

# UV-Vis Spectrophotometer

Routine analysis through advanced research methods

## V-630



The V-630 is an economical, general-purpose instrument with a compact design to save bench space. Its excellent spectroscopic performance is suitable for routine, QC and research applications. User friendly features include the IQ Accessory function for automatic accessory recognition and IQ Start for immediate start of registered data collection applications when conducting routine measurements. Two graphical user interfaces are available including a newly redesigned intelligent remote module (iRM) with a color LCD touch screen or Spectra Manager™ II software, the latest version of JASCO's innovative, cross-platform spectroscopy software. Both of these control and analysis interfaces allow full system control and advanced data processing. Spectra Manager CFR is a 21 CFR part 11 compliant version of software and is available as an option.

- **Simplicity and Ease-of-Use**

Both the iRM and Spectra Manager II software offer an intuitive interface allowing even first time users to collect data with confidence.

- **Compact Design**

The optical bench of the V-630 is a compact 441 (W) x 468 (D) x 216 (H) mm, saving space in the modern laboratory.

- **High-Speed Scanning**

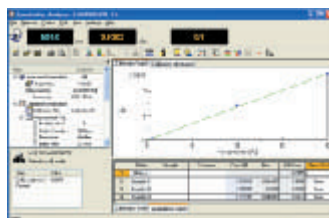
High-throughput optics and fast response detectors allow the V-630 to scan at speeds up to 8000 nm/min. without wavelength tracking errors.

- **Wide Range of Sampling Accessories**

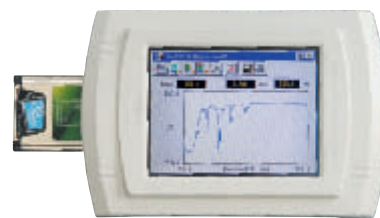
A full complement of sampling accessories including cell holders, flow cells, temperature controllers and software packages are available to optimize the V-630 for specific applications.

- **Instrument Validation**

For laboratories compliant with GMP/GLP regulations, the V-630 offers an instrument validation routine (as standard) to verify instrument performance.



Spectra Manager II



iRM-700



## Hardware Specifications

Optical system	Single monochromator 1200 lines/mm concave grating Modified Rowland mount Double-beam
Light source	Deuterium lamp: 190 to 350 nm Halogen lamp: 330 to 1100 nm
Light source exchange wavelength	User-selectable within a range of 330 to 350 nm
Detector	Silicon photodiode (S1337)
Wavelength range	190 to 1100 nm
Wavelength accuracy	±0.2 nm (at 656.1 nm)
Wavelength repeatability	±0.1 nm
Scanning speed	10 - 8000 nm/min
Slew speed	12,000 nm/min
Spectral bandwidth	1.5 nm (fixed)
Photometric range	±10000 %T -2 to 3 Abs
Photometric accuracy	±0.002 Abs (0 to 0.5 Abs) ±0.003 Abs (0.5 to 1 Abs) ±0.3 %T (Tested with NIST SRM 930D)
Photometric repeatability	±0.001 Abs (0 to 0.5 Abs) ±0.001 Abs (0.5 to 1 Abs)

Stray light	1 % (198 nm KCL 12 g/L aqueous solution) 0.04 % (220 nm NaI 10 g/L aqueous solution) 0.02 % (340 nm NaNO <sub>2</sub> 50 g/L aqueous solution) 0.02 % (370 nm NaNO <sub>2</sub> 50 g/L aqueous solution) (10 mm cell)
Baseline stability	±0.0004 Abs/hour (Response: slow; wavelength: 250 nm; lamp on greater than two hours; stabilized room temperature)
Baseline flatness	±0.0006 Abs (Value obtained after instrument baseline correction with a temperature variation of less than 5°C; wavelength range: 200 to 1000 nm; response: medium; scanning speed: 400 nm/min [based on JAIMA Standard JAIMAS-0001])
RMS noise	0.00006 Abs (0 Abs; wavelength: 500 nm; measurement time: 60 sec; response: medium)
Power requirements	105 VA
Dimensions and weight	486(L) x 441(W) x 216(H) mm (excluding accessories) 15 kg

## Spectra Manager II

Computer Requirements	Windows XP (Service Pack 2)
Recommended system (minimum specifications)	Intel Pentium 4 (or similar); 2.0 GHz; 512 MB RAM; 10 GB HDD
Measurement modes	Quantitative Analysis Wavelength scan (Abs, %T, %R, Sample, Reference) Time scan (Abs, %T, %R, Sample, Reference) Fixed wavelength (Up to 8 wavelengths) Abs/%T monitor
Data processing	Peak picking, Peak height, Peak area, Peak width, Derivatives, Smoothing, Data truncation, Arithmetic, Baseline correction, Subtraction, Deconvolution, Vertical axis conversion, Horizontal axis conversion
Other standard functions	Validation Software, Enzyme activity calculation, JASCO Canvas, Film thickness measurement, Color analysis
Optional	Spectra Manager CFR

## iRM-700 Intelligent Remote Module

Display	320 x 240 pixel color LCD Touch sensitive display screen
Measurement mode	Quantitative analysis Wavelength scan (Abs, %T, %R) Time scan (Abs, %T, %R) Fixed wavelength (Up to 8 wavelengths) Abs/%T monitor
Data processing	Scale change, Zoom, Trace, Peak picking, Peak ratio, Ratio of 2 WL, Derivatives, Smoothing, Arithmetic, Overlay
Other standard functions	Validation Software, Enzyme activity calculation
Data handling	Data format: JASCO format (.jws), text format (ASCII.txt) Auto print Auto save (to flash memory)
Printer	USB printer (optional)
Card slot	Compact flash memory card/flash ATA card

## Standard composition (V-630 PC Type)

Description	Qty	Remarks
V-630 UV-Vis Spectrophotometer	1	
Holmium glass	1	Bi-functional Holmium glass holder/shielding plate
Time-delay fuse	2	
USB cable	1	
AC power cable	1	
Allen wrench	1	For adjustment of the light source mirror
Software installation CD	1	
Certificate of inspection	1	
Instruction manual	1 set	

## Standard composition (V-630 iRM Type)

Description	Qty	Remarks
V-630 UV-Vis Spectrophotometer	1	
Intelligent remote module (iRM)	1	
iRM touch pen	1	
Compact flash memory card	1	
Card adapter	1	
Holmium glass	1	Bi-functional Holmium glass holder/shielding plate
Time-delay fuse	2	
AC power cable	1	
Allen wrench	1	For adjustment of the light source mirror
Certificate of inspection	1	
Instruction manual	1 set	



● Specifications are subject to change without notice.

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