USER MANUAL

POOL SET™

POOL PUMPS

P SERIES

PRO SERIES

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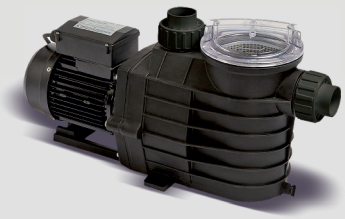
P Series

P series pumps are general purpose units designed for use in swimming pools and low pressure water circulation applications



PRO Series

Pro Series pumps are ideal for large domestic swimming pools with ancillary systems such as heating, in-floor cleaning, fountains, vacuum cleaning and swim jets

1300 001 466

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poolset.com.au

Pool Set Pty Ltd
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Campbelltown NSW 2560,
Australia

Safety ⚠

Note: Pool Set pumps comply with the Australian pool pump standard AS/NZS 60335-2-41

1. The information provided in this manual are general instructions only. Should you have difficulty in installing or operating this pump please contact Pool Set Pty Ltd on 1300 001 466 or email support@poolset.com.au.
2. The user must carefully read the installation instructions before installing this equipment.
3. The operating safety of the swimming pool pump is only guaranteed if the installation and service instructions are correctly followed.
4. There exists a risk of suction entrapment which if not avoided can result in serios injury and/or death. Do not block pump suction as this can cause severe injury and/or death. Do not use this pump for wading pools, shallow pools, or spas containing bottom drains unless the pump is connected to at least two functioning suction outlets. Do not use or operate swimming pools, spa or hot tubs if a suction outlet cover is missing, broken or loose.
5. The pump together with pipework operates under pressure. Do not disconnect the water pump or pipework until pressure has been released.
6. To reduce the risk of injury, do not permit children to use this product. Young children should be supervised at all times to ensure they do not play with the pump
7. To reduce the risk of property damage and/or injury do not attempt to change the backwash valve position while the pump is running.
8. The pump is to be supplied through a residual current device (RCD). This is a device that automatically switches off the electricity if there is a fault.
9. The electrical motor has been designed for 220V and 240V only. Always check that the power supply corresponds to the voltage on the rating plate.
10. Pump plugs must match the outlet and have been designed to be plugged into a power source using an Australian 3 pin plug. Never modify the plug in any way. Unmodified plugs and matching outlets will reduce risk of electrical shock.
11. Make sure that the control switch is installed in an easily accessible location so that in the event of equipment failure it can easily be turned off.
12. If using an extension cord always use an approved extension lead suitable for the power input of this product. Use an extension cord suitable for wet conditions and outdoor use.
13. If the power outlet is external, ensure that it is weather proof.
14. The pump has a built-in thermal overload switch. The pump stops if an overload of heat occurs. The motor restarts automatically after it has cooled down
15. If the cord is damaged it must be replaced by the manufacturer or qualified person in order to avoid a hazard.
16. Chemical spills and fumes can weaken equipment. Corrosion can cause filters and other equipment to fail, resulting in severe personal injury or property damage. Do not store pool chemicals near your equipment.
17. Do not operate pumps in explosive atmospheres such as in the presence of flammable liquids, gases or dust. Pumps create sparks which may ignite the dust or fumes.
18. This pump is for use with permanently installed pools and may be used with hot tubs and spas. A permanently installed pool may be in or above ground.
19. This pump is designed to work with clean water at a temperature not exceeding 50°C.
20. Do not run the pump dry. Running the pump dry for any length of time will cause severe damage and will void the warranty.
21. Installation is to be carried out within the local and national safety regulations and guidelines only.
22. No modification of the pump is to be done without the consent of the manufacturer.
23. All maintenance work should only be performed on the pump or on the equipment connected to it after disconnecting from the mains power.
24. All electrical work if required on installation is to be carried out by suitably qualified electrical contractors.
25. Swimming pool motors run hot and may cause scalding or burns to the skin. Be careful when touching any parts of pump motor during and after operation.

Pump Specification

Operating conditions:

Fluid:	Water
Maximum working pressure:	300 kPa
Water temperature range:	5°C - 50°C
Ambient temperature:	50°C maximum

Motor

type	TEFC 2 pole continuously rated
Nominal speed:	2900 rpm
IP rating:	IPX5
Insulation class:	Class F
Thermal overload:	Internal
Frequency:	50Hz
Voltage:	220-240
Bearing type:	Deep groove ball bearing with double contact lip seal

Materials

Pump casing:	Glass filled PP
Impeller:	Glass filled PPO
Drain plug:	Glass filled Pa66
Basket:	PP
Motor shaft:	316 stainless steel
Basket O-ring:	Nitrile
Other O-rings:	Nitrile
Mechanical seal stationary face:	Ceramic
Mechanical seal rotating face:	Carbon
Spring:	316 stainless steel

Model Data:

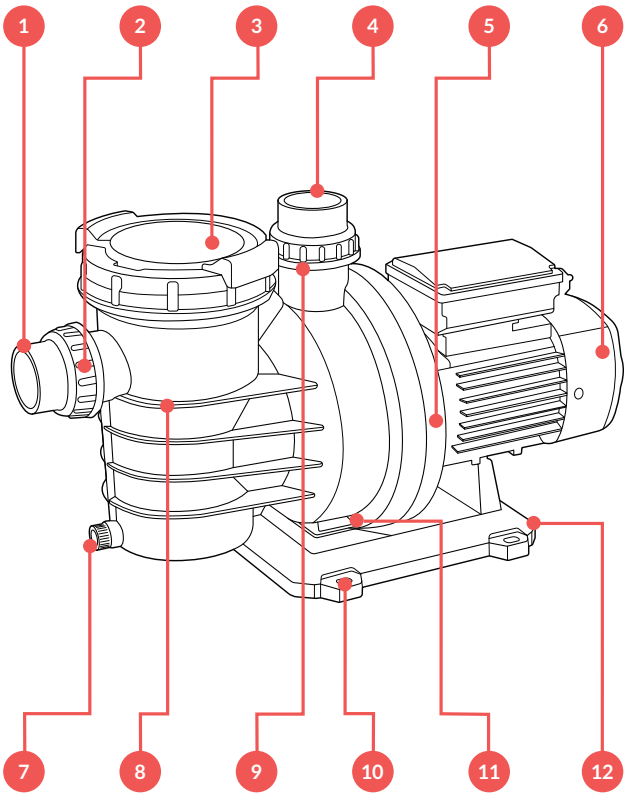
Model:	**P100**	**P150**	**PRO150**	**PRO200**
Approval number:	TUV025032EA	TUV025032EA	TUV025032EA	TUV025032EA
Motor watts:	750	1100	1100	1500
Motor HP:	1.0	1.5	1.5	2.0
Supply voltage:	220-240	220-240	220-240	220-240
Phase:	1	1	1	1
Amps:	3.8	5.8	5.2	7.0
Capacitor mfd (µ):	10	20	20	30
Noise level dB(A)	60-65	60-65	60-65	60-65
Supply cord Length (m)	1.5	1.5	1.5	1.5
Plug & cord type:	HO7RN 3x0.75mm	HO7RN 3x1.0mm	HO7RN 3x1.0mm	HO7RN 3x1.0mm
Weight (kg):	11.3	13.0	17.3	19.0
Pipe size compatible (mm)	40	40	40 or 50	40 or 50
Max flow rate (lpm)	340	390	420	440
Max head (m)	12.5	15.0	17.0	19.0
Total length (mm)	520	520	593	593
Total height (mm)	331	331	320	320
Total width (mm)	238	238	240	240
Warranty (years)	2	2	2	2
Pool size suitability (litres)	Up to 75,000	Up to 100,000	Up to 100,000	Up to 125,000

Know Your Product

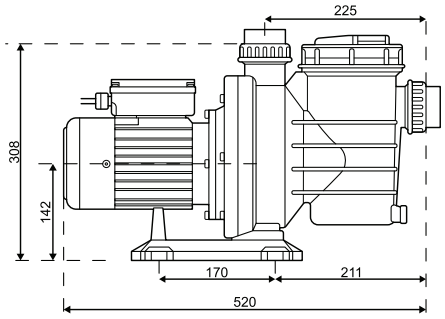
Key components of the pump

1. Suction inlet
2. Inlet union
3. Filter basket lid
4. Discharge outlet
5. Pump housing
6. Motor

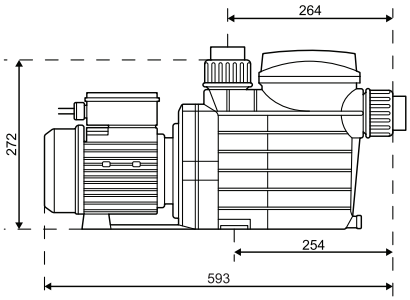
7. Filter basket drain plug
8. Filter basket
9. Outlet union
10. Mounting holes
11. Pump drain plug
12. Elevated base



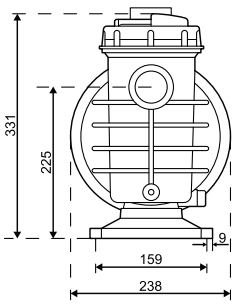
Dimensions

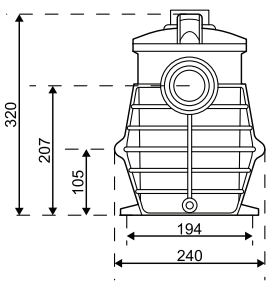


P SERIES

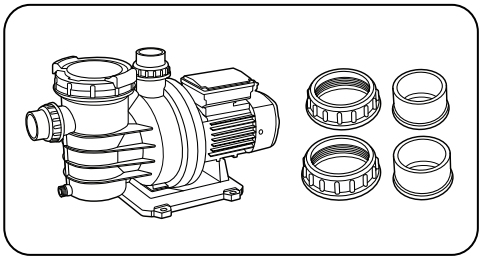


PRO SERIES

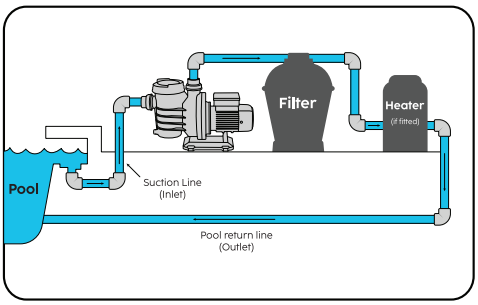




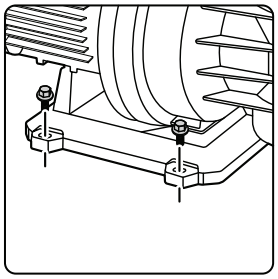
Setup



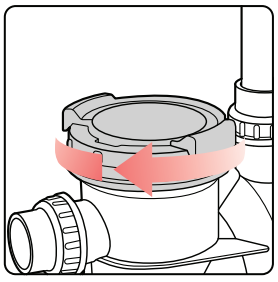
1. When you receive the pump, check the contents for any damage. If you find any damage, please contact Pool Set customer support on 1300 001 466 or email support@poolset.com.au
2. The contents inside the box include the actual pump as well as a pair of unions.
3. It is recommended that the pump is installed not more than 30cm above the water level of the pool. A check valve is recommended on the suction line to the pump from the pool. This is a valve that stops water from returning back down the inlet pipe into the pool. Water running back into the pool makes the pump harder to prime on start up.



4. Better self-priming will be achieved if the pump is installed as close as possible to the water level of the pool.
5. If the pump is located below the water level, isolation valves must be installed on both the suction and return lines to prevent the back flow of pool water during any routine or required servicing.
6. It is recommended that the pump and other circulation equipment be located more than 1.5m from the pool water.
7. Choose a location that will minimise turns in the piping.



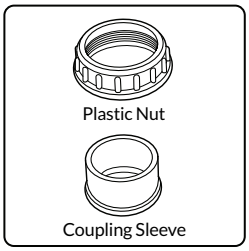
8. The pump must be placed on a solid foundation that will not vibrate. To further reduce the possibility of vibration noise, bolt the pump to the foundation, or place it on a rubber mat. It is recommended that the pump is bolted directly to the foundation. All Pool Set pumps have bolts hole ready for bolting onto the foundation.
9. The pump foundation must have adequate drainage to prevent the pump form getting wet. Protect the pump from rain and the sun. All Pool Set pump have a raised platform which keeps the motor off the ground.



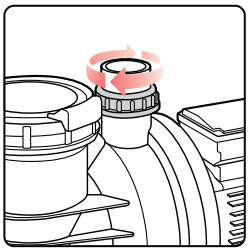
10. Proper ventilation is required for the pump to operate normally. All motors generate heat that must be removed by providing proper ventilation.
11. Provide access for future service by leaving a clear area around the pump. Allow plenty of space above the pump to remove the lid and basket for cleaning.
12. If the equipment is under cover, provide adequate lighting.

Installation

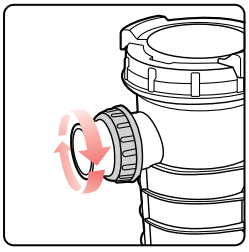
1. The **P-series** pool pumps come equipped with unions for both the suction and discharge ports. These unions will be suitable for only 40mm PVC piping. This is the internal dimension of the pipe and is how the piping is classified in Australia. The outside dimension of 40mm pipe will be closer to 48.3mm.
2. The **Pro-series** pool pumps come equipped with unions for both 40mm and 50mm pipes. Again, this sizing refers to the internal dimension of the pipe. The outside dimensions of 50mm pipe is more like 60.3mm



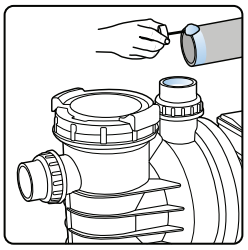
3. Fit one of the unions over the discharge outlet by placing the nut over the sleeve and firmly tighten onto the pump housing. This will ensure no leakage at this point.
4. Fit one of the unions over the suction inlet by placing the nut over the sleeve and firmly tighten onto the pump housing. This will ensure no leakage at this point.



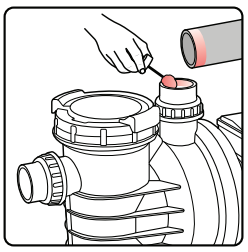
5. It is recommended that you use rigid PVC plumbing pipe to install your pump. The pipes should be manufactured to Australian standard AS/NZA 1477. This standard makes sure the pipe can withstand the pressure it comes under when circulating water through the pool filtration system.
6. The piping must be well supported and not forced together in places where constant stress will be experienced.



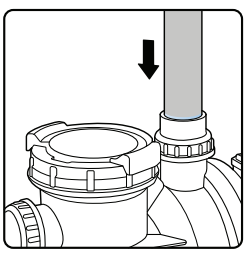
7. Ensure all attachments and valves used in setup are suitable for the pipe size used which will be either 40mm or 50mm.
8. Use the least number of fittings possible as every additional fitting has the effect of moving the equipment farther away from the water which then reduces water flow.



9. To ensure a water tight fit it is recommended to use a PVC glue (sometimes referred to as PVC cement) to connect the unions with the PVC pipe.
10. Clean both the pipe outside area and union sleeve inside area with PVC pipe primer. The PVC primer makes sure the glue will have a strong hold and seal.
11. Apply PVC glue to the surface of the pipe that contacts the union sleeve and also to the inside of the union sleeve itself.

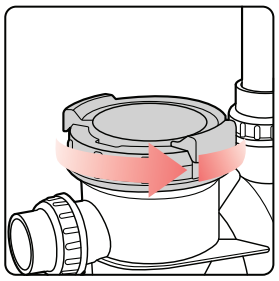


12. Now push them together to create a firm connection.
13. Repeat this process for the suction inlet pipe.
14. Do not operate the pump for at least 24 hours after gluing to give it time to set.

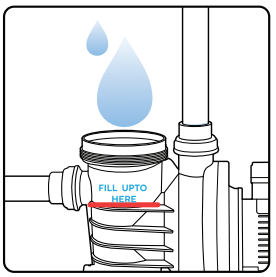


Operation

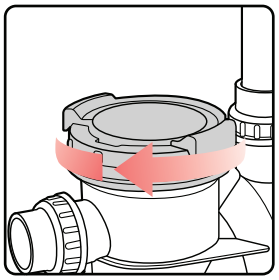
1. Never run the pump without water. Running the pump dry for any length of time can cause severe damage and will void the warranty.
2. The pump should be pressure tested to check if there are any leaks in the system.
3. Pressure testing is a process when you first run the pump to check for leaks at connections and pipes.
4. During testing there is a risk that pressurised trapped air can propel faulty parts or debris which may cause injury or death.
5. To avoid this, open the bleed valve on the filter before pressure testing. This will let trapped air escape from the system as it fills up with water. Once filled with water the bleed valve can be closed again.



6. The pump motor is hard wired to the power cord which means the pump runs continually once it is plugged in and power is turned on. The use of a timer is recommended.
7. To start the operation of the pump it must be firstly primed which means filling it with water. Open and remove the filter basket lid by turning it in an anti-clockwise direction.



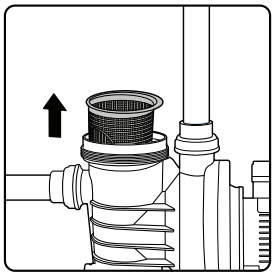
8. Fill the pump with water up to the lower level of the suction inlet.
9. Before closing the lid ensure the o-ring seal is in place. Check that there is no debris around the o-ring and it is a water tight fit. Close the lid by turning it in a clockwise direction but only hand tighten.
10. Ensure that the lid is secure. Make sure all valves are open and the unions are tight.



11. Open all suction and discharge valves connected to the pool system.
12. Plug into power and then turn the power on.
13. The pump should prime. The time it takes to prime will depend on the elevation and length of pipe used on the suction supply pipe.
14. If the pump does not prime and all the instructions to this point have been followed then check for a suction leak.

Maintenance

1. The filter basket should be cleaned periodically or when foreign matter is visible through the transparent lid
2. Inspect the pump basket for debris by looking through the clear pump lid.
3. Turn off the power to the pump. If the pump is located below the water level, close the isolation valves on the suction and discharges side of the pump to prevent backflow of water.
4. Turn the lid anti-clockwise and carefully remove the lid.
5. Lift the basket out of the pump. Dispose of all the debris and thoroughly clean the basket, making sure all the holes are open. Using a garden hose spray the basket from the outside to help clean the holes. Remove any remaining debris by hand.



6. Replace the basket in the pump by aligning the open section of the basket with the inlet pipe. If aligned properly, the basket will drop easily into place. Do not force it into place.
7. Remove the lid o-ring and remove debris around the lid o-ring seat, as this will cause air leaks into the system. Clean the lid o-ring and replace it
8. Replace the lid and turn clockwise. Hand-tighten the lid to make an air tight seal. Do not overtighten.
9. Verify that all valves have been returned to the proper position for normal operation.
10. Turn on the power to the pump. Once all the air has been evacuated from the filter, close the filter pressure release valve.

Troubleshooting

Problem	Reason	Solution
Pump won't prime	Air in the system No water in the pump filter basket Closed valves or blockages	Ensure that there is enough water in pool Tighten all fittings Clean out the filter box basket Clean out the pump basket
Motor won't switch on	No power to the pump	Make sure power supply to pump is on Check and reset the circuit breaker Check all timers
Poor water flow	Dirty filter Full skimmer basket Full pump basket Possible debris in impeller slowing flow	Backwash or clean filter Clean skimmer box basket Clean pump basket Ensure valves are open and turn freely
Air in the system	Water level too low Air leaking into system	Fill pool with water if too low Remove lid and check for debris in O-ring seat Check suction pipe unions and tighten if needed Clean unions seals for debris Make sure unions are threaded straight
Noisy pump sound	Air in the system Debris caught in impeller Bearings in motor	Re-prime the pump Clear debris in impeller Replace bearings
Hot motor	Not enough ventilation Installed in direct sunlight	Make sure adequate air flow around pump Ensure pump is out of direct sunlight Pump automatically cutouts if too hot
Motor cuts out	Motor is running too hot Low voltage Faulty motor	Contact electrician
Leaking water between motor and body	Damaged or failed mechanical seal	Replace mechanical seal

Warranty

This Pool Set pool pump was carefully inspected before shipment from our warehouse. Upon unpacking if any part is missing or found defective, please notify us immediately.

Pool Set Pty Ltd warrants the P series and Pro series pool pumps to be free of defects in the materials and workmanship for a period of 2 years from the date of purchase and 1 year on the mechanical seal and bearings for domestic applications. The warranty is applicable for Australia only.

This limited warranty excludes the following:

1. Replacement of parts which fail or become defective as a result of improper installation, negligence, misuse, abuse or tampering.
2. Lightning or other acts of nature.
3. Damage or malfunction of the unit resulting from improper water chemistry balance.
4. Scaling, freezing or other conditions inadequate water circulation.
5. Normal wear and tear
6. Consumable parts and included accessories, for example O-rings, bearings, seals and gaskets
7. Inadequate ventilation
8. Running the pump dry
9. The use of non-factory authorised parts
10. Operating the product at water flow rates outside the published minimum and maximum specification

To obtain warranty replacement or repair, the unit should be returned to Pool Set Pty Ltd. When submitting a claim, always supply a model number, evidence of purchase date and a brief description of the problem / defects encountered. Pool Set Pty Ltd reserves the right to repair or replace all defective or worn parts covered by this warranty. Where the purchaser sends the unit to Pool Set Pty Ltd by post or courier for repair or replacement, freight is the responsibility of the purchaser.

Pool Set may seek reimbursement of any costs incurred by them (including labour charges) when the product or relevant parts is found to be in good working order or if the warranty claim is invalid.

Pool Set Pty Ltd assumes no responsibility for any warranties or representations made by other individuals beyond the express terms contained in this limited warranty.

The warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

POOL SET™

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poolset.com.au