

# Compact visible Spectrophotometer

## Visible spectrophotometer **PRIM** Light & Advanced



PRIM Light & PRIM Advanced spectrophotometers combine a high level of performance with a simple and intuitive user interface. Compact and light, these new spectrophotometers are ideal for standard applications in education or in the laboratory.

### Choose between 4 PRIM units

**PRIM Light** : Basic internal software including standard spectrophotometric applications in absorbance, transmission and single standard concentration.

**PRIM Advanced** : Advanced applications for absorbance, transmission, multi-standard concentration, kinetics, multi-wavelength and spectrum scanning.

*For low concentration samples, PRIM Light and PRIM Advanced are also available with a 50 mm path length cell holder.*

### Internal Applications

All applications, basic or standard, are included as standard and are immediately available on each spectrophotometer.

### 50 Methods Memory

All PRIM spectrophotometers can store up to 50 methods in memory. Stored applications can be recalled at any time without re-programming the method parameters. Prior to running a method, it is possible to check the stored parameters using only one button from the navigator keys.

### Giant Display

2 lines of 16 digits, back-lit with excellent contrast for best readability. Real-time and permanent display of wavelength and absorbance in any measurement mode.

### 1 Key = 1 Function

The keyboard is clearly and simply organized and every button corresponds to one specific single function. Operation is therefore simpler and faster.

### Safety - Low Voltage Power Supply

Mandatory in education for pupil protection and increasingly recommended in every laboratory where risks exist due to the presence of water, the low voltage supply avoids any risk of electric shock.

### Internal Calibration Filter

In order to certify accurate and repeatable results, the spectrophotometer calibrates itself automatically at each start-up using the internal didymium filter; a complete report is automatically printed on the external printer if connected.

### Pre-adjusted Halogen Lamp

Located at the rear side of the instrument, the lamp is pre-adjusted and can be replaced quickly and easily without any tools.

### Compact

Light at only 2.5 kg and compact A4 size footprint, PRIM can be handled very easily.

# Compact visible Spectrophotometer

# PRIM

Light & Advanced

## A wide choice of measuring modes

### Absorbance / % Transmittance

Automatic wavelength selection from 330 to 900 nm, in increments of 1 nm, with the absorbance value and the % of transmission monitored in real time.

### Concentration Calculation

Concentration measurement of unknown samples. Spectrophotometer calibration using a factor or up to 8 standards of known concentration.

### Kinetics

Analysis of absorbance variation as a function of the time. Program to include lag time and reaction time. Automatic calculation of absorbance variation during each segment of time or the total time can be programmed.

### Spectrum Scan\*

A curve of absorbance values as a function of the wavelength with detection of absorbance maxima and minima. User-definable scan mode using the entire or partial visible range: 330 to 900 nm, in 1nm steps, with automatic recording of the baseline.

### Multi-Wavelength Mode

Measure of ratio and difference of absorbance at 2 wavelengths. Simultaneous display of calculation results as well as individual absorbance values at each wavelength

\*On optional external printer.

## PRIM, a spectrophotometer suitable for all kinds of applications

### Education

Designed to fit into various vocational areas, from senior high school to university level. Resident measuring modes made it easy to teach the Beer-Lambert law, concentration, kinetics, colorimetry or spectrum measurement.

### Laboratory

Thanks to its wide choice of analytical modes, PRIM spectrophotometers can be used for most routine spectrophotometric laboratory applications.

### Industry

Its small size and ruggedness makes PRIM an ideal spectrophotometer for the industrial environment. Used in Quality Control, it can easily be placed at the delivery point as well as at all stages of the manufacturing chain.

### Environment

Delivered standard with Absorbance and Concentration measuring modes, the PRIM cell-holder can be replaced with the optional 16 mm-tube holder to run classical COD tests. For weak absorbance samples, PRIM 50 mm with a standard 50 mm cell-holder, offers enhanced sensitivity.

### Clinical Biology

PRIM 500, a special version equipped with auto-aspiration system, micro flowcell, thermo-controlled cell-holder (37°C), is suitable for biochemical assays. (A separate brochure is available upon request.)

### Accessories

- A complete range of accessories: printer, tube-holder, auto-aspiration system, manual aspiration system, thermostatted cuvette holder are available on option.

### Ordering Information

- 70CI0377 PRIM Light 10 mm cell
- 70CI0430 PRIM Light 50 mm cell
- 70CI0381 PRIM Advanced 10 mm cell
- 70CI0432 PRIM Advanced 50 mm cell

### Standard Delivery

- PRIM spectrophotometer, 115/230V - 50/60Hz transformer, box of 100 plastic cuvettes, operation manual.

## TECHNICAL SPECIFICATIONS PRIM LIGHT AND ADVANCED

Spectral range	330-900 nm
Bandwidth	10 nm
Accuracy	+/- 1.5 %
Precision	+/- 1 nm
Photometric range	-0.3 - 2.5 Abs
	0 -200 %T
Accuracy	+/- 2 %
Drift	< 0.003 A/h @ 500 nm
Stray light	0.5 %T @ 340 & 400 nm
Display	Alphanumeric LCD back-lit
	2 lines height 8 mm 16 characters
Zero	Automatic
Light source	Halogen
Detector	Silicon diode
Interface	Serial RS232C
Cell holder	1 cuvette 10 mm
Power	115/230V - 50/60Hz
H x W x D	180 x 280 x 220 mm
Weight	2.5 kg

## SOFTWARE EQUIPEMENT PRIM LIGHT AND ADVANCED

PRIM	Light	Advanced
Absorbance	Yes	Yes
% Transmission	Yes	Yes
Concentration with factor	Yes	Yes
Concentration with 1 standard	Yes	Yes
Concentration with 1 to 8 standards	No	Yes
Kinetics	No	Yes
Multi-wavelengths	No	Yes
Spectrum scanning	No	Yes
Peaks and valleys detection	No	Yes
Multi-language	Yes	Yes
Automatic stand-by	Yes	Yes

SECOMAM products are available from

**NorthStar Scientific Ltd.**

12 Second Ave., Bardsey, Leeds, LS17 9BQ  
Tel. 01937 573827 Fax. 01767 262330

e-mail: [info@nstaruk.com](mailto:info@nstaruk.com)

website: [www.uvikon.co.uk](http://www.uvikon.co.uk)

**SECOMAM** CE