

PURE PERFORMANCE™

RNC SERIES **HOMEOWNERS GUIDE**

69-RNC-OWNERS 012616



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www.lifebreath.com



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Homeowner Information

Dealer / Contractor Information

Model_____

Dealer_____

Serial Number_____

Installer_____

Telephone/Contact_____

Installation Date_____

Register your HRV for warranty at www.lifebreath.com

For any warranty information, please contact Airia Brands

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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. Operational modes available to you will depend on the main control that is installed. Some features and modes may be unavailable to you.

I. **Continuous Ventilation**

This mode of operation provides continuous ventilation within the home. You may, for example, select Continuous Ventilation at low speed for normal operation and increase to high speed during increased activity levels, such as cooking and showering, etc.

II. **20 Minutes On, 40 Minutes Recirculation**

This mode ventilates for 20 minutes and recirculates the household air every 40 minutes each hour. This mode is not applicable if your HRV is connected to a forced air system.

III. **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.

IV. **10 Minutes On, 50 Minutes Standby**

This mode of operation provides 10 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. This mode is useful when 20/40 mode is providing too much ventilation.

V. **Continuous Recirculation** or

This mode continuously recirculates your household air (no ventilation). This mode is not applicable if your HRV is connected to a forced air system.

VI. **Continuous Low Fan Speed LO**

This mode will operate the fan in low speed continuously at the selected operating mode (Ventilation or Recirculation).

VII. **Continuous High Fan Speed HI**

This mode will operate the fan in high speed continuously at the selected operating mode (Ventilation or Recirculation). This mode is useful when occupancy in the home or activity is high for an extended period of time.

Recirculation

Recirculates existing household air without introducing fresh air. Recirculation modes (II and V) are not 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.

Note

- Due to ongoing research and product development, specifications, ratings, and dimensions are subject to change without notice. Refer to www.LIFEBREATH.com for the latest product information.

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.

How the Dehumidistat Works

Only the DXPL02, BC02 and BC03 controls are equipped with an adjustable Dehumidistat.

High indoor humidity levels, during the heating season, have become a problem in many well insulated, tight homes, excessive condensation on the window 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 if available 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 "Setting the Dehumidistat" section of either the DXPL02, BC02 or BC03 control instructions on how to set the Dehumidistat, depending on which control you have installed. 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.

The DXPL02, BC02 and BC03 controls have 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 60 being high and 20 being low. 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% and 50% RH. The Dehumidistat should be set to off for all seasons except the heating season.

Dehumidistat Notes

- **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).

The Lifebreath Ventilation Control 99-BC02


The **Lifebreath Ventilation Control** offers advanced features to control your home's ventilation.

Key Features:


- 2 speed fan setting (LOW / HIGH)
- Standby setting (fan OFF)
- Electronic Dehumidistat
- Compatible with 99-DET02 Wireless Timers
- Slim-line design
- Connect to 3 wire 20 gauge low voltage wire

BC02 Operating Instructions:

Turning on the Control

Press and release the ON/OFF button . The light above will illuminate.


Setting the Ventilation Speed

Press and release the Fan button  to select LOW or HIGH fan speed. The corresponding "Indicator Light" will illuminate. If both LO and HI indicator lights are off, the fan is OFF but will turn ON if required by the Dehumidistat or remote Timer (if installed).

Humidity Control


Your unit will reduce indoor humidity when outdoor humidity levels are lower than indoor humidity levels. This feature is only effective when the outdoor temperature is below 59°F (15°C).

Setting the Dehumidistat

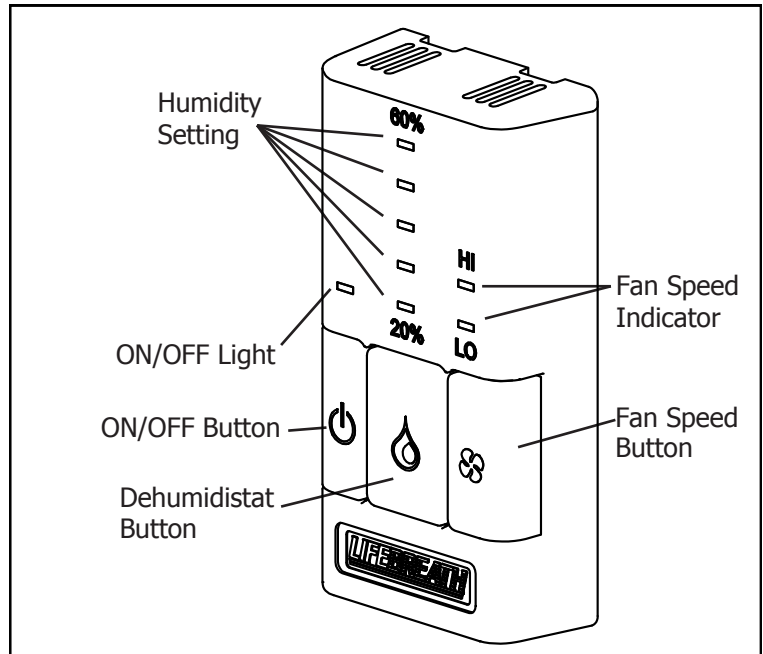
Press and release the Dehumidistat button  until the Dehumidistat Light is at the desired setting. After a few seconds the Dehumidistat light will either flash or be on continuous.

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 Home Owner's manual for instructions on how the Dehumidistat works.

The Dehumidistat will override the current speed setting to HIGH speed.

The Dehumidistat function can be turned OFF by pressing the  button until no Dehumidistat light is on.

Note - Only 1 Dehumidistat should be installed in a system.



ATTENTION

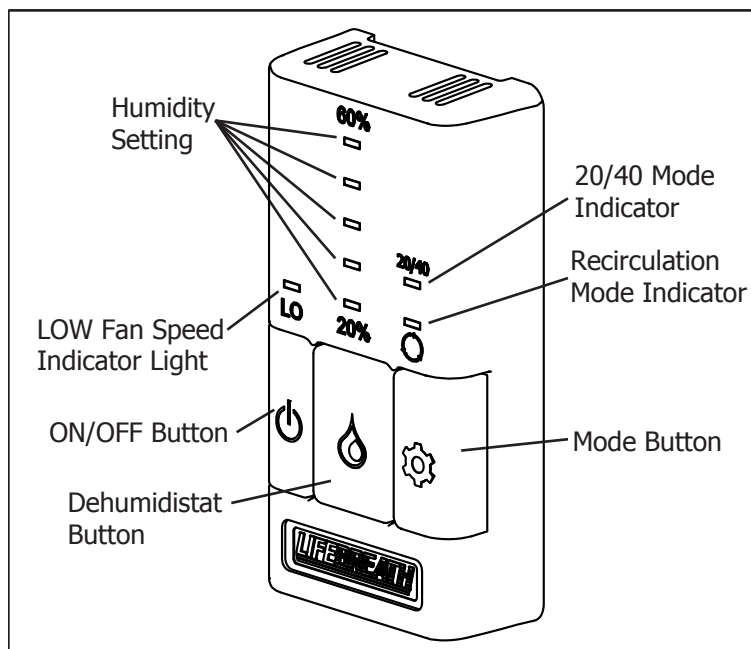
- Only one main control can be installed on your system.
- Timers will not function when mode of operation is set to "OFF", unless specifically installed for that function. (See Installation Guide for other options.)

The Lifebreath Ventilation Control 99-BC03

The **Lifebreath Ventilation Control** offers advanced features to control your home's ventilation.


Key Features:

- Continuous LOW fan speed operation
- Electronic Dehumidistat
- 3 modes of operation:
 - Ventilation
 - Recirculation
 - 20/40 mode
- Compatible with 99-DET02 Wireless Timers
- Slim-line design
- Connect to 3 wire 20 gauge low voltage wire



BC03 Operating Instructions:


Turning on the Control

Press and release the ON/OFF button . The light above will illuminate and the fan will turn on to LOW speed.

Humidity Control

Your unit will reduce indoor humidity when outdoor humidity levels are lower than indoor humidity levels. This feature is only effective when the outdoor temperature is below 59°F (15°C).

Setting the Dehumidistat

Press and release the Dehumidistat button  until the Dehumidistat Light is at the desired setting. After a few 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 Home Owner's manual for instructions on how the Dehumidistat works.

The Dehumidistat will override the current fan speed setting to high fan speed.

The Dehumidistat function can be turned OFF by pressing the  button until no Dehumidistat light is on.

Note - Only 1 Dehumidistat should be installed in a system.

Setting 20/40 Mode



To activate 20/40 mode, press and release the Mode button  until the "Indicator Light" below 20/40 is illuminated.

20/40 mode is a repeating cycle. The fan will run at LOW speed for 20 minutes, then turn OFF for 40 minutes.

Some units are equipped to Recirculate air in your home during the 40 minute cycle with no Ventilation. The control will automatically detect this feature and Recirculate air during the 40 minute cycle at LOW fan speed.

Recirculation Mode

Some units are equipped to Recirculate the air in your home without Ventilating.

To activate Recirculation mode, press and release the Mode button  until the Recirculation  "Indicator Light" is ON. Recirculation is in LOW fan speed.

ATTENTION

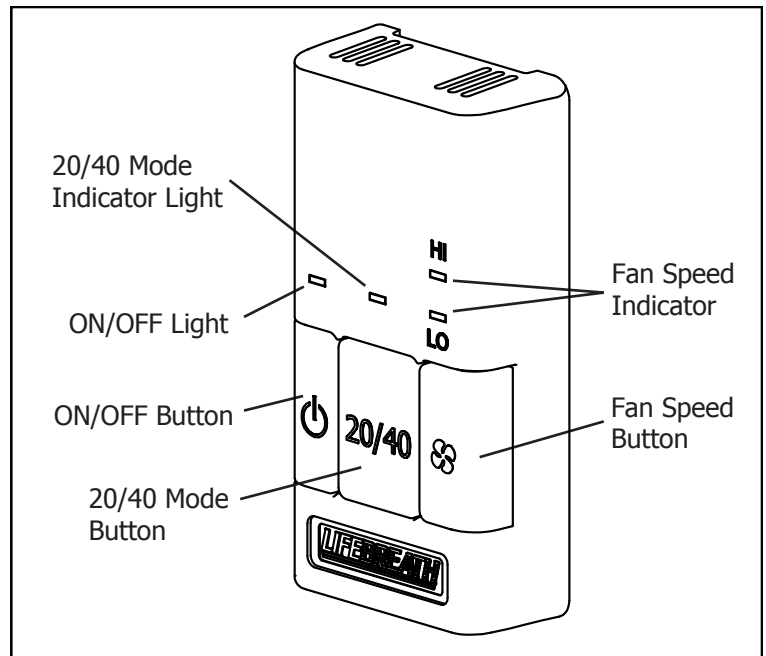
- Only one main control can be installed on your system.
- Recirculation is not available on all models.
- Timers will not function when mode of operation is set to "OFF", unless specifically installed for that function. (See Installation Guide for other options.)

The Lifebreath Ventilation Control 99-BC04

The **Lifebreath Ventilation Control** offers advanced features to control your home's ventilation.


Key Features:

- 2 speed fan setting (LOW / HIGH)
- Standby setting (fan OFF)
- 20/40 mode
- Compatible with 99-DET02 Wireless Timers
- Slim-line design
- Connect to 3 wire 20 gauge low voltage wire




BC04 Operating Instructions:

Turning on the Control

Press and release the ON/OFF button . The light above will illuminate.

Setting the Ventilation Speed

Press and release the Fan button  to select LOW or HIGH fan speed. The corresponding "Indicator Light" will illuminate. If both LO and HI indicator lights are off, the fan is OFF but will turn ON if required by a remote Timer (if installed).

Setting 20/40 Mode

After a fan speed has been selected, press and release the 20/40 button. The "Indicator Light" will turn ON and the control will be in 20/40 mode.

20/40 mode is a repeating cycle. The fan will run at the set speed, LO or HI, for 20 minutes then turn OFF for 40 minutes.

Some units are equipped to Recirculate air in your home during the 40 minute cycle with no Ventilation. The control will automatically detect this feature and Recirculate air during the 40 minute cycle at the selected fan speed.










Attention

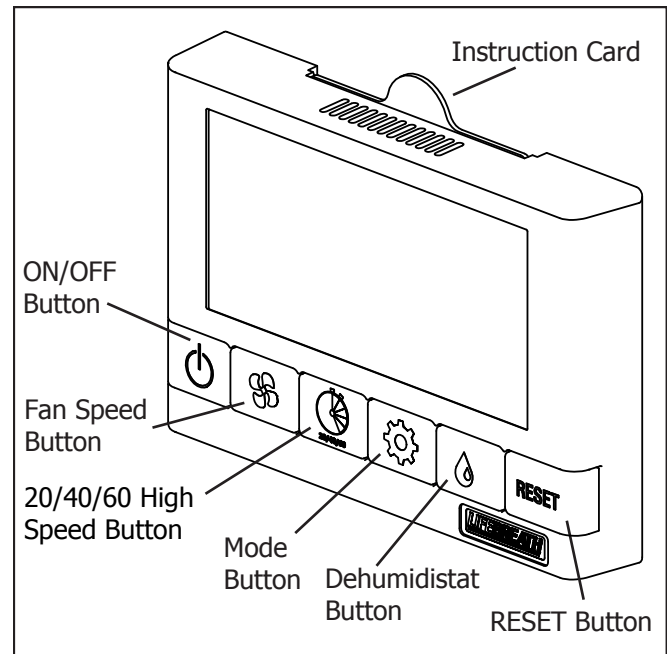
- Only one main control can be installed on your system.
- Recirculation is not available on all models.
- Timers will not function when mode of operation is set to "OFF", unless specifically installed for that function. (See Installation Guide for other options.)

The Lifebreath Digital Control 99-DXPL02

The **Lifebreath Digital Control** offers the most advanced features to control your home's ventilation.

Key Features :

- 5 speed fan setting
- Standby setting (fan speed 0)
- Electronic Dehumidistat
- 20/40/60 HIGH speed override button
- Compatible with 99-DET02 Wireless Timers
- Easy to read backlit LCD screen
- Slim-line design
- Connect to 3 wire 20 gauge low voltage wire
- Five selectable modes of operation
 - Continuous Ventilation 
 - 20 min. Ventilation / 40 min. Recirculation  20/hr  40/hr
 - 20 min. Ventilation / 40 min. OFF  20/hr  40/hr
 - 10 min. Ventilation / 50 min. OFF  10/hr  50/hr
 - Continuous Recirculation 
- Service indicator 





Digital Control Operating Instructions (DXPL02):



Turning on the Control

Press and release the ON/OFF button . The light above will illuminate.


Setting the Ventilation Speed

Press and release the Fan button  to select one of the 5 fan speeds. The fan speed will be displayed on the screen beside the Fan symbol . Standby mode (Fan OFF) is indicated as speed 0. The fan will turn ON if required by a remote Timer (if installed).

20/40/60 High Speed Button

Press and release the 20/40/60 High Speed button  to temporarily initiate HIGH Fan speed for 20, 40 or 60 minutes. Press once for 20 minutes, twice for 40 minutes, 3 times for 60 minutes and 4 times to disable. The  will appear on the screen and the corresponding section of the clock will flash to indicate the time interval selected. When the timer runs out, the unit will return to its previous operating speed.

Setting the Mode of Operation

There are 5 modes of operation available with the DXPL02 control. Pressing the Mode button  will cycle through the different modes of operation and they will be displayed on the screen.

Attention


- Only one main control can be installed on your system.
- Recirculation is not available on all models.
- Timers will not function when mode of operation is set to "OFF", unless specifically installed for that function. (See Installation Guide for other options.)

Digital Control *(continued)*

Setting the Dehumidistat

For a full description of the Dehumidistat function, refer to page 4 "How the Dehumidistat Works".


The DXPL02 control displays the current indoor humidity in LARGE numbers and the Dehumidistat setting in SMALL numbers on the screen. If the indoor humidity is above the set point, the DXPL02 control will initiate HIGH Fan speed operation in Ventilation mode until the indoor humidity has been reduced below the set point.


Press and release the Dehumidistat button  to adjust the Dehumidistat setting. The numbers on the screen will cycle. The Dehumidistat can be set between 25% RH and 60% RH. To disable the Dehumidistat function on the control, cycle through the setting until OFF is displayed.

Reset Button

The RESET button will clear the current Fan, Timer, Mode and Dehumidistat settings and set the unit into LOW fan speed, Ventilation mode and a Dehumidistat setting of 40%.

Service Indicator

A service indicator  appears when the unit requires routine maintenance. Refer to "Maintenance Routine" in this guide.

To reset the service indicator once routine maintenance has been performed, press and hold the ON/OFF button  for 5 seconds.

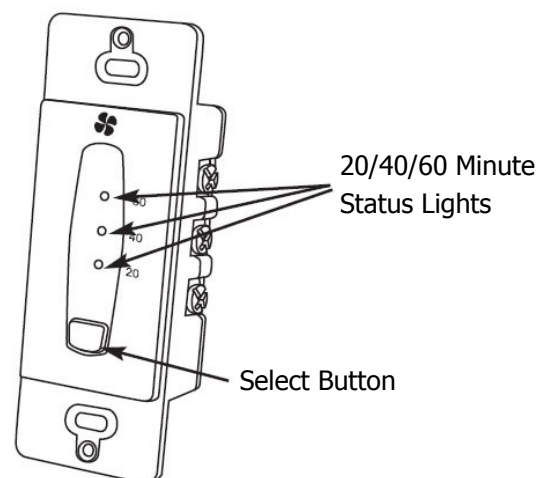
Timers

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 fan speed Ventilation. Upon completion of the timer cycle, the HRV will return to your selected operational mode and fan speed setting.

Lifebreath 20/40/60 Minute Timer

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.



Timers *(continued)*

Lifebreath Wireless 20/40/60 Minute Timer

99-DET02

Initiates high speed ventilation for 20, 40 or 60 minutes. The 20/40/60 minute status lights indicate high speed operation.

Wireless Timers have an estimated range of 40' with no obstructions. To increase the range of a Wireless Timer a 99-RX02 Repeater may be used.

Using the Wireless 99-DET02 Timer

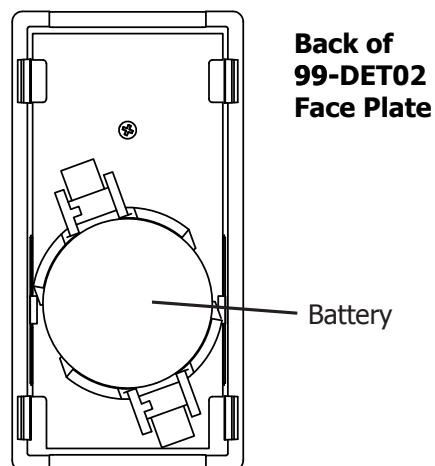
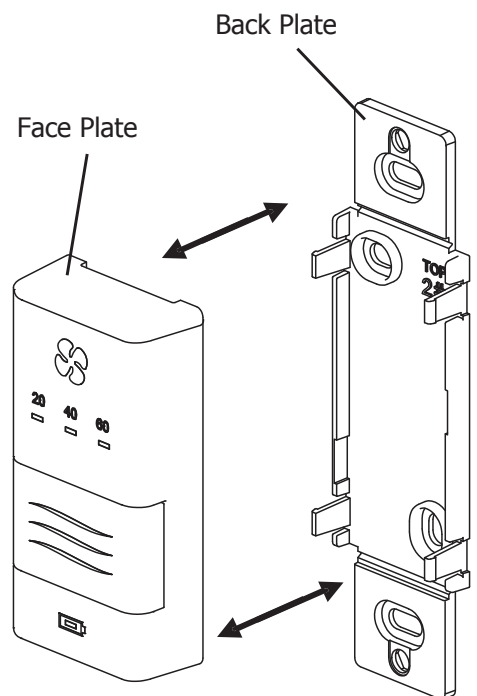
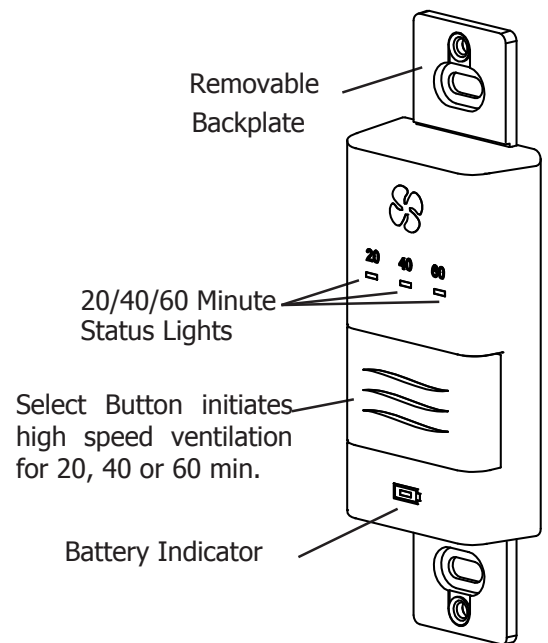
When paired to the main wall control, the Wireless Timer may be moved to a remote location in the home such as a bathroom.

Pressing the Select Button on the Timer will initiate high speed fan operation. The corresponding Status Light will illuminate under the number on the Timer to indicate either 20, 40 or 60 minutes of high speed fan operation. To cancel the call for high speed fan operation, press the Select Button until the Status Lights are no longer illuminated.

Replacing the Battery

When the battery on the timer needs to be replaced in the Wireless Timer, the red LED Battery Indicator will illuminate.

To replace the battery, first remove the Face Plate by pulling it off the wall. On the back of the Timer Face Plate the battery will be exposed. Replace the battery and re-attach the Face Plate to the Back Plate. Be careful not to damage the tabs on the Back Plate when re-attaching the Face Plate.



Timers (*continued*)

Lifebreath Wireless Repeater

99-RX02

The Wireless Repeater is used to extend range of the 99-DET02 Wireless Timers. The Repeater plugs directly into a 120V power outlet. The 99-RX02 wirelessly connects to the main control as well as the 99-DET02 Timers.

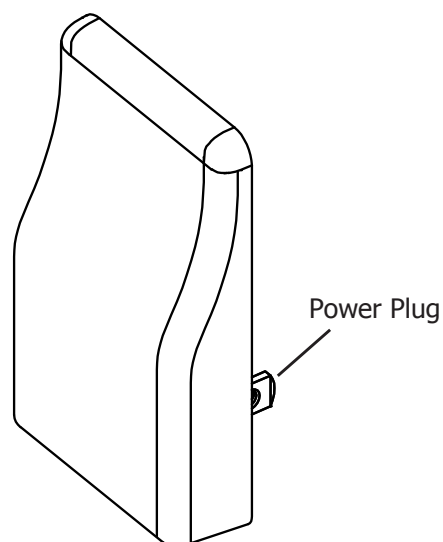
The 99-RX02 Repeater should be installed at the halfway point between the 99-DET02 Wireless Timer and the main wall control if timer is out of range.

Indicator LED's

When the Repeater is positioned correctly, a solid green LED will illuminate indicating the Repeater has a strong connection to the main wall control and may be moved farther away if necessary.

A flashing green LED means that the Repeater has a moderate connection to the main wall control. The Repeater will function properly at this position but should not be moved farther from the main wall control to ensure the connection is maintained.

A red LED indicates the Repeater is not connected to the main wall control and should be repositioned closer to the main wall control to re-establish the connection and function.

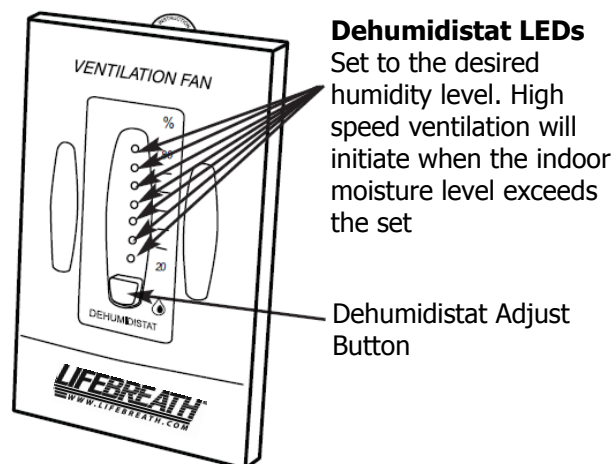


Dehumidistat

Lifebreath Dehumidistat 99-DH01

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 seasons except the heating season. Refer to "How the Dehumidistat Works" in this manual before setting the Dehumidistat.



Maintenance Routine

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).

2. Clean Air Filters (Clean Four times a Year)

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

- a) Open access door and slide core out.
- b) Remove filter clips if present.
- c) 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.
- d) To re-assemble, place clean filter(s) (wet or dry) back into their positions against the core and return clips to their original positions.
- e) Slide core back into its original position.

3. Clean Core Twice a Year

- a) Open access door.
- b) Carefully grip ends of core and pull evenly outward. Core may be snug, but will slide out of the cabinet.
- c) Once removed from the cabinet remove filters.
- d) Install the clean filters.
- e) Install clean core in the cabinet.

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

To Install the Clean Core:

- a) To reinstall the core first position the bottom of the core on the bottom support in the cabinet.
- b) Carefully align the core with the other 3 supports and fully insert the core.
- c) Push on sides of core, do not push on the center.

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



Attention/Warning

- 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

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.
- Blockage of hoods may cause an imbalance

Maintenance Routine Continued

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.

Troubleshooting

SYMPTOM	CAUSE	SOLUTION
Poor airflows	<ul style="list-style-type: none"> • 1/4 in (6 mm) mesh on outside hood is plugged • Filters plugged • Core obstructed • House grills 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 • Check duct installation • Increase the speed of the HRV • Have contractor balance HRV
Supply air feels cold	<ul style="list-style-type: none"> • Outdoor temperature extremely cold 	<ul style="list-style-type: none"> • Turn down the HRV supply speed • 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 in not operating	<ul style="list-style-type: none"> • Outdoor temperature is above 15°C (59°F) • 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) • 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 not sized 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. Fire wood may have to be moved outside • Vent crawl space and place a vapor barrier on the floor of the crawl space • 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 airflows 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 contractor balance HRV airflows
HRV and/or ducts frosting up	<ul style="list-style-type: none"> • HRV airflows 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
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
Excess 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"> • Look for obstructions in the drain line • Look for kinks in the drain line
Excessive vibration	<ul style="list-style-type: none"> • Dirt on fan wheels 	<ul style="list-style-type: none"> • Have a contractor service HRV

Additional Information

Defrost Mode - During cold weather, the HRV automatically cycles through its defrost mode when temperatures drop below freezing to avoid frost build up in the core.

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.

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 resumes operation at the selected mode and speed. (Approximately 60 seconds in duration.)

Standby (Speed 0) - The HRV is on but fans are not running 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.

Additional information can be found at www.lifebreath.com.

Warranty

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

Register for your warranty:

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.