

# HW-BT818

MV/PH/TDS/EC/SALT/%SG/CF/CL&Temperature



## SPECIFICATIONS

Range: pH: 0.00-14.00pH  
 ORP: -2000mv- +2000mv  
 CL: 0.1-3.0mg/L  
 EC: 0-19900us/cm  
 0-199.0 ms/cm  
 CF: 0-199.00CF  
 TDS: 0-19900ppm  
 0-199.0ppt  
 SALT: 0-19.0ppt  
 0%-20%  
 S.G: 0.990-1.400  
 Temp: 0°C-50°C (32°F-122°F)  
 Resolution: pH: 0.01PH  
 ORP: 1mV  
 CL: 0.1mg/L  
 EC: 1us/cm(<1999us/cm)  
 10us/cm(>1999us/cm)  
 0.1ms/cm  
 CF: 0.1CF  
 TDS: 1ppm(<1999ppm)  
 10ppm(>1999ppm)  
 0.1ppt  
 SALT: 1ppm(<1999ppm)  
 10ppm(>1999ppm)  
 0.1ppt  
 0.01%  
 S.G: 0.001  
 Temp: 0.1°C (0.2°F)  
 Accuracy: pH: ±0.03pH  
 ORP ±5mv  
 EC, CF, TDS, SALT: ±2%F.S  
 Temp: ±1.0°C  
 Battery: DC5V (It is recommended that new instruments be fully charged before use.)  
 Auto Shutdown: 30MIN (Not auto shut down after connecting Bluetooth)  
 Temperature Compensation: 0°C-50°C  
 Operating Temperature: 0°C-50°C  
 Dimensions: 102mm×102mm×100mm  
 Weight: 110g

## OPERATION

1. Turn on the meter.
2. Clean the electrode with distilled water, and dry the electrode with filter paper.

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3. Immerse the electrode into the testing solution.
4. Stir gently and wait for stable reading.
5. Short press the "MODE" button to choose MV/PH/TDS/EC/SALT/%SG/CF/CL measure.
6. Turn off the meter after use. Clean the electrode with distilled water to minimize contamination.
7. Replace the protective cap after use.

## Switching Temperature Modes

Short press the "TEMP CAL/±" button to switch between Celsius and Fahrenheit.  
 Note: The instrument has memory function. The boot mode is the last test mode before shutdown. When the electrode is dirty, use 75% or 95% alcohol to clean the electrode.

## PH CALIBRATION

1. Pour standard buffer solution pH6.86, pH4.00 and pH9.18 (at 25°C) separately into three different clean beakers.
  2. For accurate calibration, fill one buffer solution into two beakers. One is for cleaning the electrode, and the other one is for calibration. By doing so, the pollution level can be reduced to the least.
  3. Press "ON/OFF" key to turn on the power.
  4. Immerse the meter into standard buffer solution pH6.86, then stir gently until the value is stable, and long press the "TEMP CAL/±" key for 5 seconds.
- When the screen display "0686 25.0%" meter enter the pH6.86 automatic correction mode (the meter can automatically identify standard buffer solution of pH4.00 and pH6.86). While display value correspond to the standard buffer solution, the calibration is finished.

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5. Immerse the electrode into standard buffer solution pH4.00. Press the "TEMP CAL/±" key for 5 seconds. When the screen display "0400 25.0%" meter enter the pH4.00 automatic calibration mode. While display value correspond to the standard buffer solution, the calibration is finished.
  6. Clean the electrode. Immerse the electrode into standard buffer solution pH9.18. Press the "TEMP CAL/±" key for 5 seconds. When the screen display "0918 25.0%" meter enter the pH9.18 automatic calibration mode. While display value correspond to the standard buffer solution, the calibration is finished.
- Users can choose the calibration solution 6.86 4.00 9.18, 7.00 4.00 19.00. Factory default calibration is 6.86 4.00 9.19. The operation is as follows: long press "TEMP CAL/±" for five seconds in the calibration solution of 6.86 or 7.00. When value 6.86 flashing shows, immediately press "TEMP CAL/±" to switch to 7.00 calibration.
- Please be careful not to use the wrong calibration solution for calibration during the calibration process.

## NOTICE

The electrode must be recalibrated:  
 No calibration for a long time.  
 Regular and long term continual use.  
 High accuracy is required.

## EC CALIBRATION

1. Turn on the meter. Press the "MODE" button to choose the measure of EC.
2. Immerse the electrode into the distilled water. Activate it about five minutes.

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3. Immerse the electrode into EC calibration solution 12880us/cm (at 25°C). And stir it gently.
4. When the reading is stable, long press the "TEMP CAL/±" key for 5 seconds. When the screen display "1288 25.0%" or "12880 25.0%" and press the "MODE" or "TEMP CAL/±", until the display shows "12800-12900".
6. Clean the electrode with distilled water and suck it with filter paper.
7. Immerse the electrode into EC calibration solution 1413us/cm (at 25°C), and stir it gently. When the display value is the same as calibration solution or in the error range.
8. Clean the electrode with distilled water and suck it with filter paper. Replace the protective cap.

## ORP Calibration

1. Turn on the meter.
2. Immerse the electrode into distilled water for five minutes.
3. Immerse the electrode into ORP calibration solution of 265mv(25°C) and stir gently.
4. When the reading is stable, press and hold the "TEMP CAL/±" for 5 seconds. When the screen displays "265 25.0%" or "265.0", press "MODE" or "TEMP CAL/±" plus or minus value, until the display shows "265".
5. Clean the electrode with distilled water and dry with filter paper.
6. Immerse the electrode into ORP calibration solution of 100mv (25°C) and stir gently. When the display value is the same as calibration solution or in the error range.
7. Clean the electrode with distilled water and suck it with filter paper. Replace the protective cap.

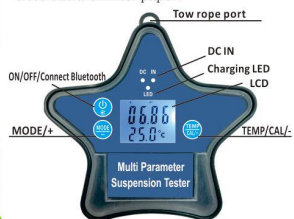
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## Charging Instruction

1. Connect the USB end of the original magnetic charging cable to a universal mobile phone charging head (5V 1A+).
2. Locate the charging port area of the instrument.
3. Place the other end of the magnetic charging cable (i.e. the part with the magnet) close to the charging port area of the device, and they will automatically fit together due to the attraction of the magnet.
4. Once the charging cable is successfully attached to the instrument, the instrument will light up red (indicating that it is charging), and the green light will come on when it is fully charged (the process of full charging takes about 4 hours).

## Cautions

1. When the instrument cannot be switched on normally, please charge it in time.
2. During the charging process, please avoid moving or touching the instrument frequently, so as not to affect the charging effect or cause damage.
3. If you find that the charging speed is abnormally slow or cannot be charged, please check whether the connection between the charger and the instrument is tight and whether the power supply is normal.
4. After use, please clean the electrode with distilled water or water and gently dry the electrode with filter paper.



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Functional description of the counterweight protection sleeve: When the instrument needs to be put into the pool, it is necessary to set the counterweight protection sleeve, which not only effectively protects the sensor to prolong the service life, but also allows the instrument to suspend the water surface to achieve a balanced and stable.

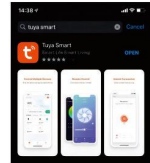


counterweight protection sleeve

### Mobile App Connection

1. Search for "Tuya Smart" in the mobile

App store, find



and download it.

2. After the download is complete, click

into the "Register



your account with your mobile phone, then login to the Tuya homepage,

click Add Device,



press and hold "button



on the meter to automatically search for device. When the following icon

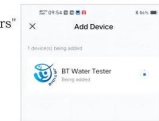
appears on the screen, release this

button and "click



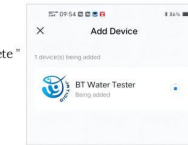
Add.

3. Appears "The



following icon appears when the download

is complete "



Click Finish to add the App successfully, you can enter the program to view the various parameters.

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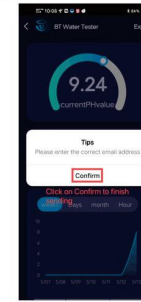
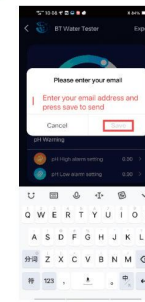
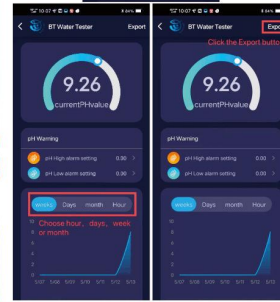
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The product has a new export function for historical data, sent as an email. Data can be exported hourly, daily, weekly and monthly. Hour: 60 sets of data, i.e. one set of data per minute, sent directly to the mailbox in tabular form, with at least one minute interval between the two emails. Day: 24 sets of data from yesterday plus the current day's data sets (e.g. 8a.m., then 32 sets of data, exported as two data tables of yesterday and today respectively). Week: 7 sets of data. Month: 30 sets of data. These data volumes are relatively large, which requires the use of cloud computing. After sending to mailbox, users need to click to download email, and the content of the emails is presented in tabular form. To prevent the mailbox from being maliciously attacked, each mailbox can only receive 54 emails in 24 hours, (daily, weekly and monthly data sets do not add up to 30 sets). If you need to continue exporting data, just replace the mailbox with a new one.

### WARRANTY

All defects in materials and manufacture of these device are guaranteed for one year from the date of purchase. Within one year, please return the parts to the dealer or our office for free repair if the damage is not caused by the user's negligence or wrong operation.



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