

MBI P2 Single Beam UV/VIS Spectrophotometer



Instruction Manual



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Safety Information

Please follow the guidelines below, and read this manual in its entirety to ensure safe operation of the unit.



- Do not open the device.
- Disconnect the device from the mains supply before carrying out maintenance work or changing the fuses.
- The inside of the device is a high-voltage area Danger!
- Do not use the device if it is damaged, especially if the main power cable way is in any damaged or defective.
- Repairs may only be carried out by the service technicians from us and authorized contractual partners.
- The device must be connected to a power outlet that has a protective ground connection.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



- Do not allow any liquid to enter into the device.
- Do not operate the device in a hazardous location or potentially explosive environment.

Package Contents

Description	Quantity
Spectrophotometer	1PC
Glass Cuvette	4PCS
Quartz Cuvette (UV/VISIBLE models only)	2PCS
Power Cord	1PC
Instruction Manual	1PC
Dust Cover	1PC

Unpacking

Open the package, according to carefully check the packaging packing list items, if found inside the packaging are missing or damaged items please contact us and authorized contractual partners.

Installation

Placement

Place the instrument on the stable table carefully.

Install printer (Optional)

Check to confirm instrument power switch is turned off, connect the printer's data cable to the Instrument's serial/USB port.




Information *The spectrophotometer supports USB printers using the HP PCL3 GUI print description language.*

Connect the power cord

Check to confirm instrument power switch is turned off, the power cord plug into two separate power interface and power supply socket apparatus.

Symbols and Conventions

The following chart is an illustrated glossary of the symbols that are used in this manual.

	CAUTION This symbol indicates a potential risk and alerts you to proceed with caution
	CAUTION This symbol indicates the presence of high voltage and warns the user to proceed with caution
	CAUTION This symbol indicates risks associated with hot surfaces

Specifications

Optical System	Single Beam
Light Source	Tungsten Lamp&Deuterlum Lamp
Delector	Silicon Photodiode
Wavelength Range	195-1050nm
Spectral Bandwidth	2nm
Display	5-inch touch screen
Standard Cell Holder	10 mm manual 4-position cell holder
Weight	10.7kg
Dimensions	456(W)×360(D)×185(H) mm
Function	Photometry Test ; Quantitative Test ; File Management ; System Utilities ; Performance verification
Power	100-240V AC, 50/60Hz, 120W

Overview

This model of spectrophotometer used in Chemistry, Pharmaceuticals, Biochemical, Metallurgy, Light Industry, Textile, Material, Environments, Medical, Education and some other fields for Quality Control laboratories.

Description of Buttons and Switches

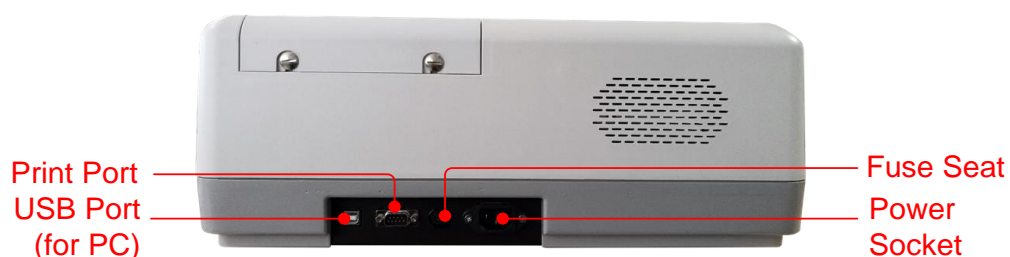
Front View



Right View



Rear View











Getting Started

The following chart describes the basic operation of the instrument.

Turn On and Self-check

Switch on the power. Self-check includes the following steps: Turn On Lamp → Locating Filter Disc → Locating Automatic Sample Holder (If Installed) → Get Dark Current → Locating Wavelength → Check Energy → Check System baseline.

System initialization		
	Light source initialization	
	Filter initialization	
	Sample holder initialization	
	Dark current check	
	Wavelength calibration	
	Energy check	

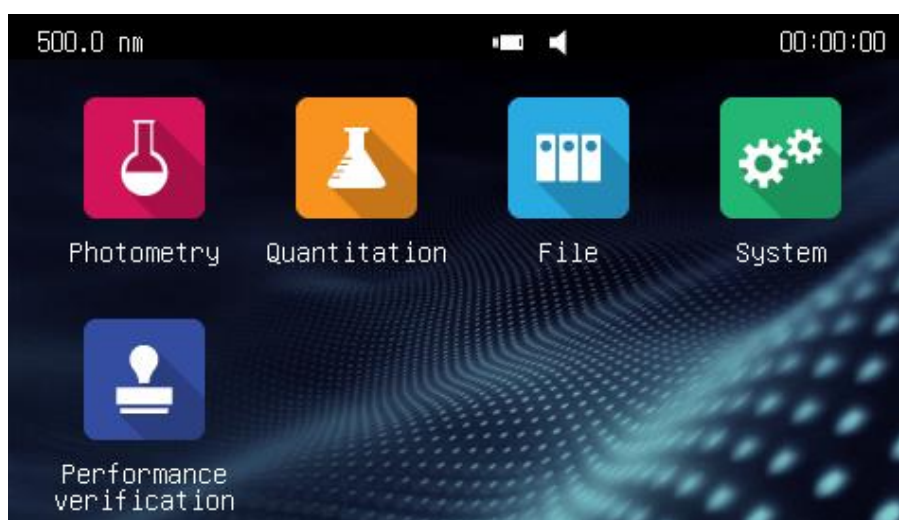
General Operating Instructions







Touch Screen Using Tips

The entire screen can be started with a touch. To make a choice, use your nails, fingertips, pencil, or stylus to press the screen. Don't press the screen with sharp objects (such as ball point).




Select Application

Main Interface, press the icon to select application.







	Photometry Measure the absorbance or transmittance of the sample.
	Quantitation Establish the standard curve and measure the concentration of the sample.
	Spectrum Scan the sample in a wavelength range.
	File Manage files stored in the instrument or USB disk.
	System System calibration and setup.
	Performance verification Verify the performance of the instrument.





Basic Operation

	Home Back to main interface.
	Return Back to the previous interface.
	Page Up/Down Go to previous/next page.

Measurement Results Operation

	Open Open result(s) from internal/USB memory.
	Save Save result(s) to internal/USB memory.
	Print Print result(s).
	Delete Delete selected result(s).


Rename, Print and Delete Results

List				
		< 1 / 3 >		
Name	Wavelength	Result	Date	
Spl - 1	500.0	0.006 A	14/04/01 12:00:03	✓
Spl - 2	520.0	0.013 A	14/04/01 12:01:12	✓
Spl - 3	610.0	0.125 A	14/04/01 12:01:58	✓
Spl - 4	700.0	0.169 A	14/04/01 12:02:07	✓
Spl - 5	835.0	0.011 A	14/04/01 12:02:49	✓
   				

Rename a Sample:

List interface, press the area **Name**, key in the sample name (Up to 8 characters).



Print the Measurement Report:

List interface, press the icon .

Delete sample(s):

List interface, press the **Check Box**, and press the icon .

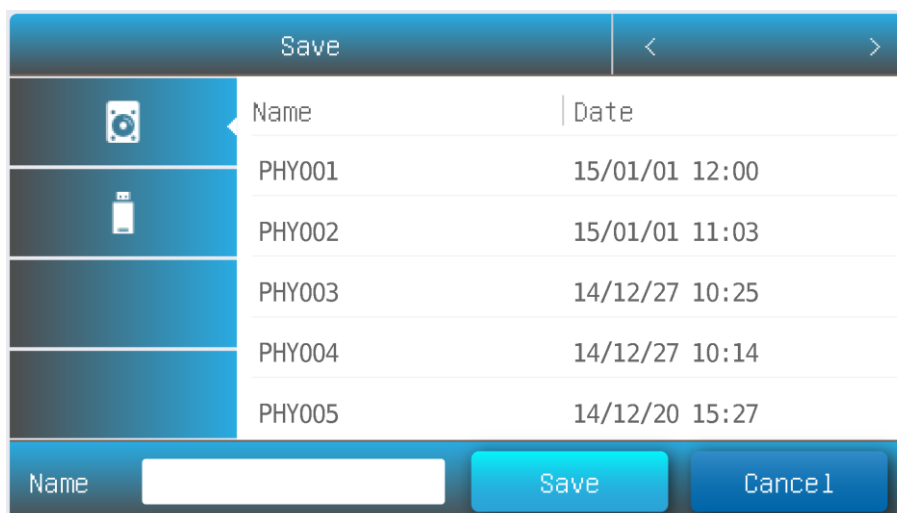
Open Results

Open		<	>
	Name	Date	
	PHY001	15/01/01 12:00	
	PHY002	15/01/01 11:03	
	PHY003	14/12/27 10:25	
	PHY004	14/12/27 10:14	
	PHY005	14/12/20 15:27	
Name <input type="text"/>		Open	Cancel



Open:

1. **List** interface, press the icon .
2. Press the icon **internal memory/USB memory** to select the memory which the file saved.
3. Press file lists to select, press the button **Open**.







Save Results



Save:





1. **List** interface, press the icon **Save**.
2. Press the icon  /  to select the Internal/USB memory which the file to save.
3. Type in the file name, press the button **Save**.

Files Operation

	Internal Memory Internal memory of the spectrophotometer.
	USB Memory USB extended mass memory.
	Copy Copy the selected file(s) from internal /USB memory to USB/internal memory.
	Export csv Export file(s) to *.csv format
	Export txt Export file(s) to *.txt format
	Delete Delete the selected file(s).


Rename, Import, Export and Delete Files




Rename a File:	File management interface, press the area Name , key in the file name (Up to 8 characters).	
Copy File(s) From/To Internal Memory/USB Memory:	File management interface, press the Check Box , press the button (Need USB disk) .	
Export File(s) To *.csv Format	File management interface, press the Check Box , press the button (Need USB disk) .	
Export File(s) To *.txt Format	File management interface, press the Check Box , press the button (Need USB disk) .	
Delete File(s):	File management interface, press the Check Box , and press the icon  .	


Calibration and System Settings

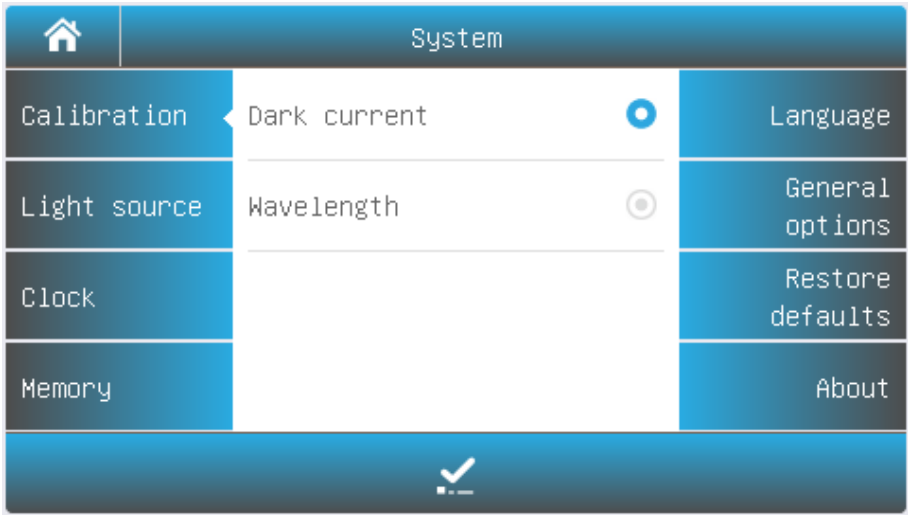


Select the icon  in the main interface. Display options to calibrate the system and configure the basic instrument settings.



Calibration

	Calibrate Start to do calibration.
---	---

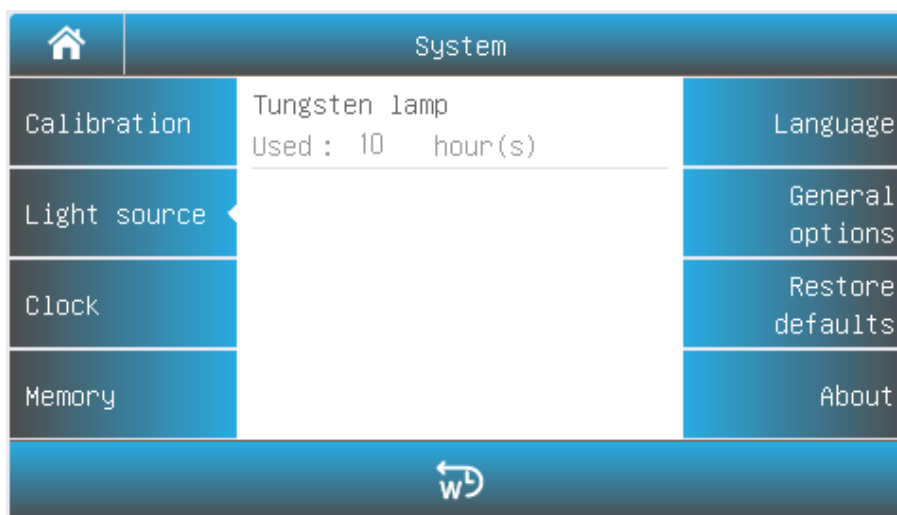
Select Tab **Calibration** in the **System** interface. Remove something in the measurement channel, close the sample chamber cover, select the item **Dark current**, **Wavelength**, press the icon  to do calibration.



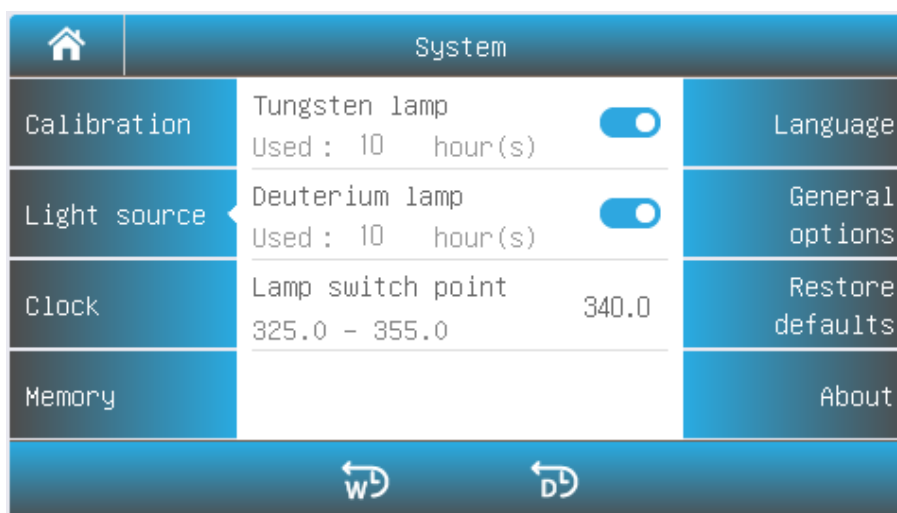
Settings of Light Source

	Tungsten lamp reset Reset the Tungsten lamp usage.
	Deuterium lamp reset Reset the Deuterium lamp usage.

Select Tab **Light source** in the **System** interface. The light source information is displayed on the screen.




Visible models



UV/VISIBLE models



On/Off lamp:

Press the icon  to turn on/off the Tungsten lamp/Deuterium lamp.

Change the lamp switching point:

Press the value of lamp switching point. Input the new value.

Reset the lamp usage:

Press the icon  /  to reset the Tungsten lamp/Deuterium lamp usage time.

Important information

1. *If only one of the light sources is used in for a long period of time, please turn off another light source to save energy.*
2. *If the lamp switching point is changed, the system baseline must be recalibrated.*

Edit Clock



	Accept Accept the new value.
---	-------------------------------------

Select Tab **Clock** in the **System** interface. Press the value of year, month, date, hour, minute or second to change.

Press the icon  to accept new value.

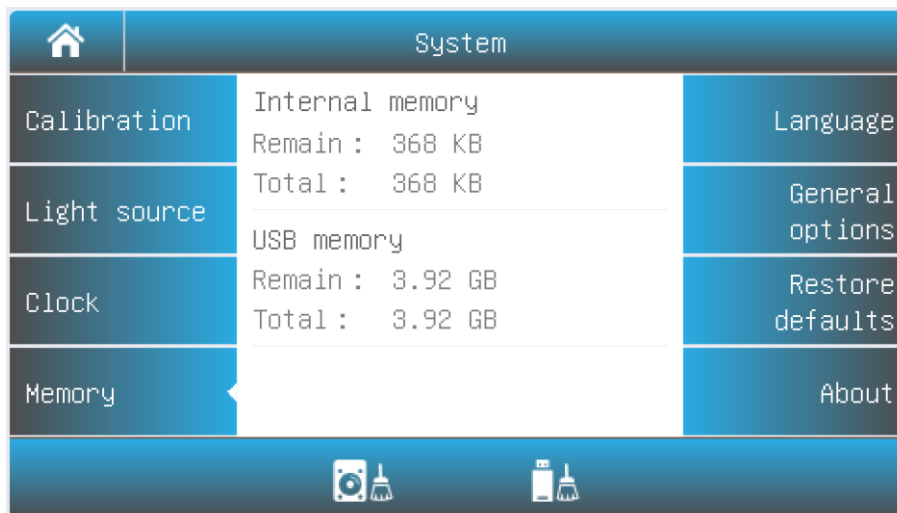


Memory Management


	Format Internal Memory Format the internal memory of the spectrophotometer.
	Format USB Memory Format the USB mass storage.

Select Tab **Memory** in the **System** interface. The use of the internal and USB memory (If inserted) are show.

Press the icon  /  to format internal memory/USB memory.



Language Selection

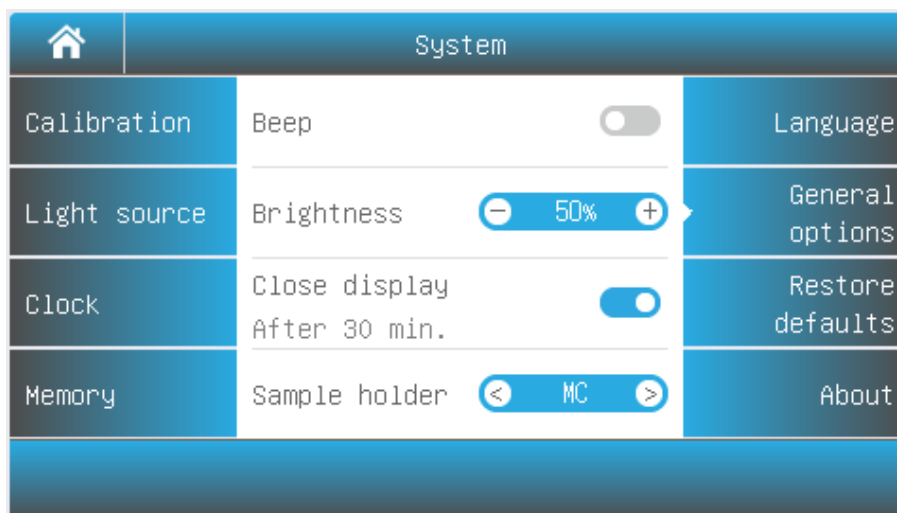
	Accept Accept the new language.
---	--

Select Tab **Language** in the **System** interface. Select a language, press the icon  to change.




General Options


Select Tab **General Options** in the **System** interface.

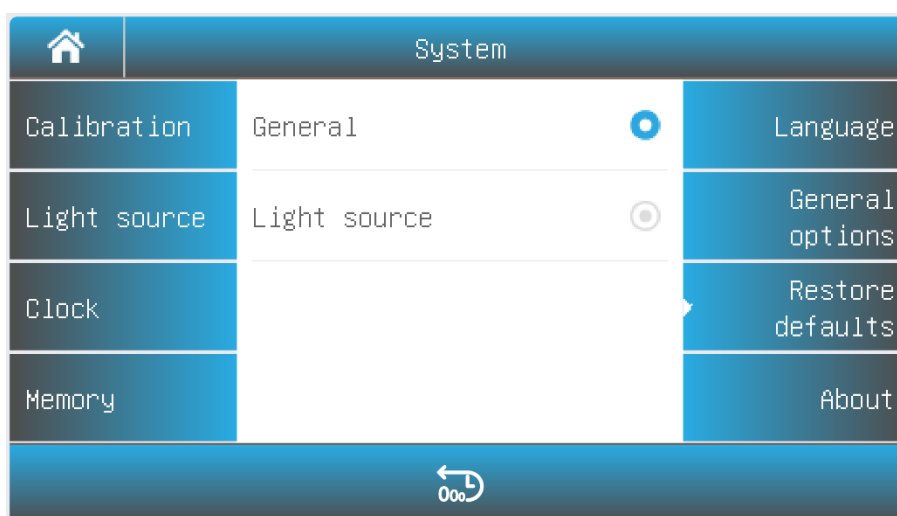


- Beep:** Press the icon ☐ to turn on/off the beep.
- Brightness:** Press the icon to decrease/increase the brightness of the LCD display.
- Close display:** Press the icon ☐ to turn on/off. If turned on, the display will close automatically if no operation for 30 minutes.
- Select sample holder** If the instrument is equipped with an automatic sample cell holder, you need to press before the first use to set the type of automatic sample cell holder provided (Auto Five-cell Holder: AC-5 or Automatic Eight-cell Holder: AC-8)

Restore Defaults

	Restore Restore the parameters to factory settings.
---	--

Select Tab **Restore defaults** in the **System** interface. Select an item, press the icon  to restore.



Performance Verification



Select the icon in the main interface. Display options to verify the performance of the instrument.

Performance verification		
Wavelength accuracy	Measuring Wavelength 450.8	Dark noise
Photometric accuracy	Measured value	Stability
Stray light		Bandwidth
Noise		
<div>Zero Measure</div>		

Important information Before verifying the performance, the instrument needs to be preheated for 30 minutes, and then re-measure dark current.

Verifying Wavelength Accuracy and Wavelength Repeatability

Select Tab **Wavelength accuracy** in the **Performance verification** interface.

Standard Sample:

Holmium oxide solution or equivalent filter

Measurement:

1. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength of measurement, press the button **Zero**;
2. Put the **Standard Sample** in the measurement channel, press the button **Measure**;
3. Repeat step 2 to do measurement three times. The difference between the average of the three measurements and the standard value is the single-point wavelength tolerance. The difference between the maximum and minimum values of the three measurements is single point wavelength repeatability;
4. Repeat step 1-3 to do measurement single-point wavelength tolerance one by one. The maximum value in the single-point wavelength tolerance is wavelength accuracy. The maximum value in the single-point wavelength reproducibility is wavelength repeatability.

Verifying Photometric Accuracy and Photometric Repeatability

Select Tab **Photometric accuracy** in the **Performance verification** interface.

Standard Sample:

NIST 930D or equivalent filter

Measurement:

1. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength of measurement, press the button **Zero**;

2. Put the **Standard Sample** in the measurement channel, press the button **Measure**;
3. Repeat step 2 to do measurement three times. The difference between the average of the three measurements and the standard value is the single-point photometric tolerance. The difference between the maximum and minimum values of the three measurements is single point photometric repeatability;
4. Repeat step 1-3 to do measurement single-point photometric tolerance one by one. The maximum value in the single-point photometric tolerance is photometric accuracy. The maximum value in the single-point photometric reproducibility is photometric repeatability.

Verifying Stray Light

Select Tab **Stray light** in the **Performance verification** interface.

- | | |
|-------------------------|---|
| Standard Sample: | 10g/L NaI solution or equivalent filter (220nm, UV/VISIBLE models only),
50g/L NaNO ₂ solution or equivalent filter (340 or 360nm) |
| Measurement: | <ol style="list-style-type: none"> 1. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength of measurement; 2. Put the Reference in the measurement channel, press the button Zero; 3. Put the Standard Sample in the measurement channel, press the button Measure, the result is the stray light of this wavelength. |

Verifying Noise

Select Tab **Noise** in the **Performance verification** interface.

- | | |
|-------------------------|---|
| Standard Sample: | None |
| Measurement: | <ol style="list-style-type: none"> 1. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength of measurement, press the button Zero; 2. Press the button Measure, the result is the noise of this wavelength. |

Verifying Dark Noise

Select Tab **Dark Noise** in the **Performance verification** interface.

- | | |
|-------------------------|---|
| Standard Sample: | Block |
| Measurement: | <ol style="list-style-type: none"> 1. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength of measurement, press the button Zero; 2. Put the Block in the measurement channel, press the button Measure, the result is the dark noise of this wavelength. |

Verifying Stability

Select Tab **Noise** in the **Performance verification** interface.

- | | |
|-------------------------|--|
| Standard Sample: | None |
| Measurement: | <ol style="list-style-type: none"> 1. Remove something in the measurement channel, close the sample |

- chamber cover, press the wavelength value, type in the wavelength 500, press the button **Zero**;
2. Press the button **Measure**, the result is the noise of 500nm.

Verifying Bandwidth

Select Tab Dark **Noise** in the **Performance verification** interface.

Standard Sample: Low pressure quartz mercury lamp

Measurement:

1. Open the lamp cover, put the low pressure quartz mercury lamp into the lamp seat, and turn it on.
2. Remove something in the measurement channel, close the sample chamber cover, press the wavelength value, type in the wavelength 546.1;
3. Press the button **Measure**, the result is the bandwidth.

Measurement

Important Guidelines

- Reagents and dilution buffers can cause cauterization and other damage to health.
- Samples (nucleic acids, proteins, bacteria cultures) can be infectious and cause serious damage to health.
- During sample preparation, measuring procedures and maintenance and cleaning work, observe all local laboratory safety precautions (e.g. wear protective clothing and gloves, use of disinfectant) regarding the handling of sample material.
- Dispose of measuring solutions and cleaning and disinfectant materials in accordance with the relevant local laboratory regulations.

Check the cuvettes

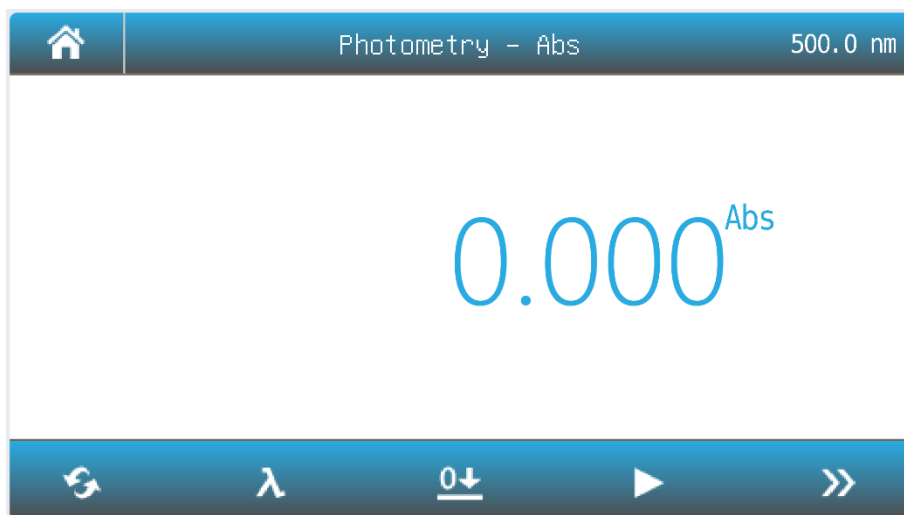
The cuvettes must be clear and there's no remains of the samples on the surface of it. **Only Quartz cuvettes are permitted to be used in the range of UV area.**







Photometry


Photometry mode is used to measure the absorbance or transmissivity of the sample.







1. **Main** interface, press the icon to start a **Photometry** application.



	Mode Switch measurement mode to %T, Abs or Energy.
	Wavelength Set measurement wavelength.
	Zero Do 0Abs/100%T.
	Read Measure sample and record the result.
	List View the result(s) list.
	Increase/Decrease Increase/Decrease the gain of signal. Only for Energy mode.

2. Press the icon  to switch to the measurement mode.

Abs	Measure absorbance value of the sample(s).
%T	Measure transmittance value of the sample(s).
E	Measure energy value of the sample(s).

3. Press the icon  to set wavelength, key in the measurement wavelength.
4. Put the reference in the measurement channel, press the icon  to do zero.
5. Put the sample in the measurement channel, press the icon  to measure a sample and record the result.
6. Press the icon  to browse the result(s).

List				< 1 / 3 >
Name	Wavelength	Result	Date	✓
Spl - 1	500.0	0.006 A	14/04/01 12:00:03	✓
Spl - 2	520.0	0.013 A	14/04/01 12:01:12	✓
Spl - 3	610.0	0.125 A	14/04/01 12:01:58	✓
Spl - 4	700.0	0.169 A	14/04/01 12:02:07	✓
Spl - 5	835.0	0.011 A	14/04/01 12:02:49	✓

Quantitation

Quantitation mode is used to measure the concentration of the sample(s).



- 1 **Main** interface, press the icon to start a **Quantitation** application.

Quantitation

Measure sample

Establish method

- 2 Establish Method

- 2.1 **Quantitation** interface, press the button **Establish method**.

Setting

Measurement	A=A1	Unit	mg/ml
Wavelength 1 190.0 - 1100.0	500.0	Calibration	Std M
Wavelength 2 190.0 - 1100.0	—	Standard quantity 2 - 10	6
Fitting	C=K1*A+K0		

Next

Cancel

Measurement	A=A1: Absorbance is equal to the measured absorbance value of the measured wavelength 1 A=A1-m*A2: Absorbance is equal to the difference between the absorbance value of the measured absorbance at the wavelength 1 and the wavelength 2, m is the Coefficient A=A1/A2: Absorbance is equal to the ratio of the measured absorbance value of the measured wavelength 1 and 2
Wavelength 1	Measurement wavelength 1
Wavelength 2	Measurement wavelength 2
Fitting	LIN-0: Linear to zero LIN: Linear. QUA: Quadratic.
Unit	- (No Unit), %, ppm, ppb, g/L, mg/L, µg/L, ng/L, g/dL, mg/dL, µg/dL, mg/mL, µg/mL, ng/mL, µg/µL, ng/µL, mol/L, mmol/L, IU, Custom(User input, Up to 8 characters).
Calibration	Coe K: Input equation coefficient. Std M: Measure standard sample(s) Std I: Input standard sample(s)
Standard quantity	Standard sample number (Up to 10)

2.2 Press the item to set measurement parameters.

2.3 After all the parameters are set up, press the button **Next** to start establishing the standard curve. If the item **Calibration** is set to the parameter Coe K, Std M or Std I, please refer to 2.3.1, 2.3.2 or 2.3.3.

2.3.1 Input equation coefficient to establish standard curve.

(1) Input equation coefficient K0 ~ K3. Press button **Next**.

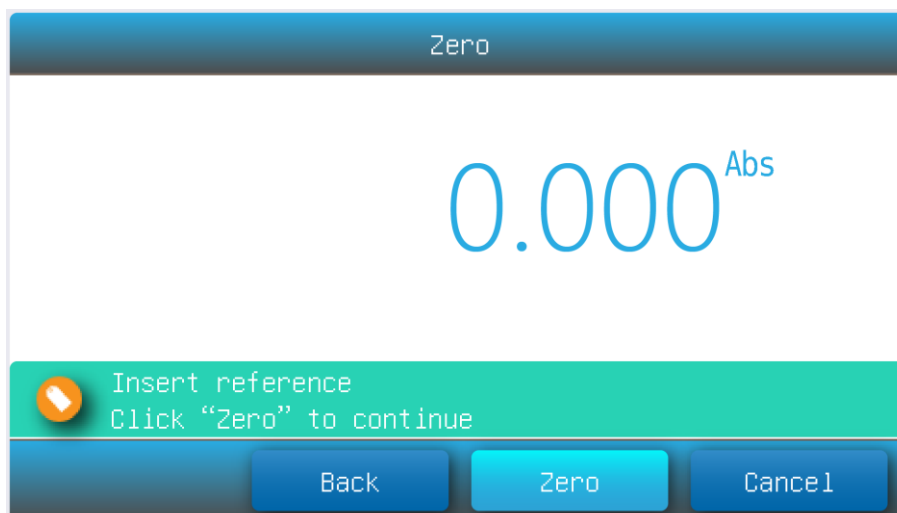
The screenshot shows a screen titled "Input coefficient" with a blue header. Below the header, there are three rows of input fields. The first row is "Coefficient K2" with a value of "1.000". The second row is "Coefficient K1" with a value of "1.000". The third row is "Coefficient K0" with a value of "0.005". At the bottom of the screen, there are three buttons: "Back", "Next", and "Cancel".

Input coefficient	
Coefficient K2	1.000
Coefficient K1	1.000
Coefficient K0	0.005

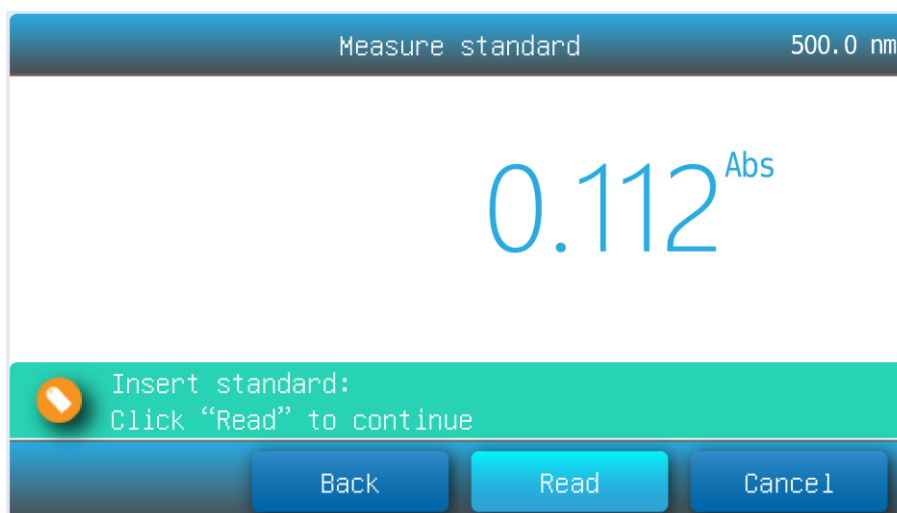
Back Next Cancel

2.3.2 Measure standard sample to establish standard curve

(1) Put the reference in the measurement channel, press the button **Zero** to do zero.



- (2) Put the 1# standard sample in the measurement channel, press the button **Read** to measure.



- (3) Repeat step 3.3 to measure other of the standard samples.
 (4) Press the item to input concentration of standard samples, press the button **Next**.

Input standard					
Name	Abs	Conc	Name	Abs	Conc
Std - 1	0.000	0.000	Std - 6	1.788	16.00
Std - 2	0.112	1.000			
Std - 3	0.225	2.000			
Std - 4	0.448	4.000			
Std - 5	0.895	8.000			

2.3.3 Input standard sample to establish standard curve

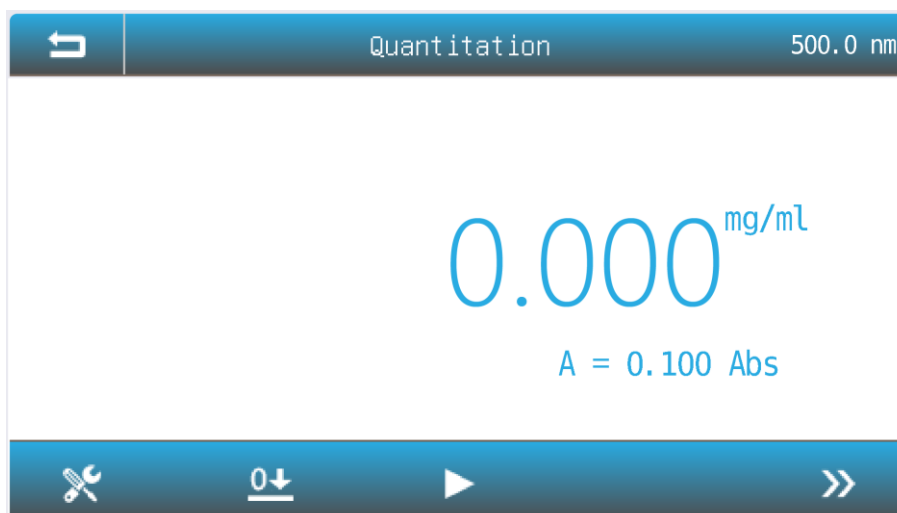
- (1) Press the item **Abs** and **Conc** to input absorbance and concentration of standard samples, press the button **Next**.





- 2.4 Finished establish method. Press the button **Save** to save the method, press the button **Measure** to accept the new method and go to the **measurement interface**, Press the button **Finish** to exit.



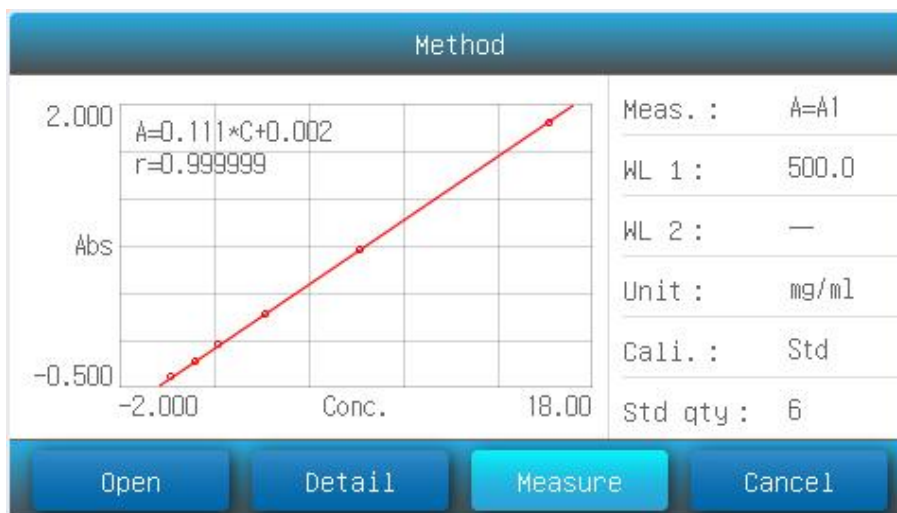
3 Measure Sample

- 3.1 **Quantitation** interface, press the button **Measure sample**.




	Method Select measurement method.
	Zero Do 0Abs/100%T.
	Read Measure the sample and record the result.
	List View the result(s) list.


- 3.2 Press the icon  to select method.





3.3 Press the button **Open** to load measurement method stored in the internal memory/USB disk.

3.4 Press the button **Measure** to accept the new measurement method and back to **measurement interface**.

3.5 Put the reference in the measurement channel, press the icon  to do zero.

3.6 Put the sample in the measurement channel, press the icon  to measure a sample and record the result.

3.7 Press the icon  to browse the result(s).

List				
		< 1 / 3 >		
Name	Abs	Result	Date	
Spl - 1	0.002	0.012	14/04/01 12:00:03	
Spl - 2	0.003	0.018	14/04/01 12:01:12	
Spl - 3	0.010	0.060	14/04/01 12:01:58	
Spl - 4	0.353	0.706	14/04/01 12:02:07	
Spl - 5	0.357	0.714	14/04/01 12:02:49	
   				

Troubleshooting

Review the information in the table below to troubleshoot operating problems.

Problem	Cause	Solution
Power on, no response	Power cord connection is not reliable	Improve connectivity
	Fuse burning	Replace fuse

Measurement uncertainty	Sample is not Stable	Improve the sample
	Glass cuvettes used in UV Range	Use quartz cuvettes
	The concentration of sample is too high	Diluted sample
	Power Supply Voltage Low or not Stable	Improve the Power Supply
	Lamp damage or lamp life maturity	Replace lamp
Dark Current Error when self-check	The lid of the compartment is open during self-check	Close the lid, restart
System Calibrate Failed	Something block the Light path	Remove it, calibrate again
Measurements inaccurate	Cuvettes were contaminated	Clean cuvettes
	Samples were contaminated	Improve samples
	Worse matching of the cuvettes	Improve the matching of the cuvettes
	Dark current error	Resample dark current

Repair and Maintenance

Daily Maintain

Check the compartment

After measurement, the cuvettes with sample solutions should be taken out of the compartment in time. Or the volatilization of the solution would make the mirror go moldy. Users must pay more attention to the corrosive sample and liquid easy to volatilize. Any solution remains in the compartment should be wipe off immediately.

Surface clean

The cover of the instrument is with paint. Please use wet towel to wipe off the drips on the surface immediately. Organic solution is forbidden to be used to clean the cover. Please wipe off the dirt on the cover timely.

Clean the cuvettes

After every test or after a solution change, the cuvettes should be cleaned carefully, or the remains on the surface would cause measuring error.

Spare Parts Replacement

Replace the fuse



Danger!
replacement!

Be sure to switch off the power and unplug the socket before

1. Tools preparation

Prepare a 3×75 Flat Blade screwdriver.

2. Switch Off the power supply

Switch off the power supply, and unplug the socket.

3. Take out the Fuse Seat

Push the fuse case by using the screwdriver, and turn it counterclockwise, the fuse seat will pop out when released.



4. Replace a new fuse

Pick out the spare fuse (3.15A/250V) and replace it.



5. Reset the fuse seat

Replace the fuse seat in the power socket. Push the fuse case by using the screwdriver, and turn it clockwise, the fuse seat will be locked when released.



6. Switch on the power

Plug the socket and switch on the power.

Replace lamps



Hot!
scald!

Wait 20 minutes before open the lamp chamber after power off to avoid

1. Tools preparation

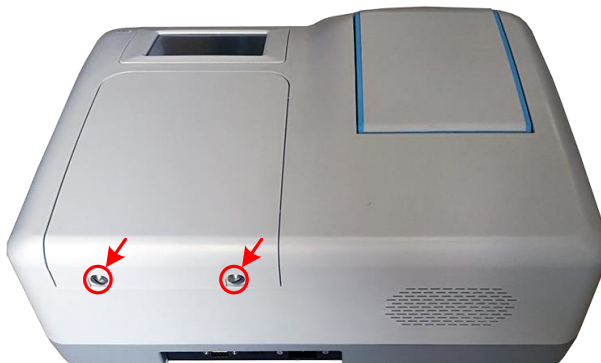
Prepare a 6×150mm Flat Blade screwdriver and a pair of glove.

2. Power Off

Switch off the power supply and unplug the socket.

3. Open the cover

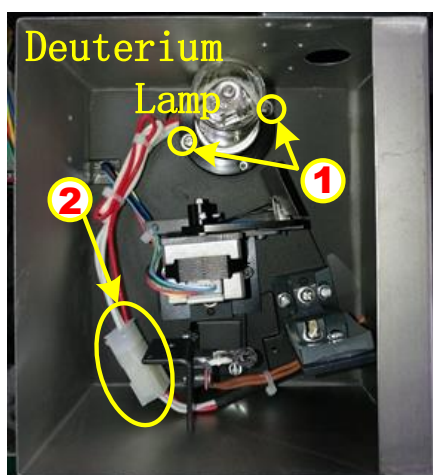
Loosen the indicated two screws and remove the lamp cover.



4. Replace the D2 lamp

If your spectrophotometer is visible model, please skip to step 5.

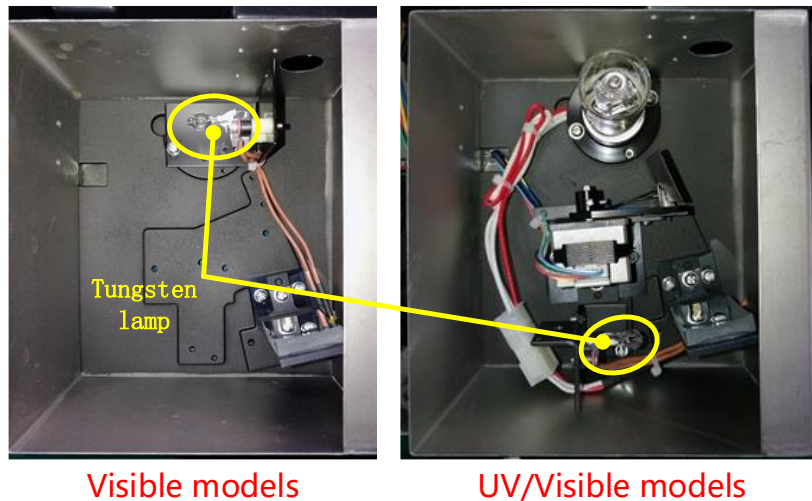
Unplug the connector (No. 2). Unscrew the 2 screws on the D2 Flange (No.1) and remove the D2 lamp. Draw on the cotton glove and replace a new lamp. Fix the 2 screws and plug the connector again.



5. Replace W lamp

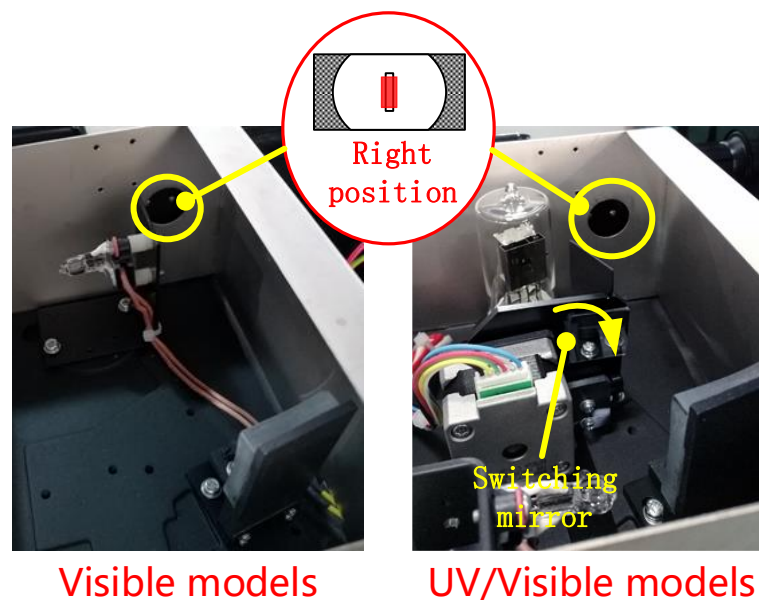
The Tungsten lamp is equipped with a blue-grey silicon coating by manufacturer. This coating is only a transport safety device. It can be removed with the first exchange of lamp.

Pull out the defected W lamp and draw on the cotton glove. Insert the new W lamp as deep as possible on the lamp seat. Be sure to keep the filament in the same direction as the old one face.



6. Adjust the position of the W lamp

Switch on the power(the Switch Mirror should be placed to the position as indicates). Observe the entrance facular, and it should in the center of the entrance hole. If the facular deviate to Left or Right, then loosen the two screws and move the lamp seat to Left or Right until it focus on the center of the slot. Then fix the screws.



7. Finish

Reset the cover of the light chamber and fix the screws. Reset the cover of the lamp room and fix the screws.

Warranty

We warrants that this product will be free from defects in material and workmanship for a period of one (1) year from date of delivery except the lamps. Lamps have a warranty of 1000 h lamp usage time or 6 months max. If a defect is present, WE will, at its option and cost, repair, replace, or refund the purchase price of this product to the customer, provided it is returned during the warranty period. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, or from ordinary wear and tear. If the required maintenance and inspection services are not performed according to the manuals and any local regulations,

such warranty turns invalid, except to the extent, the defect of the product is not due to such non-performance. Items being returned must be insured by the customer against possible damage or loss. This warranty shall be limited to the aforementioned remedies. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY.

Compliance with local laws and regulations

The customer is responsible for applying for and obtaining the necessary regulatory approvals or other authorizations necessary to run or use the Product in its local environment. WE will not be held liable for any related omission or for not obtaining the required approval or authorization, unless any refusal is due to a defect of the product.

Equipment Disposal



This equipment is marked with the crossed out wheeled bin symbol to indicate that this equipment must not be disposed of with unsorted waste.

Instead it's your responsibility to correctly dispose of your equipment at lifecycle -end by handling it over to an authorized facility for separate collection and recycling. It's also your responsibility to decontaminate the equipment in case of biological, chemical and/or radiological contamination, so as to protect from health hazards the persons involved in the disposal and recycling of the equipment.

For more information about where you can drop off your waste of equipment, please contact your local dealer from whom you originally purchased this equipment.

By doing so, you will help to conserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.

Thank you!

