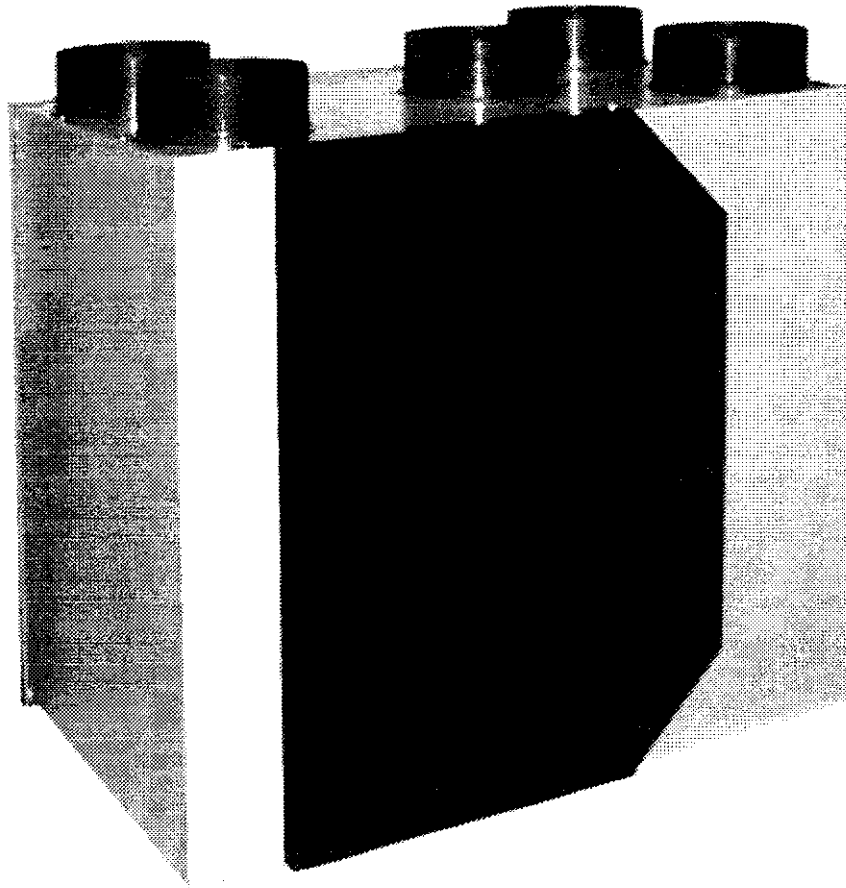


Vent-Axia[®]

HRE275

**Heat Recovery Unit
with 90% efficiency for
balanced ventilation**



CE

Vent-Axia[®]

INSTALLER INFORMATION

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**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION.
THESE INSTRUCTIONS SHOULD BE LEFT WITH THE END USER.**

1 – INTRODUCTION

This installer guide is to be used for the installation and maintenance of the HRE275 heat recovery unit.

The HRE275 range is subject to continuous improvement. Vent-Axia reserves all rights to make alterations at any time without prior notice.

2 – IMPORTANT SAFETY INSTRUCTIONS

1. Ensure the mains electrical supply is switched Off before commencing installation, maintenance or servicing.
2. All safety regulations and requirements must be followed to prevent hazards to life and property both during and after installation and during any subsequent maintenance or servicing.
3. This appliance is intended for permanent connection to the mains electrical supply fixed wiring and **MUST** be installed by a suitably qualified person.
4. This appliance must be sited and connected in accordance with current UK building and IEE wiring regulations (BS7671) or the appropriate national regulations and/or standards in your country.
5. Wiring to the appliance in the UK must be via a fused and switched connection unit incorporating a double pole switch with 3mm contact separation and conforming to BS 5733 or BS 1363 part 4. A 3 amp fuse should be fitted.
6. This appliance is Class 1 and it must therefore be earthed.
7. Check the rating label on the appliance to ensure that the mains electrical supply is compatible with the appliance, which is rated at 220-240V 50Hz ac.
8. This appliance must be sited away from any source of water and out of reach of any person using a fixed bath or shower.
9. The appliance condensate drain must be fitted to the building drainage system.
10. If the ductwork passes through an unheated roof void or similar location, it should be insulated.
11. The appliance must be sited away from direct sources of heat and not operated in ambient temperatures in excess of 40 °C.
12. Do not site any associated internal grille in the vicinity of excessive levels of airborne oil or grease without adequate filtration.
13. If a grille associated with this appliance is sited in a room containing a fuel burning appliance the installer must ensure that air replacement is adequate for both appliances.
14. The external grilles associated with this appliance must be sited at least 600mm away from the flue of a fuel burning appliance.
15. Use only rigid ducting to connect directly to the system.

3 - INSTALLER INFORMATION

- Always position the HRE275 unit vertically and use a spirit level, this will insure a correct and level position of the condensate water sump.
- Power supply for the HRE275 unit will be 220-240V/50Hz.
- The HRE275 unit should have connection wires that accord with the electrical connection diagrams as presented in this manual.

Inspection Upon Delivery

Always check the following:

- Correct product has been delivered.
- Product type identification plate.
- That the unit is undamaged.

Installation Instruction

The HRE275 unit can be installed in two alternative ways to provide handed installation.

Standard Installation

Install the unit as supplied in standard configuration:

- 2 spigots at the topside "left" of which one spigot is for intake of fresh air from the outside, the other for intake of the stale air from the house.
- 2 spigots at the topside "right" of which one spigot is for discharge of the stale air to the outside, the other spigot for the heated fresh air into the house. (refer to diagram on page 8)

Alternative Installation

The back plate and door section can be exchanged to give a handed installation.

- Remove the front panel by unscrewing the 3 top and underside fastening screws.
- In the same way remove the panel on the back of the unit.
- Place the white plastic/polystyrene plate covering the heat-exchanger unit at the rear in the same position on the former front.
- Rotate the front panel vertically through 180 degrees and position at the rear of the unit.
- Remove the condensate tube to the opposite outlet and replace it with the stopper.
- The unit is now ready for installation.

Duct Connections.

Duct dimensions are to match the nominal 150 mm spigot. When designing the system, reduce to smaller diameter ducts by using a 3 way splitter or efficiency will be reduced. Use rigid ducting in the first metre from the unit.

The HRE275 heat recovery unit has identification labels placed near the spigots indicating connections to assist in the installation.

Duct Insulation

- The duct connecting the outside air intake point (grille) and the HRE275 unit must be insulated to prevent condensation on the outside surface of the duct. (In wintertime the temperature of the air inside the duct will be identical to the outside temperature).
- The duct connecting the HRE275 unit and the air discharge point of the stale air to the outside must also be insulated to prevent condensation on the outside surface of the duct. (During the wintertime the air temperature inside this duct may come close to freezing temperature).
- For best practice the air discharge and supply ducting on the "In-House" side of the HRE275 unit should be insulated but need only be insulated if they pass through an unheated area.

Condensate Drain

The condensate drain-tube protrudes through a cavity at the bottom-rear of the steel housing of the HRE275 heat recovery unit.

For correct functioning of the condensate drain system it is important to dispose of the condensate liquid through the drain-tube via a water trap connected to the house sewage disposal system.

The drain-tube can be adapted to the application. It is important that the "vent-hole" in the drain-tube remains positioned higher than the water level in the water trap in which the condensate drain-tube will be placed.

Positioning

For wall mounting two metal mounting strips are provided on the rear of the unit. The outer strip is for mounting on to the wall. Remove the screws that hold the mounting strips. Remove the outer strip and refix the remaining metal strip to the unit.

Position and secure the "outer" mounting strip level on to the wall using a spirit level. Hook the unit onto the wall hanger. Fit the two self adhesive rubber plugs (supplied with the unit), on the lower rear corners of the HRE275 unit. This will correctly position the unit vertically to the wall.

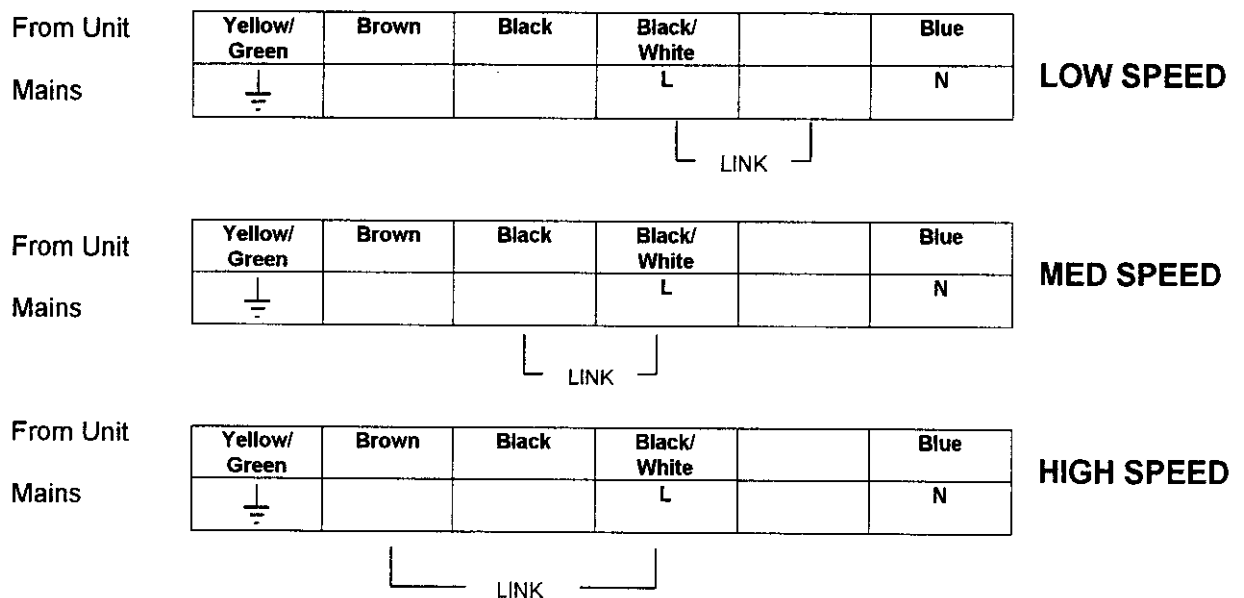
Electrical Connection Box

The electrical connection box must be screwed to a wall or other secure fixing point adjacent to the unit.

The supplied cable clamp must be fitted to the mains electricity supply cable. When using surface wiring which is not contained in conduit, anchor the cables to the mounting surface along their length and particularly adjacent to the switched connection unit which must have at least 3mm contact separation and the connection box. Insure that all cable glands are tight to prevent any strain being transferred to electrical connections.

Electrical Connection Diagram

The HRE275 unit should be wired accordingly to obtain the desired speed:



4 - MAINTENANCE

ALWAYS DISCONNECT FROM THE ELECTRICITY SUPPLY BEFORE OPENING THE DOOR.

Maintenance of the HRE275 unit:

- | | | | |
|---|-------------------------|---|---|
| - | Filter replacement | - | 1x each year |
| - | Heat exchanger cleaning | - | 1x each 6 years |
| - | Motor/impeller cleaning | - | subject to level of pollution of motors |

The home owner may clean and / or replace the HRE275 filter without professional assistance. The heat exchange unit may also be cleaned by the home-owner. Cleaning of the motors must only be carried out by a qualified service engineer.

Filters

The filters consist of EU3 grade filter cloth positioned over a metal frame. The used filter can be removed from the metal frame for cleaning. (Filter can be washed with water.)

Filter Removal and Repositioning

- Isolate the HRE275 unit from the electricity supply.
- Open the inspection door by pressing down the two safety catches at the top and bottom of the door with a screwdriver.
- Open the inspection door fully.
- Withdraw the filters from the unit by sliding them out towards you. **SEE FILTER SAFETY NOTICE BELOW!**
- Refit new or cleaned filters into same positions in the unit.
- Close the inspection door.
- Lock the inspection door in position by repositioning the two safety catches at the top and bottom of the door in the locks.
- Reconnect the unit to the electricity supply.
- The HRE275 unit is now ready for normal service.
- **Changing air filters – health and safety notice:** Used air filters contain quantities of collected dust, which unless precautions are taken, may expose maintenance personnel to a possible hazard. Maintenance personnel should therefore wear protective equipment appropriate to the risk. Disposal of used filters should take into account current waste legislation.

Cleaning Heat Exchanger Unit

Dependant on circumstances, the heat exchanger unit requires cleaning once every six years as a minimum and once every year as a maximum.

- Isolate the unit from the electricity supply.
- Open the inspection door by pressing down the two safety catches at the top and bottom of the door with a screwdriver.
- Open the inspection door fully.
- Carefully withdraw the heat exchanger horizontally from its seating-slides in the unit. Make sure not to damage the seating-slides.
- Clean the heat exchanger by soaking the unit for a minimum of two hours in warm water with washing up liquid.
- Rinse the unit with water and wait until all water has dripped out of the cleaned unit.
- Any residual moisture will evaporate during use.
- Now insert the cleaned heat exchanger unit, sliding it horizontally into its seating-slides.
- Close the inspection door.
- Lock the inspection door in position by repositioning the two safety catches at the top and bottom of the door in the locks.
- Reconnect the unit to the electricity supply.
- The HRE275 unit is now ready for normal service.

Cleaning of Motors

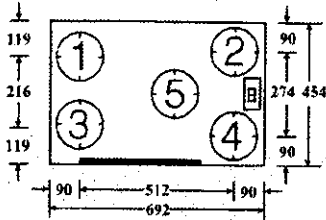
If when removing the heat exchanger unit, the impeller blades of the ventilators appear to be dirty, then the impeller blades can be carefully cleaned by dusting with a brush. **Removal of the motors must be done by a qualified service engineer.**

5 - TECHNICAL DATA

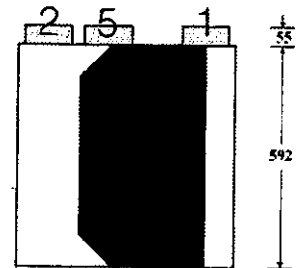
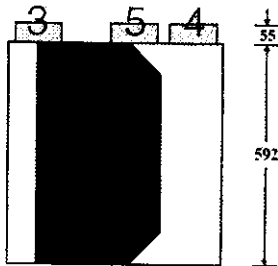
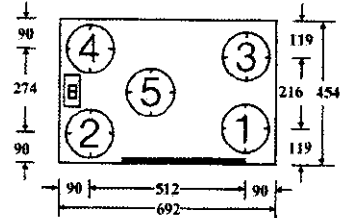
The HRE275 unit consists of the following assembled components:

- **Outside Casing :**
 - Epoxy coated steel plate - RAL 7035
 - Metal door standard epoxy coated, RAL 5013 or alternative RAL color.
- **Duct Connection Spigots :**
 - Polypropylene RAL 5013 or alternative RAL color.
- **Internal Main Duct / Compartment Construction :**
 - High density Polystyrene. Can be fully recycled.
- **Heat exchanger :**
 - Counterflow type manufactured out of Polystyrene. Can be fully recycled.
The heat exchanger unit installed in the HRE275 unit has been designed using the counter flow air stream system. The unit has triangular airflow channels for the incoming and outgoing air.
- **Filters :**
 - EU 3 type as standard. Replacement ref. No. 454900 (Pack of two)
- **Motors :**
 - DC type, energy efficient, direct current motor with constant volume control.
The DC motor automatically controls the motor torque and RPM for optimal efficiency.
Note: There are 2 DC motors in the HRE275 unit.

HRE275 Air-Discharge and Air-Intake points
Technical Data



1. Discharge from the house kitchen / bathroom / toilet
 2. Supply to the house livingroom / bathroom(s)
 3. Fresh air from outside (vapor/thermal insulated)
 4. Discharge to the outside (vapor/thermal insulated)
 5. Optional bypass.
- All connections shown (dia) 150 mm external diameter.



6 – TROUBLE SHOOTING

<u>FAULT</u>	<u>SYMPTOM</u>	<u>CAUSE</u>
- Both fans do not work	- Main supply - Yes	- PCB defective.
	- Main supply - No	- No mains supply. - Wiring Fault.
- Air supply fan does not work	- No air from the air entry grilles	- PCB defective. - Fan defective. - Blocked external air inlet.
- Little discharge air / little Supply air	- Fan does not work / little air coming from supply grilles	- Filters blocked. - Valves/grilles blocked. - Heat exchanger unit blocked. - Ventilation ducts blocked. - Fan dirty.
- Condensate leakage	- Waterdrops at the bottom of the HRE275 unit	- There is no water in the waste trap. - Condensate drain blocked - Vent. hole in condensate drain tube blocked, this due to being submerged. Inspect presence of vent hole in condensate drain tube. - Leaking nozzle.
- Noise	- Rustling noise of airstream or increasing	- High resistance in duct system. - Unit not switching back to lowest operation - Dampers not sufficiently open. - Dampers not correctly fitted to the duct. - High resistance of filters or heat exchanger unit due to dust build up.
	- Rattling noise	- Fan touching housing wall or defective.
	- Bubbling noise	- Condensate tube not sufficiently lowered in to the waste trap. - Waste trap without water.

VENT-AXIA SALES CENTRES

ENGLAND & WALES NATIONAL

CALL CENTRE Newton Road, Crawley,
West Sussex RH10 2JA
Telephone: 01293 530202
Fax: 01293 565169

SCOTLAND 12 Lambhill Quadrant,
Scotland Street Trading Estate,
Kinning Park, Glasgow G41 1SB
Telephone: 0141 429 1166
Fax: 0141 429 6616

NORTHERN IRELAND Unit 9 Alanbrooke
Park Industrial Estate, Alanbrooke Road,
Belfast BT6 9HB.
Telephone: 02890 402220
Fax: 02890 403323

REPUBLIC OF IRELAND
Vent-Axia Ventilation Ltd. 921 Western
Industrial Estate, Naas Road, Dublin 12.
Telephone: 00 35314 504133
Fax: 00 35314 504570

Internet site at: WWW.vent-axia.com

email: info@vent-axia.com

The Vent-Axia Guarantee

- Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.
- Vent-Axia guarantees its products for two years from the date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the company's option replaced, without charge, provided that the product:
 - 1) has been installed and used in accordance with the instructions given with each unit.
 - 2) has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit.)
 - 3) has not been subjected to misuse, neglect or damage.
 - 4) has not been modified or repaired by any person not authorised by the company.

IF CLAIMING UNDER TERMS OF GUARANTEE

- Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked 'Guarantee Claim' stating the nature of the fault and providing evidence of date and source of purchase.

● The guarantee is offered to you as an extra benefit, and does not affect your legal rights.

As part of the policy of continuous product improvement Vent-Axia reserves the right to alter specifications without notice.

Vent-Axia®

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