eXact iDip®

SMART PHOTOMETER SYSTEM®

with Bluetooth® SMART

SMART DIGITAL WATER TESTING®

SMART GUIDE

CONTENTS

WELCOME TO YOUR NEW EXACT IDIP® SMART PHOTOMETER SYSTEM®.

Thank you for your eXact iDip® purchase! This guide will quickly walk you through the technical details of your new eXact iDip®. This guide includes initial set-up, downloading the app, test procedures, and tips. You are on your way to smart digital water testing! Currently we offer two iDip® models: eXact iDip® (525nm) and eXact iDip® 570 (570nm). Please ensure you purchase the compatible premium tests and strips/reagents according to the iDip® model you are using.

NSF

Certified to NSF/ANSI Standard 50

eXact iDip®
Part #486101
exactidip.com

eXact iDip® 570
Part #486107
exactidip570.com

YOUR EXACT IDIP® COMES WITH:

- Cleaning Brush
- Smart Guide (this booklet)
- 24 foil packet strips (6 of each): Free Chlorine (DPD-1), Combined/Total Chlorine (DPD-3), pH-II, and Total Alkalinity

Note: The iDip® Starter Kits include eXact® Strip/Reagent bottles with 25 tests each (reagents vary with each kit) and not individual foil packets listed above.

WHAT YOU WILL NEED TO GET STARTED:

- Four (4) AAA batteries
- #4 Phillips head screwdriver
- eXact iDip® app – *Visit exactidip.com to download the app, or see page 7 for download instructions*
- Compatible smart device

  For a list of compatible smart devices, see page 8.
  We are constantly adding new devices to this list. View the most up-to-date list at sensafe.com/idip-compatible-devices.

PATENTED SMART PHOTOMETER SYSTEM®

Using eXact® Micro reagents in combination with the app and photometer completes the eXact iDip® Smart Photometer System®. Each test will require the use of one or more of the testing methods outlined in this manual.

This system's unique and innovative technologies have earned the eXact iDip® US and international patents (US Patents #7,333,194, #7,491,546, and #9,429,553; Euro Pat No. 1 725 864 DE FR UK, and South African Patent #2007/0628) for underlying technology, and currently patent pending in Europe technical features relating to two-way data communication between a photometer and a smart device.

Note: This system has been manufactured only for use with our eXact® Micro reagents.

WARRANTY (2 YEARS)

Registration of your eXact iDip® photometer must be received within 30 days from date of purchase to activate the warranty. Registration is available over the phone (+1-803-329-9712 Ext. 0) or online at sensafe.com/micro/warranty/ (Personal data is kept confidential). The eXact iDip® 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. ITS 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 ITS by phone (1-803-329-9712 Ext. 0) or email (its@sensafe.com) to describe the problem and obtain a return authorization form before returning the photometer to ITS. Damage caused by improper packing of the photometer for return shipment to ITS will not be covered by the warranty. Customer is responsible for shipping charges to ITS. ITS 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.

FOR BEST ACCURACY

All tests that begin with **570** are only for use with the eXact iDip® **570** photometer.

Test procedures can vary from test to test. Visit exactidip.com or exactidip570.com to read full instructions and watch instructional video for each test.

The meter has a default 5 minute automatic shutoff timer. You can change the duration in the 'Settings' menu located within the eXact iDip® app.

Test immediately after filling the cell with the water 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.

When testing pH, it is recommended to run the pH test prior to running Chlorine. If you choose to run the pH after Chlorine, ensure you thoroughly clean the cell with water and the brush provided.

To obtain optimal accuracy when testing outdoors (sunlight), use the Cell Cover when zeroing and reading the sample.

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. **DO NOT OVERTIGHTEN**.

To pair the eXact iDip® photometer with your smart device, open the app and connect through the app. **You CANNOT connect the devices in the settings section of your smart device.**

All results must be saved from the results page to history in order to permanently save to your smart device.

The eXact iDip® photometer may experience Bluetooth® disconnection when submerged in water too deep. To avoid this, collect water sample in a small container/cup and pour or pipette (contact us for ordering) the water into the Sample Cell.

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 or Iron to remove reagent deposits from the cell wall.

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.

6 EXACT IDIP® PHOTOMETER OVERVIEW

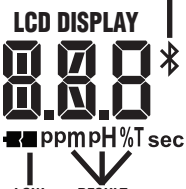
YOUR NEW EXACT IDIP® PHOTOMETER IS IDEAL FOR TESTING AND MAINTAINING DRINKING WATER, POOLS, SPAS, PONDS, AQUARIUMS, FOOD PROCESS WATER, ENVIRONMENTAL WATERS, BREWING, AND MORE!

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

LIGHT SOURCE
Uses 525nm or 570nm wavelength, depending on model purchased, and 11mm path-length for testing

BLUETOOTH CONNECTED

LCD DISPLAY
Displays results and test name



READ BUTTON
Starts test timer

ZERO/ON BUTTON
Powers on the meter 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

waterproof **IP67**
Protected against the effects of immersion in water to depth between 15 cm and 1 meter

Part no. **486101**

INSTALL "AAA" BATTERIES (NOT INCLUDED)

1. *Use a #4 Phillips head screwdriver to remove the screw from the base of your eXact iDip®.*
2. *Remove the base.*
3. *Install Four (4) new AAA batteries as illustrated inside your iDip'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

DOWNLOAD THE APP

Using your Smart Device, download the eXact iDip® app. The eXact iDip® app is the brain for this system; download the latest update to ensure you are using the current version with up-to-date tests and features. To see if your smart device is compatible, reference our table on page 8 of this manual.

We are constantly improving the eXact iDip® app and welcome your suggestions. Visit exactidip.com or e-mail exactidip@sensafe.com.

eXact iDip

APP STORE

GOOGLE PLAY

Download on the App Store

GET IT ON Google play

Note: If using an Apple® iPad™, select **'iPhone only app'** when searching from the App Store, or scan the QR code above.

ALLOW ACCESS

Upon opening, and while using the eXact iDip® app, pop-ups will appear that ask for access to different functions of your phone; **Location**, **Contacts**, **Calendar**, and **Cellular Data**. In order to get full functionality of the app, be sure to allow access to all of these functions.

PURCHASE ADDITIONAL TESTS

The app comes pre-installed with tests for Total Alkalinity, Free Chlorine, Combined Chlorine, and pH. Ensure you have any additional tests you need by visiting the Store in the eXact iDip® app. **All tests that begin with 570 are for use with the eXact iDip® 570 photometer only.** If, after purchasing a test, the test doesn't appear on the Select Test drop-down, return to the Store and press the refresh button in the top right. Additional instructions on using the Store can be found on page 13.

SMART PHONE COMPATIBILITY

Updated 05/2019

APPLE	SAMSUNG	SONY	MOTOROLA	HTC
iPhone 4s **AND UP**	Galaxy Ace Style	Xperia E1	Moto E	Desire 610
iPhone SE	Galaxy Alpha	Xperia M2	Moto G	Desire 816
iPod touch 5th **AND UP**	Galaxy Core II	Xperia T2 Ultra	Moto X	One
	Galaxy Core Prime	Xperia XA		One Max
LG	Galaxy Express J1	Xperia Z	**LENOVO**	One Mini
F70	Galaxy Express Prime	Xperia Z ULTRA	Vibe X2	One Mini 2
G Pro2	Galaxy Grand 2	Xperia Z1	Vibe Z2	
G2 **AND UP**	Galaxy Grand Duos	Xperia Z2	Vibe Z2 Pro	**MEIZU**
Optimus Exceed 2	Galaxy Grand Neo	Xperia Z3		MX4
Optimus Fuel	Galaxy J	Xperia ZL	**ZTE**	MX4 Pro
Optimus G (E975)	Galaxy Mega 6.3	Xperia ZR	Nubia X6	
Optimus G Pro	Galaxy Mega 2		Nubia Z7 Max	**OPPO**
Optimus L40	Galaxy S3 Neo	**MOTOROLA DROID**		A37
Optimus L65	Galaxy S4 **AND UP**	Maxx	**HUAWEI**	F1S
Optimus L70	Galaxy Xcover 3	Mini	Ascend Mate 7	R9S
Optimus L80	Galaxy Young II Duos	Razr HD	Ascend P7	
Optimus L90		Razr HD Maxx	Ascend P8	**XIAOMI**
Optimus Zone 2	**GOOGLE**	Razr M	Honor 3C (4G)	Mi Max
Volt	Nexus 4 **AND UP**	Turbo	Honor 6	Mi3
	Pixel	Ultra	Honor 6 Plus	Redmi 3
	Pixel V1			Redmi Note (4G)
	Pixel V2			
	Pixel XL			

TABLET COMPATIBILITY

APPLE	SAMSUNG	LG	SONY	GOOGLE
iPad (3rd) **AND UP**	Galaxy Note II **AND UP**	G Pad	Xperia Tablet Z	Nexus 7 (2013)
iPad Pro **AND UP**	Galaxy Tab 3 **AND UP**		Xperia Tablet Z2	Nexus 9
iPad Mini **AND UP**				

This list is current as of April, 2017. To view the most up-to-date list of compatible devices, please visit sensafe.com/idip-compatible-devices.

VIEW INSTRUCTIONAL VIDEO

eXact iDip

Listed below are possible situations that may arise while testing. Please contact one of our knowledgeable customer service representatives if you require further assistance.

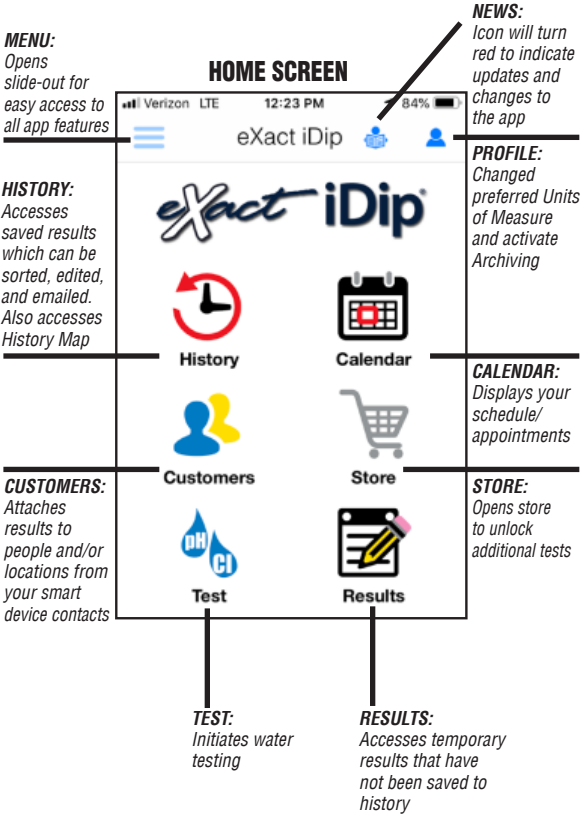
Subject	Cause	Solution
No response from eXact iDip®	Low battery	Replace batteries
	Chip failure	Contact ITS
Dim screen on eXact iDip®	Low battery	Replace batteries
"Er1" on eXact iDip® LCD	No result sent to eXact iDip® from app	Close & restart app. Reconnect to eXact iDip®
"Er2" on eXact iDip® LCD	No connection to app	Connect eXact iDip®
	Lost connection to app	Reconnect to eXact iDip®
"LO" on eXact iDip® LCD while zeroing	Low battery	Replace batteries
	Dirty cell	Clean cell
	Cloudy sample	Dilute sample or use filter
	Bad LED	Contact ITS
"HI" on eXact iDip® LCD while reading	Result above detection level	Rerun test to verify result
"LO" on eXact iDip® LCD while reading	Result below detection level	Rerun test to verify result
"AbS" on eXact iDip® LCD	Start-up screen	Continue with testing
App not responding	Communication error between device and app	Force close app and restart
Bluetooth® connection lost	eXact iDip® submerged too far in water	Collect water sample in container and transfer to cell or use Dry Case while testing
Test not available in Store	Configuration files are out of date	Open slide-out menu, tap Settings, tap Refresh Configuration files

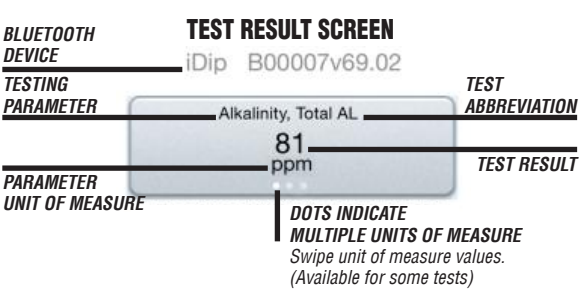
TECHNICAL SUPPORT

Please visit exactidip.com or exactidip570.com for the latest technical information and how-to-videos. For additional technical support, call (803) 329-9712 or email at exactidip@sensafe.com.

Industrial Test Systems, Inc.
1875 Langston Street
Rock Hill, SC 29730
(800) 861-9712 or (803) 329-9712
its@sensafe.com | exactidip.com

ITS Europe, Ltd. (ITS DISTRIBUTION CENTER)
The UK Centre for Homeland Security
Building 7, Chilmark, Salisbury,
Wiltshire SP3 5DU UK +44 1722 717911
itseurope@sensafe.com | www.itseurope.co.uk





The Menu slide-out is available from any screen within the app. The Menu allows you to access any of the app's features with ease.

INSTRUCTIONS

In the **Instructions** screen, tap on the test to be run and choose between Test Procedure and Video. For more instructional and educational videos, visit and subscribe to our youtube channel at youtube.com/itssensafe.

SETTINGS

TIMEOUT

The timeout setting is used to turn off the eXact iDip® photometer. The default setting is 5 minutes, however this can be adjusted. To do this, tap either **'+'** or **'–'**. *Note: You may need to change the Auto-Lock time on your smart device to allow for testing time.*

CURRENT LOCATION

You can view your current GPS coordinates and/or refresh your current location. In order to take advantage of the GPS feature, make sure to allow eXact iDip® app to access your location.

CONFIGURATION FILES

Refreshing the configuration files can help resolve issues with tests not appearing correctly in the app (see Troubleshooting on page 9).

ABOUT

Access the End-User License Agreement and contact information to reach our offices in the USA and Europe from the About section, located in the Menu slide-out. In the About section you can find the version of the app you are running. Be sure to check your smart device's app store for updates and install the latest version before running a test as we are constantly updating and adding more features to the app!

FAQS

Here you will find videos, downloads, links, and answers to the most frequently asked questions.

TEST

You can utilize two different testing methods under Test: Manual Entry or Bluetooth Device.

BLUETOOTH TEST

Tests will be performed with your eXact iDip® photometer using Instructions and Videos that are unique to each test. See Instructions & Videos above for details.

MANUAL TEST

This feature allows you to utilize other testing methods and manually enter your results into the app. Begin by selecting **'Test'**, **'Manual Entry'**, and select your desired test. Enter the value obtained. Once finished, tap **'SAVE'** at the top left. If the test you need to enter is not available on the list, tap **'Custom*'**. Enter the type of test that was run, the value obtained, and the unit of measure used. Then, tap **'SAVE'** at the top left (see bottom of page 21).

HISTORY

The **History** stores all your saved test result information and allows you to sort by date, customer name, or test type.

HOW TO SORT BY CUSTOMER

To sort by Customer begin by selecting **'History',** then **'Sort by'**, **'Customer'**. You can then scroll through your list of customers by name, to find a specific test result.

HOW TO SORT BY DATE

To sort by Date begin by selecting **'History'** then **'Sort by'**, **'Date'**. You can then scroll through a list of tests performed by date. You can also set a specific date range by selecting **'Date range'**. Then set your From and To dates.

HOW TO SORT BY TEST

To sort by Test begin by selecting **'History'** then **'Sort by'**, **'Test'**. You can then scroll through a list of tests sorted in alphabetical order.

HOW TO EMAIL AND SHARE DATA

See page 23 for instructions on how to utilize these features

HOW TO ACCESS HISTORY MAP

The History Map stores GPS locations of testing sites.
See page 24 for instructions on how to utilize this feature.

CUSTOMERS

Customers attaches results to people and/or locations in your smart device. In order to fully utilize the features and capabilities of the app, each test result will need to be stored (linked) to a profile. You can add customers in two ways. **1.** By adding from your existing contact list on your smartphone/tablet or **2.** You can create a new contact.

HOW TO ADD EXISTING CONTACTS

To add current contact information already stored on your device, begin by selecting **'Customers'** then **'Add customers from contacts'** (access to Contacts must be allowed on your device).

HOW TO CREATE A NEW CONTACT

To create a new contact, select **'Customers'**, tap the **'+'**, then enter all of the customers contact information. Once finished, tap **'Done'**.

CALENDAR

Never miss an appointment! With the app's Calendar feature, you can access your device's calendar directly from the app. View by date range to see past entries or future appointments.

TIP

If no entries are visible in the app, you may need to allow the app to access your calendar. You can do this in the settings and security section of your smartphone/tablet (instructions for each will vary by make/model).

STORE

The eXact iDip® app comes pre-installed with tests for Total Alkalinity, Free Chlorine, Combined Chlorine, and pH. You can purchase and unlock over 50 additional tests (bundles available) from the Store located in the app (eXact® Strips/reagents not included).

To purchase additional tests, begin by selecting **'Store'**, scroll to the test you would like to purchase, and tap **'Buy'** (this will unlock the test in the app). When purchasing tests in the app, be sure to select the appropriate test for your eXact iDip® photometer (see page 7). If, after purchasing a test, the test doesn't appear on the Select Test drop-down, return to the Store and press the refresh button in the top right. To order eXact® Strips/reagents, contact your local supplier or order online (see pages 31-32 for a list of available reagents).

RESULTS

You can view details for tests that have not been saved to History, add notes, or clear recent test history from the Results section.

HOW TO ADD NOTES

To add notes begin by selecting **'Results'** then select the test result you would like to add notes to. Tap inside the blue note section of the Results screen and add your notes. The app will automatically save the information you enter.
Tap **'Results'** to return to the previous screen.

HOW TO CLEAR PREVIOUS TEST RESULTS

To clear ALL recent test results, tap **'Results'**, then **'Reset'**. A notification screen will display **'Reset data results'**. "Are you sure you want to reset all the results and notes?" Tap **'Yes'** to clear.

PROFILE

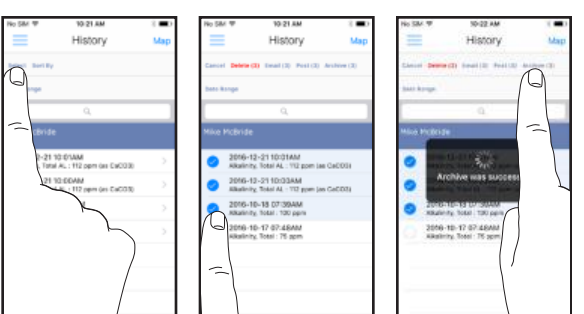
The Profile section of the app can be used to set your preferred units of measure for your tests. Another feature located in the Profile section is Archiving. To access the Profile section of the app, tap the person icon that appears in the top right of the screen throughout the app.

PREFERRED UNITS OF MEASURE

In this section, you are able to select the appropriate unit of measure for your testing needs. To do so, tap Preferred Unit of Measure. Then, scroll until you find the appropriate test parameter (ex. Alkalinity, Total). Lastly, scroll through the various Unit of Measure options until you find the one that works for your needs (ex. dKH). Select that option and tap OK. The test parameter will now show the new preferred unit of measure.

ARCHIVING

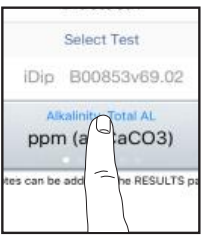
After creating an account, the archiving function gives you the opportunity to upload your test results to the Cloud from which they can be accessed at a later date (https://www.idipdata.com). This is a helpful feature if you notice that the app is behaving slowly due to data overload. Images taken and saved with test results will also upload to the cloud when archived. Once signed in with your new account, you can begin archiving your results from the History page. While on the History page, tap the Select button at the top left, select the tests to archive, and press the Archive button at the top of the screen.



Test procedures can vary from test to test. Read full instructions and watch instructional video for each test as detailed below.

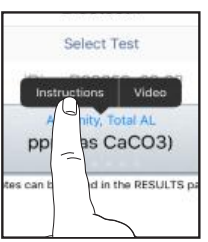
TAP TEST NAME

Tap the test name that appears in the test result window. A pop-up will display showing options for Instructions and Video.



TAP INSTRUCTIONS

Tap Instructions in the pop-up displayed. A screen will appear with step-by-step instructions and pictures for the selected test. Read through instructions thoroughly before running the test.



TAP VIDEO

Tap Video in the pop-up displayed. Your browser will open and load the video instructions for the selected test. Watch the instructions completely before running the test.

Before you begin, ensure you have downloaded the app and all necessary tests you require. For helpful tips regarding test procedures, refer to tips "FOR BEST ACCURACY" on page 5.

STANDARD STRIP METHOD

1 SELECT CUSTOMER

a. Select **'Customers'** from the **'Home'** screen.
b. Tap **'Add customer from contacts'**.
c. Select a contact from your list. After selecting a contact, tap on the customer's address if shown. Android users: If no address is found, tap "No addresses found"
d. Verify customer has been selected.

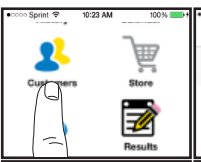
TIP

After adding a customer, a test will need to be conducted and a result saved in order for the customer's information to display in the app's customers list.

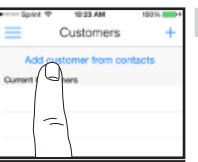
Note: In order to take full advantage of the GPS and Data Storage features, each test result is linked to a contact.

Apple

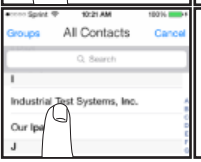
a



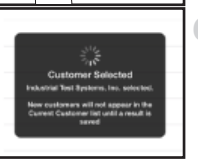
b



c

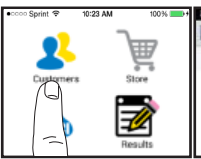


d

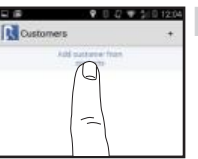


Android

a



b



c

d

TIP

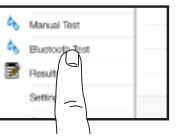
You can also choose to complete this step after testing.

2 POWER ON EXACT IDIP®

Press the ZERO/ON button to power on the eXact iDip®.

3 SELECT BLUETOOTH® TEST

Tap the menu slide out '☰' and select **'Bluetooth Test'** from the choices shown.

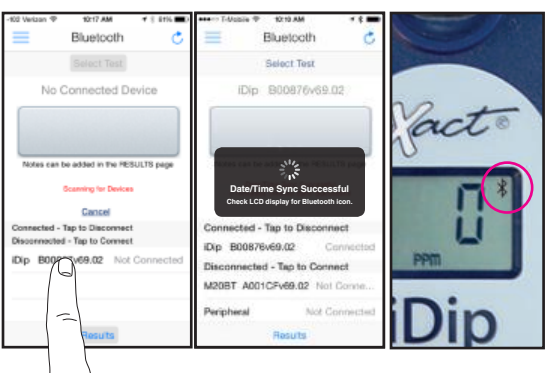


4 CONNECT EXACT IDIP®

The eXact iDip® app will automatically connect to the most recently used eXact iDip® photometer. If not, select your eXact iDip® from the bottom of the screen.

Note: Ensure you always connect your eXact iDip® photometer via the Bluetooth® connection within the app. To verify connection look for the Bluetooth icon in the upper right corner of your photometer.

If you experience an issue connecting your device, check to ensure that your smartphone/tablet's Bluetooth® function is turned on and your device is compatible.



TIP

Easily verify your device.

Refer to the back of your eXact iDip® to determine the serial number for your device. This will also be the name for the Bluetooth® connection.

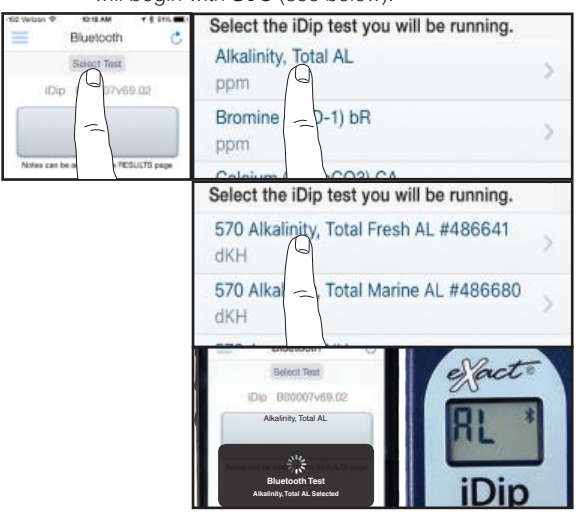
Bluetooth® SMART is a low–power wireless networking standard which uses short radio waves to allow electronic devices to communicate with each other. For more information regarding Bluetooth® SMART, see page 26.

5 FILL CELL

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

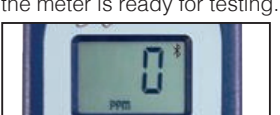
6 SELECT TEST

Tap **'Select Test'** at the top (e.g. Alkalinity, Total). The eXact iDip® and app will both display the test being run. If using the eXact iDip® **570**, all available tests will begin with **570** (see below).



7 ZERO METER

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



8 REMOVE STRIP

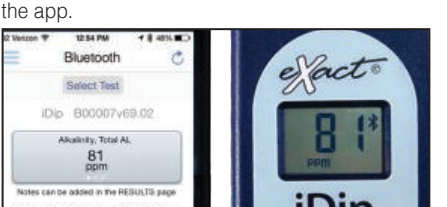
Remove one eXact® Strip Micro (e.g. Total Alkalinity) and set in a dry, convenient place. Replace cap on bottle.

9 DIP STRIP AND PRESS READ

Press READ to initiate a 20 second countdown and simultaneously **DIP** the eXact® strip by submerging all pads in the sample. 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. See page 5 for important tips.

10 READ RESULTS

READ result displayed on the iDip® and in the app. To run additional tests, repeat steps 5-9. To save, send, and share results, proceed to page 23 prior to closing the app.



TIP

On the Test Result Screen, swipe the result to the left, or right, to view alternative units of measure.

ACRYLIC CALIBRATION KEY

The Acrylic Calibration Key is a tool for verifying the calibration of your eXact iDip® Photometer compared to its original factory settings. Run this test immediately upon receipt and record value for future reference. Follow steps 1-5 on pages 16-18. Then, follow the remaining steps below.

6 SELECT TEST

Tap SELECT TEST at the top and select the Calibration Key test.

7 ZERO METER

Press ZERO/ON and the eXact iDip® display reads 0PPM indicating the meter is ready for testing.

8 DIP KEY AND PRESS READ

Place the Acrylic Calibration Key into the water sample in the center of the CELL. Be sure the key is positioned upright (vertical) and to the bottom of the CELL. Press READ.

9 READ RESULT & RECORD

Result is displayed on the eXact iDip® and in the app. Record value. For additional tests, repeat steps 5-9.

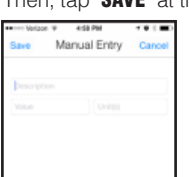
Expect the result to be within 0.15 units from previous calibration. If variation is greater, please re-check your ZERO procedure (steps 5-7) and be sure to use clean water (deionized or distilled if necessary).

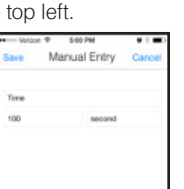
The eXact iDip app has the ability to automatically calculate results for various parameters once specific tests are completed. After completing the Required Tests below, go to the Results page of the app and the Desired Result values below will be displayed automatically.

Desired Result	Required Tests
Magnesium	Calcium Total Hardness
Residual Alkalinity	Calcium Total Alkalinity Total Hardness
Sodium	Calcium Chloride Sulfate Total Alkalinity Total Hardness
Langelier Saturation Index (LSI)	Calcium Cyanuric Acid pH Temperature Total Alkalinity Total Dissolved Solids (TDS)
Total Chlorine	Free Chlorine Combined Chlorine
Combined Chlorine	Free Chlorine Total Chlorine

MANUAL ENTRY

This feature allows you to utilize other testing methods and manually enter your results into the app. Begin by selecting **'Test'**, **'Manual Entry'**, select your desired test. Enter the value obtained. Once finished, tap **'SAVE'** at the top left. If the test you need to enter is not available on the list, tap **'Custom*'**. Enter the type of test that was run, the value obtained, and the unit of measure used. Then, tap **'SAVE'** at the top left.





The Apple Watch can be used to Select Test and Read Results. This helps to keep the phone away from the water. Make sure the eXact iDip Apple Watch app is installed by opening the Watch app on the iPhone and scrolling down until you see eXact iDip. Tap eXact iDip and turn on "Show App on Apple Watch". To use the Apple Watch with the eXact iDip app, follow steps 1-5 on pages 16-18. Then, follow the remaining steps below.

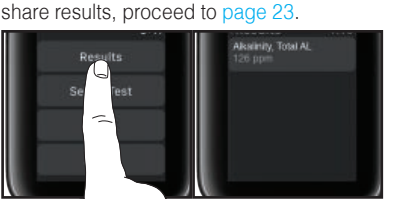
6 SELECT TEST

Tap **'Select Test'** on the watch. Choose the test to be run (ex. Alkalinity, Total AL). The eXact iDip® and app will both display the test being run. If using the eXact iDip® **570**, all test names will begin with **570**.

Continue with steps 7-9 on pages 18-19. To run additional tests, repeat steps 5-9 for each additional test.

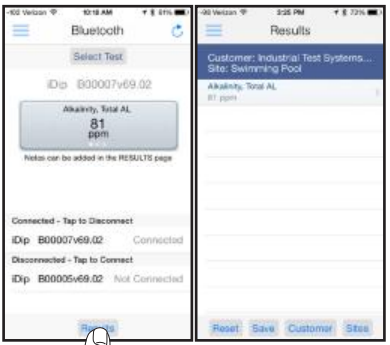
10 READ RESULTS

On the Apple Watch, tap "< Select Test" at the top of the screen to return to the previous page. Then, tap Results followed by Show Results. **READ** result displayed on the iDip® and in the Apple Watch app. To save, send, and share results, proceed to page 23.



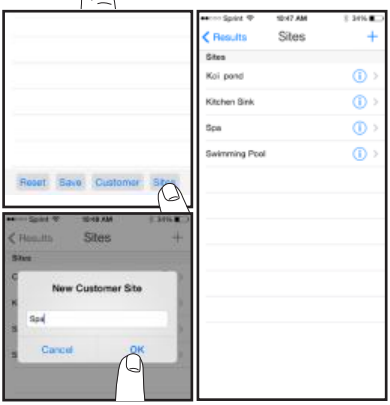
RESULTS

After tests have been performed, tap **'Results'** at the bottom of the screen.



ADD SITES

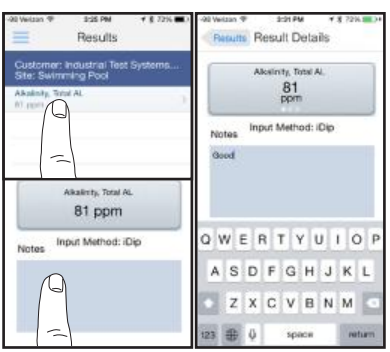
Each set of results can be saved to a customers **'Site'** (water source at the location). Select a site from the list or to add new sites, tap **'Sites'**, then **'+'**. Enter a Site name, tap **'OK'**.



ADD NOTES

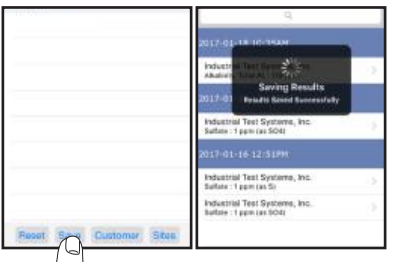
To add notes to each test tap the desired test result.

Type notes in the **'Notes'** box, which are automatically saved. Press **'Results'** to return to the results menu.



SAVE TO HISTORY

In **'Results'** screen, tap **'Save'** to store into **'History'**. If this step is omitted, test results will not be permanently saved. A **'Saving Results'** pop-up appears, verifying that your result is now successfully saved.



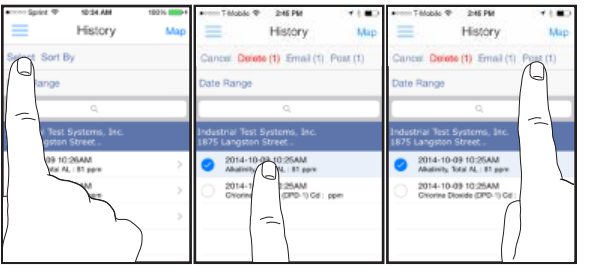
SEND/SHARE VIA EMAIL

In History you can edit, select, and email your results. To email you can either tap an individual result displayed, or use the **'Select'** button to access multiple data points. Press the blue envelope icon if you tapped an individual result. Select **'Email'** at the top if multiple tests are selected. A .csv (spreadsheet) file will be attached at the bottom of the e-mail.

Individual Result **Multiple Results**

SEND/SHARE VIA SOCIAL MEDIA

To share your results on social media, use the **'Select'** button and check the result(s) you want to share. Tap **'Post'** at the top and choose whether to share via Facebook or Twitter.

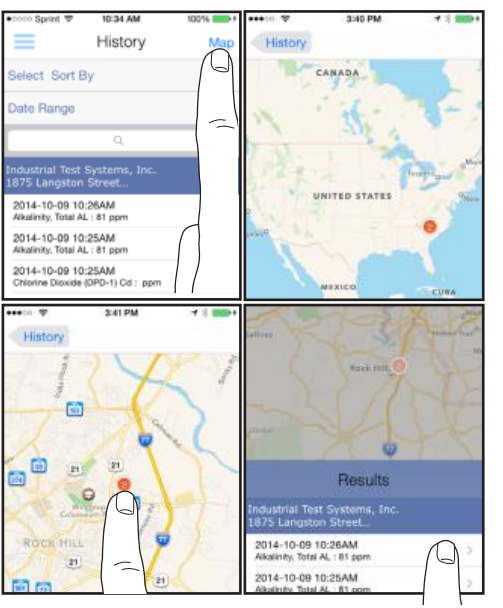


ARCHIVE

See page 14 for details on using the Archiving feature.

USING HISTORY MAP

Tap **'Map'** on History page to access History Map. Double-tap or spread fingers to zoom. Tap on a pin to see results. Tap on a result to bring up the details page.



EXACT® STRIP MICRO CL INTERFERENCES

Interfering Substance	Interfering Levels and Treatments
Acidity	If sample has acidity above 150mg/L CaCO3 test may not develop full color. Neutralize to pH 6.0 to 7.0 with 0.5N Sodium hydroxide.
Alkalinity	If sample has alkalinity above 200mg/L CaCO3 test may not develop full color. Neutralize to pH 6.0 to 7.0 with 0.5N Sulfuric acid.
Bromine and Bromamines, Br_2	Color similar to free chlorine reaction at all levels.
Chlorine Dioxide, ClO_2	Color similar to free chlorine reaction at all levels.
Copper, Cu2+	Color development is reduced above 10 ppm (mg/L).
Iodine, I_2	Color similar to free chlorine reaction at all levels.
Manganese, oxidized (Mn4+, Mn7+) or Chromium, oxidized (Cr6+)	See AWWA procedure 4500-CL F, 1(d) for removal of interferences.
Monochloramines (NH2Cl) (applies to DPD-1 only)	Monochloramine interferences are known to occur in free chlorine DPD methods. This interference is dependent on temperature and monochloramine concentration.
Ozone, O_3	Color similar to free chlorine reaction at all levels.
Peroxides	Interference is possible.
pH	Typical pH samples of potable water with a pH of 6.0 to 9.0 are OK. If outside this range adjust to pH 6.0 to 7.0 using acid (0.5N Sulfuric acid) or base (0.5N Sodium hydroxide).

ABOUT BLUETOOTH® SMART TECHNOLOGY

Bluetooth® SMART is a low-power networking standard which uses short radio waves to allow electronic devices to communicate with each other wirelessly. The eXact iDip® comes standard with Bluetooth® 4.0 technology. It is 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® photometer.

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.

MAKING CALLS

The eXact iDip® photometer is not intended for use while talking on your smart phone. Talking during testing may cause the app to shutdown.

COMPLIANCE TESTING

USEPA HEALTH DEPT COMPLIANT

This DPD test system for Chlorine and Chlorine Dioxide is accepted for reporting by most health departments because the tests are USEPA (DIN Standard 38 408 G4/G5, ISO 7393/2) accepted for testing requirements for Free Chlorine, Total Chlorine, and Chlorine Dioxide.

The compliance requirement is a photometer wavelength to measure between 490 and 530nm. The eXact iDip® photometer uses a 525nm wavelength and 11 mm path-length. The eXact® Strip Micro CL/Cd (DPD-1) use the same reagents and proportions, and the resulting solution pH is maintained between 6.2 and 6.5 as specified by AWWA method 4500-Cl G/ClO2-D. The USEPA does not "approve" commercial DPD delivery systems. The eXact® Strip Micro CL (DPD-1) for Free Chlorine, and the eXact® Strip Micro CL (DPD-3) for Combined Chlorine, the eXact® Strip Micro CL (DPD-4) for Total Chlorine, and the eXact® Strip Micro Cd (DPD-1) for Chlorine Dioxide meet your reportable testing requirements because the eXact® Strip Micro strips deliver the same chemicals in identical proportions. The eXact® Strip Micro Chromium is compliant because it uses the same wavelength and delivers the same chemicals in the same proportions as AWWA method 3500-Cr B. The eXact iDip® 570 photometer cannot be used for compliance monitoring because the photometer wavelength of 570nm is outside of the required 490nm–530nm range. Consult with your local Health Department for official regulations.

COMPONENT (FREE CHLORINE)	AWWA 4500-CL G	EXACT® DPD-1
Anhydrous DPD sulfate	1.5%	1.5%
Anhydrous Na_2HPO_4	33.4%	33.4%
Anhydrous $KH_2PO_4Na_2$	64.0%	64.0%
EDTA	1.1%	1.1%

WINNER OF THE R&D100 AWARD

The eXact iDip® photometer is a winner of the prestigious R&D100 award. Each year a panel comprised of industry experts and R&D Magazine editors evaluate and judge hundreds of entries. The 52nd R&D100 Awards, recognized as the "Oscars of Invention," identify and celebrate the top 100 most revolutionary technology products of the previous year. R&D 100 selected the eXact iDip® Smart Photometer System® as a recipient of the esteemed Award. Compliance with the EPA, ISO, and DIN testing specifications of the eXact iDip® attests to the meter's quality, reliability, and accuracy.

EXACT IDIP® ALSO FEATURED IN MarketWatch THE WALL STREET JOURNAL

EXACT IDIP® ACCURACY

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. The eXact iDip® photometer has been factory calibrated and will stay valid because of its exceptional quality. We are so confident in the eXact iDip® photometer, we offer an industry leading 2-year warranty.

We built the eXact iDip® photometer to be easy, accurate and environmentally friendly. We have achieved this by utilizing our patented eXact® Strip Micro Technology, which uses 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 an 11mm path-length.

STARTER KITS

Each kit contains:

- Carrying case
- Cleaning brush
- User manual
- 25 of each eXact® Micro reagents (reagents vary for each kit-see below).

Starter kits can be ordered with or without an eXact iDip® photometer.

KIT	CONTAINS	WITHOUT IDIP®	WITH IDIP®
Pool Starter Kit	Total Alkalinity, pH-II, Cyanuric Acid, Free Chlorine (DPD-1), Combined Chlorine (DPD-3), and Calcium Hardness	486101-KP	486101-KP-K
Well Driller Starter Kit	Iron, Nitrate, HR Total Hardness, Total Alkalinity, and pH-II	486101-WD	486101-WD-K
Process Water Starter Kit	pH-II, Free Chlorine (DPD-1), Total Chlorine (DPD-4), HR Chlorine, Hydrogen Peroxide, and Glycine (used with DPD-1 for Chlorine Dioxide)	486101-PW	486101-PW-K
Tap Water Starter Kit	pH-II, Total Alkalinity, HR Total Hardness, Free Chlorine (DPD-1), Total Chlorine (DPD-4), Metals, and HR Chlorine	486101-TW	486101-TW-K
Smart Brew™ Starter Kit	HR Total Hardness, Calcium Hardness, Total Alkalinity, pH-II, Chloride, and Sulfate	486101-SB	486101-SB-K
Smart Brew™ Advanced Kit	HR Total Hardness, Calcium Hardness, Total Alkalinity, pH/Temp meter, Chloride, and Sulfate	486101-SB	486101-SB2-K
iDip® 570 Aquarium Starter Kit	pH-II, Nitrate, Total Alkalinity, Ammonia, Total Hardness HR, and Phosphate	486107-AQ	486107-AQ-K
iDip® 570 Marine Starter Kit	Calcium Hardness Ultra-High Kit, Nitrate, Total Alkalinity 570, Ammonia, Total Hardness Ultra High Kit, Phosphate, and pH-BT	486107-MA	486107-MA-K

EASY REFILL BOX

Contains refill bottles of each test for quick ordering (varies for each).

KIT	CONTAINS	PART NO.
Pool Water Reagent Refill Box	Total Alkalinity, pH-II, Cyanuric Acid, Free Chlorine (DPD-1), Combined Chlorine (DPD-3), and Calcium Hardness	486211
Well Water Reagent Refill Box	Iron, Nitrate, HR Total Hardness, Total Alkalinity, and pH-II	486212
Tap Water Reagent Refill Box	pH-II, Total Alkalinity, HR Total Hardness, Free Chlorine (DPD-1), Total Chlorine (DPD-4), HR Chlorine, and Metals	486213
Process Water Reagent Refill Box	pH-II, Free Chlorine (DPD-1), Total Chlorine (DPD-4), HR Chlorine, Hydrogen Peroxide, and Glycine (used with DPD-1 for Chlorine Dioxide)	486214
Smart Brew Reagent Refill Box	HR Total Hardness, Calcium Hardness, Total Alkalinity, pH-II, Chloride, Sulfate	486216
eXact iDip® 570 Aquarium Refill Box	pH-II, Nitrate, Total Alkalinity, HR Total Hardness, Ammonia, and Phosphate	486217
eXact iDip® 570 Marine Refill Box	Calcium Hardness Ultra-High Kit, Nitrate, Total Alkalinity 570, Ammonia, Total Hardness Ultra High Kit, Phosphate, and pH-BT	486218

TIP

Order online at exactidip.com or call one of our helpful customer service representatives at (800) 861-9712

METHOD VERIFICATION

Ready Snap®

Ready Snap® is a method verification solution with predetermined values to verify the accuracy of any manufacturer's tests including our eXact iDip® Smart Photometer System.

The easy 3 step procedure (snap, fill, and test) allows for quick verification of test parameters. Each box contains 10 ampoules of 10mL solution with no dilution necessary.

READY SNAP®	METHOD VERIFICATION TEST FOR	PART NO.
Ready Snap® 1P (plastic ampoules)	Total Alkalinity, pH-II, Calcium Hardness, Copper, Cyanuric Acid, and Phosphate.	480911
Ready Snap® 2	Ammonia, Arsenic, Iron, and Manganese	480902
Ready Snap® 3*	Red dye for verifying 525nm eXact® Photometer calibration	480903
Ready Snap® 7*	Red dye for verifying 570nm eXact® Photometer calibration	480907

* Please visit exactidip.com or exactidip570.com for the latest values.

MODEL AQUATIC HEALTH CODE AND NSF/ANSI 50 CERTIFICATION

The Model Aquatic Health Code (MAHC) is a set of guidelines published by the Centers for Disease Control and Prevention (CDC). This document brings together the latest knowledge based on science and best practices to help state and local government officials develop and update pool codes. They may use the code in whole, choose to use parts, or modify to fit their needs. Use of the MAHC is intended to save time and resources spent individually developing and updating codes across the country, while giving agencies the benefit of the latest science and best practices to help keep pools fun, safe, and healthy.

The MAHC requires NSF/ANSI 50 certification of water quality testing devices (WQTD) used in recreational facilities such as public swimming pools, interactive fountains, and Waterparks. Third-party certification to NSF/ANSI 50 allows manufacturers to make verified claims regarding the performance, accuracy and operating range of their WQTD. The performance testing of a WQTD involves accuracy and repeatability testing on two different lots of new production. Unlike most NSF/ANSI 50 certifications, WQTDs require follow-up testing of the product at the end of the manufacturer's specified shelf life. Certified products are given an accuracy rating to one of three levels: L1, L2 or L3, with L1 being the highest accuracy rating.

TEST	RANGE	ACCURACY RATING
POOL PARAMETERS		
Total Bromine	0 - 14 ppm	L1
Combined Chlorine	0 - 12 ppm	L2
Free Chlorine	0 - 12 ppm	L1
Cyanuric Acid	3 - 110 ppm	L2
pH	6.4 - 8.4 pH	L1
SPA PARAMETERS		
Total Bromine	0 - 17 ppm	L1
Combined Chlorine	0 - 12 ppm	L2
Free Chlorine	0 - 12 ppm	L1
pH	6.0 - 8.4 pH	L2

EXACT IDIP® 570 TESTS & REAGENTS

PARAMETER / TEST	PART #	RANGE 1 ppm	% BEST † ACCURACY	# OF TESTS
570 Alkalinity, Total Fresh	486641	12 - 200	10	100
570 Alkalinity, Total Marine	486680-II	50 - 240	10	100
570 Ammonia	486654	0.06 - 12	6	25
570 Bromine, Total (DPD-4)	486644	0.05 - 11	10	100
570 Calcium Fresh	486629	15 - 500	10	50
570 Calcium, UH Marine Kit	486668-K	730 - 1500	10	50
570 Chloride (as Salt)	486757	6 - 800	10	25
570 Chloride High (as Salt)	486757	120 - 16000	10	25
570 Chlorine, Free (DPD–1) 2	486637	0.06 - 15	8	100
570 Chlorine, Free/Combined/Total	486638	0.06 - 15	8	100
570 Chlorine, Total (DPD-4) 2	486670	0.06 - 15	8	100
570 Copper, Total	486681	0.04 - 7	4	50
570 Fluoride	486643	0.05 - 1.2	15	25
570 Hardness, Total High Fresh	486656	50 - 550	11	50
570 Hardness, Tot UH Marine	486669-K	2900 - 5500	8	50
570 Hardness, Tot UH-II Marine	486669-K	5400 - 8000	8	50
570 Hardness, Total Low Fresh	486630	1 - 70	15	100
570 Iodine (DPD-1) Fresh	486627	0.2 - 39.6	5	100
570 Iron, Total (TPTZ)	486650	0.05 - 6	8	50
570 Metals (+2)	486604	0 - 3	6	25
570 Nitrate Marine (as NO_3)	486655	3 - 100	20	50
570 Nitrate Fresh (as NO_3)	486655	3 - 200	10	50
570 Nitrite (as NO_2)	486682	0.07 - 16.0	6	50
570 Permanganate (DPD-1)	486626	TBD	TBD	100
570 pH	486639-II	6.0 - 8.8 pH	0.2 pH	100
570 pH, BT Fresh	486657	5.2 - 9.0 pH	0.2 pH	50
570 pH, BT Marine	486657	5.2 - 9.4 pH	0.3 pH	50
570 Phosphate (as PO_4)	486814	0.02 - 2.5	4	50

EXACT IDIP® SPA TESTS & REAGENTS

PARAMETER / TEST	PART #	RANGE 1 ppm	% BEST † ACCURACY	# OF TESTS
SPA Alkalinity, Total	486641	40 - 200	7.5	100
SPA Bromine, Total	486654	0.00 - 17.0	NSF Level 1 Spa	100
SPA Calcium Hardness (as $CaCO_3$)	486629	23 - 700	5	50
SPA Chlorine, Free (DPD-1)	486637	0.00 - 12.0	NSF Level 1 Spa	100
SPA Chlorine, Combined (DPD-3)	486638	0.00 - 12.0	NSF Level 2 Spa	100
SPA Chlorine, Total (DPD-4)	486670	0.00 - 12.0	5	100
SPA Cyanuric Acid	481652-II	3 - 110	9	60
SPA pH	486639-II	6.0 - 8.4 pH	NSF Level 2 Spa	100

EXACT IDIP® TESTS & REAGENTS

PARAMETER / TEST	PART #	RANGE 1 ppm	% BEST † ACCURACY	# OF TESTS
Alkalinity, Total	486641	40 – 200	7.5	100
Alkalinity, Total Range Extender	486665	Each strip adds 130 ppm		100
Bromine, Total (DPD–4)	486644	0.00 – 17.0	NSF Level 1 Pool	100
Chloride (as NaCl)	486757	4 – 335	5	25
Chloride High (as NaCl)	486757	80 – 6700	5	25
Chlorine Dioxide (DPD-1)	486633	0.00 – 6.0	5	100
Chlorine, Free (DPD–1) 2	486637	0.00 – 12.0	NSF Level 1 Pool	100
Chlorine, Free/Combined/Total	486638	0.00 – 12.0	NSF Level 2 Pool	100
Chlorine, Total (DPD–4) 2	486670	0.00 – 12.0	5	100
Chlorine, Total High	486672	1 – 200	5	50
Chromium (Cr+6)	486614	0.00 – 2.00	8	50
Copper (as Cu+2)	486632	0.00 – 9.0	2	50
Copper, Total	486681	0.00 – 9.0	2	50
Cyanuric Acid	481652–III	1 – 110	NSF Level 2 Pool	60
Calcium (as $CaCO_3$)	486629	20 – 700	5	50
Calcium, Salt Pools (as $CaCO_3$)	486629	20 – 900	5	50
Hardness, Total High (as $CaCO_3$)	486656	90 – 600	12	50
Hardness, Total Conditioner 2	486666	Use when Alkalinity >200		50
Hardness, Total Low (as $CaCO_3$)	486630	1 – 80	15	100
Hydrogen Peroxide	486648	1 – 130	5	50
Hydrogen Peroxide High (DPD-4)	486676	16 – 4200	8	100
Hydrogen Peroxide Low	486616	0.00 – 3.50	7	50
Iodine (DPD–1)	486627	0.00 – 21.0	4	100
Iron, Total (TPTZ)	486650	0.00 – 8.00	8	50
Manganese (as Mn+2)	486606	0.00 – 2.60	6	24
Metals (+2)	486604	0.00 – 1.75	6	25
Molybdate	486653	0.00 – 5.00	10	50
Nitrate, Fresh (as NO_3)	486655	0.25 – 32.0	15	50
Nitrate, Marine (as NO_3)	486655	4 – 100	15	50
Nitrite (as NO_2)	486623	0.00 – 4.00	3	50
Ozone (DPD-4)	486634	0.00 – 2.00	10	100
Peracetic Acid Low (DPD-4)	486674	0.00 – 11.0	4	100
Peracetic Acid	486675	0 – 590	5	100
Permanganate (DPD–1)	486626	0.00 – 6.00	5	100
pH	486639-II	6.4 – 8.4 pH	NSF Level 1 Pool	100
pH, Acid	486624	3.5 – 6.2 pH	0.3 pH	50
pH, Alkali	486609	7.5 – 10.0 pH	0.3 pH	50
Phosphate (as PO_4)	486814	0.20 – 3.0	8	50
Sodium Bromide, Total (as NaBr)	486659	19 – 400	5	25
Sulfate (as SO_4)	486608	1 – 270	5	50
Sulfide (as S2–)	486818	0.11 – 5.30	12	50
Turbidity	N/A	24 – 780 NTU	N/A	N/A

†Value provided represents best possible accuracy under laboratory conditions, but may vary throughout the detection range. For a complete list of accuracies throughout all ranges, please visit exactidip.com.

1 Ranges are based on default unit of measure. See page 14 for more details.

2 Requires the use of 2 strips if reading is above 6 ppm.