



The CO 7000 is a portable colorimeter designed for use by doctors and medical technologists in small and medium sized clinics. The unit has been tropicalised to protect it in hot and humid conditions, to 45°C and 70%, respectively. The 10 gelatin filters are encased in glass to prevent fungal growths appearing and the PCB has been conformally coated so that individual components are sealed to prevent corrosion. The instrument is powered by an internal rechargeable NiMH battery or by external power allowing it to be used where the power supply could be unreliable.

The CO 7000 is very easy to use as there are only three buttons and the wavelength required is selected by rotating an integral filter wheel. The filters at 400, 440, 470, 490, 520, 550, 580, 590, 680 and 700nm enable assays in the wavelength range 400 to 700 nm to be measured and the instrument has been designed as an "open" system so that test kits for clinical and medical applications from virtually any supplier may be used. Examples of

routine assays that may be measured in serum and plasma include Albumin, Cholesterol, Glucose, Creatinine, Total Protein, Urea and those in cerebrospinal fluid include Glucose and Total Protein*. The samples may be measured in either standard 10mm pathlength cuvettes (a minimum of 400µl is required) or in 10/12/16mm diameter test tubes (adapters are included with the instrument). There is a drain hole at the bottom of the cell compartment so that spillages do not affect the instrument.

- FULLY TROPICALISED AND PORTABLE
- READS ASSAYS IN THE WAVELENGTH RANGE 400 TO 700 nm USING MANY PROPRIETARY TEST KITS
- EASY, THREE BUTTON OPERATION; ON/OFF, REFERENCE AND TEST
- RECHARGEABLE BATTERY
- REGISTERED FOR IVD APPLICATIONS



CO 7000 Colourwave Medical Colorimeter

PORTABLE INSTRUMENTS FOR THE SMALL MEDICAL CLINIC

**TROPICALISED COLORIMETER
IDEAL FOR USE IN HOT,
HUMID, REMOTE LOCATIONS
FOR CLINICAL/MEDICAL
APPLICATIONS**



ORDERING INFORMATION

CO 7000 Medical Colorimeter (includes test tube adapter set) mains/rechargeable battery	80-3000-42
Spare lamp, CO 7000L	80-3000-55
Spare filter set, CO 7000F	80-3000-56

* Recommended methods for these routine clinical chemistry assays together with full details of reagents required, manual colorimetric procedures, calibrations and quality assurance may be found in "District Laboratory Practice in Tropical Countries, Parts 1 & 2 (2nd edition)" by Monica Cheesbrough from Cambridge University Press (or other similar publications).

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**ROBUST
COLORIMETER
THAT IS IDEAL
FOR SCHOOLS
AND COLLEGES**



SMALL, INEXPENSIVE COLORIMETER FOR THE TEACHING ENVIRONMENT

CO 7500 Colourwave Educational Colorimeter

- DESIGNED WITH THE STUDENT USER IN MIND
- RUGGED, PORTABLE AND EASY TO USE
- EXTREMELY VERSATILE
- RECHARGEABLE BATTERY VERSION AVAILABLE



The CO 7500 is a value for money instrument that has been designed for use in educational establishments including sixth form colleges, secondary schools, technical schools and colleges. With a large, clear digital display and simple push button controls the instrument is ideal for students. The unit is compact and robust enough to withstand the rigours of the teaching environment and is available in mains only or mains / internal rechargeable NiMH battery versions.

The CO 7500 is easy to use. The eight filters at 440, 470, 490, 520, 550, 580,

590 and 680nm are encased in an integral filter wheel and the wavelength required is selected by rotating this until the relevant, colour coded, number is visible in the indicator window. The ergonomic design makes this very convenient and filters cannot be accidentally lost or damaged. With only five buttons (on/off, reference and test, convert between Absorbance and % Transmission readings and kinetics) the instrument is ideal for beginners. When used in kinetics mode to study rates of reaction the CO 7500 takes readings every second and these may be sent to a chart recorder via the analogue output or

results may also be downloaded directly to a PC or data logging system.

The samples may be measured in either standard 10mm pathlength cuvettes (a minimum of 400µl is required) or in 16mm diameter test tubes (adapters for 10/12mm test tubes are an optional accessory with the CO 7500). There is a drain hole at the bottom of the cell compartment so that spillages do not affect the instrument.



ORDERING INFORMATION

CO 7500 Educational Colorimeter, mains only	80-3000-43
CO 7500B Educational colorimeter, mains/rechargeable battery	80-3000-44
Spare lamp, CO 7500L	80-3000-59
Spare filter set, CO 7500F	80-3000-58
Test tube adapter set	80-3000-57
Serial lead	80-3001-00
S2000P printer, including lead	80-3000-94

Cells (all 10mm pathlength) Ordering Guide

DESCRIPTION	PART NUMBER
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Disposable cells

Acrylic, pack of 100 (volume 2.5ml)	80-2004-53
Polystyrene, pack of 100 (volume 1.5ml)	80-2084-11
UV plastic, semi-micro, pack of 100 (min. volume 750µl)	80-3000-77
UV Plastic, ultra-micro, pack of 100 (fill volume 80µl)	80-3000-81

Glass cells

Standard rectangular with lid (volume 2.5ml)	80-2003-87
Semi micro with lid (min. volume 750µl)	80-2004-15

Quartz cells

Standard rectangular with lid (volume 2.5ml)	80-2002-58
Semi micro with lid (min. volume 750µl)	80-2002-77
Micro with lid (min. volume 400µl)	80-2002-95
Ultra-micro (fill volume 70µl)	80-2103-69
Ultra-micro (fill volume 15µl)	80-3000-83

Matched cells

Glass, 8 matched standard rectangular with lid (volume 2.5ml)	80-2109-83
Quartz, 2 matched standard rectangular with lid (volume 2.5ml)	80-2099-89
Quartz, 2 matched semi micro with lid (min. volume 750µl)	80-2100-13
Quartz, 2 matched micro with lid (min. volume 400µl)	80-2100-25
Quartz, 8 matched standard rectangular with lid (volume 2.5ml)	80-2109-80
Glass, 8 matched cells with lid	80-2109-81
Quartz, 8 matched micro with lid (min. volume 400µl)	80-2109-82

All products are CE marked and comply with relevant legislation, including EMC and low voltage directives.

Biowave DNA, Biowave II and Lightwave products have a two year warranty and a warranty on lamp life of three years.

All other WPA instruments have a one year warranty.

As part of our policy of continuous instrument development, we reserve the right to alter specifications without notice.

Technical Specifications

Light source, optical system, wavelength range, absorbance range, bandwidth and stray light at 340nm are shown at the front of this brochure. Other parameters are shown below:

PARAMETER	COLORIMETERS (CO7000, CO7500, CO7500B, CO8000)
Stored methods	n/a
Wavelength accuracy	n/a
Photometric reproducibility	± 0.02A at 1A using cuvettes
Photometric accuracy	< ± 0.05A at 1A using Neutral Density Filters
Outputs	RS 232 digital (CO7500, CO7500B, CO8000) 0-2V for 0-2A, 0-1.99V for 0-199%T (CO7500, 7500B)
Dimensions (W x D x H)	150 x 180 x 60 mm
Weight	0.6 kg

	SPECTROPHOTOMETERS S800, S1200
Stored methods	99 (S1200)
Wavelength accuracy	± 2nm
Photometric reproducibility	± 0.002A at 0-0.5A, 546nm
Photometric accuracy	± 0.003A at 0-0.5A
Outputs	RS232C Analogue 0- 2V
Dimensions (W x D x H)	215 x 270 x 120mm
Weight	<2 kg

	SPECTROPHOTOMETERS BIOWAVE DNA
Stored methods	9
Wavelength accuracy	± 2nm
Photometric reproducibility	± 0.002A at 0-0.5A, 546nm
Photometric accuracy	± 0.003A at 0-0.5A
Outputs	USB, SD card option
Dimensions (W x D x H)	260 x 390 x 100mm
Weight	<4.5 kg

	SPECTROPHOTOMETERS LIGHTWAVE II, BIOWAVE II
Stored methods	90
Wavelength accuracy	± 2nm
Photometric reproducibility	± 0.002A at 0-0.5A, 546nm
Photometric accuracy	± 0.003A at 0-0.5A
Outputs	USB, Bluetooth® option, SD card option
Dimensions (W x D x H)	260 x 390 x 100mm
Weight	<4.5 kg



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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.