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WELLBEING

REF TMB-2287-K MD

IP21

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User Manual

Advanced Blood Pressure Monitor



REF TMB-2287-K

- Thank you very much for selecting Kinetik Wellbeing Advanced Blood Pressure Monitor TMB-2287-K.
- Please do read the user manual carefully and thoroughly so as to ensure the safe usage of this product, and keep the manual well for further reference in case you have problems.

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♥ Support

Our manual should provide you with all the information you need to set up and use this product.

If you have a question, have a look at our Troubleshooting page!

For further assistance, why not contact our Customer Care team directly? We're here to help!

Our Customer Care team are available from 9am-5pm, Monday to Friday (excluding bank holidays).

We promise to respond to all queries and will ensure to resolve any issue you may be having.

You can reach us by…

Phone:
+44 1483 937969

Live Chat:
Simply visit www.kinetikwellbeing.com and send us a message.

Email:
customercare@kinetikwellbeing.com

Post:
Kinetik Medical Devices Limited
Unit 11 Perrywood Business Park,
Salfords, RH1 5JQ

♥ General Description

Thank you for selecting Kinetik Wellbeing's Advanced Blood Pressure Monitor (TMB-2287-K). The monitor features blood pressure measurement, pulse rate measurement and the result storage. The warranty period is two years. Readings taken by the TMB-2287-K are equivalent to those obtained by a trained observer using the cuff and stethoscope auscultation method. This manual contains important safety and care information, and provides step by step instructions for using the product. Read the manual thoroughly before using the product.

Features:

- 60.5 mm×92.5 mm Digital LCD display
- Maximum 199 records per user
- Measuring-during-inflation technology

♥ Indications for Use

This Blood Pressure Monitor is a digital monitor intended for use in measuring blood pressure and pulse rate with arm circumference ranging from 22cm to 32cm (about 8¾″-12½″), 22cm to 42cm (about 8¾″-16½″), 22cm to 45cm (about 8¾″-17¾″) or 40cm to 52cm (about 15¾″-20½″).
It is intended for adult indoor use only.

♥ 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 airpressure. 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.

♥ Receiving and Inspecting your Monitor

Check that the device packaging has not been tampered with and make sure that all contents are present. Before use, ensure that there is no visible damage to the device or accessories and that all packaging material has been removed. If you have any doubts, do not use the device and contact your retailer or the specified Customer Services address.

Safety Information

The signs below might be in the user manual, labeling or other component.
They are the requirement of standard and using.

	Manufacturer		Type BF applied part
	Date of manufacture and Made in China		Direct Current
	Recyclable	SN	Serial Number
LOT	Batch code	MD	Medical Device
	For indoor use only		Class II Equipment
IP21	Degree of protection against the Ingress of water.		
	Consult instructions for use or consult electronic instructions for use.		
REF	Catalogue Number / Model Number		
EC REP	Authorized representative in the European Community / European Union		
	Refer to instruction manual/booklet To signify that the instruction manual/ booklet must be read. Note: The background color of the symbol is blue.		
	Caution Indicates that caution is necessary when operating the device or control close to where the symbol is placed, or that the current situation needs operator awareness or operator action in order to avoid undesirable consequences.		
	The symbol indicates that the product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.		
CE 0123	CE marking indicates that a product has been assessed by the manufacturer and deemed to meet EU safety, health and environmental protection requirements. It is required for products manufactured anywhere in the world that are then marketed in the EU.		

Precaution

* Blood Pressure Monitor is intended to be operated by adults, including medical staffs and lay persons. Adult patients could also be intended users or operators.
* This device is intended for indoor, home use and is not intended for self-use in public areas.
* This device is portable, but it is not intended for use during patient transport.
* This device is not suitable for continuous monitoring during medical emergencies or operations.
* This device is intended for non-invasive measuring and monitoring of arterial blood pressure. It is not intended for use on extremities other than the arm, or for any purpose other than obtaining a blood pressure measurement.
* This device is for adults. Do not use this device on neonates or infants. Do not use it on children and adolescents unless otherwise instructed by a medical professional.
* Consult with your physician before using this monitor if you suffer from the following conditions: common arrhythmias such as premature ventricular beats or atrial fibrillation; peripheral arterial disease, implantation with electrical devices; undergoing intravascular therapy; arteriovenous shunt or mastectomy. Please note that any of these conditions may affect measurement readings, in addition to patient motion, trembling or shivering.
* If you are taking medication, consult your physician to determine the proper time to measure your blood pressure.
* This device may be used only for the intended use described in this manual, the manufacturer shall have no liability for any incidental, consequential, or special damages caused by misuse or abuse.
* Please use the device under the environment which is provided in the user manual. Otherwise, the performance and lifetime of the device will be impacted and reduced.
* The device may require up to 30 minutes to warm up / cool down from the minimum/ maximum storage temperature before it is ready for use.
* The blood pressure monitor, its adapter, and the cuff are suitable for use within the patient environment.
* Do not wash the cuff in a washing machine or dishwasher !
* The device contains sensitive electronic components. To avoid measurement errors, avoid taking blood pressure measurements near a strong electromagnetic field radiated interference signal or electrical fast transient/burst signal.
* Wireless communication equipment, such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies may cause interference that may affect the accuracy of measurements. A minimum distance of 1 foot (30 cm) should be kept from such devices during a measurement.

⚠ Caution

* Do not attempt to repair the unit yourself if it malfunctions. Only have repairs carried out byauthorized service centers.
* It is recommended that the performance should be checked after repair, maintenance, and every two years of use, by retesting the requirements in limits of the error of the cuff pressure indication and air leakage (testing at least at 50 mmHg and 200 mmHg). Please contact manufacturer or distributor for authorized service personnel.
* Store your device, cuff and adapter in a clean and dry place, protect it against extreme moisture, heat, lint, dust and direct sunlight. Never place any heavy objects on it.
* Make sure the rubber tube of the cuff is not squeezed, stretched, or kinked during storage.
* Dispose of accessories, detachable parts, and the device according to the local guidelines.

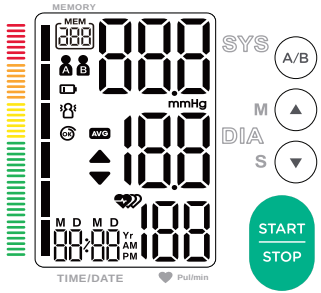
Warning

* DO NOT self-diagnose the measurement results and start treatment by yourself. The measurement results given by this device is not a diagnosis. ALWAYS consult your doctor for evaluation of the results and treatment.
* DO NOT adjust medication based on readings from this blood pressure monitor. Take medication as prescribed by your physician. ONLY a physician is qualified to diagnose and treat high blood pressure.
* DO NOT apply the cuff on an arm that has an intravenous drip or a blood transfusion attached.
* DO NOT kink, fold, stretch, compress, or otherwise deform the tube during measuring, as the cuff pressure might continuously increase, which could prevent blood flow and result injury.
* Taking blood pressure measurements too frequently could disrupt blood circulation and cause injuries.
* DO NOT apply cuff to areas on patient where skin is delicate or damaged. Check cuff site frequently for irritation.
* DO NOT place the cuff on the arm of a person whose arteries or veins are undergoing medical treatment, i.e. intra-vascular access or intra-vascular therapy or an arteriovenous (A-V) shunt, which could disrupt blood circulation and cause injuries.
* DO NOT place the cuff on the arm on the same side of a mastectomy (especially when lymph nodes have been removed). it is recommended to take measurements on the unaffected side.
* DO NOT wrap the cuff on the same arm to which another monitoring device is applied. One or both devices could temporarily stop functioning if you try to use them at the same time.
* Warning: Please check (for example, by observation of the limb concerned) that the operation of the device does not result in prolonged impairment of patient blood circulation.
* Warning: On the rare occasion of a fault causing the cuff to remain fully inflated during measurement, loosen and remove the cuff immediately. Prolonged high pressure applied to the arm (cuff pressure >300 mmHg or constant pressure >15 mmHg for more than 3 minutes) might lead to bruising and discolored skin.
* DO NOT use this device with high-frequency (HF) surgical equipment at the same time.
* This device is not used in conjunction with oxygen rich environments, not intended for use with flammable anaesthetics, not intended for use in conjunction with flammable agents.
* Excessive cuff tube lengths could cause strangulation if you don't manage them properly.
* DO NOT touch output of the batteries/adapter and the user simultaneously.
* The power cord is considered the disconnect device for isolating this equipment from supply mains. DO NOTposition the equipment so that it is difficult to reach or disconnect.
* DO NOT use this device if you are allergic to polyester, nylon, or plastic.
* Only use accessories approved by manufacturer. Using unapproved accessories might cause damage to the unit and injure users.
* If you experience discomfort during a measurement, such as pain in the arm or other complaints, press the Power button immediately to release the air from the cuff.
* DO NOT use the device while under maintenance, or being serviced.
* Sensor degradation or looseness may reduce performance of device or cause other problems.
* The air tube poses a risk of strangulation. Furthermore, the small parts of product and batteries present a choking hazard if swallowed. They should therefore always be kept away from infants/children.

Notice

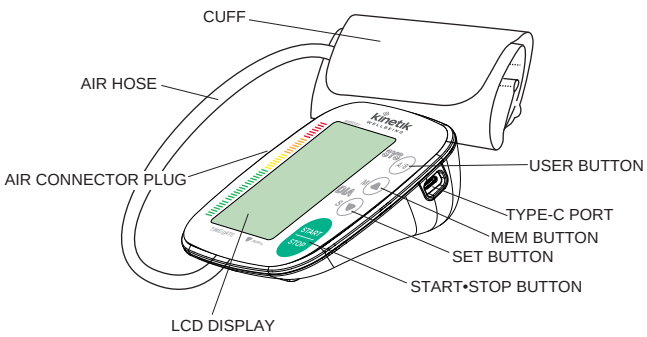
* You can use this device to take your own measurement, no third-party operator is required.
* Adapter is specified as a part of ME EQUIPMENT.
* At the request of authorized service personnel, circuit diagrams, component part lists, descriptions, and calibration procedures will be made available by the manufacturer or distributor.
* The expected lifetime of the cuff may vary by the frequency of washing, skin condition, and storage state.
* Please report to the manufacturer and the competent authority of the Member State / the FDA in which you are established about any serious incident that has occurred in relation to this device.

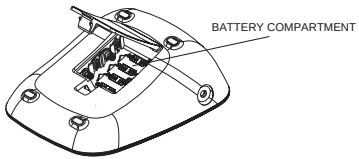
♥ LCD display signal



SYMBOL	DESCRIPTION	EXPLANATION
SYS	Systolic blood pressure	High blood pressure
DIA	Diastolic blood pressure	Low blood pressure
Pul/min	Pulse display	Pulse in beats per minute
▼	Deflation symbol	The cuff is deflating.
MEM	Memory	Indicate it is in the memory mode and which group of memory it is.
OK	Cuff wearing	The cuff is secured.
mmHg	mmHg	Measurement Unit of the blood pressure
bAt Lo +	Low battery	Batteries are low and need to be replaced.
	Irregular pulse rate	Blood pressure monitor is detecting an irregular pulse rate during measurement.
	Blood pressure level indicator	Indicate the blood pressure level.
M D M D Yr AM PM	Current Time	Year/Month/Day, Hour/Minute
A B	User A/User B	Start measurement and save the measuring results for User A/User B
	Excessive body motion detector	Appears when talking, moving, or shaking of the arm with the cuff on is detected during a measurement.
	Pulse rate	Blood pressure monitor is detecting a pulse rate during measurement.
AVG	The average value	The average value of the latest three records.

♥ Monitor Components





♥ List

1. Blood Pressure Monitor (TMB-2287-K)



2. Cuff (Type BF applied part)



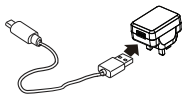
Upper arm cuff:22-42cm or
Upper arm cuff:40-52cm.

3. 4×AAA batteries (Optional!)



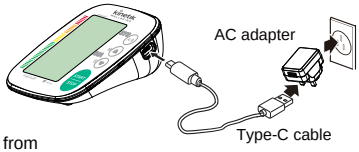
4. User manual

5. Type-C cable& Adapter (Optional!)



♥ Choice of Power Supply

1.Battery powered mode:
6V DC 4×AAA batteries (Optional!)
2.AC adaptor powered mode:
5V ⎓1A (Optional!)
(Please use the AC adapter which is authorized by the manufacturer!)
Please unplug the adaptor to depart from the using utility power.

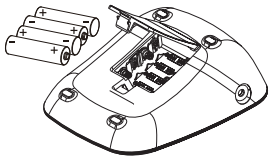


⚠ CAUTION

In order to get the best effect and protect your monitor,please use the the right batteries and special power adapter which complies with local safety standard.

♥ Installing and Replacing the Batteries

- Open the battery cover.
- Install the batteries by matching the correct polarity, as shown.
- Replace the battery cover.



Replace the batteries whenever the below happens

- The bAt Lo + shows.
- The display is dim.
- The display does not light up.

⚠ CAUTION

- New and used batteries, or different types of batteries shall not be used together.
- Remove batteries if the device is not likely to be used for some time.
- Do not heat or deform the batteries, or dispose of them in fire.
- Batteries should not be disposed of with household waste.
- Please check with your local authority for battery recycling advice.

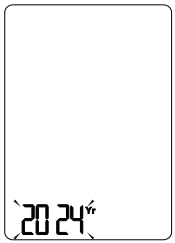
♥ Setting Date and Time

It is important to set the clock before using your blood pressure monitor, so that a time stamp can be assigned to each record that is stored in the memory. (The setting range of the year :2023-2053 time format:12H/24H)

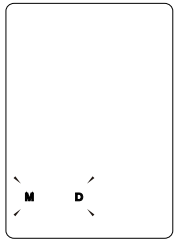
1.When the monitor is off, press and hold "SET" button for about 3 minutes, it will enter the [Year] setting.

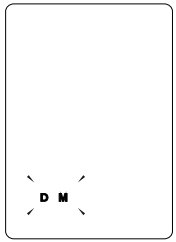


2.Press "MEM" or "SET" button to change the [Year].
Each press will increase or decrease the numeral by one in a cycling manner.

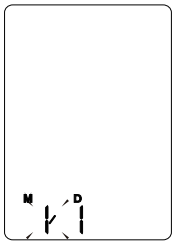


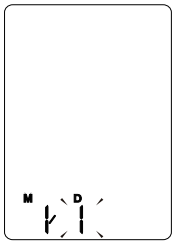
3. When you get the right year, press "START•STOP" button to set down and turn to next step.
Repeat the same steps to set the date format between [month/day] and [day/month].



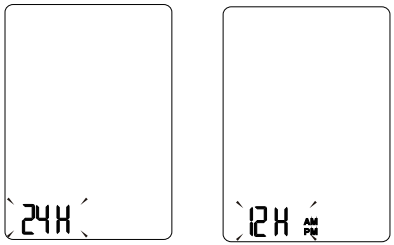


4.Repeat the same steps to set the [Month] and [Day].

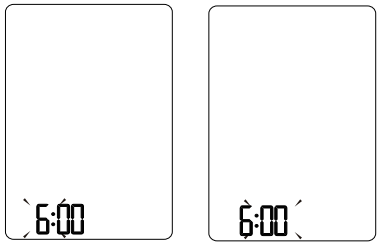




5.Repeat the same steps to set the time format between 24H and 12H.



6.Repeat the same steps to set the [Hour] and [Minute].

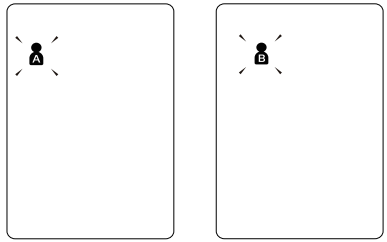


7.After the [Minute] is set,the LCD will display “do nE”, and then it will turn off automatically.

♥ Setting a user ID

There are 2 user ID available. The user and , each with 199 memory spaces, are designed for 2 different people to save the measured values separately.

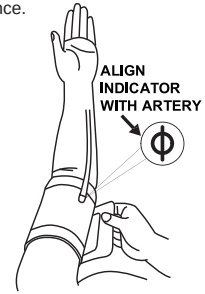
1. When the monitor is off, press “USER” button to display the current user ID. Press the “USER” button to switch the user ID between the user and .



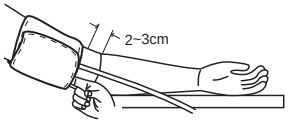
2. Press “START•STOP” button to confirm the selected user ID, the monitor will enter the measurement automatically.
Press “MEM” button to confirm the selected user ID, the monitor will enter the memory query automatically.

♥ Applying the cuff

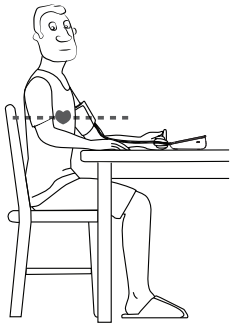
Only use a cuff that has been approved by the manufacturer for this device model. Before use, please confirm if it fits your arm circumference.



1. **Remove all jewelry, such as watches and bracelets from your left arm.**
   Note: If your doctor has diagnosed you with poor circulation in your left arm, use your right arm.
2. **Roll or push up your sleeve to expose the skin. Make sure your sleeve is not too tight.**
3. **Hold your arm with your palm facing up and tie the cuff on your upper arm, align the Artery indicator ϕ with the main Artery (on the inside of your arm).**
   Note: Locate the main Artery by pressing with 2 fingers approximately 2 cm above the bend of your elbow on the inside of your left arm. Identify where the pulse can be felt the strongest, that is your main Artery!



4. **Make sure the bottom edge of the arm cuff 2 to 3 cm above the inside elbow. Then wrap the cuff securely.**
   Note: The cuff should be snug but not too tight. You should be able to insert one finger between the cuff and your arm.
5. **Sit upright in a comfortable chair with your back against the backrest of the chair. Keep your feet flat and your legs uncrossed.**
   Place your arm resting comfortably on a flat table. The cuff worn on your arm should be placed at the same level as your right atrium of the heart.



6. **Take 5-6 deep breaths and let's start measuring!**

Helpful tips:

- Take the measurement in a silent room.
- Rest for 5 minutes before a measurement.
- Wait at least 3 minutes before another measurement. This allows your blood circulation to recover.
- Be relaxed and do not move and talk during the measurement procedure.
- For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time, on the same arm, or as directed by a physician.

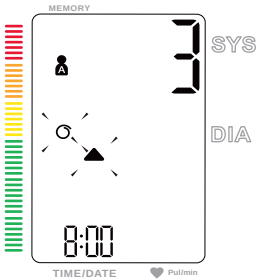
♥ Start the Measurement

1. When the monitor is off, press “START•STOP ” button to turn on the monitor, and it will finish the whole measurement. And save the measurement data for the selected user. (Take User A for example.)

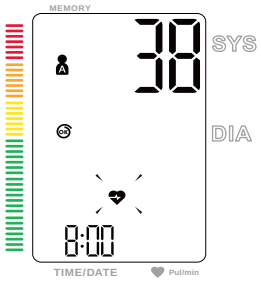
Adjust the zero



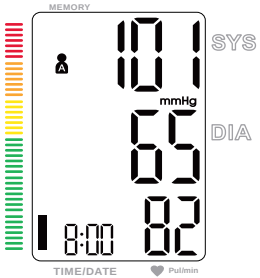
Cuff wrap detection



Inflating and measuring



Display and save the measurement result



2. Press “START•STOP” button to power off, otherwise it will turn off within 1 minute.

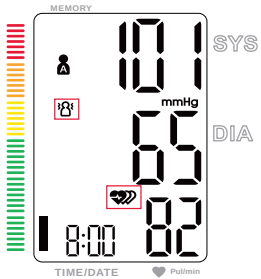


3. About the irregular pulse rate and excessive body motion during the measurement.

- During a measurement, If an irregular pulse rate is detected, the symbol will display in the measurement result. See page 22 for more information.
- During a measurement, when the excessive body motion, the symbol will flash about 5 seconds and detect again. If it is no longer detected, the symbol will disappear; If still detected, the symbol will final display in the measurement result.

Note

The measured blood pressure reading may not be accurate if this symbol is displayed.



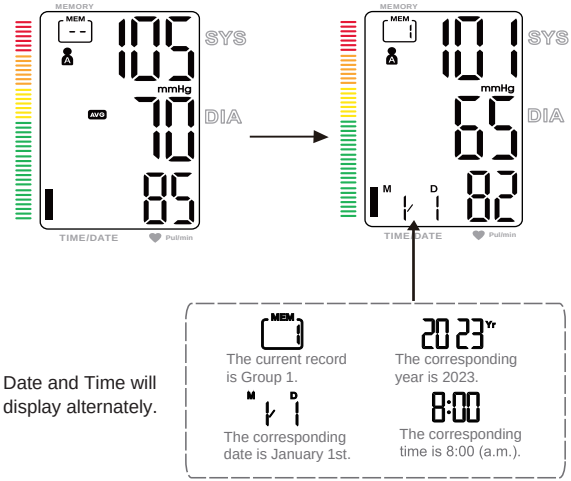
Recall the Records

1. When the monitor is off, press “MEM” button, the user ID will blink.

2. Press “USER” button to switch the user ID between user A and B, press “START•STOP” button to confirm the selected user ID.

3. Then the LCD will display the average value of last 3 readings. When the records are less than three groups, it will display the latest record. (Example shown below for User A)

4. Press “MEM” or “SET” button to display the next record.



Note

- The latest record (1) is shown first. Each new measurement is assigned to the first (1) record. All other records are pushed back one digit (e.g., 2 becomes 3, and so on), and the last record (199) will be dropped from the list.

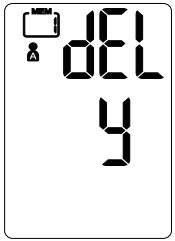
♥ Delete the Records

If you did not get the correct measurement, you can delete results by following steps below.

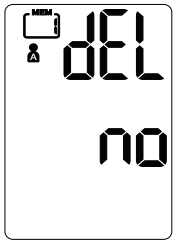
A: To delete a single measurement:

1. Enter the memory recall mode as described in section [Recall the Records]. Pres “MEM” or “SET” button to get the measurement you would like to erase.
2. Press and hold “MEM” button for about 5 seconds, and the display will show a blinking “dEL y”.
3. Use “MEM” or “SET” button to switch between “dEL y” and “dEL no”, Press “START•STOP” to confirm the selection.

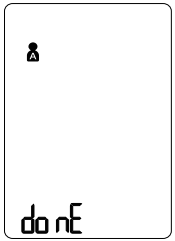
If “dEL y” is selected, the LCD will display “do nE”, and then the previous record will be displayed**.**
If “dEL no” is selected, it will stop the deletion.



“dEL y” blinks



“dEL no” blinks

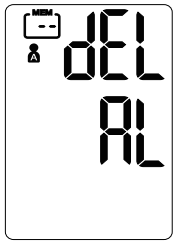


Deletion is done

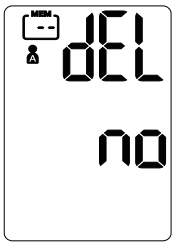
B: To delete all measurements:

1. Enter the memory recall mode as described in section [Recall the Records].
2. Press and hold “MEM” and “SET” button button for 5 seconds, and the display will show a blinking “dEL AL” along with the user ID.
3. Use “MEM” or “SET” button to switch between “dEL AL” and “dEL no”, Press “START/STOP” to confirm the selection.

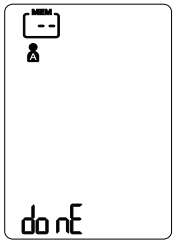
If “dEL AL” is selected, the LCD will display “do nE” , and delete all the record of the current user. Several seconds later, it will display “---”.
If “dEL no” is selected, it will stop the deletion.



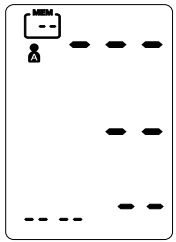
“dEL AL” blinks



“dEL no” blinks



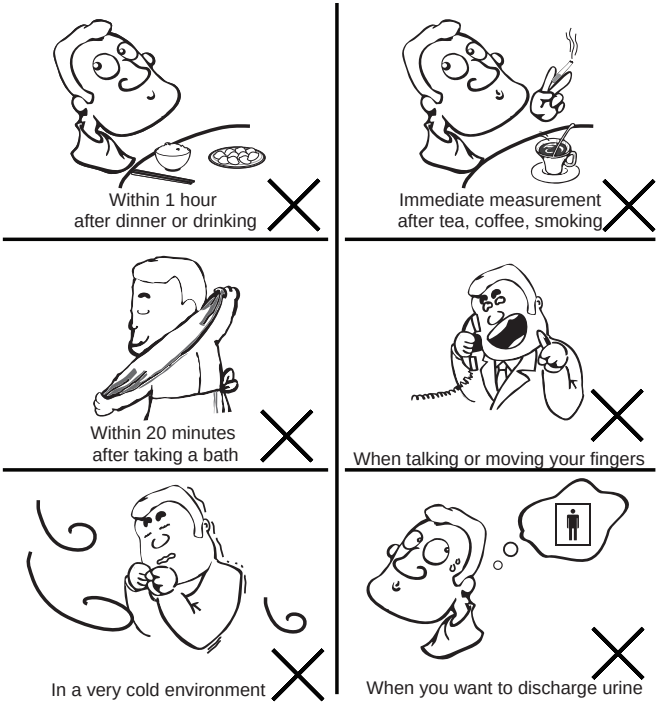
Deletion is done



No record

♥ Tips for Measurement

Measurements may be inaccurate if taken in the following circumstances.



♥ Maintenance

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

1. Cleaning Process:

Step 1: Make sure to switch off and unplug the device prior to cleaning.
Step 2: Use a soft cloth wetted with soapy water to clean the cuff first, and then use a soft cloth wetted with clear water to remove residual soap until there is no visible residual contaminants. Attention shall be paid to avoid liquid invasion into the cuff.
Step 3: Use a dry soft cloth to wipe the cuff, in order to remove residual moisture.
Step 4: Dry the cuff at a well-ventilated place after cleaning.

2. Disinfection Process:

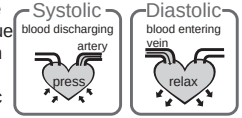
Step 1: Make sure to switch off and unplug the device prior to disinfection.
Step 2: Use a soft cloth wetted with 70% isopropanol to disinfect the cuff for about 10 minutes. Attention shall be paid to avoid liquid invasion into the cuff.
Step 3: Use a clean dry cloth or towel to wipe off the disinfectant until there is no visible residue.
Step 4: Dry the cuff at a well-ventilated place after disinfection.

- **Suggestion:**

Frequency of Cleaning and Disinfection:
For single patient multiple use, it's recommended to clean the device surface once a month or whenever it's necessary.
For multiple patient multiple use, it's recommended to clean the device every time before and after usage. Maintenance procedures shall be taken as per instruction.

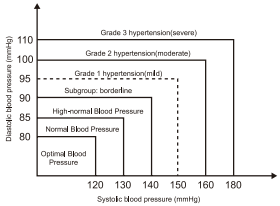
♥ What are systolic pressure and diastolic pressure?

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.



♥ What is the 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.

Level / Blood Pressure (mm Hg)	Optimal	Normal	High-normal	Mild	Moderate	Severe
SYS	<120	120-129	130-139	140-159	160-179	≥180
DIA	<80	80-84	85-89	90-99	100-109	≥110

♥ Irregular Pulse Rate Detector

An irregular pulse rate will be detected if there is an irregular pulse rhythm while measuring systolic and diastolic blood pressure. When measurements were performed, the monitor will record all pulse intervals and calculate the average. If two or more pulse intervals were recorded, and the difference between each interval and the average is larger than ±25% of the average; or if four or more pulse intervals were recorded, and the difference between each interval and the average is larger than ±15% of the average value, the irregular pulse symbol will be displayed along with measurement results.

⚠ CAUTION

The appearance of the IPR icon indicates that a pulse irregularity consistent with an irregular pulse rate 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 irregular pulse rate detector only serves as a non-medical feature, and the results cannot be used directly for clinical judgement. Please seek medical advice from professionals before making any medical decisions.

♥ Why does my blood pressure fluctuate throughout the day?

1. Individual blood pressure varies multiple times everyday. It is also affected by the way you tie your cuff and your measurement position, so please take the measurement under the same conditions.

2.If the person takes medicine, the pressure will vary more.

3.Wait at least 3 minutes for another measurement.



♥ Why do I get a different blood pressure at home compared to the hospital?

The blood pressure is different even throughout the day due to weather, emotion, exercise etc, Also, there is the “white coat” effect, which means blood pressure usually increases in clinical settings.

What you need to pay attention to when you measure your blood pressure at home:

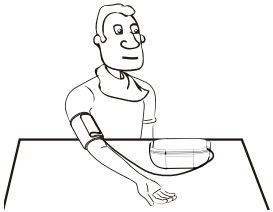
If the cuff is tied properly.
If the cuff is too tight or too loose.
If the cuff is tied on the upper arm.
If you feel anxious.

Taking 2-3 deep breaths before beginning will be better for measuring.

Advice: Relax yourself for 4-5 minutes until you calm down.

♥ Is the result the same if measuring on the right arm?

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



If any abnormality arises during use, please check the following points:

PROBLEM	SYMPTOM	CHECK THIS	REMEDY
No power	Display can not light up.	Batteries are depleted.	Replace with new batteries.
		Batteries are inserted incorrectly.	Insert the batteries correctly.
		Adapter is inserted incorrectly.	Insert the AC adapter correctly.
High Battery	bAt H shows	The battery is too high.	Replace with new batteries.
Low Battery	bAt Lo & shows	The battery is too low.	Replace with new batteries.
Error message	E 1 shows	The cuff is not wrapped or wrapped incorrectly, or the cuff air plug is loose.	Refasten the cuff and insert air tube plug correctly then measure again.
	E 2 or shows	Excessive body motion (such as shaking of the arm with the cuff on) or weak pulse is detected.	Relax for 5 minutes. and then keep still, measure again.
	E 3 shows	Pulse is not detected during measuring.	Loosen the clothing on the arm and measure again.
	E 4 shows	The measurement failed.	Relax for 5 minutes and measure again.
	EEx shows	Hardware error (X can be some digital symbol, such as1, 2, etc.)	Turn off monitor and measure again. If EEx still appears on the display, please contact the retailer or our customer service.
	USb Err shows	The voltage of the adapter is too high or too low.	Replace with the authorized adapter.
Warning message	out shows	Out of measurement range	Relax for a moment and then measure again. If the problem persists, contact your physician.

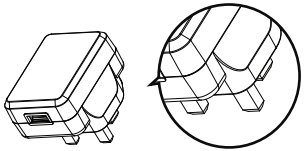
NOTE: If the product still does not work, contact Customer Service. Under no circumstance should you disassemble or attempt to repair the unit by yourself.

Power supply	Battery powered mode: 6VDC 4*AAA batteries (Optional!) AC adaptor powered mode: 5V ⎓ 1A (Optional!) (Please use the AC adapter which is authorized by the manufacturer!)
Display mode	Digital LCD V.A.60.5 mm × 92.5 mm
Measurement mode	Oscillographic testing mode
Measurement range	Rated cuff pressure: 0mmHg~299mmHg Measurement pressure: SYS: 60mmHg~230mmHg DIA: 40mmHg~130mmHg Pulse value: (40-199)beat/minute
Accuracy	Static Pressure: 5℃-40℃ within ±3mmHg Pulse value: ±5% Clinical validation: Mean difference within ±5mmHg; Standard deviation ≤8mmHg
Normal working condition	A temperature range of: +5°C to +40°C A relative humidity range of 15% to 90%, non-condensing, but notrequiring a water vapour partial pressure greater than 50 hPa An atmospheric pressure range of 700 hPa to 1060 hPa
Storage & transportation condition	Temperature:-20°C to +60°C A relative humidity range of ≤ 93%, non-condensing, at a water vapour pressure up to 50 hPa An atmospheric pressure range of 500 hPa to 1060 hPa
Measurement perimeter of the upper arm	About 22cm-42cm or 40cm-52cm
Net Weight	Approx.265g(Excluding the dry cells and cuff)
External dimensions	Approx.140mm×130mm×55.6mm
Mode of operation	Continuous operation
Degree of protection	Type BF applied part
Protection against ingress of water	IP21 It means the device could be protected against solid foreign objects of 12,5mm Φ and greater, and against vertically falling water drops.
Device Classification	Battery Powered Mode: Internally Powered ME Equipment AC Adaptor Powered Mode: Class II ME Equipment
Software Version	A01
Expected Lifetime	Device: 3 years or 30,000 measurements (may vary based on usage conditions) Cuff: 10000 times Alkaline battery: About 200-300 times
Types of use/reuse	Multiple patient multiple use

WARNING: No modification of this equipment is allowed.

♥ Authorized Component

Please use the authorized adapter.(Optional!)



Adapter
Type: BLJ06L050100U-B

Input: 100-240V, 50-60Hz, 0.2A max
Output: 5V ⎓ 1000 mA

♥ Contact Information

For more information about our products, please visit
www.kinetikwellbeing.com

♥EMC Guidance

The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare environments.

Essential performance:
Accuracy of measuring blood pressure

Measurement Range	Systolic pressure: 60-230 mmHg Diastolic pressure: 40-130 mmHg
Rated Cuff Pressure	0-299 mmHg (0-39.9 kPa)
Accuracy	Pressure: ±3 mmHg / 0.4 kPa
Laboratory repriducibility	≤ 3 mmHg

The Basis Safety of the Blood Pressure Monitor (TMB-2287-K) is as following:
Deviation from normal operation that poses an unacceptable risk to the patient or operator.

Warning: Don't be near the active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the equipment including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Technical description:
1. all necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the expected lifetime.

2. Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	**Compliance**
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class [B]
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations / flicker emissions IEC 61000-3-3	Comply

Table 2

Guidance and manufacturer's declaration – electromagnetic Immunity		
Immunity Test	IEC 60601-1-2 Test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV signal input/output 100 kHz repetition frequency	±2 kV for power supply lines Not applicable 100 kHz repetition frequency
Surge IEC61000-4-5	±0.5 kV, ±1 kV differential mode ±0.5 kV, ±1 kV, ±2 kV common mode	±0.5 kV, ±1 kV differential mode Not applicable
Voltage dips, short interruptions and voltage variations on power supply input lines 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; 250 / 300 cycle	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; 250 / 300 cycle
Power frequency magnetic field IEC 61000-4-8	30 A/m 50 Hz / 60 Hz	30 A/m 50 Hz / 60 Hz
Conduced RF IEC61000-4-6	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80% AM at 1 kHz
Radiated RF IEC61000-4-3	10 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80% AM at 1 kHz
NOTE U_T is the a.c. mains voltage prior to application of the test level.		

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity								
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communica-tions equipment)	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation Power (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)	Compliance level (V/m)
	385	380-390	TETRA 400	Pulse modulation 18Hz	1.8	0.3	27	27
	450	430-470	GMRS 460，FRS 460	FM ±5kHz deviation 1kHz sine	2	0.3	28	28
	710 745 780	704-787	LTE Band 13,17	Pulse modulation 217Hz	0.2	0.3	9	9
	810 870 930	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18Hz	2	0.3	28	28
	1720 1845 1970	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4,25; UMTS	Pulse modulation 217Hz	2	0.3	28	28
	2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28	28
	5240 5500 5785	5100-5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9	9