



2010 43QGP Allegro Bus

12/22/2014

ONE- HUNDRED-TENTH - coach modification – **HOT WATER BY-PASS FOR THE SHOWER.** After a recent showering event turned **COLD** on Cathey, I was in scramble mode figuring a way to prevent any future occurrence. One idea presented by Cathey was for me to **ALWAYS** shower **FIRST** making sure the **HOT** water line to the shower had been purged of any cold water before she took her shower.

My always showering first would not be a hardship except when I am busy socializing with the guy's on the TRVN forum. So I decided to invest a little time, money and effort into installing a **HOT** water by-pass for the shower. Our coach is equipped with Aqua-Hot it is located almost dead center in the basement of our coach. From the Aqua-hot's mixing valve the **HOT** water line is routed **ACROSS** the coach then up into the half bath's sink cabinet where it feeds a **HOT** water manifold, the manifold supplies **HOT** water to the half bath sink, galley sink, dishwasher, washing machine and also supplies **HOT** water to the rear bathroom. The **HOT** water going to the rear bathroom upon leaving the half bath manifold is again routed **ACROSS** the coach under the washer/dryer cabinet into a pipe/electrical chase under the head of the bed into the sub-floor under the shower where the water line is again routed **ACROSS** the coach into the rear bathrooms sink cabinet into a second **HOT** water manifold. This second manifold feeds **HOT** water to both rear bath sinks before branching off to again **CROSS** the bathroom then up the sidewall of the coach where it feeds the mixing valve for the shower.

I measured the length of the **HOT** water line from the Aqua-Hot's mixing valve to the shower's mixing valve at **52 FEET**. Based on my math skill that means about .5 gallons of water has to flow thru the shower head before **ANY HOT** water will reach the showerhead.

I decided to intercept the **HOT** water braided water line where it exits the Aqua-Hot, install a 12" long braided water line connect the new braided water line to a 1/2" brass "T" with three 1/2" close nipples installed on the three ports, then I reconnected the OEM braided **HOT** water line previously removed from the mixing valve going to the half bath, then ran a new RED PEX water line from the third outlet of the "T" to the mixing valve mounted in the shower. The length of the new PEX water line is a total of **18 FEET**

meaning we will be saving a minimum of **34 FEET** of water **EVERY TIME** a shower is taken.

After completing this project, I found the hardest part of the modification was routing the INSULATED water line. The PEX line was not easy to move, push, shove or pull through the coach. This is not a one man job however I decided Cathey did not need to be involved so I did not ask because she would have been under, in and around doing what she could to assist me.

To start the new water line was routed behind the shower using the outside plumbing access to feed the water line into the coach. Notice the water line was insulated before installation as I did not believe insulating the pipe after the water line was installed would be possible.



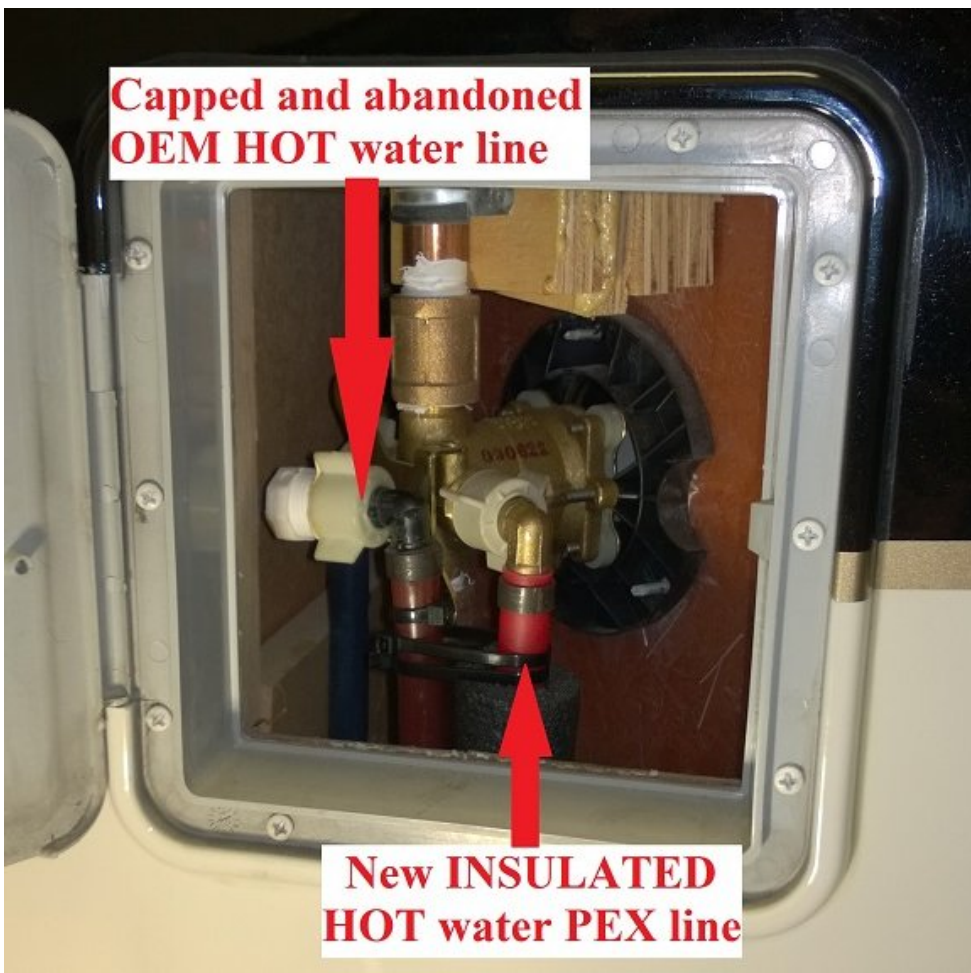
Shown above the new water line enters the coach behind the shower then routed down to the sub-floor under the shower where the water line was turned 90 ° toward the front of the coach where the pipe was pushed, pulled and shoved thru the pipe chase under the head of the bed. After getting thru the bedroom chase the pipe was routed under the washer/dryer cabinet where it was turned down thru one of the coach's heating hose openings in the coach floor, over the top of the tank bay. At this point the pipe was turned 90 ° toward the front of the coach and routed into the Aqua-Hot bay.

Tank Bay

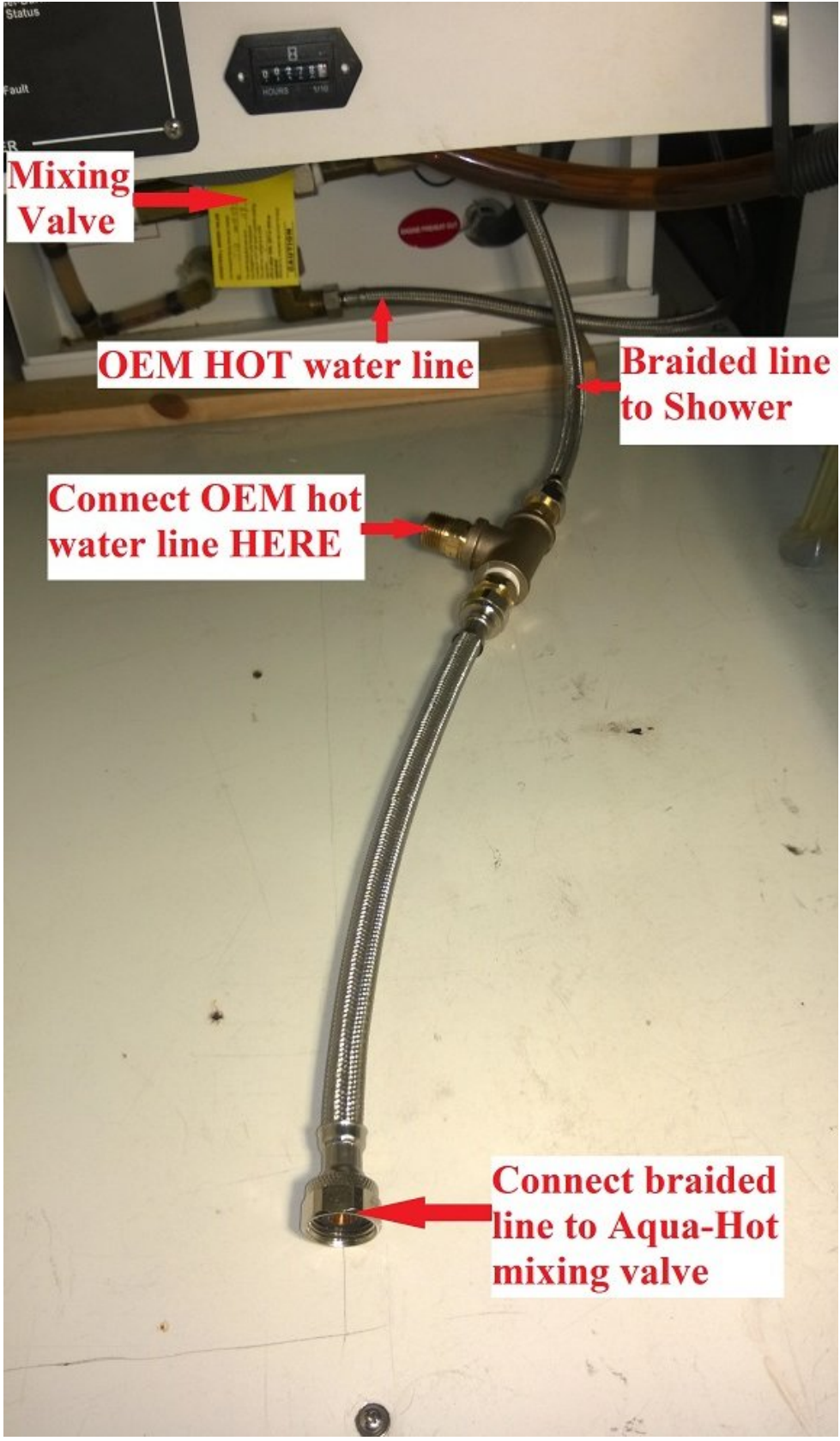
**New INSULATED
1/2" RED PEX water
line for the shower**



**Capped and abandoned
OEM HOT water line**



**New INSULATED
HOT water PEX line**



Mixing Valve

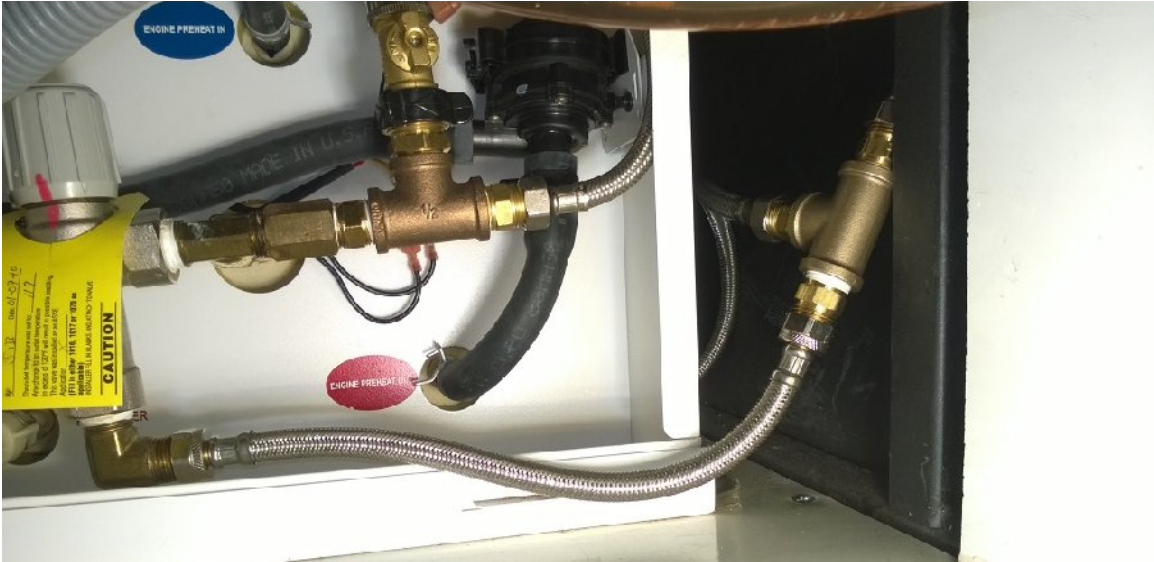
OEM HOT water line

Braided line to Shower

Connect OEM hot water line HERE

Connect braided line to Aqua-Hot mixing valve

After the NEW PEX water line was completely connected the water system HOT and COLD were purged of all air



While this modifications actual expense were not excessive at about \$ 40.00, The wear and tear on my body turned out to be excessive, just one elbow.

