

AQUATIC SYSTEMS®



For the Installation, Operation and Service of the

MAX-E-BOOST BOOSTER PUMP

Should the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacturer for the correct advice before proceeding with the installation or operation of this product. The pump operator or owner must be provided with this owner's manual.

MAX-E-BOOST BOOSTER PUMP INSTALLATION

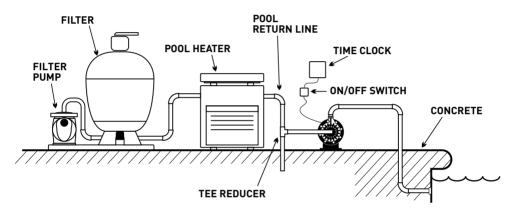
This booster pump is 1.1kW (1.5hp) and capable of producing 250kPa @ 50LPM.

1. UNIT LOCATION

Pump should be installed on a firm and level surface and should be bolted to the surface through the 4 bolt holes on the pump support. Installation should be as close as possible to a filtered water return line and convenient location for servicing.

NOTE: Booster pump must always be connected to return line on discharge side of filter. Never connect suction side booster pump ahead of filter. (See Figure 1).

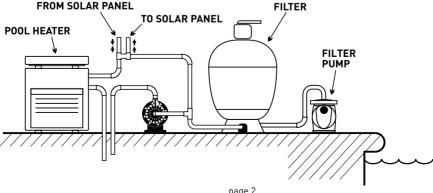
Fig.1 - TYPICAL INSTALLATION



2. TYPICAL INSTALLATION - SOLAR CONSIDERATION

Suction side of booster pump must be connected to the return line after the heater. Except on solar installation, never connect suction side of booster pump ahead of filter or heater. NOTE: Keep booster pump at a minimum of 1m away from heater.

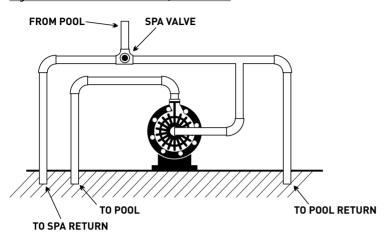
Fig.2 - INSTALLATION with SOLAR HEATER



4. INSTALLATION with SPA POOLS

Connect suction side of the booster pump before spa bypass valve, if your pool is plumbed for a spa pool. (See Figure 3).

Fig.3 - INSTALLATION with POOL/SPA COMBO



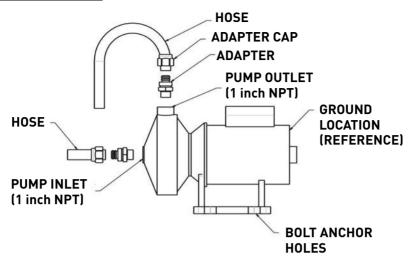
5. PUMP INLET CONNECTION TO POOL RETURN LINE

Use elbow and reducing bushing if needed on pre plumbed installation. Use tee on existing installation. Connect pump suction to the return line after filter and heater as follows: Preferably, underneath side (NEVER ON TOP) of the horizontal return line.

6. INSTALLATION OF PUMP HOSES

- **a.** To install hoses remove adapter from hose kit bag and wrap thread seal tape around the 1 inch npt threads of the adapter. A minimum of four revolutions is required.
- **b.** Screw adapter with thread seal tape into the pump outlet.
- c. Cut hose to appropriate length. 1.5m of hose has been provided for both the inlet and outlet.
- **d.** Place adapter cap over hose (See Figure 3 in next page) and slide the hose onto the adapter until the hose is flush against the wall where the threads begin. Heating of the hose or use of a lubricant may be useful if the hose is cold.
- **e.** Screw adapter cap and tighten to the adapter to secure the hose.
- f. Repeat process for both inlet and outlet of pump. When routing the hose make sure there are no tight bends or kinks in the hose.

Fig.3 - HOSE INSTALLATION



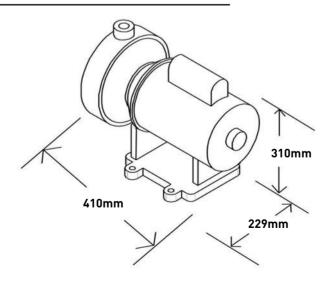
7. SPECIFICATIONS

DIMENSIONS: 410mm x 229mm x 310mm

MOTOR: 1100W, 50Hz

MAX. TOTAL HEAD: 32m

POWER SUPPLY: 230-240VAC



8. ELECTRICAL CONNECTIONS FOR BOOSTER PUMP



CAUTION: BEFORE MAKING ANY ELECTRICAL CONNECTION TO EXISTING POWER SOURCES. MAKE SURE THAT ALL ELECTRICAL POWER IS OFF.



Before turning on power to pump, check voltage at intended source before making electrical connection. pump motor can be damaged if connected to wrong voltage. electrical work should be done by a licensed electrician. Please ensure installation is in accordance with the Wiring rules (AS/NZS 3000).

The pump is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.

Motor frame should be equipotentially bonded to the pool structure for swimming pool installations as specified in the wiring rules (AS/NZS 3000). Failure to properly equipotentially bond the motor can result in serious electrical shock. Bond the motor via the equipotentially bonding terminal at the base of the motor flange. Use a suitably thick wire and a screw with a serated washer to connect to the bonding terminal.

9. SAFETY 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.

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.

10. TIME CLOCK / AUTOMATION SYSTEM

A separate time clock or automation system is recommended. To ensure proper sequence of filter pump and booster pump, the time clocks must be reset if power is interrupted. The automatic pool cleaner must be run for a length of time necessary to clean the pool, but should never be allowed to run while filter system is off. This will result in damaging the booster pump. Running the automatic pool cleaner without the filter system in operation will void warranty. The automatic pool cleaner should start operating one half hour to forty-five minutes after the filter pump starts and stop one half hour to forty-five minutes before the filter pump stops.

11. MANUAL SWITCH

A manual switch is recommended. It should be located between the time clock and the booster pump. This switch eliminates turning the pump off at the timeclock.

12. PUMP SEAL

The booster pump is fitted with a mechanical shaft seal which is water lubricated and water cooled. If the pump is run without water this seal will be damaged.

NEVER OPERATE UNLESS FILTER SYSTEM IS ON.

13. SERVICING THE BOOSTER PUMP

Note: This motor is a totally enclosed fan cooled motor (IPX5), but can be damaged by heavy rainfall or flooding by causing water to enter the motor. It is recommended that the pump be protected from the weather by installing it in a shed or suitable under cover enclosure.

TO DISASSEMBLE THE BOOSTER PUMP

- **1.** Turn off booster pump motor and close valves.
- 2. Unscrew suction line in middle of volute.
- **3.** Loosen nuts and remove bolts between booster pump volute and seal bracket.
- **4.** On backend of motor remove cap. Use a crescent wrench or open end wrench to hold shaft from spinning.
- **5.** Hold wrench and turn impellar counter clock wise to remove.

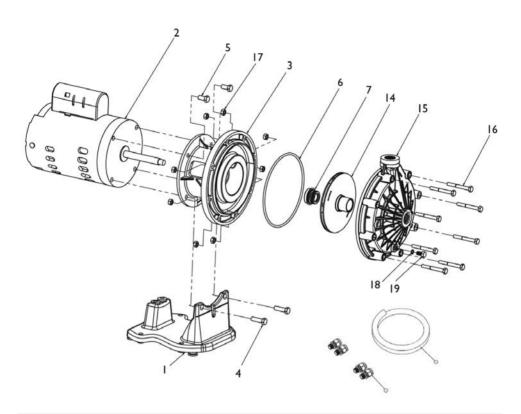
TO REMOVE SEAL

1. Stand motor on end, using one screwdriver slowly pry seal out of impellar. Remove seal bracket and dislodge seal from backside of seal bracket using hammer and screwdriver.

TO RE-ASSEMBLE THE UNIT

- 1. After replacing the necessary parts, re-assemble by reversing order of steps 1-5 above.
- **2.** Ceramic seat must be perfectly clean of any foreign objects or dirt. If seat is not clean, it will cause leakage. The ceramic seat must go in with the side containing grooves facing into the center of the rubber gasket, otherwise it will leak.
- **3.** Replace impellar and seals if warped or discolored. This condition is caused by overheating due to pump running dry. Smooth surface of ceramic seal should be parallel to and facing away from backside of impellar.
- **4.** Silicone backside of metal flange on spring seal, push down until flush in center of seal bracket.Be careful not to get silicone on to spring seals contact surface.

13. REPLACEMENT PARTS



Item	Part No.	Description
		BOOSTER PUMP
1	LA41APC	Pump stand 99, complete with rubber grommets
2	801493	Motor
3	LA295	Seal bracket
4	-	Bolt 3/8-16 x 1-1/4 in., 2 req.
5	-	Bolt 3/8-16 x 3/4 in., 2 req.
	801494	Motor Fasteners Kit (Includes 4 & 5)
6	LA415	O-ring for seal bracket
7	071734S	Seal (PS1000) - Set includes both cap and bellows
14	LA02L52AQU	Impeller
15	LA395N	Volute
16	-	Bolt
17	=	Nut
	801495	Pump Fasteners Kit (Includes 16 & 17)
18	LA375	O-ring for drain plug
19	EB20	Drain plug
NOT SHOWN		
	004045	11 110

801247 Hose kit

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.



Head Office

Pentair AU/NZ: 1-21 Monash Drive,

Dandenong South, Vic 3175

Australia

National Customer Service: Phone: 1300 137 344

Fax: 1800 006 688
National Dealer Locator: Phone: 1800 664 266
Email: au.sales@pentair.com
Web: www.pentair.com.au

New Zealand

National Customer Service: Phone: 0800 654 112

Fax: 0800 806 642

National Dealer Locator: Phone: 0800 664 269

Email: nz.sales@pentair.com
Web: www.pentair.co.nz

International Australia/New Zealand

Phone: +61 3 9709 5800 Fax: +61 3 9709 5888

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