



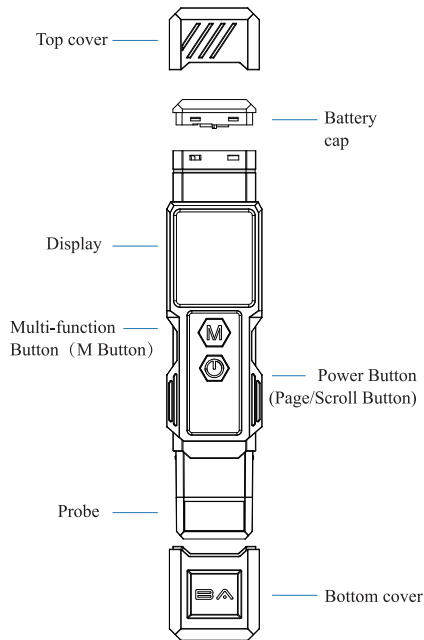
AtomBit4

Multi-Parameter Spectral
Water Quality Detector

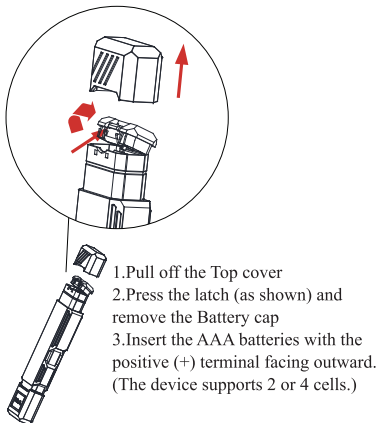
USER MANUAL

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Device Overview



Installing the Batteries



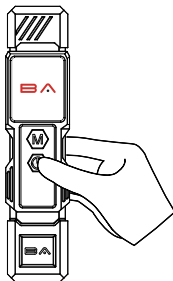
Powering the Device

Power ON:

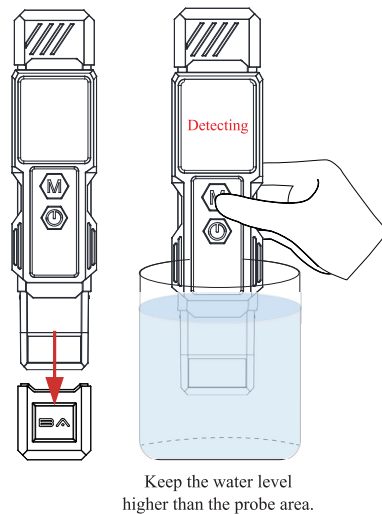
- When the device is off, touch the Power Button to turn the device on.
- A startup beep will sound.

Power OFF:

- When the device is on, touch the Power Button to turn it off.
- If there is no operation for 60 seconds, the device turns off automatically.



Water Quality Measurement

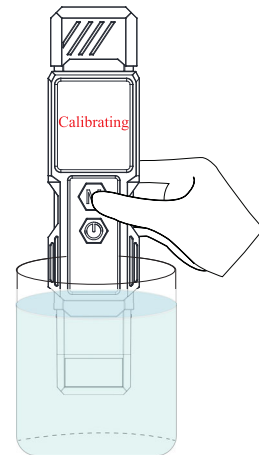


- Pull the bottom cover off.
- Immerse the Probe (transparent body) into the water to be tested.
- Touch press the Multi-function Button (M Button) to start;
- The device will beep when measurement begins.

Calibration

Perform calibration before first use

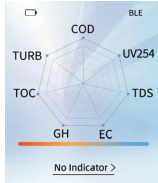
- 1.Prepare a cup of **PURIFIED WATER**;
- 2.Pull off the Bottom cover, immerse the Probe (transparent sensing body) completely in the water.;
- 3.While the device is on, touch the M Button for 5 seconds to enter calibration mode;
- 4.The device will beep when calibration is complete.



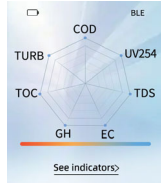


【Home Screen】

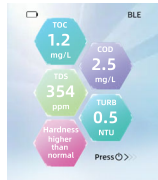
screen display response



Device in idle



Measurement Result
Page 1



Measurement Result
Page 2



Measurement Result
Page 3

Touch the Power Button (Page/Scroll Button) to navigate between pages.

Automatic Measurement Mode

When the device is powered on, touch both buttons simultaneously for 4 seconds.
The device will beep three times, indicating that it has entered Automatic Measurement Mode.

In this mode, the device performs a measurement every 5 seconds,
and the display updates in real time.

Standard Reference Values for Water Quality Parameters

	TOC	COD	TURB	TDS	Hardness	EC	UV254
RO Water	<1 mg/L	<1 mg/L	<0.5 NTU	<50 mg/L (ppm)	<10 mg/L	<100 uS/cm	<0.015
Tap water	<5 mg/L	<3mg/L	<1NTU	<1000 mg/L (ppm)	<450 mg/L	<2000 uS/cm	<0.055

Reference source: GB5749-2022 & internal test calibration possibilities.

Water Quality Scoring Method

TOC	COD	TURB	TDS	Water Quality	Indicator Color	Score
0-1	0-1	0-1	<100	A(Excellent)	BLUE	90-100
1-1.5	1-1.5	1-3	100-300	B(Good)	GREEN	80-90
1.5-5	1.5-3	3-5	300-1000	C(Fair)	YELLOW	60-80
>5	>3	>5	>1000	D(Poor)	RED	<60

Technical Specifications

Product Name	Multi-parameter Spectrum Water Quality Detector - Water Detective 4
Product Model	WQM01H-4
Dimensions	175mm X 38mm X 21mm
Net Weight	80g (excluding batteries)
Measurement Target	Tap Water, Purified Water, Bottled Water, Groundwater, Surface Water, Pool Water, Well Water, (Non-Industrial/Domestic Water Only)
Power Supply	DC 3V(2 AAA batteries in series,or 2 in parallel and 2 in series)
Standby Current	<5uA
Operating Conditions	Indoors or outdoors in non-corrosive environments; temperature 10 – 40 °C; no condensation
Storage condition	-10°C~70°C, keep dry and free from frost
TOC (Total Organic Carbon)	Measurement Range: 0–20mg/L; Display Resolution: 0.1mg/L; Repeatability: <± 0.2mg/L; Accuracy: 10%F.S
COD (Chemical Oxygen Demand)	Measurement Range: 0–20mg/L; Display Resolution: 0.1mg/L; Repeatability: <± 0.2mg/L; Accuracy: 10%F.S
UV254 (Ultraviolet Absorbance)	Measurement Range: 0–0.2au/cm; Display Resolution: 0.0001au/cm; Repeatability:<±0.001au/cm, Accuracy:10%F.S.
TURB(Turbidity)	Measurement Range: 0–20 NTU; Display Resolution: 0.1 NTU; Repeatability:<±0.2NTU; Accuracy:10%F.S
TDS (Total Dissolved Solids)	Measurement Range: 0–2000ppm; Display Resolution:1ppm; Repeatability:<±1.10ppm; Accuracy: 5%F.S.
EC (Electrical Conductivity)	Measurement Range: 0–4000uS/cm; Display Resolution: 1uS/cm; Repeatability:<±0.2%, Accuracy:5%F.S.
SALINITY	Measurement Range: 0.1–4‰; Display Resolution: 0.1‰ (1ppt); Repeatability:<±0.2%, Accuracy:5%F.S.
HARDNESS	Measurement Range: 0–1000ppm; Display Resolution: 1ppm; Repeatability:<±1.10ppm (Reference only for tap water)
Temperature	Measurement Range: 0–80°C; Display Resolution: 0.1°C; Repeatability:<±0.2°C; Accuracy: ±0.5°C
Zero drift	< (3 × display resolution) / 24 h

Precautions

1. Insert the probe at a slight angle and move gently to remove air bubbles.
2. Calibrate before first use to ensure accurate readings.
3. For continuous measurements, keep an interval of at least 10 seconds between each test.
4. Due to thermal response delay, allow the probe to stabilize in water for ~10 seconds before measuring for accurate readings. Put detector into water more than 10 seconds to get precise value
5. Avoid shock, drops, or vibration. Recalibrate if the device is impacted.
6. If the probe is contaminated, rinse with purified water before reuse.
7. For long-term storage, remove batteries and keep the device cool and dry.
8. Do not immerse beyond the lower edge of power button to prevent water damage.
9. Operate between 10–40 °C. Measurements outside this range may require recalibration, and extreme temperatures may cause permanent damage.
10. Do not clean the probe with alcohol or other organic solvents.
11. Do not measure corrosive liquids, such as soda drink, tea drink, or wastewater. This device is designed for domestic and natural water testing only

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Cautian: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition, compliance with exposure requirements.This equipment should be installed and operated with minimum distance 0 mm between the radiator & your body



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