JENWAY

63 Series Spectrophotometers

Barloworld Scientific

Contents page

Measuring up…

Easy operation
Multi-parameter displays
Full interfacing capability (including to PC)
Versatile sampling accessories
Low maintenance

…to your requirements

Jenway 63 Series Spectrophotometers are designed to suit a wide range of budgets and applications.

Model 6300 is a high quality, low cost measurement system for routine analysis. The 6300 is standard equipment for spectrophotometry applications in schools and colleges, as well as in QC and testing procedures for a wide variety of industries and service providers.

Model 6305 is ideal for similar applications requiring measurements in the UV/Visible wavelength range. Using a single, pulsed xenon lamp it offers an extended life, with higher energy in the UV region than traditional dual lamp systems.

Model 6310 introduces Scanning, Kinetics and Quantitation modes to this tried and tested format. Complete with method storage, supervisory control functions and a fully open operating system, the 6310 is ideal for routine testing in clinical, veterinary, pharmaceutical and QC laboratories.

The **Genova** Life Science Analyser is dedicated to DNA/RNA and Protein analysis. Operation is quick and simple and all routinely used DNA calculations are pre-programmed.

The **Aquanova** offers a simple and effective solution for environmental and water testing. The fully open system, based around 400 programmable methods, is compatible with reagent kits from the widest range of suppliers.

6300 visible & 6305 UV / visible spectrophotometers

- Easy and intuitive operation
- Absorbance, %T and Concentration modes
- Multi-parameter display with wavelength readout
- Wide range of sampling accessories

The **6300** and **6305** are high quality, low cost measurement systems for routine analysis in QC applications, education and training.

Simple operating procedures ensure quick and reliable operation even by unskilled users. The specially designed LCD and easy to use keypad provide access to an extensive range of functions; press the up or down arrow keys to see the displayed wavelength increase or decrease, use the right or left arrow keys to select Absorbance, Transmission or Concentration readout from the simple menu bar.

Calibrate your concentration measurement using a known standard or by adjusting the displayed factor. A unit of measurement can be selected to display and print alongside your results to ensure clear and efficient reporting.

Both instruments help productivity by automatically returning to the last used settings when the unit is switched back on, in many cases allowing work to start immediately.

The light source for the model **6300** is a pre-aligned long-life tungsten halogen lamp. Easy access to the lamp ensures it can be quickly replaced when necessary.

The pulsed xenon lamp used in the model **6305** is a replaceable module that should give many years of operation under normal conditions and gives superior energy levels compared to traditional UV light sources.

Auto calibration

Absorbance reading

Concentration measurement

The **6300** and **6305** both have an analogue output that can be used to drive chart recorders and other analogue recording or conversion devices, as well as a bi-directional RS232 serial port for connection to serial printers and computers. The optional **63-Zero** software allows download of results to a PC for storage or further manipulation.

The large sample compartment enables a wide range of sampling devices to be fitted. Cuvettes from 10mm to 100mm in path length, a four-position rotary cuvette holder and test tube holders from 12.5 to 25mm can be accommodated. An electrically heated cuvette holder and control unit is available, as well as a water heated cuvette holder and a thermostatically controlled water circulator.

The external, programmable sipper pump allows for quick and safe sample handling.

Order Codes:

630 501: Model **6300** is supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 230V/50Hz

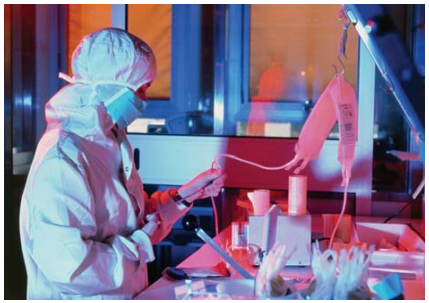
630 531: Model **6300** is supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 110V/60Hz

635 001: Model **6305** is supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 230V/50Hz

635 031: Model **6305** is supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 110V/60Hz

6310 kinetics, scanning & quantitation spectrophotometer

- Concentration and kinetic measurements
- Spectrum scanning from 320 to 1000nm
- Quantitation using up to 6 standards
- 200 method memory (50 per mode)



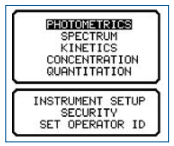
The **6310** is an advanced measuring system with modes for Photometrics, Concentration, Quantitation, Kinetics and Scanning. The **6310** will meet the demands of a wide range of applications especially those in the clinical, veterinary, environmental, general QC and performance testing areas.

With a memory capacity of 50 methods for each mode, the fully open operating system ensures compatibility with reagent kits from most manufacturers, as well as enabling full customisation to the operator's choice of chemistries and operating procedures.

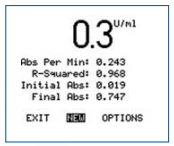
This simple to use but feature rich spectrophotometer can be adapted to meet your current and future requirements through it's novel customisable menus. Activating the Supervisor Security functions, that enable all the Set-Up options to be locked without the entry of a security code number, can further enhance the integrity of your work.

In the Photometrics mode, Absorbance, Transmission and Wavelength are displayed simultaneously on the readout so no range changing is required. Simple concentration measurements using a single standard or factor can be made in the Concentration mode. The Quantitation mode allows more complex concentration methods to be programmed, using up to six standards to create a calibration curve. For each curve fit option a linearity correlation co-efficient is calculated.

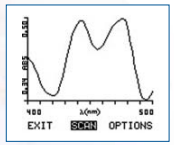
A real-time graphical display of Kinetic measurements is shown along with the calculated concentration value and other relevant data.



Main Menu



Kinetic results



Wavelength scan

Sipper Pump and heated cell holder accessories

The Spectrum Scanning mode allows scans to be made across any selected portion of the 320 to 1000nm range.

The auto-ranging Absorbance axis allows scans to be commenced with no prior knowledge of the peak Absorbance level expected.

The **6310** has an analogue output that can be used to drive chart recorders and other analogue recording or conversion devices, as well as a bi-directional RS232 serial port for connection to serial printers and computers.

The optional **63-Ten** software allows full emulation of the instrument functions on a PC including the import of results and download of methods.

An electrically heated cuvette holder and control unit is available as well as a water heated cuvette holder and a thermostaticallty controlled water circulator. The external, programmable sipper pump ensures faster and safer sample handling.

The large sample compartment enables a wide range of sampling devices to be fitted. Cuvette holders from 10mm to 100mm in path length, a four-position rotary cuvette holder, and test tubes from 12.5 to 25mm can all be accommodated.

Order Codes:

631 001: Model **6310** is supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder, interface cable and instruction manual, 230V/50Hz

631 031: Model **6310** supplied with a pack of 100 10x10mm plastic cuvettes, mains lead, 10x10mm cuvette holder, interface cable and instruction manual, 110V/60Hz

Genova life science analyser

- Pre-programmed for DNA/RNA analysis
- DNA purity scan
- Established protein methods pre-loaded
- Standard spectrophotometer functions

Genova is a dedicated Life Science Analyser with all the functionality of a laboratory spectrophotometer, saving the expense of additional instrumentation.

To ensure the integrity of your results **Genova** offers Supervisor Security functions that enable all the Set-Up options to be locked unless a security code number is entered, so your results will always be based on the correct settings regardless of the operator.

Genova allows the standard procedures for DNA purity ratios to be measured at 260/280nm and 260/230nm with correction at a third wavelength. In all cases the unit allows the standard procedures to be run immediately or a modified version to be set up.

The Purity Scan gives a clear and graphic display of DNA purity, shifted or distorted peaks that may be affecting results can be identified as can the effects of interferences and contamination.

Five established methods for protein analysis are all pre-programmed. Standard default settings for the Bradford, Lowry, Biuret, Biccinchonic and Direct UV methods are included which the operator can modify if required.

Genova has a number of optional cuvettes to make the measurement of sample volumes down to 50µl possible.

The pulsed xenon lamp used in the **Genova** is a replaceable module that should give many years of operation under normal conditions and gives superior energy levels compared to traditional UV light sources.

To ensure optimum performance, a detailed self-diagnostic and calibration check is run each time the unit is switched on.

Order Codes:

636 001: Genova is supplied witha pack of UV plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 230V/50Hz

636 031: Genova is supplied with a pack of UV plastic cuvettes, mains lead, 10x10mm cuvette holder and instruction manual, 110V/60Hz

Aquanova environmental spectrophotometer

- Dedicated to water and environmental testing
- Open system for use with most test kits
- Up to 400 test methods held in memory
- Test manager offers step-by-step guide

Aquanova is designed for water testing and environmental applications, complete with an impressive 400-method memory to store all of the standard photometric tests.

Aquanova is an open system and can be used with test kits and reagents from almost any supplier.

Test methods can be recalled by browsing alphabetically, from selected index letters, or from a list of the most recently used tests stored in the Dynamic Journal that is automatically up-dated each time a test is selected.

Aquanova is supplied pre-loaded with the test methods for Jenway kits, but can be easily re-programmed either manually, using the instrument keypad, or by download from the Aqua-link PC software and CD supplied (the latest updates are available for download from the Jenway web site www.jenway.com).

Method Development is also possible on **Aquanova** as each test method can have up to six calibration standards ensuring that even test methods with a non-linear response can be catered for.

To ensure optimum performance, the **Aquanova** runs a detailed self-diagnostic and calibration check every time the unit is switched on. Prompts, information boxes and diagnostic codes guide you through all the operational procedures.

Order Codes:

637 001: Aquanova is supplied with a pack of reaction vials, mains lead, reaction vial holder and instruction manual, 230V/50Hz

637 031: Aquanova is supplied with a pack of reaction vials, mains lead, reaction vial holder and instruction manual, 110V/60Hz

technical specifications

	Model 6300	Model 6305
Wavelength		
Range	320-1000nm	198-1000nm
Resolution	1nm	1nm
Accuracy	±2nm	±2nm
Spectral		
Bandwidth	8nm	6nm over UV range
Ranges	0 to 199.9%T 0.300 to 1.999A -300 to 1999Conc	0 to 199.9%T -0.300 to 1.999A -300 to 1999Conc
Resolution	0.1%T, 0.001A, 0.1-1C	0.1%T, 0.001A, 0.1-1C
Stray Light	<0.5%T	<0.5%T
Conc. Units	ppm, mg/l, g/l, M, %, blank	ppm, mg/l, g/l, M, %, blank
Light Source	Tungsten halogen	Xenon lamp
Photometric		
Accuracy	±1%	-
Noise	<1%	<0.001A@0A@400nm
Stability	1%/hr after warm up	<0.002A/hr after 30 minutes
Factor	0 to 999.9 / 1000 to 9999	0 to 999.9 / 1000 to 9999
Readout	Custom LCD	Custom LCD
Outputs	Analogue (0 to 1999mV) RS232 serial port	Analogue (0 to 1999mV) RS232 serial port
Input Voltage	115/230V a.c. –20% +10% 50/60Hz	115/230V a.c. –20% +10% 50/60Hz
Input Power	<50W	<50W
Size (wxdxh)	365x272x160mm	365x 272x160mm
Weight	6Kgs	6Kgs

	Genova
Wavelength range	198-1000nm
Resolution	1nm
Accuracy	±2nm
Spectral Bandwidth	5nm typical @ 270nm
Ranges	0 to 199.9%T -0.300 to 9999A -300 to 1999Conc
Resolution	0.1%T, 0.001A, 0.001, 0.01, 0.1, 1Conc.
Concentration Units	ppm, mg/l, g/l, M, %, blank, mg/ml, µg/ml, nm/ml
Light Source	Xenon lamp
Photometric Noise	<0.001A@0A@400nm
Photometric Stability	<0.002A/hr after 30 minutes
Factor	0 to 999.9 / 1000 to 9999
Readout	Dot Matrix LCD
Outputs	Analogue (0 to 1999mV) RS232 serial port
Input Voltage	115/230V a.c. –20% +10% 50/60Hz
Input Power	<50W
Size (wxdxh)	365x272x160mm
Weight	6Kgs

	Model 6310
Wavelength Range	320 to 1000nm
Resolution	1nm
Accuracy	±2nm
Spectral Bandwidth	8nm
Absorbance	-0.3 to 1.999A
Transmittance	0 to 199.9%T
Concentration	-300 to 1999Conc.
Selectable Resolution	1, 0.1, 0.01 or 0.001
Calibration	Blank with a single standard or factor
Memory	50 methods
Quantitation	-300 to 1999Conc.
Selectable Resolution	1, 0.1, 0.01 or 0.001
Calibration	Blank with up to 6 standards
Curve Correction	Linear regression, interpolation or linear regression through zero
Memory	50 methods including calibration curve
Kinetics Display	Graphical and calculated concentration value
Calibration	Against standard and factor
Correlation Factor	r squared value displayed with result
Memory	50 methods and 5 graphed results
Spectrum	Any range between 320 and 1000nm
Scan Data Interval	1, 2 or 5nm selectable
Analysis	Absorbance and wavelength of peaks and valleys
Memory	50 methods and 5 scans
GLP	- Real time clock and calendar - Operator ID - Supervisor security (locks all set up parameters) - Method display lock
Outputs	Analogue and RS232 serial
Input Voltage	115/230V a.c. –20% +10% 50/60Hz
Input Power	<50W
Size (wxdxh)	365x272x160mm
Weight	6Kgs

	Aquanova
Wavelength range	320-1000nm
Resolution	1nm
Accuracy	±2nm
Spectral Bandwidth	8nm
Transmittance	0 to 199.9%T
Absorbance	-0.300 to 1.999A
Concentration	-300 to 19999
Calibration	Up to 6 Standards
Test Methods	400
Light Source	Tungsten halogen
Readout	Dot Matrix LCD
Outputs	Analogue (0 to 1.999V d.c.) RS232 serial port
Input Voltage	115/230V a.c. –20% +10% 50/60Hz
Input Power	<50W
Size (wxdxh)	365x272x160mm
Weight	6Kgs

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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