

## Maintaining Your Heat Recovery Ventilator (HRV)

Your heat recovery ventilator (HRV) can help make your house a clean, healthy living environment, while keeping fuel bills down. But your HRV can't do all this without your help.

It only takes seven simple steps to keep your HRV happy . . .

### THE SEVEN STEPS TO A HAPPY HRV

#### Step 1: Turn off your HRV

First, turn off your HRV and unplug it.

#### Step 2: Clean or replace air filters

Dirty or clogged filters can lower ventilation efficiency. Try to clean your filters at least every two months. Filters in most new HRVs can be easily removed, cleaned with a vacuum cleaner, then washed with mild soap and water before being replaced. Older units have replaceable filters. If your HRV is easily accessible, this is a five-minute job.

#### Step 3: Check outdoor intake and exhaust hoods

Remove leaves, waste paper or other obstructions that may be blocking the outside vents of your HRV. Without this vital airflow, your HRV won't function properly. During winter, clear any snow or frost buildup blocking outside vents.

#### Step 4: Inspect the condensate drain

Check to see if your HRV has a condensate drain—a pipe or plastic tube coming out of the bottom. If it does, slowly pour about two litres of warm, clean water in each drain pan inside the HRV to make sure it is flowing freely. If there's a backup, clean the drain.

#### Step 5: Clean the heat exchange core

Check your HRV owner's manual for instructions on cleaning the heat exchange core. Vacuuming the core and washing it with soap and water will reduce dust that can build up inside the core.

#### Step 6: Clean grilles and inspect the ductwork

Once a year, check the ductwork leading to and from your HRV. Remove and inspect the grilles covering the duct ends, then vacuum inside the ducts. If a more thorough cleaning is required, call your service technician.

#### Step 7: Service the fans

Remove the dirt that has been accumulated on the blades by gently brushing them. Most new HRVs are designed to run continuously without lubrication, but older models require a few drops of proper motor lubricating oil in a designated oil intake. Check your manual for complete instructions.

Check out our easy maintenance program on page 3.

Your HRV should be serviced annually. If you are not comfortable doing it yourself, contact a technician accredited by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI). Make sure the technician you call has been trained by the manufacturer of your HRV.

### CHECK YOUR HRV BALANCE: THE GARBAGE BAG TEST

HRVs need to be balanced, with the fresh air flow matching the exhaust flow. If you do not know if your HRV was balanced when installed or if you have changed or added HRV ducts, you may want to check the balance with the following simple procedure. This test will take about 10 minutes.

Use a large plastic bag, typically 1.2 m (48 in.) long. Untwist a wire coat hanger. Tape the wire to the mouth of the bag to keep it open. You now have a garbage bag air flow tester. Go outside to where your HRV ducts exit the foundation.

#### Step 1

Crush the bag flat and hold the opening tightly over the exhaust hood. The air flowing out of the hood will inflate the bag. Time the inflation. If the bag inflates in eight seconds or more, go to Step 2. If the bag inflates in less than eight seconds, turn your HRV to a lower speed, and repeat the test. Then go to Step 2.

#### Step 2

Swing the bag to inflate it and hold the opening against the wall around the HRV supply hood. The air going into the HRV will now deflate the bag. Time the deflation.

If your HRV is balanced, air going into the HRV will balance the air coming out of the HRV.

The inflation and deflation times should be roughly equal. If you find that the bag inflates twice as fast as it deflates, for instance, your HRV is unbalanced. If you can't see a problem with the filters that would cause such an imbalance, you should call a service person to test and adjust your HRV.

Please don't ignore your HRV! Just a little bit of your time is all it takes to keep it running smoothly.

The easy maintenance program on the next page can be taped directly onto your HRV. Simply check off each box as you complete the indicated task.

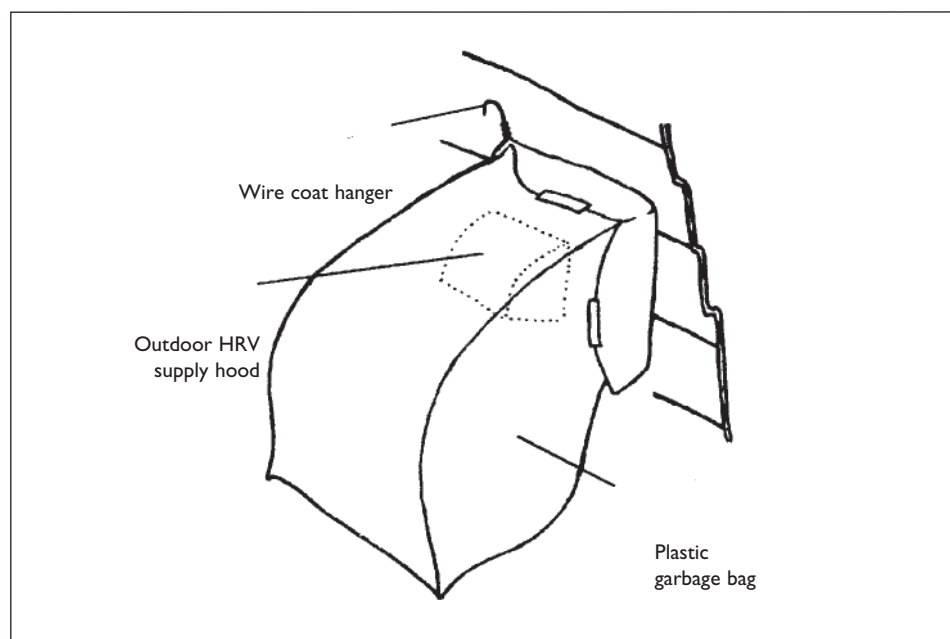


Figure 1 Test your HRV balance with an inflated bag

### EASY MAINTENANCE PROGRAM

To start your easy maintenance program, simply disconnect the electrical power source, then open up the front panel.

#### April or May (■)

- Turn the dehumidistat (the adjustable control on many HRVs that activates the HRV according to relative humidity) to the HIGH setting or to OFF.

#### September or October (○)

- Clean core and check fans
- Check condensate drain
- Check grilles and ducts in house
- Reset dehumidistat (40–80 per cent)

Table 1 HRV maintenance checklist

Year:			Year:			Year:					
	Clean filter	Clean hood screen	Other		Clean filter	Clean hood screen	Other		Clean filter	Clean hood screen	Other
January				January				January			
March				March				March			
May			■	May			■	May			■
July				July				July			
September			○	September			○	September			○
November				November				November			

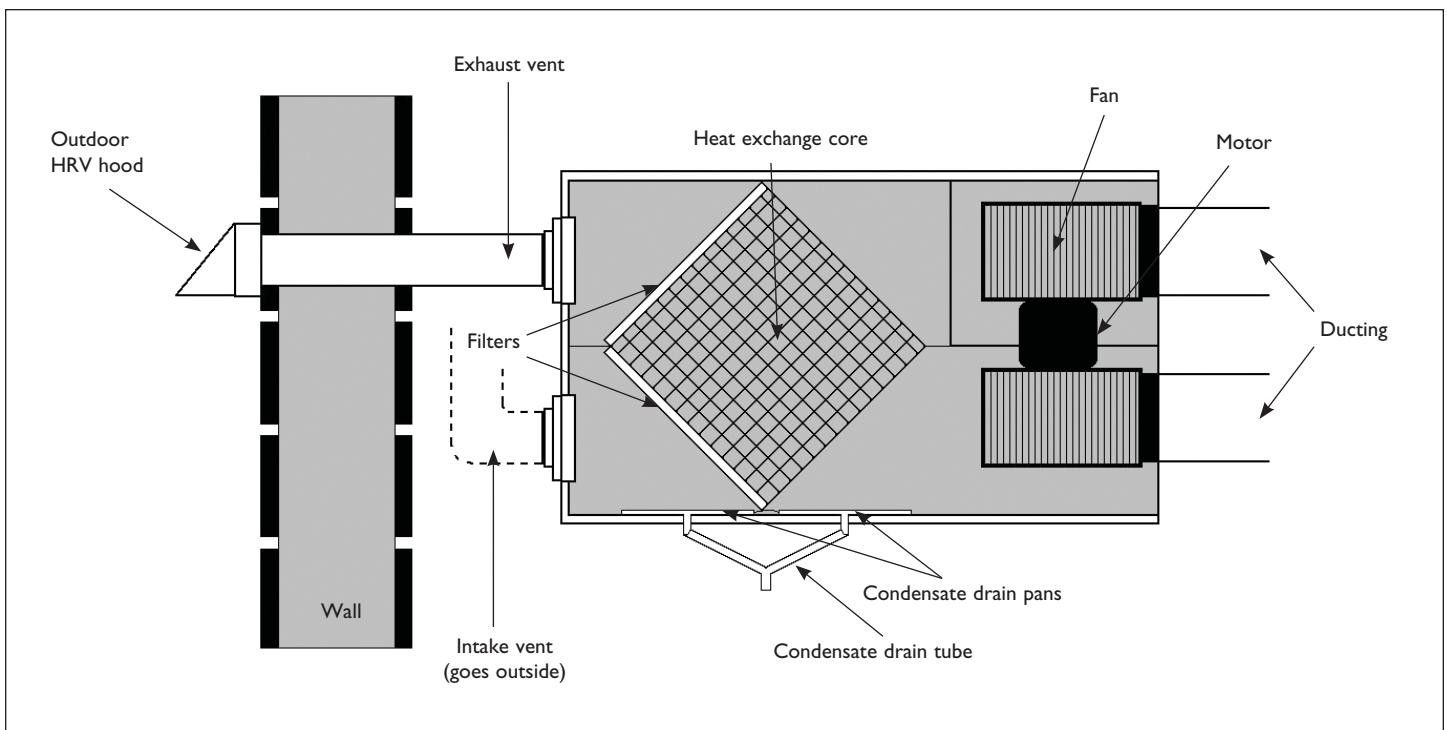


Figure 2 Get to know your HRV—this is what a basic HRV looks like from the inside

## About Your House

Maintaining Your Heat Recovery Ventilator (HRV)

### ADDITIONAL RESOURCES

For more information about HRVs, contact Natural Resources Canada at 1-800-387-2000 or visit the Office of Energy Efficiency's website at [www.oeenrcan.gc.ca](http://www.oeenrcan.gc.ca).

### Websites

**EnerGuide: Heat Recovery Ventilator** (March 2010)  
<http://oeenrcan-rncan.gc.ca/Publications/infosource/Pub/hrv/index.cfm?attr=8>

**How a Heat Recovery Ventilator Works** (March 2010)  
<http://oeenrcan-rncan.gc.ca/residential/personal/new-homes/r-2000/standard/how-hrv-works.cfm?attr=8>

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#### **Priced Publications**

<i>Clean Air Guide: How to Identify and Correct Indoor Air Problems in Your Home</i>	Order No. 61082
<b>About Your House</b> fact sheets	
<i>Assessing the Comfort and Safety of Your Home's Mechanical Systems</i>	Order No. 62266
<i>Before You Start an Energy-Efficient Retrofit—Mechanical Systems</i>	Order No. 62262
<i>CMHC Garbage Bag Airflow Test</i>	Order No. 62288
<i>How to Get the Ventilation That You Need in Your House</i>	Order No. 66348
<i>Should You Get Your Heating Ducts Cleaned?</i>	Order No. 62044

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