

WELCOME TO WARM WATER!

We appreciate your business and look forward to providing you with years of relaxation and enjoyment. To ensure a seamless delivery of your new hot tub, please use these documents in preparation for the delivery of your new hot tub. Provided below are additional specifications for proper electrical setup.

Electric Installation

There are many ways that a hot tub can be wired **depending** on the exact model and/or brand that you purchase. This means that pre-existing wiring and electrical setups are not sufficient **unless** it is the exact same setup and model, **assuming:** 1) the manufacturer has not made any changes to the tub, and 2) the existing wiring is still in excellent condition. **Electrical disconnect breakers must always be replaced when installing a new tub.** You will find the electrical schematics for your new hot tub further in this booklet. Wiring schematics should be given to your electrician to ensure proper wiring of your hot tub.

115V hot tubs have a cord with a GFCI end and **10 ft of usable cord**. The 20AMP receptacle box must be installed within **10 ft** of the hot tub prior to delivery and the hot tub must be the only appliance powered on that circuit.

GFCI end and attached cord



220V hardwired hot tubs need a “whip” (a flexible or hard **¾” conduit** containing wires as specified on your tub wiring schematic) from your subpanel to the electrical cutout on the hot tub. **You or your electrician MUST add additional length in wiring from the opening, or where the electrical cutout is shown as an entry point on the hot tub, PLUS the width and height to the equipment compartment for the final connection to be made.** EX. Grandee with back corner entry requires approximately 15’ of wiring to electrical board. There is an electrical board inside the equipment compartment where the wires are meant to be connected and installed to run the hot tub (**wires don’t just go into the electrical opening**). This ensures that your electrician will have enough slack to connect the wires inside the hot tub. Too long is better than too short (the excess can be wound up in the equipment compartment). If the wires are too short your electrician will have to run an entire new set of wires for the hot tub to run properly and we will not be able to start your hot tub on delivery. Please have your electrician reach out to your local store or salesperson for any clarity needed.



WHIP

PLEASE NOTE (common error): The neutral wire in the subpanel needs to be attached to the breaker, NOT onto the grounding bar. The hot tub may not start, or the breakers may trip if the neutral wire is not connected properly.

PER WATKINS MANUFACTURING – 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 Allen Pools and Spas, **THIS IS YOUR RESPONSIBILITY.**

IMPORTANT: All electrical circuits must be installed by a qualified, licensed electrician.
You can NOT run a hot tub on an extension cord.

Considering converting your Hot Tub from 110V to 220V?

Currently the hot tub models that can be converted from 110V to 220V are: Prodigy 2022 and prior, Jetsetter, Beam, Pace, Stride, SX, TX, and all FreeFlow hot tubs. Review the Pros and Cons to see if converting the electrical of your hot tub is a good option for you. Please contact your salesperson if you would like to convert to 220V.

110 V, 20A GFCI Cord
115V 15 A GFCI Cord
110V Plug N' Play

Pros

- Ease of installation.

Cons

- Hot tub heater does not operate when jets are in use. Can lose 2-3 degrees per hour depending on the ambient temperature. (110V averages 24hrs to heat depending on size)

Example of 110V- 15A:



220V 50A Subpanel

Pros

- Hot tub heats 4X quicker than 110V (110V averages 24hrs.)
- Jets and heater operate at the same time. No temperature loss while using hot tub.

Cons

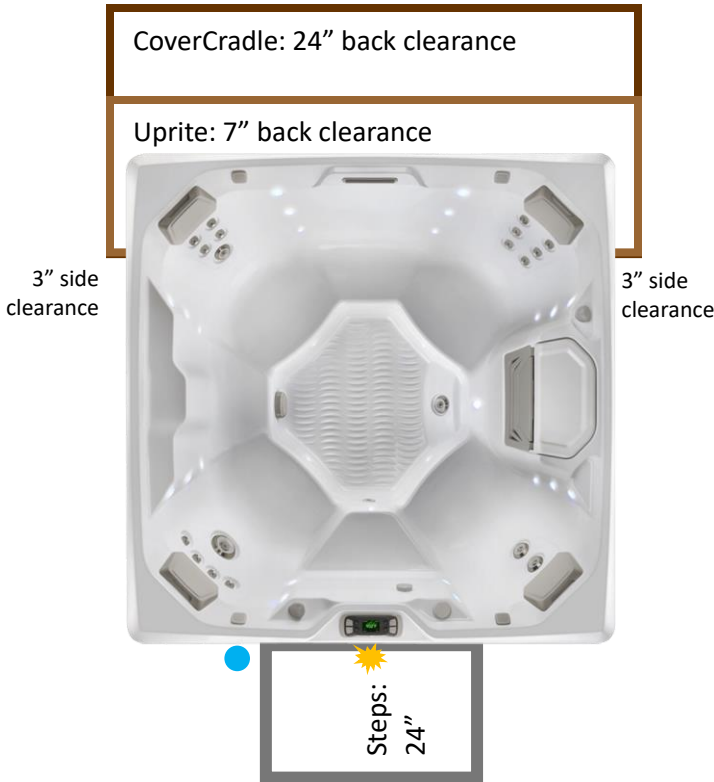
- Higher installation cost.
- Requires additional programming on installation of hot tub.

Example of 220V:





Limelight Beam 115 Volt



Shell: Alpine White
 Cabinet: Sable
 Drain
 Electrical Access

Seating Capacity	4 People
Dimensions	6'8" x 6'8" x 3" / 2.03 m x 2.03 m x 0.84 m
Water Capacity	295 Gallons / 1,115 Litres
Weight	700 lbs/320 kg dry; 3,860 lbs/1,750 kg filled

19 Jets (all with stainless steel trim)

- 1 XL Dual Rotary Jet
- 2 Standard Single Rotary Jets
- 2 Standard Directional Jets
- 14 Directional Precision® Jets

Water Care System FreshWater® Salt System Ready

Effective Filtration Area 100 sq. ft., top loading (2x 50 sq ft, 78373)

Energy Efficiency FiberCor® Insulation; Certified to the APSP 14 National Standards and the California Energy Commission (CEC) in accordance with California Law

Jet Pump 115 V Wavemaster® 7000; One-speed:
 1.65 HP Continuous Duty
 3.5 HP Breakdown Torque

Heater No-Fault® 1,000 W / 150 V

Control System IQ 2020® with LCD control panel 115 V / 20 amp, 60 Hz (includes G.F.C.I. protected power cord)

Entertainment System Optional Wireless Entertainment

Cover	3.5" to 2.5" tapered, 1.5 lb. density foam core, with hinge seal
Cover Lifter	CoverCradle®, CoverCradle II®, or Uprite®
Steps	Everwood® - Espresso, Coastal Grey, Sable Polymer – Ash, Espresso
Lighting – Interior	30 Raio® multi-color LED points of light
Lighting – Exterior	Multi-color lighting with timer

Shell Colors



Cabinet Colors



Cover Color





SITE SELECTION AND PREPARATION

IMPORTANT: Site selection and preparation are your responsibility. Carefully read these instructions and consult Allen Pools and Spas 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 off each of the following:

- Always put your spa on a structurally sound, level surface WITHOUT pitching or shimming** A filled spa can weigh a great deal. Make certain the location you choose can support the weight of your filled spa.
- Locate your spa away from any reflective surface or glass. The heat generated by some types of double-pane windows and reflective surfaces can cause serious damage to the exterior of the spa, including the siding and cover.
- Locate your equipment compartment, which houses all the electronic components, in a place where the 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 spa's subpanel is rain tight when installed correctly with the door closed.
- Leave access to the equipment compartment for periodic spa care and maintenance.

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.

If you install the spa outdoors, a reinforced concrete pad at least 4" thick is recommended. The reinforcing rod or mesh in the pad should be attached to a bond wire (see your Owner's Manual). All Hot Springs spas may be installed onto a deck, provided that the load capacity of the deck is greater than the dead weight of the spa (see Deck Installation).

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 located further into these instructions. 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 accumulate around the spa, so flooring material 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 determine if more ventilation must be installed.

Allen Pools and Spas can assist you with finding sources for local information such as zoning regulations and building codes.

DELIVERY ACCESS

First, note the dimensions of your spa below. The dimensions are the measurements of the spa in the vertical position, laid on its side as shown in the drawing below.

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. Use the length dimension L when making any sharp turns to determine the minimum clearance required.

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

Use the information below to determine the requirements for access to you desired location.

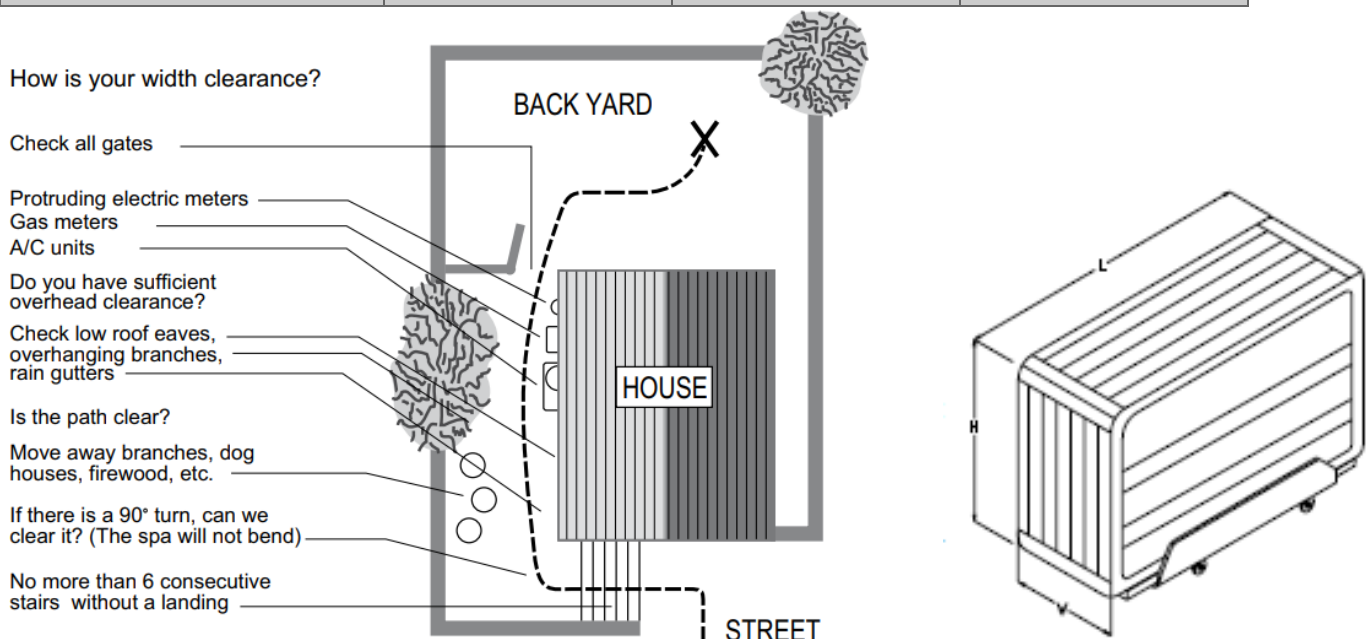
It may be necessary to remove a gate, part of a fence, or other moveable obstructions to roll the spa to its installation site. About 10% of the time, a crane is the only way to install the spa by lifting it to its final destination.

If the spa must 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 crane has a truck-mounted boom which can fit right in your driveway. Crane operators are licensed and insured. For a charge, the crane operator will lift your spa over walls, buildings, or any other obstructions and place it as close to the installation site as possible. The Hot Spring spa delivery personnel will supervise the crane delivery and complete spa installation.

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

MODEL	WIDTH W	LENGTH L	HEIGHT H
Beam (BMI)	33"/84 cm	80"/203 cm	80"/203 cm



GROUND PREPARATION

Your Hot Spring spa has been engineered to perform on several kinds of 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.

NOTE: Have a reinforced concrete pad at least 4 inches (10 cm) thick or a deck that can withstand the pounds per square foot listed in the Spa Specification section.

INSTALLATION NOTES:

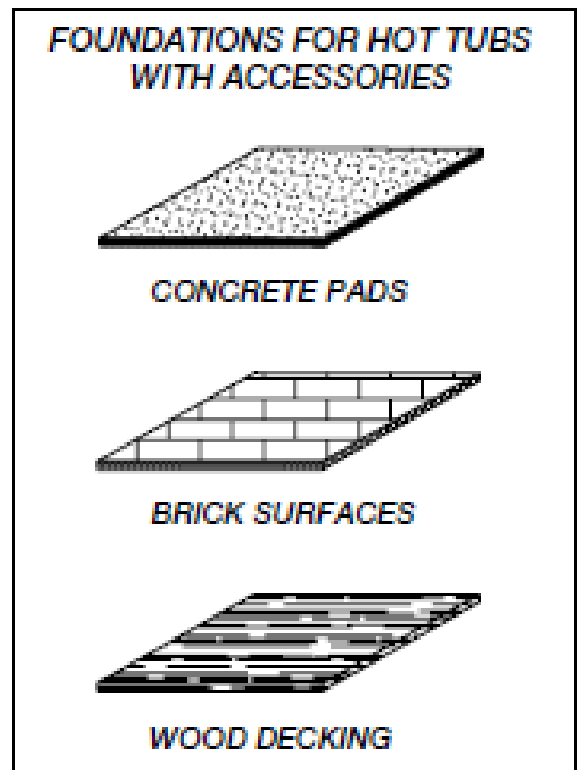
- If brick or wood decking is selected for the spa foundation, it should be placed and leveled below the entire spa to maintain even distribution of the spa weight.
- It is important to note that if bricks are used to distribute the weight of the spa there may still be a tendency to settle unevenly, resulting in an unlevel spa.
- Remember, placing the spa around grass or dirt may increase the amount of debris which is inadvertently brought into the spa on the user's feet.

If you are installing a deck or a gazebo for 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 a wooden deck installed, your Hot Spring dealer should be able to suggest a qualified, licensed contractor.

NOTE: For the spa to operate properly and the internal plumbing to drain completely, you must ensure that the spa surface is level before installation. Shimming or point leveling is NOT supported or recommended by the manufacturer.



BEAM (BMI) SPECIFICATIONS

FOOTPRINT	HEIGHT	HEATER	WATER CAPACITY	DRY WEIGHT	FILLED WEIGHT*	DEAD WEIGHT*	ELECTRICAL REQUIREMENTS
6'8" X 6'8" 203 cm X 203 cm	33" 84 cm	1000 Watts	295 gallons 1,115 litres	700 lbs 320 kg	3,860 lbs 1,750 kg	110 lbs/ft ² 540 kg.m ²	115 volt, 20 amp

*NOTE: "Filled Weight" and "Dead Weight" include the weight of 4 adults at 175 lbs (80 kg) each

CRUSHED STONE PREP GUIDE:

Crushed stone pads can be created by making a hole in the earth for stone-fill and framing, or by creating a raised structure on top of earth to fill and frame. **No matter which you choose, these guidelines need to be followed:**

- Size: Make sure the pad is large enough to accommodate your new tub and any accessories that will go with it, such as steps.
- Framing: Crushed stone pads **MUST** be framed whether your stone will be placed into a hole dug into the ground or placed in a raised structure above the ground. We strongly suggest using 6x6's or 4x4's to frame your gravel pad.
- Depth: **Your stone should be at least 4-6" deep (6" is the best choice);** whether it is being placed into an above ground structure or in-ground pad.
- Choosing Stone: Crushed stone should be no larger than 3/4". You may also choose to put sand in the first 2" and finish it off with crushed stone. **Never use river gravel or any stone over 3/4".**
- Leveling: **It is EXTREMELY important that your pad is 100% level.** Hot tubs must be placed on a level surface. This is also why framing is so important. Framing will keep your stone from doing things to make the tub become off-balance, such as shaking loose when the tub is on it or washing out during heavy rainfall.

NOTE:

!! GRANDEE, ENVOY, PULSE, AND PRISM CANNOT BE USED ON A CRUSHED STONE SITE !!

!! FREEFLOW LOW MOUNT LIFTER CANNOT BE USED ON CRUSHED STONE SITE !!

Example of a preferred stone pad:

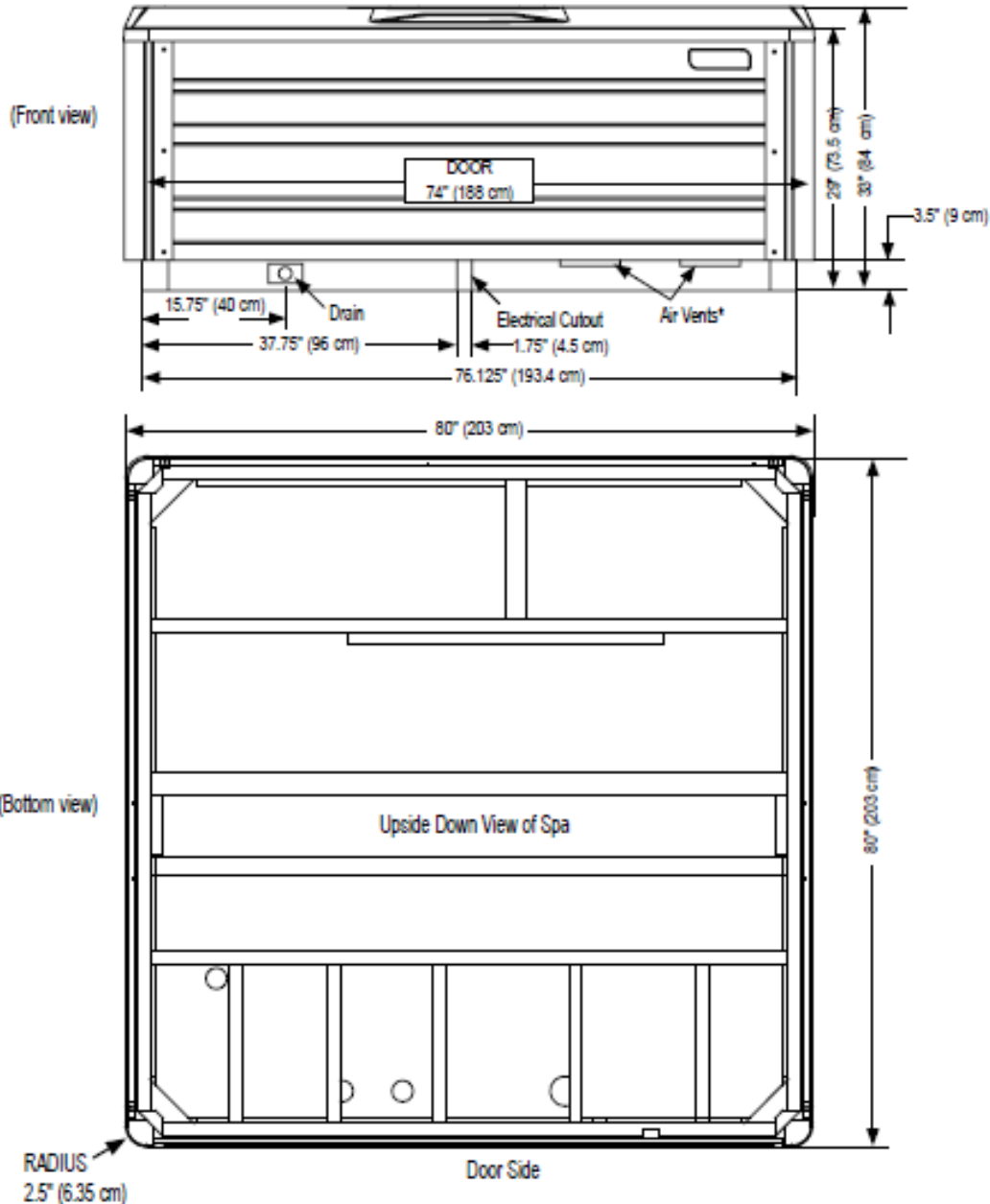


BEAM™ (Model BMI & BMII)

Dimensions

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

Configuration and location may change without notice.



NOTE: Watkins Wellness recommends that the **BEAM** be installed on a minimum 4" (10 cm) thick reinforced concrete pad or structurally sound deck that is able to support the "dead weight" found in the spa specification chart.

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

***Do not block Air Vents**

ELECTRICAL REQUIREMENTS

To ensure you will have an opportunity to use your spa soon after delivery, it is very important that the required 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.

115 VOLT BEAM (MODEL BMI)

115 VOLT GFCI

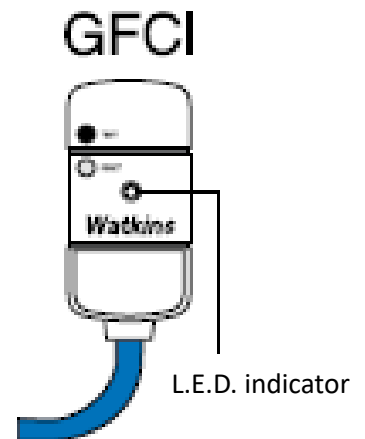
The Ground Fault Circuit Interrupter (GFCI) is a safety device that is designed to detect as little as 5 milliamps ($\pm 1\text{mA}$) of electrical current leakage to the ground. **WATKINS WELLNESS** recommends that the GFCI be tested prior to each use to ensure it is functioning correctly. With the spa connected to the power supply, push the “Test” button. The spa should stop operating and the GFCI power indicator will go out.

Wait 30 seconds and then reset the GFCI by pushing the “Reset” button. The GFCI power indicator will turn on, restoring power to the spa. If the interrupter does not perform in this manner, it is an indication of an electrical malfunction and the possibility of an electric shock. Disconnect the plug from the receptacle until the fault has been identified and corrected.

IMPORTANT: Failure to wait 30 seconds before resetting the GFCI may cause the spa’s Power Indicator (on the control panel) to blink. If this occurs, repeat the GFCI test procedure. Never use the GFCI as a means to disconnect power to the spa (always unplug it). If the GFCI is tripped while the spa is plugged in, and a power outage occurs, when the power returns the GFCI will automatically reset and power will flow to the spa.

115 VOLT OPERATION (60Hz ONLY)

The spa must be connected to a dedicated 115 volt, 20 amp, GFCI protected, grounded circuit. The term “dedicated” mean the electrical circuit is not being used or shared for any other electrical items (patio lights, appliances, garage circuits, etc.). if the spa is connected to a non-dedicated circuit, overloading will result in “nuisance tripping” at the main panel. This requires frequent resetting of the breaker switch at the house electrical breaker panel and introduces the possibility of damage or failure of spa equipment. The dedicated circuit must be properly wired; that is, it must have a 20-amp GFCI circuit breaker in the house breaker panel, #12AWG or larger wire (including the ground wire) and the correct polarity throughout the circuit.



NEVER CONNECT THE SPA TO AN EXTENSION CORD!

A pressure wire connector is provided on the exterior surface of the control box, inside the spa. This is to permit the connection of a ground bonding wire between this point and any metal equipment enclosures, reinforced concrete pad, pipe, or conduit within 5 feet (1.5 m) of the spa (if needed to comply with local building code requirements). The bonding wire must be at least a #10-AWG solid copper wire.

Bond the spa to all exposed metal equipment or fixtures, handrails, and concrete pad per N.E.C. Article 680 and all local codes.

INSTALLATION INSTRUCTIONS

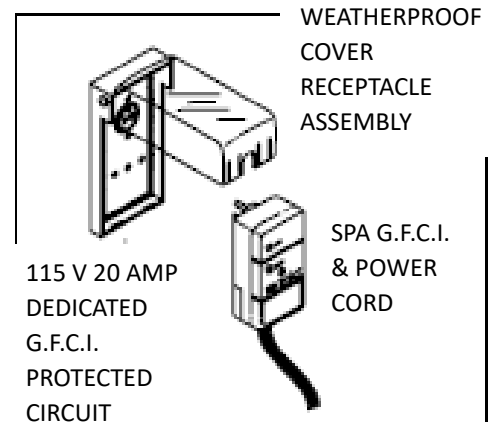
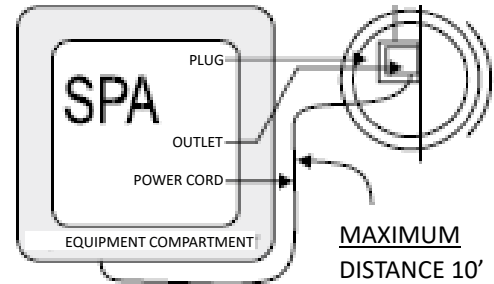
The 115 volt **BEAM** spa model comes equipped with approximately 15 feet of useable power cord (this is the maximum length allowed by Underwriters Laboratory and the National Electric Code). When the spa is installed, the power cord will come out of the bottom of the equipment compartment door. For your safety, when the electrician is installing the 20 amp single electrical outlet and waterproof cover, the outlet should be no closer than 5 feet (1.5 m) and no farther than 10 feet (3m) from the spa [reference National Electric Code 680-6a(1) and 680-41a].

The Ground Fault Circuit Interrupter (GFCI) is located at the end of the power cord. This device is for your protection. It is very important to protect it from rain and other moisture. Test once a month, with the plug connected to the power supply.

1. Push the **“TEST”** button on the GFCI breaker. The spa should stop operating and the GFCI power indicator will go out.
2. Wait 30 seconds, then push the **“RESET”** button. Power will be restored to the spa and the GFCI power indicator will turn on.

If the GFCI fails to operate in this manner, your spa may have an electrical malfunction, and you may be risking electrical shock. Turn off all circuits and do not use the spa until the problem has been corrected by an authorized service agent.

MINIMUM DISTANCE AFTER SPA INSTALLATION: 5'



WARNING: Removal of the GFCI from the spa's power cord will result in an unsafe spa and will void the spa's warranty.

IMPORTANT: Should you ever find the need to move or relocate your Hot Spring spa, it is essential that you understand and apply these installation requirements. Your Hot Spring 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.