Important: When installed in the United States, the electrical wiring of this spa must meet the requirements of the National Electric Code (NEC) and any applicable state or local codes. The electrical circuit must be installed by an electrical contractor AND approved by a local building/electrical inspector.

Power Configurations for Models J-495 (North America, 60 Hz)

This section describes the three power configuration choices (Standard 50 Amp, Alternate 30 Amp, and Alternate 60 Amp) for hot tub models J-495.

Note	Wire size must meet NEC recommendations and is determined by maximum current draw and length of run.

Important: All of the alternative electrical configurations require a qualified technician to perform a minor system modification. Do not activate 30A or 60A power to the spa until these modifications have been made. We recommend Square-D or Cutler Hammer circuit breakers.

Config. #1	**Standard 50A Configuration** (factory setting) • 240 VAC/50A 3-wire configuration (2 hots and a ground) • 50A dual-pole GFCI circuit breaker (hard wired only) • Electrical current draw of 36A	If the home's electrical system does not have the full 240V/60A power available, the spa may be connected to the standard 240V/50A. In this Standard 50A configuration, the heater will yield the same rapid temperature rise as in 60A operation and **will not operate** when two or more jets pumps are running.
Config. #2	**Alternate 30A Configuration** (For homes where 240 VAC/50A or 240 VAC/60A power is unavailable.) • 240 VAC/30A 3-wire configuration (2 hots and a ground) • 30A dual-pole GFCI circuit breaker (hard wired only) • Electrical current draw of 23A	If the home's electrical system does not have a 240V/50A or 240V/60A power available, the spa may be connected to a 240V/30A power source after a qualified electrician performs a minor system modification. In this configuration, the heater **will not operate** while any jets pump is running.
Config. #3	**Alternate 60A Configuration** (Optional setting for maximum heater performance.) • 240 VAC/60A 3-wire configuration (2 hots and a ground) • 60A dual-pole GFCI circuit breaker (hard wired only) • Electrical current draw of 45A	If the home's electrical system has the full 240V/60A power available, the spa may be connected to a 240V/60A power source after a qualified electrician performs a minor system modification. In this configuration, the heater **will not operate** when all three jets pumps are running. This may be preferable for owners of outdoor spas in cold climates because it will help their spas maintain water temperature during use.

Electrical Tasks After Spa Delivery

Installing a 3-Wire 240 VAC Connection for Models J-415, J-425, J-460, J-465, J-470, J-480 and J-495

Important safety information for all spa models

Proper grounding is extremely important. This spa is equipped with a Current Collector system. A pressure securing wire connector is provided on the outside of the load box to permit connection of a bonding wire between the spa and any metal within 5 ft. (1.5m) of the spa. Bonding wire must be at least #8 AWG (8.4 mm²) solid copper wire.

After the spa is placed in the specified location, the electrician must perform the tasks listed below to complete the electrical installation. Give this information to the electrician when he begins to install your spa.

IMPORTANT: When installed in the United States, the electrical wiring of this spa must meet the requirements of the National Electric Code (NEC) and any applicable state or local codes. The electrical circuit must be installed by an electrical contractor AND approved by a local building/ electrical inspector.

Task	Action
1	To gain access to the spa's power terminal strip, remove the spa cabinet panel on the side of the spa under the control panel (see Figure 3 on the next page). After removing the spa cabinet panel, remove the four metal access door cover screws.
2	Locate the power supply inlet (front of the spa near the base). Select the inlet you want to use, then feed the power cable through to the control box, Figure 4.
3	Insert the power cable through the large opening provided at the bottom of the control box.
4	Connect the wires onto the Green terminal block and securely fasten.
5	To complete the electrical installation, secure the access door cover by replacing its 4 screws, then re-install the spa cabinet panel under the control panel.

For specific electrical information about the spa model being installed, look through Figures 3 through 5 in this section.

Electrical Tasks After Spa Delivery, *Continued*

The electrician should look carefully through these diagrams to gather the required information about the electrical tasks for the installation of these spas.

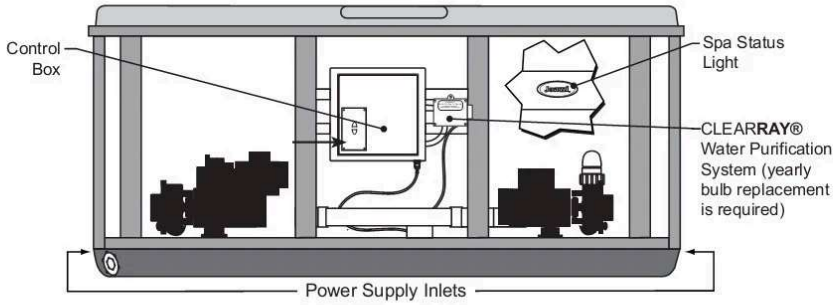


Figure 3 Spa Equipment Compartment (spa features subject to change without notice)

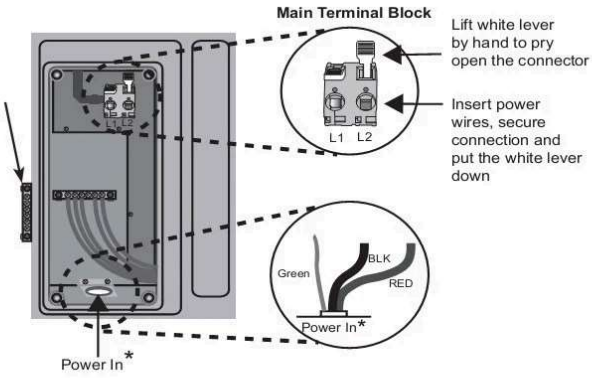


Figure 4 Control Box for 3-Wire, 240 VAC Connection for Models J-415, J-425, J-460, J-465, J-470, J-480 and J-495 (For hard-wired connections only)

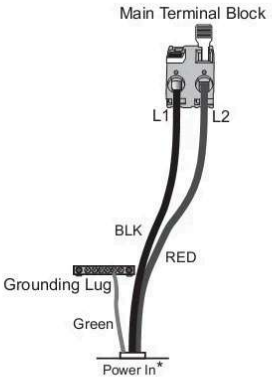


Figure 5 3-Wire, 240 VAC Connection for Models J-415, J-425, J-460, J-465, J-470, J-480 and J-495 (For hard-wired connections only)

Final Electrical Connections

It is now time to make the final electrical connections to your spa. Various wiring diagrams appear on the next few pages. Each spa model has a slightly different configuration, so use the chart below to find the configuration for your spa.

Configuration #	Details
1	240 VAC Connections for Models (North America 60 Hz): • J-415, J-425, J-460, J-465, J-470, J-480, J-495
2	240 VAC Connections for Models (North America 60 Hz): • J-235, J-245, J-275, J-280 • J-335, J-345, J-355, J-365, J-375 • J-LX, J-LXL
3	120 VAC Connections for Models (North America 60 Hz): • J-210, J-315, J-325
4	240 VAC Connections for Models (North America 60 Hz): • J-210, J-315, J-325

Ask your electrician to view the diagrams on the next few pages to ensure all connections are correct.

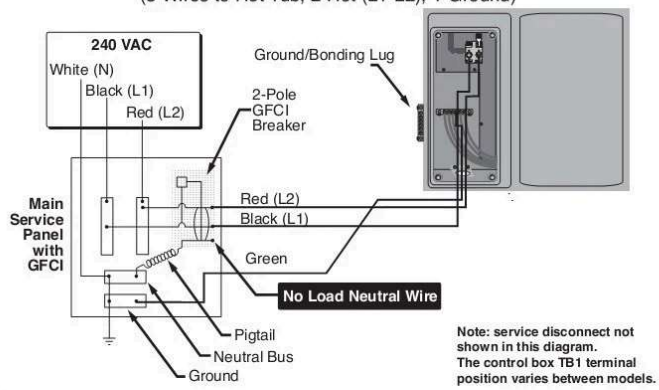
Important: When installed in the United States, the electrical wiring of this spa must meet the requirements of the National Electric Code (NEC) and any applicable state or local codes. The electrical circuit must be installed by an electrical contractor AND approved by a local building/electrical inspector.

Final electrical connections, *Continued*

Connection Configuration #1
240 VAC Connections for Models J-415, J-425, J-460, J-465, J-470, J-480, J-495 (North America 60 Hz)

A pressure sensitive terminal block (bonding lug) is attached to the outside surface of the load box. This permits the connection of a bonding wire between this point and any metal equipment chassis, metal water pipe, or metal conduit within 5 ft (1.5m) of the spa. The bonding wire must be at least #8 AWG (8.4 mm²) solid copper wire.

A **2-Pole Circuit Breaker with 2-Wire Grounded Load Connection**
(3 Wires to Hot Tub, 2-Hot (L1-L2), 1-Ground)



B **Main Panel with Secondary GFCI Shut-Off Box Using a 2-Pole GFCI Breaker with 2-Wire Grounded Connection**
(3 Wires to Hot Tub, 2-Hot (L1-L2), 1-Ground)