

Hydro Quip ES6000-A-U2

Hydro Quip ES6000-A-U2 Spa Control System User Manual

Model: ES6000-A-U2

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1. INTRODUCTION

This manual provides essential information for the safe installation, operation, and maintenance of your Hydro Quip ES6000-A-U2 Spa Control System. Please read this manual thoroughly before attempting to install or operate the unit. Retain this manual for future reference.

The Hydro Quip ES6000-A-U2 is a comprehensive spa control system designed to manage heating, pumping, and other functions for your spa or hot tub. It features a 5.5kW heater, 1.0hp pump support, and operates on 115V.

2. IMPORTANT SAFETY INFORMATION

WARNING: Risk of Electric Shock. All electrical work must be performed by a qualified electrician and conform to all national and local electrical codes.

- Disconnect all power before servicing.
- Do not operate the spa control system if any part is damaged or missing.
- Ensure proper grounding is established according to wiring diagrams and local codes.
- Keep all electrical components dry.
- Do not bypass any safety devices.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

3. PRODUCT OVERVIEW

The Hydro Quip ES6000-A-U2 system integrates various controls and safety features into a single unit. Familiarize yourself with the components and their functions.

3.1. Front Panel Controls and Indicators



Figure 1: Front view of the Hydro Quip ES6000-A-U2 Spa Control System, showing the main control panel with VDS, System Timer, and various switches.

- **HEATER ON Indicator:** Illuminates when the heater is active.
- **Temperature Dial:** Adjusts the desired water temperature.
- **SYSTEMTIMER:** A 24-hour timer for scheduling filtration cycles.
- **VDS (Visual Diagnostic System):** A series of indicator lights for troubleshooting. Refer to Section 7 for details.
- **Pump 1, Pump 2, Blower, Light, Auxiliary (Opt.) Switches:** Controls for various spa components.

- **Air Switches:** Connect to pneumatic buttons for remote control of functions.
- **HIGH-LIMIT Reset Button:** Press to reset the high-limit safety switch if tripped.



Figure 2: Detailed view of the control panel, highlighting the VDS indicators, System Timer, and function switches. The VDS lights include Pump 1 Fuse, Pump 2 Fuse, High-Limit Tripped, and Auxiliary (Opt.).

3.2. Rear and Internal Components



Figure 3: Rear view of the control system, showing the main electrical terminal block and various component connections.

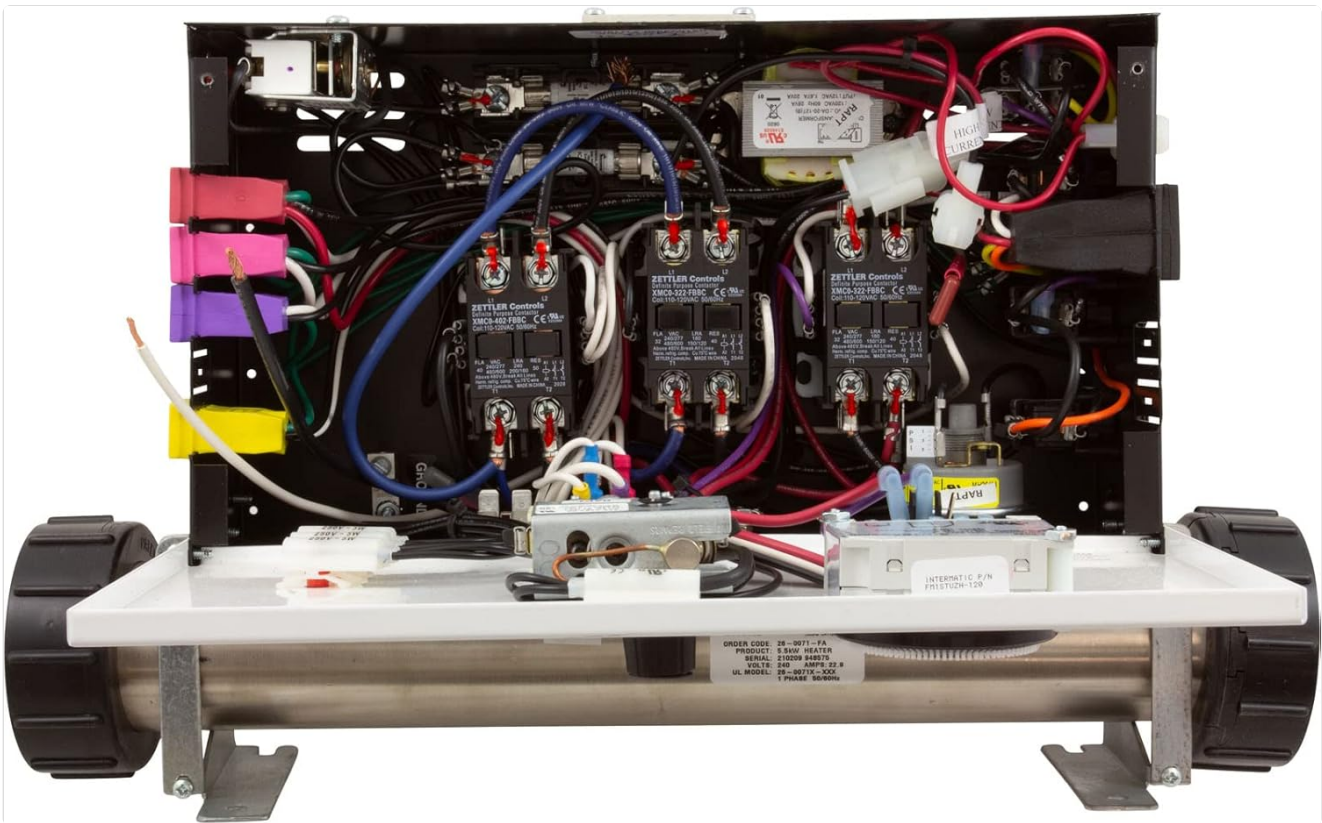


Figure 4: Internal view of the Hydro Quip ES6000-A-U2, revealing the relays, circuit board, and intricate wiring. This view is primarily for qualified service technicians.

4. SPECIFICATIONS

Feature	Detail
Model	ES6000-A-U2
Heater Power	5.5 kW
Pump Support	1.0 hp (P1, P2)
Input Voltage	115 Volts
Product Dimensions (L x W x H)	23 x 8 x 16.25 inches
Item Weight	14.32 pounds
Manufacturer	Hydro Quip
ASIN	B0BKFVDFJ9
UPC	731946794035

5. INSTALLATION AND SETUP

IMPORTANT: Installation must be performed by a qualified and licensed professional in accordance with all local and national electrical and plumbing codes.

5.1. Electrical Requirements

The ES6000-A-U2 requires a dedicated 115V electrical supply. Refer to the product label and wiring diagrams for specific breaker sizing and amperage requirements. Ensure the electrical circuit is properly protected by a Ground Fault Circuit Interrupter (GFCI).

5.2. Wiring Diagram Reference



Figure 5: Product label detailing electrical specifications, wiring instructions for 2-speed pumps, and maximum component amperages. Note the reference to part number 58-355-2600, which may be relevant for specific components or documentation.

The product label (Figure 5) provides critical wiring information, including:

- **2 SPD PUMP WIRING:** Red (Low Speed), Black (High Speed), White (Common/Neutral), Green (Ground).
- **MAXIMUM CIRCUIT AMPERAGES:** A table listing maximum amperages for Heater, Pump 1, Pump 2, Air Blower, Ozone, and Circulation Pump. Consult this table for proper breaker sizing.
- Refer to the National Electrical Code (NEC) for breaker sizing.

5.3. Plumbing Connections

Connect the spa plumbing to the heater manifold. Ensure all connections are watertight and secured properly. The system is designed for specific flow rates; consult your spa manufacturer's guidelines for optimal plumbing configuration.

6. OPERATION

6.1. Initial Start-up

1. Ensure the spa is filled with water to the appropriate level.
2. Verify all plumbing connections are secure and leak-free.
3. Turn on the main power supply to the spa control system.
4. Activate Pump 1 to ensure water circulation and prime the system.

6.2. Setting Temperature

Rotate the Temperature Dial on the front panel to set your desired water temperature. The HEATER ON indicator will illuminate when the heater is actively heating the water.

6.3. Using the SYSTEMTIMER

The SYSTEMTIMER allows you to program filtration cycles. It has two primary modes:

- **Mode 1: Timed Heat, Timed Filtration:** The system will heat and filter according to the timer settings.
- **Mode 2: Thermostat Heat, Timed Filtration:** The system will maintain the set temperature while filtering according to the timer.

Consult the detailed instructions provided with the timer mechanism for setting specific on/off times.

6.4. Operating Pumps, Blower, and Light

Use the corresponding switches on the front panel to activate Pump 1, Pump 2, Blower, and Light functions. The Auxiliary (Opt.) switch can be used for an additional component as configured during installation.

7. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Hydro Quip ES6000-A-U2 system.

- **Power Disconnection:** Always disconnect power to the unit before performing any maintenance.
- **Visual Inspection:** Periodically inspect the control system for any signs of damage, loose connections, or corrosion.
- **Cleanliness:** Keep the exterior of the control box clean and free from debris. Do not use harsh chemicals.
- **Water Quality:** Maintain proper spa water chemistry to prevent scale buildup in the heater element.
- **Professional Check:** It is recommended to have a qualified technician inspect the system annually.

8. TROUBLESHOOTING (VISUAL DIAGNOSTIC SYSTEM - VDS)

The VDS (Visual Diagnostic System) provides indicator lights on the front panel to help identify common issues. If a VDS light is illuminated, refer to the following:

VDS Light	Possible Cause	Action
Pump 1 Fuse	Blown fuse for Pump 1 circuit.	Disconnect power. Inspect and replace fuse if necessary. Check Pump 1 for obstructions or electrical issues.
Pump 2 Fuse	Blown fuse for Pump 2 circuit.	Disconnect power. Inspect and replace fuse if necessary. Check Pump 2 for obstructions or electrical issues.
High-Limit Tripped	Heater has overheated, or flow is restricted.	Ensure water level is adequate and circulation is unobstructed. Allow system to cool. Press the HIGH-LIMIT Reset Button. If it trips repeatedly, contact a qualified technician.
Auxiliary (Opt.)	Indicates an issue with the optional auxiliary component.	Refer to the specific instructions for the auxiliary component connected.
Heater Not On (No HEATER ON light)	Temperature setting too low, no water flow, or heater element issue.	Increase temperature setting. Check water flow and pump operation. Ensure high-limit is not tripped. If problem persists, contact service.

For issues not covered here, or if troubleshooting steps do not resolve the problem, contact a qualified spa technician.

9. WARRANTY AND SUPPORT

For specific warranty information, please refer to the documentation provided with your purchase or contact Hydro Quip directly. Keep your proof of purchase for warranty claims.

For technical support or service inquiries, please contact Hydro Quip customer service or an authorized service center. Contact information can typically be found on the manufacturer's website or your purchase documentation.

