

# OPERATOR'S MANUAL

## OxyWatch™ C2F Fingertip Pulse Oximeter

### 1. General Description

Thank you for purchasing Oxywatch C2F pulse oximeter. This oximeter can be used to measure your blood oxygen saturation (in % SpO<sub>2</sub>) and your pulse rate. It should be used for spot monitoring only and not for continuous monitoring.

The Oxywatch C2F finger-Unit spot check oximeter is only for sports and aviation use. It is ideal for use during sports activities, mountain climbing and piloting airplanes. It is not intended to diagnosis any medical condition or to be used in medical applications.

### 2. Package Contents

1. Oxywatch C2F Pulse Oximeter
2. Lanyard
3. User Manual
4. Carrying Case
5. 2 AAA Batteries

### 3. Precautions for Use

1. Read the manual carefully before use.
2. Pulse oximeters are sensitive to motion artifacts. Keep hands still while taking a reading.
3. Pulse oximeters require sufficient blood flow to obtain proper readings. Poor blood circulation can result in inaccurate readings. If your hands are cold or you have poor circulation, warm your hands by rubbing them together or use another method before attempting to obtain a reading. A tourniquet, blood pressure cuff or other blood flow hindrances may also result in inaccurate readings.
4. Fingernail polish or acrylic nails obstruct the light transmission and may also result in inaccurate readings.
5. Your finger must be clean for a proper reading.
6. The pulse oximeter must be clean for a proper reading.
7. If a reading is difficult to obtain, switch to another finger or to the other hand.
8. There are a number of other conditions which may lead to an inaccurate reading including but not limited to recent medical tests that included an injection of dyes, use of arterial catheters, a weak pulse, low levels of hemoglobin in the blood, low perfusion (the quality of your pulse), elevated levels of dysfunctional hemoglobin, the strength and type of light that you are in while using the pulse oximeter and the existence of cell phones, radios, and fixed transmitters within certain ranges of the pulse oximeter during use.
9. The pulse oximeter will not alert you if your readings are out of normal range.
10. Explosion hazard: Do not use the pulse oximeter in an explosive atmosphere.
11. The pulse oximeter has no SpO<sub>2</sub> alarms; it is not for continuous monitoring, as indicated by the symbol.

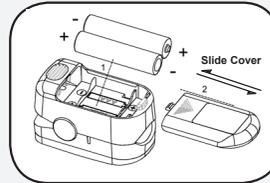
**In addition to items described in the Precautions for Use, inaccurate measurements may be caused by FACTORS INCLUDING BUT NOT LIMITED TO:**

1. Autoclaving, ethylene oxide sterilizing or immersing the sensors in liquid.
2. Significant levels of dysfunctional hemoglobin (such as carboxy-hemoglobin or methemoglobin).

3. Intravascular dyes such as indocyanine green or methylene blue.4. SpO<sub>2</sub> measurements may be adversely affected in the presence of high ambient light such as direct sunlight. In bright light conditions, cover the sensor area if necessary.
5. Excessive user movement.
6. High-frequency electrosurgical interference and defibrillators.
7. Venous pulsations.
8. The user has hypotension, severe vasoconstriction, severe anemia or hypothermia.
9. Fingernail polish or false fingernails may cause inaccurate SpO<sub>2</sub> readings.

### 4. Battery Installation

1. Install two AAA batteries into the battery compartment. Match the plus (+) and minus (-) signs in the compartment. If the polarities are not matched, damage may be caused to the oximeter.



2. Slide the battery door cover horizontally along the arrow as shown in the picture.

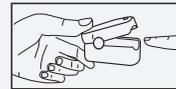
**NOTE:** Install the batteries in right polarity. Incorrect placement may cause damage to the bracket.

**NOTE:** Remove the batteries if the pulse oximeter will not be used for long periods of time.

3. The battery indicator symbol on the front panel display will light when the battery voltage is too low for normal operation of the pulse oximeter. Replace the batteries when indicator symbol lights.

### 5. Using the Oximeter

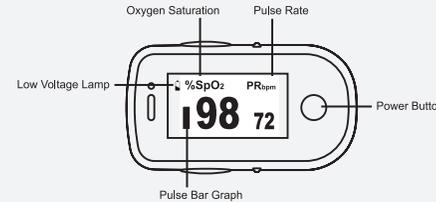
1. Open the clamp as shown in the picture.
2. Place one of your fingers into the rubber opening of the pulse oximeter (your finger should touch the bottom portion) before releasing the clamp.
3. Press the power button one time on front panel to turn the pulse oximeter on.
4. Keep your hands still for the reading. Do not shake your finger during the test. It is recommended that you do not move your body while taking a reading.
5. Read the data from the display screen.
6. There are four display modes. After turning on the pulse oximeter, each time you press the power button, the pulse oximeter will switch to another display mode.
7. When you press the power button for more than one second, the brightness of the pulse oximeter will be changed by degrees. There are 10 levels of brightness. The default level is level four.
8. When no signal or low signal is detected, the pulse oximeter will power off automatically in 8 seconds.



### 6. Maintenance

1. Clean the pulse oximeter and sensor with a soft cloth dampened with isopropyl alcohol. Do not pour or spray any liquids onto the pulse oximeter. Do not allow any liquid to enter any openings in the device. Allow the pulse oximeter to dry thoroughly before reusing. (The rubber inside of the pulse oximeter is composed of medical grade rubber. It is non-toxic and is not harmful to the skin.)
2. The pulse oximeter requires no routine calibration or maintenance other than replacement of the batteries.

### 7. Brief Description of Front Panel



The height of the Pulse Bar graph indicates the intensity of the pulse and signal strength. The bar should be greater than 30% for a proper reading.

### 8. Technical Specifications

1. **Display:** OLED display  
PR display mode: bargraph  
  
Low power indication:
2. **Battery Standard:** Two AAA 1.5V Alkaline Batteries
3. **Power Consumption:** Less than 40mA
4. **Resolution:** ±1% for SpO<sub>2</sub> and ±1bpm for Pulse Rate
5. **Measurement Range:**  
Measuring range for SpO<sub>2</sub>: 70%~100%  
Measuring range for PR: 30bpm~250bpm
6. **Measurement Accuracy:**  
SpO<sub>2</sub>: 70%~100%, ±2%; 0%~69%, no definition  
PR: 30bpm~99bpm, ±2bpm; 100bpm~250bpm, ±2%
7. **Environment Requirement:**  
Operation Temperature: 5°C~40°C (41°F~104°F)  
Storage Temperature: -25°C~70°C (-13°F~158°F)  
Ambient Humidity: 15%~93%, no condensation in operation  
≤93%, no condensation in storage  
Atmosphere pressure: 70kPa~106kPa
8. **Automatic Power Off:** The oximeter will power off automatically after 8 seconds when the finger is removed.
9. It is recommended that the product be kept in a dry place. A damp ambient might affect its lifetime and even might damage the product.

### 10. Declaration

EMC of this product complies with IEC60601-1-2 standard  
The materials which users can come into contact with are non-toxic and comply with ISO10993-1, ISO10993-5 and ISO10993-10.

### Guidance and manufacturer's declaration – electromagnetic emissions – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission		
The pulse oximeter is intended for use in the electromagnetic environment specified below. The customer or the user of the pulse oximeter should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment –guidance
RF emissions CISPR 11	Group 1	The pulse oximeter uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emission CISPR 11	Class B	The pulse oximeter is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.

### 9. Possible Problems and Resolutions

Problems	Possible Reason	Solution
SpO <sub>2</sub> or PR is not shown normally.	1. Finger is not plugged correctly. 2. User's oxyhemoglobin value is too low to be measured.	1. Retry by plugging the finger. 2. Possible pulse oximeter failure.
SpO <sub>2</sub> or PR is shown unstably.	1. Finger might not be plugged deep enough. 2. Finger is trembling or user's body is in movement status.	1. Retry by plugging the finger. 2. Try not to move.
The pulse oximeter cannot be powered on.	1. The batteries might be installed incorrectly. 2. The batteries' power might be inadequate or not be there at all. 3. The pulse oximeter might be damaged.	1. Please reinstall the batteries according to the polarity marked inside the battery compartment. 2. Please replace the batteries. 3. Please contact our customer service center.
"Error7"	The product is damaged.	Please contact our customer service center.

### 10. Symbol Definitions

Symbol	Definition	Symbol	Definition
	Oxygen Saturation		Pulse Rate (bpm)
	Low Power Indication		Serial Number
	Follow instruction for use		Date of Manufacture
	No SpO <sub>2</sub> Alarm		Type BF applied part
	The degree of protection against ingress of dust and water		Storage temperature and relative humidity
	Conformity to WEEE Directive		

### Note:

1. Follow local ordinances and recycling instructions regarding disposal or recycling of the device and device components, including batteries.
2. The illustration used in this manual may differ slightly from the appearance of the actual product.
3. The specifications are subject to change without prior notice.

### Warnings:

1. Keep the pulse oximeter away from young children. Small parts such as the battery door and the batteries, etc., may be hazardous if swallowed.
2. The lanyard may cause strangulation in conditions that may cause it to twist around the neck.

ChoiceMMed America Corp.  
2558 Pearl Buck Road, Suite 8A  
Bristol, PA 19007  
Phone: (215) 874-0458

Any questions or comments please email to [service@mibeststore.com](mailto:service@mibeststore.com)

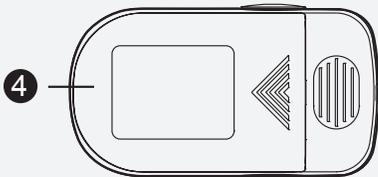
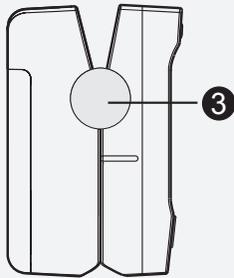
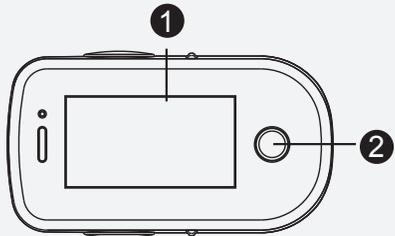
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Made in China.

# Quick Operation Guide

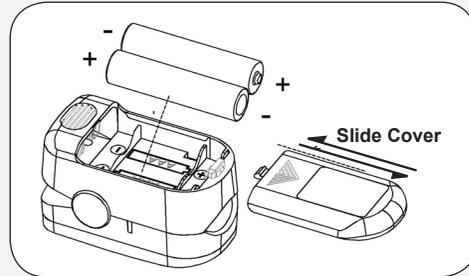
ChoiceMMed\_OxyWatch\_C2F\_Ver1.0

- Before using the oximeter, please remove protective sticker covering the display.



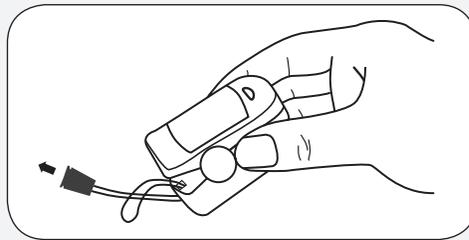
- ① Display Screen
- ② Power Button
- ③ Shaft Cover
- ④ Battery Box Cover

## ■ Battery Installation



Please put in the batteries according to the polarity marked inside the battery compartment.

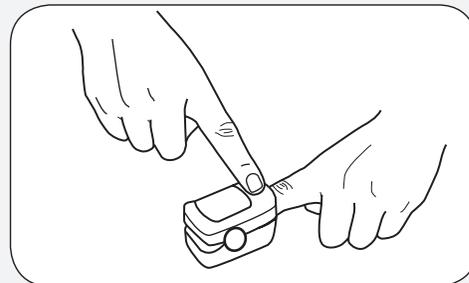
## ■ Lanyard Installation



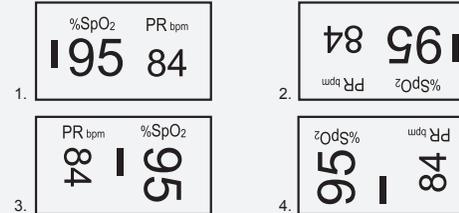
Tie the lanyard through the hole in the rear of the pulse oximeter.

## ■ Operation Instruction

Place one of your fingers into the pulse oximeter to the end and press the power button one time on front panel to turn it on.



There are four display modes. After turning on the pulse oximeter, each time you press the power button, the pulse oximeter will switch to another display mode.



When you press the power button for more than one second, the brightness of the pulse oximeter will be changed by degrees. There are 10 levels of brightness. The default level is level four.

Keep your hands still for the reading.

The pulse oximeter will power off automatically in 8 seconds if there's no finger inside.

## ■ Warnings and Notes

### Warnings:

1. Keep the pulse oximeter away from young children. Small parts such as the battery door and the batteries, etc., may be hazardous if swallowed.
2. The lanyard may cause strangulation in conditions that may cause it to twist around the neck.

### Notes:

1. Read the manual carefully before use.
2. The illustration used in this manual may differ slightly from the appearance of the actual product.
3. Follow local ordinances and recycling instructions regarding disposal or recycling of the device and device components, including batteries.

## What is a Pulse Oximeter?

A pulse oximeter is a non-invasive device that indirectly monitors blood oxygen saturation (SpO<sub>2</sub>) and pulse rate (heart rate). It displays both blood oxygen saturation (SpO<sub>2</sub>) and pulse rate (heart rate). Pulse oximeters provide an easy way of assessing your blood oxygen level and pulse rate.

## What is SpO<sub>2</sub>?

SpO<sub>2</sub> is also known as oxygen saturation. Oxygen saturation is a measure of how much oxygen the blood is carrying as a percentage of the maximum it could carry.

## What is the normal range of SpO<sub>2</sub>?

The normal range for SpO<sub>2</sub> is typically considered from 95%~99%. The SpO<sub>2</sub> measurement may be lower for people who live at high altitudes. Ask your health professional this question as it pertains to you.

## What is the normal range for pulse rate?

The normal resting range for pulse rate is typically considered from 60~100 beats per minute. Ask your health professional this question as it pertains to you.

## What kind of conditions may cause an inaccurate reading?

Cold hands, poor circulation, very weak pulse, movement, fingernail polish and acrylic nails may cause inaccurate results.

## The SpO<sub>2</sub> is not changing – it's stuck?

SpO<sub>2</sub> does not change like pulse rate. It is slow to change.

## The pulse rate is changing rapidly.

Your heart rate changes with emotions, excitement and exercise.

## I do not see the battery light indicator.

The battery light indicator only appears when the battery is low.