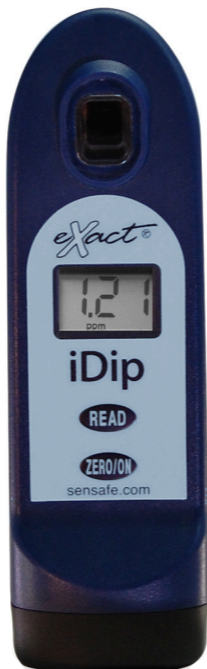


exact iDip[®]

SMART PHOTOMETER SYSTEM

with  **Bluetooth[®]**
SMART



QUICK START GUIDE

TEST YOUR WATER
SMART DIGITAL
WATER TESTING

Lab Solutions

WWW.LABSOLN.CO.UK

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WELCOME

WELCOME TO YOUR NEW EXACT® IDIP®. LET US SHOW YOU AROUND.

This guide shows you the technical details on your iDip®, helps you set it up, and gets you started with tips for the tests you will use daily.

Your eXact® iDip® comes with:

Cleaning Brush

Quick Start Guide

6 Strips each of: Free Chlorine (DPD-1), Combined/Total Chlorine (DPD-3), pH, and Total Alkalinity

You will need Four (4) AAA batteries, a Phillips head screwdriver, and a compatible smart device to start testing your water.

Compatible smart devices:

Apple iPad® (Mini, Mini Retina, 3rd gen, 4th gen, Air)

Apple iPhone® (4s, 5, 5c, 5s)

Apple iPod touch® (5th gen)

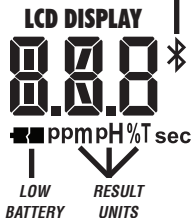
We are constantly adding new devices, check out our full list at www.labsoln.co.uk.

YOUR NEW EXACT® IDIP® IS IDEAL FOR TESTING DRINKING WATER, POOLS & SPAS, PONDS & AQUARIUMS, FOOD & BEVERAGE PROCESS WATER, ENVIRONMENTAL WATERS, AND MORE

SAMPLE CELL

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

BLUETOOTH
CONNECTED



LCD DISPLAY

Displays results and test name

READ

READ BUTTON

Starts test timer

ZERO/ON

ZERO/ON BUTTON

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

BASE

Install/replace batteries here (IP67 rated waterproof)

CELL COVER

Covers the cell for mixing and bright light situations



SCREW

Unscrew to remove base



waterproof IP67

INSTALL "AAA" BATTERIES (NOT INCLUDED)

1. Use a Phillips head screwdriver to remove the screw from the base of your iDip®.
2. Remove the base.
3. Install 4 new AAA batteries as illustrated inside your iDip®. We recommend using high quality batteries.
4. Replace the base firmly with pressure while tightening the screw. The meter will turn on automatically.

DOWNLOAD THE APP

Using your Smart Device, download the eXact® iDip® app. Because the eXact® iDip® application is the brain for this system, all you have to do is download the latest update to have the most current version with the latest tests and features available. We are constantly improving and welcome your suggestions to help make our product even better.

**SCAN FOR APP
DOWNLOAD**

Download on the
App Store

SETTINGS:

Opens menu for easy access to all app features

HOME SCREEN



HISTORY:

Accesses all previously saved results which can be sorted, edited, and emailed

CALENDAR:

Displays your schedule/appointments

CUSTOMERS:

Attaches results to people and/or locations from your smart device contacts

STORE:

Opens store to unlock additional tests

TEST:

Initiates water testing

RESULTS:

Accesses temporary results that have not been saved to history

BLUETOOTH DEVICE

TEST RESULT SCREEN

iDip B00007v69.02

BOTTLE LABEL ABBREVIATION

TESTING PARAMETER

Alkalinity, Total AL

81

TEST RESULT

PARAMETER UNITS

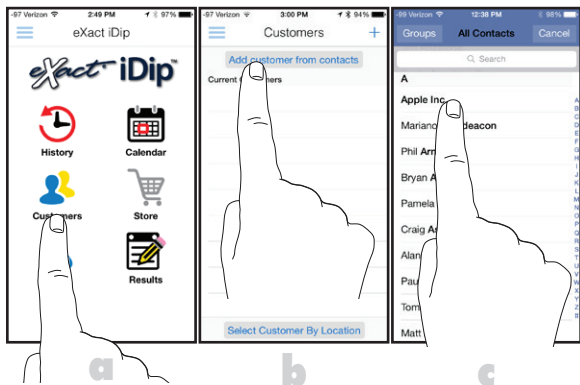
ppm

Notes can be added in the RESULTS page

ALL RESULTS ARE ATTACHED TO A CONTACT AND LOCATION. ENSURE YOUR CONTACT INFORMATION (INCLUDING ADDRESS) IS ENTERED INTO YOUR DEVICE'S CONTACT LIST.

1

- Select 'Customers' from the 'Home' screen.
- Tap 'Add Customers From Contacts.'
- Select a contact from your list.



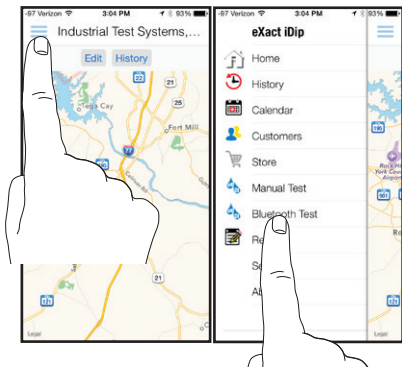
2

Power on the eXact® iDip® hand-held photometer.

ZERO/ON

3

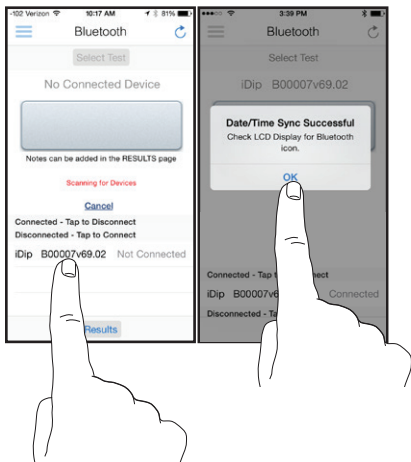
Tap '☰' and select 'Bluetooth Test' on the slide out screen.



Select your iDip from the bottom of the screen. Verify it has connected and tap 'OK'. *

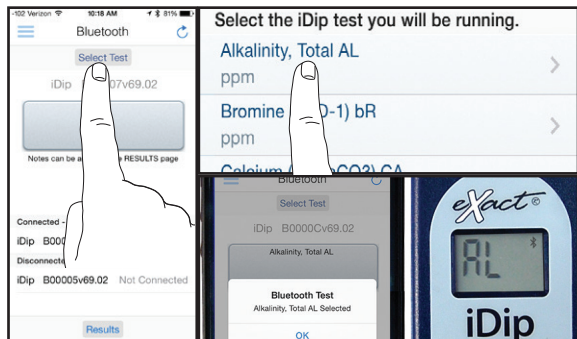
* Refer to the back of your iDip® to determine the serial number for your device. This will also be the serial number for the bluetooth connection.

4



Tap '**SELECT** Test' at the top (e.g. Alkalinity, Total). The iDip and app will both display the test being run.

5



6

Rinse the cell 3 times with the water sample to be tested and **FILL** to the top to begin test.



7

Press **ZERO/ON** and the iDip® display reads 0_{PPM} indicating the meter is ready to test. For **Standard Liquid Method**, place Cell Cover on CELL before zeroing.



Standard Strip Method Tests (count-up if required):

- Alkalinity, Total
- Bromide (as NaBr)
- Bromine
- Calcium (as CaCO₃)
- Chloride (as NaCl)
- Chlorine Dioxide
- Chlorine, Free
- Chlorine, Total
- Chlorine, Total - High (120 sec)
- Chromium (VI) (240 sec)
- Copper (120 sec)
- Hardness, Total - Low
- Hardness, Total - High
- Hydrogen Peroxide - Low (120 sec)
- Hydrogen Peroxide - Mid (100 sec)
- Hydrogen Peroxide - High
- Iodine
- Magnesium Hardness
- Nitrate (as NO₃) (600 sec)
- Nitrite (as NO₂) (360 sec)
- Ozone
- Peracetic Acid
- Permanganate
- pH
- Phosphate (120 sec)
- Sulfate
- Sulfide

Standard Liquid Method Tests (# of drops / count-up if required):

- Cyanuric Acid (5 drops / 60 sec)
- Metals (2 drops / 120 sec)

For non-standard test methods and detailed test instructions visit www.sensafe.com/idip/.

STANDARD STRIP METHOD

Remove one eXact® Strip Micro (e.g. Total Alkalinity) and set in a dry, convenient place.

8a



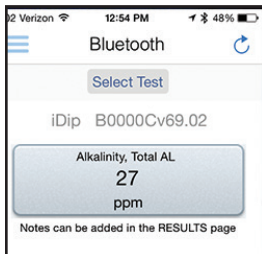
Press **READ** to initiate a 20 second countdown and simultaneously **DIP** the test strip by submerging all pads in the sample then use a gentle constant back and forth motion (2 strokes per second) until the timer displays "1". Remove and discard the strip. Wait for count-up time if required.

9a



READ result displayed on the iDip® and in the app. To run additional tests, repeat steps 5-9. To save your results and make available for emailing, continue on page 11.

10a



STANDARD LIQUID METHOD**8b**

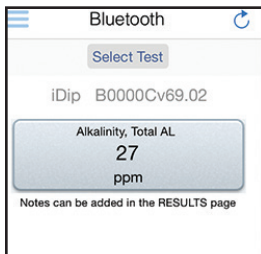
Shake the bottle of eXact® Reagent (e.g. Cyanuric Acid) and add drops according to the list on page 8. Keep reagent bottle vertical while adding drops.

**9b**

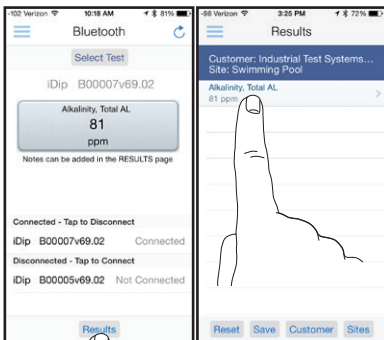
Place the Cell Cover onto the CELL. Press **READ** and a 20 second countdown begins. Turn the meter upside-down repetitively during the 20 seconds. When the timer displays "1", place the iDip® on a flat surface. Wait for count-up time.

**10b**

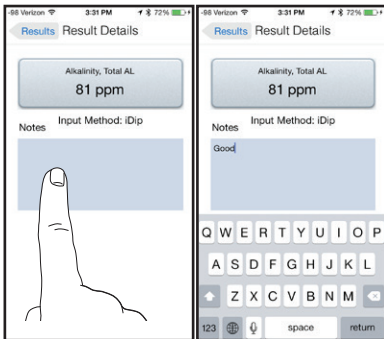
READ result displayed on the iDip® and in the app. To run additional tests, repeat steps 5-10. To save your results and make available for emailing, continue on next page.



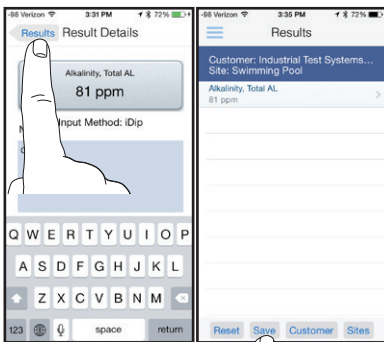
When all tests have been performed, tap 'Results' at the bottom of the screen. To add notes tap the desired test result.



Type notes in the 'Notes' box, which are automatically saved.

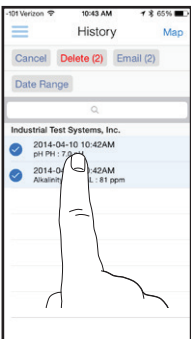
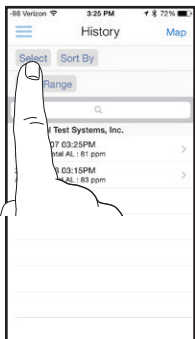
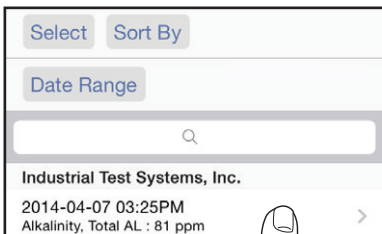


Go back to 'Results' screen and tap 'Save' to store into 'History'.

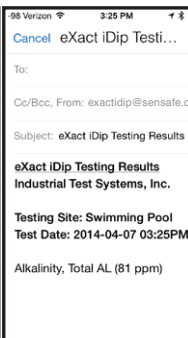
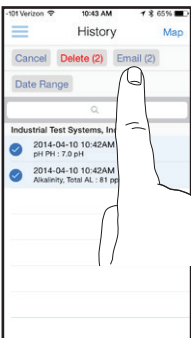
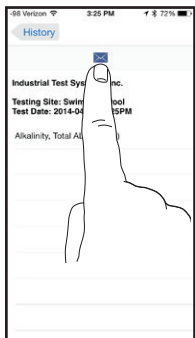


In History, you can edit, select, and email your results.

To email, you can either tap an individual result, or use the 'Select' button to access multiple data points.



Press the blue envelope icon if a single result is selected. Tap 'Email' at the top if multiple tests are selected. Additional notes can be added to the email body. Add recipients to your e-mail and tap send to complete.



- The meter has a 3 minute automatic shutdown timer by default. To change this, go to Settings in the slide out menu.
- Before testing, rinse the meter sample cell with the sample water 3 times.
- Always fill the cell to capacity (4ml).
- Test immediately after filling the cell with the water sample.
- To obtain optimal accuracy when testing outdoors (sunlight), use the Cell Cover when zeroing and reading the sample.
- 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, and liquids from other manufacturers.
- Dip strip for entire countdown.
- Each eXact® Strip Micro is valid for ONLY one test. Discard strip after use.
- Dry the outside of the meter before storage.
- 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 reagents to heat above 90°F (32°C).
- When installing batteries, make sure that the O-ring is still attached to the screw before tightening.
- Cleaning the cell with water and brush after each test is recommended for best accuracy and prior to storage of unit. Use Distilled White Vinegar to clean the cell after testing for Phosphate or Iron to remove reagent deposits from cell wall.

TROUBLESHOOTING

| Issue | Cause | Solution |
|--------------------------------|---------------------------------|--|
| No response from iDip | Low battery | Replace batteries |
| | Chip failure | Contact ITS. |
| Dim screen on iDip | Low battery | Replace batteries |
| “Er1” on iDip LCD | No result sent to iDip from app | Disconnect/reconnect to iDip (see pg. 7) |
| “Er2” on iDip LCD | No connection to app | Connect to iDip (see pg. 7) |
| | Lost connection to app | Reconnect to iDip |
| “LO” on iDip LCD while zeroing | Low battery | Replace batteries |
| | Dirty cell | Clean cell (see pg.15) |
| | Cloudy sample | Dilute sample or use sieve |
| | Bad LED | Contact ITS. |
| “HI” on iDip LCD while reading | Result above detection level | Rerun test to verify result |
| “LO” on iDip LCD while reading | Result below detection level | Rerun test to verify result |
| “AbS” on iDip LCD | Start-up screen | Continue with testing |

ACCURACY OF THE EXACT® IDIP®

Combined with your smart device, the eXact® iDip® is designed to test your water for multiple water quality parameters. Download the free eXact® iDip® app and sync to your smart device running Bluetooth® Smart Technology.

All tests have been calibrated using certified reference standards and analytical spectrophotometric methods. The algorithms in the app reflect the best correlation of the eXact® iDip® against the AWWA, USEPA, DIN and ISO reference test methods for chlorine. Independent studies verify the eXact® iDip® repeatedly agrees with a USEPA compliant reference method greater than 99% ($R^2 = 0.99948$, 0-5.00 ppm). The eXact® iDip® has been factory calibrated and will stay valid because of the exceptional quality. We are so confident in the eXact® iDip®, we offer an industry leading 2-year warranty.

We built the eXact® iDip® to be easy, accurate and environmentally friendly. We have achieved this by utilizing our patented eXact® Strip Micro Technology, which uses at least 60% less water and chemistry than alternative methods. Instead of using a 10mL water sample, eXact® Strip Micro uses a 4mL water sample. The accuracy of the meter is maintained by designing the sample cell with a 11mm path length.

BLUETOOTH TECHNOLOGY

Bluetooth® is a low-power wireless networking standard which uses short radio waves to allow electronic devices to communicate with each other wirelessly. The eXact® iDip® comes standard with the latest Bluetooth® 4.0 technology (www.bluetooth.com/Pages/Bluetooth-Smart.aspx), a class 2 device with a wireless working distance of up to 30 feet (10 meters) and a 2.1 Mbps data transfer rate. This allows a seamless transfer of data between a smart device and the eXact® iDip®.

ABOUT THE 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. Scratches on the cell will not compromise the accuracy of your results because of the cell's fixed position.

CLEANING THE CELL

Fill the cell with water and use the enclosed cleaning brush to scrub the CELL thoroughly. Rinse the CELL. You can use dish soap or distilled white vinegar for cleaning the CELL if needed. NEVER use solvents such as acetone.

SCAN FOR FLYER

COMPLIANCE TESTING FOR FREE AND TOTAL CHLORINE

This DPD test system is accepted by most health departments because this test is USEPA (DIN Standard 38 408 G4, ISO 7393/2) accepted for testing requirements for Free and Total Chlorine. The eXact® iDip® meter uses a wavelength of 525nm; and the compliance requirement is that the colorimeter wavelength is between 490 and 530nm. The eXact® Strip Micro CL (DPD-1) uses the same reagents AWWA (American Water Works Association) method 4500-Cl G. It should be understood that the USEPA does not “approve” commercial DPD delivery systems such as reagent powder pillows, tablets, dispensers, or eXact® Strip DPD delivery devices. The eXact® Strip Micro CL (DPD-1) for Free Chlorine, and the eXact® Strip Micro CL (DPD-3) or the eXact® Strip Micro CL (DPD-4) for Total Chlorine meet your reportable testing requirements because the eXact® Strip Micro CL delivers the same chemicals in identical proportions (see table below); therefore, the system is compliant. Likewise, AWWA proportions are followed as required for Total Chlorine measurements using Potassium Iodide.



| COMPONENT (FREE CHLORINE) | AWWA 4500-CL G | EXACT® DPD-1 |
|---|---------------------------|-------------------------|
| Anhydrous DPD sulfate | 1.5% | 1.5% |
| Anhydrous Na ₂ HPO ₄ | 33.4% | 33.4% |
| Anhydrous KH ₂ PO ₄ Na ₂ | 64.0% | 64.0% |
| EDTA | 1.1% | 1.1% |

WARRANTY (2 YEARS)

Registration of your eXact® photometer must be received within 30 days from date of purchase to activate the warranty. The eXact® 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. The item will be repaired or replaced if the product 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 go to www.labsoln.co.uk/contact.php or email (sales@labsoln.co.uk) to describe the problem and obtain a return authorization form before returning the photometer. Damage caused by improper packing of the photometer for return shipment will not be covered by the warranty. Customer is responsible for shipping charges. Manufacturer pays postage when photometer is returned to customer. A maximum processing fee of £75 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.

TECHNICAL SUPPORT

Please visit www.labsoln.co.uk for the latest technical information and how-to videos.

AVAILABLE TESTS & REAGENTS

| Test Parameter | Part # | Range | # of Tests |
|---|-----------|----------------|------------|
| eXact® iDip™ (1) Bulk meter, 6 foils of each: FC, CC, AL, pH, (1) cleaning Brush, (1) instruction booklet | 486101 | As Below | 6 |
| eXact® Pool Refill Kit AL, pH, DPD-1, DPD-3, CA, CY | 486211 | As Below | As Below |
| eXact® Well Refill Kit pH, Fe, NO ₂ , AL, THH | 486212 | As Below | As Below |
| eXact® Tap Refill Kit pH, AL, THH, DPD-1, DPD-4, HR Cl, Metals | 486213 | As Below | As Below |
| eXact® Process Refill Kit pH, DPD-1, DPD-4, HR Cl, MR H ₂ O ₂ , Glycine | 486214 | As Below | As Below |
| eXact® iDip™ Carrying Case | 481661-ID | N/A | N/A |
| Alkalinity, Total | 486641 | 11 - 200 ppm | 100 |
| Bromide (as NaBr) | 486659 | 19 - 400 ppm | 25 |
| Bromine (DPD-1) | 486636 | 0.07 - 17 ppm | 100 |
| Calcium (as CaCO ₃) | 486629 | 19 - 550 ppm | 50 |
| Chloride (as NaCl) Salt | 486757 | 3 - 600 ppm | 25 |
| Chloride, High Range (as NaCl)** | 486757 | 347 - 9975 ppm | 25 |
| Chlorine Dioxide (DPD-1)** | 486633 | 0.04 - 15 ppm | 100 |
| Chlorine, Free (DPD-1) | 486637 | 0.05 - 12 ppm | 100 |
| Chlorine, High Range | 486672 | 1 - 280 ppm | 50 |
| Chlorine, Combined (DPD-3)* ** | 486638 | 0.05 - 12 ppm | 100 |
| Chlorine, Total (DPD-4) | 486670 | 0.05 - 12 ppm | 100 |
| Chromium (VI) | 486614 | 0.01 - 2 ppm | 50 |
| Copper (Cu ²⁺) | 486632 | 0.6 - 11 ppm | 50 |
| Cyanuric Acid | 481652-II | 3 - 110 ppm | 60 |
| Hardness, Total HR (as CaCO ₃) | 486656 | 60 - 900 ppm | 50 |
| Hardness, Total LR (as CaCO ₃) | 486630 | 1 - 125 ppm | 100 |
| Hydrogen Peroxide LR | 486616 | 0.02 - 3.5 ppm | 50 |
| Hydrogen Peroxide MR | 486648 | 1 - 130 ppm | 50 |
| Hydrogen Peroxide HR | 486676 | 16 - 4200 ppm | 100 |
| Iodine (DPD-1) | 486627 | Coming Soon | 100 |
| Iron, Total (TPTZ)** | 486650 | 0.03 - 8 ppm | 50 |
| Magnesium Hardness | 486610 | 2 - 400 ppm | 50 |
| Manganese** | 486606 | 0.03 - 2.6 ppm | 24 |
| Metals | 486604 | 1 - 1.75 ppm | 24 |
| Molybdate** | 486653 | 0.02 - 5 ppm | 50 |
| Nitrate (as NO ₃) | 486655 | 0.25 - 32 ppm | 50 |
| Nitrite (as NO ₂) | 486623 | 0.02 - 4 ppm | 50 |
| Ozone (DPD-4) | 486634 | 0.01 - 2 ppm | 100 |
| Peracetic Acid (DPD-4) | 486674 | 0.05 - 11 ppm | 100 |
| Permanganate (DPD-1) | 486626 | 0.02 - 6 ppm | 100 |
| pH | 486639-II | 6.0 - 8.5 pH | 100 |
| Phosphate | 486814 | 0.02 - 5 ppm | 50 |
| Sulfate | 486608 | 1 - 270 ppm | 50 |
| Sulfide (as H ₂ S) | 486646 | Coming Soon | 50 |
| Turbidity** | N/A | 24 - 780 NTU | N/A |

*Combined Chlorine DPD-3 Test requires Free Chlorine DPD-1 (486637) to be run first.
For resellers and distributors - products sold in case quantities (12 units per case).

R050914

**Test uses a non-standard test method.