MULTIPARAMETER PHOTOMETERS
About us
Palintest is a leading company in the design and manufacture of water analysis technologies, supplying a comprehensive range of precision instruments for multidisciplinary analysis.

A global company with a local approach
- USA
- UK
- China
- Australia

Application areas
- Drinking water
  - Test kits for water treatment and supply
- Soil and irrigation
  - Test kits for optimising crop yields
- Pool and spa
  - Kits for commercial and residential sectors
- Process industries
  - Test kits for industrial processes

Product range
From multiparameter photometers to visual test kits, Palintest has a wide range of solutions for every application.

Water testing library
Our online library contains research and insight surrounding our products and the applications they are used in.

Analysing critical water quality parameters
We offer a wide range of instruments covering all critical water quality parameters. Our multiparameter photometers are ideal for providing the critical information required for drinking water, wastewater, environmental and process applications.

Our multiparameter photometers utilise photometric and colorimetric analysis, providing repeatable and reliable results for over 100 tests.

Key benefits of Palintest photometers:
- Stable and repeatable calibration
  No need for frequent re-calibration.
- Low detection limits
  Measure even the slightest concentrations for key water quality parameters.
- Visible analysis
  The colour may be visible to the naked eye but a photometer removes the subjectivity and provides a much more accurate reading.

Photometer feature key
- Tablet icon
  This instrument is compatible with tablet reagents.
- Tubetest icon
  This instrument is compatible with liquid tubetests reagents.
- Liquid icon
  This instrument is compatible with liquid reagents.
- USB icon
  This instrument includes a data transfer function via USB.
- Bluetooth icon
  This instrument includes a data transfer function via Bluetooth.
1. Raw water abstraction
Drinking water originates from a variety of sources; fresh water extracted from rivers and lakes, seawater treated using desalination or a natural wells and springs used for local supply.

2. Drinking Water Treatment
Drinking water treatment ensures the raw water abstracted is suitable for human consumption. This can involve flocculation and clarification, filtration and disinfection. Once the water adequately is disinfected, the water can be distributed and may be further tested at the point of use.

3. Domestic Wastewater Treatment
The treatment of domestic wastewater aims to reduce organic material so it is suitable for discharge back into the environment. Once the water adequately is disinfected, the water can be distributed and may be further tested at the point of use.

4. Industrial Wastewater Effluent
Industrial wastewater has the same aim as domestic wastewater treatment but can have unique additional contaminants. Water discharged into the environment must be monitored for impact on oxygen demand to protect aquatic life.

5. Managing Processes involving Water
Processes such as food & beverage production and energy generation require water as an essential part of the process. Testing throughout the process ensures maximum efficiency and yield.

Choose your Multiparameter photometer

<table>
<thead>
<tr>
<th>Features</th>
<th>Photometer 7100</th>
<th>Photometer 7500 Bluetooth®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Power</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Number of Methods</td>
<td>&gt; 100</td>
<td>&gt; 100</td>
</tr>
<tr>
<td>Sample ID</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Frequently Used Test List/Hot Keys</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Multiple Date Formats</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Automatic Method Set-Up</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Timer</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Automatic Read After Development Timer</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Date/Time</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Backlight with User Control</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Accessible Optical Bench for Cleaning</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Automatic Sample Tube Centering</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Numeric/Select Key Interface</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Connectivity</td>
<td>Bluetooth &amp; USB</td>
<td></td>
</tr>
<tr>
<td>Mains Power</td>
<td>Via USB port</td>
<td></td>
</tr>
<tr>
<td>Bi-directional Serial Communication</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>User Defined Tests</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>CSV Format Data Download</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>User Access Control Lock</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Result Log</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Drag and Drop Method Update</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>RS232 Connectivity</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Barcode reader for Tubetests®</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Touchscreen interface</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>User Favourite Test List</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selectable Data Download</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Memory Capacity</td>
<td>100</td>
<td>500</td>
</tr>
</tbody>
</table>
The Photometer 7500 includes over 100 tests with the capability to add your own tests to the instrument.

**Features include:**
- Effortlessly store your data and transfer them to the Palintest Aqua Pal App with Bluetooth® connectivity
- Downloadable data log with 500 results (including time and date of test)
- Develop your own tests - load them via the USB port into your photometer with a simple software tool

---

**Technical Specification**

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Dual light source photometer offering direct-reading of pre-programmed test calibrations, Absorbance and Transmittance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Wavelengths</td>
<td>450nm, 500nm, 550nm, 570nm, 600nm, 650nm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±1.0% T</td>
</tr>
<tr>
<td>Display</td>
<td>320 x 240 pixel LCD with backlight and contrast adjustment</td>
</tr>
<tr>
<td>User Interface</td>
<td>On-screen prompts available in English, French, Spanish, German, Italian, Turkish and Mandarin (Chinese).</td>
</tr>
<tr>
<td>Size (W x L x H) and weight</td>
<td>150 x 250 x 70mm, 975g</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP67</td>
</tr>
<tr>
<td>Power Supply</td>
<td>3 x 1.5v AA batteries (typically 40 hours), mains power delivered by USB port</td>
</tr>
<tr>
<td>Connectivity</td>
<td>Palintest Bluetooth (4.0) profile and USB for data download</td>
</tr>
<tr>
<td>User Defined Methods</td>
<td>Up to 30 additional methods</td>
</tr>
<tr>
<td>Memory Capacity</td>
<td>Up to 500 data sets. Each data set includes date, time, Sample ID, Operator ID, method number, method name, result, units</td>
</tr>
<tr>
<td>Sample Tubes</td>
<td>Automatic centering for cylindrical sample tubes from 13 – 20mm OD</td>
</tr>
</tbody>
</table>

---

**Kit contents**

<table>
<thead>
<tr>
<th>PTBH 7500 Photometer 7500 Bluetooth Standard Kit</th>
<th>PTBR 7500 Photometer 7500 Bluetooth Benchtop Kit</th>
<th>PTBW 7500 Photometer 7500 Bluetooth Engineers Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photometer 7500 Bluetooth</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Sample Tube</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Sample Tube Rack</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lint Free Polishing Cloth</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Absorbent Cloth</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>20 mL Syringe</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>10 mL Syringe</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Dilution Tube</td>
<td>+</td>
<td>2</td>
</tr>
<tr>
<td>Sample Tube Brush</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Crush/Stir Rod</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>USB Lead</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Waterproof USB Lead</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>USB Power Adaptor</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>De-Ion Pack</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Multiparameter (pH, EC, TDS, Salinity) Pocket Sensor</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>pH and Conductivity Calibration Solutions</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Check Standard Set</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Hard Carry Case</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Transport Carton</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>IP67 Carry Case</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

---

**Ordering Information**

- PTBH 7500 Photometer 7500 Bluetooth Standard Kit
- PTBW 7500 Photometer 7500 Bluetooth Engineers Kit
- PTBR 7500 Photometer 7500 Bluetooth Benchtop Kit

---

**Photometer 7500**

The Photometer 7500 is our most popular photometer due its versatility and simplicity of use. Reliable and intuitive it has been designed to simplify the process of testing and managing water quality data.
**Photometer 7100**

Whether for drinking water, wastewater, effluent, process water or environmental analysis, the Photometer 7100 provides the complete range of test parameters in a waterproof instrument.

Simple to use, robust in construction and designed for on-site analysis. The Photometer 7100 provides quick and dependable results, which enables decisions on water quality to be made with confidence.

**Features include:**
- Simple operation with automatic setup for each test. Designed for Palintest reagent systems in tablet form or liquid based tubetests reagents with its adaptive cell holder
- Rapid access to frequently used tests from a choice of over 100 methods
- Waterproof to IP67, protecting the instrument from water damage

Available as benchtop kit with all necessary accessories, or in a carry case for portable use with additional spaces for carrying reagents.

---

**Technical Specification**

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Dual light source photometer offering direct-reading of pre-programmed test calibrations, Absorbance and Transmittance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelengths</td>
<td>450nm, 500nm, 550nm, 570nm, 600nm, 650nm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±1.0% T</td>
</tr>
<tr>
<td>Display</td>
<td>320 x 240 pixel LCD with backlight and contrast adjustment</td>
</tr>
<tr>
<td>User Interface</td>
<td>On-screen prompts available in English, French, Spanish, German, Italian, Turkish and Mandarin (Chinese).</td>
</tr>
<tr>
<td>Size (W x L x H) and weight</td>
<td>150 x 250 x 70mm, 975g</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP67</td>
</tr>
<tr>
<td>Power Supply</td>
<td>3 x 1.5V AA batteries (typically 40 hours)</td>
</tr>
<tr>
<td>Sample Tubes</td>
<td>Automatic centering for cylindrical sample tubes from 13 – 20mm OD</td>
</tr>
</tbody>
</table>

---

**Kit contents**

<table>
<thead>
<tr>
<th>PTR 7100 Photometer 7100 Benchtop Kit</th>
<th>PTH 7100 Photometer 7100 Standard Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photometer 7100 Instrument</td>
<td>+</td>
</tr>
<tr>
<td>Sample Tubes</td>
<td>10</td>
</tr>
<tr>
<td>Sample Tube Rack</td>
<td>+</td>
</tr>
<tr>
<td>10 mL Syringe</td>
<td>+</td>
</tr>
<tr>
<td>Dilution Tube</td>
<td>+</td>
</tr>
<tr>
<td>Sample Tube Brush</td>
<td>+</td>
</tr>
<tr>
<td>Crush/Stir Rod</td>
<td>+</td>
</tr>
<tr>
<td>Hard Carry Case</td>
<td>+</td>
</tr>
<tr>
<td>Transport Carton</td>
<td>+</td>
</tr>
</tbody>
</table>

---

**Ordering Information**

<table>
<thead>
<tr>
<th>PTR 7100</th>
<th>Photometer 7100 Standard Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTH 7100</td>
<td>Photometer 7100 Benchtop Kit</td>
</tr>
</tbody>
</table>
Photometer Reagents

Photometer tablet reagents are available in two general pack sizes, the Starter Pack (PM code) and the Replacement Pack (AP code).

<table>
<thead>
<tr>
<th>Name</th>
<th>Range</th>
<th>Starter Pack (50 tests)</th>
<th>Replacement Pack (250 tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M – Alkalinity (Alkaphot M)</td>
<td>0 – 500 mg/L CaCO₃</td>
<td>PM 250</td>
<td>AP 250</td>
</tr>
<tr>
<td>P – Alkalinity (Alkaphot P)</td>
<td>0 – 500 mg/L CaCO₃</td>
<td>PM 251</td>
<td>AP 251</td>
</tr>
<tr>
<td>Total Alkalinity (Alkaphot)</td>
<td>0 – 500 mg/L CaCO₃</td>
<td>PM 388</td>
<td>AP 388</td>
</tr>
<tr>
<td>Ammonia</td>
<td>0 – 10 mg/L N</td>
<td>PM 152</td>
<td>AP 152</td>
</tr>
<tr>
<td>Bromine</td>
<td>0 – 10 mg/L Br₂</td>
<td>PM 060</td>
<td>AP 060</td>
</tr>
<tr>
<td>Boron</td>
<td>0 – 2.5 mg/L B</td>
<td>PM 290</td>
<td>AP 190 (160 tests)</td>
</tr>
<tr>
<td>Calcium Hardness (Calcicol)</td>
<td>0 – 500 mg/L CaCO₃</td>
<td>PM 252</td>
<td>AP 252</td>
</tr>
<tr>
<td>Chloride (Chloridol)</td>
<td>0 – 50,000 mg/L NaCl</td>
<td>PM 268</td>
<td>AP 268</td>
</tr>
<tr>
<td>Chlorine – Free (DPD 1)</td>
<td>0 – 5 mg/L Cl₂</td>
<td>PM 011</td>
<td>AP 011</td>
</tr>
<tr>
<td>Chlorine – Free, extended range (DPD XF)</td>
<td>0 – 10 mg/L Cl₂</td>
<td>PM 013</td>
<td>AP 013</td>
</tr>
<tr>
<td>Chlorine – Total (DPD 4)</td>
<td>0 – 5 mg/L Cl₂</td>
<td>PM 031</td>
<td>AP 031</td>
</tr>
<tr>
<td>Chlorine – Total, extended range (DPD XF and DPD XT)</td>
<td>0 – 10 mg/L Cl₂</td>
<td>PM 033</td>
<td>AP 033</td>
</tr>
<tr>
<td>Chlorine HR</td>
<td>0 – 5 mg/L Cl₂</td>
<td>PM 162</td>
<td>AP 162</td>
</tr>
<tr>
<td>Chlorine Dioxide and Chlorite (DPD method)</td>
<td>0 – 10 mg/L Cl₂</td>
<td>PM 052</td>
<td>AP 052</td>
</tr>
<tr>
<td>Chlorine Dioxide LR (Lissamine Green B method)</td>
<td>0 – 2.5 mg/L Cl₂</td>
<td>PM 064</td>
<td>AP 064</td>
</tr>
<tr>
<td>Chlorine Dioxide HR (Lissamine Green B method)</td>
<td>2.5 – 20 mg/L Cl₂</td>
<td>PM 065</td>
<td>AP 065</td>
</tr>
</tbody>
</table>

Liquid Reagents

<table>
<thead>
<tr>
<th>Description</th>
<th>Range</th>
<th>Part Code (30 tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissolved Oxygen 0.8</td>
<td>0 – 0.8 mg/L O₂</td>
<td>PL 563</td>
</tr>
<tr>
<td>Dissolved Oxygen 0.8</td>
<td>0 – 2.0 mg/L O₂</td>
<td>PL 563</td>
</tr>
<tr>
<td>Dissolved Oxygen 2.0</td>
<td>0 – 20 mg/L O₂</td>
<td>PL 563</td>
</tr>
<tr>
<td>Chlorine – Free (equivalent to DPD 1)</td>
<td>0 – 5 mg/L Cl₂</td>
<td>AT 035 (200 tests)</td>
</tr>
<tr>
<td>Chlorine – Total (equivalent to DPD 3)</td>
<td>0 – 5 mg/L Cl₂</td>
<td>AT 035 (200 tests)</td>
</tr>
</tbody>
</table>
Tubetests

For ultimate convenience the Palintest range of Tubetests reagents offer pre-dispensed reagents for minimal handing with barcoded reagent labelling for ease of use in wastewater applications.

For wastewater parameters such as Chemical Oxygen Demand (COD), nutrients and Heavy Metals, the Tubetests range provides the complete solution.

Features include:

- 16mm OD tubes for improved resolution – larger diameter tubes are more sensitive in the lower part of the measuring range
- Full range of accessory heater blocks, tube racks, workplace mats and pipettes to provide the complete solution for Tubetests analysis

Available in packs of 25 tests, the Tubetests range of reagents supports the activities of any effluent monitoring laboratory. Add any multiparameter photometer to your heater block and reagents for a complete wastewater analysis system.

### Tubetests Reagents

For wastewater parameters such as Chemical Oxygen Demand (COD), nutrients and Heavy Metals, the Tubetests range provides the complete solution.

#### Mercury Free for Low Chloride Samples

<table>
<thead>
<tr>
<th>Range</th>
<th>Part Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>COD/150</td>
<td>0 – 150 mg/L O₂</td>
</tr>
<tr>
<td>COD/400</td>
<td>0 – 400 mg/L O₂</td>
</tr>
<tr>
<td>COD/1000</td>
<td>0 – 1000 mg/L O₂</td>
</tr>
<tr>
<td>COD/2000</td>
<td>0 – 2000 mg/L O₂</td>
</tr>
<tr>
<td>COD/20000</td>
<td>0 – 20000 mg/L O₂</td>
</tr>
</tbody>
</table>

#### Containing Mercury for Moderate Chloride Samples

<table>
<thead>
<tr>
<th>Range</th>
<th>Part Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>COD/150/M</td>
<td>0 – 150 mg/L O₂</td>
</tr>
<tr>
<td>COD/400/M</td>
<td>0 – 400 mg/L O₂</td>
</tr>
<tr>
<td>COD/1000/M</td>
<td>0 – 1000 mg/L O₂</td>
</tr>
<tr>
<td>COD/2000/M</td>
<td>0 – 2000 mg/L O₂</td>
</tr>
<tr>
<td>COD/20000/M</td>
<td>0 – 20000 mg/L O₂</td>
</tr>
</tbody>
</table>

#### Containing Mercury for High Chloride Samples

| COD/150/2M     | 0 – 150 mg/L O₂ | PL 461 |
| COD/1000/2M    | 0 – 1000 mg/L O₂ | PL 468 |
| COD/2000/2M    | 0 – 2000 mg/L O₂ | PL 465 |
| COD/20000/2M   | 0 – 20000 mg/L O₂ | PL 467 |

#### COD Standard Solutions (COD Concentration)

<table>
<thead>
<tr>
<th>Nominal COD Concentration</th>
<th>Part Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>COD Standard Solution, 125 mL</td>
<td>80 mg/L</td>
</tr>
<tr>
<td>COD Standard Solution, 125 mL</td>
<td>250 mg/L</td>
</tr>
<tr>
<td>COD Standard Solution, 125 mL</td>
<td>800 mg/L</td>
</tr>
<tr>
<td>COD Standard Solution, 125 mL</td>
<td>10000 mg/L</td>
</tr>
</tbody>
</table>

#### Nutrients

<table>
<thead>
<tr>
<th>Range</th>
<th>Part Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia 15N, Nessler Method</td>
<td>0 – 15 mg/L N</td>
</tr>
<tr>
<td>Ammonia 50N, Nessler Method</td>
<td>0 – 50 mg/L N</td>
</tr>
<tr>
<td>Ammonia 100N, Nessler Method</td>
<td>0 – 100 mg/L N</td>
</tr>
<tr>
<td>Ammonia 12N/50N, Indophenol Method</td>
<td>0 – 12 mg/L N</td>
</tr>
<tr>
<td>Nitrate 30N</td>
<td>0 – 30 mg/L N</td>
</tr>
<tr>
<td>Total Nitrogen 30N (use with PL 404)</td>
<td>0 – 30 mg/L N</td>
</tr>
<tr>
<td>Phosphate 12P</td>
<td>0 – 12 mg/L P</td>
</tr>
<tr>
<td>Total Phosphorus 12P</td>
<td>0 – 12 mg/L P</td>
</tr>
</tbody>
</table>

#### Heavy Metals

<table>
<thead>
<tr>
<th>Range</th>
<th>Part Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium VI (Cr⁶⁺)</td>
<td>0 – 10 mg/L Cr</td>
</tr>
<tr>
<td>Total Chromium</td>
<td>0 – 10 mg/L Cr</td>
</tr>
<tr>
<td>Copper</td>
<td>0 – 20 mg/L Cu</td>
</tr>
<tr>
<td>Iron</td>
<td>0 – 25 mg/L Fe</td>
</tr>
<tr>
<td>Nickel</td>
<td>0 – 20 mg/L Ni</td>
</tr>
<tr>
<td>Zinc</td>
<td>0 – 7 mg/L Zn, 0 – 35 mg/L Zn</td>
</tr>
</tbody>
</table>
Photometer Calibration Check Standards

Check that your instrument is within range with Palintest Check Standards. Photometers can be validated in the field using the unique Neutral Density Filter Check Standards.

- Validate the performance of your photometer and guarantee the quality of your results
- Traceable to National Physical Laboratory (NPL) standards for a full audit trail
- Specific sets and tolerances for individual photometer models
- Indefinitely stable, check standards are not affected by temperature

**Certified Check Standard Set** supplied in protective case in sealed vials. Includes three standards and blank.

See [www.palintest.com](http://www.palintest.com) for the full range of spares and accessories.

Aqua Pal App

- Available for iOS and Android, the Aqua Pal app provides seamless data management for the Photometer 7500 Bluetooth instrument and manual data upload from any other testing device
- Track data by sample ID, operator ID and create site specific reporting and control profiles for individual customers
- Text alerts and notifications when results are outside of defined limits

Servicing and Maintenance

Register your Photometer to take advantage of the 2 year warranty and access our full range of technical support.

Regular calibration and service will keep your instrument operating at the peak of performance.

**2 Year Warranty**

Register your Photometer 7500/Photometer 7100 Instrument Service and Calibration

For Photometer 7500 Bluetooth and Photometer 7100. Includes multipoint recalibration using traceable standards, inspection and test with issue of new calibration certificate.

Stay in touch @Palintest