- Entry "Data History", press the 🔊 / 🔻 button to highlight "Bar Chart" option for viewing statistics of SpO2, and then press the (SET) button to select the option.
- Entry "SpO2 Memory Data", press the (SET) button to go back to the monitoring screen.

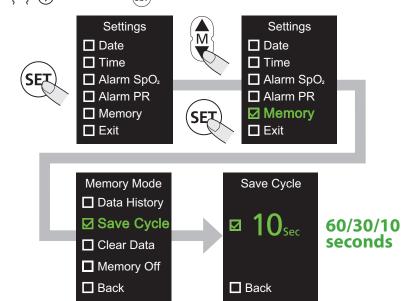
Memory Transfer to ROSSMAX Software

- Entry into "Data History", press the 🛕 / 😈 button to highlight "Memory Transfer" option, and then press the (SET) button to start data transmission for a few seconds.
- Note: Before entering the data history mode, the **M** icon should collect more than 1 data.

Memories mode- Save Cycle

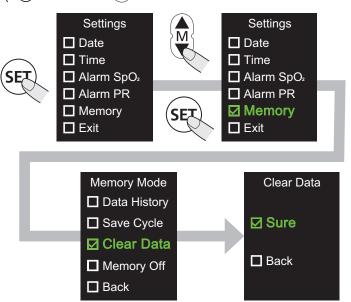
Optional of memory interval: 60 / 30 / 10 seconds

- Press the (SET) button and ⚠ / (▼) button to highlight "Memory" option, and then press the (SET) button to select the option.
- Entry "Memory Mode", press the 🛕 / 😈 button to highlight "Save Cycle" option, and then press
- Entry "Save Cycle", press the 🛕 / 👿 button to highlight option, and then press the (SET) button
- Press the ⚠/ (▼) button to change the value; press the (SET) button to save the desired value. Press the (A)/(▼) button and the (SET) button to select "Back/Exit" to return.



Memories mode- Clear Data

- Press the (SET) button and (A) / (V) button to highlight "Clear Data" option, and then press the (SET) button to select the option
- Entry "Clear Data", press the 🛕 / 😈 button to highlight "Sure" option, and then press the 🖼 button to select the option
- Press the (▲)/(▼) button and the (SET) button to select "Back/Exit" to return.



Note: After clearing data, the **M** icon will show 0 data. Caution: The deleted data could not be restored

	Audio Signals				
No.	Name	LCD Display		Sound	Control
1	Power on	rossmax vo.oo → Software version →	© 11/62/01/15:36 00 00 00 00 00 00 00 00 00 00 00 00 00	Beep for 2 seconds	Press (1) button
2	Pulse search	The icon flick	(ers	X	X
3	Max./ Min			Beep-beep sounded repeatedly	Default
	SpO2 and Pulse rate			Mute for temporary, will Beep-beep sounded after two minutes.	☎ mode
	, vvarriirig			Mute before power off	☆ mode

4	Probe failure alarm	01/16/2017 15:36	The icon shows on the screen	Beep-beep sounded repeatedly	X
5	Probe connect failure alarm	© 01/16/2017 15:36	The icon shows on the screen	Beep-beep sounded repeatedly	x
6	Low battery alarm		The icon shows on the screen	Beep-beep sounded repeatedly for 1 minute and power off	х
7	Automatic Off	X		Beep-beep sounded and then power off	After pulse is unde tectable for around 1 minute.
8	Unable measure	01/16/2017 15:36 BDD 6552	Blood saturation & pulse rate appears " "	Beep-beep sounded repeatedly.	х
9	AC Power	d icon		X	Remove or connec AC power cable to device.

Note: Description of the effect on displayed and transmitted SpO2 and pulse rate:

- Data averaging: 4 seconds for SpO2; 8 seconds for pulse rate.
- Data update delay: Less than 2 seconds.
- Alarm condition delay: Less than 8 seconds for SpO2; Less than 16 seconds for pulse rate.
- Alarm signal generation delay: Less than 1 second for SpO2 and pulse rate.

Specification					
Sp02					
Measuring range	35% – 100% (the resolution is 1%)				
Accuracy	70% - 100%: ±2 %, 35% - 69%: unspecified				
Pulse Rate					
Measuring range	30 – 250 bpm (the resolution is 1 bpm)				
Accuracy	$30-250\pm3$ digits				
Probe Type	In				
Probe model	Rossmax PA100, PB100, PC100, PD100(Single Use), PF100				
Extension cord	Rossmax PE100				
Optical Sensor	The wavelength of red LED is 660nm and Infrared LED is 905/880nm with maximum optical output power of 4mW.				
Electrical Specifica					
Battery	AA * 4 (Alkaline)				
Battery Life	Continually for 15 hours with 4 alkaline batteries				
AC Adaptor	Model: HK-X205-A06, HK-XW05-A06, (W=1,2,3,4), HKKS-13116, HKKS-13117 Input: AC100-240V, 50/60Hz, 0.2A max; Output: DC 6V, 0.8A				
Environmental con					
Operation Condition	Temperature: 5°C – 40°C (41°F – 104°F), Relative Humidity:15% – 95%(non condensing), Atmospheric pressure: 700hPa ~ 1060hPa				
Storage /Transport Condition	Temperature: -25°C - 70°C (-13°F - 158°F), Relative Humidity:15% - 90%(non condensing), Atmospheric pressure: 700hPa ~ 1060hPa Note: The condition of -25°C or 70°C back to use should stand for 3 hours at room temperature.				
Dimension	Size: 14.5(L) x 7.25(W) x 2.25cm(H)				
Weight	About 150g (without the batteries)				
Standard	IEC/EN60601-1, IEC/EN60601-1-2, IEC/EN60601-1-11, ISO80601-2-61				
Symbol Descriptor	S				
	Manufacturer				
SN	Serial number				
ECREP	EU representative				
*	Type BF (Body Floating)				
IP Classification	IP22: Protected against foreign objects and moisture				
C€	CE Mark				
	Warning: the symbol on this product means that it's an electronic product and following the European directive 2012/19/EU the electronic products have to be dispose on your local recycling centre for safe treatment.				

Troubleshooting				
Symptoms	Check p	points	Corrections	
	Artery Check S Sp02	The icon "" shows on the screen	Place the finger properly and try again.	
SpO2 or Pulse rate cannot displayed	A AMERICAN	This icon means probe connect failure.	Be sure "Rossmax" probe is connected to the device correctly.	
		This icon means probe dysfunction	Replace with new probe.	
	Applied finger improperly		Place the finger properly and try again	
Sp()2 or Pulso rate are	Finger is shaking or body is moving		Keep body steady	
SpO2 or Pulse rate are not displayed stably	Applied finger improperly		Place the finger properly and try again	
No display when the 🛈	Batteries run down		Replace with new batteries	
bottom is pressed	Batteries inserted incorrectly		Re-insert batteries	

			1
	The display disappears	The device will auto power off when it	Normal
	suddenly	gets no signal	Nonna
Suddenly	suddenly	Low battery	Replace with new batteries

Note: If the unit does not work, return it to your dealer. Under no circumstance should you disassemble and repair the unit by yourself.

Warning

- This device is not intended for use by people (including children) with restricted physical, sensory o mental skills or a lack of experience and/or a lack of knowledge, unless they are supervised by a person who has responsibility for their safety or they receive instructions from this person on how to use the device. Children should be supervised around the device to ensure they do not play with it.
- This device only for spot-checking, but not medical result evaluation.
- This device is designed to determine the percentage of arterial oxygen saturation of functional hemoglobin. Factors that may degrade pulse oximeter performance or affect the accuracy of the measurement include the following:
- Do not apply the pulse oximeter on the same arm as a blood pressure cuff, arterial catheter or infusion line (s)
- Excessive light, such as sunlight or direct home lighting.
- Not steady at the site of application (e.g. term-bling)
- Moisture in the device
- Improperly applied device
- Finger is too large or too small to fit into the device
- Poor pulse quality
- Venous pulsations
- Anemia or low hemoglobin concentrations
- Cardio green and other intravascular dyes
- Carboxyhemoglobin
- Methemoglobin
- Dysfunctional hemoglobin
- Artificial nail or fingernail polish
- On fingers with anatomical changes, oedemas, scars or burns.
- -The conditional of probe. Use only the Rossmax approved pulse oximeter sensor, cable and accessories. These parts are not reprocessed. Use of other sensors, cable and accessories can result
- Using the device for long periods may cause pain for people with circulatory disorders. Reposition the device (probe) at least once every 4 hours to allow the patient's skin to breath and to check patient's condition regularly.
- Do not use the device near flammable or explosive gas mixtures.
- Do not use the device during an MRI or CT scan.
- The device will be affected by electromagnetic interference during operation.
- A warning that other cables and accessories may negatively affect EMC performance.
- The device may not work when circulation is reduced. Warm or rub the finger, or re-position the
- This device is a precision electronic instrument and must be repaired by qualified technical professionals. Field repair of the device is not possible. Do not attempt to open the case or repair the electronics. Opening the case may damage the device and void the warranty.
- Do not overextend the device's spring.
- A functional tester cannot be used to access the accuracy of a pulse oximeter monitor.
- Do not self-diagonse or self-medicate on the basis of the measurements without consulting your doctor. In particular, do not start taking any new medication or change the type and/or dosage of any existing medication without prior approval.
- Do not look directly inside the housing during the measurement. The red light and the invisible
- infra-red light in the probe are harmful to your eyes. • Please be aware that user with susceptible skin.
- · As with all medical equipment, carefully route patient cabling to reduce the possibility of patient entanglement or strangulation.
- The maximum temperature might reach 42.4°C when operating for long time.
- The oximeter is calibrated in the factory before sale, there is no need to calibrate it during its life
- Do not reuse or disinfect disposable SpO2 probe. (only for PD100)

Cleaning

- 1. Please clean the surface of the device before using. Wipe the device with medical alcohol (70% isopropyl alcohol) first, and then let it dry in air or clean it by dry clean fabric.
- 2. Using the medical alcohol to clean the product after use, prevent from cross infection for next
- 3. The best storage environment of the device is $-25^{\circ}\text{C} \sim 70^{\circ}\text{C}$ ambient temperature and not higher than 90% relative humidity.
- Note: 1. Do not sterilize, autoclave or immerse this device in liquid. Do not pour or spray any liquids
 - 2. Do not use caustic or abrasive cleaning agents, or any cleaning agent containing ammonium chloride or isopropyl alcohol.

Maintenance

Recommends user to return this device to the manufacturer perform the following checks every 24

- Inspect the equipment for mechanical and functional damage or deterioration.
- Ensure all user interface keys and accessories function normally.
- Note: Manufacturer use Index2 SpO2 simulator to verify operation of the pulse oximeter device.

Electromagnetic Compatibility Information1. This device needs to be installed and put into service in accordance with the information provided in the user manual. 2. WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antenna:

should be used no closer than 30 cm (12 inches) to any part of the SA300, including cables specified by the manufacturer Otherwise, degradation of the performance of this device could result.

If higher IMMUNITY TEST LEVELS than those specified in Table are used, the minimum separation distance may be lowered. Lower minimum separation distances shall be calculated using the equation.

Manufacturer's declaration-electromagnetic immunity				
The SA300 is intended for use in the electromagnetic environment specified below. The customer or the user of the SA300 should assure that is used in such and environment.				
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance	
Conducted RF IEC 61000-4-6	6 Vrms: in ISM and ama- teur radio bands between 0,15 MHz and 80 MHz	0.15 MILL	Portable and mobile RF communications equipment should be used no closer to any part of the SA300 including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d=1,2~\sqrt{P},~d=1,2~\sqrt{P}~80MHz~to~800~MHz,~d=2,3~\sqrt{P}~800MHz~to~2,7~GHz$	



EN Handheld Pulse Oximeter

www.rossmax.com

80 MHz – 2,7 GHz 80 % AM at 1 kHz 80 MHz – 2,7 GHz 80 % AM at 1 kHz

NOTE1: At 80 MHz and 800 MHz, the higher frequency range applies. NOTE2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflec-

tion from structures, objects and people

More information on EMC compliance of the device may be obtained from Rossmax using the contacts shown in this manual

Warranty Card

This instrument is covered by a 2 years guarantee from the date of purchase, batteries and accessories are not included. The guarantee is valid only on presentation of the guarantee card completed by the dealer confirming date of purchase or the receipt. Opening or altering the instrument invalidates the guarantee. The guarantee does not cover damage, accidents or non-compliance with the instruction manual. Please contact your local seller/dealer or www. rossmax.com.

Customer Name: Address: E-mail address: **Product Information:** Date of purchase Store where purchased:

The text is subject to change without further notice.

Rossmax InnoTek Corp.



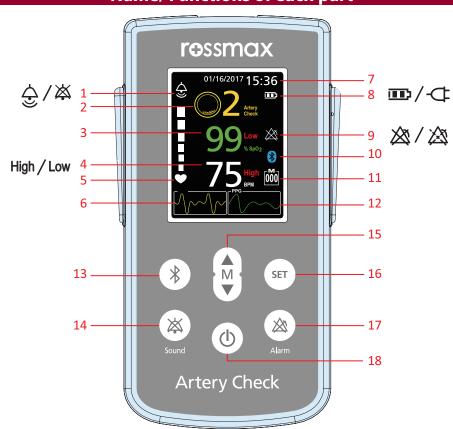


Introduction

Rossmax Handheld Pulse Oximeter is used to measure oxygen saturation in blood (SpO2) and pulse rate, also to issue warnings immediately. It is a non-invasive device intended for spot-check of adults, child, and infants with corresponding probe applied at home, hospital and clinics.

Attention: Consult the accompanying documents. Please read this manual carefully before use. Please be sure to keep this manual.

Name/ Functions of each part



No.	Item	Purpose		
1	Sound icon	loud volume / 🕸 silence		
2	ACT icon	Classify arterial condition into 6 levels.	1 Arter 2 Arter 3 Arter 4 Arter 5 Arter 6 Arter 6 Arter 7 Arte	
3	SpO2 icon	99% SpO2	SpO2 real-time value	
		Low	Reflects lower SpO2 warning.	
4	Pulse Rate	75врм	Pulse rate real-time value	
		High / Low	Reflects upper and lower pulse rate warning.	
5 Pulse strength		Į		
6	ACT waveform	Show ACT waveform		
7	Date/Time	Show the Date (MM/DD/YYYY) / Time		
		Battery: Full batteries / Critically Low-Battery		
8	Power status icon	AC Power: C AC power cable connected		
9	Alarm icon	Alarm off / Alarm pause for 2 minutes		
10	Bluetooth icon	For Bluetooth on / off for real-time data transmission		
11	Memory icon	Collection of Memories Up to 999 memories		
12	PPG waveform	Show PPG waveform		
13	Bluetooth button	th button Press to turn on / off the Bluetooth function		
14	Sound button	Press to turn on / off the heartbeat sound		
15	UP/DOWN button	Press to scroll options and change value		
16	SET button	Press to adjust default setting / Press to select the option		
17	Alarm button	Press to pause alarm. To turn off alarm permanently, please entry "Settings" mode to set up.		
18	Power button	Press to power on/off		
19		it's for AC Adaptor.		

Power installation

Power can be supplied either by batteries or AC power cable

AC power cable:

Plug AC power cable into AC power source and printout socket. Icon as " 🕻 " show on the display. • Press the 🛞 button to control the Note: Once AC power is on, the power supply of the device is switched to AC power. Once AC power is off, the power supply of the device is switched to battery power.

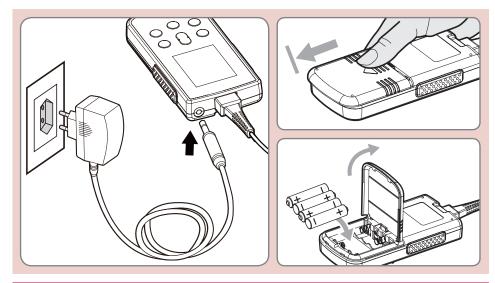
Note: Don't regard **t** icon as whether the AC power supply is normal.

1. Use thumb to slide battery cover out.

2. Insert or replace 4 "AA" batteries according to the (+/-) polarity.

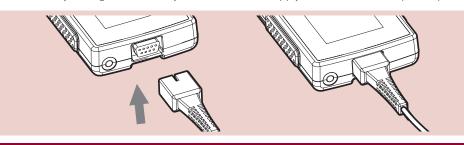
Caution: Need to replace when the batteries icon " _____ " is blinking on display/ while pressed the function button and nothing appears on display

Caution: Batteries may leak or explode if used or disposed of improperly. Remove batteries if the device will be stored for long time. Do not use different types or brand of batteries at the



Probe connection

Rossmax PA100/PB100/PC100/PD100/PF100 or compatible probe is used. (Please install carefully.) Caution: It may damage the efficiency of the device if not apply with a Rossmax compatible probe.



How to measure

1. Press the (b) Power On button for 1 second, when the device activates, the beep sound will last for 2 second.

Note: After the device activates, the software version will pop up directly. For first time activates, please refer to setting instruction

2. Information of software version appears; insert one finger to probe, nail side up, for self-test. Note: The device will turn itself off automatically after 1-minutes idling with two beep sounded. 3. The pulse strength shows " I", pulse oximeter begins its measurement.

Note: The heartbeat is sounded though the buzzer. If need to become silence mode, press the sound button 🕱 and the LCD screen will have the sound icon 💢 shown. If need the heartbeat sound, press the sound button to exit.

4. Your SpO2 and pulse rate values and ACT values will appear on the screen after few seconds.



ACT Level 1: Artery and blood circulation in excellent condition **ACT Level 2:** Artery and blood circulation in good condition

ACT Level 3: Artery and blood circulation in above average condition

ACT Level 4: Artery and blood circulation in average condition

ACT Level 5: Artery and blood circulation in below average condition

ACT Level 6: Artery and blood circulation in poor condition

Notes: 1. Don't remove your finger until the measurement is completed.

2. Any other problems or unrecognized icon, please refer to trouble shooting.

Sound volume control

sound volume

for loud volume. for silence.



Silence

Bluetooth Setup

 Adjust the bluetooth setting by press the (*) button. Note: If the ***** icon appears,

it means the Bluetooth

module is malfunctioning

Bluetooth module is Wireless on

malfunctioning

Default Setting

Alarm PR: 100 High / 60 Low Alarm SpO2: 86% Date: 2018/01/01 Time: 00:00:00 Memory: OFF

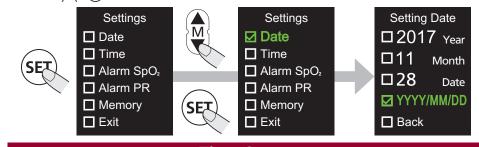
Wireless off

How to Change Default Setting

- Press the (SET) button to enter the "Settings" mode and press (▲) / (▼) to scroll through option. • Press (**SET**) button to select desired option.
- To exit setting, select "Back/Exit" or wait for 30 second.
- Note: 1. Press (b), the device will turn off and the setup value will be reserved.
 - 2. Waiting for 30 seconds to exit, the setup value will be reserved. Please check the setting value before use

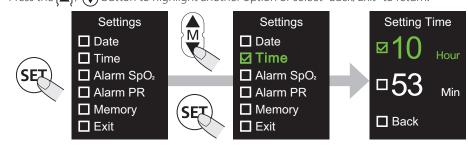
Date Setup

- Press the (SET) button and (A) / (V) button to highlight "Date" option, and then press the (SET) button to select the option
- Entry "Settings Date" mode, press the ⚠/(▼) button to highlight the desired option and press the button to select the option.
- Press the \bigcirc / \bigcirc button to change the value; press the \bigcirc button to save the desired value. Press the \bigcirc / \bigcirc button to highlight another option or select "Back/Exit" to return



Time Setup

- Press the (SET) button and (▲) / (▼) button to highlight "Time" option, and then press the (SET)
- Entry "Settings Time" mode, press the (A) / (V) button to highlight the desired option and press the button to select the (SET) option
- Press the \bigcirc / \bigcirc button to change the value; press the \bigcirc button to save the desired value. • Press the ⚠ / (▼) button to highlight another option or select "Back/Exit" to return.

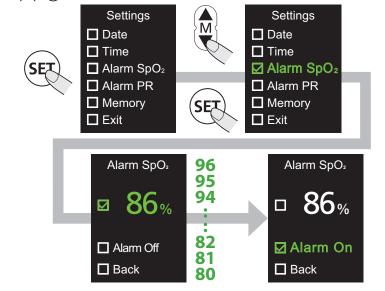


Alarm SpO2 Setup

Adjustment Range: 96, 95, 94 ... 83, 82, 81, 80.

The Unit of Adjustment: 1 % / per unit.

- Press the (SET) button and (▲) / (▼) button to highlight "Alarm SpO2" option, and then press the (SET)
- Entry "Alarm SpO2" mode, press the () button to highlight the desired option and press the (**SET**) button to select the option.
- Press the (A)/(V) button to change the value; press the (SET) button to save the desired value.
- Press the (A) / (V) button to highlight another option or select "Back/Exit" to return.



Alarm Pulse Rate Setup

Adjustment Range: 180, 175, 170 ... 50, 45, 40.

□ Date

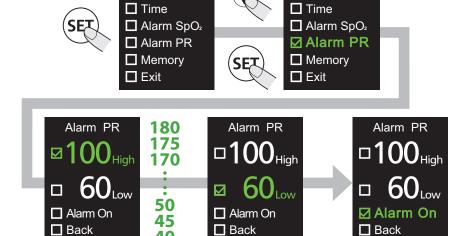
The Unit of Adjustment: 5 BPM / per unit

- Press the (SET) button and ⚠ / (▼) button to highlight "Alarm PR" option, and then press the (SET) button to select the option
- Entry "Alarm PR" mode, press the 🔊 / 😈 button to highlight the desired option and press the (SET) button to select the option.
- Press the ♠ / (▼) button to change the value; press the (SET) button to save the desired value.

Settings

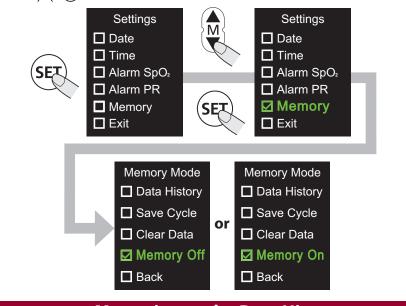
☐ Date

• Press the ♠/(▼) button to highlight another option or select "Back/Exit" to return.



Memories mode – Memory On

- \bullet Press the (SET) button and (A) / (V) button to highlight "Memory" option, and then press the (SET)button to select the option
- Entry "Memory Mode", press the ⚠ / (▼) button to highlight "Memory Off" option, and then press the (SET) button to select the "Memory On" option.
- Press the (A)/ button to highlight another option or select "Back/Exit" to return.



Memories mode- Data History

- \bullet Press the (SET) button and (A)/(V) button to highlight "Memory" option, and then press the (SET)
- Entry "Memory Mode", press the ⚠ / 🔻 button to highlight "Date History" option, and then press the (SET) button to select the o

