

## Warranty

- 1). The warranty period of this device is 12 months from the date of sale and does not include batteries or devices that have been misused or tampered with.
- 2). Please fill in the warranty page and return it to the manufacturer.

Model	SLD3 107
Method of Measurement	Oscillometric
Indicator	Liquid-Crystal
Measuring Range	40 to 260 mmHg (pressure) 40 to 160 pulse beats / minute (pulse rate)
Measuring Accuracy	Cuff pressure + / - 3mmHg Pulse rate + / - 5% of reading
Inflation	Automatic (the air pump)
Deflation	Automatic (the electronic valve)
Power Supply	4 "AA" 1.5V batteries
Maximum Power Consumption	3.6W
Memory	90 times (+ average)
Operation Conditions: Temperature Relative Humidity	+10°C to +40°C 85% and below
Transportation Conditions: Temperature Relative Humidity	-20°C to +50°C 85% and below
Cuff Dimensions	22-32cms (larger available to purchase)
Dimensions and weight (without cuff or case) Size / Weight	120(w) x 120(d) x 117(h) / 525g including batteries
Contents	Device, cuff, 4 x AA batteries, instruction manual, warranty card.
Life expectancy in normal home use: Device Cuff	5 years 2 years
Year of Manufacture	On device label



REF: IFU BPMON107 (ENG)



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## Memory Function

- 1). The result of each measurement (blood pressure and pulse rate) is automatically stored in the memory of the device. The reading will not be saved when it resulted in an error.
- 2). 30 readings and average data can be stored in the memory of the device. When the number of readings exceeds 30, the oldest data will be automatically replaced by the newest data.
- 3). To examine the stored data in the device you can press the button MEM after the measurement. After first pressing the button MEM, the symbol << A >> will appear on screen for a short time and then the average of all data saved in the memory will be displayed (**Fig. 1**). After further pressing of the MEM button, the index << 1 >> (the number of the cell of the memory) will appear on screen for a short time, after that the result of the last measurement will be displayed (**Fig. 2**). With each further pressing of the MEM button the contents of the



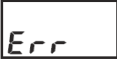

Fig. 1



Fig. 2

## Clearing the memory of the device

To clear all stored results from the memory of the device press button MEM and hold it more than 3 seconds. The symbol << Clr >> will be displayed and whole memory of the device will be cleared (**Fig. 3**).

Indication	Possible Reason	Correction Methods
	<p>The cuff is not correctly applied or the tube plug is not inserted tightly.</p> <p>The measurement could not be made because of moving an arm or hand, Or talking during measurement.</p> <p>The cuff was not inflated to the necessary pressure.</p> <p>Arrhythmia (irregular heart beat).</p>	<p>Make sure that the cuff is put on correctly and the tube plug is inserted tightly and repeat the measurement.</p> <p>Repeat the measurement by following the instructions.</p> <p>Repeat the measurement inflating the cuff to 30-40 mmHg above expected systolic pressure.</p> <p>Consult your healthcare professional.</p>
	The batteries are weak.	Replace all 4 batteries with new ones.

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# SURESIGN

## Instruction Booklet

# Automatic Digital Blood Pressure Monitor

## Taking Blood Pressure Readings

- 1). Insert the tube plug into the air connector. Before the measurement, take 3-5 deep breaths (inhalation-exhalation) and relax. Do not move, talk or strain your arm or hand while the reading is being taken.
- 2). Press and hold the O/I button until the device starts to operate.
- 3). All symbols will appear on the display for a short time (**Fig. 1**) then two short beeps will sound and the device will begin automatically to inflate the air into the cuff.
- 4). After reaching 190mmHg (**Fig. 2**) the pressure in the cuff will begin to fall gradually. The data on the display will decrease. The pulse rate is indicated by the blinking symbol << >> (**Fig. 3**). Since the blood pressure and the pulse are measured during the deflation of air from the cuff, try to remain still and do not move your arm or hand, or tense the muscles in them, during the measurement.
- 5). The beep will sound at the end of the measurement, the device will release all the air from the cuff and the readings will appear on display (**Fig. 4**).
- 6). Press the O/I button of the device to switch off. For further readings repeat all actions given in this section. To obtain accurate results it is necessary to pause between readings to restore the circulation of blood. Do not take further readings in less than 3 minutes. The result of each reading is automatically stored in the memory of the device (up to 30 readings). Data will be stored in the memory even if the batteries are removed. The stored data can be removed from the memory of the device as described in the "MEMORY FUNCTION" section. If the power supply is not switched off and the device is not used for 3 minutes it will be switched off automatically.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

## Automatic Inflation

If the initial inflation of the cuff to 190mmHg is not sufficiently high for particular patient, or if any movement of the arm or hand occurred during the reading, the device will stop the measurement. It will then re-inflate the cuff to a higher level. There are 4 fixed levels in the cuff: 190, 230, 270 and 300 mmHg. The automatic inflation of the cuff is repeated until a suitable level for the patient is reached. This is not a fault.

## Releasing Pressure from the Cuff

If during the inflation of the cuff or during the measurement (slow increasing of the pressure) you need to release the pressure in the cuff quickly, press the O/I button. The device will quickly release all the air from the cuff and it will be switched off.

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## General Information

This instruction manual is intended to give general instructions and advice on the operation of the automatic digital blood pressure monitor (device) model SLD3-107. The device should be used in accordance with the procedures contained in this manual and should not be used for purposes other than those described. It is important to read and understand the entire manual, in particular the section **"TIPS ON TAKING YOUR BLOOD PRESSURE"**, before use.

## Recommended Use

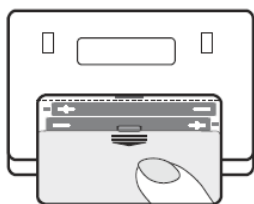
This device is intended for the measurement of Systolic and Diastolic arterial blood pressure and determining the pulse rate in adult patients, i.e. age 15 and above. The cuff will accommodate an upper arm circumference range of 22 to 32 centimeters. Blood Pressure is measured over a range of 40 to 260 mm of mercury (Hg) and heart rate over a range of 40 to 160 beats/minute.

## Operating Principle

The cuff is wrapped around the arm and inflated with the help of an air pump in the device. The device measures the fluctuations in the pressure of the cuff produced by extension and contraction of the artery in the arm in response to each heartbeat. These are converted into millimeters of mercury (Hg), and are displayed as a digital value. This device may not meet the specified accuracy if it is used or stored in temperature or humidity conditions outside the parameters stated in the **"SPECIFICATIONS"** section of this manual. There can be possible errors in the measurement in patients with expressed arrhythmia. Consult your physician if you wish to take a child's blood pressure.

## Battery Installation

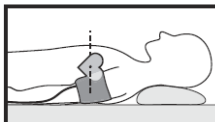
- 1). Open the battery cover and install four long life 'AA' type batteries into the compartments indicated. Make sure that the batteries' polarities (+/-) are positioned correctly. Never use force to remove the battery cover.
- 2). Close the battery compartment cover.
  - Replace the batteries when battery replacement indication appears on the display or if the display is blank when the O/I button is pressed.
  - The batteries delivered in the device are intended to check the device after sale; the period of service of these batteries can on occasion be less than other high power batteries.
  - Replace all batteries simultaneously. Do not recharge batteries.
  - If the device is not used for a long period, remove the batteries.
  - Do not leave run down batteries in the device.



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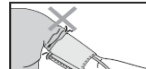
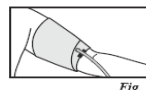
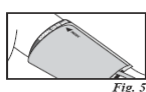
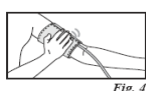
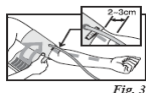
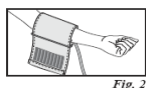
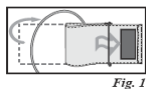
## Correct Position for Measurement

- 1). Sit at a table and let it support your arm as you take the arterial blood pressure measurement. Make sure that the Measurement location on the upper arm is at approximately the same height as the heart, and that the forearm is extended naturally on the table and does not move.
- 2). You may lie on your back and take the measurement. Look at the ceiling, stay calm, and do not move your neck or body during the measurement. Make sure the measurement location on the upper arm is at approximately the same



## Positioning the Cuff

- 1). Put the edge of the cuff into the metallic ring as shown in **Fig. 1**.
- 2). Put the cuff on the arm and position the tube on the inner arm (**Fig. 2**). If measurement on the left arm is difficult the right arm can be used, but readings may differ by about 5-10mmHg.
- 3). Wrap cuff around the upper arm with the lower edge of the cuff approximately 2-3centimetres above the elbow. **Fig. 3** - The mark with inscription << ARTERY >> must be over the artery of the arm.
- 4). Press the surface of the cuff to make sure that it is attached securely (**Fig. 4**). When wrapping the cuff, wrap it loosely enough around the arm so that two fingers can be placed between the cuff and the arm. If the cuff is wrapped more tightly or loosely than this, inaccurate blood pressure readings may result.
- 5). On the fastened cuff the mark << INDEX >> must point to the area << NORMAL (22-32cm) >> (**Fig. 5**). This means the cuff is selected correctly and corresponds to the size of the upper arm range. If the mark points to the area marked << >> or to the left, that means the cuff is too small and the reading will be too high. If the mark points to the area << >> or to the right, that means the cuff is too large and reading will be too low.
- 6). If the patients arm tapers significantly from shoulder to elbow, put the cuff on at an angle as shown in **Fig. 6**.
- 7). If you are wearing a shirt that might restrict circulation in your upper arm, the blood flow will be restricted, preventing accurate measurement (**Fig. 7**).



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## Care, Storage, Repair and Recycling

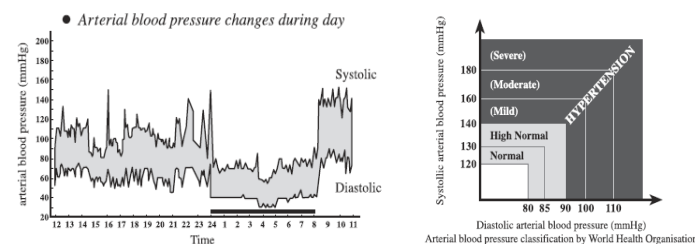
- 1). It is essential to protect this device against damp, direct sunlight, shock, and vibrations. This device is not waterproof.
- 2). Do not keep and do not use the device near heaters or naked flames.
- 3). Remove the batteries if the device is to be stored for an extended period of time. Leakage of batteries can cause damage to the device. **Keep the batteries out of reach of children!**
- 4). Keep the device clean and away from dust. Use only a soft, dry cloth to clean the device.
- 5). Avoid any contact with water, solvent, alcohol and petrol.
- 6). Keep the cuff away from sharp objects and do not try to stretch or twist the cuff.
- 7). Do not drop or knock the device.
- 8). Repairs can only be made by the manufacturer.
- 9). The device should be checked and maintained after 2 years of use.
- 10.) Neither the device nor the batteries are household waste; follow your local recycling rules and dispose of them at appropriate collection sites.
- 11.) The Cuff should only be cleaned when necessary. The fabric should be cleaned with cotton wool and a 3% solution of hydrogen peroxide. After long use, partial discoloration of the fabrics covering the cuff may occur. The cuff must not be laundered or ironed.

## Trouble Shooting

SYMPTOM	CHECK POINT	REMEDY
No display when the O/I button is pressed	The batteries have run down. Polarity (+/-) of batteries incorrect. The battery contacts require cleaning.	Replace all the batteries with new ones. Install the batteries correctly. Clean the contacts with a dry cloth.
Inflation stops and is again renewed.	An automatic action to ensure the correct reading. Did you talk or move your arm (or hand) during measurement?	See <b>"AUTOMATIC INFLATION"</b> Relax and repeat the measurement.
Blood Pressure is different each time. The reading is extremely low (or high).	Is the cuff at the same level as the heart? Is the cuff wrapped too tight or too loose? Did you tense your arm during the measurement? Did you talk or move your arm during the measurement?	Make sure that your arm is correctly positioned; see <b>"CORRECT POSITION FOR MEASUREMENT"</b> See <b>"POSITIONING THE CUFF"</b> Relax before measuring. Remain still and silent during the measurement.
Pulse rate is too low (or high)	Did you talk or move your arm during measurement? Did you take the reading immediately after exercise?	Remain still and silent during the measurement. Measure again after resting for more than 5 minutes.
It is impossible to obtain higher readings.	Usage of faulty batteries.	Use only alkaline batteries of high quality.
The power supply is automatically turned off.	Check that the device turns itself on and off again.	This does not indicate a problem. The device automatically turns off 3 minutes after the last measurement or in 5 seconds after memory display.

## Tips On Taking Your Blood Pressure

- 1). Blood pressure can be subject to wide fluctuations in a short space of time as the level of blood pressure depends on many factors. Usually the level of blood pressure is lower in summer and higher in winter; it can change with atmospheric pressure and depends on many factors, e.g. physical work, emotional state, stress, meals, dietary pattern, etc. Different medicines, alcohol and smoking can exert a large influence on the level of blood pressure. When blood pressure is measured in a hospital it can be higher than when measured at home, as people may be tense while in the hospital and more relaxed at home. Since blood pressure increases in low temperature, determine blood pressure at room temperature (approximately 20°C). If the device has been stored below room temperature, it should be allowed to warm to room temperature for at least 1 hour; otherwise the measurement could be affected. Blood pressure can change easily and readings during the day can differ by 30-50 mmHg of systolic (higher) pressure and by up to 10mmHg of diastolic (lower) pressure. The dependency of blood pressure on different factors is individual to every person. Therefore, it is recommended that the results of the blood pressure tests are recorded.
- 2). When monitoring blood pressure is necessary in cases of cardiovascular and other diseases, it is advised that blood pressure readings are taken at times recommended by your healthcare professional. The diagnosis and treatment of hypertension can only be made by a qualified healthcare professional.
- 3). The correct measurement of arterial pressure can be difficult in patients with deep arteriosclerosis, a weak pulse, and in patients with irregular heart beats. In these situations a qualified healthcare professional should interpret your blood pressure readings.
- 4). In order to get accurate blood pressure readings patients should be in a relaxed and quiet state. The measurement of blood pressure should be carried out in a quiet environment at room temperature. Eating for 1 hour or drinking alcohol for 1.5-2 hours before the test, smoking, and other activities that affect blood pressure should be avoided before taking readings.
- 5). To ensure accurate readings the cuff should be a good fit on the upper arm. When fitted it should be possible to fit two fingers comfortably between the arm and the cuff.
- 6). For accurate blood pressure readings an interval of at least 3 minutes between readings should be allowed to restore the blood circulation. Patients suffering from pronounced arteriosclerosis, and those who have suffered from diabetes over an extended period of time, require a longer time interval between measurements (10-15 minutes) because the elasticity of the ves-



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