Imagine that the dot inside these brackets [•] is the only hole in your home’s water system. By its size alone, that hole may not seem worth tracking down. But that hole can waste more than 4,000 gallons of fresh water each month — enough water to take a shower every day for a year! Consider how important water is for our families, pets and environment, and you see that even tiny holes deserve immediate attention. That’s why we developed this simple water leak detection kit. It’s designed to help you find and repair water leaks — even the tiny ones.

**GETTING READY**

Use the checklists on the following pages to help direct your search for some fairly common — and a few not-so-common — water leaks.

How can you be sure your inspection will be as thorough as possible? The checklists cover three areas: common indoor leaks, not-so-common indoor leaks, and outdoor leaks. If you investigate the leak possibilities in the order shown, you’ll uncover the greatest potential for savings in the first few places you look. It’s a good idea to have the following items with you as you begin your work:

- Flashlight
- Leak Detection Tablets (included with this kit) or Food Coloring
- Shut-Off Valve Tag (located to the left)

**SPOT YOUR SHUT-OFF VALVE NOW**

Your main shut-off valve controls all of the water coming into your house. Everyone in your home should know the location of this valve, and how to turn it off. In case of an emergency such as a burst pipe, fast action could prevent costly damage from flooding.

If you don’t know where this valve is located, it’s important that you find out. Normally, it’s near the water meter. If your meter is outside the house, find the place where the water service line enters the building. The shut-off valve is likely to be close by. Common locations are in the basement, under the kitchen sink, near the meter box or at the pressure regulator (if required). We have included an identification tag to cut out and place on your main shut-off valve. (See flap on left.)

After finding the valve, turn it to make sure it isn’t stuck. Water valves are generally closed by turning the handle clockwise. If a valve does not turn easily, do not force it or it might break. Rather, you may want to have the valve repaired so that it will work when you need it.

**NOW YOU’RE READY TO BEGIN!**

When opening the valve to turn the water back on, open it fully, then close it just a quarter of a turn to make closing the valve easier the next time. You should also check every water fixture shut-off valve periodically, and consider operating the main and individual valves annually.
At American Water, we are committed to environmental stewardship and the responsible management of our precious natural resources. By using this leak detection kit to identify and repair water leaks, you can help make a difference in your monthly bill while conserving water.

COMMON INDOOR LEAKS

THE LEAKY TAPLET

Accounting for more than 95 percent of all water waste, toilet leaks are caused by worn or damaged parts in the toilet fixture. (Toilet flushes typically flush for about 100 gallons of the water use in your house each day. That’s about 40 percent of the average household use.) Some of these leaks will empty directly into the sewer line without leaving any clues. Even so, you can check for these leaks. Common causes include: Float arm problems Remove the lid from the top of the flush tank. See if the overflow pipe and the float arm are working properly. Do this by flushing the toilet, watching the tank mechanism and listening. You should hear the water flow shut off. If the water does not shut off, check the water level. If it has risen above the overflow pipe, then the float arm is stuck down and flush again. You may need to replace the float ball plug if the water level is about 1 inch below the top of the overflow pipe and you still hear water flowing. A tiny pinhole A pinhole opening below the overflow pipe’s water line could produce an invisible leak. Check for this by shining a flashlight down into the overflow pipe. If you see running water, you have a leak that should be repaired. Defective plunger ball (flapper valve) This is often a silent leak which causes the tank to continually drain and refill. Check for either a slow or improperly seated plunger ball (flapper valve) by dropping one of the dye-tracing tablets (included with this kit), or a few drops of food coloring, into the toilet tank. Do not flush. If a leak exists, the water will seep into the bowl in about 5 minutes. If it does, the plunger ball (flapper valve) may need to be replaced or realigned.

THE LEAKY FAUCET

A slow drip can waste as much as 20 gallons of water each day. A dripping faucet can waste as much as 20 gallons of water each day. A mere 1/16-inch leak wastes 100 gallons of water each day. With that much water — and money — going down the drain, it’s important to get leaks fixed as soon as possible. If you notice that a faucet is dripping, first try closing it tightly. If it continues to drip, the most likely cause is a worn or wrong-size seat washer (also called a stem washer). With just a little effort, you may be able to replace the washer yourself. You may need an adjustable wrench, a standard-blade screwdriver, and a Phillips screwdriver for older plumbing fixtures. It may be more economical to rebuild or replace the faucet if it is washershess.

Changing a washer Before you start turn off the water supply to the faucet by closing the fixture’s shut-off valve. Most kitchen and bathroom faucets have shut-off valves under the sink. Turn the valve clockwise until it is tight. This shuts off the water to the sink only, and does not affect the water service for any other part of the house. Be certain that the replacement washer is the same size as the worn one (if the worn washer was the correct size). If you need help, bring the worn washer to your plumbing supply or hardware store, and the store representative can help you match it with a new one.

Washing machine If you see water on the floor near the machine, it could mean a leak. You should be able to do this repair yourself by checking the washing machine repair service.

Humidifier Water accumulated beneath the unit could be a sign of a leak. If the overflow discharge is piped into a sewer or drainage line, you may not see any visible signs of a leak. Listen for running water. If it’s continuous, the float valve could be stuck.

Fire suppression systems Many modern businesses have fire suppression systems. If so, check to make sure that the sprinkler heads are tight and not leaking.

Dishwasher Water accumulated on the floor near the unit could be a sign of a leak. You may want to call your dishwasher repair service.

Water dripping down the side of the tank could mean the pressure release valve is stuck. The pressure release valve is an automatic safety valve which is usually a large brass fitting threaded into the overflow pipe. If it is working properly, water will be leaking from it, dripping down the side of the tank and accumulating on the floor.

Boiler Listen for the sound of running water. It is continuous and does not stop and start periodically, your boiler system may have a leak.

OUTDOOR LEAKS

When checking for water leaks, many people forget that water faucets and equipment exist outside as well as inside the home. Here are four areas you shouldn’t overlook:

Water faucets Each faucet should be checked for leaks. Make sure faucets are closed when not in use. If you find a leaky faucet, change the washer (after closing the shut-off valve). In colder climates, during the winter, these inside shut-off valves should be closed to prevent freeze-ups. Be sure to open the outside faucet after you have shut the inside valve so that any water still in the pipes will drain out. These shut-off valves are usually in your basement. One shut-off valve may control all the outdoor faucets.

Automatic lawn-sprinkling system Soft spots on your lawn may indicate a leak that is being absorbed into the ground.

Swimming pool The pool system’s automatic shut-off valve could be malfunctioning, causing a continuous cycle of water to be pumped in and then drained out. If the water level stays higher than normal, or the pool overflows when people are using it, your automatic shut-off valve may need repair attention.

Service connecting line If you find a soft, wet spot on your lawn or hear running water outside your house, you may have a leak in the service line to your house. Water seeps into the ground, causing the lawn to appear soggy. Close the main shut-off valve if the sound of running water continues, the outside service could be leaking.

You’ve checked everything… now what?

If you haven’t found a leak after checking all of the water outlets mentioned, and you still suspect a problem, you may want to call in a licensed plumber. You’re also welcome to contact an American Water customer service representative for assistance. We’ll work as hard as possible to help you.

MAIN WATER SHUT-OFF VALVE

When you locate the valve, place this I.D. tag on it. You may want to turn the valve to make sure it isn’t stuck. Water valves are generally closed by turning the handle clockwise. PLEASE NOTE: If the valve does not turn easily, do not force it, or it might break. Rather, you may want to have the valve repaired so that it does turn easily. Then, check sinks and other fixtures to be sure you haven’t shut off the main valve and that it is working properly. When opening the valve to turn the water on, open it fully, then close it about one quarter-turn to make it easier to close the next time. You should also find, turn, and tag individual shut-off valves on fixtures such as sinks and toilets, and consider operating the main and individual valves annually.