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> Orbit 80302 Professional Pressure-Regulating Pop-Up Spray Head Sprinkler Manual

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Model: 80302

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Orbit 80302 Professional Pressure-Regulating Pop-Up Spray Head Sprinkler. Please read this manual thoroughly before installation and use to ensure optimal performance and longevity of your sprinkler system.

2. PRODUCT OVERVIEW

The Orbit 80302 is a professional-grade pop-up spray head sprinkler designed for efficient and reliable landscape irrigation. It features an innovative pressure regulator, adjustable from 30 to 40 PSI, suitable for various nozzle types. This model is commonly available in 2-, 3-, and 4-inch riser stem heights, with this specific product being a 4-inch variant.

- **Pressure Regulation:** Adjustable to 30 PSI (recommended for spray nozzles) or 40 PSI (recommended for multi-stream rotator nozzles).
- **Durable Wiper Seal:** Features an over-molded structural support for smooth retraction and to prevent water bypass.
- **Corrosion-Resistant Spring:** Stainless steel riser spring ensures reliable pop-up action for years of operation.
- **Adjustable Spray Direction:** A ratcheting mechanism in the riser stem allows for fine-tuning of the spray direction after installation.
- **Integral Silt Trap:** Located at the bottom of the can to prevent debris entry and maintain performance.
- **Standard Inlet:** 1/2-inch female pipe threads (FPT) for compatibility with Blu-Lock, Riser-Flex fittings, and 1/2-inch Schedule 80 PVC.
- **Adjustable Pattern Nozzle:** Engineered to deliver uniform droplet sizes across a 0-to-360-degree arc, with an adjustment screw to reduce spray distance by up to 75%.



Figure 1: Orbit 80302 Professional Pressure-Regulating Pop-Up Spray Head Sprinkler. This image shows the compact design of the sprinkler head, ready for installation into an irrigation system.

3. SETUP AND INSTALLATION

1. **Prepare the Trench:** Dig a trench for your irrigation lines, ensuring it is deep enough to accommodate the sprinkler body and piping, typically allowing the top of the sprinkler to be flush with the ground level.
2. **Connect to Water Line:** The sprinkler body inlet has standard 1/2-inch female pipe threads (FPT). Connect it to your irrigation piping using compatible fittings such as Blu-Lock, Riser-Flex, 1/2-inch Schedule 80 PVC, or cut-off risers. Ensure all connections are secure and watertight.
3. **Adjust Pressure Regulator (Pre-installation):** The pressure regulator can be adjusted from the bottom of the can before installation. Use a suitable tool to set the desired pressure to 30 PSI for spray nozzles or 40 PSI for multi-

stream rotator nozzles.

4. **Position the Sprinkler:** Place the sprinkler head in the desired location, ensuring it is vertical and the top is level with the ground surface. Backfill the trench, being careful not to damage the sprinkler or piping.
5. **Adjust Pressure Regulator (Post-installation):** If needed, the pressure regulator can also be adjusted from the top of the can after installation.

4. OPERATING INSTRUCTIONS

Once installed, the Orbit 80302 sprinkler is designed for straightforward operation within your irrigation system.

- **System Activation:** Turn on your irrigation system's water supply. The sprinkler head will pop up when water pressure is applied.
- **Adjusting Spray Direction:** The riser stem features a ratchet mechanism. Gently twist the top of the riser stem to adjust the direction of the spray pattern to cover the desired area. This can be done after installation.
- **Adjusting Spray Arc and Distance:** The adjustable pattern spray nozzle allows for precise control.
 - **Arc Adjustment:** Rotate the top of the nozzle to set the desired arc from 0 to 360 degrees.
 - **Distance Adjustment:** Use a flat-head screwdriver to turn the adjustment screw located on the nozzle. Turning the screw clockwise will reduce the spray distance, up to 75% of its rated distance. Turning it counter-clockwise will increase the distance.
- **Water Usage:** This product is designed for outdoor irrigation use with cold water only.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your sprinkler heads.

- **Nozzle Cleaning:** Periodically inspect the nozzle for debris or mineral buildup. If clogged, remove the nozzle and rinse it under running water. A soft brush can be used for stubborn deposits.
- **Filter Cleaning:** The nozzle includes a filter. If water flow is reduced, remove the nozzle and clean the filter screen.
- **Winterization:** In regions subject to freezing temperatures, it is crucial to properly winterize your irrigation system to prevent damage. This typically involves draining all water from the lines and sprinklers. Consult local guidelines for specific winterization procedures.
- **Inspect for Leaks:** Regularly check for any visible leaks around the sprinkler head or connections. Address leaks promptly to conserve water and maintain system pressure.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Sprinkler head does not pop up or retracts slowly.	Low water pressure, debris in the riser mechanism, damaged spring.	Check system water pressure. Clean around the riser stem. If spring is damaged, replace the sprinkler head.
Uneven spray pattern or reduced spray distance.	Clogged nozzle or filter, incorrect pressure setting, damaged nozzle.	Clean the nozzle and filter. Verify pressure regulator setting (30 PSI for spray, 40 PSI for rotator). Adjust spray distance screw. Replace nozzle if damaged.

Problem	Possible Cause	Solution
Water leaks from the base of the sprinkler.	Loose connection, damaged threads, cracked sprinkler body.	Tighten connections. Inspect threads for damage. If the body is cracked, replace the sprinkler head.
Water blows by the riser stem.	Damaged wiper seal.	The wiper seal has an over-molded structural support for reliability. If water bypasses, the seal may be compromised, requiring replacement of the sprinkler head.

7. SPECIFICATIONS

- **Model Number:** 80302
- **Brand:** Orbit
- **Type:** Professional Pressure-Regulating Pop-Up Spray Head Sprinkler
- **Riser Stem Heights:** Available in 2-inch, 3-inch, and 4-inch variants (This product is a 4-inch riser).
- **Pressure Regulation:** Adjustable to 30 PSI or 40 PSI
- **Inlet Connection:** 1/2-inch Female Pipe Thread (FPT)
- **Nozzle Type:** Adjustable Pattern Spray Nozzle (0-360 degree arc)
- **Spray Distance Adjustment:** Up to 75% reduction from rated distance
- **Material:** Corrosion-resistant stainless steel spring, durable plastic body
- **Dimensions (Approximate):** 2 x 2 x 6 inches (L x W x H)
- **UPC:** 840041571240

8. WARRANTY AND SUPPORT

For information regarding product warranty, please refer to the official Orbit website or contact Orbit customer support directly. Keep your purchase receipt as proof of purchase.

Orbit Customer Support:

- **Website:** www.orbitonline.com (Please visit for the most current support information and contact methods.)

