Sprinkler System Checkup

Spring Start-Up is a great time to inspect your sprinkler system, find any issues, and make repairs to ensure your sprinkler system is working efficiently, saving water, and supporting a healthy lawn. It is important to test regularly. Even with preventive maintenance you may encounter problems throughout the irrigation season. If you water at night and notice soaked or dry spots you may want to check your sprinklers during the daytime hours. This checkup can help you whenever you are troubleshooting issues. Go to Outdoor Watering Nerds website for resources and how to videos.

√	Inspect	Actions
Controller		
	Is it clean, mounted securely, and all wires connected?	Follow manufacturer's instructions.
	Test back up battery.	Replace battery if needed.
	Review programs and schedules.	Plan a schedule to adjust regularly for seasonal water needs. Plants need less water in the spring and fall. If available, set the controller to weather-based mode.
	Test each zone separately.	Observe for signs of leaks like pooling water or poor performing sprinkler heads. Flag any issues. DIY Resources Find a Professional
	See if your controller has a sensor port	Add a soil moisture sensor to your existing sprinkler controller.
	Replace a clock-based timer with a weather-based, smart irrigation controller.	Choose from over 900 EPA Water Sense approved Smart Controllers. You can filter the options by Brand Names, Product Type, Weather Data Source and Number of Stations or Zones.

√	Inspect	Actions
Sprinkler Heads and Nozzles		
	Poor spray patterns	Determine if the spray head or nozzle is clogged, worn, broken, blocked or the wrong size for the area. Clean, repair, move or replace. Tip: Use the same type of heads, nozzles, and manufacturer for the entire zone.
	Uneven coverage	Spray from one sprinkler should reach the adjacent one(s). This is known as head-to-head coverage Adjust or replace the nozzle and recheck for head-to-head coverage. Sprinkler heads may need to be added.
	Obstructed spray patterns	Move the obstruction or move the sprinkler head. If the head is too low, reposition it.
	Overwatering	Runtimes that are too long or too frequent, or irrigating after rain, can keep water from infiltrating into the soil. Shorten runtimes, increase the time between runs, or consider a weather-based or soil moisture-based irrigation controller. Set up a cycle soak schedule. If the soil is compacted aeration can improve penetration of the water. Increase root zone depth.
	Does not pop up or retract	Turn off the sprinkler system. Remove and soak the nozzle, or consult with your irrigation system manufacturer on how best to clean your sprinkler heads. Inspect the spring and plunger to see if there is damage.
	Tilted or Low Heads	To fix tilted heads, use a shovel to dig around the head, remove the sod and carefully clear the vicinity of dirt. Next lift and straighten the head, packing soil under and around it until it is even with the ground and can easily clear the grass when it pops up. If lifting is not possible, replace the riser with a longer one. Adjust the nozzle to face the correct direction.
	Broken heads can create small geysers and rivers	Replace the head or nozzle. Consider upgrading to matched precipitation (MP) rotator heads. Remember, all sprinkler heads on a zone need to be the same type and manufacturer. Avoid changing just one head.

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Sprinkler Heads and Nozzles		
	Misting	Check the water pressure. High pressure can cause misting that is easily blown away by wind and not used by the landscape. You can test water pressure directly at the sprinkler head by adapting a screw on pressure gauge. Unscrew the sprinkler head and screw on a pressure gauge and run the zone. If the pressure is too high, retrofit for pressure. Install WaterSense labeled spray sprinkler bodies with integral pressure regulation. You can also try adjusting the flow control screw to reduce the amount of water flowing through the valve. If there is excess water flowing it can cause spray misting, which is often blown by the wind to places it is not intended, and the water is wasted. This feature can help save water.
	Misplaced drip lines	Micro irrigation drippers should be placed near the root zone of each plant. Move drip line off bare soil and into the plant's root zone.
	Clogged drip lines	The treatment to solve a clogging issue in drip systems generally depends on the cause of the clogging. Clogging may come from 1) Particulates like sand, silt, or minerals, 2) Biological clogging from algae, or bacterial slimes and 3)Chemical precipitates such as calcium carbonate(lime) and iron. Check out the Nerds section on Drip Irrigation.
	Sprinkler Zone Uniformity	All sprinkler zones should be separated. This mean all spray heads, rotors, or drip irrigation would be on separate zones.
Main Tap		
	Visually inspect for leaks	Check the packing nut, also known as a bonnet, to see if it is loose. If the packing nut is tight you may need to turn off the water to the system, loosen the packing nut and add packing tape inside of the nut.

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Main Tap (Cont'd)		
	Pressure test main line	You will need a water pressure gauge. Make sure no water is being used in the house or yard. Attach the water gauge to an outside hose bib. Turn on the water. Water pressure should be between 30 and 80 psi. If you have an older system avoid reaching 80 psi. To adjust water pressure for the whole house, find the water pressure regulator located on the main line. If needed, you can add a water pressure regulator on the sprinkler system. Drip irrigation is less effective if the water pressure is too high.
	Backflow Protection	A backflow device is a mechanical valve designed to prevent a reverse flow of contaminated water from entering your home water service and the public water supply. Backflow devices are required by law and should be inspected every year to keep your drinking water safe. Hire a Licensed Backflow Tester to inspect your backflow device annually before fall sprinkler blow-out.
Valve Box		
	Valve box and lid	Is the inside of the valve box wet? If so, you may have a leaking valve. Does the lid fit properly to protect the valves from water and debris? Inspect boxes for settling that could damage the system.
	Valve leaks	When sprinklers are still leaking even though the irrigation controller has been turned off, try using the bleed screw to flush the valve first. If that doesn't work then it may be time to replace the diaphragm. Replacement diaphragm kits for brand name products can purchased at most retailer locations.
	Corrosion	If a sprinkler valve malfunctions, the problem may be a rusted valve pin, or corroded or damaged electrical wire.
	Test valve solenoids for proper resistance	If a sprinkler valve cannot be switched on, the solenoid may be rusted. Use a voltmeter set to ohms to test the solenoid. Consult the manufacturer's guide for solenoid repair and replacement steps. Find a Professional for this sprinkler repair job.

√	Inspect	Actions
Soil Moisture Sensor		
	Visually inspect for damage Test for operation.	Follow manufacturer's instructions.
	Is the soil sensor fully buried? Has soil been removed, exposing the sensor? Are the wires connected?	The soil moisture sensor should be buried deep enough in the soil to obtain accurate readings of soil moisture and per the manufacturer's instructions. Check for damaged wires and reinstall sensor per manufacturer's instructions.
Planned Upgrades		
	Do you have new plantings or pots that need additional coverage?	Adding a new zone requires a sprinkler control box that's capable of expanding zones, as well as a new sprinkler valve that is added to the existing manifold control unit.
	Are you considering more water efficient products?	See why saving water matters. Check out the Nerds Protect the Aquifer and River Story Map
	Are there major renovations that need to be planned for?	Find a Professional