

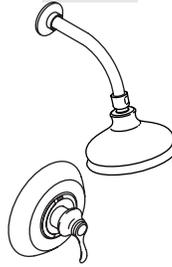
# Installation Guide

## Single-Control Bath and Shower Trim

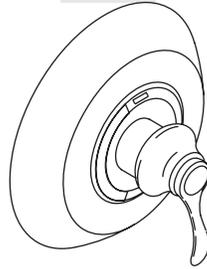
K-12007



K-12014



K-12021



# IMPORTANT INSTRUCTIONS

## READ AND SAVE FOR THE CONSUMER



**WARNING: Risk of scalding or other severe injury.**

- Before completing installation, the installer must set the maximum water temperature setting of this valve to minimize the risks associated with scalding hazards according to ASTM F 444.
- Do not install a shut-off device on either outlet of this valve. The installation of any such device may create a cross-flow condition at the valve and affect the water temperature.
- Factors that change the temperature of the water supplied to the valve, such as seasonal water temperature changes, and water heater replacement or servicing, will change the maximum water temperature supplied by the valve and may create a scalding hazard. The pressure-balanced valve **will not** compensate for changes in the water supply temperature; adjust the maximum water temperature setting of this pressure-balanced valve when such changes occur.
- Pressure-balanced valves may not provide protection against scalding if there is a failure of other temperature-limiting devices elsewhere in the plumbing system.

**The installer is responsible for installing the valve and adjusting the maximum water temperature of this pressure-balanced valve according to instructions.**

**This valve meets or exceeds ANSI A112.18.1 and ASSE 1016.**

If you do not understand any of the installation or temperature adjustment instructions in this document, in the United States please contact our Customer Service Department at **1-800-4-KOHLER**. Outside the U.S., please contact your distributor.

**IMPORTANT NOTICE TO INSTALLERS!** Please fill in the blanks in the information box in the Homeowners Guide and on the valve label. Retain the Homeowners Guide for future reference.

**NOTICE TO HOMEOWNERS! This device has been preset by \_\_\_\_\_ of \_\_\_\_\_ to ensure a safe maximum temperature. Any change in the setting may raise the discharge temperature above the limit considered safe, and lead to scalds.**

Date: \_\_\_\_\_

## Tools and Materials



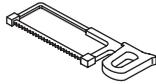
Pipe Wrench



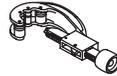
Adjustable Wrench



Strap Wrench



Hacksaw or Tubing Cutter



Propane Torch



Assorted Screwdrivers



Plumbers Putty



Thread Sealant



Hex Wrench



Solder

## Thank You For Choosing Kohler Company

We appreciate your commitment to Kohler quality. Please take a few minutes to review this manual before you start installation. If you encounter any installation or performance problems, please don't hesitate to contact us. Our phone numbers and web site are listed on the back cover. Thanks again for choosing Kohler Company.

## Before You Begin



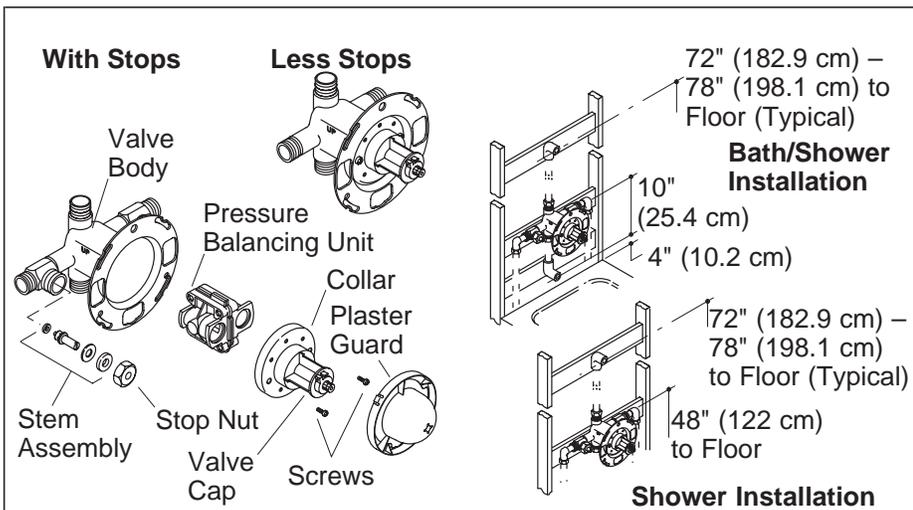
**CAUTION: Risk of product damage.** The valve contains plastic components. Do not apply excessive heat if you solder the valve connections.

**NOTE:** To improve clarity, the plaster guard dome is not shown in some of the illustrations.

- Observe all local plumbing codes.
- The valve shuts off by water pressure. Do not force the handle in any direction. To turn the valve off, gently turn it to the "Off" position.

### **Before You Begin (cont.)**

- Flush all piping thoroughly before installing this Rite-Temp valve.
- Do not use plastic pipe between the Rite-Temp valve and the spout. Use 1/2" nominal copper tube or 1/2" iron pipe.
- Do not connect a deck-mount spout, diverter, or hand shower to the spout outlet unless you cap the shower outlet on the valve.
- Install a pipe or tube in a straight drop of 7" (17.8 cm) to 18" (45.7 cm) with only one elbow between the valve and the wall-mounted spout. Other types of installation may cause unsatisfactory shower performance.



## 1. Prepare the Site

**IMPORTANT!** If the bath has been installed, cover it to prevent damage to the bath surface.

### Rough-in Plumbing

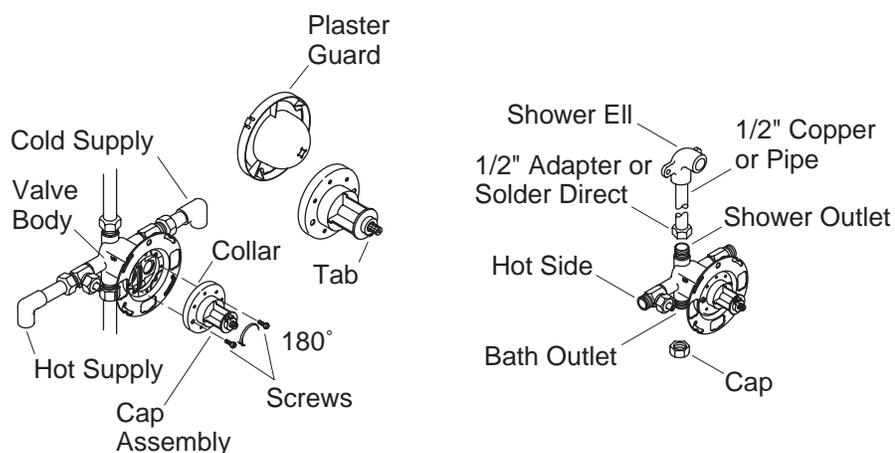
- Shut off the main water supply.
- Install or relocate the supplies as necessary.

### Support Framing

- Determine the location of the valve, and install the support framing.

## 2. Prepare the Valve

- Carefully remove the stop nut and stem assembly, valve cap, collar, and pressure balancing unit before you apply soldering heat to the valve body.



### 3. Shower Only Valve Installation

**NOTE:** A valve with stops is shown throughout the instruction.

#### Installations in the United States and Canada

- Install the valve on the support framing so the “UP” mark on the valve is facing upward.

#### Installations in Mexico

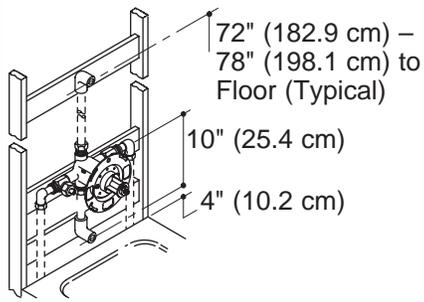
- Install the support framing so the “UP” mark on the valve is facing downward.

**IMPORTANT!** When reassembling the pressure balancing unit to the valve body, make sure the seals in the pressure balancing unit remain in position.

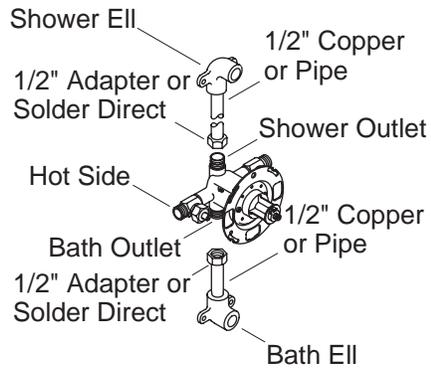
- Rotate the cap assembly, pressure balancing unit, and collar 180° (tab on bottom), reassemble, securely tighten the screws, and reinstall the plaster guard.

#### All Installations

- Install elbows and adapters (if needed) to 1/2” copper tubing or 1/2” pipe of proper length. Apply thread sealant, and connect the piping to the shower outlet of the valve.
- Cap the bath outlet with the cap provided.



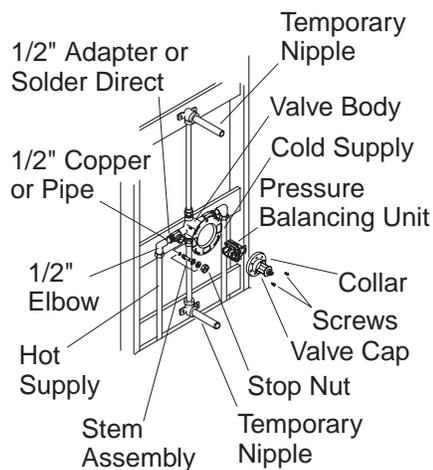
**Bath/Shower Installation**



#### 4. Bath and Shower Installations

**NOTE:** A valve with stops is shown throughout the instruction.

- Install the valve on the support framing so the “UP” mark on the valve is facing upward.
- Install elbows and adapters (if needed) to 1/2” copper tubing or 1/2” pipe of proper length. Apply thread sealant, and connect the piping to the bath and shower outlets of the valve.



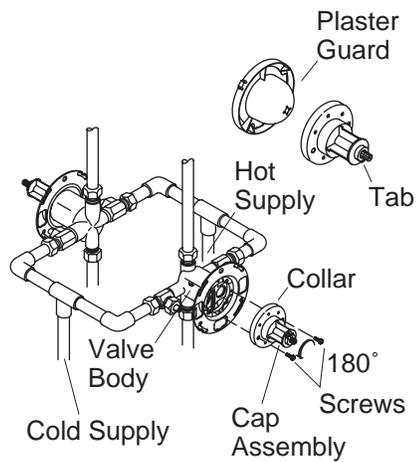
## 5. Complete the Bath and Shower Installation

**CAUTION: Risk of product damage.** The valve body contains plastic components. Remove the stop nut and stem assembly, valve cap, and pressure balancing unit before you apply soldering heat to the valve body.

- **For copper or iron supplies**, connect the water supplies to the valve body using elbows, 1/2" copper tubing or pipe, and adapters (if needed).
- **For PVC supplies**, connect the water supplies to the valve body using PVC elbows, 1/2" PVC tubing, and PVC male adapters.
- Use thread sealant on all threaded connections.

**IMPORTANT!** Secure the piping to the framing.

- Temporarily install 1/2" nipples to the bath and shower elbows. They should extend at least 2" (5 cm) beyond the finished wall.
- If the inner valve components were removed for soldering, carefully reinstall them now.



## 6. Back-to-Back Valve Installation

**NOTE:** Never install the valve body upside down.

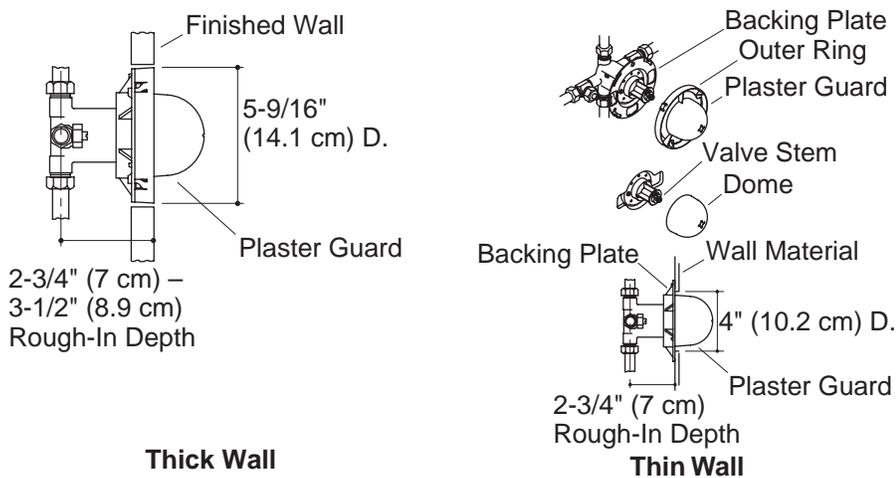
- Install both valves following the valve installation instructions.
- The supplies to one of the valves will be reversed.
- Remove the plaster guard, cap, cap assembly, and collar from the valve with the reversed supply connections.
- Rotate the cap assembly and collar 180° (tab on the bottom). Reassemble, and securely tighten the screws.
- Reinstall the plaster guard.

## 7. Installation Checkout

- Install caps to the temporary bath and shower nipples.
- Turn on the hot and cold water supplies, and check the new installation for leaks.
- Remove the caps from the temporary nipples.
- Remove the plaster guard.
- Turn the valve stem to the “On” position, and cycle the control through its operating range. Check for leaks.
- For bath and shower installations, check the diverter system from spout to showerhead.
- Turn the valve off.

### **Installation Checkout (cont.)**

- If the valve has stops, rotate both stop adjustments fully clockwise.
- Turn the valve on, and verify that water does not run.
- Turn the valve off, and rotate both stop adjustments fully counterclockwise.
- Reinstall the plaster guard.



## 8. Finish the Wall

**NOTE:** Thick wall installations are typically tile, plaster, marble, or similar materials. Thin wall installations are typically fiberglass and acrylic.

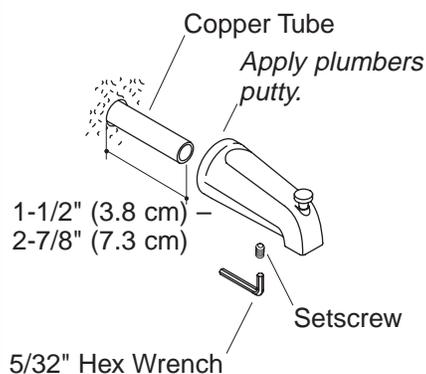
### Thick Wall Installations

- Provide a 5-9/16" (14.1 cm) diameter hole in the rough wall material. The flat front surface of the plaster guard must be flush with the finished wall.
- Complete the finished wall.
- Do not remove the plaster guard until instructed.

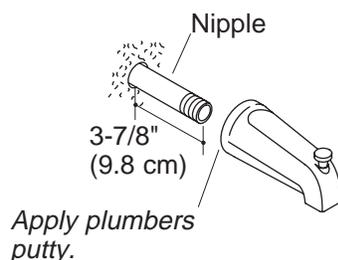
### Thin Wall Installation

- Remove the plaster guard from the backing plate.
- Twist the plaster guard dome to separate it from the outer ring. Discard the outer ring.
- Slide the dome over the valve stem.
- Provide a 4" (10.2 cm) diameter hole in the finished wall material.
- Make openings for the stops (if included) by using the holes in the backing plate as a guide.
- Secure the backing plate to the back of the wall material.
- Do not remove the dome until instructed to do so.

### Slip-Fit Spouts



### Threaded Spouts



## 9. Install the Spout

**CAUTION: Risk of internal seal damage.** Do not use petroleum-based lubricants when installing slip-fit spouts. If the spout will not slide over the tubing, use soapy water or a silicone-based lubricant.

**CAUTION: Risk of internal seal damage.** Loosen spout setscrew with a 5/32" hex wrench prior to installing the spout.

### Slip Fit Spouts

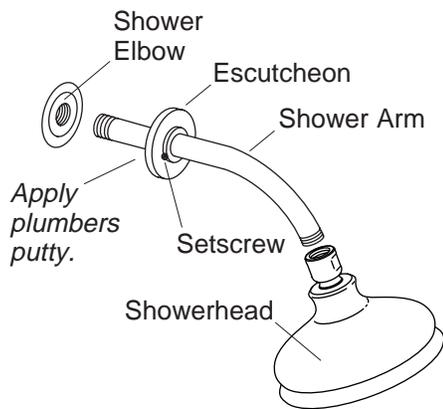
- Remove the temporary nipple from the bath elbow.
- Apply thread sealant and install a 1/2" copper tube so it extends 1-1/2" (3.8 cm) to 2-7/8" (7.3 cm) beyond the finished wall.
- Deburr the copper tubing.
- Loosen the setscrew with a 5/32" hex wrench.
- Apply a bead of plumbers putty or other sealant around the inlet end of the spout according to the putty manufacturer's instructions.
- Install the spout and carefully retighten the setscrew. Do not overtighten the setscrew.
- Remove all excess putty.

### For Threaded Spouts

- Remove the temporary nipple from the bath elbow.

### **Install the Spout (cont.)**

- Apply thread sealant, and install a 1/2" nipple so it extends 3-7/8" (9.8 cm) beyond the finished wall.
- Apply a ring of plumbers putty or other sealant to the back of the spout according to the putty manufacturer's instructions.
- Apply thread sealant to the nipple, and install the spout to the nipple. Carefully tighten with a clean strap wrench.
- Remove excess putty.

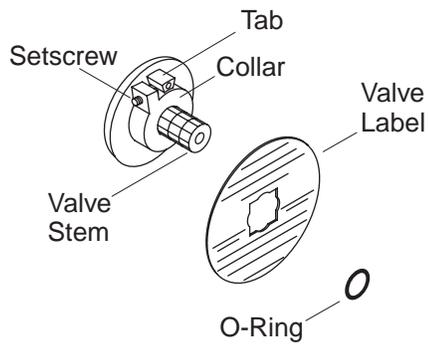


## 10. Install the Shower Arm and Showerhead



**CAUTION: Risk of product damage.** To avoid plugging the showerhead spray outlets, use thread sealant tape on the shower arm threads. Do not use thread sealant compound (pipe dope).

- Remove the temporary nipple from the shower elbow.
- Apply plumbers putty or other sealant to the back of the escutcheon according to the putty manufacturer's instructions.
- Slide the escutcheon over the shower arm.
- Apply thread sealant tape to the shower arm, and install the shower arm to the shower elbow.
- Carefully tighten with a clean strap wrench.
- Press the escutcheon against the finished wall and secure with the setscrew.
- Remove all excess putty.
- With the showerhead off, flush out the system.
- Apply thread sealant tape to the shower arm and thread the showerhead to the shower arm.



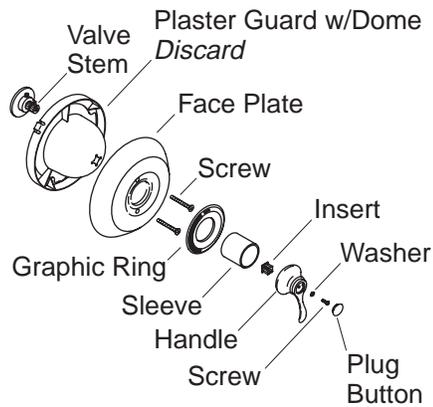
## 11. Water Temperature Adjustment



**CAUTION: Risk of personal injury.** The water temperature should never be set above 120° F (49° C).

- Turn the valve clockwise to the full open position and let the hot water run for several minutes. Position a thermometer in the water stream and check the temperature.
- For **minor water temperature changes**, adjust the setscrew, and recheck the water temperature.
- For **major water temperature changes**, remove the O-ring and collar from the valve stem. Slowly rotate the valve stem until the desired water temperature is reached.
- Reinstall the collar on the valve stem with the setscrew against the side of the tab.
- Reinstall the O-ring, rotate the valve stem counterclockwise to shut the water off, and recheck the water temperature.

**NOTE:** After adjustment, complete the required information on the valve label.



## 12. Install the Face Plate

- Remove and discard the plaster guard and/or dome, if installed
- Install the face plate onto the valve. Secure with two screws. Do not overtighten.
- Install the graphic ring to the face plate, and rotate it clockwise to lock it in place.
- Rotate the valve stem fully counterclockwise.
- Fit the sleeve onto the valve.
- Align the handle, and press the handle and insert firmly onto the valve stem.
- Secure the handle with a washer and screw.
- Press the plug button firmly into place, aligning the tab with the notch in the handle.

## 13. Complete the Installation

- Turn the valve fully counterclockwise to the off position.
- Remove the aerator assembly from the spout by turning it counterclockwise.
- Turn on the main water supply.
- Turn the valve to the center and run water for approximately one minute to flush the system.
- Check all connections for leaks.
- Reinstall the aerator.

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