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Caldera Spas 73994

Caldera Spas Highland Series Heater 240V 4.0KW Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Caldera Spas Highland Series Heater, model 73994. This 240V, 4.0KW heater is designed for specific spa models. Please read this manual thoroughly before proceeding with any installation or operation.



Image: The Caldera Spas Highland Series Heater, model 73994, shown as a cylindrical stainless steel component with electrical connections and plumbing unions on each end. A grounding wire is visible below the main unit.

2. SAFETY INFORMATION

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- **Electrical Hazard:** This heater operates on 240V. All electrical work must be performed by a qualified electrician in accordance with all local and national electrical codes. Ensure power is disconnected before

any service.

- **Water Hazard:** Always ensure the spa is drained or isolated from the heater before performing any maintenance or installation to prevent water damage or electrical shock.
- **Hot Surfaces:** The heater and surrounding components can become hot during operation. Avoid contact to prevent burns.
- **Professional Installation:** It is highly recommended that this heater be installed by a certified spa technician or qualified professional.

3. PRODUCT DESCRIPTION AND COMPATIBILITY

The Caldera Spas Highland Series Heater, model 73994, is a 240V, 4.0KW heating element designed for specific spa applications. This heater is compatible with:

- **Caldera Spas:** Olympia, Cumberland, and Aventine models from 2006 to current.
- **Watkins Solana Spa Models (2006 to current, serial # range 1H1001 to current):**
 - RX (Round)
 - SX (Square)
 - TX (Triangle)
- **Hot Spot Spa Models (2006 to current, serial # range 1H1001 to current):**
 - Mallorca (MAL)
 - Sorrento (SOR)
 - Trinidad (TRI)
 - Tobago (TOB)

This heater is identified by part numbers TC# C2400 C3330 1 and CAT# TC HEP 00 00 00.

4. SETUP AND INSTALLATION

Installation of this heater requires specialized knowledge of spa plumbing and electrical systems. It is strongly recommended that installation be performed by a qualified spa technician.

1. **Disconnect Power:** Ensure all power to the spa is completely disconnected at the main breaker before beginning any work.
2. **Drain Spa:** If replacing an existing heater, drain the spa completely or isolate the heater section from the water flow.
3. **Remove Old Heater:** Carefully disconnect plumbing unions and electrical wiring from the old heater. Note the orientation and wiring connections.
4. **Install New Heater:** Position the new 73994 heater in the correct orientation. Connect plumbing unions, ensuring proper seals to prevent leaks.
5. **Electrical Connections:** Connect the 240V electrical wiring according to the spa's wiring diagram and local electrical codes. Ensure proper grounding.
6. **Fill Spa and Test:** Once plumbing and electrical connections are secure, refill the spa and check for leaks before restoring power. Test the heater's functionality.

5. OPERATING INSTRUCTIONS

The Caldera Spas Highland Series Heater operates in conjunction with your spa's control system to maintain

the desired water temperature. Once installed and powered, the heater will activate automatically when the spa's thermostat calls for heat.

- **Thermostat Control:** Adjust the desired water temperature using your spa's main control panel. The heater will engage to reach and maintain this setting.
- **Flow Requirement:** The heater requires adequate water flow to operate safely and efficiently. Ensure your spa's circulation pump is functioning correctly. Low flow can cause the heater to shut off or damage the element.
- **Indicator Lights:** Refer to your spa's main control panel for any heater status or error indicator lights.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your heater.

- **Water Chemistry:** Maintain proper spa water chemistry (pH, alkalinity, calcium hardness) as recommended by your spa manufacturer. Imbalanced water can lead to scale buildup or corrosion, damaging the heater element.
- **Flow Inspection:** Periodically check for obstructions in the plumbing leading to and from the heater, such as debris or clogged filters, which can restrict water flow.
- **Visual Inspection:** With power disconnected, visually inspect the heater element and connections for any signs of corrosion, leaks, or damage.
- **Cleaning:** If scale buildup is observed on the heater element (only visible if disassembled by a professional), consult a spa technician for appropriate cleaning methods.

7. TROUBLESHOOTING

If your spa heater is not functioning correctly, consider the following common issues:

- **No Heat:**
 - Check if the spa's main power breaker is tripped.
 - Verify the thermostat setting on your spa's control panel.
 - Ensure adequate water flow. Clogged filters or a malfunctioning pump can prevent the heater from activating.
 - Check for error codes on your spa's control panel.
- **Low Heat Output:**
 - Confirm the spa cover is properly insulated and in place to prevent heat loss.
 - Verify water chemistry is balanced to prevent scale buildup on the element.
- **Leaks:**
 - Inspect plumbing unions and seals around the heater for signs of drips. Tighten connections if necessary, but do not overtighten.

For persistent issues, contact a qualified spa technician.

8. SPECIFICATIONS

Attribute	Detail
Model Number	73994
Brand	Caldera Spas
Voltage	240V
Wattage	4.0KW
Manufacturer	Caldera Spas
Item Weight	2.68 pounds
Package Dimensions	15.59 x 5.55 x 3.9 inches
Item Package Quantity	1
Batteries Included?	No
ASIN	B003ZHFALO
Date First Available	August 13, 2010

9. WARRANTY AND SUPPORT

For specific warranty information regarding your Caldera Spas Highland Series Heater, please refer to the documentation provided at the time of purchase or contact your authorized Caldera Spas dealer or the original seller. Warranty terms may vary.

For technical support or service inquiries, please contact your authorized Caldera Spas service center or the professional who installed your spa heater.