



Sherwood

## CHROMA *Colorimeters*



The basic design of the **Sherwood CHROMA series** of colorimeters has been stable for several years and has an enviable world-wide reputation for its rugged performance across the range. For the 21st century Sherwood Scientific has updated the Range and added a sophisticated software package unique in this class of instrument. The range offers features not elsewhere available and provides solutions to the requirements of quality control, water testing and especially for the Clinical Chemist to carry out low sample runs.

## The CHROMA Range



### *Model 260* “Programmable Colorimetry”

This Model replaces the CHROMA 257 optical specification and now incorporates full programmability allowing up to 100 methods to be installed by the user. This permits semi-automatic operation with the user only required to insert the prompted filter.

An RS232 output allows the use of a serial printer and every result, blank and calibration is time stamped. The unit allows quick Absorbance and Transmission measurements with Auto-Zero, Concentration with Standard Solutions or Factor as well as the new Kinetic Reaction Rate and End Point methods.



### *Model 264* “Automatic Programmable Colorimetry”

This Model represents a major technological improvement on the Model 257. We now have incorporated a filter wheel containing 8 filters with wavelengths from 405 to 600 nm. (See separate description) This model also benefits from all the programmability in common with the Model 260.



### *Model 267* “The Clinical Chemist’s Choice”

The top-of-the-range Model 267 incorporates a near UV capability, filter wheel and 20 preloaded diagnostic protocols. These protocols cover the more common tests and are based on a major manufacturer’s products, but as the CHROMA range is a fully open system these methods can be edited by the user to comply with the laboratory’s preferred method. Up to 100 methods can be programmed by the user.

The Model 267 also includes a 340 nm Interference filter which is inserted in the filter position.



### *Model 252*

The market leading analogue colorimeter. Featuring a mirror parallax- reducing combined Optical Density and % Transmission scale. This is used in education to establish the relationship between OD and %T. The Model 252 also is recommended in QC protocols which measure absolute OD compared with a control solution.

**Apart from a face lift we have not changed this winner.**

## Temperature and the new CHROMA range.

The new CHROMA range has two options to control the temperature of reactions. The low cost option is to use external temperature control by means of a solid block heater\*. The software built in to all three of the new models includes the setting of Incubation (or lag time) and Measuring time. Towards the end of these times the user is alerted to return the cuvettes containing the blank sample or calibrant to the colorimeter by means of a buzzer. The relevant reading is taken and the cuvette is returned to the heating block to complete the rest of the test.



Sherwood has also developed an electrically heated cuvette holder designed specifically for the semi-micro cuvettes used in the Model 267. This is able to control the temperature to  $37^{\circ}\text{C} \pm 0.1^{\circ}\text{C}$ . and is available as an option. If ordered at the same time as the Colorimeter a discount from the list price is applied

\*not supplied



## The Filter Wheel

This is a stepper motor driven device with 8 filters 410, 430, 470, 490, 520, 540, 580, 600: one clear position and one 0% T position and one Reference Position. The clear position allows light to pass which will be absorbed by whichever Filter is inserted in the separate filter position of the Colorimeter. Every time the instrument is powered up the Filter Wheel goes through a diagnostic check to accurately position itself using the reference: the 0% T position is used to set up the instrument in manufacture.

Do you have to do routine tests involving comparison with standards?

Do you want to set up these methods once and then run them at the press of a button?

Do you have to run several different water test methods using proprietary test kits?

How many clinical tests do you have to manually set up on each new sample? Are these enzyme tests?

## Programming the CHROMA

With the top three CHROMA instruments, Model 260, 264 and 267 all these requirements can be satisfied and your lab routine can be made easier.

Programming is simplicity itself: each step is prompted with available choices listed.

Up to 100 Methods can be edited, named with up to 8 characters, and saved. Standard values, factors, temperatures can be input and calculations include concentration by standard and factor, end point and kinetic methods with and without standards and reagent blanks.

Methods can also be constructed on a computer and then downloaded to the CHROMA. The Model 267 Clinical Colorimeter will come complete with 20 popular methods already installed

Associating the correct sample/patient identity with each sample is critical in an efficient laboratory regime. The CHROMA programming allows each sample to have up to 16 alphanumeric descriptors to be added. In the "Autoprint" mode the method parameters are printed together with the named results, each time-stamped.

Chroma 260 Ready  
14:45 08/12/05

Last  
↔ Method ↔  
Setup

Recall  
↔ New ↔

Mode  
↔ Endpoint ↔  
Kinetic

Wave length  
↔ 410 ↔  
430

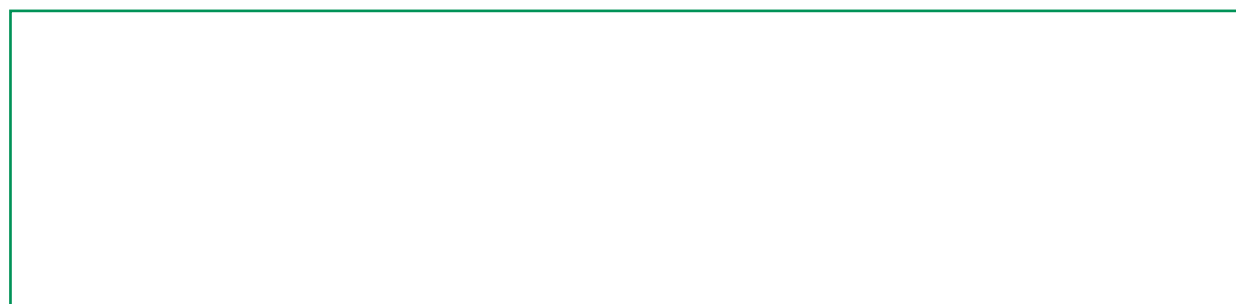
Use Calibration  
↔ Yes ↔  
No



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## Technical Specifications

	Model 252	Model 260	Model 264	Model 267
<b>Order Number</b>	475 62 201	260 00 009	264 00 009	267 00 009
<b>Display</b>	Analogue	LCD Programmable	LCD Programmable	LCD Programmable
<b>Wavelength Range</b>	400-750 nm			325-900 nm
<b>Wavelength Section</b>	Drop in Filters		Filter wheel (410,430, 470,490,520,540,580,600) Also range of Drop-in Interference Filters available	Filter wheel (410,430, 470,490,520,540,580,600) + 340 nm Interference filter supplied. Also range of Drop-in Interference Filters available
<b>Bandpass</b>	Gelatin 40 nm Interference 6-10 nm (Optional) for all models			
<b>Modes</b>	Absorbance, Transmission	Absorbance, Transmission Concentration, Factor Kinetic ( Rate and End Point ) (Sample and Reagent blank)		
<b>Methods</b>	None	100 programmable		100 capacity 20 preloaded
<b>Sample Numbering</b>	None	Sequential and alpha-numeric 16 characters		
<b>Absorbance Range</b>	0.0 to 1.0	0.000 to 1.999		
<b>Absorbance Resolution</b>	0.01	0.001		
<b>Transmission Range</b>	0-100%T			
<b>Transmission Resolution</b>	1%	0.1%		
<b>Stability</b>	< ± 0.005A in any 15 min period			
<b>Warm up</b>	15 minutes			
<b>Photometric Reproducibility</b>	± 1%T using same cuvette or test tube			
<b>Light Source</b>	Pre-focused tungsten lamp			Glass Halogen
<b>Detector</b>	Silicon Photo diode			Wide Range Silicon Diode
<b>RS232 Output</b>	No	Yes		
<b>Size and weight</b>	218L X 230Wx 188H mm 2.2Kg net			
<b>Power Requirements</b>	90-264 VAC Auto-ranging or 12 V DC Battery			



## Sherwood Scientific Limited

I The Paddocks, Cherry Hinton Road  
Cambridge, CBI 8DH  
United Kingdom

tel. +44 (0) 1223 243444  
Fax. +44 (0) 1223 243300

email [info@sherwood-scientific.com](mailto:info@sherwood-scientific.com)  
web [www.sherwood-scientific.com](http://www.sherwood-scientific.com)