



# Pooltest 10

## User Manual



# At Palintest we deliver:



## Swimmer safety

Safeguard pool users through effective disinfection and water balance control



## Pool integrity

Regular pool testing helps maintain your pool and protects the pool infrastructure



## Water balance

Maintain optimum water balance to avoid corrosion or scaling



## Cost efficiency

Optimise your pool treatment plan

Backed by over 100 years of research, our equipment has been designed to make testing simple and easy.

Our technology delivers reliable results, to drive confident water quality management, ensuring that we can all bathe and play safely.



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## General Information

Thank you for choosing the Palintest Pooltest 10. Please take time to read this manual and only use this instrument for the purposes specified. This instrument is waterproof to IP67. However, for best performance please ensure it is clean and dry before use.



### Battery Cover

When changing the 3 x AA batteries, ensure this cover is replaced correctly and screws tightened just sufficiently to maintain waterproof seal with integral gasket.

### Optics Cover

Should the optics need cleaning, remove cover and gently wipe the optical windows. Only use a soft, lint free cloth and a non-abrasive water-based cleaner, such as anti-static foam.

The LCD screen is provided with a backlight option. See System Mode settings.

### Information Panel Icons

	Battery
	USB
	Bluetooth on, and connected
	Bluetooth on, not connected

## Navigation



When the instrument starts up it will display the **'Choose a Test'** screen.

To get to the main menu (Mode screen), press the left arrow to highlight 'Menu' and press 'OK'



**The Mode screen contains the following options**

### Choose a Test

Select this mode to choose and perform a test.

### System Mode

Select this mode to change the system settings.

### Check Standards Mode

Select this mode to check the optical performance of the instrument.

## 5 Choosing and Performing a Test

1

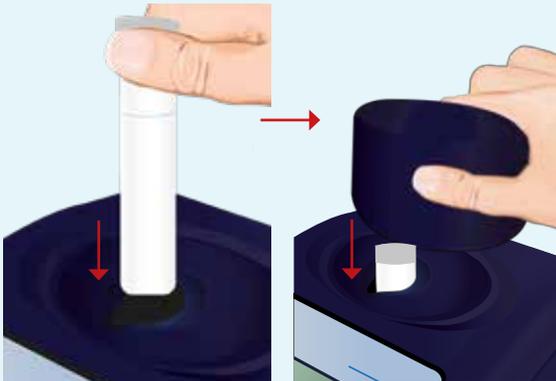


**Select a Test** in one of two ways:

- Use the arrows to scroll through the list.
- Key in the Phot Number of the test.

If you have dilution enabled, the dilution step will appear before blanking. See System Mode settings for more information.

2

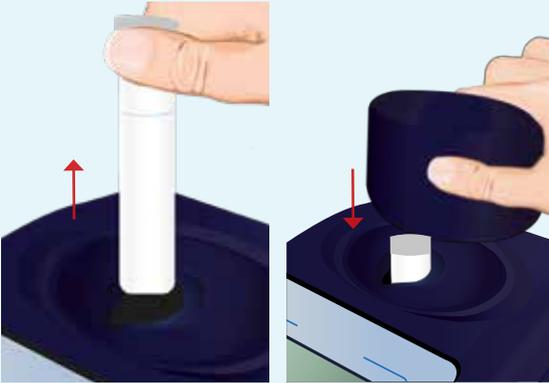


**Insert the blank**, place the light cap on the photometer and press OK.

Remove the blank when complete.

A blank is a sample of pool or spa water which does not contain any reagents.

3



**Insert the sample** with tablet reagents added (see Test Methods). Replace light cap and press OK.

4



When the test is complete, the result will display on screen.

By using the ▲ and ▼ arrow keys, the result will display with alternative chemical units, where available.

Message	Error	To solve
<b>Error 7</b>	Too much light	Ensure the light cap is being used to block out external light. If the error persists with the light cap in use, contact Palintest.
<b>Error 9</b>	Not enough light	Instrument is not detecting enough light to perform the test. Clean the test tubes being used to remove any marks. Clean the optics as described in General Information"

1



A timer can be set after the blanking process. Refer to the test method to see if this is required. The development time for the test will automatically appear. This can be modified using the arrow keys. Press start to set timer running.

2



When the timer is running the following options will appear:

Exit – this will return to the previous screen with the timer still counting down.

Exit and Read – this will return to the previous screen and will automatically read the sample when the timer has finished.

Follow On



Refer to the test method to see if this is required. If a follow-on test is available, it will appear in the bottom menu. Select if required.



Select 'Check Standard Mode' from the main menu. There are two options, one to enter the values, the other to read them back when checking performance.

## Enter Check Standard Values

This process is only carried out when a set of standards is used for the first time. Otherwise, go straight to Check Standard Measurement.



Standard No	Wavelength (nm)	Test Value/Tolerance (%T)
<input type="text" value="44225/A"/>		
<input type="text" value="44225/B"/>	450	49.5± 2
<input type="text" value="44225/C"/>	500	68.6± 2
<input type="text" value="44225/D"/>	550	50.8± 2
	570	69.2± 2
	600	60.7± 2
	650	45.3± 2

Enter the value for Standard B for 450nm and press OK. Enter the value for standard B for 500nm and press OK

2



Repeat for check standards C and D.

Once complete, 'check standards assigned successfully' will appear on screen.

## Check Standard Measurement

1



Select this to read the check standards. Then follow the on-screen instructions.

This checks the optical performance of the instrument. The measured value is compared to the previously entered values on the certificate.

2



An on screen report will be shown at the end of the process.

Select 'System Mode' from the main menu and choose from the following options:



Log	See Page 11
Operator ID/ Sample ID	See Page 12
USB	See Page 13
Bluetooth	See Page 14
Units, Dilution Factor	See Page 16
DPD Range, System Lock, Water Balance,	See Page 17
Temperature, Language, Set Time/Date	See Page 18
Date Format, Time Out, Backlight	See Page 19
LCD Contrast, Version	See Page 20

The instrument has an internal log of the most recent 500 tests. Each result, including those from Check Standard Mode, is recorded along with the sample number, time, date, operator ID, and sample ID.

### To Access the Log



From the main menu select 'System Mode' then 'Log'.

Select 'View' to see the last result, use the keys to navigate through the log.

The log can be viewed on the device or downloaded to a PC as a text file using the USB connection. See page 14.

### To Delete Results



To delete results from the log, select 'Clear', this will permanently remove all results from the log.

## Operator ID/ Sample ID

Operator IDs and Sample IDs will be stored in the results log to show which operator performed the test and which sample was used.



To access Operator ID or Sample ID from the main menu select 'System Mode' then 'Operator ID' or 'Sample ID'.

Up to 12 Operator IDs and 24 Sample IDs can be created.

### Edit ID



To edit an Operator ID or Sample ID, highlight the option, select 'Edit' and make the changes.

### Create New ID



To create a new Operator ID or Sample ID, scroll to the bottom of the list, then select 'New' to create an ID.

## Delete ID



To delete an Operator ID or Sample ID, highlight the option, and select 'Delete'.

Deleting an Operator ID or Sample ID will not affect previously recorded data.

## USB



To transfer the log to a PC via USB, select 'USB' from the mode menu, then select 'Hard Drive'. Once the device is in 'Hard Drive' mode, connect to a PC using the supplied USB cable.

When the instrument is connected it will be accessible on the PC as a removable drive, containing the LOG.txt file. The log file should be copied to the PC before being opened or edited in a text viewer or other application.

This data can be imported into most common spreadsheet applications by using the import wizard and setting the columns as 'Tab' delimited.

## COM Port

In COM Port mode results are streamed across the USB connection in real time using a serial communication format (emulating RS-232).

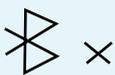
In this mode of operation, Palintest COM Port drivers are required. Please contact Palintest to access the drivers for installation.

The Photometer 7500 uses Bluetooth to communicate with the Palintest Aqua Pal App.

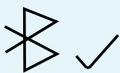
### To Turn Bluetooth On/Off



From the Main Menu select 'System Mode' then 'Bluetooth'. Select either 'Bluetooth Communications ON' or 'Bluetooth Communication OFF'



This Bluetooth icon will appear onscreen when the Bluetooth is ON but there is no external device connected.



The Bluetooth icon will be ticked once an external connection is made.

### To Connect to a Device



Select Bluetooth Communications ON. Enable Bluetooth on a mobile device and pair the devices from within the Aqua Pal App.

## Bluetooth Log Transfer



Select 'Bluetooth Log Transfer'.

To transfer all files, select 'Transfer all log entries' and press OK.



To transfer a specific log file, highlight 'Select log entries for transfer'. Use the up and down arrows to find the correct log entry and select OK. 'Log transfer complete' will display when the process is complete.

## Change Bluetooth Device ID



To change the Bluetooth Device ID, Select 'Bluetooth Device ID' and change as required.

## Units



Units can be displayed in the following options:

- mg/L
- ppm
- mmol/L
- µmol/L
- g/L
- µg/L

Select system mode then units to change the units displayed.

Changing the units will not affect previously stored results.

## Dilution Factor

If the sample concentration is higher than the test range, then it may be necessary to dilute the sample with deionised or distilled water. A dilution tube is available to simplify this procedure.

See the separate Test Instructions for how to do this.

To simplify this process, a dilution factor can be added to the test procedure. From the main menu select 'System mode' then 'Dilution Factor'. The highlighted option will be the one which is currently enabled. To change, highlight the option and press OK. The screen will return to System Mode.

If the sample has not been diluted, leave the value as x1.

## DPD Range



There is a choice of two ranges for the DPD test for Free and Total Chlorine. See Test Instructions to ensure that range selected matches the reagents being used.

## System Lock



The system settings can be locked to prevent changes. From the main menu, select 'System Mode', then 'System Lock'. To lock or unlock the instrument enter the code 6812. To change this code, contact Palintest.

## Water Balance



Water Balance can be set to use the Palintest Scale or Langelier Index. Select the preferred option and press OK

## Temperature



Temperature can be set to either °C or °F.

From the main menu, select 'System mode', then 'Temperature'. Highlight the preferred option and press OK.

## Language



Language options are:

English, Français, Deutsch, Español, Italiano, Türkçe, and Chinese.

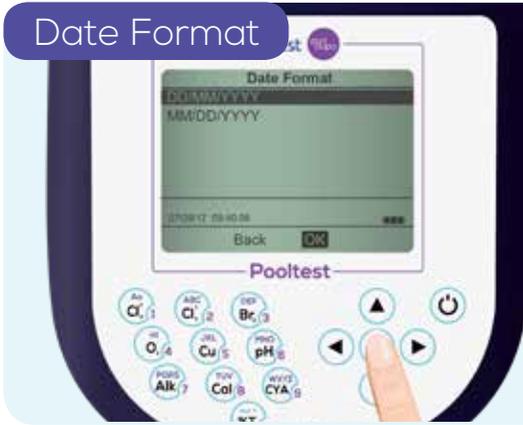
From the main menu, select 'System mode', then 'Language'. Highlight the preferred option and press OK.

## Set Time/Date



From the main menu select 'System mode' then 'Set Time' or 'Set Date'. Use the navigation keys to select and adjust each part of the time or date.

## Date Format



To change the date format select 'System Mode' from the main menu then 'Date Format' DD/MM/ YYYY or MM/DD/YYYY.

## Time Out



From the main menu select 'System Mode' then 'Time Out'. Options can be set to 5 minutes, 15 minutes or Off. Highlight the preferred option and press OK.

## Backlight



The instrument display features a high intensity backlight for use in low light conditions. To change the backlight settings, from the main menu select 'System mode' then 'Backlight'. Highlight the preferred option and press OK.

## LCD Contrast



From the main menu select 'System mode' then 'LCD Contrast'. The LCD screen contrast can be manually adjusted. Use the up/down buttons to adjust the contrast until the alternating shapes are clearly visible and press 'Save'.

## Version



From the main menu select 'System' then 'Version'. The software version number is displayed.

This will be needed if contacting Palintest for technical support.

<b>Instrument type</b>	Dual light source photometer offering direct-reading of pre-programmed test calibrations, absorbance and transmittance
<b>Optical source</b>	Dual LED sources with optical filters
<b>Optical detectors</b>	Silicon photodiodes
<b>Peak wavelengths</b>	450 nm, 500 nm, 550 nm, 570 nm, 600 nm, 650 nm
<b>Wavelength selection</b>	Automatic
<b>Wavelength accuracy</b>	±5 nm
<b>Range</b>	1 - 100%T (0-2 Abs)
<b>Photometric accuracy</b>	± 1.0% T
<b>Display</b>	320 x 240 pixel LCD with contrast adjustment
<b>Backlight</b>	Timed, on key press with auto-dim and off
<b>User interface</b>	On-screen prompts available in English, French, Spanish, German, Italian, Turkish and Mandarin (Chinese).
<b>Keypad</b>	Numeric keypad with four navigation keys and OK key
<b>Size (W x L x H)</b>	150 x 250 x 70mm
<b>Weight</b>	975g
<b>IP Rating</b>	IP67
<b>Batteries</b>	3 x 1.5v 'AA' batteries
<b>Lifetime</b>	40 hours (typical use, backlight off, 'AA' alkaline cells)
<b>External power</b>	5V DC, 900mA delivered via USB port
<b>Power management</b>	Auto-switch off (user selectable between 5-15 minutes on battery) or continuous operation
<b>Power saving</b>	User control for Backlight and Bluetooth to minimise battery consumption
<b>Tests available</b>	Preprogrammed for Palintest tablet and liquid reagent tests. Can also be used in Transmission (%T) mode.
<b>Test selection</b>	Selection from 'on screen' list or use number keys to select test number.

<b>Test cuvettes</b>	12-20mm OD with automatic cuvette centering
<b>Result units</b>	g/L, mg/L, ppm, mmol/L, $\mu\text{mol/L}$ , $\mu\text{g/L}$ , ppb
<b>Blanking</b>	Automatic blanking at all wavelengths. Blank value stored in memory until power off or new blank recorded
<b>USB</b>	USB Type B port. Waterproof connection cable available.
<b>Wireless</b>	Palintest Bluetooth profile
<b>Instrument memory</b>	Non-volatile storage
<b>Memory capacity</b>	Up to 500 data sets. Each data set includes date, time, sample ID, operator ID, method number, method name, result, units
<b>Sample IDs</b>	Up to 500 at any time
<b>Operator IDs</b>	Up to 100 at any time
<b>Data download</b>	To computer via USB using Hard Disk or COM port mode. Wireless Bluetooth download, either instantly or as a data batch, using a connected device running the Palintest Aqua Pal app. Optional Palintest Portal data management available
<b>Data output format</b>	Plain text
<b>Software upload</b>	Software update by 'drag and drop' in USB Hard Disk Mode

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