

Cole-Parmer®

SP-500 and SP-600 Series Spectrophotometers

- Color touchscreen with intuitive user interface
- Internal memory for methods and results
- Ideal for applications in education and routine quality control



SP-500 and SP-600 Series Spectrophotometers

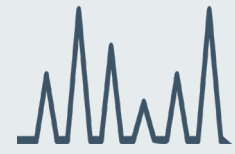
The SP-500 and SP-600 series spectrophotometers provide accurate and reliable results in various applications from teaching, to industrial applications, to routine sample analysis in quality control environments. These spectrophotometers are designed for ease of use with enhanced connectivity for simple and quick data transfer.

The range includes multiple models. Model SP-500-VIS uses a tungsten halogen lamp for measurements in the visible spectrum from 320 to 1000 nm. Models SP-500-UV, SP-500-NANO and SP-600-UV use a xenon lamp to extend measurements into the UV spectrum, down to 198 nm.

SP-600 series spectrophotometers feature split beam optics, also known as ratio or dual beam, that provides better accuracy and reproducibility. The split beam compensates for fluctuation and stabilizes the reliability of the measurement with prolonged time, making these ideal in time course and kinetic measurements

Key Features

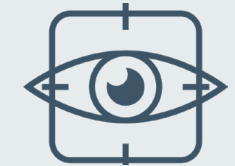
- 7-inch high-definition color touchscreen display
- Multiple USB ports for data storage and printer connectivity
- Android operating system
- Internal memory for methods and results (10 GB on-board storage)
- Multiple language options including English, French, German, Spanish, and Italian
- Extensive range of accessories available
- 3 year warranty (including xenon lamp)
- Preprogrammed for DNA, RNA and protein analysis (SP-500-NANO only)
- Only a few μL of sample needed for measurement (SP-500-NANO only)



Multiple measurement modes available



USB ports for data storage and printer connectivity



Powerful optics for accurate and reliable results



Color touchscreen user interface

SP-500 and SP-600 Series Spectrophotometers

Display

The SP-500 and SP-600 series spectrophotometers have a large, 7-inch high definition color touchscreen display that makes navigation fast and intuitive. The display allows full spectrum scans, quantitation curves and kinetics runs to be viewed effortlessly.

The touchscreen capability enables users to zoom in and out and select points all by simply touching the screen. The touchscreen display is fast and responsive even when wearing gloves.

Interface Design

Our spectrophotometers have a custom designed user interface which is based on an Android platform, making it easy to navigate and control the instrument. The home screen gives quick access to the different measurement modes as well as shortcuts to previously saved methods and results.

Instrument Design

The ergonomic design of the SP-500 and SP-600 series focuses on ease of accessibility while keeping the overall footprint as small as possible. The power switch and USB ports are located at the front of the instrument for easy access. The large color touchscreen is situated in front of the large sample chamber to ensure unhindered access to both.

Inside the SP-500 and SP-600 series spectrophotometers are powerful optics coupled with a traditional grating and monochromator design to produce accurate and reliable results.

Enhanced Connectivity

The SP-500 and SP-600 series spectrophotometers have been designed with excellent connectivity in mind. The easy access USB ports on the front of the instrument can be used for software updates, data storage and printer connectivity. Results and methods can be stored as CSV files for easy transfer to Microsoft® Excel®.



SP-500 and SP-600 Series Spectrophotometers

Sample Chamber - SP-500-VIS, SP-500-UV, SP-600-UV

The large sample chamber accommodates all available accessories, saving valuable laboratory bench space. The large sample chamber lid allows easy access for loading and unloading samples and for changing accessories. The domed lid has been designed to allow tall multi-cell changers or test tubes to be used while still keeping a tight sample chamber.

Internal Memory

Spectrophotometers have a generous 10 GB on-board storage which allows methods and results to be stored on the instrument.

Accessories

Models SP-500-VIS, SP-500-UV and SP-600-UV are versatile and flexible instruments with an extensive range of accessories available that have been specifically designed to be easily interchangeable. The powered accessories include the automatic 8-cell changer.

Models SP-500-VIS, SP-500-UV and SP-600-UV offer non-powered accessories including a 10 x 10 mm cuvette holder (fitted as standard), test tube holder, adjustable path length cuvette holder (10 to 100 mm), and a micro-cuvette holder. All accessories are easy to interchange using the ergonomic thumbscrew.

For instant results, there is also a printer available which connects to the spectrophotometer via the USB port at the front of the instrument. Spectrum scans and kinetics runs are printed in a vertical orientation to maximize the amount of information displayed.

SP-400-NANO, Life Science Spectrophotometer

SP-400-NANO is dedicated to life science analysis and requires only a few μL of sample for analysis. Preprogrammed methods measure ssDNA, dsDNA, RNA, and oligonucleotide concentrations using wavelengths recorded at 260, 280 and 230 nm with an optional correction at 320 nm. For measuring protein concentrations, model SP-400-NANO is preprogrammed with methods for Bradford, Lowry, Biuret, Bicinchoninic Acid (BCA), and Direct UV assays.



SP-500 and SP-600 Series Spectrophotometers

Technical Specifications

Model	SP-500-VIS	SP-500-UV & SP-500-NANO	SP-600-UV
Wavelength range	320 to 1000 nm	198 to 1000 nm	198 to 1000 nm
Wavelength accuracy	± 2 nm	± 2 nm	± 2 nm
Wavelength repeatability	± 1 nm	± 1 nm	± 0.5 nm
Spectral bandwidth	5 nm	5 nm	1.5 nm
Absorbance range	-0.3 to 2.5 A	-0.3 to 2.5 A	-0.3 to 2.5 A
Absorbance accuracy	± 1%T, ±0.010 Abs at 1.000 Abs	± 1%T, ±0.010 Abs at 1.000 Abs	± 1%T, ±0.010 Abs at 1.000 Abs
Transmittance range	0 to 199.9%	0 to 199.9%	0 to 199.9%
Quantitation calibration range	Blank with a single standard or factor	Blank with a single standard or factor	Blank with a single standard or factor
Internal memory	10 GB	10 GB	10 GB
External memory	Limited by attached storage device	Limited by attached storage device	Limited by attached storage device
Optics	Single beam with tungsten lamp	Single beam with xenon lamp	Split beam with xenon lamp
Detector	Silicon photodiode	Silicon photodiode	Silicon photodiode
Spectral analysis	Absorbance or % transmittance and peaks and valleys and area under curve	Absorbance or % transmittance and peaks and valleys and area under curve	Absorbance or % transmittance and peaks and valleys and area under curve
Light source	Tungsten halogen lamp	Xenon lamp	Xenon lamp
Lamp save	Yes	Not applicable	Not applicable
Dimensions (W x H x D)	28.0 x 15.6 x 50.0 cm (11.0 x 6.1 x 19.7")	28.0 x 15.6 x 50.0 cm (11.0 x 6.1 x 19.7")	28.0 x 15.6 x 50.0 cm (11.0 x 6.1 x 19.7")
Weight	9 kg (19.8 lb)	9 kg (19.8 lb)	9 kg (19.8 lb)

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Ordering Information

Cole-Parmer model	Jenway model	Jenway legacy SKU	Item number
SP-500-VIS	7410 Scanning Visible Spectrophotometer, 100–240 VAC, 50/60 Hz	741001	83056-21
SP-500-UV	7415 Scanning UV/Visible Spectrophotometer, 100–240 VAC, 50/60 Hz	741501	83056-22
SP-500-NANO	7415 Nano Scanning Micro-Volume UV-Visible Spectrophotometer, 100–240 VAC, 50/60 Hz	747501	83056-23
SP-600-UV	7615 Scanning UV/Visible Spectrophotometer, 100–240 VAC, 50/60 Hz	761501	83056-26

Accessories

Description	Jenway legacy SKU	Part number
Cuvette Holder, 16 or 24 mm Diameter or 10 mm Square	637071	83070-43
Cuvette Holder, 10 x 10 mm Square	630204	83070-41
Rectangular Long-Path Cell Holder, 10 to 100 mm	630005	83056-80
Micro-Cuvette Holder	630304	83056-82
Automatic 8-cell Changer	740401	83056-29
External Printer fitted with a battery and supplied with UK, EU and US power lead	SMP50/PRINTER	83056-79