



SINGLE BEAM UV VISIBLE SPECTROPHOTOMETER BHV1C3 (BSSUV-303)

SINGLE BEAM UV VISIBLE SPECTROPHOTOMETER BHV1C3

SPECTROPHOTOMETER

Simple-to-use instruments with advanced performance, its stray light is only 0.05%T. The local stand-alone software provides functions of Photometry, Quantitative Test, Kinetics and System Utilities functions.



Large LCD screen (128*64 Dots).

The system can also save the test results, a total of 200 groups of data and 200 standard curves can be saved in the RAM. Convenient for check and reload.

Data can be restored after a sudden power cut.

Auto setting wavelength.

Tungsten lamp & Deuterium lamp can be turned on/off individually to extend lifetime.

The optional application software M. Wave Professional provides complete control of the spectrophotometer from a computer through the built-in USB port. It can expand to the following functions: Quantitative, Kinetics, Wavelength Scan, Multi-wavelength & DNA/Protein Test.

Pre-aligned design makes it convenient to change lamps.

SPECIFICATIONS

| | |
|--------------------------|------------------------------------|
| Model | BHV1C3 |
| Old Model | BSSUV-303 |
| Wavelength Range | 190-1100 nm |
| Spectral Bandwidth | 4 nm |
| Optical System | Single Beam, Grating 1200 lines/mm |
| Wavelength Accuracy | ±0.5 nm |
| Wavelength Repeatability | 0.3 nm |
| Photometric Accuracy | ±0.5%T or ±0.004A @ 1A |
| Photometric Range | 0-200%T, -0.3-3 A, 0-9999 Conc |
| Stray Light | 0.05%T @ 220 nm, 360 nm |
| Stability | ±0.001 A/h @ 500 nm |
| Display | Graphic LCD (128*64 dots) |
| Keyboard | 22 Membrane keypad |
| Standard Cell Holder | Standard 10 mm pathlength cuvette |
| Sample Compartment | 4-position 10 mm cell changer |
| Light Source | Tungsten & Deuterium lamp |
| Output | USB Port & Parallel Port (Printer) |
| Power Requirement | AC 110/220 V 50/60 Hz |
| Dimensions (LxWxH) | 470x373x187 mm |
| Weight | 14 kg |
| Alt Name | Spectrophotometer |

ACCESSORIES FOR PURCHASE

| No | name |
|----|--|
| 1 | Micro Cell Holder (Beam height: 15mm) |
| 2 | 8-Position Auto Cell Changer |
| 3 | 4-Cell Holder for 10mm SQU.cuvette |
| 4 | 4-Cell Holder for 50mm SQU.cuvette |
| 5 | 4-Cell Holder for 100mm SQU.cuvette |

| | |
|----|--|
| 6 | Square Cuvettes Glass :10 mm |
| 7 | 20 mm |
| 8 | 30 mm |
| 9 | 50 mm |
| 10 | 100 mm |
| 11 | Square cuvettes Quartz:10 mm |
| 12 | 20 mm |
| 13 | 30 mm |
| 14 | 50 mm |
| 15 | 100 mm |
| 16 | Micro cell, Quartz (Beam height: 15mm) 100UL |
| 17 | 200UL |
| 18 | 500UL |
| 19 | Sipper System |
| 20 | Constant-Temperature System |
| 21 | Constant-Temperature Sipper System |
| 22 | Test Tube Holder |
| 23 | Cylindrical Cell Holder |
| 24 | Solid Sample Holder (Single Cell) |
| 25 | Water-Jacketed Cell Holder |
| 26 | 10mm Water-Jacketed 4-Cell Holder |
| 27 | Milas Deuterium Lamp |
| 28 | Halogen Lamp(Philips) |
| 29 | Halogen Lamp(Philips) |
| 30 | Halogen Lamp(Osram) |
| 31 | Self Masking Cont. Flowthrough G.Cell (Beam height: 15mm) 5mm |
| 32 | 10mm |
| 33 | 20mm |
| 34 | 30mm |
| 35 | Self Masking Cont. Flowthrough Q. Cell (Beam height: 15mm) 5mm |
| 36 | 10mm |
| 37 | 20mm |
| 38 | 30mm |
| 39 | Thermal Printer |



1



2



3



4



5



6



FEATURES

Large LCD screen (128*64 Dots).

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Convenient for check and reload.

Data can be restored after a sudden power cut.

Auto setting wavelength.

Tungsten lamp & Deuterium lamp can be turned on/off individually to extend lifetime.

The optional application software M. Wave Professional provides complete control of the spectrophotometer from a computer through the built-in USB port. It can expand to the following functions: Quantitative, Kinetics, Wavelength Scan, Multi-wavelength & DNA/Protein Test.

Pre-aligned design makes it convenient to change lamps.

Large sample compartment; it can accommodate 5-100 mm path length cuvettes with optional holders. A variety of optional accessories are available.

Main Menu:

Move the cursor on the function menu you want, then press ENTER key to go into the corresponding interface.

| | |
|---|-------|
| <input checked="" type="radio"/> Basic Mode | |
| <input type="radio"/> Quantitative | |
| <input type="radio"/> Kinetics | 08:00 |
| <input type="radio"/> Utility | 01/01 |

Basic Mode:

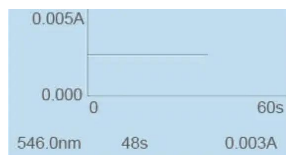
Absorbance, Transmittance or Concentration measurements.

It can display and save 200 groups of data, 5 groups per screen.

| 546.0nm | | 0.001A |
|---------|-------|--------|
| No. | WL. | Abs. |
| 1 | 230.0 | 0.001 |
| 2 | 340.0 | 0.000 |
| 3 | 450.0 | 0.002 |
| 4 | 540.0 | 0.000 |
| 5 | 620.0 | 0.003 |

Kinetics:

This mode may be used for time course scanning or reaction rate calculations. Abs. VS Time graphs are displayed on the screen in real time. It can record 1000 data.



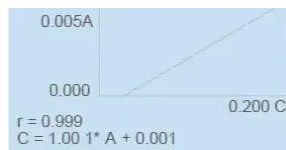
Quantitative:

Standard Curve

At most, 9 standard samples can be used to establish a standard curve. The curve and its equation will be displayed on the screen simultaneously. You can measure your unknown concentration solutions by the curve. Total 200 curves can be saved in the RAM.

Coefficient Method

If you have known the coefficient $K \cdot a + b$ is known, you can input them directly by the button, and then test your unknown solutions.



System Utilities:

Lamp management, time & date set, obtain dark current, calibrate wavelength, default system, and some other system functions.



M. Wave Professional PC-Control Software:

Brief Introduction:

M. Wave Professional application software is based Microsoft Windows, the instrument can be controlled by PC software through the built-in USB communication port, which makes the UV/Vis Series with more functions and easy to control.

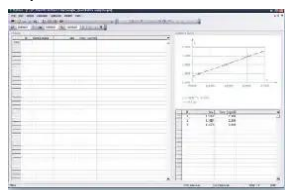
Quantitative:

Use up to 20 standards to establish a standard curve. Three methods for fitting a curve:

Linear fit.

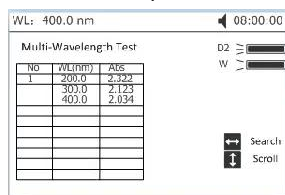
Linear through zero.

Square fit.



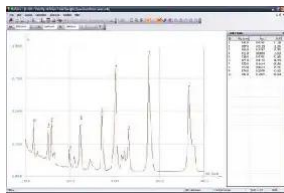
Multi-wavelength Test:

You can set up to 20 wavelengths to measure a sample.



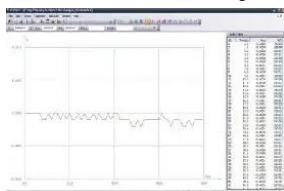
Wavelength Scan:

Automatically records peaks and valleys.
 The quantity of the curves stored is unlimited.
 Post-run manipulation and processing includes:
 Re-scaling axes, curve.
 Smoothing, combination, zooming, overlap. 1 to 4 derivatives.



Kinetics:

The Kinetics mode may be used for scanning time courses or reacting rate calculations. Abs. Vs. Time graphs are displayed.



DNA/Protein Test:

Optional two formulas:

DNA Concentration = $62.9A_{260} - 36.0A_{280}$ or $49.1A_{260} - 75.8A_{230}$

You can also enter other wavelengths and factors to calculate.

Functions:

Photometry

Absorbance, Transmittance or Energy measurements. It can display and save 200 groups of data, 5 groups per screen.

Quantitative

Standard Curve

At most, 9 standard samples can be used to establish a standard curve. The curve and its equation will be displayed on the screen simultaneously. You can measure your unknown concentration solutions by the curve.

A total of 200 curves can be saved in the Memory.

Coefficient Method

If the coefficient k & b in the formula $C = k \cdot a + b$ is known, you can input them directly by the button, and then test your unknown solutions.

Kinetics

This mode may be used for time course scanning or reaction rate calculations. Abs. VS Time graphs are displayed on the screen in real time. It can record 1000 data.

System Utilities

Lamp management, time & date set, obtain dark current, calibrate wavelength, default system, and some other system functions.



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