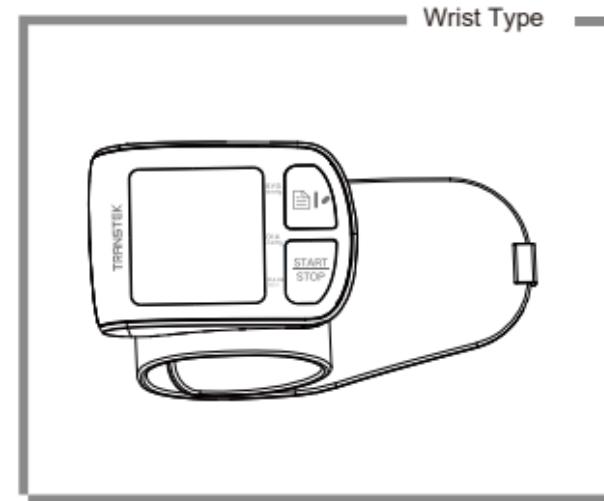


Document No.: LS-IFU-TMB-2285-BT

User Manual

Blood Pressure Monitor

Model: TMB-2285-BT



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TRANSTEK

Thank you for selecting Transtek Blood Pressure Monitor. Please read the user manual carefully and thoroughly so as to ensure the safe usage of this product. Keep this manual for further reference in case any issues arise.

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♥ General Description

This product features blood pressure measurement, pulse rate measurement and the result storage.

Readings taken by this blood pressure monitor TMB-2285-BT is 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 this blood pressure monitor. Read the manual thoroughly before using this product.

Features:

- Systolic blood pressure
- Diastolic blood pressure
- Pulse rate
- 199 records for each user

♥ Indications for Use

The Blood Pressure Monitor is a digital monitor intended for use in measuring blood pressure and pulse rate with a wrist circumference ranging from 13.5cm to 21.5cm (about 5½"-8½").

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 point" equivalent to the atmospheric pressure. Then it starts inflating the cuff. Meanwhile, the unit detects pressure oscillation generated by beat-to-beat pulsatile, which is used to determine the systolic pressure and diastolic pressure as well as 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.

	Date of manufacture		Symbol for "TYPE BF APPLIED PART"
	Symbol for "MANUFACTURER"		Symbol for "SERIAL NUMBER"
	Symbol for "RECYCLE"		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.
	Symbol for "DIRECT CURRENT"		MR Unsafe To identify an item which poses unacceptable risks to the patient, medical staff or other persons within the MR environment.
	Refer to instruction manual/booklet To signify that the instruction manual/booklet must be read. Note: The background color of the symbol is blue.		
	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.		

Precaution

- * 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 wrist, 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; pregnancy; preeclampsia; 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.

Precaution

- * 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 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.
- * Blood Pressure Monitor is intended for use by medical staffs and lay persons, and patient is also an intended user or operator.

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.

Warning

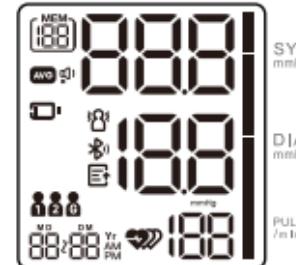
- * DO NOT apply the cuff on an wrist that has an intravenous drip or a blood transfusion attached.
- * Taking blood pressure measurements too frequently could disrupt blood circulation and cause injuries.
- * DO NOT apply cuff to areas on patient where skin is delicate or damaged. Check cuff site frequently for irritation.
- * DO NOT place the cuff on the wrist 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 wrist 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 wrist 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. 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.
- * 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 wrist (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.
- * DO NOT touch output of the batteries and the user simultaneously.
- * 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 wrist 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.

**Caution**

- * Do not attempt to repair the unit yourself if it malfunctions. Only have repairs carried out by authorized 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 and cuff in a clean and dry place, protect it against extreme moisture, heat, lint, dust and direct sunlight. Never place any heavy objects on it.
- * Dispose of accessories, detachable parts, and the device according to the local guidelines.

Notice

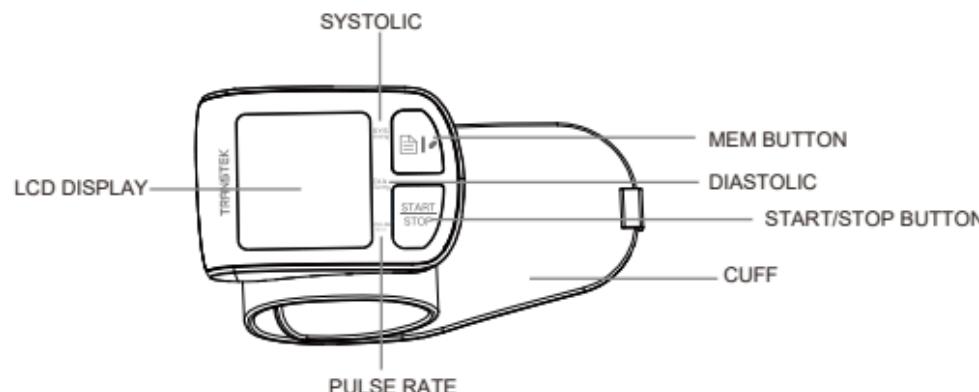
- * You can use this device to take your own measurement, no third-party operator is required.
- * At the request of authorized service personnel, circuit diagrams, component part lists, descriptions, and calibration procedures will be made available by the manufacturer or distributor.
- * The service life 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.

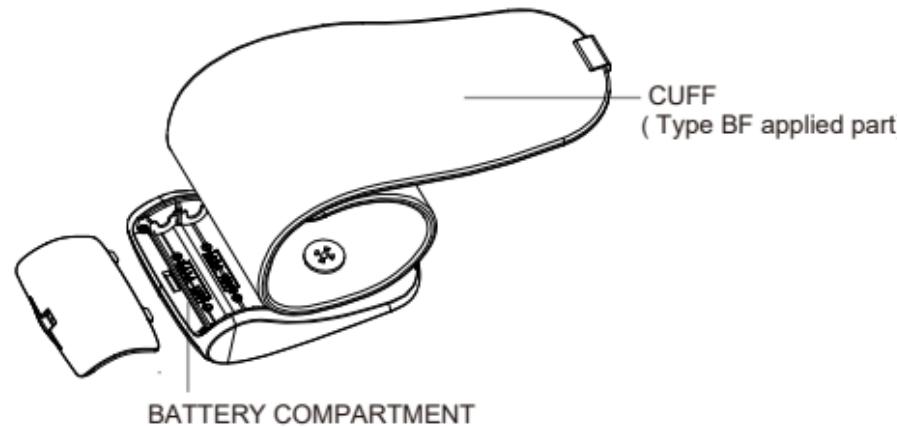
♥ LCD Display Symbol

SYMBOL	DESCRIPTION	EXPLANATION
SYS	Systolic blood pressure	The High pressure measured.
DIA	Diastolic blood pressure	The Low pressure measured.
PULSE /m in	Pulse Display	Pulse in beats per minute.
1 2 G	User ID	User 1/2/Guest
08:08 AM	Current Time	Time(year:month:day:hour:minute)
Heart icon	Pulse Rate	Pulse rate detection during measurement
Two heart icons	Irregular pulse rate	Irregular pulse rate detected during measurement.

SYMBOL	DESCRIPTION	EXPLANATION
	Battery Indicator	Indicate the current battery.
	Data transmitting	Data is transmitting; If the data transmission fails, this symbol will be show in next measurement.
	Excessive Body Motion Detector	Appears when talking, moving, or hand shaking is detected during the measurement. NOTE: The measured blood pressure reading may not be accurate if the icon is displayed.
	Blood pressure level	Indicate blood pressure level.
	Bluetooth icon	The bluetooth icon blinks when the bluetooth is working.
	Average value	Displays average of last 3 readings.
	Memory display	Indicate it is in the memory mode and which group of memory it is.
mmHg	mmHg	Measurement Unit of the blood pressure
	Voice broadcast	The function of voice broadcast is turned off

♥ Monitor Components



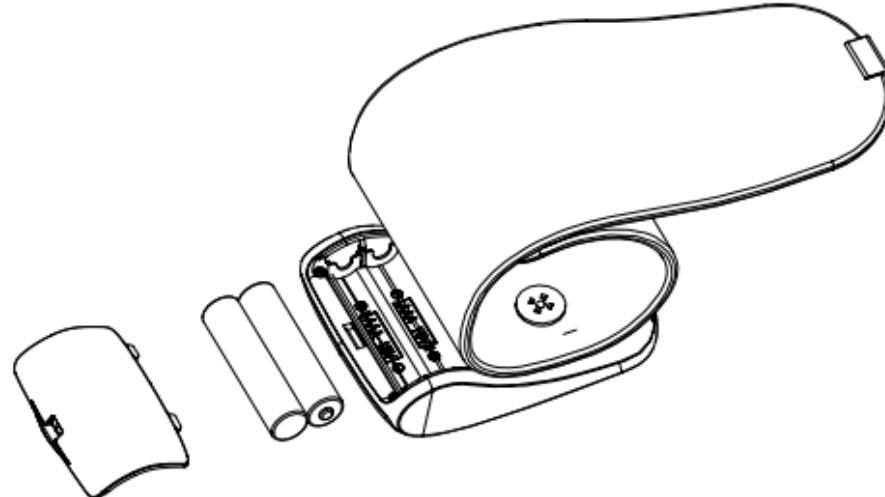


List

- 1) Blood Pressure Monitor TMB-2285-BT
- 2) 2x AAA Batteries (Optional!)
- 3) User manual

▼ Installing and Replacing the Batteries

- Slide off the battery cover.
- Install the batteries as indicated in the battery compartment. Always use the correct battery type (2x AAA batteries).
- Replace the battery cover.



Replace the batteries whenever the below happen

- 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, Time and Voice

It is important to set the Date, Time and Voice before using your blood pressure monitor, so that a time stamp can be assigned to each record that is stored in the memory. (Year Range: 2022-2052; Time Format: 12/24 H)

1. When the monitor is off, installing the battery for the first time, it will enter the settings. The symbol “” will be displayed the first.



2. Short press the “START/ STOP ” button, it will enter the setting for year.

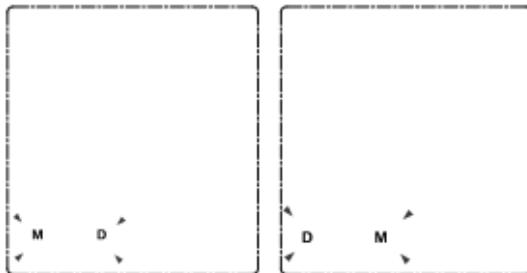
(If the voice is on, it will broadcast
“Please set the year.”)

Press the “MEM” button to change
the year.

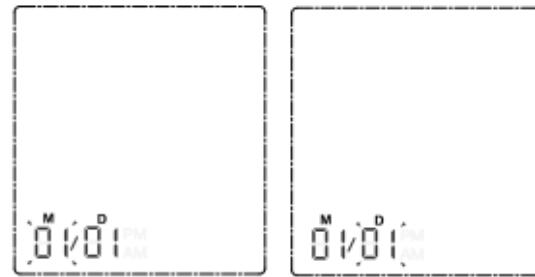
20 22

20 23

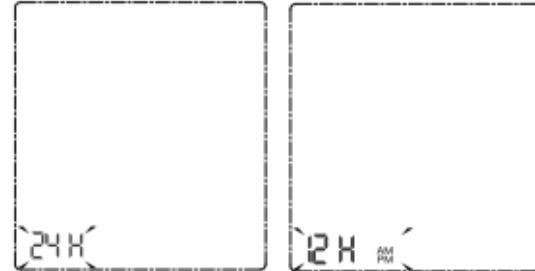
3. When you get the right year, press the "START / STOP" button to confirm the year. Then it will display the date format. Press the "MEM" button to switch the date format between [month/day] and [day/month].



4. Repeat the same steps to set the [MONTH] and [DAY].
(If the voice is on, it will broadcast "Please set the date.")



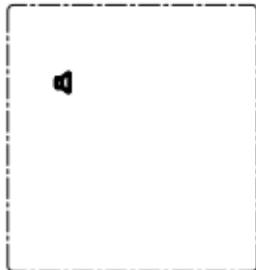
5. Repeat the same steps to set the time format.



6. Repeat same steps to set the [HOUR] and [MINUTE].
(If the voice is on, it will broadcast "Please set the time.")



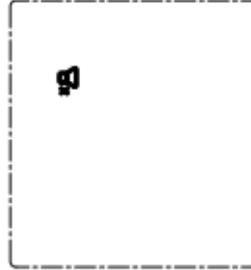
7. After confirming the time, it will enter the voice setting.(If the voice on, it will broadcast "Please set the voice for you.") Press the "MEM" button to change voice volume. (Default: Volume 1)



Volume 1
voice on



Volume 2
voice on



voice off

8. After setting the voice, the LCD will display "do nE", and then the monitor will turn off automatically.



▼ Pair a smartphone or a tablet with the monitor

You are the intended operator of this blood pressure monitor. You can measure your blood pressure and then save and send measurement data to a smartphone or tablet with Bluetooth wireless connectivity and application.

1. Turn on Bluetooth and the application. Make sure both are ON when pair-up is proceeding.

2. There are two ways to pairing:

A. When the monitor is off, installing the battery for the first time, the symbol "★" will flash on the LCD, indicating pair-up is proceeding.
(If the voice on, it will broadcast "Bluetooth pairing is in progress, please wait.")

If successful, the Bluetooth symbol will not flash any more, and the LCD will display "donE". (If the voice on, it will broadcast "Bluetooth Pairing is successful") and then it will enter the date format time format and voice setting. (Repeat the same steps to set them on the chapter [Setting Date, Time and Voice].

If unsuccessful within about 30 seconds or short press the "START/ STOP" button, it is enter [Year] setting automatically. (Repeat the same steps to set on the chapter [Setting Date, Time and Voice].



pair-up is proceeding.



pair-up successful

B. When the monitor is off, long pressing the "START/ STOP" button, the symbol "Bluetooth" will flash on the LCD, indicating pair-up is proceeding.

If **successful**, the Bluetooth symbol will not flash any more, and then the monitor will shut off automatically.

If **unsuccessful** within about 60 seconds, it is judged timeout and the monitor will shut off automatically.

Note:

The date and time will be automatically synchronized after the pair-up is finished.

Specifications for Bluetooth Transmission		
Bluetooth	Throughput	2.5K-5K
	Latency	50ms
	PER	< 10%
	Operating Frequency	2402 MHz to 2480 MHz
	Transmission Power	0dBm
	Transmission Distance	10m

Note:

1. The necessary Quality of Service (QoS) is fully considered here for wirelessly enabled functions.
2. Interference may occur in the vicinity of equipment marked with the following symbol (⚠). And TMB-2285-BT may interfere with the vicinal electrical equipment.
3. Keep the monitor at least 20 centimeters away from the human body (especially the head) when data transmission is proceeding after measurement.
4. To enable the data transmission function, this device shall be paired to an appropriate BT mobile terminal.

List of compatible devices:

For iOS devices:

The operating system must be iOS 13.0 or more.

For Android devices

The operating system must be Android 5.0 or more

Warning

About a wireless communication interference

The monitor operates in the unlicensed ISM band at 2.4 GHz. In case it is used around the other wireless devices including microwave and wireless LAN, which operate at the same frequency band as the monitor, there is a possibility that interference occurs between the monitor and such other devices. If such interference occurs, please stop the operation of other devices or relocate the monitor before using it or do not use it around the other wireless devices.

Warning

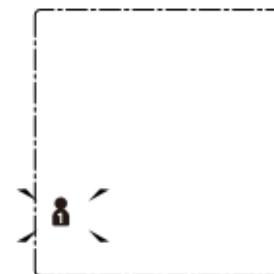
Failure to comply with the following warnings may cause cybersecurity issues.

- **DO NOT** casually use the blood pressure monitor for others, as it may lead to leakage of personal measurement data.
- **DO NOT** allow others to log into the APP, as it may lead to leakage of personal information and measurement data.
- **DO NOT** casually use the APP account for others, as it may lead to leakage of personal measurement data.
- **DO NOT** connect the blood pressure at places with poor network or wireless connectivity, as it may interrupt data upload and lead to deficient data.
- The password of the APP account should be set as possibly complicated and well kept, for the sake of account security.
- Be aware of the environmental security while setting password.
- It's recommended to update the password of the APP account at least once every 3 months.
- **DO NOT** use the APPs that are not authorized by the manufacturer.

Setting a user ID

There are 3 user ID **1** **2** **G** available. The user **1** and **2**, each with 199 memory spaces, are designed for 2 different people to save the measured values separately. The user **G**, no memory space, is reserved for guest.

1. When the monitor is off, long pressing the "MEM" button to display the current user ID and flash. Press the "MEM" button again to switch the user ID between the user **1**, **2** and **G**.
(If the voice on , it will broadcast "Please select a user.")



User 1



User 2



Visitor

2. Press the “START/STOP” button to confirm the selected user ID, the User ID will not flash any more and the monitor will turn off automatically.

♥ Tie 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 wrist circumference.

1. Remove all accessories (watch, bracelet,etc) from your wrist. If your physician has diagnosed you with poor circulation in your wrist, use the other one.
2. Roll or push up your sleeve to expose the skin.
3. Apply the cuff to your wrist with your palm facing up.
4. Position the edge of the cuff about 1cm~2cm from wrist joints.
5. Fasten the wrist cuff around your wrist, leaving no extra room between the cuff and your skin. If the cuff is too loose, the measurement will not be accurate.

6. Sit comfortably with your tested wrist resting on a flat surface. Place your elbow on a table so that the cuff is at the same level as your heart. Turn your palm upwards. Sit upright in a chair, and take 5-6 deep breaths.
7. Patients with Hypertension:

The middle of the cuff should be at the level of the right atrium of the heart; Before starting measurement, please sit comfortably with legs uncrossed, feet flat on the floor, back and wrist supported. Rest for 5 minutes before measuring. Wait at least 3 minutes between measurements. This allows your blood circulation to recover.

Take the measurement in a silent room. The patient must relax as much as possible and do not move and talk during the measurement procedure.

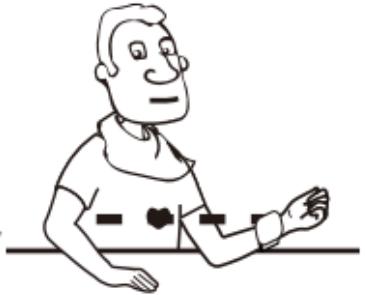
The cuff should maintain at the same level as the right atrium of the heart.

Do not cross your legs and keep your feet on the ground.

Keep your back against the backrest of the chair.

For a meaningful comparison, try to measure under similar conditions.

For example, take daily measurements at approximately the same time, on the same wrist, or as directed by a physician.



♥ Start the Measurement

1. When the monitor is off, press the "START/STOP" button to turn on the monitor, it will display the latest record of the current user, and then it will detect the position first, when you get the correct position, it will display for about 3 seconds, after then it will complete the whole measurement automatically.
(Take user 1 with voice on for example .)

A step-by-step guide showing what you'll see while taking a measurement.



Display the latest record of current User

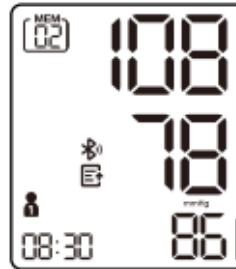


Adjust to zero. (It will broadcast "Starting measurement, please remain still and quiet.")

2. After the measurement is finished, the symbol and will display, and the data will start transmitting.

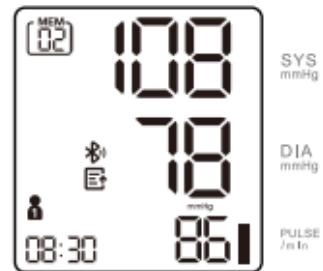


Inflating and measuring.



Display, save and read the measuring result "Your systolic blood pressure is 108, Your diastolic blood pressure is 78, Pulse is 86".

3. If the data transmits successful, the symbol  and  symbol will disappear, and then the monitor will turn off automatically.



4. If unsuccessful within 60 seconds, it is judged timeout and the monitor will shut off.

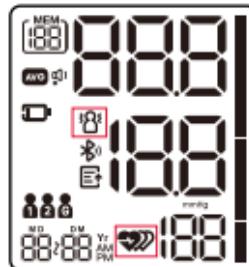
5. Press "START/STOP" button to power off, otherwise it will shut off automatically.

6. 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 36 for more information.
- During a measurement, when the excessive body motion, especially of the wrist cuff is detected, 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.

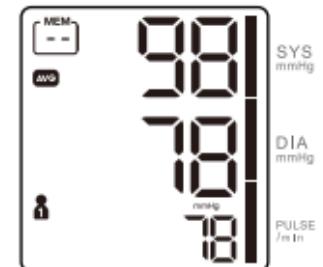
Note:

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



♥ Recalling the Records

- When the monitor is off, press "MEM" button the user ID will blink, and the memory number of the reading will be shown. You can switch the user from User 1 to User 2 by pressing "MEM" button again. After choosing the right user, press "START/STOP" button to confirm. If there are less than 3 records, it will display the latest record of the current user. If there are more than 3 records, it will show the average of latest three records first. If there are no records, it will "---".



Average record

- Press "MEM" button to get the record you want. If the symbol and appears along with the record, that means the record pending to transmit.

Date and time will display alternately.



CAUTION
The most recent 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) is dropped from the list.

♥ Deleting the Records

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

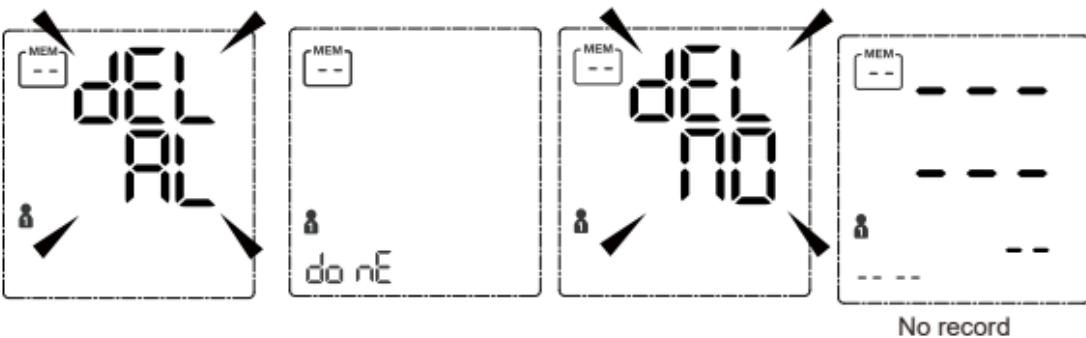
A: To delete a single measurement:

- When the monitor is off, press "MEM" button to show the memory recall mode (you could use the "MEM" button to switch between user1 and user 2).
- Several seconds later, press "MEM" button to find the measurement you would like to erase, press and hold "MEM" button for 3 seconds, and the display will show a blinking "dEL y" and the memory number of the reading.
- Use the "MEM" buttons to toggle between Y and NO. Press "START/STOP" to confirm the selection. If Y is selected, the unit will delete the record and return to last memory record. All the records are pushed forward one digit (e.g., 03 becomes 02, and so on)

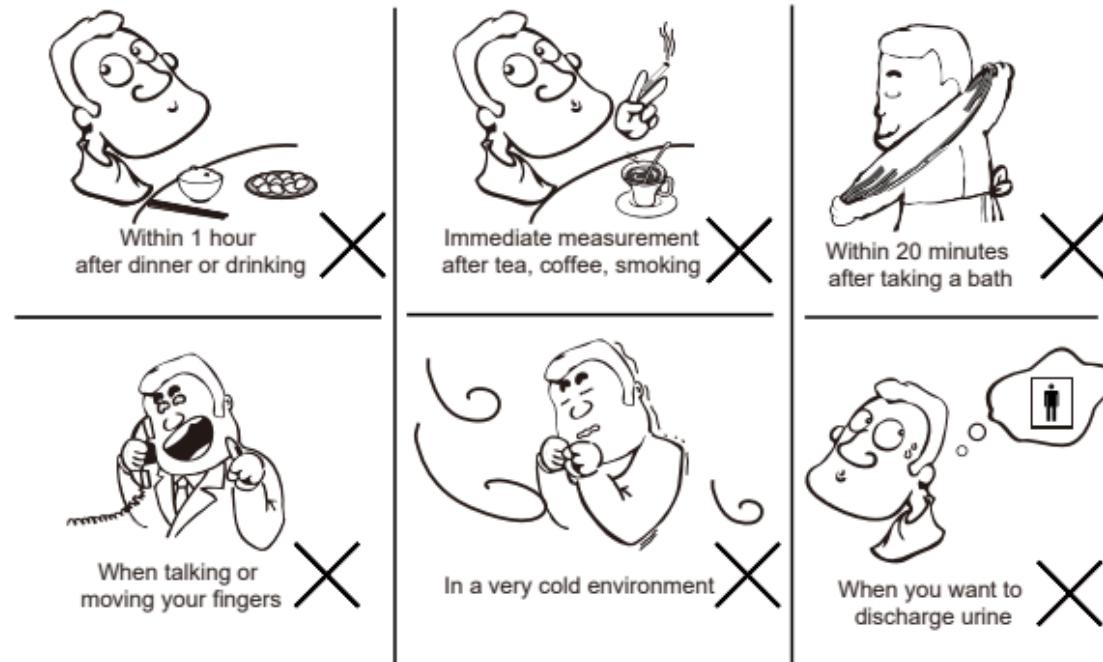


B: To delete ALL measurements:

1. When the monitor is off, press "MEM" button to show the memory recall mode (you could use the "MEM" button to switch between user1 and user 2).
2. Several seconds later, hold pressing "MEM" + "START/STOP" button for 5 seconds, the display will show a blinking "dEL AL" and the User ID.
3. Use the "MEM" buttons to toggle between AL and NO. Press "START/STOP" to confirm the selection. If "dEL AL" is selected, the unit will display "do nE" + User ID and delete all the record of the current user. Several seconds later, it will display "---".

**♥ Tips for Measurement**

Measurements may be inaccurate if taken in the following circumstances.



♥ Maintenance

To obtain the best performance, please follow the instructions below.

1. Cleaning Process:

Step 1: Make sure to switch off 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 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 chart on the right is the standard blood pressure classification published by American Heart Association (AHA).

This chart reflects blood pressure categories defined by American Heart Association.			
Blood Pressure Category	Systolic mmHg (upper#)	and	Diastolic mmHg (lower#)
Normal	less than 120	and	less than 80
Elevated	120-129	and	less than 80
High Blood Pressure (Hypertension) Stage 1	130-139	or	80-89
High Blood Pressure (Hypertension) Stage 2	140 or higher	or	90 or higher
Hypertensive Crisis Consult your doctor immediately	Higher than 180	and/or	Higher than 120

⚠ CAUTION

Please consult a physician if your measuring result falls outside the range.

Please note that only a physician can tell whether your blood pressure value has reached a dangerous point.

♥ Irregular pulse rate Detector

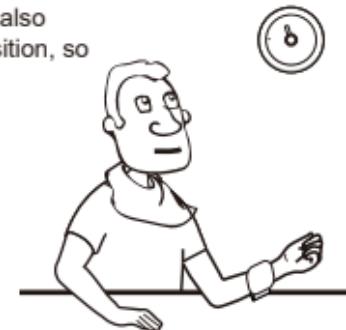
An irregular pulse rate will be detected if there is an irregular pulse rhythm while measuring systolic and diastolic blood pressure. When measurements were performed, the monitor will record all pulse intervals and calculate the average. If two or more pulse intervals were recorded, and the difference between each interval and the average is larger than $\pm 25\%$ of the average; or if four or more pulse intervals were recorded, and the difference between each interval and the average is larger than $\pm 15\%$ 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 results cannot be used directly for clinical judgment, 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.

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

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



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 wrist.
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.

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

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
High batteries	bAt H shows	Batteries are high.	Replace with new batteries
Low batteries	bAt Lo+□ shows	Batteries are low.	Replace with new batteries
Error message	E 01 shows	The cuff is not secure	Refasten the cuff and then measure again.
	E 02 shows	The monitor detected motion, talking, or the pulse is too poor while measuring.	movement can affect the measurement. Relax for a moment and then measure again.
	E 03 shows	The measurement process does not detect the pulse signal.	Loosen the clothing on the wrist and then measure again.
	E 04 shows	The treatment of the measurement failed.	Relax for a moment and then measure again.

PROBLEM	SYMPTOM	CHECK THIS	REMEDY
Error message	EExx,shows on the display.	A calibration error occurred.	Retake the measurement.If the problem persists,contact the retailer or our customer service department for further assistance. Refer to the warranty for contact information and return instructions.
Warning message	"out " shows	Out of measurement range	Relax for a moment. Refasten the cuff and then measure again. If the problem persists, contact your physician.

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

Power supply	Battery powered mode: 2x AAA batteries 3V 
Display mode	Digital LCD V.A.43 mm x 46 mm
Measurement mode	Oscillographic testing mode
Measurement range	Rated cuff pressure: 0 mmHg ~ 299 mmHg Measurement pressure: SYS: 60 mmHg ~ 230 mmHg DIA: 40 mmHg ~ 130 mmHg Pulse value: (40-199) beat/minute
Accuracy	Pressure: 5°C-40°C within ± 3 mmHg Pulse value: $\pm 5\%$
Working condition	A temperature range of: +5°C to +40°C A relative humidity range of 15% to 90%, non-condensing, but not requiring 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 $\leq 93\%$, 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 wrist	About 13.5-21.5 cm
Weight	Approx.106 g (Excluding the batteries)
External dimensions	Approx. 85.7 mm x 60.8 mm x 24.7 mm (Excluding the cuff)
Attachment	2x AAA batteries, user manual

Mode of operation	Continuous operation
Degree of protection	Type BF applied part
Device Classification	Internally Powered ME Equipment
IP Classification	IP22 It means the device could be protected against solid foreign objects of 12,5mm Φ and greater, and against vertically falling water drops when enclosure tilted up to 15°.
Software Version	A01
Expected Lifetime	Device: 3 years or 30,000 measurements (may vary based on usage conditions) Cuff: 10000 times Alkaline battery: About 70-100 times
Types of use/reuse	Multiple patient multiple use

WARNING: No modification of this equipment is allowed.

♥ Contact Information

For more information about our products, please visit www.transtekcorp.com. You can get customer service, usual problems and customer download, Transtek will serve you anytime.

Manufactured by:

Company: Guangdong Transtek Medical Electronics Co., Ltd.

Address: Zone A, No.105, Dongli Road, Torch Development District,
528437 Zhongshan, Guangdong, China

♥ EMC Guidance

Essential performance:

Accuracy of measuring blood pressure and pulse rate

Measurement Range	Systolic pressure: 60-230 mmHg Diastolic pressure: 40-130 mmHg Pulse: 40-199 beats/minute
Rated Cuff Pressure	0-299 mmHg (0-39.9 kPa)
Accuracy	Pressure: ± 3 mmHg / 0.4 kPa Pulse: $\pm 5\%$

The Basis Safety of the Blood Pressure Monitor (TMB-2285-BT) is as following:
Deviation from normal operation that poses an unacceptable risk to the patient or operator.

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

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 excepted service life.
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	Not applicable
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable

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, ±4kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Not applicable	Not applicable
Surge IEC61000-4-5	Not applicable	Not applicable

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	Not applicable	Not applicable
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conduced RF IEC61000-4-6	Not applicable	Not applicable
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 communications equipment)	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Maximum Power (W)	Distance (m)	IEC 60601-1-2 Test Level (V/m)	Compliance level (V/m)
385	380-390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27	27	
450	430-470	GMRS 460, FRS 460	FM \pm 5 kHz deviation 1 kHz sine	2	0.3	28	28	
710	704-787	LTE Band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9	9	
745								
780	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28	28	
810								
870								
930								

	1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4,25; UMTS	Pulse modulation 217 Hz	2	0.3	28	28
	1845							
	1970							
	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	5100-5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9	9
	5500							
	5785							

♥ FCC Statement

FCC ID: OU9TMB2285BT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and**
- (2) this device must accept any interference received, including interference that may cause undesired operation.**

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.