

ADVANCED PHOTOMETER KIT

DIGITAL WATER TESTER



QUICK START GUIDE

Digital accuracy for simple, better pool care

www.naked-pools.com

Welcome

Thank you for your Naked Digital Photometer purchase! This guide will quickly walk you through the details of your new photometer kit.

After initial set-up, test procedures, and tips, you will be on your way to digital water testing!

Your digital meter comes with:

- Cleaning Brush
- Quick Start Guide (this booklet)
- Acrylic Calibration Key
- 5 x Bottles of 50 reagent strips each: **pH**, Total Alkalinity (**AL**), Calcium Hardness (**CA**), Phosphate (**PO₄**), and Copper (**CU**)

What you will need to get started:

- Four (4) AAA batteries
- #4 Phillips head screwdriver

Note: *This system has been calibrated for use only with Naked Micro Strips.*

Accuracy

All tests have been calibrated using certified reference standards and analytical spectrophotometric methods. The Naked Digital Photometer has been factory calibrated and will stay valid because of its exceptional quality and comes with a 2-year warranty.

IDEAL LEVELS FOR NAKED FRESHWATER

TESTING	IDEAL
pH	7.2 - 7.6
Total Alkalinity	80 - 150 ppm
Calcium Hardness	80 - 250 ppm
Copper	0.2 - 0.7 ppm
Phosphates	0 - 0.2 ppm

Digital photometer overview

Your new photometer is ideal for testing and maintaining your pool and spa water.

Pool water temp: 25°C-29°C (77°F-85°F).

Spa water temp: 35°C-41°C (95°F-106°F).

Sample Cell - 4 ML

Built-in plastic 4mL cell for collecting your water sample

LCD DISPLAY



Low battery

Result units

Base

Install/replace batteries here (IP67 rated waterproof)

Cell cover

Covers the cell for mixing and bright light situations



Part no. NKD-PP

Light source

Uses 525nm wavelength and 11mm path-length for testing

LCD Display

Displays results and test name

READ Button

Starts test timer

MENU Button

Cycles through available tests

ZERO/ON Button

Turns the meter on and creates a baseline for your water testing



waterproof IP67

Protected against the effects of immersion in water to depth between 15cm and 1m

Install "AAA" Batteries (not included)

1. Use a #4 Phillips head screwdriver to remove the screw from the base of your Digital Meter.
2. Remove the base.
3. Install Four (4) new AAA batteries as illustrated inside your photometer's battery compartment. We recommend using high quality batteries.
4. Replace the base firmly with pressure while tightening the screw. The meter will turn on automatically.
5. Tighten the screw with #4 Phillips head screwdriver. Be sure not to over tighten.



Screw

Unscrew to remove base

FILL, DIP & READ

HOW TO TEST

1 Power on Photometer

Press the **ZERO/ON** button to power on the Photometer.

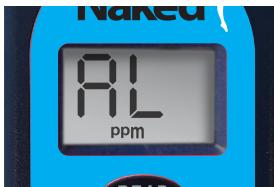
2 FILL CELL

Before testing, rinse CELL and clean with brush thoroughly. Finally rinse the cell 3 times with the water sample to be tested, then **FILL** cell to capacity to begin test.



3 Select TEST

Press and re-press the **MENU** button until the display shows the desired test type: AL (Alkalinity), PH (pH), PO₄ (Phosphates), CA (Calcium Hardness), CU (Copper).



4 Cap cell and zero meter

Place the Cell Cover onto the CELL and press **ZERO/ON** and the photometer display reads 0PPM, indicating the meter is ready for testing.



5 Remove strip

Remove one Strip for the appropriate test and set in a dry, convenient place. Replace cap.



6 Dip strip and press read

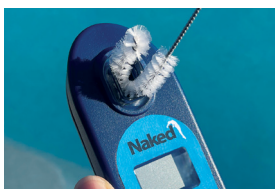
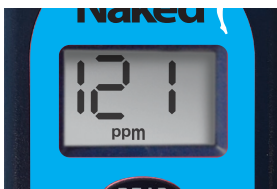
Press **READ** to initiate a 20 second countdown and simultaneously **DIP** test strip in the sample, gently touching the bottom of the cell. Use a gentle constant back and forth motion (2 strokes per second) until the timer displays "1". Be careful to not spill the sample from the CELL. Remove and discard the strip.



Note: for Copper (cu) and Phosphate (PO₄) tests the display will automatically count up for 120 seconds.

7 Cap cell and read results

Place the Cell Cover onto the CELL and **READ** result displayed. This result is automatically stored in the specific tests menu. After testing is complete, rinse the sample cell immediately and clean with brush.



For hot tubs (above 35°C/95°F), dip strip for ONLY 10 seconds. Remove strip when the timer displays "10" and press READ.

For best accuracy

The Naked Photometer has a 5 minute auto-shutoff timer.

For best results, use the cell cover when zeroing and reading samples.

Before testing rinse CELL and clean with brush thoroughly. (Rinsing minimizes the potential for cross-contamination from a previous test.)

Always fill the cell to capacity (4mL); be careful not to splash liquid over the side.

Due to the strip slitting process, you may find one or two strips that are noticeably smaller or larger in width than the normal strips in the bottle. These should be discarded. Using these strips may give unreliable results.

Meter is not compatible for use with powder pillows, tablets, or liquids from other manufacturers.

Dip strip for entire countdown.

Each Micro Strip is valid for ONLY one test. Discard strip after use.

Dry the outside of the meter and inside the mixing cap before storage to prevent corrosion.

Remove batteries before storing for prolonged periods.

Store the meter and test materials out of direct sunlight and away from chemical storage areas.

Minimize exposure of meter and test strips to heat above 32°C (90°F).

When installing batteries, verify the O-ring is still attached to the screw before tightening.

Even if all pads are not immersed in water, **DO NOT BEND THE STRIP**. Make sure the strip touches the bottom of the CELL while dipping the strip for 20 seconds.

To ensure lab quality results, it is recommended to clean the cell with the brush provided after every test. Use Distilled White Vinegar to clean the cell after testing for **Phosphate** to remove reagent deposits from the cell wall.

Each test menu can store 20 results. To retrieve the stored results, go to the desired test using the MENU key. When the desired test is displayed, press and hold down the MENU key. Continue holding down the MENU key to scroll the stored results for that test, starting with the most recent result. The meter will display, from memory, the last 20 readings in sequence beginning with -20, which is the latest result, followed by -19, which is the 2nd latest result, etc; and finally -01, which is the oldest result retained. Only the last 20 readings are stored in each menu. This meter is able to store 100 results in memory (20 in each menu).

Troubleshooting

SUBJECT	CAUSE	SOLUTION
Dim screen or no response from meter	Low battery	Replace batteries
"LO" on LCD while zeroing	Low battery	Replace batteries
	Dirty cell	Clean cell
	Cloudy sample	Dilute sample or use filter
	Bad LED	Contact Naked Pools
"HI" on LCD while reading	Result above detection level	Re-run test to verify result
"LO" on LCD while reading	Result below detection level	Re-run test to verify result
"HI" flashes on LCD, then "Err"	Result above detection limit	Re-run test to verify result
		Dilute and re-run test

About

Built in Sample Cell

The built-in sample cell is made of transparent plastic; the sturdy cell design will last for over 20,000 readings. Our studies have shown that scratches on the cell will not compromise the accuracy of your results because of the cell's fixed position.

Warranty (2 years)

Registration of your Naked Digital Photometer must be received within 30 days from date of purchase to activate the warranty. Registration is available online at <https://support.naked-pools.com> (Personal data is kept confidential). The Naked Digital Photometer is warranted to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase by the customer. Naked Pools will repair or replace, at its discretion, product which is deemed to be faulty due to manufacturing defect. Warranty does not cover product damage caused by abuse (such as crushing a tablet in the cell), battery corrosion damage, or improper use. If the meter is faulty or otherwise defective contact Naked Pools by phone or register a warranty claim at <https://support.naked-pools.com> to describe the problem and obtain a return authorisation form before returning the photometer to Naked Pools (NP). Damage caused by improper packing of the photometer for return shipment to NP will not be covered by the warranty. Customer is responsible for shipping charges to NP. NP pays postage when photometer is returned to customer. A maximum processing fee of \$90 (subject to change) will be charged for repair or replacement of non-registered photometers and damages not covered by this warranty. The repair or replacement of the photometer will not extend or renew the period of guarantee. This warranty does not affect your statutory rights. The warranty is not transferable.



ADVANCED PHOTOMETER KIT

Photometer Test Information

PARAMETER TEST	PART #	RANGE ^ ppm	% Best Accuracy^	# OF TESTS
Copper	NKD-PP-Cu	0.0 - 8.0	8	50
pH	NKD-PP-pH	6.4 - 8.4	0.2 pH units	50
Total Alkalinity	NKD-PP-ALK	20-200	10	50
Calcium Hardness	NKD-PP-CA	20 – 700	5	50
Phosphate	NKD-PP-P	0.08 – 3.0	8	50
Naked Pools Digital Photometer	NKD-PP			

^ Value provided represents best possible accuracy under laboratory conditions, but may vary throughout the detection range.

Technical support

Please scan the QR code or visit support.naked-pools.com for the latest technical information and how-to-videos.



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Patent information

US Patent #7,333,194; Euro Pat No. 1 725 864 DE FR UK; South Africa Pat No 2007/0628 by Industrial Test Systems, Inc., 1875 Langston Street, Rock Hill, SC USA. EXACT® is a registered trademark of Industrial Test Systems, Inc. Rock Hill, SC USA.

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