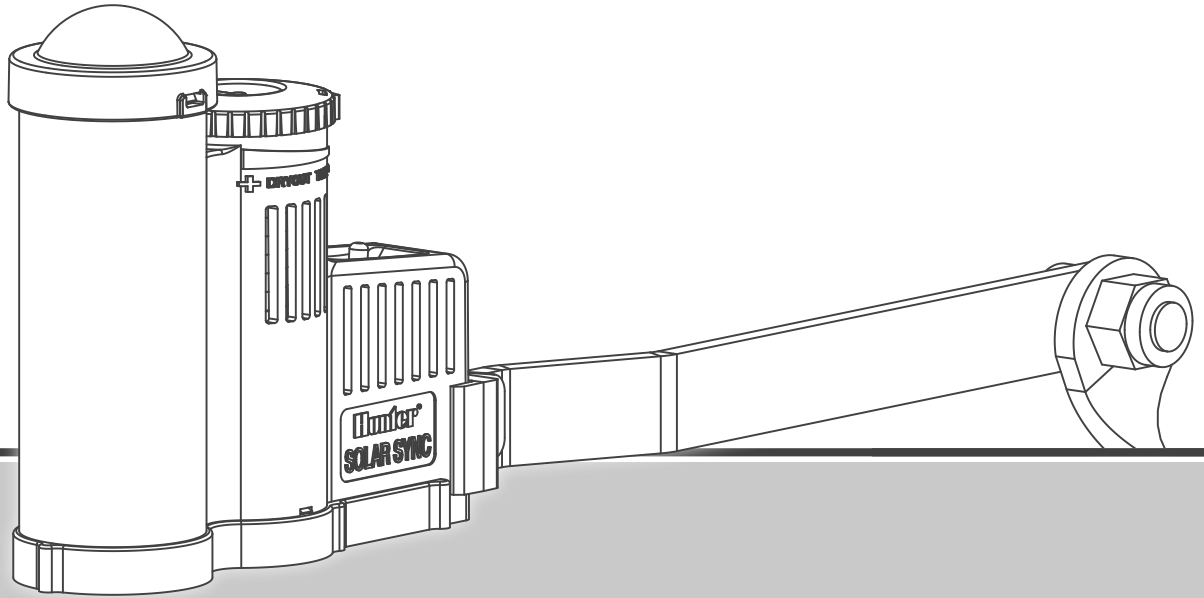
SOLAR SYNC Sensor

Solar Sensor for Compatible Hunter Controllers



Installation Instructions

Hunter®

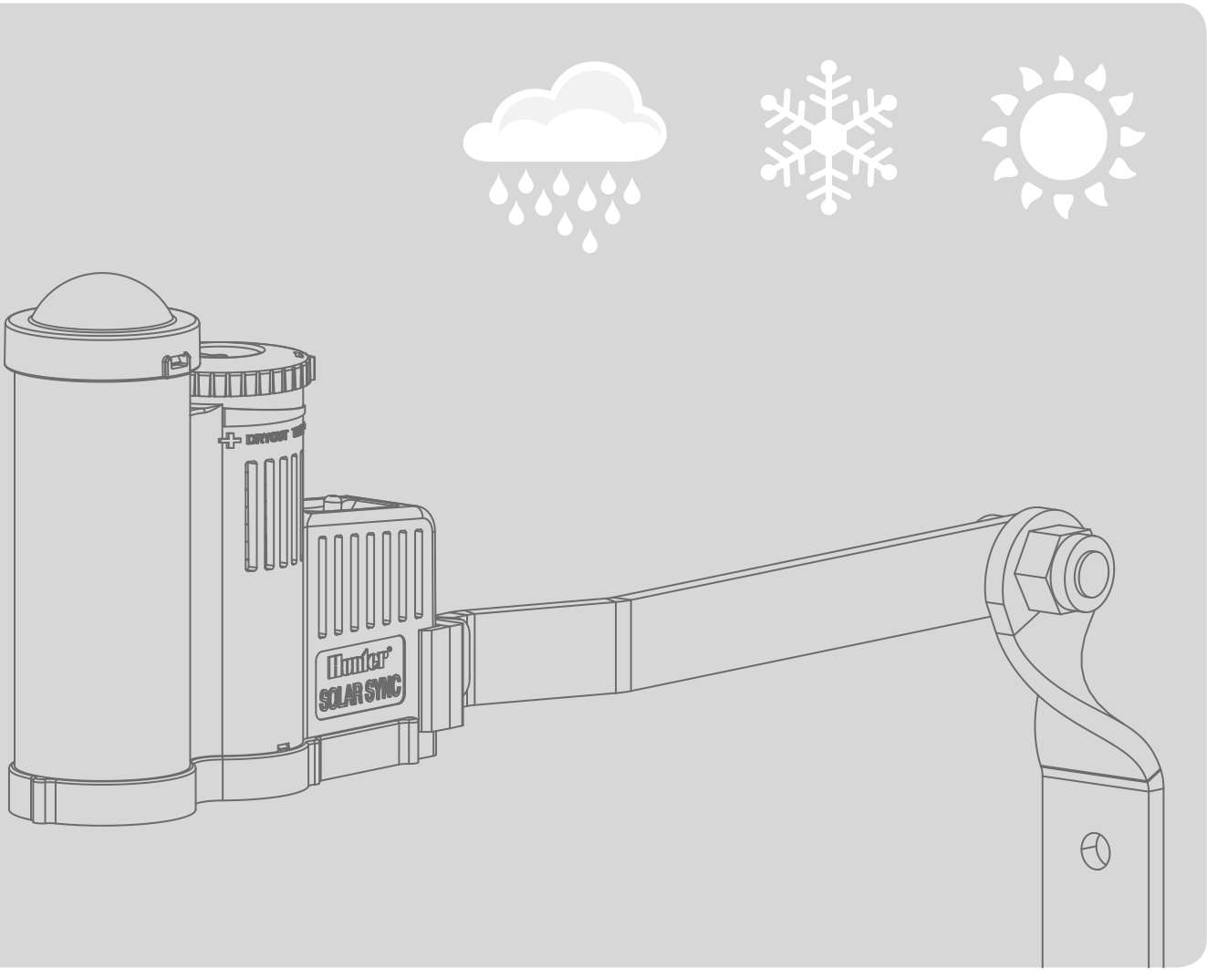

Hunter
SOLAR SYNC

TABLE OF CONTENTS

INTRODUCTION

The Solar Sync is a sensor system that, when connected to a compatible Hunter controller, will automatically adjust your controller watering based upon changes in local climate conditions. The Solar Sync utilizes a solar and temperature sensor to measure on-site weather conditions used to determine evapotranspiration (ET), or the rate at which plants and turf use water. In addition, the Solar Sync sensor includes a Hunter Rain-Clik™ and Freeze-Clik® sensor that will shut down your irrigation system when it rains and/or during freezing conditions.

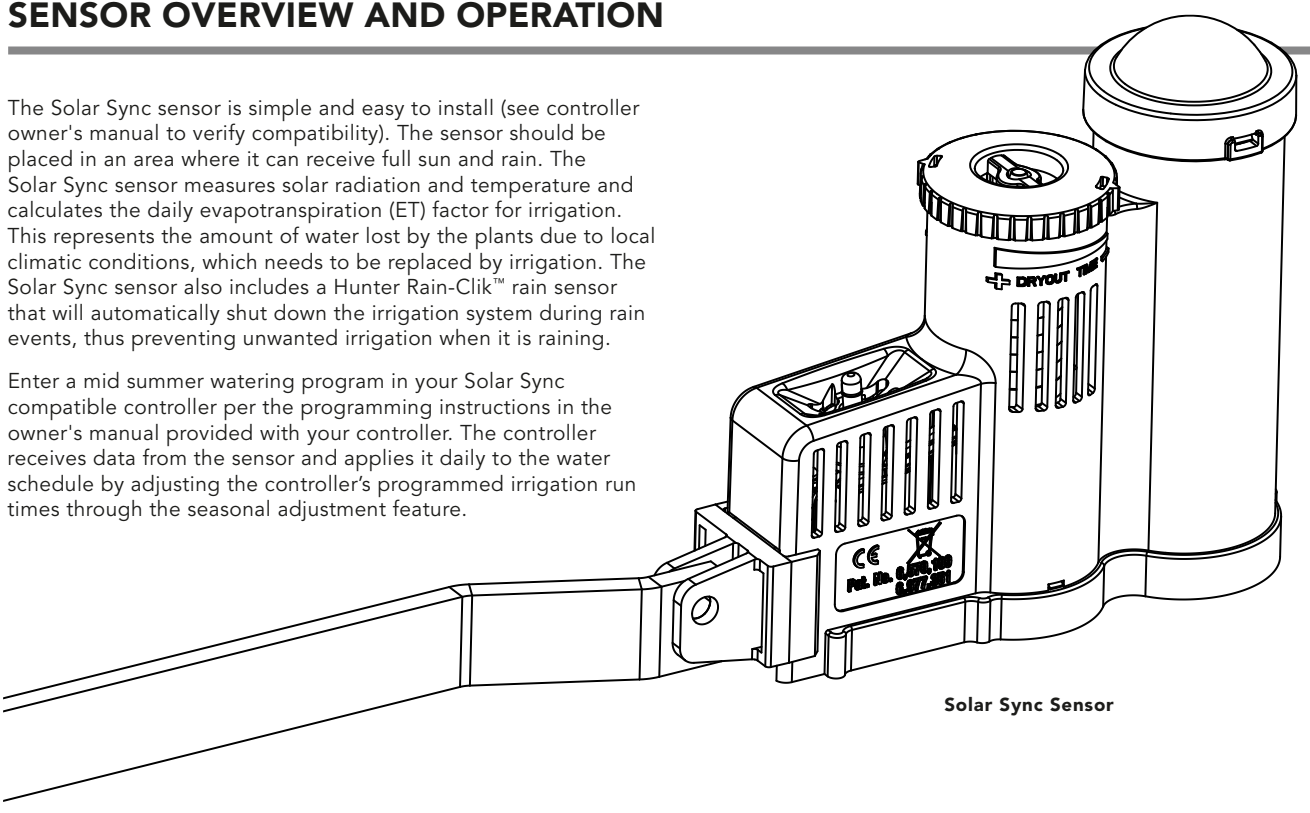
The sensor is connected to the controller and will automatically increase or decrease watering run times based on changes in weather. The result is a new water-efficient irrigation product that promotes water conservation and healthier plants. You simply program your controller like you normally would, and the Solar Sync takes over from there, eliminating the need to manually adjust your watering schedule.

Note: This Solar Sync sensor is for use with Hunter controllers that have the Solar Sync software built in. If you are using a Pro-C, ICC, or I-Core controller the Solar Sync Kit should be used instead, which includes the necessary programming module.

SENSOR OVERVIEW AND OPERATION

The Solar Sync sensor is simple and easy to install (see controller owner's manual to verify compatibility). The sensor should be placed in an area where it can receive full sun and rain. The Solar Sync sensor measures solar radiation and temperature and calculates the daily evapotranspiration (ET) factor for irrigation. This represents the amount of water lost by the plants due to local climatic conditions, which needs to be replaced by irrigation. The Solar Sync sensor also includes a Hunter Rain-Clik™ rain sensor that will automatically shut down the irrigation system during rain events, thus preventing unwanted irrigation when it is raining.

Enter a mid summer watering program in your Solar Sync compatible controller per the programming instructions in the owner's manual provided with your controller. The controller receives data from the sensor and applies it daily to the water schedule by adjusting the controller's programmed irrigation run times through the seasonal adjustment feature.



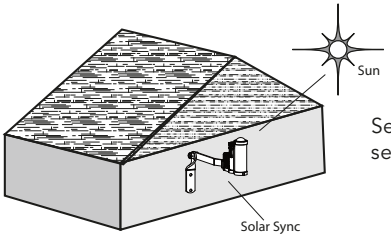
Solar Sync Sensor

SENSOR INSTALLATION

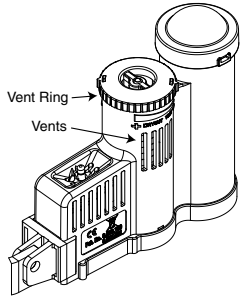
Installing the Sensor

Using the screws provided, mount the Solar Sync sensor on any surface where it will be exposed to unobstructed sun and rainfall, but not in the path of sprinkler spray. The sensor needs to be oriented upright and the swivel bracket can be moved for mounting on angled surfaces. Loosen the locknut and screw before swiveling the bracket and then retighten. The Solar Sync sensor is supplied with 40 ft./12 m of wire. However, additional wire can be added to the sensor up to a maximum of 200 ft./60 m (18 AWG/1 mm diameter minimum).

Note: Place Solar Sync sensor where it can receive full sun.



See page 6 for wiring the sensor to your controller.



The Rain-Clik™ will keep the irrigation from starting or continuing during rainfall. No adjustment or calibration is required for the Rain-Clik™ sensor. The Rain-Clik™ uses patented Quick Response™ technology that will shut the system off during the first few minutes of rain. The only adjustment that is necessary is the vent ring that will either slow down or speed up the time at which the sensor dries out and the system is turned back on. Opening the vent will speed up the dry out time and closing the vents will slow down the dry out time.

In addition, the Solar Sync's built-in temperature sensor provides system shutdown when freezing conditions occur. At approximately 37 degrees Fahrenheit (3 °C) and below, the Solar Sync sensor will command the controller to shut down. A "sensor off" indication will be displayed on your controller when the sensor is active. When temperatures rise above 37 degrees Fahrenheit (3 °C), automatic irrigation will be activated.

SENSOR INSTALLATION

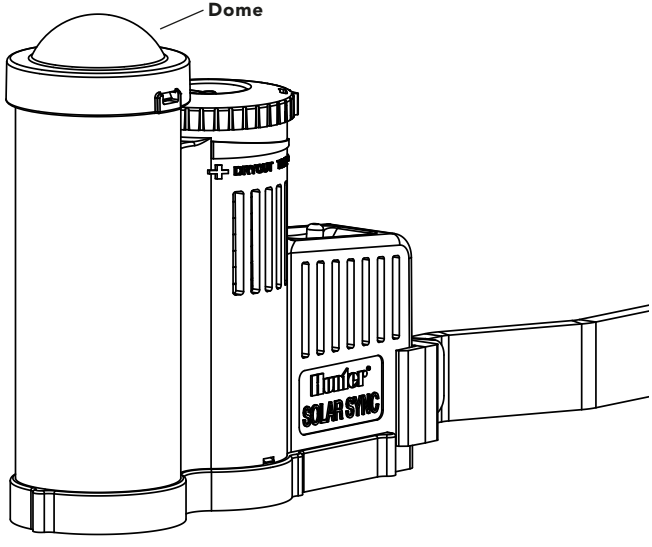
Maintaining the Sensor

The Solar Sync sensor is designed for outdoor use, but must be kept clean to function correctly. Wiping the clear dome covering the solar radiation sensor every 6 months is recommended. Do not use harsh chemicals or abrasives on the clear dome.

Bypassing the Sensor

If the rain sensor or freeze sensor is preventing system operation, **SENSOR OFF** will be displayed on the controller's display. Simply move the Bypass switch on the controller to **BYPASS** and the Solar Sync's rain and freeze sensor will be bypassed. This allows you to operate your system. The Solar Sync will continue to make adjustments to your controller's watering schedule.

The controller's rain sensor switch should be in the **ACTIVE** position for the rain sensor and freeze sensor to interrupt watering during rainy and/or freezing conditions.



PROGRAMMING YOUR CONTROLLER

Program your Solar Sync compatible Hunter controller as specified in the owner's manual. **When setting station run times, enter the time that would normally be programmed during the peak summer watering season.** The Solar Sync is designed to adjust all run times daily based upon on-site weather conditions. This is done through the seasonal adjustment feature on your controller. It is recommended that all programming be conducted with the controller Seasonal Adjustment set at 100%.

Note: Set station run times for peak summer watering with seasonal adjustment set at 100%.

Making Adjustments

After installing the Solar Sync sensor and programming your controller, it is recommended that you leave it a few days to gather sun and temperature data. If necessary, there are two ways to make adjustments:

- If your landscape is wetter or drier than it should be, the watering adjustment feature can be used to make global watering adjustments (see controller owner's manual).
- If you find an individual zone is wetter or drier than the rest of the site, simply increase or decrease the amount of run time entered in the controller for that station.

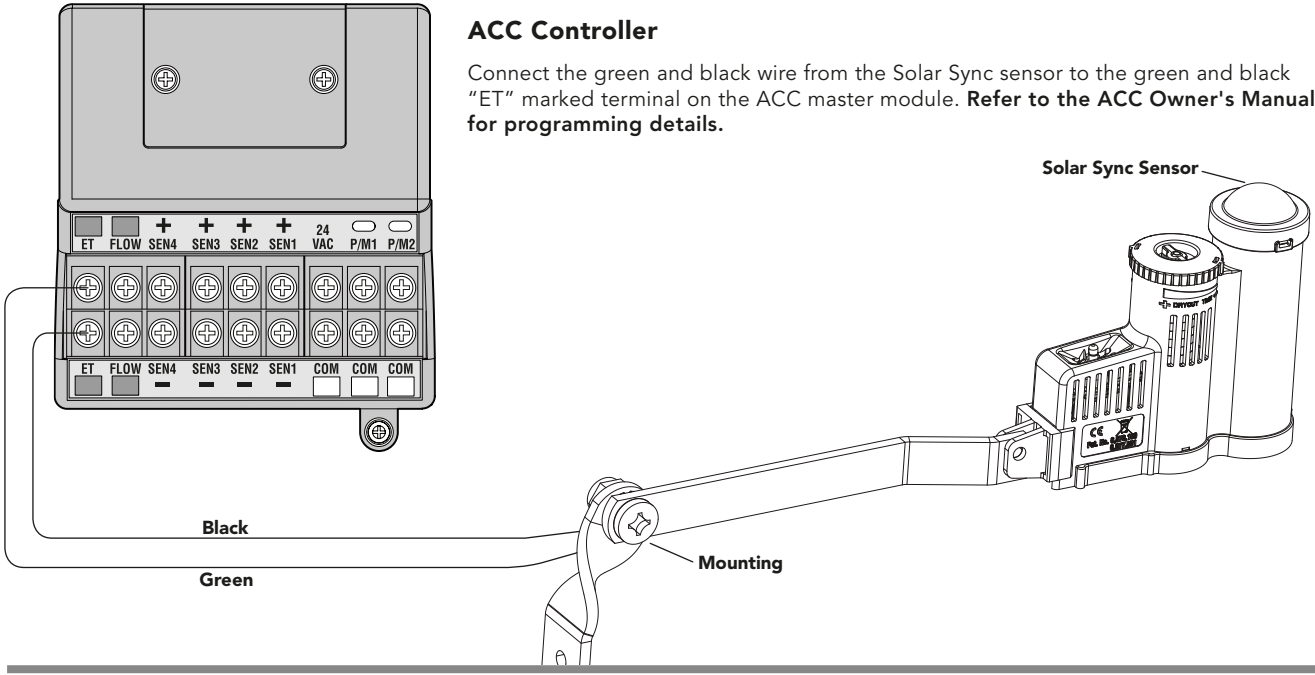
When making adjustments to program run times, make sure to reset the seasonal adjust valve to 100%. Solar Sync will make the appropriate adjustment automatically based on measured weather conditions.

CONNECTING SENSOR TO YOUR CONTROLLER

Sensor Installation

The Solar Sync sensor is for use with compatible Hunter controllers that have the Solar Sync software built in. If using a **Pro-C, ICC or I-Core** controller the Solar Sync Kit should instead be used, which includes the necessary programming module. Consult the controller owner's manual for more details.

The Solar Sync Sensor can also be used as a replacement sensor for an existing system already using Solar Sync.



ACC Controller

Connect the green and black wire from the Solar Sync sensor to the green and black "ET" marked terminal on the ACC master module. **Refer to the ACC Owner's Manual for programming details.**

SPECIFICATIONS / DIMENSIONS

Controller Compatibility

The Solar Sync sensor is designed for use with Hunter compatible controllers with built in Solar Sync software. See controller owner's manual for details.

Specifications

- Maximum distance from sensor to controller: 200 ft./60 m
- Wiring: 18 AWG/1 mm or 20 AWG/0.8 mm diameter minimum from the sensor to the module
- Approved for direct burial and sunlight exposure (UV)

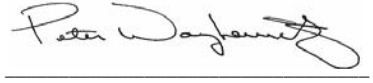
Dimensions

- Solar Sync Sensor: 3"H x 9"W x 1"D
  (7.6 cm x 22.9 cm x 2.5 cm)

CERTIFICATE OF CONFORMITY TO EUROPEAN DIRECTIVES

CE

Hunter Industries declares that the irrigation sensor Solar Sync complies with the standards of the European Directives of "electromagnetic compatibility" 87/336/EEC and "low voltage" 73/23/EEC.



Project Engineer

Hunter Industries Incorporated • The Irrigation Innovators
1940 Diamond Street • San Marcos, California 92078
www.hunterindustries.com

LIT-514 12/09