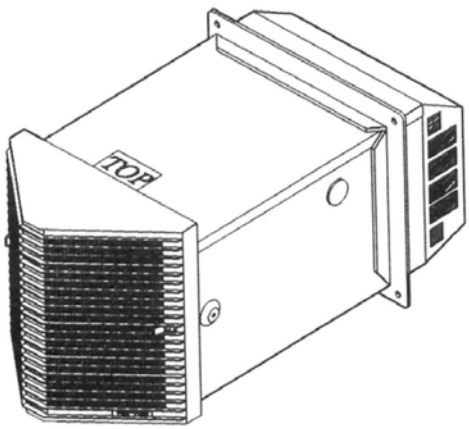
HR200WK

Through the wall
Heat Recovery Ventilator

Installation and Maintenance Instructions



Stock Ref No:-

HR200WK 14120020

Vent-Axia®

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH ILLUSTRATIONS. PLEASE SAVE THESE INSTRUCTIONS

CE

IMPORTANT SAFETY INFORMATION



PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE COMMENCING INSTALLATION.

1. Do not install this product in areas where the following may be present or occur:

- Excessive oil or a grease laden atmosphere.
- Corrosive or flammable gases, liquids or vapours.
- Subject to direct water spray from hoses.
- Ambient temperatures higher than 40°C and lower than -20°C.
- Possible obstructions that may hinder access to or removal of the unit.

2. All wiring must be in accordance with the current IEE wiring regulations BS7671, or appropriate standards of your country. Installation should be inspected and tested by a suitably qualified person after completion.

3. Ensure the mains supply (voltage, frequency and phase) complies with the rating label.

4. The unit should be provided with a local isolator switch fitted with a 3A fuse capable of disconnecting all poles and having a contact separation of at least 3mm.

5. These units must be earthed.

6. Precautions must be taken to avoid the back-flow of gases into the building from the open flue of gas or other fuel-burning appliances.

7. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

8. Young children should be supervised to ensure that they do not play with the appliance.

9. CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

INSTALLATION GUIDANCE

1. The installer is responsible for the installation and electrical connection of the system on site. It is the responsibility of the installer to ensure that the equipment is safely and securely installed and left only when mechanically and electrically safe.

2. All regulations and requirements must be strictly followed to prevent hazards to life and property, both during and after installation, and during any subsequent servicing and maintenance.

3. Certain applications may require the installation of sound attenuation to achieve the sound levels required.

4. The unit must not be connected directly to a tumble drier.

5. The supply air must be drawn from the exterior of the property.

6. The exhaust grille should be located at least 600mm away from any flue outlet. The inlet grille should be located 2000mm away from any flue outlet.

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Disposal

This product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice



1.0 Introduction

1.1 Description (Fig. 1)

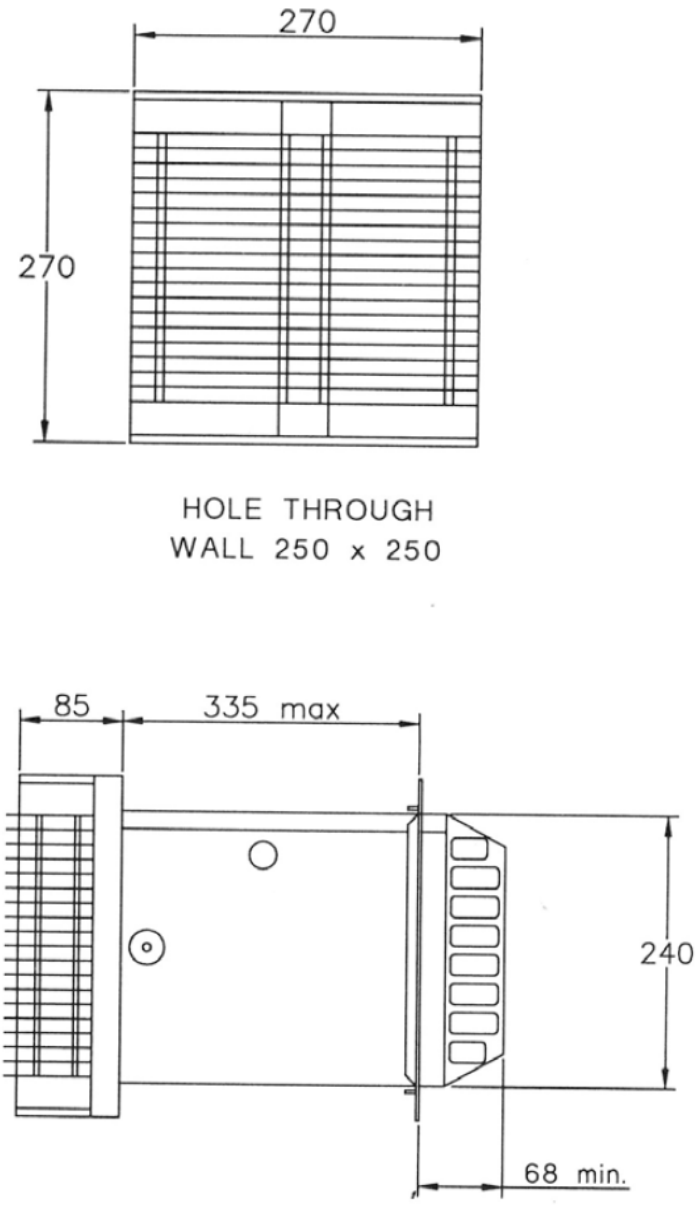
1. The HR200WK unit is a through the wall heat recovery ventilator for use in kitchens and utility rooms. It is designed for installation in external walls having a thickness up to 335mm.

2. The unit's twin impeller and heat exchanger arrangement simultaneously supplies and extracts air while transferring heat from the stale exhaust airflow to the fresh intake airflow. This provides up to 75% heat recovery from the stale extracted air.

3. The power consumption for the unit is 20W trickle speed, 60W normal speed and 130W boost speed.

4. The three selectable speeds provide ventilation rates of 60m3/h trickle, 110m3/h normal and 220m3/h boost.

Fig. 1



1.2 Ancillary Equipment

1. The HR200WK unit can be used in conjunction with a range of ancillary equipment.

Controller: A range of controllers - see section 3.1 Controllers.

Humidity sensors:

Vent-Axia Ambient Response Humidistat (563550)

Ecotronic Humidistat (563532)

Vent-Axia Humidiswitch (563501)

Normal Boost Purge switch (5108454)

2.0 Site Requirement

2.1 Information

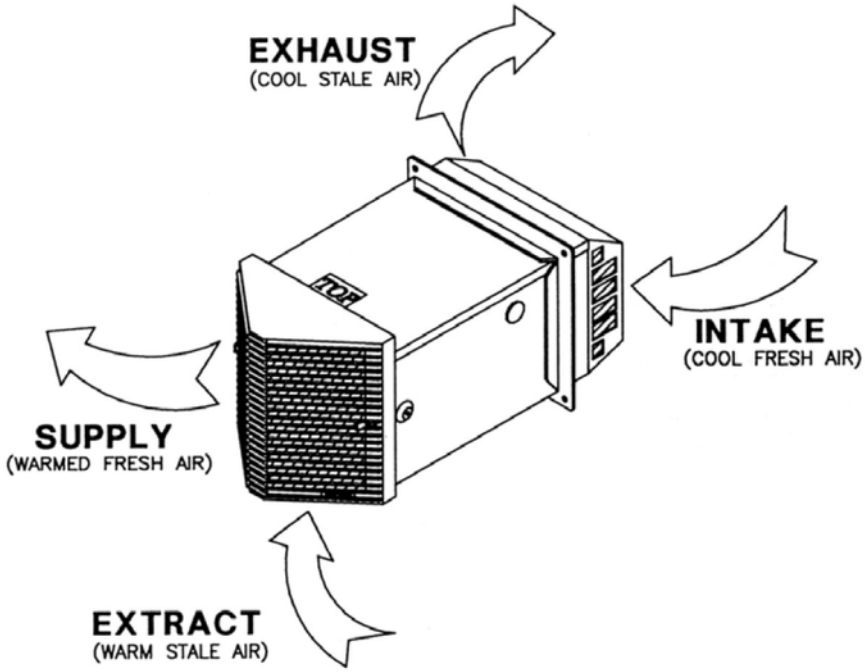


Fig. 2

1. The unit must be sited and connected by a suitably competent person and be in accordance with current UK Building Regulations and I.E.E. Wiring Regulations (BS 7671).

2. The unit is intended for permanent connection to the mains electrical supply.

3. Wiring to the unit in the UK must be via a switched fused spur. The switched fused spur must have a 3mm minimum contact gap in all poles.

4. Ensure that the mains electrical supply is compatible with the rating label attached to the product. Warning: this appliance is class 1 and it must therefore be earthed.

5. The unit must be sited such that the ambient temperature will not exceed 40° C.

6. Do not site the appliance in the vicinity of excessive levels of airborne oil or grease.

7. If the unit is installed in a room containing a fuel burning appliance, the installer must ensure that air replacement is adequate for both appliances.

8. The unit must not be installed at a level below 500mm from the floor.

9. The internal grille surround must be sited at least 125mm away from any wall or projecting surface.

10. The external grille of the unit must be sited at least 600mm away from any flue of gas or solid fuel appliances. This is to avoid back flow of gases entering the room.

11. All safety regulations and requirements must be strictly followed to prevent hazards to life and property both during and after installation and during subsequent maintenance or servicing.

12. Ensure the mains electrical supply is switched off before commencing installation or maintenance.

3.0 Installation

3.1 Controllers

1. The HR200WK unit can be installed in conjunction with a number of controllers.

150VA (563538): The 150VA transformer, when used with a trickle/boost switch (455213), allows for a trickle and boost speed to be selected. Only terminals providing 140V or higher should be used as the unit will not operate reliably bellow 140V.

Ecotronic 1.5A controller (W300310):
Provides variable speed control and on off and auto (sensor) modes.

Normal Boost Purge Switch (5108454):
The single gang switch enables the unit to be manually switched from permanent trickle ventilation Normal (Low speed) to either Boost (Medium speed) or Purge (High speed).

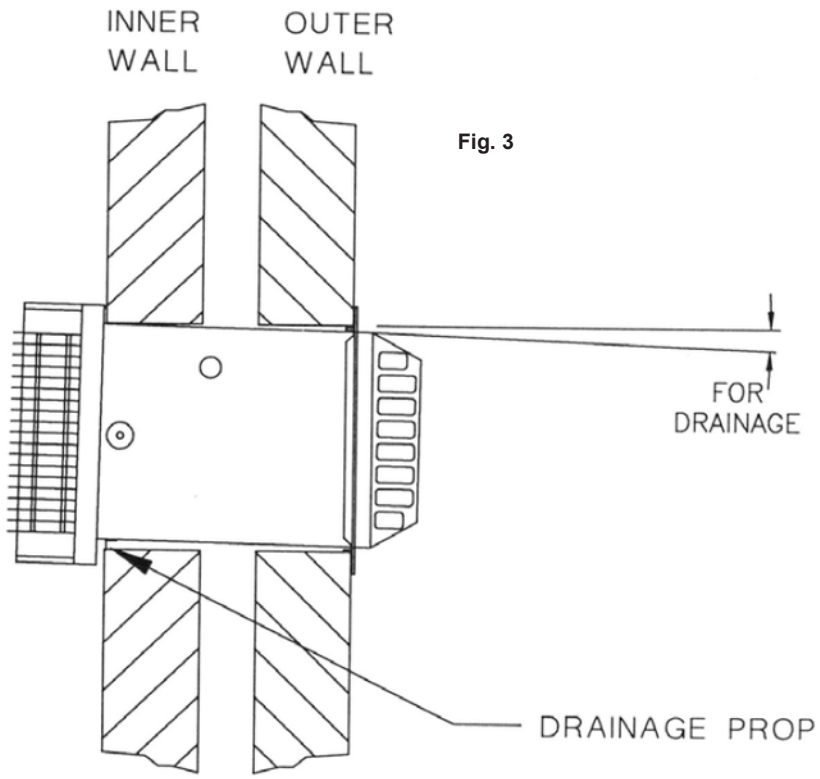


Fig. 3

3.2 Initial Preparation

1. Select an approved electrical control arrangement for the HR200WK unit (above).

2. After considering the site requirements (Section 2.0), select a suitable site for the unit and controllers and work out the cable runs.

WARNING: Before deciding on the final position for the unit, check there are no buried cables, pipes or obstructions on the outside wall.

Cable requirements: Suitably (Basec or Har) approved four core cable of appropriate current carrying capacity.

3. Install the cable runs and appropriate controllers in conjunction with a fused connection unit. Contact gap must not be less than 3mm.

4. Working from the inside, mark out the position of the mounting hole - 250mm wide x 250mm high.

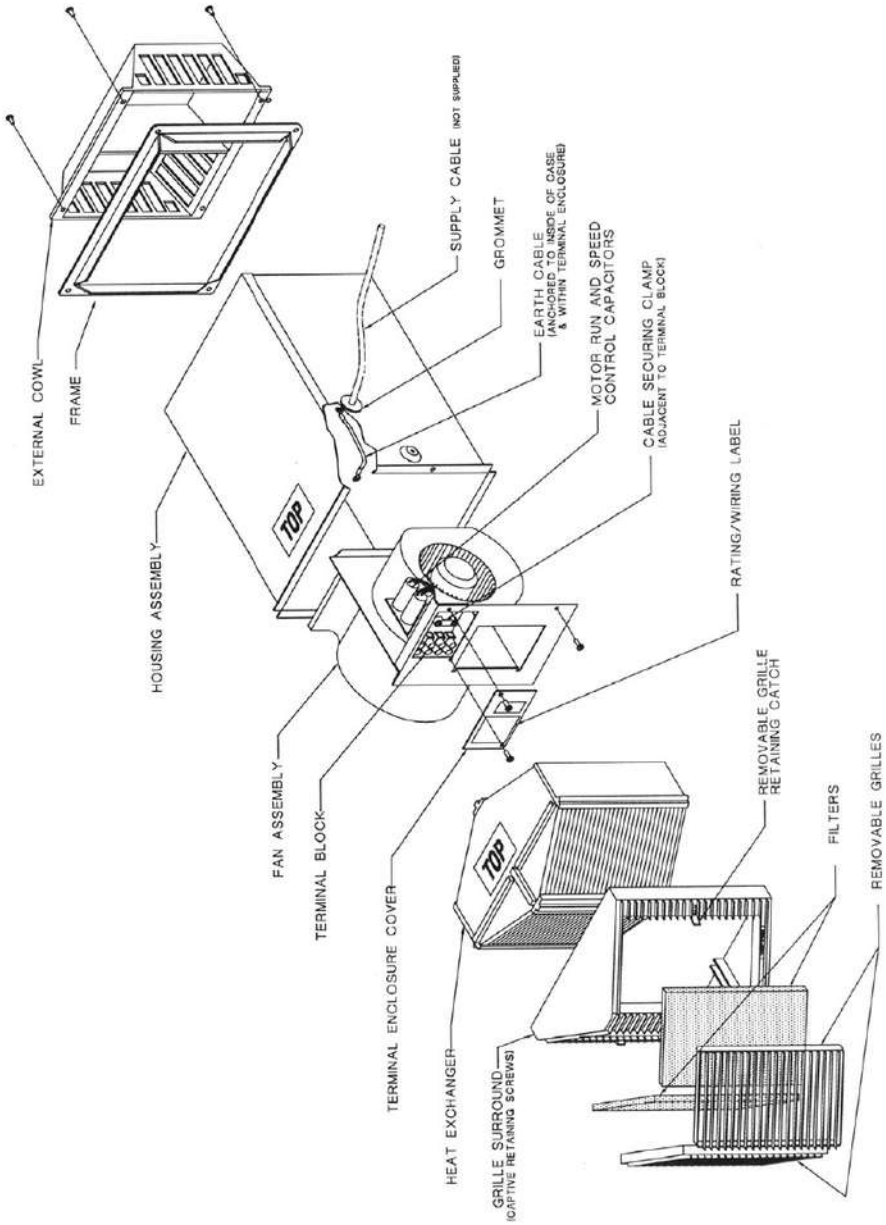
5. Carefully cut the holes in the inner and outer brick courses to form a suitable aperture to receive the unit. Ensure that this is level.

NOTE: Bricks will cut more easily and accurately if a series of holes are drilled close together along the marked lines.

3.0 Installation

3.3 Installing the Appliance

Fig. 4



From Inside

1. Remove the grille, heat exchanger, from the unit. Note: it is not necessary to remove the fan assembly from the housing to carry out the installation.

2. Slide the unit into the mounting hole and ensure that the flange around its open end is not held off the mounting surface by the threaded bushes located in the flange. Remove the housing assembly and if necessary clear the wall to suit these bushes and the screws which will project through them.

3. Offer the housing to the mounting hole. As the housing is being located in the mounting hole, feed the electrical supply cable through the entry hole (located on the top right hand side of the housing). Note: for the purpose of condensation drainage a prop is fitted to the underside of the housing to cause it to adopt a downwards tilt to the outside wall.

4. Fix the housing assembly in the wall using suitable gap filler between it and the mounting hole. The housing can also be fixed to the wall through the holes in the side using suitable wood screws and wall plugs. Make good around the internal and external wall faces.

CAUTION: Ensure the case does not distort during fixing and making good.

From Outside

1. Offer the frame to the housing and mark its fixing hole positions on the external wall face. Remove the frame and drill the wall to accept suitable wall fixing plugs.

2. Slide the frame over the housing and seal it against the external wall face using silicone sealant or mastic. Fix it in position with suitable screws.

4.0 Electrical

4.1 Electrical Connections

230V 50Hz 130W max

1. Wiring must be via a 3A fused switched spur with a 3mm contact separation in each pole. The wiring should be suitably (Basec or Har) approved cable of appropriate current carrying capacity.

2. Ensure that the mains power supply is isolated prior to installation.

3. Remove the terminal cover after unscrewing the retaining screw.

4. Remove the appropriate amount of sheath and insulation from the supply cable and leads. Connect the conductors of the cable to the appropriate terminals in accordance with the appropriate wiring diagram (Fig. 5, 6, 7, 8, 9).

NOTE: Refer to the fitting and wiring instructions provided with the controller used. The wiring diagrams shown here are not a complete list of possible combinations.

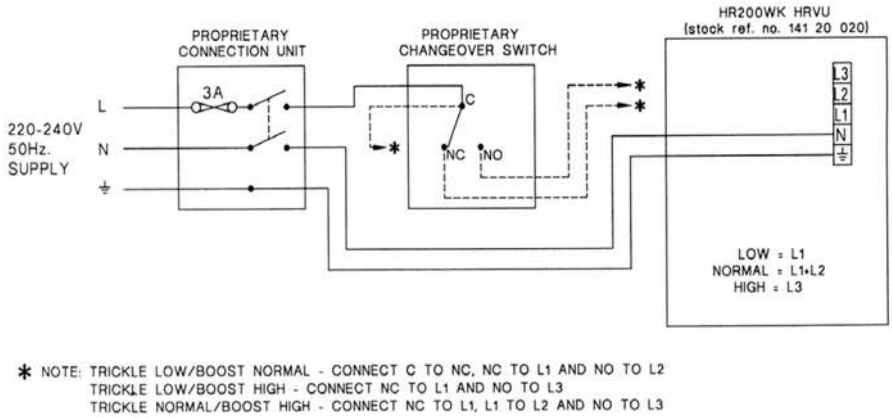
5. Position the cable in the clamp such that the sheath is held and tighten the cable clamp nuts to secure the cable in position.

6. Replace the terminal enclosure cover and tighten retaining screw. Replace the heat exchanger.

7. Replace the grille surround complete with the removable grilles and tighten the retaining screws.

8. Switch on the mains electrical supply and check the operation of the unit.

Fig. 5



* NOTE: TRICKLE LOW/BOOST NORMAL - CONNECT C TO NC, NC TO L1 AND NO TO L2
TRICKLE LOW/BOOST HIGH - CONNECT NC TO L1 AND NO TO L3
TRICKLE NORMAL/BOOST HIGH - CONNECT NC TO L1, L1 TO L2 AND NO TO L3

Fig. 6

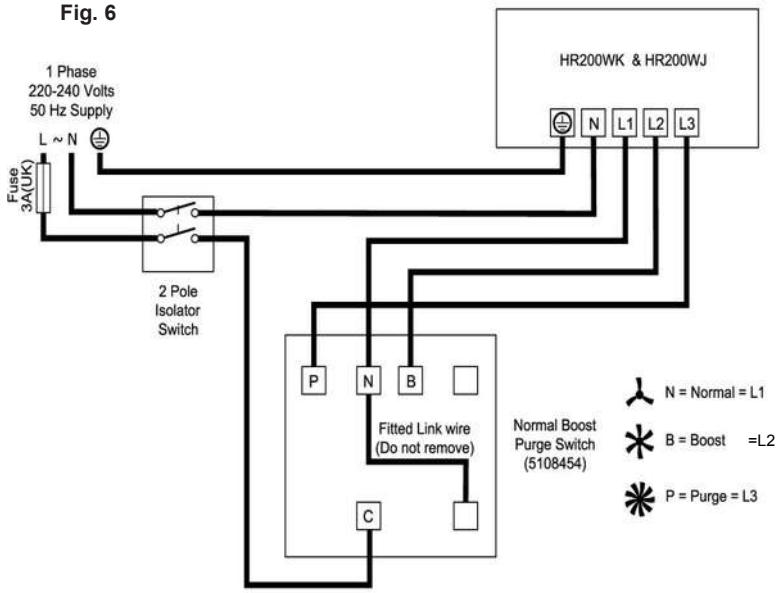
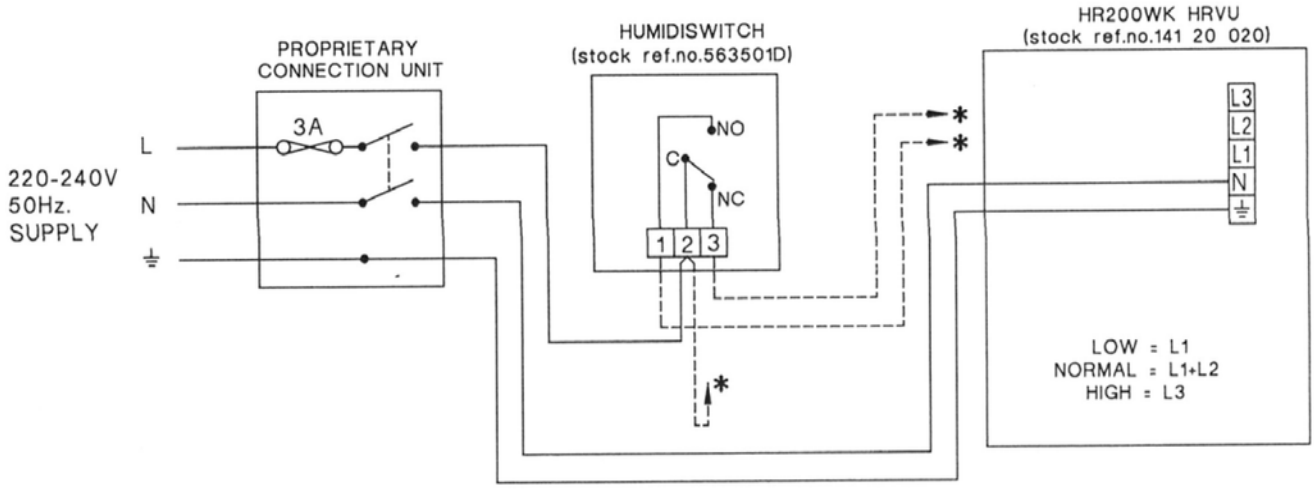
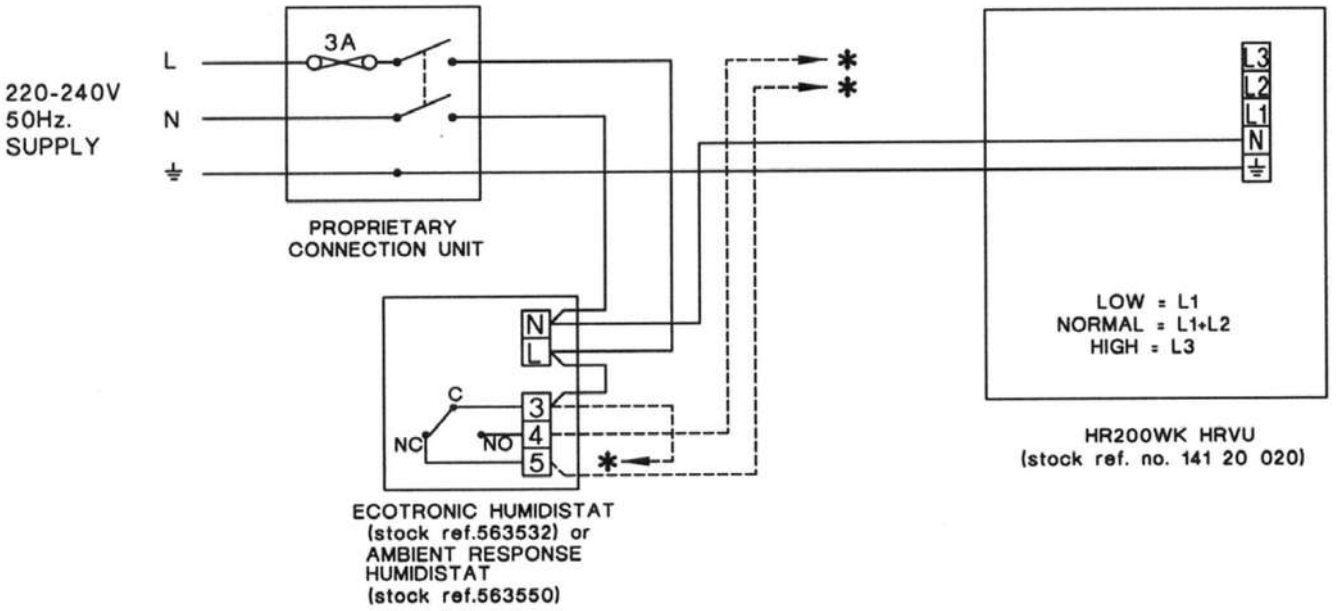


Fig. 7



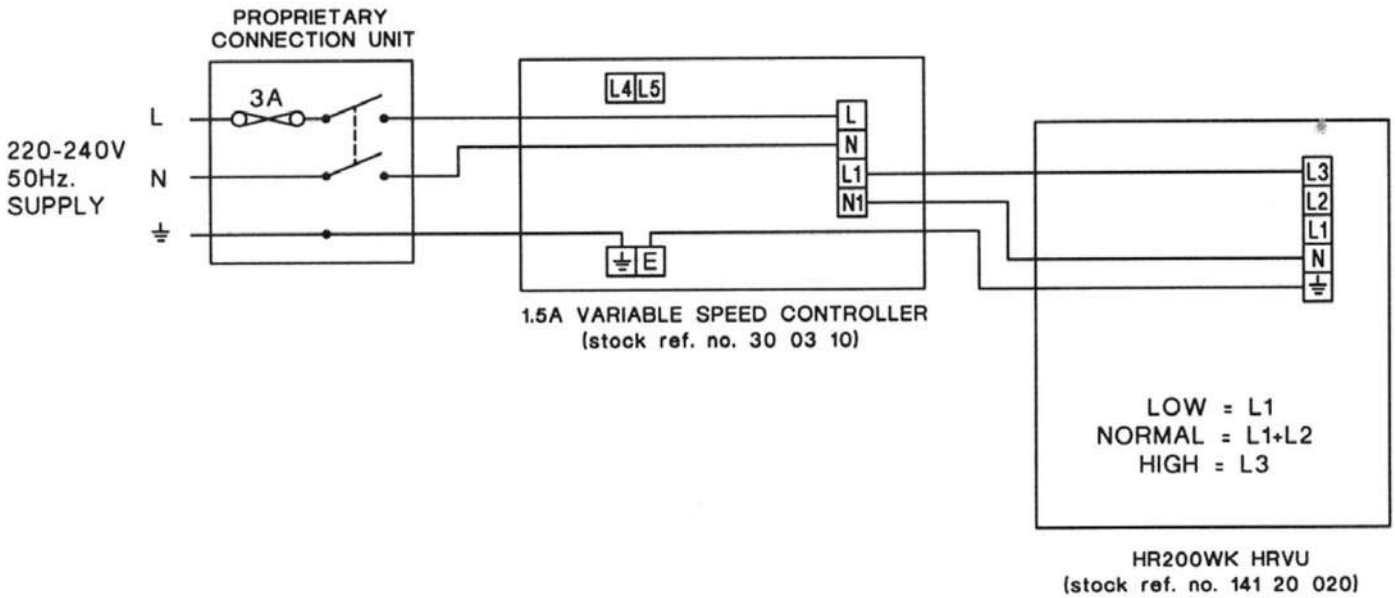
* NOTE: TRICKLE LOW/BOOST NORMAL - CONNECT 2 TO 3, 3 TO L1 AND 1 TO L2
TRICKLE LOW/BOOST HIGH - CONNECT 3 TO L1 AND 1 TO L3
TRICKLE NORMAL/BOOST HIGH - CONNECT 3 TO L1,L1 TO L2 AND 1 TO L3

Fig. 8



* NOTE: TRICKLE LOW/BOOST NORMAL – CONNECT 5 TO L1, 3 TO 5 AND 4 TO L2
TRICKLE LOW/BOOST HIGH – CONNECT 5 TO L1 AND 4 TO L3
TRICKLE NORMAL/BOOST HIGH – CONNECT 5 TO L1 & L2 AND 4 TO L3

Fig. 9



5.0 Maintenance

5.1 Cleaning the Unit (Fig.9)

1. In addition to removing odours, providing fresh air and recovering heat, this unit extracts airborne impurities such as dust, dirt and grease. These gradually build up and detract from the efficiency and appearance of the unit.

2. To ensure optimum performance, the unit should be cleaned every 3 to 6 months or at periods determined by the level of contamination experienced and according to the following procedure.

3. Isolate the mains power supply.

4. Release the catches on either side of the grille surround and remove the two filter holders.

5. Remove the filter from the filter holders.

6. Remove the grille surround after unscrewing its retaining screws. Slide out the heat exchanger.

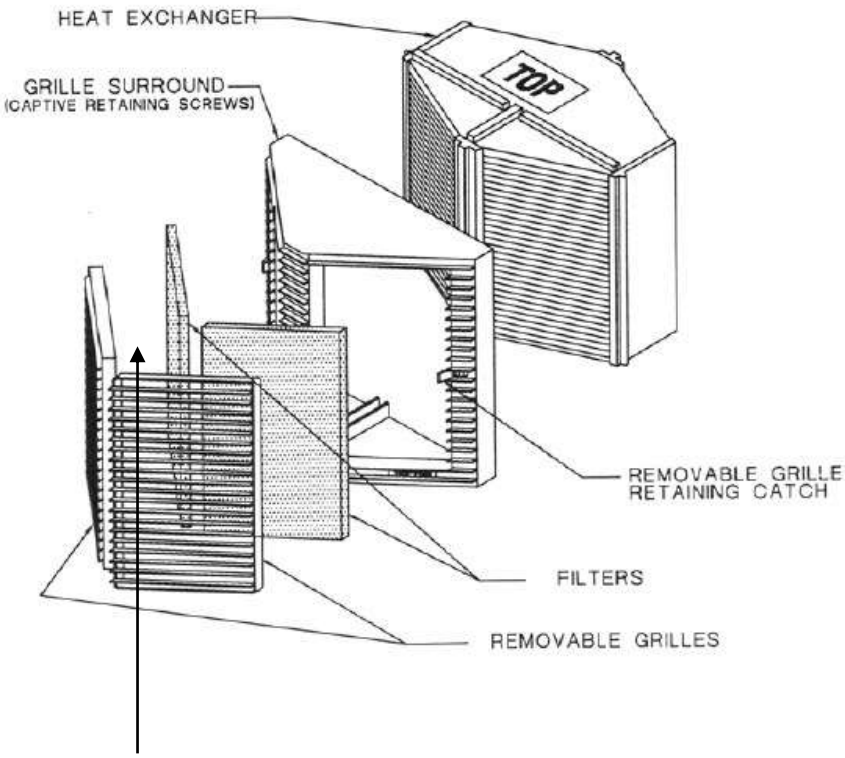
7. Wash the grille, filter and heat exchanger in warm water using a mild detergent and dry thoroughly.

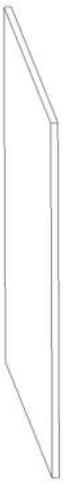
CAUTION: Keep water away from all electrical components and wiring within the unit.

8. Reassemble in reverse order ensuring the filter and heat exchanger are seated correctly.

9. Switch power supply on and check the operation of the unit.

Fig. 9





Inlet blanking plate

5.2 Inlet Blank

1. An inlet blanking plate is provided with the unit. With this in place the HR200WK acts as an extract only fan.

2. Release the catch for the supply side(left side) grille and remove the grille

3. Place the inlet blanking plate between the grille and the filter

4. Replace the grilled with the blanking plate in place. The unit will now operate as an extract only ventilation unit

The unit is supplied with four, 6-month Timestrip indicators. A Timestrip is a single use self-adhesive label that once activated will turn red over 6 months. It should be used to keep track of when the filter and cell need cleaning/replacement. Using the self-adhesive backing the strip can stuck near the units controls, or in a easily visible place. A normal cleaning schedule for a unit would be as follows:

After installation	Activate the 1st Timestrip
After 6 months	Clean cell, clean filter, activate 2nd Timestrip
After 12 months	Clean cell, clean filter, activate 3rd Timestrip
After 18 months	Clean cell, clean filter, activate 4th Timestrip
After 24 months	Clean cell, replace filters, the new filters will be supplied with 4 additional Timestrip indicators

Note: The above is the minimum requirement; more frequent cleaning intervals may be needed depending on the environment the unit is installed in.

Activating the Timestrip.







1. Activation: Fully squeeze the activation button between thumb and finger. A red line will appear within 1-2 minutes to show that the Timestrip has been activated.

2. Peel off the backing liner and stick the Timestrip to the Unit or near the controls of the unit. The location should make it obvious to the person responsible for maintenance that the unit needs attention.

3. Once activated, the red dye will indicate elapsed time by moving through the white window and past each time marker. The progress of the red dye is irreversible and each Timestrip can only be used once.

PRODUCT FICHE

For Residential Ventilation Units (Complying Commission Delegated Regulation (EU) No 1254/2014)

Name:	Vent-Axia
Model ID (Stock Ref.) :	HR200WK - 14120020
SEC Class	B
SEC Value ('Average')	-29.42
SEC Value ('Warm')	-7.11
SEC Value ('Cold')	-69.16
Label Required? (Yes/No=Out of scope)	Yes
Declared as: RVU or NRVU/UVU or BVU	RVU/BVU
Speed Drive	Multi-Speed
Type HRS (Recuperative, Regenerative, None)	Recuperative
Thermal Eff: [(%), NA(if none)]	75.00
Max. Flow Rate (m3/h)	198.00
Max. Power Input (W): (@Max.Flow Rate)	140.00
LWA: Sound Power Level (dB)	50.52
Ref. Flow Rate (m3/s)	0.03850
Ref. Pressure Diff. (Pa)	75.00
SPI [W/(m3/h)]	0.43
Control Factor & Control Typology: (CTRL/ Typology)	
Control Factor; CTRL	0.85
Control Typology	Central Demand Control
Declared: -Max Internal & External Leakage Rates(%) for BVUs or carry over (for regenerative heat exchangers only), -&Ext. Leakage Rates (%) for Ducted UVUs;	<5% Internal, <5% External
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	TBC
Position and description of visual filter warning for RVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit	N/A
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	N/A
Internet Address (for Disassembly Instructions)	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted VUs)	TBC
Air Tightness-ID/OD-(m3/h) (for Non-Ducted VUs)	TBC
Annual Electricity Consumption: AEC (kWh/a)	5.12
Annual Heating Saved: AHS (kWh/a)	
AHS: Average	41.56
AHS: Warm	18.79
AHS: Cold	81.30

Notes:-

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 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:-

- Has been installed and used in accordance with the instructions given with each unit.
- 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).
- Has not been subjected to misuse, neglect or damage.
- 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

Vent-Axia

Head Office: Fleming Way, Crawley, West Sussex, RH10 9YX.

UK NATIONAL CALL CENTRE, **Newton Road, Crawley, West Sussex, RH10 9JA**

SALES ENQUIRIES: Tel: 0344 8560590 Fax: 01293 565169

TECHNICAL SUPPORT: Tel: 0344 8560594 Fax: 01293 532814

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