

Jenway 6300 UV/VISIBLE SPECTROPHOTOMETER

3 YEAR WARRANTY

- Small footprint
- Versatile sampling system
- RS232 interfacing capability
- Simple operation
- 8nm bandwidth
- Fully G.L.P. compliant
- Rugged design
- Ideal for education



The 6300 is a high quality, low cost measurement system ideal for routine analysis and education. The narrow 8nm bandwidth offers the high degree of selectivity essential for most analytical applications. Upon start up, a wavelength calibration is performed, assuring G.L.P. compliant operation. In addition, a bi-directional RS232 allows for full printer or PC interfacing. Results can be downloaded by a single touch of the print key.

The large customized LCD is easy to read, offers user-friendly interfacing and simultaneous readings of wavelength and photometric result in Percentage, Transmittance, Absorbance, or Concentration. Concentration units can be displayed in ppm, mg/l, g/l, M, %, or can be left blank. The housing is fitted with a 10mm single cell holder. In addition, a wide variety of accessories are available, including a 4-position cell holder, up to a 10 x 100mm cell holder, test tube holders up to 25mm in diameter, and sipper systems. Changing the sampling configuration is quick and simple.

JENWAY 6300 UV/VISIBLE SPECTROPHOTOMETER

SPECIFICATIONS

Wavelength			
Range	320-1000nm	Factor	0 to 199.9, 1000 to 9999
Resolution	1nm	Photometric Noise	<0.001A @ 0A at 400nm
Accuracy	±2nm	Photometric Stability	<0.002 A/Hr After 30 minute warm up
Bandwidth	8nm		
Transmittance		Readout	Custom LCD Graphics
Range	0 to 199.9%	Outputs	Analogue (0 to 1.999V d.c.)
Resolution	0.1%		RS232 serial port
Stray light	<0.5% @ 340 & 220nm	Light Source	Xenon Lamp
Accuracy	±1%	Input Voltage	117/240V
Absorbance			
Range	-0.300 to 1.999A	Size	14.4(w) x 10.7(d) x 6.3(h) inches
Resolution	0.001A	Weight	13.2lbs
Concentration			
Range	-3 to 1999 Concentration		
Resolution	0.1/1		
Units	%, ppm, mg/l, g/l, M, blank		

ORDERING INFORMATION

Part Number	Description
630-531	6300 Visible Spectrophotometer, (117V)
630-501	6300 Visible Spectrophotometer, (240V)
Accessories	
Part Number	Description
632-001	Sipper Pump (240V)
632-031	Sipper Pump (117V)
634-001	4 Position Cell Holder
630-020	Test Tube Block (13mm diameter)
630-021	Test Tube Block (25mm diameter)
630-022	Test Tube Block (16mm diameter)
630-005	20 - 100mm Cell Holder
630-004	10 x 10mm Cell Holder
630-028	Dust Cover
035-088	Calibration Set
035-079	100 x 10mm Glass Cell
035-087	50 x 10mm Glass Cell
035-029	40 x 10mm Glass Cell
035-086	20 x 10mm Glass Cell
035-027	10 x 10mm Glass Cell

Jenway 6305 UV/VISIBLE SPECTROPHOTOMETER

3 YEAR WARRANTY

- Single xenon lamp offers:
 - Guaranteed 3 year life time
 - Low lamp drift
 - Self calibration at 3 wavelengths
- RS232 interfacing capability
- Versatile sampling system
- Small footprint



The 6305 is a high quality, low cost measurement system for routine analysis. The 6305 features a xenon lamp which has the advantage of offering a broad spectral source with high-energy light throughout the entire wavelength range. In addition, with a single long lasting lamp, the operation cost of the spectrophotometer are lowered. Upon start up, a three-point wavelength calibration is automatically performed at 247nm, 528nm and 824nm, assuring G.L.P. compliant operation.

The large customized LCD is easy to read, offers user-friendly interfacing and allows simultaneous readings of wavelength and photometric result in % Transmittance, Absorbance, or Concentration. Concentration units can be displayed in ppm, mg/l, g/l, %, or can be left blank. The housing is fitted with a 10mm single cell holder. In addition, a wide variety of accessories are available, including a 4 position cell holder, up to a 10 x 100mm cell holder, test tube holders up to 25mm in diameter, and sipper systems. Changing the sampling configuration is quick and simple.

JENWAY 6305 UV/VISIBLE SPECTROPHOTOMETER

SPECIFICATIONS

Wavelength			
Range	198-1000nm	Factor	0 to 199.9, 1000 to 9999
Resolution	1nm	Photometric Noise	<0.001A @ 0A at 400nm
Accuracy	±2nm	Photometric Stability	<0.002 A/Hr After 30 minute warm up
Bandwidth	6nm		
Transmittance		Readout	Custom LCD Graphics
Range	0 to 199.9%	Outputs	Analogue (0 to 1.999V d.c.)
Resolution	0.1%		RS232 serial port
Stray light	<0.5% @ 340 & 220nm	Light Source	Xenon Lamp
Accuracy	±1%	Input Voltage	117/240V
Absorbance			
Range	-0.300 to 1.999A	Size	14.4(w) x 10.7(d) x 6.3(h) inches
Resolution	0.001A	Weight	13.2lbs
Concentration			
Range	-3 to 1999 Concentration		
Resolution	0.1/1		
Units	%, ppm, mg/l, g/l, M, blank		

ORDERING INFORMATION

Part Number	Description
635-031	6305 UV/Visible Spectrophotometer, 117V
635-001	6305 UV/Visible Spectrophotometer, 240V
Accessories	
Part Number	Description
632-001	Sipper Pump (240V)
632-031	Sipper Pump (117V)
634-001	4 Position Cell Holder
012-041	DC/AC Power Converter
630-020	Test Tube Block (13mm diameter)
630-021	Test Tube Block (25mm diameter)
630-022	Test Tube Block (16mm diameter)
630-005	20 - 100mm Cell Holder
630-004	10 x 10mm Cell Holder
630-028	Dust Cover
035-088	Calibration Set
035-079	100 x 10mm Glass Cell
035-087	50 x 10mm Glass Cell
035-029	40 x 10mm Glass Cell
035-086	20 x 10mm Glass Cell
035-027	10 x 10mm Glass Cell

lenway
6400 SERIES
SPECTROPHOTOMETERS
3 YEAR WARRANTY

- Up to 5 modes of operation
 1. Photometrics
 2. Spectrum scanning
 3. Multi-wavelength
 4. Kinetics
 5. Quantitation (optional)
- Large housing fits wide variety of accessories
- Full interfacing capability
- 5nm bandwidth
- Two models to choose from:
 - ♦ 6400 320-1100 nm
 - ♦ 6405 190-1100 nm
- UV-lamp save option



The Jenway 6400 Visible and 6405 UV/Visible are high performance scanning spectrophotometers, standard with photometric, kinetic, spectrum scanning, and multiwavelength capabilities. When fitted with an 8-cell motorized changer, quantitation software is automatically activated. To assure G.L.P. compliant operation, when the unit is turned on, a system check and calibration is performed.

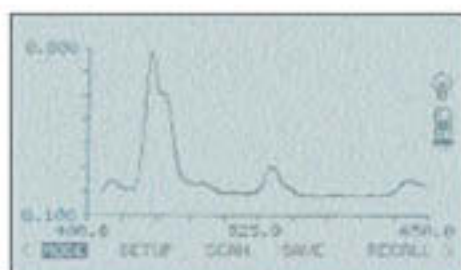
The units operate through a large menu driven graphical LCD and numeric keypad for user-friendly interactive control. Data can be printed on an optional internal printer or can be downloaded to a printer or PC through the bi-directional RS232. Results can be downloaded by a single touch of the print key, while the internal memory can store scans and calibration curves.

Photometrics



- For routine measurements of % Transmittance, Absorbance, and Concentration
- Selectable units: ppm, mg/l, g/l, M, %, or blank
- Large dual display of wavelength and photometric reading

Spectrum Scanning



The 6400 and 6405 have full scanning capabilities with:

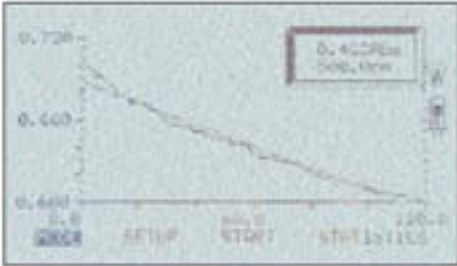
- 3 scan intervals: 0.2nm, 1nm, 5nm
- Scan speeds to 1200nm/minute
- Instant display of spectrum scan
- Auto re-scale capability
- Hard copy printouts of settings, scan, statistics, and G.L.P. compliant information
- Ability to repeat and/or print scan at user set intervals
- Baseline correction
- 2 scans stored in memory

Multi-wavelength



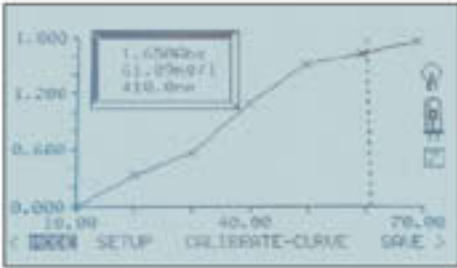
- Simultaneous reading and display of 2 wavelengths
- Readings displayed in % Transmittance, Absorbance, or Concentration
- Difference and Ratio calculation displayed instantly
- Calibration performed on both wavelengths via single user operation
- Hard copy printouts of settings, calculations and G.L.P. compliant information

Kinetics



- Hard copy printouts of settings, graph and statistical information
- Temperature control accessories available

Quantitation



curve constructed from standards.

- Hard copy printouts of curve, statistical information and G.L.P. compliant information

Accessories



Spectrophotometers. The accessories are easy to install and are easily controlled from the keypad.

<u>Order code</u>	<u>Description</u>
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- **646-001 Universal Test Tube Holder:** Holds test tubes between 12 and 24 mm diameters.
- **642-001 Sipper Pump:** Automated, accurate handling of small volume samples. Allows greater repeatability by use of the same cell. Offers selectable one or two stage sample transfer for optional air-gap after sample read. Once read, the sample can be flushed to waste or returned to the sample vial. Visible and UV/Visible Flow-Through Cells available.
- **643-031 Peltier Cell:** A heated system comprised of a cell block and external power supply module. Temperature of 20 to 50°C at a resolution of 0.1°C and a temperature measuring accuracy of $\pm 0.5^\circ\text{C}$. The temperature is set by onboard software.
- **647-031 Peltier Sipper System:** A combined version of the Sipper Pump and Peltier System.
- **645-001 Vacuum Pump:** Uses a "pour in, suck out" cell. For use with a high throughput of sample.
- **648-001 Water Heated Cell Block:** For use when a small flow of temperature controlled water is needed to maintain a temperature range of 4 to 50°C.
 - ‡ **037-302 External Peltier Cooler:** For use with 648-001.
 - ‡ **037-202 Water Circulator:** For use with 648-001.
- **641-001 Internal printer**

JENWAY 6400 SERIES

SPECTROPHOTOMETER

SPECIFICATIONS

	Model 6400	Model 6405
Wavelength		
Range	320 to 1100 nm	190 to 1100 nm
Resolution	0.1 nm	0.1 nm
Accuracy	±1 nm	±1 nm
Bandwidth	5 nm	5 nm
Transmittance		
Range	0 to 199.9%	0 to 199.9%
Resolution	0.1%	0.1%
Absorbance		
Range	-0.300 to 3.000A	-0.300 to 3.000A
Resolution	0.001A	0.001A
Concentration		
Range	-300 to 9999	-300 to 9999
Resolution	0.001 / 0.01 / 0.1 / 1	0.001 / 0.01 / 0.1 / 1
Factor Range	0.000 to 9999.99	0.000 to 9999.99
Kinetics Lag Time	0 to 9999 seconds	0 to 9999 seconds
Kinetics Run Time	10 to 9999 seconds	10 to 9999 seconds
Photometric Linearity	0.005A @ 1.0A	0.005A @ 1.0A
Stray Light	0.05%T @ 340 nm	0.05%T @ 340 nm
Drift	0.001A per hour	0.001A per hour
Display	Graphical LCD 12.6 x 9.5 in	Graphical LCD 12.6 x 9.5 in
RS232	Bi-directional	Bi-directional
Analog output	Yes	Yes
Visible Light Source	Tungsten Halogen lamp	Tungsten Halogen lamp
UV Light Source		Deuterium lamp
Input Power	<150W	<150W
Operating temperature	15 to 30°C	15 to 30°C
Operating humidity	0 to 90% RH	0 to 90% RH
Voltage/Frequency	117/240V / 50/60Hz	117/240V / 50/60Hz
Weight	33lbs.	33lbs.

ORDERING INFORMATION

640 031	Model 6400 Visible Scanning Spectrophotometer, 117V
640 001	Model 6400 Visible Scanning Spectrophotometer, 240V
640 531	Model 6405 UV/Visible Scanning Spectrophotometer, 117V
640 501	Model 6405 UV/Visible Scanning Spectrophotometer, 240V
641 002	Printer (Factory Fitted)
035 025	Visible Flow-through Cell 1.8ml
035 045	Visible Flow-through Cell 80µl
035 044	UV Flow-through Cell 1.8ml
035 047	UV Flow-through Cell 80µl
035 026	Pour in/Suck out Cell
035 124	Micro (50µl) Quartz cuvette
035 125	Micro (500µl) Quartz cuvette
035 127	Semi-micro (1ml) Quartz cuvette
035 129	Flow through (450µl) Quartz cuvette
035 131	Flow through (750µl) Quartz cuvette
035 088	Visible Calibration Standards
035 091	UV/Visible Calibration Standards
640 133	Dust Cover

Jenway 6500 SERIES

SPECTROPHOTOMETERS

3 YEAR WARRANTY



- 5 modes of operation
 1. Photometrics
 2. Spectrum scanning
 3. Multi-wavelength
 4. Kinetics
 5. Quantitation
- Standard with 8-cell motorized cell changer
- Large housing fits wide variety of accessories
- Versatile method and spectra storage
- 1.8nm bandwidth
- Wide range of operation
 - † 320-1100 nm (6500)
 - † 190-1100 nm (6505)
- UV-lamp save option

The Jenway 6500 Visible and 6505 UV/Visible high performance spectrophotometers feature photometric, kinetic, spectrum scanning, multi-wavelength, and quantitation capabilities. High quality split-beam optics reduce stray light and enhance overall reliability by minimizing the number of optical elements.

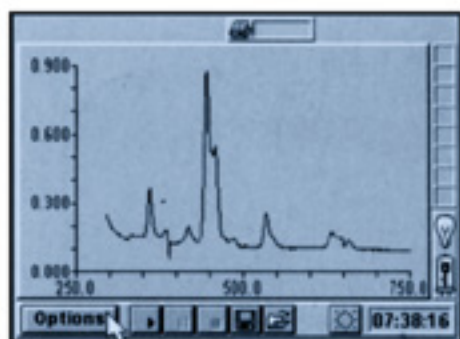
The units operate through a graphical user interface with a mouse, keypad and a VGA back lit monochrome LCD for user-friendly interactive control. Data can be printed on an optional internal printer or a desktop printer and can be downloaded to PC through the bidirectional RS232. Results can be downloaded by a single touch of the print key. The internal memory and data card can store methods and results for recall and allow unlimited memory capacity. In addition, an automatic results log allows readings to be stored or printed at user set time intervals.

Photometrics



- For routine measurements of % Transmittance, Absorbance, and Concentration
- Selectable units: ppb, ppm, µg/l, mg/l, g/l, M, %, or blank
- Large dual display of wavelength and photometric reading

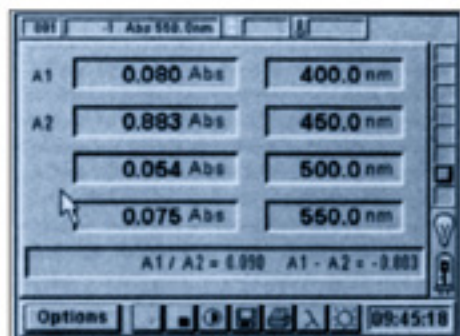
Spectrum Scanning



The 6500 and 6505 have full scanning capabilities with:

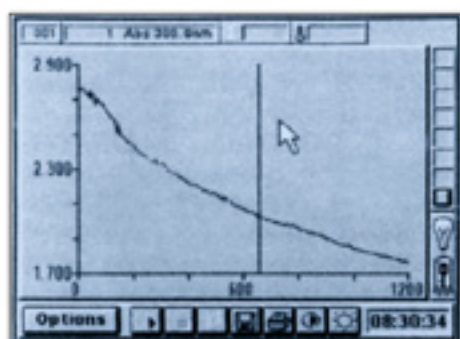
- 4 scan intervals: 0.2nm, 1nm, 5nm, 10nm
- Scan speeds to 1200nm/minute
- Instant display of spectrum scan
- Auto re-scale capability
- Hard copy printouts of settings, scan, statistics, and G.L.P. compliant information
- Post scan analysis including peak and valley detection, area under curve, and addition/subtraction
- Ability to repeat and/or print scan at user set intervals
- Baseline correction

Multi-wavelength



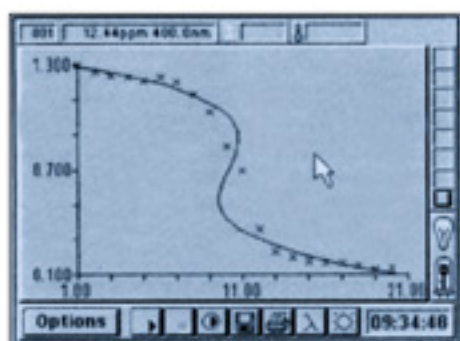
- Simultaneous reading and display of up to 4 wavelengths
- Readings displayed in % Transmittance, Absorbance, or Concentration
- Selection of primary and secondary wavelengths
- Selectable calculation displayed instantly
- Calibration performed via single touch of the calibration key
- Hard copy printouts of settings, calculations and G.L.P. compliant information

Kinetics



- % Transmittance or Absorbance value versus time plotted
- Adjustable lag and run time
- Run can be set to start at a user set level of photometric value
- Graphical display of data
- Auto re-scale capability
- Post run analysis including line of best fit, initial value, slope, and concentration calculation
- Hard copy printouts of settings, graph and statistical information
- Ability to perform runs on 4 cells simultaneously
- Temperature control accessories available

Quantitation



Samples are measured at a single wavelength and Concentration calculated from Absorbance or % Transmittance using a calibration curve constructed from standards.

- Selectable number of calibration points to be performed up to 20
- Up to 5 duplicate readings on each standard
- Auto calibration at start of sequence
- 8 curve fits from which to choose
- Auto re-scale capability
- Hard copy printouts of curve, statistical information and G.L.P. compliant information

Accessories



Sipper pump



Peltier cell



Universal test tube holder



Vacuum pump

Wide ranges of accessories are available to enhance the application potential of the 6500 series Spectrophotometers. The accessories are easy to install and are easily controlled from the keypad.

Order code Description

- 630-005 **Universal Cell Holder:** Holds cuvettes with 20 to 100mm pathlengths.
- 646-001 **Universal Test Tube Holder:** Holds test tubes between 12 and 24 mm diameters.
- 642-001 **Sipper Pump:** Automated, accurate handling of small volume samples. Allows greater repeatability by use of the same cell. Offers selectable one or two stage sample transfer for optional air-gap after sample read. Once read, the sample can be flushed to waste or returned to the sample vial. Visible and UV/Visible Flow-Through Cells available.
- 643-031 **Peltier Cell:** A heated system comprised of a cell block and external power supply module. Temperature of 20 to 50°C at a resolution of 0.1°C and a temperature measuring accuracy of $\pm 0.5^\circ\text{C}$. The temperature is set by onboard software.
- 647-031 **Peltier Sipper System:** A combined version of the Sipper Pump and Peltier System.
- 645-001 **Vacuum Pump:** Uses a "pour in, suck out" cell. For use with a high throughput of sample.
- 648-001 **Water Heated Cell Block:** For use when a small flow of temperature controlled water is needed to maintain a temperature range of 4 to 50°C.
 - 037-302 **External Peltier Cooler:** For use with 648-001.
 - 037-202 **Water Circulator:** For use with 648-001.
- 641-001 **Internal printer**

JENWAY 6500 SERIES

SPECTROPHOTOMETER

SPECIFICATIONS

	Model 6500	Model 6505
Wavelength		
Range	320 to 1100 nm	190 to 1100 nm
Resolution	0.1 nm	0.1 nm
Accuracy	±1 nm	±1 nm
Bandwidth	1.8 nm	1.8 nm
Transmittance		
Range	0 to 199.9%	0 to 199.9%
Resolution	0.1%	0.1%
Absorbance		
Range	-0.300 to 3.000A	-0.300 to 3.000A
Resolution	0.001A	0.001A
Concentration		
Range	-300 to 9999	-300 to 9999
Resolution	0.001 / 0.01 / 0.1 / 1	0.001 / 0.01 / 0.1 / 1
Factor Range	0.000 to 9999.99	0.000 to 9999.99
Kinetics Lag Time	0 to 9999 seconds	0 to 9999 seconds
Kinetics Run Time	10 to 9999 seconds	10 to 9999 seconds
Dwell Time	0 to 99 seconds	0 to 99 seconds
Photometric Linearity	0.005A @ 1.0A	0.005A @ 1.0A
Stray Light	0.05%T @ 340 nm	0.05%T @ 340 nm
Drift	0.001A per hour	0.001A per hour
Display	Graphical LCD 12.6 x 9.5 in	Graphical LCD 12.6 x 9.5 in
RS232	Bi-directional	Bi-directional
Analog output	Yes	Yes
Visible Light Source	Tungsten Halogen lamp	Tungsten Halogen lamp
UV Light Source		Deuterium lamp
Print/Save Auto Log	Yes	Yes
Input Power	<150W	<150W
Operating temperature	15 to 30°C	15 to 30°C
Operating humidity	0 to 90% RH	0 to 90% RH
Voltage/Frequency	117/240V / 50/60Hz	117/240V / 50/60Hz
Weight	33lbs.	33lbs.

ORDERING INFORMATION

650 001	Model 6500 Visible Spectrophotometer with 8 position multi-cell changer, pack of 100 x 3.5ml disposable cuvettes. (240 volts 50 cycles)
650 031	Model 6500 Visible Spectrophotometer with 8 position multi-cell changer, pack of 100 x 3.5ml disposable cuvettes. (117 volts 60 cycles)
650 501	Model 6505 UV / Visible Spectrophotometer with 8 position multi-cell changer, pack of 100 x 3.5ml disposable cuvettes (240 volts 50 cycles)
650 531	Model 6505 UV / Visible Spectrophotometer with 8 position multi-cell changer, pack of 100 x 3.5ml disposable cuvettes. (117 volts 60 cycles)
641 002	Printer (Factory Fitted)
035 025	Visible Flow-through Cell 1.8ml
035 045	Visible Flow-through Cell 80µl
035 044	UV Flow-through Cell 1.8ml
035 047	UV Flow-through Cell 80µl
035 026	Pour in/Suck out Cell
035 124	Micro (50µl) Quartz cuvette
035 125	Micro (500µl) Quartz cuvette
035 127	Semi-micro (1ml) Quartz cuvette
035 129	Flow through (450µl) Quartz cuvette
035 131	Flow through (750µl) Quartz cuvette
035 088	Visible Calibration Standards
035 091	UV/Visible Calibration Standards
640 133	Dust Cover