

# Model 6105 – UV/Visible Range



## Features

- ★ Wavelength 190 - 920nm
- ★ Bandwidth 5nm
- ★ Low Stray Light
- ★ Excellent Stability
- ★ Microprocessor Controlled
- ★ Auto Zero/Auto Calibrate
- ★ %T, Abs and Concentration Modes
- ★ Automatic Lamp Change
- ★ Full Interfacing Capability
- ★ Minimal Maintenance/Easy Access

The Model 6105 is a single beam Spectrophotometer which offers all the features of the Model 6100 Spectrophotometer, but operates over an extended wavelength range of 190 - 920nm. This ensures full access to the many determinations normally carried out in the ultraviolet (UV) part of the spectrum.

Particular care has been taken during the design stages of the Model 6105 to provide superior optical performance; the results of which can be seen in the excellent stray light characteristics and stability rarely found in a single beam spectrophotometer.

The Deuterium source lamp is of a new design, giving enhanced output and a greatly extended life of at least 1000 hours.

A significant cost saving will be apparent when considering the ongoing cost of maintenance. The lamp assembly includes an elapsed time indicator to ensure that the expected lamp life is achieved.

## Technical Specifications

Wavelength Range:	190 to 920nm
Bandwidth:	5nm
Ranges:	0 to 100.0%T 0 to 1.999 Abs 0.1 to 1000 Concentration
Resolution:	0.1%T 0.001 Abs 0.1 to 1 Concentration ±1nm
Wavelength Accuracy:	±2nm
Photometric Accuracy:	±1% or ±0.005A whichever is greater
Photometric Noise Levels:	<0.001A
Photometric Stability:	0.002A/Hr after warm up
Stray Radiant Energy:	<0.05% at 220nm
Readouts:	3½ digit LED, %T, Abs, C (20mm) 3 digit LED, (10mm)
Outputs:	Analogue (0–1v for 0–1A) Centronics parallel port RS232 serial port
Light Source: (Auto Select)	190–390nm Deuterium 390–920nm Tungsten Halogen
Power:	100/115/200/230 Vac ±10% 50/60 Hz
Size:	520 × 380 × 180mm
Weight:	15Kgs



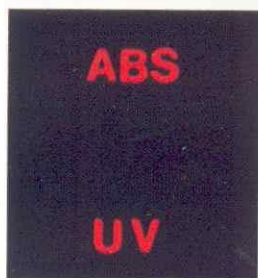
For added protection when the unit is not in use:

Dust Cover      **Order Code**  
615 036

## ORDER CODE

**615 001**      **MODEL 6105** (supplied with mains lead, pack 100 10×10mm plastic cuvettes, 10×10mm Cell Holder and Instruction Manual)





Lamp selection is automatic on the Model 6105. The Deuterium lamp is normally only energised when wavelengths of less than 390nm are selected. An override facility is available for circumstances when continuous operation is advantageous. A front panel annunciator flashes to indicate Deuterium lamp warm-up and is constantly illuminated to show the lamp is on.

Source lamp selection is achieved with mirrors driven by a stepper motor which is controlled by the units master processor. Automatic second order suppression filters are also activated by this mechanism. Positional accuracy of the assembly is automatically checked during every power on sequence.

A quiet, efficient cooling fan has been incorporated to minimise temperature effects on the sample and to ensure a short warm-up time and excellent stability.

Routine maintenance is minimal, being restricted to replacement of source lamps. These are readily accessible via the hinged panel located on the side of the unit. Replacement and realignment of the lamps is simplicity itself.



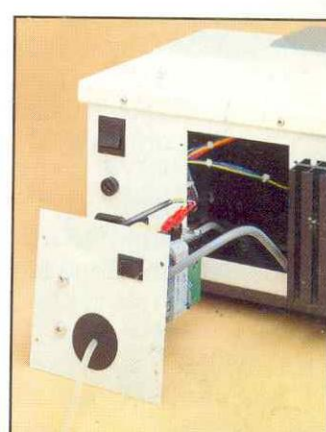
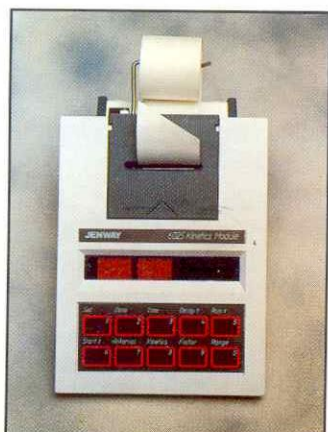
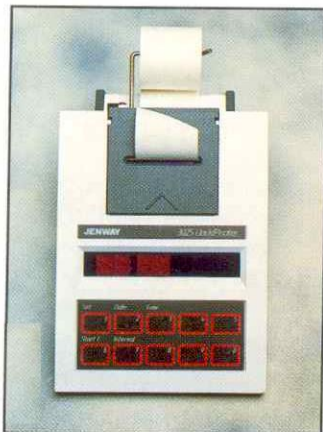
The Model 6105 has been designed to comply with IEC1010-1, the international standard defining "safety requirements for electrical equipment for measurement, control and laboratory use".

## ACCESSORIES

A wide range of sampling accessories are available for use with the Model 6105, with specialised UV cells being available for use on the UV part of the spectrum. (Refer page 6)

Interfacing capability is provided on the Model 6105; Analogue, Centronics and RS232. Software is available to facilitate downloading information to most types of laboratory computer. Additionally, the unit may be used with the Models 3025 or 6025 Modules (Refer page 3)

Sipper Pump and Vacuum Pump accessories can also be used with the Model 6105. (Refer page 7)





# Accessories/Spares

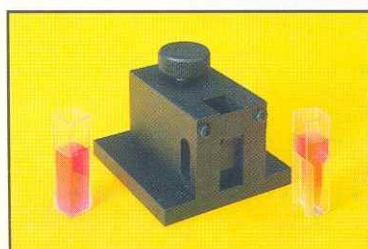


## 6 Position Cell Turret

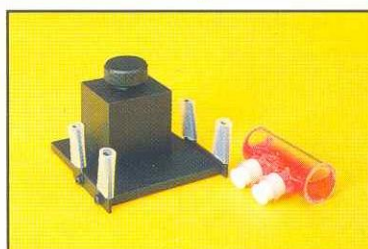
The manual 6 position cell turret for 10mm cuvettes is ideal for multiple sample analyses.

Extremely versatile in that alternative cell holders can be interchanged with this module fitted. Cell positioning is controlled by a thumbwheel on the front of the module.

Order Code: 610 006



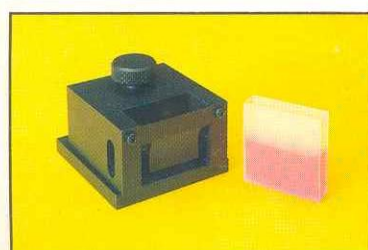
Supplied as standard  
10 x 10mm Cell Holder  
Order Code: 610 003



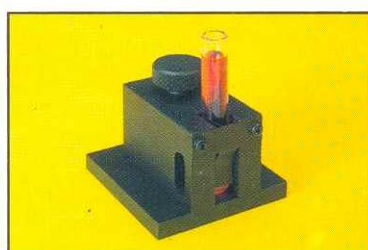
80mm Cylindrical  
Cell Holder  
Order Code: 610 005



10 x 10mm Heated Cell  
Block  
Order Code: 610 119



10 x 40mm Cell Holder  
Order Code: 610 004



Test-tube Block  
Order Code: 610 137



Pour in/Suck out Cell  
Flow-through Cell  
Order Code: Refer \* \*

## SAMPLE CELLS – For use with the Models 6100 or 6105.

Please ensure the correct order code is used for the items required.

MODEL 6100 (Visible)		MODEL 6105 (UV)	
	Order Code		Order Code
10 x 10mm Glass Cell	035 027	10 x 10mm Glass Cell	035 028
10 x 40mm Glass Cell	035 029	10 x 40mm Glass Cell	035 030
80mm Cylindrical Cell	035 021	80mm Cylindrical Cell	035 022
Test-tubes (Qty 100)	060 179	Test-tubes (Qty 100)	060 179
Pour in/Suck out Cell	035 026 * *	Pour in/Suck out Cell	035 026 * *
Flow-through Cell	035 025 * *	Flow-through Cell	035 044 * *
Plastic Cuvettes ( 310-920nm)		Plastic Cuvettes ( 275-920nm)	
10 x 10mm (4ml) (Qty 100)	060 084	10 x 10mm (4ml) (Qty 100)	060 230
10 x 10mm (1.6ml) semi-μ	060 087	10 x 10mm (1.6ml) semi-μ	060 231
10 x 10mm (4ml) (Qty 500)	060 229	10 x 10mm (4ml) (Qty 500)	060 232
SPARES			
Tungsten Halogen Lamp	012 041	Tungsten Halogen Lamp	012 041
		Deuterium Lamp	615 005



The Jenway Sipper Pump offers unrivalled ease of use and flexibility to the busy laboratory; giving productivity benefits where small sample volumes are necessary and for all but the smallest workloads.



## FEATURES

- ★ Ease of Use
- ★ Minimal Sample Handling
- ★ Microprocessor Controlled
- ★ Simple to Maintain
- ★ Fast, Quiet and Reliable

Operation is based on the peristaltic principle, making the unit both quiet and fast. The Sipper Pump is self-contained within the sample chamber of its host spectrophotometer; access for the simple set-up routines being via the sample chamber lid. After set-up, operation is achieved by means of a single pushbutton.

The microprocessor memory, which controls the pump operation, is battery backed ensuring that all parameters are retained for many weeks even when power is removed from the unit.

Sampling modes allow a sample to be flushed to waste or returned to the sample vial.

A "continuous" pumping mode is provided which is ideal for stream analysis and also facilitates cell cleaning.

Carryover between samples is typically less than 1%.

The peristaltic pump head is readily accessible within the sample chamber ensuring ease of tube maintenance.

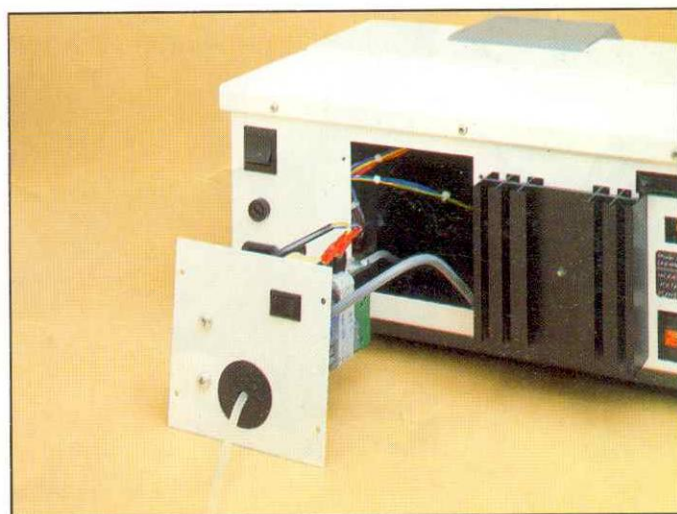
A Vacuum Pump Accessory is also available for use with the Models 6100 and 6105.

used

used with the Pour-in/Suck-out Cell, analysed samples can be drawn to waste without the need for the use of water jet pumps, etc.

The Vacuum pump may be factory fitted at the time of ordering the unit, or can be easily installed by the customer.

Once fitted, the vacuum pump becomes an integral part of the spectrophotometer.



Sipper Pump Assembly	<b>Order Code</b> <b>610 172</b>	Vacuum Pump Assembly (240v)	<b>Order Code</b> <b>610 163</b>
<b>ACCESSORIES</b>		Vacuum Pump Assembly (115v)	<b>610 170</b>
Flow-through Cell (6100)	<b>035 025</b>	<b>SPARES</b>	
Flow-through Cell (6105)	<b>035 044</b>	Vacuum Tubing (1 metre)	<b>023 031</b>
<b>SPARES</b>			
Pump Tubing (1 metre)	<b>023 029</b>		
Capillary Tubing (1 metre)	<b>023 030</b>		

The Sipper Pump and Vacuum Pump Assemblies can be easily customer retrofitted to both the Model 6100 and the Model 6105.