

JT-OxiEW60-UM01

# OxiEasy W60

## Pulse Oximeter

User Manual

Easy, Reliable and Smart

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## 1. Intended Use

The OxiEasy W60 pulse oximeter is intended for spot-checking and continuous monitoring arterial oxygen saturation (SpO<sub>2</sub>) and pulse rate of adult and pediatric patients in hospital, hospital type facilities, transport, emergency care, mobile environments and home care.

### Warnings

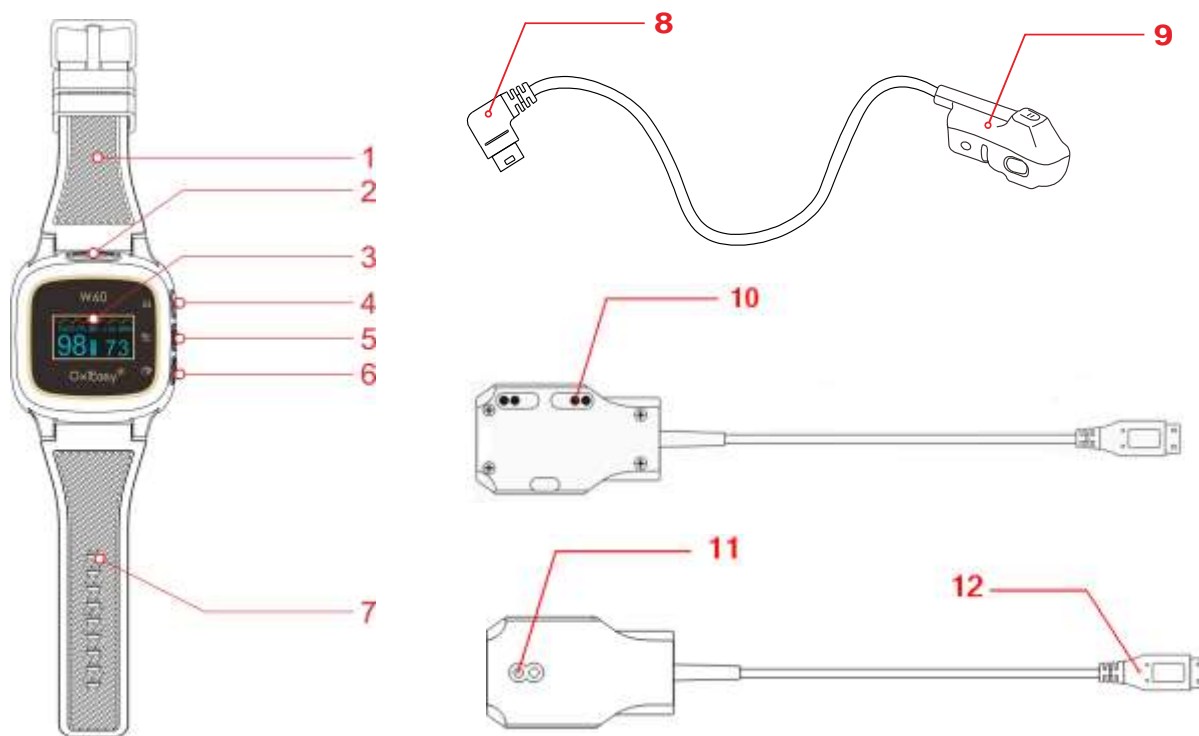
Warnings are identified by the WARNING symbol shown above. Warnings alert the user to potential serious outcomes, such as death, injury, or adverse events to the patient or user.

-  Please read the instructions carefully to ensure accurate measurement and safe operation.
-  Do not make any clinical judgments based solely on the OxiEasy W60. The monitor is intended only as an adjunct in patient assessment. It must be used in conjunction with clinical signs and symptoms. The interpretation of the measurement values should be done only by trained health care professionals.
-  Explosion hazard. Do not use OxiEasy W60 in the presence of flammable anesthetics mixture with air, oxygen, or nitrous oxide.
-  Routinely monitor the patient to make sure the OxiEasy W60 is functioning and that the sensor is correctly placed.
-  Pulse oximetry measurements and pulse signals can be affected by certain environmental conditions, sensor application errors, and certain patient conditions. See the appropriate sections of this manual for specific safety information.
-  If you are uncertain about the accuracy of any measurement, check the patient's vital signs by alternate means; then make sure that the OxiEasy W60 is functioning correctly.
-  The use of accessories ,sensors, and cables other than those specified may result in increased emission and/or create invalid reading of the W60.
-  Failure to cover the sensor site with opaque material in high ambient light conditions may result in inaccurate measurement.
-  Disconnect the OxiEasy W60 and sensor from the patient throughout magnetic resonance imaging(MRI) scanning. Induced could potentially cause burns.

-  The OxiEasy is not defibrillator-proof. However, it may remain attached to the patient throughout defibrillation or whilst an electrosurgical unit is in use. The measurements may be inaccurate throughout the defibrillation, or use of an electrosurgical unit, and shortly thereafter. To avoid shock, the caregiver should not touch the OxiEasy while using a defibrillation on a patient.
-  The OxiEasy W60 is a prescription device to be operated only by trained personnel. The monitor is for attended monitoring only.
-  Do not use a device that appears damaged. Do not use the sensors where optical components lie open.
-  Changing lithium batteries when incorrect replacement by inadequately trained personnel would result in an unacceptable risk(e.g., excessive temperatures, fire or explosion)
-  Do not modify this equipment without authorization of the manufacturer.
-  Check the pulse oximeter sensor application site every 4 hours to determine the positioning of the sensor and the circulation and skin sensitivity of the patient. Patient sensitivity varies depending on medical status or skin condition.
-  Carefully route patient cables and connections to reduce the possibility of patient entanglement, strangulation, or injury to the patient.
-  When using the monitor around pets,small child or baby, avoid leaving the monitor unattended. Cables pose a risk of injury, including strangulation. This device contains small parts that may cause suffocation if swallowed by child or baby.
-  Do not use the device when alarms are required.
-  When using the monitor in the home, avoid exposing the monitor to lint and dust.

## 2.Parts Instruction

### 2.1 Components Description



1. Watch strap	5.Power button /Confirm button	9. Fingertip sensor
2. Sensor port	6. Lock screen key /Down button	10. probe
3. Display	7. Clasp	11. Indicator light
4. Menu key /Up button	8. Sensor connector	12. USB connector

### 2.2 Display each icon description

No.	Symbols/Indicators	Definition
1		Indication of low battery level. The icon will flash and turn red if the battery is low.
2	Low Bat	Low voltage alarm
3	SpO2% 98	The SpO2 value shows the blood oxygen saturation level expressed as a percentage. The small number shown immediately above and below the measured value on the right side indicate the upper and lower alarm limits.
4	PR bpm 75	Pulse rate in beats per minute.
5		The bar graph is an indicator for signal quality.
6	?	Poor signal
7		Pulse waveform ( plethysmogram ) The reading is automatically adjusted to the pulse strength; therefore, a waveform with strong amplitude should be visible at all times.
8		Bluetooth figure mark.

### 3. Operation instructions

#### 3.1 Preparation

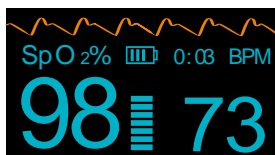
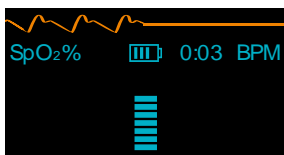
- Select a suitable sensor, the finger without oppressive feeling , comfortable and not easy to fall off.
- The wrist pulse oximeter is worn on the wrist.
- Plug the sensor cable into the sensors port located on the top edge of the device. The markings on the plug and port must match and face upward.



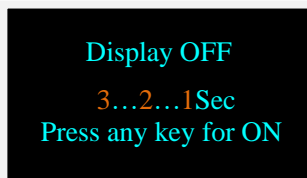
- Press the button to switch on and it will go to measuring mode.

#### 3.2 Measurement

- As soon as a sensor is connected and correctly positioned on the patient, monitoring begins automatically.
- Display shows after the measurement appears.
- Read the blood oxygen measurements and pulse rate measurements after waiting for the value is stable.



#### 3.3 Lock screen



- Press the button, after three seconds the screen turn off.
- The display can be turned on again by pressing any button. If an alarm is triggered, the display will be turned on automatically.

#### 3.4 Turning Off Device

Press and hold the button for three seconds.

#### 3.5 Data transmission

##### USB interface

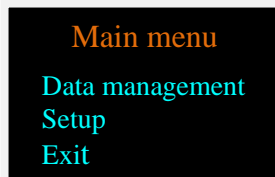
Data transfer can be carried out from the pulse oximeter connect with computer through the USB connector.

After you select USB , press the button to to turn on or turn off the transmission.

##### 2) Date and time

### 4. Screen of Device

#### 4.1 Main Menu



All important and frequently used setting are accessible through the main menu, which can be opened by pressing the button.

##### Navigating the Menu

Use the buttons to scroll through menu items. The currently selected menu item is highlighted by a coloured frame. Press the button to confirm your selection.

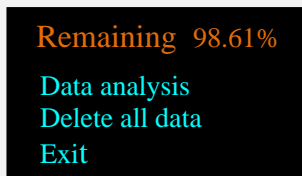
##### Entering Data

In some submenus it is possible to adjust a certain parameter. In this case the parameter can be increased or decreased using the buttons. The value will increase or decrease more quickly when the respective button is held down. Press the button to confirm the new value.

##### Exiting Menu and Returning to Display

Select the menu item “EXIT” to return immediately to the monitoring display.

#### 4.1.1 Submenu: Data Management

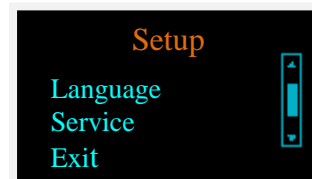
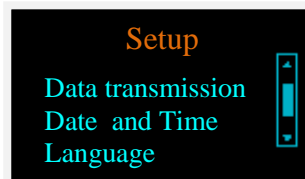


Use Data Management menu to

- view remaining recording capacity
- access list of stored data sets
- delete all data in memory

#### 4.1.2 Submenu: Device Setup

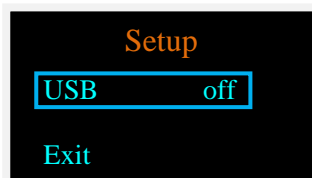
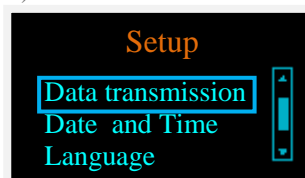
##### 4.1.2.1 General Information

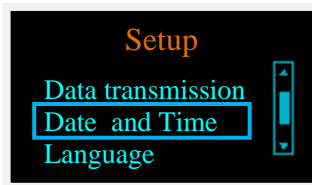


This submenu offers access to various device settings; confirm selection by pressing the button.

##### 4.1.2.2 Adjusting Settings

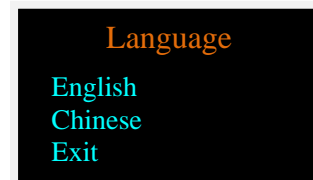
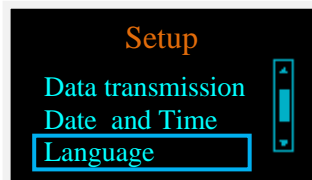
###### 1) Data transmission



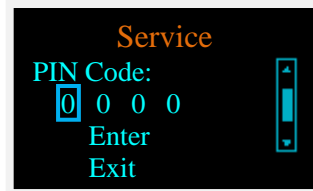
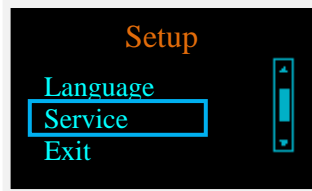


First, select between 12h mode 24h mode; then set date and time. Settings for date and time are not erased when the device is power off.

### 3)Language





Depending on the firmware, up to two different language options are available here for selection. All messages and menus will be displayed in the selected language.



### Service

The Service submenu is protected by a PIN code; only authorized service personnel can access this menu.

 When the ambient temperature is 20°C, the time required for the monitor to warm from the minimum storage temperature between uses until it is ready for its intended use is 1 hour.

 When the ambient temperature is 20°C, the time required for the monitor to cool from the maximum storage temperature between uses until it is ready for its intended use is 4 hours.

## 5. Error Messages – Problems- Corrective Actions

### 5.1 General Information

Physiological conditions, medical procedures, or external agents that may interfere with the monitor's ability to detect and display accurate measurements include:

- Lint, dust, light (including sunlight)
- Incorrect applications of the sensor
- Degraded sensors and electrodes, or loosened electrodes
- Placement of the sensor on an extremity with a blood pressure cuff, arterial catheter, or intravascular line
- Excessive patient activity
- Intravascular dyes
- Externally applied colouring agents, such as nail polish
- Failure to cover the sensor site with opaque material in high ambient light conditions.
- Venous pulsation
- Dysfunctional haemoglobin
- Low perfusion

Electromagnetic interference may be preventing the monitor

### 5.2 Error Messages- Causes

#### “No sensor”

The sensor is not connected properly to the device.

- Check sensor connection

#### “Probe off!”

The sensor has been removed from the monitoring site. – Check that the sensor is properly attached to the patient.

#### “Low battery!” , battery symbol blinking red

The battery is almost completely discharged.

- Replace batteries immediately.

#### “Sensor fault”

The connected sensor is either defective or not compatible with the device – check sensor.

#### “Device defective”

Fatal device error, e.g. resulting from improper handling, such as use with computed tomography. – The device must be sent in to the Service Department.

#### “Too much ambient light!”

High ambient light sources near the sensor, e.g. surgical lights.

- Shield sensor more effectively from external light.

#### “Bad signal quality”

Poor-quality pulse signal, for example as a result of low perfusion.

- Move the sensor to a different site on the patient or provide more effective monitoring conditions.

### 5.3 Failure – Cause – Corrective Action

#### **Problem: There is no response to the Power button.**

Cause – Corrective Action: Ensure that the Power button is fully depressed.

#### **Problem: No pulse signal found**

Cause – Corrective Action: Check the patient. Check the sensor directions for use to determine if an appropriate sensor is being used and if it is applied properly.

Check sensor and extension cable connections. Test the sensor on another subject. Try another sensor or extension cable.

Perfusion may be too low for the monitor to track the pulse. Check the patient. Test the monitor on yourself. Change the sensor site. Try another sensor.

Interference due to patient activity may be preventing the monitor from tracking the pulse.

Keep the patient still, if possible. Verify that the sensor is securely applied and replace it if necessary. Change the sensor site.

The sensor may be too tight, there may be interference due to ambient light, or the sensor may be on extremity with a blood pressure cuff, arterial catheter, or intravascular line. Reposition sensor, as necessary.

from tracking the pulse. Remove the source of interference.

**Problem: After a valid measurement the pulse signal can not be found anymore**

Cause – Corrective Action: Check the patient. Check the sensor directions for use to determine if an appropriate sensor is being used and if it is applied properly. Check sensor and extension cable connections. Test the sensor on another subject. Try another sensor or extension cable.

Perfusion may be too low for the monitor to track the pulse. Check the patient. Test the monitor on yourself. Change the sensor site. Try another sensor.

Interference due to patient activity may be preventing the monitor from tracking the pulse.

Keep the patient still, if possible. Verify that the sensor is securely applied and replace it if necessary. Change the sensor site.

The sensor may be too tight, there may be interference due to ambient light, or the sensor may be on an extremity with a blood pressure cuff, arterial catheter, or intravascular line. Reposition sensor, as necessary.

Electromagnetic interference may be preventing the monitor from tracking the pulse. Remove the source of interference.

**Other problems:**

EMI (Electromagnetic Interference)

Caution: This device has been tested and found to comply with the limits for medical devices according to EN 60601-1-2, (second edition), and the Medical Device Directive 93/94/EEC. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation.

Due to the proliferation of radio-frequency transmitting equipment and other sources of electrical noise in healthcare environments, it is possible that high levels of such interference due to close proximity, or strength of a source, may result in disruption of performance of this device. Examples of noise sources in healthcare environments and home care environment that could cause electromagnetic interference are:

- Electrosurgical units
- Cellular phones
- Mobile two-way radios
- Electrical appliances
- High-definition televisions(HDTV' s)

The monitor is designed for use in environments in which the pulse can be obscured by electromagnetic interference. During such interference, measurements may seem inappropriate or the monitor may not seem to operate correctly.

Disruption may be evidenced by erratic readings, cessation of operation, or other incurred functioning. If this occurs, the site of

- 3) Clean up the machine carefully with a soft tower.

Use should be surveyed to determine the source of disruption, and the following actions taken to eliminate the source.

- Turn equipment in the vicinity off and on to isolate the offending equipment.
- Reorient or relocate the interfering equipment.
- Increase the distance between the interfering equipment and this equipment.

The monitor generates, uses, and radiates radio frequency energy. If it is not installed and used in accordance with these instructions. The monitor may cause harmful interference with other devices in the vicinity.

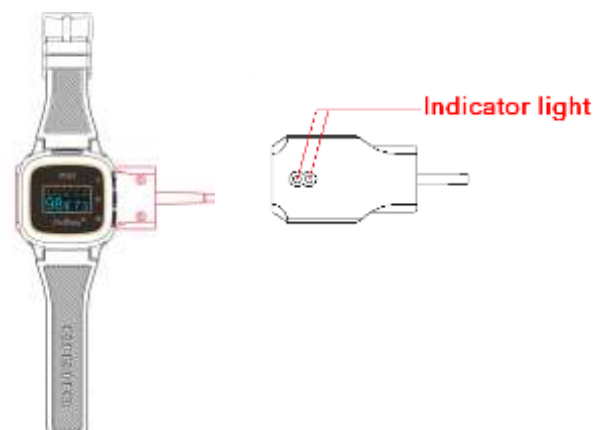
## 6. Battery and Charger

### 6.1 Battery

The OxiEasy W60 use 3.7V rechargeable lithium battery.

### 6.2 Charging method

- The metal contacts on the bottom of the instrument are connected to the probes on the charger, See below picture:



- Put the usb connector of the charger into the power adaptor, the indicator light will be green.
- During the charging process, the indicator of the screen can show the charging process. When battery is full, the signal of the power indicator will stop beating.



Please use specified charger and recommended charge methods



Don't expose the battery in high or cold temperature, otherwise it will affect the battery life. When charging, the current will have a return, then the battery is with a little heat, which is normal.

## 7. Maintenance – Cleaning

The device requires no calibration .

The device' s expected service life is 5 years. The sensor' s expected service life is 3 years.

### 7.1 Maintenance

The device should be examined every 12 months as bellow:

- 1) Check if there are mechanical or function problem of device.
- 2) Check the label on the device and make sure it is clear.

We give no warranty if the operator has destroyed the device by

## 7.2 Cleaning

It is recommended that you use 70% ethanol solution to clean the device (preferably a cloth slightly moistened with water or washing up liquid generously diluted etc). Organic solvents such as pure alcohol, acetone, turpentine etc, should never be used for cleaning.

Make sure no fluid penetrates the interior of the device. Pay special attention to the sensor connector and keep the battery contacts and USB interface dry and clean.

## 7.3 Frequency of cleaning

Clean once per week or more frequently if handled by multiple users.

## 8. Specification

ITEM	PARAMETER	
Display range	SpO2	(35~100)%
	Pulse	(25~250) BPM
Measurement range and accuracy	SpO2	(70~100)% ±2%
	Pulse	(25~250) BPM ±3 BPM
Resolution	SpO2	1%
	Pulse	1 BPM
Battery	Type	rechargeable battery
	Voltage	3.7 V
	Work Life	10 hours
	Lifetime	5 years
Storage condition	Temperature	-20°C ~70°C
	Humidity	10% ~95%
	Pressure	500hPa~1060hPa
Operation condition	Temperature	5°C ~40°C
	Humidity	10% ~95%
	Pressure	700hPa~1060hPa
Size and weight	Weight	50 g
	Size	167×45×16mm

## 9. Testing Summary

### SpO2 Accuracy Testing

Accuracy data is calculated using the root-mean-squared (Arms value) for all subjects, per ISO 80601-2-61, Medical Electrical Equipment—Particular requirements for the basic safety and essential performance of pulse oximeter equipment for medical use.

### Pulse Rate Accuracy Testing

This test measures pulse rate oximeter accuracy with motion artifact simulation introduced by a pulse oximeter tester. This test determines whether the oximeter meets the criteria of ISO 80601-2-61 for pulse rate during simulated movement, tremor, and spike motions.

## 10. Warranty

We give 1 year warranty for defects caused by material or manufacturing faults from the date of purchase. Defects which come under the terms of the warranty are rectified in accordance with our terms of warranty.

ignoring these operating instructions, by improper handling, or if the device is used for a purpose for which it was not intended or owing to outside intervention. In such cases, liability transfers to the operator!

The warranty expires if the device is affected by chemicals owing to leaking batteries or if batteries are used after expiry date.

The cost for transport to or from the place of repair for repair is not covered in the warranty. It will be borne on the customer.

For information about the device and accessories ,or to report unexpected operation or events, contact your local sales representative or distributor. For the sales representative or distributor in your area, contact Justec.

Justec Shenzhen CO., LTD.

Add: Room 2018, 2nd Floor, 64th Building, Jinlong Industrial Area, Qinlin Road, Nanshan District 518052, Shenzhen, People's Republic of China

Tel : 0086-755-26068930








Fax: 0086-755-26068933

Http://www.justec.cn

European Representative:

Shanghai International Holding Corp. GmbH  
Eiffestrasse 80, 20537 Hamburg, Germany

## 11. Symbol Index

	Attention! See instructions for use
	Manufacturer
	Date of manufacture
	Observe applicable waste disposal regulations
<b>PN</b>	Part number
	Follow Instructions for Use.
	Type BF
	No alarm
<b>SN</b>	Serial number
<b>CE</b> 0123	European Union approval
<b>IP22</b>	Protected against dripping water and against access to hazardous parts with a tool, per IEC60529











**12.Packing List – Accessories and Replacement Parts**

**12.1 Packing List:**

- OxiEasy W60, main unit
- Sensor
- USB Connector
- CD

**12.2 Main Accessories Description**

Main unit	USB Connector	Sensor		
		Model	Manufacturers	Structure
		S18 (S8137)	Himed	
		S16 (S7137)	Himed	
		S14 (S9137)	Himed	
		S1137 (OxiSen Series)	Himed	
		S4137 (OxiSen Series)	Himed	
		S5137 (OxiSen Series)	Himed	

# JUSTEC

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