

# Freeze Protection

These are the items that should be done before a freeze in our area.

**Remember Houston area homes are NOT built for freezing weather.**

## Water items:

- Freezing water will crack, break, or destroy most plumbing pipes and fixtures.
- Drain all outside hoses and disconnect from hose bib or outside spigot.
- Pots of plants will crack if wet dirt is in them.
- Hose bibs need to be covered BUT it is good to keep them dripping, **so drip and then cover.**
- Any outdoor plumbing like outdoor kitchen and such must be drained and BLOWN OUT. Water still in pipes that do not completely drain will break the pipe.
- Indoor plumbing that is not on an external wall does not need to drip. Only plumbing on the outside walls like a bathroom on the north wall side.
- Set Your Faucets to Drip
- If any of your indoor faucets are located on exterior walls that are not adequately insulated, set your faucets to a slow drip whenever temperatures dip below freezing. Make sure both the hot and cold lines are opened slightly. In an abundance of caution, open your cabinets to allow your home's heating system to warm the pipes. Remember to check the drip late before bed. When everybody has their faucets dripping the water pressure can drop and your drip may stop. So just check before bed.
- Most the damage comes from cold air getting into the attic from the soffit openings. How do you cover them? Anything will do, cardboard, tape, plywood. Remember it only needs to be covered for a few days.

**Learn How to Shut Off Your Water at the Meter in case of a pipe burst after a freeze:**

- Know where your water meter is located and keep a meter key or a crescent wrench in a known location in case you need to need to shut off your water at the meter.

## Cars:

- Check antifreeze and if you must add some, you must run the car for 15 mins to circulate the antifreeze. Also turn on the heater to get the antifreeze into the heater core. There is a cheap tool that checks antifreeze.
- The window wash tank: it will freeze and bug wash is not rated below 32 degrees. You might find 0 Degree window wash but if not try adding rubbing alcohol to the wash and 16 oz alcohol to 1 gal. bug wash/window wash.
- You will lose that tank if you don't protect it. Also run the washer a few times to get the alcohol into the pump and the lines. It took 10 washes to get it through the system for me.
- Look in the trunk for water containers that will freeze.

## Around the House:

- Lawn Sprinkler system/Irrigation backflow device. Brass dome thing that is part of the irrigation system. Turn it off, that means the irrigation system, but either wrap the dome or take it apart.

- The bottom of the brass back flow device holds water and does not drain. Remember pipes up to it and down often will have water in them. Insulate them well or they will crack and split. A smart move is to turn off the water to the irrigation system and then run one zone for a minute to get the water out of the riser.
- Power washer you keep covered outside or in the cold garage? Drain the water, it will split that pump to pieces.
- Latex paints? Keep them above 32 degrees or they will be worthless.
- Plants: Move inside if you can, dig up as many as you can, it is better to replant than to re-buy. Cut back and wrap the base of plants you know will be damaged like Hydrangeas. Cover as best you can and remember it is the cold wind and the cold under the blanket from the ground air that is a killer. You want to wrap it around and below the plant so no wind enters.

## Electric Heat:

- People with electric heat start to get the message that maybe one or two of their heat elements are out when the temperature gets below 40 degrees. At 30 degrees they KNOW something is wrong. This is always at 11pm. Must be some law about that. Get it repaired, Most electric heaters can be repaired and do not have to be replaced just because the tech does not want to take the time to get the parts and replace the bad elements. Sell new is fast but costs.

## Disaster - The day after... broken pipes

Different materials are used to pipe homes.

Copper: these are soldered together with copper fittings.

Galvanized: hard iron pipes with a galvanized coating to slow down rusting, notice I said slow down and not stop.

CPVC: plastic pipe that can be used inside a home but pretty rare.

PVC: white plastic that should not be used for water piping, ok for drainpipe.

PEX: a plasticly hose looking pipe. New to the USA, think 15 years in use here.

So, what does a freeze do to these materials?

Copper. This pipe splits at a "cold point" the split will be about 1" and most of the time it is on the bottom of the pipe where it touches cold lumber like in the attic near the soffit opening. Repair? Fast and legal is SharkBite slide connector. On a longer section do SharkBite and a small run of PEX.

Galvanized: This pipe cracks, often at fittings and 90-degree elbows. How to fix? Well hard to do. Look it up on YouTube. Needs pipe cut and new fittings and unions.

REMBER PVC/CPVC CEMENTS DO NOT SET FAST IN COLD WEATER!! YOU MUST HEAT THE JOINT (60 DEGREES AND ABOVE) TO GET IT TO CURE PROPERLY.

CPVC: easy to repair, new CPVC and glue back. Use only CPVC cement.

PVC: Why you got that in the house? Same as above

PEX: PEX does not get damaged from a freeze. If a fitting breaks just - replace it.

## Notes:

- Run Ceiling Fans in Reverse
- Reversing your ceiling fan helps force warm air back down into your living space. There's generally a small switch on the fan to change directions. This is a great way to save on energy during the winter months.
- Inspect Fireplaces Before Using Them
- Depending on how often your fireplace is used, it should be cleaned and inspected every year or two. Ignoring your fireplace could lead to a chimney or house fire due to creosote buildup. Inspections can also reveal any dangerous structural or operational issues with your fireplace.

## Leaving town?

- Be sure to make your own list and run through this checklist. Adjust your thermostat so that your home is kept above freezing and check in with a neighbor to let them know you'll be away.
- Really leaving for a while? turn off the water and "BLOW OUT" the water lines with air. Add antifreeze to the toilets and drains.

You know the sure-fire way to protect the plumbing is to just drain it and blow it out if possible. Keep a 5 gal bucket ½ full by the toilets (yea gross but works) and bottled water for bath room needs (tooth brush) and turn it back on after the freeze. Then tell everyone you made it.

Special thanks to:

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