

**Dear Customer,**

We are pleased that you have chosen a product from our range. Our name stands for high quality and thoroughly tested quality products in the areas of heat, weight, blood pressure, body temperature, pulse, gentle therapy, massage, beauty, baby and air. Please read these instructions for use carefully, keep them for later use, make them accessible to other users and follow the instructions.

With kind regards  
 Your Beurer team

**1. Scope of delivery**

1x PO 60 pulse oximeter, 2x 1.5 V AAA batteries 1x lanyard, 1x belt pouch, 1x this manual

**2. Intended use**

Only use the Beurer PO 60 pulse oximeter on humans to measure arterial oxygen saturation (SpO<sub>2</sub>) of hemoglobin and heart rate (pulse rate). The pulse oximeter is suitable for use both in the private sphere (at home) and in the medical field (hospitals, medical facilities).














**3. To get to know each other**

The Beurer PO 60 pulse oximeter is used for non-invasive measurement of arterial oxygen saturation (SpO<sub>2</sub>) and heart rate (pulse rate). The oxygen saturation indicates what percentage of the hemoglobin in the arterial blood is loaded with oxygen. It is therefore an important parameter for assessing respiratory function. The pulse oximeter uses two light beams of different wavelengths to measure, which hit the finger inside the housing. A low oxygen saturation value is mainly due to diseases (respiratory diseases, asthma, cardiac insufficiency, etc.).

The following symptoms occur more frequently in people with a low oxygen saturation value: shortness of breath, heart rate increase, loss of performance, nervousness and sweating. A chronic and known reduced oxygen saturation requires monitoring by your pulse oximeter under medical supervision. An acutely reduced oxygen saturation, with or without accompanying symptoms, must be clarified immediately by a doctor. It can be a life-threatening situation. The pulse oximeter is therefore particularly suitable for high-risk patients such as people with heart disease and asthmatics, but also for athletes and healthy people who move at high altitudes (e.g. mountaineers, skiers or sports pilots).

**4. Explanation of symbols**

The following symbols are used in the instructions for use, on the packaging and on the type label of the device:

	<b>WARNING</b> Warning of the risk of injury or danger to your health		Disposal according to electrical and Waste electronic devices EC Directive WEEE (Waste Electrical and Electronic Equipment)
	<b>DANGER</b> Security notice on possible Damage to device/accessories		Batteries containing harmful substances are not included dispose of household waste
	<b>a notice</b> Note on important information		Manufacturer
	Follow the instructions		Applied part type BF
<b>%SpO<sub>2</sub></b>	Arterial oxygen saturation Hemoglobin (in percent)		serial number
<b>PR bpm</b>	Pulse rate (beats per Minute)		<b>CE marking</b> This product meets the requirements of the applicable European and national guidelines.
	Permissible storage temperature and humidity		alarm suppression
	Permissible operating temperature and humidity	<b>IP 22</b>	Device protected against foreign bodies $\geq 12.5$ mm and against slanting drips water

**5. Warnings and Precautions**

Read these instructions for use carefully! Failure to follow the instructions below can cause personal injury or damage to property. Keep the instructions for use and make them accessible to other users. Pass on these operating instructions if the device is passed on.

**WARNING**

- Check that all parts specified in the scope of delivery are included.
- Check the pulse oximeter regularly to ensure that there is no visible damage before use and that the batteries are sufficiently charged. If in doubt, do not use it and contact Beurer customer service or an authorized dealer.

- Do not use any additional parts that are not recommended by the manufacturer or offered as accessories.
- Under no circumstances may you open or repair the device, as otherwise it cannot be guaranteed that it will function correctly. Failure to do so will void the warranty. For repairs, contact Beurer customer service or an authorized dealer.

Use the pulse oximeter

- **NOT** if you are allergic to rubber products.
- **NOT** if the device or the application finger is wet.
- **NOT** on small children or infants.
- **NOT** during an MRI or CT scan.
- **NOT** during a blood pressure measurement on the arm side with cuff application.
- **NOT** on fingers with nail polish, dirt or plaster bandages.
- **NOT** on thick fingers that cannot be easily inserted into the device (fingertip: width approx. > 20 mm, thickness approx. > 15 mm)
- **NOT** on fingers with anatomical changes, edema, scars or burns.
- **NOT** on fingers that are too thin and too small, such as those found in small children (width approx. < 10 mm, thickness approx. < 5 mm).
- **NOT** on patients who are restless at the application site (eg tremors).
- **NOT** in the vicinity of flammable or explosive gas mixtures.
- Prolonged use of the pulse oximeter can cause pain in persons with circulatory disorders. Therefore, do not use the pulse oximeter on a finger for more than about 2 hours.
- The pulse oximeter displays an instantaneous reading at a time, but cannot provide a continuous over guard are used.
- The pulse oximeter does not have an alarm function and is therefore not suitable for medical evaluation shear results.
- Do not carry self-diagnosis or treatment based on the measurement results without consultation your treating doctor. In particular, do not start a new medication on your own and do not make any changes to the type and/or dosage of an existing medication.
- Do not look directly into the inside of the housing during the measurement process. The red light and the invisible Bare infrared light from the pulse oximeter is harmful to the eyes.
- This device is not intended to be used by persons (including children) with restricted physical, sensory or mental abilities or lack of experience and/or lack of knowledge, unless they are supervised by a person responsible for their safety or have received instructions from them on how to use the device. Children should be supervised to ensure they do not play with the device. • The display of the pulse wave and the pulse column do not allow any assessment of the pulse or blood flow

strength at the measurement location, but only serve to display the current optical signal variation at the measurement location, but they do not enable reliable pulse diagnostics.

Failure to follow the instructions below can result in erroneous measurements or measurement failure.

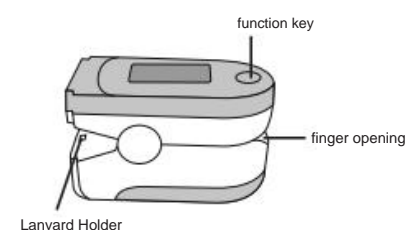
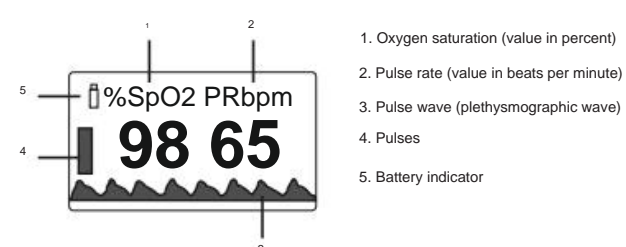
- There should be no nail polish, artificial nails or other cosmetics on the measuring finger. • When using the measuring finger, ensure that the fingernail is short enough for the fingertip to touch the sensor elements covered in the housing.
- Keep your hand, fingers and body still during the measurement process.
- In the case of people with cardiac arrhythmia, the measured SpO<sub>2</sub> and heart rate values may be incorrect or the measurement may not be possible at all.
- Pulse oximeter readings are too high in case of carbon monoxide poisoning.
- In order not to falsify the measurement result, people should be in the immediate vicinity of the pulse oximeter no strong light source (e.g. fluorescent lamp or direct sunlight) are located. • In people who have low blood pressure, suffer from jaundice or are taking vascular medication contraction, erroneous or falsified measurements can occur.
- In patients who have received clinical dyes in the past and in patients with an abnormal hemoglobin occurrence is to be expected with a false measurement. This applies in particular to carbon monoxide poisoning and methemoglobin poisoning, which are caused, for example, by the administration of local anesthetics or when there is a methemoglobin reductase deficiency
- Protect the pulse oximeter from dust, shock, moisture, extreme temperatures and explosives Substances.

**Notes on handling batteries • If**

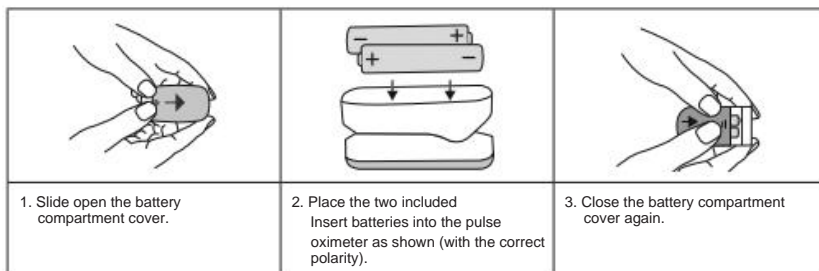
liquid from a battery cell contacts your skin or eyes, wash the affected area with water and seek medical attention.

- Danger of swallowing! Small children could swallow batteries and choke on them. Therefore, keep batteries out of the reach of small children!
- Pay attention to the plus (+) and minus (-) polarity markings.
- If a battery leaks, put on protective gloves and clean the battery compartment with a dry cloth.

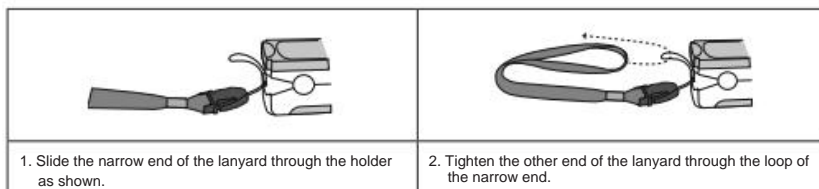
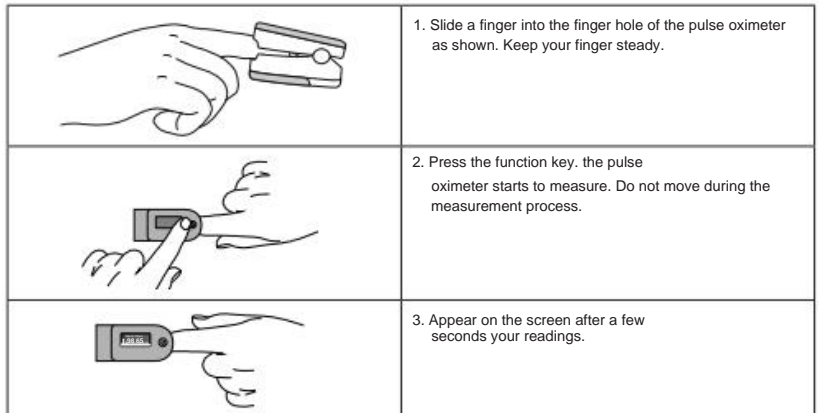
- Protect batteries from excessive heat.
- Danger of explosion! Do not throw batteries into fire.
- Batteries must not be charged or short-circuited.
- If the device is not going to be used for a long time, remove the batteries from the battery compartment.
- Use only the same or equivalent type of battery. • Always replace all batteries at the same time.
- Do not use rechargeable batteries!
- Do not disassemble, open or shred batteries.

**6. Device Description****Display description**

1. Oxygen saturation (value in percent)
2. Pulse rate (value in beats per minute)
3. Pulse wave (plethysmographic wave)
4. Pulses
5. Battery indicator

**7. Commissioning****7.1 Insert batteries****7.2 Fasten the neck strap**

You can attach a lanyard to the device to make it easier to carry the pulse oximeter.

**8. Service****function key**

The function button of the pulse oximeter has a total of 4 functions:

- **Power on function:** When the pulse oximeter is turned off, you can turn it on by briefly pressing the Turn on the function key.
- **Activate and deactivate Bluetooth® :**
  - Short press the function button to turn on the pulse oximeter.
  - With the pulse oximeter switched on, press and hold the function button for 5 seconds to access the Bluetooth® setting. "ON" or "OFF" appears in the display.
  - Briefly press the function button to activate (ON) or deactivate (OFF) Bluetooth®.
  - To return to measurement, press and hold the function button for 5 seconds.
  - To turn off the pulse oximeter, wait 10 seconds. The pulse oximeter switches off automatically.

- **Transfer measured values to app plus synchronization of time and date:** See 10. "Transfer of measured values via Bluetooth® low energy technology".
- **Brightness function:** To set your desired display brightness, keep the function button pressed during operation.

**a notice**

The orientation of the display (portrait, landscape) is done automatically. This allows you to view the values on the display at any time read no matter how you hold the pulse oximeter.

**9. System requirements for the "beurer HealthManager" app**

- iOS ab 10.0, Android™ ab 5.0
- ab Bluetooth® 4.0

**10. Transmission of the measured values via Bluetooth® low energy technology****Note**

Bluetooth® must be activated (ON) for transmission. The "beurer HealthManager" app must be activated for the transfer.

- Each time data is transferred, the time and date are synchronized with the smartphone. To all yours To be able to save readings with the correct date, we advise you to connect your PO 60 to your smartphone before taking your first measurement.
- Proceed as follows to transfer the readings to your smartphone via Bluetooth® : Activate Bluetooth® in the settings on your smartphone, open the "beurer HealthManager" app and follow the instructions. Select and connect the PO 60 in the settings menu of the app. A randomly generated six-digit PIN code is displayed on the pulse oximeter, and at the same time an input field appears on the smartphone in which you must enter this six-digit PIN code.

There are two ways to sync data with your smartphone. In both variants must Bluetooth® on the smartphone and on the pulse oximeter (ON) activated. The "beurer HealthManager" app must also be open on the smartphone.

- **Variant 1:** Hold down the function button on the switched-off pulse oximeter for 5 seconds. "SYNC" flashes on the display. The device now tries to establish a connection to the app for 10 seconds. Once connected, "SYNC" will stop flashing. All measurement data in the memory are automatically transferred to the app. The pulse oximeter then switches off automatically.
- **Variant 2:** The data is automatically transferred to the app after the measurement. "SYNC" flashes on the display. The device tries to connect to the app for 10 seconds. As soon as a connection is established, "SYNC" stops flashing. All measurement data in the memory are automatically transferred to the app. The pulse oximeter then switches off automatically. If Bluetooth® is deactivated (OFF), the message OFF is displayed after your measurement.

**a notice**

- Bluetooth® is automatically activated.
- The "beurer HealthManager" app must be activated for the transfer.
- With each data transfer, the time and date are synchronized with the smartphone.

**11. Assess measurement results**

<b>WARNING</b>	
The following table for evaluating your measurement results does NOT apply to people with certain pre-existing conditions (e.g. asthma, cardiac insufficiency, respiratory diseases) and for stays at altitudes of over 1500 meters. If you have any pre-existing conditions, always consult your doctor to evaluate your readings.	
Measurement result SpO <sub>2</sub> (oxygen saturation) in %	Classification / Measures to be taken
99-94	normal range
93-90	Degraded area: Doctor visit recommended
< 90	Critical area: Consult a doctor urgently

Source: Based on "Windisch W et al. S2k guideline: Non-invasive and invasive ventilation as therapy for chronic respiratory insufficiency Revision 2017; Pneumology 2017; 71: 722795"

**Altitude dependent drop in oxygen saturation****a notice**

The table below informs you about the effects of different altitudes on the oxygen saturation value and their consequences for the human organism. The following table does NOT apply to people with certain pre-existing conditions (e.g. asthma, heart failure, respiratory diseases, etc.). Symptoms of illness (e.g. hypoxia) can already occur at lower altitudes in persons with pre-existing conditions.

altitude	Expected SpO <sub>2</sub> value (oxygen saturation) in %	consequences for humans
1500-2500 m	> 90	No altitude sickness (usually)
2500-3000 m	~90	Altitude sickness, adaptation recommended

Quelle: Hackett PH, Roach RC: High-Altitude Medicine. In: Auerbach PS (ed): Wilderness Medicine, 3rd edition; Mosby, St.Louis, MO 1995; 1-37.

**12. Cleaning / Maintenance****DANGER:**

Do not use high-pressure sterilization on the pulse oximeter!  
 Never hold the pulse oximeter under water, otherwise liquid can penetrate and damage the pulse oximeter.

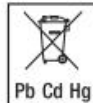
- Clean the housing and the rubberised inner surface of the pulse oximeter after each use a soft cloth dampened with medicinal alcohol.
- If the pulse oximeter display shows a low battery condition, replace the battery batteries off.
- If you will not be using the pulse oximeter for more than a month, remove both batteries the device to prevent possible battery leakage.

**13. Retention****DANGER:**

Store the pulse oximeter in a dry environment (relative humidity  $\leq 95\%$ ). Excessive humidity can shorten the life of the pulse oximeter or damage it. Store the pulse oximeter in a place where the ambient temperature is between -40°C and 60°C.

**14. Disposal**

- You must dispose of the used, completely discharged batteries via specially marked collection containers, hazardous waste collection points or via the electronics retailer. You are legally obliged to dispose of the batteries.
- You will find these symbols on batteries containing harmful substances: Pb = battery contains lead, Cd = battery contains cadmium, Hg = battery contains mercury



In the interest of environmental protection, the device must not be disposed of with household waste at the end of its service life. Disposal can take place at appropriate collection points in your country. Dispose of the device in accordance with the Waste Electrical and Electronic Equipment EC Directive – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the local authority responsible for disposal.

**15. What to do if there are problems?**

Problem	Possible Cause	fix
The pulse oximeter shows no readings	The batteries in the pulse oximeter are empty.	Replace the batteries.
	Batteries not inserted correctly.	Insert batteries again. If readings are still not displayed after correctly installing the batteries, contact customer service.
Pulse oximeter shows Measurement interruptions or high measured value jumps	Insufficient blood flow to the measuring finger.	Observe the warning and safety instructions in Chapter 5.
	Measuring finger is too big or too small.	Fingertip must have the following dimensions: width between 10 - 20 mm. Thickness between 5 - 15mm.
	Finger, hand or body is in motion.	Keep your fingers, hand and body still during the measurement.
No data transmission of the measured values possible	cardiac arrhythmias.	Consult a doctor.
	"beurer HealthManager" app is not activated or Bluetooth® is switched off in the smartphone settings.	Activate Bluetooth® on the smartphone and start the app.
	The batteries in the pulse oximeter are weak or dead.	Replace the batteries.
	Bluetooth® on the device is not activated (OFF).	Switch Bluetooth® on (ON) on the device as described in Chapter 8.

The Bluetooth® word mark and logo are registered trademarks owned by Bluetooth SIG, Inc.

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Google Play and the Google Play logo are trademarks of Google LLC. Android is a trademark of Google LLC.

**16. Specifications**

Model no.	AFTER 60
measurement method	Non-invasive measurement of arterial oxygen saturation of hemoglobin and pulse rate on the finger
measuring range	SpO <sub>2</sub> 0 – 100%, pulse 30 – 250 bpm
accuracy	SpO <sub>2</sub> 70 – 100%, $\pm 2\%$ , Pulse 30 - 250 bpm, $\pm 2$ beats/minute
Dimensions	L 58.5 mm x B 31 mm x H 32 mm
Weight	Approx. 27 g (without batteries)
Sensor technology for measuring SpO <sub>2</sub> red light (wavelength 660 nm); infrared (wavelength 905 nm); silicon receiving diode	
Permissible operating conditions +10°C to +40°C, $\geq 75\%$ relative humidity, 700–1060 hPa ambient pressure	
Permissible storage and transport conditions	-40°C to +60°C, $\geq 95\%$ relative humidity, 500–1060 hPa ambient pressure
power supply	2x 1.5 V AAA batteries
battery life	2 AAA batteries enable approx. 2 years of operation with 3 measurements per day (60 seconds each).
classification	IP22, type BF applied part
data transmission	The pulse oximeter uses Bluetooth® low energy technology, Frequency band 2402 MHz - 2480 MHz, transmission power max. 2.87 dBm, Kompatibel mit Bluetooth® 4.0 Smartphones / Tablets
	List of supported smartphones / tablets

The serial number can be found on the device or in the battery compartment.

Specifications are subject to change without notice for update reasons.

- This device conforms to European standards EN60601-1 and EN60601-1-2 (compliance with CISPR 11, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8) and is subject to special precautions regarding electromagnetic compatibility. Please note that portable and mobile HF communications equipment can affect this device. You can request more detailed information from the customer service address provided.

- The device complies with the EU directive for medical devices 93/42/EEC, the Medical Devices Act and the standard DIN EN ISO 80601-2-61 (medical electrical devices - special specifications for the basic safety and the essential performance features of pulse oximeters for the medical Use).

- We hereby confirm that this product complies with the European RED Directive 2014/53/EU. the You can find the CE declaration of conformity for this product at: www.beurer.com/web/we-landingpages/de/cedclarationofconformity.php.

**Notes on Electromagnetic Compatibility • The device is suitable for operation in all environments specified in these operating instructions, including the domestic environment.**

- The device may only operate in the presence of electromagnetic disturbances be usable to a limited extent. As a result, e.g. error messages or failure of the display/ device occur.
- Using this device in close proximity to other devices or with other devices in gesta peller form should be avoided as it could result in erroneous operation. If use of the prescribed type is nevertheless necessary, this device and the other devices should be observed to ensure that they are working properly.
- The use of accessories other than those specified or provided by the manufacturer of this device can result in increased electromagnetic interference emissions or reduced electromagnetic interference immunity of the device and lead to incorrect operation.
- Keep portable RF communications equipment (including peripherals such as antenna cables or external antennas) at least 30cm away from any part of the equipment, including any cables provided. Non-observance can lead to a reduction in the performance characteristics of the device.
- Non-observance can lead to a reduction in the performance characteristics of the device.

**17. Warranty/Service**

Beurer GmbH, Söflinger Straße 218, D-89077 Ulm (hereinafter referred to as "Beurer") grants a guarantee for this product under the following conditions and to the extent described below.

The following warranty conditions do not affect the statutory warranty obligations of the seller from the purchase contract with the buyer.

The guarantee also applies without prejudice to mandatory statutory liability regulations.

Beurer guarantees the flawless functionality and completeness of this product.

The worldwide guarantee period is 5 years from the start of the purchase of the new, unused product by the buyer.

This guarantee only applies to products that the buyer has purchased as a consumer and uses exclusively for personal purposes within the framework of domestic use. German law applies.

If, during the guarantee period, this product proves to be incomplete or defective in terms of functionality in accordance with the following provisions, Beurer will carry out a replacement delivery or repair free of charge in accordance with these guarantee conditions.

If the buyer would like to report a warranty claim, they should first contact Beurer Customer Service: Beurer GmbH, Service Center Tel.: +49 731 3989-144

For speedy processing, please use our contact form on the website www.beurer.com under the heading 'Service'.

The buyer then receives more detailed information on how to process the guarantee case, eg where to send the product free of charge and which documents are required.

A claim under the guarantee can only be considered if the buyer can present - a copy of the invoice/purchase receipt and - the original product to Beurer or an authorized Beurer partner.

Specifically excluded from this warranty are - wear and tear resulting from normal use or consumption of the product; - accessories supplied with this product which wear out or become damaged through normal use. used up (e.g. batteries, rechargeable batteries, cuffs, seals, electrodes, lamps, attachments, inhaler accessories);

- Products that have been used, cleaned, stored or serviced improperly and/or contrary to the provisions of the operating instructions, as well as products that have been opened, repaired or modified by the buyer or a service center not authorized by Beurer;
- Damage occurring on the transport route between the manufacturer and the customer or between the service center and customer arise
- Products purchased as 2nd choice or used items;
- Consequential damage caused by a defect in this product (in this case, however, Claims from product liability or other mandatory legal liability provisions exist).

Repairs or a complete replacement do not extend the warranty period under any circumstances.

Subject to errors and changes



**Dear customer,**

Thank you for choosing one of our products. Our name stands for high-quality, thoroughly tested products for applications in the areas of heat, weight, blood pressure, body temperature, pulse, gentle therapy, massage, beauty, baby and air. Please read these instructions for use carefully and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

With kind regards,  
Your Beurer team

**1. Included in delivery**

1x PO 60 pulse oximeter, 2x 1.5 V AAA batteries, 1x lanyard, 1x belt bag, 1x these instructions for use

**2. Intended use**

Only use the Beurer PO 60 pulse oximeter on humans to measure the arterial oxygen saturation (SpO<sub>2</sub>) of haemoglobin and the heart rate (pulse rate). The pulse oximeter is suitable for private use (at home) as well as for use in the medical sector (hospitals, medical establishments).

**3. Getting to know your device**

The Beurer PO 60 pulse oximeter provides a non-invasive measurement of the arterial oxygen saturation (SpO<sub>2</sub>) and the heart rate (pulse rate). Oxygen saturation indicates the percentage of haemoglobin in arterial blood that is loaded with oxygen. Therefore it is an important parameter for assessing the respiratory function. To take a measurement, the pulse oximeter uses two rays of light with differing wavelengths, which strike the finger inserted inside the housing. A low oxygen saturation value generally indicates underlying illnesses (respiratory diseases, asthma, heart failure etc.).

People with a low oxygen saturation value are more likely to experience the following symptoms: shortness of breath, increased heart rate, weakness, nervousness and outbreaks of sweating. If oxygen saturation is known to be chronically diminished, it requires monitoring using the pulse oximeter under medical supervision. If you have acutely diminished oxygen saturation, with or without the accompanying symptoms, you must consult a doctor immediately as it could lead to a life-threatening situation. The pulse oximeter is particularly suitable for patients at risk such as people with heart disease or asthma, but also for athletes and healthy people who exercise at high altitude (e.g. mountaineers, skiers or amateur pilots).

**4. Signs and symbols**

The following symbols are used in these instructions for use, on the packaging and on the type plate for the device:

	<b>WARNING</b> Warning instruction indicating a risk of injury or damage to health		Disposal in accordance with the Waste Electrical and Electronic Equipment EC Directive – WEEE
	<b>IMPORTANT</b> Safety note regarding potential for damage to the device/accessories		Do not dispose of batteries containing hazardous substances with household waste.
	<b>Note</b> Note on important information		Manufacturer
	Observe the instructions for use		Application part, type BF
	Arterial oxygen saturation of haemoglobin (in percent)		Serial number
	Pulse rate (beats per minute)		<b>CE labelling</b> This product satisfies the requirements of the applicable European and national directives.
	Permissible storage temperature and humidity		Alarm suppression
	Permissible operating temperature and humidity		Device protected against foreign objects (12.5 mm and against water dripping at an angle

**5. Warnings and safety notes**

Read these instructions for use carefully! Non-observance of the following information may result in personal injury or material damage. Store these instructions for use and make them accessible to other users. Make sure you include these instructions for use when handing over the device to third parties.

**WARNING**

- Check to ensure that the package contains all the parts that should be included in the delivery.
- Check the pulse oximeter regularly before use to ensure that there is no visible damage to the device and the batteries are still sufficiently charged. In case of doubt, do not use the device and contact Beurer customer services or an authorised retailer.
- Do not use any additional parts that are not recommended by the manufacturer or offered as equipment.
- Under no circumstances should you open or repair the device yourself, as faultless functionality could no longer be guaranteed thereafter. Failure to comply will result in voiding of the warranty. For repairs, please contact Beurer customer services or an authorised retailer.

**Do NOT use the pulse oximeter**

- if you are allergic to rubber products.
- if the device or the finger you are using is damp.
- on small children or babies.
- during an MRI or CT scan.
- whilst taking a blood pressure measurement on the same arm using a cuff.
- on fingers that have nail varnish on, are dirty or have a plaster or other dressing on them.
- on large fingers that do not fit into the device easily (fingertip: width approx. > 20 mm, thickness approx. > 15 mm).
- on fingers with anatomical changes, oedemas, scars or burns.
- on fingers that are too small, as with small children for example (width approx. < 10 mm, thickness approx. < 5 mm).

- on patients who are not steady at the site of application (e.g. trembling).
- near flammable or explosive gas mixtures.

- Using the pulse oximeter for long periods may cause pain for people with circulatory disorders. Therefore do not use the pulse oximeter for longer than approx. 2 hours on one finger.
- The pulse oximeter displays an instantaneous measurement but cannot be used for continuous monitoring. The pulse oximeter does not have an alarm function and is therefore not suitable for evaluating medical results.
- Do not self-diagnose 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 pulse oximeter are harmful to your eyes.
- This device is not intended for use by people (including children) with restricted physical, sensory or 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.
- Supervise children around the device to ensure they do not play with it.
- The displays for the pulse wave and pulse bar do not allow the strength of the pulse or circulation to be evaluated at the measurement site. Rather, they are exclusively used to display the current visual signal variation at the measurement site and do not enable reliable diagnostics for the pulse.

Non-observance of the following instructions can lead to incorrect or failed measurements.

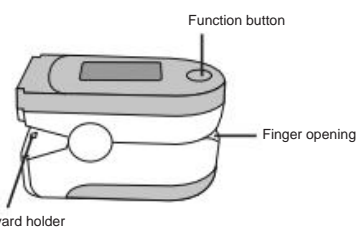
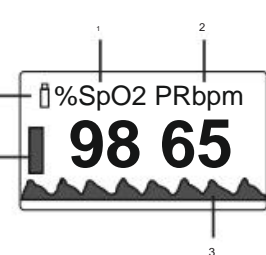
- There must not be any nail varnish, artificial nails or other cosmetics on the finger to be measured. • Ensure that the finger nail on the finger to be measured is short enough that the fingertip covers the sensor elements in the housing.
- Keep your hand, finger and body steady during the measurement.
- For people with cardiac arrhythmia, the measurement values of SpO<sub>2</sub> and the heart rate may be incorrect or the measurement may not be possible at all.
- In cases of carbon monoxide poisoning, the pulse oximeter displays a measurement value that is too high.
- To avoid falsifying the measurement, there should not be any strong light sources (e.g. fluorescent lamps or direct sunlight) in the immediate vicinity of the pulse oximeter.
- People with low blood pressure, who suffer from jaundice or take medication for vascular contraction, may experience incorrect or falsified measurements.
- Incorrect measurements are likely for patients who have been administered medical dye in the past or for those who have abnormal haemoglobin levels. This applies in particular for cases of carbon monoxide poisoning and methaemoglobin poisoning, which can occur for example from the administration of local anaesthetics or from an existing methaemoglobin reductase deficiency.
- Protect the pulse oximeter from dust, shocks, moisture, extreme temperatures and explosive materials.

**Notes on handling batteries • If**

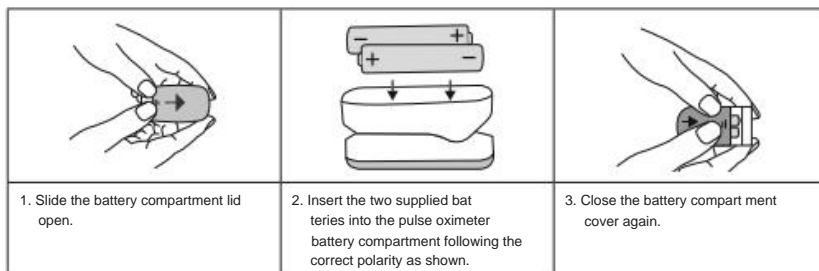
your skin or eyes come into contact with battery fluid, rinse the affected areas with water and seek medical assistance.

- Choking hazard! Small children may swallow and choke on batteries. Store the batteries out of the reach of small children.

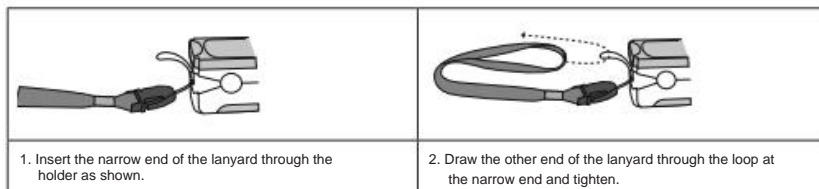
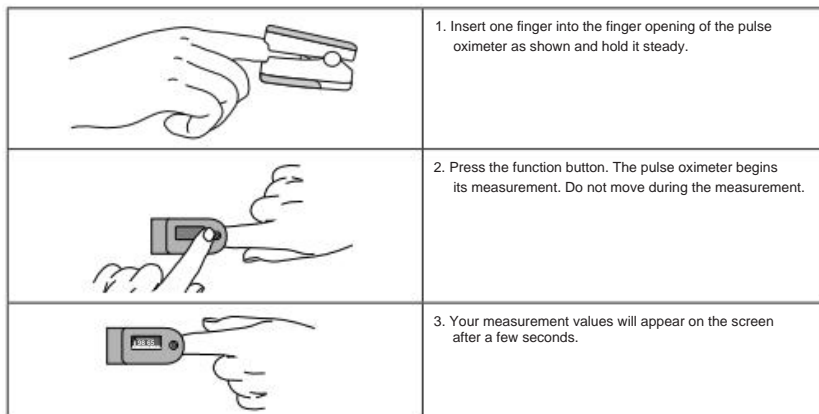
- Observe the plus (+) and minus (-) polarity signs.
- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Protect batteries from excessive heat.
- Risk of explosion! Never throw batteries into a fire.
- Do not charge or short-circuit batteries.
- If the device is not to be used for a relatively long period, take the batteries out of the battery compartment.
- Use identical or equivalent battery types only. • Always replace all batteries at the same time.
- Do not use rechargeable batteries.
- Do not disassemble, open or crush the batteries.

**6. Unit description****Display description**

- Oxygen saturation (value in percent)
- Pulse rate (value in beats per minute)
- Pulse wave (plethysmographic wave)
- Pulse bar
- Battery level indicator

**7. Initial use****7.1 Inserting the batteries****7.2 Attaching the lanyard**

To transport the pulse oximeter more easily you can attach a lanyard to the device.

**8. Operation****Function button**

The function button on the pulse oximeter has four functions in total:

- Switch-on function:** When the pulse oximeter is switched off you can press the function button briefly to switch it on.
- Activating and deactivating Bluetooth®:**
  - Briefly press the function button to switch on the pulse oximeter.
  - After switching on the pulse oximeter, press and hold the function button for 5 seconds, in order to access the Bluetooth® settings. „ON“ or „OFF“ will appear in the display.
  - Briefly press the function button, in order to activate (ON) or deactivate (OFF) Bluetooth®.
  - To return to the measurement, press and hold the function button for 5 seconds.
  - To switch off the pulse oximeter, wait for 10 seconds. The pulse oximeter switches itself off automatically.
- Transferring measurements to the app and synchronising time and date:** See point 10 „Transferring measurements using Bluetooth® low energy technology“.
- Brightness function:** To select your desired display brightness, hold down the function button for slightly longer during operation.

**Note**

The display orients automatically (vertical format, horizontal format). This ensures that the values are easy to read on the display at all times, regardless of how you hold the pulse oximeter.

**9. System requirements for the app „beurer HealthManager“**

- iOS from 10.0, Android™ from 5.0
- from Bluetooth® 4.0

**10. Transfer of measured values via Bluetooth® low energy technology****Note**

Note: Bluetooth® must be activated (ON) if you wish to transfer data. The „beurer HealthManager“ app must be activated if you wish to transfer data.

Each time data is transferred, the time and date are synchronised with the smartphone. To save all of your measurements with the correct date, we recommend connecting your PO 60 to your smartphone before taking the first measurement.

To transfer the measurements to your smartphone via Bluetooth®, proceed as follows: Activate Bluetooth® in your smartphone settings, open the „beurer HealthManager“ app and follow the instructions. In the settings menu of the app, select and connect the PO 60. A randomly generated six-digit PIN code is displayed on the pulse oximeter, and at the same time, an input field appears on the smartphone in which you must enter this six-digit PIN code.

There are two ways in which you can synchronise data with your smartphone. In both instances, Bluetooth® must be activated on your smartphone and on the pulse oximeter (ON). You must also ensure that the „beurer HealthManager“ app is open on your smartphone.

- Option 1:** When the pulse oximeter is switched off, press and hold the function button for 5 seconds. „SYNC“ will flash on the display. The device will now attempt to connect to the app for approx. 10 seconds. „SYNC“ stops flashing as soon as a connection is established. All measurement data in the memory is automatically transferred to the app. The pulse oximeter will then switch off automatically.
- Option 2:** After measurements are taken, the data will automatically be sent to the app. „SYNC“ will flash on the display. The device will now attempt to connect to the app for approx. 10 seconds. „SYNC“ stops flashing as soon as a connection is established. All measurement data in the memory is automatically transferred to the app. The pulse oximeter will then switch off automatically. If Bluetooth® is deactivated (OFF), the message OFF will appear after you have taken the measurement.

**Note**

- Bluetooth® is activated automatically.
- The „beurer HealthManager“ app must be activated to allow data transfers.
- Each time data is transferred, the time and date are synchronised with the smartphone.

**11. Evaluating measurement results**

SpO <sub>2</sub> (oxygen saturation) measurement in %	Classification/measures to be taken
99-94	Normal range
93-90	Decreased range: Visit to the doctor recommended
< 90	Critical range: Seek medical attention urgently

Source: Adapted to "Windisch W et al. Guidelines for Non-Invasive and Invasive Home Mechanical Ventilation for Treatment of Chronic Respiratory Failure Update 2017; Pneumologie 2017; 71: 722795"

**Decline in oxygen saturation depending on altitude****Note**

The following table informs you of the effects of various altitudes on oxygen saturation value and its impact on the human body. The following table does NOT apply to people with certain pre-existing conditions (e.g. asthma, heart failure, respiratory diseases etc.). People with pre-existing conditions can show signs of ill ness (e.g. hypoxia) at lower altitudes.

Altitude	Expected SpO <sub>2</sub> value (oxygen saturation) in %	Impact on human body
1500-2500 m	> 90	No altitude sickness (normally)
2500-3000 m	~90	Altitude sickness, acclimatisation recommended

Source: Hackett PH, Roach RC: High-Altitude Medicine. In: Auerbach PS (ed): Wilderness Medicine, 3rd edition; Mosby, St.Louis, MO 1995; 1-37.

**12. Maintenance/cleaning****IMPORTANT:** Do

not use high-pressure sterilisation on the pulse oximeter!  
Under no circumstances should you hold the pulse oximeter under water, as this can cause liquid to enter and damage the pulse oximeter.

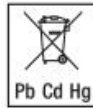
- Clean the housing and the interior rubber surface with a soft cloth dampened with medical alcohol after each use.
- If a low battery status appears on the display of the pulse oximeter, change the batteries.
- If you are not going to use the pulse oximeter for more than one month, remove both batteries from the device to avoid possible leaking.

**13. Storage****IMPORTANT:**

Store the pulse oximeter in a dry place (relative humidity < 95%). If the humidity is too high it may shorten the service life of the pulse oximeter or damage it. Store the pulse oximeter in a place where the ambient temperature is between -40°C and 60°C.

**14. Disposal**

The empty, completely flat batteries must be disposed of through specially designated collection boxes, recycling points or electronics retailers. You are legally required to dispose of the batteries.



The codes below are printed on batteries containing harmful substances:

- Pb = Battery contains lead,
- Cd = Battery contains cadmium, Hg = Battery contains mercury

For environmental reasons, do not dispose of the device in the household waste at the end of its useful life. Dispose of the device at a suitable local collection or recycling point. Dispose of the device in accordance with EC Directive – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the local authorities responsible for waste disposal.

**15. What if there are problems?**

Problem	Possible cause	Solution
The pulse oximeter is not displaying measurement values.	The batteries in the pulse oximeter are empty.	Replace the batteries.
	Batteries not inserted correctly.	Reinsert the batteries. If after reinserting the batteries correctly there are still no measurement values displayed, contact customer services.
The pulse oximeter is displaying measurement interruptions or high measurement value jumps.	Insufficient circulation in the measurement finger.	Observe the warnings and safety notes in section 5.
	Measurement finger is too large or too small.	Fingertip must have the following measurements: Width between 10 and 20 mm. Thickness between 5 and 15 mm.
	Finger, hand or body is moving.	Keep your finger, hand and body still during the measurement.
No data transfer possible for measured values.	Cardiac arrhythmia.	Seek medical attention.
	„beurer HealthManager“ app is not activated or Bluetooth® is switched off in the smartphone settings.	Activate Bluetooth® on the smart phone and start the app.
	The batteries in the pulse oximeter are too low or are empty.	Replace the batteries.
	Bluetooth® is not activated (OFF) at the device.	Activate Bluetooth® on the device by following the instruction of section 8 (ON).

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**16. Technical data**

Model No.	AFTER 60
Measurement method	Non-invasive measurement of arterial oxygen saturation of haemoglobin and pulse rate in finger
Measurement range	SpO <sub>2</sub> 0 – 100%, pulse 30 – 250 beats/minute
Accuracy	SpO <sub>2</sub> 70 – 100%, ±2%, pulse 30 – 250 bpm, ±2beats/minute
Dimensions	L 58.5 mm x W 31 mm x H 32 mm
Weight	Approx. 27 g (without batteries)
Sensor to measure SpO <sub>2</sub>	Red light (wave length 660 nm); infra-red (wave length 905 nm); silicon receiver diode
Permissible operating conditions	+10°C to +40°C, <math>\gamma</math> 75% relative humidity, 700 – 1060 hPa ambient pressure
Permissible storage and transport conditions	-40°C to +60°C, <math>\gamma</math> 95% relative humidity, 500 – 1060 hPa ambient pressure
Power supply	2 x 1.5V AAA batteries
Battery life	2 AAA batteries last for approx. 2 years of operation at 3 measurements per day (each of 60 seconds).
Classification	IP22, application part, type BF
Data transfer	The pulse oximeter uses Bluetooth® low energy technology, 2402 MHz – 2480 MHz frequency band Max. 2.87 dBm transmission power, Compatible with Bluetooth® 4.0 smartphones/tablets
	List of supported smartphones/tablets

The serial number is located on the device or in the battery compartment.

Technical information is subject to change without notification to allow for updates.

- This device conforms with the European standards EN60601-1 and EN60601-1-2 (in accordance with CISPR 11, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8) and is subject to particular precautions with regard to electromagnetic compatibility. Please note that portable and mobile HF communication systems may interfere with this device. For more details, please contact our Customer Services at the address indicated.

- We hereby confirm that this product complies with the European RED Directive 2014/53/EU. The CE Declaration of Conformity for this product can be found at: www.beurer.com/web/web-landingpages/de/declarationofconformity.php.

**Notes on electromagnetic compatibility • The device is**

suitable for use in all environments listed in these instructions for use, including domestic environments.

- The use of the device may be limited in the presence of electromagnetic disturbances. This could result in issues such as error messages or the failure of the display/device.
- Avoid using this device directly next to other devices or stacked on top of other devices, as this could lead to faulty operation. If, however, it is necessary to use the device in the manner stated, this device as well as the other devices must be monitored to ensure they are working properly.
- The use of accessories other than those specified or provided by the manufacturer of this device can lead to an increase in electromagnetic emissions or a decrease in the device's electromagnetic immunity; this can result in faulty operation.
- Keep portable RF communication devices (including peripheral equipment, such as antenna cables or external antennas) at least 30 cm away from all device parts, including all cables included in delivery. Failure to comply with the above can impair the performance of the device.
- Failure to comply with the above can impair the performance of the device.

**15. Warranty/service**

Beurer GmbH, Soefflinger Straße 218, 89077 Ulm, Germany (hereinafter referred to as "Beurer") provides a warranty for this product, subject to the requirements below and to the extent described as follows.

**The warranty conditions below shall not affect the seller's statutory warranty obligations which ensue from the sales agreement with the buyer. The warranty shall apply without prejudice to any mandatory statutory provisions on liability.**

Beurer guarantees the perfect functionality and completeness of this product.

The worldwide warranty period is 5 years, commencing from the purchase of the new, unused product from the seller.

The warranty only applies to products purchased by the buyer as a consumer and used exclusively for personal purposes in the context of domestic use. German law shall apply.

During the warranty period, should this product prove to be incomplete or defective in functionality in accordance with the following provisions, Beurer shall carry out a repair or a replacement delivery free of charge, in accordance with these warranty conditions.

**If the buyer wishes to make a warranty claim, they should approach their local retailer in the first instance: see the attached "International Service" list of service addresses.**

The buyer will then receive further information about the processing of the warranty claim, e.g. where they can send the product and what documentation is required.

A warranty claim shall only be considered if the buyer can provide Beurer, or an authorised Beurer partner, with a copy of the invoice/purchase receipt, and - the original product.

The following are explicitly excluded from this warranty: - deterioration due to normal use or consumption of the product; - accessories supplied with this product which are worn out or used up through proper use (e.g. batteries, rechargeable batteries, cuffs, seats, electrodes, light sources, attachments and nebuliser accessories); - products that are used, cleaned, stored or maintained improperly and/or contrary to the provisions of the instructions for use, as well as products that have been opened, repaired or modified by the buyer or by a service centre not authorised by Beurer;

- damage that arises during transport between manufacturer and customer, or between service centre and customer;
- products purchased as seconds or as used goods;
- consequential damage arising from a fault in this product (however, in this case, claims may exist arising from product liability or other compulsory statutory liability provisions).

Repairs or an exchange in full do not extend the warranty period under any circumstances.

Subject to errors and changes