



Garden Series Jet Pumps



Manual Pressure Pump
Model SJ35-04

Automatic Water Pressure System
Models SJ35-04PC, SJ60-08PC

Installation & Operating Instructions



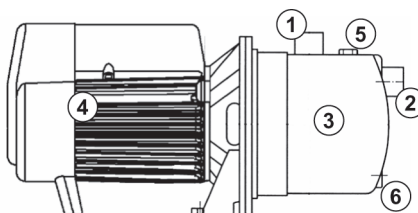
Please pass these instructions on to the operator of this equipment.

Congratulations on your purchase of a Garden Series quality pressure pump or water pressure system. All components have been designed and manufactured to give trouble free, reliable operation.

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 Garden Series Jet Pump is designed to handle clean water. The pump should not be used for any other purpose without specific referral to Davey. The use of the pump to handle flammable, corrosive and other materials of a hazardous nature is specifically excluded.

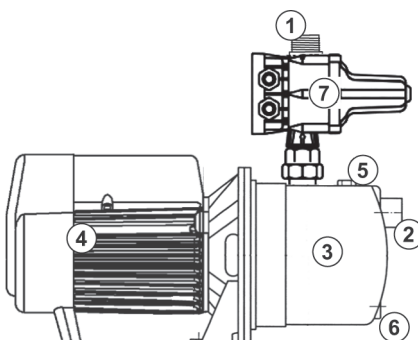
Model SJ35-04

1. Delivery outlet - 1" BSP(F)
2. Suction inlet - 1" BSP(F)
3. Pump body
4. Motor
5. Priming port and plug
6. Drain port and plug



Model SJ35-04PC & SJ60-08PC

1. Delivery outlet - 1" BSP(M)
2. Suction inlet
– SJ35-04PC - 1" BSP(F)
– SJ60-08PC - 1 1/4" BSP(F)
3. Pump body
4. Motor
5. Priming port and plug
6. Drain port and plug
7. Pressure controller



Do not use this pump to pump flammable fluids, such as petrol or diesel fuels.

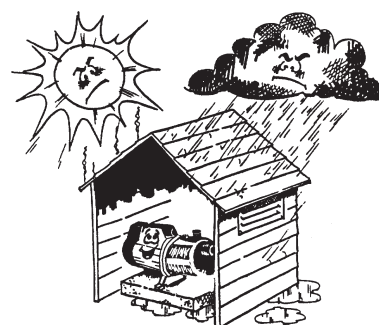
Choosing a Site

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

Housing your Garden Series Jet Pump

To protect your pump from the weather, make sure the cover provided is 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.



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.

Power Connection

The pump motor is fitted with an earthed three pin plug & lead.

The installer is responsible for the correct connection of the electrical supply to the pump motor.

- Make sure the supply voltage and frequency is the same as the nameplate.
- Make sure that there is a sound earth connection available.

In accordance with AS/NZS 60335.2.41 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.



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.



EARTH CONNECTION

The pump power lead includes an earth pin on the plug, which **MUST** be correctly connected to a suitable earth on the electrical supply.

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 controller 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 gradually destroys itself every time it takes a surge. The MOV is not a lightning arrestor and may not protect the controller if lightning or a very powerful surge hits the pump unit.

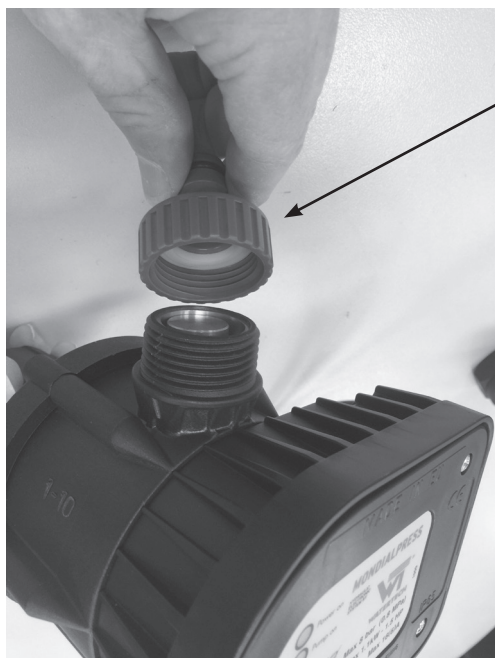
If the installation is subject to electrical power surges or lightning we strongly recommend the use of a suitable surge protection device on ALL electrical equipment.

Pipe Connections

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

Use unions as 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 suction strainer should be installed before the pump to avoid blocking of the pump. Lay suction pipe at a constant gradient to avoid air pockets which reduce pump efficiency.

It is possible with some specific garden hose connections, to block off the discharge of the pressure controller, if the garden hose adapter is fitted directly onto the controller. If user intends to use this specific fitting directly onto the controller, Davey recommends using a threaded spacer (available from most irrigation and hardware stores). This will ensure the tap fitting's gasket doesn't block the discharge of the controller.



Garden hose adapter

Threaded spacer



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.

Installations with a Suction Lift

Installations with a suction lift require a good quality foot valve to avoid loss of prime.

Installations with Flooded Suction

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



WARNING
DO NOT RUN DRY.
DO NOT RUN WITHOUT WATER.
DO NOT PUMP WATER CONTAINING ABRASIVE MATERIALS.

Abrasive Materials

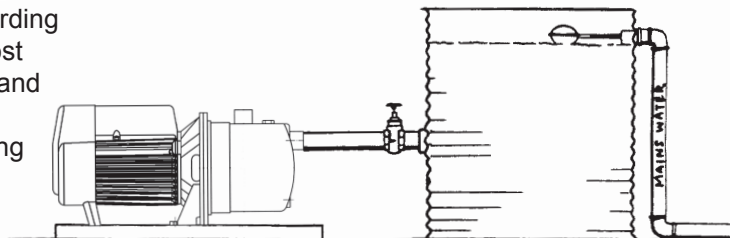
The pumping of abrasive materials will cause damage to the pump which will then not be covered by the guarantee.



Water temperature in pump must not exceed 45°C, or damage caused will not be covered by guarantee.

Connection of Mains Scheme or Town Water Supply to either Suction or Discharge of Pump

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. This is also the recommend method for this pump. Directly applied mains pressure can exceed pump operating pressure and damage pump.



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



NOTE - If connecting your SJ Jet Pump direct to mains water, the casing pressure (maximum outlet pressure) must not exceed 600kPa (6bar/87psi).

NOTE - Maximum total head is 420Kpa (4.2bar/60psi).

Priming and Operation

SJ35-04 Manual Pump



1. Fill pump and suction line through the pump discharge or priming port (on flooded suction, simply open gate valve to pump).
2. Ensure outlet nearest to pump is open.
3. Ensure all valves in suction line are open and switch on pump at power outlet.
4. Prime should establish almost immediately and a strong flow of water should be evident from the outlet. Allow water to flow for 10-20 seconds to expel air then close outlet and switch off pump.
5. If no flow is evident from tap, switch off at power point and repeat from step 1 ensuring there is an adequate supply of water available to the pump.



SJ35-04 PC & SJ60-08PC Automatic Water Pressure System



1. Fill pump and suction line through the pump discharge or priming port (on flooded suction, simply open gate valve to pump).
2. Ensure outlet nearest to pump is open.
3. Ensure all valves in suction line are open and switch on pump at power outlet. The green 'Power On' led will light up on the controller. There will be a delay of a few seconds before the pump starts and the yellow 'Pump On' led will light up.
4. Prime should establish almost immediately and a strong flow of water should be evident from the outlet. Allow water to flow for 10-20 seconds to expel air then close outlet. Pump will switch off shortly after and wait in standby until a drop in pressure initiates a pump start.
5. If the pump fails to deliver water to the tap, the device will stop the pump. The red led will display. Press the Restart button until the red led turns off and water is delivered to the open tap.
6. If no flow is evident from tap, switch off at power point and repeat from step 1 ensuring there is an adequate supply of water available to the pump.
7. If the pump does not automatically restart on re-opening of tap, consult trouble shooting guide.



Your SJ35-04PC & SJ60-08PC pump is fitted with a controller. This device will automatically stop and start your pump, depending on flow demand.

Control Panel

Signalling of the working phases and anomalies

Green led on		Power on	Pump in standby
Yellow led on		Pump on	Pump running
Red led on		Restart	Restart system



Never operate your pump for more than several seconds without discharge flow.

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 CONTROLLER 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 jet or venturi.
10. 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. Jet blocked.
4. Partially blocked suction line.
5. Wrong pump selected.
6. Change the installation.



NOTE: For protection, the pump motor is fitted with an automatic "over temperature" cut-out. Constant tripping of this overload device indicates a problem eg. low voltage at pump, excessive 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.



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

NOTES

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Davey Warranty

Davey Water Products come with guarantees that cannot be excluded under the local country 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.

Davey Water Products Pty Ltd (Davey) of 6 Lakeview Drive Scoresby VIC 3179 provides the following warranty in relation this product. Davey warrants that, subject to the exclusions and limitations below, the product will be free from defects in material and workmanship for a period of 24 months from the date of purchase (warranty period).

If a defect appears in the product before the end of the warranty period and Davey finds the product to be defective in materials or workmanship, Davey will, in its sole discretion, either:

1. replace or repair the product or the defective part of the product free of charge; or
2. arrange for the product or the defective part of the product to be repaired or replaced by a qualified repairer free of charge.

Davey reserves the right to replace defective parts of the product with parts or components of similar quality, grade and composition where an identical part or component is not available. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired.

Warranty claims:

1. If a fault covered by the warranty occurs, Davey suggests, in the first instance, that you contact the Davey Dealer from whom you purchased the product. Alternatively, you can: phone the Davey Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand; send a written letter to Davey at the address listed above; or email sales@davey.com.au.
2. Any warranty claim must be accompanied by proof of purchase and details of the alleged defect.
3. 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 product repaired, obtain a replacement or a refund.
4. This warranty is limited to defects in the materials or workmanship in the product and does not cover expendable parts or the replacement of parts due to fair wear and tear.

Exclusions:

The warranty will not apply where:

1. The Product has been modified, repaired or serviced by someone other than Davey, or an authorised repairer.
2. Davey cannot establish any fault in the product after testing.
3. The product has been used other than for the purpose for which it was designed.
4. The product has been subject to abnormal conditions, whether of temperature, water, humidity, pressure, stress or similar.
5. The purchaser has used or fitted non-genuine, or non-approved parts and accessories.
6. The Product defect has arisen due to abuse, misuse, neglect or accident.
7. The Product defect has arisen due to the purchaser's failure to properly maintain or use the product.
8. The damage has been caused by the use of chemicals and detergents not approved by Davey.

Should your Davey product require repair or service after the warranty period, please contact your nearest Davey Dealer, or phone or email the Davey Customer Service Centre. For a complete list of Davey Dealers please visit our website.



Davey Water Products Pty Ltd
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AUSTRALIA

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Website: davey.com.au

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Fax: 0800 654 334
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Website: daveynz.co.nz

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P/N 400568-11

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