Lo-Carbon
Tempra

THROUGH THE WALL
HEAT RECOVERY FAN

Installation and Wiring Instructions



Stock Ref. N°

443312 Pullcord. **(P)**
403832 Pullcord Long cell **(LP)**

443310 Timer. **(T)**
403834 Timer Long cell **(LT)**

443311 Humidistat Timer Pullcord. **(HTP)**
403836 Humidistat Timer Pullcord Long cell **(LHTP)**

220-240V~50Hz

Vent-Axia®

IPX4

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

CE

Installation and Wiring Instructions for the Tempra Range of Heat Recovery Fans.

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, precautions must be taken to avoid back-flow of gases into the room from the open flue of gas or other 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. The horizontal duct should be arranged to slope slightly downwards to the exterior away from the Fan.
I. This appliance is not intended for use by young children or infirm persons without supervision.
J. Young children should be supervised to ensure that they do not play with the appliance.

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



DESCRIPTION

Through the wall Heat Recovery Fan

The Vent-Axia Lo-Carbon Tempra is suitable for refurbishment or new build, kitchen, bathroom, toilet or utility applications. The unit meets the performance requirements for intermittent extract fans under the Building Regulations Part F 2010 (table 5.1a) and also for continuous running products.

Tempra is available in 6 models

443312 – Tempra P
403832 - Tempra LP (long) — Constant trickle speed with pull cord or switch live to boost airflow.

443310 – Tempra T
403834 – Tempra LT (long) — Constant trickle speed with switch live to boost airflow with adjustable 5-50 min overrun timer and optional 3 minute delay on timer.

443311 - Tempra HTP
403836 –Tempra LHTP (long) — Constant trickle speed with pull cord or switch live to boost airflow with adjustable 5-50 min overrun timer and optional 3 minute delay on timer and internal humidistat adjustable 60- 90% RH.

A. INSTALLATION

WALL MOUNTING

Models **P**,**T** & **HTP** are designed for use in a wall with a maximum thickness of 318mm fitted with a 110mm Soil Pipe or Wall Sleeve (Stock Ref No 445529).
Models **LP**,**LT** & **LHTP** are designed for use in a wall with a maximum thickness of 460mm fitted with a 110mm Soil pipe.

1 Using the template provided mark the 4 wall fixing positions, the hole for the wall pipe and mains cable entry point.

2) Cut a hole through the wall and insert the soil pipe or wall sleeve.
Slope the sleeve slightly downwards away from the fan and cement both ends into position flush with the wall Fig 1.

3) Undo 2 fixing screws and lift off Cover Plate Fig 2 & 3

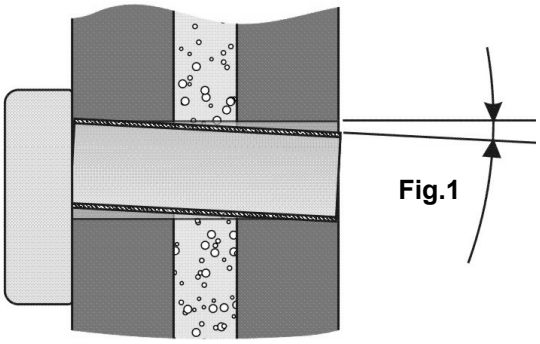


Fig.1

Fig.2

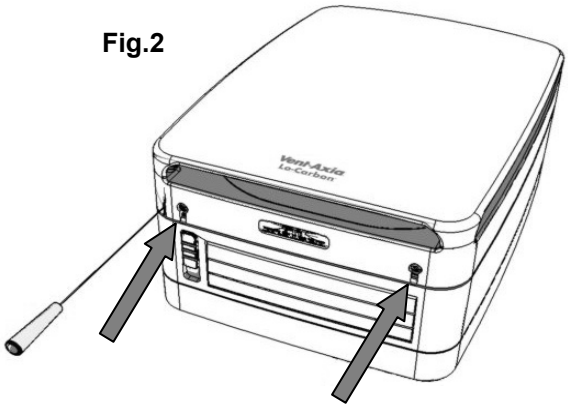
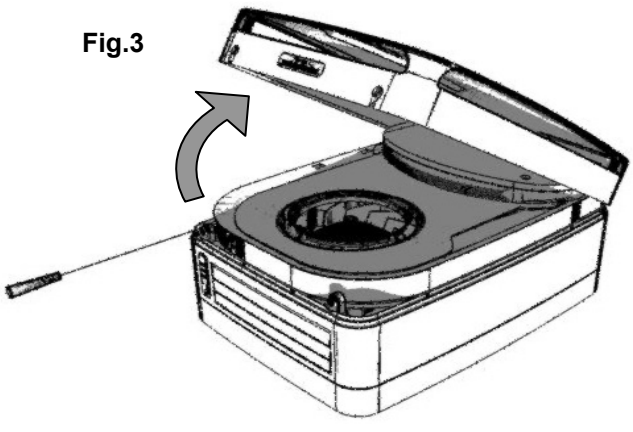


Fig.3



4) Remove 2 screws and detach Electrical Cover Fig 4

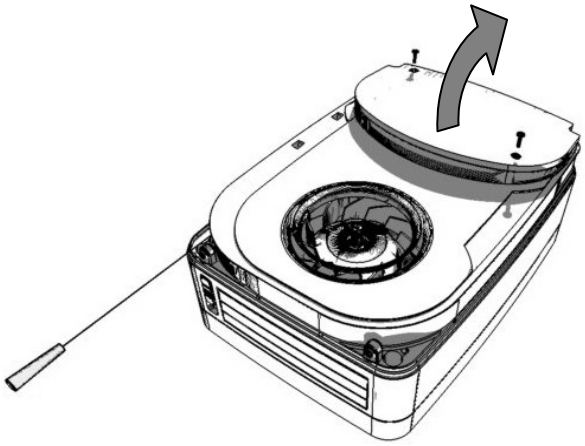


Fig.4

5) Lift where indicated to engage hinges Fig 5 and open Door Fig 6.

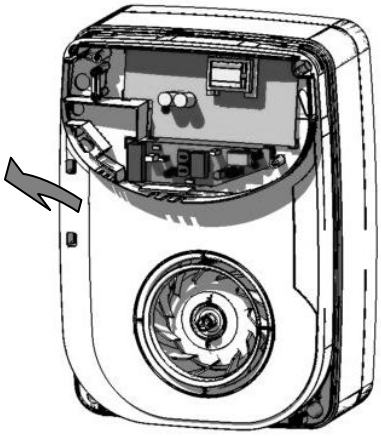


Fig.5

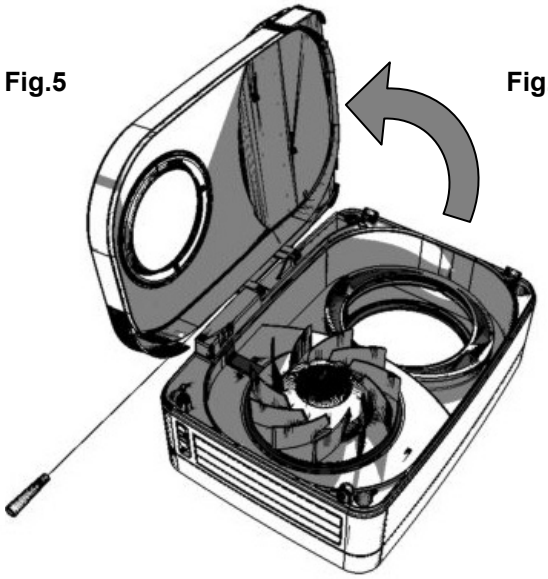


Fig.6

6) Feed flexible Mains cable through one of the rear entry points or the side entry point as required. And then the door Fig 7 & Fig 8

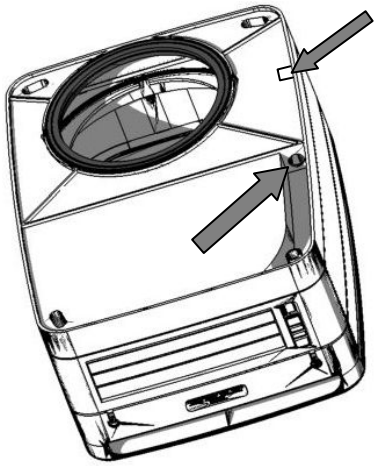


Fig.7

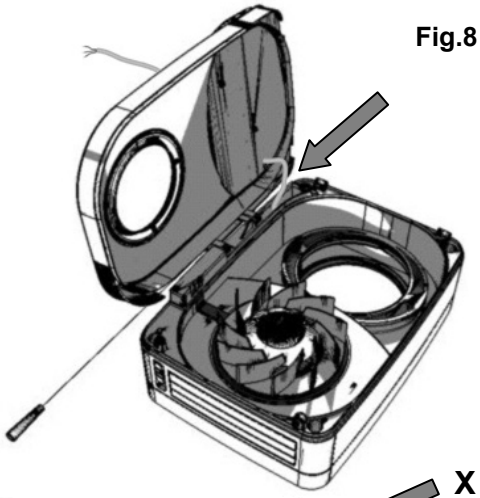


Fig.8

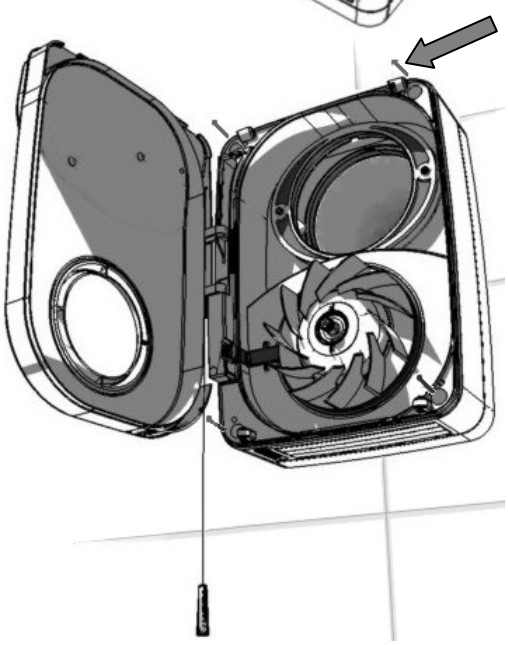


Fig.9

7) Fit Chassis to wall with 4 fixing screws carefully aligning the hole in the back of the Tempra with the Wall Pipe Fig 9.

8) Remove screws and Heat Exchanger Retaining Clamp kit Fig 10. (Discard polybag)

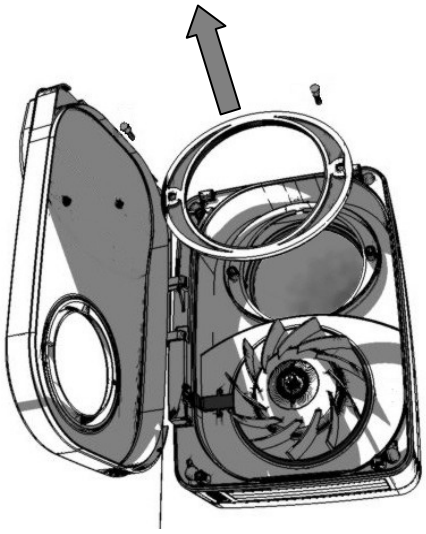


Fig.10

9) Insert Heat Exchanger through Chassis and into Wall pipe Fig 11.

Note: Line up key on top of Heat Exchanger with slot in Chassis

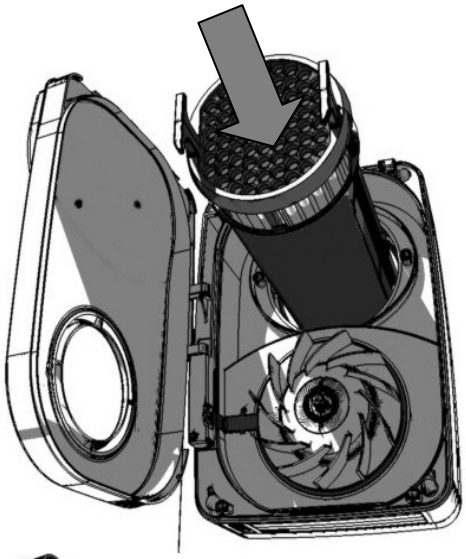


Fig.11

10) Fit Heat Exchanger Retaining Clamp with screws provided Fig 12.

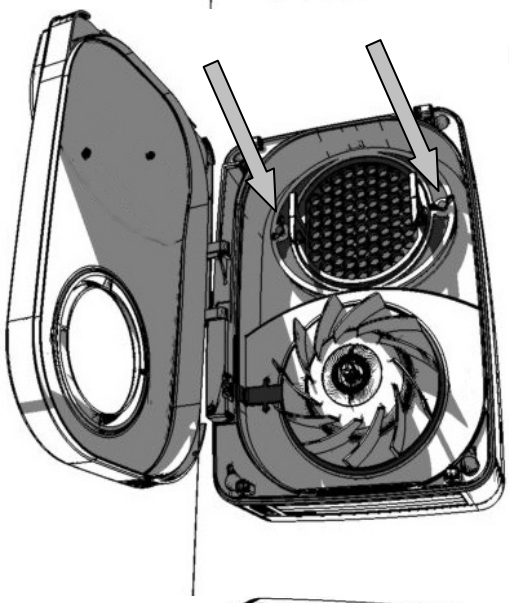


Fig.12

11) Close Door and Connect flexible mains cable as described in section B – Wiring, ensure cable clamp is used adjust any settings as required see section C – Setup. Fig 13

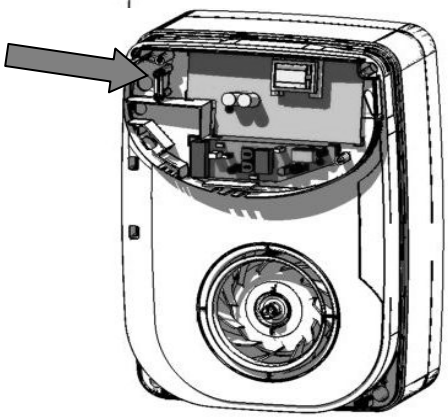
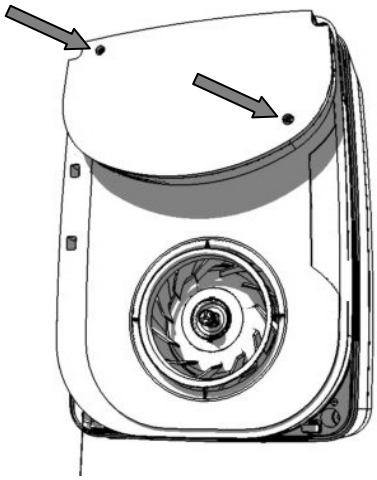


Fig.13

12) Re fit Electrical Cover with 2 screws indicated
In Fig 14

Fig.14



13) Re fit Cover Plate and tighten 2 screws Fig 15 &16.
Ensure Pull cord is engaged in Lower Slot

Fig.15

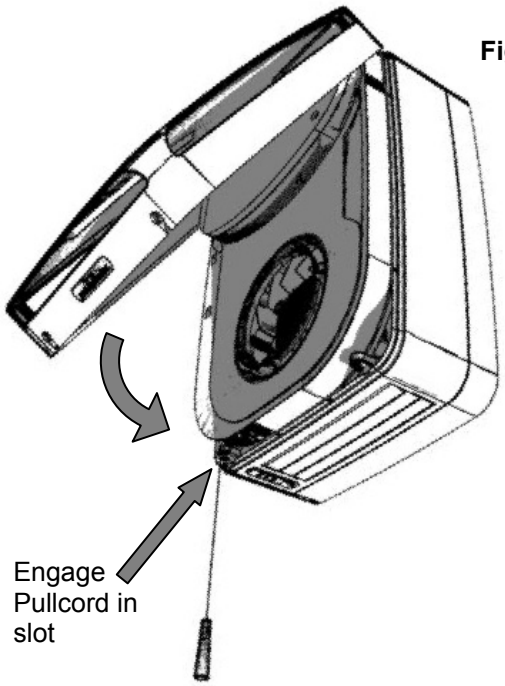


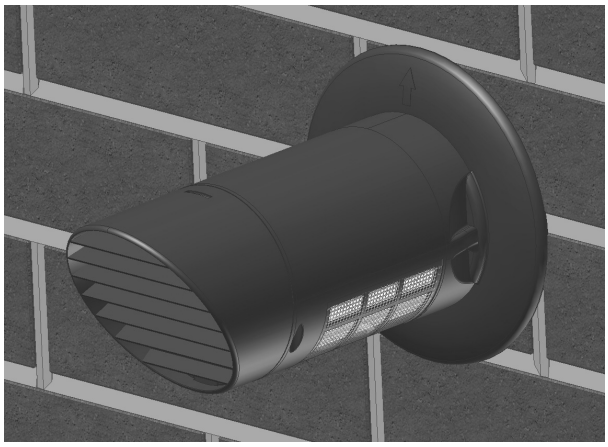
Fig.16



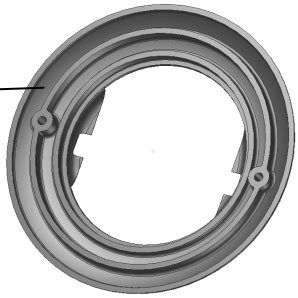
14) The Tempra unit is also fitted with a “manual summer setting” which allows the unit to be set to extract only, helping to prevent a dwelling becoming too warm in hot summer conditions.
When first installed this shutter/vent should be **open**. Fig.16
To activate the summer setting it should be shut.

Fig.17

15) Make good on outside wall with the wall Cover bezel provided, ensure the arrow on the bezel is at the top.
Fix/seal to the wall with a suitable sealant.



Apply sealant in outer groove on rear of bezel.



Important:- Please ensure that you apply sufficient sealant to hold the bezel to the wall. (If the wall surface is not suitable for using sealant 2 screws can be located through the 2 bosses provided).
Note:- Do not seal the bezel to the heat exchanger, this needs to be removed for cleaning at regular intervals.

B. WIRING.

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

IMPORTANT

- The fan should only be used in conjunction with fixed wiring.
- The cross - sectional area of supply cord used should range from 1 -1.5mm^2.
- Cable entry can only be made from the rear of the fan.
- Allow sufficient flexible mains cable when connecting fan, to ensure hinged door opens freely.
- The fan is suitable for connection to 220-240V 50Hz supply.
- The fan is a class ll double insulated product and **MUST NOT** be earthed.

1. Select and follow the appropriate wiring diagram. (Fig. 18 or 19)

2. Check all connections have been made correctly and ensure all terminal connections and cable clamps are securely fastened.

Fig 18
Continuous trickle (6l/s or 9l/s) with pull cord boost facility P,LP and HTP,LHTP models

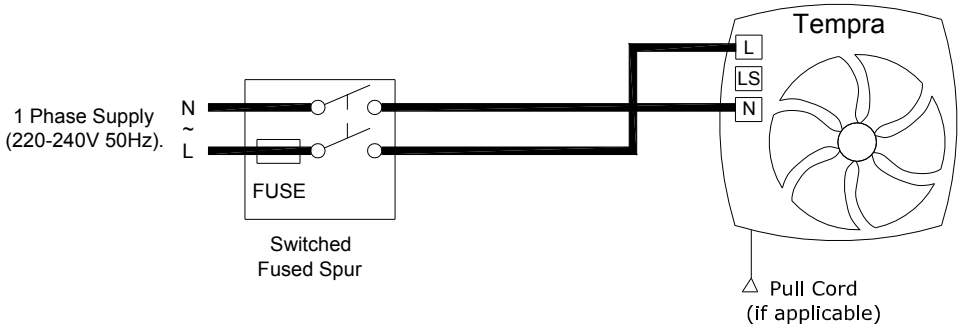
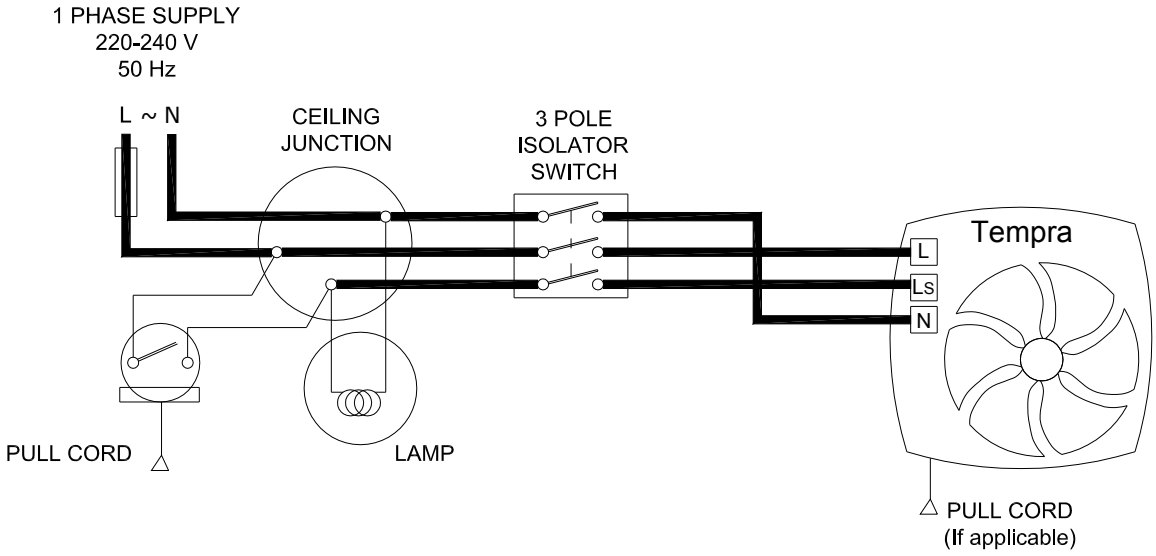


Fig 19
Continuous trickle (6l/s or 9l/s) with switch live boost facility.



C. SETUP

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

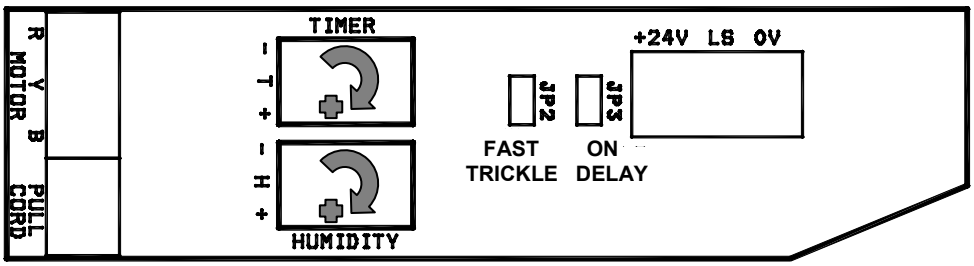


Fig. 20

TRICKLE SPEED SELECTION (6l/s or 9l/s) – (Fig. 20)

In Trickle running mode the fan can extract at either 6l/s (22m^3/h) or 9l/s (32m^3/h) flow rate. The fan will boost to 15l/s (54m^3/h) when the LS / Humidity / Pull cord connection is switched.

- Factory set at **6l/s** (22m^3/h).
- Remove jumper connector **(JP2)** if **9l/s** (32m^3/h) extract flow rate is required.

PULLCORD OPERATION (P,LP AND HTP,LHTP MODELS)

THE PULLCORD ACTIVATES THE BOOST TO ON OR OFF.

TIMER ADJUSTMENT (T,LT AND HTP,LHTP MODELS) (FIG. 20)

THE TIMER IS ONLY ACTIVATED VIA THE LS CONNECTION.

1. The controller is factory set at 15 minutes approx. The overrun time period can be adjusted from 5-50 minutes by altering the adjuster on the control PCB.
2. To REDUCE the operating time, use a small screwdriver to turn the TIMER adjuster ANTI-CLOCKWISE.
3. To INCREASE the operating time, use a small screwdriver to turn the TIMER adjuster CLOCKWISE.
4. In addition A 3 minute delay on timer is included this can be de-activated by removing **(JP3)**.

HUMIDITY SET- POINT ADJUSTMENT HTP MODEL (FIG. 20)

NOTE:- ON INSTALLATION IT IS POSSIBLE THAT THE HUMIDITY CONTROLLER WILL RUN CONTINUOUSLY UNTIL IT HAS ACCLIMATIZED TO THE ENVIRONMENT.

1. The controller is factory set to switch on at about 70% RH. The humidity set point can be adjusted from 60-90%RH by altering the adjuster on the control PCB.
2. To LOWER the set-point use a small screwdriver to turn the HUMIDITY adjuster. ANTI-CLOCKWISE. This makes the controller MORE sensitive.
3. To RAISE the set-point use a small screwdriver to turn the HUMIDITY adjuster CLOCKWISE. This makes the controller LESS sensitive.

D. MAINTENANCE.

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

The fan should be cleaned to ensure there is no build up of dirt or other deposits.

1. Remove 2 screws and lift off Cover Plate assembly Fig 21 & 22



Fig.21

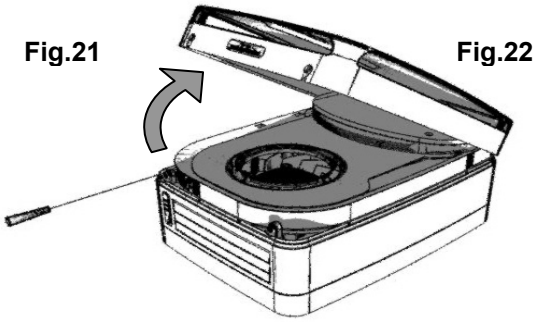


Fig.22

3. Lift where indicated to engage hinges Fig 23 and open Door Fig 24.

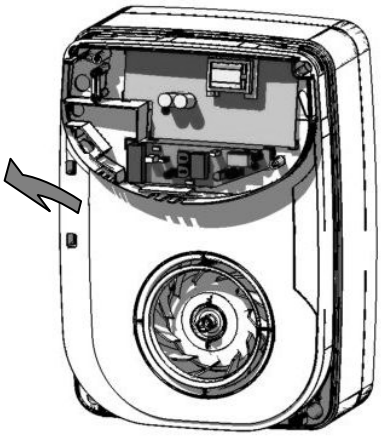


Fig.23

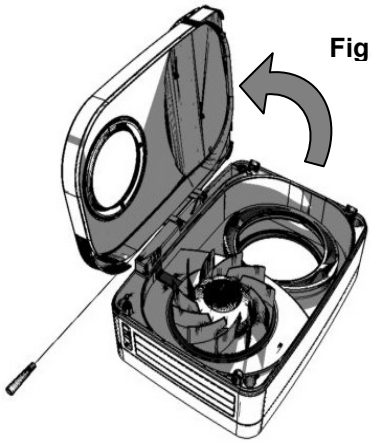


Fig.24

3. Remove Retaining Plate, Carefully slide out the Heat Exchanger Fig 25 & 26 and wash in warm water using a mild detergent, dry thoroughly and re assemble in reverse order to above.

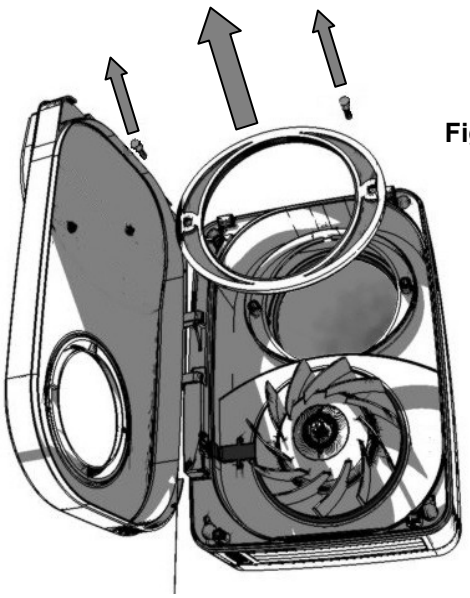


Fig.25

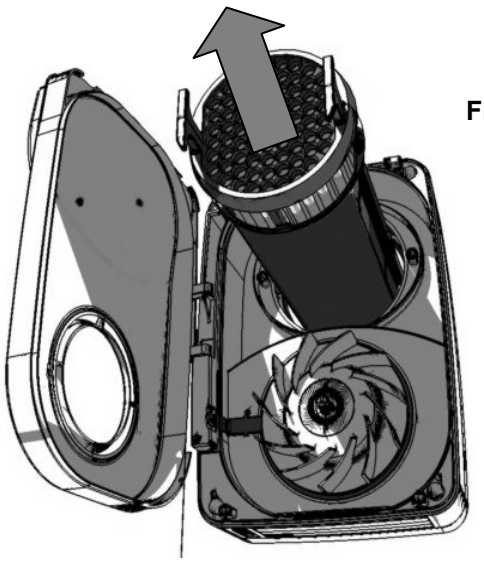
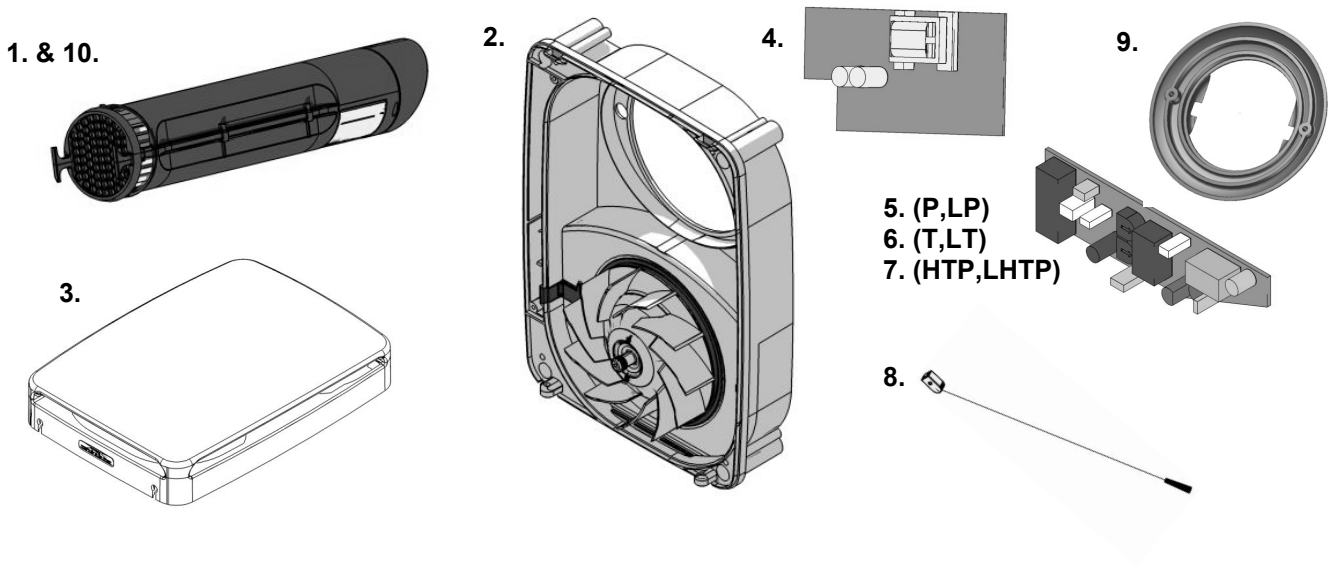


Fig.26

E. Spares
The following spares may be ordered from Vent-Axia

Item	Part No	Description	Models used
1.	445885	Heat exchanger (Short)	P,T & HTP
2.	445886	Motor chassis assembly	P,LP,T,LT,HTP & LHTP
3.	445887	Cover assembly	P,LP,T,LT,HTP & LHTP
4.	445888	Power supply PCB	P,LP,T,LT,HTP & LHTP
5.	445889	Pullcord PCB	P & LP (only)
6.	445890	Timer PCB	T & LT (only)
7.	445891	HTP PCB	HTP & LHTP(only)
8.	455630	Pullcord Assembly	P,LP,HTP & LHTP
9.	447838	Wall cover bezel	P,LP,T,LT,HTP & LHTP
10.	403878	Heat exchanger (Long)	LP,LT & LHTP



PRODUCT FICHE

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

Name:	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia
Model ID (Stock Ref.) :	Lo-Carbon Tempra P - 443312	Lo-Carbon Tempra LP - 403832	Lo-Carbon Tempra T - 443310	Lo-Carbon Tempra LT - 403834	Lo-Carbon Tempra HTP - 443311	Lo-Carbon Tempra LHTP - 403836
SEC Class	E	E	E	E	B	B
SEC Value ('Average')	41.30	41.30	41.68	41.68	43.99	43.99
SEC Value ('Warm')	18.67	18.67	18.85	18.85	19.89	19.89
SEC Value ('Cold')	80.79	80.79	81.54	81.54	86.06	86.06
Label Required? (Yes/No=Out of scope)	No	No	No	No	No	No
Declared as: RVU or NRVU/UVU or BVU	RVU-BVU	RVU-BVU	RVU-BVU	RVU-BVU	RVU-BVU	RVU-BVU
Speed Drive	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed
Type HRS (Recuperative, Regenerative, None)	Recuperative	Recuperative	Recuperative	Recuperative	Recuperative	Recuperative
Thermal Eff: [(%), NA(if none)]	78	78	78	78	78	78
Max. Flow Rate (m3/h)	54.00	54.00	54.00	54.00	54.00	54.00
Max. Power Input (W): (@Max.Flow Rate)	26.60	26.60	26.60	26.60	26.60	26.60
LWA: Sound Power Level (dB)	53.52	53.52	53.52	53.52	53.52	53.52
Ref. Flow Rate (m3/s)	0.01	0.01	0.01	0.01	0.01	0.01
Ref. Pressure Diff. (Pa)	N/A	N/A	N/A	N/A	N/A	N/A
SPI [W/(m3/h)]	0.70	0.70	0.70	0.70	0.70	0.70
Control Factor & Control Typology: (CTRL/ Typology)						
Control Factor; CTRL	1.00	1.00	0.95	0.95	0.65	0.65
Control Typology	Manual Control	Manual Control	Clock Control	Clock Control	Local Demand 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	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	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	N/A	N/A	N/A
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	In F&W	In F&W	In F&W	In F&W	In F&W	In F&W
Internet Address (for Disassembly Instructions)	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted Vus)	N/A	N/A	N/A	N/A	N/A	N/A
Air Tightness-ID/OD-(m3/h) (for Non-Ducted Vus)	N/A	N/A	N/A	N/A	N/A	N/A
Annual Electricity Consumption: AEC (kWh/a)	10.15	10.15	9.43	9.43	5.53	5.53
Annual Heating Saved: AHS (kWh/a)						
AHS: Average	41.30	41.30	41.68	41.68	43.99	43.99
AHS: Warm	18.67	18.67	18.85	18.85	19.89	19.89
AHS: Cold	80.79	80.79	81.54	81.54	86.06	86.06

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.

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: 0844 8560590 Fax: 01293 565169
TECHNICAL SUPPORT: Tel: 0844 8560594 Fax: 01293 539209
Web:-www.vent-axia.com Email:- info@vent-axia.com

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

443523 H 0920