

[Manuals.plus](#) /

> [RAINPOINT](#) /

> RAINPOINT Bluetooth Soil Moisture and Temperature Sensor (TCS005ARF) User Manual

RAINPOINT TCS005ARF

RAINPOINT Bluetooth Soil Moisture and Temperature Sensor (TCS005ARF) User Manual

Model: TCS005ARF

1. IMPORTANT INFORMATION

This RAINPOINT Bluetooth Soil Moisture and Temperature Sensor (Model TCS005ARF) is designed to monitor soil conditions. **Please note that this sensor requires a separate RAINPOINT Bluetooth Monitor Display for operation. It cannot function independently or connect directly to a smartphone application.** Ensure you have the compatible monitor display before attempting setup.



Image 1.1: The RAINPOINT Soil Moisture Sensor (TCS005ARF) must be paired with a compatible Indoor Monitor Display to function. It does not operate as a standalone device.

2. PRODUCT OVERVIEW

The RAINPOINT Bluetooth Soil Moisture and Temperature Sensor provides real-time data on your soil's moisture and temperature levels. This information is transmitted wirelessly to a compatible RAINPOINT Bluetooth Monitor Display, helping you maintain optimal conditions for your plants.

2.1 Components

- RAINPOINT Bluetooth Soil Moisture and Temperature Sensor (TCS005ARF)
- Instruction Manual

Note: The Indoor Monitor Display and 4 x AAA batteries for the sensor are not included and must be purchased separately.

Soil Sensor TCS005AFR (Excluded)

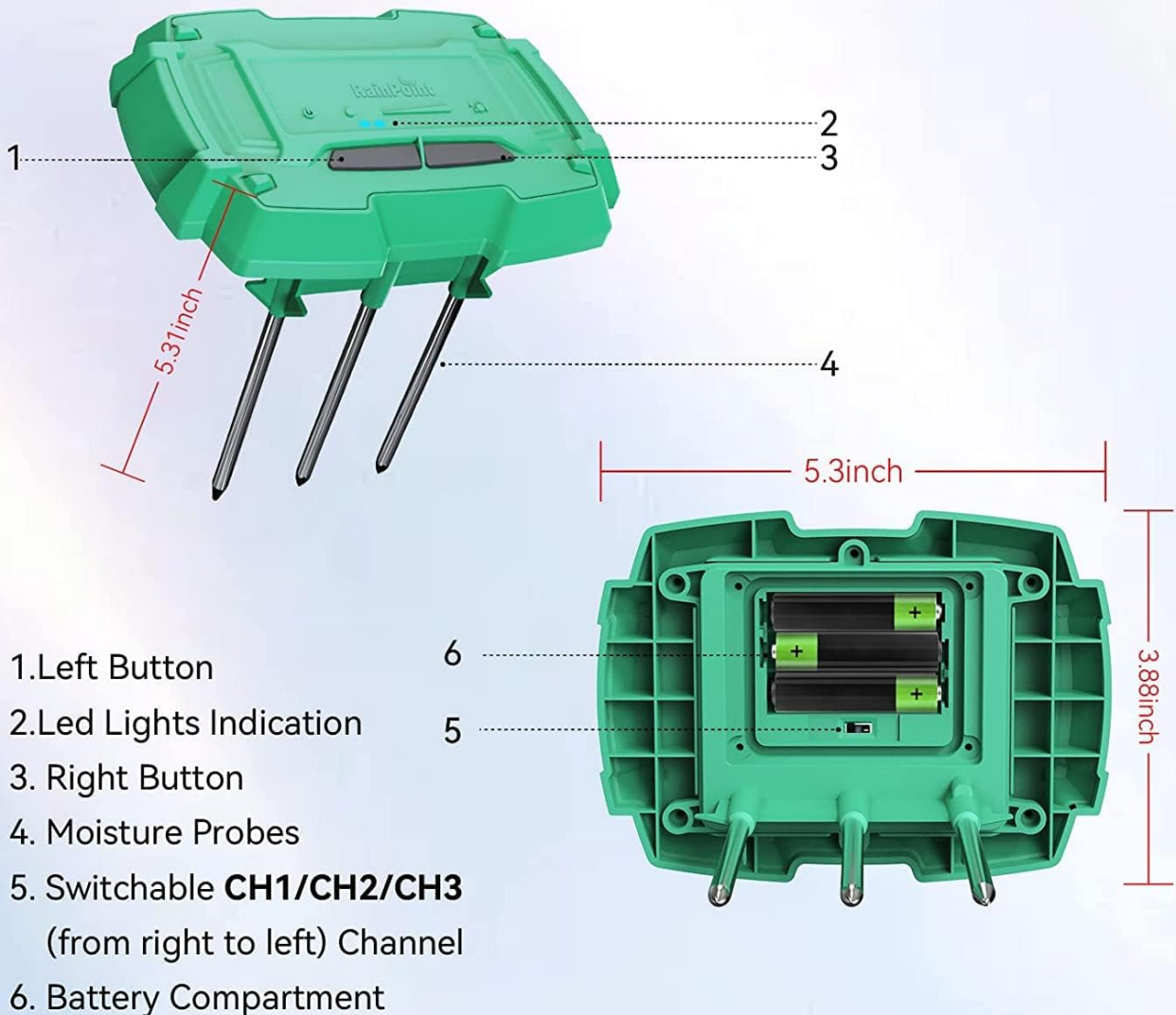


Image 2.1: Detailed view of the Soil Sensor TCS005AFR.

1. Left Button
2. LED Lights Indication
3. Right Button
4. Moisture Probes (SS304 material for precision and corrosion resistance)
5. Switchable CH1/CH2/CH3 (from right to left) Channel Selector
6. Battery Compartment

3. SETUP INSTRUCTIONS

3.1 Battery Installation

1. Locate the battery compartment (6) on the underside of the sensor.
2. Using a small screwdriver, carefully remove the screws securing the battery compartment cover.
3. Insert 4 x AAA 1.5V alkaline batteries into the compartment, ensuring correct polarity (+/-).

4. Replace the battery compartment cover and secure it with the screws.

3.2 Channel Selection

- The sensor supports up to 3 channels (CH1, CH2, CH3). Use the channel selector (5) to choose a channel.
- Ensure that each sensor you use with your monitor display is set to a unique channel.

3.3 Pairing with Monitor Display

Follow the instructions provided with your RAINPOINT Bluetooth Monitor Display to pair the sensor. Generally, this involves:

1. Ensure the monitor display is powered on and in pairing mode.
2. Press and hold the Left Button (1) and Right Button (3) on the sensor simultaneously for a few seconds until the LED Lights Indication (2) flashes, indicating it's in pairing mode.
3. Once paired, the monitor display will show the sensor's data.

3.4 Sensor Placement

Insert the moisture probes (4) into the soil of the plant or area you wish to monitor. Ensure the sensor body is above ground and the probes are fully submerged in the soil for accurate readings.



Image 3.1: Proper placement of the soil sensor in the ground.

4. OPERATING INSTRUCTIONS

Once the sensor is set up and paired with your RAINPOINT Bluetooth Monitor Display, it will automatically begin transmitting soil moisture and temperature data.

4.1 Data Monitoring

- The monitor display will show real-time soil moisture (0-100%) and temperature (-10°C to 60°C / 14°F to 140°F) readings.
- Data is updated approximately every 7 seconds.
- The monitor display may also indicate soil humidity levels as 20%, 40%, 60%, 80%, or 100%.



Image 4.1: Monitor display showing soil temperature and humidity ranges.

4.2 Wireless Range

The sensor communicates with the monitor display via Bluetooth 5.0, offering a wireless transmission range of up to 50 meters (160 feet) in open areas. Obstacles such as walls or dense foliage may reduce this range.

160FT/50M Wireless Transmit Range

Up to 3 Channel Display For Different Places



Image 4.2: Illustration of the wireless range and multi-channel capability.

5. MAINTENANCE

- **Cleaning:** Periodically clean the moisture probes (4) with a soft cloth to remove any soil buildup that might affect accuracy.
- **Battery Replacement:** The sensor is powered by 4 x AAA batteries, which typically last 3-6 months. Replace batteries when the low battery indicator appears on your monitor display. Follow the battery installation steps in Section 3.1.
- **Storage:** When not in use for extended periods, remove the batteries and store the sensor in a dry, cool place.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
---------	----------------	----------

Problem	Possible Cause	Solution
No data displayed on monitor.	<ul style="list-style-type: none"> • Sensor not powered on. • Batteries are dead or incorrectly installed. • Sensor not paired with monitor. • Sensor out of range. • Incorrect channel selected. 	<ul style="list-style-type: none"> • Ensure batteries are installed correctly. • Replace batteries if necessary. • Refer to Section 3.3 for pairing instructions. • Move sensor closer to the monitor display. • Verify the sensor's channel matches the one selected on the monitor.
Inaccurate readings.	<ul style="list-style-type: none"> • Probes are dirty. • Probes not fully inserted into soil. • Sensor is in direct sunlight or extreme conditions. 	<ul style="list-style-type: none"> • Clean probes as described in Section 5. • Ensure probes are fully inserted into the soil. • Relocate the sensor to a more representative soil area.
Short battery life.	<ul style="list-style-type: none"> • Using non-alkaline batteries. • Extreme temperatures. 	<ul style="list-style-type: none"> • Use high-quality alkaline AAA batteries. • Battery life may be reduced in very cold or hot environments.

7. SPECIFICATIONS

Feature	Specification
Model	TCS005ARF
Compatibility	Requires RAINPOINT Bluetooth Monitor Display (Excluded)
Connectivity	Bluetooth 5.0
Wireless Range	Up to 50 meters (160 feet) in open areas
Data Update Interval	Approximately every 7 seconds
Soil Moisture Range	0% ~ 100%
Soil Moisture Accuracy	≤ 5% (0% ~ 50%) or ≤ 10% (51% ~ 100%)
Soil Temperature Range	-10°C ~ 60°C (14°F ~ 140°F)
Probe Material	SS304 Stainless Steel
Waterproof Rating	IP65
Power Source	4 x AAA 1.5V Alkaline Batteries (Not Included)
Battery Life	3-6 months (typical)
Dimensions (Sensor)	Approximately 5.31 inches (length) x 3.88 inches (width) x 5.3 inches (height, including probes)

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your RAINPOINT Bluetooth Monitor Display or visit the official RAINPOINT website.

You can also contact RAINPOINT customer service directly for assistance.

- **Email:** Refer to RAINPOINT product packaging or website.
- **Website:** [Visit the RAINPOINT Store on Amazon](#)

