eXact iDip®

SMART PHOTOMETER SYSTEM®

with **Bluetooth® SMART**

TEST YOUR WATER

eXact®

1.21
ppm

iDip®

READ

ZERO/ON

sensafe.com

eXact iDip

R&D 100
2014 Winner
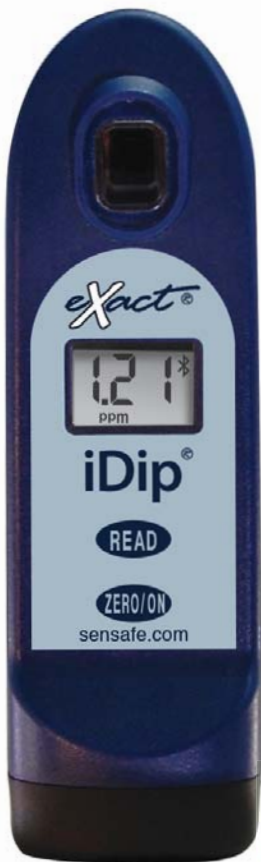
SMART DIGITAL
WATER TESTING®
QUICK START GUIDE

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.

eXact iDip®
Part #486101
exactidip.com

eXact iDip® 570
Part #486107
exactidip570.com

YOUR EXACT IDIP® COMES WITH:

• Cleaning Brush
• Quick Start 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 pages 8-9. We are constantly adding new devices to this list. View the most up-to-date list at sensafe.com/compatible-devices.

THE EXACT IDIP®
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 and #7,491,546, Euro Pat No. 1 725 864 DE FR UK, and South African Patent #2007/0628) for underlying technology, and currently pending are US Pat App 13/651305 and Euro Pat App 2 906 942 for technical features relating to two-way data communication between a photometer and a smart device.

Note: This system has been manufactured for use with only 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.

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

Visit exactidip.com or exactidip570.com to download individual test instructions for each test.

The meter has a default 3 minute automatic shutoff timer. You can change the duration in the 'Settings' menu located within the eXact iDip® app.

Always fill the cell to capacity (4mL).

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.

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.

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

8.8.8 ✳

ppm pH %T sec

LCD DISPLAY
Displays results and test name

LOW BATTERY

RESULT UNITS

READ BUTTON
Starts test timer

ZERO/ON BUTTON
Powers on the meter and creates a baseline for your water testing

eXact
iDip®
READ
ZERO/ON
sensafe.com

BASE
Install/replace batteries here (IP67 rated waterproof)

CELL COVER
Covers the cell for mixing and bright light situations

(€ ♻

Part no. **486101**

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

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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 pages 8 and 9 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 DOWNLOAD

GOOGLE PLAY DOWNLOAD

Download on the
App Store

GET IT ON
Google play

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

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.**

Step-by-step instructions on using the Store function of the app can be found on page 13.

To view an instructional video, please visit exactidip.com.

exactidip.com

SMART PHONE COMPATIBILITY

APPLE	SAMSUNG	MOTOROLA DROID	MOTOROLA	HTC
iPhone 4s	Galaxy Ace Style	Maxx	Moto E	Desire 610
iPod touch 5th	Galaxy Alpha	Mini	Moto G	Desire 816
iPhone 5	Galaxy Axiom	Razr HD	Moto X	Droid DNA
iPhone 5c	Galaxy Core II	Razr HD Maxx		EVO 4G LTE
iPhone 5s	Galaxy Core Lite	Razr M		One
iPhone 6	Galaxy Core Prime	Turbo		One (E8)
iPhone 6+	Galaxy Exhibit	Ultra		One (M7)
iPhone 6s	Galaxy Express			One (M8)
iPhone 6s plus	Galaxy Express 2			One (M9)
	Galaxy Grand 2			One Max
	Galaxy Grand Duos			One Mini
	Galaxy Grand Neo			One Mini 2
	Galaxy J			
	Galaxy Light			
	Galaxy Mega			
	Galaxy Mega 2			
	Galaxy Pop			
	Galaxy S3			
	Galaxy S3 Neo			
	Galaxy S4			
	Galaxy S4 Active			
	Galaxy S4 Mini			
	Galaxy S4 Zoom			
	Galaxy S5			
	Galaxy S5 Active			
	Galaxy S5 Sport			
	Galaxy S6			
	Galaxy S6 Edge			
	Galaxy Stellar			
	Galaxy Xcover 3			
	Galaxy Trend Lite			
	Galaxy Trend Plus			
	Galaxy Young II Duos			

TABLET COMPATIBILITY

APPLE	SAMSUNG	MOTOROLA DROID	MOTOROLA	HTC
iPad (3rd)	Galaxy Note 10.1			
iPad (4th)	Galaxy Note 3 Neo			
iPad Air	Galaxy Note 3 Neo Duos			
iPad Air II	Galaxy Note 4			
iPad Pro	Galaxy Note 8.0			
iPad Mini	Galaxy Note II			
iPad Mini II	Galaxy Note II Duos			
iPad Mini Retina	Galaxy Note III			
iPad Mini 4th	Galaxy Note III Round			
	Galaxy Note Pro			
	Galaxy Tab 3 V			
	Galaxy Tab 4			
	Galaxy Tab Pro			
	Galaxy Tab S			

This list is current as of November, 2015. To view the most up-to-date list of compatible devices, please visit sensafe.com/compatible-devices.

VIEW INSTRUCTIONAL VIDEO

eXact iDip

LG	SONY	GOOGLE	LENOVO	ZTE
F70	Xperia AX	Nexus 4	Vibe X2	Grand S Pro
G Pro2	Xperia E1	Nexus 5	Vibe Z2 Pro	Nubia X6
G2	Xperia GX	Nexus 6		Nubia Z5S Mini
G2 Mini	Xperia M			Nubia Z7 Max
G3	Xperia M2			
Optimus Exceed 2	Xperia SP			
Optimus Fuel	Xperia T			
Optimus G	Xperia T2 Ultra			
Optimus G Pro	Xperia V			
Optimus L35	Xperia VL			
Optimus L40	Xperia Z			
Optimus L65	Xperia Z ULTRA			
Optimus L70	Xperia Z1			
Optimus L80	Xperia Z1 Compact			
Optimus L90	Xperia Z1F			
Optimus Zone 2	Xperia Z1S			
Volt	Xperia Z2			
	Xperia Z3			
	Xperia Z3 Compact			
	Xperia Z3 Dual			
	Xperia ZL			
	Xperia ZR			

LG	SONY	GOOGLE	LENOVO	ZTE
G Pad	Xperia Tablet Z	Nexus 7 (2013)		
	Xperia Tablet Z2	Nexus 9		

The eXact iDip® photometer requires the use of a smart device with Bluetooth® 4.0 and Android 4.3 or greater.

VIEW EXACT IDIP® COMMERCIAL

eXact iDip

exactidip.com

MENU:
Opens slide-out for easy access to all app features

HOME SCREEN

HISTORY:
Accesses saved results which can be sorted, edited, and emailed. Also accesses History Map

CALENDAR:
Displays your schedule/appointments

-97 Verizon 2:49 PM 97%

eXact iDip®

eXact iDip®

History

Calendar

Customers

Store

Test

Results

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

TESTING PARAMETER

TEST ABBREVIATION

Alkalinity, Total AL

81
ppm

TEST RESULT

PARAMETER UNIT OF MEASURE

DOTS INDICATE MULTIPLE UNITS OF MEASURE
Swipe unit of measure values. (Available for some tests)

MENU

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.

HOW TO CHANGE THE TIMEOUT DURATION

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 **'Settings'** in the **Menu slide-out** and tap either **'+'** or **'−'**.

Note: You may need to change the Auto-Lock time on your smart device to allow for testing time (instructions will vary for phone or tablet make/model)

HOW TO VIEW YOUR GPS LOCATION

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

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.
Located in the *About* section you can find the version of the app you are running. Be sure to check 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 the **STANDARD STRIP METHOD** (page 18), **STANDARD LIQUID METHOD** (page 19), **NON-STANDARD METHODS**, or **AUTO-CALCULATE METHODS** (pages 20-21) test procedure.

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.

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 ACCESS HISTORY MAP

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

HOW TO EMAIL AND SHARE DATA

See page 23 for instructions on how to utilize these features.

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'**.

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 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. 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.

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.

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"
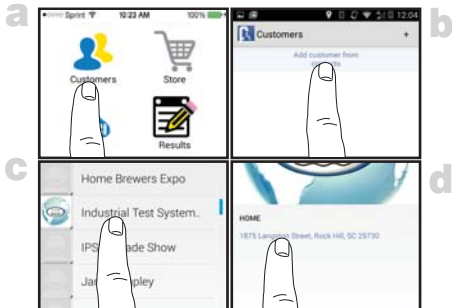
d. Verify customer has been selected.

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.
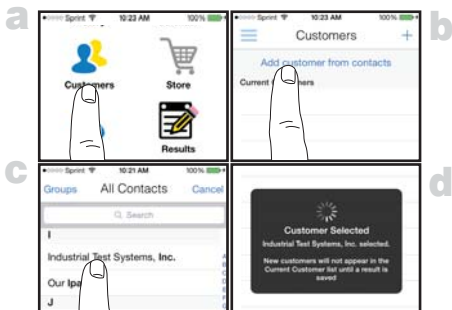
d.

TIP

You can also choose to complete this step after testing.

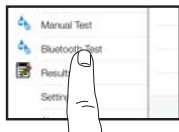# 2 POWER ON EXACT IDIP®

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.
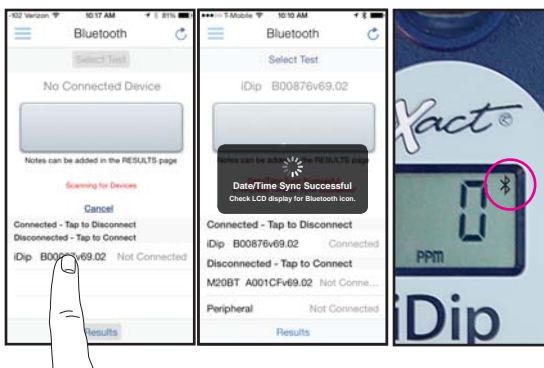
TIP

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

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

TIP

Use the included cleaning brush to clean the cell after each test to achieve the most accurate result.

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).
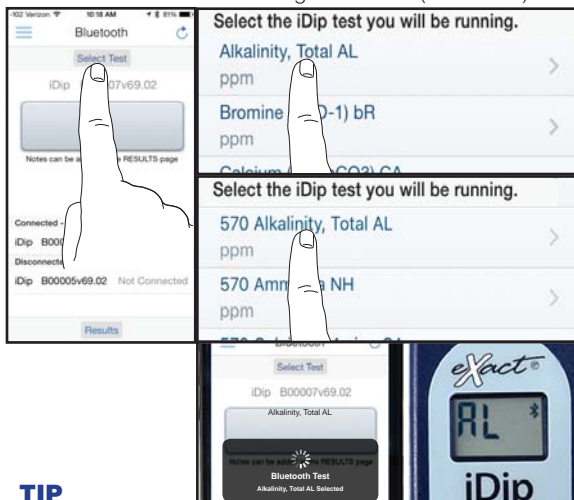
TIP

In bright light and liquid method situations use cell cover for zeroing and reading.

7 ZERO METER

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

For more detailed instructions, all test procedures are available for download at exactidip.com and exactidip570.com.

STANDARD STRIP METHOD

The **STANDARD STRIP METHOD** (page 18) applies to both the eXact iDip® photometer and the eXact iDip® 570 photometer unless otherwise stated (some tests require a count-up time, listed below).

Alkalinity, Total
Bromine, Total
Chloride (as NaCl)

Chlorine, Free
Chlorine, Total (120 sec)
Chlorine, Total High (120 sec)
Chromium (VI) (240 sec)
Copper (as Cu^{+2}) (120 sec)
Hardness, Calcium (as $CaCO_3$)
Hardness, Total High (as $CaCO_3$)
Hardness, Total Low (as $CaCO_3$)
Hydrogen Peroxide (100 sec)
Hydrogen Peroxide High
Hydrogen Peroxide Low (120 sec)
Iodine

Nitrate (as NO_3) (600 sec)
Nitrite (as NO_2) (360 sec)
Ozone
Peracetic Acid Low
Peracetic Acid
Permanganate
pH-II
pH, Acid
pH, Alkali
Phosphate (as PO_4) (120 sec)
Sodium Bromide (as NaBr)
Sulfate (as SO_4)

STANDARD LIQUID METHOD

The **STANDARD LIQUID METHOD** (page 19) involves adding the specified number of drops (below) and mixing for a 20 second count-down (some tests require a count-up time, listed below).

Cyanuric Acid (5 drops, 60 sec)   pH-BT (eXact iDip® 570 only) (2 drops)
Fluoride (eXact iDip® 570 only) (10 drops)
Metals (2 drops, 120 sec)

NON-STANDARD METHODS

Alkalinity, Total (when AL >200 ppm)
Ammonia (eXact iDip® 570 only)
Chloride, HR (as NaCl)
Chlorine, Combined
Chlorine Dioxide
Hardness, Total (when AL >200 ppm)
Iron, Total
Manganese (as Mn^{+2})

Molybdate (120 sec)
Sulfide (as S^{2-}) (180 sec)
Turbidity
SPA Alkalinity, Total
SPA Bromine, Total
SPA Hardness, Calcium
SPA Chlorine, Free
SPA pH-II

AUTO-CALCULATED METHODS

Chlorine, Combined   Hardness, Magnesium   Residual Alkalinity
Chlorine, Total   Langelier Saturation Index (LSI) Sodium

Visit exactidip.com or exactidip570.com for complete test instructions.

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.

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 22 prior to closing the app.
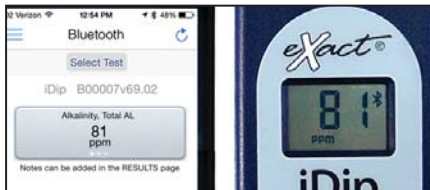
TIP

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

Visit exactidip.com or exactidip570.com for complete test instructions.

8

SHAKE BOTTLE & ADD DROPS

Tilt meter to discard about 0.2mL water in order to leave room for liquid reagent. Shake the bottle of eXact® Reagent (e.g. Cyanuric Acid) and add drops. Ensure the reagent bottle remains vertical while adding drops.

9

COVER, PRESS READ, & MIX

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 eXact iDip® on a flat surface. Wait for count-up time.

10

READ RESULTS

READ result displayed on the eXact iDip® and in the app. To run additional tests, repeat steps 5-9. To save, send, and share results, proceed to page 22 prior to closing the app.

Visit exactidip.com or exactidip570.com for complete test instructions.

MAGNESIUM HARDNESS

Use the **STANDARD STRIP METHOD**, as illustrated on page 18 to perform tests for Total Hardness and Calcium Hardness. Then, tap Results at the bottom of the page and a Magnesium Hardness value will be calculated automatically.

RESIDUAL ALKALINITY

Use the procedure above to obtain a Magnesium Hardness value. Then use the **STANDARD STRIP METHOD** as illustrated on page 18 to perform the test for Total Alkalinity. Lastly, tap Results at the bottom of the page and a Residual Alkalinity value will be calculated automatically.

SODIUM

Use the procedure above to obtain a Residual Alkalinity value. Then use the **STANDARD STRIP METHOD** as illustrated on page 18 to perform tests for Chloride and Sulfate. Lastly, tap Results at the bottom of the page and a Sodium value will be calculated automatically.

If you would like to obtain all three test results listed above, you can perform all required tests (Total Hardness, Calcium Hardness, Total Alkalinity, Chloride, and Sulfate) and then go to Results. At this point, all three values will be automatically calculated simultaneously (see below).

Visit exactidip.com or exactidip570.com for complete test instructions.

LANGELIER SATURATION INDEX (LSI)

Use the **STANDARD STRIP METHOD** as illustrated on page 18 to perform tests for Total Alkalinity, Calcium Hardness, and pH. Then, obtain a TDS result and a Temperature result via alternate means. Open the slide-out menu and tap Manual Test. Tap Temperature and enter the value obtained. Tap Save in the top left. Tap Total Dissolved Solids (TDS) and enter the value obtained. Tap Save in the top left. Lastly, tap Results at the bottom of the page and an LSI value will be calculated automatically.

TOTAL CHLORINE

Perform the **NON-STANDARD METHOD** for Combined Chlorine (available for download at exactidip.com). Lastly, tap Results at the bottom of the page and a Total Chlorine value will be calculated automatically.

COMBINED CHLORINE

Use the **STANDARD STRIP METHOD** as illustrated on page 18 to perform tests for Free Chlorine and Total Chlorine. Then, tap Results at the bottom of the page and a Combined Chlorine value will be calculated automatically.

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.
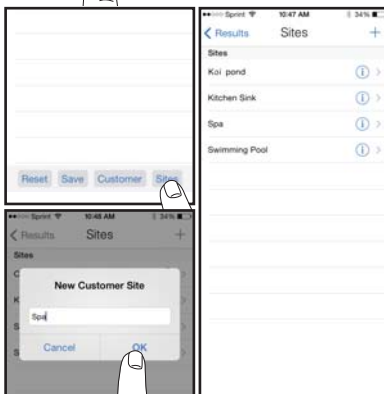

exactidip.com

SAVE

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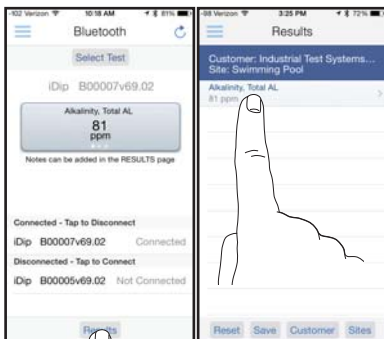
ADD SITES

Each result can be saved to a customers '**Site**'. Swimming pool is the default. Select a site from the list or to add additional sites, tap '**Sites**', then '**+**'.
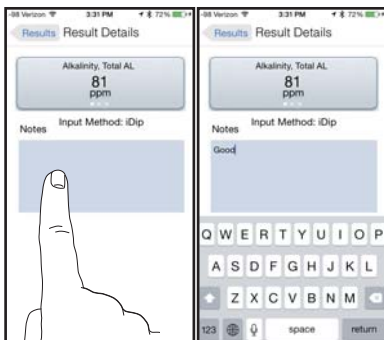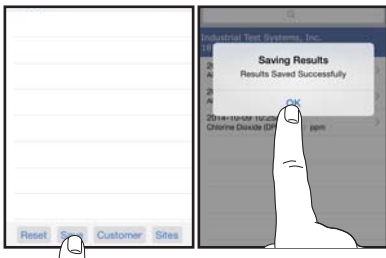
Enter a **Site** name, tap '**OK**'.

ADD NOTES

To add notes 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 RESULTS

In **'Results'** screen, tap **'Save'** to store into **'History'**. A '**Saving Results**' screen appears, tap '**OK**'. 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.
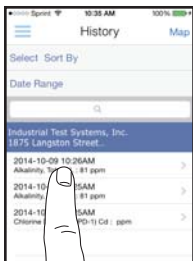
Individual Result   **Multiple Results**
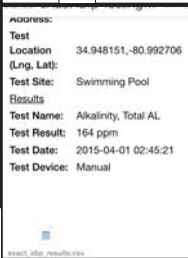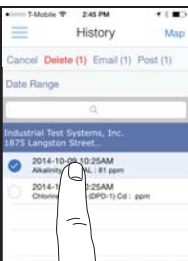
SEND/SHARE VIA SOCIAL MEDIA

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.

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.

Listed below are possible situations that may arise while testing. Please contact one of our knowledgeable customer service representatives if you require further assistance.
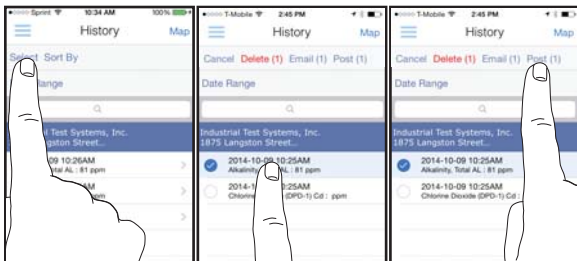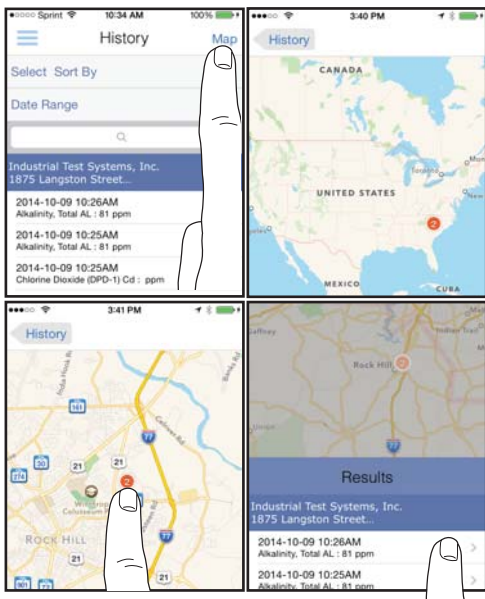
Subject	Cause	Solution
No response from eXact iDip®	Low battery	Replace batteries
	Chip failure	Contact ITS
Dim screen on eXact iDip®	Low battery	Replace batteries
"Er1" on eXact iDip® LCD	No result sent to eXact iDip® from app	Close & restart app. Reconnect to eXact iDip®
"Er2" on eXact iDip® LCD	No 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

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.

26th ANNIVERSARY

Manufacturing quality products since 1989

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 the latest Bluetooth® 4.0 technology (bluetooth.com/Pages/Bluetooth-Smart.aspx). 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®.

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

EXACT® STRIP MICRO CL (DPD-1, DPD-3, DPD-4) 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, Cu^{2+}	Color development is reduced above 10 ppm (mg/L).
Iodine, I_2	Color similar to free chlorine reaction at all levels.
Manganese, oxidized (Mn^{4+}, Mn^{7+}) or Chromium, oxidized (Cr^{6+})	See AWWA procedure 4500-CL F, 1(d) for removal of interferences.
Monochloramines (NH_2Cl) (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).

COMPLIANCE TESTING

USEPA HEALTH DEPT COMPLIANT

This DPD test system for Chlorine and Chlorine Dioxide are 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 2014 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. For 2014, 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

Combined with your smart device, the eXact iDip® photometer 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. 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.

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

EXACT IDIP® ASSIGNED VALUE FOR READY SNAP® 3		
READY SNAP® 3	**FREE CHLORINE DESIRED VALUE**	**FREE CHLORINE ACCEPTABLE RANGE**
Red dye # 505	1.5 ppm	1.46 – 1.57

EXACT IDIP® 570 ASSIGNED VALUE FOR READY SNAP® 7		
READY SNAP® 7	**FREE CHLORINE DESIRED VALUE**	**FREE CHLORINE ACCEPTABLE RANGE**
Red dye # 22515	2.15 ppm	2.10 – 2.22

Note: Values indicated are specific to eXact iDip® readings and current concentrations as found at time of manufacture.

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, Nitrate, Total Alkalinity, Ammonia, HR Total Hardness, Phosphate, and pH-BT	486218

TIP

DRY CASE FOR PHONE OR TABLET

Features a waterproof vacuum seal for your smartphone/
tablet. Each case comes with a neoprene armband and
lanyard making it easy to use with your eXact iDip®.

Dry Case for phone:
    8.5" x 4.5" x .5"

Dry Case for tablet:
    13" x 9" x .5"

ITEM	INCLUDES	PART NO.
Dry Case Waterproof case for phones	Case, pump, neoprene armband, and lanyard	486150
Dry Case Waterproof case for tablets	Case and pump	486151

CARRYING CASE FOR EXACT IDIP® KIT

Made of sturdy material lined with foam, the carrying case offers storage for an eXact iDip® photometer and eXact® Micro reagents.

ITEM	INCLUDES	PART NO.
Standard Carrying case	Blue carrying case with foam inserts (holds up to 7 bottles)	486111
XL Carrying case	Black carrying case with foam inserts (holds up to 14 bottles)	486001

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, Jenco pH/ Temp meter, Chloride, and Sulfate	486101-SB	486101-SB-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, Total Alkalinity, Ammonia, HR Total Hardness, Nitrate, Phosphate, and pH-BT	486107-MA	486107-MA-K

PARAMETER / TEST	PART #	RANGE ppm	% BEST † ACCURACY	# OF TESTS
570 Alkalinity, Total	486641	12 - 200	10	100
Alkalinity, Total Range Extender [2]	486665	Each strip adds 130 ppm		100
570 Ammonia[2]	486654	0.06 - 12	6	25
570 Calcium Hardness (as $CaCO_3$)	486629	18 - 650	10	50
570 Chloride (as Salt)	486757	6 - 800	10	25
570 Chloride High (as Salt) [2]	486757	120 - 16000	10	25
570 Chlorine, Free (DPD–1) [3]	486637	0.06 - 15	8	100
570 Chlorine, Combined (DPD-3) [1,2]	486638	0.06 - 15	8	100
570 Chlorine, Total (DPD-4) [3]	486670	0.06 - 15	8	100
570 Copper	486632	0.04 - 7	TBD	50
570 Fluoride	486643	0.05 - 1.2	TBD	25
570 Hardness, Total High	486656	50 - 550	11	50
Hardness, Total Conditioner [2]	486666	Use when AL >200 ppm		50
570 Hardness, Total Low	486630	1 - 70	15	100
570 Iron, Total (TPTZ)	486650	0.05 - 6	TBD	50
570 Metals (+2)	486604	0 - 3	TBD	25
570 Nitrate (as NO_3) in Marine Water	486655	3 - 100	20	50
570 Nitrate (as NO_3) in Fresh Water	486655	3 - 200	10	50
570 Nitrite (as NO_2)	486623	0.07 - 16	4	50
570 Ozone (DPD-4)	486634	TBD	TBD	100
570 Peracetic Acid (DPD-4)	486674	TBD	TBD	100
570 Permanganate (DPD-1)	486626	TBD	TBD	100
570 pH-II	486639-II	6 - 8.8	0.2 pH	100
570 pH, BT	486657	5 - 9.6	0.3 pH	50
570 Phosphate (as PO_4)	486814	0.09 - 2.01	4	50

EXACT IDIP® CALCULATED TESTS

PARAMETER / TEST	REQUIRED TESTS
Chlorine, Combined	Free Chlorine and Total Chlorine
Chlorine, Total	Free Chlorine and Combined Chlorine
Hardness, Magnesium	Total Hardness and Calcium Hardness
Langelier Saturation Index (LSI)	pH, Total Alkalinity, Calcium Hardness, TDS, and Temperature
Residual Alkalinity	Total Alkalinity, Total Hardness, and Calcium Hardness
Sodium	Chloride, Sulfate, Total Alkalinity, Total Hardness, and Calcium Hardness

EXACT IDIP® SPA TESTS & REAGENTS

PARAMETER / TEST	PART #	RANGE ppm	% BEST † ACCURACY	# OF TESTS
SPA Alkalinity, Total[2]	486641	10 - 200	7.5	100
SPA Bromine, Total[2]	486654	0.08 - 17	3	100
SPA Calcium Hardness (as $CaCO_3$)[2]	486629	23 - 700	5	50
SPA Chlorine, Free (DPD-1)[2]	486637	0.05 - 12	5	100
SPA pH-II[2]	486639-II	6.0 - 8.5	0.2 pH	100

EXACT IDIP® TESTS & REAGENTS

PARAMETER / TEST	PART #	RANGE ppm	% BEST † ACCURACY	# OF TESTS
Alkalinity, Total	486641	10 – 200	10	100
Alkalinity, Total Range Extender [2]	486665	Each strip adds 130 ppm		100
Bromine, Total (DPD–4)	486644	0.08 – 17	3	100
Chloride (as NaCl)	486757	4 – 335	5	25
Chloride (as NaCl) High [2]	486757	80 – 6700	5	25
Chlorine Dioxide (DPD-1) [2]	486633	0.06 – 6	5	100
Chlorine, Free (DPD–1) [3]	486637	0.01 – 12.0	5	100
Chlorine, Combined (DPD–3) [1,2]	486638	0.01 – 12.0	5	100
Chlorine, Total (DPD–4) [3]	486670	0.01 – 12.0	5	100
Chlorine, Total High	486672	1 – 200	5	50
Chromium (Cr+6)	486614	0.01 – 2.00	8	50
Copper (as Cu+2)	486632	0.06 – 9	2	50
Cyanuric Acid	481652–II	3 – 110	12	60
Hardness, Calcium (as CaCO₃)	486629	3 – 700	5	50
Hardness, Calcium (Salt Pools)	486629	20 – 900	5	50
Hardness, Calcium (Marine Water)	486629	30 – 1200	5	50
Hardness, Total High (as CaCO₃)	486656	60 – 600	12	50
Hardness, Total Conditioner [2]	486666	Use when Alkalinity >200		50
Hardness, Total Low (as CaCO₃)	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	0.02 – 3.5	7	50
Iodine (DPD–1)	486627	0.08 – 21	4	100
Iron, Total (TPTZ) [2]	486650	0.03 – 8	8	50
Manganese (as Mn+2) [2]	486606	0.03 – 2.6	6	24
Metals (+2)	486604	0 – 1.75	6	25
Molybdate [2]	486653	0.02 – 5	10	50
Nitrate (as NO₃) (Fresh Water)	486655	0.25 – 32	8	50
Nitrate (as NO₃) (Marine Water)	486655	4 – 100	14	50
Nitrite (as NO₂)	486623	0.02 – 4	3	50
Ozone (DPD-4)	486634	0.01 – 2	10	100
Peracetic Acid Low (DPD-4)	486674	0.05 – 11	4	100
Peracetic Acid	486675	0 – 590	5	100
Permanganate (DPD–1)	486626	0.02 – 6	5	100
pH-II	486639-II	6.4 – 8.4 pH	0.2 pH	100
pH, Acid	486624	3.5 – 6.2 pH	0.3 pH	50
pH, Alkali	486609	7.5 – 10 pH	0.3 pH	50
Phosphate (as PO₄)	486814	0.02 – 4	8	50
Sodium Bromide, Total (as NaBr)	486659	19 – 400	5	25
Sulfate (as SO₄)	486608	1 – 270	5	50
Sulfide (as S2–) [2]	486818	0.11 – 5.3	12	50
Turbidity [2]	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]Combined Chlorine DPD-3 Test requires Free Chlorine DPD-1 (486637) to be run first.
[2]Test uses a non-standard test method. Visit exactidip.com for details.
[3]Requires the use of 2 strips if reading is above 6 ppm.

IDIP QUICK START GUIDE R042716

EXACTIDIP #iDipwatertester