

HEAT RECOVERY VENTILATION SYSTEM (HRV)

This house is equipped with an HRV. The HRV serves as an important part in maintaining air quality, balancing air pressure and promoting heat conservation in this house. It is critical that you understand the purpose of the HRV and that you know how to use and maintain the entire system. The HRV is connected to the furnace and works in conjunction with the furnace through a series of ducts and vents. Essentially, the HRV extracts warm air from the house and this air heats up the main cell of the HRV before the stale air is expelled to the outside. Cold exterior air is then drawn into the house through the HRV. The cold fresh air passes through the main cell and is pre-warmed before it gets to the furnace. At the same time, excess moisture is extracted and drained out at the bottom of the HRV. There are numerous filters and grates that must be cleaned on a regular basis in order to maintain the balanced nature of the system. If the filters and grates are not maintained, you will notice a significant increase in heating and hydro costs. There are metering connections on the heat ducts which are not to be touched. Additionally, the heat diverters, or dampers in the ducts are pre-set, and are not to be touched. Any adjustment to the dampers will upset the system and will cause significant damage to the house and the HRV. An unbalanced HRV will result in significant increases in heating and hydro costs.

HRV's are generally designed to be used only during the heating season. However, in some cases it is better to use the HRV all year. This depends on the amount of humidity in your home and the number of windows that you do or do not have open in the summer months. The best advice is to monitor the humidity in your house and use the HRV to keep the humidity at an acceptable level.

In extremely cold weather, tenants are encouraged to check the HRV for frost inside the HRV. If frost is present, the HRV should be shut off to allow the unit to defrost. However, the HRV is not to be left unplugged for any extended period. You **MUST** restart the HRV within eight to ten hours, or when the frost is gone. The presence of frost could also indicate that the unit is not operating properly and that service is required. Tenants are encouraged to monitor the HRV during very cold weather. Please contact our office if you require further information, or if you feel that your HRV is not working properly.

Exterior Grates

We have found that most tenants do not remember to clean the grate at the fresh air intake at the **OUTSIDE** of the house. This grate will fill up with grass and other debris very quickly. This grate **MUST** be cleaned on a monthly basis. It is also critical that you do not store lawnmowers, gas cans or any other item near the fresh air intake. These items give off fumes that will be drawn into the HRV and could destroy the main cell of the HRV. Replacement main cells exceed \$300.00.

Interior Grates

The main cell and filters inside the HRV must be cleaned MONTHLY ! The timing will depend on the number of people in your family, whether you are smokers, and the number of pets that are in the house. Remember that all of the air in this house goes through the HRV filters, and the filters will trap dust, hair, smoke etc. A properly working HRV will change all of the air in the house every two to eight hours.

To clean the main cell and filters, shut off the HRV and open the HRV door. There are two mesh screens that slide out. Rinse these screens in the laundry tub. Heavily soiled screens should be soaked in a warm liquid soap solution and then rinsed.

DO NOT SCRUB THE FILTERS. Rinse, shake and reinstall. The main cell is to be cleaned in a similar method. The main cell simply slides out. Be sure to get all of the guides back into the rails. Make sure that the “UP” sticker on the main cell is indeed in the up position.

Inspect the interior of the HRV and remove any debris. It is a good idea to vacuum the interior of the HRV to remove the dust and debris that collects throughout the inside of the HRV. Don't forget to clean the inside of the HRV door. This will help to keep the seals clean and allow the HRV to continue to operate properly. Check the drain lines at the “T” at the bottom of the HRV. The drain line must be kept clear of obstructions.

Wall vents and grates

You will find grates throughout the house. There are supply and exhaust grates. Some of the grates will have mesh filters. These filters must be cleaned monthly. It is also a good idea to clean the grate covers at the same time.

Furnace Filters

The furnace filter MUST be changed every month during the heating season. It is a good idea to date the filter so you will know exactly how long the filter has been in the furnace. Make sure that you have the arrow on the filter pointing in the right direction. If you put the filter in upside down, you will starve the furnace and increase your heating costs.

HRV Controls

In most cases, HRV control panels are located on the main floor. It is important that you know where all the controls are located and that you fully understand how to set the controls. If you should improperly set the controls, you will, in effect, make the HRV work harder or not to its intended efficiency. This will also increase your heating and hydro costs. Additionally you run the risk of burning out the HRV motor. Replacement motors cost around \$500.00.

The intent of the HRV is to circulate all of the air in the house, extract excess moisture, and mix fresh air with pre-heated filtered air. The normal setting at the HRV control pad is 40 to 45. Should you notice excessive moisture on the windows, the humidity level in the house is too high. Turn the control pad knob DOWN to say 30 to 35. If the moisture does not go away, turn the control knob down to say, 25. Once the moisture has been removed, return the control knob to 35 to 40. Should you notice that you have dry throats in the mornings, the house is too dry. At this point you would turn the control knob UP to ABOUT 45. You will have to experiment and adjust the controls and humidity levels in order to find a balance that suits your family.

Your home may also have timer controls in the bathroom, kitchen and basement. These controls are to be used to remove moisture from showering, laundry etc. Timers can normally be set from one to thirty minutes.

It is imperative that you understand the HRV system and that the system be properly maintained. If you do not understand the system and you require further instructions on the use and maintenance of the HRV and the furnace please contact our office immediately. We will be more than happy to provide further information and instructions.

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