



COD INSTRUMENTATION



SMART 2, SMART Spectro, & COD PLUS COLORIMETERS

SMART2 & COD PLUS COLORIMETERS

The user-friendly SMART2 Colorimeter and COD PLUS colorimeter are the ideal direct reading colorimeters for complete on-site water analyses. All pre-programmed tests can be run on these compact instruments and each test features automatic wavelength selection. The entire multi-LED optical system is embedded in the light chambers and optimized for LaMotte test reagent systems. The analyst can simply select the test and put in the sample with reagent. The microprocessor, which selects the wavelength, also allows the user to load up to 10 tests for analyzing custom reagent systems. *LaMotte stands behind every system we provide.*

These portable colorimeters have the user in mind with these advanced features:

- Simple, menu-driven operation
- Alphabetical test selection
- User-selected test sequences
- Self diagnostics with error/warning messages
- Instant readiness without "count down" delays; achieved by active stabilization of lamp intensity
- Auto-blank; Auto-off
- European CE mark

The user may select any of the wavelengths in each meter to determine the absorbance or %T of a sample at the desired wavelength.

Additional advancements include:

- Superior narrow band-width interference filters
- New Super Twist LCD display for improved readability
- RS-232 interface
- Optional computer cable and software for data storage and manipulation
- 9-Volt battery and AC adapter are included



Code 1919

Code 1922

2 YEAR WARRANTY

OVER 80 PRE-PROGRAMMED TESTS!

As well as the incorporated features:

- All wavelength filters - 430, 520, 570, 620 nm (SMART2 only)
- RS-232 serial port
- and more...

SMART Colorimeter® is a registered trademark of LaMotte Company.

SMART2 (120V/60Hz) • Code 1919

Comes with 4 sample tubes, AC adapter and manual

SMART2 (230V/50Hz) • Code 1919-EX2

Comes with 4 sample tubes, AC adapter and manual

COD PLUS (120V/60Hz) • Code 1922

Comes with COD adapter, 4 sample tubes, AC adapter and manual

COD PLUS (230V/50Hz) • Code 1922-EX2

Comes with COD adapter, 4 sample tubes, AC adapter and manual

ACCESSORIES/REPLACEMENT ITEMS:

COD adapter • Code 5-0087

UDV Adapter • Code 5-0086

6 sample tubes • Code 0290-6

AC adapters • Code 1731-110; Code 1754 for Ex2 versions

OPTIONS:

Small Carrying Case (37.5 x 27.5 x 13.75 cm)

Code 1919-GCS150

Large Carrying Case (45 x 32.5 x 20 cm)

Code 1919-GCS440



Feature	
Range:	0-125%T
Resolution:	1% FS
Accuracy:	2% FS
CE Mark:	Yes
Light Source:	COD PLUS: LED/Filter setup at 430nm and 620nm SMART2: LED/Filter setup; 430nm, 520nm, 570nm, 620nm
Detector:	Photodiode
Display:	122x32 LCD, 16x4 line graphics display
Sample Cell:	25 mm round cell, 10 mm square cuvette, 16 mm COD tubes
Datalogging:	RS-232, time and date stamped
Keypad:	6-button membrane switch
Calibration:	Factory set
Power:	9V or AC adapter; battery life 500 tests
Dimensions:	15 x 8 x 5.5 cm; 6 x 3.25 x 2.5 inches (152 x 83 x 64 mm)
Weight:	11 ounces
Bandwidth:	10 mm

INSTRUMENT REAGENT LISTING

New tests are being developed for the SMART Spectro and SMART 2. Please contact our Technical Service Department for information regarding additions of new tests.

Test Name	Spectro Range	Smart 2 Range	COD Plus Range
Alkalinity UDV*	0-200	0-200	---
Aluminum	0-0.3	0-0.3	---
Ammonia Nitrogen (Fresh/Salt)	0-1.0	0-1.0	0-1.0
Ammonia Nitrogen HR	0-4.0	0-4.0	0-4.0
Benzotriazole	0-30	0-30	---
Biguanide	0-70	0-70	---
Boron	0-0.8	0-0.8	0-0.8
Bromine LR	0-9.0	0-9.0	---
Bromine UDV*	0-22	0-22	---
Cadmium	0-1.0	0-1.0	---
Ca & Mg Hardness UDV	10-500	10-500	---
Carbohydrazide	0-0.9	0-0.9	---
Chloride TT	0-50	0-50	---
Chlorine - Free & Total	0-4	0-4	---
Chlorine - Free UDV*	0-10	0-10	---
Chlorine - Liquid DPD	0-4	0-4	---
Chlorine - Total UDV*	0-10	0-10	---
Chlorine Dioxide	0-7.0	0-8.0	---
Chromium Hexavalent	0-1.0	0-1.0	---
Chromium TT	0-1.0	0-1.0	---
Chromium (Total, Hex & Trivalent)	0-1.0	0-1.0	---
Cobalt	0-2.0	0-2.0	0-2.0
COD LR 0-150 w/ Mercury**	0-150	0-150	0-150
COD LR 0-150 w/o Mercury**	0-150	0-150	0-150
COD SR 0-1500 w/ Mercury**	0-1,500	0-1,500	0-1,500
COD SR 0-1500 w/o Mercury**	0-1,500	0-1,500	0-1,500
COD HR 0-15,000 w/ Mercury**	0-15,000	0-15,000	0-15,000
COD HR 0-15,000 w/o Mercury**	0-15,000	0-15,000	0-15,000
Color	0-1,000	0-1,000	0-1,000
Copper BCA - LR	0-3.5	0-3.5	---
Copper Cuprizone	0-2.0	0-2.0	---
Copper DDC	0-6.0	0-6.0	0-6.0
Copper UDV*	0-4.0	0-4.0	---
Cyanide	0-0.50	0-0.35	---
Cyanuric Acid	0-200	0-200	0-200
Cyanuric Acid UDV*	0-150	0-150	---
DEHA	0-0.7	0-0.7	---
Dissolved Oxygen (DO)	0-12	0-11	0-11
Erythorbic Acid	0-3.0	0-3.0	---
Fluoride	0-2.0	0-2.0	0-2.0
Hydrazine	0-0.75	0-1.0	0-1.0
Hydrogen Peroxide LR	0-1.5	0-1.5	---
Hydrogen Peroxide HR	0-60	0-60	---
Hydrogen Peroxide Shock	0-225	0-225	---
Hydroquinone	0-1.8	0-2.0	---
Iodine	0-14	0-14	---
Iron	0-6	0-6	---
Iron UDV*	0-10	0-10	---
Iron Phen	0-4.5	0-5.0	---
Lead	0-5.0	0-5.0	---
Manganese LR	0-0.50	0-0.7	---



SMART Spectro Spectrophotometer

A portable spectrophotometer that is easier to use and more accurate than anything in its price range. The SMART Spectro features include pre-programmed tests, automatic wavelength selection, extremely high resolution, menu driven display, wide wavelength range and continuous wavelength accuracy.

SMART Spectro • Code 2000

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

ACCESSORIES:

Carrying Case • **Code 2000-CS**

Battery Pack w/holder (rechargeable) • **Code 2000-BP**

Test Name	Spectro Range	Smart 2 Range	COD Plus Range
Manganese HR	0-15	0-15	---
Mercury	0-1.5	0-1.5	---
Methylethylketoxime	0-3.0	0-3.0	---
Molybdenum HR	0-30	0-50	0-50
Nickel	0-8.0	0-8.0	---
Nitrate Nitrogen LR	0-3.0	0-3.0	---
Nitrate TT	0-60	0-60	---
Nitrite Nitrogen LR	0-0.8	0-0.8	---
Nitrite TT	0-1.6	0-1.6	---
Nitrogen, Total**	0-25	0-25	---
Ozone LR	0-0.4	0-0.4	0-0.4
Ozone HR	0-1.5	0-2.5	0-2.5
pH CPR (Chlorphenol Red)	5-7	5-6.8	---
pH PR (Phenol Red)	6.6-8.4	6.6-8.4	---
pH TB (Thymol Blue)	8-9.5	8-9.6	---
Phenol	0-6	0-6	---
Phosphate LR	0-3.0	0-3.0	0-3.0
Phosphate HR	0-70	0-70	0-70
Phosphorus, Total - LR**	0.0-3.0	0.0-3.5	---
Phosphorus, Total - HR**	0-100	0-100	---
Potassium	0-10	0.5-10.0	0.5-10.0
Silica LR	0-2.5	0-4.0	0-4.0
Silica HR	0-50	0-75	0-75
Sulfate HR	5-100	0-100	0-100
Sulfide LR	0-1.0	0-1.5	0-1.5
Surfactants	0-8.0	0-8.0	---
Tannin	0-10	0-10	0-10
Tolytriazole	0-30	0-30	---
Turbidity	0-400	0-400	0-400
Zinc LR	0-3.0	0-3.0	0-3.0

* Requires UDV Adapter Code Number 5-0086 and Accessory Package 1961 or 1962
 ** Requires COD Adapter Code 5-0087 and Heater Block

REAGENTS & HEATER BLOCKS

Digestion Tubes for Total Nitrogen and Total Phosphorus

LaMotte offers low and high Total Phosphorus and a Total Nitrogen test that are reacted in a heater block and are then tested using a colorimeter or spectrophotometer. All kits ship as R1.

Code	Description	Range	# of Tests
4024	Low Total Phosphorus	0-3.5 mg/L	25
4025	High Total Phosphorus	0-100 mg/L	25
4026	Total Nitrogen	0-25 mg/L	25



Multi-Range COD Reagent Systems

LaMotte-manufactured Chemical Oxygen Demand reagent systems used with our COD PLUS Colorimeter, SMART 2 Colorimeter or SMART Spectro Spectrophotometer are an easy and precise way to measure critical COD levels. Measure low, medium or high levels of COD using your choice of mercury (USEPA approved method) or non-mercury reagent systems. Each package contains 25 ready to use vials. All kits ship as R1.



Mercury based systems

Code	Range
0075-SC	0-150 ppm (EPA approved)
0076-SC	0-1500 ppm (EPA approved)
0077-SC	0-15,000 ppm

Mercury-free systems

Code	Range
0072-SC	0-150 ppm
0073-SC	0-1500 ppm
0074-SC	0-15,000 ppm

COD Heater Block

Code 5-0102 (120V) • Code 5-0102-EX2 (230V)

COD Heater Block, 120V and 230V, 12-tube capacity

This COD heater block features digital microprocessor control, programmable time and temperature settings, and a dual LED display to monitor both temperature and timer. Perfect for COD, Total Phosphorus, and Total Nitrogen testing PLUS other tests requiring digestion.



Feature	
Temperature:	30-200°C
Timer:	0-999 minutes
Vial Capacity:	12 (16 mm tubes)
Stability:	±0.1°C@100°C
Weight:	3.6 kg
Dimensions	310 x 250 x 80mm (LxWxH)
CE Mark:	Yes
Oven Temp Cutoff:	212°C

