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Balboa Water Group G7414

Balboa Water Group VS100 FloThru Heater (G7414) User Manual

Model: G7414 | 4.0kW, 230V

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient installation, operation, and maintenance of your Balboa Water Group VS100 FloThru Heater, model G7414. This 4.0kW, 230V heater is designed for use in hot tub and spa systems. Please read this manual thoroughly before installation or use to ensure proper function and to prevent potential hazards.

2. SAFETY INFORMATION

WARNING: Improper installation, operation, or maintenance can lead to serious injury, death, or property damage. All electrical work must be performed by a qualified electrician in accordance with all local and national electrical codes.

- Always disconnect power to the spa or hot tub before attempting any service or installation.
- Ensure the heater is properly grounded.
- Do not operate the heater if the water flow is restricted or if the heater is not fully submerged in water.
- Verify that the voltage and wattage ratings of the heater match your spa system's requirements. This heater is rated for 230V and 4.0kW.
- Keep all flammable materials away from the heater.
- Regularly inspect the heater for signs of damage, corrosion, or leaks.

3. PRODUCT OVERVIEW

The Balboa Water Group VS100 FloThru Heater (G7414) is a stainless steel, inline heater designed for efficient water heating in spa applications. It features a flow-through design, ensuring water circulates directly over the heating element.



Figure 3.1: Top-down view of the Balboa VS100 FloThru Heater. This image shows the cylindrical stainless steel heater tube, the clear plastic electrical enclosure on top, and the attached wiring harnesses for power and sensors. The white union nuts on either end are visible, ready for plumbing connection.



Figure 3.2: Angled view of the Balboa VS100 FloThru Heater. This perspective highlights the main heater body, the transparent cover of the electrical box, and the various wires extending from the unit, including the main power cable and sensor wires. The plumbing connections are clearly visible at both ends.



Figure 3.3: Front view of the Balboa VS100 FloThru Heater. This image provides a clear view of the "Heater" label on the electrical enclosure and the "BALBOA WATER GROUP" branding. The stainless steel body shows specifications like "240V 4000W" and a date code. Sensor wires are visible on both sides of the electrical box.



Figure 3.4: Rear view of the Balboa VS100 FloThru Heater. This view shows the main power cable entering the electrical enclosure from the side, along with the sensor wires. The overall compact design of the heater unit is evident, with the plumbing connections ready for installation into a spa system.

4. SETUP AND INSTALLATION

Installation should only be performed by a qualified service technician or electrician. Ensure all power to the spa is disconnected before beginning.

1. **Power Disconnection:** Turn off the main power breaker to the spa or hot tub at the service panel. Verify power is off using a voltage tester.
2. **Drain Spa:** Drain the spa water to below the level of the heater.
3. **Remove Old Heater (if applicable):** Disconnect plumbing unions and electrical connections from the existing heater. Carefully remove the old unit.
4. **Install New Heater:**
 - Ensure new O-rings are properly seated in the plumbing unions.
 - Connect the new Balboa VS100 FloThru Heater into the plumbing lines, tightening the union nuts securely by hand, then with a wrench for a snug fit (do not overtighten).
 - Connect the heater's electrical wires to the spa pack's heater terminals according to the spa pack manufacturer's wiring diagram. This typically involves two hot wires (L1, L2) and a ground wire.
 - Connect the temperature sensor wires to the designated sensor ports on the spa pack.
5. **Refill Spa:** Refill the spa with water, ensuring the heater is completely submerged and there are no air pockets in the plumbing system.
6. **Check for Leaks:** Inspect all plumbing connections for leaks before restoring power.
7. **Restore Power:** Once all connections are secure and leak-free, restore power to the spa at the main breaker.

5. OPERATING INSTRUCTIONS

The Balboa VS100 FloThru Heater operates in conjunction with your spa's control system. Once installed and powered, the heater will activate automatically when the spa's control system detects that the water temperature is below the set point and there is adequate water flow.

- **Temperature Setting:** Adjust the desired water temperature using your spa's main control panel. The heater will work to maintain this temperature.
- **Flow Requirement:** The heater requires sufficient water flow to operate. Ensure your spa pump is running and filters are clean to maintain proper flow.
- **Indicator Lights:** Refer to your spa's control panel manual for specific heater indicator lights or messages.

6. MAINTENANCE

Regular maintenance ensures the longevity and efficiency 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 heating element.
- **Flow Inspection:** Periodically check for obstructions in the plumbing or dirty filters that could restrict water flow through the heater. Reduced flow can cause the heater to trip safety sensors or fail prematurely.
- **Visual Inspection:** With power disconnected, visually inspect the heater and its connections for any signs of leaks, corrosion, or damaged wiring.
- **Winterization:** If winterizing your spa, ensure the heater is completely drained to prevent freezing damage.

7. TROUBLESHOOTING

Before attempting any troubleshooting, ensure power is disconnected. If you are unsure about any step, contact a qualified technician.

Problem	Possible Cause	Solution
Heater not heating	No power to spa; Low water flow; Tripped high-limit sensor; Faulty heating element.	Check breaker; Clean filters, check pump; Reset high-limit (if accessible and safe); Test heating element continuity (qualified technician only).
Error code on spa panel	Flow error; High-limit error; Sensor error.	Refer to your spa control system manual for specific error code meanings and solutions.
Water leaking from heater unions	Loose union nuts; Damaged O-rings.	Tighten union nuts; Replace O-rings.

8. SPECIFICATIONS

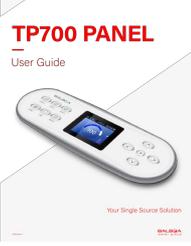
Feature	Detail
Brand	Balboa Water Group
Model Number	G7414
Part Number	58203-01
Voltage	230 Volts
Wattage / Heat Output	4000 Watts (4.0kW)
Product Dimensions	1.5"W x 10"H (Heater tube dimensions)
Item Weight	2.4 pounds
UPC	712971241626
Style	Indoor Installation (typically within spa cabinet)

9. WARRANTY AND SUPPORT

For specific warranty information, please refer to the documentation provided with your original spa system or contact Balboa Water Group directly. Keep your purchase receipt as proof of purchase.

For technical support or replacement parts, please contact your authorized Balboa Water Group dealer or visit the official Balboa Water Group website.

- **Balboa Water Group Website:** www.balboawatergroup.com
- **Customer Service:** Refer to the website for contact details.

	<p>Balboa BP100UX Tech Sheet: Spa Control System Specifications and Setup</p> <p>Comprehensive technical sheet for the Balboa BP100UX spa control system, detailing part numbers, power requirements, system outputs, hardware setup, software configurations, DIP switch functions, jumper definitions, replacement parts, and panel configurations for various Balboa control panels.</p>
	<p>Balboa BP100UX Tech Sheet: Specifications, Wiring, and Configuration</p> <p>Comprehensive technical sheet for the Balboa BP100UX spa control system, detailing part numbers, power requirements, system outputs, wiring diagrams, DIP switch functions, jumper definitions, replacement parts, and panel configurations for various Balboa control panels.</p>
	<p>ControlMySpa™ Spa Owner User Guide - Balboa Water Group</p> <p>Comprehensive user guide for the Balboa Water Group ControlMySpa™ system. Learn how to set up the Gateway Ultra hardware, download and use the mobile app, access the web portal, and manage your spa remotely.</p>
	<p>Balboa BP501G1 Tech Sheet and Configuration Guide</p> <p>Comprehensive technical specifications, wiring diagrams, and configuration options for the Balboa BP501G1 spa control system, detailing compatible control panels and system features.</p>
	<p>Balboa spaTouch 2 & 3 Installation Guide: Proper Topside Panel Mounting</p> <p>This guide provides essential instructions for the correct installation of Balboa spaTouch 2 and spaTouch 3 topside control panels, detailing proper mounting angles and placement to ensure optimal performance and prevent warranty issues.</p>
	<p>Balboa Water Group TP700 User Guide</p> <p>Comprehensive user guide for the Balboa Water Group TP700 spa control panel, detailing operation, settings, maintenance, and troubleshooting for spa systems.</p>