

Service Kit Instructions

Fill Valve Conversion Kit

THE BOLD LOOK
OF **KOHLER**®

114749-9-AE

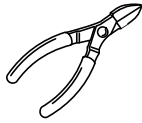
Tools and Materials



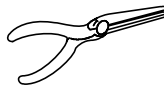
Adjustable
Wrench



Rags



Wire Cutter



Needlenose Pliers



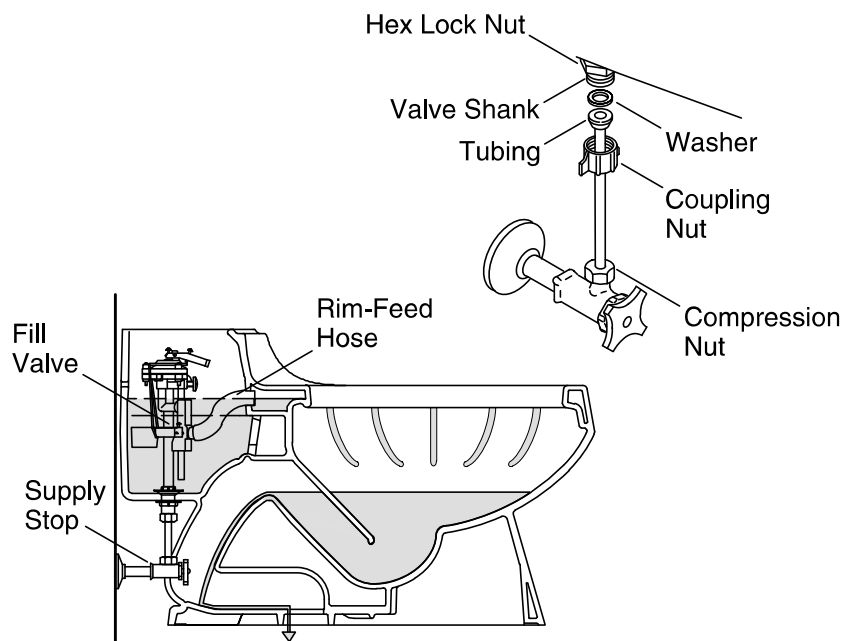
Wax Pencil



Before You Begin

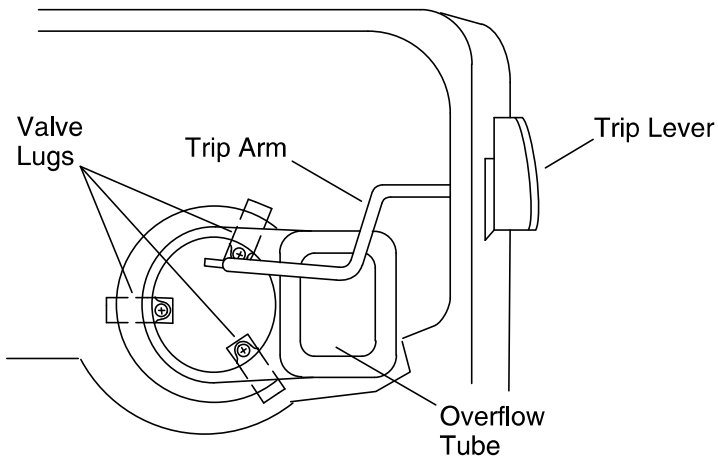


WARNING: Risk of property or product damage. Do not use in-tank cleaners in your toilet. Products containing chlorine (calcium hypochlorite) can seriously damage fittings in the tank. This damage can cause leakage and property damage.



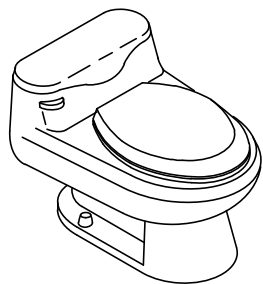
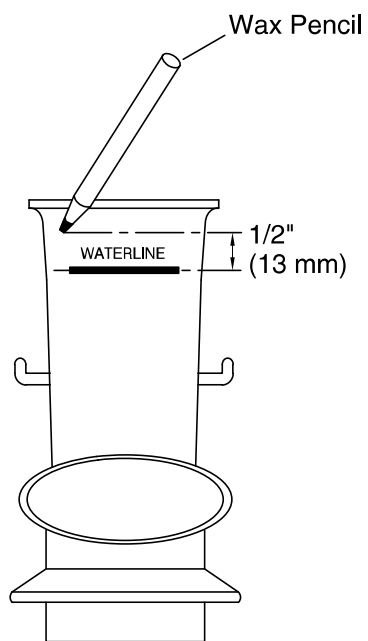
1. Prepare the Site

- ☐ Turn off the water supply.
- ☐ Drain the water from the tank.
- ☐ Disconnect the rim-feed hose from the fill valve.
- ☐ Disconnect the coupling nut from the fill valve shank. Do not bend or kink the supply tubing.
- ☐ Remove the hex lock nut from the valve shank. Lift the entire fill valve out of the tank, and set it aside. You will refer to it later to determine the proper length float rod to install.

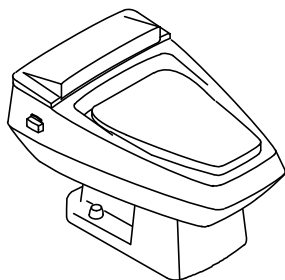


2. Remove the Original Flush Valve

- ❑ Note the position of the flush valve in relation to the tank. Measure the existing flapper chain length from the flapper chain attachment location to the hook. Record this measurement for use later. Note the hook attachment location.
- ❑ Lift the flapper and determine which style of flush valve you are removing. If the flush valve is held in place with three valve lugs, loosen the valve lug screws, pivot the valve lugs to the side and lift out the flush valve.
- ❑ For flush valves without valve lugs, firmly grasp the flush valve; twist left or right (depending on tank clearance) and pull to remove.
- ❑ Remove the original flush valve and discard it.
- ❑ Clean all dirt, debris, and water from the tank bottom area around the flush valve hole.



K-3401, K-3408

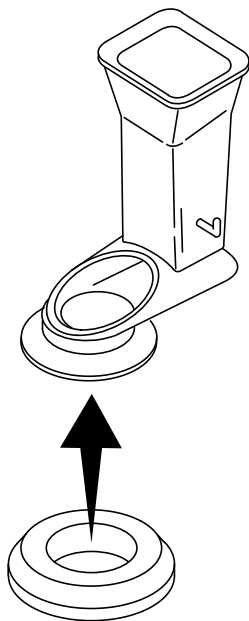


K-3385

3. Mark the Waterline

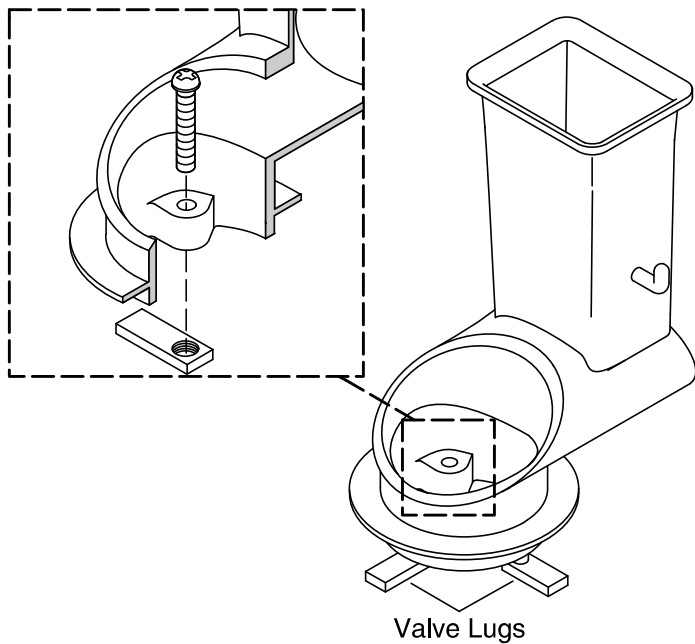
For Models K-3385, K-3401, and K-3408:

- Using a wax pencil, mark a new waterline 1/2" (13 mm) above the current waterline.



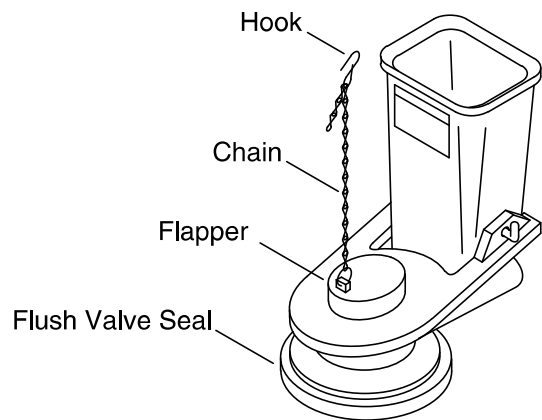
4. Attach the Seal

- Attach the black seal to the flush valve bottom so the large flat surface faces away from the flush valve.



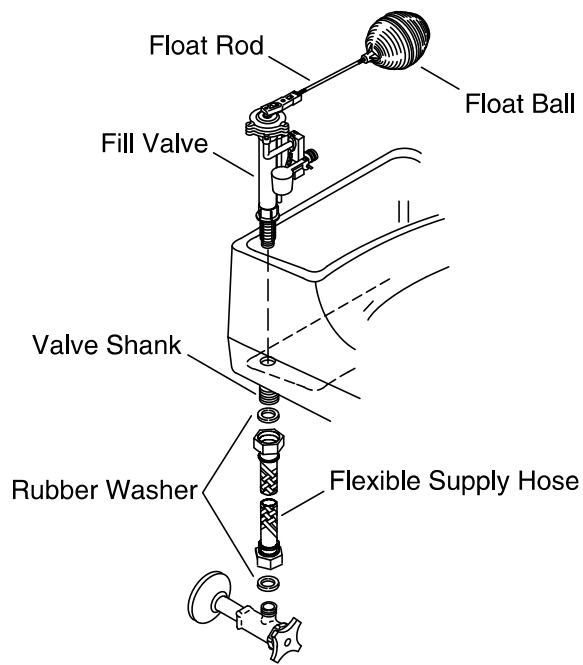
5. Align the Flush Valve

- ❑ Insert the screws into the holes located on the inside of the flush valve.
- ❑ Thread the valve lugs onto the screws.
- ❑ Position the valve lugs so they face inward.
- ❑ Insert the flush valve into the tank bottom hole, and align it in the same position as the original flush valve.
- ❑ Swing the valve lugs outward so they extend under the tank hole bottom edge. Hold the valve lugs in place with a needlenose pliers. Evenly tighten the valve lugs with a Phillips screwdriver. Do not overtighten the valve lugs.



6. Attach the Flapper

- ❑ Attach the flapper to the flush valve.
- ❑ Remove the hook from the chain, and reinstall it at the same chain length as the original flapper.
- ❑ Attach the hook to the trip arm.
- ❑ Check for correct operation. There should be some slack in the chain when the flapper is at rest.
- ❑ If necessary, adjust the hook as needed to achieve correct operation.
- ❑ Using a pliers or wire cutter, remove all but three of the extra chain links.

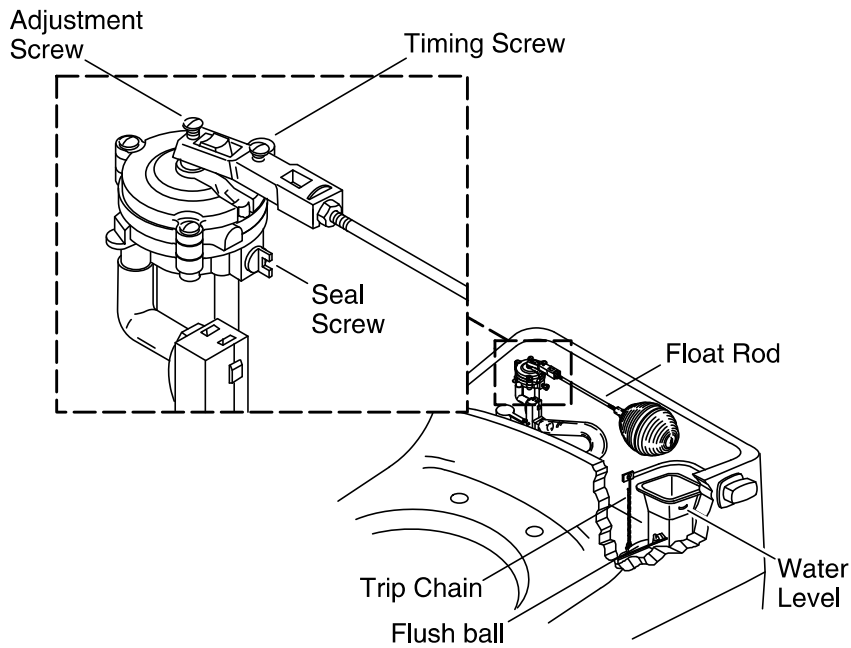


7. Complete the Installation

- ☐ Unthread the float rod from the fill valve and float ball of the original fill valve.
- ☐ Compare the old float rod to the two new float rods included in this kit.
- ☐ Select the float rod that is the same length as the old float rod.
- ☐ Discard the old fill valve and unused float rod.
- ☐ Thread the locking nut onto one end of the new float rod.
- ☐ Attach the new float rod to the fill valve.
- ☐ Attach the float ball to the new float rod.
- ☐ Insert the fill valve through the hole in the bottom of the tank.
- ☐ Loosely tighten the hex lock nut to the shank of the fill valve.
- ☐ Make sure the float ball does not interfere with the flush valve, flapper chain, trip arm, or the tank wall. Adjust the float ball as needed.
- ☐ Secure the hex lock nut. Do not overtighten.

Complete the Installation (cont.)

- ☐ Connect the rim-feed hose to the fill valve and toilet.
- ☐ Turn on the water supply.
- ☐ Flush the toilet several times to verify proper operation.



8. Adjustments

Tank Water Level

- Turn the adjustment screw counterclockwise to raise the water level. Turn the adjustment screw clockwise to lower the water level.
- Flush the toilet and repeat this procedure until the water level in the tank matches the line on the flush valve overflow tube.

Bowl Water Level

NOTE: The bowl will fill with water to a full seal height when the blade of the thumbscrew at the top of the white plastic tube is pointing at the 1 o'clock position. Only increase bowl water flow enough to ensure that the bowl refills to the full seal height.

- Use the trip chain to lift the flush ball in the tank slightly to allow water to trickle into the bowl until the water level in the bowl stops rising. This is the full seal height and should be noted for subsequent adjustment.
- Flush the toilet.

Adjustments (cont.)

NOTE: Maximum flow into the bowl is achieved when the flat on the screw head is vertical (12 o'clock position). Minimum flow into the bowl is achieved when the flat is positioned horizontally (pointing toward 9 and 3 o'clock).

- Observe the water level in the bowl after the water has refilled. If the water level is below the seal height, turn the seal screw until the flat on the screw head is in the 1 o'clock position.
- Flush the toilet again, then check the water level.
- Continue adjustment until the water stops entering the bowl just as the seal height is reached.

High Pressure Water Timing

NOTE: If the toilet is installed in an area with high water pressure above 50 psi (344 kPa) working pressure, the fill valve should be timed.

- Hold the float rod up, flush the toilet, then release the float rod.
- Time the refill from release of the float rod to the time the valve shuts off.
- **For model K-3397:** If the time is greater than 34 seconds, no adjustment is needed. If the time is 34 seconds or less, turn the timing screw clockwise, then recheck the timing. Adjust the screw until the timing is greater than 34 seconds.
- **For models K-3402 and K-3408:** If the time is greater than 26 seconds, no adjustment is needed. If the time is 26 seconds or less, turn the timing screw clockwise, then recheck the timing. Adjust the screw until the timing is greater than 26 seconds.
- Recheck the bowl water level to ensure water stops entering the bowl just as the seal height is reached.