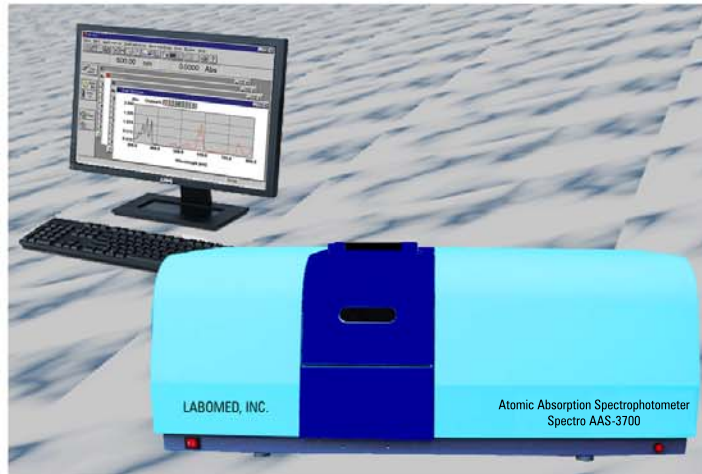




Atomic Absorption Spectrophotometer

Fully Automatic Flame System

Model AAS-3700



Atomic Absorption Spectrophotometer AAS-3700 is a superior instrument for the research laboratory, and is an advanced and affordable system with high sensitivity that generates accurate and reproducible measurements. The AA-3700 spectrophotometer is accurate, reliable, and is an exceptional value. With its built-in, computer-controlled Air/Acetylene flame, titanium alloy burner and high-efficiency glass nebulizer design, the system provides optimal and reproducible results for micro and macro samples with high resolution.

Atomic Absorption Spectrophotometer AAS-3700 has a **powerful built-in software** which permits this instrument to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. **Atomic Absorption Spectrophotometer AAS-3700's** enhanced transmission and full reflection makes this atomic absorption spectrophotometer highly effective and reduces noise.

One of its advantages is its accurate wavelength, ease of operation, versatile software applications, and effortless optional accessory installation. This instrument is widely used for analyzing samples for **Agricultural, Food, Geological, Clinical, Metal, Petrochemical, Environmental, Mining and Pharmaceutical applications.**

It is easy to manipulate, and is fully automated, allowing for automatic adjustment of the lamp current and position, the burner head position, the negative voltage, and the gas flow. Safety is our primary concern, and the **Atomic Absorption Spectrophotometer AAS-3700** allows for constant monitoring of the burner head, the flame, the ignition, air pressure, and drain status, to ensure the optimum functioning of the instrument.

Atomic Absorption Spectrophotometer AAS-3700 has a highly effective nebulizer, the sensitivity of the Cu $2\mu\text{g/ml}$ is more than 0.28Abs.

Labomed, Inc. is certified by ISO-9001-2013, has CE Conformity and is FDA Licensed.

Features

FEATURES AND FUNCTIONS:

The instrument has a motorized 8 hollow cathode lamp turret which allows the automatic positioning and optimization of each hollow cathode lamp by the software. The control of the gas flows for the fuel gas (C_2H_2) of the burner is also carried out directly from the software, thus allowing optimization of the instrument for the best analytical parameters for a selected analysis.

Two methods of background correction are available. The first utilizes a Deuterium Arc lamp and the second is the proven method of Self Reversal.

High precision minimal optics ensures maximum light throughput to the computer controlled Czerny-Turner Monochromator.

The location of the wavelength and peak selection is automatically controlled from the software.

The spectral bandwidth is automated and is available with a choice of five slit sizes.

The electronic parameters for the photomultiplier tube detector, the hollow cathode lamp current and the balancing of the absorbance and background energies are controlled from the software.

The ignition of the flame is computer controlled and the various safety interlocks offer a very safe operating system.

SAFETY:

The flame conditions are continuously monitored and should the flow rates change, an audible alarm sounds.

The pressure of the support gas (oxidant) is monitored constantly. If the pressure changes then the flow of the fuel gas will be stopped and the flame will be safely extinguished.

A sensor monitors the level of liquid in the drain and will prevent ignition if too slow. The flame will also be extinguished if the level of liquid in the drain changes significantly.

A flame sensor monitors the flame and safely turns off the gas flow to the burner if the flame suddenly extinguishes.

The burner is identified by a switch making it impossible to light without the burner being fitted.

An emergency flame off button is installed in case a problem is observed. The flame can be extinguished safely.



Atomic Absorption Spectrophotometer

Fully Automatic Flame System

Model AAS-3700

INCLUDED ACCESSORIES



Motorized 8 hollow cathode lamp turret accessory



Atomizer accessory

OPTIONAL ACCESSORIES



HYDRIDE GENERATOR

A hydride generator is available for the determination of elements such as Arsenic, Selenium, Antimony, Tellurium and mercury at ultra low levels. The hydride generator is supplied with an absorption cell, and electrical absorption cell heater and controller and all necessary burner fittings.



FLAME AUTOSAMPLER

Sequential auto-sampler allows the automated analysis of 50 or more samples and calibration standards. The system allows for automatic update of standard values and curve parameters by using up to 8 standards, blanks and QC standards. A double wash station with facility for use of sample blank or pure water for probe wash avoids sample and standard contamination. An inert Teflon probe is supplied.

ACCESSORIES TO BUY LOCALLY OR FROM LABOMED, INC.

Computer	Buy locally
 Acetylene Cylinder	Buy locally, purity should be better than 99.9%
 Acetylene Regulator	Buy locally
Vent Fan	Buy locally
Oil Free Air Compressor	Buy locally or through Labomed, Inc.
Air Switch or Equivalent Switch	Buy locally



Atomic Absorption Spectrophotometer

Fully Automatic Flame System

Model AAS-3700

OPTIONAL ACCESSORIES



HYDRIDE GENERATOR

A hydride generator is available for the determination of elements such as Arsenic, Selenium, Antimony, Tellurium and mercury at ultra low levels. The hydride generator is supplied with an absorption cell, and electrical absorption cell heater and controller and all necessary burner fittings.



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ACCESSORIES TO BUY LOCALLY OR FROM LABOMED, INC.

Computer

Buy locally



Acetylene Cylinder

Buy locally, purity should be better than 99.9%

Acetylene Regulator

Buy locally

Vent Fan

Buy locally

Oil Free Air Compressor

Buy locally or through Labomed, Inc.

Air Switch or Equivalent Switch

Buy locally



Atomic Absorption Spectrophotometer

Fully Automatic Flame System

Specifications of AAS-3700

Optic System

Wavelength Range:	190nm - 900nm
Monochromator:	Czerny-Turner configuration
Spectral Bandwidth:	0.1nm, 0.2nm, 0.4nm, 1.0nm, 2.0nm (5 steps. with automatic changeover)
Wavelength Accuracy:	± 0.25nm
Wavelength Repeatability:	0.15nm
Baseline Stability:	0.005A/30 min

Flame analysis

Sensitivity (Cu):	0.03 µg/ml/1%
Burner Head:	Titanium alloy burner
Nebulizer:	High efficiency glass nebulizer, Acid proof available as an option
Atomization Chamber:	Corrosion-resistant material
Position Adjustment:	Automatic setting of optimum height for flame burner
Safety:	Automatic ignition and of mixing air-acetylene gas with safety control

Background correction

Deuterium Lamp Background Correction:	Deuterium Lamp Background Correction: >40 times (1Abs) and Self-Reversal Background Correction: >60 times (1Abs)
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Data processing

Analytical method:	flame and hydride
Determination method:	calibration curves using 1 st , 2 nd and 3 rd order of fit, standard addition method
Repetitions:	1-20 with calculations of average, SD and RSD
Result Printout:	output of parameters, data, spectra and calibration curves

Mainframe

Light Source:	8 hollow cathode lamp turrets with 2 lamps simultaneously lit (one lamp pre-heated)
Power Supply:	110V/60Hz or 220V/50Hz 200W (mainframe)
Dimensions:	mainframe 110 cm x 50cm x 45cm

NOTE:

The sensitivity of the Cu 2µg/ml is more than 0.28Abs..



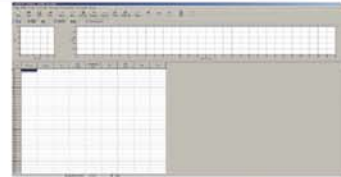
Atomic Absorption Spectrophotometer

Fully Automatic Flame System

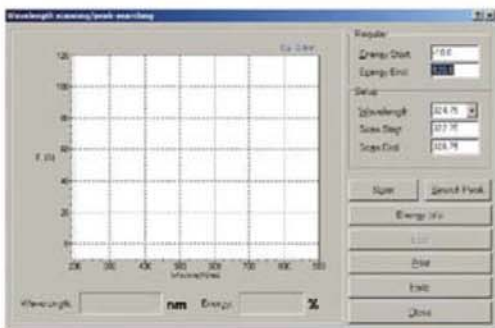
Model AAS-3700

Software Specifications

AA-Win Pro Software is a powerful and intuitive software product designed to allow control and data acquisition from the Spectro AAS-3700 Atomic Absorption Spectrophotometer. The AA-Win Pro software allows the Analyst to control all aspects of their analytical method whilst providing an extensive range of tools for data collection, storage and interpretation.



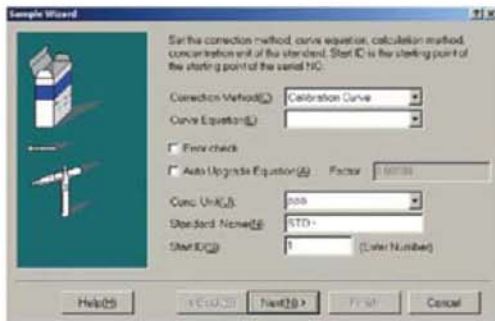
Lamp turret setup, operating and warm-up currents, along with the desired analytical wavelengths are easily selected in this configuration.



No.	Measure	Sample	Wavelength	Conc.	Std. Dev.	Time	Unit
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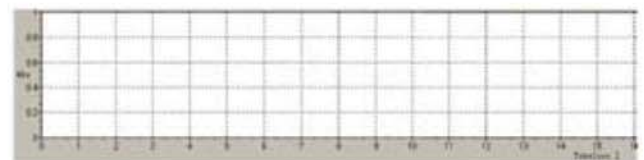
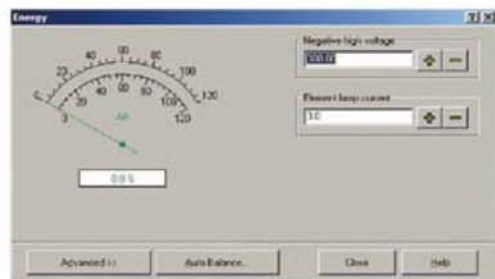
Use the sample table to perform quick measurements of both Standards and Samples. Easily append the sample table to add new samples or even revise calibration curves either by manual introduction or using an Autosampler.

Ensure optimal peak position at the chosen analytical line by scanning the emissions spectra.



Each stage of analysis setup is made quick and simple by means of the Sample Wizard.

View up-to-date calibration curves in 1st, 2nd, or 3rd order using a standard calibration or standard addition. Perform retrospective curve fits to ensure optimum correlation.



View real-time signal acquisition for flame and hydride generation analysis.

Obtain reliable and accurate results by using the Energy control feature to manually optimize atomiser position and setup. Use the Auto-balance feature to ensure energy level, and optical alignments are optimized when using background correction.



Atomic Absorption Spectrophotometer

Fully Automatic Flame System

Innovative Design

Model AAS-3700

Periodic table of chemical elements | Details

1A	2A	3B	4B	5B	6B	7B	8	1B	2B	3A	4A	5A	6A	7A	0		
H															He		
Li	Be									B	C	N	O	F	Ne		
Na	Mg									Al	Si	P	S	Cl	Ar		
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac															

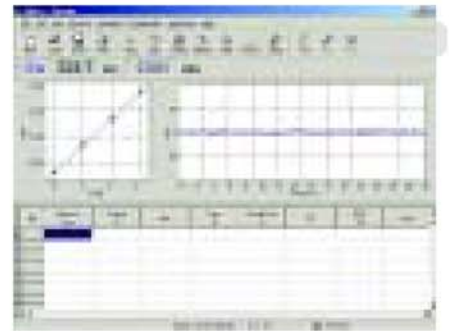
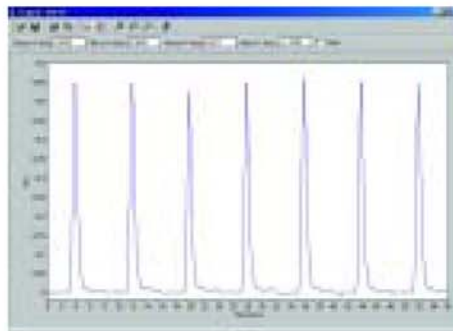
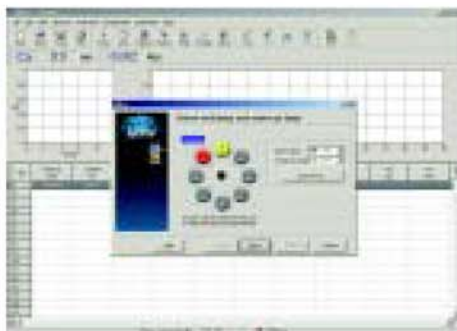
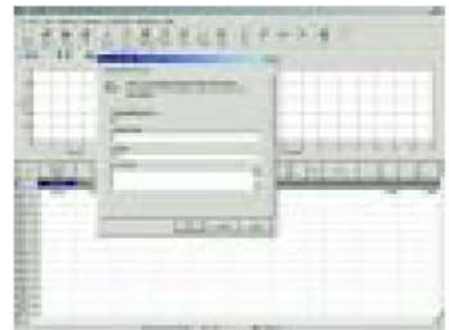
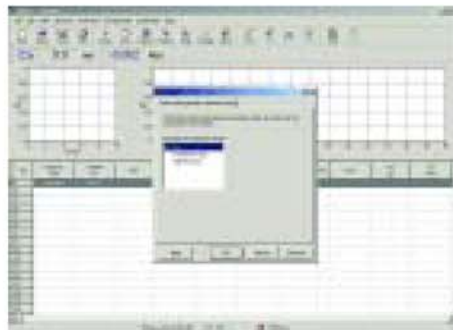
Legend:

- Flame: Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu
- Furnace: Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr
- Hydride: (None listed)

Elements that can be analyzed with the AAS-3700

Software

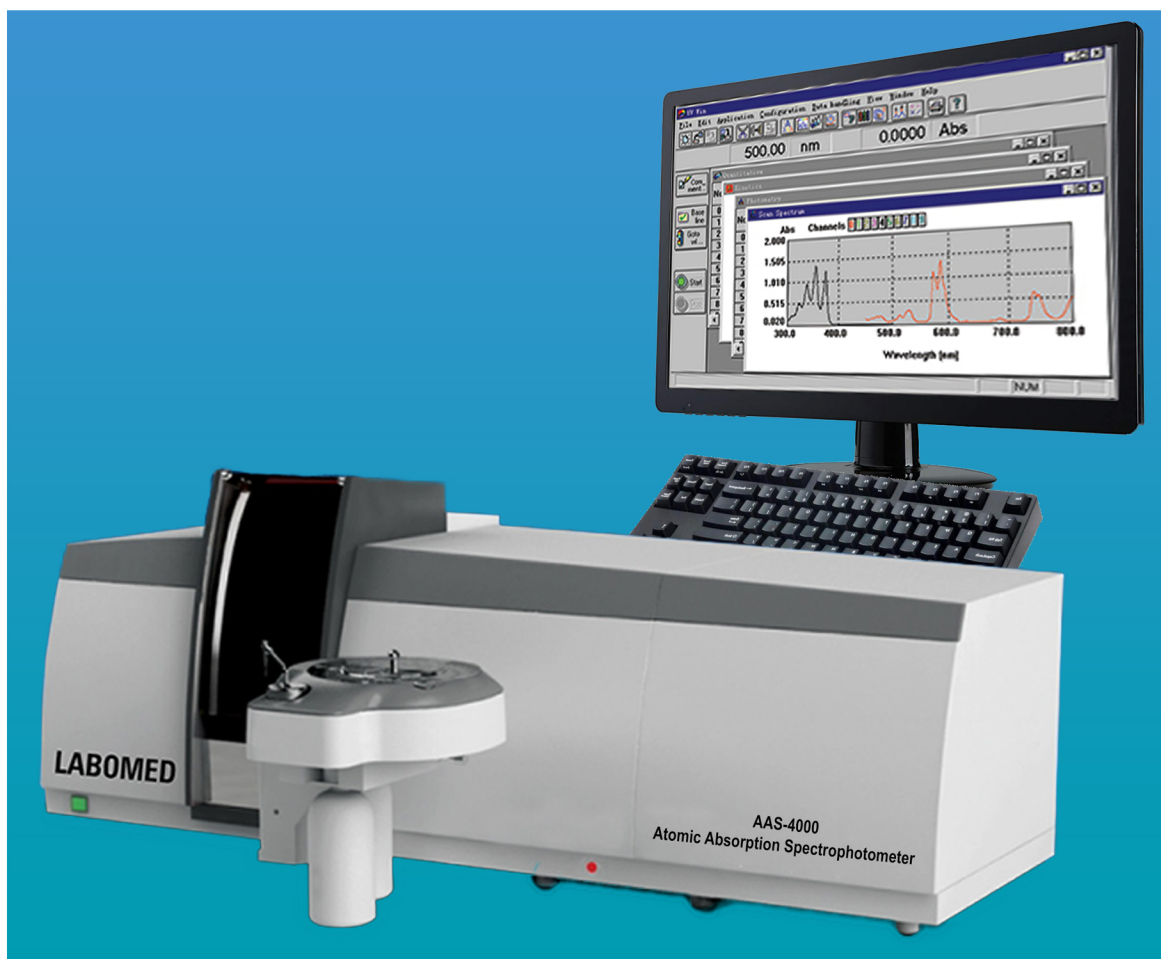
- The user friendly software requires a Windows platform and operates within Win95, Win98, Win NT, Win 2000 and WinXP. The system uses a number of software wizards to guide the operator through setting up procedures.
- The software controls the automatic switch over for the Hollow Cathode Lamps and automatically optimises working parameters for the system. The software also allows manual input of data to ensure that the operator always stays in control. The software will automatically complete the configuration of the system for analysis.
- The user has the choice of two methods of background correction namely the self reversal system OR the traditional deuterium lamp background correction system.
- During the analysis cycle of the flame, the software shows the entire measurement process. This includes measured values, temperature steps, time etc. all signal and temperature data is stored for future re-call and printout.
- Detailed reporting and QC control software is included within AAWin allows printout of spectra, standard calibration curves, analysis and signal data. Full printout of operating parameters is also available for user references.
- The following methods of analysis can be carried out using the AAS-3700 system Absorption, emission, hydride and cold vapour analysis.





Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000



Atomic Absorption Spectrophotometer AAS-4000 is a high performance automated instrument designed to meet the requirements of the modern laboratory. Due to its versatility and performance it can be used for a wide range of applications including: Agricultural, Clinical, Environmental, Food, Metal, Mining, Geological, Petrochemical, and Pharmaceutical.

The instrument is equipped with a Graphite Furnace Atomizer only. The graphite head is fixed into the optical path to maximize performance and eliminate drift. The temperature of the transversely heated graphite tube is accurately controlled by means of a precision feedback system. Pyrolytically coated platform tubes are supplied as standard to improve the performance and eliminate many analytical problems associated with this technique.

The Fully Automatic Fast Sequential Multi-Element Analysis Graphite Furnace Atomic Absorption Spectrometer system is equipped with an EIGHT Hollow cathode lamp motorized turret Atomic Absorption Spectrophotometer. The graphite furnace heating cycle, all electronic functions, analytical data and gases are fully controlled via the AAWin3 Software for maximum safety and optimum performance.

Labomed, Inc. is certified by ISO-9001-2013, has CE Conformity and is FDA Licensed.



Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000

Features

FEATURES AND FUNCTIONS:

TPC System is used to control the instrument. Pre-installed AA-Win Pro software, user manuals, cook book and Windows 7 professional operating system.

AA-Win Pro software provides full control of the instrument and autosampler with easy method change for each technique.

Automatic 8 Hollow Cathode lamp turret controlled and optimized by the AA-Win Pro software. Operating lamp current and warm-up lamp current can be individually controlled to eliminate drift commonly associated with lamp warming.

D2 lamp background correction system fitted as standard to all configurations. High energy D2 lamp and adjustable beam splitter mirror are optimized by the AA-Win pro software.

Self background correction system fitted as standard to all configurations. The high performance background system uses the same hollow cathode lamp as installed for the analysis. Minimum extra components are required and optical alignment is very simple. Self Reversal can be used for any element at any wavelength, making it extremely versatile.

High precision minimal optics ensures maximum light throughput to the computer controlled Czerny-Turner monochromator.

A universal autosampler is available as an optional accessory which is conveniently mounted on the front of the AAS-4000 instrument.

Air/Acetylene

The Air/Acetylene flame uses a 100mm single slot burner for the standard configuration.

The high sensitivity (Cu 2ppm >0.280abs) is due to the efficiency of the fixed position glass nebulizer fitted as standard. An acid resistant replacement is available as an option.

The flame can be easily set from blue lean flame through stoichiometric to fuel rich by means of computer control.

N2O/Acetylene

The N2O/Acetylene flame uses a 50mm single slot burner and is available as an optional extra.

This flame configuration is used to measure elements less prone to ionization such as: Aluminium, Tin, Titanium, Calcium, Vanadium and Molybdenum.

Switching from Air/Acetylene to N2O/Acetylene to Flame Off is fully controlled by the AAWinPro software.

Air/Propane (LPG)

This flame uses a 3 slot burner and with the low pressure requirement, it is also much safer to operate.

Due to the low temperature of the flame, it is ideal for analyzing alkali metals such as: Potassium, Sodium and Lithium, especially when used in the emission mode.

Some remote areas of the world have difficulty obtaining Acetylene gas of a high enough purity to operate the flame correctly, LPG can give a real alternative and offer comparable results for most elements throughout the wavelength range.

SAFETY FEATURES

Argon Gas Pressure Sensor

Water Flow Sensor

Over Temperature Sensor

Broken Graphite Tube Protection

GRAPHITE ATOMIZER FEATURES

The integrated Graphite Furnace Atomizer is available in two instrument configurations:

In the AAS-4000 instrument, the graphite furnace head is fixed into the light path, so alignment with the optical path is simple and accurate.

In the AAS-4100 instrument the graphite furnace head is fixed behind the flame atomizer assembly and is motorized into position by a simple operation in the AA-WinPro software. The positions for the flame and graphite are saved, making it easy to swap between modes for different analysis.

FEATURES AND FUNCTIONS

The temperature of the transversely heated graphite tube is accurately controlled by means of a precision feedback system and has been designed to reduce analytical problems normally associated with this type of technique.

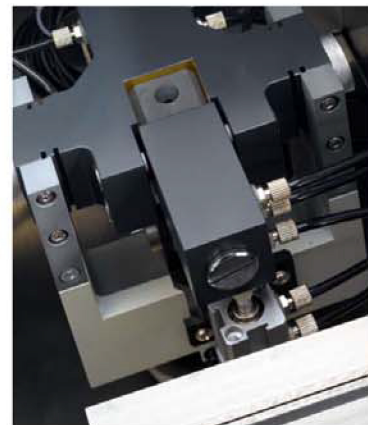
Pyrolytically coated graphite tubes are used as standard and are manufactured to improve performance, as well as to increase the analytical life.

Platform graphite tubes are supplied as standard and will accept volumes up to 20ul. Non-platform graphite tubes are also available as an optional extra.

Up to 10 heat stages are available for the programming of the graphite atomizer. These can be set and stored within the AA-WinPro software.

The graphite tube is held in position by means of a gas piston. Replacement of the graphite tube is performed by a simple command in the AA-Win Software.

The graphite tube is efficiently cooled by an additional water circulation system (supplied separately).



Graphite Furnace



Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000

Spectrometer System

Wavelength range	185nm -910nm
Light Source	Hollow cathode lamp (HCL), Deuterium Arc lamp (D2)
Modulation	Square Wave Pulse
Modulation frequency	100Hz Self reversal (SR) background, 400Hz Deuterium Arc (D2) background

Monochromator

Grating	1800 grooves/mm diffraction grating
Blazed Wavelength	250nm
Focus	300nm
Bandwidth	0.1nm, 0.2nm, 0.4nm, 1.0nm, 2.0nm (Software selectable)
Scan mode	Automatic
Photometric Type	Single Beam
Wavelength Accuracy	$\pm 0.15\text{nm}$
Wavelength Resolution	$0.2\text{nm} \pm 0.02\text{nm}$
Wavelength Reproducibility	$< 0.05\text{nm}$
Baseline Stability	0.005Abs/30min
Background Correction	Deuterium Arc (D2) 1.0Abs, Self Reversal (SR) 3.0Abs

Graphite Furnace Analysis

Graphite Head	Transversally Heated
Temperature Range	Ambient - 3000 °C
Heating Program	Up to 10 steps. Drying, Ashing, Atomization, Cleaning
Feedback	Voltage and Optical temperature control feedback
Sensitivity (Cu)	50ng/ml Absorption $> 0.40\text{Abs}$
Detection Limit	Cd $< 0.004\text{ng/ml}$
Repeatability	Cu $< 2.0\%$, Cd $< 2.0\%$
Graphite Tubes	Pyrolytically Coated with Platform
Sample Size	Up to 20ul
Graphite Cooling	Water Circulator Available
Safety Features	Argon Pressure Sensor, Water Flow Sensor, Over Temperature Sensor, Broken Tube Protection



Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000

Data Processing

PC System	PC, Windows 7 Professional Operating System
Operating Program	AA Win Pro software
Analytical Methods	Flame AA, Flame AE, Graphite Furnace, Hydride Generation
Readout Mode	Continuous, Manual, Peak Height, Peak Area
Calibrations	Multi-Standard Calibration, Standard Addition, Interpolation
Data Storage	Analytical results, instrument and measurement parameters, signal profile, calibration curve

Power Requirements

Main Unit	220VAC 50/60Hz
Graphite Power Supply	220VAC 50/60Hz Instantaneous power 5KW Current rating 7KW

Dimensions

Main unit	110cm x 54cm x 54cm 75Kg
Graphite Power Supply	50cm x 54cm x 54cm 70Kg

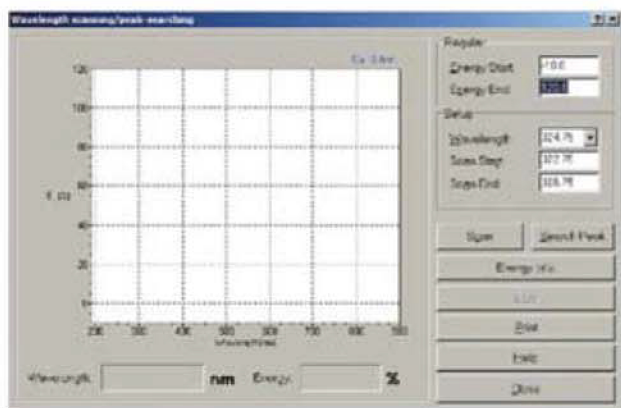
Accessories

1	AAS-4000 Operation Manual
1	Cook book
1	Safety Manual
1	System Validation document
8	Hollow cathode Lamp Holders
2	Power Cables
1	Tool Kit
1	Various Gas Fittings
10	Graphite Tubes
1	Gas Tubing Argon
1	Connection Cable (Graphite)
1	Pipette
1bag	Pipette Tips

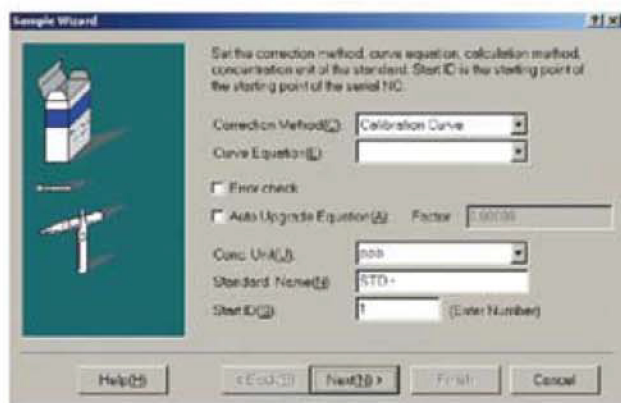


Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

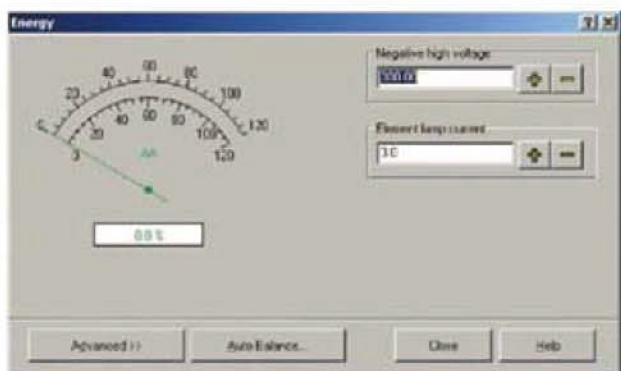
Model AAS-4000



Ensure optimal peak position at the chosen analytical line by scanning the emissions spectra.



Each stage of analysis setup is made quick and simple by means of the Sample Wizard.



Obtain reliable and accurate results by using the Energy control feature to manually optimise atomiser position and setup,

Use the Auto-balance feature to ensure energy level, and optical alignments are optimised when using background correction.

No.	Method	Sample	No.	Conc. Unit	Standard Name	Factor	Start ID	Conc.	Time
1									
2									
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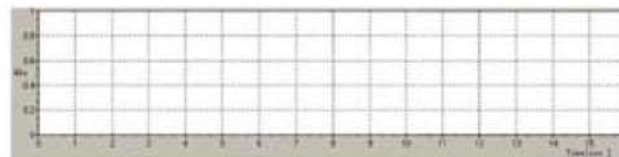
Use the sample table to perform quick measurements of both Standards and Samples.

Easily append the sample table to add new samples or even revise calibration curves either by manual introduction or using an Autosampler.



View up-to-date calibration curves in 1st, 2nd, or 3rd order using a standard calibration or standard addition.

Perform retrospective curve fits to ensure optimum correlation.



View real-time signal acquisition for flame, graphite furnace and hydride generation analysis.



Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000

The AAS-4000 Autosampler is an accessory specifically designed for the AAS-4000 Atomic Absorption Spectrophotometer. The AAS-4000 can be used to automatically introduce standard and unknown samples to the atomizer for analysis. It can be used with both flame and graphite furnace instruments.



Graphite Analysis

- 76 sample positions (10 for standard samples, 6 for modifier solutions, 60 for unknown samples)
- Sample vial size 1.5ml
- Modifier vial size 12ml
- Pressure protection for wash
- Up to 3 modifier additions
- Position adjustments by AA-Win Pro software
- Reproducibility Cu <2.0%, Cd <2.0%

Nitrous Oxide/Acetylene Burner(500-023)



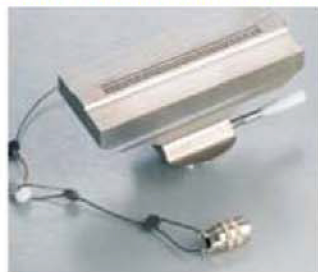
- Titanium alloy construction
- 50mm single slot
- Coded for safety
- Direct replacement for standard burner
- Designed for higher temperature flame
- Adjustment of burner rotation for sensitivity optimization

Acid resistant Nebuliser(500-010)



- Resistant to most acid samples
- Higher uptake rate for improved high solids samples
- Higher air pressure required
- Robust construction
- Fixed flow for easy installation

Air/Propane(LPG)Burner(500-030)



- Titanium Alloy construction
- 3 slot burner
- Coded for safety
- Direct replacement for standard burner
- Designed for lower temperature flame
- Adjustment of burner rotation for sensitivity optimization

Graphite Tube Without Platform(500-006)



- Pyrolytically coated graphite tube
- No platform fitted giving a faster response for refractory elements
- High quality long life tubes
- Can be used for larger samples <20ul



Fully Automated Atomic Absorption Spectrophotometer Graphite Furnace System

Model AAS-4000

Hydride Unit(500-007)

- Universal design
- Full reaction cycle from press of start button
- Supplied with temperature controlled heated absorption cell
- Cell is easily installed with burner attachment
- Can be used for Mercury cold vapour analysis
- Sensitivity for most elements <math>< 1\text{ng}/\text{ml}</math>
- Only 2.0ml - 2.5ml per sample required
- RSD <math>< 3\%</math>
- Quick analysis <math>< 30</math> seconds per measurement

Acetylene Flame Arrestor(GS-004)



- Direct fitting to gas regulator output
- Required for acetylene gas
- Non-resetting easy to replace

Gas Regulators (GS-001,GS-002,GS-006,GS-007)



- Direct fitting to gas cylinder
- Comply to British Standards
- Supplied with hose fitting and crimp
- Various gas cylinder fittings available
- Regulators for Air, Acetylene, Nitrogen, Argon, Nitrous Oxide, LPG
- Specify fitment to European standard

Hollow Cathode Lamp



- Sharp line source
- About 5000 milliampere-hours

Water Circulator(GS-005)



- Cooling capacity 2000W
- Temperature range 0-50°C
- Temperature accuracy 1°C
- Maximum input power 1000W
- Fuse 10A
- Power 220V 50Hz
- Work Pressure 0~0.6MPa
- Rated flow rate 3.5L/min
- Rated lift 10M
- Tank capacity 32L
- Noisiness <math>< 65</math>
- Dimension(L×W×H) 600×400×900
- Weight 50Kg

Air Compressor(GS-003)



- Rated discharge pressure: 0.3Mpa
- Output rate: 0.3-0.9m³/h (adjustable)
- Noise: smaller than 55dB
- Power supply: AC220V 50HZ
- Dimension: 400×300×620(mm)
- Ambient condition: ambient temperature less than 35°C Relative humidity less than 80%



Spectro 24RS



Spectro 24RS is a visible spectrophotometer enables quantitative and qualitative analysis of samples within the visible spectrum. It can be widely used in pharmaceutical manufacturing, health, clinical tests, biochemistry, petrochemical industry, environmental protection and quality control fields. It is one of the common instruments in physical and chemical labs. It is an analytical instruments with a built-in interface RS-232C. The interface enables this spectrophotometer to communicate with any IBM compatible computer and printer. The superior machinery of **Spectro 24RS** analyzes, stores, records, and prints test results swiftly and consistently. This spectrophotometer can work in the Visible Range.

Spectro 24RS can use a multiple cell holder to test cells from 10-100mm (optional)

This spectrophotometer provides **enhanced ease-of-use, precision and accuracy resulting in time and cost savings**. This new generation instrument is equipped with a microprocessor to automatically adjust 100 % T and Zero ABS, Factor and Concentration. This economical four cell visible spectrophotometer is ideal for small laboratories, biochemical labs, clinical labs, and educational institutions. This spectrophotometer uses a soft key pad, and it has a continuous **wavelength ranging from 320 nm to 1100 nm**. **Spectro 24RS** is able to analyze and record four sample results immediately.

Spectro 24RS is **rugged, reliable, low cost, and maintenance free**. This instrument simplifies analysis and increases measurement capabilities for routine applications in various fields such as chemistry, biochemistry, agricultural, petrochemistry, environmental protection, science classes, educational laboratories and general analytical industry. This Spectro can use 13x100mm test tubes. This Spectro works with Windows XP.

Labomed, Inc. is certified by ISO 9001-2013, has CE Conformity and is FDA Licensed.

Features

- A very durable instrument.
- Can use Test tube and Large cell 20-30-40-50mm.
- Wide, continuous wavelength ranges for test flexibility.
- Automatic absorption, transmission and concentration by microprocessor.
- High photometric and wavelength accuracy for the best results by having a 5 nm bandwidth.
- Low stray radiant energy and noise for unequivocal readings, even at high absorbencies.
- Excellent stability characteristics for reliable test results.
- Carefully designed. Easy operation and maintenance.
- Labomed, Inc. is F.D.A. Licensed.
- Very competitive price.
- At Labomed, we believe greatly in the accuracy of our spectrophotometers. We are so sure of the quality that we can include 2 testing filters (optional) for testing calibration.
- Small printer is available for date printout as an option; does not require a computer hookup or software.
- Computer System is optional (NOT INCLUDED).
- Can use a multiple cell holder to test cells from 10-100mm (optional)
- There is a switch on the bottom of the Spectro to choose 110V or 220V before starting.

Accessories

4 square glass cells 10mm.	1 operation manual CD	1 software CD	Optional: Large Cell holder
1 multiple 4 cell holder for 4 cells	1 dust cover	1 RS32 connection cable	Optional: Large Cell holder 20-3040-50mm.
1 power cable	2 Fuses (2A)		Optional: Test tube 13x100mm.

Technical Specifications

Optical System:	Single Beam	Transmittance MPE:	±0.5% (T)
Wavelength Range:	320-1100nm	Absorption Range:	0-1999 (A)
Operation and Display:	LCD	Absorbance Measuring Range:	-0.300A - 3.000A
Light Source:	Tungsten Halogen Lamp	Concentration Range:	0-2000
Detector:	Silicon Photodiode	Photometric Accuracy:	+0.5% (T) +0.004A
Wavelength Accuracy :	2nm	Transmittance Reproducibility:	0-100%T. 0.5% (T)
Wavelength Reproducibility:	1nm	Transmittance Repeatability:	≤0.2% (T)
Photometric Range:	0-100%T, 0-1.999A	Monochromator:	1200 Lines/Grating Mirror
Spectral Band Pass:	4nm	Power Supply:	220V. 50Hz/110V 60Hz (110V or 220V.)
Stray Light:	≤0.5%T. at 360nm.	Dimensions:	560mm (L) x 480mm (W) 490mm. (H)
Transmittance Range:	0-200% (T)	Net Weight :	14.5 Kg. (32 lbs.)



Clinical Chemistry Analyzer BAS-100 TS

TOUCH SCREEN Semi-Automatic Biochemistry Analyzer



Spectro BAS-100 TOUCH SCREEN is a new concept designed clinical chemistry analyzing system for biochemical research and clinical diagnostics. Powerful data process functions make it easy to perform data management and statistics: report may be in single test or with completed patient data, which will be convenient for clinical diagnostics. Single chip machine, WindowsCE operating system, does not require Windows XP or Windows 7. The BAS-100 TS is open to being used with all brands of biochemistry reagents. It is very user-friendly and easy to use, requiring minimal training or supervision to get started.

Features

This **BAS-100TS** can be used by suction pump or by cuvette only.

- Microprocessor controlled
- 7.0 inch TFT Color touch screen, 800x480 pixels
- Silicon Photodiode Detector
- Testing Method: End point, fixed time, Kinetic, Bichromatic and Immunoturbidimetric
- USB Mouse; USB keypad; USB Printer
- Programmable
- Enzyme kinetic GPT GOT tests
- BAS-100TS uses both a suction pump system and a cuvette system for analytical testing.
- This biochemistry analyzer can test samples in two ways, by suction pump or by cuvette alone.
- Wide continuous wavelength range
- Built-in printer, 57mm printer paper
- Built-in flow through system
- Window CE 6.0, high capacity storage, 200 assay program, 200000 results
- 110-240V, 50Hz or 60Hz
- Computer System is optional (NOT INCLUDED)
- Absorbance, concentration, factor, 1 point end point, 2 point end (Sample blank), fixed time, kinetic, and dichromatic, immunoturbidimetric. Coagulation (optional).

Accessories

- | | | | |
|-----------------|-----------------------|-------------------------|---------|
| 1 Power Cable | 1 Aspiration Tube | 5 Clotting Cuvettes | 1 Mouse |
| 1 Pump Cassette | 2 Printer Paper Rolls | 1 Instruction Manual CD | |
| 1 Waste Tube | 1 Lamp House | 1 Keyboard | |

Technical Specifications

Display:	7.0 inch TFT Color touch screen, 26000 pixel, 800x480 resolution, real time display	Vacuum system programmable 200 - 500 ul at least
Light Source: (long life)	6V 10W Halogen Lamp, 2000 hr. service life with auto shutdown	Assay method: Absorbance, concentration, factor, 1 point end point, 2 point end (Sample blank), fixed time, kinetic, and dichromatic, immunoturbidimetric. Coagulation (optional).
Wavelength: (5 years warranty for each filter)	Optics: 7 filters, 340, 405, 450, 505, 546, 578, 630.	USB Port: USB Mouse; USB keypad; USB Printer 4 USB Ports, Supports all HP series inkjet printers. Computer controlled software, LIS system available. External scanner available.
Absorbance Range:	0.0000-2.5000 (10mm flowcell) 0.0000-3.5000 (6mm flowcell)	Software: Supports remote diagnostics. Window CE 6.0, high capacity storage 200 assay program, 200000 results Unlimited storage by computer
Carry Over:	<1%	Operation Manual: Available in 4 different languages
Absorbance Precision:	0.0001Abs	Power Supply: 110-240V, 50Hz or 60Hz
Absorbance Drift:	<0.005Abs/hour	CPU: ARM Cortex-A8, 720MHz
Absorbance Repeatability:	CV<1%	Memory: DDR2 SDRAM: 1G bit, Flash: 256 MB Over 200 programs, 200,000 results can be stored
Incubation Temperature:	37 C, room temperature+0.1C	Operational Environment: Temperature: 10°~37°. Humidity: ≤85%.
QC Analysis:	L-J QC chart, Westguard multi-regulation analysis	Weight: 17 lbs. / 7.5 kg.
Built-in Thermal Printer:	Built-in Stylus/Thermal Printer, paper alarm, transparent cover, easy installation	Dimensions: 410mm (L) x 310mm (W) 155mm. (H)
Spectral Band:	< 8 nm	
Photometric Range:	0 - 3.5 Abs	
Stability:	<0.005Abs/hour	
Detector:	Photo Diode	



Clinical Chemistry Analyzer BAS-100 TS

TOUCH SCREEN Semi-Automatic Biochemistry Analyzer

Test Menu

- | | | | | | |
|---------------|------------|---------------------|----------|-----------|---------|
| • T. BILI | • R-GT/GGT | • CHO | • Ca | • APOB-IB | • CHE |
| • D. BILI | • ALP/AKP | • TG | • CL | • APOB | • CREA |
| • TP | • UREA | • CK | • P | • CK-MB | • Mg |
| • ALB | • CREA | • LDH | • C | • ASO | • AFU |
| • Lactic Acid | • ALT/GPT | • UA | • a-HBDH | • CO2 | • FMN |
| • LP (a) | • AST/GOT | • GLU | • AMY | • LOL-C | • HDL-C |
| • CHE | • LA | • TBA | • ADA | • HS-CRP | • PA |
| • Fe | • Cu | • Zn | • C3 | • C4 | • LgC |
| • LgM | • LgA | • and drug toxicity | | | |

T. BILI	Total Bilirubin	APOB-IB	Apolipoprotein-B
D. BILI	Direct Bilirubin	APOB	Apolipoprotein-B
TP	Total Protein	CK-MB	Creatine Kinase-MB
ALB	Albumin	ASO	Antibody Streptolysin O
Lactic Acid	Lactic Acid	CO2	Carbon Dioxide
LP (a)	Lipoprotein A	LOL-C	
CHE	Cholinesterase	HS-CRP	High Sensitivity C-Reactive Protein
Fe	Iron	C4	Complement Component 4
LgM		CHE	Acetylcholinesterase
R-GT/GGT	Reflocheck Glucose/Gamma Glutamyl Transferase	Mg	Magnesium
ALP/AKP	Alkaline Phosphatase	AFU	Alpha-L-Fucosidase
UREA	Urea	FMN	Flavin Mono Nucleotide
CREA	Creatinine	HDL-C	High Density Lipoprotein-C
ALT/GPT	Alanine Aminotransferase/Glutamate Pyruvate Transaminase	PA	
AST/GOT	Aspartate Aminotransferase/Serum glutamic-oxaloacetic transaminase	LgC	
LA		and drug toxicity	
Cu	Copper		
LgA		HbA1C	Glycated Hemoglobin
CHO	Chinese Hamster Ovary		
TG	Thyroglobulin		
CK	Creatinine Kinase		
LDH	Lactate Dihydrogenase		
UA	Urinalysis		
GLU	Glucose		
TBA	Total Bile Acids		
Zn	Zinc		
Ca	Calcium		
CL	Chlorine		
P	Phosphorus		
C	Carbon		
A-HBDH	alpha-hydroxy butyrate dehydrogenase		
AMY	Amylase		
ADA	Adenosine Deaminase		
C3	Complement Component 3		



Clinical Multitest Chemistry Analyzer BAS-120TS

TOUCH SCREEN Multitest Chemistry Analyzer

THIS BIOCHEMISTRY ANALYZER CAN TEST SAMPLES IN TWO WAYS, BY SUCTION PUMP AND BY DISPOSABLE CUVETTE



The BAS-120TS is open to being used with all brands of biochemistry reagents.

Clinical Biochemistry Touch Screen Analyzer with Incubator Temperature Control and Internal Printer BAS-120TS is a TOUCH SCREEN Microprocessor Biochemical Analyzer, which measures over 50 biological indicators.

Features

- **New Version**
- **Powerful Software**
- **AD Auto Zero**
- **7.0" Touch Screen**
- **Lamp Standby Function**
- **Multi-Language**
- **Auto Temperature Control**
- **Built-in Printer**
- **24V Universal Power Supply**
- **USB Port for external printer, online operation, keyboard, software update (optional)**
- **Very easy to use, user-friendly interface, requiring minimal training or supervision to get started.**
- **50 Biochemistry tests**

Accessories

- **1 power cable**
- **1 pump cassette**
- **1 waste tube**
- **1 aspiration tube**
- **2 rolls of printer paper**
- **1 touch pen**
- **1 lamp house**
- **5 clotting cuvettes**
- **1 clotting cuvette adapter**

Test Menu

T. BILI	Total Bilirubin	Ca	Calcium
D. BILI	Direct Bilirubin	CL	Chlorine
TP	Total Protein	P	Phosphorus
ALB	Albumin	C	Carbon
Lactic Acid	Lactic Acid	A-HBDH	alpha-hydroxy butyrate dehydrogenase
LP (a)	Lipoprotein A	AMY	Amylase
CHE	Cholinesterase	ADA	Adenosine Deaminase
Fe	Iron	C3	Complement Component 3
IgM	Immunoglobulin M	APOB-IB	Apolipoprotein-B
R-GT/GGT	Reflocheck Glucose/Gamma Glutamyl Transferase	APOB	Apolipoprotein-B
ALP/AKP	Alkaline Phosphatase	CK-MB	Creatine Kinase-MB
UREA	Urea	ASO	Antibody Streptolysin O
CREA	Creatinine	CO2	Carbon Dioxide
ALT/GPT	Alanine Aminotransferase/Glutamate Pyruvate Transaminase	LDL-C	
AST/GOT	Aspartate Aminotransferase/Serum glutamic-oxaloacetic transaminase	HS-CRP	High Sensitivity C-Reactive Protein
LA		C4	Complement Component 4
Cu	Copper	CHE	Acetylcholinesterase
IgA	Immunoglobulin A	Mg	Magnesium
CHO	Chinese Hamster Ovary	AFU	Alpha-L-Fucosidase
TG	Thyroglobulin	FMN	Flavin Mono Nucleotide
CK	Creatinine Kinase	HDL-C	High Density Lipoprotein-C
LDH	Lactate Dihydrogenase	PA	
UA	Urinalysis	IgA	Immunoglobulin A
GLU	Glucose		
TBA	Total Bile Acids		
Zn	Zinc		

and drug toxicity

Semi-Automatic Clinical Biochemistry Touch Screen Analyzer with Temperature Control and Internal Printer BAS-120TS

Touch Screen Analyzer BAS-120TS

Model	BAS-120TS
Reading Cuvette	Both flow through cell and direct reading cuvette
Measuring Volume	200ul - 800ul
Incubator	20 incubating positions
Photometric System	Light source: 6V/10W halogen lamp; Standby function
	Wavelength: 340/405/492/510/546/578/620nm, 2 more filters available on request
	Wavelength Accuracy: ± 2 nm
Thermostatic Control	Temperature: 25°C, 30°C, 37°C
	Precision: ± 0.1 °C
Measuring System	Method: End point, Fixed time, Multistandard, Differential, Bichromatic, Immunoturbidimetry, etc.
	Measuring Range: 0~3.000 O.D.
	Photometric Linearity: $\pm 2\%$ (0~3.000 O.D.)
	Photometric Accuracy: $\pm 1\%$ (0~3.000 O.D.)
	Carry-over: 1%
Drift	<0.005 O.D/hr
Test Menu	T. BILI, r-GT/GGT, CHO, Ca, APOB-1/B, CHE, D. BILI, ALP/AKP, TG, CL, APOB, CREA, TP, UREA, CK, P, CK-MB,
	Mg, ALB, LDH, C, ASO, AFU, Lactic Acid, ALT/GPT, UA, α -HBDH, CO ₂ , FMN, LP(a), AST/GOT, GLU, AMY,
	LDL-C, HDL-C, LA, TBA, ADA, HS-CRP, PA, Fe, Cu, Zn, C ₃ , C ₄ , IgG, IgM, IgA, and drug toxicity, etc.
Quality Control	Excellent Q.C. function, Q.C. chart may be displayed and printed
Display	Back-illuminated LCD
Storage	Over 200 programs, 1000 test results
Printer	Built-in thermal printer
LIS Software	For computer communication on request
Interface	RS-232 serial port for additional PC, USB port available on request.
Power Supply	AC 110 V / 60hZ or 220 V / 50 Hz
Dimensions	34cm x 38cm x 18cm
Weight	8.0Kg

LABOMED

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Spectro 2000 RS & 2000RSP



Spectro 2000 RS & 2000 RSP are superior instruments for laboratories and is an advanced and affordable system that generates accurate and reproducible measurements. This spectrophotometer is ideal for chemical laboratories, bio chemical laboratories, analytical and medical laboratories, environmental protection, and agricultural industry. Spectro 2000 RS is accurate, dependable, and an exceptional value. Further, it has excellent baseline stability, high resolution and continuous wavelength ranging from 330 nm to 1100 nm. Spectro 2000RSP has the same specifications plus a built-in printer. Spectros 2000 RS & 2000 RSP are equipped with the RS-232C interface and port which link the spectrophotometer and the PC with the included UV-VIS software. With the RS-232C the instrument can be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. Spectro 2000 RS and 2000RSP are automatic instrument which utilizes a microprocessor with most advanced technology. Absorption, transmission, concentration, and wavelength are automatic and computerized. This instrument's superior technology allows this spectrophotometer to examine samples with excellent resolution. These Spectros are rugged, reliable, affordable, and maintenance free. Spectro 2000 RS's advantage is its **4 cell holder automatic movement by microprocessor and use of the soft key pad**. Spectro 2000RS & RSP can also use large cell holder as optional. This spectrophotometer is excellent for water and water waste testing. Spectro 2000 RS & 2000 RSP are both reliable and user-friendly. Labomed, Inc. is certified by ISO-9001-2000, has CE Conformity and is FDA Licensed.

Features

- Automatic self adjustment
- Auto select wavelength.
- Auto Zero ABS and 100%T.
- Auto A/T/C and Factor.
- Auto Escape and backup.
- Interface RS232C port.
- Built-in printer (2000 RSP).
- Switch for 110V 60Hz and 220V 50Hz.
- F.D.A. Licensed.
- High photometric accuracy.
- Reliable stability for reliable testing.
- Wide continuous wavelength range for test flexibility.
- Easy to change Tungsten Halogen lamp.
- Competitive Price.

Accessories

- 4 square glass cells 10mm
- 1 mounted multiple 4 cell holder
- Dust cover
- Cable
- Computer is *optional* (Not Included)
- Instruction book
- Optional: Large cell holder
- Large Cell 20-30-40 and 50mm

Technical Specifications

Optical System:	Single Beam	Transmittance Range:	0-125% (T)
Wavelength Range:	330-1100nm	Absorption Range:	0-1999% (A)
Light Source:	Tungsten-Halogen Lamp	Concentration Range:	0-2000
Detector:	Silicon Photodiode	Photometric Accuracy:	+50% (T) +0.004 A.
Wavelength Distance:	1nm	Monochromator Grating Mirror:	1200 lines/mm
Wavelength Accuracy:	+ 1 nm	Readout:	LCD 2 line
Wavelength Reproducibility:	0.5 nm	Power Supply Switching:	110V/60 Hz. and 220V/50Hz.
Spectral Band Pass:	6 nm	Dimensions:	16" x 14" x 8" (Inches).
Transmittance Reproducibility:	0.3% (T)	Net Weight:	20 lb. (9 kg.)



Spectro UV-2505

UV-VIS Spectrophotometer



Spectro UV-2505 is a low priced traditional analytical device used in conventional laboratories. This spectrophotometer delivers enhanced user-friendliness, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results. Model UV-2505 works in the ultraviolet and visible range of **195-1050 nm** and has a **4nm. Bandwidth!** Model **UV-2505** spectrophotometer offers high performance and reliability, which can be used in various applications. Spectrophotometer Model **UV-2505** can be used extensively for pharmaceutical manufacturing, health, clinical laboratory, biochemistry, petrochemistry, environmental protection, quality control, water management, food processing, agriculture, and for a wide range of businesses and industries. It is equipped with the **RS-232C** interface and port which link the spectrophotometer and the PC using the UV-VIS optional software. Model UV-2505 can be linked to a computer, which is compatible with Windows XP, and a printer to display the photometric and spectral data on the PC monitor.

Spectro UV-Vis RS (Model UV-2505) utilizes a new optical system design and is microcomputer controlled. This instrument has soft keys for ease of use and may utilize 13 mm test tube. Model UV-2505 has excellent baseline stability and high resolution. It consists of a light source (Tungsten Halogen and Deuterium lamp), monochromator, Silicon photodiode, logarithmic amplifier, digital volt meter, D.C. stabilizer, and microprocessor. This new generation instrument is equipped with a microprocessor to automatically adjust 100 % T and Zero ABS, Factor, and Concentration. Spectro UV-VIS 2505 operates with a single beam system and 1200 line grating mirror. Model UV-2505 has a four digit display for automatic calculation and direct readout of (T)ransmittance, (A)bsorbption, and (C)oncentration.

This Spectro can be used by itself or linked to a PC. Can use a multiple cell holder to test cells from 10-100mm (optional)

Labomed, Inc. is certified by ISO 9001-2000, has CE Conformity and is FDA Licensed.

Features

This instrument is the realization of a long history of specialized research, design, and manufacture. It is simple in construction and high in performance. The multiple cell holder is one of the unique features of the Spectro UV-VIS 2505. It is able to test, record and print four sample results immediately by built in interface RS 232C. The Spectro may save the reagents and samples by using the optional semi-micro cuvette of 1.5 ml or less to reduce waste. This unit was constructed with high reliability, durability, ease of operation, and maintenance in mind.

Easy to change light source.
Very competitive price.
Has FDA license.

4 nm bandwidth. **NEW AND IMPROVED!**
Wide continuous wavelength 200-1050nm
Multi-purpose cell holder for long path
(20 - 50mm) rectangular cells

Set of 2 performance testing filters (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)
Optional Software for Windows XP
Includes RS232C cable, operator's manual. (Specify: Spectro UV-Vis 2505)

Accessories

Power cable

Software cable

Operation Manual

Technical Specifications

Optical system:	Single beam, diffraction grating	Concentration range:	0-1999
Light Source:	Tungsten Halogen and Deuterium lamps	Direct-read Range	0-1999
Bandwidth:	4nm	Largest Allowable Error (T)	0.5%
Wavelength:	195nm-1050nm	Photometric accuracy:	0.5% T
Largest Allowable Error (Wavelength)	2nm	Monochromator:	1200 lines/grating mirror
Absorbance Range:	0.0000-2.0000	Noise:	100% Noise <0.3% T/3min, 0% Noise <0.2%
Wavelength Accuracy:	<2%	Stability:	bright <0.5%/3 min., dark <0.2%/3 min
Wavelength Reproducibility:	1nm	Transmittance reproducibility:	0.2 % T
Spectral Band Pass:	4nm	Power Supply:	AC85-260V, 50Hz or 60Hz
Stray Light:	<0.3 % T (at 220 nm. 360nm)	Weight:	12 Kg. (26.4 lbs.)
Transmittance Range:	0-100% T	Dimensions:	410mm (L) x 310mm (W) 155mm. (H)
Multi cell holder:	4 cuvettes		16.1" (L) x 12.2" (W) 6.1" (H)
Resolution:	1nm		



Spectro UV-VIS Touch Screen, Scanning, Single Beam Spectrophotometer

Automatic Smart Spectro UV-2510TS



This smart Spectro UV-Vis 2510TS is a large color touch screen single beam scanning UV-VIS Spectrophotometer with automatic wavelength settings; with its seamless integration with a regular PC, which makes managing data exceptionally easy. This spectrophotometer delivers enhanced ease-of-use, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results. UV-2510TS works in the ultraviolet and visible range of 190-1100 nm and has a fixed bandwidth of 2.0 nm. It has a scanning speed of about 500nm/min, with a high speed 1nm step. Spectro UV-2510TS spectrophotometer offers high performance and reliability, which can be used in various applications.

Spectro UV-2510TS can be used extensively for qualitative and quantitative analysis in such fields as clinical analysis, medical laboratories, petro-chemistry laboratories, chemistry and biochemistry laboratories, educational labs, research laboratories, analytical laboratories, industrial testing, environmental control, water management, food processing, agriculture and water testing.

Spectro UV-2510TS has excellent baseline stability and high resolution. This spectrophotometer has 4 cell holders with a length from 5-100mm to test 4 samples.

Spectro UV-Vis 2510TS permits the instrument to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. The RS-232C interface, the port, and the included UV-VIS software link the spectrophotometer and the PC, which are compatible with Windows Platforms. The advanced 2-way communication system allows the user to provide instructions right from the computer and gives the user the ability to print and record results in an easy to use interface. In addition to saving data, the Spectro's software can save parameters, set wavelengths and allow automatic processing of concentration.

Labomed, Inc. is certified by ISO-9001-2013, has CE Conformity and is FDA Licensed.

Features

- Automatic wavelength settings
- 5.6 inch Color touch-screen LCD
- 5-100mm cell holder
- USB port
- Internal printer optional
- Software optional
- Lamp lifetime protection
- Power shut-down test data protection
- Scanning system
- User-friendly interface
- Touch screen
- Automatic lamp changing
- Automatic calculations

Accessories

4 square optical cells 10mm.
2 square quartz cells 10 mm with lid
Instruction manual
Spectro Software

Software Operation Manual
Power cable
PC cable



Spectro UV-VIS Touch Screen, Scanning, Single Beam Spectrophotometer

Automatic Smart Spectro UV-2510TS

Technical Specifications

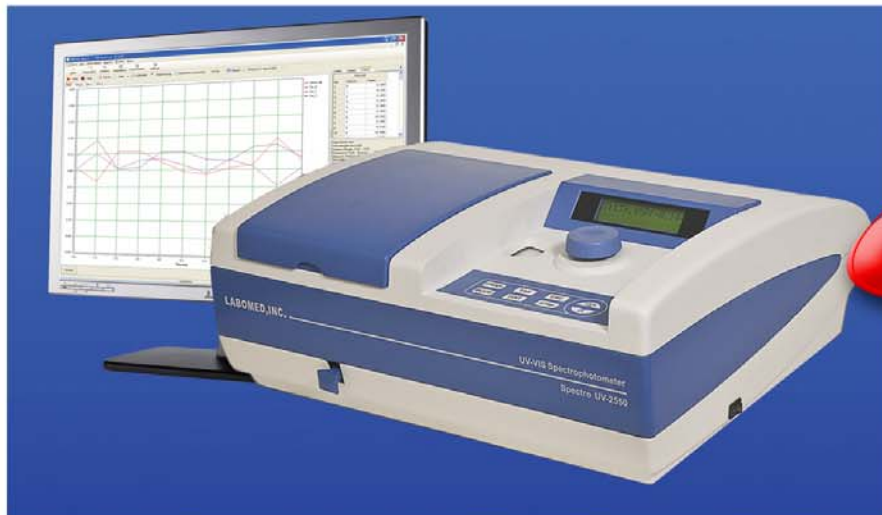
Optical System:	Single Beam Spectrophotometer	Absorbance Measuring Range:	-0.301 ~ 4.000 (A)
Monochromator:	1200 lines/mm holographic grating	Concentration Range:	0.000 ~ 9999 (C)
	C-T monochromator	Baseline:	± 0.003Abs (210-990nm, S model only)
Wavelength:	190 nm - 1100 nm	Scanning Speed:	About 500nm/min, with a high speed 1nm step
Wavelength Accuracy:	± 1 nm	Noise:	100%T ≤ 0.2%(T) 0%T ≤ 0.1%(T)
Wavelength Repeatability:	≤ 0.5 nm	Drifting:	≤ 0.002%(A)/0.5h (at 250nm and 500nm, warm up 2h)
Spectral Bandwidth:	2 nm	Weight:	20 kg
Transmittance Accuracy:	± 0.5% (T) (NBS930D)		
Stray Light:	0.1% (T) (220nm, NaI; 360nm, NaNO ₂)		
Transmittance Repeatability:	≤ 0.2% (T)		
Transmittance Measuring Range:	0.0%-200.0% (T)		



Spectro UV-2550

UV-VIS Spectrophotometer with 4 Cell Holder

Model UV-2550



NEW!

Spectro UV-2550 is a traditional analytical device used in conventional laboratories. This spectrophotometer delivers enhanced user-friendliness, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results. Spectro UV-2550 works in the ultraviolet and visible range of 190-1100 nm and has a fixed bandwidth of 2.0 nm. Spectro UV-2550 offers high performance and reliability, which can be used in various applications. Spectro UV-2550 can be used extensively for qualitative and quantitative analysis in such fields as clinical analysis, petro-chemistry laboratories, chemistry and biochemistry laboratories, as well as in quality control departments, i.e. environmental control, water management, food processing, and agriculture.

Spectro UV-2550 is equipped with the USB interface and port. Spectro UV-2550 can be linked to a computer, which is compatible with Windows Platforms, and a printer to display the photometric and spectral data on the PC monitor.

UV-VIS Spectro UV-2550 utilizes a new optical system design and is microcomputer controlled. This instrument has soft keys for ease of use. Spectro UV-2550 has excellent baseline stability and high resolution.

Spectro UV-2550 consists of a light source (Tungsten Halogen and Deuterium lamp) which switches mode automatically, monochromator, Silicon photodiode, logarithmic amplifier, digital volt meter, D.C. stabilizer, and microprocessor. This new generation instrument is equipped with a microprocessor to automatically adjust 100 % T and Zero ABS, Factor, and Concentration. Spectro UV-VIS RS operates with a single beam system and 1200 line grating mirror. Spectro UV-2550 has a four digit display for automatic calculation and direct readout of (T)ransmittance, (A)bsorbption, and (C)oncentration.

One of the most important features of the new Spectro UV-2550 is that the light will change automatically from Visible to UV as needed.

Labomed, Inc. is certified by ISO-9001-2000, has CE Conformity and is Licensed by the Public Health License.

Features

- This instrument is the realization of a long history of specialized research, design, and manufacture. It is simple in construction and high in performance. The multiple cell holder is one of the unique features of the Spectro UV-2550. It is able to test, record and print four sample results immediately by the built-in USB interface. The Spectro may save the reagents and samples by using the optional semi-micro cuvette of 1.5 ml or less to reduce waste. This unit was constructed with high reliability, durability, ease of operation, and maintenance in mind.
- Microprocessor control, 2 Line LCD display.
- Auto zero and auto 100% T adjustment provided
- Calibration curve can be set up by either measuring or entering up to 10 standards or entering K and B factors directly via the keyboard.
- Data can be printed on an optional desktop printer and can be downloaded to a PC through USB.
- Up to 10 calibration curves can be stored and edited for user's convenience.
- Auto-wavelength control (optional).
- PC Control provided for more accurate and flexible measurement requirements (optional).
- Power source automatic for both 110V. and 220V., 50/60Hz.

Accessories

- 4 square optical cells 10mm.
- 2 square quartz cells 10 mm.
- 1 multiple cell holder for 10 to 50 mm
- Dust cover.
- Instruction manual.
- 1 power cable.
- Software and connection cable



Spectro UV-2550

UV-Vis Spectrophotometer with 4 Cell Holder

Model UV-2550

Technical Specifications

Optical System:	Single beam, Plane grating as the dispersing element, 1200 L/mm	Concentration Range:	0-1999
Wavelength range:	190 nm – 900 nm (D2 lamp: 190nm-350nm, tungsten lamp: 350nm-1100nm)	Photometric Repeatability:	≤0.3%T
Spectral Bandwidth:	2 nm	Photometric Method:	A, T, C
Straylight:	less than 0.1%T (NaI 220nm, NaNO ₂ 340nm)	Photometric Range:	-0.3 to 3 A
Wavelength Accuracy:	±2nm.	Interface Port:	USB
Photometric Reproducibility:	0.1 nm resolution	Detector:	PC Compatible
Wavelength Reproducibility:	≤1nm.	Dimensions:	Silicon Photo-diode
Photometric Accuracy:	±0.5%T	Net Weight:	527 x 435 x 215 mm
Photometric Display:	-0.3 to 3 A	Light Source:	17 kg
		Power Requirement:	Tungsten Halogen Lamp
		Power Consumption:	220/110 V + 10% 50/60 HZ (Automatic)



Spectro UV-VIS Double Beam PC Scanning Spectrophotometer

Model UVD-2950



Spectro UV-Vis Double PC (Model UVD-2950) is a high performance UV-Vis double beam automatic scanning spectrophotometer. It is a two (2) cell spectrophotometer with a fixed bandwidth of 1.0 nm. Model UVD-2950 spectrophotometer offers high performance, ease of use and reliability, which can be used in various applications. Spectrophotometer Model UVD-2950 can be used extensively for qualitative and quantitative analysis in such fields as pharmaceutical inspection, clinical analysis, petro-chemistry laboratories, chemistry and biochemistry laboratories, DNA/RNA analysis as well as in quality control departments, i.e. environmental control, water management, food processing, and agriculture. Spectro UV-Vis Double PC (Model UVD-2950) utilizes a new optical system design and is microcomputer controlled. With its **focused-beam design**, the system provides optimal and reproducible results for small samples. The sample beam and the reference beam are provided within the same sampling space, facilitating a wider and longer scan of data, providing a more detailed view of the results in an easy to use environment. This instrument has excellent baseline stability and high resolution and permits scanning, quantitative analysis, kinetic spectrophotometric analysis and DNA/RNA analysis through PC control. This product is capable of processing data, from analytical and spectrum testing.

Spectro UV-Vis Double PC (Model UVD-2950) has a large **LCD screen** which displays the menu screen and of course makes the device user friendly. Additionally, this instrument has a powerful built-in software which permits the apparatus to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor.

Spectro UV-Vis Double PC (Model UVD-2950) with fixed bandwidth of 1 nm is a **high-performance, reliable, and exceptional value instrument** which is the hallmark of Labomed UV-Vis spectrophotometers.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then, if required, a USB flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed.

Features

- **Baseline Stability:** The Double beam monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance.
- **2 Cell Holder:** Spectro UVD-2950 has 2 cell holder for reference (standard) and sample.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with RS-232 and USB interface and working on the Windows platform with the new UV/Win 6.0 application software.
- **The key components** adopt all from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, which ensures the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

- | | | |
|--|---------------------------------------|---------------------------------------|
| 2 Fixed Cell Holder (one reference and one sample) | 1 Power cable | 1 Block Light Cell |
| 8 Optical Glass Cells 10mm. | 1 PC cable | 1 Extra fuse |
| 2 Quartz Cells 10mm. | 1 Software CD for Windows XP, 7 and 8 | Optional: Peltier Kinetic Test System |
| 1 Dust cover | 1 Software Operation Manual | Optional: Sipper Flow Through System |
| 1 Instruction manual | | |



Spectro UV-VIS Double Beam PC Scanning Spectrophotometer

Model UVD-2950

Software Specifications

Spectro UV-Vis Double PC (Model UVD-2950) is a UV-Vis performance beam automatic scanning spectrophotometer double height. This is a (2) two-cell spectrophotometer, now with a new and improved bandwidth 1 nm! Model UVD-2950 spectrophotometer offers high performance, ease of use and reliability, which can be used in various applications. Model UVD-2950 spectrophotometer can be used extensively for qualitative and quantitative analysis in such fields as pharmaceutical inspection, clinical analysis, petrochemical laboratories, laboratories of chemistry and biochemistry, DNA / RNA as well as in quality control departments ie environmental control, water management, food processing and agriculture.

Spectro UV-Vis Double PC (Model UVD-2950) uses a new optical system design and is microcomputer controlled. With its focused beam, the system provides optimal and reproducible results for small samples. The sample beam and the reference beam are provided on the same sample space, facilitating wider and longer exploration of the data that provide a more detailed view of the results in a user friendly environment. This instrument has excellent initial stability and high resolution and allows exploration, quantitative analysis, kinetic spectrophotometric analysis, protein, nucleic acid, DNA / RNA, micro and macro through the PC control measurements. This product is able to process the data, spectrum analysis and testing.

Spectro UV-Vis Double PC (Model UVD-2950) features a large LCD screen that displays the menu screen and, of course, makes the device user friendly. This team also has a powerful integrated software allows the device to be connected to a computer and a printer to show Photometric and Spectral data in the computer screen. Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed. Spectro UV-Vis Double PC (Model UVD-2950) with fixed bandwidth of 1 nm is a high performance tool for value, reliability and exceptional that is the hallmark of UV-Vis spectrophotometers.

This Spectro can be used alone or linked to a PC and comes with a USB interface to connect to the computer.

Technical Specifications

Wavelength:	190 nm - 1100 nm	Reference:	0.0008Abs / h (2 hours of heating, the bandwidth of 2 nm, 500 nm)
Spectral bandwidth:	1nm	Homicide rate wavelength stability:	3600nm/min
Resolution:	1nm	DNA / RNA measurement:	Print Results: The print data
Straylight:	> 2.10Abs (200nm)		Measured with any printer
Wavelength accuracy:	± 0.3 nm (with automatic wavelength)		Available parallel port connection.
Wavelength Clone:	± 0.2 nm	Central America:	Compact and standalone spectrophotometer
Photovoltaic system:	Double-beam optical system		mainframe
Optical Optical method:	Transmittance, absorbance, energy, and focus	Light Source:	Socket Deuterium Lamp and Socket Tungsten
Range:	-0.3 ~ 3.0 Abs		Halogen Lamp
Optical Resolution:	± 0.002Abs (0 ~ 0.5), 0.004Abs ± (0.5 ~ 1.0)	Detector:	Double Beam
	± 0.3% T (0 ~ 100% T)	Showroom:	2 cell holder
Cloning optical	± 0.001Abs (0 ~ 0.5), 0.002Abs ± (0.5 ~ 1.0)	Screen	Liquid crystal display
	± 0.15% T (0 ~ 100% T)		(320-240 LCD dot matrix)
Optical display:	-9.999 9.999 ----	Keyboard:	Touch soft keys
Optical Noise:	± 0.001Abs (500 nm to 2 nm spectral bandwidth Abs 0)	PC interface:	PC Interface: RS-232, USB
Scanning speed:	1400nm/min	Size:	22 "x 16" x 10 "
Flatness Base:	± 0.002Abs	Weight:	55 Lb



Spectro UV-VIS Double Beam PC Scanning Spectrophotometer

Model UVD-2960



NEW!

Spectro UV-Vis Double PC (Model UVD-2960) is a high performance UV-Vis double beam automatic scanning spectrophotometer. It is a two (2) cell spectrophotometer with a variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm. Model UVD-2960 spectrophotometer offers high performance, ease of use and reliability, which can be used in various applications. Spectrophotometer Model UVD-2960 can be used extensively for qualitative and quantitative analysis in such fields as pharmaceutical inspection, clinical analysis, petro-chemistry laboratories, chemistry and biochemistry laboratories, DNA/RNA analysis as well as in quality control departments, i.e. environmental control, water management, food processing, and agriculture. Spectro UV-Vis Double PC utilizes a new optical system design and is microcomputer controlled. With its **focused-beam design**, the system provides optimal and reproducible results for small samples. The sample beam and the reference beam are provided within the same sampling space which in turn facilitates wider and longer scan of data providing a more detailed view of the results in an easy to use environment. This instrument has excellent baseline stability and high resolution and permits scanning, quantitative analysis, kinetic spectrophotometric analysis and DNA/RNA analysis through PC control. This product is capable of processing data, from analytical and spectrum testing.

Spectro UV-Vis Double PC (Model UVD-2960) has a large **LCD screen** which displays the menu screen and of course makes the device user-friendly. Additionally, this instrument has a powerful built-in software which permits the apparatus to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor.

Spectro UV-Vis Double PC with variable bandwidth of 0.5, 1.0, 2.0 and 5.0nm. is a **high-performance, reliable, and exceptional value instrument** which is the hallmark of Labomed UV-Vis spectrophotometers.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then, if required, a USB flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed.

Features

- **Baseline Stability:** The Double beam monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance
- **2 Cell Holder:** Spectro UVD-2960 has 2 cell holder for reference (standard) and sample.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with RS-232 and USB interface and working on the Windows platform with the UV/Win application software.
- The key components adopt all from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, which ensures the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

2 Fixed Cell Holder (one reference and one sample)	1 Power cable	1 Block Light Cell
8 Optical Glass Cells 10mm	1 PC cable	1 Extra fuse
2 Quartz Cells 10mm	1 Software CD for Windows 98/2000/XP	Optional: Peltier Kinetic Test System
1 Dust cover	1 Software Operation Manual	Optional: Sipper Flow Through System
1 Instruction manual		



Spectro UV-VIS Double Beam PC Scanning Spectrophotometer

Model UVD-2960

Software Specifications

Monoprocessor Built-in Application:

Photometric Measurement: Measuring transmittance or absorbance at the current wavelength together with K factor calculations.

Spectrum Scan: Carrying out scanning of transmittance or absorbance on the selected wavelength range together with peak-pick module.

Quantitative Determination: Regression of standard curves and direct determination concentration of samples.

New UVWin 6.0 PC Windows Application Software (RS-232 and USB Interface) to link Spectro to computer and printer:

Photometric Measurement: Measuring the photometric values at 1-10 wavelengths together with mathematical calculations according to entered quotations.

Spectrum Scan: Producing Wavelength scans within the operating parameters on samples together with powerful data handling facilities.

Quantitative Determination: Determination of unknown concentration with methods of 1-3 wavelength quantitation, together with fitting of calibration curve of 1st ~ 4th order.

Kinetics: Recording curves of changing photometric values of samples against timecourse at the selected wavelengths together with powerful data handling facilities.

Output: With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports.

Technical Specifications

Wavelength Range:	190 nm – 1100 nm	Baseline Stability:	0.0008Abs/h (2 hours warming up, 2nm Bandwidth, 500nm)
Spectral Bandwidth:	0.5, 1.0, 2.0 and 5.0 nm	Slew Rate of Wavelength:	3600nm/min
Resolution:	0.1nm	DNA/RNA Measurement:	Results Printout: Printing of measured data by using any Printer with Parallel Port connection available.
Straylight:	>2.10Abs (200nm)	Wavelength Accuracy:	±0.3 nm (with automatic wavelength correction).
Wavelength Accuracy:	±0.3 nm (with automatic wavelength correction).	Wavelength Reproducibility:	±0.2 nm
Wavelength Reproducibility:	±0.2 nm	Photometric System:	Double beam optical system
Photometric System:	Double beam optical system	Photometric Method:	Transmittance, absorbance, energy, concentration
Photometric Method:	Transmittance, absorbance, energy, concentration	Photometric Range:	-0.3~3.0 Abs (0~200%T)
Photometric Range:	-0.3~3.0 Abs (0~200%T)	Photometric Accuracy:	±0.002Abs (0~0.5A) , ±0.004Abs (0.5~1.0A), ±0.3%T (0-100%T)
Photometric Accuracy:	±0.002Abs (0~0.5A) , ±0.004Abs (0.5~1.0A), ±0.3%T (0-100%T)	Photometric Reproducibility:	±0.001Abs (0~0.5 A) , ±0.002Abs (0.5~1.0A), ±0.15%T (0~100%T),
Photometric Reproducibility:	±0.001Abs (0~0.5 A) , ±0.002Abs (0.5~1.0A), ±0.15%T (0~100%T),	Photometric Display:	-9999 ---- 9999
Photometric Display:	-9999 ---- 9999	Photometric Noise:	±0.001Abs (at 500nm, 2nm Spectral Bandwidth 0 Abs)
Photometric Noise:	±0.001Abs (at 500nm, 2nm Spectral Bandwidth 0 Abs)	Scanning Speed:	1400nm/min
Scanning Speed:	1400nm/min	Baseline Flatness:	±0.0015Abs (2000 nm. ~ 1100 nm.)
Baseline Flatness:	±0.0015Abs (2000 nm. ~ 1100 nm.)	Voltage:	110V-240V
Voltage:	110V-240V	Baseline Stability:	0.0008Abs/h (2 hours warming up, 2nm Bandwidth, 500nm)
Baseline Stability:	0.0008Abs/h (2 hours warming up, 2nm Bandwidth, 500nm)	Slew Rate of Wavelength:	3600nm/min
Slew Rate of Wavelength:	3600nm/min	DNA/RNA Measurement:	Results Printout: Printing of measured data by using any Printer with Parallel Port connection available.
DNA/RNA Measurement:	Results Printout: Printing of measured data by using any Printer with Parallel Port connection available.	Mainframe:	Compact and standalone spectrophotometer mainframe
Mainframe:	Compact and standalone spectrophotometer mainframe	Light Source:	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp
Light Source:	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp	Detector:	Double Beam
Detector:	Double Beam	Sample Chamber:	2 cell holder
Sample Chamber:	2 cell holder	Display:	Liquid Crystal Display (LCD 320/240 dot matrix)
Display:	Liquid Crystal Display (LCD 320/240 dot matrix)	Keypad:	Touch soft keys.
Keypad:	Touch soft keys.	PC Interface:	PC Interface: RS-232, USB
PC Interface:	PC Interface: RS-232, USB	Size:	22"x16"x10"
Size:	22"x16"x10"	Weight:	55 Lb
Weight:	55 Lb		



Spectro UV-VIS Double PC 8 Auto Cell Scanning Spectrophotometer

Model UVD-3000



Spectro UV-VIS Double PC 8 Auto is a **high performance** UV-Vis double beam automatic scanning spectrophotometer. Spectro UVD-3000 has a fixed bandwidth of 1.0 nm. This spectrophotometer offers high performance, ease of use and reliability, which can be used in various applications. Spectro UVD-3000 can be used extensively for qualitative and quantitative analysis in such fields as **pharmaceutical inspection, clinical analysis, petrochemistry laboratory, chemistry and biochemistry laboratories, DNA/RNA analysis as well as in quality control departments, i.e., environmental control, water management, food processing, and agriculture.**

Spectro UV-VIS Double PC 8 Auto Cell utilizes a new optical system design and is microcomputer controlled. With its focused-beam design, the system provides optimal and reproducible results for small samples. The sample beam and the reference beam are provided within the same sampling space which in turn facilitates wider and longer scan of data providing a more detailed view of the results in an easy to view environment. This instrument has excellent baseline stability and high resolution and permits scanning, quantitative analysis and DNA/RNA analysis through PC control. This product is capable of processing data from analytical and spectrum testing.

Spectro UV-VIS Double PC 8 Auto Cell has a large LCD screen which displays the system menu and of course makes the device easier to use. Additionally, this instrument has a powerful built-in software which permits the apparatus to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. Spectro UV-VIS Double PC Auto Cell with a fixed bandwidth of 1 nm is a high performance, reliable and exceptional value instrument which is the hallmark of Labomed UV-VIS Spectrophotometers.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed.

Features

- **Baseline Stability:** The Double beam monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance.
- **Automatic successive measurement:** The automatic eight-cell sample holder offers the automatic measurement of eight samples in succession. So it can bring about one-touch measurement of the solution of six samples and a blank.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with USB and RS-232 interface and working on the Windows platform with the UV/Win 6.0 application software.
- **The key components** adopt all from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, which ensures the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

8 Auto Cell Holder and one fixed Cell Holder	1 Power cable	1 Block Light Cell
8 Optical Glass Cells 10mm	1 PC cable	1 Extra fuse
2 Quartz Cells 10mm	1 Software CD for Windows 98/2000/XP	<i>Optional: Peltier Kinetic Test System</i>
1 Dust cover	1 Software Operation Manual	<i>Optional: Sipper Flow Through System</i>
1 Instruction manual	1 Spare Tungsten Halogen Lamp	



Spectro UV-VIS Double PC 8 Auto Cell Scanning Spectrophotometer

Model UVD-3200



Spectro UV-VIS Double PC 8 Auto is a high performance UV-Vis double beam automatic scanning spectrophotometer. Spectro UVD-3200 has a variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm. This spectrophotometer offers high performance, ease of use and reliability, which can be used in various applications. Spectro UVD-3200 can be used extensively for qualitative and quantitative analysis in such fields as **pharmaceutical inspection, clinical analysis, petrochemistry laboratory, chemistry and biochemistry laboratories, DNA/RNA analysis as well as in quality control departments, i.e., environmental control, water management, food processing, and agriculture.**

Spectro UV-VIS Double PC 8 Auto Cell utilizes a new optical system design and is microcomputer controlled. With its focused-beam design, the system provides optimal and reproducible results for small samples. The sample beam and the reference beam are provided within the same sampling space, facilitating wider and longer scan of data providing a more detailed view of the results in an easy to use environment. This instrument has excellent baseline stability and high resolution and permits scanning, quantitative analysis, kinetic spectrophotometric analysis, protein, nucleic acid, DNA/RNA analysis, micro and macro measurements through PC control. This product is capable of processing data, from analytical and spectrum testing.

Spectro UV-VIS Double PC 8 Auto Cell (Models UVD-3200) has a large LCD screen which displays the menu screen and makes the device easier to use. Additionally, this instrument permits the apparatus to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor, using the new UVWin 6.0 UV-VIS application software, offering a wide range of uses and applications.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then, if required, a USB flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed.

Features

- **Baseline Stability:** The Double beam monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance
- **Automatic successive measurement:** The automatic eight-cell sample holder offers the automatic measurement of eight samples in succession. So it can bring about one-touch measurement of the solution of six samples and a blank.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with USB and RS-232 interface and working on the Windows platform with the UV/Win 6.0 application software.
- **The key components** adopt all from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, which ensures the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

8 Auto Cell Holder and one fixed Cell Holder	1 Power cable	1 Block Light Cell
8 Optical Glass Cells 10mm	1 PC cable	1 Extra fuse
2 Quartz Cells 10mm	1 Software CD for Windows 98/2000/XP	Optional: Peltier Kinetic Test System
1 Dust cover	1 Software Operation Manual	Optional: Sipper Flow Through System
1 Instruction manual		



Spectro UV-VIS Double PC 8 Auto Cell Scanning Spectrophotometer

Model UVD-3200

Software Specifications

Monoprocessor Built-in Application:

Photometric Measurement: Measuring transmittance or absorbance at the current wavelength together with K factor calculations.

Spectrum Scan: Carrying out scanning of transmittance or absorbance on the selected wavelength range together with peak-pick module.

Quantitative Determination: Regression of standard curves and direct determination concentration of samples.

PC Windows Application Software (RS-232 Interface) to link Spectro to computer and printer:

Photometric Measurement: Measuring the photometric values at 1-10 wavelengths together with mathematical calculations according to entered quotations.

Spectrum Scan: Producing Wavelength scans within the operating parameters on samples together with powerful data handling facilities.

Quantitative Determination: Determination of unknown concentration with methods of 1-3 wavelength quantitation, together with fitting of calibration curve of 1st ~ 4th order.

Kinetics: Recording curves of changing photometric values of samples against timecourse at the selected wavelengths together with powerful data handling facilities.

Output: With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports.

Technical Specifications

Wavelength range:	190 nm – 1100 nm	Baseline Stability:	0.0008Abs/h (1/2 hr warmup, 1nm bandwidth, at 500 nm)
Spectral Bandwidth:	0.5, 1.0, 2.0 and 5.0 nm (UVD-3200 4 steps) 2.0nm (UVD-3000)	Slew Rate of Wavelength:	3600nm/min
Resolution:	0.5nm	DNA/RNA Measurement:	Results Printout: Printing of measured data by using any Printer with Parallel Port connection available.
Straylight:	>2.10Abs (200nm)	Mainframe:	Compact and standalone spectrophotometer mainframe
Wavelength Accuracy:	±0.3 nm (with automatic wavelength correction)	Light Source:	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp
Wavelength Reproducibility:	±0.2 nm	Detector:	Double Beam
Photometric System:	Double beam optical system	Sample Chamber:	Automatic eight-cell sample
Photometric Method:	Transmittance, absorbance, energy, concentration	Display	Liquid Crystal Display (LCD 320 - 240 dot matrix)
Photometric Range:	-0.3~3.0 Abs (0~200%T)	Keypad:	Touch soft keys.
Photometric Accuracy:	± 0.002Abs (0 ~ 0.5Abs), 0.004Abs (0.5 ~ 1.0Abs), ± 0.3% T (0 ~ 100% T)	PC Interface:	PC Interface: RS-232
Photometric Reproducibility:	0.001Abs (0~0.5 Abs), 0.002Abs (0.5~1.0Abs), T (0 ~ 100% T) 0.15%	Size:	22" x 16" x 10"
Photometric Display:	-9999 ---- 9999	Weight:	55 Lb
Photometric Noise:	± 0.001Abs at 120 seconds (500 nm, 1 nm bandwidth, 0Abs)		
Scanning Speed:	1400nm/min		
Baseline Flatness:	±0.0015Abs (200 nm. ~1100 nm)		



Double Beam Spectrophotometer

UVD-3300

Photometric Range -4~4A



UVD-3300 Double Beam Spectrophotometer Photometric Range -4~4A

UV-VIS Double Beam Spectrophotometer Scanning System with PMT Detector and memory Photometric Range -4~4A

PMT has high sensitivity that can catch the signal from weak light. Hence it is often used in high-end UV-VIS to enable large photometric range. The UV-Vis with a linear range of 4A or above must be equipped with PMT detector. Double Beam PMT Spectrophotometer has a Photometric Range of -4~4A.

The **UVD-3300 Double Beam Spectrophotometer Photometric Range -4~4A** is designed to meet high requirement for precision measurement in the research and production of organic chemistry, biochemistry, medical testing, food testing, environmental protection, water testing industry, etc. The latest ARM system and long optical system ensure high accuracy and good stability of the instrument. They are the best choice of high quality spectrophotometer.

FEATURES

- The use of photomultiplier tube as a detector offers exceptional sensitivity.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum scan, DNA\Protein test, multi-wavelength test, etc.
- In-house massive memory is capable of saving up to 1024M for test data & working curves.
- Supports USB storage. The USB port can be used for data transfer, which is easily exported to Excel for further processing, analysis and storage.
- Socket type deuterium and tungsten lamp can make lamps switching without optics debugging and easy to be replaced.
- Large sample chamber can accommodate 5-100mm cuvettes of all kinds.
- Extensive accessories are optional, such as auto 8-cell holder, film holder, Peltier/Sipper system, 21 CFR compliant software, built-in printer, etc.

SPECIFICATION

Optical System	Double Beam, Grating 1200 lines/mm
Wavelength Range	190-1100 nm
Spectral Bandwidth	1nm
Wavelength Accuracy	±0.1nm@656.1nm, ±0.3nm@all
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	0.2%T(0~100%T), ±0.002A(0-0.5A), ±0.004A(0.5-1A)
Photometric Repeatability	≤0.15%T (0-100%T), 0.001A(0-0.5A), 0.002A(0.5-1A)
Photometric Range	0-200%T, -4~4A, 0-9999C (0-9999F)
Stray Light	≤0.03%T@220nm, 360nm
Stability	±0.0005A/h@500nm
Baseline Flatness	±0.001A
Noise	0.0005A@500nm
Work mode	T, A, C, E
Scanning speed	Hi, Med, Low (Max. 3000nm/min)

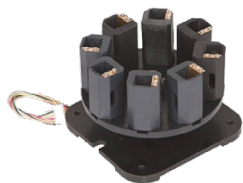


Wavelength setting	Auto
Display	7" TFT Color Screen
Light Source	Imported Deuterium & Tungsten lamp
Detector	Imported PMT
Output	USB drive, USB host, RS232
Power	AC 220V/50Hz or AC 110V/60Hz
Dimension	590 x 475 x 250mm
Net Weight	20kg
Shipping Size	810*660*390mm
Gross Weight	27kg
Standard Accessories	10mm glass cuvette x 4, 10mm quartz cuvette x 2, Power cord, User's Manual, PC Software

ACCESSORIES



Single hole film holder



Auto 8-cell holder



single hole cell holder-10mm



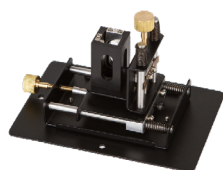
Manual 4-position film holder



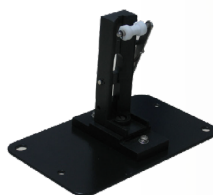
Manual 4-cell holder-100mm



Integrating Sphere



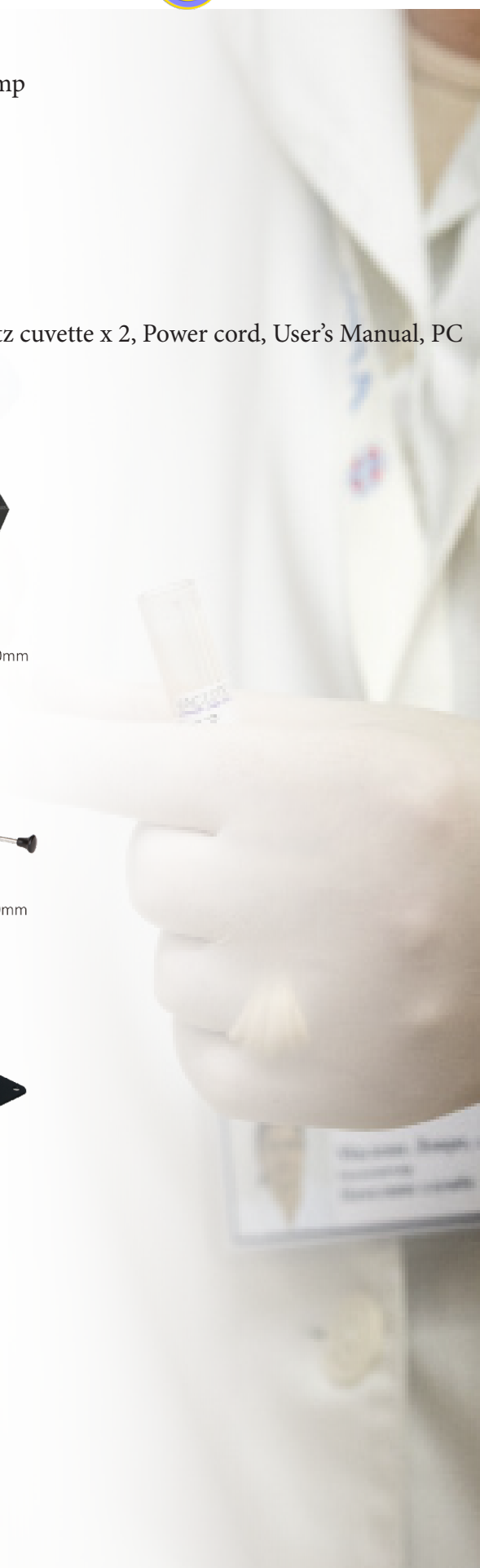
Adjustable XY micro cell holder



Tube rack



Peltier/Sipper system

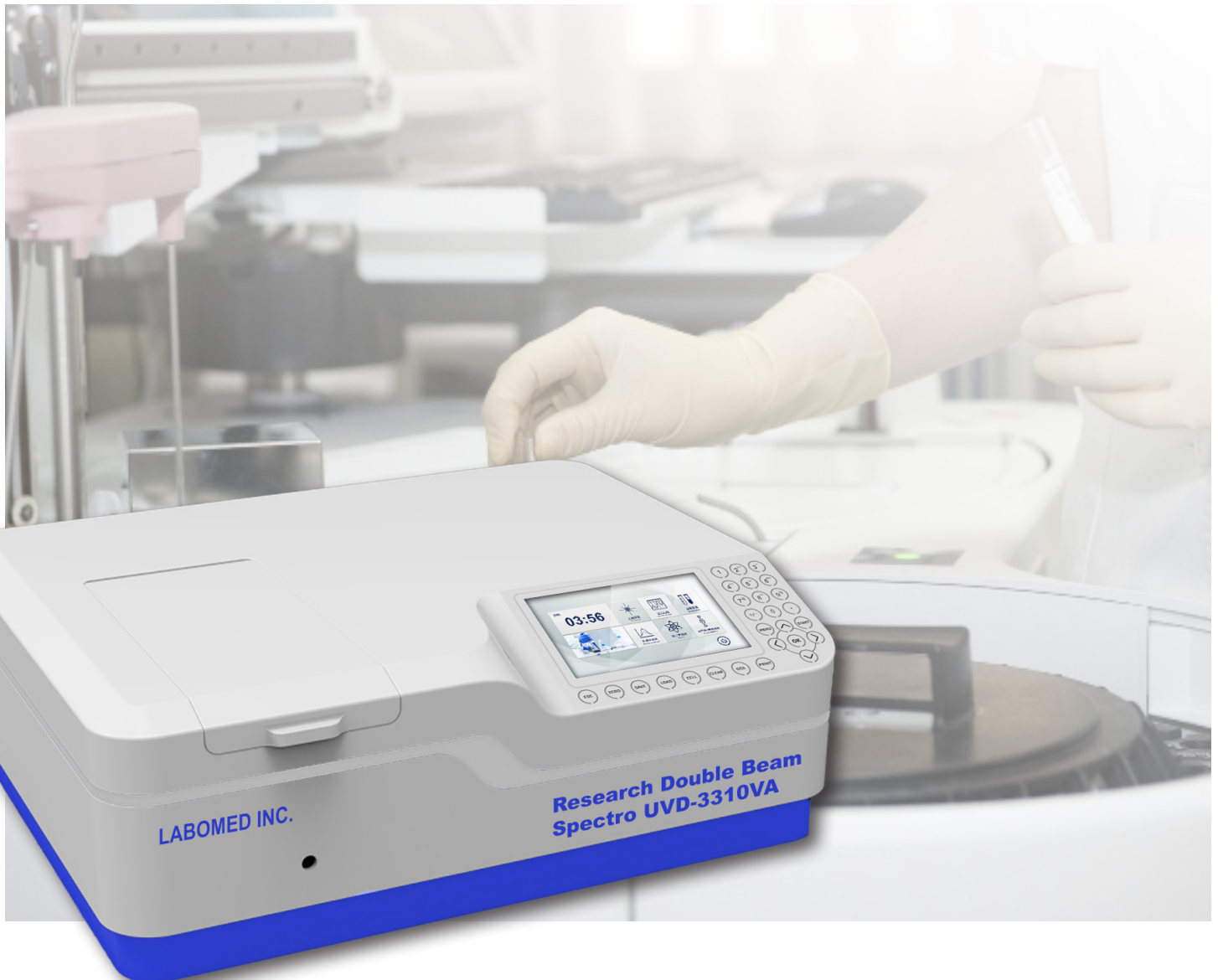




Double Beam Spectrophotometer

UVD-3310VA

Photometric Range -4~4A Spectral Bandwidth 0.5/1/2/4/5



UVD-3310VA Double Beam Spectrophotometer Photometric Range -4~4A Spectral Bandwidth 0.5/1/2/4/5

UV-VIS Double Beam Spectrophotometer Scanning System with PMT Detector and memory Photometric Range -4~4A

PMT has high sensitivity that can catch the signal from weak light. Hence it is often used in high-end UV-VIS to enable large photometric range. The UV-Vis with a linear range of 4A or above must be equipped with PMT detector. Double Beam PMT Spectrophotometer has a Photometric Range of -4~4A.

The **Double Beam Spectrophotometer with Photometric Range -4~4A and Spectral Bandwidth 0.5/1/2/4/5** is designed to meet high requirement for precision measurement in the research and production of organic chemistry, biochemistry, medical testing, food testing, environmental protection, water testing industry, etc. The latest ARM system and long optical system ensure high accuracy and good stability of the instrument. They are the best choice of high quality spectrophotometer.

FEATURES

- The use of photomultiplier tube as a detector offers exceptional sensitivity.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum scan, DNA\Protein test, multi-wavelength test, etc.
- In-house massive memory is capable of saving up to 1024M for test data & working curves.
- Supports USB storage. The USB port can be used for data transfer, which is easily exported to Excel for further processing, analysis and storage.
- Socket type deuterium and tungsten lamp can make lamps switching without optics debugging and easy to be replaced.
- Large sample chamber can accommodate 5-100mm cuvettes of all kinds.
- Extensive accessories are optional, such as auto 8-cell holder, film holder, Peltier/Sipper system, 21 CFR compliant software, built-in printer, etc.

SPECIFICATION

Optical System	Double Beam, Grating 1200 lines/mm
Wavelength Range	190-1100 nm
Spectral Bandwidth	0.5/1/2/4/5
Wavelength Accuracy	±0.1nm@656.1nm, ±0.3nm@all
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	0.2%T(0~100%T), ±0.002A(0-0.5A), ±0.004A(0.5-1A)
Photometric Repeatability	≤0.15%T (0-100%T), 0.001A(0-0.5A), 0.002A(0.5-1A)
Photometric Range	0-200%T, -4~4A, 0-9999C (0-9999F)
Stray Light	≤0.03%T@220nm, 360nm
Stability	±0.0005A/h@500nm
Baseline Flatness	±0.001A
Noise	0.0005A@500nm



Work mode	T, A, C, E
Scanning speed	Hi, Med, Low (Max. 3000nm/min)
Wavelength setting	Auto
Display	7" TFT Color Screen
Light Source	Imported Deuterium & Tungsten lamp
Detector	Imported PMT
Output	USB drive, USB host, RS232
Power	AC 220V/50Hz or AC 110V/60Hz
Dimension	760*560*280mm
Net Weight	28kg
Shipping Size	880*690*520mm
Gross Weight	45kg
Standard Accessories	10mm glass cuvette x 4, 10mm quartz cuvette x 2, Power cord, User's Manual, PC Software

ACCESSORIES



Single hole film holder



Auto 8-cell holder



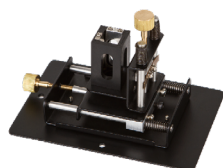
single hole cell holder-10mm



Manual 4-position film holder



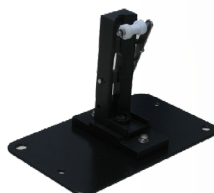
Manual 4-cell holder-100mm



Adjustable XY micro cell holder



Integrating Sphere



Tube rack



Peltier/Sipper system





**Double Beam Spectrophotometer
with Flashing Xenon Lamp**

UVD-3400



UVD-3400 - Double Beam Spectrophotometer with Flashing Xenon Lamp

The UVD-3400 Flashing Xenon Lamp Spectrophotometer is designed to meet high requirement for precision measurement in the research and production of organic chemistry, biochemistry, medical testing, food testing, environmental protection, water testing industry, etc. The latest ARM system and long optical system ensure high accuracy and good stability of the instrument. They are the best choice of high quality spectrophotometer.

FEATURES

- High quality flashing xenon lamp is from Hamamatsu, which can start to test directly without preheating. The lamp can be used at least 3-year.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum scan, DNA\Protein test, multi-wavelength test, etc.
- In-house massive memory is capable of saving up to 1024M for test data & working curves.
- Supports USB storage. The USB port can be used for data transfer, which is easily exported to Excel for further processing, analysis and storage.
- Large sample chamber can accommodate 5-100mm cuvettes of all kinds.
- Extensive accessories are optional, such as auto 8-cell holder, film holder, peltier/sipper system, 21 CFR compliant software, built-in printer etc.

SPECIFICATION

Optical System	Double Beam, Grating 1200 lines/mm
Wavelength Range	190-1100 nm
Spectral Bandwidth	1nm
Wavelength Accuracy	±0.1nm@656.1nm, ±0.3nm@all
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	0.2%T(0~100%T), ±0.002A(0-0.5A), ±0.004A(0.5-1A)
Photometric Repeatability	≤0.15%T (0-100%T), 0.001A(0-0.5A), 0.002A(0.5-1A)
Photometric Range	0-200%T, -0.3~3A, 0-9999C (0-9999F)
Stray Light	≤0.03%T@220nm, 360nm
Stability	±0.0005A/h@500nm
Baseline Flatness	±0.001A
Noise	0.0005A@500nm
Work mode	T, A, C, E
Scanning speed	High, Med, Low (Max. 3000nm/r)
Wavelength setting	Auto
Display	7" TFT Color LCD
Light Source	Imported Xenon lamp
Detector	Imported Silicon Photodiode
Cuvette Holder	10mm Single Hold Cell Holder
Output	USBdrive, USB host, RS232
Power	AC 220V/50Hz or AC 110V/60Hz
Dimension	590 x 475 x 250mm
Net Weight	20kg

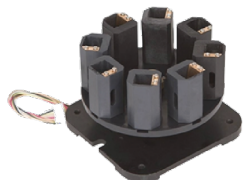


Shipping Size 810*660*390mm
 Gross Weight 27kg
 Standard Accessories 10mm glass cuvette x 4, 10mm quartz cuvette x 2, Power cord, User Manual, PC software

ACCESSORIES



Single hole film holder



Auto 8-cell holder



single hole cell holder-10mm



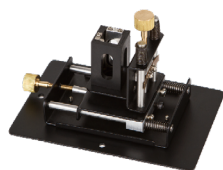
Manual 4-position film holder



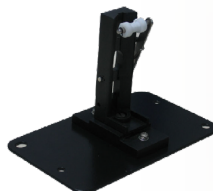
Manual 4-cell holder-100mm



Integrating Sphere



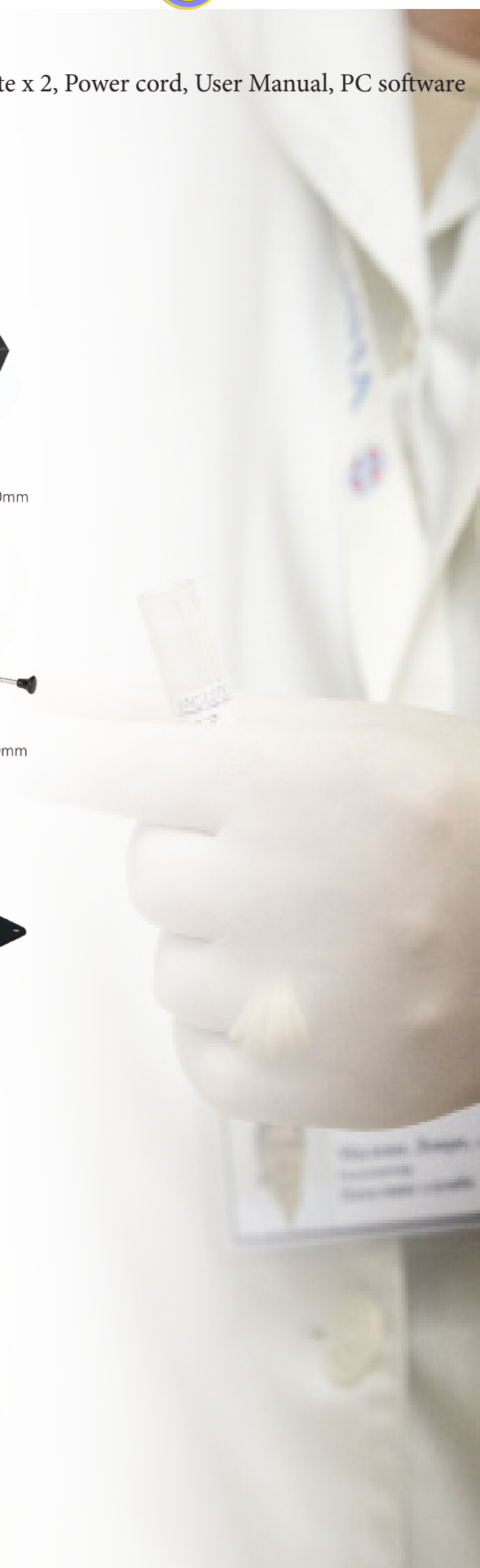
Adjustable XY micro cell holder



Tube rack



Peltier/Sipper system





**Double Beam Spectrophotometer
with Flashing Xenon Lamp**

UVD-3410VA

Spectral Bandwidth 0.5/1/2/4/5



UVD-3410VA Double Beam Spectrophotometer with Flashing Xenon Lamp has a Spectral Bandwidth of 0.5/1/2/4/5.

The **UVD-3410VA Double Beam Spectrophotometer with Flashing Xenon Lamp** is designed to meet high requirement for precision measurement in the research and production of organic chemistry, biochemistry, medical testing, food testing, environmental protection, water testing industry, etc. The latest ARM system and long optical system ensure high accuracy and good stability of the instrument. They are the best choice of high quality spectrophotometer.

FEATURES

- High quality flashing xenon lamp is from Hamamatsu, which can start to test directly without preheating. The lamp can be used at least 3-year.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum scan, DNA\Protein test, multi-wavelength test, etc.
- In-house massive memory is capable of saving up to 1024M for test data & working curves.
- Supports USB storage. The USB port can be used for data transfer, which is easily exported to Excel for further processing, analysis and storage.
- Large sample chamber can accommodate 5-100mm cuvettes of all kinds.
- Extensive accessories are optional, such as auto 8-cell holder, film holder, peltier/sipper system, 21 CFR compliant software, built-in printer etc.

SPECIFICATION

Optical System	Double Beam, Grating 1200 lines/mm
Wavelength Range	190-1100 nm
Spectral Bandwidth	0.5/1/2/4/5
Wavelength Accuracy	$\pm 0.1\text{nm}@656.1\text{nm}$, $\pm 0.3\text{nm}@\text{all}$
Wavelength Repeatability	$\leq 0.1\text{nm}$
Photometric Accuracy	$0.2\%T(0\sim 100\%T)$, $\pm 0.002A(0-0.5A)$, $\pm 0.004A(0.5-1A)$
Photometric Repeatability	$\leq 0.15\%T(0-100\%T)$, $0.001A(0-0.5A)$, $0.002A(0.5-1A)$
Photometric Range	$0-200\%T$, $-0.3\sim 3A$, $0-9999C(0-9999F)$
Stray Light	$\leq 0.03\%T@220\text{nm}$, 360nm
Stability	$\pm 0.0005A/h@500\text{nm}$
Baseline Flatness	$\pm 0.001A$
Noise	$0.0005A@500\text{nm}$
Work mode	T, A, C, E
Scanning speed	High, Med, Low (Max. 3000nm/n)
Wavelength setting	Auto
Display	7" TFT Color LCD
Light Source	Imported Xenon lamp
Detector	Imported Silicon Photodiode
Cuvette Holder	10mm Single Hold Cell Holder
Output	USBdrive, USB host, RS232
Power	AC 220V/50Hz or AC 110V/60Hz
Dimension	760*560*280mm



Net Weight	28kg
Shipping Size	880*690*520mm
Gross Weight	45kg
Standard Accessories	10mm glass cuvette x 4, 10mm quartz cuvette x 2, Power cord, User Manual, PC software

ACCESSORIES



Single hole film holder



Auto 8-cell holder



single hole cell holder-10mm



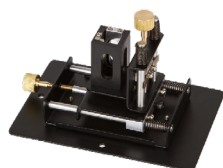
Manual 4-position film holder



Manual 4-cell holder-100mm



Integrating Sphere



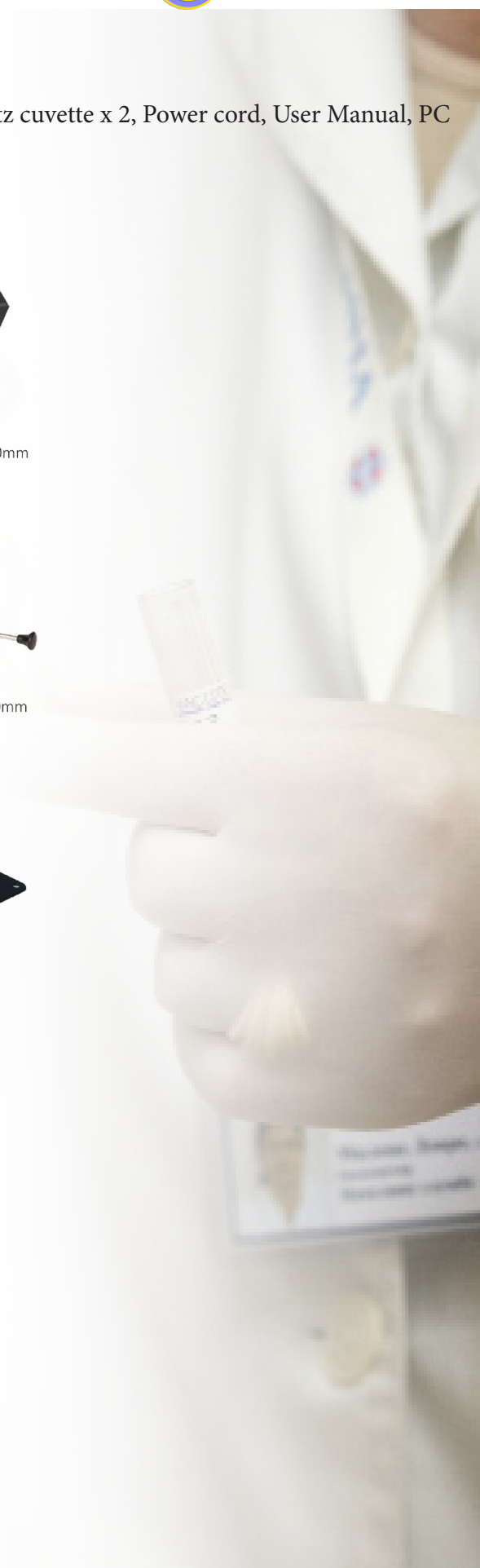
Adjustable XY micro cell holder



Tube rack



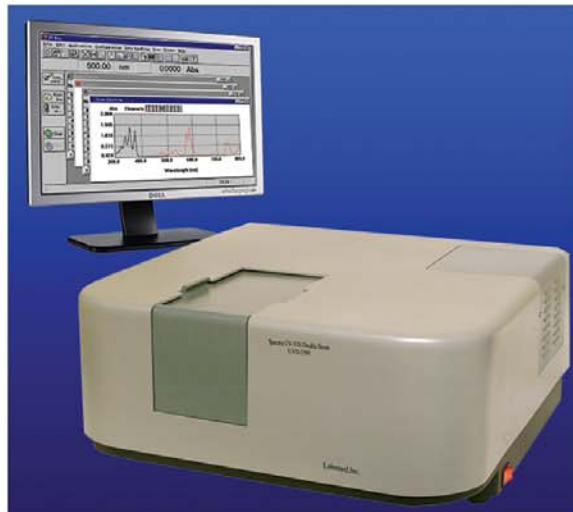
Peltier/Sipper system





Spectro UV-Vis Double Beam Research Spectrophotometer

Model UVD-3500



Spectro UV-VIS Double Beam UVD 3500 Research Spectrophotometer is a superior instrument for the research laboratory and is an **advanced and affordable system** that generates accurate and reproducible measurements. UVD-3500 spectrophotometer is **accurate, reliable, and an exceptional value**. With its narrow beam design, the system provides optimal and reproducible results for micro and macro samples with high resolution.

Spectro UV-VIS Double Beam UVD 3500 has a **powerful built in software** which permits this instrument to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. Spectro UV-VIS Double Beam UVD 3500's enhanced transmission and full reflection makes this double beam spectrophotometer highly effective and reduces noise.

Spectro UV-VIS Double Beam UVD 3500's **advantage is its accurate wavelength**, ease of operation, versatile software application, and effortless optional accessory installation. This instrument can be used for analyzing solid samples through use of an optional reflectance accessory and integrating sphere. This Spectro can be used for chemistry and **biochemistry labs, as well as in quality control departments, environmental control, water management, food processing, Petrochemistry, agriculture and DNA/RNA measurement**. The CT-type monochromator reduces stray light and widens the photometric range. Spectro UV-Vis Double Beam (Model UVD-3500) has variable bandwidth of 0.1, 0.2, 0.5, 1.0, 2.0 and 5.0 nm. The variable bandwidth allows this instrument to scan samples with excellent resolution.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2000, has CE Conformity and is FDA Licensed.

Features

- **Excellent Performance** : The high-performance diffraction grating spectrophotometer with a Czerny-Turner Mounting with a Holographic Grating keeps stray light to a minimum, and offers excellent optical resolution over a wide spectral range. The use of photomultipliers as detectors offers exceptional stability.
- **Very Stable Baseline**: The true double-beam optical array, coupled with an efficient control system, ensures high stability and low background noise.
- **High Resolution**: The double beam optical design, coupled with a high specification holographic grating, gives excellent wavelength separation, and allows the user to examine wavelengths that are very close whilst providing excellent ratio to background noise.
- **Accurate Wavelength**: The automatic wavelength control system and the automatic light sensors ensure wavelength accuracy and high performance of the instrument.
- **Easy Accessories Replacement**: The modular structure of the sample chamber enables the easy use of a wide range of optional accessories and ensures the accurate analysis of various sample types.
- **User-friendly Serviceability**: The user-friendly design of the light source chamber for the deuterium lamp and tungsten halogen lamp allows an easy light source and simplified routine maintenance.
- **Versatile Application Software**: The UV-Win user-friendly operating software operating on a Windows platform offers many operational and data processing capabilities. Thus presenting the user with a very versatile, simple-to-use spectrophotometer system.
- **Key Components**: All of the components used are selected by their reliability and continued high performance.
- **Computer System** is optional (NOT INCLUDED).
- **Spectro UVD-3500** can carry reflectance accessory by Integrating Sphere & Angle Changer.

Accessories

- 2 Fixed Cell Holder
- 4 Optical Glass Cells 10mm
- 2 Quartz Cells 10mm
- Computer link cable
- Computer Software - Windows XP, Windows 7 and Windows 8 compatible
- Dust cover
- Instruction manual
- Software Instructions
- Power cable
- Optional: Sipper Flow through System (Not Included)
- Optional: Kinetic Test Peltier System (Not Included)



Spectro UV-Vis Double Beam Research Spectrophotometer

Model UVD-3500

Software Specifications

Spectro UV-VIS Double Beam UVD 3500 Research Spectrophotometer is a superior instrument for the research laboratory and is an advanced and affordable system that generates accurate and reproducible measurements. UVD-3500 spectrophotometer is accurate, reliable, and an exceptional value. With its narrow beam design, the system provides optimal and reproducible results for micro and macro samples with high resolution.

Spectro UV-VIS Double Beam UVD 3500 has a powerful built in software which permits this instrument to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. This spectrophotometer is rugged, reliable, affordable, and maintenance free. Spectro UV-VIS Double Beam UVD 3500's enhanced transmission and full reflection makes this double beam spectrophotometer highly effective and reduces noise.

Spectro UV-VIS Double Beam UVD 3500's advantage is its accurate wavelength, ease of operation, versatile software application, and effortless optional accessory installation. This instrument can be used for analyzing solid samples through use of an optional reflectance accessory and integrating sphere.

Spectro UV-Vis Double Beam (Model UVD-3500) with variable bandwidth of 0.1, 0.2, 0.5, 1.0, 2.0 and 5.0 nm is a high-performance, reliable, and exceptional value instrument which is the hallmark of Labomed UV-Vis spectrophotometers.

Technical Specifications

Optical System	Double Beam. The monochromator of Czerny-Turner configuration with high-resolution diffraction holographic grating	Software Support:	UV-Win
Wavelength range:	190 nm – 900 nm	Scanning Speed:	Selectable
Spectral Bandwidth:	0.1, 0.2, 0.5, 1.0, 2.0, and 5.0nm.	Interface Card:	PC Compatible
Straylight:	≤0.01%T (220nm NaI, 340nm NaNO ₂)	Detector:	Photo multiplier tube
Wavelength Accuracy:	±0.3 nm	Photometric Display:	Unlimited
Wavelength Reproducibility:	≤0.1 nm	Photometric Noise:	±0.0004A (500nm), 30min warm-up
Photometric System:	The double-beam monitoring ratio system.	Slew rate of wavelength:	2400nm/min
Photometric Method:	Transmittance, Absorbance, Energy Concentration, All Using UV-Win Software	DNA/RNA Measurement	Available in UV/Win software
Photometric Range:	-4.0~4.0 Abs	Mainframe:	Compact and standalone mainframe
Photometric Accuracy:	±0.002A (0~0.5A), ±0.004A (0.5~1.0A), ±0.3T (0~100%T)	Light Source:	Tungsten Halogen and Deuterium Arc Lamps
Photometric Reproducibility:	±0.001A (0~0.5A)	Sample Chamber:	With accessories like two-cell sample holder and optional integrating sphere.
Baseline Flatness:	±0.001Abs (200~850nm)	Power Supply:	Switchable 120~230VAC 50~60Hz
Baseline Stability:	±0.0008A/h (500nm, 0Abs) 2 hr warm-up	Size:	587mm. x 562mm. x 260mm.
PC Interface:	RS-232	Weight:	34 Kg.



Spectro UV-Vis Double Beam Research Spectrophotometer

Model UVD-3500

Functions

The Spectro UV-VIS Double Beam UVD 3500 Research Spectrophotometer applications software allows the simultaneous display of different measurement windows, toggling between different measurement modes can be achieved with ease. The Spectrophotometer and all accessories are under the control of the UV-Win Software. A hard copy of data can be easily be obtained and data can also be exported to other Windows-based programs for further data manipulation.

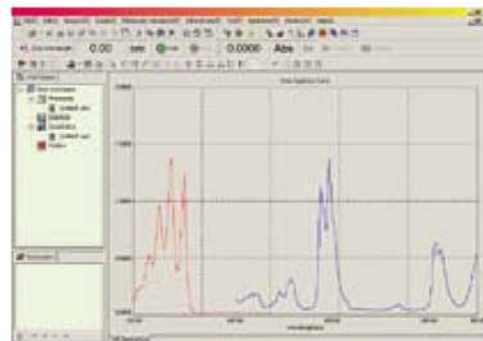
The multi-wavelength photometry can measure the absorbance and transmittance of samples using multiple wavelengths, average the measured values, and make calculations based upon operator derived factors and coefficients.

Multi-channel measurements with color display and printout, and various capabilities for data processing can meet the needs of most chemists. This module allows manipulation of information and data display, from spectra calculations to various transforms such as 1st -4th derivative, smoothing, and logarithms. The data output for peak-picking and data-picking is also available.

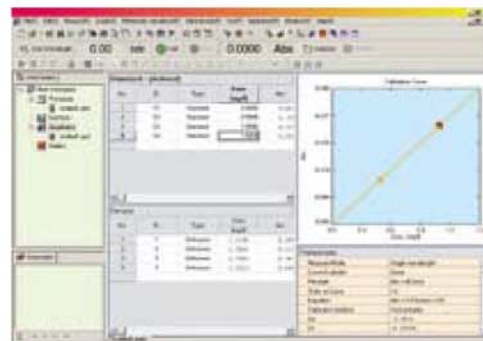
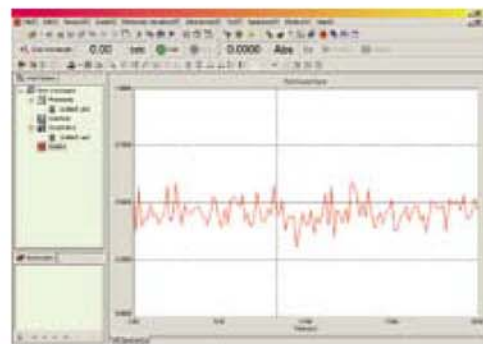
Creation of a standard curve is simple in quantitative analysis mode. This module has many powerful features, such as determination of 1st-4th order curve coefficients, and very accurate measurements can also be made on samples with non-linear absorbance. The quantitative methods use single wavelength, two-wavelength, coefficient two-wavelength, three wavelength, and 1st-4th derivatives.

Kinetic measurements can monitor the changes of absorbance and transmittance against time at 10 different wavelengths, and can easily supply important information about the changes in a sample. This module allows manipulation of information and data display, from calculation of curves to various transforms, such as 1st-4th derivatives, smoothing, and logarithms, etc. The data output of peak-pick and data-pick is also available.

DNA and protein analysis is provided by a unique purpose designed program.



Wavelength (nm)	Absorbance	Transmittance
210	0.0000	0.9999
215	0.0000	0.9999
220	0.0000	0.9999
225	0.0000	0.9999
230	0.0000	0.9999
235	0.0000	0.9999
240	0.0000	0.9999
245	0.0000	0.9999
250	0.0000	0.9999
255	0.0000	0.9999
260	0.0000	0.9999
265	0.0000	0.9999
270	0.0000	0.9999
275	0.0000	0.9999
280	0.0000	0.9999
285	0.0000	0.9999
290	0.0000	0.9999
295	0.0000	0.9999
300	0.0000	0.9999





Spectro UV-Vis Double Beam Research Spectrophotometer

Model UVD-3500

Spectrum Workspace

Use the spectrum workspace to scan across a user-defined spectral range measuring in either absorbance or transmission.

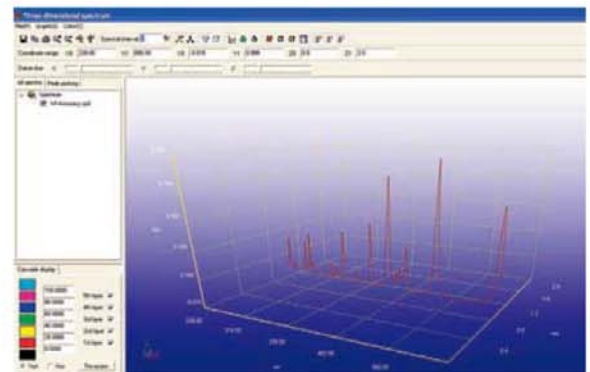
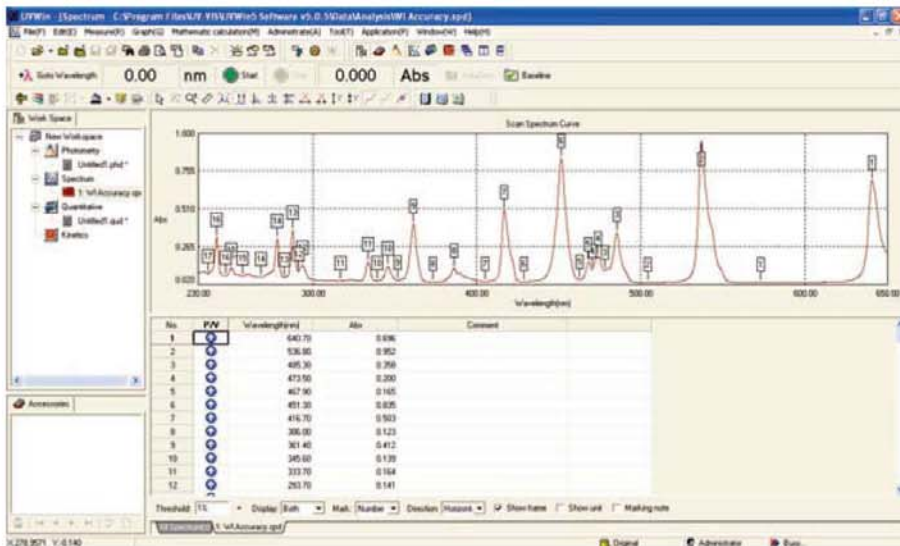
Use the "Peak Pick" tool to determine the wavelength at which peaks and valleys have occurred whilst also being able to determine their amplitude.

View spectral overlay in the 3D display mode.

Perform 1st, 2nd, 3rd, and 4th order differentiation on sample scans for Derivative Spectroscopy.

Export measurement data into Word, Excel, CSV and ASCII formats

Create method files for routine analysis while also being able to save measurement scans.





UV-Vis Spectrophotometer Scanning System with 8 Automatic Cell Changer

Model UVS-2700



Spectro UV-Vis is a precise scanning Spectrophotometer with a new design of 8 microprocessor automatic 2 row cell holder that moves noiseless with a special membrane. This has a single detector and a very accurate system.

Spectro UV-Vis is microcomputer-controlled and has a large LCD display to work independently. It can also be linked to a computer and a printer to show Photometric and Spectral data in the PC monitor. This connection is controlled by the RS232 AND USB interface, compatible with Windows XP, & and 8, using the new UVWin 6.0 UV-VIS application software.

Spectro UV-Vis is also capable of performing kinetic test by an optional Peltier constant temperature system, and can test flow through liquid by the optional Sipper Flow Through System.

Spectro UV-Vis can be used as an accurate system for qualitative and quantitative analysis of analytical test, Biochemistry, Chemistry, Clinical Analysis, Pharmaceutical and Agriculture Labs, Quality control, Industry and research.

Spectro UV-Vis can perform protein, nucleic acid, DNA/RNA micro and macro measurements, that can also be printed using an external HP 600/800 series printer or a PC printer.

Spectro UV-Vis with fixed bandwidth of **1 nm (UVS-2700)**.

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then, if required, a USB flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed. **This Spectro comes with a USB port interface and cable to link to a PC.**

Features

- **Baseline Stability:** The monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance.
- **Automatic successive measurement:** The automatic eight-cell sample holder offers the automatic measurement of eight samples in succession. So it can bring about one-touch measurement of the solution of seven samples and a blank.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with RS-232 and USB interface and Windows XP, 7 and 8 with the UVWin 6.0 application software, offering a wide range of uses and applications.
- **The key components:** Adopted from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, they ensure the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

- 8 Auto Cell Holder
- 8 Optical Glass Cells 10mm.
- 2 Quartz Cells 10mm.
- 1 Dust cover
- 1 Instruction manual
- 1 Power cable
- 1 PC cable
- 1 Software CD for Windows XP, 7 and 8
- 1 Software Operation Manual
- 1 Spare Tungsten Halogen Lamp
- 1 Block Light Cell
- 1 Extra fuse
- OPTIONAL:** Peltier Kinetic Test System
- OPTIONAL:** Sipper Flow Through System



UV-Vis Spectrophotometer Scanning System with 8 Automatic Cell Changer

Model UVS-2700

Software Specifications

Spectro UV-Vis is a precise scanning Spectrophotometer with a new design of 8 microprocessor automatic 2 row cell holder that moves noiseless with a special membrane. This Split Beam Spectro has a dual detector and a very accurate system. Spectro UV-Vis is microcomputer-controlled and has a large LCD display to work independently. It can also be linked to a computer and a printer to show Photometric and Spectral data in the PC monitor. This connection is controlled by the RS232 and USB interface, compatible with Windows XP, 7 and 8, using the new UVWin 6.0 UV-VIS application software.

Spectro UV-Vis is also capable of performing kinetic test by an optional Peltier constant temperature system, and can test flow through liquid by the optional Sipper Flow Through System. Spectro UV-Vis can be used as an accurate system for qualitative and quantitative analysis of analytical test, Biochemistry, Chemistry, Clinical Analysis, Pharmaceutical and Agriculture Labs, Quality control, Industry and research.

Spectro UV-Vis can perform protein, nucleic acid, DNA/RNA micro and macro measurements, that can also be printed using an external HP 600/800 series printer or a PC printer.

Spectro UV-Vis with fixed bandwidth of 1 nm (UVS-2700).

This Spectro can be used by itself or linked to a PC and comes with a USB interface to connect to the computer.

Technical Specifications

Wavelength:	190 nm - 1100 nm	Baseline Stability:	0.001A/30 min (2 hours warming up, 2nm bandwidth, at 500 nm)
Spectral bandwidth:	1 nm (UVS-2700)	Slew rate of Wavelength:	3600nm/min
Wavelength Display:	0.1 nm resolution	DNA / RNA measurement:	
Straylight:	≤0.12%T (220nm NaI, 340nm NaNO ₂)	Printer:	not available
Wavelength accuracy:	± 0.3 nm (with automatic wavelength correction)	Print Results:	The print data measured with any printer
Wavelength Reproducibility:	± 0.2 nm	Mainframe:	Compact and standalone spectrophotometer mainframe
Photometric System:	Single Beam ratio monitoring system	Light Source:	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp
Photometric Method:	Transmittance, absorbance, energy and concentration	Detector:	Silicon photo diode
Photometric Range:	-0.3 ~ 3.0 Abs ± 0.002Abs (0~0.5Abs)	Sample Chamber:	Automatic eight-cell sample holder/changer
Photometric Accuracy:	± 0.001Abs (0 ~ 0.5), 0.004Abs ± (0.5 ~ 1.0)	Screen:	Digital LCD Display
	± 0.3% T (0 ~ 100% T)	Keyboard:	Touch soft keys
Photometric Reproducibility:	± 0.002Abs ± (0.5 ~ 1.0 Abs)	PC interface:	RS-232, USB
	± 0.15% T (0 ~ 100% T)	Standard Functionality:	Photometric, Quantitative, Spectrum, and DNA Measurements
Optical display:	-9.999----9.999	Software Support:	Local and UVWin
Photometric Noise:	± 0.001Abs (500 nm) 30 min warm up	Size:	520mm, 420mm, 230mm
Scanning speed:	1400nm/min or selectable	Weight:	25Kg
Baseline Flatness:	± 0.002Abs (200-11--nm)	Power Supply:	Switchable 120-230VAC 50-60Hz
Scanning Speed:	1400nm/min or selectable		



UV-Vis Dual Beam PC Scanning Spectrophotometer UV-Vis Split Beam 8 Auto Cell

Model UVS-2800



Spectro UV-Vis Dual Beam is a precise scanning Spectrophotometer with a new design of 8 microprocessor automatic 2 row cell holder that moves noiseless with a special membrane. This has a single detector and a very accurate system.

Spectro UV-Vis Dual Beam is microcomputer-controlled and has a large LCD display to work independently. It can also be linked to a computer and a printer to show Photometric and Spectral data in the PC monitor. This connection is controlled by the RS232 AND USB interface, compatible with Windows XP, 7 and 8, using the new UVWin 6.0 UV-VIS application software.

Spectro UV-Vis Dual Beam is also capable of performing kinetic test by an optional Peltier constant temperature system, and can test flow through liquid by the optional Sipper Flow Through System.

Spectro UV-Vis Dual Beam can be used as an accurate system for qualitative and quantitative analysis of analytical test, Biochemistry, Chemistry, Clinical Analysis, Pharmaceutical and Agriculture Labs, Quality control, Industry and research.

Spectro UV-Vis Dual Beam can perform protein, nucleic acid, DNA/RNA micro and macro measurements, that can also be printed using an external HP 600/800 series printer or a PC printer.

Spectro UV-Vis Dual Beam with variable bandwidth of **has variable bandwidth of 0.5, 1.0 2.0 and 5.0 nm. (UVS-2800).**

OUR NEW SOFTWARE UV-WIN 6.0 WITH 3D SPECTRA Now all Labomed, Inc. split and double beam spectrophotometers with our newly developed software called UV-Win 6.0 can be used with Windows XP, Windows 7 and Windows 8. It is capable of testing more applications with its RS-232 and USB connections, and supports the data export of measured results to the PC and then, if required, a USB flash drive, when additional data storage is required. One of the new features is that it provides 3-D graphing of the spectral results.

Labomed, Inc. is certified by ISO-9001-2008, has CE Conformity and is FDA Licensed. **This Spectro comes with a USB port interface and cable to link to a PC.**

Features

- **Baseline Stability:** The monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance.
- **Automatic successive measurement:** The automatic eight-cell sample holder offers the automatic measurement of eight samples in succession. So it can bring about one-touch measurement of the solution of seven samples and a blank.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with RS-232 and USB interface and Windows XP, 7 and 8 with the UVWin 6.0 application software, offering a wide range of uses and applications.
- **The key components:** Adopted from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, they ensure the stabilization and credibility of the Instrument for extended life.
- **Computer System is optional (NOT INCLUDED).**

Accessories

- 8 Auto Cell Holder
- 8 Optical Glass Cells 10mm.
- 2 Quartz Cells 10mm.
- 1 Dust cover
- 1 Instruction manual
- 1 Power cable
- 1 PC cable
- 1 Software CD for Windows XP, 7 and 8
- 1 Software Operation Manual
- 1 Block Light Cell
- 1 Extra fuse
- OPTIONAL:** Peltier Kinetic Test System
- OPTIONAL:** Sipper Flow Through System



UV-Vis Dual Beam PC Scanning Spectrophotometer UV-Vis Split Beam 8 Auto Cell

Model UVS-2800

Software Specifications

Spectro UV-Vis is a precise scanning Spectrophotometer with a new design of 8 microprocessor automatic 2 row cell holder that moves noiseless with a special membrane. This Dual Beam Spectro has a dual detector and a very accurate system. Spectro UV-Vis is microcomputer-controlled and has a large LCD display to work independently. It can also be linked to a computer and a printer to show Photometric and Spectral data in the PC monitor. This connection is controlled by the RS232 and USB interface, compatible with Windows XP, 7 and 8, using the new UVWin 6.0 UV-VIS application software.

Spectro UV-Vis is also capable of performing kinetic test by an optional Peltier constant temperature system, and can test flow through liquid by the optional Sipper Flow Through System. Spectro UV-Vis can be used as an accurate system for qualitative and quantitative analysis of analytical test, Biochemistry, Chemistry, Clinical Analysis, Pharmaceutical and Agriculture Labs, Quality control, Industry and research.

Spectro UV-Vis can perform protein, nucleic acid, DNA/RNA micro and macro measurements, that can also be printed using an external HP 600/800 series printer or a PC printer.

Spectro UV-Vis with variable bandwidth of 0.5, 1.0 2.0 and 5.0 nm (UVS-2800).

This Spectro can be used by itself or linked to a PC and comes with a USB interface to connect to the computer.

Technical Specifications

Wavelength:	190 nm - 1100 nm	Reference:	0.001A/30 min (2 hours warming up, 2nm bandwidth, at 500 nm)
Spectral bandwidth:	0.5, 1.0 2.0 and 5.0 nm (UVS-2800)	Slew rate of Wavelength:	3600nm/min
Resolution:	0.1nm	DNA / RNA measurement:	
Straylight:	≤0.12%T (220nm NaI, 340nm NaNO ₂)	Printer: Not Available	Printing of measured data by using HP Deskjet series 600/800 (optional)
Wavelength accuracy:	± 0.3 nm (with automatic wavelength correction)	Mainframe:	Compact and standalone spectrophotometer mainframe
Wavelength Reproducibility:	± 0.2 nm	Light Source:	Socket Deuterium Lamp and Socket Tungsten
Photovoltaic system:	Dual Beam ratio monitoring system (UVS-2800)		Halogen Lamp
Optical method:	Transmittance, absorbance, energy and concentration	Detector:	Silicon photo diode
Photometric Range:	-0.3 ~ 3.0 Abs	Sample Chamber:	Automatic eight-cell sample holder/changer
Photometric Accuracy:	± 0.001Abs (0 ~ 0.5), 0.004Abs ± (0.5 ~ 1.0)	Screen	Digital LCD Display
	± 0.3% T (0 ~ 100% T)	Keyboard:	Touch soft keys
Photometric Reproducibility:	± 0.002Abs ± (0.5 ~ 1.0)	PC interface:	RS-232 / USB
	± 0.15% T (0 ~ 100% T)	Standard Functionality:	Photometric, Quantitative, Spectrum, and
Optical display:	-9.999----9.999		DNA Measurements
Photometric Noise:	± 0.001Abs (500 nm) 30 min warm up	Software Support:	RS232/UVWin
Scanning speed:	1400nm/min or selectable	Size:	520mm, 420mm, 230mm
Baseline Flatness:	± 0.002Abs (200-1100nm)	Weight:	25Kg
		Power Supply:	Switchable 120-230VAC 50-60Hz



Water Testing Spectrophotometer

Programmable, Portable, Scanning, Touch Screen

Model W-2100



Spectro W-2100 is the newest, high technology spectrophotometer for testing water, waste water, agricultural, food, industry, chemistry, environmental, and related industries, with easy programming of 486 different material tests, measuring spectro-quantitation, kinetic and photometric tests.

Spectro W-2100 offers a scanning systems for measurement of various products and environments. This special Spectro W-2100 also can be used for all analytical tests that require wavelengths between 380 to 800 nm. **Spectro W-2100** is portable and has a rechargeable battery, while possessing all the features of bench top spectrophotometers, with CCD detection technology and touch screen TFT interface. It is very user-friendly and easy to use.

Spectro W-2100 can be connected to the PC by the USB port. **Spectro W-2100** is supplied with a carrying case and various accessories for easy usage. As Merck Chemicals test kits are available in all countries of the world. This Spectro W-2100 employs the Merck Chemicals test kit for convenience.

Labomed, Inc. is certified by ISO-9001-2013, has CE Conformity and is FDA Licensed.

Spectro W-2100 has all of the 486 Tests are pre-programmed in the software. Spectro W-2100 has some parameters in the pre-programmed tests which can be changed by the User, and if the User needs, they can press the RESET button to return to the default setting. Spectro W-2100 has the Quantitative mode which allows the User to make his or her own programs for new tests. Spectro W-2100 could link with the Micro-printer. The User can purchase the Micro-printer locally. The Fiber-optic Dip probe is optional accessory. Spectro W-2100 with built-in battery and package has a total gross weight of 3kg.

THE 486 DIFFERENT ELEMENT WATER TESTS ARE AS FOLLOWS:

Acid Capacity CT to pH4.3 - (Total Alkalinity) --- Aluminum Test --- Ammonium Test --- AOX --- Arsenic Test --- BOD CT --- Boron CT --- Boron Test --- Bromine Test --- Cadmium Test --- Calcium Test --- Chloride Test --- Chromate Test --- COD CT --- Color --- Copper Test --- Cyanide Test --- Fluoride Test --- Formaldehyde Test --- Gold Test --- Hazen Color Number --- Hydrazine Test --- Hydrogen Peroxide Test --- Iodine Test --- Iron Test --- Lead Test --- Manganese Test --- Molybdenum Test --- Monochloramine Test --- Nickel Test --- Nitrate Test --- Nitrite Test --- Nitrogen, total CT --- Oxygen Scavengers Test, Dissolved --- Oxygen Scavengers Test - Surface, Oxygen, Dissolved CT --- Ozone Test --- pH CT --- Phenol Test --- Phosphate Test (PMB) --- Residual Hardness CT --- Silicate Test --- Silver Test --- Sodium CT in nutrient solutions for fertilization --- Sulfate Test --- Sulfide Test --- Surfactants (anionic) CT --- Tin CT --- TOC CT, Total Hardness CT --- Volatile Organic Acids CT --- Zinc Test

Features

Applications List for 486 Different Tests of Water - Please click here

- **Operating System** with touch screen TFT Interface.
- **The Spectrum workspace** allows for high speed spectral scanning, with zoom and peak identification tools. Spectral Scans can be performed in the field, stored to instrument memory and later transferred to the W-2100 Data Viewer Software for further inspection and reporting.
- **The Quantitative workspace** is used to construct calibration curves, and measure concentration of unknown samples. Curves can be constructed in 1st - 4th order, while both methods and measurement data can be saved to the instrument memory.
- **The Photometric workspace** is used to quickly and easily perform fixed wavelength measurements in either Absorbance or Transmission. It can be set to a K factor where multiplifications are required to determine sample concentration. Once the measurement is complete, store to instrument memory for future recall.
- **The Kinetic workspace** enables the measurement of Absorbance or Transmission as a function of time. Use the zoom and peak pick features to obtain a better view of the Kinetic curve. Measurement data can be saved and recalled at any time.
- **User and admin rights** are easily controlled from the GLP feature in the settings menu. Create user groups and specify their privilege level, then add new users to a specified group.
- **Use the universal cell holder** to measure various pathlength rectangular cells and rounded test tubes, accommodating all of your sampling requirements.
- **Control instrument configuration** from the settings menu.
- **Use the fiber dip probe** for in-situ sample measurements.
- **Once all of the required field analysis has been performed and measurement data stored** to instrument memory the Spectrophotometer can be connected to the W-2100 Data Viewer Software via USB for transfer of analysis data from all of the instrument workspaces.
- **Use the Data Viewer Software to further interpret analysis results**, export data into a wide variety of formats and produce analysis reports for storage or printing.
- **Spectroquant® test kits, offered by Merck Chemicals**, can offer an analytical solution for the following parameters by means of 130 different test kits: Drinking water, Surface water, Process water, Municipal or industrial wastewater, Beverages, Disinfectant control. It offers 356 tests for other elements.

Accessories

1 Rectangular Cell Holder
1 Cylindrical Test Tube Holder
1 Fiber Dip Probe with 10mm and 20mm pathlength tip
Computer link cable.
Windows™ 98/2000/XP compatible

Dust cover
Instruction manual.
Software manual
Power Cable
Rechargeable Battery with 5 hr usage



Water Testing Spectrophotometer

Programmable, Portable, Scanning, Touch Screen

Model W-2100

Technical Specifications

Wavelength range:	300 nm – 800 nm	Operating System:	Windows Embedded CE 6.0 with 2 GB Flash Memory
Spectral Bandwidth:	4 ±0.8nm	Input/Display:	320 x 240 True Color TFT Touch Screen
Straylight:	<0.5%	Wavelength Resolution:	0.4 nm
Wavelength Accuracy:	±1.0 nm	Photometric Accuracy:	±1.0%
Wavelength Repeatability:	≤0.1 nm	Photometric Repeatability:	<0.3%
Optical System:	Polychromatic, with concave holographic grating	Baseline flatness:	±0.005Abs
Light Source:	Convergent tungsten lamp with 7000 hr lifespan	Noise:	<0.5%
Measurement Workspaces:	Spectrum, Quantitative, Kinetics, Photometric	Drift:	<1.0%
Detector:	CCD Sony ILX51 2048 Pixels	Dimensions:	280 x 170 x 110mm
Power Supply:	Built-in Rechargeable Battery with 5 hr usage	Temperature:	Operating 5 to 30°C, Storage -20 to 55°C

THE WATER TESTS INCLUDE:

Acid Capacity CT to pH4.3 - (Total Alkalinity)	Chromate Test	Lead Test	Phosphate Test (PMB)
Aluminum Test	COD CT	Manganese Test	Residual Hardness CT
Ammonium Test	Color	Molybdenum Test	Silicate Test
AOX	Copper Test	Monochloramine Test	Silver Test
Arsenic Test	Cyanide Test	Nickel Test	Sodium CT in nutrient solutions for fertilization
BOD CT	Fluoride Test	Nitrate Test	Sulfate Test
Boron CT	Formaldehyde Test	Nitrite Test	Sulfide Test
Boron Test	Gold Test	Nitrogen, total CT	Surfactants (anionic) CT
Bromine Test	Hazen Color Number	Oxygen Scavengers Test – Dissolved	Tin CT
Cadmium Test	Hydrazine Test	Oxygen Scavengers Test - Surface	TOC CT
Calcium Test	Hydrogen peroxide Test	Oxygen, Dissolved CT	Total Hardness CT
Chloride Test	Iodine Test	Ozone Test	Volatile Organic Acids CT
	Iron Test	pH CT	Zinc Test