

# DigiOx

## Finger Pulse Oximeter



### Operation Manual

**Important: Do not operate the John Bunn DigiOx Finger Pulse Oximeter without first reading and understanding this manual! Save this manual for future use.**

Info: The most current version of this manual can be found online at [www.grahamfield.com](http://www.grahamfield.com).

JBO2008-INS-LAB-RevD18

#### NOTICES

Keep the oximeter away from dust, vibration, corrosive substances, explosive materials, high temperature and moisture.

If the oximeter gets wet, stop operation immediately and do not resume operation until it is dry. When it is carried from a cold environment to a warm and/or humid environment, allow it to warm to room temperature before using it.

DO NOT use sharp objects to press the front panel button.

DO NOT sterilize this device. Do not subject this device to irradiation, steam, ethylene oxide, high temperature, or immersion in liquid. Refer to the Repair and Maintenance/Cleaning and Disinfection section of this manual for instructions for cleaning and disinfection.

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6. To change the oximeter's display screen brightness, press the Power/Display Button for more than one second. There are 10 brightness levels, and the level, from "BR 1" to "BR 10", will show on the screen during brightness adjustment. The default is level four. Keep the Power/Display Button depressed for as long as it takes to cycle to the desired brightness level.

7. The oximeter will automatically turn off if no finger is sensed for 8 seconds. If the finger is removed and the Power/Display Button is pressed, the oximeter will remain on and change screens, but will display "FINGER OUT".

#### ACCESSORIES (INCLUDED)

- One lanyard
- Two AAA alkaline batteries
- One operation manual

#### REPAIR, MAINTENANCE, AND DISPOSAL

**WARNING: DO NOT open the oximeter housing. It contains no serviceable parts. Service must be performed by trained, authorized personnel only. Otherwise, device failure and health hazard may occur.**

#### Maintenance

In order to ensure the oximeter's longevity and continued dependable operation, please observe the following maintenance recommendations.

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#### TECHNICAL SPECIFICATIONS

Display screen	Organic LED Display
Power supply requirement	Two 1.5V AAA alkaline batteries
SpO <sub>2</sub> Parameter Specifications	Measuring range: 0%-100%
	Accuracy: 70%-100%, ±2% < 70%, no definition
Pulse Rate Parameter Specifications	Measuring range: 30-235 bpm
	Accuracy: 30-99bpm, ±2 bpm; 100-235 bpm, ±2%
Dimensions (L x W x H)	2.28" x 1.26" x 1.34" (58 mm x 32 mm x 34 mm)
Environment	Operation: 41°F to 104°F (5°C to 40°C), 15% to 80% RH
	Storage: -13°F to 158°F (-25°C to 70°C), < 93% RH
Net weight with batteries	2 oz. (50g)

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#### OVERVIEW

##### Appearance

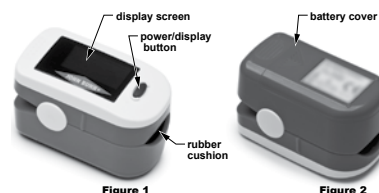


Figure 1

Figure 2

The DigiOx Finger Pulse Oximeter is shown above.

##### Features

The John Bunn DigiOx Finger Pulse Oximeter provides a simple way to spot-check patients by combining the sensor and monitor into one integrated, compact, easy-to-use device with single-button operation. The oximeter can accurately measure oxygen saturation and pulse rate. When a finger is inserted into the sensor's rubber cushion, and the Power/Display Button is pressed to turn the oximeter on, then the SpO<sub>2</sub> value and pulse rate value display on the screen. The oximeter features a bright-color LED screen with adjustable brightness and multi-directional displays that enable the user to read results from any angle. The oximeter features a low voltage

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Change the batteries when the low-voltage indicator displays.	
Clean the surface of the device before using: Wipe the device with a clean, soft cloth saturated with a solution of 70% isopropyl alcohol, then let it air dry or wipe it dry. Repeat as necessary.	
Take out the batteries if the oximeter will not be used for a long period of time.	
Environment (NOTICE: Humidity may shorten the life of the device, or even damage it)	Operation: 41°F - 104°F (5°C - 40°C), 15% - 80% RH Storage: -13°F - 158°F (-25°C - 70°C), < 93% RH

#### Cleaning and Disinfection

- Do not immerse the device in liquid. Clean the device only by using a surface-clean technique: Wipe with a clean, soft cloth saturated with a solution of 70% isopropyl alcohol.
- Wipe with a clean, soft cloth saturated with clean water and air dry, or dry with a clean, soft cloth.

**WARNING: Do not use the sensor if it is damaged.**

**NOTICE: Do not sterilize this device. Do not subject this device to irradiation, steam, ethylene oxide, high temperature, or immersion in liquid.**

#### Disposal

Do not treat this device or its batteries as household waste. Separate collection is required.

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TECHNICAL SPECIFICATIONS continued	
Classification	The type of protection against electric shock: Internally powered equipment
	The degree of protection against electric shock: Type BF applied part
	The degree of protection against harmful ingress of liquids: Ordinary equipment without protection against ingress of water
	Electro-Magnetic Compatibility: Group I, Class B

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#### INTRODUCTION

Please read and understand all instructions before using the John Bunn DigiOx Finger Pulse Oximeter, JBO2008.

**Intended use**  
The John Bunn DigiOx Finger Pulse Oximeter is used to measure oxygen saturation (SpO<sub>2</sub>) and pulse rate in home or clinical settings. It is designed for adult and pediatric patients.

**Contraindications**  
**WARNING:** The oximeter is not intended for continuous patient monitoring. DO NOT use the oximeter while patient is undergoing MRI or CT scanning.

**Important Safety Guidelines - Please Read Before Use**  
The safety statements presented in this chapter refer to the basic safety information that the operator of the John Bunn DigiOx Finger Pulse Oximeter shall pay attention to and abide by. There are additional safety statements in other chapters or sections, which may be the same as or similar to the following, or specific to the operations.

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

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

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

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indicator, powers off automatically in eight seconds when not in use, and provides approximately 30 hours of use with the use of alkaline batteries.

#### Name and Model

Name: John Bunn DigiOx Finger Pulse Oximeter  
Model: JBO2008

#### BATTERY INSTALLATION

- Refer to Figure 3; insert two AAA batteries, oriented as shown, into the battery compartment.
- Replace the cover.

Info: Ensure the batteries are correctly installed. Incorrect installation will prevent the device from operating.

#### OPERATION INSTRUCTIONS

##### Info:

Clean the test finger with isopropyl alcohol before and after each measurement. Ensure that the finger is dry before being inserted into the oximeter.

Do not shake the finger; keep finger motionless during oximeter use.

Avoid placing the device on a limb which is wrapped with a cuff for blood pressure measurement or undergoing venous infusion.

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#### TROUBLESHOOTING

Problem	Possible Reason	Solution
SpO <sub>2</sub> and Pulse Rate display unstable or hard to see	Finger incorrectly positioned in device	Reposition finger correctly and try again
	Finger is shaking or patient is moving	Ensure patient remains immobile
	Patient's SpO <sub>2</sub> value is too low to measure	Remeasure; if unsuccessful, yet device is functioning correctly, contact a medical professional immediately
	Excessive ambient light	Reduce ambient light
The device does not turn on	Batteries are low	Replace batteries
	Batteries incorrectly installed	Reinstall batteries correctly
	The device has malfunctioned	Contact your GF Health Products, Inc. distributor

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#### 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:
- 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;
  - Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;
  - Products considered to be of a non-durable nature including, but not limited to: casters, filters, fuses, gaskets, lubricants, and charts;
  - Accessories or parts not provided by GF;
  - 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;

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Info: Provides application recommendations or other useful information to ensure that you get the most from your product.

#### WARNINGS:

**Important! Read and understand this manual before using the oximeter. Do not use this device without proper instruction from a Healthcare Professional. If the oximeter is not properly operated, personal injury and/or damage to the oximeter could result. If components are damaged or missing, contact your dealer immediately. DO NOT use substitute parts. Inspect the device before use to ensure that there is no visible damage that may affect patient or user's safety or measurement performance. Thereafter, inspect the device at least once a week.**

GF Health Products, Inc. assumes no responsibility for any damage or injury caused by improper installation or use of this product.

DO NOT open the oximeter housing. It contains no serviceable parts. Service must be performed by trained, authorized personnel only. Otherwise, device failure and health hazard may occur.

**EXPLOSION HAZARD:** Do not use the oximeter in the presence of flammable anesthetics, explosive substances, vapors or liquids.

Use only parts and accessories specified in this manual.

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Ensure that no obstruction (contamination, scar tissue, fingernail polish, acrylic fingernail, etc.) exists at the site where the sensor is placed; such obstruction could affect the signal received by the sensor and result in an incorrect measurement.

Vigorous exercise and electrosurgical device interference may affect the measuring accuracy.

- Open the clip as shown in Figure 4.

- Insert finger, nail up, into the clip's rubber cushion (ensure the finger is correctly positioned), and then gently clip the finger.

- Press the Power/Display Button to turn the oximeter on.

- The screen will then display the data as shown in Figure 5. After the values become stable, the user can read the information on the display screen.

- When the screen displays as shown in Figure 5, pressing the Power/Display Button will change the screen's orientation:

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TROUBLESHOOTING continued		
Problem	Possible Reason	Solution
The device turns off suddenly	The device powers off automatically 8 seconds after finger is removed	Normal
	Batteries are almost drained	Replace batteries
Screen displays "3.4.6" or "Error7"	Device malfunction	Contact your GF Health Products, Inc. distributor

#### SYMBOL KEY

Symbol	Description
	Type BF
	Follow instructions for use
	The pulse oxygen saturation

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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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For additional information on this product or this warranty, please contact a GF Customer Service Representative.

#### NOTES:

- Additional terms and conditions may apply.
- Freight claims must be notated 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.
- Claims for any short shipment must be made within three (3) days of the invoice date.

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The oximeter is designed for real-time and rapid measurement. It is not suitable for long-time continuous patient monitoring. DO NOT apply the sensor to the same finger for more than two hours. If any readings are found to be abnormal, please change the position of the sensor.

The oximeter is intended only as an adjunct in patient assessment. It must be used in conjunction with clinical signs and symptoms. It is intended as a measuring, not a treatment, device.

Magnetic and electrical fields are capable of interfering with the proper performance of the oximeter. For this reason, ensure that all external devices operated in the vicinity of the oximeter comply with the relevant EMC requirements. Mobile phones, X-ray equipment, and/or MRI devices are a possible source of interference, as they may emit high levels of electromagnetic radiation. This device complies with IEC60601-1-2.

DO NOT clip this device on edema or tender tissue. The infrared light emitted from the device (it is invisible) is harmful to the eyes. DO NOT stare into the light.

Keep this device out of the reach of children.

**WARNING: Cancer and Reproductive Harm - [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).**

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- Press the Power/Display Button once more; the screen will rotate 180° and display as shown in Figure 6.
- Press the Power/Display Button once more; the screen will rotate 90° and display as shown in Figure 7.
- Press the Power/Display Button once more; the screen will rotate 180° and display as shown in Figure 8.
- Press the Power/Display Button once more; the screen will rotate -90° and also show pulse as a filled wave-form bar graph along bottom of screen, as shown in Figure 9.
- Press the Power/Display Button once more; the screen will now show pulse as a hollow wave-form bar graph along bottom of screen, as shown in Figure 10.
- Press the Power/Display Button once more; the screen will return to the original screen as shown in Figure 5 on previous page.

Figure 6

Figure 7

Figure 8

Figure 9

Figure 10

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SYMBOL KEY continued	
	Pulse rate (beats per minute)
	Low battery voltage
	Serial number
	Not for continuous monitoring
	Manufacturer
	Degree of protection against ingress of water
	Storage temperature and relative humidity
	Date of Manufacture
	Conformity to WEEE Directive

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