

**PHILIPS**

**DL8765**



**EN-UK**



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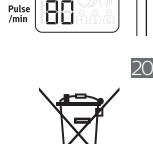
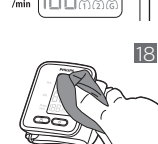
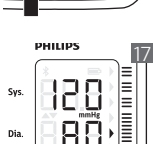
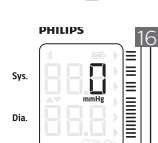
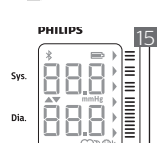
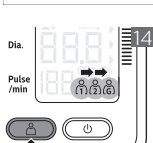
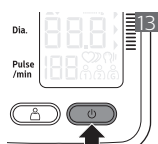
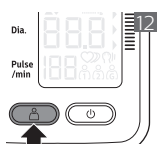
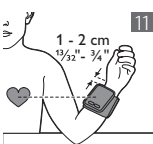
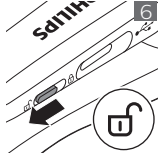
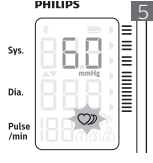
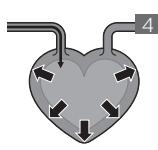
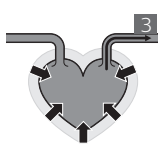
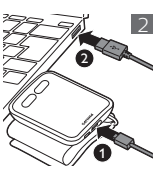
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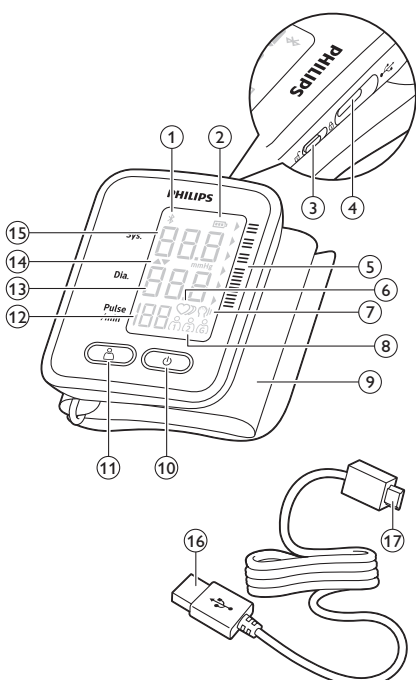
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## Introduction

Congratulations on your purchase and welcome to Philips! To fully benefit from the support that Philips offers, register your product at [www.philips.com/welcome](http://www.philips.com/welcome).

## General

The Philips wrist blood pressure monitor with Bluetooth® enables you to perform blood pressure measurements, heart rate (pulse) measurements, transmit data via Bluetooth® to your mobile device and display your personal measurement results in the Philips HealthSuite health app. The device can also be used as a standalone device.

This user manual contains important safety information and provides step-by-step instructions for using the blood pressure monitor.

Read this information carefully before you use the blood pressure monitor and save it for future reference.

Features:

- 46.8mm×29.3mm display with white backlight
- Measure-during-inflation technology
- Supports 2 users

## Intended use

The Philips wrist blood pressure monitor is a digital monitor intended for use in measuring blood pressure and heart rate in adult patient population, with wrist circumference ranging from 13.5 cm to 21.5 cm (about 5-8.5 inches). The device is intended to be used in a home environment.

## Explanation of symbols

The warning signs and symbols are essential to ensure that you use this product safely and correctly and to protect you and others from injury. Below you find the meaning of the warning signs and symbols on the label and in the user manual.



Symbol for 'follow instructions for use'.



This symbol means that the part of the device that comes into physical contact with the user (also known as the applied part) is of type BF (Body Floating) according to IEC 60601-1. The applied part is the cuff.



Symbol for 'the device complies with European Medical Device Directive 93/42/EEC requirements'. 0344 refers to the notified body.



Symbol for WEEE, waste electrical and electronic equipment. Electrical waste products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice and see chapter 'Battery recycling'.



This symbol means that this product contains batteries which shall not be disposed of with normal household waste (2006/66/EC).



Indicates the manufacturer, as defined in EU Directives 93/42/EEC.



Indicates manufacturing date.



Symbol for 'direct current'.



Symbol for the 'Bluetooth Combination mark'. The device uses Bluetooth for communication.



Indicates the manufacturer's batch code.



Indicates the manufacturer's serial number so that a specific medical device can be identified.



Fuse T1A/250V  $\Phi$ 3.6\*10CCC.



Symbol for 'Class II Equipment'. The adapter is double insulated (Class II) and complies with IEC 60601-1.



Symbol for indoor use only.



Symbol for 'Including RF transmitter'. This means that this device emits non-ionizing radiation. All devices with RF transmitters or that use RF electromagnetic energy must have a label with this symbol.



Indicates caution. The user should consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.



Symbol for micro-USB connector.



Symbol for USB connector.

IP22

This symbol on the device means: protected against access to hazardous parts with a finger and against vertically falling water drops when tilted up to 15 degrees.



Indicates the storage and transportation temperature limits to which the medical device can be safely exposed: -20°C to 60°C.



Symbol for the 2 year Philips guarantee.



The Green Dot ('Der Grüne Punkt' in German) is the license symbol of a European network of industry-funded systems for recycling the packaging materials of consumer goods.

## General description (Fig. 1)

- 1 Bluetooth® symbol
- 2 Battery symbol
- 3 Lock switch
- 4 Socket for micro USB plug
- 5 Blood pressure classification
- 6 Heart rate/irregular heart rate detector
- 7 Movement detector
- 8 User IDs
- 9 Cuff
- 10 On button
- 11 User ID button
- 12 Heart rate
- 13 Diastolic blood pressure
- 14 Inflation/deflation indicator
- 15 Systolic blood pressure
- 16 USB plug
- 17 Micro USB plug

## Important safety information

Read this important information carefully before you use the device and save it for future reference.

### Warning



- Please keep the unit out of reach of infants, children or pets, since inhalation or swallowing of small parts can be dangerous or even fatal.
- The device is not suitable for measuring the blood pressure of children.
- The device is not suitable for persons who have electrical implants.
- Do not use this blood pressure monitor on any arm where intravascular access or therapy (such as an intravenous drip or a blood transfusion), or an arterio-venous shunt (A-V shunt) is present. The temporary interference to blood flow by the blood pressure measurement could result in injury.
- If you had a mastectomy (breast amputation) do not use this blood pressure monitor on the arm on the side of the mastectomy. The inflating cuff can lead to pain, trauma and further injury in the arm on the side of the mastectomy.
- Consult your doctor if you suffer from illnesses prior to using the device.
- No modifications of this equipment are allowed. This may result in increased emissions or decreased immunity of the device.
- Do not use the blood pressure monitor during charging as it can cause injury.
- Do not touch the output of the adapter as it can cause injury.
- Do not dispose of batteries in fire. Battery may explode or leak.
- If you experience discomfort during a measurement, such as pain in the arm or other complaints, press the 'on' button to release the air immediately from the cuff. Loosen the cuff and remove it from your wrist.
- On the rare occasion of a fault causing the cuff to remain fully inflated during measurement, open the cuff immediately. Prolonged high pressure (cuff pressure >300 mmHg or constant pressure >15 mmHg for more than 3 minutes) applied to the arm, may lead to bruises (ecchymosis).
- Too frequent and consecutive measurements could cause disturbances in blood circulation and injuries.
- Beware of strangulation particularly for children and infants due to cables.
- Do not connect the tube to other medical equipment, as this could lead to dangerous injuries.
- This device is not intended for patients outside a home environment.
- Never use any accessories or parts from other manufacturers or that Philips does not specifically recommend. Using such accessories or parts could cause a hazardous situation for the user or damage to the device.
- Only use the accessories and detachable parts authorized by the manufacturer. The use of unauthorized parts or accessories may cause damage to the device or injury to the user.

### Caution










- Always check the device before you use it. Do not use the device if it is damaged, as this may cause injury.
- The effectiveness of this blood pressure monitor has not been established in pregnant (including pre-eclamptic) women.

- Common arrhythmias (such as atrial or ventricular premature beats or atrial fibrillation) and peripheral artery disease / arteriosclerosis can affect the performance (accuracy) of this blood pressure monitor. Please consult your doctor how to best use this blood pressure monitor if you suffer from any of these conditions.
- Only use this device for its intended purpose as described in this user manual.
- Do not confuse self-monitoring with self-diagnosis. This device allows you to monitor your blood pressure. Do not begin or end medical treatment based on the measurement results. Always consult your doctor for treatment advice.
- Do not take any therapeutic measures on the basis of a self-measurement. Never change prescribed medication without consulting your doctor. Consult your doctor if you have any questions about your blood pressure.
- If you are taking medication, consult your physician to determine the most appropriate time to measure your blood pressure.
- This device is not intended for use on extremities other than the wrist or for functions other than obtaining a blood pressure measurement.
- If the cuff pressure exceeds 40kPa (300mmHg), the unit will deflate automatically. If the cuff does not deflate when pressures exceeds 40kPa (300mmHg), detach the cuff from the wrist and press the 'on' button to stop inflation.
- Do not attach the cuff on the same arm on which other monitoring medical electrical equipment is attached simultaneously, because this could cause temporary loss of function of those simultaneously-used monitoring medical electrical equipment.
- Never attach the cuff on injured skin, an injured arm or an arm under medical treatment as this can cause further injury.
- Do not use the device in case of existing polyester or nylon material allergies.
- This device is not washable. Never immerse the device in water and do not rinse it under the tap.
- This device is not suitable for continuous monitoring during medical emergencies or operations.
- This device cannot be used with HF (High Frequency) surgical equipment at the same time.
- Never use compressed air, scouring pads, abrasive cleaning agents or aggressive liquids such as petrol or acetone to clean the device.
- If the battery can no longer be recharged or when the device does not function properly anymore (see 'Specifications'), please contact the Philips Consumer Care center in your country.
- Keep the device away from fire and heat sources, as the battery can overheat, causing fire or bursting. The battery could explode, causing injury or death.
- After charging, remove the micro USB plug from the device and remove the USB plug from USB portal.
- The equipment is not AP/APG equipment and is not suitable for use in the presence of a flammable anesthetic mixture with air, with oxygen or nitrous oxide.
- To avoid measurement errors, do not use the device near strong electrical or magnetic fields, for example magnets, radio transmitters, microwave ovens.
- To avoid measurement errors, do not use the device near a strong electromagnetic field radiated interference signal or electrical fast transient/burst signal.
- Use this device under the right environmental conditions as indicated in this user manual. If not, this could affect the performance, lifetime of the device and measurement results.
- Use a soft cloth to clean the whole unit. Do not use any abrasive or volatile cleaners.
- Only use the micro USB cable supplied to charge the device.
- The device does not need to be calibrated for two years of normal use. After two years the measurements may become less accurate.
- If you have any problems with this device, such as setting up, malfunction, maintaining or using, please contact Philips Consumer Care.
- Do not open, disassemble or repair the device yourself. Modification of the device voids your warranty.
- Report to Philips Consumer Care if any unexpected operation or events occur.
- Dispose of accessories, detachable parts, and the ME equipment according to the local guidelines.
- Do not attempt to replace your blood pressure monitors battery. It is built-in and not changeable.
- Avoid charging your blood pressure monitor in extremely high or low temperatures (see 'Specifications').
- Do not clean the blood pressure monitor when it is being charged. Always unplug the charger first before cleaning the blood pressure monitor.



### **Compliance with standards**

- The device meets the relevant standards for this type of Class IIa electrical medical equipment for home use.
- This Philips device complies with all applicable standards and regulations regarding exposure to electromagnetic fields and complies with EN 60601-1-2.

## Display

Sym bol	Description	Explanation
<b>Sys.</b>	Systolic blood pressure	Maximum blood pressure. Also see section Systolic and diastolic pressure
<b>Dia.</b>	Diastolic blood pressure	Minimum blood pressure, also see section Systolic and diastolic pressure.
Pulse/min	Heart rate	Number of heartbeats per minute (pulse is typically equivalent to heart rate).
	Battery status	Indicates status of battery during charging.
<b>mmHg</b>	Measurement unit	Measurement unit of blood pressure.
	Inflation indicator	The cuff is inflating.
	Deflation indicator	The cuff is deflating.
	Irregular heart rate detector	Irregular heart rate detection during the measurement.
	User IDs	Start measurement for selected user, and transmit the measuring result.
	Movement detector	Moving during the measurement will result in an inaccurate result.
	Blood pressure classification	Classification of measured blood pressure following WHO system (see 'Blood pressure classification').
	Bluetooth® symbol	The device uses Bluetooth for communication.
	Heart rate detection	Heart rate detection during the measurement

## Battery status indications

Battery symbol	Battery status
	The battery is almost empty.
	The battery is empty.

When you measure 3 times a day starting with a fully charged battery, the device can be used for about 20 days until a recharge is needed. In case of normal use, the battery can be charged around 300 times.

Note: Data will be lost when the battery is completely empty.




## Charging

The battery of this device is a built-in rechargeable li-polymer battery with a capacity of 420 mAh. Use the original USB cable supplied to charge the battery.

When the battery is empty, it takes approx. 2 hours to fully charge the battery of the device.

- 1 Put the micro USB plug in the socket of the device (Fig. 2).
- 2 Put the USB cable in a USB port of a compatible charger.

## Battery charging indications

Battery symbol	Battery charging indication
	Battery charging: half full
	Battery charging: almost full
	Battery fully charged

## Using the blood pressure monitor

This tubeless device uses the oscillometric method to measure blood pressure and heart rate.

Before every measurement, the unit establishes a “zero point” equivalent to the atmospheric pressure. Then it starts inflating the cuff. During the measurement, the device detects the pressure oscillations in the blood vessels generated by the heart pumping blood through the body. These pressure oscillations are used to determine systolic and diastolic blood pressure as well as heart rate. While measuring heart rate, the device also determines the small variations between the individual heartbeats. If these variations exceed a pre-defined threshold, the irregular heart rate detector symbol lights up.

## Systolic and diastolic pressure

The heart consists of two large chambers, the ventricles and two smaller chambers, the atria. The ventricles collect blood from the atria and expel it towards the peripheral beds of blood vessels within the body and the lungs. The atria collect blood from these peripheral beds and prime the ventricles.

When the ventricles contract and pump blood out of the heart, the blood pressure reaches its maximum value in the cycle, which is called systolic pressure (Fig. 3).

When the ventricles relax and are filled again with blood, the blood pressure reaches its minimum value in the cycle, which is called diastolic pressure (Fig. 4).

## Blood pressure classification

Consult a doctor in case of questions about your blood pressure. Your doctor can inform you:

- About your normal blood pressure range.
- If your measuring result falls out of the range.

- Whether your blood pressure has reached a dangerous level.

The following table shows the classification system for the blood pressure measurements used in this device. This system follows the classification system of the World Health Organisation (WHO).

#### **Blood pressure classification according to WHO system\***

Systolic pressure mmHg	Diastolic pressure mmHg		Blood pressure indicator
≥180	≥110	severe hypertension	red
160 - 179	100 - 109	moderate hypertension	orange
140 - 159	90 - 99	mild hypertension	yellow
130 - 139	85 - 89	high to normal blood pressure	green
120 - 129	80 - 84	normal blood pressure	green
< 120	< 80	optimal blood pressure	green
< 100	< 60	low blood pressure	green

\*Source: Chalmers J et al. WHO-ISH Hypertension Guidelines Committee. 1999 World Health Organization - International Society of Hypertension Guidelines for the Management of Hypertension. J Hypertens, 1999, 17:151-185.

#### **Irregular heart rate detector**

The device is equipped with an irregular heart rate detector. An irregular heart rate is detected when the heart rhythm varies above a pre-defined level while the device is measuring the systolic and diastolic blood pressure. During each measurement, this device records the heartbeat intervals and calculates the standard deviation. If the standard deviation exceeds a pre-defined threshold, the irregular heart rate detector symbol lights up when the measurement results are displayed (Fig. 5).

**Caution:** The appearance of the irregular heart rate detector symbol indicates that a heart rate irregularity was detected during measurement. Usually this is not a cause for concern. Due to the irregularity in your heart rate the blood pressure measurement might not be accurate, i.e. it might not reflect the 'real' situation in your body. However, if the symbol appears often, we recommend that you seek medical advice. Please note that the device does not replace a cardiac examination.

#### **Preparing for use**

##### **Pairing the blood pressure monitor to your Bluetooth device**

Note: Before using the device, make sure the lock switch is placed in the 'on' position (Fig. 6).

Note: To switch on the device for the first time, press the 'on' button for 3 seconds.

Note: Before you use the device for the first time, remove the protective foil from the display.

The blood pressure monitor is equipped with Bluetooth. You can receive your personal health data on a mobile device that is equipped with the Bluetooth function. Download the Philips HealthSuite health app from the App store or Google Play. Use the search term 'Philips HealthSuite health app'. The app is available for iOS 8.0+ and Android 4.4+.

Note: You can only use the Philips HealthSuite health app to communicate with the device. It is not possible to use third party applications.

- 1 Download the Philips HealthSuite health app on your mobile device, start the Setup wizard and follow the steps to create a user profile and add the blood pressure monitor.
- 2 Make sure the app is active and Bluetooth is on when pairing is in progress.
  - Keep the mobile device and the blood pressure monitor within transmission range (no more than 5 meters from each other, in the same room).
- 3 With the device turned off, press the 'on' button for 3 seconds, until it turns on in pairing mode.
  - These symbols are shown on the display alternately, indicating that the connection is being established: (Fig. 7) and (Fig. 8).
- 4 When pairing is successful, the app shows this symbol: (Fig. 9). The app shows which user profile is assigned to you.
  - If the connection fails, the display shows this symbol: (Fig. 10).
  - The blood pressure monitor has 2 user profiles. If both user profiles are in use, choose an existing profile to overwrite.
  - You can also delete both user profiles by pressing and holding the user ID button for approx. 10 seconds. The display of the device shows 'del'. All stored data is deleted and you have to follow step 1-4 to pair and add a new user.
- 5 The blood pressure monitor shows the Bluetooth icon on the display as soon the connection has been established and switches off automatically after a few seconds.

When the blood pressure monitor is successfully paired with your mobile device, the blood pressure monitor automatically transmits your personal health data to your mobile device via Bluetooth.

Note: Only when the Philips HealthSuite health app is active, your personal health data can be transmitted.

# Measuring blood pressure

## Tips for proper measurement

- Rest for 5 minutes before you measure your blood pressure.
- Wait at least 3 minutes between measurements. This allows your blood circulation to recover.
- For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time, on the same arm, or as directed by your doctor.
- For a good Bluetooth connection between the blood pressure monitor and your mobile device, make sure the two are in close distance and there are no obstacles between the two devices. We recommend not to have the two devices further than 5 meters apart.

We do not advise you to take a measurement in the following circumstances, as this may cause inaccurate measurements:

- Within 1 hour after eating or drinking
- Immediately after drinking coffee or tea
- Immediately after smoking
- Within 20 minutes after taking a bath
- While you are talking or moving your arm, hand or fingers
- In a very cold environment
- When you need to urinate

## Attaching the cuff

- 1 Remove all jewelry, such as watches and bracelets from your left arm.

Note: If your doctor has diagnosed you with poor circulation in your left arm, use your right arm.

- 2 Roll or push up your sleeve to expose the skin. Make sure your sleeve is not too tight.
- 3 Hold you arm with your palm facing up and slide the cuff onto your left wrist.
- 4 Position the upper edge of the cuff about 1 cm below the palm of your hand (Fig. 11).
- 5 Fasten the cuff around your wrist, leaving no extra room between the cuff and your skin. If the cuff is too loose, the measurement will not be accurate.
  - The cuff will not cause any potential sensitization or irritation of the skin. The materials of the cuff have been tested and found to comply with requirements of ISO 10993-5:2009, ISO 10993-1:2009 and ISO 10993-10:2010.
- 6 Correct posture for measurement:
  - Make sure you do not wear tight clothing during measurement.
  - Sit comfortably with legs uncrossed, feet flat on the floor. Make sure that you sit upright with your back straight.
  - **Hold your arm up so that the center of the cuff is at the same level as the heart to ensure correct** measurements (Fig. 11).
  - Relax your wrist and hand. Do not bend your wrist back, clench your fist, or bend your wrist forward.

## Start measurement

- 1 Before using the device, make sure the lock switch is placed in the 'on' position (Fig. 6).
- 2 Press the user ID button (Fig. 12) or 'on' button (Fig. 13) once, to switch on the device. The device automatically selects the previous user.
  - To change the user profile, press the user ID button and select a different user (Fig. 14). Make sure the correct user is selected, so the measurement data is properly transmitted and stored.
  - Also a guest user can be selected. The guest user is for performing a measurement on other persons without a user profile in the app. Measurements performed when using the guest user are not stored in the memory nor transmitted to the app.
- 3 Attach the cuff to your wrist (see 'Attaching the cuff') and make sure your posture is correct (see 'Tips for proper measurement').
- 4 Press the 'on' button to start the measurement (Fig. 13). All display characters are briefly shown on the display (Fig. 15). The device is ready for measurement and the number 0 appears (Fig. 16). Inflation of the cuff starts automatically which is indicated by the inflation indication (see 'Display').
  - During inflation, the unit determines the systolic pressure and diastolic pressure as well as heart rate. This is shown by the heart rate detection symbol.
  - The movement detector will light up when movement is detected. This may result in inaccurate measurement results.
- 5 When the measurement is finalized, the cuff deflates and the measurement results are shown on the display (Fig. 17). To transmit the measurement results to the app, see section 'Transmit and store personal health data in the app'.
- 6 Press the 'on' button to switch off the device.

Note: after 1 minute, the device will turn off automatically

- 7 Slide the lock switch to the 'off' position to lock the buttons.

If, after finishing the first measurement, another measurement is required, do not lock the buttons but press the user ID button to select the correct user profile and follow steps 2-7.

Note: Wait at least 3 minutes between measurements. This allows your blood circulation to recover.

The device can store results of 60 blood pressure measurements for both user 1 and 2. However, only your current measurement will be visible on the device display. Your previous measurements will be visible in the app after syncing.

## Transmit and store personal health data in the app

Note: Your personal measurement data is only stored and displayed in the Philips HealthSuite health app.

- 1 Activate the Philips HealthSuite health app and Bluetooth on your mobile device directly after a measurement.
  - Keep the mobile device and the blood pressure monitor at transmission distance (no more than 5 meters from each other, in the same room).
- 2 Once successfully connected, the measurement results are transmitted to the health app and the Bluetooth symbol lights up.
  - If the data transmission is successful, the measurement results are displayed in the health app.
  - If the data transmission fails, 'the Bluetooth symbol together with 'Err' is shown. The pending measurement data will be transmitted to your mobile device the next time it connects with your blood pressure monitor. You can also try to resend the data:
    - Activate the Health app on your mobile device.
    - Press the user ID button or 'on' button to switch on the blood pressure monitor.
    - The measurement results will be automatically sent to your mobile device if a user profile has been connected.
    - When the blood pressure monitor connects via Bluetooth to the app of a user, the device will automatically select that user and measurements can only be done for that user.

## Cleaning and storage

**Caution: This device is not washable. Never immerse the device in water and do not rinse it under running water.**

**Caution: Avoid violent movements and hard contacts with objects.**

- 1 Switch off the device and unplug the USB plug from the USB port.
- 2 Use a slightly damp or dry cloth to wipe the surface of the monitor (Fig. 18).
- 3 Store the device in a cool, dry, and ventilated environment. For further information please refer to the transport and storage specifications detailed in this manual.

## Ordering accessories

To buy accessories or spare parts, visit [www.shop.philips.com/service](http://www.shop.philips.com/service) or go to your Philips dealer. You can also contact the Philips Consumer Care Center in your country (see the international warranty leaflet for contact details).

## Recycling

- This symbol means that this product shall not be disposed of with normal household waste (2012/19/EU) (Fig. 19).
- This symbol means that this product contains a built-in rechargeable battery which shall not be disposed of with normal household waste (Fig. 20) (2006/66/EC). We strongly advise you to take your product to an official collection point or a Philips service center to have a professional remove the rechargeable battery.
- Follow your country's rules for the separate collection of electrical and electronic products and rechargeable batteries. Correct disposal helps prevent negative consequences for the environment and human health.

## Removing the rechargeable battery

**Warning: This procedure is irreversible. You cannot use the device anymore after this procedure.**

Note: We strongly advise you to take your product to an official collection point or a Philips service centre to have a professional remove the battery.

**Caution: Observe basic safety precautions when you follow the procedure described below. Be sure to protect your eyes, hands, fingers, and the surface on which you work.**

- 1 Make sure the rechargeable battery is empty.
- 2 Open the device.
- 3 Remove the battery with appropriate tools.

## Warranty and support

If you need information or support, please visit [www.philips.com/support](http://www.philips.com/support) or read the international warranty leaflet.

Recalibration can be carried out by an appropriate authority or authorized service center. This calibration will be charged for by said authority.

If you need more information about the app, please visit [www.philips.com/healthprograms](http://www.philips.com/healthprograms)

## Troubleshooting

This chapter summarizes the most common problems you could encounter with the device. If you are unable to solve the problem with the information below, visit [www.philips.com/support](http://www.philips.com/support) for a list of frequently asked questions or contact the Consumer Care Center in your country.



## Troubleshooting

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
My blood pressure fluctuates throughout the day.	Your measurement position, the conditions under which you measure or the time of measurement, are different during each measurement.	For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time, on the same wrist, or as directed by a doctor.
	Fluctuations of blood pressure during the day are normal.	Blood pressure fluctuates from minute to minute and normally shows a circadian rhythm over a 24-hour period, with highest readings in the afternoons and lowest readings at night. That is why, for comparable measurements, the measurements should be taken at approx. the same time of day.
	You are using medication.	The variations in blood pressure can be greater if you are using medication.
	You performed multiple measurements directly after each other.	Wait at least 3 minutes between measurements. This allows your blood circulation to recover.
My blood pressure measurement from the hospital is different from the measurement at home.	Multiple variables may affect your blood pressure such as the weather, emotions and exercise.	Pay attention when you measure your blood pressure at home. Check for instance: If the cuff is not too tight or too loose. If the cuff is properly attached on the wrist. If you feel anxious or stressed, try to relax. Take a deep breath 2-3 times before you start a measurement. Advice: Rest for 5 minutes before you measure your blood pressure.
The result is different when I perform measurements on my right wrist.	The blood pressure monitor is suitable to be used on both wrists, but the measurement results on the right wrist and left wrist will differ.	For a meaningful comparison, try to measure under similar conditions and measure on the same wrist every time.
The blood pressure monitor does not work when I press the 'on' button	The rechargeable battery is empty.	Recharge the battery (see 'Charging').
	The lock switch is set to the 'locked' position.	Set the lock switch to the 'unlocked' position (Fig. 7).
The light of the display dims and a battery symbol+Lo is showing	The battery is low.	Charge the battery (see 'Charging').
The display shows Err	Communication error.	Check if the app is on and try data transmission again.
The display shows E3	The cuff is not properly secured.	Refasten the cuff, wait for 3 minutes and then measure again.
The display shows E10 or E11	The device detected motion, talking or the heart rate is too weak during the measurement.	Wait for 3 minutes and then measure again. Do not move during measurement.
The display shows E20	The device does not detect the heart rate.	Make sure the device is in contact with the skin. Loosen the clothing on the arm and measure again.
The display show E21	The measurement failed.	Wait for 3 minutes and then measure again.

Problem	Possible cause	Solution
The display shows EExx	A system error occurred.	Retake the measurement. If the problem persists, contact the Philips Consumer Care Center in your country.
Data transmission or pairing failed.	Bluetooth is off.	Turn on Bluetooth on your mobile device.
	The Philips HealthSuite health app is off.	Press the icon on your mobile device to activate the health app.
	The blood pressure monitor and mobile device are more than 5 meters away from each other.	Place your mobile device closer to the blood pressure monitor.
	You selected the wrong profile on the blood pressure monitor.	Select the correct user profile on the blood pressure monitor before your measurement. Otherwise the data cannot be transmitted to your app. Repeat the measurement with the correct profile selected

## Specifications

Power supply	3.7V 420mAH built-in rechargeable li-polymer battery
Display	Display with white backlight Visible area = 46.8mm (L) x29.3mm (W)
Measurement method	Oscillometric method
Measurement range	Rated cuff pressure: 0kPa-40kPa (0mmHg-300mmHg) Measurement pressure: 4kPa-34kPa (40mmHg-230mmHg) heart rate: 40-199 beats per minute
Accuracy	Pressure: 5°C-40°C within ±0.4kPa (±3mmHg) heart rate:±5% of measurement result on display
Normal operating conditions	Temperature: 5°C to 40°C. Relative humidity: ≤85%RH. Atmospheric pressure: 86kPa to 106kPa
Storage and transportation conditions	Temperature: -20°C to 60°C. Relative humidity: 10% to 93%. Atmospheric pressure: 50kPa to 106kPa
Measurement perimeter of the wrist	About 13.5cm-21.5cm
Net weight	Approx. 100g
External dimensions	Approx. 80mm×65mm×13.2mm
Accessories	USB cable, user manual
Mode of operation	Continuous operation
Degree of protection	Type BF applied part
Protection against ingress of water	IP22, This means: protected against access to hazardous parts with a finger and against vertically falling water drops when tilted up to 15 degrees.
Device classification	Battery Powered Mode: Internally Powered ME Equipment. Class II ME Equipment
Frequency band	2402-2480 MHz
Modulation	GFSK
Effective radiated power	Max. +5dBm

**Caution: No modification of this equipment is allowed.**

## Electromagnetic emissions and immunity

The device is approved according to EMC safety standard EN 60601-1-2. It is designed to be used in typical domestic environments.

Hereby, Philips Consumer Lifestyle BV declares that the radio equipment type Bluetooth LE is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: [www.philips.com/support](http://www.philips.com/support)

## EMC Guidance

- The Blood Pressure Monitor needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the accompanying documents.
- Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies can affect this equipment and should be kept at least a distance  $d = 3.3 \text{ m}$  away from the equipment.

Note: As indicated in IEC 60601-1-2:2007 for ME equipment, a typical cell phone with a maximum output power of 2 W yields  $d = 3.3 \text{ m}$  at an immunity level of 3V/m.

### Table 1 Guidance and manufacturer's declaration – electromagnetic emissions – for all ME equipment and ME systems

Guidance and manufacturer's declaration – electromagnetic emissions

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The device must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	

### Guidance and manufacturer's declaration – electromagnetic immunity – for all ME equipment and ME systems

Guidance and manufacturer's declaration – electromagnetic immunity

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	$\pm 6 \text{ kV}$ contact $\pm 8 \text{ kV}$ air	$\pm 6 \text{ kV}$ contact $\pm 8 \text{ kV}$ air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	$\pm 2 \text{ kV}$ for power supply lines $\pm 1 \text{ kV}$ for input/output lines	$\pm 2 \text{ kV}$ for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	$\pm 1 \text{ kV}$ line(s) to line(s) $\pm 2 \text{ kV}$ line(s) to earth	$\pm 1 \text{ kV}$ line(s) to line(s)	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 s	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60-Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: UT is the AC mains voltage prior to application of the test level.

### Table 4 Guidance and manufacturer's declaration – electromagnetic immunity –for ME equipment and ME systems that are not life supporting

Guidance and manufacturer's declaration – electromagnetic immunity .The device is intended for use in the electromagnetic environment

specified below. The customer or the user of the device should assure that it is used in such an environment.

<b>IMMUNITY test</b>	<b>IEC 60601 TEST LEVEL</b>	<b>Compliance level</b>
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m

Electromagnetic environment - guidance  
Portable and mobile RF communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Recommended separation distance:

$$d = 1.2 \sqrt{P}$$

$$d = 1.2 \sqrt{P} \text{ 80 MHz to 800MHz}$$

$$d = 2.3 \sqrt{P} \text{ 800 MHz to 2.5 GHz}$$

where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and  $d$  is the recommended separation distance in metres (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey (a), should be less than the compliance level in each frequency range (b).

Interference may occur in the vicinity of equipment marked with the following symbol:



NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

(a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.

(b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

### **Table 6 Recommended separation distances between portable and mobile RF communications equipment and the ME equipment or ME system – for ME equipment and ME systems that are not life supporting**

Recommended separation distances between portable and mobile RF communications equipment and the device.

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.

	<b>Separation distance according to frequency of transmitter (m)</b>		
Rated maximum output power of transmitter (W)	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3$
0.01	0.12	0.12	0.2
0.1	0.37	0.37	0.74
1	1.2	1.2	2.3
10	3.7	3.7	7.4
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80MHz and 800MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.