PB2 Low Pressure Issues When in Flush		TSB 2012002
Created/Last Revised Date 04/27/12	Last Reviewed Date 04/27/12	Page 1 of 2

TECHNICAL SERVICE BULLETIN

ISSUE

A low pressure condition during flush has been observed, primarily in hospitals and home use applications because of insufficient water pressure and/or flow.

POSSIBLE CAUSES

1. **Insufficient flow.** The PB2 has a minimum incoming flow requirement of approximately 2.2 gpm and a minimum filter-in pressure of 20 psi during flush. The PB2 is set at 36 gph (0.60 gpm) or 2270 ml/min and 110 to 125 psi pump pressure during test. When the PB2 is put into full flush, the water volume required to flush the membrane should be approximately 2.2 gpm, product and reject flow combined. If the incoming flow is less than 2.2 gpm the PB2 may go into a low-pressure condition. If insufficient flow is the cause then this must be corrected at the tap source and the following solutions are not applicable.

2. **Insufficient tap water pressure.** If you have less than 20 psi at the PB2's filter-in gauge, while the PB2 is in flush, the PB2 may go into a low-pressure condition.

SOLUTIONS

1. Check for large pressure drops across external carbons and correct as necessary.

2. Check the following:
- Set the flush lever to a half open position.
- Adjust the pressure regulating valve, located inside the PB2 cabinet, by turning it clock-wise until fully open which may possibly increase the filter-in pressure.
- Monitor the pump pressure.
- Do not allow the pump pressure to go below 60 psi.
- If any pump cavitation is observed and/or heard (*the pump will make a distinct growling noise*) close the flush lever.

3. Do the following:
- Disconnect the product hose from the dialysis machine
- Do only one of the following:
  - **a.** If the PB2 is used or dedicated for a single dialysis machine application, set the pump to a minimum of 90 psi or look at the glass flow meter and set the product flow to a minimum of 25 gph (1575 ml/min), at 77º F.
  - **b.** If the PB2 is not used or dedicated for a single dialysis machine application, set the pump to a minimum of 100 psi or look at the glass flow meter and set the product flow to a minimum of 36 gph (2270 ml/min) at 77º F.
- In most cases this will allow the PB2 to flush with the flush lever fully open.

4. If this does not correct the problem you have one or two options:
Add a booster pump:

a. EQSUBPB2BP	PB2 BOOSTER PUMP	qty=1

* *Refer to the PB2 Service Manual for assistance on installing this pump. This manual is available online at* ***www.betterwater.com/support .***

And/Or replace the feed line with the larger hose listed below:

b. PLFIPP00005	3/8" MPT x 1/2" HOSE BARB	qty=1
c. PLHOST00322	1/2" STYLE 5000 HOST	qty= 28 feet (*length as needed*)
d. PLFIOT00546	1/2" BARB x 3/4" GARDEN HOSE	qty=1

e. PLHOCL001 1/2" HOSE CLAMP qty=2

5. If backflow preventers are used at the tap source it is recommended that a **WATTS MODEL 9D DOUBLE-CHECK (*BACKFLOW PREVENTER*)** be used with the PB2.
- For specifications go to http://www.watts.com/pages/products_details.asp?pid=886.