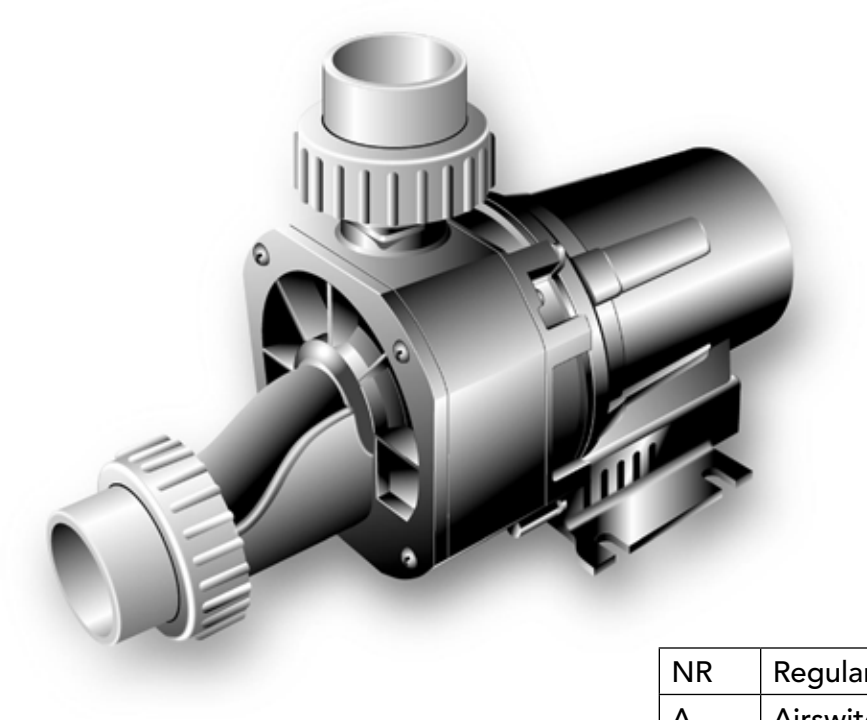
BALBOA water group

GEMINI PLUS II® WHIRLPOOL BATH PUMPS

OWNER'S AND OPERATOR'S MANUAL



NR	Regular discharge
A	Airswitch
-C	Power Cord with Plug
-CJ	Power Cord with JJ Plug

MODELS ARE UL RECOGNIZED 1795 AND / OR CSA (CUL) CERTIFIED WHERE APPLICABLE.

CHECK PUMP NAMEPLATE OR CONSULT FACTORY FOR SPECIFIC APPROVALS.

PLEASE FILL IN INFORMATION FROM PUMP NAMEPLATE

PUMP MODEL _____

SPEC NUMBER _____

DATE CODE _____

TUB MANUFACTURER _____

SAVE THESE INSTRUCTIONS -- FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PERSONAL INJURY, DEATH OR PROPERTY DAMAGE.

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IMPORTANT SAFETY INSTRUCTIONS

WARNING - When installing and using this electrical equipment, basic safety precautions should be followed, including the following:

1. **READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.**
2. **READ AND FOLLOW INSTRUCTIONS AS SET FORTH IN THE OWNERS MANUAL FROM THE MANUFACTURER OF THE HYDROMASSAGE BATHTUB.**
3. **WARNING- To reduce risk of injury, DO NOT PERMIT CHILDREN TO OPERATE THIS UNIT WITHOUT THE SUPERVISION OF AN ADULT at all times.**
4. **CAUTION-** The GEMINI PLUS II® pump is intended for use in Hydromassage Bathtub (whirlpool bath) indoor applications only, as described in this manual. The GEMINI PLUS II® pump is not for use in any other application. Do not use attachments not recommended by the manufacturer.
5. For **ALL** installations an access panel must be provided which is in a suitable location for pump inspection. The minimum recommended dimensions are: 18"x24". **ENSURE POWER TO THE MOTOR IS TURNED OFF, PRIOR TO WORKING WITH THE MOTOR.**
6. All electrical wiring of the motor installation must be done by a licensed electrician in accordance with applicable electrical codes.
7. The unit must be connected to a supply circuit that is protected by a Ground Fault-Circuit-Interrupter (GFCI) as required by the applicable electrical codes. Such a GFCI should be provided by the installer of the unit and should be tested on a regular basis. Consult the GFCI manufacturer's instructions for correct testing and operation.
8. **DO NOT** operate this pump unit without the motor end cover in place.
9. Motors driving the pumps may operate at high temperatures. To avoid burns, **NEVER** touch the motor shell during operation of the motor.
10. **DO NOT** drop, insert, or place any object into the pump assembly or motor at any time.
11. No modifications, additions, or deletions should be made to the pump or motor assembly.
12. **DO NOT** use insulation around or near the pump/motor assembly. The motor may overheat causing nuisance tripping of the thermal overload protector.
13. **DO NOT** run pump dry (without water).
14. Before starting the pump/motor make certain that the water level covers all water outlets to avoid excess splashing, and the tub suction fitting is in place.

GENERAL INFORMATION

This pump is intended solely for the use on ***Hydromassage Bathtub*** (whirlpool bath) indoor applications. The pump unit was designed to circulate water through a whirlpool bath or spa system supplying the jets with water. Each pump has been thoroughly tested prior to leaving the factory and should be free of defects.

INSTALLATION INSTRUCTIONS

1. The pump should be installed on the outside of the bathing area, close to the tub unit as possible being contained within the 'drop line' of the tub enclosure.
2. The pump should be mounted in such a fashion that there is a continual rise from the suction fitting to the pump to allow air to be expelled from the piping. While at the same time, the pump should be mounted in such a way that the pump suction is below the normal operating level of the water.
3. All tub piping must be water tight for proper pump operation.
4. The pump/motor assembly should be securely mounted onto a base to avoid noise and vibration. The weight of the piping should be supported independently and not carried by the pump.
5. The pump should be connected to the piping with union connectors as supplied with the pump. The union sleeves and nuts are made of PVC plastic. Sleeves should be attached to the piping with a solvent weld cement suitable for use with PVC. Refer to the warnings supplied with solvent weld cements to verify compatibility. The nut will secure the sleeve to the pump. (cont. next page)

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HAND TIGHTEN the union nut only! Excessive torque is unnecessary and may cause damage to the union and pump. **DO NOT** use a pipe wrench or over torque the nut! There is a gasket supplied with the sleeve connector. If the connector is tightened properly there is no need for any sealant or lubricant to be used on the gasket. ***Contaminants such as pipe compounds or over tightening of the nut can cause the union to fail.***

6. Pumps are equipped with a self-lubricating mechanical shaft seal. As with any mechanical seal, it may eventually leak as a result of wear or if particles of dirt become lodged between the seal faces. It is recommended that a drip pan be installed so that any leakage can be readily seen and to avoid water damage.
7. Pump motors are equipped with an automatic thermal overload protector to prevent motor damage from overheating. ***These motors will restart automatically as the motor cools down. Do not work on the motor without first shutting off the electricity at the source.*** Nuisance thermal tripping can be avoided if proper ventilation is provided to the pump. Insulation should not be put around or near the pump motor.
8. All airswitch actuators and electronic keypads which are used to operate the pump unit must be located above the tub's maximum water level.
9. All electronic keypads must be routed clear of grounded metal and high voltage wiring.

WIRING INSTRUCTIONS

Examine the pump to determine whether your unit has been supplied with:

- pre-wired 3 foot cord with plug attachment (-C)
- pre-wired 3 foot cord with specially configured plug (-CJ)

- Pump/motor must be wired to the system with the correct incoming voltage **ONLY** by a licensed electrician in accordance with applicable electrical codes. Motor voltage, ampere draw and frequency appear on the motor nameplate.
- **DO NOT EXCEED NAMEPLATE VOLTAGE.**
- **WARNING!** All electrical work must be done by a licensed electrician. Before working on the motors be certain that the electrical power is off at the main junction box. Disconnect the fuse or the circuit breaker and tag the main switch: **"Do not energize this switch. Personnel working on equipment"**.
- The wire used to supply power to the motor must be large enough to carry the necessary amperes for the required length without excessive voltage drop. Cord connected units are pre-wired at the factory. No additional wiring is necessary.
- A solid copper bonding connector, no smaller than no. 8 AWG (8.4mm), must be connected from the accessible wire connector on the motor to all metal parts of the whirlpool bath structure, and to all electrical equipment, metal conduit, and metal piping, within 5 feet (1.5m) of the inside walls of the whirlpool bath when the motor is installed within 5 feet of the inside walls of the whirlpool bath.
- All internal motor wiring is done at the factory. No additional wiring is necessary.

BASIC OPERATION AND MAINTENANCE

- Make sure power is supplied to the pump (circuit breaker is on, GFCI is set, and pump is 'plugged in').
- Fill the tub with water - at a minimum to a level above the highest jet. In the case of some manufacturer's specifications, fill water to the low water level sensor indicator.
- To turn pump on depress airswitch button OR depress on/off button on keypad OR turn on wall timer. (Refer to tub manufacturer's user manual to determine your specific design of tub unit). If AT model pump, the timer will set automatically.
- To turn unit off, depress airswitch button OR depress on/off button on keypad OR turn off wall timer.

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BASIC OPERATION AND MAINTENANCE (cont.)

Other points to keep in mind:

- The pump/motor assembly does not require maintenance. However, the tub and pump should be checked
- semi-annually for leakage of any kind.
- The electric motor uses sealed grease bearings, which do not require additional lubrication. The pump should not be run dry (without water). If this occurs, check the pump for leaks. Under normal conditions the bath water will lubricate and cool the seal assembly while running.
- If the whirlpool tub or spa will be stored during freezing weather, it is suggested that the tub or spa (jets, piping and pump) be completely free of water to avoid damage from freezing.
- We **DO NOT** recommend using sudsing oil or bubble bath during a whirlpool session. The agitation will create an overflow of bubbles.
- Follow tub or spa manufacturer's recommendation for periodic cleaning of the whirlpool tub or spa and system.

TROUBLE SHOOTING GUIDE
for Single Speed pumps

SYMPTOM	POSSIBLE CAUSE	CHECK
PUMP DOES NOT RUN	NO POWER TO PUMP	-Incoming power to the pump.
		-Is circuit breaker on?
		-Is GFCI operating properly?
		-Is pump plugged in?
	AIRSWITCH	-Is the airswitch hose connected to the pump?
	DISCONNECTED	- Is the airswitch hose connected to the actuator button on the tub deck?
PUMP NOT PUMPING PROPERLY	BLOCKAGE OR LEAK	- Jets should be pointed away from the suction inlet so air is not forced into pump suction
		- Is the in-tub suction inlet blocked or covered?
		- Is there any debris in the pump housing?
		- Is there a leak in the piping or the pump?
		- Is there pipe glue in the pump end?
	LOW VOLTAGE	- Is the proper voltage applied to the pump?
		- Is there an extension cord being used?

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