A MOBILE Spin on Precision Water Analysis

Code 3577

Go to www.lamotte.com/spin for:

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

Mobile WaterLink Spin Photometer w/ Bluetooth
Syringe, 3 mL, plastic, w/tips (3)  Code 1189-3
Disk Cover  Code 1718
USB Cable, 6 ft  Code 1711
Troubleshooting Disk  Code 4330-BLANK
Calibration Check Disk  Code 1703
Battery Pack  Code 3577-BP
Battery Charger  Code 3577-CHARGER
Mobile WaterLink Spin Quick Start Lid Label  Code 3577-QG
Mobile WaterLink Spin Manual  Code 3577-MN

OVERVIEW

The Mobile WaterLink® Spin Bluetooth® photometer measures 12 important pool and spa test factors such as Free Chlorine, Total Chlorine, Bromine, Total Alkalinity, pH, Calcium Hardness, Copper, Iron, Cyanuric Acid, Borate, Biguanide, and Biguanide Shock.

Pool or spa water is added to a unique WaterLink® Spin reagent disk designed specifically for the service professional. Each sealed reagent disk contains the precise amount of reagents needed to run a complete series of tests. The disk is placed in the WaterLink® Spin photometer and in just 60 seconds all of the tests are completed.

The Mobile WaterLink® Spin photometer communicates the results wirelessly via Bluetooth® to the service professional’s smartphone or tablet device. The service professional does not have to view color reactions using color comparators, waste time mixing liquid reagents, and save time with increased accuracy.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Test Factors</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Chlorine</td>
<td>0.00 – 15.00 ppm</td>
</tr>
<tr>
<td>Total Chlorine</td>
<td>0.00 – 15.00 ppm</td>
</tr>
<tr>
<td>Bromine</td>
<td>0.00 – 33.00 ppm</td>
</tr>
<tr>
<td>Total Alkalinity</td>
<td>0 – 250 ppm</td>
</tr>
<tr>
<td>pH</td>
<td>6.6 – 8.6</td>
</tr>
<tr>
<td>Calcium Hardness</td>
<td>0 – 1200 ppm</td>
</tr>
<tr>
<td>Copper</td>
<td>0.0 – 3.0 ppm</td>
</tr>
<tr>
<td>Iron</td>
<td>0.0 – 3.0 ppm</td>
</tr>
<tr>
<td>Cyanuric Acid</td>
<td>5 – 150 ppm</td>
</tr>
<tr>
<td>Borate</td>
<td>0 – 60 ppm</td>
</tr>
<tr>
<td>Biguanide</td>
<td>0 – 70 ppm</td>
</tr>
<tr>
<td>Biguanide Shock</td>
<td>0 – 250 ppm</td>
</tr>
</tbody>
</table>

<p>| 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                 |
| Battery Pack                      | Type: Nickel metal hydride battery |
|                                   | Minimum Capacity: 12 V/2200 mAh |
|                                   | Charge Life: Approximately 150 tests |
|                                   | Battery Life: Approximately 500 charges |
|                                   | Full Charge: 4 hours          |</p>
<table>
<thead>
<tr>
<th>Bluetooth</th>
<th>Category</th>
<th>Country</th>
<th>Standard</th>
</tr>
</thead>
</table>
| Radio     | USA      | FCC Part 15 Subpart B: 2008 Class B  
FCC CRF Title 47 Part 15 Subpart C |  
FCC ID: T9J-RN42  
Europe  
ETSI EN 301 489-1 V1.8.1  
ETSI EN 301 489-1 V2.1.1  
ETSI EN 308 328 V1.7.1  
Canada  
IC RSS-210 low power comm. device  
Cert #: 6514A-RN42 |
| EMC       | USA      | FCC CFR47 Part 15 subclass B  
Europe  
EN 55022 Class B radiated  
EN61000-4-2 ESD immunity  
EN61000-4-3 radiated field  
EN61000-4-6 RF immunity  
EN61000-4-8 power magnetic immunity |
| Bluetooth | BQB      | LISTED B014867-SPP and DUN profiles |
| Env       | RoHS     | RoHS compliant |

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
</table>
| 21.6 X 22.9 X 11.4 cm  
8.5 X 9.0 X 4.5 in (L X W X H) | 705 g (25 oz) |

Patent Pending
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 indicates the status of the instrument. It is located below the thumb hole on the meter housing.

Steady blue light – after an initial blinking sequence the blue LED will remain steady to indicate that the meter is connected to the power source and is ready to run a test.

Blinking blue light (three blinks/second) – a test is in progress and the disk is spinning. Do not open the lid when the disk is spinning.

Blinking blue light (one blink/second) – low battery

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.

Chlorine/Bromine and Biguanide Disks
There are two disk series – Chlorine/Bromine and Biguanide. 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:

Free Chlorine/Bromine  Copper
Total Chlorine          Iron
Total Alkalinity       Calcium Hardness, High Range
pH                     Cyanuric Acid
Calcium Hardness       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 DISK:

Biguanide              Iron
Biguanide Shock        Calcium Hardness, High Range
Total Alkalinity       Borate
pH                     Cyanuric Acid
Calcium Hardness       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 space after the third baffle fills the top of the space to the embossed fill line.

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.
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

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 is provided for connecting the Mobile Waterlink® Spin to a Windows®-based PC.

BATTERY PACK
A fully charged battery will last for approximately 150 tests under average conditions. The blue light on the Spin will blink once per second to indicate a low battery. When a low battery is first indicated, the remaining power is enough for approximately 5 more tests. The battery will fully charge in approximately 4 hours. The standard life cycle of a nickel metal hydroxide battery is 500 cycles.

The battery life will vary based on usage patterns. The meter can be used when the battery pack is connected to an AC outlet. The battery should be turned off after testing to prolong the battery life. The battery pack is rated at 12 V and 2200 mAh capacity.

BATTERY CHARGER
Plug the battery charger into an AC outlet. The LED on the battery charger will be green. Plug the battery charger into the battery pack. The LED will be red. When the battery is fully charged the LED will remain green.

DEVICE CONNECTION
The Mobile WaterLink Spin wireless photometer uses Bluetooth wireless technology to allow communication between the photometer and an android smartphone or tablet. Download the WaterLink® Spin app for smartphone or tablet from the appropriate app marketplace. A USB cable is included for optional connection to a Windows-based PC.
SET UP

DISKS
1. Each box contains 50 disks for one series, either the chlorine/bromine series or the biguanide series. 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.

METER
The battery must be charged before the first use.
3. Plug the battery charger into an AC outlet. The LED on the battery charger will be green.
4. Plug the battery charger into the battery pack. The LED will be red.
5. When the battery is fully charged the LED on the battery pack will be green.
6. Disconnect the battery charger from the battery pack.
7. Disconnect the battery charger from the wall socket.
8. Connect the battery pack to the meter.
9. Press the button on the battery pack to turn the meter on.
10. Begin testing.
NOTE: The meter can be used when the battery pack is connected to the battery charger when it is plugged into an AC outlet.

APPLICATION
The WaterLink Spin app must be downloaded and installed to a smartphone or tablet to operate the device. The WaterLink Spin app supports two modes for testing: “Offline” and “Connected to a Water Analysis Program.” This setting can be toggled on the Settings Tab of the WaterLink Spin app by unchecking the “Connect to Water Analysis Program” checkbox for offline mode.
Currently, Android smartphones and Tablets are supported.

Offline
1. Follow the instructions for connecting the device via Bluetooth
2. On the Controls Tab, select a Test Series from the dropdown at the top.
3. Tap the Spin button
4. Results will be displayed in the white box on the right hand side of the screen
   NOTE: Test results are not saved when running in Offline mode

Connected to a Water Analysis Program
1. Follow the instructions for connecting the device via Bluetooth
2. On the Controls Tab, log in to the water analysis program
3. Locate a customer in the program
4. If required select a pool or spa to test
5. Press the “Spin” button

NOTE: if using a water analysis program other than WaterLink DataMate Web, the URL for the program on the Settings tab of the WaterLink Spin app may need to change.

**BLUETOOTH CONNECTION**

Barriers to wireless signals can reduce the range of wireless devices. The Mobile WaterLink Spin will work best if there are no walls between it and the receiving device.

1. Open WaterLink Spin app.
2. Go to the “settings” tab.
3. Tap “select meter” button to open the select meter popup.
4. Tap your meter if it is listed. If not, tap “scan for devices”. Select your meter from the list of detected devices
5. If prompted to enter a code, enter ‘1234’

**TESTING**

1. Remove a chlorine/bromine or biguanide disk from the package.
2. 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.
3. Insert the disk into the meter.
4. Cover the disk with the black disk cover (1718).
5. Close the lid.
6. Press SPIN TEST button in the app.

**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.
## SOFTWARE TROUBLESHOOTING GUIDE

<table>
<thead>
<tr>
<th>Problem</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Device Connected</td>
<td>Spin meter has not been paired via Bluetooth, or the pairing was lost by leaving Bluetooth range</td>
<td>Re-Pair the spin device to the phone or tablet</td>
</tr>
<tr>
<td>Device does not appear in the list of Bluetooth devices</td>
<td>Meter is not powered on</td>
<td>Power on the meter</td>
</tr>
<tr>
<td>Connection Lost</td>
<td>Bluetooth pairing with the Spin device was lost.</td>
<td>Re-Pair the spin device to the phone or tablet, or relaunch the app</td>
</tr>
<tr>
<td>Disc not spinning</td>
<td>Lid open, meter not powered on, low battery, disk or disk cover pressed down too tightly on hub</td>
<td>Close lid, power on meter, charge the battery or plug meter into a stable power source, remove the disk/disk cover and place back in the meter more gently</td>
</tr>
<tr>
<td>Unexpected Results</td>
<td>Did not use disk cover</td>
<td>Place the disk cover on the disk and close the lid</td>
</tr>
<tr>
<td>NaN Results</td>
<td>Calculation of results failed, likely due to unstable connection with the meter</td>
<td>Power cycle the meter, then re-pair it to the app</td>
</tr>
<tr>
<td>Unexpected low Chlorine results</td>
<td>High chlorine concentrations will bleach chlorine, and other reagents</td>
<td>Check sample with chlorine test paper (Code 2987)</td>
</tr>
</tbody>
</table>
HELPFUL HINTS

» Pair the device to the phone, then leave the device on for the duration of the day for reliable, consistent pairing. Turning the meter off and on frequently can cause connection issues between the device and the paired phone or tablet.

» 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

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine/Bromine Series Disks, 50/pk</td>
<td>4330-H</td>
</tr>
<tr>
<td>Biguanide Series Disks, 50/pk</td>
<td>4331-H</td>
</tr>
<tr>
<td>Syringe, 3 mL, plastic, w/tip (3)</td>
<td>1189</td>
</tr>
<tr>
<td>Syringe Tips (3)</td>
<td>1189-TIP</td>
</tr>
<tr>
<td>Disk Cover</td>
<td>1718</td>
</tr>
<tr>
<td>USB Cable, 6 ft</td>
<td>1711</td>
</tr>
<tr>
<td>Wide Range pH/Total Chlorine Test Strips</td>
<td>2987-G</td>
</tr>
<tr>
<td>Cleaning Tissues, Lint-free Wipes, (280)</td>
<td>0669</td>
</tr>
<tr>
<td>Troubleshooting Disk</td>
<td>4330-BLANK</td>
</tr>
<tr>
<td>Calibration Check Disk</td>
<td>1703</td>
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<tr>
<td>Battery Pack</td>
<td>3577-BP</td>
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<tr>
<td>Battery Charger</td>
<td>3577-CHARGER</td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

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 or 1-410-778-3100, 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.

WARRANTY
LaMotte Company warrants this instrument, battery charger and battery pack 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 or 1-410-778-3100, 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 _________________________________________________