

### Our Guide to Troubleshoot Your Irrigation System

**Thank you for choosing Eco-Systems to install your sprinkler system!** One of the primary benefits of using a sprinkler system controller is being able to create a water schedule that keeps your plants and yard looking great- without the exorbitant amounts of water. In this day and age, water conservation is a legitimate concern, not to mention that overwatering plants is a sure-fire way to damage them. If you'd like to enjoy the convenience of a sprinkler system while maintaining an efficient water schedule, the following information is sure to help.

#### Do You Know Where These Are?

- Inside sprinkler shut-off valve
- Outside sprinkler shut-off valve
- Sprinkler controller
- Rain sensor

#### Understanding What Different Sprinklers Heads Do:

**Different** sprinkler heads are suitable for different purposes. When you understand what each type is best suited for, you'll be able to program your timer more efficiently.

- **Rotor Heads** – These are used to water large expanses of lawn with a much lower application rate.
  - **Run times:** 15-45 minutes.
- **Spray Heads** – Dispense high volumes of water in short periods of time.
  - **Run times:** 2-12 minutes.
- **Drip Hose** – A drip consists of a series of tubes that have small holes in them. These holes dispense small amounts of water to specific areas. This helps promote water conservation.
  - **Run times:** 30-90 minutes

#### Important Terminology:

- **Sprinkler Timer** – This is the programmable computer that will send signals to the valves to open and close them.
- **Valve** – Part of the sprinkler system that receives the signal from the timer to prompt the valve to open and close to allow water to pass through or to stop water from flowing out.
- **Program** – **Four program modes are available:** "A, B, C, and D." These programs hold the actual settings that control when and how long each station is watered. Program "A," for instance, is used to water only the flower bed area once a day. Program "B" might be used to water the lawn areas two to three days a week. Program "C" could be used to water plants or shrubs with a drip system a couple times per week.

#### Controller Features:

- **Start Time** – The "Start Time" feature allows you to specify what time you would like which program (A, B, C or D) to start. Once it starts, it will begin irrigating the stations or zones that are associated with it. Once the zone or station is complete, the controller will stop watering.

- **Station Times** – If you set “zone two” to run for 15 minutes, the station will remain open and water until that time is up.

**\*\*Eco Tip** – Most properties only need one start time. Some customers get confused and think each zone needs a start time.

- **Run** - When “Run” is enabled, your schedule will run according to its plan. Once you have your system programmed to your liking, you will enable “run.”
- **Off** – To prevent programs from running for whatever reason, you will set the dial to “off.”

**\*\*Eco Tip** – The controller can be set to turn back on after certain amount of days of automatically. Turn the dial to off, press “+on” button for up to seven days; when finished, turn to “run.”

**\*\*Eco Tip** – To cancel a running manual or a program cycle, turn to “off” for five seconds and the cycle will stop.

- **Watering Days** – This feature allows you to specify days of the week for the program (A, B, C, or D) to water. This also allows for odd, even, or day intervals.
- **Single Station** – This will let you run a specific zone for whatever time you want. Use the “next” button to select station, the “+on” to turn on and the “-off” to turn off. It can be used to water an area of your property that may look dry or for you to stop to check for problems.

**\*\*Eco Tip** – To run a specific zone or zones for a set time, use the “next selection station”, press “+on” until the time appears, press “next” to enter a following station, and then turn the dial to “run.” This will run station one for ten minutes, station five for six minutes, and then return to the scheduled programming at night. For any reason you need to stop, or if you’ve entered the wrong time, turn dial to “off” for five seconds.

- **Program Cycle** – From time to time, a zone may require supplemental watering. In that case, the program cycle function is very convenient. This will allow you to run the specific program whenever you want. For example, if it’s been unusually dry and hot you’ll want to supplement watering program “B-lawn” zones. Move the switch to “B,” press the “+on” button and turn dial to “run.”

**\*\*Eco Tip** – Program switch is for programming and running a program cycle, it will not affect the automatic cycle if not returned to program “A.”

- **Water Budget** – This will allow you to make across the board adjustments to water programs on a percentage based basis. During the summer; for example, the “seasonal adjust” is set at 100% for 80 degree days. When the temperature hits 90 degrees, it can be switched to 120%. In return, run times will be lengthened by 20%. This saves you time from the tedious hassle of having to reprogram everything. To adjust, turn the dial to “water budget,” “+on” to increase and “-off” to decrease.

**\*\*Eco Tip** – Water budgets for our area(CT): April 50%, May 60%, June 75-85%, July 90-100%, August 100-120%, September 80-90%, October 60-70%, and November 40%.

## Your Guide to Getting Started:

**Before** you begin programming your sprinkler timer and set up your programs, you’ll first want to make sure that the controller is set up properly. The most important part of setting this up correctly is to ensure that the current day and time are **correct and accurate**. To adjust, turn dial to “current time and date.” Once the “hour” begins flashing, press the “+” or “-” button to adjust; use the “next” button to adjust minutes, month, day, and year.

**\*\*Eco Tip** – A battery back up is located behind the front panel. Eco-Systems will check the battery when the system is turned on. (The average battery will last approximately three years.)

### Entering a Program:

1. Select a program (A, B, C, or D) you want to program. For each program, you will need to set up water days, start times, and station times.
2. Put the dial to “Watering Days” to select specific days that you want the irrigation system to run; for example, Monday, Wednesday, Friday, Saturday.
3. Turn the dial to “Start Time” and specify what time that irrigation should begin. If you’ve planted new flowers, you may want a second water time in the same day since the root zone may become dry by late afternoon. If you want to schedule a second start time at 4pm, **remember** that the second start time for the program you’re setting up will include **ALL** zones you are watering **on this program** will be watered **twice**.
4. Place the dial on “Station Times.” Select the station and enter the “run time” for that zone. Continue selecting stations and enter the times until you have entered a run time for all the stations you will be watering on this program.

**\*\*Important:** DO NOT set a “run time” for stations that you will not be watering using this program.

**\*\*A general rule to follow:** If you have no idea how many minutes to water each station, you can start with the following times to determine whether to increase the time if you’re not getting enough water, or decrease the time if you’re overwatering.

- a. **2-6 minutes** – Spray zone in the shade
  - b. **6-12 minutes** – Spray zone in the sun
  - c. **15-20 minutes** – Rotor zone in the shade
  - d. **20-45 minutes** – Rotor zone in the sun
  - e. **45 minutes – 1.5 hours** – Large planting
5. The program set is now complete once you have entered in watering days, start time, station time, and the dial has been turned to “run.”

### When to Water:

It’s almost always best to perform irrigation during the early morning hours of the day between 1am and 11am. During the middle of the day, the wind can carry off water droplets and/or the blazing sun can evaporate a lot of water on the property and as it sprays. The wind can also significantly disrupt the spray pattern of the sprinklers causing wet and dry spots. If you water during the early morning, you’ll be able to use less water.

**\*\*Eco Tip** – Watering early at night around 9pm-12am promotes plant disease and fungus growth.

### Avoid Overwatering:

If you think that it’s impossible to overwater plants, think again! Overwatering can be just as detrimental to plants as under-watering. By programming your controller the right way, you can provide the exact amount of moisture for various plants on your property without inadvertently overwatering them. **The key point:** Avoid creating water run-off, if you see this, it’s time to make a time adjustment because you’re overwatering.

### Problems to Troubleshoot:

1. System not working, everything is dry:
  - a. Check rain sensor

- b. **Power to controller** – check circuit breaker or see if GFI outlet needs to be reset
  - c. **Water turned off** – check inside shut-off valve and shut off outside back flow
  - d. **Water filter** – try flushing to eliminate clogging or replacing the filter
2. System is running all the time after water cycle:
  - a. Turn controller to “off” and check current time and for multiple start times
  - b. **Still running** – try unplugging and plugging the controller back in
  - c. Turn water off at back flow device or inside
3. Systems runs at the wrong time:
  - a. Check start time
  - b. Check current time
4. Zones have very low pressure or do not work (broken sprinkler head):
  - a. Turn station water time to “0” for damaged zone. The rest of the system can be used
  - b. **Leak continues** – shut water off
5. Pooling water in the yard:
  - a. **Check station run times** – are they too long?
  - b. **Check start times** – are there too many?
  - c. **Leak continues** – turn controller off, turn water off
6. Water flowing out of the ground:
  - a. **You have a leak** – turn controller off
  - b. Shut off water at back flow or the basement
7. Controller says fault zone #:
  - a. Turn off water time for problem zone. The rest of the system can be used

For service, please contact Chris or Taryn at Eco-Systems at:

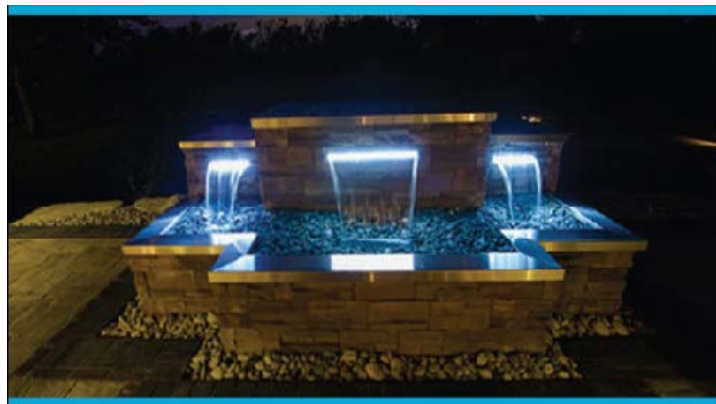
**Phone:** 203-438-9152

[Ecosystemschris@gmail.com](mailto:Ecosystemschris@gmail.com)

[Ecosystemtaryn@gmail.com](mailto:Ecosystemtaryn@gmail.com)

***\*\*When calling for service, please mark problem area in the yard (driveway marker, cone, stick, etc.) and let our office know the problem and zone, if possible. If the controller is showing an error, please make not of what the error reads. Most controller programming issues can be resolved over the phone.***

**ECO-SYSTEMS**  
IRRIGATION & LIGHTING



SERVING FAIRFIELD &  
WESTCHESTER COUNTIES  
203-438-9152  
[ECO-SYSTEMSONLINE.COM](http://ECO-SYSTEMSONLINE.COM)  
Ct Lic #208694