

MODEL SPECIFICATIONS

MODEL/LISTING NUMBER	SPA DIMENSIONS (in./cm)	ELECTRICAL REQUIREMENTS	SEATING CAPACITY	WATER CAPACITY (gallons/m)	DRY WEIGHT (lbs./kilos)	FULL WEIGHT (lbs./kilos)	THERAPY PUMPS	SPA CONTROL	WARRANTY
H2X THERAPOOL SE / 1470	132" x 94" x 51" 336 x 239 x 130	Configuration # 2 240V, 50A GFCI	7	925 / 3.50	1410 / 640	10420 / 4727	2	TP500	Therapool
H2X THERAPOOL D / 7600	132" x 94" x 60" 336 x 239 x 153	Configuration # 2 240V, 50A GFCI	7	1060 / 4.01	1720 / 780	11860 / 5380	2	TP500	Therapool
H2X THERAPOOL 13 / 9914	156" x 90" x 48" 396 x 229 x 122	Configuration # 2 240V, 50A GFCI	4	1270 / 4.80	1785 / 810	13120 / 5951	2	TP500	Therapool
H2X THERAPOOL 15 / 9921	180" x 90" x 51" 458 x 228 x 130	Configuration # 2 240V, 50A GFCI	4	1620 / 6.31	2070 / 939	16325 / 7406	2	TP500	H2X Therapool
H2X TRAINER 12 / 8300	144" x 94" x 51" 366 x 239 x 130	Configuration # 2 240V, 50A GFCI	5	1245 / 4.71	1915 / 869	13225 / 5999	2	INK1000+	Trainer/ Challenger
H2X TRAINER 15D / 1440	180" x 94" x 60" 458 x 239 x 153	Configuration # 2 240V, 50A GFCI	5	1895 / 7.17	2575 / 1168	19305 / 8757	2	INK1000+	Trainer/ Challenger
H2X TRAINER 18D / 1130	215" x 94" x 60" 547 x 239 x 153	Configuration # 2 240V, 50A GFCI	5	2235 / 8.46	2710 / 1229	22275 / 10104	2	INK1000+	Trainer/ Challenger
H2X TRAINER 19 / 9600A - SPA, 9600B - SWIM	231" x 94" x 51" 587 x 239 x 130	Configuration # 6 DUAL (2) 240V, 50A GFCI	7 (5 - Spa) (2 - Swim)	2,055 / 7.78 - Total 1,785 / 6.76 - Swim, 270 / 1.02 - Spa	2950 / 1338	21385 / 9700	4	INK1000+	Trainer/ Challenger
H2X TRAINER 19D / 1270A - SPA, 1270B - SWIM	231" x 94" x 60" 587 x 239 x 153	Configuration # 6 DUAL (2) 240V, 50A GFCI	7 (5 - Spa) (2 - Swim)	2,285 / 8.65 - Total 2,010 / 7.61 - Swim, 275 / 1.04 - Spa	3215 / 1458	23570 / 10691	4	INK1000+	Trainer/ Challenger
H2X CHALLENGER 15D / 9915	180" x 94" x 60" 457 x 239 x 153	Configuration # 2 240V, 50A GFCI	5	1930 / 7.30	2530 / 1148	19555 / 8870	3	Icon Spa Touch	Trainer/ Challenger
H2X CHALLENGER 18D / 9916	215" x 94" x 60" 547 x 239 x 153	Configuration # 2 240V, 50A GFCI	5	2080 / 7.87	2840 / 1288	21115 / 9578	3	Icon Spa Touch	Trainer/ Challenger
H2X CHALLENGER 19D / 9917	231" x 94" x 60" 587 x 239 x 153	Configuration # 6 DUAL (2) 240V, 50A GFCI	7 (5 - Spa) (2 - Swim)	2285 / 8.65 - Total 2010 / 7.61 - Swim, 275 / 1.04 - Spa	3435 / 1558	23790 / 10791	5	Icon Spa Touch	Trainer/ Challenger
H2X CHALLENGER 18D PRO / 9946	215" x 94" x 60" 547 x 239 x 153	Configuration # 9 - 240V, 50A GFCI, 240V, 30A GFCI	5	2080 / 7.87	2840 / 1288	21115 / 9578	4	Icon Spa Touch	Trainer/ Challenger

¹As configured from factory. See appropriate Electrical Requirements section for further details.

²Total bather capacity in swim spa. The number of bathers in swim spa should never exceed indicated seating capacity. Depending on swim spa size, water level and bather displacement; full seating capacity may not be achievable. Do not allow additional bathers to enter if bather displacement results in water levels overflowing or reaching the swim spa controls (air controls, diverters, swim spa topside control and etc.) as this will result in water leaking out of the swim spa shell and potentially in to the equipment area.

³Full weight based on dry weight of swim spa, max seating capacity of swim spa, assumed average weight per person of 185 pounds and estimated water weight of 8.34 pounds per gallon. Rounded up in increments of 5.

⁴Manufacturing tolerances along with other factors can result in variance in actual swim spa weight. If weight is a critical figure necessary for delivery, or final installation, we suggest a minimum of 15% be added to the listed weight when planning delivery or installation.

SITE PREPARATION / GENERAL GUIDELINES

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Swim spa installation is simple when properly planned. It is important that you read the following information carefully and consult with your Master Spas dealer.

- 1. ACCESS:** The actual dimensions of your new swim spa will determine the amount of space that is needed in moving the swim spa from curbside to its final installation area. Be sure to consider and measure side yard dimensions, gates, doors, overall room dimensions and vertical obstructions such as ceilings, roof overhangs, balconies and overhead cables. Any other space limiting obstacles such as stairs, trees, and shrubs must also be evaluated. Consideration should also be taken to ensure there is convenient water supply for filling your swim spa (review national and local regulations). The desired location for swim spa might require use of a crane. Please be sure to contact and review these site and installation plans with your Master Spas dealer prior to delivery. It is also good to consider these access requirements for ease of removing the swim spa from the premises in the event it is necessary to do so.
- 2. SURFACE/PAD REQUIREMENTS:** When your new swim spa is filled with water and bathers, it may weigh as much as several tons. It is imperative that the base beneath the swim spa can support the entire weight. The swim spa must be on a uniformly firm, continuous, and level surface. The recommended foundation is a concrete pad with a minimum thickness of four inches with steel reinforcement bars crossed throughout the pad.

IMPORTANT

Consult experts and/or local authorities to review and comply with all local and national laws and regulations relating to childproofing, safety barriers, lighting and any other safety requirements at site. When installing your swim spa indoors, on a wood deck, roof or balcony, load requirements need to be evaluated before installation. It is also good to consider location and position of swim spa as well as surfaces and foundation to minimize noise disturbance as much as possible. You should speak with a qualified contractor or your local building department to confirm that your surface is adequate for supporting the swim spa and conforms to these guidelines.

All sides of the swim spa must be accessible for regular maintenance or in the event that service is needed. Periodical maintenance checks require entry into the equipment bay. When possible, it is wise planning for the future to leave 3 feet of access to all sides of the swim spa in the event your swim spa requires maintenance. Your swim spa warranty does not cover the cost of providing access for service.

GENERAL CONSIDERATIONS FOR OUTDOOR INSTALLATION

Again, proper planning will increase your total enjoyment factor with your new swim spa. Listed below are some additional items to consider when planning your installation.

- Local building codes (if applicable)
- Power cable
- Appropriate materials and drainage around the swim spa to handle water presence and runoff
- Consider local environmental conditions, such as ground water and risk of frost
- In cold climates, an insulating ground cloth can be installed between foundation and swim spa to minimize heat loss
- How swim spa will complement landscaping and vice versa
- View from inside swim spa and view of swim spa from inside of home
- Exposure to sunlight and shading from trees
- Privacy
- Getting to swim spa from the house and back
- Proximity to dressing rooms and bathrooms

SITE PREPARATION / GENERAL GUIDELINES

GENERAL CONSIDERATIONS FOR INDOOR INSTALLATION

Installing your swim spa indoors creates an entirely different set of considerations.

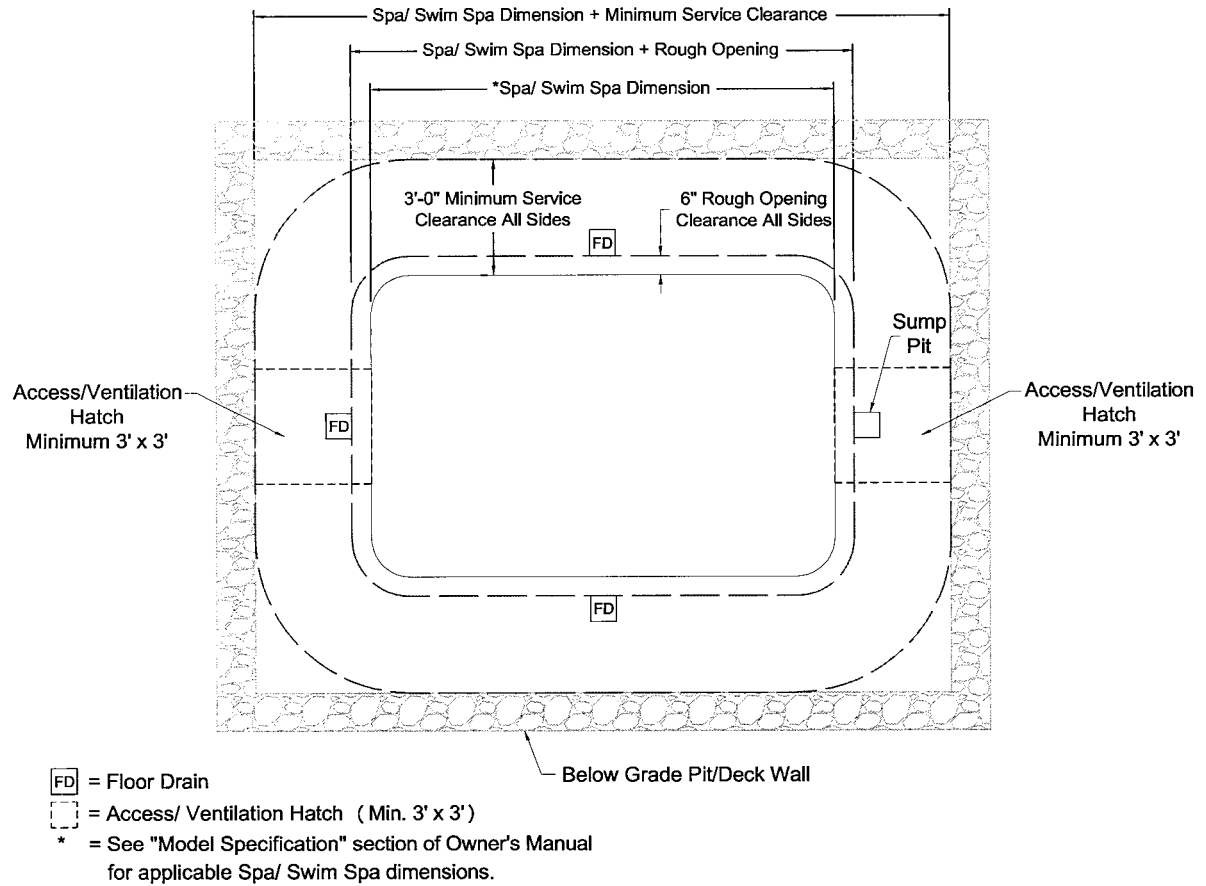
- Storage for swim spa chemicals
- Work with your Master Spas dealer and contractor to insure all local building, electrical and plumbing codes are met
- Plan for proper flooring and floor drains around your swim spa to drain off excess water runoff that will occur during normal use and for draining and cleaning your swim spa
- Proper room ventilation and dehumidification
- Finished materials in your swim spa room should also be capable of withstanding increased humidity and moisture

GUIDELINES FOR PARTIALLY OR FULLY RECESSED INSTALLATION

Swim spas manufactured by Master Spas are designed to be installed in a variety of settings. One of which is installing below grade. Should a swim spa be installed below the level of the site drainage system (below grade), a system for preventing water collecting and pooling must be designed based on the requirements of the local authority having jurisdiction. The drainage system must be designed based on things such as rainfall, water runoff, splashing, draining the swim spa, etc., that could potentially feed the below grade area with water. When located in designated floodways, additional attention to maximum water load entering the area below grade must be addressed to prevent water from accumulating below grade at all times. It is generally recommended that the swim spa be installed above grade because the swim spa is not designed to be submerged in water. When a proper drainage system is designed and proper ventilation is planned based on the characteristics of the site, installing the swim spa below grade is an accepted method of installation.

- The unit is self-supporting when placed on a surface designed to support the full load of the swim spa (see Surface/Pad Requirements). Do not backfill with sand, gravel, or earth. Doing so will void the warranty.
- Plan for complete drainage so that water accumulation drains away from the swim spa perimeter and standing water never reaches the electrical equipment.
- Plan for appropriate ventilation to remove moisture accumulation and to prevent equipment from overheating.
- Provide a minimum of 3 feet service area around the perimeter of the unit. Site access issues are not covered by the product warranty.
- The unit is not designed to be submerged in water. Water entering the equipment area creates many hazards and resulting damage will not be covered by the product warranty.
- Make sure that the surroundings do not create any additional hazards.
- Surfaces placed around the unit should also be evaluated for walking/slipping hazards from standing water. Proper drainage is vital to the installation of a below grade installation.
- Check all building, electrical, and plumbing codes with the authority having jurisdiction to ensure that your installation is in compliance with all local codes.
- Additional consideration needs to be made when installing unit in designed floodways.
- Verify that site specific drainage systems such as down spouts are not going to feed the area below grade.
- Below grade drainage system needs to be evaluated based on area specific rainfall. One size does not fit all so an analysis by a qualified, local engineer to ensure proper drainage of all sources of water is a must when installing below grade.

SITE PREPARATION/GENERAL GUIDELINES



GFCI BREAKER REQUIREMENTS

CHALLENGER SERIES MODELS

If you do not have a Challenger model swim spa, this page does not apply to your swim spa and electrical installation.

The Challenger Series swim spa models require one of the following specific, compatible GFCI breakers to be used for reliable operation and prevention of nuisance tripping.

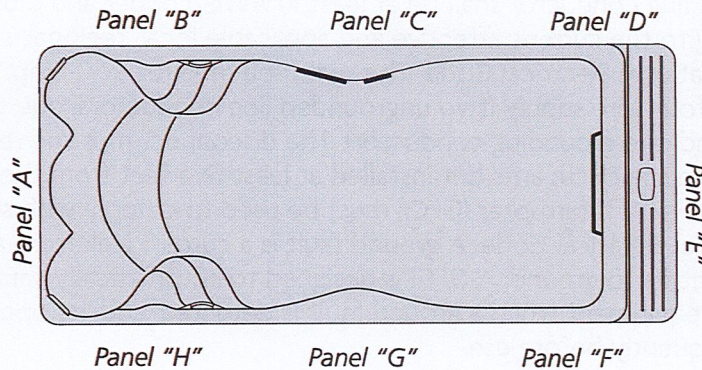
One of these two GFCI breakers **MUST** be used:

- Siemens 50 Amp Double-Pole Type QPF GFCI Circuit Breaker
- Murray 50 Amp Double Pole Type MP-GT2 GFCI Circuit Breaker

NOTE: Do not use Square D, GE or other brands of 50A GFCI Breaker.

For your convenience, one of these GFCI breakers is provided*. It is wrapped next to the exercise equipment box behind the skirting panel on the left side corner when facing the 8' spa seat end of the swim spa.

For access to this included GFCI breaker, remove skirting panels "B" and "C". It will be secured to the vertical frame supports. Open panel "B" first. Due to space limitations in some instances, with the exercise equipment box also secured along this side, the breaker may be secured behind panel "C".



*For H2X Challenger 19D and 18D Pro models which require two electrical supplies, a second GFCI is necessary and will need to be acquired before electrical hookup or supplied through your licensed electrician as electrical is installed. A compatible GFCI breaker **MUST** be installed on the 50A electrical service that connects to the Swim Side Spa Control System which runs the AquaSpeed™ VSP system.

ELECTRICAL REQUIREMENTS

CONFIGURATION 2 - 240V, 50A GFCI

NOTE: Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

ELECTRICAL REQUIREMENTS

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incoming power which are too small, may continually trip breakers, blow fuses in the electrical equipment box, damage the internal electrical controls and components, be unsafe and, in any case, will void your warranty.

It is the responsibility of the swim spa owner to ensure that electrical installation supplying, and connecting to the swim spa, is performed by a properly qualified, licensed electrician in accordance with the with all applicable local, regional, state requirements, and current effective edition of the National Electrical Code at the time of installation.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz. alternating current only, 120/240 volts are required. Make sure that power is not applied while performing any electrical installation. A bonding lug has been provided on the electrical equipment pack to allow equipotential bonding connection for bonding conductors. The bonding conductor shall be at least 10 AWG copper and must be connected according to the current effective and applicable local, regional, state and edition of the National Electrical Code. The swim spa requires a 50-amp, single phase, 120/240 volt, four wire supply (two ungrounded line conductors, one grounded neutral conductor and one grounding conductor). The disconnect must be readily accessible to the swim spa occupants but installed at least five feet from the swim spa. A Ground-Fault Circuit Interrupter (GFCI) must be used to comply with section 680-42 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected, and, its operation, should be tested frequently before use.

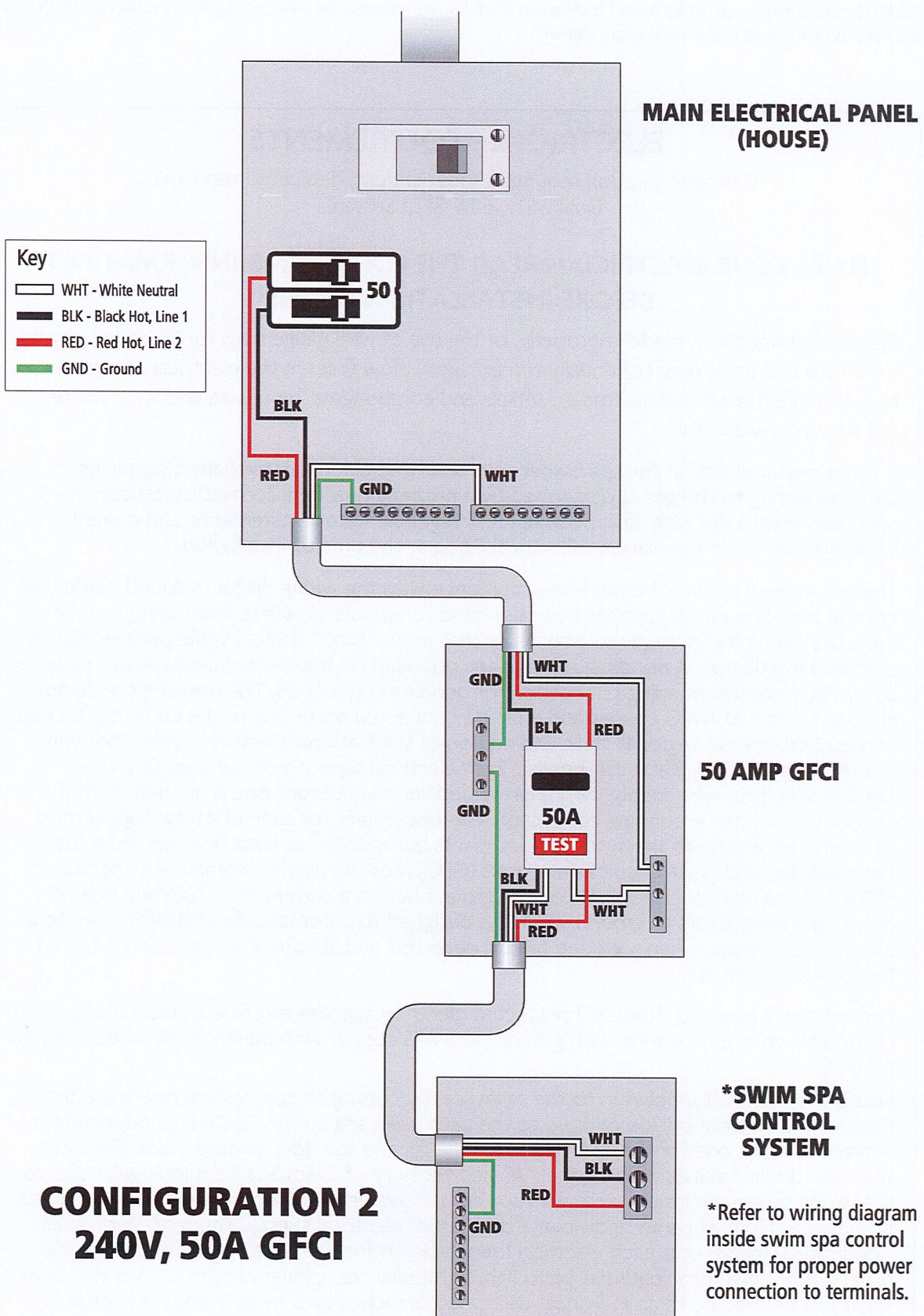
The electrical supply to the swim spa must be an individual branch circuit 120/240V, 50A, 4 wire, with ground (#6 AWG copper with minimum #10 AWG copper ground).

Route the electrical supply into the equipment area, by cutting an appropriate opening either through the bottom or side cabinet, for final hook-up to terminals inside the swim spa control system. The swim spa must be connected to an "individual - dedicated" 120/240-volt, 50-amp breaker and GFCI. The term "individual - dedicated" means the electrical branch circuit for the swim spa is not being used for any other electrical loads (i.e. patio lighting, appliances, garage circuits, etc.). If the swim spa is not connected to an individual-dedicated branch circuit, overloading may result in "nuisance tripping" which will require resetting of the breaker at the house electrical panel.

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ELECTRICAL REQUIREMENTS

CONFIGURATION 2 - 240V, 50A GFCI



ELECTRICAL REQUIREMENTS

CONFIGURATION 6 - DUAL 240V, 50A GFCI SERVICES

NOTE: Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

ELECTRICAL REQUIREMENTS

This configuration requires 2 independent, dedicated services.
Dual 240V, 50A GFCI Services

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incoming power which are too small, may continually trip breakers, blow fuses in the electrical equipment box, damage the internal electrical controls and components, be unsafe and, in any case, will void your warranty.

It is the responsibility of the spa owner to ensure that electrical installation supplying, and connecting to the spa, is performed by a properly qualified, licensed electrician in accordance with the with all applicable local, regional, state requirements, and current effective edition of the National Electrical Code at the time of installation.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz. alternating current only, 120/240 volts are required. Make sure that power is not applied while performing any electrical installation. A bonding lug has been provided on the electrical equipment pack to allow equipotential bonding connection for bonding conductors. The bonding conductor shall be at least 10 AWG copper and must be connected according to the current effective and applicable local, regional, state and edition of the National Electrical Code. The swim spa requires two 50A electrical supplies. Each electrical supply must be a single phase, 120/240 volt, four wire supply (two ungrounded line conductors, one grounded neutral conductor and one grounding conductor). The disconnect for each electrical supply must be readily accessible to the swim spa occupants but installed at least five feet from the swim spa. Ground-Fault Circuit Interrupters (GFCI) must be used to comply with section 680-42 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected, and, its operation, should be tested frequently before use.

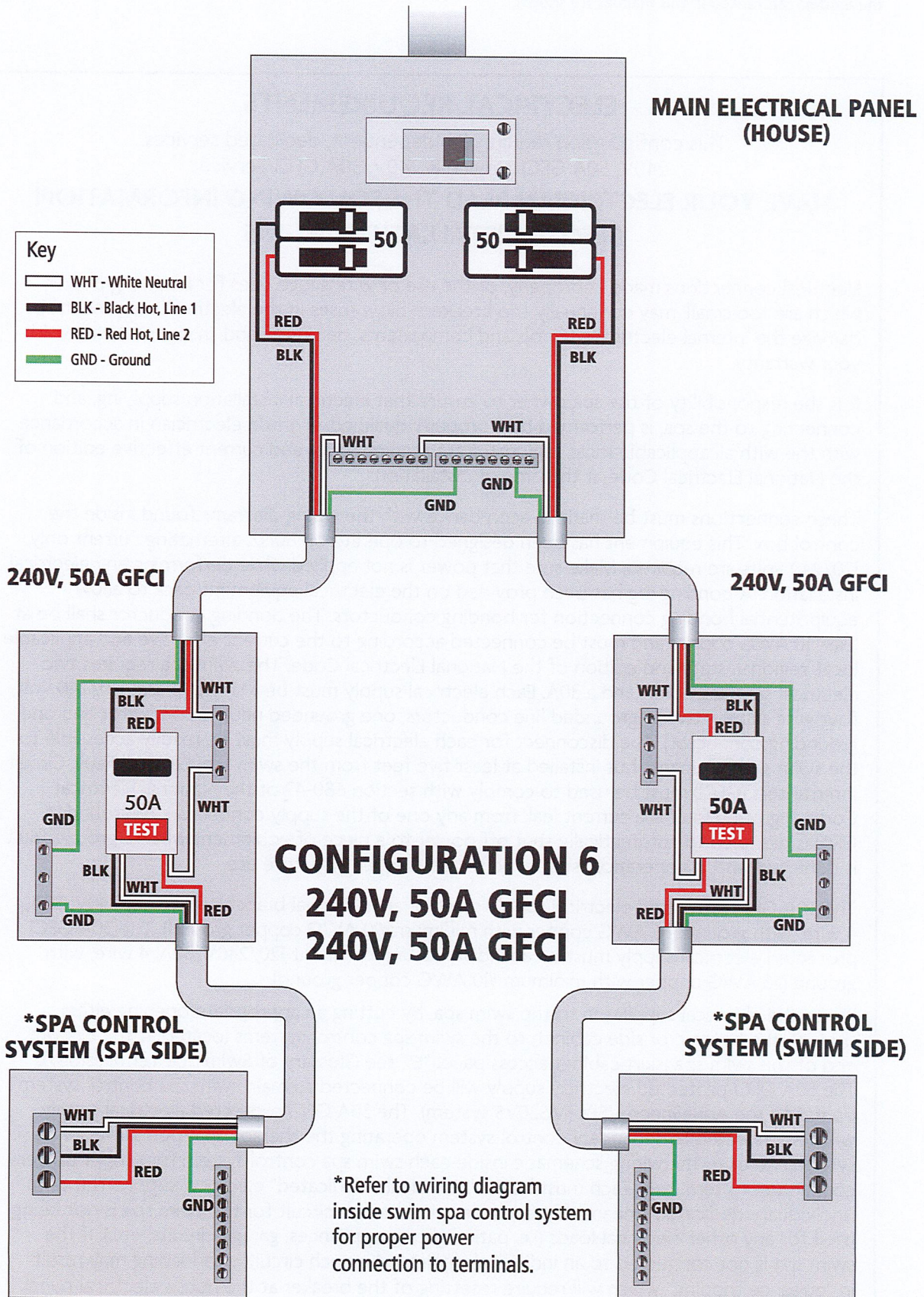
Each of the, 2 required, 50A GFCI protected electrical supplies must be an individual branch circuit 120/240V, 50A, 4 wire, with ground (#6 AWG copper with minimum #10 AWG copper ground).

Route the electrical supplies in to the swim spa, by cutting an appropriate opening either through the bottom or side cabinet, to the each swim spa control system (2 independent control systems, one for the swim side and one for the spa side) located inside the swim spa behind skirt cabinet access panel "A" (see Glossary of Swim Spa Terminology). Refer to the wiring schematic inside each swim spa control system for proper power connection to terminals. Each must be an "individual - dedicated" electrical supply. The term "individual - dedicated" means that each electrical branch circuit for the swim spa is not being used for any other electrical loads (i.e. patio lighting, appliances, garage circuits, etc.). If the swim spa is not connected to an individual-dedicated branch circuit, overloading may result in "nuisance tripping" which will require resetting of the breaker at the house electrical panel.

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ELECTRICAL REQUIREMENTS

CONFIGURATION 6 - DUAL 240V, 50A GFCI SERVICES



ELECTRICAL REQUIREMENTS

CONFIGURATION 9 - 240V, 50A GFCI SERVICE & 240V, 30A GFCI SERVICE

NOTE: Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

ELECTRICAL REQUIREMENTS

This configuration requires 2 independent, dedicated services.
240V, 50A GFCI Service & 240V, 30A GFCI Service

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incoming power which are too small, may continually trip breakers, blow fuses in the electrical equipment box, damage the internal electrical controls and components, be unsafe and, in any case, will void your warranty.

It is the responsibility of the spa owner to ensure that electrical installation supplying, and connecting to the spa, is performed by a properly qualified, licensed electrician in accordance with the with all applicable local, regional, state requirements, and current effective edition of the National Electrical Code at the time of installation.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz. alternating current only, 120/240 volts are required. Make sure that power is not applied while performing any electrical installation. A bonding lug has been provided on the electrical equipment pack to allow equipotential bonding connection for bonding conductors. The bonding conductor shall be at least 10 AWG copper and must be connected according to the current effective and applicable local, regional, state and edition of the National Electrical Code. The swim spa requires two electrical supplies, a 50A and a 30A. Each electrical supply must be a single phase, 120/240 volt, four wire supply (two ungrounded line conductors, one grounded neutral conductor and one grounding conductor). The disconnect for each electrical supply must be readily accessible to the swim spa occupants but installed at least five feet from the swim spa. Ground-Fault Circuit Interrupters (GFCI) must be used to comply with section 680-42 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected, and, its operation, should be tested frequently before use.

The 50A GFCI protected electrical supply must be an individual branch circuit 120/240V, 50A, 4 wire, with ground (#6 AWG copper with minimum #10 AWG copper ground). The 30A GFCI protected electrical supply must be an individual branch circuit 120/240V, 30A, 4 wire, with ground (#8 AWG copper with minimum #10 AWG copper ground).

Route the electrical supplies in to the swim spa, by cutting an appropriate opening either through the bottom or side cabinet, to the swim spa control systems located at the 8' swim end of the swim spa (skirt cabinet access panel "E", see Glossary of Swim Spa Terminology). The 50A GFCI protected electrical supply will be connected to main swim spa control system operating the AquaSpeed VSPs (MS20VS system). The 30A GFCI protected electrical supply will be connected to secondary control system operating the therapy seat pump (MS50NH system). Refer to the wiring schematic inside each swim spa control system for proper power connection to terminals. Each must be an "individual - dedicated" electrical supply. The term "individual - dedicated" means that each electrical branch circuit for the swim spa is not being used for any other electrical loads (i.e. patio lighting, appliances, garage circuits, etc.). If the swim spa is not connected to an individual-dedicated branch circuit, overloading may result in "nuisance tripping" which will require resetting of the breaker at the house electrical panel.

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ELECTRICAL REQUIREMENTS

CONFIGURATION 9 - 240V, 50A GFCI SERVICE & 30A GFCI SERVICE

