



Hot water in bath too hot? – Problem finally solved!

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RV hot water heaters are necessarily small. The standard GMC hot water heater is about 5 gallons or less. In order to make the small amount of hot water go further it is kept at a much higher temperature than a normal home water heater. The hotter the hot water is, the more cold water must be mixed into it and the further the hot water goes. The problem with this strategy is that if you don't, or can't conveniently, mix in some cold water you can be badly scalded.

A single-handled faucet solves the problem because it is so easy to mix the cold and hot water. I have been trying to find a single-handled bathroom sink faucet with a diverter for the shower the whole time we have had the GMC and been unable to find one. They just don't make them.

I discovered a different solution on a cruise ship a couple of years ago. In the shower on the ship there was a set of mixing valves – separate from the shower on/off control – that determined the temperature. The mixing valves were set once and never changed. Only the choice of where and how much water was sent to the shower heads was manipulated after that.

For a long time I looked for some suitable valves for the GMC bath but never could come up with anything. Then I decided that we didn't really need ready access to the mixing valve since the incoming water temperatures almost never changed.

Using an idea from Emery Stora, I made a door in the storage compartment under the bathroom sink. Behind the door is a ball valve connecting the cold water line to the hot water line feeding the sink faucet. There is also a check valve in the hot water line so that the cold water can only get to the sink faucet and not to the kitchen.

Now I can adjust the ball valve so that I can blend some cold water with the hot so that the hot side provides blended water at a temperature that is ideal for bathing. It works like a charm and also eliminates water wasted trying to adjust the temperature every time you need hot water.

Following are some pictures that show the door and the plumbing.

This photo shows the door hinge and the cutout door opening as it looks under the bathroom sink. The idea was copied from Emery Stora.



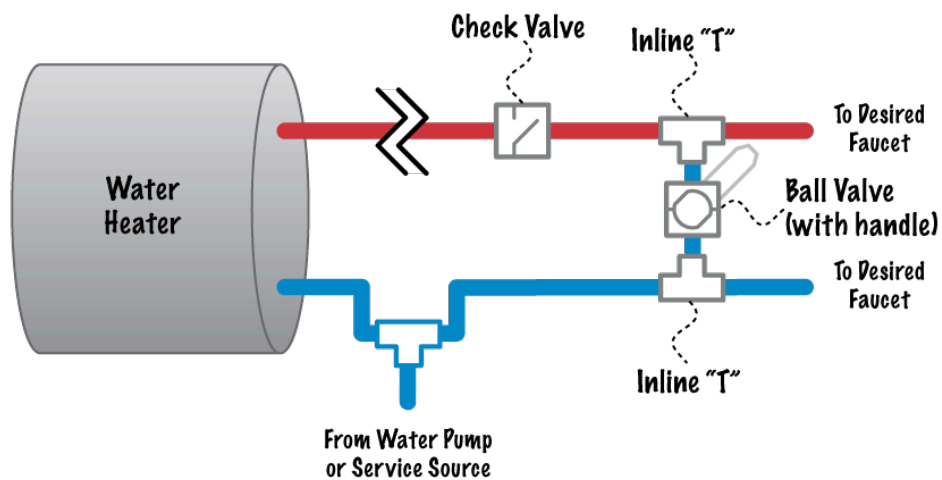
This photo shows the open door and, behind it, the plumbing for the water heater and the bathroom sink.



Showing the “T’s”, the ball valve, and the check valve that now blends some cold water into the hot water going to the bathroom sink. The valve handle is just off straight vertical where it would be completely shut – this position lowers the hot water coming out of the faucet to a comfortable 110 degrees from the approximately 180 – 190 degrees in the tank.



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Install the “T” and valves at the desired faucet service to control hot/cold mixture for the hot faucet.
Optionally install a “T” and one set of valves for service throughout the entire motorhome.

Illustration by Byron Songer