

# HYDROPAK

## 051 Pressure System



Run dry protection



Self priming



Easy installation

**Owners Manual**

## Dear Client

Congratulations on your purchase of a quality pump from the Davies range of pumping products.

Like all Davies products, quality and reliability is first and foremost, carefully chosen from manufacturers worldwide to carry this proven brand name and deliver years of service. Please check your pump for any physical damage during transit and advise your supplier if so. Check the name plate to make sure the pump is what you ordered.

The longevity of your pump largely depends on the application and the environment it is working in, make sure it is the correct type of pump for the application and it has been sized correctly to meet your required duty.

## Technical Specifications

- Power Supply: 200-240V 50Hz Single Phase
- Motor: 400w 2.7A 2860RPM
- Pump Q. Max: 41 lpm (rated Q. 17 lpm)
- Pump H. Max: 35m (rated H. 15m)
- Factory start pressure: 26m
- Max. Suction Lift: 6m
- Water Temp. Range: 0 – 90°C
- Port Size: 1" (25mm)
- Weight: 15kg
- Pump and Motor Protection: IP55 + Protective Base and Cover.
- Application. Quiet automatic electric self-priming water pump for clean water.
- Control: Pressure and flow switches and diaphragm tank for automatic operation.
- Protection: Run dry protection with auto restart cycle (4 attempts); Impeller lock prevention with 8s run after 72H without use; 3s delay start with power on; Low flow anti cycling function



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## INSTALLATION AND OPERATING INSTRUCTIONS

### INSTALLATION

Your HP051 pump should be mounted on a firm level foundation in an area that is not susceptible to flooding or is exposed to the weather and with adequate ventilation for motor cooling.

### PIPING

The pump must be installed as close to the water source as possible and connected with pipes the same size as the pump ports (25mm) Ensure the pipes are fixed so as not to transmit any load or vibration to the pump.

All pipe connections must be perfectly sealed and be able to withstand the suction or pressure created by the pump. Ensure there is no high points on the suction pipe that may cause air locks.

If your pump is sucking from a supply that is below the pump inlet, a foot valve or check valve must be installed at pipe inlet to help prevent loss of prime.

### ELECTRICAL

Your HP051 is supplied with lead and 3-pin plug for New Zealand electrical outlets. Make sure the power supply is the same as the pump and that it is sufficient to cope with the motor consumption – check details on the pump label before connecting.

Single phase pumps have an internal motor overload but must also be installed with a Residual Current Device (RCD) and Surge Protector (SPD).

### STARTING

Before starting your pump, check the motor shaft turns freely, the electrical connections are tight and secure, pipe connections are tight and thread seal tape or thread sealant has been applied.

### PRIMING

Remove the top priming port and fill the pump body and the inlet pipe with water, then put the priming plug back in and tighten.

Switch on the pump with a nearby tap open and wait for it to purge the air from the system. It may take a few minutes to fully prime and water to flow without air bubbles.

### OPERATION INSTRUCTIONS

Now that your pump has primed, it is ready to be used. When a tap is opened, the pressure will drop and the pump will turn on; it will keep running until the taps are closed again and flow has stopped.

If the water supply runs out, the pump will run for 6 minutes and then switch off; it will attempt to restart in 1Hr, 5Hr, 6Hr and 12Hr, if there is still no water the pump will turn off. If this happens, check water supply and switch the power off and on again – repeat priming instructions and normal operation will be restored.

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## **MAINTENANCE INSTRUCTIONS**

The HP051 does not require any special maintenance apart from periodic visual checks for any leaks or unusual noises.

The diaphragm tank is non serviceable – do not remove the cap screw as this will release the precharge and a new tank must be fitted.

The inlet ports has a mesh screen filter that should be cleaned if there is a noticeable drop in pump performance at any time.

Always turn off the power to the pump before any maintenance or repair work is carried out as there is risk of electric shock.

Only qualified personal should remove protective covers or do maintenance.

Electrical work must be done in accordance with all national electrical codes.

**Please contact your supplier if you have any questions.**

## **CAUTION:**

Any leaking or unusual noises must be reported immediately as long-term damage can occur.

If there is risk of freezing, the pump and pipe work must be completely emptied.

The pump will automatically run for an 8s cycle after 72H of no use to prevent the impeller jamming.

Do not pump flammable liquids or liquids with suspended solids or sand.

Do not exceed temperature limits.

## **WARNINGS**

The manufacturer and wholesaler decline all liability for accidents to persons, animals, damage to property to the pump if the warnings are not complied with or if the pump has been tampered with.

The above will also render the guarantee invalid.

## **PREVENTATIVE MEASURES**

All electric pumps must be protected by the user from lightning strikes, flooding or external water damage , chemicals, dust, vermin, insects, overheating, dry running, dead head running and operating below minimum operating pressure.

All working / moving parts of the pump have protection covers. Do not remove any of these while your pump is working.

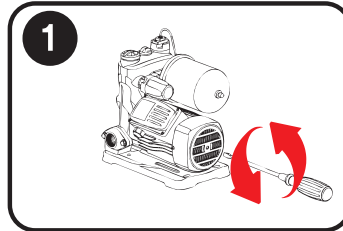
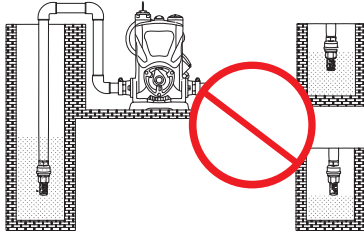
If in doubt – ask

**Happy Pumping**

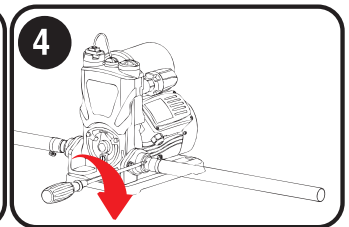
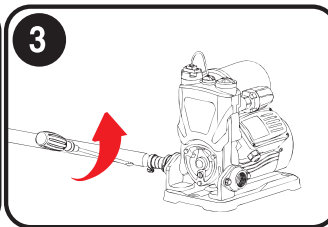
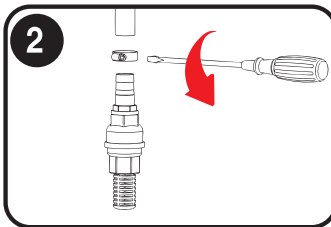
Problems & Solutions		
Error	Reason	Solution
No water when pump is operating	Water pump not fully filled with water.	Fill pump with water again and prime.
	Impeller damaged.	Contact your supplier.
	Water supply level lower than the bottom valve.	Adjust the water inlet pipe to ensure the bottom of the valve is immersed in the water.
	Suction pipe leakage.	Check all suction pipelines are fully sealed.
	The water level is too low, lower than the limit of the suction head of the water pump.	Adjust the installation height of the water pump or select a more appropriate one.
Low pressure	Water in the pipeline or pump chamber causes ice formation.	Thaw before operating again.
	Unsuitable pump model.	Replace with suitable pump model.
	Inlet pipelines too long, or too many elbows, diameter of the water inlet pipe does not meet the regulations.	Choose a pipe with the correct diameter and make the inlet pipe shorter.
	Foreign object blocking the pipeline, filter screen or the pump chamber at the intersection.	Clean pipes, bottom valve, screen, or pump chamber to remove debris.
Pump vibrating	Voltage too low, cable wire too long.	Adjust motor terminal voltage and wire length.
	Base of the pump is not fixed.	Tighten the anchor bolt.
	Blockage in pipeline, or pump chamber.	Check & clean the pipeline and pump chamber.
Intermittent operation or the motor winding is burnt	Base is not stable enough.	Install a more stable base.
	Motor overloads and operates for too long.	Install valve at outlet to reduce water out flow.
	Impeller stuck or overloaded for a long time.	Remove debris in the pump chamber and make the pump work at the rated flow rate as much as possible.
Bracket leakage	The grounding is wrong, cable is damaged, or the pump has been struck by lightning.	Contact your supplier.
	Impurities damaged mechanical seal.	Clean or replace with new seal.
Frequent cycling	Pressure tank has no pressure or is broken.	Replace with new pressure tank.
Motor not running	Flow sensor non-return valve stuck.	Disassemble to clean out any solids or debris.
	Flow sensor broken.	Replace flow sensor.
PC board broken	Poor contact of flow sensor.	Uncover and tighten signal line.
	PC board broken.	Contact your supplier.
Pump stopped during operation	Flow sensor is damaged or supply water shortage.	Check water supply and make sure no blockage at inlet. Check flow sensor operation.
Pump will not shut off	Leaks in pipework or damaged non return valve.	Clean the non-return valve. Check pipework and taps for leaks.

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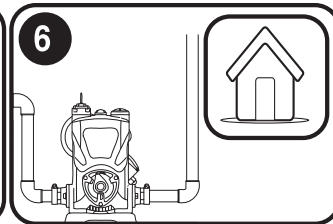
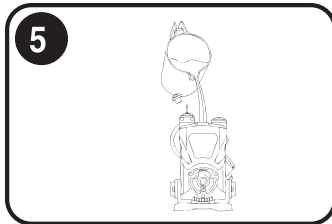
**Install Pump with suitable location from water source and check pump is free to spin.**



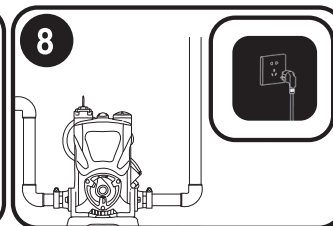
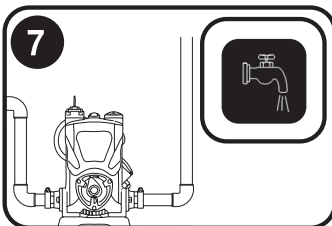
**Install all pipe connections and tighten firmly.**



**Prime the pump and replace the cover.**



**Open taps and connect to power to ensure pump is fully primed and operational.**



## Warranty Policy for Davies Pump Controllers

Your Davies Pump Controller, when used for its designed purpose should give you years of trouble free service. Please take the time to read and understand the operator's manual for this product before installing and operating. Failure to install and operate as per the operation instructions will render warranty on this unit void.

Davies Pump Controllers are warranted to be free of material and manufacturing defects at the time of purchase. Warranty Period: 2 Years from date of purchase.

This warranty is limited to the cost of the product and does not cover travel charges, removal and re-installation charges, consumables, Electrician or Plumbers charges or any other third party costs unless authorized by Argon Distributors prior to being carried out. Argon distributors will repair or replace for the consumer any portion of the failed item which has proved to be defective within the warranty period. Replacement product or parts may include refurbished parts or components.

### **The warranty does not cover Damage or malfunction resulting from:**

- A. Misuse, accident, fire, water, lightning, negligence, abuse, product modifications.
- B. Repairs or attempted repairs by unauthorized persons
- C. Damages to product caused by transit
- D. Removal or installation of the product
- E. Normal wear and tear.
- F. Water and Insect ingression
- G. Exposure to corrosive conditions
- H. Foreign objects in the liquid being pumped
- I. Electrical power fluctuations
- J. Freight

### **Argon Distributors liability is limited to the cost of the product and shall not be liable for:**

- A. Damage to other property caused by defects in the product.
- B. Loss of use of the product.
- C. Loss of time, loss of profits, loss of business opportunity, loss of goodwill
- D. Any other damages incidental, consequential or otherwise.
- E. Claims under this warranty must give evidence of the Date of purchase, Invoice Copy, Model, Serial Number, photos and information of the installation as soon as the failure has occurred. Owner's detail must be noted.

**If any of the above is unclear please contact your supplier or warranty manager at ARGON DISTRIBUTORS.**

**ARGON**  
DISTRIBUTORS LTD



[argondistributors.co.nz](http://argondistributors.co.nz)