

N554L56C9GG0VL5X4333CO7

Generic 7-in-1 USB Soil Sensor Instruction Manual

Model: N554L56C9GG0VL5X4333CO7

INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of your Generic 7-in-1 USB Soil Sensor. This device is designed for comprehensive soil analysis, measuring moisture, conductivity, temperature, pH, and essential NPK nutrients. It connects to Android devices via USB for real-time data access, making it a versatile tool for agriculture, floriculture, landscaping, and scientific research.

SAFETY INFORMATION

- Ensure the sensor is handled carefully to prevent damage to the probe.
- Do not attempt to disassemble or modify the sensor, as this may void the warranty and cause damage.
- Keep the USB connector dry and clean to ensure proper connectivity.
- Avoid exposing the sensor to extreme temperatures outside its operating range.

PACKAGE CONTENTS

Verify that all items are present in your package:

- 1 x 7-in-1 USB Soil Sensor

PRODUCT OVERVIEW

The Generic 7-in-1 USB Soil Sensor is a robust and versatile tool for detailed soil analysis. It features an IP68 waterproof rating and a corrosion-resistant metal probe, ensuring durability and consistent performance in various environments. The sensor is USB-powered, eliminating the need for batteries and allowing for immediate plug-and-play operation.



Image: The 7-in-1 USB Soil Sensor, showing the main unit with its multi-pronged probe and attached USB cable.

This sensor measures the following parameters:

- Soil Moisture
- Electrical Conductivity (EC)
- Temperature
- pH Level
- Nitrogen (N)
- Phosphorus (P)
- Potassium (K)

SETUP

1. **Download the Application:** Locate the QR code provided with your sensor or in the product packaging to download the compatible Android application. This application is essential for viewing and managing data from the sensor.
2. **Install the Application:** Install the downloaded application on your Android device. Ensure your

device meets the minimum system requirements for the app.

3. **Connect the Sensor:** Plug the USB connector of the soil sensor into a compatible USB port on your Android device. The sensor is powered directly via USB, so no external power source or batteries are required.
4. **Launch the Application:** Open the installed application on your Android device. The application should automatically detect the connected sensor.



Image: The USB Soil Sensor connected to an Android smartphone, showing the application interface with various soil parameter readings.

OPERATING INSTRUCTIONS

1. **Prepare for Measurement:** Ensure the soil is moist enough for accurate readings. Dry soil may yield inaccurate results.
2. **Insert the Sensor:** Gently insert the metal probe of the sensor into the soil to the desired depth. Ensure the probe is fully submerged in the soil for optimal contact. Avoid forcing the sensor into hard soil to prevent damage.
3. **Take Readings:** Once inserted, the application on your Android device will display real-time measurements for moisture, conductivity, temperature, pH, and NPK levels. Allow a few moments for the readings to stabilize.
4. **Record Data:** The application allows you to view, save, and export the soil data for further analysis or record-keeping.
5. **Remove the Sensor:** After taking measurements, gently pull the sensor out of the soil.



Image: The USB Soil Sensor with its probe inserted into the soil of a potted plant, demonstrating its use in a typical gardening scenario.

Important Considerations:

- For consistent results, take multiple readings in different areas of the soil.
- The accuracy of NPK readings can be influenced by soil type and composition.

- Always refer to specific plant requirements for optimal soil conditions.

MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your soil sensor.

- **Cleaning the Probe:** After each use, gently wipe the metal probe with a clean, damp cloth to remove any soil residue. Do not use abrasive materials or harsh chemicals.
- **Storage:** Store the sensor in a clean, dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect the probe and cable for any signs of damage or wear.



Image: A hand cleaning the metal probe of the USB Soil Sensor with a soft cloth, demonstrating the recommended cleaning procedure after use.

TROUBLESHOOTING

If you encounter issues with your soil sensor, refer to the following common problems and solutions:

- **No Data Displayed:**
 - Ensure the USB connection is secure and the sensor is properly plugged into your Android device.

- Verify that the application is open and running on your device.
- Check if your Android device's USB settings allow for external device connections.
- **Inaccurate Readings:**
 - Ensure the probe is clean and free of debris.
 - Make sure the soil is adequately moist. Very dry soil can lead to inconsistent readings.
 - Ensure the probe is fully inserted into the soil.
 - Take multiple readings in different spots to confirm consistency.
- **Application Not Detecting Sensor:**
 - Restart the application and reconnect the sensor.
 - Try connecting the sensor to a different compatible Android device if available.
 - Ensure the application is updated to the latest version.

SPECIFICATIONS

Parameter	Value
Part Name	USB Soil Sensor
Material	Epoxy resin, metal
Dimensions	125*45mm (Sensor Unit), 5.12 x 2.36 x 1.97 inches (Product)
Color	Black
Power Supply	DC 5V, USB power supply
Maximum Power Consumption	0.5W
Output Signal	USB interface (compatible with Android system)
APP Platform	Android system only (APP QR code download)
Soil Moisture Measurement Range	0–100%, Resolution: 0.1%, Accuracy: $\pm 2\text{--}3\%$
Soil Conductivity Measurement Range	0–20000 $\mu\text{S}/\text{cm}$, Resolution: 10 $\mu\text{S}/\text{cm}$, Accuracy: $\pm 3\text{--}5\%$
Soil Temperature Measurement Range	-40°C – 80°C , Resolution: 0.1 $^{\circ}\text{C}$, Accuracy: $\pm 0.5^{\circ}\text{C}$
Soil pH Measurement Range	3–9pH, Resolution: 0.1
Nutrient Measurement Range (N, P, K)	0-1999 mg/kg
Waterproof Grade	IP68
Probe Material	Anti-corrosion metal alloy
Sealing Material	Flame retardant epoxy resin
Wire Length	Default 1.5 meters
Item Weight	6.9 ounces

WARRANTY AND SUPPORT

This product is covered by a standard manufacturer's warranty. For specific warranty details, please refer to the documentation included with your purchase or contact the seller directly. For technical support or inquiries, please reach out to the manufacturer or your point of purchase.

Manufacturer: Generic