

# Model 3230

## Instructions for Use



**Thank you for trusting Nonin with your patients' healthcare needs.** We sincerely appreciate your business. Please read your Operator's Manual carefully and direct any further questions to a Nonin Technical Service representative. If you would like to order products or check the status of a current order, please contact Customer Service.

### Contact Customer Service or Technical Service

Toll Free: 800.356.8874 (U.S. and Canada only)

Phone: +1 763.553.9968

Email: [customerservice@nonin.com](mailto:customerservice@nonin.com)



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### Have other questions or want to learn more?

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### 3230 Specifications

\*Additional specifications are available in the IFU/Operator's Manual that can be located using the QR Code.

- Oxygen saturation measured from 0%-100% SpO<sub>2</sub>. With an accuracy typically  $\pm 2$  with a maximum of  $\pm 3$ .
- Pulse rate measured from 18bpm-321bpm. With an accuracy data is typically  $\pm 3$  with a maximum of  $\pm 5$ .

Measurement Wavelengths and Output Power:

- Red: 660 nanometers @ 0.8 mW maximum average
- Infrared: 910 nanometers @ 1.2 mW maximum average

### Indications for Use/Intended Use/Intended Purpose

The NoninConnect Model 3230 Finger Pulse Oximeter is a small, lightweight, portable device indicated for use in measuring and displaying functional oxygen saturation of arterial hemoglobin (%SpO<sub>2</sub>) and pulse rate of patients who are well or poorly perfused. It is intended for spot-checking of adult and pediatric patients with digits between 0.8 – 2.5 cm (0.3 – 1.0 inch) thick.

NOTE: Use Environment—Home healthcare environments under the supervision of qualified medical professionals.

Users include current/potential users of pulse oximetry in the home and caregivers/potential caregivers of such a user.

### Warnings

- Do not use the device in an MR environment, in an explosive atmosphere, or on neonatal patients.
- This device is not defibrillation proof per IEC 60601-1.
- Use the Model 3230 within its designated range (approximately 10 m/32 ft, spherical radius, line of sight when connected to a Bluetooth Smart Ready device). Moving outside this range may cause missing, lost, and/or inaccurate data.
- Inspect the sensor application site at least every 4 hours to ensure correct sensor alignment and skin integrity. Patient sensitivity to sensor may vary due to medical status or skin condition.
- Avoid excessive pressure to the sensor application site as this may cause damage to the skin beneath the sensor.
- This device is intended only as an adjunct in patient assessment. It must be used in conjunction with other methods of assessing clinical signs and symptoms.
- The device must be able to measure the pulse properly to obtain an accurate SpO<sub>2</sub> measurement. Verify that nothing is hindering the pulse measurement before relying on the SpO<sub>2</sub> measurement.
- Operation of this device below the minimum amplitude of 0.3% modulation may cause inaccurate results.
- General operation of the device may be affected by the use of an electrosurgical unit (ESU).
- Keep the oximeter away from young children. Small items such as the battery door and battery are choking hazards.
- Before changing batteries, make sure the device is off and is not applied to a digit.
- Portable RF communications equipment such as cell phones or radios (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the ME system, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

### Cautions

- This device has no audible alarms and is intended only for spot-checking.
- 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:

- |                                                                                           |                                            |                                                                    |
|-------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------|
| • Excessive ambient light                                                                 | • Improperly applied sensor                | • Carboxyhemoglobin                                                |
| • Excessive motion                                                                        | • Incorrect sensor type                    | • Methemoglobin                                                    |
| • Electrosurgical interference                                                            | • Poor pulse quality                       | • Dysfunctional hemoglobin                                         |
| • Blood flow restrictors (arterial catheters, blood pressure cuffs, infusion lines, etc.) | • Venous pulsations                        | • Artificial nails or fingernail polish                            |
| • Moisture in the sensor                                                                  | • Anemia or low hemoglobin concentrations  | • Residue (e.g., dried blood, dirt, grease, oil) in the light path |
|                                                                                           | • Cardiogreen and other intravascular dyes |                                                                    |

- The device may not work when circulation is reduced. Warm or rub the finger, or re-position the device.
- The device is designed to be attached only to a digit.
- This device's display will shut off after 30 seconds of no readings or poor readings.
- In some circumstances, the device will interpret motion as good pulse quality. Minimize patient motion as much as possible.
- Clean the device before applying it to a new patient.
- Do not sterilize, autoclave, or immerse this device in liquid. Do not pour or spray any liquids into the device.
- Do not use caustic or abrasive cleaning agents, or any cleaning products containing ammonium chloride or isopropyl alcohol.
- Do not use cleaning solutions other than those recommended here, as permanent damage could result.
- This device is a precision electronic instrument and must be repaired by Nonin Technical Service. 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.
- This equipment complies with International IEC 60601-1-2 for electromagnetic compatibility (EMC) for medical electrical equipment and/or systems. This standard is designed to provide reasonable protection against harmful interference in a typical medical installation. However, because of the proliferation of radio-frequency transmitting equipment and other sources of electrical noise in healthcare and other environments, it is possible that high levels of such interference due to close proximity or strength of a source might disrupt the performance of this device. Medical electrical equipment needs special precautions regarding EMC, and all equipment must be installed and put into service according to the EMC information specified in this manual.
- When device is connected via Bluetooth, other Wi-Fi devices within 6 meters (20 feet) could interrupt the Bluetooth connection.
- Portable and mobile RF communications equipment including CT, diathermy, RFID, and electronic article security systems can affect medical electrical equipment.
- Batteries may leak or explode if used or disposed of improperly. Remove batteries if the device will be stored for more than 30 days. Do not use different types of batteries at the same time. Do not mix fully charged and partially charged batteries at the same time. These actions may cause the batteries to leak.
- Follow local, state, and national governing ordinances and recycling instructions regarding disposal or recycling of the device and device components, including batteries.
- In compliance with the European Directive on Waste Electrical and Electronic Equipment (WEEE) 2002/96/EC, do not dispose of this product as unsorted municipal waste. This device contains WEEE materials; please contact your distributor regarding take-back or recycling of the device.

### Adverse Event Statement

Users and/or patients should report adverse events involve their Nonin device to Nonin Medical, Inc. and the competent authority of the EU Member State in which the user and/or patient is established, if applicable.

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Bluetooth is a registered trademark of Bluetooth SIG, Inc.  
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CE 0123



Rx Only

Instructions for Use / Operator's Manual



<https://www.nonin.com/support/3230>

- ENG – Translations of the IFU can be found using this QR code.
- FRE – Les traductions de cette notice d'utilisation peuvent être retrouvées à l'aide de ce code QR.
- GER – Übersetzungen dieses Handbuchs können über diesen QR-Code abgerufen werden.
- ITL – Utilizzando questo codice QR, è possibile trovare le traduzioni delle Istruzioni per l'uso.
- SPA – Las traducciones de este manual se pueden encontrar utilizando este código QR.
- POR – Pode aceder às traduções das instruções de utilização através deste código QR.
- DUT – Vertalingen van de handleiding zijn te vinden met behulp van deze QR-code.
- GRK – Με τη χρήση αυτού του κωδικού QR μπορείτε να βρείτε μεταφράσεις των οδηγιών χρήσης (IFU).
- DAN – Scan denne QR-kode for at finde oversættelser af denne brugsvejledning.
- SWE – Översättningar av den här guiden kan hittas med denna QR-kod.
- FIN – Käyttöohjeen käännökset löytyvät tällä QR-koodilla.
- POL – Tłumaczenia tego przewodnika można znaleźć za pomocą tego kodu QR.
- NOR – Oversettelser av denne bruksanvisningen kan finnes ved å bruke denne QR-koden.

## Warranty

The device warranty is 2 years.

[nonin.com/warranty](https://www.nonin.com/warranty)

For summary of safety and clinical data see above QR code.

## Symbol Glossary

[nonin.com/symbols](https://www.nonin.com/symbols)

## Compliance

This product complies with ISO 10993.  
Not made from natural rubber latex.



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Borngasse 20  
D-35619 Braunsfels, Germany



MedEnvoy Switzerland  
Gottthardstrasse 28, 6302 Zug  
Switzerland

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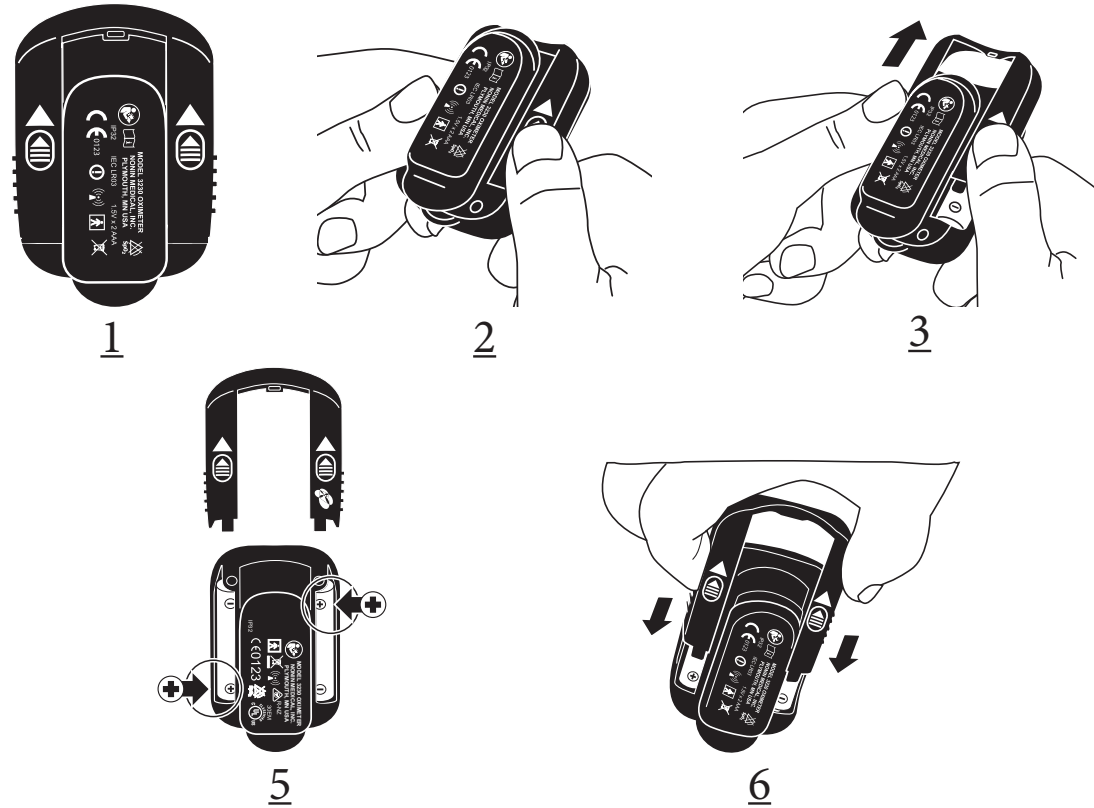
## Instructions for Use



To set up and use the Nonin Model 3230 pulse oximeter, please follow the simple instructions below.

### Installing AAA Batteries

1. Hold the 3230 so you see the back of the device and the arrows on the battery door point away from you.
2. Place your thumbs on the ovals.
3. Slide the battery door away from you and off the 3230.
4. If applicable, remove the old batteries from the 3230. Properly dispose of the batteries.
5. Insert two new 1.5 volt AAA-size batteries. Carefully match the polarity markings (+ and -). The 3230 will not work if the batteries are inserted the wrong way.
6. Carefully slide the battery door back onto the device.



### WARNING:

Before changing batteries, make sure the device is off and is not applied to a digit.

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### Turning on the NoninConnect Model 3230

1. Insert a digit into the Model 3230 until it touches the built-in stop.



NOTE: Make sure the finger is centered within the finger guide and flat (not on its side). For best results, keep the device at heart or chest level.

2. If the CorrectCheck screen (see Display Symbols table) displays, slide finger further into device. Correct positioning of the finger is critical for accurate measurements.
3. The 3230 begins sensing the pulse and displaying readings.



4. View about 4 seconds of readings before relying on the displayed values. Continually verify operation. It is common for the displayed values to vary slightly over a period of several seconds. If the 3230 does not turn on or if it shuts off unexpectedly:

- Verify batteries are correctly inserted.
- If the batteries are depleted, replace batteries.

If the problem persists, remove the batteries and contact Nonin Technical Service.

NOTE: While on the finger, do not press the device against any surface and do not squeeze or hold it together. The internal spring provides the correct pressure; additional pressure may cause inaccurate readings.

For more information on the displays, indicators, and controls, please refer to the Operator's Manual.

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### Displays and Indicators

	Nonin's CorrectCheck™ senses that the finger has not been correctly inserted. If you see this symbol, slide finger further into device.
	The number next to this symbol is the amount of oxygen in your blood (functional oxygen saturation of arterial hemoglobin).
	The number next to this animated symbol is your pulse rate. Pulse rate is the number of times your heart beats per minute.
	Dashes replace the readings when the 3230 is unable to detect a usable signal.
	White symbol – Radio is on. Green symbol – 3230 is connected. Flashing symbol – Connection error. The radio will reset. No symbol – Radio is off.
	Poor signal. Steady your hand, reposition finger, warm finger by rubbing, or select a different finger.
	Low battery. Replace batteries.
	Critical battery. Flashing indicator on full screen. The device will not work until the batteries are replaced.
	† Spot-check complete. While Spot-check is in progress, a clockwise spinning circular icon displays.
	† Measurement complete (full screen).

† These indicators only display when the associated feature has been activated by an integrator.

### To Clean the NoninConnect Model 3230

Wipe the device with a soft cloth dampened with a 10% bleach/90% water solution (household bleach [containing less than 10% sodium hypochlorite]). Do not use undiluted bleach or any cleaning solution other than those recommended, as permanent damage could result. Dry with a soft cloth, or allow to air dry. Clean once per week or more frequently if handled by multiple users.

### Connection via Bluetooth Wireless Technology

When the Model 3230 is placed on the finger and turns on, it is ready for a Bluetooth wireless connection. The 3230 stays in this mode until it is shut off or the Bluetooth radio turns off. The symbol is white when the Bluetooth radio is on, green when the 3230 is connected, and flashes when there is a communication error.

### Clinical Benefits

Nonin pulse oximeters allow for the management of patients' medical conditions by providing fast, accurate, real-time, noninvasive oxygen measurement in order to meet patients' medical needs.

Please refer to the Operator's Manual on [nonin.com/support/3230](http://nonin.com/support/3230) for troubleshooting guidance and more detailed operating instructions.