



Lifecycle of Heating and Cooling in Your New Baywest Home

Step One – Construction Process

Nearing the end of framing completion, your Construction Supervisor will schedule your heating contractor to complete the Rough-In Process. Each home is unique and requires a certain amount of time to complete this install stage—on average they will require 3-5 days to install your entire home heating/cooling system (pretty fast, isn't it!?).

Concluding the Rough-In Process is our Construction Supervisor's Quality Control Walkthrough, ensuring that all installed items and locations match our set standards. Simultaneous to our Quality Control Walkthrough is Municipal Inspections. The municipality ensures everything that has been installed in your home meets or exceeds National Building Code requirements.

Upon completion of insulation, our construction team personnel will start your furnace to provide temporary heat for the remainder of the building process. Having consistent heat in the home is essential to the building process. Without good quality dry heat, it can become very difficult to control the construction quality. Examples of processes requiring a consistent and controlled temperature include drywall taping, ceiling texture, wall priming and painting, trim lacquering, carpet installation, and more.

Maintenance of the heating system throughout construction is also imperative. Without proper filter changing intervals, the heating system will not perform to our needs. Your furnace filters will be changed at minimum four times throughout the build process.

Nearing the end of the construction process, our heating contractors will return to complete what is called a Heat Final. They will complete final set-up of the furnace, including control module wiring, smart thermostat installation, HRV setup and vent cover installation. Municipal inspectors will complete one more round of inspections inside your home to ensure all installations meet or exceed National Building Code requirements.

Prior to possession, your furnace and all ductwork will be professionally cleaned. We recommend having this done once a year beyond Possession Day.

Step Two – Customer Experience Process

On Possession Day, our Customer Experience Supervisor will meet with you for an in-depth mechanical orientation. We will explain how to complete regular maintenance on your heating/cooling system.

Maintenance intervals for your heating/cooling system include:

- Your furnace filters should be inspected and replaced as required every 3-6 months, at minimum
- Your HRV filters (2) should be inspected and cleaned every 3-6 months as required. The HRV core should be cleaned at this same interval
- Your humidifier pad should be inspected and/or replaced every 3-6 months as required
- Your furnace should have yearly maintenance and cleaning performed by a professional contractor

The physical process of the maintenance procedures have been outlined below:

Changing Your Furnace Filter

- Turn the furnace power switch off
- Remove the cover over the filter
- Remove filter from the cabinet housing
- Place the new filter into the cabinet housing with the directional arrow pointing towards the furnace control boards
- Write the date on the filter as a helpful reminder, and place the cover panel over the new filter, gently pressing into place
- Turn the furnace power switch back on

Changing Your Humidifier Filter

- Turn the furnace power switch off
- Remove the cover over the filter
- Remove the filter from the housing
- Remove the black plastic cap on the top of the filter
- Slide the filter out of the remaining plastic holder
- Insert the new filter into the plastic holder and replace the top plastic cap
- Reinstall the filter into the furnace with the “Front” logo facing outward at the top
- Reinstall the filter cover, and set the dial accordingly—“Summer setting” if your thermostat is set to heat and cool, “Winter setting” if your thermostat is set to heat only
- Turn the furnace power switch back on

Cleaning Your HRV (Heat Recovery Ventilator) Unit

- Open the two clasps on the top side of the cabinet, and open the door
- Remove the two green fabric filters, wash them in cold water and allow to dry fully
- Pull the center core filter ½ to ¾ out of the cabinet, vacuum the filter’s four sides using the horsehair brush on your vacuum
- Vacuum out dirt and debris from the cabinet
- Slowly pour 1L of warm water into the cabinet at each drain hole—this will rinse out the condensate drains
- Push the center core filter back into place and reinsert the two washable filters
- Close the cabinet front door and resecure the two clasps
- Check your intake and exhaust hoods outside, ensuring they’re not obstructed with leaves, snow, etc.

Included below is a general guideline about how to set-up your indoor humidity level and HRV settings, based on outdoor temperatures.

| If the outdoor temperature is: (Celsius) | Thermostat indoor humidity should be maintained: | HRV humidity percentage should be: |
|---|---|---|
| Above 30° | 45% Maximum | 60% |
| Between 20-29° | 40% | 50% |
| Between 10-19° | 35% | 50% |
| Between 0-9° | 30% | 40% |
| -1° or cooler | 25% Minimum | 40% |

Combatting humidity and “crying” windows in cold winter months can be challenging. The first step in achieving dry windows is to follow the humidity guidelines above. There are many other factors which will help to keep excess humidity off your windows, but first, it’s essential to consider why your windows are “crying”.

If the relative humidity is too high in your home during the cold winter days, the warm humid air that meets the cold window surface will form condensation/ice on your windows due to lowered dew point temperatures. Dew point is the point at which water vapor in the air turns to a liquid. To reduce this problem, you need to decrease the amount of moisture in the air inside your home. Steps to achieve this are:

- 1. Assess moisture** – first things first, wipe any excess moisture off your sill as it can easily damage the casings around your window.
- 2. Furnace fan** – always leave your furnace fan running 24/7. This is a low power setting that will continuously move air throughout the home, helping to regulate room temperature, and in cooler months, helping to keep your windows dry.
- 3. Window blinds** – raise your window blinds up at least 10 inches to help air move around the surface of the glass. This will increase the dew point temperature, reducing the amount of condensation that forms.
- 4. HRV** – ensure that your HRV control is powered on and set the fan speed to High. This will circulate more air throughout the home, helping to regulate room temperature, and in cooler months, helping to keep your windows dry.
- 5. Kitchen hood fan** – ensure you run your hood fan during cooking, this will vent any excess moisture being added to the home.
- 6. Bath fans** – ensure you run your bath fans during your showers and at least 60 minutes afterwards to vent the excess moisture being added to the home.
- 7. Attic** – check your attic to ensure all of the bath/dryer/hoodfan ducting is connected. High humidity in your home can also lead to “Attic Rain” which can result in ceiling stains.

It is very important to note that the humidity levels described below are meant for temporary relief only. Maintaining these levels for longer than a couple of days can cause damage to your flooring, baseboards, casings, railings, cabinets and any other woodwork in the home.

If you have followed all of the above steps and are still battling with extreme condensation on your windows, you can also use your HRV to help dehumidify your home. Here's what you need to do to achieve this:

1. **Set your NEST thermostat humidity to 15%**
2. **Set your HRV humidity to 20%**
3. **Set your HRV fan to High**

With these settings, your HRV will now begin to bring your humidity levels down to the desired 20%. If you do not set the NEST humidity lower than the HRV, your furnace is going to try to add humidity to the home, while your HRV is going to be trying to dehumidify - and your efforts will not succeed.

In very cold temperatures, everyone loves to be in their toasty, warm home - however a great alternative to the extreme settings outlined above is to simply open all of your windows and doors for a few minutes. This will allow your warm humid air to rush outside and be replaced with the very dry cold air from outside. Short term pain for long term gain!

For video demonstrations on all of the maintenance procedures listed above, please visit our website: www.baywesthomes.com/baywest-difference/service-warranty/ or scan the QR codes below.

Furnace
Maintenance



Humidifier
Maintenance



HRV
Maintenance

