Customer Partnership Agreement

The goal of the smart irrigation controller program is to reduce water use at homes where usage appears higher than necessary for lawn and plant health. Reducing water use provides benefits to the homeowner, the community, and the environment.

- The homeowner benefits because this device will reduce water usage and water/wastewater bills. The landscape will benefit from getting the right amount of water throughout the changing seasons, which can improve plant health.
- The water provider benefits because water conservation is less expensive than developing additional water supplies and infrastructure. These reduced costs ultimately benefit customers too.
- The natural environment and the community benefit because efficient water use contributes to sustainability.

The homeowner is an essential partner in achieving the program's goals. To participate in this program the homeowner must agree to the following statements by putting a check mark by each statement and by providing contact information below.

☐I understand the goal of the program is to reduce water usage at my home.
☐I agree to fix any major issues identified while completing the Sprinkler Evaluation Form before contacting the contractor.
☐I agree to adhere to the local watering restrictions and to maintain the irrigation controller settings established by the contractor, in order to reduce water usage and keep the landscape healthy.
☐If contacted after the installation I agree to participate in a phone call to review water use data and to receive help with troubleshooting any issues related to the irrigation controller.

Name	
Address	
Email	
Phone number	

Instructions for Completing the Sprinkler System Evaluation Form

The Sprinkler System Evaluation form is designed to help homeowners determine if their sprinkler system is in good, working order, and is required in order to participate in the Tampa Bay Water Wise smart controller rebate program. Homeowners may complete the evaluation themselves, or seek the help of a Florida Friendly Landscape agent, whose contact info can be obtained from the rebate webpage (https://tampabaywaterwise.org/en/soil-moisture-sensor-sms-or-evapotranspiration-et-controller/). If your system has Sprinkler Head Issues or Major Issues, they need to be fixed before the smart controller can be installed. You may fix them yourself or hire a professional. This packet has helpful information which may help you fix and maintain your sprinkler system.

Evaluation Form Instructions:

1. Begin by locating the irrigation timer, and manually running the irrigation system zone by zone. Zones are the areas of your landscape that get watered separately, often because the plant type differs (grass, flowers, shrubs etc.) or because there are differences in the sun, shade, slope, soils etc. Typically, homes have 4-6 zones, but this varies.

2. Start with one zone at a time and go down the checklist column. You may find the additional information included in this packet helpful for understanding the different types of sprinkler heads and the different issues that may be present.

3. If there are issues with your sprinkler system, these issues need to be fixed before you arrange a time for the installation. **To be approved for the TBWW rebate program,** all "MAJOR ISSUES" and "SPRINKLER HEAD ISSUES" should be repaired before you arrange a time for the installation of your smart controller.

   If there are no issues with your system, you may proceed to arrange a time for the Tampa Bay Water Wise contractor to install your new smart irrigation controller.

Important Reminder: Customers must always adhere to the local watering restrictions, which indicate the allowable days/times when you may operate your sprinkler (irrigation) system, even if you add a smart irrigation controller to your system. You can check your local watering restrictions by following this link:

https://www.swfwmd.state.fl.us/business/epermitting/local-government-water-restrictions

TAMPA BAY water wise

SPRINKLER SYSTEM EVALUATION

Customer Name: _____

Address: _____ Date: _____

Timer Location: Garage ☐ Outside wall ☐ Model: _____ # of zones connected _____

			Zone number							
			1	2	3	4	5	6	7	8
SYSTEM DESCRIPTION										
1.	**Zone location from the front of the house**	a. Front	☐	☐	☐	☐	☐	☐	☐	☐
		b. Left	☐	☐	☐	☐	☐	☐	☐	☐
		c. Center	☐	☐	☐	☐	☐	☐	☐	☐
		d. Right	☐	☐	☐	☐	☐	☐	☐	☐
		e. Back	☐	☐	☐	☐	☐	☐	☐	☐
2.	**Amount of sun reaching the zone**	a. Full sun	☐	☐	☐	☐	☐	☐	☐	☐
		b. Mostly sunny	☐	☐	☐	☐	☐	☐	☐	☐
		c. Mostly shady	☐	☐	☐	☐	☐	☐	☐	☐
		d. Full shade	☐	☐	☐	☐	☐	☐	☐	☐
3.	**Plant type**	a. Turf	☐	☐	☐	☐	☐	☐	☐	☐
		b. Ornamentals	☐	☐	☐	☐	☐	☐	☐	☐
4.	**Irrigation type**	a. Spray heads	☐	☐	☐	☐	☐	☐	☐	☐
		b. Rotors	☐	☐	☐	☐	☐	☐	☐	☐
		c. Microirrigation	☐	☐	☐	☐	☐	☐	☐	☐
SPRINKLER HEAD ISSUES										
a.	Clogged		☐	☐	☐	☐	☐	☐	☐	☐
b.	Sunken		☐	☐	☐	☐	☐	☐	☐	☐
c.	Blocked by plants		☐	☐	☐	☐	☐	☐	☐	☐
d.	Tilted		☐	☐	☐	☐	☐	☐	☐	☐
e.	Other _____		☐	☐	☐	☐	☐	☐	☐	☐
MAJOR ISSUES										
a.	Sprinkler head broken (geyser)		☐	☐	☐	☐	☐	☐	☐	☐
b.	Rotor head (long, single stream) not rotating		☐	☐	☐	☐	☐	☐	☐	☐
c.	Leak in pipe		☐	☐	☐	☐	☐	☐	☐	☐
d.	Broken valve		☐	☐	☐	☐	☐	☐	☐	☐
e.	Other_____		☐	☐	☐	☐	☐	☐	☐	☐

"I confirm the sprinkler system is in good working order and that my irrigation schedule now complies with local watering restrictions. I understand that a Tampa Bay Water Wise device will not be installed if there are Sprinkler Head Issues or Major Issues with the system."

Customer Signature _____

The Sprinkler System Controller

Once set by the homeowner or contractor, the controller becomes the brain of your sprinkler system. It keeps time and turns automatic valves on and off through electronic signals. Whether selecting a controller for a new or an existing sprinkler system, there are many factors to consider.

Recommended Features:

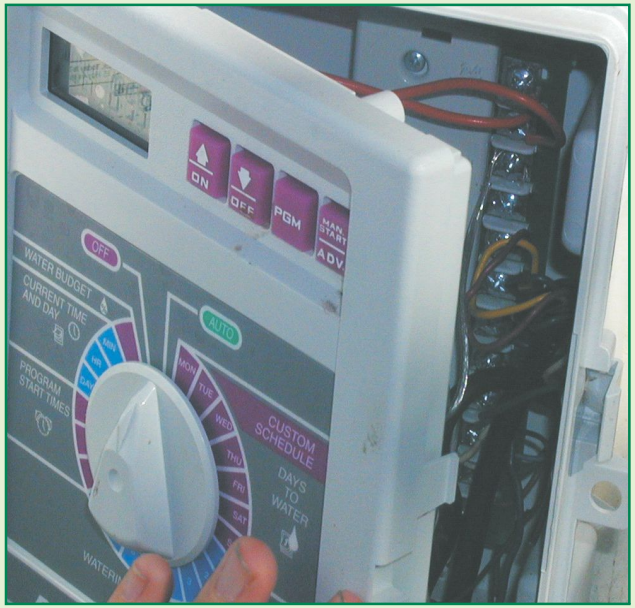
- Appropriate number of zones/stations for the current system and for possible future system expansion
- Multiple independent programs
- Backup battery or nonvolatile memory in case of power failure
- "Off," "Auto," and "Manual" operation modes
- Ability to add a rain sensor device (a sensor is required by Florida Statutes)
- Warranty

Programmability: The ability to setup and use your controller without trouble.

- Large, easy-to-read display screens
- Programming buttons that are labeled and well-organized
- Simple program dials should be sturdy and easy to turn, especially when wet
- Accessible instruction sheet on basic operation

Additional Features:

- Digital Technology
- Multiple Start times per program
- 365-day calendar, adjusting for leap year
- Water budgeting/seasonal adjustment feature



While west-central Florida averages over 50 inches of rain a year, about two-thirds of it typically occurs between June and October. During these months, supplemental watering is usually only needed every 7 to 10 days.

During the cool winter months (November through March), plant growth typically slows down and watering is usually needed every 10 to 14 days. Be sure to adhere to local watering restrictions. **Use the guidelines below to make seasonal adjustments to your controller.**

West Central Florida Seasonal Sprinkling Schedule

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Non-Lawn Areas	Once every 10 to 14 days			Once to twice a week, depending on rain		Once a week, depending on rain						Once every 10 to 14 days
Lawn Areas												

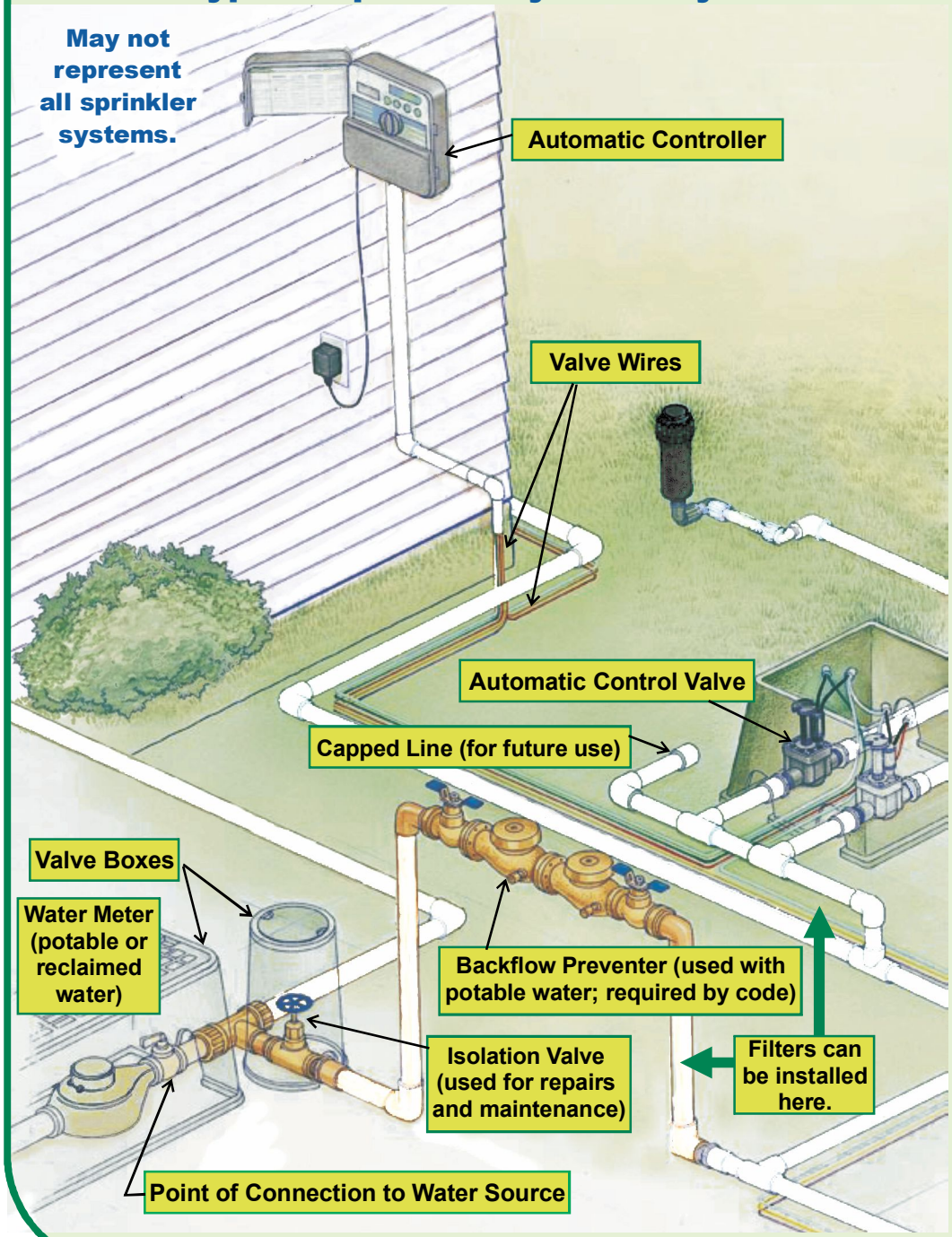
Lost Your Controller's Manual?

Manufacturer Contact Information:

Hunter: www.hunterindustries.com
or phone: 760-591-7383
Rainbird: www.rainbird.com
or phone: 800-7246247
Toro: www.toro.com
or phone: 800-367-8676
Rainmaster: www.rainmaster.com
or phone: 800-777-1477
Melnor: www.melnor.com
or phone: 877-283-0697
Irritrol Systems: www.irritrol.com
or phone: 800-634-8873
Orbit: www.orbitonline.com
or phone: 800-448-6156

PROBLEM: Controller Not Operating Properly

Typical Sprinkler System Layout

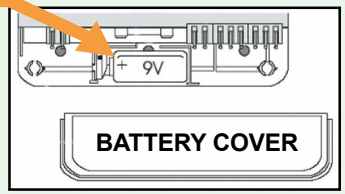


Original image from Hunter Industries "Residential Sprinkler System Design Handbook"

CONTROLLER IS NOT RUNNING

SOLUTION 1 **Ensure controller is plugged into a working electrical outlet and the breaker is working.**

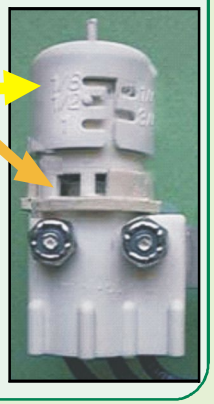
SOLUTION 2 **Check backup battery and controller's fuse. If power is interrupted and the battery is dead, the settings will be affected. Replace battery. Keep a copy of the schedule at the clock for easy reference.**



SOLUTION 3 **If it has rained recently, the rain sensor could still be damp and temporarily preventing the controller from operating the valves. This is normal.**

SYSTEM COMES ON DURING RAIN

SOLUTION 1 **Is the rain sensor obstructed? It may need to be moved away from under eaves and plants or from along a building/fence.**



SOLUTION 2 **Rainfall setting or vent ring may need to be adjusted. Twist to change.**

SOLUTION 3 **Rain sensor may be missing or broken and need replacement.**

SOLUTION 4 **Everything may be fine. Perhaps not enough rain has fallen to activate the sensor.**

Publication created by Christine Claus, St. Petersburg Water Resources Department, and Dr. Joan Bradshaw, University of Florida IFAS, with funding provided by the Pinellas-Anclote River Basin Board of the Southwest Florida Water Management District.

UF UNIVERSITY of FLORIDA IFAS Extension

Southwest Florida Water Management District
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st.petersburg water resources

Maintaining Your Sprinkler System

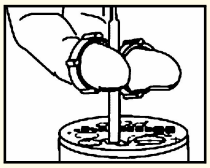
Effectively maintaining a sprinkler system eliminates more water waste than any other landscape practice. Yet it is often the most overlooked method of conserving water. Take time to examine your sprinkler system on a regular basis. Begin this process now and routinely check sprinkler heads at least once per month.

Problem: Watering Driveways & Walks

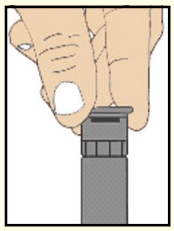
Solution 1 **Adjust spray pattern.**

STEPS

1. **Turn on the water to the sprinkler.**
2. **Carefully rotate spray nozzle or rotor head left or right to ensure it is directed away from impervious surfaces. An adjustable wrench may be needed.**
3. **Consult manufacturer's instructions for expanding or minimizing the arc of rotor heads. A special tool may be necessary as well.**



Solution 2 **Use an adjustable arc nozzle designed for spray heads. Be sure to match the new nozzle to the existing sprinkler.**



Problem: Broken or Missing Heads

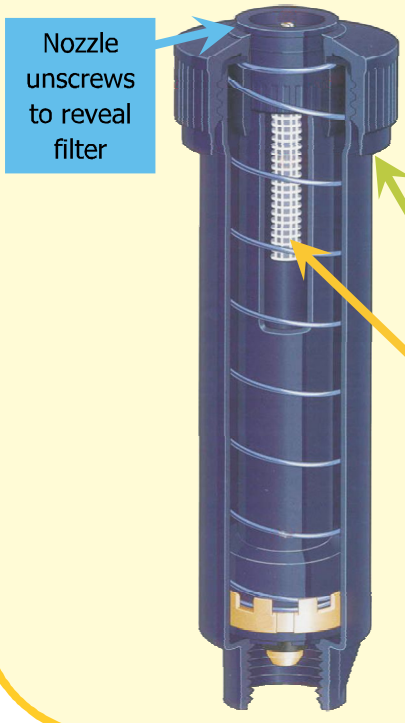
Solution **Repair or replace heads.**

STEPS

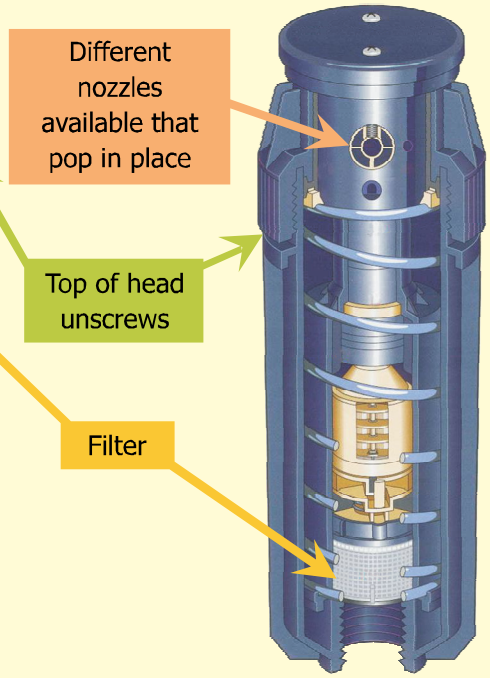
1. **Obtain a replacement head that matches the heads on the zone being repaired.**
2. **Dig out soil around the head, being careful not to allow dirt or debris into the pipe.**
3. **Unscrew the broken sprinkler head. Risers can be installed between the pipe and the bottom of the sprinkler to raise the head up to the level of your lawn. See the brown insert for directions.**
4. **Screw the replacement head onto the riser.**
5. **Turn the zone on and off to test and make adjustments. If operating properly, level and tamp in the soil.**

Anatomy of a Sprinkler

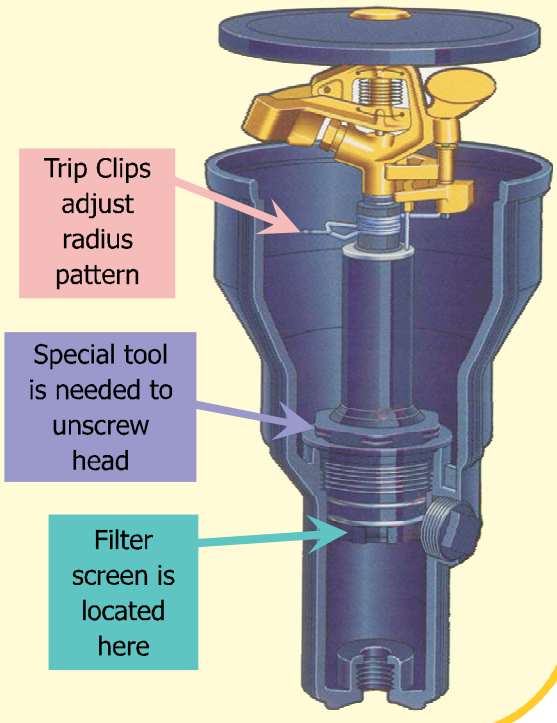
Spray Head



Rotary Gear-Driven Sprinkler



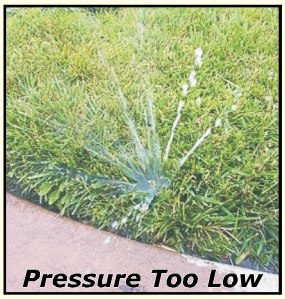
Rotary Impact Sprinkler



PROBLEM: Nozzles Don't Operate Properly

Solution 1 **Check and adjust water pressure.**

A. Pressure Too Low. **Low pressure may be the result of a leak in the system. Check for and repair leaks.**

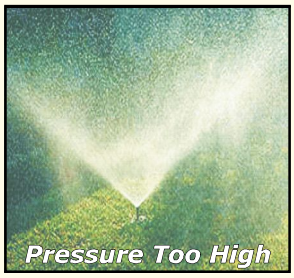


Low pressure could also be caused by too many heads in a zone. To check, remove and cap one head at a time until pressure is acceptable.

In addition, if pressure is low and not adjustable, sprinklers made of metal may need to be replaced with lightweight, plastic types.

PERFORMING A PRESSURE GAUGE TEST

B. Pressure Too High. **Highly pressurized heads emit a mist that can blow away, wasting water. If the entire sprinkler system shows excessive pressure and a pressure reducer already exists, adjust it to the pressure range recommended by the sprinkler manufacturer.**



If just one zone has too much pressure, you may be able to adjust the zone's valve with its pressure regulation device if one is installed. If one is not installed, try turning down the flow control stem until the misting disappears. Pressure regulating sprinkler heads could also be installed.

Solution 2 **Clean spray head nozzles and filters. Depending on the water source and sprinkler type, filters should be flushed at least twice a year. Filters are usually located near the well or surface water pump, within sprinkler heads, and/or near system valves.**

STEPS

1. With the system off, unscrew the nozzle from the sprinkler head according to the directions in the owner's manual. While many nozzles can be taken apart by hand, you may need a screwdriver or special tool for others.

2. Hold the nozzle under a faucet or hose to blast out debris. For stubborn residue, use a brush or soak overnight.

3. Rinse out the filter basket or screen. A brush may be needed.

4. Reassemble and replace the heads, filters and nozzles. Then turn on the water and adjust nozzles and heads as needed to cover area properly.

Solution 3 **Flush out sprinkler lines.**

STEPS

1. Turn off the system and carefully remove all the spray head nozzles, being careful not to allow dirt to enter sprinkler pipe.

2. Turn the water on and let it run until a solid, clean stream flows from each opening.

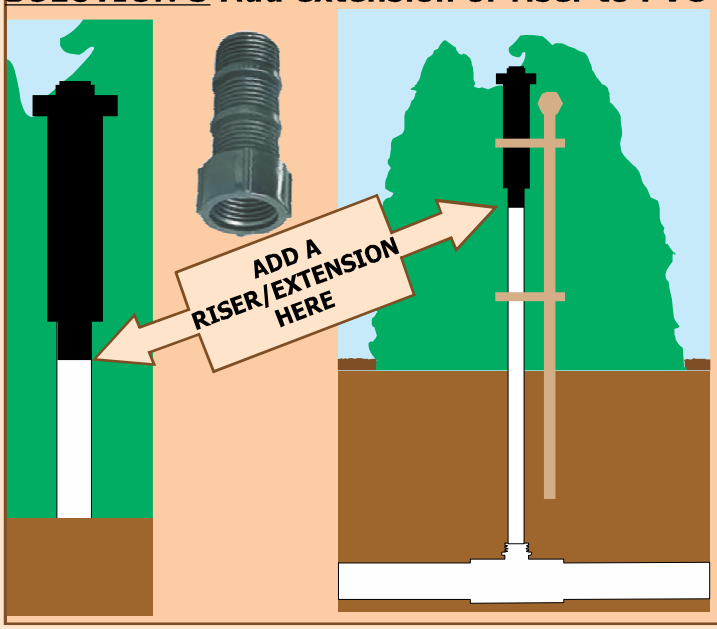
3. Turn the water off and replace nozzles, then check to ensure proper operation and adjustment.

4. For rotor heads that are not working, carefully remove those heads, then inspect and clean the filter inside the sprinkler. Replace and check.

PROBLEM: Sprinkler Blocked by Plant or Object

SOLUTION 1 Keep plants pruned back. Check plant growth regularly.
SOLUTION 2 Determine if sprinkler is actually needed in this area; if not, remove it.

SOLUTION 3 Add extension or riser to PVC pipe so sprinkler is above obstruction.



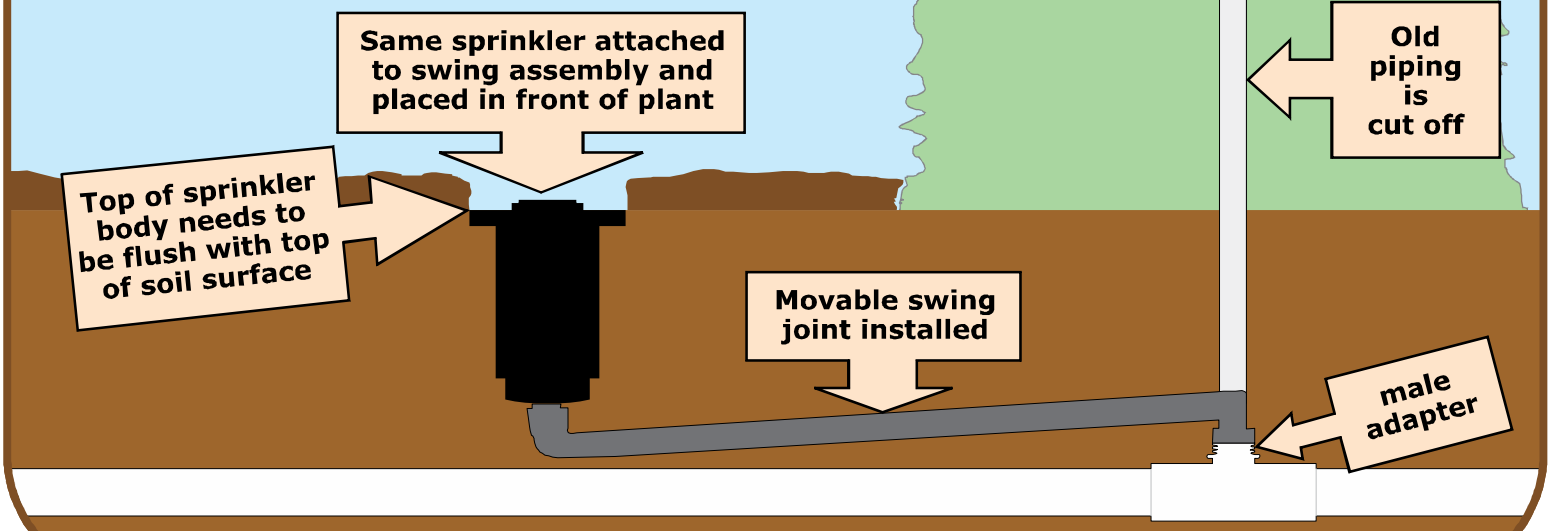
STEPS

1. Unscrew sprinkler from top of pipe.
2. Measure length of pipe extension or cutoff riser needed to raise sprinkler above the object or plant.
3. If using PVC to create an extension, a male adapter of appropriate size will need to be primed and cemented on each end.
4. Prime and cement PVC extension or screw on cutoff riser onto pipe and reinstall sprinkler.
5. If PVC pipe is too narrow or too tall, the sprinkler and pipe will sway, which is undesirable. Sturdy support will have to be carefully installed to prevent problems.

SOLUTION 4 Permanent Solution: relocate sprinkler to front of the obstruction.
NOTE: Swing joint installation is described for flexibility and adjustment. PVC pipe, cut to length with two slip by thread couplings cemented on each end can be substituted, or poly tubing with two threaded by barbed couplings can be substituted.

STEPS

1. Dig down to point where upright PVC pipe meets the zone's horizontal PVC pipe. Leave plenty of room to work and avoid getting soil and debris in pipes.
2. Cut upright pipe two inches above tee connection, then prime and cement on a male adapter. (Alternatively, a length of PVC with couplings on each end can be installed.)
3. Install one end of the assembly onto male adapter; install sprinkler on the other end.
4. Dig ditch for new assembly and sprinkler to a location away from the obstruction.
5. Adjust height of sprinkler until top is at soil surface.
   Pack soil around piping, sprinkler, and assembly.
6. Remove nozzle & filter screen from sprinkler and turn on zone to flush out debris.
7. Carefully replace sprinkler screen and nozzle. Adjust as necessary for best coverage.



Solutions to Typical Sprinkler Problems

Over time, homeowners should expect to make adjustments to their sprinkler system due to plant growth and changes to the landscape. The good news is that home improvement stores offer many of the tools, supplies, and knowledgeable staff necessary to help make basic improvements so that your sprinkler system is as water-efficient as possible. The assistance of a professional irrigation contractor should be sought for tasks beyond the knowledge and abilities of the homeowner.

NECESSARY TOOLS AND SUPPLIES

Trenching Shovel
(narrow blade desirable)

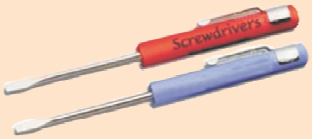
Hand Trowel

Steel Bow Rake

Pipe/Tubing Cutter

PVC Cleaner/Primer

PVC Cement

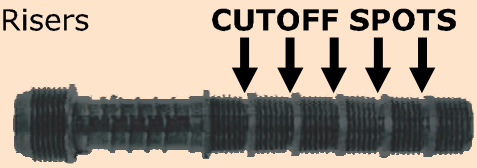


Miniscrewdriver

Adjustable Pliers

PARTS LIST

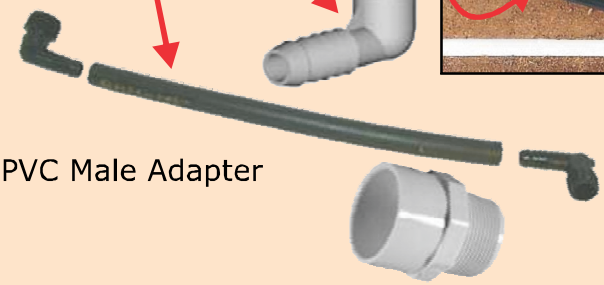
Poly Cutoff Risers



1/2" Flexible Poly Tubing

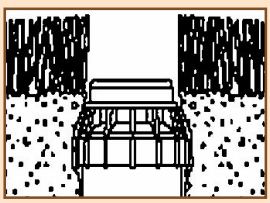
Sections of PVC Pipe
(all system sizes)

Swing Joint
or Two Barbed Street Elbows
with Poly Tubing



PVC Male Adapter

PROBLEM: Sprinkler Blocked by Lawngrass



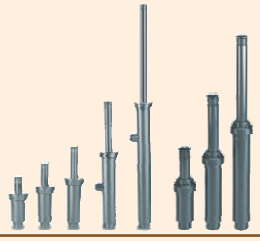
IDEAL SPRINKLER HEIGHT IN TURFGRASS

SOLUTION 1

Remove grass from around sprinkler and install concrete "donut" around it. Check regularly to keep donut clean of grass and soil.

SOLUTION 2

Replace sprinkler with model that pops up higher (ex. 3"→6"). Top of sprinkler should be slightly above soil level. Keep soil from entering pipe when unscrewing head.



SOLUTION 3

Add an extension between PVC pipe and the sprinkler. See SOLUTION 3 on back of page for step-by-step instructions.