DR1900 Portable Spectrophotometer

Applications

- Drinking Water
- Wastewater
- Field Use
- Industrial Water
- Power



Carry more water methods with you wherever you need them most.

The DR1900 combines the ruggedness and portability of a field instrument with over 220 of the most commonly tested water methods.

Carry Anywhere

The lightest, most compact portable spectrophotometer available easily goes where you need to go.

Test What You Need

Analyze your water with more preprogrammed methods than any other portable spectrophotometer, or easily create your own methods to suit your unique needs.

Ensure Accuracy in the Field

Wavelength range of 340 to 800 nm. provides accuracy typically seen only in laboratory instruments.

Make Testing Easier

Simple, easy-to-use interface plus the widest range of vial sizes makes testing flexible.

Take Into Field Environments

Rugged construction keeps the elements out, which means you can test in the most demanding conditions.





Specifications*

Operating Mode	Transmittance (%), Absorbance and Concentration	Preprogrammed Methods	> 220
Source Lamp	Xenon Flash	User Programs	50
Wavelength Range	340 to 800 nm	Sample Cell	13 / 16 mm and 1 inch round
Wavelength Accuracy	± 2 nm (range 340 - 800nm)	Compatibility	adapter, 1 inch square and
Wavelength Selection	Automatic	Dimensions (H v W v D)	10x10mm
Wavelength	± 0.1 nm	Dimensions (H x W x D)	3.9 in x 7 in x 10.5 in (98 mm x 178 mm x 267 mm)
Reproducibility		Weight	3.31 lbs. (1.5 kg)
Spectral bandwidth	5 nm	-	
Photometric	0 to 3 Abs	Operating Conditions	10 to 40 °C (50 - 104 °F), max. 80 % relative humidity
Measuring Range	(wavelength range 340 – 800 nm)		(non-condensing)
Photometric Accuracy	± 0.003 Abs @ 0.0 - 0.5 Abs	Storage Conditions	-30 to 60 °C (-22 to 140 °F), max.
Photometric Linearity	< 0.5 % (0.5 - 2.0 Abs)		80 % relative humidity
Stray Light	< 0.5% T@340nm with NaNO ₂		(non-condensing)
Display	Graphical display 240 x 160 pixel	Enclosure Rating	IP67
	(LCD, b/w, backlit)		*Subject to change without notice.
Data Logger	500 measured values (Result, Date, Time, Sample ID, User ID acc. to GLP)		

Available Tests

The following table lists available tests and overall ranges for the Hach DR1900 Portable Spectrophotometer. The ranges may represent more than one available test for the instrument. Consult your Hach representative, Customer Service, the Hach Master Catalog, or the Hach web site at www.hach.com for complete details of all available tests for this instrument.

Parameter	Range	Parameter	Range
Acid Capacity Ks 4,3	0.5 - 8 mmol/L	Iron, Total	0.009 to 6.0 mg/L
Alachlor	0.1 to 0.5 ppb, threshold	Lead	0.005 to 2.0 mg/L
Alcohol	0.01 - 0.12 mg/L	Magnesium	0.5 to 50 mg/L
Alkalinity, Total	25 to 400 mg/L	Manganese	0.005 to 20.0 mg/L
Aluminum	0.002 to 0.800 mg/L	Menthol within Distillate	0.5 - 15 mg/100mL
Ammonia, Nitrogen	0.025 to 167 mg/L	Mercury	0.1 to 2.5 μg/L
AOX	0.005 to 3 mg/L	Molybdenum, Molybdate	0.02 to 300.0 mg/L
Arsenic	0 to 0.2 mg/L	Nickel	0.006 to 6.0 mg/L
Barium	2 to 100 mg/L	Nickelbaths, acidous	5 to 120 g/L
Benzotriazole	1 to 16 mg/L	Nitrate, Nitrogen	0.22 to 150 mg/L
BOD5	0.5 to 1,650 mg/L	Nitrite, Nitrogen	0.007 to 250 mg/L
Boron	0.05 to 14 mg/L	Nitrogen, Total	1 to 100 mg/L
Bromine	0.05 to 4.50 mg/L	Nitrogen, Total Kjeldahl	1 to 150 mg/L
Cadmium	0.02 to 0.30 mg/L	Organic Acids	27 to 2,800 mg/L Acetic Acid
Carbonate/Carbon Dioxide	55 to 550 mg/L	Oxygen Scavangers	0.003 to 1 DEHA
Chloramine, Mono	0.04 to 4.5 mg/L	Ozone	0.1 to 2.0 mg/L
Chloride	0.1 to 1,000 mg/L	PCB (Polychlorinated Biphenyls)	1 to 50 ppm, threshold
Chlorine Dioxide	0.01 to 5 mg/L	Phenols	0.002 to 0.200 mg/L
Chlorine, Free	0.02 to 10.0 mg/L	Phosphonates	0.02 to 125.0 mg/L
Chlorine, Total	0.02 to 10.0 mg/L	Phosphorus, Reactive	19 µg/L to 90 mg/L
Chromium Acid Baths	50 to 450 g/L	(Orthophosphate)	
Chromium, Hexavalent	0.010 to 1.00 mg/L	Phosphorus, Total	0.15 to 60 mg/L
Chromium, Total	0.01 to 1.0 mg/L	Potassium	0.1 to 50 mg/L
Cobalt	0.01 to 2.00 mg/L	Quaternary Ammonium	0.2 to 5.0 mg/L
COD (Chemical Oxygen Demand)0 to 60,000 mg/L		Compounds	
Color	5 to 500 units	Selenium	0.01 to 1 mg/L
Copper	0.001 to 8.0 mg/L	- Silicic acid	0.003-100 mg/L
Copperbaths, Acidous	2 -100 g/L	Silver	0.005 to 2,500 mg/L
Cyanide	0.002 to 0.6 mg/L	Sludge activity (TTC)	
Cyanuric Acd	5 to 50 mg/L	Starch	2 to 150 mg/L
Dissolved Oxygen	0.006 to 40 mg/L	Sulfate	2 to 900 mg/L
Fluoride	0.02 to 2.00 mg/L	Sulfide	0.005 to 2 mg/L
Formaldehyde	0.003 to 10 mg/L	Sulfite	0.01 to 5 mg/L
Hardness, Total (Calcium and Magnesium as CaCO ₃)	0.07 mg/L to 4.00 mg/L	 Surfactants (Anionic, Cationic, Non-ionic) 	0.002 to 200 mg/L
Hydrazine	0.004 to 2 mg/L	Suspended Solids	5 to 750 mg/L
Hydrogen Peroxide	1 -10 g/L	Tannin and Lignin	0.1 to 0.9 mg/L
lodine	0.07 to 7.00 mg/L	- Tin	0.1 to 2 mg/L
Iron, Ferrous	0.02 to 3.00 mg/L	TOC (Total Organic Carbon)	2 to 3,000 mg/L
		TTHM (Trihalomethanes, Total)	10 to 600 μg/L

Note: The TNTplus[®] cuvette test evaluation is possible, but without barcode reading & 10-fold measurement features.

Ordering Information

DR1900 Portable Spectrophotometer includes basic printed instrument manual, dust cover, 1-in. square glass sample cells, AA batteries and adapter set.

DR1900-01H DR1900 Portable Spectrophotometer

9624700 DR1900 Portable Spectrophotometer with USB+Power Module

Accessories

LZV804	Power Module
	Includes module, universal power supply, and manual
LZV813	USB+Power Module
	Includes module, universal power supply, standard USB cable, special USB cable adapter, and manual
LZV949	USB Module
	includes module, standard USB cable, special USB cable adapter, and manual
2960100	Citizen PD-24 Printer Package
2763900	DR/Check Absorbance Standard Kit (Set of 4)
LZV537	Test Filter Set
2990700	Small Backpack with Cases, for portable equipment





Service Options

Comprehensive bench repair includes all parts, labor and shipping costs from the factory for depot repairs, one calibration per year at factory, factory recommended maintenance (including required parts) and unlimited technical support calls. A loaner instrument will be provided during factory repair, based on availability. Please see service terms and conditions at www.hach.com/terms for additional details.

BSPDR1900 DR1900 Portable Spectrophotometer Bench Service Partnership

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