Soiltech Wireless SWTPWMIT022 Grain Soil Sensor User Manual

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Contents

Important Information

The Soiltech Wireless Sensor is a wireless device designed to aid in the management of crops during their growth, harvest, transit and storage. The Sensor has the ability to wirelessly transmit data to the Soiltech APP to inform users of:

- Soil moisture levels
- Humidity levels
- Temperature levels
- ‘Bruising’

- Location

User Guidelines

The Soiltech sensor is a device intended to be handled in the same way that crops are handled. It is designed to be planted alongside crops to provide users with real-time insights into the environmental conditions surrounding the sensor in order to provide them with actionable information, that may guide their farming and harvesting practices – such as irrigation scheduling, harvest equipment set-up or alert them to anomalies in storages.

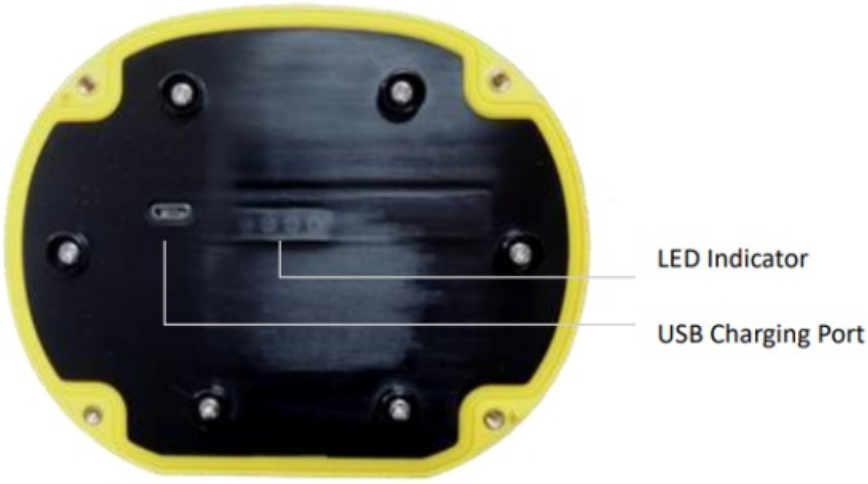
User Warnings

- Before installing the device, ensure that the battery has been charged and that all screws are locked tight, to prevent moisture entering the device.
- The sensor is water resistant but it is not designed to be fully submerged under water.
  The Humidity Sensor Cover should be properly screwed on before planting under the soil to prevent moisture entering the device.
- The sensor is rugged and can withstand bumps and drops that crops would typically incur during their lifecycle, but it should not be considered to be indestructible – so please refrain from excessively dropping the device.
- Do not open the bottom cap of the device without prior approval from the device manufacturer or authorized dealer. Doing so may cause unintended hard to the user or compromise the effectiveness of the device. Product faults or defects that occur as a result of unauthorized bottom cap removal will void any warranty or claims against the manufacturer.
- Do not attempt to modify the device in any way without prior approval from device manufacturer or authorized dealer. Doing so may compromise the effectiveness of the device. Product faults or defects that occur as a result of user modification will void any warranty or claims against the manufacturer

Getting to know the product

Side View

Top View



LED Indicators:

- Bright Orange LED indicates device is charging
- Faint Orange LED indicates device has completed charging
- Flashing Blue LED indicates the device is reading/transmitting data in ‘growth mode’
- Flashing White LED indicates the devices is in active ‘bruise’ mode

Installation Advice

The Soiltech Sensor is designed to be easy to use and quick to install:

- charge the device
- ensure all screws are tightly sealed
- then just plant it under the soil or place in storage!

That’s it! The device will automatically locate itself and be visible on the Soiltech App – where users can begin to customize (names, fields, groupings, soil types, safe-zones) and monitor environmental conditions immediately.

User accounts will be pre-configured before devices ship out and there is no need for any set-up.

How to view the data?

Users can view all of their sensors from their computers or mobile devices.

The Soiltech Wireless Mobile App, which is available from the Apple App Store or the Google Play Store, can be found by searching ‘Soiltech Wireless’.

To view from a computer or laptop, please visit **www.soiltechwireless.com** and click ‘Login’ at the top right hand side of the screen.

User credentials will be emailed after the purchase process has completed. App instructions are provided separately.

Signal

The Soiltech Sensor uses cellular frequencies in order to transmit data in real-time to users' computers and cellphones. Cellular signal strength can vary from location to location, even within a short range. Therefore, if the device appears not to be transmitting a signal, try moving the device a few feet to try to find a better signal strength. As a general rule, if a cellphone works in a location then the Sensor should work. If any issues persist, please contact us for technical assistance.

In the Field

The sensor is a tool to provide real-time environmental conditions, wirelessly. There is not a 'right or wrong' location to place the device. Instead, it should be planted wherever users would like to remotely monitor soil moisture, temperature, humidity, location or 'bruise' – whether in locations that have historically been monitored or trouble areas that users would like to get visibility on.

The sensor can be planted completely under the soil, alongside the seeds or in the location where users typically measure moisture for the crop in question.

Whilst under the soil or placed in storage, the ideal orientation is for the unit to be placed horizontally, with the Humidity Sensor Cover facing down.

Some suggested planting strategies:

- In pivot irrigated fields, plant multiple units in a row parallel to the pivot (as illustrated in the image below) and then take an average reading of the row before the pivot runs over those devices in order to guide irrigation decision making.
- plant devices in different parts of the field that have different soil textures (our app can help users determine soil type at any given location)
- plant devices at high spots or low spots in a field.
- plant devices in historically dry or wet areas in the field.

In Storage

Before placing the unit in a cellar or storage facility, users should remove the Humidity Sensor Cover in order to allow air to flow into the device via the laser holes and provide a more accurate reading.

If placing the Sensor into a storage facility, users should take note of its location since GPS signals are not reliable indoors.

Battery and Charging

The Soiltech Sensor can be charged using the supplied USB cable. To charge to 100% from 0% takes approximately 12 hours.

When charged to 100%, the Sensor has a life-cycle of approximately 11 months based on normal usage. Frequent use of Bruise Mode or Tracking Mode will drain the battery significantly faster, since the device will be reporting and using GPS positioning more frequently. Therefore, users are advised to monitor

Technical Support

We are here to help! If you encounter any difficulties in using the device, please contact your local dealer or contact us directly at **info@soiltechwireless.com**. Please make note of the serial number or account name when

seeking technical support.

FCC STATEMENT

15.19

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

§ 15.21.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Information (MPE)

This device complies with radio frequency (RF) exposure limits adopted by the Federal Communications Commission for an uncontrolled environment. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

ISED compliance statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Disclaimer

Soiltech Wireless Inc (SWI) reserves the right to make changes in specifications and other information contained

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Customer Support

www.soiltechwireless.com

Documents / Resources

	Soiltech Wireless SWTPWMIT022 Grain Soil Sensor [pdf] User Manual SWTPWMIT022 Grain Soil Sensor, SWTPWMIT022, Grain Soil Sensor, Soil Sensor, Sensor

References

- Homepage
- Homepage
- User Manual