



Silver Series Jet Pumps

Manual Pressure Pump

Model SJ35-04

Automatic Water Pressure System

Models SJ35-04P2C/LOP, SJ35-04PC

& SJ60-08PC

**Installation & Operating
Instructions**



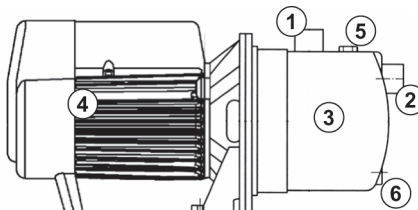
Please pass these instructions on to the operator of this equipment.

Congratulations on your purchase of a Silver 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 SJ Silver 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

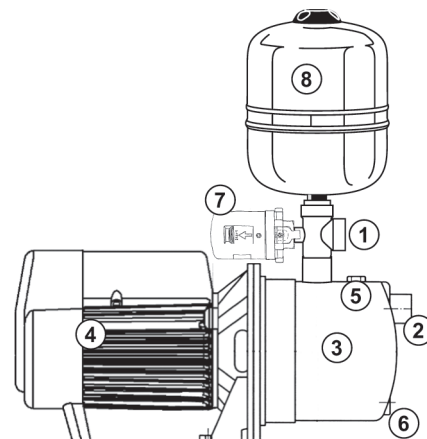
1. Delivery outlet - 1" BSP(F)
2. Suction inlet - 1" BSP(F)
3. Pump body
4. Motor
5. Priming port and plug
6. Drain port and plug



Model SJ35-04P2C/LOP

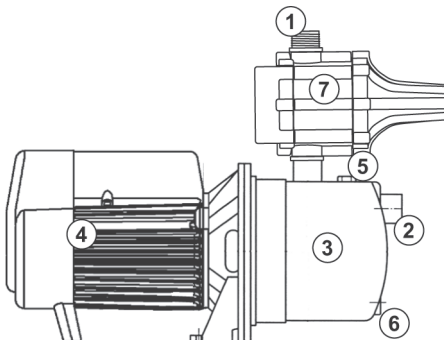
1. Delivery outlet - 1" BSP(F)
2. Suction inlet - 1" BSP(F)
3. Pump body
4. Motor
5. Priming port and plug
6. Drain port and plug
7. Pressure Switch
8. Pressure Tank

NOTE: 1" FI x FI suction check valve and 1" nipple not illustrated.



Model SJ35-04PC & SJ60-08PC

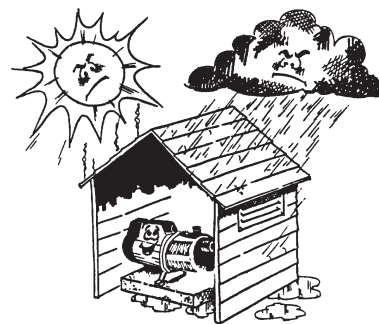
1. Delivery outlet - 1" BSP(M)
2. Suction inlet
– SJ35-04PC - 1" BSP(F)
– SJ60-08PC - 1 1/4" BSP(F)
3. Pump body
4. Motor
5. Priming port and plug
6. Drain port and plug
7. Presscontrol



 **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 SJ Silver 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 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 gradually destroys itself every time it takes a surge. The MOV is not a lightning arrester 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 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.



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.

For model SJ35-04P2C/LOP the enclosed suction check valve can have a suction strainer fitted and used as a foot valve.

Installations with Flooded Suction

Installations with flooded suction require a gate valve so water supply can be turned off for pump removal and servicing. Model SJ35-04P2C/LOP must have the enclosed suction check valve fitted with the enclosed nipple directly into the pump inlet. Ensure the check valve is installed in the correct direction to allow flow into pump inlet.



**WARNING
DO NOT RUN DRY.
DO NOT RUN WITH LOSS OF PRIME.
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.

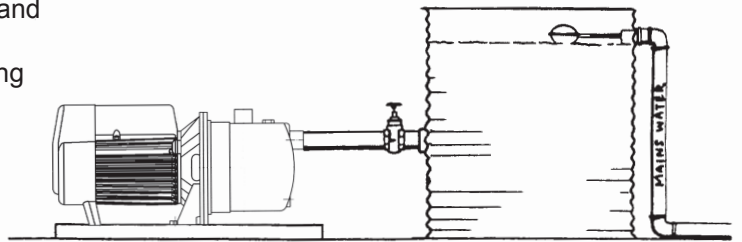


Water temperature in pump must not exceed 45°C, or damage caused will not be covered by guarantee.

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.

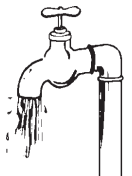


NOTE - If connecting your SJ Jet Pump direct to mains water, the casing pressure (maximum outlet pressure) must not exceed 600kPa (6bar/87psi).

Priming and Operation

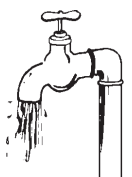
SJ35-04 Manual Pump

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.



SJ35-04P2C/LOP 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.
4. Slide "start switch" on pressure switch until pump maintains pressure.
5. 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.
6. If no flow is evident from tap or the pump does not automatically restart on pressure drop (tap is re-opened) switch off at power point and repeat from step 1 ensuring there is an adequate supply of water available to the pump.



Priming and Operation continued...

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. There will be a delay of less than 1 second before the pump starts.
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 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.
6. If the pump does not automatically restart on re-opening of tap, consult trouble shooting guide.



Automatic Controllers

SJ35-04P2C/LOP Automatic Water Pressure System

This model uses an exclusive “loss of prime” pressure switch. To start (cut-in) on pressure drop, stop on high pressure and shut down on extra low pressure or “loss of prime” (30kPa below the cut-in pressure).

The SJ35-04P2C/LOP is also equipped with a special flow restrictor in the discharge to ensure the system will not engage the “Loss of Prime” protection feature unnecessarily. This flow restrictor is cast into the discharge tee assembly.

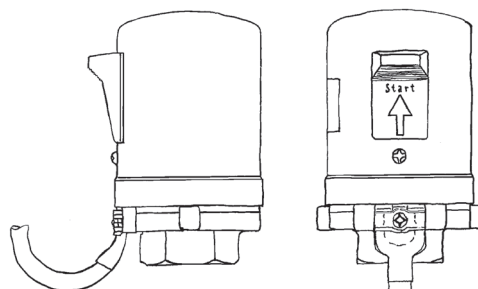
	Cut-in Pressure (kPa)	Cut-out Pressure (kPa)	LOP shut down pressure (kPa)
Factory Settings	140	280	110

Starting

Initial starting, and restarting the pump after a water supply failure is detected, is achieved by holding the sliding “start switch” until operating pressure above the LOP shut down pressure is obtained.

Ensure the pump is correctly primed and connected to the correct power supply.

Once the pump has been correctly started, it will continue to cycle on and off according to the pressure demands placed on the system.



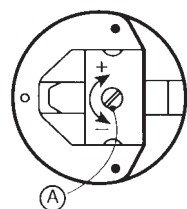
Adjustment of Pressure Switch

(For lifts of 1.5m or over)



This adjustment should only be carried out by a suitably qualified and authorised person.

Your Davey dealer would be happy to assist.



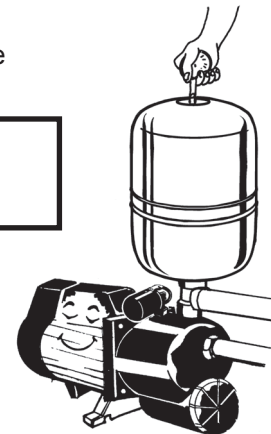
1. Switch off pump and unplug it from power point.
2. Remove pressure switch cap.
3. Turn Adjusting screw, (A) $\frac{1}{2}$ turn anticlockwise.
4. Replace cap and switch on pump.
5. If **pump cuts out**, adjustment is now complete.
6. If **pump does not cut out** after step (4), repeat steps (1) to (5).

Pressure Tank Maintenance (SJ35-04P2C/LOP only)

The only regular attention your new pressure system requires is to check the pressure tank's air charge every 6 months. This is 'factory set' at 125kPa (18psi) and can be checked at the air valve with a tyre gauge.



CAUTION: Do not charge tank to a higher pressure than 125kPa.



To check air pressure in tank:

1. Switch off pump.
2. Open outlet nearest to pump to release water pressure.
3. Remove air valve cap from top of Supercell tank and charge tank to 125kPa (18psi) using air pump and check with tyre gauge.
4. Switch on.
5. Close outlet.

Your SJ35-04PC & SJ60-08PC pump is fitted with a Presscontrol. This device will automatically stop and start your pump, depending on flow demand. Please read the enclosed presscontrol instructions carefully for full details as to its function.



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.
2. For SJ35-04P2C/LOP only - pressure tank has excessive air charge.

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 LOP PRESSURE SWITCH SHUTS DOWN 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 jet or venturi.
10. Blocked impeller.
11. Flow restrictor removed and high flow required - LOP model only.
12. Pressure tank over charged causing LOP function to engage prematurely.

Trouble Shooting Check List continued...

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.



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) or call:



AUSTRALIA

Customer Service Centre

6 Lakeview Drive,
Scoresby, Australia 3179
Ph: 1300 367 866
Fax: 1300 369 119
Website: davey.com.au

NEW ZEALAND

Customer Service Centre

7 Rockridge Avenue,
Penrose, Auckland 1061
Ph: 0800 654 333
Fax: 09 527 7654
Website: daveynz.co.nz

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

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P/N 49367-5 supersedes P/N 49367-4

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