

Introduction

The Power Plus Pool and Spa heater has been designed to comply with all the latest electrical requirements for safe water heating.

It is easy to install, very simple to operate and above all is very reliable.

The heater works in conjunction with the spa/pool pump. As the pump turns on, the heater detects the increased water pressure and if heat is required, heats the water. If the water is already hot enough the heater remains off. However the pump can continue to circulate water through the filter, jets etc.

Installation

Before installation check for any relevant local electrical bylaws regarding spa heaters. All installations must comply with AS3000 and the special requirements of Section 6.

The heater power supply is not to be controlled by the spa controller.

Heaters up to 2.4kw are usually used in a portable spa and the heater is supplied with a 3pin socket to permit the connection to a suitable control box without additional wiring.

IMPORTANT: An earth leakage breaker (ELCB or RCD) fitted to the switchboard is recommended.

Location

The heater must be located on the pressure side of the pump and before the filter on the return line. The heater must be easily accessible for maintenance with clear room to remove heater head in a horizontal or vertical position with the ports face down. The heater must be level, do not plumb on an angle. The heater must be protected from rain and any water splashing. The ambient temperature should not exceed 55° c

If the heater is installed in an area with exposure to the weather / splashing / hosing then it must be protected by an additional enclosure to protection of IP24 AS1939

Wiring

All wiring must be completed by a qualified electrician and comply with all local safety and electrical codes.

Plumbing

The recommended pipe size is 40mm pressure pipe. The heater must be plumbed so that the water flow can be either direction and so that the head of

the heater may be turned to any of the four key directions (90°) to give easy access to the thermostat control.

When fitting the heater head the 'O'Ring must be located on the element carrier see fig.1. A light silicon lubricant can be used to assist assembly. Ensure all 'O'Rings are properly seated, hand tighten only. The heater must be mounted on its stand or securely fastened so that vibration is minimised. If the heater is a below the level of the pool water then we recommend shut off valves be used on delivery and return lines.

An electrician should check all electrical connections.

Testing

You have two Pilot lights that are marked. Power indicates that power is being received by the unit. When the heater operates the light marked heater will show indicating that the heater is heating the water. This light also helps you when setting the thermostat to a comfortable water temperature.

Start-up

Start the pump. Check the heater unit for water leaks. If leaks appear then stop the pump and check. Ensure 'O'Rings and glued joins are secure. If the system is free of plumbing problems then allow the air to be purged by running the pump for two minutes, then advance the thermostat setting to full on.

The heater should now indicate heating and turning the thermostat control through its full range should test indicators on and off.

Leave the thermostat settings at the fully clockwise position, so the test indicator is active and stop the pump. The indicator should switch off almost immediately if it fails to switch off restart the pump quickly and adjust the screw on the pressure switch clockwise until heating stops. Adjust back until heating restarts and then one further full turn. Start / Stop pump several times until the heating is switching on / off consistently with the pump running. Refer fig.2.

Please note: if the heater is 2.4kw or less and fitted to a portable spa or the equipment is mounted at about the same level as the pool water the pressure switch may not require adjustment. Please check this when installing.

If unit is below the level of the pool water the static pressure could be enough to hold the heating on after the pump tops. It is important for safety that this condition does not occur. **If the pressure switch is not correctly configured then the warranty is void.**

Please ensure water balance is correct at all times as incorrect water balance can destroy elements, metal work, and thermostat and will void the warranty.

Power Plus Spa Pool Water Heater

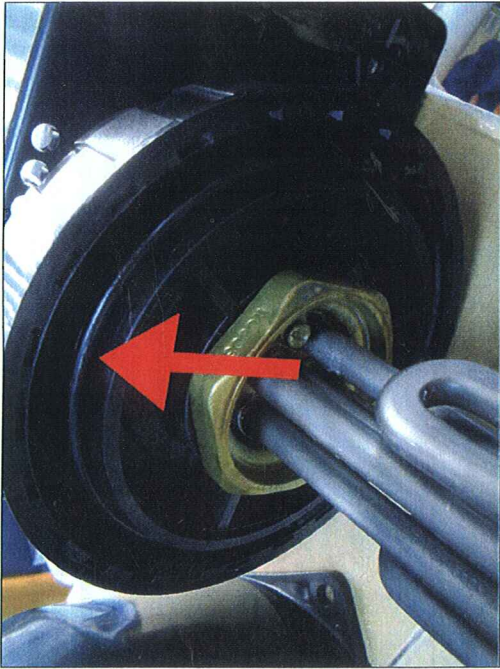


Figure 1: Location of Lid 'O'Ring



Instructions

For 2.4kw / 4kw / 5.5kw heaters
Please read before installing



Figure 2: Location of Pressure Switch Adjustment Screw