



## Precision™ Soil Sensor Quick Start Guide

The Quick Start Guide provides just the essential information needed to properly install and set up the Precision Soil Sensor.

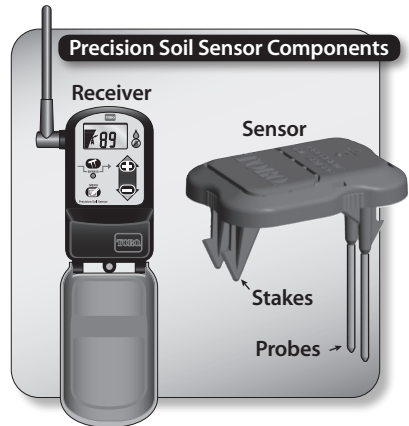
**!** *For complete information, download your Precision Soil Sensor User's Guide at: [www.toro.com](http://www.toro.com).*

A small Phillips screwdriver and three AA alkaline batteries are the only extra items required to complete the installation and setup procedure.

The Precision Soil Sensor can be installed in just three easy steps:

- Step 1 - Install and Connect the Receiver ..... p. 2**
- Step 2 - Select the Right Sensor Site ..... p. 3**
- Step 3 - Install the Sensor and Adjust Your Timer .... p. 4**

**!** *The Precision Soil Sensor is designed to help maintain healthy landscape plants while reducing water use by allowing watering only when it is needed. To gain the full benefit from your Precision Soil Sensor, it is very important to make sure your automatic sprinkler system is properly installed and in good working order.*



## Step 1 - Install and Connect the Receiver

1. Attach the receiver next to your control timer using two stainless steel screws provided (Fig. 1). Where appropriate, foam tape (provided) can be used to attach the receiver.

**⚠ Warning:** Disconnect 24 VAC power to timer before connecting receiver. DO NOT connect receiver to 110 VAC (house current).

2. Route the receiver cable into the timer cabinet.

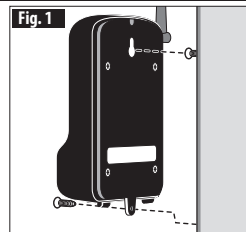
**Note:** Refer to your timer's users guide for specific information regarding sensor connection and Sensor Bypass switch function.

3. Connect the receiver per the applicable wiring diagram (Fig. 2a or 2b).

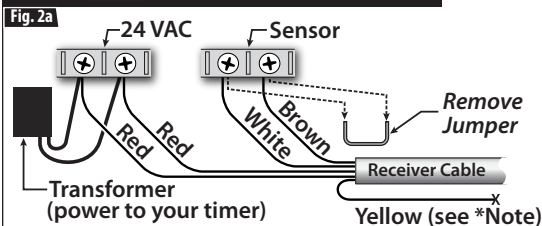
**\*Note:** For a Normally Open sensor application, connect the Yellow wire in place of the Brown wire.

4. Apply power to your timer.

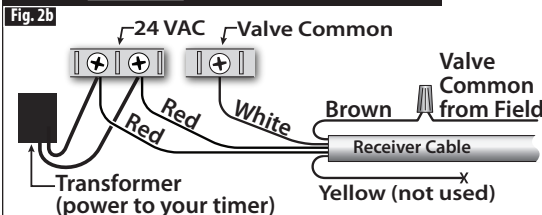
**Note:** The receiver will appear as shown when power is first applied. If the display and LED are not on, check the Red wire connections.



### Timer *with* Sensor Terminals



### Timer *without* Sensor Terminals

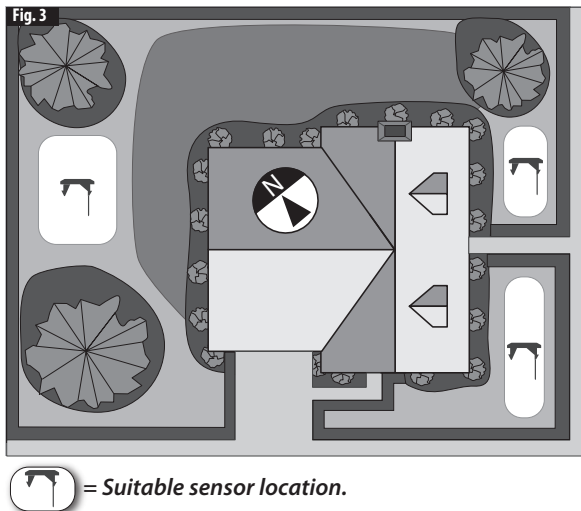


## Step 2– Select the Right Sensor Site

**Note:** Choosing the right location to place the sensor is very important for the overall effectiveness of the Precision Soil Sensor system.

The illustration in **Figure 3** below depicts a typical residential landscape. The areas indicated in white may be suitable for the sensor, since they provide the most direct sunlight throughout the day. Of these areas, install the sensor in the site that best meets the following qualifications:


- Within receiver communication range (up to 500' line-of-sight).
- Represents the over-all soil composition and condition.
- The highest elevation in the area.
- Is at least 4' away from a roof overhang, downspout, walkway, driveway or sprinkler.
- Not contacted by overspray from a bordering watering zone.
- Not in a footpath or specified play area.



## Step 3– Install the Sensor and Adjust Your Timer


1. Locate and remove the sensor battery compartment cover.
2. Insert three AA alkaline batteries as shown. Install battery compartment cover (Fig. 4).

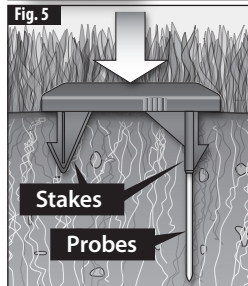
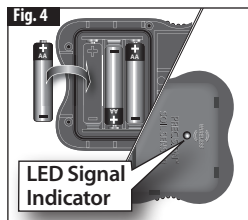
**Note:** The LED signal indicator on top of the sensor will be on for several minutes to assist in sensor placement.

3. With the sensor at the selected site, verify signal strength, indicated by the sensor LED color: **Green** - Excellent, **Yellow** - Acceptable, **Red** (blinking) - Relocate the sensor.
4. Holding the sensor parallel to the ground, push the probes and stakes straight down through the lawn into the soil until the sensor is pressed flat against the ground (Fig. 5).
5. At the receiver, press the **Bypass**  button once. The green LED will begin blinking and the receiver will display “CA” as it begins the automatic 24–48-hour calibration operation (Fig. 6).

### 6. Adjust your sprinkler control timer:

- Set the watering day schedule to water every day of the week (except watering-restricted days).
- Set the run time duration used during the summer months.
- Run a manual watering operation to water all zones.

 **This completes basic installation and setup. For complete information, be sure to download your Precision Soil Sensor User's Guide at: [www.toro.com](http://www.toro.com).**



**Note:** 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. For complete FCC compliance rules, see Precision Soil Sensor User's Guide, form number 373-0604.