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Toro 53709

Toro 53709 1-Inch Jar Top Underground Sprinkler System Valve with Flow Control

Model: 53709

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Toro 53709 1-Inch Jar Top Underground Sprinkler System Valve with Flow Control. This valve is designed for use in underground sprinkler systems, offering reliable water flow management and easy servicing.

2. SAFETY INFORMATION

Always observe the following safety precautions:

- Ensure water supply is turned off before performing any installation or maintenance.
- Wear appropriate personal protective equipment, such as gloves and eye protection, during installation.
- Consult local plumbing codes and regulations before installation.
- Keep out of reach of children.

3. PRODUCT OVERVIEW

The Toro 53709 valve features a durable plastic construction and a jar-top design for convenient access. It includes an encapsulated solenoid and flow control for precise water management.



Figure 1: Toro 53709 1-Inch Jar Top Underground Sprinkler System Valve. This image shows the main components of the valve, including the jar top, solenoid, and inlet/outlet connections.

Key Features:

- **1-Inch Inlet/Outlet:** Compatible with standard 1-inch plumbing.
- **Jar-Top Design:** Allows for fast and easy servicing without tools.
- **Flow Control:** Enables precise adjustment of water flow after installation.
- **Manual Internal/External Bleed:** For manual operation and system flushing.
- **Encapsulated Solenoid:** Ensures reliable electrical operation.
- **Durable Plastic Construction:** Designed for underground use.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the Toro 53709 valve:

1. **Prepare the Site:** Dig a trench to the desired depth for your sprinkler system. Ensure the valve box (if used) is level and provides adequate drainage.
2. **Turn Off Water Supply:** Locate the main water shut-off valve for your irrigation system and turn it off completely.

3. **Connect Plumbing:** Connect the 1-inch PVC or other compatible piping to the inlet and outlet ports of the valve. The valve features female FIP connections. Use appropriate thread sealant for a watertight seal. Ensure arrows on the valve body indicate the correct direction of water flow.
4. **Wire the Solenoid:** Connect the solenoid wires to your irrigation controller's common wire and the appropriate zone wire. Refer to your irrigation controller's manual for specific wiring instructions.
5. **Test Connections:** Slowly turn on the main water supply and check for any leaks at the connections. Address any leaks before proceeding.
6. **Secure the Valve:** Place the valve securely within a valve box, if applicable, ensuring it is stable and protected from debris.



Figure 2: Example of a Toro sprinkler valve installed within an underground valve box. This illustrates how the valve is typically housed and connected to the irrigation system.

5. OPERATING INSTRUCTIONS

Automatic Operation:

Once installed and wired to an irrigation controller, the valve will open and close automatically according to the programmed schedule. Refer to your irrigation controller's manual for programming instructions.

Manual Operation:

- **Manual Bleed (Internal):** To manually open the valve, turn the solenoid counter-clockwise approximately one-half to one full turn. Water will begin to flow. To close, turn the solenoid clockwise until snug.
- **Manual Bleed (External):** Some models may have a small lever or screw for external manual bleed. Consult the valve body for specific instructions if present.

Flow Control Adjustment:

The flow control knob on top of the valve allows you to adjust the amount of water flowing through the valve. This is useful for fine-tuning the water output to specific zones or sprinklers.

- Turn the flow control knob clockwise to decrease water flow.
- Turn the flow control knob counter-clockwise to increase water flow.
- Adjust gradually until the desired flow rate is achieved for your sprinklers.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your valve.

- **Periodic Inspection:** Periodically inspect the valve for any visible signs of damage, leaks, or debris accumulation.
- **Cleaning the Diaphragm:** If the valve is not opening or closing properly, or if water flow is restricted, the diaphragm may need cleaning.
 - a. Turn off the main water supply.
 - b. Unscrew the jar top by hand (counter-clockwise).
 - c. Carefully remove the diaphragm assembly.
 - d. Rinse the diaphragm and valve body thoroughly with clean water to remove any dirt, sand, or mineral deposits. Inspect the diaphragm for tears or damage.
 - e. Reassemble the diaphragm, ensuring it is seated correctly. Screw the jar top back on hand-tight. Do not overtighten.
 - f. Turn on the water supply and test the valve operation.
- **Winterization:** In colder climates, ensure the system is properly drained and winterized to prevent freezing damage to the valve.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Valve does not open	No power to solenoid; faulty solenoid; clogged diaphragm; main water supply off.	Check controller wiring and power; test solenoid (replace if faulty); clean diaphragm; ensure water supply is on.
Valve does not close completely (leaks)	Debris under diaphragm; damaged diaphragm; loose jar top.	Clean diaphragm and valve seat; replace diaphragm; tighten jar top.
Low water flow	Flow control adjusted too low; partially clogged valve/piping; insufficient water pressure.	Adjust flow control; clean valve; check main water pressure.
Water continuously flows (valve stuck open)	Debris preventing diaphragm from seating; faulty solenoid.	Clean diaphragm and valve seat; replace solenoid.

8. SPECIFICATIONS

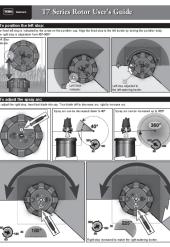
- **Model Number:** 53709
- **Brand:** Toro
- **Material:** Plastic
- **Inlet Connection Type:** Female FIP
- **Product Dimensions (L x W x H):** 8.4 x 10.7 x 16 cm (approx. 3.3 x 4.2 x 6.3 inches)
- **Item Weight:** 408 g (approx. 0.9 lbs)
- **Manufacturer:** Toro
- **Manufactured In:** Mexico

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Toro website or contact Toro customer service directly. Keep your purchase receipt as proof of purchase.

Toro Customer Service: www.toro.com/en/customer-support

Related Documents - 53709

	<p>Toro GreenKeeper 212 Automatic Sprinkler System Controller User's Guide</p> <p>A comprehensive user guide for the Toro GreenKeeper 212 Automatic Sprinkler System Controller, covering setup, programming, installation, operation, maintenance, and troubleshooting.</p>
	<p>Toro T7 Series Rotor User's Guide: Installation and Operation</p> <p>Comprehensive user guide for the Toro T7 Series Rotor, covering installation, spray arc adjustment, nozzle replacement, and nozzle performance data. Learn how to optimize your irrigation system.</p>
	<p>Toro ProPass 200 Top Dresser Conveyor and Swivel Kit Installation Instructions</p> <p>Official installation instructions for the Toro ProPass™ 200 Top Dresser Conveyor and Swivel Kit (Model No. 44703). Includes safety warnings, decal explanations, and detailed step-by-step assembly procedures.</p>
	<p>Toro GTS Starting Guarantee and Warranty Information</p> <p>This document outlines the Toro GTS Starting Guarantee and provides detailed warranty periods and conditions for Toro products, including lawn mowers and batteries. It covers what is included and excluded under the warranty, instructions for obtaining service, and owner responsibilities.</p>
	<p>Toro 51490 22-Inch Electric Hedge Trimmer Operator's Manual: Safety, Operation, Maintenance, and Warranty</p> <p>This operator's manual provides essential safety warnings, operating instructions, maintenance procedures, and warranty details for the Toro 51490 22-inch electric hedge trimmer, designed for residential use.</p>
	<p>Toro TEMPUS Controller User's Guide: Models 53828, 53829, 53827</p> <p>Comprehensive user's guide for the Toro TEMPUS Controller, covering installation, programming, and operation for models 53828 (6 Station), 53829 (8 Station), and 53827 (8 Station with Wi-Fi).</p>