

8. ABOUT US

Driven by the passion for innovation, we at Dr Trust endeavour to provide our customers with the latest medical inventions with an objective to promote good health and wellness all around the world. All the medical devices and health monitors provided by Dr Trust are supported by accurate, latest and ground breaking technologies, innovated at our headquarters in NY, USA. All our products adhere to the most stringent CE and FDA guidelines and are strongly recommended by doctors and health practitioners. Our products are designed in the utmost exemplary ways to ensure that their accuracy and convenience are unrivalled. The ease of their use and operation makes them even more suitable for users of all age groups.

Dr Trust strives to enhance the quality of lifestyle by providing with the most trusted and innovative health care and wellness products. Being a renowned global leader in health care products, Dr Trust ensures that our technically efficient team works dynamically and tirelessly to provide the best of the medical devices to our clients. The products that we have to offer are suitably designed for use at homes, laboratories and hospitals.

Our ground breaking solutions allow you to monitor your health in the easiest ways possible. In today's era when all of our lives are too hassled to handle, it becomes a bit difficult to pay attention to our health. But it has now become easier with the coming of the monitoring devices which can be conveniently used at homes and even on the go.

We bring to you a variety of best self medical devices, trusted and used by Doctors, medical professionals and home users all over the world.

Dr Trust[®]

Dr Trust[®] Pulse Oximeter - 210



**USER
INSTRUCTIONS**

Scan to View
Product Demo Video
www.drtrustusa.com/210

Thank you for purchasing the Dr Trust Pulse Oximeter - 210. Please read this user manual carefully to operate it with care and safety.

1. INTRODUCTION	3
1.1 A Brief About Device	
1.2 Intended Use	
1.3 Display Parameter and Brief Device Description	
2. PRODUCT FEATURES	4
3. SAFETY GUIDANCE	4
3.1 Instructions for the Safe Operation and Use of the Pulse Oximeter	
3.2. Warnings	
4. INSTALLATION, SETUP AND OPERATION	5
4.1 Description of the Front and Back Panel	
4.2 Install battery	
4.3 Turning the Pulse Oximeter "ON"	
4.4 Read corresponding data from display screen	
4.5 Operation	
4.6 Turn off the Oximeter	
5. MAINTENANCE	8
5.1 Cleaning	
5.2 Disinfection	
5.3 Maintenance	
5.4 Troubleshooting	
5.5 Disposal	
6. SPECIFICATION	10
6.1 Physical Characteristics	
6.2 Classification	
6.3. Power	
6.4. Environmental Factors	
6.4. Electronics Parameters	
7. CUSTOMER SUPPORT	11
8. ABOUT US	12

1.1 A Brief About Device

The Dr Trust Pulse Oximeter – 210 is a small device used to monitor the oxygen saturation of the blood. It shows whether your heart and lungs supply enough blood to meet your body's needs. This is based on digital technology and intended for noninvasive measurement of functional oxygen saturation of arterial hemoglobin (SpO2). It is quick and need-free test that measures the amount of oxygen in your blood. Advanced DSP algorithm can minimize the influence of motion artifact and improve measurement accuracy of low perfusion. This small and lightweight device can also measure Pulse Rate, Heart Rate and Perfusion Index through finger. It can be used on children (weight more than 30kgs) and have anti-motion feature.

1.2 Intended Use

This product is suitable for use in the clinics, oxygen bars, sports health monitoring center (using it before or after sports, not advised using them during the movement), and community health care center, etc.

1.3 Display Parameters and Brief Device Description

SpO2 (Functional Oxygen Saturation), is the amount of oxyhemoglobin expressed as a percentage of the Functioning Hemoglobin. Functioning Hemoglobin is capable of carrying oxygen and includes Oxygenated Hemoglobin (HbO2) and Deoxygenated Hemoglobin (Hb).

PR (Pulse Rate), measured in Beats Per Minute (BPM), is the frequency of heart beats.

PI (Perfusion Index) is the ratio of the pulsatile blood flow to the non-pulsatile static blood in peripheral perfusion. Perfusion index is an indication of the pulse strength at the sensor site.

RR (Respiratory Rate), measured in Respirations Per Minute (RPM), the act of breathing is controlled by the brain, which tells the body to breathe based on oxygen and carbon dioxide levels in the blood. Certain factors, such as exercise, drugs, and alcohol, can affect a person's breathing rate. An abnormally high or low respiratory rate may indicate certain medical conditions such as bradypnea, apnea, or tachypnea.

Plethysmogram, amount of light absorbed by the varying quantities of arterial blood changes with the pulse beats. This waveform is named as Plethysmogram. This waveform and its variation is used for assigning signal integrity, physiological and arti-factual changes such as perfusion changes, dysrhythmia, motion artifact, and

2. PRODUCT FEATURES

Dr Trust®

- Lightweight for carrying
- Easy-to-use.
- Color OLED display, simultaneous display for testing value and plethysmogram.
- **Low Perfusion:** 0.2%. (Advanced DSP algorithm can improve measurement accuracy, under the condition of low perfusion.
- Low Battery voltage indicator.
- Automatically switch off.
- Standard two AAA 1.5V alkaline batteries support more than 20 hours continuous work.
- Lanyard included for easy carrying

3. SAFETY GUIDANCE

3.1 Instructions for the Safe Operation and Use of the Pulse Oximeter

- Prolonged use or the patient's condition may require changing the sensor site periodically. Change sensor site and check skin integrity, circulatory status, and correct alignment every hour.
- SpO2 measurements may be adversely affected in the presence of high ambient light. Shield the sensor area (with a surgical towel, or direct sunlight, for example) if necessary.

The following reasons will cause interference.

- High-frequency electrosurgical.
- Placement of a sensor on an extremity with a blood pressure cuff arterial catheter or intravascular line.
- The patient has hypotension severe vasoconstriction severe anemia or hypothermia.
- The patient is in cardiac arrest or is in shock.
- Fingernail polish or false fingernails may cause inaccurate SpO2 readings.

3.2. Warnings

WARNING: EXPLOSION HAZARD — Do not use the oximeter in a flammable atmosphere where concentrations of flammable anesthetics or other materials may occur.

WARNING: Do not throw batteries in fire as this may causes them to explode.

WARNING: Do not use the pulse oximeter in an MRI or CT environment.

Dr Trust®

WARNING: This oximeter is not an apnea monitor, should not be used for arrhythmia analysis.

CAUTION: Keep the operating environment free of -dust, vibrations, corrosive, or flammable materials, and extremes of temperature and humidity.

CAUTION: Do not operate the unit if it is damp or wet because of condensation or spills. Avoid using the equipment immediately after moving it from a cold environment to a warm and humid location.

WARNING: Do not attempt to recharge normal dry-cell batteries, they may leak. And may cause a fire or even explode.

CAUTION: Never use sharp or pointed objects to operate the front-panel switches.

CAUTION: The battery must be taken out from the battery compartment if the device will not be used for a long time.

CAUTION: The device shall only be used if the battery cover is closed.

CAUTION: The battery must be proper disposed according to local regulation after their use.

NOTE: Inaccurate Respiration Rate (RR) measurements may be caused by: Improper placement or alignment, Low perfusion, Motion and During arrhythmia.

4. INSTALLATION, SETUP AND OPERATION

4.1 Description of the Front and Back Panel (as Figure 4.1.1 and Table 4.1.1)



Figure 4.1.1 Parts of front & back panel

Item	Name	Description
1	Button	Start the working state and set parameters
2	OLED Panel	Display the SPO2/PR & Bar-graph, Plethysmogram, PI.
3	Battery Compartment	2xAAA 1.5V Alkaline battery

Table 4.1.1

4.2 Install battery

Installing 2 AAA batteries into battery cassette in correct polarities and cover it (as Figure 4.2.1)



Figure 4.2.1

WARNING: Do not attempt to recharge the alkaline batteries, as they may leak and may cause a fire or even explode.

4.3 Turning the Pulse Oximeter "ON"

Put your fingers into rubber hole of the oximeter (as much area as possible) with nail surface upward (as Figure 4.3.1), then release the clamp.

- Press the button, oximeter will go into the working state.
- Keep your tested hand still during measurement.



Figure 4.3.1

4.4 Read corresponding data from display screen

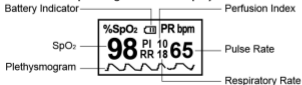


Figure 4.4.1 OLED display

Note: The main screen can rotate into four display directions after short press of the button

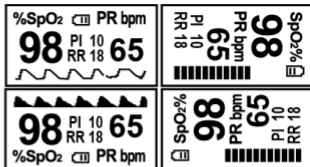



Figure 4.4.2

Note: When battery power is at lowest level, the symbol "  " displays on OLED. It reminds users for replacement of battery.

4.5 Operation

There are two ways to operate the button according to the pressing time:

Long-press is longer than half a second and short-press is shorter than half a second.

Short press is used to select an item by moving a * to the line of this item. Long-press is used to change the item's value, status, open a new page or make it take effect.

From the main screen, long-press on the button will make the oximeter display Settings Pages as shown in Figure 4.5.1 or Figure 4.5.2. Selecting "Page 1/2" or "Page 2/2" and long press will make these two pages display alternately.

Settings	*
Page 1/2	*
Alm	on
Beep	off
Demo	off
Reset	OK
Brightness	4
Exit	

Figure 4.5.1

Settings	*
Page 2/2	*
SpO ₂ Alm Hi	100
SpO ₂ Alm Lo	94
PR Alm Hi	130
PR Alm Lo	50
+/-	+
Exit	

Figure 4.5.2

Items	Default	Options	Description
Alm	on	on, off	Turn on or off the sounds when the value is out of the limit set in page 2
Beep	off	on, off	Set Pulse Beep on or off
Demo	off	on, off	Enter Demo mode, long press to quit it
Reset	ok	ok, blank	Reset all settings as default value
Brightness	4	1-5	Set the screen's brightness
Exit	N/A	N/A	Return to the main screen or enter demo mode when it is selected as 'on'

Items	Default	Options	Description
Spo2 Alm HI	100	50-100	The upper limit of Spo2
Spo2 Alm Lo	94	50-100	The lower limit of Spo2
PR Alm Hi	130	25-250	The upper limit of PR
PR Alm Lo	50	25-250	The lower limit of PR
+/-	+	+,-	Increase or decrease the number
Exit	N/A	N/A	Return to the main screen

4.6 Turn off the Oximeter

The oximeter will turn off automatically after 8 seconds after removing the finger out of the device.

5. MAINTENANCE

5.1 Cleaning

Switch "Off" the power and take out the batteries before cleaning. Clean exterior surface (OLED display screen included) of the unit with a dry and soft cloth. Use 75% density of medical alcohol to clean the surface and use dry fabric with little alcohol to avoid alcohol permeates into the device.

5.2 Disinfection

If multiple patients use the machine in the hospital, disinfection of it is important after every use.

Use 75% density of medical alcohol to clean the surface that contacting with the patient.

CAUTION: Do not use strong solvent. For example, acetone.

CAUTION: Never use an abrasive such as steel wool or metal polish.

CAUTION: Do not allow entry of any liquid into the product, and do not immerse any parts of the device into any liquids.

CAUTION: Avoid pouring liquids on the device while cleaning.

CAUTION: Do not remain any cleaning solution on the surface of the device.

5.3 Maintenance

- Replace the batteries timely when battery indication is low. Clean surface of the Pulse Oximeter before it is used in diagnosis for patients.
- Remove the batteries from the battery cassette, if the Oximeter will not be operated for a long time.
- It is better to preserve the product in a place where ambient temperature is -20 - 55°C and humidity is 10%-95%.
- Regular inspection is needed to make sure that no obvious damage existed to affect the safety and performance of the device.
- No flammable substance overtops, or lower temperature and humidity existed in operation conditions.

5.4 Troubleshooting

Problems	Possible Reason	Resolutions
Oxyhemoglobin or heart rate cannot be shown normally.	1. Finger is not plugged correctly. 2. Patient's perfusion is too low to be measured.	1. Retry by plugging the finger again. 2. Try some more times, just to make sure that there is no problem in the product. Please go to a hospital timely for exact diagnosis.
Oxyhemoglobin or heart rate is shown unstably.	1. Finger might not be plugged deep enough. 2. Finger is trembling, or patient's body is in movement status.	1. Retry by plugging the finger. 2. Try not to move, Let the patient keep calm.
The oximeter cannot go into the working state.	1. Power of batteries might be inadequate. 2. Batteries might be installed incorrectly. 3. The Oximeter might be damaged.	1. Please replace batteries. 2. Please reinstall the batteries.

The screen is suddenly 'off'.	1. The product is automatically standby when no signal is detected for 8 seconds. 2. Power quantity of the batteries is exhausted.	1. Normal. 2. Replace the batteries.
-------------------------------	---	---

5.5 Disposal

To avoid contaminating or infecting personnel, the environment or other equipment, make sure you disinfect or decontaminate the device appropriately before disposing of it in accordance with your country's law for equipment disposal containing electrical and electronic parts.

6. SPECIFICATION

6.1 Physical Characteristics

Device Dimensions: 57mm (L) x 31mm (W) x 30.5mm (D)

Weight -approx.: 54 g (including 2xAAA battery)

6.2 Classification

Anti-electric Shock Type: Internally powered equipment

Anti-electric Shock Degree: Type BF equipment

Mode of operation: Continuous Operation

Enclosure Degree of ingress protection: IP22

※Ip22 means shell of this product can withstand the water dropping to the surface when the shell deviate 15 degree from horizontal surface.

6.3. Power

Internal: 2xAAA 1.5V alkaline battery

Power Consumption: 30 mA (Normal)

6.4. Environmental Factors

Operating Temperature: 5°C to 40°C

Storage Temperature: -20°C to 55°C

Relative Humidity: 15% to 85% non-condensing

6.5. Electronics Parameters

Parameter		Value
SpO2(Oxygen saturation)		35-100%
PR (Pulse Rate)		25-250 bpm
RR (Respiration Rate)		10-70 rpm
Resolution	SpO2 (Oxygen saturation)	1%
	PR (Pulse Rate)	1 bpm
	PI (Perfusion Index)	0.1% (< 10%) 1% (10% - 20%)
	RR (Respiration Rate)	1 rpm
Measure Accuracy: Arms *	SpO2 (Oxygen saturation)	2% (80% - 100%) 3% (70% - 80%) Unspecified (< 70%)
	PR (Pulse Rate)	2 bpm
	PI (Perfusion Index)	1%
	RR (Respiration Rate)	2 rpm

7. CUSTOMER SUPPORT

CONTACT ADDRESS

USA

Nureca INC.USA
276 5th Avenue, Suite 704-397,
New York (NY) - 10001, USA

EUROPE

Nureca GmbH
Colonus Carre, Subbelrather Str.15a,
Cologne, 50823 Germany

INDIA

Corporate Office (Mumbai)

Nureca Limited
B2-166, Time Square, 7th and 8th Floor,
CTS No 349 and 349-1
Western Express Highway, Andheri East,
Mumbai, Mumbai City, Maharashtra, 400069

Contact us

India: +91-7527013265 /+91-9356658436

Website: www.drtrustusa.com

Email: customercare@nureca.com

Connect with us on social networks

Facebook: @drtrust

Instagram: @drtrustin

Youtube: NurecaUSA