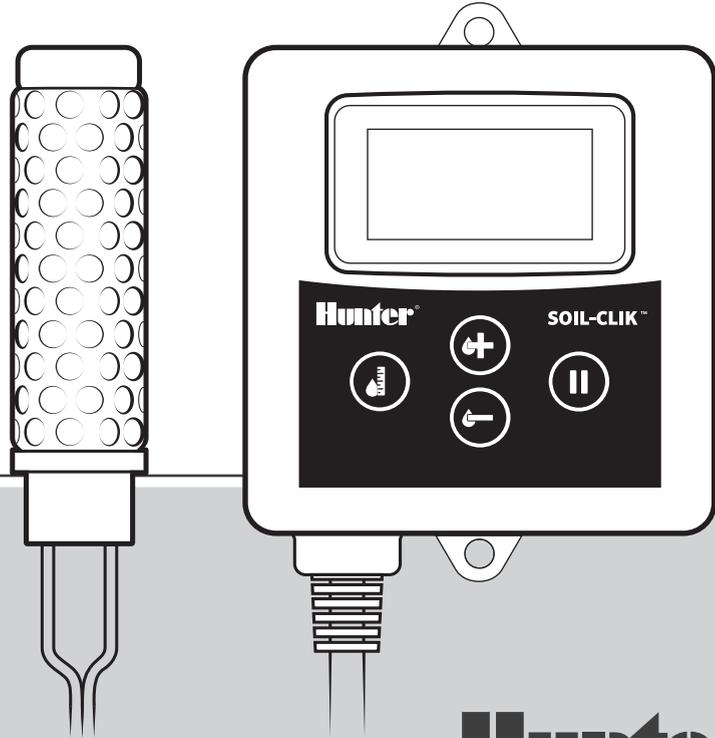


Soil-Clik[®]

OWNER'S MANUAL



Soil Moisture Sensor

Wired Soil-Clik Module and Probe

Sensor for Compatible Hunter Controllers

Hunter[®]

Soil-Clik is a soil moisture system that prevents overwatering when the soil is wet. Soil-Clik is designed for use with Hunter controllers that have normally closed smart sensor inputs, or with any AC-powered control system by interrupting the common wire to the valves.

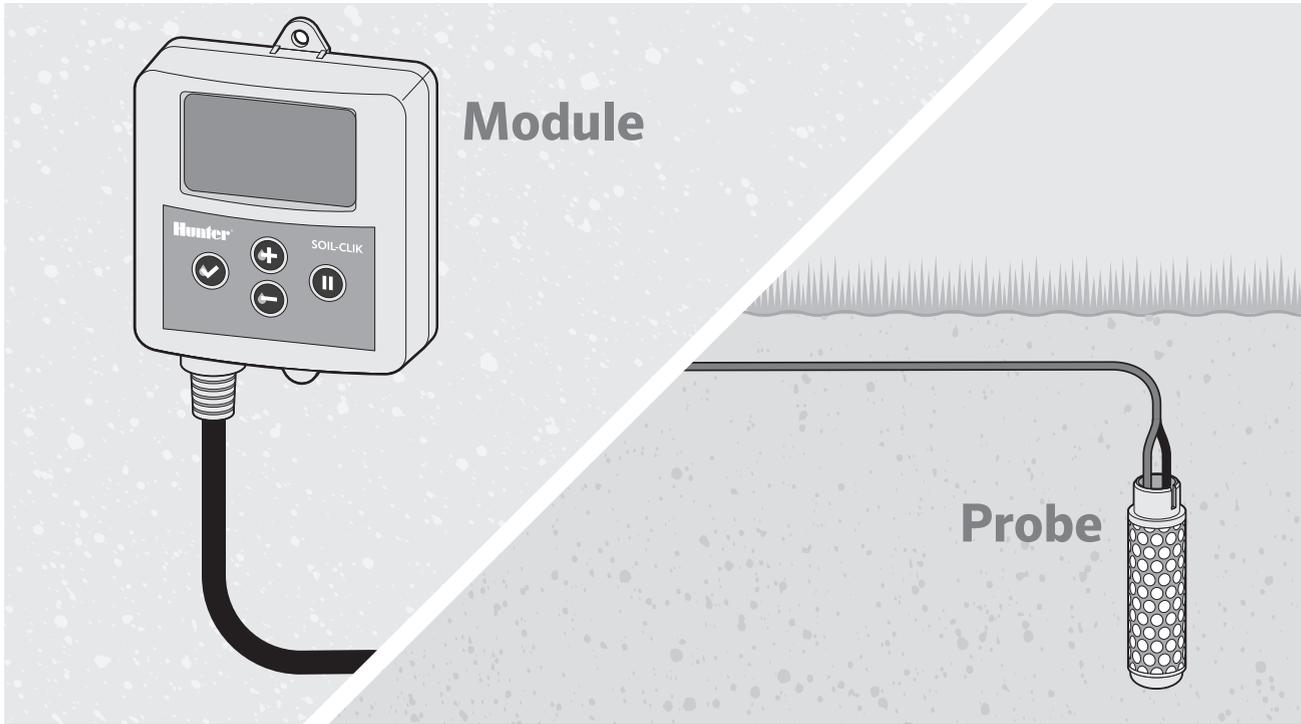


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Installation

Choosing the Probe Location

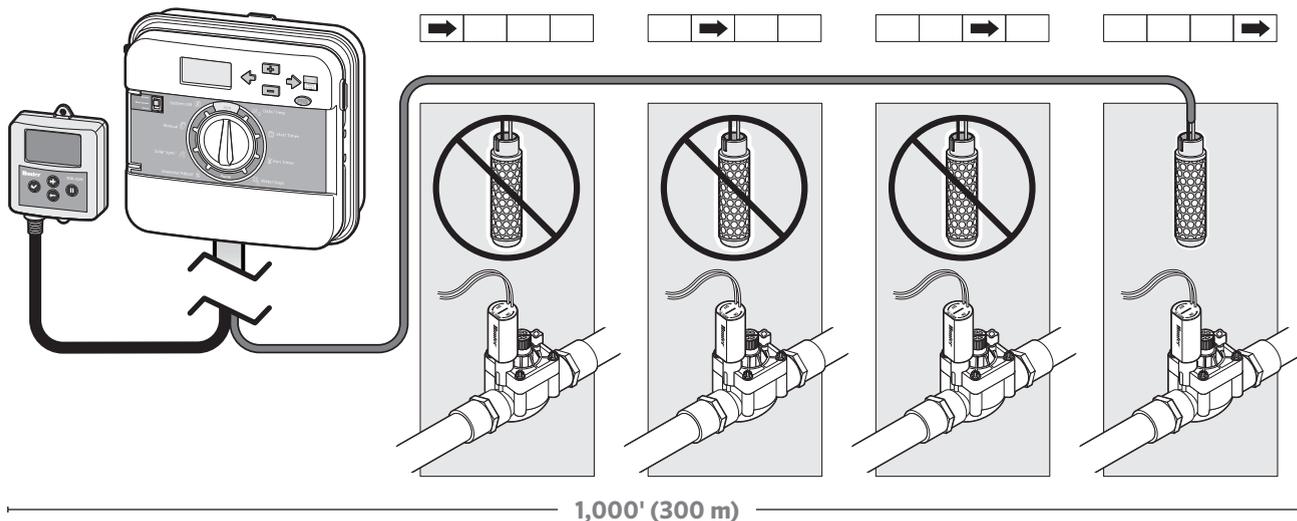
The moisture-sensing Soil-Clik probe must be installed within 1,000' (300 m) of the Soil-Clik module, using 18 AWG (1 mm²) direct burial (UF) wire.



Choose a zone with full sun exposure that is in the fastest-drying area of the landscape. If necessary, move valve wires so that this is the last (highest-numbered) station to water.

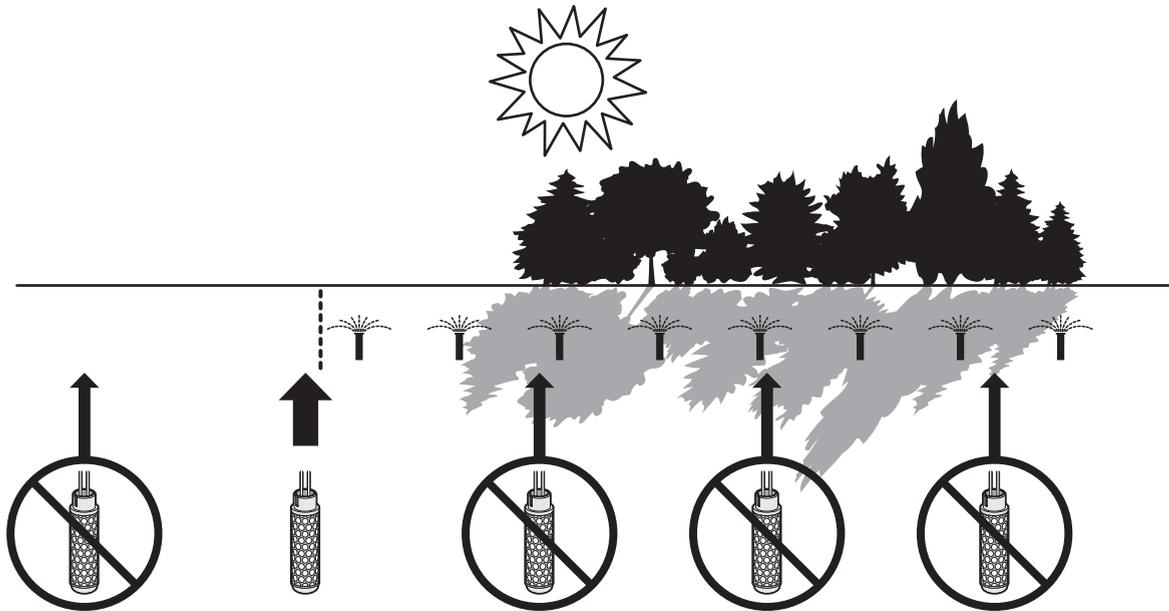
Choosing the Zone

Install the probe within the last typical zone to irrigate, so that normal irrigation will not interrupt watering prematurely.



Choosing the Exact Spot

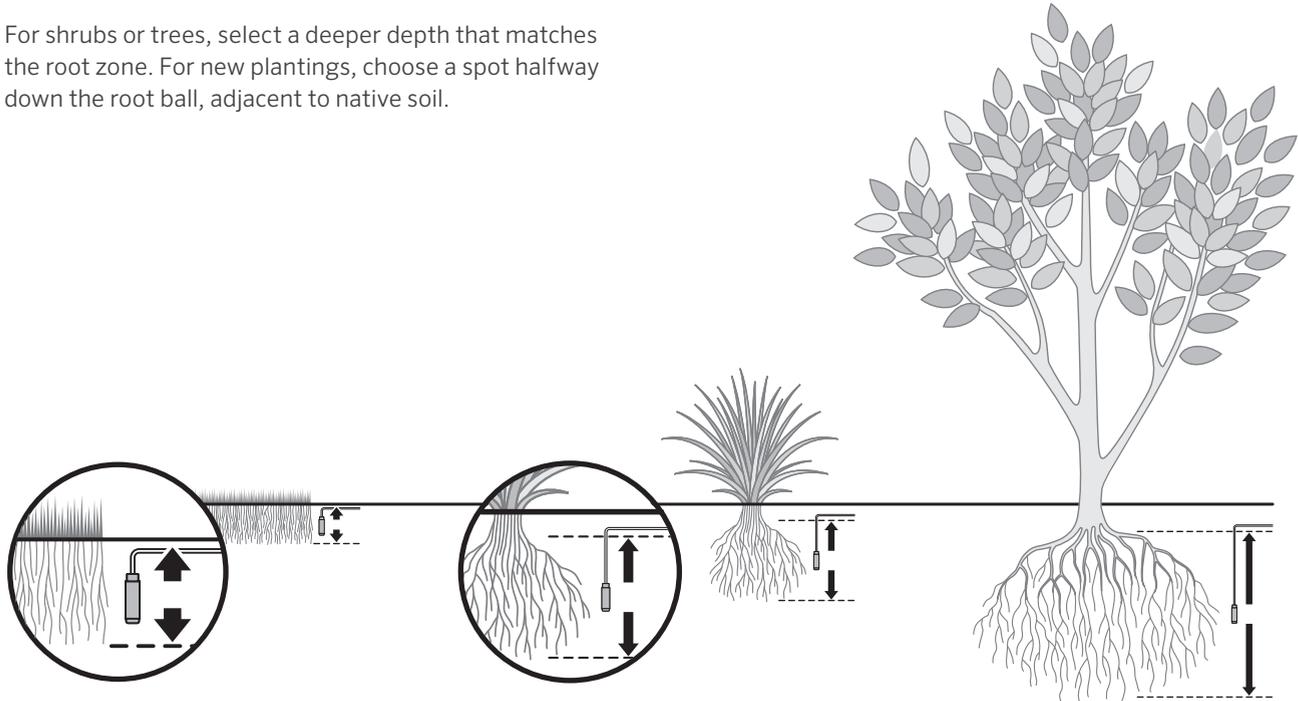
Select an area with full sun exposure that represents the fastest-drying irrigated area.



Place in the Root Zone

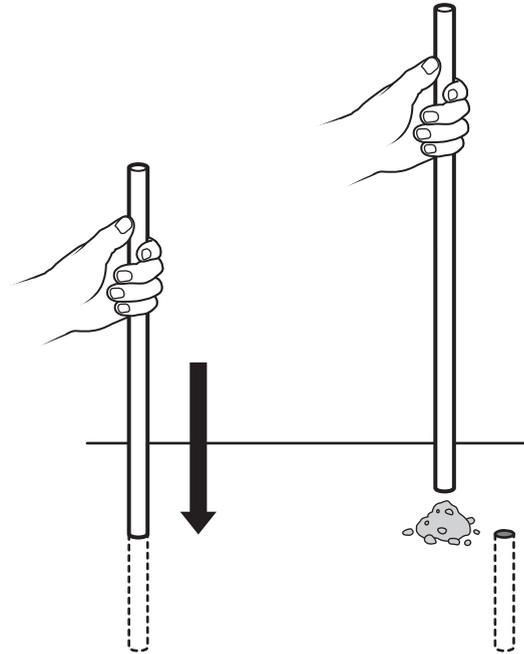
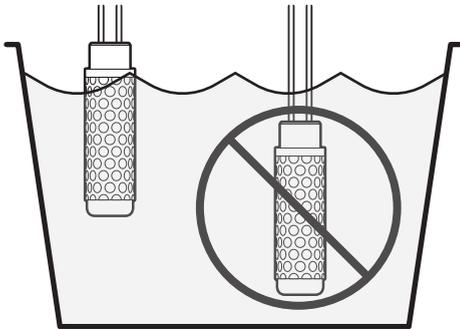
In turf applications, the probe should be placed in the root zone, approximately 6" (15 cm) deep (adjust for actual turf conditions).

For shrubs or trees, select a deeper depth that matches the root zone. For new plantings, choose a spot halfway down the root ball, adjacent to native soil.



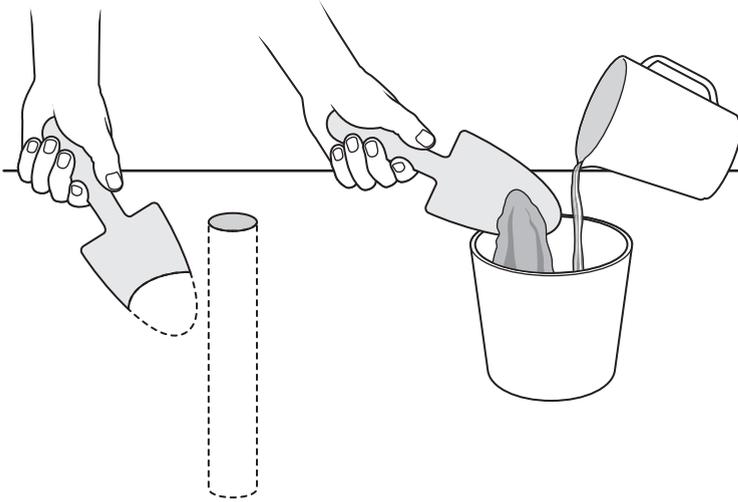
Installing the Probe

1. Soak the lower two-thirds of the probe for 30 minutes before installing. Do not allow water to cover the top cap where the wires are connected.
2. Use $\frac{1}{2}$ " (12 mm) PVC pipe to make a vertical hole to desired depth in the soil (outside diameter $\frac{7}{8}$ " (22 mm)).

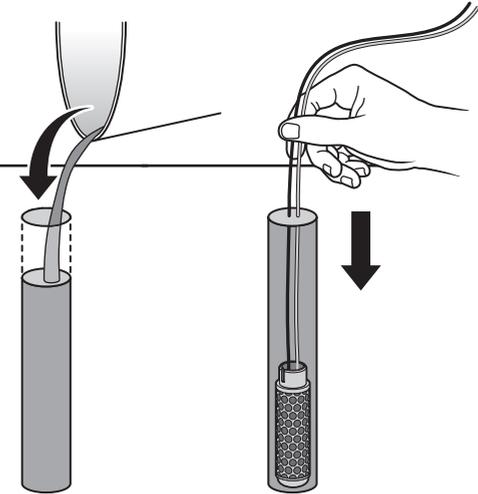


Installing the Probe (continued)

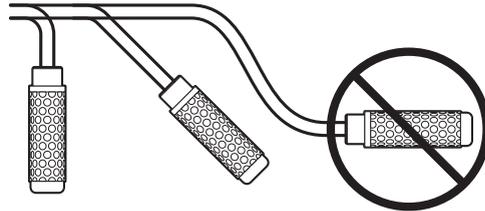
3. Mix a slurry of native soil and water, and pour it into the hole.



4. Place the sensor in a vertical position (do not tilt it more than 45°) at the bottom of the hole.

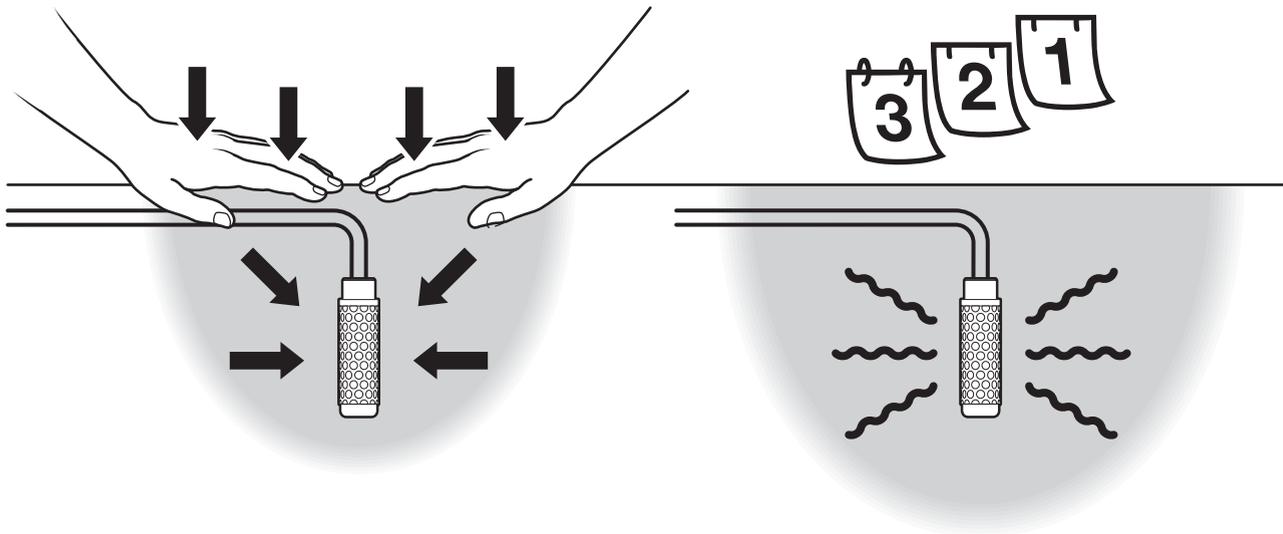


Do not install the probe horizontally!



Installing the Probe (continued)

5. Pack native soil tightly around the probe. Soil must be in full contact with the probe.
6. Allow the probe to acclimate for two to three days and water normally, before proceeding to sensor-based irrigation.



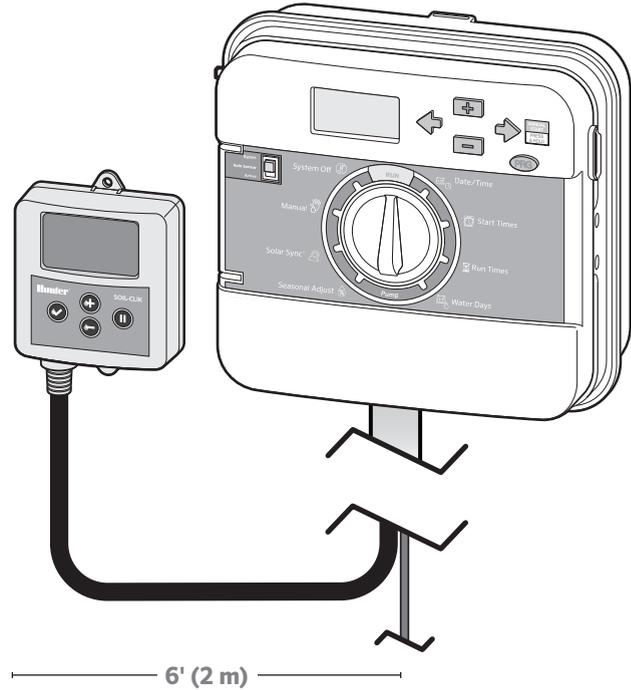
Choosing the Module Location

The Soil-Clik module is designed for outdoor installation when necessary. However, electronics will benefit from a protected location when practical.

An indoor location, or inside the controller enclosure (ACC, ACC2, I-Core) is recommended. If the module must be outdoors, place it away from direct sunlight and sprinkler spray for best results. Avoid placing the module near electrical boxes and sources of electrical interference.



Mount within 6' (2 m) of the host controller.



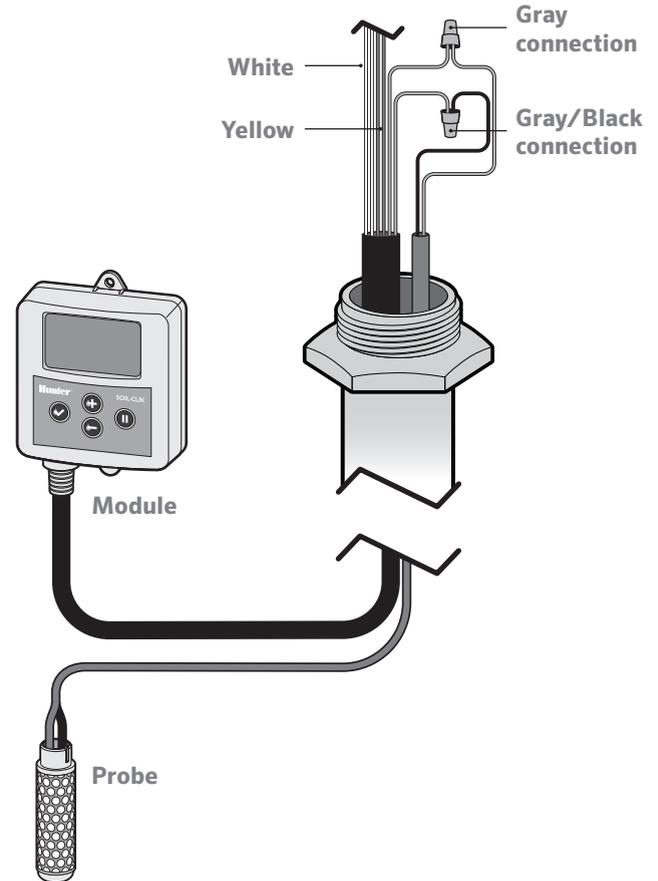
Connecting the Probe to the Module

Use only 18 AWG (1 mm²) or larger direct burial rated wire, up to 1000' (300 m) from the module.

Connect the gray/black probe wires to the two gray module wires with waterproof connections (polarity is not important in this system).



Avoid high-voltage lines or other sources of electrical interference.



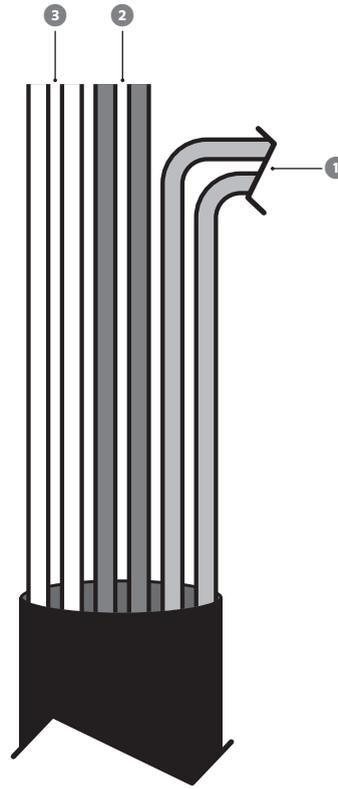
Connecting the Module to Hunter Products

Overview

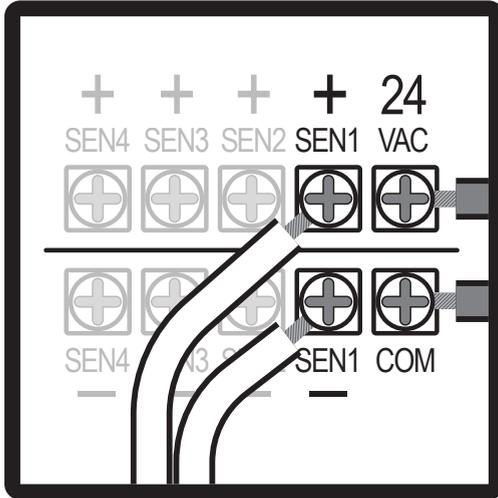
- 1. Gray Wires:** Connection to Soil-Clik probe
- 2. Yellow Wires:** Soil-Clik module power, requires 24 VAC power (100 mA max)
- 3. White Wires:** Module output, to Hunter controller sensor input, or to interrupt 24 V common wiring to field

Route all wires through low-voltage conduit hole in the controller enclosure. Make all external connections with waterproof connectors.

! Do not connect the Soil-Clik to high-voltage (120/230 VAC) wiring!

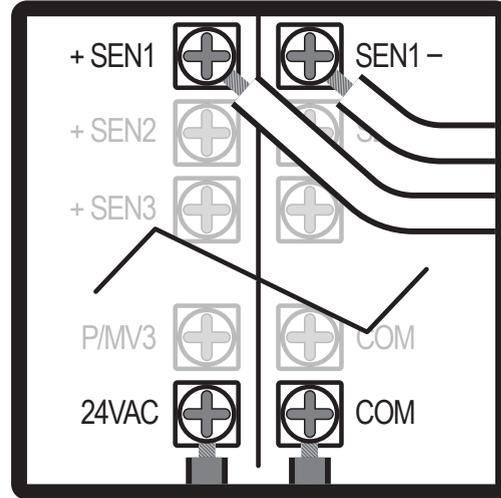


ACC



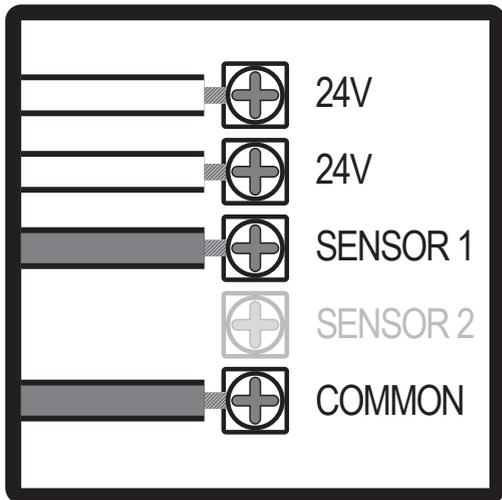
1. Yellow power wires to the ACC **24 VAC** and **COM** common power terminals
2. White wires to **SEN** sensor + and - terminals
3. Or use the Common Interrupt method on **page 18**

ACC2



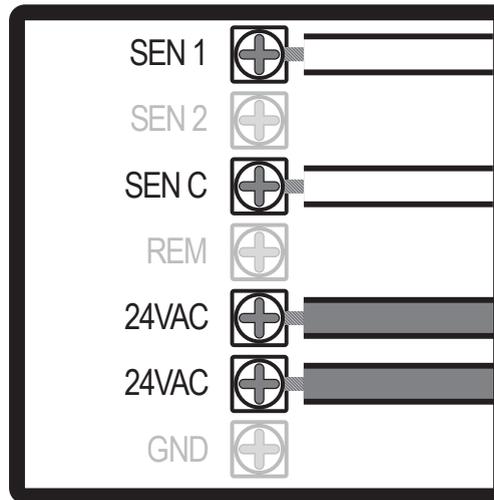
1. Yellow power wires to the ACC2 **24VAC** and **COM** common power terminals
2. White wires to **SEN** sensor + and - terminals
3. Or use the Common Interrupt method on **page 18**

HC



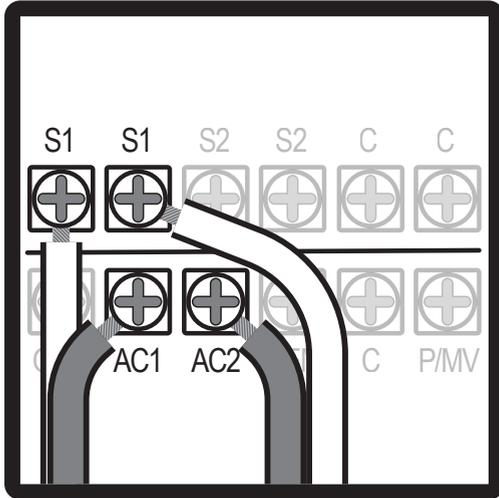
1. Yellow power wires to the HC **24V** power terminals
2. White wires to the **SENSOR** and sensor **COMMON** terminals
3. Or use the Common Interrupt method on **page 18**

HCC



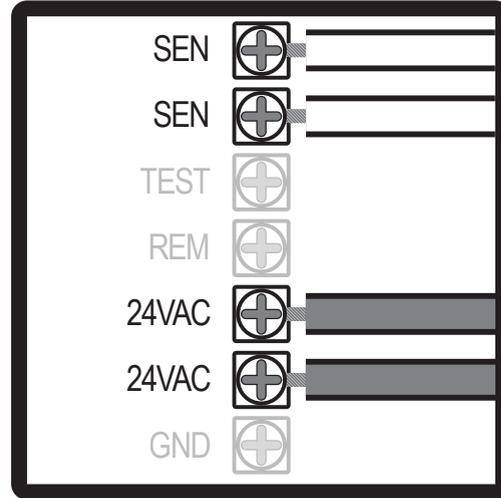
1. Yellow power wires to the HCC **24VAC** power terminals
2. White wires to the **SENSOR** and sensor **COMMON** terminals
3. Or use the Common Interrupt method on **page 18**

I-Core®



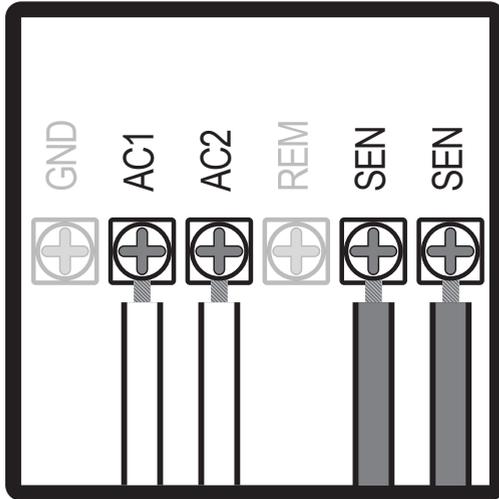
1. Yellow power wires to the I-Core **AC1** and **AC2** power terminals
2. White wires to **SEN** sensor terminals
3. Or use the Common Interrupt method on **page 18**

ICC2



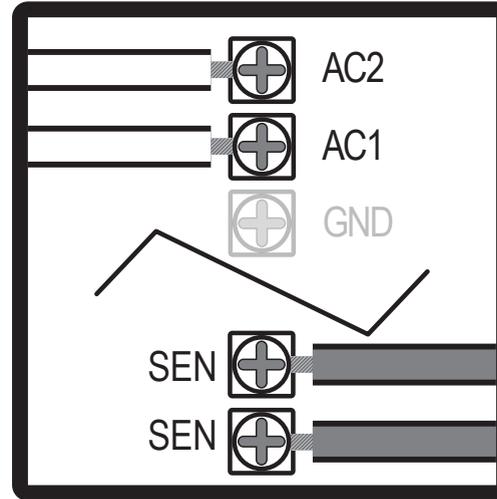
1. Yellow power wires to ICC2 **24VAC** power terminals
2. White wires to **SEN** sensor terminals
3. Or use the Common Interrupt method on **page 18**

PCC



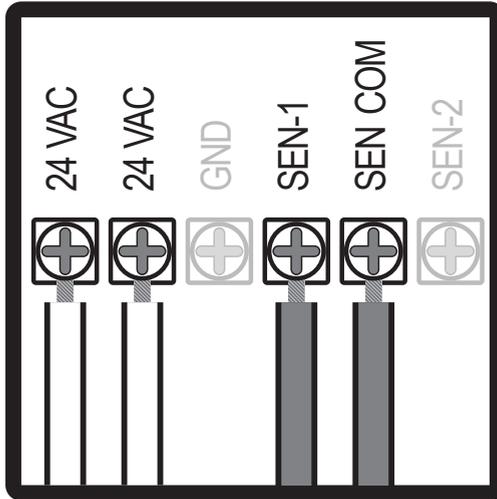
1. Yellow power wires to the PCC **AC1** and **AC2** power terminals
2. White wires to the **SEN** sensor terminals
3. Or use the Common Interrupt method on **page 18**

Pro-C®



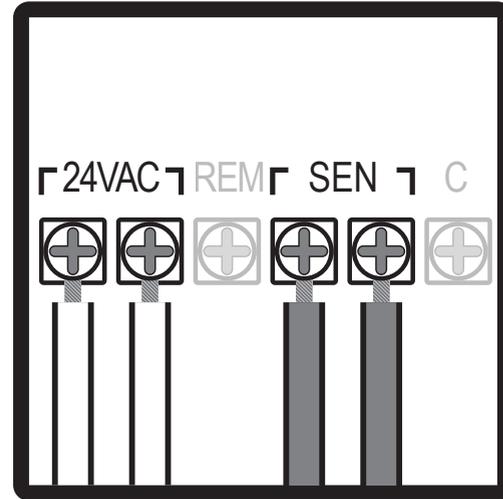
1. Yellow power wires to the Pro-C **AC1** and **AC2** power terminals
2. White wires to the **SEN** sensor terminals
3. Or use the Common Interrupt method on **page 18**

Pro-HC

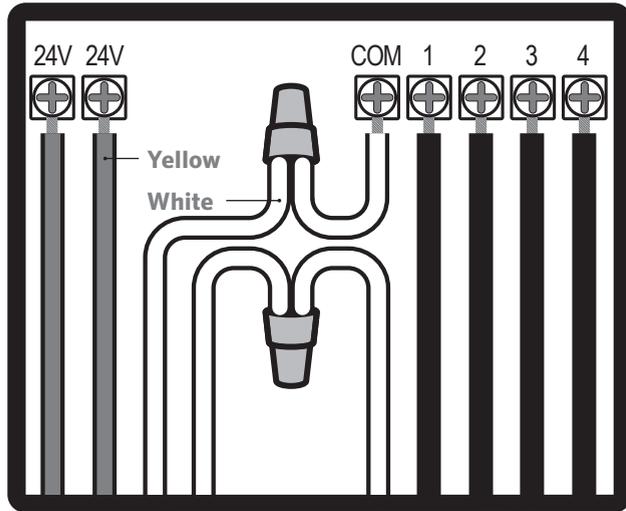


1. Yellow power wires to the Pro-HC **24VAC** power terminals
2. White wires to the **SEN** sensor and **SEN COM** common terminals
3. Or use the Common Interrupt method on **page 18**

X-Core®

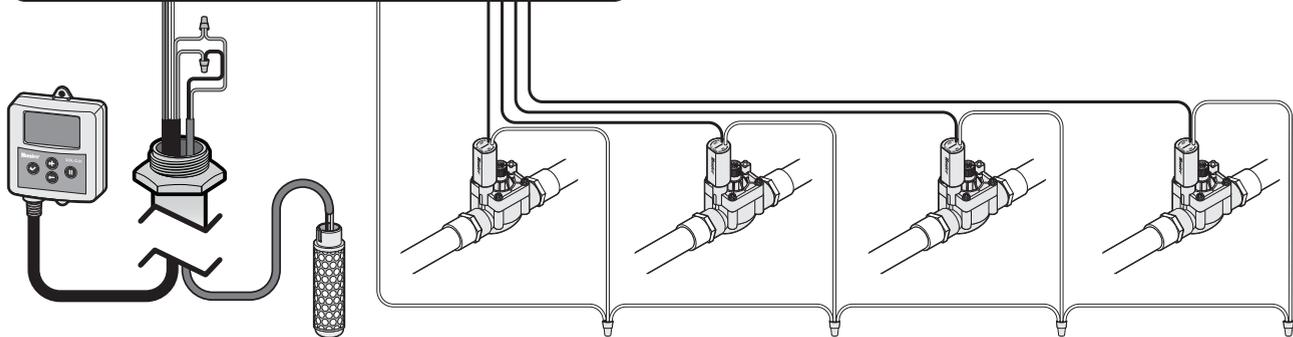


1. Yellow power wires to the X-Core **24VAC** power terminals
2. White wires to the **SEN** sensor terminals
3. Or use the Common Interrupt method on **page 18**



Common Interrupt (Most AC-Powered Controllers)

1. Connect Yellow power wires to 24V power in the controller.
2. Cut field common wire(s), and splice one Soil-Clik white wire to each end of the common.



Using the Soil-Clik with Solar Sync®

Soil-Clik is ideal when installed together with Hunter Solar Sync. Solar Sync adjusts run times for weather conditions, and provides automatic rain and freeze shutdown. Soil-Clik prevents unnecessary watering when soil is still wet.

The following controllers have a single sensor terminal and the Soil-Clik should be installed using the Common Interrupt method shown on **page 18**.

- **ICC2, PCC, Pro-C, and X-Core**

1. Connect Solar Sync to controller sensor terminal, as described in the Solar Sync owner's manual.
2. Do not connect to SEN terminals if Solar-Sync is already installed.

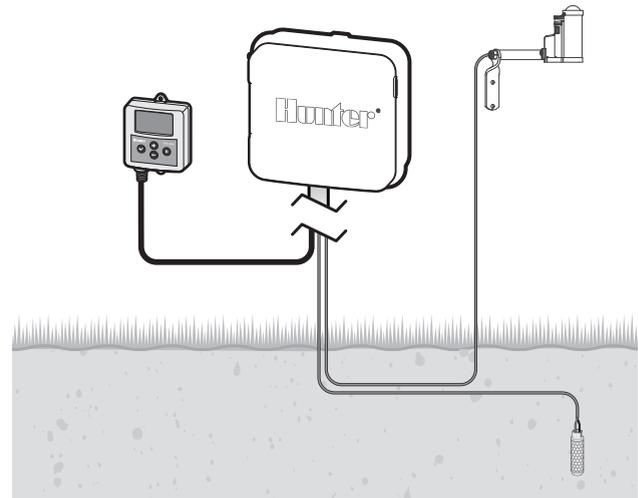
The following controllers have multiple sensor terminals and can accommodate more than one sensor. The Solar Sync and Soil-Clik can be installed by using either the conventional or Common Interrupt methods.

- **ACC, ACC2, HC, HCC, and I-Core**

1. Connect Solar Sync to controller sensor terminal, as described in the Solar Sync owner's manual.

Compatible with ACC version 5.0 and later

Compatible with I-Core version 3.0 and later



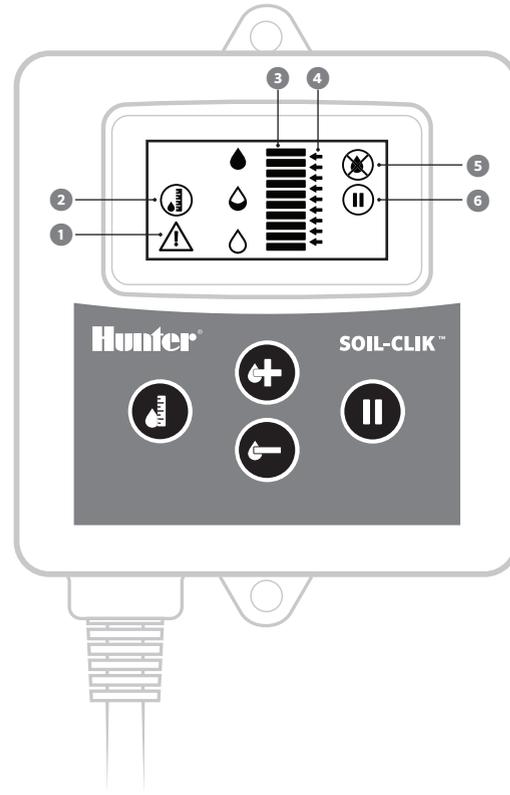
LED Screen Overview

Soil-Clik is used to set a desired moisture level. The level may be changed with the + and - buttons.

When the desired moisture has been reached, Soil-Clik will interrupt irrigation either through the controller's sensor input, or by "breaking" the common wire to the field.

LCD SCREEN

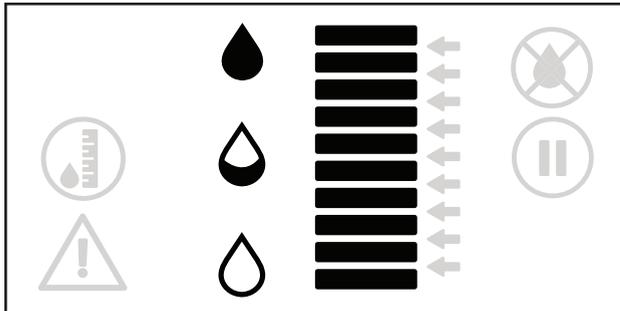
1	Alarm
2	Measurement
3	Moisture level
4	Moisture setting
5	Watering interrupted
6	Pause/override



Programming Moisture Levels

The bar steps in the display represent centibars of soil water tension on a scale of 10 to 100. High numbers indicate dry soil, or soil from which it is very difficult for plants to extract moisture.

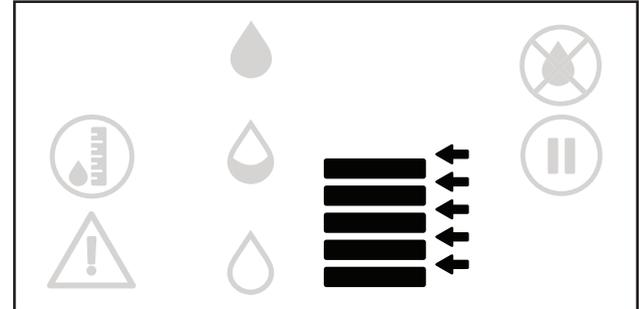
The level of the arrows indicates the point at which irrigation will be shut off.



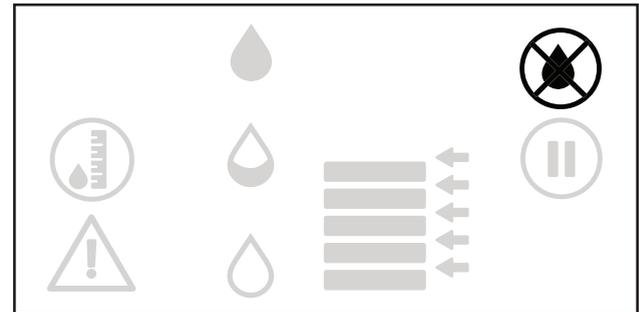
		0-10	Very wet
		10-30	Sand
		30-60	Silt and loam
		60-100	Clay
		100	Very dry

Start with a midrange setting based on the table or local experience.

Observe results, and adjust as needed. Press  to increase,  to decrease.



When the moisture level is reached, Soil-Clik stops the irrigation. This is shown by the  symbol.



Pausing Operation

Press **II** to override the Soil-Clik. It will allow the controller to water normally, even if the soil moisture level has been reached.

When it is in Pause mode, the Pause symbol is shown and the rest of the screen is blank.

Press **II** again to return to normal operation.

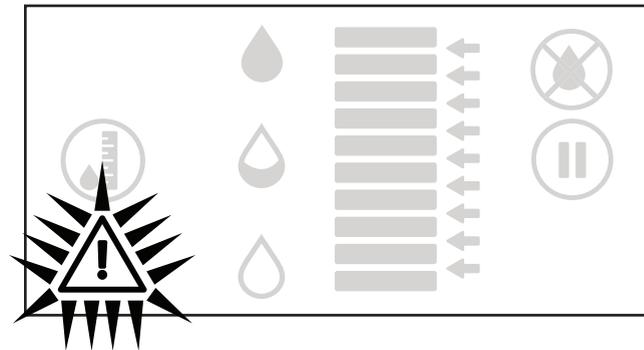
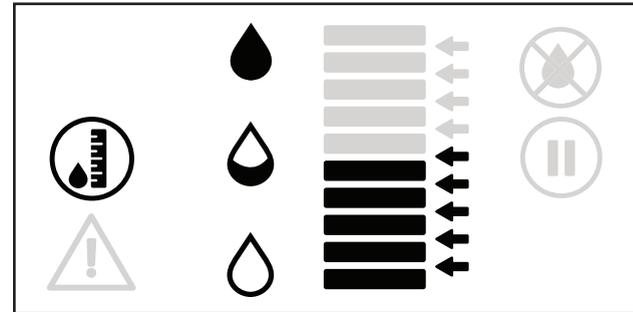


! **Pause does not pause watering. It overrides the Soil-Clik, and allows watering.**

Press **i** to update the moisture level reading. The Measurement icon will appear. An updated measurement (bars) will appear within 5 seconds.

Alarms

The Alarm symbol shows an internal malfunction. Replace the Soil-Clik Module if this occurs.



Problems, Causes, and Solutions

PROBLEM	CAUSE	SOLUTION
Plants are too dry	<ul style="list-style-type: none"> • Moisture level setting too low • Sensor in wrong location 	<ul style="list-style-type: none"> • Increase arrows (+ button) • Move sensor or valve wires; sensor must be in last zone to water
Plants are too wet	<ul style="list-style-type: none"> • Moisture level setting too high • Sensor in wrong location • Pause mode has been set 	<ul style="list-style-type: none"> • Decrease arrows (- button) • Move sensor to a sunnier location • Turn off Pause
Moisture level seems incorrect	<ul style="list-style-type: none"> • Incorrect sensor installation/placement 	<ul style="list-style-type: none"> • Ensure full soil contact with sensor • Check sensor wiring
Moisture always at max or minimum	<ul style="list-style-type: none"> • Failed sensor 	<ul style="list-style-type: none"> • Use handheld sensor meter to verify operation
Alarm symbol is displayed	<ul style="list-style-type: none"> • Module failure 	<ul style="list-style-type: none"> • Replace module (part no. SC-MOD)
Module display is blank	<ul style="list-style-type: none"> • Power failure 	<ul style="list-style-type: none"> • Check power connection to host controller

For more detailed information, application notes, or assistance, please visit us at www.hunterindustries.com.

Controller Compatibility

The Soil-Clik is designed for use with Hunter ACC, ACC2, HC, HCC, I-Core, ICC2, PCC, Pro-C, Pro-HC, and X-Core controllers.

Dimensions

Module:

- 4½" H x 3½" W x 1¼" D (11.4 cm H x 8.9 cm W x 3.2 cm D)

Probe:

- 2¼" H x 7⁄8" Dia (8.25 cm H x 2.22 cm Dia)

Wire to probe:

- 1,000' (300 m) max, 18 AWG (1 mm²) direct burial wire

FCC Notice

This device complies with FCC rules Part 15. 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.

This equipment has been tested and found to comply with the limits for class B digital devices, 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 on and off, 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 the receiver
- Connect the equipment to 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

The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

Certificate of Conformity to European Directives

Hunter Industries hereby declares that this remote control device is in compliance with the essential requirements and other relevant provisions of Directive 2014/30/EU.

Declaration of Conformity: We, Hunter Industries Incorporated, 1940 Diamond Street, San Marcos, CA 92078, declare under our own responsibility that the Soil Klik, to which this declaration refers, conforms with the relevant standards: EN 61000-6-1 and EN 61000-6-3.



A handwritten signature in black ink that reads "Andrew J. Bera". The signature is written in a cursive, flowing style.

Andrew Bera, Senior Regulatory Compliance Engineer

Place	San Marcos, CA
Date	May 1, 2018

Helping our customers succeed is what drives us. While our passion for innovation and engineering is built into everything we do, it is our commitment to exceptional support that we hope will keep you in the Hunter family of customers for years to come.

A handwritten signature in black ink, appearing to read 'G. R. Hunter', with a long horizontal flourish extending to the right.

Gregory R. Hunter, CEO of Hunter Industries

RESIDENTIAL AND COMMERCIAL IRRIGATION | *Built on Innovation*[®]
Hunter Industries Incorporated
1940 Diamond Street, San Marcos, California 92078, USA
www.hunterindustries.com