Spectro UV-VIS Double Beam Research Spectrophotometer UV-VIS Double Beam

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. 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.

This Spectro can be used only linked to a PC.

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

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

Features

• Excellent Performance :

The high- performance blazed holographic grating and the optimized CT-type monochromator reduce stray light, and widen the photometric range.

Ideal baseline stability:

Double-beam dynamic feedback ratio recording photometric system coupled with reasonably designed electric control system ensures high stability of the instrument baseline.

• High resolution:

The unique optic design of full-transmission and full-reflection satisfies both needs of the double beam optic and the enhancement of the light energy of instrument so as to reduce noise and guarantees high resolution.

Accurate wavelength:

The automatic wavelength driving system and the automatic light source interchanging system ensures wavelength accuracy and high holistic performance of instrument.

• Easy accessories replacement:

the detachable structure of the sample chamber facilitates change of a wide range of optional accessories and ensures wavelength accuracy of instrument.

Easy light replacement:

The open-type design of light source chamber, socket deuterium lamp and socket tungsten halogen lamp facilitates light source over replacement, simplify maintenance and reduces operation error.

Versatile Application:

The application software on Windows platform offers rich operation and data processing facilities, representing to the full the fascination of modern computer technology.

Computer System is optional (NOT INCLUDED).

Software Specifications

- · The windows software
- Such operations as photometry measurement, spectrum measurement, quantitation measurement and kinetic measurement are offered in UV-Win Windows applications.
- Multi-wavelengths photometric measurement at up to 10 wavelengths with the arithmetic calculation according to the user-entered formula.
- Up to 10 spectra and time-course curves can be measured and recalled in memory with data-handling of arithmetic calculation, logarithmic calculation, reciprocal calculation, smooth, derivate (1st ~ 4th), Abs to/ from %T conversion and peak pick.
- Up to 24 standards can be entered and measured for the fit of calibration curve with order to 1st ~ 4th. Offered are the quantitation methods of single wavelength, two-wavelength, coefficient two-wavelength, three wavelength and 1st ~ 4th derivatives.
- Kinetic measurement can monitor the changes of absorbance and transmittance against time course at 10 different wavelengths. This module allows flexibility in manipulation and data display.
- With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports. Also offered are filing functions, display functions, and others (such as auto file and repeat measure/scan etc.).
- · Performance—Perfectly designed high-performance spectrophotometer.
- · Light Source: Socket deuterium lamp an socket tungsten halogen lamp for easy replacement
- Detector: Photomultiplier tube
- · Sample Chamber: With accessories like reflectance sample holder and an integrating sphere.
- Size: 587mm x 563 mm x 260 mm
- Weight: 34 kg.

Included Accessories

- · 4 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 98/2000/XP
- 1 Software Operation Manual
- 1 Spare Tungsten Halogen Lamp
- 1 Block Light Cell
- 1 Extra fuse

Optional Accessories

- Set of 2 performance testing filters

 (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)
- Peltier constant temperature system (15 - 55°C Specify: SpectroUV-Vis Double PC 8 Auto Cell)
- Sipper flow through system (Peristaltic pump and flowcell. Specify: Spectro UV-Vis Double PC 8 Auto Cell)
- Multi purpose cell holder for long path cells, 20 50mm path length (Specify: Spectro UV-Vis Double PC 8 Auto Cell)

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UV-VIS Spectrophotometer



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1) Optical System	Double Beam
Wavelength range	190 nm – 900 nm
Spectral bandwidth	0.1, 0.2, 0.5nm, 1.0nm, 2.0nm, and 5.0 nm.
Stray Light	> 0.01%T
Wavelength accuracy	±0.3 nm(automatic correction)
Wavelength Reproducibility	0.1 nm
2) Photometric System	The double-beam ratio recording system.
Optical System	The monochromator of Czerny-Turner configuration with high-resolution diffraction holographic grating.
Photometric Method	Transmittance, absorbance, reflectance, energy, concentration.
Photometric Range	-4.0 ~ 4.0 Abs
Photometric Accuracy	0.3%T 0.300%T
Photometric Reproducibility	0.001Abs(0~0.5 Abs) 0.001Abs(0.5~1.0 Abs) 0.15%T (0~100%T),
Baseline flatness	±0.001Abs
Resolution	0.1nm (UVD-3500)
Baseline stability	0.0004Abs/h (@ 500nm, after preheating)
Absorbance Range	-9.999 to 9.999 ABS
Continuously variable spectral bandwith from	0.1, 0.2, 0.5, 1.0, 2.0 and 5.0 nm.
Scanning Speed	1000 nm/min
Interface Card	PC Compatible
Detector	Hi sensivity R928 multiplier detector.
Photometric Display	Unlimited
Photometric Noise	<±0.0003 Abs (500nm, 0Abs, 2nm Bandwith)
Slew rate of wavelength	2400nm/min
3) DNA/RNA Measurement	
Results Printout.	
4) Mainframe	Compact and standalone spectrophotometer mainframe
Light Source	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp.
Sample Chamber	With accessories like two-cell sample holder and optional integrating sphere.
Size	587mm. x 562mm. x 260mm.
Weight	34 Kg.

Spectro UV-Vis Double PC 8 Auto Cell Scanning Spectrophotometer UV-VIS Double Beam

Model UVD-3000 and Model UVD-3200

Spectro UV-Vis Double PC 8 Auto Cell is a high performance UV-Vis double beam automatic scanning spectrophotometer. Spectro UV-Vis Double has a brand new optical system design, microcomputer controlled. It is capable of processing data, from analytical and spectrum testing. Precise with high accuracy of measurement and stability are also provided by the powerful built in software and large LCD screen, which can display the screen menu and other functions. It can also be linked to a computer and a printer to show Photometric and Spectral data in the PC monitor. The Monochromator is Holographic grating 1200 line mirror.

Spectro UV-Vis Double PC 8 Auto Cell can perform automatic photometry scanning of the spectrums being measured, adding the possibility of quantitative analysis and kinetic spectrophotometric analysis. Both sample and reference beams are provided with the same sampling space, facilitating wider and longer scan of data with a more detailed view of the results in an easy to use environment.

Spectro UV-Vis Double PC 8 Auto Cell can be used extensively for gualitative and guantitative analysis in such fields as Pharmaceutical inspection, clinical analysis, chemistry and biochemistry labs, as well as in quality control departments, environmental control, water management, food processing, Petrochemistry, agriculture and DNA/RND measurement.

This Spectro can be used by itself or linked to a PC.

There are 2 models of Spectro UV-VIS Double PC 8 Auto Cell available:

1) Spectro UV-VIS Double PC 8 Auto Cell with fixed bandwidth of 2 nm. (Model UVD-3000)

2) Spectro UV-VIS Double PC 8 Auto Cell with variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm. (Model UVD-3200)

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 RS-232 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).





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1) Wavelength range	190 nm – 1100
Spectral bandwidth	0.5, 1.0, 2.0 an
Resolution	0.5nm.
Stray Light	<0.1%T (220 n
Wavelength accuracy	jÀ0.3nm
Wavelength. Reproducibility	0.2nm.
2) Photometric System	The double-bea
Photometric Method	Transmittance,
Photometric Range	-0.3~3.0 Abs
Photometric Accuracy	¡À0.002Abs (0^ ¡À0.004Abs (0. ¡À0.3%T (0~10
Photom. Reproducibility	0.001Abs (0~0 0.002Abs (0.5~ 0.15%T (0~100
Photometric Display	-9999 9999
Photometric Noise	jÀ0.001Abs (50
Scanning Speed	1400nm/min
Baseline flatness:	¡À class="style
Baseline stability	0.0008Abs/h (500nm, 0Abs 2
Slew rate of wavelenght	3600nm/min
3) DNA/RND Measurement	
Results Printout:	Printing of mea connection ava
4) Mainframe	Compact and s
Light Source	Socket Deuteri
Detector	Double Beam
Sample Chamber	2 cell holder
Display	Liquid Crystal
Keypad	Touch soft keys
PC Interface: PC Interface	RS-232
Size	22x16x10"
Weight	55 Lb

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.

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 98/2000/XP
 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



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UV-VIS Spectrophotometer



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m, Nal; 340 NaNo2), >=2.0Abs (KCI, 200nm)

am monitoring ratio system.

absorbance, energy and concentration

~0.5A) .5~1A) 00%T)

.5A) ~1A) 0%T)

00nm, 0Abs 2nm Spectral Bandwidth).

22">0.0015 Abs (190-1100nm)

2nm Spectral Bandwidht, 2Hr. warm-up)

asured data by using any Printer with Paralell Port ailable.

standalone spectrophotometer mainframe

um Lamp and Socket Tungsten Halogen Lamp.

Display (LCD 320 iÀ240 dot matrix)

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Mechanics · Positioning	Components ·
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Spectro UV-VIS Double Beam PC **Scanning Spectrophotometer**

Model UVD-2960

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.

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 (Model UVD-2960) 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, guantitative 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.

Laborned, Inc. is certified by ISO 9001-2000, has CE Conformity and is FDA Licensed.Spectro UV-Vis Double PC (Model UVD-2960) with variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm is a high-performance, reliable, and exceptional value instrument which is the hallmark of Laborned UV-Vis spectrophotometers.

Laborned, Inc. is certified by ISO 9001-2000, 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 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).

Software Specifications

The windows software

- 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: to entered quotations.
- Spectrum Scan:

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

- Quantitative Determination: 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: for reports.

Included Accessories

- · 2 Cell Holder
- · 4 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 98/2000/XP
- 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

Optional Accessories

- Set of 2 performance testing filters (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)
- Peltier constant temperature system (15 55 °C Specify: Spectro UV-Vis Double)
- Sipper flow through system (peristaltic pump and flowcell (Specify: Spectro UV-Vis Double)
- Multi-purpose cell holder 20-30-40-50 Path Length

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UV-VIS Spectrophotometer





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Measuring the photometric values at 1-10 wavelengths together with mathematical calculations according

Determination of unknown concentration with methods of 1-3 wavelength guantitation, together with fitting

With the Windows clipboard, the measured data and graphics can be copied to other applications software



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Sensors	Detection .
Instruments	Tests ·
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Communications	Semiconductors ·
 Imaging 	CCD Cameras



1) Wavelength range	190 nm – 1100 nm
Spectral bandwidth	0.5, 1.0, 2.0 and 5.0 nm
Resolution	0.5nm.
Stray Light	<0.1%T (220 nm, Nal; 340 NaNo2), >=2.0Abs (KCI, 200nm)
Wavelength accuracy	jÀ0.3nm
Wavelength Reproducibility	0.2nm.
2) Photometric System	The double-beam monitoring ratio system.
Photometric Method	Transmittance, absorbance, energy and concentration
Photometric Range	-0.3~3.0 Abs
Photometric Accuracy	¡À0.002Abs (0~0.5A) ¡À0.004Abs (0.5~1A) ¡À0.3%T (0~100%T)
Photom. Reproducibility	0.001Abs (0~0.5A) 0.002Abs (0.5~1A) 0.15%T (0~100%T)
Photometric Display	-9999 9999
Photometric Noise	jÀ0.001Abs (500nm, 0Abs 2nm Spectral Bandwidth).
Scanning Speed	1400nm/min
Baseline flatness	jÀ0.0015 Abs (190-1100nm)
Baseline stability	0.0008Abs/h (500nm, 0Abs 2nm Spectral Bandwidht, 2Hr. warm-up)
Slew rate of wavelength	3600nm/min
3) DNA/RND Measurement	
Results Printout	Printing of measured data by using any Printer with Paralell Port connection available.
4) Mainframe	Compact and standalone spectrophotometer mainframe
Light Source	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp.
Detector	Double Beam
Sample Chamber	2 cell holder
Display	Liquid Crystal Display (LCD 320 iÀ240 dot matrix)
Keypad	Touch soft keys.
PC Interface: PC Interface	RS-232
Size	22x16x10"
Weight	55 Lb

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, now with a new and improved bandwidth of 1nm! . 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, petrochemistry 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 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-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.

Laborned, Inc. is certified byISO 9001-2000, 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, reliable, and exceptional value instrument which is the hallmark of Laborned UV-Vis spectrophotometers.

This Spectro can be used by itself or linked to a PC.

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

Features

- Baseline Stability:
- The Double beam monitoring ratio system enhances baseline stability. 1nm fixed bandwidth New! :
- 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 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).



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Lasers Light Sources



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.

Accessories

- 2 Auto Cell Holder
- 4 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 98/2000/XP
- 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

Optional Accessories

- Set of 2 performance testing filters
- (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)
- Peltier constant temperature system (15 55 °C Specify: Spectro UV-Vis Double)
- Sipper flow through system (peristaltic pump and flowcell (Specify: Spectro UV-Vis Double)
- Multi-purpose cell holder 20-30-40-50 Path Length



Technical Specifications

1) Wavelength range	190 nm – 110
Spectral bandwidth	1,0 nm. New
Resolution	1nm.
Stray Light	<0.1%T (220
Wavelength accuracy	jÀ0.3nm
Wavelength Reproducibility	0.2 nm
2) Photometric System	The double-b
Photometric Method	Transmittance
Photometric Range	-0.3~3.0 Abs
Photometric Accuracy	iÀ0.002Abs (iÀ0.004Abs (iÀ0.3%T (0∼1
Photom. Reproducibility	0.001Abs (0~ 0.002Abs (0.5 0.15%T (0~10
Photometric Display	-9999 999
Photometric Noise	jÀ0.001Abs (
Scanning Speed	1400nm/min
Baseline flatness	jÀ0.0015 Abs
Baseline stability	0.0008Abs/h (500nm, 0Abs
Slew rate of wavelength	3600nm/min
3) DNA/RND Measurement:	
Results Printout	Printing of m connection av
4) Mainframe	Compact and
Light Source	Socket Deute
Detector	Double Beam
Sample Chamber	2 cell holder
Display	Liquid Crysta
Keypad	Touch soft ke
PC Interface	PC Interface:
Size	22x16x10"
Weight	55 Lb

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UV-VIS Spectrophotometer



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Display (LCD 320 iÀ240 dot matrix)

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RS-232

Spectro UV-Vis Dual Beam PC

Scanning Spectrophotometer UV-VIS Split Beam8 Auto Cell

Model UVS-2700 & UVS-2800



Spectro UV-Vis Split Beam PC 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 Split Beam PCis 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 interface, compatible with Windows Platforms, and the provided UV-VIS application software.

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

Spectro UV-Vis Split Beam PC can perform DNA/RNA measurement, that can also be printed using an external HP 600/800 series printer.

There are 2 models of Spectro UV-Vis Split Beam PC available:

- 1) Spectro UV-Vis Split Beam PC with fixed bandwidth of 2 nm (UVS-2700).
- 2) Spectro UV-Vis Split Beam PC with variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm. (UVS-2800) is also available.

This Spectro can be used by itself or linked to a PC.

Features

- Baseline Stability:
- The Split-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 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 interface and working on the Windows platform with the UV/Win application software, presents to the fullest of the fascination of modern computer technology.
- The key components:

adopts 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).

Functions

- Photometric Measurement: Rapid and accurate measurements of transmittance
 - wavelength are available. This module allows successive and automatic calibra the built-in 8-cell sample holder.

Direct concentration results can be produced by simp Printout of Measured data with sample numbers in a

Spectrum Scan:

Spectra of samples on any range between 1100nm display of spectral curves on the large LCD screen. Such operating parameters can be selected, as phot sampling interval and scanning speed.

Picking out and printout of peaks and valleys for spe Printout of spectral curves to a printer with A4 paper.

Quantitative Measurement: Use a calibration curve to determine the concentration The regression of calibration curve can be made with coefficients be offered.

The plot of a calibration curve is displayed on the land Instant concentration results can be produced by sime Successive and automatic calibration and concentration by the built-in 8 cell sample holder.

Printout of the table of measured concentrations and

• Windows Software:

Such operations as photometry measurement, spect kinetic measurement are offered in the UV-Win Wind Up to 10 Spectra and time-course curves can be me arithmetic calculation, logarithmic calculation, recipro from %T conversion and peak pick.

Up to 24 standards can be entered and measured fo With the Windows clipboard, the measured data and for reports.

Software specifications

MONOPROCESSOR BUILT- IN APPLICATION

- Photometric Measurement: Measuring transmittance with K factor calculations.
- Spectrum Scan: Carrying out scanning of transmittan together with peak-pick module.
- Quantitative Determination: Regression of standard c samples.

PC WINDOWS APPLICATION SOFTWARE (RS-232 IN

- Photometric Measurement: Measuring the photometr mathematical calculations according to entered quota
- Spectrum Scan: Producing Wavelength scans within powerful data handling facilities.
- Quantitative Determination: Determination of unknow quantitation, together with fitting of calibration curve of
- Kinetics: Recording curves of changing photometric v wavelengths together with powerful data handling fac
- Output: With the Windows clipboard, the measured d software for reports.

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UV-VIS Spectrophotometer



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ctral curves.	DL	leras
on of unknowns at the user-selected wavelength. h up to 8 standards and the linear correlation	Commu	Semico
ge LCD screen. nply entering K-factors. tion measurement up to seven samples are available	inications	nauctors .
K-factors of a calibration curve.		C/
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easured and recalled in memory with data-handling of ocal calculation, smooth, derivative (1t-4th), Abs to/		ells .
or fitting of calibration curve with order of 1st – 4th. graphics can be copied to other applications software	Instruments	
or absorbance at the current wavelength together	Sensors	Detection
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ITERFACE) ric values at 1-10 wavelengths together with ations.	chanics · P	riponents .
the operating parameters on samples together with	osition	
vn concentration with methods of 1-3 wavelength of 1st ~ 4th order. values of samples against timecourse at the selected	iing	
cilities. lata and graphics can be copied to other applications	Light Source	Lasers .
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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

Technical Specifications

- 1 Software CD for Windows 98/2000/XP
- 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

1) Optical System: Dual Beam 190 nm – 1100 nm Wavelength range Spectral bandwidth 2,0 nm(UVS-2700) and 0,5-1,0-2,0 and 5,0 nm.(UVS-2800) Stray Light <0.12%T (220 nm, Nal; 340 NaNo2), >=2.0Abs (KCI, 200nm) ¡À0.3nm Wavelength accuracy Wavelength Reproducibility 0.2 nm 2) Photometric System The split-beam monitoring ratio system. The crossed monochromator with the high-resolution, diffraction **Optical System** holographic grating. Photometric Method Transmittance, absorbance, energy and concentration **Photometric Range** -0.3~3.0 Abs iÀ0.002Abs (0~0.5A) iÀ0.004Abs (0.5~1A) **Photometric Accuracy** jÀ0.3%T (0~100%T) 0.001Abs (0~0.5A) Photometric Reproducibility 0.002Abs (0.5~1A) 0.15%T (0~100%T) **Baseline flatness** jÀ 0.002 Abs (190-1100nm) 0.001Abs/h (500nm, 0Abs 2nm Spectral Bandwidht, 2Hr. warm-up) **Baseline stability Scanning Speed** 1400nm/min. RS-232 **Interface Card** Detector **Dual Silicon photodiodes Photometric Display** -9999 ---- 9999 ¡À0.001Abs (500nm, 0Abs 2nm Spectral Bandwidth). **Photometric Noise** Slew rate of wavelenght 3600nm/min. 3) DNA/RNA Measurement: Printing of measured data by using HP Deskjet 600/800 series **Results Printout.** (optional) 4) Mainframe Compact and standalone spectrophotometer mainframe Light Source Socket Deuterium Lamp and Socket Tungsten Halogen Lamp. Detector **Dual Silicon photodiodes** Sample Chamber Automatic eight-cell sample holder. Size 22x16x10" 55 L b.

UV-VIS Scanning Spectrophotometer With 8 Auto Cell Holder

Spectro UV-2650

Spectro UV-2650 is an all-purpose UV-VIS scanning spectrophotometer with scan function. It is widely used in medicine, environmental monitoring, commodity inspection, food inspection, agricultural chemistry, teaching in colleges and universities, metallurgy, geology, machine manufacturing, and petrochemical industries, and is a helpful tool for analysts to carry out qualitative and quantitative analysis of materials.

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

Features

- Fully automated operations: automatic change-over between W lamp and D2 lamp; automatic filter changing; automatic wavelength calibration; W lamp and D2 lamp On/Off auto-control; automatic zero and 100%T adjustment.
- · Automatic peak-picking; easy operations for replacing W lamp and D2 lamp.
- Friendly interface; abundant operation prompts; convenient and fast operations.
- Blue LCD display module with 320×240 large screen.
- Economical embedded single-chip micro-processor control system.
- Rich and powerful functions:
 - · Five basic measurement modes: WL Scan (A, T, E), Photometric measurement (Fixed WL measurement, A, T), Quantitation (Concentration Measurement, A, C), Time Scan (Kinetics Measurement, A, T), Real Time Measurement (A, T, C, E);
 - Powerful spectrum processing functions: Activity Calculation, Cursor locating, Spectrum Zooming, A-T Conversion, Spectrum Printing; Data Processing functions:
 - data save, data looking up, data deleting and data printing, etc.
 - Cell error can be corrected;
 - Parameters can be saved for a long time after turning off the instrument;
 - · Spectrum and data can be stored when sudden power failure occurs;
 - · Spectrum and data can be sent to computer via RS-232 interface.



Weight



Spectro

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Spectrum Save, Spectrum Load, Peak-Valley Pick, Derivative Spectrum, Data Printing at Intervals,

	CCD Cameras	Semiconductors •	Solar Cells •	Tests ·	Detection .	Components ·	Lasers ·
scopes	· Imaging	Communications	Lighting	Instruments	Sensors	Mechanics · Positioning	Light Sources



Software Specifications

Such operations as photometry measurement, spectrum measurement, quantitation measurement and kinetic measurement are offered in UV-Win Windows applications.

Multi-wavelengths photometric measurement at up to 10 wavelengths with the arithmetic calculation according to the user-entered formula.

Up to 10 spectra and time-course curves can be measured and recalled in memory with data-handling of arithmetic calculation, logarithmic calculation, reciprocal calculation, smooth, derivate (1st ~ 4th), Abs to/from %T conversion and peak pick.

Up to 24 standards can be entered and measured for the fit of calibration curve with order to 1st ~ 4th. Offered are the quantitation methods of single wavelength, two-wavelength, coefficient two-wavelength, three wavelength and 1st ~ 4th derivatives.

Kinetic measurement can monitor the changes of absorbance and transmittance against time course at 10 different wavelengths. This module allows flexibility in manipulation and data display.

With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports. Also offered are filing functions, display functions, and others (such as auto file and repeat measure/scan etc.).

Included Accessories

- 4 square optical cells 10mm.
- 2 square quartz cells 10 mm with lid
- ٠ Dust cover
- 1 Software •
- 1 Software Manual •
- 1 Instruction Manual
- 1 Power cable
- 1 PC cable

Technical Specifications

Wavelength range	190-1100nm
Spectral Bandwidth	2nm.
Wavelength Accuracy	±0.5nm
Wavelength Reproducibility	0.2nm
Photometric Accuracy	±0.5%T (0~100%T) ±0.002A (0~0.5A) ±0.004A (0.5A ~1A)
Photometric Reproducibility	0.2%T
Working Mode	T,A,(-0.3-3A),C,E
Stray Light	≤0.1%T(NaI,220nm;NaNO2,340nm)
Baseline Flatness	±0.002A
Stability	≤0.002A/h (at 500nm, after warming up)
Noise	±0.001A (at 500nm, after warming up)
Detector	Silicon Photo-diode
Display	6 inches high light blue LCD
Power	AC:220V/50Hz, 110V/60Hz,140W (Automatic)
Dimensions	530x410x210mm
Net Weight	18Kg.

Optional Accessories

- Peltier Kinetic Test System
- Sipper Flow Through System

Spectro UV-VIS Auto Scanning Spectrophotometer

Model UV-2602 With 8 Auto Cell Holder

Spectro UV-Vis Auto UV-2602 is Labomed's latest in single beam scanning UV-VIS Spectroscopy; with its seamless integration with any 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. Model UV-2602 works in the ultraviolet and visible range of 190-1100 nm and has a fixed bandwidth of 1.8 nm. Model UV-2602 spectrophotometer offers high performance and reliability, which can be used in various applications. Spectrophotometer Model UV-2602 can be used extensively for gualitative and guantitative analysis in such fields as clinical analysis, medical laboratories, DNA/RNA testing, petro-chemistry laboratories, chemistry and biochemistry laboratories, educational labs, research laboratories, analytical laboratories, as well as in quality control departments, i.e. environmental control, water management, food processing, and agriculture.

Spectro UV-Vis Auto UV-2602 is also capable of performing kinetic test through the use of an optional Peltier Constant Temperature System. Model UV-2602 has excellent baseline stability and high resolution. This spectrophotometer has eight (8) automatic cell holders to test eight (8) samples simultaneously.

Spectro UV-Vis Auto UV-2602 has a powerful built-in software which 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 (Windows 98, 2000. and XP). 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.

This Spectro can be used by itself or linked to a PC.

Features

- Automatic 8 Cell holder by microprocessor.
- Auto A/T/C.
- Auto Zero.
- Auto Wavelength.
- · Auto Scanning by PC.
- Auto Switching Deuterium and Tungsten lamps.
- 2 way computer communication.
- RS 232 computer interface.
- 2 nm bandwidth.
- · Wide continuous wavelength
- Easy to change lamp.
- USA/FDA licensed.
- Computer System is optional (NOT INCLUDED).



UV-VIS Spectrophotometer



Spectroscopes

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Instruments

Sensors Detection

Mechanics Components

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Light Sources



Software Specifications

The windows software

- Such operations as photometry measurement, spectrum measurement, quantitation measurement and kinetic measurement are offered in UV-Win Windows applications.
- Multi-wavelengths photometric measurement at up to 10 wavelengths with the arithmetic calculation according to the user-entered formula.
- Up to 10 spectra and time-course curves can be measured and recalled in memory with data-handling of arithmetic calculation, logarithmic calculation, reciprocal calculation, smooth, derivate (1st ~ 4th), Abs to/ from %T conversion and peak pick.
- Up to 24 standards can be entered and measured for the fit of calibration curve with order to 1st ~ 4th. Offered are the quantitation methods of single wavelength, two-wavelenght, coefficient two-wavelength, three wavelength and 1st ~ 4th derivatives.
- Kinetic measurement can monitor the changes of absorbance and transmittance against time course at 10 different wavelengths. This module allows flexibility in manipulation and data display.
- With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports. Also offered are filing functions, display functions, and others (such as auto file and repeat measure/scan etc.).
- Light Source: Socket deuterium lamp an socket tungsten halogen lamp for easy replacement Detector: Photomultiplier tube

Sample Chamber: With accessories like four-cell sample holder and an integrating sphere. Size: 587mm x 563 mm x 260 mm Weight: 34 kg.

Included Accessories

- 8 square optical cells 10mm.
- 2 square quartz cells 10 mm with lid.
- Dust cover.
- Spectro Software Win98/2000/XP Compatible
- Instruction manual
- Software Operation Manual
- Power cable
- PC cable

Optional Accessories

• Peltier constant temperature control system (37 - 57°C)

Technical Specifications

Wavelength range	190 to 1100 nm
Wavelength accuracy	±0.5 nm.
Wavelength Repeatability	≤0.2nm
Spectral Bandwidth	1.8 nm
Straylight	0.3% T. (220nn
Transmittance Range	0.0~200.0%T.
Absorbance Range	-0.301~4.000A
Concentration Range	0~9999C.
Transmittance accuracy	±0.5% T.
Transmittance repeatability	≤0.2% T
Baseline Flatness	±0.005A
Noise	100%noise 0.3 0% noise 0.2%
Stability	±0.005A/h (at 5
Light Source	2000hr. Tungst
Detector:	Optical Cells P
Scanning speed	Fast, medium a
Power	AC220V/110V.:
Software	Labomed Inc. S
Computer Interface	RS 232
Cell holder	Automatic 8 ce
Display	LCD.
Keypad	Soft key.
Printer	External (Optio



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UV-VIS Spectrophotometer with 4 Cell Holder

Spectro UV-2550



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 4 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 guality control departments, i.e. environmental control, water management, food processing, and agriculture.

Spectro UV-2550 is equipped with the RS-232C 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.

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 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.
- Microprocessor control, 16x2 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 RS-232.
- 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.

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 guotations.
- · 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.

Included Accessories

- 4 square optical cells 10mm.
- 2 square quartz cells 10 mm.
- 1 multiple cell holder.
- 1 Software
- 1 Software Manual
- 1 Operation Manual
- 1 Power cable
- 1 Software Cable

Optional Accessories

- Constant Temperature
- Flow Through System
- Large Cell 20-30-40-50 and 100 mm.
- Multi purpose cell holder for long path cells, 20 50mm path length (Specify: Spectro UV-Vis Double PC 8 Auto Cell)

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UV-VIS Spectrophotometer





Spectro UV-VIS RS

Model UV-2502



Spectro UV-2502 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. Model UV-2502 works in the ultraviolet and visible range of 190-1100 nm and has a New and Improved 2nm. Bandwith!. Model UV-2502 spectrophotometer offers high performance and reliability, which can be used in various applications. Spectrophotometer Model UV-2502 can be used extensively for gualitative and guantitative 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-Vis RS (Model UV-2502) is equipped with the RS-232C interface and port which link the spectrophotometer and the PC using the UV-VIS software. Model UV-2502 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.

Spectro UV-Vis RS (Model UV-2502) 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-2502 has excellent baseline stability and high resolution.

Spectro UV-Vis RS (Model UV-2502) 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 2502 operates with a single beam system and 1200 line grating mirror. Model UV-2502 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.

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 2502. 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.
- RS 232 computer interface.
- 2 nm bandwidth. NEW AND IMPROVED!
- Can use 13mm. test tube.
- Wide continuous wavelength.
- · Easy to change lamp.
- Computer System is optional (NOT INCLUDED).

Technical Specifications

Wavelenght Range	190-1100nm (D2 lamp: 190nm-350nm, tungsten lamp: 350nm-1100nm)
Wavelenght Accuracy	±2.0
Photometric Reproducibility	≤ 1nm
Wavelength Accuracy	±2nm.
Wavelength Reproducibility	≤1nm.
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.3%T
Spectral Bandwidth	4nm.
Stability	100%T:0.5 %T/3min. 0%T: 0.3% T/3min.
Optical System	Plane grating as the dispersing element, 1200 L/mm
Dimensions	527×435×215 mm
Net Weight	17 Kg.
Light Source	Tungsten halogen lamp, D2 lamp
Power Requirement	220/110 V + 10% 50/60 HZ (Automatic)
Power Consumption	120W





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Spectro UV-2502 is and advanced generation improved Spectro UV-2500 with a newer bandwidth of 2nm.

Included Accessories

- 4 square optical cells 10mm.
- 2 square quartz cells 10 mm.
- 1 multiple cell holder.
- Dust cover.
- Instruction manual.
- 1 power cable.

Optional Accessories

- · Constant temperature system for kinetic testing: three water jacketed square cell holders and front panel. (Specify: Spectro UV-Vis RS)
- Flow through system (peristaltic pump and flowcell)
- Multi-purpose cell holder for long path (20 50mm) rectangular cells
- Holder for test tube cuvettes, 13mm diameter
- Set of 2 performance testing filters
- (1 "E filter" for photometric accuracy testand 1 didymium filter for wavelength accuracy test)
- · Set of 2 filters with for accuracy test.
- RS232 interface cable
- Software for Windows 95/98/XP Includes RS232C cable, operator's manual. (Specify: Spectro UV-Vis 2502)
- External printer (Attaches directly to the Spectro UV-2502)

Technical Specifications

Optical system	Single beam spectrophotometer.
Bandwidth	2nm. NEW AND IMPROVED!
Wavelength range	190-1100 nm.
Light source	Tungsten Halogen and Deuterium lamp.
Detector	Silicon photodiode.
Wavelength accuracy	±2 nm.
Wavelength reproducibility	1 nm.
Spectral band pass	4nm.
Stray light	< 0.5 % T (at 220 nm. 340nm)
Transmittance range	0-100% T.
Multi cell holder	4 cuvettes.
Absorption range	0-1.999 A.
Concentration range	0-1999.
Photometric accuracy	±0.5% T.
Monochromator	1200 lines/grating mirror.
Noise	0.5% T/3min.
Transmittance reproducibility	0.2 % T.
Power	220 V 50Hz/110 V +-10% 50/60Hz.
Dimensions	22"(W)x14"(D)x11.5"(H) inches.
Net weight	18 kgs.

Semi-Automatic Clinical Chemistry Analyzer

Analyzer BAS-100



BAS-100 is a new concept designed clinical chemistry analyzing system for biochemical research and clinical diagnostics: Powerful data process function makes 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. BAS-100 includes a suction pump system.

This semi automatic biochemistry analyzer can measure all blood elements and print on built in printer as indicated in the features section.

BAS-100 has a built in printer and flow through system to use up to 32ul and incubating system for 25-30-370 for kinetic test.

Features

- Photometric scanning of Spectrum, Analysis in multiple longitude of wave and kinetics
- · Diagnosis of Operation
- Automatic Calibration
- · System of aspiration of sample (Pale of flow, Aspiration System, Faslk of Residuals, Tubes, Connectors, Etc)
- 2 Reserve halogen Lamp included
- 4 Rolls of Printer Paper included
- · Cable and Software connection to PC included





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Lighting	Solar Cells •
Instruments	Tests ·
Sensors	Detection ·
Mechanics · Positioning	Components ·
Light Sources	Lasers ·
1-	105

Methods	End point, two points, multi standard, kinetics, bichromatic, serum blank
Wavelenght	From 300-800nm. free to choose.
Wavelenght Precision	+- 1.0nm.
Wave of band ghastly	5nm.
Scanning Speed	1000nm/min.
Items	store 200 items, which can increase, modify and delete
Reaction volume	500ul
Flow through cell	32ul
Temperature Control System	25°C, 30 °C, 37°C controlled by Peltier element
Optical system	interferential filters, 340, 405, 492, 510, 546, 578, 620(can increase to 9)
Light source	6V 10W halogen lamp
Photometric range	0-3-3.0ABS
Photometric approach	0.003A.
Absorbance Landslide	0.002A
Printer	Incorporated.
Display	large LCD screen with back light
Printer	built-in stylus/thermal printer
Serial output	RS-232 standard
Power supply	220V 50Hz 150VA and 110V. 50/60Hz.
Dimension	390*370*180mm

Testing List

BAS-100 will measure the following elements at blood test:

• 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 			

and drug toxicity

Spectro 2000RS With 4 automatic cell holder

Spectro 2000 RS is a superior instrument 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 325 nm to 1100 nm.

Spectro 2000 RS is 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 is an 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. Spectro 2000 RS is rugged, reliable, affordable, and maintenance free.

Spectro 2000 RS's advantage is its 4 large automatic cell holder movement by microprocessor and use of the soft key pad. This spectrophotometer is excellent for water and water waste testing. Spectro 2000 RS is both reliable and user-friendly.

This Spectro can be used by itself or linked to a PC.

Features

- Automatic self adjustment
- 4 Automatic cell holder
- Auto select wavelength
- Auto Zero ABS and 100%T.
- Auto A/T/C and Factor.
- Auto Escape and back-Up.
- Interface RS232C port for use with computer & printer.
- Built-in printer.
- Switch for 110V 60Hz.and 220V 50Hz.
- F.D.A. Licensed.
- · High photometric accuracy for smooth spectral band pass.
- Reliable stability for reliable testing
- · Wide continuous wavelength range for test flexibility
- Easy to change Tungsten Halogen lamp
- COMPETITIVE PRICE.
- · Computer System is optional (NOT INCLUDED).

Included Accessories

- 4 square glass cells 10mm
- 1 mounted multiple 4 cell holder
- Dust cover
- Cable
- Instruction book
- Optional: Large cell holder 20-30-40 and 50mm

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Spectroscopes

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Instruments

Mechanics Components

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Detection

CCD Cameras Imaging





Optional Accessories

- · Multi-purpose cell holder for long path cells (Specify Spectro 2000 RS or Spectro 2000 RSP)
- Peltier constant temperature control system (single cell, 15-55°C)
- Square cuvette (optical glass), 10mm path length
- Micro and semi-micro cells, set of 2 with covers, useable for wavelengths from 325 1100nm. (Specify sample volume: 0.5, 0.75, 1.00 or 1.25ml)
- Rectangular long path cell (optical glass. Specify 20, 30, 40 or 50mm path length)
- Software for Windows 95/98/XP Includes RS232C cable, operator's manual. (Specify: Spectro 23 RS)
- Constant temperature system for kinetic testing: three square cell holders and front panel. (Specify: Spectro 23 or Spectro 23 RS)
- Flow through system (peristaltic pump and flowcell)
- Multi-purpose cell holder for long path (20 50mm) rectangular cells
- Holder for test tube cuvettes, 10 25mm diameter

Technical Specifications

Optical System	Single Beam
Wavelength Range	325-1100nm.
Light Source	Tungsten-Halogen Lamp
Detector	Silicon Photodiode
Wavelength Distance	1nm.
Wavelength Accuracy	+ 1 nm.
Wavelength Reproducibility	0.5 nm.
Spectral Band Pass	6 nm.
Transmittance Reproducibility	0.3% (T)
Transmittance Range	0-125% (T)
Absorption Range	0-1999% (A)
Concentration Range	0-2000
Photometric Accuracy	+50% (T) +0.004 A.
Monochromator Grating Mirror	1200 lines/mm.
Readout	LCD 2 line
Power Supply Switching	110V./60 Hz. and 220V./50Hz.
Dimensions	16" x 14" x 8" (Inches).
Net Weight	20 lb. (9 kg.)

Spectro 2000RSP With 4 automatic cell holder



Spectro 2000 RSP is a superior instrument as with Spectro 2000RS with the added benefit of a built in printer. This spectrophotometer is excellent 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 RSP is accurate, dependable, and an exceptional value. Further, it has excellent baseline stability, high resolution and continuous wavelength ranging from 325 nm to 1100 nm.

Spectro 2000 RSP is 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 RSP is an 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. This spectrophotometer is rugged, reliable, affordable, and maintenance free.

Spectro 2000 RSP's advantage is its 4 automatic cell holder movement by microprocessor and use of the soft key pad. This machine is both reliable and user-friendly.

Features

- Automatic self adjustment
- · Automatic 4 Cell holder
- · Auto select wavelength.
- Auto Zero ABS and 100%T.
- Auto A/T/C and Factor.
- Auto Escape and back-Up.
- Interface RS232C port for use with computer & printer.
- · Built-in printer.
- Switch for 110V 60Hz.and 220V 50Hz.
- F.D.A. Licensed.
- · High photometric accuracy for smooth spectral band pass.
- Reliable stability for reliable testing
- Wide continuous wavelength range for test flexibility
- Easy to change Tungsten Halogen lamp
- · Optional electro thermal possibility.
- COMPETITIVE PRICE.
- Computer System is optional (NOT INCLUDED)

Included Accessories

- 4 square glass cells 10mm
- 1 mounted multiple 4 cell holder
- · Dust cover
- Cable
- Instruction book

UV-VIS Spectrophotometer





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Spectro 23RS

Included Accessories

- Multi-purpose cell holder for long path cells (Specify Spectro 2000 RS or Spectro 2000 RSP)
- Peltier constant temperature control system (single cell, 15-55°C)
- Square cuvette (optical glass), 10mm path length
- Micro and semi-micro cells, set of 2 with covers, useable for wavelengths from 325 1100nm. (Specify sample volume: 0.5, 0.75, 1.00 or 1.25ml)
- Rectangular long path cell (optical glass. Specify 20, 30, 40 or 50mm path length)
- Software for Windows 95/98/XP Includes RS232C cable, operator's manual. (Specify: Spectro 23 RS)

Technical Specifications

Optical System	Single Beam
Wavelength Range	325-1100nm.
Light Source	Tungsten-Halogen Lamp
Detector	Silicon Photodiode
Wavelength Distance	1nm.
Wavelength Accuracy	+ 1 nm.
Wavelength Reproducibility	0.5 nm.
Spectral Band Pass	6 nm.
Transmittance Reproducibility	0.3% (T)
Transmittance Range	0-125% (T)
Absorption Range	0-1999% (A)
Concentration Range	0-2000
Photometric Accuracy	+50% (T) +0.004 A.
Monochromator Grating Mirror	1200 lines/mm.
Readout	LCD 2 line
Printer	Included
Power Supply Switching	110V./60 Hz. and 220V./50Hz.
Dimensions	16" x 14" x 8" (Inches).
Net Weight	20 lb. (9 kg.)



Spectro 23 RS is a traditional analytical instrument used in conventional laboratories with advanced technology of built-in interface RS-232C. The interface enables this spectrophotometer to communicate with any IBM compatible computer and printer. With the RS-232C, port, and the UV-VIS software enables this instrument to be linked to a computer and a printer to display the photometric and spectral data on the PC monitor. The superior machinery of Spectro 23 RS analyzes, stores, records, and prints test results swiftly and consistently. This spectrophotometer can work in the Visible, Near-Ultraviolet, and Near Infrared Spectral Range and it is perfectly suited for quantitative and qualitative analysis. This spectrophotometer delivers enhanced ease-ofuse, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results. This new generation instrument is equipped with a microprocessor to automatically adjust 100 % T and Zero ABS, Factor and Concentration.

Spectro 23 RS is an economical four cell visible spectrophotometer which is ideal for small laboratories, biochemical labs, clinical labs, and educational institutions. This spectrophotometer uses soft key pad and delivers enhanced ease-of-use, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results.

Spectro 23 RS is easy to use, affordable, compact and light weight. It has a continuous wavelength ranging from 320 nm to 1100 nm. Spectro 23 RS is able to analyze and record four sample results immediately. Furthermore, Spectro 23 RS may save the reagents and samples by using the optional semi-micro cuvette of 1.5 ml or less to help reduce waste.

Spectro 23 RS 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 be used by itself or linked to a PC.

Features

- A very durable instrument.
- Test tube holder and large cell optional.
- · 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 6 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.
- High absolute reading accuracy, outstanding stability and reproducibility with distinct digital display.
- F.D.A. Licensed.
- · Very competitive price.
- · Can be applied for constant temperature & kinetic test by optional parts. At Laborned, we believe greatly in the accuracy of our spectrophotometers. We are so sure of the quality
- that we include 2 testing filters free of charge for testing calibration. Small printer is available for date printout as an option, which does not require a computer hookup or software.
- Computer System is optional (NOT INCLUDED).





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Included Accessories

- 4 square cells 10mm.
- 1 instruction book.
- 1 dust cover.
- 1 multiple cell holder for 4 cells.
- 1 cable.

Included Accessories

- Constant temperature system for kinetic testing: three square cell holders and front panel. (Specify: Spectro 23 or Spectro 23 RS)
- Flow through system (peristaltic pump and flowcell)
- Multi-purpose cell holder for long path (20 50mm) rectangular cells
- Holder for test tube cuvettes, 10 25mm diameter
- Set of 2 performance testing filters
- (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)
- Software for Windows 95/98/XP Includes RS232C cable, operator's manual.
- (Specify: Spectro 23 RS)

Technical Specifications

Optical System	Single Beam Spectrophotometer
Wavelenght Range	320-1100nm.
Light Source	Tungsten-Halogen Lamp
Detector	Silicon Photodiode
Wavelength Accuracy	2nm.
Wavelength Reproducibility	0.5nm.
Spectral Band Pass	6nm.
Stray Light	<0,5%T. at 360nm.
Transmittance Range	0-100% (T)
Absorption Range	0-1999 (A)
Concentration Range	0-2000
Photometric Accuracy	+0.5% (T) +0.004A
Transmittance Reproducibility	0-100%T. 0.5% (T)
Monochromator	Grating Mirror 1200 Lines/nm
Multi Cell Holder	4 Cuvettes
Power Supply	230V. 50Hz/110V 60Hz
Dimensions	22"(W) x 14" (D) x 11 ½ (H) Inches
Net Weight	35 Lbs.

Spectro 23



Spectro 23 is an economical four cell visible spectrophotometer which is ideal for small laboratories, biochemical labs, clinical labs, and educational institutions. This spectrophotometer uses soft key pad and delivers enhanced ease-of-use, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results.

Spectro 23 is easy to use, affordable, compact and light weight. It has a continuous wavelength ranging from 320 nm to 1100 nm. Spectro 23 is able to analyze and record four (4) sample results immediately. Furthermore, Spectro 23 may save the reagents and samples by using the optional semi-micro cuvette of 1.5 ml or less to help reduce waste.

Spectro 23 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 only be used by itself (No PC connection is available).

Features

- A very durable instrument.
- Test tube holder and large cell optional.
- · Wide, continuous wavelength ranges for test flexibility.
- · Automatic absorption, transmission, factor and concentration by microprocessor
- High photometric and wavelength accuracy for the best results by having a 6 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.
- F.D.A. Licensed.
- Very competitive price.
- Can be applied for constant temperature & kinetic test by optional parts.
- that we include 2 testing filters free of charge for testing calibration.
- Computer System is optional (NOT INCLUDED).

Included Accessories

- 4 square cells 10mm.
- 1 instruction book.
- 1 dust cover.
- 1 multiple cell holder for 4 cells.
- 1 cable.





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Spectro 23 is a traditional analytical instrument used in conventional laboratories. This spectrophotometer can work in the Visible, Near-Ultraviolet, and Near Infrared Spectral Range and it perfectly suited for quantitative and qualitative analysis. This spectrophotometer delivers enhanced easeof-use, precision and accuracy resulting in time and cost savings, as well as unprecedented confidence in test results. . This new generation instrument is equipped with a microprocessor to automatically adjust 100 % T and Zero ABS, Factor, and Concentration.

High absolute reading accuracy, outstanding stability and reproducibility with distinct digital display.

At Laborned, we believe greatly in the accuracy of our spectrophotometers. We are so sure of the quality



Included Accessories

- Constant temperature system for kinetic testing: three square cell holders and front panel. (Specify: Spectro 23 or Spectro 23 RS)
- Flow through system (peristaltic pump and flowcell)
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- (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test)

Technical Specifications

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Detector	Silicon Photodiode
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Wavelength Reproducibility	0.5nm.
Spectral Band Pass	6nm.
Stray Light	<0,5%T. at 360nm.
Transmittance Range	0-100% (T)
Absorption Range	0-1999 (A)
Concentration Range	0-2000
Photometric Accuracy	+0.5% (T) +0.004A
Transmittance Reproducibility	0-100%T. 0.5% (T)
Monochromator	Grating Mirror 1200 Lines/nm
Multi Cell Holder	4 Cuvettes
Power Supply	230V. 50Hz/110V 60Hz
Dimensions	22"(W) x 14" (D) x 11 ½ (H) Inches
Net Weight	35 Lbs.





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