Accessories Available from Dealer:

	Model G-423ES	Test Strips, 50 pcs/Pack/2 Vials
	Model G-423L	Sterile Lancet, 50 pcs/Pack

CE 0123

We Love to Care

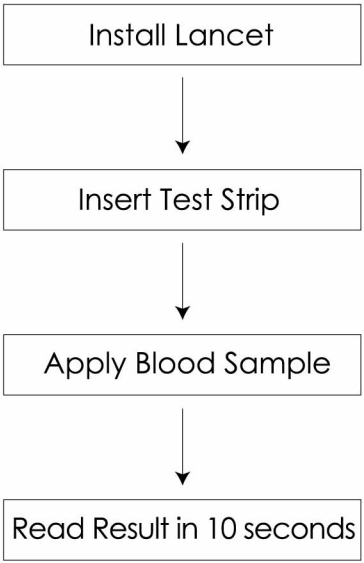
bioland®

Blood Glucose Monitor

Model: G-423E

OWNER'S BOOKLET

EASY OPERATION



For details please refer to "Section 2. How Your System Works".

INTRODUCTION

We would like to thank you for your smart decision! The Blood Glucose Monitoring System is designed, manufactured, and marketed worldwide, and is used by diabetes centers, hospitals and diabetics (Type I & Type II). The compact and portable Blood Glucose Meter is easy to use, and a test result will be shown in only 10 seconds. Besides, the meter automatically stores up to 180 test records with respective date and time, which makes you monitor your diabetic program efficiently.

Thanks again for your support. Before testing, please read this thoroughly. You will get all the information you need regarding this Blood Glucose Monitoring System.

PRINCIPLE

This Blood Glucose Monitoring System is designed to provide an easy, accurate method for determination of capillary blood glucose values. This analysis is based on amperometric technology using glucose oxidase that is specific for the blood glucose measurement. When the blood sample is applied to the test strip, the electrons are formed by the reaction between glucose oxidase and blood glucose. The intensity of the electrons is measured by the meter and correlates with the concentration of glucose in the blood sample.

CONTENTS

Section 1. Content & Specification

1.1 Standard Contents

- Blood Glucose Meter X 1
- 1.5V "AAA" X 2 Alkaline Battery
- Meter User's Guide X 1
- Lancing Device X 1
- Lancing Device Instructions X 1
- Lancets X 10
- Code Card X 1
- Carrying Bag X 1
- Test Strips (Option, depends on model availability)

1.2 Product Specifications & Operation Conditions

- Meter Specifications:

Storage Conditions	Temperature : -10°~ +50°C (14°~ 122°F) ; Humidity : RH ≦ 80%
Memory Capacity	180 test results with respective dates and times
Measurement Unit	(mmol/L) or (mg/dL)
Display	LCD display
Reaction Time	10 seconds
Meter Dimensions	90×52×26 mm
Meter Weight	73 g (with battery)
Measuring Range	1.7~41.7 mmol/L (30~750 mg/dL)
Power Supply	1.5V "AAA" X 2 Alkaline Battery
Battery Lifetime	Over 1,000 tests
External Output *	RS232 PC interface

* *RS232 Cable and software are optional parts not included.*

• Test Strip Specifications:

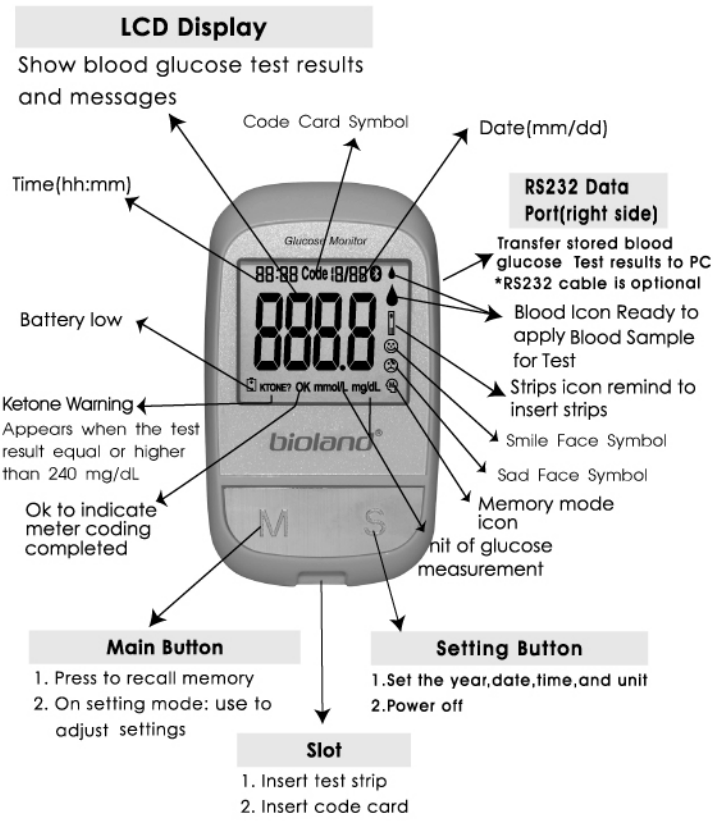
Strip Size	34×10×0.6 mm
Storage Conditions	Temperature : 4°~ 40°C (39°~104°F); Humidity : RH ≦ 80%
Blood Volume	1.5 uL
Expiry of Test Strips	Either 18 months from production or 90 days after first opening

• System Operation Conditions:

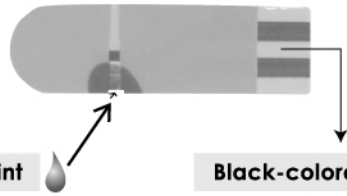
Test Strips	Using the G-423ES Blood Glucose Test Strips only
Operation Conditions	Temperature : 10°~ 40°C (50°~ 104°F) ; Humidity : 20% ~ 80% RH
Sample Type	Capillary whole blood
HCT of Tested Blood	30%~55%

1.3 About the System

- Blood Glucose Meter (Front):



• Blood Glucose Test Strip and Code Card:

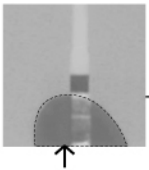


Applied Point

Applied a blood or control solution to the applied point.

Black-colored Bars

Insert this end with black bars facing up into the test strip slot.

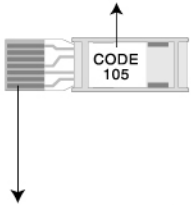


Indication Point/Reaction Zone

The drop will be drawn in and fill the indication point.

*Please don't smear the drop to the indication point.

Code Number



Code Card Bars

Insert this end to code the meter

Section 2. How Your System Works

2.1 Installing/Replacing Battery

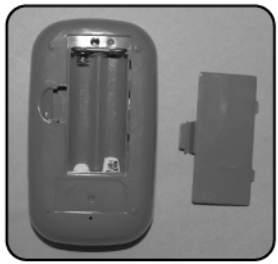
Your Blood Glucose Monitoring System is packed with one 3-volt lithium battery CR2032 that needs to be installed before testing. The battery can last over 1,000 tests. However, it varies because of usage. So always keep spare batteries on hand. When the battery symbol appears on the display, it means your battery is low. Although the meter will still provide accurate results, the battery should be replaced as soon as possible. After the battery is replaced, reset the date, time, and unit. ***(See Section 2.2 Setting the Date, Time, and Unit.)***

• Steps to Install / Replace the Battery:

a. Open battery cover at the bottom of device.

b. Install or replace 2 "AAA" batteries make sure match the polarity marking inside the battery compartment.

c. Replace the battery cover.



2.2 Setting the Date, Time & Unit

• Steps to set the Date, Time, and Units :

1. Press the "S" button (setting button) on the front of the meter.
2. You will hear a beep, and the meter will power on. The year flashes on the screen.
3. Press the "M" button (main button) on the front of the meter until the correct year is displayed on the LCD screen.
4. Press "S" button again, the month flashes on the LCD screen.
5. Press the "M" button until the correct month is displayed.
6. Press the "S" button. The day flashes.
7. Press the "M" button until the correct day is displayed.
8. Press the "S" button. The hour flashes.
9. Press the "M" button until the correct hour is displayed.
10. Press the "S" button. The minutes flash.
11. Press the "M" button until the correct minutes are displayed.
12. Press the "S" button. The unit (mg/dL) flashes.
13. Press the "M" button until the unit you want is displayed.
14. Press the "S" button, "dEL?" is displayed on the LCD screen. If delete the memories, press the "M" button to choose "YES". Press the "S" button to delete the memories and turn off automatically. If save the memories, press the "M" button to choose "NO" and press the "S" button to save the memories, then turn off automatically.

Note

* During setting, if you do not press the "M" button or the "S" button over 60 seconds, the meter will save the current settings and turns off automatically.
* To quickly adjust a certain number, keep pressing the "M" button until the one you want appears.
* The year setting roll up to 50 (year 2050) then loop back to 09 (year 2009) for resetting.

2.3 Coding Your Meter

When you first use your Blood Glucose Meter, or whenever you open a new box of test strips, it is necessary to use the code card to code your meter.

• Steps to Code Your Meter:

1) There is a code card packaged with each box of test strips and the carrying bag of your kit. Remove the code card from the box of test strips to be used. Make sure the code printed on the code card matches the code on the test strip vial.

2) Insert the code card into the test strip slot. The meter will beep and turn on automatically. A code number will appear on the display.

3) Make sure the code on the display matches the code on the test strip vial.

Note

If the code numbers do not match, please remove the code card and re-insert it. If the codes are still different, please contact the authorized dealer.

4) When coding your meter, the internal performance of the meter will also be checked.

5) If the meter functions properly, the "OK" message will appear with the code number on the screen. If the meter fails to pass the internal performance check, the 「**E-O**」message will be displayed on the meter. **(See Section 3.5 Error Messages and Troubleshooting for more information.)**

6) Remove the code card. The meter turns off automatically.

Note

For each new vial of test strip, remember to code your meter. The meter will store the code in memory until you insert a new code card. Every time when you turn on the meter, the current code card number will appear on the screen. Make sure the code matches the code on your test strip vial, which can ensure you will get an accurate result.

2.4 Testing Your Blood Glucose

• Steps to Test Your Blood Glucose:

1) Wash your hands in warm, soapy water. Rinse well and **DRY** them thoroughly. You can also use an alcohol pad to clean your fingertip. It is necessary to make sure your fingertip is **DRY** before testing.

2) Prepare the lancing device according to the lancing device instructions.

3) Take one test strip out of the test strip vial Replace the vial cap immediately and close it tightly.

4) Insert this test strip (with the black bars facing up) into the test strip slot of the meter. The meter turns on automatically, and the code number appears on the screen. Make sure this number matches the code on the test strip vial.

Or you can press the main button to turn on the meter, and a test strip symbol will instruct you to insert a test strip. Please insert test strip within 1 minute, then the meter will display the code number.
Make sure the code number matches the code on the test strip vial.

Note

You can handle any area of the test strip to insert it into the test strip slot.

The meter will check the ambient air temperature automatically.

If the temperature is not between 10° and 40°C, the "E-t" and thermometer symbol will appear on the display. Then the meter will turn off automatically.

5) When the blood drop symbol flashes on the meter, it means that you can start testing. You have 3 minutes to apply the blood sample.
If you do not apply the sample within 3 minutes, the meter will turn off automatically.

If a test strip has been exposed to air for more than 3 minutes, the test strip may get damp, especially in an environment of high relative humidity. Do not use a humidified test strip or your result may be wrong. Please use a new test strip and test again.

6) Place the lancing device against your fingertip and press the trigger. Gently squeeze your fingertip until you get a drop of blood.

7) Pick up the meter and use the most comfortable way to touch the blood drop to the edge of the applied point of the test strip. The blood will be drawn into the test strip automatically. You will hear a beep letting you know the test has begun.

Do not smear the blood drop onto the indication point above the reaction zone of test strips. To get the applied point of the test strip touch to blood sample on your finger tip until the indication point is completely filled with blood or control solution. Do not re-apply a second drop of blood to the same test strip, or you may get an inaccurate test result.

8) When you hear a beep, three dashes (- - -) appears on the screen. Then the meter displays "- - -", "- -" and "-" in sequence. After countdown, the test result is displayed with date and time and stored in the meter's memory automatically.

2

Note

If 「HI.」is displayed, your blood glucose result may be higher than the meter's specification.

If 「Lo.」is displayed, your blood glucose result may be lower than the meter's specification.

9) Remove the test strip from the meter. Discard the used test strip and lancet in a puncture-proof container.

Do not reuse lancets.
Do not reuse test strips.
Do not share used lancets or lancing device.

2.5 Viewing Results in Memory

The Blood Glucose Meter automatically stores up to 180 test results with respective date and time. You can review them in order, from the newest to the oldest. Once 180 results are in memory, the meter deletes the oldest result when a new one is added. Results stored in memory will not be lost when you replace the battery.

• Steps to Recall Your Test Results in Memory:

1) Press the main button to turn on the meter.

2) When the test strip symbol flashes, press the main button again.

3) The sequential number and its test result alternately display up to one minute until the main button is pressed again. Then the next sequential number and its test result appear.

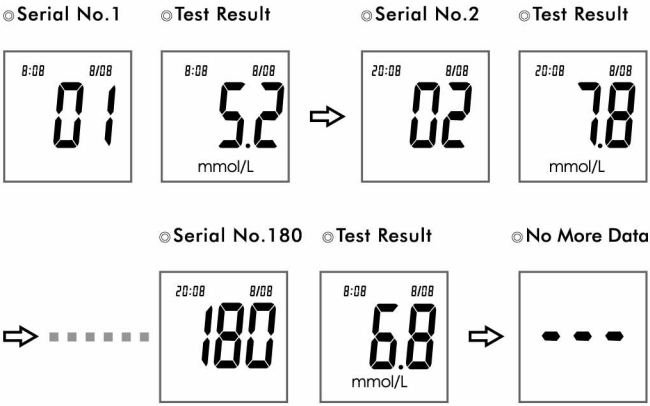
※To read all test results in memory, continue to press the main button.

※To quickly recall a certain test result, keep pressing the main button until the one you want appears.

4) When you see the 3 dashes (- - -) is displayed. It means that there are no more readings. Press the main button again. and the meter would be shut off.

5) If you do not press the main button within one minute, the meter will turn off automatically. You may also turn off the meter by pressing the setting button.

6) Data display example as below for reference - (your data may different from following samples)



2.6 Read the average

With the meter turned off, press and hold the "M" button in three seconds, "7.A", "---" will appear in turns, then press shortly the "M" button once, "14.A", "---", "21.A", "---", "28.A" will appear in order. Continue to press the "M" button, you will review the single memories. If you do not press the "M" button over 60 seconds, the meter will turns off automatically.

(Note: "7.A" means 7 days, "---" means the average of 7 days. It is all the same to the others. When reading memories, press the "S" button, it will turns off.

Section 3. Important Notes

3.1 Caring for Your Meter

Taking care of your meter is very simple. Just follow the guidelines shown below :

1) Do not disassemble your meter. If you have any questions, please contact dealer.

2) Please use your meter carefully. Avoid throwing, shaking, or dropping it, which may damage its internal parts.

3) Clean the meter's surface with a soft cloth slightly dampened with water. Do not use alcohol or abrasive solutions.

4) Do not wash or pour liquid into the meter.

5) Keep your code card away from liquid to avoid missing the coding data.

3.2 Handling & Storage

1) Handle your meter with care and protect it from direct sunlight or extremely high or low temperature.

2) Do not expose your meter and test strips to an environment of high humidity, such as bathroom, kitchen, etc.

3) Keep your meter free of dust.

4) It is recommended to use the carrying bag that is designed to store and well protect your Blood Glucose Monitoring System.

5) Put your system in an appropriate operation environment (10~40°C or 50~104°F) at least 30 minutes before testing.

3.3 Performance Check

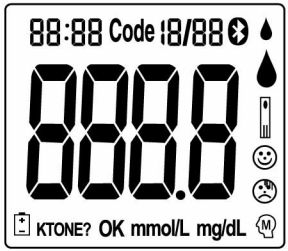
• Code Card Test:

Use the code card to check the performance of the Blood Glucose Meter ***(See Section 2.3 Coding Your Meter.)***

3.4 Reference of Displays

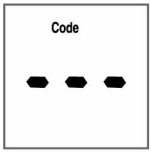
• All-Symbol Message:

When you press the main button or insert a test strip or code card into the meter, all symbols will be displayed together for ***2*** *seconds. Then the meter turns on automatically.*



• New Meter Message:

If you press the main button of a newly purchased meter, the meter needs to be coded.



• Code Number Message:

The code number displayed on the meter must match the code number on the test strip vial.

• Test Strip Insertion Message:

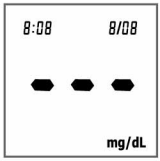
When you press the main button, the meter will instruct you to insert a test strip into the test strip slot.

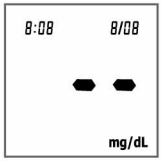
• Sample Application Message:

This requires you to apply the blood sample or control solution to the test strip after inserting a test strip.

• Test Proceeding Message:

After you insert a test strip and apply sufficient blood or control solution, the meter begins to display "- - -", "- -", and "-" in sequence. The test result appears after countdown.





• Test Result Message:

The meter shows results ranging from 1.7 to 41.7 mmol/L (30 to 750 mg/dL) with respective date and time.

or

• HI. Message:

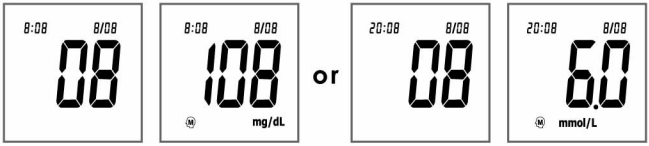
If the test result is higher than 41.7 mmol/L (750 mg/dL) , the "HI" message is displayed.

• Lo. Message:

If the test result is lower than 1.7 mmol/L (30 mg/dL) , the "Lo" message is displayed.

• Unit of Test Result:

You can select either mmol/L or mg/dL by using the setting button. The unit will be displayed along with the test result.



• Battery Message:

If the battery symbol appears, the batter power is low. Please change the battery soon.

If both the "E-b" message and battery symbol are displayed, the battery is exhausted, no measurement can be performed. *Replace the battery immediately.*

3.5 Error Messages & Troubleshooting

E-U

Cause:

(1) Remove the test strip during testing;
(2) Use a damp or used test strip;
(3) Apply the blood sample before inserting the test strip.
(4) Apply the blood sample or control solution before the blood drop symbol flashes.

Action:

(1) Do not remove the test strip before the result is displayed;
(2) Repeat the test with a new test strip;
(3) Insert the test strip into the meter first and then apply the blood sample.
(4) Apply the blood sample or control solution after the blood drop symbol flashes.

E-O

Cause:

(1) Damaged code card;
(2) Damaged meter.

Action:

(1) Insert another code card;
(2) Contact the dealer for services.

E-C

Cause:

(1) Remove the code card before the code number is displayed;
(2) Wrong or damaged code card;
(3) Insert a test strip before coding your new meter.

Action:

(1) Do not remove the code card before the code number is displayed;
(2) Insert another code card;
(3) Code your new meter first and then insert the test strip.

E-t

Cause:

The system is operated outside the appropriate temperature range (10°~40°C or 50°~104°F).

Action:

Move your meter and test strips to a place where the temperature is appropriate for running a test. Wait at least 30 minutes and test again.

E-b

Cause:

The battery power is low.

Action:

Replace the battery soon.

Other Messages

Cause:

Any unknown messages displayed on the screen.

Action:

Press the setting button, or take the battery out of your meter wait for one minute and re-install it.

(See Section 2.1 Installing/Replacing the Battery.)