# DAVEY



# Classic Heater Spa Pool Controller





# Installation and Operating Instructions



Note: The pump is not intended for use by young children or infirm persons without supervision. Please ensure that young children are supervised to ensure that they do not play with the pump.

#### INSTALLATIONS INSTRUCTIONS — PLEASE READ CAREFULLY

#### **GENERAL**

The spa heater is the first of a new generation of heaters that have been totally redesigned to incorporate all the latest concepts in safe water heating. The heater is reliable, easy to install, simple to operate and easy to maintain. It includes all its own control and safety devices. It is designed to look after itself.

All the control system of the spa pack has to do is turn on the pump. The heater detects the water pressure change and operates accordingly.

#### INSTALLATION

Before planning any installation please note the following:

- 1. This equipment must be wired by a qualified electrician.
- 2. The heater power supply is not controlled by the spa control box.
- 3. Heaters up to 2.4kW are normally used for portable spa pools and thus the heater is provided with a 3 pin socket to permit the connection of a suitable control box directly to the heater without additional wiring.
- This equipment must be supplied through a residual current device (RCD) having a residual operating current not exceeding 30mA.
- 5. All installations must comply with AS3000 and the special requirements of section 6 and any additional requirements of your local supply authority bylaws.
- 6. In order to avoid the possibility of hypothermia (heat stress) occurring, it's recommended that the average temperature of water not exceed 40°C.
- 7. The temperature rating of supply cord connected to the equipment shall not be less than 95°C.

#### PHYSICAL LOCATION

The heater should be located in the spa system as follows:

- 1. On the pressure side of the pump.
- 2. Before the filter in the return line.
- 3. Where it is accessible for maintenance with enough clear room to remove control head from heater body.
- 4. In a vertical position, or if horizontal, so that the side port faces down.
- 5. It is recommended that the Classic Spa Heater water inlet is set to the higher port. If for installation reasons this is not possible, the lower port can be used for water inlet as the Classic Spa Heater inlet / outlet ports can be interchanged.
- 6. Level definitely not plumbed at an angle.
- 7. Protected from rain, water splashes, hosing etc.
- 8. In an ambient temperature not exceeding 45°C.



Where the heater is being installed in a position exposed to the weather, splashing and the like, it must be protected by an additional enclosure having a degree of protection to IP24-AS1939.

#### WIRING

## ALL FIXED ELECTRICAL WIRING MUST BE COMPLETED BY A SUITABLY QUALIFIED PERSON.

- 1. Check the kilowatt rating of the heater. Ensure the correct size cable is being used.
- 2. The cable entry point is via one of three knockouts provided on the underside of the heater head. Use the correct size grommets and conduits when installing.
- 3. Check that wiring to terminal blocks is secured firmly and to the correct terminals.
- 4. The temperature rating of supply cord connected to the equipment shall not be less than 95°C.



WARNING! Ensure that an electrical isolation switch is located with easy access so the heater can be switched off in an emergency.

#### **PLUMBING**

1. The heater body may be plumbed so the water flow can be in either direction. The head of the heater may be turned to any of the four keyed directions (90°) to give best access to the thermostat control.



2. When installing the heater head the 'O' ring must be carefully located on the element carrier and NOT in the body. When fitting head make sure the 'O' ring doesn't become dislodged and fall into the body. To assist assembly it is recommended that a light lubricant be used on the inside of the body barrel to help the components to slide together easily. REFER FIG.2 & 3.

- 3. When connecting pipework to heater make sure the 'O' rings are properly seated in the mac union fitting. NB. Hand tighten only. Using tools will distort the fittings.
- Make sure the heater is mounted on its stand or secured firmly so that vibration is minimised.
- 5. It is recommended that the pipework has shut off valves so the heater head can be removed for service without loss of water or downtime due to reheating.

#### TESTING (MUST BE COMPLETED BY QUALIFIED PERSONNEL)

- 1. Double check that all plumbing is connected correctly and that the supply is available for heater and control box.
- 2. Before switch on check that gate valves (if fitted) are open and the thermostat is turned fully anti clockwise.
- 3. The heater lid should be off for setting up pressure switch adjustment.
- 4. Apply a voltmeter, neon indicator or such test device at element terminal or control relay. If preferred, a current meter could be used.
- 5. Apply power. There should be no indication that the element is alive.
- 6. Start pump and check for water leaks, paying particular attention to the join between heating head and body.
- 7. After checking the system is free of plumbing problems, allowing sufficient time for all air to be purged, advance the thermostat setting to full on.
- 8. The test device should now indicate heating. Turning the thermostat control through its full range should switch test indicators on and off.
- 9. Leave the thermostat setting 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 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. Stop/start pump several times until you are happy that the heating is switching on and off consistent with the pump running.

REFER FIG 1.



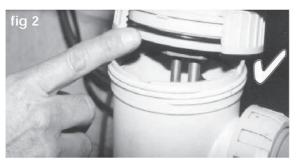
N.B. If the heater is fitted to a portable pool or the equipment is mounted at about the same level as the pool water the pressure switch will probably not require adjustment. CHECK IT ANYWAY. It the equipment is mounted nelow the level of the pool water the static water pressure could be enough to hold the heating on after the pump stops. It is important for safety that this condition does not occur. FAILURE TO SET THE PRESSURE SWITCH CORRECTLY WILL VOID THE WARRANTY.



PRESSURE SWITCH
ADJUSTMENT

Turn the screw clockwise if the pressure holds heating element on. Turn anticlockwise if the pressure is insufficient to operate the heater.

The above adjustments can only be done if the pool is below the thermostat setting.



The 'O' ring must be fitted to the control head against the retaining edge before fitting to heater body. Do not rely on locking ring to pull head and body together. Use downward pressure while tightening locking ring, making sure that locators engage correctly. Hand tighten only.



DO NOT assemble heater with 'O' ring as shown. This will dislodge when head and body are engaged causing water damage to the electronics. However, lightly lubricating the inside of this lip is permissible & will help assembly.

### **NOTES**

## **Davey Warranty**

Davey Water Products Pty Ltd (Davey) warrants all products sold will be (under normal use and service) free of defects in material and workmanship for a minimum period of one (1) year from the date of original purchase by the customer as marked on the invoice, for specific warranty periods for all Davey products visit daveywater.com.

This warranty does not cover normal wear and tear or apply to a product that has:

- been subject to misuse, neglect, negligence, damage or accident
- been used, operated or maintained other than in accordance with Davey's instructions
- not been installed in accordance with the Installation Instructions or by suitably qualified personnel
- been modified or altered from original specifications or in any way not approved by Davey
- · had repairs attempted or made by other than Davey or its authorised dealers
- been subject to abnormal conditions such as incorrect voltage supply, lightning or high voltage spikes, or damages from electrolytic action, cavitation, sand, corrosive, saline or abrasive liquids,

The Davey warranty does not cover replacement of any product consumables or defects in products and components that have been supplied to Dayey by third parties (however Dayey will provide reasonable assistance to obtain the benefit of any third-party warranty).

To make a warranty claim:

- If the product is suspected of being defective, stop using it and contact the original place of purchase. Alternatively, phone Davey Customer Service or send a letter to Davey as per the contact details below
- Provide evidence or proof of date of original purchase
- If requested, return the product and/or provide further information with respect to the claim. Returning the product to the place of purchase is at your cost and is your responsibility.
- The warranty claim will be assessed by Davey on the basis of their product knowledge and reasonable judgement and will be accepted if:
  - a relevant defect is found
  - the warranty claim is made during the relevant warranty period; and
  - none of the excluded conditions listed above apply
- The customer will be notified of the warranty decision in writing and if found to be invalid the customer must organise collection of the product at their expense or authorise its disposal.

If the claim is found to be valid Davey will, at its option, repair or replace the product free of charge.

The Davey warranty is in addition to rights provided by local consumer law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

For any internet connected products the consumer is responsible for ensuring a stable internet connection. In the event of a network failure the consumer will need to address the concern with the service provider. Use of an App is not a substitute for the User's own vigilance in ensuring the product is working to expectation. Use of a Smart Product App is at the User's own risk. To the fullest extent permitted by law Davey disclaims any warranties regarding the accuracy, completeness or reliability of App data. Davey is not responsible for any direct or indirect loss, damage or costs to the User arising from its reliance on internet connectivity. The User indemnifies Davey against any claims or legal actions from them or others relying on internet connectivity or App data may bring in this regard.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. The repair of your products may result in the loss of any user-generated data. Please ensure that you have made a copy of any data saved on your products.

To the fullest extent permitted by law or statute, Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer quarantee applicable to your Davey product under local laws and does not affect any rights or remedies that may be available to you under local laws.

For a complete list of Davey Dealers visit our website (daveywater.com) or call:

## DAVEY

Davey Water Products Pty Ltd Member of the GUD Group ABN 18 066 327 517

#### daveywater.com

#### AUSTRALIA

**Head Office** 6 Lakeview Drive, Scoresby, Australia 3179

Ph: 1300 232 839 1300 369 119 Fax: Email: sales@davey.com.au

#### NEW ZEALAND

7 Rockridge Avenue, Penrose, Auckland 1061 Ph: 0800 654 333 0800 654 334 Fax: Fmail:

sales@dwp.co.nz

#### NORTH AMERICA Ph:

1-888-755-8654 Email: info@daveyusa.com

#### MIDDLE EAST

Ph: +971 50 6368764 +971 6 5730472 Fax: Email: info@daveyuae.com

#### **EUROPE**

7 rue Eugène Hénaff 69200 Vénissieux, France

Ph: +33 (0) 4 72 13 95 07 Fax: +33 (0) 4 72 33 64 57 Email: info@daveyeurope.eu

® Davey is a trademark of Davey Water Products Pty Ltd. © Davey Water Products Pty Ltd 2021.

Installation and operating instructions are included with the product when purchased new. They may also be found on our website.



Davey Water Products Pty Ltd Member of the GUD Group ABN 18 066 327 517

#### daveywater.com

#### **AUSTRALIA**

#### **Head Office**

6 Lakeview Drive, Scoresby, Australia 3179 Ph: 1300 232 839 Fax: 1300 369 119

Fax: 1300 369 119 Email: sales@davey.com.au

#### **NEW ZEALAND**

7 Rockridge Avenue, Penrose, Auckland 1061 Ph: 0800 654 333 Fax: 0800 654 334 Email: sales@dwp.co.nz

7 rue Eugène Hénaff 69200

+33 (0) 4 72 13 95 07 +33 (0) 4 72 33 64 57

info@daveyeurope.eu

Vénissieux, France

#### NORTH AMERICA

Ph: 1-888-755-8654 Email: info@daveyusa.com

#### MIDDLE EAST

Ph: +971 50 6368764 Fax: +971 6 5730472 Email: info@daveyuae.com

**EUROPE** 

Ph:

Fax:

Email: