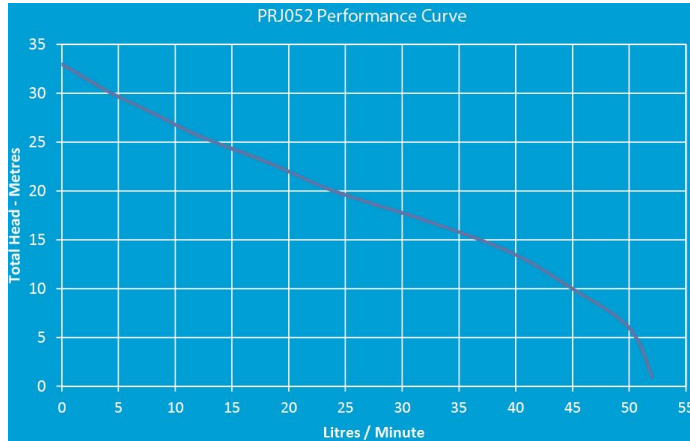


## INSTRUCTION MANUAL & WARRANTY – REEFE PRJ052 PUMP



**APPLICATION:** This pump is fit for purpose when installed correctly according to these instructions;

For pumping of Clean Fresh Water at a temperature of +5°C to +40°C to: Garden Taps, Houses or Cabins (depending on model and performance), Pressure Boosting, Clean Water Transfer, suitable Rain-to-Mains Systems and for no other use. It must not be used in hazardous locations or for liquids other than clean water, or in continuous running applications or in applications that require frequent starting and stopping.

**IMPORTANT:** Ensure the pump is the right size for your application, before you install it. A pump that is under-sized is not faulty, and is not covered by warranty. Ensure the right size piping is used, small pipes will reduce performance and will cause the pump to use much more power, costing you a lot of money in the long term! See point 7(a) & (b) in the instructions below for further information.

### PERFORMANCE DATA

CODE	MODEL	POWER		RATED		MAXIMUM		TAP SUPPLY	CABLE LENGTH	INLET / OUTLET	SIZE
		AMPS	WATT S	FLOW (L/min)	HEAD (m)	FLOW (L/min)	HEAD (m)				L x W x H (mm)
12277	PRJ052	2.5	370	25	20	55	33	2 - 4	3m	25 MBSP	370 x 190 x 380

NOTE: Performance data quoted is generally from test data and does not take into account factors in the installation such as loss of pressure and flow due to pipework & pipe-fittings & valves.

### INSTALLATION GUIDELINES

Please read and follow the instructions. Warranty is voided if the instructions are not followed.

**1. IMPORTANT MANDATORY REQUIREMENTS FOR ALL INSTALLATIONS:** Before installing or servicing disconnect from the power supply. All pumps must be installed using barrel-union connections to facilitate easy servicing or replacement. Ball-valves or gate-valves must be fitted on the suction, and the discharge, and the Town-water backup supply where fitted. A Y-Strainer or Pre-filter must be installed on the suction to prevent particles entering the pump. Remove all swarf from the tank after cutting openings etc – swarf in the pump voids warranty. All instructions are conditions of warranty; all warranty is void if instructions are not followed. It is recommended to install a Check-Valve in the discharge pipework, however DO NOT install the check valve directly on the discharge of the Pressure Controller, as this may cause it to malfunction, install the Check-Valve further down the pipe, before the first point of discharge.

**2.POSITION** Do not position the pump where it could take in solids or sludge. This pump is not to be used as your sole water supply. For critical applications where loss of water supply could cause serious consequences, use a DUAL PUMP System so you have a second water supply or use a TOWN-WATER BACK-UP SYSTEM. This pump is not designed for Fire Fighting purposes.

**3.PROTECT FROM THE WEATHER:** The pump must be protected from the weather, by way of a plastic pump cover or skillion roof cover, or similar. However the installer must ensure that there is adequate ventilation so the pump does not overheat.

**4. IMPORTANT re INSTALLATION:** This pump MUST NOT be installed in any manner that if it were to leak that it would cause damage or loss to property or persons. It MUST be installed in a well-ventilated and drained area. All warranty is void if this condition is not heeded and no liability can be accepted in the case of damage or loss caused by failing to comply with this condition

**5.BASE must be LEVEL** Fix the pump in place through the footplate using suitable fasteners, on a stable, level surface – must NOT be sloping even slightly.

**6. IMPORTANT re PUMP NOISE:** Avoid installing near bedrooms or neighbours bedrooms. These are JET pumps and due to their self-priming design they typically make more noise than a MULTISTAGE Pump. This is a feature of the pump design, it is not a fault, and is not a cause for warranty claims, as it is not a product fault. If noise is likely to cause problems, we recommend that you use a MULTISTAGE Pump.

**7. (a) PIPE SIZE AND TYPE:** Install the pump as near the water supply as possible to reduce the length of suction pipe. We recommend heavy duty flexible suction hose for the inlet (Suction Pipe) but whatever pipe is used it must be no less than 25mm Internal Diameter (30mm is better), and heavy-duty pressure hose or similar for the outlet, we recommend 25mm Internal Diameter for the delivery pipework for the best performance, 19mm Internal Diameter minimum for the discharge. If the pump is for “Whole of house” supply we strongly recommend that 25mm Internal Diameter piping is used throughout the house, and is only reduced to connect to the fixtures as required, this will ensure that the pump delivers best performance and efficiency, saving the user money over the long-term. Use as few bends as possible, every bend reduces performance.

**7. (b) MORE INFO RE PIPE SIZE:** Pressure of the water at the discharge (taps, showers, irrigation etc) is affected by the pipe size. The SMALLER your pipes, the LOWER the pressure will be at discharge. Example: 13mm ID pipe over 20 metres at 30Lpm will reduce pressure at discharge by 240kPa (2.4bar) - whereas if 25mm ID pipe is used for 20 meters at 30Lpm it only reduces pressure by a miniscule 10kPa. Smaller pipe also means that more power will be used as the pump has to work harder to overcome the extra back-pressure from small pipes. A small short-term saving (in the cost of the pipes) will become a long-term liability.

**8.SEAL JOINTS** Ensure all fittings and joints are watertight and airtight, especially in suction-lift applications.

**9. INSTALLATION AND ELECTRICAL WIRING** must adhere to state and local codes and must be completed before priming the pump. These pumps come with an earthed power plug and all electrical installations must be earthed. Any Electrical work must be performed by a licenced Electrician. The installation must also comply with applicable Plumbing Regulations, it is the installers responsibility to ensure compliance.

**10. IMPORTANT re SAFETY SWITCH (RCD):**

(a) The Pump must be connected to a suitable power circuit with an integral RCD (safety switch) having a rated residual operating current not exceeding 30mA, in the circuit breaker. Disconnect the pump from power supply when people are in the water, or when servicing or repairing the pump. All warranty is void if this instruction is not followed. Note: Plugging into existing outlets may cause low voltage supply to the motor, causing blown fuses, tripping of motor overload, or burnt out motor, which will not be covered by the Warranty.

(b) Surge Protection - We recommend that a surge protector is used to protect the electronics of this pump, as damage due to power surges is not covered by the Warranty.

**11. MAINS PRESSURE BOOSTING** This is a specialized type of application, and must be completed by a Qualified Plumber or Pump Technician who is competent and licenced to perform this type of installation.

**12. VOLTAGE** of power supply must match the voltage of the pump – refer to the nameplate on the pump. Do not run on generator power from low quality/old generators. If you only have generator power, you may need to have the Pressure Controller removed and replaced with a Pressure Tank and Switch, at additional cost. The Pressure Controller will be damaged by the voltage fluctuations caused by power supplied by low quality generators. High quality “Sine-Wave” generators are usually acceptable but we cannot guarantee this, as we have no control over the generator that you use, it is your responsibility to ensure the generator used is fit for the purpose.

**13. WARNING:** these pumps are not designed for, and must not be installed in locations classified as hazardous.

**14. THE FOLLOWING MAY CAUSE SEVERE DAMAGE TO THE PUMP AND WILL VOID WARRANTY:**

- (a) Using an extension cord to power the pump.
- (b) Cutting the earth pin off the plug or using an adapter fitting or double adapter.
- (c) Working on the pump while connected to the power supply.
- (d) Removing motor housing, or disassembling the pump housing, except by a qualified technician
- (e) Pumping chemicals or corrosive liquids or flammable liquids.
- (f) Pumping hot liquids (Exceeding 40° Centigrade)
- (g) Using a generator for power supply - see 12
- (h) Operations that involve frequent starting. This will lead to premature failure of the capacitor. We recommend that if the pump is regularly starting more often than 10 times per hour, you should add a pressure tank into the system. Occasional frequent starting

(for example during the evening showers) is not a problem, but constant (most of the day) frequent starting is a problem. Note that if the pump starts and stops more than 7 times within 2 minutes, it may switch itself off and you will need to press the restart button to reactivate it.

### **15. PUMP PRIMING AND START UP**

- (a) Dry operation will destroy the pump seals and is not covered by warranty.
- (b) Remove the pressure controller by loosening the barrel union, (or use the priming plug at the front of the wet-end, near the inlet, but that is slower) and completely fill the pump chamber with water before starting.
- (c) Turn the pump on, if water does not flow, turn it off and repeat step 15(b) again, and if it is suction-lift the entire suction pipe may need to be pre-primed.
- (d) If it still does not pump water, check the intake and discharge pipework is free from airlocks, or any other obstructions and refer to the TROUBLESHOOTING guide.

### **16. SUCTION LIFT**

**NOTICE!!** Suction Lift is NOT SUITABLE for most Rain-to-Mains Changeover Systems – unless you fit a float switch in the tank. When pumping out of a tank that is at a lower level or underground, the inlet pipe must be:

- a) Fitted with a foot valve that is kept clear of sludge that will build up on the bottom of the tank over time.
- b) The suction (intake) pipework must be ‘uphill’ all the way to the pump (only RISE, not rise and fall) and be perfectly airtight and be of sufficient diameter (not less than 30mm internal diameter and greater diameter than the discharge) and be of suitable material that will not collapse (suction pipe)
- (c) A Check Valve should also be installed at the inlet of the pump, in most cases.
- (d) For pipe lengths of greater than 3m for suction you must consult with a qualified pump technician as to whether the pipe sizing you are using is suitable. Using incorrect pipe sizes will lead to problems. Suction lift installations are notoriously troublesome, and almost invariably it is not the pump that causes the problem. Leaking footvalve, air leak into the pipe, slow water leak out of the pipe, humps & hollows in the pipe leading to air-pockets, will cause “loss of prime” and pump failure/no water delivered. FAILURE TO FOLLOW THESE GUIDELINES WILL RESULT IN LOSS OF PRIME (No Water in Pump)

### **17. OVERLOAD PROTECTION**

This pump has a built in thermal protection switch. The pump stops if a high-temperature condition occurs. The motor restarts automatically after it has cooled down when the built in thermal protector resets itself. Or you may need to turn the power off and on again to reset it. If this problem reoccurs - check as per 15

### **18. IMPORTANT NOTES**

- (a) Do not switch the pump on and off frequently, as this will cause damage to the electronics and void warranty.
- (b) Do not attempt to adjust the flow via the intake pipework
- (c) If there is insufficient water, the motor will stop. See 15 (f) and also 19.
- (d) If the pump is idle for a long period of time or in very low temperature, the water should be drained to avoid damage to the pump and/or stagnation of water.

## **DANGER!!!!**

Keep the pump equipment protected from interference by pets, wildlife, children, infirm persons or incompetent persons.

## **WARNING!!!**

This pump is designed for clean fresh water only, in non-hazardous locations.

It must NOT be used as a continuous duty fountain pump, or dirty water, or liquids other than water.

Install in well ventilated and well drained area.

### **19. PUMP CONTROLLER FUNCTION AND OPERATION:**

The pump controller fitted to this pump is designed to be almost completely automatic, and will restart itself if the pump runs out of water; you should not normally need to do anything. Instructions and basic function;

- a) Use for CLEAN rainwater only – you must fit a prefilter or Y-Strainer to the intake (suction pipe) of the pump
- b) Do not use a low quality generator for power supply - see section 12 - as this may damage the electronics
- c) Protect from direct sunlight to avoid UV damage to the plastic
- d) The pump controller will stop the pump if there is no water in the pump
- e) It then rechecks for water several times over the period of about 20 minutes – it makes the pump start each time, to try and “re-prime” itself (fill it back up with water) It might “crackle & gurgle” due to air in it, as it tries to restart, this will do no harm to the pump.
- f) If there is insufficient water to allow the pump to operate normally, the controller then switches off for 24 hours and tries again. If insufficient water, it will try again in 24 hours, and continue to do that indefinitely until there is sufficient water and the pump can operate normally.
- g) If it happens to do this in the middle of the night it can be annoying! In the morning, turn it off & on again after 30 seconds and it will reset itself so it does the checking in daylight hours.
- h) Leak detection function: if the pump starts and stops 7 times or more in about 2 minutes, the pump may turn off automatically.
- i) You can reset the function back to the beginning anytime by pressing the restart button
- j) If it is many days before it rains again (or you have your tank re-filled), turn off the power to the pump, at the power outlet

- k) Occasionally when the pump re-starts after a run-dry event, some air might come through the lines, this will do no harm.

## **TROUBLESHOOTING CHECKLIST**

Check the following before requesting service or repair.

A call out fee and labour cost may apply to field services.

## **PROBLEMS & POSSIBLE CAUSES**

### **20. Light Flashes “No Water” or “Failure”**

\* This normally indicates that the pump has no water, either because the tank is empty or the pump has “lost prime” – run dry. The pump is fitted with an AUTOMATIC RESTART controller so it will attempt to re-start itself several times. This is normal, it does not mean the pump is faulty. Refer to point 19 a) to k) of the instructions.

### **21. Pump does not run**

- \* Circuit breaker or Safety Switch is off or fuse has blown.
- \* Water level in tank is too low - Top up or use alternative supply
- \* Electrical components have been flooded - Contact a licensed electrician to rectify.
- \* Pump plug is not connected properly, or has been flooded or wet - Isolate power at main switch, remove plug & allow to dry. If the problem continues, contact a licenced electrician to check the cause.
- \* If all of the above are OK, the pump might have overheated and triggered the thermal overload switch. Turn it off and wait 30 minutes for it to cool down and turn it on again. If the overload switch activates again, investigate why this has occurred before turning it back on.

### **22. Pump runs but does not deliver water.**

- \* Check valve is installed backwards. Arrow on valve should point in direction of flow.
- \* Discharge shut-off valve (if used) may be closed.
- \* Impeller or volute openings are fully or partially clogged. Disconnect from the power supply, and if you are competent to do so, disassemble pump and clean. If not, have a pump technician do it for you.
- \* Pump is air-locked. Start and stop several times by turning it on and off with 20 seconds between. If this does not work, see below regarding re-priming the pump
- \* Vertical pumping distance is too high. Reduce distance or upgrade to a larger pump.

### **23. Pump runs and does not stop or runs when no taps in use**

- \* Leak in pipework or leaking toilet cisterns or underground pipe leak (wet soil, muddy, grass growing well!)
- \* Pressure controller Fault - Press Restart, If that does not help then turn the power off and on again.
- \* If this fails to rectify the problem, call your dealer for service, or call us.

**Note that a call out fee and labour costs apply, if it is not found to be warranty.**

### **24. Pump not pumping properly**

- \* Too high head or pump under specified - Check specifications.
- \* Too low water level - Check the water levels
- \* Loss of prime - Check foot valve (if fitted), re-prime the pump.
- \* Leakage of inlet pipe - Check the inlet pipe is not taking in air, check all joints.
- \* Inlet Pipe has rise and fall (Dips). Fix suction pipe so it is both perfectly straight and level, OR rises all the way to the pump.
- \* If a check valve has been installed directly on the discharge of the pressure controller, this may cause the Pressure controller to malfunction. Move the check valve to a different position.

### **25. Pump runs but delivers only a small amount of water.**

- \* Pump is air-locked. Start and stop several times by plugging and unplugging cord.
- \* Vertical pumping distance is too high. Reduce distance or upgrade to a larger pump.
- \* Foot valve blocked - Clean or replace the FOOT valve
- \* Too low water level - Check the suction and water levels
- \* Serious damage to the impeller - Impeller or volute openings are fully or partially clogged.
- \* Impeller or volute openings are fully or partially clogged. Disconnect from the power supply, and if you are competent to do so, disassemble pump and clean. If not, have a pump technician do it for you

### **26. Low Flow from Pump**

- \* Check the two items above, first.
- \* Then if problem persists, remove the pressure controller and check for obstructions in it. If this has occurred refer to point 1. of the installation that you install a suction screen or a prefilter between the tank and the pump (in the suction line)

### **27. Fuse blows or circuit breaker trips when the pump starts.**

- \* Fuse size or circuit breaker may be too small. (Must be 15 amp circuit refer to 10. A) of the installation instructions)
- \* Impeller or volute opening are fully or partially clogged. Disconnect from the power supply, and if you are competent to do so, disassemble pump and clean. If not, have a pump technician do it for you.
- \* If none of the above, the Motor may be defective, have it checked by a qualified technician.

### **28. Motor runs for a short time, then stops.**

- \* Impeller or volute opening are fully or partially clogged. Disconnect from the power supply, and if you are competent to do so, disassemble pump and clean. If not, have a pump technician do it for you.
- \* Fit a pre-filter to prevent re-occurrence - refer to point 1. of the installation that you install a suction screen or a prefilter between the tank and the pump (in the suction line)
- \* Motor may be overheating. Ensure there is good ventilation for the motor.

## **WARNING!!!**

### **ELECTRICAL PRECAUTIONS**

Before servicing a pump, always shut off the power supply and then make sure you are not standing in water and that there is no risk of electrical shock. If pump is direct-wired to the electrical circuit, have a qualified licensed electrician disconnect it before attempting any repairs or servicing.

## ***DO NOT ATTEMPT ELECTRICAL REPAIRS OF ANY SORT UNLESS YOU ARE A LICENSED ELECTRICIAN***

### **WARRANTY RECORD - FILL IN AND RETAIN THIS WITH YOUR ORIGINAL PURCHASE RECEIPT**

PURCHASER NAME.....PHONE NO.....  
DATE OF PURCHASE ...../...../.....DEALER/STORE NAME.....  
DEALER SUBURB/TOWN.....PHONE NO.....  
BRAND & MODEL NUMBER OF PUMP.....BATCH NUMBER.....

Do NOT send this form to us, retain it for your record.

### **INSTALLATION CHECKLIST: MUST BE FILLED IN FOR WARRANTY TO APPLY**

Installer Name \_\_\_\_\_ Qualification: \_\_\_\_\_ (write Owner if applicable)  
Phone Number: \_\_\_\_\_ If installed by a Plumber or Electrician, Licence No: \_\_\_\_\_  
Installation Address: \_\_\_\_\_

Tick the boxes as the item is completed/correct, put n/a if not applicable;

- ☐ The Pump is being used for an appropriate purpose for which it is intended, according to the instructions
- ☐ The Power Circuit the Pump is connected to is RCD (Safety Switch) Protected
- ☐ A Y-Strainer or Pre-filter is installed in the suction pipe to prevent particles entering the pump
- ☐ All swarf has been removed from the tank after cutting openings etc.
- ☐ Barrel Unions are fitted on the pipe connections for easy removal & replacement
- ☐ A Ball Valve or Gate Valve is fitted to the suction pipe (the pipe from tank to pump)
- ☐ Pipe is sized appropriately for the application (diameter and length)
- ☐ The installation is constructed so the pump can be easily removed or replaced.
- ☐ If applicable: The pump is installed in accordance with National & Local Plumbing Regulations
- ☐ The Electrical Supply cable is plugged into a Power Outlet that is in accordance with the current standard of Electrical Safety Regulations AS/NZS 3000 – or the pump has been wired directly to the power circuit by a Licenced Electrician.
- ☐ The Pump has been primed (filled with water) started, tested, and operates correctly.
- ☐ The pipes and connections and the barrel-union on the pump, and toilet cisterns (if connected) have been checked for leaks.
- ☐ The pump is protected from sunlight & rain, with a suitable vented pump-cover or enclosure.
- ☐ If applicable: The Owner has been shown how to re-prime and re-set the pump (re-fill the pump with water if it runs dry)

Signed by the Installer: \_\_\_\_\_ Date Installed: \_\_\_\_/\_\_\_\_/\_\_\_\_

### **3 YEAR WARRANTY CONDITIONS**

1. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. If you are a consumer as defined by 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. The following conditions form part of the instructions and do not over-ride your statutory rights.
2. This warranty against defects covers failure due to manufacturing defects within a 3 Year period from the date of original purchase, for REEFE™ PRJ series Pumps purchased and used in mainland Australia. In the case of a failure covered by warranty within a 3 Year period from the date of original purchase, the pump will be repaired or replaced - or you can return it to the place of purchase for a refund.
3. Faults or losses or failure caused due to: normal wear and tear, Accidents, misuse, lack of maintenance, not following these instructions, damage caused by lightning strike/power surges/spikes/brownouts/operating the pump on power other than 240volts 50Hz mains power/operating the pump on power supplied by a domestic generator - are not covered by warranty.
4. The complete Impeller set (including shaft), Seals and O-rings are all wearing items and therefore are not covered for "normal wear and tear". They are covered by this warranty if they are faulty due to a manufacturing defect.
5. Warranty will be void if any tampering or removal of identification labels or electrical cables has occurred, or any non-genuine parts have been fitted, or repairs have been carried out by unqualified persons. No warranty applies for goods sold or used for HIRE or RENT or LEASE
6. If an exact replacement is not available, the closest equivalent product will be supplied at our discretion.
7. This product is guaranteed as fit for the purpose of pumping CLEAN FRESH WATER and for NO OTHER USE. Performance data quoted is generally from test data and does not take into account factors in the installation such as loss of pressure and flow due to pipework & pipe-fittings & valves.
8. IMPORTANT: No electrical appliances last forever. Therefore ALL installations of PUMPS must be constructed to allow the owner to easily remove the pump for servicing, and to easily remove the pump for replacement, warranty replacement or upgrading. The installation must NOT be constructed in such a manner that specialized tools, or paid tradespersons, or external paid contractors, are required to be engaged in order to remove and/or replace and/or refit the pump. Warranty replacement does not normally include costs of removal and re-installation as we have no control over the method of installation.
9. Before installing or servicing disconnect from the power supply. All pumps must be installed using barrel-union connections to facilitate easy servicing or replacement. A ball-valve or gate-valve must be fitted on the suction, and the Town-water backup supply where fitted. Additionally a Y-Strainer or Pre-filter must be installed on the suction to prevent particles entering the pump. This instruction is a condition of warranty; all warranty is void if this instruction is not followed.
10. This pump is not to be used as your sole water supply. For critical applications where loss of water supply could cause serious consequences, use a DUAL PUMP System so you have a backup water supply or use a TOWN-WATER BACK-UP System.
11. This pump MUST NOT be installed in any manner that if it were to leak that it would cause damage or loss to property or persons. It MUST be installed in a well-ventilated and drained area. All warranty is void if this condition is not heeded and no liability can be accepted in the case of damage or loss caused by failing to comply with this condition.
12. The Pump must be connected to a suitable circuit with an integral RCD (safety switch) in the circuit breaker. All warranty is void if this instruction is not followed.
13. In the case of a fault, refer to the Trouble Shooting Guide first. If these steps do not rectify the problem, then return the faulty appliance to the original place of purchase with proof of purchase for replacement or refund. Alternatively you can mail us at PO BOX 650 MORNINGSIDE QLD 4170 or send an email to [sales@ascento.com.au](mailto:sales@ascento.com.au) with copy of your purchase receipt, a description of the problem, and your name and address and phone number - we will review your request and send you a replacement directly if we accept your warranty claim. Or call us on 1800807604 with the above information; however we will always require a copy of your purchase receipt. Do not send the product to us unless we ask you to do so.
14. This warranty does not exclude any non-excludable rights according to Australian Law. However any condition that is made void by Australian Law does not void the remaining conditions, which shall stand unaltered.

#### **PRIVACY STATEMENT**

We will not use your address or phone or fax number, or email address for marketing without your express permission. We will not sell or provide it to any other third party for the purpose of marketing.

**Thank you for purchasing our product. We trust it gives you years of trouble-free pumping!**

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