



#### Limited One Year Warranty

T&S warrants to the original purchaser (other than for purposes of resale) that such product is free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this one-year warranty period, if the product is found to be defective, T&S shall, at its options, repair and/or replace it. To obtain warranty service, products must be returned to...

*T&S Brass and Bronze Works, Inc.  
Attn: Warranty Repair Department  
2 Saddleback Cove  
Travelers Rest, SC 29690*

Shipping, freight, insurance, and other transportation charges of the product to T&S and the return of repaired or replaced product to the purchaser are the responsibility of the purchaser. Repair and/or replacement shall be made within a reasonable time after receipt by T&S of the returned product. This warranty does not cover items which have received secondary finishing or have been altered or modified after purchase, or for defects caused by physical abuse to or misuse of the product, or shipment of the products.

Any express warranty not provided herein, and any remedy for Breach of Contract which might arise, is hereby excluded and disclaimed. Any implied warranties of merchantability or fitness for a particular purpose are limited to one year in duration. Under no circumstances shall T&S be liable for loss of use or any special consequential costs, expenses or damages.

Some states do not allow limitations on how long and implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Specific rights under this warranty and other rights vary from state to state.

P/N: 098-017921-45 Rev.2  
Date: 10-30-14  
Drawn: TEH  
Checked: DMH 01-20-15  
Approved: JHB 01-23-15

# Installation and Maintenance Instructions



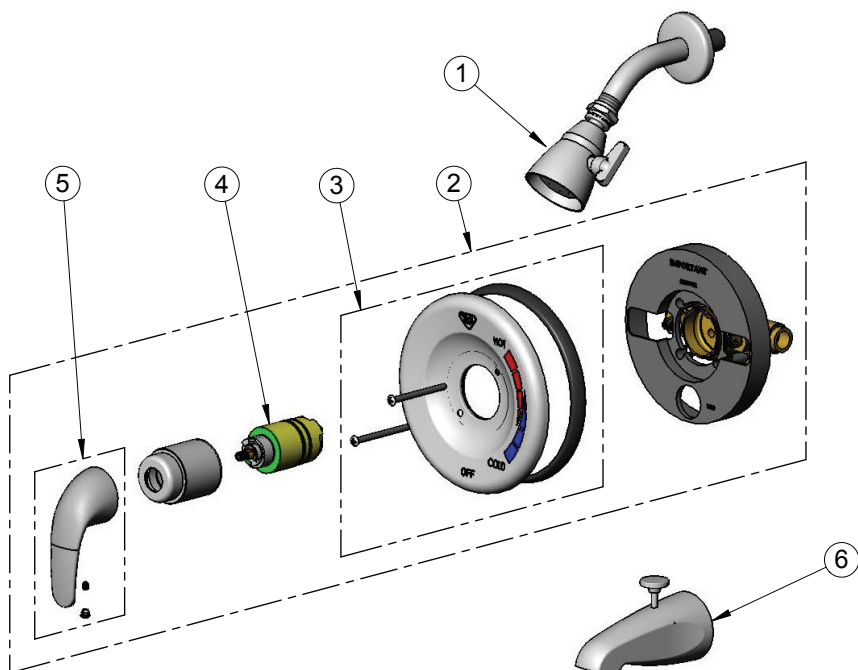
## **B-3200 Series PRESSURE BALANCE SHOWER VALVE (1/2" Sweat Connections)**

and

## **B-3300 Series PRESSURE BALANCE SHOWER VALVE (1/2" NPT Female Connections)**

# Exploded View

(Model B-3200 Shown)



# Part Number Guide

<i>Press Balance Shower Valve</i>		B-3200 Series	B-3300 Series
1	Shower Head with Arm and Escutcheon	017442-45	017442-45
2	Pressure Balance Shower Valve	B-3204	B-3304
	PBV Only (rough-in)	B-3204-PBV	B-3304-PBV
3	PBV Cover Plate Assembly	017444-45	017444-45
4	PBV Cartridge Assembly	017441-45	017441-45
5	Handle with Set Screw & Temperature Index	017443-45	017443-45
6	Tub Spout with Diverter	017439-45	017439-45

# General Instructions

**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. SAVE THIS MANUAL FOR FUTURE REFERENCE.**

**WARNING:** *This shower system may not protect the user from scalding when there is a failure of other temperature limiting devices elsewhere in the plumbing system.*

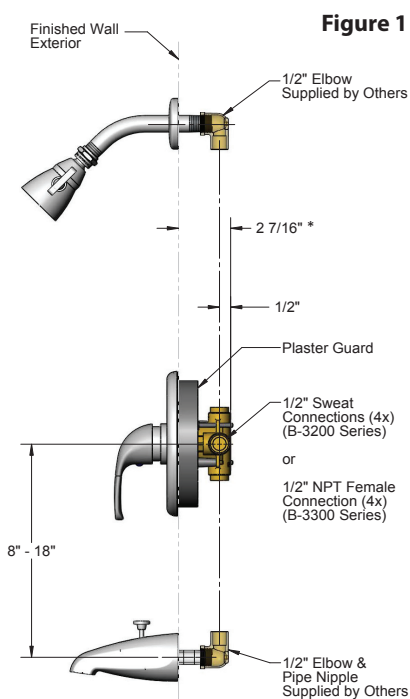
Tool required for installation of this product are:

- Phillips Screwdriver
- Tubing Cutter
- Teflon Tape
- Soldering Equipment (B-3200)
- Adjustable Wrench
- Channel-Lock Pliers

## **INSTALLATION OF SHOWER SYSTEMS AND TUB/SHOWER SYSTEMS:**

1. To prevent heat damage, remove plaster guard, ceramic cartridge and (2) supply stop/check valves before sweating tubing or fittings on to the valve body. Note: Each supply stop/check valve consists of a poppet assembly, a spring and a stem assembly.

2. Install piping and fittings with valve body as show in Figure 1. **IMPORTANT:** Valve rough-in is 1-15/16" from CENTERLINE OF SUPPLIES TO FACE OF FINISH WALL. Install so that the line shown on the rough-in plaster shield on the valve is flush with the finish wall as shown in Figure 1.



**\*NOTE:** For dimensions greater than 2-7/16" up to 4-1/4", see section **ROUGH-IN EXTENSION KIT.**

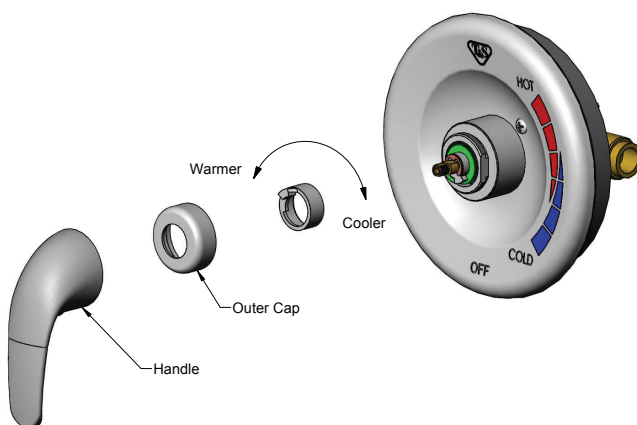
3. With proper stringer supports in place, install valve in the proper upright position with the word "UP" towards the top. Connect water supplies to the valve. Install **HOT** on the left and **COLD** on right according to valve markings.

4. Connect top and bottom outlet tubing required per installation to the valve. Plug off outlet connections that are not in use. **Note:** To prevent dripping from the shower head, use 1/2" min. copper tubing to the tub spout. Do not use PEX for the tub spout line.

# General Instructions

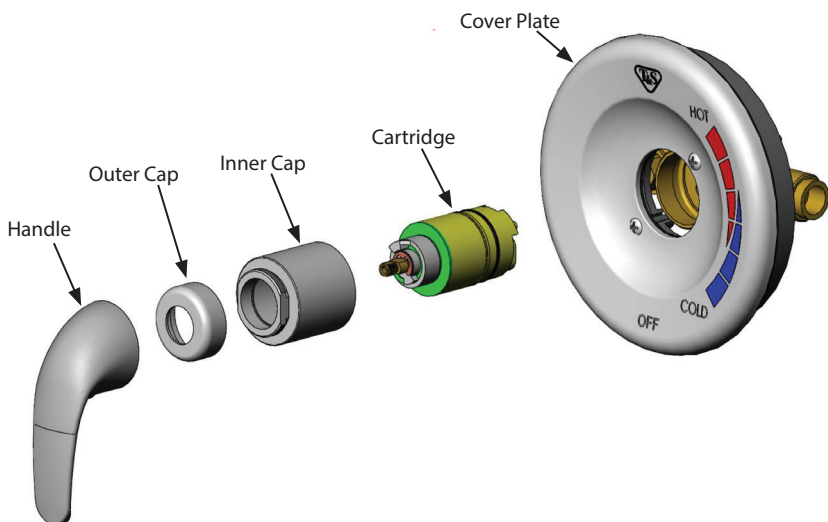
5. Connect shower arm and tub spout nipple as required. Do not install showerhead until lines are flushed of debris.
6. If removed per step 1, reinstall ceramic cartridge, 2-piece cartridge cap, and (2) supply stop/check valves. Install handle and turn to the shut-off position (clockwise).
7. With the outlets capped, turn on water supply and check for leaks.
8. After testing, run hot and cold water to flush debris.
9. For thick walls, reinstall plaster guard and finish wall flush with the front of the plaster guard.
10. For thin walls cut a 5" diameter opening. The plaster guard should be installed behind the thin wall for backing support.

## **SETTING TEMPERATURE LIMIT STOP:**



1. To change the factory set temperature limit stop, remove the handle and outer cap and set aside.
2. Carefully pull the limit stop from the cartridge with needle nose pliers.
3. Reinstall the limit stop clockwise from the factory set position for a lower temperature.
4. Reinstall the limit stop counterclockwise from the factory set position for a higher temperature.
5. Test the highest water temperature. Repeat steps above to adjust to the desired water temperature limit.
6. Reinstall outer cap and handle.

# General Instructions



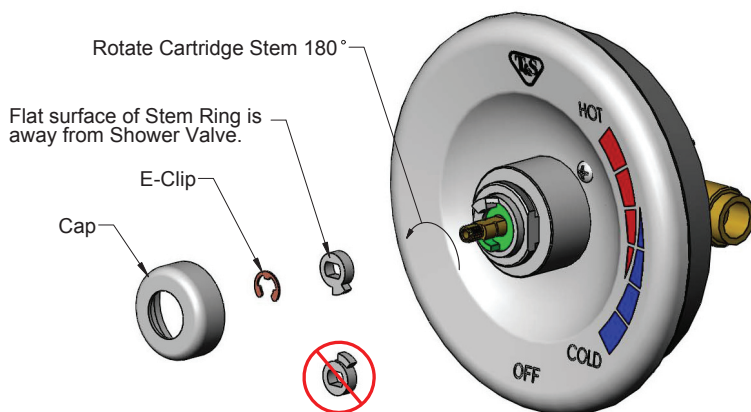
## **CARTRIDGE REPLACEMENT:**

1. Remove handle and outer cap and set aside.
2. Shut off water at source or remove the cover plate to access the screwdriver supply stops that are integral to the shower valve body.
3. Remove inner cap with a wrench or pliers.
4. Pull cartridge from body. Make sure the seal at the bottom of the cartridge is also removed.
5. Apply a thin film of grease around the o-ring on the new cartridge.
6. Install new cartridge into body while aligning the posts with the smaller set of holes in the bottom of the body bore.
7. Slip the inner cap over the cartridge and tighten.
8. If needed, adjust the temperature limit stop per section **SETTING**

## **TEMPERATURE LIMIT STOP.**

9. Turn water supply back on and check for leaks. If removed in step 2, reinstall cover plate.
10. Reinstall outer cap and handle

# General Instructions

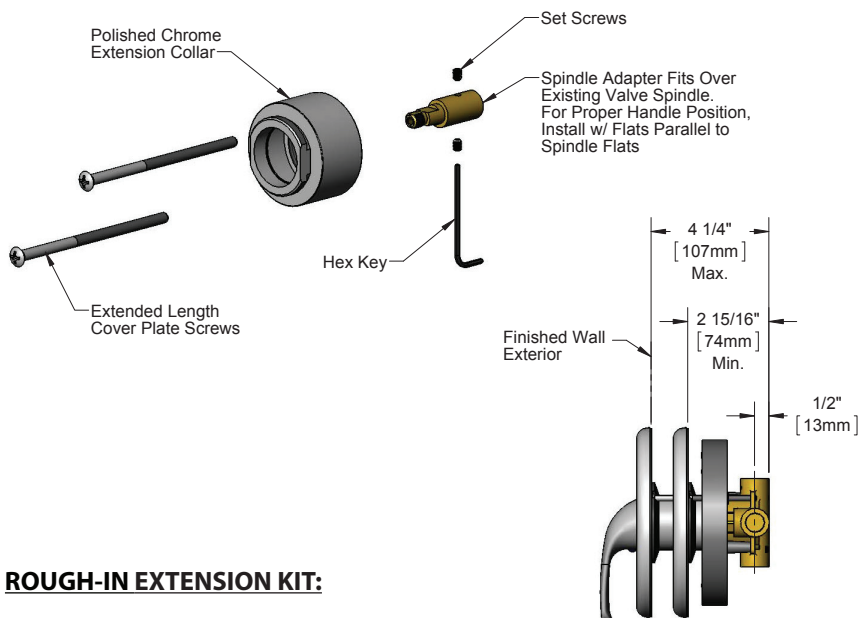


## **BACK TO BACK INSTALLATION:**

The B-3200/B-3300 Shower Valve Cartridge is reversible to accommodate installations such as a back-to-back when hot and cold supplies are reversed.

1. Unscrew Cap from body.
2. Remove E-Clip from cartridge stem with pliers.
3. Remove Stem Ring from cartridge stem with pliers.
4. Rotate Cartridge Stem 180°. (Removal of cartridge is not necessary.)
5. Re-install Stem Ring with flat surface facing away from Shower Valve.
6. Re-install E-Clip in Stem groove.

# General Instructions



## **ROUGH-IN EXTENSION KIT:**

For installations where the finished exterior wall will be further than 2-7/16" (61mm) from the valve inlet centerline, the rough-in extension kit, B-3204-EXT (sold separately) can be used up to 4-1/4" (107mm) from the finished exterior wall to the centerline. Removal of the cartridge is not necessary.

1. Remove handle, outer cap and cover plate. Discard the existing cover plate screws that came with the shower valve.
2. Slide the brass spindle adapter over the cartridge spindle and secure in place with the two set screws.
3. Thread the polished chrome extension collar onto the inner cap of the shower valve and tighten.
4. Install the cover plate using the two longer screws provided with the B-3204-EXT.
5. Reinstall the outer cap and handle.



## RELATED T&S BRASS PRODUCT LINE



### **B-3206-VB**

#### **Pressure Balanced Shower Valve**

1/2" Sweat Connections, 2.5 GPM  
Shower Head, Diverter Valve, Shower  
Queen Hand Held Spray Asswesmby  
with Vertical Slide Bar &  
Vacuum Breaker

### **B-3301**

#### **Pressure Balanced Shower Valve**

Adjustable Temperature Limit Stop,  
Cover Plate Assembly, 2.5 GPM  
Shower Head, Shower Arm  
& Escutcheon, 1/2" NPT  
Female Inlets & Outlets



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## **T&S BRASS AND BRONZE WORKS, INC.**

A firm commitment to application-engineered plumbing products

2 Saddleback Cove, P.O. Box 1088  
Travelers Rest, SC 29690  
Phone: (864) 834-4102  
Fax: (864) 834-3518  
E-mail: [tsbrass@tsbrass.com](mailto:tsbrass@tsbrass.com)

T & S Brass-Europe  
'De Veenhoeve'  
Oude Nieuwveenseweg 84  
2441 CW Nieuwveen  
The Netherlands



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