

# 17ft. SwimFit / Expert AQUASTREAM Installation Manual

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Cross Section Side View of

## 1. Types of installations:

#### 1.1 Free Standing with cabinet above ground

This installation refers to a Swimspa that is placed on a concrete pad, above ground and with a SwimLife Cabinet. Can be adjacent to a deck or butted up to a deck.

#### 1.2 Free Standing in Deck

This installation refers to a Swimspa that is placed on a concrete pad, above ground and with or without a SwimLife cabinet and with or without a frame. This Swimspa is surrounded on 1 or 2 sides by deck.

#### 1.3 Below Grade Outdoor

This installation refers to a Swimspa that is placed on a concrete pad, below grade and without a SwimLife Cabinet. Can be partially or fully recessed in the ground.

#### 1.4 Below Grade Indoor

Indoor installations of a Swimspa must be placed on a concrete pad. Swimspas can be partially or fully recessed in the floor.









## 2. Model Series, Specification and Electrical



2.1 17ft. SwimFit **AQUASTREAM SWIMSPA** 

### **Shell Dimensions:**

210" X 93" / 533.40 cm X 236.22 cm Height:

#### 52.75" / 133.99 cm **Volume:**

2,400 US gallons / 9,120 L

#### **Weight Full:**

22,990 lbs / 10,431 Kg

#### **Weight Empty:**

2,890 lbs / 1,311 Kg



2.1 17ft. **SwimExpert AQUASTREAM SWIMSPA** 

#### **Shell Dimensions:**

210" X 93" / 533.40 cm X 236.22 cm

#### Height:

52.75" / 133.99 cm

#### Volume:

2,400 US gallons / 9,120 L

#### **Weight Full:**

22,990 lbs / 10,431 Kg

#### **Weight Empty:**

2,890 lbs / 1,311 Kg

## 2.2 Electrical Specifications

## SAFETY COMES FIRST. WHEN INSTALLING & USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS MUST ALWAYS BE FOLLOWED!

#### 1. READ AND FOLLOW ALL INSTRUCTIONS

- 2. Electrical installation must be completed by a qualified electrician in accordance with all National, Regional and Local Codes and Regulations in effect at the time of installation.
- 3. Connect only to a dedicated circuit protected by a class 'A' two-pole ground fault circuit interrupter (GFCI)
- 4. Use copper conductors only!
- **5.** The Swimspa equipment and all electrical plugs, outlets and lights within 1.5m (5ft) of the unit must be G.F.C.I protected. Consult your electrician or local electrical authority for further details.
- **6.** A green colored terminal or a terminal marked "G", "GR", "Ground", or "Grounding" is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding by means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- 7. At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the Swimspa to these terminals with an insulated or bare copper conductor not smaller than No.6 AWG (Canada/Europe) / No.8 AWG (USA).
- **8.** All field installed metal components such as rails, ladders, drains or other similar hardware within 3 m (10 ft) of the hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No.6 AWG.

## 2.3 Wiring Size NORTH AMERICA / EUROPE WIRE SIZE

Please consult your applicable electrical codes related to the size of the breakers and the wire. Take into consideration the length of the cable and increase as required.

## G.F.C.I./R.C.D. APPLICATION GUIDE FOR SWIMLIFE SWIMSPA SERIES

#### NORTH AMERICA

SwimFit Swimspas50ASwimFit Dual Stream40A spa / 50A swimSwimExpert Swimspas60ASwimExpert Dual Stream40A spa / 60A swim

#### EUROPE (single phase)

SwimFit Swimspas40ASwimFit Dual Stream20A spa / 40A swimSwimExpert Swimspas40ASwimExpert Dual Stream20A spa / 40A swim

#### IMPORTANT NOTE:

 This guide is for standard installations where the wire run is 15 m (50 ft.) or less. For longer wire runs, consult a qualified electrician.

### 2.4 North American GFCI Installation

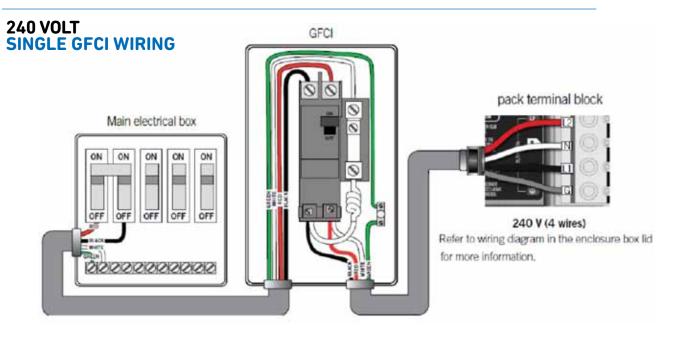
Installation of the GFCI - Circuit Breaker, including ampere sizing and selection of conductor size and type, must be performed by a qualified electrician in accordance with the National Electrical Code, or the Canadian Electrical Code, and all Federal, State / Provincial and local codes and regulations in effect at the time of installation.

SwimLife highly recommends the use of a new GFCI breaker for all of its products. Older GFCI's may have tripping issues.

#### NORTH AMERICA

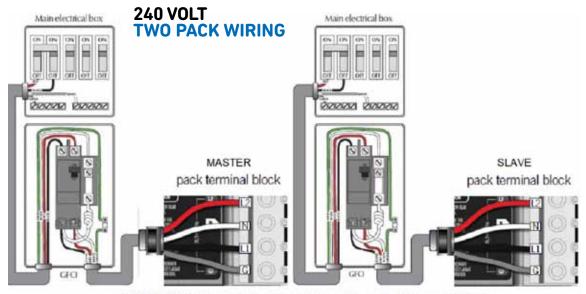
SwimFit

240 V / 60 HZ / 50A



SwimExpert

240 V / 60 HZ / 60A



240 V (4 wires) Refer to wiring diagram in the enclosure box lid for more information.

## 2.5 European R.C.D. Installation

#### **Important Note:**

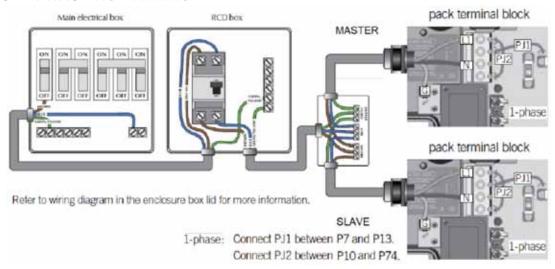
Installation of the R.C.D. - Circuit Breaker, including ampere sizing, GFCI Security Breaker and selection of conductor size and type, must be performed by a qualified electrician in accordance with National, Regional and Local Codes and Regulations in effect at the time of installation.

#### **EUROPE** (single phase)

SwimFit

230 V / 50 HZ / 40A

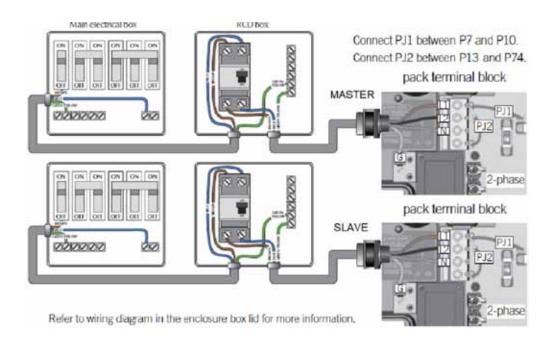
## 230 VOLT SINGLE PHASE RCD WIRING



SwimExpert

230 V / 50 HZ / 40A

## 230 VOLT DUAL PHASE RCD WIRING



## 3 Delivery and Handling Considerations

#### 3.1 Retailer Delivery

All SwimLife Swimspas are shipped with a layer of protective foam wrap, plastic film and cardboard for added protection. Each Swimspa is shipped from the factory strapped onto a wood skid. If your Swimspa is to be delivered by your local SwimLife retailer, it will generally arrive on a flat bed truck or low profile trailer. Typically, the dealer will arrive with the necessary equipment to maneuver the Swimspa from the truck. The Swimspa can then be lifted by a crane into place.

#### 3.2 Direct Deliveries

Like the retailer delivery, your Swimspa will come wrapped and skidded the exact same way, however, your Swimspa may arrive on a 48 ft. or 53 ft. common carrier closed box trailer. You can arrange the exchange at a local cross docking facility to a flatbed truck. The Swimspa can then be lifted by a crane into place.

#### 3.3 Crane Deliveries

Most installations require the use of a crane. When a crane is used for lifting, place the straps under the Swimspa, ensuring that the plumbing lines and fittings are not stressed and / or damaged and a spreader is used. The straps should be secured so that they will not slip in any direction and strap spreaders utilized to prevent undue structural side load on the Swimspa shell.

#### 3.4 Fork Lift Deliveries

If you are removing the Swimspa using a forklift, please make sure to use 8 - 10' / 2.5-3 m extended forks and pick up swim spa at the equipment end.

#### 3.5 Roller Deliveries

Although it is recommended to install your Swimspa by crane, it may be pushed along rollers by 10 to 12 able-bodied adults (see image).

If rollers are to be utilized, we recommend that at least six 4"/10 cm diameter pipes, 8' / 2.5 m long, be placed under the shell to move it across a soft lawn, down a path, etc.

#### 3.6 Warnings!

- Do not move or place the Swimspa on its side
- Never lift or handle the Swimspa by its plumbing
- the Swimspas dry weight is in excess of 2302 lbs. / 1044 kgs.
- Please ensure lifting equipment is sufficent for the job.
   Manually lifting of the Swimspa should be done with the proper manpower.
- We strongly recommend the installation to be done by a SwimLife Retailer.







## **4 Base Of Support – Load Specifications**

#### 4.1 Preparation

Installation of a level concrete pad is mandatory.

Dig out and level the ground 20 - 30 cm (8 -12 in.) below your desired base level. Install 20 -25 cm (8-10 in.) of crushed stone. If there is a possibility that the pad could shift by freezing / thawing ground movement (such as in clay regions, and / or areas with high water tables) concrete footings extending below the frost line are recommended.

#### 4.2 Concrete

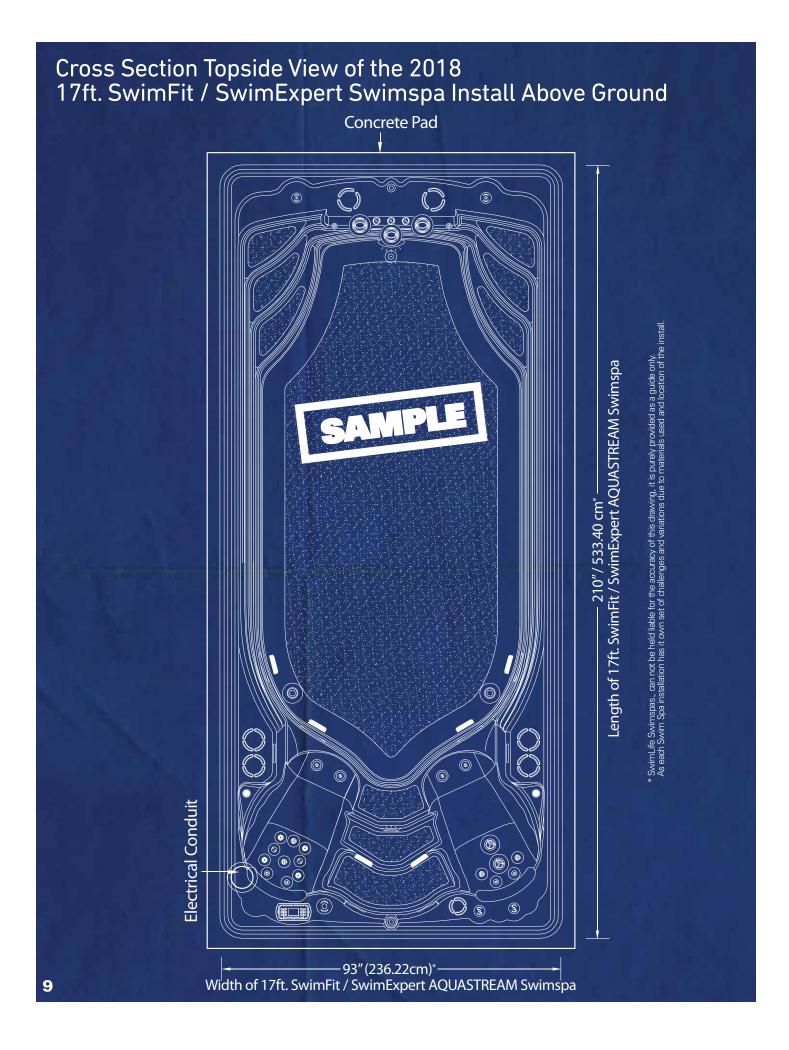
Install 10-15 cm (4 - 6 in.) of poured concrete. The concrete support slab must be flat and level in-order to properly level the Swimspa during installation. The concrete pad should be slightly larger than the dimensions for the Swimspa, but it may be expanded even further for esthetic purposes or to allow more space for walking around the Swimspa. Ensure that your concrete pad is capable of supporting 1500 kg/m² (250 lbs. / ft²). If the Swimspa is purchased with steps your concrete pad should be made large enough to accommodate the size of the step.

#### 4.3 Second Level / Balcony Installation

You must know the load tolerance and compare it to the weight of the Swimspa filled with water and people. When in doubt, a load distribution assessment carried out by an engineer should be consulted, who can guarantee the best location choice. Ensure that your second level balcony is capable of supporting 1500 kg/m² (250 lbs. / ft²). While swimming, the motors and water flow in all Swimspas generate vibrations that are directly transferred to the base on which the Swimspa is installed. These can therefore be felt in lower levels. In this case, the support area must be properly engineered. Install a floor drain in the event there are any problems with the plumbing to sure that this water has a place to drain.







## 5 Below Grade or Partial In Grade Installations Cabinet with Solid State Frame

#### 5.1 Backfilling Exclusion

SwimLife Swispas will void any warranty of swim spas that are back-filled.

#### **5.2 Excavation**

Call before you dig! Please make sure you have any permits in place that are required from your municipality.

#### 5.3 Vault/Bunker Specifications

When recessing the swim spa all or part way below ground level, a concrete base along with a concrete retaining wall to hold back the earth is required. This forms a Vault or 'bunker', in which the swim spa is placed.

#### 5.4 Base of Support

It is necessary that a concrete base be poured level and reinforced in order to support the swim spa. In addition, if you are in an area that experiences freezing and thawing concrete footings should be added as outlined in section 4 of this guide.

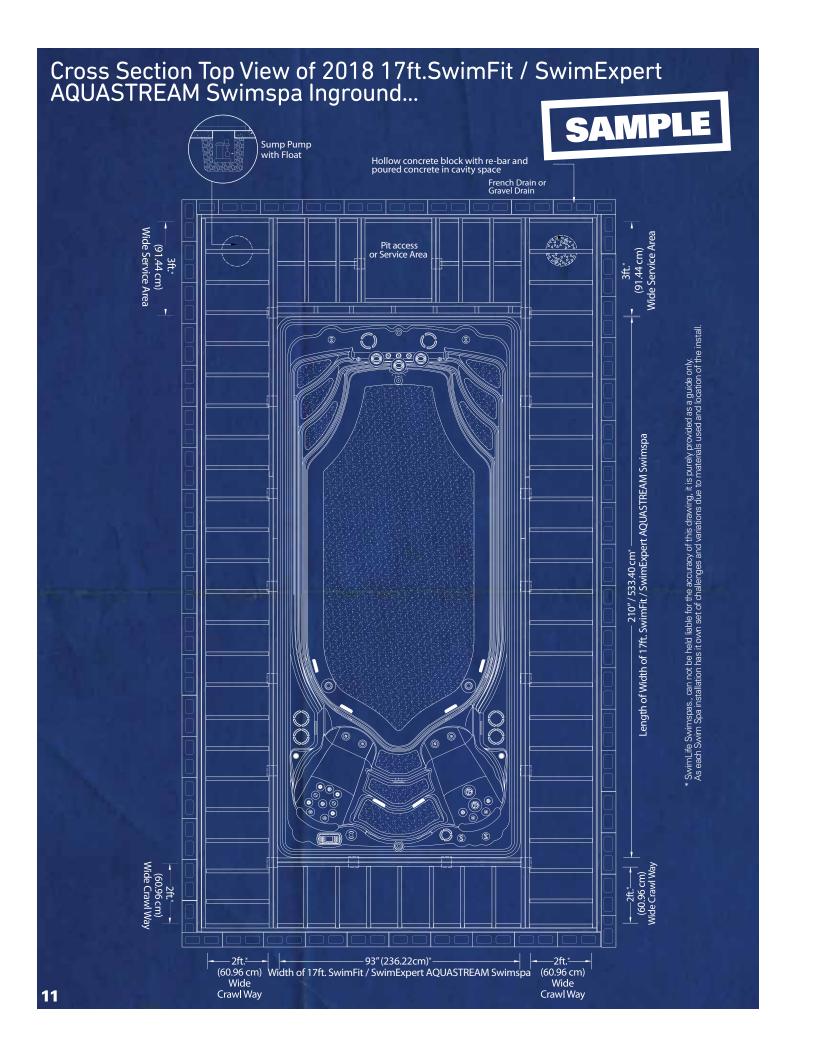
#### 5.5 Crawl Space

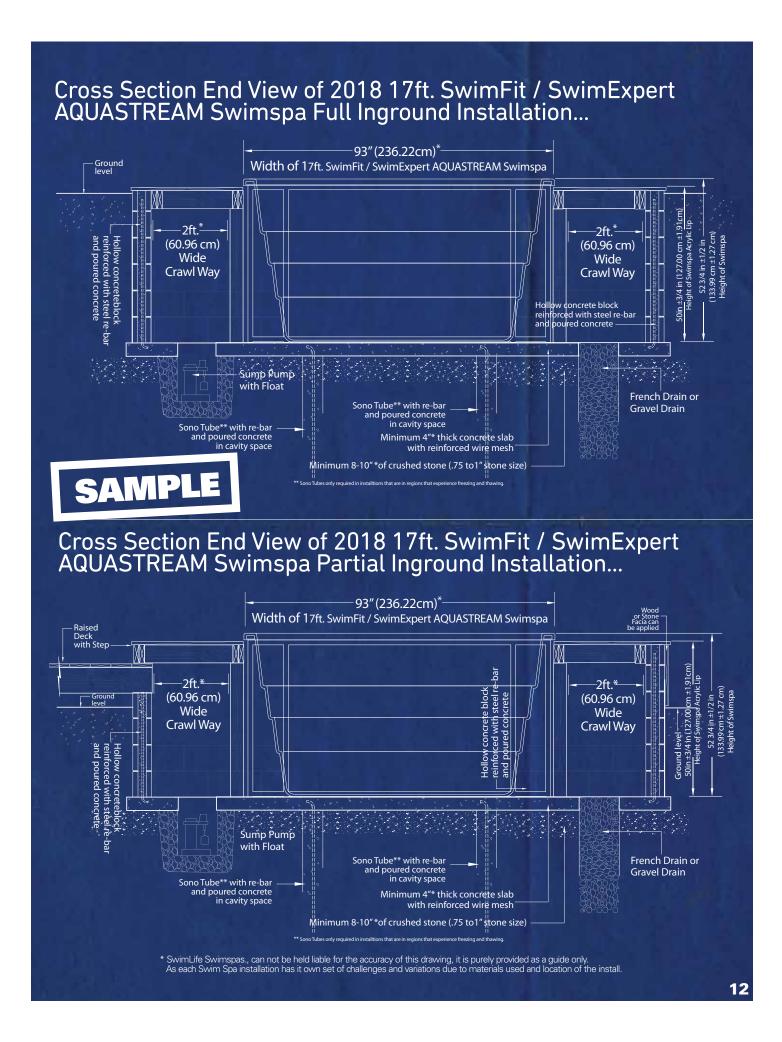
It is recommended leaving a 24 in. (61 cm) wide crawl-space around the entire unit to ensure adequate accessibility on the all sides for service access. At the Equipment end it is recommended to have a 3 ft. / 90 cm crawl space for work space.

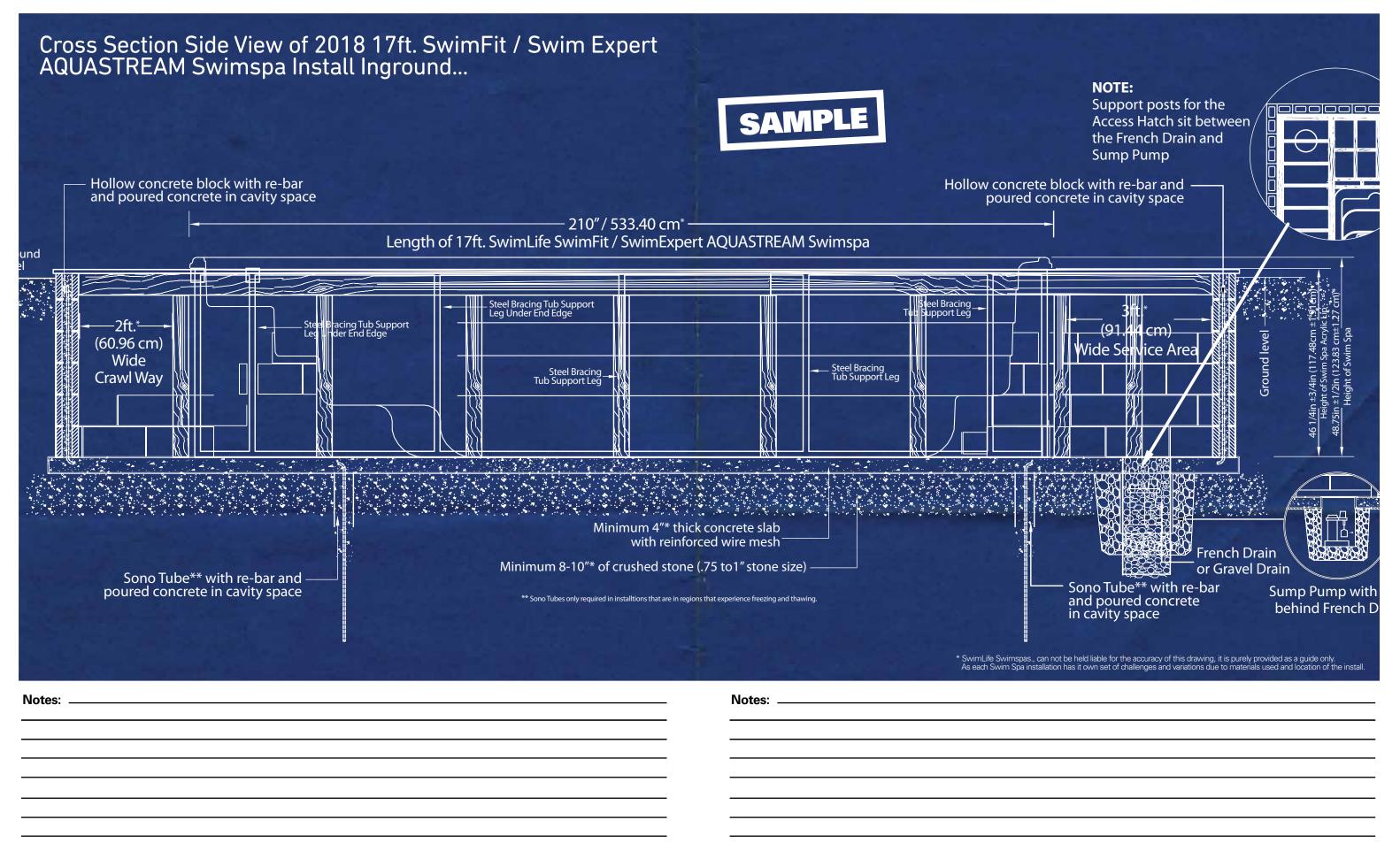
#### 5.6 Ground Water

The Vault will be the lowest part of your backyard and therefore good drainage is essential. A properly designed drain system and sump pump complete with a float switch should be constructed as part of the crib and should be located at the equipment end of the Swim Spa. This should prevent flood damage from ground water that may enter the crib.









13 14

## 5 Below Grade or Partial In Grade Installations Cabinet with Solid State Frame (Cont'd...)

#### **5.7 Service Access**

Future service must be considered at the time of design and installation. You must be able to access all sides and areas of your Swimspa. Difficult access will result in supplemental service labour charges not covered by the factory warranty. Consider easily removable deck materials.

#### 5.8 Water Test

During shipping and handling some of the components may have shifted. Please ensure the Swimspa is tested for 48 hours before you prepare the installation of the surrounding/finish deck around your Swimspa. Even though all units are tested in our plant, some transport/site handling damage may occur and we suggest you make sure the Swimspa is perfectly waterproof before finalizing your installation.

#### 5.9 Overall Support

Your SwimLife Swimspa is equipped with a factory installed load support substructure, which distributes the weight of the water over the entire foot print area of the Swimspa. The supporting floor must be even and level. Although the lip of the Swimspa must be supported to ensure it remains level, **NEVER SUSPEND** a Swimspa from a deck or floor by the outer acrylic edge, as this will lead to product damage and/or serious personal injury.

#### 5.10 Insulation

It is important to create a well-insulated vault when installing a Swimspa in ground. This can be done a couple of ways:

- 1) Use insulated concrete forms when pouring the walls of the vault. This will accomplish two things, one it will provide the wall support needed to build a deck and two it will give the insulation required to keep the running costs to a minimum
- 2) After installing the concrete block for the walls of the vault, add Styrofoam Blue insulation or Thermal Shield blanket to the interior walls to create well insulated area
- 3) Finally purchasing a Polartec Insulated Mat or a thermal shield blanket, which can be placed on the concrete pad before the Swimspa is placed. This will allow you to create a fully insulated vault area. Installing styrofoam insulation for the Swimspa to sit on will void warranty!

#### 5.11 Set Up and Assembly

Set-up of your Swimspa will vary depending on whether you have purchased an SwimFit or SwimExpert model. Once your Swimspa is set into place, you are ready to install the steel support legs and connect the equipment package.

#### **5.12 Equipment Protection**

The equipment must be located in an area where it will remain dry and will not be exposed to rain, snow or ground water. When your Swimspa is to be installed above ground, the factory cabinet is designed for both protection, insulation and accessibility. When your Swimspa is to be installed fully or partially in the ground, or if you have ordered a Swimspa without a cabinet: it is necessary that the equipment be installed in an area that is dry, protected from the elements, has proper ventilation, and is easily accessible for service.



## 6 Serviceability, Accessibility and Protection

#### **6.1 Equipment Protection**

The equipment must be located in an area where it will remain dry and will not be exposed to rain, snow or ground water. When your Swimspa is to be installed above ground, the factory cabinet is designed for both protection, insulation and accessibility. When your Swimspa is to be installed fully or partially in the ground, or if you have ordered a Swimspa without a cabinet, it is necessary that the equipment be installed in an area that is dry, protected from the elements, has proper ventilation, and is easily accessible for service.

#### 6.2 Serviceability

Ensure that access to the equipment, and the working area around the equipment, is large enough to accommodate a service person.

#### **6.3 Rodent Protection**

For any installation, protection from rodent infestation is imperative. If the Swimspa is being installed with a cabinet, as long as your concrete pad is level there should be no need for any further protection against rodents. However, if the Swimspa is being installed in ground without a cabinet it is important to take the precautions required to make sure rodents don't make a home in your vault area. Protect access points and repair if needed.





### 7 Filling and Draining

#### 7.1 General Considerations

- Be sure to check with your local by-laws regarding disposal of waste water from your Swimspa
- Avoid filling with soft or well water
- Filling through the skimmer is optimal for reducing / eliminating any air locks

#### 7.2 Indoor installations

There will be water lost in the Swimspa due to splash out, hence, you will need to top up the Swimspas periodically. When building the room for the Swimspa consider plumbing a water tap location nearby to facilitate filling. You will need to drain your Swimspa periodically, so please make sure to install a drain in the room that can handle the volume of water in a Swimspa.

#### 7.3 Outdoor Installations

Draining and Filling is easy with an outdoor swimspa. Use a garden hose to fill the Swimspa and use the hose provided to drain it. Do not plumb a permanent fill or drain line to the Swimspa if you are in an area where the temperature drops below freezing.

### **8 Auxiliary Heating Options**

#### 8.1 Gas Heaters

There are a number of different ways to heat your Swimspa using the Auxiliary Heating Option, the most common is using a gas heater. The most common size used for our Swimspas is 100,000 BTU / 30 KWH.

## 8.2 Other methods are Propane Heaters, Geothermal Heating and Solar heating.

Please consult your local retailer for more information on these alternative methods to heat your Swimspa.

#### 8.3 Auxiliary Bypass Option

Installing the SwimLife option Auxillary Bypass can help to facilitate any of the above installation options.





#### 9.1 Humidity

All Swimspas emit quantities of moisture into the surrounding air. In fact, evaporation will increase proportionally with the difference between the temperature of the surrounding air and of the water. To prevent this from happening, heat the air to more than 26° C / 79F if the Swimspa is located inside a dedicated room. This will make bathing more comfortable and will limit evaporation.

#### 9.2 Ventilation

The Swimspa room should have a window, and a humidistat controlled exhaust fan for ventilation. Some rooms may require a mechanical air extraction system in order to potentially dehumidify the air during and after swimming. Consult your local Building Codes.

#### 9.3 Covers

If you decide to purchase the hardcover put it on when you are not using the Swimspa. This will reduce evaporation and limit your water heating costs. Use your hard cover as much as possible or purchase a floating summer cover for easier use.

#### 9.4 Floor Drainage

It is very important to install a non-slip surface/tile for your indoor installation as the floors will become very slick with water on it. It is also important to install floor drains around the Swimspa to help with the splashout.



9.2 Ventilation

### 10 Hardcover Storage

#### 10.1 Hardcover

If your Swimspa comes with a Hardcover, make sure to prepare storage area for when the Swimspa is being used. The Swimspa cover comes standard in a number of sections that are velcroed together depending on the size.

#### 10.2 Cover Lifters

If you order a 17ft. AQUASTREAM Swimspa, CoverLifters are a great addition. The Swimspa must be ordered with 2 bi-fold covers from the factory for the lifter to work. Attached to both ends of the Swimspa, Cover lifters make it easy to get in and out of the Swimspa.

WARNING: If you install a CoverLifter on the end of the Swimspa, it will block entry to the step area.

#### 10.3 Pool Shed

Storing the cover in a pool shed is the most common way to keep the cover safe and out of sight.

### 11 By Laws and Disclaimers

#### 11.1 Building Code

Contact your local building code department to determine if a building permit is necessary and for information on applicable bylaws (distance from property lines, buildings, fencing requirements, etc.)

#### 11.2 Excavation

Prior to any excavation contact your local gas, electric, and cable company to ensure that there are no underground lines.

#### 11.3 Recommendations and **Preparation Guidelines**

This an integral part of your order, and it contains the recommendations and guidelines for preparing your work site. It is important that you take the time to carefully read this document in your capacity of Project Manager.

#### 11.4 Professionals

Attention: You must enlist professionals to complete the preparation work, and provide a copy of this document to each of them. This work will be carried out under their sole responsibility. Furthermore, if you plan to use a delegated Project Manager, you must also provide him or her with this document, and we recommend that you ensure its proper care in order to quarantee compliance with the regulations. Of course, we are available to answer all of your questions regarding the installation of your spa. The specifications described in this document are intended for professionals and are for informational purposes only. The Project Manager must consider these specifications while performing the work in accordance with the regulations and standards for the specific model.

#### 11.5 Sunlight

**DO NOT** leave the Swimspa out in the sunlight for extended periods of time with no water. The cabinet may bend slightly if exposed to sunlight for extended periods of time or the acrylic may crack.

CAUTION: Covers must be kept on the Swimspa at all times when unit is drained or winterized. Direct exposure to sunlight can damage plastic parts and interior space, jets, or any interior components. Damage caused by exposure to sun will not be covered under warranty.





