

RFS5 Wireless Rain/Freeze Sensor

Installation Guide

The RFS5 is a wireless rain/freeze sensor operating on a 900 MHz bi-directional frequency. Maximum range is 1500 feet (457m) Line of Sight (LOS). The RFS5 is operable with all ProLine® and SmartLine® models and firmware versions. The RFS and RFSHUB-5 are “pre-paired” or synced at the factory for your convenience.

Required Hardware:

- ProLine or SmartLine® irrigation controller/all models and firmware versions
- RFSHUB-5 wireless communication hub
- RFS5 Wireless Weather Station

Step 1: Install the RFSHUB-5

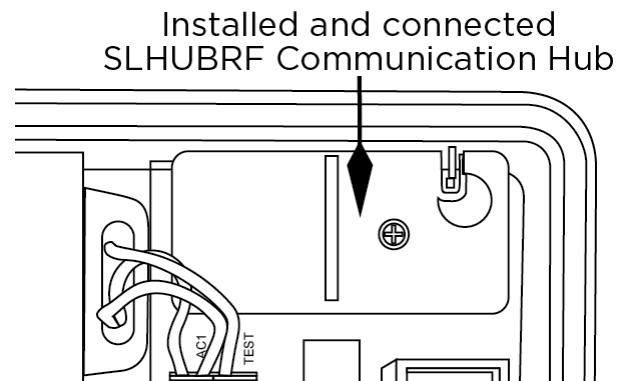
The RFSHUB-5 is the wireless transceiver that communicates with the RFS5. The RFSHUB-5 is supplied with your RFS5. To install in your ProLine® controller, open the control panel on the 1600/4800 models. On the 800 model, remove and discard the hub cover panel from the back of the housing.

Insert the RFSHUB-5 into the mating pin connector holes. Be careful not to bend the connecting pins. Secure the RFSHUB-5 to the housing with the supplied flathead machine screw. The RF antenna will hang down inside the 1600 or 4800 housing. On the 800 model, allow the RF antenna to hang underneath the controller.

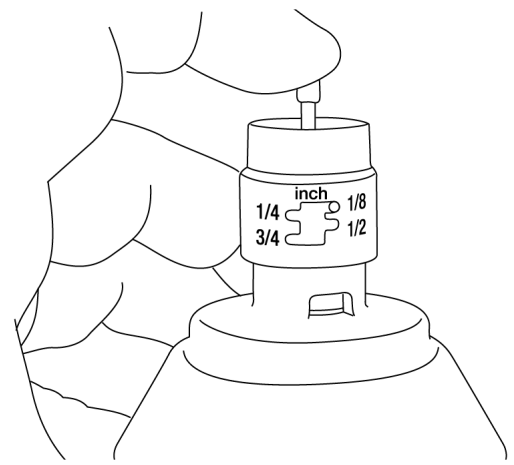
Make sure AC power is supplied to the ProLine® controller and then proceed to Step No. 2.

Step 2: Initializing RFS5 Weather Sensor

1. While standing in front of controllers, press the rain spindle on the top of the RFS5 for 15 seconds; then watch the LED which is visible through the openings in the cover at the bottom of the RFS5. You will see 4 blinks. All blinks should be Green.
- **NOTE:** The 4th (final blink) indicates the strength of the RF communication. If the 4th blink is Red, you do not have a satisfactory RF communication. Move the RFS5 to a different mounting location and repeat the diagnostic procedure.



- **NOTE:** The first diagnostic blink indicates the strength of the 2 AAA lithium batteries in the RFS5. A Red blink would indicate a need to replace the batteries. Capable life for the lithium batteries is 10 years. If the 2nd and 3rd blinks are Red, replacement of the weather station is required.
- **NOTE:** A separate RFS5 weather station is required for each ProLine® controller that you are installing.



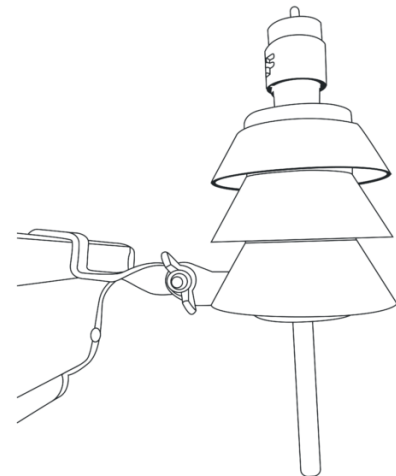
Step 3: Conduct communication range

Press the rain spindle wick for 15 seconds and go to the ProLine® controller. If you have RF communication, the antenna icon on the ProLine® display should be blinking.

- **NOTE:** The blinking will continue for 5 minutes after any communication from the RFS5. After 5 minutes, the antenna icon will remain static until the next communication. Press the Mode button and place the ProLine® into the Rain/Freeze Sensor position. If the installation is successful, you will have a Green light at Rain/Freeze Sensor. In addition, the operating panel on an PL1600 or PL4800 must be closed so that AC is present. You will get a communication error if the panel is showing NO AC.

Step 4: Choosing a location and Mounting the RFS5

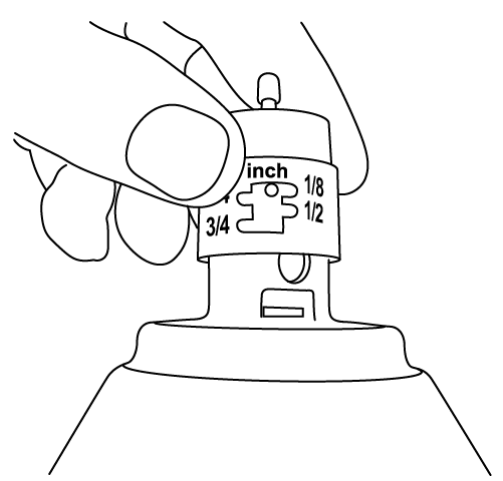
1. Decide on a good mounting location for your RFS5 wireless rain/freeze sensor. The mounting location should be one that is not affected by a heat source such as an air conditioner, hot roof, hot asphalt, etc. Mount in an area with unobstructed airflow. Mounting is preferred in direct sunlight with good air flow. Additionally, the location must have open access to rainfall (cannot be covered by any overhead obstruction such as trees, roofs, etc.). Mount the RFS5 as close as possible to the controller. Obstacles such as earth, hills, walls or other structures will reduce the maximum operating range of the RFS5. Use the diagnostic LED in the RFS5 to verify communication and to check operating range at a specific location. Extreme conditions may prevent wireless communication.
2. Attach mounting bracket to a smooth surface using the two mounting screws (supplied) or attach to gutter using the wing nut provided. You may choose to remove the mounting bracket from the bracket arm for easier installation. Make sure the RFS5 is fixed in a vertical position. Tighten all wing nuts to make sure unit is held vertical.



Rain/Freeze Sensing Function

The SLW5 wireless weather station provides rain and freeze sensing functions to prevent watering during periods of rain and The RFS5 wireless rain/freeze sensor provides rain and freeze sensing functions to prevent watering during periods of rain and freezing weather. The rain override will pause watering after a minimum of 1/4 inch (6.35mm) of rainfall is received, based on the 1/4 inch (6.35mm) factory rain sensor setting. Settings can be changed incrementally up to 3/4 inch (19mm).

The RFS5 wireless weather station freeze sensing function will prevent watering when the outside temperature drops below 37 degrees Fahrenheit (1.5 degrees Celsius) and allow watering to resume when the temperature increases above 37 degrees F (1.5 degrees Celsius). The Sensor LED will display RED during rain or freeze periods. Additionally, after a rain event, the ProLine® controller will continue to pause watering for 48 hours after the rain sensor has disengaged in order to prevent over watering. During the 48-hour extended rain delay, the sensor LED is ORANGE. In the event you choose to end the 48-hour extended rain delay, press the Sensor button twice and the sensor will return to a GREEN color and permit watering. If the firmware version in your ProLine® controller has an SLW DLY function, you can adjust the factory default setting of 48 hours delay to a period of 0–99 hours.



Troubleshooting and Maintenance

Each RFS5 and RFSHUB-5 are shipped together as a mated pair with a factory set security code. Therefore if you ever need replace an RFS5 always install the mating RFSHUB-5 that ships with the unit. After replacing both components, you should reactivate the RFS5 using step 2 above to assure communication.

The RFS5 wireless weather station is designed for years of maintenance free operation. You will need to change the two AAA lithium batteries after approximately 10 years of operation. See instructions under Changing Lithium Batteries.

Changing Lithium Batteries

To change the RFS5 wireless weather station batteries:

1. Loosen the bottom cover screws on the RFS5 and rotate the cover in the keyholes and remove the cover.
2. Replace the existing batteries with two (2) new AAA lithium batteries.
3. Reactivate the RFS5. See Step 2 above.
4. Return to the controller and make sure the Rain/Freeze “On” LED is green. If the RFS5 wireless rain/freeze sensor and controller are in communication, the antenna icon will appear in the display.



Verify the remaining voltage in the RFS5 battery at any time by turning the dial to Advanced Menu, Tests. Push Next to get Outputs, then push DOWN button to get RFS Battery. Push Next to read the remaining voltage. Note: The RFS Battery function is visible after you have established communication with the RFS5.

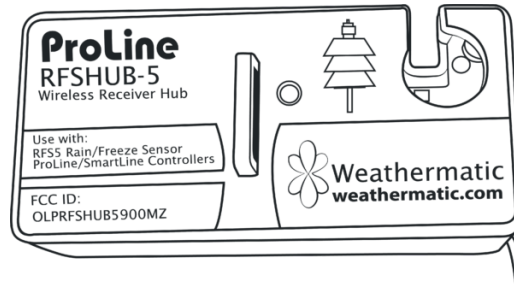
RADIO FREQUENCY RADIATION EXPOSURE INFORMATION:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. The OLPSLHUBRF900M transmitter can be co-located and operating in conjunction with the WiFi/BLE radio module with FCC ID: 2AC7Z-ESPWROOM32D Module

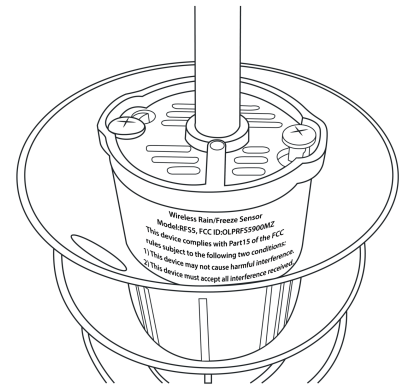
These devices comply with Part 15 of the FCC rules subject to the following two conditions:

- 1. This device may not cause harmful interference.**
- 2. This device must accept all interference received, including interference that may cause undesired operation.**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Model: RFSHUB-5
FCC ID: OLPRFSHUB5900MZ



Model: RFS5
FCC ID: OLPRFS5900MZ