MultiCare™

Thank you for your purchase of MultiCare analyzer!

This User Instruction Guide contains all the information needed to use the analyzer and keep it ready to operate. Please read this User Instruction Guide carefully before using the analyzer. Familiarize yourself with the required preparations and the measurement procedure before performing the first measurement. Also read the package insert of the test kits to be used for the planned test.

The packaging materials, labels and instruction for use for MultiCare Analyzer may contain the following symbols or abbreviations which are listed below with their meaning:

Symbols

	Crossed out wheeled bin: To discard it separately from other household waste
	Caution, consult accompanying documents
	Consult instructions for use
	In vitro diagnostic medical device This system is intended to use outside the body (in vitro diagnostic use).
	Manufacturer
	Reference number
	Date of manufacture: To indicate the date of manufacture for this analyzer
	Serial number for this analyzer.
	Batch code: To indicate the lot number for this system
	To indicate the temperature limitations in which the transport package has to be kept and handled
	Use by / Expiry date
	Contains Sufficient for <n> Tests
	This product fulfills the requirements of Directive 98/79/EC on in vitro diagnostic medical devices.

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CHAPTER 1.
Understanding Your New Analyzer

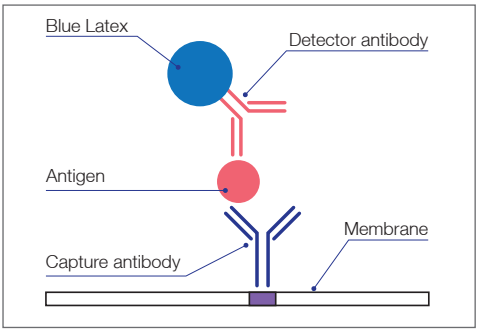
1. Intended Use

The MultiCare System is a reflectometry immunoassay instrument for the quantitative measurement in human blood, urine and other specimens. This system is for *in vitro* diagnostic use and professional use in hospital and clinic.

2. Test Principle

The MultiCare System is based on a reflectometry and immunoassay technology. MultiCare Analyzer is a reflectometry scanning instrument to be used in conjunction with the various MultiCare Test Kits which are based on antigen-antibody reaction. MultiCare Analyzer uses the optic sensor to measure the reflected light from the membrane of the test panel as the quantity source.

The specimen from human should be processed for the preparation using the components of the MultiCare Test Kit. When applying the sample mixture to the test panel, the complex will be formed on the membrane as the result of the antigen-antibody reaction. The intensity of the reflected light is scanned and converted into an electric signal which is proportional to the intensity of reflected light produced on the membrane. The MultiCare Analyzer can calculate the concentration of the analyte in the clinical specimen based on a pre-programmed calibration and display the test result on the screen.



3. Before You Start Testing

CAUTION
Carefully read and follow the instructions in all labeling material related with the MultiCare System. It is very important to follow the instructions in order to prevent an inaccurate result or improper treatment.

Samples
The sample type of the MultiCare System is different according to the specific parameter you want to measure. Please refer to each test kit insert.

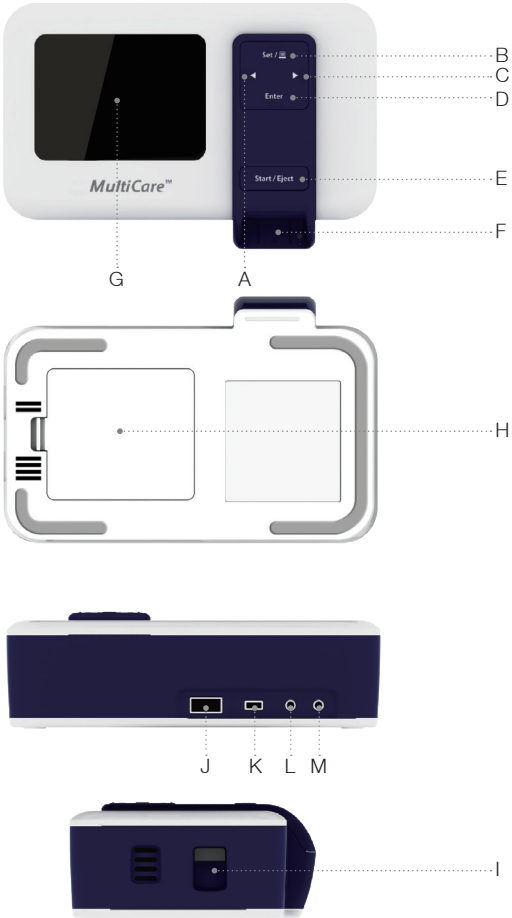
Operating Conditions
To ensure proper function of the MultiCare System, observe the following guidelines:

- MultiCare System is only for *in-vitro* diagnositc use.
- Place the analyzer on a level surface.
- Strong electromagnetic fields may impair the function of the analyzer. Do not use the analyzer close to sources of strong electromagnetic radiation.
- The analyzer's air vents must be free for air to flow. (Do not cover the air vents.)
- If the analyzer causes a sudden malfunction, unplug the AC adapter from the outlet.

4. MultiCare Analyzer

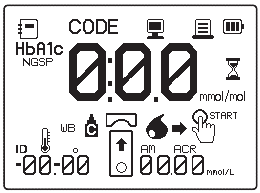
Model Name	MultiCare Analyzer
Check Strip	SDB MultiCare Check Strip
Power	**Battery:** Four Batteries (1.5 V, AA type) **AC Adapter:** Input - AC100-240V, 50/60Hz (Voltage tolerance ±10%) Output - 5V/2A
Power Consumption	Max 2W
Over Voltage Category	II
Pollution Degree	II
Reference Number	03MA10
	03MA20 *Bluetooth function*

Overview of MultiCare Analyzer



A. Left Button	Use it when reviewing the memory or searching the setting value in the setting mode
B. SET/PRT Button	Press to set the analyzer or print the test result
C. Right Button	Use it when reviewing the memory or searching the setting value in the setting mode
D. Enter Button	Press to go to the next step in the setting mode
E. Start/Eject Button	Press to start a measurement or quit a measurement and eject the test panel
F. Test Panel Slot	Part for inserting a test panel into an analyzer
G. LCD Display	Shows test results, messages, and test results stored in memory
H. Battery compartment lid	Provides access to the battery compartment (4 AA 1.5V alkaline batteries)
I. Code-chip slot	Location for inserting a code chip
J. Barcode reader port	Connect to external barcode reader (If you have a SD BIOSENSOR Barcode Reader)
K. USB cable Port	Connect a PC with a USB cable for the communication (Download test results to a PC)
L. Printer port	Print test results to external thermal printer (If you have a STANDARD™ Thermal Printer)
M. AC Jack port	Connect power supply adapter 5V/2A.

Display of MultiCare Analyzer



The symbols in the display have the following meanings:

HbA1c CRP U-ALB Lipid Profile	Indicate the parameter • HbA1c : HbA1c • CRP : CRP • U-ALB : U-Albumin • Lipid : Lipid Profile	NGSP IFCC mono-S JDS	Unit of the glycated hemoglobin
CODE	Indicate the code	SET	Indicate the setting mode
	Processing		Indicates the beep sound
	Communication with a PC		Printing
START	Indicate pressing the start button		Indicate the operating temperature is out of the range.
% mmol/mol mmol/L mg/dL mg/L	Unit of a test result for all parameter	AM PM	Indicate the time format
	Capacity of batteries		Indicate the connection with adapter
ID -00-00	Display; • ID number • Date • Temperature	eAG	Estimated average glucose
		C	Control Test
0:0.0	Display; • Test result • Hi/Lo message • Setting value • Code number • Index number • Counting the testing time	00.00	Display; • Time • Estimated average glucose value
WB S/P	Indicate the sample type • WB: whole blood • S/P: Serum/Plasma		Indicate the clinical specimen

5. Power Supply

A 5V/2A AC power adapter or 4 AA alkaline batteries can be used. The analyzer saves battery power by automatically turning off after 1 minute without inserting a test panel or from non-use.

When the batteries are dead or the connection between the analyzer and adapter is failed, the analyzer can still retain the test results stored in the memory and the setting values except date and time. They will be maintained until your analyzer turns back on.

When the analyzer turns itself off, all test results obtained so far remain in the memory. With a set of fresh batteries, you will normally be able to perform at least 200 measurements. When the battery warning is displayed for the first time, approximately 10 measurements can still be performed. In this case, replace the batteries as soon as possible.

Please respect the environment and dispose of used batteries according to your local regulations and laws.

CAUTION
If the MultiCare Analyzer is not connected with the AC adapter or does not have the batteries, the set time of the analyzer will stop. After supplying the power with the AC adapter or batteries, a user should set the actual time according to the setting steps.

6. Components

Check Strip

This is for checking the malfunction of the optic sensor in the analyzer.

CHAPTER 2.
Testing the MultiCare Analyzer

1. Operating the Analyzer

Before using the analyzer for the first time, perform the following steps:

STEP 1. Insert four batteries or connect the AC adapter jack.

STEP 1-1. Insert four batteries

1) Ensure the analyzer is switched off and turn it over.
2) Open the battery compartment lid by slightly pressing the tab towards the center of the analyzer.
3) Lift the lid upwards to remove it from the analyzer.
4) Insert four batteries into the compartment. Please note the orientation of the "+" (battery head) and "–" terminals (flat end). Use only alkaline batteries (1.5 V, AA).

NOTE

- If you think the display screen does not appear for long enough, you can hold down the Enter button (the next time you switch on the analyzer). The display screen is shown during the time while the button is pressed.
- After inserting or replacing batteries, confirm that the time and date are set correctly. If they are not, reset the analyzer before testing.

NOTE

Always replace all four batteries at the same time, because the different capacities of batteries cause the analyzer to malfunction. Do not use rechargeable batteries.

5) Close the battery compartment lid.
6) Turn the analyzer on to test the functionality of the new batteries.
7) Check that the display is functioning correctly to prevent misinterpretations due to defective display elements.

STEP 1-2. Connect AC Adapter Jack

1) AC adapter is not provided with MultiCare. Power supply adapter 5V/2A must be used.
2) Connect the AC adapter jack to the AC jack port in the back of the analyzer.

STEP 2. Set the Analyzer.
The following table provides an overview of the available settings.

Stage	Setting	Option
1	Beep	On, Off
2	Year	YYYY
3	Date Format	m-d, d-m
4	Date (Month & Day)	mm-dd, dd-mm
5	Time Format	12h, 24h
6	Time	Hour &Minute
7	Auto Printing	On, Off
8	Printing Page	P-1, P-2
9	HbA1c Unit	NGSP, IFCC, mono-S, JDS
10	eAG Unit	mg/dL, mmol/L
11	Lipid Unit	mg/dL, mmol/L
12	Bluetooth with PC *	On, Off
13	Bluetooth with Printer *	On, Off
14	Re-pairing with Printer *	On, Off

*Only for 03MA20 (Bluetooth supported model)

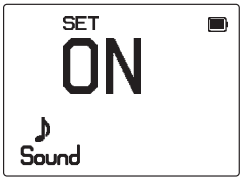
Stage 0. Entering Set Mode

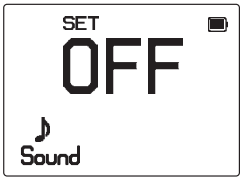
1) Press the SET/PRT button (on the top side of the analyzer) for three seconds to enter the setting mode after turning an analyzer on or at the standby state. If you want to leave the setting mode (this is only possible if a date and time setting is made), press the SET/PRT button shortly.
2) If the displayed setting is done, you can continue directly to the next step by pressing the Enter button.
3) Press the left (◄) or right (►) button to change the currently flashing setting. You can press the left (◄) or right (►) button as much as you need(or keep pressing it) to reach the desired setting(value).
4) Press the Enter button again to confirm (store) the current setting and go to the next step. You can only move forward through the setting mode. Moving backwards is not possible. Corrections can only be made by repeating the settings. The setting procedure can be terminated at any time by pressing the SET/PRT button. The settings made up to that point will be stored.

Stage 1. Setting - Beep

In the first stage, you set the Beep function.

1) If you enter the setting mode, the first step of the setting mode, Beep will appear.
2) Set the beep on or off by pressing either the left (◄) or right (►) button and then select the preferred feature by pressing the Enter button. If you select the beep on feature, a 'beep' sound will be made at the same time; otherwise, if you select the beep off feature, no sound will be made.

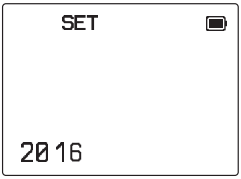


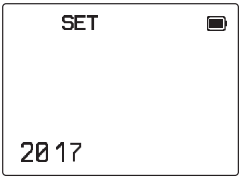


Stage 2. Setting – Year

In the second stage, you set the Year in the Date & Time setting.

After setting Beep, the display for setting the Year will appear. Set the correct year by pressing the left (◄) or right (►) button and then select the correct year by pressing the Enter button.

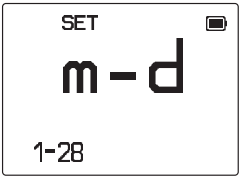


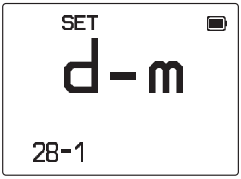


Stage 3. Setting – Date Format

In the third stage, you set the Date Format.

The analyzer can display the month and day in either Month-Day (m-d) format or Day-Month (d-m) format. Set the preferred format by pressing either the left (◄) or right (►) button and select by pressing the Enter button.

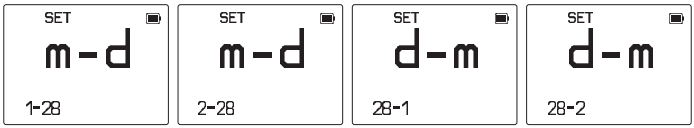




Stage 4. Setting – Date

In the fourth stage, you set the Date in Date or Month.

After setting the Date Format, set the correct month or day by pressing either the left (◄) or right (►) button and select by pressing the Enter button.



Stage 5. Setting – Time Format

In the fifth stage, you set the Time Format in the Date & Time setting.

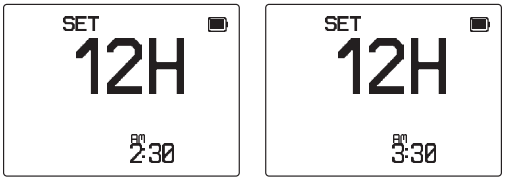
The analyzer can display the time in either 12h format or 24h format. Set the preferred format on the display by pressing either the left (◄) or right (►) button and select by pressing the Enter button.

Stage 6. Setting – Time

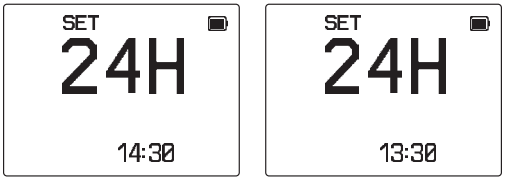
In the sixth stage, you set the Time, the current hour and minutes.

Set the hour and minute by pressing either the left (◄) or right (►) button and select by pressing the Enter button.

1) 12h Format
   Sub-step 1) Set AM or PM
   Sub-step 2) Set hour (1 to 12)
   Sub-step 3) Set the minute (1 to 59)

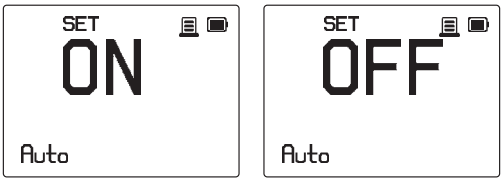


2) 24h Format
Sub-step 1) Set the hour (1 to 24)
Sub-step 2) Set the minute (1 to 59).



Stage 7. Setting – Auto Printing

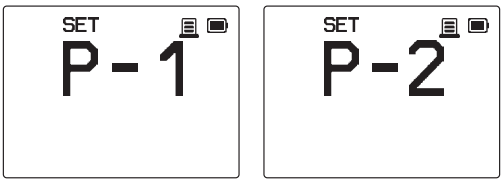
In the seventh stage, you set the Auto Printing function. Following the Time setting, the display for the Auto Printing function will appear. Set the Auto Printing function, 'On' or 'Off' by pressing either the left (◄) or right (►) button and then select the preferred feature by pressing the Enter button.



NOTE
The Auto Printing function is for printing the result right after testing.

Stage 8. Setting – Printed Sheets

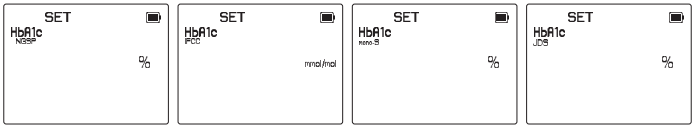
In the eighth stage, you set the printed sheets. After the Auto Printing function setting, the display for setting the printed sheets will appear. Set the preferred feature by pressing the left (◄) or right (►) button. And then, select the function by pressing the Enter button.



NOTE
If you select the 'P-1', you can get only one sheet including the test result. If you select the 'P-2', you can get two sheets including the test result.

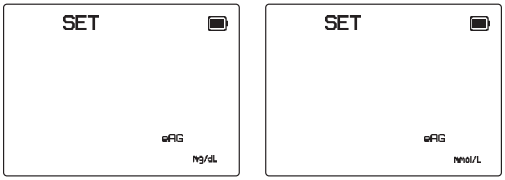
Stage 9. Setting – HbA1c Unit

In the ninth stage, you set the unit of the test results for the HbA1c.
Set the preferred unit by pressing either the left (◄) or right (►) button and select by pressing the Enter button.



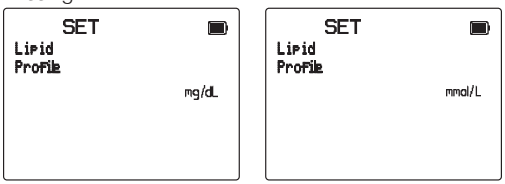
Stage 10 Setting – eAG Unit

In the tenth stage, you set the unit of the estimated average of the blood glucose. Set the preferred unit by pressing either the left (◄) or right (►) button and select by pressing the Enter button.



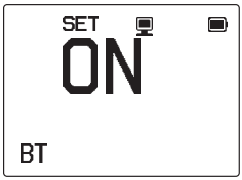
Stage 11 Setting – Lipid unit

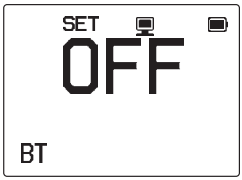
In the eleventh stage, you set the unit of test results for the Lipid.
Set the preferred unit by pressing either the left (◄) or right (►) button and select by pressing the Enter button.



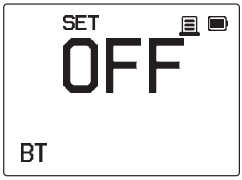
NOTE
If you have the MultiCare Analyzer (03MA10, standard model) the analyzer will display a test panel standby state automatically. The below setting stages are for the MultiCare Analyzer (03MA20, bluetooth supported model) for the Bluetooth function.

Stage 12. Setting – Bluetooth with PC
In the twelfth stage, you can set the Bluetooth communication with your PC or smartphone. If the analyzer is paired with the PC or smartphone, the test results are transferred automatically via Bluetooth. After the setting of lipid unit, the Bluetooth setting will appear on the screen. Select it on or off by pressing the left (◄) or right (►) button, and then save it by pressing the Enter button.





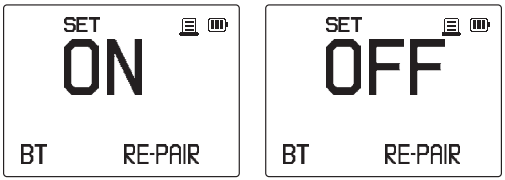
Stage 13. Setting – Bluetooth with Printer
In the thirteenth stage, you can set the Bluetooth communication with a printer. After setting the Bluetooth with a PC, the Bluetooth and printer icons will appear on the screen. Select ON or OFF by pressing the left (◄) or right (►) button, and then save it by pressing the Enter button.



NOTE
If you set both auto-printing and Bluetooth with printer to ON, you can get the test results printed automatically via the Bluetooth communication.

Stage 14. Setting – Repairing the Printer

In the fourteenth stage, you can set the analyzer to be automatically paired with the previous paired printer, whenever the printer is near the analyzer. After the Bluetooth with printer setting, the repairing setting will appear on the screen.Select ON or OFF by pressing the left (◄) or right (►) button, and then save it by pressing the Enter button. If you select it ON, the analyzer search another printer near the analyzer when not searching the previous paired printer. If you select it OFF, the analyzer does not search another printer and complete the printing.



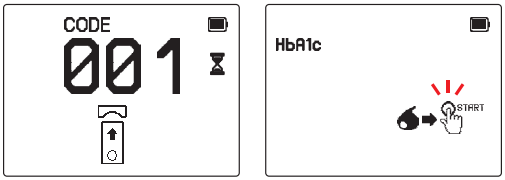
STEP 3. Insert a Code Chip

Coding

The code chip is included in the test kit package. The code chip provides the analyzer with important information on the production-specific properties of each test kit in order to measure your results accurately. Before you use your analyzer with a new test kit for the first time, you should check that the code number between the analyzer and test kit are the same.

Code Setting

1) Make sure the analyzer is turned off. Remove the old code chip if one is installed.
2) Insert a new code chip until it snaps into place.
3) Turn the analyzer ON and insert the test panel. The code number will appear and this number must match the code number provided on the test kit box. If it does not, repeat steps 1 and 2 above.



ex) Inserting test panel after inserting the code chip for HbA1c

CAUTION

- Do not forget to insert the code chip that is supplied with each test kit box.
- Each code chip belongs to one particular test kit box. Store the test kit together with the code chip in the box.

2. Preparing a Measurement

Materials required for testing

- MultiCare Analyzer
- Sample Collection tool
- MultiCare Test Kit

CAUTION

Use only MultiCare Test Kits. Using other test kits with this analyzer can cause inaccurate results.

Precaution

[ALWAYS]

- Read the appropriate test kit insert.
- Place the analyzer on a level surface.
- Keep the surrounding test site area tidy and clean.
- Make sure that all display elements are displayed.

[NEVER]

- Never touch or remove the inserted test panel during an actual measurement.
- Never subject the analyzer to sudden movements during a measurement.
- Never store the analyzer under humid or damp conditions without suitable protection.
- Never use test kits beyond the expiration printed on test kit.
- Never reuse the test kit applied either clinical specimen or control solution.

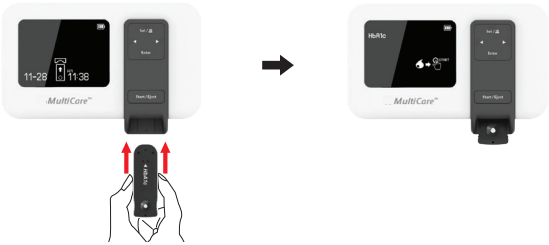
CAUTION

Not following these precautions can lead to inaccurate results.

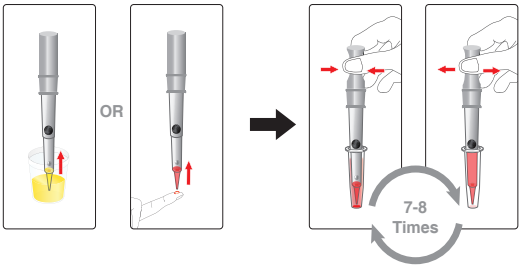
3. Performing a Test

Prepare a test kit for the required measurement. Check the expiry date and Code number of the test kit. Always use test kits before their expiry date has passed. All clinical specimens must be at room temperature before beginning the assay.

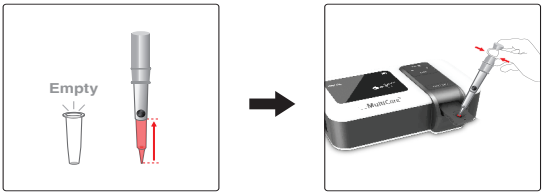
1) Insert the test panel into the MultiCare analyzer.
When the test panel reaches the correct position, panel is automatically inserted deeper to the analyzer. If the test panel is inserted appropriately, the sample and start button icon displays. This is sample waiting state.



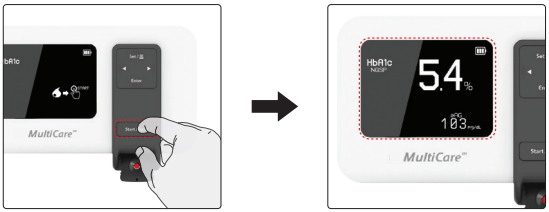
2) Collect the sample and place the sample into the buffer tube. And then mix the sample to push and release the bulb gently at the top of the spoit more than 7-8 times.



3) Collect all the mixture from the buffer tube completely and then apply the mixture into the test panel.



4) Press the start button. The result will be displayed on the screen in 3 or 5 minutes.



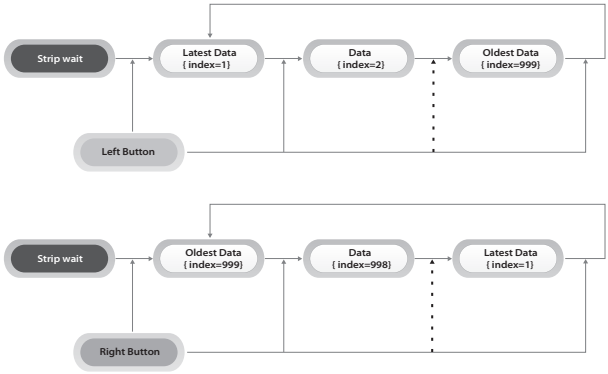
5) When the test is done, pull out the used test panel. The analyzer shuts off automatically after you remove the test panel.

CAUTION
Discard the used test kits in proper container, according to your standard laboratory procedure.

CHAPTER 3.
Using the Analyzer Memory

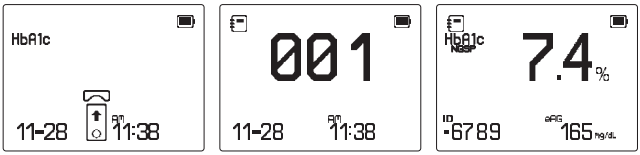
1. Memory Map

The MultiCare Analyzer can store 999 test results with date, time, and flags to let you review them in order. If the memory is full and a new result is added, the analyzer deletes the oldest result.

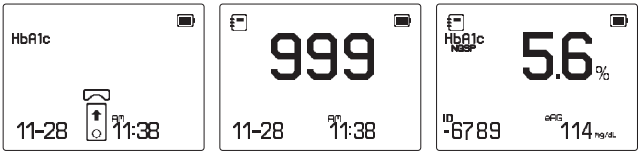


2. Displaying Stored Measured Values

1) Switch on the analyzer and then press the left (◄) or right (►) button at the stand-by state if you want to enter the memory mode.
   (1) When pressing the left button, the latest data shows.

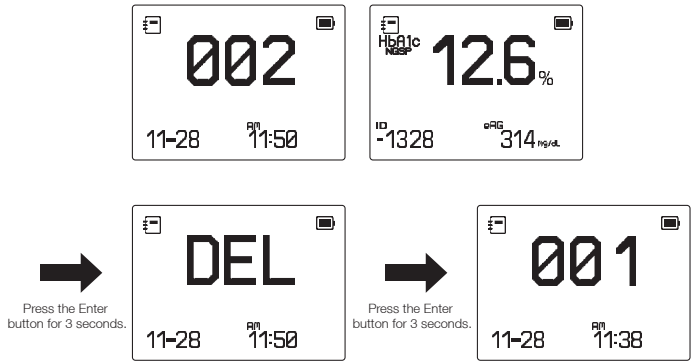


   (2) When pressing the right button, the oldest data shows. (If the number of stored results is 999)



3. Delete Data Stored in Memory

You can delete data while reviewing stored memory items. To delete the stored data, press the Enter button for three seconds when accessing the memory mode. When the message for confirming the data deletion appears, press the Enter button for three seconds. If you do not want to delete the data when the message appears, press the left (◄) or right (►) button.



CHAPTER 4.
Printing and Data Transfer

1. Printing

Material required, but not provided

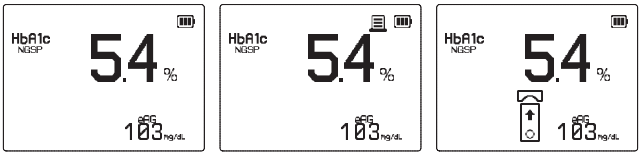
- STANDARD Thermal Printer
- STANDARD USB Cable

If you want to purchase the accessories listed below, please call your local customer support and service center.

How to print

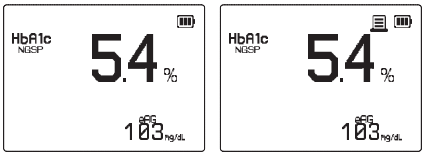
Auto Print

If you have turned the auto printing function on in the setting mode, the analyzer will not display the Printing symbol. When a test is done, the test result sheet is automatically printed, without any action.



Manual Printing

If you press the SET/PRT button in the memory mode, the Printing symbol will appear on the screen and the test result sheet will be printed with the result.



NOTE

- If you have selected P-1 in the setting mode, the analyzer will print only one copy.
- If you have selected P-2 in the setting mode, the analyzer will print two copies.

2. Data Transfer

The data stored in the memory of the analyzer can be transferred to a PC via either an mini USB cable or Bluetooth.
For more information on downloading results to a suitable system, please call your local customer support and service center.

The analyzer displays the following during data transfer.

3. Data transfer via Bluetooth

NOTE
Only 03MA20 model transfers the data from an analyzer via Bluetooth. The model number is indicated on the label of the analyzer.

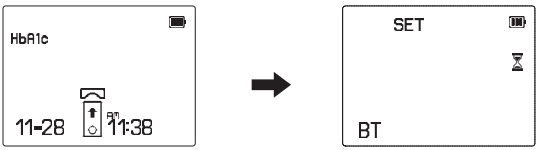
Data Transfer

The data measured by an analyzer can be transferred to PC via Bluetooth.

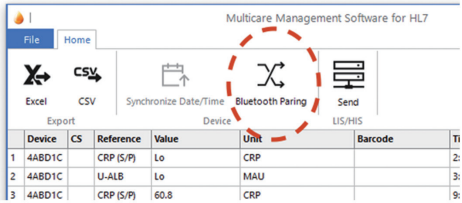
NOTE
If you want the analyzer to be paired with a PC, the pairing step is necessary. And the MultiCare Management Software (MMS) should be installed on the PC. To start the pairing step, follow the steps below;

Pairing

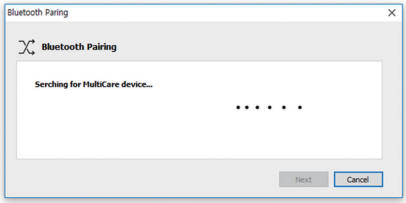
1) At the strip stand-by state, press the Set button and the Start button together for 2 seconds. Then, 'BT' icon will appear on the screen and paring is ready.



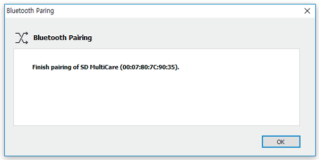
2) Open the MultiCare Management Software (MMS) installed on the PC. Click 'Bluetooth Pairing' on a menu.

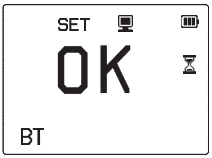


3) The PC starts to search the analyzer near.



4) When the pairing is finish, 'Finish paring of MultiCare (xx:xx:xx:xx:xx:xx).' message will appear on the screen. At the same time, the analyzer will display 'OK' message on the screen. If you receive the both messages on the PC and the analyzer, pairing is done successfully.





NOTE
The xx:xx:xx:xx:xx:xx is represent the Bluetooth radio address, it is displayed differently depending on the environment.

5) After pairing processes are done, the analyzer is now ready for testing and enables to transfer the data to PC via the Bluetooth.

CHAPTER 5.
Control Test

It is important to perform Control Tests with more than one level of control materials to assure your system is working properly.

Why You Should Do The Control Test:

- The control material is used to check that the analyzer and the test kits are working together as a system and you are performing the test correctly.
- It is very important that you perform this simple check routinely to make sure you get an accurate result.

When do Control Test:

To ensure that the analyzer is functioning properly, you should regularly use the control materials for a control test. Make a habit of carrying out the control test during the following situations:

- When you open a new test kit
- After replacing the batteries
- After cleaning the analyzer
- When you doubt that the measured values are correct

The control test is performed in the same way as a regular measurement with the difference that control are used instead of sample.

Materials required for Control Test

- MultiCare Analyzer
- MultiCare Test Kit
- Control material for the parameter you want to check

Performing a Control Test

NOTE
Please refer to the control insert of each compatible control materials separately provided for detailed test procedure.

Troubleshooting for Control Test

Check	Action
Did you perform the test while in the control mode?	If not, do the test again. Insert a test panel . Press the left (◀) button for three seconds to display the control icon.
Did you see “control icon” on the screen with the result?	
Have the test kits and/or control expired?	Make sure that the test kits and control are not past their expiration dates.
Are the testing conditions suitable for MultiCare test kit?	If not, retest with the new control tablet, or warm up/cool down to room temperature.
Did you insert the test kit firmly into the analyzer?	Make sure the test panel is inserted into the test panel slot until it will go no further.
Did you follow the procedure correctly?	Read the instructions for use again and retest.
Were the test kits stored correctly?	If not, retest with a new test kit.
Is the analyzer damaged? Does it show an error code?	If yes, contact your local distributor.
Is the control result outside the assignment range?	Repeat the test. If you get the same results, do not use your analyzer and test kit until you solve the problem. If you still have problems, contact your local distributor.

CHAPTER 6.
Check Strip Test

The check strip is used to check that the optic sensor in the analyzer is working properly. The MultiCare Analyzer is based on the photometric method. There are 2 kinds of check strip for the MultiCare System: white and gray. When doing the check strip test, MultiCare Analyzer reads the reflected light from the check strip to check if the optic sensor works well or not. If there is no problem, the analyzer will display 'OK' message on the screen. If there are any problems, the analyzer will display 'EEE' error message.

When should you check the performance of the analyzer?

- Before using your analyzer for the first time
- You have repeated a test but the test result is still lower or higher than expected

CAUTION
The check strip test does not replace control test.

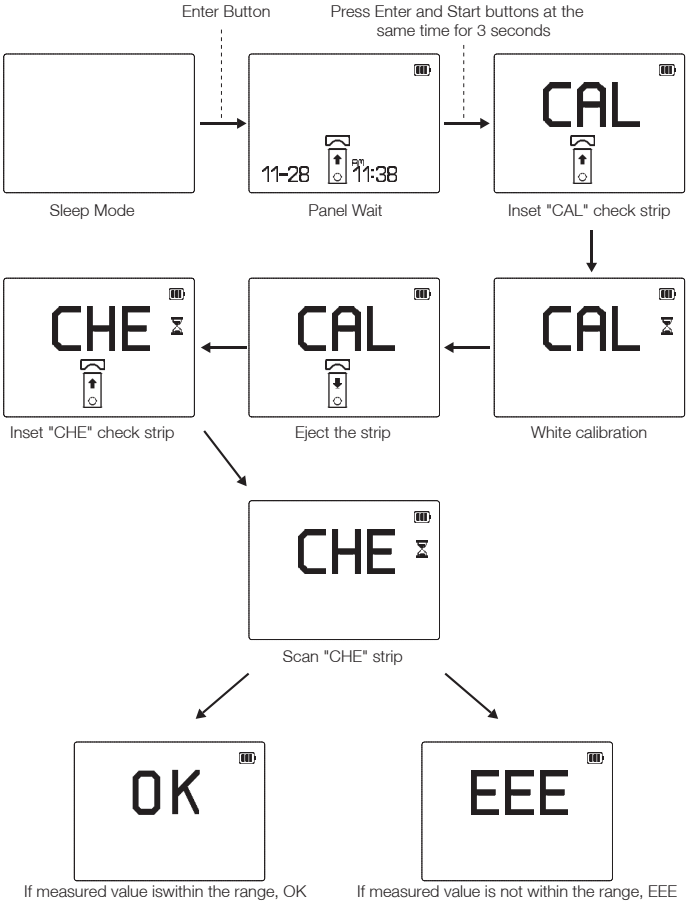
How to use the Check Strip

There are two kinds of check strips: white and gray. The MultiCare Analyzer can read the light reflectance value for the color of each check strip. The MultiCare Analyzer will display an error message if the reflectance value is not within the acceptable range.

Before you insert the SDB MultiCare Check Strip into the analyzer, you have to press the Enter button and Start button at the same time for 3 seconds during the 'sample waiting' state.

If the 'CAL' (Calibration) message appears on the screen, you can insert the white check strip into the analyzer. After removing white check strip, the 'CHE'(Check) message appears on the screen. you can insert the grey check strip into the analyzer. The check strip testing time is around fifteen seconds.

If the analyzer displays an 'EEE' message, the analyzer has a problem.
Please contact your local distributor.


Enter Button
Press Enter and Start buttons at the same time for 3 seconds
11-28
PM
11:38
CAL
Sleep Mode
Panel Wait
Inset "CAL" check strip
CAL
White calibration
CAL
Eject the strip
CHE
Inset "CHE" check strip
CHE
Scan "CHE" strip
OK
If measured value iswithin the range, OK
EEE
If measured value is not within the range, EEE

CHAPTER 7.
Maintenance and Troubleshooting

1. Cleaning your Analyzer

Caring for MultiCare Analyzer is easy. Just keep it free from dust. If you need to clean it, follow these guidelines carefully to help you get the best performance possible;

To prevent malfunction of the analyzer, keep the test kit port clean from blood, moisture, dirt, or dust. Use a lint-free cloth dampened with water to clean analyzer. Thoroughly wring out cloth before use. Do not use an abrasive cloth or antiseptic solution, as these may damage the display screen.

A clean optical measuring system is a basic prerequisite for determining precise measured values. Therefore clean the analyzer regularly and immediately after it becomes dirty. Always switch off the analyzer before cleaning it.

Use only the following items for cleaning:

- Ordinary lint-free cotton buds
- Ordinary lint-free tissues
- Ordinary disinfecting tissues

Mild soap suds as well as 70 % ethanol or isopropyl alcohol are suitable for cleaning. When used in the professional sector (e.g. doctor's surgeries), a mixture consisting of 1-propanol, 2-propanol and glutaraldehyde (brand name "Bacillol plus") are recommended.

Do not use any disinfectant sprays or tissues or cotton buds which are dripping wet as the liquid may enter the analyzer and damage it.

Cleaning the outer analyzer components

- Ensure the analyzer is switched off.
- Wipe the outside of the analyzer with a lightly moistened, lint-free cotton cloth. In the professional sector, the outside of the analyzer can be cleaned with "Bacillol plus".

2. Maintenance, Testing and Transportation

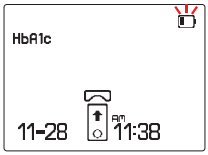
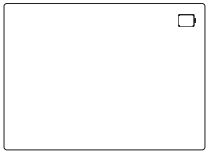
The analyzer needs little or no maintenance with normal use. It automatically tests its own systems every time you turn it on and it lets you know if something is wrong. If you drop the analyzer or think it is not giving accurate results, make sure that your test kits and control sets haven't expired and then, run the control test or check strip test.

Analyzer

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

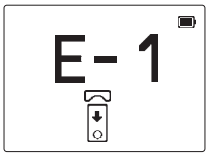
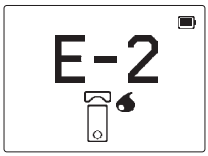
CHAPTER 8.
Screen Messages and Troubleshooting

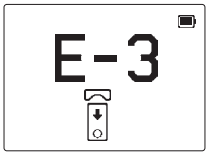
1. Warning Messages

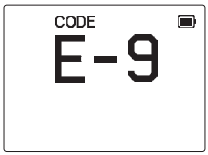
Indication	Warning Description
	**[Warning: Low Battery]** At this time, battery is getting low but you can still perform about 10 tests.
	[Solution] Replace the battery soon.
	**[Warning: Replace Battery]** Battery power is low. If you press the Enter button after discharging the battery, the battery icon will flash and then after ten seconds the analyzer will turn off automatically.
	[Solution] Replace the battery immediately.

2. Error Messages

In certain circumstances error messages may appear on your display. Generally, you should first try the solutions suggested for the respective error. If the problem persists, please contact your local customer support and service center.

Indication	Warning Description
	**[Test Panel Error]** Defective test panel or the test panel is damaged or inserted improperly.
	[Solution] Discard this test panel and test again using a new test panel.
	**[Sample Error]** An insufficient amount of sample volume was applied to the test panel.
	[Solution] Discard this test panel and test again using a new test panel. When testing again, apply the proper volume of sample mixture.

Indication	Warning Description
	**[Expired Test Kit]** The test kit date has expired.
	[Solution] Discard this test kit and test again using a new test kit that is not past the expiration date.
	[Temperature Error] If the environmental temperature is above or below the operating range, a thermometer icon will appear on the screen.
	[Solution] Move to an area with temperatures between the applicable temperature range, and perform a test. Do not artificially heat or cool the analyzer.
	[Communication Error] The communication between the analyzer and the printer failed.
	[Solution] Reconnect the analyzer and the mobile printer. If the error continues, turn the analyzer off. And then, turn on the analyzer again. If there is still an error message, please contact your local customer support and service center.

Indication	Warning Description
	[Extremely Total Hemoglobin] The applied sample is either under 7g/dL or above 23g/dL value of the total hemoglobin.
	[Solution] If this error occurs with a sample known to have total hemoglobin in the normal range, turn the analyzer off and back on and repeat test. If there is still an error message, please contact your local customer support and service center.
	**[Communication Error with the Code Chip]** The code chip is broken. So, the analyzer could not communicate with the code chip.
	[Solution] Re-insert the code chip. If there is still an error message, please contact your local customer support and service center.
	[Internal Error Message for the analyzer] It happens when an internal error occur.
	[Solution] Turn the analyzer off and then on again. If there is still this error message, please contact your local customer support and service center.

CHAPTER 9.
Warnings, Precautions and Limitations

1. The MultiCare System is only used for *In-vitro* diagnostics.
2. Should not be used to replace daily home testing.
3. Should not be used for analyzing samples from patients with conditions causing shortened red blood cell survival, such as hemolytic diseases, pregnancy and significant acute or chronic blood loss.
4. The MultiCare Systems test results do not make a diagnosis of any kind, and should never replace an office visit with your doctor. Recent medications, diet, and other conditions may influence your results.
5. Carefully follow the instructions and procedures described in this user manual before testing.
6. The MultiCare System is intended for professional use in clinical laboratory and point-of-care settings.
7. The MultiCare Analyzer should be used with the appropriate MultiCare Test Kit.
8. Do not use the MultiCare Test Kit if its code number does not match with the number of the code chip that is inserted into the analyzer.
9. Apply the mixed sample to the test panel after mixing the sample, a latex tablet and buffer solution within one minute at least.
10. Before testing, check a latex tablet. If a latex tablet is damaged or broken, do not use.
11. Use the MultiCare System between the applicable temperature range.
12. Put the analyzer on a flat surface when performing testing.
13. After moving the analyzer to a new test site, stabilize it by allowing the analyzer to remain in its new location for thirty minutes before performing any tests.
14. Wash your hands in warm, soapy water before collecting finger-stick blood. Rinse well and dry completely before testing. If alcohol is used for cleansing, be sure the finger is completely dry before testing.
15. Discard the used test kit according to your local area guidelines.

CHAPTER 10.
Product Technical Information

1. Specifications

ON/OFF Source	Four batteries(1.5 V, AA) or AC adapter(5V/2A)
Battery Life	Around 200 tests
Display	LCD(Customized)
Controls	5 Buttons(SET/PRT, Enter, Arrow: ◀ / ▶, Start/Eject)
Memory	999 test results
Automatic Shutoff	• One minute after last user action without inserting a test panel into the analyzer. • Five minutes after last user action when inserting a test panel into the analyzer.

2. Electromagnetic Compatibility

This analyzer meets the electromagnetic immunity requirements. The chosen basis for electrostatic discharge immunity testing was basic standard IEC 61000-4-2. In addition, it meets the electro–magnetic emissions requirements as per EN 61326. Its electromagnetic emission is thus low. Interference from other electrically driven equipment is not to be anticipated.

Return

You must contact your local customer support and service center. Before returning your analyzer. You will be instructed how to return the analyzer to service center. Returned analyzers without this authorization will not be accepted.

Disposal

Discard the used test kit or lancets according to your local guidelines.

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REF **03MA10, 03MA20**

MEMO