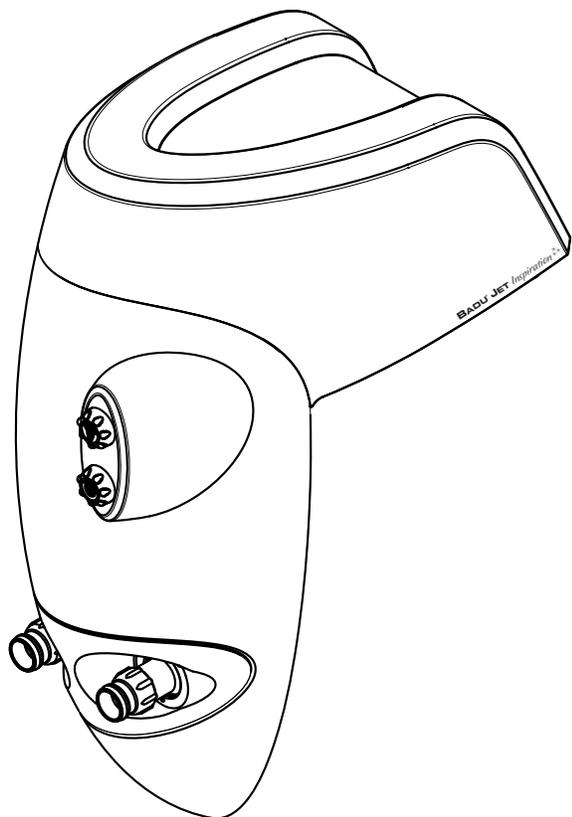


Installation, Operation, and Service Manual

BADU[®] JET *Inspiration*

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

Manufactured by Speck Pumps, Jacksonville Florida USA, © 2014 All Rights Reserved.
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 to potential personal injury hazards. Obey all safety messages to avoid possible injury or death or damage to equipment.

Date of Installation:	
Installed by:	
Serial Number:	
For Service Call:	

Table of Contents

1	<i>Important Safety Instructions</i>	4
	Manufacturers Warnings	4
	General Safety Instructions	5
2	<i>General Description</i>	7
3	<i>Installation Information</i>	7
	Preparation Guide	7
	Planning	8
	Installation (In-Ground Pools)	8
	Installation (Above-Ground or On-Ground Pools)	10
	Electrical Installation	11
4	<i>Operation</i>	12
	Initial Start-Up	12
	Operation	13
5	<i>Service and Maintenance</i>	14
	Pump Service and Maintenance	14
	Mechanical Seal Replacement	14
	Model 21-80/33GI Motor Replacement	16
	Nozzle Adjustment	17
	Winterizing	18
6	<i>Troubleshooting</i>	18
	Frequently Asked Questions	18
7	<i>Product Specification</i>	19
	Replacement Parts and Exploded View	19
8	<i>Limited Warranty</i>	21

BaduJet Inspiration Certifications



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

VGB 2008

1 Important Safety Instructions

Manufacturers Warnings

Attention Installer: This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment.

WARNING: *This product must be installed and serviced by a qualified pool professional, and must conform to all national, state, and local codes.*

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 (800) 223-8538 or visit www.usa.speck-pumps.com for additional copies of these instructions.*

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1. **READ AND FOLLOW ALL INSTRUCTIONS**

2. **WARNING:** *To reduce the risk of injury, **DO NOT** permit children to use this product unless they are closely supervised at all times.*

3. **TO REDUCE THE RISK OF ELECTRICAL SHOCK,** *A copper bonding connector is provided for bonding the motor to all metal parts of the swimming pool structure and to all electrical equipment, metal conduit, and metal piping within 5 feet of the inside walls of the swimming pools.*

4. **DANGER:** *Risk of injury: If the cord provided with the unit is damaged, it should be replaced **IMMEDIATELY**. **DO NOT** bury the cord. Connect the cord to a grounded, grounding type receptacle only.*

5. **CAUTION:** *This product is for use with permanently-installed pools. **DO NOT** use with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity*

6. **WARNING:** *This product is provided with a ground-fault circuit-interrupter on the electrical cord. The GFCI must be tested before each use. With the product operating, push the **TEST** button on the GFCI. The unit will stop operating. Now push the **RESET** button on the GFCI. The product should now operate normally. If the product fails to operate in this manner, there is a ground current flowing indicating the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.*

7. *Never exceed the maximum flow rate stated on this product (277 GPM).*

8. **DO NOT** *locate this product in seating areas or on the back rests for such seating areas.*

9. *This unit should be mounted only per manufacturer's instructions.*

10. *All fittings and fasteners should be examined for damage or tampering before each use.*

11. *Any missing, broken, or cracked fittings must be replaced before using this product. Only genuine Speck replacement parts may be used.*

12. *All covers must be securely in place when using this product. **DO NOT** use this product if either cover is missing, loose, or damaged.*

Manufacturers Warnings - continued

13. Consult your physician before exercising with the BaduJet Inspiration or using the massage hose.
14. **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.
15. 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.

NOTE: To the installer and/or operator of the Speck SwimJet System; the manufacturer's warranty will be voided if this product is improperly installed and/or operated.

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.

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 16-2011 standards and safety regulations as set forth by the Consumer Products Safety Commission.

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

General Safety Instructions

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.

General Safety Instructions - continued

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 the 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.

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

- (A) A multiple main drain system without isolation capability, or a single (VGB 2008 compliant) unblockable 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.

WARNING: Risk of Electrical Shock or Electrocution



The swimjet system 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 swimjet system 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.

2 General Description

BADU® JET *Inspiration*☆☆

The BaduJet Inspiration from Speck Pumps is the perfect addition to existing in-ground pools as well as new installations and even above-ground pools. The system features dual swimjets for optimal swim against the current action, no-impact aquatic exercise, water massage and fun for the entire family. The BaduJet Inspiration is a jet-propulsion system that pumps water into the pool creating a current in excess of 5,700 gallons per minute, measured 6 ft. from the jet nozzles. 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

Preparation Guide

1. Upon receipt of the swimjet system, check the carton for damage. Open the carton and check all parts for concealed damage, such as cracks or dents. If damage is found, contact the shipper or distributor where the swimjet was purchased.

2. Inspect the contents of the carton and verify that all parts are included. All parts are manufactured of corrosion-resistant material and combined in one housing which can be installed in pools of any size and shape. (See *Figure 1*)

A. Two-piece body is molded of a heavy duty ABS plastic immune to chemicals and environmental abuse, to provide a rugged and attractively styled water treadmill.

B. Adjustable water flow jet nozzles.

C. Speck 4 HP self-priming, plastic pump, single phase with thermal overload (*no motor starter required*). (*Not Shown*)

D. Control Box with 15 ft. GFCI cord and twist-lock plug. (*Not Shown*)

E. Pneumatic LED (ON/OFF) button guarantees complete electrical separation between pool water and control box.

F. Pneumatic pump (ON/OFF) button guarantees complete electrical separation between pool water, pump motor and control box.

G. Air Regulator (OPEN/CLOSE) knob permits a controlled mixture of air into the water flow and creates a unique, invigorating, bubble effect. It will also add additional resistance to swim against.

H. Massage Hose with pulsator may be attached to jet nozzle. (*Not Shown*) (*NOTE: The massage hose is sold separately.*)

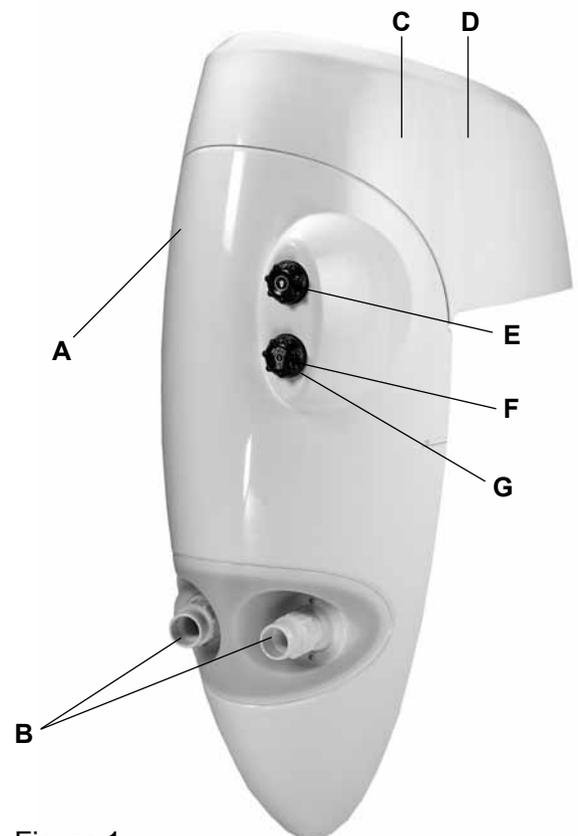


Figure 1

Planning

The BaduJet Inspiration can be installed in any size pool. We suggest a minimum pool size of 7 ft. wide, 14 ft. long and 3½ ft. deep in order to swim. Most swimmers prefer 16 ft. in length or longer. The extra length allows the swimmer to comfortably drift back and swim up stream. (NOTE: This unit should be mounted only per these instructions. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage.) The BaduJet Inspiration contains all necessary hardware for mounting the unit to the deck. Mounting the BaduJet Inspiration may vary with each installation. The center line of the nozzles should be 10" to 13" below the water level for maximum efficiency.

WARNING: DO NOT locate the jet housing in seating areas or on the back rests for such seating areas.

CAUTION: All necessary screws and bolts included with the BaduJet Inspiration are stainless steel. All screws should be **HAND TIGHT**. **DO NOT** use drills or pneumatic tools. **DO NOT** over tighten!

The 4 HP, self-priming, plastic pump has a single phase motor with thermal overload (no motor starter required). The 4 HP single phase motor draws a maximum of 19.4 amps @ 230V. The unit requires a minimum circuit of 30 amps. Install a 40 amp breaker to avoid nuisance tripping when pump is turned ON and OFF frequently. The starting current of the 4 HP motor can reach up to 6 times the running currents.

WARNING: A licensed electrician is required for ALL wiring connections.

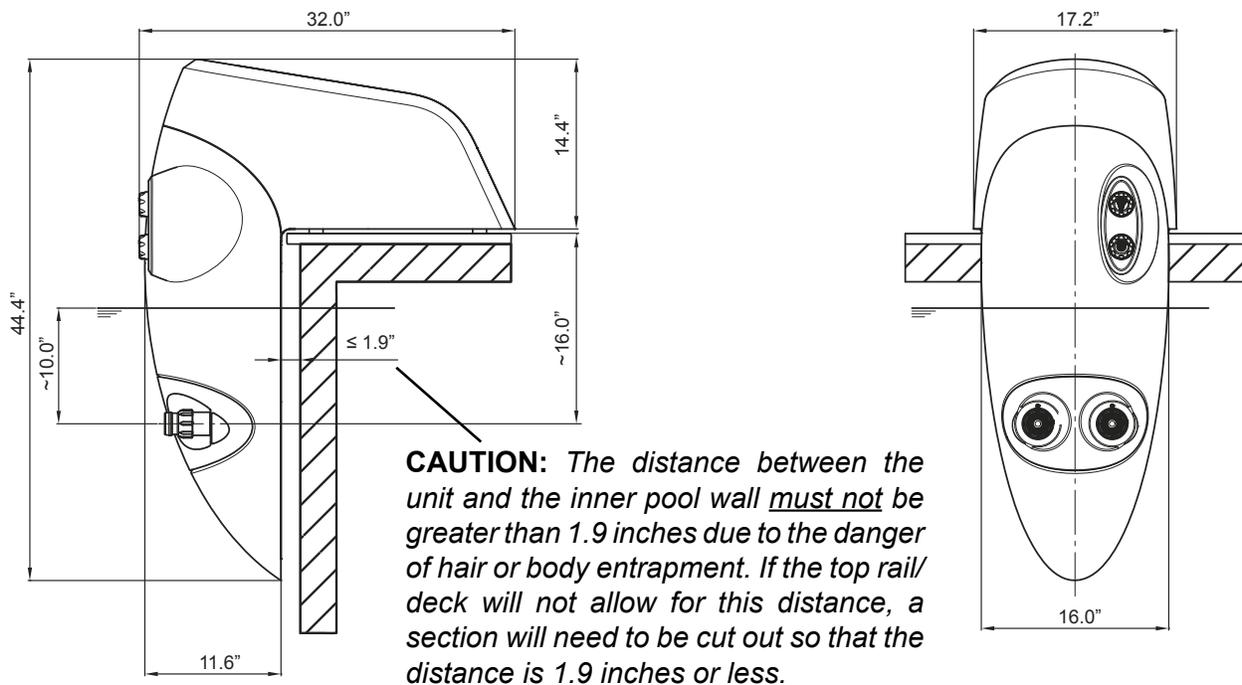


Figure 2 - Dimensional Drawing

Installation (In-Ground Pools)

WARNING: The BaduJet Inspiration is heavy and a compact design. The unit weighs 100 lbs and will require a two person crew to position. **DO NOT** lift unit by the jet nozzles. **DO NOT** lift by the pump motor. **DO NOT** drop the unit into the pool.

The BaduJet Inspiration contains all necessary hardware for mounting the unit to the deck. Mounting the BaduJet Inspiration may vary with each installation.

- Decks with coping: The coping or a portion thereof may have to be removed where the unit will be installed.

Installation (In-Ground Pools) - continued

- Brick decks: A section of the brick has to be removed and replaced with concrete, to provide a solid anchor for the unit.
- Wooden decks: The BaduJet Inspiration has to be bolted all the way through the wood. (*Hardware not provided for this installation*).

For pools that have approximately 7" between the top of the deck and the water level.

1. Remove the top cover from the BaduJet Inspiration. There are two (2) #10-24 phillips head screws securing the cover to the base.
2. Remove the clear protective film from the front cover.
3. Place the BaduJet Inspiration on the deck where it is going to be mounted. (*NOTE: The center line of the nozzles should be 10" to 13" below the water level for maximum efficiency.*) Use the holes in the BaduJet Inspiration base as a template to locate the anchor holes. Once the holes are marked for drilling remove the unit.

NOTE: Brick and coping may need to be removed and replaced with concrete. Attempt to keep the unit level.

4. Using the masonry bit that is provided, drill the mounting holes. (*NOTE: Drill hole in concrete 1-1/4" deep.*)

5. Press the M8 pool deck anchor (part# 25) into the pre-drilled hole.

6. Install the four (4) rubber mounts (part# 26) into the four (4) M8 pool deck anchors (part# 25). Tighten down completely. (*See Figure 3*)

NOTE: The standard for pool decking is 1/4" slope per foot away from the pool. If the slope from the front anchors to the back anchors is 1", compensate by installing the rubber mounts in the back and fastening the front of the unit directly to the deck (no rubber mounts) using two (2) M8 x 40mm hex-head bolts (not included).

7. Place the unit on the rubber mounts or on deck if rubber mounts cannot be used. Install the 8.4 x 24mm washer (part# 30), 8.4mm lock washer (part# 31), and bolts. If using the rubber mounts, install M8 x 25mm hex-head bolts (part# 32). If you are not using the rubber mounts, install the M8 x 40mm bolts. (*See Figure 4*)

For pools that have approximately 3" - 5" between the top of the deck and the water level requires a customizing kit with spacers to raise the BaduJet Inspiration. Please call for optional lift kit.

8. Turn the pool wall adjusting screw (part# 23/1) to level the BaduJet Inspiration.

9. Continue to Initial Start-Up Section on page 12.

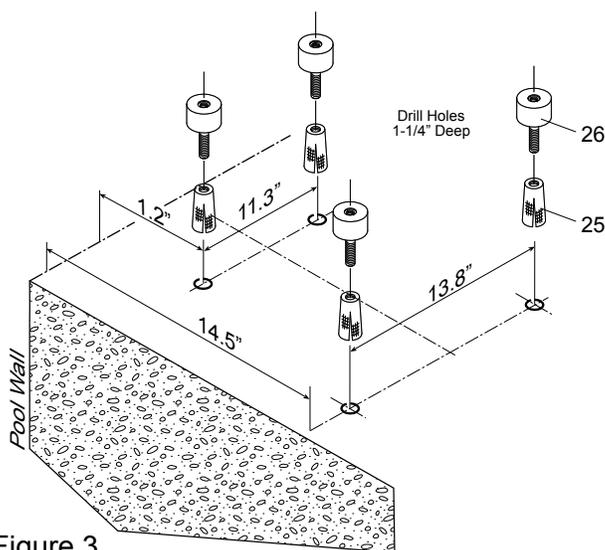


Figure 3

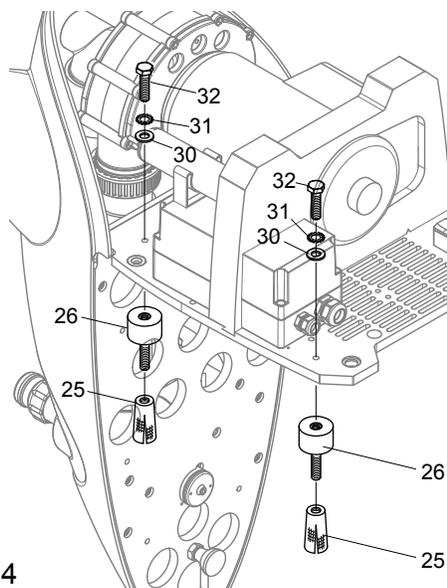


Figure 4

Installation (Above-Ground or On-Ground Pools)

WARNING: The BaduJet Inspiration is heavy and a compact design. The unit weighs 100 lbs and will require a two person crew to position. **DO NOT** lift unit by the jet nozzles. **DO NOT** lift by the motor. **DO NOT** drop the unit into the pool.

CAUTION: The distance between the unit and the inner pool wall must not be greater than 1.9 inches due to the danger of hair or body entrapment. If the top rail will not allow for this distance, a section will need to be cut out so that the distance is 1.9 inches or less.

If the BaduJet Inspiration can be installed on an existing deck, please use the installation instructions for in-ground pools. In the event that the unit cannot be installed on an existing deck, an optional telescoping installation kit can be purchased (See Figure 5). Adjustable from 30.5" to 54.75", it allows for proper support over an above-ground pool wall. Below are the instructions for installation with the telescopic support.

NOTE: A small concrete pad will need to be installed at the pool wall for support of the telescoping unit support. The concrete pad needs to be at least 4" thick and level.

1. Determine the location for the swim jet on the pool wall.
2. Install small concrete pad at pool wall location. (**NOTE:** The concrete needs to be fully cured before installation)
3. Remove top cover from the BaduJet Inspiration. There are two (2) #10-24 phillips head screws securing the cover to the base (one on each side).

4. Install the telescopic support to the base of the BaduJet Inspiration using four (4) M12 x 35mm hex-head bolts (part# 49/2), four (4) 13mm lock washers (part# 49/3), and four (4) 13mm washers (part # 49/4). The telescopic safety support mounts to the four threaded holes in the center of the base. At this time the telescoping support should be set at its shortest length.

5. Rest the BaduJet Inspiration over the pool wall on the top rail. Ensure that the distance between the inner pool wall and the unit is not greater than 1.9 inches. Cut out a section of the top rail if needed. (In most installations, the top rail extends to the outside of the pool wall and will not need to be trimmed.)

6. Have one person hold the BaduJet Inspiration in place while the other extends the telescoping support to the concrete pad. Tighten the three bolts on the telescoping support and check for level. If level, tighten the three nuts to lock the telescoping support in place.

NOTE: Before marking holes, ensure that the swimjet is level, properly positioned, and the correct distance from the inside of the pool wall.

7. Have one person hold the BaduJet Inspiration in place while the other places two (2) drill marks on the top rail. There should be one mark on each side of the BaduJet Inspiration using the holes provided in the base. Be sure that the marks are in a place on the top rail that will allow space for M8 x 50mm bolts.

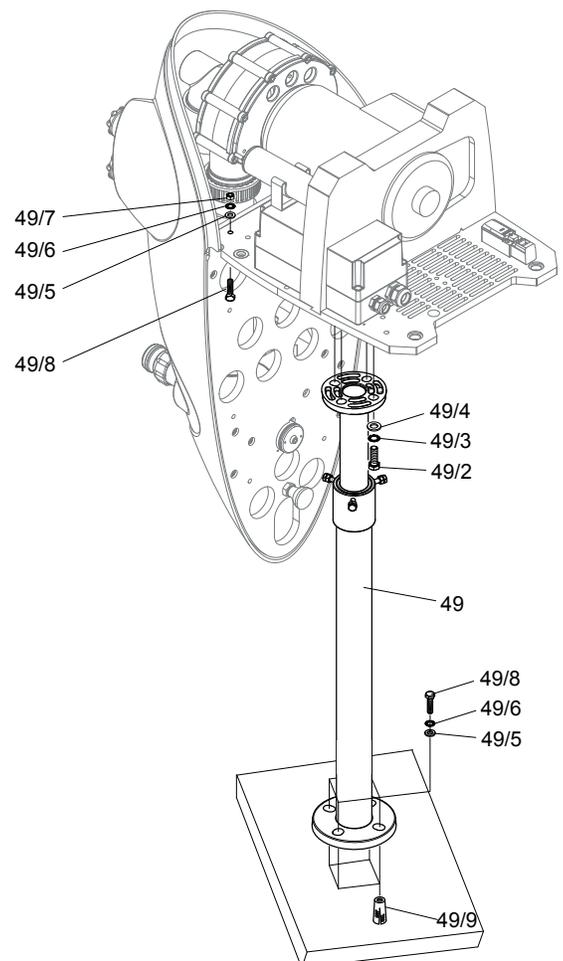


Figure 5 - Mounting in an above-ground pool

Installation (Above-Ground or On-Ground Pools) - continued

- Place drill marks on the concrete pad using the four (4) holes in the base of the telescoping support.
- Remove the BaduJet Inspiration or slide to one-side and drill two (2) M8 (9/32") holes at the marks in the top rail. Make sure you support the telescoping leg if you move the Inspiration to the side. Drill the holes in the concrete pad with the 3/8" concrete bit provided to 1 1/4" depth.
- Place the BaduJet Inspiration back over the top rail or carefully slide it back into place. Install the two (2) M8 x 50mm bolts (part# 49/8), four (4) 8.4mm washers (part# 49/5), two (2) 8.4mm lock washers (part# 49/6), and two (2) M8 nuts (part# 49/7). **DO NOT** over tighten the bolts or you may damage the top rail.
- Insert the four (4) M8 concrete anchors into the holes. Fasten the base of the telescopic safety support with four (4) M8 x 50mm bolts (part# 49/8), four (4) 8.4mm lock washers (part# 49/6), and four (4) 8.4 x 24mm washers (part# 49/5).
- Continue to the Initial Start-Up Section on page 12.

Electrical Installation

The BaduJet Inspiration requires a 208-230V twist lock receptacle.

WARNING: ALL WIRING FOR NEW OUTLETS OR ANY CHANGES IN WIRING TO THE BADUJET INSPIRATION MUST BE COMPLETED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES.

WARNING: UNPLUG THE GFCI CORD before servicing the control box. Serious injury or death may occur due to electric shock.

The BaduJet Inspiration includes a 15 ft. cord with GFCI and twist-lock plug. If necessary, the cord may be cut shorter using the following instructions:

- Measure the amount of cord to be cut.
- Open the control box and disconnect Line 1, Line 2, and Ground. See Figure for the control box wiring diagram. Loosen the liquid tight strain relief for the electrical cord.
- Pull the amount of cord to be cut through the strain relief and toward the control box.
- Cut excess cord at the control box. Strip back wire insulation and install Line 1, Line 2, and Ground using Figure 6 Replace the control box cover.

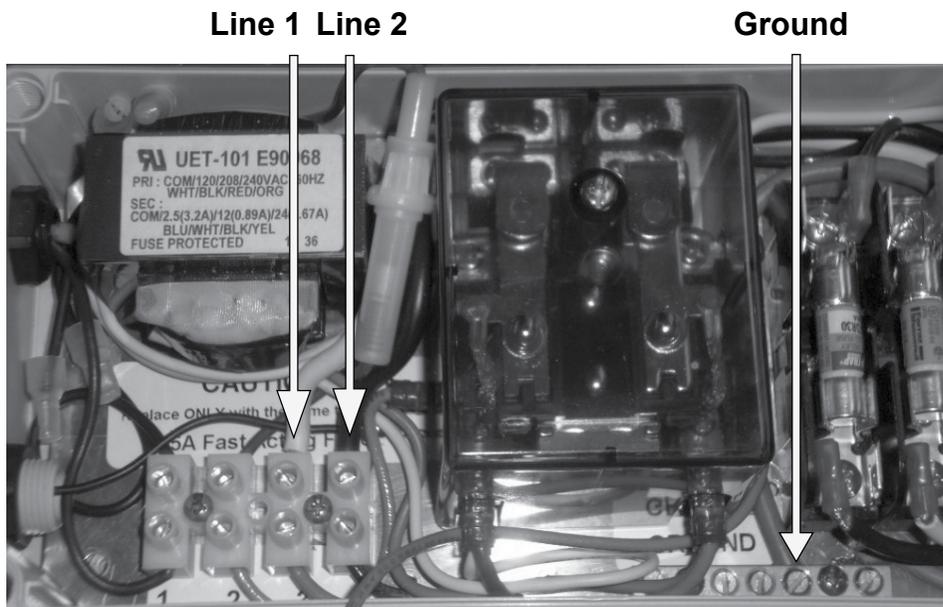


Figure 6 - Control Box Wiring - Image

Electrical Installation - continued

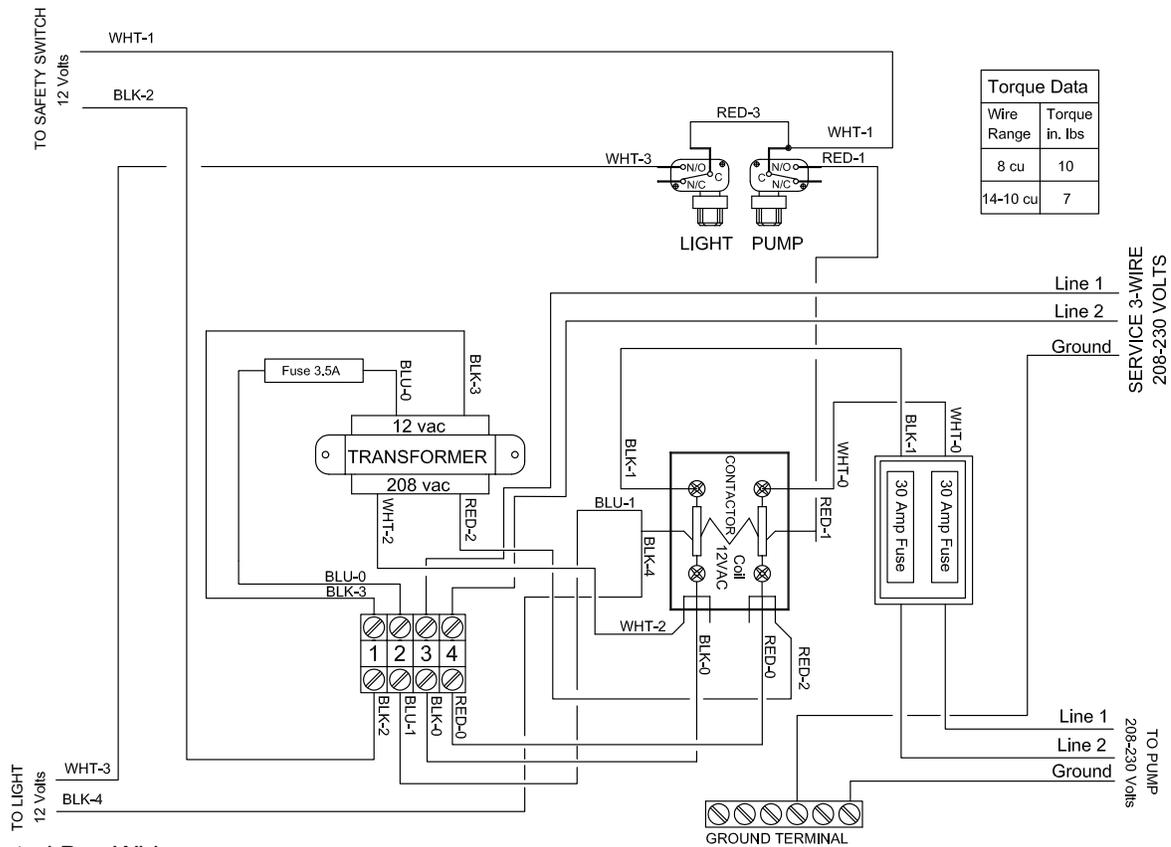


Figure 7 - Control Box Wiring

4 Operation

Initial Start-Up

WARNING: DO NOT use or operate the BaduJet Inspiration if any parts are missing or damaged.

CAUTION: Consult your physician before attempting any strenuous exercise. This product may not be challenging or satisfying for all levels of exercise.

CAUTION: The pump **MUST** be primed before starting the BaduJet Inspiration for the first time. **DO NOT** run the pump dry. If the pump is run dry, the mechanical seal will be damaged and the pump will start to leak at the seal. If this occurs, the mechanical seal will need to be replaced. **ALWAYS** maintain the proper water level in your pool. Continued operation in this manner could cause a loss of pressure, resulting in damage to the pump casing, impeller, and mechanical seal.

1. Remove the top cover from the BaduJet Inspiration. There are two (2) #10-24 phillips head screws securing the cover to the base.
2. Locate the hand pump (part# 57). Attach the tube of the hand pump to the air purge valve on the pump. (See Figure 8)
3. Turn the air purge valve counter clockwise to open.
4. Pump until water flows out.

Initial Start-Up - continued

5. Close air purge valve clockwise and remove the hand pump. Re-attach hand pump to the bracket on the control box.

NOTE: The air purge valve must be closed during operation to prevent any air being sucked into the pump.

6. Replace cover and screws. (See Figure 9)

NOTE: When replacing the cover make sure that the key snaps into place over the safety switch.

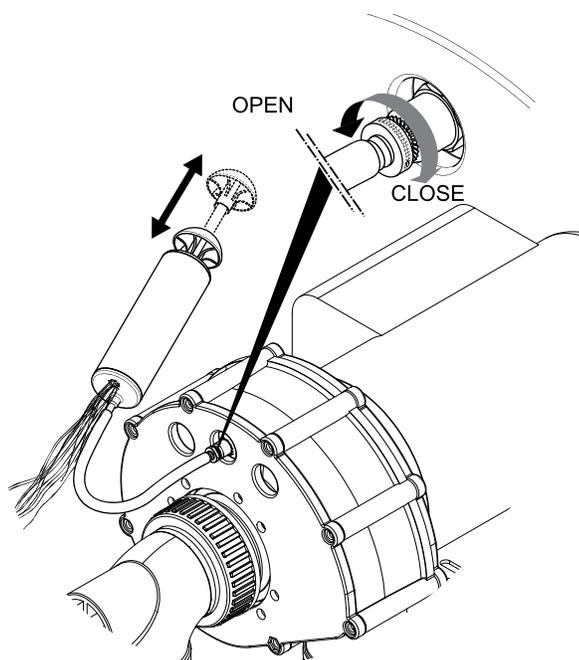


Figure 8 - Priming Pump

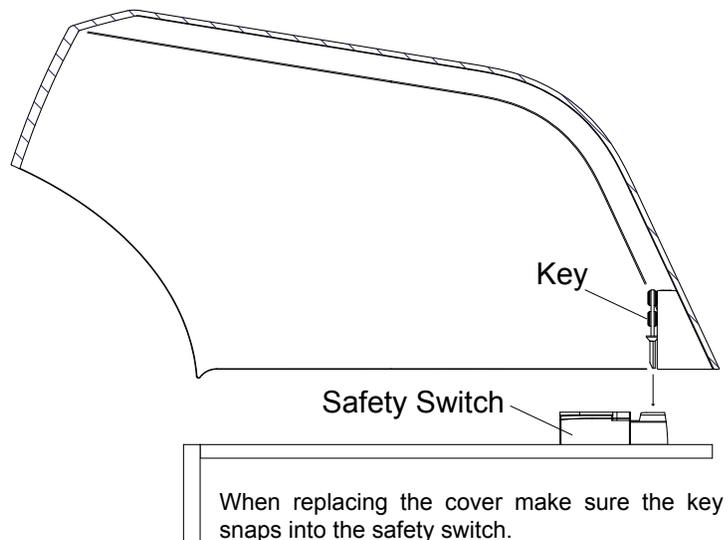


Figure 9 - Lid Cover

Operation

Turning the BaduJet Inspiration ON and OFF

Switching the pump and LED light ON/OFF is done by pressing the pneumatic buttons on the front of the unit. (See Figure 10) *NOTE: The pneumatic ON/OFF button guarantees complete separation between pool water and the pump motor control.*

To start swimming, jogging or running it is suggested that the two nozzles are pointed slightly inward and slightly upward so that the water “breaks” approximately 4 ft. in front of the BaduJet Inspiration. (See Section 5 - Nozzle Adjustment)

Start swimming with only minimal force in arms and legs until you feel yourself drifting backwards, then add force and swim upstream until a proper balance is found between force and endurance. Keep in mind that this unit is designed for a balanced workout. Find a pace that you can keep up for at least 20 minutes. Out pacing is always possible. The idea is to continue exercising for an extended period of time. Under certain conditions it is possible that the current “drifts off” the left or the right from the middle due to water bouncing off the back wall. In the event that it interferes with your swimming action, turn the unit OFF for a few minutes and restart.

The air regulator knobs permits a controlled mixture of air into the water flow and creates a unique, invigorating, bubble effect. It will also create an additional resistance to swim against.

Operation - continued

CAUTION: Consult your physician before using the massage hose. To reduce the risk of injury, do not permit children to use the massage hose with pulsator unless they are closely supervised at all times.

A pulsating massage hose can be attached to one of the nozzles for massages. Turn the BaduJet Inspiration OFF. Close the air regulator. Reduce the volume of water by turning the adjustable jet nozzle clockwise, slide the cap onto one (1) of the jet nozzles and lock into place. Slide cap of massage hose onto the other nozzle and lock into place. Hold pulsator and turn the BaduJet Inspiration ON. Massage as advised by your physician.

Optional Accessory: The Badu Swim Mirror is a perfect addition to the BaduJet Inspiration, this portable mirror is designed to be the perfect tool to help swimmers stay in the “swim lane”. (See Figure 11)

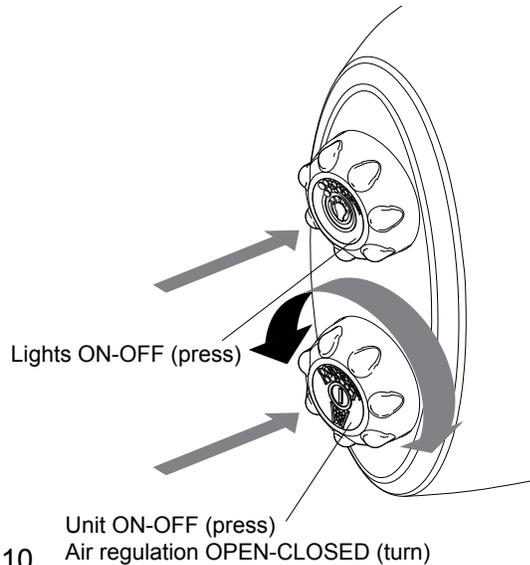


Figure 10



Figure 11 - Badu Swim Mirror

5 Service and Maintenance

Pump Service and Maintenance

The pump requires little or no service other than reasonable care. The mechanical seal may become worn and/or loose during the course of time, depending on the running time and water quality. If water continually leaks out, a new mechanical seal should be installed.

After long periods of NO operation (seasonal storage, etc.), the pump must be checked for ease of rotation while it is switched off. Using a small screwdriver, remove small circular cover at the rear of the motor exposing the motor shaft. Turn the shaft clockwise or counter-clockwise using a wrench to check for ease of rotation. Pump should be primed after long periods of non-operation.

Mechanical Seal Replacement

WARNING: The pump must be serviced by a professional service technician qualified in pool/spa installation. The following procedures must be followed exactly. Improper installation and/or operation can create dangerous electrical hazards, which can cause high voltage to run through the electrical system. This can cause property damage, serious personal injury, and/or death. Improper installation will void the warranty.

Mechanical Seal Replacement - continued

WARNING: Before servicing the pump, **YOU MUST UNPLUG THE GFCI CORD FROM THE ELECTRICAL OUTLET.** Severe personal injury or death may occur if the pump starts while your hand is inside the pump.

1. Turn OFF the pump. UNPLUG the GFCI cord from the electrical outlet.
2. Remove the top cover from the BaduJet Inspiration. There are two (2) #10-24 Phillips-head screws securing the cover to the base (one on each side).
3. Drain water from the pump by loosening the union nuts and opening the air purge valve.
4. Remove the wire cover from the back of the motor. Disconnect the three (3) wires. Loosen the strain relief and remove the cable from the motor.
5. Remove the four (4) M8 x 12mm hex-head bolts securing the pump motor to the rubber mounts.
6. Remove the pump from the BaduJet Inspiration.
7. Remove the eight (8) M6 x 97mm flat-head thru-bolts and M6 nuts connecting the pump casing to the flange.
8. Pull the pump casing away from the flange and seal housing. The impeller is connected to the motor shaft.
9. At the rear of the motor, remove the circular cover exposing the center of the motor shaft.
10. Use a $\frac{3}{4}$ " socket and turn the nut at the top of the impeller counter-clockwise while securing the motor shaft at the opposite end.
11. Pull the impeller directly away from the surface of the seal housing. The impeller has two keys built into it and the corresponding motor shaft has two key-ways. The impeller slides on and off the shaft.
12. After removal of the impeller, the seal housing will slide easily off of the motor shaft.
13. Gently pull the mechanical seal from the impeller shaft noting the way it was originally installed.

CAUTION: **DO NOT** damage the ceramic or carbon surfaces of the seal. If the surfaces are damaged, leaks will occur.

14. Using water with a small amount of dish soap, brush the impeller shaft for ease of assembly.
15. With the carbon side up, push the mechanical seal onto the impeller shaft and wipe carbon surface with a clean cloth.

CAUTION: **DO NOT** use grease or lube to install seal. It will damage the seal and cause failure.

16. The ceramic side of the seal can be pushed out from the rear of the seal housing. Please note its position before removing.
17. Using water only, wet the ceramic side of the seal and using your thumbs push into the seal housing. Clean surface with a clean cloth.
18. Wipe the motor shaft of all debris. Re-install the seal housing making sure the gasket is properly placed beneath the seal housing.

Mechanical Seal Replacement - continued

19. Install impeller by aligning impeller keys and shaft key-slots and gently sliding onto the shaft.
20. Clean debris from the impeller nut and apply a drop of Loctite on each side of the internal threads. Hand start.
21. Using a $\frac{3}{4}$ " socket with torque wrench, tighten impeller nut to 7 Nm (62 in lbf).
22. Slide the pump casing back on to the motor unit and reinstall the eight (8) M6 x 97mm flat-head thru-bolts and M6 nuts, tightening in a cross pattern.
23. Place the pump on the rubber mounts, making sure that the pump casing is properly aligned with the unions.
24. Secure the pump motor to the rubber mounts using the four (4) M8 x 12mm bolts.
25. Install the motor cable and tighten the strain relief. Connect the three (3) wires to the appropriate terminals and replace the wire cover on the rear of the motor.
26. Tighten the union nuts, open the air purge valve, prime the pump, and check for leaks before reapplying power.

Model 21-80/33 GI Motor Replacement

WARNING: *The pump must be serviced by a professional service technician qualified in pool/spa installation. The following procedures must be followed exactly. Improper installation and/or operation can create dangerous electrical hazards, which can cause high voltage to run through the electrical system. This can cause property damage, serious personal injury, and/or death. Improper installation will void the warranty.*

WARNING: *Before servicing the pump, YOU MUST UNPLUG THE GFCI CORD FROM THE ELECTRICAL OUTLET. Severe personal injury or death may occur if the pump starts while your hand is inside the pump.*

1. Turn OFF the pump. UNPLUG the GFCI cord from the electrical outlet.
2. Remove the top cover from the BaduJet Inspiration. There are two (2) #10-24 Phillips-head screws securing the cover to the base (one on each side).
3. Drain water from the pump by loosening the union nuts and opening the air purge valve.
4. Disconnect and remove the wiring from the rear of the pump motor.
5. Remove the four (4) M8 x 12mm hex-head bolts securing the pump motor to the rubber mounts.
6. Remove the pump from the BaduJet Inspiration.
7. Remove the eight (8) M6 x 97mm flat-head thru-bolts and M6 nuts connecting the pump casing to the aluminum flange.
8. Pull the pump casing away from the flange and seal housing. The impeller is connected to the motor shaft.
9. At the rear of the motor, remove the circular cover exposing the center of the motor shaft.
10. Use a $\frac{3}{4}$ " socket and turn the nut at the top of the impeller counter-clockwise while securing the motor shaft at the opposite end.

Model 21-80/33 GI Motor Replacement - continued

11. Pull the impeller directly away from the surface of the seal housing. The impeller has two keys built into it and the corresponding motor shaft has two key-ways. The impeller slides on and off the shaft.
12. After removal of the impeller, the seal housing will slide easily off of the motor shaft.
13. Remove the four M8 x 16 hex-head bolts holding the aluminum flange to the motor. Remove the aluminum flange.
14. Remove the V-ring from the old motor shaft and install onto the new motor shaft.
15. Install the aluminum flange onto the new motor using the four M8 x 16 hex-head bolts.
16. Repeat steps 18-26 of "Replacing the mechanical seal."

Nozzle Adjustment

When setting the nozzles for basic swimming, it is recommended that you set them in such a way that the streams of water intersect 4 ft. away from the unit while at the same time breaking the surface. To help set the nozzles in a neutral position, please follow these instructions:

1. Parts required:
 - Quantity 2 - SCH 40 PVC Pipe (4' x 1 1/2")
 - Quantity 2 - PVC Couplings (1 1/2" Slip x 1 1/2" Slip)
 - Quantity 2 - PVC Hose Adaptor (1 1/2" Male x Hose)
2. Glue couplings and pipe.
3. Turn OFF the unit. Insert each jet adjustment tool into jet nozzle.
4. Move each jet adjustment tool toward each other until each pipe touches at water level. (See Figure 12)
5. Remove jet adjustment tool.

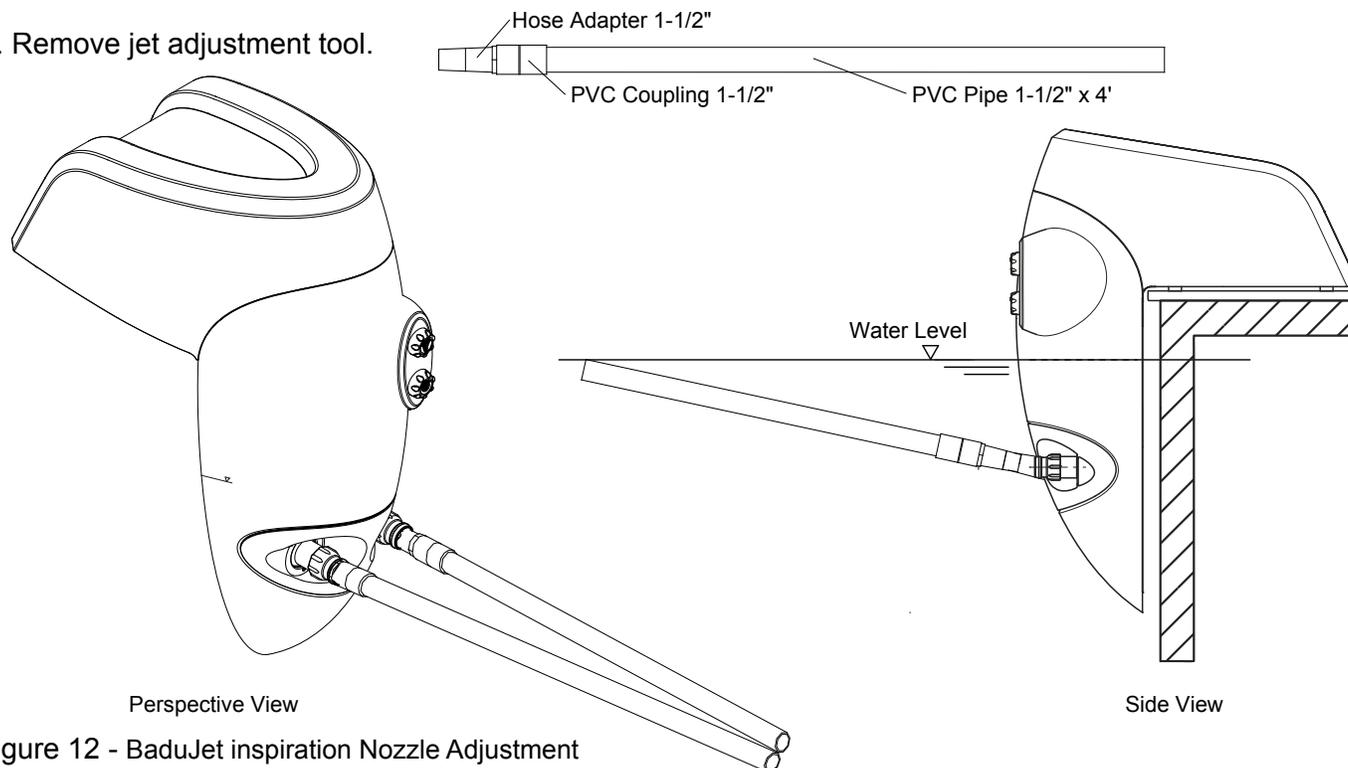


Figure 12 - BaduJet inspiration Nozzle Adjustment

Winterizing

CAUTION: *The BaduJet Inspiration must be protected when freezing temperatures are expected. Allowing the product to freeze will cause severe damage and void the warranty.*

Drain all the water from the BaduJet Inspiration. Remove the product from the pool and store indoors in a warm and dry location.

WARNING: *The BaduJet Inspiration is heavy and a compact design. The unit weighs 100 lbs and will require a two person crew to position. **DO NOT** lift unit by the jet nozzles. **DO NOT** lift by the motor. **DO NOT** drop the unit into the pool.*

NOTE: *When the winter season is over the pump will need to be checked and primed prior to start.*

CAUTION: ***DO NOT** run the pump dry. If the pump is run dry, the mechanical seal will be damaged and the pump will start to leak at the seal. If this occurs, the mechanical seal will need to be replaced. **ALWAYS** maintain the proper water level in your pool. Continued operation in this manner could cause a loss of pressure, resulting in damage to the pump casing, impeller, and mechanical seal.*

6 Troubleshooting

Frequently Asked Questions

How is the current generated?

The pump generates up to 400 GPM coming out of two (2) jet nozzles at 27 ft. per second creating a swim current in excess of 5700 GPM, measured 6 ft. from the jet.

What size pool do I need?

The BaduJet Inspiration 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.

How many amps does the pump operate at?

Maximum 19.4 amps @ 230 V

What size breaker do I need?

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

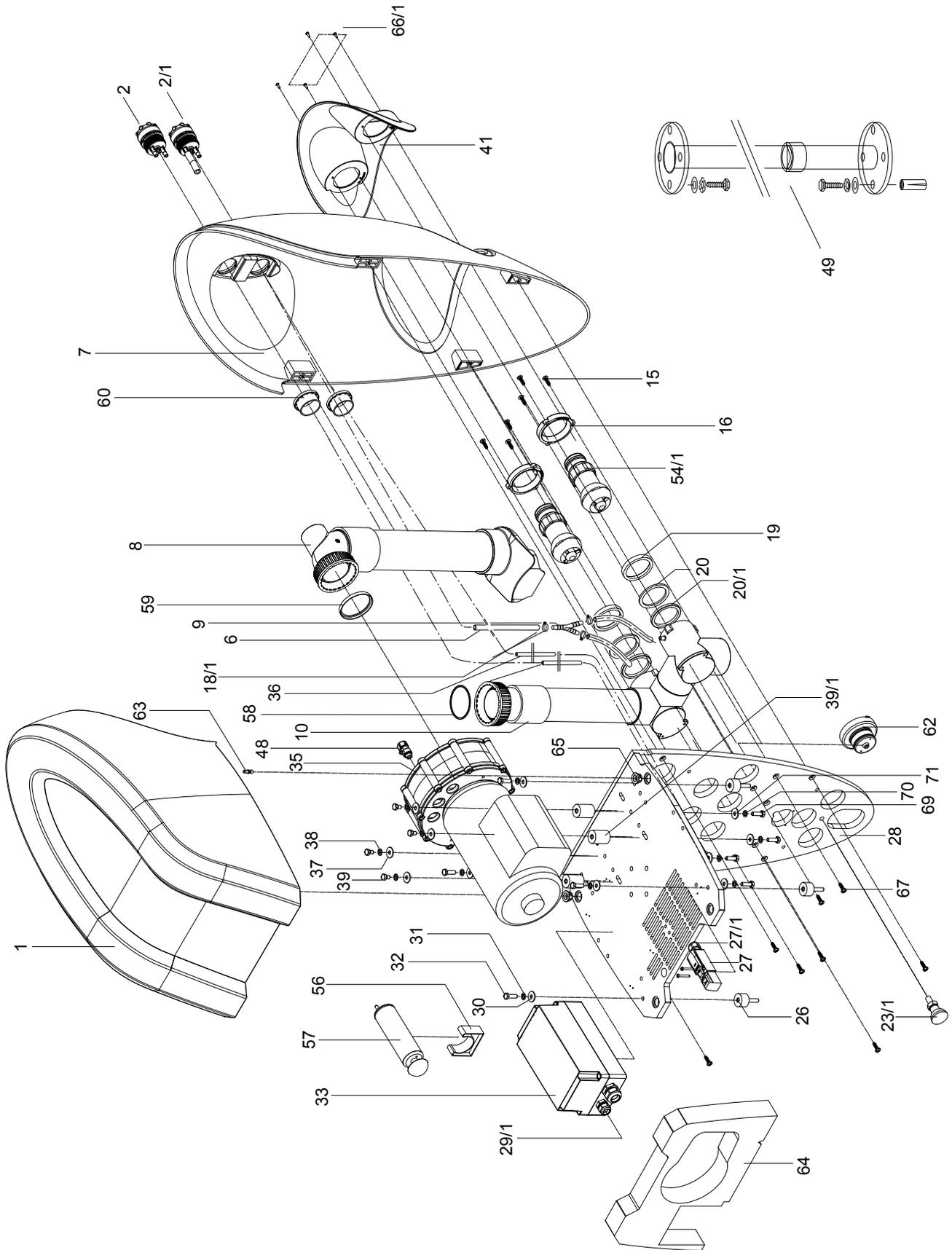
Is the BaduJet Inspiration approved?

Yes. The BaduJet Inspiration swim jet system is listed with UL standard 1563 Swimming Pool Equipment and is VGB 2008 compliant.

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

Yes, the center of the jet must be between 10" to 13" **BELOW** estimated water level for proper performance of unit.

7 Product Specification



Exploded View - continued

PART NUMBER	DRAWING NUMBER	QTY	DESCRIPTION
2319800922	1	1	TOP COVER CPL
2319800839	63	1	SNAPLOC COUPLING (MALE) - TOP COVER
2319800913	2	1	PNEUMATIC PUSH BUTTON CPL - LIGHT ON/OFF
2620000201	60	2	THREADED INSERT, 50mm x 1-1/2"
2319800912	2/1	1	PUSH BUTTON CPL - PUMP ON/OFF, AIR REGULATION
2301001007	6	1	HOSE, 8 x 3mm - AIR REGULATOR
2319800921	7	1	LOWER COVER
2319800906	8	1	SUCTION LINE CPL
2301001006	9	1	Y-BARB
2319800919	10	1	DISCHARGE LINE CPL
5879006023	15	1	SELF TAPPING SCREW - BALL NOZZLE FLANGE, 6 x 22mm A4
2319800817	16	1	NOZZLE FLANGE
2302002056	19	2	NOZZLE ADJUSTING SEAT RING
2302002058	20	4	NOZZLE SEAT GASKET - SPACER RING, 60 x 73.5 x 1mm
2319800924	20/1	2	DISC - SUPPORT
2302002854	54/1	2	BALL NOZZLE 40mm, ADJUSTABLE
2901141211	58	1	O-RING 68 x 3.5mm, DISCHARGE UNION-PUMP
2301001008	18/1	6	HOSE CLAMP, ADJUSTABLE 13.2-15.7mm
2307004003	23/1	1	POOL WALL ADJUSTING SCREW
2306006006	25	4	POOL DECK ANCHOR M8
2306006005	26	4	RUBBER/METAL SPACER, M8 x 36mm
5880800420	NOT SHOWN	1	SAFETY SWITCH CPL ASSEMBLY
5880800418	27	1	SAFETY SWITCH
5882502014	27/1	1	STRAIN RELIEF (CABLE GLAND) M20 x 16 (1.5)
5880800419	NOT SHOWN	1	SAFETY KEY
2319800916	28	1	BASE PLATE CPL
5879021080	30	4	WASHER 8.4 x 24mm, A4
5876797080	31	4	LOCK WASHER 8.4mm, 316 SS
5879330825	32	4	HEX HEAD BOLT M8 x 25mm, 316 SS
2308700605	33	1	CONTROL BOX CPL
7300160017	NOT SHOWN	2	STRAIN RELIEF (CABLE GLAND) 3/8" NPT GRAY
7300160021	29/1	2	STRAIN RELIEF (CABLE GLAND) 1/2" NPT GRAY
7300160026	29/2	1	STRAIN RELIEF (CABLE GLAND) 3/4" NPT GRAY
2088331528	35	1	PUMP - MODEL 21-80/33GI 4.0HP S.F. 1.25
2302080070	36	2	PVC HOSE WITH SOCKET
5879021080	37	4	WASHER 8.4 x 24mm, A4
5876797080	38	4	LOCK WASHER 8.4, 316 SS
2991000131	39	4	HEX HEAD BOLT M8 x 12mm, 316 SS
2306005041	39/1	4	RUBBER/METAL SPACER M8
2319800820	41	1	LIGHT COVER - DUO
5825002197	48	1	VENTILATING VALVE G 1/4
2319800902	57	1	HAND VACUUM PUMP CPL
2319800807	56	1	HAND PUMP HOLDER BRACKET
2319800850	59	1	GASKET 80 x 70.5 x 7.5mm NBR, UNION SUCTION
2319800855	62	1	LIGHT LED 12V AC - WHITE, 1M, VERSION A
2319800836	64	1	FOAM SEPARATION WALL - MOTOR
2319800840	65	2	SNAPLOC COUPLING PIN (FEMALE) - BASE
5879813513	66/1	4	SELF TAPPING SCREW - LIGHT COVER 3.5 x 13mm A4
5879006023	67	8	SELF TAPPING SCREW 6 x 22mm A4
5879330825	69	4	HEX HEAD BOLT M8 x 25mm 316 SS
5876797080	70	4	LOCK WASHER 8.4mm 316 SS
5879021080	71	4	WASHER 8.4 x 24mm A4
OPTIONAL PARTS			
0319851000	49	1	TELESCOPIC SUPPORT, CPL (ABOVE GROUND POOL)
2319800849	62	1	LIGHT LED 12V AC - MULTICOLOR, 1M, VERSION A
2319007011	68	1	ANGLE FITTING CPL - POOL WALL, ABOVE GROUND

8 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.

Limited Warranty - continued

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.

