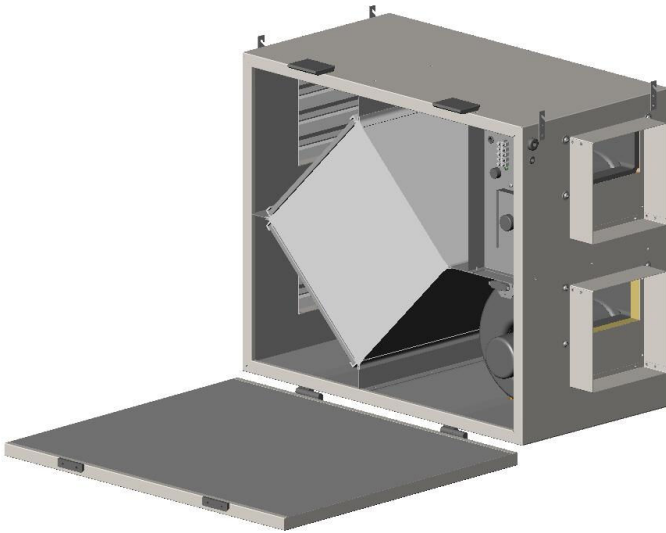


a i r 2000

Because **air** is **vital**

INSTALLATION INSTRUCTION & OWNER'S GUIDE



Air exchanger with heat recovery
Light industrial series

Read carefully and save these instructions.

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b Introduction

You are now the proud owner of an air exchanger. AIR2000 would like to thank you for purchasing this unit which, if you carefully follow the instructions in this guide, will provide you with years of comfort.

First fill the product information section at the end of this guide. Those data are necessary for any claim regarding the warranty.

c Air exchanger with heat recovery

This unit is specially designed to change the air in your home. This air exchanger will ensure continuous ventilation on request. In winter, it will dehumidify the ambient air to the level set on the control. Odours will also be exhausted and the life span of your house will be extended.

a Box contents

Check if all the parts are included in the package.

- Air exchanger
- Drain pipe
- Plastic bag with installation component
 - 4 spring
 - Chain
 - 4 suspension hook
 - "T" connector
 - Screw

b Installation kit contents

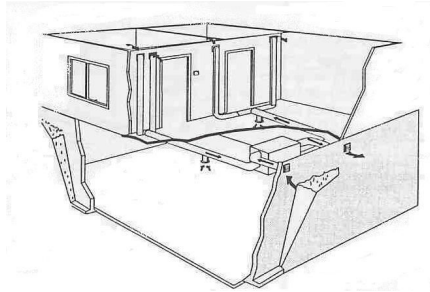
Additional parts can be bought to complete the installation. The following parts are recommended for a standard installation.

- Inlet and exhaust louver
- Inlet grille or diffuser
- Insulated duct
- Non-insulated duct

a Of the unit

The AIR2000 unit should be installed in an area where the temperature is always above the freezing point.

The best location for the unit would minimize the total duct length and the number of elbows. The shorter the ducts and the fewer elbows there are, the higher the airflow will be.



To reduce the noise level, do not place the air exchanger close to an important room like a master bedroom or a living room.

The ventilator should not be installed in a cooking area.

b Of inlet grilles

The ambient air inlet grilles should be mounted close to areas with high humidity levels. Most of the time, they are located in the corridor between the kitchen and the washroom on the ground floor and close to the washroom in the basement. It should not be located in a room containing a combustion appliance like a furnace or a fireplace. The grilles can be installed on the ceiling or a wall. Place the grille within 12" (30cm) of the ceiling.

c Of diffusers

The diffusers are normally installed in corridors as far from the ambient air intake as possible. This forces the air to circulate through most of the house.

The diffuser can be installed on a wall or on the ceiling. If it is located in an occupied area, we recommend mounting the diffuser on the ceiling. This allows the fresh air to be mixed with the ambient air before reaching the occupants, thus improving the comfort level during a cold winter day. A wall-mounted diffuser should be located within 12" (30 cm) of the ceiling.

d Of the humidity control

The control has to be installed where excess humidity is more likely to be detected. On the ground floor, this place is generally located between the kitchen and the bathroom.

If you wish to control the humidity level mainly in the basement you should install the control in this area. Avoid placing the humidistat in an area with stagnant air, for example behind a door.

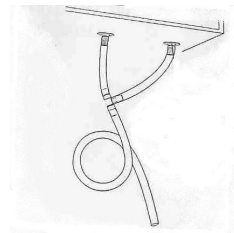
The installation of the air exchanger must be in accordance with the applicable codes in your area.

a of the unit

The unit is designed to be installed on a shelf or suspended to the structure. When the unit is on a shelf, it is necessary to have some vibration isolators under its casing to prevent the propagation of noise.

To hang the air exchanger to the structure, attach the hangers to the top corners of the casing. Cut the supplied chain in four sections. Make a hook at one end of each section to connect it to the hangers and the structure.

The air exchanger must be leveled horizontally. This is necessary to drain the condensation out of the unit. A drainage pipe should join the connection in the bottom of the casing to the building drainage system.



b Of the exhaust louver

The exhaust louver is installed through an exterior wall at 4" (10 cm) minimum above ground. Attach the intermediary sleeve to the plastic louver collar with a crew. Seal the gap between the sleeve and the wall.

c Of the inlet louver

The inlet louver is installed through an exterior wall, at more than 6' (185 cm) from the exhaust louver and more than 18" (46 cm) above ground. Make sure the inlet louver is installed so the insulated vent duct, joining it to the cabinet, is as straight as possible.

d Of the inlet grilles or the air diffusers

Refer to the sheet in the installation kit for the installation instructions.

e Of the humidity control

The control should be mounted on the wall, 5' (150 cm) above the floor.

Drill a hole through the wall so you can pass a wire from the control to the unit. This wire contains 4 wires in different colors. Connect them to the wires coming out of the unit. Follow the color code. The wires are at 24V.

Attach the back part of the control to the wall. Install the plastic cover with the help of the fixing screw and the control button.

f Power supply

When the humidity control and all the ducts are installed, plug the unit on a 120V power outlet.

g Of the ductwork

To maximize the air exchanger airflow, install the ducts as straight as possible. We recommend galvanized steel ducts for long ductwork because of their ease of cleaning and low flow resistance.

You can run ducts through floors, ceilings, walls or closets and cover them thereafter with gypsum board. Ducts in unheated areas must be insulated. The last 3' (m) of the exhaust duct adjacent to the exhaust louver should be insulated and covered with a vapour barrier.

Refer to page 14 to find where the ducts can be connected to the unit. Slide end of flexible duct over unit port. Wrap 2" (5cm) wide tape around duct.

If necessary, the gaps between ducts and walls or ceilings can be hidden with the rubber strips.

h Air balancing

The air supplied through the diffuser should be warmer than 54°F (12°C). Colder air would make people uncomfortable and create condensation on ducts surfaces. Balancing dampers should be installed in all the air exchanger ducts. They must be adjusted so the supplied air temperature is higher than the temperature stated above all year round.

The difference between the exhaust and supply airflow rates should be negligible. Airflows balancing are especially important in houses with combustion appliances or in area where soil gas is deemed to be a problem. Use airflow measuring stations and a magnetic gage to measure the airflow rates.

a Air exchanger control

Turn the humidity level selector to the level that you would like to maintain in your house. The ventilator exhausts humid air from the house and replaces it with fresh air from the outdoors when the humidity is higher than this level. To evaluate the humidity level in your home set the control at 80%. Turn the humidity selector towards 20%. When a « click » is heard, the selector indicates the current humidity level.

1- Continuous ventilation

The system exchanges the ambient air with outdoor air and distributes the new air inside the building. The unit functions at its maximum speed when the indoor humidity level is higher than the control set point. The maximum ventilation airflow rate is used to decrease rapidly the humidity in your house. When the humidity level is lowered to the proper level, the speed of the ventilator changes automatically to a lower value. To ventilate continuously the house at the higher rate, turn the humidity level selector clockwise to the circle position. This setting is recommended when there are many people in your house. The ventilator functions on low speed when the selector is turned to the black circle.

2- Airflows controller

The air exchanger is equipped with a speed controller. Please take note that the controller is located in the outside case and allow variable airflow at low speed but the high speed is not affected by their positions.

3- Temperature sensor

The unit is also equipped with an internal temperature sensor. It controls the mixed air temperature in the unit during cold weather. This system stops temporarily the motor of cold air to maintain an adequate temperature of the energy recovery core.

4- Operations recommendations

In winter, it is important to control the air humidity level. The outdoor temperature is cold therefore the ambient air humidity could condense in the walls and on the windows. This should deteriorate the structure. The owner should maintain the air humidity at a low level to reduce the amount of condensation. However, dry air can cause some problems. It is recommended to maintain the humidity level above 30% for the well being of the occupants. In the winter, outdoor air is always dryer than ambient air. When the system exhausts humid air from the house and replaces it with dry air from outside, it removes the excess moisture from the house.

In summer and fall, the outdoor air temperature and the humidity can vary considerably. Try to maintain the humidity level lower than 60% for the comfort and the health of the occupants.

Outside temperature		Ambient humidity level			
		30%	40%	50%	60%
°C	°F	Maximum outdoor rel. humidity			
18	(64)	38%	51%	64%	77%
15	(59)	46%	62%	77%	93%
12	(53)	56%	76%	94%	100%
9	(48)	69%	93%	100%	
6	(43)	84%	100%	100%	

* For°C (72°F) inside temperature

The table above indicates when it is possible to dehumidify while ventilating the house. The user can find the outside humidity level equivalent to the ambient relative humidity. For example, if the outdoor air is at 59°F (15°C) and that humidity is at 77%, it allows a humidity decrease down to 50%. In order to do this, the house will be ventilated until the control detects that ambient air is down to the desired humidity level. The table also indicates that if outside air is 64°F (18°C) and above 77% H.R., ambient humidity rate will group above 60% if the unit is set at the ventilation mode.

In summer, the user can sometimes replace the air in the house with colder outside air to improve the occupant's comfort. For example the outside temperature during the night is often colder than in the house.

b Maintenance

WARNING: Always disconnect the air exchanger from its power source before attempting any operation inside the unit

Check regularly that the inlet screen and the exhaust screen are not obstructed by ice or particles.

In winter, check every month that the condensate drain opening is not blocked.

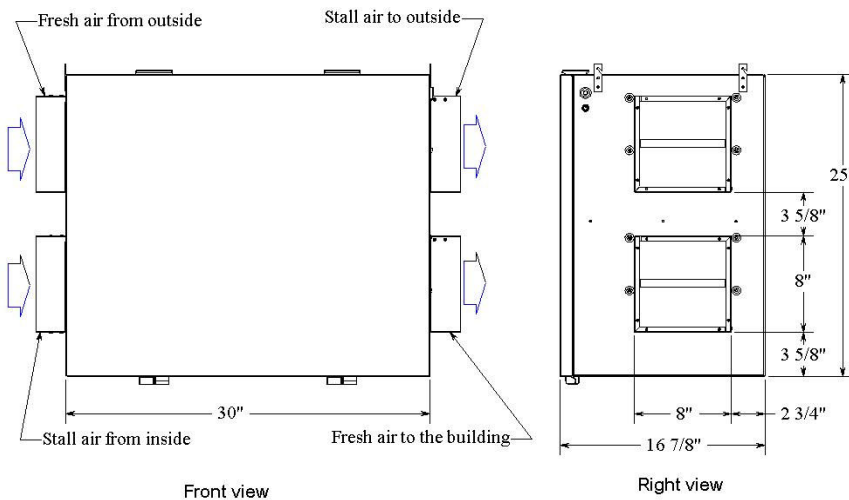
Filter to be cleaned with soapy water 3 times a year or when needed.

Clean the heat recovery core in the AIR2000 once a year or when needed. Pull out gently the core from the unit. Wear gloves when you handle the core since it can have sharp angles.

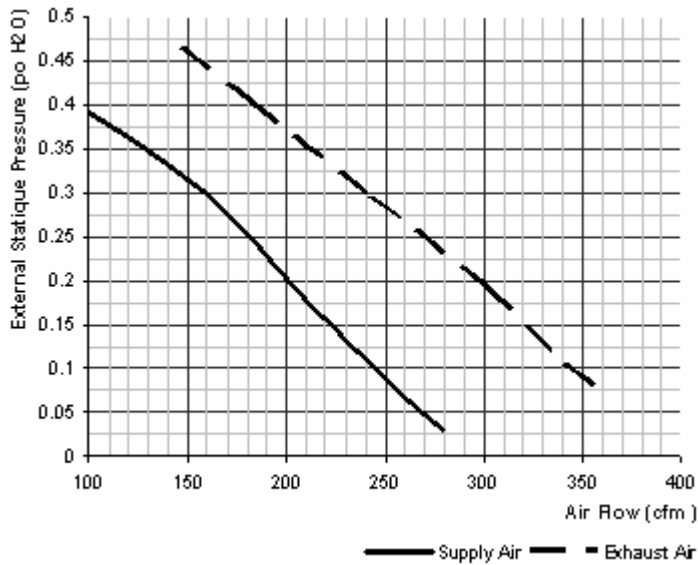
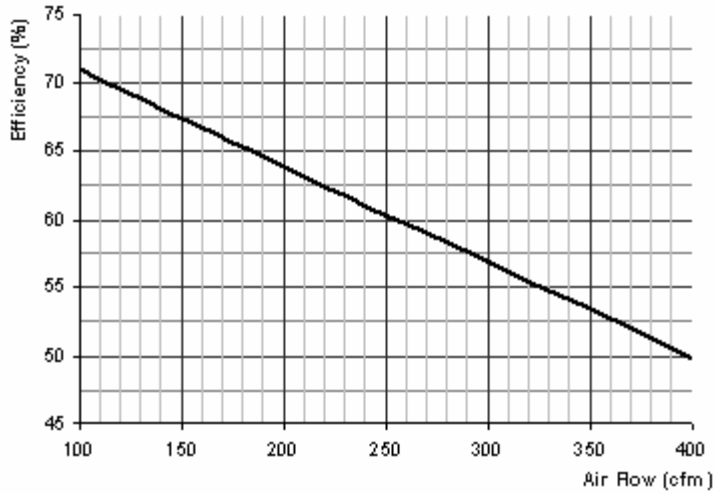
Vacuum cabinet interior at least once a year preferably at the beginning of fall.

a Technical sheet

Maximum floor area (pi ²)	Depending quantity of air changes
Circulation flow (ft ³ /min)	400
Ventilator quantity	2
Filters (<i>filter's option charcoal filter or high efficiency</i>)	Yes
Unfreezing	Stop cold air intake motor
Electrical characteristics	
Voltage (V)	120
Intensity (A)	5,8
Dimensions	
Height	24 1/8 in.
Width	30 in.
Depth	16 in
Duct sizes	Four of 8inX8in
Weight	70 pounds
Warranty	3 years



b Performances



c Warranty

Congratulations, you have purchased a quality product manufactured with care by AIR2000 Inc.

We guarantee this product and all its components to be free from defects in material and factory workmanship for a period of 3 years

This warranty plan does not cover any defect resulting from improper installation, misuse, acts of God and/or other similar causes beyond the control of the manufacturer.

AIR2000 shall not be liable for implied or expressed warranty for damages or indemnity.

Neither shall AIR2000 be responsible for any injury or ham caused directly or indirectly by our ventilation units.

How to claim

Any claim concerning a defective unit or any of its components should be submitted to AIR2000 who will replace it by an identical or a similar part or will repair it according to the advice of the company's representative.

The cost for removal and installation of the defective parts is not covered by this actual warranty.

We recommend talking with one of our technicians before removing any unit. He can probably indicate another way to solve the problem.

Obtain an authorization number from our customer service department before sending a unit for service.

Please forward the defective part prepaid to the address below. It will be returned to you prepaid.

