

Tadeto TE027

Tadeto pH Meter for Soil and Solutions (Model TE027)

Instruction Manual

INTRODUCTION

The Tadeto pH Meter (Model TE027) is a highly sensitive and accurate device designed for measuring pH values in various substances, including soil, food, and solutions. Its robust design, featuring a zinc alloy protective tip, ensures durability and reliable performance. This manual provides detailed instructions for setup, operation, maintenance, and troubleshooting to help you achieve optimal results.

WHAT'S INCLUDED

Upon unpacking your Tadeto pH Meter, please verify that all the following items are present:

- 1 x Digital pH meter
- 1 x Instruction manual
- 2 x AAA batteries
- 1 x Potassium chloride powder
- 1 x Empty bottle
- 1 x pH 4.01 calibration powder
- 1 x pH 7.00 calibration powder
- 1 x pH 10.01 calibration powder
- 1 x Protective cap
- 1 x Zinc alloy tip
- 2 x Suction tips (straws)
- 1 x Cleaning brush

What You GET

- 1x pH meter
- 1 x Instruction manual
- 1 x pH4 .01/p H7 .00/p H10 .01 powder
- 2 x Batteries
- 1 x Potassium chloride powder
- 1 x Empty bottle
- 1 x Protective cap
- 1 x Zinc alloy tip
- 2 x Straw
- 1 x Brush



Image: All items included in the Tadeto pH Meter package.

PRODUCT FEATURES

- **Accurate and Fast Readings:** The electrode pH meter is highly sensitive, providing precise and rapid pH value readings with an accuracy of ± 0.1 pH.
- **Zinc Alloy Protective Tip:** A hard, conical zinc alloy protective tip is securely attached to the pH meter's electrode, allowing measurement of hard substances like soil without damaging the electrode. Ensure it is installed when measuring hard or grounded substances.

- **LCD Display and Temperature Monitoring:** The backlit LCD screen allows data reading in low-light conditions. Real-time temperature display helps in environmental assessment. Features data retention and an alarm function: if $\text{pH} < 3.5$ or $\text{pH} > 12$, the screen turns red to indicate highly acidic or alkaline conditions.
- **Easy Battery Replacement:** Uses 2 x 1.5V AAA batteries for longer life and easier replacement compared to ordinary button batteries.
- **Versatile Measurement:** Suitable for measuring pH in soil, food, and hydroponic nutrient solutions.

High Precision Sensors

Measurement
Accuracy

$\pm 0.1\text{pH}$



Zinc Alloy Protective Tip
Easy measurement of various soils

Image: High precision sensors and zinc alloy protective tip.

Accurate & Practical



Temperature
Display



Calibration
Functions



Screen
Backlighting



Electrode
Protection



Data Hold



Visual Alarm



Image: Overview of the meter's accurate and practical features.



**2 x 1.5V AAA
batteries**

Longer life and easier to replace.



VS

**Ordinary button
batteries**



Image: Key components and battery type of the pH meter.

SETUP

1. Battery Installation

1. Unscrew the battery compartment cap at the top of the meter.
2. Insert 2 x AAA batteries, ensuring correct polarity (+/-).
3. Securely screw the battery compartment cap back on.

2. Zinc Alloy Tip Installation

1. Carefully slide the zinc alloy protective tip onto the probe. This tip protects the electrode when measuring hard materials like soil.
2. Ensure it is firmly seated.

3. Initial Calibration

Before the first measurement, and periodically thereafter, the device must be calibrated. This ensures accurate readings.

1. Prepare the standard buffer solutions (pH 4.01, 7.00, and 10.01) using the provided powders and distilled water. Follow the instructions on the powder packets for precise preparation.
2. Turn on the pH meter.
3. Immerse the probe into the pH 7.00 buffer solution. Press the CAL button and wait for the reading to stabilize and indicate successful calibration for pH 7.00.
4. Rinse the probe with distilled water.
5. Immerse the probe into the pH 4.01 buffer solution. Press the CAL button and wait for stabilization.
6. Rinse the probe with distilled water.
7. Immerse the probe into the pH 10.01 buffer solution. Press the CAL button and wait for stabilization.
8. Rinse the probe with distilled water. Your meter is now calibrated.



|01

Installation of zinc alloy protection tip

|02

Insert the product probe into the material to be measured, don't be too strong to avoid damaging the probe



|03

After measurement, rinse the probe with a brush and water.

|04

Install the cap containing a small amount of potassium chloride solution onto the probe to keep the electrode moist.



Image: Visual guide for tip installation, measurement, and cleaning.

OPERATING INSTRUCTIONS

Measurement Procedure

1. Ensure the zinc alloy protective tip is installed if measuring hard substances like soil.
2. Turn on the pH meter by pressing the ON/OFF button.
3. Insert the probe into the material to be measured. For soil, ensure the probe is inserted deep enough to get an accurate reading. Avoid applying excessive force to prevent damage to the probe.

4. Wait for the reading to stabilize on the LCD screen. The display will show both pH value and temperature.
5. Note the pH value and temperature.
6. After measurement, turn off the device by pressing the ON/OFF button.

Additional Functions

- **Backlight:** Press the backlight button (often indicated by a light bulb icon) to illuminate the screen for better visibility in low light conditions.
- **Data Hold:** Use the HOLD function (often integrated with the ON/OFF button or a separate button) to freeze the current reading on the display for easier recording.
- **Alarm Function:** Be aware of the visual alarm: the screen will turn red if the pH value is below 3.5 or above 12, indicating extremely acidic or alkaline conditions. This is a normal function of the device to alert the user.

Digital Soil pH meter

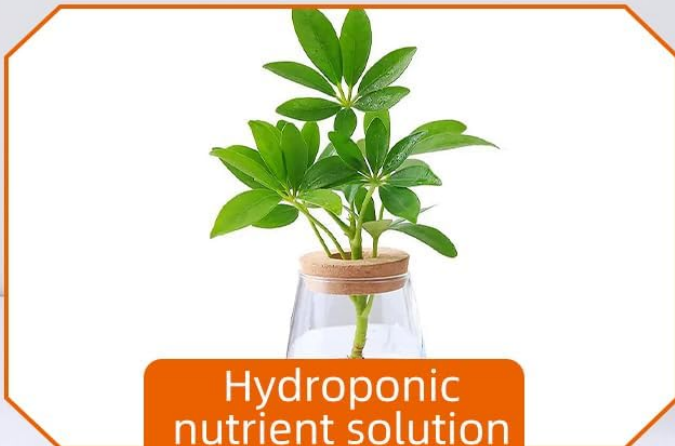


Image: Examples of pH measurement in soil, food, and hydroponic solutions.

MAINTENANCE

Proper maintenance is crucial for the longevity and accuracy of your pH meter.

1. Post-Measurement Cleaning

1. After each measurement, gently rinse the probe thoroughly with the provided brush and clean, distilled water.
2. Ensure no residue remains on the electrode.

2. Electrode Storage

The electrode must be kept moist when not in use to prevent it from drying out and affecting its performance.

1. Prepare a potassium chloride (KCl) storage solution using the provided powder and distilled water.
2. Inject a small amount of this KCl solution into the protective cap.
3. Install the protective cap onto the probe, ensuring the electrode tip is immersed in the KCl solution.
4. Store the meter in a cool, dry place.

3. Regular Calibration

Recalibrate your pH meter regularly, especially if you notice inconsistent readings or after prolonged storage. Refer to the "Initial Calibration" section for detailed steps.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Inaccurate Readings	Improper calibration; Dry or damaged electrode; Contaminated probe.	Recalibrate the meter with fresh buffer solutions. Ensure the electrode is kept moist with KCl solution. Clean the probe thoroughly after each use.
No Display / Device Not Turning On	Depleted or incorrectly installed batteries.	Check battery installation and ensure correct polarity. Replace AAA batteries if necessary.
Slow Response Time	Dry or aging electrode; Insufficient sample volume.	Ensure proper storage with potassium chloride solution. If the issue persists, the electrode may need replacement. Ensure the probe is fully immersed in the sample.
Screen Alarm (Red Display)	pH value is extremely acidic (<3.5) or alkaline (>12).	This is a normal safety feature. No action required unless the reading is unexpected for your sample.

SPECIFICATIONS

- **Model Number:** TE027
- **Dimensions (L x W x H):** 9 x 5 x 29.49 cm (approximately 3.54 x 1.97 x 11.61 inches)
- **Weight:** 300 grams (approximately 0.66 lbs)
- **Power Source:** 2 x AAA batteries (included)
- **Measurement Accuracy:** ± 0.1 pH
- **Manufacturer:** Tadeto
- **ASIN:** B0CFV6WXM4

WARRANTY AND SUPPORT

Your Tadeto pH Meter (Model TE027) is backed by a commitment to quality and customer satisfaction.

- **Warranty:** This product comes with a 1-year warranty service from the date of purchase. Please retain your proof of purchase for warranty claims.
- **Customer Support:** If you have any questions, encounter issues, or require assistance with your pH meter, please do

not hesitate to contact Tadeto customer support. Our team is dedicated to providing you with a satisfactory experience.