

# Watersilk™ Whirlpool Baths: K-1384-AC K-1384-H-AC K-1384-JA-AA

# INSTALLATION INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS ATTENTION INSTALLER: INSTRUCTIONS PERTAINING TO RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS READ AND FOLLOW ALL INSTRUCTIONS						
WARNING: When using this unit, always follow	basic precautions, including the following:					
<ul> <li>DANGER: RISK OF ELECTRICAL SHOCK. The installation must have Class A Ground-Fault Circuit-Interrupters (GFCI), one for the whirlpool system and one for the heater (if used).</li> <li>This will provide additional protection against line-to-ground shock hazard.</li> <li>Such a GFCI should be provided by the installer and should be tested on a routine basis.</li> <li>To test the GFCI, press the test button. The GFCI should interrupt power. Press the reset button. Power should be restored.</li> <li>If the GFCI fails to operate in this manner, there is a ground current flowing or the GFCI is defective. The possibility of an electric shock may exist. DO NOT use this unit. Disconnect the unit and have the problem corrected by a qualified licensed electrician.</li> </ul>	A pressure wire connector marked ground is provided within the terminal compartment. To reduce the risk of electric shock, connect this connector to the grounding terminal of your electric service or supply panel with a continuous green insulated copper wire equivalent in size to the circuit conductors supplying this equipment, but no smaller than No. 12 AWG (3.3 mm <sup>2</sup> ). A pressure wire connector is provided on the exterior of the control box within this unit to permit connection of a No. 8 AWG (8.4 mm <sup>2</sup> ) solid copper bonding conductor between this unit and all other electrical equipment and exposed metal in the vicinity, as needed to comply with local requirements.					
DO NOT operate this unit without the guard on the suction fitting. Never drop or insert any object into any opening.	Use this unit only for its intended use as denoted in this manual. DO NOT use attachments not recommended by the Kohler Co.					
DANGER: To reduce the risk of injury, do not permit children to use this unit unless they are closely supervised at all times.	WARNING: For heater models, do not adjust the heater thermostat while wet.					

# SAVE THESE INSTRUCTIONS

### **TABLE OF CONTENTS**

IMPORTANT SAFETY INSTRUCTIONS	2
	3
ROUGHING-IN: K-1384-AC, K-1384-JA-AA Ordering Information	4 4
Required Electrical Service	4
Product Information	4
Installation Notes	4
ROUGHING-IN: K-1384-H-AC Ordering Information	5 5
Required Electrical Service	5
Product Information	5
Installation Notes	5
PRODUCT NOTICES	6
Installer Hazard Notification	6
Factory-Assembled Features	6
PRODUCT REQUIREMENTS	7
Summary of Key Requirements	7
Plumbing Specifications	7 7
Product Inspection	7
Electrical Requirements	7
INSTALLATION REQUIREMENTS	8
Tools Required	8
Materials Required	8
Clearance Requirements	8
New or Replacement Installation Requirements	8
SITE REQUIREMENTS	8
Old Bath Removal	8
Subfloor Preparation	8
Stud Pocket Preparation	9
Plumbing Preparation	10

BEFORE INSTALLING UNIT	10
Tiling-In Bead Installation	10
Partially Install Bath Drain	10
Protect Bath Unit	10
INSTALL WHIRLPOOL	11
Whirlpool Set-in	11
Height Adjustment	12
Secure Whirlpool	12
Install Plumbing	12
FIELD WIRE ELECTRONICS Service Requirements Identify Electrical Requirements Locate Field Wiring Compartments Connect Control Box - 120V, 60 Hz Connect Control Box - 230V, 50 Hz Connect Heater - 60 Hz at 120V Connect Heater - 60 Hz at 240V	13 13 13 14 14 15 15
WATER TEST WHIRLPOOL & ELECTRONICS COMPLETE FINISH WALL	15 16 16 16 16
CLEAN-UP AFTER INSTALLATION	16
CONFIRM PROPER OPERATION	17
Start-Up Whirlpool	17
Operating Sequence	17
Troubleshoot Whirlpool System	18

### INTRODUCTION

Please read these instructions carefully to familiarize yourself with the required tools, materials, and installation sequences. Follow the sections that pertain to your particular installation. This will aid you in avoiding the unnecessary expense associated with improper installation. In addition to proper installation, read all operating and safety instructions.

The variety of installations possible with this whirlpool may require framing procedures other than those described in this manual.

All information in this manual is based on the latest product information available at the time of publication. Kohler Co. reserves the right to make changes in product characteristics, packaging, or availability at any time without notice.

Identify and record below the model and serial number (found at the pump end of the whirlpool):

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Date of Manufacture \_\_\_\_\_

## 1. ROUGHING-IN: K-1384-AC, K-1384-JA-AA

#### A. ORDERING INFORMATION

Factory installed components include pump, control with water level control, and piezoic switch.

Accessories/hardware:		
Jet trim kit	K-9698	required
Drain	K-7167	recom- mended
Vinyl tiling-in bead*	K-1179	optional
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\*Use K-1179 vinyl bead when wall material contacts any top surface of bath.

#### **B. REQUIRED ELECTRICAL SERVICE**

Dedicated circuits required, protected with Class A Ground-Fault Circuit-Interrupter (60 Hz) or ELCB (50 Hz):			
Pump/control 120 V., 15 A, 60 Hz or 230 V., 15 A, 50 Hz			

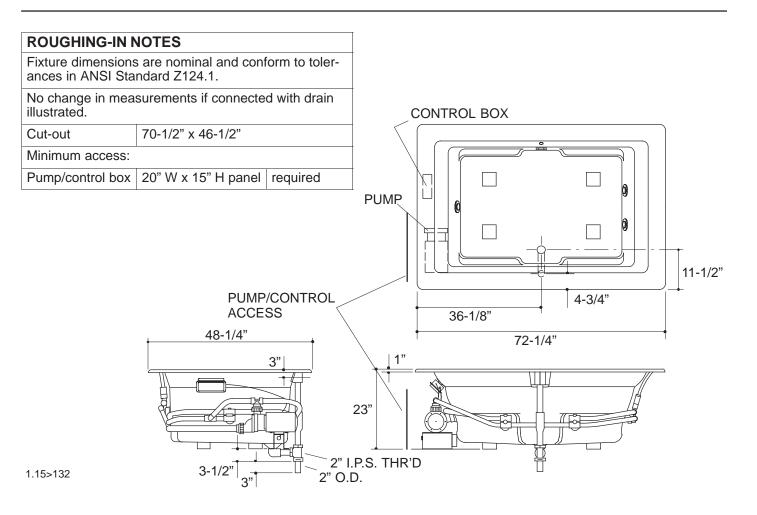
#### **C. PRODUCT INFORMATION**

Fixture:	basin area		top area v		W	weight	
Bathing well	47" x 30"		62" x 38"		1	125 lbs.	
	wate	er depth	capacity				
To overflow	17-1	/2"	124 gals.				
Pump, 2-spee	ed:	high	low	V		Hz	А
60 Hz		1 hp	1/8 hp	120	0	60	12
50 Hz		1 hp	1/8 hp	23	0	50	5.5

#### **D. INSTALLATION NOTES**

Refer to installation instructions included with fixture before beginning installation.

If installing a rim-mount faucet, make sure there is no interference with drain overflow and circulating system before drilling any holes. Consult local and national codes for minimum air gap requirements if installing a spout on the faucet deck.



## 2. ROUGHING-IN: K-1384-H-AC

#### **A. ORDERING INFORMATION**

Factory installed components include pump, heater, control with water level control, and piezoic switch.

Accessories/hardware:		
Jet trim kit	K-9698	required
Drain	K-7167	recom- mended
Vinyl tiling-in bead*	K-1179	optional

\*Use K-1179 vinyl bead when wall material contacts any top surface of bath.

#### **B. REQUIRED ELECTRICAL SERVICE**

Dedicated circuits required, protected with Class A Ground-Fault Circuit-Interrupter:			
Pump/control 120 V., 15 A, 60 Hz			
Heater (60 Hz) 15 A, 1.5 kW at 120 V. or 30 A, 6.0 kW at 240 V.			

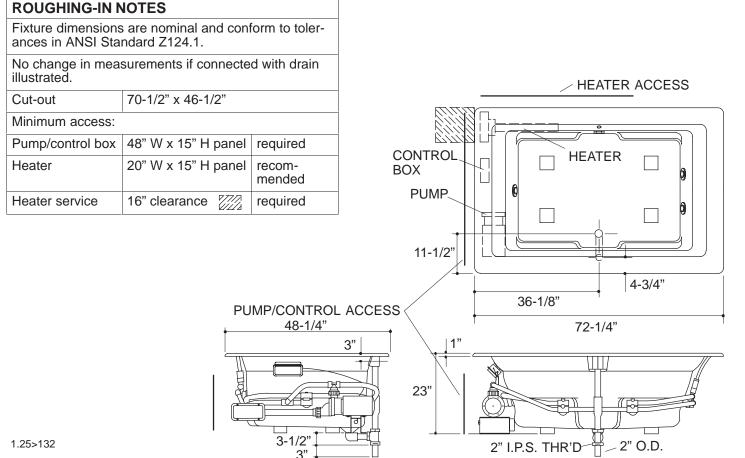
#### **C. PRODUCT INFORMATION**

Fixture:	basin area		top area		W	weight	
Bathing well	47" x 30"		62" x 38"		1	135 lbs.	
	wate	er depth	capacity				
To overflow	17-1/2"		124 gals.				
Pump, 2-spee	ed: high		low	V		Hz	А
60 Hz		1 hp	1/8 hp	120	)	60	12

#### **D. INSTALLATION NOTES**

Refer to installation instructions included with fixture before beginning installation.

If installing a rim-mount faucet, make sure there is no interference with drain overflow and circulating system before drilling any holes. Consult local and national codes for minimum air gap requirements if installing a spout on the faucet deck.



## 3. PRODUCT NOTICES

#### A. INSTALLER HAZARD NOTIFICATION

DANGER: Risk of fire, electric shock, or injury to persons. Read important safety instructions on inside front cover of these instructions.
 WARNING: Risk of electrical shock. A licensed electrician should make all electrical connections.

WARNING: Risk of electrical shock. Connect only to a circuit protected by a Ground-Fault Circuit-Interrupter (GFCI).

WARNING: Risk of electrical shock. Disconnect power before servicing.

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

NOTICE: Follow all local plumbing and electrical codes.

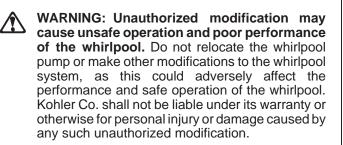
#### **B. FACTORY-ASSEMBLED FEATURES**

**K-1384, K-1384-JA:** Factory installed components include pump, control, piezo switch, and water level control.

**K-1384-H:** Factory installed components include pump, heater, control, piezo switch, and water level control.

The automatic timer has been factory installed to the whirlpool system. No installation is needed.

The whirlpool pump and piping are factory-assembled.



The optional heater, when wired with 120 V/15 A, will maintain the water temperature. When wired with 240 V/30 A, the water temperature can be raised several degrees Fahrenheit in a 20-minute cycle. This temperature rise is based on laboratory conditions. Actual temperatures may vary in your installation. The maximum temperature limit is 104 degrees Fahrenheit.

### 4. PRODUCT REQUIREMENTS

#### A. SUMMARY OF KEY REQUIREMENTS

- Install unit to level subfloor.
- Provide properly dimensioned framing.
- Bath can be installed in a corner. Recess, peninsular or sunken installation is also possible.

#### **B. PLUMBING SPECIFICATIONS**

If using a rim mounted bath faucet, flexible connections between the valves and spout may be required. Confirm adequate mounting and connection space of specified faucet for your installation.

Confirm adequate support for faucet; large faucets that may be inadvertently used as a means of support are not appropriate or safe for this installation.

#### C. PRODUCT INSPECTION

Carefully uncrate and inspect your product for damage. Leave all materials in carton during construction to prevent damage.

NOTICE: Make sure both connections to the whirlpool pump are securely tightened.

#### D. CONNECTIONS AND SERVICE ACCESS

Before installation, ensure proper access to the final connections.

**NOTICE:** Provide unrestricted service access to the pump and heater. One access panel is required for servicing the pump and heater. Kohler Co. recommends an additional access panel (see Roughing-In section beginning on page 4 for recommended locations) when installing a whirlpool with a heater. For future heater servicing, provide a 16" minimum horizontal draw for removal of the heating element.

#### E. ELECTRICAL REQUIREMENTS

**K-1384-AC:** A Class A Ground-Fault Circuit-Interrupter (GFCI) is required. The GFCI protects against line-to-ground shock hazard. A 120 V, 15 A, 60 Hz dedicated circuit is required.

**K-1384-H-AC:** Two Class A Ground-Fault Circuit-Interrupters are required. One is required for the whirlpool system and one is required for the heater. The GFCI protects against line-to-ground shock hazard. Use a 240 V/30 A (for 6.0 kW) or 120 V/15 A (for 1.5 kW) dedicated service for the heater. Use a 120 V/15 A dedicated service for the whirlpool.

**K-1384-JA-AA:** An Earth Leakage Circuit Breaker (ELCB) is required. The ELCB protects against line-to-ground shock hazard. A 230 V, 15 A, 50 Hz dedicated circuit is required.

### 5. INSTALLATION REQUIREMENTS

#### A. TOOLS REQUIRED

- · Conventional woodworking tools
- Arc pliers or 14" pipe wrench
- Rule
- Level
- · Safety shoes
- Safety glasses
- Square
- Screwdriver
- Pliers
- Utility knife

#### C. CLEARANCE REQUIREMENTS

Check roughing-in and room dimensions in order to provide adequate available space for the bath unit.

#### **B. MATERIALS REQUIRED**

- · Plumbers putty
- Water-resistant sealer
- Wall coverings, as necessary
- RTV silicone sealant
- Four 1/4" x 1" lag screws

#### D. NEW OR REPLACEMENT INSTALLATION REQUIREMENTS

This bath unit can be installed in new or existing bathrooms.

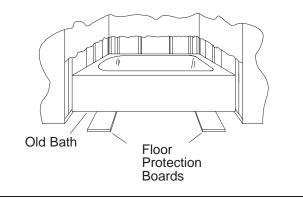
**For new installations:** Position plumbing according to roughing-in dimensions located on page 4. Cap supplies and check for leaks.

**For replacement installations:** Remove old bath, remove old wall material and remove old floor covering from area. Remove old plumbing which does not conform to roughing-in requirements.

### **6. SITE REQUIREMENTS**

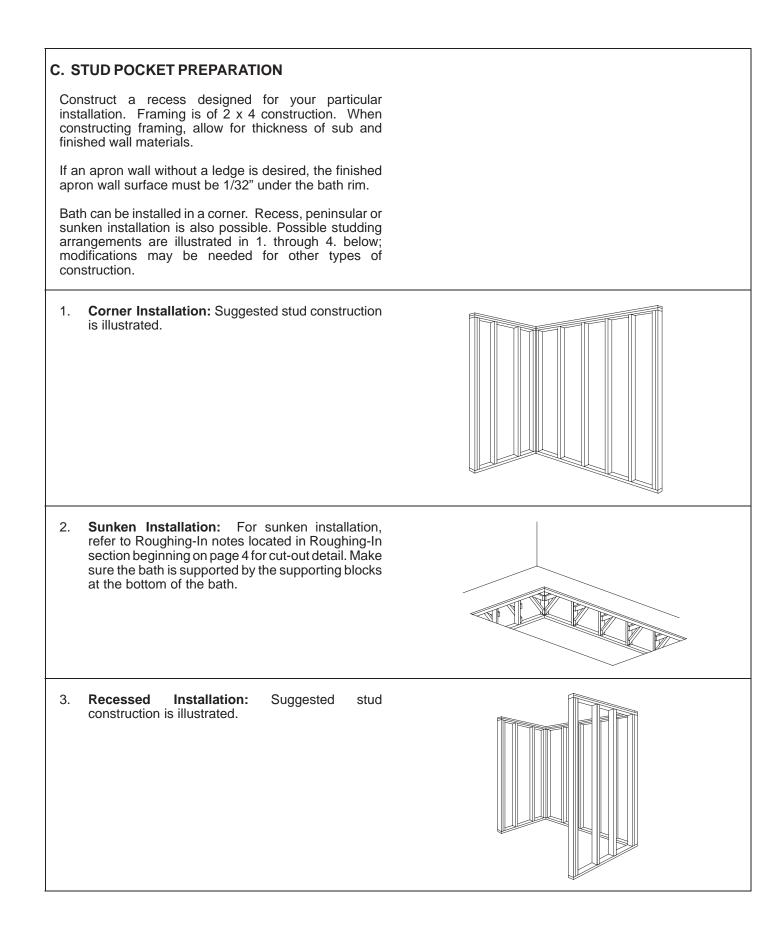
#### A. OLD BATH REMOVAL

Disconnect the drain at the trap. Remove old wall material. **Slip boards under old bath feet to protect floor** and slide old bath out of recess as illustrated.

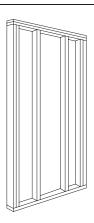


#### **B. SUBFLOOR PREPARATION**

Check flooring under the bath and repair if necessary. Make sure that the subfloor is level. Seal subfloor to reduce the risk of water damage.



4. **Peninsular Installation:** Suggested stud construction is illustrated.



#### D. PLUMBING PREPARATION

Position plumbing according to roughing-in dimensions. Cap supplies and check for leaks.

### 7. BEFORE INSTALLING UNIT

#### A. TILING-IN BEAD INSTALLATION

Before setting bath, an optional tiling-in bead is recommended to be applied to whatever side of the bath contacts the wall. Refer to Ordering Information located in Roughing-In section beginning on page 4. This bead prevents water from seeping between the bath and the wall. Install this bead now. Refer to Installation Instructions packed with the tiling-in bead.

#### **B. PARTIALLY INSTALL BATH DRAIN**

Install drain on bath/whirlpool according to manufacturer's instructions.

#### C. PROTECT BATH UNIT

Place a drop cloth or similar material in bath/whirlpool bottom. Be careful not to scratch product.

## 8. INSTALL WHIRLPOOL

#### A. WHIRLPOOL SET-IN

Choose one of the three recommended options below that is best for your particular installation as described in 1., 2., or 3. Follow the appropriate instructions.

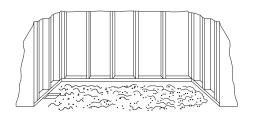
If subfloor is not level, some shimming of the bath and pump will be necessary. See 8.B. for height adjustment.

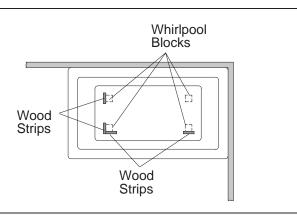
- 1. **Install Using Gypsum:** Place a 2" thick layer of gypsum cement (such as Gyp-Crete 2000) on the floor where the whirlpool is to be set. This will help secure, level and support the bath. Set bath into position. Clear any excess cement from vicinity of the pump.
- NOTE: Pump bracket must sit flat on the floor.

Insert tailpiece into trap. Make sure bath is level and resting on all supporting blocks.

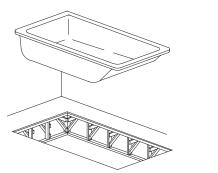
2. **Install Using 1 x 2 Strips:** Set whirlpool in desired location and level. Nail 1 x 2 wood strips around blocks under the whirlpool to firmly hold it in position. It is not necessary to use strips on all blocks. They are only needed on blocks that are to the outside edges of your installation.

Insert tailpiece into trap. Make sure bath is level and resting on all supporting blocks.





3. **Sunken Installation:** Set unit into sunken installation. Make sure the bath/whirlpool is level and is resting on all blocks. Insert the tailpiece into the trap. Apply a bead of RTV sealant under rim of the bath unit.



#### **B. HEIGHT ADJUSTMENT**

# NOTICE: Steps B. and C. are necessary for making your Kohler Whirlpool operate more quietly.

If the subfloor is level, no adjustment is necessary; proceed to Step C. If the subfloor is not level, shim beneath pump bracket (plywood is recommended). Do not change the elevation of the pump relative to the whirlpool bath since this may affect performance. Use a 5" x 7" (minimum) piece of plywood.

#### C. SECURE WHIRLPOOL

Using four 1/4" x 1" lag screws, secure pump bracket to subfloor. Predrilling is recommended.

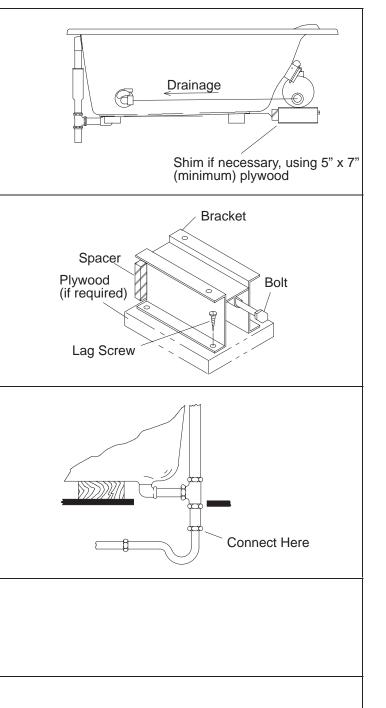


**CAUTION:** Risk of product damage. Do not use the piping or pump for structural support or positioning of whirlpools.

Use a 1/2" wrench to remove the long bolt securing the bracket to the bath.

#### **D. INSTALL PLUMBING**

- A CAUTION: Risk of damage to whirlpool bottom and subfloor. Ensure watertight seal on bath drain connections.
- 1. When whirlpool is securely positioned, connect drain into trap. An access panel will simplify future maintenance.
- 2. Install the faucet valving and spout tee. If faucets are deck-mounted, the deck must be finished before handle trim and spout can be installed. Open hot and cold valves and check all supply connections for leaks.
- 3. Run water in whirlpool and check drain connection for leaks.



## 9. FIELD WIRE ELECTRONICS

#### A. SERVICE REQUIREMENTS

The whirlpool controls and system have been prewired at the factory. A licensed electrician should make a routine service connection to the field wiring compartment of the control box.

See Electrical Requirements section on page 7 of Product Requirements. Dedicated services are required for the whirlpool and heater.



WARNING: Risk of electrical shock. A licensed electrician should make all electrical connections.

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shock.

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WARNING: Risk  $\Lambda$ 

Disconnect and lock out power before performing the following procedures. Refer to Important Safety Instructions on page 2.

#### **B. IDENTIFY ELECTRICAL REQUIREMENTS**

The model number is printed on a plate at the pump end of the module.

The model number identifies electrical rating. Electrical connections for each model vary.

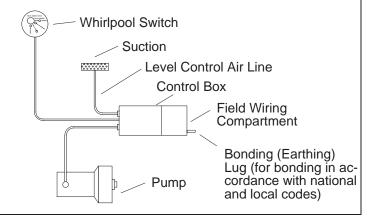
- K-1384-AC: 60 Hz. no heater
- K-1384-JA-AA: 50 Hz. no heater
- K-1384-H-AC: 60 Hz, w/heater

#### C. LOCATE FIELD WIRING COMPARTMENTS

Whirlpools without heaters are configured as 1. shown.

Loosen the screws on the control box cover and remove cover.

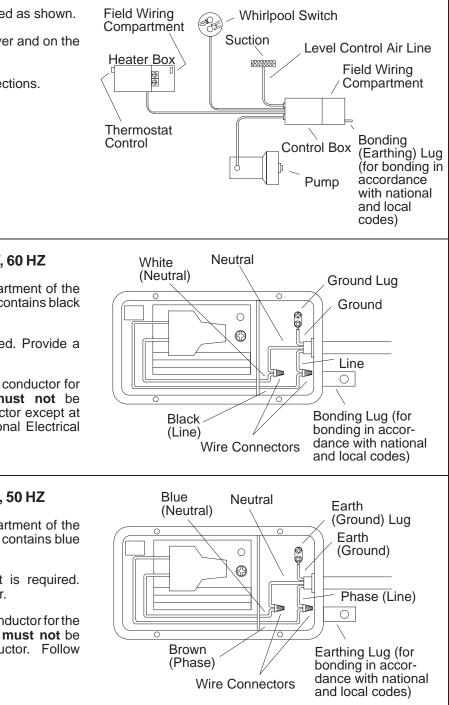
Proceed with appropriate electrical connections.



2. Whirlpools with heaters are configured as shown.

Loosen the screws on the control box cover and on the heater cover and remove both covers.

Proceed with appropriate electrical connections.



#### D. CONNECT CONTROL BOX - 120 V, 60 HZ

Connect service to the field wiring compartment of the control box. The 60 Hz model control box contains black and white wires and ground lug.

A 120 V, 15A dedicated circuit is required. Provide a Class A Ground-Fault Circuit-Interrupter.

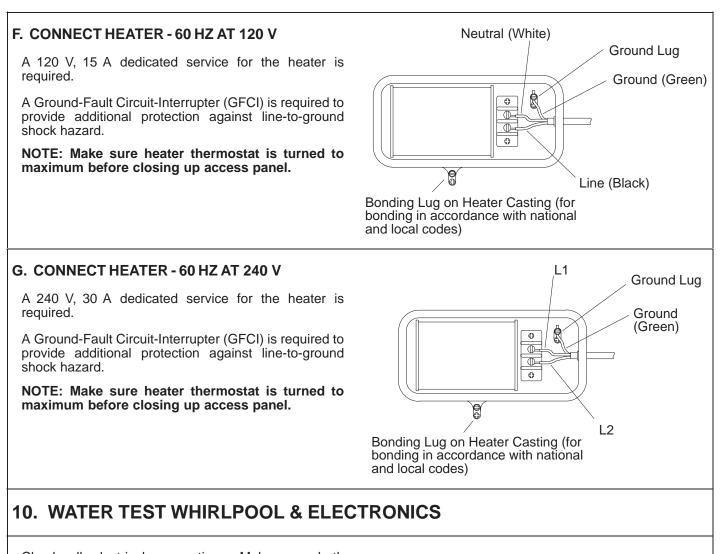
Provide a separate equipment grounding conductor for the inside grounding lug. Ground **must not** be connected to any current-carrying conductor except at the main service breaker box (per National Electrical Code, Article 250-61-b).

#### E. CONNECT CONTROL BOX - 230 V, 50 HZ

Connect service to the field wiring compartment of the control box. The 50 Hz model control box contains blue and brown wires and earth lug.

A 230 V, 15 A, 50 Hz dedicated circuit is required. Provide an Earth Leakage Circuit Breaker.

Provide a separate equipment earthing conductor for the inside earth lug. The earthing conductor **must not** be connected to any current carrying conductor. Follow local electrical codes.



Check all electrical connections. Make sure both connections to the pump are securely tightened.

Fill bath to a level at least 2" above the top of the highest jet.

Operate whirlpool for 5 minutes and check all whirlpool harness (piping) connections for leaks.

For additional information on whirlpool operation, see Whirlpool Start-Up Instructions on page 17.

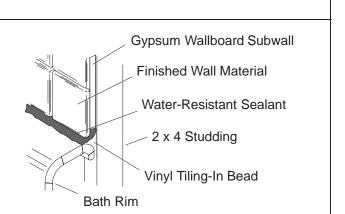
### 11. COMPLETE FINISH WALL



CAUTION: Risk of product damage. Do not support the weight of the whirlpool by the rim.

Protect whirlpool surface. Make sure the vinyl bead is attached securely to the sides being built into the wall. Cover framing and walls with gypsum wallboard.

Tape and mud drywall...seal drywall and joints under bath rim. Install finished wall material to subwall. Seal joints between the whirlpool rim and finished wall using silicone sealant.



### 12. COMPLETE INSTALLATION

#### A. INSTALL HANDLES AND SPOUT

After the deck is finished, attach the handles and spout to complete faucet installation per manufacturer's instructions.

#### **B. INSTALL WHIRLPOOL TRIM KIT**

Refer to Installation Instructions packed with the trim kit when installing jet trim or suction trim.

NOTE: Suction elbow (located behind suction cover) must be oriented at a 45° angle as illustrated, for proper whirlpool operation.



### **13. CLEAN-UP AFTER INSTALLATION**

When cleaning up after installation, do not use abrasive cleaners as they may scratch and dull the module surface. Use warm water and one of the liquid detergents to clean the surface.

Stubborn stains, paint, or tar can be removed with turpentine or paint thinner. Do not allow cleaners containing petroleum distillates to remain in contact with whirlpool surfaces for long periods of time. Plaster can be removed by scraping with a wood edge. Do not use metal scrapers, wire brushes, or other metal tools. One of the powder-type detergents may be used on a damp cloth to provide mild abrasive action to the residual plaster.

## **14. CONFIRM PROPER OPERATION**

#### A. START-UP WHIRLPOOL

# Refer to Important Safety Instructions on page 2 before operating this whirlpool.

Please perform the following so that the owner may safely receive the benefits of whirlpool bathing.

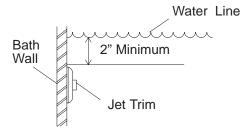
- 1. Rotate jets so they are facing down toward basin.
- 2. Fill the whirlpool bath to a water level at least 2" above the top of the highest jet. A water level device in the whirlpool prevents the pump from turning on unless an adequate amount of water is in the bath.

Water temperature in the whirlpool should not exceed  $104^{\circ}F(40^{\circ}C)$ . A thermal safety switch in the whirlpool heater electronics prevents overheating. Because it has a thermal switch, very hot water may cause the heater to shut off. If this occurs, allow the water to cool before turning the heater on again. Heater will automatically reset.

#### **B. OPERATING SEQUENCE**

Refer to chart for proper operating sequence.

- 1. Turn on the whirlpool jets. Adjust each jet for optimum air/water mixture.
- 2. A built-in timer automatically stops the motor after 20 minutes of operation.



то	METHOD	OBSERVE
Turn on high speed whirlpool massage.		
Turn on low speed whirlpool massage.	Contraction of the second seco	
Add air to whirl- pool action, rotate flange counter- clockwise. To re- duce air, turn clockwise.	Reduce Add Air Add	
Shut off whirlpool.		Ø
Restart whirlpool after 20 minute cycle is com- plete.		
Turn on heater. (If equipped)	Contraction of the second seco	

#### C. TROUBLESHOOT WHIRLPOOL SYSTEM

This troubleshooting guide is for general aid only. A Kohler Authorized Service Representative or a qualified electrician should correct all electrical problems. For warranty service, contact your dealer or wholesale distributor.

SYMPTOMS	PROBABLE CAUSES	<b>RECOMMENDED ACTION</b>
1. Whirlpool does not start/stop.	A. No power to power panel.	A. Set/Reset GFCI/ELCB breaker; check wiring to power module.
	B. Little or no water in bath.	<ul> <li>B. Fill bath with enough water (minimum 2" above highest jet) to allow the level sensor to activate pump.</li> </ul>
	C. Jets are blocked.	C. Remove blockage.
	D. 1/8" black tubing kinked, disconnected, plugged with water, or broken from level sensing switch or power panel at either end.	D. Clean, replace or reconnect tubing with bath empty.
	E. Piezo switch disconnected from panel.	E. Reconnect switch inside power panel.
	F. Piezo switch faulty.	F. Replace switch.
	G. Suction elbow missing, cracked, or incorrectly oriented.	G. Replace or reorient suction elbow. Refer to trim kit installation.
	H. Faulty power panel.	H. Replace power panel.
	I. Faulty motor/pump assembly.	I. Replace motor and pump.
2. Motor starts, all jets	A. Jet is closed.	A. Rotate jets counterclockwise to open.
are not functioning.	B. Trim kit installed incorrectly.	B. Reinstall trim kit, checking for damage to O-Ring.
3. Whirlpool stops	A. GFCI/ELCB trips.	A. Identify source of fault and correct.
automatically before 18 minutes.	B. Suction blocked.	B. Remove obstruction.
	C. Jets are blocked.	C. Remove blockage.
	D. Motor overheated and protection device activated.	<ul> <li>D. Check for blockage at motor vents. Remove blockage and allow motor to cool. Check for suction blockage. Remove blockage and allow motor to cool. Check for jet blockage. Remove blockage and allow motor to cool.</li> </ul>
	E. Faulty power panel.	E. Replace power panel.
4. Whirlpool does not automatically stop after 22 minutes.	A. Faulty power panel.	A. Replace power panel.
5. Heater does not work.	A. No power to power panel.	A. Set/Reset GFCI/ELCB breaker; check wiring to power module.
	B. Incorrect field wiring.	B. Verify field wiring.
	C. Faulty heating element.	C. Replace heating element.
	D. Water hotter than 104° F tripped safety switch.	D. Cool water in bath to below 104° F.
	E. Thermostat set too low.	E. Turn up thermostat.
	F. Piezo switch faulty.	F. Replace piezo switch.

