



Earthquake Mitigation Resources for your Home or Business

Overview:

- Protecting your precious collectibles
- Keep your paintings, photos, and mirrors on the wall where they belong
- Strap that water heater to the wall
- Secure small electronics and appliances
- Know how to turn off your utilities
- Seismic Automatic Gas Shut Off Valve
- Secure heavy furniture
- Keep those dishes in the cabinets
- Can you dial "911" if you don't have power
- Clear plastic sheeting and duct tape needs for windows and doors
- Stay safe in your bed – be ready to go – with your emergency bed kit
- Keep your home safe during an earthquake – seismic retrofitting
- Sanitation options for the home
- Drinking water options

On-Line Resources:

- [Living on Shaky Ground](#) – How to survive earthquakes and tsunamis in Oregon
- [Oregon Tsunami Clearinghouse](#) - tsunami maps and resources
- [Building Safety and Preparedness](#) – Disaster planning toolkit for the home and small business
- [7 Steps to a Disaster Resilient Workplace](#)
- [Great Oregon ShakeOut](#) – Annual earthquake drop, cover and hold on drill

For More Information:

Lincoln County Sheriff's Office

Emergency Management

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www.co.lincoln.or.us/emergencymanagement

The following earthquake mitigation information and graphics were graciously donated to Lincoln County Emergency Management by Retired Seismologist and Depoe Bay CERT Member, Kay Wyatt - 2018

Protecting your precious collectables



Products such as this clear “museum gel” are designed to keep your precious collectibles from toppling over and shattering. Similar products are called “museum wax”, “earthquake jelly”, etc.

It's easy to use. Just scoop a little out of the jar and roll it into balls. Press down lightly and twist into position.



The gel gradually flows across the base of an item until it creates an invisible bond.

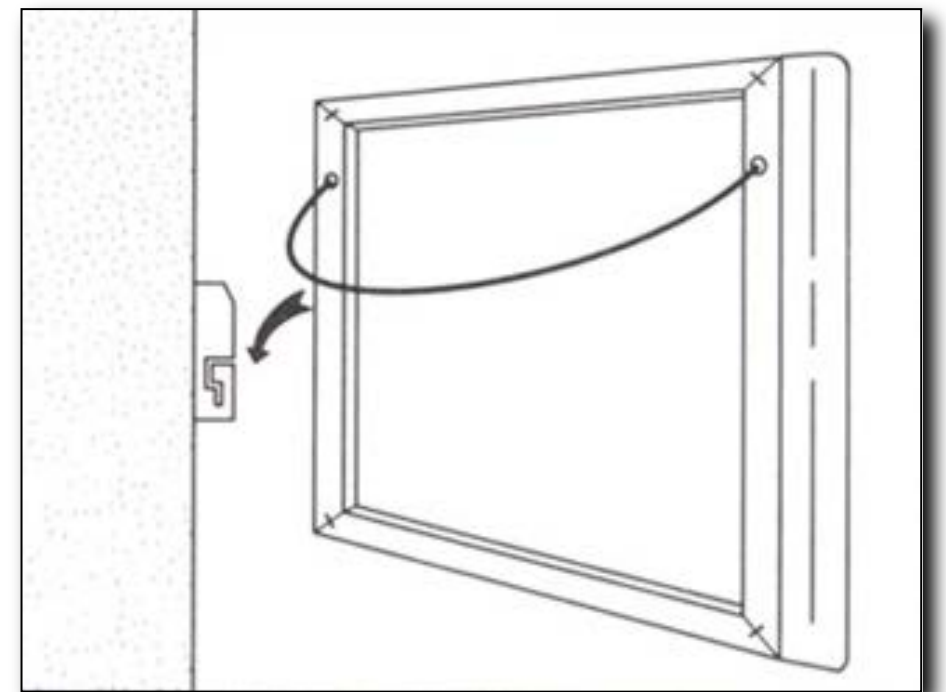
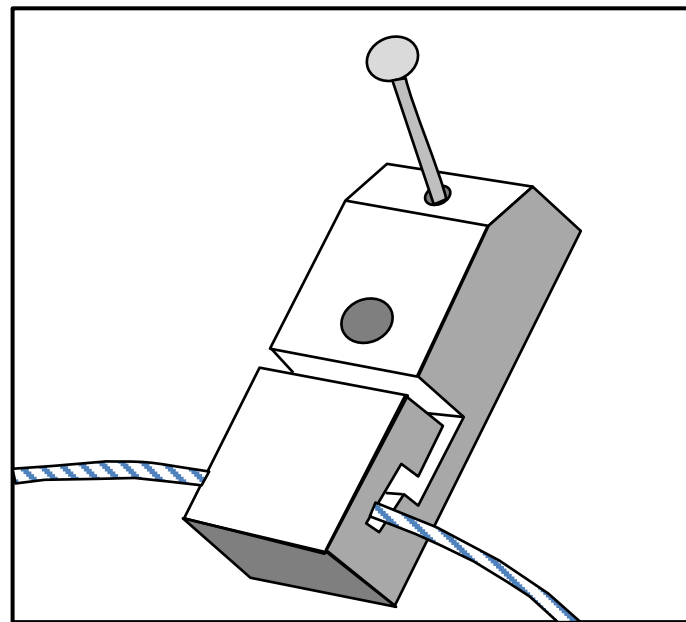
A really easy way to secure your favorite collectables!



Keep your paintings, photos and mirrors on the wall where they belong!



Most homes have numerous items hanging on walls that pose serious danger to people during earthquakes. Particularly items that may fall while people are sleeping.



These picture hooks are especially designed to hold pictures and mirrors up to 100 pounds on the wall during an earthquake. The picture wire is caught in a complex notch pattern that prevents it from jumping off the hook.

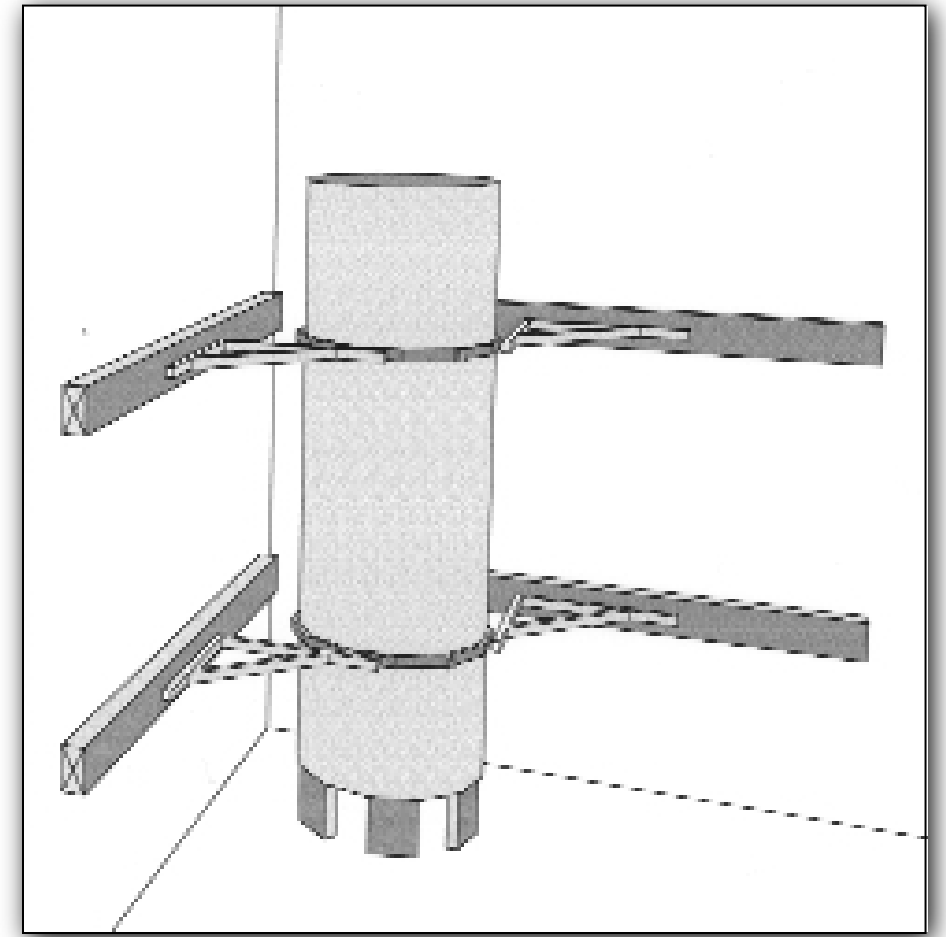
To apply:

- Use 1 hook to hold up to 50 lbs.
- Use 2 hooks to hold up to 100 lbs.
- For objects less than 12 pounds, hammer into drywall with a nail
- For heavy weight objects, screw into a wall stud

Strap that water heater to the wall!

Water heaters that are not strapped securely to the wall are a serious danger in an earthquake.

This is particularly dangerous for gas water tanks. When a water tank is knocked off its supports, the gas supply line is likely to rupture creating a fire hazard such as you see in the photo below.



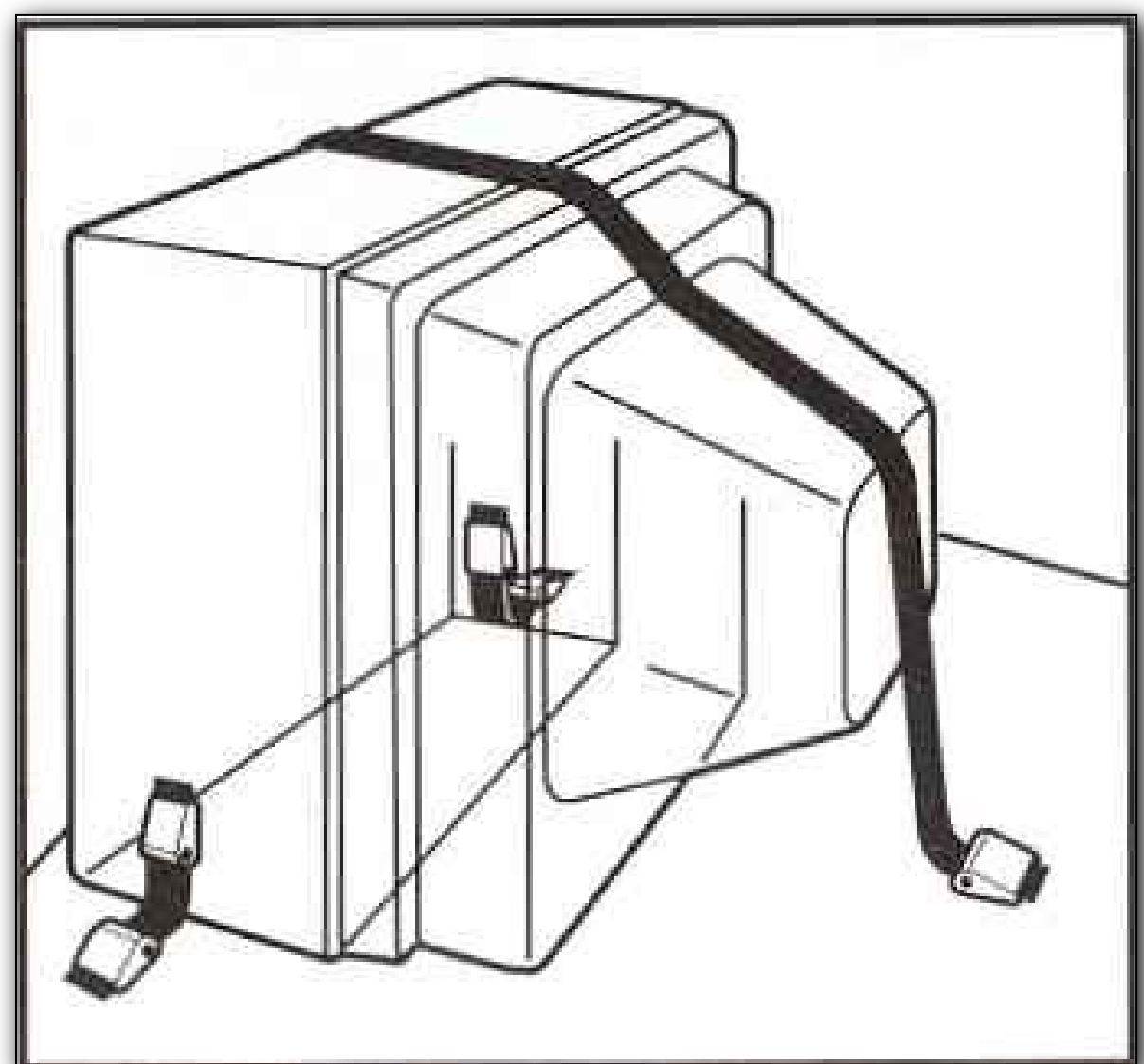
Don't let this happen to you!

Secure small electronics and kitchen appliances



Use peel and press safety fastener blocks to protect your office equipment and home appliances such as:

- Toaster ovens
- Small portable TVs
- Stereo equipment
- Printers



Use additional straps to lock down taller items such as monitors and flat screen TVs

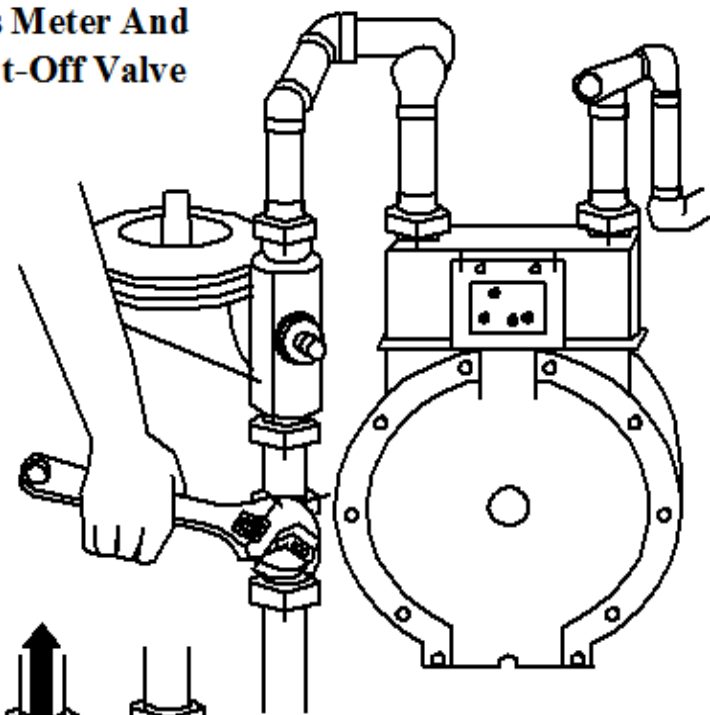
Know how to turn off your utilities



Locate and label your utility shut off valves. Know how and when to shut them off. Consider purchasing a multi-tool such as the one shown here.

NOTE: Do **NOT** turn your gas back **on!** Only a professional can do so without danger

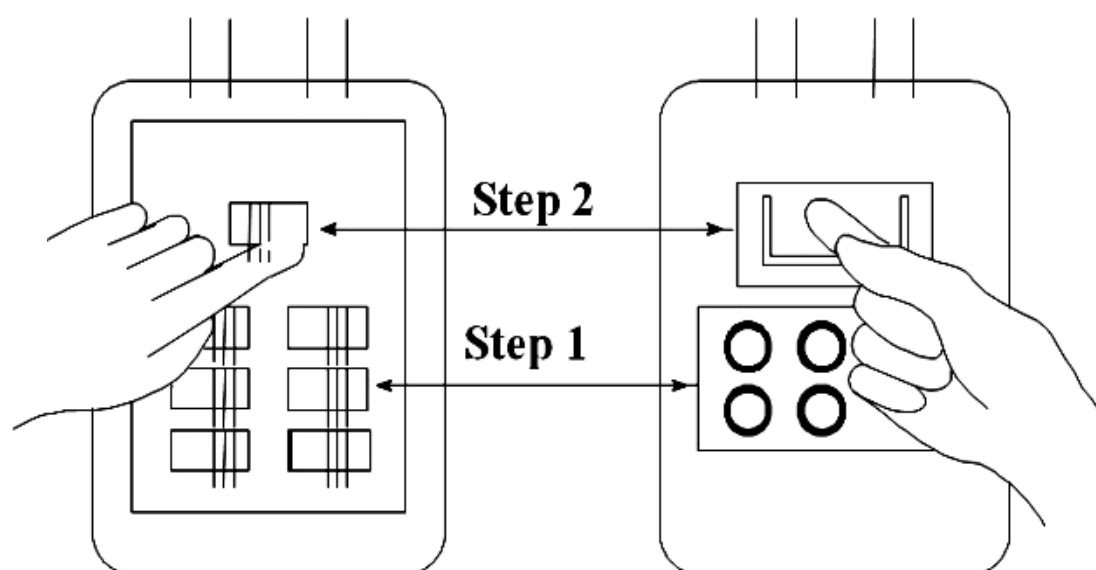
Gas Meter And Shut-Off Valve



Have wrench stored in a specific location where it will be immediately available

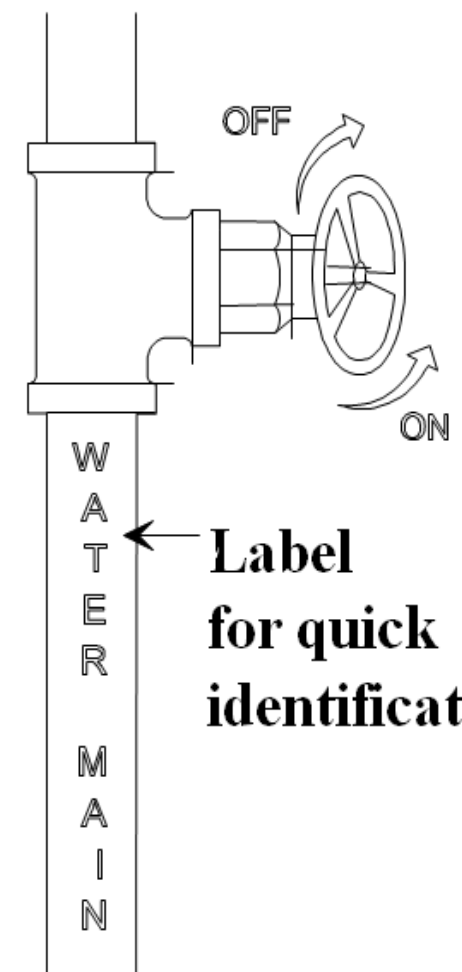
Gas

Electrical



Circuit Breaker

Pull-out Cartridge Fuses



Label for quick identification

Water

Secure heavy furniture



Secure smaller furniture such as a small dresser with Velcro[®] ties



Heavier furniture such as bookcases and china cabinets should be secured with metal rod type fasteners.



Don't let this happen to you!



You can even consider using easy-to-hook ties across your books to keep them securely in their shelves

Keep those dishes in the cabinets!



During an earthquake cabinet doors can open letting dishes and precious china fall onto the floor. This poses an additional danger of cuts and injuries to residents.

A variety of latches are available to keep cabinet doors closed

Spring loaded latches



Finger released latches



Buy an inexpensive "old style" telephone that doesn't need electricity!

THIS...



NOT THIS!

Buy SEVERAL rolls of clear plastic sheeting and duct tape to cover broken windows and doors



DOGAMI (Oregon Department of Geology and Mineral Industries) tells us that most “stick built” homes (not brick or masonry) will remain standing after “The Big One”. But they also suggest that there will be many broken windows and glass doors.

So, go to your local store and buy several rolls of clear plastic sheeting along with several rolls of duct tape. That way, you can cover broken windows and doors, keeping the cold, wind, and rain out of your house.

*HINT: Don't buy the **black** plastic. You want to let as much sunlight in the house since we don't expect electricity for some time after the earthquake.*

Stay safe with a “sack and a bed”!



Most of us keep a flashlight on the bed table beside us when we sleep. But after the shaking stops, that flashlight will probably be in the next county!

So, place a flashlight, extra batteries, and a pair of sturdy shoes in a bag and tie to the bedpost. That way, you can reach down and grab the bag after the shaking stops. The flashlight will help you see, and the shoes will keep your feet from being cut on all the glass and fallen debris.

SEISMIC RETRO-FIT

Keep your home safe during an earthquake



Created by Kay Wyatt with Depoe Bay CERT

1942 North Portland House -- Wood frame NOT attached to foundation



Bolting the frame to the foundation on the exterior of the home

SEISMIC RETRO-FIT

Keep your home safe during an earthquake

Post and beam reinforcement



BEFORE



AFTER

Additional reinforcement



Sanitation Options for the Home

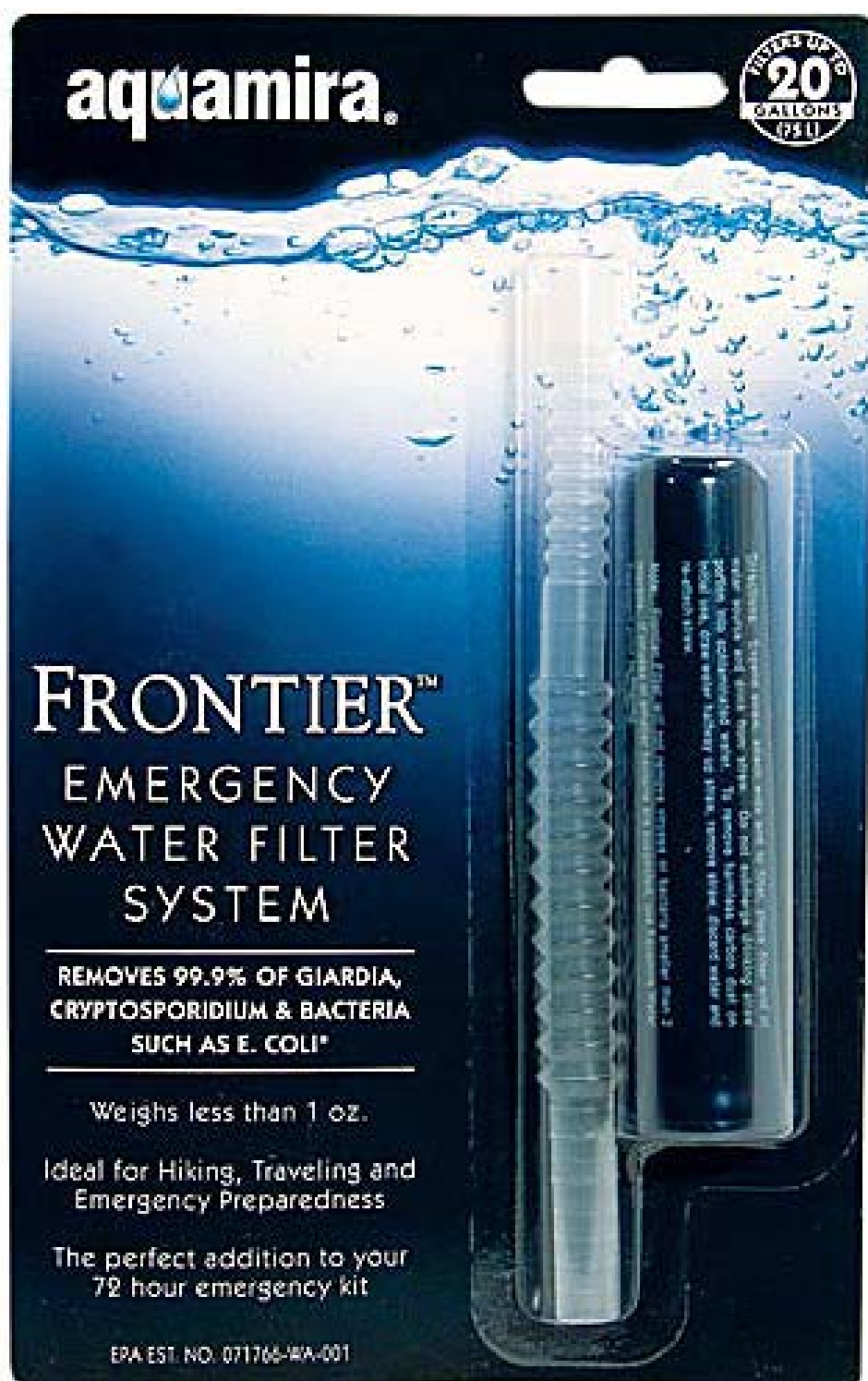
Double Doodie toilet waste bags are designed for easy, no mess waste disposal. Each bag consists of an inner bag and an outer bag that is sealable and leak proof. Slip the bag inside your home toilet; when full, just zip close and dispose. Let's you use the privacy and comfort of your home toilet, even when water and sewer are unavailable.



Drinking Water Options

Here are two options for water treatment for drinking. The **Aquamira Frontier Emergency Water Filter Straw** is ultra light and compact and perfect to slip into your go-pack. It can filter up to 20 gallons of water and will remove pathogens and contaminants down to 2 microns in size including Giardia, Cryptosporidium and E.Coli. If viruses or smaller bacteria are suspected, use a certified chemical treatment or boil water before filtering.

The **Waves4Water Family Filter** is a half-micron filter removes water-borne bacterium with a 0.5 micron efficiency. The ceramic filter can be cleaned with a soft brush at least 100 times, and it produces 14 gallons of drinking water per day. This system includes a ceramic filter, filter sock, and spigot. Simply double stack two clean five gallon buckets with lids, drill a 1/2" hole in the bottom of the top bucket and through the top of the bottom buckets lid, place sock over filter and install it in the bottom of the top bucket. Drill a 3/4" hole on the side and near the bottom of the bottom bucket and install the spigot. Fill the top bucket with water from a lake, rain, tap, river or stream and in an hour you will have bacteria free water to drink in the bottom bucket.



Aquamira Frontier Emergency Water Filter Straw



Waves4Water Family Filter

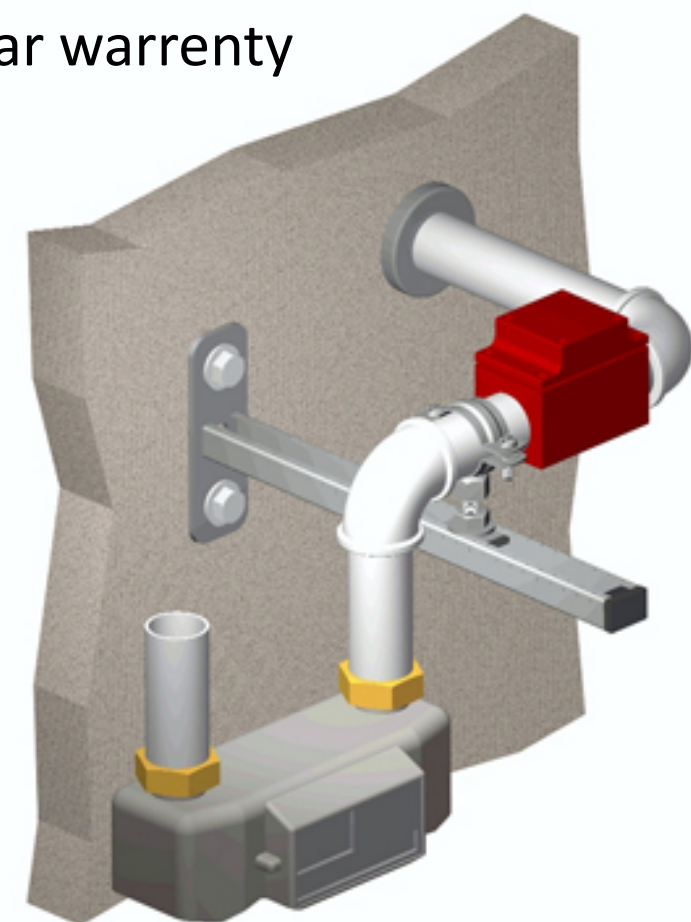
Seismic Automatic Gas Shutoff Valve

Valve Design - The **Northridge 2000** valve is a simple patented design with only one moving internal part. A stainless steel ball rests on a pedestal inside the valve when it is in the ON position allowing gas to flow.

During a seismic disturbance of approximately 5.2 or greater on the Richter scale, the stainless steel ball falls from the pedestal and plugs the outlet passage stopping the flow of gas. The gas can only be turned back ON by manually resetting the valve. The faceplate has a magnet concealed behind it that lifts the stainless steel ball back onto the pedestal when it is slowly rotated one full turn counterclockwise. **Sight Glass ON/OFF Indicator** - The valve is equipped with a clear sight glass to determine whether the valve is on the ON or OFF position. When valve is ON, the internal stainless steel ball can be seen when looking straight down through the clear sight glass. Your eye should be approximately ten inches (10") above the sight glass. When the valve has shut OFF, the internal stainless steel ball cannot be seen. The **Northridge 2000** valve should be installed by a qualified installer in accordance with the manufacturing installation instructions. If improperly installed, failure to function as intended or unwarranted interruption of gas service could result. A qualified person should check for gas leaks before and immediately after turning gas ON by resetting valve.



- Certified by the State of California the City of Los Angeles and CSA
- Actuates during an earthquake of 5.2 or greater with no false trips
- Exclusive manual shut-off and reset method (no tools required)
- Available in 3/4", 1", 1-1/4" sizes
- Built-in level for easy installation
- Full instructions on valve
- On/Off sight glass indicator
- Only one internal moving part
- Machined from high strength solid aluminum
- Fully anodized for corrosion protection
- 30-year warranty



Stabilizer bracket must be used when installing the gas shut-off valve. The support transmits shock waves to the seismic gas shut-off valve which shuts off immediately