



# USER MANUAL

**OSKHH150R(C)**

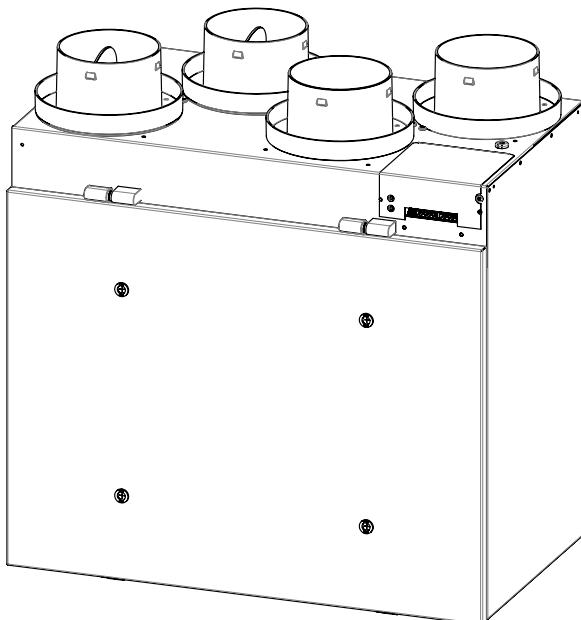
AIR EXCHANGER

HEAT RECOVERY VENTILATOR

**OSKHE130R(C)**

AIR EXCHANGER

ENERGY RECOVERY VENTILATOR



This product earned the ENERGY STAR® by meeting strict energy efficiency guidelines set by Natural Resources Canada and the US EPA. This product meets ENERGY STAR requirements only when used in Canada.

OSKHH150R

OSKHH150RC

OSKHE130R

OSKHE130RC

# READ AND SAVE THESE INSTRUCTIONS

## SAFETY PRECAUTIONS

**WARNING:** TO REDUCE THE RISK OF FIRE,  
ELECTRIC SHOCK, OR INJURY TO PERSONS,  
OBSERVE THE FOLLOWING:

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Unplug the unit before servicing, cleaning, installing or replacing filters.
- Do not operate any fan with a damaged cord or plug. Discard fans or return to an authorized service facility for examination and/or repair.
- Do not run cords under carpeting. Do not cover the cord with throw rugs, runners, or similar coverings. Do not route cords under furniture or appliances. Arrange cord away from traffic areas and where it will not be tripped over.
- Do not damage, pull, twist, bend or place heavy objects on the cord.
- Never handle the electrical cord with wet hands.
- Do not alter the plug in any way.
- Do not use with extension cords.
- Never tug on the electrical cord to unplug the unit from the outlet.
- Do not place fingers or foreign objects into the airflow openings of the unit.
- Operate the unit in a well-ventilated area.
- Do not operate the unit outdoors.
- Do not operate near flammable gases.
- Do not operate the unit in humid or wet places such as a bathroom.
- Do not use chemical sprays near the unit, they will accumulate on the filter and potentially cause harmful fumes.
- Do not operate the unit in an area with high oil content, such as mechanical oil or cooking oil, over time it will deteriorate the filter.
- Make sure all filters are correctly installed before running the unit.
- This is not a toy and is not intended for use by children.

**WARNING:** to reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.

*Congratulations  
on your purchase of an  
Energy Recovery Ventilator.*

*Your new system will improve  
the quality of the air in your home  
for many years to come.*

## **THE QUALITY OF THE AIR IN HOMES TODAY.**

Homes today are built to be as energy efficient as possible. To prevent heat loss, newer homes are more airtight. This reduces the cost to heat a house but in effect, it lowers indoor air quality. Regardless, in any home, new or old, indoor air quality is typically 2 to 5 times more polluted than outdoor air.

The ERV system is specifically designed to bring fresh air while recuperating the heat from the airflow (HRV/ERV) and the energy contained in the moisture of your home (ERV only).

**Note : To install and level the product,  
use the Installation document  
included in the box.**

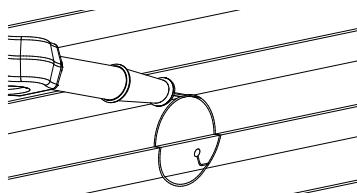
## CONNECTING THE AIR EXCHANGER

Note: Use 5 in. diameter ventilation ducts.

Ducting has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow

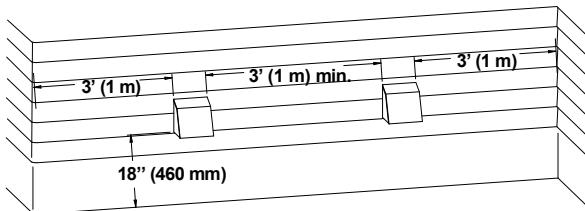
## 1. INSTALLATION AND CONNECTION OF EXTERIOR VENTS:

### 1.1 Cut the two openings between the exterior wall studs:



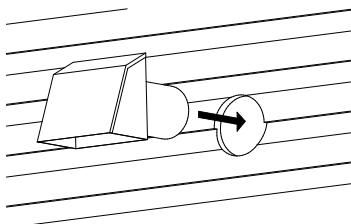
The air inlet vent must be located upstream of the prevailing winds from any other exhaust vent.

Minimum distance of 3 ft. (1 m) from dryer vents and boiler exhaust (medium or high efficiency boilers), inlets, oil fill pipes, gas meters and trash cans.



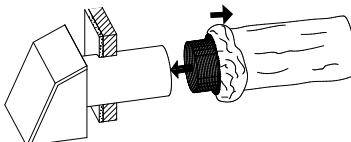
Do not place them in a garage, attic, crawl space or under a terrace.

1.2 Insert the vents into the openings. A vent with a non-return damper must be used for the stale air outlet.

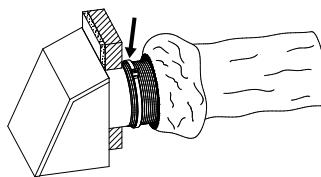


1.3 For each conduit connecting the outside to the inside, use insulated.

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1.4 Securely secure the flexible conduit using a nylon tie-wrap. The pipe should be attached as close to the wall as possible.



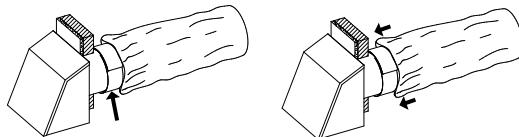
1.5 Pull the insulation over the flexible conduit. Pull the vapor barrier over the insulation:

The insulation must remain intact, not be compressed in any way and not be damaged

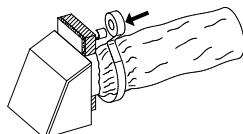
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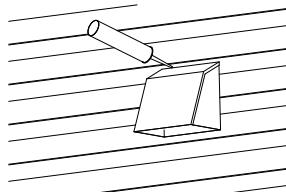
The exterior covering of the insulation, which acts as a vapor barrier, must be sealed to the exterior wall with exterior caulk[ideally soundproof] or ventilation adhesive tape.



**1.6 Gently cover the joint with ventilation adhesive tape until completely sealed.**

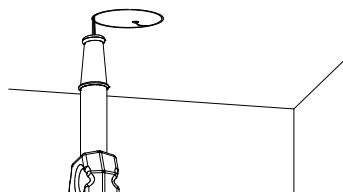


**1.7 Seal the vents using exterior caulk.**



## **2. INSTALLATION OF INTERIOR DIFFUSERS:**

**2.1 Cut openings in the ceiling or at the top of the walls.**



## 2.2 Location of exhaust grilles:

Exhaust stale air from areas where the worst air quality problems occur: the bathroom, kitchen and laundry room.

Additional return air ducts from strategic locations can also be installed.

## 2.3 Location of supply grilles:

Fresh air should be supplied to all habitable rooms from high locations on the wall or ceiling.

### SAFETY PRECAUTIONS



In accordance with building codes and installation requirements for combustion appliances: return air ducts, or openings for return air, must not be located in enclosed areas containing combustion appliances that may leak.

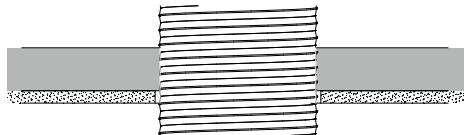
## 2.4 Use non-insulated flexible conduits to connect the indoor fresh air supply as well as the stale air intake from the house:

The conduits must be as short as possible and have as few folds and curvatures as possible.

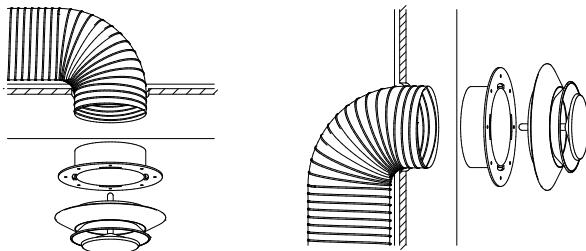
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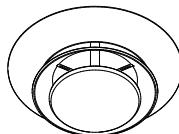
2.5 Pass the flexible ducts through the walls and/or floors to where the diffusers are located.



2.6 Secure the flexible pipe to the diffuser collar using a nylon tie-wrap. Cover the joint with ventilation tape to ensure a tight seal.



2.7 Push the pipe completely back into the structure and attach the collar to the ceiling or wall. Then attach the diffuser to its collar.



### 3. CONNECTING THE PIPES TO THE AIR EXCHANGER:

- 3.1 Use the same techniques as above for connecting insulated and non-insulated pipes to the air exchanger.
- 3.2 Pay attention to the identification of the ports, directly on the air exchanger:

Connection to exterior vents using insulated pipes:

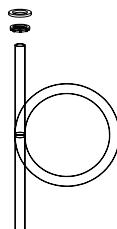
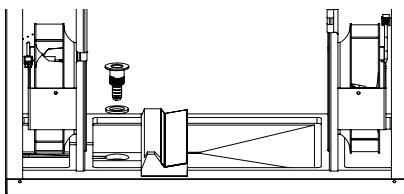
- Fresh air IN: connect to vent with grille
- Stale air OUTLET: connect to vent with non-return valve

Connection to interior diffusers using non-insulated pipes:

- FRESH air out
- STALE air in

### 4. DRAIN CONNECTION (HRV ONLY)

HRV models must be equipped with a drain (provided) to evacuate condensation. Proceed with the installation as shown in the image. Do not forget to create a loop in the hose to prevent odor backflow.



Note: To perform the balancing of the unit, use the Installation document found in the box.

## USE

The HRV/ERV was designed to operate 24 hours a day, 7 days a week in intermittent mode (20 minutes ON - 40 minutes OFF). Typically the system is designed, installed and calibrated by a specialized contractor to be very efficient and quiet.

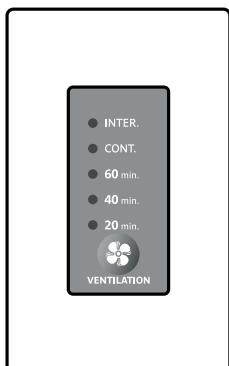
High levels of indoor relative humidity during the heating season can cause water condensation on windows and lesser insulated surfaces. It's essential to control water condensation to prevent health problems related mold growth.

The following table gives the typical maximum indoor relative humidity levels required to prevent condensation at an indoor ambient temperature of 22 °C for a house with average performance windows.

OUTSIDE TEMPERATURE	MAXIMUM TYPICAL INDOOR RELATIVE HUMIDITY
-5 °C	45%
-10 °C	40%
-15 °C	35%
-20 °C	30%
-25 °C	25%
-30 °C	20%

When required you can increase or maintain the air quality by putting the HRV/ERV at high speed. Exemple: Smokers, bad smell, many people visiting you.

## CONTROL-TIMER (SA-LT15))



**INTER.** Intermittent mode, 20 minutes ON in low speed 40 and minutes OFF. It's recommended to leave the machine in this mode except when absent from home for prolonged periods.

**CONT.** CONTINUOUS mode on low speed.

**20-40-60** HIGH SPEED mode for the selected timer value. Depress the "VENTILATION" to select the desired time values.

## MODE CHANGE

To alternate between CONTINUOUS and INTERMITTENT mode you need to press and hold the "VENTILATION" button for **4 seconds**. After a power outage the machine will return into INTERMITTENT mode.

## EXTENDED ABSENCE (MACHINE OFF)

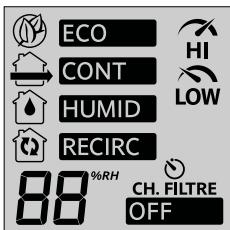
To stop the machine for a long time you must press and hold the "VENTILATION" button for **10 seconds**. In the event of a power failure, the machine returns to EXTENDED ABSENCE mode.

To exit the mode simply press the "VENTILATION" button briefly.

## DIGITAL WALL CONTROL (SA-LCD15)



Economic mode  
Continuous mode  
Humidity mode  
Recirculation mode



Humidity %

High speed  
Low speed  
Change filters  
OFF mode

## OPERATING MODES



ECONOMIC — Intermittent, 20 minutes in LOW speed and 40 minutes OFF. It's recommended to select this mode except during an extended absence from home.



CONTINUOUS — In HIGH speed or Low speed



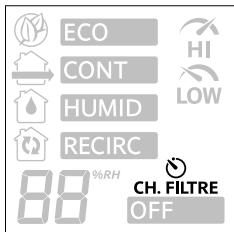
HUMIDITY — Switches to HIGH speed when ambient relative humidity exceeds user-adjustable setpoint



RECIRCULATION — In HIGH speed or LOW speed



OFF — Does not operate until restarted by user.



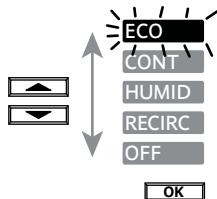
When this indicator light is on, it's time to change the filters.

Scheduled every 6 months

To reset, hold down the OK button for 10 seconds

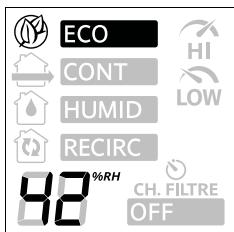
## ECONOMIC MODE

Select the desired mode using the arrows.



By pressing the OK button the current selection will flash.

Press OK to confirm selection



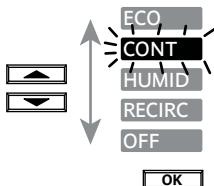
Current mode and humidity %

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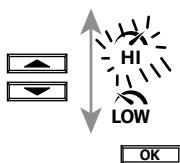
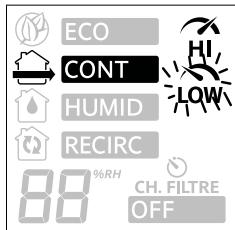
## CONTINUOUS MODE

Select the desired mode using the arrows.



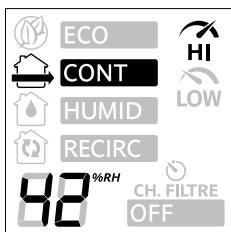
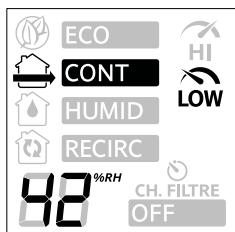
By pressing the OK button  
the current selection will flash.

Press OK to confirm selection



Select speed

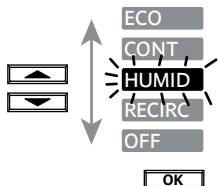
Press OK to  
confirm selection



Current mode,  
speed and humidity %

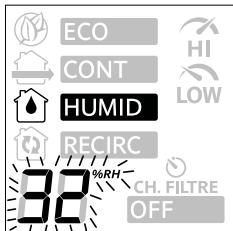
## HUMIDITY MODE

Select the desired mode using the arrows.



By pressing the OK button  
the current selection will flash.

Press OK to confirm selection



Range 20% to 60%



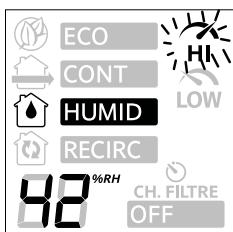
Setpoint + 1%



Setpoint - 1%



Press OK to confirm  
new setpoint



HI mode is flashing when running

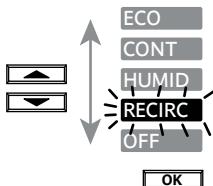
Current mode,  
speed and  
humidity %

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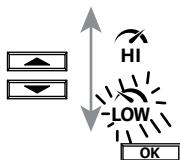
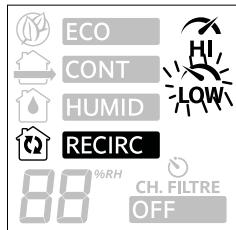
## MODE CONTINU

Select the desired mode using the arrows.



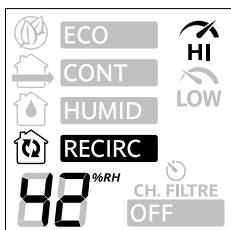
By pressing the OK button  
the current selection will flash.

Press OK to confirm selection



Select speed

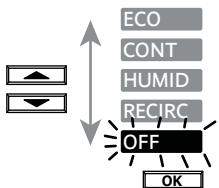
Press OK to  
confirm selection



Current mode,  
speed and humidity %

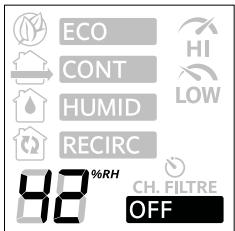
## MODE ARRÊT

Select the desired mode using the arrows.



By pressing the OK button  
the current selection will flash.

Press OK to confirm selection



Current mode and humidity %

## MAINTENANCE SCHEDULE

Your system is equipped with 2 MERV8 filters that protect the heat/energy recovery core. It is recommended to clean these filters every 6 months or replace if needed. It is also very important to keep the recovery core clean. A dirty core would have the effect of decreasing the heat/energy recovery efficiency.

- EVERY 30-60 days:**

Clean the filters or replace if needed.

- EVERY YEAR:**

Clean the heat/energy recovery core.

## FILTER REPLACEMENT/CLEANING

Remove both filters from the device to clean them or replace them with two new filters.



Prior to washing : Vacuum surface area to remove large dust and lint particles.

1. Lay the filter flat and spray it with a cleaning detergent on one side and then the other until the filter is soaked with the detergent. The amount of detergent required will be dependent upon the amount and type of air pollutants held in the filter.
2. Next, lay the filter with the dirtiest side down and flush the detergent from the filter using warm water. Turn the filter over and repeat the same procedure.
3. Perform steps 1 and 2 until the filter is clean.
4. Shake the excess water out of the filter and allow to drip dry to the extent that it can be carried without dripping water.

**IMPORTANT** : Your filter should be cleaned regularly to maintain maximum air flow in the system. DO NOT exceed water temperature of 200°F (93°C), as this may damage the filtering material. DO NOT use oil sprays or any other chemical sprays on the filter as this will dramatically reduce the « static-electric » effect. DO NOT wash in a dishwasher.

## CLEANING OF THE HEAT/ENERGY RECOVERY CORE

1. Remove both filters as mentioned previously.
2. Remove the core from its location.  
It is normal for the core to be difficult to remove.  
Hold the block firmly and pull it towards you.
3. Rinse the core with clean water at room temperature  
(neither cold nor hot).



If the core is greasy, you can soak it for 1 minute at room temperature water containing a very small amount of dish soap. Let the block drip for a few minutes before reinstalling it.

4. Reinstall the exchanger core with the label pointing at the top of the machine.
5. Reinstall the two filters.

## DRAIN INSPECTION (IF APPLICABLE)

Once a year (or as needed), check the drainage system to ensure it is not clogged.



# HRV/ERV - User Manual

## SPECIFICATIONS

Dimensions:	(59,7 cm L x 54,2 cm H x 36,0 cm P)
Air exchange:	up to 152 CFM (models OSKHH150R/C) up to 137 CFM (models OSKHE130R/C)
Motor:	Thermally protected - Class F insulated continuous use tests 50,000 h
Power:	120 volts, 60 Hz, 1.5A (models OSKHH150R / OSKHE130R) 120 volts, 60Hz, 2.5A (models OSKHH150RC/ OSKHE130RC)
Classification:	Residential HVAC CSA / CSAus approved
Control:	(SA-LT15) Control/Timer or (SA-LCD15) Digital Control/Timer

## LIMITED GUARANTEE

The motor inside the Innovair Solutions unit is guaranteed to the original purchaser for the duration of FIVE (5) years from the date of purchase. All other components with the exception of the filters that are guaranteed for ONE (1) year. Innovair Solutions will repair or replace at its choice the component(s) which upon inspection by an authorized Innovair Solutions dealer proves to have failed in normal use due to defects in material or workmanship. Innovair Solutions will at its discretion, replace the unit if necessary. The warranty is void if any attempts have been made by unauthorized personnel to service or modify the unit as well as operating the unit at voltages other than that specified on the unit.

THE CUSTOMER IS RESPONSIBLE FOR ANY DELIVERY CHARGES WHEN SHIPPING THE UNIT TO INNOVAIR SOLUTIONS FOR WARRANTY REPAIRS OR WORK.



Designed and made  
in CANADA

## CUSTOMER SERVICE

 OUELLET	1 800 463-7043	ouellet.com
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