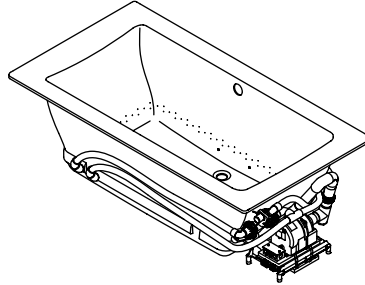


# KALLISTA®

## Large Rectangular Acrylic Air Bath

### INSTALLATION INSTRUCTIONS



**P50045-G5**


## INSTALLATION INSTRUCTIONS


### THANK YOU FOR CHOOSING KALLISTA

We appreciate your commitment to KALLISTA quality products. Please take a moment to review this manual before you install your KALLISTA product. If you encounter any installation or performance problems, please do not hesitate to contact us at the phone number listed at the bottom of the page.


### IMPORTANT INFORMATION

 **WARNING: When using electrical products, basic precautions should always be followed, including the following:**

 **DANGER: Risk of electric shock.** Connect only to circuits protected by a Ground-Fault Circuit-Interrupter (GFCI)\*.

 **WARNING: Risk of electric shock.** A qualified electrician should make all electrical connections.

 **WARNING: Risk of electric shock.** Disconnect power before servicing.

 **WARNING: Risk of injury or property damage.** Please read all instructions thoroughly before beginning installation, including the following requirements.

**NOTICE: Follow all local plumbing and electrical codes.**

**Grounding is required.** The unit should be installed by a qualified service representative, and grounded.

Building materials and wiring should be routed away from the blower body and other heat-producing components of the unit.

Install to permit access for servicing.

A pressure wire connector marked “Earth/Ground” is provided within the wiring compartment. To reduce the risk of electric shock, connect this connector to the grounding terminal of your electric service or supply panel with copper wire equivalent in size to the circuit conductor supplying this equipment.

Pressure wire connectors are provided on the exterior of the junction box or control within this unit to permit connection of a bonding conductor between this unit and all other exposed metal in the vicinity, as needed to comply with local requirements.

\*Outside North America, this device may be known as a Residual Current Device (RCD).

## INSTALLATION INSTRUCTIONS


### PRODUCT INFORMATION

#### Electrical Requirements

The installation must have a Class A Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD). The GFCI or RCD protect against line-to-ground shock hazard. **Use a 220-240 V, 15 A, 50/60 Hz dedicated service for the bath.**

For Canadian installations, install the bath in accordance with Canadian Electrical Code, Part I.

#### Product Notices

 **WARNING: Risk of personal or property damage.** Unauthorized modification may cause unsafe operation or effect performance of the airbath. Do not relocate the bath blower motor, or make other modifications to the bath system in the absence of kit or other published instructions, as this could adversely affect the performance and safe operation of the product. KALLISTA shall not be liable under its warranty or otherwise for personal injury or damage caused by any such unauthorized modification. Refer to the “Before You Begin” section for blower motor relocation requirements, recommendations, and section coverage information.

**NOTICE: Keep the area around the blower motor clean and free of debris.** Ensure that the area around the blower motor is free of sawdust, insulation, dirt, or other small loose debris. Such material could clog the blower motor air ducts and reduce the air flow through the blower.

#### Factory Assembled Features

Factory assembled components include a blower motor, air harness, control, check valve, butterfly valves, lights (if provided), electrical harnesses, and an illuminated user keypad. Other than power wiring and plumbing, no assembly is required.

#### Connections and Service Access

**NOTICE: Provide unrestricted service access to the blower motor.** You must provide access for servicing the blower motor and controls. The access must be located immediately next to the blower motor. Study the “Rough-In Information” section of this publication.

Before installation, ensure that there is proper access to the blower motor and final connections. If the blower motor is installed in an enclosed area, an access panel is required at the blower motor. This panel should be at least 34" (864 mm) wide and 15" (381 mm) high.

### INSTALLATION INSTRUCTIONS

#### TABLE OF CONTENTS

Thank You For Choosing Kallista .....	2
Important Information .....	2
Product Information .....	3
Electrical Requirements .....	3
Product Notices .....	3
Factory Assembled Features .....	3
Connections and Service Access .....	3
Table of Contents .....	4
Before You Begin .....	5
Tools and Materials .....	6
Rough-In Information .....	7
1. Prepare the Site - Wood Construction .....	8
2. Prepare the Site - Concrete Construction .....	9
3. Prepare the Bath .....	10
4. Secure the Bath to the Subfloor - Standard .....	11
5. Install the Plumbing - Standard .....	12
6. Make Power Connections - Standard .....	13
7. Disconnect the Blower Motor and Check Valve - Remote .....	14
8. Secure the Bath to the Subfloor - Remote .....	15
9. Mount the Blower Motor and Check Valve - Remote .....	16
10. Connect the Cable at the Blower - Remote .....	17
11. Install the Power Cord at the Control - Remote .....	18
12. Install the Plumbing - Remote .....	19
13. Make Power Connections - Remote .....	20
14. Test Run the Airbath .....	21
15. Complete the Finished Deck .....	22
15. Complete the Concrete Installation .....	22
16. Clean-Up After Installation .....	22
17. Confirm Proper Operation .....	23
18. Operating Sequence .....	24
19. Troubleshooting Procedures .....	26

## INSTALLATION INSTRUCTIONS

### BEFORE YOU BEGIN

**CAUTION: Risk of product damage.** Do not lift the bath by the piping or blower motor, or use the piping or blower motor for structural support of the bath.

**NOTE:** This airbath allows the blower motor and check valve to remain on the bath support board (standard installation) as it is shipped or to be relocated to another location (remote installation). Refer to your applicable installation throughout this installation guide.

### For Standard and Remote Installations

- Inspect the bath for damage before you begin installation.
- You must install this bath to an adequately supported, level subfloor.
- Please read these instructions carefully to familiarize yourself with the required tools, material, and installation sequences. Follow the sections that pertain to your particular installation. This will help you avoid costly mistakes. In addition to installation instructions, read all operating and safety instructions.
- The variety of installations possible with this bath may require framing procedures other than those described in this manual.
- Both concrete and wood frame construction techniques are discussed in this manual.
- Confirm adequate mounting and connection space for the faucet specified for your installation.

### For Remote Installations

**NOTICE:** It is not necessary that the blower motor be relocated. The option is provided for the case that a particular installation makes this effort practical.

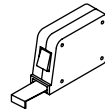
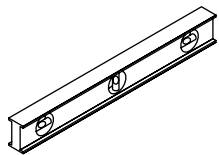
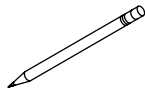
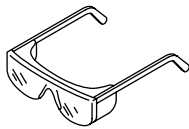
- For your convenience or accessibility, the blower motor and check valve can be mounted in a remote location. Choose a space as close to the bath as possible to maximize bath performance. Plan and prepare for the relocation. Pay attention to the following requirements and recommendations:
  - The blower motor must be located within 15' (4.6 m) of rigid piping from the bath air harness. This limitation is for total pipe length and applies to any direction changes and elbows. There can be no more than six changes of direction. There should be as few direction changes as possible.
  - The blower motor must be mounted horizontally at least 2" (51 mm) above the floor. Do not mount the blower motor with the blower motor discharge pointing up.
  - **The check valve must be relocated with the blower motor.** At the new location, the check valve must be no lower than 24" (610 mm) below the rim of the bath. The check valve must be within 12" (305 mm) of the blower motor. The check valve must be oriented vertically with the flow arrow pointing up. **DO NOT relocate the control unit.** The control unit must remain with the unit.
  - Use 1-1/2" PVC or equivalent rigid piping. Use PVC unions or other means of making the installation maintainable.
  - The piping installation must meet the requirements of local plumbing or building codes. Ensure that the installation does not reduce the fire rating of any walls. Piping must be supported at intervals along the length in accordance with local codes.
  - The blower motor must have adequate ventilation. Do not install the blower motor closer than 1" (25 mm) from the wall or other objects. Provide a space of at least 15 cubic feet (.4 cubic meters) for cooling.

## INSTALLATION INSTRUCTIONS

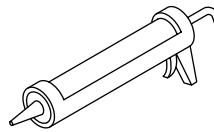
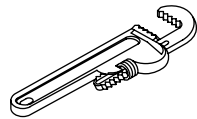
### BEFORE YOU BEGIN (CONT.)

- Ensure that the blower motor location is clean and free of dust or debris.
  - If appropriate, install an additional access panel for blower motor maintenance.
  - The 18 AWG (American Wire Gauge) minimum power cable to the blower motor must meet the requirements of the applicable electrical or building codes. Ensure that the installation does not reduce the fire rating of any walls.
  - The power cord must be supported at intervals along the length in accordance with local codes. Power cords must not rest on surfaces or floors that are subject to flooding.
  - All material needed for the relocation must be supplied by the installer.
- KALLISTA reserves the right to make revisions in the design of products without notice, as specified in the Price Book.

### TOOLS AND MATERIALS



Breathing  
Protection



Silicone Sealant

#### Plus:

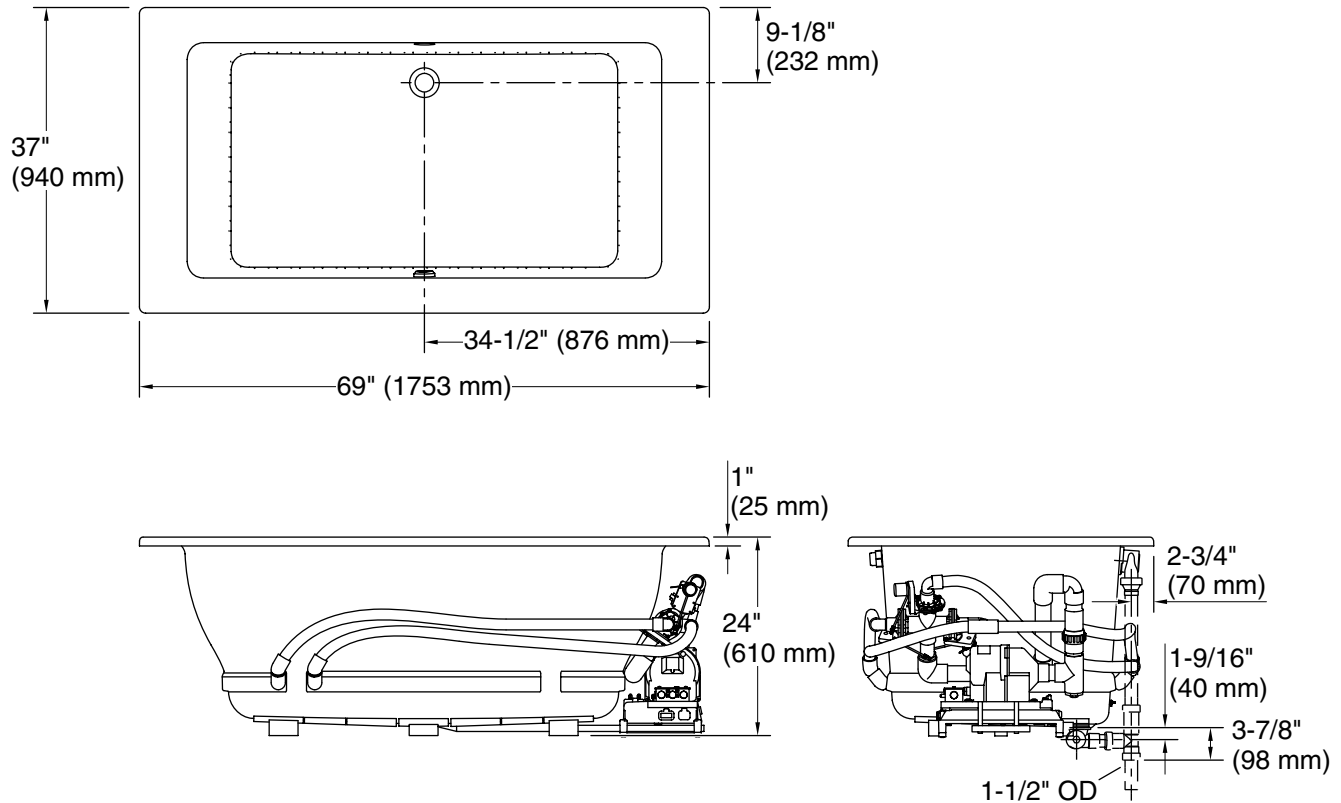
- Conventional woodworking tools and materials or conventional masonry tools and materials, as appropriate
- Drop cloth
- Construction Adhesive (optional)
- Cement or Mortar (optional)
- 2x4s or 2x6s (optional)

### Additional Tools and Materials for Remote Blower Installation

- Electrician pliers
- Assorted screwdrivers
- Adjustable wrench
- Drill and bits to install the blower mounting fasteners
- 18 AWG non-metallic sheathed cable, two conductors with ground, with support clips, as required
- 4" (102 mm) x 2" (51 mm) electrical junction box with cover, gasket, and mounting screws
- Three strain reliefs: one must fit the blower motor cover with standard NPT (National Pipe Thread) threads, the other two are to fit the holes in the new junction box
- Six wire connectors (wire nuts or equivalent)
- 1-1/2" PVC or other rigid pipe with: fittings, unions, PVC cement (or equivalent fastening method), and support clips, as required
- Four fasteners (such as flathead wood screws or concrete anchors) for mounting the blower motor
- Solid copper 8 gauge bonding wire, 36" (914 mm)

### INSTALLATION INSTRUCTIONS

#### ROUGH-IN INFORMATION



#### REQUIRED ELECTRICAL SERVICE

Dedicated circuit required, protected with Class A Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD):

Blower motor/control: 220-240 V, 15 A, 50/60 Hz

#### PRODUCT INFORMATION

Fixture*:	Top Area	Inside Area	Weight
Bathing Well	57-3/8" (1457 mm) x 28-3/4" (730 mm)	46-3/4" (1187 mm) x 25-3/4" (654 mm)	160 lbs (72.6 kg)
	Water Depth	Capacity	
To Overflow	17-7/8" (454 mm)	103 gal. (389.9 L)	
*Approximate Measurements For Comparison Only			
Heater	Voltage	Frequency	Amperage
300 W	220-240	50/60 Hz	3A

#### ROUGHING-IN NOTES

No change in measurements if connected with required drain illustrated.

Minimum Access Panel:

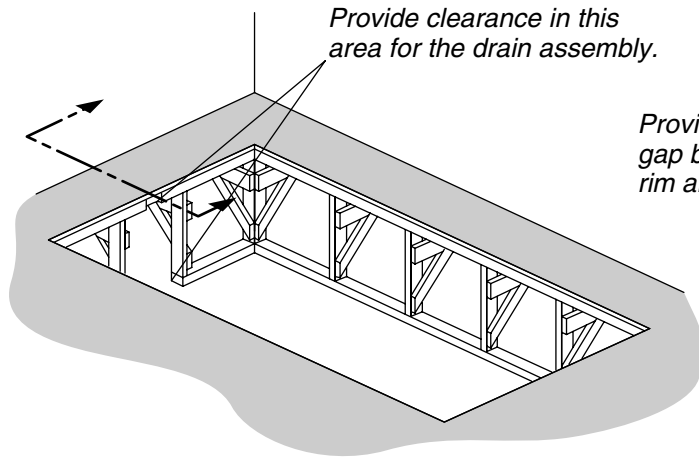
Blower/Control	34" (864 mm) W x 15" (381 mm) H	Required
Faucet Area		Recommended
Drop-in cutout	68" (1727 mm) x 36" (914 mm)	

Floor support under bath must provide for a minimum of 42 lbs/square foot (204 kg/square meter) loading.

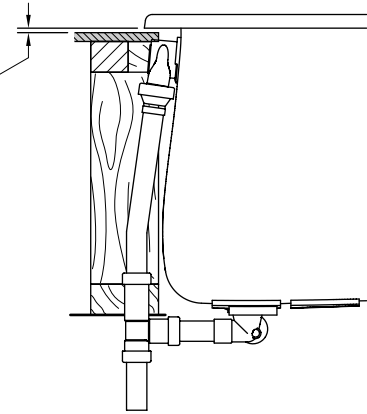
Hot water supply should be 70% of capacity or greater. Installations will vary.

## INSTALLATION INSTRUCTIONS

### 1. PREPARE THE SITE - WOOD CONSTRUCTION



Provide a 1/16" (2 mm) gap between the bath rim and the framing.



**⚠ CAUTION: Risk of property damage.** Do not support the bath by the rim. The bath must be supported by the support blocks only.

**NOTICE:** Adequate floor support must be provided. Consult the "Rough-In Information" section for specific floor loading requirements.

**NOTICE:** Provide adequate ventilation and a minimum of 15 cubic feet (.4 cubic meters) in the installed location for cooling the motor and to supply sufficient air for the blower. Do not install the blower motor closer than 1" (25 mm) from the wall or other objects.

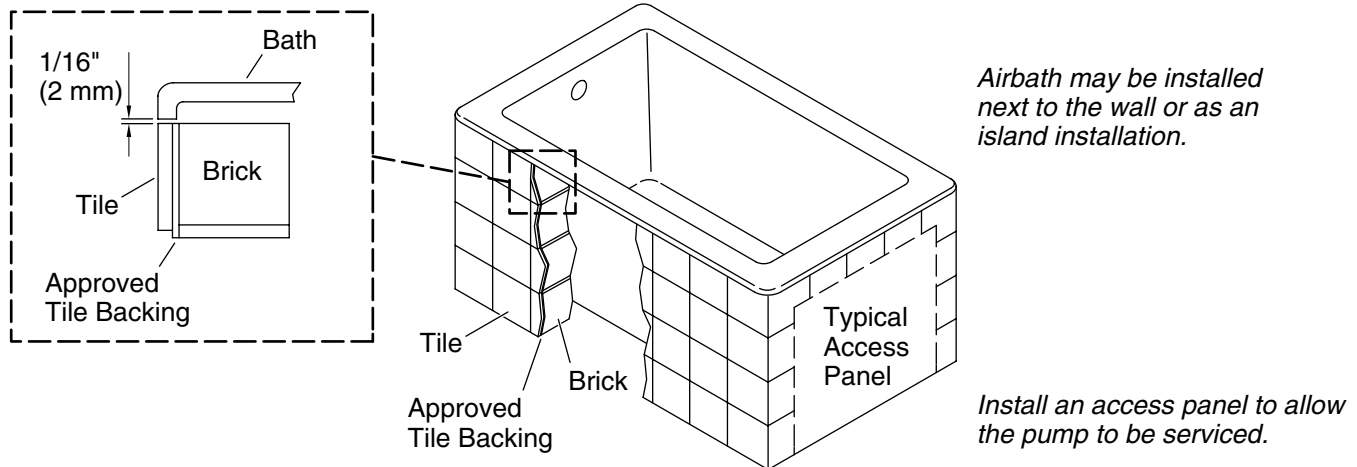
**NOTE:** This bath may be installed in a drop-in or an island installation. An island installation requires a four side surround.

- Make sure the flooring offers adequate support for your bath, and verify that the subfloor is flat and level.
- For a drop-in installation:** Carefully lay out and cut the rough deck material. Use the cutout template if one is provided, or refer to the drop-in cutout information.
- For an island installation:** Construct a 2x4 frame in accordance with the "Rough-In Information" section of this publication.
- Provide access panels to service the blower motor and control.
- Position the plumbing according to the "Rough-In Information" section.
- Cap the supplies, and check for leaks.



## INSTALLATION INSTRUCTIONS

### 2. PREPARE THE SITE - CONCRETE CONSTRUCTION



**CAUTION:** Risk of property damage. Do not support the bath by the rim. The bath must be supported by the support blocks only.

**NOTICE:** Adequate floor support must be provided. Consult the "Rough-In Information" section for specific floor loading requirements.

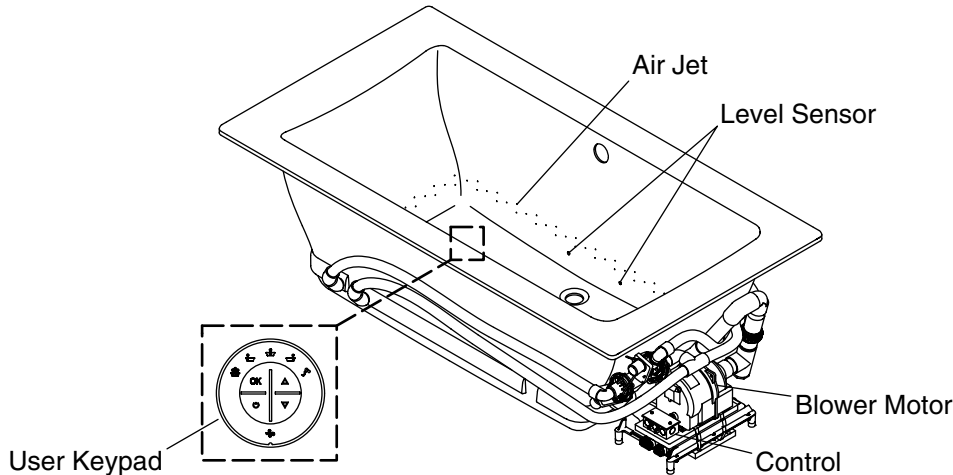
**NOTICE:** Provide adequate ventilation and a minimum of 15 cubic feet (.4 cubic meters) in the installed location for cooling the motor and to supply sufficient air for the blower. Do not install the blower motor closer than 1" (25 mm) from the wall or other objects.

**NOTE:** This bath may be installed in a drop-in or an island installation. An island installation requires a four side surround. In both instances, make sure the deck is supported by brick or concrete.

- Make sure the flooring offers adequate support for your bath, and verify that the subfloor is flat and level.
- Provide access panels to service the blower motor and control.
- Construct brick or concrete supports.
- Provide a 1/16" (2 mm) gap between the bath rim and the concrete or brick framing
- Frame the floor, or construct a frame for a raised installation, in accordance with the "Rough-In Information" section of this publication.
- Position the plumbing according to the "Rough-In Information" section.
- Cap the supplies, and check for leaks.

## INSTALLATION INSTRUCTIONS

### 3. PREPARE THE BATH



#### For All Installations

- Install the drain to the bath according to the drain manufacturer's instructions. Do not connect the trap at this time.
- Position a clean drop cloth or similar material in the bottom of the bath to protect the finish. Ensure that the airjets are covered. Be careful not to scratch the surface of the bath.

#### Blower Motor and Check Valve Options

**NOTE:** This airbath allows the blower motor and check valve to remain on the bath support board (standard installation) as it is shipped or to be relocated in another location (remote installation). Refer to your applicable installation, standard or remote, throughout this installation guide.

#### Standard Installation Sections

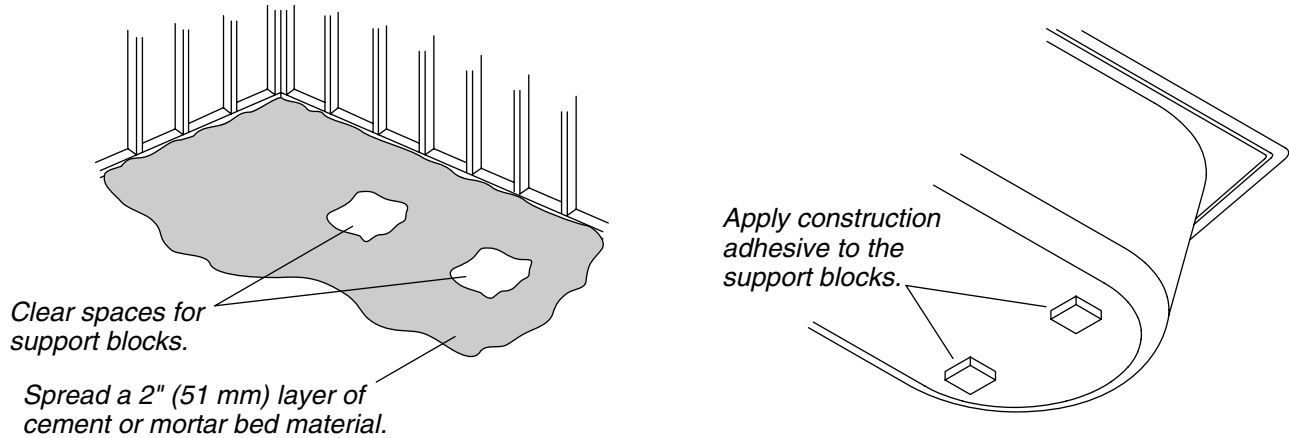
- Secure the Bath to the Subfloor - Standard
- Install the Plumbing - Standard
- Make Power Connections - Standard
- Then go to the "Test Run the Airbath" section.

#### Remote Location Sections

- Disconnect the Blower Motor and Check Valve - Remote
- Secure the Bath to the Subfloor - Remote
- Mount the Blower Motor and Check Valve - Remote
- Connect the Cable at the Blower - Remote
- Install the Power Cord at the Control - Remote
- Install the Plumbing - Remote
- Make Power Connections - Remote
- Then go to the "Test Run the Airbath" section.

## INSTALLATION INSTRUCTIONS

### 4. SECURE THE BATH TO THE SUBFLOOR - STANDARD



**CAUTION: Risk of product damage.** Do not lift the bath by the air harness or blower motor, or use the piping or blower motor for structural support of the bath.

**CAUTION: Risk of product damage.** Do not support the bath by the rim.

**NOTICE:** The bath must be secured using one of the following two methods: cement or mortar bed, or construction adhesive. Choose the installation option that best applies to your particular installation. Follow the appropriate instructions.

**NOTICE:** Ensure the subfloor is level before proceeding. If necessary, use shims to achieve level.

### Cement or Mortar Bed Method

**NOTICE:** Do not use gypsum cement or drywall compound, as these materials will not provide a durable bond. Only use cement or mortar.

- Spread a 2" (51 mm) thick layer of cement or mortar on the subfloor except where the support blocks will be located.
- Clear any cement or mortar away from the support block locations.
- Place a plastic liner or similar material over the cement or mortar.
- With help, carefully move the bath into the installation area. Make sure the blower motor control and support blocks do not rest in the bed material.
- Verify the support blocks are resting directly on the subfloor. Reposition or shim as needed.
- Verify the bath is level across the top. If the bath is not level, shims must be used under the support blocks.
- Connect the drain tailpiece to the trap.
- Remove the protective tape from the rim.
- Apply a continuous bead of silicone sealant around the entire rim of the bath. Allow the sealant to cure according to the manufacturer's instructions.


## INSTALLATION INSTRUCTIONS

### SECURE THE BATH TO THE SUBFLOOR - STANDARD (CONT.)

#### Construction Adhesive Method

- Apply a generous amount of high-quality construction adhesive to the bottom of the support blocks.
- With help, carefully move the bath into the installation area.
- Verify the support blocks are resting directly on the subfloor. Reposition or shim as needed.
- Verify the bath is level across the top. If the bath is not level, shims must be used under the support blocks.
- Connect the drain tailpiece to the trap.
- Remove the protective tape from the rim.
- Apply a continuous bead of silicone sealant around the entire rim of the bath. Allow the sealant to cure according to the manufacturer's instructions.

### 5. INSTALL THE PLUMBING - STANDARD

 **CAUTION: Risk of property damage.** A watertight seal must exist on all bath drain connections. The watertight seal will prevent property damage.

**NOTE:** To simplify future maintenance, provide access to all plumbing connections.

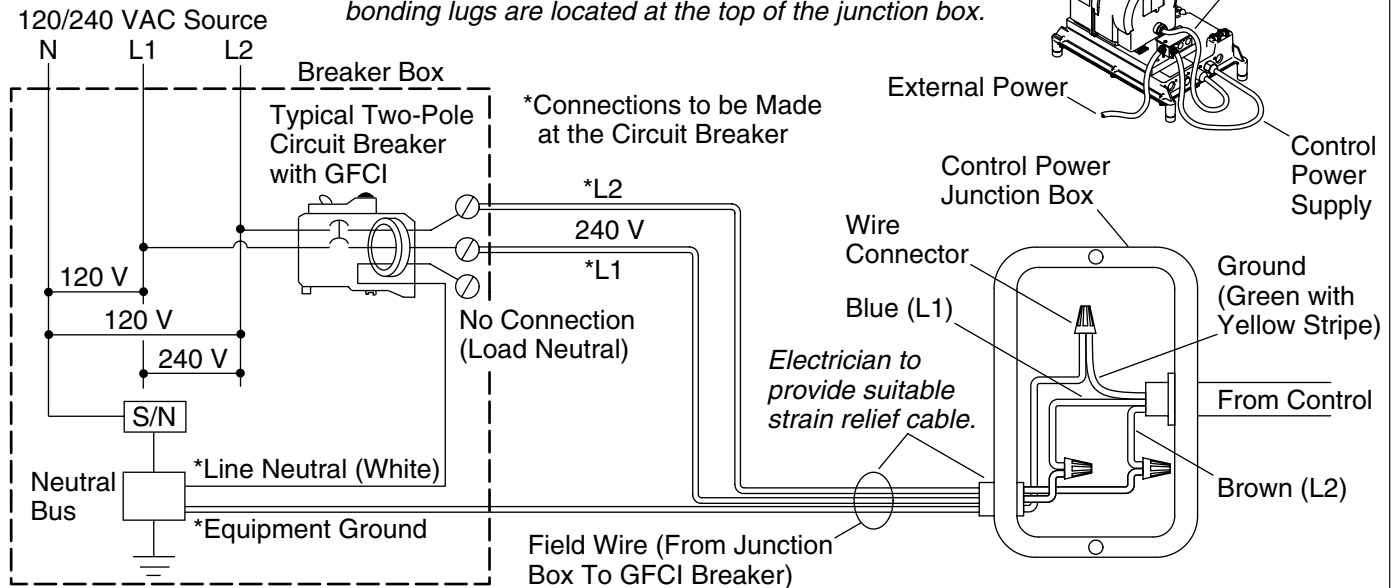
- Loosely make connections between the bath and overflow and the drain to the bath. Confirm locations and adjust as needed.
- Tighten connections between the bath and overflow, drain to bath, and drain assembly to trap according to the drain manufacturer's instructions.
- Confirm drain assembly connections are snug according to the drain manufacturer's instructions.
- Install the faucet valving according to the faucet manufacturer's instructions. Do not install the faucet trim at this time.
- Open the hot and cold water supplies. Check all connections for leaks.
- Fill the bath to the overflow. Check the drain connections for leaks. Repair as needed.

## INSTALLATION INSTRUCTIONS

### 6. MAKE POWER CONNECTIONS - STANDARD

#### Typical Wiring Connection for North America

*Bond in accordance with national and local codes. Open bonding lugs are located at the top of the junction box.*



**NOTE:** The product model number is printed on a label on the blower motor side of the bath. This label also identifies the electrical rating of the product. All airbaths come equipped with a wiring junction box and are designed to operate between 220 VAC and 240 VAC at either 50 Hz or 60 Hz.

**⚠ WARNING: Risk of electric shock.** Make sure the power has been disconnected before performing the following procedures. Refer to the “Important Information” section.

**⚠ WARNING: Risk of electric shock.** Connect the control to a properly grounded Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD). This will provide additional protection against line-to-ground shock hazard. A 220-240 V, 15 A, 50/60 Hz dedicated circuit is required.

**NOTICE:** The **load neutral** is not used. There should be no connection to the **load neutral** terminal on the Ground-Fault Circuit-Interrupter (GFCI). The green wire with the yellow stripe is the **equipment ground** and needs to be connected to the neutral bus in the main circuit breaker box.

**NOTICE:** The airbath control and system have been pre-wired at the factory. A qualified electrician should make a routine service connection to the junction box.

- Connect service to the junction box. The junction box contains blue, brown, and green with a yellow stripe colored wires. Follow local electrical codes. Bond in accordance with national and local codes.

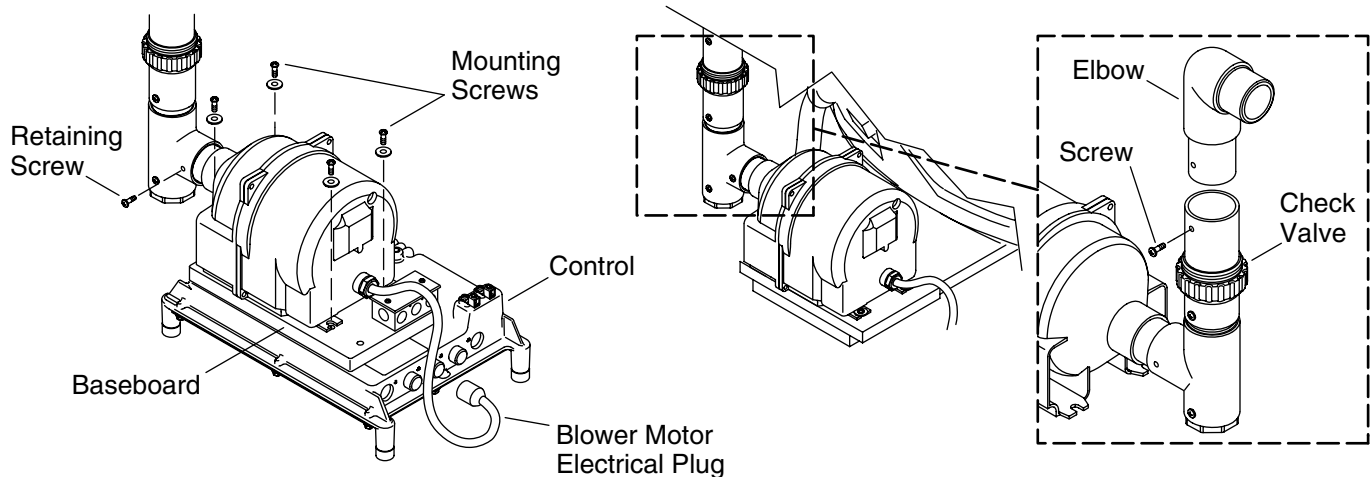
**NOTE:** A wiring harness has been pre-wired at the factory, allowing communication between the keypad, all features, and the control. No additional wiring is required, but ensure that all wires are securely fastened.

**NOTE:** Your wiring harness includes an antenna for the optional remote control. Do not alter or damage this antenna during installation.

- Proceed to the “Test Run the Airbath” section.

## INSTALLATION INSTRUCTIONS

### 7. DISCONNECT THE BLOWER MOTOR AND CHECK VALVE - REMOTE



**NOTICE:** This section applies only to installations in which the blower motor and check valve are being relocated from the shipping position on the support board.

**NOTICE:** Do not cut the air harness (pipes) for this installation.

**NOTICE:** The check valve must be relocated with the blower motor.

#### Removing the Blower Motor

- Disconnect the blower motor electrical plug from the control.
- Remove any cable ties that support the blower motor cord.
- Remove the retaining screw holding the air harness on the blower motor discharge. Do not discard the screw at this time.
- Remove the four blower motor mounting screws from the blower adapter baseboard. Keep these screws.
- While restraining the tee with one hand, slide the blower motor away from the tee.
- Remove the blower motor from the bath.

#### Remove the Check Valve

- Remove the upper retaining screw at the check valve. Do not discard the screw at this time.
- Remove the check valve and attached PVC elbow from the bath.

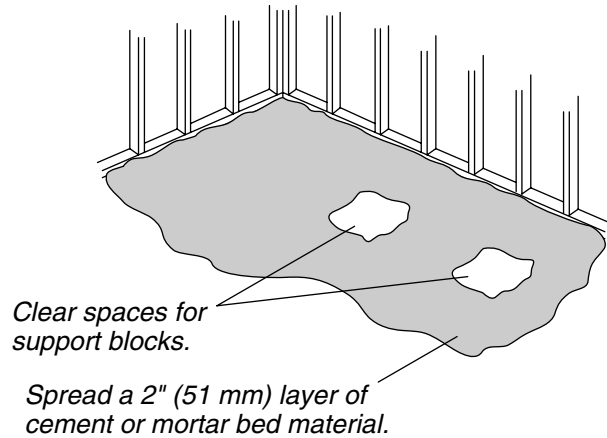
#### Prepare the Site for the Blower Motor and Check Valve

**NOTE:** Refer to the "Before You Begin" section for detailed requirements for the blower motor relocation.

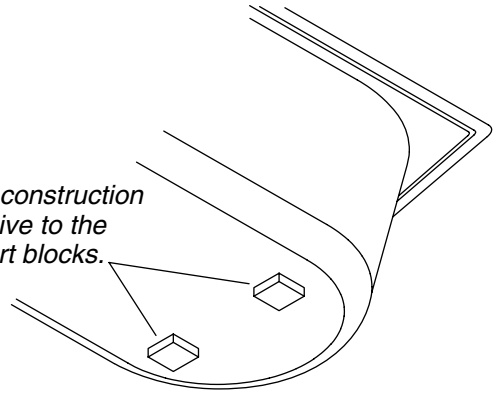
- Prepare the site where the blower motor will be installed. The site must be within 15' (4.6 m) of the bath.
- As appropriate, install an access panel to service the blower motor.
- As appropriate to the installation, prepare the routing paths for the PVC piping and the new blower motor power cable. Follow all applicable building, fire, plumbing, and electrical codes.

## INSTALLATION INSTRUCTIONS

### 8. SECURE THE BATH TO THE SUBFLOOR - REMOTE



Apply construction adhesive to the support blocks.



**CAUTION: Risk of product damage.** Do not lift the bath by the air harness or blower motor, or use the piping or blower motor for structural support of the bath.

**CAUTION: Risk of product damage.** Do not support the bath by the rim.

**NOTICE:** The bath must be secured using one of the following two methods: cement or mortar bed, or construction adhesive. Choose the installation option that best applies to your particular installation. Follow the appropriate instructions.

**NOTICE:** Ensure the subfloor is level before proceeding. If necessary, use shims to achieve level.

### Cement or Mortar Bed Method

**NOTICE:** Do not use gypsum cement or drywall compound, as these materials will not provide a durable bond. Only use cement or mortar.

- Spread a 2" (51 mm) thick layer of cement or mortar on the subfloor except where the support blocks will be located.
- Clear any cement or mortar away from the support block locations.
- Place a plastic liner or similar material over the cement or mortar.
- With help, carefully move the bath into the installation area. Make sure the blower motor control and support blocks do not rest in the bed material.
- Verify the support blocks are resting directly on the subfloor. Reposition or shim as needed.
- Verify the bath is level across the top. If the bath is not level, shims must be used under the support blocks.
- Remove the protective tape from the rim.
- Apply a continuous bead of silicone sealant around the entire rim of the bath. Allow the sealant to cure according to the manufacturer's instructions.

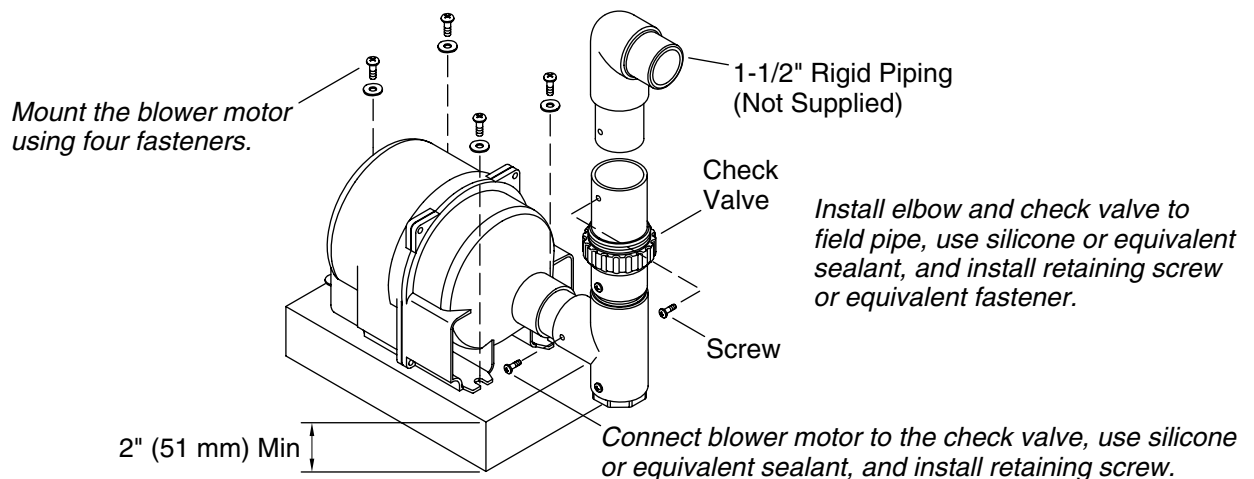
## INSTALLATION INSTRUCTIONS

### SECURE THE BATH TO THE SUBFLOOR - REMOTE (CONT.)

#### Construction Adhesive Method

- Apply a generous amount of high-quality construction adhesive to the bottom of the support blocks.
- With help, carefully move the bath into the installation area.
- Verify the support blocks are resting directly on the subfloor. Reposition or shim as needed.
- Verify the bath is level across the top. If the bath is not level, shims must be used under the support blocks.
- Remove the protective tape from the rim.
- Apply a continuous bead of silicone sealant around the entire rim of the bath. Allow the sealant to cure according to the manufacturer's instructions.

### 9. MOUNT THE BLOWER MOTOR AND CHECK VALVE - REMOTE



**NOTE:** The blower motor must be mounted horizontally 2" (51 mm) above the floor. Do not mount the blower motor with the blower motor discharge pointing up.

**NOTE:** The check valve must be relocated with the blower motor. At the new location, the check valve must be no lower than 24" (610 mm) below the rim of the bath. The check valve must be within 12" (305 mm) of the blower motor. The check valve must be oriented vertically with the flow arrow pointing up.

**NOTE:** Refer to the "Before You Begin" section for other detailed requirements for the blower motor relocation.

- At the new blower motor location, install a 2" (51 mm) block (not supplied) for the blower motor support.
- Use the blower motor as a template to mark the location of the four mounting bolts or screws.
- Drill four 1/8" (3 mm) pilot holes for the blower motor mounting screws.
- Install and support PVC or other 1-1/2" rigid piping (not supplied) between the blower motor location and the bath air harness.
- Connect the new piping to the existing air harness without modifying the air harness. Align the new pipe and secure the connection with PVC cement. Allow the PVC cement to cure according to the manufacturer's instructions.

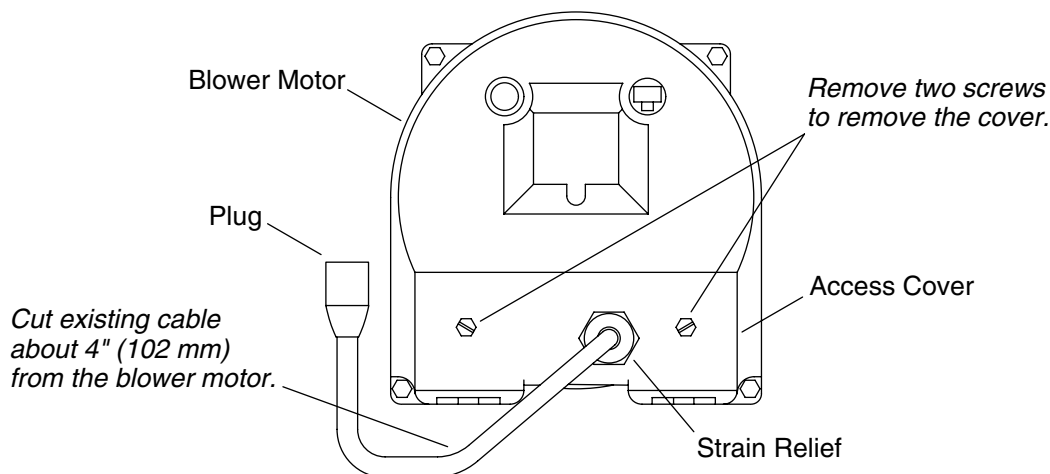


## INSTALLATION INSTRUCTIONS

### MOUNT THE BLOWER MOTOR AND CHECK VALVE - REMOTE (CONT.)

- Connect the check valve assembly to the new piping. Align the new pipe with the check valve assembly and drill a hole for the existing mounting screw. Use silicone or equivalent sealant at the connection and reuse the screw that was removed previously. Allow the sealant to cure according to the manufacturer's recommendations.
- Apply silicone or equivalent sealant to the lower connection of the check valve assembly.
- Align the blower motor with the lower connection of the check valve assembly. Position the motor on the support block. Reinstall the retaining screw. Allow the sealant to cure according to the manufacturer's recommendations.
- Fasten the blower motor to the new support block with the retained mounting screws.

### 10. CONNECT THE CABLE AT THE BLOWER - REMOTE



#### Route the Power Cable

- Route two conductors with ground 18 AWG (American Wire Gauge) or equivalent power cable (not supplied) between the bath and blower motor locations. Follow all applicable electrical and fire codes. Ensure that the cable jacket meets applicable code requirements and the cable is properly supported and protected.

#### Prepare the Blower for Remote Installation

- Loosen the cable strain-relief nut on the blower motor. Push the nut back on the cable to provide clearance for the cover removal.
- Remove the two access cover screws from the back of the blower motor. As you are loosening the screws, check periodically if the cover can be slid back on the electrical cable.
- When the cover is loose, use electrician pliers or equivalent to cut the electrical cable at a point about 4" (102 mm) from where the cable disappears into the blower motor housing.
- Pull the free end of the electrical cord through the cover, insert, and strain relief nut.
- Discard the existing strain relief nut and insert.
- Reconnect the blower motor plug to the control.

### INSTALLATION INSTRUCTIONS

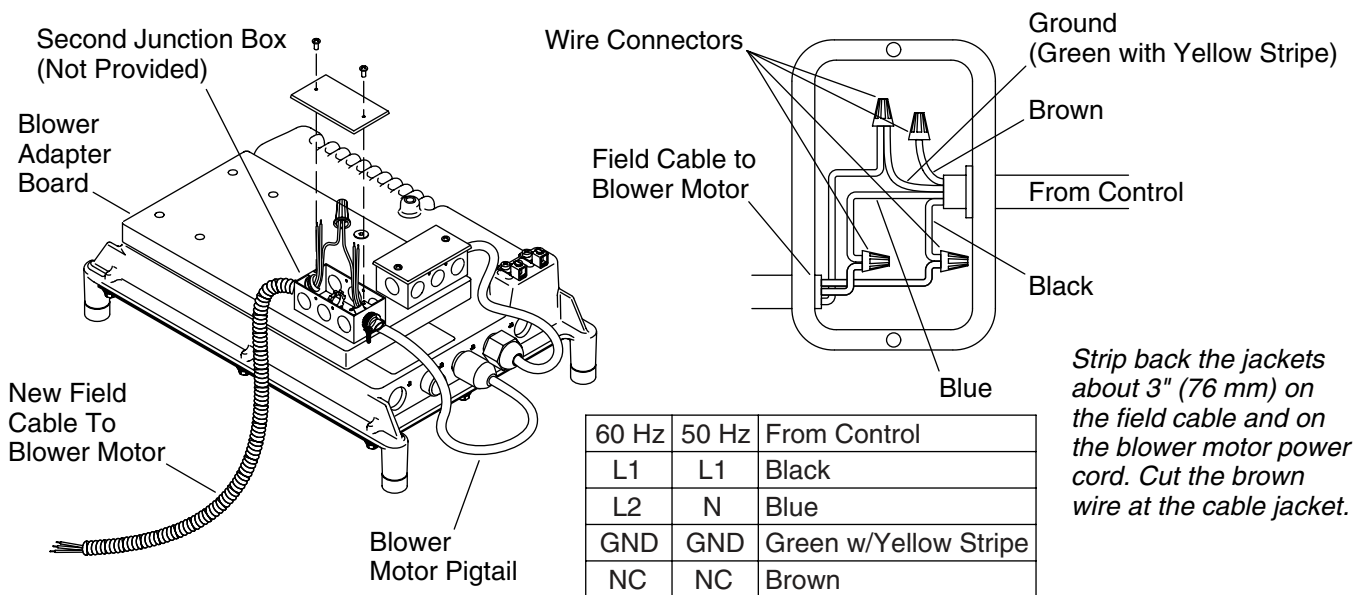
#### CONNECT THE CABLE AT THE BLOWER - REMOTE (CONT.)

- Install a standard NPT threaded strain relief to the blower motor cover.
- Temporarily store the removed components in a safe location.

#### Connect the New Power Cable at the Blower Motor

- At the blower motor 4" (102 mm) pigtail lead, strip back the cable jacket about 3" (76 mm).
- Cut the unused brown conductor off at the cable jacket and cap off with a wire nut.
- At the newly installed blower motor power cable, strip back the cable jacket about 2" (51 mm).
- For installations in the United States, mark white conductors with red or black tape as required by the NEC.
- Strip the wire insulation about 3/8" (10 mm) from the blower motor pigtail leads and the power cable leads.
- Route the new power cable leads through the blower motor access cover and strain relief.
- Using wire nuts or other approved termination devices, terminate the conductors as follows:
  - Connect the black pigtail lead to the L1 conductor of the power cable.
  - Connect the blue pigtail lead to the L2 conductor of the power cable.
  - Connect the green with yellow stripe pigtail lead to the grounding/earthing conductor of the power cable.
- With the two screws, reinstall the access cover on the blower motor.
- Tighten the strain relief on the power cable at the blower motor.
- Remove any dust or debris from the blower motor area.

#### 11. INSTALL THE POWER CORD AT THE CONTROL - REMOTE



#### Install the Junction Box on the Control

- Install a second junction box with external bonding lug, two strain reliefs, and a cover (not supplied) on the blower adapter board on the control.

## INSTALLATION INSTRUCTIONS

### INSTALL THE POWER CORD AT THE CONTROL - REMOTE (CONT.)

- Connect a solid copper 8 gauge bonding wire from the bonding lug on the new junction box to the spare bonding lug on the control. Follow all local electrical codes.


#### Reconnect the Blower Motor Power Cord

- If required, reconnect the blower motor power cord at the control.
- Route the power cord through a strain relief on the new junction box. Tighten the strain relief.
- At the end of the cut power cord, strip back the cable jacket about 3" (76 mm).
- Cut the unused brown conductor off at the cable jacket and cap off with a wire nut.
- Strip the wire insulation about 3/8" (10 mm) from the end of the wires.

#### Terminate the New Power Cable

- Route the new power cable through the other strain relief on the new junction box. Tighten the strain relief.
- Strip back the cable jacket about 3" (76 mm).
- For installations in the United States, mark white conductors with red or black tape as required by the NEC.
- Strip the end of the wires about 3/8" (10 mm).
- Use approved termination devices to terminate the conductors as follows:
  - Connect the black pigtail lead to the L1 conductor of the power cable.
  - Connect the blue pigtail lead to the L2 conductor of the power cable.
  - Connect the green with yellow stripe pigtail lead to the grounding/earthing conductor of the power cable.
- Install the cover on the new junction box.

### 12. INSTALL THE PLUMBING - REMOTE

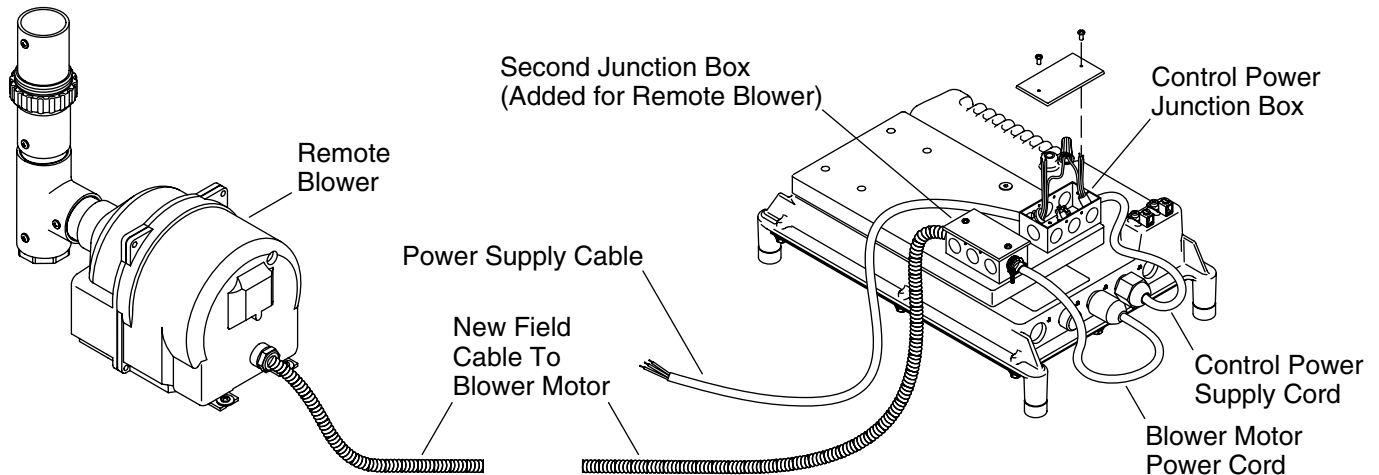
 **CAUTION: Risk of property damage.** A watertight seal must exist on all bath drain connections. The watertight seal will prevent property damage.

**NOTE:** To simplify future maintenance, provide access to all plumbing connections.

- Loosely make connections between the bath and overflow and the drain to the bath. Confirm locations and adjust as needed.
- Tighten connections between the bath and overflow, drain to bath, and drain assembly to trap according to the drain manufacturer's instructions.
- Confirm drain assembly connections are snug according to the drain manufacturer's instructions.
- Install the faucet valving according to the faucet manufacturer's instructions. Do not install the faucet trim at this time.
- Open the hot and cold water supplies. Check all connections for leaks.
- Fill the bath to the overflow. Check the drain connections for leaks. Repair as needed.

## INSTALLATION INSTRUCTIONS

### 13. MAKE POWER CONNECTIONS - REMOTE



**⚠ WARNING: Risk of electric shock.** To reduce the risk of electric shock, connect the control to a properly grounded Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD). This will provide additional protection against line-to-ground shock hazard. A dedicated 220-240 V, 15 A, 50/60 Hz circuit is required. The bath will only operate at 208 V through 254 V and at 50 Hz or 60 Hz.

**⚠ WARNING: Risk of electric shock.** Make sure the power has been disconnected before performing the following procedures.

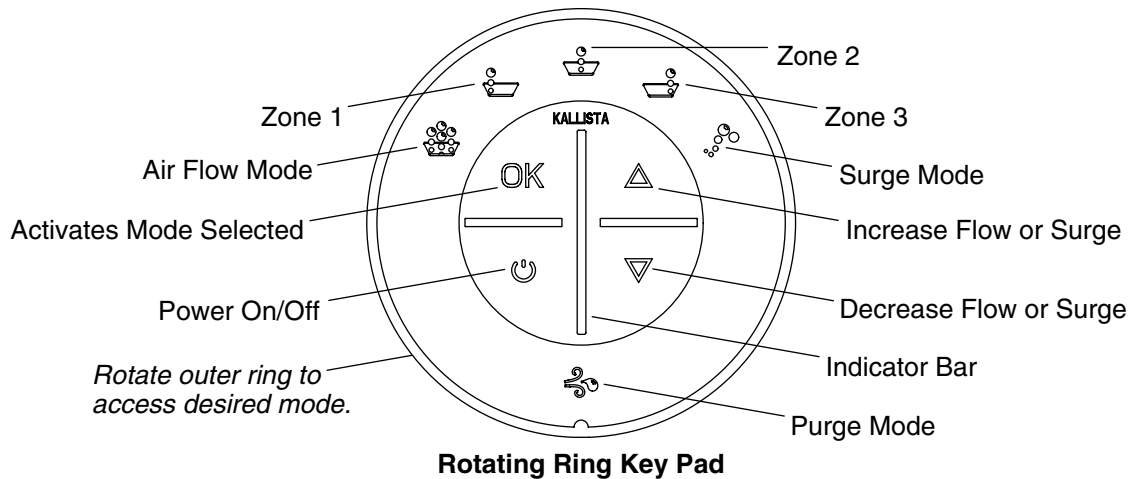
**NOTE:** The airbath model number is printed on a label near the bath blower motor. This label also identifies the electrical rating of the bath.

- Ensure that the control power supply cord is properly routed to the control power junction box. The control power supply cord contains a brown wire (Line 1), a blue wire (Line 2), and a green wire with a yellow stripe (ground or earth).
- Install a strain relief (not provided) for the power supply cable to the control power junction box.
- Route the power supply cable to the control power junction box.
- As required, strip the jacket and wire insulation on both cables in order to make the connections.
- For installations in the United States, mark any white conductor in the supply power wiring with red or black tape as required by the NEC.
- Connect service to the control power junction box.
- Provide a separate equipment earthing or grounding conductor to the spare earth/ground lug located on the junction box. This conductor **must not** be connected to any current-carrying conductor. Follow local electrical codes.
- Bond in accordance with national and local codes.
- Clean the area of all dust and debris.
- All wiring harnesses have been pre-wired at the factory. Make sure all wires are securely fastened.

**NOTE:** Your wiring harness includes an antenna for the optional remote control. Do not alter or damage this antenna during installation.

## INSTALLATION INSTRUCTIONS

### 14. TEST RUN THE AIRBATH



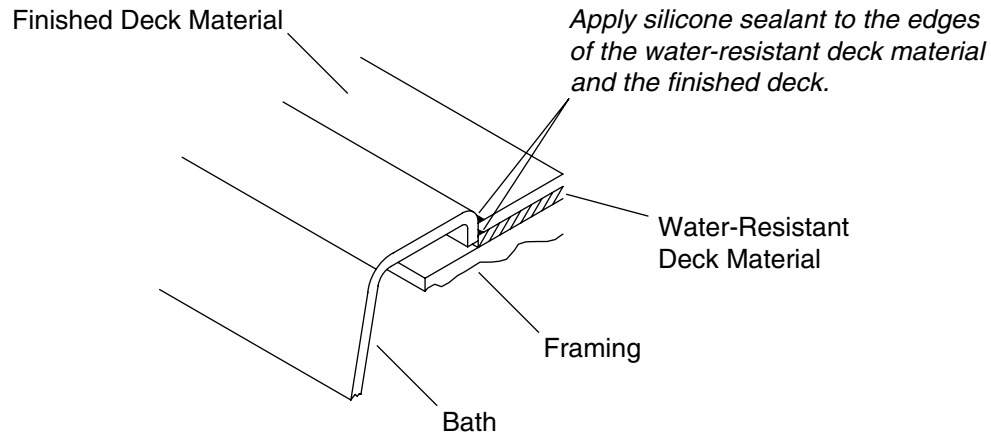
### For All Installations

**NOTE:** For additional information on airbath operation, see the “Confirm Proper Operation” section.

- Check all electrical connections, and make sure the electrical power to the bath is turned on.
- Make sure all PVC piping connections are properly made.
- Temporarily remove the protective drop cloth from the bath.
- Ensure that the area around the blower motor is clean and free of dust or debris.
- Fill the bath to a level at least 2" (51 mm) above the top of the highest air jet.
- Press the power button to start the bath.
- Operate the bath with air flow in all three zones.
- Check all bath PVC connections for leaks.
- Stop the blower.
- Check for any water leakage at the bath, the bath drain, and the air harness.
- Test other features as desired by rotating the outer ring on the keypad and pressing “OK.”
- Drain the bath and observe that the purge cycle starts.
- Allow the automatic purge cycle to complete.
- Replace the protective drop cloth in the bath.
- Turn off power to the unit.

## INSTALLATION INSTRUCTIONS

### 15. COMPLETE THE FINISHED DECK



#### For Drop-In Installations

- If you have not already done so, carefully remove the protective tape from the bath rim.
- Cover the framing with water-resistant deck material. Seal the joints between the bath rim edge and the water-resistant deck material with silicone sealant.
- Install the faucet trim according to the instructions packed with the trim.

### 16. COMPLETE THE CONCRETE INSTALLATION

#### For Island Installations

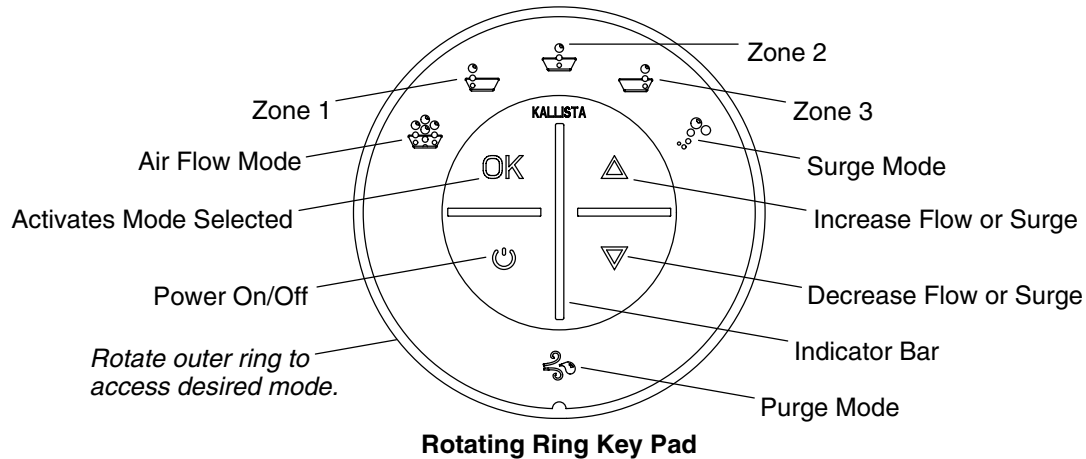
- If you have not already done so, carefully remove the protective tape from the bath rim.
- Apply mortar and tile to any wall, deck, and surround material as needed.
- Apply a bead of sealant where the tile meets the bath surface.
- Install the faucet trim according to the instructions packed with the trim.

### 17. CLEAN-UP AFTER INSTALLATION

- Clean the area around the blower motor of all dust and debris.
- Use warm water and a liquid detergent to clean the surface of the bath. **Do not use abrasive cleansers**, as they may scratch and dull the bath surface. **Do not use powdered cleaners unless the cleaner is fully dissolved in water.** Solid substances could block the airjets. **Do not use bleach or ammonia cleaning solutions.** Chemically active cleaning solutions can damage the bath surface.
- Refer to the homeowners guide for normal cleaning recommendations.

## INSTALLATION INSTRUCTIONS

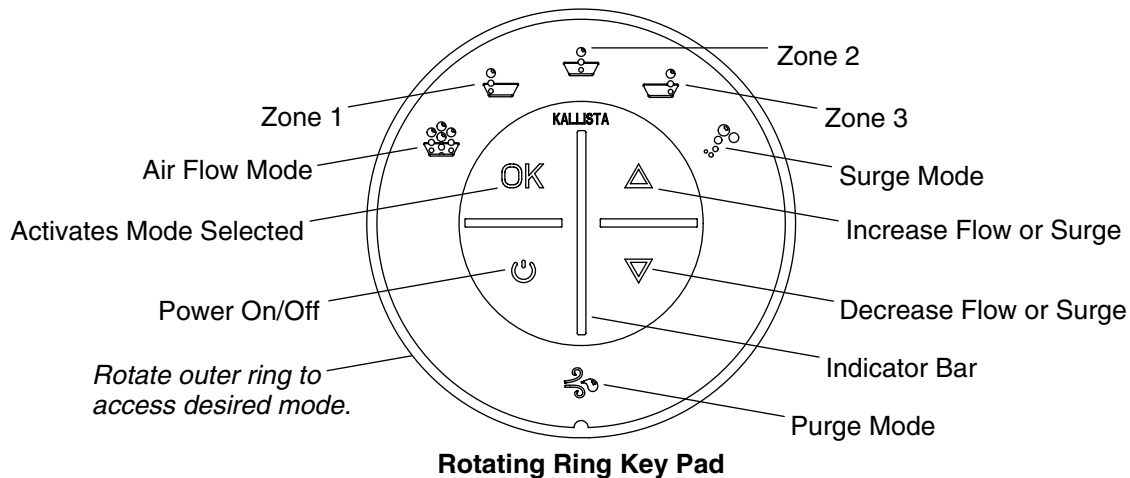
## 18. CONFIRM PROPER OPERATION



- Power On/Off** - Turns the blower motor on and off. Symbols illuminated in blue indicate available modes/features. Modes which are operating will display in green.
- Activate Button** - Press "OK" to activate the desired mode. The active mode will flash (green).
- Up Arrow** - Increases the air flow when the air flow mode is active. Increases the pulse speed when the surge mode is active.
- Down Arrow** - Decreases the air flow when the air flow mode is active. Decreases the pulse speed when the surge mode is active.
- Outer Ring** - Rotate the outer ring to the desired mode. The selected mode will flash (blue).
- Indicator Bar** - Shows the air flow volume when operating in the air flow mode. Shows the surge speed when operating in the surge mode.
- Purge Mode** - Select to initiate the purge mode manually. The purge cycle will not start if there is water in the bath. The purge mode blows any residual water out of the air channels. The blower motor starts and runs at a low speed for about two minutes. An automatic purge cycle occurs when the bath is drained and the water level falls below the level sensors.
- Air Flow Mode** - In this mode, air flow is directed through any combination of the airjets in the selected zones. Air flow can be adjusted with the arrow buttons. When the surge mode is selected, the air flow mode stops. When the air flow mode is selected while operating in the surge mode, the surge mode stops.
- Zone 1** - This mode is used to select or deselect the air flow through Zone 1.
- Zone 2** - This mode is used to select or deselect the air flow through Zone 2.
- Zone 3** - This mode is used to select or deselect the air flow through Zone 3.
- Surge Mode** - When active, the air flow ramps up from minimum to maximum and then down again to minimum. The surge speed can be adjusted between 10 seconds and 60 seconds by using the up or down buttons. Zones can be selected or deselected when in the surge mode.
- User Keypad "Sleep" Modes** - To enhance your bathing experience, the keypad is programmed to darken after approximately 15 seconds of inactivity. Only the last feature selected will remain illuminated. To resume normal operation, press any key or turn the outer ring. Approximately 60 seconds after all equipment is turned off, the keypad will darken completely to conserve power. Press the power button or turn the outer ring to reactivate the keypad.

## INSTALLATION INSTRUCTIONS

### 19. OPERATING SEQUENCE



### Preliminary Checks

- Temporarily remove all access panels.
- Ensure that the area around the blower motor is free of sawdust, insulation, dirt, or other small loose debris. Such material could clog the blower motor's air ducts and reduce the air flow through the blower motor.
- Make sure the union connection at the check valve is securely hand tightened.
- Check that the piping from the blower motor and the check valve to the butterfly valves is properly connected and supported.
- Ensure that cable ties or other clips support the air piping and electrical harnesses at the bath.
- Ensure that any unused electrical connectors are supported above the floor.
- Turn on power to the unit.

**NOTE:** Troubleshoot any problems using the "Troubleshooting" section.

### Confirm Blower Motor Operation

- Fill the bath to a level at least 2" (51 mm) above the top of the highest air jet.
- Press the power button on the user keypad.
- Observe that the user keypad icons illuminate. The air flow mode icon is lighted green. The Zone 1, Zone 2, and Zone 3 icons are also illuminated green since all three zones are activated.
- Observe that the blower motor starts at a midrange speed.

**NOTE:** The purge cycle mode cannot be selected while there is water in the bath.

- Rotate the rotating ring through each of the available icon positions.
- Verify that, as each icon is selected, it begins flashing. If the mode is operating, the light will flash green. If the mode is not operating, the icon will flash blue.
- Verify that, as each icon is deselected, it stops flashing.
- Select and activate the air flow mode icon.
- Press the up or down button to verify the air flow increases or decreases.



## INSTALLATION INSTRUCTIONS

### OPERATING SEQUENCE (CONT.)

#### Confirm Individual Zone Control

- Select and deactivate Zone 1.
- Verify that air stops flowing in the corresponding zone.
- Activate Zone 1.
- Repeat for Zones 2 and 3.

#### Confirm Surge Mode Operation

**NOTE:** The surge mode cycles the speed of the blower motor between maximum and minimum settings over an adjustable period of time. Six cycle times are available ranging from about 10 seconds to about 1 minute. The up and down buttons control the cycle time when in the surge mode. The surge mode will operate with any zone or all zones selected. The indicator bar shows the speed of the surge mode.

- Select and activate the surge mode.
- Verify that the air flow cycles between minimum and maximum.
- Increase or decrease the speed of the surge cycle by pressing the up or down button.
- Turn the unit off.

#### Automatic Purge Cycle Operations

**NOTE:** The automatic purge cycle occurs after the bath is drained. It operates at low speed for about two minutes to remove any residual water from the air channels.

- If required, fill the bath to a level at least 2" (51 mm) above the top of the highest airjet.
- Drain the bath.
- When the water level drops below the level sensor probes, verify that the blower motor starts at low speed.
- After about two minutes, verify that the blower motor stops.

#### Manual Purge Cycle Operation

- With the bath drained, rotate the ring on the user keypad to the purge cycle icon.
- Press the "OK" button.
- Observe that the blower motor starts in purge cycle to blow any residual water from the air channels.
- After the blower motor has operated for about two minutes, observe that the blower motor stops.

## INSTALLATION INSTRUCTIONS

### 20. TROUBLESHOOTING PROCEDURES

#### For All Installations

This troubleshooting guide is for general aid only. A KALLISTA Authorized Service Representative or qualified electrician should correct all electrical problems. For warranty service, contact KALLISTA's Customer Service Department at 1-888-452-5547.

#### Troubleshooting the Bath with Airjets System

Symptoms	Probable Causes	Recommended Action
1. User keypad does not illuminate when power button is pressed or the outer ring is rotated.	A. No power to control.	A. Check wiring and connect power.
	B. Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD) tripped.	B. Reset GFCI or RCD. If it trips again, refer to "Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD) trips when bath with airjets is turned on".
	C. Wiring harness from user keypad to control is loose, disconnected or damaged.	C. Check wiring for proper connections. Replace the wiring harness if necessary.
	D. User keypad does not work.	D. Replace the user keypad.
	E. Control does not work.	E. Replace the control.
2. Ground-Fault Circuit-Interrupter (GFCI) or Residual Current Device (RCD) trips when bath with airjets is turned on.	A. Electrical harness is wet or damaged.	A. Check for wet connections. Dry the connections and repair the leak. Check for insulation or connector damage. Replace the harness if damaged.
	B. Electrical wiring to the bath junction box is wet or damaged.	B. Have a qualified electrician diagnose and correct the problem in accordance with applicable building and electrical codes.
	C. Electrical wiring to the bath power cord is wet or damaged.	C. Have a qualified electrician diagnose and correct the problem in accordance with applicable building and electrical codes.
	D. Blower motor is shorted internally.	D. Replace the blower motor.
	E. Control is shorted internally.	E. Replace the control.

### INSTALLATION INSTRUCTIONS

Symptoms	Probable Causes	Recommended Action
3. User keypad is illuminated, but does not respond to buttons or outer ring.	A. Control program is locked.	A. Reset GFCI or RCD.
	B. P5 plug assembly harness from user keypad to control is loose, disconnected, or damaged.	B. Check wiring for proper connections. Replace the wiring harness if necessary.
	C. User keypad does not work.	C. Replace the user keypad.
	D. Control does not work.	D. Replace the control.
4. Blower motor will not start.	A. Power cord from blower motor to control is loose, disconnected, or damaged.	A. Check wiring for proper connections.
	B. Blower motor does not work.	B. Replace the blower motor.
	C. Control does not work.	C. Replace the control.
5. Blower motor stops running and will not immediately restart. Keypad is illuminated.	A. Blower motor overheated and protection device activated.	A. Check for blockage at motor vents. Remove blockage and allow motor to cool. Refer to dealer or wholesale distributor. Otherwise, refer to "User keypad is illuminated, but does not respond to buttons or outer ring. Blower motor will not start."
6. Blower motor starts, some but not all airjets are bubbling.	A. Blower motor speed is too low.	A. Increase speed setpoint to blower motor.
	B. Blower motor inlet is blocked.	B. Clean blower motor inlet.
	C. Blower motor does not work.	C. Replace the blower motor.
	D. Blower motor discharge is blocked.	D. Check blockage.
	E. Check valve does not work.	E. Replace the check valve.
	F. Airjets are clogged.	F. Use a small between-the-teeth dental brush and white vinegar. Dip the brush in the vinegar, brush the hole, rinse the brush in clean water, and then use the wet rinsed brush to rinse the hole.
	G. Some zones are closed.	G. Operate all zones.

### INSTALLATION INSTRUCTIONS

Symptoms	Probable Causes	Recommended Action
7. Blower motor runs but no air bubbles are formed.	A. Blower motor inlet is blocked.	A. Clean blower motor inlet.
	B. Airjets are plugged.	B. Use a small between-the-teeth dental brush and white vinegar. Dip the brush in the vinegar, brush the hole, rinse the brush in clean water, and then use the wet rinsed brush to rinse the hole.
	C. Check valve does not work.	C. Replace the check valve.
	D. Blower motor does not work.	D. Replace the blower motor.
	E. Control does not work.	E. Replace the control.
8. Blower motor operates, air bubbles are formed, zone controls work, but variable speed feature does not work.	A. Blower motor inlet is blocked.	A. Clean blower motor inlet.
	B. Loose, disconnected, or damaged wiring harness.	B. Check wiring for proper connections. Replace the wiring harness if necessary.
	C. User keypad does not work.	C. Replace the user keypad.
	D. Blower motor does not work.	D. Replace the blower motor.
	E. Control does not work.	E. Replace the control.
9. Blower motor will not turn off when the power button on user keypad is pressed.	A. User keypad does not work.	A. Replace the user keypad.
	B. Loose, disconnected, or damaged wiring harness.	B. Check wiring for proper connections. Replace the wiring harness if necessary.
	C. Control does not work.	C. Replace the control.
10. A zone does not produce air bubbles but another zone operates normally.	A. Zone is not selected.	A. Select the zone per the instructions in the "Confirm Proper Operation" section.
	B. Butterfly valve does not work.	B. Replace the butterfly valve.
	C. Loose, disconnected, or damaged wiring harness.	C. Check wiring for proper connections. Replace the wiring harness if necessary.
	D. User keypad does not work.	D. Replace the user keypad.
	E. Control does not work.	E. Replace the control.
11. Surge mode does not work.	A. User keypad does not work.	A. Replace the user keypad.
	B. Control does not work.	B. Replace the control.

**INSTALLATION INSTRUCTIONS**

Symptoms	Probable Causes	Recommended Action
12. Water spillage or damage observed under the bath.	A. Drain or overflow leaking.	A. Repair or replace the drain assembly following the manufacturer's instructions.
	B. Wall, deck, and/or shower door is improperly sealed.	B. Apply silicone sealant at the seams between the bath and the wall, deck, or door.
	C. Cracked acrylic air channels.	C. Refer to the manufacturer.
13. Bath does not purge automatically.	A. Level sensor wires are disconnected.	A. Connect the level sensor wires.