

# POWERS™

# HydroGuard® T/P

Series e700

## INSTALLATION INSTRUCTIONS

### Complete Upgrade – Kit #220-451 & 220-452, 220-453

#### e700 RETROFIT INSTRUCTIONS

The following instructions explain how to retrofit your existing Biltmore 900 Model 3 to an e700 which meets ASSE 1016 T/P and CSA B125 T/P requirements. See the exploded view of this new assembly below:

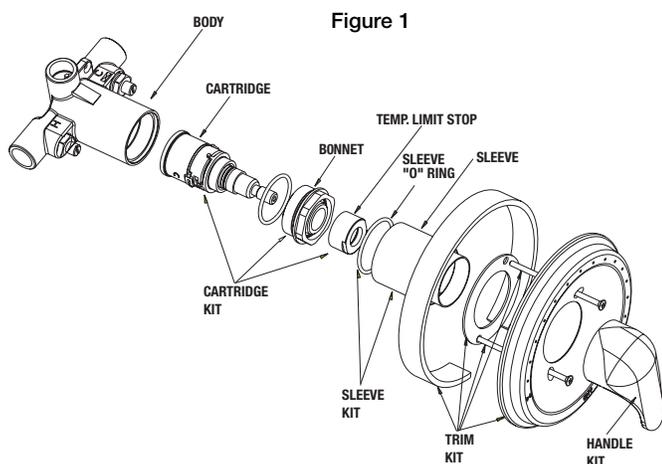


Figure 1

Before you begin your upgrade, take the time to ensure you have all the necessary pieces. Your retrofit kit, for each valve, consists of the following (refer to above diagram when taking inventory):

- |                  |               |
|------------------|---------------|
| 1. Cartridge Kit | 4. Handle Kit |
| 2. Lubricant     | 5. Sleeve Kit |
| 3. Trim Kit      |               |

After you verify that you have everything needed to complete the retrofit, proceed with the next section.

#### Retrofit:

Follow the instructions below to perform your retrofit. Save all components until you have successfully completed your retrofit.

#### Disassembly:

1. Turn off hot & cold water supply-stops.
2. Remove the handle and trim plate.
3. Remove bonnet.
4. Remove all internal components from valve body.
5. At this point you should have an empty valve body.

You are now ready to put the new components into your existing valve.

#### 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. (California law requires this warning to be given to customers in the State of California.)

For more information: [www.watts.com/prop65](http://www.watts.com/prop65)

#### Reassembly:

1. Ensure the inside of the valve body is free of deposits and debris. Clean as necessary.
2. Place the cartridge into the body ensuring following:
  - a) "C" on the cartridge should be on the cold inlet side.
  - b) Align tab on the bottom of the cartridge to the groove in the body.
3. While holding cartridge firmly, screw bonnet into body; tighten to 100 + 20/-0 in-lbs.
4. Turn the hot and cold water supplies back on and verify there is no leakage.

#### Maximum Temperature Setting/Handle Rotation Stop

The handle rotation setting must be adjusted to limit the distance the user can rotate the handle towards the full hot water position.

**CAUTION:** Any repair or modification of the valve may affect the high temperature setting. The maximum temperature setting must be checked by the installer before use.

5. Adjust the valve to the desired maximum outlet temperature [110°F (43°C) max]. Screw on the high temp. limit stop until it touches the stem shoulder.
6. Turn the stem clockwise until the water stops. Open valve to full hot position and verify max outlet temperature setting.

#### 6 (a) For 220 453:

1. Attach indicator plate gasket to the back of the trim plate making sure horizontal holes on the gasket matches horizontal holes on the trim plate. Indicator plate locator hole matches diagonal hole on the trim plate. Peel off backing of trim gasket and attach to the inside top edge of the trim plate. Gasket should approx. be 1/16" beyond the plate edge.
2. Install the trim plate with the screws provided.
3. Snap on the indicator plate. Guide on the back of the plate goes into the locator hole.
4. Install sleeve O-ring on the bonnet. Slide sleeve on the bonnet.

**CAUTION:** Indicator plate must be installed before sleeve.

5. Install handle and tighten the setscrew.

#### 6 (b) For 220 451 & 220 452

1. Place sleeve O-ring on the bonnet shoulder. Slide sleeve over the O-ring until it stops.
2. Install trim plate gasket.
3. Install trim plate with the screw provided.
4. Install handle and tighten set screw.

7. Your retrofit is complete!

You have just converted your type "P" valve to type "T/P"

If you have any problems, comments, or suggestions, please contact your local Powers representative. We are interested in feedback from the field. You can find them at [www.powerscontrols.com](http://www.powerscontrols.com).

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