



### INTRODUCTION

This service module will help you to understand the operation and repair of the K-3417 Fleur™ Water-Guard Toilet.

### THEORY OF OPERATION

All the water in a close coupled toilet is held in a tank that is above the rim of the bowl. Water to the rim and siphon jet is supplied by gravity.

When the toilet is flushed, the water in the tank is directed to the rim holes and the siphon jet. The siphon jet is located in an area where it can quickly force water over the uleg of the trap. This causes a more direct siphon action that quickly removes waste from the bottom of the bowl. **Refer to Figs. #1 – #4.**

Toilet bowls for tank type or tankless toilets come in different heights. This does not affect the operation of the toilet — but the heights are specified for specific reasons. Most toilet bowls are 14” – 15” from the floor to the top of the bowl rim. This standard height is considered the most comfortable for the average adult to use.

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### ROUGHING-IN AND INSTALLATION CONSIDERATIONS

The Kohler Fleur Toilet is perfect for remodeling and new installations. There are two installation considerations unique to the Fleur toilet. The first is the procedure for removing the tank lid. To remove the tank lid, it is necessary to remove the actuator. To do this, place the palm of your hand over the actuator, and rotate your hand clockwise. Continue this procedure until the actuator unscrews from tank lid. The tank lid can now be lifted off the tank. It is also important to recognize that the air bags in the tank should be removed and discarded before installing the tank. **Refer to the roughing-in drawings Fig. #5. For flush valve**

### SIPHON JET FLUSHING SEQUENCE

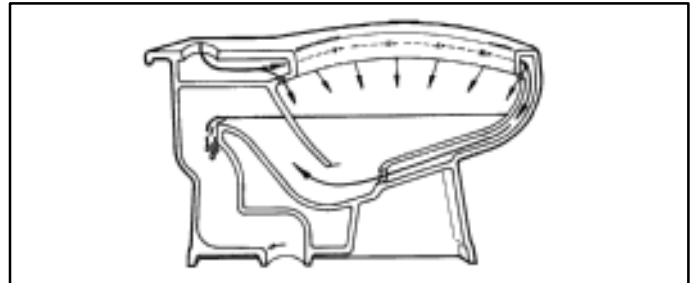


Fig. #1

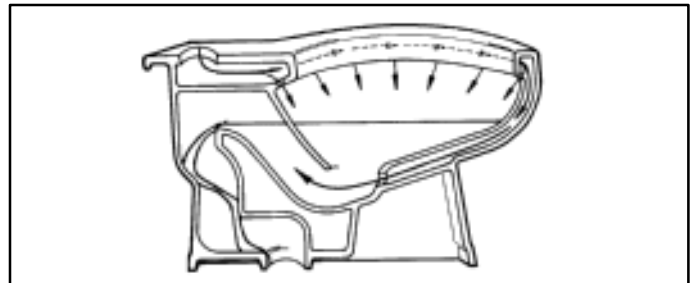


Fig. #2

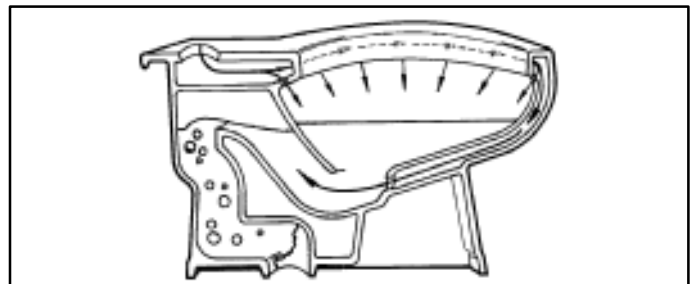


Fig. #3

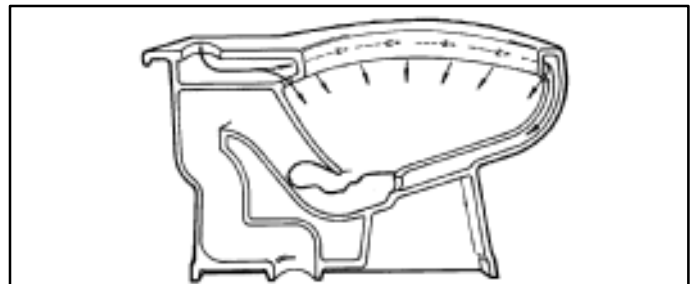


Fig. #4

connection, always refer to the instructions included with the flush valve.

Close coupled toilets can be installed in areas with virtually any type of water pressure, because it's flushing action depends upon the water in the tank.

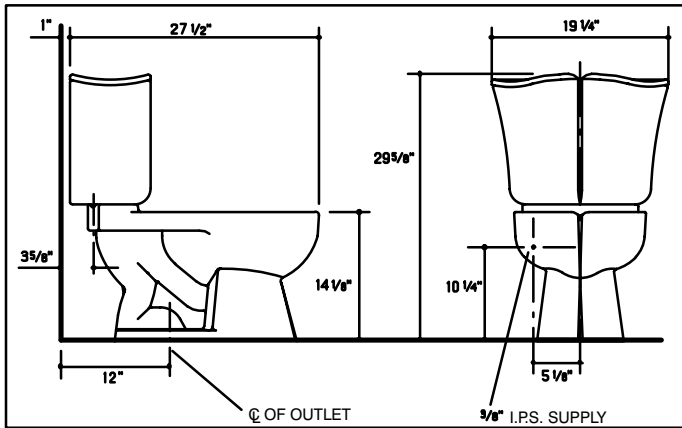


Fig. #5

### TECHNICAL HIGHLIGHTS OF KOHLER SIPHON JET TOILETS

- Advanced engineering assures a quiet, efficient flush.
- Elongated bowl is available to offer a large water area for efficient waste removal.
- Most Kohler siphon jet toilets flush efficiently at 3.0 to 3.5 gallons for greater economy.
- Close-coupled toilets offer a quick connect system with factory installed tank gasket and bolts to provide a quick and easy assembly of tank and bowl.
- Imported from France, it offers European styling without the problems involved with buying from a European manufacturer. Warranty and service parts are available from Kohler Co.
- Flush valve with push button actuator is a proven staple for European plumbing manufacturers.

### START-UP AND OPERATION OF THE FLEUR TOILET

For most satisfactory operation of this toilet, 25 to 90 psi working pressure is required at the fixture.

### HOW THE FLUSH VALVE OPERATES

Although the flush valve is unique looking, it's operation is easy to understand. Refer to Fig. #6. When the actuator is depressed, the actuator rod pushes the lower flush valve body down. Refer to Fig. #7.

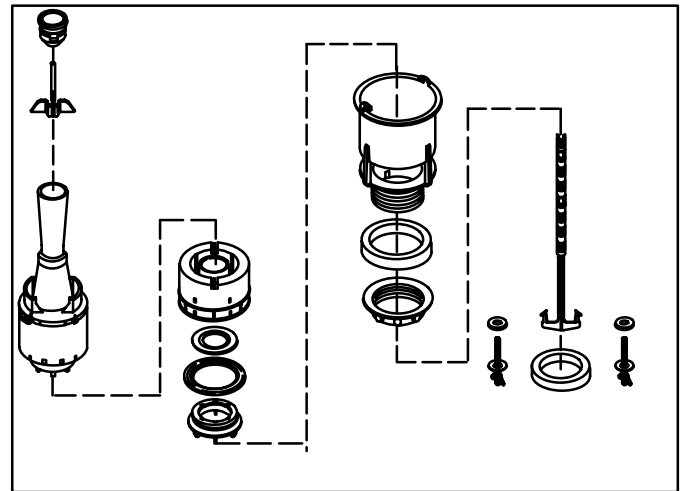


Fig. #6

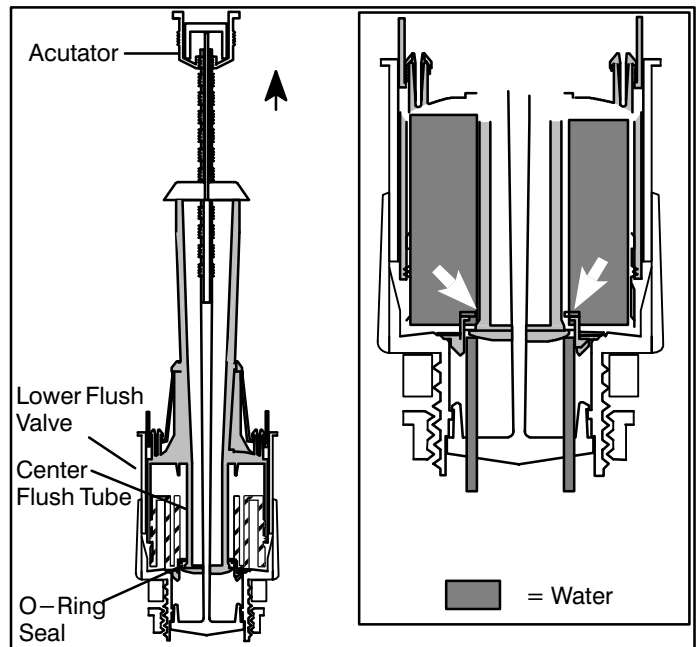


Fig. #7

This unseats a center flush tube from its O-ring. Water begins to flow from the tank, through the O-ring seal, into the bowl and rim. Refer to Fig. #8. As this is happening,

the external flush valve assembly (orange) and O-ring rise as the water flows to the bowl and rim.

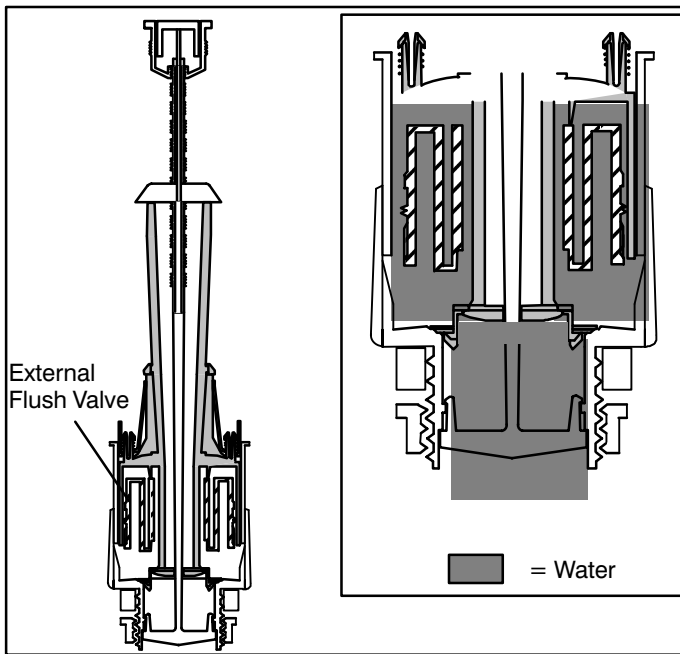


Fig. #8

Refer to Fig. #9. When the water level drops below the level of the outer flush valve assembly it reseals. This then causes the inner tube and unseated O-ring to lower and reseal.

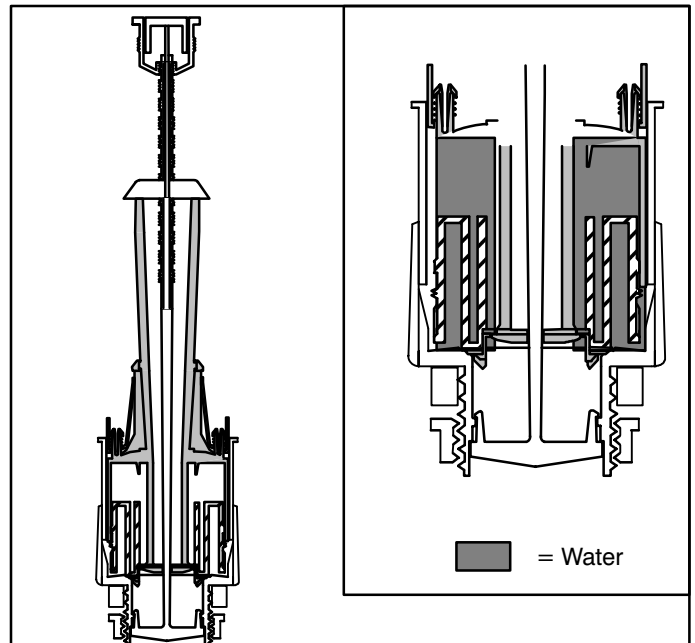


Fig. #9

## SERVICING THE FLEUR FLUSH VALVE

### REMOVING OLD FLUSH VALVE

1. Shut off water supply to toilet. Flush toilet.
2. **Refer to Fig. #10.** Remove tank from bowl: remove brass nut and washer below the tank, then pull out rubber washers, brass washers, and brass screws from inside the tank. Set aside.
3. Remove nut below bottom of tank. Remove flush valve and gasket.

### INSTALLING NEW FLUSH VALVE

1. Insert new valve into tank. Make sure gasket is INSIDE the tank.
2. Tighten nut back onto bottom of tank by hand. Turn additional 1/4 turn with a wrench.

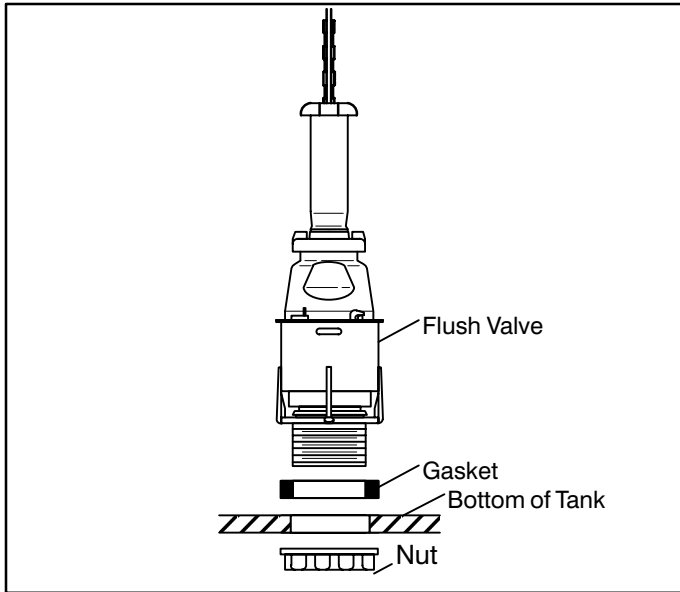


Fig. #10

3. Refer to Fig. #11. Insert threaded rod from underneath tank, through flush valve. **Make sure the two engagement pins are securely clipped in the valve slots as shown.**

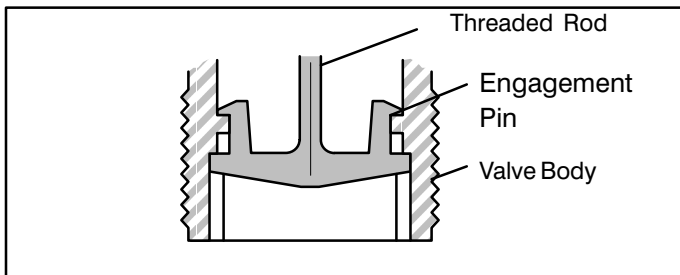


Fig. #11

4. Insert actuator rod into threaded rod.
5. Refer to Fig. #12. Position tank lid in place. Draw a line on the rod 1/16" (2 mm) above the lid. Cut rod at this mark. **Remove the tank lid before cutting the rod.**

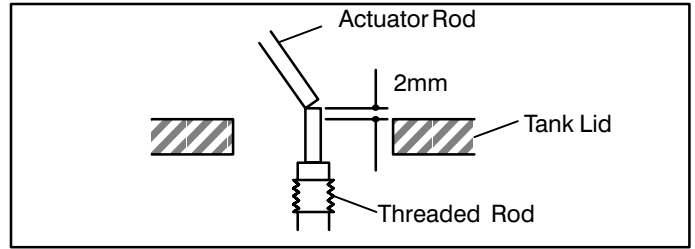


Fig. #12

6. Refer to Fig. #13. Put lid on tank. Reinsert rubber washers, brass washers, and brass screws inside the tank. Assemble brass washers and nuts to screws underneath tank. **CAUTION: DO NOT OVERTIGHTEN. BREAKAGE/CHIPPING MAY RESULT.**

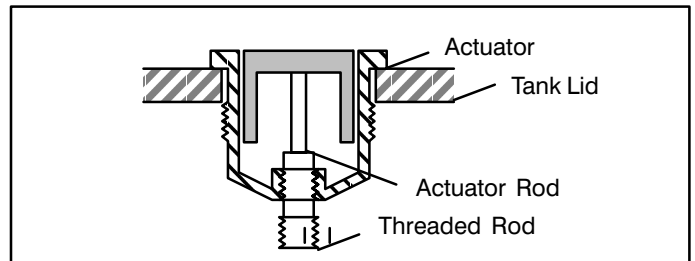


Fig. #13

7. Screw actuator into place.
  8. Turn water supply to toilet on. Flush toilet.
- SERVICING THE ACTUATOR ROD KIT**

1. Shut off water supply to toilet. Flush toilet.
2. Refer to Fig. #14. Unscrew actuator from top of tank and remove tank lid.

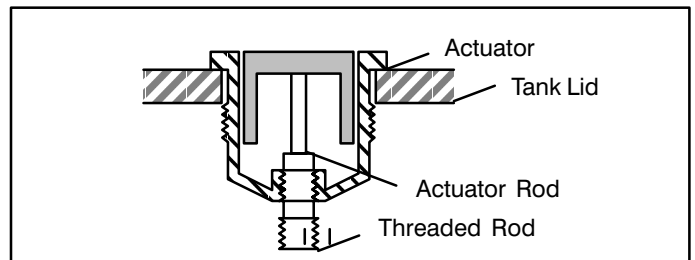


Fig. #14

3. Inset new rod into threaded rod.
4. Position tank lid in place.
5. Refer to Fig. #15. Draw a line on the rod (1/16") above the lid. Cut rod at this mark. **Remove tank lid before cutting rod.**
6. Put lid back into position and screw actuator into place.
7. Turn water supply to toilet back on. Flush toilet.

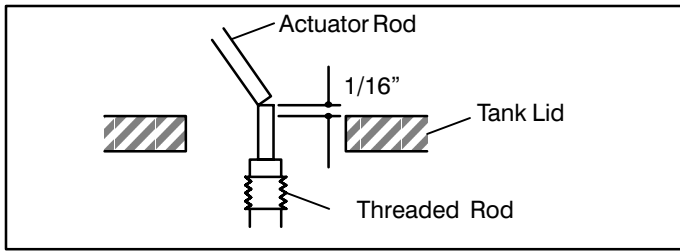


Fig. #15

## SERVICING THE TANK TO BOWL ASSEMBLY

1. Shut off water supply to toilet. Flush toilet.
2. Remove tank lid from tank by unscrewing the plunger/actuator assembly. Remove brass nut and washer below the tank, then pull out rubber washers, brass washers, and brass screws from inside the tank. Remove tank from base.

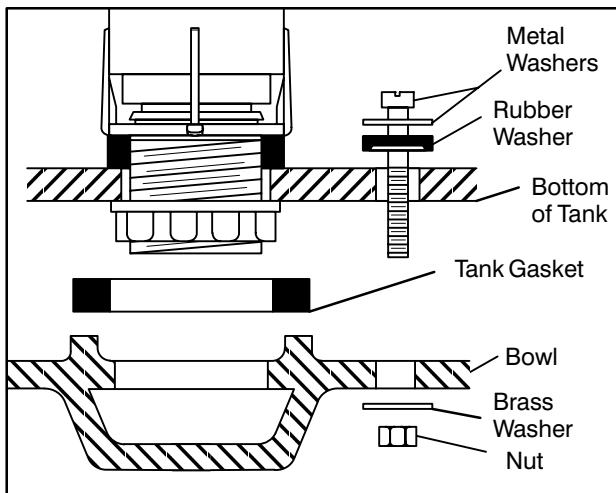


Fig. #16

3. Remove gasket between tank and bowl.
4. Place the new gasket around the nut.
5. Carefully check alignment of the holes on tank and base. Insert new rubber washers, brass washers, and brass screws into the tank. Make sure the tank screws extend through the holes in the toilet base. Assemble brass washers and nuts to screws underneath tank. **CAUTION: DO NOT OVERTIGHTEN OR BREAKAGE AND CHIPPING MAY OCCUR.**
6. Reassemble tank lid to tank. Screw push button into place.

7. Turn water supply to toilet on. Flush toilet for proper operation. Check for leaks.

## SERVICING THE THREADED ROD

1. Shut off water supply to toilet.
2. Remove tank lid by unscrewing the push button (use the palm of your hand). Refer to Fig. #11. Next, remove tank from bowl: remove brass nut and washer below the tank, then pull out rubber washers, brass washers, and brass screws from inside the tank. Set aside.

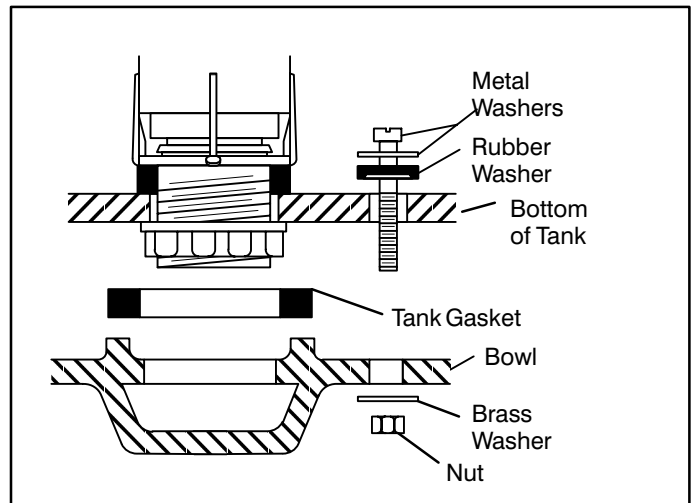


Fig. #17

3. Refer to Fig. #18. Remove old threaded rod by pushing it through the flush valve and out the bottom. From underneath the tank, insert new threaded rod through the flush valve. Make sure the two engagement pins are clipped in the slots of the valve.

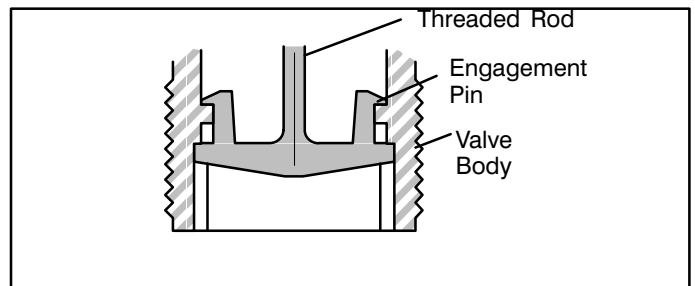


Fig. #18

4. Refer to Fig. #19. Insert actuator rod into threaded rod.

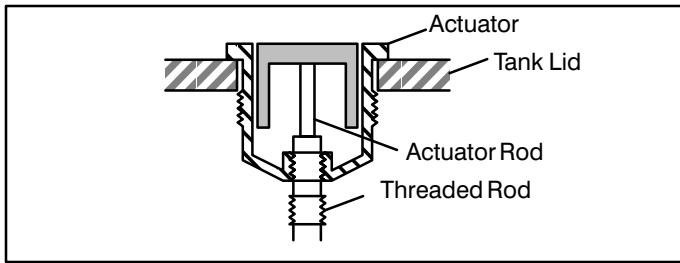


Fig. #19

5. Lower tank back onto base, carefully aligning the holes on tank and base. Reinsert rubber washers, brass washers, and brass screws inside the tank. Make sure the tank screws extend through the holes in the toilet base. Assemble brass washers and nuts to screws underneath tank **CAUTION: DO NOT OVERTIGHTEN. BREAKAGE OR CHIPPING MAY OCCUR.**
6. Reassemble tank lid to tank. Screw actuator into place.
7. Turn water supply to toilet on. Flush toilet.

## HOW TO REPAIR THE FLEUR FLOAT VALVE

### INTRODUCTION

The following instructions are used to replace the plunger assembly on the plastic float valve used on Kohler's Fleur Toilet. Refer to Fig. #20.

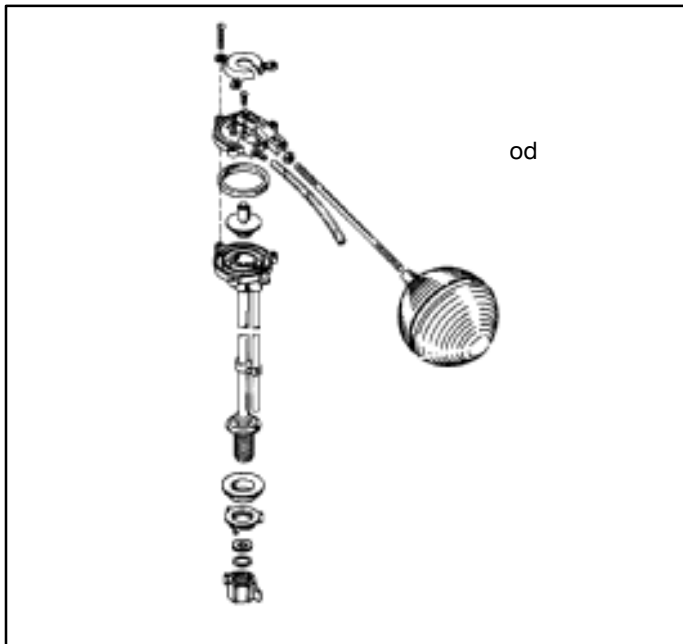


Fig. #20

1. Turn off water supply to toilet.
2. Flush toilet.
3. Remove toilet tank cover.
4. Loosen only the three screws that fasten the cap to the body. Lift the cap, with the plunger, off the body.
5. Carefully remove the plunger sub-assembly from the cap. Discard the plunger sub-assembly.
6. Remove the old gasket and discard. **NOTE: Gasket may adhere to either the cap or the body.**
7. Insert the new plunger sub-assembly into the cap.
8. Place the new gasket between the body and cap and secure the cap with three screws.
9. Turn on the water supply to refill the tank. Allow the flush valve to shut off.
10. Check to see that the water level in the tank is at the waterline. Adjust waterline with screw on valve, **DO NOT BEND ROD.**
11. Replace tank cover.

## TROUBLESHOOTING CHART

SYMPTOMS	PROBABLE CAUSE	CORRECTIVE ACTION
Poor Flush	<ul style="list-style-type: none"> <li>A. Water level too low or high.</li> <li>B. Supply not fully open.</li> <li>C. Trapway or rim holes are clogged.</li> <li>D. Soil pipe is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>A. Adjust tank water level screw.</li> <li>B. Fully open supply stop.</li> <li>C. Unclog trapway/clean rim holes.</li> <li>D. Clear obstruction from soil pipe.</li> </ul>
Valve does not shut off.	<ul style="list-style-type: none"> <li>A. Water pressure is over 125 psi.</li> <li>B. Contamination in seat or seat washer.</li> <li>C. Worn seat or seat washer.</li> <li>D. Foreign matter on plunger.</li> <li>E. Plunger in cap is corroded.</li> <li>F. Water leaking past float assembly on flush valve.</li> </ul>	<ul style="list-style-type: none"> <li>A. Install pressure regulator to reduce pressure.</li> <li>B. Clean seat washer.</li> <li>C. Clean seat/seat washer or replace seat.</li> <li>D. Clean or replace plunger.</li> <li>E. Replace cap.</li> <li>F. Replace float assembly on flush valve.</li> </ul>
Toilet leaves odor.	<ul style="list-style-type: none"> <li>A. Toilet is dirty.</li> <li>B. Crack in bowl allows sewer gas into room.</li> <li>C. Low water level due to refill tube being out of overflow tube.</li> </ul>	<ul style="list-style-type: none"> <li>A. Clean rim holes, bowl, and trapway with disinfecting bowl cleaner.</li> <li>B. Replace bowl or toilet.</li> <li>C. Insert refill tube into overflow. Clean and straighten tube.</li> </ul>
Toilet overflows.	<ul style="list-style-type: none"> <li>A. Toilet is clogged</li> </ul>	<ul style="list-style-type: none"> <li>A. Use plunger to unclog.</li> </ul>
Toilet is noisy.	<ul style="list-style-type: none"> <li>A. Plunger needs lubrication.</li> <li>B. Plunger needs replacing.</li> </ul>	<ul style="list-style-type: none"> <li>A. Lubricate plunger with silicone lube.</li> <li>B. Replace plunger.</li> </ul>