

*A full specification multifunction photometer for the analyst who demands high quality routine water testing.*

## Photometer 8000

The Photometer 8000 sets a new standard for water quality testing and ease of operation. It is designed to provide accurate and fast analysis for even the busiest test labs. Covering the full range of tests for clean water and wastewater, it is compatible with all Palintest tablet and liquid photometer tests.

- Full range of pre-programmed tests
- Automatic method and wavelength set-up
- Touch screen with language selection
- Advanced optics technology with high sensitivity
- Unique adaptive cell holder
- Remote software update by e-mail

With no moving parts, all measurements are made instantly, providing a very fast sample throughput. Compatible Palintest Tubetests reagent tubes are coded to provide all the instrument needs for wavelength, range and calibration set up and analysis. The instrument recognises the tube method and measurement range and automatically sets up for a measurement. The user simply pushes in the tube and the instrument does the rest.

The unique multisize cell holder adjusts automatically to all reagent tubes from 13mm to 20mm diameter with no inserts or adapters required, again speeding up analysis, and making the unit very convenient for the routine analysis of large numbers of samples. The cell holder is fully jam and trap resistant to allow fast and secure tube swapping.

With an innovative permanent dual light source, the correct wavelength is automatically selected. A high efficiency light-focusing system provides a very high level of light throughput to the cells. The high intensity sources are up to 10 times brighter than the conventional optics found in other instruments and the optical system eliminates stray light effects, allowing the instrument to be used at maximum precision.

Dynamic Active Light Level Compensation in the optical system eliminates drift and ensures accurate measurements immediately from switch on, with no warm-up period required, providing a fast and convenient sample throughput.

The unique light lensing system with reference channels optimises precision by compensating for optical imperfections in reagent tubes.



The Photometer 8000 is fully software driven, with a large backlit touch-screen providing easy access to all instrument functions. The software includes a rapid self-test of the complete instrument including the innovative optical system. The diagnostics continue to run in a permanent monitoring mode to check power supply, light levels and system integrity, reporting to the user immediately any variation that would affect the analysis.

Health and Safety information for reagents is built into the software, along with a full suite of multi-lingual method instructions (English, French, German, Spanish and Italian).

An analysis method can be called up directly, or via a user-specific method list where commonly used combinations of tests can be set up. All test parameters are then set automatically. The instrument can also be remotely controlled by computer through its integral RS232 port. The same port allows remote update of the software via e-mail or diskette (via computer), with no requirement for direct modem connection.

The system memory allows up to 1000 results to be stored on-board and selectively or batch uploaded to LIMS (Laboratory Information Management System) or other computer, or each result can be sent as it is collected. Results are fully audit trailed with sample number, time and date attached, and a system lock prevents accidental or unauthorised modification.

The casing is carefully sealed, and water- and dust-resistant to provide a long lifetime and a low maintenance requirement.

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## Technical Specifications

<b>Instrument Type</b>	Direct-reading colorimeter with automatic set-up and reading
<b>Operating Wavelengths</b>	420nm, 500nm, 550nm, 575nm, 600nm and 650nm
<b>Display</b>	Large Backlit LCD touch-screen
<b>Accuracy</b>	±0.005 at 0.3 au
<b>Resolution</b>	Transmittance resolution to 0.1% and Absorbance resolution to 0.001 au
<b>User Selectable Options</b>	Display language (French, German, Spanish, Italian), date format, test, units, sample number, dilution, user id and wavelength
<b>Internal Memory</b>	1000 sample results stored with selective recall
<b>Data Output</b>	Bi-directional communication with output to printer or computer via RS232 serial interface
<b>Test Cells</b>	Automatic adjustment for round test tubes from 12 - 20 mm diameter
<b>Power</b>	Standard mains power, optional battery power through standard 'AA' batteries
<b>Size and weight</b>	290 x 240 x 90 mm, 1648 g

## Ordering Information

### PT 800 Photometer 8000 Kit

Includes Photometer 8000 instrument and power supply. Reagents are sold separately.

### PT 802 Check standards with test certificate

### PT 803 Optional hard carrying case

### PT 595/5 Round Test Tubes, 10ml, pack of 5



## Reagents

TEST	RANGE (mg/l)	REAGENT STARTER PACKS (50 TESTS)	REAGENT REFILL PACKS (250 TESTS)
Alkalinity Total (Alkaphot)	0-500 (CaCO <sub>3</sub> )	PM 188	AP 188
Alkalinity M (Alkaphot M)	0-500 (CaCO <sub>3</sub> )	PM 250	AP 250
Alkalinity P (Alkaphot P)	0-500 (CaCO <sub>3</sub> )	PM 251	AP 251
Aluminium	0-0.5	PM 166	AP 166
Ammonia	0-1.0 (N)	PM 152	AP 152
Boron	0-2.5	PM 190	AP 190
Bromine	0-10.0	PM 060	AP 060
Calcium Hardness (Calcicol)	0-500 (CaCO <sub>3</sub> )	PM 252	AP 252
Chloride (Chloridol)	0-50,000 (NaCl)	PM 268	AP 268
Chlorine DPD 1	0-5.0	PM 011	AP 011
Chlorine DPD 2	0-5.0	PM 021	AP 021
Chlorine DPD 1 & 3	0-5.0	PM 031	AP 031
Chlorine DPD 4	0-5.0	PM 041	AP 041
Chlorine HR (High Range)	0-250	PM 162	AP 162
Chlorine Dioxide (DPD)	0-4.0	PM 052	AP 052
Chlorine Dioxide LR (Low Range)	0-2.5	PM 064	AP 064
Chlorine Dioxide HR (High Range)	2.5-20	PM 065	AP 065
Chromium (VI) (Chromicol)	0-1.0	PM 281	AP 281
Chromium (III) (Chromicol)	0-1.0	AT 283	-
Copper (Coppercol) (free, combined, and total)	0-5.0	PM 186	AP 186
Copper (free)	0-5.0	-	AP 187
Colour/Turbidity	10-500 (Hazen units)	PM 269	-
Cyanuric Acid	0-200	PM 087	AP 087
Dissolved Oxygen (0.8/vials)	0-0.8	PL 553†	PL 553/R†
Dissolved Oxygen (2.0/vials)	0-2.0	PL 503†	PL 503/R†
Dissolved Oxygen (20/vials)	0-20	PL 513†	PL 513/R†
Fluoride	0-1.5	PM 179	AP 179*
Hardness (Hardicol)	0-500 (CaCO <sub>3</sub> )	PM 254	AP 254
Hydrazine	0-0.5	PM 103†	AP 103 •
Hydrogen Peroxide LR	0-2.0	PM 104	AP 104
Hydrogen Peroxide HR	0-100	PM 105	AP 105
Iron LR	0-1.0	-	AP 155
Iron HR	0-10	PM 156	AP 156
Iron MR	0-5.0	PM 292	AP 292
Magnesium (Magnecol)	0-100	PM 193	AP 193
Manganese	0-0.03	PM 173	AP 173
Molybdate LR	0-20	PM 258	AP 258*
Molybdate HR	0-100	PM 175	AP 175
Nickel (Nickeltest)	0-10	PM 284	AP 284*
Nitrate (Nitratest)	0-20 N	PM 163	AP 163*
Nitrite (Nitricol)	0-0.5 N	PM 109	AP 109
Nitrite (Nitriphot)	0-1500 (NaNO <sub>2</sub> )	PM 260	AP 260
Organophosphonate (OP)	0-20 (PO <sub>4</sub> )	PM 262	AP 262
Ozone	0-2.0	PM 056	AP 056
pH (phenol red)	6.8-8.4	PM 130	AP 130
Phenol (Phenoltest)	0-5.0	PM 287	AP 287*
PHMB	0-100	PM 272	AP 272
Phosphate LR	0-4.0	PM 177	AP 177*
Phosphate HR	0-100	PM 114	AP 114
Potassium	0-12	PM 189	AP 189
Silica	0-4.0	PM 181	AP 181*
Silica HR	0-150	PM 290	AP 290*
Sulphate	0-200	PM 154	AP 154
Sulphide	0-0.5	PM 168	AP 168*
Sulphite (Sulphitest)	0-500 (Na <sub>2</sub> SO <sub>3</sub> )	PM 266	AP 266
Zinc	0-4.0	PM 148	AP 148

\*200 tests • 150 tests † 30 tests