

1. Product Structure

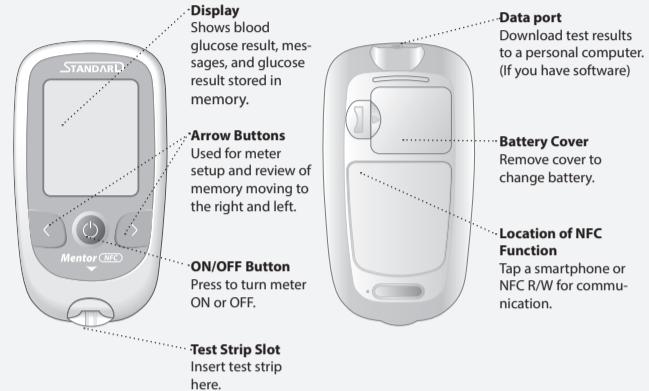
List of the system



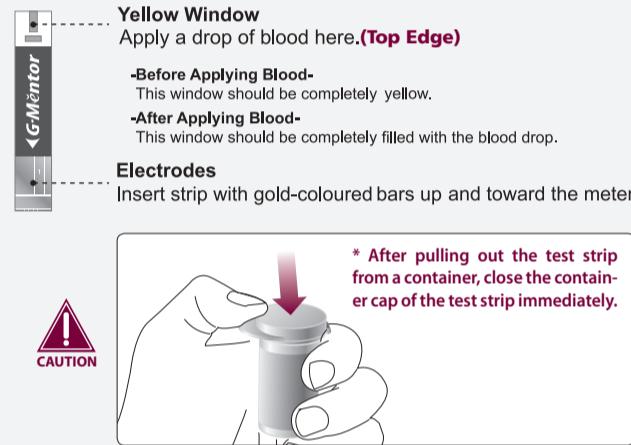
<Option>

- STANDARD™ Mentor Test Strips
- Lancing Device (with a white cap for fingertip testing and a clear cap for Alternative Site Testing)
- Lancet
- STANDARD™ Glucose Control Solution

STANDARD™ Mentor NFC Meter



STANDARD™ Mentor Test Strip



Important steps for using the System are inside this guide. Please read it carefully.

If you have questions, we are here to help.

Please contact SD Biosensor, Inc.

Tel : +82-31-300-0400 Fax : +82-31-300-0499

website : www.sdbiosensor.com

We offer assistance 24 hours a day, 365 days a year in many languages. You can also visit www.sdbiosensor.com for diabetes management tools and product demonstrations.

Please refer to the instructions with following symbols in this User Instruction Guide.



To identify conditions or practices that could result in damage to equipment or other property.



To provide an additional useful information.

CHAPTER 1 : Understanding Your New System

1. Intended Use

STANDARD™ Mentor NFC Blood Glucose Monitoring System is intended to be used for the quantitative measurement of glucose (sugar) in fresh capillary whole blood samples drawn from the fingertips, forearm, upper arm, or palm. STANDARD™ Mentor NFC Blood Glucose Monitoring System is intended to be used for self-testing and should not be shared. It is intended for self testing outside the body (in vitro diagnostic use) by people with diabetes at home as an aid to monitor the effectiveness of diabetes control. STANDARD™ Mentor NFC Blood Glucose Monitoring System should not be used for the diagnosis of or screening for diabetes, or for neonatal use. Alternative site testing should be done only during steady - state times (when glucose is not changing rapidly).

2. Product Description and the Principle of the use

STANDARD™ Mentor test strip is designed with an electrode that measures glucose levels. Glucose in the blood sample mixes with reagent on the test strip that cause a small electric current. The amount of current that is created depends on how much glucose is in the blood.

STANDARD™ Mentor NFC meter measures the current that is created and converts the measurement to the amount of glucose that is in the blood. The blood glucose result is displayed on the meter's LCD display. By touching a drop of blood to the tip of STANDARD™ Mentor test strip, the reaction of the strip chamber automatically draws the blood into the strip through capillary action. When the chamber is full, STANDARD™ Mentor NFC meter start to measure the blood glucose level. It is a simple and practical system for the daily monitoring of your blood glucose level.

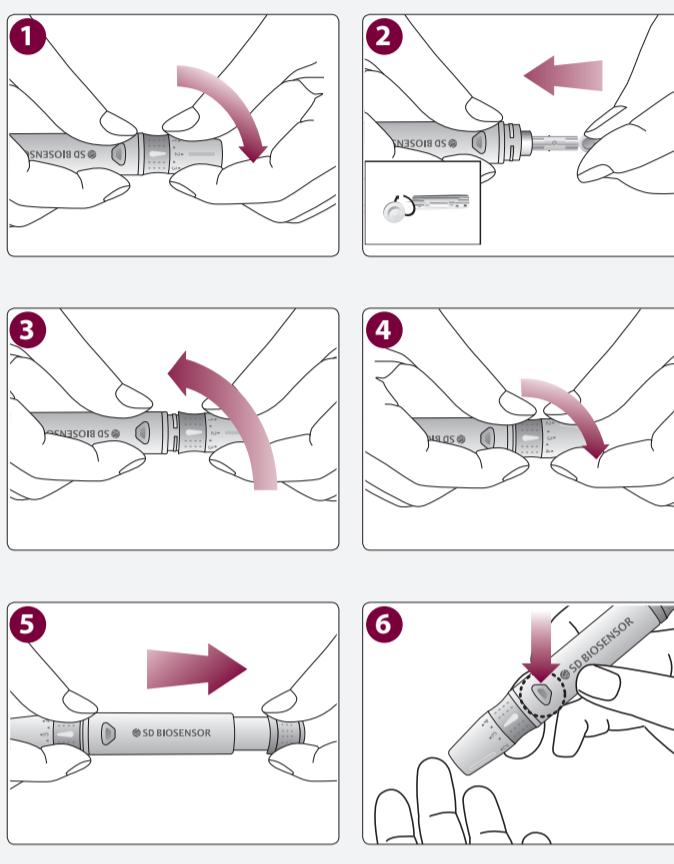
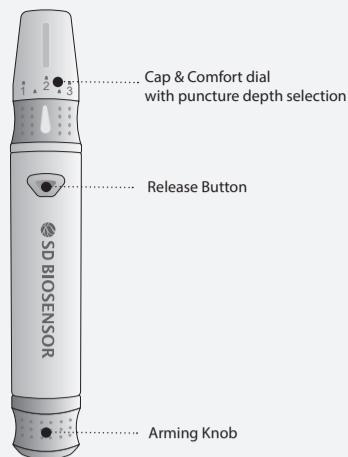
3. Meter Set up

STEP-1: Setting the Audible Beep

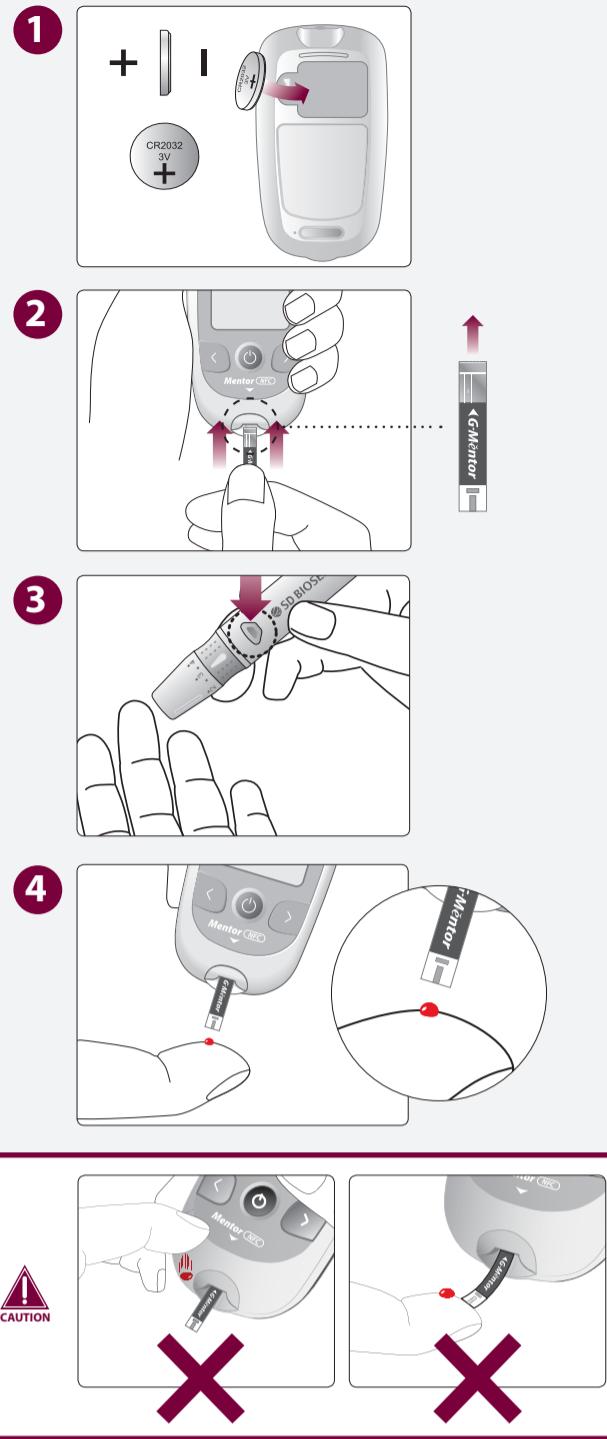
1. In Strip Stand-by Display, if you press the ON/OFF button during 3 seconds, the display for setting the beep will appear, the first step of the setting mode.

2. Blood Collection

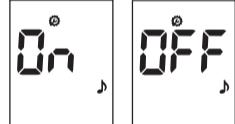
Lancing Device / Lancet



3. Test Procedure



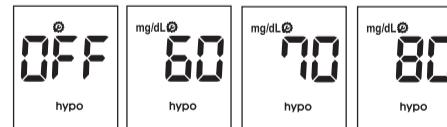
2. Set the beep mode on or off by pressing either the left or the right button and then selecting the preferred feature by pressing the ON/OFF button. If you select the beep on feature, a 'beep' sound is made at the same time; otherwise, if you select the beep off feature, no sound is made.



Step-2: Setting the Hypo warning

- You can set the meter to let you know when your result indicates a possible low blood glucose (hypoglycemia). You can also select what blood glucose level you want this indicator to have 60, 70, 80 mg/dL(3.3, 3.9, 4.4 mmol/L).
- If your results are lower than selected hypo result, the 'hypo' icon will appear on LCD with a 'beep' sound. It is very important to manage your hypoglycemia.

1. After beep setting, the display for setting the hypo warning will appear, the second of setting mode.
2. Set the hypo warning mode 'off' or the result you want to select among 60, 70, 80mg/dL (3.3, 3.9, 4.4mmol/L) by pressing either the left or the right button and then selecting the preferred feature by pressing the ON/OFF button.



Your new meter comes with a preset time and date. You may need to change the time to your time zone. Having the right time and date in your meter is important if you use the meter memory. It also helps your healthcare team interpret your results.

Step-3: Setting the date and time

[Date Setting]

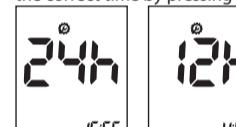
1. The third step of setting mode is the Date & Time setting. After setting the hypo warning, the display for setting Date & Time will appear, the third step of the setting mode. Set the correct year by pressing either the left or the right button and then select the correct year by pressing the ON/OFF button.
2. Next will appear the setting display for month and day format. The meter can display the month and day in either a Month-Day (m-d) format or a Day-Month (d-m) format. Set the preferred format on the display by pressing either the left or the right button and select by pressing the ON/OFF button.
3. Set the correct month or day on the display by pressing either the left or the right button and select by pressing the ON/OFF button.

[Time Setting]

1. Next, the display for setting the 12 or 24 Hour clock format will appear. The meter can display the time in either the 12h format or the 24h format. Set the preferred format on the display by pressing either the left or the right button and select by pressing the ON/OFF button.

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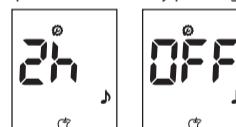
2. Next, the setting display for time format will appear. Set the correct hour and minute on the display by pressing either the left or the right button and select the correct time by pressing the ON/OFF button.



Step-4: Post-meal alarm

You can use the meter's post-meal alarm function to remind you to test your blood glucose after meal.

1. After day and time setting, the display for setting the post-meal alarm will appear, the fourth of setting mode.
2. Set the post-meal alarm mode '2h' or 'off' by pressing either the left or the right button and then select the preferred feature by pressing the ON/OFF button.

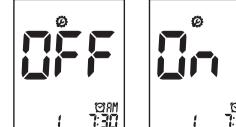


- If you select the post-meal alarm '2h' feature and test with pre-meal mark, the 'clock' symbol will appear with the test result and the 'beep' sound will be made in 2 hours to remind you to test your blood glucose after meal for 1 minute.
- If you perform the pre-meal test while the post-meal alarm setting is on, then the post-meal mark will appear automatically on your LCD when you test within following period: from 30min to 130min after your pre-meal test.
- If you mark the new test result with a pre-meal mark, the old alarm setting will be ignored and only the new setting will sound in 2 hours.

Step-5: Setting the alarm

You can use the meter's alarm function to remind you to test your blood glucose.

1. After Post-meal alarm setting the display for setting the alarm will appear, the fifth of setting mode.
2. Set the first alarm on or off by pressing either the left or the right button and then select the preferred feature by pressing the ON/OFF button.
 - If you select the alarm off feature, the Strip Stand-by Display will appear.
 - If you select the alarm on feature, you can set the alarm up to four times a day at any time you want.
3. If you select the alarm on feature in first alarm mode, the clock will blink. Set the correct time and minute you want to set an alarm on the display by pressing either the left or the right button and then select the preferred feature by pressing the ON/OFF button.



NOTE • If you select the alarm off feature in first (also second, third and fourth) alarm mode, next will appear the Strip Stand-by Display.

4. If you finish setting the first alarm, the second alarm setting mode will appear. Set the alarm with the same way as above. [2, 3]
5. You can set the third and fourth alarm mode with the same way as above. [2, 3]
6. If you finish setting the last alarm, the Strip Stand-by display, will appear.

4. NFC Function

NFC(Near field communication) is a set of standards for smartphones and similar devices to establish radio communication with each other by touching them together or bringing them into close proximity. This function is comfortable for test results back-up at PC or smartphones. So, you can easily monitor your blood glucose results.

STANDARD™ Mentor NFC follows "Felica" standard which include ISO/IEC 18092.

[How to use GlucoNavii® App]

1. Search 'GlucoNavii' or 'sd biosensor' on Google Playstore and install GlucoNavii® application.
2. Please put STANDARD™ Mentor NFC meter antenna spot and smartphone NFC antenna spot together. Every smartphone has slightly different contact points, so please memorize the exact point.
3. Please tap STANDARD™ Mentor NFC meter to your smartphone. And then, the app will be executed and data will automatically be uploaded to the smartphone.

[How to use STANDARD™ DMS]

1. Download the software at www.sdbiosensor.com. And then, start the software.
2. Tap the meter with NFC Reader/Writer plugged with PC. And then, start the communication.

Your new meter comes with a preset time and date. You may need to change the time to your time zone. Having the right time and date in your meter is important if you use the meter memory. It also helps your healthcare team interpret your results.

European Union Directive Conformance Statement
Hereby, SD Biosensor declares that STANDARD™ Mentor NFC blood glucose meter is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

You can view your product's Declaration of Conformity(DoC) to Directive 1999/5/EC(R&TTE) Directive at www.sdbiosensor.com.

WARNING
Changes or modifications made to this equipment not expressly approved by SD Biosensor, Inc. for compliance could void the user's authority to operate the equipment.

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.

5. Precaution and Warning

Never make significant changes to your diabetes control program or ignore physical symptom without consulting with your healthcare professional.

[Meter]

- Keep the test strip slot free of dust.
- Protect the internal meter from humidity.
- The carrying case is designed to let you store a variety of supplies you may need and helps to protect your meter.
- If you keep the meter with the battery inserted, then keep it in a low humidity environment.

[Test Strip]

- Only use STANDARD™ Mentor test strips. Using other test strips with this meter can cause inaccurate results.
- After removing a test strip from the container, replace the container cap immediately and close it tightly.
- Store test strip containers in a cool, dry place at 2-32°C(36-90°F). Keep away from direct sunlight and heat. Do Not refrigerate test strips.
- Do Not expose strips to heat, moisture or humidity. Temperatures outside the required range, as well as moisture and humidity (e.g. bathroom, kitchen, laundry room, car, or garage) can damage your test strips and lead to inaccurate results.
- Store test strips in their original container only to avoid damage or contamination. After pulling out the test strip from its container, close a container cap of the test strip immediately.
- Do Not use test strips from any container that is damaged or left open to air.
- Write the opening date on the container label when you first open it. Discard remaining STANDARD™ Mentor Test Strips after the discard date. (6 months after first opening from the container)
- Do Not use test strips beyond the expiration (printed on package) or discard date, whichever comes first, because they may cause inaccurate results.
- STANDARD™ Mentor Test Strips are for single use only. Never reuse a test strip that has had either blood or control solution applied to it.
- Avoid getting dirt, food or liquids on the test strip. With clean, dry hands, you may touch the test strip anywhere on its surface.
- Do Not bend, cut, or alter a STANDARD™ Mentor Test Strip in any way.
- Not following these precautions can lead to inaccurate results.
- Severe dehydration (excessive water loss) may cause false low results. If you believe you are suffering from dehydration, consult your healthcare professional right away.
- Do not use this device to measure blood glucose in people who are experiencing cardiovascular collapse (severe shock) or decreased peripheral blood flow.
- Extremes in hematocrit may affect test results. Hematocrit levels less than 20% may cause falsely high readings. Hematocrit levels greater than 60% may cause falsely low readings.
- Interferences : The following substances may affect results.

Material	Limitation
Acetaminophen	>6mg/dL
Ascorbic Acid	>4mg/dL
Bilirubin	>40mg/dL
Total cholesterol	>506mg/dL
Creatinine	>30mg/dL
Dopamine	>5mg/dL
EDTA	>0.1mg/dL
Galactose	>60mg/dL
Gentisic Acid	>1.8mg/dL
Glutathione	>4.6mg/dL
Hemoglobin	>200mg/dL
Pralidoxime Iodide	>1.3mg/dL
Heparin	>3,000U/L
Ibuprofen	>50mg/dL
Levodopa	>4mg/dL
Maltose	>60mg/dL
Methyl-Dopa	>2mg/dL
Sodium Salicylate	>20mg/dL
Tolazamide	>8.4mg/dL
Tolbutamide	>4mg/dL
Triglycerides	>1,026mg/dL
Uric Acid	>9mg/dL
Xylose	>60mg/dL
Icodextrin	>750mg/dL

- STANDARD™ Mentor NFC System is not designed to be a substitute for pathology laboratory equipment and should not be used for the diagnosis of diabetes.
- Use only fresh capillary blood. Do not use serum or plasma or venous whole blood.
- Do not use STANDARD™ Mentor NFC meter to test neonates. It has not been validated for neonatal use.

[Lancet and Lancing device]

- The needle of lancet is sharp, keep the lancet away from children.
- Keep the lancet and lancing device dry and do not store in direct sunlight, or high heat and humidity locations.
- A lancet should not use for the other intended use except sampling blood.
- A lancet is for single use only. Do not reuse.
- Before using, check a packaging condition, if there is any problem, you should not use it.
- If a lancet protective disk is loosened or needle of a lancet is exposed, you should not use it.
- To reduce the chance of infection for the used lancet, discard it.

[Control solution]

- Keep STANDARD™ Glucose Control Solution in 8-30°C (46-86°F) environment.
- Do not refrigerate or freeze.
- Do not use STANDARD™ Glucose Control Solution that has passed the expiration date.
- STANDARD™ Glucose Control Solution can be used for 3

months after opening the container. Write the opened date on the container when you first opened.

- No reconstitution or dilution is necessary.
- Wipe the container tip clean and reseal the container tightly after each use.

CHAPTER 2 : Control Material

Why you do control solution / Check strip test ;

- STANDARD™ Glucose Control Solution is used to check that the meter and the test strips are working together as a system and that you are performing the test correctly.
- It is very important that you do this simple check routinely to make sure you get an accurate result.

When you use Control solution ;

- You open a new box test strips.
- You left the test strip container open or you think your test strips have been damaged.
- Your test strips were stored in extreme temperatures and/or humidity.
- You want to check the meter and test strips.
- You dropped the meter.
- Your test result does not agree with how you feel.
- You want to check if you are testing correctly.

Before you begin ;

- Use only STANDARD™ Glucose Control Solution.
- Check the expiration date on the control solution container. Record the opening date on the container label. Do Not use after expiration or discard date (date opened plus three months), whichever comes first.
- Control solution, meter, and test strips should be at room temperature 18-30°C (64-86°F) before testing with control solution.
- Shake the container, discard the first drop of control solution, and wipe off the tip to ensure a proper sample and an accurate result.
- Store control solution tightly closed at temperatures between 8-30°C (46-86°F). Do Not refrigerate.



- Do not swallow control solution; it is not for human consumption.
- Do not apply control solution to the skin or eyes as it may cause irritation.

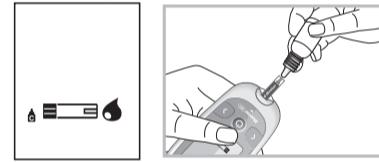
1. Performing a Control Solution Test

STEP-1:

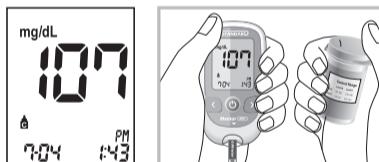
- Remove a new test strip from container. Be sure to tightly replace container cap after removing test strip.
- Insert a test strip (yellow window printed arrow symbol facing up) into test strip slot. The meter turns on automatically.

STEP-2:

- Press the left button for 3 seconds to check the testing system using a control solution in Blood Stand-by Display. If you don't want a control solution check, press the left button again.
- Shake the control solution container and discard the first drop of solution. Gently squeeze the container to form one small drop. Bring the drop to the edge of the strip, and allow the strip to automatically draw the control solution into the yellow window. When control solution is applied to the test strip, the meter counts down from 5 to 1 second on the display. Tightly replace the cap on control solution.



- The control solution result appears on the display in just 5 seconds.
- Compare control solution result to the range printed on the test strip container. If the results are not within the control range printed on the test strip container, then the meter and strips may not be working properly. Repeat the control solution test.



- Remove the used test strip for control solution from the meter and discard it.



- Do not swallow control solution; it is not for human consumption.
- Do not apply control solution to the skin or eyes as it may cause irritation.

CHAPTER 3

: Maintenance and Troubleshooting

1. Performing the Check Strip Test

When you use a check Strip for checking your meter?

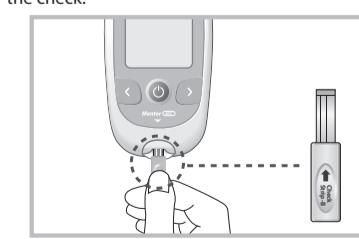
- When you want to easily check the performance of the meter.
- Before using your meter for the first time.
- Whenever your result does not agree with the level you feel is still lower or higher than expected.



- The Check Strip test does not replace the Control Solution test.

[How to Use STANDARD™ Glucose Check strip]

- Insert a Check Strip (facing up 'check strip' printed in arming knob) into test strip slot. The meter turns on automatically.
- If the Check Strip is inserted properly, the meter will start the check.



- The check result appears on the screen in just 5 seconds. If there isn't any problem for the meter, 'OK' message appears on the screen. Otherwise, there is some problem for the meter, 'EEE' error message appears on the screen.



['OK' Message]

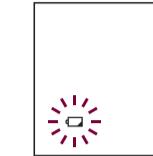


['EEE' Error Message]

2. Screen Messages and Troubleshooting Message Description

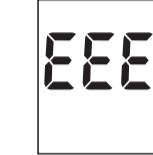
[Replace battery]

- Battery power is low. Replace the battery immediately. If you press the ON/OFF button after discharging of the battery, the battery icon will flash and then after ten seconds the meter will turn off automatically.



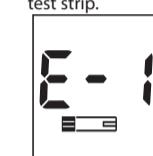
[Internal Error Message for a meter]

- Turn off a meter. Then turn on the meter again.



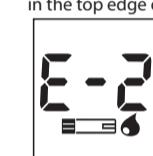
[Strip Error]

- Defective test strip or the test strip is damaged or inserted improperly. Discard this test strip and test again using new test strip.



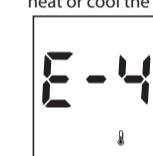
[Blood Sample Error]

- An insufficient amount of blood was applied. Discard this test strip and test again using new test strip and a larger sample, making sure blood is placed to the narrow channel in the top edge of the test strip.



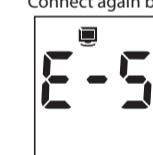
[Temperature Error]

- If the environmental temperature is above or below the operating range of a meter, a thermometer icon will appear on the display. Move to an area between 10-45°C (50-113°F), wait for 30 minutes, and perform a test. Do not artificially heat or cool the meter.



[Communication Error]

- The communication between meter and computer is failed. Connect again between meter and PC.



CHAPTER4

: Product Technical Information

Result Range

10 - 600 mg/dL (0.6 - 33.3 mmol/L)

Calibration

Plasma-equivalent

Sample

Fresh capillary whole blood

Sample Size

Minimum 0.3 microliter

Test Time

5 seconds

Assay Method

Glucose Oxidase Biosensor

ON/OFF Source

One replaceable 3 V Lithium Battery type CR2032

Battery Life

Around 1,000 tests

Glucose Unit

mg/dL, mmol/L

Display

LCD (Customized)

Controls

3 Buttons

Size

50 mm x 93 mm x 18mm

Weight

50g (with battery)

Automatic Shutoff

- 1 minutes after last user action without inserting test strip into the meter

- 3 minutes after last user action when inserting test strip into the meter

Memory

300 blood glucose tests

Function

- Hypo warning : 60, 70, 80 mg/dL (3.3, 3.9, 4.4 mmol/L)

- Pre-meal and post-meal mark

- Alarm setting (up to 4 times)

- Post-meal Alarm

- 7-, 14- and 30-day Averages of the following results

1)Normal Results

2)Pre-meal Results

3)Post-meal Results

- Automatic shutoff

- NFC function

Operation Temperature

10°C - 45°C (50°F - 113°F)

Operation Altitude

Up to 12,388 feet. (3,776 meters)

Test Strip Storage Temperature

2°C - 32°C (36°F - 90°F)

Meter