

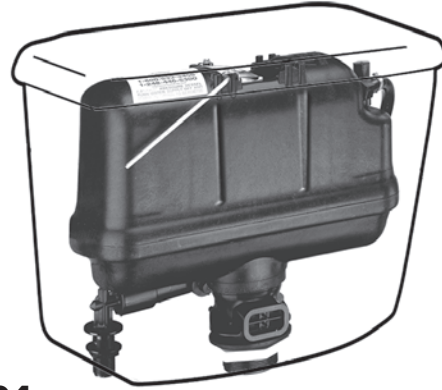


FLUSHMATE®



503
503-H

MADE IN U.S.A.



504

Trouble Shooting Guide for 503, 503-H and 504 Series

Important: Do not return to store where purchased. Please read the entire manual before attempting to make any adjustments or repairs.

WARNING:

- When replacing components on the *FLUSHMATE*® Flushometer-Tank System, make certain that the water supply valve is turned off and the toilet has been flushed to relieve pressure in the *FLUSHMATE*® tank.
- USE OF PETROLEUM-BASED LUBRICANTS OR CORROSIVE CLEANING PRODUCTS CONTAINING CHLORINE, SUCH AS HOUSEHOLD BLEACH, DROP-IN BLOCKS OR TABLETS, OR DISINFECTANTS, THAT ARE APPLIED INSIDE THE CHINA HOLDING TANK WILL VOID YOUR *FLUSHMATE*® WARRANTY. The exterior of the tank and the entire bowl can be cleaned following the manufacturer's recommendations or in the same fashion as any other toilet.
- *FLUSHMATE*® Flushometer-Tank Systems are designed to be used with a cold potable water system only and use of non-potable water supply or a tempered or hot water supply will void your warranty.

WARNING

To Prevent Injury:

Read Installation Manual

Read entire manual before performing any tasks.

Safety Precautions

Care should be taken when working on the Flushmate System. Surfaces can become wet, which may create a slip / fall hazard. Exposed tank bolts have sharp threads and may cause injury – avoid contact. Lifting the toilet tank (up to 45 lbs./20.4 kgs) is required. If you are unable to lift the toilet tank contact Flushmate: **1.800.533.3460**

Vessel Under Pressure

Prior to servicing the Flushmate System, first completely CLOSE water supply stop and then flush toilet to release pressure from the Flushmate vessel. Failure to do so can result in injury or damage to the toilet tank and bowl.

NOTICE

Use of petroleum based lubricants or cleaning products containing chlorine (household bleach, drop-in blocks or tablets, disinfectants) that are applied or inserted into the toilet tank and/or Flushmate vessel will void your Flushmate Limited Warranty. When cleaning the exterior of the toilet, follow manufacturer's recommendations.

Install according to applicable plumbing code.

List of Components for 503, 503-H and 504 Series:

1. Lower Supply Group w/Hose BL100504-3

- (A) Supply Shank w/inlet screen
- (B) Pressure Regulator w/Back Check
- (C) Relief Valve

2. Upper Supply Group BU100505

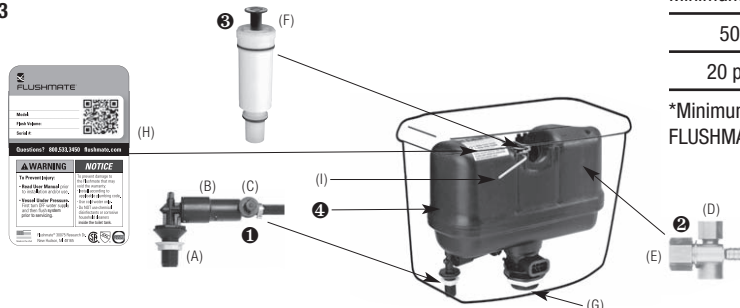
- (D) Air Inducer Cap w/duckbill
- (E) Vacuum Breaker

3. Flush Valve Cartridge Assembly

- (F) Actuator w/setscrew

4. FLUSHMATE® Tank

- (G) Discharge Extension w/Drain
- (H) Name Plate w/Serial Number



Minimum Operating Pressure By Series

503	503-H	504
20 psi*	20 psi*	25 psi*

*Minimum operating pressure by series for FLUSHMATE unit only. Max 80 psi

Operation

All pressure-assist toilets get their energy from the water supply line. It is important to have sufficient pressure at the supply. Refer to the toilet manufacturers' specifications for minimum operating pressure for the fixture.



Fig. 1



Fig. 2

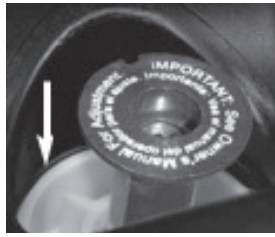


Fig. 3



Fig. 4

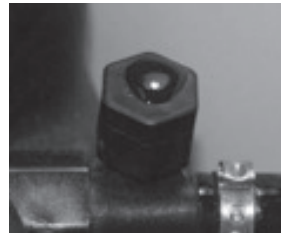


Fig. 5

Step 1. Check Flush Cartridge ③

- Turn off water supply and flush toilet.
- Pour water onto top of cartridge (Fig. 1) and turn on water.
- Watch for air bubbles. Consistent flow of bubbles indicates cartridge needs to be replaced. No bubbles visible, move on to Step 4.

Step 2. Flush Cartridge ③ Installation

- Turn off water and flush the toilet.
- Use the handle end of pliers (Fig. 2) to unscrew the cartridge from the vessel.
- Drop in new cartridge and screw in until one female thread (Fig. 3) of vessel is showing.
- Turn on water. Continue to screw in cartridge slowly, 1/8 to 1/4 turn increments until water stops running into the bowl and tank pressurizes.

Step 3. Actuator ③ (F) Adjustment

- Start by loosening the setscrew in the center of the actuator. Adjust the height of the actuator by screwing it up or down. There should be a gap (Fig. 4) (about the thickness of a penny) between the rod and actuator when gently lifting the rod. When accomplished tighten the setscrew in the center of the actuator.

Step 4. Check Air Inducer ② (D)

- Place several drops of water over hole on top of air inducer and flush toilet (Fig. 5). If drop is vacuumed in, move onto step 6. If not, air inducer needs to be cleaned.

Step 5. Clean Air Inducer ② (D)

- Turn off water and flush toilet. Unscrew the cap of the air inducer (the smaller of the two caps) (Fig. 6).
- Pull the duckbill out from the cap and clean it by gently squeezing it (Fig. 7) between your fingers under a flow of water. Inspect the lips of the duckbill. If they are deformed, the duckbill needs to be replaced.
- Reassemble, insert the duckbill into the housing (Fig. 8) body and reinstall the cap finger tight.

Step 6. Clean Inlet Screen ① (A)

- Clean the inlet screen by turning off the water supply, disconnecting the water supply line from the supply shank and removing the screen with a paper clip (Fig. 9).
- Clean screen (Fig. 10) and replace.

Other Points to Remember

- Pressure-assist toilets get their energy from the water supply.
- Refer to the toilet manufacturers' specifications for minimum operating pressure for the fixture.
- A blocked bowl or drain will affect the fixture's performance. To check for this, pour 2 to 3 gallons of water into the bowl. If the bowl accumulates water in it, this would indicate that something is blocking the bowl/drain. If you need additional help, please contact the manufacturer of the flushing system, or do a word search on "pressure-assist toilets" on the web.



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Winterizing

- Turn off the water supply valve and flush the toilet to relieve the pressure.
- Place a bucket under the lower Supply Shank (A) and disconnect the water supply line, allowing the water to drain into the bucket.
- Push down on the Actuator and pull it up momentarily to allow air into the vessel.
- Follow the fixture manufacturer's instructions for winterizing the bowl.
- Do not put antifreeze or any other chemical agents in the china holding tank or in the *FLUSHMATE*® Tank.

Points to Remember

- When replacing components on the *FLUSHMATE*® Flushometer-Tank System, make certain that the water supply valve is turned off and the toilet has been flushed to relieve pressure in the *FLUSHMATE*® tank.
- Water supply requirement: cold water, potable water system.
- The Flush Valve Cartridge can be removed by inserting the handles of a pair of pliers into the top of the Flush Valve Cartridge and turning counterclockwise.
- With each flush, a small amount of water may be emitted from the upper supply group. A drain at the base of the *FLUSHMATE*® system will eliminate most of this water. Depending on usage, you may see some residual water (less than 1") in the china holding tank. This is a normal occurrence.
- Your water pressure is adequate if your water supply line will yield one or more gallons of water within thirty (30) seconds.
- Replacement parts are readily available by contacting Consumer Services at 800-533-3460 or by visiting the "Where to Buy" section of our website, www.flushmate.com, or purchase online at www.eflushmate.com.

If you would like additional information or require technical assistance, please contact *FLUSHMATE*® Consumer Services at 800-533-3460, or visit our website, www.flushmate.com. For faster service, please be prepared to provide the serial number and date of installation of your *FLUSHMATE*® system.

For support outside the United States, visit our local contact website at www.flushmate.com/localcontact.