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## Pentair 263405

# Pentair CVA-24T Valve Actuator Instruction Manual

Model: 263405

## 1. INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of your Pentair CVA-24T Valve Actuator. This device is designed to automate the control of pool and spa valves, offering 180-degree rotation for efficient water flow management. It operates on a 24 Volt AC power supply and is compatible with various pool system configurations.

## 2. SAFETY INFORMATION

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**WARNING: Electrical Hazard. Installation and servicing must be performed by a qualified professional in accordance with all local electrical codes. Disconnect power before servicing.**

This product may expose you to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

- Ensure the power supply matches the actuator's requirements (24 Volt AC).
- Do not operate the actuator if it appears damaged.
- Keep children away from pool equipment during operation.

## 3. PRODUCT OVERVIEW

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The Pentair CVA-24T Valve Actuator is a robust component designed for reliable performance in pool and spa environments. It features a durable housing and a precise mechanism for valve control.



Figure 1: Pentair CVA-24T Valve Actuator, showing the main unit and output shaft.



Figure 2: Close-up view of the actuator's output shaft, which connects to the pool valve.



Figure 3: Detail of the manual override switch, allowing for manual control of the valve position.

## 4. SETUP AND INSTALLATION

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The CVA-24T Valve Actuator is designed for straightforward integration into existing pool systems. Follow these general steps for installation:

1. **Power Disconnection:** Ensure all power to the pool system is turned off at the circuit breaker before beginning installation.
2. **Mounting:** Securely mount the actuator onto the valve. The actuator is designed to fit standard Pentair valves.
3. **Wiring:** Connect the 24 Volt AC power supply wires to the actuator's terminals. Refer to your pool control system's manual for specific wiring diagrams. Ensure all connections are secure and waterproof.
4. **Testing:** Once installed, restore power to the system. Test the actuator's functionality by sending commands from your pool control panel to ensure proper 180-degree rotation and valve operation.

For detailed visual guidance, consult professional installation resources or qualified pool technicians.

## 5. OPERATING INSTRUCTIONS

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The Pentair CVA-24T Valve Actuator operates in conjunction with your pool or spa's automated control system. It receives electrical signals to rotate the connected valve to specific positions (e.g., open, closed, or partially open).

- **Automated Control:** The actuator will respond to commands from your pool automation system to adjust water flow paths.
- **Manual Override:** In case of power loss or for manual adjustments, the actuator typically includes a manual override switch or lever (refer to Figure 3). This allows you to manually rotate the valve without electrical power. Always return the actuator to its automated position after manual adjustment, if applicable.
- **Rotation:** The actuator provides 180-degree rotation, allowing for precise control over two-way or three-way valves.

## 6. MAINTENANCE

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

- **Cleaning:** Periodically clean the exterior of the actuator to remove dirt, dust, and debris. Use a damp cloth; avoid harsh chemicals.
- **Inspection:** Regularly inspect the wiring for any signs of wear, damage, or loose connections. Check the actuator housing for cracks or damage.
- **Environmental Protection:** While designed for outdoor use, prolonged exposure to harsh elements without adequate protection can lead to internal corrosion. Consider providing shelter or ensuring the installation location minimizes direct exposure to extreme weather.
- **Lubrication:** The internal components are generally self-lubricating. Do not attempt to lubricate internal parts unless specifically instructed by Pentair.

## 7. TROUBLESHOOTING

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If you encounter issues with your Pentair CVA-24T Valve Actuator, consider the following:

- **Actuator Not Responding:**
  - Check the power supply to ensure the actuator is receiving 24 Volt AC.
  - Verify all wiring connections are secure and free from corrosion.
  - Ensure the pool control system is sending the correct commands.
- **Incomplete Rotation:**
  - Inspect the valve for any obstructions that might prevent full rotation.
  - Check for debris or damage around the actuator's output shaft.
- **Unusual Noises:**
  - Unusual noises may indicate internal wear or a mechanical issue. Disconnect power and inspect for visible problems. If the issue persists, professional servicing may be required.

If troubleshooting steps do not resolve the issue, contact Pentair customer support or a certified pool technician.

## 8. SPECIFICATIONS

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<b>Model Number</b>	263405
<b>Voltage</b>	24 Volt AC
<b>Rotation Angle</b>	180 Degrees
<b>Item Weight</b>	3.34 pounds
<b>Manufacturer</b>	Pentair

## 9. WARRANTY AND SUPPORT

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Pentair offers various support options for its products. For specific warranty details, please refer to the documentation included with your purchase or visit the official Pentair website. Extended protection plans may also be available for purchase.

For technical assistance, replacement parts, or further inquiries, please contact Pentair customer service or your authorized dealer.