

House water pump replacement

One of our Barth members had a SHURflo pump that they didn't want any longer so I picked it up from them. I had it for a few months and decided to get it installed as our original pump, worked OK, but the flow and pressure were not what I liked. Wifey did not like the low pressure and volume when showering, she doesn't take showers like I do! (Wet up-soap up-rinse!)

Installing the pump was not at all hard and for the most part was a plug and play. I had to shorten the supply input because the new pump uses a very big filter so that was the only place to put it. I did not use the recommended hose kit to reduce noise as the old pump, though noisy wasn't all that bad. I figured that the new pump being variable speed would be quieter during most normal uses.

First turn on was OK but the pump seemed to be hard to get it to prime. I used street water to fill the tank and as many of you know that while the tank is filling if the pump is not turned off during the filling, it will run. During the fill cycle, the street water pressure is used for the mains as well as filling the tank, the pressure will be low in the mains and the pump will sense this and start-BUT-this will help to prime the pump on first installation.

After I verified that the pump was primed I noticed that the pump was not running very fast. I measured the voltage to the pump and found that the voltage was right around 9.5VDC to 10VDC. Those of us that have been thru the Barth electrical systems know that low DC voltage is a chronic problem! This IS another one. I have 2 switches and a mile of wire from the rear breaker panel under the bed, thru the switches, to the pump, lots of places for voltage loss, with the new pump, it draws more than the old one so that was another reason for the extremely low voltage at the pump!

I ran a pair of 10 gauge wires (I know, I know, overkill!) from the front electrical compartment house battery breaker back to the pump and installed a 30 amp relay. Now when the pump is energized, the relay is turned on and full house battery voltage is available to the pump thru the relay. The pump off/on voltage after relay installation went from 13.3VDC to 13.15VDC.

Even with the new relay and wiring, the pump seemed to struggle, reading the enclosed literature it stated that it would take a few hours to run in so I thought this was normal.

After a 8000 mile trip and another 300 mile trip the pump still was not working well! It was getting worse, now when water was turned on, the pump would start briefly and then stop, the water flow would completely stop and then after a second or two the pump would restart and flow would resume, it would maintain a reasonable water flow but pressure wasn't good. It seemed as if the flow wasn't even as good as the old pump delivered and the pump, even thou being advertised as a variable speed pump, wasn't changing speed at all, it would just start and stop and didn't regulate pressure well.

Finally during the last trip to Idaho, I had enough and put the old pump back in. before I did this, I used a quart measure and timed the period it would take to fill a quart of water with the new Smart Sensor pump. It took all of 10 minutes to put the old pump back in because I made up fittings that would allow the old one to replace the new one without any changes just undo the water fittings and the electrical plugs (I use Power Poles on most all of my low voltage accessories) I measured the water flow of the old pump and it was nearly twice the flow even thou the new one should have been 2X of the old one! Definitely something wrong with the new pump! Old pump was working better then it ever had, probably due to the new wiring and relay so the pump now had full battery voltage available, not as before!

New pump installation with relay:



Old pump re-installation:



When I returned from the trip I call SHURflo in So Cal, their customer service rep wasn't the greatest, he suggested that the pump should start 4 or 5 times and that would be normal etc.,etc.,he had some other lame reasons and/or excuses but when I read him the instruction manual he reluctantly told me to return the pump to the place of purchase, obviously that could not be done so finally he gave me authorization to return the pump to the Elkhart Indiana facility! I sent it off with a letter stating the operation of the defective pump and my trouble with customer service 8-11-2010.

Yesterday, 8-21-2010, I received a NEW pump, sealed in the box! I installed it today and YES, this one really delivers the water and does vary the speed to demand from slow water demand to full open! Timing the quart of water fill with the same battery voltage as used before, this new pump filled the quart nearly twice as fast as the old one. If the pump works better after break in, it will be even better—I am pleased—for now, and I hope this settles the issues!

I will write a letter back to the company in regards to the complete story after this next trip and if things works as they do now. They seem to have made up for the poor customer service attitude, with service performance!

I would recommend that if anyone wants to get better performance of their original house water pump to consider the wiring and relay change that I made. Had I done that first (never thought to look at the voltage) I probably would not have invested in a new pump.

Ed
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