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Pentair 471204

Pentair 471204 Natural IID Pilot Replacement Pool and Spa Heater

Model: 471204

Product Overview

The Pentair 471204 Natural IID Pilot is a crucial replacement component designed for various Pentair pool and spa heater models. This pilot assembly is responsible for igniting the main burner of your heater, ensuring efficient and reliable operation. It is compatible with Pentair MiniMax Plus and PowerMax pool and spa heater models 150, 200, 250, 300, 350, and 400. Additionally, it works with Pentair MiniMax, MiniMax with CSD-1, and PowerMax commercial pool and spa heaters.



An image showing the Pentair 471204 Natural IID Pilot. It features a metallic bracket assembly with a brass fitting and a white ceramic insulator, connected to a coiled blue wire that terminates in a black cap.

Installation and Setup

Installation of the Pentair 471204 Natural IID Pilot should be performed by a qualified service technician to ensure safety and proper functionality. Before beginning any work, ensure the heater's power supply and gas supply are completely shut off and locked out. Failure to do so can result in serious injury or property damage.

General Installation Steps:

1. **Safety First:** Disconnect all electrical power and turn off the gas supply to the heater.

2. **Access:** Carefully open the heater's access panel to locate the existing pilot assembly.
3. **Removal:** Disconnect the gas line and electrical connections from the old pilot. Unfasten any mounting screws or clips holding the old pilot in place and remove it.
4. **Installation:** Position the new Pentair 471204 pilot assembly in the correct orientation. Secure it with the appropriate mounting hardware.
5. **Connections:** Reconnect the gas line and electrical wiring to the new pilot, ensuring all connections are tight and secure.
6. **Leak Check:** After reconnecting the gas supply, perform a leak check on all gas connections using a suitable leak detection solution.
7. **Test:** Restore power and gas to the heater and test the pilot's operation according to the heater's specific instructions.

Refer to your specific Pentair heater's service manual for detailed, model-specific installation instructions and diagrams.

Operating Principles

The Natural IID Pilot is an integral part of your pool or spa heater's ignition system. Its primary function is to provide a small, continuous flame (pilot light) that ignites the main burner when the heater calls for heat. When the heater's thermostat signals a need for heat, the gas valve opens, allowing gas to flow to the main burner. The pilot flame then ignites this gas, producing the heat required to warm the pool or spa water. Proper operation of the pilot ensures reliable and safe ignition of the heater.

Maintenance

Regular inspection of the pilot assembly can help ensure the longevity and efficiency of your heater. It is recommended to visually inspect the pilot assembly periodically for any signs of wear, corrosion, or blockages.

Maintenance Tips:

- **Visual Inspection:** Check the pilot flame for a strong, steady blue color. A weak, yellow, or flickering flame may indicate an issue.
- **Cleanliness:** Ensure the pilot orifice and surrounding area are free from dirt, dust, spider webs, or other debris that could obstruct gas flow or the flame. Use a soft brush or compressed air for cleaning, ensuring gas and power are off.
- **Connections:** Verify that all gas and electrical connections to the pilot are secure and free from corrosion.
- **Replacement:** If the pilot assembly shows significant signs of damage, corrosion, or if it consistently fails to ignite the main burner, it should be replaced by a qualified technician.

Troubleshooting

If your Pentair heater is experiencing ignition issues, the pilot assembly may be a contributing factor. Here are some common troubleshooting scenarios:

Common Issues and Solutions:

- **Pilot Not Lighting:**
  - **No Gas Supply:** Check if the gas valve to the heater is open and if there is gas supply to the property.

- **Dirty Pilot Orifice:** A clogged pilot orifice can prevent gas from reaching the pilot. Clean the orifice carefully (with gas off).
- **Faulty Igniter/Thermocouple:** The igniter may not be sparking, or the thermocouple (flame sensor) may not be sensing the flame, causing the gas valve to close. These components may need replacement.

- **Pilot Lights But Goes Out:**
  - **Weak Flame:** A weak pilot flame may not adequately heat the thermocouple. Clean the pilot or check gas pressure.
  - **Faulty Thermocouple:** If the thermocouple is not generating enough voltage to keep the gas valve open, it will shut off the pilot. Replace the thermocouple.
  - **Drafts:** Strong drafts around the pilot area can extinguish the flame. Ensure the heater's enclosure is properly sealed.

For persistent issues or if you are unsure about performing repairs, it is highly recommended to contact a certified pool heater technician or Pentair customer support.

Specifications

Attribute	Detail
Model Number	471204
Product Dimensions	4.25 x 2.95 x 1.6 inches
Item Weight	0.16 ounces
Manufacturer	Pentair
ASIN	B003ANKJ0K
Compatibility	Pentair MiniMax Plus, PowerMax pool and spa heater models 150, 200, 250, 300, 350, 400; Pentair MiniMax, MiniMax with CSD-1, PowerMax commercial pool and spa heaters.

Warranty and Support

For information regarding the warranty of the Pentair 471204 Natural IID Pilot, please refer to the documentation provided with your original Pentair heater or contact Pentair customer support directly. Warranty terms and conditions may vary. For technical support or service inquiries, please visit the official Pentair website or contact their authorized service centers.

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