



Nabi UV/Vis Nano Spectrophotometer

User Manual Ver 3.6

Table of Contents

1. SYSTEM INTRODUCTION	4
1.1 System Package	5
1.2 Main Instrument	5
1.3 Specification	6
2. BASIC USE	8
2.1 Pedestal	8
2.2 Cuvette	9
2.3 Blank Setting	9
2.4 Keyboard	10
3. USER INTERFACE	11
3.1 Log In	11
3.2 Main Page	12
3.3 Submenu	13
3.3.1 Screen Capture	13
3.4 Nucleic Acids	14
3.4.1 Overlay in Measurement	15

Table of Contents

3.5 Protein	16
3.5.1 Standard Curve	17
3.5.2 Bradford, Lowry, BCA, Biuret, and Others	19
3.5.3 Direct UV	20
3.6 End Point and OD600	21
3.7 Kinetic	22
3.8 Spectrum	23
3.9 Search	24
3.9.1 Overlay in Search	26
3.9.2 Data Transfer	28
3.10 Account Settings	29
3.11 Power Panel	30
3.12 Setup	31
3.13 Update	32
3.14 Calibration	33
3.15 Sleep Mode Selection	34

1. SYSTEM INTRODUCTION

MicroDigital's Nabi, UV/Vis Nano Spectrophotometer, measures both cuvette and microvolume sample with high accuracy, outstanding precision, and superb repeatability.



CUVETTE & MICROSCALE MEASUREMENT

Samples in a universal cuvette or microscale volume can be measured.



EASY UPGRADES

The system can be upgraded with ease via USB Flash Drive.

MINIMUM MAINTENANCE

No recalibration or internal maintenance is needed.

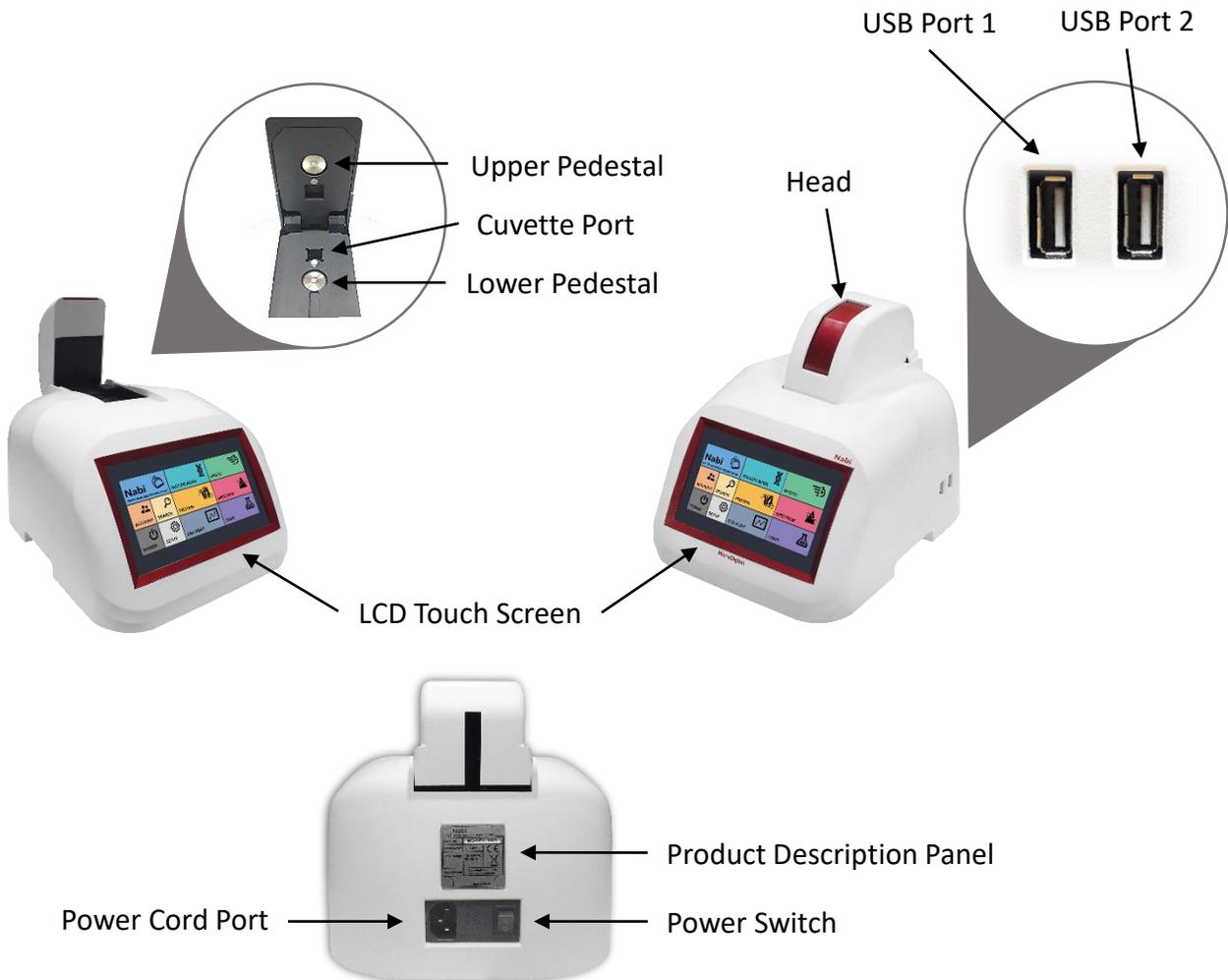
1.1 System Package

Package includes:

- Main Instrument
- Pedestal Cover
- Cuvette Stick
- Cuvettes
- Power Cord
- User Manual



1.2 Main Instrument



1.3 Specification

General Specification

Light Source	Xenon Flash Lamp
Detector	CCD (2,048 Pixels)
Wavelength Accuracy	± 1 nm
Wavelength Range	200 nm - 1100 nm
Spectral Resolution	0.3 nm
Dimension	W : 220mm, D : 280mm, H : 220mm (W : 8.6 inch, D : 11.0 inch, H : 8.6 inch)
Weight	3 kg
Operator Voltage	100 - 240V, 50 - 60 Hz
Power Consumption	80 - 100 W
Warranty	1 Year
LCD Touch Panel	7.0 inch

Nano Volume Specification

Absorbance Precision	1% at 100 ng/ μ l
Absorbance Range	0 – 300 Abs. (10 nm equivalent)
Detection Limit	2 ng/ μ l (dsDNA)
Maximum Concentration	15,000 ng/ μ l (dsDNA)
Measurement Time	5 sec
Minimum Sample Size	1 μ l
Path Length	0.01 – 1.2 mm (Auto-ranging)

Cuvette Specification

Beam Height 8.5 mm

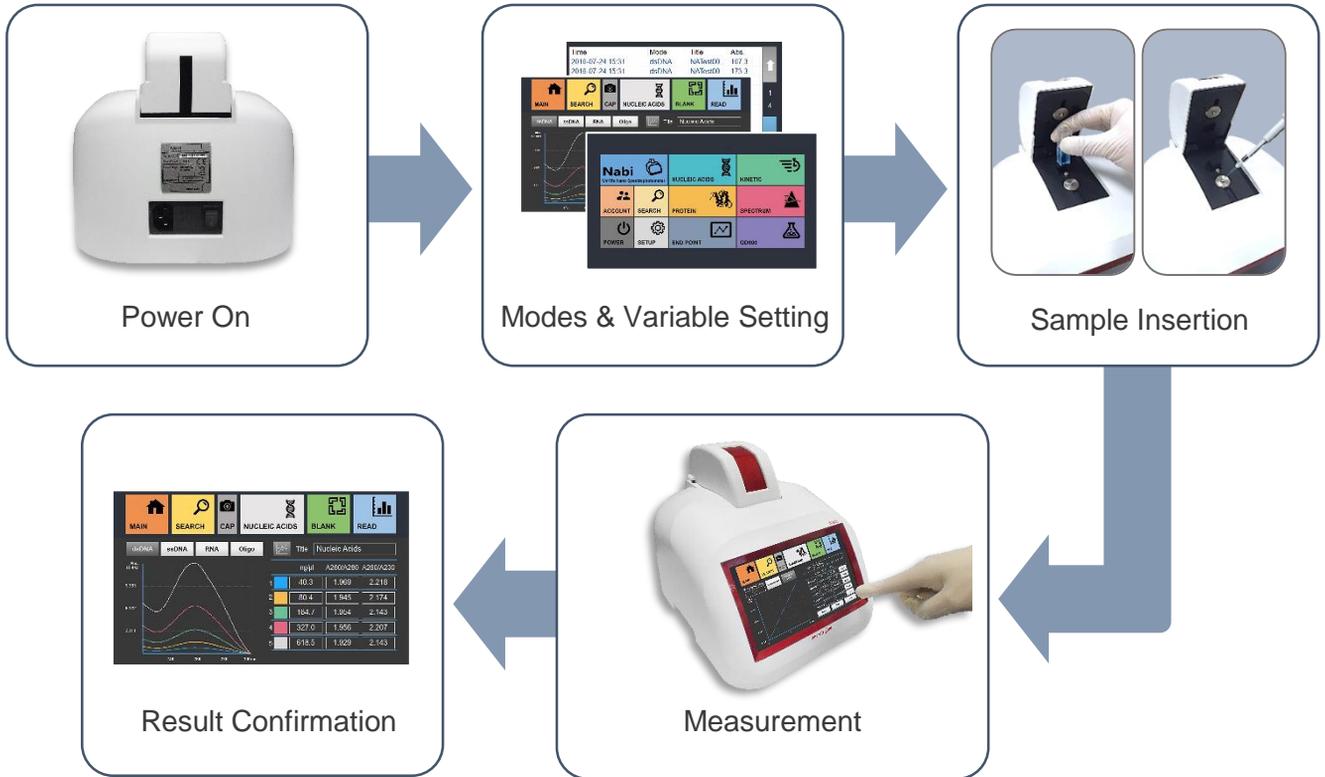
Absorbance Range 0.002 – 2.0 Abs.

Measurement Time 3 sec

Maintenance

- Due to fixed modules and immovable parts, internal maintenance is not needed.
Clean the exterior with a clean and dry wipe when there is a spill or contamination.
- **DO NOT** try to disassemble the instrument in any situation.
- Use an electric supply that conforms to industry standards.
- Place the instrument in a clean environment and away from other devices that vibrate. (e.g. centrifuges)
- Test the general functions of the device – check buttons and the power switch.
- Confirm that the mechanical components are in good condition.
- Make sure accessories, cables, and positions are clean and intact.
- Calibration and update from the manufacturer is possible.

2. BASIC USE



2.1 Pedestal



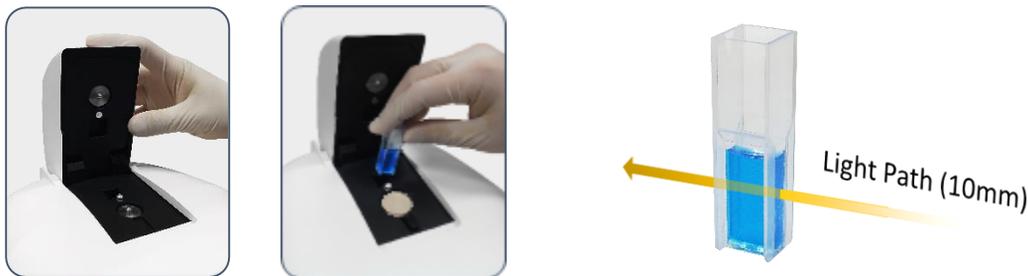
Microvolume sample measurements include the use of the Pedestal.

The Pedestal has upper and lower pedestals. Targeted microscale sample should be gently pipetted on the center top of the lower pedestal,

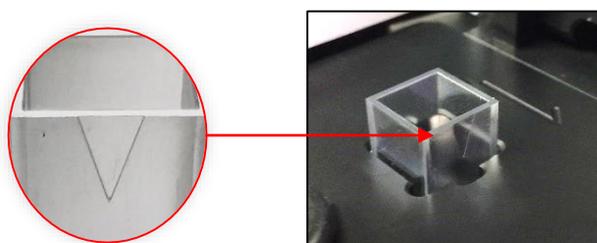
and **the Cuvette Stick should be inserted during the microscale**

measurement. The sample should be wiped out clean from both lower and upper pedestals with a dry and lint-free laboratory wipe after the measurement.

2.2 Cuvette



Cuvette Measurements include the use of the Cuvette Port. The target sample should be prepared in a universal cuvette, and the cuvette should be gently inserted in the Cuvette Port for the measurement. **The Pedestal Cover should be covered during the cuvette measurement.** The direction of the light pathway during the measurement is indicated on the upper side of the port. The minimum volume of the sample is 1mℓ.



Make sure the V shape side is facing the same direction as the arrow on top.

2.3 Blank Value Settings

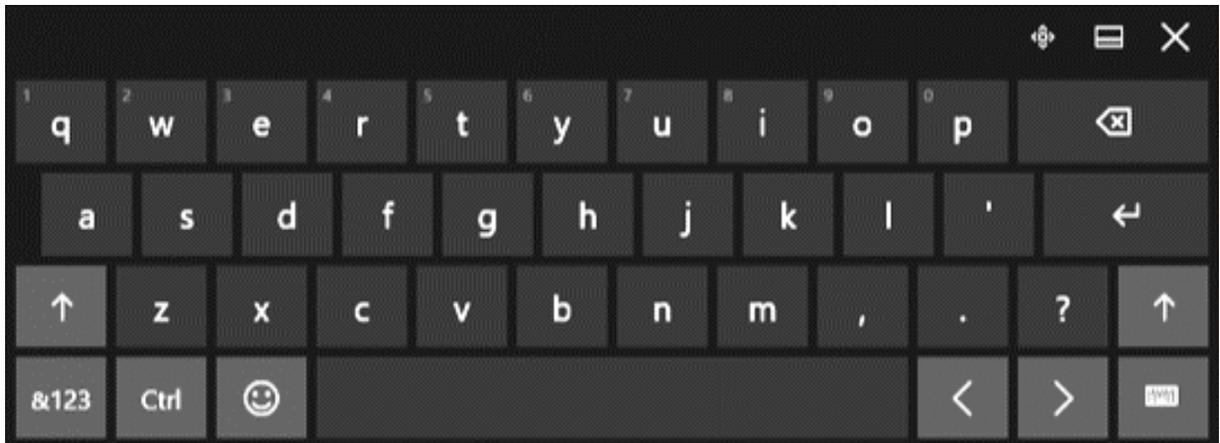
Procedure for Microvolume Sample

1. Open the Head of the instrument.
2. Make sure to insert the Cuvette Stick in the Cuvette Port.
3. Gently, pipette the blank sample on the Lower Pedestal, and close the Head.
4. Touch the Blank button on the measurement page to measure and set the blank value for the measurement.
5. When the blank value is set, open the Head and wipe the sample.

Procedure for Cuvette Sample

1. Prepare the blank sample in a universal cuvette. (Minimum Volume: 1mℓ)
2. Make sure to cover the Lower Pedestal with the Pedestal Cover.
3. Insert the cuvette in the Cuvette Port.
4. Touch Blank button to measure and set the blank value for the measurement.
5. When the blank value is set, open the Head and remove the cuvette.

2.4 Keyboard



English Letter Keyboard



Number and Special Letter Keyboard

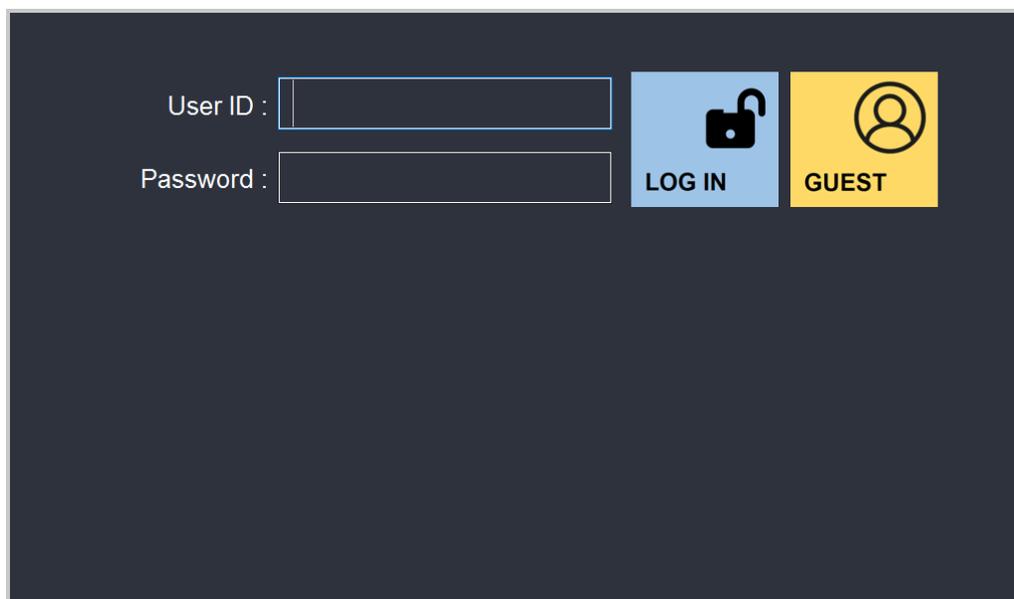
There is an internal keyboard functionality for the touch screen; however, users may make use of their own keyboard and mouse by connecting them through the USB Ports located on the right side of the instrument.

The keyboard will automatically pop up when any letter box (e.g. title) is touched.

When  button located at the bottom left corner of the keyboard is touched, it will convert to the number and special letter pad. The users can also minimize the keyboard by touching  button located at the upper right corner of the keyboard, and also freely move the keyboard, by touching  button next to 

3. USER INTERFACE

3.1 Log In



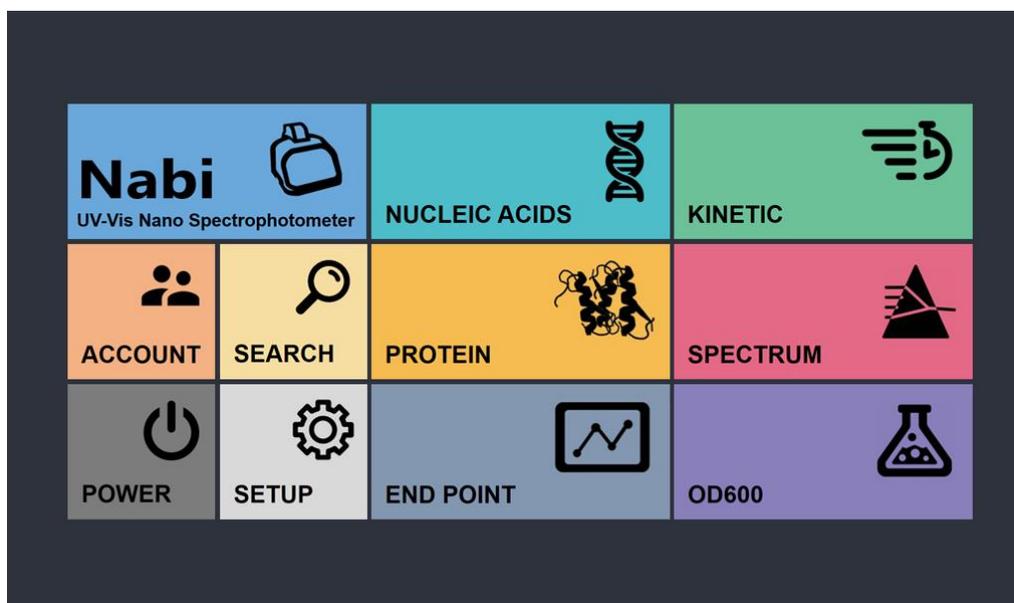
Log In Page

When the instrument is turned on, the Log In page will appear as above. Users can enter their ID and Password, and touch the Log In button to log in, or can log in as a guest by touching the Guest button without entering the User ID and Password for quick measurement.

User ID	User ID of the account.
Password	Password of the account.
Power	Logs in as an account with specified ID.
Guest	Logs in as a guest.

3. USER INTERFACE

3.2 Main Page

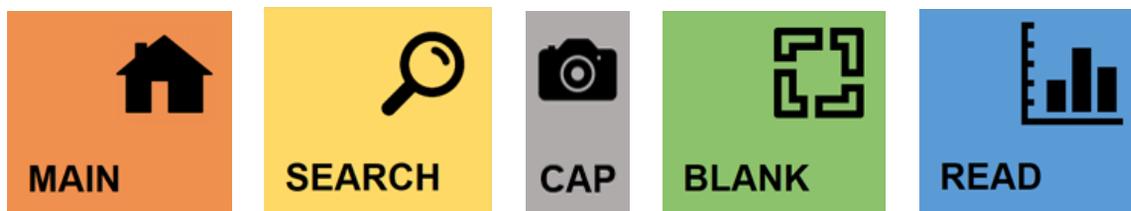


Main Page

When the user is logged in, Main Screen will appear as above. Users can access to any measurement page from this page.

NUCLEIC ACIDS	Opens Nucleic Acids Measurement page. (pg. 13)
PROTEIN	Opens Protein Menu. (pg. 15)
OD600	Opens OD600 Measurement page. (pg. 19)
END POINT	Opens End Point Measurement page. (pg. 19)
KINETIC	Opens Kinetic Measurement page. (pg. 20)
SPECTRUM	Opens Spectrum Measurement page. (pg. 21)
ACCOUNT	Opens Account Settings panel. (pg. 24)
SEARCH	Opens Search panel. (pg. 22)
SETUP	Opens Setup panel. (pg. 26)
POWER	Opens Power Option panel. (pg. 25)

3.3 Submenu



Submenu Buttons

There are submenus located at the top of every measurement pages.

'CAP' button is only in Nucleic Acids, Kinetic, Protein, and Spectrum pages.

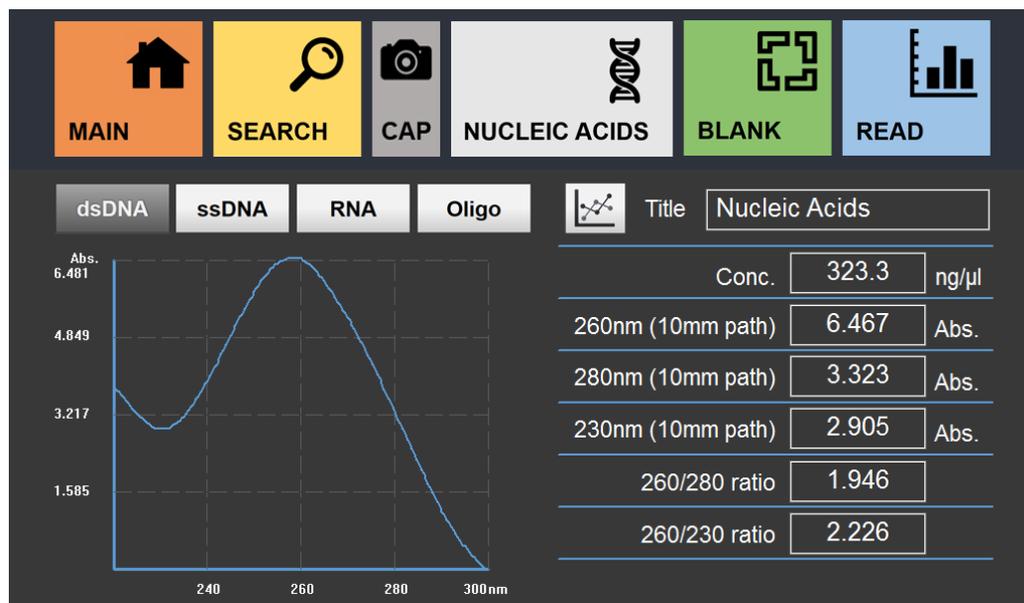
MAIN	Goes to the Main page.
SEARCH	Opens Search panel.
CAP	Captures current screen and save it in the USB Flash Drive connected. (Refer to pg. 13)
BLANK	Measures and sets the blank value.
READ	Performs measurement according to the settings.

3.3.1 Screen Capture



Users may capture a screenshot of the screen by touching the 'CAP' button in Nucleic Acids, Kinetic, Protein, Spectrum measurement pages, and save it as image files (.BMP) in a USB Flash Drive. USB Flash Drive must be plugged in one of the USB Ports on the side of the instrument during the process. The screenshot image files will be saved in the 'Capture' folder under the 'Nabi' folder.

3.4 Nucleic Acids



Nucleic Acids Measurement Page

Nucleic Acids Measurement page is to measure nucleic acids samples.

There are various options for Nucleic Acids measurement:

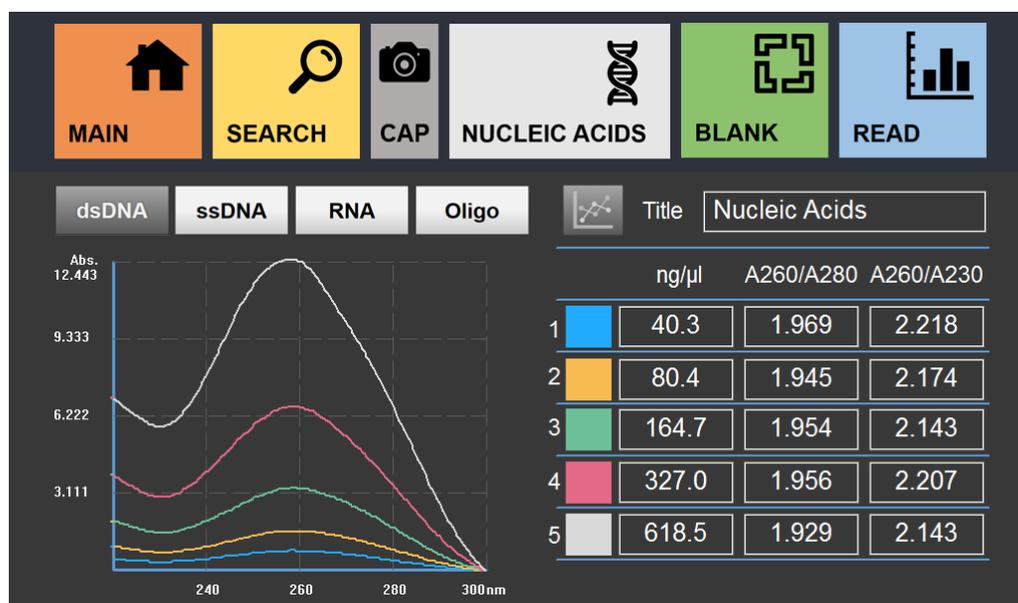
Double-stranded DNA, Single-stranded DNA, RNA, and Oligonucleotide.

dsDNA	Measures double-stranded DNA samples.
ssDNA	Measures single-stranded DNA samples.
RNA	Measures RNA samples.
Oligo	Measures Oligonucleotide samples.
	Overlay Button: Goes to Overlay page.
Title	Title of the measurement.
Conc.	Shows the concentration of the sample.
260nm (10mm path)	Shows the Abs. Value at 260nm.
280nm (10mm path)	Shows the Abs. Value at 280nm.
230nm (10mm path)	Shows the Abs. Value at 230nm.
260/280 ratio	Shows the calculated ratio of Absorbance Values at the wavelength of 260 and 280nm.
260/230 ratio	Shows the calculated ratio of Absorbance Values at the wavelength of 260 and 230nm.

Procedure

1. Proceed to Nucleic Acids page by touching Nucleic Acids button in the Main page.
2. Touch and select the measurements among dsDNA, ssDNA, RNA, and Oligo .
3. Insert the title of the measurement.
4. Open the Head of the instrument.
5. Set the blank value. (Check pg. 8)
6. Pipette microvolume of the target sample on the Lower Pedestal, and close the Head.
7. Touch Read button to start the measurement.
8. Check the results on the screen. The resulting data will be saved automatically and can be searched in the search panel.

3.4.1 Overlay in Measurement



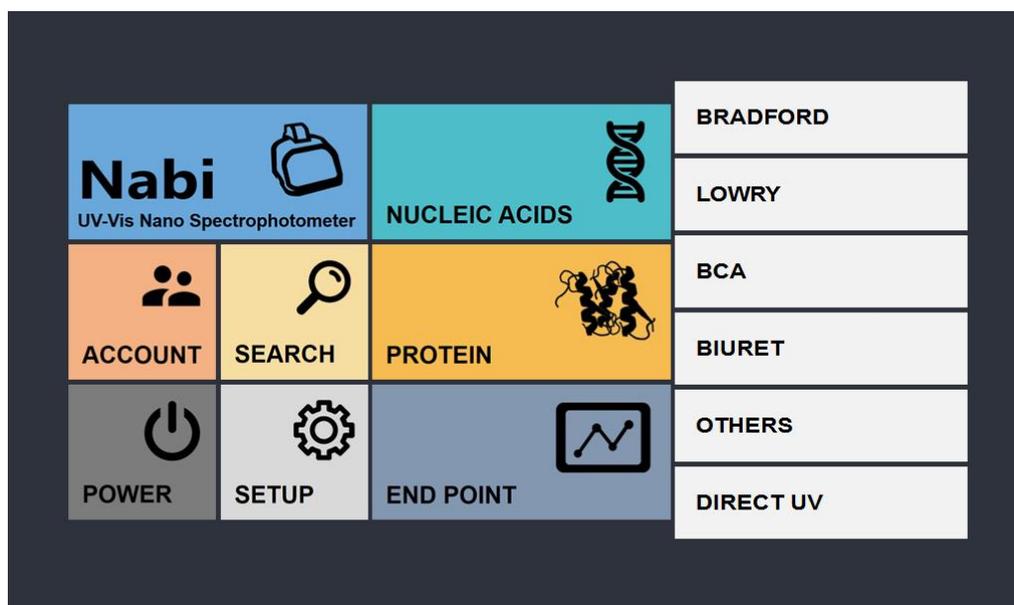
Nucleic Acids Overlay Measurement

Overlay page is to compare up to 5 results. Overlay page is accessible by touching Overlay button in the Nucleic Acids Measurement page. Follow procedure of Nucleic Acids to proceed. Each measurement has different colors labeled for graph comparison. Each result will be saved individually, and multiple results can be loaded in Search for comparison. (Check pg. 15) Users can go back to the Measurement page by touching the Overlay button.



Overlay Button: Goes back to the Measurement page.

3.5 Protein



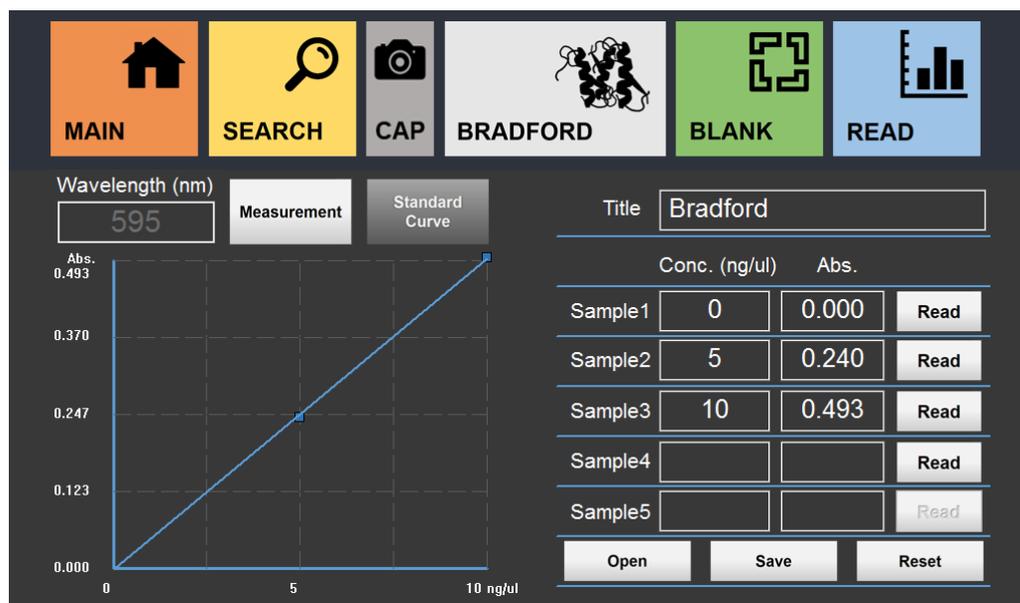
Protein Menu

Protein Menu allows user to choose and access to various measurement options: Bradford, Lowry, BCA, Biuret, Others, and Direct UV.

To close the menus, simply retouch the Protein button or touch Nabi logo banner.

BRADFORD	Opens Bradford Measurement page. (pg. 17)
LOWRY	Opens Lowry Measurement page. (pg. 17)
BCA	Opens BCA Measurement page. (pg. 17)
BIURET	Opens Biuret Measurement page. (pg. 17)
OTHERS	Opens Others Measurement page, where the user can set up the wavelength. (pg. 17)
DIRECT UV	Opens Direct UV Measurement Page. (pg. 18)

3.5.1 Standard Curve



Bradford Standard Curve Page

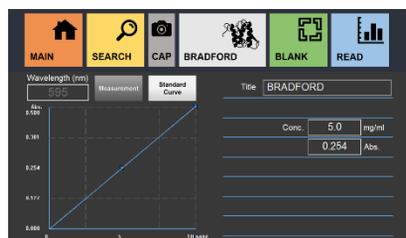
There is Standard Curve page in Bradford, Lowry, BCA, Biuret, and Others under the Protein Measurement. It is necessary for the Standard Curve to be set before performing the measurements. Standard Curve Panel can be opened by touching Standard Curve button. There are 5 slots for measurements of samples with different concentrations in order to generate Standard Curve. However, the Standard Curve will be shown after measurement of 3 samples. Users can also save, open, and reset the Standard Curve data by touching the Save, Open, and Reset buttons.

Measurement	Loads Measurement page. It is a default page when the users enter any pages under Protein.
Standard Curve	Loads Standard Curve page for a Standard Curve setting. Users can set, load a Standard Curve for the measurement, or save current Standard Curve data.
Conc. (ng/μl)	The concentrations(ng/μl) of the sample 1 to 5.
Read	Measures to achieves Abs. Values of Sample1 to 5.
Abs.	Shows the Abs. Values of Sample1 to 5.
Reset	Reset all the values in the Standard Curve Panel.
Wavelength	Shows the wavelength of the current measurement.
Open	Opens the Open panel of saved Standard Curve data.
Save	Saves the current Standard Curve data and its settings.
Reset	Deletes current Standard Curve data.

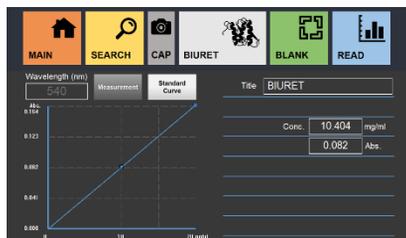
Procedure

1. Prepare, at least, 3 samples with different concentration to setup the Standard Curve.
2. Set the blank value. (Check pg. 8)
3. Insert the target sample in a cuvette. (Minimum Volume: 1mℓ)
4. Touch Read button to measure.
5. When the measurement is complete, remove the sample.
6. Repeat the process for at least 3 samples.

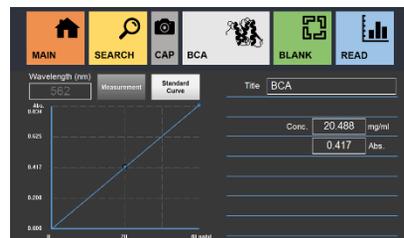
3.5.2 Bradford, Lowry, BCA, Biuret, and Others



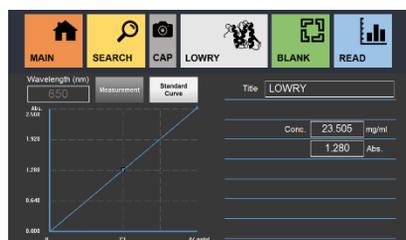
Bradford Page



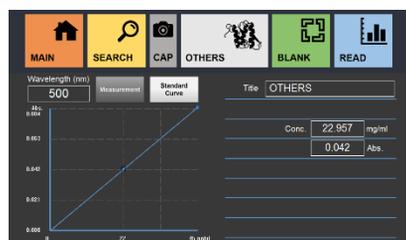
Biuret Page



BCA Page



Lowry Page



Others Page

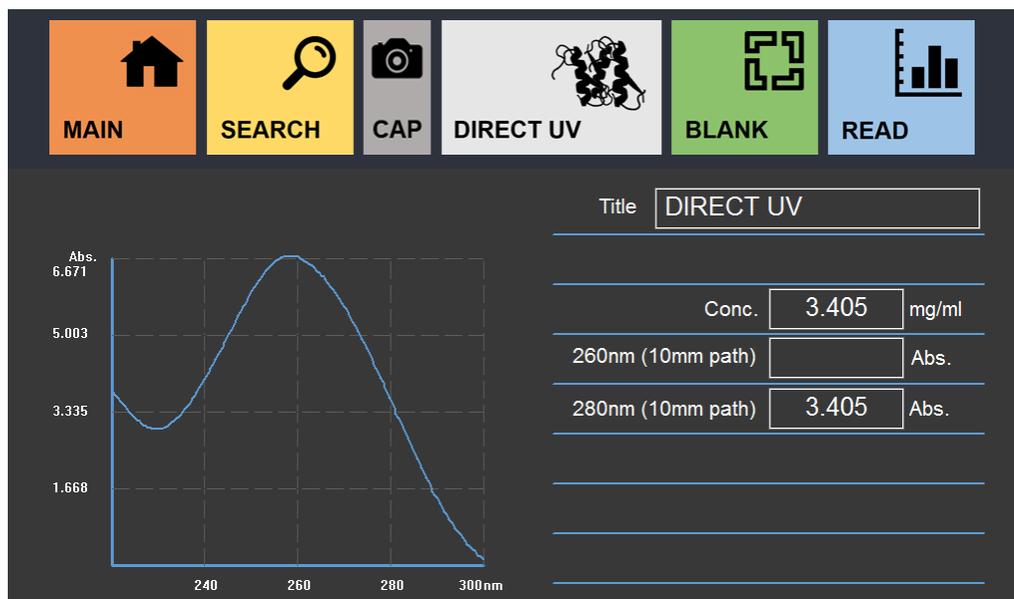
There are various options for protein samples measurements: Bradford, Lowry, BCA, Biuret, Direct UV, and Others with a wavelength option. In every Measurement page, there is a Standard Curve page to set the Standard Curve before the measurement.

Title	Title of the measurement.
Conc.	Shows the concentration of the sample.
Abs.	Shows the Abs. value of the sample.
Wavelength	Shows the wavelength of the current measurement. (In Others page, users can set the wavelength on the measurement)

Procedure

1. Proceed to the Measurement page under the Protein menu
2. Insert the title of the measurement.
3. Set a blank value for the measurement. (Refer to pg. 8)
(In Others, Users have to set the wavelength before setting the blank value)
4. Set the Standard Curve for the measurement. (Refer to pg. 16)
5. Insert the target sample in a cuvette. (Minimum Volume: 1ml)
6. Touch Read button to start the measurement.
7. Check the results on the screen. The resulting data will be saved automatically, and can be searched in the search panel.

3.5.3 Direct UV



Direct UV Page

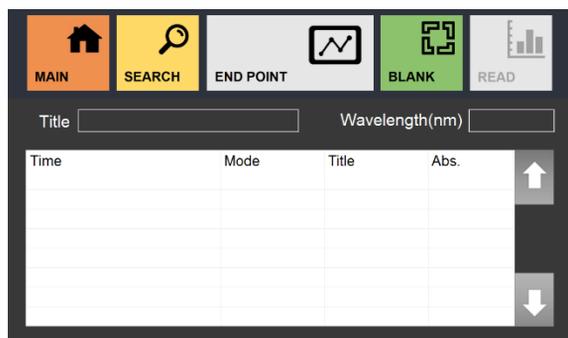
Direct UV Measurement page is to perform Direct UV measurement on protein samples. Unlike other protein sample measurements, Standard Curve is not necessary.

Title	Title of the measurement.
Conc.	Shows the concentration of the sample.
260nm (10mm path)	Shows the Abs. Value at 260nm.
280nm (10mm path)	Shows the Abs. Value at 280nm.

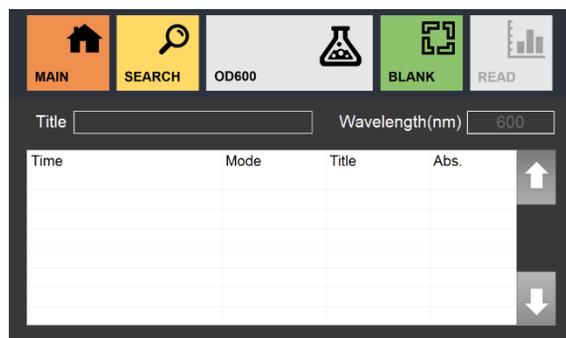
Procedure

1. Proceed to the Measurement page under the Protein menu
2. Insert the title of the measurement.
3. Set a blank value for the measurement. (Refer to pg. 8)
(In Others, Users have to set the wavelength before setting the blank value)
4. Set the Standard Curve for the measurement. (Refer to pg. 16)
5. Pipette microvolume of the target sample on the Lower Pedestal, and close the Head.
6. Touch Read button to start the measurement.
7. Check the results on the screen. The resulting data will be saved automatically, and can be searched in the search panel.

3.6 End Point and OD600



End Point Page



OD600 Page

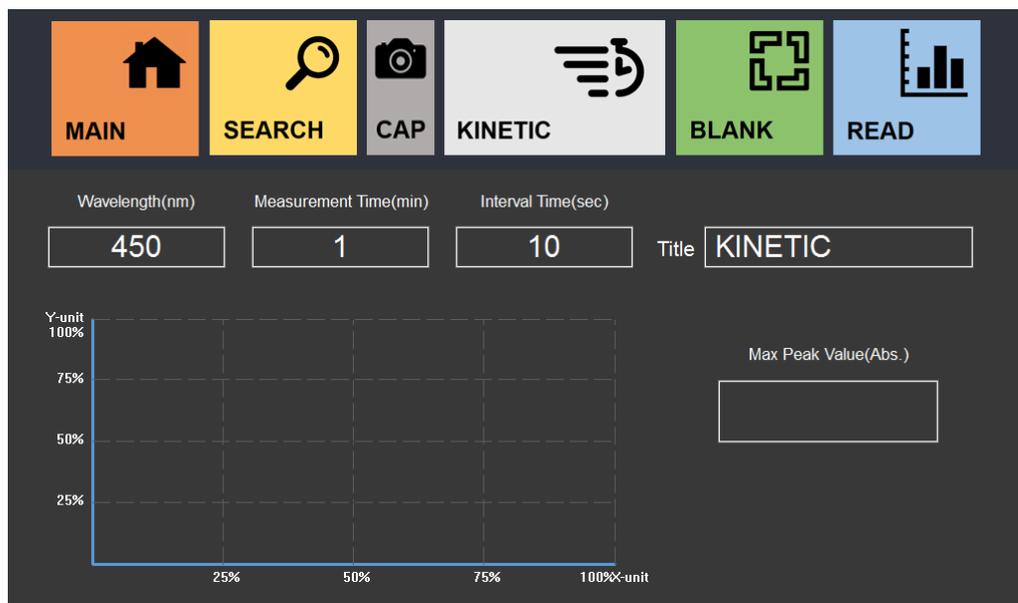
End Point and OD600 Measurement is to perform spectrometry measurement on Cell Culture samples and etc.

Title	Title of the measurement.
Wavelength	Shows the wavelength of the current measurement. (In End Point page, users can set the wavelength on the measurement)
Time	Shows the list of the times of the measurements.
Mode	Shows the list of the Detection Mode of the measurements.
Title (Chart)	Shows the list of the titles of the measurements.
Abs.	Shows the list of the Abs. values of the measurements.

Procedure

1. Proceed to End Point or OD600 page from the Main page.
2. Insert the title of the measurement.
3. Set a blank value for the measurement. (Check pg. 8)
(In End Point, Users have to set the wavelength before setting the blank value)
4. Insert the target sample in a cuvette. (Minimum Volume: 1mℓ)
5. Touch Read button to start the measurement.
6. Check the results on the screen. The resulting data will be saved automatically, and can be searched in the search panel.

3.7 Kinetic



Kinetic Page

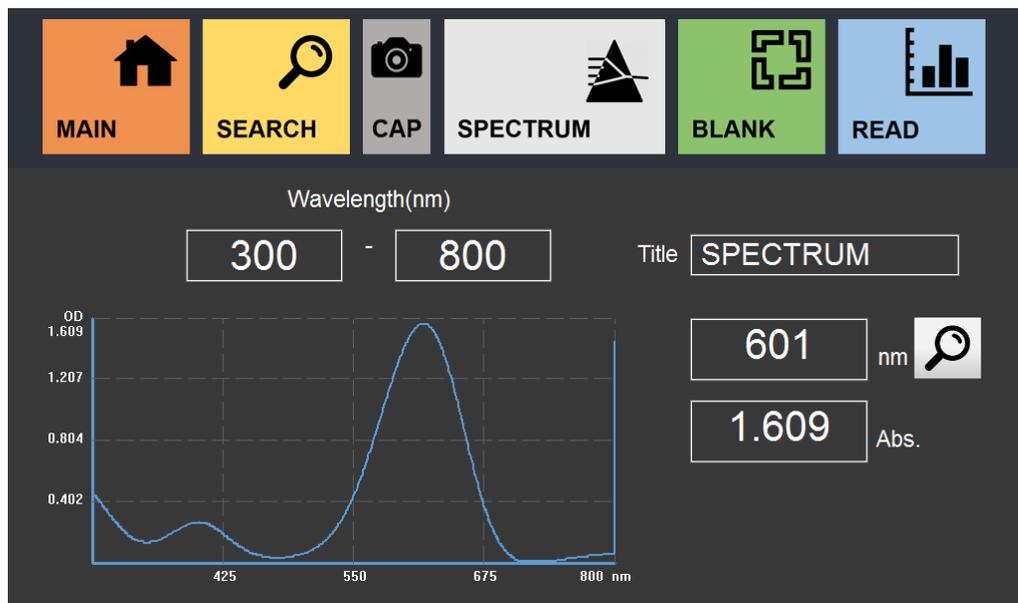
Kinetic Measurement is to perform multiple spectrometry measurements on samples in accordance with users' wavelength and time lengths.

Title	Title of the measurement.
Wavelength (nm)	Wavelength of the measurement between 200 – 1,100 nm.
Measurement Time (min)	Overall measurement.
Interval Time (sec)	Interval time between detections.

Procedure

1. Proceed to Kinetic page from the Main page.
2. Insert the title of the measurement.
3. Set the Wavelength, Measurement Time and Interval Time. Users may calculate the amount of the detection by dividing Measurement Time with Interval Time, and round up the number. (e.g. if the Measurement Time is set to 1 min, and Interval Time is set to 9 seconds, then there will be total 6 detections.)
4. Set a blank value for the measurement. (Check pg. 8)
5. Insert the target sample in a cuvette. (Minimum Volume: 1ml)
6. Touch Read button to start the measurement.
7. Check the results on the screen. The resulting data will be saved automatically, and can be searched in the search panel.

3.8 Spectrum



Spectrum Page

Spectrum Measurement is to perform spectrometry measurements with specified range of wavelength.

Wavelength (nm)	Input for the range of Wavelength
Title	Input for the title of the measurement.
	Finds Abs. value for the specified wavelength.

Procedure

1. Proceed to Spectrum page from the Main page.
2. Insert the title of the measurement.
3. Set the range of Wavelength.
4. Set a blank value for the measurement. (Check pg. 8)
5. Insert the target sample in a cuvette. (Minimum Volume: 1ml)
6. Touch Read button to start the measurement.
7. Check the results on the screen.
8. Check the results on the screen. The resulting data will be saved automatically, and can be searched in the search panel.

3.9 Search

Search Panel

Search Panel is accessible from Main Screen, and any measurement pages.

All of the saved data can be searched in Search Panel. There are various options for search. Users can select the dates, or choose the keywords of the title for the search.

Title Search	Finds data under the title by matching keywords
Date & Time	Finds data under specified dates and times. Users can load a calendar by touching From and To buttons and select the date.
Detection Mode	Finds data under the selected detection mode.
Back	Goes back to previous page.
All	Finds all of the data under the selected detection mode.
Search	Finds all of the data having properties of specified dates, title, and detection mode.

Time	Mode	Title	Abs.
2016-08-05 09:19	BCA	BCA008	0.000
2016-08-05 09:18	BCA	BCA007	0.000
2016-08-05 09:18	BCA	BCA006	0.000
2016-08-05 09:18	BCA	BCA005	0.000
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000

↑
1
2
↓

Detail
Change Title
Delete
Data Transfer
Back

Search List Panel

	Time	Mode	Title	Abs.
<input type="checkbox"/>	2016-07-17 05:19	RNA	RNA004	31.7
<input type="checkbox"/>	2016-07-17 05:19	RNA	RNA003	67.3
<input type="checkbox"/>	2016-07-17 05:19	RNA	RNA002	137.6
<input type="checkbox"/>	2016-07-17 05:18	RNA	RNA001	272.6
<input checked="" type="checkbox"/>	2016-07-17 05:17	dsDNA	dsDNA008	323.4
<input checked="" type="checkbox"/>	2016-07-17 05:17	dsDNA	dsDNA007	170.4
<input checked="" type="checkbox"/>	2016-07-17 05:16	dsDNA	dsDNA006	84.3
<input checked="" type="checkbox"/>	2016-07-17 05:16	dsDNA	dsDNA005	39.1
<input type="checkbox"/>	2016-07-17 05:15	dsDNA	dsDNA004	342.3
<input type="checkbox"/>	2016-07-17 05:15	dsDNA	dsDNA003	172.7

↑
1
19
↓

Detail
Change Title
Delete
Data Transfer
Back

DNA/RNA Search List Panel

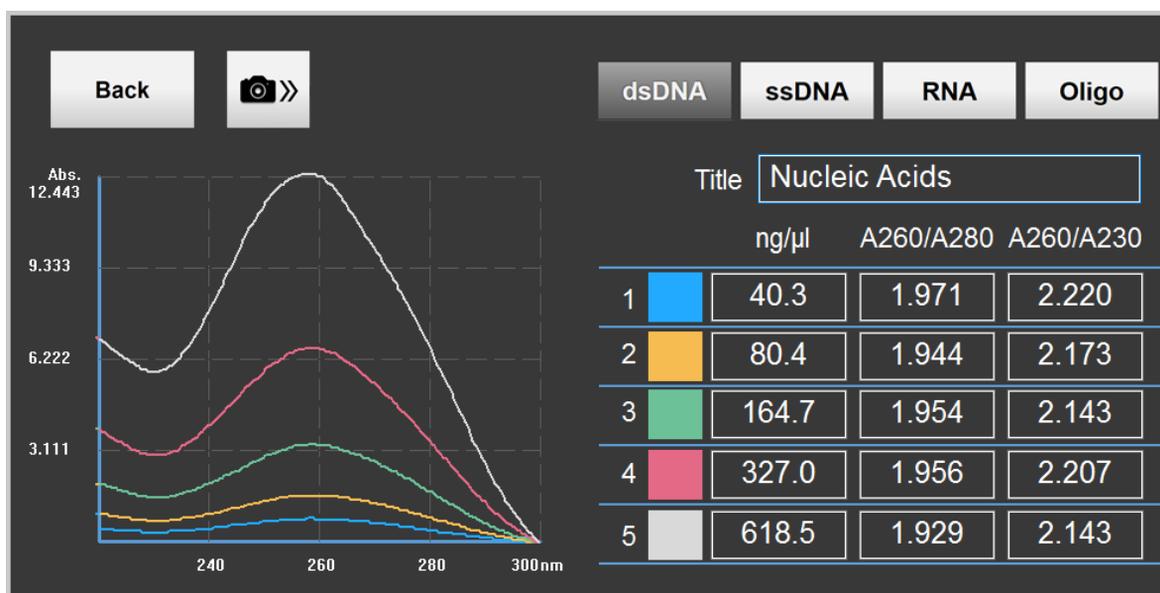
Search List panel is accessible by touching Search or All button in the Search page.

DNA/RNA panel has a row of checkboxes for multiple selection in order to perform overlay comparison between data. The user can check the detailed information of each data, edit and delete the selected data, and transfer the data to a USB Flash Drive in FAT format. In DNA/RNA, Users can delete more than one datum at once by selecting multiple data.

Selected data are checked. Easy way to uncheck all the data that has been selected, users can go back to the previous Search Panel and come back. Data Transfer is to transfer not only the ones checked, but all the data that has been searched. (Refer to pg. 27)

Detail	Loads detailed information of the selected data.
Change Title	Loads a Change Title panel to change the title of the selected data.
Delete	Deletes the selected data.
Data Transfer	Transfers the displayed list to USB Flash Drive. The USB Flash Drive must be in FAT Format.
Back	Goes back to previous page.

3.9.1 Overlay in Search



Overlay Panel

Overlay Panel is to compare the results up to 5. It is accessible by selecting multiple data from the DNA/RNA Search List Panel and touching Detail button. Each measurement has different colors labeled for graph comparison.

Back	Goes back to previous page.
-------------	-----------------------------

3.9.2 Data Transfer

Time	Mode	Title	Abs.	
2016-08-05 09:19	BCA	BCA008	0.000	 1 2 
2016-08-05 09:18	BCA	BCA007	0.000	
2016-08-05 09:18	BCA	BCA006	0.000	
2016-08-05 09:18	BCA	BCA005	0.000	
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000	
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000	
2016-08-05 09:18	Bradford	Bradford Curve ...	0.000	
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000	
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000	
2016-08-05 09:17	Bradford	Bradford Curve ...	0.000	

Detail
Change Title
Delete
Data Transfer
Back

Search List Panel

Resulting data listed in the panel can be saved as .csv (Microsoft Excel) file in USB Flash Drive by touching “Data Transfer” button on the panel. During the process, a USB Flash Drive must be plugged in one of the USB Ports on the right side of the instrument. The transferred files will be saved in the Nabi folder. Please, refer to the diagram on pg. 28 for detailed location of the files. Nucleic Acids, Kinetic, Spectrum, and Direct UV will include Raw Data for each measurement in Raw Data folders.

Procedure

1. Load files for transfer in the Search Page.
(It will transfer only the data loaded in the Search Page)
2. Plug a USB Flash Drive in one of the USB ports on the side of the instrument.
3. Touch “Data Transfer” button.

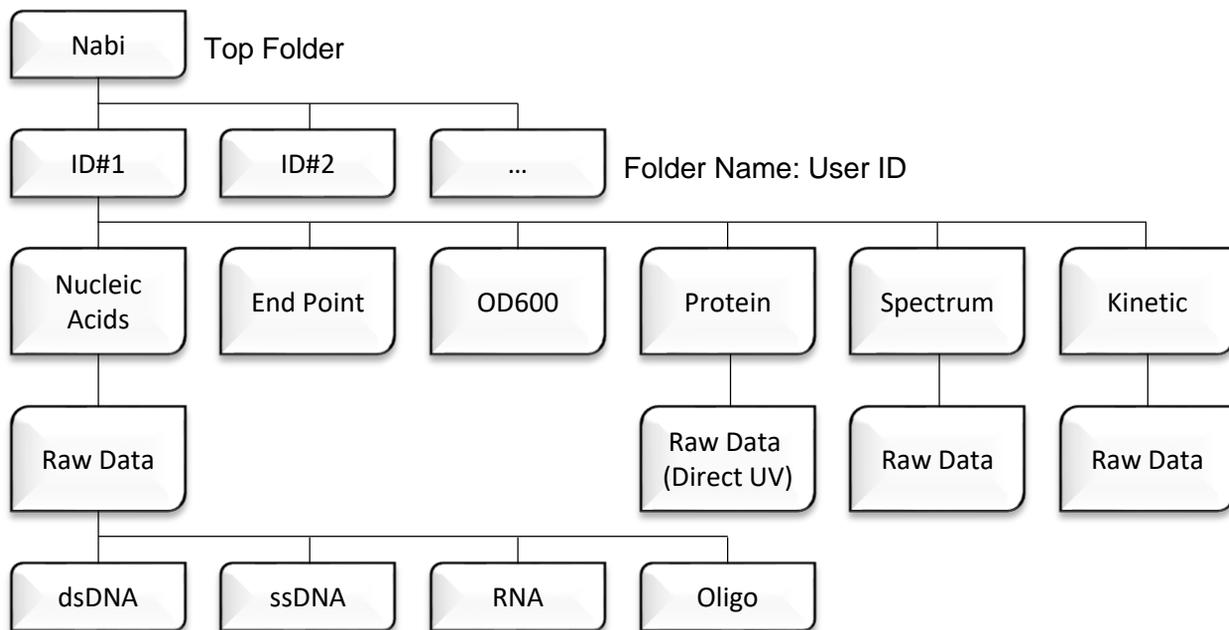
Name :

Okay
Cancel

Transfer File Name Panel

4. Insert a name for the transferred file.
5. Find the files in the Nabi folder.

Each file will be titled as the name inserted during the process.



Transfer File Location Diagram

	A	B	C	D	E	F	G
1	Transfer File Name : NUCLEIC ACIDS						
2	User : HanJae						
3	Mode : Nucleic Acids						
4							
5	Time	SubMode	Title	Conc.	260nm.	280nm.	230nm.
6	2016-07-24 19:27	RNA	RNA01	1.9	0.039	0.021	0.002
7	2016-07-24 19:27	dsDNA	dsDNA01	2.1	0.043	0.021	0.003
8	2016-07-24 19:28	ssDNA	ssDNA01	2.7	0.054	0.03	0.005

Nucleic Acids

	A	B	C	D
1	Transfer File Name : END POINT			
2	Mode : End Point			
3	User : HanJae			
4				
5	Time	Title	Wavelength	Abs.
6	2016-08-25 1:33	End Test C	600	0.278
7	2016-08-25 1:35	End Test C	567	0.548

End Point

	A	B	C	D
1	Transfer File Name : KINETIC			
2	Mode : Kinetic			
3	User : HanJae			
4				
5	Time	Title	Wavelength	Max Peak
6	2016-08-25 1:18	Kinetic Te	500	0.001
7	2016-08-25 1:20	Kinetic Te	500	0.282

Kinetic

	A	B	C
1	Transfer File Name : OD600		
2	Mode : OD600		
3	User : HanJae		
4			
5	Time	Title	Abs.
6	2016-08-25 1:35	OD Test 0	0.265
7	2016-08-25 1:38	OD Test 0	0.276
8	2016-08-25 1:39	OD Test 0	3.346

OD600

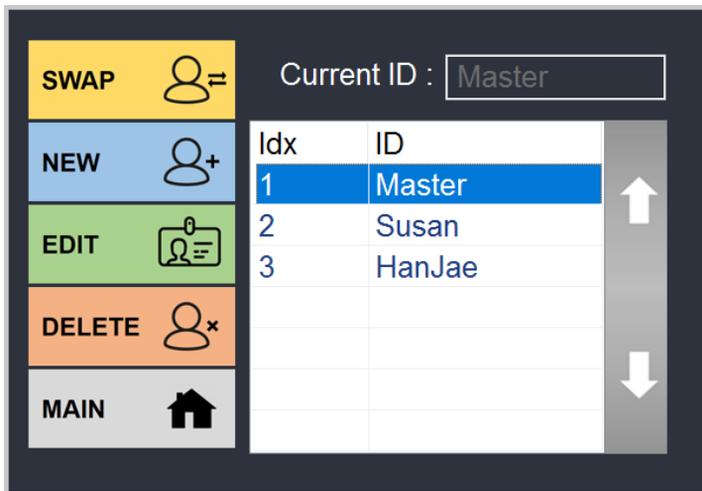
	A	B	C	D
1	Transfer File Name : SPECTRUM			
2	Mode : Spectrum			
3	User : HanJae			
4				
5	Time	Title	Wavelength	Max Peak
6	2016-08-25 1:31	Spec Test	250-500	0.183
7	2016-08-25 1:31	Spec Test	250-500	0.239

Spectrum

	A	B	C	D	E
1	Transfer File Name : PROTEIN				
2	Mode : Protein				
3	User : Master				
4					
5	Time	SubMode	Title	Conc.	Abs.
6	2016-08-26 2:55	Bradford	BRADFORD	1.003	19.6
7	2016-08-26 2:56	BCA	BCA	0.62	30.099

Protein

3.10 Account Setting



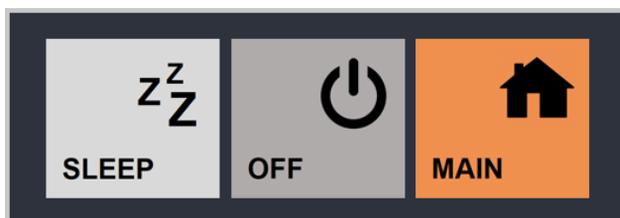
Account Panel

Account panel is accessible from the Main page by touching the Account button.

Users can swap current account, create new account, edit the selected account, or delete the selected account in the Account page. Master account cannot be deleted, and its password can be changed in the Setup page.

Current ID	Shows ID of current account logged in.
Swap	Swaps between the current account to the selected account.
New	Creates a new account.
Edit	Edits ID and passwords of selected account.
Delete	Deletes the selected account.
Main	Goes back to the Main page.

3.11 Power Panel



Power Panel

Power Panel is accessible from the Main page by touching the Power button.

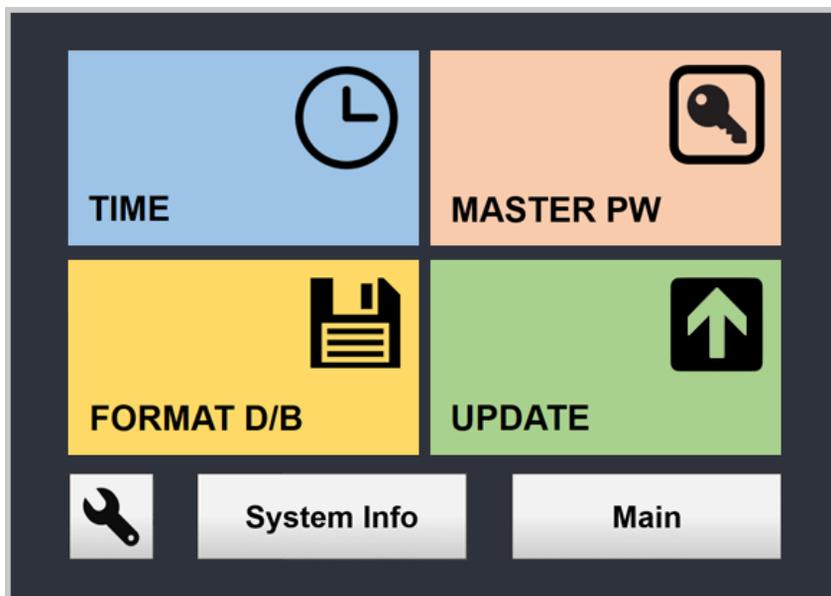
Users can put the instrument in a sleep mode, or turn off the system in the Power Panel.

IT IS VERY IMPORTANT to turn off the power by touching the OFF button in the User Interface after using the instrument, and, when it is completely shut down, turn off the Power Switch at the back of the instrument. When the power is forcibly turned off by the power switch without software shutdown, the Recovery Mode from the OS might occur during the reboot.

Users can choose the design for the screen during the sleep mode. (Refer to pg. 32)

Sleep	To put the system in a sleep mode
Power	To turn off the system.
Main	To go back to Main page

3.12 Setup



Setup Panel

Setup page is accessible from the Main page by touching the Setup button.

The users can set the time, update the interface, change Master Password, check System Information, and Calibrate the instrument. Setup is not recommended for users to access the page and change features without manufacturer's supervision.

Time Setup	Changes the time in the system.
Update	Updates the interface.
Format Database	Deletes all the data in the system; however, the accounts will remain.
 Calibration	Adjusts the setting of the system. DO NOT CHANGE THE SETTINGS without manufacturer's supervision.
Master PW	Changes the Master PW.
System Info	Shows the system information.

3.13 Update

This chapter demonstrates how the UI can be updated.

Requirements:



Instrument



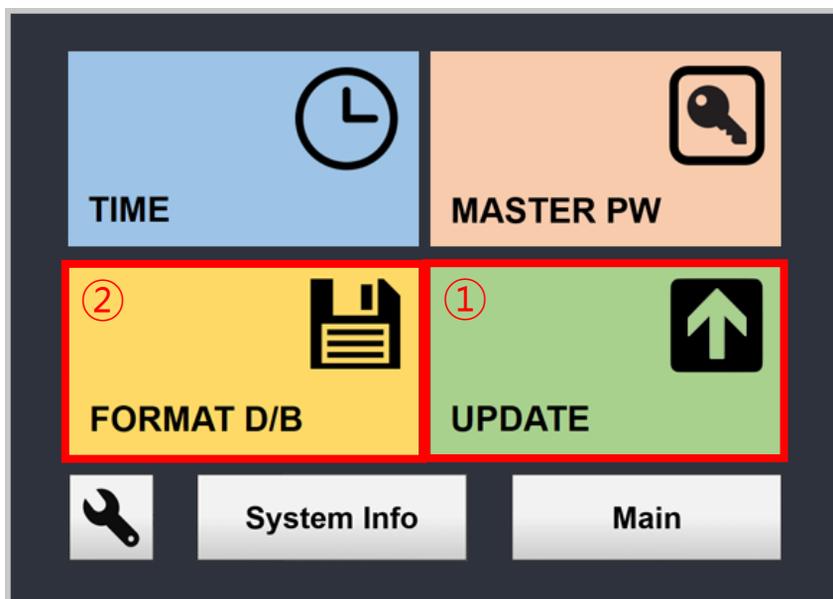
Upgrade File



USB Flash Drive

Procedure:

1. Download the update file. (Make sure to extract the file if it is provided in a .zip file)
2. Make a Nabi folder in a USB Flash Drive.
3. Transfer the file (Nabi.exe) to the folder.
4. Connect the USB Flash Drive to any of the USB Ports on the right side of the instrument.
5. Touch the SETUP button on the main screen and open the setup panel.



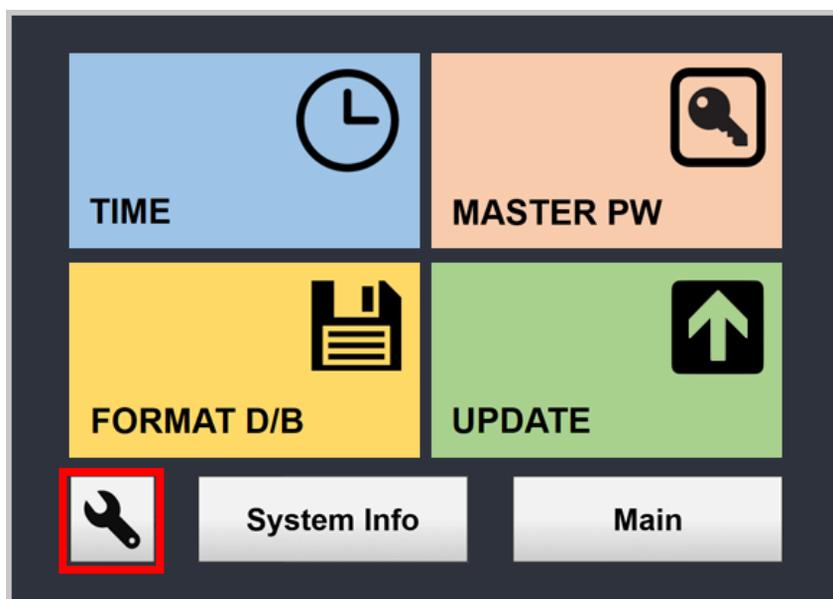
Setup Panel

4. Touch the FORMAT D/B button ② to proceed the data format.
(Make sure to retrieve the saved data by Data Transfer (refer to pg. 27))
5. Touch the UPDATE button ① to update the User Interface. It takes about 1 minute.
DO NOT Turn off the instrument or try other functions in the user interface during the update.
6. The User Interface will be automatically restart to the new version.

3.14 Calibration

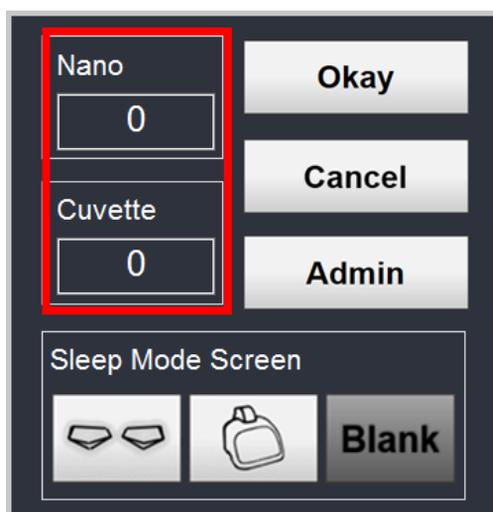
The system uses standard path lengths to measure the sample's optical density on the pedestal or through cuvette. In case of an OD value increase due to various issues, the OD values can be adjusted. It is not recommended for users to make such changes, but they are nonetheless available when such functionality is necessary. OD values can be adjusted as below.

1. Open the Setup panel by touching the Setup button from the Main page.



Setup Panel

2. Touch the Calibration button at the left bottom corner to open the Calibration Panel.
(Users must be logged in as Master in order to gain access to the Calibration Panel.)



Calibration Panel

3. Microvolume OD values can be adjusted in the box under Nano, and Cuvette OD values can be adjusted in the box under Cuvette.
4. These values can be adjusted from -1000 to 1000 and adjustment of 1 unit corresponds to OD value of 0.001.
5. For instance, in order to increase the OD value by 0.01, type in 10 into the value field and to decrease the OD value, by 0.05, type in -5 into the value field and touch Okay.

3.15 Sleep Mode Screen Selection

Users may change the display during Sleep Mode. There are 3 designs: The Eyes, The Instrument, and Blank. The eyes will protect you from bad spirits while it is on.

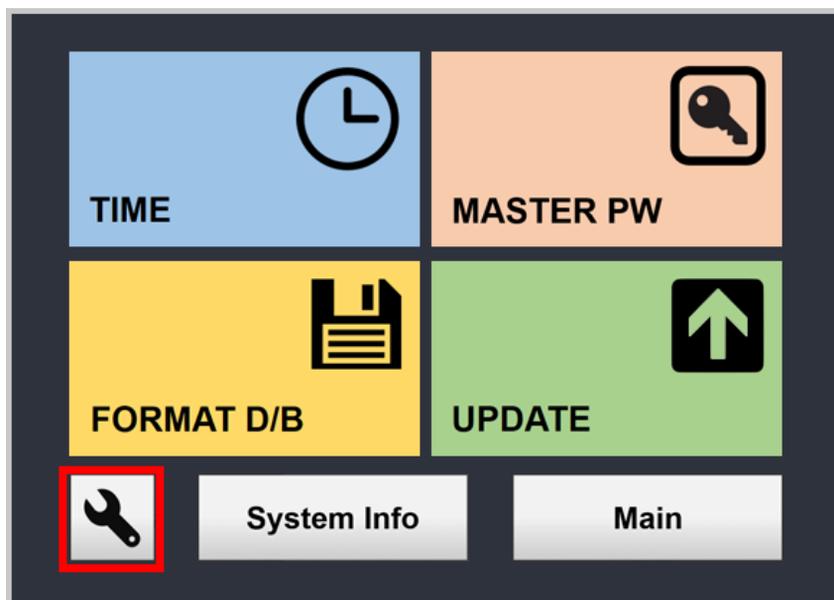
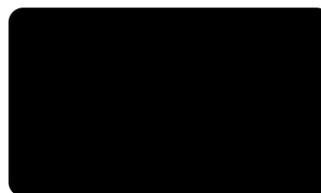
The Eyes



The Instrument



Blank



Setup Panel

1. Open the Setup panel by touching the Setup button from the Main page.



Calibration Panel

2. Touch the Calibration button at the left bottom corner to open the Calibration Panel.
3. Select the sleep mode screen of your choice, and touch Okay.



MicroDigital Co., Ltd.
#7th floor, CS Building, 15Pangyo-ro 228 beon-gil,
BunDang-Gu, SungNam-Si, GyungGi-Do, 13487, Korea
Tel : +82-31-701-2225 / Fax : +82-31-702-2225
info@md-best.com / www.MD-Best.com

