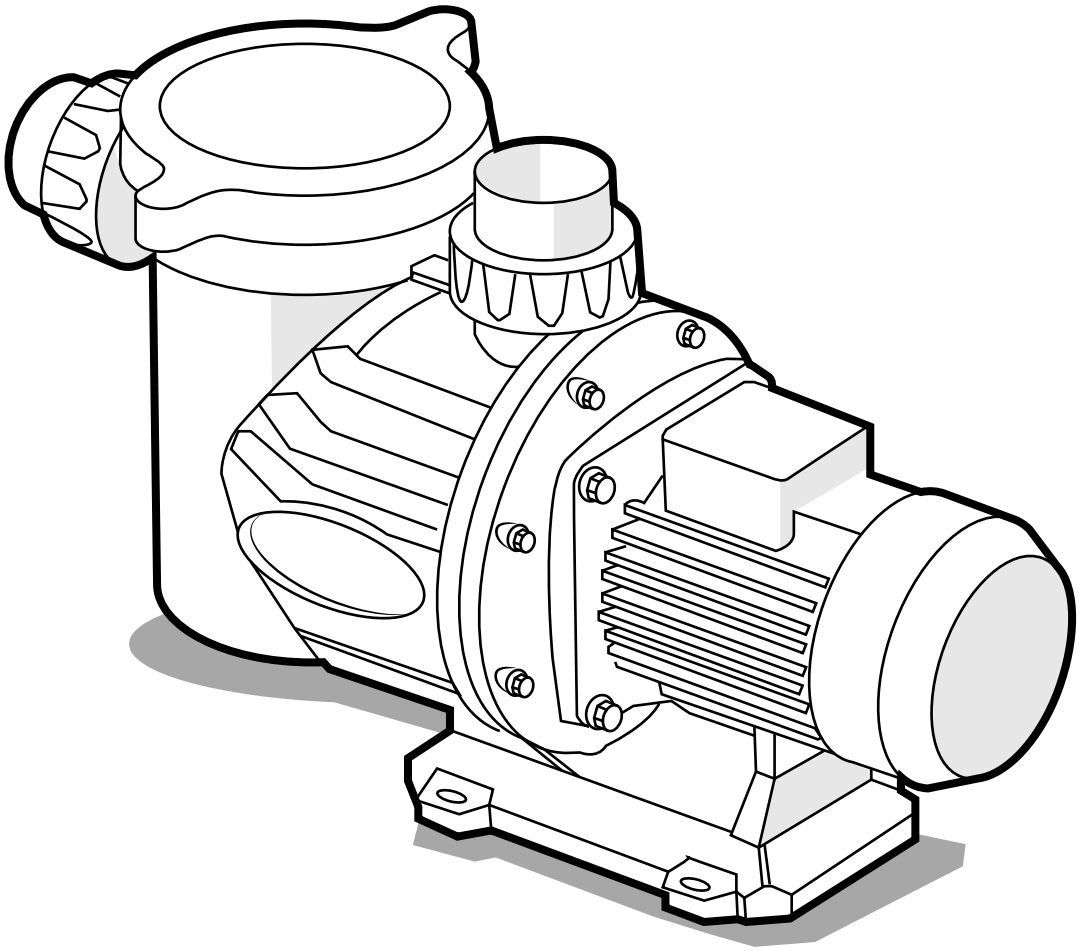
BARACUDA®

For Everyday Aussie pools



HYDRA+ SINGLE SPEED

Installation & Operating Instructions

H0761800_REVA

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Refer to the following websites for information on warranty and service in your country:

- Australia, NZ, Asia and South Pacific go to www.baracuda.com.au

EQUIPMENT INFORMATION RECORD

Date of Installation _____

Installer Information _____

Initial Pressure Gauge Reading (with clean filter) _____

Pump Model _____ **Horsepower** _____

Filter Model _____ _____

Control Panel Model _____ **Serial Number** _____

Notes _____

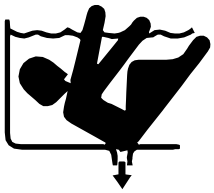
_____

Section 1. Important Safety Instructions

⚠ WARNING

READ AND FOLLOW ALL INSTRUCTIONS

All electrical work must be performed by a licensed electrician and conform to all national, state, and local codes. When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:



RISK OF SUCTION ENTRAPMENT HAZARD, WHICH, IF NOT AVOIDED, CAN RESULT IN SERIOUS INJURY OR DEATH.

Do not block pump suction, as this can cause severe injury 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 (2) functioning suction outlets. Drain covers must be certified to the latest published edition of ANSI/ASME A112.19.8 or its successor standard ANSI/APSP-16. In Australia AS1926.3 is also an acceptable standard.

A check valve can interfere with the proper operation of certain Suction Vacuum Release System (SVRS) products. To avoid possible entrapment hazard, serious injury, or death, make sure to review the operation/owner's manual of your particular SVRS product before installing the check valve.

To reduce the risk of injury, do not permit children to use this product.

To reduce the risk of property damage or injury, do not attempt to change the backwash (multiport, slide, or full flow) valve position with the pump running.

Baracuda pumps are powered by a high-voltage electric motor and should be installed by a licensed or certified electrician or a qualified swimming pool service technician.

The pump is for fixed installations only and to be used in conjunction with swimming pool equipment (e.g., filters). The pump is to be installed in accordance with the relevant requirements of the Australian wiring rules AS/NZS 3000. Also refer to the installation instructions relating to the swimming pool equipment for which the pump will be an integral part. The pump is to be supplied through a residual current device (RCD) with a rated residual operating current of 30 mA. If the supply cord is damaged it must be replaced by the manufacturer or its service agent or similarly qualified person in order to avoid hazard. Only a qualified person/s, should perform repairs and/or maintenance work on the pump and motor, including any cabling work to the motor.

Incorrectly installed equipment may fail, causing severe injury or property damage.

Do not connect system to an unregulated city water system or other external source of pressurized water producing pressures greater than 250 KPA (35 PSI). Trapped air in the system can cause the filter lid to be blown off, which can result in death, serious personal injury, or property damage. Be sure all air is out of the system before operating.

To minimize risk of severe injury or death, the filter and/or pump should not be subjected to the piping system pressurization test. Local codes may require the pool piping system to be subjected to a pressure test. These requirements are generally not intended to apply to the pool equipment, such as filters or pumps. Baracuda pool equipment is pressure tested at the factory. If, however, the WARNING cannot be followed, pressure testing of the piping system must include the filter and/or pump.

⚠ WARNING

BE SURE TO COMPLY WITH THE FOLLOWING SAFETY INSTRUCTIONS:

- Check all clamps, bolts, lids, lock rings, and system accessories to ensure they are properly installed and secured before testing.
- RELEASE ALL AIR in the system before testing.
- Water pressure for test must NOT EXCEED 250 KPA (35 PSI).
- Water temperature for test must NOT EXCEED 35°C (95°F).
- Limit test to 24 hours. After test, visually check system to be sure it is ready for operation.

NOTICE: These parameters apply to Baracuda equipment only. For non-Baracuda equipment, consult the equipment manufacturer.

Chemical spills and fumes can weaken pool/spa equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.

This pump is for use with permanently installed pools and may also be used with hot tubs and spas, if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building, such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

Do not install beneath the skirt of a hot tub. The pump requires adequate ventilation to maintain air temperature at less than the maximum ambient temperature rating listed on the motor rating plate.

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.

⚠ WARNING

The following guidelines provide information for pump installation that minimizes risk of injury to users of pools, spas, and hot tubs:

Entrapment Protection - The pump suction system must provide protection against the hazards of suction entrapment.

Suction Outlet Covers - All suction outlets must have correctly installed, screw-fastened covers in place. All suction outlet (drain) covers must be properly maintained. They must be replaced if cracked, broken, or missing. Drain covers must be listed/certified to the latest published edition of ANSI®/ ASME® A112.19.8 or its successor standard, ANSI/APSP-16. In Australia, AS1926.3 is also an acceptable standard. The pool must be shut down and bathers must be restricted from entering the pool until any cracked, broken, or missing drain covers are replaced.

Number of Suction Outlets Per Pump - Provide at least two (2) hydraulically-balanced suction outlets, with covers, as suction outlets for each circulating pump suction line. Connected suction points (outlets) shall not be less than 600 mm apart where possible, centre to centre, and where not possible a minimum of 3 suction points (outlets) are required.

The system **must** be built to include at least two (2) suction outlets (drains) connected to the pump whenever the pump is running. However, if two (2) suction outlets run into a single suction line, the single suction line may be equipped with a valve that will shut off both suction outlets from the pump. The system shall be constructed such that it shall not allow for separate or independent shutoff or isolation of each drain. See Figure 1. Additional pumps can be connected to a single suction line as long as the requirements above are met.

Water Velocity - The maximum water velocity through the suction outlet assembly and its cover for any suction outlet must not exceed the suction outlet assembly and its cover's maximum design flow rate. The suction outlet (drain) assembly and its cover must comply with the latest version of ANSI®/ASME® A112.19.8, the standard for Suction Fittings For Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs, or its successor standard, ANSI/ASME APSP-16. In Australia, AS1926.3 is also an acceptable standard.

Testing and Certification - Suction outlet covers must have been tested by a nationally recognized testing laboratory and found to comply with the latest published edition of ANSI/ ASME A112.19.8 or its successor standard, ANSI/APSP-16, the standard for Suction Fittings For Use in Swimming pools, Wading Pools, Spas, and Hot Tubs. In Australia, AS1926.3 is also an acceptable standard.

Fittings - Fittings restrict flow; for best efficiency use fewest possible fittings (but at least two (2) suction outlets). Avoid fittings that could cause an air trap. Pool cleaner suction fittings must conform to applicable International Association of Plumbing and Mechanical Officials (IAPMO) standards.

RECYCLING

This symbol means that your appliance must **not be thrown into a normal bin**. It will be selectively collected A for the purpose of reuse, recycling or transformation.

If it contains any substances that may be harmful to the environment, these will be eliminated or neutralised. Contact your retailer for recycling information.

⚠ WARNING

FOR YOUR SAFETY

This product must be installed and serviced in accordance with the latest applicable version of AS/NZS 3000, along with any other applicable local and national installation codes/standards and any other local applicable regulations. Before installing this product, read and follow all warning notices and instructions that accompany this product.

Improper installation and/or operation will void the warranty.

Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.

- Before handling the appliance, it is essential that you read this installation and user manual, as well as the "warnings and warranty" booklet delivered with the appliance. Failure to do so may result in material damage or serious or fatal injury and will void the warranty.
- Keep and pass on these documents for later viewing throughout the appliance's service life.
- The distribution or modification of this document in any way is prohibited, without prior authorisation from Baracuda.
- Baracuda is constantly developing its products to improve their quality. The information contained herein may therefore be modified without notice.

⚠ WARNING

- Failure to respect the warnings may cause serious damage to the pool equipment or cause serious injury, even death.
- The appliance is intended to be used only for swimming pools and spas; it must not be used for any purpose other than that for which it has been designed.
- 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 that they do not play with the appliance.
- The appliance must be installed according to the manufacturer's instructions and in compliance with local standards. The installer is responsible for installing the appliance and for compliance with national installation regulations. Under no circumstances may the manufacturer be held liable in the event of failure to comply with applicable local installation standards. See also INSTALLATION in picture below.
- Incorrect installation and/or use may cause serious damage to property or serious injuries (possibly causing death).
- All equipment, even postage and packing paid, travels at the risks and perils of the recipient. The latter shall issue reserves in writing on the carrier's delivery slip if damage is detected, caused during transport (confirmation to be sent to the carrier within 48 hours by registered letter). In the event that an appliance containing coolant has been turned on its side, mention your reservations in writing to the carrier.
- If the appliance suffers a malfunction, do not try to repair the appliance yourself. Instead contact a qualified technician for service.
- Refer to the warranty conditions for details of the permitted water balance values for operating the appliance.
- Defeating, eliminating or shunting any of the safety that may be a part of the device automatically voids the warranty, as does the use of unauthorized, third party replacement parts.
- Do not spray insecticide or any other chemical (inflammable or non-inflammable) in the direction of the appliance, as this may damage the body and cause a fire.

⚠ WARNING

- The power supply to the appliance must be protected by a dedicated 30 mA residual current device, complying with the standards and regulations in force in the country in which it is installed.
- Do not use and extension cord to plug the appliance into; plug it directly into a proper wall socket or outlet.
- Before carrying out any operations, check that:
  - The voltage indicated on the appliance information plate corresponds to the mains voltage,
  - The power grid is adapted to the power requirements of the appliance and is properly grounded.
  - The plug (where applicable) is suitable for the socket.
- In the event of abnormal operation or the release of odours from the appliance, turn it off immediately, unplug it from its power supply and contact a professional.
- Before any access to the appliance for any required service or maintenance, ensure that it is switched off and disconnected from the power supply.
- Do not disconnect and reconnect the appliance to the power supply when in operation.
- Do not pull on the power cord to disconnect it from the power supply.
- Do not attempt to carry out any service or maintenance with wet hands or while the appliance is wet.
- Clean the terminal board or the power supply socket before connection.
- For any component or sub-assembly containing a battery: do not recharge or dismantle the battery or throw it into a fire. Do not expose it to high temperatures or direct sunlight.
- In stormy weather, unplug the appliance to prevent it from suffering lightning damage.
- Do not immerse the appliance in water (with the exception of cleaners) or mud.
- This appliance is compatible with all types of water treatment used in swimming pools. Refer to the Baracuda warranty conditions for details of the permitted water balance values.
- Never run the pump dry or out of the water as this will void the warranty.

Section 2. Installation

2.1 Location Requirements

PUMP MOUNT MUST:

- Be solid level, rigid, vibration free.
- Allow use of short, direct suction pipe.
- Do not install at a height more than 1 m above the water line.
- Allow for gate valves in suction and discharge piping.
- Have adequate floor drainage to prevent flooding.
- Be protected from excess moisture.
- Adequate access for servicing pump and piping.
- Keep a minimum of 10 cm unobstructed access in front of the motor fan.

NOTICE

Pump suction and discharge connections have moulded in thread stops, DO NOT try to screw pipe in beyond these stops.

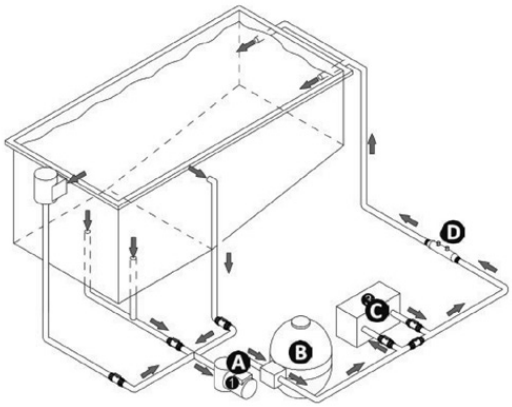
2.2 Hydraulic Connections

⚠ WARNING

Respect the direction of hydraulic connection.

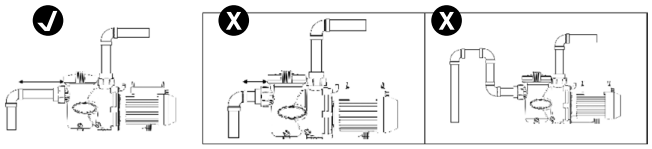
- Choose the dimension of the pipes according to the size of the pool and respecting the hydraulic rules which apply in the country of installation.
- For hydraulic connections, use either of the provided 50 mm barrel-unions and 50 mm / 40 mm reducer couplings to the respective pipe diameter. Fit a check valve if the filter is installed above the water level.
- Fit suction and discharge isolation valves if the pump is installed below the water level.
- To help prevent difficulty in priming, install the suction pipe without high points, which can trap air.

- Check that the hydraulic corrections are correctly tightened and that there are no leaks.
- The pipes must be supported to prevent any risk of breakage due to the weight of the water.



A **Pump**
B **Filter**
C **Heating system**
D **Water treatment system**

Use as few elbow joints as possible. If there needs to be more than 10 elbow joints on the hydraulic circuit, increase the pipe diameter.



Correct	Incorrect	
Suction pipe length = 4 x (2)	• Suction pipe too short	• Air retention
	• Risk of cavitation	• Risk of incorrect pre-filter filling

2.3 Electrical Connection

The pump and motor come wired for 240-volt installation. Plug the supply lead into an electrical outlet near the pool equipment.
A separate time clock or saltwater chlorinator with a timer is recommended to control the On/Off functions.

Section 3. Operation

⚠ WARNING

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

⚠ WARNING

Before removing lid:
STOP PUMP before proceeding.
CLOSE GATE VALVES in suction and discharge pipes.
RELEASE ALL PRESSURE from pump and piping system.
NEVER tighten or loosen screws while pump is operation.

⚠ WARNING

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!

3.1 Operating Principle

The filtration pump forms the core of the pool and is essential as it is used to circulate water through the pool's different components, in particular the filter.

Its motor drives the turbine in rotation, which drives the water.

The large strainer of the pre-filter collects major debris to prevent the filter from becoming clogged too quickly or from becoming damaged.

3.2 Operating the Pump

- To prevent against any risk of explosion that may cause material damage, serious injury or even death, make sure that the hydraulic circuit is free of any debris or blockage and is not subject to excessive pressure.
- Never run the pump "dry" as this may damage it.
- The pre-filter strainer cover must be closed by hand (do not use any tools).
- Check that the hydraulic connections are correctly tightened.

- Check that the pump is stable and level.
- The hydraulic circuit must be bled and not contain any foreign bodies.
- The pump pre-filter strainer cover must be correctly closed (by hand) and its gasket clean and in place.
- Check that the valves are open.
- The pump is self-priming. However, you are strongly recommended to fill the pre-filter strainer with water before starting it up for the first time to facilitate the procedure.
- The pump has a priming capacity up to 3 metres above the swimming pool water level and at sea level elevation (if the hydraulic circuit is perfectly sealed).
- Bleed any air present in the filtration circuit using the bleed normally present on the filter (refer to the swimming pool filter's manual).
- Check that there are no leaks on the hydraulic circuit.
- Depending on the model, the maximum head is as follows:
  - 0.50HP @ 9.9m
  - 0.75HP @ 13..5m
  - 1.00HP @ 16.0m
  - 1.50HP @ 18.5m

3.3 Priming the Pump

- Release all air from filter and piping system: see filter owner manual.
- In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.
- If pump is not in a flooded suction system, unscrew and remove lid cover; fill housing and pump with water.
- Clean lid and inspect housing; re-install on lid cover. Replace lid cover on housing; turn clockwise to tighten cover.

NOTICE: Tighten lid cover by hand only.

Pump should prime now. Priming time will depend on vertical length of suction lift and horizontal length of suction piping.

Section 4. Maintenance

⚠ WARNING

Switch the pump off before doing any maintenance, cleaning or other work.

Only perform maintenance/care work that is mentioned in the instruction manual.

4.1 Routine Maintenance

The only routine maintenance needed is inspection/cleaning of leaf basket. Debris or trash that collects in basket, will block off water flow through the pump.

- Make sure that the pump and electrical compartment contain no foreign bodies.
- Clean the outside of the appliance, do not use solvent-based products.
- Clean the pre-filter strainer, the cover and the gasket regularly.
- Check that the pre-filter strainer is correctly in place, or it may prevent the cover from closing fully.

Follow instructions below to clean leaf basket:

1. Stop pump, close gate valve in suction and discharge, and release all pressure from system before proceeding.
2. Unscrew the lid (turn counterclockwise).
3. Remove strainer basket and clean. Be sure all holes in basket are clear, flush basket with water and replace in housing with large opening at pipe connection port (between ribs provided). If basket is replaced backwards cover will not fit on housing body.
4. Clean and inspect lid O-ring; reinstall on lid cover.
5. Clean O-ring groove on housing body and replace lid. To help keep lid from sticking, tighten hand tight only.
6. Prime pump (see priming instructions above)

4.2 General Maintenance Information

- All other work must be performed by a qualified person.
- In the interest of safety and reliability, only use genuine Baracuda spare parts, in the event that pirate spare parts are used, the warranty will become null and void.
- Never run the pump dry, i.e. without water in pump wet end, as this will damage the pump.
- It is important to clean the pump leaf basket regularly.
- Clean plastic parts with a damp cloth. Cleaning agents can cause damage to the plastic parts.
- Do not spray down the electrical components with water.
- The pump is equipped with a thermal overload protection. If overload occurs during operation, the built-in overload protection automatically deactivates the pump. The pump will switch on automatically after a cooling period of approximately 20 (twenty) minutes. Ensure the cause of the overload is identified and addressed. If the pump remains on a continuous locked situation causing thermal overload, the motor may eventually damage and burn out.
- Note that certain parts are subject to normal wear and tear, even when used properly and must be replaced in due time, depending on type and duration of use.

  These include but are not limited to:

  - Impeller
  - Shaft Seal
  - Motor Bearings
  - Pump lid and O-ring
  - Pump basket
  - Diffuser
- All work listed in this manual must be performed regularly. If this maintenance work cannot be performed by the end-user, an authorised person must be commissioned to perform this work. If these operations are neglected, faults may arise which are the responsibility of the user.

These include:

- Damage to the motor, due to untimely or inadequate maintenance or cleaning of the cooling fan cover.
- Corrosive or other damage caused by incorrect storage of chemicals in pump enclosure.
- Damage due to the use of spare parts which are not original Baracuda parts.
- Damage due to maintenance and repair work not carried out by qualified technicians.

- To avoid personal injury do not have the pool pump running whilst there are people in the pool/spa.

4.3 Winterising

⚠ WARNING

The pump must be fully winterised in the event of a risk of frost or extended electrical disconnection. If the pump freezes it may cause severe damage and invalidate the warranty.

To avoid damaging the appliance with condensation, do not fully cover it.

- If the pump is positioned below the water level, close the isolation valves at suction and discharge.
- Drain the pump and the hydraulic circuit, following the swimming pool manufacturer's instructions.
- You are recommended to disconnect the electrical power cable then unscrew the hydraulic connectors to store the pump in a dry place away from frost.
- Store the pump in a dry environment at a temperature that varies as little as possible to prevent condensation which would damage the pump.

4.4 Servicing

⚠ WARNING

It is recommended that the appliance undergo general servicing at least on a yearly basis to ensure proper operation, maintain performance levels and potentially prevent certain failures. These operations are carried out at the user's expense and certain operations must be performed by a technician.

Maintenance to be carried out by a qualified technician:

- Check the connection of the metal masses to the earth.
- Check that the electrical cables are correctly tightened and connected and that the switch box is clean.

Section 5. Repair Parts

Refer all service to your local agent or dealer as their knowledge of your equipment makes them the best qualified source of information.

Order all repair parts through your dealer.

Give the following information when ordering repair parts:

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

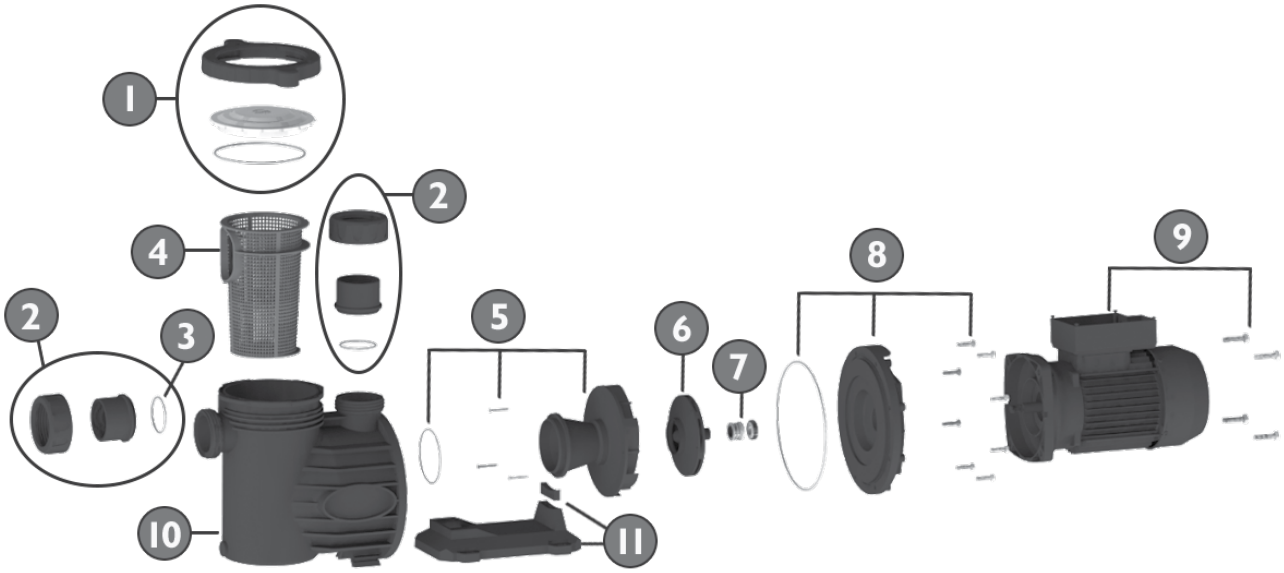
Section 6. Troubleshooting

- If a problem occurs, before you contact your retailer, please carry out these few simple checks using the following tables.
- If the problem continues, contact your retailer.
- Actions to be performed by a qualified technician only

6.1 Appliance Behaviour

Problem	Solution
Motor does not start	• Disconnect switch or circuit breaker in off position • Fuses blown or thermal overload open • Locked motor shaft • Motor windings burned out • Defective starting switch inside single phase motor • Disconnected or defective wiring • Low voltage
Pump does not reach full speed	• Low voltage • Pump connected for wrong voltage
Motor overheats (protector trips)	• Low voltage • Motor windings connected for wrong voltage on dual voltage model • Inadequate ventilation
Pump delivers no water	• Pump is not primed • Closed valve in suction or discharge line • Leakage or air into suction system • Impeller clogged
Leakage of water 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 • Plugged 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 filters
Noisy pump and motor	• Plugged basket in skimmer or hair in lint strainer • Worn motor bearings • Valve in suction line partly closed • Suction line partly plugged • Vacuum hose plugged or too small • Pump not supported properly
Air bubbles at inlet fittings	• 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

Section 7. Pump Parts



Nº	Component Part Nº	Description	Qty
1	500-6441	Pump Lid Assembly	1
2	110-5173	Pump Union Complete AUS 40mm / 50mm	2
3	110-5123	Pump Union O-ring	2
4	500-6031	Pump Basket	1
5	500-6442	Pump Diffuser Assembly	1
6a	500-6438	Pump Impeller with Insert 0,5 HP	1
6b	500-6331	Pump Impeller with Insert 0,75 HP	1
6c	500-6335	Pump Impeller with Insert 1 HP	1
6d	500-6402	Pump Impeller with Insert 1,5 HP	1
7	500-6165	Pump Shaft Seal 3/4"	1
8	500-6443	Pump Seal Plate Assembly	1
9a	500-0051	Bareshaft Motor 0,5 HP IE2	1
9b	500-1063	Bareshaft Motor 0,75 HP IE2	1
9c	500-2067	Bareshaft Motor 1,0 HP IE2	1
9d	500-3067	Bareshaft Motor 1,5 HP IE2	1
10	500-6407	Pump Body	1
11	500-6444	Pump Footpiece Assembly	1

NOTE: For any further enquiries or troubleshooting advice, please contact your local authorised Baracuda dealer. Alternatively contact Baracuda customer service on 1300 784 423 or www.baracuda.com.au

An electronic copy of this manual may be found on www.baracuda.com.au

For full warranty terms and conditions and to register your warranty, visit https://warranty.baracuda.com.au/ and complete your details. Or scan the QR code to go directly to the registration page

Record your equipment details here for quick reference:

Model No. : _____

Serial No. : _____

H0761800

BARACUDA®

For Everyday Aussie pools

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