

Telcare Blood Glucose Monitoring System

User Manual

This meter contains a rechargeable internal battery. In order to save battery power, it will power down (go dark) after 20 seconds. If this happens while you are using the meter, there is nothing wrong. To wake up the meter, either insert a test strip or turn the power button "off" and then "on".

This device will not transmit data when it is not in use. The data transmission time is no more than six minutes.

“Home glucose monitoring is universally recognized as essential to the management of diabetes and prevention of complications.”

Thank you for choosing the Telcare Blood Glucose Meter (BGM) to help you manage your diabetes.

The Telcare BGM is an advanced wireless monitoring system that connects you, the patient, with your healthcare provider to enhance your ability to manage your blood glucose levels. The Telcare BGM has been designed to be accurate and easy to use. This manual contains all of the information needed to use and maintain your new blood glucose meter. Please read it carefully before using your new Telcare BGM.

Telcare BGM provides an easy and precise way to measure blood glucose using fresh capillary whole blood taken from your fingertip. The added convenience of autocoding can help reduce the chance of inaccurate readings caused by incorrect coding of the meter. The test results are plasma-calibrated for easy comparison to lab results. When your test is complete your results are securely transmitted to the Telserve Web Portal (www.MyTelcare.com), where they may be accessed by you (the patient) and any other authorized person (doctor, educator, family member, etc.), eliminating the need to manually record your results.

Telcare BGM is a rechargeable battery operated meter intended for use as an aid by persons with diabetes and by healthcare professionals to monitor glucose concentration in whole blood.

If you have questions or simply need more information, please visit our website at www.telcare.com. Thank you again for choosing the Telcare BGM.

Table of Contents

Your Telcare Blood Glucose Meter

The Telcare BGM Device	1
Telcare Test Strips	3
The Display Screen	4
Setting Up Your Telcare BGM	5

Control Solution Modes

Performing the Control Test	8
-----------------------------	---

Testing Your Blood Sugars

Checklist	14
Preparing Your Lancing Device	16
Understanding Your Results	26

Viewing Your Meter's Memory 27

Maintenance of Your Telcare BGM

Cleaning and Storage	28
Charging the Telcare BGM	29

Troubleshooting 30

Terms of Warranty 33

About Telcare / Contact 34

Your Telcare BGM

Unboxing the Telcare BGM for the first time

Before we begin, take a moment to go over the contents of your Telcare BGM kit. Your kit should include all of the following items:

- Telcare Blood Glucose Meter (battery included)
- AC Charger
- Lancing Device
- Lancets
- Instruction Manual

Make sure you charge your glucose meter for at least 12 hours before first use. To charge your glucose meter, use the AC Charger included in your kit.

You should use the Telcare BGM for:

- Testing blood glucose
- Testing only with fresh capillary whole blood samples

You should NOT use the Telcare BGM for:

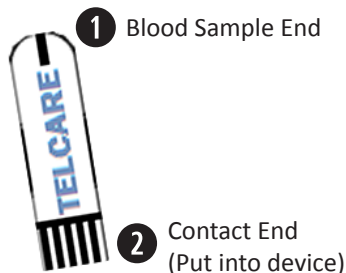
- The diagnosis of diabetes
- Testing blood glucose on newborns
- Testing of arterial blood

The Telcare BGM Device



- 1 Power Button
- 2 UP / DOWN Keys
- 3 Enter Button
- 4 Display Screen
- 5 Insert Test Strip
(White side up)
- 6 Charging Port
(Do not attempt to insert strip here)

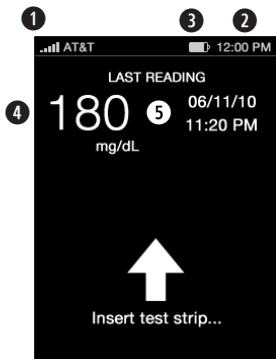
Telcare Test Strips



IMPORTANT NOTES ON TEST STRIPS:

- Check the expiration date printed on the test strip bottle and its package. **Do not** use expired test strips.
- Use each test strip immediately after removing it from the bottle.
- Do not use wet or damaged test strips.
- Keep away from direct sunlight and heat. Store the test strip bottle in a dry, cool place.
- Record the “date opened” on the bottle label. Discard the bottle and any remaining test strips 3 months after the date of opening.
- Do not operate the meter outside the temperature range of 50°F to 104°F.

The Display Screen



The Display Screen

- ① Wireless Signal Strength
- ② Current Time
- ③ Battery Level
- ④ Last Test Reading
- ⑤ Time of Last Reading

From the Display screen, you can see the following things:

- Wireless Signal Strength
- Current Time
- Battery Level
- Last Test Reading
- Time of Last Reading

In this Display screen, use the UP/DOWN buttons (located on the left of your meter) to access the meter's options:

- **Test Mode**
- **L1 Control Solution Mode (Low)**
- **L2 Control Solution Mode (High)**
- **Settings Menu**

Setting Up Your Telcare BGM

Your Telcare BGM is preconfigured with your information already stored, including your time zone. During each cellular connection (which occurs after a glucose reading has been saved), the web server will recognize and validate that the time displayed on your Telcare BGM is accurate. The web server will automatically update your Telcare BGM time, if appropriate. Also, if your physical location changes the web server will recognize your time zone change and update your meter's clock.

If you would like to view your meter's preconfigured settings, navigate to the Settings screen.

Getting to the Settings Screen

1. **PWR** your Telcare BGM Device On
2. Use the **UP/DOWN** Buttons to reach the "Settings" screen

Settings Options

Alarms

Create up to 3 alarms to help remind yourself when to test next.

Date and Time

This page allows you to view the Date and Time settings of your device.

Volume

This page allows you to select the volume of your meter. Use the UP/DOWN keys to select the appropriate volume. There are six possible volumes you may select from.

Mobile Network

This is an advanced feature. This page allows you to view the details of the mobile network your device uses for communication to the MyTelcare.com Web Portal.

Auto-Sync

Disabling Auto-sync will prevent the meter from communicating with the MyTelcare.com Web Portal. Readings will still be stored in the Glucose Meter.

Retrieve Blood Glucose History

Your last 300 glucose and control test readings are stored within the meter. Please see ‘*Viewing Your Meter’s Memory*’ for further details.

Airplane Mode

Turning on Airplane Mode disables cellular network access. You will not be able to transmit your readings while Airplane Mode is turned on. Your meter’s clock will continue to work properly while in this mode.

If a time zone change occurs, your meter will not automatically update to the new time until Airplane Mode has been disabled.

About

This is an advanced feature. You may view detailed information regarding your device from this page. Push the Enter button to exit the About page.

To exit the Settings Menu, scroll to “Back” and press the “Enter” button.

Control Solution Modes

Control solution testing is to make sure your Telcare BGM and Test Strips are working well. You should perform control solution testing when:

- Using the meter for the first time
- Using a new bottle of Telcare No Code Test Strips
- You left the test strip bottle cap open
- You dropped the meter
- You suspect, for any reason, that the meter and test strips are not working
- The blood glucose test results do not reflect how you feel
- Practicing the testing procedure

Step by Step Guide to Control Testing

1

Power on the Telcare BGM device with the **PWR** button

2

The device will automatically start in “Normal Test Mode”, ready to check blood glucose. You will see “Insert Test Strip” on the display.



3

Use the UP / DOWN keys to access the main menu. Switch modes from “Normal Test Mode” to **L1 Control Solution Mode** or **L2 Control Solution Mode**. You can also access the “Settings” menu.

To test Level 1 (L1) control solution, use the UP/DOWN buttons to highlight L1 mode. Press the middle (ENTER) button to select L1 mode.

To test Level 2 (L2) control solution, use the UP/DOWN buttons to highlight L2 mode. Press the middle (ENTER) button to select L2 mode.



4

You can select any Mode you want by pushing the ENTER button.

5

Take out a Telcare test strip from the test strip bottle. Close the bottle immediately.



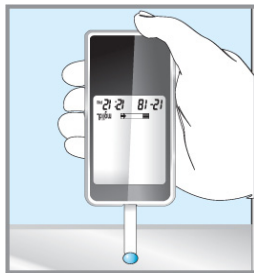
6

Insert the test strip into the meter. Make sure the "Telcare" label on the strip is facing you.



7

Squeeze a drop of control solution onto a clean, dry surface. Use Level 1 solution for L1 mode. Use Level 2 solution for L2 mode. Do not apply control solution to the test strip directly from the bottle. Immediately replace the bottle cap on the control solution bottle.



8

Gently touch the tip of the test strip to the drop of control solution. You should see the top half of the test strip fill with the liquid.

9

The screen will start to count down. After 7 seconds, the control test result will appear on the meter's display screen.



10

Compare the reading on the screen to the “L1 Control Solution” or “L2 Control Solution” range printed on the test strip bottle or package. If the reading falls outside the level printed on the test strip bottle that you used, please see *Control Solution Trouble Shooting* below.

IMPORTANT TIPS

1. Only use Telcare Glucose Control Solution with the Telcare Test Strips. Other brands of control solution may produce inaccurate results.
2. Always check the expiration date. DO NOT use expired control solution.
3. DO NOT FREEZE. Store the control solution at room temperature.

Control Solution Troubleshooting

If your control solution testing is out of range (too high or too low), it may be caused by the following:

- Wrong brand of control solution
- Control solution not at room temperature
- Expired or contaminated control solution
- Damaged test strip
- Meter malfunction
- Wrong ambient temperature (should be between 50°F~104°F).
- Check the expiration and open bottle date on the control solution and on the test strips. Repeat testing using a new test strip. If the result is still out of range, use a new bottle of control solution and retest.
- If the problem persists, call Telcare at (877) 777-4710. **Do not perform any blood glucose tests until you resolve this issue.**

Testing Your Blood Sugar

Before you begin, make sure to:

- Set up your Telcare BGM properly. Run a control test before first use. (See *Step by Step Guide to Control Testing* on page 8.)
- Wash your hands and testing site thoroughly with warm water and soap. Dry your hands well.
- Test in a place where the temperature range is between 50°F~104°F. (See *Troubleshooting Your Telcare BGM* on page 31 for more information.)

You will need:

- Your Telcare Blood Glucose Meter
- A new Telcare Blood Glucose Test Strip
- A lancing device with a clean, unused lancet (or safety lancets)
- The clear cap for Alternate Site Testing (AST) if testing on palm

Step by Step Blood Sugar Testing

1

Power on the Telcare BGM device with the PWR button. The device will automatically start in “Normal Test Mode”. It will ready to check blood and “Insert test strip” will be displayed.



2

Take out a Telcare No Code Test Strip from the test strip bottle, and close the bottle immediately.



3

Insert the test strip into your Telcare BGM device.



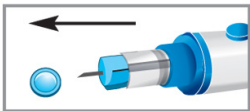
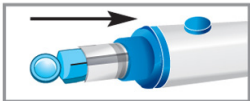
4

Prepare Your Lancing Device

A) Unscrew the cap of the lancing device and push the lancet into the device firmly until it is fully seated.



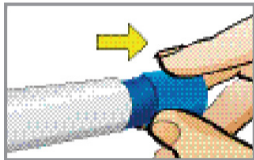
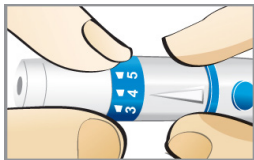
B) Twist the protective cover off the lancet. Twist the adjustable cover clockwise onto the lancing device.

**IMPORTANT:**

Use a new sterile lancet every time you test to avoid cross contamination. If alcohol wipes are used to clean the area, make sure it is dry before the blood sample is obtained.

C) Adjust the puncture setting on the cap for the puncture depth level (1 is the lightest and 5 is the deepest).

D) With one hand holding the cap, pull back the lancing device with your other hand until you hear a click. The lancing device is now ready for use.

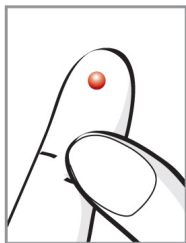
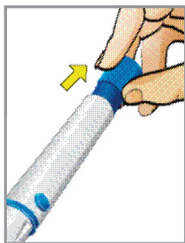
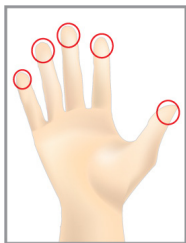


NOTE:

- For fingertip testing, use the blue cap.
- For alternate site testing on your palm, use the clear cap.

5 Fingertip Testing

Hold the lancing device (with the blue cap) against the side of your fingertip and press the release button to create a puncture.



Tips for fingertip testing

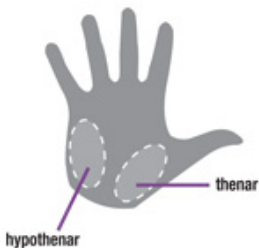
- Gently massage your hand and finger toward the puncture site to form a drop of blood. Do not “milk,” or squeeze around the puncture site.
- Lance the side of your fingertip to avoid soreness. To avoid calluses, choose a different lancing site each time.

6

Testing Using an Alternate Test Site

Important Information on Alternate Site Testing

Your Telcare Blood Glucose Meter is capable of testing your blood glucose from your palm, usually referred to as an alternate site test, or AST.



Alternate site testing can be less painful than fingertip testing, but because of the physiological differences between your fingertip and palm, alternate site test result maybe significantly different than results from fingertip testing under certain conditions.

You should consult with your doctor or healthcare professional before using alternate site testing.

Alternate Site Testing SHOULD NOT be used when:

- You have Hypoglycemic unawareness (not able to tell if you have low blood sugar)
- Within 2 hours of a meal, exercise, or medication
- You will be operating machinery or driving a car
- You are sick

Testing on your Palm

Prepare the lancing device with a new lancet and clear cap. Cock the lancing device so that it is ready to use. Select a site on your palm that does not have veins, moles, excessive hair, or bone. Vigorously rub the side of your palm with your other hand for at least ten seconds. You should feel it get quite warm.

Press the opening of the clear cap against a fleshy area of the palm. Press the lancing device up and down in a slow pumping motion for several seconds to help the flow of blood.

Keep steady pressure on the area and press the release button. Don't be afraid to apply pressure to the area with the lancing device to assist the flow of blood. Continue to press the cap against the area for a few seconds to allow blood to come to the surface. You can see the blood drop through the clear cap. Do not smear the blood when removing the lancing device. If the blood drop is too small, the meter will show "Error: Not Enough Blood". Insert a new strip and obtain a new blood drop.

If the results from alternate site testing differ from how you feel, use fingertip testing instead.

7

Applying Blood the Test Strip

Gently touch the test strip to the drop of blood. The test strip will absorb the blood.

Keep the test strip in the blood drop until the meter beeps to indicate the test strip has enough blood to test.



8

Tagging Your Data

The screen will start to count down. After 7 seconds, your glucose level will appear on the display screen. You will then have 20 seconds to select a Reading Tag (e.g., Before Breakfast) from the list displayed. Use the DOWN button to scroll to the correct tag. Press the ENTER button to select that tag.



Your test result will be automatically stored into the meter memory. If a reading tag is not selected after 20 seconds, it will automatically be tagged as "No Selection".

9

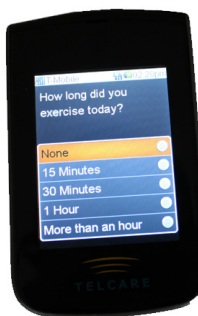
Your Results Screen**IMPORTANT**

If you see “HI” or “LO” displayed, your blood glucose level may be above 600 mg/dL or below 20 mg/dL. Wash your hands. Dry your hands completely. Test again using fingertip testing, **DO NOT** test on your palm. If you still receive the same result, call your physician or healthcare professional immediately.

10

Sending Your Results**Sending your results to the MyTelcare.com Web Portal**

Your Telcare BGM will automatically transmit your results after the device has saved your reading.



After each successful transmission to the MyTelcare.com Web Portal, a personalized message will appear on your device with information, tips, and blood glucose trends from your readings.

Matt, 30% of your readings
have been high today.

The message could also be a multiple choice question. Use the UP/DOWN buttons to select the appropriate answer. Press the ENTER button to transmit the answer to your MyTelcare.com Web Portal.

To access your readings at **<http://mytelcare.com>**, use the login credentials provided to you at the time of your Telcare BGM delivery. If you have additional questions or require login support, please contact Telcare at (877) 777-4710, or email support@telcare.com.

If Your Data Transmission is Not Successful

If the device cannot communicate with the Telsolve web server, the following message will appear:

“Unable to complete transmission to server. Retrying...(this could take a minute)”

If the device cannot communicate with the Telsolve web server it will automatically retry to send the data 3 times. (Once every 20 seconds).

If three retries fail, you will see the following message:

“No Connection to Server. Data will be sent at next test.”

If no connection is present, your test results will be stored in your device and sent later.

Understanding Your Blood Glucose Test Results

Your blood glucose level will vary depending on many factors. Some of these are food intake, medication, health, stress, and exercise.

The ideal range for adults without diabetes is:

- Between 74~106 mg/dL before meals⁽¹⁾.
- Less than 140 mg/dL two hours after a meal⁽²⁾.

It is **important** to consult with your physician or healthcare professional to determine your target range.

What to do if you get a high or low reading

If the Meter displays results that are HI or LO, or you get a result that is more than 250 mg/dL or below 50 mg/dL AND you feel ill:

- Treat your diabetes according to the instructions from your doctor and/or healthcare provider.

If the Meter displays results that are “HI” or “LO,” or you get a result that is more than 250 mg/dL or below 50 mg/dL AND you DO NOT feel ill:

- Test your meter with a control solution, refer to page 6, ‘Control Solution Testing’.
- Wash your hands and test again using your fingertip.

If you still get a high or low reading, contact your healthcare professional.

References:

1. Stedman, Thomas Lathrop. Stedman’s Medical Dictionary, 27th Edition, 1999, pg. 2082
2. American Diabetes Association, “Clinical Practice Recommendations 2003.” Diabetes Care, Vol 26, Supplement 1, pg. S22.

Viewing Your Meter's Memory

Your Telcare Blood Glucose Meter stores up to 300 test and control results. Each result is stored with date and time.

You will need:

- Your Telcare Blood Glucose Meter

1

Power on the Telcare BGM device by using the **PWR** button.

2

Use the UP/DOWN keys to access **"Settings Mode"**.

3

Select **"Retrieve"** from the **"Settings Mode"** screen.

4

Use the UP/DOWN keys to cycle through the stored readings.

To exit the Retrieve history menu, you must scroll to the bottom of your reading history and select **"BACK"**. [Shortcut: Press the UP button when your most recent reading is highlighted. Doing so will display the Back option.]



Maintenance of the Telcare BGM

Caring for your Telcare Blood Glucose Meter is easy. Follow these guidelines to keep it working well and in optimal condition.

Cleaning the Meter

- If the meter gets dirty, use a moist (NOT WET) lint-free cloth with a mild detergent.
- Do not allow water inside the meter or hold it under running water.
- Do not use glass or household cleaners on the meter.
- Do not clean the test strip holder.

Storage and Precautions

- Handle the meter with care. Severe shock, such as dropping the meter, could damage it.
- The meter and test strips only work in the temperature range of 50°F to 104°F.
- Don't leave the meter in a place that is extremely hot or extremely cold (e.g., anywhere near a heat source or in an extremely hot or cold car).
- Do not expose the meter or test strips to high levels of humidity, such as in the bathroom or kitchen.
- Immediately close the bottle cap tightly after removing a test strip.
- Do not disassemble the meter. If you do it will void the warranty. If you have technical problems or questions, contact Telcare at (877) 777-4710.

Charging Your Telcare Blood Glucose Meter

Your Telcare BGM uses a rechargeable battery. It can be charged and discharged hundreds of times, but will eventually wear out. If you notice significant reduction in the duration of your meters operating time before needing a recharge, your battery may need replacing. Please contact Telcare technical support at (877)777-4710, or email support@telcare.com.

If left unused, a fully charged battery will lose its charge over time.

Always charge indoors.

To Charge Your Device

Plug the power cord into an electrical outlet and plug the other end of the cord into the data port of the Telcare BGM.

Note

If your device does not turn on when you push the power button, your battery may be weak. Charge the battery. If after 5 hours of charging the device does not turn on, contact Telcare technical support at (877) 777-4710 for assistance.

Troubleshooting Your Telcare BGM

Error Codes

In the event your device experiences an error, you will see the following screen along with an error message.



1) Error: **Please Restart Meter**

What It Means: The meter may be damaged.

Action to take: Restart meter and contact Telcare support if the problem persists.

2) Error: **Used Strip Inserted**

What It Means: Your test strip may be used or damaged

Action to take: Repeat the test with a new test strip. Remember, add the sample only when you see the prompt on the display screen.

3) Error Message: **Not Enough Blood**

What It Means: There is not enough blood or control sample in the test strip.

Action to take: Remove the test strip and repeat the test with a new test strip.

4) Error Message: **Temperature is out of range**

What It Means: The temperature is out of range

Action to take: Move the meter into an area that is between 50°F~104°F. Allow 10 to 15 minutes for it to reach the new temperature.

Other Messages



If your meter displays a “Low Battery” message or icon, charge the battery.



HI / LO Displayed

If you see either HI or LO displayed on your device, your blood sugar level is out of range (either in excess of 600 mg/dL (HI) or lower than 20mg/dL (LO)). Wash and dry your hands and repeat the test with a new test strip. If the result is still HI or LO contact your physician immediately.

Communication Errors

If you are having trouble uploading your results to the Telsolve web server (communication error messages), you may want to try the following:

- If testing indoors, move closer to a window for better cellular reception
- If you are still having difficulties, try moving outside of the building
- Check to see if there is cellular coverage in your area

If the above actions do not resolve your problem, contact Telcare technical support at (877) 777-4710, or email support@telcare.com.

Terms of Warranty

Telcare warrants the Telcare Blood Glucose Meter to be free of defects in workmanship and materials under normal use for a period of one (1) year from the date of purchase.

The liability of Telcare is limited to repair or replacement and in no event shall Telcare be liable for any collateral or consequential damages or loss.

Instruments subjected to misuse, abuse, neglect, exposure to water, unauthorized repair or modification are excluded from this warranty.

This guarantee specifically excludes expendables and consumables.

All warranty claims must be directed to the Telcare authorized dealer responsible for the sale of the system.

This warranty applies only to the original purchaser of the system.

About Telcare

Telcare is committed to creating the very best medical device experience for patients and healthcare professionals. Connecting powerful hardware and innovative software via a “no wires” approach, Telcare’s offerings aim to provide convenient and effective disease management tools.

The Telcare Blood Glucose Monitoring System won the People’s Choice Award at CTIA Wireless 2009, Best in Show at MobiTechFest 2009 and was an E-tech Finalist at CTIA Wireless 2010.

Contact Telcare

TEL CARE, Inc.

66 Commonwealth Ave
Suite 100
Concord, MA 01742
Phone: (877) 777-4710
Email: support@telcare.com

Website - www.telcare.com

Federal Communication Commission Interference Statement

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 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.
- 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.
- 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. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.