

Valemo AD1S

Valemo AD1S Powerhead Instruction Manual

Model: AD1S
Brand: Valemo

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Valemo AD1S Powerhead. The AD1S Powerhead is designed as a direct replacement for Honeywell V8043A, V8043E, V8043G, and V8043F Power Heads. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent electrical shock, equipment damage, or personal injury:

- **WARNING:** Disconnect power supply before connecting wiring or performing any service to prevent electrical shock or equipment damage.
- Ensure the power supply is 24 VAC as specified for this unit.
- Installation should only be performed by a qualified technician.
- Do not apply power or move the manual open lever from its factory-set position until the powerhead is properly installed on the valve. Incorrect handling can cause gear skidding and damage the unit.

3. PRODUCT OVERVIEW

The Valemo AD1S Powerhead is a robust and reliable component for your heating or cooling system. Key features include:

- Corrosion-resistant, stainless steel housing with an aluminum cover.
- Quality tested for over 100,000 cycles for flawless operation.
- Heavy-duty motor with all metal gears for enhanced durability.
- Designed to work with Honeywell's new style valves that feature removable power heads (V8043A, V8043E, V8043G, V8043F).
- Operates on 24 VAC, 50/60 Hz, and includes a 24V, 2A end switch.

- Equipped with 18-inch lead wires for convenient installation.



Image: Valemo AD1S Powerhead, front view showing the lead wires.

4. WHAT'S IN THE BOX

Upon opening the package, you should find the following components:

- Valemo AD1S Powerhead
- Mounting Screws (typically two)
- Instruction Sheet



Image: The Valemo AD1S Powerhead as packaged, showing the product and included screws.

Video: Unboxing the Valemo AD1S Powerhead and identifying included components.

5. INSTALLATION

5.1. Removing the Old Powerhead

1. **Disconnect Power:** Before beginning, ensure all power to the heating/cooling system is completely disconnected at the main breaker.
2. **Locate Screws:** Identify the two screws securing the old powerhead to the valve body. These are typically located on the top plate.
3. **Remove Screws:** Using an appropriate screwdriver, carefully loosen and remove these two screws.
4. **Detach Powerhead:** Gently lift the old powerhead straight up from the valve body. It should detach easily once the screws are removed.
5. **Disconnect Wiring:** Carefully disconnect the wiring from the old powerhead. Note the wire colors and their connections for reference during new installation.



Image: An existing powerhead mounted on a valve body, ready for removal.

Video: Step-by-step guide on how to safely remove an old powerhead from a valve.

5.2. Installing the New Powerhead

1. **Prepare New Powerhead:** The manual open lever on the new powerhead is factory-set to the 'MAN. OPEN' position. Do not move this lever or apply power until the powerhead is fully installed on the valve.
2. **Align Powerhead:** Carefully align the new Valemo AD1S Powerhead with the valve body. Ensure the shaft on the valve body properly engages with the mechanism inside the powerhead.
3. **Secure Powerhead:** Use the provided screws to secure the new powerhead to the valve body. Tighten them firmly but do not overtighten.
4. **Connect Wiring:** Connect the lead wires of the new powerhead according to the wiring diagram for your system. The AD1S is compatible with 2-wire (without end switch) and 4-wire (with end switch) systems. Refer to the original wiring or a professional if unsure.
5. **Restore Power:** Once the powerhead is securely installed and wired, restore power to the system at the main breaker.

6. **Test Operation:** Test the system to ensure the powerhead operates correctly, opening and closing the valve as commanded by the thermostat or control system.



Image: Valemo AD1S Powerhead with its manual open lever, ready for installation.

Video: Detailed instructions on installing the new Valemo AD1S Powerhead onto the valve body.

6. OPERATION

The Valemo AD1S Powerhead is designed for automatic operation in conjunction with a thermostat or zone control system. When the thermostat calls for heat or cooling, the powerhead motor will energize, opening the valve to allow fluid flow. When the call is satisfied, the motor de-energizes, and the spring return mechanism closes the valve.

Manual Open Lever: The powerhead includes a manual open lever. This lever allows you to manually open the valve for system filling or in case of power failure. To engage, push the lever to the 'MAN. OPEN' position. To return to automatic operation, push the lever to the 'AUTO' position. Ensure the lever is in 'AUTO' for normal system function.

7. MAINTENANCE

The Valemo AD1S Powerhead is designed for long-term, maintenance-free operation. However, periodic visual inspection is recommended:

- Check for any signs of physical damage or corrosion on the housing.
- Ensure wiring connections remain secure and free from corrosion.
- Keep the exterior of the powerhead clean and free from dust or debris.

8. TROUBLESHOOTING

If you experience issues with your Valemo AD1S Powerhead, consider the following common troubleshooting steps:

- **No Operation:**
 - Check if power is supplied to the unit (24 VAC).
 - Verify all wiring connections are correct and secure.
 - Ensure the thermostat or zone control is calling for operation.

- **Valve Not Opening/Closing Fully:**

- Check the manual open lever position; it should be in 'AUTO' for automatic control.
- Inspect for any obstructions preventing the valve from moving freely.
- Ensure the powerhead is securely mounted to the valve body.

- **Unusual Noises:**

- If you hear grinding or unusual noises, immediately disconnect power and inspect the unit for damage or misalignment. Do not attempt to force the mechanism.

If problems persist after attempting these steps, contact a qualified HVAC technician or Valemo customer support for assistance.

9. SPECIFICATIONS

Attribute	Value
Model Number	AD1S
Voltage	24 VAC
Frequency	50/60 Hz
End Switch	24V, 2A
Lead Wire Length	18 inches
Housing Material	Stainless Steel
Cover Material	Aluminum (Brushed)
Item Weight	1.01 pounds
Package Dimensions	5.08 x 2.99 x 2.91 inches
Country of Origin	China
Installation Method	Quick release
Usage	Replacement
Included Components	Actuator

10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact Valemo Controls LLC directly. Keep your purchase receipt as proof of purchase for any warranty claims.

Manufacturer: Valemo Controls LLC