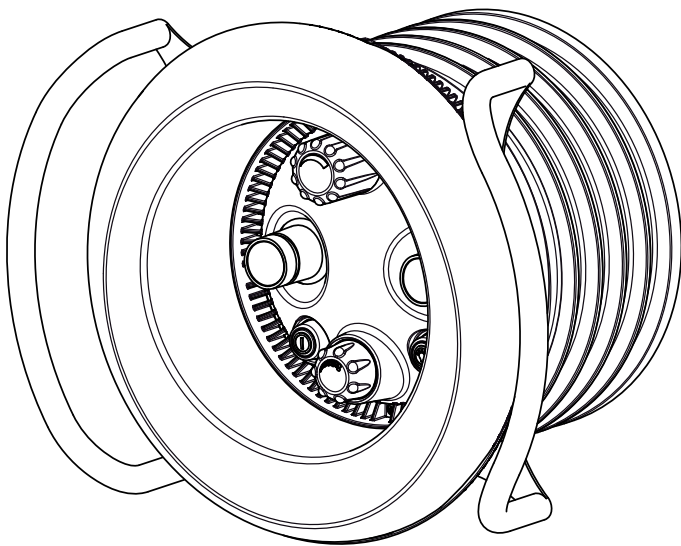


# Installation Manual

# BADU<sup>®</sup>JET IMPERIAL

Counter Swimming Unit



**Technical Support:**

**Address:** Speck Pumps  
8125 Bayberry Road  
Jacksonville, FL. 32256  
USA

**Hours:** (Monday - Friday) 8:00 am to 5:00 pm EST

**Toll Free:** 800-223-8538

**Phone:** 904-739-2626

**Fax:** 904-737-5261

**Website:** [www.usa.speck-pumps.com](http://www.usa.speck-pumps.com)

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This document is subject to change without notice.

**Safety**

Safety is emphasized throughout the user manual. These are safety alert symbols (**CAUTION, WARNING, and DANGER**). They alert the user of potential personal injury hazards. Obey all safety messages to avoid possible injury or death or damage to equipment.

<b>Date of Installation:</b>	
<b>Installed by:</b>	
<b>Serial Number:</b>	
<b>For Service Call:</b>	

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## BaduJet IMPERIAL Certifications



Complies with UL 1563  
 CSA C22.2 No. 218.1-M89  
 Swimming Pool Equipment  
 Listing #E212148



**VGB 2008**

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# 1 Important Safety Instructions

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**WARNING:** Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call 1-800-223-8538 or visit [www.usa.speck-pumps.com](http://www.usa.speck-pumps.com) for additional copies of these instructions.

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## Swim Jet Combination Fitting - Manufacturers Warnings

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**MUST BE INSTALLED** by an experienced and qualified pool industry professional **ONLY**.

**Attention Installer:** This manual contains important information about installation, operation, and safe use of this product. This information should be given to the owner and/or operator of this equipment. Most Federal, State and Local codes regulate the construction, installation and operation of pools and spas. It is important to comply with these codes, many of which regulate the installation and use of this product.

1. **DO NOT** locate this fitting in seating areas or on the back rests for such seating areas.
2. This fitting should be mounted in the vertical pool wall only per manufacturer's instructions.
3. All fittings and fasteners should be examined for damage or tampering before each use.
4. Any missing, broken, or cracked fittings must be replaced before using this product. Only genuine Speck replacement parts may be used.
5. Acceptable fittings/pipe sizes are listed on page 7 of this manual. No other sizes are permitted.
6. Never exceed the maximum flow rate stated on this product.
7. The anti-entrapment cover must be in place when using this product. **DO NOT** use this product if the cover is missing, broke or loose.
8. The stainless steel anti-entrapment cover (part# 93.1) should be replaced within 20 years from installation date. The suction housing (part# 93) should be replaced within 10 years from installation date.
9. Installation requires a Phillips screw driver. All screws should be hand tight only. **DO NOT** use electrical or air drills.
10. Consult your physician before exercising with the Badu®Jet Imperial or using the massage hose.
11. **DO NOT** permit children to use this product unless they are closely supervised at all times.
12. **DO NOT** remove any safety alert labels such as **DANGER**, **WARNING**, or **CAUTION**. Keep safety alert labels in good condition and replace missing or damaged labels.
13. Stay alert, watch what you are doing and use common sense. **DO NOT** use unit if you are tired and/or exhausted. **DO NOT** use unit while under the influence of drugs, alcohol, or any medications.
14. **CAUTION: DO NOT** increase pump size; this will increase the flow rate through the system and exceed the maximum flow rate stated on this product.

**IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY PRESENT A RISK OF HAIR OR BODY ENTRAPMENT AND DROWNING.** Install this equipment in accordance with the instructions provided.

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## Swim Jet Combination Fitting - Manufacturers Warnings - continued

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As the manufacturer, Speck Pumps - Pool Products, Inc., hereby certifies that their Swim Jet Combination Fitting meets or exceeds the requirements of the Virginia Graeme Baker Pool & Spa Safety Act, VGB 2008 and ANSI/APSP 16 standards and safety regulations as set forth by the Consumer Products Safety Commission.

**“Read, and then keep these instructions for future reference”**

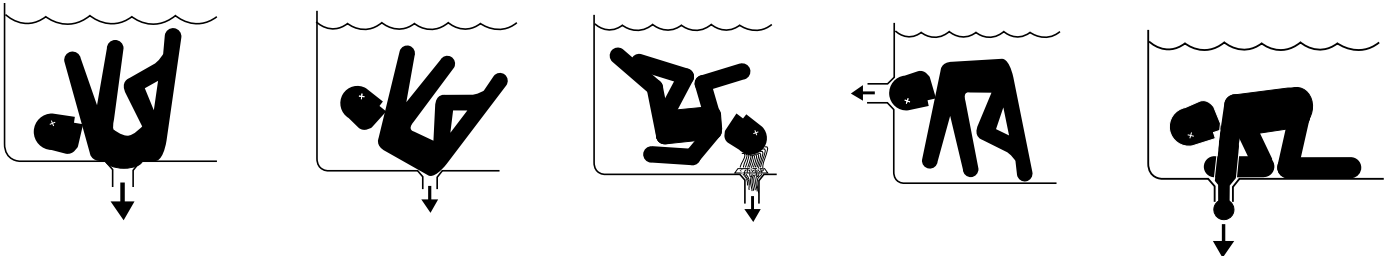
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### General Safety Instructions

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The following guidelines provide information to minimize the risk of injury to users of pools, spas, and hot tubs.

**WARNING: TO REDUCE THE RISK OF ENTRAPMENT HAZARD**



Pool and spa pumps produce high levels of suction, which can pose extreme danger if a person comes in close proximity to an open pool or spa drain or if a drain cover is loose, cracked, broken or missing. Pool and spa pumps move large volumes of water, which can pose extreme danger if a person's hair comes in close proximity to a drain that is not the proper size for the pump or pumps.

If not an approved single, unblockable outlet, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall) must be installed a minimum of three (3) feet (1 meter) apart, as measured from center point to center point. Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas. If any suction outlets are located closer they shall be located on two different planes (i.e. one on the bottom and one on the vertical wall, or one each on two separate vertical walls).

**WARNING:** Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increased potential for suction entrapment.

If not a single, unblockable outlet, in the event of one suction outlet being completely blocked, the remaining suction outlets serving the system shall have a flow rating capable of the full flow of the pump(s) or the specific suction system. If in doubt about the rating and/or head loss curve of your system, consult a qualified pool or spa professional and/or your respective equipment manufacturer(s). Also, double check with your local building/health authorities regarding single vs. multiple drain installations, etc.

Regularly inspect all drain covers for cracks, damage and advanced weathering. If a drain cover becomes loose, cracked, damaged, broken or is missing, close the pool or spa immediately, post a notice and keep the pool or spa closed until an appropriate VGB 2008 certified drain cover is properly installed.

### WATER VELOCITY AND FLOW RATES

The maximum water velocity through drain covers is limited by some local regulations, for example some state health departments limit the velocity through public pool drain covers to 1.5 feet per second. This velocity limit is lower than the flow rating provided by the ANSI/APSP 16 certification; therefore local limit applies and must be followed. Never exceed the flow rating listed on the cover even if local code does not provide a velocity limit.

For additional information on proper installation refer to The Association of Pool & Spa Professionals ANSI/APSP-7 Standard and the US Consumer Product Safety Commission Guidelines for Entrapment Hazard.

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## General Safety Instructions - continued

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### VGB Compliance - VIRGINIA GRAEME BAKER POOL AND SPA SAFETY ACT

The Virginia Graeme Baker Pool and Spa Safety Act raises certain new requirements on owners and operators of swimming pools and spas.

Pools or spas constructed on or after December 19, 2008, shall utilize:

- (A) No submerged suction outlets, a gravity drainage system with ANSI/APSP compliant cover(s), one or more unblockable outlets; or
- (B) A multiple main drain system without isolation capability with suction outlet covers that meet ANSI/APSP 16-2011 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs and either:
  - (i) A safety vacuum release system (SVRS) meeting ASME/ANSI A112.19.17 Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems and/or ASTM F2387 Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas and Hot Tubs or
  - (ii) A properly designed and tested suction-limiting vent system or
  - (iii) An automatic pump shut-off system.

Pools and spas constructed prior to December 19, 2008, with a single submerged suction outlet shall use a suction outlet cover that meets ANSI/APSP 16-2011 and either:

- (A) A multiple main drain system without isolation capability, or a single (VGB 2008 compliant) unblockable suction outlet, or
- (B) A safety vacuum release system (SVRS) meeting ASME/ANSI A112.19.17 and/or ASTM F2387, or
- (C) A properly designed and tested suction-limiting vent system, or
- (D) An automatic pump shut-off system, or
- (E) Disabled submerged outlets, or
- (F) Suction outlets shall be reconfigured into return inlets.

For more information about the Virginia Graeme Baker Pool and Spa Safety Act, contact the Consumer Product Safety Commission at (301) 504-7908 or visit [www.cpsc.gov](http://www.cpsc.gov).

#### **WARNING:** Risk of Electrical Shock or Electrocution



*Pool pump must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electric hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.*

***Always disconnect power to the pool pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to serviceman, pool users, or others due to electric shock.***

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## 2 General Description

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The BaduJet Imperial from Speck Pumps has been designed to be installed during the construction of your pool to create a water treadmill for anyone wanting a therapeutic and effective exercise. The BaduJet Imperial can be installed in any type of pool, large or small, from gunite to vinyl liner. The self-contained, flush-mounted unit is a jet-propulsion system that pumps water into the pool creating a current in excess of 5,700 gallons per minute from a recessed jet housing. Topping off the experience is the pulsating massage hose which can be attached to the jet nozzles for easy and convenient massage treatments for joints and muscles.

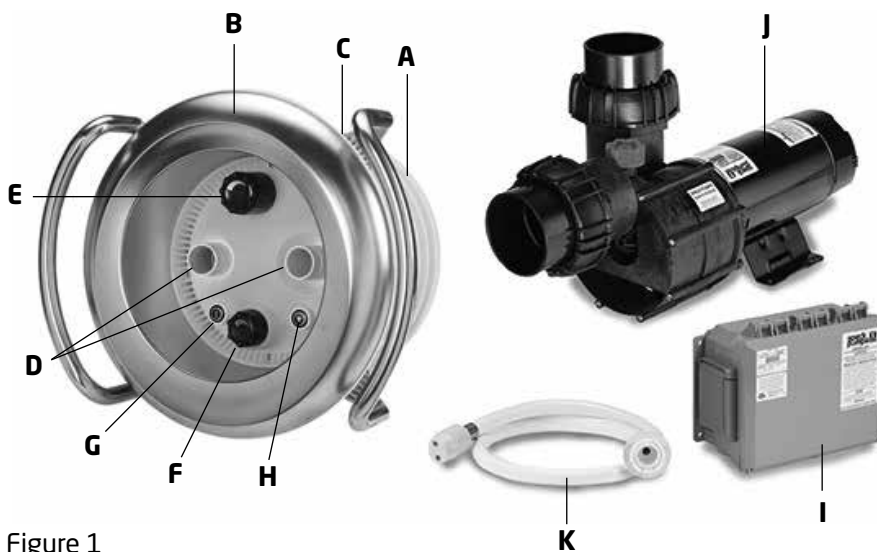
# 3 Installation Information

## Receiving Information

1. Upon receipt of the swimjet system, check the cartons for damage. Open each carton and check the pump, jet housing, anti-entrapment cover, and control box for concealed damage, such as cracks, dents, or a bent base. If damage is found, contact the shipper or distributor where the swimjet was purchased.

2. Inspect the contents of each carton and verify that all parts are included. (See Figure 1)

- A. Flush-mount jet housing
- B. Stainless steel anti-entrapment cover
- C. Suction housing - creates undetectable pump suction
- D. Jet Nozzles
- E. Water volume control knob - adjusts the amount of water flow through the jet nozzles
- F. Air regulator knob - adjusts the amount of air bubbles in the water flow
- G. Light (ON/OFF) air button - turns low voltage LED light ON/OFF and guarantees complete electrical separation between pool water, pump motor, and control box.



- H. System (ON/OFF) air button - turns the swimjet system ON/OFF and guarantees complete electrical separation between pool water, pump motor, and control box.
- I. Control box complete with GFCI, air switches, and air tubing
- J. Speck Model 21-80/33GS - 4HP, self-priming, single phase plastic pump with built-in thermal overload (*no motor starter required*). Optional three phase pump and control box also available. (*NOTE: Flooded suction pump available for installation below water level*)
- K. Pulsating massage hose - 5 ft. length

## Plumbing Installation

**CAUTION:** The discharge connection on the back of the jet housing must be located directly **ABOVE** the suction connection.

**CAUTION:** The suction line should remain below water level from the suction connection at the jet housing to a point directly beneath the pump.

**CAUTION:** The center of the BaduJet Imperial nozzles (jet housing center-line) must be located 12" **BELOW** the water line for maximum performance and efficiency.

**CAUTION:** In areas with soft soil conditions or with frequent earth movement, a flexible section of 4" hose should be installed at the back of the jet housing to prevent plumbing or jet housing damage.

## Plumbing Installation - Continued

**CAUTION:** For trouble-free pump priming (up to 4 feet above the water line), first install a 6" long riser in the discharge connection on top of the pump. Then install an elbow and lead the discharge line downward to the discharge connection at the BaduJet Imperial jet housing.

**CAUTION:** Allow at least 12 hours curing and bonding time. Insufficient curing and bonding time can result in leaks and flooding.

**CAUTION:** Throughout the entire installation, make sure the plumbing connected to the BaduJet Imperial jet housing is well supported. Unsupported plumbing WILL crack the jet housing.

**CAUTION: DO NOT** use the pump as a fixed point (support) for the plumbing.

**CAUTION:** When using 6" pipe, install 6" x 4" reducer bushings at **the jet housing suction and discharge connections.** The 6" suction line should be run from the jet housing and remain under the water line to a point directly beneath the pump. Install a 6" elbow at that point. Then run 4" pipe vertically up to the suction connection of the pump and finish with a 4" elbow.

- For optimal performance, use 4" plumbing when the total distance between the pump and jet housing is 30 ft or less. The plumbing should be as direct and free from turns or bends as possible because **elbows and other fittings can create large friction losses and reduce the performance of the system. The shortest length of pipe with the minimum number of fittings possible should be used to avoid any significant friction loss due to the pipe and fittings.** **NOTE:** Refer to Figure 2 for the BaduJet Imperial head loss curve.

- A maximum of seven (7) 90° 4" elbows may be used with 30 ft of horizontal 4" pipe for the suction line and 30 ft of horizontal 4" pipe for the discharge line without negatively affecting the performance of the system.

- If more elbows are required for the installation, 4" sweeps must be used in place of the elbows. When using sweeps instead of elbows, a maximum of nine (9) 4" sweeps may be used with 30 ft of horizontal 4" pipe for the suction line and 30 ft of horizontal 4" pipe for the discharge line without negatively affecting the performance of the system.

- If the pump cannot be located within 30 ft of the jet housing with the maximum number of 4" elbows or sweeps stated above, then 6" plumbing must be used. For the suction line, use 6" plumbing and fittings from the connection at the jet housing to a point directly beneath the pump. From that point, install a 6" elbow. Then run 4" pipe vertically up to the suction connection of the pump and finish with a 4" elbow. For the discharge line, 6" plumbing should be installed from the discharge connection of the pump all the way to the discharge connection of the jet housing.

**CAUTION:** The BaduJet Imperial system includes 30 ft of cable for the LED light and two 30 ft lengths of air tubing for the air buttons. If the control box cannot be located within 30 ft of the jet housing, please contact the factory at (800) 223-8538 or [technical.usa@speck-pumps.com](mailto:technical.usa@speck-pumps.com).

**NOTE:** Suction lines which are too long have significant disadvantages:

- Higher resistance which results in less efficient priming and a higher risk of cavitation.
- Longer priming time (up to 12 min).
- Keep the suction and discharge lines as short and straight as possible.
- If the pump is positioned further away, then the pipe dimensioning has to be adapted so that almost loss-free flowing is ensured.

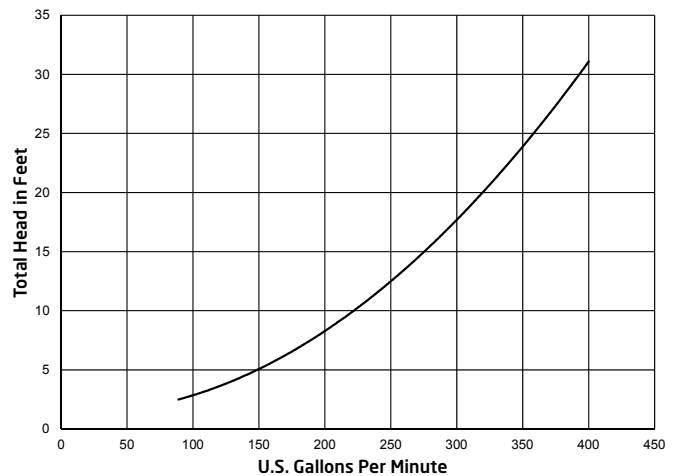


Figure 2  
BaduJet Imperial Head Loss Curve



## Plumbing - continued

Figure 3  
Sample BaduJet Imperial Installation (Self-Priming)

*NOTE: Valves are recommended when pump is installed below water level (flooded suction applications).*

*NOTE: To avoid stress on the housing, the jet housing and 2 to 3 inches of plumbing/conduit stub out should be encased in gunite or concrete.*

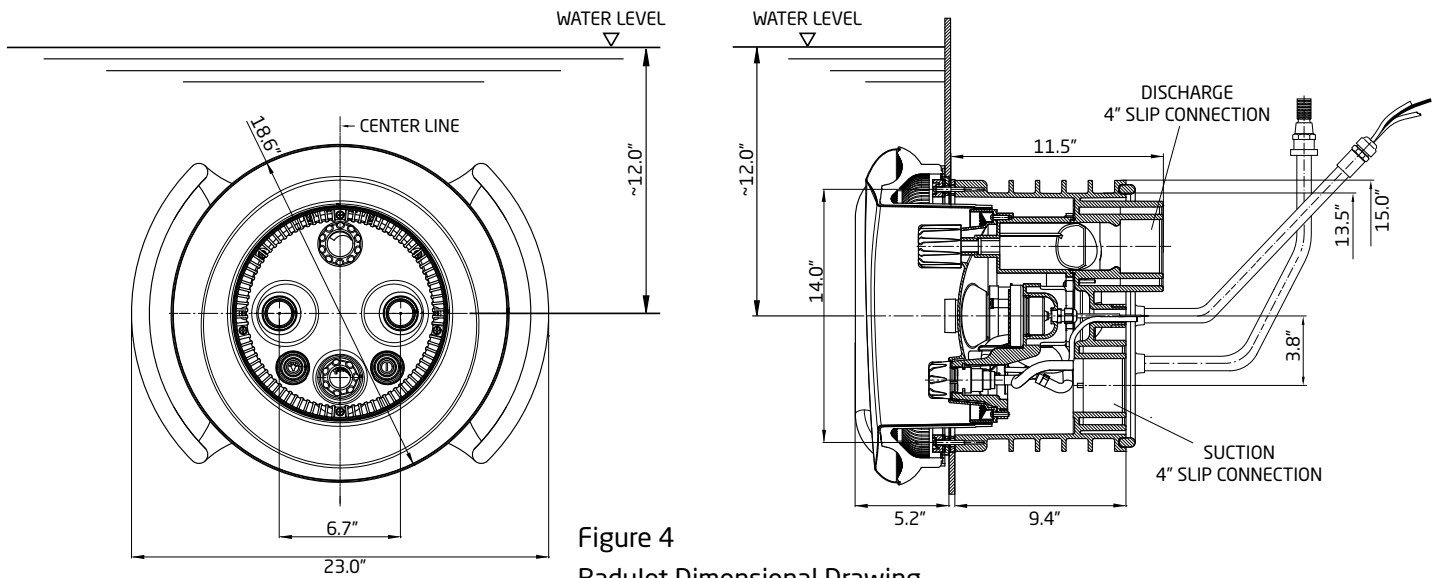
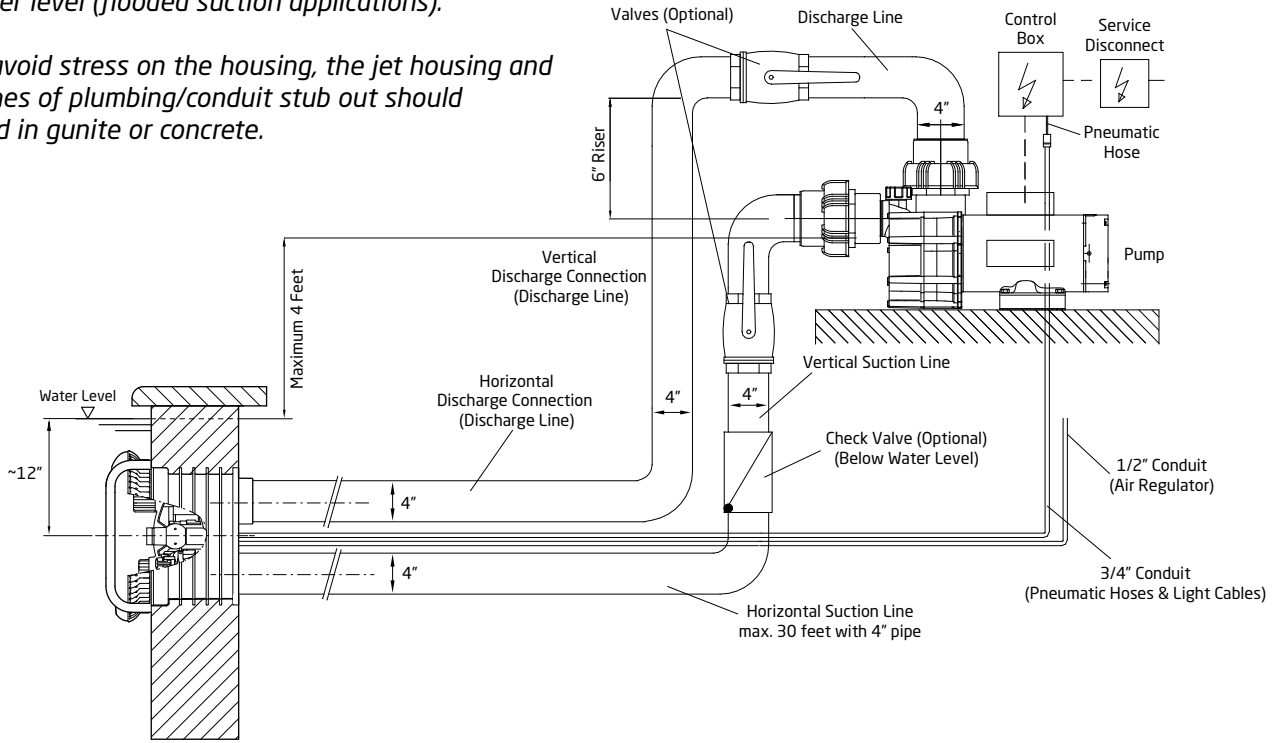


Figure 4  
BaduJet Dimensional Drawing

## Jet Housing Installation - New Concrete or Gunite Construction

**CAUTION:** All necessary screws and bolts included with the BaduJet Imperial are stainless steel. **ALL** screw threads and threaded inserts are **METRIC! ONLY METRIC** bolts and nuts may be used! All screws should be **HAND TIGHT. DO NOT** use drills or pneumatic tools. **DO NOT** over tighten!

The following is a list of all parts that **ARE NOT USED IN A CONCRETE OR GUNITE INSTALLATION WITHOUT VINYL LINER:**

- Gasket with knobs (part# 26)
- Clamping ring gasket (part# 27)
- M8 x 30mm Countersunk Screw (part# 98)

1. Pre-plumb BaduJet Imperial jet housing:

- Install approximately 12" of 4" SCH 40 pipe to both suction and discharge connections on the back of the jet housing.

*NOTE: If total plumbing length exceeds 30 ft between the jet housing and pump, increase pipe size to 6". Install 6" x 4" reducer couplings at the jet housing connections.*

2. Install the protective conduit (refer to Figure 11 on page 14 & Figure 20 on page 17):

- Glue the metric side of the M25 x 3/4" conduit connector (part# 118) to protective conduit port on the back of the jet housing.
- Install 3/4" flexible or rigid PVC protective conduit to the 3/4" side of the M25 x 3/4" conduit connector. Run the 3/4" protective conduit to the control box location.

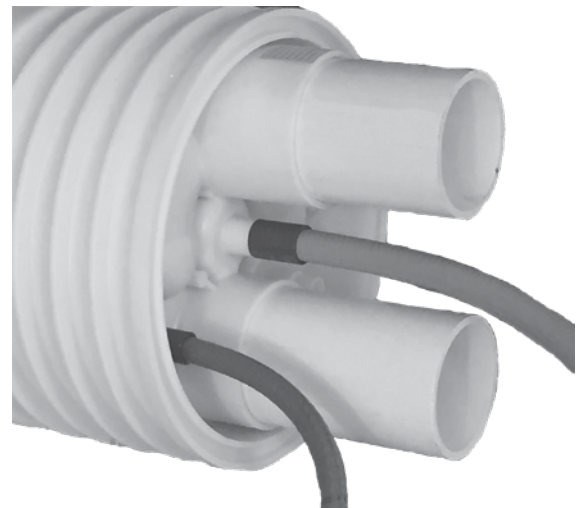


Image 1  
BaduJet Imperial pre-plumbed & conduit installed

**CAUTION:** The BaduJet Imperial system includes 30 ft of cable for the LED light and two 30 ft lengths of air tubing for the air buttons. If the control box cannot be located within 30 ft of the jet housing, please contact the factory at 800-BADUJET (223-8538) or [technical.usa@speck-pumps.com](mailto:technical.usa@speck-pumps.com).

3. Install the air regulator hose (refer to Figure 11 on page 14 & Figure 20 on page 17):

- Glue the metric side of the M20 x 1/2" conduit connector (part# 117) to the air regulator port on the back of the jet housing.
- Install 1/2" flexible or rigid PVC conduit (this serves as the air regulator hose) to the 1/2" side of the M20 x 1/2" conduit connector. Run the 1/2" conduit to a point above the water line (for example, at the equipment pad). Install the 1/2" check valve (part# 101), O-ring (part# 113), and 1/2" conduit adapter (part# 116) at the end of the 1/2" conduit.

4. Install the bonding wire (Refer to Bonding Installation on page 16.)

5. For poured concrete pools only:

- Create formwork for the jet housing using Figures 5 & 6.
- Drill the four M8 holes marked (1) in Figure 5 in the formwork for the inner pool wall. Cut a 14.5" hole in the formwork for the outer pool wall. **CAUTION:** The center of the jet housing **MUST BE** mounted 12" **BELOW** the water line as shown in Figures 5 & 6
- Insert the round sealing cord (part# 25) in the groove in the back of the jet housing.
- Place the jet housing between the steel rebar with the back of the jet housing against the hole in the outer wall formwork. Jet housing location is very important (See Figure 6).
- Install the four (4) M8 x 80mm gunite cover studs (part# 31) in the front of the jet housing. They should be in the same position as the holes marked (1) in Figure 5. Slide the gunite cover (part# 30) over the studs. Tape the edge of the gunite around the entire jet housing to keep concrete out of threaded inserts and out of the jet housing.

## Jet Housing Installation - New Concrete or Gunite Construction - continued

- Slide the inner wall formwork over the studs in the jet housing through the pre-drilled holes. Secure the formwork to the jet housing with four (4) M8 washers (part# 32) and four (4) M8 nuts (part# 33).

### 6. For gunite pools:

- Mount the gunite cover to the front of the jet housing using the four (4) M8 x 80mm studs (part# 31), four (4) M8 washers (part# 32) and four (4) M8 nuts (part# 33). Tape the edge of the gunite cover around the entire jet housing to keep gunite out of threaded inserts and out of the jet housing.

- Place the jet housing between the steel rebar. Jet housing location is very important (See Figure 6).

### 7. Pour concrete or apply gunite:

- Front edge of the jet housing should finish even with the inside pool wall. Make sure a V shaped groove is scraped out around the housing approximately 1.5" deep to allow marcite to seal against the housing.

- Recheck the location of the jet housing when concrete or gunite is being applied. Make sure the jet housing remains properly aligned and level.

- To avoid stress on the housing, the jet housing and 2 to 3 inches of plumbing/conduit stub out may be encased in gunite or concrete.

- Store all parts not being used now in original box. Store in a safe place until needed.

8. Once the concrete or gunite is fully cured and pool wall is completed, remove the M8 nuts and washers, gunite cover, and M8 studs. Be sure that the front edge of the jet housing is flush with the pool wall.

**CAUTION:** During plastering, the gunite cover, studs, washers, and nuts should remain installed on the jet housing.

9. Install the clamping ring (part #28) and stainless steel handles (part #70) based on your pool construction:

#### ■ Gunite wall (no tile or liner):

Align the stainless steel handles (part #70) and clamping ring (part #28) as shown in Figure 7. Use the twelve (12) M8 x 30 clamping ring screws (part #52) to attach the clamping ring and handles to the jet housing.

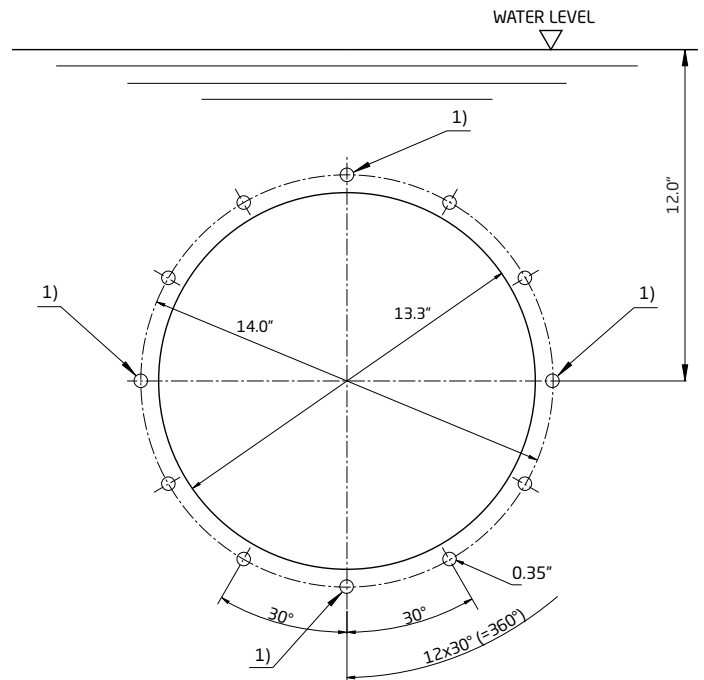


Figure 5  
Installation Template for Concrete or Gunite Pools  
1) Fastening to the formwork (4x)

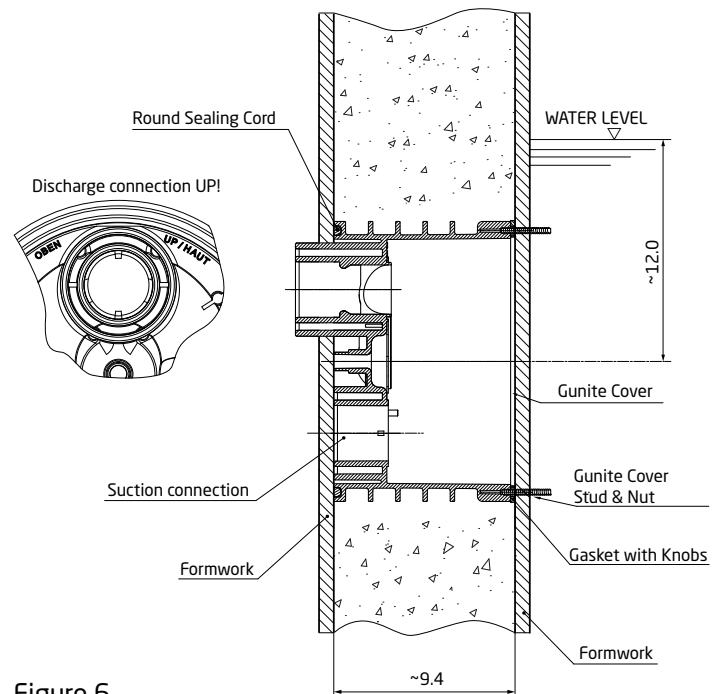


Figure 6  
Installation formwork for Concrete or Gunite Pools

## Jet Housing Installation - New Concrete or Gunite Construction - continued

### ■ Concrete pool with vinyl liner:

Use the provided mounting template (*small scale version of template shown in Figure 5*) to mark and drill the holes through the liner (twelve (12) M8 clamping ring screw holes and 13.3" center hole). Insert the gasket with knobs in the front of the jet housing (part #26). Install the liner with the holes aligned to the jet housing. Align the clamping ring (part #28) and stainless steel handles (part #70) as shown in Figure 7. Place the clamping ring gasket (part #27) behind the stainless steel handles and install using the twelve (12) M8 x 30 clamping ring screws (part #52). (See Figure 8)

### ■ Tiled pool:

The tile thickness may be compensated with an additional clamping ring and longer clamping screws (optional parts). (See Figure 9)

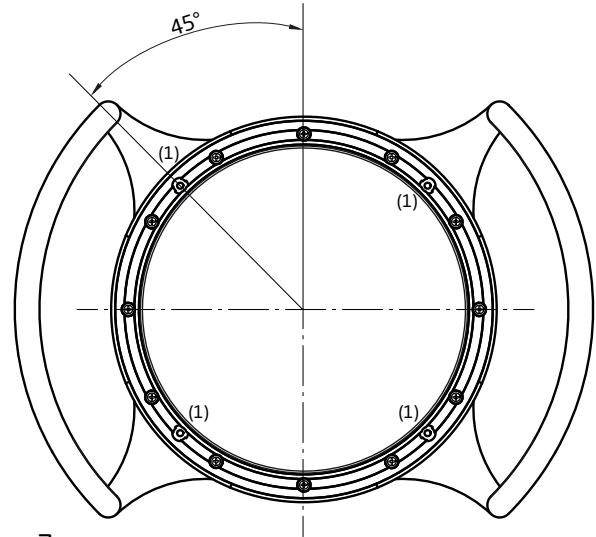


Figure 7

Aligning Clamping Ring with Stainless Steel Handles

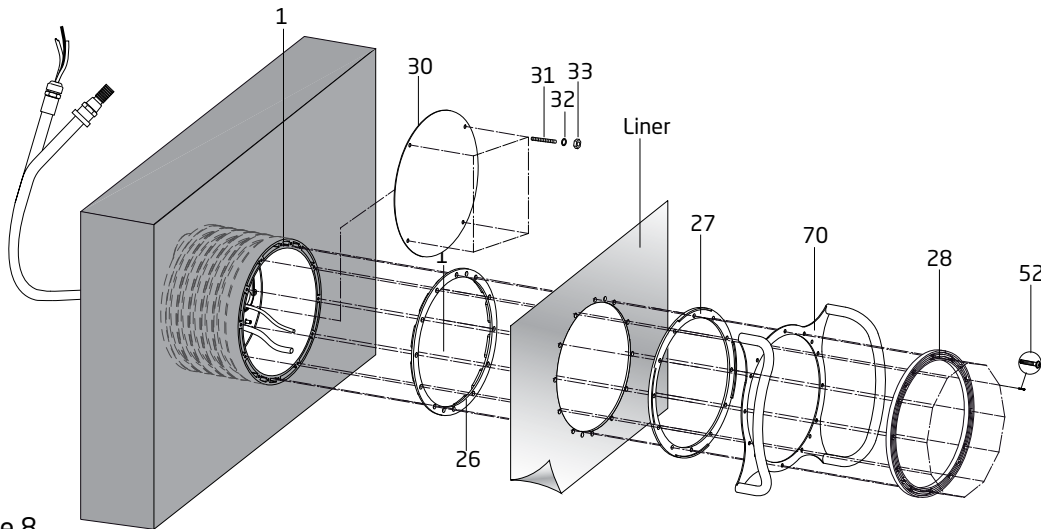


Figure 8

Installation for concrete pool with a vinyl liner

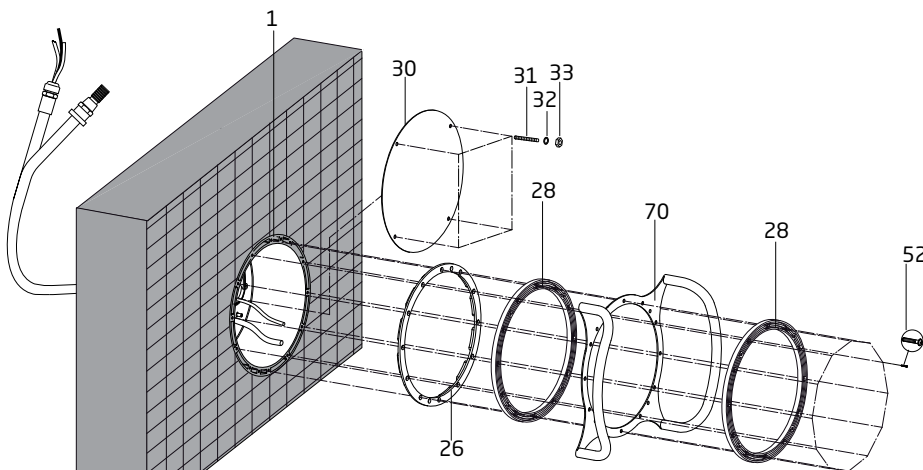


Figure 9

Installation for a tile pool

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## Jet Housing Installation - Existing Concrete or Gunite Construction

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Materials: (*NOT INCLUDED*)

- One (1) piece of plywood 2' x 3' x 1/4"
- Eight (8) Lag screws 1/4" x 1-1/2" (minimum)
- Eight (8) Plastic lag shield anchors

1. Follow steps 1-4 under Jet Housing Installation - New Concrete or Gunite Construction on pages 9-10.
2. Carefully, choose the location where the BaduJet Imperial will be installed; it should be a flat surface with no or very little crown.
3. Using a concrete saw, cut out the outline of the section to be chiseled out with an air hammer or equal. This hole should be 19" wide by 19" **BELOW** the water line. The bonding rods on the cap of the pool should be left intact, while all other steel rods should be cut back to clear the placement of the jet housing.
4. Taking the 2' x 3' x 1/4" plywood, set its top edge even to the cap of the pool wall. In some cases a larger piece of plywood maybe needed to cover the hole completely. If plywood covers the hole completely, mark the water line on the plywood. From this line, layout and drill holes in plywood for the four (4) M8 x 80 gunite cover studs (part #31) and the eight (8) 1/4" lag screws. (*See Figure 10*)
5. Insert the four (4) M8 x 80 gunite cover studs (part #31) in the jet housing; one on each end of the vertical center line and one on each side on the horizontal center line insert gasket with knobs (part #26). Place gunite cover on studs covering the inside of the jet housing. Next place plywood on the studs and secure to the jet housing with four (4) M8 stud washers (part #32) and four (4) M8 gunite cover stud nuts (part #33). The discharge connection should be located directly **ABOVE** the suction connection.
6. Now place this assembly into position in the pool wall and align the water line marks. With a level on the two (2) horizontal studs, level the assembly and mark the eight (8) holes for the 1/4" lag shield anchors. Remove assembly and drill holes for lag anchors. Install lag shield anchors. Reposition the assembly and secure it to the lag shield anchors with 1/4" lag screws. It is best to check with a level before tightening the lags down. Back fill and form the outside of pool wall.
7. Mix compound that is compatible and has a good bonding characteristics to the pool wall compound. Pour mixture into form. Use a mallet and lightly tap the front of formed assembly to settle mixture, and avoid any air bubbles in the pour. It should be filled to the top of the plywood. Let mix cure and then remove plywood from the housing assembly. Leave gunite cover installed using M8 x 80 gunite cover studs (part #31) with M8 stud washers (part# 32) and M8 gunite cover stud nuts (part #33) until pool wall is complete. Drill out plastic lag anchors and fill in the holes. Apply finish to pool wall (plaster, tile, paint, etc.). Remove the gunite cover, gasket with knobs, and the gunite cover screws.

*NOTE: To avoid stress on the housing, the jet housing and 2 to 3 inches of plumbing stub out may be encased with gunite or concrete.*

8. Install the clamping ring (part #28) and stainless steel handles (part #70) based on your pool type:
  - **Gunite wall (no tile or liner):**  
Align the stainless steel handles (part #70) and the clamping ring (part #28) as shown in Figure 7. Using the twelve (12) M8 x 30 clamping ring screws (part #52), attach the clamping ring and handles to the jet housing.
  - **For a concrete pool with vinyl liner:**  
Use the template in Figure 5 to mark and drill the holes through the liner (twelve (12) M8 holes and center 14" hole). Insert the gasket with knobs (part #26) in the front of the jet housing. Install the liner with the holes aligned with the jet housing. Align the clamping ring (part #28) and stainless steel handles (part #70) as shown in Figure 7. Place the clamping ring gasket (part #27) behind the stainless steel handles and install using the twelve (12) M8 x 30 clamping ring screws. (*See Figure 8*)
  - **In a tiled pool:**  
The tile thickness may be compensated with an additional clamping ring and longer clamping ring screws (optional parts). (*See Figure 9*)
9. Continue to Final Assembly Section on page 17.

## Jet Housing Installation - Existing Concrete or Gunite Installation - continued

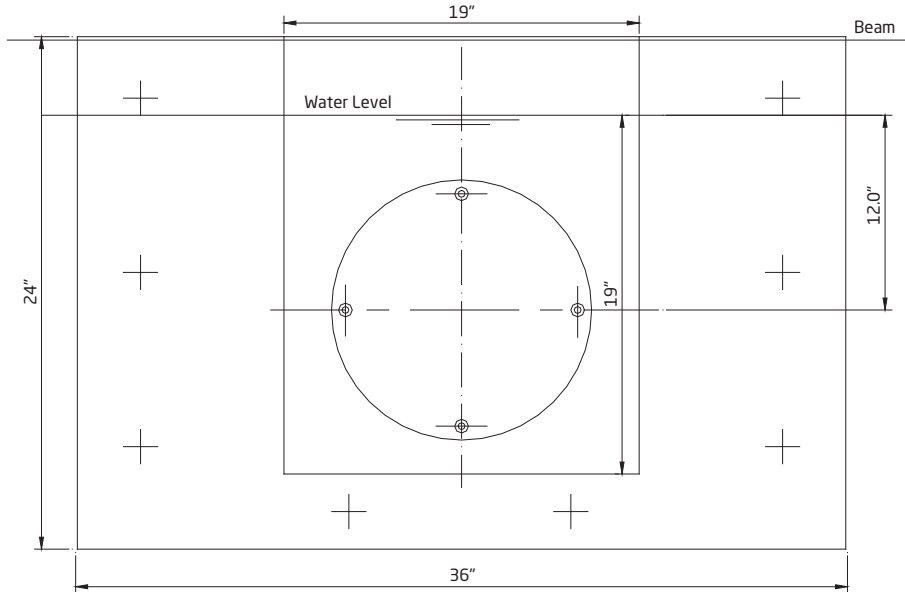


Figure 10  
Layout for installing in existing gunite or concrete pools

## Jet Housing Installation - Liner and/or Fiberglass Pool Construction

**CAUTION:** Locate discharge connector directly **ABOVE** the suction connection. Discharge and suction connectors must be exactly vertical or the stainless steel handles will not align properly. (See Figure 11)

**CAUTION:** Center of the jet housing (the two jet nozzles) should be exactly 12" **BELOW** water level for maximum efficiency.

**CAUTION:** Gasket with knobs (part #26) goes **BEHIND** pool wall.

**CAUTION:** Clamping ring gasket (part #27) goes in **FRONT** of pool wall. A good RTV silicone may be used with gasket when mounting jet housing, but in most cases it is not necessary. Installer should decide whether or not silicone is necessary.

1. Cut 13.3" hole through pool wall. Ensure that the center of this hole is 12" **BELOW** the water level.

2. Using the template shown in Figure 12, mark and drill the fourteen (14) M8 holes through the pool wall.

3. Insert the gasket with knobs (part #26) in the front of the jet housing. Align the jet housing on the outside pool wall, making sure the discharge connector is directly **ABOVE** the suction connector.

4. **For Liner pools only:** Install the two M8 x 30 countersunk screws (part #98) in the two holes at 15° from the vertical axis. This will keep the jet housing attached to the pool wall for liner installation and replacement.

5. Align the clamping ring gasket (part #27) on the inside of the pool wall (or on liner) as shown in Figures 13 & 14. Be sure the ribs on the outer edge of the gasket are facing away from the pool wall and are positioned as shown.

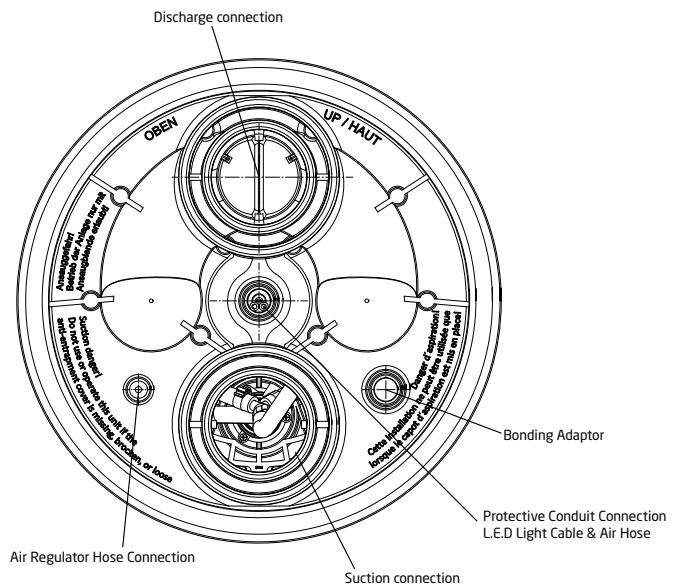


Figure 11  
Jet Housing - Rear View

## Jet Housing Installation - Liner and/or Fiberglass Pool Construction - continued

6. Align the stainless steel handles (part #70) over the clamping ring gasket.

7. Align the clamping ring (part #28) over the stainless steel handles (part #70) as shown in Figure 7.

8. Install the twelve (12) M8 x 30 clamping ring screws (part #52).

9. Follow steps 1-4 under Jet Housing Installation - New Gunite or Concrete Construction on page 9-10.

10. Continue to Final Assembly Section on page 17.

*NOTE: The gunite cover (part #30), M8 x 80 studs (part #31), 8.4mm washers (part #32), and M8 nuts (part #33) are used in those cases where the swimming pool is commissioned without the final assembly kit being installed.*

**CAUTION:** All screws should be **HAND TIGHT. DO NOT** use drills or pneumatic tools. **DO NOT** over tighten!

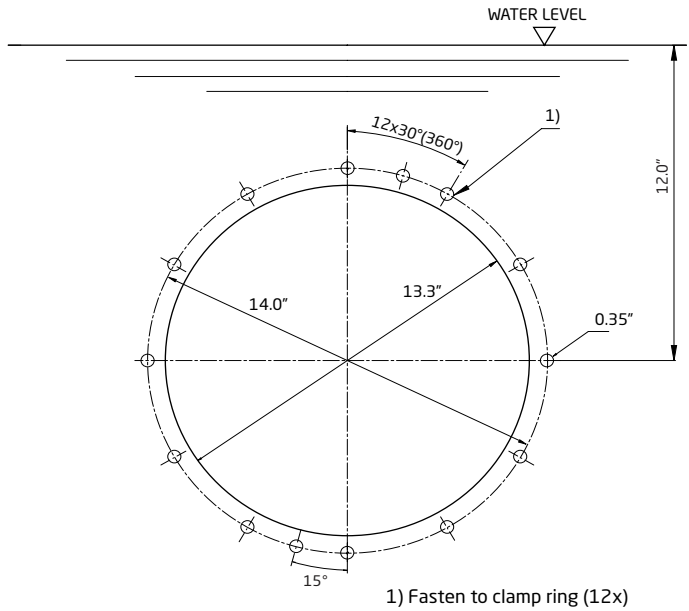


Figure 12  
Template for fiberglass/vinyl liner pools

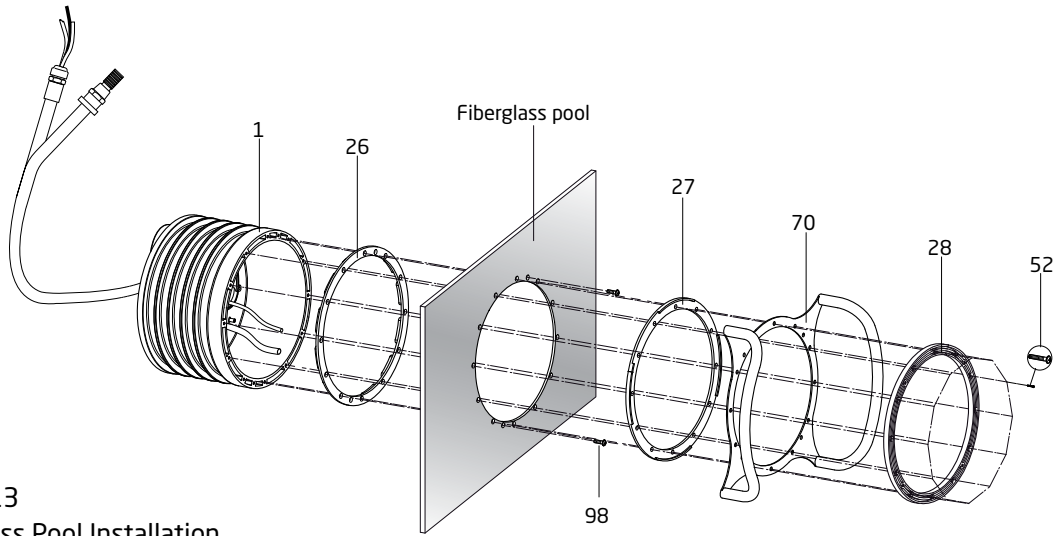


Figure 13  
Fiberglass Pool Installation

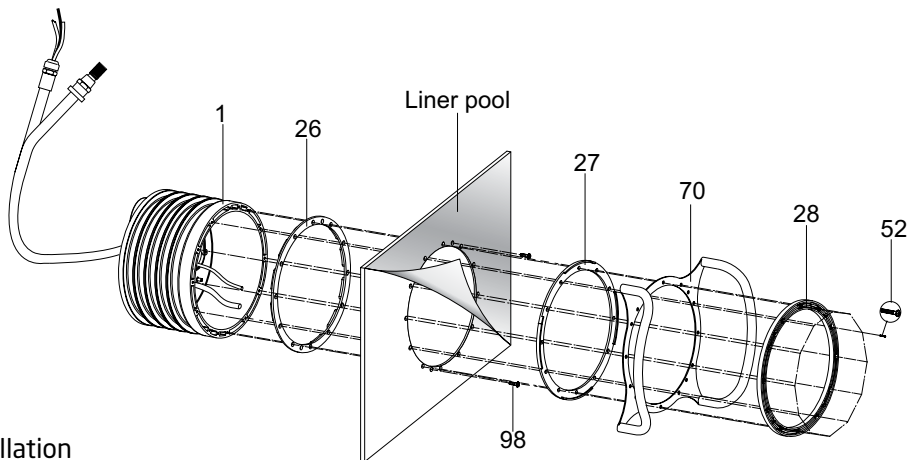


Figure 14  
Liner Pool Installation

## Bonding Instructions

1. Glue the bonding adapter (part# 119) to the port on the lower right side of the jet housing (See Figure 15).
2. Insert the bare end of the 8 AWG wire through the bonding adapter and into the front of the jet housing (See Figure 16).
3. After installing the nozzle housing (part# 102.1) in Final Assembly Section on page 17, pull the bare end of the wire through the bonding lug on the stainless steel handles. Tighten bonding screw (See Figure 17).
4. When installing the anti-entrapment suction cover (part# 93) in Final Assembly Section on page 17, leave a small length of bare wire accessible on the inside of the jet housing (See Figure 18).
5. When installing the stainless steel cover (part# 93.1) in Final Assembly Section on page 17, insert the bare wire into the bonding lug on the stainless steel cover. Tighten the bonding lug (See Figure 19).
6. Please continue back to Installation page

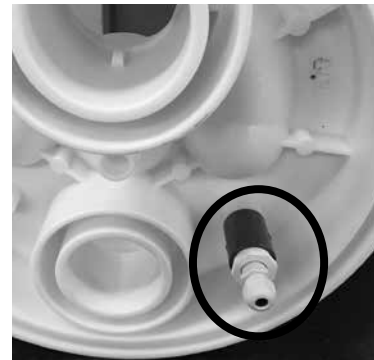


Figure 15  
Bonding Adapter Location

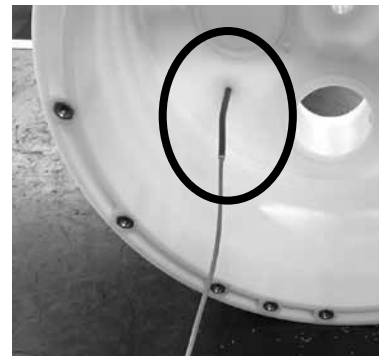


Figure 16  
Bonding wire inserted through jet housing



Figure 17  
Connection to bonding lug on stainless steel handles

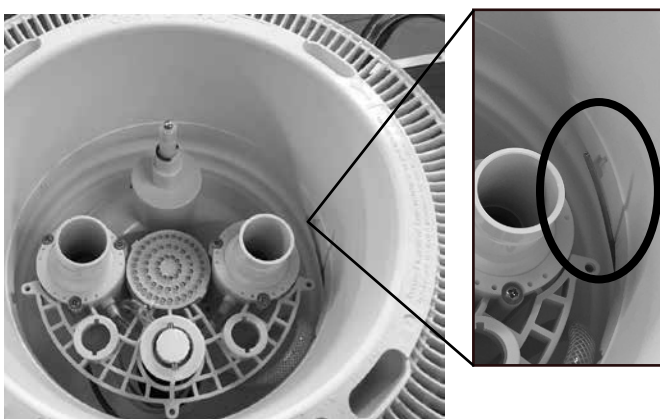


Figure 18  
Bonding wire after suction housing installation



Figure 19  
Connection to bonding lug on stainless steel cover



## Final Assembly

1. Insert the o-ring (part# 62) in the jet housing as shown in Figure 20.

2. Start the ten (10) nozzle housing tapping screws (part# 61) into the pre-assembled nozzle housing (part# 102.1). Place the nozzle housing at the main jet housing.

3. Feed both lengths of air tubing (part# 47) through the protective conduit as shown in Figure 20. Allow enough air tubing to reach the control box and air buttons. Excess can be trimmed upon installation. Mark each end with a marker. (P = Pump & L = Light.)

4. Fasten the internal air regulator hose (part# 4) to the hose nipple inside the jet housing using the hose clamp (part #9).

5. Route the air tubing through the air button openings of the nozzle housing. *NOTE: Light ON/OFF button is on the left and the pump ON/OFF button is on the right.*

6. Align the complete nozzle housing to the main jet housing and fasten the ten (10) pre-assembled tapping screws. All screws should be **HAND TIGHT**. **DO NOT** use drills or pneumatic tools. **DO NOT** over tighten!

7. Place the anti-entrapment suction cover (part# 93) against the clamping ring (part# 28) and fasten with four (4) M8 washers (part# 94) and four (4) M8 x 20 suction cover screws (part# 95). All screws should be **HAND TIGHT**. **DO NOT** use drills or pneumatic tools. **DO NOT** over tighten! Make sure the UP label is in the correct position (See Figure 21).

**WARNING: DO NOT** use or operate the BaduJet Imperial if the anti-entrapment cover is missing, broken, or loose.

8. Align the stainless steel cover (part# 93.1) with its mounting tabs to the existing notches of the anti-entrapment suction cover (part# 93). To fasten the cover use a screwdriver to bend the two (2) offset tabs outwards towards the suction housing notches. (See Figure 21)

9. Guide the air tubing through the two (2) bottom openings of the light cover (part# 110). *NOTE: Light ON/OFF button is on the left and the pump ON/OFF button is on the right.* Align the light cover with the nozzle housing and secure with four (4) light cover tapping screws (part# 112). (See Figure 22)

10. Slide one (1) o-ring (part# 37) onto each air button. Fasten each length of air tubing to the corresponding buttons using the hose clamps (part# 48). Insert the two (2) air buttons through the light cover and into the nozzle housing and lock them by turning them clockwise until they "click" into place.

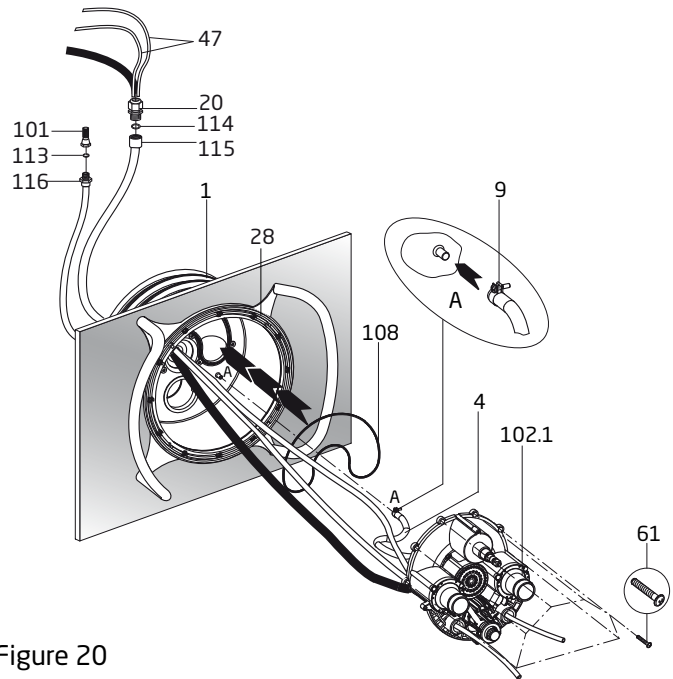


Figure 20

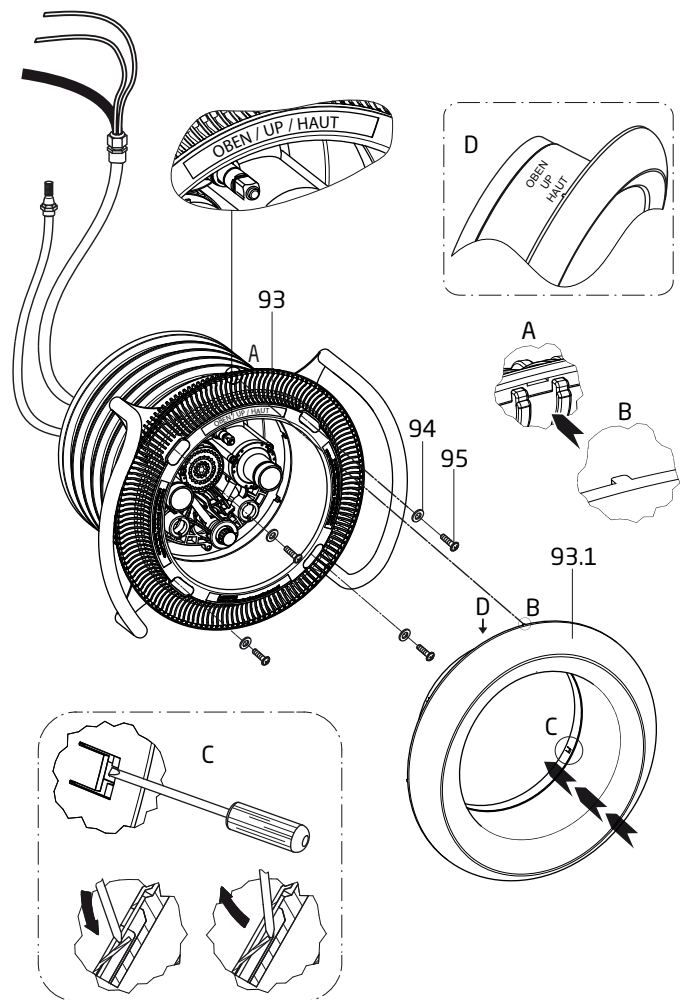


Figure 21  
Installation of Suction Housing and Stainless Steel Cover

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## Final Assembly - continued

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11. Mount the volume control knob (part# 21.1) and air regulator knob (part# 111) by means of a rubber mallet and a protective cloth. (See Figure 23)

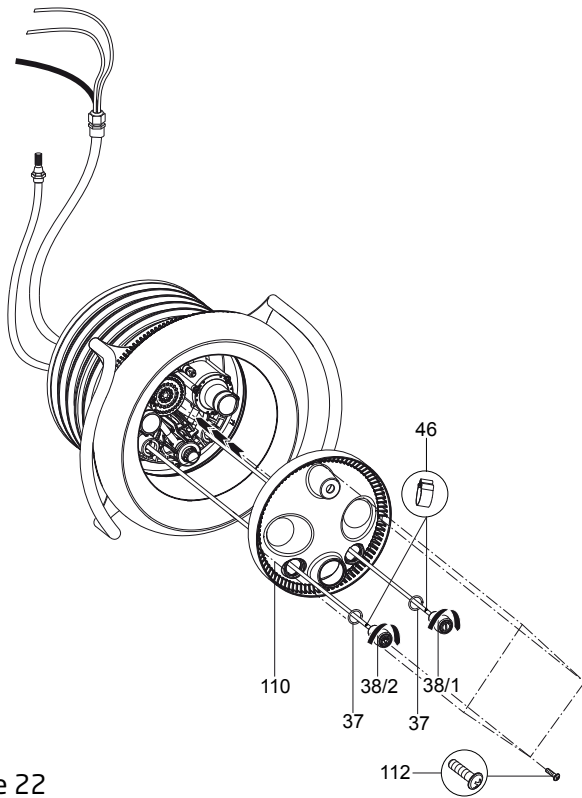


Figure 22  
Installation of Light Cover

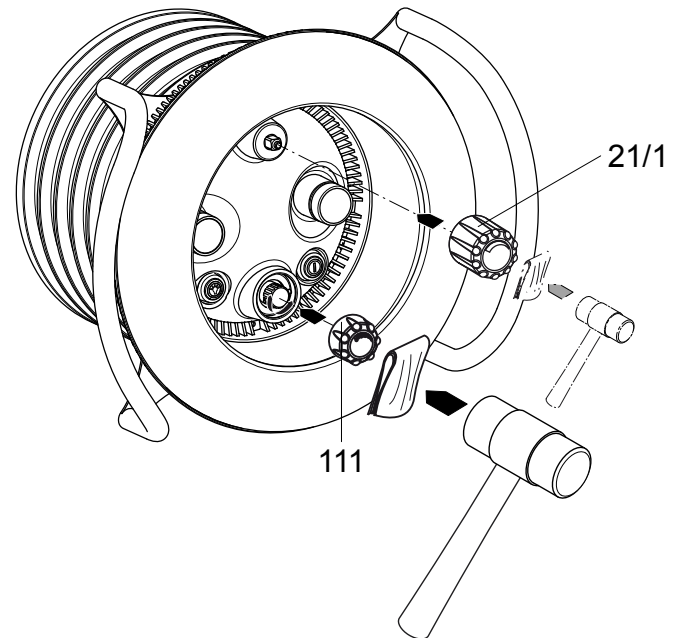


Figure 23  
Installation of Knobs

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## Electrical Installation

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**WARNING:** The wiring of the pool motor and control box should be done by a licensed electrician in accordance with all local, state, and federal codes. Be certain that the motor frame and control box are grounded. Motor name plate has voltage, phase, amp draw, and other motor information as well as wiring connection instructions.

This section concerns the electric motor, control box, and metal parts of the BaduJet Imperial.

**CAUTION:** Before installing the Speck Pump, read the entire pump owner's manual found in the pump box.

Consult local codes for minimum distance between pump and pool. Locate pump as close to the pool as practical.

**CAUTION:** There is 30 ft. of air tubing for the air buttons as well as 30 ft. of cable for the LED light included with the BaduJet Imperial. The control box should be installed within this distance of the jet housing. If a longer distance is required, please contact the factory regarding the use of smaller diameter air tubing.

**BONDING:** As required by the National Electrical Code, the electric pump motor, stainless steel handles, and stainless steel cover must be electrically bonded to the pool structure (reinforced bars, etc.) by a solid copper conductor not smaller than No. 8 AWG. Bonding lugs are provided on the electric pump motor, stainless steel handles, and stainless steel cover. A 3ft length of 8 AWG insulated solid wire (10" of insulation stripped back) is provided with the swim jet. Refer to the *Bonding Instructions* section on pages 16 for installation.

**CAUTION:** The strain relief **MUST** be completely tight around the bonding wire. The BaduJet Imperial **WILL LEAK** if this strain relief is left loose!

## Electrical Installation - continued

**GROUNDING:** Permanently ground the pump motor and control box using a conductor of appropriate size.

- **Pump Motor:** Connect to the No. 10 green headed ground screw provided inside the motor terminal box.
- **Control Box:** Connect to the aluminum grounding terminal strip on the inside of the control box enclosure.

**CAUTION: DO NOT** connect to electric power supply until the unit is permanently grounded.



Power from main panel (230 VAC):  
Neutral, Line 1, Line 2

Power to pump motor (230 VAC):  
Load 1, Load 2

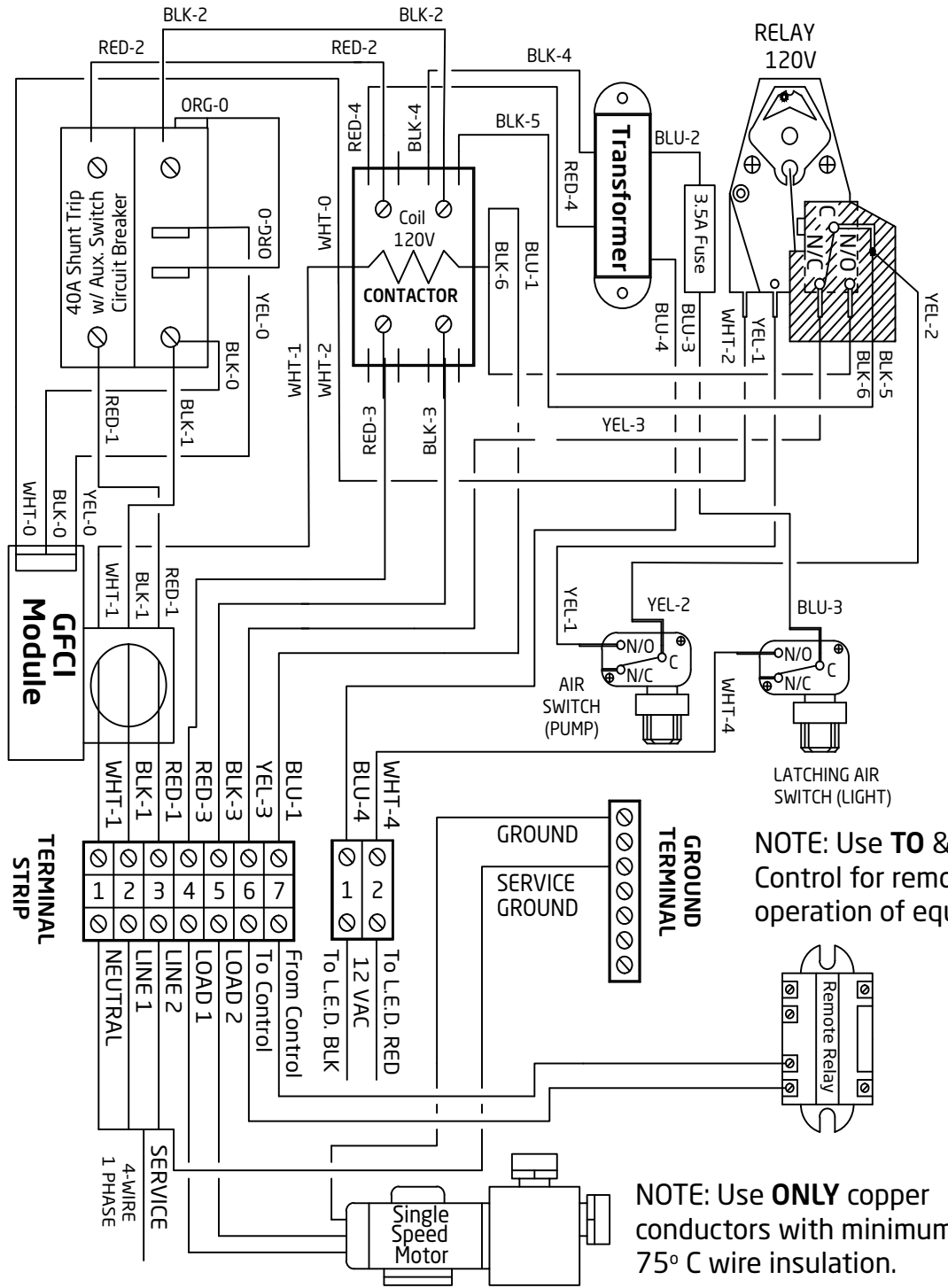
Connection to remote relay  
(120 VAC)

Connection to LED Light  
(12 VAC)

Ground connections from  
main panel and pump motor

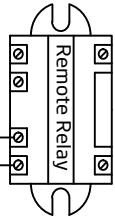
Figure 24  
Control Box Wiring Connections

# Electrical Installation - continued



TORQUE DATA	
Wire Range	Torque in.-lbs.
14-10 CU	7
8 CU	10

NOTE: Use **TO & FROM** Control for remote operation of equipment.



NOTE: Use **ONLY** copper conductors with minimum 75° C wire insulation.

## BJC RATING

1-Circuit 28 Amps
208-240 Volts
60 Hz, 1 Phase
4-Wire Service
GFCI Protected
ON/OFF Controls

07/03/2014

Figure 24A  
Control Box Wiring Connections

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# 4 Service and Maintenance

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## Stainless Steel

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Stainless Steel can provide an outstanding combination of aesthetic appeal, corrosion resistance, strength, durability, and cleanability, and they are commonly used for a wide range of indoor and outdoor pool applications, including ladders, handrails, diving platforms, and slide assemblies. These components are frequently still structurally sound and aesthetically pleasing after more than 25 years of service.

The BaduJet Imperial is made from high grade 316L polished stainless steel, often referred to as marine grade. It is ideal for immersed in pool applications or higher temperature pool and spa applications. The following are suggestions for maintaining the BaduJet Imperial's stainless:

1. After installation and before filling of the pool, thoroughly clean all stainless parts.
2. Maintain pool water chemistry. Poor water chemistry control can damage any metal or lessen the life of the pool or equipment.
3. Muriatic acid should not be used to clean concrete or tile near stainless steel. If Muriatic Acid comes in contact with stainless steel, it should be washed off and neutralized immediately.
4. Carbon steel wool or wire brushes should never be used for cleaning stainless.
5. Super chlorination (Shocking) should only be performed when necessary. High levels of chlorination can be minimized or eliminated through careful water management.
6. When shocking the pool, the pump should be maintained on its highest speed until chlorine levels return to normal.
7. If the pool level is dropped, and the swimjet is exposed to air, hose down surfaces with fresh clean water or wipe down with fresh clean water using a sponge or lint free cloth. **DO NOT** use acid, oil based cleaners, or wax. Light staining may be removed with a water-dampened cloth or with vinegar or ammonia cleaning solutions (e.g. window and surface cleaners).
8. Pool chemicals should never be added in or around the swimjet.

With proper maintenance, the BaduJet Imperial is designed for a lifetime *of enjoyment*.

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## Nozzle Adjustment

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Each BaduJet System is provided with a set of nozzle adjustment tools. These tools will allow the user to set the jet nozzles into position for optimum performance.

When setting the nozzles for basic swimming, it is recommended that you set the nozzles in such a way that each nozzle intersects 4 feet away while breaking the surface at the same time. To help set the nozzles in position for best performance, please follow these instructions:

1. Extend the nozzle adjustment tool to full length.
2. Place each nozzle adjustment tool into the jet nozzles on the BaduJet housing.
3. Once that is complete, bring the blue nozzle tool up to where the end of the nozzle tool breaks the surface of the water. Then bring the two nozzles tools together to meet. (See Figure 25)



Nozzle Adjustment Tools

*NOTE: Though the nozzle adjustment tools are designed for outdoor use, it is advised to protect them from continuous direct heat.*

## Nozzle Adjustments - continued

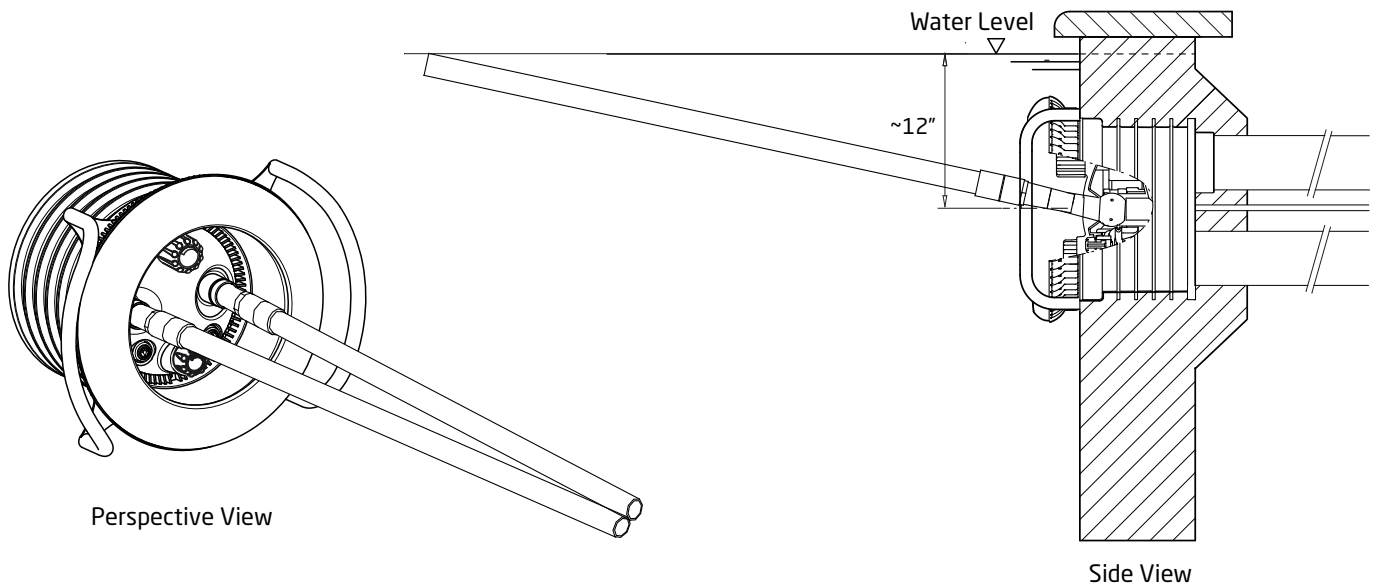


Figure 25  
BaduJet Nozzle Adjustment

## Winterizing

In areas subject to freezing water temperatures, you should protect your equipment. We recommend you purchase a winter cover kit part #2326000010K. This kit includes one (1) winter plate, one (1) gasket, four (4) M8 washers, and four (4) M8 x 30mm screws. (See Figure 27)

Also, you can protect your swimjet system as follows: Drain pool until water level has dropped below the anti-entrapment cover. (See Figure 26) Then protect pump by removing drain plug and red filler plug (if applicable).

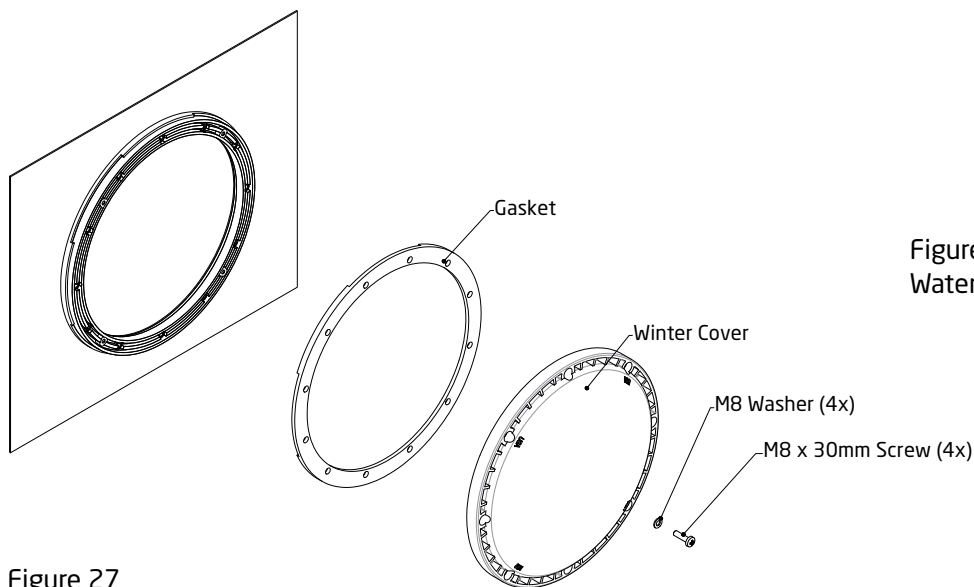


Figure 27  
Winter Cover Kit

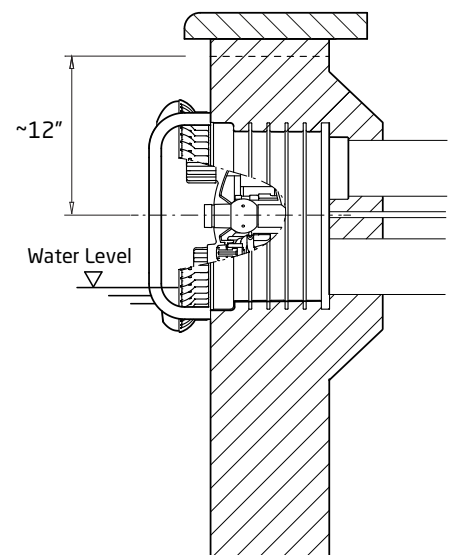


Figure 26  
Water Level when Winterizing

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# 5 Frequently Asked Questions

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## Frequently Asked Questions

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### **What size pool do I need?**

The BaduJet Imperial can be installed in any size pool. However, we recommend a minimum length of 14 ft and a minimum width of a 7 ft. swimming lane.

### **What size plumbing is necessary? How far away from the BaduJet Imperial can the pump be installed?**

Use 4" plumbing up to 30 ft. For runs longer than 30 ft use 6" plumbing. The pump should be placed as close to the BaduJet Imperial as local codes will allow.

### **How many amps does the pump operate at?**

4.0 HP: Maximum 21.0 - 19.4 Amps @ 208-230 V

### **What size breaker do I need?**

You must use a 40 amp breaker for the 4 HP pump to avoid nuisance tripping.

### **Does the LED light come in different colors?**

Yes. The LED light comes in blue or a multi-color option.

### **Does it matter if the housing is installed higher or lower than the manual states?**

Yes, the center of the jet must be 12" **BELOW** estimated water level for proper performance of unit. If installed too high, the pump will draw in air from the top of the water level. If installed too low, a good swim lane cannot be developed.

### **Can the pump be placed below water level?**

Yes. However, for best performance we recommend ordering a pump for flooded suction (Model 21-80/33G) instead of self-priming (Model 21-80/33GS). We recommend installing valves when installing below water level for ease of maintenance.

### **Do I need to install a motor starter?**

In most cases, no. All single phase pumps have built-in thermal overloads. Also, the three phase Model 21-80/33 has built-in thermal overload. Other three phase pumps require a motor starter.

### **Should the swimjet system be tied into the filter system?**

No. The swim jet system and the filter system should not be plumbed together as they each provide very specific functions.

### **Can I use it with automated controls?**

Yes. It comes with the ability to tie into automated control systems or other switching devices.

### **Is the BaduJet Imperial approved?**

Yes. The BaduJet Imperial swim jet system is listed by UL and complies with ASME standard *ANSI/ASME A112.19.8 (ANSI/APSP-16, 2011)* Standard for Swim Jet Combination Fittings, and is VGB 2008 compliant.

## Trouble Shooting

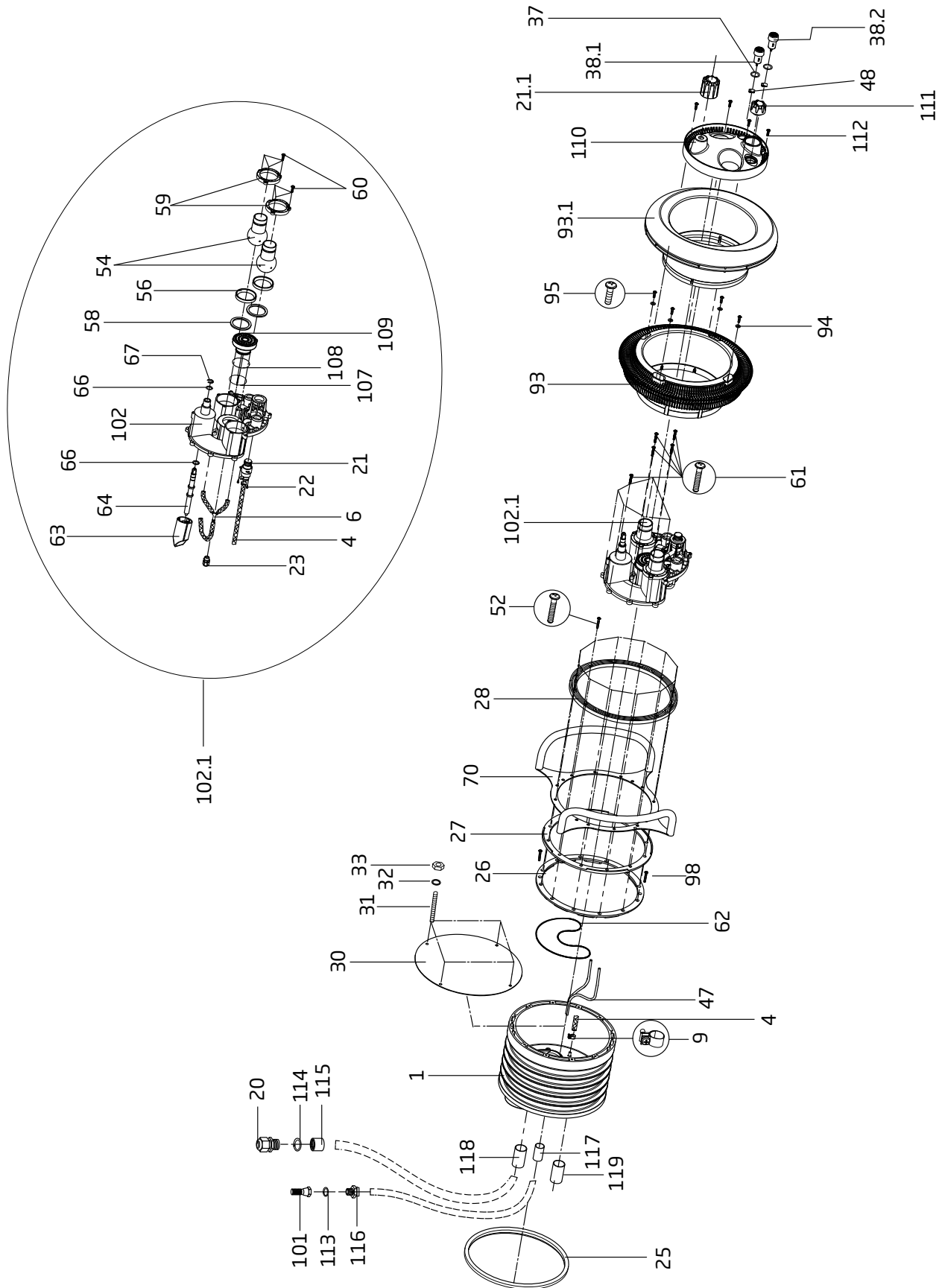
PROBLEM	POSSIBLE CAUSES	SOLUTION
1. Pump will not prime.	<p>a. Suction air leak.</p> <p>b. No water in pump.</p> <p>c. Closed valves or blocked lines.</p> <p>d. Low voltage to motor.</p>	<p>Make sure the red filler plug and o-ring are clean and properly positioned. Tighten red filler plug. Tighten all pipes and fittings on suction side of the pump. Be sure water in the pool is high enough to flow through the jet housing.</p> <p>Make sure pump housing is full of water.</p> <p>Open all valves in system. Open pump and check for clogging of impeller.</p> <p>Check voltage at motor. If low, pump will not come up to speed.</p>
2. Motor does not turn.	<p>a. No power to motor.</p> <p>b. Pump jammed.</p>	<p>Check that all power switches are on. Be sure fuse or circuit breaker is properly set. Check motor wiring at terminals.</p> <p>With power off, turn shaft. It should spin freely. If not, disassemble and repair.</p>
3. Low flow.	<p>a. No water in pump.</p> <p>b. Closed valves or blocked lines.</p> <p>c. Low voltage to motor</p>	See problem 1.
4. Noisy operation of motor.	<p>a. Bad bearings.</p>	Check for noise when shaft is turned by hand. Motor will be very hot in bearing area when running. Replace bearing.
5. Motor runs hot.	These motors will run hot to the touch, however, this is normal. They are designed that way. Thermal overload protector will function to turn them off if there is an overload or high temperature problem. Excessive heat can be caused by:	
	<p>a. Low voltage.</p> <p>b. Installed in direct sun.</p> <p>c. Poor ventilation.</p>	<p>Increase size of electrical wire. Be sure motor is operating on correct voltage.</p> <p>Shield motor from sun's rays.</p> <p><b>DO NOT</b> block motor ventilation openings.</p>
6. Noisy operation of pump.	<p>a. Air leak in suction line.</p> <p>b. Restricted suction line due to blockage or under size pipe. Indicated by high vacuum reading at pump suction.</p> <p>c. Foreign matter (gravel, metal, etc.) in pump impeller.</p> <p>d. Cavitation.</p>	<p>Repair leak. Check suction pipe, red filler plug, and o-ring (See Problem 1).</p> <p>Remove blockage or increase suction pipe size. Are all suction valves fully open?</p> <p>Disassemble pump and remove foreign matter from impeller.</p> <p>Improve suction conditions. (Reduce suction line length, reduce number of fittings, increase pipe size.)</p>



## Trouble Shooting - continued

PROBLEM	POSSIBLE CAUSES	SOLUTION
7. Motor overload protection "kicks out".	a. Motor is not connected properly. b. Low voltage due to under size wire or low incoming voltage. c. Wrong size heaters in protective device. d. Overload due to binding in pump or wrong size impeller.	Check wiring diagram on motor. Check with volt meter. Increase size of supply wire. Report low supply voltage to power company. Voltage at motor must be within 10% of motor nameplate voltage. Heaters should be one size larger than full load amps shown on motor nameplate. Indicated by high amperage readings on motor, binding shaft. Disassemble unit and correct.
8. The LED light is not working?	a. Moisture in air tubing or bad air button. b. Control Box.	Remove air tubing from air switch at control box. Connect a short piece of air tubing to the L.E.D. air switch. Blow into tube and check if L.E.D. turns on/off. Contact certified electrician to diagnose control box components.
9. The volume control knob keeps spinning?	a. Broken Spindle.	Contact the factory 800-223-8538
10. My ON/OFF air button is not working properly?	a. Control Box. b. Air tubing.	Check GFCI. If green LED does not stay ON, contact a certified electrician to diagnose control box components. Check air tubing connection on the control box. Check that the tubing is not bent or pinched. Tubing may need to be replaced.
11. The system will not turn OFF?	a. Control Box Components.	Press TEST button on the control box GFCI to turn off system. Contact a certified electrician to diagnose control box components.
12. I have the volume control knob turned completely up but the flow is weak?	a. Debris in pump casing/impeller. b. Improper swim jet assembly.	Check inside pump casing for any debris. The internals may need to be removed for inspection of the spindle.

# 6 Product Specification



## Exploded View

PART NUMBER	DRAWING NUMBER	QTY REQUIRED	DESCRIPTION
2326000002A	1	1	JET HOUSING
2302001051	4	3 FT	HOSE - AIR REGULATOR 8 x 2mm PVC CLEAR (PRICE PER FOOT)
2326000408	6	1	HOSE (3X) WITH Y- HOSE BARB
2301001008	9	2	CLAMP - HOSE, AIR REGULATOR 14/9 SS A4
2326000031	20	1	STRAIN RELIEF - LIGHT CABLE, 3/4" NPT
2321000445	21	1	AIR REGULATOR COMPLETE
2326000006	21.1	1	VOLUME CONTROL KNOB
5879812996	22	3	SCREW - AIR REGULATOR, 2.9 x 9.5 A4
5882501619	23	1	STRAIN RELIEF - LIGHT CABLE, M16 x 1.5
2326000020	25	1	ROUND SEALING CORD
2301000026	26	1	GASKET WITH KNOBS - JET HOUSING
2326000021	27	1	GASKET - CLAMPING RING
2301000028	28	1	RING - CLAMPING
2301000030	30	1	GUNITE COVER
5805510880	31	4	STUD - GUNITE COVER M8 x 80mm
5809021080	32	4	WASHER - GUNITE COVER M8
5879340800	33	4	NUT - STUD - GUNITE COVER M8 A2
2326000014	37	2	O-RING PNEUMATIC BUTTONS 24 x 3mm
2321000401	38.1	1	PNEUMATIC BUTTON COMPLETE - PUMP
2321000404	38.2	1	PNEUMATIC BUTTON COMPLETE - LIGHTS
2300202060	47	2	AIR TUBING - LIGHT/PUMP 4 x 1.5mm (PRICE PER 10M)
2302001046	48	2	CLAMP - HOSE, PNEUMATIC BUTTON 6.8 - 8mm
5879860830	52	12	SCREW - CLAMPING RING, POZIDRIV/PAN M8 x 30mm A4
2302002954	54	2	NOZZLE - 40mm
2302002056	56	2	SEAT - NOZZLE
2302002057	58	2	SPACER - NOZZLE 60 x 6.2mm
2319800817	59	2	NOZZLE FLANGE
5879006023	60	6	TAPPING SCREW - BALL NOZZLE FLANGE, 6 x 22mm A4
5879006023	61	10	TAPPING SCREW - NOZZLE HOUSING, 6 x 22mm A4
2326000013	62	1	O-RING - NOZZLE HOUSING 257 x 3mm
2326000004	63	1	VOLUME CONTROL CYLINDER
2303002964	64	1	VOLUME CONTROL SPINDLE (COMPLETE)
2302002065	66	2	WASHER - VOLUME CONTROL SPINDLE, 23 x 16.2 x1.5mm
2302002067	67	1	RETAINER - SHAFT, VOLUME CONTROL SPINDLE
2326000009	70	1	STAINLESS STEEL HANDLES
2326000007	93	1	ANTI-ENTRAPMENT SUCTION COVER
2326000029	93.1	1	COVER - STAINLESS STEEL
5871250800	94	4	WASHER - SUCTION HOUSE, M8 A4
5879860820	95	4	SCREW - SUCTION HOUSING, PHILLIPS M8 x 20mm
5879860880	95.1	4	SCREW - SUCTION HOUSING, M8 x 80mm
2991000140	98	2	SCREW - COUNTERSUNK, PHILLIPS, M8 x 30mm
5030000105	101	1	VALVE - CHECK 1/2"
2326000003	102	1	HOUSING - NOZZLE
2326000402	102.1	1	HOUSING - NOZZLE COMPLETE
3932541201	107	1	O-RING - LIGHT 48 x 2mm
2607101019	108	1	O-RING - LIGHT 49 x 3.5mm
2326000037	109	1	LIGHT LED 12V AC - WHITE, 10M
2326000005	110	1	LIGHT COVER
2321000022	111	1	AIR REGULATOR KNOB
5879006023	112	4	TAPPING SCREW - LIGHT COVER, 6 x 22mm A4
2920141230	113	1	O-RING - CHECK VALVE, 19 X 3mm
2326000032	114	1	O-RING - STRAIN RELIEF
2326000034	115	1	ADAPTOR - STRAIN RELIEF, FEMALE, PVC 3/4"
2301001030	116	1	ADAPTOR - CHECK VALVE, MALE, PVC 1/2"
5862432021	117	1	CONNECTOR - AIR REGULATION LINE M20 x 1/2"
5862432531	118	1	CONNECTOR - CONDUIT M25 x 3/4"
7300050000	119	1	ADAPTOR - BONDING
2920280729	NOT SHOWN	1	CONTROL BOX BJC-7-GFCI+CP SSII

### OPTIONAL PARTS

2326000036	109.1	1	LIGHT LED 12V AC - MULTICOLOR, 10M
2326000038	109.2	1	LIGHT LED 12V AC - BLUE, 10M
2326000010K	NOT SHOWN	1	WINTER COVER KIT
2300003000	NOT SHOWN	1	MESSAGE HOSE 5 FT. WITH PULSATOR
2300003006	NOT SHOWN	1	MESSAGE HOSE 15 FT. WITH PULSATOR
2300022000	NOT SHOWN	1	CAP - NOZZLE, CLOSE OFF

# 7 Limited Warranty

Speck Pumps-Pool Products, Inc. grants solely to the original consumer purchaser ("Buyer") of the Badu® SwimJet System(s) the following personal, non-transferable and limited warranty on the following terms and conditions (the "Limited Warranty"): the Badu SwimJet System(s) is warranted to be free of material defects in materials or workmanship under normal use for a period of one (1) year beginning on the date of the Buyer's purchase of the Badu SwimJet System(s) (the "Limited Warranty Period"). Notwithstanding any provisions herein to the contrary, the warranties and obligations hereunder shall not in any event extend for more than two (2) years beyond the date of shipment of the Badu SwimJet System(s) from the factory (the "Limited Warranty Period"). The Limited Warranty is subject to each of the following additional terms and conditions:

**1. IN THE EVENT OF ANY BREACH OF THE LIMITED WARRANTY, SPECK PUMPS-POOL PRODUCTS, INC.'S ENTIRE OBLIGATION AND LIABILITY TO BUYER, AND BUYER'S SOLE AND EXCLUSIVE REMEDY SHALL BE AS FOLLOWS:**

Speck Pumps-Pool Products, Inc. will, at its option, either repair or replace the Badu SwimJet System(s) or refund to Buyer the purchase price actually paid by Buyer for the Badu SwimJet System(s) subject to the Limited Warranty. Speck Pumps-Pool Products, Inc. shall have no obligations under the Limited Warranty unless Buyer delivers timely written notice to Speck Pumps-Pool Products, Inc. of the Limited Warranty claim within the Limited Warranty Period and returns the Badu SwimJet System(s) to Speck Pumps-Pool Products, Inc. if requested. To the fullest extent permitted by law, Speck Pumps-Pool Products, Inc. expressly disclaims any liability for, and the Limited Warranty does not include or cover, any labor, costs or other expenses in connection with the removal, transportation, shipment, insurance, replacement, repair, or installation of repaired or replaced parts or for any other costs or expenses or damages to property or things including, but not limited to, those arising in connection with the use of, or inability to use, the Badu SwimJet System(s).

2. To the fullest extent permitted by law, the Limited Warranty will be void and of no force or effect and Speck Pumps-Pool Products, Inc. will have no liability, responsibilities or obligations to Buyer or with respect to the Badu SwimJet System(s) in the event of the occurrence of any one or more of the following:

- (a) Any damage to the Badu SwimJet System(s) caused by Buyer, any third party, ground movement, other natural forces, acts of God or any other sources or causes not arising from a breach of the Limited Warranty, excluding ordinary wear and tear;
- (b) Any replacement, modification, alteration or repair of any parts or components of the Badu SwimJet System(s) by anyone other than Speck Pumps-Pool Products, Inc.;
- (c) Any abuse, misuse, accident, tampering with, improper installation or modification of the Badu SwimJet System(s) or any other actions, inactions or failures to act that violate the terms and conditions of this Limited Warranty;
- (d) Buyer's failure or inability to present an invoice, bill, receipt or other documentation clearly evidencing that the Badu SwimJet System(s) was installed and maintained in strict compliance with this Limited Warranty and that the claim was timely submitted within the Limited Warranty Period; and/or
- (e) Buyer's failure to comply with the conditions and contingencies set forth in paragraph 3 below.

3. The Limited Warranty is expressly conditioned and contingent upon Buyer's strict compliance with each of the following:

- (a) Installation of the Badu SwimJet System(s) by an experienced and qualified pool industry professional and a licensed electrician who is licensed within the jurisdiction in which the Badu SwimJet System(s) is installed and will be used; and
- (b) Buyer's operation and maintenance of the Badu SwimJet System(s) in strict accordance with Speck Pumps-Pool Products, Inc.'s printed operator/maintenance manuals delivered with the Badu SwimJet System(s).

**4. DISCLAIMER: THE LIMITED WARRANTY IS THE ONLY WARRANTY MADE AND IS IN LIEU OF ALL OTHER WARRANTIES, AND ANY AND ALL IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, AND THE IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED IN THEIR SCOPE AND DURATION TO THE ONE YEAR TERM OF THE LIMITED WARRANTY SET FORTH HEREIN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO THE BUYER.**

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## Limited Warranty - continued

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**5. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL SPECK PUMPS-POOL PRODUCTS, INC. OR ITS OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS, OR REPRESENTATIVES BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OR LOSS, INCLUDING TIME, MONEY, GOODWILL, AND LOST PROFITS IN ANY WAY WHICH MAY ARISE HEREUNDER OR FROM THE USE OF OR INABILITY TO USE THE BADU SWIMJET SYSTEM(S) OR THE PERFORMANCE OR NONPERFORMANCE OF ANY OBLIGATION UNDER THIS LIMITED WARRANTY. THIS PARAGRAPH, THE WARRANTY DISCLAIMERS IN PARAGRAPH 4 ABOVE, AND THE SOLE AND EXCLUSIVE REMEDY SET FORTH IN PARAGRAPH 1 ABOVE SHALL APPLY EVEN IF SPECK PUMPS-POOL PRODUCTS, INC. HAS BEEN NOTIFIED OF THE POSSIBILITY OR LIKELIHOOD OF SUCH DAMAGES OCCURRING, WHETHER SUCH LIABILITY IS BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, PRODUCTS LIABILITY OR OTHERWISE, AND EVEN IF ANY REMEDY STATED HEREIN FAILS OF ITS ESSENTIAL PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OR LOSS, SO THE ABOVE EXCLUSIONS AND LIMITATIONS MAY NOT APPLY.**

6. This Limited Warranty gives the Buyer specific legal rights, and the Buyer may also have other rights, which vary from state to state.

7. A return merchandise authorization ("RMA") must be obtained from Speck Pumps-Pool Products, Inc. before returning any product. Products returned without an RMA will be refused and returned, unopened, to the Buyer. All returned products are to be sent freight prepaid and insured for Buyer's protection to the manufacturer at 8125 Bayberry Road, Jacksonville, Florida 32256 USA. Under no condition will products be accepted after the expiration of the Limited Warranty Period. Speck Pumps-Pool Products, Inc. shall not bear any costs or risks incurred by Buyer in shipping a defective Badu SwimJet System(s) to Speck Pumps-Pool Products, Inc. or in shipping a repaired or replaced Badu SwimJet System(s) to Buyer.

