



# JENWAY

## 73 Series

# Spectrophotometers

The 73 series introduces four new spectrophotometers to the extensive Jenway range. These spectrophotometers use icon driven software and have an improved navigation system for easy and intuitive usability. The 73 series spectrophotometers are ideal for use in education and routine quality control applications.



## Introducing the 73 series

The four new spectrophotometers in the 73 series range include models 7300 and 7310 which cover the visible region of the spectrum; the 7305 and 7315 models use a flash xenon lamp to extend the wavelength range into the UV region of the spectrum.

The basic models, 7300 and 7305, feature measurement modes for % transmittance, absorbance and concentration. The advanced models, 7310 and 7315, introduce additional measurement modes such as scanning, kinetics and quantitation.



## Key features

- 5nm spectral bandwidth
- Absorbance range -0.3 to 2.5 Abs
- Icon driven software
- Results and method saving to USB memory stick (models 7310/7315 only)
- Autologging capabilities
- Free bi-directional PC software
- 3 year warranty including xenon lamp
- Extensive range of accessories



## Improved optics



The new 73 series have improved optics resulting in all four models having a narrow spectral bandwidth of 5nm and an absorbance range of -0.3 to 2.5 Abs.

The 7305 and 7315 models use a 'press to read', xenon lamp to give more accurate readings and extend lamp life. The xenon lamp is covered by a three year warranty.

The 7300 and 7310 models have a tungsten halogen lamp with a lamp save feature which enables the lamp to be turned off automatically after periods of inactivity.

## Advanced communications



The entire range has been designed with improved communication in mind. All of the units have an RS232 serial port for connection to a PC or a serial printer. All of the models are supplied with free bi-directional PC software, enabling the instrument to be controlled via the PC. The PC software suite provides enhanced post measurement tools and easy exportation of results to Microsoft Excel®.

The 7310 and 7315 models have the additional feature of an easy access USB port on the front of the unit which enables results to be stored directly to a USB memory stick, for easy transfer of data. The advanced models can store up to 240 methods which can be copied from one unit to another using the USB capability, effectively cloning the instrument.

## Ready to go...

All 73 series spectrophotometers are fitted with a single 10x10mm cuvette holder and supplied with 100 disposable cuvettes, instruction manual, universal power supply, PC software on CD ROM and an interface cable. The 7310 and 7315 models are also supplied with a 2GB USB memory stick.

Free software upgrades are also available to download from [www.jenway.com](http://www.jenway.com).

All units are covered by a 3 year warranty.



## Instrument design



The design of the 73 series spectrophotometers cleverly minimises the overall footprint by encompassing the large, graphical display into the lid of the unit. The easy to read display is ideal for demonstrations and enables live spectrum and kinetics scans to be clearly viewed.

To save additional space all the units have the option of an integrated printer. All of the units use icon driven software for easy, intuitive navigation.



The advanced 7310 and 7315 models have enhanced security features enabling the instrument and methods to be locked, preventing unauthorised changes to the instrument settings and method parameters. The home page can also be customised to provide a personalised menu. Selected modes can be deactivated which is ideal for teaching laboratories where access to certain measurement modes needs to be restricted.

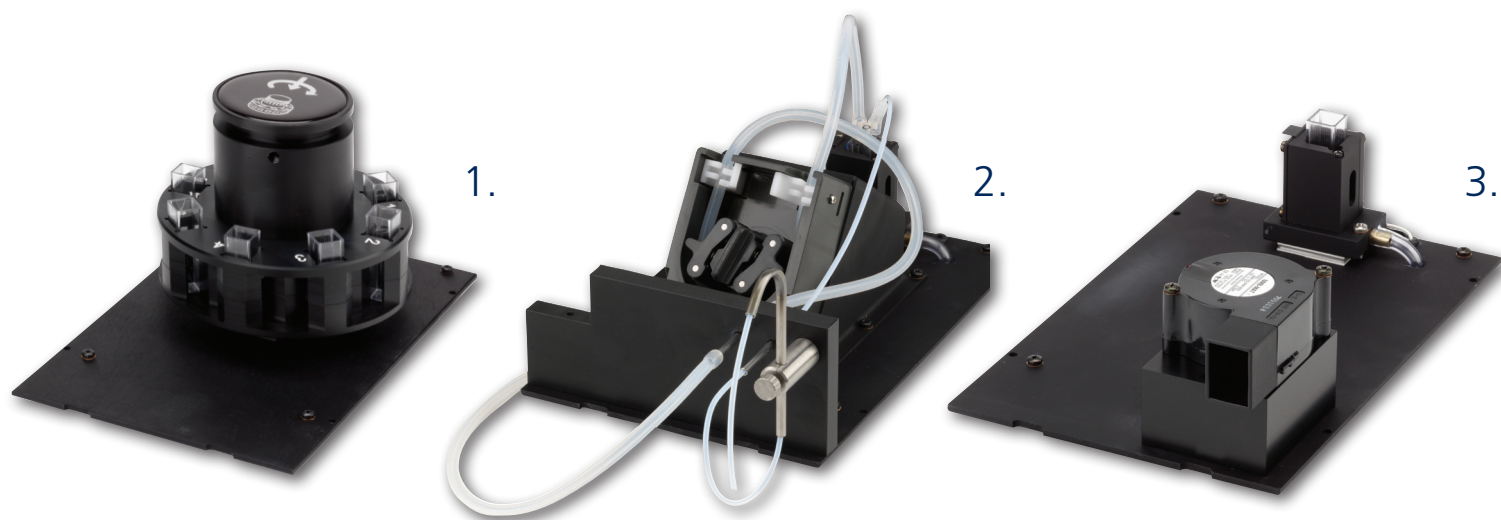
All four units have autologging capabilities which enable repeat measurements of the same sample to be performed with a selected time interval between each measurement. The results can quickly and easily be printed using the optional integrated printer, or an external serial printer; results can also be saved directly to the USB memory stick (models 7310/7315 only).

## 73 series accessories

The 73 series has been designed to enhance productivity by offering an extensive range of accessories. Available active accessories include an automated 8 position cuvette holder, sipper pump, Peltier and a combined sipper Peltier pump. A full range of passive accessories can also be fitted including adjustable path length (10 to 100mm) cuvette holders, single water heated cuvette holders, test tube holders and micro-cuvette holders.

## Accessory features

- Multiple sample measurement
- Reproducible sample volumes
- Temperature control
- Instant results
- Variable path length
- Printers and PC Software



### Automatic 8 position cuvette holder



To increase productivity and throughput rate there is an automated 8 position cuvette holder (1) for multiple sample measurement. The automated cuvette holder accepts standard 10x10mm path length cuvettes.

**Part code: 735 401**

### Sipper pump



For safe and effective sample handling Jenway offer a sipper pump (2) which circulates samples and can be programmed to deliver reproducible sample volumes. A flow through cuvette must be used with the sipper pump.

**Part code: 735 201**

### Temperature control



For applications where the temperature of the sample needs to be controlled Jenway offer two options. The first is an electronic Peltier accessory (3) which enables sample temperature to be controlled between 20°C to 50°C. The second option is a single water heated cuvette holder (6) which requires a circulating water bath and has an operating temperature range of 5°C to 50°C.

**Part code: 735 301**

**Part code: 736 201**

### Combined sipper Peltier

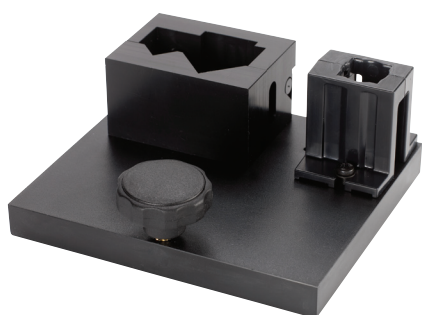


The combined sipper Peltier pump combines the functionality of both the sipper pump and the Peltier enabling sample temperature to be controlled while the sample is being circulated.

**Part code: 735 701**

## Accessory product codes

| Part Code | Description   |
|-----------|---|
| 660 101   | Internal printer  |
| 735 401   | Automatic 8 position cuvette holder                       |
| 735 201   | Sipper pump   |
| 735 301   | Peltier   |
| 735 701   | Combined Sipper/Peltier pump                              |
| 735 801   | 10x10mm path length cuvette holder                        |
| 736 001   | 10 to 100mm path length cuvette holder                    |
| 735 901   | 16/24mm test tube holder                                  |
| 736 101   | Micro-cuvette holder with reduced aperture                |
| 736 201   | Water heated 10x10mm path length cuvette holder           |
| 735 601   | Boiling tube holder                                       |
| 735 001   | Dust cover  |
| 019 146   | 2GB USB Memory stick for extended memory (7310/7315 only) |



4.



5.



6.

## Passive accessories

## Cuvettes



Jenway also offer an extensive range of passive accessories to use with the 73 series spectrophotometers.

For cuvettes with a variable path length between 10 and 100mm we offer an adjustable path length cuvette holder. **Part code: 736 001**

For small sample volumes down to 50µl we offer a micro-cuvette holder. **Part code: 736 101**

For large sample volumes we offer a test tube holder (4) which can hold test tubes up to 100mm in height with diameters of 13, 16 and 24mm. Jenway also offer a boiling tube holder which can hold boiling tubes up to 150mm in height with a diameter of 25mm.

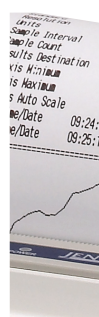
**Part code: 735 901**

**Part code: 735 601**



Jenway offer a range of glass and quartz cuvettes as well as disposable plastic cuvettes. The glass and quartz cuvettes are available in a range of path lengths from 10 to 100mm. Jenway also offer a range of glass and quartz flow-through and micro-volume cuvettes.

## Printer



For instant results Jenway offer a printer which can be easily fitted into the top of the spectrophotometer to save bench space. The integrated printer enables spectrum and kinetics curves to be printed as well as results tables and analysis summary. The user name and method parameters are printed on all results.

**Part code: 660 101**

## 73 series PC software

Every spectrophotometer in the 73 series range is supplied with free bi-directional PC software which enables the instrument to be controlled via the PC. The PC software suite features measurement modes for photometrics, concentration, spectrum scanning, quantitation and kinetics as well as enhanced data manipulation tools. Results can easily be exported to Excel® and charts can simply be copied. The PC software suite increases the number of results and methods which can be stored and it enables multiple results to be displayed simultaneously as well as spectrum and kinetics curves.

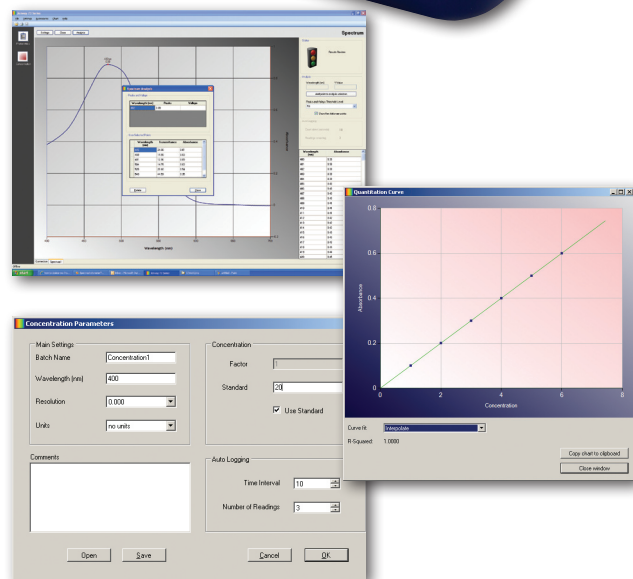


Easy to use, anywhere!

Through RS232 connection to PC, the software provides full emulation of all the instrument's functions and enables the instrument to be directly driven from a PC. The PC software also enables any optional accessories to be driven from a PC.

The settings menu in each measurement mode enables easy and simple set up of method parameters which can be saved for future use.

The print options menu enables printouts to be customised to your requirements. Options available include results tables, spectrum and kinetics curves and analysis results. The user login identification and summary of the method parameters is also printed to enable traceability of results.



Software upgrades are available to download from [www.jenway.com](http://www.jenway.com).



7300

7305

7310

7315

**Wavelength**

|                    |                       |               |                       |               |
|--------------------|-----------------------|---------------|-----------------------|---------------|
| Range              | 320 to 1000nm         | 198 to 1000nm | 320 to 1000nm         | 198 to 1000nm |
| Light source       | Tungsten halogen lamp | Xenon lamp    | Tungsten halogen lamp | Xenon lamp    |
| Resolution         | ----- 1nm -----       |               |                       |               |
| Accuracy           | ----- ±2nm -----      |               |                       |               |
| Repeatability      | ----- ±0.5nm -----    |               |                       |               |
| Spectral bandwidth | ----- 5nm -----       |               |                       |               |

**Photometrics**

|               |  |  |  |  |
|---------------|--|--|--|--|
| Transmittance | ----- 0 to 199.9% -----                        |  |  |  |
| Absorbance    | ----- -0.300 to 2.500A -----                   |  |  |  |
| Accuracy      | ----- ±1%T, ±0.01Abs at 1.000 Absorbance ----- |  |  |  |
| Resolution    | ----- 0.1%T, 0.001A -----                      |  |  |  |

**Concentration**

|             |  |  |  |  |
|-------------|--|--|--|--|
| Range       | ----- -300 to 9999 -----   |  |  |  |
| Resolution  | ----- Selectable 1/0.1/0.01/0.001 -----  |  |  |  |
| Calibration | ----- Blank with a single standard or factor -----   |  |  |  |
| Factor      | ----- 0.001 to 10000 -----   |  |  |  |
| Standard    | ----- 0.001 to 1000 -----  |  |  |  |
| Units       | no units, %, ppm, EBC, SRM, mEq/l, mEq, M, mM, μM, nM, U, U/l, U/ml, g/l, mg/l, μg/l, ng/l, g/dl, mg/dl, μg/dl, mg/ml, μg/ml, ng/ml, μg/μl, ng/μl, mol/l, mmol/l |  |  |  |

**Quantitation**

|                      |   |   |   |  |
|----------------------|---|---|---|--|
| Range                | - | - | ----- -300 to 9999 -----  |  |
| Resolution           | - | - | Selectable 1/0.1/0.01/0.001   |  |
| Calibration          | - | - | Blank with up to 6 standards  |  |
| Curve fit statistics | - | - | Quadratic, quadratic through zero, linear, linear through zero, interpolate |  |

**Kinetics**

|                  |   |   |  |  |
|------------------|---|---|--|--|
| Measurement time | - | - | ----- 2 to 9999 seconds -----  |  |
| Calibration      | - | - | Blank with a single standard or factor   |  |
| Resolution       | - | - | Selectable 1/0.1/0.01/0.001  |  |
| Display          | - | - | Graphical and concentration  |  |
| Analysis         | - | - | Concentration, rate of change, initial and final absorbance or % transmittance |  |

**Spectrum**

|               |   |   |  |  |
|---------------|---|---|--|--|
| Scan interval | - | - | Selectable 1, 2 or 5nm                             |  |
| Analysis      | - | - | Absorbance or % transmittance and peak and valleys |  |

**Other**

|                  |                                   |   |  |
|------------------|-----------------------------------|---|--|
| GLP              | -                                 | - | Current time and date, user ID,<br>instrument lock and method lock |
| Method storage   | -                                 | - | 240  |
| Results storage  | -                                 | - | Limited by attached USB  |
| Removable media  | -                                 | - | USB (supplied)   |
| Outputs          | Analogue, RS232, Integral printer |   | USB, Analogue, RS232, Integral printer                             |
| Size (w x d x h) | ----- 275 x 400 x 220mm -----     |   |  |
| Weight           | ----- 6kg -----                   |   |  |

## Ordering information

| Part Code | Description   |
|-----------|---|
| 730 001   | 7300 spectrophotometer fitted with 10x10mm cuvette holder |
| 730 501   | 7305 spectrophotometer fitted with 10x10mm cuvette holder |
| 731 001   | 7310 spectrophotometer fitted with 10x10mm cuvette holder |
| 731 501   | 7315 spectrophotometer fitted with 10x10mm cuvette holder |

*Distributed and Supported in the Uk by:*



24 Norman Way Industrial Estate, Over, Cambridge, CB24 5WE  
Tel: +44(0)1954 233 100 Fax: +44(0)1954 233 101  
Email: [sales@camlab.co.uk](mailto:sales@camlab.co.uk) Web: [www.camlab.co.uk](http://www.camlab.co.uk)