



B Series Pump

Owner's Manual

Before installation, be sure to read all instructions and warnings carefully. Refer to product dataplate(s) for additional operation instruction and specifications.

INSPECTION

Examine the equipment when received. Notify your dealer or carrier of any damage or missing parts. Verify that equipment is of size and model specified.

INSTALLATION LOCATION

Locate system on a solid, level foundation. To reduce the risk of electrical shock, install the system at least 5 feet (1.5M) from the pool. (See previous Warning). Give consideration to any other local codes that may apply. Give consideration to: 1. Drainage-away from pump; 2. Ventilation of pump motor; 3. Access for future servicing and winterizing; 4. Protection from the elements. Pumps without strainer bodies are designed for flooded suction (all suction fittings and suction piping below water level) and will not self-prime. Consequently, the pump must be installed at an elevation that is below water level when pool or spa is filled; however, if suction line valves are installed, the pump may be located above the water level since the valve can be closed for priming. Keep vertical distance to a minimum if you choose to mount pump above water level. Pumps with strainer bodies are self-priming but should be mounted as close to the water level as possible or below for ease in priming.

GENERAL PLUMBING

FOR SOLVENT WELD CONNECTIONS

Rigid or flexible PVC pipe can be used. Pipe ends should be clean and free of any flash caused by the cutting operation. Be sure that the proper adhesive is used on the type of pipe specified. Recommended Adhesives - These are examples only and are not intended to restrict brands:

PVC-PVC Joint
Uni-Weld Pool-Tite 2000
Suregard Flex 20
IPS Weld-On 705

PVC-ABS Joint
Uni-Weld Pool-Tite 2000
Suregard Weld-All No. 5
IPS Weld-On 794

Note: A primer will assure that adhesive joints are superior. Suregard P-3000 has a purple tracer to qualify in areas where codes specify a primer must be used. **Caution:** We recommend that you consider climatic conditions when applying adhesives. Certain atmospheric situations, such as high moisture content, make the adhesive action of certain glues less effective. Check the manufacturer's instructions.

FOR THREADED CONNECTIONS

Use only Teflon tape or equivalent on threaded plumbing connections. Other pipe compounds may damage threads. We do not recommend the use of silicone or petroleum based compounds. DO NOT OVER-TIGHTEN: HAND-TIGHTEN PLUS 1/2 TURN IS SUFFICIENT.

PUMP PLUMBING

Suction pipe should be as large or larger than discharge pipe. Avoid using a suction pipe smaller than pump connection. Keep the piping as straight and short as possible, and of suitable size. Avoid connecting an elbow directly into the pump inlet (use a length of straight pipe to allow a proper entry for the water). Arrange horizontal runs to slope upward to the pump to prevent high spots that could form air pockets. Support the piping independently so that it places no strain on the pump. Keep as much of the suction line as possible below the water level to reduce priming time. Install valves and unions in the pump suction and return lines to facilitate servicing. Valves are recommended for throttling the pump discharge. The valves are essential for pump maintenance if the system is installed below deck level. Suction valves are essential for priming all pumps without strainer bodies installed above water level. Pumps with strainer bodies are self-priming, nevertheless, we recommend the use of a check valve in the suction pipe at or below the water level if the suction lift is more than 5 feet or if the dry suction is more than 10 feet long. Keep the valve in the suction line fully open during operation.

ELECTRICAL DATA

Refer to information on motor nameplate for electrical service data. All motors should have a fused disconnect switch or circuit breaker. Be sure wire size is sufficient for pump HP and distance from power source. Wiring should be done in accordance with applicable codes by a competent electrician. We recommend the installation of a ground fault circuit interrupter for maximum safety.

PUMP START UP

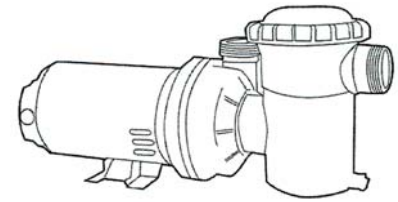
Do not operate pump until it has been primed as water acts to cool and lubricate the seal. For pumps without strainer bodies and located above water, close suction line valve and fill pump with water in order to prime. For pumps with strainer bodies and located above water, prime by removing strainer cover and filling strainer body with water. Pumps located below water level will self-prime if all piping is also below water level. After pump has been primed, energize motor and open all suction and discharge line valves. It may take some time for pump to remove air from the suction lines. If no flow is observed in five minutes, stop the motor and re-prime. If the pump fails to operate, check for air leaks. Refer to Trouble Shooting section. After about 10 minutes of operation, check return fittings for air bubbles. A continuous flow of air indicates leaks in suction line. Locate and correct any leaks immediately.

CONTROLLING THE OUTPUT

Keep the gate valve in the suction line fully open during operation. Should it be necessary to control the output, use a valve in the return line. **Caution:** Do not re-tighten strainer Ring-Lok during operation. **Caution:** Do not operate pump with closed suction or discharge valves.

TWO-SPEED PUMPS

Two-speed models are recommended in a swimming pool when high speed is needed for maximum



IMPORTANT SAFETY INSTRUCTIONS

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

READ AND FOLLOW ALL INSTRUCTIONS.

WARNING

Risk of hair and/or body entrapment! This system can create high suction vacuum and should be installed with appropriate vacuum release skimmers or multiple suction fittings or both.

WARNING

To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.

WARNING

(For cord & plug connected units) **Risk of Electric Shock.** Connect only to a grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.

WARNING

(For cord & plug connected units) **Do not bury cord.** Locate cord to minimize abuse from lawn mowers, hedge trimmers and other equipment.

WARNING

(For cord & plug connected units) To reduce the risk of electric shock, replace damaged cord immediately.

WARNING

(For hot tub and spa pumps) Do not install within an outer enclosure or beneath the skirt of the hot tub or spa, unless so marked.

WARNING

(For cord & plug connected units) To reduce the risk of electric shock, **do not use an extension cord** to connect unit to electric supply; provide a properly located outlet.

WARNING

Locate the system at least five feet (1.5M) from the pool to prevent it being used as a means of access to the pool by young children. (See ANSI/NSPI-8 1996 "Model Barrier Code For Residential Swimming Pools, Spas and Hot Tubs").

CAUTION

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.

CAUTION

To guard against low voltage which can damage the pump motor, use minimum wire gauge, shown below:

Wire Length		
HP	50 ft.	100 ft.
3/4	#14G	#12G
1	#12G	#10G

SAVE THESE INSTRUCTIONS.

filtration at peak periods and whenever turbidity levels are high. At other times, switch to low speed. For backwashing and vacuuming, high speed is required. In spas and hot tubs, use high speed to attain full performance in the hydrotherapy mode. At other times, such as filter/heat cycle mode, use low speed. Low speed provides sufficient flow to activate most spa heaters and provides sufficient flow for filtration. In jetted-tubs, use high speed to attain full performance in the hydrotherapy mode and use low speed for desired low flow conditions. **NOTE:** Two-speed pumps must be in high speed mode to prime.

WINTERIZING

Consult your dealer for advice on winterizing your equipment if freezing temperatures occur in your locality. His knowledge of your equipment makes him the best qualified source of information. Follow his recommendations, and if these include draining the filter system, proceed as follows:

1. If your system does not contain a filter, proceed to step 2. A) For sand filters: BACKWASH for 3 to 5 minutes and then set dial valve to WINTERIZE position. B) For cartridge filters: Clean the filter element and store in dry area. **2.** Drain system by loosening drain plugs (drain plugs will drain without completely removing plug from unit) and/or removing pipe caps.

WATER CHEMISTRY

A proper and consistent use of chemicals is necessary to maintain clean, sanitary water, prevent a spread of germ infection and control the growth of algae which can spoil the appearance and enjoyment of your pool or spa. Chlorine is the most commonly used chemical to provide clean, sanitary water. Dry or liquid chlorine (calcium or sodium hypochlorite) can be used which should be added daily as it's dissipated by dirt and germs as well as by the sun and wind. It's important that the correct level of acidity or alkalinity of the pool water be maintained. This is the pH of your pool with pH 7.0 being neutral. Readings above pH 7.0 are alkaline - readings below are acid. A desirable range is 7.2 - 7.4.

PUMP MAINTENANCE

1) Motors are self-lubricated-no lubrication required. 2) Clean hair and lint strainer if you have a strainer body pump. 3) Visually inspect motor for blockage of air vents on motor shell. Remove any debris after shutting off breaker. 4) Shaft seals may become worn and must be replaced if leakage is observed.

CLEANING HAIR AND LINT STRAINER

Switch off the power. Close the valves in the suction and return line. Unscrew strainer Ring-Lok counter-clockwise and remove the strainer cover from the hair and lint strainer and lift out the strainer basket. Clean and replace the basket. Take care to seat the basket properly. Clean the O-Ring and re-lubricate with petroleum jelly if necessary. Clean O-ring seats on the cover and strainer. Refit the cover and strainer Ring-Lok (hand-tighten only) and open the valves. Put the pump back into operation. **Caution:** Do not re-tighten strainer Ring-Lok during operation.

SERVICE AND REPAIR PARTS

Refer all service to your local dealer as his knowledge of your equipment makes him the best qualified source of information. Order all repair parts through your dealer. Give the following information when ordering repair parts: Unit nameplate date and description of part.

PARTS FOR MODEL B PUMP

FIG NO.	PART NO.	DESCRIPTION
1	42-1678-09-R	Cover Ring-Lok™
2	39-0753-10-R	Strainer Cover
3	47-0352-41-R	O-Ring 4-7/8 x 5-1/4 x 3/16
4	16-0729-02-R	Strainer Basket
5	16-1131-20-K	Strainer / Case Assy. 9 o'clock discharge
6	10-1462-07-R	Eye Seal
7	05-3862-06-R	Impeller S7B
	05-3863-05-R	Impeller S1B
	05-3864-04-R	Impeller S15B
8	10-0802-08-R	Mechanical Seal
9	47-0358-50-R	Square Ring 5-5/8 x 3/16
10	02-1672-45-R	Bracket
11		Motor (Contact your local dealer)
12	31-1609-06-R2	Plug with O-ring (2 per bag)
14	14-4414-06-R5	Fastener (Qty. 5 Req'd) (5 per bag)

TROUBLESHOOTING

MOTOR DOES NOT START

The disconnect switch or circuit breaker is in the OFF position; Fuses blown or thermal overload open; Locked motor shaft; Motor windings burned out; Defective starting switch inside single-phase motor or defective wiring; Low voltage in outlet.

MOTOR DOES NOT REACH FULL SPEED

Low voltage; Two speed model set on low speed; Motor windings connected for wrong voltage on dual voltage model.

MOTOR OVERHEATS (protector trips)

Low voltage; Motor windings connected for wrong voltage on dual voltage model; Inadequate ventilation.

PUMP DELIVERS NO WATER/ LOW PUMP PRESSURE

Pump is not primed; Closed valve in suction or discharge line; Leakage of air into suction system; Impeller clogged; 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 in lint strainer; Dirty filter; Impeller clogged; Wrong rotation (3 phase only); Pump running at reduced speed; Discharge valve or inlet fittings open too much.

HIGH PUMP PRESSURE

Discharge valve or inlet fittings closed too much; Return lines too small; Dirty filter.

NOISY PUMP AND MOTOR

Plugged basket in skimmer or hair in lint strainer; Worn motor bearings; Valve in suction line partly closed or line partly plugged; Vacuum hose plugged or too small; Pump not supported properly.

LEAKAGE OF WATER AT SHAFT

Shaft seal requires replacement.

AIR BUBBLES AT INLET FITTINGS

Leakage of air into suction line at valve stem or connections; Strainer needs cleaning; Restriction in suction line; Low water level in pool.

NOTE: If these recommendations do not solve your particular problem(s), please contact your local dealer for service.

JACUZZI® POOL PRODUCTS - Limited Warranty

Cantar Pool Products (the Company or CPP) warrants Jacuzzi® pool products to be free of defects in material and workmanship for a period of **36** months from the date of purchase or **48** months from the date of manufacture, whichever comes first, with the following exceptions: **Shaft Seals** - For all pumps with the Jacuzzi® patented "dry-run" heat sink, the shaft seal carries an *unconditional* warranty against damage or failure for 2 years from date of purchase/installation.

Light Bulbs - FullMoon Watercolor LED light bulbs are warranted for 1 year from date of purchase; incandescent bulbs are warranted for 90 days from date of purchase.

Misc. - Filter elements, DE grids, white-goods, strainer baskets, strainer basket "flap" and "priming tube", pressure gauges, square rings, o-rings, gaskets, and all replacement parts are warranted for 1 year from the date of purchase.

In order to activate this 3-year warranty, Jacuzzi® products may be registered with Cantar Pool Products by either of the following methods:

- Mail-in Warranty Registration Card
- Online at www.cantar.com

This warranty extends only to the original retail purchaser and only during the time in which the original retail purchaser occupies the site where the product was originally installed. CPP's warranty obligation with regard to equipment not of its own manufacture is limited to the warranty actually extended to CPP by its suppliers. **THIS WARRANTY IS EFFECTIVE January 1, 2005. ANY IMPLIED WARRANTIES WHICH THE PURCHASER MAY HAVE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE WARRANTY PERIOD.** Some US states or Canadian provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. **IN NO EVENT SHALL CPP BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.** Some US states or Canadian provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you.

This warranty applies to products used in swimming pool, spa, & aquaculture applications only and does not apply to any product which has been subjected to negligence, alteration, accident, abuse, misuse, improper installation, abrasives, corrosion and/or electrolysis, improper voltage supply, vandalism, civil disturbances, or acts of God (including but not limited to freeze damage, lightning strikes, and other damage caused by catastrophic events). The only warranties authorized by CPP are those set forth herein. CPP does not authorize other persons to extend any warranties with respect to its products, nor will CPP assume liability for any unauthorized warranties made in connection with the sale of its products. The Company will not be responsible for any statements that are made or published, written or oral, which are misleading or inconsistent with the facts as published in the literature or specifications furnished by the Company.

WARRANTY CLAIM PROCEDURE

Warranty claims shall be made by contacting the installing/selling, builder, dealer, or retailer (point of purchase) or the Jacuzzi® pool products distributor in your area. All equipment must be inspected by a local Company representative or at the factory before warranty is authorized. All charges or expenses for freight to and from the factory, removal and reinstallation of the products, or installation of a replacement product are the responsibility of the purchaser unless otherwise expressly authorized by Cantar Pool Products. The Company, at its discretion, may repair or replace free of charge (F.O.B. factory in Toronto, Ontario) any product that proves defective within the warranty period, or it may issue credit in the amount of the invoice of the defective equipment in lieu of repair or replacement. The Company reserves the right to substitute new or improved equipment on any replacements. The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by any US state law or Canadian provincial law.

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