

## installation instructions

### LOCATION

For your portable spa to function properly and safely, it must be located on a hard, flat, level surface.

Inground spas require special installation techniques and should be planned in conjunction with your spa dealer. Improper installation can result in structural damage to the spa and the voiding of your spa warranty. Items to discuss with your dealer include: Local construction codes, electrical service requirements, serviceability of equipment, present underground obstructions such as gas, water, and telephone lines, safety measures such as fences and locks, and visibility of the spa installation from the home, street, and neighbors.

- Allow for sufficient water drainage around the spa to help preserve the equipment and support structure. This includes indoor installations.
- A filled spa can weigh up to 4,000 pounds and the location should support the weight of the filled spa.
- Locate the equipment compartment where it will be accessible. Your spa **MUST** be installed to permit access for servicing the equipment above and/or below any decks or floors. Access is essential and must allow adequate room for service.
- Leave access to the circuit breakers in the sub panel (240V models) or to the interrupter switch (GFCI, 120V models) on the end of the power cord.
- Be sure the spa is level and in the final position **BEFORE** filling with water. Check for power cords, tools, and hoses that may be caught underneath the spa.
- **IMPORTANT: DO NOT LET AN EMPTY SPA REMAIN EXPOSED TO DIRECT SUNLIGHT.** Spa surface temperatures can reach in excess of 150°F (65°C) if left exposed to the sun. Significant damage can occur if this is allowed to happen, including warping and blistering of the surface. Damage, that occurs as a result of this exposure, is not covered under the warranty.
- **CAUTION:** Never try to move a spa that has not been fully drained. To do so could result in damage to the spa and physical injury to the mover.

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### OUTDOOR AND PATIO INSTALLATION

To install the spa outdoors, we recommend a reinforced concrete pad at least four inches thick. The reinforcing material should be attached to a #8 AWG bonding wire per national and local electrical code.

If you place the spa on the ground, even temporarily, place concrete pavers under the entire bottom of the spa. The concrete pavers should be at least two inches thick and level across the entire surface. The spa will inevitably settle and not remain level on this surface, thus it's important to get it onto a solid foundation as soon as possible.

### DECK INSTALLATION

Be sure the deck can support the weight of your filled spa by checking the deck's maximum load capacity. Consult a qualified building contractor or structural engineer. Minimum requirement is 100 pounds per square foot.

### INDOOR INSTALLATION

There are special requirements if you place your spa indoors. Flooring material must provide adequate traction when wet. Proper drainage is essential to prevent water puddling. Proper ventilation to the area is required. The addition of a ventilation system is recommended. Please see your contractor for details.



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### SHUT-OFF VALVES

Your spa is equipped with shut-off valves (see EQUIPMENT DIAGRAM) that shut off the water flow to the equipment system for dealer service. At times, a new spa or one that has recently been serviced, may have the shut-off valves partially closed which can restrict the water flow and hinder jet performance. Be sure the valves are fully open.



Shut-off valve in open position

### FREEZE PROTECTION

When a freeze condition is detected (which occurs when the temperature in the heater housing drops to 55°F, (13°C) the jet pump(s) is automatically activated. In areas with extremely cold winter conditions, your spa should be fine as long as it is left running at normal operating temperatures. For extra protection see your dealer for an optional freeze sensor. If you plan to turn the spa off, follow the instructions in this manual (see SUSPENDED USE OR WINTERIZING YOUR SPA).



1) Center filter cartridge over canister



2) Screw filter cartridge in place

### OVERHEATING

In the case of extended hot weather, the spa water temperature may reach and maintain 104°F to 106°F (40°C to 41°C) or higher. This is due to the ambient temperature and the full insulation in the spa cabinet. You may have the option of shortening the pump-run time. See SPA CONTROL OPERATION for available options.

### FILTER CARTRIDGE(S)

Your portable spa is equipped with the Constant Clean Filtration system. It features one or two Vortex filters.

**NOTE:** It is very important that the components of these filtration systems be installed properly in the proper part of the spa.

1. Hold the Vortex filter cartridge and center it in the opening of the filter housing.
2. Use the filter handle and turn the filter cartridge clockwise to screw it in place. (Use caution not to overtighten as damage may occur to threads and is not covered under warranty.)
3. Grasp the edge of the Waterfall, center it over the rings and gently snap in place.

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### SUCTION GUARDS

The suction guard(s) in the footwell of your spa is an opening through which the jet pump(s) draws water. Suction fittings are equipped with a safety guard. Suction through the fittings can be strong. The safety guard(s) must remain in place and undamaged. A fitting with a damaged guard(s) can be dangerous, especially to small children or people with long hair. Should any part of the body become drawn to a fitting, turn the jet pump(s) off immediately. Long hair should be restrained in a bathing cap, never allow it to float freely in the spa. Replace any missing or damaged suction guard(s).



Safety guard of suction fitting must remain in place.

**NOTE:** It is normal for the flow rates of the suction fittings to vary from strong to barely noticeable.

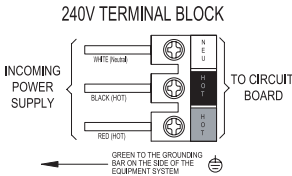
### ELECTRICAL REQUIREMENTS

It is the responsibility of the spa owner to ensure that all electrical connections are made in accordance with all electrical codes in effect at the time of installation.

#### 240 Volt:

All connections must be made in accordance with the wiring diagram found on the inside of the control box cover. Connections must be made with copper conductors only – do not use aluminum wiring with this system. All conductors, circuit breakers, and/or fuses must be sized in accordance to the total amperage load as specified:

- Permanently connected
- Rated 240V, 60 Hz, 50A, three wires (#6 copper) plus ground (#8 AWG copper)
- Fuse or circuit breaker size: 50 amp
- When using a 30 amp breaker convert system from 50 amps to 30 amps. Move the dip switch A3 to the OFF position.
- The heater will turn off when the pump(s) is on high speed.
- For units for use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed adjacent to, within sight of, and at least five feet (1.52 m) from the spa.



This equipment is designed to operate on 60Hz alternating current only at a voltage of 240 (+ or -). Units to be operated at 240V must have all connections made by a qualified electrician in accordance with all electric codes in effect at the time of installa-