

BARACUDA®

THE TRUSTED NAME IN POOL CARE



titan2 Eco3

Swimming Pool Pump

Installation & Operating Instructions



Thank you for choosing a Baracuda product.

This product has been manufactured using modern production methods and extensive quality assurance procedures, because our goal is to ensure that you, the customer, are satisfied with our products.

Fluidra is continually striving to further develop and improve its range of products; we therefore reserve the right to make alterations to the form, technical specifications and equipment level of our standard equipment.

The information in this manual is therefore subject to change.



DECLARATION OF CONFORMITY

This product range conforms to the relevant Compulsory Specifications.

IMPORTANT SAFETY INSTRUCTIONS



Warning: Please make sure you observe the following safety instructions. Failure to observe the safety instructions may result in fatal injury.



Please read this instruction manual before using the product for the first time and keep in a safe place for future reference.

- In order to provide a hassle-free experience, we recommend the use of a qualified technician to complete the installations of our products, and to ensure that the installation complies with all relevant regulations.
- Please note - the electrical connection should be completed by a certified electrician (any non-compliance will result in the warranty being voided).
 - Installations must conform to SANS 10142 and all relevant local by-laws.
 - The pump must be supplied through a residual current device (RCD) with a rated residual operating current not exceeding 30mA in accordance with IEC 60335-2-41.
 - Do not modify the terminal lid and/or box of the pump.
 - The motor is initially supplied with an electrical cable which may be used for testing purposes only (please follow the guidelines in SANS 10142 for installation).
- The pump must be installed in a weatherproof, well ventilated enclosure.
- Allow sufficient space around the pump for ventilation and do not obstruct the motor fan.
- It is imperative that you do not store pool chemicals in this enclosure.
- The pump motor's Ingress Protection (IP) rating is indicated on the information plate situated on the pump. Please note - the pump is not submersible.
- Never run the pump dry, i.e. without water in the pre-filter.
- This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are under supervision or instruction concerning use of the product by a person responsible for their safety.
- Children should be supervised, at all times to ensure they do not play with or near the product.
- Only a qualified person/s, should perform repairs and/or maintenance work on the pump and motor, including any cabling work to the motor.

WARNINGS


- 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.
- It is important that the appliance is operated by people who are competent and qualified (both physically and mentally), after having read the instructions for use. All persons not meeting these criteria must not approach the appliance in order to avoid exposure to dangerous elements.
- Keep the appliance out of the reach of children.
- 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.
- Incorrect installation and/or use may cause serious damage to property or serious injuries (possibly causing death).
- 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 (flammable or non-flammable) in the direction of the appliance, as this may damage the body and cause a fire.

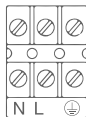
- The power supply to the appliance must be protected by a dedicated 30 mA residual current device, complying with the standards and regulations in force in the country in which it is installed.
- Before carrying out any operations, check that:
 - The voltage indicated on the appliance information plate corresponds to the mains voltage,
 - The power grid is adapted to the power requirements of the appliance, and is properly grounded.
 - 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 attempt to carry out any service or maintenance with wet hands or while the appliance is wet.
- 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, switch off power supply to the appliance to prevent it from suffering lightning damage.
- Do not immerse the appliance in water 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 without water as this will void the warranty.

INSTALLATION

- Position the pump on a firm, flat, level surface that is not exposed to flooding.
- A minimum of 50mm PVC pipe to be used on the suction and return lines.
- If solvent weld is used in the installation, allow 24 hours to dry, before running the pump for the first time.
- **A certified electrician must do the electrical connection in accordance with SANS 10142:**
 - The voltage of the mains supply to the pool distribution board must correspond to the indicated voltage of the product.
 - Follow all other guidelines in SANS 10142 for installation.
 - Ensure that there is no strain on the electrical cable.

CONNECTING THE MOTOR'S POWER SUPPLY

230 Vac - 50 Hz power supply= connection to the  (earth) and N-L terminals.



Close the electrical connection box, making sure that the seal is in place and tighten the cover screws.

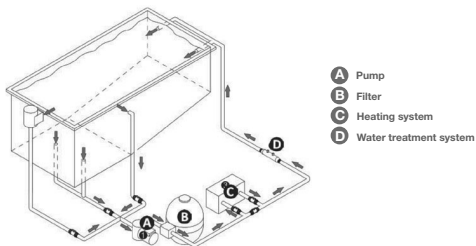
- Before starting the motor for the first time or after the pump has been drained, open the lid of the pump leaf basket and add water to fill the basket.
- Replace the lid and tighten by hand, ensuring that the lid O-ring / gasket is fitted correctly on the pump body.
- Do not over tighten the pump lid retainer(s).
- Weekly pool maintenance is required. It is important that the weir/skimmer baskets and/or any leaves or debris are removed from the pump basket before backwashing.
- The backwash and rinse procedure must be done, as a minimum, every week to maintain water clarity and ensure adequate filtration of your pool.

HYDRAULIC CONNECTIONS

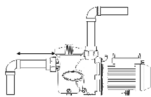


Respect the direction of hydraulic connection. (See page image.)

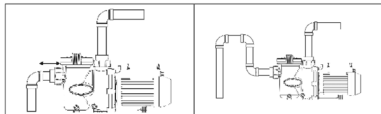
- Choose the dimension of the pipes according to the size of the pool and respecting the hydraulic rules which apply in the country of installation.
- For hydraulic connections, use either of the provided unions and the respective 50/63mm reducer to the respective pipe diameter. Fit a check valve if 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 connections 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.



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.



- Suction pipe length = 4 x (2)



- Suction pipe too short
- Risk of cavitation
- Air retention
- Risk of incorrect pre-filter filling

ELECTRICAL INSTALLATION

A separate time clock or saltwater chlorinator with a timer is recommended to control the On/Off functions.

OPERATION, MAINTENANCE & CARE



- **Switch the pump off before doing any maintenance, cleaning or other work.**
 - **Only perform maintenance/care work that is mentioned in the instruction manual.**
- 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.

SERVICE & 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.

USE

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.

2. User interface presentation

BUTTON		DESIGNATION
ECO	KEY	"ECO" speed activation
	LED	Flashing: in priming mode (approx. 2 minutes on start-up)
MED	KEY	"MED" speed activation
	LED	Flashing: in priming mode (approx. 2 minutes on start-up)
HIGH	KEY	"HIGH" speed activation
	LED	Flashing: in priming mode (approx. 2 minutes on start-up)
STOP	KEY	Shutdown of the speed during operation
POWER	LED	Flashing: pump stopped, powered up
ERROR	LED	The number of flashes indicates the error in progress "ECO" speed activation

3. Operation



- 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.
- Start up the pump by activating a speed. The pump always starts in “priming” mode (2850 rpm for approx. 2 minutes).
- 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.

4. ADDITIONAL USER FUNCTIONS

4.1 Using speeds

SPEED	KEYS TO START THE SPEED	PRESET SPEED
ECO SPEED	ECO	1400 rpm
MED SPEED	MED	2150 rpm
HIGH SPEED	HIGH	2850 rpm
PRIMING SPEED	AUTOMATIC AT START-UP	2850 rpm for 2 minutes

- When the pump is running, it displays the operating speed and an LED lights up above the key which corresponds to the speed.



If the mains supply is disconnected (manually or via the filtration lock) the pump will restart at the last active speed.

4.2 Pump shutdown

- press the STOP button

4.3 Pump reset

You may reset the pump to return it to “factory” configuration:

- make sure that the pump is powered up but stopped (“OFF” is displayed on the screen).
- press ECO + MED + HIGH for 5 seconds until the 3 corresponding LEDs flash once.
- release the keys: the pump is now reset.

MAINTENANCE

SERVICING



- 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.

User maintenance

- Make sure that the pump and electrical compartment contain no foreign material/objects.
- 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.

Maintenance to be carried out by a qualified technician








- Check the earth connection.
- Check that the electrical cables are correctly tightened and connected and that the switch box is clean.
- Check that the user interface is correctly connected.

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

Appliance behaviour

<p>The pump does not start / the motor does not turn.</p>	<ul style="list-style-type: none"> • Filtration outside of a scheduled operating range ("Auto" mode). Check the filtration clock settings. • Faulty user interface fuse, replace . • Electric power cut. Check the circuit breaker(s). •  Check the connection between the power cable and the motor terminals. • Check that the user interface cable is not damaged. • The "error" light flashes, see § "5.2 Error codes" • Check that the motor shaft rotates freely. Check that there is no debris in the pre- filter strainer. •  If debris remains, remove the pump to access the turbine.
<p>The pump doesn't prime / air can be seen in the pre- filter strainer.</p>	<ul style="list-style-type: none"> • Check the position of all valves in the hydraulic circuit. • Air is stuck in the circuit, drain the hydraulic circuit (drain screw on the filter). • The pool's water level is too low, air is being sucked into the circuit, fill the pool. • The gasket of the pre- filter strainer lid is defective, check the condition of the gasket and the correct air-tightness of the lid.
<p>Low flow rate/ low filter pressure</p>	<ul style="list-style-type: none"> • Pre- filter basket full of debris: clean. • Air leak in the circuit. Check all tightening torques. •  The turbine and the pump diffuser are blocked or worn, replace. •  The diffuser seal is worn, replace.
<p>Low flow rate/ high filter pressure</p>	<ul style="list-style-type: none"> • The filter is clogged. Wash the filter (or the cartridge depending on the case). • Check the position of all valves in the hydraulic circuit.
<p>Pump making a lot of noise</p>	<ul style="list-style-type: none"> • Air leak or cavitation in the suction piping. Check the position of the valves and adjust where necessary. • Pump incorrectly positioned on the ground. Check that it is resting in a flat position on a hard, horizontal ground. Use anti-vibration studs where necessary. • A foreign body is present in the pre-filter strainer. •  A foreign body is present in the pump body (in this case, the pump must be removed).
<p>Leak between the pump body and the motor</p>	<ul style="list-style-type: none"> •  The mechanical lining is damaged or defective, replace
<p>The pump heats up and switches off</p>	<ul style="list-style-type: none"> • The motor is overheating due to too little ventilation. Check that there is enough clear space around the motor. •  There is an electrical fault. Check the power connections and check the mains voltage, which must not vary.
<p>There is no damage to the user interface</p>	<ul style="list-style-type: none"> • The cable(s) is(are) damaged or poorly connected in the user interface housing; check the condition of these cables.

Error codes

Software Error Code Matrix

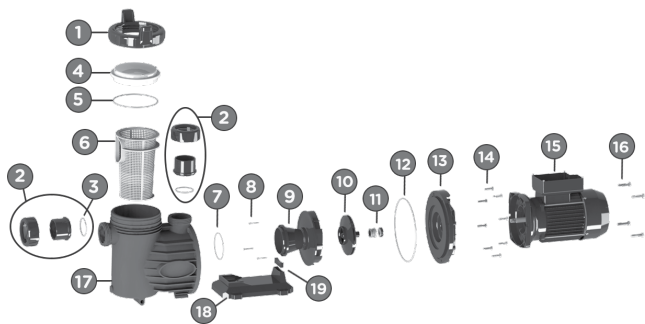
The interface control panel has a digital display and red error display LED to indicate operation issues. Normal operation is indicated by a single flash of this LED upon startup.

Any subsequent blink sequence of this LED indicates that a fault has been registered by the motor control, with the explanation of these faults given in the below table. This table also includes the cause for this fault as well as some potential actions to potentially resolve the issue.

BLINKS/ DISPLAY	FAULT	SOFTWARE CAUSE	ACTION
1/ Er01	Micro controller failure	Micro controller is continually rebooting.	No action can be taken to resolve issue. Return motor for warranty.
2/ Er02	Under voltage	The line voltage has dropped below 180 volts AC running.	<ul style="list-style-type: none">• The controller will reboot after voltage comes above 209 volts AC for at least 6 seconds.• Reduce distance between motor/pump and breaker.• Turn off any other non-critical equipment on the same breaker circuit.
3/ Er03	Temperature	Internal electronics detected an over temperature condition (+100C on sensor)	<ul style="list-style-type: none">• Verify the proper impeller has been applied (net 1.0Hp max)• Turn the power off at the timer / breaker and allow motor to remain off for at least 15 minutes before reapplying power.
4/ Er04	Over current trip	Over current protection has tripped.	<ul style="list-style-type: none">• Verify the proper impeller has been applied (net 1.0Hp max)• Inspect all equipment / piping in the system connected to the pump.
5/ Er05	Over voltage	The line voltage has risen above 269 volts AC.	<ul style="list-style-type: none">• The power must be turn off for at least 15second and then reconnect the power. The motor should run normally.
6/ Er06	Output shaft seized	Motor failed to start. Motor was stopped.	<ul style="list-style-type: none">• Manually rotate the shaft via the shaft access in the fan cover• Inspect all equipment in-line with the pump for obstructions or locked pump parts.
7/ Er07	Self check	One or more of the self-tests failed either at start up or while running.	<ul style="list-style-type: none">• Turn the power off at the timer / breaker and allow motor to remain off for at least 15 minutes before reapplying power.• Return motor for warranty if error persists.
8/ Er08	Motor fault	One or more of the phases has 1 become disconnected.	<ul style="list-style-type: none">• Turn the power off at the timer / breaker and wait one minute before opening the topside connection enclosure. Verify phase leads from both the motor and control connecting into the terminal block (red, yellow, white leads on left-most connections of blocks as viewed from the conduit entrance) are properly connected and screws on the terminal block are tightened sufficiently.

Note: After remove power from motor, please wait 30 seconds before re starting.

PUMP PARTS



*Codes may change

NO	COMPONENT PART NO.	DESCRIPTION	QTY
1	500-6413	TITAN 2 PUMP LID LOCK RING	1
2a	110-5170	TITAN 2 PUMP UNION COMPLETE 50MM	2
2b	110-5171	TITAN 2 PUMP UNION COMPLETE 63MM	2
3	110-5123	TITAN 2 PUMP UNION O'RING	2
4	500-6412	TITAN 2 PUMP LID	1
5	500-6414	TITAN 2 PUMP LID O'RING	1
6	500-6031	TITAN 2 PUMP BASKET	1
7	500-6326	TITAN 2 PUMP DIFFUSER O'RING	1
8	500-6053	TITAN 2 DIFFUSER SCREW M4X25	3
9	500-6322	TITAN 2 PUMP DIFFUSER	1
10	500-6335	TITAN 2 PUMP IMPELLER WITH INSERT 0,75KW	1
11	500-6165	TITAN 2 PUMP SHAFT SEAL 3/4"	1
12	500-6062	TITAN 2 PUMP FLANGE O'RING	1
13	500-6321	TITAN 2 PUMP SEAL PLATE	1
14	500-6325	TITAN 2 FLANGE BOLT SS M6X40	8
15	500-2068	TITAN 2 BARESHAFT MOTOR 1HP 240V	1
16	500-6327	TITAN 2 FLANGE BOLT SS M8X30	4
17	500-6409	TITAN 2 PUMP BODY	1
18	500-6398	TITAN 2 PUMP FOOT PIECE	1
19	500-6213	TITAN 2 WEDGE 1HP	1

FLUIDRA

Please fill out all your details to ensure your warranty is registered.

Name & Surname:

Physical Address:

Landline: Mobile:

Email:

Product:

Model: Store purchased at:

Serial No: Date of purchase:

Date Installed: Signature:

Fluidra would like to communicate with you in order to provide you, our valued customer, with up to the minute water-related news - together with our latest products. Please indicate below if you would like us to keep in touch.

May Fluidra communicate with you?

Please tick the appropriate box

YES

NO

Preferred method of communication?

Please tick the appropriate box

Email

SMS

Telephone

Thank you for completing your warranty registration.

To serve you better, Fluidra will send you information on products, current swimming pool legislations and special offers.

SCAN ME



EXCEPTIONAL AFTER SALES SUPPORT

Scan the QR Code to get more information on the full range of Baracuda products and to register your warranty.

Happy Swimming!

For more information visit:
www.baracuda.co.za or call 086 088 7665

Dealer / Store Stamp

**DEVELOPED, TESTED AND MADE
IN SOUTH AFRICA**

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BARACUDA®
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