Zodiac 4424

Zodiac 4424 180-DIG 24-VAC Packout Assembly Replacement Manual

For Zodiac Jandy JVA Pool and Spa Valve Actuators Models 1240, 2440

Introduction

This manual provides detailed instructions for the installation and operation of the Zodiac 4424 180-DIG 24-VAC Packout Assembly. This component is designed as a direct replacement for select Zodiac Jandy JVA pool and spa valve actuators. Please read this manual thoroughly before proceeding with installation or maintenance to ensure proper function and safety.

Safety Information

WARNING: Risk of Electric Shock. Always disconnect power to the pool and spa equipment at the main breaker before installing or servicing this product.

- Ensure all electrical connections are made by a qualified professional and comply with local electrical codes.
- Do not operate the actuator if it appears damaged.
- Keep children away from pool and spa equipment during installation and operation.
- Wear appropriate personal protective equipment (PPE) during installation.

Package Contents

Verify that all items are present before beginning installation:

- Zodiac 4424 180-DIG 24-VAC Packout Assembly
- Mounting Screws (typically included with the actuator)
- Instruction Manual (this document)



Figure 1: Zodiac 4424 180-DIG 24-VAC Packout Assembly. This image shows the black actuator unit with its electrical cable and connector. The main body is rectangular with a clear, splined shaft protruding from the top. Four mounting posts are visible on the underside. The coiled electrical cable terminates in a red and white connector.

Specifications

Feature	Detail
Model Number	4424
Voltage	24 VAC
Rotation	180-DIG (180-degree digital)
Product Dimensions	8 x 6.75 x 5.5 inches
Item Weight	2.83 pounds
Manufacturer	Zodiac

Compatibility

The Zodiac 4424 Packout Assembly is compatible with the following Zodiac Jandy JVA Pool and Spa Valve Actuator models:

- Zodiac Jandy JVA Model 1240
- Zodiac Jandy JVA Model 2440

This assembly is specifically designed for 180-degree digital (180-DIG) 24-VAC systems.

Installation Instructions

Follow these steps carefully to install the replacement packout assembly. If you are unsure about any step, consult a qualified pool technician.

1. **Disconnect Power:** Turn off all power to the pool and spa equipment at the main breaker. Verify that power is off before proceeding.
2. **Remove Old Actuator:**
    - Locate the existing valve actuator on your pool/spa plumbing system.
    - Disconnect the electrical wiring from the actuator. Note the wiring configuration for re-connection.
    - Remove the mounting screws that secure the actuator to the valve body.
    - Carefully lift the old actuator off the valve.
3. **Prepare New Actuator:**
    - Ensure the valve shaft and the actuator shaft are clean and free of debris.
    - Observe the splined shafts on both the valve and the new actuator. There are typically four splines, with one being narrower than the others. Align the narrow spline on the actuator with the narrow spline on the valve shaft. This ensures correct orientation.
4. **Mount New Actuator:**
    - Place the new Zodiac 4424 Packout Assembly onto the valve body, ensuring the splines are correctly engaged.
    - Secure the actuator to the valve body using the provided mounting screws. Do not overtighten.
5. **Connect Wiring:**
    - Connect the electrical wiring from your pool control system to the new actuator. Refer to the wiring diagram of your specific control system and the actuator's wiring for correct connections. The provided cable typically has a red and white connector.
    - Ensure all connections are secure and protected from moisture.
6. **Initial Testing (Optional but Recommended):**
    - Before fully restoring power, if your control system allows, place the system in service mode with the filter pump off.
    - Briefly restore power and use the control panel to test the valve's movement. Observe if the valve rotates as expected (e.g., between pool and spa modes).
    - If the valve moves in the opposite direction, consult the troubleshooting section or your control system's manual for adjusting the actuator's toggle switch or cam settings.
7. **Restore Power:** Once installation is complete and verified, restore power to the pool and spa equipment at the main breaker.

Note: *The valve handle is typically reused from the existing valve and is not included with the packout assembly.*

Operation

The Zodiac 4424 180-DIG 24-VAC Packout Assembly functions as a motorized component that rotates your pool or spa valve. Its operation is controlled by your existing pool/spa automation system (e.g., Zodiac AquaLink RS). Once installed and configured, the automation system will send signals to the actuator to move the valve to the desired positions (e.g., switching between pool and spa, or directing water flow for different features).
Refer to your pool/spa automation system's user manual for specific instructions on how to control and program your valve actuators.

Maintenance

The Zodiac 4424 Packout Assembly is designed for durability and typically requires minimal maintenance. However, periodic checks can help ensure its longevity:

- **Visual Inspection:** Periodically inspect the actuator for any signs of physical damage, corrosion, or loose wiring connections.
- **Cleanliness:** Keep the exterior of the actuator clean and free from debris, dirt, or chemical residue. Use a damp cloth for cleaning; avoid harsh chemicals.
- **Lubrication:** The internal gears are typically factory-lubricated and sealed. Do not attempt to lubricate internal components unless specifically instructed by Zodiac.
- **Environmental Protection:** Ensure the actuator is protected from excessive moisture or direct water spray, although it is designed for outdoor pool environments.

Troubleshooting

If the Zodiac 4424 Packout Assembly is not functioning as expected, consider the following common issues and solutions:

Problem	Possible Cause	Solution
Actuator does not move	No power; Loose wiring; Faulty control signal; Internal motor issue.	Check power supply to pool equipment. Verify all wiring connections are secure. Consult your automation system manual for control signal issues. If motor hums but doesn't turn, check for obstructions in the valve or internal gear issues (requires professional service).
Actuator moves in wrong direction	Incorrect spline alignment; Actuator toggle switch set incorrectly; Automation system configuration error.	Ensure the narrow spline on the actuator aligns with the narrow spline on the valve during installation. Check the actuator's internal toggle switch (if present) and adjust as per your automation system's requirements. Consult your automation system manual for re-calibration or configuration.
Actuator stops prematurely or over-rotates	Incorrect cam adjustment; Obstruction in valve.	The internal cams control the stop positions. These may need adjustment. This typically involves removing the top cover and carefully rotating the cams. Refer to your automation system or actuator's specific instructions for cam adjustment. Check the valve for any physical obstructions.

For issues not resolved by these steps, contact Zodiac customer support or a certified pool technician.

Warranty and Support

Zodiac products are manufactured to high-quality standards. For specific warranty information regarding your Zodiac 4424 180-DIG 24-VAC Packout Assembly, please refer to the warranty card included with your purchase or visit the official

Zodiac website. Keep your proof of purchase for warranty claims.
For technical assistance, replacement parts, or further support, please contact Zodiac customer service or your authorized Zodiac dealer.

Zodiac Customer Service: Refer to the official Zodiac website for current contact information.

Ask a question about this manual

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Example: How do I reset this device or fix this error?

Details

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