

How To Fix the Toilet

By Kevin Hammond

Stay in any house long enough and there are several common problems that you're likely to experience. One that is sure to come up will involve some kind of toilet repair. Fortunately, fixing some of the basic toilet problems is fairly easy – and chances are you'll find someone at your local hardware or plumbing supply store that can talk you through it. As with any project, when you go to the store to get your parts, it's always a good idea to ask the store clerk for ideas or suggestions.

Also, it's always a good idea to bring the old parts with you to the store, if possible, to make sure you are getting the same sizes and styles on replacement parts. In my years working in a hardware store, it amazed me how often people would come in and say they "just have a standard size." When people said that, I'd take my best guess, but as often as not, I'd see them back in the store again, buying the next size up or down.

Before you get started on any toilet plumbing project, make sure you turn off the water supply. Normally there is a valve under the tank that will allow you to turn the water off just for the toilet, so the rest of the house is unaffected. If no valve is there, you'll have to turn the water off at the main shut off valve. It's also a good idea to flush the toilet after you have the water turned off, to get the water out of the tank.

Here are the most likely problems to crop up with your toilet:

The tank fills up, but the water still runs.

For this job, you'll need to keep the water in the tank. Your float probably needs adjusting. Remove the top of the tank. The float is the round plastic ball connected by a metal or plastic arm to the intake valve.

When the tank is full, about half of the float ball should be below the water. Sometimes, the ball will spring a leak and it will fill up with water, preventing the float from rising all the way. Simply unscrew the float ball and replace it with a new one.

If lifting up on the float arm doesn't stop the water, the washers on the intake valve may be worn. Before you attempt to remove the intake valve, turn off the water supply & flush the tank. To open the valve, simply remove the two thumbscrews or pivot screws and slide the float ball, arm and float arm linkage out of the valve.

If there is a cap covering the valve, remove it. Pull the plunger upward from the valve, or slide a screwdriver blade through the slot at the top of the plunger and lift out. Replace the seat washer at the base of the plunger, as well as the split washer that fits into a groove in the valve. If the intake valve is a washerless assembly, you will need a replacement kit from a plumbing supply store. These are relatively inexpensive and contain easy instructions.

Newer intake valve assemblies are made of plastic and operate without a float ball. For one type, a float cup on a rod allows you to adjust the tank water level. Installing a replacement valve assembly requires unscrewing the slip nut on the underside of the tank to remove the old assembly. Put some towels underneath the tank, as any residual water in the tank will likely leak out during this project. The intake valve and connecting supply pipe are called a ballcock assembly and are sold as one unit. Follow the manufacturer's directions to install the new assembly and then tighten the slip nut carefully, so as not to crack the tank.

The tank doesn't fill, and the water keeps running

A running toilet may be caused by a defect in the lift wire, the flush ball or the flush valve. Sometimes the lift wire and lift rod that raise and lower the flush ball become corroded or bent. Smooth the rough or corroded wire and rod with steel wool or replace with new parts. If the guide arm for the lift rod is not correctly aligned, it will keep the flush ball from seating directly over the ball seat. Loosen the setscrew in the guide arm and move the guide back and forth until the ball drops directly over the ball seat. Tighten the setscrew.

If the lift wire, rod and guide are operating properly, a worn flush ball may be the problem. If the rubber flush ball has hardened or is out of shape, purchase a replacement ball and screw it onto the end of the lift rod. You may wish to purchase a flapper-type replacement for the tank ball. The flapper unit has a long life span and a quieter flush than the flush ball.

Often the ball seat becomes rough and uneven from corrosion. This prevents the flush ball from completely sealing the opening. After draining the tank, smooth the ball seat opening with steel wool.

The toilet won't flush properly

If the toilet handle must be held down to complete the flush, first check the trip lever. The lever is set at a slight angle inside the tank so that it can operate without scraping the tank side, the overflow tube or the intake valve. If the trip lever isn't moving freely when you flip the handle,

slightly bend it toward the center of the tank. As you bend it, use one hand to hold the lever in place where it joins the handle.

A second place to check is the lift wire. It may not be raising the flush ball high enough and the outrushing water may be pulling it back down too quickly. Simply bend the lift wire enough to shorten it. The shorter lift wire will hold the flush ball out of the way of the rushing water. An inadequate flush can also be caused if the float ball is adjusted too low to allow a full tank of water. Bend the float arm upward to correct this. The water level in most tanks should be 1/2 to 3/4 inch below the top of the overflow pipe. Occasionally, clogged outlet ports around the underside of the bowl rim may cause an inadequate flush. Scrub the ports with a wire brush to free them of sediment or mineral buildup.

The tank fills slowly or noisily

First, check the water supply valve under the tank. It may be open only part way. Open the valve completely to let a full stream of water flow into the tank. A tank refill tube that is too short may be causing the toilet noises. One simple solution is to use a piece of rubber or plastic tubing slightly larger in diameter than the refill tube and about 6 to 8 inches in length. Slide the tubing about two inches over the end of the refill tube. The free end of the hose that you've added will deposit water silently on the bottom of the tank.

Condensation on toilet tank

Condensation usually occurs on the tank surface as a result of cold tank water and warmer room air. A simple solution is to add a tank cover to the outside of the tank.

Another option is to install an insulating liner inside the tank. Kits are available from plumbing supply stores. Follow manufacturer's installation instructions.

Another way of stopping condensation is to install a mixing valve, which adds a little warm water to the cold water entering the tank. This raises the temperature of the tank water. This device may be purchased from a plumbing supply store and installed following the manufacturer's instructions.