

7 Things Homeowners Must Check Before the First Freeze

A Bay State Plumbing Homeowner Guide

Ten minutes a check. One weekend. No burst pipes.

By Bay State Plumbing — SAMPLE · Massachusetts

Introduction: The Most Expensive Sound in Winter

It usually starts as a sound — a bang in the wall, water running somewhere it shouldn't — at two in the morning. By the time you find it, a burst pipe can pour hundreds of gallons into your floors, your walls, and everything you store in the basement. Cleanup and repair on a burst pipe commonly runs into the thousands of dollars.

Here's what most homeowners never hear: pipes don't burst because ice is strong. They burst because water trapped between an ice blockage and a closed faucet has nowhere to expand, and the pressure builds until the pipe wall gives up. Stop the ice from forming, and the pressure never builds.

Massachusetts gets the exact weather that does this: hard cold snaps below 20 degrees, older houses with pipes running through exterior walls, unheated basements, and crawl spaces nobody has looked into for years. Our winters are not gentle.

The good news: most freeze damage is preventable, and the prevention is not expensive. It's seven checks. One weekend afternoon. Almost everything on this list is free, and the one thing that costs money — foam pipe insulation — costs less than a pizza.

These are the same checks we walk our own customers through every fall. Do them before the first freeze, and winter becomes a season you watch through the window.

What you'll need: a flashlight, foam pipe insulation, a tube of caulk, a bright tag for your shut-off valve, and about two hours.

Check 1: Find Your Main Shut-Off — and Make Sure It Turns

Time: 10 minutes.

Every home has one valve that stops all the water. Find it before you need it. It usually sits where the water line enters the home — along the front basement wall, near the water meter. In homes without a basement, check near the water heater or in a utility closet.

There are two common types. A ball valve has a lever handle: lever in line with the pipe means open, quarter-turn means closed. A gate valve has a round wheel handle, and it is the one that causes trouble — one that sits untouched for ten years can seize exactly when you need it most.

Turn your main valve all the way off, then open a faucet somewhere in the house and confirm the water stops. Then turn the valve back on. You just did two things: you proved the valve works, and you exercised it, which keeps it working. Tie a bright tag or ribbon on it so anyone in the house can find it in the dark, in a hurry. Then show everyone who lives there where it is.

Why this is check number one: in a burst-pipe emergency, every minute is more gallons on the floor. The family that knows where the shut-off is loses a bucket of water. The family that has to search loses a room.

Check 2: Disconnect the Hoses and Drain the Outside Faucets

Time: 15 minutes.

This is the single most common cause of the springtime burst pipe — the one that froze and reveals itself the first time you water the garden in April. A garden hose left connected traps water inside the faucet and the pipe just inside the wall. That water freezes, the pipe splits inside the wall where nobody can see it, and it leaks every time the faucet runs.

Walk the outside of the house. Disconnect every hose, drain it, and store it in the garage or basement. Then find the shut-off valve for each outdoor faucet — usually on the basement ceiling near where the pipe exits the wall. Close that interior valve. Go back outside, open the faucet, and let the water trapped between the two valves drain out. Leave the outside faucet open.

One warning that surprises people: if your home has frost-free faucets — the long-stem kind designed to shut the water off deep inside the warm wall — they only work if the hose is disconnected. Frost-free or not, the hose comes off. Every year. No exceptions.

Do this check in October, not after the first hard freeze, and the most common winter plumbing emergency in New England leaves your house off its list.

Check 3: Insulate the Pipes You Can See

Time: 30–45 minutes.

Take the flashlight and walk your basement, crawl space, and garage. Look for water pipes that run through unheated space or along exterior walls. In most South Shore homes you will find them: along the foundation, above the sill, feeding the kitchen sink on an outside wall.

Those are the pipes that freeze. The fix is foam tube insulation — pre-slit sleeves that snap over the pipe, sold by pipe size (most home lines are half-inch or three-quarter-inch) at any hardware store for a few dollars a length. Measure your pipe diameter before you go. Cut the sleeves to length, snap them on, and tape the seams. Wrap elbows and tees too — foam elbow covers exist, or wrap them in insulation tape. Add sleeves to the first few feet of pipe coming off your water heater.

Understand what insulation does and doesn't do: it adds no heat. It buys time. In a cold snap, an insulated pipe may take many extra hours to freeze. Combined with the draft-sealing in the next check, that's usually enough.

If a pipe runs somewhere you truly cannot reach, note it on the worksheet at the back of this guide. That's a pipe to watch — and to protect with Check 6.

Check 4: Seal the Drafts That Freeze Pipes

Time: 20 minutes.

Cold still air rarely freezes a pipe inside a wall. Moving cold air does it fast. And in most homes, the pipe that freezes sits within inches of an air leak: a crack in the foundation, a gap at the sill plate where the house framing meets the concrete, a hole drilled for a cable or dryer vent and

never sealed, a basement window that doesn't quite close.

On a windy day, walk the basement with your bare hand near the walls, the sill, and every pipe penetration. Your hand will find leaks your eyes miss. Seal small cracks with caulk. Fill bigger gaps with spray foam. Close the foundation vents and basement windows for the season.

This check is the quiet partner to pipe insulation. Insulation slows heat loss from the pipe; sealing slows the delivery of cold air to it. Together they change the temperature around your pipes by more than either one does alone.

Pay special attention to the wall cavity behind kitchen and bathroom sinks on exterior walls. If those pipes have frozen before, they will freeze again. Seal the leak and the story changes.

Check 5: Set Your Heat Plan Before the Cold Tests It

Time: 10 minutes, plus one phone call.

Pipes freeze in heated homes too — when the heat fails on the coldest night of the year, or when a thermostat gets turned down to save money and turns the wall cavities into a freezer.

Set the rule now, before January argues with you: the thermostat never goes below 55 degrees. Not at night, not on vacation. A burst pipe costs more than a winter of slightly warmer nights. During true cold snaps, hold one steady temperature day and night — big nighttime setbacks make the pipes coldest at the coldest hour.

Book your annual heating tune-up before the season starts, not after the first breakdown wave hits and every tech in the county is booked solid. Change or clean the furnace filter. Know where the emergency shut-off switch for your heating system is — often at the top of the basement stairs, and it gets flipped by accident more often than you'd think; if your heat ever "just stops," check that switch first. If you heat with oil, keep the tank above a quarter full: running dry in a cold snap means no heat until a delivery truck can get to you.

Check 6: Run the Cold-Snap Routine When the Forecast Dives

Time: 2 minutes, whenever the temperature drops hard.

Checks 1 through 5 are done once. This one is a habit, and it only takes two minutes. When the forecast calls for temperatures in the teens or lower — the kind of nights we get every winter here — do three things before bed.

First, let the faucets on exterior walls drip. Not a stream, not a trickle you can hear through the wall — a slow drip, or a stream about the width of a pencil lead. Moving water resists freezing, and an open faucet relieves pressure even if ice starts to form. This is cheap insurance on the coldest nights only; you don't need it all winter.

Second, open the cabinet doors under kitchen and bathroom sinks, especially sinks on exterior walls. The warm air of the room can't reach those pipes. Open doors let the heat do its job. If little kids or pets are in the house, move the cleaning bottles out first.

Third, keep the garage door closed if any pipes run through the garage walls or ceiling, and keep interior doors open so heat circulates to every room — including the spare room nobody uses. A closed vent in an unused room is how a pipe freezes in a house that's technically heated.

Forecast dives, two minutes, three habits. That's the whole routine.

Check 7: Make Your Away Plan — and Know What a Frozen Pipe Looks Like

Time: 15 minutes to set up.

More pipes burst in empty houses than occupied ones, for a simple reason: a small leak in an occupied home gets found in an hour. In an empty home it runs for a week.

If you travel in winter, choose one of two plans. Plan one: shut the water off at the main before you leave, then open the lowest faucet in the house and let the lines drain. No water in the pipes means nothing to freeze and nothing to flood. Plan two: keep the heat at 55 or above, follow Checks 1–6, and have a neighbor, friend, or family member walk through the house every couple of days. Give them the location of your shut-off valve and our number, below.

And if a pipe freezes anyway, know the signs: frost on an exposed pipe, or a faucet that gives you nothing, or only a trickle. Keep the faucet open. Warm the pipe slowly, starting at the faucet and working back toward the frozen section, using a hair dryer, a heating pad, or warm towels. Never use a torch or any open flame — it can start a fire inside the wall and the sudden heat can split the pipe you're trying to save.

If you can't find the frozen section, can't reach it, or a pipe has already burst: shut the main off and call us. That's the order of operations that keeps one problem from becoming two.

My Home's Shut-Off Map

Fill this in with a pen, once. Put it on the fridge next to this guide. When water is coming through the ceiling, nobody should have to think — they should have to read.

What	Where it is in my home	Checked
Main water shut-off		
Water heater shut-off		
Outside faucet shut-off — front		
Outside faucet shut-off — back		
Washing machine valves		
Boiler / heating emergency switch		
Pipes I can't reach (watch list)		
Person with a key to my home		

Walk each valve once while the house is calm. Turn it off. Turn it back on. A valve you have touched is a valve you can find in the dark.

Our number, for the night something goes wrong: **(508) 555-0147**.

When You'd Rather Hand It Off

Every check in this guide is homeowner work. That's the point of it. But if your list has a pipe you can't reach, a valve that won't turn, or a basement you'd rather not crawl through, that's our work — and we're glad to do it.

We're Bay State Plumbing, a local shop. We answer our own phone, we show up when we say we will, and we'd rather help you spend a Saturday preventing a burst pipe than meet you at 2 a.m. because of one.

Bay State Plumbing — SAMPLE · Massachusetts · (508) 555-0147

(The phone number above is a placeholder, and Bay State Plumbing is a sample company. In the real version of this guide, this page carries your shop's name, your phone number, and your words.)

Guide built by The Infinite Creators — this is a sample.