Roto spa

Pre-delivery guide

United States, Canada, and International

LTR50001118, Rev. C
8/17/12

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Planning the Best Location

With a little preparation and care, your spa will give you many years of enjoyment. This booklet has been designed to provide you with all the information you'll need to ensure a safe and easy spa delivery and installation.

Most cities and counties require permits for exterior construction and electrical circuits. In addition, some communities have codes requiring residential barriers such as fencing and / or self-closing gates on property to prevent unsupervised access to the property by children under the age of 5.

Here are some of the things that you will need to consider when determining where to place your new spa.

Safety First

Do not place your spa within 10' (3m) of overhead power lines.

Consider How You Will Use Your Spa

How you intend to use your spa will help you determine where you should position it. For example, will you use your spa for recreational or therapeutic purposes? If your spa is mainly used for family recreation, be sure to leave plenty of room around it for activity. If you will use it for relaxation and therapy, you'll probably want to create a specific mood around it.

Plan for Your Environment

If you live in a region where it snows in the winter or rains frequently, place the spa near a house entry. By doing this, you will have a place to change clothes and not be uncomfortable.

Consider Your Privacy

In a cold-weather climate, bare trees won't provide much privacy. Think of your spa's surroundings during all seasons to determine your best privacy options. Consider the view of your neighbors as well when you plan the location of your spa.

Provide A View With Your Spa

Think about the direction you will be facing when sitting in your spa. Do you have a special landscaped area in your yard that you find enjoyable? Perhaps there is an area that catches a soothing breeze during the day or a lovely sunset in the evening. Consider these things when you plan your location.

Keep Your Spa Clean

Prevent dirt and contaminants from being tracked into your spa by placing a foot mat at the spa's entrance where the bather's can clean their feet before entering your spa.

You may also consider keeping a small water-filled basin nearby for bathers to rinse their feet before entering your spa.

In planning your spa's location, consider a location where the path to and from the house can be kept clean and free of debris.

Allow For Service Access

Many people choose to install a decorative structure around their spa. If you are installing your spa with any type of structure on the outside, such as a gazebo, remember to allow access for service. It is always best to design special installations so that the spa can still be moved, or lifted off the ground if necessary.

Preparing a Good Foundation

Your spa needs a solid and level foundation. The area that it sits on must be able to support the weight of the spa, with water and the occupants who use it. If the foundation is inadequate, it may shift or settle after the spa is in place, causing stress that could DAMAGE YOUR SPA SHELL AND FINISH.

Damage caused by inadequate or improper foundation support is not covered by the warranty. It is the responsibility of the spa owner to provide a proper foundation for the spa.

Place the spa on an elevated foundation (preferably a 3" - 4" reinforced concrete slab).

Pavers, gravel, brick, sand, timbers or dirt foundations are not adequate to support the spa and will void your warranty.

If you are installing the spa indoors, pay close attention to the flooring beneath it. Choose flooring that will not be damaged or stained.

If you are installing your spa on an elevated wood deck or other structure, it is highly recommended that you consult a structural engineer or contractor to ensure the structure will support the weight of 150 pounds per square foot.

To properly identify the weight of your new spa when full, remember water weighs 8.33 lbs. per gallon. For example, an 8' spa holds approximately 500 gallons of water. Using this formula, you will find that the weight of the water alone is 4,165 Lbs. Combined with the dry weight of the spa you will note that this spa will weigh approximately 5,000 Lbs. when full of water.

It is strongly recommended that a qualified, licensed contractor prepare the foundation for your spa.

Our customer service representatives can provide you with information on how to get the most out of your spa and can provide you with a full line of accessories that are designed to complement your spa and increase your enjoyment. You can find the contact number on the inside cover of this guide.

Getting Your New Spa Into Your Yard

You will be provided with curbside delivery of your spa only. You will need to make arrangements to have the spa moved to where you want to locate it. Depending on your circumstances, you can choose either crane delivery or ground delivery.

Crane Delivery

The use of a crane for delivery and installation may be necessary if you are unable to provide an adequate delivery route. It is used primarily to avoid damage to your spa or property or injury to delivery personnel. If your spa delivery requires the use of a crane, you must make your own arrangements. You are responsible for all delivery costs of your spa. Check your local listings for a crane service that can accommodate your needs.

Ground Delivery

If this method of delivery best suits your needs, we recommend you hire professional spa movers to transport your hot tub. They have the knowledge and experience to anticipate any obstacles and how to handle them. Spas weigh several hundred pounds without water. If you attempt to move your spa yourself, it is at your own risk.

Attempting to transport or place your spa yourself may result in damage to your spa that is not covered by the warranty. Your spa weighs several hundred pounds and moving it yourself may result in physical harm or property damage. If you choose this method of delivery, we recommend hiring professional spa movers.

Check the Dimensions of Your New Spa

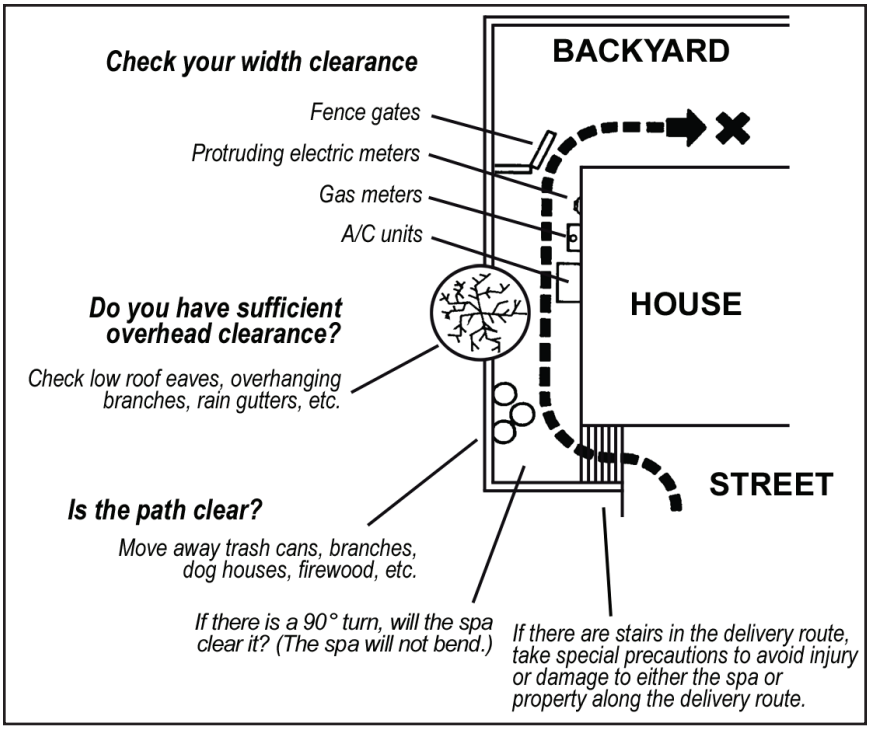
The specifications of your spa are shown in a table on the inside cover of this guide and provides the dimensions of your spa as it sits on the pallet. During delivery, the spa must remain on the pallet at all times.

Plan the Delivery Route

Consider the following when planning your delivery route:

- Check the width of gates, doors and sidewalks 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.
- Are there low roof eaves, overhanging branches or rain gutters that could be an obstruction to overhead clearance?

- 8′ spas need gate clearance of at least 42″ wide and 9′ high.
- If the delivery route will require a 90º turn, check the measurements at the turn to ensure the spa will fit.
- Are there protruding gas meters, water meters or A/C units on your home which will cause obstructions along the delivery path to your yard?
- Are there stairs in your delivery route? If so, you must take special precautions to avoid injury or damage to either the spa or any property along the delivery route.



Electrical Requirements

240 Volt Electrical Installation

All 240V spas must be permanently connected (hard wired) to the power supply. These instructions describe the only acceptable electrical wiring procedure. Spas wired in any other way will void your warranty and may result in serious injury. See the wiring diagram on page 7.

When installed in the United States, the electrical wiring of this spa must meet the requirements of National Electric Code, ANSI/NFPA 70-2008 and any applicable local, state, and federal codes. The electrical circuit must be installed by an electrical contractor and approved by a local building / electrical inspector.

GFCI and Wiring Requirements

The power supplied to the spa must be on a dedicated GFCI protected circuit as required by ANSI/NFPA 70 with no other appliances or lights sharing the power.

Use the table below to determine your GFCI requirements.

Single pump spas:	One 40 amp GFCI
Two and three pump spas:	One 50 amp GFCI

All spas require four #8 copper wires with THHN insulation Do not use aluminum wire.

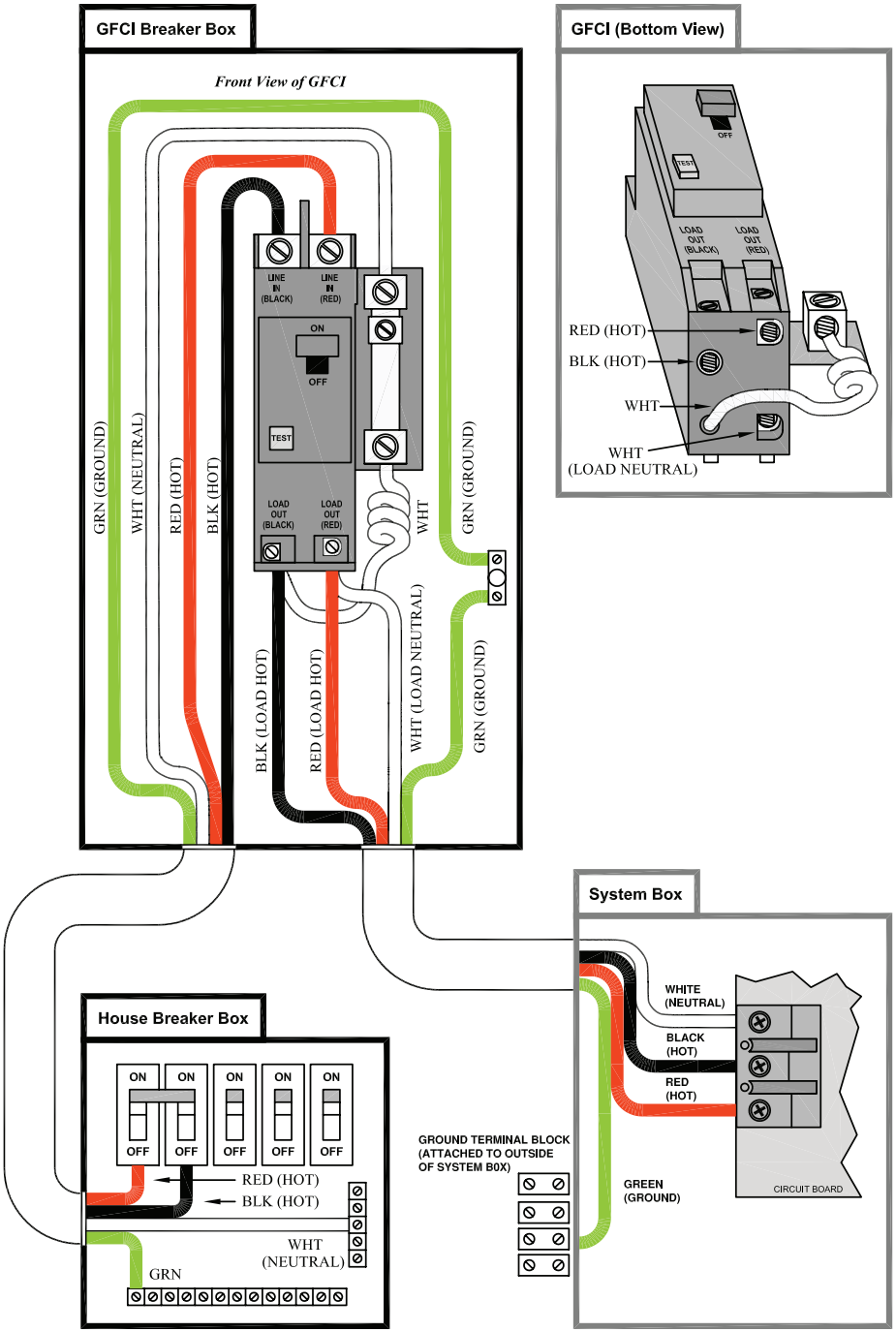
Wire runs over 85 feet must increase wire gauge to the next lower number. For example: A normal 50 amp GFCI with four #8 AWG Copper wires run over 85 feet would require you to go to four #6 AWG copper wires.

When NEC requires the use of wires larger than #6 AWG, install a junction box near the spa and use #6 AWG wire between the junction box and the spa.

Testing the GFCI Breaker

Test the GFCI breaker prior to first use and periodically when the spa is powered. To test the GFCI breaker, Press the TEST button on the GFCI. The GFCI will trip and the spa will shut off. Reset the GFCI breaker by switching the breaker to the full OFF position, wait a moment, then turn the breaker back on. The spa should have power again. Note: The spa should be operating while testing the GFCI breaker.

GFCI Hook-Up Diagram



120 Volt Electrical Installation

Always follow applicable local, state and federal codes and guidelines.

Use only a dedicated electrical line with a 15 amp breaker.

Cord-and-plug connections may not use a cord longer than 15 feet (4.6 m) and must be plugged into a dedicated 15 amp GFCI connection (NEC 680.42(A)(2)). Do not use extension cords!

Always use a weatherproof-covered receptacle.

Receptacle shall be located not less than 5 feet (1.5 m) from and not exceeding 10 feet (3.0 m) from the inside wall of the spa. (NEC 680.43(A))

Do not bury the power cord. If your cord becomes damaged, replace it before next usage.

All 120V spas must have a GFCI. This can be either a 15 amp GFCI receptacle or a 15 amp GFCI cord and plug kit as shown (CKIT110 - P/N ELE09700086).

Testing the GFCI plug

Test the GFCI plug prior to first use and periodically when the spa is powered. To test the GFCI plug version, follow these instructions. (Spa should already be plugged in and operational.)

1. Press the TEST button on the GFCI. The GFCI will trip and the spa will stop operating.
2. Press the RESET button on the GFCI. The GFCI will reset and the spa will turn back on.

The spa is now safe to use.

If the GFCI trips while the spa is in use, press the RESET button. If the GFCI does not reset, unplug the spa and call customer service for assistance. DO NOT USE THE SPA!

Electrical Installation -- Europe

230V / 50 Hz Electrical Installation

All 230V spas must be permanently connected (hardwired) to the power supply. These instructions describe the only acceptable electrical wiring procedure. Spas wired in any other way will void your warranty and may result in serious injury.

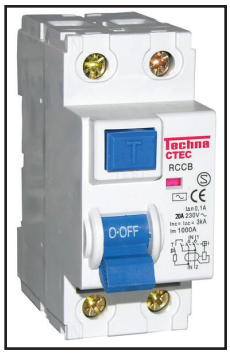
This is the only acceptable electrical wiring procedure. Spas wired in any other way will void your warranty. See the wiring diagram on page 11.

The electrical wiring of this spa must meet the requirements of any applicable local, state, and federal codes. The electrical circuit must be installed by an electrical contractor and approved by a local building / electrical inspector.

RCD and Wiring Requirements

Your spa will require either one 32 amp RCD or two 16 amp RCDs, installed with three #10 AWG copper wires.

The power supplied to the spa must be on a dedicated RCD protected circuit with no other appliances or lights sharing the power.



Use copper wire with THHN insulation. Do not use aluminum wire.

When wires larger than #6 AWG are required, install a junction box near the spa and use #6 AWG wire between the junction box and the spa.

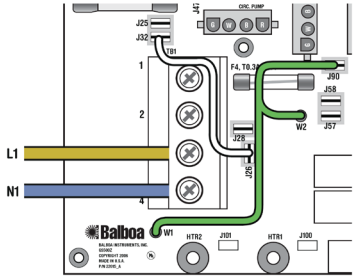
Wire runs over 26 m must increase wire gauge to the next lower number. For example: A normal 50 amp RCD with four #8 AWG copper wires run over 26 m would require you to go to four #6 AWG copper wires.

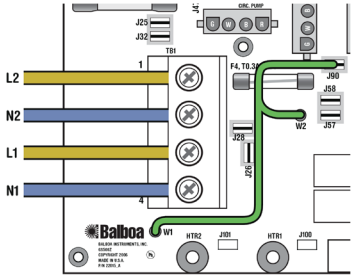
Testing the RCD Breaker

Test the RCD breaker prior to first use and periodically when the spa is powered. To test the RCD breaker follow these instructions (spa should be operating):

1. Press the TEST button on the RCD. The RCD will trip and the spa will shut off.
2. Reset the RCD breaker by switching the breaker to the full OFF position, wait a moment, then turn the breaker back on. The spa should have power again.

50 Hz Circuit Board Connection





Single Service (1 x 16 Amp or 1 x 32 Amp)

This option is configured and shipped as the default.
All equipment (pumps, blower, and heater) runs on service line L1.

Systems using only 1 DIP switch (A10) for heat disable:
- For 1 x 16 Amp Service:
  - DIP Switch A10 must be ON.
- For 1 x 32 Amp Service:
  - Set DIP Switch A10 such that total system amperage draw never exceeds rated service input.

Systems using multiple DIP switches for heat disable:
- Refer to system Hot Sheet DIP Switch Definition page and set the switches shown in Table 1 such that total system amperage draw never exceeds rated service input.

Dual Service Option (2 x 16 Amp)

The heater runs on service line L1, while all other equipment, such as pumps and blowers, run on service line L2.

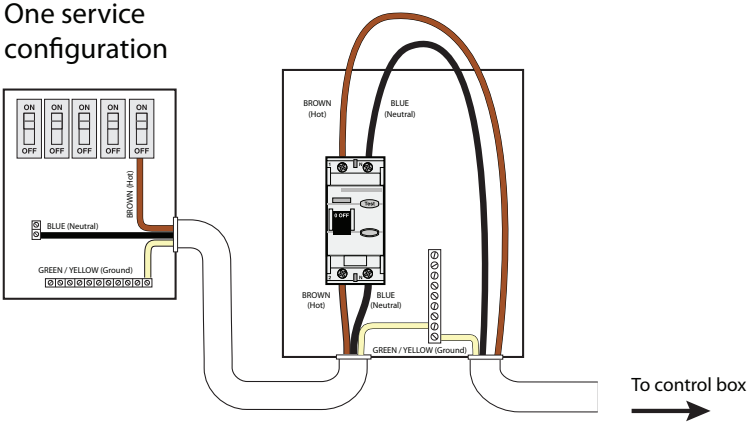
Completely remove the white wire from J26 and J32.
- *Note: J32 and J25 are electrically identical. The white wire may be attached to either terminal before removal.*

Systems using only 1 DIP switch (A10) for heat disable:
- DIP Switch A10 must be OFF.

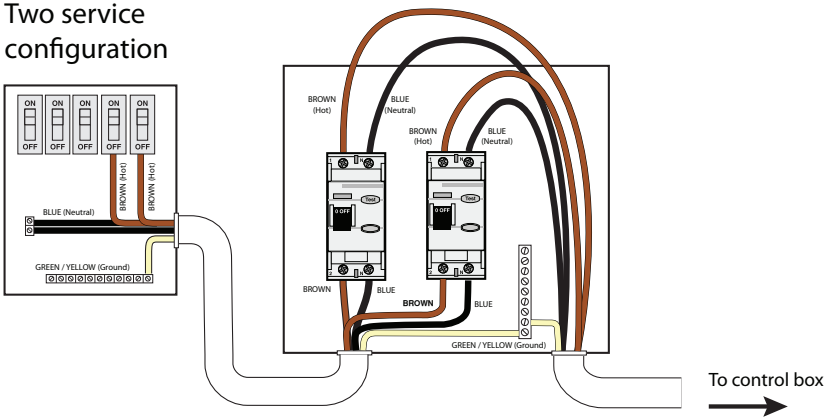
Systems using multiple DIP switches for heat disable:
- Refer to system Hot Sheet DIP Switch Definition page and set both switches shown in Table 1 to ON positions.

RCD Wiring Diagram

One service configuration



Two service configuration



Contact Information

Customer Service Department
1462 East Ninth Street
Pomona, CA 91766

1-888-628-8271

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