

# yuwell



## YE670A Electronic Blood Pressure Monitor

## User's Manual

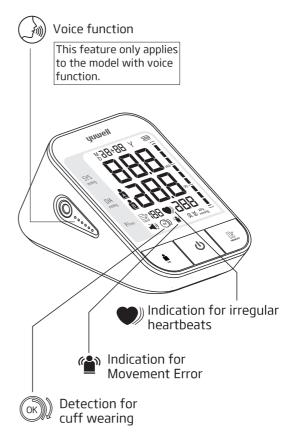
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Please read the user's manual closely before using!

## Contents

#### Before using

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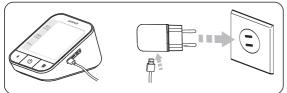


## Operation guide

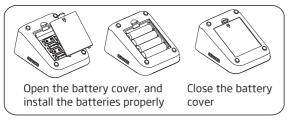
Please follow the steps as shown below

#### Power-on

Connect the power source



#### Or install four AA batteries



(Please turn to page 09 for details)

#### Measurement

1. Using method of cuff

Wearing the cuff and make the lower edge 2cm~3cm above the elbow, keep the air tube inside of the arm. (Please turn to page 12 for details)





#### 2. Measuring posture

Sit straightly, keep the center of cuff and heart at the same level.

# (please turn to page 13 for details)

#### 3. Start measuring

Sit still for 5 minutes and then press the " U " button to start measuring. (Please turn to page 14 for details)

## Check the records

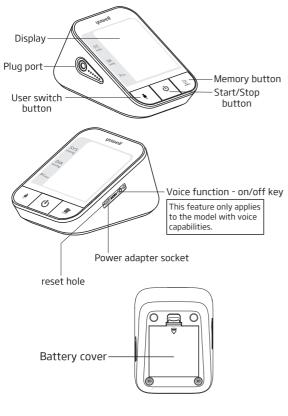
Press the " Difference of the measuring records.

This monitor can display the average of three measurements and store 74x2 records.

(Please turn to page 19 for details)

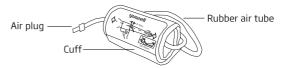
## Product structure and parts

## 1. Main part

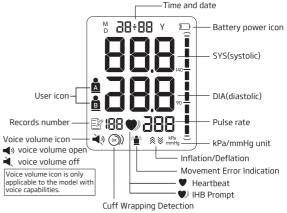


## 2. Cuff

The suitable upper-arm circumference of the cuff is  $22cm \sim 45cm$ 



## 3. Display



## 4. Accessories

User's manual, Warranty card, 4 AA batteries and USB cable

## Cautions

Pay attention with the symbols shown here to prevent harm or damage to the user.

Symbol	Description
	Attention! It might cause damage
$\bigcirc$	Prohibited
0	Obligatory
0	Safety and environmental protection use periodFor 10 years
Ŕ	Type BF application part
	Class II device
$\triangle$	Consult the manual
$\uparrow\uparrow$	Keep Upright
	Fragile
Ť	Keep Dry
	Manufacture

## 1. Range of application

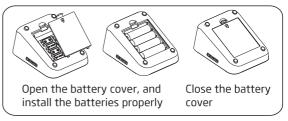
The monitor is used for measuring blood pressure of human body (adult older than 12, not suitable for new born baby)!

## 2. Attention items

- Caution: Pay attention to the following points when measuring or it may cause the incorrect results.
- Sit still for 5 minutes before measuring to ensure quiet and stable mode.
- O Do not take the measurement while standing, walking or having body pressed.
- O Do not take the measurement after smoking, drinking wine or coffee (black tea).
- $\bigcirc$  Do not take the measurement after sport or bath.
- $\bigcirc$  Do not speak or move while measuring.
- O Do not move, shake arm or bend fingers while measuring.
- O Do not take the measurement at extreme temperature condition or the varied severely environment.
- O Do not take the measurement in a moving vehicle.
- O Do not measure continuously. (2~3 minutes or more should be spared between two measurements).
- $\bigcirc$  Do not measure within 1 hour after meal.
- $\bigcirc$  Do not use mobile phone near the monitor.

- Please reinstall the batteries and start again if cannot measure.
- For patient of arrhythmia, measuring results may not be accurate.
- $\bigotimes$  Do not keep the cuff in the aerated state for a long time.
- Note: Do not diagnose with the measurement, Please follow doctor's instruction.

Statement: If the monitor has not been stored in the required temperature and humidity range, it may not conformance to specification. Open the battery cover and install four AA batteries properly. Then close the cover with a click sound.



- The "icon appearing means the battery is low.
- The " icon appearing means the battery is running out. Please replace all the batteries.
- Please take out the batteries if the monitor will not be used for a long time (over three months).
- Note: 5V/1000mA DC external power can be connected to the monitor. (Please use the power adapter supplied by us.)
- Please take out the batteries if use the DC external power for a long time.

## Time and date setting

The monitor will store the measuring results automatically by the management system. It is necessary to reset time and date after charging and starting up again. Please operate as following steps.

- 1. In standby mode, press the "也" button and the "
  ②" button for more than 3 seconds till the year's number starts flashing.
- 2. Press the" 😰 "button to advance by increments of one year.
- 3. After setting the year, press the "**Ů**" button to switch to the month setting, indicating that the month's number starts flashing.
- 4. Using the same way to set the month, day, hour, and minute in turn.

## Language setting

After finishing the time and date setting, press the " **U** " button to enter the language setting. Press the " **I** " to choose the language which you need.

Tips: This section applies only to the model with two or more languages.

## Voice volume setting

After finishing the language setting, press the " 0 " button to enter the voice volume setting. The size of the sound ranges from 01 to 04. Press the " 2 " to choose the sound which you need.

### Tips!

When the voice function key is in a state of shut, there is without voice broadcast function.

Note: This section applies only to the model with voice capabilities.

## Unit setting

After finishing the voice volume setting, press the

" 😃 " button to enter the unit setting. Press the

" 🖭 " button to choose unit between mmHg and kPa. Press " 😃 " to finish setting.

After finishing unit setting, press the " $\mathbf{U}$ " button to shut down.

## Tips! Either of arms can be measured.

## Cuff connecting

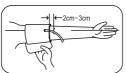
Connect the air connector of the cuff to the socket which on the left side of the monitor.



## Using method of cuff

Wind the cuff around the upper arm. (as shown

in the picture) Keep the lower edge of the cuff at the position above 2-3cm to the elbow joint and keep the air inlet which insert to the cuff at the inner side of arm.

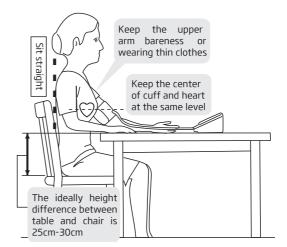


 Stick the cuff tightly.
 Note: The cuff should be wearing comfortably, avoiding too tight or loose.



Sit straight and flat the arm on table with palm up, and keep the center of cuff and heart at the same level. Also please ensure the air tube not twisted.





#### Wrong measurement postures

- Do not bend down or body bend forward.
- ▶ Do not sit with legs crossed.
- Do not sit on a sofa.(Belly pressure may increase the blood pressure)
- Do not put the arm on the low table.(May increase the blood pressure)

## Start measuring

Don't eat, smoke, drink, take bath or do any high impact sport within half an hour before measuring. Measurements shall be taken at the same time every day.

Sit still for 5 minutes before the measurement

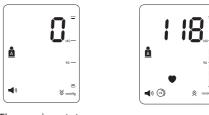
1. Measurement

A. Press the "  $\bigoplus_{n=0}^{\infty}$  " button to set the user to be measured before starting the measurement.

B. And then press the " 0 " button to start the measurement. After that the deflation icon "  $\gtrless$  " flashes which means the system is in zero testing. Several seconds later the inflation icon "  $\gtrless$  " flashes which means the zero testing is finished. Then inflation starts



Full screen display state



The zeroing state

#### The inflation state

The monitor starts measuring automatically after inflation finished, and the measuring icon "  $\P$  " starts to flicker, pressure release value starts to decrease gradually.

Please maintain the position during the measurement and don't speak or move body or hand.



The measuring state

## Auxiliary measuring function

## Start measuring

#### 2. Measurement finished

After measurement, the monitor will show the SYS, DIA and pulse rate, then daflate the air automatically.





mmHg display

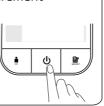
kPa display

3. Take off the cuff

4. Shut down

Press the "  $\bigcup$  " button to shut down. Also it will power off automatically in 3 minutes without any operation.

Emergency stop during measurement If the measurement need stoping for uncomfortableness or other reasons, please press the "  $\bigcup$  " button, the measurement will stop immediately and air releases fast. Take off the cuff manually if the "  $\bigcup$  " button is not working.



Warning: Upper limit pressure of air inflation is 300mmHg/40.0kPa. Don't keep the inflated state for a long time to avoid damage. The icon "O" appears when the cuff is wrapped correctly, and the icon "O" appears when the cuff is wrapped loosely or tightly.

### Indication for Movement Error

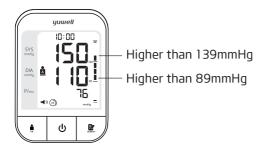
The product can automatic detection of the body during the measurement of the wrong movement and give the icon "()" " prompt . If the icon "()" " appears during the measurement, measure it again.

#### Indication for irregular heartbeats

the icon "O" flashes if irregular pulse signal is detected during measurement, and it indicates that the measurement is abnormal and need to be remeasured. If the icon "O" appears during multiple measurements, consult your doctor.

## Blood pressure range indicator

- If the SYS is higher than 139mmHg or DIA higher than 89mmHg means having high blood pressure. Please contact with doctor for advice.
- ► Also the Blood pressure range indicator can show the blood pressure intuitively.



## Tips!

- The time interval between two measurements should be at least 2 minutes~3 minutes or longer.
- Estimate the blood pressure condition according to the BP classification table, and consult the doctor.

## Memory function

The monitor will store the measurement data automatically (including blood pressure and pulse), and the upper limit of records is 74 for one user.

Firstly, press the "" button to select the user A or user B, and then press the "" button to check the measurement data about the user selected.

1. Press the " 🖭 " button for the records.

A. Press the " 🔊 " button to show the average value of the latest 3 times measurement.

B. Repress the " " button to display the 1st group of memory, the serial number is displayed as "1" to "74". "1" is the latest group and the "74" is the earliest one.





The average value

The 1st group of memory

## Tips!

The 74th data may be replaced by the 73rd when the memory capacity is full.

C. Read the recorded data by pressing the "" button as the sequence: "1", "2" ......"74"(max). Then return to the 1st. Holding the "" button to search the data quickly.

D. Press the " $\mathbf{U}$ " button to shut off the monitor.

#### 2. Delete the recorded data

Press the both " $\mathcal{O}$ " button and " $\mathbb{B}$ " button until the display shown as the picture, which means the recorded data is cleared. Press the " $\mathcal{O}$ " button to turn off the monitor after deleting.



Note: This operation will delete all of the recorded data.

This function is mainly for professional personnel to enter the static mode to test the monitor through standard pressure gauge.

Warning: Normal users don't need to know this function and also do not operate. The company will not take any responsibility for damage caused by this operation.

#### System restores

Press the " $\mathbf{U}$  " button after battery installation, then the screen will show the " $\gtrless$ " icon, which means the system is in restore testing. Several seconds later, the " $\gtrless$ " icon disappears and the air pump starts inflating at the same time, which indicates the test ended. Then press the " $\mathbf{U}$ " button to stop inflating and take out the batteries to enter the next step.

Note: It must restore the system before entering the static mode, otherwise it may cause inaccurate results.

#### Entering the static mode

Press the "" button and hold, meanwhile install the batteries. Hold on for about 3 seconds then release the "" button. Then screen will show the pressure value "" ". Now the system has restored and entered the static mode. Now can take the static test.

## Static mode

## Tips!

- ► After entering the static mode, if the screen still doesn't show " ☐ ", please operate again as the System restore. Please contact with the local distributor if it still does not work.
- ▶ The monitor will automatically power off if there is no operation in 4 minutes.



The static mode

Common question of blood pressure

## measurement

1. Why measure Blood Pressure at home? Blood pressure measured at a clinic or doctor's office may cause apprehension and can produce an elevated reading, 25~30 mmHg higher than that measured at home. Home measurement reduces the effects of outside influences on blood pressure readings, supplements the doctor's readings and provides a more accurate, complete blood pressure history.

#### 2. WHO Blood Pressure Classification?

Standards to assess high blood pressure, without regard to age, have been established by the world Health Organization(WHO), as shown below:

Range	Systolic pressure kPa/mmHg	Diastolic pressure kPa/mmHg	Counter measures
Ortho-arteriotony	12.0~18.5kPa 90~139mmHg	8.0~11.9kPa 60~89mmHg	Self check
Mild hypertension	18.7~21.2kPa 140~159mmHf	12.0~13.2kPa 90~99mmHg	Consult dr.
Medium hypertension	21.3~23.9kPa 160~179mmHg	13.3~14.5kPa 100~109mmHg	Consult dr.
Severe hypertension ≥24.0kPa ≥180mmH		≥14.7kPa ≥110mmHg	Danger! Go to hospital as soon as possible

Note: There is no definition about hypopiesia, and generally SYS(systolic pressure) less than 90mmHg or DIA(diastolic pressure) less than 60mmHg is called hypotension.

#### measurement

### 3. Blood pressure variations?

An individual's blood pressure varies greatly on a daily and seasonal basis. It may vary by 30 to 50 mmHg due to various conditions during the day. In hypertensive individuals variations are even more pronounced. Normally, the blood pressure rises while at work or play and falls to its lowest levels during sleep. So do not be overly concerned by the results of one measurement.

Take measurements at the same time every day using the procedure described in this manual to get to know your normal blood pressure. Regular readings give a more comprehensive blood pressure history. Be sure to note date and time when recording your blood pressure. Consult doctor to interpret the blood pressure data.

- 4. When is the best time to measure blood pressure?
- ▶ After urination, before breakfast in the morning.
- Before sleeping at night.
- Before taking medicine.
- Please keep a stable body state and mind every time measuring. We suggest taking measurements at a same time every day.

Common fault	Solutions
It doesn't work after pressing the "ψ" button with batteries	Check the batteries are installed correctly
installation	Replace new batteries
	Check the connection and winding of cuff
Multiple occurrences of measuring failure, or measured value is low	Check if the cuff winded too tight or too loose. Take off your clothes if rolled too tight
(or high)	Please ensure a quiet, relaxed body state. Deep breathing to relax yourself before measurement
The monitor is in good condition, but the each measuring result are different	Please read the "blood pressure variations" carefully
The value is different from that measured at a clinic or doctor's office	Write down the value every day, and consult a doctor
Pump works, but the pressure doesn't rise	Check whether the cuff has connected well

The table below shows the possible fault displaying icon, possible reason, and solutions.

Wrong indication	Fault cause	Solution
Err 4	Unable to measure pressure	Fasten cuff correctly before measurement
Err 5	Pressurizing error	Check if there is air leakage from the cuff
Err 6	Pressurizing error caused by arm or body motion	Keep arm and body still and measure again
Err 7	Cuff is too lose or fall off	Fasten cuff tightly
Err 8	Pressure exceeds the maximum value (300mmHg)	Measure again please
Showing low voltage icon	Battery is low	Replace new batteries
Showing the "	Battery is running out	Replace new batteries

 $\triangle$  Warning: If the situations cannot be solved or unexpected problem happens, please consult the local distributor.

Please observe the following items to protect the device and ensure the accuracy of measurement.

- Please store the monitor and accessories properly after use.
- O not place the monitor and accessories in high temperature, moisture, dust, or exposure to sunshine.
- The cuff contains an airbag inside, please care in applications, do not fold, pull or twist it.
- O Do not disassemble or repair the device without authorization.

 $\bigcirc$  Do not replace the parts without authorization.

Please clean the monitor with soft dry cloth. If it's necessary, please use wiped soft cloth with water or neutral detergent before cleaning by soft dry cloth.

Using absorbent cotton to wipe gently with rubbing alcohol, disinfection of the machine when it necessary. Do not use detergent to clean.

 $\odot$  Do not let water seep into the device.

## Tips!

We advice to calibrate the monitor according to local laws and regulations

## Features and technical parameters

## 1. Features

- ▶ Large LCD display
- 74x2 groups of memory
- ▶ Systolic, Diastolic and Pulse rate display
- Average value display of three times measurement
- 2. Technical parameters
- Displaying: LCD digital display
- Measuring method: oscillation mensuration
- ► Measuring range: 0mmHg~300mmHg (0.0-40.0kPa)
- Pulse rate: 40times/min~200times/min
- Precision:

Pressure: within ± 3mmHg(±0.4kPa) Pulse rate: within 5% of reading value

- Working system: continuous operation
- Electric classification: Class II,

Type BF application part

- ▶ Pressure sensor: Semiconductor pressure sensor
- Pressurization: Automatic pressurize
- Depressurization: Automatic air releasing
- ▶ Power supply: 4 AA batteries or 5V/1A DC power
- Maximum battery life: 300 times
- Suitable upper-arm circumference: 22cm-45cm
- Service life: 5 years or 50 thousand times
- Dimension: 127x92x68(mm)
- Weight: 294g(Without batteries)

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## Features and technical parameters

 Operation and storage conditions: Working temperature: +5°C~+40°C Relative humidity: 15%~80% Working atmosphere pressure: 80kPa~105kPa Transport and storage temperature: -20°C~+55°C Transport and storage relative humidity: 15%~80%, no condensation Transportation and storage atmosphere pressure: 80kPa ~ 105kPa Operation environment: Avoid electromagnetic interference, violent

shock and noise environment,

Radio frequency interference

There is the potentia risk of radio frequency interference between the device and other devices. If there is, please find out the problems and take the following measures:

- (1) Turn off the device, and turn on again,
- (2) Change the direction of the device,
- (3) Keep the product away from the interferential devices.