



This Guide will tell you every thing you need to know about the delivery and installation of your new QCA Spa.



Pre-Delivery Guide

Important Information

Please make a record of the following information. It will be valuable if service is required.

Spa Model: _____

Spa Serial Number: _____

Date Purchased: _____

Date Installed: _____

Spa Dealer: _____

Spa Dealer's Address: _____

Spa Dealer's Phone Number: _____

Sales Person's Name: _____

Spa Service Dealer: _____

Spa Service Dealer Address: _____

Spa Service Dealer's Number: _____

Spa Service Person's Name: _____

Introduction

Congratulations on the purchase of your new QCA Spa!

With some advance preparation, delivery of your new spa will be a breeze. We've prepared this planning guide to provide you with the information necessary for you to be ready for your spa's delivery. We recommend reading this guide completely prior to the scheduled delivery of your QCA Spa. Proper preparation and care of your new QCA Spa will give your family years of relaxation and enjoyment.

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1. Things to determine before Spa Installation.

- o Will my spa be located inside or outside?
- o How much space do I have available for a spa?
Size of room, deck, or patio.
- o What are the measurements of door openings, fence gates or deck stairs for getting your spa to its destination?
- o Check the dimensions of your spa's length, width, and depth to determine if it will pass through interior doors or exterior gates?
- o Check the weight of your spa without water and filled with water. Will your deck, patio, or room floor support its considerable weight?
- o Does your home have a dedicated 50 or 60 AMP breaker in the house's main breaker box or will one have to be added by an electrician?
- o How far is it from your main breaker box to where your spa will be located?
- o Is there a water source available nearby to fill and drain the spa with a garden hose?

Commonly Asked Questions and Answers

- o Do I need a building permit?
Most cities and counties require permits for exterior construction and electrical circuits. Check with your county or city to see if a building permit is required for spa installation.

- o Do I need a fence or a gate around my spa?
Some communities have codes requiring residential barriers such as fencing and/or self closing gates on the property to prevent unsupervised access to a spa by children under five years of age. Consult your local or county building codes to determine the need for a fence or gate.

- o Do I need a Plumber?
No plumbing is required; your QCA Spa is entirely self contained. Fill the spa using a garden hose; to empty, QCA Spas feature a built in quick drain. (Not available on all models).

- o Do I need an Electrician?
Yes, you will need to hire an electrician to install the 240-volt wire and 50 or 60 AMP neutrally protected GFCI (Ground Fault Circuit Interrupter) which are sold separately. Your main breaker box will also need to have a 50 or 60 AMP breaker. Your spa is hard wired through the floor or side wall of the spa cabinet, directly into the spas control pack. The GFCI is installed next to the spa on an exterior wall at least 5 feet from the spa water. (120 volt spas have GFCI cord included.)

2. Selecting the best location for your spa.

Indoors or outdoors, its up to you. But there are some things you will need to consider when determining your spas placement.

Outdoor Spa Placement

Outdoor spa placement, such as decks, concrete or brick patios, is common. However, the spa can be placed on any solid, uniform, level surface. Do not place your spa on bare ground. If placing your spa on a wooden deck, be sure to consider your spa's weight (filled with water) and the weight bearing capacity of your deck.

Note: Damage caused by inadequate or improper foundation support is not covered by the manufacturer's warranty. A spa should rest completely flush with its foundation, therefore, do not endeavor to hand level your spa. The spa should not be shimmed in any way in an effort to level it. This may crack your spa shell or cause other internal damage. It is the responsibility of the spa owner to provide a proper foundation for the spa. Any attempt to manually level your spa, will void the warranty.

A normal, code-compliant (2" x 10" joist) at 16" on center deck is adequate.

The floor load of a filled spa with people is around 115 lbs. per square foot. Your base should have at least 125 lbs. per square foot load capacity.

If you are not comfortable with your deck support, have it inspected and add bracing if necessary.

DO NOT place your spa directly under or within 12 feet of over head power, telephone or cable lines.

Make sure the spa is positioned so you have full access to the equipment compartments located by the spa controls. Be sure to leave at least 30” around all sides and back panels for easy service access if needed.

Many people choose to build there spa into a deck or patio with custom tile or wood built up to the top of the spa cabinet for a built in look. When designing your project, remember to allow for service access on all 4 sides of your spa, or access from beneath. Its always best to design an installation where the entire spa can be lifted or removed from the deck or patio, if needed.

Weather

If you live in a climate with a cold snowy winter and hot summer, you may want to place your spa close to an exterior door for easy spa access. A bathroom or changing room located close to your spa, can also be convenient.

A warmer climate may require shade from the hot sun. Consider placement of your spa next to trees, shrubs, patio cover, under a gazebo or spa umbrella.

Privacy

Keep in mind your spa’s surroundings (trees, shrubs, fences) during all seasons to determine your best privacy. Consider the view of your neighbors and plan your location accordingly.

View

Think about the direction you will be facing when sitting in your spa. Facing the exterior siding of your house would not be very enjoyable. Place your spa where you will be facing a special landscaped area of your yard or a lovely evening sunset.

Keep Dirt and Debris Out of your Spa

Check the location of trees and spill paths from gutters to see if wind or rain will sweep debris into your spa. Prevent dirt and foliage from being tracked into your spa by providing a concrete path.

Indoor Spa Placement

For indoor spa placement, regular, code-compliant floors or basement concrete are adequate to support the weight. Four season rooms, screened in rooms, and porches must be checked for adequate floor support.

Indoor installation requires adequate ventilation. When the cover is off and the spa is in use, considerable amounts of humidity and moisture are put into the air. This moisture can damage, walls, ceilings, carpeting, draperies and furniture. You will need to install a ventilation exhaust fan either above the spa in the ceiling or in a side wall or window, next to and above the spa water. We also recommend a humidistat that will automatically turn on the exhaust fan when moisture is present.

Exhaust fans are rated by CFM's (Cubic Feet per-Minute). The fan must be powerful enough to remove all the air in the room in 3 minutes. To determine what size fan you will need, measure the rooms length x width x height and divide by 3 = CFM's.

Example: 20' x 10' x 8' = 1600 cubic ft. / 3 = 533 CFM's.

You would need at least a 533 CFM fan for this room.

We do not recommend placing your spa directly on household carpet or a wood floor. We recommend placing your spa on a ceramic tile or water resistant floor material. Extend this water resistant material at least 2 feet around the spa, in case of over splash and to catch water from bathers exiting the spa.

3. Plan a good foundation for your spa

Your spa needs a solid level foundation. The area that your spa sits on must be able to support the weight of the spa, the water in it, and those who use it. If the foundation is inadequate, it may shift or settle after the spa is in place, causing stress to the spa's shell.

Note: Damage caused by inadequate or improper foundation support is not covered by the manufacturer's warranty. A spa should rest completely flush with its foundation, therefore, do not endeavor to hand level your spa. The spa should not be shimmed in any way in an effort to level it. This may crack your spa shell or cause other internal damage. It is the responsibility of the spa owner to provide a proper foundation for the spa. Any attempt to manually level your spa, will void the warranty.

A spa filled with water is very heavy. Existing decks and concrete patios must be inspected by a licensed contractor to determine adequate support. Your base must have a minimum of 125 pounds per sq. ft. load bearing capacity. Add additional bracing if necessary.

Place the spa on an elevated foundation so that water drains away from it. Proper drainage will keep components protected from rain and wet weather.

New concrete patios must be a 4" minimum depth with re-enforced wire placed in the concrete.

New wood decks should have (2 x 10) floor joist and (4 x 4) or (6 x 6) post depending on deck height. Consult a structural engineer or contractor to ensure the proper support for the height and size of your deck.

Heavy duty PVC spa pads are available from your dealer to place your spa on if you do not have a deck or patio.

We do not recommend placing your spa on a brick, stone, or gravel base.

DO NOT place your spa on bare ground!

4. Plan the delivery of your spa

Check the dimensions of your spa

The Spa Specification chart on page 19 lists your spa model and its dimensions. Compare the dimensions to the width of gates, sidewalks, and doorways along the delivery route used to bring the spa into your yard. It may be necessary for you to remove a gate or partially remove a fence in order to provide an unobstructed passageway to the installation location.

How will your spa be delivered to you?

Full Delivery

Most spa dealers have special spa carts or dolly that they can drive or hand wheel the spa into your back yard.

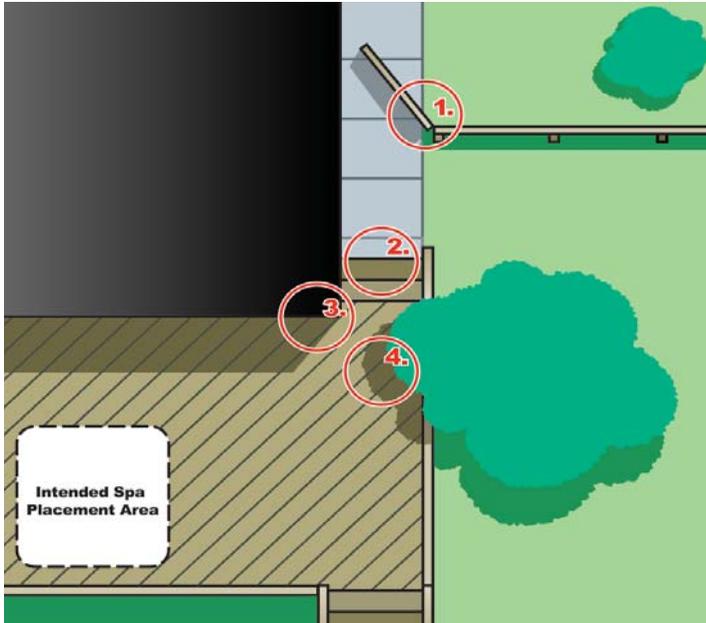
Indoor placement or placement on a deck higher than 3 feet off the ground require additional personnel (up to 6 persons) to lift the heavy spa on its side through a doorway or up the stairs to a high deck.

Curb side Delivery

If your spa will be delivered by common carrier or freight truck, you will have to have 4 to 6 people on site to unload your spa from the truck and carry your spa by hand to the back yard and set it in place.

Special Circumstances

The use of a crane for delivery and installation is necessary on occasion. It is used primarily to avoid injury to your spa, your property, or to delivery personnel. If your spa delivery requires the use of a crane, the cost of a crane is generally not included in standard delivery service.



Plan the delivery route

Use the diagram to plan your delivery route. Consider the following when planning your delivery route:

Check the width of gates (#1), doors, steps (#2) and side-walks to make sure your spa will pass through unobstructed. You may have to remove a gate or part of a fence to allow for adequate width clearance.

If the delivery route will require a 90° turn, check the measurements at the turn to ensure the spa will fit. (#3)

Are there protruding gas meters, water meters or A/C units on your home which will be an obstruction along the delivery path to your yard?

Are there low roof eaves, overhanging branches (#4) or rain gutters that could be an obstruction to overhead clearance?

Are there more than six (6) consecutive stairs without a landing in your delivery route?

5. Electrical Requirements before spa delivery

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.

Electrical setup before delivery of your spa

1. All 240V spa's must be permanently connected (hard wired) to the power supply. Supplying power to the spa which is not in accordance with these instructions will void both the independent testing agencies listing and the manufacturer's warranty.
2. The power supplied to the spa must be a dedicated circuit with no other appliances or lights sharing the power.
3. To determine the current, voltage and wire size required for the spa configuration to be connected:
 - o Wire size must be appropriate per NEC and/or local codes.
 - o Wire size is determined by length of run from breaker box to spa and maximum current draw.
 - o We recommend copper wire with THHN insulation.
 - o All wiring must be copper to ensure adequate connections. Do not use aluminum wire.

- o When using wire larger than #6 (10mm²), add a junction box near the spa and reduce to short lengths of #6 (10mm²) wire between the junction box and the spa.

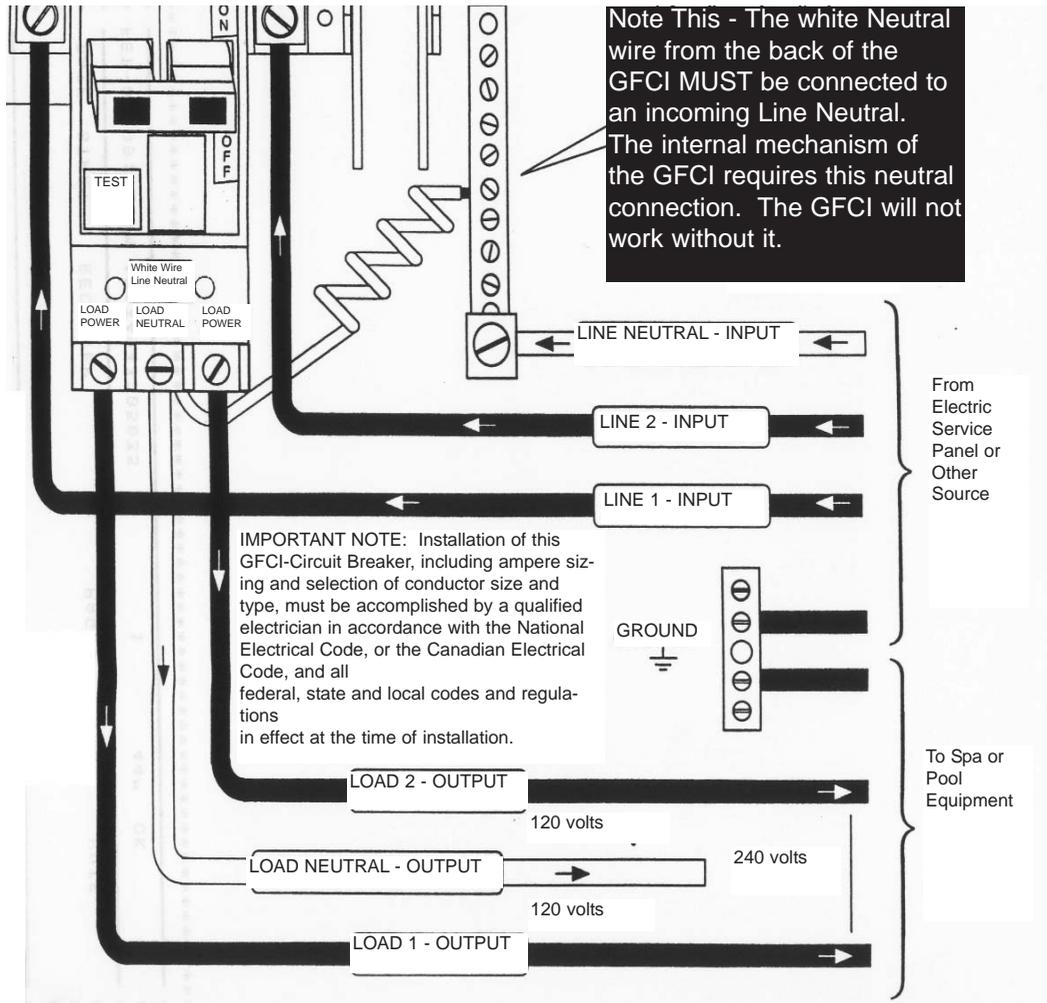
4. The electrical supply for the spa must include a suitable rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electric Code, ANSI/NFPA 70. The disconnecting means must be readily accessible to the spa's occupant but installed at least 5 feet (1.5 m) from the spa water. Check with local municipalities for additional code requirements.

5. The electrical circuit for the spa must include a suitable ground fault circuit interrupter (GFCI) as required by NEC Article 680-42. We recommend a Neutrally Protected (GFCI) Ground Fault Circuit Interrupter, see the illustration on the following page for the proper wiring for your spa's GFCI.

6. GFCI Wiring Diagram

This diagram shows a “Three Wire Plus Ground” installation. It has a load Neutral connection, commonly required for spa’s containing both 120 and 240 volt equipment. They need the load neutral connection to produce the 120 volt.

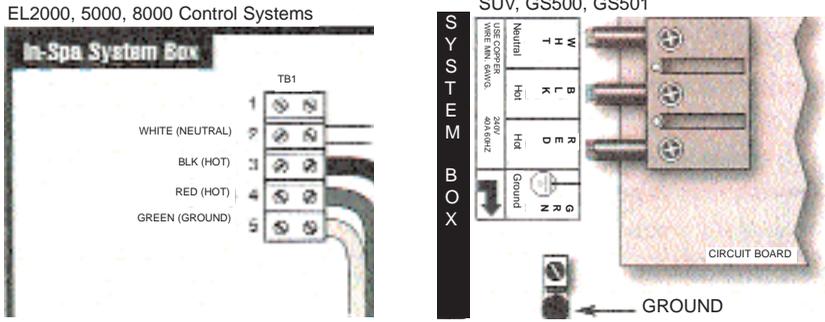
Siemens GFCI Breaker Box



7. Electrical Installation of Spa after delivery

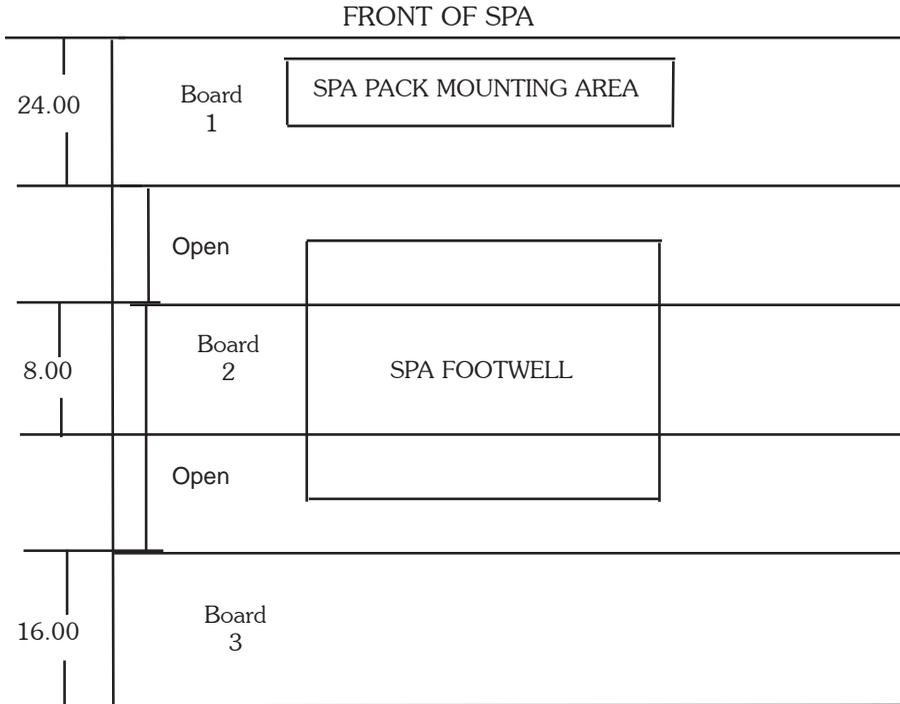
Important Safety notice for all models!

Proper grounding is extremely important.



1. To gain access to the spa's control box, remove the cabinet panel on the front of the spa, under the spas topside control. After removing the cabinet panel, remove the four metal control box cover screws and cover. (Two screws on GS500 Pack)
2. Select the power wire inlet through the spa cabinet you want to use. (Either drill a hole through the cabinet or run wire in conduit through the base of the spa.) Then feed the power cable through it to the left side of the control box.
3. Install power cable through the 1 ³/₈" Circular Hole on the left-side of the control box.
4. Connect wires, color to color, into the terminal openings and tighten securely.
5. Secure the metal control box door by installing its screws, then re-install the cabinet panel under the topside control. Electrical installation is now complete.

QCA SPA'S WIRING PLACEMENT Through Base of Spa



THIS VIEW IS THE BOTTOM SIDE OF THE SPA.

NOTES

BOARD 1

WILL ALWAYS BE 24" WIDE FROM THE FRONT OF THE SPA.

BOARD 2

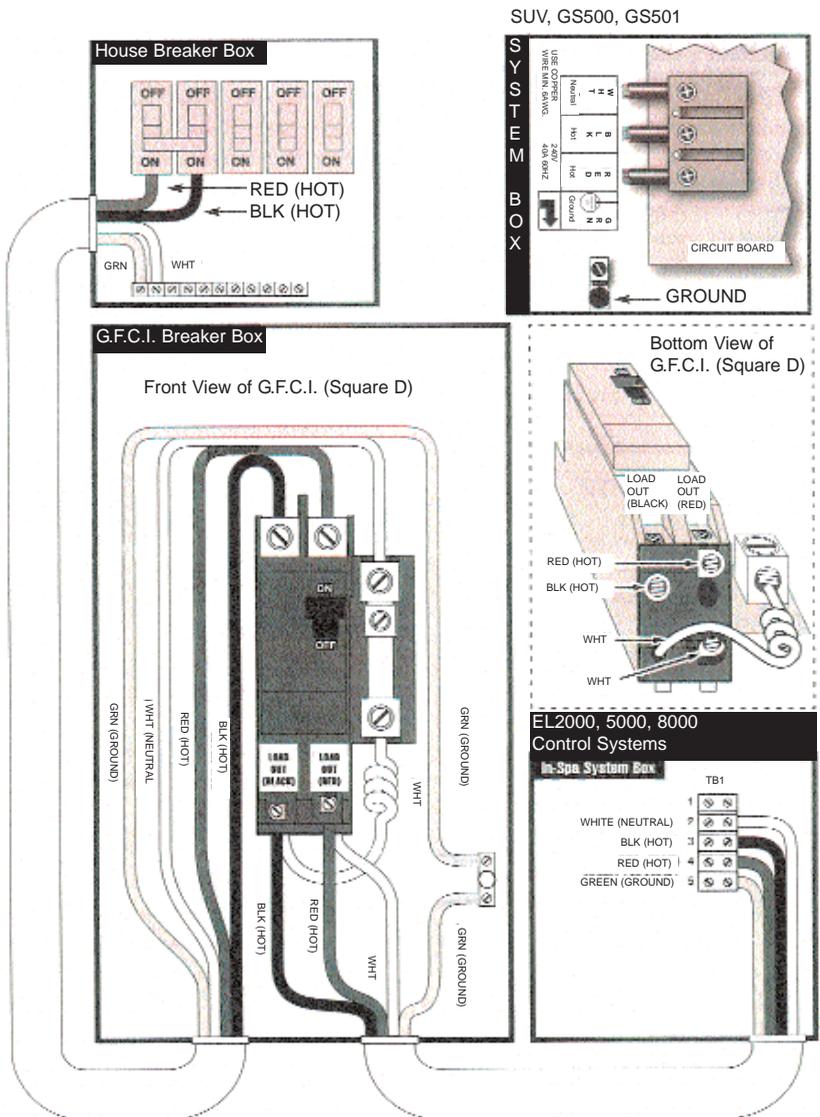
WILL ALWAYS BE 8" WIDE CENTERED ON THE CENTER OF THE SPA.

BOARD 3

WILL ALWAYS BE 16" WIDE FROM THE BACK SIDE OF THE SPA.

DO NOT PUT WIRES UP THRU FOOTWELL OR SPA PACK AREA...

Wiring Schematic



QCA SPA MODEL SPECIFICATIONS

MODEL #	MODEL NAME	OUTSIDE DIMENSIONS	GALLONS	WEIGHT		POWER Voltage/amp
				In Pounds Dry	Filled	
100	DreamStar	91"Lx42"Wx29"D	190	214	1734	120v/15amp
165	DreamMaster	73"Lx73W"x30"D	230	339	2179	120v/15amp
175	Mystic	80½"Lx56½"Wx30"D	240	309	2229	120v/15amp
185	Serenity	69½" Diameter x 30"D	250	329	2329	120v/15amp
195	Serenity (Deluxe)	69½"Diameter x 40"D	275	360	2560	120v/15amp
200/203/205	Amethyst	81"Lx55"Wx29½"D	190	357	2067	240v/60amp
210/220						
230/240	Sapphire	78½"Lx78½"Wx34"D	400	450	3650	240v/60amp
260/270/280	Ruby (Standard)	82"Lx79"Wx31¼"D	375	563	3563	240v/60amp
285/290/295	Ruby (Deluxe)	82"Lx79"Wx40½"D	425	620	3620	240v/60amp
300/310/320	Topaz (Standard)	82"Lx79"Wx31½"D	450	540	4140	240v/60amp
330	Topaz (Deluxe)	82"Lx79"Wx40½"D	475	563	4163	240v/60amp
340/350	Opal (Deluxe)	96"Lx76½"x40"D	475	637	4437	240v/60amp
360/370	Garnet	87½"Lx87"Wx41½"D	550	681	5081	240v/60amp
380	Coral	87"Lx87"Wx41½"D	510	681	4761	240v/60amp
400/420	Cozumel	79¾"Lx73½"Wx30½"D	300	472	2872	240v/60amp
430	Moonstone +3	92"Lx92"Wx41½"D	550	803	6769	230v/60amp
440	St. Maarten	82"Lx79"Wx40½"D	400	598	4398	240v/60amp
460	St. Maarten XL	82"Lx79"Wx40½"D	400	620	4420	240v/60amp
500/505/510	Grand Caymen	82½"Lx79"Wx40½"D	475	720	4520	240v/60amp
515						
520	Grand Caymen XL	82½"Lx79"Wx40½"D	475	720	4520	240v/60amp
530	Aruba	96"Lx76¼"x41½"D	475	700	4500	240v/60amp
540	Aruba XL	96"Lx76¼"x41½"D	475	723	4523	240v/60amp
550/553/555	Grand Bahama	87"Lx87"Wx41½"D	510	840	4800	240v/60amp
557						
560	Grand Bahama XL	87"Lx87"Wx41½"D	510	840	4800	240v/60amp
580	Grand Bahama XLP	87"Lx87"Wx41½"D	510	840	4800	240v/60amp
600	Paradise	87"Lx87"Wx41½"D	510	740	4820	240v/60amp
620	Paradise XL	87"Lx87"Wx41½"D	510	740	4820	240v/60amp
640	Paradise Ultra	87"Lx87"Wx41½"D	510	875	4955	240v/60amp
660	Paradise Ultra XLP	87"Lx87"Wx41½"D	510	921	5005	240v/60amp
680	Paradise SupremeXLP	92"x92"x41½"D	575	765	6449	240v/60amp

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