

# Silhouette

## Lo-Carbon RANGE

100/150mm AXIAL EXTRACT FAN

Installation and Wiring Instructions



### Stock Ref. N°

44 16 24	- 100B
44 16 25	- 100T
44 16 26	- 100HT
44 16 28	- 150B
44 16 29	- 150T
44 16 30	- 150HT

220-240V~50Hz

**Vent-Axia®**

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

IPX4  
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## Installation and Wiring Instructions for the Lo-Carbon Silhouette Range of Extractor 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, 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. Children should be supervised to ensure that they do not play with the appliance.
- K. Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under over voltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

### **DESCRIPTION**

The Lo-Carbon Silhouette 100mm fan is an axial extraction fan suitable for domestic bathrooms and W.C.'s. The Lo-Carbon Silhouette 150mm fan is an axial extraction fan suitable for domestic kitchens and utility rooms. They are available as wall or panel mounted models with shutter timer and humidity combinations.

Long life ball bearing DC motor with anti-vibration mounts provides low noise transmission into plasterboard/panels for silent operation.

The fan can be wall or panel/ceiling mounted.

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

#### **WALL FITTING KIT**

A range of 100mm and 150mm wall kits are available for installing into most walls using telescopic liners supplied.

	Stock Reference	
	White	Brown
100	254102	254100
150	140902A	140903A

## A. INSTALLATION

**IMPORTANT:** The fan should only be used in conjunction with fixed wiring.

### PANEL/CEILING MOUNTING

1. For panel/ceiling mounting the fan should be installed into a closed duct system of at least 1.2m long (max 3m) or protected by an exterior air grille that must comply with the standard requirements of your country to prevent access to the fans impeller.
2. Cut a 105mm diameter hole for 100mm fans or a 155mm diameter hole for 150mm fans.
3. Loosen the screw at the bottom of the grille and remove the front grille. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position.
4. Attach ducting as required for the installation.
5. Wire the fan as described in Section B-Wiring. Adjust any settings as required (see Section C-Setup).
6. Replace the grille and tighten the retaining screw.
7. After installation, ensure impeller rotates freely and the shutters can open.

### WALL MOUNTING

1. For wall mounting either cut a 117mm diameter hole for 100mm fans or a 170mm diameter hole for 150mm fans, through the wall and insert the wall sleeve. Slope the sleeve slightly downwards away from the fan. Cut to length and cement both ends into position flush with the wall faces.
2. Loosen the screw in the bottom of the grille and remove the front grille. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position. Fix exterior grille into position with the louvres positioned downwards. (Note:- The grille must comply with the standard requirements of your country to prevent access to the fans impeller. The wall kit used in this installation should provide a minimum ducting length of 100mm from the fans back plate to the inside of the external grille).
3. Wire the fan as described in Section B-Wiring. Adjust any settings as required (see Section C-Setup).
4. Replace the grille and tighten the retaining screw.
5. After installation, ensure impeller rotates freely and the shutters can open.

## 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 be ranged from 1 -1.5mm<sup>2</sup>.
- Cable entry can only be made from the rear of the fan.
- The extraction fan is suitable for connection to 220-240V 50Hz supply.
- The fan is a class II double insulated product and **MUST NOT** be earthed.

1. Select and follow the appropriate wiring diagram. (Fig. 2 or 3)
2. Check all connections have been made correctly and ensure all terminal connections and cable clamps are securely fastened.
3. Ensure the impeller rotates and is free from obstructions.

### **C. SETUP**



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

#### **ACCESSING THE CONTROL SETTINGS – (Fig. 4)**

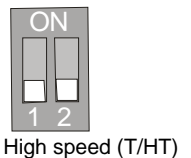
1. Loosen the screw in the bottom of the grille and remove the front grille.
2. Carefully pull the inner cap from the centre of the fan away from the chassis.
3. Adjust the settings as outlined below.

#### **SPEED SETTING:**

The fan has two speed settings for different installation requirements:

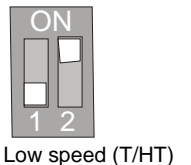
1) High speed:

- T and HT models: Dip switch 2 in the 'OFF' position. (Fig.5 – and right) →
- 100B/150B models: Remove jumper (Fig.5)



2) Low speed (Factory set):

- T and HT models: Dip switch 2 should be in the 'ON' position. (Fig.5 – and right) →
- 100B/150B models: Replace jumper. (Fig.5)



Dip switch 1 should be in the 'OFF' position (T and HT models only).

#### **TIMER ADJUSTMENT (T AND HT MODELS)**

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

1. Remove the fan grille. The controller is factory set at 15 minutes approx. The overrun time period can be adjusted from 1-30 minutes by altering the adjuster on the control PCB.
2. To REDUCE the operating time, use a small screwdriver to turn the adjuster Fig.5. CLOCKWISE.
3. To INCREASE the operating time, use a small screwdriver to turn the adjuster Fig.5. ANTI-CLOCKWISE.
4. Replace the fan grille.

#### **HUMIDITY SET-POINT ADJUSTMENT (HT MODELS ONLY)**

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

1. Remove the fan grille. The controller is factory set to switch on at about 70% RH. The humidity set point can be adjusted from 65-95%RH by altering the adjuster on the control PCB.
2. To LOWER the set-point use a small screwdriver to turn the adjuster Fig.5. ANTI-CLOCKWISE. This makes the controller MORE sensitive.
3. To RAISE the set-point use a small screwdriver to turn the adjuster Fig.5. CLOCKWISE. This makes the controller LESS sensitive.
4. Replace the fan grille.

#### **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. Wipe the inlets and front face with a damp cloth until clean.

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

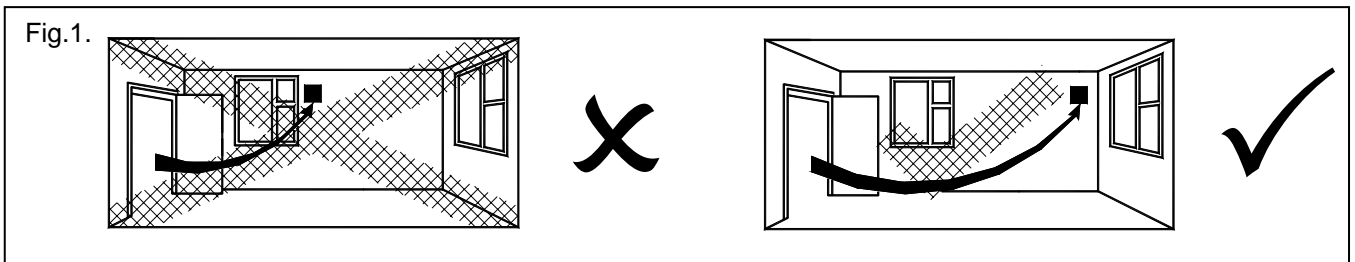


Fig.2 Models: 100B/150B, 100HT/150HT (Timer not used)

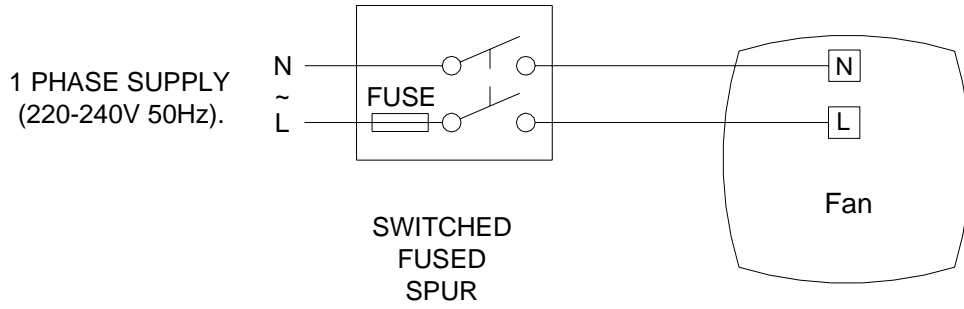


Fig.3 Models: 100T/150T, 100HT/150HT

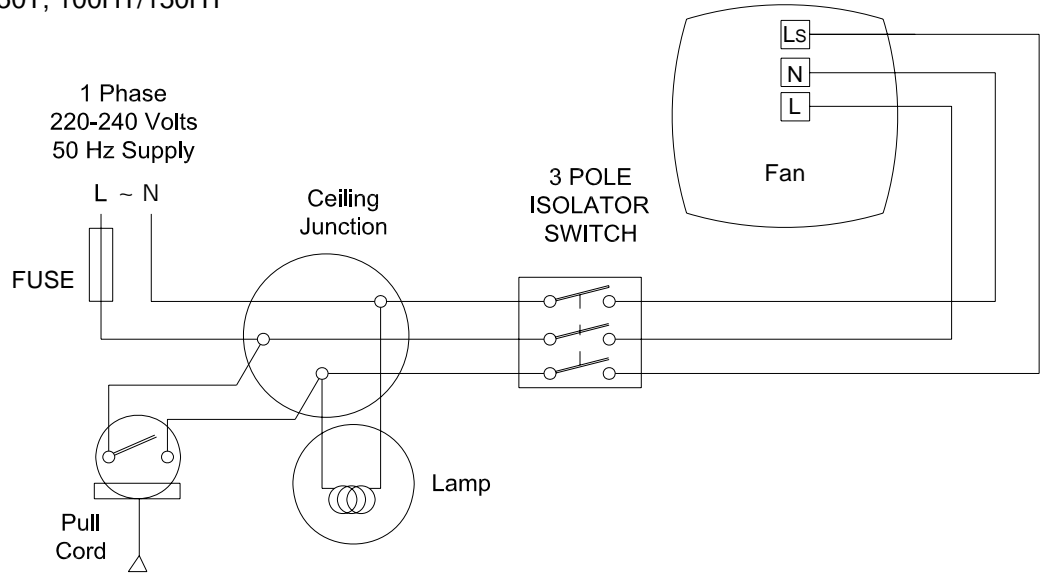


Fig.4. Accessing the control settings

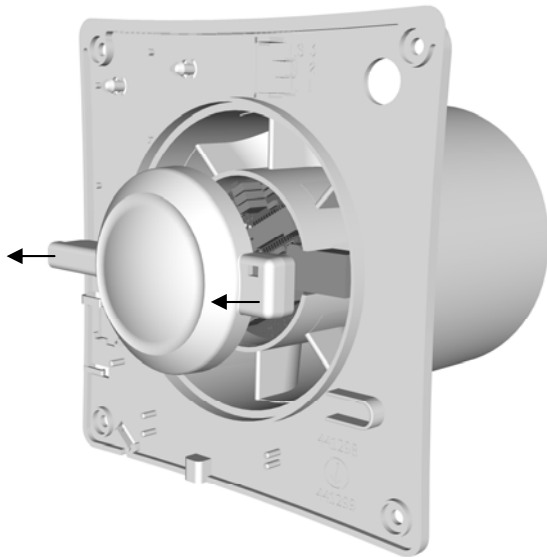
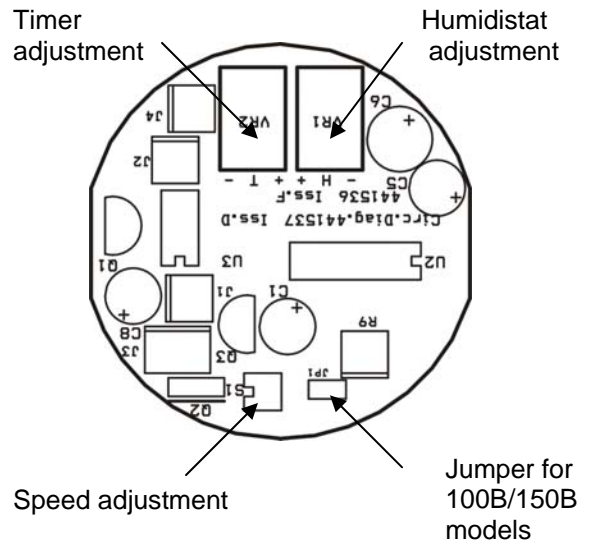


Fig.5.



**Vent-Axia**

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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