



Simple Irrigation Checkup for Home Sprinkler Systems

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A simple irrigation checkup may reduce outdoor water use by helping identify problems with your irrigation system. An efficient, properly designed and properly installed irrigation system can help to keep landscapes and turfgrasses healthy and attractive. However, irrigation systems not kept in proper operating condition or managed well can waste water. An irrigation system should be maintained and will fall into disrepair without regular checkups. This fact sheet is not intended to provide information on sprinkler system repair or operation but serves to help homeowners identify problems with irrigation systems so a professional irrigation contractor can be contacted for repairs. For information on specific irrigation system repairs, consult the manufacturer manuals or contact a professional irrigation contractor in your area.

The simple irrigation checkup is a three-step process:

Step 1. Check controller settings: Specific watering days may be established by your municipality. Check the controller settings to ensure they are set to water on the appropriate days and times. Most water waste is due to unnecessary or improper start times and lengthy run times. Watering in the heat of the day will result in water that is lost to evaporation. Set the controller to water early in the morning or in the evening. Record current controller settings on the irrigation checkup form (Table 1) and then make necessary changes. Appropriate controller settings reduce water waste and save money.

Step 2. Run each irrigation zone: Turn on each irrigation zone one at a time or set your controller to run through each zone using a test cycle setting. If choosing to run a test cycle of each zone, set a time limit long enough to observe each zone and mark needed repairs, about three minutes.

Step 3. Identify problems and make repairs: While each zone is running, walk through the yard and check each sprinkler head, noting any that require attention. Flag or mark problems to make them easier to identify when making repairs.

Simple Definitions of Common Irrigation Terms:

- Controller** - A "timer" used to set scheduled run times and turn an automatic irrigation system on and off.
- Zone** - A grouping of irrigation heads in the landscape where irrigation is controlled by a single control valve.
- Start time** - The time of day an irrigation system is set to begin watering.
- Run time** - The length of time an irrigation zone is set to water.
- Valve** - A device that responds to electrical currents from the controller to turn water flow on and off.
- Spray head** - An irrigation head that puts out water in a fixed stationary pattern.
- Rotor** - An irrigation head that puts out water in a large rotating stream.
- Nozzle** - The part of a sprinkler the water exits. In most cases, the nozzle is removable so it can be easily cleaned or replaced. Nozzle shape, size and placement have a direct effect on the distance, watering pattern and distribution of irrigation water.
- Rain/Freeze Sensor** - A device connected to the controller that prevents automatic sprinkler systems from watering during rain or freezing temperatures (if you do not have a rain shutoff sensor, consider installing one - this is an easy and inexpensive way to prevent water waste).



Figure 1. Sprinkler head spraying a sidewalk.



Figure 5. An irrigation zone with a mix of rotors and fixed spray sprinklers.



Figure 2. Sprinkler heads with excessive or high pressure causing misting of irrigation water.



Figure 6. Sprinkler head stuck and failing to fully pop up above the ground.

Figure 3. Sprinkler head tilted and out of alignment.



Figure 7. A dry area due to poor sprinkler distribution and uniformity.



Figure 4. Sprinkler head leaking and causing ponding at the base.



Figure 8. Plants blocking a sprinkler head causing an uneven spray pattern.

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Table 1. Simple Irrigation System Checkout Form.

Simple Irrigation System Checkout

Controller Settings: At your controller, go through the settings to determine the number of zones in operation and the number of programmed schedules. Some landscapes may have two or more schedules indicated as A, B, etc. Next, determine the time of day each schedule is set to start and the run time or length of time each zone is set to water. Mark your municipality established watering days if applicable. Many irrigation schedules are set for early morning or late at night when they are not visible - knowing your schedule will help you manage your system efficiently.

<i>Controller Type/Model</i>												<i>Watering Days</i>					
Zone/Station	1	2	3	4	5	6	7	8	9	10	11	12					
Program Start Time(s)	A																Odd/Even days
Program Run Time(s)	B																Day(s) of Week

Irrigation Checkout: Walk through the landscape zone by zone while your system is running. Label the head type in each zone using the provided key. Look for the issues listed below and use the problems section to make notes of needed repairs.

Head Type Abbreviation Key: S= Spray, fixed nozzle R= Rotor, including rotating spray nozzles. M = Mix of sprinkler head types such as rotors and sprays apply water at different rates. Mixing head types in a zone will cause an uneven distribution of water and lead to waste.

Look for the following issues: (See Figures 1 -8)

- Sprinkler heads spraying a sidewalk, driveway or road
- Sprinkler heads operating with a cloud of mist (high pressure)
- Sprinkler heads that are tilted or out of adjustment
- Sprinkler heads broken, leaking at the base or not popping up
- A mix of different sprinkler heads on the same zone (sprays, rotors)
- Rotors stuck in one position, failing to turn
- Dry areas due to low water pressure, a clogged nozzle or high wind speeds
- Grass, shrubs or trees blocking sprinkler spray patterns
- Electrical issues (broken wire, valves not turning on, controller error codes)

Controller Zone #	Head Type	Problems
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Notes: