

DAVEY

DAVEY
Celsior®

Spa Pump Heat Recovery

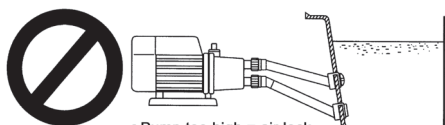
Models: C200A, C270A, C400A, C200AB, C270AB,
C400AB, C200TB, C270TB, C400TB

Installation and Operating Instructions

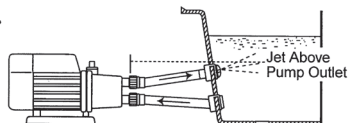


Please pass these instructions on to the owner of this equipment.

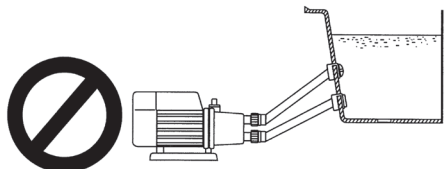
PLUMBERS NOTE: PUMP POSITION IS IMPORTANT



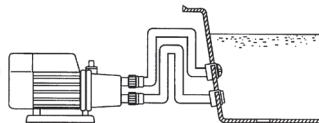
- Pump too high = air lock
- Activate air bleed or replumb



- Pump will drain properly
- Pump will not Air Lock
- Put drip tray under pump



- Pump Too Low - Won't Drain
- Water Stagnates



- Loops Will Air Lock

(Pump must be able to self drain)

Your Davey Spa Bath Pump

Congratulations on your purchase of a quality product from the Davey range of Pool and Spa Equipment. You are assured of many years of reliable and efficient performance from your Davey Spa Bath Pump backed by Davey's two year guarantee.

The Davey Spa Bath Pump range has been specially designed to offer optimum performance and ample bubbling pressure in spa baths. It should not be used for any other purpose without first consulting your Davey Dealer or Davey Customer Service Centre.

The AB and TB models incorporate a thermostatically controlled heater element. The heater element maintains the bath water temperature for a long hot bath.

The Celsior range is designed for use in spa baths. They are not recommended for use in chemically treated spa pool water.

At Davey we design and build our own electric motors especially for our pumps. The matched motor and "pumping end" are designed to provide quiet operation while delivering optimum water flow.

Davey's totally enclosed motor incorporates "auto-start" overload protection with a built-in automatic thermostat designed to protect the motor from overheating. The excess heat from the motor is captured by the spa water, ensuring a long hot soak.

Davey Spa Bath Pumps are constructed of durable thermoplastic, eliminating corrosion problems and consequent spa bath staining. Specially designed to be self-draining (when installed as per instructions), the pump drains after use, preventing the build-up of stale water.

Installation and Operating Instructions

Location

The pump should be located as close to the spa bath as practicable (either internally or externally). It is the installer's/owner's responsibility to locate the pump such that the nameplate can be easily read and it can be readily accessed for service.

It is recommended that the pump is protected from the weather. Enclosures should be ventilated to prevent condensation build-up.

Failure to adequately install the Spa Bath Pump as outlined above may result in pump damage and/or removal costs not covered by the guarantee.



NOTE: To avoid possible water damage to property from ruptured pipes, leaking connections, worn/leaking pump seals, etc., pumps must be installed on a well drained site or in a properly constructed drain tray.

Electrical Connection

In the interests of safety, we advise that all Spa Bath Pumps must be installed in accordance with relevant standards, particularly AS 3000 wiring rules or equivalent.



IMPORTANT INFORMATION: Your Davey pump is Double Insulated to Water Circuit. If equipotential bonding structure is required, then a Equipotential Bonding Point is provided. (Please refer to your local statutes and regulations for AS/NZ 3000 Wiring standards).

This product is suitable for connection to a nominal 240V 50Hz power supply and is equipped with a lead and three pin plug.

This product must be installed so the motor can be turned off independently of the air button or touch pad (a standard ON/OFF power point provides this).

If the supply cord of this product is damaged it must be replaced with a genuine Davey Spare Part, by the manufacturer or its service agent or a similar qualified person in order to avoid a hazard.



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

Air Switch Models - Tube Connection

These pumps are supplied with an air switch tube connected to the back of the motor on the 200, 270 & 400.

1. Before installing, ensure that :
 - the tube is properly connected to the pump,
 - the tube can be connected to the air button (not supplied) at the bath.
2. When installing route the tube via the shortest possible path to the air button.
Ensure that there are no kinks.
3. Do not loop air tube around pipe work or framing.

Electronic Models - Touchpad Assembly / Installation

These models are supplied with a low voltage electronic touch pad to control pump and heater functions.

Assembly

Click faceplate onto touch pad. Then apply label to faceplate/touchpad assembly ensuring it is right way up.

Installation

The assembled touchpad is then ready for mounting at the bath. Route the lead to enable connection at both the touchpad and pump ends. A 26mm dia. hole is required to mount the touchpad flush on the bath surface (usually pre drilled by bath manufacturer).

Apply a bead of silicone on the touchpad box only to secure it to the bath surface and prevent water leaking under the bath. Do not silicone the clip on faceplate to the bath surface.

Plumbing Installation

This product is supplied with barrel unions which accept 40mm PVC pipe.

In all cases, the pump must be installed so that the suction line of the pump slopes from the pump to the bath suction cap with a recommended minimum gradient of 1:60 or 1 degree. This enables water to drain out of the pump when it is switched off.

The pump must be installed at a height ensuring the pump discharge outlet is always below the water level in the bath. This prevents the pump from getting an air lock (which causes the pump to not fully prime).



NOTE: Do not initiate pump operation without installing jet fittings to provide correct minimum pressure to pump, failure to comply may cause overheating.



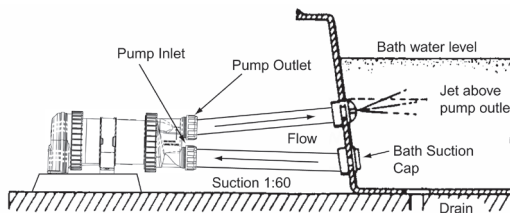
NOTE: Suction and discharge piping, from the pump to the bath, **MUST** be installed such that all water drains back to the bath when emptied, and must be in accordance with local Health Department Regulations (refer to the following diagram for correct installation).



NOTE: Barrel unions need to be hand tightened only. Do not use tools, sealants, solvents, lubricants or thread tape. Use of these methods is not required and may cause damage to the unions or the pump which is not covered by warranty.

MINIMUM PUMP OPERATING PRESSURES

MODEL	PRESSURE (M)	PRESSURE (KPa)
C200A, C200AB, C200TB	3.5	35
C270A, C270AB, C270TB	5.0	49
C400A, C400AB, C400TB	7.0	69



Initial Start Up

Before operating the pump, be sure that no debris or materials are left in the pipework which may enter the pump and cause an obstruction to flow or damage to the pump.

1. Check all pipework is properly sealed and firmly fixed (only hand tighten barrel unions).
2. Fill the bath to the correct level and check pipework for leaks. Activate the pump, by pushing the air button or touchpad switch. Check for leaks in the pipe work again.
3. Switch off the pump by pushing the air button or touchpad again.

Pump Operation

Fill the bath to the correct level.

Air Switch Models

Depress the air button to operate the pump. Depress the air button again to switch off the pump.



Never run the pump dry. Running the pump with no water may damage the mechanical seals, causing leakage and flooding. Dry running damage and associated damage is not covered under warranty.

Electronic Models

“Spa” button - turns pump and heater on/off together.

“Boost Heat” button - enables the heater to be turned off/on while pump is running.

CAUTION

To operate efficiently and prevent pump damage there must be a free flow of water to and from the pump. Ensure that any valves are appropriately positioned and there is nothing else preventing the flow of water through the system.

If the pump stops due to power failure or overheating, turn the pump off otherwise it will automatically restart when power supply resumes or the motor cools down.

Avoid filling the bath with very hot water as this may cause “nuisance tripping” of the element in heated models (refer TROUBLE SHOOTING section part C). Nuisance tripping can be prevented by partially filling the bath with cold water and then adding hot water for a comfortable temperature.

Avoid foreign objects such as tissues or large amounts of hair entering the bath water as they may be drawn into the pump causing it to jam.

Trouble Shooting

A) If the pump runs, but does not deliver water, the following may be the cause:

1. The pump is mounted too high relative to the jets in the bath, causing it to air lock.
Usually this can be rectified by activating the air bleed
(refer to section ACTIVATING AIR BLEED)
If this fails, the pump will have to be lowered 10 - 15 mm at a time until it primes
(refer to section PLUMBING INSTALLATION).
2. Leak in the suction pipework allowing air to be drawn in.
3. Pipework is blocked.

B) If the motor does not run, the following may be the cause:

1. Power is not connected or a fuse has blown.
2. Overload has been tripped.
The motor is fitted with an automatic re-set overload which is designed to protect the motor from damage under overload conditions. Allow the motor to cool and the overload will re-set automatically to start the pump again. Determine the cause of overload if possible and rectify. Constant stopping indicates a problem to be rectified before permanent damage occurs.
3. Air operated switch is in “OFF” condition.

4. The air button on the bath is defective.
5. The electronic touchpad system is defective.
6. The bath water is too hot - add cold water to the bath.

(C) On heated models, if the pump runs but does not maintain water temperature, the following may be the cause:

Heated pump models feature a back-up protection device which cuts out the heater and pump if the water temperature exceeds 50°C.

The heater may be cut-out by a thermostat malfunction. However, it is far more likely to be “nuisance tripped” by filling the bath with very hot water.

To re-set the heater, press the button on the rear of the pump control box.

If the heater continues to cut-out service attention will be required.

In the event of installation or operation difficulties with your Davey Spa Bath Pump, contact the supplier from whom the pump was purchased or your nearest Authorised Davey Pool Equipment Service Centre. For assistance in locating your nearest dealer contact the Davey Customer Service Centre.

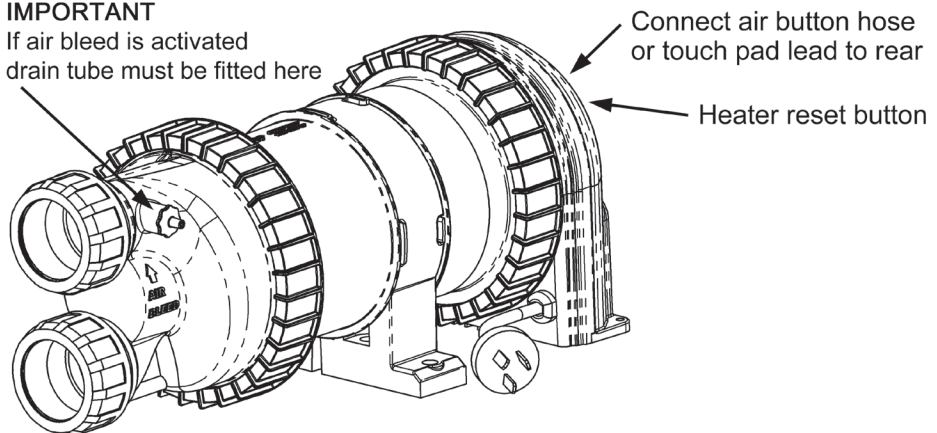
Activating Air Bleed

NOTE:

1. To overcome priming difficulties it may be necessary to activate the air bleed. To do this, cut end off air bleed valve with a sharp hacksaw. Connect PVC drain tube to air bleed valve after activation.
2. When air bleed is activated, it is essential that a PVC drain tube (supplied with pump) is fitted to the barb. Direct tubing up in a loop above the water level of the bath and then back down again into a drain or outside of the building, so that any water passing through the tube will not cause damage.

IMPORTANT

If air bleed is activated drain tube must be fitted here





WARNING: Davey Spa Bath Pumps (heated and non heated models) are capable of pumping water with temperatures up to 50°C. However, medical authorities recommend that the average temperature of spa water should not exceed 40°C.



Spa bath pump & pipework hygiene - soap residue and body oil deposits must be regularly flushed from the spa pipe work to ensure that the spa does not foster bacteria growth and promote unhygienic conditions.

We recommend that this is preformed at least every month.

- 1. Fill bath with cold water above jets.**
- 2. Open all jets and air controls.**
- 3. Add a degreaser or sanitiser to the bath water, following manufacturer's directions.**
- 4. Run pump for 5 minutes.**
- 5. Stop pump and drain spa. Wipe off any excess deposits on interior of bath and flush with fresh water.**

Commercial or multi-user baths should be flushed between each user.



The appliance is not intended for use by young children or infirm persons without supervision.



Young children should the supervised to ensure that they do not play with the appliance.



DANGER - Harzardous suction. Do not block water entry into filtration system with any part of your body as the pressure can trap hair or body parts, causing severe injury or death. Do not block suction. Turn off pump immediately if someone becomes trapped.



Small children using the pool or spa must ALWAYS have close adult supervision.

Features of this pump are the subject of patent protection in various countries, as follows :-

	PCT/AU01/00490	PCT/AU01/00569	PCT/AU02/00270
Australia	2001254510	2001259939	2002238279
China	01810738.9	01809766.9	*
Europe	01927483.6	01933461.4	*
India	–	IN/PCT/2002/01143/DEL	*
USA	10/275,166	10/276,896	*

*national phase entries in progress.

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 two (2) 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 damages from sand 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 Davey by third parties (however Davey 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 guarantee 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

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daveywater.com

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