



# Flohr Pools

## Pre- delivery Electrical Tips

### Tip 1

- Get the written instructions from the Manufacturer. PLEASE pay close attention to these.
- Top manufacturers are very particular with electrical requirements. Even the same manufacturer often has different requirements from one model to the next.
- Check the serial number and verify you have the correct directions for your hot tub. If someone tells you all hot tubs are the same, be cautious.

### Tip 2

- Follow the NEC Code. Be advised that the Code calls for a disconnect within eyesight of the hot tub and may not be within 10 feet of the water.

### Tip 3

- Use an electrician that is licensed and follows manufacturers hot tub requirements. A contractor that is licensed is a good sign that you can rely on the work that they perform. When they ask for the manufacturer requirements this sets them apart from most in their field.

### Tip 4

- Your salesperson can make recommendations on licensed electricians in the area that are familiar with the electrical connections the model you have chosen requires. Please ask if you do not have an electrician that you are comfortable with.

### Tip 5

- All wiring outside the home, should be in conduit.

\*if there is a wiring issue upon start up of the spa (example the neutral and ground are not connected correctly) there will be a \$129 charge for Flohr Pools service department to make the correction.

# *Utopia/Paradise Series*

## *Pre-Delivery Instructions*



CalderaSpas®

*Come to Life*

Please take the time to read this booklet carefully, as it will provide you with the information you will need to ensure the safe, secure, and timely installation of your new spa. The following sections are guidelines on how to prepare for delivery and set-up of your new spa. Specifically covered are site selection, delivery access, ground preparation, and electrical requirements.

Remember to carefully read the Owner's Manual that accompanies your spa and to complete the warranty card within ten days of delivery. These items, along with other valuable information, are included in the Owner's Packet which can be located in the equipment compartment of your spa. You will also find your serial number in the equipment compartment.

Watkins Manufacturing Corporation reserves the right to change features, specifications, and design without notification and without incurring any obligation.

DATE PURCHASED: \_\_\_\_\_

DATE INSTALLED: \_\_\_\_\_

DEALER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

In most cities and counties, permits will be required for the installation of electrical circuits or the construction of exterior surfaces (decks and spa enclosures). In addition, some communities have adopted residential barrier codes which may require fencing and/or self-closing gates on the property to prevent unsupervised access to a pool (or spa) by children under 5 years of age. Your Caldera® spa is equipped with a locking cover that meets the ASTM F1346-91 Standard for Safety Covers, and as a result, is usually exempt from most barrier requirements. As a general practice, your local Building Department will inform you of any applicable barrier requirements at the time a permit is obtained for the installation of an electrical circuit. Your Caldera dealer can provide information on which permits may be required.

# *Pre-Delivery Instructions*

## **SITE SELECTION AND PREPARATION**

**IMPORTANT:** Site selection and preparation are your responsibility. Carefully read these instructions and consult your authorized Caldera® dealer if you have any questions.

You probably have a spot picked out for your new spa, whether it's indoors or outdoors, on a patio or on a deck. Just make sure you check the following:

- Always put your spa on a structurally sound, level surface. A filled spa can weigh a great deal. Make certain that the location you choose can support the weight of your filled spa.
- Don't forget to level your spa. (See the Ground and Spa Leveling Preparation section on the next page.)
- Locate your equipment compartment, which houses all of the electrical components, in a place where water will drain away from it. Allowing water into the equipment compartment can damage the electronics, or may result in tripping your house's circuit breaker.
- Leave yourself easy access to the circuit breakers in the subpanel.
- Never let water get into the subpanel. Your 230 volt spa's subpanel is raintight when installed correctly with the door closed.
- Leave access to the entire front of the spa (the removable panel provides access to the spa's equipment) for periodic spa care and maintenance.

Note that on the Utopia spas, the SpaGlo® exterior lighting fixtures are located on only three sides. The side opposite the main control panel has no lighting.

## **INDOOR/BASEMENT INSTALLATION**

Be aware of some special requirements if you place your spa indoors. Water will accumulate around the spa, so flooring materials must provide a good grip when wet. Proper drainage is essential to prevent a build-up of water around the spa. When building a new room for the spa, it is recommended that a floor drain be installed. The humidity will naturally increase with the spa installed. Water may get into woodwork and produce dry rot, mildew, or other problems. Check for airborne moisture's effects on exposed wood, paper, etc. in the room. To minimize these effects, it is best to provide plenty of ventilation to the spa area. An architect can help to determine if more ventilation must be installed.

Caldera spas are equipped with a jet pump shroud to remove excessive heat from the equipment compartment. Find this vent, and be sure it is not blocked by anything, including carpeting.

Your Caldera dealer can help you with local information such as zoning regulations and building codes.

## **DECK INSTALLATION**

To be certain your deck can support your spa, you must know the deck's maximum load capacity. Consult a qualified building contractor or structural engineer before you place the spa on an elevated deck or indoors. To find the weight of your spa, its contents and occupants, refer to the Spa Specification chart (on back cover). This weight per square foot must not exceed the structure's rated capacity, or serious structural damage could result.

## **OUTDOOR AND PATIO INSTALLATION**

No matter where you install your new spa, it's important that you have a solid foundation to support it. Structural damage to the spa resulting from incorrect installation or placement on an inadequate foundation is not covered under the spa's limited warranty. (See next page for specifics)

## **GROUND AND SPA LEVELING PREPARATION**

Your Caldera spa has been engineered to perform on several types of common yard surfaces. While a concrete slab is best for long-term use\*, other foundations are acceptable as long as a level base is prepared prior to delivery. Three foundation base pictures, shown on following page, represent examples of alternatives to a concrete slab for spas installed without gazebos or other accessories.



**\*NOTE:** A reinforced concrete pad at least four inches thick or structurally sound deck able to support the “dead weight” found in the spa specification chart is required for the Cantabria®, Geneva®, Niagara®, Makena™, Salina® spas, and recommended for the Tahitian®, Martinique® and Kauai® spas. The reinforcing rod or mesh in the pad should be attached to a bond wire.

- Concrete sloped at 1/2 inch per 10 feet is preferred so that rain water and water spillover will run off and not puddle underneath the spa (water under the spa for long periods of time may cause the wood to deteriorate).
- If stepping stones or railroad ties are selected for the spa foundation, they should be placed and leveled below the entire spa to maintain even distribution of the spa weight.
- It is important to note that soft surfaces, even when stepping stones are used to distribute the weight of the spa as evenly as possible, will still have a tendency to settle unevenly, resulting in an unlevel spa.
- Remember, placing the spa on grass or dirt may increase the amount of debris which is inadvertently brought into the spa water on the user's feet.

If you are purchasing a deck package or a spa enclosure with your spa, a solid foundation becomes mandatory. Placing them on any surface other than a single level pad could create problems with their installation. Pictured at right are a few of the recommended surfaces.

As a homeowner, it is your responsibility to provide a suitable, level foundation for your spa. Keep in mind that most delivery crews are not equipped to level and prepare spa sites.

If you are interested in having a concrete slab, brick surface, or wood deck installed, your Caldera dealer should be able to suggest a qualified, licensed contractor.

## **DELIVERY ACCESS**

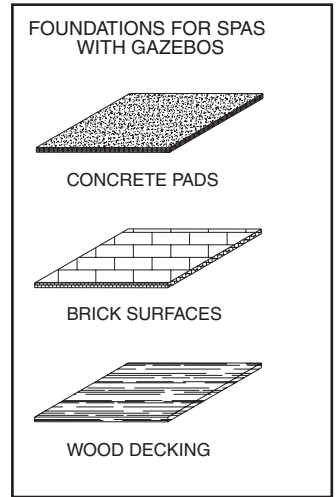
First, locate the dimensions of your spa on the chart that is found on the next page. The dimensions shown are the measurements of the spa in the vertical position, laid on its side.

Next, contact your dealer to find the height and width added by the delivery cart which the dealer will use to deliver your new spa. Use the height of the cart plus the dimension shown as H to determine the vertical clearance required to pass the spa and cart. Use the width of the cart, or dimension W, whichever is greater, to determine the maximum width of clearance necessary.

**NOTE:** It may be necessary to allow for additional over-head clearance if the spa will be rolled up or down an incline or moved up or down a short flight of stairs.

Use the information in the picture below to determine the requirements for access to your desired location. It may be necessary to remove a gate, part of a fence, or other movable obstructions in order to roll the spa to its installation site. About ten percent of the time, a crane is the only way to install the spa by lifting it to its final destination.

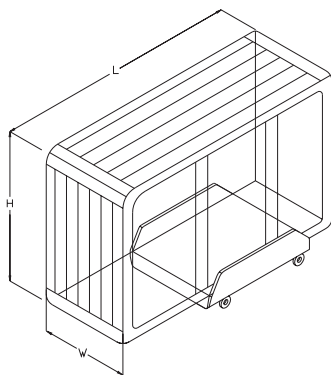
If the spa has to be taken off of the cart to go over a wall (either because the entry area is too narrow, the eaves are too low, the corner is too tight, or the stairway is too steep), a crane will be required. Don't be alarmed!



# Pre-Delivery Instructions

The crane has a truck-mounted boom which can fit right in your driveway. It is run by a licensed and insured operator. For a charge, the crane operator will lift your spa over walls, buildings, or any other obstruction and place it as close to the installation site as possible. The Caldera® spa delivery personnel will supervise the crane delivery and complete the spa installation.

If your spa delivery requires the use of a crane, you may be required to pay for its services at the completion of the delivery.



## SPA DIMENSIONS

Model	Width	Length	Height
Cantabria®	38"	9' 0"	7' 7"
Geneva®	38"	7' 5"	7' 5"
Niagara®	38"	7' 5"	7' 5"
Tahitian®	36"	7' 0"	7' 0"
Makena™	36"	7' 5"	7' 5"
Salina®	36"	7' 5"	7' 5"
Martinique®	34"	7' 5"	6' 4"
Kauai®	29"	7' 0"	5' 5"

How is your width and height clearance?

Check all gates

Protruding electric meters

Gas meters

A/C units

Do you have sufficient overhead clearance?

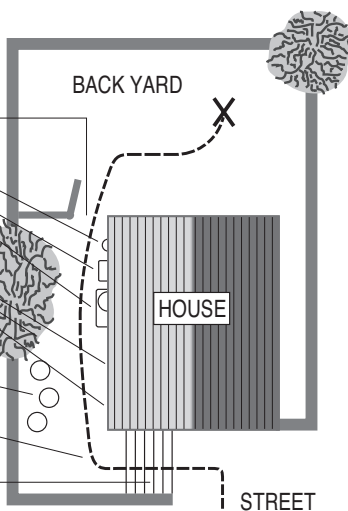
Check low roof eaves, overhanging branches, rain gutters

Is the path clear?

Move away branches, dog houses, firewood, etc.

If there is a 90° turn, can we clear it? (The spa will not bend)

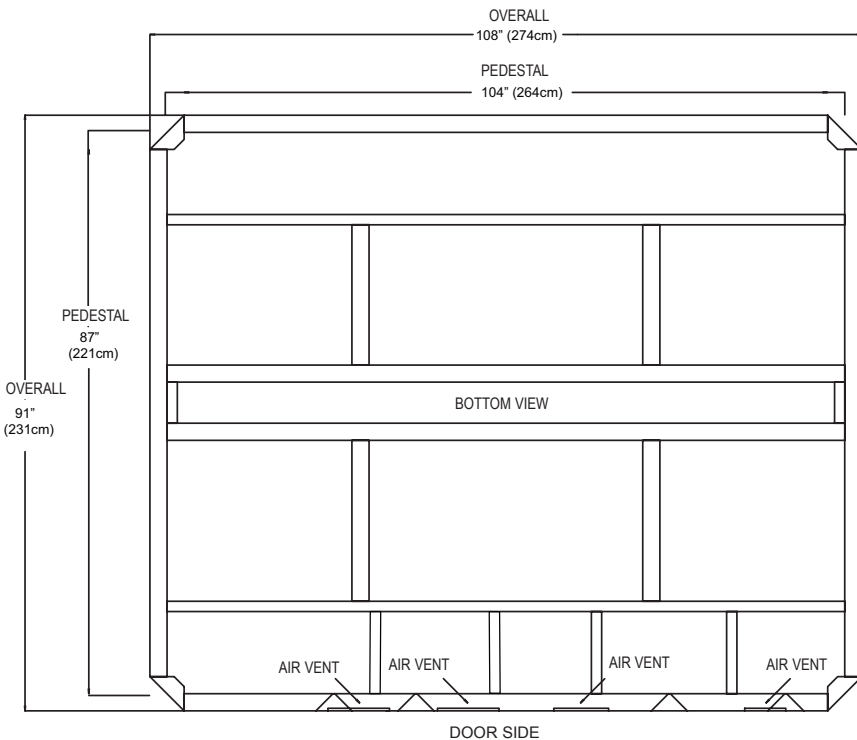
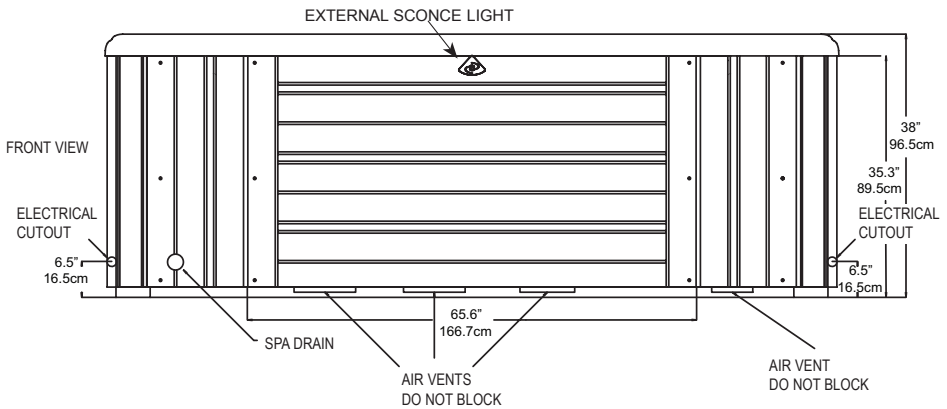
No more than 6 consecutive stairs without a landing





# Utopia Cantabria®

**NOTE: All dimensions are approximate; measure your spa before making critical design or pathway decisions.**



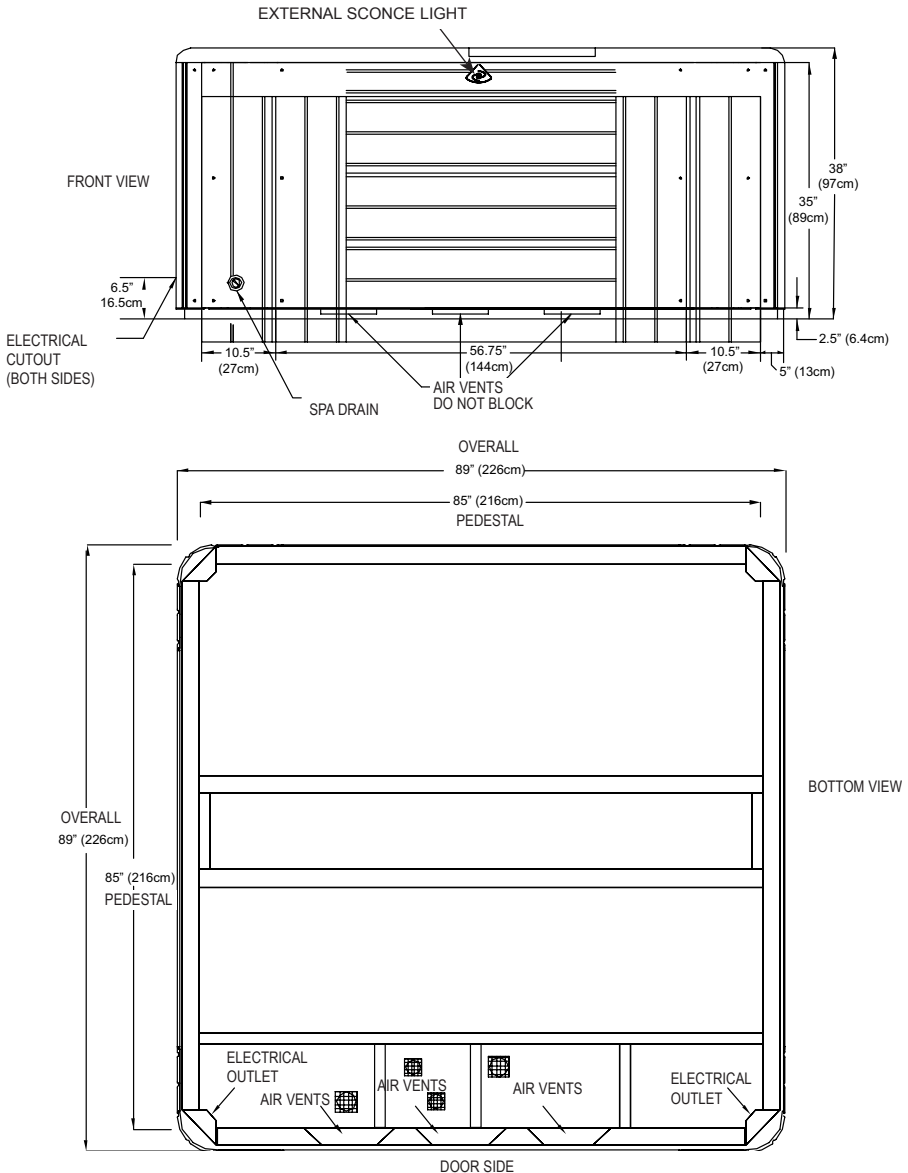
NOTE: Watkins Manufacturing Corporation requires that the Cantabria be installed on a minimum 4" (10 cm) thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

WARNING: The Cantabria must not be shimmed in any manner.

# Pre-Delivery Instructions

## Utopia Geneva® and Utopia Niagara®

**NOTE:** All dimensions are approximate; measure your spa before making critical design or pathway decisions.



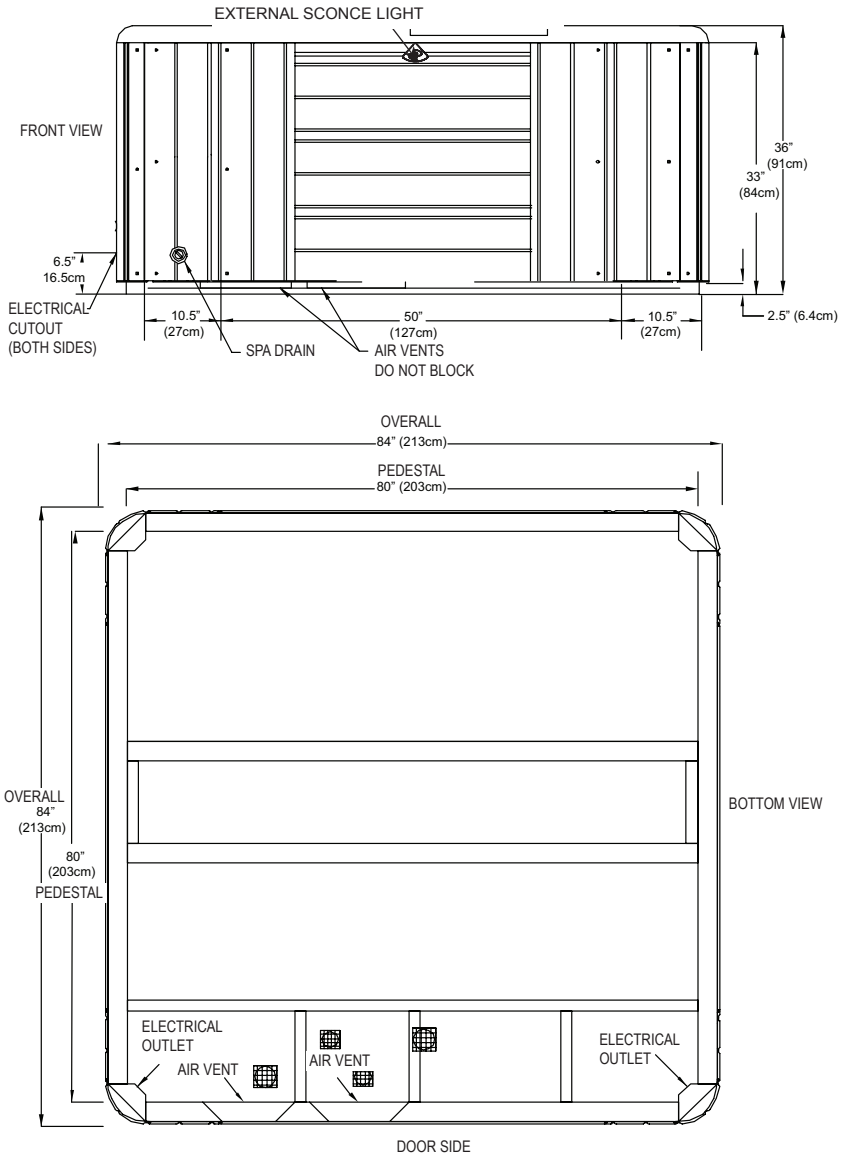
**NOTE:** Watkins Manufacturing Corporation requires that the Geneva and Niagara be installed on a minimum 4" thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

**WARNING:** The Geneva and Niagara must not be shimmed in any manner.



# Utopia Tahitian®

**NOTE: All dimensions are approximate; measure your spa before making critical design or pathway decisions.**



**NOTE:** Watkins Manufacturing Corporation recommends that the Tahitian be installed on a minimum 4" thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

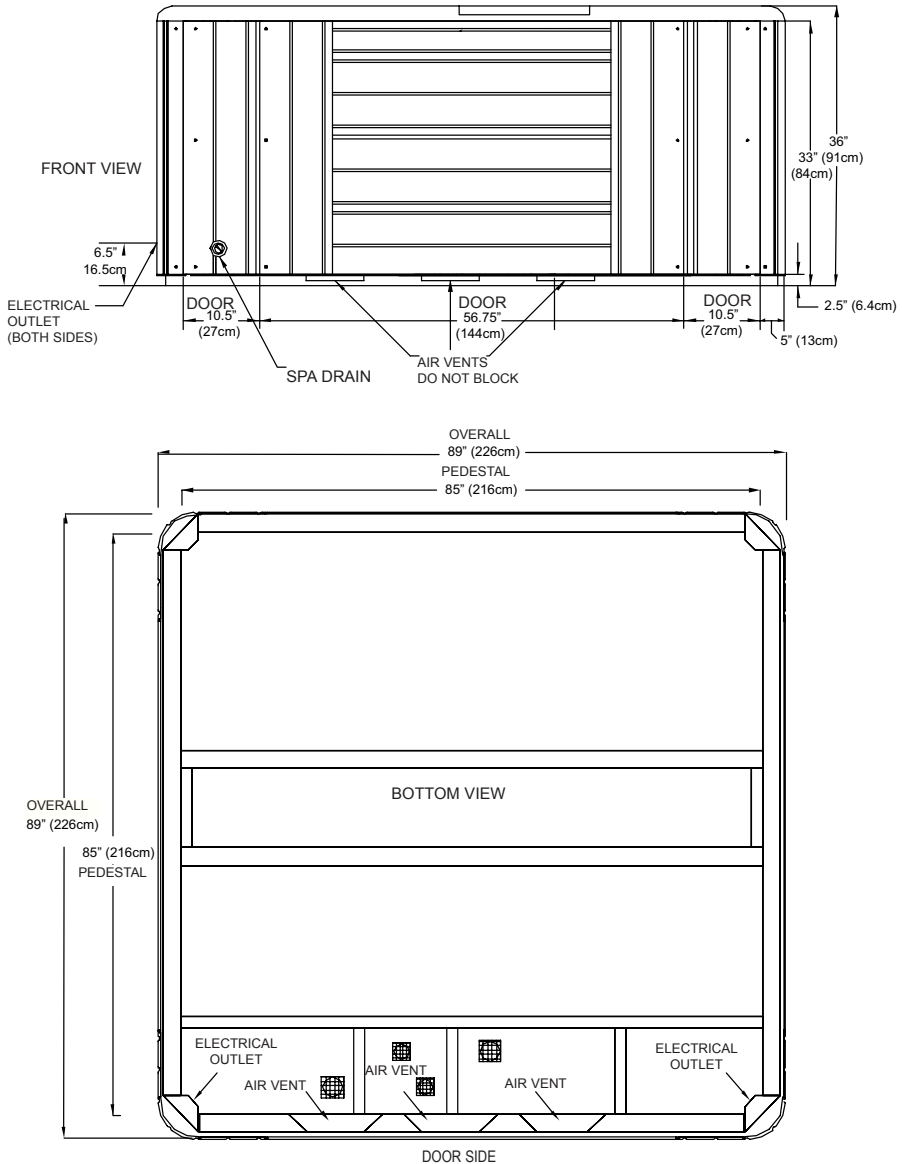
**WARNING:** The Tahitian must not be shimmed in any manner.



# Pre-Delivery Instructions

## Paradise Makena™ and Salina®

**NOTE: All dimensions are approximate; measure your spa before making critical design or pathway decisions.**



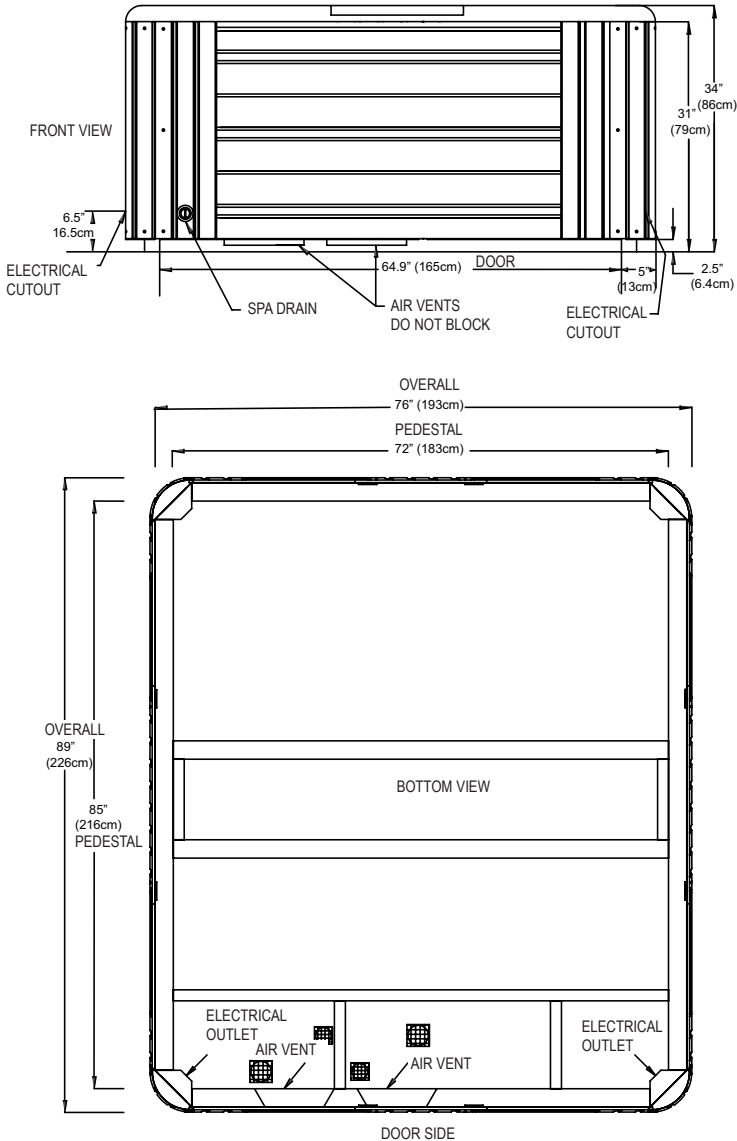
**NOTE:** Watkins Manufacturing Corporation requires that the Makena and Salina be installed on a minimum 4" thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

**WARNING:** The Makena and Salina must not be shimmed in any manner.



# Paradise Martinique®

**NOTE:** All dimensions are approximate; measure your spa before making critical design or pathway decisions.



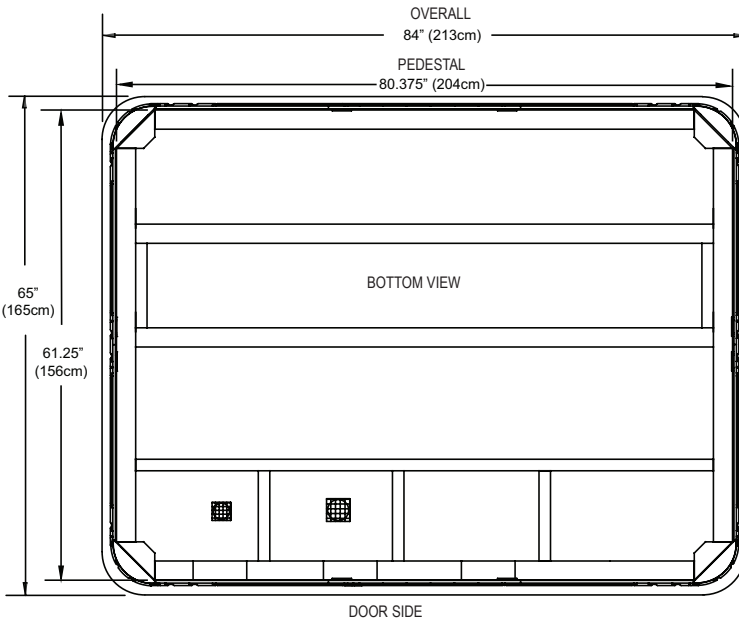
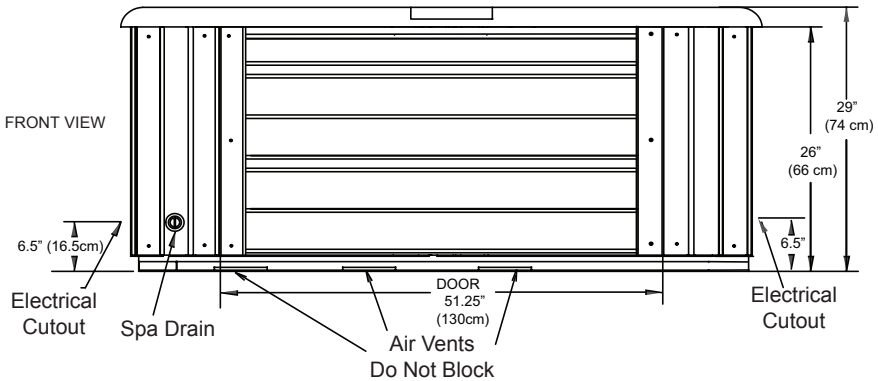
**NOTE:** Watkins Manufacturing Corporation recommends that the Martinique be installed on a minimum 4" thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

**WARNING:** The Martinique must not be shimmed in any manner.

# Pre-Delivery Instructions

## Paradise Kauai®

**NOTE:** All dimensions are approximate; measure your spa before making critical design or pathway decisions.



**NOTE:** Watkins Manufacturing Corporation recommends that the Kauai be installed on a minimum 4" thick reinforced concrete pad or structurally sound deck able to support the "dead weight" found in the spa specification chart.

**WARNING:** The Kauai must not be shimmed in any manner.



# ELECTRICAL REQUIREMENTS

To ensure you will have an opportunity to use your spa soon after delivery, it is very important that the required electrical service has been installed. Unless otherwise stipulated by your dealer, **THIS IS YOUR RESPONSIBILITY.** **IMPORTANT:** All electrical circuits must be installed by a qualified, licensed electrician.

## 230 VOLT INSTALLATION

Your spa contains a control box designed to operate at 230V, 60Hz. Installation of a 50 amp. dedicated circuit is recommended. The control box must be hard wired directly to a subpanel protected by a Ground Fault Circuit Interrupter (GFCI). The subpanel containing GFCI breakers is included with the spa.

**IMPORTANT NOTE:** All electrical connections to the control box must be accomplished by a qualified electrician in accordance with the National Electrical Code and in accordance with any local electrical codes in effect at the time and place of installation.

All electrical connections must be made in accordance with the wiring information contained in this manual and on the back of the field wiring access panel of the control box. A licensed electrician should install a four-wire electrical service (two line voltages, one neutral, one ground) from the main electrical service panel to the subpanel. The equipment pack requires a MINIMUM of 112 volts per line under load.

The grounding conductor must be at least #10 AWG. Your electrician should mount the subpanel in the vicinity of the spa but it should not be closer than five (5) feet from the spa water edge (NEC 680-38 to 41-A-3).

**INSTALLATION NOTE:** After the spa has been installed, your electrician can connect the conduit from the subpanel to the spa's control box and then complete the wiring connections in the control box.

**NOTE:** Complete step-by-step Installation and wiring instructions for all models are included in the Owner's Manual and with each sub-panel, which can be obtained from your dealer.

**WARNING:** Removing or bypassing the GFCI breakers in the subpanel at any time will result in an unsafe spa and will void the warranty.

## 230 VOLT CONVERTED CANTABRIA (OPTIONAL)

The Utopia Cantabria® requires an additional 20 amp breaker in order to operate the heater at the same time as the lounge pump #3.

This subpanel requires a 70 amp, single phase, 230 volt, four wire service (two line, one neutral, one ground). The ground wire must never be less than #10 AWG. Use NEC 250-122 (table) and local codes for more information. A minimum #6 AWG solid copper bond wire is also required.

**NOTE:** Complete step-by-step Installation and wiring instructions for the Cantabria are included in the Owner's Manual and with each sub-panel, which can be obtained from your dealer.

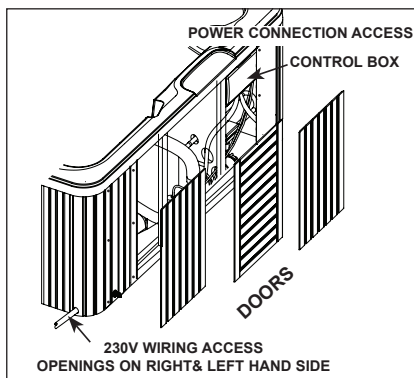
**SEE ABOVE FOR IMPORTANT ELECTRICAL INSTALLATION NOTES.**

## POWER CONNECTION

To connect power to the spa, refer to "230 VOLT WIRING SCHEMATIC DIAGRAM" and "POWER CONNECTION ACCESS" illustrations. Then proceed with the following steps:

When supplying power, remove the screws securing the equipment door (for Utopia spas, always remove the SpaGlo® exterior light fixtures and lift the fiber optic cable out of the fixture base before removing the doors). Lower the panel one inch and remove the panel to allow access to the input power wiring.

**NOTE:** The 230V wiring diagram is located on the inside of the Control Box Cover.

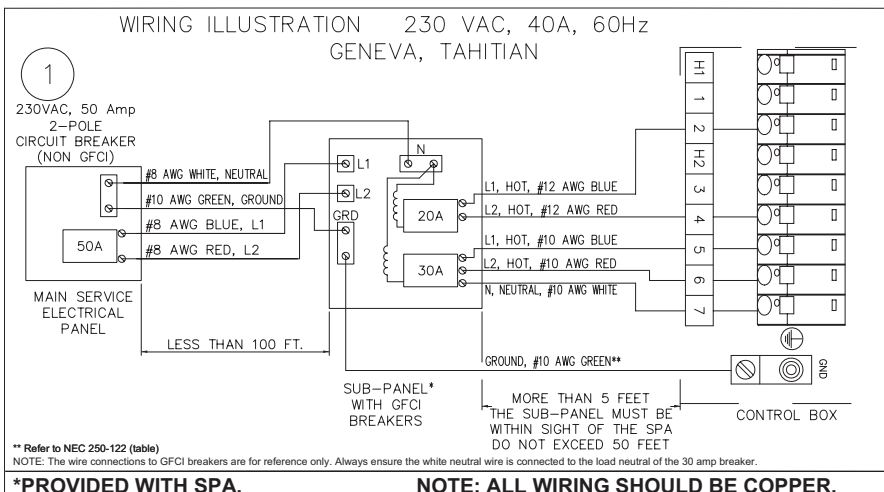


# Pre-Delivery Instructions

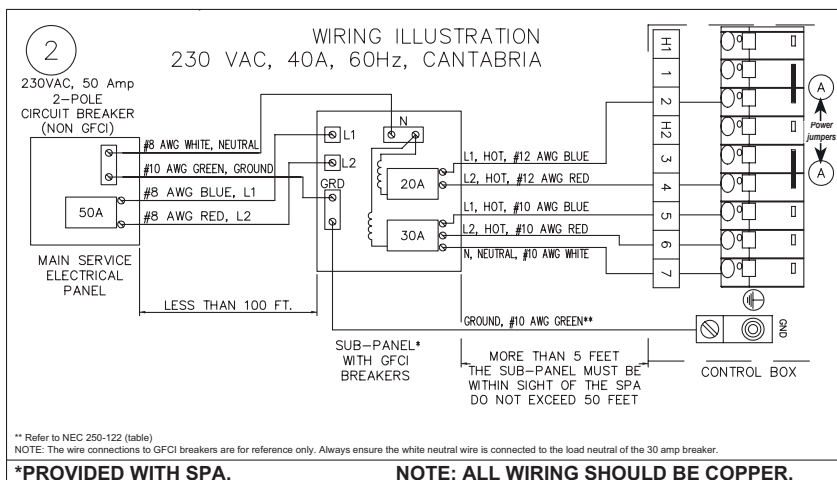
**IMPORTANT:** The following must be followed to properly install the equipment compartment door.

- Place top of door or panel directly below bartop against the frame of the spa. For Utopia spas, first lift the fiber optic cable out of the way.
- Push bottom of door or panel against the spa frame.
- Slide door or panel upward (pushing in on center of door to ensure door clips catch) until screw holes line up, making sure that the exterior fiber optic light cable will fit into the fixture.
- Slightly pull on door or panel. If door remains against the spa, then replace the screws.
- If the door does not lock into position, repeat the previous steps.

## WIRING DIAGRAMS UTOPIA GENEVA®, TAHITIAN® & NIAGARA®

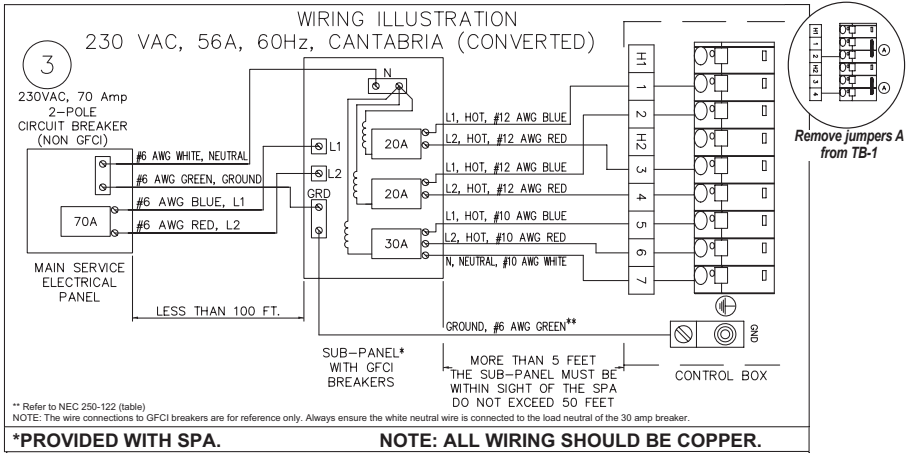


## UTOPIA CANTABRIA®

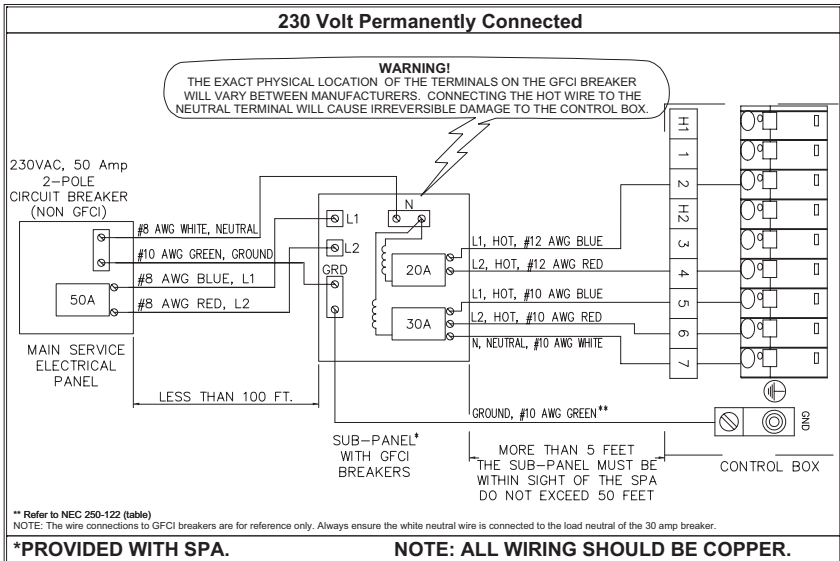




# OPTIONAL UTOPIA CANTABRIA® (CONVERTED)



## PARADISE SERIES



# Pre-Delivery Instructions

## SERVICES AVAILABLE FROM YOUR CALDERA® SPA DEALER

<b>SERVICE</b>	<b>COST</b>	
Pre-Delivery site inspection		
Deliver spa to installation site	_____	
Unwrap spa and haul away packaging material	_____	
Set up spa	_____	
Fill the spa with water and add FROG® bromine and mineral cartridges	_____	
Explain and test the spa's operation:		
• Lighting	• Optional Caldera® Entertainment System	• Control panel functions
• Set temperature control	• Auxiliary panel functions (Utopia spas only)	
Explain the safety features	_____	
• GFCI		
• Heater high limit		
General spa operation & maintenance orientation	_____	
Water quality and maintenance orientation	_____	
Adjust the water's pH, Total Alkalinity and Calcium Hardness	_____	
Sanitize the water	_____	
Inspect the spa cover, place on spa, and install cover locks	_____	
Review winterizing instructions	_____	
Review Owner's Manual & complete Warranty Card	_____	
Follow-up call	_____	
In-store spa water analysis	_____	
<b>TOTAL COST</b>	_____	

## ADDITIONAL PRODUCTS AVAILABLE FROM YOUR CALDERA SPA DEALER

- Monarch® water and spa care products
- FROG watercare
- Vanishing Act® Calcium Remover
- Clean Screen® Pre-Filter
- Replacement Filter Cartridges
- Ozone Systems
- Cover Lifters
- Lighting Systems
- Upgrade Jet Kits
- Caldera Entertainment Systems



## ***ADDITIONAL PRODUCTS AVAILABLE FROM YOUR CALDERA SPA DEALER - CONTINUED***

- Retractable cover system with clearance requirements:
  - ProLift® - 14" Clearance Required
  - ProLift II** - 24" Clearance Required
  - ProLift III** - 24" Clearance Required (Required for Cantabria®)
  - ProLift IV** - 7" Clearance Required



# UTOPIA AND PARADISE SPA SPECIFICATIONS

	Footprint dimensions	Height	Effective filter area	Heater (Watts)	Water capacity	Dry weight	Filled weight*	Dead weight	Electrical Requirements
Utopia Cantabria®	7'7" x 9'0"	38"	100 square feet	4,300	550 gallons	1461 lbs.	7,448 lbs.	130 lbs. per square foot	230 volt, 50 or 70 amp Single phase GFCI protected circuit
Utopia Geneva®	7'5" x 7'5"	38"	100 square feet	4,300	475 gallons	1,080 lbs.	6,092 lbs.	130 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Utopia Niagara®	7'5" x 7'5"	38"	100 square feet	4,300	500 gallons	1,084 lbs.	6,479 lbs.	140 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Utopia Tahitian®	7'0" x 7'0"	36"	100 square feet	4,300	360 gallons	1,002 lbs.	5,054 lbs.	120 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Paradise Makena™	7'5" x 7'5"	36"	75 square feet	4,300	395 gallons	1,020 lbs.	5,364 lbs.	120 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Paradise Salina®	7'5" x 7'5"	36"	75 square feet	4,300	420 gallons	1,006 lbs.	5,734 lbs.	125 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Paradise Martinique®	7'5" x 6'4"	34"	50 square feet	4,300	320 gallons	928 lbs.	4,472 lbs.	115 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit
Paradise Kauai®	7'0" x 5'5"	29"	50 square feet	4,300	220 gallons	738 lbs.	3,098 lbs.	100 lbs. per square foot	230 volt, 30 or 50 amp Single phase GFCI protected circuit

**CAUTION:** Watkins Manufacturing Corporation suggests a structural engineer or contractor be consulted before the spa is placed on an elevated deck.

\* **NOTE:** The "Filled weight" and "Dead weight" of the spa includes the weight of the occupants (assuming an average occupant weight of 175 lbs).

**NOTE:** For 30 amp conversion contact your local dealer.



WATKINS MANUFACTURING CORPORATION

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