



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



## Box Merchant 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 AMP breaker in the houses 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, siphon with garden hose or submersible pump.

### o Do I need an Electrician?

Yes, you will need to hire an electrician to install the 240-volt 50 AMP neutrally protected GFCI (Ground Fault Circuit Interrupter) which are sold separately. Your main breaker box will also need to have a 50 AMP breaker. Your spa is hard wired through the floor or side wall of the spa cabinet, directly into the spa's control pack. The GFCI is installed next to the spa on an exterior wall at least 10 feet from the spa water. (Exception: The Model 0, Model 1, Model 10, Model 14, Model 25, and Model 26L come with a 15' GFCI protected cord and plug into any 120 V / 15 AMP wall outlet.)

## 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 spa's placement.

### Outdoor Spa Placement

Outdoor spa placement, such as decks or concrete is common. However, the spa can be placed on any solid, uniform, level surface. Do not place your spa on grass or 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 water is around 125 lbs. per square foot. Your base should have at least 150 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 overhead 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 their 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 four 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 level 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 150 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 reinforced wire placed in the concrete.

New wood decks should have (2 x 10) floor joists 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.

**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**

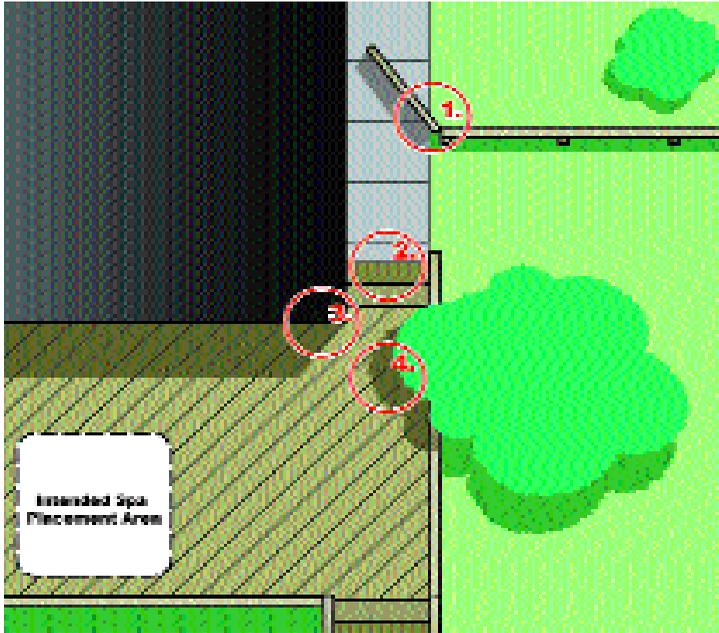
The Spa Specification chart on page 20 lists your spa model and its dimensions. Compare the dimensions to the width of gates, sidewalks, and doorways along the delivery route used to bring the spa into your yard. It may be necessary for you to remove a gate or partially remove a fence in order to provide an unobstructed passageway to the installation location.

How will your spa be delivered to you?

### **Curbside Delivery**

Your spa will be delivered by common carrier or freight truck to your home curbside. Your spa will be shipped within 21 business days and usually arrives within 10 business days after it ships. Independent delivery carrier will unload the spa from the truck and place it curbside next to a public street or highway. The driver **IS NOT** authorized to unwrap, set up, or do installation. The driver **will not** move your spa to the backyard or place it inside your home.





## Plan your spa route

Use the diagram to plan your spa route. Consider the following when planning your spa 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 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 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 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 240Volt spas 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. (Minimum #6 wire Required)
  - o Wire size is determined by length of run from breaker box to spa and maximum current draw.
  - o Minimum # 6 copper wire with THHN insulation.
  - o All wiring must be copper to ensure adequate connections. Do not use aluminum wire.

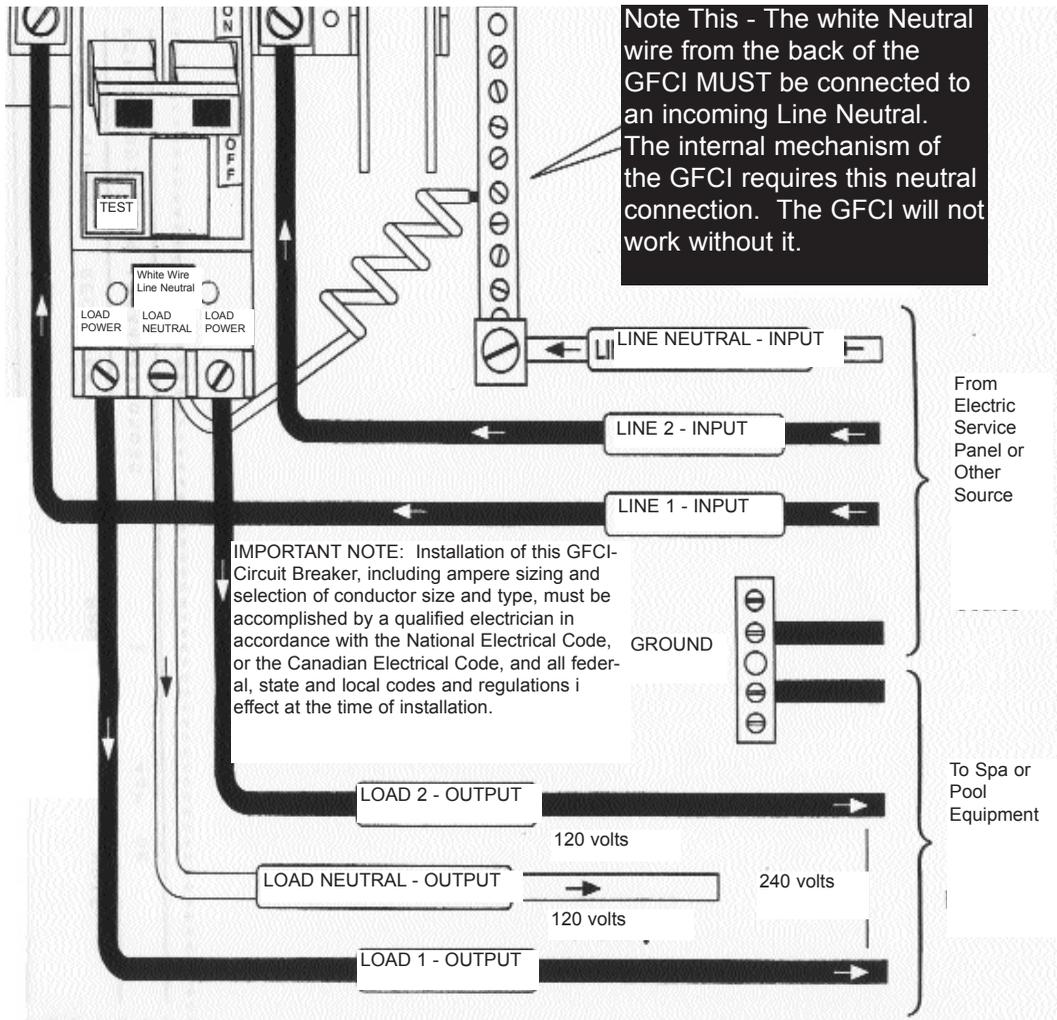
4. The electrical supply for the spa must include a suitable rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electric Code, ANSI/NFPA 70. The disconnecting means must be readily accessible to the spa's occupant but installed at least 10 feet 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. Your spa requires 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.

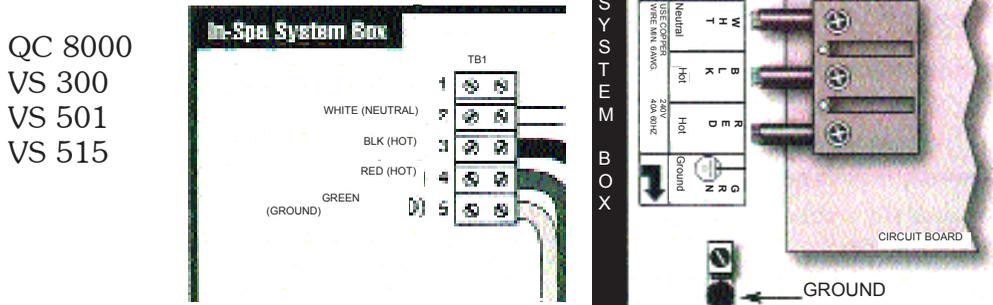
### Siemens GFCI Breaker Box



## 7. Electrical Installation of Spa after delivery

### Important Safety notice for all models!

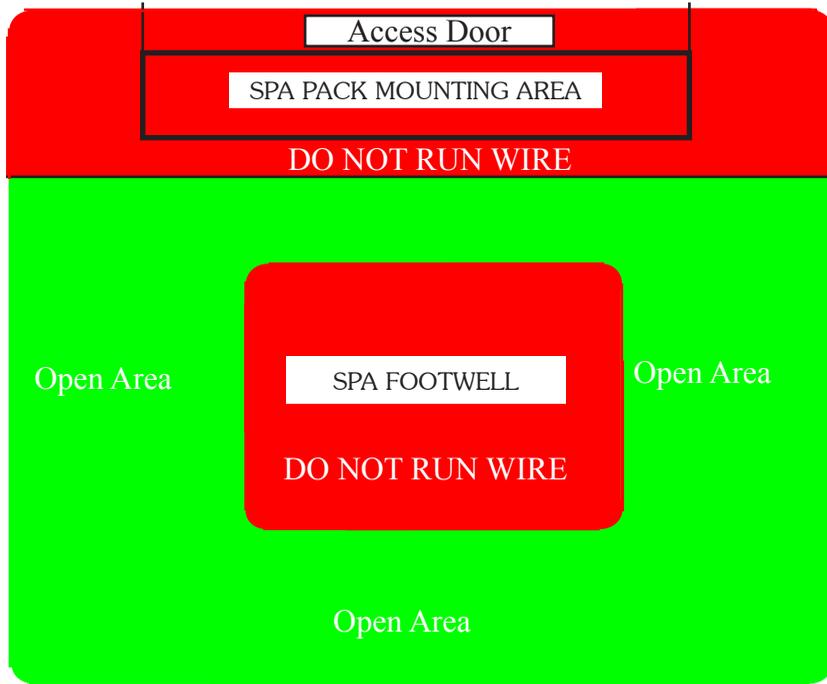
Proper grounding is extremely important.



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 two control box cover screws and cover.
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. Run power wire through the circular hole on the left side of the control box.
4. Connect wires, color to color, into the terminal openings and tighten securely. Connect ground wire to the ground terminal and tighten securely.
5. Secure the control box door by installing its screws, then re-install the cabinet panel under the topside control. Electrical installation is now complete.

# 8. QCA SPA'S WIRING PLACEMENT Through Base of Spa

FRONT OF SPA



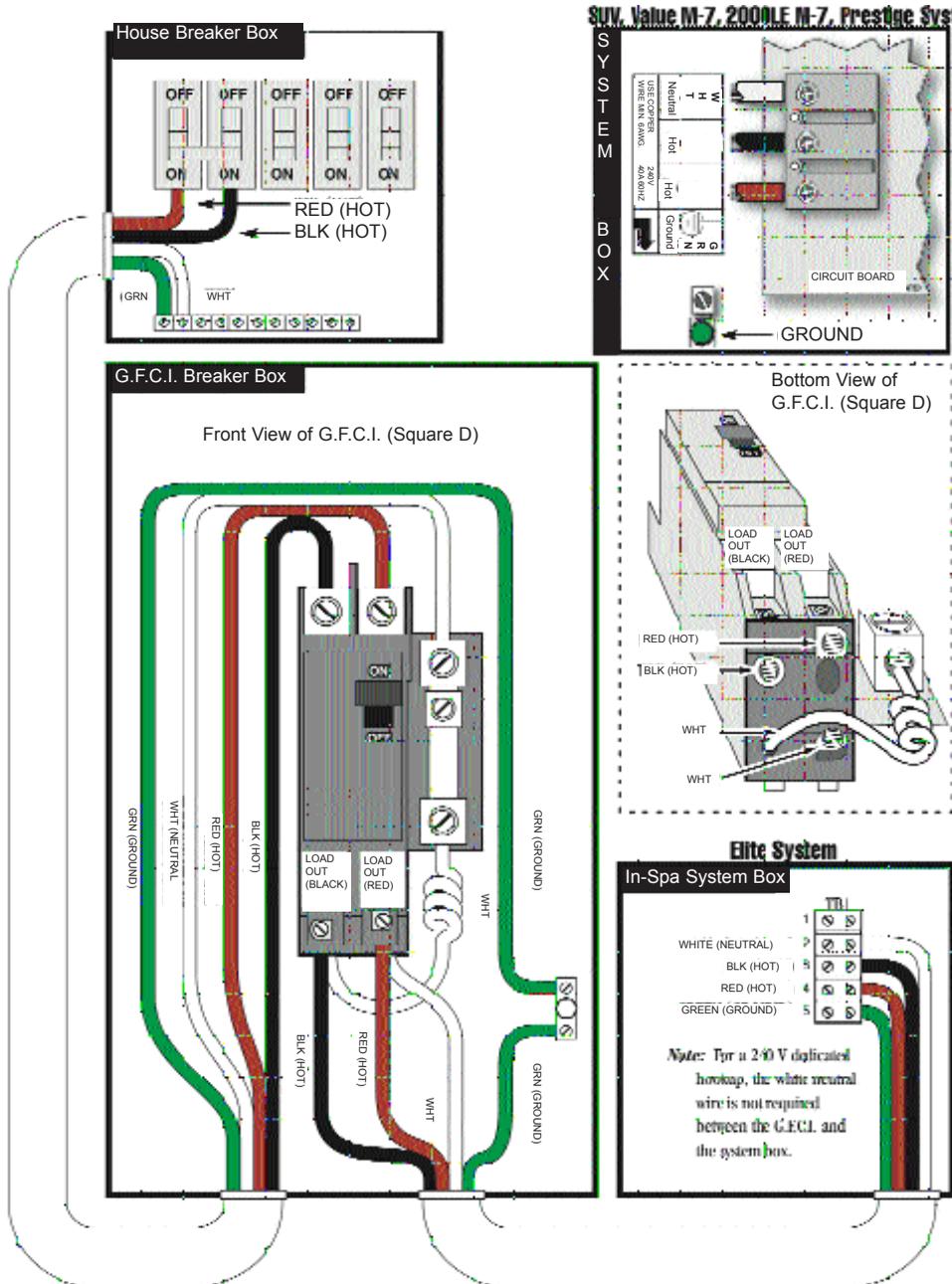
THIS VIEW IS THE BOTTOM SIDE OF THE SPA.

 Do Not Run Wire up Thru Botton of Spa

 Open Area Acceptable to run Wire Through Botton of Spa

**\* Do Not Put Wires Through Footwell or Spa Pack Area**

# 9. Wiring Schematic VS 300/501/515



# QCA Star Series Spas

## 10. QCA SPAS MODEL SPECIFICATIONS

MODEL #	OUTSIDE DIMENSIONS	GALLONS	WEIGHT		POWER Voltage/amp
			In Pounds Dry	Filled	
0	91"L x42"Wx29"D	190	214	1734	120v/15amp
10	88"Lx60"Wx29.5"D	275	300	2500	120v/15amp
1	80½"Lx56½"Wx30"D	240	309	2229	120v/15amp
2	82"Lx82"Wx36"D	475	563	4363	240v/50amp
2L	82"Lx79"Wx36"D	425	563	3563	240v/50amp
3	82"Lx82"WX36"D	475	590	4363	240v/50amp
3L	82"Lx82"WX36"D	425	590	4200	240v/50amp
4	82"Lx82"Wx36"D	475	590	4363	240v/50amp
4L	82"Lx82"Wx36"D	425	563	4200	240v/50amp
5	82"Lx82"Wx36"D	475	550	4363	240v/50amp
5L	82"Lx82"Wx36"D	425	550	4200	240v/50amp
5A	82"Lx82"Wx36"D	475	563	4363	240v/50amp
6L	87"Lx87"Wx36"D	550	681	5081	240v/50amp
6A	87"Lx87"Wx36"D	510	681	5081	240v/50amp
7	87"Lx87"Wx36"D	550	681	5081	240v/50amp
7L	87"Lx87"Wx36"D	550	681	5081	240v/50amp
8	87"Lx87"Wx36"D	550	681	5081	240v/50amp
8A	87"Lx87"Wx36"D	550	681	5081	240v/50amp

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