

for thirty minutes and shut down automatically. If a longer bathing period is desired, press the logo to start it again. If your tub is equipped with the optional low water protection, there will be a metal (chrome or brass) stud sensor mounted approximately 1" above the highest jet (not counting neck jets). The whirlpool system will not turn on until this sensor is covered with water. If the tub is running and the water level drops below the sensor, the pump will shut down automatically in five to seven seconds.

If your tub has the optional ITT Variable Speed Pump, press the button once to turn on the pump. It will start at high R.P.M. then automatically begin to slow down. Press the button a second time to set the pump at the desired R.P.M. as it drops.

If you don't push the button the pump will automatically slow down and switch to "pulse" mode. You can switch to pulse mode at any R.P.M. by pressing the button a third time. To turn the pump off, push

the button a fourth time.

WHIRLPOOL JETS – These are fully adjustable and directional. To adjust the flow of water coming from the jets, rotate the escutcheon. Clockwise will reduce flow, counter clockwise will increase flow. To adjust the direction of the jets, point the eyeball in the desired direction. There are no moving parts inside.

AIR CONTROL VALVE – Six jet systems have one air control, eight and ten jet systems have two air controls. The air control adjusts the amount of air going to the jets. With the valve open, air is drawn in from outside the tub and mixed with the water flowing through the jets. Clockwise reduces air flow, and counter clockwise increases air flow.

ANTI-VORTEX SAFETY SUCTION – This is the intake where water is drawn in for the pump. Do not operate the whirlpool system without the suction cover in place.

USER CARE AND MAINTENANCE

WARNING: Any service or maintenance other than described below should be performed by a qualified service representative. Call your Hydro Systems dealer for the name of a qualified service representative near you.

To maintain the "like new" look of your Hydro Systems acrylic or gelcoat bathtub, we recommend the following easy care procedures.

- Never use abrasive cleaners
- Use common household, non-abrasive cleaners for most cleaning jobs such as Lysol Basin, Tub & Tile Cleaner®, Glass Plus®, Simple Green®, Mr. Clean, and Top Job, or a mild dishwashing detergent such as Ivory® Liquid. Follow the manufacturers' directions and precautions. Rinse well and dry with a clean cloth.
- Do not use products such as acetone (nail polish remover), dry cleaning solution, lacquer thinners, gasoline, pine oil, wintergreen, etc.

- Use Isopropyl (rubbing) alcohol to clean grease, oil, paint or ink. Dry with a clean soft cloth.
- Avoid using razor blades, putty knives, or other metal instruments that might scratch the surface. Small scratches can be removed by applying a thin coat of automotive paste wax and buffing lightly with a clean cloth. For deeper scratches, sand the surface lightly with 600 grit "wet or dry" sand paper, rub out with fine buffing compound, and apply a coat of wax.

WARNING: Flush the whirlpool system periodically (at least every 90 days) as follows: Fill the bathtub with water, add 1/2 cup of household bleach, run the whirlpool system for 10 minutes, drain completely. Rinse the bathtub and refill with water, run the whirlpool system for 5 minutes, drain completely. Wipe dry with a soft cloth.

Limited Warranty

This limited warranty is extended to the first user for a period of 10 years from date of purchase and is not enforceable by any other party. HYDRO SYSTEMS, at its option will repair or replace any defective or malfunctioning part of its system or bathtub, excluding pump, controller or accessories which may be guaranteed separately by their manufacturer. This limited warranty does not include, and HYDRO SYSTEMS does not assume, any liability for the finish or the wearing quality on any plated product.

All parts, labor and material necessary to repair the system or bathtub are covered except parts excluded above. If repairs cannot be made on the premises, the cost of removal or installation of a replacement system or bathtub and the cost of transportation to and from HYDRO SYSTEMS are not covered.

Upon discovery of a defect or malfunction, notify supplier or installer within ten (10) days and include a description of the malfunction or defect, the date the system was purchased and installed, the name and address of the seller, and the name, address and residence and business

telephone numbers of the person sending the notice together with information as to when the system can be inspected. To obtain performance of guaranty obligations, contact HYDRO SYSTEMS, 29132 Avenue Paine, Valencia, CA 91355 area code (661) 775-0686.

HYDRO SYSTEMS assumes no liability for damage caused by improper installation, abuse, misuse, alteration, accident or acts of God, moving or attempting to move the system or bathtub from original installation, intentional reckless or negligent acts of any person, or repairs or attempt thereof by any firm or person other than HYDRO SYSTEMS or its representative, loss of use, incidental or consequential damages, or any cost or expense incurred.

No dealer or other person has any authority to make any warranties or representations concerning HYDRO SYSTEMS or its products. Accordingly, HYDRO SYSTEMS is not responsible for any such warranties or representations.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Hydro Systems Designer Series
Whirlpool Bathtubs are listed by:

Hydro Systems Designer Series
Whirlpool Bathtubs meet or exceed the requirements of:

ANSI Z124.1
ASME/ANSI A 112.19.7M
ASME/ANSI A 112.19.8M



U.L. LISTED – Pumps



U.L. LISTED – Hydromassage Bathtubs



IAPMO LISTED –
Uniform Swimming Pool, Spa & Hot Tub Code



IAPMO LISTED –
Uniform Plumbing Code



e mail: sales@hydrosystem.com
URL: <http://www.hydrosystem.com>

HYDRO SYSTEMS, INC., 29132 Avenue Paine, Valencia, CA 91355 • (661) 775-0686 • FAX (661) 775-0668

IMPORTANT SAFETY INSTRUCTIONS

GENERAL INSTRUCTIONS

MR. INSTALLER –
Please pass these
IMPORTANT
instructions along
to the homeowner!



IMPORTANT SAFETY INSTRUCTIONS

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

WARNING: When using your Hydro Systems whirlpool tub, basic precautions should be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS.

1. **DANGER:** To reduce the risk of injury, do not permit children to use this unit unless they are closely supervised at all times.
2. Use this unit only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
3. Never drop or insert any object into any opening.
4. Do not operate this unit without the cover over the suction fitting.
5. The unit must be connected only to a dedicated electrical supply circuit that is protected by a Ground Fault Circuit Interrupter (GFCI). The GFCI must be provided by the installer and should be tested on a routine basis by the homeowner. 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 there is a ground current flowing, indicating the possibility of an electric shock. Do not use the tub. Disconnect the power and have the problem corrected by a qualified service representative. Re-test the GFCI and only when it is operating properly may the whirlpool tub be used.

6. A green colored terminal marked "Ground" is provided on the exterior of the control box. To reduce the risk of electric shock, connect this terminal to the grounding terminal of your electric service or supply panel with a conductor equivalent in size to the circuit conductors supplying this equipment.

– SAVE THESE INSTRUCTIONS –

INSTALLATION INSTRUCTIONS

Hydro Systems bathtubs and whirlpool bathtubs are designed and engineered for easy installation and years of trouble-free enjoyment. Installation is easy if you follow the step-by-step instructions. Please read all instructions before you begin the installation.

WARNING: – When using electrical products, basic precautions, should always be followed, including the following:

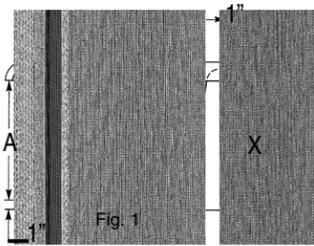
1. **DANGER: RISK OF ELECTRICAL SHOCK.** Connect only to a circuit protected by a ground fault circuit interrupter.
2. This unit should be installed by a qualified service representative. All electrical connections should be made by a licensed electrician. Grounding is required.
3. The installation of Hydro Systems bathtubs must meet all applicable codes and regulations. Install to permit access for servicing.

GENERAL REQUIREMENTS FOR INSTALLATION

MECHANICAL REQUIREMENTS:

1. **WEIGHT** Tubs must be installed in a location that will support the combined weight of the tub plus the water plus the bather. As a rule of thumb, this will be a maximum of 1000 lbs. for a 60" tub, 1200 lbs. for a 66" tub, and 1400 lbs. for a 72" tub.
2. **TILE FLANGES** Tubs can be installed as a drop-in unit or they can be installed against one, two, three, or four walls. Tubs installed against walls should be ordered with a tile flange on each side that will be against a wall to provide a leak free water barrier.
3. **FRAMING** When framing it is best to measure the actual tub to be installed to determine framing dimensions. In the absence of the actual tub, refer to the catalog drawings or contact Hydro Systems. The two most common types of installations are DROP-IN and THREE WALL installations.

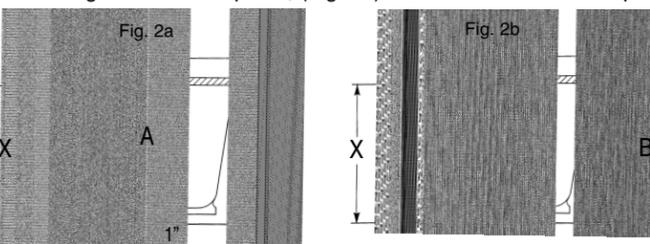
DROP-IN (Fig 1) For drop-in, or deck-mounted tubs, the finished height of the deck (X) where the tub will sit must equal the dimension from the trimmed edge of the tub to the floor at the drain end of the tub (A) plus 1". The 1" is for the mortar bed. **IMPORTANT – the deck must be level both front to back and side to side.** If it is not level, the tub will not be level and it will not drain properly. The opening into which the tub will be dropped should be cut 1" smaller than the tub all around. For example, for a 60" x 42" rectangular tub, an opening 58" x 40" will extend 1" under the lip of the tub all the way around. It will give plenty of support and will provide clearance for the whirlpool system. In the case of oval and round tubs, contact Hydro Systems for a full size paper template of the tub.



THREE WALL For tubs installed in a three wall enclosure, the tub will need a rough opening the same size as its overall dimensions. For example, a 60" x 42" tub will need a space 60" x 42" for installation. Do not include finish wall covering (wall board, tile, etc) in your rough framing calculations. Studs and walls should be straight and plumb, and corners must be square. Stringers must be provided to support the deck where it meets the wall. **IMPORTANT – The stringers must be level both front to back and side to side.** If they are not level, the tub will not be level and it will not drain properly.

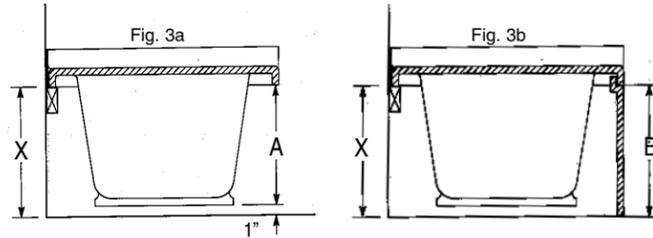
On tubs with integral tile flanges, (Fig. 2a) the distance from the top of the stringer to the floor (X) must equal the distance from the underside of the tub deck to the bottom of the tub base at the drain end of the tub (A) plus 1" for the mortar bed. On tubs with integral tile flanges and a skirt panel, (Fig. 2b) the distance from the top of

the stringer to the floor (X) must equal the distance from the bottom edge of the deck at the drain end of the tub to the bottom of the tub base (A) plus 1" for the mortar bed. On tubs with galvanized tile flanges and a skirt panel, (Fig. 3b) the distance from the top of the stringer to the floor (X) must equal the distance from the bottom of the skirt panel to the bottom edge of the deck where it joins the skirt panel (B).



the stringer to the floor (X) must equal the distance from the bottom edge of the deck at the drain end of the tub to the bottom of the tub base (A) plus 1" for the mortar bed. On tubs with galvanized tile flanges and a skirt panel, (Fig. 3b) the distance from the top of the stringer to the floor (X) must equal the distance from the bottom of the skirt panel to the bottom edge of the deck where it joins the skirt panel (B).

On tubs with the galvanized tile flanges, (Fig 3a) the distance from stringer to the floor (X) must equal the distance from the bottom edge of the deck at the drain end of the tub to the bottom of the tub base (A) plus 1" for the mortar bed. On tubs with galvanized tile flanges and a skirt panel, (Fig. 3b) the distance from the top of the stringer to the floor (X) must equal the distance from the bottom of the skirt panel to the bottom edge of the deck where it joins the skirt panel (B).



For installations that are any combination of decks, walls, and pony walls, use the same methods to determine critical heights. Remember that all supports must be at the same height and must establish a plane that is level front to back and side to side.

4. **HOT WATER HEATER** As a rule of thumb, the capacity of the hot water heater needs to be at least 75% of the capacity of the whirlpool tub.

ELECTRICAL REQUIREMENTS:

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

DANGER: RISK OF ELECTRICAL SHOCK. Connect only to a circuit protected by a ground fault circuit interrupter. Grounding is required. All electrical connections should be made by a licensed electrician. Installation of Hydro Systems bathtubs must meet all applicable codes and regulations.

- 1 HP PUMP – A dedicated 110v 20 amp GFCI protected electrical circuit is required for tubs with the standard 1 HP 110v pump.
- 1½ HP PUMP – A dedicated 110v 20 amp GFCI protected electrical circuit is required for tubs with the 1½" HP 110v pump.
- OPTIONAL IN-LINE HEATER – An additional 110v 20 amp GFCI protected electrical circuit is required.
- OPTIONAL BLOWER SYSTEM – A dedicated 110v 20 amp GFCI protected electrical circuit is required for the optional blower system.
- OPTIONAL FIBER OPTIC LIGHTING SYSTEM, MOOD LIGHTS, 30 MIN. TIMER, AND LOW WATER PROTECTION do not require any additional electrical service.

INSTALLING THE TUB

The installation of the tub/whirlpool tub must meet all applicable regulations and codes. Access must be provided for future service or removal of the pump, control boxes and wiring, without removing the tub or damaging the building structure or finish. An access panel at least 14" high by 16" wide must be located directly in front of the pump, control box, and wiring. The optional Hydro Systems skirt with removable panel will satisfy this requirement. Minimum clearance in front of any panel should be 30".

IMPORTANT – Never move or lift the tub by the pipes or other plumbing system components. Move or lift the tub by the deck or from under the bottom only.

1. **READ ALL THE INSTRUCTIONS** before you begin the installation.
2. **INSPECT THE TUB** before you begin the installation. Inspect the following:

- Is it the correct model? The correct size? The correct color?
- If options or upgrades were ordered, are they complete and correct?
- If the tub was ordered with components in non-standard locations, check to make sure they all are in their correct locations.
- Check all components to make sure no damage occurred during shipping.

DO NOT INSTALL THE TUB if any of the above is not correct. Contact the dealer from whom the tub was purchased or call Hydro Systems directly at (805) 584-9990.

3. **TEST THE WHIRLPOOL SYSTEM BEFORE YOU INSTALL THE TUB.** All Hydro Systems whirlpool tubs are fully tested at the factory before shipping. However, it is the responsibility of the installer to check the system before installing the tub; If the tub is to be set in "rough framing" and can be accessed from all sides after setting, skip to paragraph 4, below. If the tub will be set in "finished framing" and can't be accessed from all sides, we recommend testing the tub outdoors before setting it. Here's how:

- Put the tub on a flat surface such as a driveway or lawn
- Tape over the drain.
- Fill the tub with a garden hose. Fill it to at least 1" above the highest jet. If the tub has the optional Low Water Sensor, make sure the water level sensor stud is covered.
- Plug the control box into a 110v GFCI protected outlet.
- Start the pump by pressing the Hydro Systems Logo on the touch pad.
- Check the jets. Water should be flowing from all the jets with equal volume and force. Rotating the escutcheon of each jet will adjust the flow of water through that jet. Rotating the air control knob(s) adjusts the amount of air mixed into the water flowing through the jets.
- If the tub has optional equipment such as mood lights or fiber optics, now is the time to check those components, too. If the tub has an in-line heater, plug it into a separate 110v GFCI protected source while the pump is running. (The heater will operate only when the pump is running). The heater's indicator light will be on when the heater is operating.
- Check the entire system for leaks. Some components will be inaccessible after the tub is installed, so check each component and each connection all around the tub.

DO NOT INSTALL THE TUB if the system is leaking. Contact your dealer or call Hydro Systems at (805) 584-9990.

If the whirlpool system is performing properly and there are no leaks in the system, you are now ready to set the tub.

4. SETTING THE TUB

- Install the waste & overflow on the tub.
- If your tub has the standard single speed pump, remove the hold-down bolts securing the pump to the pump platform. If it has a variable speed pump, leave the bolts in. Variable speed pumps must be bolted to the platform.
- The tub must be supported evenly around the perimeter of the deck and also under the entire bottom.
- To set the tub, mix a stiff batch of slow-setting mortar (without gravel) and pile more than enough on the floor to completely fill the space between the tub and the floor. It may be necessary to construct a dam to contain the mortar. Do not use drywall compound or plaster

OPERATING INSTRUCTIONS

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

- Use this bathtub only for its intended use as described in this manual. Do not use attachments not recommended by Hydro Systems.
- Never insert or drop any object into any opening.
- Do not operate this unit without the cover over the suction fitting.
- Hydro Systems tubs are designed for "fill-and-drain" use. Fill the tub to use it and drain it when you are finished.

Note: The pump motor is equipped with a thermal overload protector which senses current and temperature. The motor will shut down automatically in the event of an unsafe condition. If this happens, turn the whirlpool system off. When the unsafe condition has been corrected the motor is automatically ready to restart.

TO OPERATE:

Fill the tub with water at the desired temperature. When you're sitting in the tub the water level should be at least 1" above all jets but lower than the overflow. Each Hydro Systems Designer series whirlpool bathtub is equipped with these standard features (Fig. 4)

of Paris.

- Lower the tub into position. Slip the drain into the waste line as it goes down. Allow the tub to settle into the wet mortar, squishing the excess out at the sides and ends of the tub.
- When the deck hits the supports all around, the tub is level and at the correct height.
- If the mortar is very deep, the tub may try to "float" in the mortar bed. Put eight to ten inches of water in the tub to hold it down. Allow the mortar to cure overnight before draining the tub.
- Fasten the tile flanges to the wall studs with galvanized nails or screws – pre-drill the holes for them first. Note – The tile flanges are not structural and must not bear any weight. The tub must be supported under the deck. If your tub has a galvanized metal tile flange, run a bead of silicone at its joint line with the deck.
- If the tub was ordered with the pump in a remote location, the pump was shipped in a box strapped inside the tub crate. All PVC pipe and fittings required to connect the pump to the whirlpool system are strapped to the tub. Remove them now. Construct a support stand for the pump so that the pump intake is higher than the suction fitting, and lower than all jets on the tub. The slope of the pipe from the suction fitting up to the pump should be a minimum of 1/8" per foot. The discharge line from the top of the pump to the tub must slope evenly up to the system. It must not go below the pump intake or above the jet closest to the pump. The pump must not hang on the pipes. It must sit on the sound dampening pad, and it must not be bolted down (unless it is a variable speed pump). Connect both pipes to the whirlpool system and thread the unions onto the pump. Be sure the "O" rings are in the unions. Hand tighten only, and do not use any type of joint sealant. The use of any sealant voids the warranty.

ELECTRICAL CONNECTION:

If the pump is in the standard location, it is plugged into the control box. So are all accessories. Check all connections. Make sure the bolts have been removed that hold the pump to the pump platform (except variable speed pumps), and plug the control box pigtail into the home's dedicated GFCI.

If the tub was ordered with the pump in a remote location, plug the pump into the control box. Plug all accessories into the control box. Check all connections and plug the control box into the home's dedicated GFCI.

FINAL CLEANUP

DO NOT USE ABRASIVE CLEANERS TO CLEAN THE BATHTUB. They may scratch or mar the surface. Liquid soap or a cleaner intended for fiberglass bathtubs should be used. Please refer to the USER CARE AND MAINTENANCE section. Do not use wire brushes or metal tools or scrapers to remove paint drips, plaster, tar, etc. If a scraping device is required, a wood edge may be used carefully. Use lighter fluid to remove any adhesive left from stickers and labels.

ELECTRONIC SOFT TOUCH CONTROL – This is the on/off control switch for the whirlpool system. It bears the Hydro Systems logo. Press the logo once to turn the whirlpool system on. Press it again to turn the whirlpool system off. The whirlpool system is configured to run

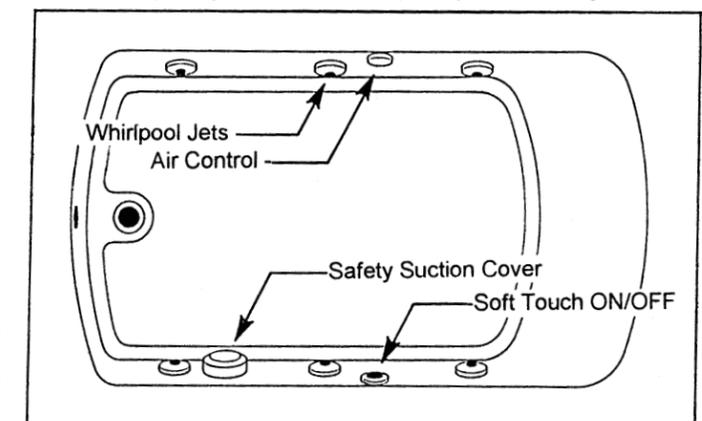


Fig. 4