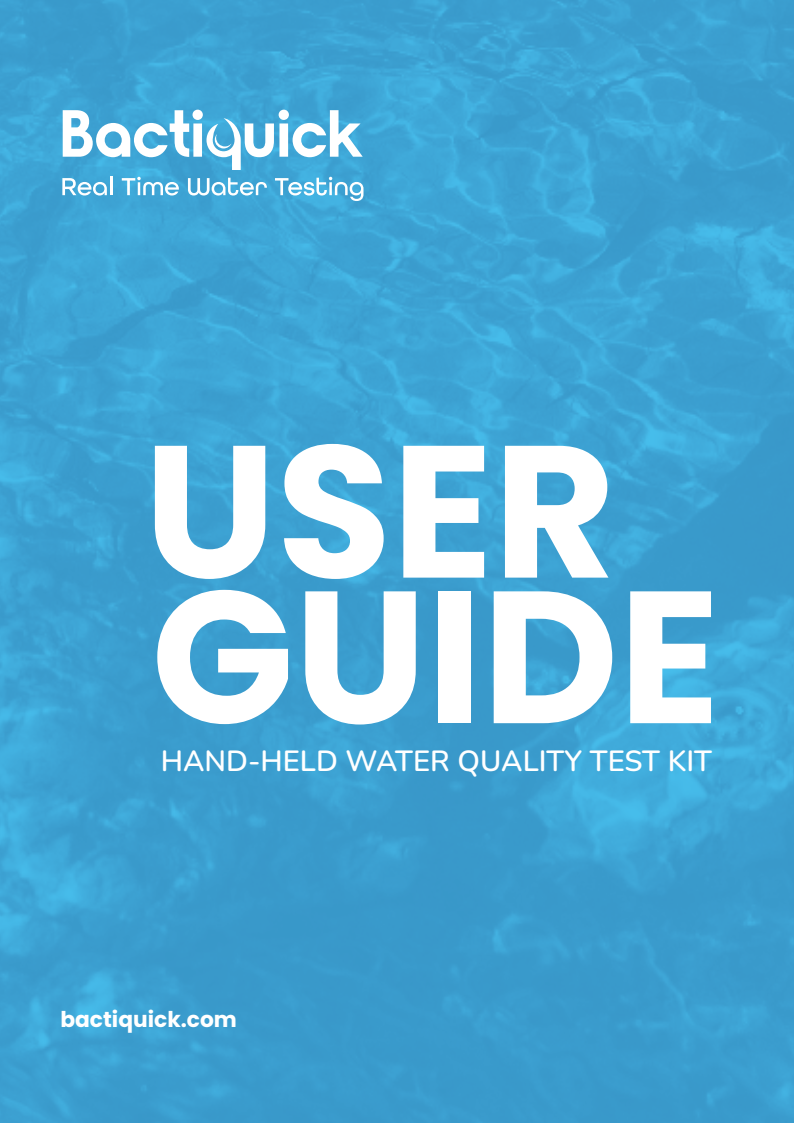




Bactiquick

Real Time Water Testing

USER GUIDE

HAND-HELD WATER QUALITY TEST KIT

bactiquick.com

WELCOME

**In this guide, you'll find
all the instructions you
need to test water quality
in rivers and the ocean with
your Bactiquick device –
in just 15 minutes.**



Please read this guide carefully to familiarise yourself with the contents and procedure before using Bactiquick.

Bactiquick detects a molecule called endotoxin, found in the outer wall of a large group of bacteria known as Gram-negatives. These include *E. coli*, *Klebsiella spp.*, *Pseudomonas spp.*, *Salmonella spp.*, *Leptospira spp.* and *Vibrio spp.*

The presence of endotoxin creates a colour change reaction - the darker the colour, the higher the concentration of Gram-negative bacteria in your sample and the bigger the risk to your health of entering the water.

See page 6
for our handy
quick-reference
guide



FIRST THINGS FIRST

WHAT BACTIQUICK CAN BE USED FOR

Bactiquick provides highly accurate results for coastal waters and rivers.

We do not advise using Bactiquick to test small still bodies of water.

We don't recommend taking water samples directly at a sewage outlet as the treatment (e.g. ultra violet) can impact the results. Instead, collect your sample from a minimum of 150m away from the outlet.



IMPORTANT:

Please refrigerate the test tubes (grey-capped) as soon as you receive them. They need to be stored at 2-10°C (do not freeze), protected from long term exposure to light, and used by the expiry date. All other components can be stored at ambient temperature.



BACTIQUICK QUICK START GUIDE

Bactiquick is fast, reliable, and easy to use in just a few simple steps:



1. Power up

Press the power button once

When the blue LED lights stops flashing its ready to go

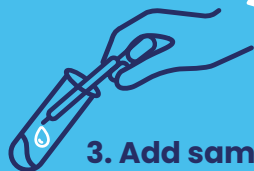


2. Collect sample

Collect your water sample in a suitable container and transfer 0.2ml into a dilution tube (blue-capped) using a fresh pipette

Close the lid and give the Dilution tube a good shake

The following steps must be completed within 4 min



3. Add sample

Transfer 0.2 ml from Dilution tube using a fresh pipette into the Test tube (grey-capped)

Give it a gentle mix



4. Insert tube

Put the Test tube into your Bactiquick device and close lid.

Wait 13 mins for the result

WATCH THE BACTIQUICK DEMO VIDEO



To ensure reliable results, it's important to read the 'Using Bactiquick' instructions below carefully, and note the following:

Thorough mixing of samples is vital to ensure reproducible results.

Follow the guidance on sample mixing exactly.

Only use the provided sterile/endotoxin-free consumables.

Do not touch or mark the bottom half of the Test tubes.

Do not reuse consumables.

Discard pipettes if the tip touches a non-sterile surface and use a fresh one.

Test Kits can be purchased on **bactiquick.com**

If you need replacements of specific consumables, email us on hello@bactiquick.com

Connect to the Bactiquick app to see more detail about your test result



Results

- Green: Low risk
- Orange: Medium risk
- Red: High risk

GETTING STARTED

Your Bactiquick device comes with a USB-C charging cable and will arrive sufficiently charged to run a few tests. It takes approx 3-4 hours to fully charge the device.

Bactiquick Test Kits (sold separately) contain everything you need to carry out 5 tests:

Sample transfer pipettes x 10

Pre-filled Dilution tubes x 5 (blue capped)

Pre-filled Test tubes (grey capped) containing our patented reagent x 5 (these must be stored between 2-10°C)

Tube opening tool x 1 (included with your first order)



USING BACTIQUICK

Turn On Bactiquick Device

1. Press the power button once
2. The blue LED will illuminate followed briefly by the red, orange, and green LEDs
3. The red, green and orange LEDs will then light to indicate the remaining battery level:
 - i. Red, orange and green: more than 67%
 - ii. Red and orange: between 33% and 67%
 - iii. Red only: between 10% and 33%
 - iv. Rapidly flashing red: less than 10% - device will power down as this is insufficient charge to run a test reliably
4. The blue LED will periodically blink while the device warms up to operating temperature (37°C)
5. Once the device has reached operating temperature the blue LED will stop blinking



CONNECT TO THE BACTIQUICK APP

Get the free Bactiquick app to log your results automatically, see more detailed information and build a real-time picture of water quality and pollution hot spots across the country.



Download the Bactiquick app (for iPhone and Android) from your app store and follow the on-screen instructions to connect to your Bactiquick device.



Follow the on-screen instructions to connect your device



Download the Bactiquick app from your app store



Complete the account registration



Ensure you have Bluetooth enabled on your mobile device



Tap 'connect device' in the app, while holding your mobile and Bactiquick device near each other

COLLECT YOUR WATER SAMPLE

Levels of bacteria in the water can change quickly, sometimes in a matter of hours, due to tides, currents and wind direction. That's why it's best to test immediately before going into the water, and as close as possible to where you'll be swimming, paddling or surfing.

1

Ensure your Bactiquick device is switched on and has reached operating temperature - indicated by a steady blue light.

2

Rinse an appropriate sampling container three times in the water to be collected to remove any potential residue.

3

Ensure the sample container is not completely full as this will prevent adequate mixing, approximately 10% air is required to allow efficient mixing.

4

Invert or agitate the container the sample was collected in to ensure it is well mixed.



TRANSFER YOUR WATER SAMPLE

The individually wrapped transfer pipettes are single use and dispense a fixed volume of 0.2 mL.

The principle behind their operation is that the volume of the tube is 0.2 mL. Any excess liquid drawn up when filling the tube will overflow into the middle bulb. Once the liquid enters the middle bulb it will be retained and only the fluid in the tube will be dispensed.

- 1 Carefully open the wrapper and remove the pipette by only holding the bulb.

IMPORTANT:

Only remove the pipette from the wrapper when you are ready to use it. Do not place the pipette down on any surface when out of the wrapper.



2

Squeeze the top bulb and insert the tip below the surface of your water sample.

IMPORTANT:

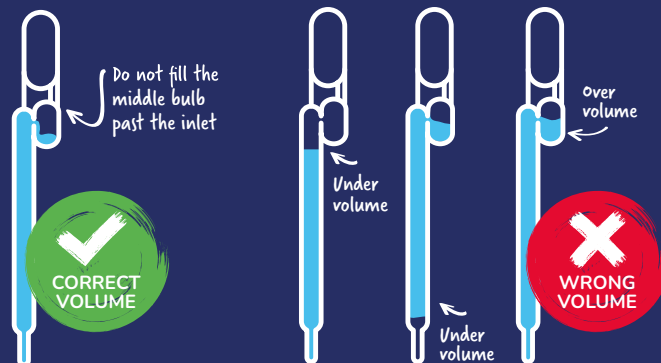
Discard pipettes if the tip touches a non-sterile surface and use a fresh one.



3

PIPETTING ERRORS

Slowly release the bulb fully to draw the liquid up into the tube. Important: ensure that the tube is completely full.



DILUTE YOUR WATER SAMPLE

1

Dispense 0.2ml into a fresh Dilution tube (blue capped) by slowly squeezing the upper bulb until all the liquid is dispensed.

2

Shake the Dilution tube vigorously for 10 seconds to mix.

IMPORTANT:
the following steps
must be completed
within 4 min.



COMBINE YOUR WATER SAMPLE

1

Remove the metal cap of a fresh Test tube (grey capped) using the tool provided.

2

Using a fresh pipette, transfer 0.2 mL of the diluted sample into the Test tube (grey capped).

3

Mix the Test tube by gently swirling until the contents is no longer hazy.

4

Check the tube for bubbles. If there is a bubble, use the tip of your pipette to pop the bubble.

RUN THE TEST

1 Ensure your Bactiquick device has reached operating temperature (indicated by a steady blue light), open the grey lid at the top of the device and fully insert the Test tube.

2 Immediately close the Bactiquick lid and the test will run automatically.

3 The device must be kept still and upright while the test is running. A buzzer will sound if the device is tilted.

4 The test outcome will be displayed via the LEDs colours after 13-minutes, and you can view the full results in the Bactiquick app.

LED results will remain lit until the device switches off after 30 minutes or is switched off by holding the power button for 8 seconds.



READ THE RESULTS

After 13 minutes, the results are displayed with a simple traffic light system:

LED colour	Endotoxin Risk Units (ERU)	Interpretation	Classification**
 Green	< 43	Low risk	Sufficient or Good
 Orange	43 – 57	Medium risk*	Borderline***
 Red	> 57	High risk*	Poor



Connect your device to the Bactiquick app to view your test results in more detail (see page 10). This helps you assess your result in relation to the upper or lower thresholds, so you can make a more informed decision about the risk of bacterial contamination in the water.

*We advise further investigation of Medium and High-risk samples.

** Waters are classified based on the Bathing Water Regulations 2013. For coastal bathing waters: Sufficient quality is ≤ 500 E. coli per 100 mL, and Poor quality does not meet the minimum standards. For inland bathing waters: Sufficient quality is ≤ 1000 E. coli, Poor quality does not meet minimum the standards.

*** Any value that falls within the medium risk group could be either "poor" or "sufficient or good" water quality due to the ± 7.5 ERU margin of error of Bactiquick and a threshold of 50 ER.

CARE AND HANDLING

Charging: Your Bactiquick device can be charged by plugging it in to any USB charger using either the USB C cable provided, or a USB A to USB C cable.

Storing: Refrigerate the Test tubes (grey-capped) as soon as you receive them. They need to be stored at 2-10°C (do not freeze), protected from long term exposure to light, and used by the expiry date. All other components can be stored at ambient temperature.

Bactiquick contains a lithium-ion battery. For safety reasons, please do not leave it in direct sunlight or store it in very hot or very cold conditions.

If you need to leave Bactiquick in a car in sunny weather, put it in the boot, not the passenger compartment.

If your Bactiquick device is left somewhere very cold (e.g. in the car overnight in winter) you should let it warm up to room temperature before charging it or the battery could be damaged.

Disposal: Dispose of the consumables (pipettes, Test tubes and Dilution tubes) in your household waste. Do not put the Bactiquick device in your household waste as it contains a lithium-ion battery. Seek advice from your local waste handling service on its disposal.

Remove and dispose of test samples once completed – do not store your device with a test sample inserted.

Handling: Always keep your Bactiquick device upright when it has a test sample inserted, to avoid the liquid in the sample spilling into the device. Your Bactiquick device will beep if it's not level while running a test and will stop beeping when corrected.

Do not submerge your Bactiquick device in water or let it get wet (e.g. in heavy rain). Clean the outer case using a damp cloth.



SPREAD THE WORD

Bactiquick makes water testing safer, faster, and more accessible – and we need your help to spread the word.

We'd love to see your pictures of Bactiquick in action using #bactiquick and tagging us below:



[instagram.com/bactiquick](https://www.instagram.com/bactiquick)



[facebook.com/Bactiquick](https://www.facebook.com/Bactiquick)



[linkedin.com/company/molendotech](https://www.linkedin.com/company/molendotech)



We're on a mission to protect public health and water ecosystems by revolutionising water quality testing.

This user guide is provided for general guidance only. It is not intended to amount to professional advice and is not exhaustive or prescriptive. Although we make reasonable efforts to update the guidance in this user guide, we make no representations, warranties or guarantees, whether express or implied, that the content in this user guide is accurate, complete or up to date. This user guide has been prepared on the basis that Bactiquick will be used in accordance with the instructions and terms and conditions as updated from time to time. Bactiquick is intended as a risk assessment of water quality but please be aware that whilst we have made every effort to guarantee that the results are as accurate as possible, all microbiology technologies can present false negatives.

Bactiquick

Real Time Water Testing

Giving you clean water confidence

For more information visit:

bactiquick.com



A Molendotech product