A Do-It-Yourself Home Water Audit

NYC Environmental Protection

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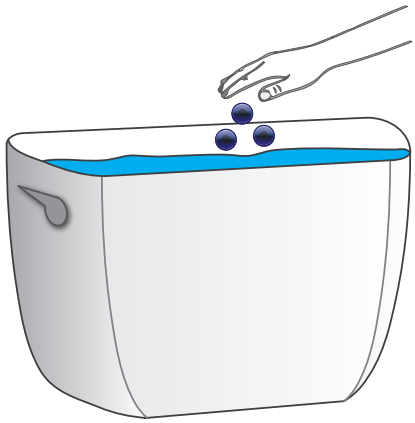
Your new Home Water Savings Kit can help you conduct a do-it-yourself water audit in less than an hour. Just follow these simple step-by-step instructions on how to find and repair costly leaks.
Please note that for the audit to be successful, you will not be able to use water for any other purposes until you complete Step 2. Please do not flush any toilets in your home until you have finished Step 6.

Complete the Home Water Audit in just 8 simple steps!

1. Crush Dye Tablets into Toilet Tanks
2. Using Your Water Meter as a Leak Detector
3. Check your Water Service Line
4. The Heating System
5. The Kitchen
6. The Bathroom
   - Installing the Water Faucet Aerator
   - Checking for Toilet Leaks
   - Replacing Your Showerhead
7. Laundry Area
8. The Garden Hose

Step 1
Crush Dye Tablets into Toilet Tank

Water use associated with toilets accounts for 30% of total water use. Toilets are the highest consumers of water in most homes. Take the dye tablets out of the kit, crush them and place one into the tank (not the bowl) of each tank-type toilet in the house. Do not flush the toilet during this time. Let it sit for 5-15 minutes until it dissolves into the water in the tank. If dye appears in the bowl within 30-seconds, it means that you have a serious toilet flapper or refill valve leak. If you see dye within your toilet bowl, please go to the toilet audit at the end of Step 6.



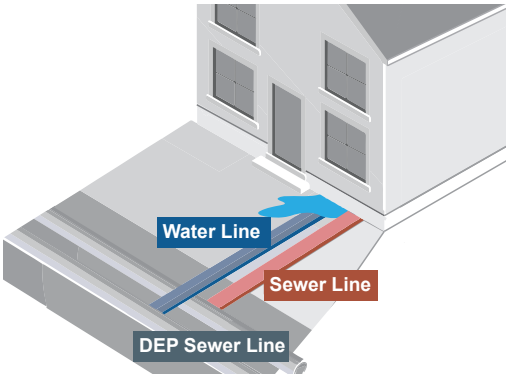
Step 2
Using your Meter as a Leak Detector

New York City's water meters are now read remotely and electronically about four times a day. You can track your water use on DEP's website (www.nyc.gov/dep) by clicking on the "My DEP Account and Online Bill Pay" button. After registering your account online, you can sign up for DEP's email leak notification program.

Reading your water meter is an easy way to find medium-to-large leaks in your home. Water meters are usually located in the basement. Sometimes, the meter may be in a garage or a pit on the front lawn. If direct light is not available, you may need to bring a flashlight and use caution. Before you check for leaks, be sure to stop using any water within your residence. Look at the meter dial; you will see a small red arrow, triangle or sweep arm. This small dial, or sweep hand, should be completely still if water is not being used in your home and there are no leaks. If the sweep hand or red triangle moves while no one is using water, it means you have a leak.

Step 3
Check your Water Service Line

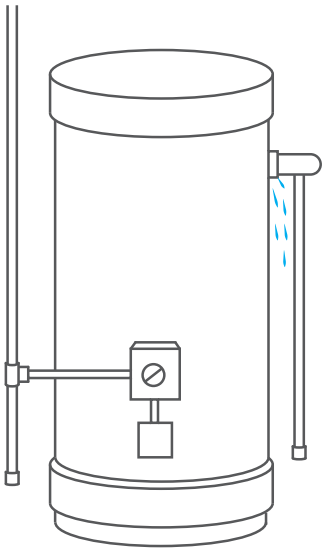
The water service line is the pipe coming from the street into your home. The valve to shut off water to your home is located on the service pipe. Once you have located your service line, inspect where it enters the home and check for leaks. A service line with a significant leak may cause puddles in front of your home above the service line and water in your basement. To check for additional leaks, inspect interior exposed piping for throughout your home.



Step 4
The Heating System

Inspect your boiler and hot water heater for leaks by looking for water accumulating on the floor. Use a thermometer to check the hot water temperature at the sinks in your home. If the temperature is above 120 degrees, consider reducing the temperature at the hot water heater. If you do not have a separate hot water heater, there should be an “aqua stat” or temperate control on your boiler. This should be set to 120 degrees during the months outside of the heating season (April-October). Speak with a licensed plumber or heating system maintenance contractor if you need technical help.

If there is a circulating pump for the boiler, watch the pump and the dial on your water meter when the heat comes on and the pump runs. In some cases, the pump will leak only when the pump operates.



Do you need to add water to your heating system boiler on a regular basis? If so, you likely have a leak. The leak is significant if water must be added once a week or more.

Step 5
The Kitchen

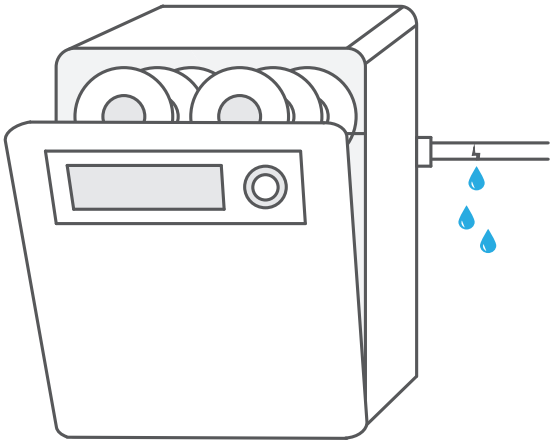
Inspect kitchen faucets and piping for leaks. Be sure to check for leaks with the water faucet both on and off. Use the shower flow measurement bag in the kit, a measuring cup, or a quart container to measure the flow from the kitchen faucet.

A flow of three gallons per minute (gpm) is the same as filling:

- A quart container in five seconds
- A four-cup measuring cup in 2.5 seconds

If the water flows at more than three gpm, replace the existing faucet aerator and install the kitchen (swivel) aerator that comes with the kit (installation instructions are provided). If your existing aerator or faucet tip cannot be removed, hardware stores carry aerators that clip onto the faucet. If you have a kitchen dishwasher, make sure to inspect it and any surrounding piping for leaks. When you inspect the piping under the sink, be sure to check for leaks when water is turned both on and off.

When buying new appliances, choose an EnergyStar® model. These models can be found on EPA’s website: www.energystar.gov/

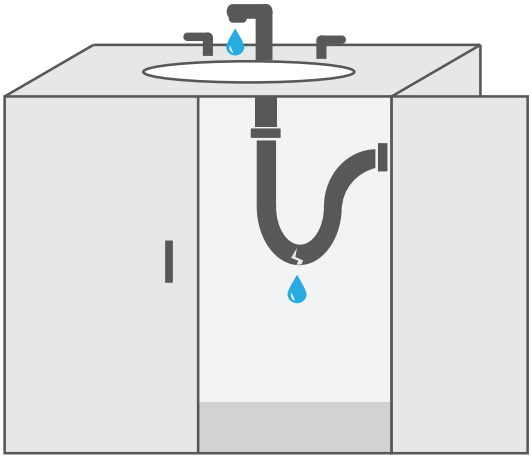


Step 6
The Bathroom

Inspect your bathroom faucets and piping for leaks. Check the water flow from your bathroom faucet just as you did for the kitchen faucet. Bathroom faucets should flow at less than two gallons per minute (gpm). This is the same as filling:

- A four-cup measuring cup in less than four seconds
- A one-quart container in less than eight seconds

If your bathroom sink fills these containers faster, you should install the bathroom sink aerators that come with the kit. They will reduce water flow to less than two gpm.



Step 6B
Checking for Toilet Leaks

Return to the toilets where you deposited dye tablets at the beginning of the audit. Is the water in the toilet bowl clear or is there color from the dye? If there is color, water from the toilet tank is leaking into the toilet bowl. If the leak is large, you will be able to hear the toilet "running" and the dye will show up in the bowl within a minute or two. The size of the leak is proportional to the speed that the dye shows up in the bowl from the tank. Information about replacing the toilet flapper or refill valve appears in the brochure, "Repair Your Leaking Toilets," available on the DEP website.

If your toilet is more than 15 years old, fill and install the toilet displacement bag and follow the provided instructions.

Step 6A
Installing the Water Faucet Aerator

Installing a new faucet aerator on your sink will save up to two gallons of water per minute. You will also save energy by reducing the amount of hot water used.

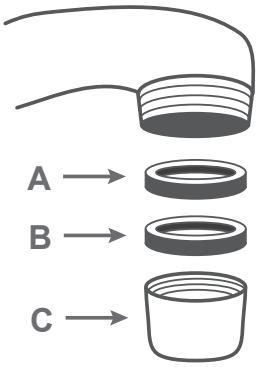
Installation

- Remove and discard the old aerator in your metals recycling bin.
- Clean faucet threads inside and outside.

Inside Threaded Faucets: Place washer A on washer B, in top of aerator. Screw aerator into inside threads of faucet.

Outside Threaded Faucets: Discard washer A. With washer B in top of aerator screw aerator onto outside threads.

NOTE: Occasionally remove the aerator and rinse.



Step 6C
Replacing Your Showerhead

Use the shower flow measurement bag in the kit or a measuring cup to determine the amount of flow from the shower. A flow of three gallons per minute (gpm) or less is considered water-efficient. New showerheads, including the ones provided in this kit, flow at 2.5 gpm or less. To install one of the new showerheads, follow the installation instructions.

Installing a new showerhead can reduce your water and energy bills by reducing your water consumption as much as three gpm.

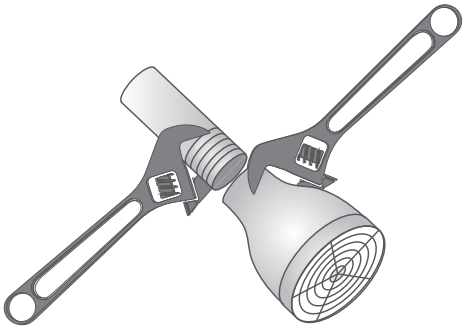
Another common source of leaks is the shower diverter valve. This is the switch or knob you turn to switch from tub flow to shower flow and back again. Repairing your shower diverter valve is complicated and must be performed by a licensed plumber.

If you need more than two showerheads in your home or you are unable to install the shower head, please contact Honeywell at 718-326-9426 or nycrws@honeywell.com to request one of the following*:

- Additional massaging showerhead
- Hand-held massaging showerhead
- Replacement shower arm

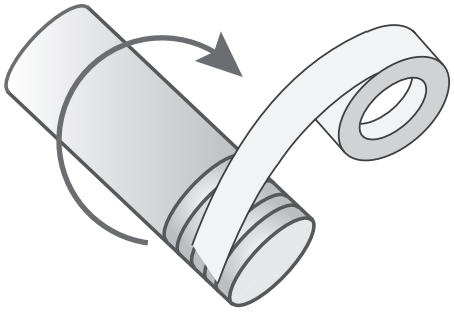
**Offer expires October 1, 2014*

Installation Instructions



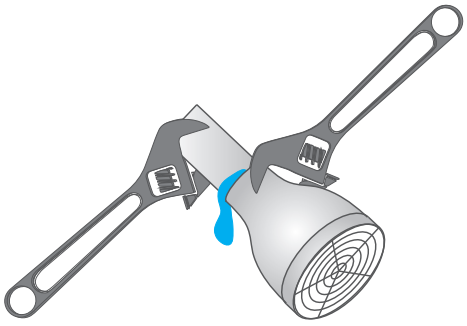
Remove the old showerhead from the shower arm. If you need to use a wrench, use a second one to hold the arm. Wrap the jaws of the wrenches with tape or cloth to protect the finish.

After removing the old showerhead and before installing the new showerhead, run the water through the pipe to clean out debris.

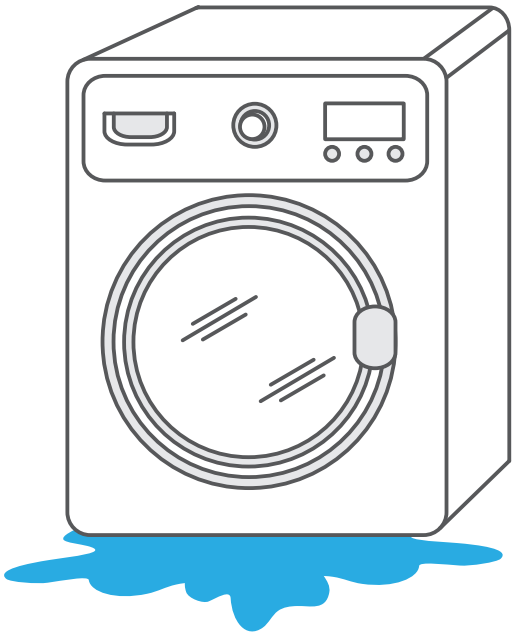


Turn off the water, wrap plumbing tape around threads one time, screw on the new showerhead and hand tighten.

Test showerhead. If it leaks, tighten until snug taking caution not to over tighten. Exerting too much force on the old shower arm during the removal and installation process may cause damage to internal piping. This can result in concealed leakage.



Step 7
The Laundry Area



Inspect your washing machine and piping in your laundry area for leaks. Clothes washers, responsible for about 20% of total water use, are the second largest consumer of water in most homes after toilets. Buying an Energy Star-rated clothes washer can save a family of three about $90-100 a year in water, sewer, and electric costs. High-efficiency washers can also help you save money on your electric bill by reducing the amount of time and energy required to dry your clothes. Nowadays, all major appliance manufacturers sell Energy Star-rated models.

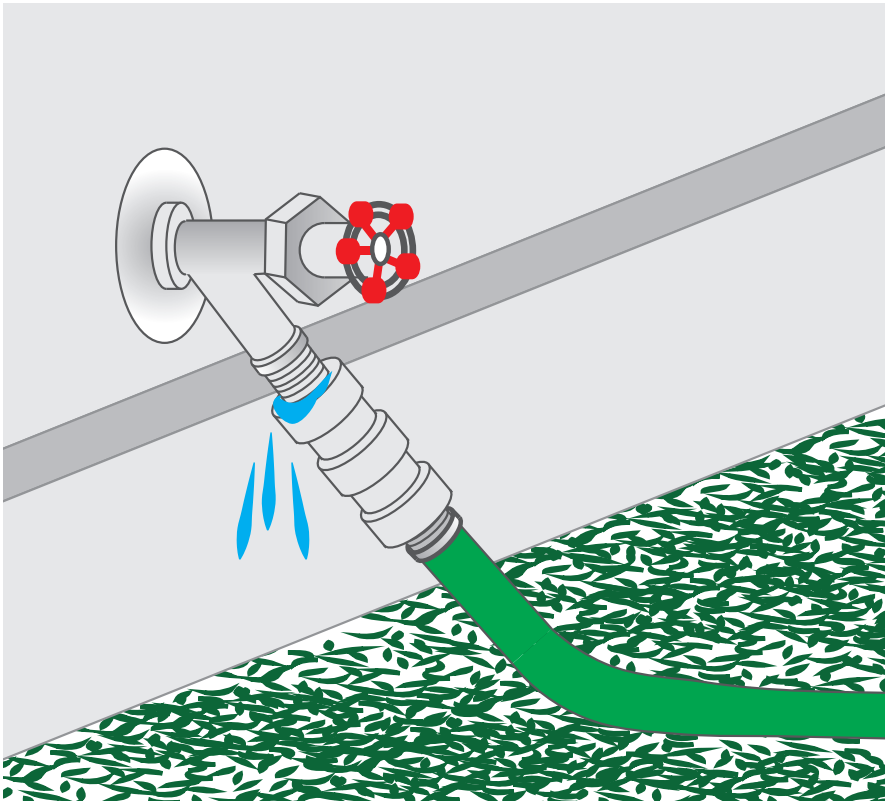
For additional information:

Energy Star: http://www.energystar.gov

New York Energy Smart: http://www.getenergysmart.org

Consortium for Energy Efficiency: http://www.cee1.org

Step 8
The Garden Hose



Do you have a garden hose attached outdoors to a hose connection? Do the connections leak when you turn on the hose? Be sure to use a hose nozzle that automatically shuts off when you are not using it. Apply some plumbing tape to provide a better seal if the connections leak.

Thank you for completing your home water audit. If you have questions about the installation of any items included in your Home Water Saving Kit, please contact DEP's contractor, Honeywell, at 718-326-9426 or nycrws@honeywell.com. Additional water conservation information is also available on DEP's website, www.nyc.gov/dep/conservation. The following are some publications that you might find useful:

Repair Your Leaking Toilets

Residential Water Use Factsheet

Leaks and Their Cost

Seven Steps to a Water Saving Gardens

Water Saving Tips for Lawns

We value your feedback.

Please go to www.nyc.gov/html/dep/html/ways_to_save_water/do-it-yourself-home-water-audit-survey.shtml to complete a brief survey about the Home Water Saving Kit. You will need to include your water and sewer account number which can be found on your bill.

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