

PRESSURE ASSIST TOILETS GILPIN SERIES

Owners Manual El Manual del Propietario / Le Manuel du Propriétaire

ENGLISH Caution-Tips:

Please follow the toilet manufacturer's installations instruction for installing the fixture. Note that the toilet requires a minimum water supply line pressure of 25 psi for a 1 gpf fixture. Before attaching, you should always flush the water supply lines.

After completing the installation, you are required to adjust the Cartridge Actuator (F). To adjust, make sure the water is turned on and the vessel is completely charged. The Actuator needs to be set at the proper clearance, 1/8" from either the Flush Rod or push button. To make this adjustment, hold the Actuator while loosening the Phillips setscrew in the center of the Actuator, and rotate the Actuator up (counterclockwise) or down (clockwise) until the proper clearance is obtained. See Figure 1 for clearance required for flush-handle fixture. Tighten setscrew after adjusting the Actuator.

CARE INSTRUCTIONS:

• You may be required to initially flush the toilet a few times to properly charge the system.

• Should your fixture develop a leak between the tank and bowl, please refer to the fixture manufacturer's installation instructions.

• Should your toilet continuously run-on after installing, refer to section #1 under Troubleshooting

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 water supply only and use of a tempered or hot water supply will void your warranty

ESPAÑOL Precaución-consejos:

Siga las instrucciones de instalación del fabricante del excusado para instalarlo. Observe que el excusado requiere un suministro de presión de la línea de agua para un dispositivo de 25 psi para un dispositivo de 1 gpf. Antes de instalarlo, siempre debe purgar las líneas de suministro de agua.

Después de fi nalizar la instalación, debe de ajustar el Accionador del Cartucho (F). Para ajustarlo, asegúrese de que el agua esté activada y la vasija esté totalmente cargada. El accionador tiene que ajustarse al huelgo correspondiente, a 1/8" de la varilla de descarga o del botón. Para hacer este ajuste, sostenga el accionador mientras afloja el tornillo de fi jación de cruz del centro del accionador y gire el accionador hacia arriba (en sentido contrario al de las manecillas del reloj) o hacia abajo (en el sentido de las manecillas del reloj) hasta obtener el huelgo correcto. Véase la Figura 1 para conocer el huelgo necesario para el dispositivo de manija de descarga. Apriete el tornillo de fi jación después de ajustar el accionador.

INSTRUCCIONES DE CUIDADO:

- Es posible que sea necesario que primero descargue el excusado varias veces para cargar adecuadamente el sistema.
- Si su dispositivo desarrolla una fuga entre el tanque y la taza, consulte las instrucciones de instalación del fabricante del dispositivo
- En el caso de que su inodoro descargue continuamente después de la instalación, consulte la sección #1 de Resolución de problemas.

ADVERTENCIA:

 Cuando reemplace componentes en el sistema de fluxómetro-tanque FLUSHMATE, asegúrese de que la válvula de suministro de agua esté desactivada y el inodoro se haya descargado para liberar presión en el tanque FLUSHMATE®.
EL USO DE LUBRICANTES A BASE DE PETRÓLEO O PRODUCTOS DE LIMPIEZA CORROSIVOS QUE CONTENGAN CLORO, COMO BLANQUEADORES DE USO DOMÉSTI-CO, CUBOS O TABLETAS, O DESINFECTANTES, QUE SE REALICE DENTRO DEL TANQUE COLECTOR DE PORCELANA ANULARÁ LA GARANTÍA DE SU FLUSHMATE. El exterior del tanque y toda la taza se pueden limpiar siguiendo las recomendaciones del fabricante o de la misma forma que cualquier otro inodoro.

 Los sistemas de fluxómetro-tanque FLUSHMATE están diseñados para utilizarse únicamente con suministro de agua fría; el uso de suministro de agua tibia o caliente anulará su garantía.



FRANÇAIS Attention-suggestionst:

Veuillez installer l'appareil sanitaire en suivant les instructions d'installation du fabricant de la toilette. Prenez note que la pression du tuyau d'alimentation en eau de la toilette doit être d'au moins pour un appareil de et d'au moins pour un appareil de 1 gpc. Vous devez toujours évacuer l'eau des tuyaux d'alimentation en eau avant de les raccorder.

Une fois l'installation terminée, vous devrez régler l'actionneur de la cartouche (F). Pour le régler, assurez-vous d'avoir ouvert l'alimentation en eau et vérifi ez que le récipient est complètement rempli. Pour que l'actionneur soit correctement réglé, l'espacement entre celui-ci et le levier de déclenchement ou le bouton-poussoir doit être de 1/8 po. Pour effectuer ce réglage, tenez l'actionneur tout en desserrant la vis de pression Phillips au centre de l'actionneur, puis faites pivoter l'actionneur vers le haut (sens antihoraire) ou vers le bas (sens horaire) pour obtenir l'espacement adéquat. La fi gure 1 montre l'espacement nécessaire pour les appareils à manette de chasse. Serrez la vis de pression une fois le réglage de l'actionneur terminé.

DIRECTIVES D'ENTRETINE:

- Initialement, il est possible que vous deviez déclencher la chasse de la toilette à plusieurs reprises afi n de remplir correctement le système.
- En cas de fuite entre le réservoir et la cuvette, veuillez consulter les instructions d'installation du fabricant de l'appareil sanitaire.
- Si la toilette coule continuellement après l'installation, consulter la section nº 1 sous Dépannage

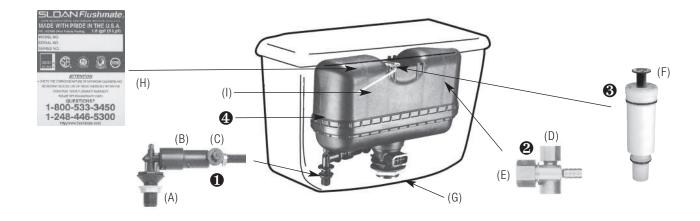
AVERTISSEMENT:

 Lors du remplacement de composantes du système de réservoir FLUSHMATE Flushometer-Tank, s'assurer que le robinet d'alimentation en eau est fermé et que la chasse d'eau a été tirée pour réduire la pression dans le réservoir FLUSHMATE[®].

• L'UTILISATION DE LUBRIFIANTS À BASE DE PÉTROLE OU DES PRODUITS NETTOYANTS CORROSIFS CONTENANT DU CHLORE, COMME LES JAVELLISANTS DOMESTIQUES, LES PASTILLES ET LES BLOCS NETTOYANTS OU LES DÉSIN-FECTANTS À L'INTÉRIEUR DU RÉSERVOIR DE RÉTENTION EN PORCELAINE, ANNULERA LA GARANTIE FLUSHMATE. L'extérieur du réservoir et la cuvette entière peuvent être nettoyés selon les recommandations du fabricant ou de la même façon que toute autre toilette.

• Les systèmes de réservoir FLUSHMATE Flushometer-Tank sont conçus pour être utilisés uniquement avec une alimentation en eau froide; l'utilisation d'une eau tiède ou chaude annulera votre garantie.

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Function: Less than 1.0 gpf/3.8 Lpf *Installation Requirements:* min. 25 psi static water pressure*

List of Components for 503 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 (I) Flush Rod

*max. 125 psi

Función: Menos de 1.0 gpf/3.8 Lpf *Requisitos de instalación:* mín. presión de agua estática de 25 psi*

Lista de componentes para las series 503 y 504: 1. Grupo inferior de suministro con manguera BL100504-3

A) Vástago de suministro con pantalla de admisión
(B) Regulador de presión con supresión trasera
(C) Válvula de seguridad

2. Grupo de suministro superior BU100505

(D) Tapa inductora de aire con pico de pato(E) Divisor de vacío

3. Conjunto del cartucho de la válvula de descarga

(F) Accionador con tornillo de fijación

4. Tanque FLUSHMATE®

G) Extensión de descarga con drenaje(H) Placa de nombre con número de serie(I) Varilla de descarga

*máx. 125 psi

Fonction: moins de 1,0 gpc/3,8 lpc *Exigences d'installation:* 25 psi de pression d'eau statique min.*

Liste des composants des séries 503 et 504: 1. Groupe d'alimentation inférieur avec flexible

BL100504-3 (A) Tige d'alimentation avec grille d'entrée

- (B) Régulateur de pression avec dispositif antirefoulement
- (C) Soupape de décharge

2. Groupe d'alimentation supérieur BU100505

(D) Soupape d'entrée d'air avec bec de canard (E) Casse-vide

3. Cartouche du robinet de chasse (F) Actionneur avec vis de pression

4. Réservoir FLUSHMATE®

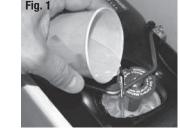
(G) Rallonge d'évacuation avec drain(H) Plaque d'identification avec numéro de série(I) Levier de déclenchement

*125 psi max.

Operation: All pressure assist toilets get their energy from the water supply. The minimum line pressure is 25 psi for 1.0 gpf.

Funcionamiento: todos los inodoros asistidos por presión obtienen su energía del suministro de agua. La presión de línea mínima es 25 psi para 1.0 gpf.

Fonctionnement: Toutes les toilettes assistées par pression puisent leur énergie de l'alimentation en eau. La pression minimal de conduite est de 25 psi pour 1,0 gpc.



1. Check Flush Cartridge

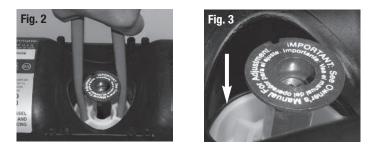
- A. Turn off water supply and flush toilet.
- B. Pour water onto top of cartridge (Fig. 1) and turn on water.
- C. Watch for air bubbles. Consistent flow of bubbles indicates cartridge needs to be replaced. No bubbles visible, move on to Step 4.

1. Vérification de la cartouche de chasse

- A. Fermez le robinet d'alimentation en eau, puis déclenchez la chasse.
- *B. Versez de l'eau sur le dessus de la cartouche (fig. 1), puis ouvrez le robinet d'alimentation en eau.*
- C. Vérifiez si des bulles d'air se forment. Un écoulement de bulles constant indique que la cartouche doit être remplacée. Si aucune bulle n'apparaît, passez à l'étape 4.

1. Compruebe el cartucho de descarga

- A. Corte el suministro de agua y descargue el excusado.
- B. Vierta agua encima del cartucho (Fig. 1) y abra el agua.
- C. Vea si hay burbujas de aire. Un flujo constante de burbujas indica que el cartucho debe sustituirse. Si no hay burbujas visibles, vaya al Paso 4.



2. Flush Cartridge Replacement

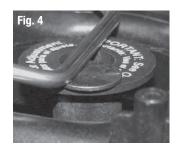
- A. Turn off water and flush the toilet.
- B. Use the handle end of pliers (Fig. 2) to unscrew the cartridge from the vessel.
- C. Drop in new cartridge and screw in until one female thread (Fig. 3) of vessel is showing.
- D. Turn on water. Continue to screw in cartridge slowly, 1/8 to 1/4 turn increments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

2. Remplacement de la cartouche de chasse

- A. Fermez le robinet d'alimentation en eau, puis déclenchez la chasse.
- B. Utilisez l'extrémité des manches d'une pince (fig. 2) pour dévisser la cartouche et la retirer du récipient.
- C. Insérez la nouvelle cartouche, puis vissez-la jusqu'à ce qu'un filet femelle (fig. 3) du récipient apparaisse.
- D. Ouvrez le robinet d'alimentation en eau. Continuez à visser lentement la artouche en faisant un huitième ou un quart de tour à la fois, jusqu'à ce que l'eau arrête de s'écouler dans la cuvette et que la pression soit rétablie dans le réservoir.

2. Repuesto del cartucho de descarga

- A. Cierre el agua y descargue el excusado.
- B. Use el extremo del mango de las pinzas (Fig. 2) para desatornillar el cartucho de la vasija.
- C. Deje caer un nuevo cartucho y atorníllelo hasta que se esté viendo una vuelta de rosca hembra (Fig. 3) de la vasija.
- D. Abra el agua. Siga atornillando el cartucho lentamente, en incrementos de 1/8 a 1/4 de vuelta hasta que el agua deje de correr al lavabo y el tanque se presurice.



3. Actuator Adjustment

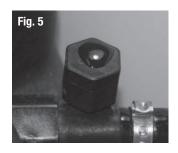
A. Start by loosening the setscrew in the center of the actuator. Adjust the height of the actuator by screwing it up or down. There should be a gap (Fig. 4) (about the thickness of a penny) between the rod and actuator when gently lifting the rod. When accomplished tighten the setscrew in the center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

3. Réglage de l'actionneur

A. Desserrez d'abord la vis de pression au milieu de l'actionneur. Réglez la hauteur de l'actionneur en le faisant pivoter vers le haut ou vers le bas. Il doit y avoir un espace (fig. 4) (environ de l'épaisseur d'une pièce d'un cent) entre le levier et l'actionneur quand on lève doucement le levier. Une fois le réglage terminé, resserrez la vis de pression au milieu de l'actionneur.

3. Ajuste del accionador

A. Empiece aflojando el tornillo de fijación del centro del accionador. Ajuste la altura del accionador atornillando para que suba o baje. Debe haber un huelgo (Fig. 4) (más o menos el grosor de una moneda pequeña) entre el vástago y el accionador cuando se levanta suavemente el vástago. Cuando termine, apriete el tornillo de fijación del centro del accionador.



4. Check Air Inducer

A. 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.

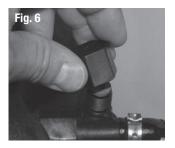
4. Vérification de la soupape d'entrée d'air

A. Versez plusieurs gouttes d'eau dans le trou sur le dessus de la soupape d'entrée d'air, puis déclenchez la chasse (fig. 5). Si les gouttes sont aspirées, passez à l'étape 6. Sinon, vous devez nettoyer la soupape d'entrée d'air.

4. Compruebe el inductor de aire

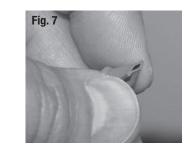
A. Coloque varias gotas de agua sobre el orificio que está en la parte superior del inductor de aire, y descargue el excusado (Fig. 5). Si la caída se absorbe por presión, vaya al Paso 6. Si no, será necesario limpiar el inductor de aire.

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5. Clean Air Inducer

- A. Turn off water and flush toilet. Unscrew the cap of the air inducer (the smaller of the two caps) (Fig. 6).
- B. 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.
- *C.* Reassemble, insert the duct bill into the housing (Fig. 8) body and reinstall the cap to hand tight.



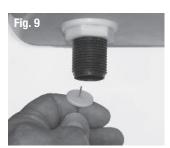
5. Nettoyage de la soupape d'entrée d'air

- A. Fermez le robinet d'alimentation en eau, puis déclenchez la chasse. Dévissez le capuchon de la soupape d'entrée d'air (le plus petit des deux capuchons) (fig. 6).
- B. Retirez le bec de canard du capuchon, puis nettoyez-le en le pressant délicatement entre vos doigts (fig. 7) sous l'eau courante. Examinez les lèvres du bec de canard. Si elles sont déformées, vous devez remplacer le bec de canard.
- C. Montez la soupape à nouveau en insérant le bec de canard dans le corps du boîtier (fig. 8), puis remettez le capuchon et vissez-le fermement à la main.



5. Limpie el inductor de aire

- A. Corte el agua y descargue el excusado. Desatornille la tapa del inductor de aire (la más pequeña de las dos tapas) (Fig. 6).
- B. Saque el pico de pato del tapón y límpielo oprimiéndolo suavemente (Fig. 7) entre los dedos bajo un chorro de agua. Inspeccione los labios del pico de pato. Si están deformados, debe reemplazar el pico de pato.
- C. Vuelva a armar, inserte el pico de pato en el cuerpo de la carcasa (Fig. 8) y vuelva a instalar la tapa apretando sólo con la mano.



6. Clean Inlet Screen

- 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).
- B. Clean screen (Fig. 10) and replace.

6. Nettoyage de la grille d'entrée

- A. Pour nettoyer la grille d'entrée, fermez le robinet d'alimentation en eau, débranchez le tuyau d'alimentation en eau de la tige d'alimentation, puis retirez la grille à l'aide d'un trombone (fig. 9).
- B. Nettoyez la grille (fig. 10), puis remettez-la en place.



6. Limpie la pantalla de admisión

- A. Limpie la pantalla de admisión cerrando el suministro de agua, desconectando el tubo de suministro de agua del vástago de suministro y retirando la pantalla con un clip para papeles (Fig. 9).
- B. Limpie la pantalla (Fig. 10) y reemplácela.

Other Points to Remember

- 1. Pressure-assist toilets get their energy from the water supply.
- 2. All pressure-assist toilets get their energy from the water supply line. It is important to have sufficient pressure at the supply. The minimum line pressure is 25 psi for a 1.0 gpf system.
- 3. 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.

Autres points à ne pas oublier

- 1. Toutes les toilettes à pression tirent leur énergie du tuyau d'alimentation.
- Toutes les toilettes à pression tirent leur énergie du tuyau d'alimentation. Il est donc important d'avoir suffisamment de pression d'alimentation. La pression du tuyau d'alimentation pour un système être d'au moins 20 psi, et d'au moins 25 psi pour 1 gpc.
- 3. Une cuvette bloquée ou un drain bloqué influera sur la performance de l'appareil sanitaire. Pour vérifier s'il y a une obstruction, versez 2 ou 3 gallons d'eau dans la cuvette. Si l'eau s'accumule dans la cuvette, cela signifie que la cuvette ou le drain est bloqué. Si vous désirez obtenir de l'aide supplémentaire, veuillez contacter le fabricant du système de chasse d'eau ou faites une recherche sur Internet à l'aide des mots «toilettes à pression»

Otros puntos que debe recordar

- 1. Los excusados asistidos por presión obtienen su energía del suministro de agua.
- 2. Todos los excusados asistidos por presión obtienen su energía de la tubería de suministro de agua. Es importante tener presión suficiente en el suministro. La presión mínima de la tubería de agua para un sistema de 25 psi para un dispositivo de 1.0 gpf.
- 3. Una taza o drenaje bloqueados afectará el desempeño del dispositivo. Para comprobar esto, vierta 2 ó 3 galones de agua en la taza. Si la taza acumula agua en su interior, esto indicaría que algo está bloqueando la taza o el drenaje. Si necesita más ayuda, comuníquese con el fabricante del sistema de descarga, o haga una búsqueda de las palabras "pressure-assist toilets" en la Web.

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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 water supply only and use of a tempered or hot water supply will void your warranty.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

TROUBLESHOOTING

A) Condition: Water runs and will not shut off

A run-on condition may be caused by insufficient water pressure, an improperly adjusted Flush Valve Cartridge, or a clogged inlet screen. Refer to "Installation Requirements" for recommended minimum pressure. (See "Points to Remember" for a simple method to determine whether your water pressure is adequate). Check water pressure, marginal pressure can cause any of these conditions. If sufficient water pressure has been verified and the toilet continues to run-on, the following steps may be required:

- 1. Make sure the water supply valve is fully open.
- 2. Check the Actuator adjustment. The Flush Rod (I) or push button should not interfere with the Actuator. The proper clearance should be approximately 1/8" when the push button or flush-handle is stationary. On push button type fixtures, loosen the setscrew on the Actuator (see F on the component list) and rotate the Actuator up (counterclockwise) or down (clockwise) until the proper clearance is obtained. For flush-handle fixtures, observe the clearance. (See Figure 1) If necessary, adjust the Actuator to allow for proper clearance. When proper clearance is obtained, tighten the setscrew.
- 3. Check Inlet Screen
 - a. Turn off the water supply valve.
 - b. Flush the toilet to relieve the pressure.
 - c. Disconnect the water supply line from the Supply Shank (A). (See Figure 6)
 - d. Examine the inlet screen and remove anything that may be blocking the flow of water into the *FLUSHMATE*[®] tank. The inlet screen can be removed by inserting a small pointed object (such as a large paperclip or the blade of a penknife) into the lower Supply Shank and working the inlet screen loose. (See Figures 7a, 7b, 7c) Reinstall the inlet screen by pushing it upward into the Supply Shank with your fingertip. (See Figure 7d)
 - e. Reattach water supply line and fully open water supply valve. Test setup by flushing toilet.
- 4. Remove, examine, and reinstall the Flush Valve Cartridge (3).
 - a. Turn off the water supply valve and flush the toilet to relieve the pressure.
 - b. On flush-handle fixtures, disengage the Flush Rod from the handle linkage and flip it away from the Flush Valve Cartridge. It is not necessary to loosen the retainer clips. (See Figure 3) Remove the Flush Valve Cartridge using the handles of a pair of pliers. (See Figure 2). Turn the Flush Valve Cartridge counterclockwise until you can lift it out of the FLUSHMATE[®] tank.



Figure 6



Figure 7a



Figure 7b



Figure 7c



Figure 7d



Figure 8



Figure 9

- c. Examine the exposed O-rings on the Flush Valve Cartridge for obstruction or damage. If the O-rings are damaged, the Flush Valve Cartridge should be replaced. Clean any debris from the O-ring before re-installing. *(See Figure 4)*
- d. Insert the Flush Valve Cartridge into the *FLUSHMATE*[®] tank and thread it clockwise into place until one (1) black thread (on the *FLUSHMATE*[®] tank) is showing above the Flush Valve Cartridge. (*See Figure 5*) Fully open the water supply valve and continue to thread the Flush Valve Cartridge clockwise, 1/4 turn at a time, pausing briefly between each 1/4 turn, until the water stops running into the toilet bowl and the *FLUSHMATE*[®] tank pressurizes.
- e. Test setup by flushing toilet. Reinstall Flush Rod and handle linkage.

B) Condition: Weak, incomplete, sluggish, or no flush

Inadequate water pressure, an improperly adjusted Flush Valve Cartridge, a clogged inlet screen, or insufficient air draw may cause a weak, sluggish, or no flush condition.

- 1. Make sure that the water supply valve is fully open.
- 2. Check for proper actuation adjustment, see Condition A-2, "Water runs and will not shut off."
- 3. Turn off the water supply valve.
- 4. Flush the toilet to relieve the pressure.
- 5. Disconnect the water supply line from the Supply Shank (A). (See Figure 6)
 - a. Examine the inlet screen and remove anything that may be blocking the flow of water into the *FLUSHMATE*[®] tank. The inlet screen can be removed by inserting a pointed object (such as a large paperclip or the blade of a penknife) into the lower Supply Shank and working the inlet screen loose. (See Figures 7a, 7b, 7c) The inlet screen easily snaps back into position by pushing it upward into the Supply Shank with your fingertip. (See Figure 7d)
- 6. Examine the Air Inducer (D) for obstruction or damage. (See Figure 8)
 - a. Make sure the water supply valve is turned off and the toilet has been flushed to relieve the pressure.
 - b. Remove the Air Inducer Cap. (See Figure 9)
 - c. Remove the Duckbill Valve from the Air Inducer Cap. (See Figure 10) The flat "lips" of Duckbill Valve should open fully when the square sides are squeezed together. (See Figure 11) Rinse any obstruction or mineral deposits from the Duckbill Valve. If the Duckbill Valve is damaged, it must be replaced.
 - d. Insert the Duckbill Valve into the Air Inducer housing. (See Figure 12)
 - e. Put the Air Inducer Cap back on, and tighten finger-tight only. (See Figure 13)
 - f. Reconnect the water supply line and fully open water supply valve.
- 7. Check Air Inducer for sufficient air draw. Place a small amount of water (two to three drops) over the hole on top of the Air Inducer Cap (See Figure 14) and flush the toilet. If the Air Inducer is working properly, the water will be drawn in. (See Figure 15)
- 8. Check the Flush Valve Cartridge for leaks. Pour a small amount of water into the Cartridge housing area. *(See Figure 16)* If bubbles are coming from the center or the edge of the Flush Valve Cartridge, it should be replaced.



Figure 10

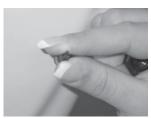


Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16

Condition: Vacuum Breaker Leaking

If the Vacuum Breaker (E) is leaking, it is likely that the water pressure is insufficient or that there is insufficient flow due to a plugged inlet screen in the lower Supply Shank. The recommended static pressure for the 503 Series is between 20 psi and 125 psi and for the 504 Series between 25 and 125 psi.

Note:

If the trouble-shooting steps listed in this manual do not resolve your problem, contact *FLUSHMATE*[®] Consumer Services at 800-533-3460 or email info@flushmate.com. Please be prepared to provide the serial number and date of installation of your *FLUSHMATE*[®] system.

WINTERIZING

- 1. Turn off the water supply valve and flush the toilet to relieve the pressure.
- 2. Place a bucket under the lower Supply Shank (A) and disconnect the water supply line, allowing the water to drain into the bucket.
- 3. Push down on the Actuator and pull it up momentarily to allow air into the vessel.
- 4. Follow the fixture manufacturer's instructions for winterizing the bowl.
- 5. 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.
- 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.
- FLUSHMATE® Flushometer-Tank Systems are designed to be used with cold water.
- 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.
- A small amount of water may be present in the bottom of the china holding tank. The potential for odor can be eliminated by adding a cup of white vinegar to the china holding tank. The white vinegar will act as natural disinfectant.
- 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.

Limited Warranty What Is Covered Under The Limited Warranty

Subject to the terms, conditions, limitations and exclusions of this limited warranty, the Flushmate division of Sloan Valve Company ("Flushmate") warrants to the end-user owner, as further defined herein, that the Flushmate Pressure-Assist System ("Flushmate System") will be free from defects in material and/or work-manship for a period described below:

Original Equipment Flushmate System	10 years
Replacement Flushmate System	5 years
Replacement Parts or Accessories	1 year

The warranty period begins on the original date of purchase ("Purchase Date"). In the absence of proof of the Purchase Date, the warranty period begins on the manufacture date ("Manufacture Date").

For Original Equipment and Replacement Flushmate Systems, the Manufacture Date is located in the Flushmate System's date-coded serial number, which is printed on the label on top of the Flushmate System. The first six numerals of the Flushmate System's serial number show the Manufacture Date by month (first two numerals), day (second two numerals) and year (last two numerals). For further information regarding the location of the Manufacture Date, you may reference the user manual ("User Manual") that was supplied with your Flushmate System, which is also available at www.flushmate.com. If, during the limited warranty period, the Flushmate System is found to be defective in material and/or workmanship, Flushmate will, at its sole option: (1) replace the defective Flushmate System.

Who Is Covered Under The Limited Warranty

This Limited Warranty is provided solely to the end-user owner of the Flushmate System ("You" or "Your").

Limitation Of Implied Warranties

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ANY IMPLIED WARRANTIES ON THE FLUSHMATE SYSTEM, INCLUDING ANY WARRANTY OF MER-CHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE SAME DURATION AS THE EXPRESS LIMITED WARRANTY PERIOD STATED HEREIN. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You.

Limitation Of Damages

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL FLUSHMATE BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, EXEMPLA-RY OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF BUSINESS OR PROFITS, INJURY OR DAMAGE TO PROPERTY OR PERSONS, YOUR INABILITY OR ANY OTHER PERSON'S INABILITY TO USE THE FLUSHMATE SYSTEM OR ANY LABOR OR OTHER COSTS OR EXPENSES INCURRED IN CONNECTION WITH REPLACING THE FLUSHMATE SYSTEM, ITS COMPONENT(S) OR THE TOILET FIXTURE CONTAINING THE FLUSHMATE SYSTEM, WHETHER FOR BREACH OF WARRANTY, BREACH OF CONTRACT, TORT OR OTHERWISE). TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL FLUSHMATE BE LIABLE FOR DAMAGES RESULTING FROM IMPROPER OR INCORRECT INSTALLATION, OPERATION, MAINTENANCE, USE, REPAIR OR REPLACEMENT OF THE FLUSHMATE SYSTEM, ITS COMPONENT(S) OR THE TOILET FIXTURE CONTAINING THE FLUSHMATE SYSTEM, OR FOR DAMAGES CAUSED BY ALTERATION, MODIFICATION, MISUSE OR ABUSE OF, OR NEGLECT OR CARELESS HANDLING WITH RESPECT TO, THE FLUSHMATE SYSTEM, ITS COMPONENT(S) OR THE TOILET FIXTURE CONTAINING THE FLUSHMATE SYSTEM. IN NO EVENT SHALL THE LIABILITY OF FLUSHMATE EXCEED THE COST OF A REPLACEMENT FLUSHMATE SYSTEM.

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to You.

Limitation Of Express Warranties

THIS LIMITED WARRANTY SETS FORTH THE ENTIRE AGREEMENT BY FLUSHMATE REGARDING ITS LIABILITIES AND OBLIGATIONS WITH RESPECT TO THE FLUSH-MATE SYSTEM. THERE ARE NO PROMISES, REPRESENTATIONS, WARRANTIES, COVENANTS, AGREEMENTS, UNDERTAKINGS OR GUARANTEES WITH RESPECT TO THE FLUSHMATE SYSTEM OTHER THAN THOSE EXPRESSLY SET FORTH HEREIN. NO ORAL OR WRITTEN ADVICE, RECOMMENDATION, AFFIRMATION OF FACT, DESCRIPTION OF GOODS OR SPECIFICATION RELATING TO THE FLUSHMATE SYSTEM SHALL CONSTITUTE, OR BE DEEMED TO CONSTITUTE, A WARRANTY WITH RESPECT TO THE FLUSHMATE SYSTEM. EXCEPT FOR THIS EXPRESS LIMITED WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FLUSHMATE DOES NOT MAKE ANY OTHER WARRANTY FOR THE FLUSHMATE SYSTEM.

Duration Of The Limited Warranty

Original Equipment Flushmate System

The duration of the Limited Warranty is 10 years from the Purchase Date. If You are unable to provide proof of the Purchase Date, the duration of the Limited Warranty is 10 years from the Manufacture Date.

Replacement Flushmate System

The duration of the Limited Warranty is 5 years from the Purchase Date. If You are unable to provide proof of the Purchase Date, the duration of the Limited Warranty is 5 years from the Manufacture Date.

Replacement Parts or Accessories

Replacement Part(s) are identified as, but not limited to, the Lower Supply, Upper Supply, and Flush Valve Cartridge. The duration of the Limited Warranty is 1 year from the Purchase Date. If You are unable to provide proof of the Purchase Date, the duration of the Limited Warranty is 1 year from the date of shipment, per Flushmate records, at its sole discretion.

Accessories are identified as, but not limited to Intelli-flush Systems, Handle Replacement Kits, Handles and Trip Levers. The duration of the Limited Warranty is 1 year from the Purchase Date. If You are unable to provide proof of the Purchase Date, the duration of the Limited Warranty is 1 year from the date of shipment, per Flushmate records, at its sole discretion.

Conditions, Limitations And Exclusions

1. This Limited Warranty does not cover any Flushmate System if the Flushmate System is not installed, operated, maintained and used in accordance with the User Manual. It is an express condition of this Limited Warranty that You install, operate, maintain and use the Flushmate System according to the User Manual. ACCORDINGLY, THIS LIMITED WARRANTY IS VOID AND FLUSHMATE SHALL NOT HAVE ANY RESPONSIBILITY OR LIABILITY UNDER THIS LIMITED WARRANTY IF THE FLUSHMATE SYSTEM IS NOT INSTALLED, OPERATED, MAINTAINED AND USED IN ACCORDANCE WITH THE USER MANUAL.

2. This Limited Warranty does not cover any Flushmate System if the Flushmate System is subject to water supply line pressures greater or less than those specified in the User Manual.

3. This Limited Warranty does not cover any Flushmate System if the Flushmate System has been altered, modified, misused, abused, neglected or handled carelessly. By way of example and not by limitation, the following constitutes alteration, modification, misuse, abuse, neglect and/or careless handling of the Flushmate System and will void this Limited Warranty: (i) use of a non-potable water supply or a hot/tempered water supply; (ii) use of petroleum based lubricants or cleaning products containing chlorine (i.e. household bleach, drop-in blocks or tablets, or disinfectants) that are applied or inserted into the toilet tank and/or the Flushmate System; and (iii) putting antifreeze or any other chemical agents in the toilet tank or in the Flushmate System. By further way of example and not by limitation, removal or damage to the serial number label constitutes alteration, modification, misuse, abuse, neglect and/or careless handling of the Flushmate System and will void this Limited Warranty.

4. This Limited Warranty does not cover any Flushmate System if the Flushmate System and/or its component(s) is/are repaired or replaced improperly or incorrectly. While Flushmate does not require that You use its parts or accessories in order to obtain Limited Warranty coverage, Flushmate recommends that You use parts or accessories that are recommended by Flushmate. It is an express condition of this Limited Warranty that the Flushmate System and its component(s) be repaired or replaced properly and correctly. ACCORDINGLY, THIS LIMITED WARRANTY IS VOID AND FLUSHMATE SHALL NOT HAVE ANY RESPONSIBILITY OR LIABILI-TY UNDER THIS LIMITED WARRANTY IF THE FLUSHMATE SYSTEM, AND/OR ITS COMPONENT(S), IS/ARE REPAIRED OR REPLACED IMPROPERLY OR INCORRECTLY.

5. This Limited Warranty does not cover any problems which result from conditions beyond Flushmate's control including, but not limited to, acts of God (such as floods, earthquakes, hurricanes, tornados, volcanoes and volcanic ash, lightning, windstorm, hail or fires), improper or incorrect installation, operation, maintenance, use, repair or replacement of the Flushmate System, alteration, modification, misuse, abuse, neglect or careless handling of the Flushmate System, problems related to the public and/or private water supply including, but not limited to, water quality and chemical content, end-user plumbing configurations, government restrictions, domestic or international problems such as wars, insurrections, strikes, explosions, riots, civil disturbances and/or labor disputes or any other causes beyond Flushmate's control.

6. This Limited Warranty applies only to the Flushmate System. Nothing contained herein constitutes a warranty by Flushmate on any fixture, plumbing device or configuration, part, accessory or any other device, item or product other than the Flushmate System. Flushmate accepts no responsibility for the failure, or any damage resulting from the failure, of any fixture, plumbing device or configuration, part, accessory or any other device, item or product other than the Flushmate System. Flushmate device, item or product that Flushmate does not sell.

What The Purchaser Must Do To Get Limited Warranty Service

To make a claim under this Limited Warranty, You must contact Flushmate within 30 days of discovery of the defect in material and/or workmanship giving rise to the claim by one of the following methods: (1) call Flushmate's Customer Service Department at 800-533-3460 (toll-free) or at 248- 491-7070; (2) write Flushmate at Flushmate, Attn: Warranty Submission, 30075 Research Drive, New Hudson, Michigan, 48165-8548; or (3) email Flushmate at warrantyinfo@flushmate. com. You must provide Flushmate with: (a) a full description of the defect in material and/or workmanship; (b) the Flushmate System's serial number; and (c) valid proof of the Purchase Date (which can include, without limitation, originals or photocopies of the following documents if they reflect the Purchase Date: the purchase receipt, a new Flushmate System installation work order or a credit card statement). If you do not have valid proof of the Purchase Date, the Limited Warranty period will be 10 years from the Manufacture Date for Original Equipment Flushmate Systems and 5 years from Manufacture Date for Replacement Flushmate Systems and 1 year from the date of shipment for Replacement Part(s), as stated herein. Flushmate shall then have a reasonable opportunity to investigate the claim prior to determining whether relief is available under this Limited Warranty. Such investigation shall include evaluation of the claimed defect(s) in material and/or workmanship, either via telephone, via electronic mail, or by physical evaluation of the Flushmate or at the location of Your Flushmate System. If a physical evaluation of the Flushmate System is necessary, Flushmate will cover the costs of the physical evaluation (though Flushmate will pay only for normal (non-expedited) shipping costs) and Flushmate will provide You with all other necessary details.

During its investigation, Flushmate may request additional information from You in order to determine whether the conditions set forth in this Limited Warranty have been satisfied and whether any limitations or exclusions apply. You must respond promptly to Flushmate's requests for such additional information. Flushmate will not be required to provide relief pursuant to this Limited Warranty without being given a reasonable opportunity to investigate the claim.

What Flushmate Will Do Under The Limited Warranty

If, after investigating a claim made under this Limited Warranty, Flushmate determines that the Flushmate System contains a defect in material and/or workmanship and that the claim under this Limited Warranty is valid, Flushmate will, at its sole option under this Limited Warranty: (1) replace the defective Flushmate System component(s); or (2) if necessary, replace the entire Flushmate System. This is the sole remedy available under this Limited Warranty. The Limited Warranty applicable to any replacement Flushmate System will extend only for the time remaining under this Limited Warranty. If shipment of any goods under this Limited Warranty is necessary, Flushmate will be responsible for normal (non-expedited) shipping costs. To the extent that You seek expedited shipment of goods under this Limited Warranty, the expedited shipping costs will be Your responsibility and Flushmate will not cover those costs.

IN NO EVENT SHALL THE LIABILITY OF FLUSHMATE EXCEED THE COST OF A REPLACEMENT FLUSHMATE SYSTEM.

What Flushmate Will Not Do Under The Limited Warranty

To the maximum extent permitted by applicable law, Flushmate will not pay for any labor, expedited shipping costs or any other incidental charges (other than normal (non-expedited) shipping costs) incurred in connection with the replacement of the Flushmate System or its component(s) under this Limited Warranty. Those costs, along with any additional costs and expenses beyond the cost of a replacement Flushmate System, shall be Your sole responsibility and are excluded from coverage under this Limited Warranty.

Flushmate System Registration

Product registration allows Flushmate to deliver product information to You. To register Your Flushmate System, You may:

- 1) return the product registration card to Flushmate, 30075 Research Drive, New Hudson, Michigan, 48165-8548;
- 2) register the Flushmate System online at www.flushmate.com; or
- 3) register the Flushmate System by calling 800-533-3460 (toll-free) or 248-446-5300.

Although Flushmate encourages end-users to register their Flushmate Systems, failure to register the Flushmate System will not diminish Your Limited Warranty rights.

Entire Agreement

This Limited Warranty is the entire agreement between You and Flushmate and contains the only warranty extended by Flushmate for the Flushmate System. No employee or agent of Flushmate or any other party is authorized to make any other warranty in addition to this Limited Warranty.

How State Law Relates To This Limited Warranty

This Limited Warranty gives You specific legal rights, and You may also have other rights which vary from State to State.

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