POWERS
A WATTS INDUSTRIES CO.

INSTALLATION INSTRUCTIONS

BILTMORE SERIES 800
Pressure Balancing Valves

TO INSTALL

Note: Installation should be in accordance with accepted plumbing practices. Flush all piping thoroughly before installation. If thin wall installation is required, refer to Installation Instruction #129-075.

1. Attach checkstops to valve body. *Screwed checkstops:* teflon tape is recommended to provide seal. *Sweat checkstops:* to lessen potential for overheating of rubber sealing discs during sweating in process, you must leave checkstop in full open position, or remove all internal parts to prevent melting of the rubber sealing discs.

2. Position mixer 2" ± 1/2" (51mm ± 13mm) from inlet center to finished wall surface. Facing front of mixer, connect hot water to left side and connect cold water to right side. The valve has 'C' and 'H' cast into the body near the appropriate inlet ports.

3. When copper tubing is used, flared fittings are recommended. If flared fittings cannot be used, then the balance cartridge must be removed before soldering near the mixer body. To remove the balance cartridge: remove the o-ring, limit stop and sleeve, unscrew bonnet retainer and pull bonnet out of the mixer body. Pull balance cartridge out with either pliers or cartridge puller #401-202.

4. Biltmore is factory assembled for top outlet installation, see Figure 1. For shower only installation, pipe top outlet directly to showerhead and plug bottom port. If reversed inlets are required, place mixer stem in closed (full clockwise) position, remove o-ring, limit stop and sleeve, unscrew and remove bonnet retainer. Pull bonnet, stem and mixing plate out of mixer body and rotate 180° making certain the alignment tabs on the bonnet are secure in the notches on the mixer body. Replace bonnet retainer (limit torque to 20 ft.-lbs.), slide sleeve over retainer, install limit stop over stem, replace o-ring. With mixer in closed position, the notch in the spline on the stem (Figure 3) must face top outlet for standard inlet installation (cold water to cold port on right side). For reversed inlets (cold water to hot port on left side), the notch in the spline on the stem must face bottom outlet.

Note: hot and cold inlets should be re-identified for reversed inlets to avoid confusion during future mixer maintenance.

5. For tub and shower installations, see Figure 2. Pipe bottom outlet port 'T' directly to a diverter tub spout. The Biltmore is equipped with a built-in diverter fitting in the mixer body, so it is not necessary to use a twin ell. Pipe top outlet port 'S' to the showerhead. For tub installation only, plug top outlet port 'S'. Be certain that bottom outlet port 'T' is piped to the tub. If outlet connections are reversed, the mixer will not function properly.

6. Rough-in procedure: a cardboard sleeve protector is furnished with each Biltmore to protect the chrome plated sleeve from damage during piping installation. When piping installation is completed, the installer should remove the cardboard sleeve protector and slide rough-in guide onto mixer stem (guide stem is same notched shape as mixer stem) and snap into place. The rough-in guide will not fit over the cardboard sleeve protector.

   The rough-in guide will insure proper size opening for mixer and checkstop shut-off and repair accessibility, as well as protect the chrome plated sleeve from damage during drywall and tile installation.

   Position mixer so finished wall surface will be within the 1" (25mm) dimension on rough-in guide (Figure 6). This insures the center line of the mixer connections will be 2"±1/2" (51mm ± 13mm) from the finished wall surface. After wall is completed, remove rough-in guide and attach dial to mixer body with the screws furnished (Figure 4). To install dial gasket, peel backing off gasket and attach gasket to inside dial plate.

Figure 1: Rough-in Dimensions - inches (millimeters)

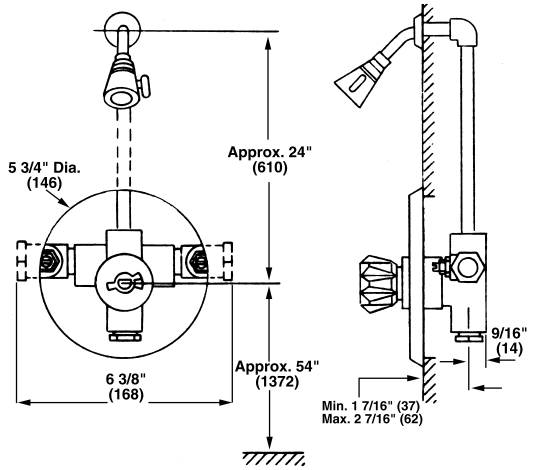
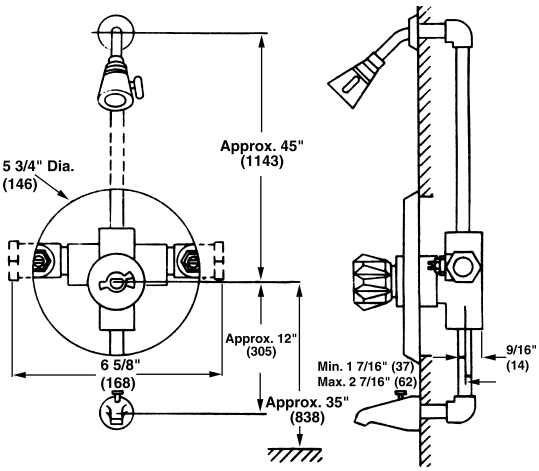


Figure 2: Rough-in Dimensions - inches (millimeters)



7. MAXIMUM TEMPERATURE SETTING (refer to Figure 5). This must be set at the jobsite. Mixer will pass full HOT water. Rotate stem to desired maximum temperature. Adjust screw A until it touches stop B.

CAUTION: Adjustable stop C must be utilized for proper operation.

Figure 3

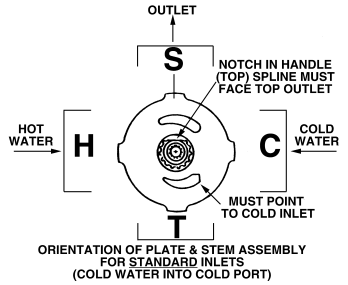


Figure 4

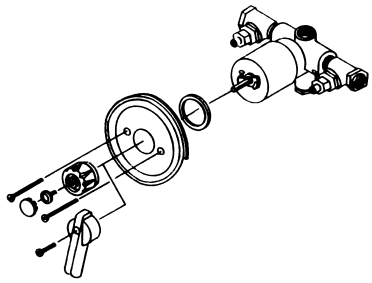
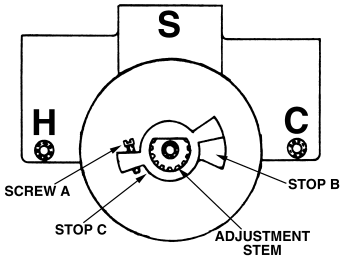
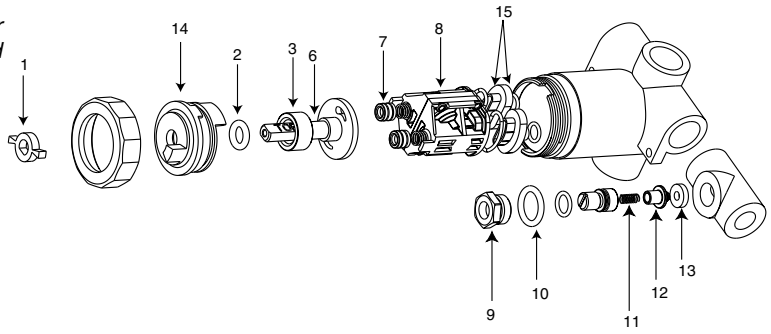


Figure 5



REPAIR KITS: *for further information on repair and maintenance, see TI800-1.*



	TROUBLESHOOTING	RECOMMENDED REPAIR KIT
GASKET AND DISC REPLACEMENT	1) Water leak at stem and/or bonnet 2) Flow of water continues after mixer is turned off	800-030 Includes items: 2,3,7(2),9(2),10(2),13(2),15(2)
BALANCING CARTRIDGE	1) Variable or untempered discharge temperature	900-259 Includes items: 2, 3 7(2), 8,15(2)
STEM AND PLATE REPLACEMENT	1) Flow continues after mixer is turned off 2) Handle splines on stem damaged, not grasping	800-032A Includes items: 1,2,3,6,7(2)
INTERNAL REBUILD KIT	Note: Required if both Balancing Cartridge and Stem and Plate replacement kits needed	800-163 Includes items: 2,3,6,7(2),8,15
CHECKSTOP REBUILD KIT	1) Checkstop will not shut-off or allow full flow 2) Crossover	900-049 Includes items: 9(2),10(2),11(2),12(2),3(2)

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

(Installer: California law requires that this warning be given to the consumer.)

For more information: www.wattsind.com/prop65

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