

## Davey® Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within two years of the date of original purchase due to faulty materials or manufacture, Davey will at our option repair or replace it for you free of charge, subject to the conditions below.

Should you experience any difficulties with your Davey product, we suggest in the first instance that you contact the Davey Dealer from which you purchased the Davey product. Alternatively you can phone our Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand, or send a written letter to Davey at the address listed below. On receipt of your claim, Davey will seek to resolve your difficulties or, if the product is faulty or defective, advise you on how to have your Davey product repaired, obtain a replacement or a refund.

Your Davey Two Year Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your Davey product must only be connected to the voltage shown on the nameplate.

Your Davey Two Year Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the Davey Two Year Guarantee.

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 the Australian or New Zealand legislation and does not affect any rights or remedies that may be available to you under the Australian or New Zealand Consumer Legislation.

In Australia, you are entitled to a replacement or refund for a major failure and for 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.

Should your Davey product require repair or service after the guarantee period; contact your nearest Davey Dealer or phone the Davey Customer Service Centre on the number listed below.

For a complete list of Davey Dealers visit our website ([davey.com.au](http://davey.com.au)) or call:

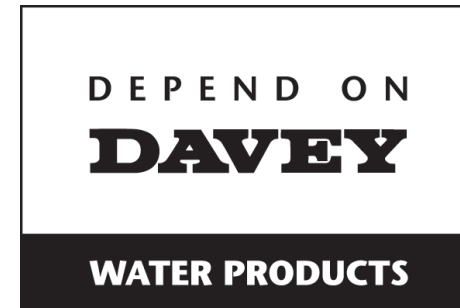
	<b>AUSTRALIA</b>	<b>NEW ZEALAND</b>
	<b>Customer Service Centre</b> 6 Lakeview Drive, Scoresby, Australia 3179 Ph: 1300 367 866 Fax: 1300 369 119 Website: <a href="http://davey.com.au">davey.com.au</a>	<b>Customer Service Centre</b> 7 Rockridge Avenue, Penrose, Auckland 1061 Ph: 0800 654 333 Fax: 09 527 7654 Website: <a href="http://daveynz.co.nz">daveynz.co.nz</a>

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


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P/N 401493-2 supersedes P/N 401493-1

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



# Installation and Operating Instructions for Davey HP, HS & HM Pressure Systems with Presscontrol

 **WARNING :** The Presscontrol, pump and associated pipework operate under pressure. Under no circumstances should the Presscontrol, pump or associated pipework be disassembled unless the internal pressure of the unit has been relieved. Failure to observe this warning will expose persons to the possibility of personal injury and may also result in damage to the pump, pipework or other property.



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

Prior to using this pump you must ensure that:

- The pump is installed in a safe and dry environment
- The pump enclosure has adequate drainage in the event of leakage
- Any transport plugs are removed
- The pipe-work is correctly sealed and supported
- The pump is primed correctly
- The power supply is correctly connected
- All steps have been taken for safe operation

Appropriate details for all of these items are contained in the following Installation and Operating Instructions. Read these in their entirety before switching on this pump. If you are uncertain as to any of these Installation and Operating Instructions please contact your Davey dealer or the appropriate Davey office as listed on the back of this document.

Congratulations on your purchase of a high quality, Australian built Davey pressure system. All components have been designed and manufactured to give trouble free, reliable operation.

Your new pressure system incorporates 'Presscontrol', electronic flow controller that enables the use of a highly efficient pump design and offers the following benefits:-

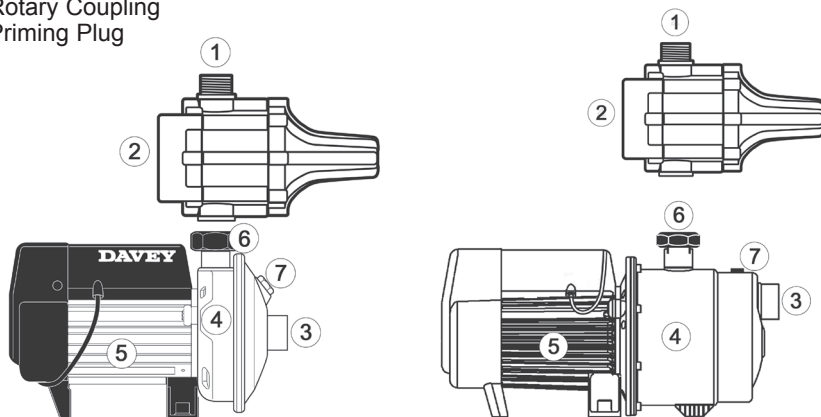
1. Enables the pump to deliver a constant flow of water particularly at low flow rates – reducing the inconvenience of pressure variation in showers etc.
2. Provides automatic “cut-out” protection should the pump run out of water.
3. Provides warning indications for critical system faults.



**Before installing your new pump, please read all instructions carefully as failures caused by incorrect installation or operation are not covered by the guarantee. Your Davey pressure system is designed to handle clean water. The system should not be used for any other purpose without specific referral to Davey. The use of the system to pump flammable, corrosive and other materials of a hazardous nature is specifically excluded.**

**NOTE:** Prior to installation remove the red transport plugs from the suction and/or discharge.

1. Discharge Outlet (1” BSPM)
2. Presscontrol Module
3. Suction Inlet (1 1/4” BSPF)
4. Pump Body
5. Motor
6. Rotary Coupling
7. Priming Plug



**NOTE:**  
For protection, the Davey® pump motor is fitted with an automatic “over temperature” cut-out. Constant tripping of this overload device indicates a problem e.g. low voltage at pump, excessive ambient temperature (above 50°C) in pump enclosure.



**WARNING:** When servicing or attending pump, always ensure power is switched off and lead unplugged. Electrical connections should be serviced only by qualified persons. If the electrical supply lead of this pressure system is damaged, it must be replaced.



Care should also be taken when servicing or disassembling pump to avoid possible injury from pressurised water. Unplug pump, relieve pressure by opening a tap on the discharge side of the pump and allow any hot water in the pump to cool before attempting to dismantle.



During servicing, use only approved, non-petrochemical based oring and gasket lubrication. If unsure, consult your Davey Dealer for advice.



**WARNING:** Do not use hydrocarbon based or hydrocarbon propelled sprays around the electrical components of this pump.



In accordance with AS 3350.2.41 we are obliged to inform you that this pump is not to be used by children or infirm persons and must not be used as a toy by children.

## Trouble Shooting Check List

### MOTOR DOESN'T START WHEN SWITCHED ON

1. Power not connected.
2. Supply voltage too low.
3. "Over temperature" cut-out tripped.
4. Motor not free to turn eg. a jammed impeller.
5. Internal motor fault.

### MOTOR DOES NOT START WHEN TAP IS OPENED

1. Automatic switch has detected loss of prime.

### MOTOR RUNS WHEN SWITCHED ON BUT DOES NOT PUMP

1. Suction line and pump body not filled with water.
2. Air leaks in suction lines or suction pipe not under water.
3. Air trapped in suction lines (also possible with flooded suction due to uneven rise in piping; eliminate humps and hollows).
4. No water at source or water level too low.
5. Valve on suction lines closed.

### MOTOR RUNS WHEN SWITCHED ON BUT DOES NOT PUMP, PUMPS POORLY OR FAULT LIGHT ON Presscontrol IS LIT (PUMP STOPS)

1. Suction line and pump body not filled with water.
2. Air leaks in suction lines or suction pipe not under water.
3. Air trapped in suction lines (also possible with flooded suction due to uneven rise in piping; eliminate humps and hollows).
4. No water at source or water level too low.
5. Valve on suction lines closed.
6. Check valve installed in wrong direction.
7. Suction lift too high.
8. Leaking air bleed screw.
9. Blocked impeller.

### PUMP STOPS, BUT RESTARTS QUICKLY - NO FLOW DEMAND (AUTO MODELS ONLY)

1. Leaking suction line, checkvalve or footvalve.
2. Suction pipe too long and/or too flexible.

### PUMP DOESN'T SUPPLY ADEQUATE PRESSURE

1. Suction lift is too high.
2. Pump impellers partially blocked.
3. Partially blocked suction line.
4. Wrong pump selected.

## Preparing Your System

On removing your pressure system from its carton you will need to position the Presscontrol module on top of the pump. Once in position on top of the pump hand tighten the locking nut. The Presscontrol unit is capable of 360° rotation to enable the most convenient positioning of the control panel.



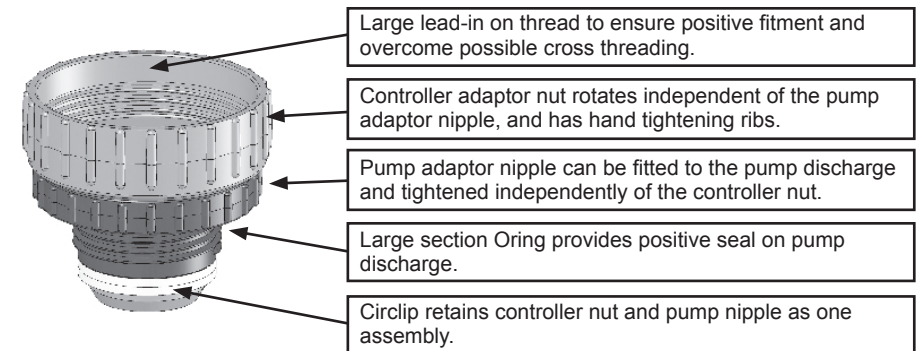
Only connect the discharge pipework to the discharge port.

## Rotary Coupling Installation

Your Davey Water Pressure system is equipped with the convenience of the Davey Rotary Coupling. This coupling allows the pump controller to be fitted simply and easily to the pump discharge.

The rotary coupling is already fitted to the pump discharge port. The controller adaptor nut is able to rotate independent of the pump adaptor nipple and thus the complete pump, this allows it to be tightened onto the pump controller inlet. – see illustration below. Hand tighten only the controller adaptor nut to ensure a firm connection to your controller. The oring on the base of the controller will ensure a leak-proof seal between the rotary coupling and the controller.

The ability to rotate the adaptor nut also means that the complete controller, once fitted to the rotary coupling, can be rotated a full 360 degrees in the horizontal plane, without causing the coupling to unscrew from the pump outlet.

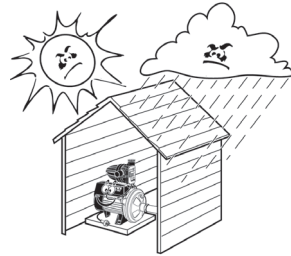


## Choosing a Site

Choose a site with a firm base and as close to the water source as possible with correct power supply. Make sure your pressure system is always connected to an adequate, reliable source of clean water.

## Housing your Davey Pressure System

To protect your pressure system from the weather, make sure the pump house is both water proof, frost free and has adequate ventilation. The pump should be horizontally mounted on a firm base allowing for drainage, to avoid damage to flooring etc., that over time may occur from leaking pipe joints or pump seals. Do not mount the pump vertically.



## Maintenance



**WARNING :** Under no circumstances should the Presscontrol be disassembled. Failure to observe this warning will expose persons to the possibility of personal injury and may also result in damage to other property. Do not dismantle, no user serviceable parts, spring under pressure.

The only regular attention your new pressure system may require will be if you have used an additional pressure tank. You will need to check the pressure tank's air charge every 6 months. This can be checked at the air valve with a tyre gauge. Do not charge tank to a higher pressure than 135kPa for HP models or 195kPa for HS models.

To check air pressure in tank:

1. Switch off pump.
2. Open outlet nearest to pump to release water pressure.
3. Charge tank to required pressure using air pump and check with tyre gauge.
4. Switch on.
5. Close outlet.

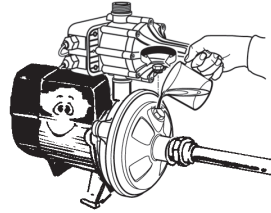


**WARNING:** Some insects, such as small ants, find electrical devices attractive for various reasons. If your pump enclosure is susceptible to insect infestation you should implement a suitable pest control plan.

## Priming and Operation

The Presscontrol module fitted to your system is provided with a push button "Prime" button. This button is used during initial priming of the pump and also acts as a reset button if the Presscontrol switches out in pump protection mode.

1. Remove priming plug and fill casing and suction line (on flooded suction, simply open gate valve to pump). When full, replace priming plug.



2. Ensure outlet nearest to pump is open.



3. Ensure all valves in suction line are open.

4. Switch on power - The status indicator light will be illuminated green and the pump will run. A full flow of water should be discharged from the open tap.



5. If the pump stops with the tap open see troubleshooting checklist.
6. Close the open outlet or tap and the pump should stop after a few seconds (the status indicator light should be illuminated red (constant). If not, consult the troubleshooting checklist.

### To Reset if Pump switches out in Pump Protection Mode

1. Make sure pump is primed.
2. Open tap, push prime button.
3. Close tap and pump will stop.

## Power Connection

Connect lead to power supply designated on pump label. Do not use long extension leads as they cause substantial voltage drop, poor pump performance and may cause motor overload.



The Presscontrol fitted to this pump has a status indicator light mounted on its front panel. This light will be illuminated whenever the Presscontrol senses that there is electrical power available. The light will only work when unit is connected to the correct electrical supply.



The electrical connections and checks must be made by a qualified electrician and comply with applicable local standards.

## Electrical Power Surge Protection

An electrical power surge or spike can travel on the supply lines and cause serious damage to your electrical equipment. The Presscontrol fitted to this pump has a metal oxide varistor (MOV) fitted to help protect it's circuit. This MOV is a "sacrificial" device, meaning that it effectively is gradually damaged every time it takes a surge. The MOV is not a lightning arrestor and may not protect the Presscontrol if lightning or a very powerful surge hits the pump unit.

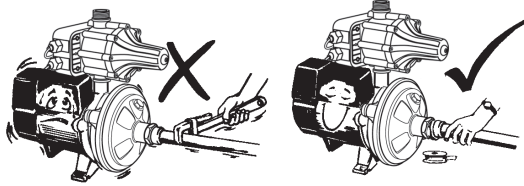
If the installation is subject to electrical power surges or lightning we strongly recommend the use of suitable additional surge protection devices on ALL electrical equipment.



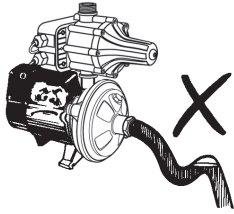
**NOTE:** For protection, the Davey pump motors are fitted with an automatic reset thermal overload, constant tripping of this overload indicates a problem e.g. low voltage at pump, excessive temperature (above 50°C) in pump enclosure.

## Pipe Connections

For best performance use P.V.C. or polythene pipes at least the same diameter as the pump's inlet and delivery outlet openings. Larger diameter pipe may be used to minimise resistance to flow when pumping longer distances.



**Do not use pipe thread sealing compounds on any part of this pump. ONLY use Teflon sealing tape.**



Use unions at pipe connections to enable easy removal and servicing. Use sufficient tape to ensure airtight seal and hand tighten only. To prevent strain on pump threads always support heavy inlet and outlet pipes. If there is a likelihood the water supply may contain solid particles such as pieces of plant or vegetable matter, a filter should be installed before the pump to avoid blocking of water ways. Lay suction pipe at a constant gradient to avoid air pockets which may reduce pump efficiency.



**NOTE: Suction leaks are the largest cause of poor pump performance and are difficult to detect. Ensure all connections are completely sealed using thread tape only.**

## Extra Draw-off Capacity

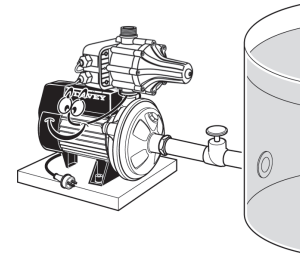
The "Presscontrol" has an inbuilt accumulator which will accommodate small leaks. In some applications it may be appropriate to install additional accumulator (Supercell pressure tank) capacity. These applications includes:

- Long suction lines (see Suction Lines / Lift)
- Low flow appliances connected to the pump, such as evaporative air conditioners, slow filling toilet cisterns.

Any additional accumulators can be installed downstream of the controller (ie. between the controller and the first outlet).



**DO NOT USE THREAD SEALING COMPOUNDS, HEMP OR PIPE DOPE!**



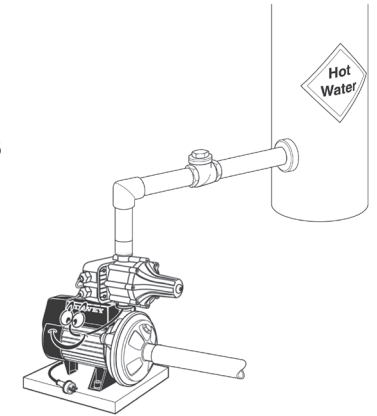
Installations with flooded suction require a gate or isolating valve so water supply can be turned off for pump removal and servicing.



**Abrasive Materials**  
The pumping of abrasive materials will cause damage to the pressure system which will then not be covered by the guarantee.

## For Automatic Pressure Pumps Installed with a Mains Pressure Hot Water System

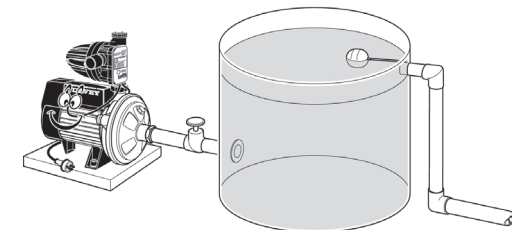
To protect your system from damage caused by back pressure from hot water systems. You should always have installed on the hot water inlet an approved non-return valve.



**NOTE: Always ensure hot water systems are installed in compliance with manufacturers recommendations and in accordance with all local regulations.**

## Connection of Mains Scheme or Town Water Supply to either Suction or Discharge of Pumps & Pressure Systems

Most Water Supply Authorities have strict regulations regarding direct connection of pumps to mains water supplies. In most cases an isolating tank is required between mains supply and pump. Davey also recommend this method. Directly applied mains pressure can exceed pump operating pressure and damage pump.



**Davey Water Products Pty Ltd can not accept responsibility for loss or damage resulting from incorrect or unauthorised installations.**