



SMART Spectro™ Spectrophotometer



An affordable, pre-programmed spectrometer with automatic wavelength selection

A portable spectrophotometer that is easier to use and more accurate than anything in its price range. With automatic wavelength selection, pre-programmed tests, and superior performance – this is the best spectrophotometer for the money!

SMART very smart Spectro™ Spectrophotometer

SMART Spectro™ Spectrophotometer

Order Code 2000 NH (17)

Easier to use and more accurate than any meter in its price range. Over 80 pre-programmed tests included, 25 user-calibrations can be entered into the memory, and sequences can be customized for frequently run tests.

- Advanced Features
- Wide wavelength range
- Menu-driven display
- High resolution, exceptional accuracy
- Automatic wavelength selection
- Unique optical design system using a 1200 lines/mm grating
- Pre-programmed tests
- Portable
- Supplied with 6 sample tubes (25mm round), 2 sample cell holders (25mm round and COD, 10 mm cuvettes), AC adapter, battery charger, instruction manual including test procedures, and quick start guide



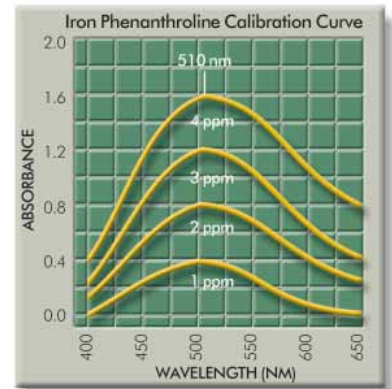
How to order:

Call 1-800-344-3100
410-778-3100

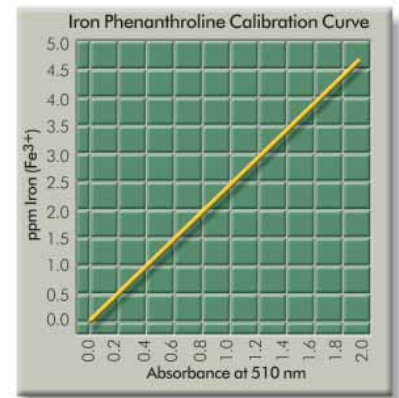
Code 2000 • SMART Spectro™

Includes 6 sample cells (25 mm round), 2 sample cell holders (25 mm round and COD, 10 mm cuvettes), power supply, battery charger, manual

Code 2000-CS • Carrying Case
Code 2000-BP • Battery Pack with holder (rechargeable)
Code 1971 • SMARTLink 2 software with cable



Fully functional spectrophotometer allows the user to select the optimum wavelength for creating calibration curves.



The user calibration software automatically calculates the best straight line fit.

A wider wavelength range

350-1000 nm

The same, accuracy, every test

±2 nm continuous wavelength accuracy

Extremely high resolution

1 nm resolution with 5 nm (max) bandpass over entire range

Holds calibration longer

Modified Ebert mounting, 1200 lines/mm grating

Better for higher absorbance samples

-0.1 to 2.5A photometric range

Better linearity for higher concentrations

±0.005A continuous photometric accuracy

MENU DRIVEN DISPLAY

Tests and functions are selected from scrolling menus for ultimate simplicity. Results are displayed as %T, absorbance, and concentration.

PRE-PROGRAMMED TESTS, USER TESTS & AUTOMATIC WAVELENGTH SELECTION

Over 80 pre-programmed tests. Up to 25 calibrations for additional tests can be entered into the memory. The user can also customize sequences for frequently run tests. The meter automatically moves the grating to the required wavelength.



1
* MAIN MENU 09:50
CALIBRATE WL
PROGRAMMED TESTS
%T/ABS

Select from main menu

2
* 15. CHLORINE
SCAN BLANK
SCAN SIMPLE
END 515NM

Scan blank and sample

3
* 15. CHLORINE
12.5%T 0.9031A
1.51 PPM
PRINT PRESS ENTER

Results shown as %T, ABS, ppm

Create

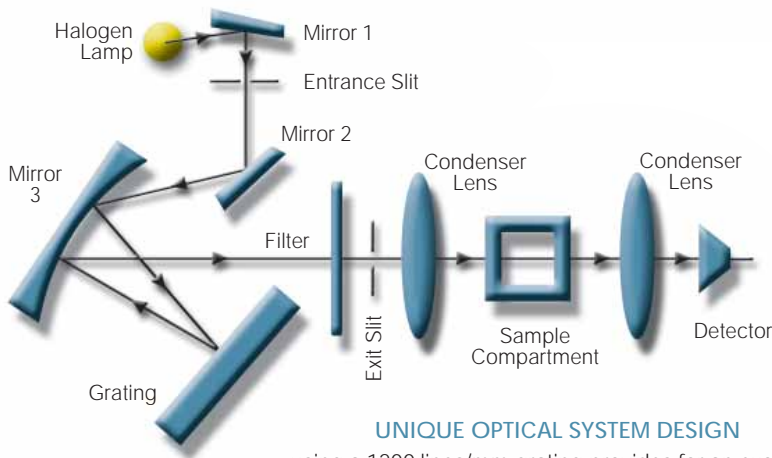
* EDIT USER TEST 1
NAME THE TEST
SELECT WL
NEW CALIBRATION

Create new tests

Customize

* SEQUENCE 1
9. BROMINE-LR
32. COPPER DDC
64. NITRATE-N LR

Customize test sequences



UNIQUE OPTICAL SYSTEM DESIGN

using a 1200 lines/mm grating provides for an excellent range, greater accuracy, and high resolution.

SATISFACTION
100%
GUARANTEED

An error-free design	Much easier to operate	A full function display screen	Truly superior utility	Download results	Portable design
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Wavelength selection is fully automatic

Menu prompting with six-button simplicity

Display %T, ABS, concentration; 4 line, 40 character

Pre-programmed tests, additional 25 user tests

RS232 compatible

Optional battery pack, rugged optical bench

Pre-Programmed Tests

Test Name	Spectro Range
Alkalinity UDV	0-200
Aluminum	0.00-0.30
Ammonia Nitrogen (Fresh Water)	0.00-1.00
Ammonia Nitrogen (Salt Water)	0.00-1.00
Ammonia Nitrogen HR	0.00-4.00
Benzotriazole	NA
Biguanide	0-70
Boron	0.00-0.80
Bromine LR	0.00-9.00
Bromine UDV	0.0-22.0
Cadmium	0.00-1.00
Calcium & Magnesium (Total) Hardness UDV	10-500
Carbohydrazide	0.000-0.900
Chloride TesTab	0.0-30.0
Chlorine	0.00-4.00
Chlorine - Free UDV	0.00-10.00
Chlorine - Liquid DPD	0.00-4.00
Chlorine - Total UDV	0.00-10.00
Chlorine Dioxide	0.00-7.00
Chromium (Hexavalent)	0.00-1.00
Chromium (Total, Hex & Trivalent)	0.00-1.00
Chromium TesTab	0.00-1.00
Cobalt	0.00-2.00
†COD LR with Mercury	0-150
†COD LR without Mercury	0-150
†COD SR with Mercury	0-1500
†COD SR without Mercury	0-1500
†COD HR with Mercury	0-1500
†COD HR without Mercury	0-15,000
Color	0-1000
Copper BCA - LR	0.00-3.50
Copper - Cuprizone	0.00-2.00
Copper DDC	0.00-6.00
Copper UDV	0.0-4.0
Cyanide	0.00-0.50
Cyanuric Acid	5-200
Cyanuric Acid UDV	0-150
DEHA	0.000-0.700
Dissolved Oxygen (DO)	0.0-12.0
Erythorbic Acid	0.00-3.00
Fluoride	0.00-2.00
Hardness (Total) UDV	10-500
Hydrazine	0.00-0.75
Hydrogen Peroxide LR	0.00-1.50
Hydrogen Peroxide HR	0-60
Hydrogen Peroxide Shock	0-225
Hydroquinone	0.00-1.80
Iodine	0.00-14.00
Iron - Bipyridyl	0.00-6.00
Iron UDV	0.00-10.00

Test Name	Spectro Range
Iron - Phenanthroline	0.00-4.50
Lead	0.00-5.00
Manganese LR	0.00-0.70
Manganese HR	0.0-15.0
Mercury	0.00-1.50
Methylethylketoxime	0.00-3.00
Molybdenum HR	0.0-15.0
Nickel	0.00-8.00
Nitrate Nitrogen LR	0.00-3.00
Nitrate TesTabs	0.0-60.0
Nitrite Nitrogen LR	0.00-0.80
Nitrite TesTabs	0.00-1.25
†Nitrogen, Total*	0-25 mg/L
Ozone LR	0.00-0.40
Ozone HR	0.00-1.50
pH CPR (Chlorphenol Red)	pH 5.0-7.0
pH PR (Phenol Red)	pH 6.6-8.4
pH TB (Thymol Blue)	pH 8.0-9.5
Phenol	0.00-6.00
Phosphate LR	0.00-3.00
Phosphate HR	0.0-70.0
†Phosphorus, Total - LR*	0.00-3.50 mg/L
†Phosphorus, Total - HR*	0.0-100.0 mg/L
Potassium	0.0-10.0
Silica LR	0.0-2.5
Silica HR	0-50
Sulfate HR	5-100
Sulfide LR	0.00-1.00
Surfactants	0.0-8.0
Tannin	0.0-10.0
Tolytrazole	NA
Turbidity	0-400 FTU
Zinc LR	0.00-3.00

* Requires UDV Adapter Code #5-0086 and Accessory Package 1961 or 1962.
† COD Heater Block required.

Specifications

Wavelength Range	350-1000 nm
Wavelength Accuracy	±2 nm
Wavelength Resolution	1 nm
Wavelength Bandwidth	5 nm (max)
Photometric Range	0-125%T, -0.1-2.5A
Photometric Accuracy	±0.005A
Photometric Noise	<0.001A at 0A, <0.002A at 2A
Photometric Drift	±0.002A/hr @500 nm
Photometric Stray Light	<0.5 %T
Dispersive Device	Grating - based system
Optical Mount	Modified Ebert
Grating	1200 grooves/mm ruled grating
Light Source	Quartz halogen
Bulb Life	1000 hours minimum
Sample Chambers	25 mm round cell, 10 mm square cuvette, UDV, COD, flow-through (optional)
Detector	Silicon photodiode
Temperature Range	0-40°C
Modes	Conc., %T, ABS
Pre-Programmed Tests	Yes
Wavelength Selection	Automatic
User Tests	Yes, up to 25 can be entered and edited
Datalogging	Yes, RS-232
Diagnostics	Yes
Power	110/220 volt or battery pack (rechargeable)
Weight	4.65 kgs (10.3 lbs)
Size (WxDxH)	35 cm x 28 cm x 17 cm
CE Mark	Yes (June 2000)

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Includes 6 sample cells (25 mm round), 2 sample cell holders (25 mm round and COD, 10 mm cuvettes), power supply, battery charger, manual

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PO BOX 329 • CHESTERTOWN • MARYLAND • 21620 • USA
phone 800-344-3100 or 410-778-3100 • fax 410-778-6394
www.lamotte.com