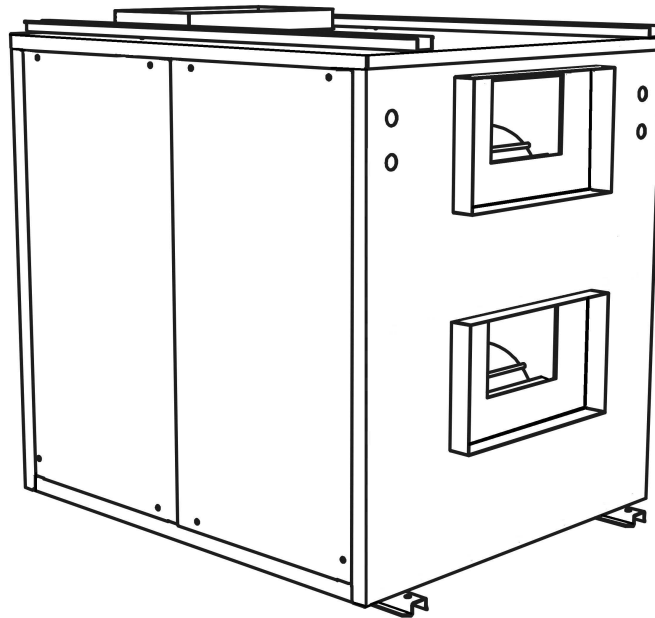


Models 700POOL , 1200POOL

LIFEBREATH[®]
WWW.LIFEBREATH.COM

Operation and Installation Manual



Indoor Pool and Spa Heat Recovery Ventilators (HRV)

Models
700POOL
1200POOL

Lifebreath Pool Room HRVs provide fresh clean air without sacrificing the savings of your energy conserving home. The aluminum cores of the HRV provide effective and efficient heat recovery and air exchange.




69-POOL
100516


Table of Contents

Introduction
 The Recovery Core.....3
 Unit Specifications4-5
 Calculating the Ventilation Rate for the Pool Room.....6
 Table 1 - Evaporation Rate.....7
 Table 2 - Flow Rate Factor.....8
 Location of the HRV for Mounting.....9
 The Ductwork System
 Outside Weatherhoods.....10
 Sample Duct Layout 1.....11
 Sample Duct Layout 2.....12
 Mode of Operation for the Pool HRV13
 Stale Air Return System
 Fresh Air Supply System
 Adjustable Grilles.....14
 Reversing the Supply and Defrost Air Ports15
 Function and Controls16
 Optional 3 Speed Control
 Lifebreath Dehumidistat17
 Connecting Controls18
 Electrical Connections
 Drain Connections.....19
 Balancing the HRV20
 Make Up Heat
 Defrost Time Adjustment.....21
 Maintenance and Service22-23
 Reverse Installation of the HRV24-25
 Troubleshooting Your HRV System26
 Wiring Diagram.....27
 Warranty.....28

 **CAUTION**
 It is always important to assess how the operation of any HRV may interact with vented combustion equipment (ie. Gas Furnaces, Oil Furnaces, Wood Stoves, etc.).

 **CAUTION**
 Never install an HRV 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!

 **CAUTION**
 Pool room air/surfaces **MUST** have a heating appliance which does **NOT** include the pool water as its source. The pool room and water **MUST** be continuously operated at its original design as any deviation from this could greatly effect the operation of the unit. The pool unit **MUST** be fully commissioned after installation which includes confirming proper operation of the control, normal operation of the unit and drainage through the pans without unintentional leakage.

 **ATTENTION**
 Do not apply electrical power to the unit until installation has been fully completed (including low voltage control wiring).

Leave this manual with your customer!

TO BE COMPLETED BY CONTRACTOR AFTER INSTALLATION

Installing Contractor

Telephone / Contact

Serial Number

Installation Date

Model

Introduction

High indoor humidity levels pose two threats to your pool room environment: health (IAQ) and building degradation.

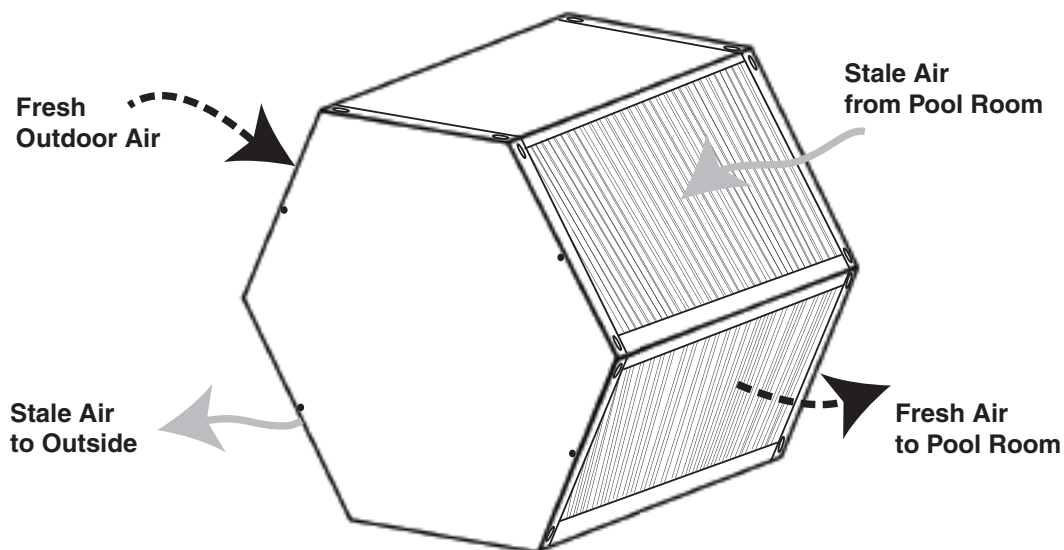
Humidity control is provided by an adjustable dehumidistat that is mounted in the pool room. The dehumidistat (included with the pool HRV) would be set to an acceptable humidity level (for example, in a range of 40% to 50% R.H.). Ventilation (the exhaust of humid indoor air and introduction of the dryer outdoor air) occurs when the adjustable HRV dehumidistat exceeds the set point.

When the humidity level of the pool room falls below the dehumidistat setpoint, the pool room air is recirculated by the HRV (no outside air will enter the system). Outside air is prevented from entering the HRV during recirculation by the supply damper closing off. The exhaust fan to the outside is shut off during this recirculation mode. Outside air does not enter the system again until the pool room humidity exceeds the setpoint of the dehumidistat.

The Recovery Core

HRV - Aluminum Core

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, the incoming cold fresh air is warmed by utilizing the heat recovered from the stale air before it is exhausted to the outdoors. During summer months when the indoor space is air conditioned, the Heat Recovery Ventilator will help in cooling the incoming fresh air with the stale air that is being exhausted.





CORES

Modular (2 section) patented aluminum heat recovery cores arranged for efficient counter-flow ventilation

MOTORS

Two PSC, 3 speed single shafted, 120 VAC, 4.5 Amps each (9 total on high speed). HP - 1/4, 1450 RPM. Watts - total on high speed - 1032. MCA: 11.3 MOP: 15

FILTERS

Washable air filters in exhaust and supply air streams.

BLOWERS

Slide easily in / out of unit. Centrifugal type rated at 700 cfm (329 L/s) free air delivery. Each air stream has one single shafted motor driving a centrifugal blower.

CONNECTION DUCT SIZES

Five - 14" x 8" H (356 mm x 200 mm H).

MOUNTING

Unit to be set on support brackets hung by threaded rod type apparatus. (brackets and rod not provided.)

CASE

Unit has front and back access doors and electrical panel can be switched to either side giving installer flexibility in duct direction. 20 gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated with elastomeric insulation where required to prevent exterior condensation, mold and energy loss.

Drain connections; two - 1/2" (12mm) O.D.

ELECTRONICS

Integrated microprocessor circuit board. Built-in interlock contacts.

DEFROST

Supply bypass routes indoor air to defrost core.

WEIGHT 260 LBS (118 KG) **SHIPPING WEIGHT** 310 LBS. (141 KG)

INCLUDED CONTROL

99-DH01 Lifebreath Dehumidistat

- Humidity control through adjustable Dehumidistat
- 3 wire connection; 20 gauge wire (minimum)

DIMENSIONS inches (mm)

NOTE:

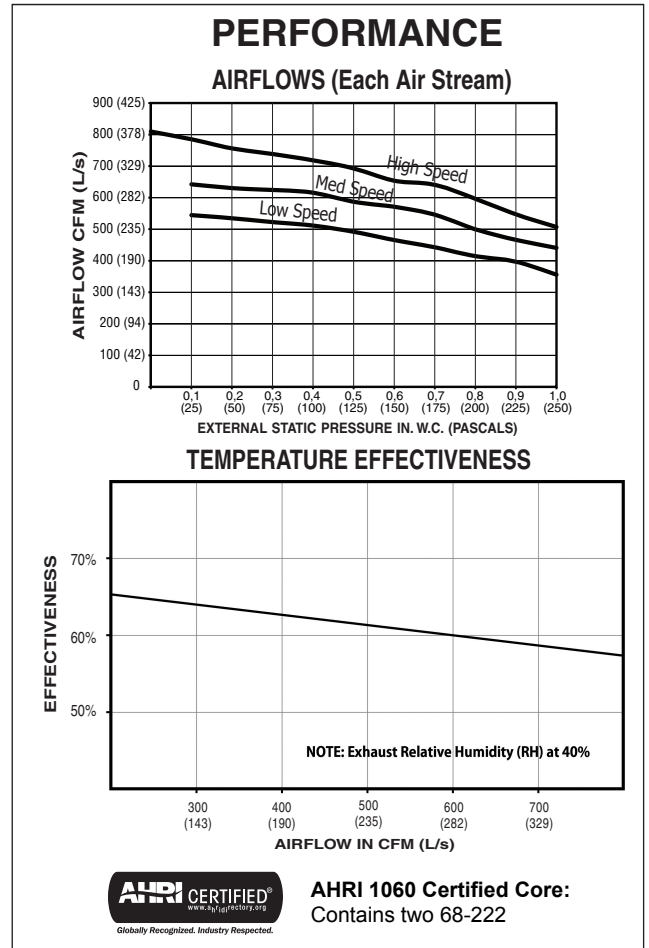
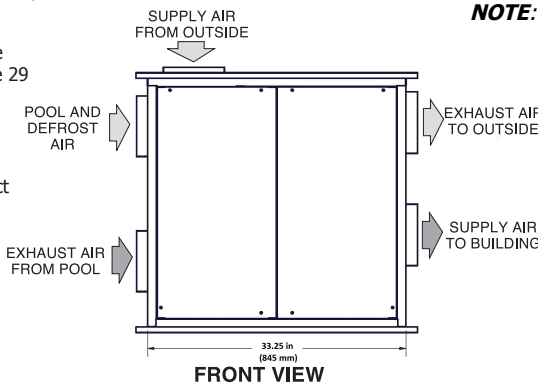
The 700POOL model may easily be reversed in the field. Refer to page 29 for installation instructions.

All units conform to CSA and UL standards

NOTE: All specifications are subject to change without notice.

WARRANTY

Units carry a 15 year warranty on the HRV core and a 2 year replacement parts warranty.



CONTROL OPTIONS

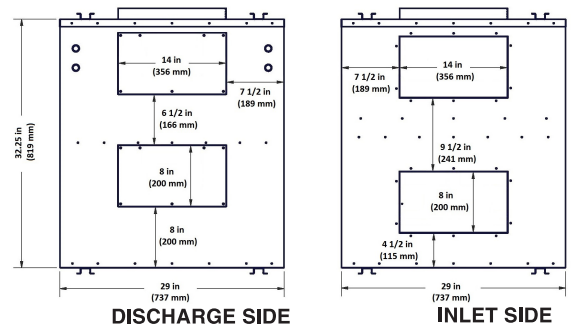
99-500 3 Speed Control

- 3 Speed Fan setting (Low/Medium/High)
- 4 wire connection; 20 gauge wire (minimum)

FILTER OPTIONS

99-65-183 2" pleated MERV 8 filter for fresh air stream

NOTE: Service clearance of 30 in. (760 mm) from front access doors



Date: _____

Tag: _____ Qty: _____

Project: _____

Engineer: _____

Contractor: _____

Supplier: _____

Quote#: _____

Submitted by: _____



CORES

Modular (3 section) patented aluminum heat recovery cores arranged for efficient counter-flow ventilation

MOTORS

Two PSC, 3 speed double shafted, 120 VAC, 9.4 Amps each (18.8 total on high speed). HP - 1/2, 1625 RPM. Watts - total on high speed - 2256. MCA: 23.5 MOP: 30

FILTERS

Washable air filters in exhaust and supply air streams.

BLOWERS

Slide easily in / out of unit. Centrifugal type rated at 1200 cfm (566 L/s) free air delivery. Each air stream has one double shafted motor driving 2 centrifugal blowers.

CONNECTION DUCT SIZES

Five - 20" x 8" H (508 mm x 200 mm H)

MOUNTING

Unit to be set on support brackets hung by threaded rod type apparatus. (brackets and rods not provided)

CASE

Unit has front and back access doors and electrical panel can be switched to either side giving installer flexibility in duct direction. 20 gauge prepainted galvanized steel (G60) for superior corrosion resistance. Insulated with elastomeric insulation where required to prevent exterior condensation, mold and energy loss.

Drain connections; two - 1/2" (12mm) O.D.

ELECTRONICS

Integrated microprocessor circuit board. Built-in interlock contacts.

DEFROST CONTROLS

Supply bypass damper routes indoor air to defrost core

WEIGHT 285 LBS (130 KG) **SHIPPING WEIGHT** 335 LBS. (152 KG)

INCLUDED CONTROL

99-DH01 Lifebreath Dehumidistat

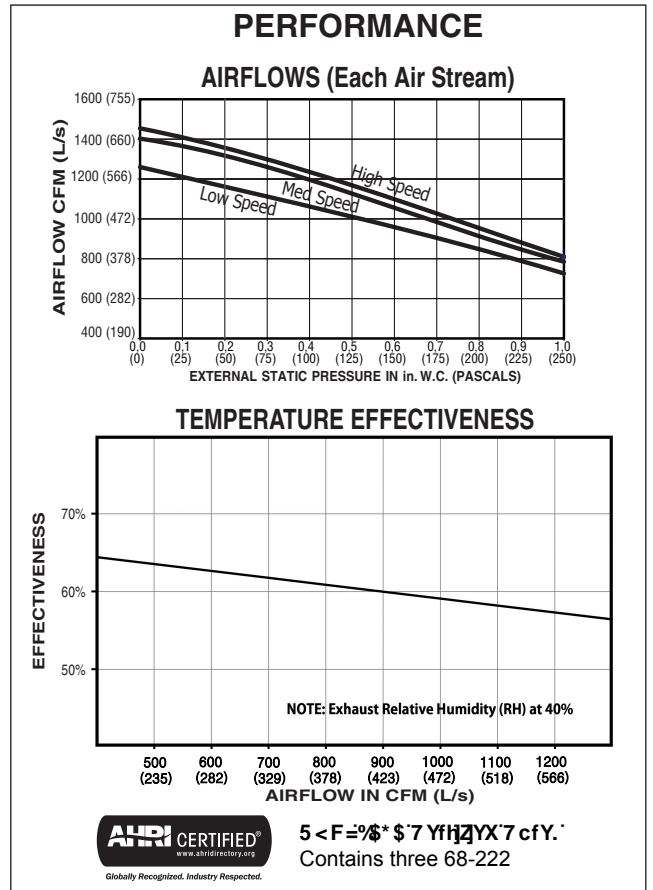
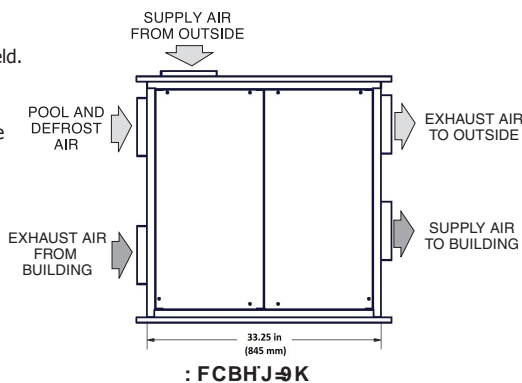
- Humidity control through adjustable Dehumidistat
- 3 wire connection; 20 gauge wire (minimum)

DIMENSIONS inches (mm)

NOTE: The 1200POOL model may easily be reversed in the field. Refer to page 29 for installation instructions.

NOTE: All specifications are subject to change without notice.

WARRANTY
Units carry a 15 year warranty on the HRV core and a 2 year replacement parts warranty.



CONTROL OPTIONS

99-500 3 Speed Control

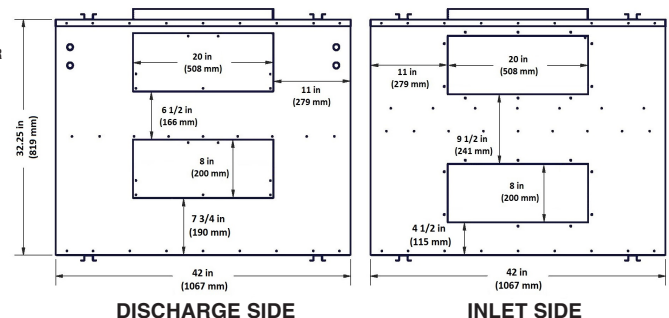
- 3 Speed Fan setting (Low/Medium/High)
- 4 wire connection; 20 gauge wire (minimum)

FILTER OPTIONS

99-65-183 2" pleated MERV 8 filter for fresh air stream

All units conform to CSA and UL standards

NOTE: Service clearance of 30 in. (760 mm) from front access doors



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

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

Calculating the Ventilation Rate for the Pool Room

Example:

Pool surface area	16' x 32' (512 sq ft)
*Indoor design air temperature	83 °F
Pool water temperature	81 °F
*Relative Humidity	50 %
*Outdoor design air temperature	15 °F

**** Always use design temperatures for indoor and outdoor air temperatures. Outdoor design temperatures are published by organizations such as ASHRAE. Do not use day to day temperatures for this calculation.***

1. From Table 1, select the appropriate evaporation rate based on the room air temperature, water temperature, and relative humidity.
Evaporation Rate = 0.052
2. From Table 2, select the corresponding flow Rate factor depending on the indoor air temperature, outdoor temperature, and room relative humidity.
Flow Rate Factor = 21.70
3. Multiply the values obtained from step 1 and step 2 to obtain the minimum CFM required per square foot of pool surface area.

$$\begin{array}{rclcl} \text{Evaporation rate X} & \text{Flow Rate} & = & \text{CFM / square foot of water surface area} \\ 0.052 & \text{X} & 21.70 & = & 1.12 \end{array}$$

4. Multiply the value in step 3 by the area of the pool
$$\begin{array}{rclcl} \text{Area of} & \text{X} & \text{Value for step 3} & = & \text{CFM} \\ \text{pool 512} & \text{X} & 1.12 & = & 573 \end{array}$$

! ATTENTION

Spas/Hot Tubs must be considered when calculating the ventilation rate for a pool room. This ventilation rate is calculated by adding 10cfm per ft² of Spa/Hot Tub surface area. For example, a 25 ft² Spa/Hot Tub will add 250cfm to your pool calculation.

Table 1 - Evaporation Rate

Indoor Air Temp. °F	Indoor Relative Humidity																	
	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%
	Evaporation Rate lb/(sq. ft-hr.)																	
68	0.069	0.063	0.056	0.079	0.073	0.066	0.090	0.084	0.077	0.102	0.095	0.089	0.115	0.108	0.102	0.129	0.122	0.116
70	0.068	0.060	0.053	0.078	0.070	0.063	0.088	0.081	0.074	0.100	0.093	0.086	0.113	0.106	0.099	0.127	0.120	0.113
72	0.065	0.058	0.050	0.075	0.068	0.060	0.086	0.079	0.071	0.098	0.090	0.083	0.111	0.103	0.096	0.125	0.117	0.110
74	0.063	0.055	0.047	0.073	0.065	0.057	0.084	0.076	0.068	0.096	0.088	0.079	0.109	0.101	0.092	0.123	0.115	0.106
76	0.061	0.052	0.043	0.071	0.062	0.053	0.082	0.073	0.064	0.094	0.085	0.076	0.107	0.098	0.089	0.121	0.112	0.103
78	0.059	0.049	0.039	0.069	0.059	0.049	0.080	0.070	0.060	0.091	0.082	0.072	0.104	0.095	0.085	0.118	0.109	0.099
80	0.056	0.046	0.035	0.066	0.056	0.045	0.077	0.067	0.056	0.089	0.079	0.068	0.102	0.091	0.081	0.116	0.105	0.095
82	0.053	0.042	0.031	0.063	0.052	0.041	0.074	0.063	0.052	0.086	0.075	0.064	0.099	0.088	0.077	0.113	0.102	0.091
84	0.050	0.039	0.027	0.060	0.049	0.037	0.071	0.060	0.048	0.083	0.071	0.060	0.096	0.084	0.073	0.110	0.098	0.087
86	0.047	0.035	0.022	0.057	0.045	0.032	0.068	0.056	0.043	0.080	0.068	0.055	0.093	0.080	0.068	0.107	0.094	0.082
88	0.044	0.031	0.017	0.054	0.041	0.027	0.065	0.052	0.038	0.077	0.063	0.050	0.090	0.076	0.063	0.104	0.090	0.077
Water Temp. °F	78			81			84			87			90			93		

Table 2 - Flow Rate Factor

Outside Air Temp. °F	Indoor Relative Humidity																	
	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%	40%	50%	60%
	Flow Rate Factor (cfa-hr./lb.)																	
-30	39.70	31.50	26.10	35.70	28.30	23.40	32.10	25.50	21.10	29.00	23.00	19.00	26.10	20.70	17.20	23.60	18.70	15.50
-25	40.20	31.80	26.20	36.10	28.50	23.60	32.40	25.70	21.20	29.20	23.10	19.10	26.30	20.90	17.20	23.80	18.80	15.60
-20	40.80	32.10	26.50	36.50	28.80	23.80	32.80	25.90	21.40	29.50	23.30	19.20	26.60	21.00	17.40	24.00	19.00	15.70
-15	41.60	32.60	26.80	37.20	29.20	24.00	33.30	26.20	21.60	29.90	23.60	19.40	26.90	21.20	17.50	24.20	19.10	15.80
-10	42.60	33.20	27.20	38.00	29.70	24.40	34.00	26.60	21.90	30.40	23.90	19.60	27.30	21.50	17.70	24.60	19.30	15.90
-5	43.90	34.10	27.80	39.00	30.40	24.80	34.80	27.10	22.20	31.10	24.30	19.90	27.90	21.80	17.90	25.00	19.60	16.10
0	45.70	35.10	28.50	40.40	31.20	25.40	35.90	27.80	22.70	32.00	24.80	20.30	28.60	22.20	18.20	25.60	20.00	16.30
5	48.10	36.50	29.40	42.30	32.30	26.10	37.40	28.70	23.20	33.20	25.50	20.70	29.50	22.80	18.60	26.30	20.40	16.60
10	51.50	38.40	30.60	44.90	33.80	27.00	39.40	29.80	24.00	34.70	26.40	21.30	30.70	23.50	19.00	27.30	21.00	17.00
15	56.20	41.00	32.20	48.50	35.80	28.30	42.10	31.40	25.00	36.80	27.60	22.10	32.40	24.50	19.60	28.60	21.70	17.50
20	63.40	44.70	34.50	53.70	38.50	30.00	46.00	33.50	26.30	39.70	29.30	23.10	34.60	25.70	20.40	30.30	22.70	19.10
25	74.90	50.10	37.60	61.70	42.50	32.40	51.80	36.40	28.10	44.00	31.50	24.50	37.80	27.40	21.50	32.70	24.10	19.00
30	95.90	58.70	42.30	75.30	48.50	35.80	61.00	40.80	30.60	50.50	34.70	26.40	42.50	29.80	23.00	36.20	25.90	20.10
35	112.78	69.62	46.60	84.08	54.75	38.60	66.18	44.71	32.53	57.46	37.32	27.77	46.85	31.63	23.99	39.10	27.20	20.83
40	129.66	80.53	50.90	92.86	61.0	41.40	71.36	48.63	34.46	64.43	39.94	29.13	51.20	33.47	24.97	42.0	28.50	21.57
45	146.54	91.45	55.20	101.64	67.25	44.20	76.54	52.55	36.40	71.39	42.56	30.50	55.55	35.30	25.95	44.90	29.80	22.30
50	163.42	102.37	59.50	110.42	73.50	47.0	81.72	56.47	38.30	78.36	45.18	31.87	59.90	37.13	26.93	47.80	31.10	23.03
55	180.30	113.28	63.80	119.20	79.75	49.80	86.90	60.38	40.26	85.33	47.80	33.23	64.25	39.96	27.92	50.70	32.40	23.76
60	243.30	124.20	68.10	127.98	86.0	52.60	92.08	64.30	42.20	92.30	50.40	34.60	68.60	40.80	28.90	53.60	33.70	24.50
Indoor Air Temp. °F	68			71			74			77			80			83		

Location of the HRV for Mounting

The HRV must be located in a heated space where the surrounding air temperature does not fall below 60°F (16°C). The unit must be mounted level (horizontal) to obtain proper drainage or water from the heat exchange element and drip pans. The warranty will be void if these conditions are not met.

Typically, the HRV is positioned close to an outside wall or the roof to simplify the connections and keep the length of insulated ducting required for the fresh air intake to a minimum.

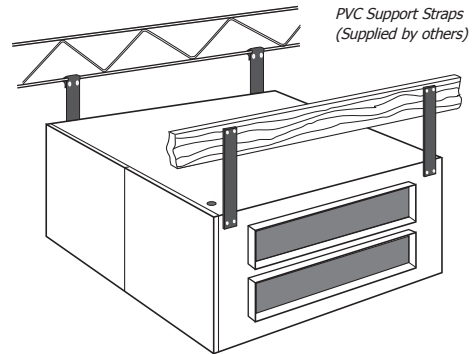
A minimum clearance of 30 inches (76 cm) in front of the HRV is recommended to service the heat exchanger cores and the filters. The HRV may be mounted on an equipment platform providing the drain hoses are clear and there is sufficient space to open the doors for servicing.

Install the drain pans in the bottom of the HRV so the drain connections protrude through the holes provided. Use drain hoses with hose clamps to connect the drain pan outlets to a floor drain or standpipe. Make sure the drain line slopes down to the outlet. If this is not possible a condensate pump will be required for positive removal of the water. Protect the drain line from freezing.

! ATTENTION

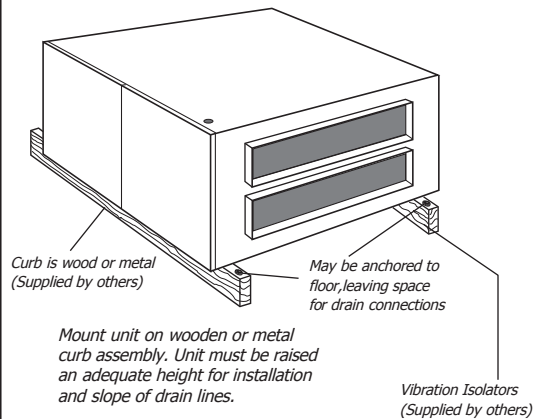
Flexible duct connectors should be installed between the HRV and the galvanized ductwork.

Suspended

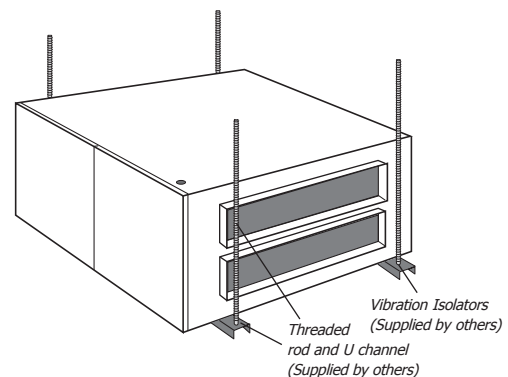


Unit Suspended using Polyester reinforced PVC support straps.

Curb Mounted



Saddle Installation



The Ductwork System

It is necessary to design and size the duct distribution system for both the supply and the exhaust air streams.

Proper duct design & duct sizing will:

- Minimize air flow requirements.
- Ensure a comfortable environment by using reheat if required.
- Optimize humidity control, including eliminating condensation on windows by blanketing the windows with airflow.

Refer to Sample Duct Layout 1 and 2 for typical duct system designs.

All joints must be airtight, sealed and impervious to moisture. See specification sheets for each unit for exact duct sizes and location.

To minimize pressure drop and noise, galvanized metal ducts, properly sized, are recommended. Keep ducting as short as possible and use a minimum of elbows and tees. Connecting sections and shorter runs may be flexible ducting one size larger than the metal equivalent. Use flexible duct connectors at the HRV to avoid noise transmission.

All duct joints must be secured with screws, rivets or duct sealant and sealed with aluminum duct tape to prevent leakage.

ATTENTION

Fully insulated ducting with an integral vapour barrier must be used on all runs passing through unheated areas in order to avoid condensation problems and energy losses from the air systems.

Outside Weatherhoods

The weatherhoods must have built-in "bird" screen with 1/4 in (6.35 mm) minimum mesh to prevent birds and rodents from entering into the ductwork. Do not use smaller mesh as it will be very susceptible to plugging up. Gravity dampers at the vents must not be used as they will restrict air flow and often "seize up". The preferred location of the outside weatherhoods is:

- no less than 10 ft. (3 m) apart from each other
- at least 18 in (46 cm) above snow line or ground level
- away from sources of contaminants, such as automobile exhaust fumes, gas meters, garbage cans, containers, etc.
- not exposed to prevailing winds

The outside perimeter of the weatherhood must be caulked to prevent leakage into the building.

The design and size of the weatherhoods or louvers chosen by the installer must allow for adequate free area. Water and snow penetration of the system is minimized when the airflow does not exceed 1000 FPM (5.08 m/s) free area velocity.

Ducting from the Weatherhoods

Galvanized sheet metal ducting with sufficient cross section with an integral single piece vapor barrier should be used to connect the HRV to the weatherhoods.

All ducting must meet UL Class 1 requirements.

A minimum R value of insulation should be equal to 4 (RSI 0.75).

A good bead of high quality caulking (preferably acoustical sealant) and taping with a high quality aluminum foil tape is recommended to seal the duct to both the HRV and the weatherhood.

Warm-side Ducting - General

Ducting from the HRV to the different areas in the building should be galvanized metal whenever possible.

To minimize airflow losses in the ductwork system, all ducts should be as short as possible and with as few bends or elbows as possible. 45° elbows are preferred to 90° elbows. Use "Wye" (Y) fittings instead of "Tees" (T) whenever possible.

All duct joints must be fastened with screws, rivets or duct sealant and wrapped with a quality duct tape to prevent leakage. We recommend aluminum foil tape.

Sample Duct Layout 1

System Installation

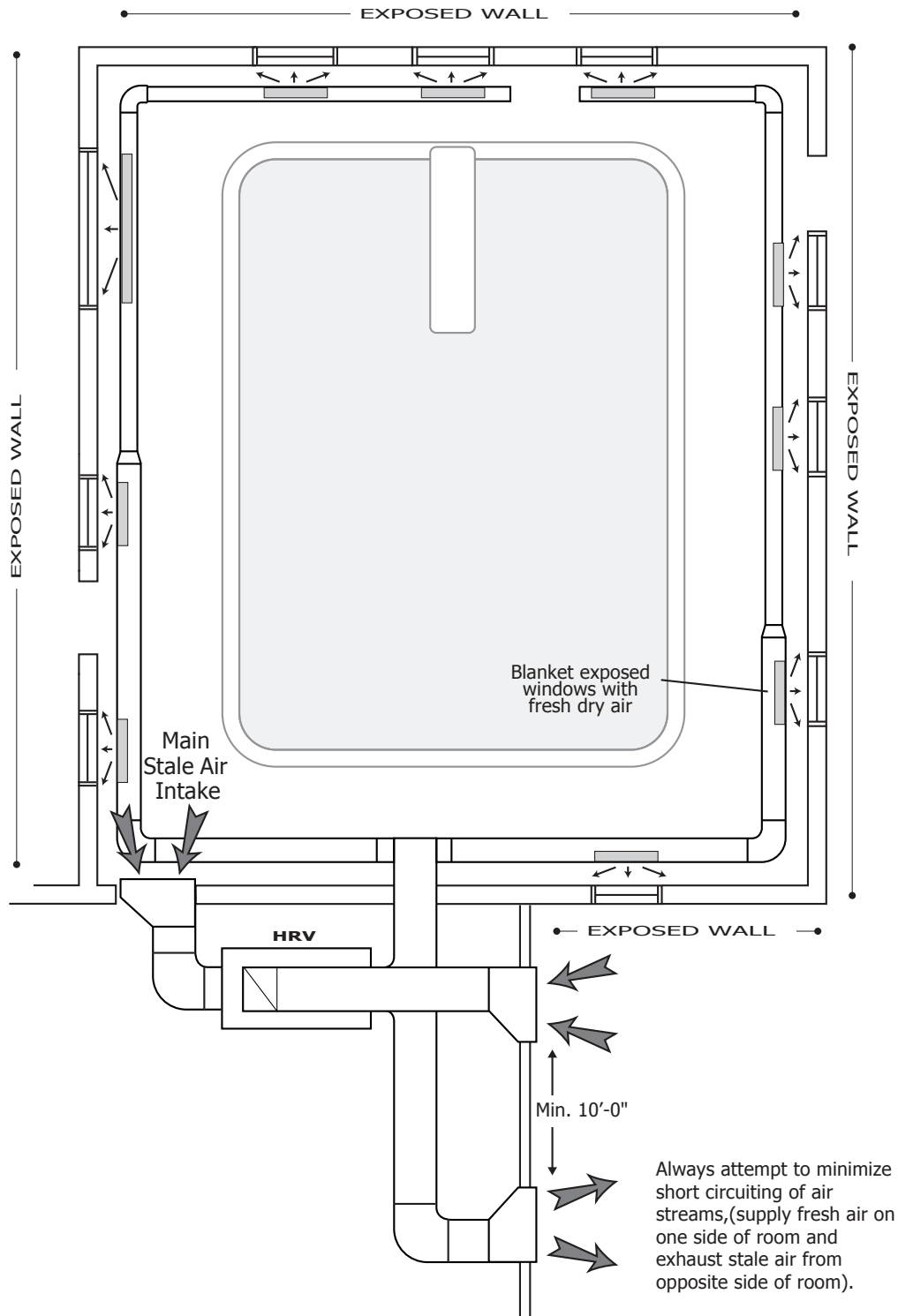
It is necessary to design and size the duct distribution system for both the supply and the exhaust air streams.

Proper duct design will

- Minimize air flow requirements

- Ensure a comfortable environment by using reheat if required.
- Optimize humidity control, including eliminating condensation on windows by blanketing the windows with airflow.

Typical Duct Layout Sketch #1



Sample Duct Layout 2

System Installation

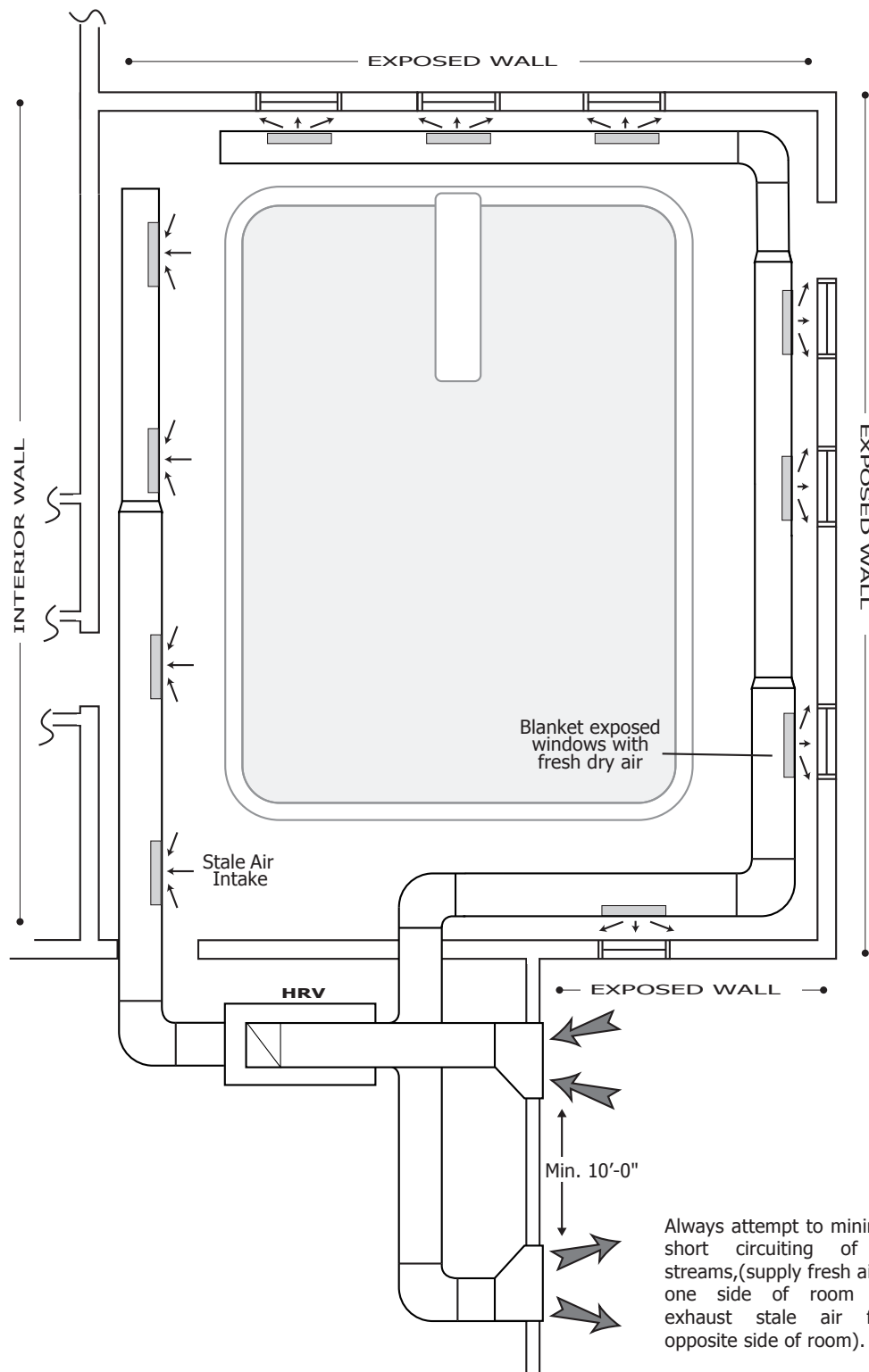
It is necessary to design and size the duct distribution system for both the supply and the exhaust air streams.

Proper duct design will

- Minimize air flow requirements

- Ensure a comfortable environment by using reheat if required.
- Optimize humidity control, including eliminating condensation on windows by blanketing the windows with airflow.

Typical Duct Layout Sketch #2

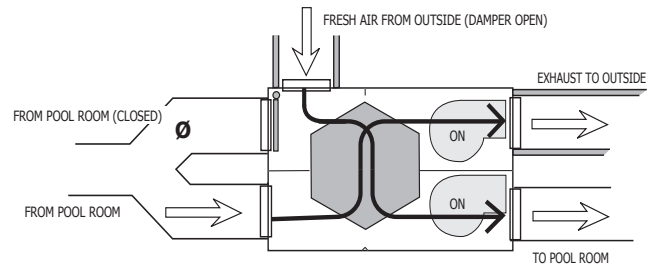


Mode of Operation for the Pool HRV

Ventilation Mode

In ventilation mode, both motors are running and air is being exchanged with the outside through the supply and exhaust ducts.

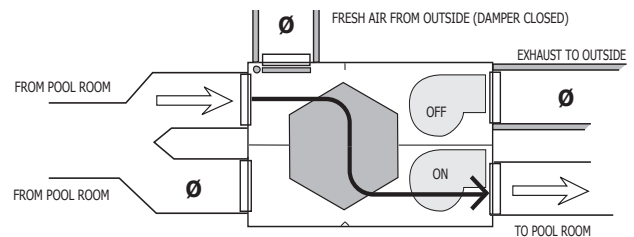
1. VENTILATION MODE



Recirculation Mode

In recirculation mode the supply motor continues to run and a damper moves to block off air entering from outside, drawing air instead from the conditioned space. The exhaust to outside motor is OFF when in recirculation mode.

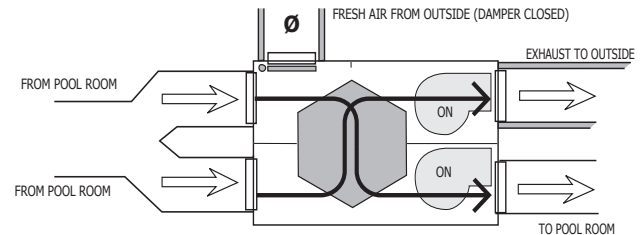
2. RECIRCULATION MODE



Defrost Mode

All pool HRVs have an electronically controlled damper defrost mechanism. The defrost timer is activated when outside temperatures drop below 27° F (-3°C). A motor driven damper door mechanism opens the "pool and defrost air "port and closes off the "supply air from outside" port. This defrost cycle operates for about 3 minutes and then the damper reverts to its previous "run time" position.

3. DEFROST MODE



Stale Air Return System

The stale air return system is used to draw air from the points in the building where the highest humidity levels exist. Balancing dampers and/or adjustable grilles are recommended on all return air lines which are used during installation to help balance the "draw" from different areas of the pool room.

Alternately, the stale air may be drawn directly from the return air duct in situations where a dedicated pool room air handler or forced air furnace is present. The air handler or furnace blower motor must constantly operate when this system is used.

The exhaust takeoff connection must be at least a 3 ft (1 m) from a directly connected HRV supply duct if both are connected to the same duct run. Static pressure of the air handlers return system should be noted and compensated for if, it is apparent that the static pressure of the return in the air handler will exceed 0.1 to 0.15" W.C.

A damper located just prior to the HRV is required to balance the stale air exhausted with the fresh air supply entering the building.

Return air suction points should be located on the opposite side of the room from the fresh air inlet. The inlets may be located in the ceiling or high on the walls and fitted with inlet grilles.

Fresh Air Supply System

Normally the fresh air system is designed to deliver air across the pool room windows as illustrated in Sample duct Layout #1 and #2.

The designer and installer should be aware of local codes that may require smoke detectors and/or firestats in the HVAC or HRV ductwork. A supply voltage interrupt may be required to shut the system down when triggered by smoke, flame or a central fire alarm. Check with your local building authority.

Supply air grilles may be ceiling or high wall mounted. Avoid locating incoming fresh air grilles that could cause a direct draft on the occupants as the incoming air may be below room temperature. A reheat duct heater can be installed to improve occupant comfort.

The use of balancing dampers or adjustable grilles to balance the flow rates into various rooms is recommended.

Connecting the HRV to a Dedicated Pool Room Air Handler/Furnace

The fresh air supply ductwork from the HRV may be directly connected to the furnace return air duct when a dedicated forced air system is present for the pool room. Check the air flow balance of the HRV with the air handler blower both "ON" and "OFF" to determine that it does not imbalance the HRV more than 10%. Also, it is advisable to include a short length of flex duct or other non-metallic connector in this hard ducted line in order to keep the HRV acoustically isolated and separately grounded (electrically) from the air handler. This will avoid a possible shock hazard to service people if a short to ground develops in one of the devices.

Adjustable Grilles

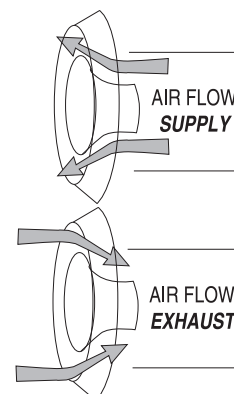
The use of balancing dampers or adjustable grilles as supply air diffusers and air exhaust covers are recommended. TECHGRILLES™ are round, efficient, sound absorbing devices available in 4", 5", 6" and 8" (100, 125, 150, and 200 mm) models.

Part# 99-EAG4 4" diameter Techgrille

Part# 99-EAG5 5" diameter Techgrille

Part# 99-EAG6 6" diameter Techgrille

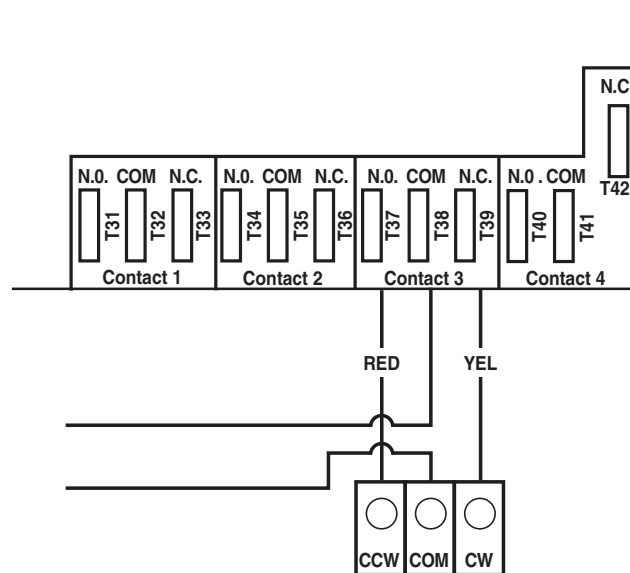
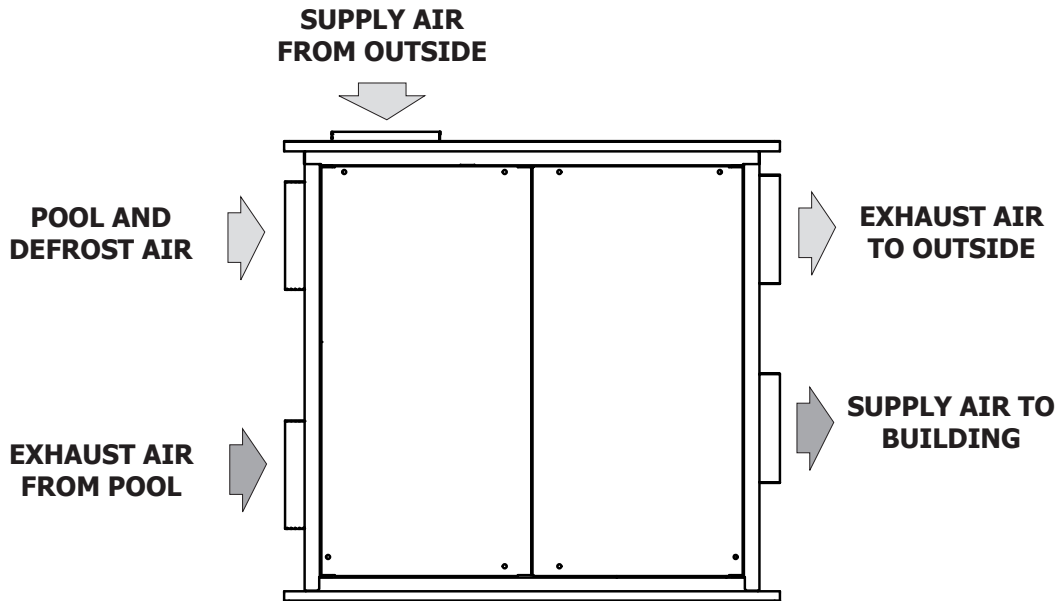
Part# 99-EAG8 8" diameter Techgrille



Reversing the Supply and Defrost Air Ports

Sometimes installation is easier if the "Supply Air from Outside" is ducted from the upper left side port (Pool and Defrost Air) instead of the top port. Changing the functionality of these two ports is easily accomplished by

switching the red and yellow defrost motor wires at the circuit board. Switch T37 and T39 on the Aircom circuit board.



Switch T37 (red wire) and T39 (yellow wire) on the Aircom circuit board if you wish to reverse the "Supply Air From Outside" and "Pool and Defrost Air" ports. This illustration shows the factory configuration.

Function and Controls

Basic Functions

Pool units normally operate in recirculation mode at the selected speed. When the dehumidistat senses moisture above the setpoint, the HRV will switch to ventilate mode and operate at the same speed. Once the dehumidistat is satisfied, the HRV reverts back to recirculation mode.

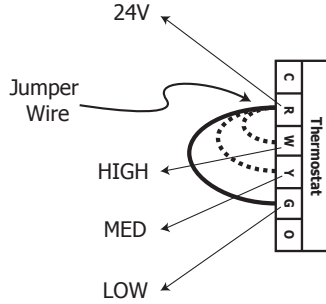
Setup

Select appropriate operational speed by installing a jumper wire between one of the designated speed taps. (A jumper wire is factory installed in the low speed position.)

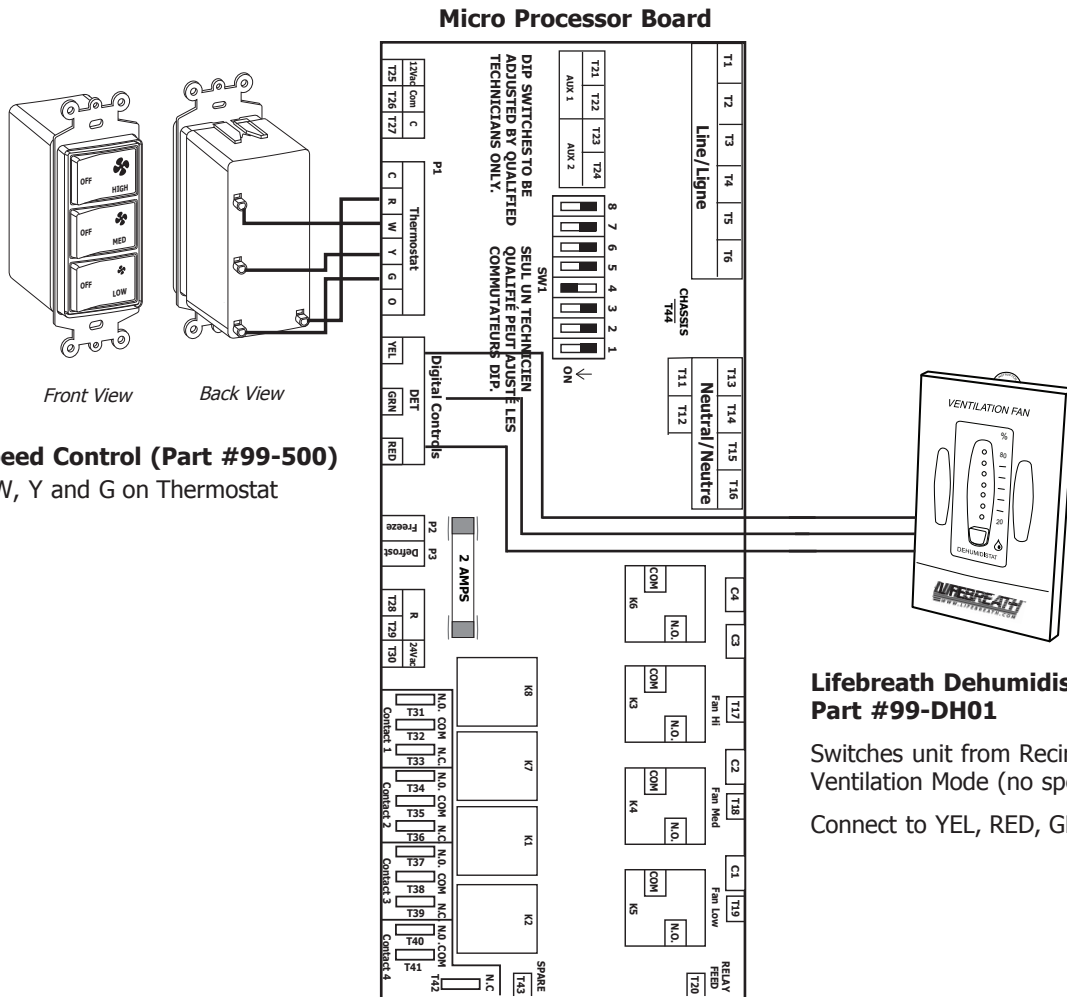
Example:

A jumper between the **R** terminal and the **G** terminal will result in low speed operation.

Jumper Wire Placement on Micro Processor Board



SPEED	JUMPER	
High	R	W
Medium	R	Y
Low	R	G



Optional 3 Speed Control (Part #99-500)

Connect to R, W, Y and G on Thermostat

Lifebreath Dehumidistat (Included) Part #99-DH01

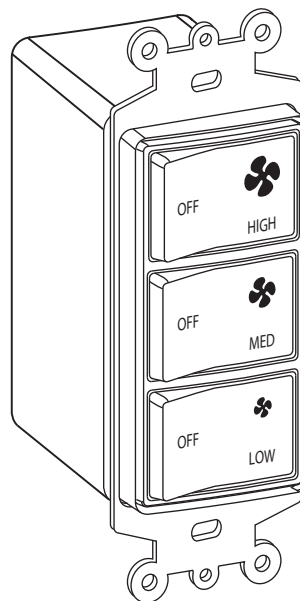
Switches unit from Recirculation Mode into Ventilation Mode (no speed change)

Connect to YEL, RED, GRN on DET

Optional Lifebreath 3 Speed Control - Part #99-500

Key Features:

- 3 Speed Fan setting (LOW / MEDIUM / HIGH)
- 4 wire; 20 gauge wire (minimum)
- Connect to Red, White, Yellow, Green.



! ATTENTION

When used in conjunction with the 99-BC02, the BC02 control must be ON for the 99-500 control to operate. The 99-BC02 will override the 99-500 control when the Dehumidistat is operating or the control is set to HIGH speed.

Lifebreath Dehumidistat - Part #99-DH01 Included

Key Features

- The Dehumidistat measures the indoor humidity level and will initiate high speed ventilation when the moisture level in the building exceeds the set point on the control.
- Once the humidity in the building 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.
- Connect to 3 wire 20 gauge low voltage wire.

Humidity Control

Humidity is controlled through the adjustable Dehumidistat (included with the pool HRV). The Dehumidistat should be wall mounted in an accessible location of the pool room about 5 feet above floor level. The operator should set the Dehumidistat dial at an acceptable humidity level (40% to 50% RH). The pool HRV will enter ventilation mode when the pool room's humidity level exceeds the Dehumidistat set point.

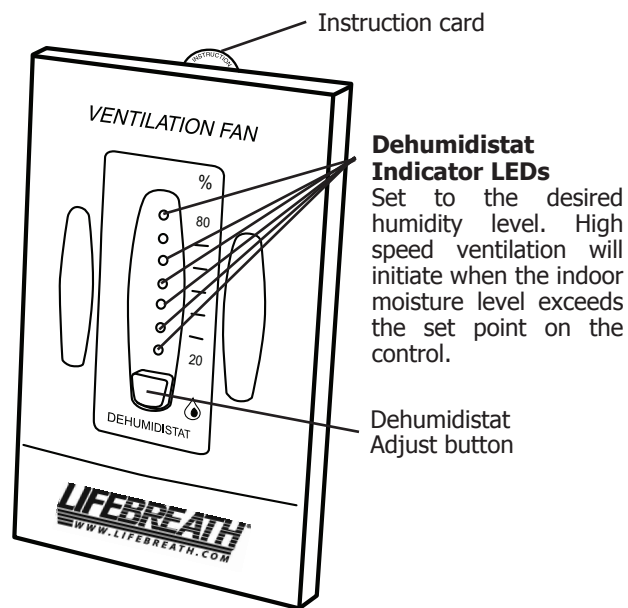
The pool HRV will revert to recirculation with no outside air entering the system when the indoor humidity level falls below the Dehumidistat set point.

Setting the Dehumidistat

Press and release the Dehumidistat button until the Dehumidistat Light is at the desired setting. After 5 seconds the Dehumidistat light will either flash or be on continuous.

A flashing light indicates the humidity level is higher than the setting and the unit is operating on high speed ventilation. A continuous light indicates the humidity level is lower than the setting. Refer to the unit's Operation & Installation Manual for instructions on how the Dehumidistat works.

Note - Only 1 Dehumidistat should be active on a system.



Connecting Included Dehumidistat - Part #99-DH01

The **Lifebreath Dehumidistat** 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 wire 20 gauge (min.) 100 ft length (max.) to the digital controls terminal strip located on the Aircom circuit board (Figure E).

! ATTENTION

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

Figure A - Face Plate

Operating Instructions Card

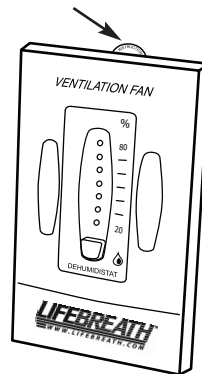


Figure B
Side View

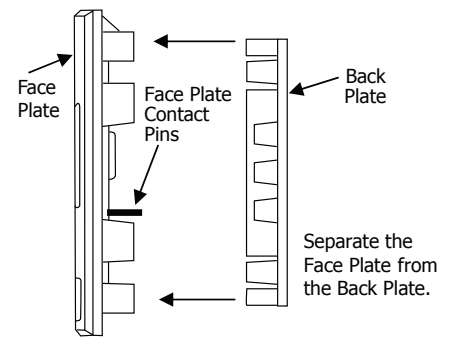


Figure C
Front View of Back Plate

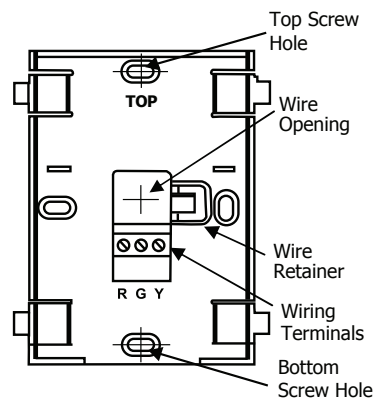


Figure D
Drill holes in wall

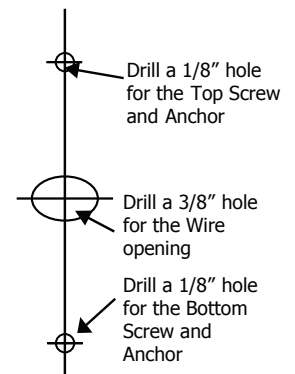


Figure E

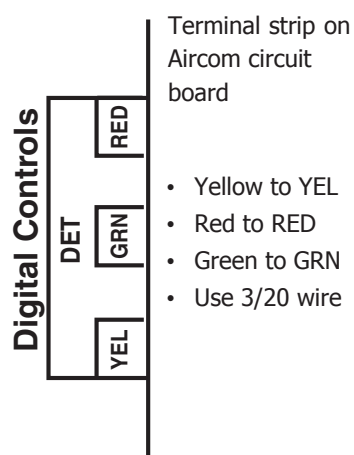
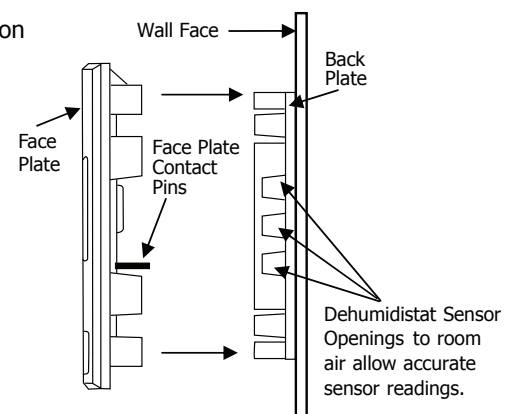


Figure F

Correct Installation of Back Plate



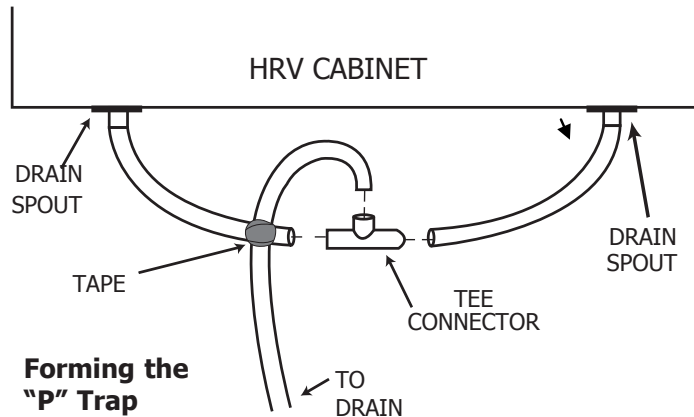
Drain Connections

Installation Notes:

The HRV will produce some condensation while running. This water should flow into a nearby drain, or be taken away by a condensate pump. The HRV cabinet has pre-punched holes for the drain (see below).

Installation Steps:

- 1) Insert the drain spout through the hole in the drain pan.
- 2) Hand tighten the lock nut which holds the drain spout in place.
- 3) Construct a P-trap using the plastic tee connector.
- 4) Cut two lengths of 1/2 in drain hose (not included) and connect the other ends to the two drain spouts.
- 5) Position the tee connector to point upward and connect the drain line.
- 6) Tape or fasten base to avoid any kinks.
- 7) Slowly pour water into the drain pan of the HRV after the drain connection is complete. This is to ensure that the drain assembly is functional and also creates a water seal which will prevent odours from being drawn up the hose and into the fresh air supply of the HRV.



⚠ 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.

⚠ CAUTION

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

Electrical Connections

Electrical Connections

It is recommended that a licensed electrician make all electrical connections. It is very important that the unit be properly grounded. The circuit must be sized to handle the F.L.A. indicated on the name tag of the unit.

⚠ CAUTION

The HRV is designed to operate with ducting. When first starting the HRV, measure the amp draw to each motor at each speed to ensure it is operating at or below the max rating.

	Maximum AMP Rating		
	HIGH	MED.	LOW
1200 POOL	9.4	6.0	4.5
700 POOL	4.5		

⚠ WARNING

In order to prevent electric shock when cleaning or servicing the HRV, it is extremely important to confirm the polarity of the power line that is switched by the safety (disconnect) switch whose control arm is located on the outside of the electrical control box area. The hot line (black) is the proper line to be switched. To confirm the proper polarity, use a voltmeter or test lamp to make sure there is no power after the switch when the door is open. Check between that point and ground (on the cabinet). This must be done as occasionally some buildings are improperly wired. Always make sure the HRV is properly grounded.

Pitot Tube Air Flow Balancing - Commercial

It is necessary to have balanced air flows in an HRV. The volume of air brought in from the outside must equal the volume of air exhausted by the unit. If the air flows are not properly balanced, then;

- The HRV may not operate at its maximum efficiency
- A negative or positive air pressure may occur in the building
- The unit may not defrost properly
- Failure to balance HRV properly may void warranty

Excessive positive pressure may drive moist indoor air into the external walls of the building where it may condense (in cold weather) and degrade structural components. May also cause key holes to freeze up.

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/ground contact areas. Excessive negative pressure may also cause the backdrafting of vented combustion equipment.

Read the Application Warning on the front of this manual!

Prior to balancing, ensure that:

1. All sealing of the ductwork system has been completed.
2. All of the HRV's components are in place and functioning properly.
3. Balancing dampers are fully open.
4. Unit is on HIGH speed.
5. Air flows in branch lines to specific areas of the house should be adjusted first prior to balancing the unit. A smoke pencil used at the grilles is a good indicator of each branch line's relative air flow.
6. After taking readings of both the stale air to the HRV duct and fresh air to the house duct, the duct with the lower CFM ([L/s] velocity) reading should be left alone, while the duct with the higher reading should be adjusted back to match the lower reading. See **Adjusting the Airflow**.
7. Return unit to appropriate fan speed for normal operation

BALANCING PROCEDURE

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

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

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

The Pitot tube should be connected to a manometer capable of reading 3 digits of resolution. The tube coming out of the top of the pitot is connected to the high pressure side of the gauge. The tube coming out of the side of the pitot is connected to the low pressure or reference side of the gauge.

Insert the Pitot tube into the duct; pointing the tip into the airflow.

For general balancing it is sufficient to move the pitot tube around in the duct and take an average or typical reading. Repeat this procedure in the other (supply or return) duct. Determine which duct has the highest airflow (highest reading on the manometer). Adjust the higher airflow by reducing the fan speed (see "Adjusting the Airflow"). The flows should now be balanced. Actual airflow can be determined from the gauge reading. The value read on the gauge is called the velocity pressure. The Pitot tube comes with a chart that will give the air flow velocity based on the velocity pressure indicated by the gauge. This velocity will be in either feet per minute or meters per second. To determine the actual airflow, the velocity is multiplied by the cross sectional area of the duct being measured.

This is an example for determining the airflow in a 6" duct.

The Pitot tube reading was 0.025 inches of water.

From the chart, this is 640 feet per minute.

The 6" duct has a cross sectional area of

$$= [3.14 \times (6" \div 12)^2] \div 4$$

$$= 0.2 \text{ square feet}$$

The airflow is then:

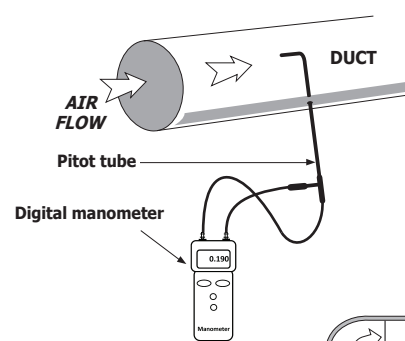
$$640 \text{ ft./min.} \times 0.2 \text{ square feet} = 128 \text{ cfm}$$

For your convenience, the cross sectional area of some common round duct is listed below:

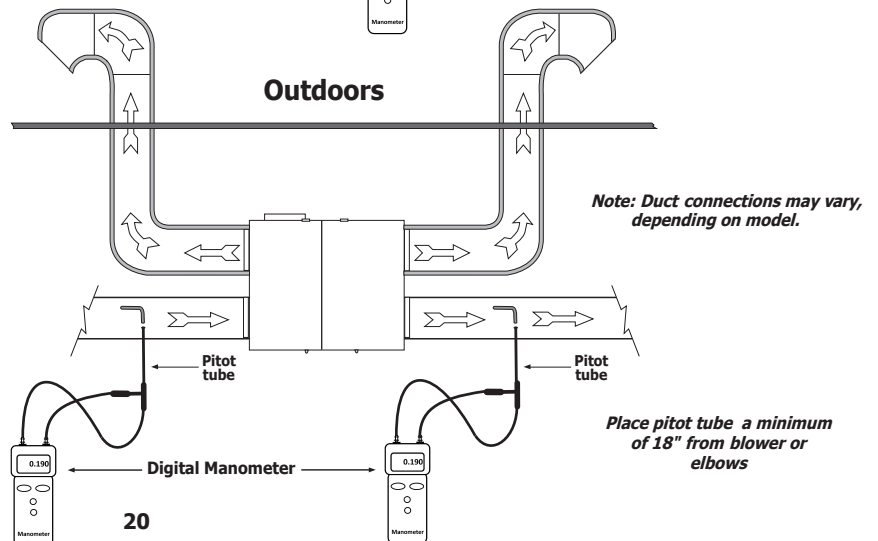
DUCT DIAM. (inches)	CROSS SECTION AREA (sq. ft.)
5 (127 mm)	0.14
6 (152 mm)	0.20
7 (178 mm)	0.27

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

Pitot tube and gauge



Pitot Tube Air Flow Balancing Kit
c/w digital manometer, Pitot tube, hose and tool bag.
PART NO. 99-BAL-KIT



Make Up Heat

Make up heat is usually necessary for pool HRVs that are installed as a Fully Dedicated Duct System. An electric in line duct heater or hydronic coil will be necessary to bring the Supply Air to Building back up to room temperature.

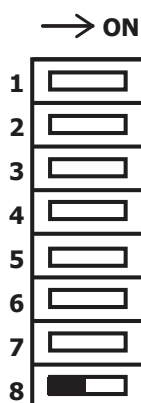
Contact your distributor for duct heater sizing and pricing information.

Defrost Time Adjustment

DIP switch #8 will adjust the defrost time. Do not change any of the other DIP switch settings. (Only available when unit is operating in ventilation mode).

! ATTENTION

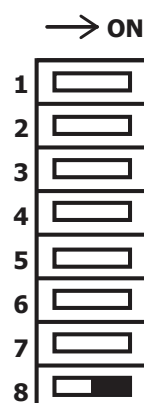
Change DIP switch #8 only as illustrated on this page. Do not adjust any other switches.



Factory Setting (DIP Switch 8 OFF)

The HRV enters defrost mode when outdoor temperatures drop below 27°F (-3°C).

The factory defrost cycle is 4 minutes defrost with a 30 minute run time.



Increased Defrost Time (DIP Switch 8 ON)

Cooler climates may require a more aggressive defrost cycle. Positioning DIP switch 8 to ON will initiate a 4 minute defrost with a 20 minute run time.

Maintenance and Service

Service your HRV on a regular schedule for optimum operating efficiencies and a prolonged life of the equipment.

Motor

Access the motor through the front service doors. Note the heat exchanger core can be removed to provide more room. See **HRV Core** in this section.

HRV Core

Access the heat exchange core through the front service door. Provide special care and attention to this component: the edges may be sharp and the core, itself, susceptible to damage if dropped.

When removing the core, note the location from which it is removed. Remove the core by carefully pulling it outward from the unit and sliding it evenly along its guide rail supports (found on the top and bottom corners and on either

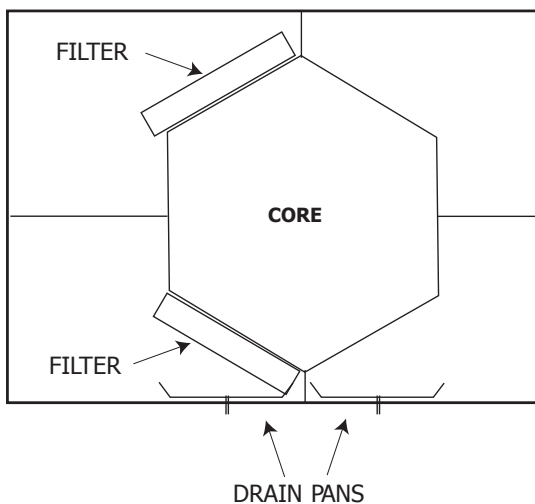
side of the core). Note the core may have some resistance when sliding out. Avoid tilting the core as this will result in its edges catching the guide rails and temporarily preventing its removal.

In most cases, all the core requires is a wash in a mild detergent and warm water to completely clean it. Do not use harsh chemicals, as their use may cause corrosion in the HRV. The time required between each core service depends on the application in which the HRV is installed.

Service may be required as often as one month, two months or at the very least, cleaned every six months. **When reinstalling the core, note the foam location and drip edge location for proper core placement** (see diagram below).

With the core in its proper position, place the bottom corner into its guide rail support, then place the left side, the right side, and finally the top corner, into place in the same fashion. Once the core is in place, push the core evenly into the cabinet until it reaches the back.

Note the core will protrude slightly from the front of the cabinet, this is so the access door, when closed, ensures a tight fit.



Note location and arrangement of cores and filters when removing.

Filters

Open front service door to access the filters located in both supply and exhaust air streams. It may be easier to first remove the core before removing the filters.

The filters are designed to stop large particles from entering in the core. The filters are fastened in place by a metal spring rod. To remove filters from core(s) simply pull the rod from one end, outward until free from core lip, and remove.

Use warm water with a mild detergent to wash the filters. Do not use harsh chemicals.

The time between filter service will depend on the application the HRV has been installed in. It can be as often as one - two months or at the very least, cleaned every six months.

Condensate Drains

The condensate drains consist of two drain pans which may collect water after the HRV initiates a defrost cycle, and a drain line to remove the condensate.

Maintenance on this portion of the system should be done as often as possible and should not exceed six months. Note bacterial growth in standing water is a major concern to healthy indoor air quality, and should be avoided whenever possible.

To clean these components, open the front service door and flush the pans with water. Ensure that the pans drain completely and in a reasonable amount of time. Note if the water does not drain right away, check for blockage in the drain line, also check that the drain line has a good slope to it. (1/8 - 1/4" per foot)

The drain line itself should have a "P" trap in it below the HRV which is to be filled with water to prevent odors or gases from entering back into the unit.

Duct Work

It is a good idea to inspect ducting, outside weather hoods (wall caps), and grilles for blockage and dirt buildup, at least every six months.

Outside weather hoods should be protected by a bird screen which can plug up with debris. Also, it is a good idea to visually confirm that the fresh air supply is free from any sources of contamination, such as other vented combustion equipment added after the fact.

Damper Motor

The damper motor, (if applicable) is a self contained motor and does not require service. The damper door attached to the motor could use a little lithium grease on the shaft opposite the motor, where it enters its holder, once every two - three years.

General Maintenance

As a final step in a routine maintenance schedule, it is a good idea to confirm operation of the system, checking speed control functions and remote control operation, if applicable.

Wipe the inside of the cabinet to remove dust and cob webs as needed.

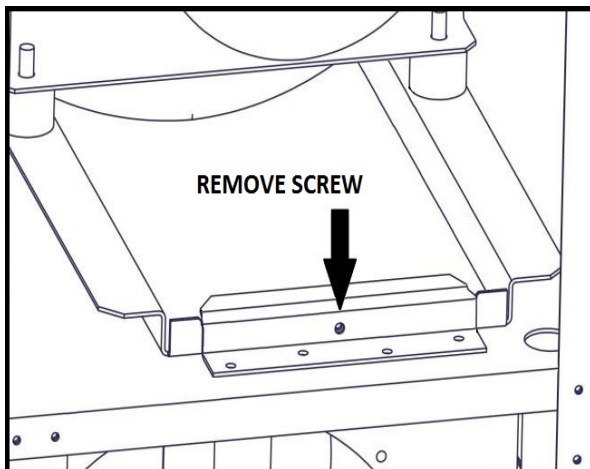
It is a good idea to keep a service/maintenance log of the unit.

Electrical Box Removal:

1. Remove the door panels from the HRV by loosening the screws located on the face of the doors.
2. Remove the electrical box cover by removing the 4 screws fastening the cover in place.
3. Disconnect the motor wires coming through the bottom of the electrical box from the circuit board, capacitors and relays, and remove from the electrical box.
4. Pull motor wires for lower blower through hole in blower divider panel.
5. Disconnect damper motor wires (three) from the circuit board and remove from the electrical box.
6. Disconnect thermistor from circuit board and remove from electrical box.
7. Remove the 4 screws securing the electrical box to the cabinet of the HRV.

Attention

8. Remove the ground continuity screw from both the upper and lower blower pans securing them to the pan stops.



Damper Removal:

9. Cut cable tie fastening thermistor wire to bracket, disconnect thermistor from circuit, and remove thermistor.
10. On the damper motor, loosen the two set screws which hold the square damper rod in place using a 1/8" hex key.
11. Remove the machine screw and kep nut fastening the damper motor to the bracket.
12. Remove the damper motor from the bracket and ensure that the two shims are collected from either side of the damper rod, and by pulling the damper motor wires out from the top core support panel.
13. Remove the plastic snap bushing from the hole in the top core support panel where the damper wires were removed from, and install a snap plug to seal the hole, found in the manual bag.

Reinstalling the Damper Motor:

14. On the opposite side of the HRV, place the damper motor over the square damper rod aligning the end of the rod flush with the damper motor.
15. Install the machine screw and kep nut which fastens the damper motor to the bracket.
16. Insert the shim around the damper rod ensuring it is placed on the opposite side of the rod from the set screws. Both of the set screws should screw directly into the damper rod, not the shim.
17. Prior to tightening the set screws ensure proper alignment of the damper door such that it is evenly spaced over the port collars providing a good seal in both directions.
18. Once alignment is confirmed, tighten the set screws to secure the damper into place.
19. Remove the snap plug from the hole in the top core support panel, and install a plastic snap bushing in hole.
20. Route damper motor wires through hole in top core support panel.

Reinstalling the Electrical Box:

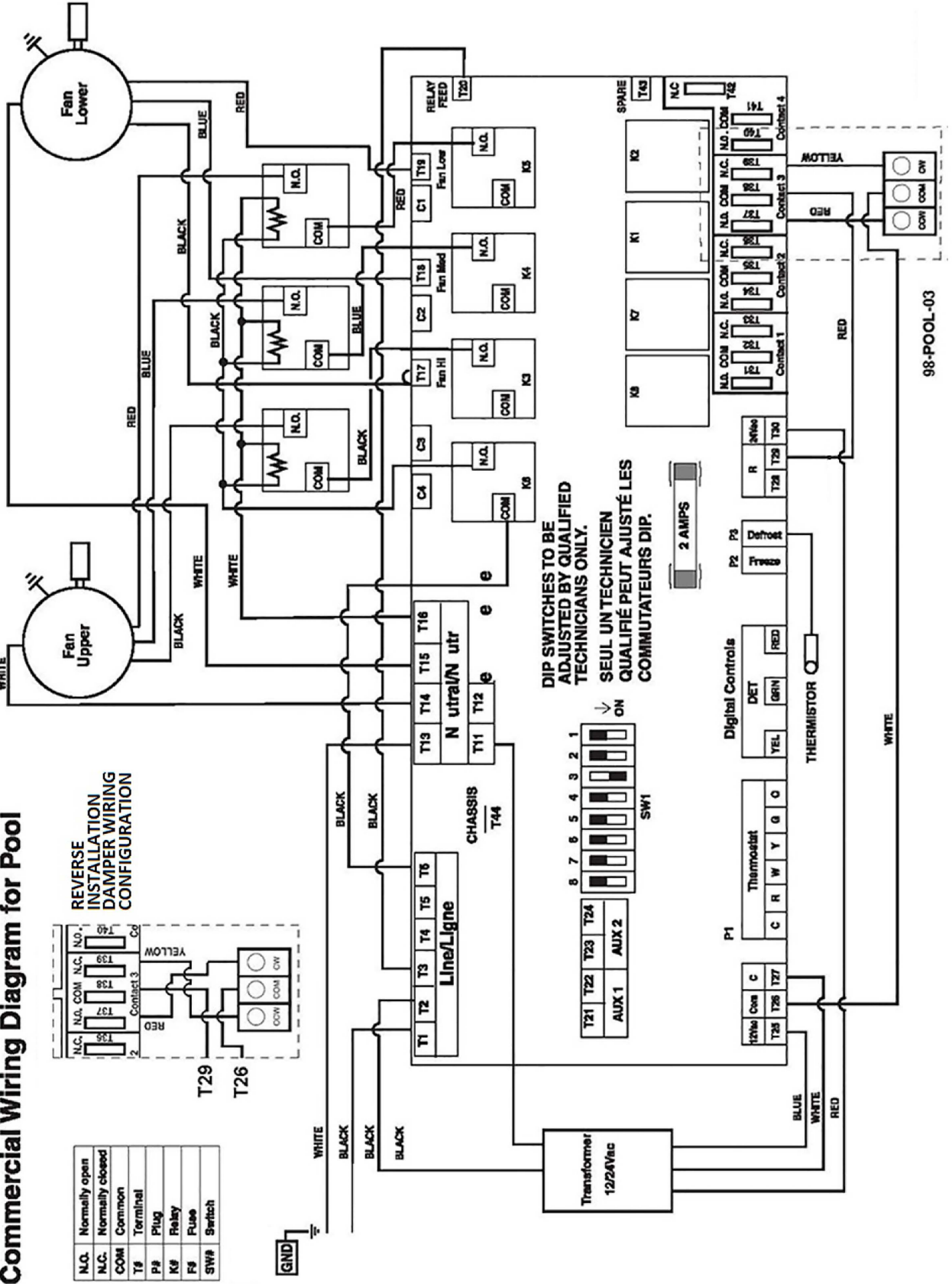
21. Remove the two snap plugs from the opposite side of the cabinet for electrical and control wires.
22. Install the two snap plugs in the cabinet holes on the side of the HRV which electrical box was originally removed from.
23. Route wires for both blower motors to opposite side of HRV cabinet where electrical box is to be installed.
24. Install the grounding continuity screw in both the upper and lower blower assemblies on the opposite side of the HRV where electrical box is now installed.
25. Fasten the electrical box to the cabinet of the HRV using the 4 screws that were previously removed.
26. Remove the snap plug from the blower divider panel and install plastic snap bushing provided in manual bag.
27. Install snap plug in hole in blower divider panel where lower blower motor wires were originally removed from.
28. Route the lower blower motor wires through the hole in the divider panel into the electrical box.
29. Route upper motor wires into the electrical box.
 30. Route damper motor wires into e-box and connect the motor wires to the circuit board, relays and capacitors using wiring diagram found in manual for reverse installations.
31. Connect damper motor wires to circuit board using wiring diagram found in manual for reverse installations.
 32. Route thermistor wire from electrical box, through hole in the top core support panel, and secure the blue end to the thermistor bracket in front of the damper motor using a plastic cable tie.
 33. Connect the thermistor to the circuit board in the electrical box.
 34. Putty holes closed in blower divider panel and top core support panel with wires protruding through.
 35. Install the large single door panel on the now back of the cabinet where electrical box was removed from and fasten using the eight machine screws.
 36. Reversing of the HRV is now complete. Continue with the installation of the HRV.

Troubleshooting your HRV System

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 • building 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) • a duct heater may be necessary to temper the air • placement of furniture or closed doors is restricting the movement of air in the building • 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"> • 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"> • 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 • the room air temperature is cooler than the pool water temperature. • condensation seems to form in the spring and fall 	<ul style="list-style-type: none"> • set dehumidistat lower • cover pools, hot tubs when they are not in use • avoid hanging clothes to dry • increase the room air temperature or decrease the pool water temperature. • 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
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 	<p>Note: minimal frost build-up is expected on cores before unit initiates defrost cycle functions</p> <ul style="list-style-type: none"> • have HVAC contractor balance the HRV
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 HRVs drain lines • HRV is not level • drain lines are obstructed • HRV heat exchange core is not properly installed 	<ul style="list-style-type: none"> • look for kinks in line • check water drain connections • make sure water drains properly from a panel

CAUTION: ELECTRICAL CONTROL PANEL, SERVICE BY ELECTRICIAN ONLY

Commercial Wiring Diagram for Pool



COMMERCIAL LIFE BREATH® HEAT RECOVERY VENTILATORS

• Two Year Limited Warranty • 15 Year Core Warranty

AIRIA BRANDS INC.® (AIRIA) warrants to the original purchaser of the Commercial LIFE BREATH® model and accessories referred to below, to be free from manufacturing defects.

This Warranty is personal to AIRIA® and is in effect from the date of the original purchase for a period of two years, save and except that a 15 YEAR WARRANTY is given to the LIFE BREATH® core should it develop a condensation leak or become perforated due to corrosion caused by normal use.

Damage resulting from all other causes, including but not limited to: lightning, hurricane, tornado, earthquake or any other acts of God; improper installation, modification, alteration or misuse of the LIFE BREATH® or its operation in a manner contrary to the instructions accompanying the unit at the time of sale; accidental or intentional damage, neglect, improper care, or other failure by the owner to provide reasonable and necessary maintenance of the product; any attempt at repair by an unauthorized service representative or not in accordance with this warranty; or any other causes beyond the control of AIRIA®, are excluded from this warranty.

If you feel that the LIFE BREATH® you purchased is not free from manufacturing defects, please contact AIRIA BRANDS INC.®, 511 McCormick Blvd., London, Ontario N5W 4C8, 519-457-1904 or fax 519-457-1676 to find the name of your nearest dealer in order to repair the product. The labor required to install any replacement part(s) shall be dealt with at the option of the customer in either of the following ways:

- (a) the customer may supply labor at their own expense: or
- (b) if the product was purchased from a dealer, then the dealer will supply labor at cost to the customer.

AIRIA® reserves the right to replace the entire unit or to refund the original purchase price in lieu of repair.

AIRIA® MAKES NO EXPRESS WARRANTIES, EXCEPT FOR THOSE THAT ARE SET FORTH HEREIN AND SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES WITH RESPECT TO LIFE BREATH® COVERED BY THIS WARRANTY. AIRIA'S COMPLETE LIABILITY AND THE OWNER'S EXCLUSIVE REMEDY BEING LIMITED TO REPAIR OR REPLACEMENT ON THE TERMS STATED HEREIN. ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY AND OF FITNESS FOR ANY PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

NO PERSON IS AUTHORIZED TO CHANGE THE WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGES ARE MADE IN WRITING AND SIGNED BY AN OFFICER OF AIRIA®.

MODEL NO.: _____

UNIT SERIAL NO.: _____

INSTALLED BY: _____



511 McCormick Blvd.
London, Ontario N5W 4C8
T 1-855-247-4200
F 1-800-494-4185
Email: info@lifebreath.com

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



69-POOL
100516