

## Claber 90938

# Claber 24V 90938 Solenoid Valve Instruction Manual

Model: **90938** | Brand: **Claber**

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Claber 24V 90938 Solenoid Valve. This valve is designed for use in automatic garden irrigation systems, controlling water flow when connected to a compatible 24V AC irrigation programmer.

## 2. SAFETY INFORMATION

- Always disconnect power to the irrigation programmer before performing any installation or maintenance on the solenoid valve.
- Ensure all electrical connections are made by a qualified professional and comply with local electrical codes.
- Do not operate the valve with voltages other than 24V AC.
- Use appropriate thread sealant (e.g., PTFE tape) on all threaded connections to prevent leaks.
- Install the valve in a location protected from freezing temperatures.

## 3. PRODUCT OVERVIEW

The Claber 90938 is a robust 24V solenoid valve constructed from durable materials, designed for reliable water flow control in irrigation systems. It features a threaded connection for easy integration into existing piping.



*Image 3.1: Claber 24V 90938 Solenoid Valve. This image shows the main body of the valve, made of black plastic, with threaded connections on both sides for water inlet and outlet. The solenoid coil, also black, is mounted vertically on top of the valve body, featuring two electrical terminals for connection to an irrigation programmer. The Claber logo is visible on the top cover.*

## 4. SETUP AND INSTALLATION

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### 4.1 Pre-Installation Checks

- Ensure the water supply is turned off before beginning installation.
- Verify that the irrigation programmer is compatible with 24V AC solenoid valves.
- Confirm that the pipe thread size matches the valve's 1/2" or 3/4" connections.

### 4.2 Mechanical Installation

1. **Identify Flow Direction:** The valve body typically has an arrow indicating the direction of water flow. Install the valve so that the arrow points in the direction of water flow from the main supply to the irrigation zone.
2. **Apply Thread Sealant:** Wrap PTFE tape (Teflon tape) clockwise around the male threads of the pipes connecting to the valve's inlet and outlet ports. Apply 3-5 wraps for a secure, watertight seal.
3. **Connect Pipes:** Hand-tighten the valve onto the pipes. Then, use a wrench to tighten an additional 1 to 2 turns. Do not overtighten, as this can damage the valve body or threads.
4. **Secure Mounting:** Ensure the valve is securely mounted and supported to prevent strain on the pipe connections.

### 4.3 Electrical Connection

1. **Disconnect Power:** Ensure the irrigation programmer is unplugged or its power supply is turned off.
2. **Wire Connection:** Connect one wire from the 24V AC output of your irrigation programmer to one of the terminals on the solenoid coil. Connect the other wire from the programmer (common wire) to the other terminal on the solenoid coil. The polarity for 24V AC solenoids is generally not critical.
3. **Secure Connections:** Use waterproof wire connectors (e.g., grease-filled wire nuts) to protect the electrical connections from moisture and corrosion.
4. **Test:** Once all connections are secure and power is restored to the programmer, test the valve by

manually activating the zone from the programmer.

## 5. OPERATING INSTRUCTIONS

The Claber 90938 Solenoid Valve operates in conjunction with an automatic irrigation programmer. When the programmer sends a 24V AC signal to the valve, the solenoid coil energizes, opening the valve and allowing water to flow to the designated irrigation zone. When the signal is removed, the valve closes, stopping the water flow.

### 5.1 Automatic Operation

Set your irrigation programmer according to its specific instructions to schedule watering times and durations for the zone connected to this valve.

### 5.2 Manual Operation (if applicable)

Some solenoid valves include a manual override feature, often a small lever or screw on the solenoid coil. If present, turning or lifting this mechanism will manually open the valve, allowing water to flow independently of the programmer. Refer to the specific design of your valve for manual override options. Ensure to return it to the automatic position after manual use.

## 6. MAINTENANCE

- **Regular Inspection:** Periodically inspect the valve for any signs of leaks, damage, or corrosion.
- **Cleaning:** If the valve experiences reduced flow or fails to open/close properly, sediment or debris may be obstructing its internal components. Turn off the water supply and power, then carefully disassemble the top section of the valve to clean the diaphragm and internal passages. Reassemble carefully, ensuring all parts are correctly seated.
- **Winterization:** In regions subject to freezing temperatures, it is crucial to drain all water from the irrigation system, including the solenoid valves, before the first frost. This prevents damage from freezing water expansion. Consult your irrigation system's overall winterization guide.

## 7. TROUBLESHOOTING

| Problem                              | Possible Cause                                                                                                                                                                   | Solution                                                                                                                                                                                                                                                                                                             |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve does not open                  | <ul style="list-style-type: none"><li>◦ No power to solenoid</li><li>◦ Faulty wiring connection</li><li>◦ Solenoid coil failure</li><li>◦ Debris obstructing diaphragm</li></ul> | <ul style="list-style-type: none"><li>◦ Check programmer settings and power supply.</li><li>◦ Inspect and secure electrical connections.</li><li>◦ Test solenoid coil with a multimeter (should show resistance). Replace if open circuit.</li><li>◦ Clean valve internals (refer to Maintenance section).</li></ul> |
| Valve does not close (constant flow) | <ul style="list-style-type: none"><li>◦ Debris lodged in valve</li><li>◦ Damaged diaphragm</li><li>◦ Solenoid coil stuck open</li></ul>                                          | <ul style="list-style-type: none"><li>◦ Clean valve internals.</li><li>◦ Inspect and replace diaphragm if damaged.</li><li>◦ Check if manual override is engaged.</li></ul>                                                                                                                                          |

| Problem                     | Possible Cause                                                                                                                                        | Solution                                                                                                                                                                                |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water leaks from valve body | <ul style="list-style-type: none"><li>◦ Loose connections</li><li>◦ Damaged O-rings or seals</li><li>◦ Cracked valve body (due to freezing)</li></ul> | <ul style="list-style-type: none"><li>◦ Tighten threaded connections (do not overtighten).</li><li>◦ Replace O-rings or seals.</li><li>◦ Replace the entire valve if cracked.</li></ul> |

## 8. SPECIFICATIONS

- **Model:** Claber 90938
- **Brand:** Claber
- **Voltage:** 24V AC
- **Connection Type:** Threaded
- **Number of Ports:** 1
- **Thread Size:** 1/2" or 3/4" (depending on installation)
- **Materials:** Stainless steel, Plastic, Copper
- **Weight:** Approximately 3 Kilograms
- **Valve Type:** Irrigation Control Valve

## 9. WARRANTY AND SUPPORT

Claber products are manufactured to high-quality standards and are covered by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Claber website. For technical support, spare parts, or further assistance, please contact Claber customer service or your local distributor.

You can find more information and contact details on the [Claber Store on Amazon](#).