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If you are seeing issues with the water continuously flowing with a full flow from your valve, then follow these steps: First, confirm that the valve is installed in the right direction. The flow arrows on the valve should be pointing in direction of the water flow. If the Valve is installed correctly, make sure the valve manual on/off lever/bleed screw is in off position. If the valve is turned off manually, turn off the water and remove the solenoid. Make sure there is a plunger in the solenoid and it pushes up and down easily. Install the solenoid back in the valve and only screw down finger tight. If the valve is still open, check the diaphragm for debris. Also, check for noticeable warping or pitting of rubber. If debris is found, clean out and rinse the diaphragm with cool water. Place the diaphragm back in and test the valve. If this does not resolve or if there is noticeable damage to the diaphragm, it will need to be replaced. If you are seeing issues with the water seeping out of the lowest sprinkler head, you will need to replace the diaphragm in the valve. Another thing to note if you are seeing this issue is that if your valve will not turn off, you should try unplugging/removing power from your timer. If the water stops, then that means that your timer is still sending voltage to the valve. If the water continues to flow, then the issue is stemming from your valve. Devices Covered: 57280 57281 57460 57461 57100 57101 57604 57623 57624 57625 57821 57823 57824 91112 Back to Support pageTags: Troubleshooting, Valve We may be compensated if you purchase through links on our website. Our team is committed to delivering honest, objective, and independent reviews on home products and services.MoreA leaking sprinkler system can waste water, damage your lawn, and increase your water bill. Fortunately, many common sprinkler system issues can be resolved with basic tools and know-how.In this video, This Old House landscape contractor Roger Cook demonstrates how to diagnose and repair a leaky sprinkler valve, a common source of sprinkler system problems. Understanding your sprinkler system’s anatomy and how to service its parts is crucial for homeowners looking to maintain their landscaping efficiently.Before attempting any repairs, it’s essential to understand your sprinkler system’s basic components. A typical system consists of several key parts. The main water supply line delivers water from the city into your system, effectively driving the necessary flow. The backflow preventer ensures clean water in your home by stopping any water from reentering the main supply. The controller or timer manages each watering session, ensuring your lawn gets adequate water at set intervals. Pipes designate the path water takes to reach the sprinklers.Valves are crucial, as they control water flow to different zones in your yard. Each valve typically resides in a valve box, connected to a low-voltage solenoid. This solenoid acts as a gatekeeper, receiving electrical signals from the controller to open or close the valves and regulate water flow. This setup forms the backbone of efficient irrigation, providing equal irrigation to specific areas of your lawn.To effectively repair your sprinkler system, you first need to identify the source of the leak. Common issues include the following:Broken sprinkler headsCracked pipesFaulty connectionsLeaking valvesEach problem area requires a specific repair approach for comprehensive system restoration.Before beginning the repair process, it’s crucial to have the right tools and materials on hand. A garden trowel, Phillips screwdriver, pliers, and bucket are essential for giving you access and control during the repair. Equipped with these tools, homeowners should also have replacement valve diaphragms, waterproof wire connectors, and clean stones or gravel. Using dry rags will help absorb excess moisture, maintaining a tidy work area conducive to effective repairs. Proper preparation can mean the difference between a successful fix and a persistent issue.Restoring valve functionality involves an organized approach. Follow these steps to repair a leaking sprinkler valve and stop water wastage:Shut off water supply: Begin by shutting off the water supply to the sprinkler system, preventing excess escape of water.Access valve box: Locate the valve box and remove its lid to assess the internal components.Clean the area: Use a garden trowel to clear out mud and debris from the valve box.Absorb moisture: Place dry rags within the valve box to absorb any remaining water and create a clean workspace.Remove solenoid: Carefully twist out the low-voltage solenoid valve, setting it aside.Drain the system: Allow any remaining water to escape through gravity.Access internal parts: Unscrew the valve bonnet using a Phillips screwdriver, revealing internal parts.Remove components: Gently extract the spring and diaphragm gasket from beneath the bonnet.Inspect for damages: Consider damage or wear on the diaphragm gasket, since it is a common place for leakage.Install new diaphragm: Align holes on a new valve diaphragm with those on the valve body.Replace and secure components: Set the spring back into place over the diaphragm. Reattach the valve bonnet, tightening the screws in a crisscross pattern similar to lug nuts on a car tire.Reconnect solenoid: Reinstall the solenoid valve with assurance all connections are stable.Secure electrical wiring: Attach waterproof wire connectors to minimize risk of corrosion.Restore area: Remove rags, replacing them with clean stone or gravel to deter silt buildup.Check back over time to ensure your repair is effective and long-lasting. Work with care to avoid disrupting other valve components. Waterproof wire connectors are vital, helping minimize the risk of corrosion and short circuits. Thorough cleaning, before and after the repair, prevents debris from interfering with operations. With the water back on, inspect for any persistent leakage and ensure proper operation by running the system.Regular maintenance can help prevent future leaks and keep your sprinkler system lasting longer. Consider these preventive measures:Annual cleaning: Clean valve boxes annually to remove debris and avoid clogging.Regular inspections: Inspect your system regularly for signs of leaks or damage.Sprinkler head adjustments: Adjust sprinkler heads as needed to ensure proper coverage and avoid overwatering.Winterization: Winterize your system before freezing temperatures to prevent pipe damage.While many sprinkler system repairs can be handled by homeowners, it is important to recognize situations that require professional help. Multiple valve malfunctions, main water line damage, and failure to locate a leak source are all complex issues. Faulty electrical components or a lack of the necessary tools or expertise can complicate repair operations. In these cases, contacting a licensed irrigation specialist can save time and prevent further damage.For More: How to Install an Automatic Sprinkler System; How to Install an In-Ground Sprinkler System Credit: The Spruce / Kevin Norris Sprinkler valve replacement is needed when the sprinklers are leaking or the water isn't flowing well. Replacing a valve is an easy-to-moderate job that requires some experience joining PVC pipe with solvent cement. Common symptoms of a faulty valve include: Valve leaks: Leaks around the valve or at the sprinkler head farthest from the valvePoor water flow: Inadequate water delivered to the sprinkler headsHeads that don't work: Sprinkler heads that don't come on or pop-ups that don't raise Purchase an exact replacement part for the sprinkler valve. When selecting the new valve, ensure the PVC adapters fit the valve sockets before leaving the store. These adapters have a male threaded end to attach to the valve and a female slip-fit end designed to be solvent-glued to the PVC irrigation pipe. Many local plumbing codes specify that the anti-siphon sprinkler valve must be at least 6 inches above the highest sprinkler head in the same zone when the head is in the popped-up position. Check with your local building department for height requirements. If your valve is not high enough to meet the code requirement, you may need to use couplings and additional pipe to raise the sprinkler valve to a higher position. Credit: The Spruce / Kevin Norris Shut off the water to the irrigation system by rotating the valve handle on the main supply pipe of the system. The valve is closed when the handle is perpendicular to the pipe. If there is no shutoff valve for the irrigation system, you may have to shut off the water at the home's main shutoff or the water meter. Credit: Puripat penpun / Getty Images After accessing the sprinkler valve, note where the wires are attached to the existing irrigation sprinkler valve. You must connect the wires to the new valve in the same way. When you're ready, disconnect the wires from the sprinkler valve. Before detaching the wiring, take several photos of the wiring with a smartphone or digital camera. Credit: The Spruce / Kevin Norris Using a reciprocating saw, hacksaw, or PVC pipe cutter, cut the PVC irrigation pipes just below the old PVC adapters. Cut as close as possible to the old fittings to conserve pipe length. The new sprinkler valve will be only slightly lower than the old one. Remove all plastic burrs around the cut edges with a utility knife or sandpaper, being careful not to let the debris drop into the pipes. Credit: The Spruce / Kevin Norris Install the new PVC male (MIP) adapters on the new sprinkler valve by wrapping plumber's tape around the threaded end of each adapter and threading it onto the valve socket. Tighten the adapters with tongue-and-groove pliers but be gentle to avoid cracking the parts. Credit: The Spruce / Kevin Norris Apply PVC primer and solvent glue to the insides of the female adapter sockets and the outsides of the pipe ends. Fit the new valve onto the pipes, pushing down until the pipes are seated fully into the adapter sockets. Let the PVC solvent glue dry for about two hours. Credit: The Spruce / Kevin Norris Connect the wires to the new valve in the same configuration that was used with the old valve. Turn the water back on by slowly rotating the shutoff valve's handle so it is parallel to the supply pipe. Check the valve and all connections for leaks. Verify that you installed the wires correctly by making sure the timer works with the new valve. Credit: The Spruce / Kevin Norris Call an irrigation specialist to replace bulk sprinkler valves for the entire system if you need it done in a hurry. One or two sprinkler valves can by a relatively easy job for an inexperienced do-it-yourselfer. But replacing all of the valves can be a time-consuming job. FAQ Sprinkler valves cost from $17 to around $100, depending on the manufacturer. Most valves cost in the $20 to $40 range. PVC MIP adapters cost just $1 or $2 each, and only two are needed. Sprinkler valves can be replaced on an as-needed basis or about every 10 to15 years. Orbit is a top provider of residential watering solutions in North America and globally. Our innovations, including PVC-Lock, Blu-Lock, Drip-Lock, and B-hyve smart controllers, have set new standards for irrigation efficiency and sustainability. With over 50 years of industry leadership, we offer a complete range of products for outdoor watering needs. Orbit's Hose Timers offer convenient control over watering schedules, optimizing water usage for plants. Orbit's Indoor/Outdoor irrigation controllers offer versatile configurations, precise flow control, and easy installation. Orbit Sprinkler Systems offer precise, efficient, and customizable watering solutions for your yard and garden. Orbit's Nozzles and Wands offer versatile spraying options and exceptional durability for all watering needs. Orbit's all-in-one kits offer simplified setup with durable components and smart hose faucet timers for irrigation convenience. Orbit's outdoor mist cooling systems provide refreshing relief from the heat, turning your outdoor space into a cool oasis. For over half a century, Orbit leads the industry in innovation with over 100 patents, operating in over 180 countries on six continents. Orbit provides a complete ecosystem of watering solutions, from hose products to advanced smart controllers, setting the industry standard. Orbit is committed to delivering smart solutions and reshaping residential watering practices to make a global impact in water conservation. Here is a video on how to replace the diaphragm inside a valve. Each valve has it’s own diaphragm. You will need to match the model of the diaphragm with the model of the valve. Here is a video on how to replace the solenoid on a valve Most solenoids on Orbit valves are interchangeable. Devices Covered: 57280, 57281, 57626, 57460, 57461, 57100, 57101, 57604, 57623, 57624, 57625, 57821, 57823, 57824, 91112, 57065, 57066, 57020, 57023, 57250, 57253 Back to Support pageTags: Maintenance, Troubleshooting, Valve Home - Diy Your Orbit sprinkler may need to be repaired for several reasons. The sprinkler may be knocked out of alignment or damaged by lawn equipment or foot traffic. The sprinkler's filter can become clogged with debris and restrict the spray. You may also need to adjust the watering radius and arc or rotation. Repairing your Orbit sprinkler will help keep your yard looking beautiful. Flat-head screwdriver Shovel Flush the supply line with water before reconnecting the sprinkler to the riser. This can help avoid clogging. Arc adjustments may require users to find the sprinkler's fixed right edge. This is the point where the sprinkler's turret does not move beyond. Activate the Orbit sprinkler. Using the palm of your hand, turn the turret to the left and then to the right. The turret will stop or no longer move when you have found the fixed right edge. Turn the sprinkler body so the fixed right edge aligns with the desired watering stop or start point. Turn the pattern-adjustment screw to make adjustments to the left edge. If the distance-adjustment screw is turned too far, the screw and the nozzle may come out. Inspect the sprinkler for signs of damage. Lawn mowers and tractors can hit a sprinkler. So can people with their feet. Watch how water sprays from the sprinkler. If it appears restricted or misaligned, see Steps 2 through 4. Clean the filter. Use a shovel to dig a hole around the sprinkler. Unscrew the sprinkler from the riser. Unscrew the cap and remove the cap and spring assembly from the sprinkler body. Remove the filter and flush it with water. If the filter looks damaged or is seriously clogged, you may need to replace it. Install a clean or new filter and reattach the cap and sprinkler assembly. Screw the sprinkler back onto the riser and then turn the water on to test it. Adjust the sprinkler's radius. The radius is the distance or flow of water emitted from the sprinkler. A "distance adjustment slot" is located on top of the sprinkler above the sprayer opening. Insert a flat-head screwdriver into the opening and turn the screw inside it. Turning the screw clockwise will dial down or reduce the radius of water. Turning it counterclockwise will increase it. Adjust the sprinkler's arc or rotation. This step only applies to rotary or gear-driven sprinklers that move when activated. You can adjust the arc or number of degrees the sprinkler rotates. Use a flat-head screwdriver to turn the pattern-adjustment screw located on top of the sprinkler. A small plus and minus sign will be visible on either side of the screw. Turn the screw to the plus symbol to increase the arc or watering degrees. Turn it to the minus symbol to decrease the arc or watering degrees. The arc can be adjusted from 40 to 360 degrees. The screw will stop turning or you may hear a ratcheting sound when you have reached the maximum and minimum arc. Replace the sprinkler if it is damaged beyond repair. Dig a hole around the existing Orbit sprinkler and remove it from the riser by unscrewing it. Install the new Orbit sprinkler by screwing it clockwise onto the riser. Supply water to the new sprinkler to test its operation. Your Orbit sprinkler may need to be repaired for several reasons. The sprinkler may be knocked out of alignment or damaged by lawn equipment or foot traffic. You may also need to adjust the watering radius and arc or rotation. So can people with their feet. Use a shovel to dig a hole around the sprinkler. Adjust the sprinkler's radius. Turning it counterclockwise will increase it. Use a flat-head screwdriver to turn the pattern-adjustment screw located on top of the sprinkler. Here is a video on how to replace the diaphragm inside a valve. Each valve has it’s own diaphragm. You will need to match the model of the diaphragm with the model of the valve. Here is a video on how to replace the solenoid on a valve Most solenoids on Orbit valves are interchangeable. Devices Covered: 57280, 57281, 57626, 57460, 57461, 57100, 57101, 57604, 57623, 57624, 57625, 57821, 57823, 57824, 91112, 57065, 57066, 57020, 57023, 57250, 57253 Back to Support pageTags: Maintenance, Troubleshooting, Valve Orbit sprinkler valves play a crucial role in your irrigation system. They control water flow to your lawn and garden. Problems with these valves can affect your entire sprinkler system. Understanding common issues and fixing them ensures your system works smoothly. This guide will help you troubleshoot and resolve problems with your Orbit sprinkler valves. From leaks to electrical issues, we will cover it all. Whether you’re a seasoned gardener or a beginner, this information will be useful. Keep your garden lush and green by keeping your sprinkler system in top shape. Let’s dive into the details and get your Orbit sprinkler valves working perfectly again. Credit: www.youtube.com Having trouble with your Orbit sprinkler valve can be frustrating. Knowing the common symptoms can help you fix the problem quickly. This section will cover two main issues: sprinklers not turning on and sprinklers not shutting off.Sprinkler Not Turning OnIf your sprinkler does not turn on, it could be due to several reasons. First, check the power supply to the valve. Ensure the timer is working correctly. Sometimes, a simple reset can solve the issue. Next, inspect the wiring connections. Loose wires can prevent the valve from receiving signals. Also, check the valve for any dirt or debris. This can block the water flow. Cleaning the valve might fix the problem.Sprinkler Not Shutting OffAnother common issue is the sprinkler not shutting off. This can waste a lot of water. First, check the timer settings. An incorrect schedule can cause continuous watering. Next, inspect the valve diaphragm. A damaged diaphragm can cause the valve to stay open. Replacing it might solve the problem. Also, check for any debris inside the valve. Dirt can prevent the valve from closing properly. Cleaning the valve can often fix this issue. Troubleshooting an Orbit sprinkler valve requires the right tools. Having these tools on hand ensures a smooth process. You need basic and specialized tools. This guide will help you gather the necessary tools to fix your sprinkler system efficiently.Basic ToolsStart with a few basic tools. A screwdriver set is essential. Different screws may be used in the valve assembly. Pliers are useful for gripping and turning small parts. A multimeter helps check electrical connections. Make sure it measures voltage, current, and resistance. A small flashlight is also handy. It helps you see in tight or dark spaces.Specialized ToolsSome problems need specialized tools. A solenoid tester is a good investment. It checks if the solenoid is working properly. A wire stripper will help you handle electrical wires safely. Sometimes you need a valve key. It turns off the water supply to the valve. A pressure gauge measures water pressure in the system. This ensures everything runs smoothly. Having issues with your Orbit sprinkler system? It may be due to a power supply problem. Ensuring that your sprinkler valve has the correct power supply is crucial for its operation. Let’s dive into how you can check the power supply.Inspecting The WiringFirst, examine the wiring connected to the valve. Look for any visible damage or wear. Broken or frayed wires can disrupt the power flow. Ensure all wire connections are secure. Loose wires can cause the valve to malfunction.Use a multimeter to check the voltage. The reading should be around 24 volts. If the voltage is incorrect, there might be an issue with the wiring. Replace any damaged wires to restore proper power supply.Testing The TransformerNext, test the transformer that supplies power to the valve. The transformer converts high voltage to a lower voltage suitable for the sprinkler system. Locate the transformer near the controller box. Use a multimeter to measure the voltage output.The output should be consistent with the system’s requirements, typically 24 volts. If the transformer output is incorrect, it may need replacement. Ensure the transformer is properly plugged in and receiving power from the outlet. Inspecting the solenoid is crucial for maintaining your Orbit sprinkler system. The solenoid acts as an electromagnet, opening and closing valves to control water flow. Over time, it can wear out or become damaged. This can lead to inefficient irrigation. Identifying and resolving solenoid issues can save water and ensure a lush, green lawn.Solenoid Malfunction SignsRecognizing the signs of a faulty solenoid is the first step in troubleshooting. Here are some common indicators: Water Leaks: If water leaks even when the system is off, the solenoid might be stuck open. No Water Flow: If no water flows to the sprinkler heads, the solenoid might be stuck closed. Buzzing Noise: A buzzing sound from the valve box suggests the solenoid is struggling to operate. Electrical Issues: If the controller displays an error, the solenoid may be shorted or disconnected. Replacing A Faulty SolenoidIf you suspect the solenoid is faulty, replacing it is straightforward. Follow these steps: Turn Off Water Supply: Shut off the main water supply to the sprinkler system. Disconnect Wires: Carefully disconnect the wires connected to the solenoid. Remove the Solenoid: Unscrew the faulty solenoid from the valve. Install the New Solenoid: Screw in the new solenoid and hand-tighten it. Reconnect Wires: Attach the wires to the new solenoid, matching wire colors. Turn On Water Supply: Open the main water supply and test the system. By following these steps, you can restore your sprinkler system’s functionality. Regular inspection and maintenance ensure long-lasting performance. Cleaning the valve is essential for maintaining your Orbit sprinkler system. Dirt and debris can cause the valve to malfunction. Regular cleaning helps ensure the system operates smoothly.Removing DebrisTo start, turn off the water supply. This prevents any accidents while you clean. Use a screwdriver to remove the screws from the valve cover. Carefully lift the cover to expose the internal parts.Check for any visible debris inside the valve. Use a soft brush or cloth to remove dirt and grime. For stubborn debris, use a mild soap and water solution. Avoid harsh chemicals that may damage the valve parts.Reassembling The ValveOnce clean, inspect the parts for wear or damage. Replace any worn-out parts to ensure proper functioning. Reassemble the valve by placing the internal parts back in their original positions.Secure the valve cover with the screws you removed earlier. Make sure the cover is tight to prevent any leaks. Turn the water supply back on and check the valve for proper operation. Credit: www.reddit.com Low water pressure in your Orbit sprinkler system can be frustrating. It affects the efficiency of your lawn watering. Understanding the root cause is key to fixing it. This section covers easy steps to address low water pressure. Follow these tips to ensure your system runs smoothly.Checking For ClogsFirst, check the sprinkler heads for clogs. Dirt and debris can block the water flow. Remove the sprinkler heads and inspect them. Clean any blockages using a small brush or a toothpick. Also, check the filter screens. Clean them if they are dirty. This simple step can often restore normal water pressure.Adjusting Water FlowNext, adjust the water flow on your sprinkler valve. Locate the flow control knob on the valve. Turn it clockwise to increase the water pressure. Be careful not to over-tighten it. Check your system after adjusting. Make sure the pressure is adequate and even across all zones. Fixing leaks in your Orbit sprinkler valve system ensures efficient water usage. Leaks can lead to water waste and increased bills. Addressing these issues promptly is crucial. This guide will help you identify and repair leaks effectively. Identifying Leak Sources First, check the sprinkler valve box for standing water. This indicates a leak. Inspect the valve connections and look for wet spots. These spots can signal a leak in the piping or fittings. Pay attention to areas around the solenoid and anti-siphon valve. Next, turn on the sprinkler system and observe. Leaks may appear as small sprays or drips. Note the location and intensity of these leaks. Identifying the source is the first step to fixing it. Repair Techniques Once you identify the leak, turn off the water supply. This prevents further water loss. If the leak is at a joint, tighten the fittings. Use a wrench to secure them properly. If the fitting is cracked, replace it with a new one. For leaks in the valve box, consider replacing the O-rings. O-rings can wear out over time. Remove the old ones and install new O-rings. This often stops the leak. If the solenoid is leaking, check for debris. Clean the solenoid and reassemble it. In some cases, you might need to replace the solenoid. Ensure all parts are clean and properly aligned. For pipe leaks, use a pipe repair clamp. Position the clamp over the leak and tighten it. This provides a quick fix until you can replace the damaged section. Maintaining your Orbit sprinkler valve is essential for a lush, green lawn. Regular care ensures that your sprinkler system works efficiently, saving you time and money. Below are some preventative maintenance tips to keep your sprinkler valve in top shape.Regular InspectionsInspect your sprinkler valve every month. Look for signs of wear, tear, or damage. Check for leaks around the valve and the connections. A small leak can waste water and increase your bill. Ensure the valve box is free of debris. Check the wiring for any signs of corrosion. Listen for unusual noises when the valve is operating. Regular inspections help you catch issues early. This saves you from costly repairs later.Seasonal MaintenancePerform seasonal maintenance to ensure your sprinkler system runs smoothly all year. Follow these simple steps: Season Maintenance Task Spring Check for winter damage. Clean the valve box. Summer Inspect for leaks. Test the valve operation. Fall Winterize the system. Drain the water lines. In spring, ensure the valve and pipes are intact. Clean any dirt or debris from the valve box. During summer, inspect for leaks and ensure the valve operates correctly. In fall, prepare your system for winter. Drain water lines to avoid freezing and damage.By following these preventative maintenance tips, you can extend the life of your Orbit sprinkler valve. A well-maintained system ensures your lawn remains healthy and green. Credit: diy.stackexchange.com A bad valve may cause leaks or no water flow. Check for unusual noises or stuck valves. Check if the power source is connected. Inspect the wiring and ensure the timer is set correctly. Turn the solenoid (small black cap) counterclockwise to manually open the valve for testing. Leaking can be caused by dirt or debris in the valve, worn-out seals, or a damaged diaphragm. Shut off the water supply. Remove the valve cover and clean any debris inside with a soft brush. Fixing Orbit sprinkler valve issues can seem tough, but it’s doable. Follow the steps and solutions shared above. Stay patient and check each part carefully. Regular maintenance helps prevent future problems. A well-functioning sprinkler system keeps your lawn green and healthy. Keep learning and practicing your troubleshooting skills. Your garden will thank you for it!