



NEPTUNE NPR SINGLE SPEED POOL PUMP



INSTALLATION GUIDE AND USER MANUAL



THANK YOU FOR PURCHASING A NEPTUNE POOL PUMP.
Please read the manual thoroughly before installing or using the product.
Keep this manual for future reference.

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SECTION 1: IMPORTANT WARNINGS AND SAFETY INFORMATION



This manual contains important information about the installation, operation, and safe use of this product. This information should be given to the owner and/or operator of the pool pump. When installing and using the pool pump, basic safety precautions should always be followed. Failure to follow safety warnings and instructions in this manual can result in serious injury and/or damage to your equipment. Read and follow all warning notices and instructions which are included in this manual.

GENERAL WARNINGS

- Read the instructions before installing and using the pool pump.
- Failure to follow these instructions and comply with all applicable codes may cause serious bodily injury and/or property damage and will void the warranty.
- Children should be supervised to ensure that they do not play with this product.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- This pump is for use with permanently installed in-ground or above-ground swimming pools and may also be used with hot tubs and spas with a water temperature under 50°C. Due to the fixed installation method, this pump is not suggested to be used on above-ground pools that can be readily disassembled for storage.
- This pump is not submersible.
- To reduce the risk of electric shock, replace damaged cord immediately.
- To reduce the risk of electric shock, do not use an extension cord to connect unit to electric supply; provide a properly located outlet.
- Never open the inside of the drive motor enclosure.
- Before servicing the pump, switch power OFF to the pump by disconnecting the main circuit to the pump and release all pressure from pump and piping system.
- This product contains electrical equipment. Dispose of the product in accordance with local regulations.
- Use only genuine replacement parts supplied by the manufacturer for service and repair.

INSTALLATION WARNINGS

- Only qualified personnel should install pump.
- Installers/operators must follow manufacturer's instructions and keep in compliance with national or local standards for installation. Under no circumstances will the manufacturer be held responsible for any outcome incurred by failure to comply with applicable standards or local regulations.
- The pump must be installed in accordance with AS3000 Wiring Standards. Failure to do so will void any warranty.
- Always comply with national and local electrical codes and standards.
- Connect only to a grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.
- For hot tubs and spa pumps, do not install within an outer enclosure or beneath the skirt of the hot tub/spa, unless so marked.

OPERATION WARNINGS

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of this product by a person responsible for their safety.
- Children shall not play with this product. Cleaning and maintenance shall not be conducted by children without supervision.
- NEVER run pump dry. Fill the pump with water before starting. In case of dry run, mechanical seal will be damaged and the pump will start leaking. This will void your warranty.
- Never tighten or loosen screws while the pump is operating.
- Ensure that the inlet and outlet of the pump are not blocked by foreign matter.
- DO NOT BLOCK PUMP SUCTION. To do so with body may cause severe or fatal injury. Children using pool must ALWAYS have close adult supervision.
- Before removing pump lid:
 1. STOP PUMP.
 2. CLOSE GATE VALVES in suction and discharge pipes.
 3. RELEASE ALL PRESSURE from pump and piping system.
 4. NEVER tighten or loosen screws while pump is operating.



DISCLAIMER

Information in this manual is intended to provide general information on a particular subject(s) in good faith and is not an exhaustive treatment of such subject(s). Its use is beyond the control of the author, contributor, publishers, and distributors and should not be relied upon without consulting your local Professional for comprehensive advice. This manual includes subject(s) that should only be performed by or under the direction and advice of your local Professional and under no circumstances should the manual be used as a substitute for such professionals. No representations or warranties are made that the content, advice, and recommendations in this manual are current, free from errors or omissions, or appropriate for the user's circumstances or abilities. No liability is accepted for any loss suffered as a result of any user's reliance on such content. All information in this document is subject to change at any time without notice.

SECTION 2: PACKAGING CONTENTS

The following items are included in the packaging of the pool pump. Please contact your authorised dealer if any items are damaged or missing.

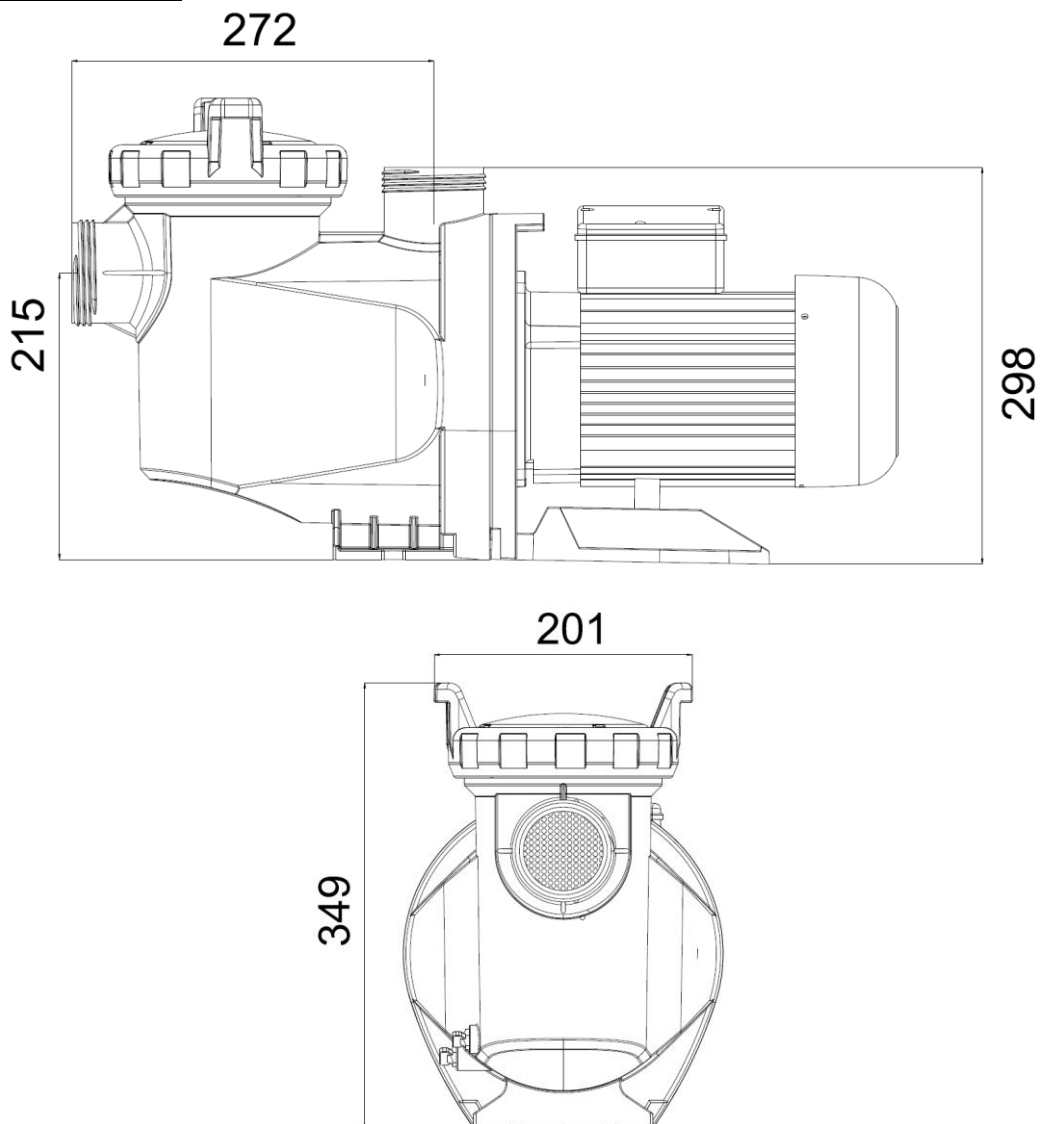
Pool Pump x 1

User Manual x 1

Unions x 2

SECTION 3: PRODUCT SPECIFICATIONS

3.1: PRODUCT DIMENSIONS



3.2: TECHNICAL DATA

Model	NPR550	NPR750	NPR1500	NPR2000	NPR3000
Input Power (kW)	0.75	1.1	1.5	1.8	2.2
Input Power (hp)	0.75	1.0	1.5	2.0	3.0
Voltage (V/Hz)	220-240V/50Hz				
Current (A)	3.5	5	6.8	8.2	10
Connection Size (mm)	40/50				
Maximum Flow Rate (L/min)	316	366	433	483	533
Flow Rate @ 8m Head (L/min)	240	330	386	443	496
Flow Rate @ 10m Head (L/min)	206	280	358	416	466
Noise Level (dB)	63	64	65	65	67
Net Weight (kg)	13	14.1	15.6	16.5	18.5

Motor	
Type	Asynchronous Two Poles
IP Rating	X5
Insulation Class	Class F
Voltage	220V - 240V
Frequency	50Hz

SECTION 4: INSTALLATION

4.1: INSTALLATION WARNINGS



- Only qualified, licensed personnel should install pump and wiring.
- Electrical contractors please note: pump must be wired to the main power supply through an approved and correctly rated contractor.
- Installers/operators must follow manufacturer's instructions and keep in compliance with national or local standards for installation. Under no circumstances will the manufacturer be held responsible for any outcome incurred by failure to comply with applicable standards or local regulations.
- The pump must be installed in accordance with AS3000 Wiring Standards. Failure to do so will void any warranty.
- Connect only to a grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.
- For hot tubs and spa pumps, do not install within an outer enclosure or beneath the skirt of the hot tub/spa, unless so marked.
- Always comply with national and local electrical codes and standards.

4.2: PUMP LOCATION

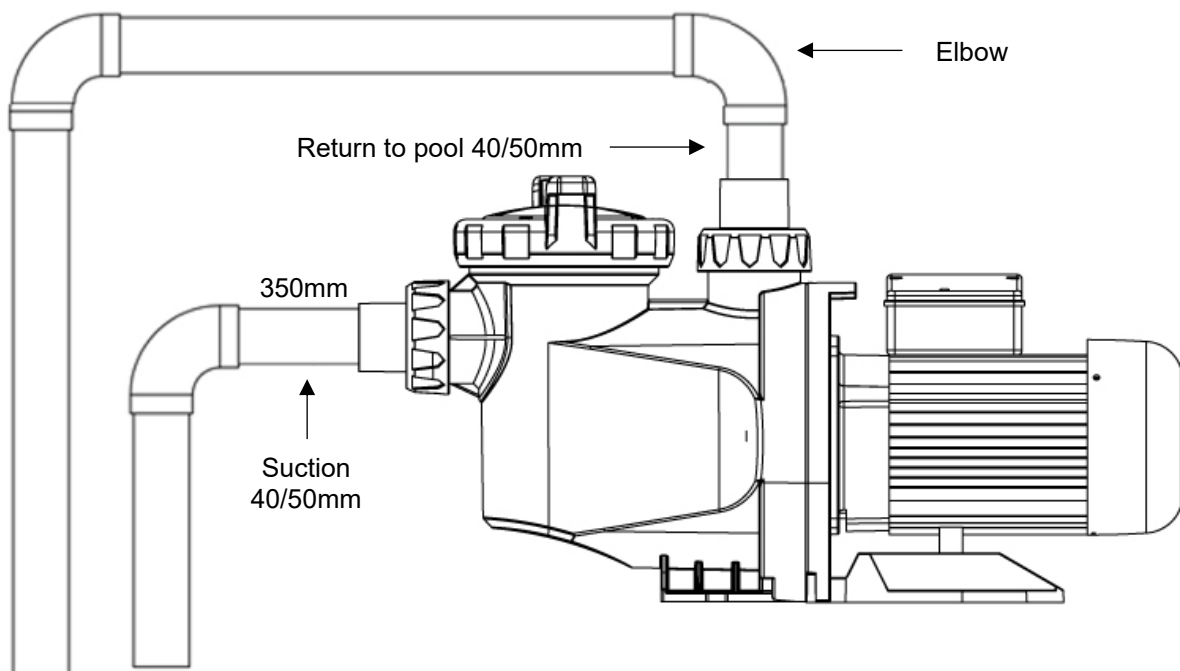
1. Install the pump as close to the pool as possible. To reduce friction loss and improve efficiency, use short, direct suction and return piping.
2. DO NOT install pump at more than 3m above water level height.
3. Pump mount must be solid, level, rigid and vibration free.
4. To avoid direct sunshine, excess moisture, heat or rain, install the pump indoors or in the shade.
5. DO NOT install pump in a damp or non-ventilated location. Keep pump and motor at least 150mm away from obstacles. Pump motors require free circulation of air for cooling.
6. The pump should be installed horizontally and fixed with screws to prevent unnecessary noise and vibration.
7. Allow for gate valves in suction and discharge piping.
8. Allow for adequate access for servicing pump and piping.
9. Have adequate floor drainage to prevent flooding.

4.3: PLUMBING THE POOL PUMP

1. When installing the inlet and outlet fittings, use special sealant for PVC material.
2. The dimensions of the suction line should be the same or larger than the inlet line diameter, to avoid the pump sucking air, which will affect the pump's efficiency.
3. Plumbing on the suction side of the pump should be as short as possible.
4. For most installations we recommend installing a valve on both the pump suction and return lines, which is more convenient for routine maintenance. However, we also recommend that a valve, elbow, or tee installed on the suction line should be no closer to the front of the pump than seven times the suction line diameter.
5. The pump outlet piping system should be equipped with a check valve to prevent the pump from the impact of medium recirculation and water hammer.

4.4: VALVES & FITTINGS

1. Elbows should be no closer than 350mm to the inlet. Do not install 90° elbows directly into the pump inlet/outlet. Joints must be tight.
2. Flooded suction systems should have gate valves installed on suction and return line for maintenance. The suction gate valve should be no closer than seven times the suction pipe diameter as described in this section.
3. Use a check valve in the return line where there is a significant height between the return line and the outlet of the pump.
4. Be sure to install check valves when plumbing in parallel with other pumps. This helps prevent reverse rotation of the impeller and motor.



4.5: ELECTRICAL DATA

1. Refer to information on motor nameplate for electrical service data.
2. All motors should have a fused disconnect switch or circuit breaker.
3. Ensure wire size is sufficient for pump hp and distance from power source.
4. The pump must be installed in accordance with AS3000 Wiring Standards by a qualified electrician. Failure to do so will void any warranty.

SECTION 5: START-UP AND OPERATION OF THE PUMP

5.1: OPERATION WARNINGS



- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of this product by a person responsible for their safety.
- Children shall not play with this product. Cleaning and maintenance shall not be conducted by children without supervision.
- NEVER run pump dry. Fill the pump with water before starting. In case of dry run, mechanical seal will be damaged and the pump will start leaking. This will void your warranty.
- Never tighten or loosen screws while the pump is operating.
- Ensure that the inlet and outlet of the pump are not blocked by foreign matter.
- DO NOT BLOCK PUMP SUCTION. To do so with body may cause severe or fatal injury. Children using pool must ALWAYS have close adult supervision.
- Before removing pump lid:
 1. STOP PUMP.
 2. CLOSE GATE VALVES in suction and discharge pipes.
 3. RELEASE ALL PRESSURE from pump and piping system.
 4. NEVER tighten or loosen screws while pump is operating.

5.2: PRE-STARTUP INSPECTION

1. Ensure the pump shaft rotates freely.
2. Ensure the power supply voltage and frequency conform to the nameplate.
3. Facing the fan blade, the direction of motor rotation should be clockwise.
4. Check all wirings and plumbing are installed correctly.
5. Do not run the pump without water.

5.3: PRIMING & STARTUP



- Prime the pump with water before starting, or after emptying the pump basket.
- NEVER run pump dry. Fill the pump with water before starting. In case of dry run, mechanical seal will be damaged and the pump will start leaking. This will void your warranty.

1. Ensure the pump is turned off.
2. Release all air from filter and piping system (refer to your filter's user manual).
3. In a flooded suction system (water source higher than pump), open suction and discharge valves then release all air pressure.
4. If not in a flooded suction system, unscrew and remove pump lid, and fill wet end with water.
5. Reinstall pump lid, ensuring O-Ring is located correctly, free of debris and lubricated with silicone grease. ONLY TIGHTEN PUMP LID BY HAND.
6. Turn on pump.
7. Release any air pressure from system (refer to your filter's user manual).
8. If no flow is observed in five minutes, stop the motor and re-prime. If the pump fails to operate, check for air leaks. Refer to troubleshooting section.

SECTION 6: MAINTENANCE

Empty the pump basket frequently. The basket should be inspected through the transparent lid and emptied when there is debris inside. The following instructions should be followed:

1. Turn pump off.
2. Close gate valve in suction and discharge, and release all pressure from system before proceeding.
3. Unscrew the pump lid anti-clockwise and remove.
4. Lift up the pump basket.
5. Empty the debris from the basket and rinse out the debris if necessary.
NOTE: Do not knock the plastic basket on a hard surface as it will cause damage.
6. Inspect the basket for signs of damage and replace if required.
7. Check the Pump Lid O-Ring for stretching, tears, cracks or any other damage.
8. Re-install pump basket with the large opening at the pipe connection port. If basket is placed backwards the pump lid will not fit properly on the pump body.
9. Re-install the pump lid, only tighten by hand.
10. Prime pump before restarting.

NOTE: Periodically inspecting and cleaning the pump basket will help prolong the life of your pump.

NOTE: Motors are self-lubricating; no lubrication is required.

NOTE: Shaft seals may become worn and must be replaced if leakage is observed.

SECTION 7: SERVICE & REPAIR

Refer all service and repair to your local agent or dealer as their knowledge of your equipment makes them the best qualified source of information. Order all spare parts through your local agent or dealer. Give the following information when ordering spare parts:

- Unit nameplate data or serial number on label.
- Description of part.

SECTION 8: TROUBLESHOOTING

Problem	Possible Causes and Solutions
Pump does not start	• Power supply fault, disconnected or defective wiring or circuit breaker. • Fuses blown or thermal overload open. • Check the rotation of the motor shaft for free movement and lack of obstruction. • Motor windings burned out. • Defective starting switch in single phase motor. • Low voltage
Pump does not prime	• Empty pump basket. Make sure the pump housing is filled with water and the Pump Lid O-Ring is clean. • Loose connections on the suction side. • Pump basket or skimmer basket loaded with debris. • Suction side clogged. • Distance between pump inlet and water level is higher than 3m, the installation height of pump should be lowered.
Pump does not reach full speed	• Low voltage. • Pump connected for wrong voltage.
Motor overheats	• Low voltage. • Inadequate ventilation.
Pump does not deliver water	• Pump is not primed. • Closed valve in suction or discharge line. • Leakage or air into suction system. • Impeller clogged.
Water leaks at shaft	• Shaft seal requires replacement.
Low pump capacity	• Valve in suction or discharge line partly closed. • Suction or discharge line partly plugged. • Suction or discharge line too small. • Pump running at reduced speed. • Clogged basket in skimmer or hair and lint strainer. • Dirty filter. • Impeller clogged.
High pump pressure	• Discharge valve or inlet fittings closed too much. • Return lines too small. • Dirty filter.
Noisy pump/motor	• Clogged basket in skimmer or hair in lint strainer. • Worn motor bearings. • Valve in suction line partly closed. • Suction line partly clogged. • Vacuum hose clogged or too small. • Pump not supported properly.
Air bubbles at inlet fitting	• Leakage of air into suction line at connections or valve stem. • Cover gasket of hair and lint strainer needs cleaning. • Low water level in pool.

NOTE: If the recommendations in the troubleshooting portion of this manual do not solve your particular problem(s), please contact your local dealer or place of purchase for service.

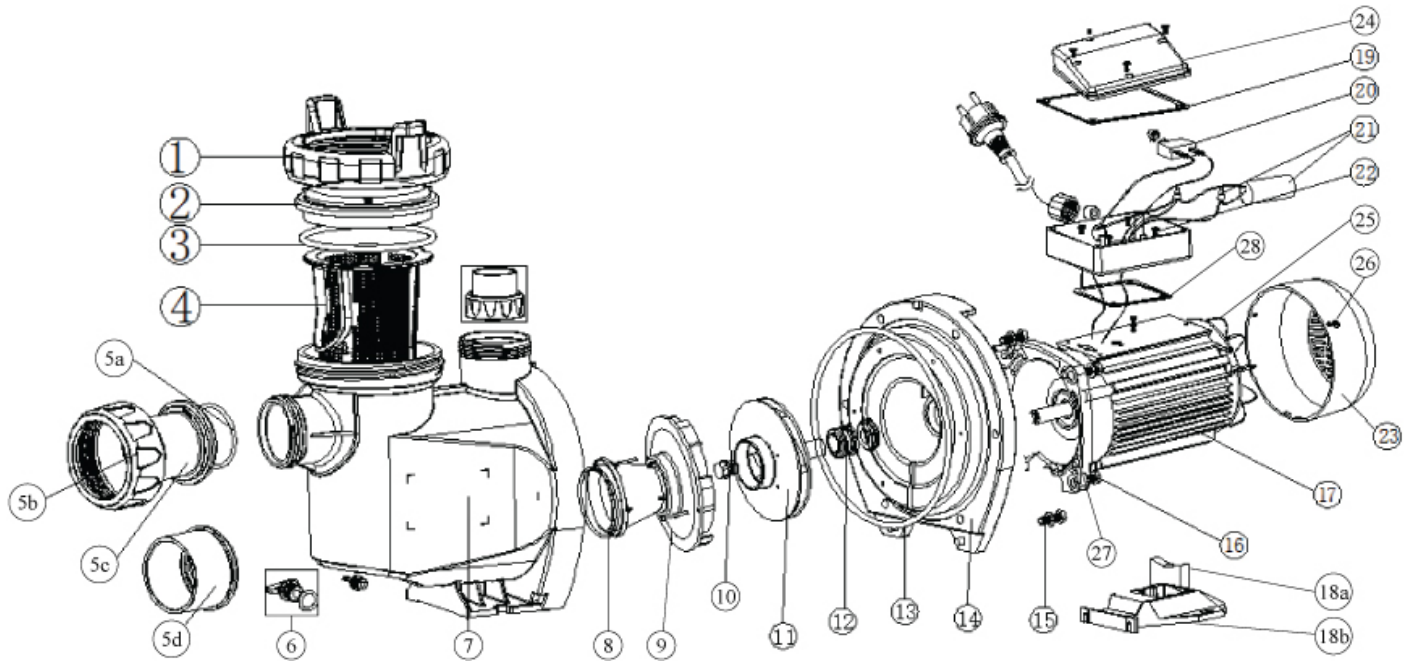
SECTION 9: DISPOSAL

When disposing of the product, please sort the waste products as electrical or electronic product waste, or hand it over to the local waste collection system.

The separate collection and recycling of waste equipment at the time of disposal will help ensure that it is recycled in a manner that protects human health and the environment. Contact your local authority for information on where you can drop off your water pump for recycling.



SECTION 10: SCHEMATICS



Ref #	Code	Description	Ref #	Code	Description
1,2,3	NPRP001	Lid Assembly	17	NPRP015	Motor NPR550
1	NPRP001B	Lid Lock Ring		NPRP016	Motor NPR750
2	NPRP001A	Lid Clear Top		NPRP017	Motor NPR1500
3	OR962M	Lid O-Ring		NPRP018	Motor NPR2000
4	SBN4	Pump Basket		NPRP019	Motor NPR3000
5a,b,c,d	NPRP002	Half Union Assembly	18a	NPRP021	Motor Base Adapter
5a	OR963M	Union O-Ring 2pk	18b	NPRP020	Motor Base
5b	NPRP002B	Union Nut 2pk	19	NPRP022	Capacitor Cover Gasket
5c	NPRP002A	Union Tail 40mm 2pk	20	NPRP023	Overload Switch NPR1500
5d	NPRP002C	Union Tail 50mm 2pk	20	NPRP024	Overload Switch NPR2000
6	NPRP003	Drain Plug & O-Ring	20	NPRP025	Overload Switch NPR3000
7	NPRP004	Wet End	21	NPRP026	Capacitor NPR550
8	OR964M	Diffuser O-Ring		NPRP027	Capacitor NPR750 & NPR1500
9	NPRP005	Diffuser		NPRP027	Capacitor NPR2000
10	NPRP006	Screw for Impeller & O-Ring		NPRP029	Capacitor NPR3000
11	NPRP007	Impeller NPR550	22	NPRP030	Control Box Lower Case
	NPRP008	Impeller NPR750	23	NPRP031	Fan Cover
	NPRP009	Impeller NPR1500	24	TBA	Control Box Top Cover
	NPRP010	Impeller NPR2000	25	TBA	Fan
	NPRP011	Impeller NPR3000	26	TBA	Fan Cover Screws
12	MC25	Mechanical Seal	27	TBA	Drive Endshield
13	OR965M	Backplate O-Ring	28	TBA	Control Box Bottom Gasket
14	NPRP012	Backplate	Not Shown	TBA	Thru Bolts
15	NPRP013	Backplate Bolt 6pk	Not Shown	TBA	Bearing Set
16	NPRP014	Motor Bolt 4pk	Not Shown	TBA	Capacitor Wire Splice Terminal
			Not Shown	TBA	Front Shaft Rubber Washer
			Not Shown	TBA	Rear Bearing Wear Washer
			Not Shown	TBA	Rear Shaft Rubber Washer
			Not Shown	TBA	Fan Circlip

SECTION 11: WARRANTY AND PRODUCT REGISTRATION

Please register your product online at www.poolpro.com.au/product-registration.

- The limited warranty for the Neptune NPR Pool Pump (models NPR550, NPR750, NPR1500, NPR2000, NPR3000, NPRVS125 and NPRVS165) covers manufacturer's defects in materials and workmanship for:
 - Four (4) years on pump/wet end and components.
 - One (1) year on mechanical seal and O-Ring.
 - One (1) year on labour.
- If the pool pump is installed in a commercial setting, the warranty period is one (1) year on the abovementioned parts and labour.
- All warranty periods are effective from the original date of purchase.
- The warranty is only valid for the original purchaser and is non-transferable.
- Adverse operating conditions beyond the control of the manufacturer such as improper voltage, excessive ambient temperature, corrosive or aggressive climate or location, or any condition that adversely affects the performance of the equipment will render this warranty null and void.
- Defective equipment must be returned to the authorised dealer as soon as the purchaser becomes aware of the defect and all transport costs must be prepaid.
- Neither the manufacturer nor the authorised dealer shall be responsible for any goods damaged in transit.
- Any liability of the manufacturer pursuant to the Trade Practices Act 1974, as amended for a breach of a condition or warranty shall be limited to replacing or acquiring the equipment (or part thereof) where the same has been supplied.
- The maximum liability incurred by the manufacturer shall not in any case exceed the contract price for the equipment or the product parts or components thereof claimed to be defective. Further, the manufacturer shall not be liable for any loss, damage or delay directly or indirectly caused by any malfunction of or defect of or failure of the equipment other than as expressly provided in this warranty.
- The manufacturer and authorised dealer will not be held liable for damage caused to the pool and surrounding areas.
- Pool Pro products are warranted without exclusion to your rights under the Australian Consumer Law.
- Keep your original purchase invoice and serial number in a safe place.

Warranty is void under the following circumstances:

- Incorrect operation of the unit by not following correct instructions.
- Foreign matter blocking impeller or restricting water flow.
- Incorrect installation, including installations not in accordance with AS3000 Wiring Standards.
- Inadequate ventilation.
- Improper maintenance and balancing of pool water.
- Damage caused to the pool pump due to misuse or damage caused by any other means than manufacturer defect.
- If the pool pump is repaired or serviced by an unauthorised dealer or serviceman.
- If a fault occurs in the operation of the pool pump by using non-genuine parts/accessories.
- If the pool pump has been misused, neglected, damaged or altered in any way, including running the pump without sufficient water flow, lightning strikes, flooding or incorrect power supply.
- Normal wear and tear of consumable products including mechanical seals, capacitors and bearings.

To submit a warranty request, visit www.poolpro.com.au/serviceclaim