Pentair 77704-0104

Pentair 77704-0104 Plug and Cover Assembly Instruction Manual

For Sta-Rite WC112-148/A and WC112-147 MultiPort 1-1/2-Inch Valves

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Pentair 77704-0104 Plug and Cover Assembly. This assembly is designed as a direct replacement for Pentair Sta-Rite Multiport 1-1/2-inch valve models WC112-148/A and WC112-147. Please read these instructions thoroughly before proceeding with installation or use.
The assembly measures approximately 10-1/4 inches in length, 6-1/2 inches in width, and 6-1/2 inches in height.

2. Safety Information

Always observe the following safety precautions when working with pool equipment:

- **Disconnect Power:** Always turn off the pool pump and any associated electrical equipment at the circuit breaker before performing any service or maintenance.
- **Relieve Pressure:** Ensure all pressure is relieved from the system before opening any valves or components. This can typically be done by turning off the pump and opening an air relief valve or removing the lid from a chlorine feeder.
- **Use Proper Tools:** Use appropriate tools for installation and removal to prevent damage to the product or injury.
- **Professional Assistance:** If you are unsure about any step, consult a qualified pool service professional.
- **Chemical Safety:** Be aware of any pool chemicals in the system and handle them according to their safety instructions.

3. Product Components

The Pentair 77704-0104 Plug and Cover Assembly includes the main valve body with handle, internal spider gasket, and a large O-ring for sealing to the filter body.



Figure 3.1: Pentair 77704-0104 Plug and Cover Assembly, showing the handle and threaded connections.



Figure 3.2: Internal view of the assembly, highlighting the spider gasket and O-ring groove.

4. Installation Instructions

Follow these steps to replace your old valve cover assembly with the new Pentair 77704-0104 unit. This process typically takes less than 30 minutes.

1. **Prepare the System:** Turn off the pool pump and remove the lid from the chlorine feeder (if applicable) to relieve all pressure from the system.
2. **Disconnect Pipes:** Unscrew the pressure gauge and the intake pipe from the pump.
3. **Align Handle Positions:** Note the handle position on your new assembly. Move the handle on the old assembly to match this position. This helps ensure correct orientation during removal and installation.
4. **Remove Old Assembly:** Locate and remove the nuts and bolts (approximately 8) that secure the old valve cover assembly to the main valve body. Carefully pull the old cover assembly straight up to remove it.
5. **Clean and Prepare:** Remove the old O-ring from the existing body assembly. Thoroughly clean any grime or debris from the top surface of the existing body assembly where the new spider gasket (located on the bottom of the new assembly) will rest.
6. **Install New O-Ring:** Apply a generous amount of silicone grease to the new large O-ring provided with the assembly. Place this O-ring into the groove on the existing filter body where the old O-ring was removed.
7. **Place New Assembly:** Carefully place the new Pentair 77704-0104 cover assembly over the existing filter body assembly, ensuring it aligns correctly.
8. **Secure Assembly:** Reinsert and tighten the nuts and bolts that were removed in step 4, securing the new cover assembly firmly to the filter body.
9. **Reconnect Pipes:** Reinstall the pressure gauge and attach the input pipe from the pump. It is recommended to use pipe tape on the threads of both connections to ensure a watertight seal.
10. **Final Check:** Replace the chlorine feeder lid (if applicable), rotate the valve handle to the desired operating position (e.g., FILTER), and turn on the pump power. Check for any leaks.

5. Operating Instructions

The multiport valve allows for various pool filter operations. Always turn off the pump before changing the handle position to prevent damage to the valve or system.

- **FILTER:** Normal filtering operation. Water flows through the filter media and returns to the pool.
- **BACKWASH:** Used for cleaning the filter media. Water flows in reverse through the filter and out the waste port.
- **RINSE:** Used after backwashing to flush out any remaining dirt from the filter media and settle the media before returning to FILTER mode. Water flows through the filter and out the waste port.
- **WASTE/DRAIN:** Bypasses the filter, sending water directly out the waste port. Useful for vacuuming heavy debris directly to waste or lowering pool water level.
- **RECIRCULATE:** Bypasses the filter, circulating water directly back to the pool. Useful for chemical distribution without filtering.
- **CLOSED:** Shuts off all flow to the filter and pool. Use only when servicing the pump or filter**Never operate the pump with the valve in the CLOSED position.**

6. Maintenance

Regular maintenance ensures the longevity and proper function of your valve assembly.

- **O-Ring and Gasket Lubrication:** Periodically inspect the large O-ring and the internal spider gasket. Apply

silicone grease to these components to maintain their seal and prevent premature wear.

- **Cleaning:** Keep the exterior of the valve clean from dirt and debris.
- **Winterization:** Follow your pool filter manufacturer's guidelines for winterizing the entire filter system, which includes draining the valve assembly.

7. Troubleshooting

This section addresses common issues you might encounter with your valve assembly.

- **Leakage from Waste Line or Back into Pool:**

  Cause: Often indicates a worn or damaged internal spider gasket. The spider gasket is integral to the valve's sealing mechanism and directs water flow. If it's compromised, water can bypass the intended path.

  Solution: The Pentair 77704-0104 assembly includes a new spider gasket. Replacing the entire plug and cover assembly is the recommended solution for this issue.

- **Leakage from Under the Handle:**

  Cause: This is typically due to a small O-ring located within the handle mechanism becoming worn or damaged. For the Sta-Rite WC112-147/148 models, this specific O-ring is part number 35505-1288.

  Solution: While the entire assembly replacement resolves this, if you wish to attempt a repair, you may replace the small O-ring (PN 35505-1288) if it is accessible and the only source of the leak. Otherwise, replacing the entire plug and cover assembly is the most reliable fix.

- **Vibration, Shaking, or Erratic Pressure Gauge Readings:**

  Cause: This can indicate a significant internal issue with the valve's sealing components, such as a severely damaged spider gasket or other internal head gasket issues.

  Solution: Inspect the internal components. If the spider gasket or other seals are visibly damaged, replacing the Pentair 77704-0104 Plug and Cover Assembly is necessary.

8. Specifications

Model Number	77704-0104
Compatibility	Pentair Sta-Rite Multiport 1-1/2-Inch Valve Models WC112-148/A, WC112-147
Product Dimensions	10.25 x 6.5 x 6.5 inches
Item Weight	2.02 pounds
Manufacturer	Pentair
Country of Origin	United States

9. Warranty and Support

For warranty information or technical support regarding your Pentair 77704-0104 Plug and Cover Assembly, please refer to the official Pentair website or contact Pentair customer service directly. Keep your purchase receipt as proof of purchase.
You can visit the Pentair Store on Amazon for more product information and support resources.

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