

# Pre-Delivery Instructions

## ELECTRICAL REQUIREMENTS

### SELECTING THE VOLTAGE FOR YOUR SPA

The **PALATINO**, **MARINO** and **VANTO** models require a 230 volt power supply. The **TARINO**, **CELIO** and **AVENTINE** may be converted from 115 volts to 230 volts. When the spa is connected to 115 volts, 20 amp, the heater will provide approximately 1000 watts of heat only when the pump is operating in LOW speed and the thermostat is calling for heat. When the **TARINO**, **CELIO** or **AVENTINE** is connected to 230 volts, the heater will provide 4000 watts of heat whether the pump is operating in LOW or HIGH speed and the thermostat is calling for heat.

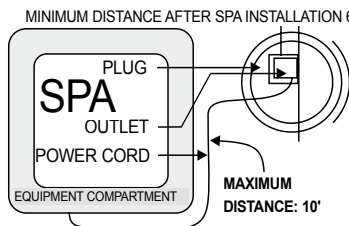
All electrical connections must be made in accordance with the wiring information contained in the electrical control box or on the back of the field wiring access panel of the equipment module.

### STANDARD, CORD-CONNECTED 115 VOLT 20 AMP CONFIGURATION (TARINO, CELIO & AVENTINE)

For your safety, if you are having an electrician install an electric outlet for the spa it should be no closer than 6 feet (1.8 m) and no further than 10 feet (3 m) from the spa. [Reference National Electrical Code.

One GFCI is used in the cord-connected 20 amp configuration. The GFCI module is located at the end of the power cord. To test the GFCI, simply press the TEST button. The GFCI should trip to the "off" position, disconnecting power to the spa. To reset the GFCI, press the RESET button. The GFCI should reset, and power should be restored to the spa. If the GFCI does not function in this way, unplug the cord and contact an authorized **CALDERA** spa service technician.

**NOTE:** Consult your local code authority to determine if an electrical outlet with a cover is required for your installation. If it is, a suitable outlet cover may be purchased from your authorized **CALDERA** dealer.



### 115 VOLT ELECTRICAL REQUIREMENTS

The **TARINO**, **CELIO** & **AVENTINE** spas must be connected to a 115 volt, 20 amp grounded circuit. The equipment pack requires a MINIMUM of 112 volts under load. A dedicated circuit is required; the term "dedicated" means the electrical circuit **CANNOT** be used for any other high-load electrical items (patio lights, appliances, garage circuits, etc.). If the spa is connected to a non-dedicated circuit, overloading will result in "nuisance tripping" of the internal fuses or of the breaker switch at the house electrical breaker panel.

The circuit must be properly wired; that is, it must have the following:

- Standard (cord-connected) 115 volt 20 amp – A minimum 20 amp GFCI circuit breaker in the house panel, #12 AWG or larger wire (including the ground wire) and the correct polarity throughout the circuit.
- 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. The single receptacle and cover plate should be installed by your electrician prior to the delivery of your spa.

A pressure wire connector is provided on the exterior surface of the spa's electrical control box, located inside the equipment compartment. This is to permit the connection of a bonding ground wire between this point and any metal equipment, enclosures, pipe or conduit within five 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.

**NEVER CONNECT THE SPA TO AN EXTENSION CORD AS THIS WILL VOID THE WARRANTY!**

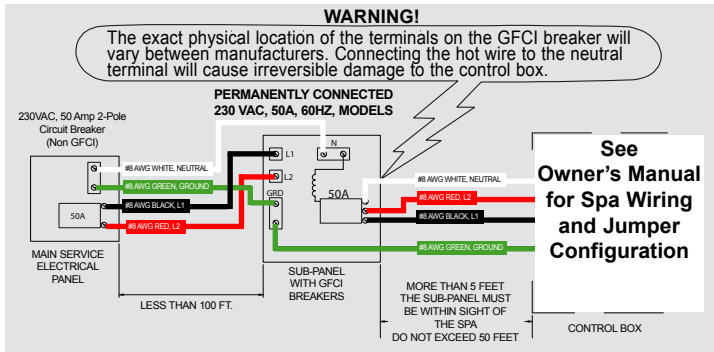
The **TARINO**, **CELIO** and **AVENTINE** spas come equipped with approximately 15 feet (4.5 m) of usable power cord (this is the maximum length allowed by regulatory standards and the National Electric Code). The power cord is wrapped in bubble packaging for shipping and can be found inside the equipment compartment. Disconnect the cord from the control box, feed through the electrical cutout then reconnect to the control box.

**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.

## 230 VOLT 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. The equipment pack requires a **MINIMUM** of 112 volts per line under load.



## CAUTIONS

**USE COPPER CONDUCTORS ONLY**  
**USE SUPPLY WIRES SUITABLE FOR  
 167°F/75°C.**  
**DISCONNECT ALL SUPPLY CONNECTIONS  
 BEFORE SERVICING.**  
**CONNECT ONLY TO A CIRCUIT  
 PROTECTED BY A CLASS A GROUND-  
 FAULT INTERRUPTER.**

**THESE SPAS ARE INTENDED FOR USE WITH  
 GFCI SUBPANEL**  
**ALL CANADIAN SPA MODELS USE #8 AWG  
 GREEN, GROUND.**  
**INCORRECT WIRING WILL DAMAGE CIRCUIT  
 BOARDS.**  
**REFER TO THE WIRING INSTRUCTIONS  
 INCLUDED WITH THE SUB-PANEL FOR  
 DETAILED WIRING INSTRUCTIONS.**

# Pre-Delivery Instructions

## 230 VOLT INSTALLATION

Your spa contains a control box designed to operate at 230V, 60Hz. Installation of a 30 or 50 amp dedicated circuit is required. The control box must be hard wired directly to a subpanel protected by a Ground Fault Circuit Interrupter (GFCI). The subpanel containing the GFCI breaker is included with the **PALATINO**, **MARINO** and **VANTO** spas.

**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.

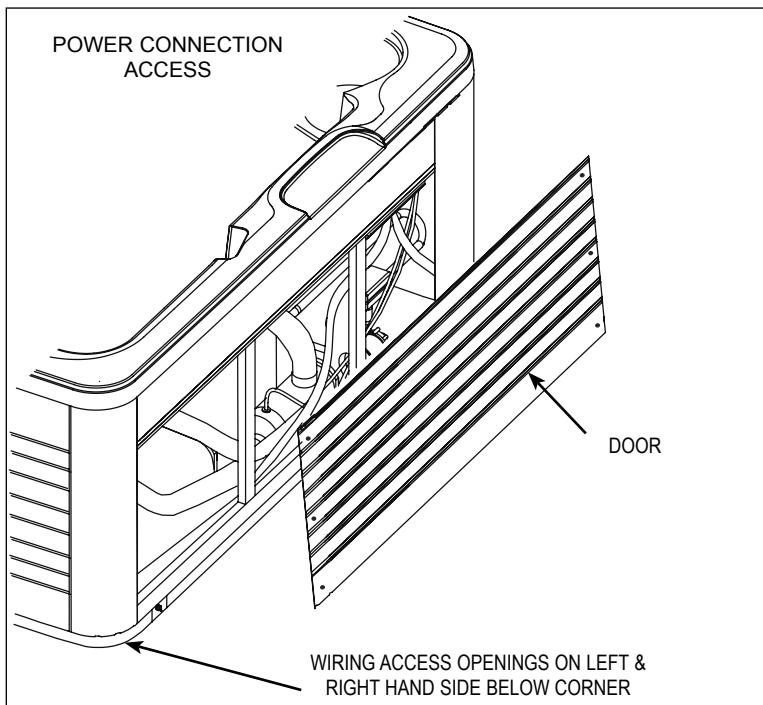
All electrical connections must be made in accordance with the wiring information contained in this manual and on the back of the control box panel. A licensed electrician should install a four-wire electrical service (two line voltages, one neutral, one ground) from the main electrical service panel to the subpanel.

The grounding conductor must be at least #8 AWG. Your electrician should mount the subpanel in the vicinity of the spa but it should not be closer than five feet (1.5 m) from the spa water edge (NEC 680-38 to 41-A-3).

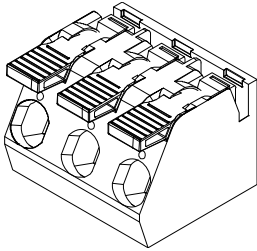
**INSTALLATION NOTE:** After the spa has been installed, your electrician can connect the conduit from the subpanel to the spa's control box and then complete the wiring connections in the control box.

**NOTE:** Complete step-by-step Installation and Wiring Instructions for all models are included in the Owner's Manual and with each subpanel, 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.



## How to Install Power Wires into TB



**NOTE:** Install Ground into single lug below terminal block



<p>1.</p> <p>Strip wire insulation back 1/2" (12.5 mm)</p>	<p>2.</p> <p>Open Terminal Block by lifting lever to the UP position</p>
<p>3.</p> <p>Insert wire fully into Terminal Block</p>	<p>4.</p> <p>Close Terminal Block by lowering lever to the DOWN position <b>IMPORTANT:</b> Lever must be in the FULL DOWN position to Lock wire</p>
<p>5.</p>	<p>Repeat steps 1-4 to add additional wires.</p>