yuwell

User's Manual



Electronic Blood Pressure Monitor
Model：YE630CR

YY-BPM0032E-01
Date of issue：2022.10

Service life:
5 years (6 times for each day)

Please read User's Manual closely before using this monitor.

Range of application:
This product is intended to measure the blood pressure and pulse rate of adult who is more than 12 years old (not suitable for neonate, pregnancy or pre-eclampsia).

01 Attention items

Pay attention to the symbols shown here to prevent harm and damages to the user.

❶ Symbols and their Descriptions

Symbol	Description
	Caution
	Consult the manual
	Safety and environmental protection use period for 10 years
	Type BF applied part
	Class II Device
	Manufacturer
	Date of manufacture
	Keep Upright
	Fragile
	Keep Dry

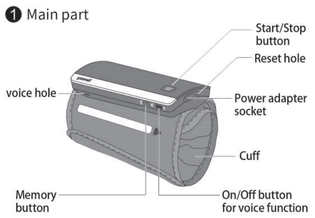
❷ Attention items

Pay attention to the following points when measuring, otherwise it may cause damage or incorrect results.

- Sit still for 5 minutes before measuring to ensure quiet and stable mode.
- Do not take the measurement while standing, walking or having body pressed.
- Do not take the measurement after smoking, drinking or coffee (black tea).
- Do not take the measurement after sport or bath.
- Do not speak or move while measuring.
- Do not move, shake arm or bend fingers while measuring.
- Do not take the measurement at extreme temperature condition or the varied severe environment.
- Do not take the measurement in a moving vehicle.
- Do not measure continuously (2~3 minutes or more should be spared between two measurements).
- Do not measure within 1 hour after meal.
- Do not use mobile phone near the device.
- For patient of arrhythmia, measuring results may not be accurate.
- 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.

02 Product structure and parts

❶ Main part



- The suitable upper-arm circumference of the cuff is：22cm~36cm
- Service life: 5 years(6 times for each day) for the monitor，5000 times for cuff.

❷ AC adapter(optional)

Please use only the authorized Yuwell AC Adapter (output DC 5V 1A) to charge, and you can contact the local dealer for consultation about the relevant information.

❸ Accessories

- User's manual (with warranty card)
- USB cable and AC adapter (optional)

❹ Display icons

icons	Description
	Bluetooth icon • The icon appears when Bluetooth is connected.
	Voice function switch-on icon • When the voice function is swithed on, the icon appears.
	Voice function switch-off icon • When the voice function is swithed off, the icon appears.
	Detection icon for cuff wearing • When the cuff is wrapped loosely, the icon appears. Please measure again after fasten tightly cuff.
	Detection icon for cuff wearing • When the cuff is wrapped correctly, the icon appears.
	Indication icon for movement error • When the wrong movement of body during measurement is detected, the icon appears.
	Deflation icon • When the monitor is deflating, the icon appears.
	Heartbeat icon • When the pulse is detected, the icon appears.
	Indication icon for irregular heartbeats • When the irregular pulse signal is detected during measurement, the icon appears.
	The charging icon • When charging, the icon appears.
	Battery Power icon • Display battery power

03 Battery charging

This product is powered by lithium battery. Please make sure the battery is sufficient when using the product.

① Connect the Yuwell AC Adapter for charging.
② During charging, the display shows the charging icon and battery level.
③ Please unplug the power adapter after finishing charging.

Precautions for lithium battery use

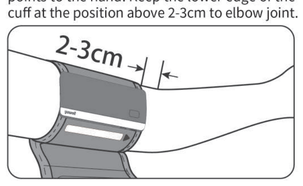
⚠Note	Please charge the device in a position where it is easy to disconnect from supply mains.

- Please charge the device in time when the battery is low and it is recommended to use the device frequently.
- Do not place equipment with lithium battery near the fire source.
- Do not remove and replace the battery or squeeze the battery with hard objects.
- Please dispose of waste batteries in accordance with local environmental protection regulations.
- Do not measure blood pressure when charging, so as not to cause abnormal measurement.
- Do not replace the battery without authorization. Replacement of the battery by untrained personnel may result in overtemperature, fire, or explosion.

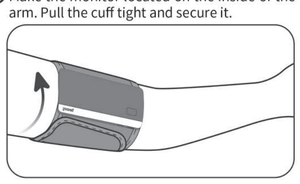
04 Using method of cuff

Either of the upper-arms can be measured. Do not measure other parts of the body.

❶ Wind the cuff around the upper arm. The arrow points to the hand. Keep the lower edge of the cuff at the position above 2-3cm to elbow joint.

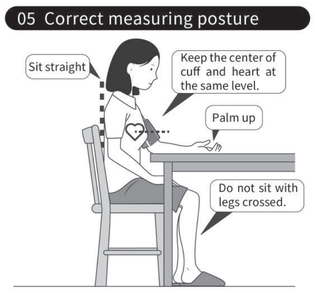


❷ Make the monitor located on the inside of the arm. Pull the cuff tight and secure it.



- The cuff should be worn comfortably, avoiding too tight or loose.

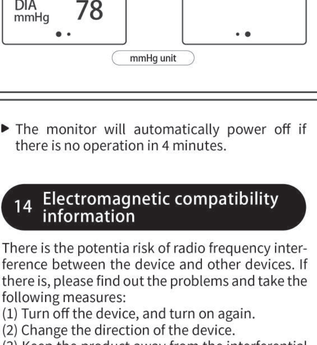
05 Correct measuring posture



⚠Note

Any blood pressure measurement is influenced by the posture and physical condition of the person being measured.

Wrong measuring posture



06 Measure blood pressure

Please pay attention to the following items before measurement:

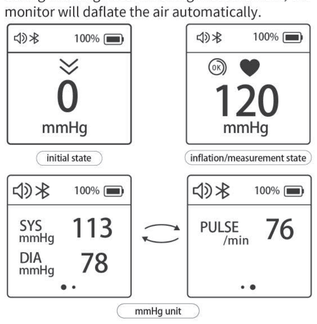
① Sit still for 5 minutes before the measurement.
② Measurements shall be taken at the same time every day.
③ Don't eat, smoke, drink, take bath or do any high impact sport within half an hour before measuring.
④ For multiple measurements, the time interval between two adjacent measurements should be at least 2-3 minutes or longer.
⑤ Estimate your blood pressure condition according to the BP classification table，and consult with your doctor.

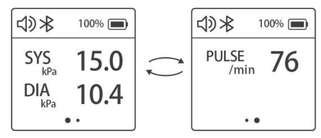
❶ Press the【Start/Stop】button

The display shows deflation icon " " after pressing the【Start/Stop】button. Then the deflation icon disappears which means the zero testing is finished and the air pump begins to inflate at the same time.

❷ Measuring Process

The monitor starts measurement automatically during inflating. After finishing measurement, the monitor will daflate the air automatically.





⚠Note

- Upper limit pressure of air inflation is 300 mmHg/40.0 kPa. Don't keep the inflated state for a long time to avoid damage.
- If the measurement need to be stopped for uncomfortableness or other reasons, please press the【Start/Stop】button. The measurement will stop immediately and air releases fast. Take off the cuff manually if the【Start/Stop】button is not working.
- If the SYS is higher than 139mmHg or DIA higher than 89mmHg means having high blood pressure. Please contact with your doctor for advice.

Detection for cuff wearing

When the cuff is wrapped correctly，the icon " " appears. When the cuff is wrapped loosely, the icon " " appears. Please press the【Start/Stop】button to stop measuring when the icon " " appears，and measure again after wrapping cuff correctly.

Indication for Movement Error

When the wrong movement of body during measurement is detected，the icon " " appears. Please measure again.

Indication for irregular heartbeats

It means that the measurement result may be inaccurate when the icon " " appears. Please measure again. If the icon appears during multiple measurements, please consult your doctor.

❸ Take off the cuff

❹ Shut down

Press the【Start/Stop】button to shut down. It will power off automatically in 3 minutes without any operation.

About BP classification

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

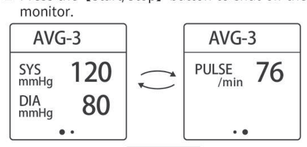
Range	Systolic pressure (mmHg)	Diastolic pressure (mmHg)	Counter measures
Ortho-arteriotony	12.0~18.5kPa 90~139mmHg	8.0~11.9kPa 60~89mmHg	Self check
Mild hypertension	18.7~21.2kPa 140~159mmHf	12.0~13.2kPa 90~99mmHg	Consult dr.
Medium hypertension	21.3~23.9kPa 160~179mmHg	13.3~14.5kPa 100~109mmHg	Consult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

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

07 Check memory storage datas

The monitor will store the measurement data automatically (including blood pressure and pulse). The upper limit of records is 50. The 50th data will be replaced by the 49th and the 1st data will be replaced by new data when the memory capacity is full.

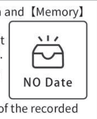
① Press the【Memory】button for the first time to check the average value of the latest 3 times measurement.
② Press the 【Memory】 button again to check the 1st group of memory.
③ Hold the 【Memory】 button to check quickly the relevant memory data.
④ Press the【Start/Stop】button to shut off the monitor.



The average value

Delete the memory storage datas

① Hold the both【Start/Stop】button and【Memory】button at the same time, until the display shows as the picture that means the recorded data is cleared.
② Then press the【Start/Stop】button to turn off the monitor.



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

08 Function setting

❶ Time and date setting

① Press the【Start/Stop】button and the【Memory】button at the same time for more than 3 seconds till the year's number starts flickering.
② Press the 【Memory】 button to set year.
③ After finishing the year setting, press the【Start/Stop】button to switch to the month setting.
④ Using the same way to set the month, day, hour, and minute in turn.

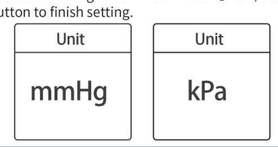
❷ Voice volume setting

After finishing the time and date setting, press the【Start/Stop】button to enter the voice volume setting. Press the【Memory】button to set voice volume.

- Tips：When the voice function button is swithed off, there is without voice broadcast function.

❸ Unit setting

After finishing the voice volume setting, press the【Start/Stop】button to enter the unit setting. Press the【Memory】button to choose unit between mmHg and kPa. Press【Start/Stop】button to finish setting.



Tips：In the condition of kPa unit, it is without voice prompt.

09 Problems and solutions

The following table lists possible unusual cases while measuring，possible causes and solutions.

unusual cases	causes	solutions
Err3	The pressure value did not reach 5mmHg within 4s	Please fasten cuff tightly and measure again
Err4	Unbale to measure pressure	Keep arm and body still and measure again
Err5	Pressurizing error	Please fasten cuff tightly and measure again
Err6	Pressurizing error caused by arm or body moving	Keep arm and body still and measure again
Err7	Cuff is too loose or falling off	Please fasten cuff tightly and measure again
Err8	Pressure exceeds the maximum value (300mmHg)	Keep arm and body still and measure again
Low Battery	Battery is running out	Connect the power adapter for charging
others	If the monitor doesn't work after pressing【Start/Stop】button，Please check whether the battery power is sufficient.	

⚠Note

If the situations cannot be solved or unexpected problem happens, please consult the local distributor.

10 About blood pressure measurement

Q Why stay comfortable and relaxed before taking the measurement?
A If you force to brace the arm or are in tension, that can cause the rise in blood pressure.

Q Why do we need to make sure if we have taken blood pressure medication before taking the measurement?
A If you have taken antihypertensive drugs, the effect will wear off after a few hours and blood pressure will rise accordingly. Please consult your doctor for details.

Q Why need to make sure if the cuff is worn correctly?
A If the cuff is worn too tight or loose, the measurement date may be inaccurate.

Q Why keep the center of cuff and heart at the same level?
A If the part measured is above or below the heart, the measurement date may be inaccurate.

Q Why do not move or talk while measuring?
A If you move or talk while measuring，the measurement date may be inaccurate.

Q Why should be the time interval at least 2-3 minutes or longer between two adjacent measurements for multiple measurements?
A Because repeated measuring can cause blood to build up in the arm, which can lead to numbness and wrong measurement date.

Q Why can the date of each measurement be different?
A Because blood pressure is constantly changing:
①Blood pressure generally rises in winter and decreases in summer.
②Poor sleep can cause the rise slight of blood pressure.
Note：Measurements shall be taken at the same time every day.

11 Maintenance

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

- Please store the monitor and accessories properly after use.
- Do 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.
- Warning: Do not disassemble or repair the device without authorization or modify the device without authorization.
- Do not service or maintain while the device is in use.
- Please clean the monitor with soft dry cloth. If it is necessary, please use wiped soft cloth with water or neutral detergent before cleaning by soft dry cloth, and do not let water seep into the device.
- Using absorbent cotton to wipe gently with rubbing alcohol to clean the device when it is necessary. Do not use detergent to clean.
- Manufacture will make available on request circuit diagrams, component part lists, descriptions, calibration instructions, or other information that will assist service person to repair those parts of the device that are designated by the manufacture as repairable by service person.
- Degraded sensors can degrade performance.

Tips!

We advice to calibrate the monitor according to local laws and regulations (at least once a year).

12 Features and technical parameters

❶ Features

Voice function | Lithium battery powered | Bluetooth transmission | 50 groups of memory | Detection for cuff wearing | Indication for movement error

❷ Technical parameters

Operating principle		Oscillation mensuration
Pressure measuring	range	0~300mmHg
	Precision	within ±3mmHg(±0.4kPa)
Pulse rate measuring	range	40~200 beats/min
	Precision	within 5% of reading value
Working system		Continuous operation
Electric classification		Class II, Type BF applied part (cuff is applied part)
Pressure sensor		Semiconductor pressure sensor
Pressurization		Automatic pressurize
Depressurization		Automatic air releasing
Power supply	battery	DC 3.7V
	AC adapter	input AC 100-240V，50/60Hz，0.35A output DC 5V 1A
Battery usage times		The battery can be used about 250 times on a full charge
Dimension		Approx. 125mmx62mmx24mm (without cuff)
Weight		About 257g (without cuff)
Suitable upper-arm circumference		22cm-36cm
Service life		5 years (6 times for each day) for the monitor 5000 times for cuff

❸ Operation and storage conditions

Operation temperature/ relative humidity	+5℃~ +40℃ 15%RH ~ 80%RH (non-condensing)
Operation atmosphere pressure	80kPa~105kPa
Transport and storage temperature/ relative humidity	-20℃~ +55℃ 15%RH ~ 80%RH (non-condensing)
Transport and storage atmospheric pressure	80kPa ~ 105kPa
Operation environment	Avoid electromagnetic interference, violent shock and noise environment.

Tips!

The SPHYGMOMANOMETER was clinically investigated according to the requirement of ISO 81060-2.
The SPHYGMOMANOMETER complies with IEC 80601-2-30.

13 Static mode

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【Start/Stop】button, then the screen will show the deflation icon " ", which means the system is in restore testing. Several seconds later, the" " icon disappears and the air pump starts inflating at the same time, which indicates the test ended. Then press the【Start/Stop】button to stop inflating and 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【Memory】button and hold, meanwhile poke the reset hole and hold on for about 3 seconds then release【Memory】button. Then screen will show the pressure value" ", time and date, mmHg. Now the system has restored and entered the static mode. Now can take the static test.
- After entering the static mode, if the screen still does not show " " , please operate again as the system restore. Please contact with the local distributor if it still does not work.



The static mode

- The monitor will automatically power off if there is no operation in 4 minutes.

14 Electromagnetic compatibility information

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.

Table 1 For all ME EQUIPMENT and ME SYSTEMS

Guidance and manufacture' s declaration- electromagnetic emission	
The YE630CR Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of YE630CR Electronic Blood Pressure Monitor should assure that it is used in such an environment.	
Emission test	Compliance
RF emissions CISPR 11	Group1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies

Table 2 For all ME EQUIPMENT and ME SYSTEMS

Guidance and manufacture' s declaration- electromagnetic emission		
The YE630CR Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of YE630CR Electronic Blood Pressure Monitor should assure that it is used in such an environment.		
Immunity test	IEC 60601 test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air
Electrical fasttransient /burst IEC 61000-4-4	±2 kV 100kHz repetition frequency	±2 kV 100kHz repetition frequency
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s)
Voltage dips IEC 61000-4-11	0% U_T: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U_T: 1 cycle and 70% U_T: 25/30 cycles Single phase: at 0°	0% U_T: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U_T: 1 cycle and 70% U_T: 25/30 cycles Single phase: at 0°
Voltage interruptions IEC 61000-4-11	0% U_T: 250/300 cycles	0% U_T: 250/300 cycles
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30A/m 50Hz or 60Hz	30A/m 50Hz or 60Hz
NOTE: U_T is the a.c. mains voltage prior to application of the test level.		

Table 3 For ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING

Guidance and manufacture' s declaration- electromagnetic immunity		
The YE630CR Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of YE630CR Electronic Blood Pressure Monitor should assure that it is used in such an environment.		
Immunity test	IEC 60601 test level	Compliance level
Conducted RF IEC 61000-4-6	3 Vrms 0.15 MHz-80 MHZ 6 V rms in ISM and amateur radio bands between 0.15 MHz and 80 MHZ 80 % Am at 1 kHz	3 Vrms 0.15 MHz-80 MHZ 6 V rms in ISM and amateur radio bands between 0.15 MHz and 80 MHZ 80 % Am at 1 kHz
Radiated RF IEC 61000-4-3	10 V/m 80 MHZ to 2.7 GHz	10 V/m 80 MHZ to 2.7 GHz
NOTE1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE2 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 YE630CR is used exceeds the applicable RF compliance level above, the YE630CR should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the YE630CR. [b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.		

Table 4 Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment

Test frequency (MHz)	Band[a] (MHz)	Service[a]	Modulation[b]	Maximum power (MHz)	Distance (m)	IMMUNITY TEST LEVEL (V/m)
385	380-390	380-390	Pulse modulation[b] 18 Hz	1.8	0.3	27
450	430-470	430-470	FM ±5 kHz deviation 1 kHz sine	2	0.3	28
710	704-787	704-787	Pulse modulation[b] 217 Hz	0.2	0.3	9
745						
780						
810	800-960	800-960	Pulse modulation[b] 18 Hz	2	0.3	28
870						
930						
1720	1700 - 1990	1700 - 1990	Pulse modulation[b] 217 Hz	2	0.3	28
1845						
1970						
2450	2400 - 2570	2400 - 2570	Pulse modulation[b] 217 Hz	2	0.3	28
5240	5100 - 5800	5100 - 5800	Pulse modulation[b] 217 Hz	0.2	0.3	9
5500						
5785						

NOTE
If necesary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1m test distance is permitted by IEC61000-4-3.

a) For some services, only the uplink frequencies are included.
b) The carrier shall be modulated using a 50% duty cycle square wave signal.
c) As an alternative to FM modulation, 50% pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO.,LTD.
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Warranty Card

Product name	
Model	
S/N	
MFG.DATE	

Please reserve the warranty card carefully!