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## CONTEC CMS50M

# CONTEC CMS50M Fingertip Pulse Oximeter User Manual

Model: CMS50M | Brand: CONTEC

## 1. INTRODUCTION

The CONTEC CMS50M Fingertip Pulse Oximeter is a portable, non-invasive device designed for spot-checking of arterial hemoglobin oxygen saturation (SpO<sub>2</sub>) and pulse rate (PR) through the finger. It is suitable for use in home environments and for sporting and aviation activities. This device is not intended for continuous monitoring or as a medical device for diagnosis or treatment.

It features a small volume, light weight, and is convenient for carrying. The device displays pulse rate value and a bar graph for easy reading.



Figure 1: Front view of the CONTEC CMS50M Fingertip Pulse Oximeter showing the display with SpO<sub>2</sub> and PR readings.

## 2. PACKAGE CONTENTS

Upon opening the package, verify that all items are present and in good condition:

- Main unit (CONTEC CMS50M Fingertip Pulse Oximeter)
- Lanyard
- User Manual

**Note: Batteries are not included in the package and must be purchased separately.**



Figure 2: The CONTEC CMS50M Pulse Oximeter shown with its included lanyard.

## 3. SETUP

### 3.1 Battery Installation

The device requires two AAA batteries (not included). Follow these steps to install them:

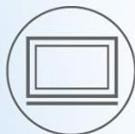
1. Locate the battery compartment cover on the back of the device.
2. Slide the cover off in the direction indicated by the arrow.
3. Insert two AAA batteries, ensuring the polarity (+ and -) matches the diagrams inside the compartment. Note

that one positive terminal may align with a spring, which is an uncommon but correct orientation for this device.

4. Replace the battery compartment cover by sliding it back until it clicks into place.



One Key Measurement



Large LED Display



Real-time Bar Graph And SpO<sub>2</sub>



Flexible Finger Clip



5s Automatic Power-off

Figure 3: Rear view of the pulse oximeter showing the battery compartment. Ensure correct battery polarity during installation.

### 3.2 Attaching the Lanyard

To attach the lanyard:

1. Thread the thin loop end of the lanyard through the lanyard hole on the device.
2. Pass the larger end of the lanyard through the small loop you just created and pull it tight to secure.
3. The lanyard features a quick-release buckle for easy detachment if not needed.

## 4. OPERATING INSTRUCTIONS

#### 4.1 Taking a Measurement

1. Open the clamp of the oximeter.
2. Insert one of your fingers (preferably the index or middle finger) into the rubber opening of the oximeter with the nail surface upward. Ensure the finger is fully inserted and rests on the sensor.
3. Release the clamp.
4. Press the power button on the front panel once to turn on the oximeter.
5. Keep your hand still during the measurement. Do not shake your finger.
6. The SpO<sub>2</sub> and Pulse Rate values will appear on the display within a few seconds.



Figure 4: Proper finger placement in the pulse oximeter for accurate readings.

#### 4.2 Understanding the Display

The bright LED display shows the following information:

- **SpO<sub>2</sub> (%):** Blood Oxygen Saturation Level.
- **PRbpm:** Pulse Rate (beats per minute).
- **Bar Graph:** Indicates pulse intensity.
- **Battery Indicator:** Shows remaining battery life.



Figure 5: Detailed view of the pulse oximeter display, highlighting SpO<sub>2</sub>, PRbpm, and the pulse intensity bar graph.

#### 4.3 Automatic Power-off

The device will automatically power off after approximately 5 seconds of inactivity or when the finger is removed from the sensor.

### 5. MAINTENANCE

#### 5.1 Cleaning the Device

To ensure longevity and hygiene, clean the oximeter regularly:

- Wipe the surface of the device with a soft cloth dampened with medical alcohol (75% ethanol) or isopropyl alcohol.
- Clean the inside of the finger clip with the same method.
- Allow the device to air dry completely before use.
- Do not immerse the device in water or any cleaning solution.

#### 5.2 Battery Replacement and Storage

When the low battery indicator appears on the display, replace the batteries promptly. If the device will not be used for an extended period, remove the batteries to prevent leakage and damage.

Store the oximeter in a cool, dry place, away from direct sunlight and extreme temperatures.

## 6. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display after power-on	Batteries are dead or incorrectly installed.	Replace batteries or re-install them with correct polarity.
Display unstable or inaccurate readings	Finger not properly inserted; finger shaking; ambient light interference; cold fingers.	Re-insert finger correctly and keep still. Avoid strong light. Warm hands if cold.
"Finger Out" message displayed	Finger not detected or removed.	Ensure finger is fully inserted into the sensor.

## 7. SPECIFICATIONS

- **Model:** CMS50M
- **Brand:** CONTEC
- **Measuring Range (SpO2):** 35%~100%
- **Product Dimensions:** 2.24 x 1.34 x 1.22 inches
- **Weight:** 1.76 ounces (without batteries)
- **Power Supply:** 2 x AAA batteries (not included)
- **Operating Environment:** Temperature: +10°C ~ +40°C, Relative humidity: ≤75%, Atmospheric Pressure: 700 hPa ~ 1060 hPa



**CONTEC<sup>TM</sup>**

**CMS50M**

## **PULSE OXIMETER**

LOW POWER CONSUMPTION

EASY TO OPERATE

HIGH ACCURACY

SMALL IN SIZE



Figure 6: Dimensions of the CONTEC CMS50M Pulse Oximeter.

## 8. IMPORTANT INFORMATION AND DISCLAIMERS

This product is intended for sports and aviation use only and is not a medical device. It is not intended for continuous monitoring. Solely for use with sporting and aviation activities. Intended to monitor heart rate during exercise. Statements regarding dietary supplements have not been evaluated by the FDA and are not intended to diagnose, treat, cure, or prevent any disease or health condition.

## 9. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the official CONTEC website or contact the seller directly. Keep your purchase receipt for warranty claims.

Manufacturer: CONTEC

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