



DIVERTRON USER MANUAL SUBMERSED CONSTANT PRESSURE SYSTEMS

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• INSTALLATION • OPERATION • TROUBLE SHOOTING •

For any assistance or after sales service call Leader on our toll free number **1300 798 022**.
Please have a look at further quality Leader products at www.leaderpumps.com.au

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Dear Customer, Congratulations on purchasing this high quality Leader product. Please take a minute to read these installation and important safety instructions before using your new equipment.

1. TECHNICAL DATA

Power (w)	1100
Max Head (m)	48
Max Flow Rate (l/min)	95
Outlet Size	1"

Caution

- Before putting your pump unit into operation, thoroughly read and follow these instructions.
- For safety reasons, the pumping unit is not to be used by people who have not previously read the instructions. It is not to be used by children.
- The pump unit is only to be installed in an electrical supply conforming to Australian Electrical Regulations 2002. This must include a $I\Delta n=30mA$ safety switch. All electrical installations are to be performed by a Licensed Electrician.
- The pump unit is to be used for clean water with temperature below 35°. The pump must not be allowed to freeze.
- Do not raise, carry or fix the pump unit using the electrical cable.
- The pump must be disconnected from the mains power supply before handling or cleaning the pump.
- If the power supply cord has been damaged, it must be replaced by the manufacturer or its authorised customer support service in order to avoid all risks.
- The pump is equipped with a thermal overload safety device. In the event of any overheating of the motor, this device automatically switches off the pump. The cooling time is roughly 15 to 20 minutes, then the pump automatically comes on again. If the overload cut-out is tripped, it is essential to identify and deal with the cause of the overheating. See Troubleshooting.
- The pump must not be used to pump salt water, sewage, flammable, corrosive or explosive liquids (e.g. petroleum oil, petrol, and thinners), grease, oils or foodstuffs.
- It is recommended that pump be raised from the bottom of the tank so that water is not being drawn from very bottom where sediment collects and to reduce vibrations from the pump transferring to the tank.
- Pump must be installed in an easily accessible area and with plumbing fittings that make removal of pump for servicing possible.

6. WARRANTY POLICY

Clayton Engineering warrant this product for 2 years from the date of purchase. The warranty covers manufacturer's defects in material or workmanship. The warranty does not cover malfunctions due to misuse or due to failure to follow the instructions in the instruction manual. Any alterations to the product are to be performed by a Clayton Engineering approved service agent. Any repairs performed by non approved personnel may void the warranty.

To make a claim, contact Clayton Engineering, 26 French Ave, Brendale, Q, 4500 on phone 1300 798 022 or email sales@claytonengineering.com.au. You will be asked to provide proof of purchase and then will be instructed on the procedure for repairing or replacement of the product under warranty. All costs incurred for repair or replace, and additional claims can be discussed at this stage.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. 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.

1st January 2012.

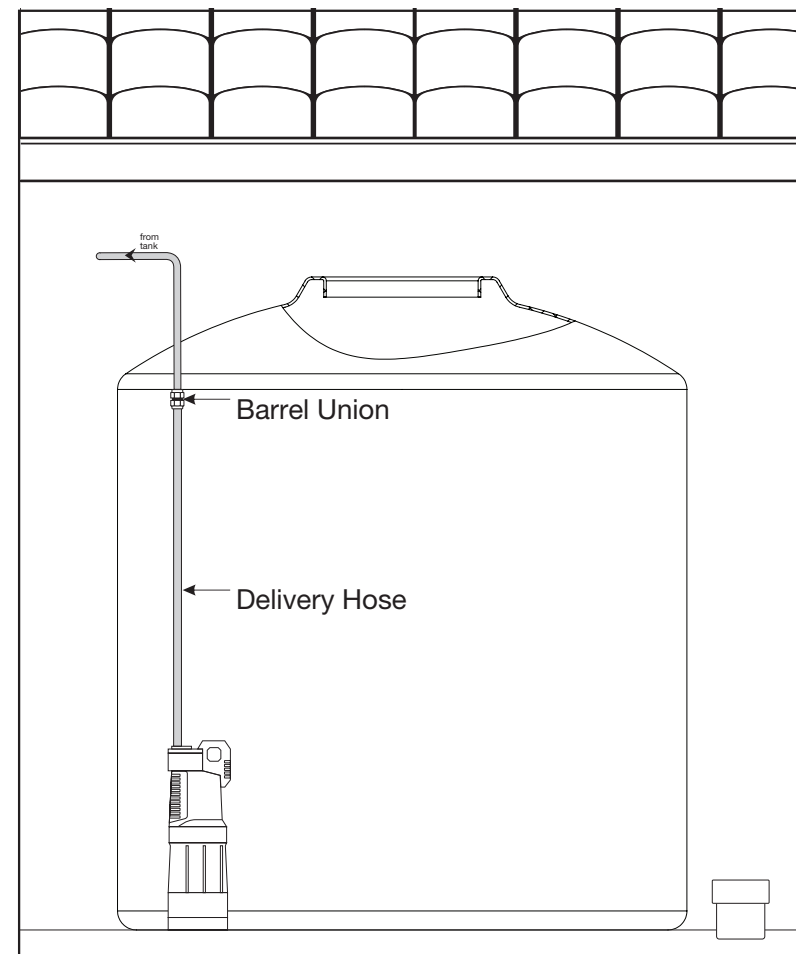
5. TROUBLESHOOTING

Before performing any troubleshooting operation, it is necessary to disconnect the pump from the power supply by removing the pump systems plug from the electricity supply.

Problem	Possible Cause	Solutions
Pump doesn't stop when tap is closed	There is a leak in the pipe system. (>.5 lpm)	Check all pipework for leaks. Pressure test using a gauge if necessary. Any small leak from a connection, tap or leaking toilet will cause a problem.
Pump starts but delivers no water	Insufficient water in tank	Make sure there is sufficient water to pump.
	The inlet screen or piping are clogged.	Clean pumps inlet screen.
Pump doesn't start	No power to unit	Check power outlet is turned on. Check electrical connection (as per connecting controller section) and ensure electrical power is working.
Pump starts and stops repeatedly while not in use	There is a small leak in the system	Check all pipework for leaks. Pressure test using a gauge if necessary. Any small leak from a connection, tap or leaking toilet will cause a problem.
The pump stops running (possible intervention of the thermal overload switch)	Water temperature too high.	Disconnect the power cord, correct the reason for overheating, then wait till pump is cooled then resume operation.
	Power supply doesn't comply with the nameplate's data.	
	Object is blocking the impeller.	
Flow rate too low	Blockage in the discharge line.	Remove any obstructions in delivery line.
	Pump inlet screen is partially blocked.	Clean pumps inlet screen.

2. DISCHARGE LINE

1. The minimum recommended discharge line is 1" inside diameter rigid pipe.
2. A barrel union needs to be fitted at the top of discharge pipe inside the rainwater tank. This fitting must be easily accessible by a person from the tanks leaf strainer / pump access point. (See diagram) Without this the pump is not serviceable without cutting plumbing.
3. Ensure lock-ring of union is on the topside to eliminate risk of it falling into tank in the event of servicing.



3. OPERATION

The DiverTron pump is a unique product on the Australian market. It is unique because it has the pumps controller built into the pump that is then submersed inside the water tank.

The controller in the pump makes the system automatic. The pump unit performs three functions:

1. Automatic pump operation: the pump starts when the tap is turned on and stops it about 10 seconds after the tap is turned off.
2. Pump protection from dry operation: The pump stops when there is no flow of water, thus preventing possible damage to the pump.
3. Constant pressure: Provides constant flow and pressure.

⚠ The pumping unit will not work if the highest point of water delivery exceeds a vertical height of 15 meters.

Before starting the pump, make sure that:

- The voltage and frequency specified on the pump's nameplate coincide with those of the available power supply;
- There are no signs of damage to the pump or its power cord;
- The electric connection is made in a dry place, protected against any risk of flooding;
- The electric system is complete with a residual current circuit-breaker ($I_{\Delta n}=30\text{mA}$) and an efficient earthing connection;
- The pump must only be used when it is immersed in water.
- The pump must be placed in a stable position inside rainwater tank.
- Periodically, it is advised to make sure that no dirt and sediment has accumulated in the bottom of tank.

4. STARTING THE PUMP

1. Connect the pump unit to the electrical power outlet and turn the power on.
2. The pump starts automatically. Allow the pump to operate for approximately 30 seconds to remove all air that may be in the system. If more than one tap, each tap will need to be turned on to bleed the air out of the lines.
3. Close the tap. The pump will stop in approximately 10 seconds.

Auto-Restart and Dry-run protection

If no water has been pumped due to not enough water in tank, the pump will turn off to prevent damage.

Priming cycle: When started, the pump will perform the following operation until it is primed:

Four priming trials of 30 seconds (motor on) with pauses of 3 seconds (motor off). If there is no water, i.e. if the priming trials fail, the pump will stop for an hour before trying to prime again. If this also fails, there will be a 5 hour pause. If the lack of water persists, the pump will try to prime every 24 hours until it has primed.

This priming cycle can be restarted at any time by turning power to the unit off and back on.