

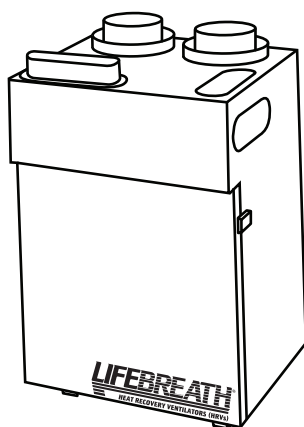
LIFEBREATH®

THE ULTIMATE AIR EXCHANGER

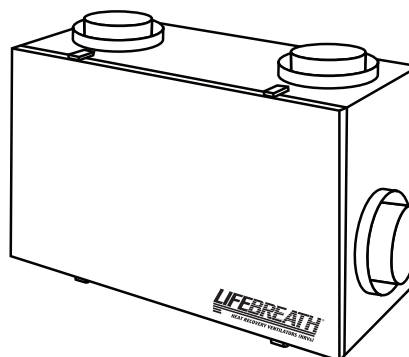
Operation and Installation Manual

Max Series

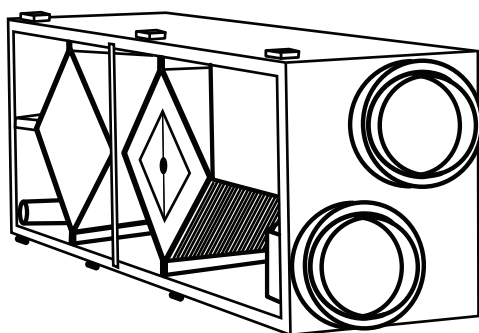
5 Speed Electronics
Lifestyle MAX Digital Control included



95MAX*



155MAX
155ECM*
155MAXRX
200MAX*
200MAXRX*



195DCS*
195ECM*
300DCS*

Residential Heat Recovery Ventilators (HRV)



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

Table of Contents

Max Series Electronics.....	2
Getting to Know your MAX Series HRV	
Selecting the Ventilation Rate that is right for You	
How the Dehumidistat Works	
Glossary of Additional Information	
Warranty.....	3
The Lifestyle MAX Digital Control.....	4
The Lifestyle MAX Programmable Control	5
Optional Timers	6
Maintenance Routine for HRV	7
Technical Data - Model 95MAX	8-9
Technical Data - Model 155MAX	10
Technical Data - Model 155MAX RX.....	11
Technical Data - Model 155ECM	12
Technical Data - Model 200MAX	13
Technical Data - Model 200MAX RX	14
Technical Data - Model 195DCS	15
Technical Data - Model 195ECM	16
Technical Data - Model 300DCS	17
Installation Methods.....	18
Installation Diagrams	19-21
Installation	22
Drain Connection	
Grilles	23
Weatherhood Installation	24
Installation of the Main Control.....	25
Installation and Operation 20/40/60/ Minute Timers	
Installation of Mechanical Timers.....	26
Interlocking the HRV to an Airhandler/Furnace Blower	
Setting "Standby" when using a Main Control	
Operating the HRV without a Main Control and Adding	
Dry Contact Controls	27
Balancing the Air Flows.....	28
Balancing the Air Flows with a Pitot Tube.....	29
Air Flow Balancing using the Door Ports	30
Balancing Collar Instructions	
Balancing Instruments and Kits	31
Troubleshooting your HRV System.....	32
Wiring Diagrams.....	33-34

**IMPORTANT -
PLEASE READ THIS MANUAL BEFORE
INSTALLING UNIT.**



NOTE

• Due to ongoing research and product development, specifications, ratings and dimensions are subject to change without notice.

CAUTION

Before installation, careful consideration must be given to how this system will operate if connected to any other piece of mechanical equipment, i.e. a forced air furnace or air handler, operating at a higher static. After installation, the compatibility of the two pieces of equipment must be confirmed, by measuring the air flows of the HRV, by using the balancing procedure found in this manual.

NEVER install a ventilator in a situation where its normal operation, lack of operation or partial failure may result in the backdrafting or improper functioning of vented combustion equipment.



WARNING

• **Disconnect the power from the unit before cleaning or servicing.**

• **To prevent electrical shock, it is *extremely important* to confirm the polarity of the power line that is switched by the safety (disconnect) switch. The hot line (black) is the proper line for switching. Use either a voltmeter or test lamp to confirm the absence of a voltage between the disconnect switch and ground (on the cabinet) while the door is open. This procedure must be followed, as dwellings are occasionally wired improperly. Always ensure the proper grounding of the unit.**



ATTENTION

• **Do not apply electrical power to the unit until after the completion of the installation (including the installation of low voltage control wiring).**

• **Ensure the Installation and wiring is in accordance with CEC, NEC, and local electrical codes.**

• **Due to ongoing research and product development, specifications, ratings and dimensions are subject to change without notice.**

• **Plug the unit into a standard designated (120 VAC) electrical outlet with ground.**

• **The use of an extension cord with this unit is not recommended. If the installation requires further wiring, have a licensed electrician make all of the electrical connections. The recommended circuit is a separate 15 amp/120 volt circuit.**

Getting to Know your MAX Series Heat Recovery Ventilator (HRV)

Thank you for purchasing a LIFE BREATH® Heat Recovery Ventilator (HRV). The HRV provides fresh air to your home while recovering energy from the air it exhausts.

There are numerous benefits to a properly installed, operated, and maintained HRV:

- exhausts the stale, contaminated air, found in today's tight buildings.
- recovers the majority of the energy contained in the exhausted stale air.
- uses the recovered energy to preheat or precool the fresh outdoor air introduced into the house.
- distributes the fresh air throughout your home.

Selecting the Ventilation Rate that is right for You

The modes of operation and speeds are used to adjust your indoor ventilation rate. Experiment with the ventilation levels in your home to evaluate the ideal amount of ventilation to suit your home and personal preferences. Your Lifebreath MAX SERIES HRV main control has 4 Modes of Operation* and 5 speeds on each mode.

I. CONTINUOUS VENTILATION

This mode of operation provides continuous ventilation within the home. You may, for example, select *Continuous Ventilation* at a low speed (speeds 1 or 2) for normal operation and increase to a higher speed (speeds 3 to 5) during increased activity levels, such as cooking and showering, etc.

II. 20 MINUTES ON, 40 MINUTES STANDBY

This mode of operation provides 20 minutes of ventilation each hour. You can use this ventilation mode at low speed for low household activity levels or when the home is unoccupied.

III. 20 MINUTES ON, 40 MINUTES RECIRCULATION *

Ventilates for 20 minutes and recirculates the household air every 40 minutes each hour. This mode is non-applicable if your HRV is connected to a forced air system (the forced air system already circulates household air).

IV. CONTINUOUS RECIRCULATION *

Continuously recirculates your household air (no ventilation). This mode is non-applicable if your HRV is connected to a forced air system.

* If your HRV is connected to a forced air system, recirculation (modes III and IV) is unavailable and non-applicable on all models.

RECIRCULATION - recirculates existing household air without introducing fresh air. Recirculation Modes (III and IV) are non-applicable if your HRV is connected to a forced air system, since your forced air system already circulates the household air. Recirculation Modes are unavailable on some models.

How the Dehumidistat Works

High indoor humidity levels, during the heating season, have become a problem in many well insulated, tight homes. Excessive condensation on the windows is a visual sign of high indoor humidity levels. High indoor humidity levels can result in mold and mildew and the eventual degradation of the building structure itself.

Your HRV reduces indoor humidity levels when the outdoor air is drier than the indoor air. These conditions usually occur during the heating season when outdoor temperatures are less than 15°C (59°F). During the heating season, the operation of the HRV may reduce indoor humidity levels sufficiently to eliminate the need for further dehumidification.

If your home requires further dehumidification, use the dehumidistat feature located on the main control. This feature aggressively addresses high indoor humidity levels by initiating high speed ventilation when the indoor humidity levels rise above the adjustable set point on the control.

Refer to the main control instructions located in the *Operation and*

Installation Manual for instructions on how to set the dehumidistat.

The dehumidistat function should be set to OFF for all seasons except the heating season, because a dehumidifying effect occurs only when the outdoor air is dryer than the indoor air. Set the RH level to 80 to turn the dehumidistat OFF. (Refer to the control instructions for information on how to set the Dehumidistat).

DEHUMIDISTAT DISABLE - automatically disables the dehumidistat function on the main control when outdoor temperatures exceed 15°C (59°F) for a full 24 hour period. All other HRV features and functions operate normally while the dehumidistat function is disabled.

DEHUMIDISTAT RE-ENABLE - automatically re-enables the dehumidistat function if either the outdoor temperature drops below 15°C (59°F) for a full 24 hour period or if the HRV is reset (unplugged for 30 seconds).

Glossary and Additional Information

DEFROST MODE - To ensure reliable operation during cold weather, the HRV automatically cycles through its defrost mode when the outdoor temperatures drop below freezing.

HRV - a Heat Recovery Ventilator (HRV) is designed to provide fresh air into a building while exhausting an equal amount of stale air. During the winter months, heat recovered from the stale air, before it is exhausted to the outdoors, warms the incoming cold fresh air. During the summer months, when the indoor space is air conditioned, the HRV helps to cool the incoming fresh air with the cool exhausted stale air.

MAINTENANCE ROUTINE - Homeowner maintenance should be performed as per "Maintenance Routine for HRV" located in the *Operation and Installation Manual*.

OPERATION AND INSTALLATION MANUAL - Contains instructions and important information regarding your HRV and controls. You can download the manual at www.lifebreath.com.

SELF-TEST - Each time the HRV is powered/energized, the self-test function automatically initiates. The HRV cycles through the available speeds and tests the damper motor operation. The HRV defaults back to the previous operational mode and speed selection after the self-test (approximately 60 seconds in duration).

STANDBY (Speed 0) - The HRV is powered/energized and waiting for ventilation to be initiated by either an external control (i.e. timer) or the dehumidistat. Set the main control to speed 0 to set the HRV in standby.

TIMERS - These optional controls may be installed at specific exhaust locations (bathrooms etc.) to initiate high speed ventilation.

Warranty

Lifebreath MAX Series Heat Recovery Ventilators carry a Lifetime Warranty on the heat recovery core and a 5 (five) year replacement parts warranty.

Register for your warranty at:

www.lifebreath.com or phone 1-855-247-4200 (toll free)

NOTE: Airia will require the HRV Model and Serial Number(s) for the registration of your HRV.

How the Dehumidistat Works

Your **Lifestyle MAX Digital Control** or the optional **Lifestyle MAX Programmable Control** has an adjustable dehumidistat which can be set to achieve a further dehumidification effect from your HRV. High speed ventilation will be initiated upon exceeding the dehumidistat set point regardless of the mode and speed of operation. Once the humidity in the house is reduced, the HRV will revert back to its previous setting.

We suggest operating the HRV for the first few days without use of the dehumidistat function to observe if a further dehumidification effect will be required. The dehumidistat operates in % of RH (relative humidity) with 80 being high and 20 being low. Set the Dehumidistat to 80% to disable. If, after a few days, further dehumidification is required (the house is still too humid), set the humidity level to a lower amount.

The average person is comfortable between 30-50% RH. The dehumidistat should be set to OFF for all seasons except the heating season. OFF is achieved by setting the dehumidistat to 80.

Dehumidistat Notes:

The dehumidistat function will be disabled if outdoor temperatures exceed 15°C (59°F) for a 24 hour period.

The dehumidistat function will be re-enabled if the unit is unplugged for 3 minutes or if the outdoor temperature drops below 15°C (59°F) for a 24 hour period.

How to Synchronize the Humidity Setting

The Lifestyle Digital wall control has a feature that will allow it to be synchronized with other humidity instruments in your home.

1. Turn off the control with the ON/OFF button.
2. Simultaneously press and release the ON/OFF button and the 20/40/60 Minute High Speed override button.
3. Use the Up/Down buttons to adjust the Humidity Indicator on the display screen to the number of degrees difference between your humidity measuring device. Minus is indicated by flashing.
4. Press the MODE button.

The Lifestyle MAX Digital Control (Included Wall Control)

Part # 99-DXPL01

The **Lifestyle MAX Digital Control** is fully digital and allows you to easily control your home's ventilation.

Key Features

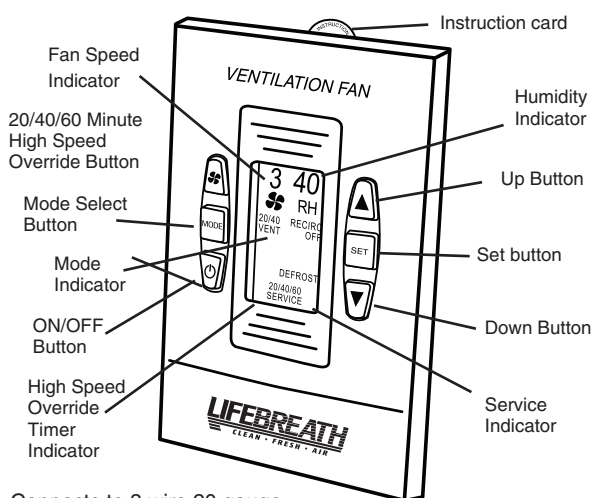
- 5 Speed Fan setting
 - Electronic Dehumidistat
 - Four Selectable Modes of Operation
 - 20 min. ON / 40 min. off, 20 min. ON / 40 min. recirculate *
 - Continuous Ventilation, Continuous Circulation *
 - 20 / 40 / 60 High Speed override timer
 - Service/Maintenance Reminder display
 - Backlit LCD screen is easy to read
- * Recirculation not available on all models

Setting the Control

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press the SET button.
3. The "FAN" symbol flashes. SCROLL (by using the Up/Down arrows) to select the desired fan speed (0, 1 or 2). Press the SET button.
4. "VENT", "20/40", "20/40 RECIRC", "RECIRC" or "OFF" will flash. SCROLL to select the desired mode of operation. Press SET button.
*RECIRC is not available on all models.
**Timers will not function when mode of operation is set to "OFF".

Setting the Dehumidistat

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release MODE until "RH" flashes.
3. SCROLL to the desired RH number. Press the MODE button.



Connects to 3 wire 20 gauge low voltage wire

20/40/60 Minute High Speed Timer

This function temporarily initiates high speed ventilation for 20, 40 or 60 minutes.

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press FAN button once for 20, two times for 40, three times for 60 minutes, and four times to cancel the timer.

Service Indicator

A 'SERVICE' indicator displays once every 4 months. Refer to "Maintenance Routine" in the Operation & Installation manual.

To reset the service indicator:

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release the Up and Down buttons simultaneously. The "SERVICE" icon will flash for 5 seconds.
3. Press SET within the 5 seconds and the service indicator will reset.

The Lifestyle MAX Programmable Control (Optional)

Part # 99-LS-01

The optional **Lifestyle MAX Programmable Control** is fully digital and allows you to program when and how much fresh air will be entering your home.

Key Features

- 24 / 7 programmable ventilation • 4 programmable events per day
- 5 Speed Fan setting • Electronic Dehumidistat
- Four Selectable Modes of Operation
 - 20 min. ON / 40 min. off, 20 min. ON / 40 min. recirculate *
 - Continuous Ventilation, Continuous Recirculation *
- 20 / 40 / 60 High Speed override timer
- Service/Maintenance Reminder display
- Easy to read Backlit LCD screen

Setting Date & Time

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release the MODE button until "TIME" and "SET" appear on the screen. Press SET Button.
3. The letter for the day of the week flashes. SCROLL (using Up/Down arrows) to the correct day of the week. Press the SET button.
4. The hour and "AM" or "PM" flashes. SCROLL to the correct hour and press the SET button.
5. The minutes will flash. SCROLL to the correct minute. Press the SET button.

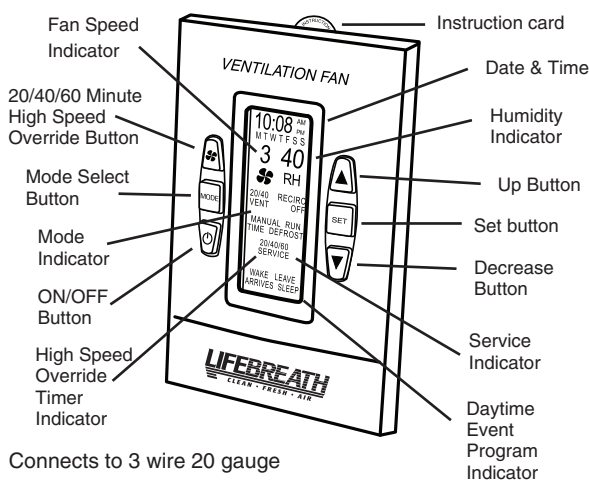
Programming Your Control

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release the MODE button until "PROGRAM SET" appears on the screen. Press SET.
3. Weekday letters (MTWTF) will flash. Press SET.
4. "WAKE" flashes. Press SET.
5. "AM" or "PM" flashes. SCROLL to desired time (in 20 minute intervals). Press SET.
6. The "FAN" symbol flashes. SCROLL to the desired fan speed (0-5). Press SET.
7. "VENT", "20/40", "20/40 RECIRC*", "RECIRC*", "OFF" will flash. SCROLL to the desired mode of operation. Press SET two times. (Refer to Manual for an explanation of the modes of operation.)
8. "LEAVE" flashes. Press SET. Repeat steps 4 to 6 to program four events per day.
9. "SS" (Saturday & Sunday) flashes. Press SET. Repeat steps 3 to 7 to program the weekend events.

Programming Individual Weekday Events

After performing the MTWTF and SS programming functions, you can program individual weekday events.

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release the MODE Button until "PROGRAM SET" appears on the screen. Press SET.
3. Weekday letters (MTWTF) will flash. Scroll to the desired weekday (M,T,W,T,F,S,S). Press SET.
4. "WAKE" flashes. Scroll to the desired event that you want to program as a custom setting ("WAKE", "AWAY", "RETURN" or "SLEEP". Press SET.
5. Either "AM" or "PM" flashes. SCROLL to the desired time (available in 20 minute intervals). Press SET.
6. "FAN" flashes. SCROLL to desired fan speed (0 - 5). Press SET.
7. "VENT", "20/40", "20/40 RECIRC*", "RECIRC*" or "OFF" will flash. SCROLL to the desired mode of operation. Press SET. (Refer to Manual for explanation of operational modes.)
8. More weekday events are programmable by pressing SET and repeating steps 4 to 7.



Connects to 3 wire 20 gauge low voltage wire

ATTENTION

Only one main control can be installed on your system.

Running the Program

Upon completion of the programming, you must activate the program.

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press MODE until the program indicates "PROGRAM" and "RUN".

Manually Setting the Control

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release MODE until the program indicates "MANUAL" and "RUN". Press SET.
3. When the FAN symbol flashes, SCROLL (use the Up/Down arrows) to the desired fan speed (0-5). Press SET.
4. VENT, 20/40, 20/40 RECIRC*, RECIRC* or OFF will flash. SCROLL to the desired mode of operation. Press SET.

NOTE: The control remains in the "MANUAL RUN" position until you change back to "PROGRAM RUN" (Refer to "Running the Programmed Setting"). *RECIRC is not available on all models. **Timers will not function when mode of operation is set to "OFF".

Setting the Dehumidistat

Refer to "How the Dehumidistat Works" in this manual before setting the Dehumidistat.

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release MODE until "RH" and a number flashes.
3. SCROLL to the desired RH number. Press the MODE.

20/40/60 Minute High Speed Timer

This function temporarily initiates high speed ventilation for 20, 40 or 60 minutes.

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press the FAN button once for 20, twice for 40 and three times for 60 minutes and four times to cancel the timer.

Service Indicator

A 'SERVICE' indicator displays once every 4 months. Refer to "Maintenance Routine" in the Operation & Installation manual.

To reset the service indicator:

1. Refresh the screen: use the ON/OFF button to turn the control OFF and ON.
2. Press and release the Up and Down buttons simultaneously. The "SERVICE" icon will flash for 5 seconds.
3. Press SET within the 5 seconds and the service indicator will reset.

Optional Timers

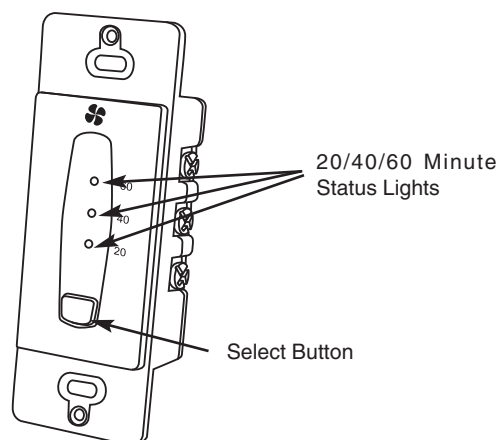
Depending on the type of HRV installation, you may have timers in areas such as restrooms. The timer will override the Operational Mode (regardless of the setting) and initiate high speed ventilation. Upon completion of the timer cycle, the HRV will return to your selected Operational Mode and speed setting.

Lifestyle 20/40/60 Minute Timer

Part # 99-DET01

Initiates high speed ventilation for 20, 40 or 60 minutes. The 20/40/60 Minute Status Lights indicate high speed operation.

Lockout Mode is useful if you wish to disable the timer. Set lockout by holding the Select Button for 5 seconds. Unlock by holding for 5 seconds.

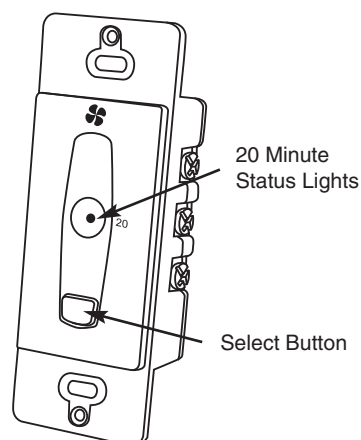


Lifestyle 20 Minute Timer

Part # 99-20M01

Initiates high speed ventilation for 20 minutes. The 20 Minute Status Light indicates high speed operation.

Lockout Mode is useful if you wish to disable the timer. Set lockout by holding the Select Button for 5 seconds. Unlock by holding for 5 seconds.

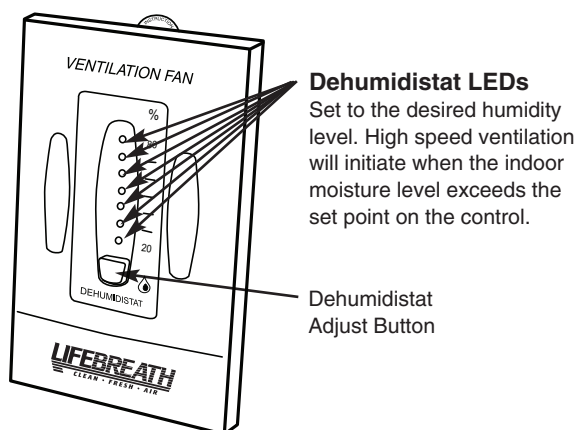


Lifestyle Dehumidistat

Part # 99-DH-01

Initiates high speed ventilation when the moisture level in the home exceeds the set point on the control. Once the humidity in the house is reduced, the HRV will revert back to its previous setting. The Dehumidistat should be set to OFF for all season except the heating season.

Refer to "How the Dehumidistat Works" in this manual before setting the Dehumidistat.



Maintenance Routine for HRV

1. Inspect Exterior Hoods at least once a month.

Make sure exhaust and fresh air supply hoods are not blocked or restricted by leaves, grass, or snow. In winter, it is especially important to make sure snow is not blocking the hoods or that frost has not built up on the wire mesh (bird screen).

WARNING: Blockage of hoods may cause an imbalance.

2. Clean Air Filters (clean twice a year)

The standard filters equipped with your HRV are removable and washable.

- open access door and slide core out.
- remove filter clips if present.
- once clips are removed, filters can be taken off the core to be rinsed with water or a combination of mild soap and water. Do not clean in the dishwasher.
- to re-assemble, place clean filter(s) (wet or dry) back into their positions against the core and return clips to their original positions.
- slide core back into its original position.

ATTENTION

- Do not use cleaning solutions for the HRV Core
- Soak and rinse the HRV core in warm soapy water
- Do not use bleach or chlorine
- Do not use a pressure washer on the HRV core
- Do not place the HRV core in a dishwasher

3. Clean Core Twice a Year

- open access door.
- carefully grip ends of core and pull evenly outward. Core may be snug, but will slide out of the channel.
- once removed from the cabinet remove filters.
- install the clean filters.
- install clean core.

Note: Core installation label on the outer end of the core.

To install the clean core:

- first mount the bottom flange of the core guide into the bottom H channel approximately 1/4" (6mm).
- mount the left or right side flange of the core guide approximately 1/4" (6mm) followed by the other side.
- mount the top flange of the core guide into the top H channel approximately 1/4" (6mm).
- with all four corners in place and the core straight and even, push hard in the center of the core until the core stops at the back of the cabinet.

NOTE: Core will appear to stick out from cabinet approximately 1/8" (3mm). This is designed this way so that the access door will fit tight against the core.

4. Motors - Maintenance Free

5. Drain (condensate) Line - Clean once a year

Inspect drain line, drain spout and "P" trap for blockage, mold or kinks. Flush with warm soapy water and replace if worn, bent or unable to clean.

6. Clean Duct Work if Required

The duct work running to and from the HRV may accumulate dirt. Wipe and vacuum the duct once every year. You may wish to contact a Heating/Ventilation company to do this.

7. General Maintenance - Twice a Year

Wipe down the inside of the cabinet with a damp cloth to remove dirt, bugs and debris that may be present.

8. Cleaning the Fans

Fans may accumulate dirt causing an imbalance and/or excessive vibration of the HRV. 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 and open the service door
- remove the core
- remove ducting (metal and/or flexible insulated type) from the red and/or blue ports which are connected immediately in-line with the fan assembly
- use a small brush, such as an old toothbrush or pipe cleaner, and insert first
 - through the large opening of the fan assembly and then
 - through the smaller opening in the end of the fan assembly.
- scrub individual fan blades until clean. Avoid moving or damaging balancing flat weight, clip is usually found on one or more of the fan blades
- vacuum and wipe
- reassemble making sure ducting is reattached firmly and insulation and moisture barrier are sealed and taped

Before attempting this task, thought should be given to having a qualified service technician complete the service work.

WARNING



Electric shock hazard. Can cause injury or death. Before attempting to perform any service or maintenance, turn the electrical power unit OFF at disconnect switch(es). Unit may have multiple power supplies.

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Door balancing ports.

WEIGHT 52 lbs. (23.6 kg) **SHIPPING WEIGHT** 56 lbs. (25.4 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

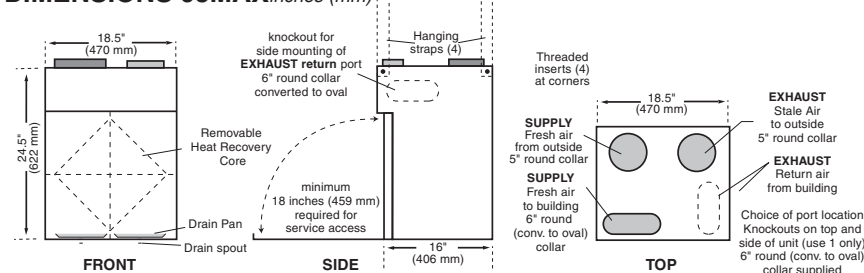
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

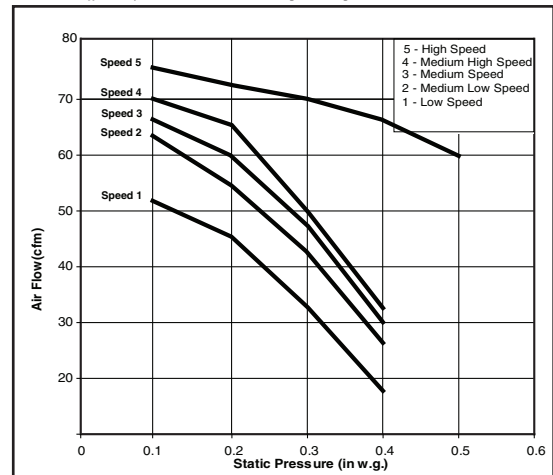
99-185 Weatherhoods, Two - 5" (125 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 95MAX inches (mm)



Performance (HVI certified) <i>Net supply air flow in cfm (L/s) against external static pressure</i>		
E.S.P. (external static pressure)	[cfm (L/s)]	
@ 0.1" (25 Pa)	76 (36)	
@ 0.2" (50 Pa)	73 (34)	
@ 0.3" (75 Pa)	70 (33)	
@ 0.4" (100 Pa)	66 (31)	
@ 0.5" (125 Pa)	60 (29)	
Max. Temperature Recovery	88%	
Sensible Effectiveness @ 60 cfm (28 L/s)	32°F (0°C)	88%
*Sensible Efficiency @ 60 cfm (28 L/s)	32°F (0°C)	75%
*Sensible Efficiency @ 61 cfm (29 L/s)	-13°F (-25°C)	68%
VAC @ 60HZ	120	
WATTS / Low speed.	59	
WATTS / High speed	89	
Amp rating	0.9	

*Sensible Efficiency – thermal **Latent Efficiency – moisture
Note: Effectiveness – based on temp. differential between the 2 airstreams
Efficiency – takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a **LIFETIME** warranty on the heat recovery core and a 5 year replacement parts warranty.

Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

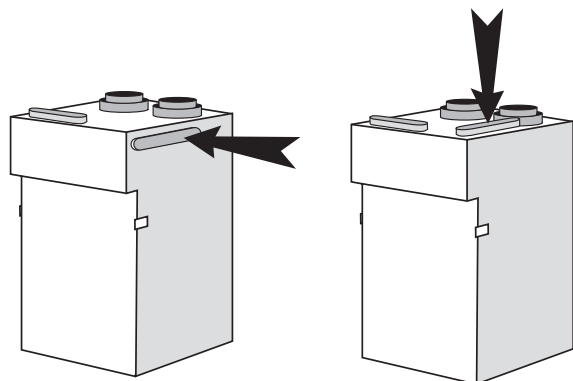
Supplier: _____

Quote#: _____

Submitted by: _____

95MAX Port Specifications

The 95MAX Heat Recovery Ventilator (HRV) has been designed to allow the installer to choose between two possible positions on the cabinet for the INDOOR EXHAUST (return from building) port. Illustrations in this manual show standard (side mounted) port location. The same specifications apply to both 95MAX setups, regardless of which port position is selected.



SIDE MOUNTED PORT
standard location

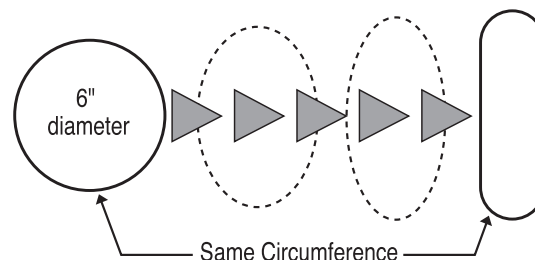
TOP MOUNTED PORT
alternate location

Variable Port Location

Variable Port Location / Installation (Model 95MAX only)

The **exhaust return** port collar is not factory installed. Installer may choose either **side mounted** or alternate **top mounted** port by simply removing one of the two knock-out plates and attaching a port collar (supplied). To remove knock-out plate, insert a utility knife into the knock-out slits and trace them completely to puncture protective film underneath. Then, cut the solid tabs between the slits, using tin snips or side cutters, and remove the knock-out plate. If any protective film still blocks the opening, **remove it now**.

In order to make the 95MAX as space efficient as possible, the INDOOR supply and return ports are converted from round to oval shape. Overall size of the port remains the same. Simply bend a standard duct fitting to the correct shape, and attach to the oval port using the same method as for a round port.



Round port bent to oval

95MAX Air Flow

Stale air enters the **FRONT RIGHT** side port. The air will pass down the front half of the core, then up the back half of the core and out the **RIGHT REAR** port.

Fresh outdoor air will enter the **LEFT REAR** port and pass down the back half of the core. It will then pass up the front half of the core, and out the **LEFT FRONT** port. This unique configuration allows the air to actually travel through the core twice, making the 95MAX almost as efficient as a double core unit.

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Balancing ports are located in the door.

WEIGHT 71 lbs. (32.3 kg) **SHIPPING WEIGHT** 73 lbs. (33.2 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

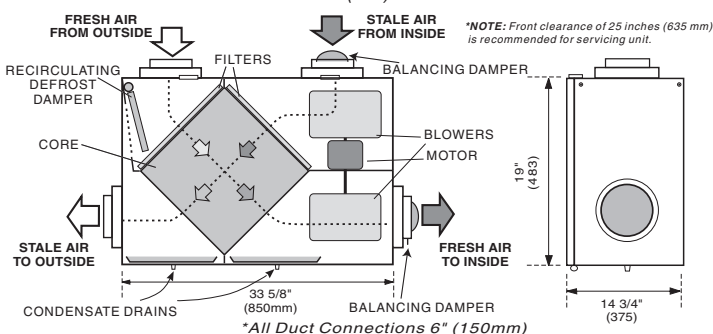
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

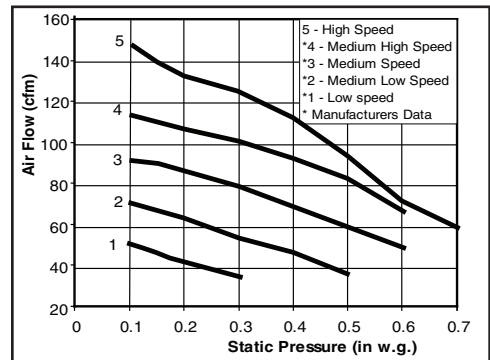
99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 155MAX inches (mm)



Performance (HVI certified) <i>Net supply air flow in cfm (L/s) against external static pressure</i>		
E.S.P (external static pressure)	[cfm (L/s)]	
@ 0.1" (25 Pa)	144 (68)	
@ 0.2" (50 Pa)	134 (63)	
@ 0.3" (75 Pa)	125 (59)	
@ 0.4" (100 Pa)	113 (53)	
@ 0.5" (125 Pa)	92 (43)	
@ 0.6" (150 Pa)	73 (34)	
<hr/>		
Max. Temperature Recovery	78%	
<hr/>		
Sensible Effectiveness		
@ 65 cfm (31 L/s)	32°F (0°C)	73%
*Sensible Efficiency		
@ 65 cfm (31 L/s)	32°F (0°C)	64%
*Sensible Efficiency		
@ 68 cfm (32 L/s)	-13°F (-25°C)	66%
VAC @ 60HZ	120	
WATTS / Low speed.	84	
WATTS / High speed	117	
Amp rating	1.4	

*Sensible Efficiency – thermal **Latent Efficiency – moisture
Note: Effectiveness – based on temp. differential between the 2 airstreams
Efficiency – takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

Date: _____
Tag: _____ Qty: _____
Project: _____
Engineer: _____

Contractor: _____
Supplier: _____
Quote#: _____
Submitted by: _____

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Balancing ports are located in the door.

WEIGHT 71 lbs. (32.3kg) **SHIPPING WEIGHT** 73 lbs. (33.2 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

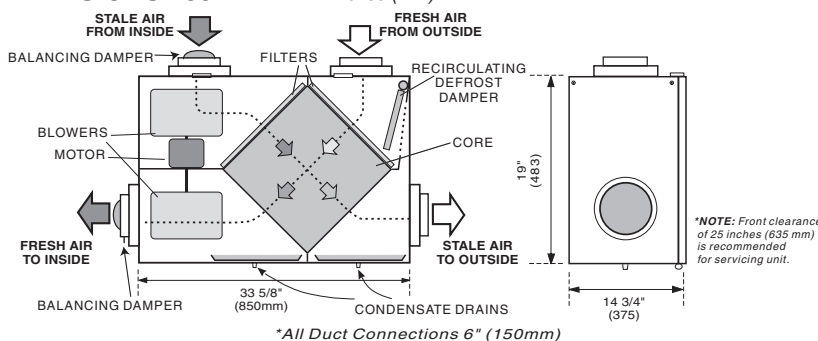
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 155MAX RX inches (mm)



Performance

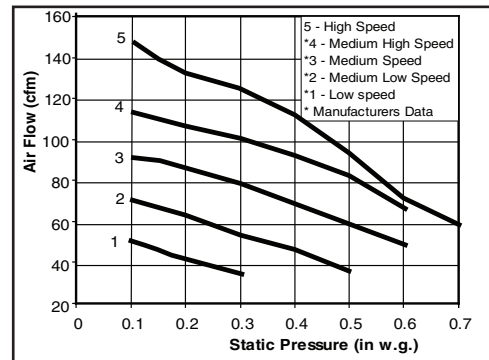
Net supply air flow in cfm (L/s) against external static pressure

E.S.P. (external static pressure)	[cfm (L/s)]
@ 0.1" (25 Pa)	144 (68)
@ 0.2" (50 Pa)	134 (63)
@ 0.3" (75 Pa)	125 (59)
@ 0.4" (100 Pa)	113 (53)
@ 0.5" (125 Pa)	92 (43)
@ 0.6" (150 Pa)	73 (34)

Max. Temperature Recovery	78%
Sensible Effectiveness	
@ 65 cfm (31 L/s) 32°F (0°C)	73%
*Sensible Efficiency	
@ 65 cfm (31 L/s) 32°F (0°C)	64%
*Sensible Efficiency	
@ 68 cfm (32 L/s) -13°F (-25°C)	66%
VAC @ 60HZ	120
WATTS / Low speed.	84
WATTS / High speed	117
Amp rating	1.4

*Sensible Efficiency – thermal **Latent Efficiency – moisture

Note: Effectiveness – based on temp. differential between the 2 airstreams
Efficiency – takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

NOTE

This RX model is reverse flow which means the cold side ducting to the weatherhoods is located on the right side of the unit.

Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

Supplier: _____

Quote#: _____

Submitted by: _____

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

High efficiency electronic commutate ECM motor for maximum energy savings. Each air stream has one centrifugal blower. 5 speed fan operation driven by one double shaft motor.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Balancing ports are located in the door.

WEIGHT 71 lbs. (32.3 kg) **SHIPPING WEIGHT** 73 lbs. (33.2 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

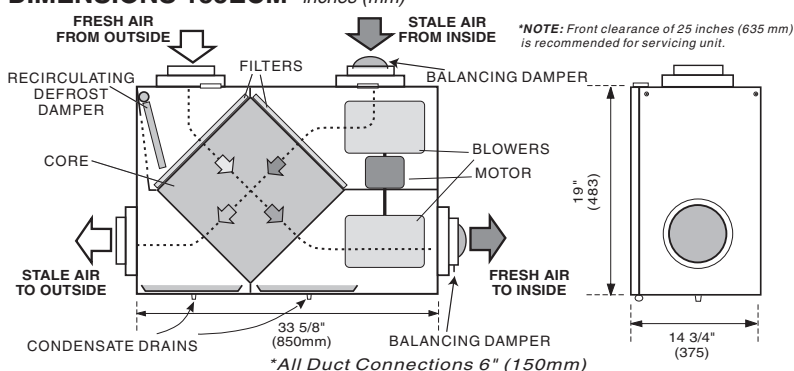
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 155ECM inches (mm)



Performance (HVI certified)

Net supply air flow in cfm (L/s) against external static pressure

E.S.P. (external static pressure)	[cfm (L/s)]
@ 0.1" (25 Pa)	164 (77)
@ 0.2" (50 Pa)	157 (74)
@ 0.3" (75 Pa)	147 (69)
@ 0.4" (100 Pa)	146 (69)
@ 0.5" (125 Pa)	140 (66)
@ 0.6" (150 Pa)	138 (65)
@ 0.7" (175 Pa)	131 (62)
@ 0.8" (200 Pa)	121 (57)

Max. Temperature Recovery 79%

Sensible Effectiveness

@ 66 cfm (31 L/s) 32°F (0°C) 72%

*Sensible Efficiency @ 66 cfm (31 L/s) 32°F (0°C) 66%

*Sensible Efficiency @ 66 cfm (31 L/s) -13°F (-25°C) 67%

VAC @ 60HZ 120

WATTS / Low speed. 34

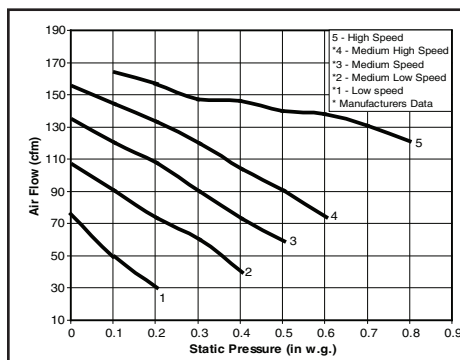
WATTS / High speed 95

Amp rating 1.4

*Sensible Efficiency - thermal **Latent Efficiency - moisture

Note: Effectiveness - based on temp. differential between the 2 airstreams

Efficiency - takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a **LIFETIME** warranty on the heat recovery core and a 5 year replacement parts warranty.

Date: _____
 Tag: _____ Qty: _____
 Project: _____
 Engineer: _____

Contractor: _____
 Supplier: _____
 Quote#: _____
 Submitted by: _____



511 McCormick Blvd.
 London, Ontario N5W 4C8
 T (519) 457-1904
 F (519) 457-1676
 Email: info@lifebreath.com

270 Regency Ridge, Suite 210
 Dayton, Ohio 45459
 T (937) 439-6676
 F (937) 439-6685
 Website: www.lifebreath.com



ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Balancing ports are located in the door.

WEIGHT 71 lbs. (32.3 kg) **SHIPPING WEIGHT** 73 lbs. (33.2 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

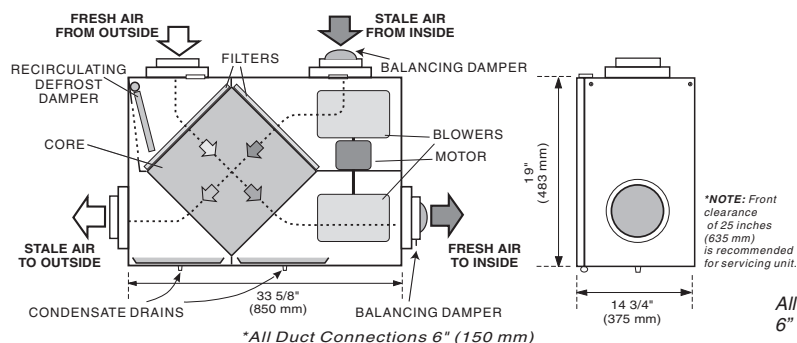
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 200MAX inches (mm)



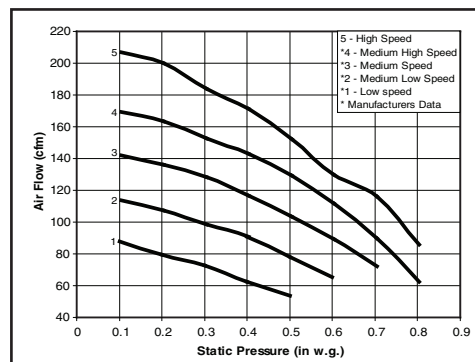
Performance (HVI certified)

Net supply air flow in cfm (L/s) against external static pressure

E.S.P. (external static pressure)	[cfm (L/s)]
@ 0.1" (25 Pa)	207 (97)
@ 0.2" (50 Pa)	200 (94)
@ 0.3" (75 Pa)	184 (87)
@ 0.4" (100 Pa)	171 (80)
@ 0.5" (125 Pa)	152 (71)
@ 0.6" (150 Pa)	130 (61)
@ 0.7" (175 Pa)	116 (55)
@ 0.8" (200 Pa)	86 (40)

Max. Temperature Recovery	74%
Sensible Effectiveness	
@ 66 cfm (31 L/s) 32°F (0°C)	74%
*Sensible Efficiency	
@ 66 cfm (31 L/s) 32°F (0°C)	64%
*Sensible Efficiency	
@ 109 cfm (51 L/s) -13°F (-25°C)	62%
VAC @ 60HZ	120
WATTS / Low speed.	87
WATTS / High speed	164
Amp rating	1.4

*Sensible Efficiency – thermal **Latent Efficiency – moisture
Note: Effectiveness – based on temp. differential between the 2 airstreams
Efficiency – takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

All Duct Connections
6" (160 mm)

Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

Supplier: _____

Quote#: _____

Submitted by: _____



511 McCormick Blvd.
London, Ontario N5W 4C8
T (519) 457-1904
F (519) 457-1676
Email: info@lifebreath.com

270 Regency Ridge, Suite 210
Dayton, Ohio 45459
T (937) 439-6676
F (937) 439-6685
Website: www.lifebreath.com



ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. It is easily removed for cleaning or service.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Recirculating damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD. Balancing ports are located in the door.

WEIGHT 71 lbs. (32.3 kg) **SHIPPING WEIGHT** 73 lbs. (33.2 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 4 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF, 20 ON/40 Recirculation, Continuous Recirculation
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

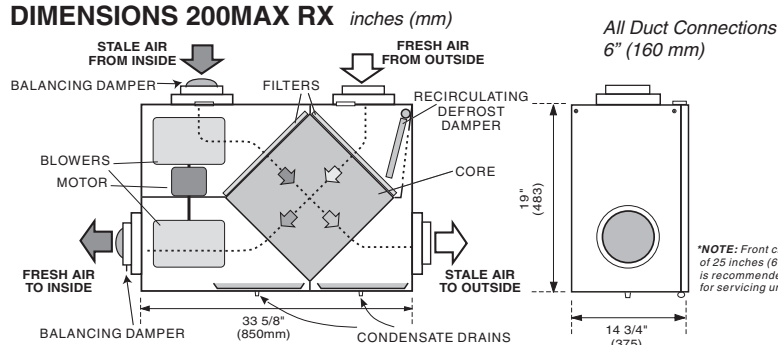
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

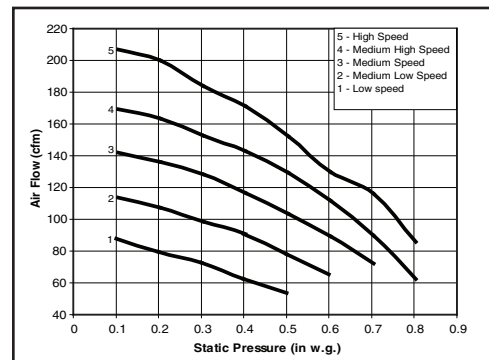
DIMENSIONS 200MAX RX



Performance		
Net supply air flow in cfm (L/s) against external static pressure		
E.S.P. (external static pressure)	[cfm (L/s)]	
@ 0.1" (25 Pa)	207 (97)	
@ 0.2" (50 Pa)	200 (94)	
@ 0.3" (75 Pa)	184 (87)	
@ 0.4" (100 Pa)	171 (80)	
@ 0.5" (125 Pa)	152 (71)	
@ 0.6" (150 Pa)	130 (61)	
@ 0.7" (175 Pa)	116 (55)	
@ 0.8" (200 Pa)	86 (40)	
Max. Temperature Recovery	74%	
Sensible Effectiveness		
@ 66 cfm (31 L/s) 32°F (0°C)	74%	
*Sensible Efficiency @ 66 cfm (31 L/s) 32°F (0°C)	64%	
*Sensible Efficiency @ 109 cfm (51 L/s) -13°F (-25°C)	62%	
VAC @ 60HZ	120	
WATTS / Low speed.	87	
WATTS / High speed	164	
Amp rating	1.4	

*Sensible Efficiency - thermal **Latent Efficiency - moisture

Note: Effectiveness - based on temp. differential between the 2 airstreams
Efficiency - takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

NOTE

This RX model is reverse flow which means the cold side ducting to the weatherhoods is located on the right side of the unit.

Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

Supplier: _____

Quote#: _____

Submitted by: _____

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. The two cores are arranged for highly efficient counter current airflow.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD.

WEIGHT 88 lbs. (40 kg) **SHIPPING WEIGHT** 92 lbs. (41.8 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 2 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

Performance (HVI certified)

Net supply air flow in cfm (L/s) against external static pressure

E.S.P. (external static pressure)	[cfm (L/s)]
@ 0.1" (25 Pa)	216 (101)
@ 0.2" (50 Pa)	195 (92)
@ 0.3" (75 Pa)	181 (85)
@ 0.4" (100 Pa)	158 (74)
@ 0.5" (125 Pa)	144 (68)
@ 0.6" (150 Pa)	125 (59)
@ 0.7" (175 Pa)	107 (50)
@ 0.8" (200 Pa)	72 (34)

Max. Temperature Recovery 92%

Sensible Effectiveness

@ 114 cfm (54 L/s) 32°F (0°C) 86%

*Sensible Efficiency

@ 114 cfm (54 L/s) 32°F (0°C) 78%

*Sensible Efficiency

@ 112 cfm (53 L/s) -13°F (-25°C) 72%

VAC @ 60HZ 120

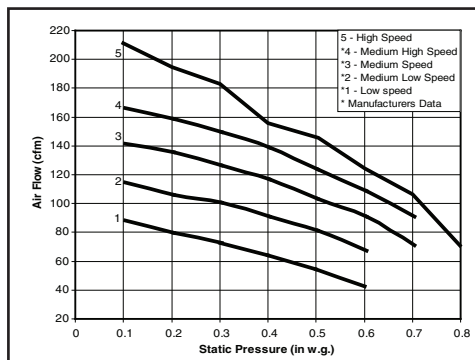
WATTS / Low speed. 74

WATTS / High speed 123

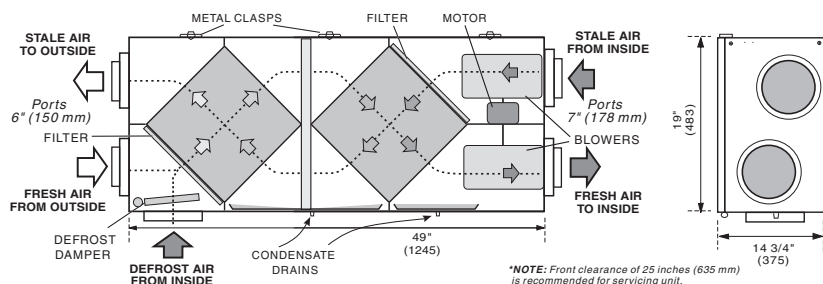
Amp rating 1.5

*Sensible Efficiency - thermal **Latent Efficiency - moisture

Note: Effectiveness - based on temp. differential between the 2 airstreams
Efficiency - takes into account all power inputs



DIMENSIONS 195DCS inches (mm)



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

Supplier: _____

Quote#: _____

Submitted by: _____

ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. The two cores are arranged for highly efficient counter current airflow.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common ECM motor. 5 speed fan operation. 120 VAC, 1.7 Amps.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD.

WEIGHT 88 lbs. (40 kg) **SHIPPING WEIGHT** 92 lbs. (41.8 kg)

CONTROLS & ELECTRONICS

The Lifestyle MAX Digital Control (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 2 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

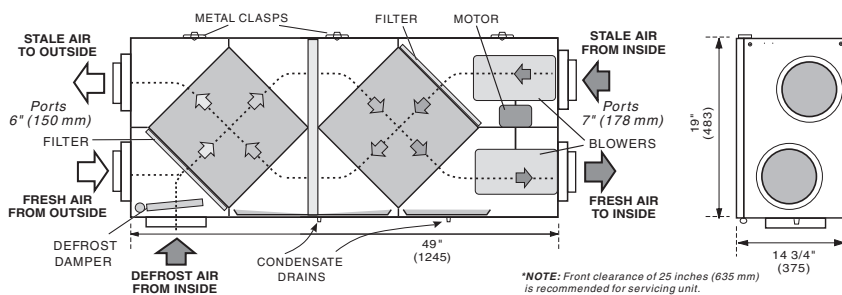
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

99-185 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 195ECM inches (mm)



Performance

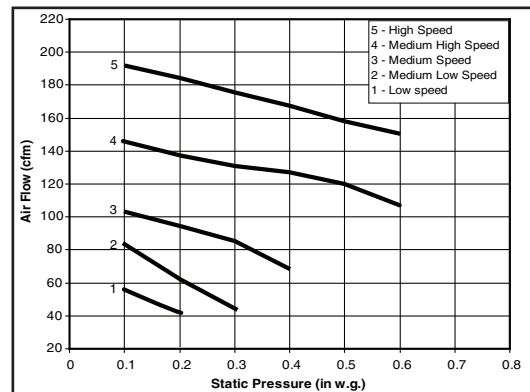
Net supply air flow in cfm (L/s) against external static pressure

E.S.P. (external static pressure)		cfm (L/s)
@ 0.1" (25 Pa)		191 (90)
@ 0.2" (50 Pa)		184 (86)
@ 0.3" (75 Pa)		177 (83)
@ 0.4" (100 Pa)		169 (80)
@ 0.5" (125 Pa)		159 (75)
@ 0.6" (150 Pa)		152 (71)
Max. Temperature Recovery		88%
Sensible Effectiveness		
@ 114 cfm (54 L/s)	32°F (0°C)	85%
*Sensible Efficiency		
@ 114 cfm (54 L/s)	32°F (0°C)	78%
*Sensible Efficiency		
@ 119 cfm (56 L/s)	-13°F (-25°C)	69%
VAC @ 60HZ		120
WATTS / Low speed		34
WATTS / High speed		129
Amp rating		1.7

*Sensible Efficiency - thermal **Latent Efficiency - moisture

Note: Effectiveness - based on temp. differential between the 2 airstreams

Efficiency - takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

ATTENTION

The ECM motor produces a tone that some may find objectionable. We recommend the installation of the optional 99-SILENCER6 on the 'Stale Air from Inside' and 'Fresh Air to Inside' ducts.

Date: _____
 Tag: _____ Qty: _____
 Project: _____
 Engineer: _____

Contractor: _____
 Supplier: _____
 Quote#: _____
 Submitted by: _____



511 McCormick Blvd.
 London, Ontario N5W 4C8
 T (519) 457-1904
 F (519) 457-1676
 Email: info@lifebreath.com

270 Regency Ridge, Suite 210
 Dayton, Ohio 45459
 T (937) 439-6676
 F (937) 439-6685
 Website: www.lifebreath.com



ENGINEERING DATA

THERMALLY CONDUCTIVE, PATENTED ALUMINUM CORE

The cross-flow heat recovery core transfers heat between the two airstreams. The two cores are arranged for highly efficient counter current airflow.

MOTORS AND BLOWERS

Each air stream has one centrifugal blower driven by a common PSC motor. 5 speed fan operation.

FILTERS

Washable air filters in exhaust and supply air streams.

MOUNTING THE HRV

Four threaded inserts at corners of the cabinet designed to accept the "S" hooks and hanging straps supplied with the unit.

DEFROST

Damper defrost system.

CASE

Twenty gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated to prevent exterior condensation. Drain connections 2 - 1/2" (12 mm) OD.

WEIGHT 88 lbs. (40 kg) **SHIPPING WEIGHT** 92 lbs. (41.8 kg)

CONTROLS & ELECTRONICS

The **Lifestyle MAX Digital Control** (included with unit) can be wall mounted in a central location of the home. (3 wire) 20 gauge wire (min.) 100' length

Electronic features include:

- 5 Speed Operation on each mode
- 2 user selectable operational modes: Continuous Ventilation, 20 ON/40 OFF
- Humidity Control through dehumidistat
- Adjustable Dehumidistat function built into the main wall control
- Built-in Relay for Interfacing to furnace

OPTIONAL PROGRAMMABLE CONTROL

99-LS-01 Lifestyle MAX Programmable Control - contains all the features of the Lifestyle MAX Digital Control with 7/24 programmable ventilation, (3 wire) 20 gauge wire (min.) 100' length

OPTIONAL TIMERS

99-DET01 Lifestyle 20/40/60 Minute Timer - Initiates high speed ventilation for 20, 40, or 60 minutes, (3 wire) 20 gauge wire (min.) 100' length

99-20M01 Lifestyle 20 Minute Timer - Initiates high speed ventilation for 20 minutes, (3 wire) 20 gauge wire (min.) 100' length.

99-101 Mechanical Timer - Initiates High speed ventilation for up to 60 minutes, (2 wire) 20 gauge wire (min.) 100' length

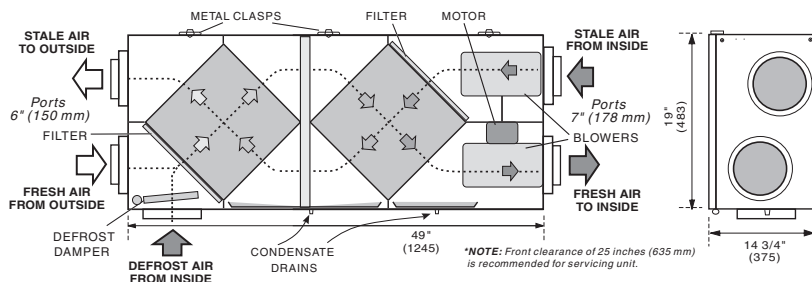
OPTIONAL ACCESSORIES

99-DH-01 Lifestyle Dehumidistat - Initiates high speed ventilation when the indoor humidity level is above the set point. (3 wire) 20 gauge wire (min.) 100' length

99-163 Duct Heater w/ Electronic SCR Thermostat, 1 Kw, 6" (150 mm)

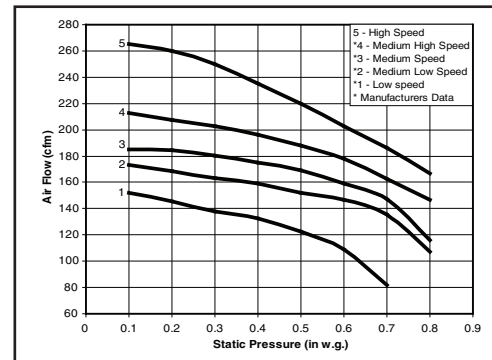
99-186 Weatherhoods, Two - 6" (150 mm) c/w 1/4" (6 mm) mesh screen

DIMENSIONS 300DCS inches (mm)



Performance (HVI certified) Net supply air flow in cfm (L/s) against external static pressure		
E.S.P (external static pressure)	[cfm (L/s)]	
@ 0.1" (25 Pa)	265 (125)	
@ 0.2" (50 Pa)	260 (123)	
@ 0.3" (75 Pa)	250 (118)	
@ 0.4" (100 Pa)	235 (111)	
@ 0.5" (125 Pa)	220 (104)	
@ 0.6" (150 Pa)	203 (96)	
@ 0.7" (175 Pa)	186 (88)	
@ 0.8" (200 Pa)	167 (79)	
Max. Temperature Recovery	90%	
Sensible Effectiveness		
@ 119 cfm (56 L/s) 32°F (0°C)	90%	
*Sensible Efficiency		
@ 119 cfm (56 L/s) 32°F (0°C)	79%	
*Sensible Efficiency		
@ 125 cfm (59 L/s) -13°F (-25°C)	75%	
VAC @ 60HZ	120	
WATTS / Low speed.	150	
WATTS / High speed	333	
Amp rating	2.9	

*Sensible Efficiency – thermal **Latent Efficiency – moisture
Note: Effectiveness - based on temp. differential between the 2 airstreams
Efficiency – takes into account all power inputs



All units conform to CSA and UL standards.

WARRANTY

Units carry a LIFETIME warranty on the heat recovery core and a 5 year replacement parts warranty.

Date: _____
Tag: _____ Qty: _____
Project: _____
Engineer: _____

Contractor: _____
Supplier: _____
Quote#: _____
Submitted by: _____

The Three Methods of Installation

The three methods of installation for the HRV system are:

- The Simplified installation.
- The Partially Dedicated Installation
- The Fully Dedicated Installation

Simplified Installations

The Simplified Installation draws stale air from the cold air return duct of the air handler/furnace and introduces an equal amount of fresh air farther downstream into the cold air return. Refer to *"Simplified Installation Diagrams"*.

The air handler/furnace blower must be running when the unit is operating for this system to be effective. Refer to *"Interlocking the HRV to an Air handler/Furnace Blower"*.

Partially Dedicated Installations

The Partially Dedicated Installation draws stale air from specific points in the house and introduces an equal amount of fresh air into the cold air return. Refer to *"Partially Dedicated Installation Diagrams"*.

Stale air ducts should be installed in areas of the home where the poorest indoor air quality exists (bathrooms and kitchen). Each location with a stale air duct should have a timer to initiate high speed ventilation. Refer to *"Optional Timers"* in this manual.

The air handler/furnace blower should be running when the HRV is operating to evenly distribute the fresh air throughout the house. Refer to *"Interlocking the HRV to an Air handler/Furnace Blower"*.

Fully Dedicated Installations

The Fully Dedicated Installation draws stale air from specific points in the house and delivers fresh air to specific locations of the house. This system is not connected to an air handler/furnace. Refer to *"The Fully Dedicated Installation Diagrams"* in this manual.

Stale air ducts should be installed in areas of the home where the poorest indoor air quality exists (bathrooms and kitchen). Each location with a stale air duct should have a timer which will initiate high speed ventilation. Refer to *"Optional Timers"* in this manual.

Fresh air ducts should be installed to all bedrooms and living areas, excluding bathrooms, kitchen and utility areas. Grilles should be located high on a wall or in ceiling locations. Grilles that diffuse the air comfortably are recommended. Refer to *"Grilles"* in this manual. Special care should be taken in locating grilles if the floor is the only option available. Areas such as under baseboard heaters will help to temper the air.

Optional in-line duct heaters are available for mounting in the supply duct work to add heat if required. Refer to the equipment specification sheet in this manual for your Max Series model in this manual for duct heater part numbers.

Installing the Ducting Between the HRV & Living Areas in the House

A well designed and installed ducting system will allow the HRV to operate at its maximum efficiency.

All ducts should be kept short and have as few bends or elbows as possible to maximize airflow. Forty-five degree elbows are preferred to 90° elbows. Use "Y" tees instead of straight tees whenever possible.

All duct joints must be fastened with screws, rivets or duct sealant and wrapped with mastic or quality duct tape to prevent leakage. Mastic is preferred but if duct tape is used, we recommend aluminum foil duct tape.

Galvanized (rigid) ducting from the HRV to the living areas in the house is recommended whenever possible although flexible duct can be used in moderation if necessary.

A short length (approximately 12 inches or 300mm) of non-metallic flexible insulated duct should be connected between the HRV and the supply/exhaust duct system to avoid possible noise transfer through the duct system.

All ducts running through attics and unheated spaces must be sealed and insulated to code.



ATTENTION

Applications such as greenhouses, atriums, swimming pools, saunas, etc. have unique ventilation requirements which should be addressed with an isolated ventilation system.

Simplified Installation Diagrams

Simplified Installation (Return/Return Method)

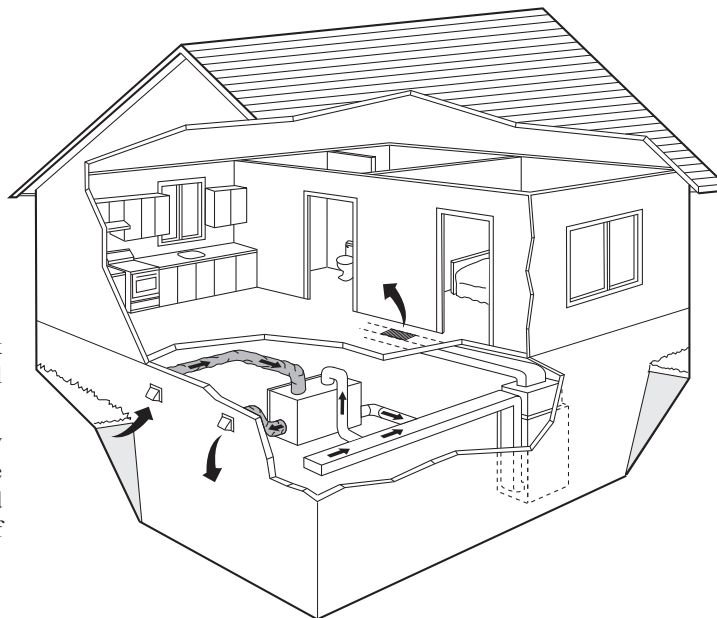
Key Points

- The HRV must be balanced.
- It is mandatory that the furnace blower run continuously or HRV operation be interlocked with the furnace blower.
- The duct configuration may change depending on the HRV model. See specifications for your unit.
- Check local codes / authority having jurisdiction for acceptance.
- A backdraft damper is required in the exhaust air duct to prevent outdoor air from entering the unit when the Furnace/Airhandler is running and the unit is in Standby, OFF or Recirculate.

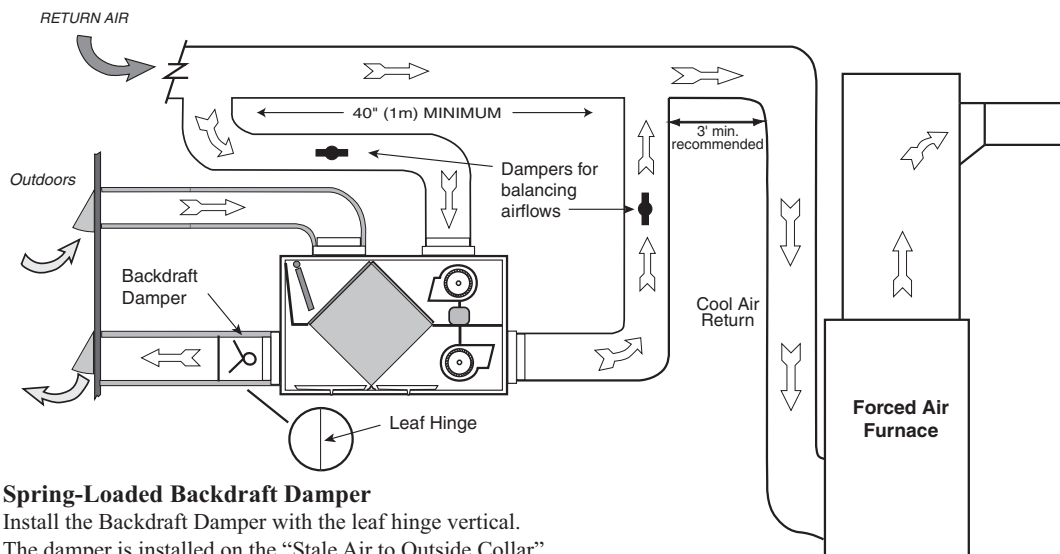
Sizing the Ductwork

It is the responsibility of the installer to ensure all ductwork is sized and installed as designed to ensure the system will perform as intended.

The amount of air (cfm) that an HRV will deliver is directly related to the total external static pressure (E.S.P.) of the system. Static pressure is a measure of resistance imposed on the blower by length of duct work plus the number of fittings used in the duct work.



DIRECT CONNECTION of both the HRV SUPPLY AIR STREAM and EXHAUST AIR STREAM to the FURNACE COLD AIR RETURN



Spring-Loaded Backdraft Damper

Install the Backdraft Damper with the leaf hinge vertical. The damper is installed on the "Stale Air to Outside Collar".

4" (102mm) Backdraft Damper Part No. 99-RSK4

5" (127mm) Backdraft Damper Part No. 99-RSK5

6" (152mm) Backdraft Damper Part No. 99-RSK6

8" (203mm) Backdraft Damper Part No. 99-RSK8

Installation Notes

- Unit is normally balanced on HIGH speed with the furnace blower ON.
- A minimum separation of 40 inches (1m) is recommended between the two direct connections.
- The exhaust air connection should be upstream of the supply air connection to prevent exhausting any fresh air.
- Weatherhood arrangement is for drawing purposes only. Six feet (2m) minimum separation is recommended. The Weatherhood must also be 18" (460mm) above grade minimum.
- The airflow must be confirmed on site using the balancing procedures found in this manual

⚠ WARNING

The Stale Air to Outside air duct requires a Backdraft Damper. This damper prevents outdoor air from entering the HRV during the operation of the Furnace/Airhandler while the HRV is in standby, OFF or Recirculate.

Partially Dedicated Installation Diagrams

Partially Dedicated System

This installation enables stale air to be drawn from the poorest air quality areas of the home (bathrooms, kitchen).

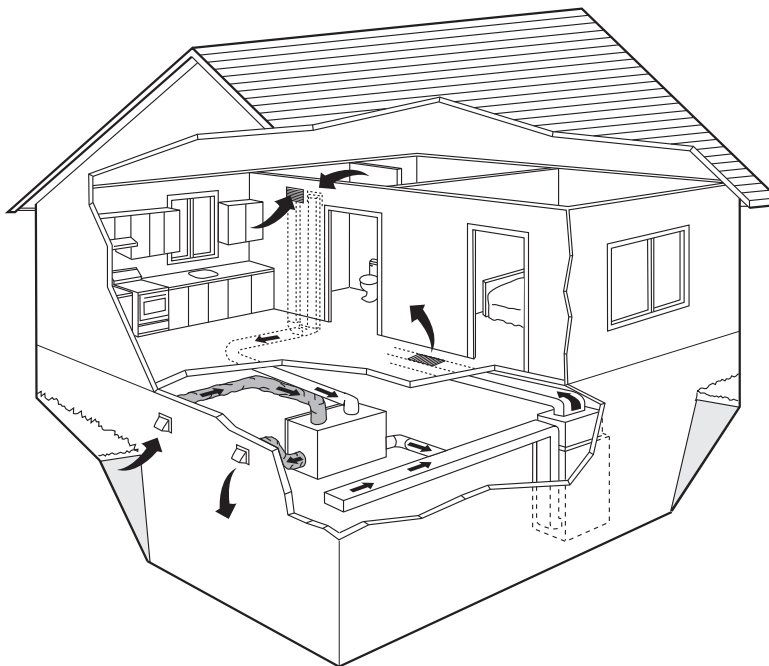
Key Points

- The HRV must be balanced.
- It is recommended that the furnace blower run continuously or HRV operation be interlocked with the furnace blower to evenly distribute the fresh air throughout the house.
- The duct configuration may change depending on the HRV model. See specifications for your unit.
- Check local codes / authority having jurisdiction for acceptance.
- A backdraft damper is required in the exhaust air duct to prevent outdoor air from entering the unit when the Furnace/Airhandler is running and the unit is in Standby, OFF or Recirculate.

Sizing the Ductwork

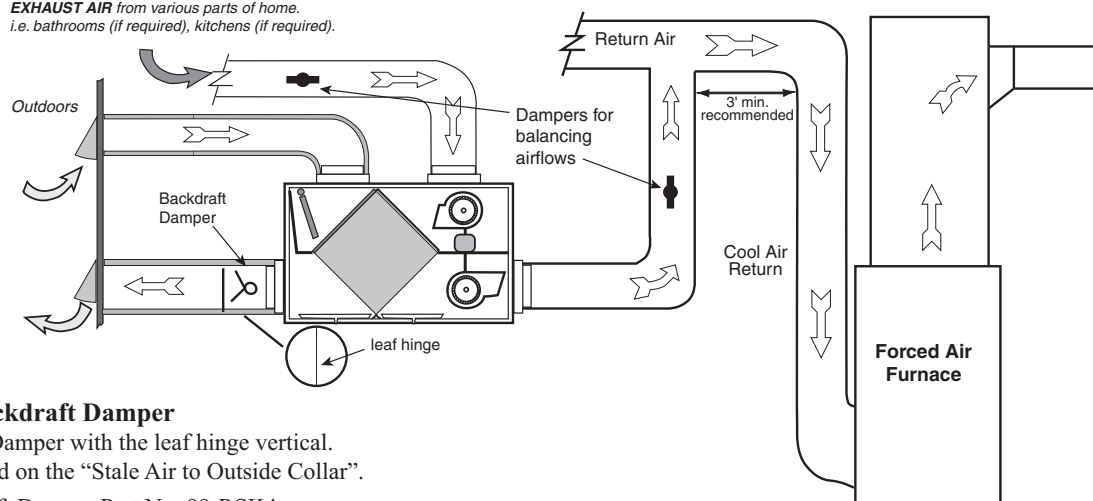
It is the responsibility of the installer to ensure all ductwork is sized and installed as designed to ensure the system will perform as intended.

The amount of air (cfm) that an HRV will deliver is directly related to the total external static pressure (E.S.P.) of the system. Static pressure is a measure of resistance imposed on the blower by length of duct work plus the number of fittings used in the duct work.



DIRECT CONNECTION of the SUPPLY AIR STREAM to the FURNACE COLD AIR RETURN (Stale air drawn from key areas of home)

*EXHAUST AIR from various parts of home.
i.e. bathrooms (if required), kitchens (if required).*



Spring-Loaded Backdraft Damper

Install the Backdraft Damper with the leaf hinge vertical. The damper is installed on the "Stale Air to Outside Collar".

4" (102mm) Backdraft Damper Part No. 99-RSK4

5" (127mm) Backdraft Damper Part No. 99-RSK5

6" (152mm) Backdraft Damper Part No. 99-RSK6

8" (203mm) Backdraft Damper Part No. 99-RSK8

Installation Notes

- Unit is normally balanced on HIGH speed with the furnace blower ON.
- Weatherhood arrangement is for drawing purposes only. Six feet (2m) minimum separation is recommended. The Weatherhood must also be 18" (460mm) above grade minimum.
- The airflow must be confirmed on site using the balancing procedures found in this manual.

! WARNING

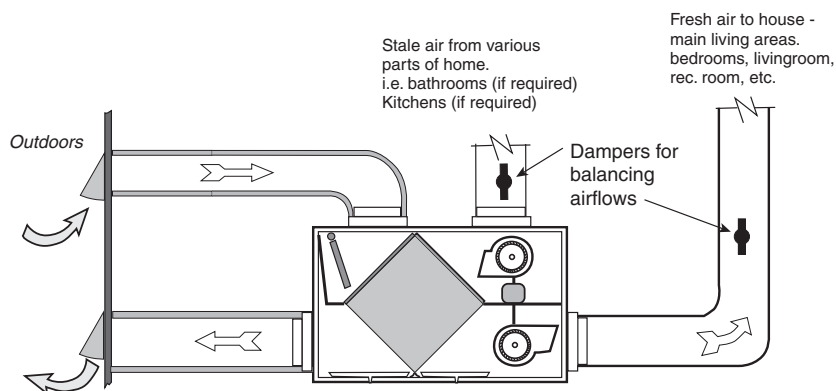
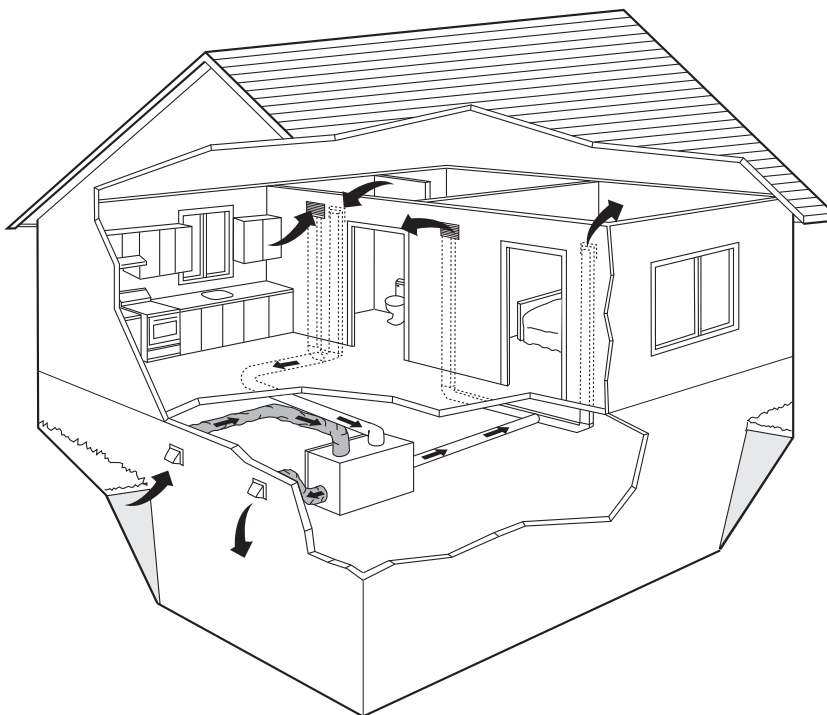
The Stale Air to Outside air duct requires a Backdraft Damper. This damper prevents outdoor air from entering the HRV during the operation of the Furnace/Airhandler while the HRV is in standby, OFF or Recirculate.

Fully Dedicated System

This is a stand alone HRV 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

Key Points

- The HRV must be balanced.
- The duct configuration may change depending on the HRV model. See specifications for your unit.
- Check local codes / authority having jurisdiction for acceptance.



Installation Notes

- Unit is normally balanced on HIGH speed with the furnace blower ON.
- Weatherhood arrangement is for drawing purposes only. Six feet (2m) minimum separation is recommended. The Weatherhood must also be 18" (460mm) above grade minimum.
- The airflow must be confirmed on site using the balancing procedures found in this manual.

Installation

Location

Install the unit in a heated space that provides convenient space for service access. A typical location is in either a mechanical room or an area close to the outside wall within close proximity to where the weatherhoods are mounted. If a basement area is inconvenient or non-existent, install the unit in a utility or laundry room.

Attic installations are not recommended due to:

- A) the complexity of work to install
- B) freezing conditions in the attic
- C) difficulty of access for servicing and cleaning

Leave sufficient clearance at the front of the access door for servicing the air filters and core. The recommended clearance is a minimum of 25" (635 mm) for opening and closing the door. Airia provides four straps for hanging the unit from the basement floor joists.



WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer or service agency.



CAUTION

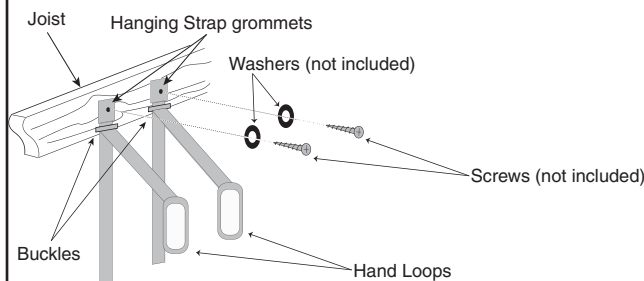
Unit must be installed level to ensure proper condensate drainage. Due to the broad range of installation and operational conditions, consider the possibility of condensation forming on either the unit or connecting ducting. Objects below the installation may be exposed to condensate.

Suspend the Unit with the Adjustable Hanging Straps

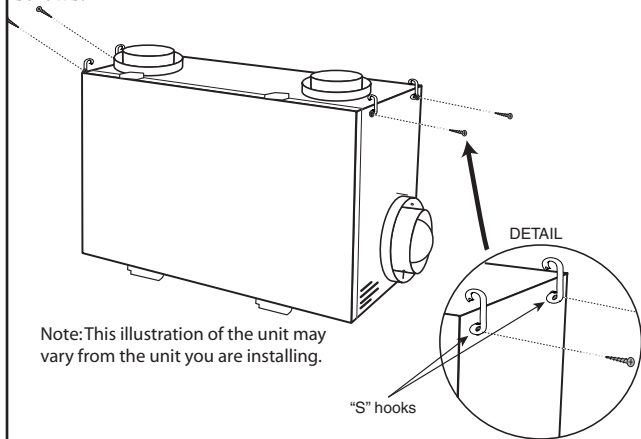
Use 4 screws and 4 washers (not included) to attach the hanging straps to the floor joists. The washer must be wider than the eyelet of the grommet on the hanging strap.

By design, the adjustable hanging straps reduce the possibility of noise, resonance and harmonics.

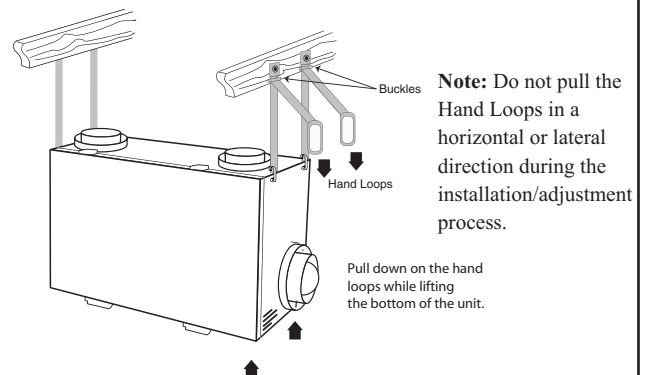
STEP 1. Insert the screws and washers (not included) through the Hanging Strap grommets and fasten to the joists.



STEP 2. Unscrew the 4 machine screws located on the upper side of the unit. Attach the "S" hooks and reinsert the machine screws.

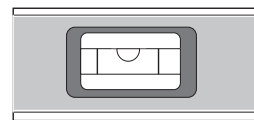


STEP 3. Hook the bottom grommets of the straps through the "S" hooks. Pull down vertically on the hand loops while lifting up the bottom of the cabinet. Repeat at opposite end of the unit.

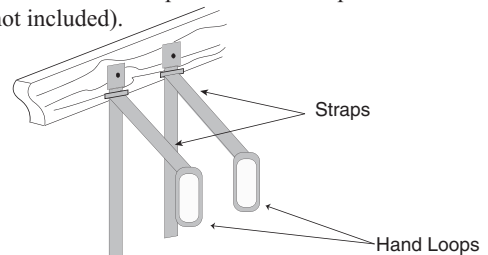


STEP 4. Level the unit from left to right and front to back.

- Adjust the unit down by lifting up on the buckle.
- Adjust the unit up by pulling down vertically on the Hand Loops while lifting up the bottom of the cabinet.



STEP 5. Fold the hand loops and excess strap and secure with a nylon tie (not included).



Drain Connection

Drain Connection

The HRV may produce some condensation during a defrost cycle. This water should flow into a nearby drain, or be taken away by a condensate pump.

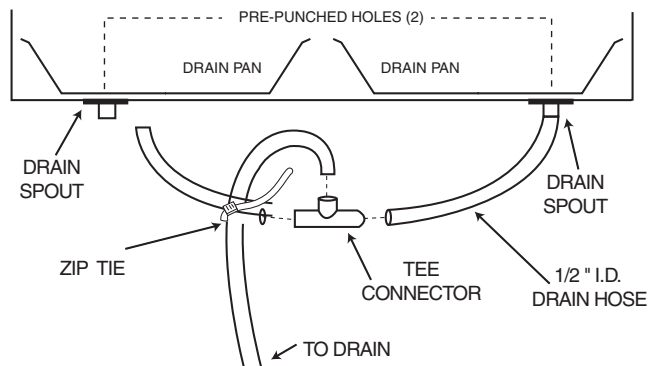
CAUTION

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.

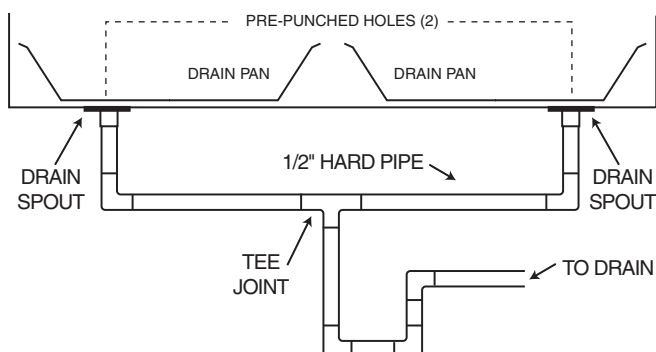
The HRV cabinet has prepunched holes for the drain (see below). Insert the drain spout through the hole in the drain pan. Be sure to install the "O ring" which seals each spout to the pan. **HAND TIGHTEN** the washer and lock nut which hold the drain spout in place.

Construct a P-Trap using the plastic tee connector. Cut two lengths of 1/2" drain hose (not included) and connect the other ends to the two drain spouts. Position the "T" fitting to point upward and connect the drain line. Tape or fasten base to avoid any kinks. Pour a cup of water into the drain pan of the HRV after the drain connection is complete. This creates a water seal which will prevent odors from being drawn up the hose and into the fresh air supply of the HRV.

DRAIN HOSE PLUMBING



HARD PIPE PLUMBING



Note: Secondary drain pan may be required to protect from condensate leakage.

CAUTION

Drain trap and tubing **MUST** be below bottom of door with 1/4" per foot downwards slope away from unit.

Grilles

Adjustable grilles should be used to balance the flow rates into and out of various rooms. The grilles should not be adjusted after balancing the unit.

Grilles or diffusers should be positioned high on the wall or in the ceiling. Kitchen Exhaust grilles must never be connected to the range hood. They should be installed at least 4 feet (1.2 m) horizontally away from the stove.

Field supplied balancing dampers should be installed external to the unit to balance the amount of stale air being exhausted with the amount of fresh air being brought into the house. Refer to Air flow Balancing section.

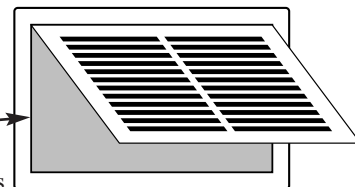
CAUTION

Do not mount exhaust grille within 4' (1.2m) (horizontally) of a stove to prevent grease from entering the unit.

The Lifebreath Kitchen Grille

(Part No. 99-10-002 6" x 10")

Removable filter

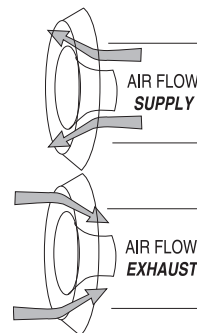


The Lifebreath Kitchen Grille includes a removable grease filter. Most building codes require that kitchen grilles be equipped with washable filters.

The Lifebreath Techgrille

The TECHGRILLE is a round, fully adjustable grille, which provides superior, quiet air distribution.

4" (100 mm) Part No. 99-EAG4
5" (125 mm) Part No. 99-EAG5
6" (150 mm) Part No. 99-EAG6
8" (200 mm) Part No. 99-EAG8



Installing the Ducting from the Weatherhoods to the HRV

The inner and outer liners of the flexible insulated duct must be clamped to the sleeve of the weatherhoods (as close to the outside as possible) and the appropriate port on the HRV. It is very important that the fresh air intake line be given special attention to make sure it is well sealed. A good bead of high quality caulking (preferably acoustical sealant) will seal the inner flexible duct to both the HRV port and the weatherhood prior to clamping.

To minimize air flow restriction, the flexible insulated duct that connects the two outside weatherhoods to the HRV should be stretched tightly and be as short as possible.

Twisting or folding the duct will severely restrict air flow.

Hard (rigid) ducting which has been sealed and insulated should be used for runs over 10' (3.3 m). Refer to your building code.

Intake Weatherhood Requirements

- Should be located upstream (if there are prevailing winds) from the exhaust outlet
- At least 6' (2 m) from the exhaust weatherhood
- At least 6' (2 m) away from dryer vents and furnace exhaust (medium or high efficiency furnaces)
- A minimum of at least 6' (2 m) from driveways, oil fill pipes, gas meters, or garbage containers
- At least 18" (457 mm) above the ground, or above the depth of expected snow accumulation
- At least 3' (1 m) from the corner of the building
- Do not locate in a garage, attic or crawl space

Exhaust Weatherhood Requirements

- At least 6' (2 m) from the ventilation air intake
- At least 18" (457 mm) above ground or above the depth of expected snow accumulation
- At least 3' (1 m) away from the corner of the building
- Not near a gas meter, electric meter or a walkway where fog or ice could create a hazard
- Not into a garage, workshop or other unheated space

When installing the weatherhood, its outside perimeter **must** be sealed with exterior caulking.

Lifebreath Weatherhoods

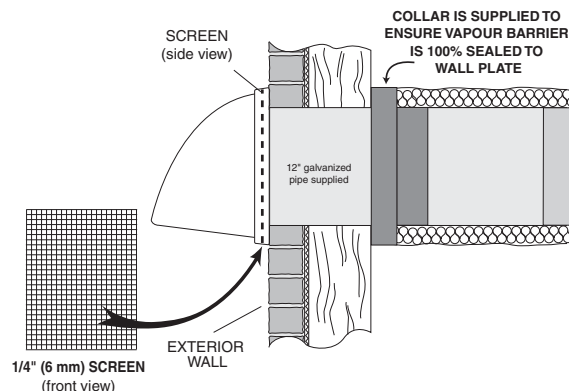
Fixed covered weatherhoods have a built-in bird screen with a 1/4" (6mm) mesh to prevent foreign objects from entering the ductwork.

5" (125 mm) Part No. 99-185

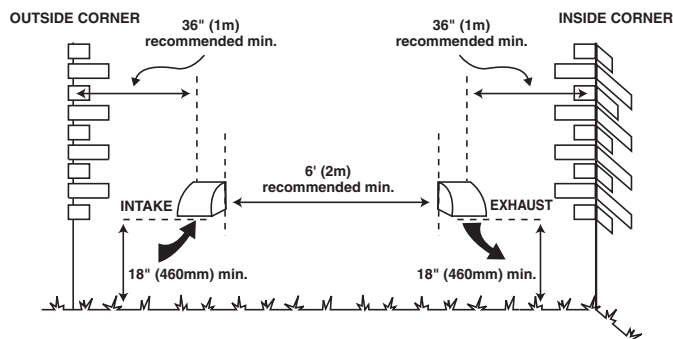
6" (150 mm) Part No. 99-186

7" (200 mm) Part No. 99-187

Weatherhood Installation



1. Thermal Collar slides over galvanized sleeve of Weatherhood.
2. Fasten Thermal Collar to Belt.
3. Slide the Insulated Flexible Ducting over the Weatherhood's galvanized sleeve and fasten it to the Thermal Collar.
4. Hood is hinged to allow for easy access for cleaning of bird screen.



⚠ ATTENTION

Local codes may require greater distances for exhaust and intake.

⚠ CAUTION

Weatherhood arrangement - requires a minimum of 6' (2 m) separation and a minimum of 18" (460mm) above the ground, or above the depth of expected snow accumulation.

Installation of the Main Control

The **Lifestyle MAX Digital Control** or optional **Lifestyle MAX Programmable Control** may be installed onto a flush mounted 2" x 4" electrical switch box or it may be surface mounted onto a wall.

Only 1 master control should be installed to a ventilation system (the Face Plate on this illustration may not be exactly the same as yours).

1. Remove the *Operating Instructions Card* from the top of the Control (Figure A).
2. Separate the *Face Plate* from the *Back Plate* by firmly pulling apart (Figure B). Be careful not to damage Face Plate Contact Pins.
3. Place the *Back Plate* of the control in the desired location on the wall and pencil mark the wall in the center of the *Wire Opening*, *Top Screw Hole* and *Bottom Screw Hole* (Figure C).
4. Remove the *Back Plate* and drill a 3/8" opening in the wall to allow for the *Wire Opening* and a 1/8" hole for the *Wall Anchors* for the top and bottom screw holes (Figure D).
5. Pull 3/20 wire through the opening in the wall and the *Wire Opening* of the *Back Plate* (Figure C).
6. Connect Red, Green and Yellow to the *Wiring Terminals* located on the *Back Plate* (Figure C).
7. Secure a single wire to the *Wire Retainer* located on the *Back Plate* (Figure C).
8. Attach the *Back Plate* to the wall using the 2 supplied screws and anchors.
9. Attach the *Face Plate* to the *Back Plate* (Figure B). Note: Be careful to correctly align the *Face Plate* to avoid damaging the *Face Plate Contact Pins*.
10. Insert the *Operating Instructions Card* into the control (Figure A).
11. Connect the 3/20 wire to the *Terminal Block* located on ventilator (Figure E).

⚠ ATTENTION

Pay special attention not to damage the Contact Pins when removing and detaching the Face Plate. (Figure B)

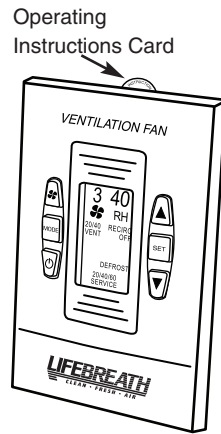


Figure A - Face Plate
(Illustration of Face Plate may vary from actual control)

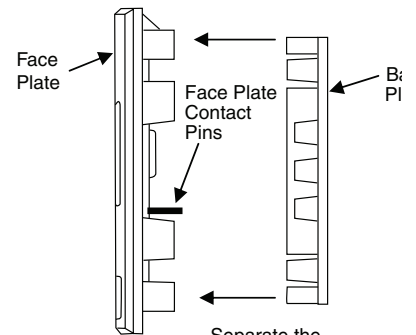


Figure B
Side View
Separate the Face Plate from the Back Plate.

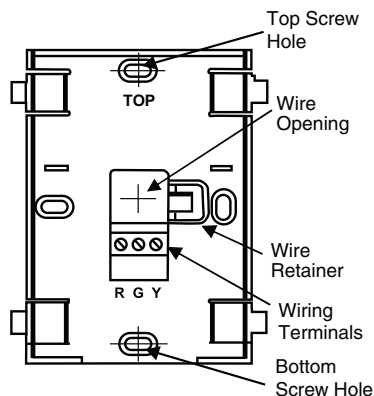


Figure C
Front View of Back Plate

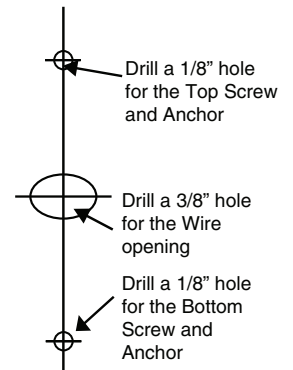


Figure D
Drill holes in wall

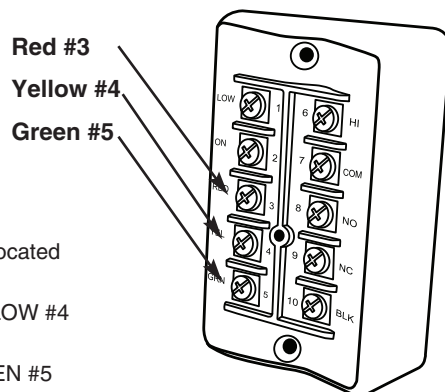


Figure E
Terminal Block located on ventilator
• Yellow to YELLOW #4
• Red to RED #3
• Green to GREEN #5
Use 3/20 wire

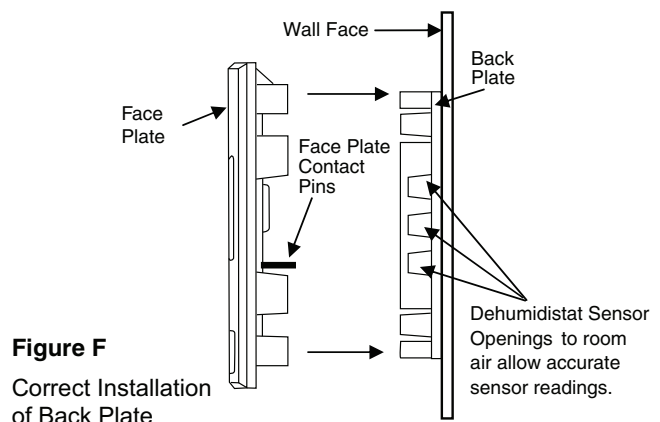


Figure F
Correct Installation of Back Plate

Operating your Lifestyle 20/40/60 Minute Fan Timer

Press and release the *Select Button* to activate a 20, 40 or 60 minute high speed override cycle. The *High Speed Status Light* will illuminate and the unit will run on high speed ventilation for the selected time.

The *High Speed Status Light* will dim after 10 seconds of run time.

The *High Speed Status Light* will flash during the last 5 minutes of the cycle.

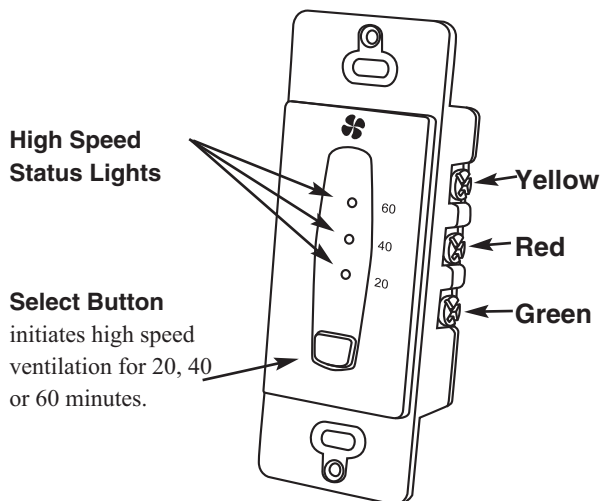
All timers connected to the unit will illuminate for the duration of the override when the *Select Button* is pressed.

Lockout Mode

Lockout Mode is useful if you wish to disable the timers.

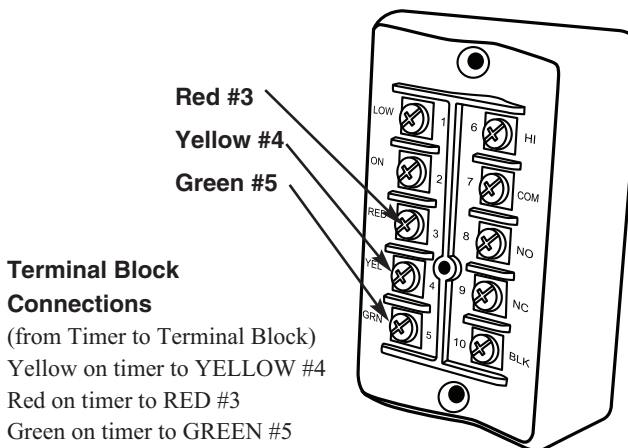
The timer can be set to lockout mode by pressing and holding the *Select Button* for five seconds. After five seconds, the *High Speed Status Light* will flash; release the *Select Button*. The timer is now in lockout mode. If the *Select Button* is pressed during lockout mode the *High Speed Status Light* will momentarily illuminate but no override will be initiated.

If lockout mode is initiated when the timer is activated, the timer will continue its timed sequence but will not allow any further overrides to be initiated. Lockout mode can be unlocked by pressing and holding the *Select Button* for five seconds. After five seconds the *High Speed Status Light* will stop flashing. Release the *Select Button* and the timer will now operate normally.



NOTE ABOUT TIMERS

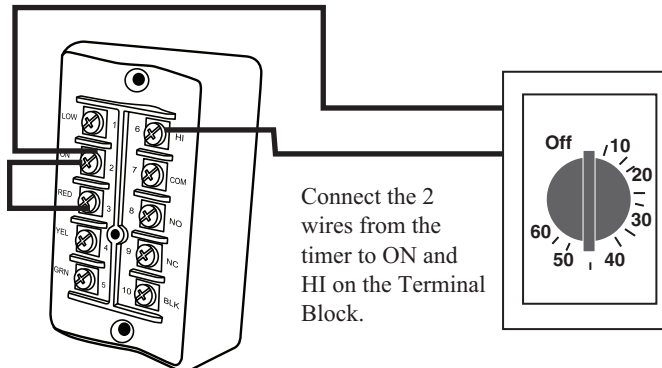
- Timers mount in standard 2" x 4" electrical boxes.
- Wire multiple timers individually back to the unit.
- Use 3/20 low voltage wire



Installation of Mechanical Timers Part # 99-101

The Mechanical timer is a 2 wire "dry contact" timer. A jumper wire must be connected between ON and RED. Connect the 2 timer's wires to ON and HI. Refer to illustration.

2 wire timers require a jumper wire between ON and RED on the terminal block. →



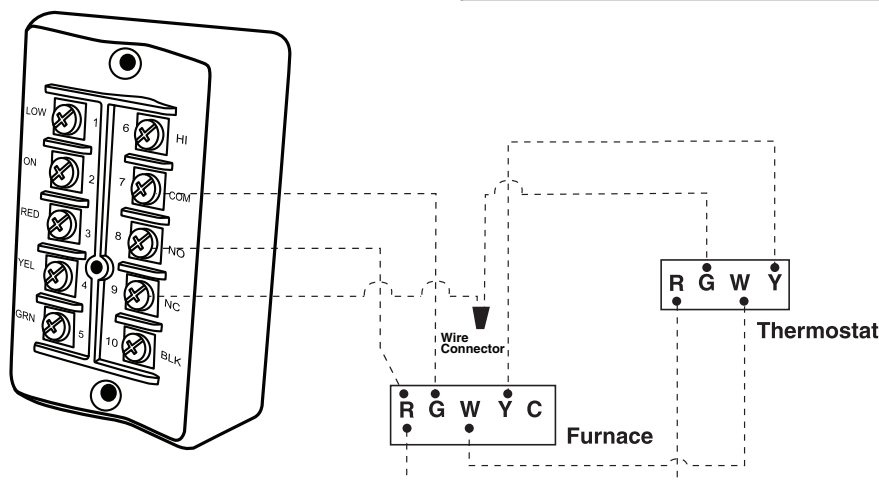
Interlocking the HRV to an Air handler/Furnace Blower

Connecting the HRV as illustrated will ensure the Air Handler/Furnace Blower Motor is operating whenever the HRV is ventilating.

The HRV must be interlocked to the Furnace/Air Handler with a Simplified Installation (Return/Return Installation) and should be interlocked with a Partially Dedicated Installation.

CAUTION

Consideration should be given to competing airflows when connecting the HRV in conjunction with an Air Handler/Furnace Blower system.

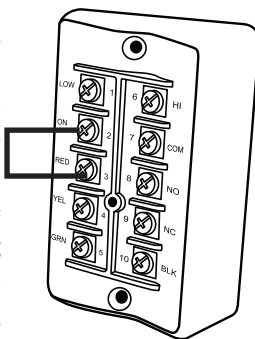


Setting “Standby” when using a Main Control

The HRV will be “fully-off” when the OFF position is selected on the Main Control. Timers and /or other controls will not function when the HRV is in the OFF position.

The “fully-off” feature can be modified to “standby-off” by adding a jumper on the Terminal Block between 2 (ON) and 3 (RED). “Standby” can also be achieved by setting the main control to the ON position and selecting speed 0*. Timers and /or additional controls will initiate high speed ventilation when activated.

* Speed 0 is not available on all controls



The Terminal Block
(located on the HRV)

CAUTION

Building codes in some areas require “fully-off” functionality. Check with your local building authority before modifying the unit to “standby -off”. Unintentional operation of the HRV by the end user may occur if the unit is modified from “fully-off” to “standby-off”.

Operating the HRV without a Main Control and Adding Dry Contact Controls

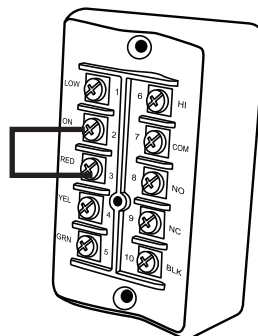
A jumper must be in place between 2 (ON) and 3 (RED) on the Terminal Block to activate the HRV for timers and/or dry contact controls.

Adding Dry Contact Controls

Low Speed - A jumper between 2 (ON) and 1 (LOW) initiates low speed ventilation.

High Speed - A jumper between 2 (ON) and 6 (HI) initiates high speed ventilation.

Dehumidistat - A dry contact for a dehumidistat is connected between 2 (ON) and 10 (BLK).



The Terminal Block
(located on the HRV)

The HRV must have a Jumper in place between 2 (ON) and 3 (RED) on the Terminal Block when installing the unit without a Main Control.

Balancing the Air Flows

Balancing the air flows is critical to ensuring that the amount of air introduced from the outside of the building equals the amount of air exhausted to the outside of the building. If these two air flows are not properly balanced, the following issues may occur:

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

Air Flow Measuring Gauges

The magnehelic gauge and the digital manometer are suitable instruments for the balancing of air flows.

A magnehelic gauge with a scale of 0 to .25" w.c. is suitable for accurately measuring air duct velocity. The value on the gauge will be velocity pressure. A digital manometer requires the ability to display differential pressures at 3 digits of resolution.

Gauge Attachments

When sampling an air flow, various attachments are available for use on a magnehelic gauge or digital manometer.

Consult with your Lifebreath Distributor for available options such as a pitot tube, flow measuring station, and an air flow measuring probe.

The following illustration shows a magnehelic gauge with a scale of 0 to .25" w.c. with a pitot tube attachment. This combination will measure the system air velocity pressure accurately, regardless of the duct size or shape (either round or rectangular).

Balancing Preparation

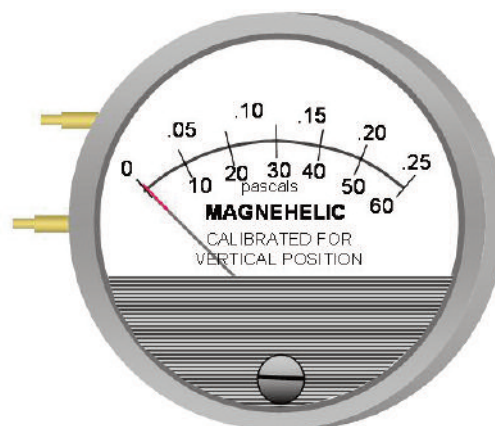
Prior to performing the air balancing procedure, perform the following steps:

- Seal the ductwork system
- Confirm the installation and proper operation of all the components of the HRV.
- Fully open the balancing dampers.
- Turn off all household exhaust devices (range hood, clothes dryer, bathroom fans)
- Set the HRV at high speed
- Prior to balancing the unit, first adjust air flows in branch lines to specific areas of the house.
- If the outdoor temperature is below 0°C (32°F), ensure the unit is not running in defrost
- Place the magnehelic gauge on a level surface and adjust it to zero.
- If the system is a Simplified or Partially Dedicated installation, operate the furnace/air handler at high speed.

ATTENTION

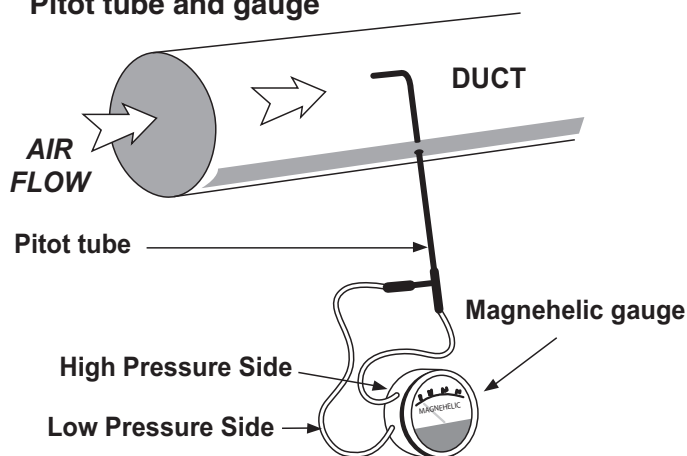
Continuous, excessive, positive pressure may drive moist indoor air into the external walls of the building. Once inside the external walls, moist air may condense (in cold weather) and degrade structural components or cause locks to freeze.

Continuous, excessive, negative pressure may have several undesirable effects. In some geographic locations, soil gases such as methane and radon gas may be drawn into the home through basement or ground contact areas, and may also cause the backdrafting of vented combustion equipment.



Magnehelic Gauge with a scale of 0 to .25" w.c.

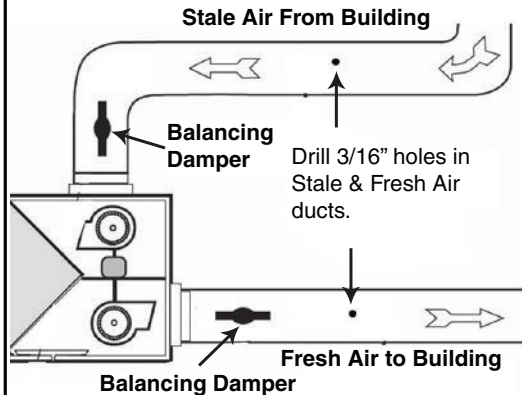
Pitot tube and gauge



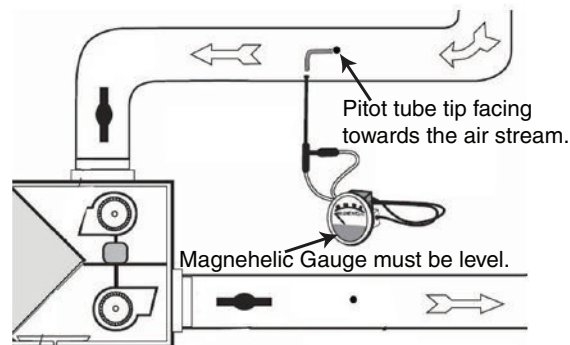
**Magnehelic Gauge (scale of 0 to .25" w.c.)
with a Pitot Tube Attachment**

Balancing the Air Flows with a Pitot Tube

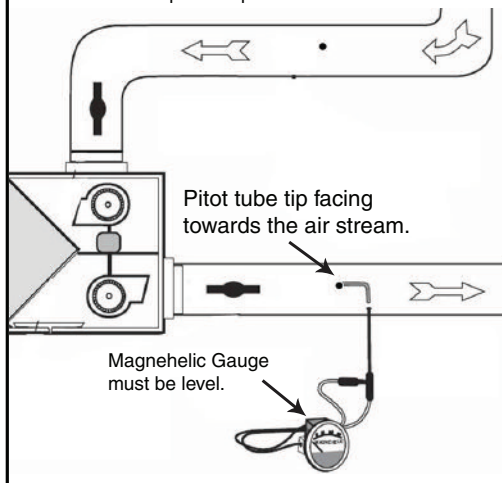
STEP 1. Drill a 3/16" hole in the duct (ideally 3 feet downstream of any elbows or bends and 1 foot upstream of any elbows or bends) in the Fresh Air and Stale air streams.



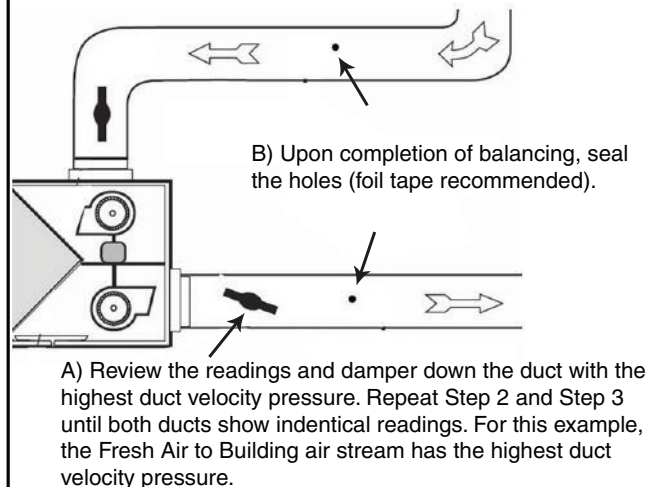
STEP 2. Insert the Pitot tube with the tip facing towards the air stream in the Stale Air From Building air stream. Move the Pitot tube around in the duct (facing towards the airflow) and take an average reading. Record the reading.



STEP 3. Repeat Step 2 to measure the Fresh Air to Building duct.



STEP 4.



Determining the cfm

After balancing the air flows, calculate the cfm flow rate.

Example

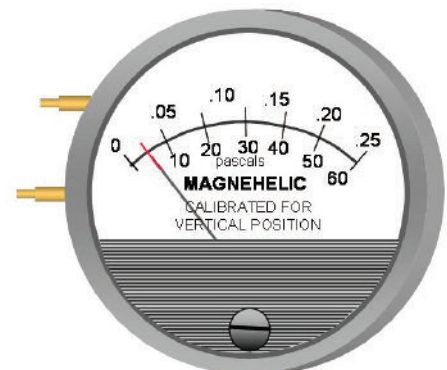
This example shows how to determine the air flow for a 6" diameter duct. As shown in the illustration, the duct velocity pressure reads 0.025" w.c. on the magnehelic gauge. Use the chart that came with the magnehelic gauge to determine a duct velocity of 640 feet per minute for a duct velocity pressure of 0.025" w.c.

Cfm Calculation

$$\begin{aligned} \text{cfm} &= \text{feet per minute} \times \text{cross section area of duct} \\ &= 640 \times 0.196 \\ &= 125 \end{aligned}$$

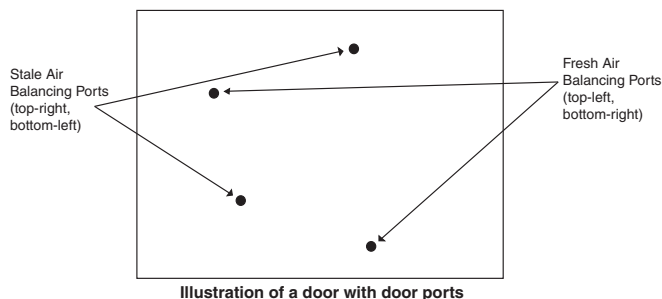
Cross Section Area of some common round duct sizes:

- 0.087 for 4" diameter duct
- 0.136 for 5" diameter duct
- 0.196 for 6" diameter duct
- 0.267 for 7" diameter duct



Magnehelic Gauge reading .025" w.c.

Door balancing ports (not on all models) are designed to be used in conjunction with a Magnehelic Gauge or Digital Manometer to measure the Stale and Fresh airflows for balancing.



Step 1

Prepare the air flow measuring device (i.e. Magnehelic Gauge or Digital Manometer) by connecting the hoses to the low and high pressure side of the gauge.

Step 2

Insert the hoses into the rubber fittings from the optional Door Port Adapter Kit (part # 99-182). Use light pressure and rotate until fitting is snug. Do not extend the hose past the rubber fitting.

Step 3

Open the HRV Door. Remove the 4 Door Port Covers by carefully pushing them out from the back side of the door (use the blunt end of a large drill bit etc.).

Step 4

Close the HRV Door. Initiate power and operate the HRV on high speed. Operate the forced air system on high speed (if the HRV is connected to the forced air system).

Step 5

Insert the 2 rubber fittings from the gauge to the STALE AIR Balancing Ports (upper right and lower left). Seal the FRESH AIR Balancing Ports (upper left and lower right) with tape. Record your reading. **Note:** Use upper-left and lower-right ports on reverse flow models (155MAX RX and 200MAX RX).

Step 6

Insert the 2 rubber fittings from the gauge to the FRESH AIR Balancing Ports (upper left and lower right). Seal the STALE AIR Balancing Ports (upper right and lower left) with tape. Record your reading. **Note:** Use upper-left and lower-right ports on reverse flow models (155MAX RX and 200MAX RX).

Step 7

Refer to the "Airflow Reference Chart" for your model and determine the FRESH AIR and STALE AIR flow rates (the chart is located on the lower portion of this page).

Step 8

Damper down the higher airflow and repeat Steps 5 to 7 as required until both airflows are identical (balanced).

Step 9

Remove the tape and rubber fittings and reinstall the 4 Door Port Covers.

Airflow Reference Charts

MODEL 155		
Manometer Reading	Airflow Numbers (CFM)	
Pressure (in. w.g.)	Fresh Air	Stale Air
0.100	93	80
0.105	96	83
0.110	99	86
0.115	102	89
0.120	105	92
0.125	108	96
0.130	111	99
0.135	114	102
0.140	117	105
0.145	120	108
0.150	123	111
0.160	130	117
0.170	136	123
0.180	142	129
0.190	148	135
0.200	154	141
0.210	160	147
0.220	166	154
0.230	172	160
0.240	178	166
0.250	184	172
0.260	191	178
0.270	197	184
0.280	203	190
0.290	209	196
0.300	215	202
0.310	221	209

MODEL 200		
Manometer Reading	Airflow Numbers (CFM)	
Pressure (in. w.g.)	Fresh Air	Stale Air
0.100	98	91
0.110	102	96
0.120	107	101
0.130	111	107
0.140	115	112
0.150	120	117
0.160	124	122
0.170	128	127
0.180	133	132
0.190	137	137
0.200	141	142
0.210	145	147
0.220	149	152
0.230	153	156
0.240	157	161
0.250	161	166
0.260	165	171
0.270	169	175
0.280	173	180
0.290	177	184
0.300	181	189
0.310	185	193
0.320	189	198
0.330	192	202
0.340	196	207
0.350	200	211
0.360	203	215

Magnehelic Gauge hoses connected to STALE AIR balancing ports

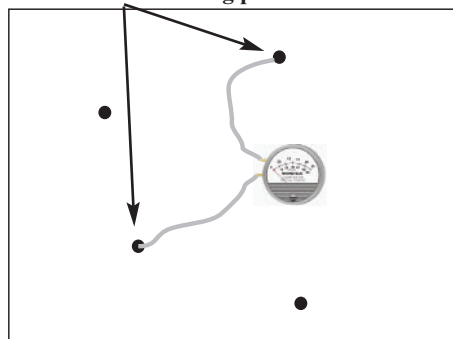


Illustration of measuring STALE airflow using a Magnehelic Gauge. Note: Use opposite ports on reverse flow models (155MAX RX & 200MAX RX).

Magnehelic Gauge hoses connected to FRESH AIR balancing ports

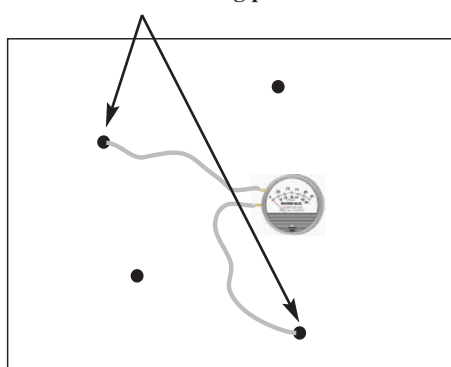
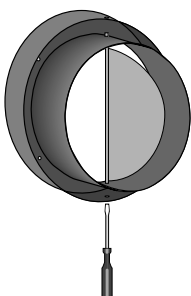
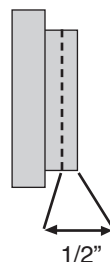
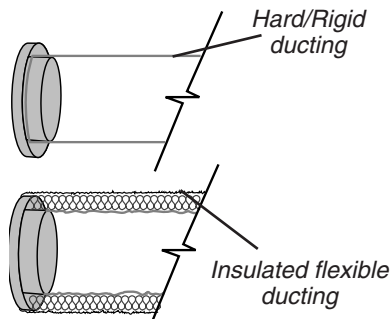


Illustration of measuring FRESH airflow using a Magnehelic Gauge. Note: Use opposite ports on reverse flow models (155MAX RX & 200MAX RX).

Balancing Collar Instructions



Push and turn with slotted screwdriver. Damper automatically locks when pressure is released.



When connecting ductwork to the collar, take note where screws are located. Screws should be located no further than 1/2" from outside edge of collar, so as not to impede operation of the damper.

The 155 and 200 models have balancing collars located on the "Fresh Air to Building" and "Stale Air from Building" sides.

Install these units with the dampers fully open and damper down the duct with the higher air flow to equal the lower air flow. Refer to the Air Flow Balancing Procedures found in this manual.

All other units require dampers for balancing air flows installed into the "Fresh Air to Building" and "Stale Air from Building" ductwork.

NOTE

Installations where the HRV is ducted directly to the return of a furnace may require additional dampening on the *fresh air to building* duct. This is due to the high return static pressures found in some furnace installations.

Balancing Instruments and Kits

Magnehelic Gauge with pitot tube Air Flow Balancing Kit

Part No. 99-167

Use this kit to determine airflow in the HRV ductwork.

- 1 - Magnehelic Gauge (scale 0 to 0.25" w.c.)
- 1 - Carry Case
- 1 - Pitot Tube
- 1 - Instruction page

Magnehelic Gauge with Door Port Adapter Kit

Part No. 99-181

Use this kit to determine airflow via HRV Door Ports

- 1 - Magnehelic Gauge (scale 0 to 0.50" w.c.)
- 1 - Carry Case
- 2 - Connection Hoses
- 4 - Rubber Fittings
- 1 - Instruction page

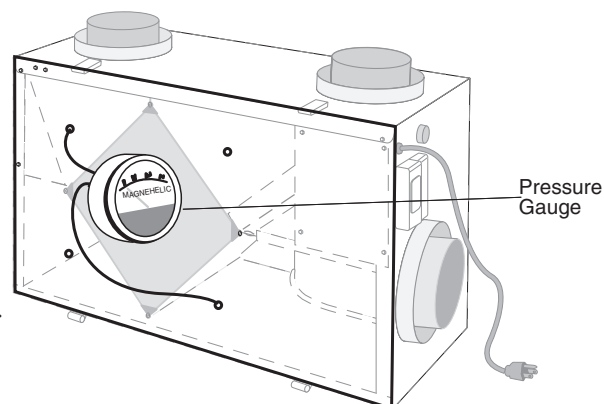
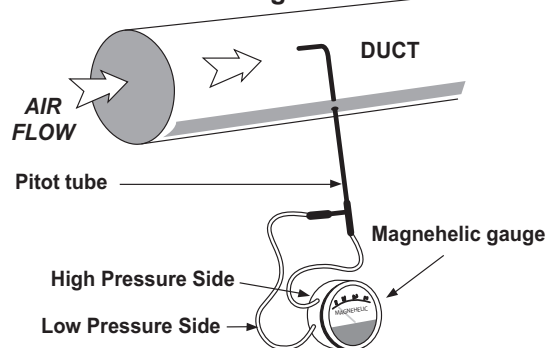
Door Port Adapter Kit (Magnehelic Gauge not included)

Part No. 99-182

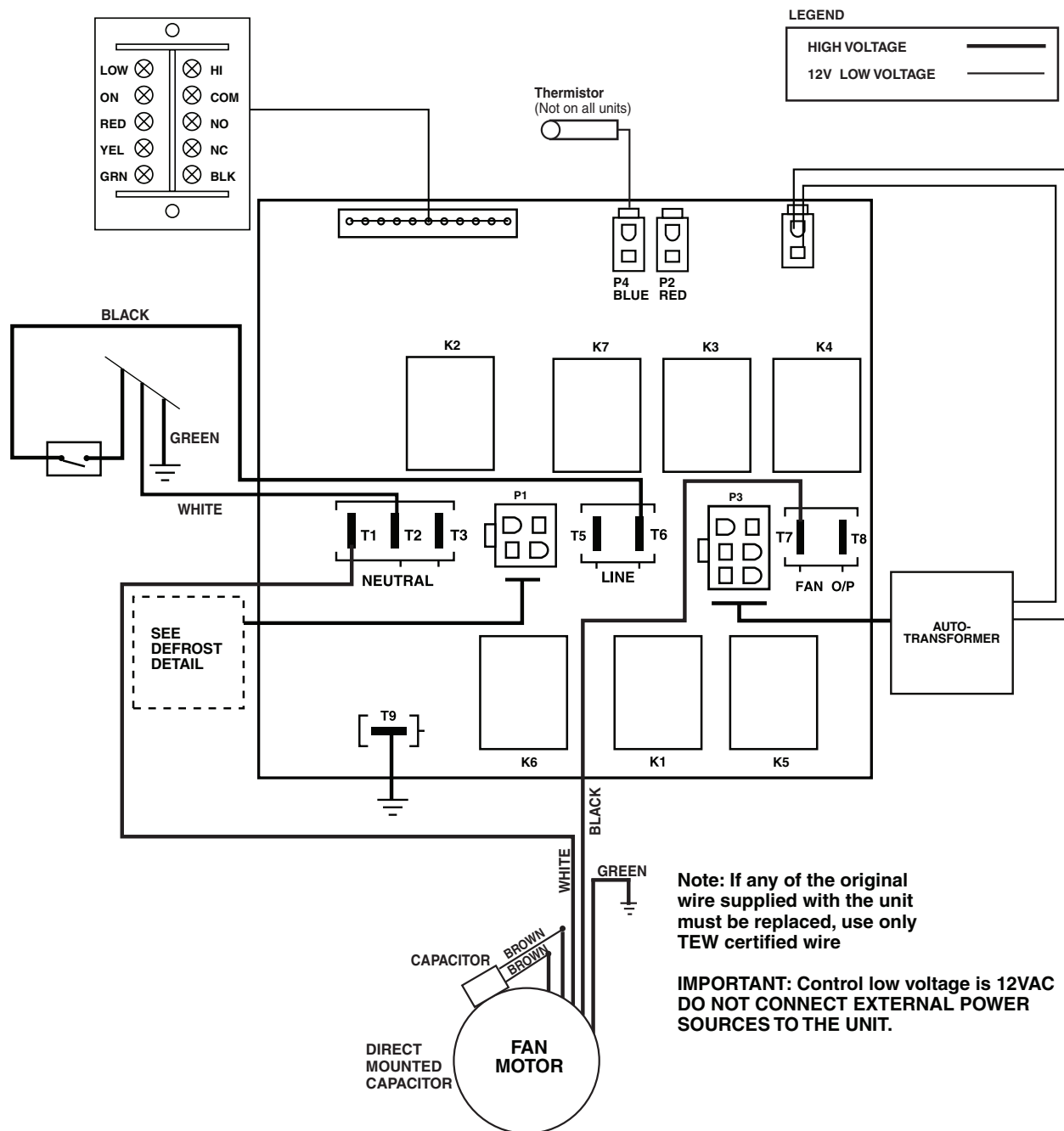
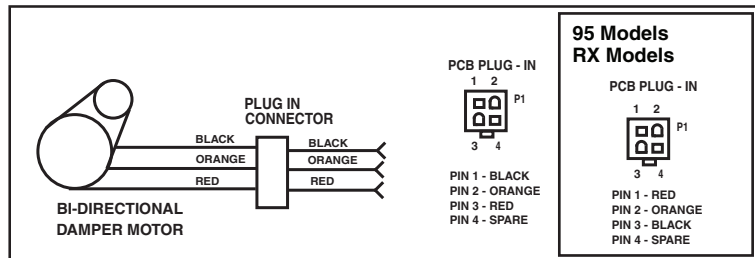
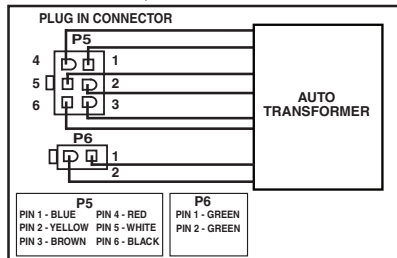
Use this kit to adapt your Magnehelic Gauge or digital manometer for door port balancing.

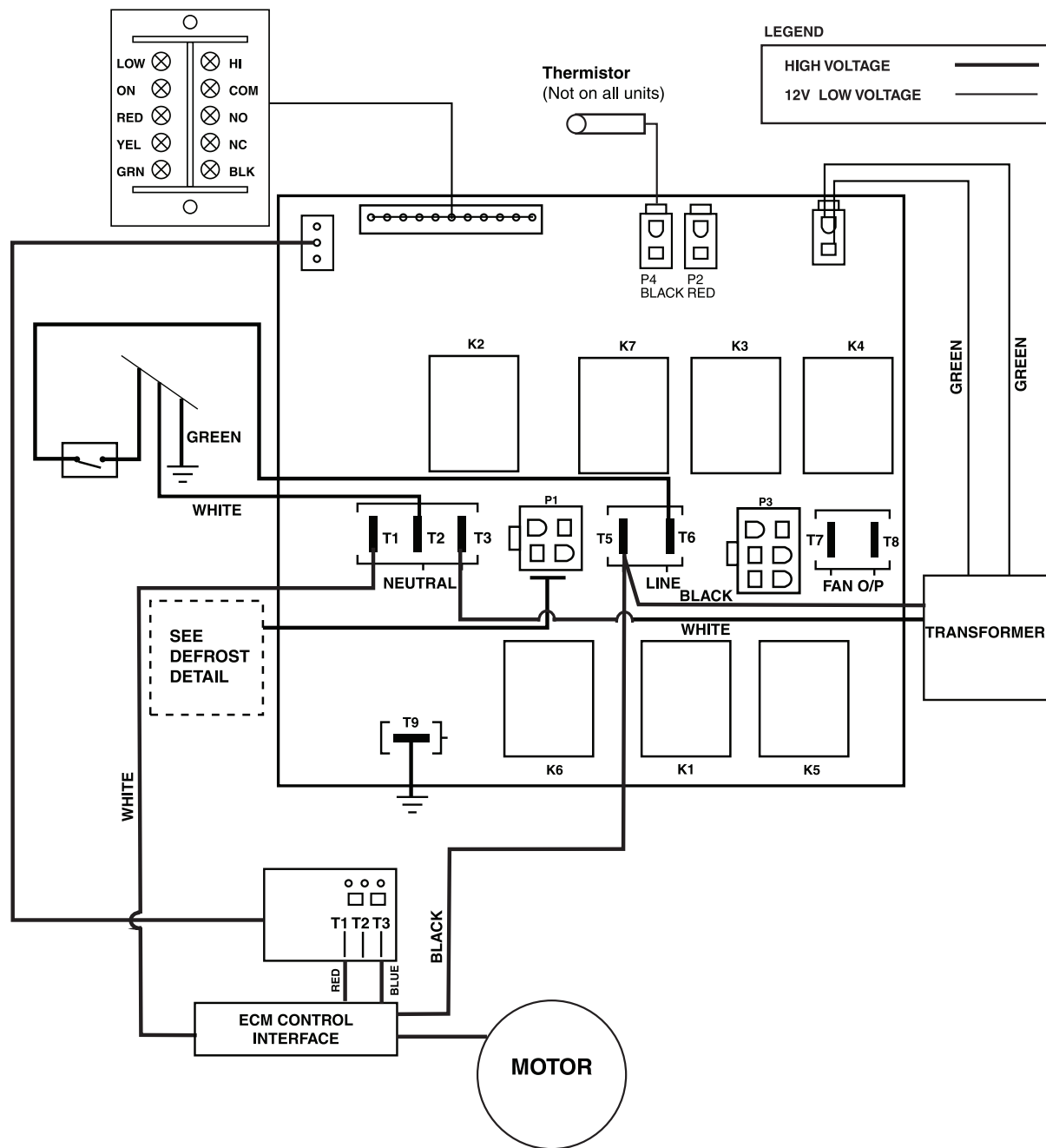
- 2 - Connection Hoses
- 4 - Rubber Fittings
- 1 - Instruction Sheet

Pitot Tube and Gauge



SYMPTOM	CAUSE	SOLUTION
Poor Air Flows	<ul style="list-style-type: none"> • 1/4" (6 mm) mesh on the outside hoods is plugged • filters plugged • core obstructed • house grilles closed or blocked • dampers are closed if installed • poor power supply at site • ductwork is restricting HRV • improper speed control setting • HRV airflow improperly balanced 	<ul style="list-style-type: none"> • clean exterior hoods or vents • remove and clean filter • remove and clean core • check and open grilles • open and adjust dampers • have electrician check supply voltage at house • check duct installation • increase the speed of the HRV • have contractor balance HRV
Supply air feels cold	<ul style="list-style-type: none"> • poor location of supply grilles, the airflow may irritate the occupant • outdoor temperature extremely cold 	<ul style="list-style-type: none"> • locate the grilles high on the walls or under the baseboards, install ceiling mounted diffuser or grilles so as not to directly spill the supply air on the occupant (eg. over a sofa) • turn down the HRV supply speed. A small duct heater (1kw) could be used to temper the supply air • placement of furniture or closed doors is restricting the movement of air in the home • if supply air is ducted into furnace return, the furnace fan may need to run continuously to distribute ventilation air comfortably
Dehumidistat is not Operating	<ul style="list-style-type: none"> • outdoor temperature is above 15°C (59°F) • improper low voltage connection • external low voltage is shortened out by a staple or nail • check dehumidistat setting it may be on OFF 	<ul style="list-style-type: none"> • dehumidistat is functioning normally (see Auto Dehumidistat Disable in this manual) • check that the correct terminals have been used • check external wiring for a short • set the dehumidistat at the desired setting
Humidity Levels are too High Condensation is appearing on the windows	<ul style="list-style-type: none"> • dehumidistat is set too high • HRV is undersized to handle a hot tub, indoor pool, etc. • lifestyle of the occupants • moisture coming into the home from an unvented or unheated crawl space • moisture is remaining in the washroom and kitchen areas • condensation seems to form in the spring and fall • HRV is set at too low a speed 	<ul style="list-style-type: none"> • set dehumidistat lower • cover pools, hot tubs when they are not in use • avoid hanging clothes to dry, storing wood and venting clothes dryer inside. Heating wood may have to be moved outside • vent crawl space and place a vapor barrier on the floor of the crawl space • ducts from the washroom should be sized to remove moist air as effectively as possible, use of a bathroom fan for short periods will remove additional moisture • on humid days, as the seasons change, some condensation may appear but the homes air quality will remain high with some HRV use • increase speed of the HRV
Humidity Levels are too Low	<ul style="list-style-type: none"> • dehumidistat control set too low • blower speed of HRV is too high • lifestyle of occupants • HRV air flows may be improperly balanced 	<ul style="list-style-type: none"> • set dehumidistat higher • decrease HRV blower speed • humidity may have to be added through the use of humidifiers • have a contractor balance HRV airflows
HRV and / or Ducts Frosting up	<ul style="list-style-type: none"> • HRV air flows are improperly balanced • malfunction of the HRV defrost system 	<ul style="list-style-type: none"> • Note: minimal frost build-up is expected on cores before unit initiates defrost cycle functions • have HVAC contractor balance the HRV • ensure damper defrost is operating during self-test
Condensation or Ice Build Up in Insulated Duct to the Outside	<ul style="list-style-type: none"> • incomplete vapor barrier around insulated duct • a hole or tear in outer duct covering 	<ul style="list-style-type: none"> • tape and seal all joints • tape any holes or tears made in the outer duct covering • ensure that the vapor barrier is completely sealed
Water in the bottom of the HRV	<ul style="list-style-type: none"> • drain pans plugged • improper connection of HRV's drain lines • HRV is not level • drain lines are obstructed • HRV heat exchange core is not properly installed 	<ul style="list-style-type: none"> • ensure O-Ring on drain nozzle sits properly • look for kinks in line • check water drain connections • make sure water drains properly from pan

CAUTION: ELECTRICAL CONTROL PANEL, SERVICE BY ELECTRICIAN ONLY**DEFROST DETAILS****AUTO-TRANSFORMER DETAIL**
PINS 1, 2 AND 3 ARE OPTIONAL

CAUTION: ELECTRICAL CONTROL PANEL, SERVICE BY ELECTRICIAN ONLY

Note: If any of the original wire supplied with the unit must be replaced, use only TEW certified wire

IMPORTANT: Control low voltage is 12VAC
DO NOT CONNECT EXTERNAL POWER SOURCES TO THE UNIT.

LEAVE FOR HOMEOWNER

TO BE COMPLETED BY CONTRACTOR AFTER INSTALLATION

Installing Contractor _____ Telephone / Contact _____

Serial Number _____ Installation Date _____

Model _____

Register for your warranty at www.lifebreath.com

Airia will require the Model and Serial Number to register the unit.



511 McCormick Blvd.
London, Ontario N5W 4C8
T (519) 457-1904
F (519) 457-1676
Email: info@lifebreath.com

270 Regency Ridge, Suite 210
Dayton, Ohio 45459
T (937) 439-6676
F (937) 439-6685
Website: www.lifebreath.com

