
ECO FLUSH™
B8104 1.1 Gallon/4 Liter
Flush System
ANOTHER INDUSTRY FIRST FROM WDI

Presentation

- Introduction of EcoFlush
- How EcoFlush works
- Sub - Assemblies
- Features and Benefits
- Flush Valve Technology
- Trouble Shooting
- Technical Support

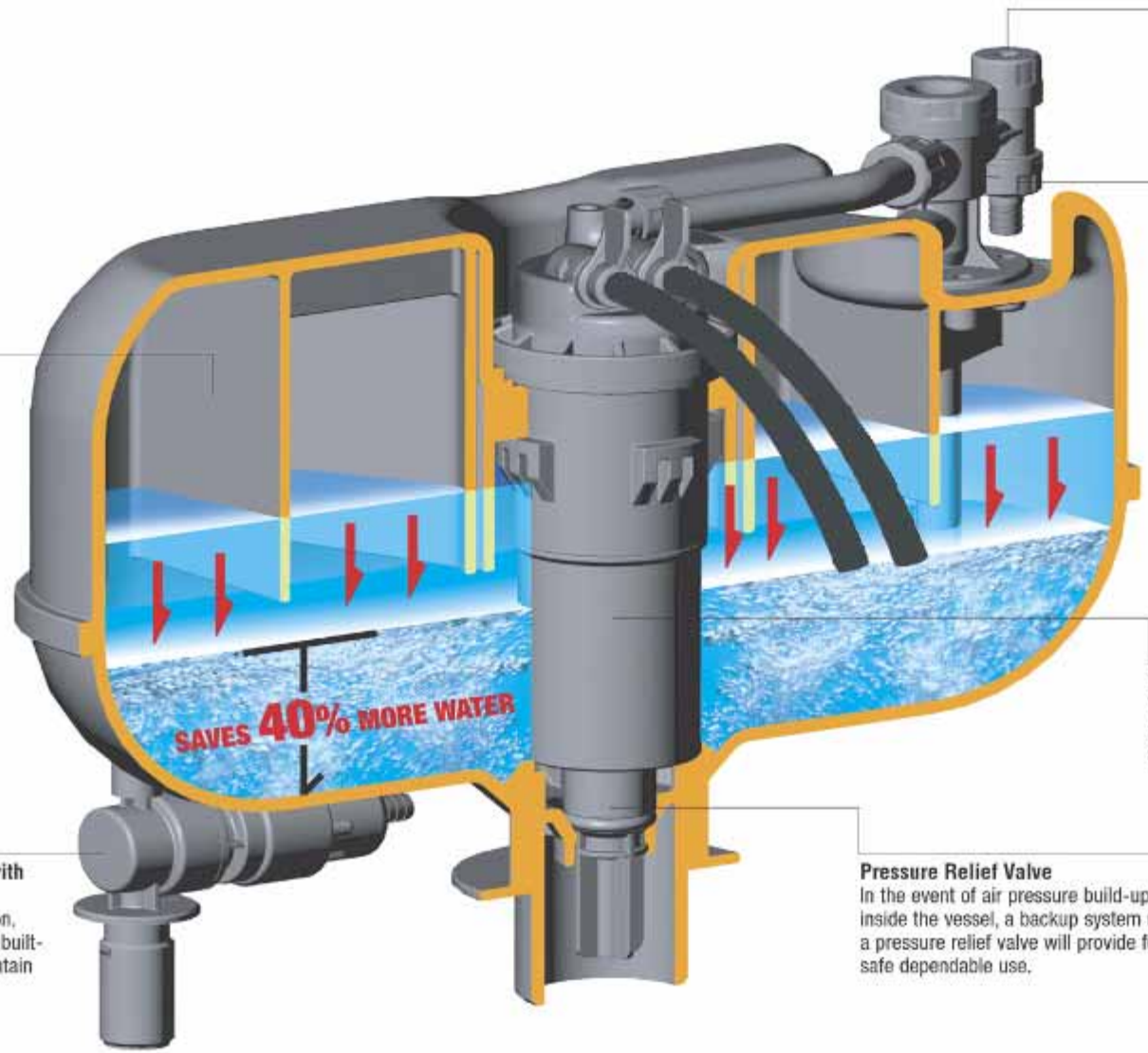
ECOFLUSH

Pressurized Flushing System

- B8104 meets all HET Requirements
  - Minimum 20% Reduction in Water Consumption and Waste Water Discharge
- No Flapper leakage!
- No Tank Sweating!

ECOFLUSH

How It Works



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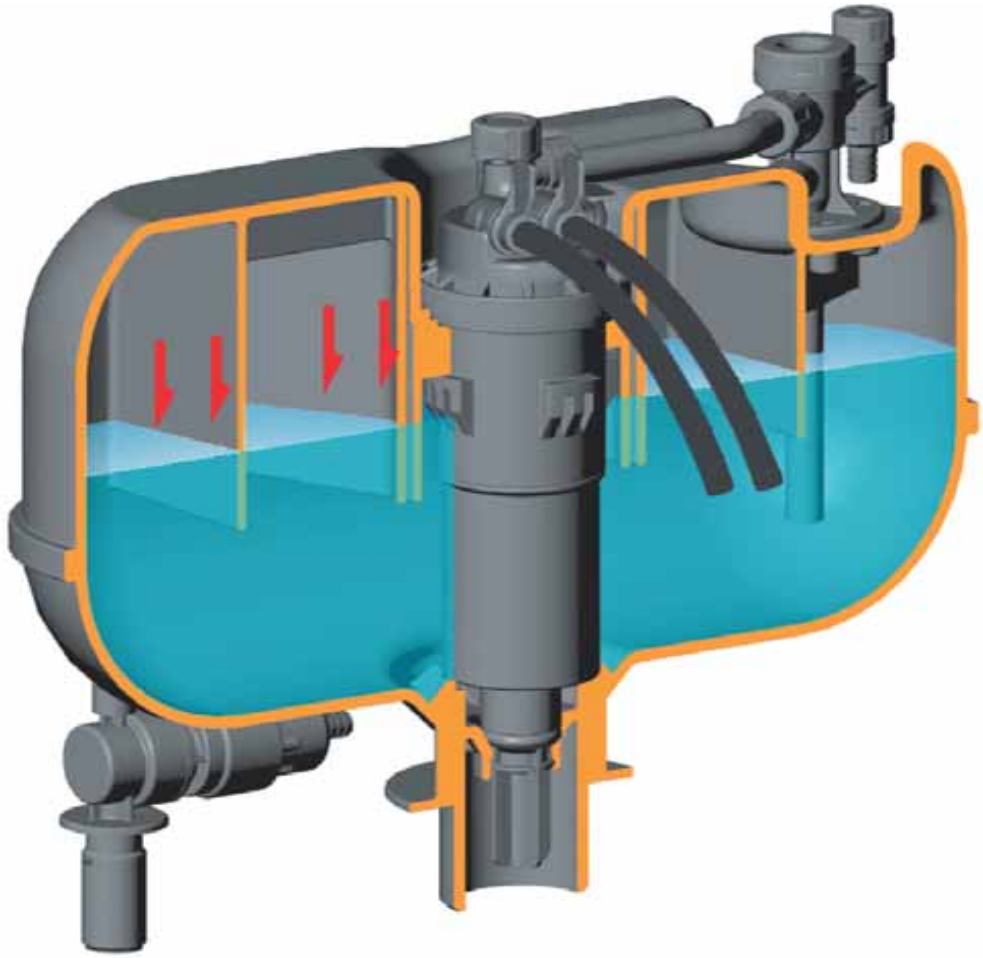
How It Works

1. Water Flows into the Vessel passing through the lower supply, Pressure Relief Valve with Backflow Prevention. The lower supply assembly reduces water pressure that is above 50psi to ensure perfect operation.

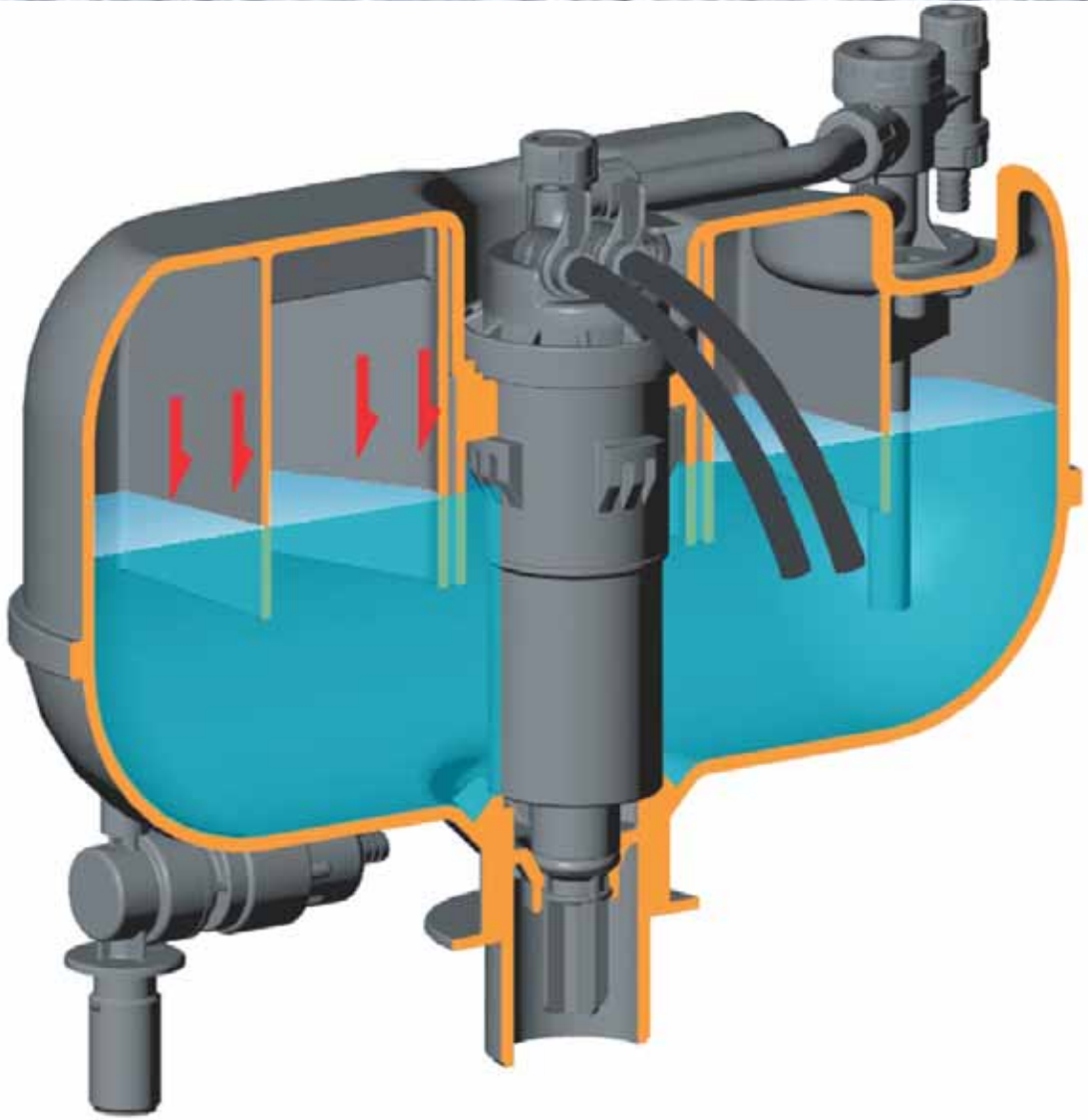


ECOFLUSH

How It Works

2. Fully Charged
   Ready to Flush

AIR PRESSURE IS LIKE
A POWERFUL PISTON

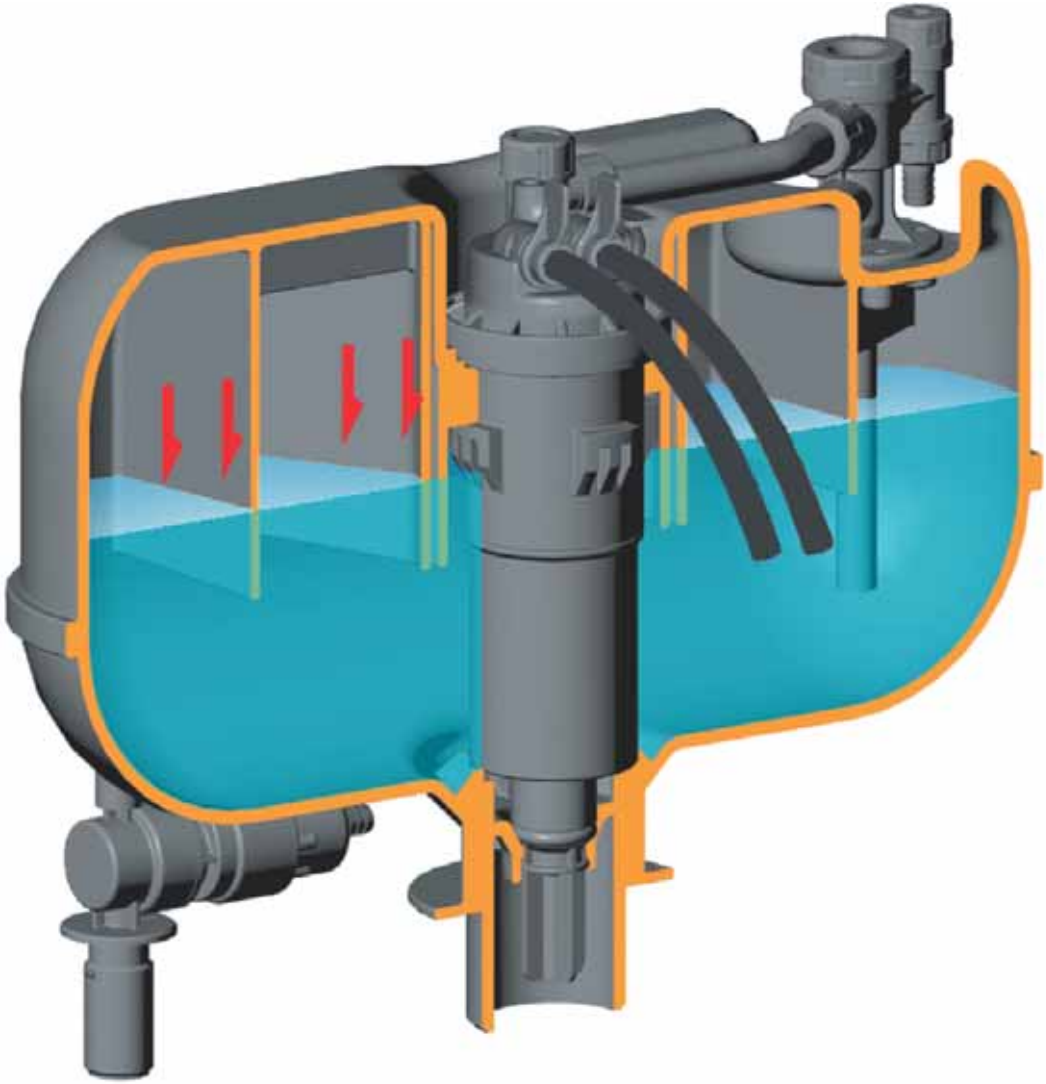


ECOFLUSH

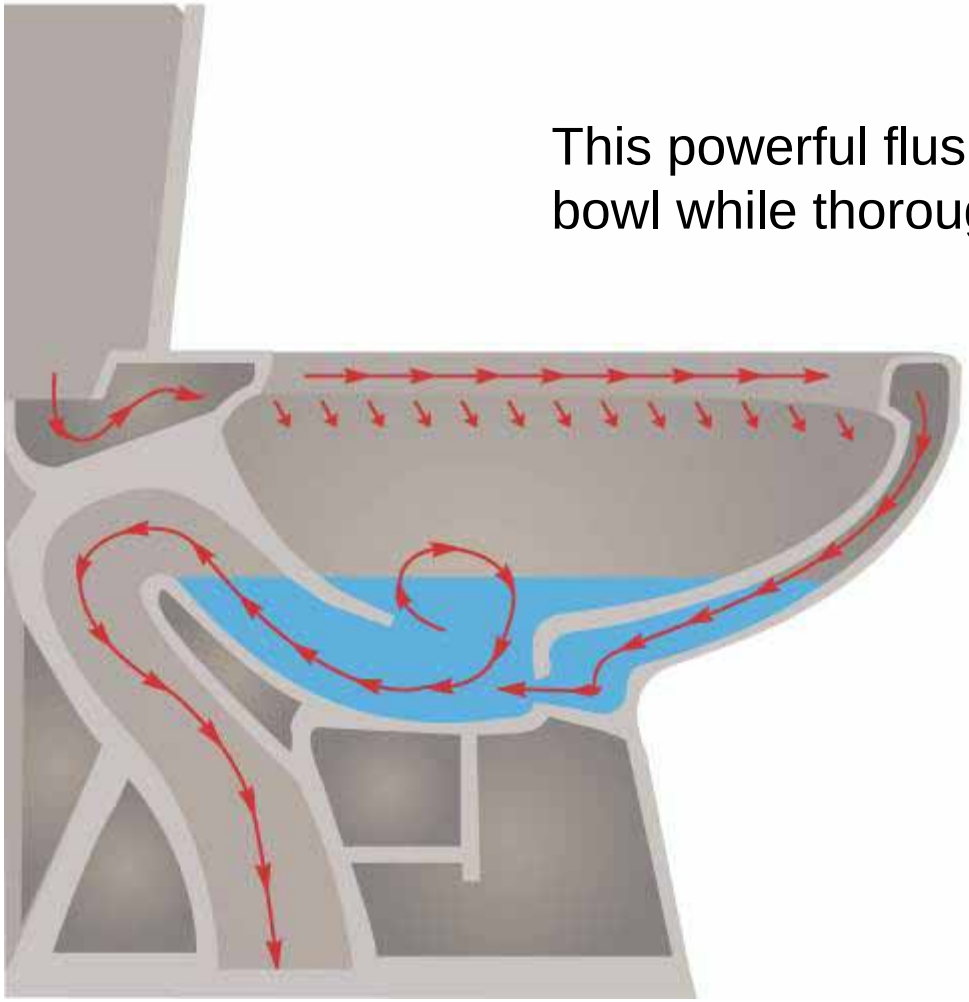
How It Works

3. The Flush

Compressed Air Drives the water forcefully out of the Vessel



Jetted Bowl Design

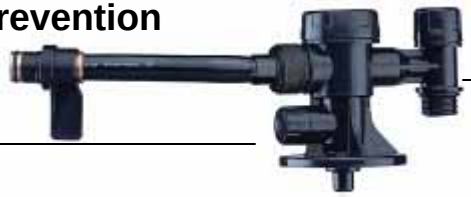


This powerful flushing action drives the waste from the bowl while thoroughly cleaning the bowl.

The combined elements of air and water dramatically improve drain-line carry, & virtually eliminate sewer stoppages.

Easy Service

Anti-Siphon Back Flow Prevention Air Inducer



Upper Assembly

Flush Valve Cartridge

Vessel

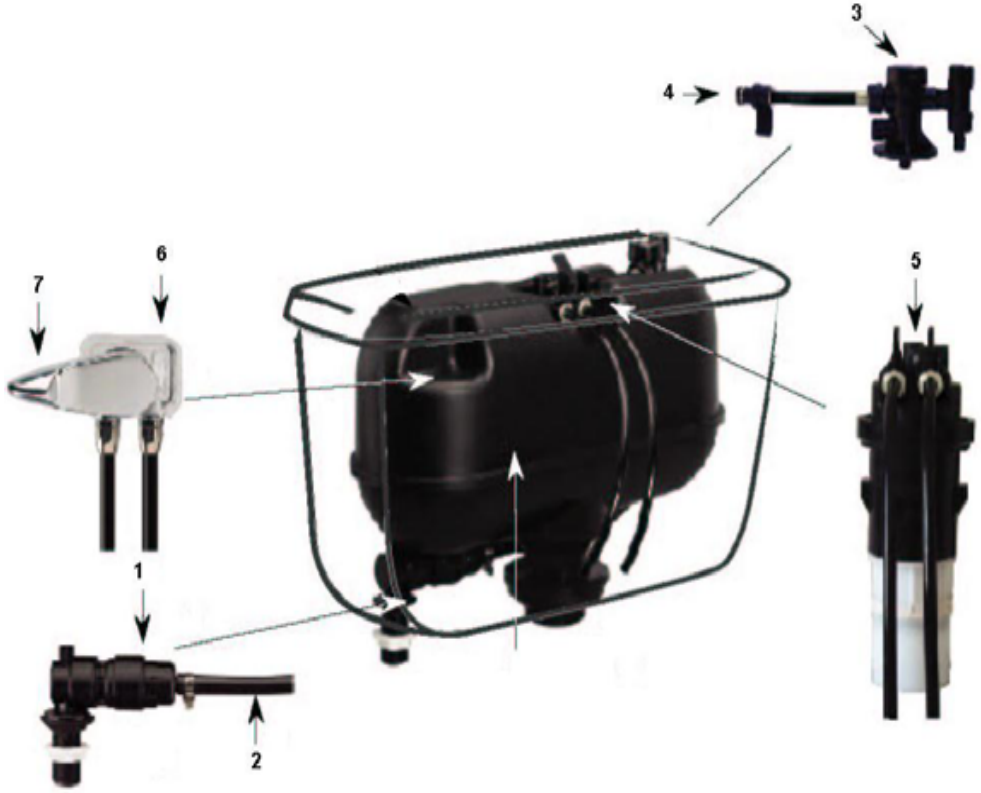
Discharge Extension and Drain

Pressure Regulator Relief Valve

Supply Line to Upper Assembly

Lower Inlet Supply Assembly

B8104 Parts



1. Lower Supply- Part Number B8100-01
2. Supply Hose- Part Number B8100-01A
3. Upper Supply- Part Number B8104-02
4. Quick Connect Line- Pert Number B8104-02A
5. Flush Valve Cartridge- Part Number B8104-03
6. Flush Control Valve- Part Number B8106-06
7. Handle- Part Number BS004

Flush Control Valve Technology

- **Silent Flush**
  Engineered to make the system one of the quietest in the world.

- **Feather Touch™**
  The Flush Control Valve is water activated for a Feather Touch Activation. Fully ADA compliant. Ideal for small children and seniors.

Trouble Shooting

CONDITION 1: No Water Flows Into The Vessel

If the water pressure is below 20 PSI, the unit will not function properly (NOTE: The recommended static pressure range by code is 20 PSI to 125 PSI). If you cannot increase the water pressure to the required level the unit will not function properly.

Check the following to make sure that there is no mechanical reason for the low pressure.

Step 1. Make sure the water supply valve is fully open.

Step 2. Check the Debris Filter Screen for any obstruction that would restrict the water supply pressure. To check the debris screen, shut off the water supply, flush the toilet to discharge any pressure, then disconnect the supply line. Remove the debris screen from the threaded connector shank and flush any debris which might prevent the flow of water through the filter screen. Replace and turn the water supply on checking for leaks.

Step 3. Check to ensure that there are no kinks in the supply lines or connector lines between lower and upper supply assemblies, which would prevent the flow of the water into the system. Also check that there are no leaks at any of the connections.

Step 4. Check the flush control valve for any leaks and make sure the connections are also tight. If water is leaking from the flush control valve then the flush control valve should be replaced (EcoFlush Part Number B8106-06, covered by factory warranty).

Trouble Shooting

Step 5. Check the Flush Valve Cartridge (FVC) for air leaks by pouring a small amount of water onto the area around the top of the flush valve cartridge. If air bubbles are visible then you must remove the FVC and check the flush valve o-ring for damage and to see that it is properly positioned in the vessel.

To remove the Flush Valve Cartridge proceed as follows:

Step a. Shut off the water supply and flush the toilet to remove any remaining water or air pressure before starting the procedure.

Step b. Remove the quick connector line between the Upper Supply Assembly and the Flush Valve Cartridge by rotating the locking tab downward. Remove the supply line and set it aside.

Step c. Disconnect the two black flush control lines from the flush valve cartridge by rotating the locking tabs downward and pull gently outwardly on the lines. These flush control lines are equipped with locking tabs and the lines are connected by left line of the flush control to the left port of the FVC and the right to the right facing port of the FVC.

Trouble Shooting

Step d. Remove the Flush Valve Cartridge (FVC) Assembly using the tool provided. Using the FVC tool, engage the teeth of the tool with the slots on the top of the FVC and with the aid of wrench, rotate the FVC counter clockwise 1/4 turn, then lift the FVC up removing the FVC and the upper o-ring. Inspect the upper o-ring and the flush valve seat of the Flush Valve Cartridge.

Step e. Reinstall the FVC Assembly. First, position the o-ring in the flush valve seat and then carefully insert the cartridge into the vessel making sure that the o-ring stays in the proper position. Using the tool to align the dual connectors at the 5 o'clock position and while gently pushing down on the cartridge rotate the cartridge clockwise 1/4 turn to lock the FVC into position with connector ports aligned and facing forward, indicating that the FVC is now locked into the proper position. (DO NOT USE LUBRICANTS ON THE O-RING OR INTERNAL PART OF THE ECOFLUSH AS THIS WILL VOID THE WARRANTY AND CAUSE DAMAGE TO THE SYSTEM.)

Step f. Reconnect the supply lines, (right tab on the right facing port and the left tab on the left facing port) and while pushing the locking keys into place rotate the locking tabs upward to lock the lines into place.

Step g. Reconnect the Upper Supply quick connect line by aligning the locking tab and pushing inward. Rotate the locking tab upward to lock the line into position.

Trouble Shooting

Step h. Turn on the water supply and check all lines carefully for leaks. To ensure that the FVC o-ring is properly seated, pour water onto the top of the FVC and check for air leaks. Test flush the unit several times to clear excess air and continue use.

Step 6. If Step 4 & 5 do not resolve the problem then it will be necessary to replace the flush valve cartridge including the o-ring (EcoFlush part number B8104-03, covered by factory warranty).

CONDITION 2: Water Runs & Will Not Shut Off

(NOTE: The recommended static pressure range by code is 20 PSI to 125 PSI). If sufficient supply pressure has been verified and the toilet continues to run, the following steps may be required:

Step 1. Make sure the water supply valve is fully open.

Step 2. Check the flush control valve for any leaks and make sure the connections are also tight. If water is leaking from the flush control valve then the flush control valve should be replaced (EcoFlush Part Number B8106-06, covered by factory warranty)

Trouble Shooting

Step 3. Check to ensure that there are no leaks in the supply line and connector lines, which would prevent the proper function of the system.

Step 4. Check the Flush Valve Cartridge (FVC) assembly for proper installation and use the water test to check for air leak around the top of the flush valve cartridge. Proceed as follows: If the FVC has an air leak you need to check the flush valve and o-ring seal.

Step 5. Turn off the water supply and flush the toilet to relieve any pressure. Remove the Flush Valve Cartridge (FVC) Assembly using the Flush Valve tool. To remove the Flush Valve Cartridge Assembly, disconnect the 3 lines the supply line from the upper supply assembly and the two lines from the Flush Valve Cartridge(FVC). You may disconnect these lines by moving the tabs into the unlocked position and pulling gently on the lines. Disconnect Upper Supply line to the FVC by loosening the nut that connects the top of the FVC to the Upper Supply Assembly.

Step 6. Using the tool provided engage the interlocking teeth and rotate the FVC counter clockwise 1/4 turn. Then lift the FVC up removing it from the vessel.

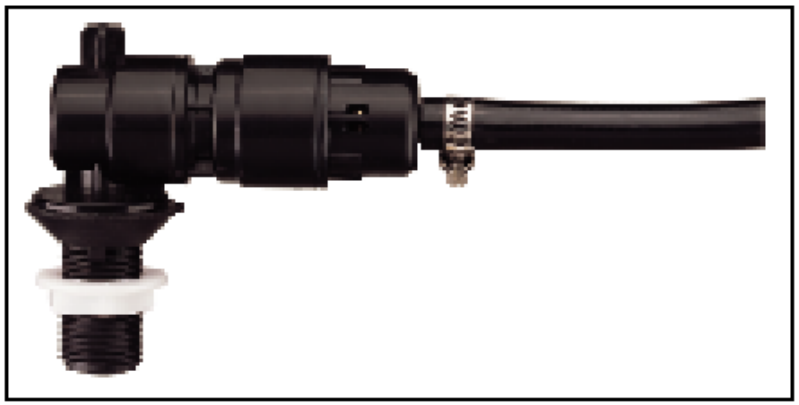
Step 7. Inspect the FVC large o-ring at the top of cartridge and also check the lower o-ring for damage or if it is properly seated.

Trouble Shooting

Step 8. Reinstall the Flush Valve Cartridge (FVC) Assembly. First, insert the cartridge into vessel, and while gently pushing down on the cartridge, turn the cartridge clockwise 1/4 turn to lock the FVC into position with connector ports aligned and facing forward, indicating that the locking lugs are now aligned. Reconnect the flush control valve hoses then turn on the water and check carefully for leaks.

Step 9. If the tank continues to run, remove the FVC and check that the lower piston is in the proper position and check the large o-ring to ensure that it is properly seated. When the vessel is filled and the water stops running, it is an indication that the vessel is filled and ready to continue normal use.

Step 10. If the water continues through the vessel into the toilet after completing Step 1 through 9, the Flush Valve Cartridge should be replaced (EcoFlush part number B8104-03, covered by warranty).

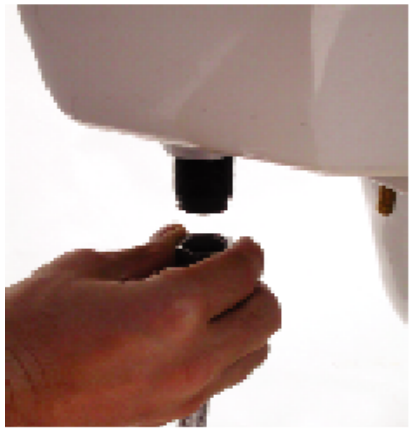


Check lower inlet supply assembly to see if the pressure relief valve is leaking or allowing water to flow into the tank. If water is leaking from the pressure regulator and relief valve of the lower inlet supply assembly, the lower inlet supply assembly must be replaced (EcoFlush Part number B8100-01, covered by factory warranty).

Trouble Shooting

CONDITION 3: Weak or Sluggish Flush

Step 1. (NOTE: The recommended static pressure range by code is 20 PSI to 125 PSI). If sufficient supply pressure has been verified and the toilet continues to run, the following steps may be required. If the pressure is within the above defined limits, then you will want to flush the system a couple of times to remove any debris that may be limiting the flow of water to the vessel.



Step 2. Check for debris in the filter screen system at the water inlet for any obstruction that might limit the flow of water into the vessel. To do this shut off the water supply, flush the unit to relieve any pressure and disconnect the water supply line from the threaded connector. You can remove the filter screen easily using a set of long nose pliers. Clean and replace the filter screen, then reconnect the water supply and check the water flow.

Step 3. Make sure that the vessel has sufficient time to fully recharge (the lower the pressure the longer the time to recharge the vessel). We suggest that you allow at least 2 minutes between flush cycles.

ECOFLUSH

Meets All Plumbing Codes & Standards

EcoFlush pressure vessels are IAPMO approved & certified under ANSI/ASME A112.119.14 – ASSE 1037-99 & CSA B45 & B125 testing standards.

IAPMO Certified for North America

Life-cycle tested over 150,000 flushes
29 Years at 14 flushes/day

Toll Free Customer Service

Toll Free Customer Service
Backed by a 10 Year Limited Warranty

Well Established Warranty and Replacement Parts Program

Toll Free Customer Service Line

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