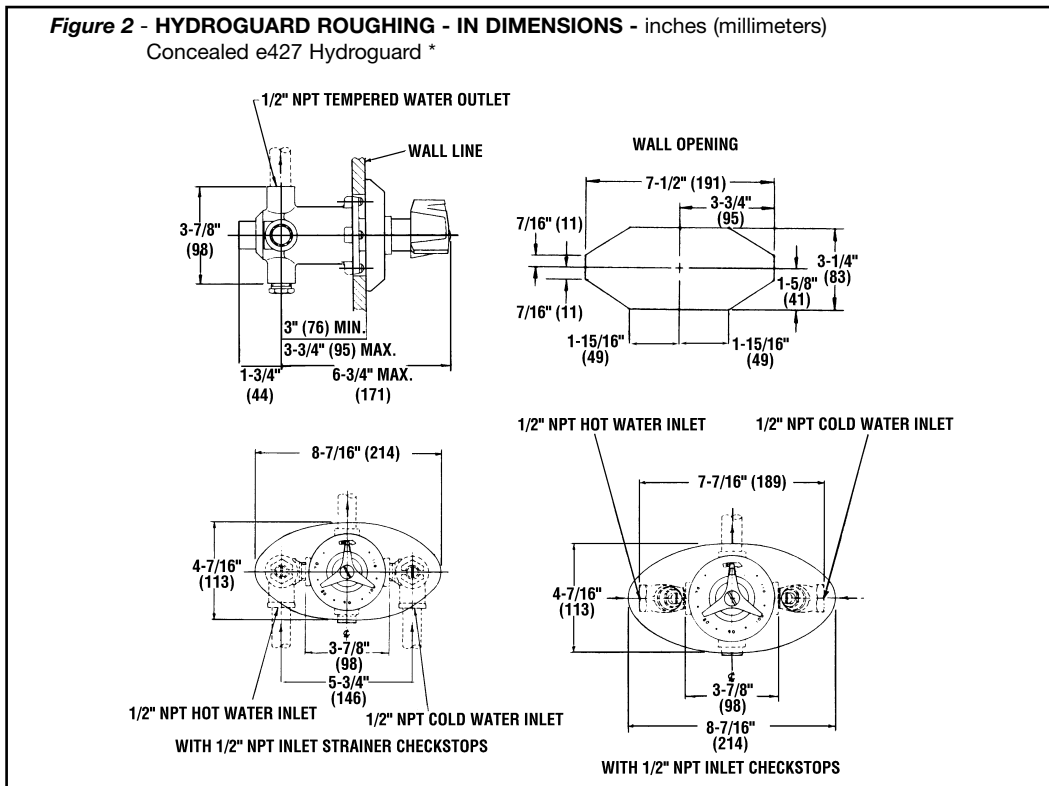
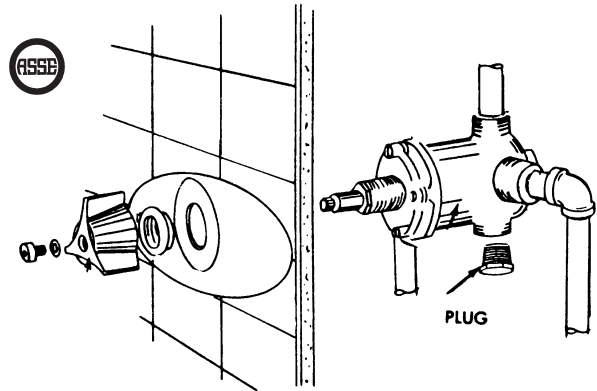


**INSTALLATION INSTRUCTIONS**

1. Flush all piping thoroughly before installing.
2. For concealed piping - Position the mixer 3" (7.6 mm) from center line of inlets to face of finished wall. Facing front of mixer, connect hot water to left side (marked HOT) and cold water to right side (marked COLD). Inlet connection must be piped correctly for proper operation of Hydroguard.
3. Hydroguard is provided with plug-in bottom outlet. If bottom outlet is to be used, remove plug and place in top outlet.
4. If copper tubing is used, do not apply heat with 12" (30mm) of Hydroguard. Excessive heat will damage internal parts.
5. Mount dial and handle.

Figure 1



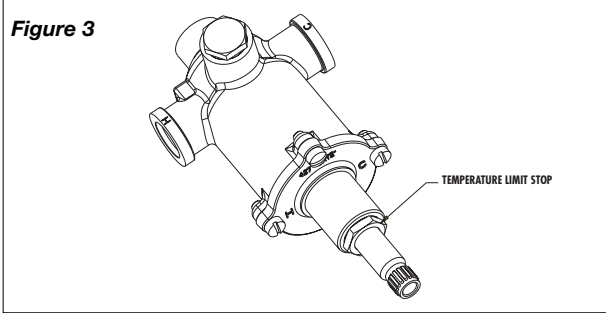
**CALIFORNIA PROPOSITION 65 WARNING**

**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.wattsind.com/prop65](http://www.wattsind.com/prop65)

**MAXIMUM TEMPERATURE SETTING**

The standard e427/e428 Hydroguard is factory set to deliver tempered water up to a maximum temperature of 110°F (43°C) with equal supply pressures, hot water temperature 140°F (60°C), cold water temperature 60°F (16°C). If desired, the maximum temperature setting can be raised or lowered as follows:

1. Maximum temperature setting adjustment must be set on the job to in no case greater than 110°F [43°C]. The high



temperature limit stop is located on the bonnet. Rotate handle to the maximum desired outlet temperature. Rotate handle to the maximum desired outlet temperature. With an open-end wrench, screw high temperature limit stop into bonnet until it touches stem's shoulder. Close valve and open it to full hot to verify settings.

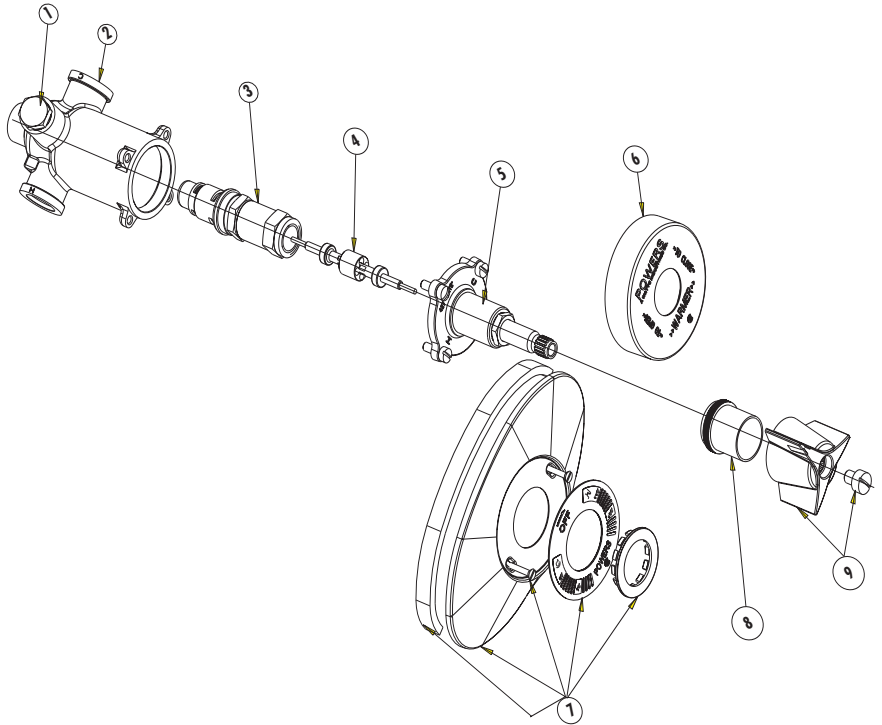
**MOTOR REPLACEMENT**

1. Remove handle and trim plate.
2. Turn off the hot and cold water supplies.
3. Remove four (4) bonnet screws and bonnet assembly.
4. Remove two motors and adaptor.
5. Assemble two new motors and adaptor and place into body.
6. Install bonnet assembly.
7. With handle, rotate the stem assembly clockwise, until it bottoms out on the cartridge. At this point your valve is in the off position.
8. Turn the hot and cold water supplies back on and verify there is no leakage.
9. Adjust maximum temperature as described above.
10. Install trim and handle.

**TROUBLESHOOTING AND REPAIR**

**REPAIR KITS**

NO.	DESCRIPTION	427-0000	428-0000
1	1/2" PLUG	200-046	200-046G
2	BODY	N/A	N/A
3	KIT, CARTRIDGE ASSY.	427-017	427-017
4	WAX MOTOR KIT	427-250	427-250
	LOW TEMP. WAX MOTOR KIT	427-251	427-251
	HIGH TEMP. WAX MOTOR KIT	427-252	427-252
5	KIT, BONNET ASSY.	427-019	427-019
6	DIAL PLATE, EXPOSED	N/A	225-261A
7	TRIM ASSEMBLY	420-335	N/A
8	LOCK RING, POLISHED CHROME	225-294A	225-294A
9	HANDLE	420-242	420-242



**What to look for if:**

**The maximum temperature cannot be obtained...**

- a. Lime deposits may have accumulated in the hot water pipes, restricting the hot water supply.
- b. The hot water supply temperature may be too low.
- c. The handle rotation setting may be too low.  
Remove valve handle and plate, and readjust the high temperature limit stop (see figure 3).

**Flow of water is less than desired...**

- a. The upstream supply valves may not be fully open.
- b. The inlet supply pressure(s) may be low.
- c. Lime deposits may have accumulated in cartridge, restricting water flow.
- d. The showerhead may be clogged. Remove and clean.
- e. The checkstops may be clogged.

**The valve opens with hot water flow rather than cold water flow...**

- a. The inlet water supplies are connected to the wrong ports or cartridge is installed improperly.

**The tempered water is too cold, although cartridge has been replaced, OR the hot water temperature is below 115°F...**

- a. Raise the temperature of the hot water supply.

**Flow of water is completely shut off...**

- a. The upstream supply valves may be completely closed.
- b. The hot or cold water supply pressure may have failed. The e427/e428 valve is designed to restrict flow upon hot/cold water failure.
- c. The checkstops may be closed. Access the checkstops and open by turning the adjustment screw fully counter-clockwise.



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