



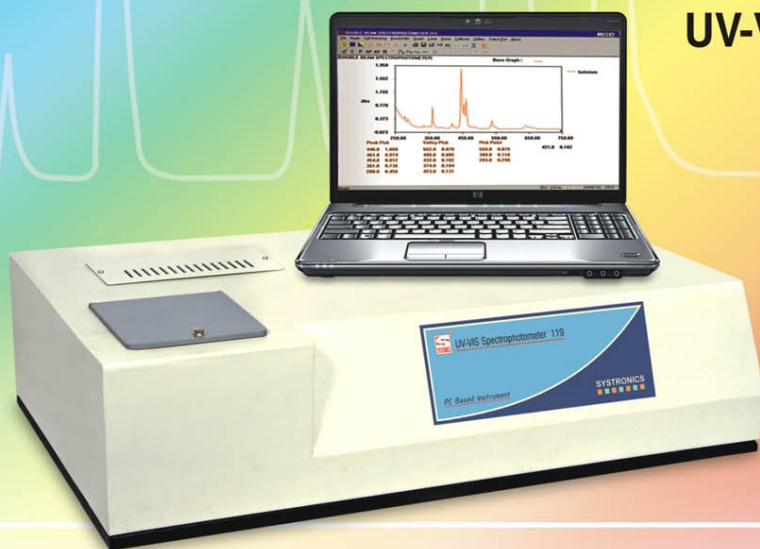
## UV-VIS SPECTROPHOTOMETER 117 MICRO CONTROLLER BASED

1 nm  
Bandwidth



## UV-VIS SPECTROPHOTOMETER 119 (PC BASED)

1 nm  
Bandwidth



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MANUFACTURERS OF ELECTRONIC INSTRUMENTS AND SCIENTIFIC EQUIPMENTS.

#### BRANCH ADDRESS :

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SYSTRONICS UV - VIS SPECTROPHOTOMETER 117 is a micro controller based single beam scanning standalone instrument & UV - VIS SPECTROPHOTOMETER 119 PC based instrument. Both are offers 1 nm bandwidth. It provides three measuring modes : Percent Transmittance (%T), Absorbance (ABS) and Concentration (CONC) with factors. The available operating modes are Single-Wavelength, Multi-Wavelength, Spectrum Scan and Time Scan.

117 is Combination of user friendly software, 20 X 4 alphanumeric LCD display, covers wavelength 200-1100 nm. All measurement results are available on the display except for the Spectrum Scan. A printer prints the scan besides providing hard copy of measurements. RS-232 is optional to enhance data processing ability through PC.

119 is covers the wavelength range from 200-1000 nm Special software supports Multi-standard Calibration with linear or nonlinear curve fitting for concentration measurements, besides the K-factor method. The Personal Computer & application software enhance the data processing ability and offer : Peak-Pick, Point-Pick, Expansion of Spectra, Overlaying of Spectra, 1<sup>st</sup> to 4<sup>th</sup> Derivatives, Averaging of two Scans, Subtraction of two Scans, Concentration Calculations, Spectrum Store / Recall etc.

Both instruments having automatic base line correction such as scans the blank / reference and stores its spectrum in memory to give the base line correction when a sample is scanned. User friendly menu driven operation & self-diagnostic wavelength calibration while switch on the power of the instruments. The instruments are modified Czerny-Monochromatic geometry for better aberration correction, holographic grating 1200 lines / mm blazed at 250 nm. with automatic selection of four glass filters to eliminate spectral order interference.

SPECIFICATIONS		117	119
<b>OPTICS</b>	:	Single Beam	Single Beam
Grating	:	1200 Lines / mm	1200 Lines / mm
<b>WAVELENGTH</b>			
Range	:	200 to 1100 nm	200 to 1000 nm
Resolution	:	0.1 nm	0.1 nm
Accuracy	:	±0.5 nm	±0.5 nm
Repeatability	:	±0.2 nm	±0.2 nm
Bandwidth	:	1 nm	1 nm
<b>PHOTOMETRIC</b>			
Range	:	0 to 3 Abs	-0.3 to 2.5 Abs, 0 to 100% T
Accuracy	:	± 0.005 Abs at 1A	± 0.005 Abs at 1A
Repeatability	:	± 0.002 Abs at 1A	± 0.002 Abs at 1A
Drift	:	0.003 Abs /hr. (After 1 hr. warmup at 500 nm)	0.003 Abs /hr. (After 1 hr. warmup at 500 nm)
<b>STRAY LIGHT</b>	:	Less then 0. 1% T at 220 nm & 340 nm	Less then 0. 1% T at 220 nm & 340 nm
<b>MEASURING MODES</b>			
	:	% Transmittance	% Transmittance
	:	Absorbance	Absorbance
	:	Concentration (K-factor, Multi standard up to 5)	Concentration (K-factor, Multi standard up to 5)
<b>OPERATING MODES</b>	:	Single Wavelength	Single Wavelength
	:	Multi Wavelength	Multi Wavelength
	:	Spectrum Scan	Scan (with Multiscan facility)
	:	Time Scan	Time Scan
<b>SOURCE</b>	:	Tungsten Halogen Lamp (320 to 1100 nm) Deuterium Lamp (200 to 340 nm)	Tungsten Halogen Lamp (320 to 1000 nm) Deuterium Lamp (200 to 340 nm)
<b>SCAN SPEED</b>	:	Slow, Medium and Fast	Slow, Medium and Fast (minimum at a span of 100 nm)
<b>DETECTOR</b>	:	UV-enhanced wide range solid state Si-photodiode	UV - enhanced wide range solid state Si-photodiode
<b>BASELINE CORRECTION</b>	:	Automatic baseline correction	Automatic baseline correction
<b>BASELINE FLATNESS</b>	:	±0.003 Abs / hr. (After 40 minutes warm-ups)	±0.003 Abs / hr. (After 40 minutes warm-ups)
<b>DATA PROCESSING</b>	:	Stand Alone • Peak-Pick • Spectrum printout	• Peak Pick, Point Pick, Valley Pick
<b>DISPLAY</b>	:	20 character, 4 line backlit alphanumeric LCD	• Zoom / Overlaying of Spectra
<b>KEYBOARD</b>	:	18 keys (11 numeric and 7 functional)	• 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Derivatives
<b>DATA INTERVAL</b>	:	Depends on wavelength Scan-span & Scan-speed	• Averaging of Two Scans
<b>SAMPLE HOLDER</b>	:	5 position for 10 mm cuvette (automatically)	• Subtraction of Two Scans
<b>PRINTER PORT</b>	:	Epson compatible 80 Column D. M. Printer	• Spectrum Store/Recall
<b>RS-232 PORT</b>	:	PC Link data transfer	• Concentration of scan compared to base scans
<b>POWER</b>	:	230V ±10%, 50 Hz	
<b>DIMENSIONS</b>	:	745 (W) X 480 (D) X 200 (H) mm	<b>DATA PRESENTATION</b> : Display of graphic and tabular data on computer monitor, Permanent data storage on hard disk, Hard Copy of graphic and tabular data on printer
<b>WEIGHT</b>	:	24 kg	
<b>ACCESSORIES</b>	:	Two matched 10 mm pathlength Quartz cuvettes, dust cover & manual	<b>SAMPLE HOLDER</b> : 5 position for 10 mm cuvette (automatically)
<b>OPTIONAL ACCESSORIES</b>			<b>POWER</b> : 230V ±10%, 50 Hz
• Holder for 50 mm or 100 mm cylindrical and rectangular cuvettes			<b>DIMENSIONS</b> : 745 (W) X 480 (D) X 200 (H) mm
• Personal Computer / Laptop			<b>WEIGHT</b> : 24 kg
• Epson compatible 80 column D.M. Printer			<b>ACCESSORIES</b> : Two matched 10 mm pathlength Quartz cuvettes, Dust cover & Manual
• PC link Software for Spectrum Display, Storage/Retrieve, Peak -Pick, Point Pick, Expansion of spectra, 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Derivatives, Averaging of Scans, Subtraction of Two Scans & Special software for kinetic by standard / factor			<b>OPTIONAL ACCESSORIES</b>
			• Holder for 50 mm or 100 mm cylindrical and rectangular cuvettes
			• Personal Computer / Laptop
			• Any printer compatible with PC operating system

\*Technical Specifications, Appearance & model number are subject to change without prior notice in keeping up with the state of art.