

SMART 5 IN 1 WATER QUALITY TESTER

USER MANUAL



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User Manual



TUTORIAL VIDEO ON HOW TO USE

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www.cd50.net/397

1

PARTS



SPECIFICATION

	Range	Resolution	Accuracy
pH	0.00~14.00pH	0.01PH	±0.1pH
TDS	0~19900ppm, 0~199.0ppt	1ppm(<1999ppm), 10ppm(>1999ppm); 0.1ppt	±2%F.S
Salinity	0~199.0 ppt	1ppm (<1999ppm), 10ppm (>1999ppm); 0.1ppt	
S.G	0.990~1.400	0.001	
Temperature	0~50°C (32~122°F)	0.1°C(0.2°F)	±1.0°C

Temperature Compensation: 0-50°C
Operating temperature: 0~50°C
Dimensions: 100 x 75 x 22mm
Weight: 120g

2

OPERATIONAL STEPS

1. Remove the cap and connect the pH electrode to the BNC connector. (see Figure 1)
2. Rinse the electrode with distilled water and dry it.
3. Plug in to power the meter on.
4. Dip the pH and TDS/salinity/temperature electrodes into test liquids, stir gently, and note stable readings.
5. Press the **TEMP CAL/±** button to select °C or °F measurement.
6. Clean the electrodes and replace the cap after use.



Figure 1

CALIBRATION INSTRUCTIONS

NOTE: Please use fresh standard buffer solution to calibrate and don't re-use the buffer.

PH CALIBRATION

1. Mix each powder pack with 250ml distilled water at 25°C and gently stir for 30s until the powder is all dissolved. (see Figure 2)

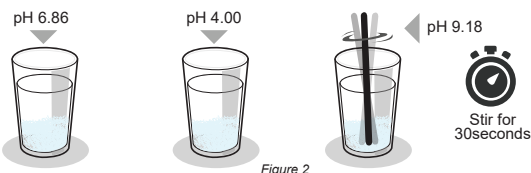
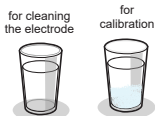


Figure 2

Warm tip:

Utilize two separate containers for each solution: one for cleaning the electrode and the other for calibration. This minimizes contamination for accurate calibration.



2. Plug in the power adaptor and turn on the device.
3. Insert the pH electrode into the pH 6.86 buffer solution. Stir until stable, then press and hold the **TEMP CAL/±** button for 5s to enter calibration mode. When the pH value of 6.86 is displayed on the LCD, the calibration at 6.86 is complete.
4. Clean the pH electrode and repeat the process of step 3 with pH 4.00 and pH 9.18 buffer solutions.

3

TDS CALIBRATION

1. Plug in the power adaptor to turn on the device.
2. Insert the TDS/salinity electrode in distilled water for 5 mins.
3. Then, place it in the 6440ppm (25°C) TDS calibration solution, stirring gently. (see Figure 3)
4. When the reading stabilizes, press and hold the **TEMP CAL/±** button for 5s to enter calibration mode. Adjust using the **TEMP CAL/±** or **MODE** buttons if needed to fall within the 6430~6450ppm range.
5. Clean the electrode with distilled water and dry it.
6. Insert the electrode in 1382ppm TDS calibration solution (25°C) and gently stir to see if it matches or is close to 1382ppm.
7. Clean the electrode with distilled water and dry it.



Figure 3

SALINITY CALIBRATION

1. Plug in the power adaptor to turn on the device.
2. Immerse the TDS/salinity electrode in distilled water for 5 minutes.
3. Then, place it in the 35ppt (25°C) salinity calibration solution, stirring gently. (see Figure 4)
4. When the reading stabilizes, press and hold the **TEMP CAL/±** button for 5s to enter calibration mode. Adjust using the **TEMP CAL/±** or **MODE** buttons if necessary to reach 35ppt.
5. Clean the electrode with distilled water and dry it.





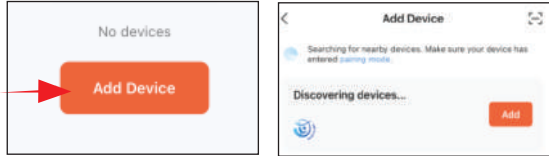
Figure 4

Remember, calibration is done before shipping but should be performed regularly or after long periods of non-use.

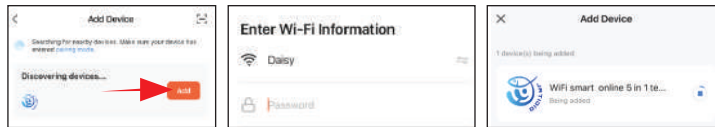
4

APP CONNECTION PROCEDURES

1. Install the App: Search for "Tuya Smart" on your App Store or Google Play and download it.
2. Create an Account: Create an account using your phone, then log in on the Tuya homepage.
3. Connect the meter to your smart phone: Enable Bluetooth on your phone before connection. Firstly, click "Add Device" on your phone. Secondly, hold down the  button on the meter until the device appears on the screen, then release the  button.



4. Set Up Wi-Fi: Click "Add" to configure the Wi-Fi connection. Ensure you enter the correct Wi-Fi password. **Note: Your phone and device must be on the same Wi-Fi network.**



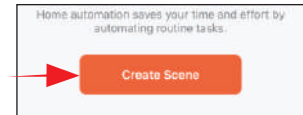
5. Completion: Once added successfully, you'll see the following interface. Click the "Done" button to access the program and view various parameters.



4

APP ALARM SETUP

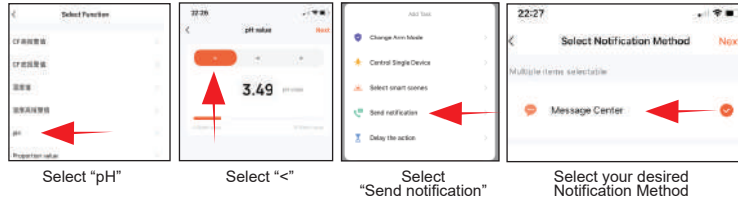
1. Go to the Tuya homepage and click on "Scenes." Then, select "Create Scene."



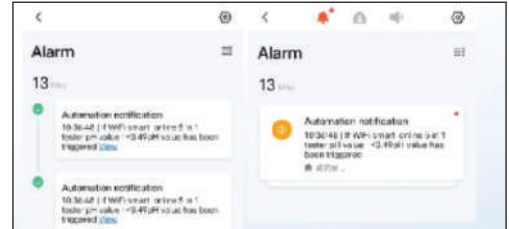
2. Choose "When device status changes" and pick the specific device.



3. Select the parameter you wish to monitor and set the alarm value. For example, if you set it to trigger an alarm when the pH level is below 3.49.



4. The current pH alarm value is now set at 3.49. If measured pH falls below 3.49, your phone will display an alarm message on the screen.



5

DATA EXPORTATION

The product now offers a new data export function via email, allowing you to export data on an hourly, daily, weekly, or monthly basis.

1. HOURLY:

You can export 60 sets of data in a tabular format, one set per minute, with a one-minute gap between emails.

2. DAILY:

Combining today's data and 24 sets of data from yesterday's into two tables

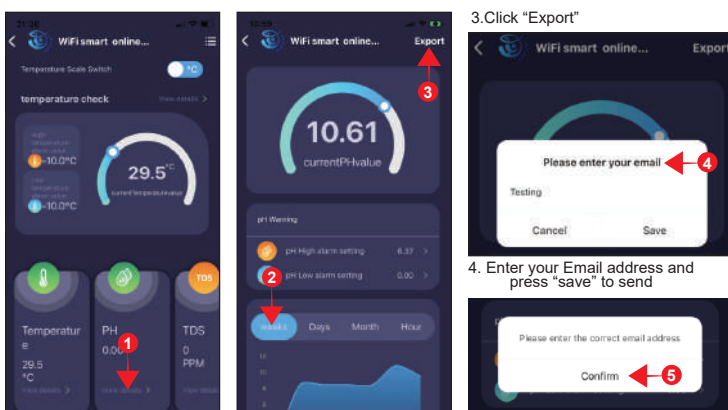
3. WEEKLY:

Get 7 sets of data.

4. MONTHLY:

Get 30 sets of data.

Due to the volume, we use cloud computing. You'll need to download the data from your mailbox, presented in tabular form. For security, each mailbox can receive a maximum of 54 emails in 24 hours. If you need more data, use a new mailbox.



1. Click "View details" to enter
2. Choose from "Weeks, Days, Month or Hour"
3. Click "Export"
4. Enter your Email address and press "save" to send
5. Click "Confirm" to finish sending

6