



Congratulations on your decision to enjoy the finest spas available...

Welcome to the growing family of Tiger River® Spa owners.

Pre-Delivery Instructions

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 read carefully the Owner's Manual that accompanies your spa, and to complete the warranty card within 10 days of delivery. These items along with other valuable information will be found in the Owner's Package which has been placed in the equipment compartment of your spa, where you will also find its serial number.

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: _____

SPA MODEL/SERIAL NUMBER: _____

COVER SERIAL NUMBER: _____

ACCESSORY SERIAL NUMBER: _____

In most cities and counties, permits will be required for the installation of electrical circuits or the construction of exterior surfaces (decks and gazebos). 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 Tiger River® 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 Tiger River® Spa dealer can provide information on which permits may be required.

Site Selection and Preparation

IMPORTANT: Site selection and preparation are your responsibility. Carefully read these instructions and consult your authorized Hot Spring® Spa 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.
- Don't forget to level your spa before filling it. (See Spa Leveling Instructions included with Owner's Packet.)
- Be sure to locate your equipment compartment, which houses all of the electrical components, in a place where water drainage will be away from it. Allowing water into the equipment compartment can cause damage to the electronics, or may result in tripping the circuit breaker on your house's electrical panel.
- Leave yourself easy access to the circuit breakers in the subpanel (230 volt models), or to the interrupter switch on the end of the power cord (115 volt models).
- Never let water into the subpanel (230 volt models), into the interrupter switch (115 volt models), or into the electrical outlet into which your spa is plugged. Your 115 volt Tiger River® Spa will come with a protective box designed to keep out rain and water from sprinkler systems. Your 230 volt spa's subpanel is raintight when installed correctly with the door closed.
- You'll have to leave access to the equipment compartment for periodic spa care and maintenance.

OUTDOOR AND PATIO INSTALLATION

No matter where you put your new spa, it's important that it has a solid foundation to support it. In fact, structural damage to the spa resulting from incorrect installation or placement on an inadequate foundation is not covered under the spa's limited warranty.

If you install the spa outdoors, we recommend a reinforced concrete pad at least three inches thick. The reinforcing rod or mesh in the pad should be attached to a bond wire (see page 2, item 4 of the Owner's Manual).

If you place the spa on the ground, even temporarily, place stepping stones under the leveling areas (see Spa Leveling Instructions). The stones should be at least two inches thick and twelve inches square. Even with stones in place, the spa will inevitably settle and become unlevel. Plus, a spa surrounded by dirt or grass will soon be filled with dirt or grass from users' feet. So plan to get it onto a solid foundation as soon as possible.

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 page 10. This weight per square foot must not exceed the structure's rated capacity, or serious structural damage could result.

INDOOR INSTALLATION

Be aware of some special requirements if you place your spa indoors. Water will hit the floor around the spa, which can cause poor footing. Choose a flooring material that offers good traction and drainage when wet. Water may also get into woodwork and produce dryrot, mildew, or other problems. The area's humidity will naturally be higher with the spa installed, so check for airborne moisture's effects on exposed wood, paper, etc. in the room. To minimize these effects and to make the room more comfortable, it is best to provide plenty of ventilation to the spa area. An architect can help to determine if more ventilation must be installed. Additionally, when building a new room for the spa, install a floor drain to allow easy cleanup of water and disposal of water when draining the spa.

IMPORTANT: Tiger River® Spas are equipped with a vent to remove excessive heat from the equipment compartment. Find this vent (it's under the bottom right corner) and be sure the vent is not blocked by anything, including carpeting.

Your Tiger River® Spa dealer can help you with local information such as zoning regulations and building codes.

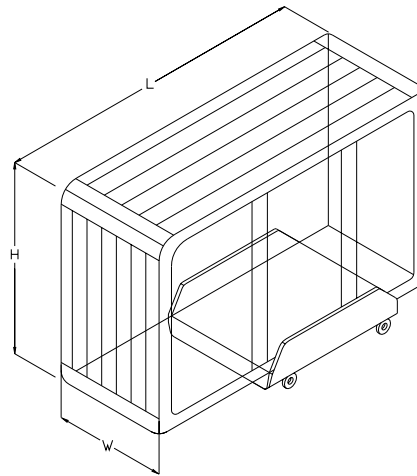
DELIVERY ACCESS

First, locate the dimensions of your spa on the following chart. The dimensions shown are the measurements of the spa in the vertical position on the Martins Manufacturing delivery cart.

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

Next, use the information on the next page to determine the feasibility of access.

Keep in mind the spa must remain on the delivery cart at all times. It may be necessary for you to remove a gate or partially dismantle a fence in order to provide an unobstructed passageway.



Model	Width	Length	Height
Siberian® (L)	39"	8' 4"	8' 2"
Bengal® (M)	39"	8' 5"	8' 2"
Sumatran® (N)	36"	7' 8"	7' 11"

How is your width clearance?

Check all gates

Protruding electric meters

Gas meters

A/C units

Do you have sufficient overhead clearance?

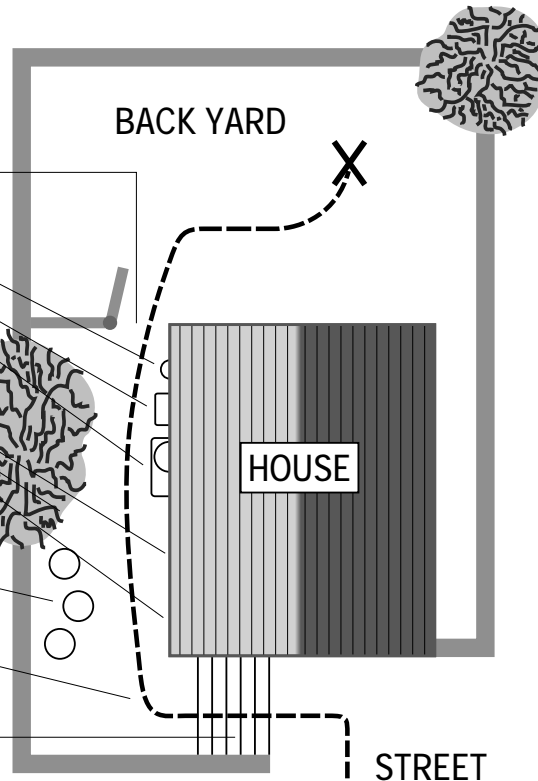
Check low roof eaves, overhanging branches, rain gutters

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



If the spa has to be taken off 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!

The use of a crane is a common delivery procedure that is necessary about 10% of the time. It is used primarily to avoid injury to your Tiger River® dealer's delivery personnel, or damage to the spa or your property.

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 Tiger River® delivery personnel will supervise the crane delivery and complete the spa installation. Crane delivery typically takes an average of 30 minutes to complete.

NOTE: 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.

GROUND PREPARATION

Your Tiger River® Spa has been engineered to perform on all kinds of common yard surfaces. While a concrete slab is best for long-term use, other foundations are acceptable so long as a level base is prepared prior to delivery. Three foundation base pictures, shown at right, represent examples of alternatives to a concrete slab for spas installed without gazebos or other accessories.

INSTALLATION NOTES:

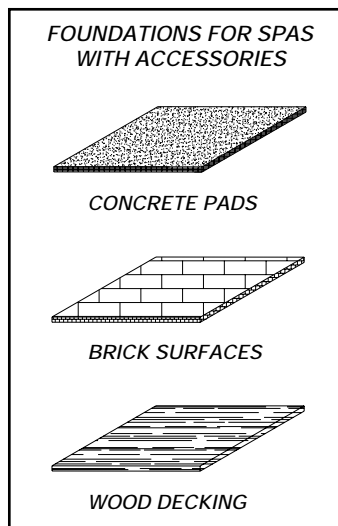
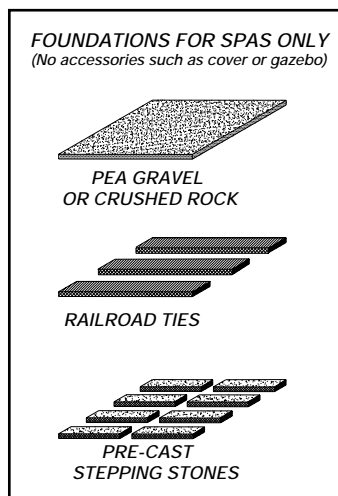
- If stepping stones or railroad ties are selected for the spa foundation, they should be placed at the designated leveling areas of your spa to maintain even distribution of the spa weight.
- It is important to note that soft surfaces, even when stepping stones are used to evenly distribute the weight of the spa, will still have a tendency to settle thus 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 gazebo 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.

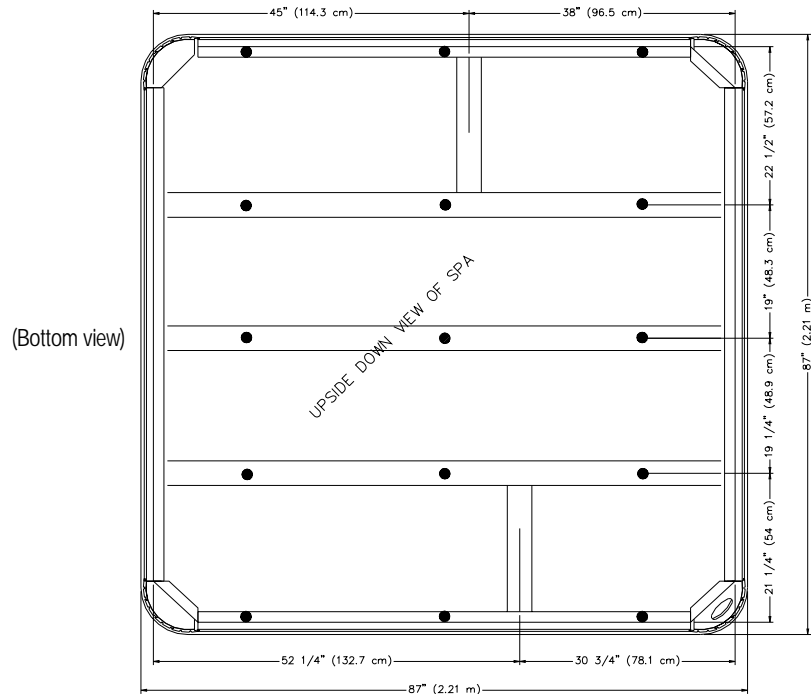
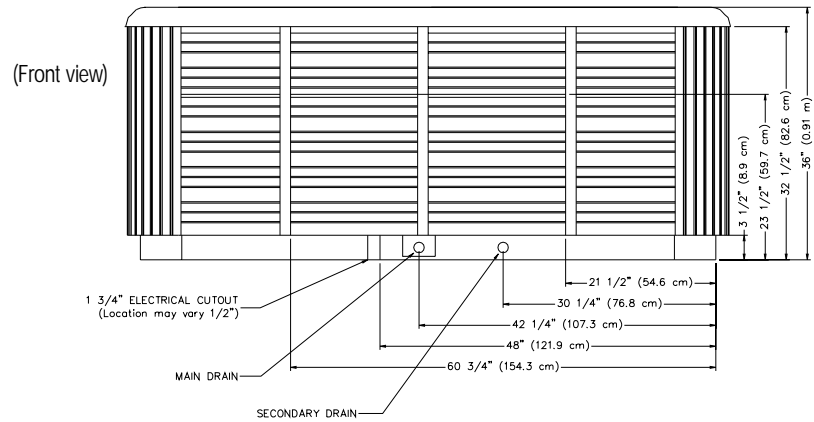
If you are interested in having a concrete slab, brick surface, or wood deck installed, your Tiger River® dealer should be able to suggest a qualified, licensed contractor.

NOTE: In order for the spa to operate properly and the internal plumbing to drain completely, you must ensure that the spa is leveled after it has been installed. The diagrams on the following pages indicate the recommended shimming points on your spa's base support system. Your Tiger River® delivery crew can help you perform the procedure.



Siberian® (Model L)

Dimensions

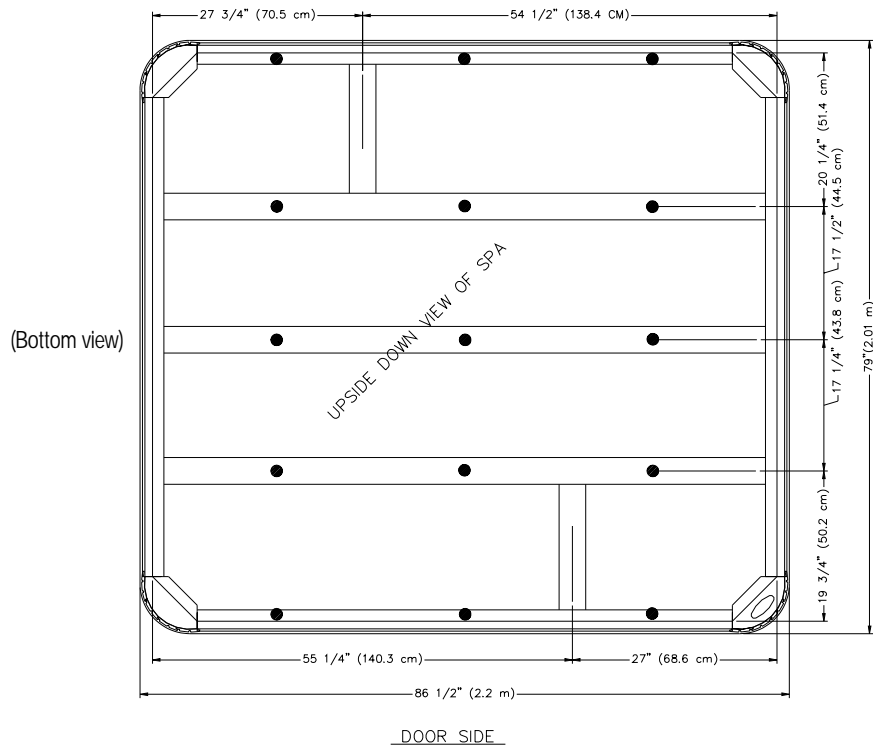
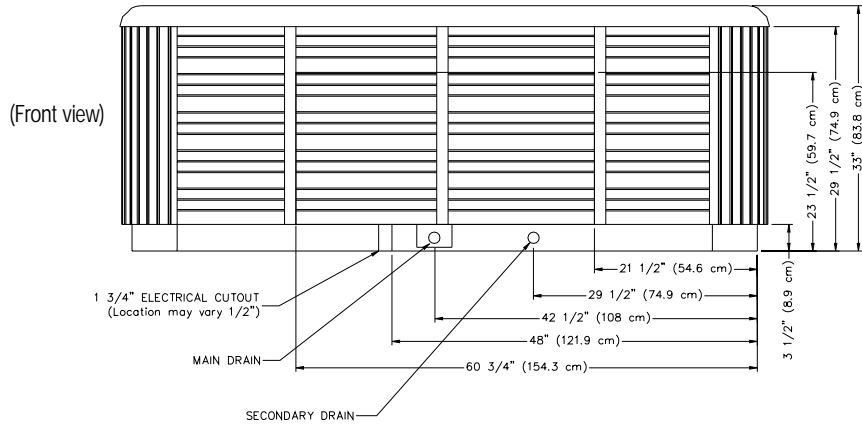


DOOR SIDE

- 15 Leveling Points (place shims approx. 15" in from edge, then center middle shims)

Bengal® (Model M)

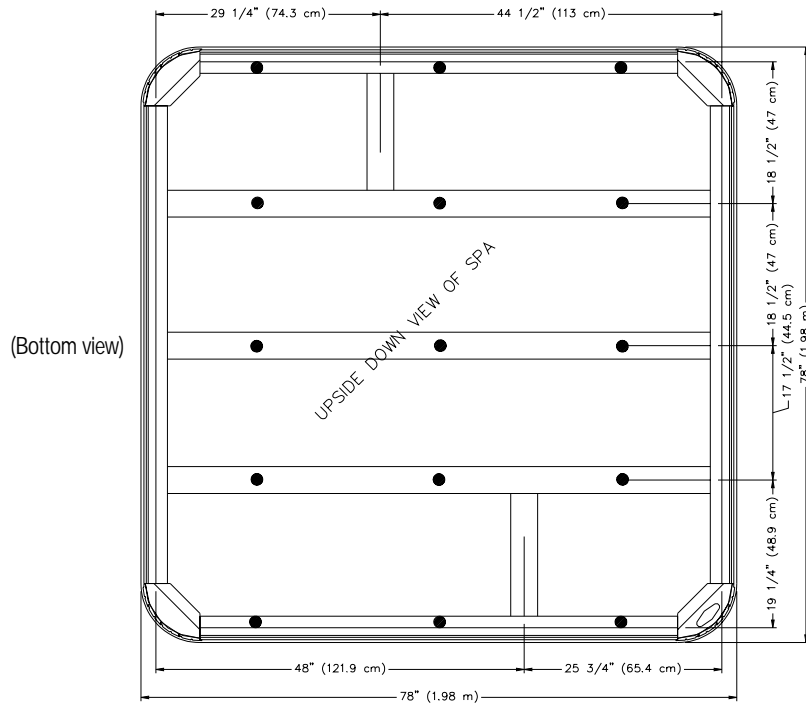
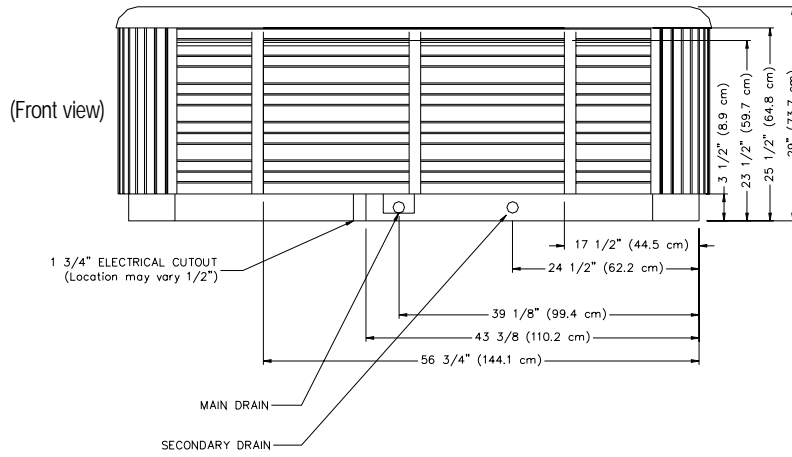
Dimensions



- 15 Leveling Points (place shims approx. 18" in from edge, then center middle shims)

Sumatran® (Model N)

Dimensions



- 15 Leveling Points (place shims approx. 15" in from edge, then center middle shims)

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.

Tiger River® Spas are manufactured in two different electrical versions. The Siberian® model is available with a 230 volt continuous heating system. This spa cannot be converted to 115 volt operation.

The Bengal® and Sumatran® models are available as 115/230 volt convertible heating systems. These models come standard from the factory with 115 volt heating systems; however, with the addition of a sub-panel and a control box wiring change, they can be converted to 230 volt operation. See the following sections for the electrical requirements for 115 volt operation, 230 volt operation and 230 volt converted operation.

115 VOLT OPERATION REQUIREMENTS

The 115 volt spa requires a dedicated 20 amp, 115 volt circuit. This circuit must be properly wired; that is, it must have a 20 amp GFCI breaker in the main electrical service panel, and #12 AWG wire (including ground wire) and the correct polarity throughout the circuit.

WIRE SPECIFICATION NOTE: Long electrical runs may require a larger gauge feed wire than stated. We recommend that a maximum voltage drop of 3% be used when calculating the larger wire size.

NOTE: The term "dedicated" means that only the spa operates on the circuit.

Each 115 volt model comes equipped with approximately 15 feet of usable power cord. (This is the maximum length allowed by Underwriters Laboratory.) When the spa is installed, the power cord (on the redwood skirt models) will come out of the bottom of the equipment compartment.

In addition to the dedicated 20 amp, 115 volt GFCI protected circuit, your spa requires a 20 amp single receptacle. This receptacle, which contains an outdoor-rated, weather-resistant receptacle cover plate, will be provided to you at the time of sale. The single receptacle and cover plate should be installed by your electrician prior to the delivery of your spa.

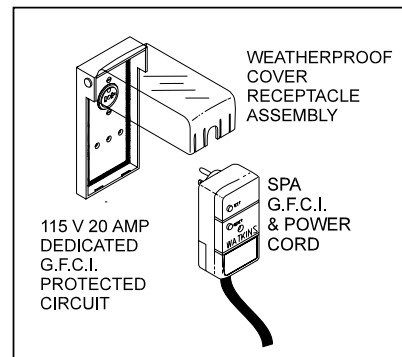
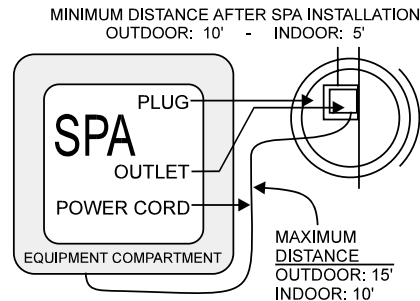
For your safety, when your electrician is installing the electrical outlet outdoors, it should be no closer than ten (10) feet and no farther than fifteen (15) feet from the spa. If the spa is being installed indoors, it should be no closer than five (5) feet and no farther than ten (10) feet from the spa. (Reference National Electric Code 680-6a(1) and 680-41a.)

WARNINGS: Do not connect your spa to an extension cord!

The 115 volt GFCI switch and the receptacle must be protected from weather and landscape sprinklers—they should never get wet.

NOTE: If you require the services of a licensed electrician, your Tiger River® dealer should be able to suggest one for you.

Your Tiger River® Spa has been carefully engineered to provide maximum safety against electric shock. Remember, connecting the spa to an improperly wired circuit will negate many of its safety features.



230 VOLT OPERATION REQUIREMENTS

Siberian[®], and converted Bengal[®] and Sumatran[®] models require a 50 amp, single phase, 230 volt circuit breaker in the main electrical service panel.

NOTE: WE RECOMMEND THAT A SUB-PANEL BE USED TO SUPPLY POWER AND PROTECT THE SPA. On the Siberian[®] model, the sub-panel containing GFCI breakers is included with the spa. On the converted 230 volt Bengal[®] and Sumatran[®] models, the sub-panel containing GFCI breakers must be purchased separately.

All 230 volt Tiger River[®] Spas must be wired in accordance with applicable local electrical codes, and all electrical work must be done by a licensed electrician.

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 sub-panel.

The grounding conductor must be the same gauge as the line conductor, but at least #8 AWG. Your electrician should mount the sub-panel in the vicinity of the spa but it should not be closer than five (5) feet from the spa water edge (NEC 680-6c).

INSTALLATION NOTE:

After the spa has been installed by the dealer's delivery crew, your electrician can connect the conduit from the sub-panel to the spa's IQ 2000[®] Spa Control Box and then complete the wiring connections in the control box.

IMPORTANT NOTE: Two different wiring diagrams are shown: one for the Siberian[®], and one for the Bengal[®] and Sumatran[®] models. Always follow the wiring diagram for your specific model.

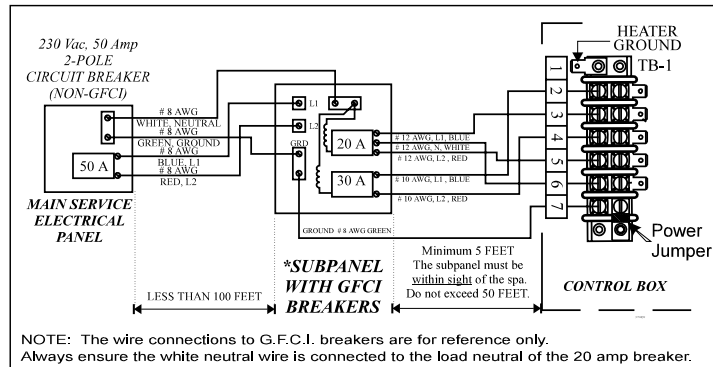
NOTE: Complete step-by-step Installation and Wiring Instructions for all 230 volt Tiger River[®] models are included in the Owner's Manual and with each sub-panel, which can be obtained from your dealer at the time of sale.

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

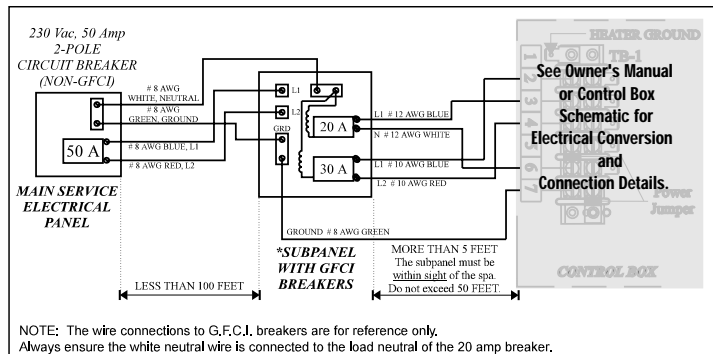
WIRE SPECIFICATION NOTE: Long electrical runs may require a larger gauge feed wire than stated. We recommend that a maximum voltage drop of 3% be used when calculating the larger wire size.

Refer to the Wiring Diagrams above for the electrical requirements of the 230 volt models.

Siberian[®] (Model L) 230 volt permanently connected model



Bengal[®] (Model M) and Sumatran[®] (Model N) 230 volt converted models



Spa Specifications

	Footprint dimensions	Height	Effective filter area	Heater (Watts)	Water capacity	Dry weight	Filled weight*	Dead weight*	Electrical Requirements
Sumatran® (Model N)	6'6" x 6'6" 1.98m x 1.98m	29" 73.7cm	60 Square feet	1,500 (115 volt) 6,000 (230 volt)	270 Gallons 1,022 Litres	470 Lbs. 213 Kg.	3,680 Lbs. 1,669 Kg.	95 Lbs. per square foot	115V System: 115 Volt, 20 Amp dedicated circuit 230V System: 230 Volt, 50 Amp single phase GFCI protected circuit
Bengal® (Model M)	7'2-1/2" x 6'7" 2.2m x 2.01m	33" 83.8cm	60 Square feet	1,500 (115 volt) 6,000 (230 volt)	330 Gallons 1,249 Litres	490 Lbs. 222 Kg.	4,005 Lbs. 1,817 Kg.	100 Lbs. per square foot	115V System: 115 Volt, 20 Amp dedicated circuit 230V System: 230 Volt, 50 Amp single phase GFCI protected circuit
Siberian® (Model L)	7'3" x 7'3" 2.21m x 2.21m	36" 91.4cm	60 Square feet	6,000 (230 volt)	375 Gallons 1,420 Litres	508 Lbs. 230 Kg.	4,558 Lbs. 2,067 Kg.	95 Lbs. per square foot	115V System: Not available 230V System: 230 Volt, 50 Amp single phase GFCI protected circuit

CAUTION: Watkins Manufacturing 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).

CONTRACTOR SUGGESTIONS

Electrician

Name: _____

Telephone: _____

Name: _____

Telephone: _____

Masonry

Name: _____

Telephone: _____

Name: _____

Telephone: _____

General

Name: _____

Telephone: _____

Name: _____

Telephone: _____

ADDITIONAL PRODUCTS AVAILABLE FROM YOUR TIGER RIVER® SPA DEALER:

- EverFresh® Water Care System
- BioFree™ Automatic Spa Water Sanitizer
- FreshWater® II High Output Ozone Purification System
- Spa Shock™
- Retractable Cover Systems
- Vinyl Cover
- Chemical Start-up Kits
- Spa Vacuums
- Stain Kit
- Spa Upgrade Jet Kits
- Cover Shield
- Replacement Filters
- Pillows
- Colored Light Bulbs
- Custom Wood Accessories
- Others

SERVICES AVAILABLE FROM YOUR TIGER RIVER® SPA DEALER Service

Cost

Pre-Delivery Site Inspection	_____
Deliver Spa to Installation Site	_____
Unwrap Spa and Haul Away Packaging Material	_____
Set Up & Level Spa	_____
Fill the Spa with Water	_____
Connect the Spa to its Power Source (115 volt models)	_____
Explain and Test the Spa's Operation	
• Jet System	
• Install and Test Lamp	
• Set Temperature Control	
• Control Panel Functions	
Explain the Safety Features	
• GFCI	
• Heater High Limit	
• Heater Thermal Cut-off	
General Spa Operation & Maintenance Orientation	_____
Water Quality and Maintenance Orientation	_____
Adjust the water's Total Alkalinity, Calcium Hardness and pH	_____
Sanitize the water	_____
Inspect the spa cover, place on spa	_____
Review Winterizing Instructions	_____
Review Owner's Manual & Warranty Card	_____
Follow-up Call	_____
In-Store Spa Water Analysis	_____
TOTAL COST	_____



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