# Water Pro Series "Smart" Heater

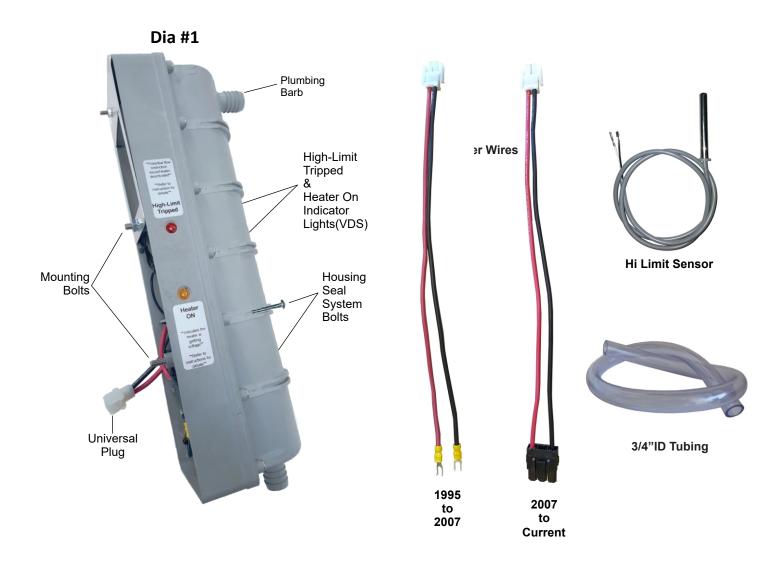
# **Installation Information**

Featuring: ✓ Universal Adaptor Plug Wiring

√ Visual Diagnostic System lights "VDS"



HQ PT#	kW	Heater Cross Reference	Date Used
26-310-U-TSD	5.5	Replaces: 58336, 26-3314-1-7T-K, 26-3411-1-7T-K, 6500-310, 6500-316, 6500-843, C3314-1, C3411-1, 58030, 2-00-0066, 46-555-1000, 6500-301, 9143E, C2783-1, E2550-1000, HTR6500301, SD6500-301	1995 - Current



### Warning!

This heater should be installed by a licensed electrician or qualified pool/spa technician. If you're not qualified or lack the technical experience to install this product STOP and contact your heater provider for assistance.

## Warning!

Removing the product label, disassembling, altering, damaging or subjecting the heater to dry fire will void the product warranty.

#### **OPERATION - TROUBLESHOOTING - TERMINOLOGY**

#### Amber light is "ON"

Indicates heater is operating with power being supplied to the element. This Amber light should be on when the spa control makes a heat call (Ref. What Is a Heat Call). Test the spa control and heater operation by raising and lowering the temperature, making sure the Amber light only comes on when there is a heat call.

#### Amber light is "ON" but water is not warming up

It takes a while for water to warm, but if there is no temperature rise after 3 hours during continuous operation, you may have other issues. Use your spa manual and/or contact your heater provider for troubleshooting.

#### Amber light goes on/off intermittently during consistent heat call

- a. Symptom of low water flow, or air pockets/bubbles in heater (Ref. Causes of Low Water Flow)
- b. Circulation pump is going off/on or has not primed
- c. Flow switch problems

#### Amber light is "OFF" when system makes a heat call and pump is running

You may also see an "FLO" or other icon on the topside indicating the flow switch is not closing.

- a. If the VDS Red heater light is on (Ref. subject Red Light is "On")
- b. You may have low or no water flow (Ref. Causes of Low Water Flow)

#### Amber light is "ON" when spa control is not calling for heat or when circ pump is not running

Spa control system has a stuck heater relay or contactor. Switch off the main breaker to the spa immediately and contact a local pool/spa service agent.

#### Red light is "ON" (high limit trip light)

Indicates the heater has overheated and the integral Thermal Cut Off device "TCO" has tripped and disconnected power to the element. The TCO will self-reset and the red light will go off after the water inside has cooled off. Ref. Causes of Low Water Flow to identify reasons the TCO has tripped.

#### Causes of low water flow

One or more of the following conditions can reduce circulation pump water flow below 6gpm

- a. Low spa water level or air in the filter can cause the pump to suck in air bubbles and loose prime
- b. Dirty spa filter, kinks or obstruction in the plumbing tube, clogged ozone injector, valve closed etc.
- c. Circulation pump is going on/off, or pump impeller is clogged

#### **Leaking heater**

Confirm clamps are tight on barb connections. Inspect for debris or split in plumbing tubes.

#### What is a heat call?

When there is a demand for a higher water temperature, the term is making a "heat call". Your spa owner's manual will explain the topside light or icon that will appear, confirming power is being supplied to the heater.

#### What are VDS lights?

VDS stands for the Visual Diagnostic System invented by HydroQuip to make troubleshooting fast and easy. The colored light system will confirm heater operation or display trouble without having to use a multi-meter.

#### What is a "closed" flow switch?

A running circ. pump will close the flow switch's electrical contact points together, allowing electrical power to pass through the switch and complete a circuit. The correct terminology for a connected electrical circuit is "Closed."

Note: The flow switch circuit should always be "open" when the circ. pump is off and "closed" when the pump is on.

The heater has been assembled and factory tested. If the heater does not work, do not dissemble or attempt to fix. Contact your heater supplier.

IMPORTANT! The heater should never be allowed to operate without proper water flow. Heaters damaged from low or no water flow causing Wet or Dry Fire damage will not be covered under warranty.

#### **WARRANTY GUIDELINES**

All warranty claims and product returns must be handled through your heater provider (no exceptions).

Data label contains information important to identification and warranty DO NOT REMOVE PRODUCT LABEL! Product returns determined to have shipping damage, alterations, signs of chemical corrosion, wet/dry fire, abused, out of warranty or missing the data label will not be considered for warranty.

