

## VersaFlo™ Integrated Bypass JXi™ & JXiQ™ Pool and Spa Heaters

Essential installation and startup instructions are included in this manual. Additional operation and troubleshooting information is available online by scanning the QR code with your phone or visiting [jandy.com](http://jandy.com)



### ⚠ WARNING

**If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.**

FOR YOUR SAFETY - This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exist. The maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation may void the warranty.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

#### WHAT TO DO IF YOU SMELL GAS

- Immediately switch off main gas supply.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

**Installation and service must be performed by a qualified installer, service agency or the gas supplier.**



Improper installation and/or operation can create unwanted electrical hazard which may cause serious injury, property damage, or death.

**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/operator of this equipment.

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## EQUIPMENT INFORMATION RECORD

Date of Installation \_\_\_\_\_

Installer Information \_\_\_\_\_

Initial Pressure Gauge Reading (with Clean Filter) \_\_\_\_\_

Pump Model \_\_\_\_\_ Horsepower \_\_\_\_\_

Notes \_\_\_\_\_

\_\_\_\_\_

## Section 1. General Information

# SAVE THESE INSTRUCTIONS

### 1.1 Introduction

Read completely before proceeding with the installation.

This manual provides installation instructions for the VersaFlo Integrated Bypass Accessory Kit for the JXi & JXiQ pool and spa gas heater product line.

### 1.2 Technical Assistance

For technical support or questions, contact your local Zodiac® distributor or Zodiac Pool Systems LLC at 1.800.822.7933.

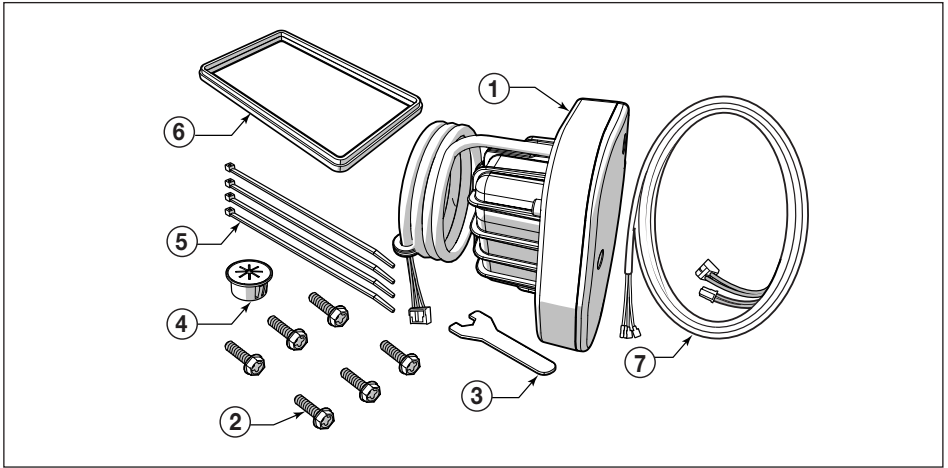
## Section 2. Overview

### 2.1 JXIVFKIT: VersaFlo Integrated Bypass Kit

#### 2.1.1 Package Contents

Before starting, check that you have the correct parts as indicated below. If any parts are missing or incorrect, please call your local distributor or Zodiac Pool Systems LLC technical support at 1.800.822.7933 for assistance.

**NOTE:** Check the rating plate on your heater and note the serial number revision.  
 If your heater serial number is revision "G" (GXXXXXX) or earlier you will also need to order:  
 (R0719500) - PIB Kit  
 (R0719400) - Flue Sensor Kit  
 to complete the installation.



Item	Description	Qty.
1	VersaFlo Integrated Bypass w/JXiQ Wire Harness	1
2	Installation Hardware	6
3	5/16" Light Duty Wrench	1
4	Knockout Bushing	1
5	Zip Tie	4
6	Seal	1
7	JXi Wire Harness	1

2.1.2 Required Equipment



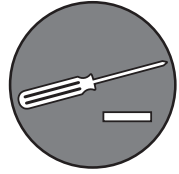
Safety Eyewear



Gloves



Phillips Screwdriver



Flat Screwdriver

2.2 Efficiency

The VersaFlo Integrated Bypass allows for increased hydraulic efficiency when the heater is not firing. When the JXi & JXiQ heater is not firing, a flow gate in the bypass assembly is moved to the bypass position, allowing the water flow within the heater header to bypass the heat exchanger and return directly to the pool. Please note, when in the bypass position a small amount of water will still flow through the heat exchanger. When the heater is firing, the flow gate moves to heat position which directs water through the heat exchanger. When the heater is turned off, the bypass will remain in the heat position for approximately one minute before moving to the bypass position.

When the flow gate is in the bypass position and water is bypassing the heat exchanger, the head loss through the heater is significantly reduced as illustrated in *Figure 1*. To maximize energy savings, combine with an automation system and a variable speed filtration pump to reduce pump speed while flow is bypassing the heater.

Use head loss chart below to determine the best flow rate or filtration run time to best optimize your water circulation system.

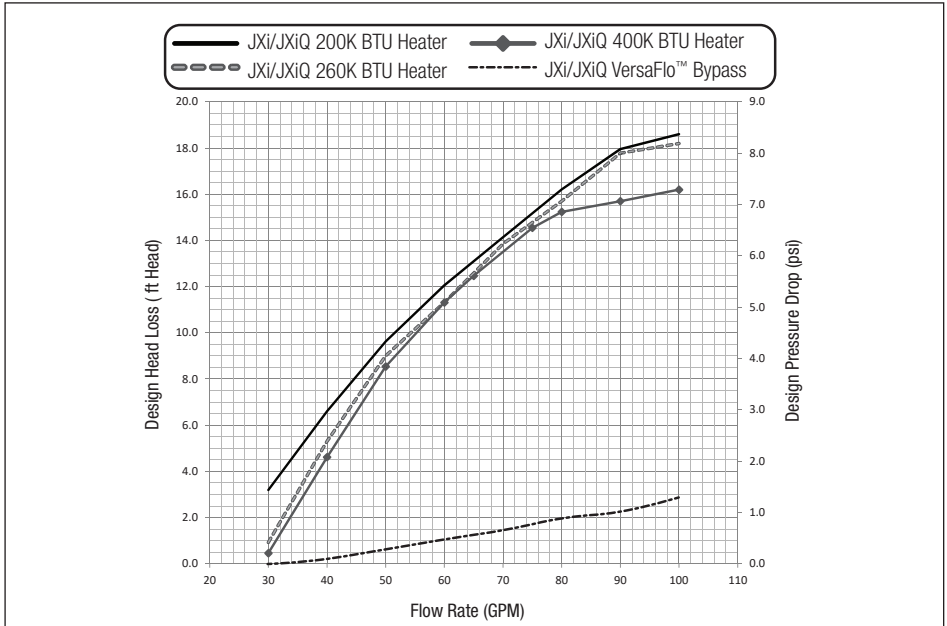


Figure 1. Head Loss Chart

## Section 3. Electrical Connections

Before beginning the installation or replacement of the VersaFlo Integrated Bypass the following steps must be taken.

- All power to the heater and filter pump must be disconnected at the breakers.
- The gas supply to the heater must be shut off.
- (Optional) The water can be drained from the heater by removing the drain plug (drain plug & outer temp sensor on JXiQ models) at the header. See *Figure 2*.

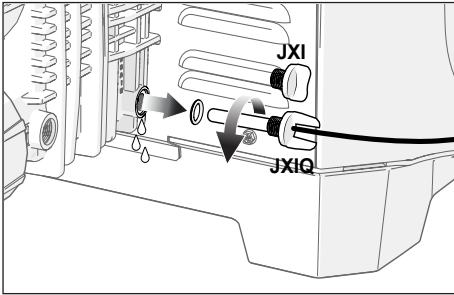


Figure 2. Drain Header

### ⚠ WARNING/ SHOCK HAZARD

Follow all applicable installation codes. Prior to installation or performing any service, turn off all switches and the main breaker in the pool/spa pump electrical circuit. Failure to comply may cause a shock or hazard resulting in severe personal injury or death. While disconnecting and/or connecting any electrical wiring, be careful not to damage or abrade any of the wiring.

### ⚠ WARNING

In order to prevent the risk of fire or electrocution, all electrical power and gas supply to the heater must be disconnected.

### 3.1 Open the Heater

- Remove the screws holding the front heater panel in place to expose the raceway. See *Figure 3*.
- Locate the raceway lock release label on the interior of the heater raceway.
- Cut the zip tie to release raceway. See *Figure 4 (a)*.
- Using a screwdriver or comparable tool; press into the raceway release orifice until the raceway latch releases and the raceway swings free. See *Figure 4 (b)*.
- Swing the raceway up into a horizontal position. See *Figure 4 (c)*.
- Latch raceway into position using the bracket. See *Figure 4 (d)*.
- Remove the 4 screws holding the top cover in place. See *Figure 5*.
- Remove the top cover being mindful not to damage or strain the user interface wiring. See *Figure 5*.

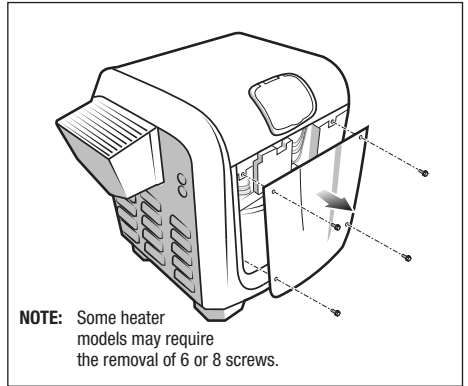


Figure 3. Remove Front Panel

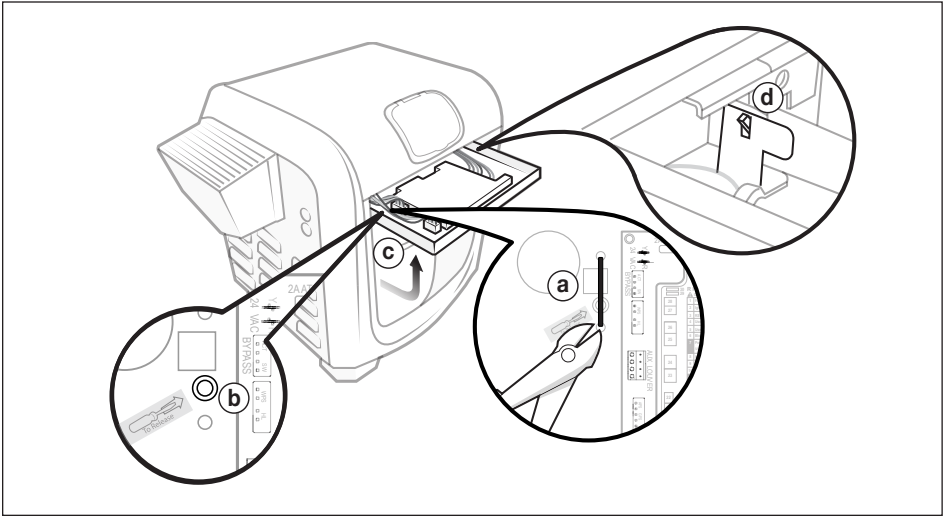


Figure 4. Access and Latch Raceway

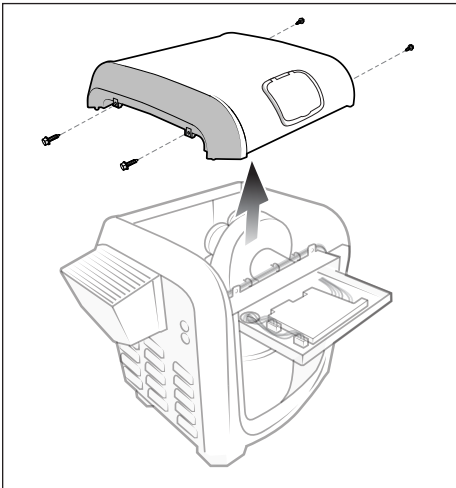


Figure 5. Remove Top Panel

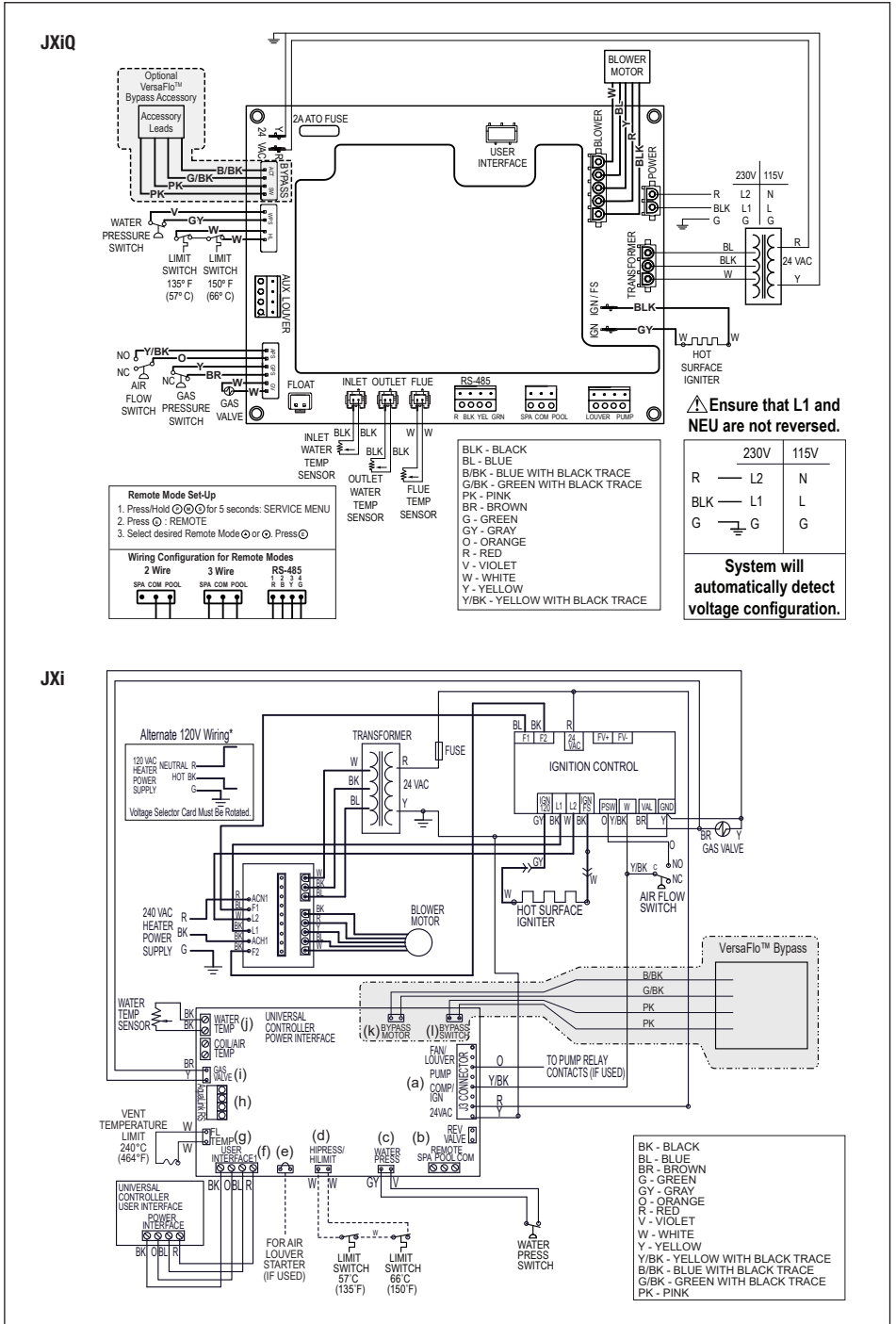


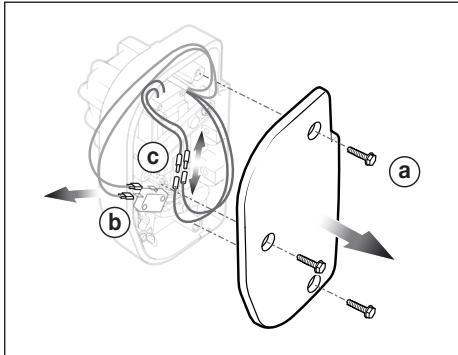
Figure 6. Wiring Diagrams

### 3.2 Route Wire Harness

#### 3.2.1 JXi Heater

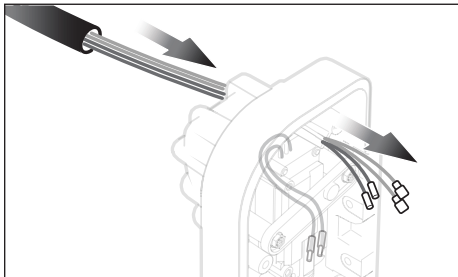
**NOTE:** The new VersaFlo is equipped with the JXiQ wiring harness. Before installation on a JXi heater it will be necessary to replace the wire harness on the new VersaFlo with the included JXi wire harness.

1. Remove the three screws holding the bypass cover in place on the new VersaFlo, see *Figure 7 (a)*.
2. Disconnect the two pink wires from the microswitch, see *Figure 7 (b)*.
3. Disconnect the blue and green actuator wires, see *Figure 7 (c)*.



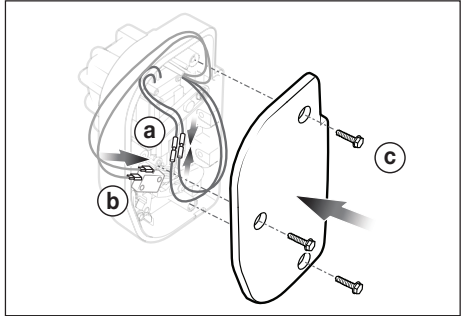
**Figure 7. VersaFlo Remove JXiQ Wiring**

4. Pull out the two microswitch wires and the two actuator wires through the opening in the back of the VersaFlo one at a time without damaging grommet, set the JXiQ wire harness aside.
5. Examine the new JXi harness electrical connectors and wires to ensure that none of the wires or connectors are damaged or abraded.
6. Feed the wire terminal end of the two pink microswitch wires and the two green and blue actuator wires from the new JXi wiring harness through the opening in the back of the VersaFlo one at a time, see *Figure 8*.



**Figure 8. Install JXi Wiring**

7. Connect the blue and green wires to the blue and green actuator wires in the new VersaFlo, see *Figure 9 (a)*.
8. Connect the two pink wires to the microswitch in the new VersaFlo, see *Figure 9 (b)*.
9. Secure the bypass cover on the new VersaFlo using the three screws, see *Figure 9 (c)*.

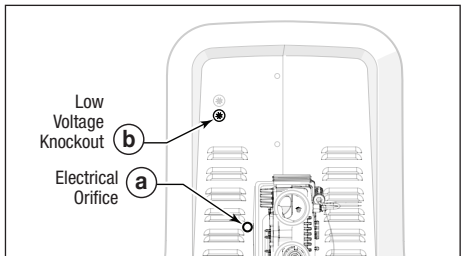


**Figure 9. Connect Microswitch and Actuator Wires**

**NOTE:** Make sure the pink microswitch wires and the green and blue actuator wires are not pinched by the bypass cover on the new VersaFlo when tightening.

10. Pass the wire terminal end of the two pink wires and the green and blue wires through the electrical orifice on the side panel. See *Figure 10 (a)*. If using the low voltage knockout you may need to remove the cap and replace with the included knockout bushing, see *Figure 10 (b)*.

**NOTE:** If your heater serial number is revision "G" (GXXXXX) or earlier you will need to use the low voltage knockout to wire the heater, see *Figure 10 (b)*.



**Figure 10. JXi Electrical Orifice**

11. Route the wire along the interior of the heater and behind the high voltage raceway.
12. Secure at raceway brace corner using the installed P-Clamp or the zip ties included with the kit.
13. Route through the standoff along center of the raceway brace. If no standoff is installed please secure with zip ties.
14. Pass the harness through the grommet at the low voltage raceway, see *Figure 11 (c)*.



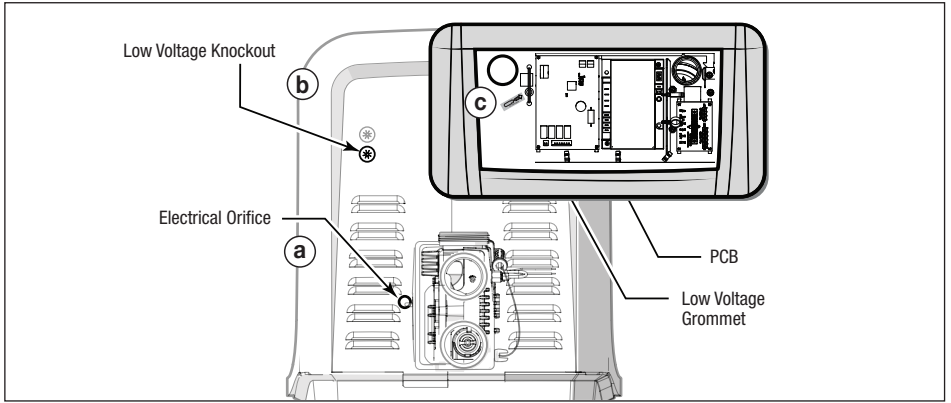


Figure 11. JXi Bypass Harness Routing

### 3.2.2 JXiQ Heater

1. Examine the electrical connectors and wires to ensure that none of the wires or connectors are damaged or abraded.
2. Feed the electrical harness through the electrical orifice on the side panel. See Figure 12 (a). If using the low voltage knockout you may need to remove the cap and replace with the included knockout bushing.

**NOTE:** If your heater serial number is revision "G" (GXXXXX) or earlier you will need to use the low voltage knockout to wire the heater. See Figure 12 (b).

3. Route the wire along the interior of the heater and behind the high voltage raceway. See Figure 13.
4. Secure at raceway brace corner using the installed P-Clamp or the zip ties included with the kit.
5. Route through the standoff along center of the raceway brace. If no standoff is installed please secure with zip ties.
6. Pass the harness through the grommet at the low voltage raceway, see Figure 14 (b).

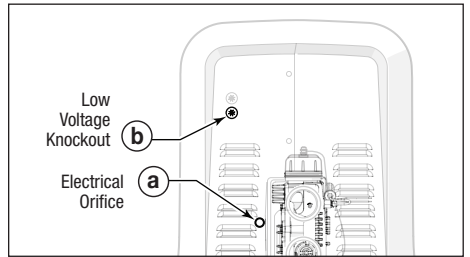


Figure 12. JXiQ Electrical Orifice and Voltage Knockout

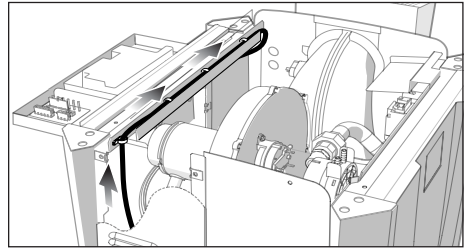


Figure 13. Bypass Harness Routing

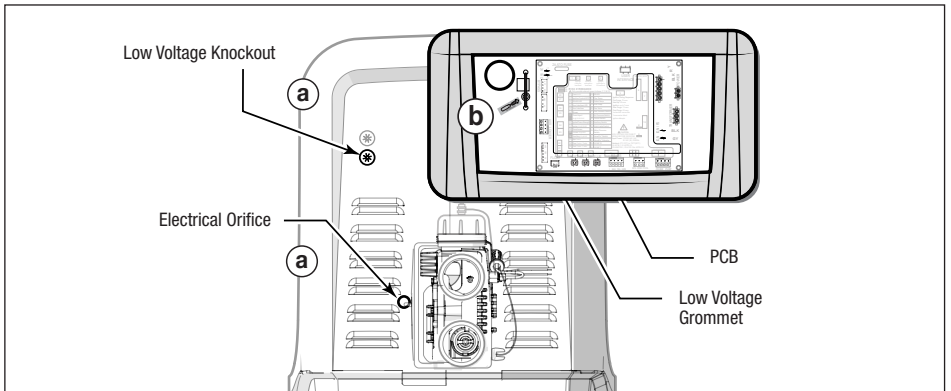


Figure 14. JXiQ Bypass Harness Routing

**3.3 Connect at PCB**

**3.3.1 JXi Heater**

1. Remove factory installed jumper from Bypass Switch (J22).
2. Connect the 2 pin GR/B and B/BK at the board position Bypass Motor (J21).
3. Connect the 2 pink wires to the 2 terminal connector at board position Bypass Switch (J22) polarity does not matter.
4. Replace zipties as needed.

**3.3.2 JXiQ Heater**

1. Carefully pass the harness through the low voltage grommet on the raceway, see *Figure 14 (b)*.
2. Connect the quick connect 4 terminal connector GR/BK, B/BK, PK, and PK at the board position Bypass (27 & 28). See *Figure 13 (bypass)*.
3. Replace zipties as needed.

**Section 4. Bypass Physical Connections**

**4.1 Remove Access Plate**

1. Remove the six screws securing the access plate.
2. Remove the access plate and seal.

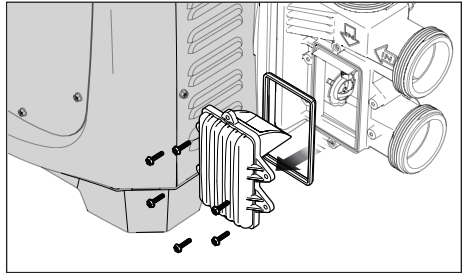


Figure 15. Remove Access Panel

**4.2 Remove Bypass Assembly**

1. Remove the three screws holding the bypass cover in place.
2. Remove the six screws securing the bypass assembly.
3. Remove the previously installed bypass and seal.
4. It is advised that the removed bypass and seal be marked to ensure that they are not confused with the replacement/upgrade equipment.

**⚠ WARNING/  
SHOCK HAZARD**

Follow all applicable installation codes. Prior to installation or performing any service, turn off all switches and the main breaker in the pool/spa pump electrical circuit. Failure to comply may cause a shock or hazard resulting in severe personal injury or death. While disconnecting and/or connecting any electrical wiring, be careful not to damage or abrade any of the wiring.

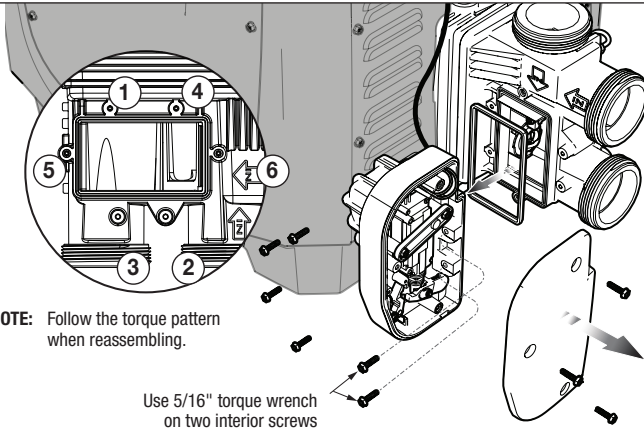


Figure 16. Install VersaFlo Assembly

### 4.3 Install New Bypass Assembly




1. Remove the three screws holding the bypass cover in place.
2. Ensure that the seal is properly seated.
3. Secure the bypass assembly to the header with six screws.
  - a. Start all six screws by hand.
  - b. Torque the screws in place following the torque sequence shown above the note in *Figure 16*.
  - c. There is an included 5/16" wrench that can be used to tighten the 2 interior screws. Do not overtighten!

## Section 5. Initial Startup

### 5.1 Test Bypass Assembly

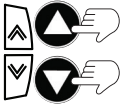
1. Restore electrical power to the heater and filter pump.
2. Confirm that the VersaFlo Integrated Bypass is enabled at the heater.
3. On heater user interface; press and hold the
 


POOL
MENU
SPA

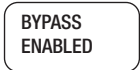
 , and buttons for several seconds (while heater is in standby).

4. The service menu will activate.



Using  scroll to VERSAFLO BYPASS option.

5. Verify that the bypass option is enabled.

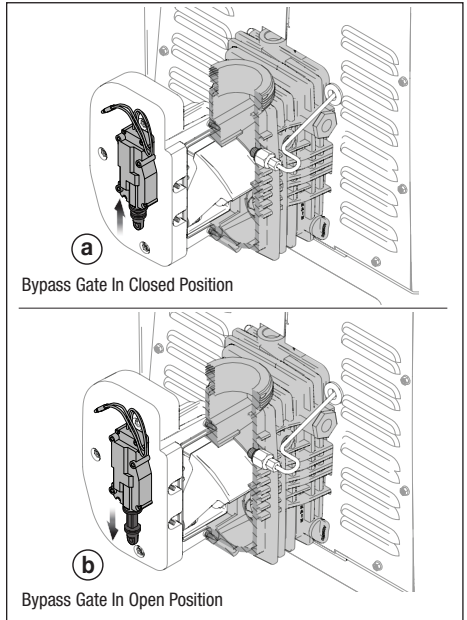


If not, enable the bypass option.



Press  to exit service mode.

6. Turn on the filter pump.



**Figure 17. Bypass Gate and Actuator Positions**

7. Inspect for leaks at the bypass header seal and look for any leaks inside the bypass housing.
8. If no leaks are observed, turn on power to the heater and activate.
9. Keep the header actuator control in the OFF (closed) position. The actuator will be in the down stroke (extended) position, see *Figure 17 (a)*.
10. Restore gas to the heater.
11. Turn the header actuator control in the ON (open) position, and observe that shortly before the heater fires, the actuator will move to the up stroke (open) position. See *Figure 17 (b)*.
12. Turn the heater off. After approximately a one-minute delay the actuator will return to the down position (OFF). See *Figure 17 (a)*.
13. After completing all of the steps to test the bypass accessory and confirming correct operation, replace the bypass housing cover using three (3) screws.

## Section 6. Professional Service and Maintenance

### 6.1 Servicing

#### **⚠ WARNING**

**SERVICING SAFETY:** Service procedures can be hazardous because they involve fuel, gas, electricity, moving parts and procedures which require testing or temporary bypass of safety controls. For this reason, the heater must be serviced only by a qualified professional service technician.

**IMPROPER SERVICE HAZARD:** The heater incorporates unique design features. Incorrect service of this heater can result in personal injury or damage to property. To avoid such hazards, the heater must be serviced only by a qualified professional service technician.

Zodiac Pool Systems LLC requires that you call a qualified service technician to perform all service and repairs on the heater. To locate a licensed or qualified technician or independent service company in your area, contact Zodiac® Technical Support at: 1.800.822.7933 or [www.jandy.com](http://www.jandy.com).

#### Before servicing the heater:

- Confirm that the heater control is set to either POOL or SPA.
- Confirm the temperature set point for either POOL or SPA is high enough to make the heater run given the current water temperature.
- Inspect the Thermal Regulator Valve (TRV) for proper operation and replace if there are signs of scaling or corrosion.

**NOTE:** The TRV ensures the heater operates at optimal efficiency and proper maintenance of the TRV can extend the life of the heater.

### 6.2 Winterizing and Spring Startup

In areas where freezing temperatures occur in Winter and the pool or spa will not be used, the pool should be winterized by a qualified pool service technician. Refer to the JXi & JXiQ Installation and Operation Manuals provided with the heater for complete instructions on winterizing and spring startup.

### 6.3 Occasional Freezing Temperatures

In areas where there are occasional overnight freezing temperatures, the filter pump is often used to keep water circulating through the pool equipment. Although the heater control is OFF, power to the heater must be left on. The bypass accessory has a feature built into the controller circuit board to sense the ambient air temperature. When the air temperature approaches freezing, the bypass gate closes to keep water circulating through the heat exchanger and avoid freezing. Power to the heater must be left on to allow the circuit board to operate.