



THE BEAUTY OF WATER.
THE SCIENCE OF RENEWAL.



HERCULES II

Hydro Massage Pumps

PX-Series Pump Models

Also applicable for PB-Series Brushed Motor Pumps

Installation & Operating Manual



Important Safety Instructions

**PLEASE READ CAREFULLY PRIOR TO
Troubleshooting and Servicing Electrical Equipment**

Definitions

WARNING May cause serious injuries or death

CAUTION May cause property damage

For information on NuWhirl Instructions, see:
www.nuwhirl.com/docs/product-instructions.html

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

WARNING: Use and follow these instructions along with all instructions that have been provided with your whirlpool bathtub in order to fully enjoy the bathtub safely.

WARNING: Failure to install in strict accordance with each and every instruction above may compromise the system, which may cause injury to persons and/or property.

CAUTION: Verify compatibility or suitability of product in the intended application and environment. The product should be tested for compatibility under specific service or simulated duplicate conditions, to determine the suitability and use. Chemical resistance (chlorine, chloramines, ozone, and other chemicals) of materials can vary widely, and is affected by factors such as temperature, aeration, oxidizing agents and fluid movement.

Use this unit only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer. Any improper installation or misuse of the equipment may result in injury to the user and will void the warranty.

Save these instructions.

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**WARNING: INSTALLATION MANUAL
NOT FOR USE BY END-USERS.**

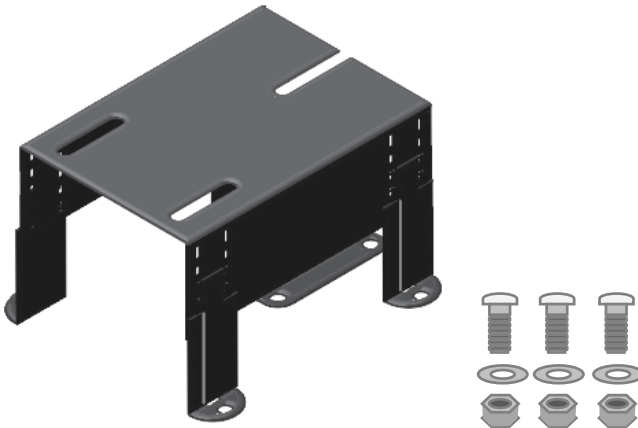
All Installation Procedures are for use by Tub
Manufacturers or Qualified Service
Personnel ONLY.



**USE AND FOLLOW THESE INSTRUCTIONS
ALONG WITH ALL INSTRUCTIONS THAT
HAVE BEEN PROVIDED.**



Tools & Pre-Installation Checklist



Note: Pump Stands 600110 (3-6" Adjustable) and 600111 (3" Fixed Height) for Hercules II PX-Series Pumps are sold separately by NuWhirl and include required installation hardware to connect the Pump with the Stand.

CAUTION Verify compatibility or suitability of product in the intended application and environment. The product should be tested for compatibility under specific service or simulated duplicate conditions, to determine the suitability and use. Chemical resistance (chlorine, chloramines, ozone, and other chemicals) of materials can vary widely, and is affected by factors such as temperature, aeration, oxidizing agents and fluid movement.

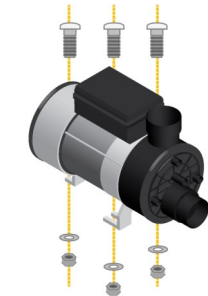
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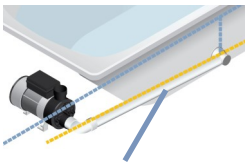
Installation & Operating Manual



1. The pump must be installed on the outside of the tub below the normal water level.



2. The pump should be secured firmly in place with bolts or screws to avoid noise and vibration.



**UPWARD
SLOPE:
~1/4" PER FT**

3. The elevation of the Pump should be leveled which allows for a continual rise of the Suction Line from the Tub Suction Port to the Pump Suction Port. The upward slope of the piping should be approximately 1/4" per foot. Flexible piping is also recommended.

This will assure proper drainage, prevent the build-up of air pockets during operation, reduce transmitting vibrations and allow for ease of accessing the pump for service.



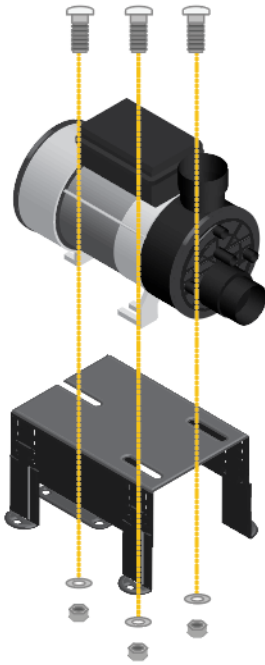
**BELOW
HIGHEST
JET OPENING**

4. Ensure the elevation of the Pump is leveled where the top Outlet Port is below the Highest jet opening to ensure proper priming and prevent the pump from running dry at start-up.

CAUTION: Do not position the Piping which causes the Pump to carry the weight of the Piping. All Piping must be independently supported.



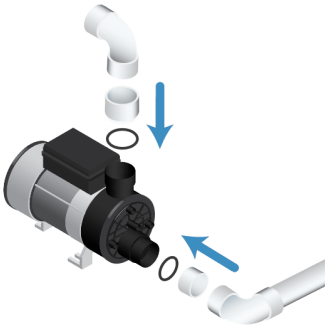
Installation Instructions



1. After completing the Pre-Installation Checklist, position the Pump and applicable Pump Stand.

Securely fasten the Pump in place with standard bolts or screws.

Note For PX-Series Pump Installations with the 600110 or 600111 Pump Stand, use the hardware enclosed to firmly secure the Pump to the Pump Stand.



2. Tighten the pump fittings at the suction and discharge **hand tight only**. The pump fitting utilizes an o-ring seal that is all that is required for a leak free joint.

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WARNING Hand Tighten Only. Do not use a pipe wrench or strap wrench of any kind. Over tightening of the nut may cause failure of the joint.

WARNING The use of teflon tape or pipe compound on the fitting threads is prohibited, as these materials may react adversely with the materials used in the pump and fittings and cause failure of the joint.

WARNING The pump contains a mechanical rotary seal that may become damaged or worn over time. It is recommended to provide a drip pan and inspection access so that any leakage can be seen and repaired. System leaks must be repaired immediately to prevent harm to personnel and to prevent damage to system or structural components.

CAUTION The pump motor is equipped with an automatic thermal overload protector. Provide adequate ventilation to the pump at installation to avoid nuisance tripping. The pump should be protected from debris, water, weather, dust, and direct sunlight.



Pump Wiring

1. Make sure power is off from the source before installation.
2. The pump must be wired for the proper voltage by a licensed electrician in accordance with all applicable electrical codes.
3. The voltage, ampere draw, and frequency are listed on the pump nameplate.

WARNING: Do not exceed nameplate voltage.



4. Install an outlet receptacle or junction box (depending on the power cord configuration supplied on the pump) within range of the power cord.
5. The conductors to supply power to the outlet receptacle or junction box must be large enough to carry the necessary amperes for the required length without excessive voltage drop.
6. The power to the pump should be on a dedicated branch circuit that is protected by a Ground-Fault Circuit Interrupter (GFCI). The GFCI should be readily accessible for routine operational testing.
7. All internal wiring has been completed at the factory. No additional wiring is required in the terminal box compartment.
8. Current collectors, and all other metal in contact with the tub water shall be bonded together with individual solid copper bonding conductors not smaller than #8 AWG. A bonding lug for this purpose is provided on PX-series, metal-bodied pumps.
9. Follow local code requirements for properly grounding and bonding.

General Operating Instructions

Note The Water System-equipped tub system may be operated with TOUCHSTONE® Electronic Controls. **For specific operations related to a tub equipped with TOUCHSTONE, please refer to the Dual Load Controller Manual MANCIMC296, Master Bath Controller MANCMBC298 or the document supplied either with the tub or from your Sales Representative.**

These operating instructions should be used in conjunction with other instructions and warnings provided with the whirl-pool bathtub in order to fully understand and safely utilize the tub. Upon activation of the feature, allow a few moments for the pump to start delivering water from the jets.

Air button control, The Water System is activated by pressing the “Water” Button. Ensure first that there is sufficient water in the Tub to at least cover the Jets. To stop the pump, press the “Water” button again. Please refer to the controller manual supplied with the tub for specific operations.



Keypad control The action of the keys may require press and release or press and hold actions to perform functions. Please refer to the controller manual supplied with the tub for specific operations.



Note Combination whirlpool Water and Infusion® Microbubble systems are interlocked and cannot be used at the same time. Activating one system will automatically turn off the other, if it's running. Combination Water and Air system may operate together.

WARNING: As with all bathtubs, do not allow children to use this product unless they are closely supervised by an adult at all times.



General Operating Instructions (continued)

Additional Notes on Pump Operations

1. The pump is not self-priming. In order to avoid damage to the seal in the pump, always fill the bathtub to at least 1" above the highest jet in the system before starting the pump. This will not only ensure that the pump will not run in a dry condition, but will also avoid water from being discharged outside of the bathtub and causing a slipping hazard on the floor.
2. The pump does not require periodic maintenance, or lubrication. It is recommended that the pump and circulating piping be checked periodically for leakage. It is also recommended that the Ground-Fault Circuit Interrupter (GFCI) protecting the pump electrical circuit be tested per the GFCI manufacturers instructions.
3. This pump is protected by an automatic thermal overload protection device. The motor will automatically shut off due to low voltage, overload, blockage, or other abnormal conditions, before heat damage can occur to the pump. The pump will then restart when a safe operating temperature is reached. Should this occur, the cause of overheating must be determined by the tub manufacturer or qualified service personnel and resolved for further proper operation.
4. The ambient temperature classification for PB-series Brush Motor pumps is 104°F (40°C); Hercules II PX-series pumps is 122°F (50°C).
5. The pump has been designed and tested to give trouble-free operation. If the system does not operate as described, stop the pump and contact the bathtub manufacturer or qualified service personnel.

WARNING: All service performed on the whirlpool system must be performed by a qualified service technician in accordance with applicable codes. Before working on electrical equipment, be certain that all the power feeds are off at the source.

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Retain this manual for future reference



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