

EtherRain Rain Sensor Installation Guide

Introduction

The EtherRain Rain Sensor (ER-RD) is a small lightweight sensor that detects moisture. When the sensor is connected to an EtherRain controller and moisture is detected the sensor will signal EtherRain to stop irrigation.

This Rain Sensor holds moisture and so it will continue detecting moisture until well after a precipitation event has occurred. This sensor will continue blocking irrigation until the felt wick is dried out. The length of the drying time depends on surrounding temperature and humidity. The sensor was designed to mimic the drying properties of soil, to a certain extent.

When the Rain Sensor detects rain the yellow rain detect LED on EtherRain will illuminate. If the controller is running when the rain is detected the controller will halt within 5 minutes of rain detection or at the next zone change.

Sensor Location

Location of the sensor will affect its operation. If installed at a sunny location it will dry faster and will not hold the "rain" signal on as long. If installed at a damp location the wick will take longer to dry and the rain signal will be held on longer.

Care should be taken to install the sensor so that it does not catch early morning condensation as this might inadvertently block irrigation. If installed near a roof eave it is a good idea to ensure that the sensor extends at least an inch beyond any overhanging roofing material, to avoid condensation drip.

The sensor should be installed with the felt side up. The sensor can be installed level or pointed slightly up or down. It's better to install the sensor lower to the ground rather than higher.

Installation Procedure

Use solid 20 to 24 AWG wire (2/22 or equivalent) to connect the sensor to the controller.

- Step 1. Establish a Mounting Point for the Sensor
- Step 2. Scope out a path for the connecting wire
- Step 3. Run the wire. Use cable mounting clips to secure the wire.
- Step 4. Attach the extension wire to the Sensor (See Below)
- Step 5. Mount the sensor. Screws are provided
- Step 6. At the controller end, attach the connecting wire to the provided green plug. (See drawing below for location)

Attaching Sensor to Extension Wire

Refer to Diagram 1 for sensor connection technique. To use the enclosed Scotchlok connectors you should use solid copper wire 20 to 24 gauge extension wire. There is no need to strip insulation from the extension wire.

- Step 1: Insert one wire from rain sensor and one wire from extension far into one of the Scotchlok connectors. With a pliers, crimp down on the connector, pushing the yellow button into the clear terminal housing.
- Step 2: Repeat step one with the remaining wires.

Attaching Green Plug to Connecting Wire

- Step 1: Strip off 3/8 inch of wire insulation and insert each bare copper wire into rectangular holes in the green plug.
- Step 2: Using a 2mm screw driver, turn the retaining screws on the green plug clockwise until tight.
- Step 3: Connect the plug to the controller in the location shown below.

