

Spectrophotometer



From innovative optical layout to easy data handling and display, the V-series meets all the requirements placed on the JASCO design team. Thirty years of experience and input from thousands of users have resulted in a carefully integrated hardware and software package to yield UV/VIS and UV/VIS/NIR instruments that do not compromise on performance, accuracy or reliability.

Features

Compact Design

Occupying as little as 46 cm of bench space, the optical bench of the V-series is about the size of a typical laser printer. Three different models--one incorporating a UV/VIS. single monochromator, one a UV/VIS. double monochromator, and one a UV/VIS/NIR--are available in the same compact package.

Excellent Optical Performance

Recent advances in optical technology have been utilized to provide excellent reliability and assure highly accurate results. High throughput optics combined with modern electronic design provide excellent sensitivity and stability in all models.

Versatility

Each V-series instrument can be controlled by either a Windows®-based PC data station or the simplified intelligent Remote Module (iRM) via the RS-232C computer interface. The low-cost iRM offers easy data acquisition and processing with a wide backlit graphic liquid crystal display. By changing the RS-232C cable connection, the V-series can easily be upgraded to full PC control using Spectra Manager, an integrated spectroscopy software package allowing instrument control, data acquisition and processing within an intuitive, fully multi-tasking Windows® environment.

Full Line of Accessories

A full complement of accessories is available to optimize the V-series for particular applications. Options include a wide variety of liquid cell holders, micro cell holders, flow cell units and attachments for solidsamples. Advanced accessories such as automated cell changers, sippers and programmable temperature control systems allow full control by the iRM or PC.

Spectra Manager

The fully-integrated 32bit PC software package controls the V-series within the Windows® environment. This software is fully multi-tasking allowing rapid, accurate data acquisition even while simultaneously running other programs or instruments. Spectra Manager with work with data files generated by any other JASCO spectroscopy products including FTIR, Fluorescence and CD spectrometers. This common platform allows data from a variety of instrumental techniques to be viewed, analyzed, displayed and printed together for comparative purposes and publication along with UV/VIS/NIR data. The low cost, fixed 2nm resolution Model V-530 is also available. Please contact your local Jasco representative for more details.

SPECIFICATIONS of V-550/560/570

| Model: | V-550 | V-560 | V-570 |
|--|--|--|--|
| Optical system: | Double beam system with single monochromator | Double beam system with double monochromator | Double beam system with single monochromator |
| Wavelength range: | 190 ~ 900 nm | | 190 ~ 2500 nm |
| Light source: | Deuterium lamp (190 ~ 350 nm) Halogen lamp (330 ~ 900 nm) | | Halogen lamp (330 ~ 2500 nm) |
| Light source change-over: | Selectable anywhere between 330 nm and 350 nm | | |
| Wavelength accuracy: | ± 0.3 nm | | ± 1.5 nm |
| Wavelength reproducibility: | ± 0.1 nm | | ± 0.4 nm |
| Wavelength display: | 0.1 nm increment | | |
| Spectral bandwidth selection: | 0.1, 0.2, 0.5, 1, 2, 5 and 10 nm L2, L5 and L10 nm (with half slit height) | | 0.4, 0.8, 2, 4, 8, 20 and 40 nm L8, L20 and L40 nm (with half slit height) ¹⁾ |
| Resolution: | 0.1 nm | | 0.5 nm |
| Photometric mode: | Abs, %T, %R(Reflectance) | | |
| Photometric range: | -2 ~ 3 Abs | -2 ~ 5 Abs | -2 ~ 3 Abs |
| Photometric display: | 0.0 ~ 200 %T, -2 ~ 5 Abs | | |
| Photometric accuracy: | ± 0.002 Abs (0 ~ 0.5 Abs), ± 0.004 Abs (0.5 ~ 1 Abs), ± 0.3 %T | | |
| Photometric reproducibility: | ± 0.001 Abs (0 ~ 0.5 Abs), ± 0.002 Abs (0.5 ~ 1 Abs), ± 0.15 %T | | |
| Response: | Quick, Fast, Medium and Slow | | |
| Stray light: | 0.015 % (with NaI 10 g/l solution at 220 nm and with NaNO ₃ , 50 g/l solution at 340 nm) | 0.0003 % (with NaI 10 g/l solution at 220 nm and with NaNO ₃ , 50 g/l solution at 340 nm) | 0.1 % (with CH ₂ Br ₂ in 50 mm cell at 1690 nm) |
| Scanning speed: | 10, 20, 40, 100, 200, 400, 1000, 2000 and 4000 nm/min | | |
| Slew speed: | 8000 nm/min | | 32000 nm/min |
| Sampling interval: | 0.025, 0.05, 0.1, 0.2, 0.5, 1, 2, 5 and 10 nm/data (spectral scan mode) 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10 and 20 sec/data (time scan mode) | | 0.1, 0.2, 0.4, 1, 2, 4 and 10 nm/data (spectral scan mode) |
| Baseline stability: | ± 0.0004 Abs/hour Response: slow, Spectra bandwidth: 2 nm (250 nm, lamp on longer than 60 min., temperature variation ± 5 deg.) | | |
| Baseline flatness: | ± 0.001 Abs (200 ~ 850 nm) ± 0.004 Abs (with other wavelength range) | | ± 0.002 Abs (200 ~ 2500 nm) |
| Detector: | Photomultiplier R928 | | Pbs photocell |
| Detector change-over: (V-570 only) | | | Selectable anywhere between 750 nm and 900 nm (grating will be changed at the same wavelength) |
| Power requirement: | 100, 115, 200, 220, 230 and 240 V ± 10 %, 130 VA | | 100, 115, 200, 220, 230 and 240 V ± 10 %, 180 VA |
| Dimension and weight: | Main unit: 460(W) x 595(D) x 250(H) mm, 30.5 Kg | | Pbs unit: 100(W) x 170(D) x 125(H) mm, 1.9 Kg |

* In UV/VIS range, specifications are the same as V-550.

STANDARD COMPOSITION

| | |
|-------------------------------------|--------|
| - Spectrophotometer (Optical bench) | 1 set |
| - AC power cable | 1 pc. |
| - RS-232C cable | 1 pc. |
| - PBS / Cable* | 1 set |
| - Holmium glass | 1 pc. |
| - Fuse (T2A or T1A) | 2 pcs. |
| - Fuse (0.5A)* | 2 pcs. |
| - Philips screwdriver | 1 pc. |
| - Allne wrench, 2.5 mm | 1 pc. |
| - Instruction manual | 1 copy |

* V-570 only

ORDERING INFORMATION

| Code No. | Description |
|------------|---|
| 6703-J024A | Model V-550 UV/VIS Spectrophotometer (basic unit) |
| 6703-J025A | Model V-560 UV/VIS Spectrophotometer (basic unit) |
| 6703-J026A | Model V-570 UV/VIS/NIR Spectrophotometer (basic unit) |
| 4880-0464F | Model VWS-580(32) Spectra Manager |
| 6736-J003A | Model iRM-559 intelligent Remote Module |

● Specifications are subject to change without notice.



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