

Water Pump & Water System

Filling, Priming, Troubleshooting Tips & Tricks

1. I don't hear any noise coming from the water pump once I turn the switch "ON" ?

A. First, let's make sure that there is 12 DC power getting to the water pump. Have you turned on (pulled out) the 12 Volt Master Kill switch on the bottom of your kitchen cabinets? Is your 12v deep cycle camper battery (or batteries) charged up? Do the interior ceiling lights inside your camper work? Does your porch light work? Do the lights on your small black monitor panel light up when you push the small buttons? If not, most likely the water pump is **not** getting 12V DC power. To further test things, you will need to either recharge your 12V deep cycle camper battery, plug the camper into 110/120 AC shore power, or pull out (turn on) the 12V master kill switch located on or inside your kitchen cabinets. NOTE: If you think you have power to the camper, the water pump switch lights up, but you don't hear the water pump running, first try turning the water pump switch to the "ON" position and open the cold water valve at the kitchen sink. The newer Four Wheel Campers have an "On Demand" water pump, so if the sink or shower faucets are closed, the electric water pump might not start pumping water.



Monitor Panel



Water Fill



120V Shore Power



12V Kill Switch

2. Why does my water pump sound like it's working, but no water is actually flowing to any of the faucets in the camper?

A. First, let's make sure that there is actually water in your freshwater tank. I know this seems really obvious, but it's an easy thing to forget. Check the tank gauge on the front of your kitchen cabinets, or better yet, get the hose out and top off (fill) your fresh water tank from the outside of your camper. If your tank is low or even empty your water pump might not work (it needs something to pump). If the monitor panel is showing 1 or 2 small red lights, go outside and top off the fresh water tank anyway. The red lights are not always that accurate, so the tank could be very low with water even though the monitor seems to be reading something. Note: Be sure to fill the fresh water tank through the removable cap. If you are screwing your hose on to threaded hose bib inside the water filler door, this will not fill the fresh water tank. The threaded hose bib is for hooking the camper up to a City Water connection and a pressure regulator would need to be added.

B. Another common cause of having your water pump running, but little or no water is coming out of your sink faucet, is that you do not have the water valves inside your kitchen cabinet set properly. The vertical water line running up & down with the valve on it should have the valve twisted "In-Line" with the water line itself (see picture below). Please keep in mind that different years of campers have different looking valves. Your twist valves may look different, but the locations should be similar.



C. Next, check to make sure the horizontal water line down below has the water valve twisted sideways (opposite direction as the water line). This is your low point water tank drain valve. It needs to be twisted sideways like this (see picture below) so that it is “Closed”. If this valve is open, you will hear your water pump pumping, water will be coming up from the fresh water tank, through the water pump, and then back into the fresh water tank. This won’t help you because the water will just be going in a complete circle and not much, if any, water will come out of the faucets.



A quick review from the items above:

Make sure you have power to the camper and the water pump turns on once you flip the switch.

Fill up your fresh water tank.

Check to ensure the water valves inside your kitchen cabinet are set properly.

Most of the time, following the steps above will get you on the road for your next exciting camping trip.

But if you have not gotten the water flowing from your sink faucet or the showers, these are the next steps you will need to follow . . .

3. I've followed the steps above, but my water pump is still not pumping water ?

A. The next step would be to check all the water lines which lead in and out of the actual water pump inside your kitchen cabinet (if necessary). Look for loose connections and worn, split, or cracked lines. You usually want to start with checking the water line that runs from the fresh water tank up to your water pump, because that is where the pump will get water from.

B. Now check to see if there is actually water flowing to the water pump. Carefully loosen the water line that comes up from your fresh water tank and attaches to your water pump (see picture below). If you disconnect the fitting at the water pump and discover water in the line (and you can also maybe see water in the glass bowl water filter), you will now have a better idea that there is “probably” water traveling toward the water pump. This would be good news. Reconnect the water line to the water pump and tighten it snugly. Note: If you want to take things one step further, trying suction or sucking on the water line that runs between the water pump and the fresh water tank (if possible). If you get water through the line it will tell you one of two things. One, it will tell you that there is water in the tank. And two, it will also tell you if there are any blockages in the water supply line.



If you noticed that this water line seemed dry, then the issue could be that the water pump is bad, the water pump has lost its' prime, the water supply line is somehow clogged, or the fresh water tank is empty. If you have water in the tank, and you have the water line disconnected from the water pump, try blowing into the water line that you have disconnected. If you blow into the hose and you have no air movement, the water line is probably plugged or clogged with something. Sometimes by blowing backward (blowing into the water line) it will dislodge foreign debris inside the water tank and allow water to flow again to the water pump. If this is the case, drain and flush the water tank out completely the next time it is convenient.

If you have not solved the problem yet, next try re-establishing a prime inside the water pump by somehow refilling the water line from the water pump, to the water tank, with water. Connect the water line again to the water pump and turn the pump back on to see if the water begins to move toward the faucets. This could take 10 or 20 seconds. Be sure the faucets are fully open (especially the cold water faucet) and watch to see if water starts coming out of the sink. Anything?

C. If there is still no water flowing, then it's time to break down and actually examine the water pump. It's possible that something inside the water pump motor needs to be replaced, or it's time for a new water pump. BUT ... before you head out to buy a new water pump, we have a few more steps you can try.

Grab an old shirt, a small towel, or some paper towels. Place them inside the kitchen cabinet underneath the water pump. Disconnect the water line from the water pump on the "faucet side" (the water line that comes out of the water pump and goes to the sink faucet). See picture below. Turn the water pump on briefly and see if the water is spurts out that side of the water pump (Note: Having a small towel or rag inside there will help catch the water and keep your cabinet dry). If you don't have a rag or paper towels, you can use a small cup of coffee cup to catch any possible water coming out. If water starts to come out . . . is it coming out quickly with pressure? Or does it drip, drip, drip? If no water comes out, then you might need to get a new water pump. If the water coming out seems to be pressurized and flowing well, then the issue might probably between the water pump and the actual faucets inside the camper.

Shut off all the water valves and start checking the water lines to each faucet or shower fixture.

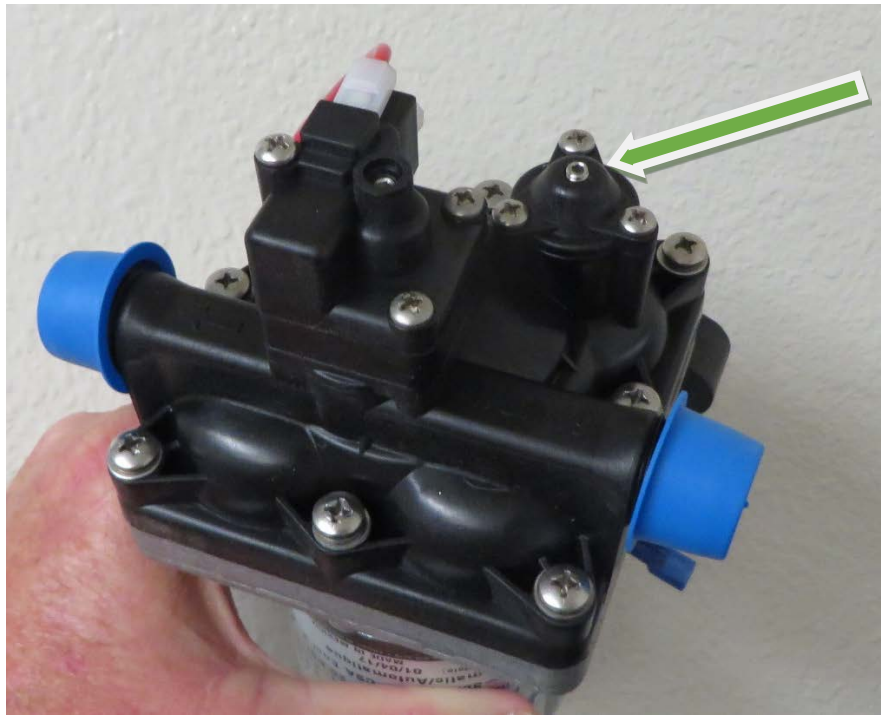


4. Final Tips & Tricks (trying to re-prime the electric water pump):

Many times the electric water pumps will lose their prime after sitting for some time. This is pretty common in the RV world. The way customers can sometimes fix this issue on their own is by gently rotating the filter/strainer bowl (the small, clear in-line water filter bowl) so that it is facing upwards, instead of hanging at the bottom, then unscrewing the plastic strainer cap and pouring some water into the water line while slowly switching the water pump on and off. This typically puts water right next to the pump mechanism and allows just enough water to get inside the water pump to re-prime it. The water pump motor actually makes a higher pitch sound when it's running "Dry" and is no longer creating water pressure. It's one of those things you will become in-tune with the more you have used your camper. Most customers can tell from listening (after they have owned the camper for a while) if their water pump dry locked just from hearing the small motor running a bit faster than normal.



If the steps above don't work, then you can try using the small adjustment screw on the top, back right corner of the pump (see picture below on the next page). The second adjustment screw (the forward set screw with wires coming off of it) is for the pressure switch, and customers typically leave that alone – **don't adjust that screw**. The second screw, back right (**not** the pressure switch adjustment with wires coming off of it) will adjust the flow of water through the water pump. Usually what customers will do is max that adjustment screw out clockwise, and then max it out counterclockwise (it is recommended setting it back to the same position as where you found it). Customers have also found that if pouring water directly into the strainer doesn't work, they will try and max out the water flow adjustment screw. For whatever reason, water sometimes starts to flow normally again. Most customers don't know enough about the internal workings of the water pump to comment on why it works the way that it does, but they find that when they max it out to the clockwise adjustment, that water would just barely start to flow, and then when they start to back out adjustment screw out to where it was originally set, the pump will be fully primed and running again.



If none of the above work, then you might have a cracked water pump or just need to have the water pump replaced. If the water pump was not properly winterized, there is a chance that a water pump fitting may have cracked because of the small amount of residual water left in the water pump froze, expanded, and cracked the fitting. If this is the case, the water pump will be sucking air through that crack and will keep the water pump from actually pumping water to the faucets as it should. You can buy a replacement water pump on-line, from our service department, or you can bring your camper in to the Four Wheel Campers Factory or to your Authorized FWC Dealer to have it diagnosed and repaired.

If your camper has somehow gotten debris inside the fresh water tank, the screen inside the small, clear in-line water filter bowl could be clogged. Locate the filter, unscrew the cap, remove the screen, clean it, and reassemble the same way you took it apart. If you did find debris, also try removing the tip on your sink faucet (if possible) to see if any of that small debris clogged up the sink faucet screen. Not all sink faucets have a removable tip. It is usually only on the older campers.

FOUR WHEEL CAMPERS, LLC
109 Pioneer Avenue, Woodland, CA 95776
(530) 666-1442 www.fourwh.com

Rev. Date 03/24/2017