



# Spectro UV-VIS Dual Beam PC Scanning Spectrophotometer

## UV-VIS Split Beam 8 Auto Cell

Models UVS-2700 and UVS-2800



Spectro UV-Vis Split Beam PC (Models UVS-2700 & UVS-2800) is a precise scanning spectrophotometer with a new design of an eight (8) automatic microprocessor with 2 row cell holder for precision testing and noiseless movement. UVS-2800 has a variable bandwidth ranging from 0.5, 1.0, 2.0 and 5.0 nm. and Spectro UVS-2700 has 2nm bandwidth. Both Spectros feature a dual detector, which in turn makes it an extremely accurate system. This spectrophotometer has a large LCD display, which can function independently, or, in the alternative it can be linked to a computer and a printer. With the RS-232C, the port, and the included software, **the instrument 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 Split Beam PC (Model UVS-2800) offers **high performance, ease of use and reliability**, which can be used in various applications. Spectrophotometer Model UVS-2800 can be used extensively for qualitative and quantitative analysis in such fields as pharmaceutical laboratory, agricultural laboratory, research industry, 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, and food processing. Spectro UV-Vis Split Beam PC (Models UVS-2700 & UVS-2800) is also capable of performing kinetic test through the use of an optional Peltier Constant Temperature System. Additionally, this instrument **can analyze flow through liquid with the use of the optional Sipper Flow through System**. There are 2 models of Spectro UV-VIS Double PC 8 Auto Cell available to the public:

- 1) Spectro UV-Vis Split Beam PC (UVS-2700) has fixed bandwidth of **2 nm**
- 2) Spectro UV-Vis Split Beam PC (UVS-2800) has variable bandwidth of **0.5, 1.0, 2.0, and 5.0**

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

### 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).**

### 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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### 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)

**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

Optical System	Dual Beam	Baseline Flatness:	0.002Abs (190 nm. ~1100 nm.)
Wavelength range:	190 nm – 1100 nm	Baseline stability:	0.002Abs/h (500 nm., after preheating)
Spectral Bandwidth:	2,0 nm(UVS-2700) and 0,5-1,0-2,0 and 5,0 nm.(UVS-2800)	Scanning Speed:	1400nm/min.
Straylight:	0.2%T (220 nm and 340 nm)	Interface Card:	RS-232
Wavelength accuracy:	0.5 nm (with automatic wavelength correction)	Detector:	Dual Silicon photodiodes
Wavelength Reproducibility:	0.2 nm	Photometric Display:	-9999 ---- 9999
Photometric System:	The split-beam monitoring ratio system.	Photometric Noise:	< ±0.001Abs (500nm, 0Abs, 2nm Bandwidth).
Optical System:	The crossed monochromator with the high-resolution, diffraction holographic grating.	Slew rate of wavelength:	3600nm/min.
Photometric Method:	Transmittance, absorbance, energy, concentration	DNA/RNA Measurement:	Results Printout: Printing of measured data by using HP Deskjet 600/800 series (OPTIONAL)
Photometric Range:	-0.3~3.0 Abs (0~200%T)	Mainframe:	Compact and standalone mainframe
Photometric Accuracy:	0.002Abs (0~0.5Abs) , iA0.004Abs (0.5~1.0Abs) 0.3%T(0~100%T)	Light Source:	Socket Deuterium Lamp and Socket Tungsten
Photometric Reproducibility:	0.001Abs (0~0.5 Abs), 0.002Abs (0.5~1.0Abs), 0.15%T (0~100%T) -9999 ---- 9999	Sample Chamber:	Automatic eight-cell sample holder.
		Size:	22x16x10"
		Weight:	55 Lb.