

# Solo Pro

SELV RANGE

Installation and Wiring Instructions



## Stock Ref. N°

Solo Pro SVP	409163
Solo Pro SVT	409164
Solo Pro SVHTP	409165

FAN UNITS 12V 50Hz SELV (CLASS III)  
CONTROLLERS 220-240V 50Hz MAINS SUPPLY (CLASS II)  
WITH 12V 50Hz SELV OUTPUT

# **Vent-Axia®**

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

IPX7  
**CE**



## Installation and Wiring Instructions for the Solo Pro SELV Fans and Controllers.



**IMPORTANT:  
READ THESE INSTRUCTIONS  
BEFORE COMMENCING THE  
INSTALLATION**

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.
- Ambient temperatures higher than 40°C or less than –5°C.
- Possible obstructions which would hinder the access or removal of the Fan.

### **SAFETY AND GUIDANCE NOTES**

- A.** All wiring to be in accordance with the current I.E.E. Regulations, or the appropriate standards of your country and **MUST** be installed by a suitably qualified person.
- B.** The Fan should be provided with a local isolator switch capable of disconnecting all poles, having a contact separation of at least 3mm.
- C.** Ensure that the mains supply (Voltage, Frequency, and Phase) complies with the rating label.
- D.** The Fan should only be used in conjunction with the appropriate Vent-Axia products.
- E.** The fan should only be used in conjunction with fixed wiring.
- F.** When the Fan is used to remove air from a room containing a fuel-burning appliance, ensure that the air replacement is adequate for both the fan and the fuel-burning appliance.
- G.** The Fan should not be used where it is liable to be subject to direct water spray for prolonged periods of time.
- H.** Where ducted Fans are used to handle moisture-laden air, a condensation trap should be fitted. Horizontal ducts should be arranged to slope slightly downwards away from the Fan.
- I.** 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.

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

**IMPORTANT:- ONLY CONNECT TOGETHER PRODUCTS FROM THE SOLO PRO SELV RANGE SINCE THE FANS ARE SPECIALLY DESIGNED TO WORK ON 12V AC AND ARE NOT COMPATIBLE WITH OTHER VENT-AXIA CONTROLLERS. DO NOT CONNECT MORE THAN ONE FAN TO THE CONTROLLER.**

### **DESCRIPTION**

The Solo Pro SELV fan is an extract fan for bathrooms and toilets specifically designed for ducted applications. Pullcord, Timer, and Humidity options are available.

### **ACCESSORIES** (not supplied)

#### **WALL FITTING KIT**

A range of white (stock ref. 254102) or brown (stock ref. 254100) 100mm wall kits are available for installing into most walls using telescopic liners supplied.

#### **WINDOW FITTING KIT**

A window fitting kit is available. Stock reference 11461685.

### **A. INSTALLATION**

#### **SITING THE CONTROLLER**

1. The controller must not be installed in a shower cubicle or enclosure. It must be sited away from direct sources of water spray and out of reach (1.5m) of a person using a fixed bath or shower.
2. Site away from direct sources of heat. Ambient temperature range 0 to 40°C. Do not site in an area containing excessive levels of grease.
3. Decide where to site the controller and fan (see section siting the fan), and work out the required cable runs.

#### **PANEL/CEILING MOUNTING – (FIG.4.)**

1. Cut a 105mm diameter hole.
2. Remove the front panel by carefully pulling it away from the fan.
3. Loosen the two self-retaining screws and remove the inner cover by carefully pulling it away from the housing.
4. Remove the impeller by carefully pushing the retaining clips together.
5. Remove the PCB cover by loosening the two screws and pulling it out of the fan housing.
6. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position. Attach ducting and back draught shutters as required for the installation.
7. Wire the fan as described in Section B-Wiring. Adjust any settings as required (see Section C-Setup).
8. Replace the PCB and inner covers and tighten the retaining screws.
9. After installation, ensure impeller rotates freely. Replace the front panel.

## WALL MOUNTING – (FIG.4.)

1. For wall mounting cut a 117mm diameter hole through the wall and insert the wall sleeve. Slope the sleeve slightly downwards away from the fan. Where necessary cut to length and cement both ends into position flush with the wall faces.
2. Fix exterior grille into position with the louvres positioned downwards.
3. Remove the front panel by carefully pulling it away from the fan.
4. Loosen the two self-retaining screws and remove the inner cover by carefully pulling it away from the housing.
5. Remove the impeller by carefully pushing the retaining clips together.
6. Remove the PCB cover by loosening the two screws and pulling it out of the fan housing.
7. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position. Attach ducting and back draught shutters as required for the installation.
8. Wire the fan as described in Section B-Wiring. Adjust any settings as required (see Section C-Setup).
9. Replace the PCB and inner covers and tighten the retaining screws.
10. After installation, ensure impeller rotates freely. Replace the front panel.

## B. WIRING.



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE.**

**IMPORTANT:** The controller is only suitable for connection to a 220-240V 50Hz AC single phase mains electrical supply. It is double insulated (CLASS II) and therefore must not be earthed. It provides a 12V 50Hz AC Safety Extra Low Voltage for the Solo Pro SELV range of fans. Note that only one fan must be connected to the controller.  
**1.5mm<sup>2</sup> wire is recommended for cable runs up to 8m.**

1. Select and follow the appropriate wiring diagram. (Fig. 1, 2 or 3)
2. Check all connections have been made correctly and ensure all terminal connections and supply wires are securely fastened using cable clamp provided.
3. Ensure the impeller rotates and is free from obstructions once reassembled (Fig. 4 and 5).

## C. SETUP



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE.**

### Timer adjustment (SVT)

*BEFORE ADJUSTING THE TIMER, SWITCH OFF THE MAINS SUPPLY. TIMER SHOULD ONLY BE ADJUSTED BEFORE OR DURING INSTALLATION.*

1. Unscrew the fixing screws on the cover of the controller. The fan overrun period can be adjusted up or down using the pot located on the internal PCB.
2. To REDUCE the operating time, use a small screwdriver to turn the pot ANTI-CLOCKWISE.
3. To INCREASE the operating time, use a small screwdriver to turn the pot CLOCKWISE.
4. Replace the controller cover.

#### **TIMER ADJUSTMENT (SVHTP, FIG. 4 AND 5)**

*BEFORE ADJUSTING THE TIMER, SWITCH OFF THE MAINS SUPPLY. TIMER SHOULD ONLY BE ADJUSTED BEFORE OR DURING INSTALLATION.*

1. Remove the fan and PCB covers and the impeller (Fig. 4 and 5). The controller is factory set at 15 minutes approx. The overrun period can be adjusted from 3-25 minutes by altering the pot on the control PCB.
2. To REDUCE the operating time, use a small screwdriver to turn the pot ANTI-CLOCKWISE.
3. To INCREASE the operating time, use a small screwdriver to turn the pot CLOCKWISE.
4. Replace the fan and PCB covers and the impeller.

#### **HUMIDITY SET-POINT ADJUSTMENT (FIG. 4 AND 5)**

*BEFORE ADJUSTING THE CONTROLLER, SWITCH OFF THE MAINS SUPPLY. HUMIDISTAT SHOULD ONLY BE ADJUSTED BEFORE OR DURING INSTALLATION.*

1. Remove the fan and PCB covers and impeller. The controller is factory set to switch on at about 70% RH. The humidity set point can be adjusted from 40-95%RH by altering the adjuster on the control PCB.
2. To LOWER the set-point use a small screwdriver to turn the adjuster **ANTI-CLOCKWISE**. This makes the controller MORE sensitive.
3. To RAISE the set-point use a small screwdriver to turn the adjuster **CLOCKWISE**. This makes the controller LESS sensitive.
4. Replace the fan and PCB covers and impeller.

**IMPORTANT:** Upon installation it is possible that the humidity controller will make the fan run continuously until it has acclimatised to the environment. As part of the installation process it is important to set/adjust the humidity sensitivity to the desired position. The controller is already factory set to switch on at about 75% R.H.

#### **PULLCORD OPERATION**

The PULLCORD will activate the fan when switched. When the PULLCORD is switched into the off position the fan will deactivate. The SVHTP model will return to the Auto sensing mode.

#### **D. SERVICING AND MAINTENANCE.**



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING MAINTENANCE.**

1. At intervals appropriate to the installation, the fan should be inspected and cleaned to ensure there is no build-up of dirt or other deposits.
2. Carefully pull the front panel off the inner grille. (fig.4.)
3. Wipe the inlets and front face with a damp cloth until clean.

**The fan has sealed for life bearings, which do not require lubrication.**

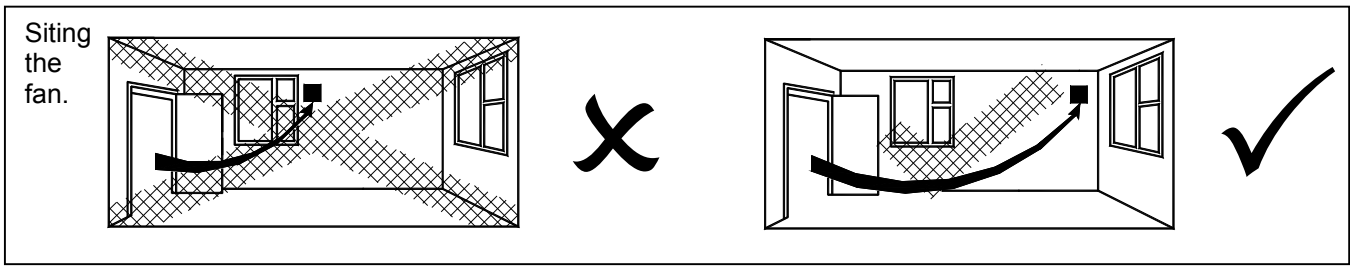


Fig.1 (Solo Pro SVP)

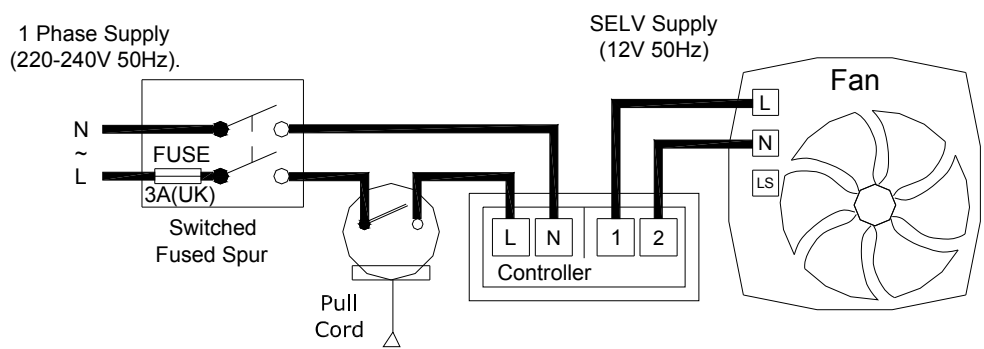


Fig.2 (Solo Pro SVT)

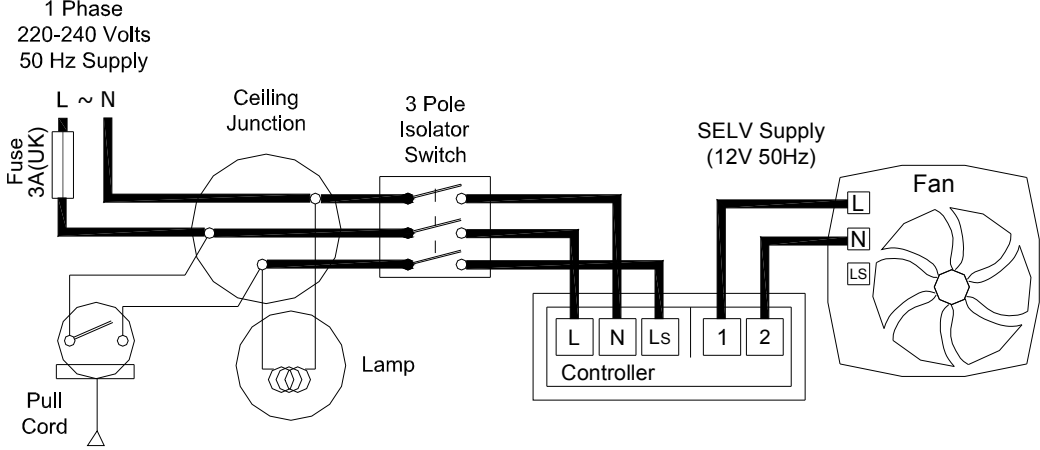


Fig.3 (Solo Pro SVHTP)

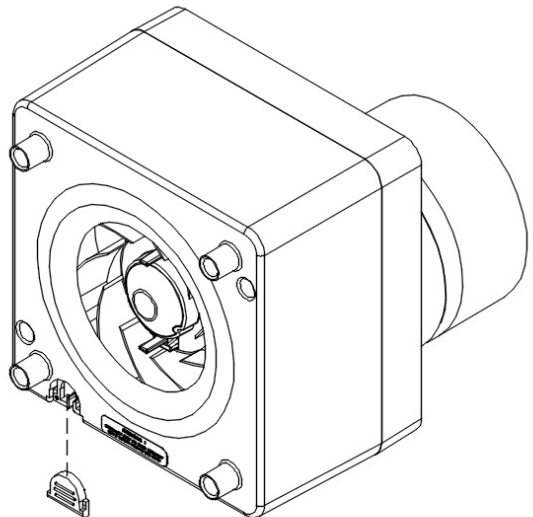
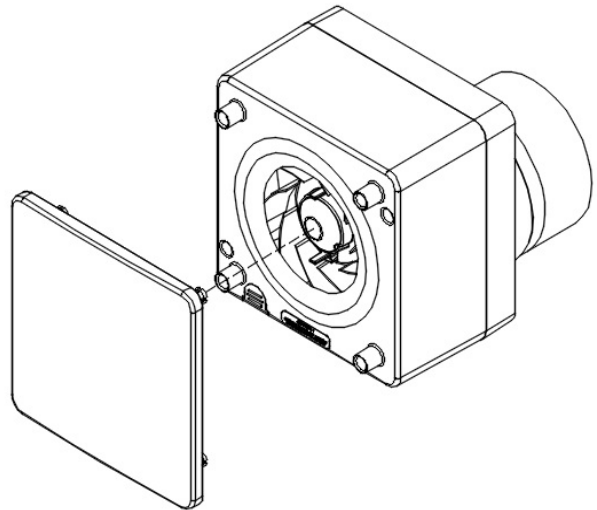
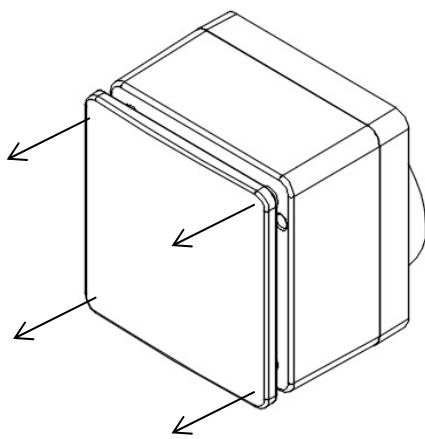
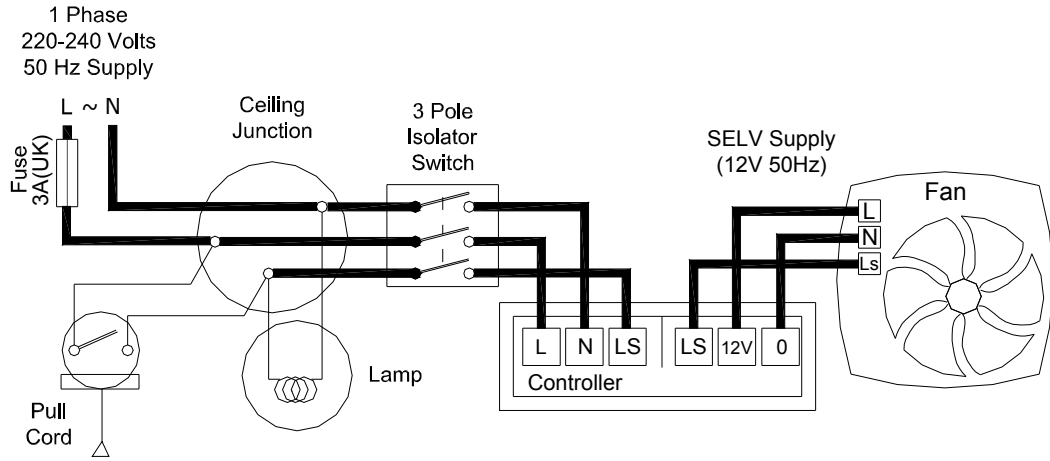




Fig.4. continued. Remove the PCB cover

4) Push clips together to release the impeller

5) Remove two screws as shown

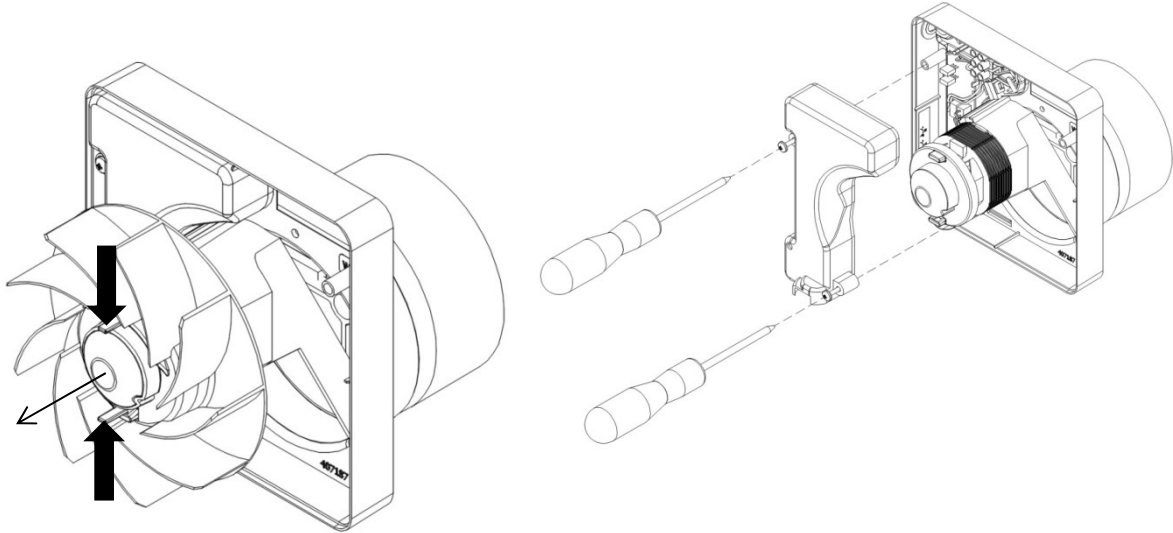


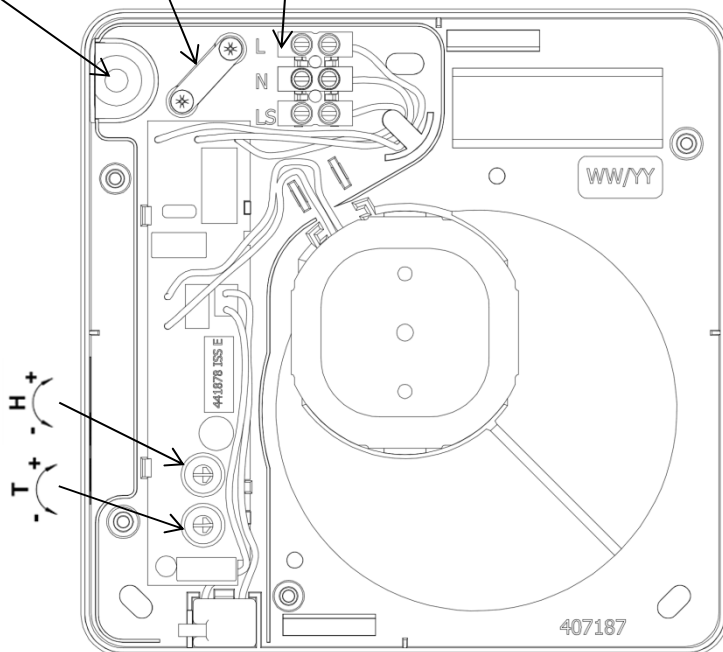
Fig.5. Wiring and settings

Supply cable via side or rear

Supply cable connections

Secure Supply cable with Cable Clamp

Adjust Timer overrun or Humidistat set point (model dependant) as shown. (SVHTP)



## PRODUCT FICHE

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

Name:	Vent-Axia	Vent-Axia	Vent-Axia
Model ID (Stock Ref.) :	Solo Pro SELV SVP - 409163	Solo Pro SELV SVT - 409164	Solo Pro SELV SVHTP - 409165
SEC Class	F	F	E
SEC Value ('Average')	13.97	15.72	26.23
SEC Value ('Warm')	6.32	7.11	11.86
SEC Value ('Cold')	27.32	30.75	51.31
Label Required? (Yes/No=Out of scope)	No	No	No
Declared as: RVU or NRVU/UVU or BVU	RVU-UVU	RVU-UVU	RVU-UVU
Speed Drive	on/off Single Speed	on/off Single Speed	on/off Single Speed
Type HRS (Recuperative, Regenerative, None)	None	None	None
Thermal Eff: [ (%), NA(if none)]	N/A	N/A	N/A
Max. Flow Rate (m3/h)	86.40	86.40	86.40
Max. Power Input (W): (@Max.Flow Rate)	19.00	19.00	19.00
LWA: Sound Power Level (dB)	47.52	47.52	47.52
Ref. Flow Rate (m3/s)	0.02	0.02	0.02
Ref. Pressure Diff. (Pa)	N/A	N/A	N/A
SPI [W/(m3/h)]	0.31	0.31	0.31
Control Factor & Control Typology: (CTRL/ Typology)			
Control Factor; CTRL	1.00	0.95	0.65
Control Typology	Manual Control	Clock Control	Local Demand Control
Declared: -Max Internal & External Leakage Rates(%) for BVUs or carry over (for regenerative heat exchangers only), -&Ext. Leakage Rates (%) for Ducted UVUs;	N/A	N/A	N/A
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	N/A	N/A	N/A
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	N/A	N/A
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	In F&W	In F&W	In F&W
Internet Address (for Disassembly Instructions)	<a href="http://www.vent-axia.com">www.vent-axia.com</a>	<a href="http://www.vent-axia.com">www.vent-axia.com</a>	<a href="http://www.vent-axia.com">www.vent-axia.com</a>
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted Vus)	N/A	N/A	N/A
Air Tightness-ID/OD-(m3/h) (for Non-Ducted Vus)	N/A	N/A	N/A
Annual Electricity Consumption: AEC (kWh/a)	4.33	4.11	2.81
Annual Heating Saved: AHS (kWh/a)			
AHS: Average	13.97	15.72	26.23
AHS: Warm	6.32	7.11	11.86
AHS: Cold	27.32	30.75	51.31



## 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

For details of the warranty and returns procedure please refer to [www.vent-axia.com](http://www.vent-axia.com) or write to Vent-Axia Ltd, Fleming Way, Crawley, RH10 9YX