

# JOHN BUNN®



## OXYREAD FINGERTIP PULSE OXIMETER

### MODEL JB02017 OPERATOR MANUAL

#### GENERAL DESCRIPTION

The John Bunn JB02017 OxyRead Fingertip Pulse Oximeter provides a simple way to spot-check users by combining the sensor and monitor into one integrated, compact, easy to use device. The oximeter measures pulse oxygen saturation ( $SpO_2$ ) value, pulse rate value, and pulse strength. When a finger is inserted into the sensor's rubber cushion, the  $SpO_2$  value automatically displays. The pulse bar graph displays the user's pulse beat, and the bar graph's height shows pulse strength. The oximeter, which is powered by two AAA batteries, features a low-battery indicator and powers off automatically in eight seconds when not in use.

#### Product Accessories (Included)

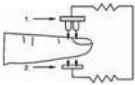
1. One lanyard
2. Two AAA batteries
3. One protective cover
4. One operator manual

#### Principle of Measurement

Two beams of different wavelength (660 nm glow and 940 nm near infrared light) are focused onto a human nail tip through a clamping finger-type sensor. A measured signal obtained by a photosensitive element, through processes of electronic circuits and microprocessor, will be shown on the oximeter's display.

#### Principle of Operation Diagram

See illustration and descriptions below.



1	Red and Infrared Emission Tube
2	Red and Infrared Receipt Tube

#### INTENDED USE

The intended use of the OxyRead Fingertip Pulse Oximeter is the measurement and display of the functional oxygen saturation of arterial hemoglobin ( $SpO_2$ ) and pulse rate (PR) of adults and pediatric users in hospital, ambulatory, home, and EMS (Emergency Medical Service) environments. The Pulse Oximeter is intended for spot-checking these levels.

#### Contraindications (⚠️ WARNINGS):

- If you do not understand any part of these instructions, contact a healthcare professional for direction in the use of this product.
- This device is not intended for continuous monitoring.
- Do not use this device in an explosive atmosphere.
- Do not use this device in an MRI or CT environment.
- **INACCURATE MEASUREMENTS MAY BE CAUSED BY THE FOLLOWING:**
- Autoclaving, ethylene oxide sterilizing, or immersing the device in liquid
- Significant levels of dysfunctional hemoglobins (such as carboxy- hemoglobin or methemoglobin)
- Intravascular dyes such as indocyanine green or methylene blue
- High ambient light — shield the sensor area (with a surgical towel, or direct sunlight, for example) if necessary
- Excessive user movement
- High-frequency electrosurgical interference
- Venous pulsations
- Placement of a sensor on an extremity with a blood pressure cuff, arterial catheter, or intravascular line
- User hypotension, severe vasoconstriction, severe anemia, or hypothermia
- User cardiac arrest or shock
- Improper finger placement, e.g. fingernail not facing upward
- Fingernail polish or false fingernails.

#### SAFETY — PRECAUTIONS FOR USE

⚠️ **WARNING:** Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in death or serious injury. **WARNING** statements follow:

Before use, carefully read the manual.

The pulse oximeter has no alarms. Do not use the pulse oximeter in situations where alarms are required. It is not intended for continuous monitoring.

The pulse oximeter is intended only as an adjunct in user assessment. It must be used in conjunction with other methods of assessing clinical signs and symptoms.

⚠️ **CAUTION:** Indicates a potential hazard or unsafe practice that, if not avoided, could result in moderate or minor personal injury. **CAUTION** statements follow:

**Check the pulse oximeter sensor application site frequently to determine the positioning of the sensor and circulation and skin sensitivity of the user.**

**Do not stretch the adhesive tape while applying the pulse oximeter sensor. This may cause inaccurate readings or skin blisters.**

**Prolonged use or the user's condition may require changing the sensor site periodically. Change sensor site and check skin integrity, circulatory status, and correct alignment at least every 4 hours.**

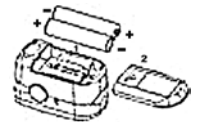
**Notice for California Customers- California Proposition 65 WARNING:** This product contains a chemical known to the State of California to cause cancer and reproductive or developmental harm.

▲ **NOTICE:** Indicates a potential hazard or unsafe practice that, if not avoided, could result in product/property damage.

#### SETUP

##### Battery Installation

1. Open battery compartment cover.
2. Install two AAA batteries in battery compartment, ensuring polarities are correct.
3. Close battery compartment cover: Push cover horizontally along the arrow as shown at right.



▲ **NOTICE:** Ensure battery polarities are correct, or the device could be damaged.

##### Lanyard Installation

1. Thread the thinner end of the lanyard through the oximeter loop.
2. Thread the thicker end of the lanyard through the threaded end, then pull it tightly.

#### OPERATION INSTRUCTIONS

1. Use isopropyl alcohol to clean the test finger and the rubber inside the oximeter that touches the finger.
2. Place clamp over fingernail as shown at right; insert finger, **fingernail up as shown.**
3. Press button on front panel once. **User's finger and body must remain still during measurement.**
4. See display: the  $SpO_2$  value automatically displays, the pulse bar graph displays the pulse rate, and the bar graph's height shows the pulse strength.



#### MAINTENANCE AND STORAGE

▲ **NOTICE:** This device contains no serviceable parts. Do not disassemble.

▲ **NOTICE:** Remove the batteries if the oximeter will not be used for a long period of time.

▲ **NOTICE:** Do not autoclave, sterilize with ethylene oxide, or immerse the device in liquid.

▲ **NOTICE:** See SPECIFICATIONS/Environmental Requirements for operation and storage requirements. A wet ambience could damage this product and shorten its lifetime.

▲ **NOTICE:** Recycle or dispose of this device and its used batteries in observance of local regulations.

**Info:** Use isopropyl alcohol to clean the rubber (inside the oximeter, that touches the finger) and the test finger before and after each test. The rubber inside the oximeter is medical rubber, which has no toxins, and is not harmful to the skin.

**Info:** Replace the batteries when low battery indicator illuminates.

**SPECIFICATIONS**

Display Type	LED (Light Emitting Diode)		
SpO <sub>2</sub>	Measurement range	70-99%	
	Accuracy	80%-99%: ±2%	
		70%-79%: ±3%	
		≤69% : no definition	
Pulse Rate	Measurement range	30-235 BPM	
	Accuracy	30~99 BPM: ±2 BPM	
		100~235 BPM: ±2%	
Pulse Intensity	Bargraph Indicator		
Power Requirement	Two AAA alkaline Batteries		
Power Consumption	<40 mA		
Low Power Indicator			
Battery Life	~ 30 hours of continuous operation		
Dimension (L x W x H)	2.20" ~ 2.44" x 1.26" ~ 1.50" x 1.34" ~ 1.50" (56 mm ~ 62 mm x 32 mm ~ 38 mm x 34 mm ~ 38 mm)		
Weight	1.59 oz ~ 2.12 oz (0.10 lb ~ 0.13 lb) (45 g ~ 60 g) including two AAA batteries		
Environmental Requirements	Temperature	Operation	41°F ~ 104°F (5°C ~ 40°C)
		Storage	-13°F ~ 158°F (-25°C ~ 70°C)
	Humidity (non-condensing)	Operation	≤80% RH
		Storage	≤93% RH
Interference Resistance Capacity against Ambient Light	Device works normally when mixed noise produced by BIO-TEK INDEX Pulse Oximeter tester		

**DECLARATION**

This product's EMC complies with IEC60601-1-2 standard. The materials with which the user can come into contact have no toxicity, no action on tissues, and comply with ISO10993-1, ISO10993-5 and ISO10993-10.

**GUIDANCE AND MANUFACTURER'S DECLARATION: ELECTROMAGNETIC EMISSIONS FOR ALL EQUIPMENT AND SYSTEMS**

<b>Guidance and manufacturer's declaration – electromagnetic emission</b>		
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.		
<b>Emission Test</b>	<b>Compliance</b>	<b>Electromagnetic environment – guidance</b>
RF emission 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.

**TROUBLESHOOTING**

Problem	Possible reason	Solution
SpO <sub>2</sub> or PR cannot be displayed normally	1. User's finger is incorrectly inserted 2. User's Oxyhemoglobin value is too low to be measured	1. Reinsert user's finger 2. Attempt several times to obtain a reading; If sure that no problem exists, obtain further clinical examination
SpO <sub>2</sub> or PR display is unstable	1. Finger may not be inserted deeply enough 2. Finger trembling or user moving	1. Reinsert finger 2. Ask user to remain still

Troubleshooting continued		
Problem	Possible reason	Solution
Oximeter cannot be powered on	1. Battery power may be inadequate or batteries may not be installed 2. Batteries may be installed incorrectly 3. Oximeter may be damaged	1. Replace batteries 2. Reinstall batteries 3. Contact GF distributor
Indicator lamps are suddenly off	1. Device automatically powers off when no signal is detected for longer than 8 seconds 2. Batteries too weak to power device	1. Normal 2. Replace the batteries
"Error3" or "Error4" displays	1. Low power 2. Receiving tube and/or connector may be shielded or damaged 3. Mechanical misplace for receive-emission tube 4. Amp circuit malfunction	1. Replace batteries 2. Contact GF distributor 3. Contact GF distributor 4. Contact GF distributor
"Error7" displays	1. Low power 2. Emission diode damaged 3. Current control circuit malfunction	1. Replace batteries 2. Contact GF distributor 3. Contact GF distributor

**SYMBOL DEFINITIONS**

Symbol	Definition	Symbol	Definition
	Type BF applied part		Low power indicator
	Follow instructions for use		No SpO <sub>2</sub> Alarm
	Oxygen saturation		Power switch
	Heart rate (BPM)		Serial Number
			Manufacturer

**Info: The illustration used in this manual may differ slightly from the appearance of the actual product.**

**LIMITED WARRANTY**

**SCOPE OF WARRANTY**  
 GF Health Products, Inc. ("GF") warrants to the Original Purchaser only that it will replace or repair components, at GF's sole discretion, that are defective in material or workmanship under normal use and service. All warranties are conditioned upon the proper use of the products strictly in accordance with good commercial practice and applicable GF instructions and manuals, including proper use and maintenance. To the extent that a component is warranted by a third party, GF conveys all of its rights under that warranty to the original purchaser, to the extent permitted. Original Purchaser is one who purchases this product new and unused from GF or a GF Distributor.  
 This limited warranty shall only apply to defects that are reported within the applicable warranty period and which, upon examination by GF or its authorized representative, prove to be a warranty item. This limited warranty is not transferable. Within the guidelines set forth in this document, this product is warranted for one (1) year. The applicable warranty period shall commence from date of shipment to the Original Purchaser, unless there is an expiration date on the component in which case the warranty shall expire on the earlier of warranty period or the expiration date.

**OBTAINING WARRANTY SERVICE**  
 This limited warranty shall only apply to defects that are reported to the Distributor from whom the Customer purchased the product within the applicable warranty period. If there is not a Distributor, you must contact GF directly by calling 1-770-368-4700, sending a fax request to 1-770-368-2386, or by e-mailing a request to [cs@grahamfield.com](mailto:cs@grahamfield.com). Specific directions will be provided by the Customer Service Representative. Failure to abide by the specific directions will result in denial of the warranty claim.

**EXCLUSIONS**  
 The warranty does not cover and GF shall not be liable for the following:  
 1) Defects, damage, or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, tampering or failure to seek and obtain repair or replacement in a timely manner;  
 2) Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;  
 3) Products considered to be of a non-durable nature including, but not limited to: casters, filters, fuses, gaskets, lubricants, and charts;  
 4) Accessories or parts not provided by GF;  
 5) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing, in advance, by GF;  
 6) Any labor or shipping charges incurred in the replacement part installation or repair;  
 7) Costs and expenses of regular maintenance and cleaning; and  
 8) Representations and warranties made by any person or entity other than GF.

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The warranties contained herein contain all the representations and warranties with respect to the subject matter of this document, and supersede all prior negotiations, agreements and understandings with respect thereto. The recipient of this document hereby acknowledges and represents that it has not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this document. Some states do not allow the exclusion of certain remedies; in those instances that state's law will control. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For additional information on this product or this warranty, please contact a GF Customer Service Representative.  
**NOTES:**  
 1) Additional terms and conditions may apply.  
 2) Freight claims must be noted on the appropriate shipping documents and must be made with immediacy. International, federal and state regulations govern specific requirements for freight claims. Failure to abide by those regulations may result in a denial of the freight claim. GF will assist you in filing the freight claim.  
 3) Claims for any short shipment must be made within three (3) days of the invoice date.



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