**4 in 1 Soil Survey Instrument**

**S40plus**

**Overview**

4 in 1 soil survey instrument can test moisture, PH value, temperature and environment temperature. It has high accuracy and lightness. The test results are shown on the LCD display.

**Tool Components**

- PH/TEMP (keyboards): Can test temperature or moisture.
- LCD Backlight Display Screen: Backlight to display the results.

**Operating Principle**

- Moisture: By the formula, \( \text{Moisture} = \frac{\text{Resistance} - \text{Reference}}{\text{Reference}} \times 100\% \)
- PH: By the formula, \( \text{PH} = \frac{\text{Electron} - \text{Reference}}{\text{Reference}} \times 100\% \)
- Temperature: By the formula, \( \text{Temperature} = \frac{\text{Resistance} - \text{Reference}}{\text{Reference}} \times 100\% \)

**Illustration of Display Screen**

- **Light Emission Display**: Light intensity display and text can reach 3/4 brightness of the main environment.
- **PH/TEMP Display**: Can test temperature or moisture.
- **LCD Display**: Backlight to display the results.

**How to Use**

1. **PH Measurement**
   - Insert the probe into the soil and position it horizontally in the soil. Then place the probe into the soil, and the display will show the PH value.

2. **Temperature Measurement**
   - Insert the probe into the soil and position it horizontally in the soil. Then place the probe into the soil, and the display will show the temperature.

3. **Humidity Measurement**
   - Insert the probe into the soil and position it horizontally in the soil. Then place the probe into the soil, and the display will show the humidity.

4. **Light Intensity Measurement**
   - Insert the probe into the soil and position it horizontally in the soil. Then place the probe into the soil, and the display will show the light intensity.

**Tips**

- Ensure that the probe is not exposed to direct sunlight or strong light. Excessive light can affect the accuracy of the measurement.
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**Warranty**

The product is warranted for free from defects in materials and workmanship for a period of one year from the purchase date. The warranty does not apply to the following conditions:

- Physical damage (including but not limited to the following conditions:)
  - Misuse or improper use of the device will void the warranty.
  - Any damage resulting from misuse, abuse, or neglect.
  - Any damage resulting from unauthorized modifications or repairs.
  - Any damage resulting from the use of non-original components or accessories.
  - Any damage resulting from normal wear and tear.
  - Any damage resulting from accidents or Acts of God.

**Technical Specifications**

- Temperature Range: –30°C to +80°C
- Humidity Range: 0% to 100%
- Battery Life: 1000 hours
- Operating Temperature: 0°C to 50°C
- Storage Temperature: -20°C to 70°C
- Display Resolution: 0.01°C
- Accuracy: ±1°C

**Power Supply**

- Volts: 3V
- Current: 10mA
- Battery: CR2032

**Cleaning and Maintenance**

- Clean the device with a soft, dry cloth.
- Avoid exposure to water or moisture.
- Avoid exposure to direct sunlight or strong light.
- Avoid excessive force or pressure when cleaning.

**Troubleshooting**

- If the display is not showing any results, check the battery level.
- If the display is showing incorrect results, check if the probe is inserted correctly into the soil.
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