

**Delany Products: Flushboy ULTRA & ULTRA Plus**

**Troubleshooting Chart**

Issue	Comment	Likely Cause	Solutions	Tip
<b>VALVE WILL NOT START TO FLUSH</b>	Once you open the Control Stop, the valve should go through a flush cycle and shut down.	1) Control Stop is closed. 2) Operating Stem in handle is not hitting Relief Valve	1) Open Control Stop. 2) Operating Stem tip is worn. Time to replace. Order 223-2A-K 3) Install correct length Operating Stem as indicated in parts listings.	If the operating stem is too short, a short term solution will be to place a dime between the operating stem inside handle assembly.
<b>VALVE STARTS FLUSHING BUT CLOSSES IMMEDIATELY</b>	The bypass is too large & shutting the diaphragm down too quickly, or the operating stem is not making contact with the relief valve	1) Diaphragm is ruptured. 2) Diaphragm bypass is oversized or secondary bypass has occurred. 3) Tip of operating stem is worn.	1) Replace diaphragm with appropriate #143 Drop-in Kit. 2) Check to make sure all parts are tight such as seat guide. Otherwise the bypass is damaged. 3) Replace operating stem.	
<b>FLUSH VOLUME IS NOT ENOUGH (SHORT FLUSH)</b>	The water in the bowl is not starting the syphoning action to then clear the trap. More water is needed. Thus Delany valve can simply be tweaked with the regulation screw without opening the valve.	1) The refill of the toilet bowl is not sufficient enough.	1) Remove No. 3 (cover cap). Insert screwdriver and turn No. 4 (regulating screw) counterclockwise for longer flush. Start with 1/2 of turn increments. Please also refer to our video that can be found on our YouTube channel, which can be accessed from the Delany website ( <a href="http://www.delanyproducts.com">www.delanyproducts.com</a> ) in the lower lefthand corner of the home page.	If valve is equipped with Non-hold Open Equipment, then it will be non-adjustable. Only opening the valve and changing diaphragms to a greater discharge will work. Just like all the competitors valves.
<b>FLUSH VOLUME IS TOO MUCH</b>		1) The discharge (GPF) of the diaphragm is rated greater than the toilet. 2) The diaphragm's bypass is partially blocked.	1) Turn the regulating screw clockwise (i.e. down) to reduce discharge. Otherwise insert a new diaphragm that properly matches the GPF of the diaphragm to that of the toilet. 2) Blow into bypass to make sure you can see clean and open bypass. Otherwise replace with a new diaphragm.	
<b>VALVE CONTINUES TO "RUN" (FULL FORCE)</b>	A flush valve "runs" because the upper chamber is not refilling to shut the diaphragm or piston back down on the main valve seat.	1) The diaphragm bypass is blocked. 2) Debris is embedded into the diaphragm itself. 3) Diaphragm Guide is loose	1) Blow into bypass to make sure you can see clean and open bypass. Otherwise replace with a new diaphragm (#143-?-ACQ). 2) Examine the diaphragm closely and clean of any debris that may have lodged into the diaphragm rubber. 3) Hold diaphragm and tighten Guide by hand as much as possible.	The ULTRA Plus uses as standard the Delany Mashaerator® Diaphragm. The blocking of the bypass has shown to be a rare occasion.
<b>CONTINUES TO RUN BUT ONLY SLIGHTLY (It weaps)</b>		1) The diaphragm auxiliary seat has debris embedded into it. 2) Water pressure is too low. 3) Main valve seat is loose.	1) Same as #2 above 2) Boost water pressure at pump or install an expansion tank. 3) Examine and tighten as needed.	
<b>WATER SPLASHES FROM BOWL</b>		1) Water pressure is too high. 2) The discharge of the diaphragm is rated greater than the toilet.	1a) Make sure the PSI of building is less than 80. 1b) Slowly close down the control stop to slow the GPM coming into the valve. 1c) Turn the regulating screw clockwise (i.e. down) to reduce discharge.	

<b>VALVE WILL NOT PASS ENOUGH WATER TO INITIATE THE SYPHONIC ACTION OF BOWL</b>	The flush valve is being choked of proper amount of water that it needs to supply to the toilet.	1) Control stop is not opened enough. 2) 3/4" urinal flush valve was installed in error. 3) Insufficient water is being supplied either due to low water pressure or undersized piping.	1) Open control stop all the way. 2) A properly sized bypass (GPF) needs to be installed along with 1-1/2" flush connection. Either change parts or install the proper W.C. flush valve. 3) The water pressure or pipe sizes, or both, must be increased. 4) Make sure that all incoming supply lines to the bathroom are open.	A good way to establish if volume of water is inadequate to initiate the flush is by removing relief valve or even the entire diaphragm operating assembly. This will convert the valve into a simple elbow. If there is not enough water, you will know.
<b>FLUSHING ACTION NOT QUIET ENOUGH (WEAK FLUSH)</b>	1) The High Efficiency Urinal (0.125 GPF) is such a short flush that with high pressure (over 80 psi) the diaphragm may shutdown way too quickly.	1) Flush valve is shutting too quickly. 2) The flush is weak and you have to hold handle to generate a good flush.	1) Put in a Pressure Reducing Valve (PRV) and get pressure below 80psi 2a) It is time for a new Operating Stem. Order the 223-2A-K 2b) Rubberflexer has reached the end of its life. Order the 223-2A-K	The 223-2A-K is the combination of the Rubberflexer® and the Operating Stem is one has gone bad, it is very common that both should be replaced for good maintenance.
<b>WATER LEAKS FROM AIR VENTS OF FLUSH CONNECTION</b>	Beads of water are dribbling down the flush connection after each flush.	1) Fiber washer that works with vacuum breaker is missing. 2) Vacuum breaker sleeve inside the flush connection has either a) ruptured due to age or b) fatigued due to harsh chemicals in water supply.	1) Order new Fiber Washer 2) Replace with new Delany Vacuum Breaker (#427A)	
<b>VALVE LEAKS AT HANDLE</b>		1) NON-Delany OEM Rubberflexer® was substituted.	Order Delany Genuine Rubberflex® Internal Handle Assembly (#223-2A-K)	