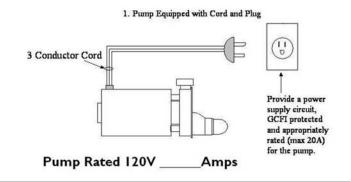
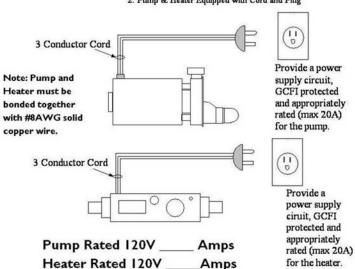
# CONFIGURATION 1 One Pump Systems



#### **CONFIGURATION 2**

Pump & Heater Systems

2. Pump & Heater Equipped with Cord and Plug



# **RETAIN THIS MANUAL FOR FUTURE REFERENCE**

© NuWhirl Systems Corporation 2011

P/N 900104 Revision D



# WHIRLPOOL BATHTUB Installation and Operating Instructions

To be provided to the Bathtub Owner/User

#### **SAFETY INSTRUCTIONS**

# INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS

**WARNING:** When installing and using this unit, basic precautions should always be followed, including the following:

### READ AND FOLLOW ALL INSTRUCTIONS

**DANGER:** To reduce the risk of injury, do not permit children or physically limited persons to use this unit unless they are closely supervised at all times.

**CAUTION:** Prolonged submergence in water (especially hot water) may be harmful. Consult your physician if you want to use a whirlpool and/or air-hydrotherapy system for more than 20 minutes at a time. If you are under medical care, consult with your physician for guidelines as to water temperature and duration of whirlpool sessions.

- 1. 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.
- 2. Never drop or insert any object into any opening of components of the whirlpool system.
- 3. Do not operate this unit without the suction cover over the suction fitting. Do not let hair, especially long hair, near the suction cover.
- 4. **WARNING:** Risk of electrical shock. The unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). A GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective, and must be replaced. If the GFCI interrupts power to the bathtub without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. DO NOT USE THE UNIT. Disconnect the hydromassage bathtub, and have the problem corrected by a qualified service technician before using.

Follow all instructions closely. Any misuse, modification, or alteration of the unit will void all certifications and warranties.

## **SAVE THESE INSTRUCTIONS**

For your records, and future reference, please fill in data below:

MANUFACTURER:	
MODEL #:	
SERIAL #:	

#### **INSTALLATION INSTRUCTIONS**

**WARNING:** When installing electrical products, basic precautions should always be followed, including the following:

- 1. **DANGER: RISK OF ELECTRIC SHOCK.** Connect only to a circuit protected by a ground-fault circuit-interrupter (GFCI).
- 2. A qualified electrician in accordance with all applicable local and national codes must perform all wiring, service, and repair. Failure to do so may pose an electrical hazard
- 3. Before making any electrical connections, make certain that the electrical power is turned OFF at the circuit breaker, and take measures to ensure that it cannot accidentally be turned on again.
- 4. Install an appropriate access door or panel for inspection or possible service.
- 5. Grounding is required. The unit shall be installed and grounded by a qualified electrician before use.
- 6. It is important that the wiring be safely completed. When cutting conduits, be sure to deburr the edges and remove any sharp edges that may cut or damage the wire. Use the proper electrical connectors and bushings for all installations.
- 7. Building materials and wiring should be routed away from the pump body or other heat producing components of the system.
- 8. The metal enclosure of all electrical components, current collectors and other metal in contact with the tub water shall be bonded together by individual solid copper bonding conductors not smaller than #8AWG (8.4mm²).

#### **PUMP POSITIONING**

For easier installation and possible removal of the pump, and to avoid leaks, position the pump so that the suction and discharge lines are aligned properly and connections are made without any strain on the plumbing. For proper drainage of the system, there should be at least 1/4" per foot of slope from the pump to the suction fitting. Be sure the O-rings are in place before connecting the pump unions. Tighten the pump unions HAND TIGHT ONLY. Do not use tools to tighten the unions. Do not apply teflon tape or plumbers putty to the threads of the pump, they are not necessary to seal the joint, and may cause damage to the pump material, and void the warranty.

#### **ELECTRICAL INSTALLATION**

#### **Power Source**

The system may be provided with one or more electrical loads. Refer to the nameplate of the load(s) for the electrical ratings and requirements. The power supply must be provided per the requirements of the National Electrical Code and the local authority having jurisdiction. The power supply must be properly grounded and protected by a suitable ground-fault circuit-interrupter (GFCI).

#### **Electrical Connections**

If more than one electrical load is provided, all must be of the same type in terms of power connections, either equipped with power supply cords and plugs or with a provision for permanent power supply connections.

#### 1. Units Provided with Cord and Plug

Provide a power supply outlet (receptacle) appropriately rated and installed for each load. For voltage and current requirements refer to the nameplate on each load. Follow all safety requirements as listed in the **SAFETY INSTRUCTIONS**. Having

#### WARRANTY

# LIMITED WARRANTY

NuWhirl Systems Corp. ("NuWhirl") warrants to the original purchaser that all products will be free of material defects in materials and workmanship for a period of

- Ten (10) years in the case of pumps and heaters used in residential applications;
- Five (5) years in the case of non-plated plastic fittings used in all applications;
- One (1) year in the case of all other products including, without limitation, air blowers, electronic controls and lights, and plated plastic fittings used in all applications and pumps and heaters used in commercial applications;

in each case, beginning on the date of purchase. This warranty may not be transferred or assigned to anyone other than the original purchaser.

In the event of any such defect, NuWhirl may, in its sole discretion, repair or replace the defective product or refund the purchase price thereof.

To obtain warranty service, purchaser must return product to NuWhirl during the warranty period. NuWhirl swill pay the freight costs for the return of any products for warranty service. Purchaser is responsible for all other costs incurred in obtaining warranty service, including, without limitation, all cost of removal and rein-stallation of product. Purchaser is responsible for all freight costs for return of products not covered by warranty or returned for reason other than warranty service.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

NUWHIRL'S LIABILITY, IF ANY, WHETHER ARISING FROM BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, INDEMNITY, STRICT LIABILITY OR OTHER TORT, OR OTHERWISE WITH
RESPECT TO ITS PRODUCTS IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PRICE OF THE
PARTICULAR GOODS OR SERVICES GIVING RISE TO THE LIABILITY. IN NO EVENT SHALL
NUWHIRL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, WATER DAMAGE TO STRUCTURES OR OTHER
PROPERTY.

The foregoing warranty shall not apply to any product which:

- has been damaged by or subject to negligence, abuse, misuse, misapplication, improper installation, alteration or modification, chemical corrosion, or improper maintenance;
- has been used in a manner contrary to written instructions supplied with the product;
- has been altered or repaired by anyone not either an authorized representative of NuWhirl or at the direction of such a representative;
- is due to normal industry color variation;
- has had the model identification or serial number removed, defaced or altered; or
- requires repair or replacement due to wear and tear, including, without limitation, worn-out motor brushes

There will be a charge for replacement or service if products are returned for any of the reasons listed above and purchaser will be responsible for all freight costs.

Products, systems, components and fixtures not supplied or manufactured by NuWhirl may be installed in connection with NuWhirl products. NuWhirl makes no warranty with respect to such products, systems, components and fixtures.

NuWhirl does not perform and does not warrant the installation (including, without limitation, plumbing and electrical hookup) of NuWhirl products or any other products, systems, components or fixtures installed in connection therewith and is not responsible and accepts no liability therefor.

NuWhirl reserves the sole authority to make any type of warranties or representations concerning NuWhirl or its products. This warranty cannot be modified except in a writing signed by an authorized officer of NuWhirl. NuWhirl will not be responsible for any warranties or representations made by any third party, including dealers, retailers, distributors, or contractors.

<^^^^^^^

#### **CARE AND CLEANING INSTRUCTIONS**

Regular care of your whirlpool bath will keep it clean and working at its best. This care should include the tub, the trim and fittings and the circulation system.

**WARNING:** Under no circumstances use wire brushes, metal sponges, knives, steel wool or scouring pads on any part of the tub, nor solvents that contain petroleum distillates such as acetone, paint thinner, benzene or abrasive cleanser on any part of the tub, nor ammonia or chlorine-based cleansing agents on any plated surface. These will remove the plating, thereby voiding the warranty on the plated finish.

#### POST-INSTALLATION CLEANING

For a one time cleaning of the whirlpool bath after installation, proceed as follows:

- 1. Remove any blobs of plaster and/or dabs of paint that have adhered to the surface by gently scraping them off with the sharpened edge of a makeshift spatula fashioned of wood.
- 2. Oil or grease spots can be lifted with denatured alcohol.
- 3. Use liquid, non-bleach and automatic dishwashing detergent to remove any construction residue.
- 4. Lightly rubbing with a liquid cleaning compound (such as used for cars), followed by a light application of liquid or paste wax, will restore luster to any dulled surface areas.
- 5. Clean plated surfaces with soap and warm water only.

#### **REGULAR CLEANING**

Because of the detrimental effects that mineral deposits and soap scum have on finished surfaces, it is important to keep your bathtub and the fixtures of your whirlpool bath clean on a regular basis. The best way to counteract the soiling and oftentimes corrosive action of these residues is to prevent water from remaining on any finished surface.

For regular maintenance-type cleaning of the whirlpool bath, proceed as follows:

- 1. After each use, rinse all exposed surfaces of the bathtub with clear warm water, then wipe off all standing water until completely dry.
- 2. Once a week, clean all exposed surfaces of the bathtub with a liquid-type (non-abrasive) detergent and a soft sponge or cloth and warm water. Check for stubborn spots. Oily or greasy spots can be lifted with denatured alcohol. Rinse and dry as in Step 1.
- 3. Once per month, clean the circulation system. Fill the tub with warm water as for taking a bath, and add either household bleach (approximately 8 ounces) or automatic dishwasher detergent (2-3 tablespoons) to the water. Run the whirlpool system for ten minutes to allow for the cleaning to occur. Stop the whirlpool system and drain the tub. Rinse and dry as in Step 1.

The jet faceplates, the suction cover and the air control knob can all be removed and replaced with relative ease to clean and/or to check for possible obstructions such as hair, foreign objects and/or accumulated particles.

CAUTION: Do not operate the whirlpool system with any parts or fittings removed.

ensured that all installation is completed properly and the units are in the OFF position, plug the cords into the appropriate receptacle(s).

#### **Air Switch Connections**

An air switch is usually an integral part of the pump. For separate control units, refer to the instructions provided with the control.

Prior to system validation testing, verify that the tubing connecting the air button on the tub deck and the air switch on the pump is still connected at both ends, and that the tubing has not been pinched, twisted, or kinked during tub installation. Successive pressings of the air button should turn the pump on and off.

#### **System Validation**

To make sure your whirlpool system-equipped bathtub is correctly installed, run the following system test:

- 1. With the pump OFF, fill the tub and check for leaks. Check by hand where visual verification is not possible.
- 2. Turn the pump on and let it run for at least 15 minutes. Check for leaks while the pump is running and again after the pump is turned off. Check by hand where visual verification is not possible. Refer all service issues to your supplier.

Page 6 Page 3

#### **OPERATING AND USE INSTRUCTIONS**

Your new whirlpool bath was designed and manufactured to give you years of trouble-free relaxation and enjoyment when operated and maintained properly.

The whirlpool system circulates the bath water and combines it with air in specially designed jets to create a pleasing massaging action.

The operation of your whirlpool system can be controlled in several ways:

- Time and duration are determined by turning the pump on or off. This can be
  done manually through a push button control on the bathtub, by an electric timer
  installed on the wall, or by an integral timer in the pump with a switch on the tub.
- Control the jet direction by turning the eyeballs of the jets in the desired direction.
   If so provided, control the jet intensity by turning the face of the jet clockwise for full flow, and counter-clockwise for less flow.
- Control the degree of aeration by opening and closing the air-admitting valve by rotating the knob located on the tub.
- 1. Use cool to cold water if you want a refreshing, invigorating session.
- 2. Use tepid to moderately warm water if you simply want to relax and unwind.
- 3. Use warm water if you want to ease minor muscular tension. Read and follow the information below regarding hyperthermia. However under no circumstances bathe in water above 104°F (40°C).
- 4. The massaging effect created by the jet flow increases in direct proportion to the temperature and the duration of the hydromassage. However these factors also directly increase the chances of inducing hyperthermia. Should you become drowsy during your first session, get out of the tub right away. Try the next session at a cooler temperature.
- 5. Before turning on the system, make sure that all of the jets are covered by at least 1" of water, and that none of the jets are pointing upward to prevent splash out.
- 6. Use the pushbutton on the tub to turn the whirlpool system on.
- 7. Direct the massage action on the jet by placing a finger on the jet eyeball and directing it to the body area desired.
- 8. Vary the intensity of the massaging action with the air control knob located on or near the rim of the tub. a) For less intensity (less air/more water), turn the air control knob clockwise. b) For greater intensity (more air/less water), turn the air control knob counterclockwise. c) If so provided, you can vary the massaging action for a particular jet by rotating the face of the jet counterclockwise to reduce the flow, and clockwise to increase the flow.
- 9. To end the session, use the pushbutton on the bathtub to turn the whirlpool system off. If equipped with a timer, the timer will do this automatically. After the whirlpool action has stopped, the tub may be used for regular bathing purposes.
- 10. Children, handicapped or partially incapacitated persons should not use the tub without supervision, especially when warm water is used.
- 11. Users with long hair should tie up their hair to prevent hair from entering the system and clogging the jets or suction opening.
- 12. Keep small objects such as beads, buttons, and toys out of the tub. They could enter the system through the jets or the suction openings and clog up the system and/or damage the pump.
- 13. Although the pump includes a mechanical shaft seal that can withstand dryrunning operation for short periods of time, to do so will eventually lead to seal failure and leakage. Do not run the whirlpool system unless there is water in the tub.

Do not turn the whirlpool system on until the bathtub is completely filled (between 1-2 inches above the rim of the highest jet).

Do not add any liquids or powders to the water, especially foamy, bubbly or oily types.

**WARNING:** Do not use the whirlpool bath if you have taken alcohol, drugs, or medication, which can greatly increase the risk of fatal hyperthermia.

Your physiological response to a whirlpool bath depends on your age, health, and medical history. When you first use your new whirlpool bath, limit your first session to five to ten minutes. Use moderately warm water. These limits can be increased in future sessions for additional massaging effects as you learn your tolerance for longer and/or warmer baths. If you develop a headache or become dizzy or nauseous, get out at once, and cool off under a shower. Seek medical help if the symptoms persist. Prolonged immersion in hot water can induce hyperthermia.

**Hyperthermia** occurs when the internal temperature of the body reaches a level above the normal body temperature of 98.6°F (37°C). This level is different for different individuals and conditions. Consult your doctor regarding a safe temperature for your use in the whirlpool system. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting. The effects of hyperthermia are as follows:

- a) Failure to perceive heat
- b) Failure to recognize the need to exit the whirlpool bath
- c) Unawareness of impending hazard
- d) Fetal damage in pregnant women
- e) Physical inability to exit the whirlpool bath
- f) Unconsciousness resulting in the danger of drowning

Consult with your doctor before using the whirlpool bath for physical therapy for an injury or disorder. Do not take a whirlpool bath without your doctor's consent if you are (or suspect you may be) pregnant, ill, or if you suffer from high blood pressure, heart disease, or other health problems. Your doctor can recommend the appropriate duration and water temperature for you to use.

**IMPORTANT:** If your system is provided with other components such as a heater or light, refer to the instructions supplied with that component for operation.

#### MAINTENANCE INSTRUCTIONS

Your whirlpool bathtub does not require any routine maintenance on your part, except for cleaning. There are no user serviceable parts in the system. A qualified service technician, following all applicable local and national codes, must perform all service, repairs, and electrical wiring.

No maintenance is required for the pump or the motor powering it. The motor is lubricated for life. The shaft seal in the pump is water lubricated and self-adjusting.

NOTE: The pump powering the whirlpool system is protected by a thermal overload component. If low voltage conditions occur in your area, or if the area that the pump is located becomes excessively warm, the overload component will be activated before damage to the motor occurs. If this happens, the pump will shut off and no water will flow. The pump will not respond to the controls. After the motor cools down, the overload component resets itself, and the pump will respond to the controls again. If this happens frequently, consult a service technician to determine the cause and make corrections.