: 58.0mm (Width) x 32.0mm (Depth) x 32.9mm (Height) Weight: 50.4g (including two AAA dry batteries)
2. Peak wavelength range of the light emitted from the probe: red light 663nm ±3, infrared light 900nm ±7.
3. Maximum optical output power of the probe: 60mW for infrared light (905nm).
4. Normal working condition

Working Temperature	5°C to 40°C (41°F to 104°F)
Relative Humidity	15% to 80%, non-condensing
Atmospheric Pressure	70kPa to 106kPa
Rated Voltage	DC 3.0V

5. Default values and conditions of alert

Parameter	Value
Oxygen Saturation	Upper limit: 99 saturation Lower limit: 94
Pulse Rate	Upper limit: 130 Lower limit: 50
Alert Condition	When the alert switch is on and the actual measured value goes beyond the preset alert parameter range, the oximeter gives an alert sound

## 6. Technical parameters

Parameter	Value	
Display Range	Oxygen Saturation	35% to 99%
	Pulse Rate	25 bpm to 250 bpm
Resolution	Oxygen Saturation	1%
	Pulse Rate	1 bpm
Measurement Precision	Oxygen Saturation	±2% (70% to 99%) no requirement (≤69%)
	Pulse Rate	±2 bpm
Alert Range	Oxygen Saturation	Upper limit: 50% to 100% Lower limit: 50% to 98%
	Pulse Rate	Upper limit: 25 bpm to 250 bpm Lower limit: 25 bpm to 250 bpm
Alert Error	Oxygen Saturation	±1% of the preset value
	Pulse Rate	The greater of ±10% of the preset value and ±5 bpm
PI	Weak PI	Min. 0.3%

## Safety Types

Anti-electric-shock type: internal power supply device  
 Anti-electric-shock degree: Type BF applied part  
 Running mode: continuous working  
 Waterproof grade: IP22

## Storage & Transportation

Temperature: -10°C to 50°C (14°F to 122°F)  
 Relative humidity: 10% - 93% (no condensation)  
 Atmospheric pressure: 50kPa to 106kPa

## Warranty Terms & Conditions

([www.bionmedicalgroup.com/warranty](http://www.bionmedicalgroup.com/warranty))


- Product is entitled to 1 year off-site warranty coverage against manufacturing defects from the date of purchase, **with the original invoice/receipt as proof of purchase.**
- This warranty does not cover damages or defects arising from accident, misuse, mishandling, improper installation, any manner of tampering, usage of wrong electrical supply/voltage, corrosion/fungus, rusting or stains, any unauthorized repair or modification to the product, act of God, fire, civil unrest and consequential damages.
- This warranty does not cover normal wear and tear.
- Batteries are not covered under this warranty.
- This warranty shall be null and void in the event that the serial number on the product has been altered or removed.

**Dealer Stamp:**  
(If applicable)

Date (DD/MM/YYYY):

## Other Information

Product of:  
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