



Delivery and Installation Guide

Swim, Fitness & Splash Spas





PDC[®]
spas



Vitality SYNERGY™ TruSwim® Summit Splash series



Congratulations on your choice for a lifestyle enhanced with wellness, fun and relaxation! Your new swim, fitness, or splash spa from PDC Spas will deliver years of wellness for you and your family in the comfort and convenience of your own home.

Site Preparation Guidelines

Swim Spa installation can be quick and simple if these guidelines are considered in planning the site. Please read the following information carefully. Proper planning will make the delivery and install more economical and efficient and the proper site selection will increase your year-round enjoyment.

Access from delivery point to final site: Consider the route from where the unit is delivered to the installation site. The steepness of grade, trees, shrubs, gates, roof overhangs, cables and overhead wires need consideration. Outside dimensions of your model choice can be used to determine clearance required for the move. Review outdoor and indoor installation suggestions prior to choosing your swim spa location.



It is common to have swim spas moved with the use of a crane onto the site of your choice. This is an easy solution to locate your new swim spa in what may be the most advantageous area of your home, an area not accessible with the normal means of delivery. Do not be intimidated with the size of your swim spa or the use of a crane. Thousands of owners have positioned their swim spa in a prime location with the use of a crane. Do not compromise the spot best suited for your full swim spa enjoyment because of installation concerns. Talk to your retailer or the factory for further guidance if necessary.



Surface Requirements: Your swim spa should be placed on a level concrete pad designed to support 26,000 lbs. (11,793 kg.). Do not place the swim spa on a dirt surface or directly on the ground. Once you have a location selected, there are several issues you should consider in preparing the site for the swim spa installation.



A flat, level surface strong enough to support your swim spa is mandatory. Once your swim spa is filled, it has considerable weight. Make certain the location you choose can support a minimum of 200 lbs. (91 kg) per square foot load, per recommended guidelines. A reinforced concrete slab should be at least four inches thick with the reinforcing mesh or rod attached to a bond wire. To check the level of this surface, spray a hose on the surface and check for puddles or run-off. Make the necessary corrections assuring levelness prior to placement of your new swim spa. Structural damage to the swim spa resulting from the incorrect installation of placement on inadequate foundation is not covered in the swim spa's limited warranty.

General Considerations: Make sure your dimensions are correct as you prepare the site for your new swim spa. This Guide includes model dimensions and measurements as reference for your installation preparation. Contact the factory or your retailer should you require additional information. Allow a perimeter of the chosen ground surface to extend beyond the swim spa itself to provide a clean area for users to get in and out of the swim spa.



The swim spa location and the swim spa itself must be level before filling with water. Review Installing the Shim Guidelines found in the Owner's Manual under Ownership on the pdcpas.com site. This must be completed prior to filling your unit with water and an understanding of this procedure prior to installation is recommended.

Allow adequate space to access the equipment behind the four access panels on the swim spa cabinet. Review the pages in this manual referencing swim spa model specifications for the location of the support equipment for the model you have chosen.

Consider the size of a step unit that may be used with your swim spa in determining the dimensions of your concrete pad. Many owners choose to have a custom step built to complement the install and their backyard atmosphere. Keep in mind both high summer temps and colder winter weather in selecting a material comfortable to walk on and slip resistant.

Note location of electric source into the unit prior to positioning on the surface.

Leave ample access to the GFCI circuit breaker for testing and frequent access. Illustration of a typical GFCI can be found in this Guide.

A quick disconnect (manual disconnect) or GFCI is to be installed between 5 - 15 ft. (1.5- 4.6 m) of the spa and within the line of sight from the unit. Consider where this can be located when selecting and preparing the spa site. All wiring must comply with the U.S. National Electric Code. **ALL EQUIPMENT MUST BE GROUND FAULT CIRCUIT PROTECTED (NOT SUPPLIED) AT THE POWER SOURCE. ALL ELECTRICAL WIRING OF THE SWIM SPA SUPPORT EQUIPMENT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE.**

**THIS IS A PROFESSIONAL GRADE PRODUCT. A KNOWLEDGE OF CONSTRUCTION TECHNIQUES, PLUMBING AND ELECTRICAL INSTALLATION ACCORDING TO CODES ARE REQUIRED FOR PROPER INSTALLATION AND USER SATISFACTION.
WE RECOMMEND A LICENSED CONTRACTOR PERFORM THE INSTALLATION.
OUR WARRANTY DOES NOT COVER IMPROPER INSTALLATION-RELATED PROBLEMS.**

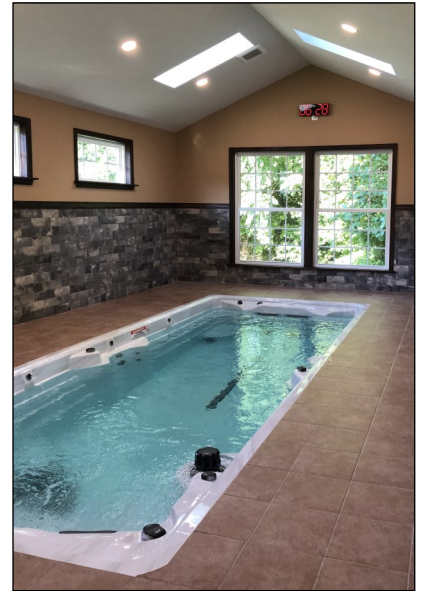


Installation Guidelines

All swim spa sides must be accessible for regular maintenance or in the event that service is required. General maintenance will require entry to equipment behind cabinet panels. It is recommended to allow 3 feet of access to all sides of the swim spa for routine and service maintenance. Your warranty does not include any cost associated with gaining access to equipment for servicing.

Indoor Installation Considerations

1. Local electrical and plumbing codes.
2. Ventilation fans and/or dehumidifiers should be provided to handle the high humidity developed by your swim spa. Walls, ceiling and wood trim resistance to moisture and water should be of consideration.
3. Chemicals will vaporize from the water and may cause an odor and possibly corrosion to certain home hardware. Never store chemicals inside the swim spa cabinet or where they may come into contact with water.
4. During the normal use of the swim spa, water will escape the swim spa vessel. Never place the swim spa on or over any material which may be damaged by this water or the chemicals within the water. Keep materials that could become damaged far enough away from the swim spa to avoid water damage, even if the spa should lose all its water.
5. Consider and prepare for the unlikely event of rapid swim spa drainage. If placement of the swim spa is permanent, you may wish to provide floor drains to accommodate draining, etc. Always leave space around the swim spa for easy access in case of repairs and maintenance, 3 ft. is suggested.
6. Consider and prepare for the unlikely event of swim spa removal.



7. Read 7-13 in the Outdoor Installation Considerations.
8. Do not set swim spa on finished floor without a waterproof barrier protection underneath.
9. The swim spa should have access to a power source capable of supplying 240 volts AC power. It must be wired directly into a grounded circuit with a Ground Fault Circuit Interrupter (G.F.C.I.) or equivalent RCD (not supplied), for export installs. No other appliances should be on the same circuit. Review typical GFCI installation in this Guide.
10. The swim spa should be close to a source of water.
11. Be sure the location you choose is stable. It must be able to support the weight of the swim spa when it is filled with water, plus the weight of the occupants. The swim spa may weigh up to 26,000 lbs (11,793 kg.) when it is filled with water. Contact a contractor or structural engineer to determine adequate support.
12. Do not use the swim spa above a finished living area, due to the risk of water damage.
13. The swim spa is not designed for in-floor installation. However, it is compatible with a deck system that is built flush with the top of the unit, provided adequate space for service is considered.
14. Be sure to note any other considerations, such as aesthetics or privacy concerns, that may affect the safety or enjoyment of using the swim spa.

Outdoor Installation Considerations:

1. Local electrical and plumbing codes.
2. Consider local codes pertaining to fencing, enclosures, walls, electrical and plumbing. You will need to ensure that your swim spa is an adequate distance from power lines, both aboveground and underground. Your swim spa will also need to be childproofed.
3. View from house for aesthetics and supervisory needs.
4. Distance from house for wintertime use.
5. Nighttime lighting.
6. Locate the swim spa with an awareness to sunlight exposure, views, access, property lines, lighting, wind direction, shielding, septic tanks, plants, trees. (Chemicals in the swim spa water splashed from your swim spa may damage nearby plant life.)
7. Consider the location of the nearest bathroom or dressing room.
8. If your swim spa is to be located on a second story, be positive support is adequate. Call your builder and a structural engineer.
9. Area for placement of support equipment where adequate space will be needed to gain access to components for maintenance and general servicing.
10. Be sure to note any other considerations, such as aesthetics or privacy concerns, that may affect the safety or your enjoyment.
11. Provide adequate drainage away from the equipment and adequate elevation to allow draining by siphon, should it be required.
12. Location of electrical supply. 120/240 volt systems require hard wire installed from the electrical source to the swim spa support pack terminal. **ALL EQUIPMENT MUST BE GROUND FAULT CIRCUIT PROTECTED (NOT SUPPLIED) AT THE POWER SOURCE. ALL ELECTRICAL WIRING OF THE SWIM SPA SUPPORT EQUIPMENT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE.**
13. Locations at least 5 ft (1.52 m) from all metal surfaces. (A swim spa may be installed within 5 feet of metal surfaces providing each metal surface is permanently connected by a No. 6AWG (8.4 mm²) copper conductor attached to the wire connector on the terminal box provided for this purpose.)



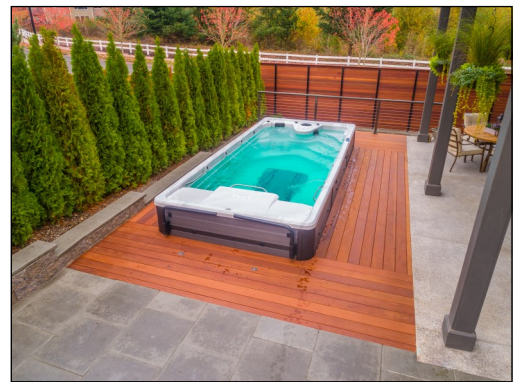
ALL INSTALLATIONS MUST COMPLY WITH ARTICLE 680 OF THE U.S. NATIONAL ELECTRIC CODE AND ANSI/NFPA 70-1984.

Partially or Fully Recessed Installations:

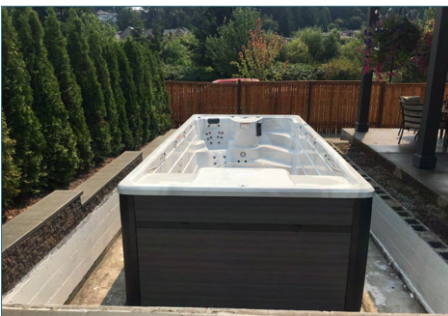
PDC Spas does not recommend this type of installation, although if this is what you have chosen for your new swim spa, please review the following considerations.

In addition to the Outdoor and Indoor Installation Considerations on the previous pages, be knowledgeable of the following:

1. A system for preventing collection and pooling of water must be designed in accordance to local authorities.
2. If installed in designated floodways, additional attention to maximum water load entering that floodway must be addressed to prevent water from accumulating below grade. The swim spa is not designed to be submerged in water and voids all warranties.
3. Unit must be level and self-supporting and NEVER backfilled with sand, gravel or dirt. This will void all warranties.
4. Plan for complete drainage.
5. Must have proper ventilation so equipment does not overheat.
6. Must provide at least 3 feet of access around all sides of the swim spa. Warranty does not cover costs associated with gaining access for service and maintenance.
7. Below grade drainage needs to be evaluated based upon specific region rainfalls. This analysis must be performed by a qualified local engineer to ensure proper drainage.



Above photo shows removeable wood perimeter allowing for ample access to all four sides in the event of service or removal.



Above photo exhibits wide walkaround on all four sides and installed on level concrete pad.



8. Location of electrical supply. 120/240 volt systems require hard wire installed from the electrical source to the swim spa support pack terminal. ALL EQUIPMENT MUST BE GROUND FAULT CIRCUIT PROTECTED (NOT SUPPLIED) AT THE POWER SOURCE. ALL ELECTRICAL WIRING OF THE SWIM SPA SUPPORT EQUIPMENT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE.

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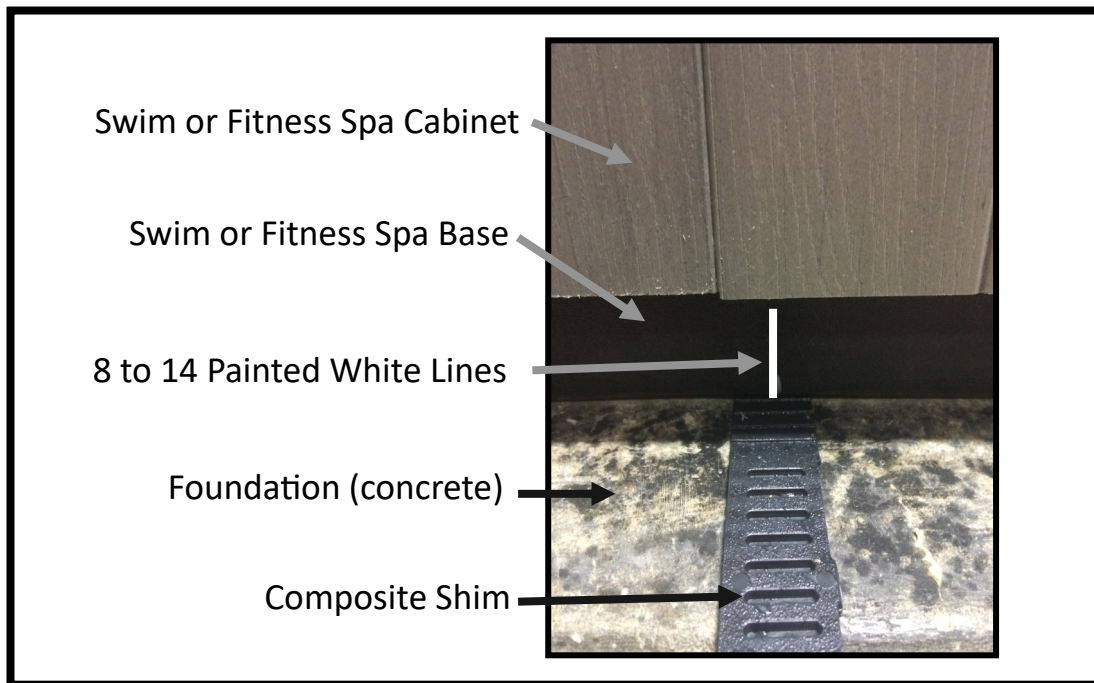
Important Shim Requirement

Shim Installation Required to Assure Level Positioning *

Unlevel Install May Void Warranty

Swim and Fitness Spas range in length from 15' to 19', weighing as much as 21,000 pounds. It is imperative the unit is level to assure proper component operation and form.

Shims and instruction for proper installation are included with your unit upon delivery. Confirm with the installer this step is followed correctly.



1. Locate painted white lines on the black plastic spa base.
2. Identify 8 to 14 lines depending on the size and spa model.
3. Shims MUST be inserted at the specific line location for correct installation.
4. Insert provided shim below the painted line between spa base and concrete foundation.
5. Push shim in by hand until it stops. GENTLY tap shim with hammer until it stops.
6. Score shim with utility knife, break off flush with spa base.

** Splash Series models do NOT require shim installation.*

Wiring Guidelines

ELECTRICAL REQUIREMENTS

LICENSED CERTIFIED ELECTRICIAN MUST READ THE FOLLOWING PRIOR TO INSTALLATION

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

It is the responsibility of the swim spa owner to ensure that electrical connections are made by a qualified electrician in accordance with the National Electrical Code and any local and state electrical codes in force at the time of installation.

IMPORTANT !!

ALL EQUIPMENT MODELS ARE 120/240 VOLT, 60 CYCLE FOR STATE-SIDE, U.S. INSTALLATIONS, AND 50 HZ FOR EXPORT, CE, INSTALLATIONS.

All swim spas must be permanently connected.

All swim spa support control systems are multiple supply circuits.

All (each) swim spa control systems require the installation of a ground fault circuit interrupter (GFCI) protector or equivalent; (RCD, for export installs), at the power source (NOT SUPPLIED BY PDC SPAS) by a qualified electrician in accordance with all codes and regulations. **For dual zone models, each support control system, one for fitness zone and one for hot tub zone, requires protection.** Refer to typical GFCI installation photos and illustrations on the following pages.

Prior to each use, testing of the GFCI (or equivalent RCD) is required! Refer to the maintenance section of this manual for instructions

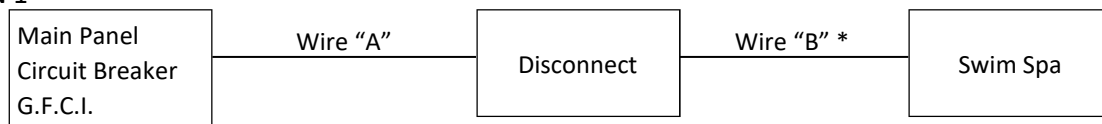
All swim spa support equipment must be bonded (grounded) to the pressure connector located within the control support box as well as the outside of the control support box. (see wiring schematic below and references on following pages)

Disconnect all electrical supplies and contact a qualified technician before servicing.

All swim spa installations are to be performed by a licensed electrician and in accordance with all local and national codes.

Swim Spa Wiring Schematic for Certified Electricians' Reference Only

OPTION 1



Option 2



* National U.S. code recommends distance not to exceed 15 ft.

Electrical Guidelines (Stateside)

ATTENTION ELECTRICIAN:

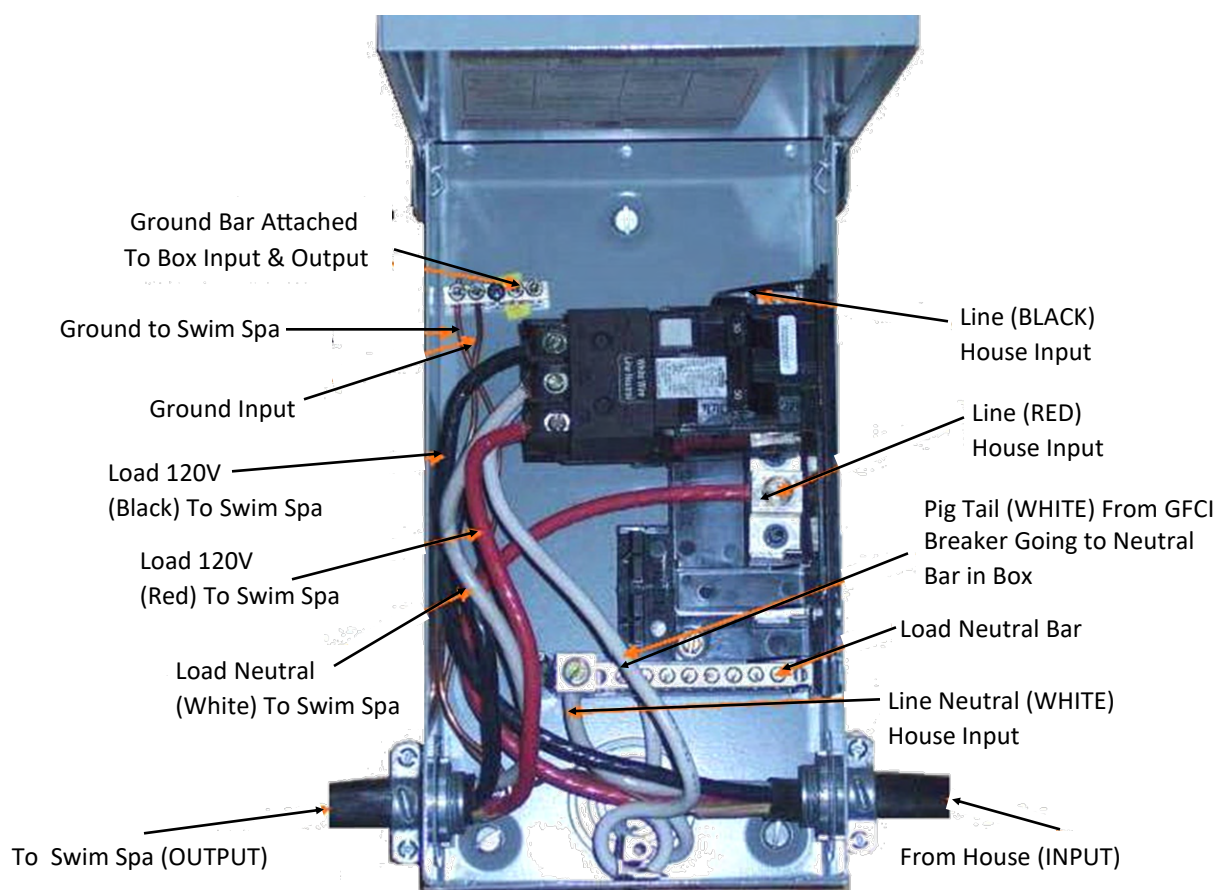
All PDC Swim Spa Units must be installed with an approved G.F.C.I. in accordance with all applicable codes. Installation of G.F.C.I. varies among those manufacturers. Follow each manufacturer's guidelines to ensure proper operation and protection of swim spa occupants. This diagram is a "Typical" installation to be used only as a reference for the installing electrician.

PDC does not supply the GFCI breaker.

It is recommended to NOT install Eaton-Cutler Hammer brand.

IMPORTANT: 6 Gauge Copper Wire MUST Be Used
Test GFCI Monthly and Prior to Each Use.

Typical Installation Breaker Box
Class A 50 amp, 120/240 volt, GFCI



TO BE NOTED: Installation of this GFCI Circuit Breaker, including ampere sizing and choice of wire must be made by a qualified electrician, in accordance with the National Electrical Code, and all applicable federal, state and local codes and regulations in effect at the time of installation.

TO BE NOTED: The white neutral wire from the back of the GFCI Circuit Breaker MUST be connected to an incoming Line Neutral. The internal mechanism of the GFCI requires this Neutral connection for proper GFCI function.

Installation Reminders

- Identify an installation site that best suits your home and lifestyle
- Choose a site that assures a level installation and access to all four sides
- Depending on the site you have chose, your spa can be off-loaded with a forklift or positioned in place with a crane
- Renting a crane is very common and often times, is the most economical and quickest choice for precise placement
- Follow the shim guidelines to assure a level installation
- Hire a licensed electrician for approved electrical connection with GFCI protection
- Consider a thermal cover that best suits your intended usage; folding or roll
- Fill, program, heat and....enjoy!

*Your lifestyle of renewed health
and wellness is waiting!*



PDC Spas® Installation Inspirations



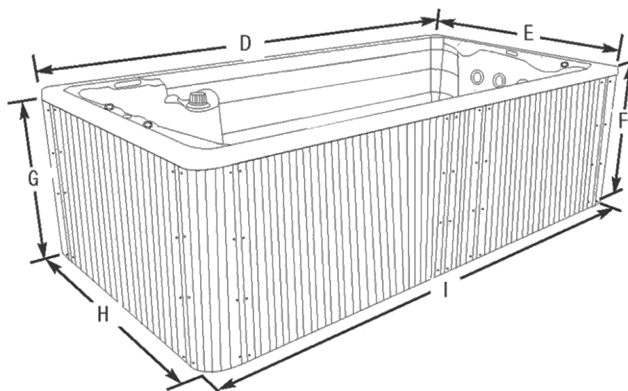
12 Foot Splash Spa Model

Dimensions / Component Location

Splash series **BAJA12**



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



D=143^{3/8}" E=91^{1/4}" F=50" G=46^{1/2}" H=90^{1/2}" I=142^{1/4}"

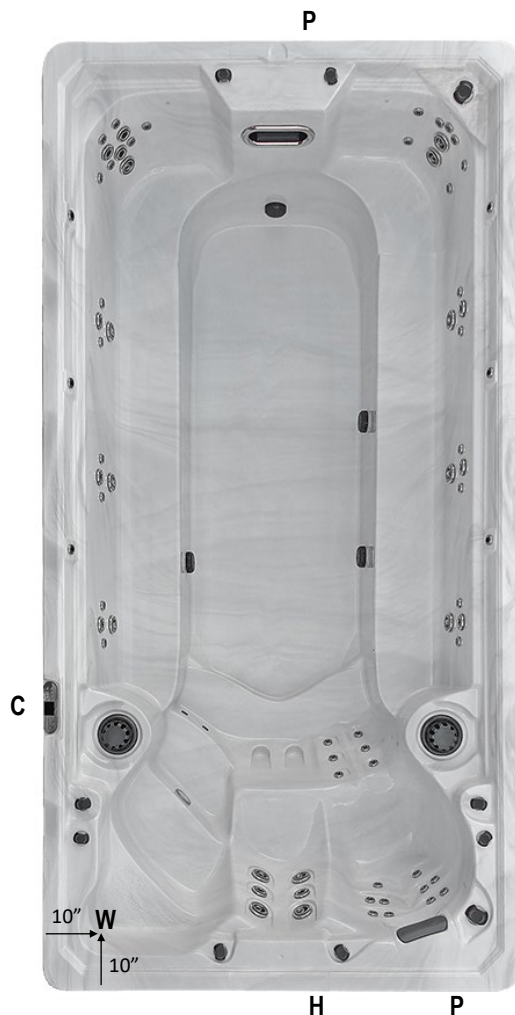
Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
Contact the factory for further details and confirmation prior to site preparation.

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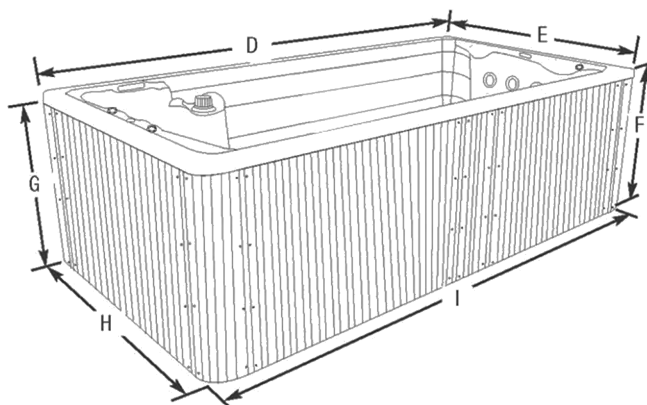
15 Foot Splash Spa Models

Dimensions / Component Location

Splash
series BAJA15



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



D=179^{3/8}" E=91^{1/4}" F=50" G=46^{1/2}" H=90^{1/2}" I=178^{1/4}"

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PDC
spas

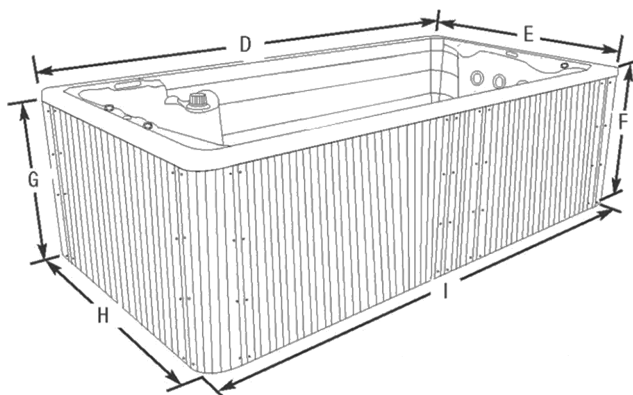
12 Foot Fitness Spa Models

Dimensions / Component Location

Vitality SL12s



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



D=143^{3/8} " E=91^{1/4} " F=55^{3/8} " G=51^{7/8} " H=90^{1/2} " I=142^{1/4} "

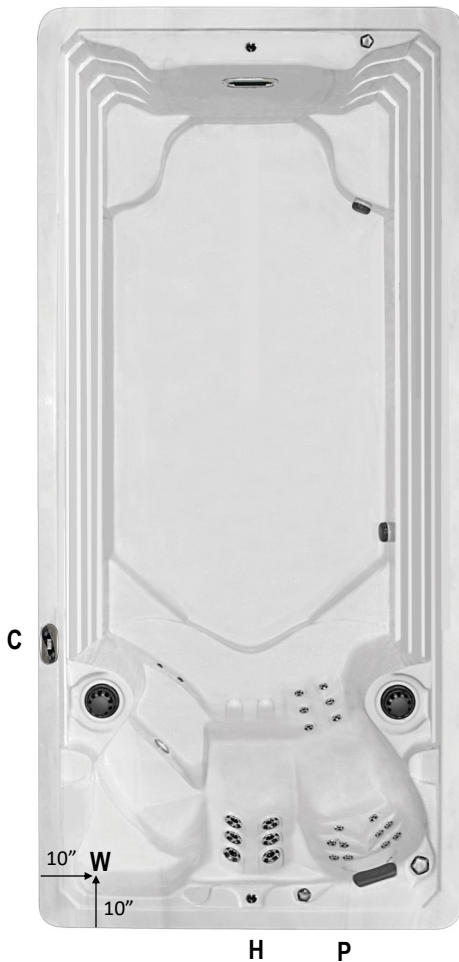
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15 Foot Fitness Spa Models

Dimensions / Component Location

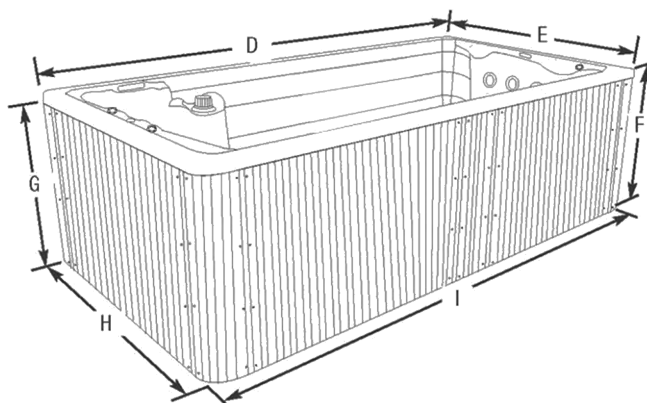
Vitality SL15



Vitality SL15s



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



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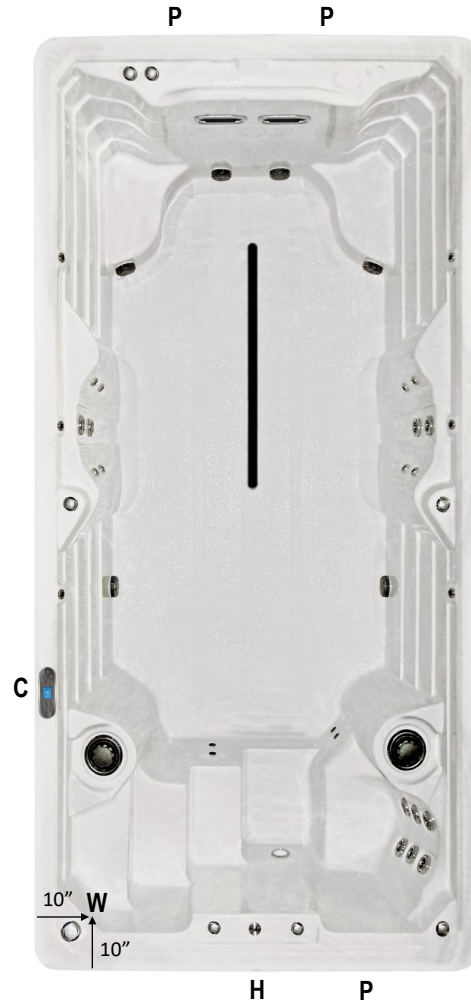
15 Foot Jetted Swim Spa Models

Dimensions / Component Location

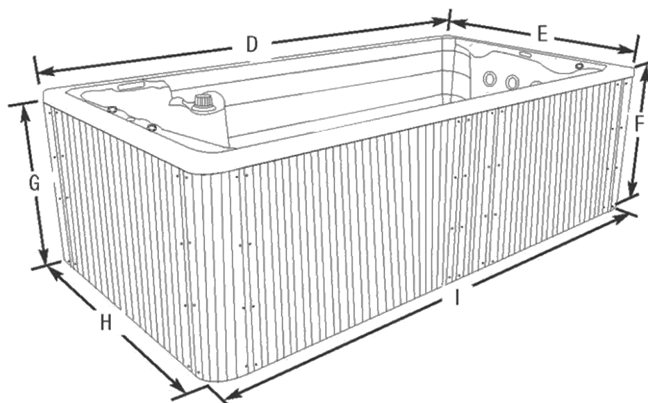
SYNERGY™ FX15



SYNERGY™ FX15s



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



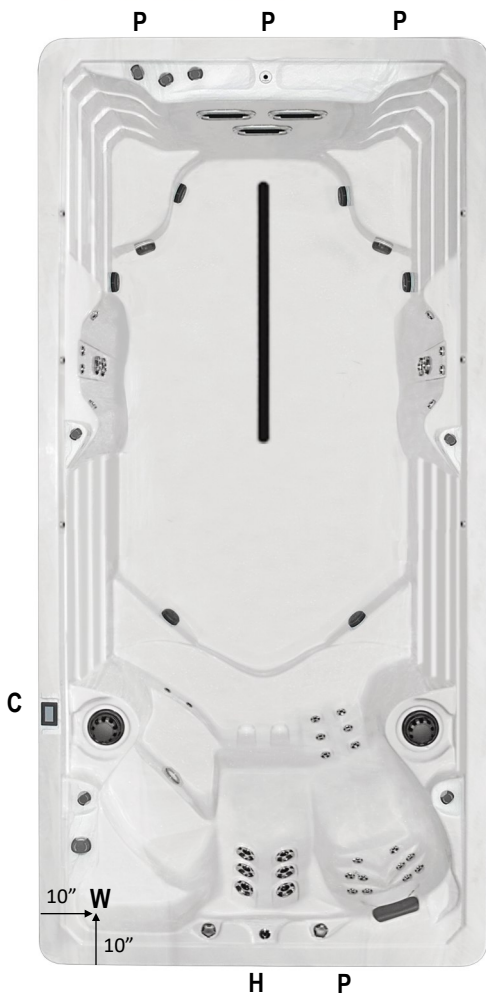
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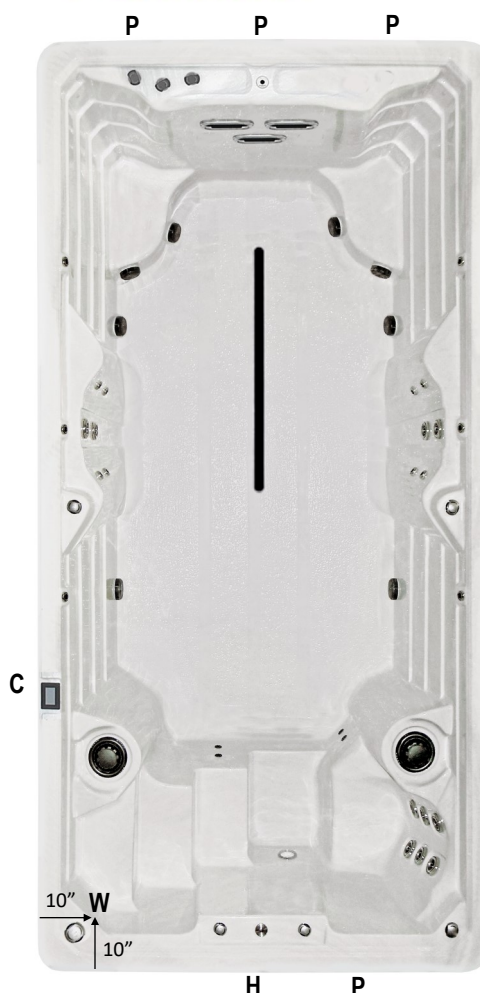
15 Foot Premium Jetted Swim Spa Models

Dimensions / Component Location

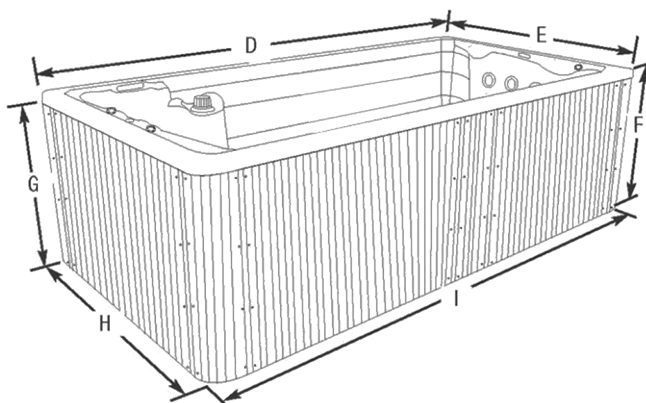
Summit SX15



Summit SX15s



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



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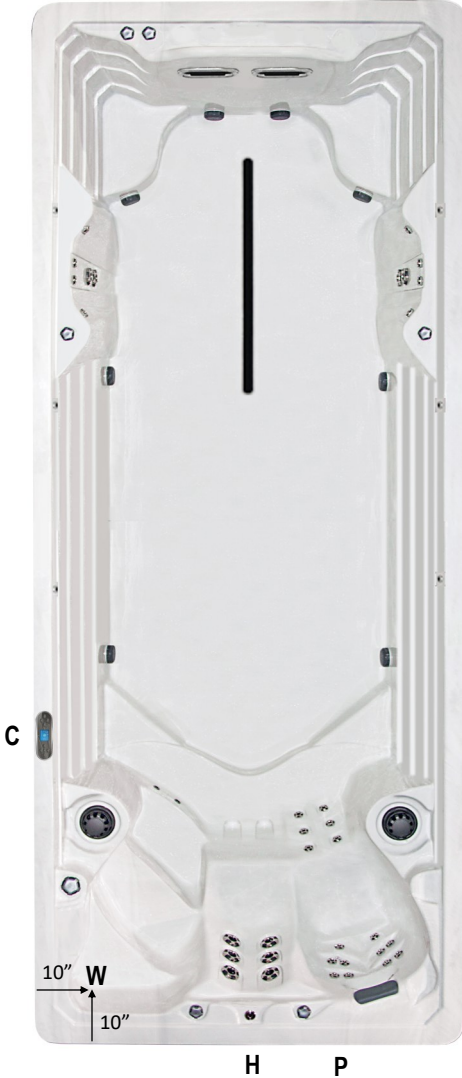
Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
Contact the factory for further details and confirmation prior to site preparation.

17 Foot Premium and Jetted Swim Spa Models

Dimensions / Component Location

SYNERGY™ FX17

P P

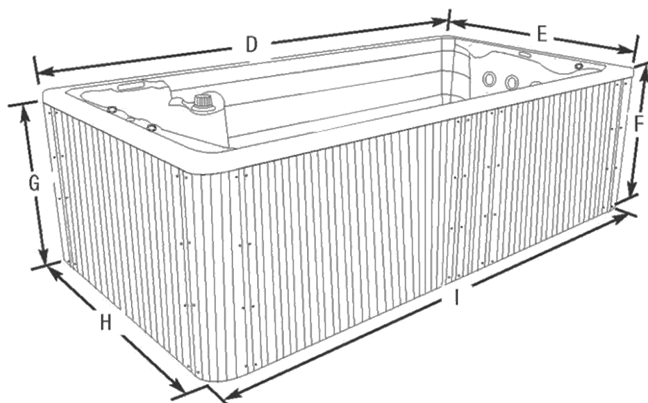


Summit SX17

P P P



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



D=203 ¹/₂ " E=91 ¹/₄ " F=55 ³/₈ " G=51 ⁷/₈ " H=90 ¹/₂ " I=201 ¹/₄ "

Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
Contact the factory for further details and confirmation prior to site preparation.

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19 Foot Premium and Jetted Swim Spa Models

Dimensions / Component Location

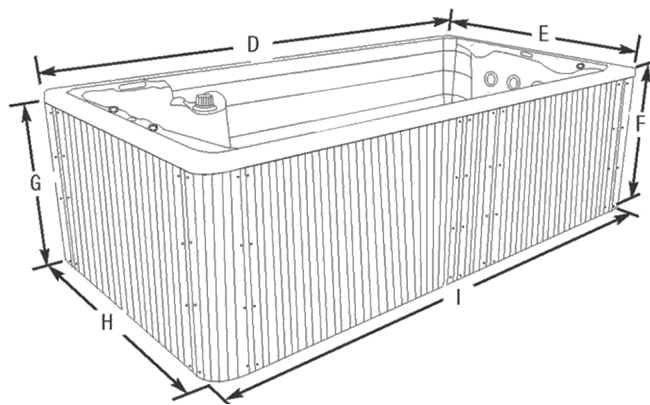
SYNERGY™ FX19



Summit SX19



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



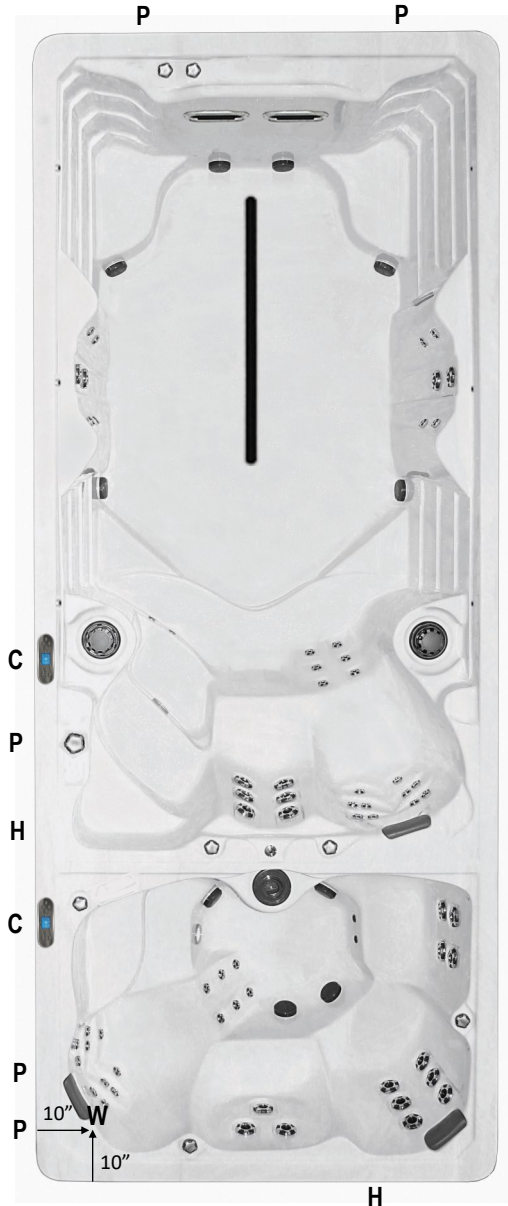
D=227" E=91¹/₄" F=55³/₈" G=51⁷/₈" H=90¹/₂" I=225¹/₂" "

Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
Contact the factory for further details and confirmation prior to site preparation.

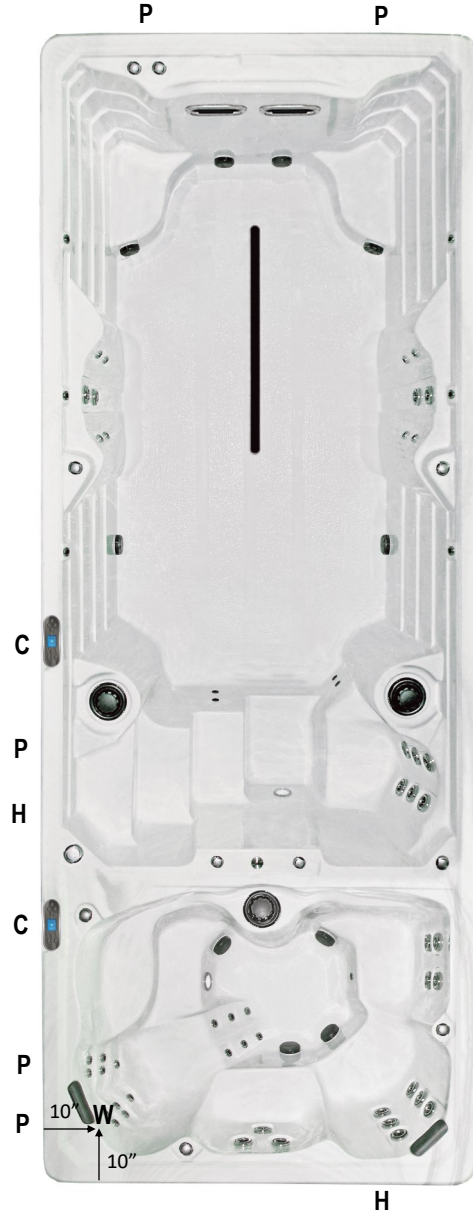
19 Foot Dual Zone Jetted Swim Spa Models

Dimensions / Component Location

SYNERGY™ FX219

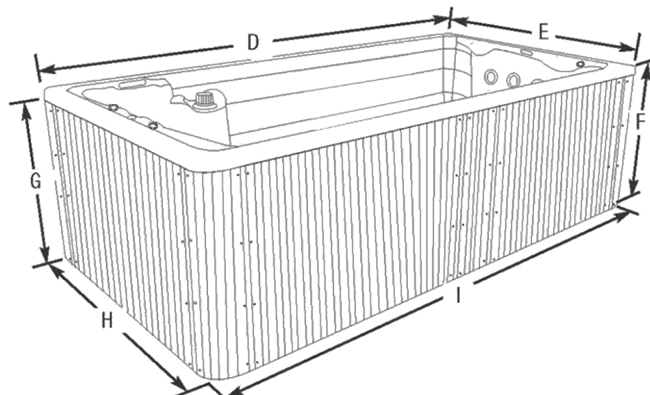


SYNERGY™ FX219s



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed

Note: Each zone requires a 50 amp breaker with GFCI protection

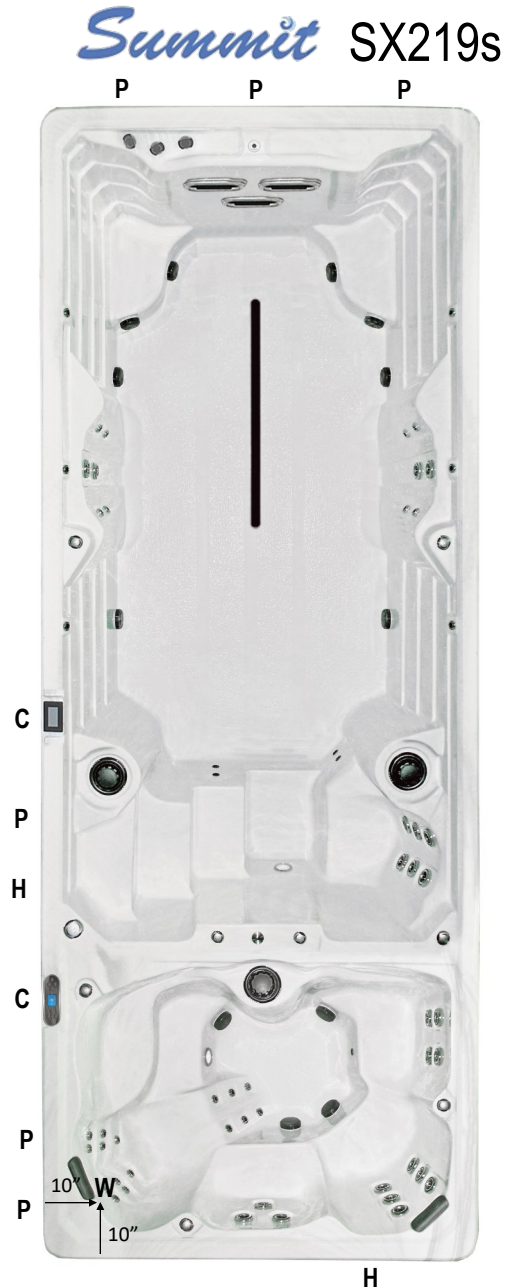
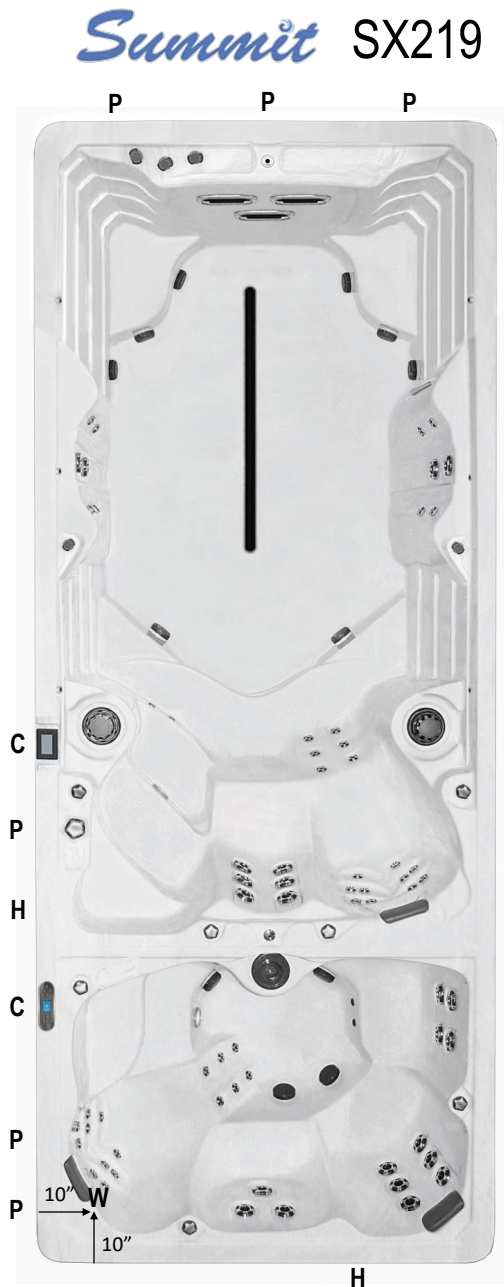


D=227" E=91^{1/4}" F=55^{3/8}" G=51^{7/8}" H=90^{1/2}" I=225^{1/2}"

Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
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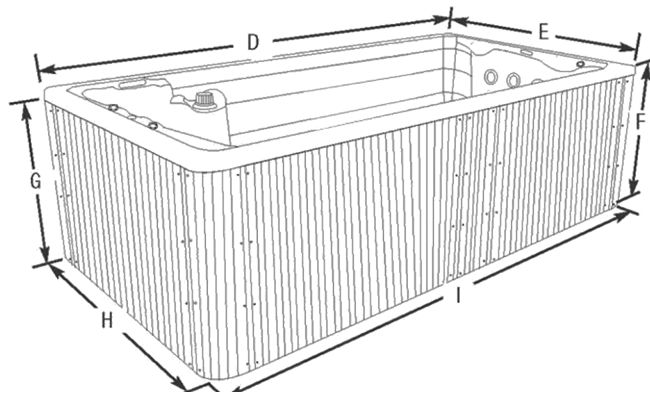
19 Foot Dual Zone Premium Jetted Swim Spa Models

Dimensions / Component Location



C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed

Note: Each zone requires a 50 amp breaker with GFCI protection



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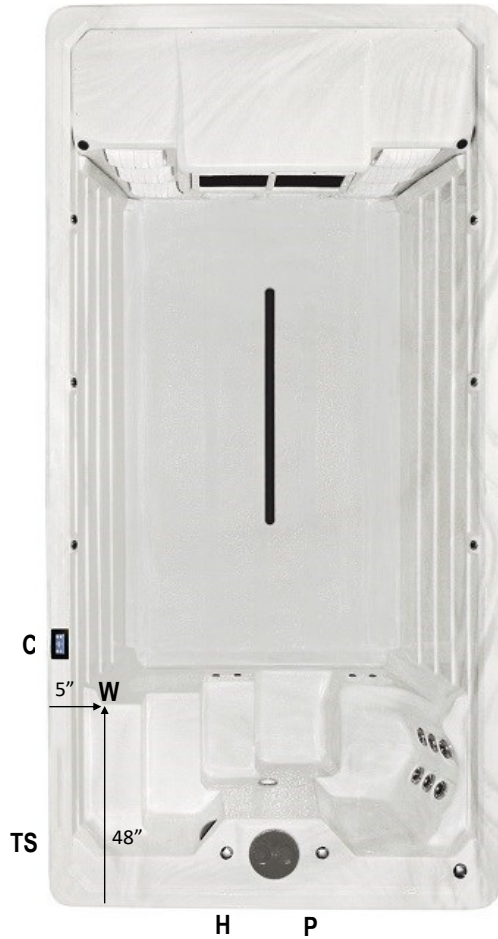
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Contact the factory for further details and confirmation prior to site preparation.



15 and 17 Foot Patented Propulsion Models Dimensions / Component Location

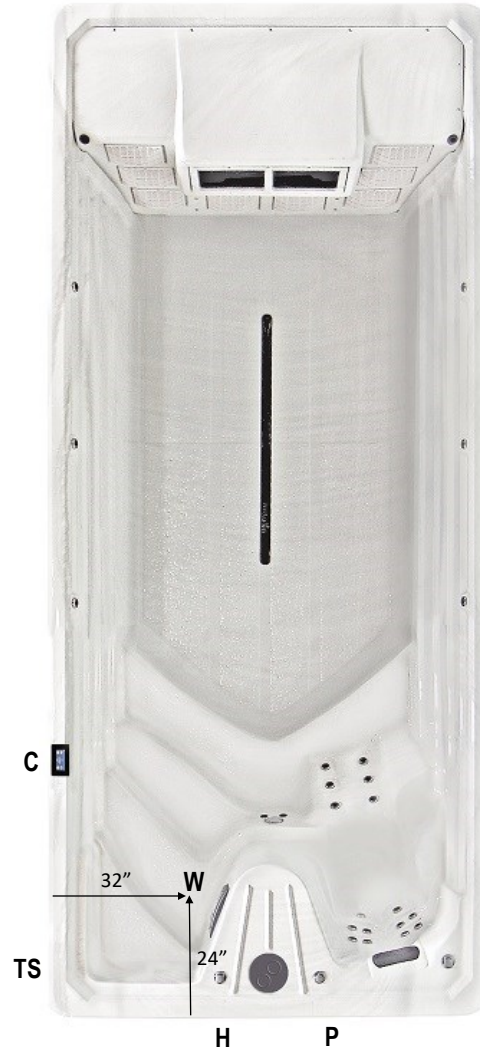
TruSwim® TSX15

TS

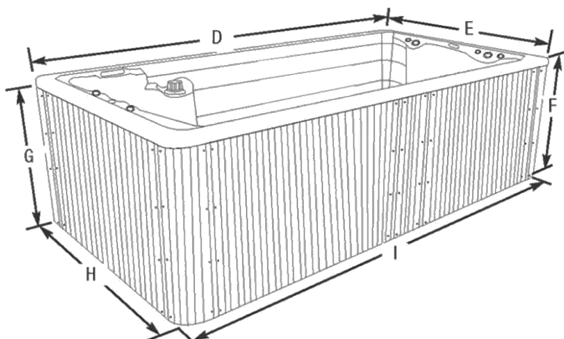


TruSwim® TSX17

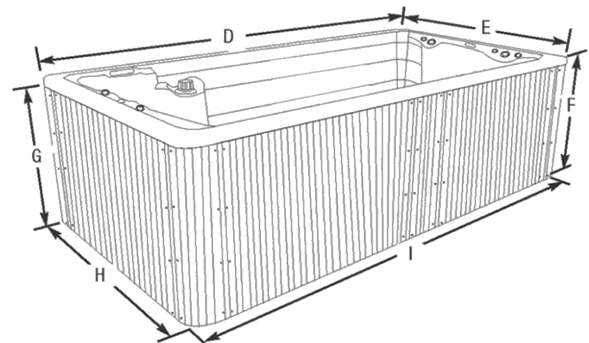
TS



TS	Hydraulic Propulsion
C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



D=179^{3/8} " E=91^{1/4} " F=55^{3/8} " G=51^{7/8} " H=90^{1/2} " I=178^{1/4} "



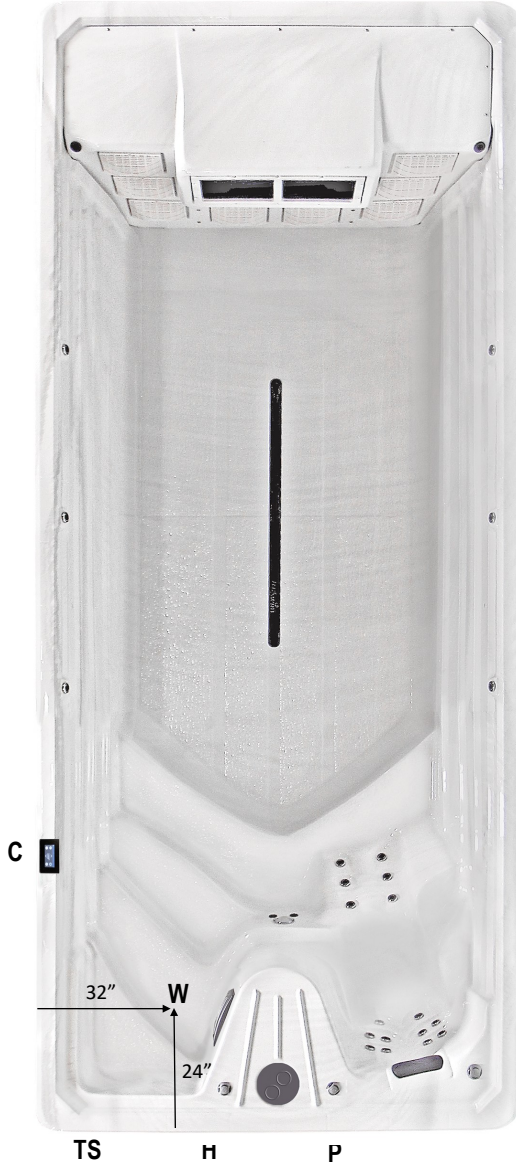
D=203^{1/2} " E=91^{1/4} " F=55^{3/8} " G=51^{7/8} " H=90^{1/2} " I=202^{7/8} "

Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
Contact the factory for further details and confirmation prior to site preparation.

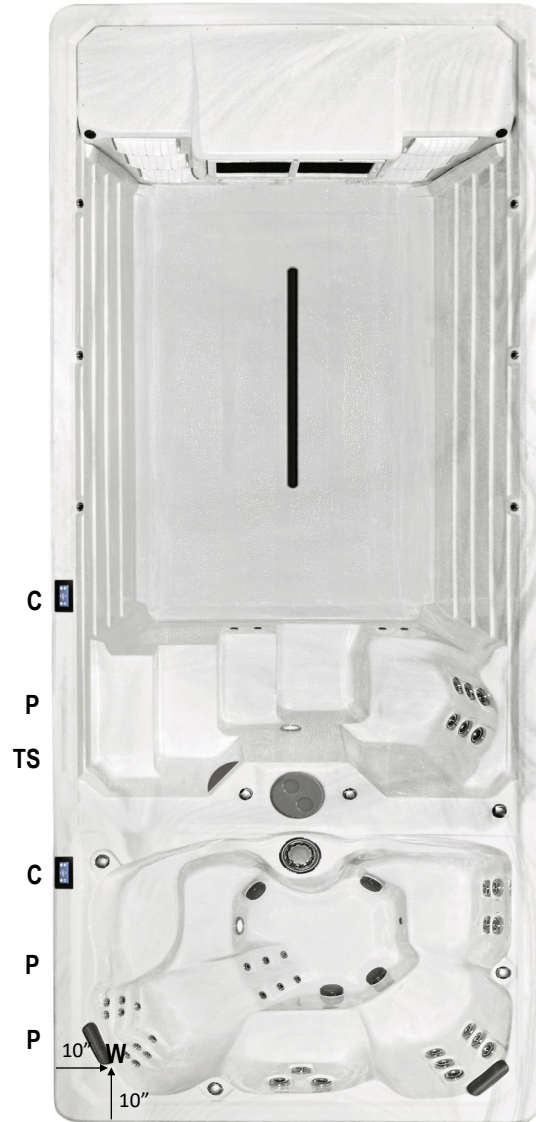


19 Foot and Dual Zone Propulsion Models Dimensions / Component Location

TruSwim[®] TSX19
TS

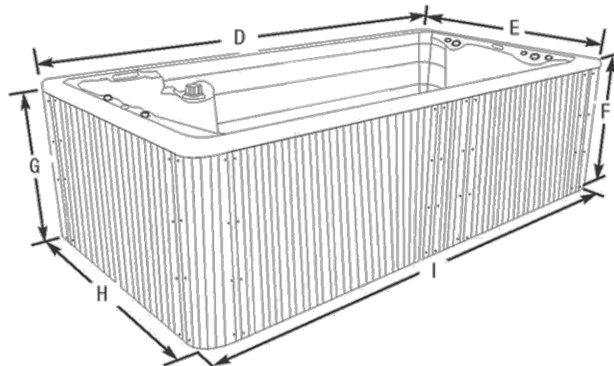


TruSwim[®] TSX219
TS



Note: Each zone requires a 50 amp breaker with GFCI protection

TS	Hydraulic Propulsion
C	Control Center
P	Jet Pump
H	Heater / Pack
W	Recommended Wire Feed



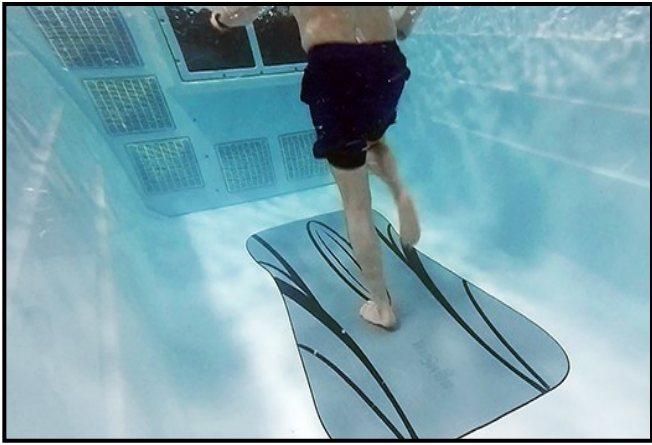
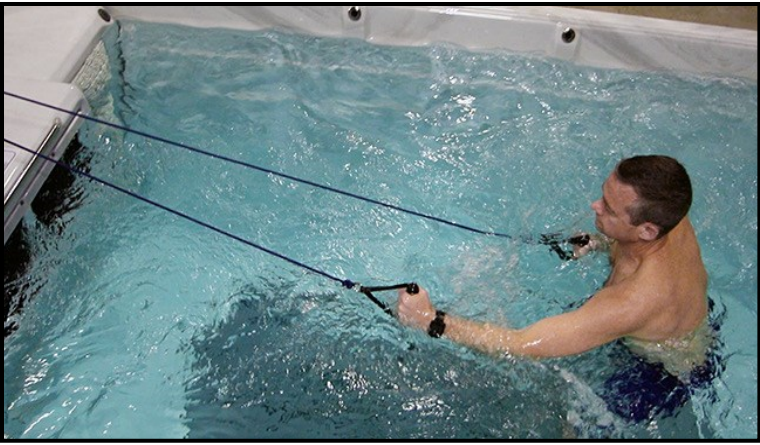
D=227" E=91^{1/4}" F=55^{3/8}" G=51^{7/8}" H=90^{1/2}" I=225^{1/2}"

Specifications are accurate at time of printing. Manufacturer has the option to update without notice.
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SWIM SPA OF THE YEAR
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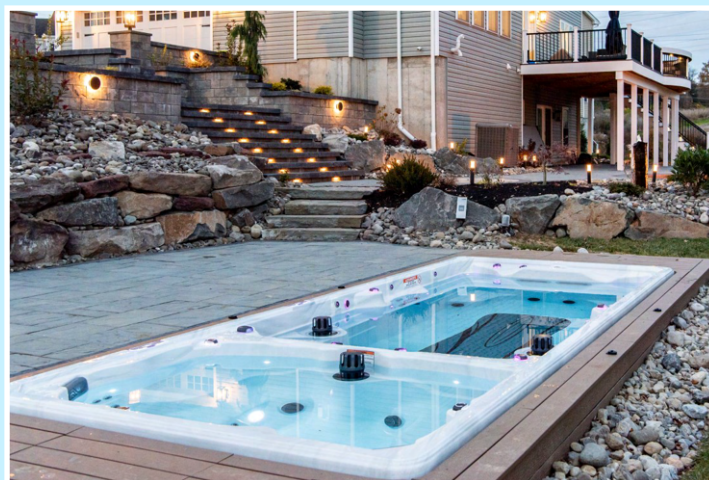






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The manufacturer reserves the right to change product as deemed necessary without notification. As a manufacturer we stand behind our products in accordance to our written limited warranty. All measurements and dimensions are approximates. Your retailer is an independent business operator not employed by the manufacturer. PDC Spas, Plastic Development Co, Inc., can not accept responsibility for any representations, statements, or contracts made by any retailer beyond the parameters of our warranty.