



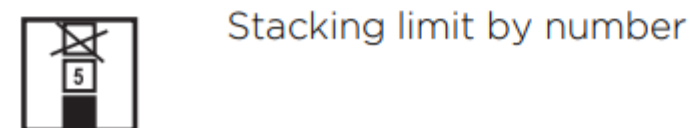
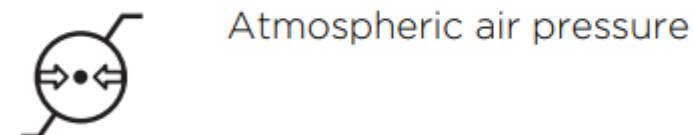
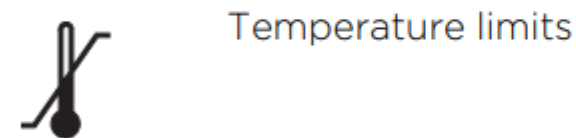
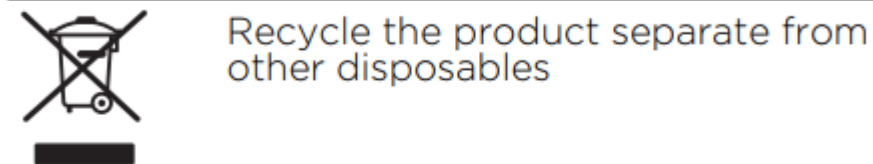
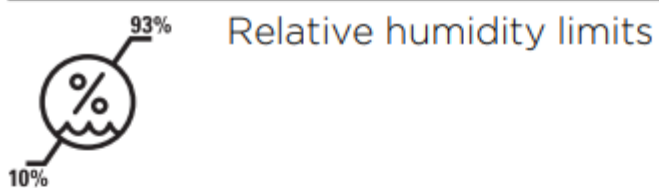
Directions for use Blood Pressure System

Symbols








Power symbols

-  Direct current
-  Power









Shipping, storing, and environment symbols



Blood pressure device and cuff symbols

	SureBP technology logo
	Artery marker
	Range
	Index edge
	Limb circumference (Minimum/Maximum)
	Lot code
	Not made with natural rubber latex

Miscellaneous symbols

	Type BF applied part
	Serial number
	Product Identifier
	Manufacturer
	Reorder number, Model number
	Non-ionizing electromagnetic radiation
	Global Trade Identification Number
	Class II equipment

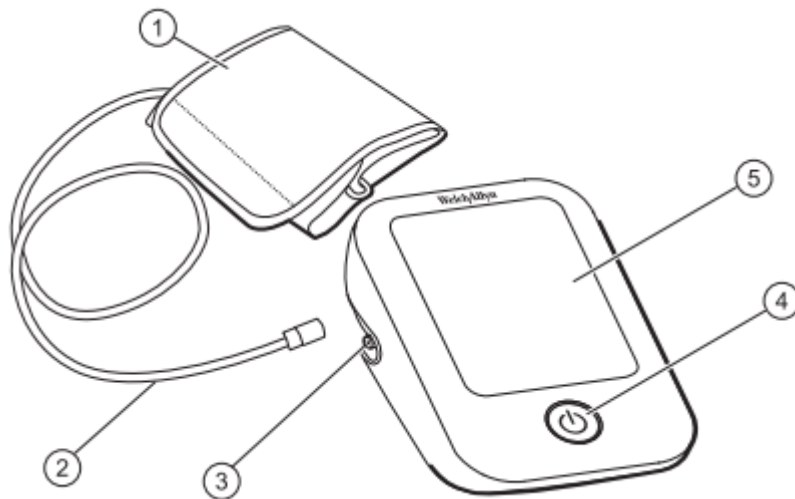
IP22	Ingress protection: the device is protected against solid foreign objects of 12.5mm and greater and against vertically falling water drops when ENCLOSURE is tilted up to 15°
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Bluetooth

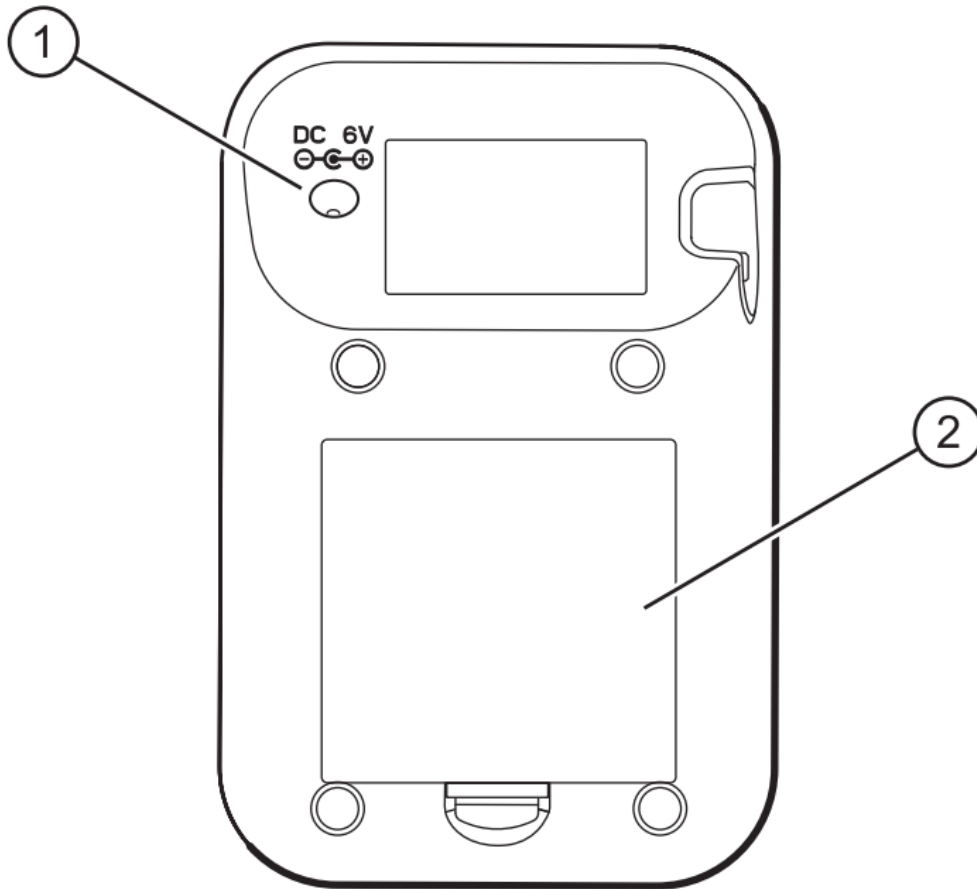
Controls and indicators

Monitor front



No.	Feature	Description
1	Blood pressure cuff	Apply to upper arm to take a blood pressure measurement
2	Air tube	Connects the cuff to the air connector plug
3	Air connector plug	Air tube connects to the air connector plug
4	Power button	Powers on the monitor, starts and stops a blood pressure measurement, and — when pressed for 2 seconds — initiates a <i>Bluetooth</i> pairing
5	LCD Display	Displays blood pressure reading and other pertinent information regarding the reading

Monitor back



No. Feature	Description
1 Direct current power connection	When used with an accessory power cord (not included), connects the monitor to a power outlet
2 Battery compartment (behind cover)	Houses 4 AA alkaline batteries

Power options

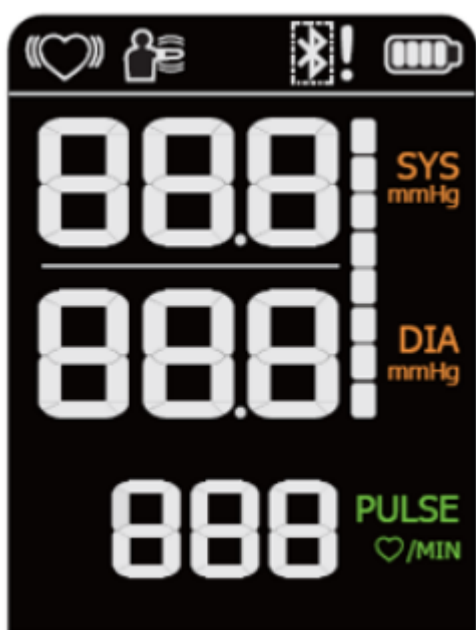
Caution To get optimal performance and protect your monitor, use only the correct batteries or the Welch Allyn approved power adapter.








The monitor is powered by one of two sources:





- 4 AA alkaline batteries
- AC adapter (6v  1A) (not included)

Screen elements

- The liquid crystal display (LCD) displays the following: systolic blood pressure (mmHg), diastolic blood pressure (mmHg), pulse rate (bpm), heart beat (regular or irregular) while acquiring blood pressure measurements, excessive motion alert, Bluetooth connectivity status or data transmission error, alarm priority, and battery charge level.



Symbol	Description
 The symbol consists of the word "SYS" in large orange letters above "mmHg" in smaller orange letters, all on a black background.	Systolic blood pressure mmHg = measurement unit of the blood pressure
 The symbol consists of the word "DIA" in large orange letters above "mmHg" in smaller orange letters, all on a black background.	Diastolic blood pressure mmHg = measurement unit of the blood pressure
 The symbol consists of the word "PULSE" in large green letters above a green heart icon and "/MIN" in smaller green letters, all on a black background.	Pulse in beats per minute
 The symbol consists of a white heart outline with three curved lines on each side, all on a black background.	Irregular heartbeat Monitor is detecting an irregular heartbeat during measurement
 The symbol consists of a simple white heart outline on a black background.	Heart beat Monitor is detecting a heartbeat during measurement
 The symbol consists of a white battery icon with four vertical bars of equal height inside, all on a black background.	Battery indicator Indicates the current battery charge
 The symbol consists of a white battery icon with a single vertical bar on the left side inside, all on a black background.	Battery indicator Indicates the current battery charge

Symbol	Description
	Bluetooth connectivity status or data transmission error
	Motion indicator Motion may result in an inaccurate measurement.
	Reading out of range Either SYS > 260mmHg or DIA > 220mmHg. The symbol may appear in either the SYS or DIA area of the screen. Alarm priority = Low (an! appears near the top of the screen)
	Reading out of range Either SYS < 50mmHg or DIA < 25mmHg. The symbol may appear in either the SYS or DIA area of the screen. Alarm priority = Low (an! appears near the top of the screen)

Measuring blood pressure

Overview

You are the intended operator of the device. You can measure your blood pressure and then save and send measurement data to a smartphone or tablet. You can also maintain your device and its accessories, and you can change the batteries under normal circumstances.

To measure your blood pressure, you need the following:

- Blood pressure monitor with batteries inserted
- Blood pressure cuff ("D-ring" style for easy, one-handed adjustment)
- Blood pressure air tube

To save and transfer blood pressure measurements, you also need a smartphone or tablet with Bluetooth wireless connectivity and the application or software to receive your data, such as the Welch Allyn Home application or another healthcare provider application.

Set up your equipment

Insert or replace the batteries

WARNING Injury risk. Do not burn batteries. Batteries may leak or explode. Caution Remove the batteries if the device is not used regularly.

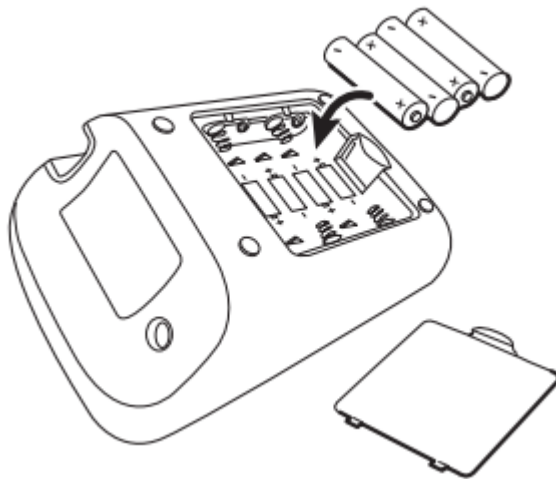
Caution Dispose of old batteries by following your local recycling guidelines.

If you are not using AC power, you must install 4 AA alkaline batteries before using the device.

Replace the batteries when any of the following occurs:

- The battery charge indicator indicates a low charge
- The display dims
- The display does not light up

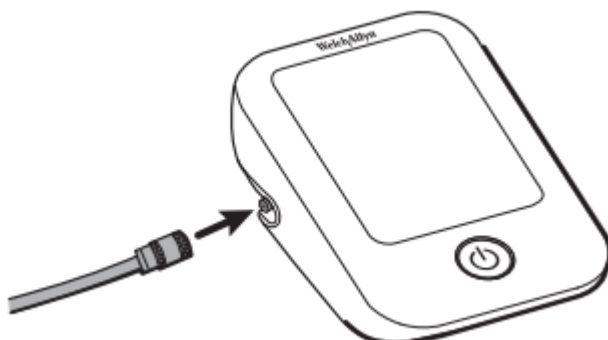
1. Slide off the battery cover
2. Install the batteries by matching the polarity as shown in the diagram.



3. Replace the cover.

Connect the blood pressure air tube

1. Locate the air connector plug on the left side of the blood pressure monitor.
2. Place your thumb and forefinger on the metal air tube connector and slide it onto the air connector plug



3. Confirm that the air tube connector locks into place. Listen for a click.

When the air tube connector is properly seated, you cannot pull it off the air connector plug.

Note: You may leave the air tube connected to the blood pressure monitor if you take your blood pressure regularly and have a convenient place to store the blood pressure monitor and cuff together without kinking the tube.


Pair a smartphone, a tablet, or a communication hub with the monitor

Advanced Bluetooth 4.0 technology enables your smartphone, your tablet, or a communication hub to receive your personal health information from your blood pressure monitor. You have two alternatives to pair the monitor with these devices:

- If you are using the Welch Allyn Home application, follow the pairing instructions presented in the application.
- Contact your Remote Monitoring Solution provider or use the instructions that office provided to set up these communications devices.

With either alternative, you complete the same steps on the monitor:

1. Confirm that smartphone, tablet, or communication hub is powered on and in discoverable mode (ready for pairing). Bluetooth wireless connectivity is only available for devices which support Bluetooth 4.0 technology.
2. Press and hold the Power button on the blood pressure monitor for 2 seconds to power on the device and activate Bluetooth pairing. The Bluetooth symbol flashes while discovering the monitor.

If successful, a steady  symbol surrounded by a dotted line appears on the LCD screen.

If unsuccessful, the  appears.

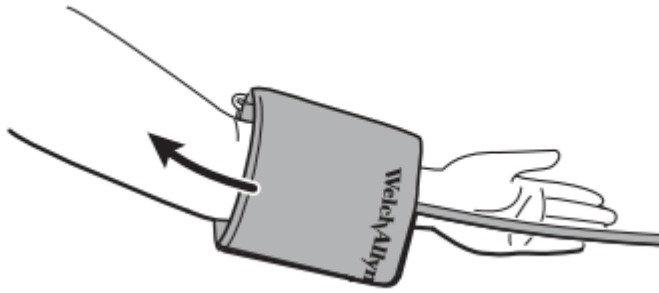
Position the blood pressure cuff

To achieve an accurate blood pressure reading, follow these steps to position the blood pressure cuff properly.

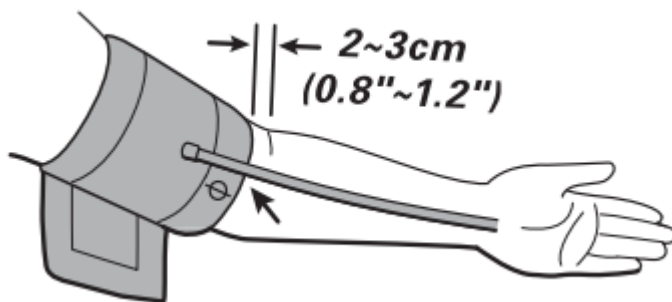
1. Remove any sleeves covering your upper arm.

Note: The preferred site for taking a blood pressure measurement is your bare upper arm.

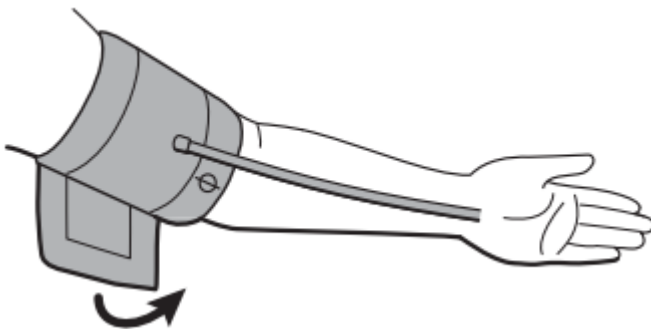
2. Place the cuff loosely over your arm so that the blood pressure tube extends down over your hand. It should appear on your arm as shown.



3. Open the cuff to resize it as needed and slide it over your bare upper arm. The bottom edge of the cuff should be 2 to 3 centimeters (0.8 to 1.2 inches) above the bend in your arm, and the tube and artery marker should appear on your arm as shown.



4. Keeping the artery marker and the tube in place, wrap the cuff snugly around your arm, but not too tight. If you can insert just two fingers between the cuff and your arm, the tightness is acceptable.



Start the measurement

1. Prepare yourself to take your blood pressure.
 1. Sit comfortably in a chair that supports your back.
 2. Keep legs uncrossed.
 3. Place feet flat on the floor.
 4. Support your arm on the flat surface.
 5. Ensure the cuff is level with your heart (right atrium).

6. Rest for 5 minutes after sitting down and positioning the blood pressure cuff.
2. Verify that the cuff is positioned correctly with the tube running down the middle of your forearm.
3. Press the Power button to power up the monitor and begin the blood pressure measurement. The cuff inflates and tightens around your arm until it completes the measurement. A vertical stack of segments appears onscreen to show increasing pressure in the cuff. The heart icon in the upper-left corner blinks to indicate your pulse rate until the measurement is complete.
4. Record your measurement results. Either record these measurements manually along with the time of measurement, or transfer them electronically to your connected device

Caution: The device that receives transferred measurements displays the most recent record first as record 1. Each new measurement becomes record 1, and all other records move down the list (for example, 2 becomes 3, and so on). You can store a maximum of 99 records. When you pass that limit, the oldest record drops from the list.

Note: For a meaningful comparison, try to take measurements under consistent conditions. For example, take daily measurements at approximately the same time, on the same upper arm, or as directed by your physician.

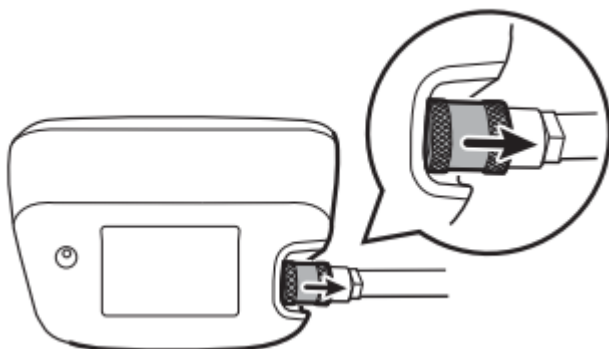
Some points to remember about your blood pressure device:

- After 10 seconds of inactivity, the device powers down.
- If you press and release the Power button, the device powers down.
- After successful transfer, the device powers off the Bluetooth radio, and the Bluetooth icon (and rectangle) disappear.

Disconnect the blood pressure air tube

Note: You may leave the air tube connected to the blood pressure monitor if you take your blood pressure regularly. Store the monitor and cuff in a convenient place; do not kink the tube.

1. If you choose to disconnect the air tube after completing a blood pressure measurement, place your thumb and forefinger on the grooved portion of the metal air tube connector and pull it back. Do not twist the connector.



2. Gently pull the air tube away from the monitor. You can now store the monitor and the cuff.

Blood pressure facts, pointers, and best practices

Helpful definitions

- Systolic pressure: When ventricles contract and pump blood out of your heart, the point at which blood pressure reaches its maximum value in the cycle.
- Diastolic pressure: When the ventricles relax, the point at which blood pressure reaches its minimum value in the cycle.
- Pulse rate: A measurement of the heart rate, or the number of times the heart beats per minute. As the heart pushes blood through the arteries, the arteries expand and contract with the flow of the blood

Irregular heartbeat detector

- An irregular heartbeat (IHB) is detected when a heartbeat rhythm varies while the unit is measuring the systolic and diastolic blood pressure. During each measurement, the monitor records the heartbeat intervals and calculates the average. If any average is larger than or equal to 25%, the irregular heartbeat symbol appears on the display when the measurement results appear.

Caution The appearance of the IHB icon indicates that a pulse irregularity consistent with an irregular heartbeat was detected during measurement. Usually this is NOT a cause for concern. However, if the symbol appears often, we recommend you seek medical advice. The device does not replace a cardiac examination but detects pulse irregularities at an early stage.

Why does my blood pressure fluctuate throughout the day?

- Individual blood pressure varies multiple times every day because of weather, emotion, and activity.
- The way you position your cuff and your measurement posture can affect blood pressure. Try to take blood pressure measurements under similar conditions.
- Sometimes blood pressure on one arm is different from blood pressure on your other arm. Use the same arm for blood pressure measurements.
- Medication might affect your blood pressure.
- The "white coat effect" might cause your blood pressure to be higher in a hospital or doctor's office.

Factors that could cause inaccurate measurements

- Cuff position is poor

- Cuff is too loose or too tight
- Cuff is applied over clothing rather than on a bare upper arm
- Taking a measurement within 1 hour of eating or drinking
- Taking a measurement within 20 minutes of taking a bath
- Being in a cold environment
- Taking a measurement immediately after smoking or drinking caffeinated beverages
- Taking a measurement while talking or moving your fingers
- Taking a measurement when you need to urinate
- Taking measurements in rapid succession

Factors that promote accurate blood pressure measurements

- Proper cuff position on the upper arm
- Proper cuff tightness
- No clothing under the cuff or restricting circulation above the cuff
- Proper posture: feet flat on the floor, back straight, legs uncrossed, arm resting on a flat surface, upper arm at heart level
- Relaxing or sitting still for a few minutes after positioning the cuff and before taking a blood pressure measurement
- Sitting still during measurement
- Not talking during measurement
- Waiting at least 3 minutes between measurements

Maintenance

Maintain the monitor and cuff

The monitor does not require calibration.

To get the best performance from your monitor, follow the maintenance steps below.

- Store the unit in a dry place away from direct sunlight.
- Avoid shaking and dropping the monitor.
- Avoid operating the monitor in dusty and unstable temperature environments.

Cleaning



Caution Use a soft cloth to clean the entire unit. Do not use any abrasive or volatile cleaners.

1. Clean the monitor only when necessary with one of the following compatible cleaning agents:
 - 70% isopropyl alcohol
 - 10% chlorine bleach/90% water solution (standard bleach wipe)
2. If necessary, you may wipe the cuff with a soft, damp cloth.

Troubleshooting

- This section includes a list of error messages and frequently asked questions for problems you may encounter with your blood pressure monitor. If the device is not operating as you think it should, check here before arranging for service.

Problems and error messages

- The device presents technical alarms and low-priority physiological alarms. Technical alarms occur when there is a device-related error. Physiological alarms occur when blood pressure measurements fall outside of set alarm limits

Technical alarms


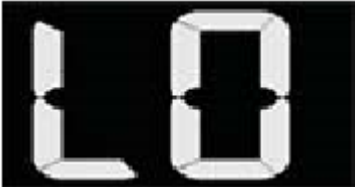
Problem	Symptom	Root cause	Solution
No power	Display will not light up	Batteries are drained.	Replace with new batteries
		Batteries are inserted incorrectly.	Insert the batteries correctly
		AC adapter is inserted incorrectly	Insert the AC adapter tightly
Low batteries	The display indicates the “BATLO” message, pauses for 3 seconds. The battery icon shows empty (does not flash.)	Batteries are low.	Replace with new batteries
Error messages	E 01 shows	The cuff is not secure	Readjust the cuff, relax for a moment, and then measure again
	E 03 shows	There is too much pressure in the cuff	Refasten the cuff and then measure again
	E10 or E11 shows	The monitor detected the cuff, motion while measuring moment,	Readjust the cuff, relax for a moment, and then measure again
Problem	Symptom	Root cause	Solution
Low batteries	The display indicates the “BATLO” message, pauses for 3 seconds. The battery icon shows empty (does not flash.)	Batteries are low.	Replace with new batteries



Error messages	E 01 shows	The cuff is not secure	Readjust the cuff, relax for a moment, and then measure again
	E 03 shows	There is too much pressure in the cuff	Refasten the cuff and then measure again
	E 10 or E 11 shows	The monitor detected motion while measuring	Readjust the cuff, relax for a moment, and then measure again
	EE or E 19 shows	Hardware error	Measure again. If the problem persists, contact the retailer or Welch Allyn customer service at www.welchallynhome.com for further assistance.



Physiological alarms

Symptom	Root cause	Solution
	<p>Out of range. Either SYS >260mmHg or DIA >220mmHg. The symbol may appear in either the SYS or DIA area of the screen</p>	<p>Press and hold the Power button to reestablish <i>Bluetooth</i> connectivity. Measure again. If the problem persists, contact your physician.</p> <p>Alarm priority = Low</p>
	<p>Out of range. Either SYS <50mmHg or DIA <25mmHg. The symbol may appear in either the SYS or DIA area of the screen.</p>	<p>Press and hold the Power button to reestablish <i>Bluetooth</i> connectivity. Measure again. If the problem persists, contact your physician.</p> <p>Alarm priority = Low</p>

Warning

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.