VIVOSUN 4316344538

VIVOSUN Digital PH Meter Model 4316344538 User Manual

Model: 4316344538 | Brand: VIVOSUN

1. Introduction

The VIVOSUN Digital pH Meter is designed for accurate measurement of pH levels in various liquids. This pen-type tester provides precise readings for applications such as hydroponics, household drinking water, pools, and aquariums. Its compact design and automatic temperature compensation (ATC) feature ensure reliable performance.

Image 1.1: The VIVOSUN Digital PH Meter, a pen-type device with a clear LCD display, designed for accurate pH measurement.

Package Contents:

- VIVOSUN pH Meter
- User Manual
- 2 x 1.5V Button Cells (built-in)
- 3 x pH Buffer Powders (for calibration)

2. Product Overview

Familiarize yourself with the components of your VIVOSUN Digital pH Meter.

Image 2.1: Diagram illustrating the components of the VIVOSUN Digital PH Meter, including the battery compartment, power on/off button, backlit LCD display, calibration function button, protective cap, and electrode.

- **Protective Cap:** Covers the electrode when not in use.
- **Electrode:** The sensor responsible for measuring pH.
- **Backlit LCD:** Displays pH readings and temperature.
- **ON/OFF Button:** Powers the device on or off.
- **CAL Button:** Initiates the calibration process.
- **Battery Compartment:** Houses the 2 x 1.5V button cells.

3. Specifications

Technical specifications for the VIVOSUN Digital pH Meter.

Image 3.1: Visual representation of the VIVOSUN Digital PH Meter's specifications, including measuring range, resolution, accuracy, weight, power supply, and calibration method.

Measuring Range	0.00 - 14.00 pH
Resolution	0.01 pH
Accuracy	± 0.01 pH
Power Supply	2 x 1.5V (LR44 Button Cell)
Operating Environment	0°C - 80°C (32°F - 176°F)
Dimensions	15.5 x 2.9 x 1.6 cm
Weight	50g
Material	ABS

4. Setup

4.1. Battery Installation

The pH meter comes with two 1.5V button cells pre-installed. If replacement is needed:

1. Slide off the battery compartment cover located at the top of the meter.
2. Remove the old batteries and insert two new 1.5V LR44 button cells, ensuring correct polarity.
3. Replace the battery compartment cover.

4.2. Initial Preparation

Before first use or after prolonged storage:

1. Remove the protective cap from the electrode.
2. Rinse the electrode with distilled water.
3. Gently blot dry with a clean tissue. Do not rub.
4. It is recommended to calibrate the meter before initial use.

5. Calibration

Calibration ensures accurate readings. The VIVOSUN pH meter supports one-point, two-point, or three-point calibration. It is recommended to calibrate the pH meter before each use, especially if it hasn't been used for a while or has been exposed to moisture for an extended period.

Image 5.1: Illustration recommending calibration of the pH meter before each use, particularly if unused for a while or exposed to moisture.

5.1. Preparing Buffer Solutions

The meter comes with three pH buffer powders (pH 4.00, pH 6.86, pH 9.18). To prepare the solutions:

1. Empty one packet of buffer powder into a clean 250ml beaker or container.
2. Add 250ml of distilled water to the beaker.
3. Stir until the powder is completely dissolved.
4. Repeat for each buffer powder.

5.2. Calibration Procedure (Three-Point Recommended)

Image 5.2: Step-by-step visual guide for auto-calibration, showing the process of dissolving buffer powder, immersing the meter, pressing the CAL button, and observing the flashing display.

1. Turn on the pH meter by pressing the "ON/OFF" button.
2. Immerse the electrode into the pH 6.86 buffer solution (at 25°C).
3. Press and hold the "CAL" button for 5 seconds. The display will flash "6.86" three times, indicating successful calibration at this point.
4. Rinse the electrode with distilled water and gently blot dry.

5. Immerse the electrode into the pH 4.00 buffer solution (at 25°C).
6. Press and hold the "CAL" button for 5 seconds. The display will flash "4.00" three times.
7. Rinse the electrode with distilled water and gently blot dry.
8. (Optional for three-point calibration) Immerse the electrode into the pH 9.18 buffer solution (at 25°C).
9. (Optional) Press and hold the "CAL" button for 5 seconds. The display will flash "9.18" three times.
10. After calibration, the meter will automatically save the calibration data and return to measurement mode.

Note: *If the meter cannot identify the buffer solution, it will display "----" and exit calibration mode. Ensure buffer solutions are correctly prepared and the electrode is clean.*

6. Operating Instructions

6.1. Measuring pH

1. Remove the protective cap.
2. Rinse the electrode with distilled water and gently blot dry.
3. Turn on the meter by pressing the "ON/OFF" button.
4. Immerse the electrode into the solution to be tested. Ensure the electrode is fully submerged.
5. Gently stir the solution and wait for the reading to stabilize. The display will show the pH value.
6. The meter features Automatic Temperature Compensation (ATC), which adjusts the pH reading based on the solution's temperature, ensuring accuracy across varying temperatures.

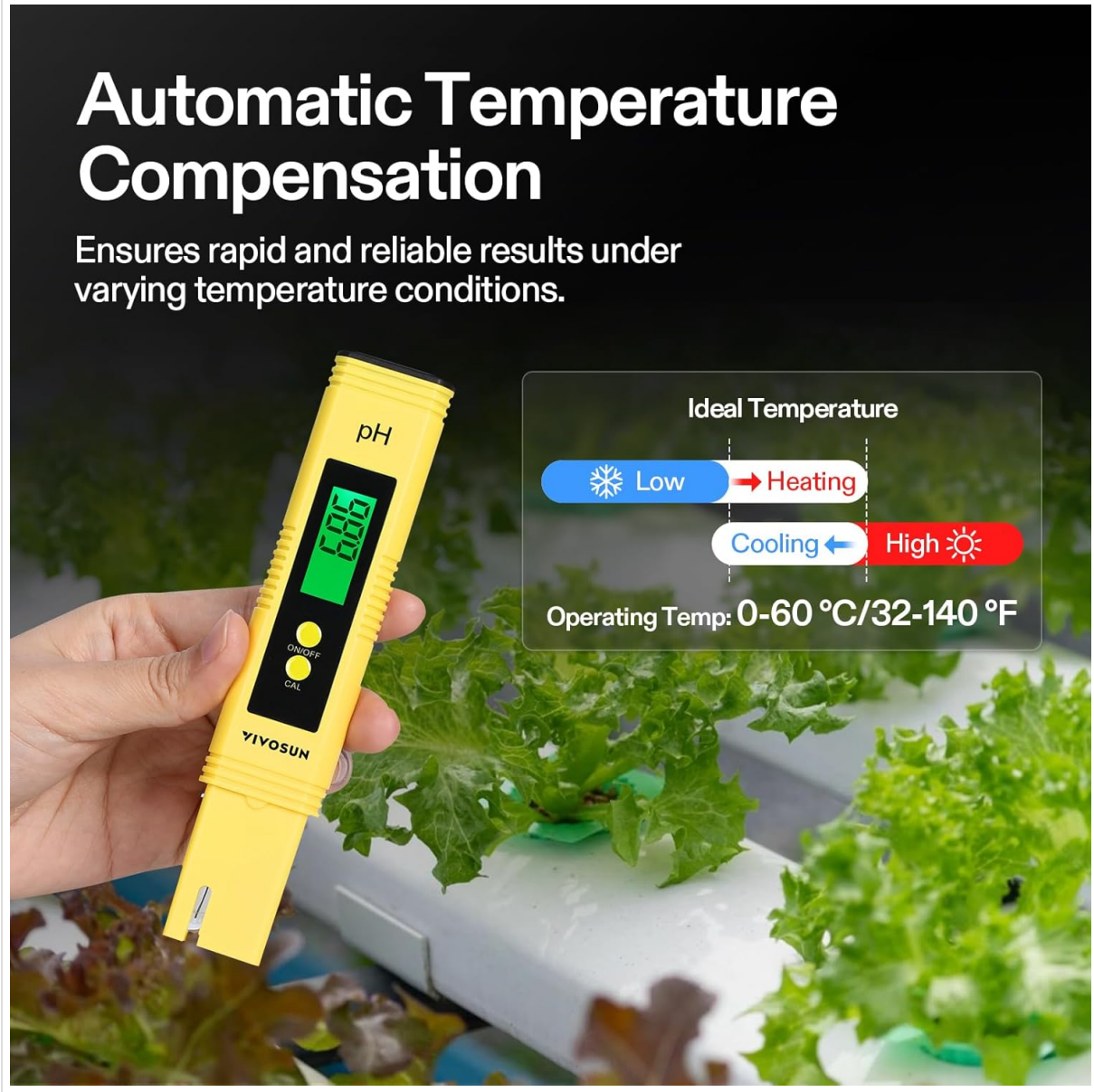

Image 6.1: Diagram illustrating the Automatic Temperature Compensation (ATC) feature, showing how the meter adjusts for temperature variations (low, heating, cooling, high) to provide reliable pH results.

6.2. After Measurement

1. Rinse the electrode with distilled water.
2. Gently blot dry with a clean tissue.
3. Replace the protective cap.
4. Turn off the meter by pressing the "ON/OFF" button.

7. Maintenance

7.1. Cleaning the Electrode

Regular cleaning of the electrode is crucial for accurate readings and extending the meter's lifespan.

- After each use, rinse the electrode thoroughly with distilled water.
- If the electrode is heavily contaminated, soak it in a mild cleaning solution (e.g., pH electrode cleaning solution or a dilute acid solution like vinegar) for 10-20 minutes, then rinse with distilled water.
- Never touch the electrode with your fingers or abrasive materials.

7.2. Storage

- Always replace the protective cap after use to keep the electrode moist. If the electrode dries out, soak it in pH 4.00 buffer solution or electrode storage solution for at least 30 minutes before use.
- Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures.

8. Troubleshooting

- **Inaccurate Readings:**
  - Ensure the meter is properly calibrated. Recalibrate if necessary.
  - Clean the electrode thoroughly.
  - Check battery levels and replace if low.
  - Ensure the electrode is fully submerged in the solution.
- **Slow Response:**
  - The electrode might be dry. Soak it in pH 4.00 buffer solution or electrode storage solution for 30 minutes.
  - The electrode might be dirty. Clean it as per maintenance instructions.
- **Display Shows "----":**
  - During calibration, this indicates the meter could not recognize the buffer solution. Recheck buffer preparation and ensure the correct solution is used for the calibration point.
  - Outside calibration, this might indicate a sensor error or extremely out-of-range measurement.
- **Meter Does Not Turn On:**
  - Check battery installation and polarity.
  - Replace batteries with new ones.

9. Applications

The VIVOSUN Digital pH Meter is suitable for a wide range of applications requiring pH measurement.

Image 9.1: Visual chart displaying various applications for the pH meter, including drinking water, aquariums, hydroponics, swimming pools, brewing, and tap water, alongside a pH scale with common substances.

- **Hydroponics:** Monitoring nutrient solution pH for optimal plant growth.
- **Aquariums:** Maintaining ideal water conditions for aquatic life.
- **Swimming Pools & Spas:** Ensuring proper chemical balance for safety and comfort.
- **Household Drinking Water:** Checking the pH of tap water or filtered water.
- **Laboratory Use:** General pH testing in educational or research settings.
- **Liquid Food:** Testing pH of beverages or other liquid food products.
- **Brewing:** Monitoring pH during beer or wine making processes.

Image 9.2: Image showing the VIVOSUN Digital PH Meter next to a glass of water, highlighting the optimal pH range for drinking water (6.5 - 8.5).

10. Warranty and Support

For warranty information or technical support, please refer to the VIVOSUN official website or contact their customer service. Keep your purchase receipt for warranty claims.
VIVOSUN Official Website: www.vivosun.com

Related Documents - 4316344538

	VIVOSUN 4-in-1 pH Meter User Manual: Guide to pH, TDS, EC, and Temperature Testing Official user manual for the VIVOSUN 4-in-1 pH Meter. Learn how to calibrate, operate, and troubleshoot your water quality tester for accurate pH, TDS, EC, and temperature measurements.

	[VIVOSUN 5-in-1 PH Meter User Manual - Calibration, Operation, and Specifications] Comprehensive user manual for the VIVOSUN 5-in-1 PH Meter (Model EZ-9909SP). Includes detailed instructions on calibration (pH and EC), operation, parameter specifications, battery installation, troubleshooting, and warranty information.
	[VIVOSUN Nutrients Base A & B: Complete Plant Feeding Guide] Comprehensive guide to VIVOSUN Nutrients Base A and Base B, a two-part liquid fertilizer system for optimal plant growth from vegetative to flowering stages. Includes usage instructions, guaranteed analysis, and maintenance tips.
	[VIVOSUN VGrow DWC Hydroponics Grow Kit User Manual] Comprehensive user manual for the VIVOSUN VGrow DWC Hydroponics Grow Kit, detailing setup, operation, maintenance, and warranty information for efficient indoor gardening.
	[VIVOSUN Automatic Drip Irrigation Kit User Manual] Comprehensive user manual for the VIVOSUN Automatic Drip Irrigation Kit, covering safety, features, contents, specifications, installation, usage, and warranty for efficient plant watering.
	[VIVOSUN Water Pond Pump User Manual: Features, Specifications, and Maintenance] Comprehensive user manual for VIVOSUN submersible water pumps, covering models PG1600-S, PG2700-S, PG4500-S, PG5300-S, and PG9000-S. Includes specifications, performance data, installation guidance, and maintenance tips for ponds, fountains, and waterfalls.