



A New Spin on Precision Water Analysis

Code 3576

Go to www.lamotte.com/spin for:

Instructional videos • Testing Tips • Software Updates • Registering your meter

OVERVIEW

The WaterLink® Spin photometer measures 13 important pool and spa important test factors such as Free Chlorine, Total Chlorine, Bromine, Total Alkalinity, pH, Calcium Hardness, Copper, Iron, Cyanuric Acid, Phosphate, Borate, Biguanide, and Biguanide Shock. This innovative photometer is easy-to-use with a disk reagent system that holds the precise amount of reagents needed to run the tests. LaMotte chemists developed reagent disks specifically for the in-store pool and spa analyst who desired similar precision to current water labs but without the time-consuming procedures or testing limitations of test strips.

This in-store lab is simple to use: just use the precision syringe to add a pool or spa water sample to the disk which contains all the reagents needed for each test series. The disk is placed in the photometer chamber and the results are ready in an instant. A complete series of tests can be completed in one minute. When completed, the disk is discarded and the next test is started.

With all the necessary reagents in disposable disks, no time is wasted in test preparation or cleanup. Since there are no tubes to clean for future testing, overall time savings are doubled. User error is significantly reduced since the user no longer has to measure reagents.

The DataMate software will analyze the data and recommend products along with treatment instructions. Included in the DataMate 10 Software is the WaterLink® Spin Application that operates the WaterLink® Spin photometer.



CONTENTS

GENERAL INFORMATION

- Contents4
- Specifications.....5
- Packaging and Delivery6
- General Precautions6
- Safety Precautions.....6
- Limits of Liability6
- CE Compliance6
- Warranty6

GENERAL OPERATING PROCEDURES

- Meter8
- Syringe8
- Disks.....8
 - Chlorine/Bromine and Biguanide Disks9
 - Filling.....9
 - Handling.....10
 - Storage.....10
- Disk Cover.....10
- Troubleshooting Disk.....10
- Calibration Check Disk.....10
- USB Cable.....11
- AC Adapter.....11

SET UP

- Software11
- Meter11
- Disks.....11

TESTING11

MAINTENANCE

- Cleaning12
- Repairs12
- Meter Disposal12
- Disk Disposal13

TROUBLESHOOTING

- Troubleshooting Guide14
- Helpful Hints14

ACCESSORIES & REPLACEMENT PARTS15

GENERAL INFORMATION

■ CONTENTS

WaterLink® Spin Photometer	Code 1714
Chlorine/Bromine Disks (2 X 50)	Code 4328-H
Syringe, 3 mL, plastic, w/tips (3)	Code 1189-3
Syringe Tips (3)	Code 1189-TIP
Disk Cover	Code 1718
Wide Range pH/Total Chlorine Test Strips (50)	Code 2987-G
Cleaning Tissues, Lint-free Wipes, (280)	Code 0669
USB Cable, 6 ft	Code 1711
Adapter	Code 27305-16
Power Cord	Code 27305-20
Troubleshooting Disk	Code 4330-BLANK
Calibration Check Disk	Code 1703
WaterLink® Spin Quick Start Guide	Code 3576-QG
WaterLink® Spin Manual	Code 3576-MN
WaterLink® Banner	Code 3576-BAN
WaterLink® Spin Counter Mat	Code 3576-MAT

■ SPECIFICATIONS

Test Factors	Range
Free Chlorine	0.00–15.00 ppm
Total Chlorine	0.00–15.00 ppm
Bromine	0.00–33.00 ppm
Total Alkalinity	0–250 ppm
pH	6.6–8.6
Calcium Hardness	0–1200 ppm
Copper	0.0–3.0 ppm
Iron	0.0–3.0 ppm
Cyanuric Acid	5–150 ppm
Borate	0–60 ppm
Biguanide	0–70 ppm
Biguanide Shock	0–250 ppm
Phosphate	0–1500 ppb

Wavelengths (interference filters)	428 nm, 525 nm, 568 nm, 635 nm
Wavelength Accuracy	±2 nm
Wavelength Bandwidth	10 typical
Photometric Range	-2 to 2 AU
Photometric Precision	±0.01 AU at 1.0 AU
Photometric Accuracy	±0.01 AU at 1.0 AU
Sample Chamber	Accepts prefilled disk
Light Source	4 LEDs
Detectors	4 silicon photodiodes
Pre-Programmed Tests	Yes, with automatic wavelength selection
USB Port	Mini B, USB 2
Power†	AC Adapter
Dimensions	21.6 x 22.9 x 11.4 cm 8.5 x 9.0 x 4.5 in. (L x W x H)
Weight	705 g (25 oz)

†CE Mark: The device complies with the product specifications for the Low Voltage Directive.

Disk Patent No. 8,734,734

FCI Patent No. 8,987,000

TCI Patent No. 8,993,337

■ PACKAGING & RETURNS

Experienced packaging personnel at LaMotte Company assure adequate protection against normal hazards encountered in transportation of shipments. After the product leaves the manufacturer, all responsibility for its safe delivery is assured by the transportation company. Damage claims must be filed immediately with the transportation company to receive compensation for damaged goods.

Should it be necessary to return the instrument for repair or servicing, pack the instrument carefully in a suitable container with adequate packing material. A return authorization number must be obtained from LaMotte Company by calling 1-800-344-3100, ext. 2 or emailing tech@lamotte.com. Attach a letter with the authorization number to the shipping carton which describes the kind of trouble experienced. This valuable information will enable the service department to make the required repairs more efficiently.

■ GENERAL PRECAUTIONS

Read the instruction manual before attempting to set up or use the instrument. Failure to do so could result in personal injury or damage to the meter. The WaterLink Spin should not be stored or used in a damp or corrosive environment. Care should be taken to prevent water or reagents from entering the photometer chamber. Wet disks should never be put into the photometer chamber.

■ SAFETY PRECAUTIONS

Read the safety precautions on the labels of all reagent containers and packaging prior to use. Material Safety Data Sheets (MSDS) can be found at www.lamotte.com. Additional emergency information for all LaMotte reagents is available 24 hours a day from the Poison Control Center listed in the front of the phone book or by contacting the 24 hour emergency line for ChemTel at 1-800-255-3924 (USA, Canada, Puerto Rico). For locations outside of the North American continent call 813-248-0585 collect.

■ LIMITS OF LIABILITY

Under no circumstances shall LaMotte Company be liable for loss of life, property, profits, or other damages incurred through the use or misuse of its products.

■ CE COMPLIANCE

The WaterLink Spin meter has been independently tested and has earned the European CE Mark of compliance for electromagnetic compatibility and safety. To view certificates of compliance, go to the LaMotte website at www.lamotte.com.

■ WARRANTY

LaMotte Company warrants this instrument to be free of defects in parts and workmanship for 2 years from the date of shipment. If it should become necessary to return the instrument for service during or beyond the warranty period, contact our Technical Service Department at 1-800-344-3100, ext. 2 or tech@lamotte.com for a return authorization number or visit www.lamotte.com for troubleshooting help. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. LaMotte Company specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. LaMotte Company's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

To register your meter with the LaMotte Service Department, go to www.lamotte.com and choose SUPPORT on the top navigation bar.

Serial Number _____

GENERAL OPERATING PROCEDURES

■ METER

When a filled disk is placed in the chamber and the lid is closed, the meter spins at high speed to distribute the sample to all 11 wells and to ensure that the water empties from the center chamber. Next the meter slows to maximize the pumping action of the stainless steel mixing beads as the reagents mix with the sample water. Each reaction is then read at the proper time and wavelength for that reagent system.

The blue indicator light located below the thumb hole on the meter housing will indicate the status of the instrument. A **steady blue light** indicates that the meter is connected to the power source and the computer and is ready to run a test. A **blinking blue** light indicates that a test is in progress and that the disk is spinning and the meter is taking readings. Do not open the lid while the disk is spinning. The blue light will remain on when the meter is plugged into the electrical outlet.

Care should be taken when closing the lid. **Do not slam the lid.** Wiring between the lid and the body of the photometer passes through the hinge. The meter will not run with the lid open.

■ SYRINGE

A plastic 3 mL syringe (Code 1189) is used to fill the disks. A precision tip on the syringe fits into the fill hole on the disk. The syringe tip should not be removed from the syringe. Syringes should be cleaned between water samples. Pump air in and out of the syringe a few times to clear the previous sample or rinse the syringe with a small amount of the next water sample before filling it for testing.

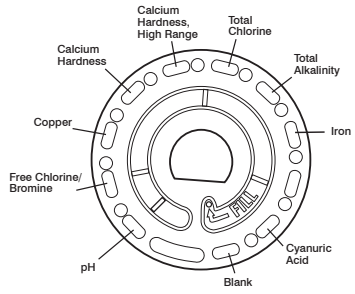
■ DISKS

The WaterLink Spin uses a disk reagent system. The dried reagents are packaged in single test amounts in a sealed, polystyrene disk. Stainless steel mixing beads in the reaction chambers mix the sample water and the dried reagents.

There are four disk series – Chlorine/Bromine, Chlorine/Bromine plus Phosphate, Chlorine/Bromine plus Borate, and Biguanide plus Borate. Each disk includes a set of reagents for the series. Tests for all factors in the series are performed at one time. It is not possible to isolate the well for a single factor and perform a test for one test factor only.

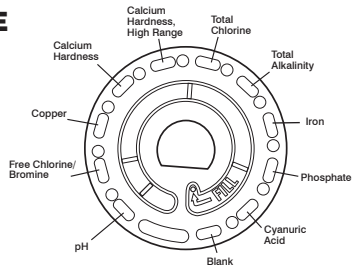
**CHLORINE/BROMINE DISK
(Code 4328-H)**

Free Chlorine	Calcium Hardness
Bromine	Copper
Total Chlorine	Iron
Total Alkalinity	Cyanuric Acid
pH	



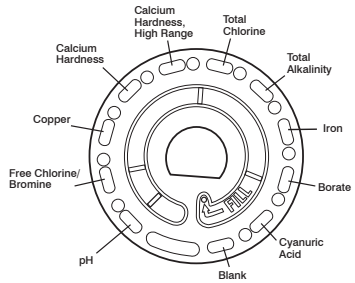
**CHLORINE/BROMINE PLUS PHOSPHATE
10 TESTS SERIES DISK (Code 4329-H)**

Free Chlorine	Calcium Hardness
Bromine	Copper
Total Chlorine	Iron
Total Alkalinity	Cyanuric Acid
pH	Phosphate



**CHLORINE/BROMINE PLUS BORATE
10 TESTS SERIES DISK (Code 4330-H)**

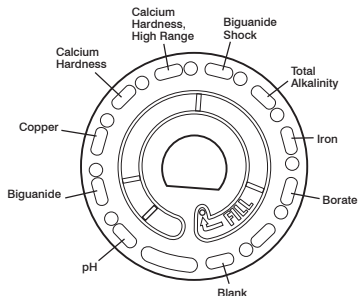
Free Chlorine	Calcium Hardness
Bromine	Copper
Total Chlorine	Iron
Total Alkalinity	Cyanuric Acid
pH	Borate



NOTE: Samples suspected of having high levels of chlorine, above 15 ppm, should be pretested with a Wide Range pH/Total Chlorine Test Strip (2987-G). Samples with high chlorine concentrations will bleach out the chlorine reagent in the disk and cause false low results.

**BIGUANIDE PLUS BORATE DISK
(Code 4331-H)**

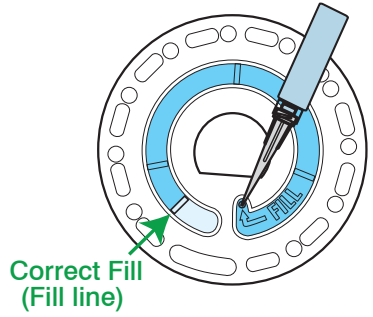
Biguanide	Calcium Hardness
Biguanide Shock	Copper
Total Alkalinity	Iron
pH	Borate



Filling

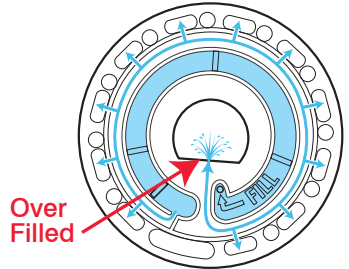
The 3 mL syringe (Code 1189) is used to fill the disk with the sample water. When the syringe is placed in the pool or spa sample, and the plunger is pulled all the way up, the syringe will hold more than enough sample water to adequately fill the disk. The syringe is held vertically and the tip is inserted into the fill hole on the disk. The plunger is pressed **slowly** and **smoothly** to fill the disk.

Three baffles in the disk ensure that the disk fills properly with less chance of bubbles. The sample water will fill the spaces between the baffles in a counter-clockwise order. Each space will fill from the bottom to the top. Sample water should be added until the sample water in the fourth chamber after the third baffle fills the top of the space to the embossed fill line. (It is OK to fill slightly past the fill line.)



Correct Fill

The disk should not contain any large air bubbles. Air bubbles will result in erroneous results. The disk should not be overfilled. If the disk is over filled, sample water will flow out of the overflow hole in the center of the disk. The disk is not leaking.

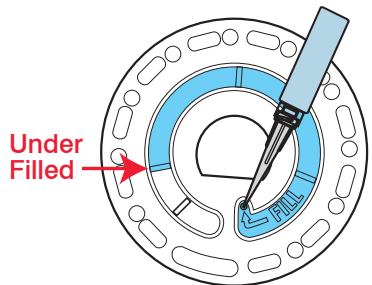


Over Filled

Do not under fill the disk. If the disk is underfilled, the reagent chambers will not fill entirely and results will be inaccurate.

Wet disks should be dried thoroughly with a lint free wipe. Disks should be filled and used within 10 minutes. They cannot be filled ahead of time.

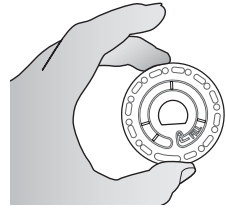
For filling and troubleshooting tips go to:
www.lamotte.com/spin



Under Filled

Handling

The disk should be handled only by the edges. Avoid touching the top or bottom of the disk. The light passes through the non-frosted areas of the disk so these areas must be kept free of smudges and fingerprints. Wet disks should never be placed in the meter. Wet disks should be dried with a lint-free cloth before placing them into the chamber.



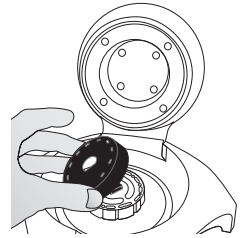
The disk is positioned in the chamber by aligning the D-shaped hole in the center of the disk over the D-shaped hub in the photometer chamber. The disk should be placed gently on the hub. There is no need to firmly press the disk down onto the hub.

Storage

Disks are sensitive to moisture. Avoid opening more packs than are needed. Disks have a limited shelf life and should not be exposed to the humidity in the air more than necessary.

■ DISK COVER

The black disk cover is placed over the disk in the photometer chamber to reduce interference from stray light. The disk cover is positioned over the disk by aligning the D-shaped hole in the center of the disk over the D-shaped hub in the photometer chamber. The disk cover should be placed gently on the hub. There is no need to firmly press the disk cover down onto the hub.



■ TROUBLESHOOTING DISK

A Troubleshooting Disk (Code 4330-BLANK) is included. Keep this disk. Do not discard or fill this disk. If you call for technical support, you may be instructed to use this disk as part of the troubleshooting process.

■ CALIBRATION CHECK DISK

The Calibration Check Disk (Code 1703) is used to verify the performance of the meter. See the Calibration Check Disk instructions for more information.

■ USB CABLE

The USB cable connects the WaterLink Spin to a computer. A USB 2 port is required.

■ AC ADAPTER

The AC Adapter supplies power to the WaterLink Spin from an AC outlet.

SET UP

■ SOFTWARE

Follow the installation instructions included with the software CD.

■ METER

1. Remove the photometer, AC Adapter and USB cable from the box. Save this box for shipping purposes if needed in the future.
2. Plug the smaller end of the USB cable (USB mini B connector) into the meter and the larger end of the USB cable (USB Type A connector) into a USB 2 port on the computer.
3. Plug the AC adapter into the meter and an AC outlet.

■ DISKS

1. Each box contains 50 disks. Remove a disk from the packaging as needed.
2. Avoid opening more packages than you need. Disks have a limited shelf life and should not be exposed to the humidity in the air more than necessary.

TESTING

1. Select the customer record from the software.
2. Remove a disk from the package.
3. Use the syringe (1189) to fill the disk with the pool or spa water. Add water until the water column reaches the fill line on the disk. (It is OK to fill slightly past the fill line.)
4. Insert the disk into the meter.
5. Cover the disk with the black disk cover (1718).
6. Close the lid.
7. Choose RUN TEST from the computer software program.

MAINTENANCE

■ CLEANING

The optical system of the Waterlink Spin must be kept clean and dry for optimal performance. Dry the disk with a lint-free wipe before placing it into the chamber to avoid introducing moisture. For best results store the instrument in an area that is dry and free from aggressive chemical vapors.

Clean the exterior housing with a damp, lint-free cloth. Do not allow water to enter the light chamber or any other parts of the meter. To clean the light chamber and optic lenses, point a can of compressed air into the light chamber and the lid and blow the pressurized air into the light chamber and lid. Focus the pressurized air around the LEDs which are the small round lenses positioned at 12:00, 3:00, 6:00, 9:00 in the lid. The photodiodes are located on the bottom of the chamber around the hub. This area must be kept clean and dry. Use a Q-tip dampened with Windex® window cleaner to gently swab the LED and photodiode lenses. Do not use alcohol; it will leave a thin residue over the optics when dry.

■ REPAIRS

Should it be necessary to return the meter for repair or servicing, pack the meter carefully in a suitable container with adequate packing material. A return authorization number must be obtained from LaMotte Company by calling 800-344-3100, ext. 2 (US only) or 410-778-3100, ext. 2, faxing 410-778-6394, or emailing tech@lamotte.com. Often a problem can be resolved over the phone or by email. If a return of the meter is necessary, attach a letter with the return authorization number, meter serial number, a brief description of problem and contact information including phone and FAX numbers to the shipping carton. This information will enable the service department to make the required repairs more efficiently.

■ METER DISPOSAL

Waste Electrical and Electronic Equipment (WEEE)

Natural resources were used in the production of this equipment. This equipment may contain materials that are hazardous to health and the environment. To avoid harm to the environment and natural resources, the use of appropriate take-back systems is recommended. The crossed out wheeled symbol on the meter encourages the use of these systems when disposing of this equipment.



Take-back systems will allow the materials to be reused or recycled in a way that will not harm the environment. For more information on approved collection, reuse, and recycling systems contact local or regional waste administration or recycling services.

■ DISK DISPOSAL

The disks cannot be reused for new tests. Over time, the water in reacted disks will evaporate. Disks may be placed in a recycling bin. Warning: Recyclers should check with the local authorities since some states may require that no chemical residue remains on the plastic.

TROUBLESHOOTING

■ TROUBLESHOOTING GUIDE

Problem	Reason	Solution
Connection Error	Could not connect to water analysis program.	Adjust program settings. Be sure program is running. USB 2 port required.
Lid Open Error	Lid open.	Close lid and begin again.
Test Series Cancelled Error	Lid open, meter not connected.	Close lid. Reestablish connection.
Unexpected results	Did not use disk cover.	Retest. Use disk cover.
Unexpected low chlorine results	High chlorine concentrations will bleach chlorine reagents.	Check sample with chlorine test strips (Code 2987-G).
Disk is not spinning	Disk or cover pressed too firmly onto hub.	Reseat disk and cover on hub.
Results not as expected	Meter out of calibration.	Confirm test results with another method. Check meter calibration with Calibration Check Disk. (not included)

■ HELPFUL HINTS

- » High Chlorine/Bromine - High sanitizer levels may cause the DPD reagents in the disk to bleach out to a colorless or near colorless solution. Wide Range pH/Total Chlorine Test Strips (2987-G) capable of testing high concentrations of chlorine can be used to determine the approximate level of sanitizer. Note: At high sanitizer levels, chloramines could break through into the Free Chlorine test, the pH reaction may turn purple and the Alkalinity reaction may turn yellow.
- » High Copper - Copper at levels above 1.0 ppm may cause the Hardness test to read low.
- » Low Alkalinity - Algaecide treatments above recommended levels may lower the alkalinity results.
- » Cyanuric Acid - Since Cyanuric Acid tests are temperature dependent, the best results are obtained when sample temperatures are between 70 and 80 degrees. Below this range, results may read high, while in temperatures above the range they may read low.
- » pH Purple - As noted under High Chlorine/Bromine above, sanitizer levels beyond 10 ppm can turn the pH reaction purple.

- » Low Hardness - High Copper, low pH and salt can significantly reduce the expected hardness results. For precise Hardness results in sample water containing salt choose the Chlorine Generator product from the Sanitizer drop down bar in the water analysis program.

Go to www.lamotte.com/spin for:

- Instructional videos
- Testing Tips
- Software Updates
- Registering Your Meter

ACCESSORIES AND REPLACEMENT PARTS

Chlorine /Bromine Disks, 50/pk	Code 4328-H
Chlorine/Bromine plus Phosphate, 50/pk	Code 4329-H
Chlorine/Bromine plus Borate Disks, 50/pk	Code 4330-H
Biguanide plus Borate Disks, 50/pk	Code 4331-H
Syringe, 3 mL, plastic, w/tip (3)	Code 1189
Syringe Tips (3)	Code 1189-TIP
Disk Cover	Code 1718
USB Cable, 6 ft	Code 1711
Adapter	Code 27305-16
Power Cord	Code 27305-20
Wide Range pH/Total Chlorine Test Strips	Code 2987-G
Cleaning Tissues, Lint-free Wipes, (280)	Code 0669
Troubleshooting Disk	Code 4330-BLANK
Calibration Check Disk	Code 1703



Water Testing Leader Since 1919

