

Electrical Requirements

Saratoga Spa 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

(Saratoga has made available some models with 110 Volt/220 Volt convertible 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 50 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.

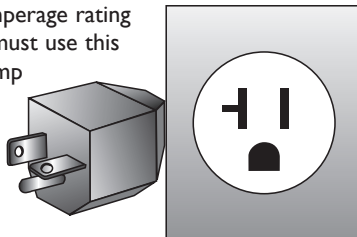
Equipment Modules provided with a factory installed power cord are to be plugged into a grounding type, 110 volt, 20 AMP receptacle, shown below. No other electrical appliance or fixture should be used on this circuit.

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

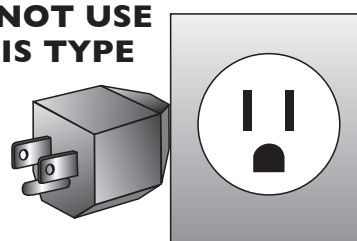
Data label amperage rating of 16 Amps must use this type of 20 Amp dedicated receptacle and plug.



Incorrect

DEDICATED 110V, 15A RECEPTACLE

DO NOT USE THIS TYPE



*The 110 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: Saratoga Spas 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.

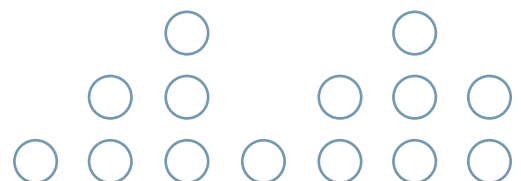
These spas must be connected to a “Dedicated” 220 volt 50 AMP grounded circuit. The term “dedicated” means the electrical circuit is not being used for any other electrical items (lights, appliances, etc.). If the spa is connected to a non-dedicated circuit, overloading will occur and nuisance tripping 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.

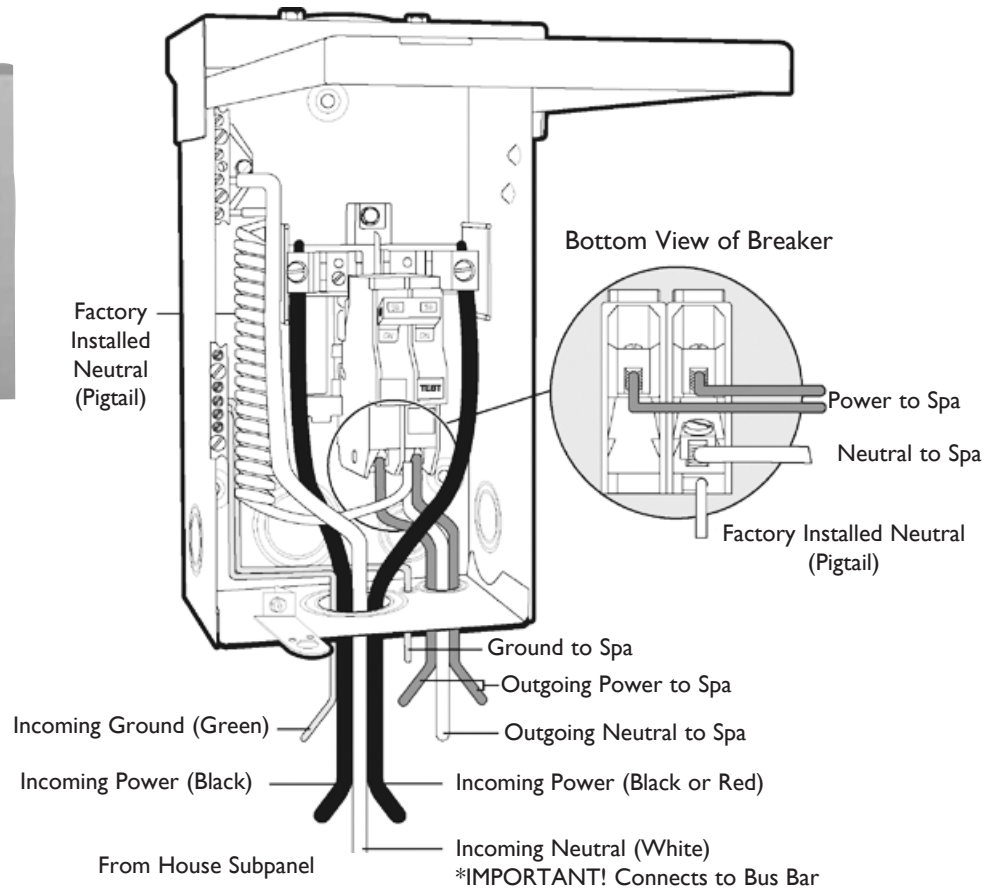
To determine the specific configuration for your spa’s power connection, refer to supply requirements on pages 13 of this manual for your particular spa.

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, 50 Amp GFCI Disconnect Box (This page is for NEO1500 and NEO2100 Spa Packs)

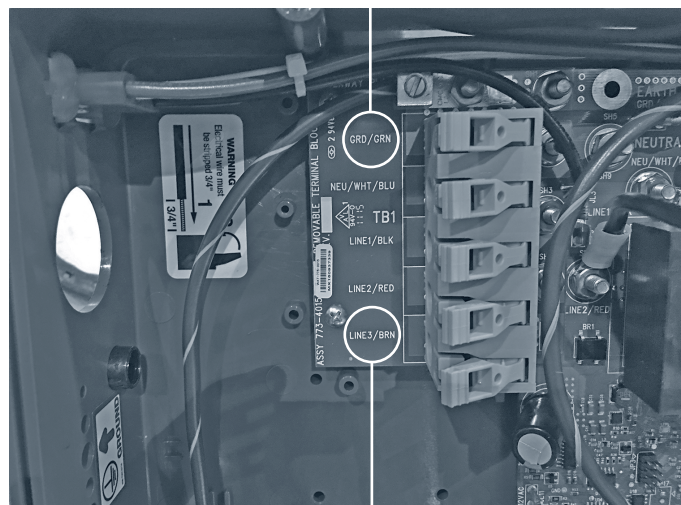


Spa Control Box Systems



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

Saratoga Spas® 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 50 AMPS and a minimum circuit breaker size of 50 AMPS.

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

These spas must be connected to a "Dedicated" 220 Volt 50 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.

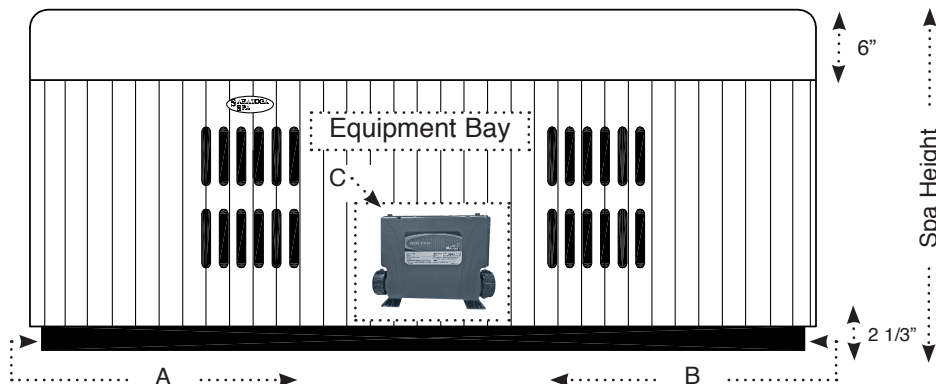
A ground lug connector is provided on the exterior surface of the control box inside the equipment compartment. This is to permit the connection of a bonding wire between this point and any metal equipment, enclosures, pipe or conduit within five feet of the spa. This bonding wire must be at least #8 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. See Owner's Manual for 110 Volt model instructions.

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.***

LUXURY	A	B
Polo	24"	36"
Adelphi	36"	36"
Putnam	36"	36"
Canfield	36"	48"
Empire	36"	60"
Lincoln	36"	60"
Broadway	48"	60"
SPECIAL EDITION	A	B
B15	12"	36"
A24	48"	36"
C35	12"	72"
C40	12"	72"
R45	36"	60"
G50	12"	72"
L50	12"	72"
Regent S.E.	36"	48"
COTTAGE	A	B
Glenwood	36"	82"
Collins	12"	71"
Whitman	60"	80"