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Distributed by:
Liberty™
10045 S. Federal Highway
Port St. Lucie, FL 34952

Manufactured by:
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8100-00683 Rev D

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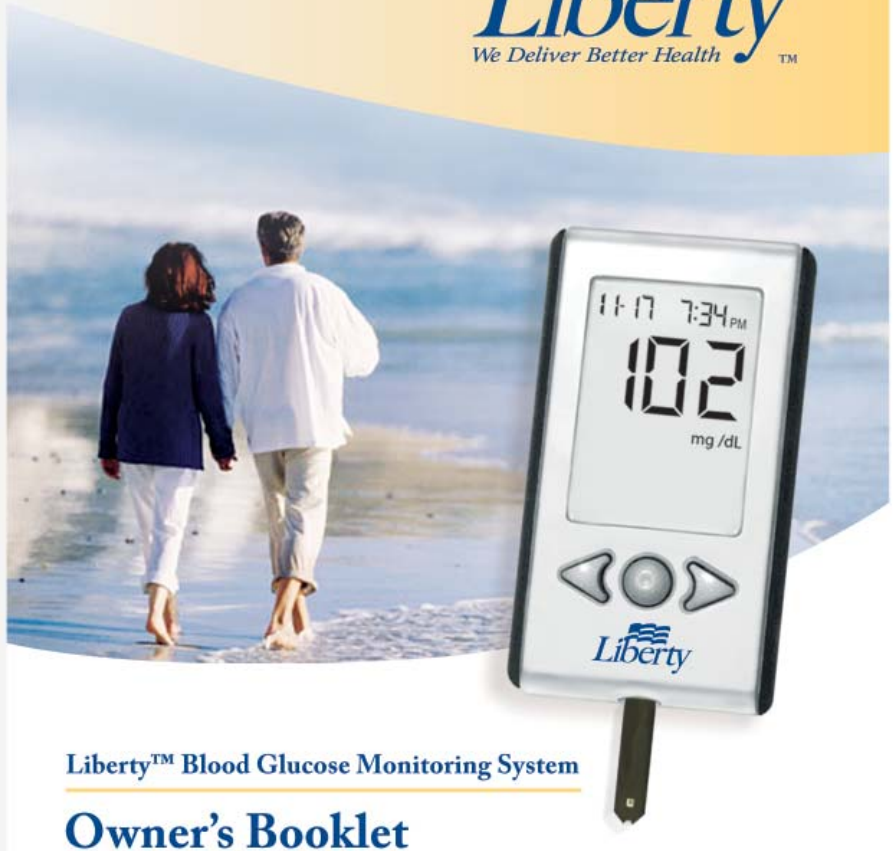
Liberty
We Deliver Better Health ™



Liberty™ Blood Glucose Monitoring System

Owner's Booklet

Powered by WaveSense™

Liberty
We Deliver Better Health™

Liberty™ Blood Glucose Monitoring System

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Important Information about Your Liberty™ System

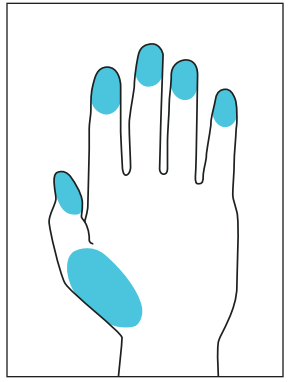
The Liberty™ System should be used:

- For measuring blood glucose levels from fresh capillary whole blood samples taken from the fingertips or the palm (at the base of the thumb).
- With Liberty™ Test Strips and Liberty™ Control Solution only. Using other brands of test strips and control solution with this meter may produce inaccurate results.
- Outside of the body (i.e., *in vitro* diagnostic use only).

Do not use the Liberty™ System for:

- The diagnosis of diabetes.
- Testing the glucose levels of neonates.
- Testing glucose levels of arterial or venous blood.
- Testing glucose from sites other than the fingertip or the palm (at the base of the thumb).

Possible test sites:



The Liberty™ System requires only 0.5 microliters of blood to perform a glucose test.

For the best results, test glucose from the tips of any finger. The palm (at the base of the thumb) is an alternate, but less accurate, test site. Only select soft and fleshy areas on the fingertips or palm to lance, and avoid any bony areas.

Physiological differences in circulation between the fingertip and palm (at the base of the thumb) may result in differences in blood glucose measurements between these sites. Differences in glucose concentrations may be observed after eating, taking insulin medication, or exercise. Changes in blood glucose may be detected in the fingertips before the palm (at the base of the thumb).

It is recommended that you use a fingertip sample if:

- You are testing for hypoglycemia or if you suffer from hypoglycemia unawareness,
- You are testing your blood glucose within 2 hours of eating, taking insulin, diabetes pills, exercise, or
- Your blood glucose results obtained from the palm (at the base of the thumb) are not consistent with the way you feel.

CAUTION: Please read all the instructions provided in this Owner's Booklet and practice the testing procedures before using the Liberty™ Blood Glucose Monitoring System. Blood glucose monitoring should be done under the guidance of a health care professional.

Important Health-Related Information

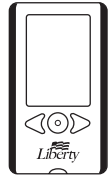
Please Read the Following:

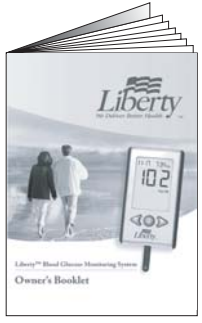
- Always follow your physician's recommendations.
- Severe dehydration and excessive water loss may yield inaccurate results. If you believe you are suffering from severe dehydration, consult your physician immediately.
- Results below 60 mg/dL (3.3 mmol/L) may mean low blood glucose levels (hypoglycemia).
- Results over 240 mg/dL (13.3 mmol/L) may mean high blood glucose levels (hyperglycemia). Checking ketones may be advisable .
- If you get results below 60 mg/dL (3.3 mmol/L) or above 240 mg/dL (13.3 mmol/L) and do not have symptoms of hypoglycemia or hyperglycemia, repeat the test. If you have symptoms or continue to get results that fall below 60 mg/dL (3.3 mmol/L) or rise above 240 mg/dL (13.3 mmol/L), follow your physician's recommendations.
- If you are experiencing symptoms that are not consistent with your blood glucose test and you have followed all instructions described in the Liberty™ Owner's Booklet, follow your physician's recommendations.
- Patients undergoing oxygen therapy may receive inaccurate results.

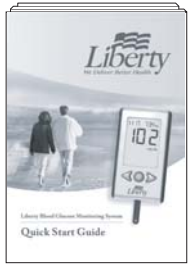
About the Liberty™ System

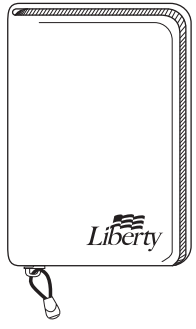
Your Liberty™ System Includes:

- Liberty™ Meter
- Carrying Case
- Owner's Booklet
- Quick Start Guide (Poster)
- Reference Guide (Fold-Out)
- Two pre-installed CR2032, 3 volt lithium batteries *not shown*







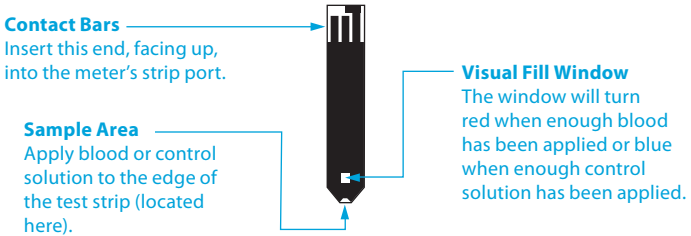


This system does not include:
Test Strips
Lancing Device
Lancets
Control Solutions

The test strips, lancing device, lancets and control solution must be purchased separately.

The Liberty™ Test Strip

With your Liberty™ System, you can test your blood glucose on your fingertips or the palm (at the base of the thumb). Testing with the Liberty™ System requires a small sample size (0.5 microliters of blood) about the size of a pinhead (approximate size: •).



WARNING: The test strip vial contains drying agents that may be harmful if inhaled or swallowed and may cause skin or eye irritation.

CAUTION: Discard used test strips properly.

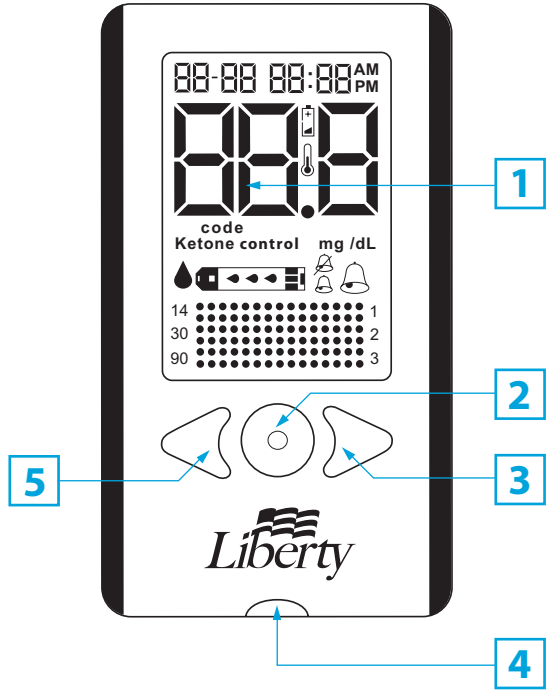
IMPORTANT: Use Liberty™ Test Strips only once.

Important Test Strip Information:

- Store the Liberty™ Test Strip vial in a cool, dry place at 46° F to 86° F (8° C to 30° C).
- Use Liberty™ Test Strips only within the system operating temperature range of 50° F to 104° F (10° C to 40° C).
- Keep away from direct sunlight and heat.
- Store your Liberty™ Test Strips in their original vial only; never store them in another vial, in any other container or outside the vial.
- After removing a Liberty™ Test Strip from the vial, immediately close the vial cap tightly.
- With clean, dry hands, you may gently handle the Liberty™ Test Strip when removing it from the vial or inserting it into the meter.
- Do not use Liberty™ Test Strips beyond the expiration date or 90 days after first opening the vial. This may cause inaccurate results. Write the discard date (90 days from the first opening) on the test strip vial.
- Do not bend, cut, or alter Liberty™ Test Strips.
- Apply only fresh capillary blood or control solution to the sample area of the Liberty™ Test Strip.

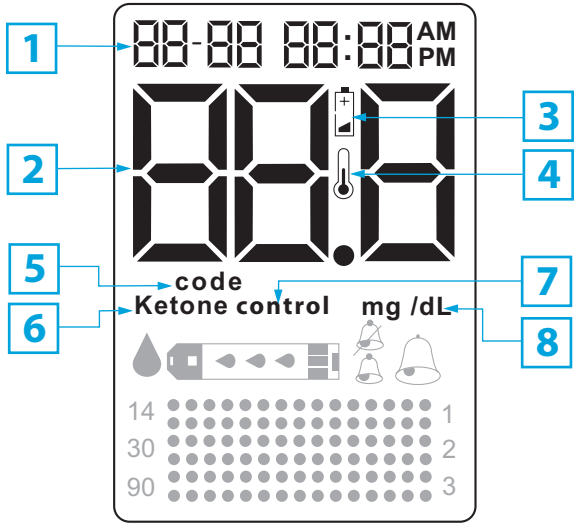
The Liberty™ Meter

1. **Display:** Glucose test results, symbols, messages and graphs appear here.
2. **CENTER Button:** Use the CENTER button to confirm an option or make a selection in a menu.
3. **RIGHT Arrow Button:** Use the RIGHT arrow button to scroll forward through options.
4. **Strip Port:** Insert the Liberty™ Test Strip, with the contact bars facing up, into the strip port.
5. **LEFT Arrow Button:** Use the LEFT arrow button to scroll backward through options.

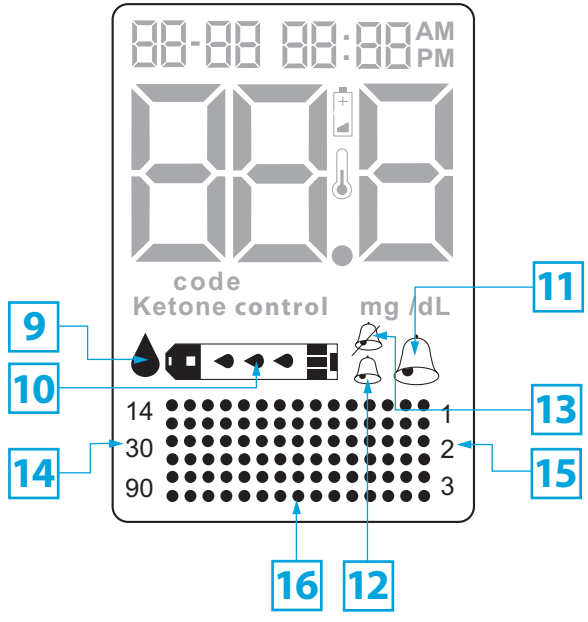


The Liberty™ Meter Display Segments

1. **Date and Time:** The date and time will appear here.
2. **Glucose Test Results:** Your glucose test results will appear here.
3. **Low Battery:** The low battery symbol appears when the batteries in your meter are running low.
4. **Temperature Symbol:** The temperature symbol appears when the meter is outside its operating temperature range of 50° F to 104° F (10° C to 40° C).
5. **Code Symbol:** The word "code" appears when displaying the code number of the test strip.
6. **Ketone Symbol:** The word "Ketone" appears when your glucose test results are higher than 240 mg/dL (13.3 mmol/L).
7. **Control Solution Symbol:** The word "control" appears after you have performed a control solution test.
8. **Units of Measurement:** Results will be displayed in mg/dL.

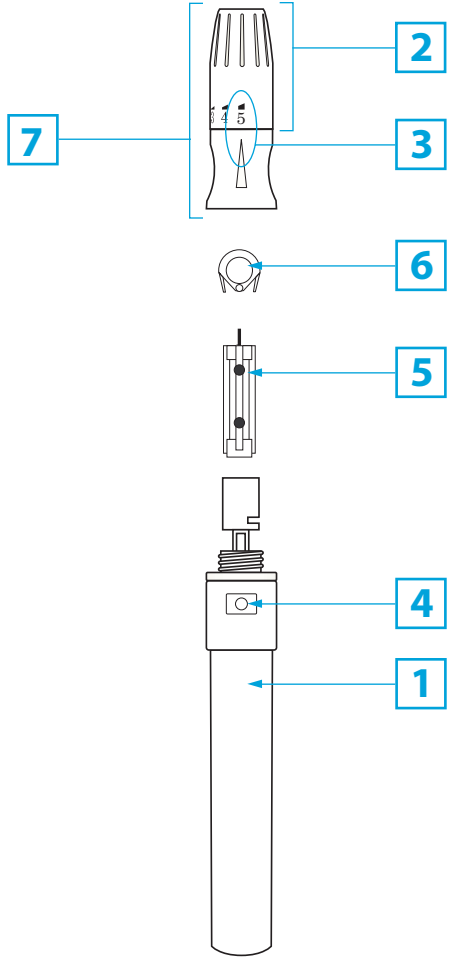


9. **Apply Sample to Test Strip:** The test strip symbol and flashing droplet symbol will signal you to apply your blood sample or control solution to the test strip.
10. **Sample Entering Test Strip:** The three droplet symbols will appear within the test strip symbol when blood or control solution enters the test strip.
11. **High Volume:** The large bell symbol indicates the highest volume setting.
12. **Low Volume:** The small bell symbol indicates the low volume setting.
13. **Volume OFF:** The small bell symbol with a line across it indicates the volume has been muted.
14. **14, 30, and 90 Day Indicators:** The appropriate number of days will appear when viewing graphical averages.
15. **1,2,3 Countdown:** The 1, 2 and 3 symbols will appear during a test.
16. **Graphing Area:** Areas of the dot matrix will appear during a test and when displaying graphical averages.



The Liberty™ Lancing System

1. **Cocking Handle:** Cocks the device so it is ready to lance.
2. **Depth Adjustment Dial:** Adjusts how deep the lancet will lance the skin.
3. **Depth Indicator:** Displays the depth setting of the lancing device.
4. **Release Button:** Fires the lancet.
5. **Lancet:** Lances the skin to produce a drop of blood.
6. **Lancet Cover:** Covers the lancet for safety.
7. **Lancing Device Cap:** Covers the lancet when installed on the lancing device.



Getting Started

The main steps covered in this section are:

[1] Switching On Your Liberty™ Meter

[2] Setting Time and Date

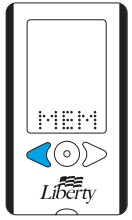
Unpack your Liberty™ System Kit. Dispose of the packing material properly.

IMPORTANT: To ensure accurate use of meter, verify the time, date and units of measure by following the steps listed below.

[1] Switching On Your Liberty™ Meter

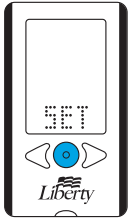
Enter MENU Mode

Press and hold any button for 2 seconds to enter the MENU mode. During the meter system check, all display segments and the display backlight will turn ON. The MEM symbol appears. Pressing the LEFT arrow once brings you directly to the SET symbol.



Enter SET Mode

If you don't see the SET symbol, press the RIGHT or LEFT arrow buttons until the SET symbol is displayed. Press the CENTER button to select SET mode.



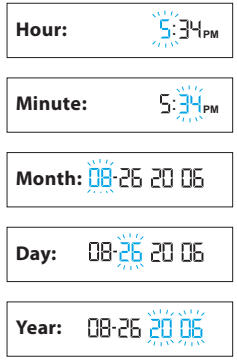
[2] Setting Time and Date

Set Time and Date

Once in SET Mode, press the CENTER button to move past the Volume Settings. Press CENTER button again to move past the Backlight Settings and into the Time Format, Time and Date Settings.

Select a 12 or 24 hour clock format with the RIGHT or LEFT arrow buttons. Press CENTER button to confirm your selection. The hour is flashing. If incorrect, you can set it with the LEFT and RIGHT arrow buttons. Press CENTER button to confirm and to set the minute, month, day and year settings. For faster scrolling, hold down the RIGHT or LEFT arrow buttons.

12 Hour Example:



For more detailed instructions, see the Settings Section beginning on page 62.

Power OFF Meter

If you want to power OFF the meter, press and hold the CENTER button for 2 seconds. If left inactive for 3 minutes, the meter will shut OFF automatically.

Performing A Control Solution Test

The main steps covered in this section are:

[1] Inserting a Liberty™ Test Strip
[2] Adjusting Code Number
[3] Applying Control Solution
[4] Viewing Control Solution Test Result

The Liberty™ system has 2 levels of control solution; Normal and High. Select the level of control solution you want to use.

The control solution is used to:

- Ensure that your Liberty™ Meter and Test Strips are working together properly.
- Practice testing without having to use your own blood.

Control solution tests should be performed when you:

- First get your Liberty™ Meter.
- Begin using a new vial of Liberty™ Test Strips.
- Suspect that your Liberty™ Meter or Test Strips are not working properly.
- Think your test results are not accurate.
- Have dropped or damaged your meter or exposed your meter to liquids other than blood samples.
- Are advised by your physician to do so.

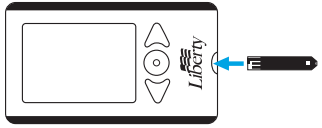
IMPORTANT: Control Solution should only be used for 90 days after first opening the bottle or until the expiration date printed on the label, whichever comes first. Count forward 90 days from the date you open a new bottle of Liberty™ Control Solution. This is your discard date. Write the discard date on the Liberty™ Control Solution bottle.

Important Liberty™ Control Solution information:

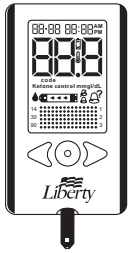
- Use only Liberty™ Control Solution with your Liberty™ System.
- Replace the cap onto the Control Solution bottle immediately after using.
- Do not add water or any other liquid to Control Solution.
- Control Solution tests should be performed within the system operating temperature range of 50° F to 104° F (10° C to 40° C).

[1] Inserting a Liberty™ Test Strip

Gently insert a new Liberty™ Test Strip into the meter. The meter will power ON.



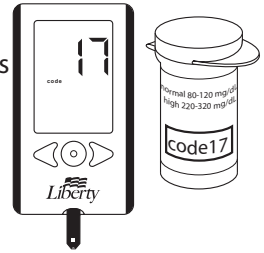
During the meter system check, all display segments and the display backlight will turn ON.



IMPORTANT: If all the display segments DO NOT turn ON, do not use the meter. Call customer service immediately.

[2] Adjusting Code Number

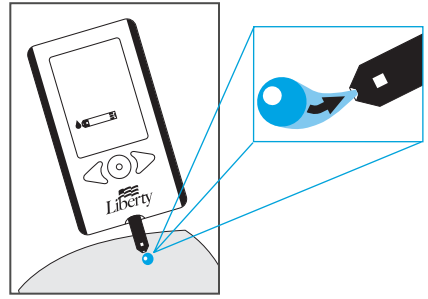
Once the system check is completed, the Liberty™ Meter will display a test strip code number for 2 seconds. If this is not the same as the code number printed on the test strip vial, press the LEFT or RIGHT buttons until the meter displays the same code number as printed on the test strip vial.



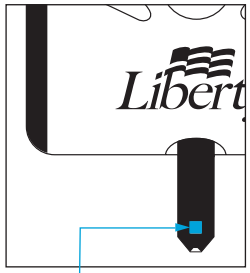
[3] Applying Control Solution

Shake the control solution bottle. Discard the first drop of control solution onto a clean, unused tissue or paper towel and wipe the bottle tip to ensure that a good sample is introduced into the meter. Dispense a second drop onto a clean surface, such as an unused resealable plastic bag. Bring the tip of the test strip to the control solution sample.

The Liberty™ System will automatically detect if a test is performed with Liberty™ Control Solution.



When Control Solution is applied, the visual fill window on the Liberty™ Test Strip turns blue.



This visual fill window will turn blue.

On the Liberty™ Meter display, drop symbols appear on the test strip symbol to indicate that the Control Solution is filling the Liberty™ Test Strip.

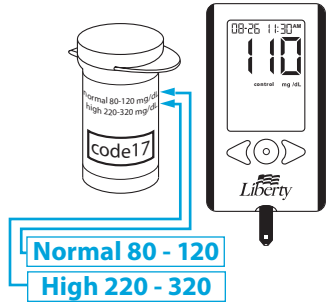
If the volume is enabled in SET Options, your meter will beep once indicating a successful fill of Control Solution. Remove the control solution bottle from the tip of the Liberty™ Test Strip.

The display should show:

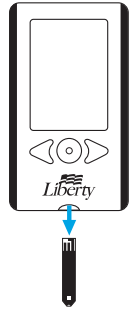
[4] Viewing Control Solution Test Result

The Control Solution test result will appear on the display, and if the volume is enabled, your meter will beep once. The word "control" will also appear on the display.

Compare the result of your Control Solution test to the range printed on the Liberty™ Test Strip vial label for the Control Solution level (normal or high) that you used. Your Control Solution result should fall within this range. The Control Solution test result will be stored in memory.



To turn the meter OFF, remove the used Liberty™ Test Strip.



Dispose of used materials properly.

If your control solution test results are out of the range, repeat the test. If the results from the Control Solution tests continue to fall outside of the specified range, do not use the Liberty™ System to test your blood glucose. Contact Liberty™ Customer Service Toll Free: 1 (877) 542-3610.

IMPORTANT:

Out-of-range test results may be caused by:

- Expired or defective Control Solution.
- Expired or defective test strip.
- Error in performing test.
- Diluted Control Solution.
- Code number on Liberty™ Test Strip vial does not match the code number set in the meter.
- Meter malfunction.
- Control Solution test done outside the operating temperature of 50° F to 104° F (10° C to 40° C).
- Failure to shake the Control Solution bottle vigorously.
- Failure to discard the first drop of Control Solution and to wipe the bottle tip clean.

CAUTION: Results from Control Solution tests do not reflect your blood glucose level. The Control Solution range is a target range for the Control Solution only. It is not a target range for your blood glucose level.

How to Test Your Blood Glucose Level

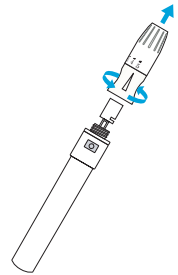
The main steps covered in this section are:

[1] Preparing the Liberty™ Lancing Device
[2] Calibrating Your Liberty™ Meter
[3] Lancing
[4] Applying Blood Sample
[5] Final Steps

CAUTION: To ensure accurate results, wash your hands with warm, soapy water and dry before every test. Make sure there is no grease, oil, or lotion on the test site. Interfering substances (see test strip insert sheet for interfering substances) on unwashed hands may lead to inaccurate results. Use lancets only once. Do not use any lancet that has been used by another person.

[1] Preparing the Liberty™ Lancing Device

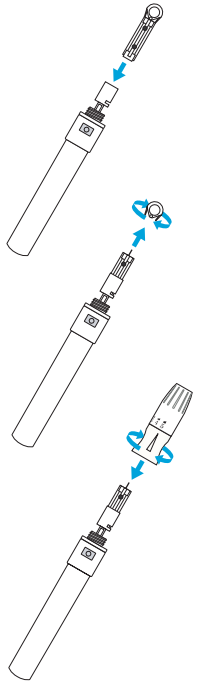
Remove Lancing Device Cap
Unscrew the cap and remove it from the lancing device.



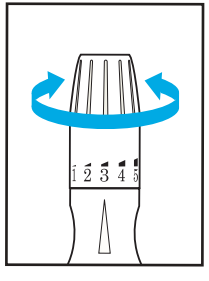
Insert New Lancet
Insert a new Liberty™ Lancet firmly into the lancet holder cup. Pushing the lancet into the lancet holder cup may cock the device; this is OK.

Twist the Lancet Cover Off
Hold the lancet firmly in place with one hand and use your other hand to twist off the lancet cover. Do not discard it. It should be used when discarding your used lancet.

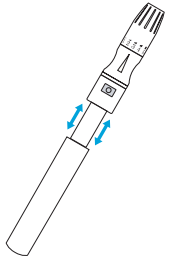
Replace Lancing Device Cap
Twist the lancing device cap until it locks into place. Be careful not to touch the exposed needle on the lancet.



Set the Lancing Level Depth
The Liberty™ Lancing Device offers 5 depth settings. Rotate the dial to the desired setting as shown on the depth indicator. Level 1 is the most shallow; level 5 is the deepest. If you have never lanced before, it is recommended that you start at level 3.

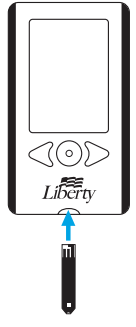


Cock the Handle
Pull the cocking handle out until it clicks. You may have already cocked the handle accidentally while inserting the lancet; this is OK. The lancing device is now ready for use.

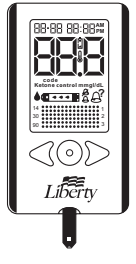


[2] Calibrating Your Liberty™ Meter

Insert a Liberty™ Test Strip
Insert a new Liberty™ Test Strip into the meter. Make sure you insert the test strip into the strip port with the contact bars facing up. The meter will power ON automatically.

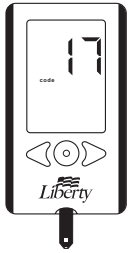


During the meter system check, all display segments and the display backlight should turn ON. If any of the segments fail to turn ON, retry. If the meter fails to turn ON, stop and call customer service.

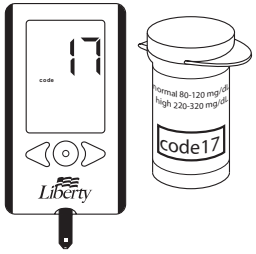


Note: If you do not start the test within 3 minutes, the meter will turn OFF. To restart your meter, remove the unused Liberty™ Test Strip and reinsert it into the meter.

Adjust Code Number
The Meter displays a test strip code number for 2 seconds.



If this is not the same as the code number printed on the test strip vial, press the LEFT or RIGHT buttons until the meter displays the same code number as printed on the test strip vial.



WARNING: If the calibration code is set incorrectly, you may get inaccurate results.

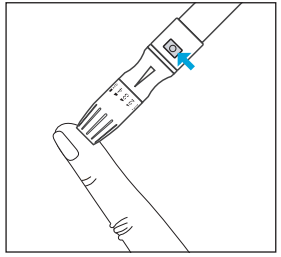
The meter now displays the blinking blood drop and test strip symbols. The Liberty™ System is now ready for you to apply blood.

The meter should display:

Note: You can still change the code number as long as you have not applied blood to the Liberty™ Test Strip by pressing the LEFT and RIGHT arrow buttons.

[3] Lancing

Lance Test Site
To ensure accurate results, wash hands with warm, soapy water and dry before every glucose test. For details on possible test sites, see pages 5-6.

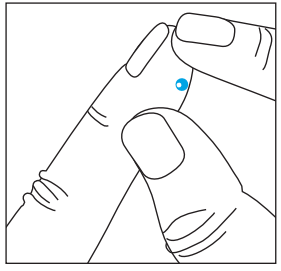


For instuctions on how to test on your palm, please refer to page 39 before continuing.

Note: Keep your hand warm or gently massage the site you are lancing to stimulate blood flow.

Lightly press the lancing device against the test site and press the release button.

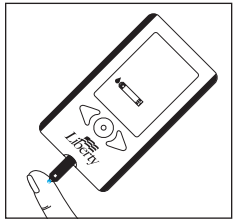
Express Blood Drop
Gently squeeze the lanced site, and wipe away the first blood drop that appears using a clean tissue or paper towel. Squeeze your finger until a second small blood drop forms (approximate size: •).



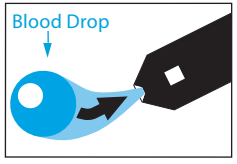
[4] Applying Blood Sample

CAUTION: Be sure not to press the RIGHT or LEFT arrow buttons while applying blood. You might change the calibration code number accidentally.

Bring Test Strip to Blood Sample
Introduce the blood sample in the orientation shown. The test strip fills from the tip. Avoid introducing blood on the top surface of the test strip.

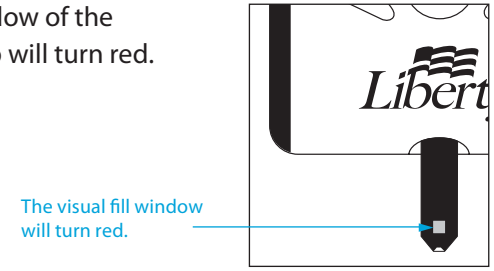


The Liberty™ Test Strip acts like a sponge and draws the blood into the test strip through the sample area.



WARNING: If the visual fill window does not completely fill, you may get an inaccurate result. Retest and ensure that the visual fill window is completely full.

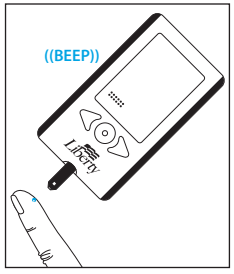
The visual fill window of the Liberty™ Test Strip will turn red.



IMPORTANT:

- Do not press the Liberty™ Test Strip against the test site.
- Do not scrape blood onto the Liberty™ Test Strip.
- Do not apply blood to the top side of the Liberty™ Test Strip.
- Do not apply blood to the Liberty™ Test Strip when the test strip is out of the meter.
- Do not put blood or foreign objects into the Liberty™ strip port.
- Do not apply more blood after beep.
- Carefully read the test results on the screen before making any treatment decisions.

If the volume is enabled in SET Options, the meter will beep once when blood is applied to the Liberty™ Test Strip.



On the display, blood drop symbols appear on the test strip symbol to indicate that blood is filling the Liberty™ Test Strip.

The display shows:

Remove Test Strip from Blood Sample
The beep (if the volume is enabled in SET Options) or the moving dot bar indicates that you can remove your finger from the Liberty™ Test Strip.

As the meter is calculating your results, the 1-2-3 symbol and the graphing area will progressively appear until your results are displayed.

While the meter is calculating your results the display shows:

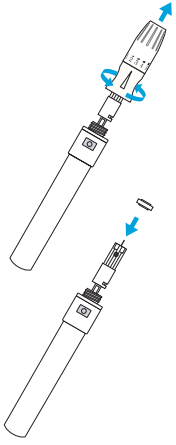
Your test is completed when your blood glucose test result with time and date is shown on the display. If the volume is enabled in SET Options, you will hear a beep. Your test result is now stored in the memory.

[5] Final Steps

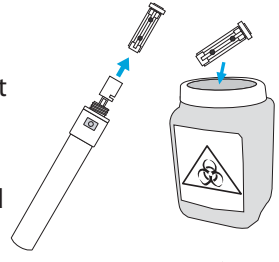
Remove the Test Strip
Remove the used Liberty™ Test Strip and discard properly. The Liberty™ Meter will automatically turn off.

WARNING: The lancing device should only be used by one patient. Do not re-use lancets.

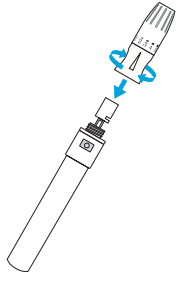
Remove the Lancet
When you have finished testing, unscrew the cap and remove it from the lancing device.



While the lancet is still in the lancing device, replace the lancet cover onto the lancet. You can then safely handle the used lancet.



Extract the lancet from the lancet holder cup by pulling on the plastic collar of the lancet (near the middle of the lancet). Discard the used lancet properly.



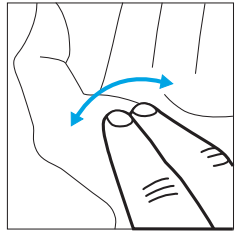
Twist the lancing device cap until it locks into place.

Testing on Your Palm

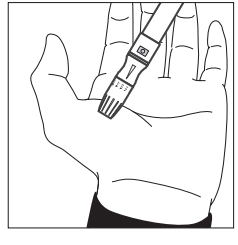
Testing glucose levels with blood obtained from the palm (at the base of the thumb) may reduce the pain of testing. The technique for testing on the palm is slightly different than testing on the finger. Always discuss changes to your testing sites with your physician.

Prepare the Lancing Device
You may need to increase the depth setting of the lancing device to produce a sufficient blood drop.

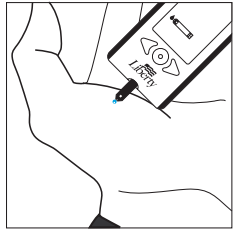
Rub Test Site
To increase the blood flow in your palm, rub the area at the base of your thumb. Ensure that your palm is facing up and held level.



Lance Test Site
Press the tip of the lancing device against your skin on the palm of your hand (at the base of the thumb). Firmly hold the lancing device tip to your palm for 2 seconds before pressing the release button.



Express Blood Drop
After lancing, hold the lancing device against your skin for 2 seconds. Pull the lancing device directly off your palm to ensure that you do not smear the blood drop. Bring the test strip to the blood drop.



IMPORTANT: When testing on the palm (at the base of the thumb), you may require 28 gauge (0.3 mm) Liberty™ Lancets in order to obtain enough blood to perform a test. Consult your physician for a recommendation.

14, 30, and 90 Day Averages

This section covers the steps on how to view your:

- 14 Day Numerical Average / Trend Graph
- 30 Day Numerical Average / Trend Graph
- 90 Day Numerical Average / Trend Graph
- 14, 30, and 90 Day Averages Comparison Graph

The main steps covered in this section are:

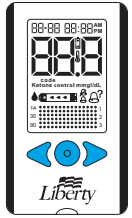
[1] Entering MENU Mode
[2] Entering Memory Options
[3] Viewing MEMORY Test results

The Liberty™ Meter stores the last 300 glucose test results along with the time and date of the test. If the memory is full, the oldest test result will be deleted with each new test result being stored. The Liberty™ Meter calculates the averages from the last 14, 30, and 90 days, starting from the current time and date shown on the meter. Control solution, Hi and Lo test results, out-of-temperature range results and results without a valid time / date are not included in the averages. The averages are displayed as numeric values and trend graphs.

IMPORTANT: Results stored in memory should only be used as a reference. Do not make treatment decisions based solely on stored results. Consult with your physician regarding treatment options.

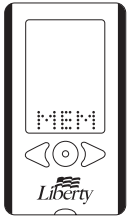
[1] Entering MENU Mode

Press and hold any button for 2 seconds to enter the MENU mode. During the meter system check, all display segments and the display backlight will turn ON.



[2] Entering Memory Option

When the MEM symbol appears, press the CENTER button to enter the Memory option. If display backlight is enabled in SET Options, it will remain ON until timing out.



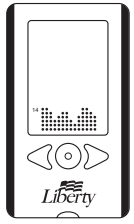
Note: Use the RIGHT or LEFT arrow buttons to scroll through the MENU Mode options (see page 61). To turn OFF the Liberty™ Meter at any time, press and hold the CENTER button for 2 seconds.

[3] Viewing MEMORY Test Results

Viewing 14, 30, and 90 Day Averages and Graphs:
The display shows your 14 day numerical average. It will display the number of glucose test results saved within the last 14 days in the top right corner.

Press the RIGHT or LEFT arrow buttons to view your 14 day trend graph.

You can move from the 14 day trend graph to the 14 day numerical average by pressing the RIGHT or LEFT arrow buttons.

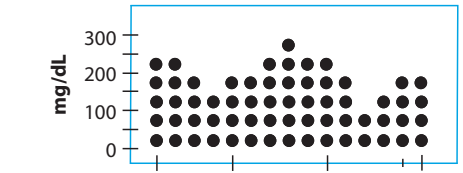


Press the CENTER button to view your 30 day numerical average.

It will display the number of glucose test results saved within the last 30 days in the top right corner.

The 14, 30, and 90 Day Trend Graphs:

When Using mg/dL :

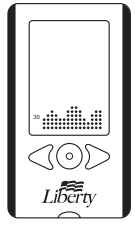


14 day view	1	5	10	14
30 day view	2	10	20	30
90 day view	6	30	60	90

Days

Press the RIGHT or LEFT arrow buttons to view your 30 day trend graph.

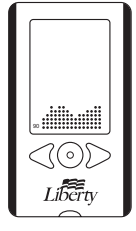
You can move from the 30 day trend graph to the 30 day numerical average by pressing the RIGHT or LEFT arrow buttons.



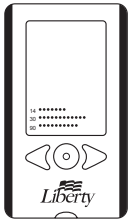
Press the CENTER button to view your 90 day numerical average. It will display the number of results saved within the last 90 days in the top right corner.

Press the RIGHT or LEFT arrow buttons to view your 90 day trend graph.

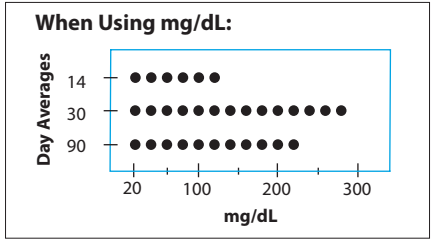
You can move from the 90 day trend graph to the 90 day numerical average by pressing the RIGHT or LEFT arrow buttons.



Press CENTER button to view your 14, 30, and 90 day average comparison graph. The display shows an overview with three trend bars comparing the 14, 30, and 90 days averages. One dot represents 20 mg/dL (1.1 mmol/L).

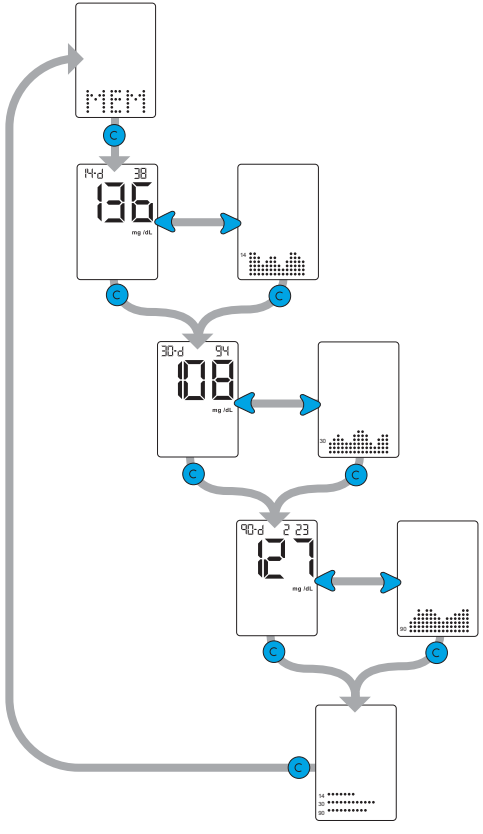


Comparison Graph:



Press CENTER button to return to MENU Mode or press and hold the CENTER button for 2 seconds to turn the meter OFF.

Navigation Summary of Memory:



Time-of-Day Averages and Individual Test Results

This section covers the steps on how to view your:

- Most Recent Glucose Test Result
- 300 Past Individual Glucose Test Results
- Breakfast Average
- Lunch Average
- Dinner Average
- Bedtime Average

The main steps covered in this section are:

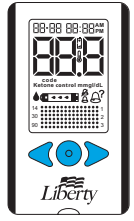
[1] Viewing Time-of-Day Averages
[2] Viewing Individual Test results

The Liberty™ Meter stores the last 300 test results with time and date. If the memory is full, the oldest test result will be deleted and a new test result will be stored in its place. The Liberty™ Meter calculates averages of all the test results during breakfast, lunch, dinner and bedtime. Control solution, Hi and Lo test results, out-of-temperature-range results, and results without a valid date / time are not included in the averages.

Breakfast averages include glucose measurements between 4:00 am and 10:00 am, lunch averages are between 10:00 am and 4:00 pm, dinner averages are between 4:00 pm and 10:00 pm, and bedtime averages are between 10:00 pm and 4:00 am.

[1] Viewing Time-of-Day Averages

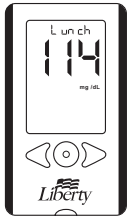
Press any button once when the meter is OFF. During the meter system check, all display segments and the display backlight will turn ON.



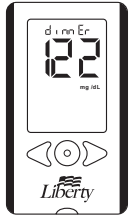
The display shows the most recent glucose test result with the time and date.

Press the RIGHT arrow button. The display now shows your breakfast average.

Press the RIGHT arrow button. The display now shows your lunch average.



Press the RIGHT arrow button. The display now shows your dinner average.



Press the RIGHT arrow button. The display now shows your bedtime average.

Note: To move to between viewing the different Time-of-Day Averages, press the LEFT or RIGHT buttons. To return to the most recent test result, press CENTER button. To turn OFF the Liberty™ Meter, press and hold the CENTER button for 2 seconds.

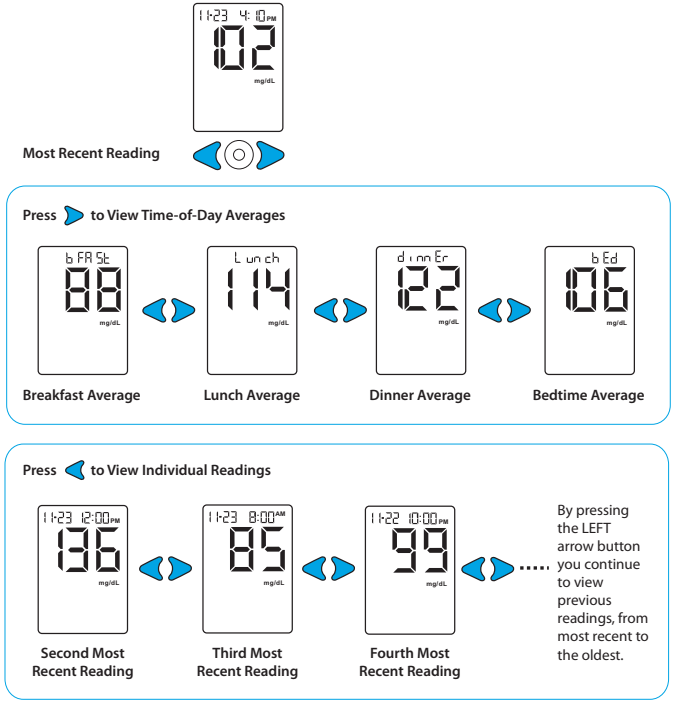
[2] Viewing Individual Results (most recent to oldest)

Press and release any button. All of the segments will flash briefly, and then the display will show the most recent glucose test result with the time and date.

Use the LEFT arrow button to view every test result, starting from the most recent and ending with the oldest.

Note: At any point, press CENTER button to return to the most recent test result. To turn OFF the Liberty™ Meter, press and hold the CENTER button for 2 seconds.

Navigation of Time-of-Day Averages and Individual Glucose Test Results:



Note: Pressing the CENTER button at any point will bring you back to the most recent reading.

CAUTION: Low or high blood glucose test results can indicate a potentially serious medical condition. Follow your physician's recommendations.

LO MESSAGE

Lo — Flashing message, with double beep (if volume is enabled in SET Options)

MEANING: Glucose test result is lower than 20 mg/dL (1.1 mmol/L). This Lo result may indicate hypoglycemia (low blood glucose). The Lo result is stored in the memory with time and date.

ACTIONS: If you feel symptoms such as weakness, sweating, nervousness, headache or confusion, follow your physician's recommendations.

If you get a Lo glucose test result but have no symptoms of low blood glucose, then retest with a new Liberty™ Test Strip. If you still get a Lo test result, follow your physician's recommendations.

HI MESSAGE

Flashing message, with double beep (if volume is enabled in SET Options)

MEANING: Glucose test result is above 600 mg/dL (33.3 mmol/L). This Hi result may indicate hyperglycemia (high blood glucose). The Hi result is stored in the memory with time and date.

ACTIONS: If you feel symptoms such as fatigue, thirst, excessive urination, or blurry vision, you should contact your doctor. Follow your physician's recommendations.

If you get a Hi glucose test result but have no symptoms of high blood glucose, then retest with a new Liberty™ Test Strip. If you still get a Hi glucose test result, you should contact your doctor. Follow your physician's recommendations. Checking ketones may be advisable.

HYPOGLYCEMIC WARNING ALARM

Test result flashes, with double beep (if volume is enabled in SET Options)

MEANING: If the Hypoglycemic Warning Alarm is set, your glucose test result is lower than the pre-set limit.

HYPERGLYCEMIC WARNING ALARM

Test result flashes, with double beep (if volume is enabled in SET Options)

MEANING: If the Hyperglycemic Warning Alarm is set, your glucose test result is higher than the pre-set limit.

KETONE MESSAGE

Flashing message, with double beep (if volume is enabled in SET Options)

MEANING: The result of the glucose test is higher than 240 mg/dL (13.3 mmol/L).

ACTIONS: You should check ketones. Follow your physician's recommendations.

TEMPERATURE MESSAGE

Flashing message, with double beep (if volume is enabled in SET Options)

MEANING: The test has been performed outside the operating temperature range.

ACTIONS: Move to an area with an ambient temperature of 50° F to 104° F (10° C to 40° C). Wait for the meter and test strips to reach the new temperature (usually 10-20 minutes) and retest.

LOW BATTERY MESSAGE

Flashing message

MEANING: The battery in your meter is low.

ACTIONS: If the battery symbol appears, the batteries must be replaced (see Batteries Section beginning on page 76). If the battery symbol appears, the backlight will be disabled in all modes.

Alarms

The main steps covered in this section are:

[1] Entering MENU Mode
[2] Entering Alarm Option
[3] Turning Alarms ON or OFF
[4] Setting Alarm Times
[5] Setting Alarm Volumes
[6] Setting Multiple Alarms

There are 6 alarms you can set to remind you when to test your glucose levels.

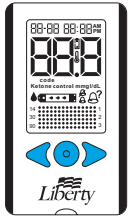
When alarms are activated:

- If an alarm is set and the Liberty™ Meter is turned OFF, the alarm will turn the meter ON. “AL1” through “AL6” (depending on which alarm is set) is displayed. The display backlight flashes, and the meter will beep repeatedly for 15 seconds.
- You can turn the alarm OFF by pressing any button.
- The alarms will not appear during Menu and Test Modes. If an alarm is set to go off when using these modes, it will be activated after the meter is turned OFF.

CAUTION: Follow your physician's recommendations on when and how often to test your glucose.

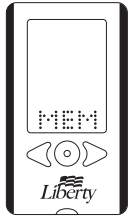
[1] Entering MENU Mode

Press and hold any button for 2 seconds to enter the MENU mode. During the meter system check, all display segments and the display backlight will turn ON.



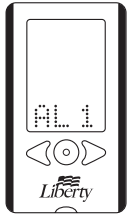
[2] Entering Alarm Option

The MEM symbol appears.



Press the RIGHT or LEFT arrow buttons until the alarm you want to set is displayed (AL1 to AL6). If this is your first time setting an alarm, use AL1.

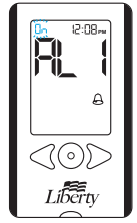
Press CENTER button to select an alarm to set.



[3] Turning Alarms ON or OFF

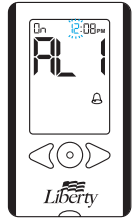
Note: When setting an alarm, your selections will be highlighted by a blinking symbol.

Press the RIGHT or LEFT arrow buttons to enable (ON) or disable (OFF) the alarm. The default setting is OFF. Confirm your selection by pressing CENTER button.

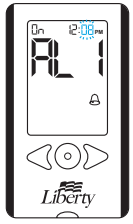


[4] Setting Alarm Times

You can now set the time. First, set the hour by pressing the RIGHT or LEFT arrow buttons. Accelerated change is possible by holding down the arrow buttons. Press the CENTER button to confirm the desired hour and to move on to set the minutes.



Set (minutes) by using the RIGHT or LEFT arrow buttons. Accelerated change is possible by holding down the arrow buttons. Press the CENTER button to confirm the alarm time and to move on to set the alarm volume.



[5] Setting Alarm Volumes

Choose the volume of the alarm. There are three volume options. For the silent alarm option, the meter's screen will flash when an alarm goes off.

The default alarm setting is "high". Select your preferred setting by using the RIGHT or LEFT arrow buttons. Confirm your selection by pressing the CENTER button. This will also bring you back to the MENU Mode.

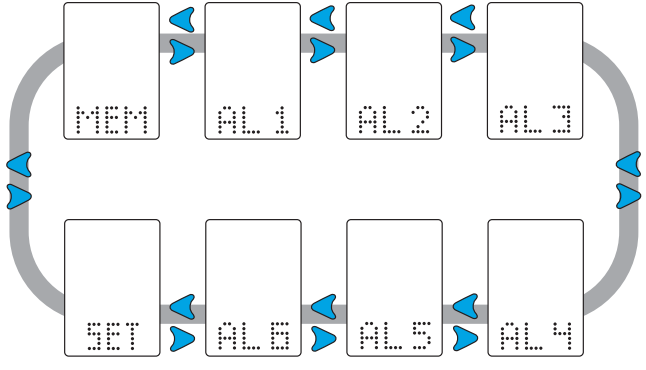
Note: The volume of an alarm can be changed by way of the meter's setting option in the SET mode. If your meter is set to silent mode, then the alarm will not sound, regardless of the individual alarm setting. Also, if your meter is set to low volume mode, then an alarm set for high volume will default to low volume mode.

[6] Setting Multiple Alarms

To set other alarms, press the RIGHT or LEFT arrow buttons until the alarm you want to set (AL1 to AL6) is displayed. Follow the same instructions beginning on page 57.

To power OFF the meter, press and hold the CENTER button for 2 seconds. After 3 minutes of no user interaction, the meter shuts OFF automatically.

Navigation of MENU Mode:



Settings

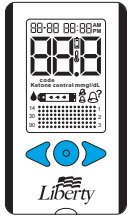
The main steps covered in this section are:

[1] Entering MENU Mode
[2] Entering SET Option
[3] Setting Meter Volume
[4] Setting Backlight Option
[5] Setting Time Format and Time
[6] Setting Date
[7] Setting Hypo Limit
[8] Setting Hyper Limit

Note: If you want to power OFF the meter at any time, press and hold the CENTER button for 2 seconds. After 3 minutes of inactivity, the meter shuts OFF automatically.

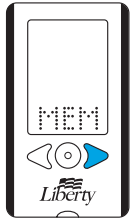
[1] Entering MENU Mode

Press and hold any button for 2 seconds to enter the MENU mode. During the meter system check, all display segments and the display backlight will turn ON.

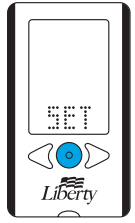


[2] Entering SET Option

The MEM symbol will appear. If display backlight is enabled in SET Options, it will remain ON until timing out.

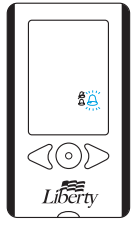


Press the RIGHT arrow button until the SET symbol is displayed. Press the CENTER button.



[3] Setting Meter Volume

There are three beep volume options. The default setting is “high”.



Select the preferred volume setting with the RIGHT or LEFT arrow buttons. Your selection will be highlighted by the blinking of the symbol. Press the CENTER button to confirm your selection.

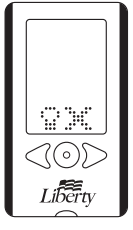
Continue to set the MENU Mode Backlight option.

[4] Setting Backlight Option

You can only enable and disable the backlight. The default setting for the backlight is disabled. The changed status of the backlight will be activated immediately.

Note: Disabling the backlight in the SET menu also disables backlight for alarms.

Select the preferred setting with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and continue on to set the Time Format and Time.



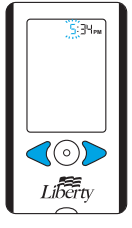
[5] Setting Time

How to Get to the Time Menu:

- Press and Hold any button to reach the menu mode. The screen will display MEM.
- Press the LEFT arrow once and you will see a screen that says SET.
- Press the CENTER button repeatedly to skip the Volume and Backlight settings. When you see a screen with the message 12H, you are ready to set the meter's time.

Select a 12 or 24 hour clock format with the RIGHT or LEFT arrow buttons.

The 12 hour clock display option is indicated by a 12H. The 24 hour clock display option is indicated by a 24H. Your selection will be highlighted by the blinking of either the 12H or 24H symbols.



Press the CENTER button to confirm your selection and proceed to the hour setting.

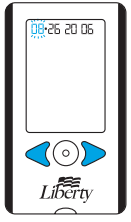
Set the hour (flashing) with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and continue on to set the minute.

Set the minute (flashing) with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and continue on to set the date.

Note: Accelerated change is possible by holding down the arrow buttons.

[6] Setting Date

Set the month (flashing) with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and continue on to the day setting.



Set the day (flashing) with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and move on the year setting.

Set the year (flashing) with the RIGHT or LEFT arrow buttons. Press the CENTER button to confirm and continue on to set the Hypo Limit.

Note: Accelerated change is possible by holding down the arrow buttons.

[7] Setting Your Hypoglycemic Warning Alarm

The Hypoglycemic Warning Alarm alerts you when your glucose test results are below the hypoglycemic limit that you have set. When your glucose test results are below your set hypoglycemic limit, the date, time and result will flash on the display.

Set the Hypoglycemic Limit ON or OFF by using the RIGHT or LEFT arrow buttons. Your selection will be highlighted by the blinking of the ON or OFF symbol. Press the CENTER button to confirm your selection.

Set the Hypoglycemic Limit (flashing) with the RIGHT or LEFT arrow buttons. Press CENTER button to confirm and continue on to set the Hyper Limit.

Note: Accelerated change is possible by holding down the arrow buttons.

CAUTION: Consult your physician for a recommendation on your hypoglycemic limit.

[8] Setting Your Hyperglycemic Warning Alarm

The Hyperglycemic Warning Alarm alerts you when your glucose test results are above the hyperglycemic limit that you have set. When your glucose test results are above your set hyperglycemic limit, the date, time and result will flash on the display.

Set the Hyperglycemic Limit ON or OFF with the RIGHT or LEFT arrow buttons. Your selection will be highlighted by the blinking of the symbol. Press CENTER button to confirm your selection.

Set the Hyperglycemic Limit (flashing) with the RIGHT or LEFT arrow buttons. Press CENTER button to confirm. This will bring you back to MENU Mode at the SET options.

Note: Accelerated change is possible by holding down the arrow buttons.

CAUTION: Consult your physician for a recommendation on your hyperglycemic limit.

Error Messages and Troubleshooting

The Liberty™ Blood Glucose Monitoring System has been designed to work accurately under most usual conditions. On rare occasions, the meter will display an error message instead of a glucose result. The Liberty™ system is able to detect specific problems which may allow you to determine the cause of the error without wasting valuable test strips.

When you are presented with an error message, check for common problems that may explain the source of the error.

Two common errors are listed below:

- The meter may return an error code if it is being used near electrical equipment (like a power generator or a computer monitor).
- If the meter rattles when shaken, there may be a broken component inside the meter which may cause error messages. In this case, call customer service.

Error 1

Problems have occurred that are related to test strip use.

- If this message appears the moment the test strip is inserted, the test strip may be wet or damaged.
- If the message appears during a test, the test strip may have been removed too early.
- If this message appears after the last progress bar instead of a result, it may indicate that you applied more blood after testing began.

Error 2

The meter has detected an irregularity with the sample.

- The test strip may be partially filled; you should check the window of the test strip to confirm that it is full.
- The sample may not be blood or control solution.
- You may have entered the wrong calibration code.

Error 3

The meter has detected that the test strip is in poor condition.

- The test strip may have been improperly stored (e.g. hot, humid conditions) or may be expired.
- The test strip may have been mishandled by vigorous bending or shaking.
- Parts of the test strip may have become covered in grease, oil, or lotion.
- The strip port connector may be dirty.

Error 4

Unusual test strip problems have occurred that may be related to extreme conditions.

- Retest where it is closer to a room temperature of 70° F to 75° F (21° C to 24° C).

Error 5

The meter was unable to produce a reliable result.

- This may be caused by a non-blood sample, or a combination of high glucose and other medical conditions.
- If this error code persists on retesting, consult your physician.

Error 6

The test strip has taken too long to generate a signal.

- This may be caused by a combination of cold operating temperature and high hematocrit levels. Retest in a warmer location.
- If this error code persists on retesting, consult your physician.

Error 7

Meter problems have occurred that are beyond your control

- Contact customer service for assistance.

Troubleshooting Situation #1

Meter does not enter the TEST Mode after inserting a Liberty™ Test Strip.

CAUSE #1: The batteries have insufficient power.
ACTION: Replace the batteries, set time and date, and test.

CAUSE #2: The batteries are installed incorrectly or there are no batteries in the meter.
ACTION: Check that both batteries are installed correctly, with the positive (+) sign facing up towards you.

CAUSE #3: Liberty™ Test Strip has been inserted upside down, wrong end in, or incompletely inserted into the meter.
ACTION: Insert the Liberty™ Test Strip with the black side up and the contact bars of the test strip in the meter.

CAUSE #4: Defective meter or defective Liberty™ Test Strips.
ACTION: Call customer service.

CAUSE #5: Blood or foreign objects put into the Liberty™ Meter strip port.
ACTION: Call customer service.

Troubleshooting Situation #2

The glucose test sequence does not start after applying the blood sample.

CAUSE #1: Defective test strip.
ACTION: Repeat the test with a new Liberty™ Test Strip. If this does not work, call customer service.

CAUSE #2: Sample applied after meter times out and turns OFF.
ACTION: Repeat the test using a new Liberty™ Test Strip. Wait until you see the blood and test strip symbols on the display screen before you apply the blood sample.

CAUSE #3: Defective meter.
ACTION: Call customer service.

Batteries

Your Liberty™ Meter comes with two pre-installed, CR2032, 3 volt, lithium batteries.

If your batteries run low, the battery symbol flashes until you change the batteries. The backlight is automatically disabled in all modes when the battery symbol is on.

When changing batteries the current time and date settings will be reset to 01-01 12:00. The correct time and date settings are needed to get correct averages (see pages 62-67).

Removing the batteries does not affect the meter's memory or previously stored user settings, such as those set in SET Options (e.g. calibration code, alarms, etc.).

If a battery is installed incorrectly it will damage the other battery in the meter. If this happens discard both batteries.

CAUTION: When the battery symbol appears, you should replace the batteries immediately. Only use CR2032 batteries.

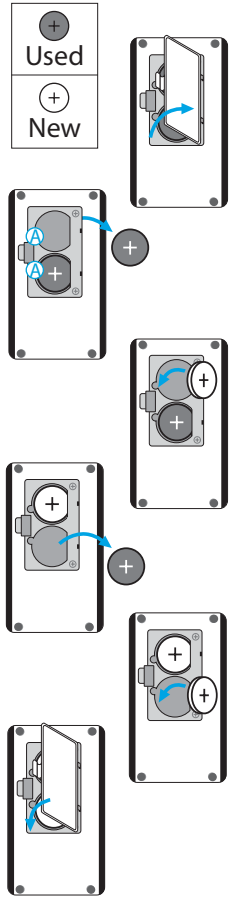
Replacing the Batteries

Open Battery Door
Make sure the meter is powered OFF. Turn the meter so you are looking at the battery door. Press the battery door clip to open. Remove the battery door. Be careful not to misplace the battery door.

Remove and Install 1st Battery
To remove the used battery, use a non-metallic tool at point A to pop out the battery. Install the new battery with the positive (+) sign facing up towards you.

Remove and Install 2nd Battery
Repeat previous step for the 2nd battery.

Close Battery Door
To close, angle the battery door back onto the meter and swing down until it snaps gently into place. Make sure that the battery door is completely closed before using.



Caring For Your Meter and Lancing Device

When using your meter, avoid getting dirt, dust, blood, control solution, water, or any other liquid into the strip port.

Clean the outside of the meter or the lancing device using a cloth dampened with mild detergent or mild soap.

If you wish to clean the lancing device cap only, remove the cap, wash it in warm water, rinse well, and dry.

CAUTION: Never immerse the meter or the body of the lancing device in water or any other liquid solution.

Specifications

- **Assay Method:** Electrochemistry
- **Altitude:** 10,000 ft
- **Calibration:** Plasma equivalent
- **Sample:** Whole blood, capillary
- **Sample Size:** 0.5 microliters
- **Glucose Test Time:** Minimum of 4 seconds*
- **Measurement Units:** mg/dL
- **Alarms:** 6 daily programmable alarms
- **Result Range:** 20 to 600 mg/dL (1.1 to 33.3 mmol/L)
- **Hematocrit:** 20% to 60%
- **Operating Relative Humidity:** Up to 90%
- **Operating Temperature:** 50 °F to 104 °F (10 °C to 40 °C)
- **Test Strip Storage Temperature:** 46 °F to 86 °F (8 °C to 30 °C)
- **Control Solution Temperature**: 36 °F to 86 °F (2 °C to 30 °C)
- **Memory:** 300 blood glucose and control solution test results with date, time, and averaging (14, 30, 90 days and time-of-day)
- **Power Source:** Two CR2032, 3 volt, lithium batteries, replaceable
- **Automatic Shutoff:** 3 minutes after last user action
- **Size:** Width 1.6" x Length 2.8" x Height 0.6" (4.4 cm) x (7.7 cm) x (1.5 cm)
- **Weight:** 44.1 g (including batteries)

* In some conditions, test may take as long as 12 seconds.

Symbols

The following symbols may appear on the equipment packages or in the documents:

Storage Temperature

***In Vitro* Diagnostic Medical Device**

Consult Instructions

Do not reuse

Batch Code

Use By

Manufactured By

SN

Serial Number

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My Liberty™ Meter and Target Ranges

Meter Serial Number: _____

Software Version: _____

Time of Day	Glucose Ranges for People Without Diabetes (mg/dL)	Your Target Ranges (mg/dL)
Before Meals	70 – 110	
1 Hour After Meals	Less than 160	
2 Hours After Meals	Less than 120	
Between 2 am and 4 am	Greater than 70	

Source: ADA Clinical Practice Recommendations 2003

Important Phone Numbers

Physician: _____

Pharmacist: _____

Certified Diabetes Educator: _____

Other: _____

Liberty™ Customer Service Toll Free: 1 (877) 542-3610