



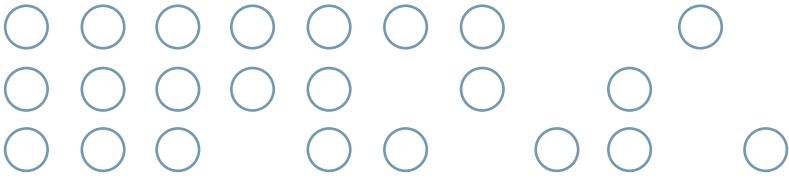
northern bay hot tubs®  
**ADVANCE DELIVERY GUIDE**



Northern Bay  
Hot Tubs®



Key steps to making the delivery and installation of your new spa smooth and hassle-free



# *Essential Product Information*

Please make a note of the following information,  
it will be required if service is necessary.

Model: .....

Serial Number\*: .....

Installation Date: .....

Spa Dealer: .....

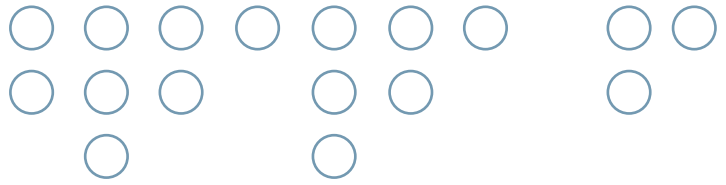
Address: .....

Telephone: .....

Email: .....

**www.northernbayhottubs.com**  
**sales@northernbayhottubs.com**

\*The serial number/identification label is located within the equipment compartment and skimmer area.



# Preface

Congratulations! You have chosen a quality Northern Bay<sup>®</sup> Hot Tub designed and manufactured to provide years of relaxation and comfort. With some advance planning, your spa will provide you with years of dependable service. This handbook has been designed to guide you through the key steps to planning for the delivery of your new spa to make the experience smooth and hassle-free.

Please read this guidebook before your scheduled delivery date.

## Contents

Choosing The Site For Your New Spa	4-5
Planning A Structurally Sound Surface	6-8
Positioning The Spa To Your Site	9
Electrical Requirements	10-13
Northern Bay <sup>®</sup> Plano-gram	14

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# Choosing the Site for your New Spa



## Safety

Most cities and states require permits for exterior construction and electrical circuits. In addition, some communities have codes requiring spa alarms and residential barriers such as fencing and/or self-closing gate(s) on the property to prevent unsupervised access to a pool or hot tub by children. Your Northern Bay® Hot Tub dealer may be able provide information on which permits may be required and how to obtain them prior to delivery of your spa.

Your Spa is totally self-contained and portable. You can locate it just about anywhere you wish. Preferable places are a patio, deck or indoors. **Regardless of your choice, the spa must be placed on a structurally strong, level, solid load-bearing surface built to your local Building Department codes.**

When selecting a site for your spa, be sure to allow for drainage away from the electrical compartment of your spa. Also, allow for access to the equipment compartment.

Do not block air vents to your spa. The air vents allow for circulation of air throughout the equipment compartments. These vents are found on the face of the equipment compartment panel, the floor of the equipment compartment, and under the corners of the spa (at the equipment compartment end).

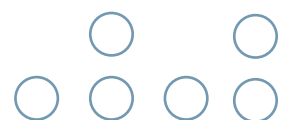
Do not locate your spa within 10 feet of overhead power lines.

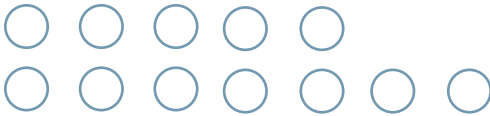
This spa is manufactured to be a self contained and portable unit. Any permanent installation of this product is done at the risk of the owner. Permanent installation of this unit violates warranty coverage.

## Intended Use

Comfort. Rest. Relaxation. Stress-relief. Healing power. If these were some of the reasons behind the purchase of your new spa, you will want to select a location that will offer the privacy, peacefulness and mood required to help you achieve these benefits.

Family Fun. Entertainment. If these were the motivating factors behind your spa purchase, you will need to provide ample space around your spa's new location for additional seating and playful activity.





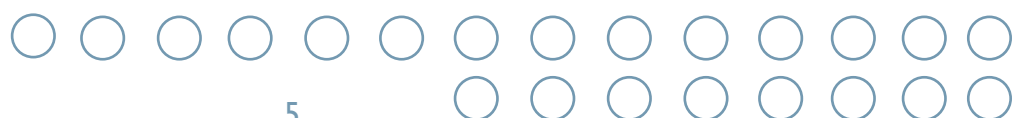
## Environment

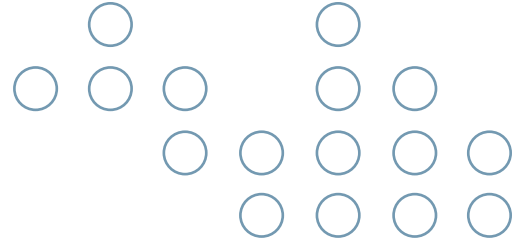
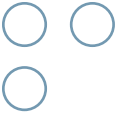
**Indoor Installations:** For these installations, you need to consider ventilation. Spas produce considerable amounts of moisture. Your spa area should contain moisture resistant wall/floor coverings and building materials to avoid damage from moisture over time. Also, your spa will require draining as part of the normal maintenance of the unit. You will need to provide an avenue for this spa waste drainage.

**Outdoor Installations:** If you live in a climate with cold, snowy winters, you may want to consider locating your spa close to the house for easy access. You may also want to consider some type of wind break or barrier to surround the unit. Southern exposure is also usually preferable. Make note of eaves, you would not want to position your spa under a gutter or eave that could allow melting snow to slide onto your spa. This could also allow rain or snow melt to drip or splash on your spa.

If you live in a warmer climate, you will want to provide shade around your spa for relief from the sun. Deck awnings, gazebos and porch coverings are some of the most common solutions.

Regardless of climate, you will need to provide a walkway or access to your spa that will prevent dirt and foliage from being introduced to your spa. You will also need to think about location of trees and shrubs. While landscaping can provide additional privacy, take care when making your landscaping selections to avoid deciduous varieties that may shed their leaves seasonally and no longer provide privacy. Or worse, shed their leaves in and around your spa area.





## *Planning a Structurally Sound Surface*

Following are just a few options for a foundation for your spa. It is really a matter of personal choice and budget. Regardless of your site choice, **your spa must be placed on a structurally strong, level, solid load-bearing surface built to your local building codes.** This surface must be able to support the weight of the spa, the water in it and its occupants. Improper, out of level surfaces can cause structural damage to the spa, voiding warranty.

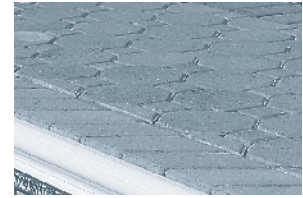
### **Important Points to Address:**

- A spa filled with water is heavy. If you are installing it on an elevated wood deck or other structure, it is advisable to **consult your local Building Department, structural engineer or contractor for advice or assistance on load requirements. See technical specifications on page 8.**
- It is strongly recommended that a qualified, licensed contractor prepare the foundation for your hot tub. There is a 4” minimum depth requirement for a structurally strong, level, solid load-bearing concrete pad built to your local building codes.
- If installing your spa below grade, ensure that there is sufficient drainage for rain and water runoff.
- Check the location and setup of your spa for conformity to local building and electrical codes.



**Concrete:** Always a popular choice for patios, concrete is a versatile surface because you can pour it in any shape and then give it a variety of finishes before it hardens. Stamping, scoring, brushing, exposing aggregate, and adding pigment are ways to take away the monotony of smooth concrete. Your concrete slab is to be structurally strong, level, solid and load-bearing built to your local building codes.

**Concrete Pavers:** Buy them in a variety of surface textures and colors ready to lay onto a formed, structurally strong, level, solid load-bearing concrete slab built to your local building codes.



**Flagstone, slate bluestone:** These are beautiful textured surfacing materials. They're available in earthy colors, such as buff, yellow, reddish-brown, and gray. Installation means mortaring them into place in a random, jigsaw-like pattern on a structurally strong, level, solid load-bearing concrete slab built to your local building codes.

**Brick:** Lay bricks in mortar on a structurally strong, level, solid load-bearing concrete slab built to your local building codes. Select an interesting pattern for your patio and be sure to use long-wearing Severe Weather grade brick.



**Loose Surfaces: ARE NOT APPROVED FOUNDATIONS** for the spa, and will **VOID** your spas warranty. These surfaces include wood chips, bark, pea gravel, pebbles, crushed rock, dirt, sand, grass, improperly installed brick/pavers and similar materials as well as cracked, unlevel, shimmed and/or damaged concrete slabs. Please consult this Advanced Delivery Guide or your Authorized Northern Bay® Hot Tub Dealer for approved surfaces.

**Wood and Synthetic Wood Decks:** If you are building an elevated wood deck or other structure, it is advisable to **consult your local building department, structural engineer or contractor for advice or assistance on load requirements\***. See technical specifications on the following page. To avoid the “added-on” look, be sure your deck blends with the design and color of your home. Decks constructed from garden-grade redwood or cedar can be left with a natural unstained look. With other woods, you'll want to stain or paint.



**\*Example:**

Huntington approx. dry weight 750 pounds

Huntington approx. 375 gallons x 8 pounds (approx. weight of 1 gallon of water) = 3000 pounds

Huntington approx. weight filled with water; 3000 + 750 = 3750 pounds

4 people in spa, weighing an average of 150 pounds = 620 pounds

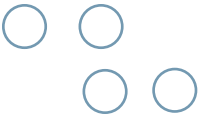
3750 + 620 = 4370 pounds. If you have a deck that is 10ft x 10ft = 100 sq. ft.

4370 pounds/100 sq. ft. = 43.7 pounds per square foot the deck will require to support.

Check first with your Local Building Department and Municipalities for requirements and inspections needed when installing your spa on a existing structure or constructing a new support structure for your spa.

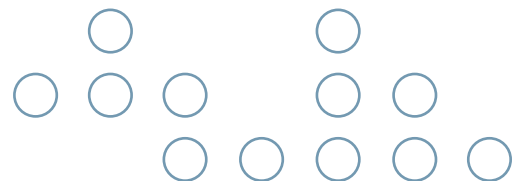
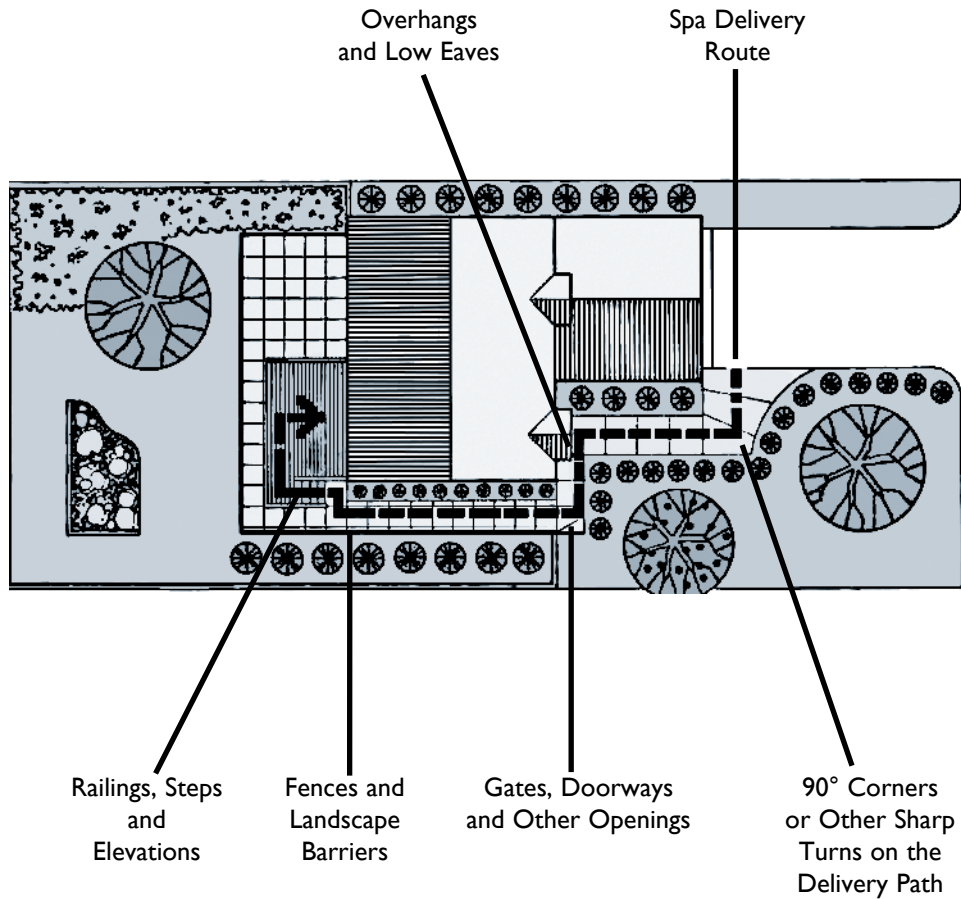
<b>Model</b>	<b>Width Inches</b>	<b>Length Inches</b>	<b>Height Inches</b>	<b>Dry Weight Pounds</b>	<b>Filled Weight Pounds</b>
<b>PLATINUM COLLECTION</b>					
Cypress	84"	84"	38"	750 lbs	3,880 lbs
Monroe	89"	93"	40"	920 lbs	5,302 lbs
Minocqua	89"	93"	40"	920 lbs	5,302 lbs
Manistique	90"	94"	40"	920 lbs	5,302 lbs
Okaboji	92"	108"	40"	1200 lbs	7,835 lbs
<b>RESORT COLLECTION</b>					
Fontana	84"	84"	38"	620 lbs	3,457 lbs
Huntington	84"	84"	38"	750 lbs	3,880 lbs
Grand Marais	90"	94"	40"	920 lbs	5,302 lbs
Richmond	89"	93"	40"	920 lbs	5,302 lbs
Mackinac	80"	84"	36"	780 lbs	3,622 lbs
Winona	80"	84"	36"	780 lbs	3,622 lbs
<b>MOONLIGHT COLLECTION</b>					
Geneva	67"	80"	34"	500 lbs	2,504 lbs
Bemidji	67"	80"	34"	500 lbs	2,504 lbs
Fontana	84"	84"	38"	780 lbs	3,911 lbs
Huntington	84"	84"	38"	750 lbs	3,880 lbs
Minnetonka	80"	84"	36"	700 lbs	3,622 lbs
Augusta	80"	84"	36"	700 lbs	3,622 lbs
Camelot	92" Round	-	38"	600 lbs	4,000 lbs
<b>WHITEWATER SERIES</b>					
Catatoga	57"	80"	29"	385 lbs	1,638 lbs
Bemidji	67"	80"	34"	500 lbs	2,504 lbs
Geneva	67"	80"	40"	385 lbs	1,638 lbs





# Positioning the Spa to your Site

Check the dimensions of your spa model on the chart on the preceding page. Compare the spa dimensions to the width of gates, sidewalks, and doorways along the delivery route to be used to bring the spa into your home or yard. If the delivery route will require a 90° turn, check the measurements at the turn to ensure the spa will fit. Are there overhead obstructions such as low clearance gutters or eaves? Are there obstacles protruding into the delivery path such as air conditioning units or plumbing fixtures? It may be necessary to remove or partially remove obstacles in advance of your delivery date to ensure an unobstructed passageway to the installation site. Are there stairs or steep inclines/declines on the delivery path? If so, consult with your Northern Bay® Hot Tub dealer prior to delivery for special arrangements that may be necessary.



# Electrical Requirements

Northern Bay® Hot Tub products must be wired in accordance with all applicable local electrical codes. All electrical work should be done by an experienced, licensed electrician familiar with spa installations: NOTE: As of January 1, 1996, The National Electrical Code (NEC) requires a GFCI (Ground Fault Circuit Interrupter) on all spa installations.

## 110 Volt Electrical Requirements

(Northern Bay® has made available some models with 110 Volt/220 Volt convertible spa packs and 110 Volt only spa packs. See brochure for a listing of 110 Volt models)

The models with the convertible control system are manufactured with convertible heating units. They are factory wired for 220 Volt operation with a 4.0 KW heater and with 60 AMP service, but can also be cord connected\* for 110 volt operation with a 1.0 KW heater. Note: See reverse side of control system box cover for specific instruction.

These spas must be connected to a “Dedicated” 110 volt 20 AMP grounded circuit. The term “dedicated” means the electrical circuit is not being used for any other electrical items (lights, appliances, etc.). If the spa is connected to a non-dedicated circuit, overloading will occur and nuisance tripping of the GFCI breaker switch at the house breaker panel will occur. **NEVER CONNECT THE SPA TO AN EXTENSION CORD.**

A ground lug connector is provided on the exterior surface of the control box inside the equipment compartment. This is to permit the connection of a bonding wire between this point and any metal equipment, enclosures, pipe or conduit within five feet of the spa. This bonding wire must be a least #8 AWG solid copper wire.

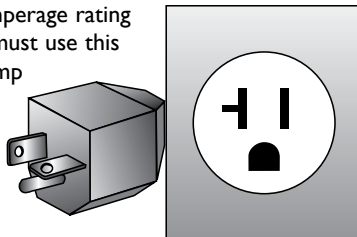
Equipment Modules provided with a factory installed power cord are to be plugged into a grounding type, 110 volt, 20 AMP receptacle, shown below. No other electrical appliance or fixture should be used on this circuit.

**WARNING:** The use of any other receptacle, or the connection of the plug to a 220 volt service may cause the equipment module to operate improperly, create the potential for an electrical hazard, and may void the warranty.

### Correct

DEDICATED 110V, 20A RECEPTACLE

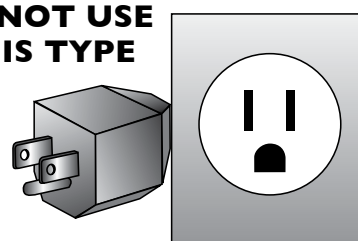
Data label amperage rating of 16 Amps must use this type of 20 Amp dedicated receptacle and plug.



### Incorrect

DEDICATED 110V, 15A RECEPTACLE

**DO NOT USE THIS TYPE**



\* The 110 only models come equipped with the 13 foot GFCI power cord. The 110/220 Volt model may be optionally equipped with approximately 10–13 feet of GFCI power cord. With the spa set in place, route the power cord through the vent hole in the base of the equipment compartment and out from under the corner of the spa. The Ground Fault Circuit Interrupter (GFCI) is located on the 10–13 foot power cord.

## 220 Volt Electrical Requirements

**IMPORTANT: Northern Bay® Hot Tubs must be wired in accordance with all applicable local electrical codes. All electrical work should be done by an experienced licensed electrician familiar with spa installations.**

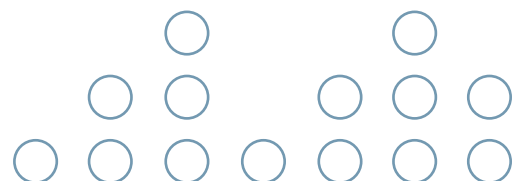
These spas must be connected to a “Dedicated” 220 volt 60 AMP grounded circuit. The term “dedicated” means the electrical circuit is not being used for any other electrical items (lights, appliances, etc.). If the spa is connected to a non-dedicated circuit, overloading will occur and nuisance tripping of the GFCI breaker switch at the house breaker panel will occur.

A ground lug connector is provided on the exterior surface of the control box inside the equipment compartment. This is to permit the connection of a bonding wire between this point and any metal equipment, enclosures, pipe or conduit within five feet of the spa. This bonding wire must be at least #8 AWG solid copper wire.

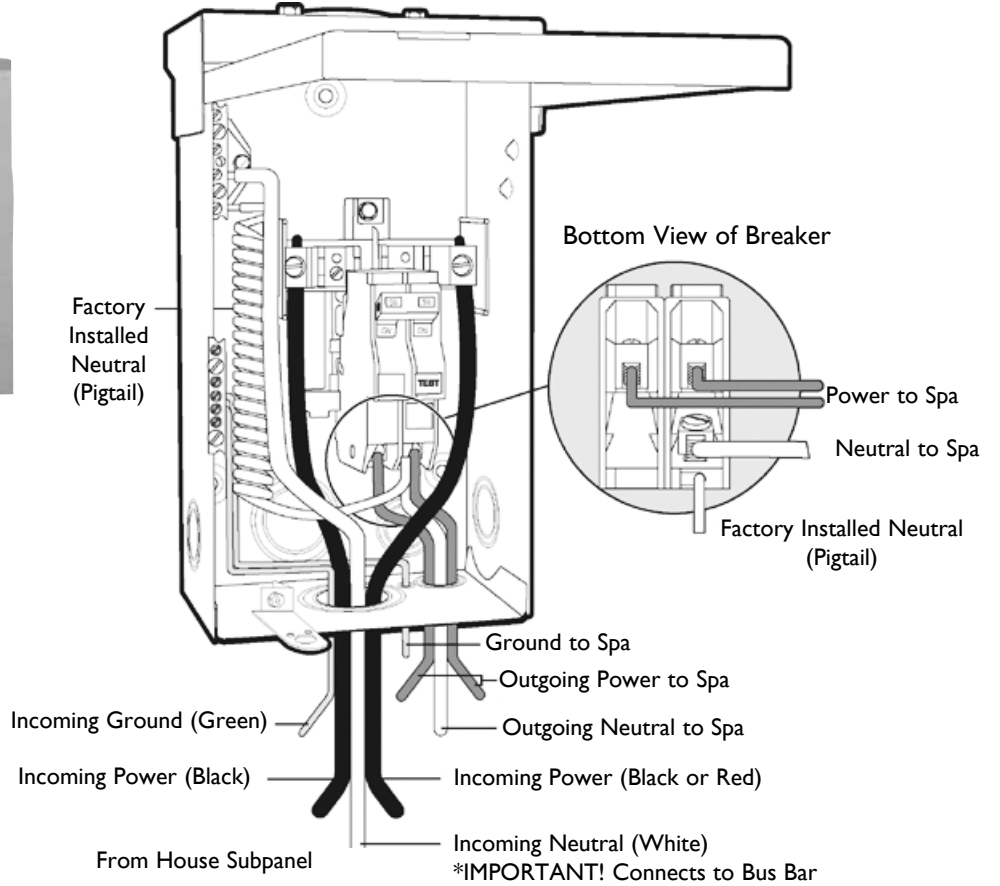
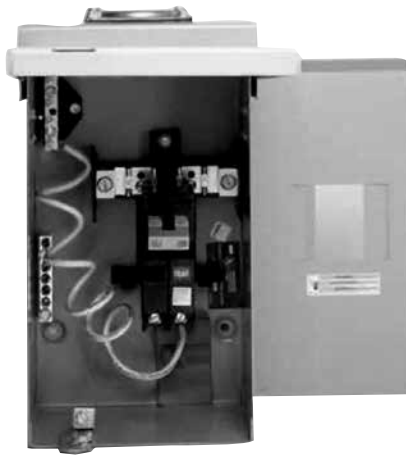
To determine the specific configuration for your spa’s power connection, refer to supply requirements on pages 13 of this manual for your particular spa.

The electrical supply for this product must include a suitable rated switch or circuit breaker to open all ungrounded supply conductors to comply with section 422-20 of the National Electrical Code ANSI/NEPA 70-1987. The disconnecting means must be readily accessible to the tub occupant but installed at least 5 feet (1.5m) from tub water.

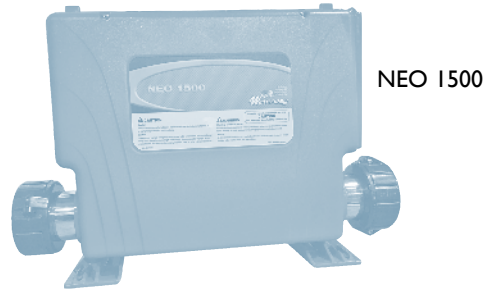
The electrical circuit for the spa must meet the following requirements. As of January 1, 1996, The National Electrical Code (NEC) requires a GFCI (Ground Fault Circuit Interrupter) on all spa installations. (See page 12.)



## 220 Volt, 60 AMP GFCI Disconnect Box (This page is for NEO1500 and NEO2100 Spa Packs)

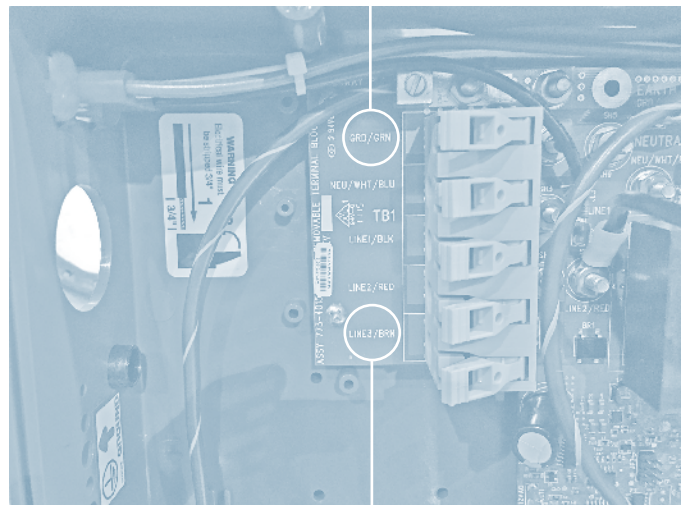


### Spa Control Box Systems



### Connection at Control

This location (GRD/GRN) must be connected with the ground wire for proper bonding



This location (LINE3/BRN) not used in 60Hz applications

# NEO1500/NEO2100 PACK ELECTRICAL INSTALLATIONS

## 220 Volt 60Hz Installation Instructions

Northern Bay® Hot Tubs must be wired in accordance with all applicable local electrical codes.

All electrical work should be done by an experienced, licensed electrician familiar with spa installations.

NOTE: As of January 1, 1996, The National Electrical Code (NEC) requires a GFCI (Ground Fault Circuit Interrupter) on all spa installations.

### 220 Volt Wiring Instructions:

1. Open the Equipment Module's wiring access panel to allow access to the input power wiring.
2. Connect the input power wiring as shown below. 220 Volt installations require a 60Hz, single phase, three wire electrical service, with ground (Line 1, Line 2, Neutral, and Ground), and must be connected using a minimum supply conductor ampacity of 60 AMPS and a minimum circuit breaker size of 60 AMPS.

**\*Note: Use THHN copper wire only. Do not use aluminum wire.**

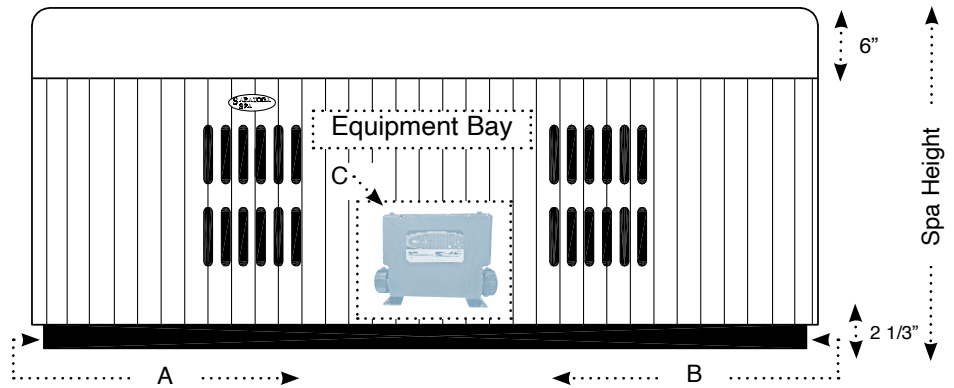
These spas must be connected to a "Dedicated" 220 Volt 60 AMP grounded circuit. The term "dedicated" means the electrical circuit is not being used for any other electrical items (lights, appliances, etc.) If the spa is connected to a non-dedicated circuit, overloading will occur and nuisance tripping of the GFCI breaker switch at the house breaker panel will occur.

A ground lug connector is provided on the exterior surface of the control box inside the equipment compartment. This is to permit the connection of a bonding wire between this point and any metal equipment, enclosures, pipe or conduit within five feet of the spa. This bonding wire must be at least #8 AWG solid copper wire.

**CAUTION:** Use only approved pressure-type wire splicing lugs or connectors suitable for the size and type of wiring used!

For complete installation, operation and wiring instructions please refer to the owner's manual. This sheet is intended to provide information to the electrician in advance of the spas arrival. The electrical wiring of this spa must meet the requirements of the National Electric Code (NEC) and any applicable state and local codes. It is also expected that the electrical circuit be installed by a licensed electrician and meet the approval of all local building and electrical codes. It will be the home owner's responsibility to retain permits and inspections where applicable. This applies to 220 Volt models only. The Whitewater Series (Catatoga, Bemidji, Geneva) may be wired for 110 Volt installation. See Owner's Manual for details.

**NOTE:** Failure to follow the National Electric Code (NEC) and any applicable state and local codes, including use of appropriate GFCI Breaker, Disconnect Box and copper wire voids all warranties.



### Connecting the Spa Pack:

1. Find the **Equipment Bay** opening in the corners; "A" or "B".
2. Remove Equipment Bay panel and locate the **Spa Pack** conduit opening; "C".
3. Measure in from either "A" or "B" corner to the Spa Pack conduit opening "C". Based on the spa orientation, this will give you the distance needed for wire and conduit connection to the pack.
4. Add 6" to 12" of wire and conduit to your measurements to allow a comfortable connection from the **Disconnect Panel** and the Spa Pack.

See below for approximate Spa Pack locations in the listed models. These are approximate distances only. You will still need to measure for exact distances of wire and conduit once your spa is delivered.

**\* MAKE SURE A LICENSED ELECTRICIAN IS USED.\***

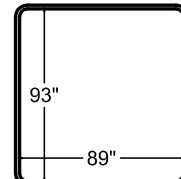
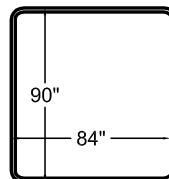
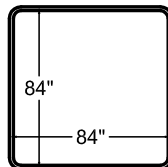
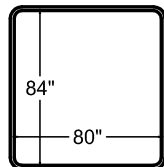
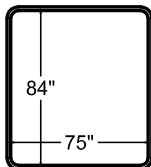
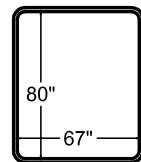
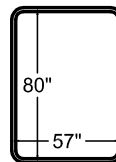
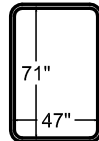
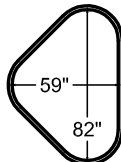
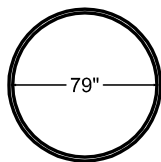
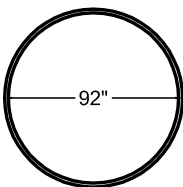
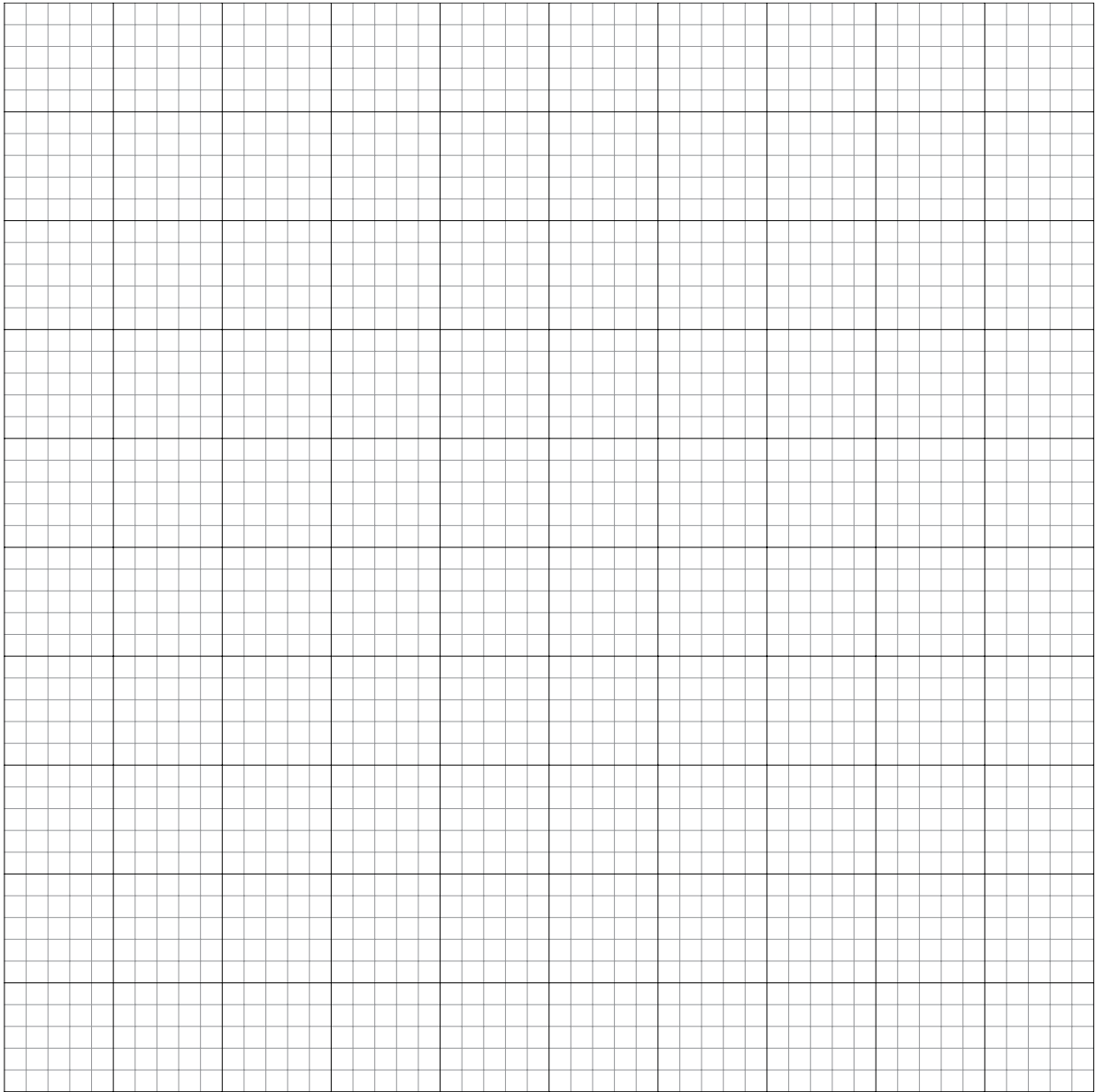
PLATINUM	A	B
Cypress	36"	48"
Monroe	36"	65"
Minocqua	36"	65"
Manistique	36"	60"
Okaboji	48"	60"
RESORT	A	B
Fontana	12"	72"
Huntington	12"	72"
Grand Marais	12"	72"
Richmond	12"	72"
Noque Bay	36"	60"
Mackinac	18"	70"
Winona	18"	70"

MOONLIGHT	A	B
Geneva	36"	82"
Bemidji	48"	36"
Fontana	12"	72"
Huntington	12"	72"
Augusta	46"	30"
Minnetonka	15"	63"
Camelot	*	*
WHITEWATER	A	B
Catatoga	24"	36"
Bemidji	48"	36"
Geneva	36"	82"

\* Please inquire with your dealer for current measurements

# Northern Bay® Plano-gram

The Northern Bay® Plano-gram is designed in 1/8" = 1' scale to help you plan your backyard or spa room layout. The different sizes correspond to Northern Bay® models listed on page 8. Select the model that most fits your needs, cut, and design your dream space.

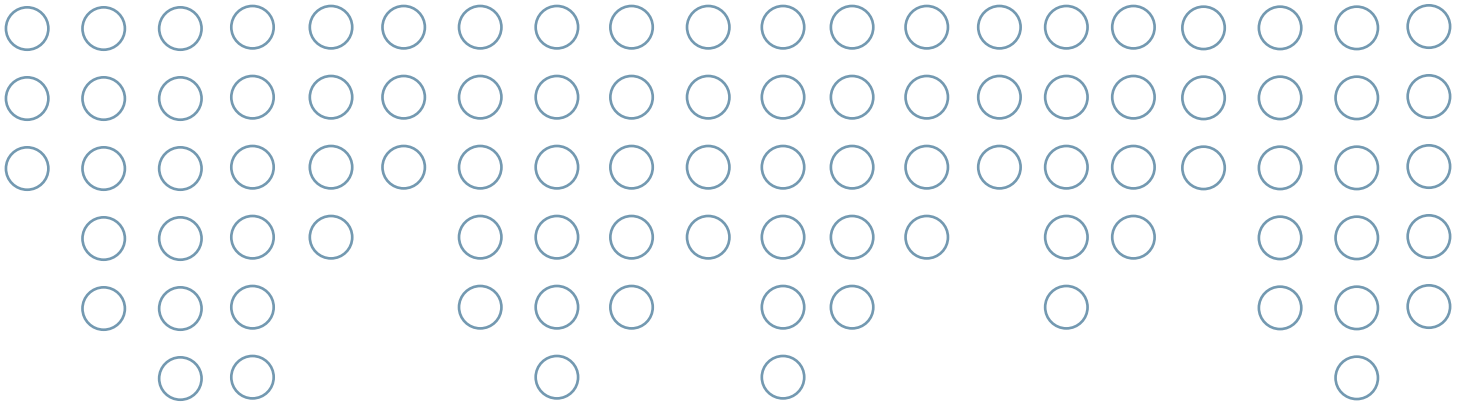


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*Soon, with your advance delivery planning complete,  
all you will have to look forward to is leaning back and enjoying  
the Northern Bay<sup>®</sup> experience . . .*



*It's Time to Get Comfortable* |



[www.northernbayhottubs.com](http://www.northernbayhottubs.com)  
[sales@northernbayhottubs.com](mailto:sales@northernbayhottubs.com)

