

## CONTEC RS01

# CONTEC RS01 Sleep Apnea Screen Meter User Manual

Model: RS01

Brand: CONTEC

## PRODUCT OVERVIEW

The CONTEC RS01 is a compact and lightweight wrist-worn device designed for monitoring sleep apnea and related conditions. It features a 1.8-inch OLED color screen displaying SpO2, pulse rate, and nasal airflow waveforms. Ideal for use in hospitals or at home, it is suitable for individuals with conditions such as SAS (Sleep Apnea Syndrome), OSAHS (Obstructive Sleep Apnea Hypopnea Syndrome), COPD (Chronic Obstructive Pulmonary Disease), ARDS (Acute Respiratory Distress Syndrome), and vascular diseases, as well as for people over 60 years old.



Figure 1: The CONTEC RS01 Sleep Apnea Screen Meter, a compact device designed to be worn on the wrist for continuous monitoring.

## KEY FEATURES

- **Wrist-worn Equipment:** Small, lightweight, and convenient for continuous use.
- **Display Information:** Shows SpO2 (blood oxygen saturation), pulse rate, pulse waveform, and nasal airflow waveform.
- **Alarms:** Features alarms for low power, finger-out detection, and exceeding set limits.
- **Adjustable Brightness:** Screen brightness can be adjusted for optimal viewing.
- **Real-time Clock:** Includes a real-time clock function with manual on/off control.
- **SpO2 Measurement Range:** 35% ~ 100%. Accuracy: 70% ~ 100%,  $\pm 2\%$ ; < 70% unspecified.
- **Heart Rate Measurement Range:** 30 bpm ~ 250 bpm. Accuracy:  $\pm 2$  bpm or  $\pm 2\%$  (whichever is greater).
- **Nasal Airflow Measurement Range:** 8 rpm ~ 40 rpm. Accuracy:  $\pm 2$  rpm.

## PACKAGE CONTENTS

Upon opening the package, please verify that all components are present and undamaged. The standard package for the CONTEC RS01 typically includes:

- CONTEC RS01 Main Unit (wrist-worn device)
- Nasal Tube
- Sensor (Oximeter probe)
- USB Cable for charging and data transfer
- User Manual (this document)
- Software CD (for data analysis on PC, if applicable)



*Figure 2: An overview of the items typically included in the CONTEC RS01 product package. This includes the main unit, nasal tube, sensor, and various cables.*

## SETUP INSTRUCTIONS

1. **Charge the Device:** Before first use, fully charge the device using the provided USB cable. Connect the USB cable to the device's charge/oximeter probe/USB connection port and the other end to a suitable USB power source (e.g., computer USB port or USB wall adapter). The charge indicator light will show charging status.
2. **Attach the Sensor:** Connect the oximeter probe (sensor) to the designated port on the device. Ensure a secure connection.
3. **Connect the Nasal Tube:** Attach the nasal tube to the nose-oxygen tube connection port on the device. Position the nasal prongs comfortably in your nostrils.

4. **Wear the Device:** Securely fasten the CONTEC RS01 device to your wrist like a watch. Ensure it is snug but not uncomfortably tight.
5. **Power On:** Press and hold the Power On/Off/Awake button to turn on the device. The OLED screen should illuminate.

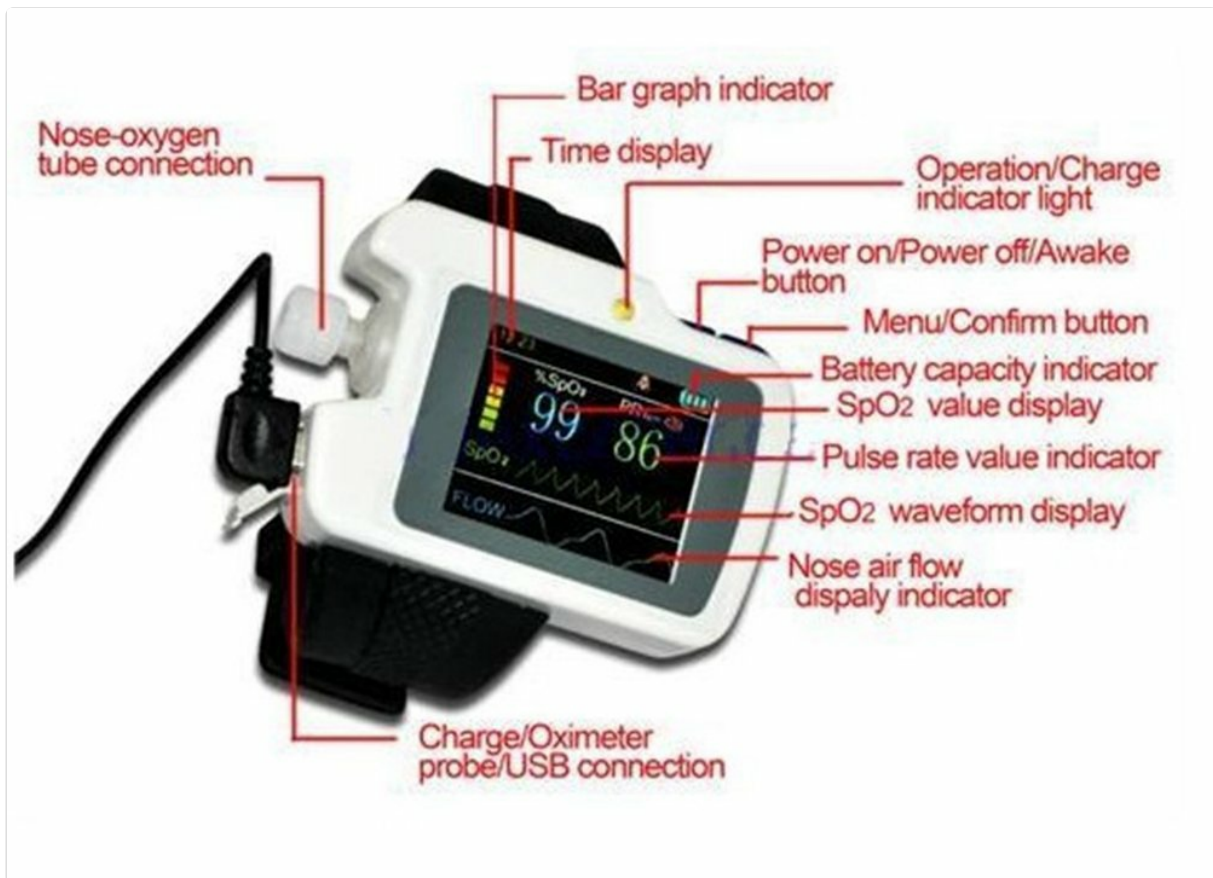


Figure 3: Detailed view of the CONTEC RS01 device with key components labeled, including the nose-oxygen tube connection, charge/oximeter probe/USB connection, and various display indicators.

## OPERATING INSTRUCTIONS

### Basic Operation

- **Power On/Off:** Press and hold the Power On/Off/Awake button to turn the device on or off. A short press will wake the screen if it's in standby.
- **Menu Navigation:** Use the Menu/Confirm button to navigate through options and confirm selections.
- **Screen Brightness:** Adjust the screen brightness via the device's menu settings for comfortable viewing in different lighting conditions.

### Monitoring

Once powered on and properly connected, the device will begin monitoring. The OLED screen will display real-time data:

- **SpO2 Value Display:** Shows your current blood oxygen saturation level.
- **Pulse Rate Value Indicator:** Displays your current pulse rate (heart rate).
- **SpO2 Waveform Display:** A graphical representation of your SpO2 changes over time.
- **Nose Air Flow Display Indicator:** Shows the pattern of your nasal airflow, crucial for sleep apnea monitoring.

- **Battery Capacity Indicator:** Displays the remaining battery life.
- **Time Display:** Shows the current time.
- **Bar Graph Indicator:** Provides a visual representation of pulse strength.

## RS01 Sleep apnea screen meter



Figure 4: The CONTEC RS01 screen showing real-time monitoring data, including SpO2, pulse rate, and a waveform for airflow.

## Alarms

The device is equipped with alarms to alert the user to important conditions:

- **Low Power Alarm:** Indicates when the battery is running low and requires charging.
- **Finger-Out Alarm:** Alerts if the oximeter probe is not properly attached or has come off the finger.
- **Exceeded Limits Alarm:** Notifies the user if measured parameters (e.g., SpO2, pulse rate) fall outside predefined safe limits. These limits can often be configured in the device settings or accompanying software.

## MAINTENANCE

- **Cleaning:** Regularly clean the device surface with a soft, dry cloth. For disinfection, use a cloth lightly dampened with medical alcohol (75% ethanol). Do not immerse the device in water or any cleaning solutions.
- **Sensor Care:** Keep the oximeter probe clean and free from dust or debris. Handle the sensor gently to avoid damage.
- **Nasal Tube Care:** The nasal tube should be cleaned or replaced regularly according to hygiene recommendations. Consult a healthcare professional for specific guidance on tube replacement.

frequency.

- **Battery Charging:** Ensure the device is charged regularly to maintain optimal performance. Avoid completely draining the battery for extended periods.
- **Storage:** Store the device in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity.
- **Software Updates:** If applicable, periodically check the manufacturer's website for any software or firmware updates for the device.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low battery; device malfunction.	Charge the device fully. If it still doesn't turn on, contact customer support.
No SpO2 or Pulse Rate reading.	Sensor not properly connected; sensor damaged; poor signal.	Ensure the oximeter probe is securely connected and properly placed. Check for any visible damage to the sensor. Try repositioning the sensor.
Nasal airflow data is erratic or missing.	Nasal tube not properly connected; tube kinked or blocked.	Verify the nasal tube is securely connected to the device and positioned correctly in the nostrils. Check the tube for any kinks or blockages.
Screen is dim or unreadable.	Brightness setting too low; low battery.	Adjust screen brightness through the device menu. Charge the device.
Alarms sound frequently.	Parameters outside normal range; alarm limits set too narrow.	Consult a healthcare professional regarding your readings. Review and adjust alarm limits if appropriate (refer to device settings or software manual).

## SPECIFICATIONS

Parameter	Value
Model Number	RS01
Manufacturer	Contec Medical Systems Co.,Ltd
Screen Type	1.8" OLED Color Screen
Power Supply	1 x 3.7V Lithium Battery
Product Dimensions (L x W x H)	24.99 x 11.99 x 11.99 cm (9.84 x 4.72 x 4.72 inches)
Item Weight	199.58 grams (0.44 pounds)
SpO2 Measurement Range	35% - 100%
Heart Rate Measurement Range	30 bpm - 250 bpm



Parameter	Value
Nasal Airflow Measurement Range	8 rpm - 40 rpm
Color	Black
Batteries Included	No (refers to initial purchase, device uses rechargeable lithium battery)
Discontinued by Manufacturer	No
Spare Parts Availability	Information unavailable

## WARRANTY AND SUPPORT

Specific warranty details for the CONTEC RS01 are not explicitly provided in the available product information. For warranty claims, technical support, or inquiries regarding spare parts, please contact the manufacturer, Contec Medical Systems Co.,Ltd, or your point of purchase directly.

It is recommended to retain your purchase receipt as proof of purchase for any warranty-related issues.