



Water Testing Spectrophotometer

Programmable, Portable, Scanning, Touch Screen

Model W-2100



Spectro W-2100 is the newest, high technology spectrophotometer for testing water, waste water, agricultural, food, industry, chemistry, environmental, and related industries, with easy programming of 486 different material tests, measuring spectro-quantitation, kinetic and photometric tests.

Spectro W-2100 offers a scanning systems for measurement of various products and environments. This special Spectro W-2100 also can be used for all analytical tests that require wavelengths between 380 to 800 nm. **Spectro W-2100** is portable and has a rechargeable battery, while possessing all the features of bench top spectrophotometers, with CCD detection technology and touch screen TFT interface. It is very user-friendly and easy to use.

Spectro W-2100 can be connected to the PC by the USB port. **Spectro W-2100** is supplied with a carrying case and various accessories for easy usage. As Merck Chemicals test kits are available in all countries of the world. This Spectro W-2100 employs the Merck Chemicals test kit for convenience.

Labomed, Inc. is certified by ISO-9001-2013, has CE Conformity and is FDA Licensed.

Spectro W-2100 has all of the 486 Tests are pre-programmed in the software. Spectro W-2100 has some parameters in the pre-programmed tests which can be changed by the User, and if the User needs, they can press the RESET button to return to the default setting. Spectro W-2100 has the Quantitative mode which allows the User to make his or her own programs for new tests. Spectro W-2100 could link with the Micro-printer. The User can purchase the Micro-printer locally. The Fiber-optic Dip probe is optional accessory. Spectro W-2100 with built-in battery and package has a total gross weight of 3kg.

THE 486 DIFFERENT ELEMENT WATER TESTS ARE AS FOLLOWS:

Acid Capacity CT to pH4.3 - (Total Alkalinity) --- Aluminum Test --- Ammonium Test --- AOX --- Arsenic Test --- BOD CT --- Boron CT --- Boron Test --- Bromine Test --- Cadmium Test --- Calcium Test --- Chloride Test --- Chromate Test --- COD CT --- Color --- Copper Test --- Cyanide Test --- Fluoride Test --- Formaldehyde Test --- Gold Test --- Hazen Color Number --- Hydrazine Test --- Hydrogen Peroxide Test --- Iodine Test --- Iron Test --- Lead Test --- Manganese Test --- Molybdenum Test --- Monochloramine Test --- Nickel Test --- Nitrate Test --- Nitrite Test --- Nitrogen, total CT --- Oxygen Scavengers Test, Dissolved --- Oxygen Scavengers Test - Surface, Oxygen, Dissolved CT --- Ozone Test --- pH CT --- Phenol Test --- Phosphate Test (PMB) --- Residual Hardness CT --- Silicate Test --- Silver Test --- Sodium CT in nutrient solutions for fertilization --- Sulfate Test --- Sulfide Test --- Surfactants (anionic) CT --- Tin CT --- TOC CT, Total Hardness CT --- Volatile Organic Acids CT --- Zinc Test

Features

Applications List for 486 Different Tests of Water - Please click here

- **Operating System** with touch screen TFT Interface.
- **The Spectrum workspace** allows for high speed spectral scanning, with zoom and peak identification tools. Spectral Scans can be performed in the field, stored to instrument memory and later transferred to the W-2100 Data Viewer Software for further inspection and reporting.
- **The Quantitative workspace** is used to construct calibration curves, and measure concentration of unknown samples. Curves can be constructed in 1st - 4th order, while both methods and measurement data can be saved to the instrument memory.
- **The Photometric workspace** is used to quickly and easily perform fixed wavelength measurements in either Absorbance or Transmission. It can be set to a K factor where multiplifications are required to determine sample concentration. Once the measurement is complete, store to instrument memory for future recall.
- **The Kinetic workspace** enables the measurement of Absorbance or Transmission as a function of time. Use the zoom and peak pick features to obtain a better view of the Kinetic curve. Measurement data can be saved and recalled at any time.
- **User and admin rights** are easily controlled from the GLP feature in the settings menu. Create user groups and specify their privilege level, then add new users to a specified group.
- **Use the universal cell holder** to measure various pathlength rectangular cells and rounded test tubes, accommodating all of your sampling requirements.
- **Control instrument configuration** from the settings menu.
- **Use the fiber dip probe** for in-situ sample measurements.
- **Once all of the required field analysis has been performed and measurement data stored** to instrument memory the Spectrophotometer can be connected to the W-2100 Data Viewer Software via USB for transfer of analysis data from all of the instrument workspaces.
- **Use the Data Viewer Software to further interpret analysis results**, export data into a wide variety of formats and produce analysis reports for storage or printing.
- **Spectroquant® test kits, offered by Merck Chemicals**, can offer an analytical solution for the following parameters by means of 130 different test kits: Drinking water, Surface water, Process water, Municipal or industrial wastewater, Beverages, Disinfectant control. It offers 356 tests for other elements.

Accessories

1 Rectangular Cell Holder
1 Cylindrical Test Tube Holder
1 Fiber Dip Probe with 10mm and 20mm pathlength tip
Computer link cable.
Windows™ 98/2000/XP compatible

Dust cover
Instruction manual.
Software manual
Power Cable
Rechargeable Battery with 5 hr usage



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Technical Specifications

Wavelength range:	300 nm – 800 nm	Operating System:	Windows Embedded CE 6.0 with 2 GB Flash Memory
Spectral Bandwidth:	4 ±0.8nm	Input/Display:	320 x 240 True Color TFT Touch Screen
Straylight:	<0.5%	Wavelength Resolution:	0.4 nm
Wavelength Accuracy:	±1.0 nm	Photometric Accuracy:	±1.0%
Wavelength Repeatability:	≤0.1 nm	Photometric Repeatability:	<0.3%
Optical System:	Polychromatic, with concave holographic grating	Baseline flatness:	±0.005Abs
Light Source:	Convergent tungsten lamp with 7000 hr lifespan	Noise:	<0.5%
Measurement Workspaces:	Spectrum, Quantitative, Kinetics, Photometric	Drift:	<1.0%
Detector:	CCD Sony ILX51 2048 Pixels	Dimensions:	280 x 170 x 110mm
Power Supply:	Built-in Rechargeable Battery with 5 hr usage	Temperature:	Operating 5 to 30°C, Storage -20 to 55°C

THE WATER TESTS INCLUDE:

Acid Capacity CT to pH4.3 - (Total Alkalinity)	Chromate Test	Lead Test	Phosphate Test (PMB)
Aluminum Test	COD CT	Manganese Test	Residual Hardness CT
Ammonium Test	Color	Molybdenum Test	Silicate Test
AOX	Copper Test	Monochloramine Test	Silver Test
Arsenic Test	Cyanide Test	Nickel Test	Sodium CT in nutrient solutions for fertilization
BOD CT	Fluoride Test	Nitrate Test	Sulfate Test
Boron CT	Formaldehyde Test	Nitrite Test	Sulfide Test
Boron Test	Gold Test	Nitrogen, total CT	Surfactants (anionic) CT
Bromine Test	Hazen Color Number	Oxygen Scavengers Test – Dissolved	Tin CT
Cadmium Test	Hydrazine Test	Oxygen Scavengers Test - Surface	TOC CT
Calcium Test	Hydrogen peroxide Test	Oxygen, Dissolved CT	Total Hardness CT
Chloride Test	Iodine Test	Ozone Test	Volatile Organic Acids CT
	Iron Test	pH CT	Zinc Test