

# **User Guide**

# HEAT RECOVERY VENTILATORS HRV 60H AND ENERGY RECOVERY VENTILATORS **ERV 60H**

Model no.: 41602 (HRV with ports on top)



VB0072

Model no.: 41600 (HRV with ports on sides)



Model no.: 41604

(ERV with ports on sides)

Model no.: 41606 (ERV with ports on top)





PLEASE READ AND SAVE THESE INSTRUCTIONS.





These products earned the ENERGY STAR® by meeting strict energy efficiency guidelines set by Natural Resources Canada and the US EPA. They meet **ENERGY STAR requirements** only when used in Canada.

#### Congratulations!

You have made an excellent choice! The operating principle of your Heat Recovery Ventilator or Energy Recovery Ventilator will give you personal comfort you have never known before.

We have prepared this User Guide especially for you. Please read it carefully to ensure you obtain full benefit from your unit. Over the coming months, you will increasingly appreciate the feeling of living in a more comfortable house.

Please take note that this manual uses the following symbols to emphasize particular information:

#### **⚠ WARNING**

Identifies an instruction which, if not followed, might cause serious personal injuries including possibility of death.

#### **CAUTION**

Denotes an instruction which, if not followed, may severely damage the unit and/or its components.

NOTE: Indicates supplementary information needed to fully complete an instruction.

We welcome any suggestions you may have concerning this guide and/or the unit, and we would appreciate hearing your comments on ways to better serve you. Please forward all correspondence to us at the address indicated on the product registration card included with this guide.

### **CAUTION**

Make sure at all times that the outside hood is free from any snow during the winter season. It is important to check your unit during a big snow storm, so it doesn't draw in any snow. If this is the case, please operate the unit in the recirculation mode (if available), or turn it OFF for a few hours. Do not use your HRV or ERV during construction or renovation of your house or when sanding drywall. This type of dust may damage your system. Since the electronic control system of the unit is incorporated with a microprocessor, it may not operate correctly because of external noise or very short power failure. If this happens, unplug the unit and wait approximately 10 seconds. Then, plug the unit in again.

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# 1. Defrosting Mode

When the outside temperature is below -5°C (23°F), recovery (of heat or energy) creates frost in the core.

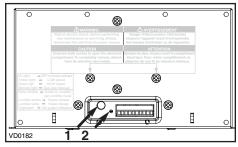
To maintain its proper operation, the unit is programmed to defrost the recovery core. The defrost frequency varies according to the outside temperature.

During the defrost cycle, the unit shifts to maximum speed and the dampers close. After defrosting, the unit returns to the operating mode selected by the user.

## 2. Controls

## 2.1 Integrated Control

All units are equipped with an integrated control, located under the unit, in front of the electrical compartment. Use the push button (1) to control the unit. The LED (2) will then shows on which mode the unit is in.



Refer to table below to see how to operate the unit using its integrated control.

PRESS ON PUSH BUTTON	LED Color	Results
Once	Amber	Unit is on Low Speed
Twice	Green	Unit is on High Speed
THREE TIMES	No Light	Unit is OFF

If a problem occurs during the unit operation, its integrated control LED (2) will blink. The color of the blinking light depends on the type of error detected. Refer to *Section 4 Troubleshooting* on last page for further details.

#### **BOOT SEQUENCE**

The unit boot sequence is similar to a personal computer boot sequence. Each times the unit is plugged after being unplugged, or after a power failure, the unit will perform a 30-second booting sequence before starting to operate. During the booting sequence, the integrated control LED will light GREEN or AMBER for 5 seconds, and then will shut off for 2 seconds. After that, the LED will light RED for the rest of the booting sequence. During this RED light phase, the unit is checking and resetting the motorized damper position. Once the motorized damper position completely set, the RED light turns off and the booting sequence is done.

NOTE: No command will be taken until the unit is fully booted.

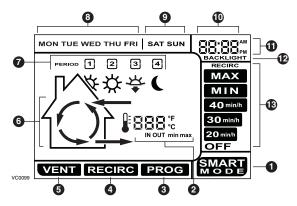
## 2.2 Optional Main Controls

For more convenience, this unit can also be controlled using an optional main wall control. All the following models can be used, but only one of them can be connected to the unit.

- NOTES: 1. The integrated control must be turned OFF to use an optional main control.
  - 2. If an optional auxiliary control is used, if activated, this auxiliary control will override the optional main control.

#### 2.2.1 Platinum Main Wall Control

#### **ON-SCREEN INDICATORS**

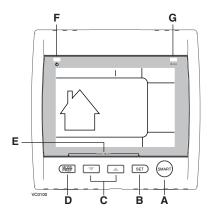


- **SMART Mode.** Entirely automatic mode optimizing the ventilation.
- 2 Temperature Indicators.
- Program Mode. Allows to program the desired ventilation according to the period of the day.
- Recirculation Mode. Manual mode performing air recirculation inside the house.
- **5 Ventilation Mode.** Manual mode performing air exchange with the outside.
- 6 Animated Arrows showing ventilation status (recirculation or air exchange).
- Periods of the day (morning, day, evening and night).
- Week days.
- Week-end days.
- Hour display.
- AM or PM display.
- Appears only when setting backlight preferences.
- Ventilation / Recirculation speeds and programming options.

## 2.2 Optional Main Controls (cont'd)

### 2.2.1 Platinum Main Wall Control (cont'd)

#### CASING INDICATORS AND KEYS



A SMART key:

Enables and disables the SMART mode.

B Set key:

· Press 3 seconds to access setting periods for Program mode.

C Arrow keys:

• Confirms the chosen option and goes to following setting.

Adjust ventilation and recirculation speeds.

Allows to review the program's period.

D Mode / Pref key:

 Adjust Preference and Program values. • Mode: Selects whether Ventilation, Recirculation or

Program mode.

**E** Reset filter keys:

Push 3 seconds to access Preference settings. Pref: Press on **B** and **D** keys simultaneously for 5 seconds to turn off (reset) the filter maintenance indicator.

**F** Power indicator:

Illuminates when the control is operating.

G Filter maintenance indicator:

When lit, shows it is time to perform filters maintenance.

(Refer to Section 3 Maintenance).

## 2.2 Optional Main Controls (cont'd)

#### 2.2.1 Platinum Main Wall Control (cont'd)

The Platinum main control is pre-programmed and ready to go. All you have to do is to set day and time. Then check the settings below and change if needed.

#### SETTING PREFERENCES

Press on MODE / PREF key (D) for 3 seconds.

NOTE: You can exit Preferences setting by pressing on **MODE / PREF** key (**D**) for 3 seconds any time in the process, or wait 60 seconds. The modified values will be kept in memory.

#### WHAT WILL YOU SEE

If the control will be set for the very first time, the current day will be the first setting to be made; **MON** (for Monday) will flash on screen.

If the control was previously set up, when setting preferences, the control returns to the last preference chosen on previous setting. While setting Preferences, the corresponding setting value flashes (e.g.: while setting current hour, hour is flashing).

#### **HOW TO PROCEED**

For every settings in table below:

- Use to select value.
- Press SET key (B) to confirm the selected preference and go to next setting.

SETTING	Available Value	DEFAULT OPTIONS
CURRENT DAY	Mon/tue/Wed/Thu/Fri/Sat/Sun	Мон
HOUR DISPLAY	12:00 <sup>AM</sup> OR 24:00	12:00 AM
CURRENT HOUR	FROM 0 TO 12 OR 24	12
CURRENT MINUTE	froм <b>00</b> то <b>59</b>	00
TEMPERATURE UNIT	°C or °F	°C
Inside temperature display	ON or OFF	ON
MINIMUM OUTSIDE	-40°С то 0°С	-25°C
TEMPERATURE	OR	OR
FOR AIR EXCHANGE*	-40°F то 32°F	-13°F
MAXIMUM OUTSIDE	1°С то 40°С	27°C
TEMPERATURE	OR	OR
FOR AIR EXCHANGE*	33°F то 104°F	81°F
*IN PROG OR SMART MODE, THESE LIMIT VALUES ALLOW TO STOP AIR EXCHANGE WITH THE OUTSIDE.		
BACKLIGHT COLOR	Blue or Green	BLUE
BACKLIGHT DISPLAY	AUTO or ON	AUTO
AUTO: BACKLIGHT ACTIVATED 10 SECONDS WHEN ANY KEY IS PRESSED.		
ON: BACKLIGHT ALWAYS ON.		
OFF MODE FOR	VENTILATION/RECIRCULATION	VENT/RECIRC.
INTERMITTENT MODE	OR VENTILATION/OFF	V LIVI/I IECING.
AFTER A VENTILATION PERIOD, DETERMINES THE SECOND PART OF THE CYCLE		
(RECIRCULATION OR OFF).		

## 2.2 Optional Main Controls (cont'd)

### 2.2.1 Platinum Main Wall Control (cont'd)

Pressing on MODE / PREF key (D) successively allows to go from Ventilation mode to Recirculation mode and then to Program mode (VENT ), RECIRC 4 and PROG on control screen).

- In **Ventilation** Mode, use to change the ventilation speed (displayed in @in all options except **RECIRC**).
- In **Recirculation** mode, use to change the recirculation speed (displayed in **(a)**, OFF, MAX).
- In **Program** mode, use to review the period settings without changing them (the period icons are displayed in ?).

Pressing once on **A** allows to turn the ventilation unit in Smart mode. On this mode, the ventilation unit operation will be driven by the outdoor temperature and by the indoor conditions. Press once more to exit Smart mode.

### SETTING PERIODS FOR PROGRAM MODE

The Program Mode allows the user to customize the operation of his/her ventilation unit, for week and weekend days. All days are divided in 4 periods. The periods starting hour and ventilation speed are factory set (see below).

DAILY PERIODS DEFAULT SETTINGS			
PERIOD	STARTING HOUR	Mode	
PERIOD 1 (MORNING)	6:00 AM	MIN	
PERIOD 2 (DAY)	9:00 AM	20 MIN/H	
Period 3 (Evening)	5:00 РМ	MIN	
PERIOD 4 (NIGHT)	11:00 РМ	20 MIN/H	

#### To change these values:

Press on **SET** key **(B)** for 3 seconds, **PROG** (for program) will appear on screen, and week days will flash.

NOTE: You can exit Periods setting by pressing on **SET** key (**B**) for 3 seconds any time in the process, or wait 60 seconds.

- Use to select between setting week days or weekend days.
- Press SET key (B) to confirm the choice, and go to setting daily Period 1.
   (Period 1 will appear on screen, and hour display will flash.)
- Use \_\_\_\_ to select the period starting hour.

NOTE: Time changes by 15 minutes increments.

- Press SET key (B) to confirm and go to select the ventilation speed or type (will flash on screen).
- Use \_\_\_\_ to select the ventilation speed or type.
- Press SET key (B) to confirm and go to daily Period 2. (Period 2 will appear on screen, and hour display will flash.)
  - Proceed as for Period 1 for all daily periods. Once the ventilation speed or type for daily Period 4 has been selected:
- Press **SET** key (**B**) to confirm.

NOTE: If the week days were the first to be set, the weekend days will appear on screen; but if the weekend days were the first to be set, then the week days will appear on screen.

(Period 1 will appear on screen, and hour display will flash).

• Set periods as described above.

## 2.2 Optional Main Controls (cont'd)

#### 2.2.2 Lite-Touch Bronze Main Wall Control

Activate the push button; the color of the indicator shows the unit operating mode.



Color	Mode	Suggested Use
GREEN	INTERMITTENT	SELECT THIS MODE WHEN YOU ARE AWAY FROM THE
		House for a few days. Also, when you deem the
		INSIDE AIR IS TOO DRY IN HEATING SEASON, OR TOO
		HUMID DURING COOLING SEASON. IN THIS MODE, THE
		UNIT IS OFF FOR 40 MINUTES PER HOUR AND
		VENTILATES AT MINIMUM SPEED THE REMAINING
		20 MINUTES OF THE HOUR.
YELLOW	MIN SPEED	FOR NORMAL DAILY OPERATION.
	VENTILATION	
RED	Max Speed	FOR EXCESS POLLUTANTS AND HUMIDITY
	VENTILATION	(PARTIES, ODORS, SMOKE, ETC.).

## 2.2.3 Simple-Touch Bronze Main Wall Control

Activate the push button; the color of the indicator shows the unit operating mode.



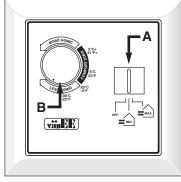
Color	Mode	Suggested Use
GREEN	RECIRCULATION	USE THIS MODE WHEN YOU DEEM THE INSIDE AIR IS TOO
		DRY IN HEATING SEASON, OR TOO HUMID DURING
		COOLING SEASON. IN THIS MODE, THE UNIT STOPS
		EXCHANGING WITH THE OUTSIDE AND RECIRCULATES
		INSIDE AIR AT HIGH SPEED.
YELLOW	MIN SPEED	FOR NORMAL DAILY OPERATION.
	VENTILATION	
RED	Max Speed	FOR EXCESS POLLUTANTS AND HUMIDITY
	VENTILATION	(PARTIES, ODORS, SMOKE, ETC.).

## 2.2 Optional Main Controls (cont'd)

#### 2.2.4 Bronze Main Wall Control

#### ADJUSTING AIR SUPPLY CONTROL

- Select speed «MIN» or «MAX» using slide switch (A).
  - When «MIN» (minimum speed) is selected, if the knob (B) is set above the click, the unit will exchange in low speed with the outside and if it is set below the click, the unit will exchange on high speed with the outside until the desired humidity level has been reached.



VC0039

- When «MAX» (maximum speed) is selected, the unit will exchange on high speed with the outside either if the knob is set below or above the click.
- 2) To turn off the unit, slide the switch at the «OFF» position.

#### ADJUSTING HUMIDITY CONTROL

#### Setting during the summer months:

During this period, unless being afflicted with breathing problems, using the Humidity Control is unnecessary. Set the slide switch to «OFF». (Do not exchange in day time; exchange at night time, if cool outside, or if it is not raining.)

# <u>Setting during the fall, winter and spring months:</u> (When severe condensation appears on windows)

- Determine the humidity level in your house (bring the knob (B) counterclockwise to its maximum position, then bring it back clockwise slowly until you hear a «click»).
- 2) Set the knob to one line under this temperature level or «click».

#### **CAUTION**

Do not select a temperature below -20°C (-4°F). This could lead to excessive dryness in the air causing discomfort for the occupants.

It is possible (and normal) to experience condensation on your windows when drastic changes in temperature happen (for example: -5°C [23°F] to -20°C [-4°F]). In that case, we suggest waiting a few days to allow the situation to stabilize.

## 2.3 Optional Auxiliary Controls

Contrary to the optional main controls, up to 3 optional auxiliary controls can be connected to the same ventilation unit.

#### 2.3.1 20-minute lighted push button

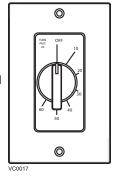
Press once to activate the push button. The unit will operate on high speed for 20 minutes and the indicator will light up. To stop activation before the end of the 20-minute cycle, push one more time. The unit will get back to its previous setting.



VC0040

#### 2.3.2 60-minute crank timer

This control makes the system operate at high speed for periods varying from 10 to 60 minutes.



## 2.3.3 Humidity Control

Adjust knob to the desired maximum indoor humidity level.

### **CAUTION**

Do not select a humidity level below 30%. This could lead to excessive dryness in the air causing discomfort for the occupants.



VC0038

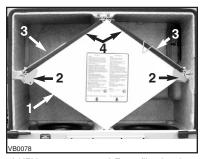
## **MARNING**

Risk of electric shock. Before performing any maintenance or servicing, always disconnect the unit from its power source.

When cleaning the unit, it is recommended to wear safety glasses and gloves.

Since this guide covers both HRV and ERV units, top and side ports, the illustrations shown in the maintenance procedures are typical. The following procedures applies for both HRV and ERV units.

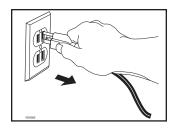
Refer to pictures below to identify the inner parts of your unit.



- 1) HRV core 2) Core retainers
- 3) Foam filter brackets4) Foam core filters
- 3 4 2 2 VB0077
- 1) ERV core 2) Core retainers
- 3) Foam filter brackets4) Foam core filters

### 3.1 Semi-Annual Maintenance

1. Unplug the unit.



## **⚠** WARNING

Be careful before opening the door; water or small debris could fall out. For HRV unit, always wait one minute after disconnecting the unit before opening the door in order to allow water to drain out from the unit.

 Unlatch the door and open it. Clean the inner side of the door with a damp cloth, then wipe with a dry one. Disengage the door from its hinge by sliding it from left to right and set aside.



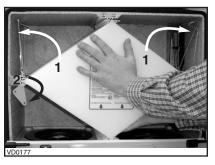
# 3. Maintenance (cont'd)

## 3.1 Semi-Annual Maintenance (cont'd)

## **⚠ WARNING**

Always hold the core when rotating the 2 core retainers; failure to do so will cause the core to fall out.

3. Lift both foam filter brackets (1) and remove the foam filters from the core. While holding the core, rotate the 2 core retainers (2) and slide out the core from the unit.



- Clean the inside walls of the unit with a clean damp cloth, then wipe with a clean dry one.
- 5. Wash the 2 core filters under hot water with mild soap. Rinse thoroughly and let dry completely before reinstalling on the core.
- 6. Remove the dust on the core using a vacuum cleaner and a soft brush attachment.

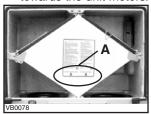
## **⚠** WARNING

Once the core reinstalled in the unit, always rotate both core retainers to their initial position; failure to do so will cause the core to fall out.

7. Slide the core in the unit. Secure the core by rotating both core retainers to their initial position.



NOTE: Once the core reinstalled in the unit, the arrows (A) on its sticker label must be pointing towards the unit motors.



- 8. Reinstall both foam filters and secure them to the core by pulling down the 2 foam filter brackets. Reinstall the door.
- Close the door and plug the unit. NOTE: The unit will return to its previous setting after a 30-second delay for boot sequence.

#### 3.2 Annual Maintenance

Do the same operations as the Semi-Annual Maintenance (Section 3.1). Then, clean the exterior hood(s).

# 4. Troubleshooting

Type of problem	Solution
1. On Platinum wall control, there is no outside temperature displayed on screen ——.	<ul> <li>At its very start-up or after a power failure, it takes some minutes before the outside temperature appears on screen. Set the wall control on MIN or MAX in VENT Mode.</li> <li>If the problem is not solved by the above,</li> </ul>
	contact your installer.
2. On Platinum wall control, error code E1, E3 or E4 appears on screen.	Contact your installer.
3. Nothing works.	<ul><li>See if the unit is plugged in.</li><li>See if the unit is receiving power from the house circuit breaker.</li></ul>
4. Condensation on windows. (Inside air too humid.)	<ul> <li>See Controls Section on pages 4 to 11.</li> <li>Leave curtains half-open to allow air circulation.</li> <li>Store all firewood in a close room with a dehumidifier or in a well ventilated room, or store the wood outside.</li> <li>Do not adjust the thermostat of your heating system below 18°C (64°F).</li> </ul>
5. Inside air too dry.	<ul><li>See Controls Section on page 4 to 11.</li><li>Temporarily use a humidifier.</li></ul>
6. Air too cold at the air	Check if the exterior hood is not blocked.
supply grille.	See Controls Section on page 4 to 11.     Install a duct heater.
7. The LED of the integrated control is blinking red.	a) The door is open and the unit is not unplugged. Close the door and press once on the integrated control push button to reset the unit.
	<b>b)</b> There is a problem with the exhaust motor. The unit is OFF. Contact your installer.
8. The LED of the integrated control is blinking green.	• There is a problem with the thermistor. The unit is still working, but is always in defrost mode. Contact your installer.
9. The LED of the integrated control is blinking amber.	• There is a problem with the motorized damper. The unit is OFF. For a 12-hour period, the unit will try to reset the damper at every 20 to 30 min. After 12 hours, if the problem is not solved, the unit stops trying to reset damper. • Contact your installer.
10. The integrated control	• The 30-second boot sequence is not completed.
push button does not work.	See Integrated Control on page 4.  And all your installar or the page 4.  And all your installar or the page 4.  And all your installar or the page 4.

If the problem is still not solved, call your installer or the nearest approved Service Center. Also, you can reach the Customer Service Department at the following phone number: 1-800-567-3855.