



# Spectro UV-VIS Double PC 8 Auto Cell Scanning Spectrophotometer

Models UVD-3000 and UVD-3200



Spectro UV-VIS Double PC 8 Auto and 1 Fixed Cell (Models UVD-3000 and UVD-3200) is a **high performance** Uv-Vis double beam automatic scanning spectrophotometer. Spectro UVD-3000 has 2nm. bandwidth and UVD-3200 has a variable bandwidth of 0.5, 1.0, 2.0 and 5.0 nm. These spectrophotometers offer high performance, ease of use and reliability, which can be used in various applications. Spectros UVD-3000 & 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 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 (Models UVD-3000 and UVD-3200)** 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 (Model UVD-3200) with variable bandwidth of 0.5, 1.0, 2.0 and 5.0 is a high performance, reliable and exceptional value instrument which is the hallmark of Labomed UV-VIS Spectrophotometers.

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

- 1) Model UVD-3000 Spectro UV-VIS Double PC 8 Auto Cell with fixed bandwidth of 2nm.
- 2) Model UVD-3200 Spectro UV-VIS Double PC 8 Auto Cell with variable bandwidth of 0.5, 1.0, 2.0 & 5.0.

Labomed, 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
- **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).**

## 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:</i> Peltier Kinetic Test System |
| 1 Dust cover                                 | 1 Software Operation Manual          | <i>Optional:</i> Sipper Flow Through System  |
| 1 Instruction manual                         | 1 Spare Tungsten Halogen Lamp        |  |



# Spectro UV-VIS Double PC 8 Auto Cell Scanning Spectrophotometer

**Models UVD-3000 and 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:	0.002Abs/h (500 nm., after preheating).
Spectral Bandwidth:	2.0 nm (Model UVD-3000 ) and 0.5, 1.0, 2.0 and 5.0 nm.(Model UVD-3200)	Slew rate of wavelength:	3600nm/min
Resolution:	2nm. (UVD-3000) and 0.5nm. (UVD-3200)	DNA/RND Measurement:	Results Printout: Printing of measured data by using any Printer with Paralell Port connection available.
Straylight:	0.2%T (220 nm and 340 nm)	Mainframe:	Compact and standalone spectrophotometer mainframe
Wavelength accuracy:	0.5 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:	The double-beam monitoring ratio system.	Sample Chamber:	Automatic eight-cell sample
Photometric Method:	Transmittance, absorbance, energy, concentration	Display	Liquid Crystal Display (LCD 320 iA240 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)	PC Interface:	PC Interface: RS-232
Photometric Reproducibility:	0.001Abs (0~0.5 Abs), 0.002Abs (0.5~1.0Abs), 0.15%T (0~100%T)	Size:	22x16x10"
Photometric Display:	-9999 ---- 9999	Weight:	55 Lb
Photometric Noise:	< ±0.001Abs (500nm, 0Abs, 2nm Bandwidth)		
Scanning Speed:	1400nm/min		
Baseline Flatness:	0.002Abs (190 nm. ~1100 nm.)		