

USER MANUAL

# Heart-Mate Digital BP Monitor

Model : BP 144



HealthSense thanks you for purchasing the Heart-Mate Digital BP Monitor. In order to use the monitor correctly & for accuracy, we suggest you to read this manual thoroughly & also keep it safe for future use.

If you have any questions or concerns, please reach out to our helpful Customer Support Team at **support@healthsense.in**. Its time to take preventive measures with your new blood pressure monitor!

**Package Contents:**

- 1 x Blood Pressure Monitor
- 1 x BP Arm Cuff
- 4 x AAA Alkaline batteries
- 1 x User Manual
- 1 x Warranty Card

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## Specification

<b>Measurement Range</b>	Pressure: 0–290 mmHg / 0–39 kPa Pulse: 40–199 per minute
<b>Accuracy</b>	Pressure: +/-3 mmHg/0.4kPa Pulse: +/- 5%
<b>Units</b>	mmHg / kPa
<b>Dimensions</b>	Monitor: 5.1 x 4.5 x 2.8 in/12.9 x 11.5 x 7.1 cm Cuff Circumference: 8.7–16.5 in / 22–42 cm
<b>Gross Weight</b>	1.29 lb / 487 g
<b>Operating Environment</b>	Temperature: 41°–104°F / 5°–40°C Relative Humidity: 15–80%
<b>Transport and Storage Environment</b>	Temperature: -4°–131°F / -20°–55°C Relative Humidity: 15–93%
<b>Battery Type</b>	4 x AAA Alkaline Batteries
<b>Rated Power</b>	DC - 6V Type-C Port (5V, 1A)
<b>Display Size:</b>	LED Display (89 x 97 mm)
<b>Automatic Shutoff</b>	60 seconds

## Remember

1. Rest for 5 minutes before measuring to get the best reading.
2. Wait at least 3 minutes between measurements to allow your blood circulation to recover.
3. For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time with the same arm position, or as directed by a physician.

## You may get wrong reading when

- The cuff is too loose or too tight.
- The cuff is not secured properly.
- Not placing the cuff correctly around the arm.
- If you feel anxious, nervous, or are not relaxed.
- Not resting your arm correctly.
- Measuring too quickly after a previous reading.
- Measuring within 1 hour of eating or drinking.
- Measuring after tea, coffee, or smoking.
- Measuring within 20 minutes after taking a bath.
- Measuring when talking or moving your fingers.
- Measuring in a very cold environment.
- Measuring when needing to use the restroom.

## Warnings & Standards

1. Consult your physician before measuring blood pressure, especially if you have any of the following conditions: hypertension, diabetes, arteriosclerosis, kidney or vascular disease, or any conditions affecting circulation.
2. Do not change medication use or dosage based on measurement from this device. Take medication as prescribed by your physician. Only a physician is qualified to diagnose & treat high blood pressure.
3. This device is not intended to be a diagnostic device.
4. This device is intended for adult use only. Keep the unit out of reach of infants, children, or pets.
5. This device is not intended for use on extremities other than the arm or for functions other than obtaining a blood pressure measurement. Do not use this device for any other purpose.
6. Do not confuse self-monitoring with self-diagnosis. If you are taking medication, consult your physician to determine the most appropriate time to measure your blood pressure.
7. If the cuff pressure exceeds 300 mmHg, the unit will automatically deflate. Should the cuff not deflate when pressures exceeds 300 mmHg, detach the cuff from the arm and press the START/STOP button to stop inflation.
8. Do not touch battery output and the patient simultaneously.
9. Avoid strong electromagnetic field radiated interference signals or electrical fast transient / burst signals.

10. The old battery is harmful to the environment. Do not dispose with other daily trash.
11. Remove the old battery from the device and follow your local recycling guidelines.
12. Do not dispose of batteries in fire. Batteries may explode or leak.
13. Store monitor in a dry place.
14. Avoid contact with water. Clean it with a dry cloth if needed.
15. Do not attempt to clean the resizable cuff with water.
16. Never submerge monitor or cuff in water.

### **Safety Instruction**

1. CAUTION : Using this monitor on patients undergoing dialysis therapy or on anticoagulants, antiplatelet, or steroids could cause internal bleeding
2. If the arm cuff causes any discomfort, immediately press to turn off the monitor.
3. This monitor is intended for adult use in homes only. Consult your doctor before using this monitor on older children.
4. Consult your physician before using if: neonatal (new-born) patients, pregnant patients, patients who received a mastectomy, or patients with implanted electronic devices.

## Don'ts

1. Do not use the arm cuff on an arm that is injured or undergoing medical treatment.
2. Do not use the arm cuff on an arm that currently has an intravenous drip or blood transfusion.
3. Do not use the monitor at the same time as other medical electrical (ME) equipment.
4. Do not use the monitor near HF surgical equipment, MRI machines, CT scanners, flammable aesthetic mixtures such as nitrous, oxide (laughing gas), or in an oxygen-rich environment.
4. Do not allow children to use or play with this monitor.
5. Do not kink the air hose during use. The cuff pressure may continue to increase which can prevent blood flow and result in harmful injury to the patient.
6. Do not take measurements more than necessary. It may cause bruising due to blood flow interference.
7. Do not use the monitor for any purpose other than measuring blood pressure.
8. Do not store in any place that is tilted, vibrates, or can damage the monitor.
9. Do not store near chemicals or corrosive gases. Never place any heavy objects on the storage case.
10. Do not hit or drop the monitor.
11. Do not use the monitor in a moving vehicle, such as a car or an airplane.
12. Do not wash the cuff in a washing machine or dishwasher.
13. Do not make any repairs yourself. If you have any questions, contact Customer Support of HealthSense

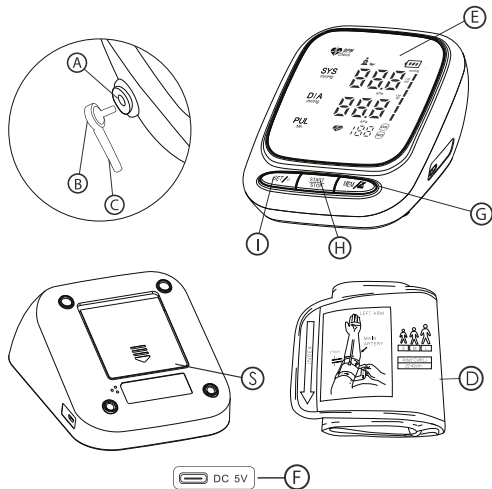
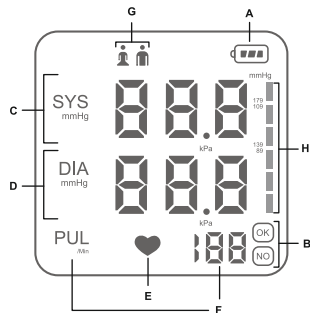


## Functional Diagram

### Know Your Unit

- |                          |                               |
|--------------------------|-------------------------------|
| <b>A.</b> Air Jack       | <b>F.</b> Type-C Power socket |
| <b>B.</b> Air Plug       | <b>G.</b> Memory Button       |
| <b>C.</b> Air Tube       | <b>H.</b> Start/Stop Button   |
| <b>D.</b> Arm Cuff       | <b>I.</b> Setting Button      |
| <b>E.</b> Display Screen | <b>J.</b> Battery Cover       |

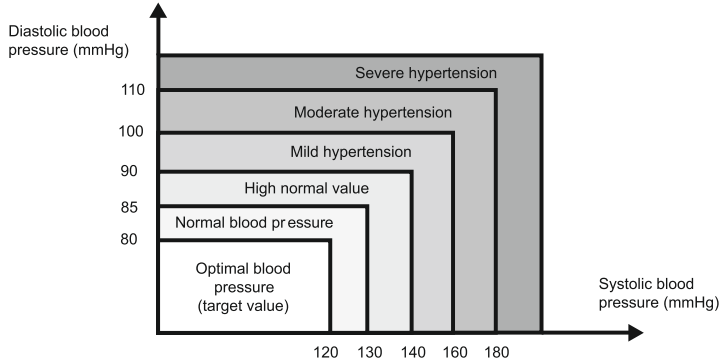
**Note:** In the digital part of the panel, 89 and 109 are the representations of DIA values, and 139 and 179 are the representations of SYS values.



- |   |                                  |
|---|----------------------------------|
| <b>A.</b> Battery Level Symbol                    | <b>E.</b> Heart Beat Icon        |
| <b>B.</b> Cuff Wrapping Status Indications        | <b>F.</b> Pulse Rate Display     |
| <b>C.</b> Systolic Pressure (High Pressure Value) | <b>G.</b> User Type              |
| <b>D.</b> Diastolic Pressure (Low Pressure Value) | <b>H.</b> WHO BP Level Indicator |

## Standard Blood Pressure Classification







The blood pressure classification published by World Health Organization (WHO) and International Society of Hypertension (ISH) in 1999 is as follows:




### ⚠ CAUTION

Only a physician can tell your normal BP range. Please contact a physician if your measuring result falls out of the range. Please note that only a physician can tell whether your blood pressure value has reached a dangerous point.

There are 6 WHO (World Health Organization) Indicator levels that can be displayed on the monitor and represent different blood pressure values and classifications.

Blood Pressure Value	WHO Indicator Level	WHO Classification	Note
DIA $\geq$ 110 or SYS $\geq$ 180	6	Severe hypertension	
DIA <110 & SYS <180	5	Moderate hypertension	
DIA <100 & SYS < 160	4	Mild hypertension	
DIA <90 & SYS <140	3	High normal value	
DIA <85 & SYS <130	2	Normal blood pressure	
DIA <80 & SYS <120	1	Optimal blood pressure	

### ♥ Irregular Heartbeat Detector

An irregular heartbeat is detected () when a heartbeat rhythm varies while the unit is measuring the systolic and diastolic blood pressure. During each measurement, this equipment records the heartbeat intervals and works out the standard deviation. If the calculated value is larger than or equal to 15, the irregular heartbeat symbol appears on the symbol when the measurement results are displayed.



#### CAUTION

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

## Electromagnetic Compatibility (EMC)

### ♥ Important Information

- This product needs special precautions regarding electromagnetic compatibility (EMC) and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile radiofrequency (RF) communications equipment.
- Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.
- This unit has been thoroughly tested and inspected to assure proper performance and operation.
- Caution: This machine should not be used adjacent to or stacked with other equipment and if adjacent or stacked use is necessary, this machine should be observed to verify normal operation in the configuration in which it will be used.

## Before you Start

### ♥ Measurement Principle

This product uses the Oscillometric Measuring method to detect blood pressure. Before every measurement, the unit establishes a “zero pressure” equivalent to the air pressure. Then it starts inflating the arm cuff, meanwhile, the unit detects pressure oscillations generated by beat-to-beat pulsatile, which is used to determine the systolic and diastolic pressure, and also pulse rate. The device also compares the longest and the shortest time intervals of detected pulse waves to mean time interval then calculates standard deviation. The device will display a warning signal with the reading to indicate the detection of irregular heartbeat when the difference of the time intervals is over 25%.

## Set User, Date, Time, voice and Measurement unit

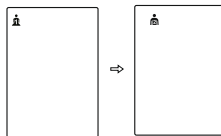
It is important to set the clock before using your Arm Blood Pressure Monitor, so that a time stamp can be assigned to each record that is stored in the memory.

Turn off the unit.

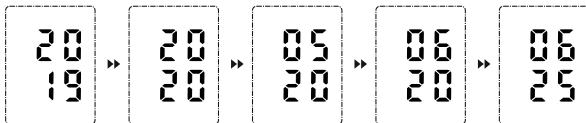
Step 1: When the monitor is OFF, press the "SET/⊗" button for 3 seconds, until the user symbol flashes on top of screen - which means the monitor is under setting mode.

Step 2: Press the "MEM/☑" button to select user 1 or 2

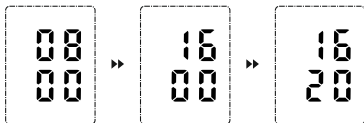
Step 3: Use "SET/⊗" button to confirm selection and enter next parameter setting.



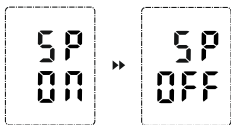
► Repeat the Step2 and Step3 to set the date.



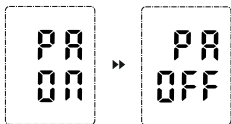
► Repeat the Step2 and Step3 to set the time.



Repeat the Step2 and Step3 to set the voice,Set "ON" to open voice and "OFF" to close voice.

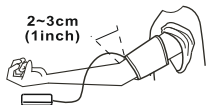


Repeat the Step2 and Step3 to set the Unit,Set to "ON" in kPa; Set it to "OFF" and the unit is mmHg. The unit will be closed automatically after setting.

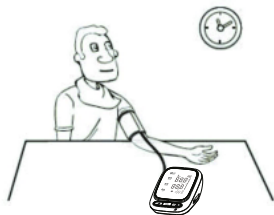


## Right way to Tie the cuff

Tie the cuff on your upper arm & position the tube off-center towards inner side of arm in line with the middle finger.



The cuff should not be too tight. You should be able to insert one finger between the cuff & your arm.





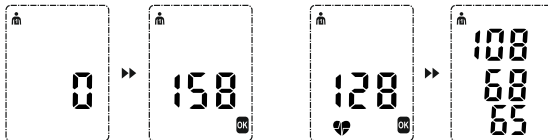
Sit comfortably with your left arm resting on a flat surface.

### Important



1. Rest for 5 minutes before measuring to get the best reading.
2. Wait at least 3 minutes between measurements to allow your blood circulation to recover.
3. For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time with the same arm position, or as directed by a physician.

### Start the Measurement

- Select the user  or 
- Press the Start/Stop Button to measure BP automatically .
- Press the Start/Stop to turn off, or it will turn off automatically within 1 minute.



## Recall Records

1. Please choose the user  or user  when the Arm Blood Pressure Monitor turns off, and press the “MEM/” to show the average of last 3 record.



2. Press the “MEM/” to turn over the records.



## Delete Records

In the off state, press the “MEM/” button for 3s, and then press the “SET/” button, the display shows “-d EL”, means all the memories have been deleted.



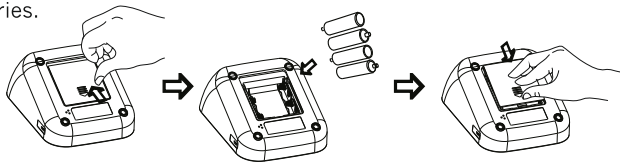


## Replace the batteries in following conditions


1. Open the battery cover on the back of your monitor.
2. Install the included batteries by matching the correct polarity, as shown.

"NOTE: Always use AAA alkaline batteries.

3. Close the cover.



Replace the batteries whenever the below happen:

The  is flashing.

The display dims.

The display does not light up.

### REMEMBER

Product also works with c-type usb cable by connecting to power bank, laptop, Adaptor; so you can save battery life while taking measurements at home.

### ⚠ CAUTION

Please take out the battery if you do not use the product for a long time.  
Please refer to the relevant laws and regulations for the disposal of waste batteries.  
Do not mix old and new batteries.  
Do not mix alkaline, standard (carbon-zinc), or rechargeable (Ni-Cd, Ni-MH, etc) batteries.

## Tips for Operation

It can cause incorrectness if the measurement are taken in the following circumstances.



Within 1 hour  
after dinner or drinking



Immediate measurement  
after tea, coffee, smoking



Within 20 minutes  
after taking a bath



When talking or moving your fingers



In a very cold environment



When you want to discharge urine



## Maintenance

In order to get the best performance, please follow the below instructions:

Avoid intense shaking or dropping	
Please do not repair it by yourself	
Avoid twisting the cuff	
Use mild wet cloth to remove dirt	
Avoid dusty and unstable temperature environment	
Take off batteries if not use it for a long time	
Please do not turn on the unit when cuff is not tied	

## FAQ

### 1. Why does my blood pressure vary in a day?

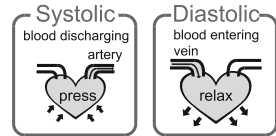
- Individual blood pressure varies throughout the day and is affected by the way you tie your cuff and your measurement position. So please take measurement under the same conditions.
- The pressure variance is greater if a person is on medication
- Wait at least 4-5 minutes between measurements.

### 2. Is the result same if measuring on the right arm?

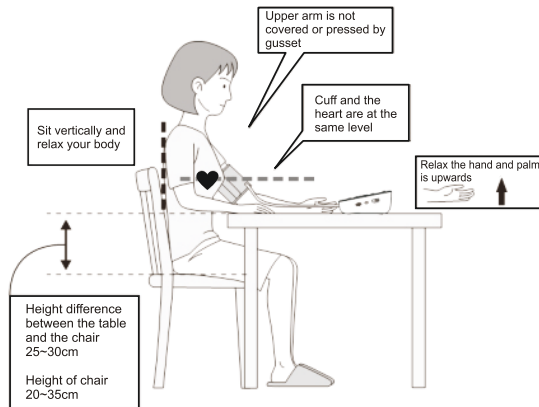
It is ok for both arms, but there will be some different results for different person, so we suggest you measure the same arm every time.

### 3. What are systolic pressure and diastolic pressure?

When ventricles contract and pump blood out of the heart, the blood pressure reaches its maximum value in the cycle, which is called systolic pressure. When the ventricles relax, the blood pressure reaches its minimum value in the cycle, which is called diastolic pressure.



### 4. How to Sit Correctly ?



## **5. Does it matter which arm I use when measuring ?**

You can use either arm when measuring. However, you should use the same arm each time to get the most consistent readings.

## **6. Why do my blood pressure measurements fluctuate from reading to reading, even if I take them close together?**

Your blood pressure varies throughout the day—even from minute to minute—due to exercise, emotions, medications, and many other factors. It is also affected by the way you fasten your cuff and your measurement position. For these reasons, make sure you measure your blood pressure under the same conditions each time, and wait at least 3 minutes between measurements.

## **7. Why is the reading I get at home different from the one I get at the hospital?**

Some variation is normal, since your blood pressure is affected by many factors such as the stress of a clinical setting, weather, etc. However, make sure you're avoiding the following situations that can cause false readings:

- The cuff is too loose or too tight.
- The cuff is not secured properly.
- Not placing the cuff correctly around the arm.
- If you feel anxious, nervous, or are not relaxed.
- Not resting your arm correctly.
- Measuring too quickly after a previous reading.
- Measuring within 1 hour of eating or drinking.
- Measuring after tea, coffee, or smoking.
- Measuring within 20 minutes after taking a bath.
- Measuring when talking or moving your fingers.
- Measuring in a very cold environment.
- Measuring when needing to use the restroom.

## **8. Why are my blood pressure readings different?**

- The area you are in as well as your mental and physical state both factor into your readings. Your readings may come out lower when you are at home and at peace as compared to when you are at the hospital and feeling nervous.
- If the cuff position is higher or lower than the heart, the blood pressure reading may be inaccurate. Make sure the cuff is 0.8-1.2 in / 2-3 cm away from your elbow.
- The cuff may be too loose, causing the blood pressure reading to be too high. Tighten the cuff on your arm.
- Your sitting posture, such as bending over or sitting cross-legged, can raise your blood pressure. Sit in a chair with your arms elevated on a table.

## **9. Why are the blood pressure readings different every time I measure?**

Your blood pressure will vary throughout the day, even if it is measured every 10 seconds. It will fluctuate for a variety of reasons. Eating, drinking, smoking, bathing, and even your mood can all affect your blood pressure.


## **10. Why does my arm ache or feel numb after taking my blood pressure?**


The cuff will inflate to compress your arm to briefly stop the flow of blood. This may cause temporary numbness and discomfort. Once the cuff is removed, allow your arm to rest.

## **11. Why is the cuff not inflating?**

Air may be leaking. Check to make sure the air plug is inserted in the air port and the air hose does not have holes or punctures.

## Trouble Shooting

PROBLEM	SYMPTOM	CHECK THIS	REMEDY
No power	Display is dim or will not light up.	Batteries are exhausted.	Replace with new batteries.
		Batteries are inserted incorrectly.	Insert the batteries correctly.
Low batteries		Batteries are low.	Recharge with new batteries.
Error message	“Err 1”	Air may be leaking or pulse may be too weak	Rewrap the cuff and remeasure
	“Err 2”	Blood pressure cannot be detected due to interference.	Make sure you are seated and positioned correctly before testing again.
	“Err 3”	The measurement is not right.	Rewrap the cuff and remeasure
	“Err P”	Inflate failed.	Refasten the cuff and then measure again.
	“Err H”	Overcharging pressure.	Refasten the cuff and then measure again.

PROBLEM	CHECK THIS	REMEDY
No Power	Check the battery power. Check the battery polarity position	Replace with new sets of batteries. Proper installation of batteries polarities
No inflation	Check the air hose plug	Tightly insert plug in air socket
Err and stop working	Movement of arm or body while measurement Talking while measurement	Keep the body peaceful Keep quiet when measuring
Cuff leak	Whether the cuff wrap is too loose. Whether the cuff is broken	Wrap the cuff tightly Change to new cuff
 Please contact HealthSense Customer care if you can't solve the problem, do not disassemble the unit or perform unauthorized repair by yourself		

## WARRANTY & SUPPORT

Entitle yourself for the 1 year HealthSense warranty by registering your purchase and easily reach us to submit your product related issues & queries, when you follow these hassle free ways.

At HealthSense our top priority has always been our valued customers. We very well know your HealthSense product is a part and parcel of your everyday life, which is why we are more easily accessible than earlier.

### SCAN - For Warranty Registration



( Must register within 30 days from date of purchase )

### SCAN - To File Complaint



( Fill & submit form if you are facing any product related issues )

**\* For detailed warranty terms please visit the link :**  
[www.healthsense.in/warranty-terms](http://www.healthsense.in/warranty-terms)

**\* For additional support :**  
Mail us at : [support@healthsense.in](mailto:support@healthsense.in) or Call us on : 080-41262836





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