

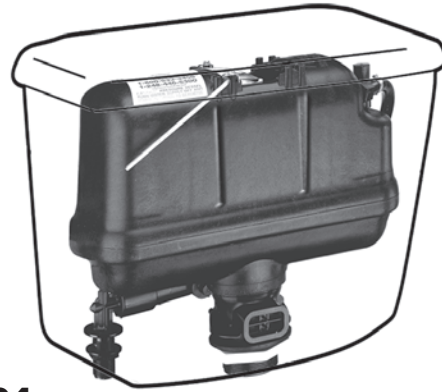


# FLUSHMATE®



**503**  
**503-H**

MADE IN U.S.A.



**504**

## Replacement Instructions 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

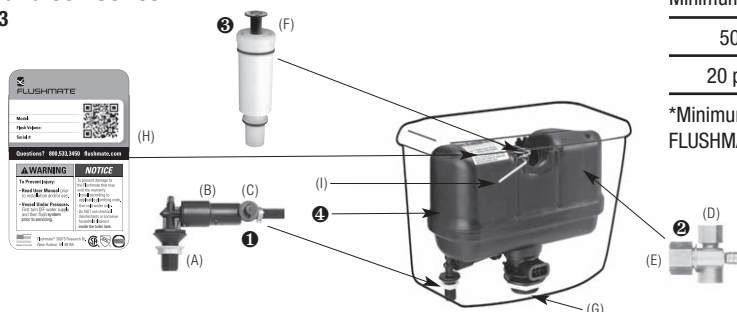
- (D) Air Inducer Cap w/duckbill
- (E) Vacuum Breaker

#### 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

# FLUSHMATE REPLACEMENT INSTRUCTIONS

## Replacement Instructions for Two Piece *Flushmate*® Tanks

### Products: Two Piece Toilet Applications (M-101526)

#### Tools Required:

- Large Adjustable Wrench for 3" nut (recommend Flushmate ST100100 3-in-1 wrench)
- 6" Pliers
- Phillips and Slotted screwdrivers

#### Instructions:

- Turn off water at the supply stop. Flush the toilet to relieve water and air pressure from the *Flushmate*® system. Disconnect water supply line from the supply shank and remove the lock nut that holds the supply shank in place. The supply shank protrudes from the bottom of the china tank on the left hand side.
- If necessary, disconnect the Flushrod from the flush-handle linkage. Remove the screws that attach the Flushrod to the *Flushmate*® and use them to attach the Flushrod to the new *Flushmate*®.
- Loosen the nuts on the bolts protruding from the underside of the toilet, below the china tank. These nuts should be loosened much like lug nuts on an automobile wheel; alternate between them instead of completely removing one at a time.
- Once the nuts have been removed, lift the china tank straight up off of the bowl. Empty any residual water that may have accumulated in the china tank into the china bowl. Place the china tank down flat on its backside on a secure location.
- Remove the "tank to bowl" gasket (thick, spongy doughnut-type) from the Discharge Extension and unscrew large lock-nut on the bottom center of the china tank. A spanner wrench works well for this, but any tool that will spread to accommodate the 3" plastic locknut will work.
- Slide the *Flushmate*® system out of the china tank.
- Place new "tank to tank" gasket (flat rubber gasket with ribs on one side) on new *Flushmate*® with the ribs facing downward. Some "tank to tank" gaskets do not have ribs; installation of this gasket is universal. Slide the *Flushmate*® system into the china tank. It's best to insert the supply shank into the china tank first and then the *Flushmate*® vessel.
- Screw both lock-nuts onto the exposed threads (supply shank and discharge extension) on the bottom end of the china tank.
- Place the "tank to bowl" gasket onto the exposed discharge extension and reattach tank to bowl.
- Attach brass washers and hex nuts to each bolt (making sure you put the washers on before the hex nuts) and tighten securely. When tightening the tank to bowl nuts, use the alternating method while putting downward pressure on each side as you tighten the nuts on that side. In effect, you will be "rocking" the system in the direction of the nuts you are tightening. You must get the bolts tight enough to prevent any leakage (when flushed) between the tank and the bowl, but not so tight that you risk breaking the china.
- Reattach water supply line to the supply shank and turn on the supply stop. Wait for *Flushmate*® to set up (fill with water and stop "cycling") and flush the toilet. If the *Flushmate*® doesn't set up and water continues to run through it, you will need to adjust the cartridge and perhaps the actuator cap. See the owners manual for adjustment or visit <http://www.flushmate.com/documentlibrary>

## Replacement Instructions for One Piece *Flushmate*® Tanks

### Products: One Piece Toilet Applications (M-102540 Models)

#### Tools Required:

- Large Adjustable Wrench for 3" nut (recommend Flushmate ST100100 3-in-1 wrench)
- 6" Pliers
- Phillips and Slotted screwdrivers

#### Instructions:

- Turn off water at the supply stop. Flush the toilet to relieve water and air pressure from the *Flushmate*® tank. Disconnect water supply line from the supply shank and remove the lock nut that holds the supply shank in place. The supply shank protrudes from the bottom of the china tank on the left hand side.
- Loosen the nuts on the bolts protruding from the underside of the toilet, below the china tank. These nuts should be loosened much like lug nuts on an automobile wheel; alternate between them instead of completely removing one at a time.
- Once the nuts have been removed, lift the *Flushmate*® tank straight up out of the toilet tank. Empty any residual water that may have accumulated in the china tank and then set it down flat on the backside with the front of the china tank facing the ceiling.
- If necessary, disconnect the Flushrod from the flush-handle linkage. Remove the screws that attach the Flushrod to the *Flushmate*® and use them to attach the Flushrod to the new *Flushmate*®.
- Remove rubber washers from the bolts and install them on the new *Flushmate*®.
- If the "tank to tank" gasket is attached to the *Flushmate*® remove it and place it on the new *Flushmate*®. Contact the fixture manufacturer for replacement if required.
  - If equipped with a Drain Valve Assembly**
    - > If the Drain Valve Assembly is intact and not broken you can proceed to the next step.
    - > If the Drain Valve Assembly is broken you will need to replace it.
      - At the inside bottom of the tank you will see a small the Drain Valve Assembly.
      - Either pull it out or unthread it based on your fixture manufacturer. If you have to unthread it out of the china tank you will need to put your fingers inside the large discharge outlet in the china tank and hold the locknut, while unthreading the Drain Valve Assembly.
      - Once you remove the Drain Valve Assembly, make sure that the small white plastic ball is intact. If the ball is missing you will need to remove it from the toilet bowl.
      - To remove this ball, you will need to remove the from the floor, gently lay the toilet on the backside and gently rock the toilet back and fourth (from side to side) until the ball rolls out.
      - Next you will need to reinstall the toilet back on the floor.
      - Then install the new Drain Valve Assembly, do the reverse as you did to remove it.
- Reinstall the *Flushmate*® into china tank, by aligning bolts through the holes and the threaded shank through the larger hole on the left-hand side.
- Attach new brass washers and brass hex nuts to each bolt (making sure you put the washers on before the hex nuts) and tighten securely. When tightening the tank to bowl nuts, use the alternating method while putting downward pressure on each side as you tighten the nuts on that side. In effect, you will be "rocking" the tank in the direction of the nuts you are tightening. You must get the bolts tight enough to prevent any leakage (When flushed) between the tank and the bowl, but not so tight that you risk breaking, the china.

- Reattach water supply line to the supply shank and turn on the supply stop. Wait for *Flushmate*® to set up (fill with water and stop "cycling") and flush the toilet. If the *Flushmate*® doesn't set up and water continues to run through it, you will need to adjust the cartridge and perhaps the actuator cap. See the owners manual for adjustment or visit <http://www.flushmate.com/documentlibrary/>

#### 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](http://www.flushmate.com), or purchase online at [www.eflushmate.com](http://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](http://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](http://www.flushmate.com/localcontact).