

# LuminAir Turbo

## Fan & Light Ventilation Kits

Installation and Wiring Instructions



Stock Ref. N°

LuminAir  
Turbo SKL 453419C

LuminAir  
Turbo SKT 453422C

Kit comprises of:-  
Luminair turbo L or T mains fan  
SELV light assembly with white bezel  
Lighting transformer  
90° bend  
6 metres of flexible duct  
Quick fix wall grille  
4 duct ties

220-240V~50Hz

**Vent-Axia®**

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

UK  
CA  
CE



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.
- Sudden ductwork bends or transformations close to 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 double pole isolator switch 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.** It is recommended that the connection to the fan connector terminals is made with flexible cable.
- 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.** 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.

## **A. INSTALLATION.**

The LuminAir Turbo kit is designed where a more powerful system is required. The kit comprises of a LuminAir Turbo L or T mains fan, SELV light assembly and transformer, a white bezel, 90 deg bend, 6 metres of flexible duct, quick fix wall grille and 4 duct ties. The kit extracts moisture and humidity at source, preventing damaging condensation from spreading.

### **Siting the LuminAir Vent light**

The electrical supply to the LuminAir Vent Light is 12V DC SELV from the mains LED driver. This allows the LuminAir Vent Light to be installed within reach of a person using a fixed bath or shower ie. In the ceiling above. However, direct water spray on to the LuminAir Vent Light should be avoided as this will reduce the life of the unit.

### **Sitting the Transformer**

THE TRANSFORMER MUST NOT BE SITED IN A SHOWER CUBICLE OR WITHIN REACH OF A PERSON USING A FIXED BATH OR SHOWER. (OUTSIDE ZONES 1 & 2 ).

Site away from direct sources of heat. The transformer requires free air circulation and should be mounted securely to a joist in the roof void. Ambient temperature range of both the LuminAir Vent Light and transformer is 0 to 40°C.

Decide where to mount the LuminAir Vent Light and its transformer and work out the cable runs.

### **Fitting the LuminAir Vent Light**

Mark and cut a 110mm hole in the ceiling where the Vent Light is to be fitted. (Mounting holes on 130mm centres). Pull the Vent Light bezel from the main assembly by gripping it firmly around its centre. Do not prise the bezel from the unit as this may damage its clip fastenings.

Loosen the two screws on the lamp housing until the securing clamps allow sufficient clearance to accommodate the ceiling thickness. Position the securing clamps against the lamp housing and fit the LuminAir Vent Light through the hole. Retighten the screws to clamp the Vent Light in place. As an alternative the unit may be held in place with plugs and fixing screws, using the fixing holes provided.

Line up the 3 Clips on the 90° bend and clip it to the Vent-Light assembly.

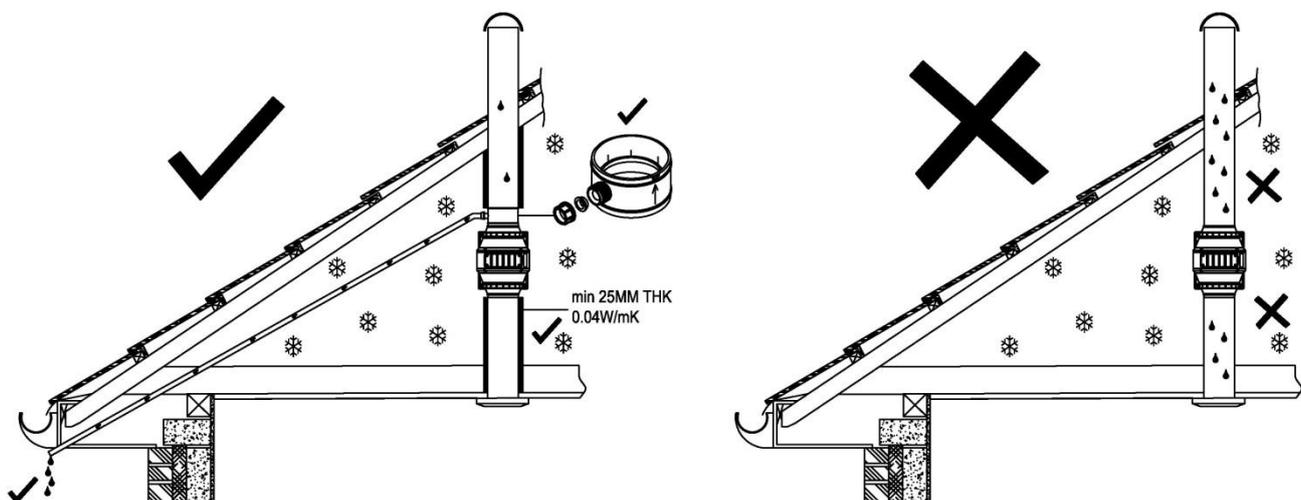
Connect up the inlet of the turbo fan to the end of the 90° bend using the flexible ducting and duct ties. Always ensure that the duct is fully extended for maximum performance and that unnecessary duct is cut off.

Fit the bezel back onto the lamp housing.

### **Fitting the Turbo Fan**

The unit is designed as an in-line duct fan to be positioned between lengths of ducting. Short duct runs terminating close to the fan (i.e. within 1.5m) must incorporate suitable guards unless the fan is mounted higher than 2.1m above the floor. If flexible ducting is used it should be fully extended to obtain the best results. Position the fan at the highest point on the system with both ducting runs sloping downwards from this point. The airflow direction is indicated on the rating label with an arrow pointing in the direction of the airflow.

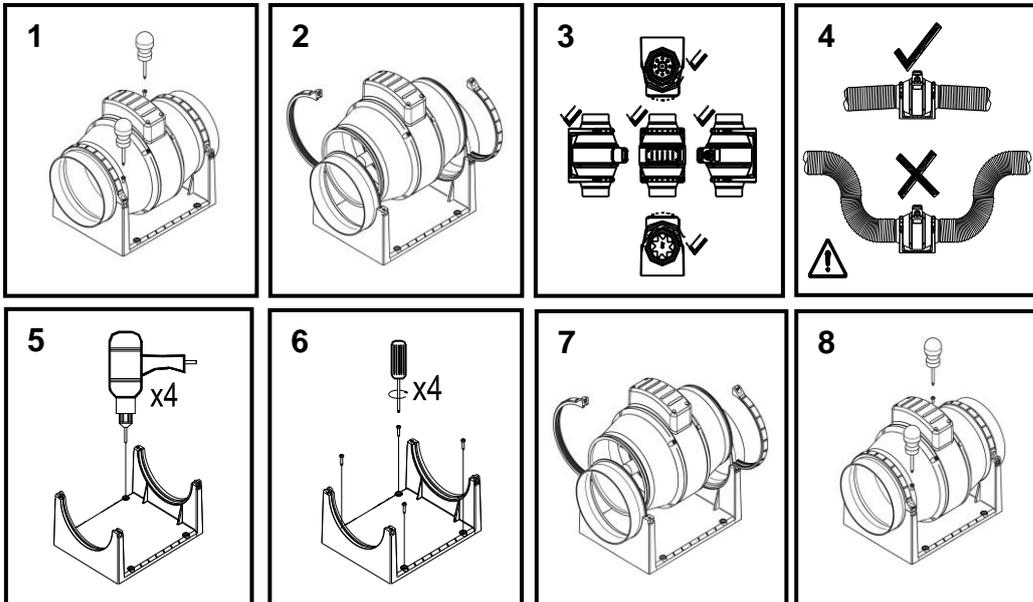
A condensate trap will be required in the exhaust duct where excessive levels of moisture are present in the air. Ducting passing through an unheated roof void should be insulated.



Plan the installation carefully, taking into consideration the important points noted, before securely mounting the fan using the appropriate screws.

To gain access to the mounting holes, proceed as follows: -

- A. Using a cross-headed screwdriver, release the two blue plastic clips by undoing the two bolts as shown in Fig 1. Slide out motor impeller assembly, see Fig 2.
- B. The fan can now be mounted at any angle, using the holes provided Fig 3,4,5,6.
- C. Once the base is securely fixed, slide the motor impeller assembly back, as shown in Fig 7. Replace the screw and tighten to lock the assembly together Fig 8.



Make the appropriate electrical connections to the Turbo fan as shown in Figs 10 or 11 (See section B Wiring)  
From the outside cut a 110mm hole in the soffit and secure the soffit grille using the screws provided. Extend the ductwork provided between the soffit grille and the outlet of the turbo fan again securing with the duct ties provided.

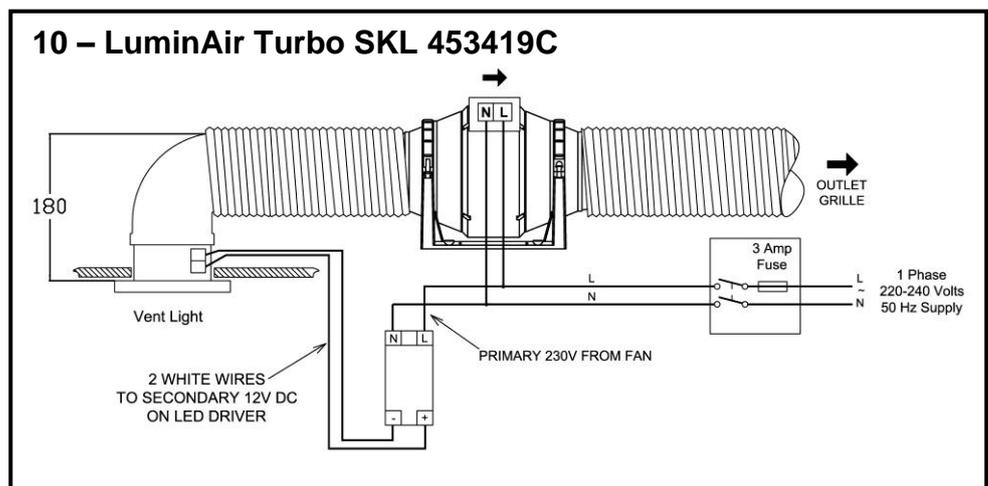
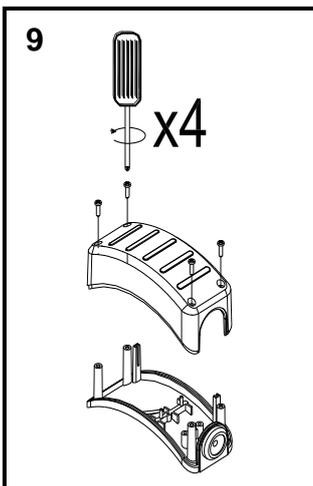
## B. WIRING.

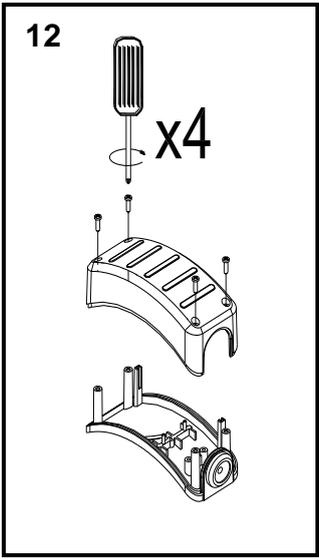
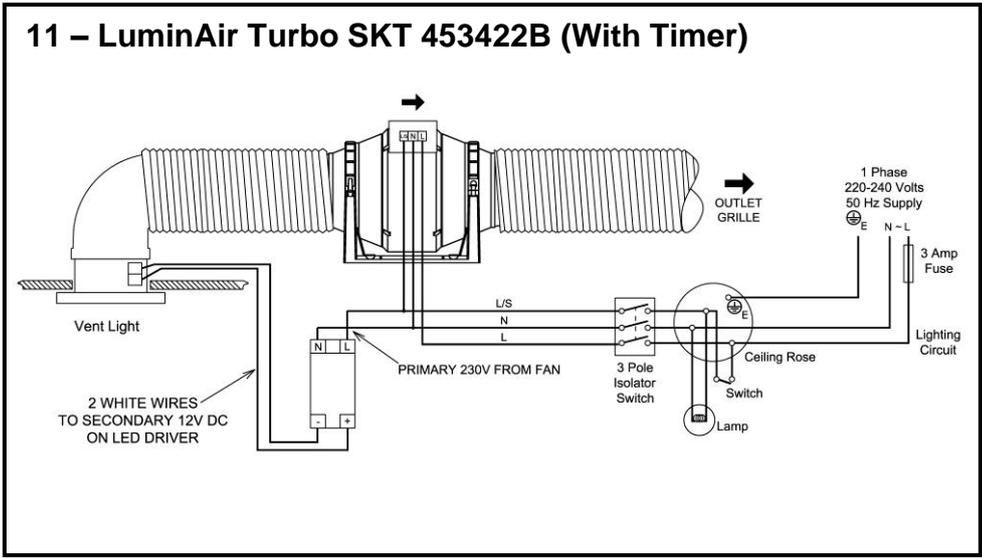


**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE.**

**N.B. THE TURBO FANS ARE DOUBLE INSULATED AND CARRY A  MARK. THERE ARE NO EARTH TERMINALS AND THESE FANS MUST NOT BE EARTHED.**

1. Remove terminal box cover & screws and put to one side Fig. 9
2. Select and follow the appropriate wiring diagram (Fig. 10-11) & adjust the speed setting (Fig.14) if required. The fan is factory set at high speed.
3. Check all connections have been made correctly and ensure all terminal connections and cable clamps are securely fastened.
4. The cable entry must be made using the cable grommet provided
5. Replace terminal box cover & screws Fig.12
6. Ensure the impeller rotates and is free from obstructions.



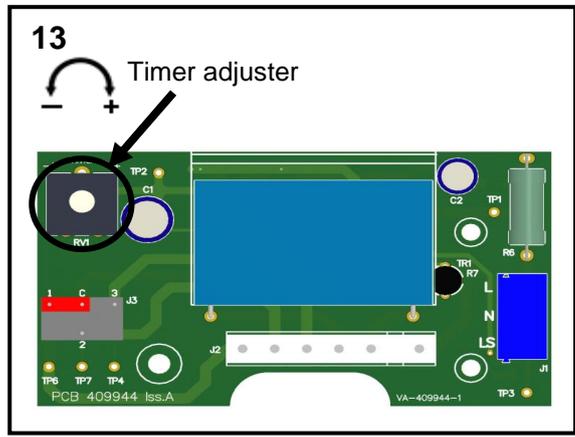


### TIMER ADJUSTMENT (LuminAir Turbo SKT 453422C only)

The fan must be wired to a remote switch (e.g. light switch). When switched 'ON', the fan will operate at the selected speed, and will continue to run for a preset time after the fan is switched 'OFF'. The timer is factory set at 15 minutes approx. The overrun time period can be adjusted from 3-25 minutes by altering the adjuster on the control PCB with the use of a small flat bladed screwdriver. Fig 13

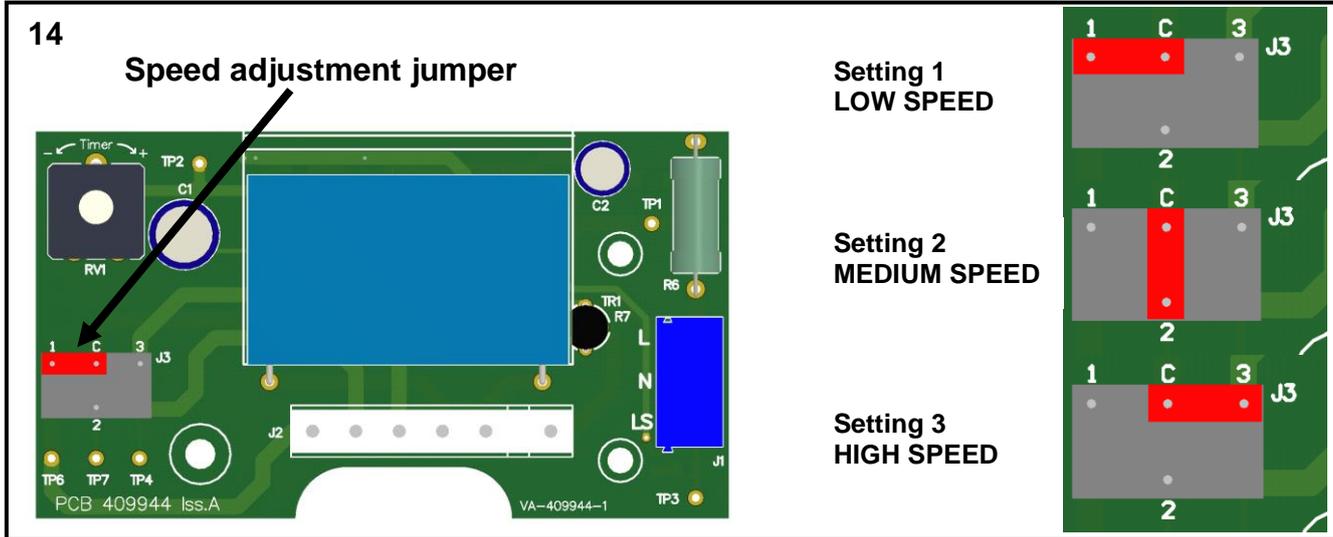
**Before adjusting the timer, switch off the Mains Supply.**

Remove the fan terminal box cover and retain screws  
 To INCREASE the operating time, turn the adjuster **CLOCKWISE**.  
 To REDUCE the operating time, turn the adjuster **ANTI-CLOCKWISE**.  
 Replace the fan terminal box cover.



### Speed Adjustment

The fan has three speeds which are selectable by changing the position of the jumper. The fan is factory set to Setting 3 - High speed. To change the speed setting, pull the jumper off the header pins and place back onto the desired position, see Fig14.  
 Setting 1 is **LOW SPEED**  
 Setting 2 is **MEDIUM SPEED**  
 Setting 3 is **HIGH SPEED**



### **C. OVER-HEATING PROTECTION.**

The fan motor is fitted with Thermal Overload Protection. This is a one-shot thermal fuse. In the event of a fault condition the fan will be automatically switched off. If this occurs isolate the fan, and call your service engineer.

### **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.

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

### **Lamp Replacement**

The LuminAir is specially designed for use with the supplied 12V DC LED lamp rated at 3W. The lamp is a straight push in/pull out type. Any twisting movement, when removing/replacing the lamp, should be avoided.

**PRODUCT FICHE**

For Residential Ventilation Units (Complying Commission Delegated Regulation (EU)

No 1254/2014)

Name:	Vent-Axia	Vent-Axia
Model ID (Stock Ref.) :	LuminAir Turbo SKL - 453419C	LuminAir Turbo SKT - 453422C
SEC Class	E	E
SEC Value ('Average')	17.15	18.74
SEC Value ('Warm')	7.76	8.48
SEC Value ('Cold')	33.55	36.67
Label Required? (Yes/No=Out of scope)	No	No
Declared as: RVU or NRVU/UVU or BVU	RVU-UVU	RVU-UVU
Speed Drive	on/off Single Speed	on/off Single Speed
Type HRS (Recuperative, Regenerative, None)	None	None
Thermal Eff: [ (%), NA(if none)]	N/A	N/A
Max. Flow Rate (m3/h)	158.40	158.40
Max. Power Input (W): (@Max.Flow Rate)	15.00	15.00
LWA: Sound Power Level (dB)	55.52	55.52
Ref. Flow Rate (m3/s)	0.03	0.03
Ref. Pressure Diff. (Pa)	N/A	N/A
SPI [W/(m3/h)]	0.14	0.14
Control Factor & Control Typology: (CTRL/ Typology)		
Control Factor; CTRL	1.00	0.95
Control Typology	Manual Control	Clock 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
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
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
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	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>
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted Vus)	N/A	N/A
Air Tightness-ID/OD-(m3/h) (for Non-Ducted Vus)	N/A	N/A
Annual Electricity Consumption: AEC (kWh/a)	1.69	1.61
Annual Heating Saved: AHS (kWh/a)		
AHS: Average	17.15	18.74
AHS: Warm	7.76	8.48
AHS: Cold	33.55	36.67

## 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



### Disposal

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

# **Vent-Axia**®

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**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 539209

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