

**TORO**

Count on it.

# Precision™ Soil Sensor

## Sensors

*Leveraging Toro sensing technology used on high-end commercial sites and world-class golf courses around the globe, the Toro Precision™ Soil Sensor reduces water waste by continuously measuring moisture levels in the soil and determining when to allow your controller to water, maximizing the efficiency of your irrigation system. Communication between the sensor probe and receiver is completely wireless, so installation is quick and easy with no digging required.*

### Features & Benefits

#### Works with Nearly All Irrigation Controllers

Can be installed on any irrigation controller, including competitive models.

#### Prevents Overwatering

Continuously measures soil moisture levels and determines when to allow your irrigation controller to water, making sure just the right amount of water is applied.

#### No Digging Required

Communication between the sensor probe and the receiver is completely wireless, with up to a 500' range (line of sight). Installation doesn't disturb the soil, giving you accurate moisture readings starting as soon as the sensor is put in the ground.

#### Automatic Calibration

The sensor will automatically detect the soil type and adjust all calculations accordingly.

#### Freeze Detection

The only soil sensor to offer freeze detection that prevents irrigation when temperatures approach freezing.



## How It Works

- There are two components to the system - a battery-powered wireless sensor probe and a receiver that wires into any irrigation controller's sensor port.
- Once installed, the sensor calculates field capacity for your soil (or the maximum amount of water the soil can hold after excess water has drained away) and sets that as "100%".
- Any time the moisture level in the soil exceeds field capacity, the irrigation controller is prevented from watering until the moisture level falls below the level set in the receiver (default is 50% of field capacity, adjustable by the user).

## Dimensions

- Probe body: 5" x 3 3/4" x 3/4"
- Probe spikes: 4 3/4"
- Receiver body: 3" x 3 3/4" x 1 1/2"

## Electrical Specifications

- Receiver input power: 24 VAC
- Probe: Three AA batteries

## Temperature Specifications

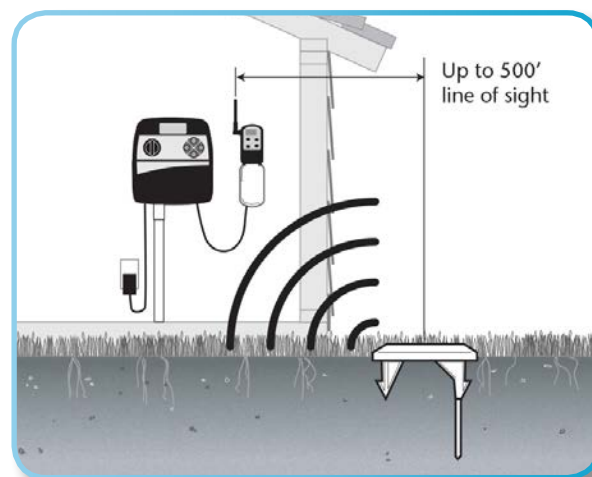
- Operating (Probe): 14°F to 170°F (-10°C to 77°C)
- Operating (Receiver): 14°F to 140°F (-10°C to 60°C)
- Storage: -22°F to +149°F (-30°C to 65°C)

## Operating Specifications and Additional Features

- Sensor receiver hooks up to irrigation controller's sensor port (if available) or is wired into common wire
- Up to 500' (152m) range, line of sight
- One sensor per receiver
- Adjustable moisture threshold in 1% increments allows the user to set the desired moisture level
- Sensor automatically determines soil type and adjusts calculations accordingly
- Freeze detection prevents irrigation when temperatures approach freezing
- Smart bypass overrides the sensor for a user-defined length of time (especially useful during system winterization)
- If the sensor is tripped while the irrigation controller is in the middle of a watering program, the optional "Cycle Delay" feature ensures all subsequent zones in the irrigation program have a chance to get watered before the sensor halts watering
- Multi-color LED on the sensor probe indicates radio signal strength
- Sensor probe's ultra-slim 3/4" profile allows it to avoid being damaged by mowing equipment
- Extra long stainless-steel electrodes measure over 4 inches down into the soil profile
- Sensor probe's support stakes hold sensor firmly in place when installed
- Easily replaceable batteries last up to 2 years with alkaline batteries (longer with lithium)

## Warranty

- Two years



## Easy Installation



1. Hook up the receiver to your irrigation controller

2. Install the batteries to power up the sensor probe



3. Place the probe in the ground

Visit [www.ecextra.com](http://www.ecextra.com) to download free software to help optimize your irrigation controller's schedule for the Precision Soil Sensor.

## Specifying Information— Toro Precision Soil Sensor

Model	Description
PSS-KIT	Precision Soil Sensor (Probe + Receiver)

