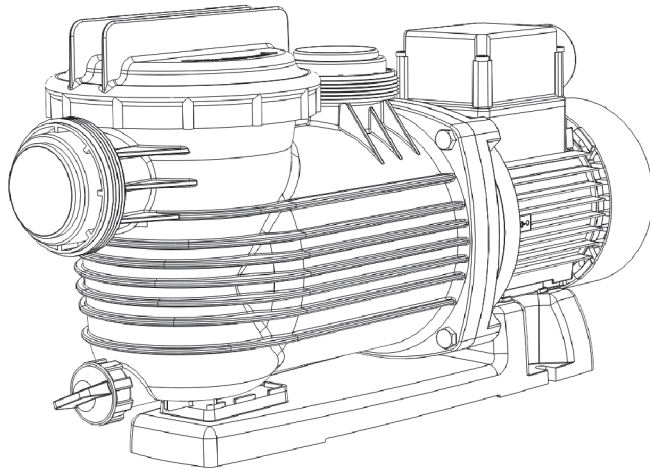


# OWNER'S MANUAL



**onga**<sup>®</sup>

**Pentair Water**



## **Pantera Pool Pumps**

**An earth leakage or residual current protection device must be fitted to all installations.**

Should you the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacture for the correct advice before proceeding with the installation or operation of the product.

# Relax - you've bought an **ongá**® ...

Congratulations on your decision to purchase an Onga product. Onga is one of the best know brands in its field, with a proud local and international reputation.

Onga is a brand for reliability, value for money and technological innovation. You will find Onga product wherever people need to move water in 3 broad markets covering:



Technologically advanced solutions for moving and treating water in the Home, Garden, Pool and Spa.

## Residential



Innovative Stock and Crop water management solutions for Primary Industries.

## Agricultural



Water movement products for Building services, Emergency services and Original Equipment Manufacturers.

## Process

## 1. Continual Product Improvement

We employ the best engineers both in Australia and around the world to develop new and better ways to take water further.

## 2. Operational Excellence

There is only one standard that we set ourselves for both product quality and the quality of our service. That standard is excellence... to have no-one better than us at what we do... nothing short of that is acceptable. Our commitment to quality is reinforced with our ISO 9001.



## 3. A Fair Price

Onga products are neither the cheapest nor the most expensive in their field. Our products do, on the other hand, always represent very good value for money; they always have and they always will.

## 4. Our Team of Dealers

The hand picked authorised Onga dealer network throughout Australia and worldwide are second to none. We invest considerable time and resources training and supporting them through the Onga Training Academy.



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# Safety

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## IMPORTANT!

The operator must be provided with this owner's manual. This must be read before operation and followed during operation.

These instructions are a guide only. Users not familiar with pool equipment should seek advice from suitably qualified persons with experience in pool equipment installation.

<b>Model</b>	PPP-550-1P	550W	3/4hp
	PPP-750-1P	750W	1hp
	PPP-1100-1P	1100W	11/4hp
	PPP-1500-1P	1500W	11/2hp

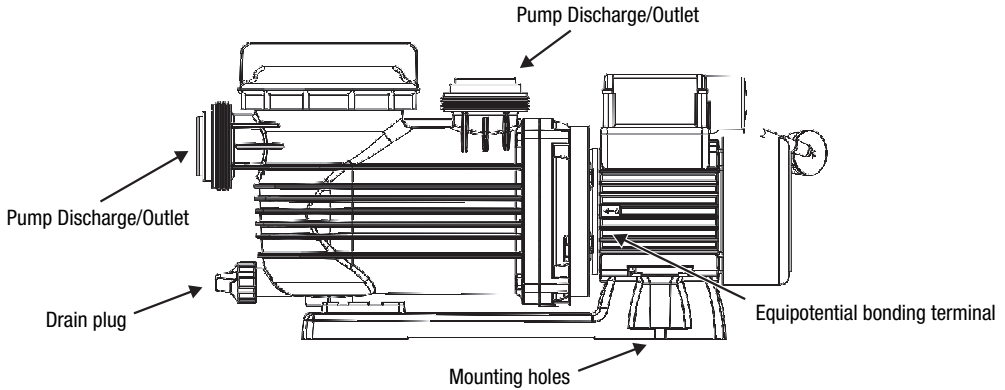
The Pantera range of pool pumps have been specifically designed to incorporate features that will provide reliable and efficient pump operation.

The new technology wet end design integrates a unique moulded endshield cover and lip seal, protecting the motor from water damage making this range ideal for in-ground or above ground swimming pools.

## Technical Data

Inlet	ABS Barrel union to suit 40mm PVC pipe internal ABS Barrel union to suit 50mm PVC Socket external
Outlet	ABS Barrel union to suit 40mm PVC pipe internal ABS Barrel union to suit 50mm PVC Socket external
Max. Pump Pressure	195 kPa
Max. Working Pressure	295 kPa
Water Temperature Range	5 - 45°C
Max Ambient Temperature	55°C
IP Rating	IP55
Electrical Rating	240 Volt single phase are supplied as standard with built in thermal overload protection and are designed to plug directly into a 10 amp domestic power supply to local electrical authority specifications.
Optimal pH Range	7.2 - 7.8 (Guide Only)

# Installation



## ⚠ CAUTION

The fittings on these pool pumps are constructed of ABS. Some PVC jointing compounds are incompatible with ABS possibly causing failure to the product. Check compound suitability prior to use.

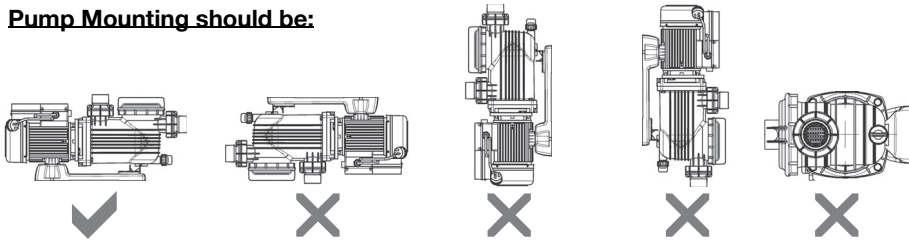
## ⚠ CAUTION

All glued fittings and pipe work should be allowed to dry to atmosphere for 24 hours before closing installation. Failure to do so could cause injury or installation failure.

## ⚠ CAUTION

Barrel Unions are to be hand tightened **ONLY**, to prevent damage occurring from over-tightening.

### Pump Mounting should be:



- 1) Pump position must be: Solid - Level - Rigid -Vibration Free. Pump should be fixed to its support using bolts through the slots on the pump base.
- 2) Allow pump suction inlet height to be as close to water level as possible.
- 3) Allow for use of a piece of short, straight suction pipe into the suction port of the pump (minimum length for 40mm diameter suction = 160mm; 50mm diameter suction = 200mm) in order to minimise water turbulence entering the pump.

# Installation

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- 4) Allow for control valves in suction and discharge piping. (Essential if pump is mounted below water level).
- 5) Have adequate floor drainage to prevent pump being immersed in water due to flooding.
- 6) Protect from excess moisture, vermin, dust and weather.
- 7) Allow access for servicing pump and piping.
- 8) To provide adequate ventilation keep rear of motor clear (100mm Min)
- 9) Do not use electrical extension cords/leads.
- 10) Do not connect pump to the mains water supply.

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The Pantera series of pool pumps is classified as "Double Insulated to Water Circuit". Please refer to the Electrical Wiring Rules (AS/NZS 3000) and local statutes and regulations as to whether equipotential bonding is necessary. Pentair Water Australia recommends equipotential bonding for additional safety.

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## Operation



### WARNING

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 use of the appliance by a person responsible for their safety.

Children should be supervised to ensure they do not play with the appliance.

### WARNING

**NEVER** run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor.

### Electrical Operation

### CAUTION

240 volt single phase are supplied as standard with built in thermal overload protection and are designed to plug direct into a 10 amp domestic power supply socket to local electrical authority specifications. The pump is to be supplied by an isolating transformer or supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.

### DANGER



Hazardous suction.  
Can trap hair or body parts, causing severe injury or death.

DO NOT BLOCK SUCTION.

Pump suction is hazardous and can trap and drown or disembowel bathers. Do not use or operate swimming pools, spas, or hot tubs if a suction outlet cover is missing, broken, or loose. Follow the guidelines below for a pump installation which minimises risk to users of pools, spas and hot tubs.

### **Entrapment Protection**

The pump suction system must provide protection against the hazard of suction entrapment or hair entrapment/entanglement.

### **Suction Outlet Covers**

All suction outlet covers must be maintained. They must be replaced if cracked, broken, or missing. See below for outlet cover certification requirements. All suction outlets must have correctly installed, screw-fastened covers in place.

### **Testing and Certification**

Suction outlet covers must have been tested by a nationally recognised testing laboratory and found to comply with the latest AS1926.3-2010 Standard or ASME/ANSI Specification for *Suction Fittings For Use in Swimming Pools, Spas, Hot Tubs, and Whirlpool Bathtub Applications*.

# Operation

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## Priming Pump:

- a) In a flooded suction system (water source higher than pump), the pump will fill itself with water when suction and discharge valves are opened. Water will be at the top of the hair and lint pot lid.
- b) If pump is not in a flooded suction system, unscrew and remove hair and lint pot lid; fill pot (casing & bowl assembly) with water.
- c) Clean, inspect and lubricate 'O'ring; reinstall 'O'ring onto bowl assembly.
- d) Replace lid onto bowl assembly; turn clockwise to tighten lid.



**WARNING** Tighten lid by hand only (no wrenches)!



**CAUTION** Do not run pump dry or damage will occur and may void warranty.

## Start-up Procedure:

- 1) Release all air from filter and piping system: see filter owner's manual.
- 2) Turn pump "ON" at power point or controller.
- 3) Pump should prime now. Priming time will depend on vertical length of suction lift and horizontal length of suction piping.

If pump does not prime within a few minutes, make sure that all valves are open, suction pipe end is under water and that there are no leaks in suction pipe. Ensure the skimmer basket on pool is clean and free of debris. Repeat step a) - d) under the section Priming Pump. If the pump still does not prime non return valves may be required refer to place of purchase for assistance.



## Service & Maintenance

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If water is seen to be leaking from directly underneath motor and casing, have pump serviced immediately.

This indicates a leaking mechanical seal. Failure to fix this may result in premature product failure.

**NOTE: Onga recommend the use of silicon based lubricant on all 'O'rings.**

The only routine maintenance needed is inspection/cleaning of leaf basket. Debris or trash that collects in basket will choke off water flow through the pump. Follow instructions below to clean leaf basket and inspection for signs of a leaking mechanical seal:

1. **Stop pump**, disconnect from power, close gate valve in suction and discharge.
2. Unscrew lid (turn counter clockwise). If necessary, undo drain plug to reduce lid vacuum. Do not hit the lid with a hammer or similar tool. If the lid is still too tight use a lever such as a board or long screwdriver between lugs on lid.
3. Remove leaf basket and clean. Be sure all holes in basket are clear, flush basket with water and replace in bowl assembly with large opening at pipe connection port (between ribs provided). If basket is replaced backwards the lid will not fit into bowl assembly.
4. Inspect, check and lubricate lid 'O'ring; reinstall onto bowl assembly.
5. Clean 'O'ring groove on bowl assembly and replace lid. To help keep lid from sticking, (**tighten hand tight only no wrenches!**).
6. Prime Pump (see priming instructions)

**NOTE : Failure to carry out routine maintenance may reduce pump performance and void warranty.**

**NOTE : 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.**

## Removal of Pump for Servicing

Switch off power and remove plug from power point. If the pump is hard wired into any other controls such as time clocks or automatic heads etc., **THE WIRING SHOULD BE REMOVED BY A QUALIFIED ELECTRICIAN.**

Close control valves and undo barrel unions from suction and discharge lines.

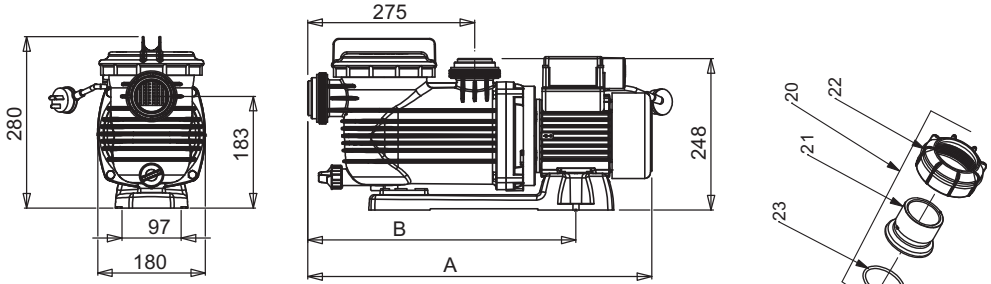
Remove pump and take to your nearest authorised Onga service agent

**If the need arises to contact an Onga service agent please have all details available including model and serial number, date of purchase and particulars of fault.**

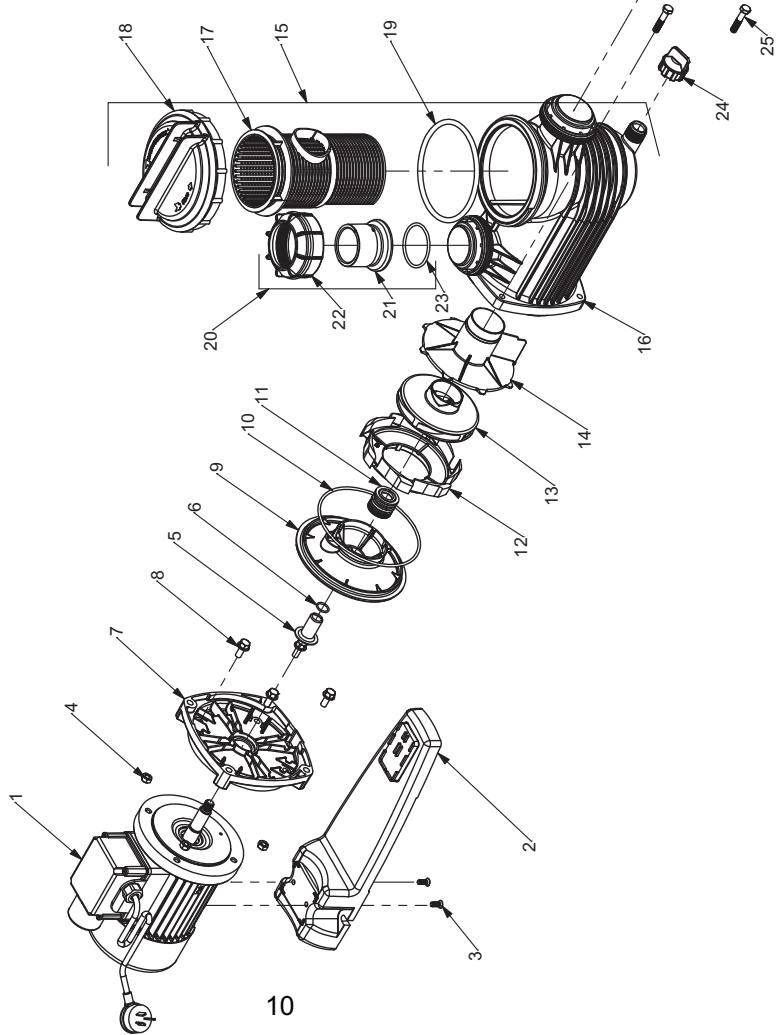
No.	Description	Qty	Part Number			
			PPP-550-1P	PPP-750-1P	PPP-1100-1P	PPP-1500-1P
1	MOTOR	1	(405976) 801210	(405976) 801210	(405977) 801277	(405977) 801277
2	BASE	1	See Base and Screw Kit			
3	SCREW M6 x 16mm C/SNK HD Phlps	2	See Fasteners Kit			
	BASE & SCREW KIT (INCLUDES 2&3)	1	800532	800532	800532	800532
4	NUT 5/16inW	4	See Fasteners Kit			
5	SHAFT SLEEVE	1	See Seal Kit			
6	ORING SHAFT SLEEVE	1	See Seal Kit			
7	YOKE AND LIP SEAL	1	See Yoke Kit			
8	SCREW 5/16inW x 3/4in	4	See Yoke Kit			
	YOKE KIT (INCLUDES 7&8)	1	412050K	412050K	412050K	412050K
9	BAFFLE	1	305300	305300	305300	305300
10	ORING CASING	1	See Seal Kit			
11	MECHANICAL SEAL	1	See Seal Kit			
	SEAL KIT (INCLUDES 5,6,10&11)	1	800583K	800583K	800583K	800583K
	MECHANICAL SEAL (PACK OF 25)	25	800900	800900	800900	800900
12	DIFFUSER	1	305460	305460	303460K	303460K
13	IMPELLER	1	512750K	507530K	506840K	506820K
14	SEPERATOR PLATE	1	408730	408730	408730	408730
15	CASING ASSEMBLY (INCLUDES 16,17,18&19)	1	801200	801200	801200	801200
16	CASING	1	See Casing Assembly			
17	BASKET	1	302310	302310	302310	302310
18	LID	1	See Lid & O-Ring Kit			
19	O-RING LID	1	See Lid & O-Ring Kit			
	LID AND O-RING KIT (INCLUDES 18&19)	1	800897K	800897K	800897K	800897K
20	BARREL UNION KIT (INCLUDES 21,22&23 X2)	1	800714	800714	800714	800714
21	TAIL BARREL UNION WHITE	2	See Barrel Union Kit			
22	NUT BARREL UNION WHITE	2	See Barrel Union Kit			
23	O-RING BARREL UNION	2	See Barrel Union Kit			
24	DRAIN PLUG	1	504605	504605	504605	504605
25	BOLT 5/16inW x 1.3/4in	4	See Fasteners Kit			
	FASTENERS KIT (INCLUDES 4&25 X4)	1	801278	801278	801278	801278

If service parts are required please quote Model Number and Type of pump as shown on the label of the pump.

	PPP550	PPP750	PPP1100	1500
A	565	565	602	602
B	428	428	465	465



(MEASUREMENT WITHOUT BARREL UNION)



# Trouble Shooting Guide

SYMPTOM	CAUSE	REMEDY
Pump does not Run	No Power at the power outlet	Use another electrical appliance that is known to work to check the power point.
	Blown Fuse.	Check Fuse and replace if necessary
	Automatic Thermal Overload has tripped to protect the motor.	Switch the power to the pump off and allow the motor to cool before switching back on. Ensure that the pump and motor have adequate ventilation in the area surrounding the pump. Ensure that the pump is not jammed with debris and that the motor shaft spins freely (insert a screw driver into the slot in the centre of the motor fan and turn). The motor may be operating on a low voltage supply.
	Pump is jammed (check if shaft is free to rotate, by inserting a screw driver into the slot in the centre of the motor fan and turning)	Blockage in the pump or suction strainer. Motor bearings may be seized.
	Motor burnt out due to voltage spike or flooded by water	The motor may need replacing.
Pump operates with reduced or no flow	Valves turned to the closed position	Check the plumbing to ensure the valves are in the correct position for filtering, including any valves on the suction or discharge of the pump.
	Dirty Filter	Clean the filter (refer to the documentation supplied with your filter).
	Air ingress to system	Re-prime the pump (refer to priming procedure). Check that there are no air leaks in the suction piping or fittings. Ensure the hair & lint pot lid is closed and airtight. Check there are no leaks coming from beneath the pump and casing.

## Trouble Shooting Guide

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SYMPTOM	CAUSE	REMEDY
	Lack of water	Ensure the water level in your pool is at least up to the halfway mark at the skimmer opening.
	Debris in the pump or skimmer box Note: Do not operate pump without hair & lint pot or skimmer basket fitted correctly	Ensure that both the hair & lint pot basket and skimmer basket are free of leaves and other debris. Ensure that there is no blockage at the pumps suction or discharge. Ensure that the pump internals are free of foreign matter which may block the flow of water.
Pump leaking from between the casing and the motor	Casing bolts are not tightened Casing 'O'ring is worn Mechanical Seal needs replacing	Switch off pump and loosen the casing bolts. Check alignment and condition of casing 'O'ring before re-tightening. Replace the 'O'ring if leaking persists. Replace the mechanical seal and lip seal if fitted.

-Should problems persist please contact your nearest Onga service agent.

**Notes:** .....

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**IMPORTANT**

Please attach your sales invoice/docket here as proof of purchase should warranty service be required.

Please do not return Warranty Form to Pentair Australia - please retain for your records.

Purchased From .....

Purchase Date..... Serial No..... Model No.....



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Dandenong South, Vic 3175

**Australia**

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