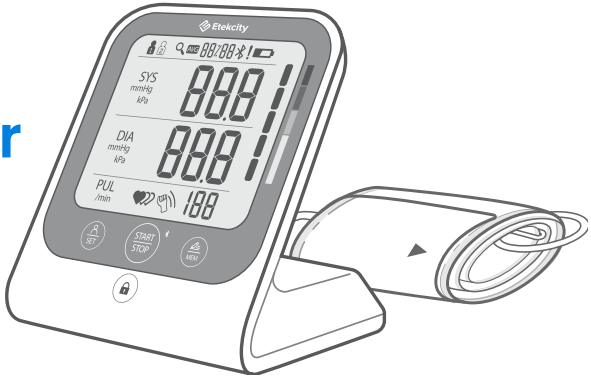
Etekcity

POWERED BY vesync

Smart Blood Pressure Monitor

Model: TMB-1583-BS



User Manual

Questions or Concerns? support@etekcity.com • (855) 686-3835

Table of Contents

Package Contents

1 x Smart Blood Pressure Monitor
1 x AC Adapter
1 x Arm Cuff
4 x 1.5V AAA Batteries
1 x User Manual
1 x Quick Start Guide

Specifications

Power Supply	4 x 1.5V AAA batteries **DC Output:** 6V, 1A
AC Adapter	**Model**: TRANSTEK BLJ06L060100P-U **Input**: AC 100–240V 50/60Hz 0.2A Max **Output**: DC 6V, 1A ***Note:*** *Please use the AC adapter authorized by the manufacturer.*
Display Mode	Digital LCD, V. A. 3.3 x 2.9 in / 8.4 x 7.3 cm
Measurement Mode	Oscillographic Testing Mode
Measurement Range	**Rated Cuff Pressure**: 0–299 mmHg / 0–39.9 kPa **Measurement Pressure**: **SYS**: 60–230 mmHg / 8.0–30.7 kPa **DIA**: 40–130 mmHg / 5.3–17.3 kPa **Pulse**: 40–199 beats/minute
Accuracy	**Pressure**: 5°–40°C within ±3 mmHg / 0.4 kPa **Pulse**: ±5%

Specifications (cont.)

Units	mmHg / kPa
Operating Environment	**Temperature**: 41°–104°F / 5°–40°C **Relative Humidity**: 15–90%, non-condensing, but not requiring a water vapour partial pressure greater than 50 hPa **Atmospheric Pressure Range**: 700–1060 hPa
Transport and Storage Environment	**Temperature**: -4°–140°F / -20°–60°C **Relative Humidity**: ≤ 93% non-condensing, at a water vapour pressure up to 50 hPa
Dimensions	**Monitor**: 4.2 x 4.1 x 4.6 in / 10.7 x 10.3 x 11.8 cm **Cuff Circumference**: 8.6–16.5 in / 22–42 cm
Weight	0.55 lb / 0.25 kg (excluding batteries and cuff)
Mode of Operation	Continuous Operation

Degree of Protection (Arm Cuff)	Type BF Applied Part
Water Protection Level	IP21 (protected from touch by fingers and objects greater than 12 millimeters and protected from condensation)
Device Classification	**Battery Powered Mode**: Internally Powered ME Equipment **AC Adapter Powered Mode**: Class II ME Equipment
Software Version	A01
Automatic Shutoff	120 seconds ***Note:*** *Can be customized in the VeSync app.*

Features

- Blood pressure measurement
- Pulse rate measurement
- Result storage
- 90 records per user (unlimited records in the VeSync app)
- Measurement during inflation
- Readings taken by this monitor are equivalent to those obtained by a trained observer using the cuff and stethoscope auscultation method
- Smart Bluetooth® connection
- Access to smart functions through the free VeSync app

Safety Information

Please read and follow all instructions and safety guidelines in this manual.

⚠ CAUTION

Contraindications:

- This monitor should not be used by any person who is or may be pregnant. Besides providing inaccurate readings, the effects of this device on the fetus are unknown.
- This monitor is not suitable for use on patients with implanted electrical devices, such as cardiac pacemakers and defibrillators.
- Using this monitor on patients undergoing dialysis therapy or on anticoagulants, antiplatelets, or steroids could cause internal bleeding.

- If the arm cuff causes any discomfort, immediately press START/STOP to turn off the monitor.
- This monitor is intended for adult use in homes **only. Do not** use the monitor on babies or younger children. Consult your doctor before using this monitor on older children.
- This monitor is not suitable for use on neonatal patients, pregnant women, patients with implanted electronic devices, patients with pre-eclampsia, premature ventricular beats, atrial fibrillation, or peripheral arterial disease, patients undergoing intravascular therapy or arterio-venous shunt, or patients who received a mastectomy. Please consult your doctor prior to using the monitor if you suffer from any illnesses.
- This monitor is not intended for patient transport outside a healthcare facility.
- This monitor is not intended for public use. Household use **only**.
- This monitor 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 functions other than obtaining a blood pressure measurement.
- The monitor is not intended to be a diagnostic device. The results are for reference **only** and cannot substitute for a doctor's diagnosis. **Only** a healthcare professional is qualified to interpret blood pressure measurements.
- If you are taking medication, consult your physician to determine the most appropriate time to measure your blood pressure. **Never** change a prescribed medication without consulting your physician. **Do not** begin or end medical treatment without asking a physician for treatment advice. **Do not** take any therapeutic measures on the

basis of a self-measurement. Consult your physician if you have any questions about your blood pressure.

- When this monitor is used to measure patients who have common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, the best results may still be inaccurate. Please consult your physician about the results.
- **Do not** kink the connection tube during use. This may cause the cuff pressure to continuously increase, which can prevent blood flow and result in harmful injury to the patient.
- When using this monitor, the following situations may interrupt blood flow and influence blood circulation, resulting in harmful injury to the patient:
  - Measuring with a kinked connection tube too frequently or for multiple consecutive measurements
  - Using the cuff on any arm where intravascular access or therapy, or an arterio-venous (A-V) shunt, is present
  - Inflating the cuff on the side of a mastectomy
- ⚠ **WARNING: Do not** apply the cuff over a wound, as it can cause further injury.
- If a limb has other monitoring ME equipment applied to it, **do not** inflate the cuff on that limb. This could cause the other monitoring ME equipment to temporarily lose function.
- Rarely, a fault may cause the cuff to remain fully inflated during measurement. In this case, open the cuff immediately. Prolonged high pressure (cuff pressure > 300 mmHg or constant pressure > 15 mmHg for more than 3 minutes) applied to the arm may lead to an ecchymosis (bruising).
- **Always** check to make sure that operating this monitor does not result in prolonged impairment of patient blood circulation.

- When measuring, please avoid compression or restriction of the connection tubing.
- The monitor cannot be used with HF surgical equipment.
- To verify the calibration of the AUTOMATED SPHYGMOMANOMETER, please contact the manufacturer.
- Too frequent and consecutive measurements could cause disturbances in blood circulation and injuries.
- This monitor is not suitable for continuous monitoring of blood pressure during medical emergencies or operations. The patient's arm and fingers will become anaesthetic, swollen, and even purple due to a lack of blood.
- When not in use, store the monitor with the adapter in a dry room and protect it against extreme moisture, heat, lint, dust, and direct sunlight. **Never** place any heavy objects on the storage case.
- This monitor may be used **only** for the purpose described in this booklet. The manufacturer cannot be held liable for damage caused by incorrect application.
- This monitor contains sensitive components and must be treated with caution. Observe the storage and operating conditions described in this booklet.
- This monitor is not AP/APG equipment and is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
- ⚠ **WARNING**: No servicing/maintenance while the ME equipment is in use.
- The patient is an intended operator of this monitor. The patient can measure, transmit data, and change batteries under normal circumstances and maintain the monitor and its accessories according to the user manual.
- To avoid measurement errors, please

avoid using in the presence of a strong electromagnetic field radiated interference signal or an electrical fast transient/burst signal.

- The blood pressure monitor, its adapter, and the cuff are suitable for use within the patient environment. If you are allergic to polyester, nylon or plastic, please don't use this monitor or cuff.
- During use, the patient will be in contact with the cuff. The materials of the cuff have been tested and found to comply with requirements of ISO 10993-5:2009 and ISO 10993-10:2010. It will not cause any potential sensitization or irritation reaction.
- The included adapter is specified as ME EQUIPMENT.
- If you experience discomfort during a measurement, such as pain in the arm or other complaints, press START/STOP to release the air immediately from the cuff. Loosen the cuff and remove it from your arm.
- If the cuff pressure reaches 40 kPa / 300 mmHg, the cuff will automatically deflate. Should the cuff not deflate when pressure reaches 40 kPa / 300 mmHg, detach the cuff from the arm and press START/STOP to stop inflation.
- Before use, make sure the monitor and accessories function safely and are in proper working condition. **Do not** use the monitor or accessories if they are damaged in any way. The continuous use of a damaged monitor or damaged accessories may cause injury, improper results, or serious danger.
- **Do not** wash the cuff in a washing machine or dishwasher.
- The service life of the cuff may vary based on the frequency of washing, skin condition, and storage state. The typical service life is 10,000 times used.
- We recommend that the performance of the monitor and cuff should be checked every 2 years and after maintenance and repair,

by retesting at least the requirements in the limits of the error of the cuff pressure indication and air leakage (testing at least at 50 mmHg and 200 mmHg).

- Please dispose of ACCESSORIES, detachable parts, and the ME EQUIPMENT according to the local guidelines.
- The manufacturer will make available on request circuit diagrams, component part lists, descriptions, calibration instructions, etc., to assist service personnel in parts repair.
- The plug/adapter plug pins insulate the monitor from the main power supply. **Do not** position the monitor in a position where it is difficult to disconnect from the supply mains to safely terminate operation of ME equipment.
- The person operating this device shall not touch the output of the batteries/adapter and the patient simultaneously.
- Cleaning: Dust may affect the performance of the unit. Use a soft cloth to clean every part of the monitor and cuff before and after use. **Do not** use any abrasive or volatile cleaners.
- The monitor does not need to be calibrated within two years of reliable service.
- If you have any problems with this monitor, such as setting up, maintaining, or using, please contact **Customer Support** (see page 54). Don't open or repair the monitor by yourself in the event of malfunctions. This device must only be serviced, repaired, and opened by individuals at authorized sales/service centers.
- Please contact **Customer Support** (page 54) if any unexpected operation or events occur.
- Keep out of reach of infants, young children, and pets to avoid inhalation or swallowing of small parts. This is dangerous or even fatal.
- Be careful to avoid strangulation due

to cables and hoses, particularly due to excessive length.

- At least 30 min are required for ME equipment to warm from the minimum storage temperature between uses until it is ready for intended use. At least 30 min are required for ME equipment to cool from the maximum storage temperature between uses until it is ready for intended use.
- Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, and walkie-talkies can affect this monitor and should be kept at least a distance “d” away from the equipment. Distance “d” is calculated by the MANUFACTURER from the 80MHz to 5.8GHz column of Table 4 and Table 9 of IEC 60601-1-2:2014, as appropriate.
- **Only** use ACCESSORIES and detachable parts specified/authorized by the MANUFACTURER. Using other parts or accessories may cause damage to the monitor or danger to the users/patients.
- There are no luer lock connectors used in the construction of tubing. If there were, there is a possibility that they might be inadvertently connected to intravascular fluid systems, allowing air to be pumped into a blood vessel.
- Please use the monitor in the environment which is provided in the user manual. Otherwise, the performance and lifetime of the monitor will be impacted and reduced.
- This monitor is not intended for public use. Household use **only**.

Glossary of Symbols

These symbols might be in the user manual, labelling, or other components.

Symbol for “THE OPERATION GUIDE MUST BE READ”

Symbol for “MANUFACTURER”

B/N

The B/N (Batch Number) code combines the destination country, PO number, date of manufacture, and serial number.

Symbol for “DIRECT CURRENT”

Symbol for “MANUFACTURE DATE”

Symbol for “Recycle”

F1

T1A/250V Φ3.6*10CCC

IP21

The degree of protection from water or particulate matter. **Ingress Protection 21**: Protected from touch by fingers and objects greater than 12 millimeters. Protected from condensation.

Symbol for “TYPE BF APPLIED PARTS”

Symbol for “ENVIRONMENT PROTECTION” - Electrical waste products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

Symbol for “Class II Equipment”

For indoor use **only**

Indicates the need for the user to consult the instructions for use for important cautionary information such as wamings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.

MR Unsafe
This device is not intended to operate in Magnetic Resonance environment. Do not take the device into MR environments

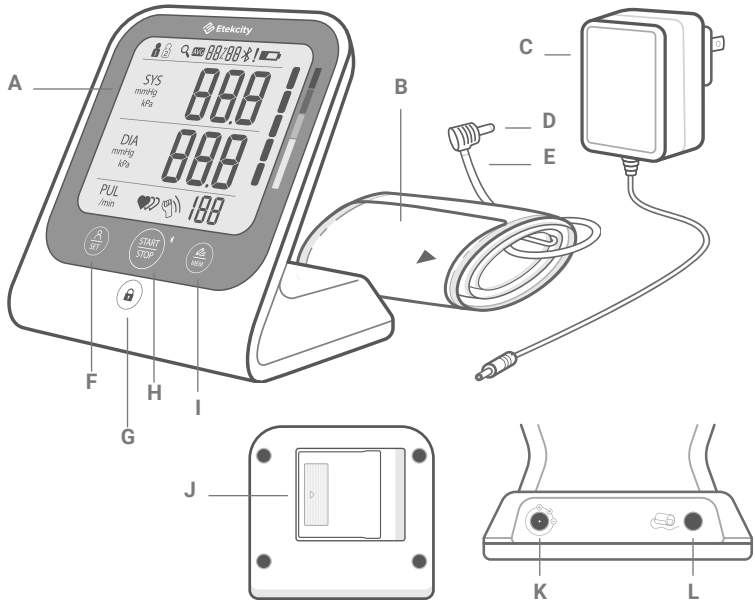
Getting to Know Your Blood Pressure Monitor

The Etekcity Smart Blood Pressure Monitor is a digital monitor intended for use in measuring blood pressure and heartbeat rate with an arm circumference of 8.6–16.5 inch / 22–42 cm.

Blood pressure monitors use the oscillometric method of measuring blood pressure. Before every measurement, the monitor establishes a "zero pressure" equivalent to the atmospheric pressure. It then starts inflating the arm cuff while detecting pressure oscillations generated by beat-to-beat pulsations, which is used to determine the patient's systolic and diastolic blood pressure and pulse rate.

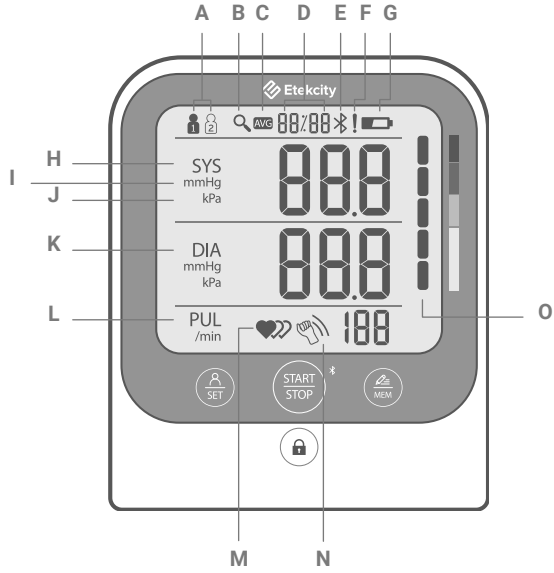
Function Diagram

A. Display
B. Cuff
C. Adapter
D. Air Plug
E. Air Hose
F. Set Button
G. Lock Button
H. Start/Stop Button
I. Memory Button
J. Battery Compartment
K. DC Power Socket
L. Air Connector Plug



LCD Display

- **A.** User 1 / User 2
- **B.** Memory
- **C.** Average Value (Last 3 Records)
- **D.** Current Time
- **E.** Bluetooth Icon
- **F.** Bluetooth Connection
- **G.** Low Battery
- **H.** Systolic Blood Pressure (High Blood Pressure)
- **I.** mmHg Measurement Unit
- **J.** kPa Measurement Unit
- **K.** Diastolic Blood Pressure (Low Blood Pressure)
- **L.** Pulse (Beats Per Minute)
- **M.** Irregular Heartbeat
- **N.** Motion Indicator
- **O.** Blood Pressure Level



Power Supply Information

Batteries: 4 x 1.5V DC AAA Batteries
AC Adapter: 6V DC 1A

- Please use the AC adapter authorized by the manufacturer.
- Unplug your adapter to use battery power.

⚠ **Caution:** For best results and to protect your monitor, use the correct batteries and correct power adapter which complies with local safety standards.

Installing and Replacing the Batteries

Note: *Turn the monitor off before replacing the batteries.*

1. Open the battery compartment cover.
2. Install the batteries by matching the correct polarity *[Figure 1]*.

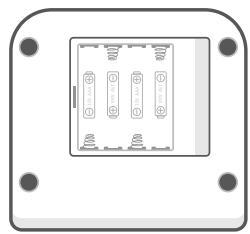


Figure 1

3. Close the cover.

Replace the batteries when:

- Lo +  appears on the display.
- The display is dim.
- The display does not light up.

⚠ **Caution:**

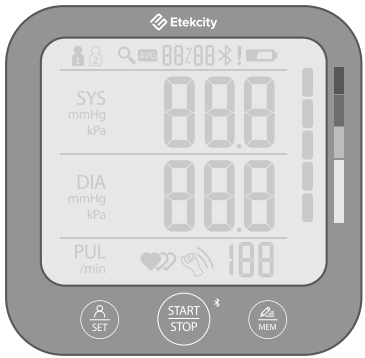
- **Do not** use new and used batteries together.
- **Do not** use different types of batteries together.
- **Do not** dispose of the batteries in fire. Batteries may explode or leak.
- Remove batteries if the monitor is not likely to be used for some time.
- Worn batteries are harmful to the environment. Do not dispose with daily garbage. Dispose of the old batteries following your local recycling guidelines.

Before First Use

Setting Date, Time, and Measurement Unit

Set the clock before using your blood pressure monitor so that your blood pressure records will have correct time stamps. The clock will automatically be set to the correct time when you pair the monitor with the VeSync App.

Year Setting Range: 2020–2060
Time Format: 24 Hours



1. When the monitor is off, press and hold the SET button to change settings.

2. Press the MEM button to change the year.

3. When you have selected the right year, press SET to confirm and continue to setting the month and day.

4. Repeat steps 2 and 3 to set the month and day.

5. Repeat steps 2 and 3 to set the hour and minute.

6. Repeat steps 2 and 3 to set the measurement unit.

7. Repeat steps 2 and 3 to choose whether the monitor will beep.

8. After the beep is set, the display will show "do nE", then show all the settings you have selected, and then turn off.

Selecting a User

1. When the monitor is off, press SET once to choose a user. The User ID will blink.
2. Press SET again to switch between User 1 and User 2.
3. After selecting the User ID, press START STOP to start measuring, or press MEM to display previous measurement records.

Pairing the Monitor With the VeSync App

VeSync App Setup

Note: *Due to ongoing updates and improvements, the VeSync app may appear slightly different than shown in the manual. In case of any differences, follow the in-app instructions.*

1. To download the VeSync app, scan the QR code or search "VeSync" in the Apple App Store® or Google Play Store.

   Note: *For Android™ users, you must select* **Allow** *to use VeSync.*

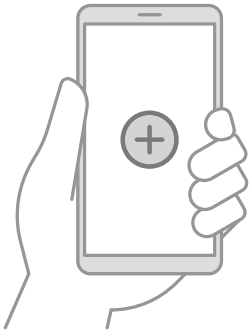
2. Open the VeSync app. If you already have an account, tap **Log In**. To create a new account, tap **Sign Up**.

Configuration

Set up your smart blood pressure monitor with the VeSync app.

1. Open the VeSync app. Make sure Bluetooth is turned on in your phone settings.

2. When the monitor is off, press and hold START/STOP to start pairing your monitor with VeSync. The monitor display will show 0 0 and ᛒ .



3. Follow the in-app instructions to set up your monitor.

4. If setup is successful, the monitor display will show ✱ and [ ] . If setup fails, the monitor display will show ✱ and E 12 .

5. The monitor will shut off when the pairing process is complete.

Compatible Devices: Android 4.3 or higher / iOS® 9.0 or higher

⚠ Caution:

- Interference may occur in the vicinity of equipment marked with the following symbol: This monitor may interfere with nearby electrical equipment.
- Sensitive patients, including pre-eclamptic pregnant patients and patients with implanted medical electronic instruments, should avoid using the monitor whenever possible.
- Keep the monitor at least 8 inches / 20 cm away from the human body (especially the head) when the data transmission is occuring after measurement.

Data Transmission

- To enable the data transmission function, this product should be paired with the VeSync app.
- To decrease possible interference:
  - Your monitor and your phone should be reasonably close, within 3–32 ft / 1–10 m.
  - Ensure no obstacles are between your monitor and your phone to allow for quality connection and to lower the RF output range.
- To avoid interference, other electronic devices (particularly those with wireless transmission) should be kept at least 3 ft / 1 m away from the monitor.

Transmitter Information

- **Bluetooth Module No.:** LS51802
- **RF Frequency Range:** 2402–2480MHz
- **Output Power Range:** ≤ 4dBm
- **Supply Voltage:** 2–3.6V
- **Transmitting Distance:** 33 ft / 10 m

Measuring Blood Pressure

When to Take Blood Pressure

- The best times to take your blood pressure are within 1 hour of waking in the morning or 1 hour before bedtime.
- When measuring in the morning, measure after urinating and before eating breakfast.
- **Always** measure your blood pressure before taking blood pressure medication.
- If you need to measure your blood pressure at another time of day, make sure you are calm and stable before measuring.
- Measure your blood pressure at the same time every day. Blood pressure changes during the course of the day by as much as 20–40 mmHg.
- Follow any directions given by your physician regarding how and when to measure your blood pressure.

Before Measurement

- If the monitor is being used by multiple people, wash hands before each measurement.
- Remove any clothing that fits closely to your upper arm.
- Your blood pressure should be measured sitting down. Take note if your blood pressure is taken in a different position.
- Take measurements on the same arm (normally left) every time unless necessary.
- Avoid any electromagnetic interference when taking measurements.
- If the arm artery lies considerably lower or higher than the heart, the measurement may be incorrect.
- Only use the included cuff.
- A loose or improperly fitted cuff will result in incorrect measurements.

⚠ **Caution:**

- **Do not** measure blood pressure until at least 30 minutes after physical activity. **Do not** smoke or drink stimulating beverages, such as coffee or alcohol, before measurement.
- Blood pressure should be measured at intervals of no less than 3 minutes, depending on your physical condition.
- People with arrhythmia and/or arteriosclerosis should be measured by medical staff for a professional diagnosis.
- Avoid pressing the cuff to your body while taking measurements.

Using the Blood Pressure Monitor

Attaching the Cuff

1. Rest in a comfortable position for at least 5 minutes before measuring to ensure the best results.
2. Plug the air plug into the air port. Make sure the air plug is completely inserted to avoid air leaking.

   Note: *Your upper arm should be bare or wearing only thin material.*

3. Place the cuff on your upper left arm with the "Artery" symbol directly on top of your artery, and make sure the air hose is on the inside of your arm. The band should not be wrapped too tightly (leave space to insert about 2 fingers), and the lower edge of the cuff should be about 0.8–1.2 inches / 2–3 cm away from your elbow. *[Figure 2.1]*

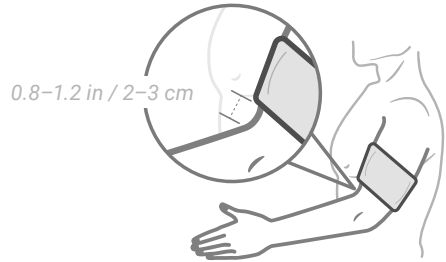


Figure 2.1

4. Select a user (see page 23).
5. Place your arms on a surface and sit with your feet flat on the floor so that the cuff is at the same level as your heart. Your arms should be in a relaxed, natural position. *[Figure 2.2]*

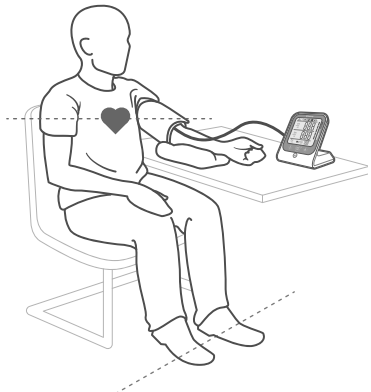


Figure 2.2

Note:

- *Avoid flexing arm muscles or trying to support yourself on your arm, as this can increase blood pressure. Use a cushion for support if necessary.*
- *For patients with hypertension, the middle of the cuff should be at the level of the right atrium of the heart.*

Measuring Blood Pressure

1. When the monitor is off, press START/STOP . This will turn on the monitor and it will automatically begin measuring.
2. Relax and avoid moving or talking while measuring. When the measuring is finished, the results will display.
3. The monitor will automatically transmit your results to the VeSync app. The Bluetooth symbol will show on the display while this is happening.

   Note: *If data transmission fails, the display will show "!". This will disappear when data transmission succeeds.*

4. Wait 3 minutes before taking a second measurement, if necessary. This allows your blood circulation to recover.

Note:

- *Press START/STOP at any time to stop measuring.*
- *If the cuff causes any increased discomfort, immediately press START/STOP to turn off the monitor.*
- *After taking a measurement and seeing the reading, press START/STOP to turn off the monitor. If you do not, it will turn off automatically after 2 minutes of inactivity. You can change this time setting in the VeSync app.*
- ***Do not** pull on the air hose to disconnect from the air port. **Only** use the air plug to connect or disconnect the arm cuff.*

Measurement Tips

Measurements may be inaccurate if taken in the following circumstances:

- Within 1 hour after eating or drinking
- Immediately after tea, coffee, or smoking
- Within 20 minutes of taking a bath
- When talking or moving your fingers
- In a very cold environment
- When you need to urinate

Other Functions

Memory

Results are automatically saved after each measurement. The monitor can save up to 90 results for each user. The VeSync app can store unlimited results.

To view saved results:

1. While the monitor is off, press MEM to display the average of the last 3 results. Press MEM again to view each result, beginning with the most recent measurement.
2. Press MEM or SET repeatedly to cycle through results.

Example Readout

Result Number	Result Date	Result Time
01	4/27	9:37

Note: *The most recent result (01) is shown first. Each new measurement is assigned to the first (01) result. All other results are pushed back one digit (02 becomes 03, and so on), and the last result (90) is dropped from the list.*

To delete a saved result:

1. While the monitor is off, press MEM to display the average of the last 3 results. Press MEM again to view each result, beginning with the most recent measurement.
2. When the result you want to delete is selected, press and hold MEM. The display will show "dEL ONE".

3. Press SET to confirm deletion.

Note: *To cancel deletion, press START/STOP instead.*

To delete all saved results:

1. While the monitor is off, press MEM to display the average of the last 3 results. Press MEM again to view each result, beginning with the most recent measurement.
2. Press and hold MEM . The display will show "dEL ONE".
3. Press MEM again to switch to deleting all results. The display will show "dEL ALL".
4. Press SET to confirm deletion.

Note: *To cancel deletion, press START/STOP instead.*

Lock Button

Accidentally touching the buttons will make the monitor turn on and waste electricity. To avoid this, use the 🔒 button to lock the keys.

1. When the monitor is off, press 🔒 . The display will show "LOC". The other buttons (SET , START/STOP , and MEM) will be locked.
2. Press 🔒 again to unlock all buttons. The display will show "UNL".

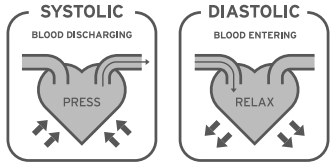
Maintenance

- Put in a dry place and avoid sunshine.
- Avoid exposing to water. Clean with a dry cloth.
- Use a damp cloth to clean if necessary.
- Avoid intense shaking or collisions, or dropping the monitor.
- Avoid dusty environments, and avoid environments with unstable temperatures.
- **Do not** clean the cuff or monitor with water. **Never** immerse the cuff or monitor in water.

About Blood Pressure

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?

This chart shows the standard blood pressure classification published by American Heart Association (AHA).

Blood Pressure Category	Systolic mmHg (upper #)		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 Heartbeat Detector

An irregular heartbeat is detected when a heartbeat rhythm varies while the monitor is measuring systolic pressure and diastolic pressure. During each measurement, the monitor will keep a record of all the pulse intervals and calculate their average value. If there are two or more pulse intervals and the difference between each interval and the average is more than ±25%, or if there are four or more pulse intervals and the difference between each interval and the average is more than ±15%, then the irregular heartbeat symbol will appear on the display with the measurement result.

⚠ **Caution:**

- The appearance of the irregular heartbeat icon ( ) indicates that a pulse irregularity consistent with an irregular heartbeat 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 this monitor does not replace a cardiac examination, but serves to detect pulse irregularities at an early stage.

Why does my blood pressure fluctuate throughout the day?

- Individual blood pressure varies throughout the day. It is also affected by the way you tie your cuff and your measurement position, so please take measurements under the same conditions each time.
- If you take medicine, your blood pressure will vary more.
- Wait at least 3 minutes between measurements.

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

Your blood pressure is different throughout the day due to weather, emotion, exercise, etc. Also, you may have a different blood pressure in a hospital due to the "white coat" effect, which means blood pressure usually increases in clinical settings.

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

Measuring on either arm is acceptable. However, results may differ for some people. We recommend measuring on the same arm each 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 upper arm
- If you feel anxious
- Taking 2–3 deep breaths before beginning will be better for measuring
- Relax for 4–5 minutes to help your calmness

If your problem is not listed, please contact **Customer Support** (see page 54).

Troubleshooting Display Readings

Symbol	Solution
Display will not turn on	Replace batteries. Make sure the batteries and AC adapter are inserted correctly.
Display is dim or shows “ Lo + ”	Replace batteries.
E01	The cuff is too tight or too loose. Refasten the cuff, then measure again.
E02	The monitor detected motion or talking, or the pulse is too poor while measuring. Relax for a moment, then measure again.
E03	The monitor does not detect the pulse signal. Loosen the clothing on the arm, then measure again.
E04	The measurement failed. Relax for a moment, then measure again.
EEx	A calibration error occurred. Retake the measurement. If the problem continues, contact Customer Support (see page 54).
E12	Bluetooth pairing with the VeSync app has failed. Make sure the phone’s Bluetooth is on and within range of the monitor, then try again.

Symbol	Solution
	Remove the arm cuff and wait 2–3 minutes before taking another measurement. If this error continues to appear, contact your physician.
“OUT”	This error message means “Out of measurement range”. Remove the arm cuff. Relax for a moment, refasten the cuff, then measure again. If this error continues to appear, contact your physician.
“LOC”	The SET , START STOP , and MEM buttons are locked. Press to unlock these buttons.
“UNL”	The SET , START STOP , and MEM buttons have been unlocked. Press to lock these buttons.

If your problem is not listed, please contact **Customer Support** (see page 54).

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Federal Communication Commission Interference Statement

FCC ID: OU9TMB1583BS

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.

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

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instructions as documented in this manual. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body. The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

EMC Guidance

This 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 12 inch / 30 cm to any part of this 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 Emission	
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, ±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	±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 % UT; 0,5 cycle. At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°. 0 % UT; 1 cycle and 70 % UT; 25/30 cycles; Single phase: at 0°.0 % UT; 250/300 cycle	0 % UT; 0,5 cycle. At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°. 0 % UT; 1 cycle and 70 % UT; 25/30 cycles; Single phase: at 0°. 0 % UT; 250/300 cycle

Table 2

Guidance and Manufacturer's Declaration – Electromagnetic Immunity		
Immunity Test	**IEC 60601-1-2 Test level**	**Compliance Level**
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: *UT is the a.c. mains voltage prior to application of the test level.*		

Table 3

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
	Test Frequency (MHz)	**Band (MHz)**	**Service**
Radiated RF IEC610004-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	385	380-390	TETRA 400
	450	430-470	GMRS 460, FRS 460
	710	704-787	LTE Band 13, 17
	745		
	780		
	810	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5
	870		
	930		

Table 3

Guidance and Manufacturer's Declaration – Electromagnetic Immunity				
Modulation	**Maximum Power (W)**	**Distance (m)**	**IEC 60601-1-2 Test Level (V/m)**	**Compliance Level (V/m)**
Pulse modulation 18 Hz	1.8	0.3	27	27
FM ± 5k Hz deviation 1 kHz sine	2	0.3	28	28
Pulse modulation 217 Hz	0.2	0.3	9	9
Pulse modulation 18 Hz	2	0.3	28	28

Table 3

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
	Test Frequency (MHz)	**Band (MHz)**	**Service**
Radiated RF IEC610004-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4,25; UMTS
	1845		
	1970		
	2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7
	5240	5100-5800	WLAN 802.11 a/n
	5500		
	5785		

Table 3

Guidance and Manufacturer's Declaration – Electromagnetic Immunity				
Modulation	**Maximum Power (W)**	**Distance (m)**	**IEC 60601-1-2 Test Level (V/m)**	**Compliance Level (V/m)**
Pulse modulation 217 Hz	2	0.3	28	28
Pulse modulation 217 Hz	2	0.3	28	28
Pulse modulation 217 Hz	0.2	0.3	9	9

Warranty Information

Product Name	Smart Blood Pressure Monitor
Model	TMB-1583-BS
For your own reference, we strongly recommend that you record your order ID and date of purchase.	
Order ID	
Date of Purchase	

Terms & Policy

Etekcity Corporation ("Etekcity") warrants this product to the original purchaser to be free from defects in material and workmanship, under normal use and conditions, for a period of 2 years from the date of original purchase.

Etekcity agrees, at our option during the warranty period, to repair any defect in material or workmanship or furnish an equal product in exchange without charge, subject to verification of the defect or malfunction and proof of the date of purchase.

There is no other express warranty. This warranty does not apply:

- If the product has been modified from its original condition;
- If the product has not been used in accordance with directions and instructions in the user manual;
- To damages or defects caused by accident, abuse, misuse or improper or inadequate maintenance;
- To damages or defects caused by service or repair of the product performed by an unauthorized service provider or by anyone other than Etekcity;
- To damages or defects occurring during commercial use, rental use, or any use for which the product is not intended;
- To damages or defects exceeding the cost of the product.

Etekcity will not be liable for indirect, incidental, or consequential damages in connection with the use of the product covered by this warranty.

This warranty extends only to the original consumer purchaser of the product and is not transferable to any subsequent owner of the product regardless of whether the product is transferred during the specified term of the warranty.

This warranty does not extend to products purchased from unauthorized sellers. Etekcity's warranty extends only to products purchased from authorized sellers that are subject to Etekcity's quality controls and have agreed to follow its quality controls.

ALL IMPLIED WARRANTIES ARE LIMITED TO THE PERIOD OF THIS LIMITED WARRANTY.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

If you discover that your product is defective within the specified warranty period, please contact Customer Support via support@etekcity.com. DO NOT dispose of your product before contacting us. Once our Customer Support Team has approved your request, please return the product with a copy of the invoice and order ID.

Every Etekcity product automatically includes a 2-year warranty. To make the customer support process quick and easy, register your product online at www.etekcity.com/warranty.

This warranty is made by:

Etekcity Corporation
1202 N. Miller St., Suite A
Anaheim, CA 92806

Customer Support

If you have any questions or concerns about your new product, please contact our helpful Customer Support Team.

Distributed by Etekcity Corporation
1202 N. Miller St., Suite A
Anaheim, CA 92806

Email: support@etekcity.com
Toll-Free: (855) 686-3835

Support Hours

Monday—Friday
9:00 am—5:00 pm PST/PDT

**Please have your order invoice and order ID ready before contacting Customer Support.*

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