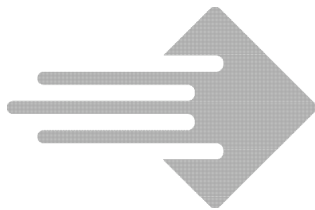


Installation and Operating Guide



a i r 2000
Because **air** is **vital**

READ CAREFULLY AND SAVE



Congratulations!

Thank you for choosing an Air 2000 product. To fully benefit from your purchase, we strongly recommend you read this operating manual carefully and keep it for further consultation.

Warning

To avoid any risk of damage, detuning or electric shock, do not open the switch box. We recommend that installation and maintenance be performed by qualified personnel only.



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Section A Operating manual

A1 - General operating procedures for the air exchanger

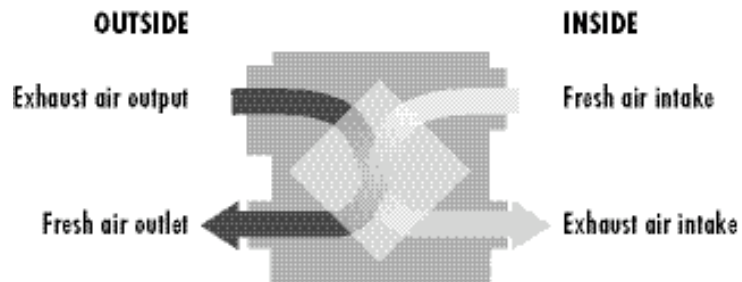
Our winters cause extreme differences in temperature and humidity. Outside air is likely to be cold and dry while inside air will be warm and humid.

Excessive humidity can cause condensation and frost on your windows and cause mildew in your home. A humidity rate that's too low, however, can be harmful for your health. This is why it's essential to control the humidity rate in your home. By evacuating excess humidity and pollutants and replacing them by fresh dry air, your environment will be all the more healthy.*

*Please take note that the device was not designed to dehumidify inside air during summer when outside air is often more humid than inside air.

Heat Recovery

The heat recovery ventilator unit includes several channels and two ventilators. The separate, inter-laced channels expel warm, stale air and draw in cooler, fresh air from the outside. These channels



temper the incoming fresh air by transferring heat from the outgoing warmer air.



A2 - Wall controls (humidistat and timer)

How the humidistat works

The humidistat controls the relative humidity rate. Equipped with a humidity sensor and an electronic system, it efficiently controls your air exchanger to keep the humidity rate in your home below the desired setting.

This feature allows you to set the functioning mode of your air exchanger according to your needs. You can create a continuous air exchange with the outside, recirculate ambient air or maintain a constant flow of fresh air when there are more people in the house.

The humidistat is designed to quickly evacuate all excess humidity. When the humidity content exceeds the desired setting, this feature causes air to be exchanged with the outside at a high speed until the humidity has been returned to the desired rate. Afterwards, it will automatically come back to the chosen operating mode.

ASHRE* standards recommend maintaining a relative humidity rate between 30% and 60%.

* (American Society of Heating-Refrigerating and Air Conditioning Engineer)

RECOMMENDED HUMIDITY RATE TO PREVENT INDOOR CONDENSATION*	
Outside air temperature	Recommended humidity rate
10°C / 50°F	Between 55% and 60%
0°C / 32°F	Between 50% and 55%
-10°C / 14°F	Between 45% and 50%
-20°C / -4°F	Between 40% and 45%
-30°C / -22°F	Between 30% and 40%

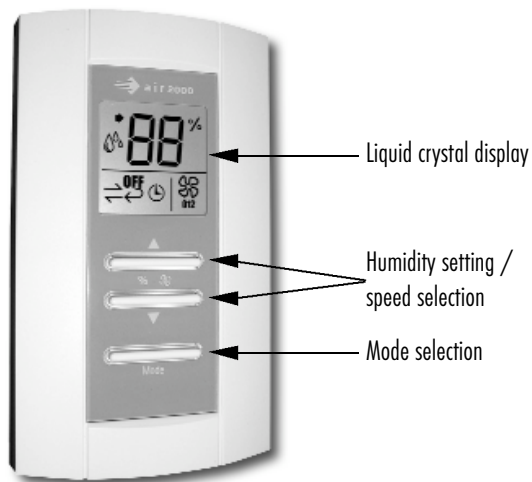
*These rates may vary according to the type of construction and fenestration of your house.



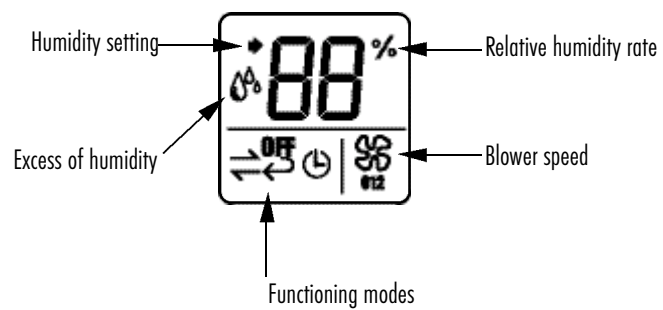
Model 611227

Electronic humidistat with liquid crystal display.




Nomenclature of external orders



Presentation of the display window
















- To adjust the highest humidity setting, use the  until you reach the desired level. This symbol  will be displayed during adjustment.
- Wait several seconds and the relative ambient humidity level will again displayed.
- If the humidity rate exceeds the highest set level, the symbol  will appear and the air exchanger will evacuate the excess humidity. However, if you set the functioning to "OFF"*, excess humidity will not be evacuated from the house. (Please see Section 5)



Presentation of the air exchanger's functioning modes

Mode	Speed	Description	Application
OFF	-	Device stops completely. Remains inactive regardless of the humidity rate.	Suspends functioning of the device.
		Paused. Activates only when the humidity rate exceeds the set rate.	Prevents excess humidity. Acts as only as a dehumidifier.
		Exchanges air continuously with outdoors at a low speed.	Achieves an optimum air quality while maintaining an adequate level of humidity.
		Exchanges air continuously with outdoors at a high speed.	Increases the intensity of the fresh air flow when there are visitors or periods of prolonged cooking.
		Recirculates interior air at a low speed.	Equalizes the temperature and humidity in the house.
		Recirculates interior air at a high speed.	Equalizes the temperature more completely (wood stoves).
		Exchanges air with outdoors at a low speed for 20 minutes. Paused for 20 minutes.	Ensures a minimum air circulation and control of humidity during vacations or prolonged absences.
		Exchanges air continuously with outdoors at a low speed for 20 minutes. Recirculates interior air at a low speed for 40 minutes.	Renews interior air and then equalizes the temperature and humidity.

To select one of the available functioning modes for your air exchanger, press the "mode" button until the mode you desire is displayed.



According to the chosen mode, you must adjust the speed of the fans by pressing the up or the down arrow. Once your selection has been made, don't touch the device for several seconds. This allows it to return to a normal display.



These simple and easy-to-use controls allow you to loop a variety of modes at the push of a button.

Mode Control (Product #611230)

Function: Provides the ventilation unit with 4 modes of operation:

- Circulation mode
- Low-speed exterior exchange mode
- High-speed exterior exchange mode
- Stop mode (when the lights are off)



Speed Control (Product #611229)

Function: Provides the ventilation unit with 4 modes of operation:

- Intermittent mode; successive cycles, low-speed 20-min exchange, 40-min stop mode or circulation**
- Low-speed exterior exchange mode
- High-speed exterior exchange mode
- Stop mode or circulation ** (when the lights are off)



** Aéromatic 7250, 7260, 7261, 7290, 7292 and 7295, stop.

** Aéromatic 7200, 7210, 8230-5 and 8260-5, low-speed circulation.



Humidistat model 611224

The mechanical humidistat controls excess humidity. When the rate of humidity is greater than the value indicated on the adjustment knob, activate the high speed switch and, if needed, the interior-exterior exchange switch. When the appropriate humidity rate is reached, the humidistat returns to its pre-selected ventilation mode.

Turn the adjustment knob from the humidity's higher value toward its lower value and, when you hear a click, look at the value indicated. This value represents the rate of ambient moisture in the air.

You may also wish to operate the appliance at high speed. To do this, adjust the knob to its lowest rate of humidity (20%). This setting is recommended for a room full of guests or an extended period of cooking.



20-40-60 Timer (Product #611228)

Function: Provides the ventilation unit with high-speed exterior exchange for the following durations:

- 20 minutes
- 40 minutes
- 60 minutes





A3 - Defrosting the device

When the device exchanges inside with outside air during the winter, it must undergo defrosting cycles. The frequency of these cycles is controlled by a temperature detector located in the device.

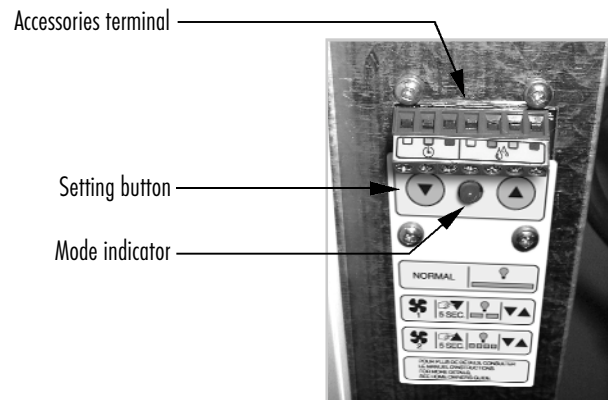
These cycles allow the heat recovery core to continue to perform even during cold weather. The device is designed not to create a negative pressure in your home during defrosting. This avoids infiltrations of cold air or smoke, in the case of wood stoves.

DEFROST CYCLE			
Outside temperature °C / °F		Defrost min / operating min	
		HRV 7250, 7260	HRV 7290, 7292, 7295
> -5	>23	No defrost	No defrost
-5 à -26	23 à -15	6 / 20	7 / 23
< -26	< -15	10 / 20	10 / 20



A4 - Adjusting the fan speeds

The fans will operate at a low or high speed, according to the current operation or the selected functioning mode. According to your preferences and needs, it is possible to adjust fan speed using the two buttons located on the air exchanger.



To adjust the intensity at low speed:

- Press the ▼ button for five seconds.
- A slowly flashing light indicates that the fans are currently functioning at a low speed and that you may now adjust this speed.
- Adjust the low speed using the two buttons, ▼ and ▲, to increased or reduce intensity.*
- To end the adjustment, push one of the two buttons for three seconds or don't touch any buttons for more than five seconds.

* If the light stops flashing during the speed adjustment, this means that you have reached the lowest or the highest possible speed.



To adjust the intensity at high speed:

- Press the ▲ button for five seconds.
- A quickly flashing light indicates that the fans are currently functioning at a high speed and that you may adjust this speed.
- Adjust the high speed using the two buttons, ▼ and ▲, to increase or decrease intensity.*
- To end the adjustment, push one of the two buttons for three seconds or don't touch any buttons for more than five seconds.

* If the light stops flashing during the speed adjustment, this means that you have reached the lowest or the highest possible speed.

A5 - Maintenance

WARNING: ALWAYS UNPLUG THE DEVICE BEFORE DOING MAINTENANCE.

Every month, make sure that the air inlet and outlet are not obstructed by particles or ice.

Every month during the winter, make sure that the condensation drain opening is not obstructed.

Three times a year or as need be, clean the filter with soapy water by hand or in the dish washer.

Once a year or as need be, clean the heat recovery core. Delicately pull it towards you out of the device. We recommend wearing gloves during handling to avoid being cut.

Once a year, preferably in the fall, vacuum out the inside of the device.

A maintenance sheet can be found at the end of this manual.



Section B Installation guide

Installation of the air exchanger must be in compliance with the codes in effect in your town.

B1 - Checking the contents

Verify that all the parts have been included in shipping.

- Air exchanger
- Bag of parts:
 - 4 springs
 - Assembly chain
 - 4 butterfly nuts
 - 8 butterfly nut attachment screws
 - 4 assembly chain attachment screws
 - Drain hose
 - *Drain hose "T" connector
 - *3/8-1/2" universal drain
 - *Seal grommets
 - *Drain taps



*Quantity of units varies between one and two, depending on model of air exchanger (single or double hole drain).

B2 - Additional accessories

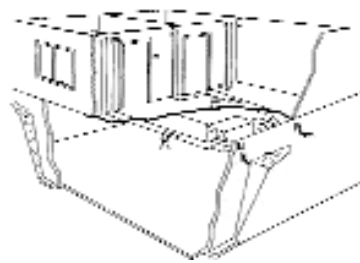
Additional parts can be bought to complete the installation. The following list is recommended for a typical basement installation.

- Humidistat
- Humidistat and timer wire (4C-22/7)
- Diffuser and ambient air inlet
- Outside air vent
- Exhaust clap
- Insulated duct
- Uninsulated duct



B3 - Locating the air exchanger

The device must be located in a place where the temperature is always above freezing. The heat exchanger should not be installed near a cooking area. Chose a location for the device where the ducts will be short and not need to change direction. This ensures that the system functions optimally. The duct set-up connecting the device to the outside must not significantly affect the system's static pressure.



B4 - Locating the air vents

The heat recovery unit has an intake vent. Air vents should be placed where the humidity level is highest. Normally, this would be located on the first floor between the bathroom and the kitchen or in the basement near the bathroom. Avoid placing it in the same room as a combustion device, such as a fireplace or furnace. The vent should be installed on the wall or the ceiling. If installed on the wall, it should be placed at least 12 inches (30 cm) from the ceiling.

B5 - Locating the air diffusers

The diffusers should be installed in hallways as far away as possible from the air vents to force the air to circulate throughout the house. The diffusers should be installed on the wall or on the ceiling. If the diffuser is located in a busy place, we recommend placing it on the ceiling. The air diffuser can thus better mix the air in the room before reaching occupants' living level. People will thus be more comfortable in cold weather. If you install the diffusers on the wall, place them at least 12 inches (30 cm) from the ceiling.

B6 - Locating the hydrometric controller

The hydrometric controller (dehumidistat) should be installed in the place where excess humidity is the most likely to be detected. This would generally be between the bathroom and the kitchen. If you wish to control mostly humidity in basement, the control should be placed there. Ensure good air circulation around the hydrometric controller. Do not place it behind a door, for example.



B7 - Installing the unit

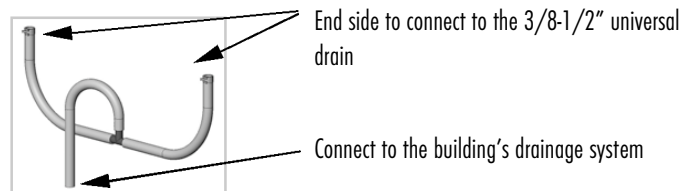
The air exchanger is designed to be set on a shelf or suspended from a structure.

To suspend the device, affix the four butterfly nuts in the upper corners of the unit. Cut the chain provided with the unit into four equal lengths. Cut the last link at the end of each section of chain so that it may serve as a hook. Using the chains and the springs, suspend the air exchanger from the wood joists.



When the exchanger is placed on a shelf, place rubber bands below the device to cancel out the vibrations caused by the fans.

The device should be installed level to ensure that condensation drains out of the unit. Connect one end of the drain hose to the drain located at the bottom of the device. Connect the opposite end to the building's drainage system.



Note: The condensation exhaust for all 7290 models must be connected according to the following diagram:



B8 - Installing the exhaust clap

The exhaust clap should be installed through an exterior wall at a minimum high of 4 inches (10 cm) from the ground. Attach the intermediate sleeve to the plastic clap with a screw. Install the parts making up the output vent following the diagram above. Seal the free space between the sleeve and the wall.

B9 - Installing the outside air vent

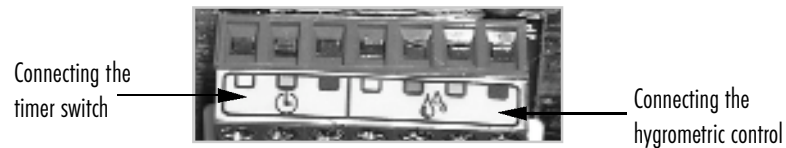
This air vent should be installed through an exterior wall at more than 6 feet (185 cm) from the exhaust air damper and at a minimum high of 18 inches (46 cm) from the ground. It should be installed the same as the exhaust air clap.

B10 - Installing the air vents and air diffusers

To assemble these parts, refer to the instruction sheet included in the installation kit.

B11 - Installing the hydrometric controller

The hydrometric controller should be installed on the wall, at about 5 feet (150 cm) from the floor and connect the device according to the following diagram :





Hygrometric Control Model 611224

Run a 2-conductor electrical wire through the wall until it reaches the appliance's housing. Follow the enclosed electrical diagram to connect each conductor to the humidistat's wires, then to the terminal board located on the appliance's housing. These wires carry a 24V current.

Screw the backside of the control panel to the wall. Use the mounting screw to secure the plastic lid and button into place.

When used with an electronic HRV the mechanical humidistat model 611224 can be connected in one of two ways, depending on the user's needs. In both cases, the air exchanger eliminates excess humidity by switching to high-speed exterior exchange mode whenever the humidity rate in the room climbs above the humidistat's recommended level. Both options are designed for the device's default mode, that is, when the humidity rate drops below the recommended level.

Option # 1

7295, 7292, 7290, 7260,
7261, 7250-e or 7240

To set the device's default settings to low-speed exterior exchange, follow these instructions.

Option # 2

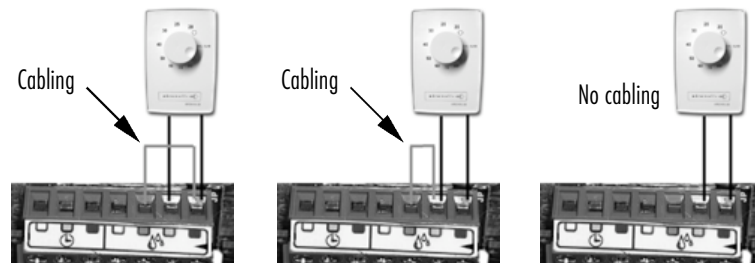
Series 7295, 7292, 7290,
7260 and 7240

Low-speed recirculation:
To set the device's default settings to low-speed recirculation, follow these instructions.

Option # 3

Series 7250-e and 7261

By withholding the additional cable (cabling). The device will shut down by default.

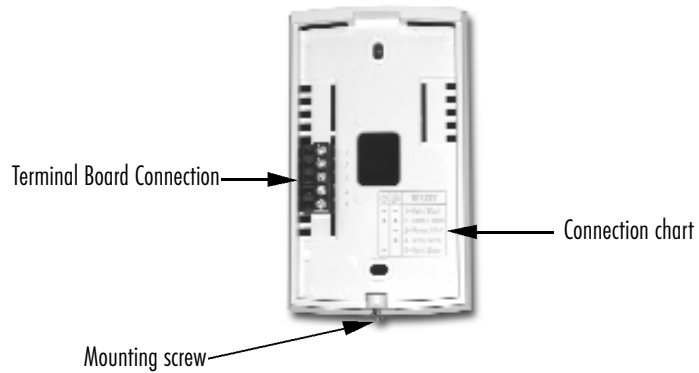


Note: The timer must be connected according to the terminal's colour code.



Hygrometric Control Model 611227

Run a 4-conductor electrical wire through the wall until it reaches the appliance. Withdraw the upper section of the humidistat by removing the mounting screw that is located on the lower section of the appliance, and by opening both parts obtained.



Connect each wire to the terminal board located on the backside of the humidistat according to the connection chart. Connect the 4-conductor wire to the terminal board located on the appliance's housing and according to their respective colours. These wires carry a 24V current.

Screw the backside of the control panel to the wall. Use the mounting screw to secure the top section into place.

Mode Control (611230) or Speed Control (611229)

Run a 4-conductor electrical wire through the wall until it reaches the device. Connect the control wires to the 4-conductor wire according to its respective colours. Next, connect the 4-conductor wire to the device's terminal according to its respective colours. These wires carry a 24V current.

Screw the backside of the control panel to the wall. Use the mounting screw to secure the top section into place.



Timer 20-40-60 (611228)

A service box is recommended when installing the timer switch.

Run a 3-conductor wire to the device. Connect each conductor to the timer switch according to its respective colours. Connect the 3-conductor wire to the device's terminal according to its respective colours. These wires carry a 24V current.

B12 - Plugging in the device

Once all the ducts are installed and the wires for the hydrometric controller are connected to the device, you just have to plug the fans into a 120V electrical plug.

B13 - Connecting the ducts

For the air exchanger to run optimally, place the ducts so they are as straight as possible. Rigid ducts are recommended for long lengths. They offer less resistance to airflow than flexible ducts and are easier to clean.

All ducts going through unheated areas must be insulated. The duct between the outside air vent and the device must be insulated and covered with a vapour barrier. The exhaust vent must be insulated near the exhaust air damper for 3 feet (1 m) and also equipped with a vapour barrier.

Refer to the indication on the exchanger to determine which duct should be connected with which of the device's intake vents. Attach the ducts to the vents using the tie-wraps. Seal these connections using duct tape.

B14 - Balancing air flows

The installation must balance the air flow brought in from the outside and the exhaust air flow so that the difference between the two is less than 10% of the maximum air flow. This air balance is especially important in homes using a combustion device or in those located in areas where the ground emits radon.



Fresh air and stale air flow can be set with two methods :

- Use proper instruments to measure the suction flow of stale air and the distribution of fresh air .
- Use the air flow balancing kit available at Air2000 Inc. For more information on the balancing kit, contact your supplier.

Once measured, balance the air flow by simultaneously pushing down the ? and ? buttons for ten seconds. To reduce the right ventilator's air flow (when viewed from the front), push the ? button until the desired value is reached. To reduce the left ventilator's air flow (when viewed from the front), push the ? button until the desired value is reached. To end the adjustment, hold down either button for three seconds or leave buttons untouched for more than five minutes.

To adjust high-speed and low-speed intensities, follow the procedure outlined in the "Adjusting the fan speed" section. This will maintain the device's balancing ratio.

B 15 - Reinitializing default settings

To return to default settings for low speed, high speed or balancing, hold down the ▼ and ▲ buttons during start up of the device. The indicator light will then flash quickly three times to indicate a successful operation.



B 16 - Warranty

Congratulations! You have acquired a quality product manufactured with care by AIR2000.

The period covered by guarantee for residential ventilation appliances begins the day of purchase and lasts five years*.

The guarantee does not apply to defects or breakage resulting from incorrect installation, abusive usage, acts of nature or all other circumstances out of the company's control. The possibility of requests for damages or any other actions for indemnity is excluded from this guarantee.

AIR2000 will not be held responsible for personal injury or property damage caused directly or indirectly by AIR2000 ventilation appliances.

Procedure to follow

If a part is defective, it will be replaced with another part or repaired, according to the company's assessment.

Any costs for pick up or installation of the defective part will, in all cases, be the responsibility of the consumer.

Before take out the defective appliance, we recommend speaking with one of our technicians. He or she can suggest the easiest way to resolve your problem.

Obtain an authorization number from Customer Service before sending in an appliance for repairs.

Send the defective part postage paid to the address below. It will be returned to you postage paid.



Checklist

Presentation of the air exchanger's functioning modes

Mode	Speed	Description	Application
OFF	-	Device stops completely. Remains inactive regardless of the humidity rate.	Suspends functioning of the device.
↕	0	Paused. Activates only when the humidity rate exceeds the set rate.	Prevents excess humidity. Acts as only as a dehumidifier.
	1	Exchanges air continuously with outdoors at a low speed.	Achieves an optimum air quality while maintaining an adequate level of humidity.
	2	Exchanges air continuously with outdoors at a high speed.	Increases the intensity of the fresh air flow when there are visitors or periods of prolonged cooking.
↻	1	Recirculates interior air at a low speed.	Equalizes the temperature and humidity in the house.
	2	Recirculates interior air at a high speed.	Equalizes the temperature more completely (wood stoves).
⌚	1	Exchanges air with outdoors at a low speed for 20 minutes. Paused for 20 minutes.	Ensures a minimum air circulation and control of humidity during vacations or prolonged absences.
↻⌚	1	Exchanges air continuously with outdoors at a low speed for 20 minutes. Recirculates interior air at a low speed for 40 minutes.	Renews interior air and then equalizes the temperature and humidity.



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