Stopping a Leaky Shutoff Valve

Sometimes a leaky shutoff valve (on the water supply pipe to the toilet, sink, or other plumbing fixture) is simply turned too far open, meaning too far counterclockwise or to the left. Often, a slight turn in the opposite direction will stop the leak.

Replacing a shutoff valve, if it comes to that, is a fairly simple procedure. The pain comes from having to turn off the water supply for the whole house and draining the water out of the pipes up to the location of the shutoff valve.

Fixing a Running Toilet

A running toilet that keeps you up all night with your bladder held tight is wasting your water and your money. The most common reason for a toilet to run (it doesn't need the exercise) is that the tank's water level is set too high above the overflow tube, sending water down into the bowl. The trick is to keep the water tank's water level ½ inch below the top of the overflow tube.

Setting the Tank's Water Level

Toilets, like people, are all different. Some are old, some are new, some are loud, and some are just plain rude. One thing they have in common: They all get flushed; however, not all flushing mechanisms are the same.

Three common types of flushing mechanisms are: float cup, float arm, and metered fill valve. What are you waiting for? Take the lid off the tank and take a look inside and see what you've got.

Flush the toilet to see if you can pinpoint the problem. Check that the refill tube is seated securely inside the overflow tube. Make sure that the lift chain is adjusted so the flapper opens and closes properly- the chain should hang straight from the handle trip lever with about ½ inch of slack. Adjust the slack in the lift chain by hooking it into a different hole or using fewer or more links.

Float Cup: Squeeze the metal clip and slide it up to raise the water level, down to lower the water level.

Float Arm: A float arm is connected to a float ball (looks like a turkey baster). Using both hands, bend the float arm- downward, lowering the float ball if the water level is too low. Whoa! Not too much force, or you might end up having to replace a snapped float arm or punctured float ball.

Metered Fill Valve: With a flathead screwdriver, turn the screw on the fill valve, aka ballcock, clockwise (to the right) to raise the water level, counterclockwise to lower the water level.

Flush the toilet to check the water level in the tank is set correctly.

You're done- unless these steps didn't do the trick. If the toilet still runs, you may need to replace the flapper or the entire flush kit. Don't panic; this is a repair that is not only inexpensive (about $7), but also quite easy to do.

Replacing the flush kit:

Sometimes, your best bet is to replace the entire flush kit. Odds are, though, that you need to replace only the flapper or only the

fill valve, aka ballcock. Whatever the wager, don't gamble on the toilet being back in service too soon.

1. Shut off the water supply to the toilet be closing the shutoff valve, turning it fully clockwise.

2. Flush the toilet a few times to empty as much water as possible out of the tank. Bail out or sponge up water left in the tank. (A little water is okay; it will simply drain out into the bowl.)

3. The flapper is the valve at the bottom of the tank that opens to let water drain into the bowl. To remove the flapper, you may need to slide its collar up and off the overflow tube- take off the infill tube to get it out of the way. Or, you may simply need to unhook the flapper from the lugs on the overfill tube.

4. If you're changing the entire flush kit, keep going. Take out the lift chain. Using an adjustable wrench and turning counterclockwise- the mounting nut is reverse-threaded- remove the trip lever and handle. (If you have thoughts about also replacing the fill valve, not is a good time to remove it, too.)

5. Take the old parts with you when shopping for new parts. Or, you risk getting home with parts that are wrong or don't fit. And you'll find that showing a salesperson what you need is a whole lot easier that trying to name and describe the parts. (To be sure the toilet isn't called into service while you're gone, you might want to chain the seat shut before you leave the house.)

6. Install the new flapper on the overfill tube and replace or put back the other parts of the flush kit that you removed. Attach the lift chain to the handle trip lever.

7. Open the shutoff valve to restore the water supply to the toilet. Set the water level in the tank ½ inch below the top of the overflow tube.

What's all the black gunk on your hands, you ask? It's dye from the rubber of the flappers. A few good scrubbings will get your hands clean. If your clothes are stained, too, well, they'll do for other potty days, no more for party days.

Replacing the Fill Valve (Ballcock)

For this job, you want the tank completely empty of water. With the shutoff valve closed, flush, bail, and sponge the water out. Soak up remaining water with rags and place a bucket under the inlet opening to catch whatever leaks out.

1. Unscrew the supply tube from the bottom of the fill valve and put the end in the bucket to catch the runoff water. To loosen the coupling nut, you may need to use an adjustable wrench.

2. Remove the float arm and float ball from the fill valve. Take the fill tube out of the overflow tube.

3. Wedge locking pliers inside the tank at the base of the fill valve to keep it from turning. With an adjustable wrench, unscrew the locknut under the bottom of the tank. (This can take a little muscle; penetrating oil on the locknut doesn't hurt.) Take out the old fill valve and clean gunk off the opening of the tank.

4. Install the fill valve following the manufacturer's instructions on the package, adjusting it to the same height as the old one. Connect the fill tube, reinstall the supply tube, and open the shutoff valve. Set the water level in the tank.

Well done! Now, put a lid on it and go clean up.

Unclogging a Toilet

Taking the Plunge

Go ahead, get it out of your system: "Ah, s—t!" Now, go to work to get it out of the plumbing's system.

1. Don't flush the toilet. To keep more water from entering the tank, close the shutoff valve on the supply pipe to the toilet.

2. Don't flush the toilet. Lay newspapers on the floor around the bowl to soak up water that spills out and don rubber gloves. If the bowl is overflowing, bail out half the water into a bucket. If the bowl is empty, fill it halfway with water.

3. Don't flush the toilet. Grab your septic sword, aka plunger, and rub a little petroleum jelly along the rim for added suction. Fit the cup of the plunger squarely over the drain opening in the bowl- the larger opening if there are two. Pump up and down rapidly and forcefully eight to ten times, the pull it up sharply.

4. Repeat plunging as needed until water rushes out of the bowl, then pour a bucket of water into the bowl as a test to be sure the blockage is gone.

Open the toilet shutoff valve and flush the toilet. As you watch the bowl fill with water and then empty, breathe a sigh of relief.

Using a Closet Auger (Manual Toilet Snake)

If taking the plunge fails you, the next tool to try is a closet auger. The long, curved sleeve of this type of manual snake is designed to start the coil into the trap bend without scratching the bowl

porcelain. You can buy a closet auger at a hardware or plumbing store.

1. Feed the curved tip of the auger's coil into the drain opening of the toilet. Crank clockwise until the auger tightens up, then crank in the opposite direction.

2. Keep cranking, changing direction when the auger tightens up, until the coil is fed as far as possible into the drain line.

3. Now, pull the auger slowly out of the drain line. If the auger jams, push gently, then pull, or crank a few times.

You may need to repeat the procedure a few times to clear the blockage. If you cannot clear the blockage with a closet auger, the problem is bigger than you thought. To get rid of the knot in your drain line, you will need to remove the toilet and use a power snake.

Waste Not, Want Knot

If other than human waste is flushed down the toilet, you might as well skip the preliminaries and rent a power snake. Common offending "foreign" things that can form a major knot in the drain line include cotton balls, dental floss, facial cleaning pads, tampons, paper towels, chewing gum- get the point? *Knots* are *not* your friend, so keep a wastebasket beside your throne for disposal of these unwelcome items. *Remember, waste is a terrible thing to mine!*

Emergency Plumbing Repairs

You should always be prepared for a plumbing emergency, just in case Nature calls, then calls back a few minutes later to leave you

a message and quite a number after the "f%*#!" beep. Although calling a plumber should be a last resort, having a plumber's number on your speed dial is not a bad idea. A professional plumber can be pretty expensive, but so can a freak of Nature or circumstance, which can happen when you least expect it. *It is always good to know a few tricks to help you out when you are in a fix.*

What do you do when a supply pipe suddenly springs a leak? Until you are ready to do a permanent repair (or can get in a plumber to do it), you may not want to shut off the main water supply to the house and go without water for things such as drinking and flushing. The following stop-gaps can slow a leak enough to catch the water in a bucket.

Stop-gaps for a Leaking Pipe

- Jam the sharp point of a pencil into the hole. Dry the pipe with a towel and wrap it tightly with electrical tape.
- Slice a section of old garden hose or bicycle inner tube lengthwise, wrap it around the pipe, and secure it with pipe clamps.
- If you have a pipe-leak clamp on hand, screw it onto the pipe so the rubber cushion seals the leak.

Tips and Tricks for Pipe Fixes

Tip: Make connections watertight by wrapping threads with plumbers Teflon tape or applying plumber's putty.

Tip: If your faucet seems to be spraying instead of obeying, you probably have got an irritated aerator; if it sounds pfissed off, it is very likely clogged. Unscrew the aerator from the end of the spout, then pry out the screen and clean the gunk off it. Put the screen back into the aerator and screw it back on the spout.

Tip: To keep your pipes from freezing in the winter, wrap them in pipe insulation- available at a plumbing or hardware store.

Tip: If a pipe freezes, open faucets on the line to give the water some place to go after the water thaws- to keep it from bursting the pipe. Give the pipe some warmth using a heat gun, a heat lamp, or even a heating pad.

All information taken from Ty's Tricks by Ty Pennington