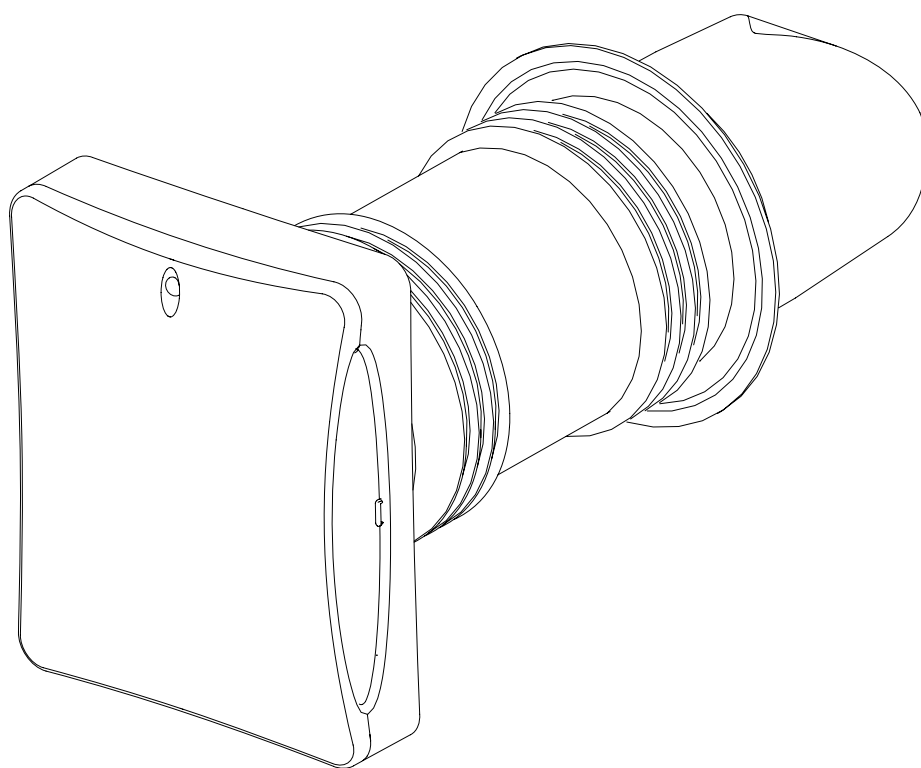


# **Vent-Axia®**

GB

## **HR25 Solo**

Installation and User Instructions



**Models:-**

**HR25 Solo**

**HR25 Solo L**

**HR25 Solo H**

**HR25 Solo LH**

**CE**

**“Through the Wall” Heat Recovery Ventilators**

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

## Contents

Section	Page
<b>1.0 Introduction</b>	<b>3</b>
<b>2.0 Site Requirements</b>	<b>4</b>
<b>3.0 Installation</b>	<b>5</b>
<b>4.0 Maintenance</b>	<b>11</b>
<b>5.0 Spares list</b>	<b>12</b>

## **1.0 Introduction**

### **1.1 Description**

1. The Vent-Axia HR25 Solo range of products are "through the wall" heat recovery ventilators for use in areas such as bathrooms and WCs.

2. The units are fitted with a 24V DC motor and are supplied with a Switch Mode Power Supply (S.M.P.S.). On normal setting the power consumption is 2 Watts.

A 5m cable is provided for fixed wiring of the unit to the S.M.P.S.

3. The 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 84% heat recovery from the stale extracted air.

4. The range of products is as follows:-

#### **HR25 Solo**

The HR25 Solo is fitted with a pull cord switch which provides a twin speed control function.

#### **HR25 Solo H**

The HR25 Solo H is fitted with an adjustable humidity sensor which automatically switches between low and high speeds depending on the relative humidity in the room of installation.

#### **HR25 Solo L & HR25 Solo LH**

These are extended versions of the above models. They are designed for installations where the wall thickness is between 311mm and 425mm.

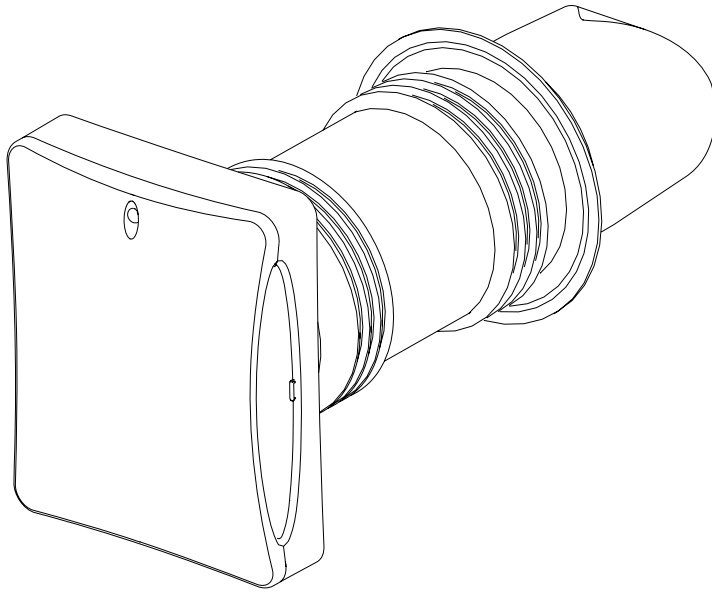


Fig.1

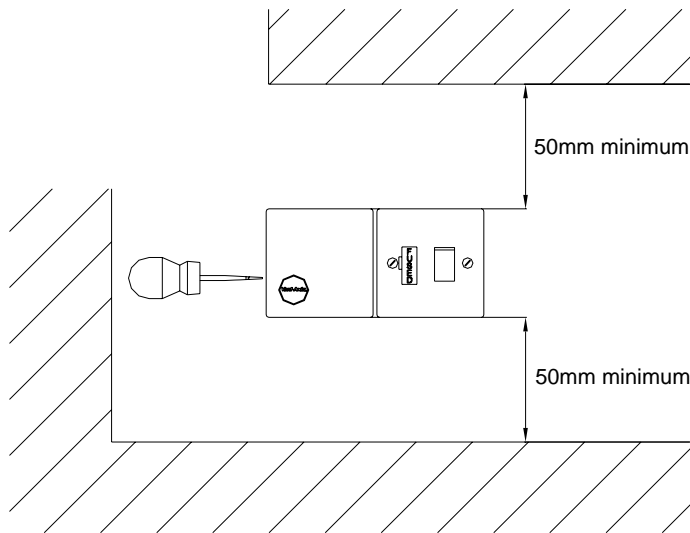


Fig.2

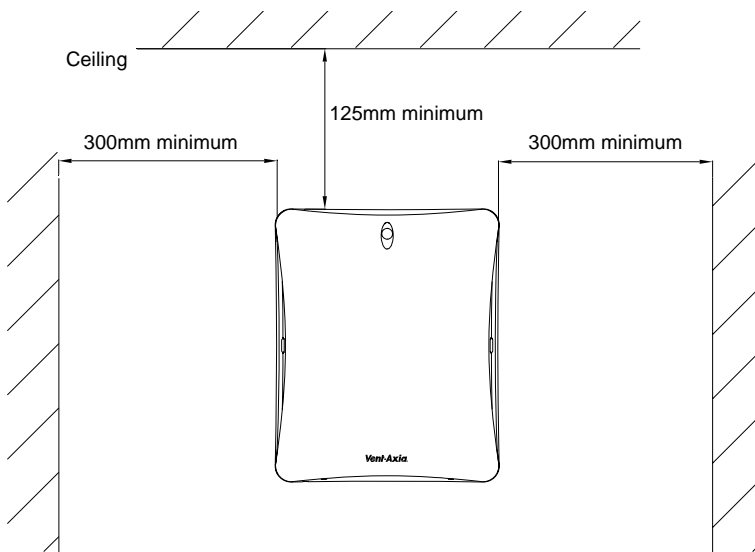


Fig.3

## 2.0 Site Requirements

### 2.1 Information

1. The unit is designed for installation in external walls with a thickness of up to 310mm. For wall thicknesses above 310mm, the 'L' version of the appropriate model must be used (see page 12 ). The 'L' models are suitable for wall thicknesses up to 425mm.

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

3. The unit must be installed in conjunction with the separate power supply enclosure supplied, which is intended for permanent connection to the mains electrical supply. The unit and the power supply enclosure are intended for fixed wiring installation.

4. The power supply enclosure requires free air circulation for effective operation. It must not be recessed into the mounting surface or covered with any form of insulation, which might be used in a ceiling or roof void.

5. Wiring to the unit in the U.K. must be via the switched fused spur supplied as part of the power supply enclosure.

6. The spur supplied is designed with a minimum contact gap of 3mm in all poles.

7. Ensure that the mains electrical supply is compatible with the rating label attached to the product.

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

9. Screwdriver access must be provided to the left of the power supply enclosure for the removal of the cover screw (Fig. 2).

10. Do not site the appliance in the vicinity of excessive levels of airborne oil or grease. or directly over a cooker.

11. 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.

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

13. The internal grille surround must be sited at least 125mm away from the room ceiling (Fig. 3). and 300mm away from any adjacent vertical surface.

14. The external cowl of the unit must be sited at least 500mm away from any flue of gas or solid fuel appliances. This is to avoid back flow of gases entering the room.

15. 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.

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

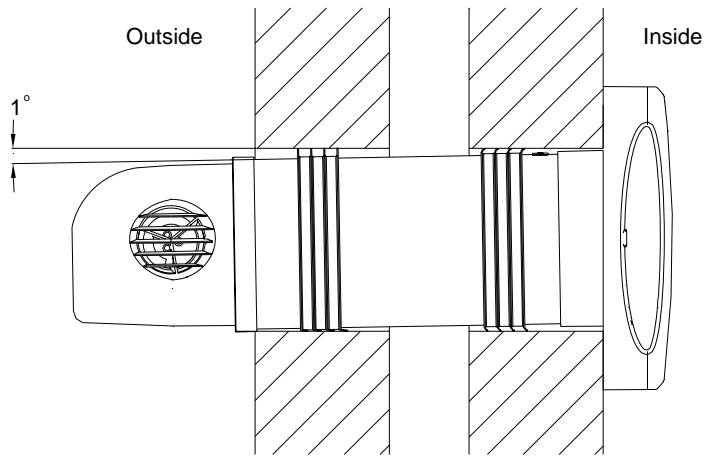


Fig.4

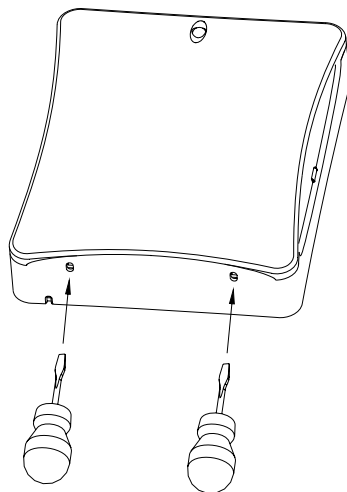


Fig.5

## **3.0 Installation**

### **3.1 Initial Preparation**

The unit is designed for installation in a 152mm (6") core drilled hole.

All installation can be undertaken from inside the building except for fixing of the external bezel if required.

1. After considering the site requirements (see previous section), select a suitable position for the unit and power supply enclosure (5m maximum between unit and power supply).
2. Mark the position of the mounting hole.
3. Cut the mounting hole to a diameter of 152mm (6") using a core drill. Ensure that there is a slight fall on the hole, from inside to outside (Fig. 4).
4. Remove the unit from the carton
- 5 Release cover using the two release clips (Fig 5) Unplug the sensor cable from the PCB if present
- 6 Using the mounting plate on the product. Mark the position of the four mounting holes, and then put product to one side. Drill and plug the holes
7. Install the fixed cable runs using mini trunking or via concealed installation. A 3-core red, white and black low voltage cable is supplied for connections between the unit and the power supply.
8. Ensure the cable to the unit extends sufficiently from the mounting hole to enable the required connections within the control enclosure.

### 3.0 Installation

#### 3.2 Installing the Power Supply Unit

1. Remove the power supply unit assembly from the carton.
2. Remove the power supply unit packaging.
3. Remove isolator and power supply covers (Fig. 6).
4. The mains input to the power supply unit must be routed via the rear or side of the enclosure behind the switched connection unit. **NOTE: Mains wiring must be kept separate from the S.M.P.S. side of the enclosure.** The mains connection is to the input side of the isolator unit.
5. Remove one of the cable knockouts and feed the 3-core cable through the power supply enclosure (Fig. 7).
6. Mark the fixing hole positions then Drill and plug the wall to secure the power supply enclosure using the fixing screws provided.
7. Connect the 5m cable supplied to the red, white and black low voltage supply via the terminal block. Route it via one of the exit holes (Fig. 7)
8. Ensure that the mains wires from the S.M.P.S. run through the slot in the divider wall (Fig. 6).
9. Fit the power supply cover using the small self tapping screw through the side of the power supply enclosure (Fig. 6).
10. Make the feed connections from the mains supply to the rear of the isolator unit. Connect live to L IN terminal, neutral to the N IN terminal and earth to the brass earthing terminal.
11. Fit the isolator unit to the power supply enclosure using the screws provided (Fig. 5).

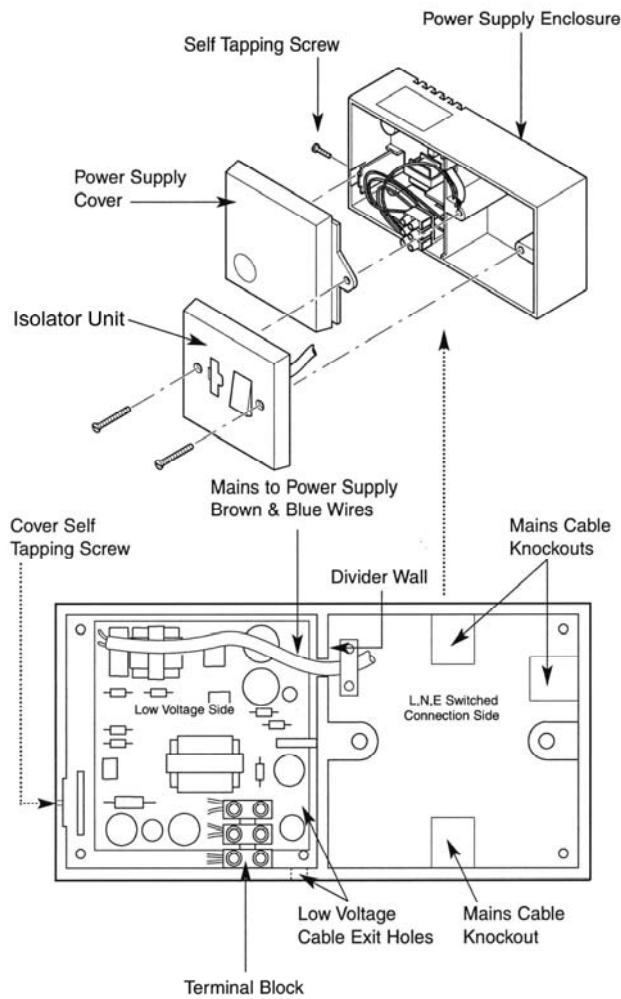


Fig.6

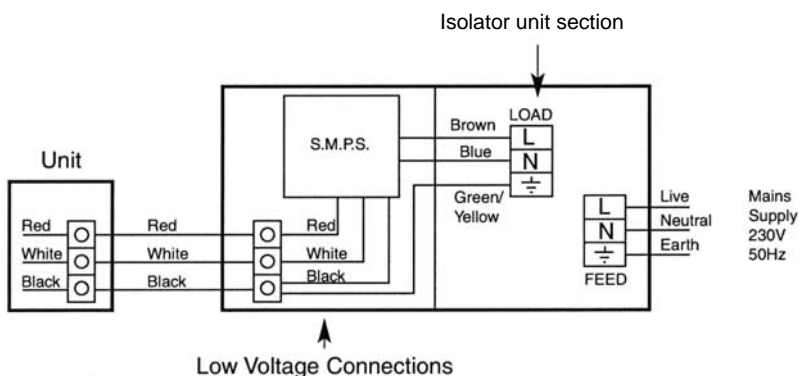


Fig.7

## 3.0 Installation

### 3.3 Installing the HR25 Solo

1. Remove the bezel and fixing pack from the carton.
2. Measure the total wall thickness. The outer of the two rubber seals is adjustable and should be set in a position that is 25mm in from the outer face of the external wall (Fig. 10).
4. Secure the rubber seal to the unit using the adhesive provided.
5. Locate the unit in the mounting hole, but do not push it fully in.
6. Route the low voltage cable from the power supply enclosure to the unit.
7. Pass the low voltage cable through the cable entry grommet at the top of the unit (Fig. 12).
8. Secure the unit to the wall using the four fixing screws provided.
9. Strip the low voltage cable sheath back 40mm from the end and separate the three individual wires stripped to 6mm.
10. Connect the wires to the terminal block. Connect red to red, white to white and black to black (Fig. 11 and 12).
11. Reassemble in reverse order
13. A bezel is provided to neaten the appearance of the outside wall around the unit. If required this should be fixed in place using a suitable silicone/mastic sealant.

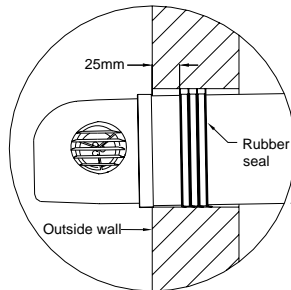
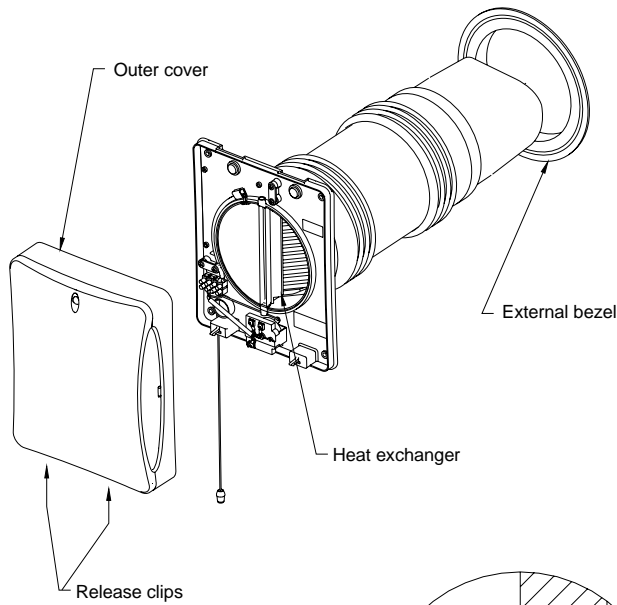


Fig.10

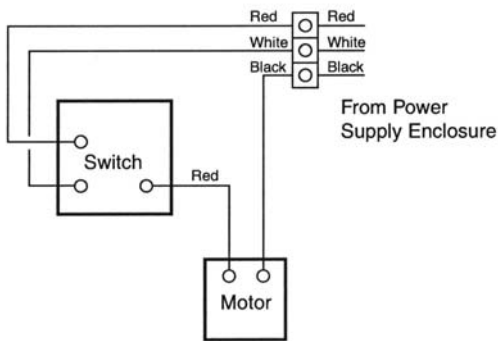


Fig.11

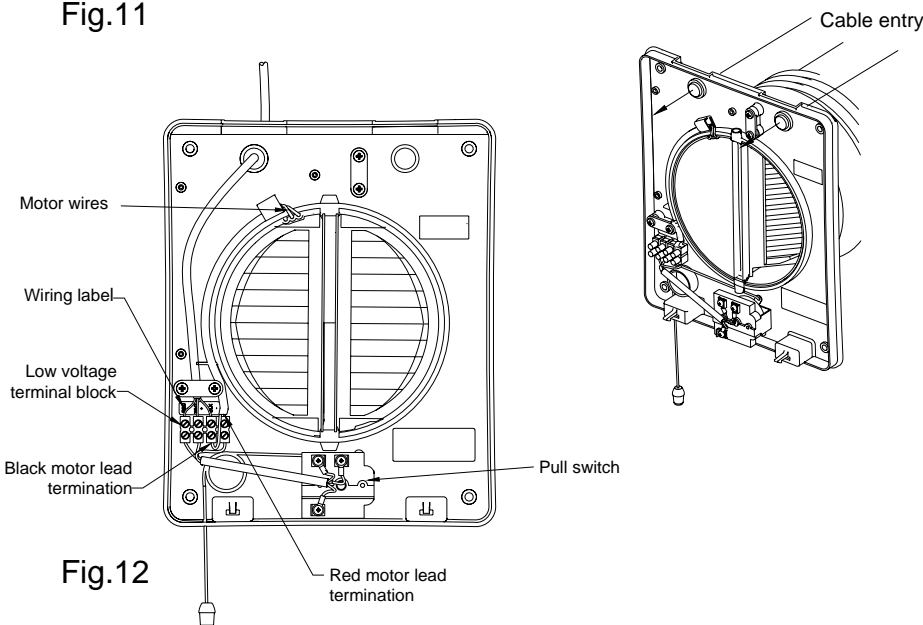


Fig.12

### 3.0 Installation

#### 3.4 Installing the HR25H Solo

1. Remove the bezel and fixing pack from the carton.
2. Measure the total wall thickness. The outer of the two rubber seals is adjustable and should be set in a position that is 25mm in from the outer face of the external wall (Fig. 13).
4. Secure the rubber seal to the unit using the adhesive provided.
5. Locate the unit in the mounting hole, but do not push it fully in.
6. Route the low voltage cable from the power supply enclosure to the unit.
7. Pass the low voltage cable through the cable entry grommet at the top of the unit (Fig. 15).
8. Secure the unit to the wall using the four fixing screws provided.
9. Strip the low voltage cable sheath back 40mm from the end and separate the three individual wires striped by 6mm.
10. Connect the wires to the terminal block. Connect red to red, white to white and black to black (Fig. 14).
11. The HR25H Solo unit is factory set to switch between low and high speed.

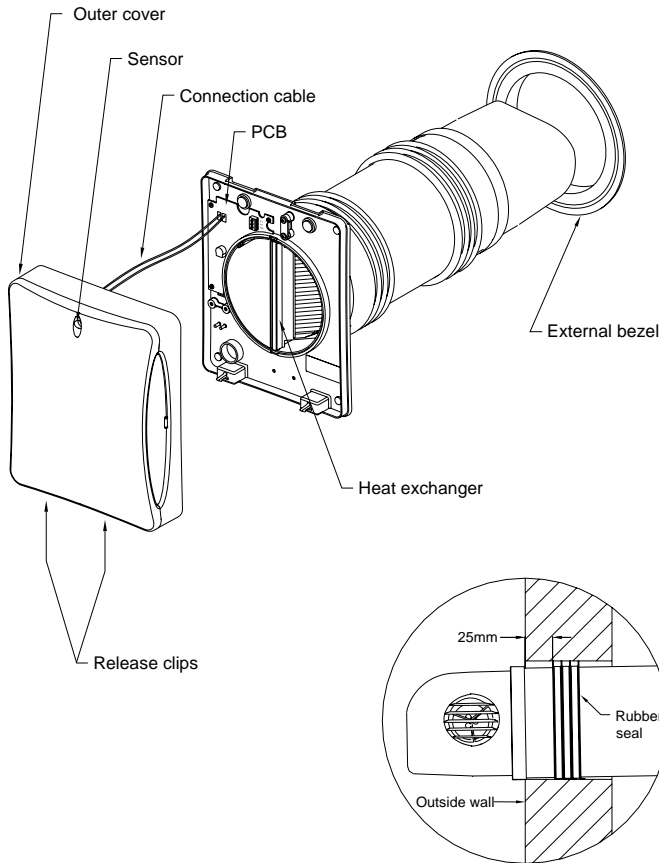


Fig.13

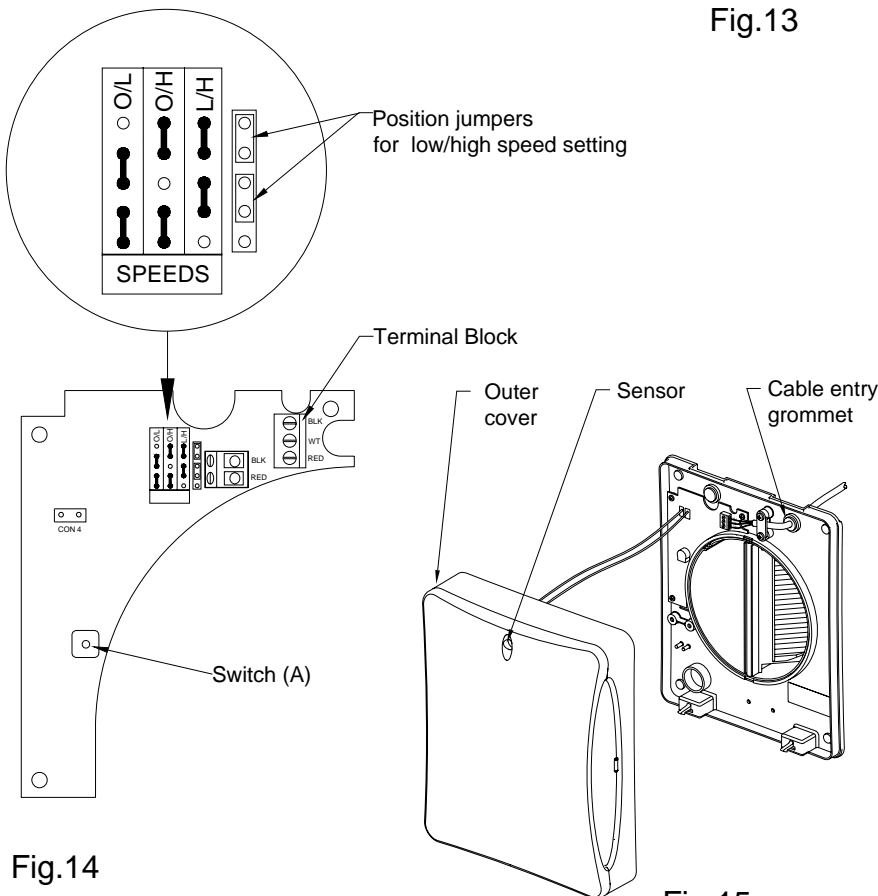


Fig.14

Fig.15

#### Low / High speed (continuously running)

12. The switching point of the unit can be adjusted between 60% - 90% humidity. It is factory set to operate at 70% humidity at 25°C.
13. To adjust the humidity level, rotate switch (A) as follows (Fig. 14) :-
  - a) For the unit to operate at a lower humidity level, turn switch (A) anti-clockwise (Min. 60%).
  - b) For the unit to operate at a higher humidity level, turn switch (A) clockwise (Max. 90%).
14. Reassemble in reverse order ensuring the humidity sensor cable is plugged into CON 4.
15. A bezel is provided to neaten the appearance of the outside wall around the unit. If required this should be fixed in place using a suitable silicone/mastic sealant.

### 3.0 Installation

#### 3.6 Installing the HR25L Solo & LH Solo

For wall thicknesses between 311mm & 425mm

1. Disconnect the red and black motor wires (Fig. 21).
2. Carefully withdraw the heat exchanger from the unit (Fig. 22).
3. Slide the inner tube out of the unit by pushing the motor housing (Fig. 23).
4. Remove the plastic ring and rubber seal from the outer tube (Fig. 24).

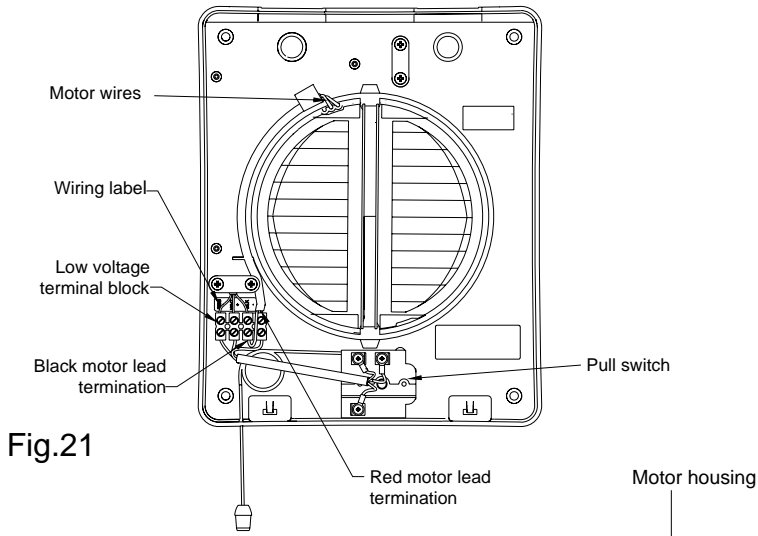


Fig. 22

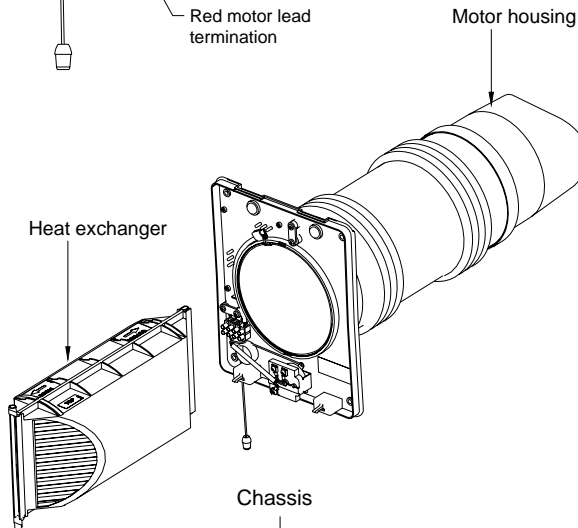


Fig. 23

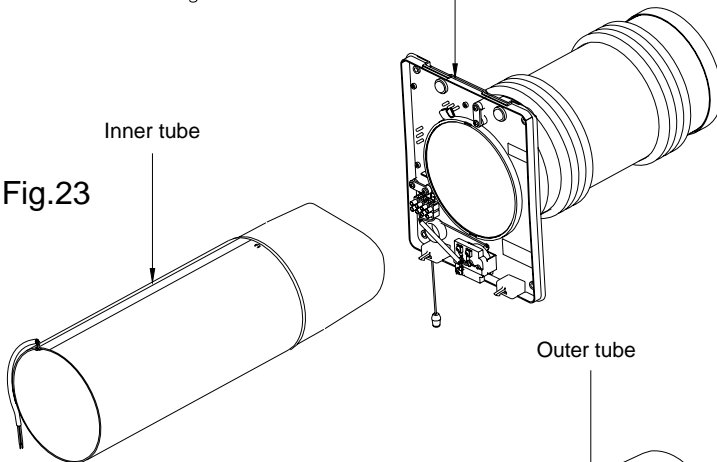
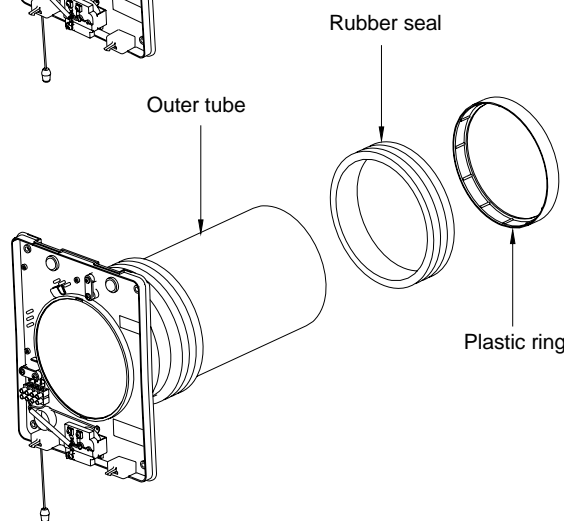


Fig. 24



### 3.0 Installation

#### 3.6 Installing the HR25L Solo & LH Solo (cont)

Fig.25

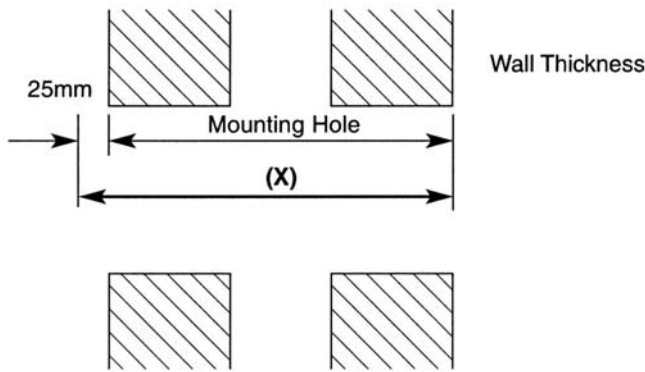


Fig.26

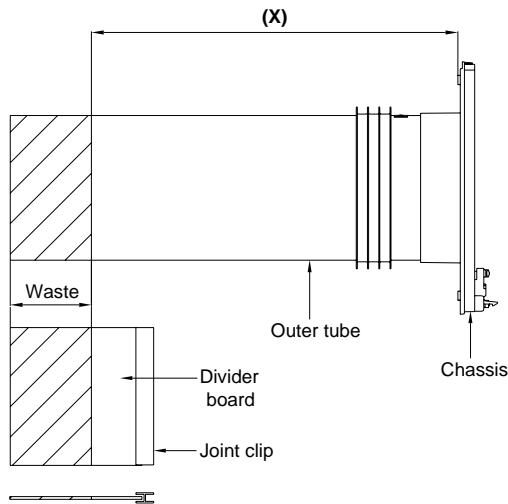


Fig.27

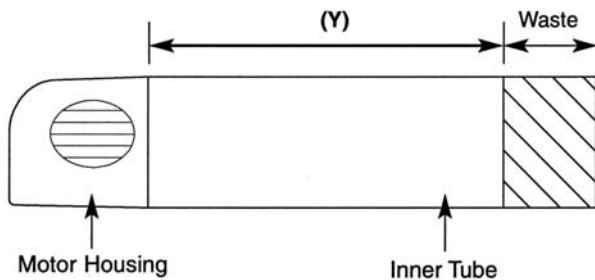


Fig.28

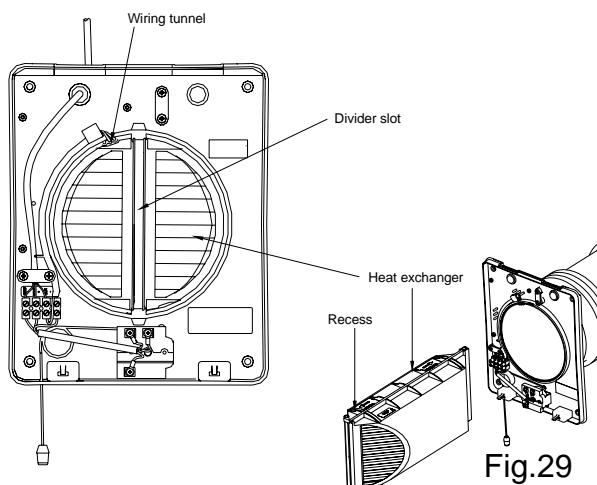


Fig.29

5. Measure the wall thickness and add 25mm. This is dimension "X" (Fig. 25).

6. Mark off dimension "X" on the outer tube, measuring from the rear of the chassis. Cut off the excess material (Fig. 26).

7. Remove any burrs from the tube.

8. Measure the waste from the outer tube and cut the same amount off the base of the divider board (Fig. 26).

9. Replace the rubber seal 50mm in from the end of the tube and secure using the adhesive provided.

10. Refit the plastic ring using the adhesive provided.

11. Subtract 1.5mm from dimension "X". This will be dimension "Y".

12. Mark off dimension "Y" from the motor housing end of the inner tube, and scribe a line around the inner tube. Peel the two motor wires away from the wiring tunnel beyond the scribed line to prevent damage. Carefully cut the excess off the tube (Fig. 27).

13. Remove any burrs from the tube.

14. Reassemble the tubes in reverse order ensuring that the two motor wires are located back in the wiring tunnel, and that the tunnel is aligned with the wiring slot in the chassis (Fig. 28).

15. Replace the heat exchanger according to the 'Inside/Outside' labels. The recess in the heat exchanger outer must be aligned with the wiring tunnel on the inner tube to ensure the divider slot is vertical (Fig. 28 and 29).

16. Cut the two motor wires to size and reconnect to their respective terminals (Refer to the relevant unit instructions - see pages 7-8).

Continue installing the unit from paragraph 7 onwards in the relevant unit instructions - see pages 7-8.

## 4.0 Maintenance

### 4.1 Cleaning the Unit (all models)

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

To maintain efficiency the unit should be cleaned at least every six months, or more regularly if a high level of contamination is experienced.

1. Isolate the mains power supply.
2. Unclip the removable front cover from the unit and remove the 2 filters. (Fig. 30).
3. Slide out the heat exchanger (Fig. 31).
4. Wash the outer cover, filters and heat exchanger in warm water using a mild detergent and dry thoroughly.

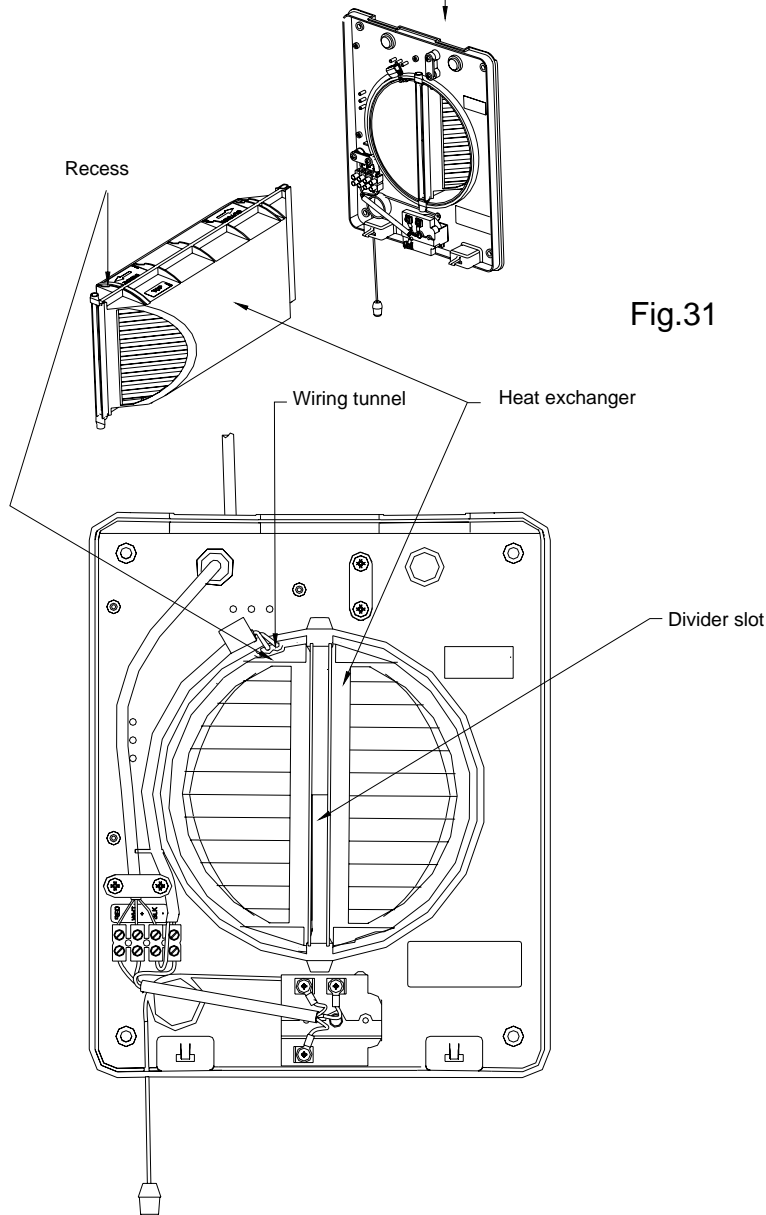
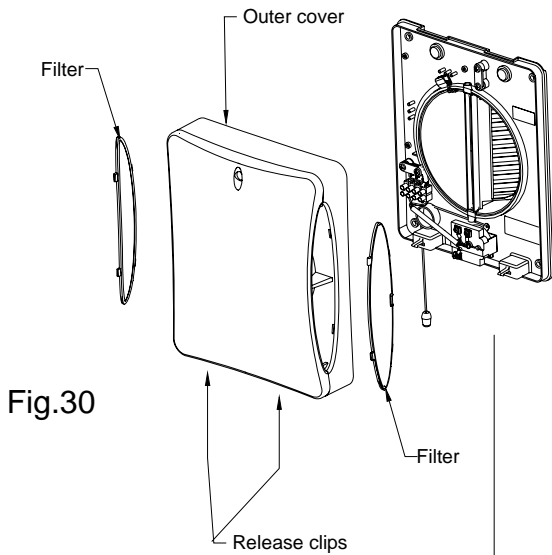
**NOTE: Keep water away from all electrical components and wiring within the unit.**

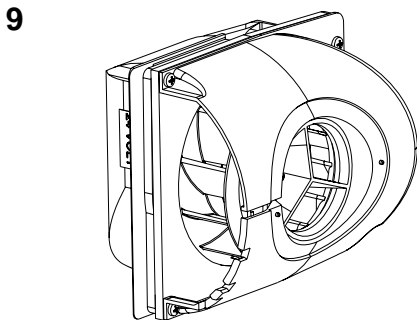
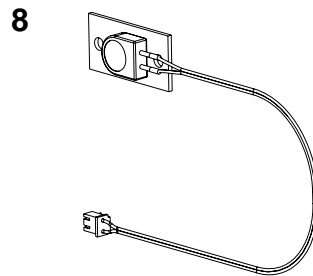
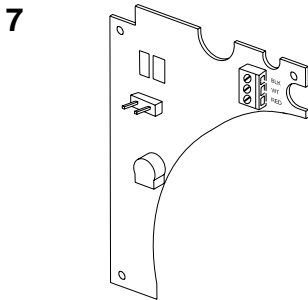
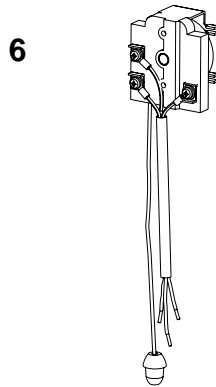
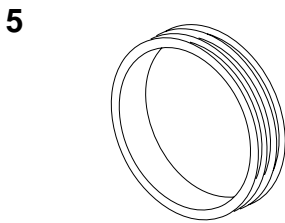
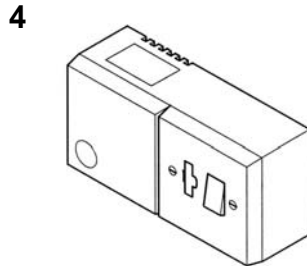
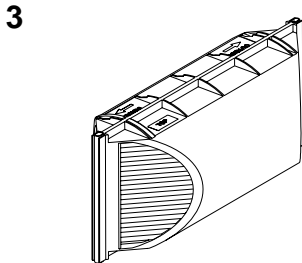
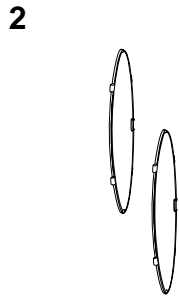
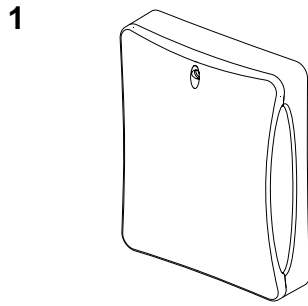
If it is not possible to fully clean the filter, it must be replaced (see short parts list on page 12 for part number).

6. Reassemble in reverse order .

**NOTE:**  
**Follow the top 'Inside/Outside' instruction labels on the heat exchanger and ensure that the divider slot is vertical as shown (Fig 31)**

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





## 5.0 Spares list

### 5.1 Spares List

Key No.	Description	Part No.
1	Cover/Filter Assy	435739
2	Filter (pack of 2)	435740
3	Heat Exchanger	452914
4	Transformer power pack	372208
5	Rubber seal	371297
6.	Pullcord/switch	435741
7.	Humidity PCB	436391
8.	Humidity sensor	435812
9	Motor assembly	436393

## VENT-AXIA SALES CENTRES

### ENGLAND & WALES NATIONAL CALL CENTRE

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RH10 9JA

Telephone: 01293 530202  
Fax: 01293 565169

### REPUBLIC OF IRELAND

Vent-Axia Ventilation Ltd.  
921 Western Road Industrial estate  
Naas Road, Dublin 12.

Telephone: (01) 450 4133  
Fax: (01) 450 4570

Did you find these instructions easy to use?

We value your comments, contact us via : Email: [info@vent-axia.com](mailto:info@vent-axia.com)

### The Vent-Axia Guarantee

Applicable only to products installed and used in the United Kingdom. For details of the Guarantee outside of the United Kingdom contact your local supplier.

Vent-Axia guarantees this product 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 discretion the product will be replaced without charge, provided that the product:

- 1). Has been installed and used in accordance with the instruction given with each unit.
- 2). The electricity supply complies with the rating label.
- 3). Has not been misused, neglected or damaged.
- 4). Has not been modified or repaired by any person not authorised to do so by Vent-Axia.

#### IF CLAIMING UNDER THE TERMS OF THE GUARANTEE

Please return the complete product, carriage paid to your original supplier by post or in person. Please ensure that it is adequately packed and accompanied by a letter clearly marked 'Guarantee Claim' stating the nature of the fault and providing proof of the date and source of purchase.

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