Softaire
by Air Specialities

HRV / ERV INSTALLATION AND OPERATION INSTRUCTIONS

Mini Unit

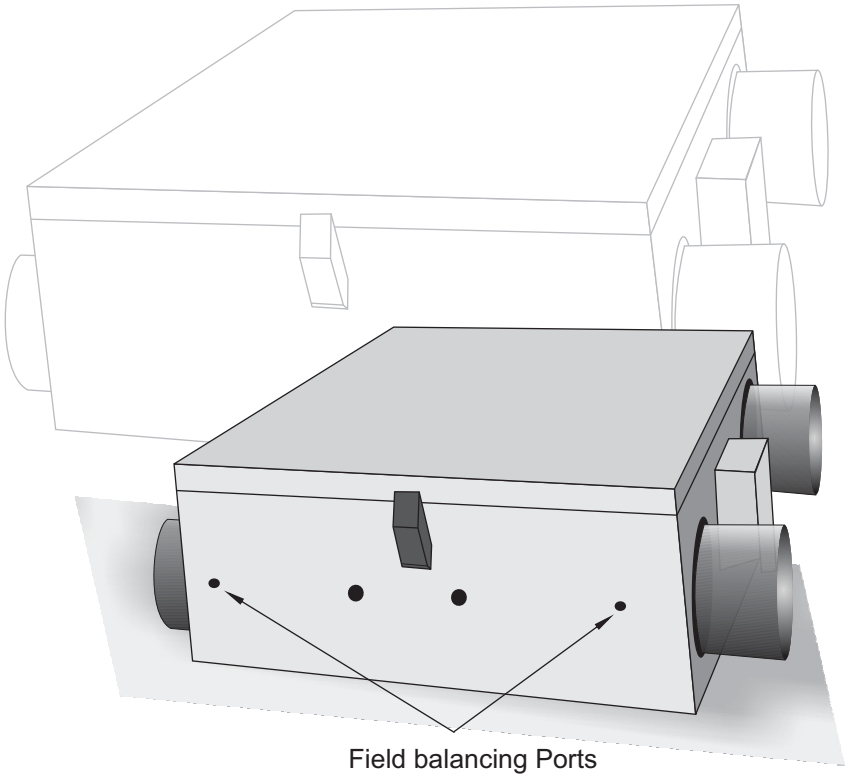
model:

RHRV-80 P
Polypropylene Core

RERV-80
Enthalpy Core

RHRV-110P ES
Polypropylene Core

RHRV-130P ES
Polypropylene Core



Field balancing Ports

Compact Unit

model:

RHRV-C100A
Aluminum Core

RHRV-C100P
Polypropylene Core

RERV-C100
Enthalpy Core

ENERGY STAR

HVI 2100 CERTIFIED

C SA US

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Rev.(3.0)DT, 18/12/04

IMPORTANT SAFETY INSTRUCTIONS
READ AND SAVE THESE INSTRUCTIONS

⚠ WARNING ⚠

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

1. Read all the instructions carefully before installation, operation or maintenance of the unit. Failure to comply with instructions could result in personal injury and/or property damage.
2. Installation of the unit and the corresponding electrical wiring must be done by a qualified person and be in accordance with all municipal and national electrical codes and pertinent industry standards should be verified before installation.
3. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
4. Moving Parts, Disconnect Power supply before opening. ensure that all the nuts and screws are securely fastened before restarting the unit.
5. Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
6. When cutting or drilling into wall or ceiling, make sure that you do not damage electrical wiring and other hidden utilities.
7. To reduce the risk of fire, use only metal ductwork. Do not use any accessories not recommended by the manufacturer.
8. When performing installation, servicing or cleaning these unit, it is suggested to wear safety glasses and gloves.
9. Do not use this unit for commercial purpose.
10. For residential use only. The unit must be grounded.
11. Do not install in a cooking area.
12. This unit is not designed to exhaust combustion and/or dilution air for fuel burning appliances.

⚠ CAUTION ⚠

1. Turn the unit OFF during construction or repair to avoid filter blockage.
2. Exhaust air outside - Do not intake / exhaust air into spaces within walls, crawl spaces, garage, or into attics.
3. Unit has to be installed in accordance to National and Local Building Code.
4. When leaving house for a long period of time (more than two weeks), a responsible person should check if unit operates adequately.

PACKAGING INSPECTION

Open the box and check to make sure all the parts and accessories are present and in good condition. If you find any parts missing or any shipping damage please contact factory or our distributor immediately.

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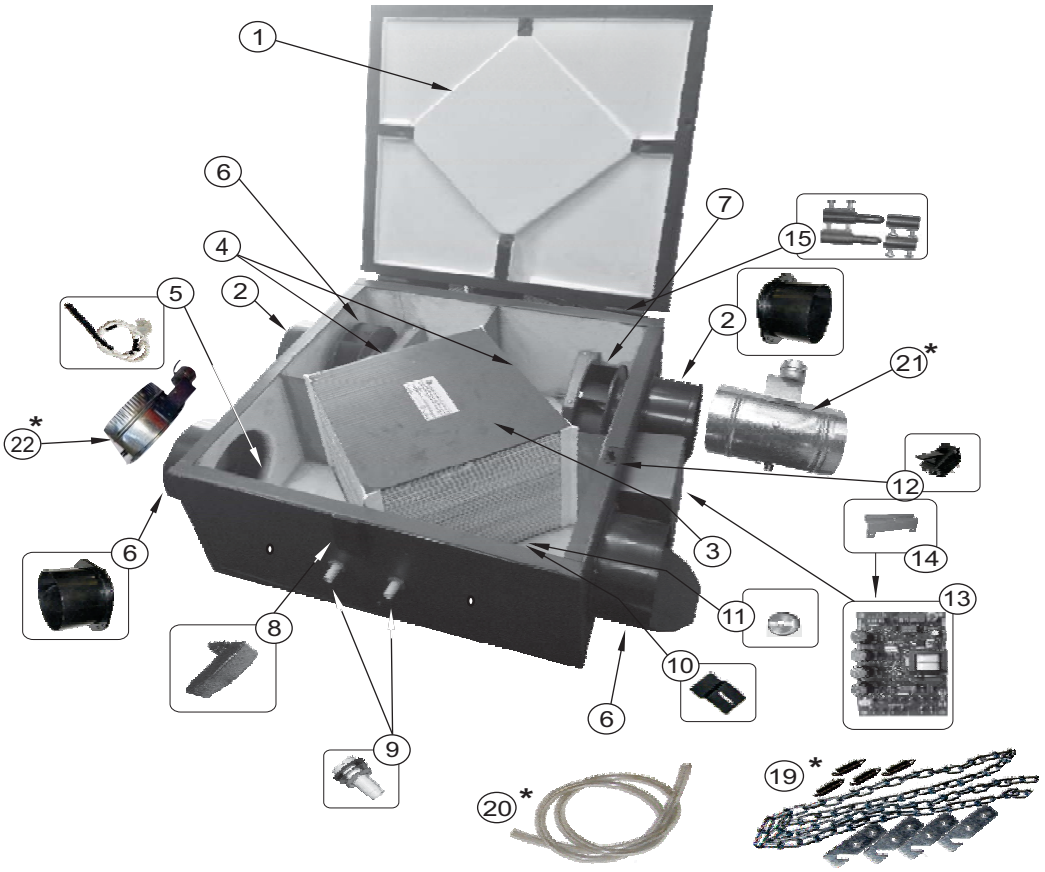
Parts List

Mini

model:

RHRV-80P
Polypropylene Core

RERV-80
Enthalpy Core



***Optional Parts:**

Reference	Description	Part no.	RHRV-80P QTY.	RERV-80 QTY.
1	HRV / ERV - lid, Pan Assembly	9315M	1	1
2	Polypropylene collar 5" Dia.	014043C	2	2
3	Polypropylene Core	9313M	1	n/a
	Enthalpy Core	9314M	n/a	1
4	Filter 6 1/2" x 10" (MERV - 4)	9358M	2	2
5	Temperature Sensor	9326	1	1
6	5" Polypropylene Backdraft Damper	014043	2	2
7	Blower - Supply / Exhaust	9360	2	2
8	Adjustable Door Latch	9319	1	1
9	Drain Spout Assembly	9320	2	2
10	Core Locking Bracket	9321	1	1
11	Core Locking Nut	014016	1	1
12	Safety Switch	9322	1	1
13	Main control Board	9361	1	1
14	Main Control Board Bracket	9355	2	2
15	Door Hinges	9328	1 Set	1 Set
16*	Mounting Brackets	011135	4	4
17*	"T" Connector	9330	1	1
18	Webbing/Brackets/Ladder Locks	9332	2 Sets	2 Sets
19*	Chains/Springs/Brackets	9354	1 Set	1 Set
20*	Drain Pipe	9331	1	1
21*	Motorized damper spring return 120V	9362	1	1
22*	Motorized Damper Spring return Built-in by Factory	9363	1	1

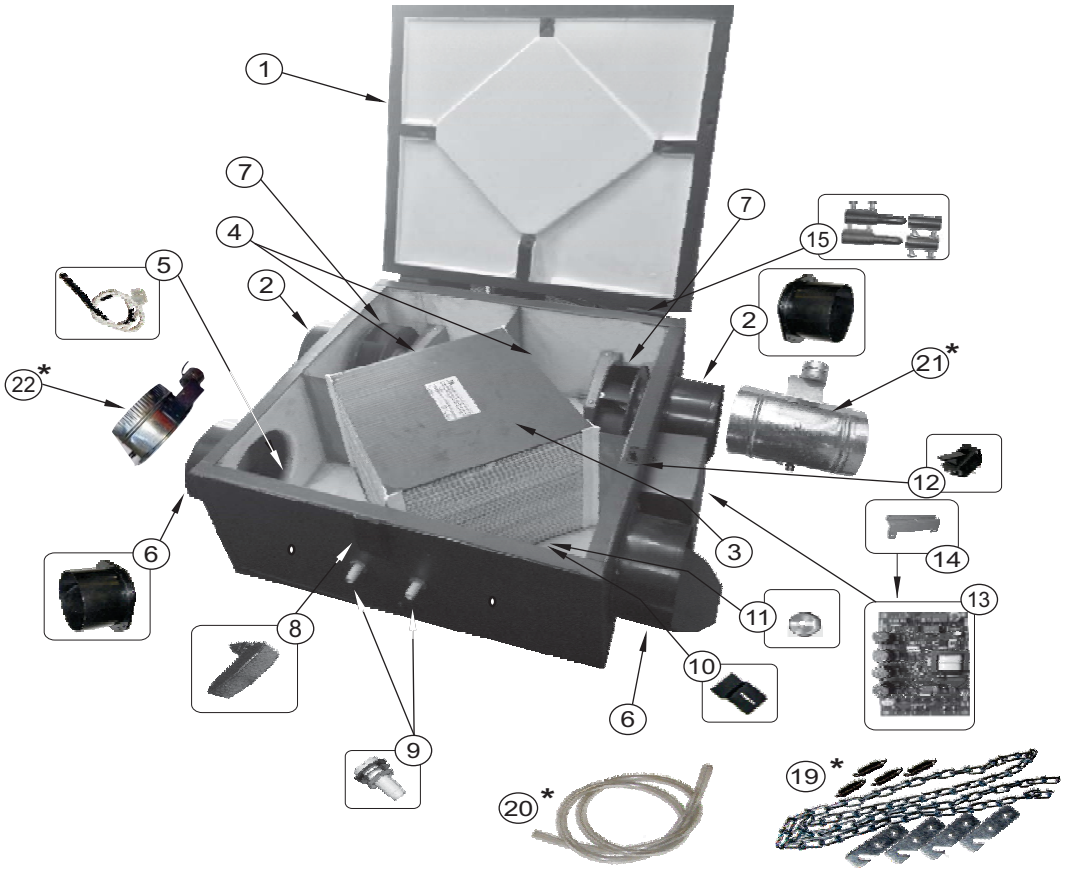
Compact Unit

model:

RHRV-C100A
Aluminum Core

RHRV-C100P
Polypropylene Core

RERV-C100
Enthalpy Core



***Optional Parts:**

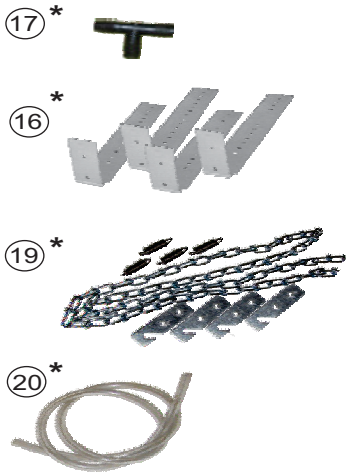
Reference	Description	Part no.	RHRV-C100A	RHRV-C100P	RERV-C100
			QTY.	QTY.	QTY.
1	HRV / ERV - lid, Pan Assembly	9315	1	1	1
2	Polypropylene collar 5" Dia.	014043C	2	2	2
3	Aluminum Core	9312	1	n/a	n/a
	Polypropylene Core	9313	n/a	1	n/a
	Enthalpy Core	9314	n/a	n/a	1
4	Filter 7" x 12" (MERV - 4)	9358	2	2	2
5	Temperature Sensor	9326	1	1	1
6	5" Polypropylene Backdraft Damper	014043	2	2	2
7	Blower - Supply / Exhaust	9360	2	2	2
8	Adjustable Door Latch	9319	1	1	1
9	Drain Spout Assembly	9320	2	2	2
10	Core Locking Bracket	9321	1	1	1
11	Core Locking Nut	014016	1	1	1
12	Safety Switch	9322	1	1	1
13	Main control Board	9361	1	1	1
14	Main Control Board Bracket	9355	2	2	2
15	Door Hinges	9328	1 Set	1 Set	1 Set
16*	Mounting Brackets	011135	4	4	4
17*	“T” Connector	9330	1	1	1
18	Webbing/Brackets/Ladder Locks	9332	2 Sets	2 Sets	2 Sets
19*	Chains/Springs/Brackets	9354	1 Set	1 Set	1 Set
20*	Drain Pipe	9331	1	1	1
21*	Motorized damper spring return 120V	9362	1	1	1
22*	Motorized Damper Spring return Built-in by Factory	9363	1	1	1

model:

RHRV-110P ES
Polypropylene Core

RHRV-130P ES
Polypropylene Core

***Optional Parts:**

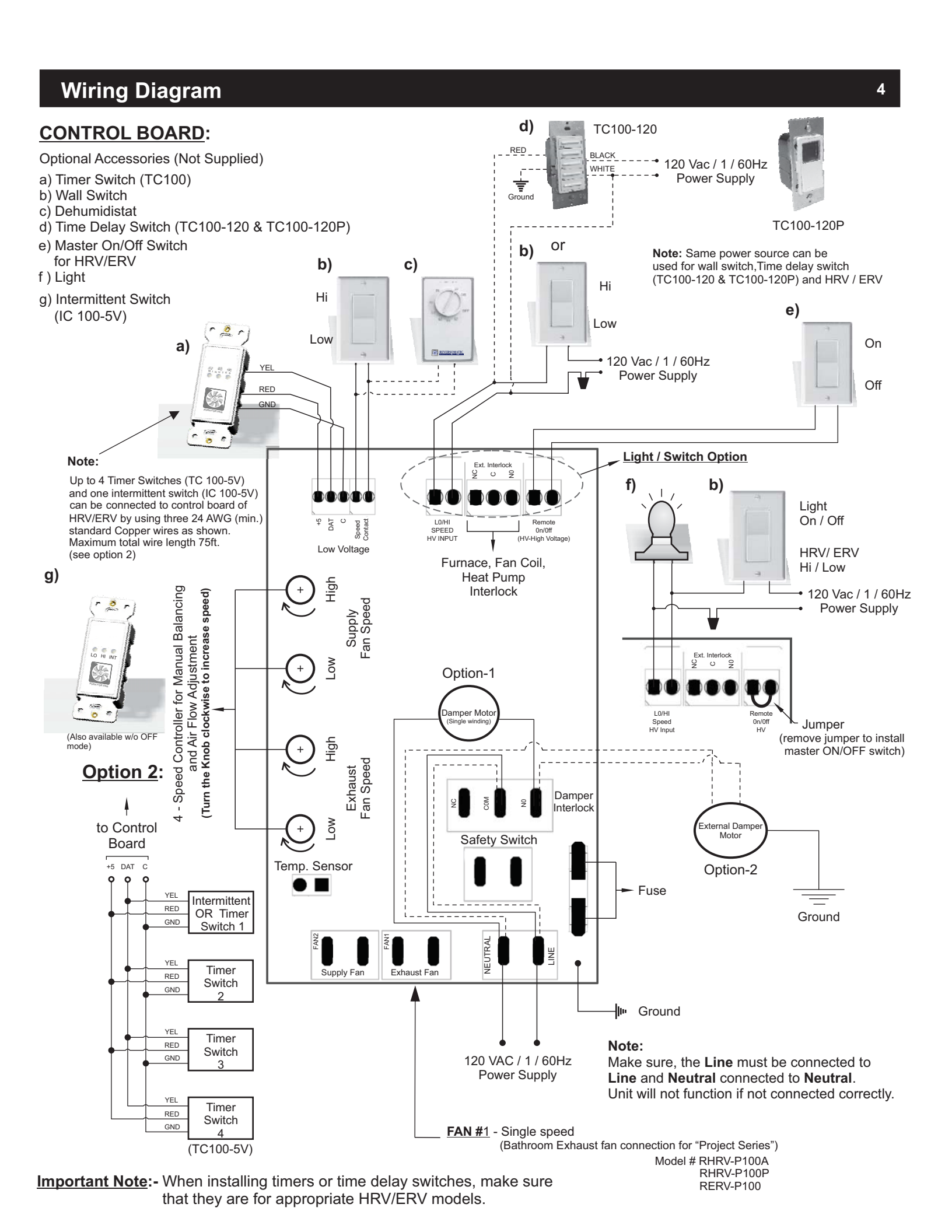


Reference	Description	Part no.	RHRV-110P ES	RHRV-130P ES
			QTY.	QTY.
1	HRV / ERV - lid, Pan Assembly	9315ES	1	1
2	*Polypropylene collar 5" Dia.	014043C	2	2
3	Polypropylene Core (RHRV-130P ES)	9393	-	1
	Polypropylene Core (RHRV-110P ES)	RHRV-110ES CORE	1	-
4	Filter 10 ½" x 12" (MERV - 4) (RHRV-130P ES)	9395	-	2
	Filter 8" x 12" (MERV - 4) (RHRV-110P ES)	9395M	2	-
5	Temperature Sensor	9326	1	1
6	*5" Polypropylene Backdraft Damper	014043	2	2
7	Blower - Supply / Exhaust	9317-ES	2	2
8	Adjustable Door Latch	9319	1	1
9	Drain Spout Assembly	9320	2	2
10	Core Locking Bracket	9321	1	1
11	Core Locking Nut	014016	1	1
12	Safety Switch	9322	1	1
13	Main control Board	9361ES	1	1
14	Main Control Board Bracket	9355	2	2
15	Door Hinges	9328	1 Set	1 Set
16*	Mounting Brackets	011135	4	4
17*	"T" Connector	9330	1	1
18	Webbing/Brackets/Ladder Locks	9332	2 Sets	2 Sets
19*	Chains/Springs/Brackets	9354	1 Set	1 Set
20*	Drain Pipe	9331	1	1
21*	Motorized damper spring return 120V	9362	1	1
22*	Motorized Damper Spring return Built-in by Factory	9363	1	1

CONTROL BOARD:

Optional Accessories (Not Supplied)

a) Timer Switch (TC100)
b) Wall Switch
c) Dehumidistat
d) Time Delay Switch (TC100-120 & TC100-120P)
e) Master On/Off Switch for HRV/ERV
f) Light
g) Intermittent Switch (IC 100-5V)



Model # RHRV-P100A
RHRV-P100P
RERV-P100

Important Note:- When installing timers or time delay switches, make sure that they are for appropriate HRV/ERV models.

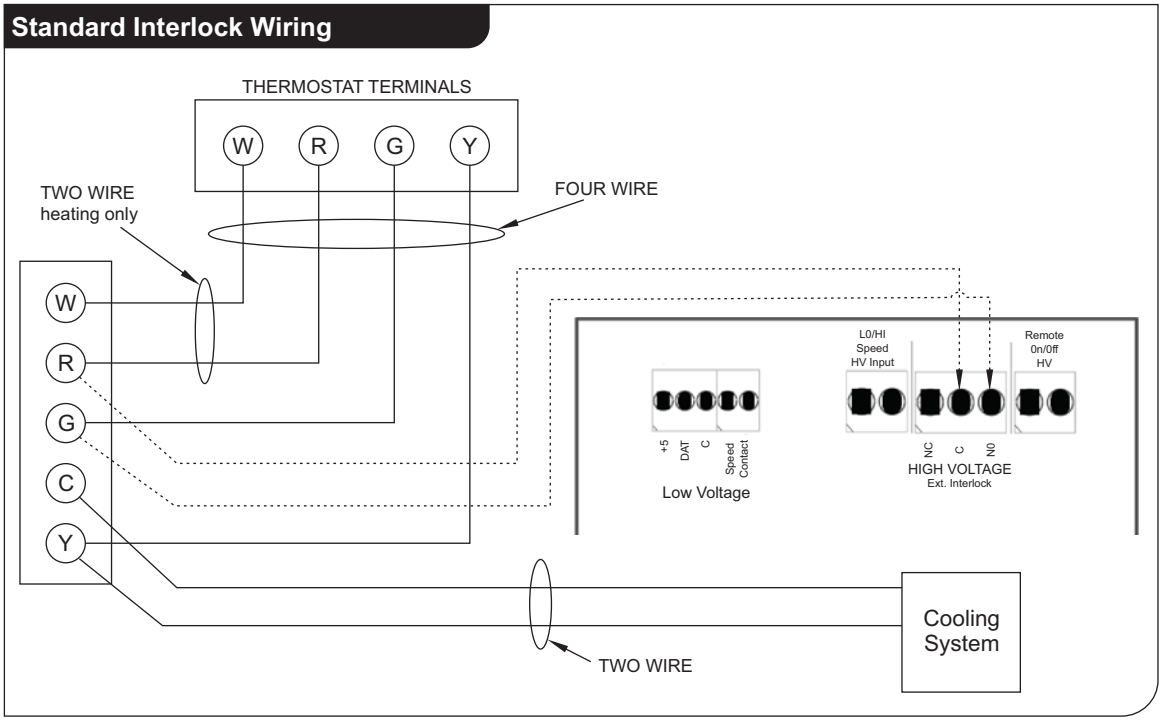
Wiring Diagram (cont'd)

Furnace / Fan-Coil / Heat Pump Interlock:

⚠ WARNING ⚠

Never connect a 120 volt AC circuit to the terminals of the furnace/fan-coil/heat pump interlock (Standard Wiring). Only use the low voltage class 2 circuit.

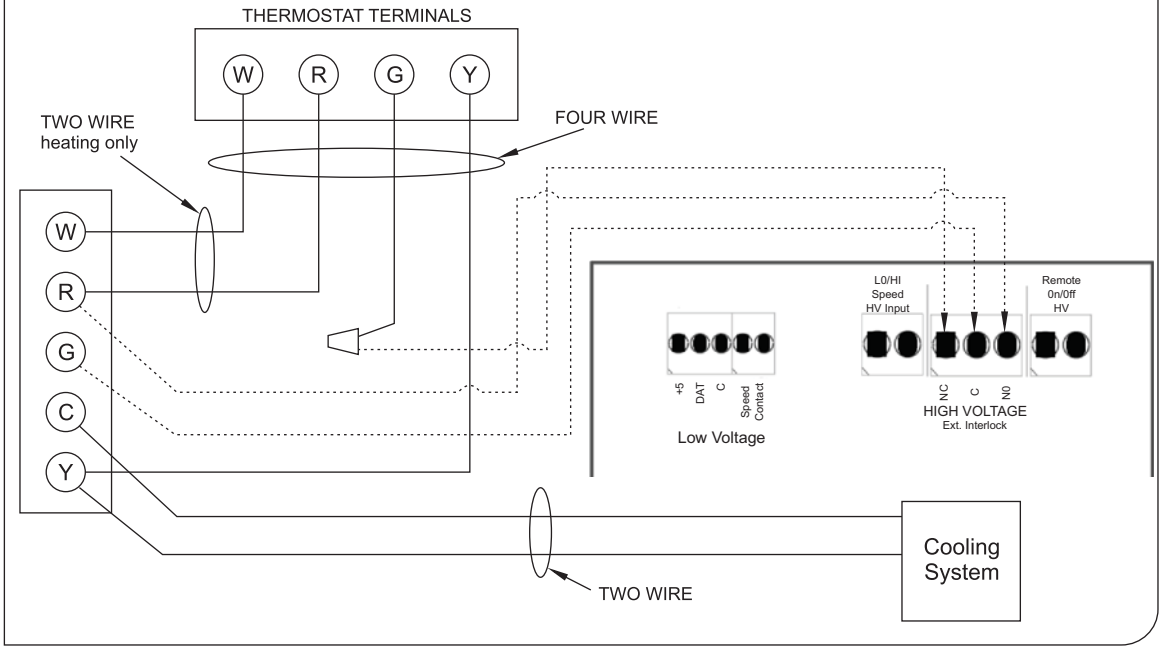
Standard Interlock Wiring



For a furnace connected to a cooling system:

On some older thermostats, energizing the R and G terminals at the furnace has the effect of energizing Y at the thermostat and thereby turning on the cooling system. If you identify this type of thermostat, you must use the "Alternate Interlock Wiring".

Alternate Interlock Wiring



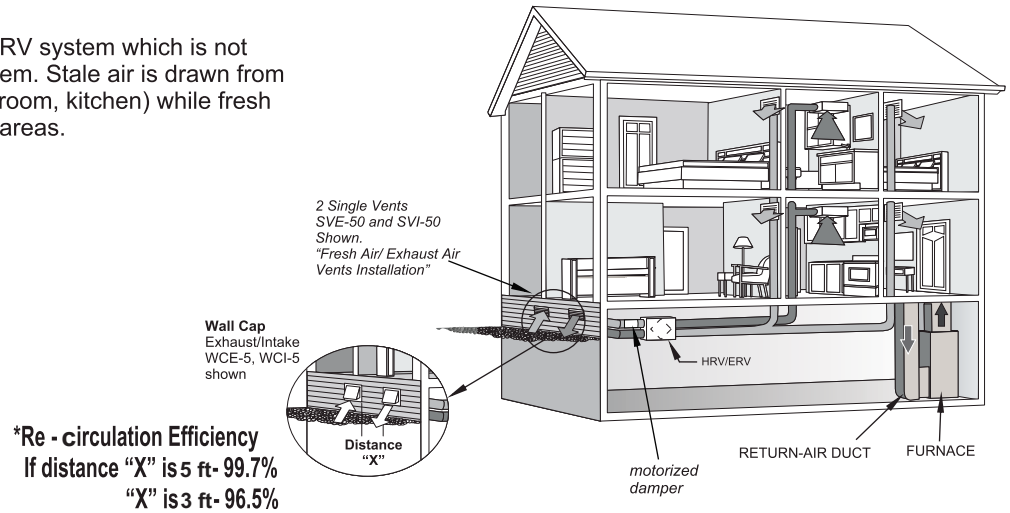
Typical Installations for House

Fully Ducted System

This is a stand alone HRV/ERV system which is not connected to a force air system. Stale air is drawn from key areas of the home (bathroom, kitchen) while fresh air is supplied to main living areas.

FRESH AIR
EXHAUST/STALE AIR
HEATED AIR

Fully Ducted System



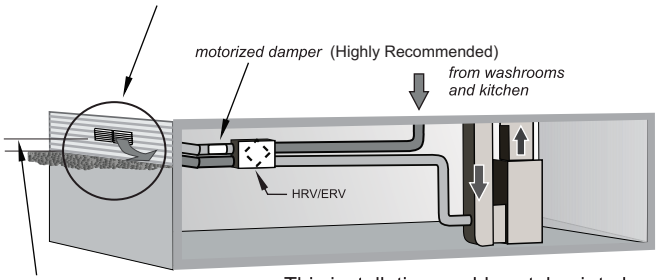
*Re - circulation Efficiency
If distance "X" is 5 ft - 99.7%
"X" is 3 ft - 96.5%

Note:

- It is recommended that the furnace blower run continuously or HRV/ERV operation be interlocked with the furnace blower to evenly distribute the fresh air throughout the house (for semi ducted & furnace return air duct connection).
- A motorized backdraft damper is recommended in the fresh air supply side to prevent outdoor air entering into the system when the Furnace / Air handler fan is running and the HRV/ERV is in Standby or OFF or in defrost mode.
- All vents must be installed above the snow line.

Semi Ducted System

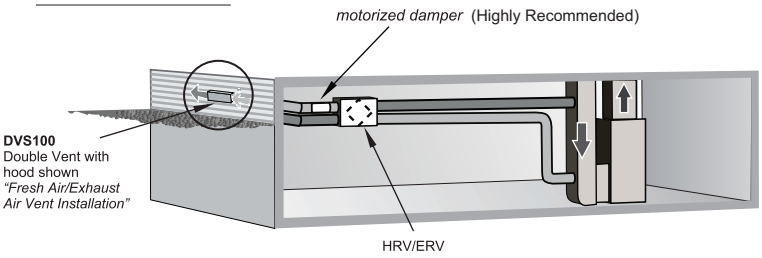
Double Vent with Extruded Aluminum Grille
DVG200 shown "Fresh Air/Exhaust Air Vent installation"



vents to be installed above snow line

- This installation enables stale air to be drawn from the poorest air quality areas of the home (washrooms & kitchen)

Furnace Return Air Duct Connection

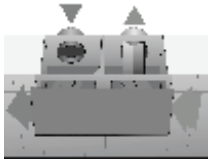


For Furnace Return Air duct connection

- The HRV/ERV must be balanced.
- Check your local building codes before installation.
- The duct configuration may change depending on the HRV/ERV model.

Optional venting:

Double vents with grilles (DVG-200)

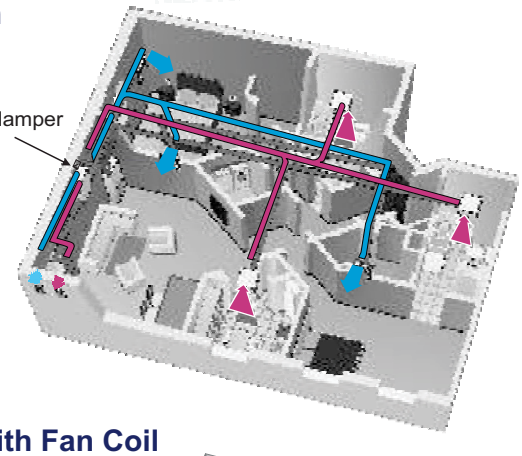


Double vents with hood (DVS-100)

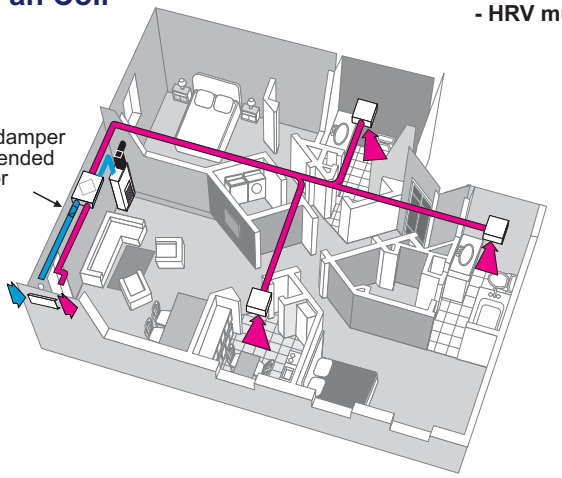
NOTE: All Exhaust vents must be installed min. 5 ft away from sidewalls.

Typical Installations for Condo

Fully Ducted System



HRV with Fan Coil System

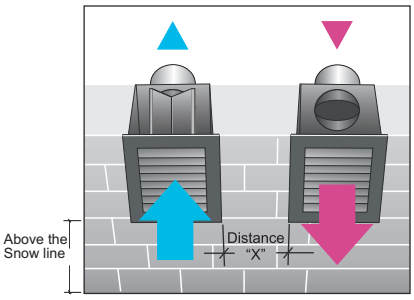


Note:

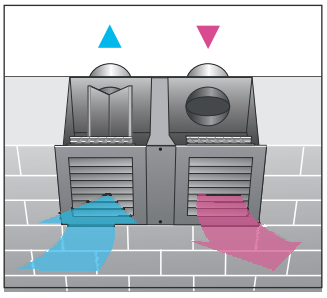
- HRV must be connected to drain.

FRESH AIR/ EXHAUST AIR VENTS INSTALLATION

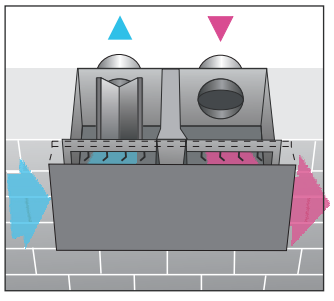
Exhaust (SVE-50) & Intake (SVI-50)
Single Vents c/w extruded aluminum grilles
Re- circulation Efficiency
If distance "X" is 5ft - 99.7%
"X" is 3ft - 96.5%



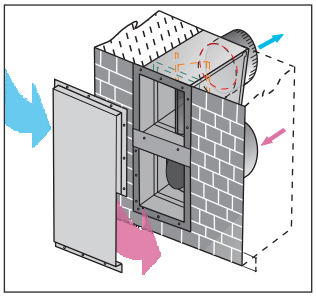
Double Vent (DVG-200)
extruded aluminum grilles
Re- circulation Efficiency - 95%.



Double vent (DVS-100) c/w
Side Exhaust / Intake hood
Re- circulation Efficiency - 98%



Double vent (DVV-100C) c/w
Vertical Exhaust / Intake hood
Re- circulation Efficiency - 98%



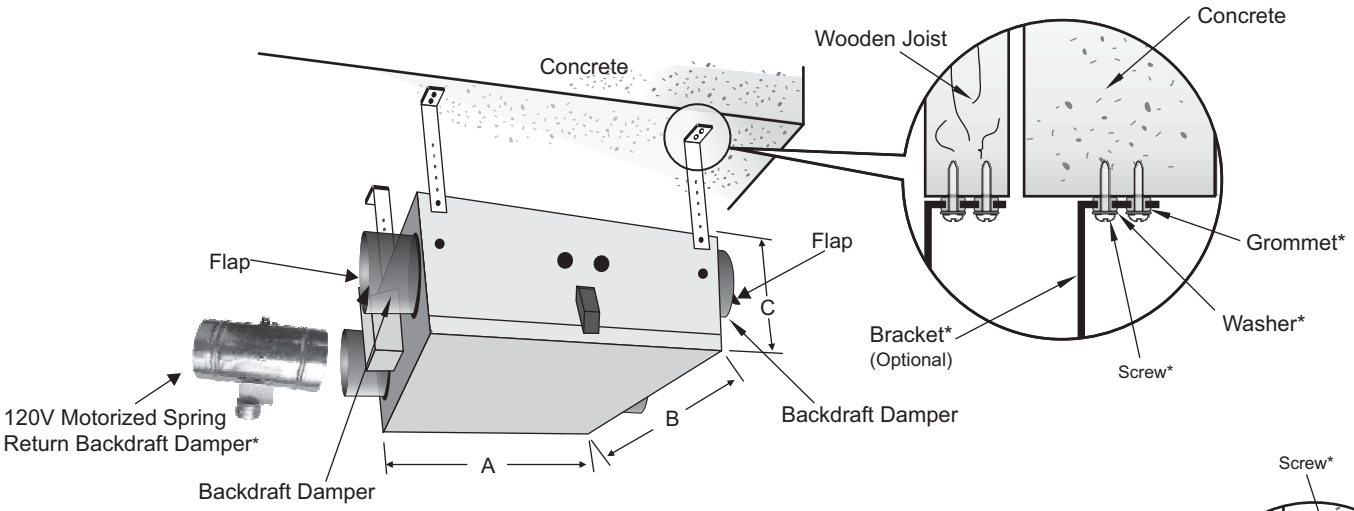
All vents are tested @ 400Pa according to ASTM E547-00 for water penetration test.
(Tested @ 5 - 10mph wind velocity)

Note: All Exhaust Vents must be installed min. 5 ft away from sidewalls.

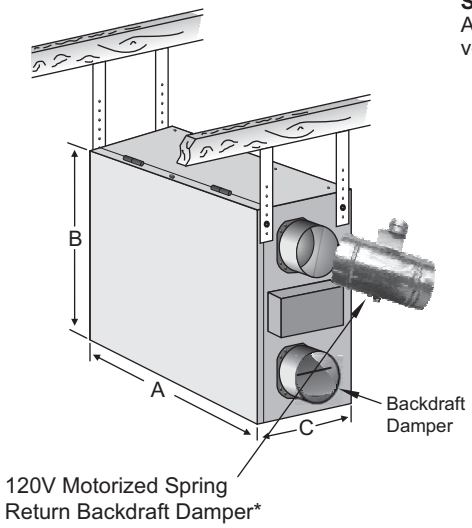
HORIZONTAL

Note:

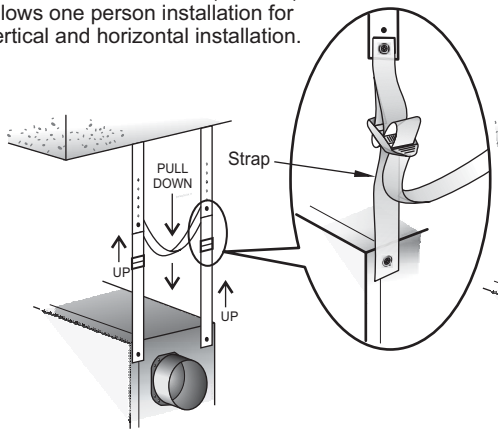
- 26" clearance is recommended for cleaning of the core/servicing the unit (RHRV-130P ES & RHRV-110P ES units require 30" clearance).
- Dampers are installed for horizontal installation. For vertical installation both dampers have to be turned so they can open properly and close when there is any backdraft.
- **Make sure no screw will interfere the function of the backdraft damper flaps while installing the duct work to the HRV/ERV.**

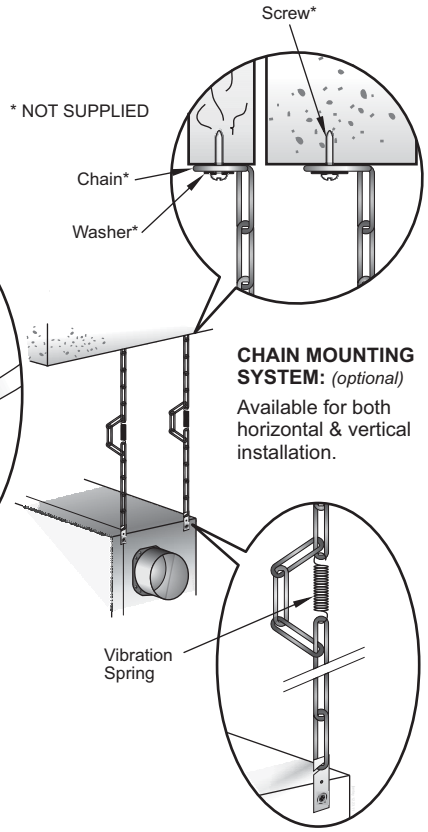


VERTICAL



STRAPPING SYSTEM: *(Standard)*
Allows one person installation for vertical and horizontal installation.





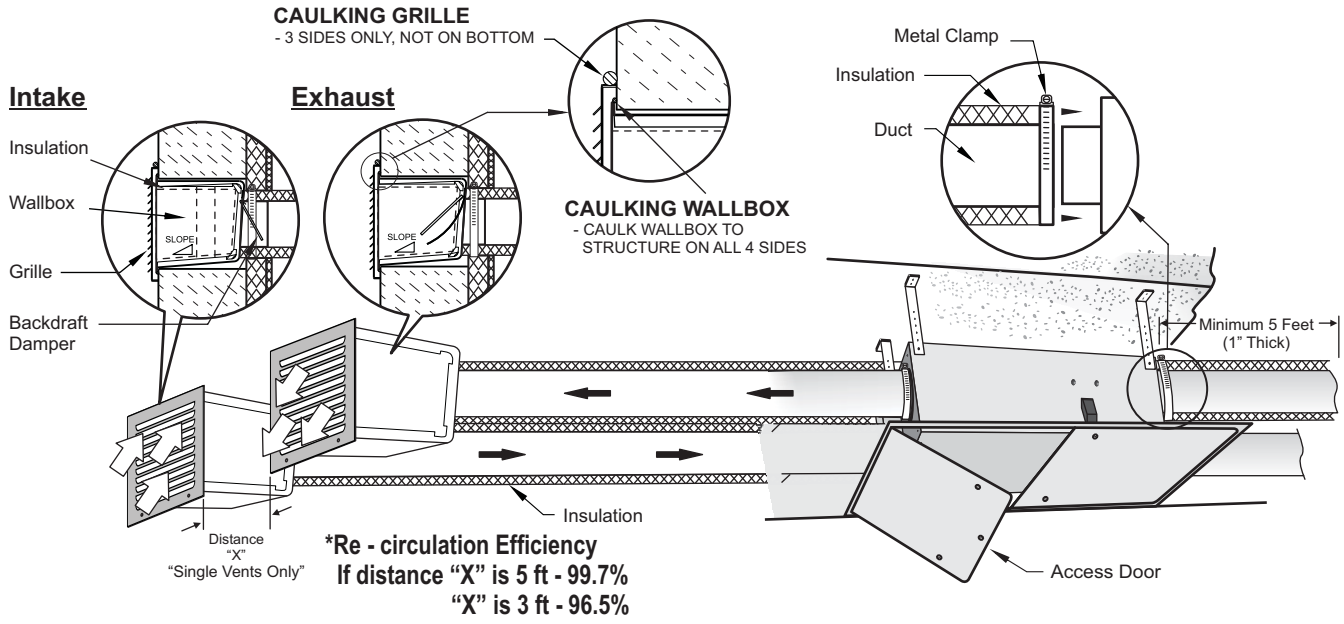
CHAIN MOUNTING SYSTEM: *(optional)*
Available for both horizontal & vertical installation.

Model #	A	B	C
RHRV-C100A, RHRV-C100P, RERV-C100	20''	21''	9''
RERV-80 RHRV-80P	16 ½"	16 ½"	8 ¼"
RHRV-130P ES	23''	21 ½''	12 ½''
RHRV-110P ES	23''	21 ½''	10 ¼''

Note:

After installation make sure the HRV/ERV is properly leveled. If not levelled correctly, then defrost will not perform effectively and/or unit may frost in winter.

Typical Installations of Single Vents & Access door



Note:

-Fresh air intake and exhaust duct to the outside must be completely insulated. It is recommended to insulate 5 ft. of supply air duct to the house (as shown). In colder climate we recommend to insulate all exhaust and supply ducts.

-Use appropriate access door size for easy access and routine maintenance of the unit.

Drain Connection

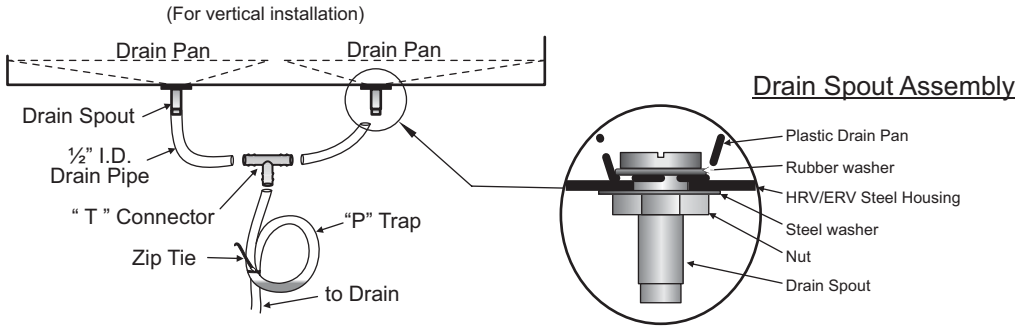
When the outside temperature drops below -5°C, the HRV / ERV Supply Fan cycles ON / OFF depending on the outside temperature. The exhaust fan always operates normally at all times regardless of the outside air temperature.

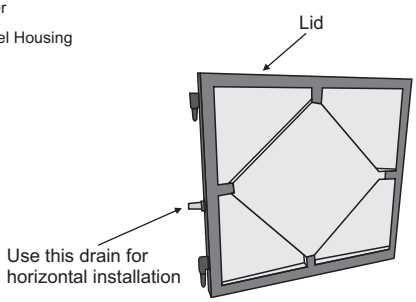
During defrost cycle the HRV unit may produce some condensation and the water should flow into a nearby drain.

The HRV cabinet has pre-punched holes for the drain, in order to keep the drain pan intact hand tighten the 2 plastic drain tube to the unit using the gasket and nuts.

For Vertical installation

Cut two sections of ½" drain pipe and connect the other ends to the drain tube then connect to " T " connector. Connect a drain line and create a **P-trap** to prevent the unit from unpleasant odours from drain source. Tape or fasten base to avoid any bends.





Note:

- **For Horizontal installation, connect only 1 drain spout assembly on lid / door. cut one ½" drain pipe and connect one end to the drain spout and the other end to the drain line. Don't forget to create a P-trap as shown above.**
- **HRV must be connected to drain.**
- **ERV does not required any drain. However, we recommend to connect ERV to drain in areas where extreme cold weather conditions are expected.**

⚠ CAUTION ⚠

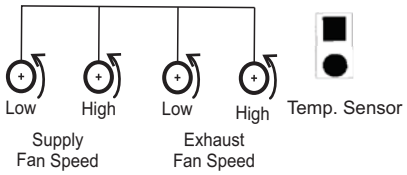
The HRV and all condensate lines must be installed in a space where the temperature is maintained above the freezing point or freeze protection must be provided.

Air Flow Balancing

Balancing Procedure

It is required to have balanced air flows in a HRV/ERV. The volume of air brought in from the outside must equal the volume of air exhausted by the unit while running at normal speed. If the air flows are not properly balanced, then:

- The HRV/ERV may not function at its maximum efficiency
- A negative or positive air pressure may occur in the house
- The unit may not defrost properly



(Fig. 1)

Note: To reduce the air flow,turn the Knob counter clockwise as shown in Fig.1

Prior to balancing, ensure that:

1. All the HRV/ERV's components are in place and functioning properly.
2. All sealing of the ductwork system has been completed.
3. Set the unit to normal speed.
4. Air flows in branch to specific areas of the house should be adjusted first prior to balancing the unit.
5. After taking reading of both stale air and fresh air, the duct with the lower CFM reading should be left alone while the duct with the higher airflow should be slower down to match the lower reading by adjusting dial/speed controller on control board (see Fig.1).
6. Return unit to appropriate fan speed for normal operation.
7. Follow step-5 to balance the flow in high speed.

Pitot Tube Airflow Balancing (Method 1)

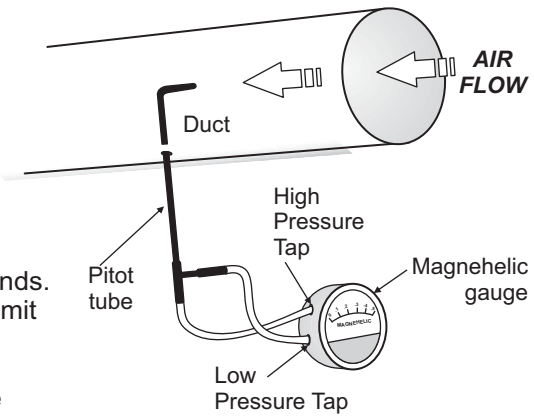
The following is a method of field balancing a HRV/ERV using a Pitot tube advantageous in situations when flow stations are not installed in the ductwork. Procedure should be performed with the HRV/ERV on normal speed.

The first step is to operate all mechanical systems on most desire speed, which have an influence on the ventilation system, i.e.the forced air furnace or air handler if applicable. This will provide the maximum pressure that the HRV/ERV will need to overcome, and allow for a more accurate balancing of the unit.

Drill a small hole in the duct (about 3/16"), three feet downstream of any elbows or bends, and one foot upstream of any elbows or bends. These are recommended distances but the actual installation may limit the amount of straight duct.

The Pitot tube should be connected to a magnehelic gauge capable of reading from 0 to 0.25 in. (0-62 Pa) or other digital airflow meter. The tube coming out of the top of the pitot is connected to the high pressure side of the gauge/meter and the tube coming out of the side of the pitot is connected to the low pressure or reference side of the gauge/meter.

Pitot tube and gauge (Option #1)



NOTE:
Place the magnehelic gauge on a level surface and adjust it to zero.

Insert the pitot tube into the duct; pointing the tip into the airflow, as shown in option #1. For general balancing, it is sufficient to move the pitot tube around in the duct and take an average or typical reading. Repeat this procedure in the other duct. Determine which duct has the highest airflow (highest reading on the gauge). Then slower down that motor speed by adjusting dial/speed controller on control board to match the lower reading from the other duct. The flows should now be balanced. Actual airflow can be determined from the gauge/metre reading. The value read on the gauge is called the velocity pressure and on the flow meter is called air velocity(FPM). The Pitot tube comes with a chart that will give the air flow velocity based on the velocity pressure indicated by the gauge. This velocity will be in either feet per minute or metres per second. To determine the actual airflow, the velocity is multiplied by the cross sectional area of the duct being measured.

(Option #2) Plugs

- Remove plug from #2 and #4 locations as shown for balancing
- Do not use pitot tube to open holes in the insulation as it may block/damage the pitot tube.
- Take 3-4 readings on each hole and average for supply side and same for exhaust.
- After finish balancing, plug both two holes back to avoid air leakage and whistling noise from the holes.

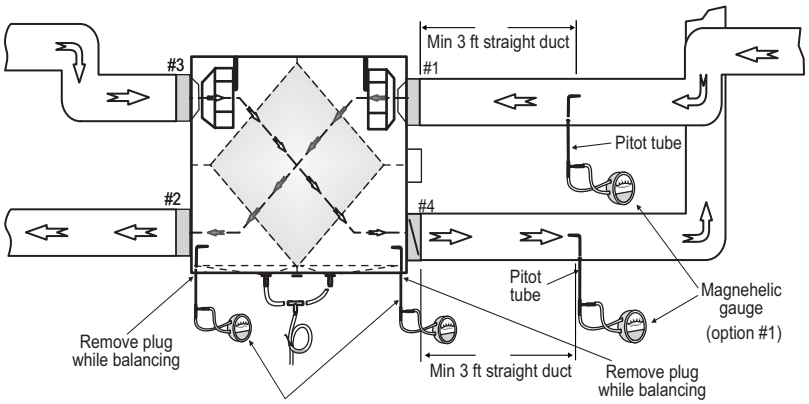
CFM = Opening / Cross-sectional Area(sq.ft.) x velocity(FPM)

Note: To take more accurate readings, use option #1(if possible).

DUCT DIA.	CROSS SECTION AREA		
5"		0.136 sq. ft.	
△P"	CFM	△P"	CFM
Ø5			
0.010	50	0.041	110
0.012	60	0.048	120
0.016	70	0.057	130
0.022	80	0.064	140
0.027	90	0.071	150
0.034	100	0.078	160

△P" = Velocity Pressure in inch

The accuracy of the flow reading will be affected by how close to any elbows or bends the readings are taken.
Accuracy can be increased by taking an average of multiple readings as outlined in the literature of the Pitot tube.

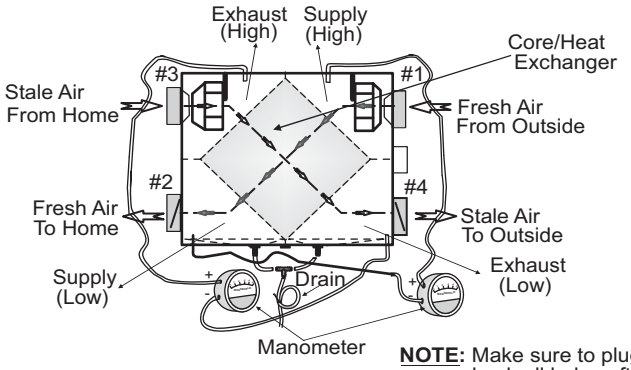


(option #2)

Field Air flow Balancing (Method 2):

Balancing Table

Differen al Pressure Across the Core		Supply Air		Exhaust Air	
In.W.C.	Pa	CFM	L/s	CFM	L/s
0.03	8	28	13	32	15
0.06	15	38	18	44	21
0.09	22	50	24	62	29
0.105	26	56	26	74	35
0.12	30	62	29	81	38
0.135	34	72	34	87	41
0.15	37	81	38	91	43
0.165	41	87	41	95	45
0.18	45	92	43	98	46
0.195	49	95	45	105	49
0.21	52	98	46	115	54
0.24	60	118	56	128	60
0.27	67	133	63	142	67
0.30	74	151	71	156	74
0.33	82	158	75	163	77
0.36	89	163	77	171	80



NOTE: Make sure to plug back all holes after balancing.

Maintenance

Regular Maintenance

1. Turn the unit off and disconnect the power supply.
2. Unlatch the door and lift the door panel towards you, hold it firmly and slide it to the left.
3. Clean the inside of the *door* and *drain pan* with a damp cloth to remove dirt and debris that may be present.
4. Clean the *filters:* (twice a year)
   - Remove the filters.
   - Vacuum to remove most of the dust.
   - Wash with a mixture of warm water and mild soap. Rinse thoroughly and shake filters to remove water and let dry.
5. Oil defrost damper levers and hinges.
6. Check the exterior fresh air supply hood:
   - Make sure there are no leaves, twigs, grass, ice or snow that could be drawn into the vent. ***Partial blocking of this air vent could cause the unit to malfunction.***
7. Reassemble the components, Filters and Door (The door is secured when you hear a click.)
8. Reconnect the power and turn on the unit.

Annual Maintenance

Repeat steps 1 to 5 from the previous section and continue with the following steps:

1. **Clean the HRV and ERV core:**
   - Remove filters
   - Loosen the core locking bracket
   - Remove the core, carefully grip ends of core and pull evenly outward
   - ***HRV Core*** > remove dust using vacuum cleaner or rinse with cold water
     > Soak and rinse the HRV core in warm soapy water
   - ***ERV Core*** > remove dust using vacuum cleaner

⚠ ATTENTION ⚠

- Do not use cleaning solution for the HRV/ERV core
- Do not use pressure washer on the HRV/ERV core
- Do not place the HRV/ERV core in dishwasher
- Do not use bleach or chlorine

2. **Motors -** Maintenance Free, permanently lubricated

3. **Drain Tube and Drain Pipe -** Inspect drain tube, drain pipe and “P” trap for blockage, mold or kinks. Flush with warm soapy water and replace if worn, bent or unable to clean.

4. **Clean Duct Work if Required -** Wipe and vacuum the duct once every year. The duct work running to and from HRV/ERV may accumulate dirt. You may wish to contact a heating / ventilation company to do this.

5. **Cleaning the Fans -** Fans may accumulate dirt causing an imbalance and/or excessive vibration on the HRV/ERV. A reduction in the air flow may also occur. In new construction this may result within the first year due to heavy dust and may occur periodically after that over time depending on the outdoor conditions.

   - unplug the HRV/ERV
   - open the service door
   - remove the core
   - disconnect the fan motor wires
   - remove the screws securing fan assembly
   - pull the fan assembly out of unit
   - check for any accumulation on the blades
   - clean with a small brush if necessary:
     - scrub individual fan blades until clean
     - vacuum and wipe
   - put the components back in place
   - reconnect the power supply and turn the unit back on.

⚠ WARNING ⚠

Electrical shock hazard. Can cause injury or death. Before attempting to perform any service or maintenance, always disconnect the unit from its power source.

Note: Warranty will be void if regular/annual Maintenance is not performed as recommended and instructed above.

Troubleshooting

PROBLEMS	POSSIBLE CAUSES	SOLUTIONS
1. Air flow is low	- HRV/ERV airflow improperly balanced - filter clogged - core obstructed - exterior fresh air supply blocked - damper is closed (if supplied) - ductwork is restricting - power supply low (Low Voltage)	- have professional balancer or contractor balance the unit - remove and clean filter - remove and clean core - remove and clean the blockage - check damper - inspect duct installation - switch off the unit immediately and call the electrician to check the voltage
2. Senses cold air from Supply	- Exhaust hood outside the house is blocked - HRV/ERV airflow improperly balanced - outdoor temperature is extremely cold	- remove the blockage and clean the hood - have contractor balance the unit - placement of furniture or closed doors is restricting the movement of air in the home - install a duct heater
3. Water in the bottom of HRV	- drain pans, drain tube, drain pipe and “P” trap are clogged	- check for blockage and for kinks in line - check connections - make sure water drains properly
4. Timer switch 20/40/60 minute / intermittent Switch light doesn't stay on	- loose connection - the switch may be defective - turn off the HRV/ERV bracker	- check connection - replace the timer switch - reset the main controller
5. Unit is not defrosting properly	- fresh air duct maybe frozen - HRV/ERV airflow improperly balanced - Temp. sensor maybe defective	- check and remove the ice - have professional balancer or contractor balance the unit - replace the Temp. sensor
6. All 3 LEDs of timer switch blinks	- Control board reports error - lost communication with main control board	- refer to problem 4. - check all wire connections on timer switch and main control board
7. LED’s on the Main Control board and the remote wall mount Timer Switch will flash 0.5 second On then 2 seconds Off then repeat the cycle	- Exhaust fan open circuit: a) motor burned b) fan overheated	- replace motor - call technician (if possible replace fan)
8. LED’s on the Main Control board and the remote wall mount Timer Switch will flash 0.5 sec On/0.5 sec Off/0.5 sec On then 2 sec Off, then repeat the cycle	- damper obstructed - exhaust fan jam / over-current	- check backdraft damper, no screw must interfere the function of the damper - replace the fan
9. LED’s on the Main Control board and the remote wall mount Timer Switch will flash 0.5 sec On/0.5 sec Off/0.5 sec On/0.5 sec Off/ 0.5 sec On, then 2 seconds Off, then repeat the cycle	- Supply fan open circuit: a) motor burned b) fan overheated	- replace motor - call technician (if possible replace fan)
10. LED’s on the Main Control board and the remote wall mount Timer Switch will flash 0.5 sec On/0.5 sec Off/0.5 sec On/0.5 sec Off/ 0.5 sec On/0.5 sec Off/0.5 sec On then 2 seconds Off, then repeat the cycle	- damper obstructed - Supply Fan jam / over-current	- check back-draft damper, no screw must interfere the function of the damper - replace the fan
11. LED’s on the Main Control board and the remote wall mount Timer Switch will flash: 0.5 sec On/0.5 sec Off/ 0.5 sec On/0.5 sec Off/ 0.5 sec On/0.5 sec Off/ 0.5 sec On/0.5 sec Off/ 0.5 sec On/0.5 sec Off/ 0.5 sec On, then 2 seconds Off, then repeat the cycle	- temperature sensor failure (both motors shuts off)	- replace temperature sensor

Note :- Lightning, high power surge or high frequency radio signals could cause HRV/ERV goes into safe mode (unit completly shuts off and timer switches blinks either two or four times in a raw every 0.5 seconds). If this happens, turn “off” the main power of the HRV/ERV and restart the unit. If still unit does not come on, please call service technician.

Select HRV/ERV for your Climate Zone

***HRV**s are recommended for colder climates.*

***ERV**s are designed for warm-humid climates with long cooling seasons.*

U.S. Department of Energy climate zones map

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