

MODELS 6400 & 6405

SPECTROPHOTOMETERS



- Single beam scanning
- Narrow 5nm bandwidth
- Menu driven
- Multi-wavelength and kinetics analysis
- Full interfacing capability
- Wide range of sampling accessories
- Optional 8 position multi-cell changer (for quantitation measurement)



The Models 6400 and 6405 incorporate a wide range of features designed to satisfy the needs of users seeking to maximise the efficiency of routine and specialised UV and Visible spectroscopy tasks. The 6400 series scanning units are ideal for all routine teaching, laboratory and research environments.

The Model 6400 Visible spectrophotometer operates over the range of 320-1100nm, whilst the Model 6405 UV/Visible spectrophotometer operates over the range of 190-1100nm.

These products have five operating modes; photometrics, spectrum, kinetics, multi-wavelength and quantitation*.

Methods producing non-linear results can be performed by using powerful in-built software and the multi-cell changer. Up to seven data points can be determined automatically and used to construct a curve. A variety of statistical methods are available to ensure a close correlation to all curve shapes.

Sample presentation flexibility is a key feature, with cells from 100mm path length down to micro-sample capacity being readily accommodated. A wide range of accessories is available, either factory fitted or user installable.

Menu based operation guides the user through all the available modes and ensures that unfamiliar operators are able to complete satisfactory analyses. Multi-language capability allows screen instructions to be presented in a choice of English, French, German, Italian, Portuguese or Spanish.

(* using the eight position multi-cell changer.)

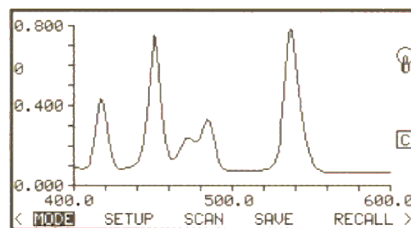
ALYS Labware, Lausanne

Tel : 021 312 42 60

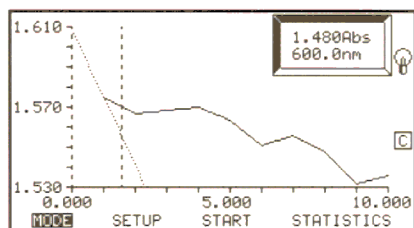
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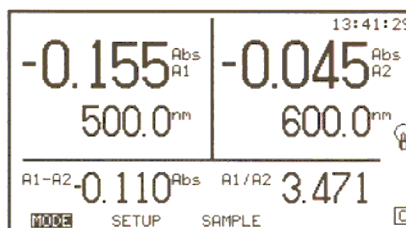
The scan range, speed and resolution can be user adjusted and the resultant scan, which appears in real-time on the graphics display, can be auto-scaled to give enhanced visibility. Peaks and valleys are labelled with wavelength and absorbance values and can be readily down loaded to the optional printer or to a PC via the serial interface. A cursor facility allows the user to interrogate specific parts of the scanned data.



Full kinetics capability is incorporated into each unit and allows, usually in conjunction with the Peltier cell block, full analysis of timed reactions.



Multi-wavelength mode is suitable for applications where difference and ratio analysis can be used quantitatively.



SPECIFICATIONS

Optics	Single beam 1200 lines/mm	Resolution	0.001/0.01/0.1/1
Wavelength Range	320-1100nm (6400) 190-1100nm (6405)	Units	ppb,ppm,µg/l,mg/l,M,%,blank
Resolution	0.1nm	Factor	0.000 to 9999.99
Accuracy	±1.0nm	Lamp Changeover	320-390nm
Bandwidth	5nm	Photometric Noise Levels	<0.001A@0A
Transmittance Range	0 to 199.9%T	Photometric Stability	<0.001A/hr
Resolution	0.1%T	Readout	Custom graphics LCD
Accuracy	0.1% @ 10%T	Outputs	Analogue/RS232 serial port
Stray Light	<0.5%T@340nm & 220nm	Light Source	Tungsten halogen (Vis) Tungsten/Deuterium (UV/Vis)
Absorbance Range	-0.300 to 3.000A	Input Voltage	115/230V a.c. ±20% 50/60Hz
Resolution	0.001A	Input Power	200VA
Accuracy	0.005A @ 1.0A	Size	520(w)x330(d)x180(h) mm
Concentration Range	-300 to 9999 (resolution dependent)	Weight	15Kg

Order Codes

Models 6400 & 6405 (without printer) are supplied with single cell holder, pack 100 (3.5ml) disposable cuvettes and instruction manual.

Model 6400

640 001 230V 50Hz (un-terminated mains lead)
640 031 preset 110V 60Hz (US line cord)

Model 6405

640 501 230V 50Hz (un-terminated mains lead)
640 531 preset 110V 60Hz (US line cord)

For accessories, cells and cuvettes refer separate datasheet

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MODELS 6400 & 6500 SERIES SPECTROPHOTOMETERS

CELLS & CUVETTES

035 025 Visible flow-through cell 1.8ml

035 045 Visible flow-through cell 80 μ l



035 025

035 027 Visible (glass) 10mm path length cell

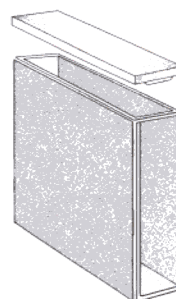
035 086 Visible (glass) 20mm path length cell

035 029 Visible (glass) 40mm path length cell

035 087 Visible (glass) 50mm path length cell

035 079 Visible (glass) 100mm path length cell

035 078 Plastic 100mm path length cell - pack 100



035 029

035 044 UV flow-through cell 1.8ml

035 047 UV flow-through cell 80 μ l



035 047

035 028 UV (quartz) 10mm path length cell



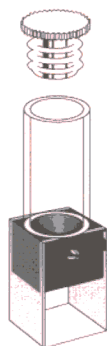
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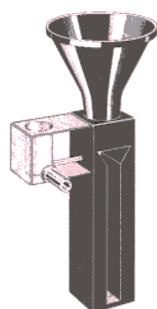
labware@alys-technologies.com

- 035 123 Micro (500 μ l) glass cuvette
- 035 124 Ultra-micro (50 μ l) quartz cuvette
- 035 125 Micro (500 μ l) quartz cuvette
- 035 126 Semi-micro (1ml) glass cuvette
- 035 127 Semi-micro (1ml) quartz cuvette



035 124

- 035 026 Pour in/suck out cell



- 035 128 Flow-through (450 μ l) glass cuvette
- 035 130 Flow-through (750 μ l) glass cuvette
- 035 129 Flow-through (450 μ l) quartz cuvette
- 035 131 Flow-through (750 μ l) quartz cuvette



035 128

- 060 087 Pack 100 (1ml) plastic semi-micro cuvettes (320-1100nm)
- 060 229 Pack 500 (3.5ml) plastic cuvettes (320-1100nm)

- 060 230 Pack 100 (3.5ml) plastic cuvettes (280-1100nm)
- 060 231 Pack 100 UV (1ml) semi-micro plastic cuvettes
- 060 232 Pack 500 (1ml) plastic cuvettes (280-1100nm)

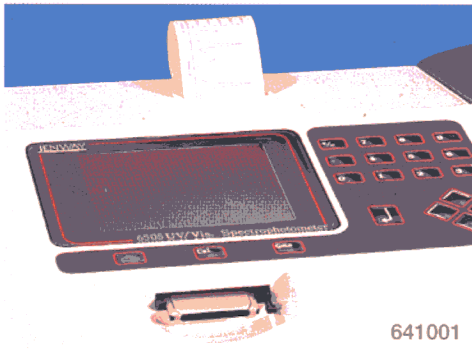
- 060 179 Pack 100 12x75mm plastic test tubes
- 060 331 Pack 100 12x75mm glass test tubes
- 060 335 Pack 50 24x150mm glass test tubes

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6400 & 6500 SERIES SPECTROPHOTOMETERS **ACCESSORIES**



641001

Integral Printer

The 6400 and 6500 series are available with an integral printer module. This module can either be supplied as a factory fitted item or as a customer installable module.

The printer will record all spectra, multi-wavelength, kinetics and single photometric data when required. It will also include fields for current operator, instrument and sample data which require operator input.

Spectral Manipulation Software

Jenway uses MicroCal Origin™ software to manipulate all information gathered by any Jenway spectrophotometer. This software incorporates an Excel spreadsheet which is automatically updated with any new data created in Origin™. This data can then be quickly shown as a spectra by a single click of the mouse. Origin includes a Jenway header on the toolbar which rapidly facilitates the opening of data created by the spectrophotometer. It also includes a template which can be readily edited to present your data in the required format, to include instrument and operator ID, peak pick, derivative and direct concentration readout.

Hyperterminal Set Up Disk

To collect data direct from the spectrophotometer, set up protocols can be either manually entered or by using the set up disk available from Jenway. This can be used to copy across all information to establish communication between the spectrophotometer and the PC.

542 009

Interface cable kit, hyperterminal set up disk and Origin™ spectral manipulation software with Jenway data import.

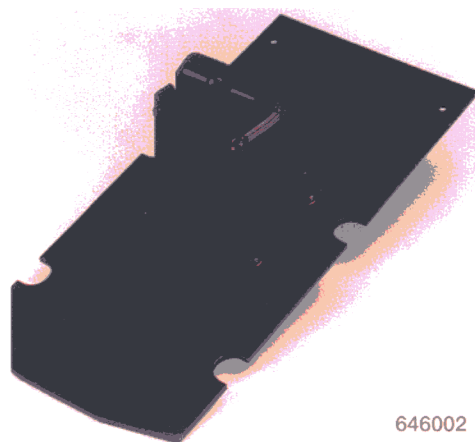
050 301

MicroCal Origin™ software with Jenway toolbar.

Universal Cuvette Holder

To analyse samples at low concentrations longer path length cells are required. Jenway has a universal long path length cell holder which can accommodate cuvettes from 20 to 100mm in length, as well as a universal test tube holder.

- 630 005 Universal cell holder 20-100mm
- 646 001 Universal test tube holder
- 644 003 8 cell rack for 10mm cells
- MS265 8 cell rack for 40mm cells
- MS272 8 cell rack for 50mm cells



646002

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Sipper Unit

For rapid throughput of sample a programmable sipper is available, allowing rapid uptake of sample (up to 10ml per minute), with a dead volume of 500 μ l, excluding the flow cell volume. The sipper unit is extremely versatile, allowing flush in either direction, reverse pump back to sample to save valuable sample, incorporation of an aliquot of air to reduce carry over to less than 1% and a calibrate mode. The calibrate mode keeps sample uptake to a minimum by allowing for different dead volumes of solution.

642 001 Sipper Unit (including on-board software)



Temperature Controlled Sipper

Temperature control of a sipper unit incorporates both features of the sipper system and peltier control from on-board software control.

647 001 Peltier temperature control and sipper system

Temperature Control

Temperature on the 6400 and 6500 series units can be controlled by a number of accessories. For single cell operation on the 6400 series there is a water heated single cell block. The 6500 series require a water heated 8 cell block. These can then be linked to a water bath via a water circulator.

648 001 Single cell block with water jacket (6400 series)

649 001 8 cell block with water jacket (644 001 is required when using this item)

037 201 Water circulator for use with 648 001 (requires water bath) -20 to +50°C, 230V

037 202 Water circulator for use with 648 001 (requires water bath) -20 to +50°C, 110V



Peltier Systems

On-board temperature control is maintained by a Peltier system which controls sample temperature from 20°C to 50°C for ambient temperatures up to 35°C via the on-board control software. This is a single cell holder for both the 6400 and 6500 series.

643 001 Peltier heated cell system, 230V

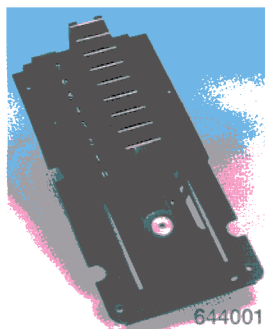
643 031 Peltier heated cell system, 110V

Comprising heated cell block and external power supply module

For 8 cell temperature control on the 6500 series the 8 cell jacketed holder and the external Peltier device allows temperature to be taken down as low as 4°C.

037 001 External Peltier cooler for use with 648 001 4-50°C \pm 0.2°C 230V

037 002 External Peltier cooler for use with 648 001 4-50°C \pm 0.2°C 110V



644 001 8 position motorised cell holder. This item is supplied as standard with the 6500 and 6505.

645 002 Vacuum Pump

035 088 Visible Calibration Standards

035 091 UV/Visible Calibration Standards

644 133 Dust Cover

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