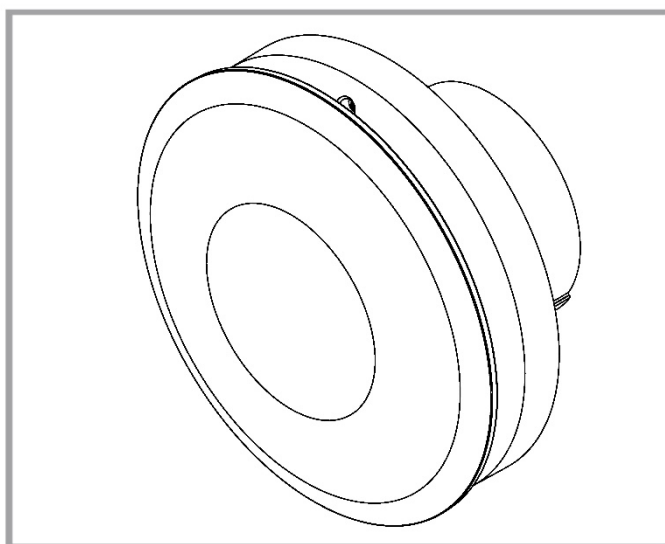


Lo-Carbon NBR Cool Unitary Fan with back draught shutter

Installation and Wiring Instructions



Stock Ref. N°

412262 - NBR Cool Unitary Fan

220-240V~50Hz

Vent-Axia®

UK
CA CE

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

IPX5

Original English Instructions.



**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 that 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.T. Regulations within the UK, 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. Precautions must be taken to avoid the back-flow of gases into the room from any open flue of gas or other fuel burning appliances.
- G.** To be used in habitable rooms only, not within wetrooms
- H.** 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.
- I.** Young children should be supervised to ensure that they do not play with the appliance.

DESCRIPTION

The NBR Cool Unitary is a fan to be used within habitable spaces to extract heat when the occupant requires.

It is also possible to configure the fan to automatically come on at 24 degrees using the built-in temperature sensor or via a manual switch.

This manual switch can also be used to override the automatic temperature sensor if required. The fan is preset to 20l/s but this can be manually changed if required.

- 412262 - NBR Cool Unitary Fan

ACCESSORIES (not supplied)

WALL FITTING KIT

A range of wall kits are available for installing into most walls using telescopic liners

455226 - 125mm White Wall Fitting Kit

497434 – 125mm Brown Wall Fitting Kit

A. INSTALLATION

PANEL/CEILING/ INTERIOR WALL MOUNTING

1. Please utilise a standard hole cutter size such as 127mm or 132mm.
Note: The fan has an outer product diameter of 220mm, when positioning the fan, please provide at least 100mm between any adjacent walls or ceilings and the fan.
2. Remove the tile front by rotating counter clockwise.
3. Loosen the 3 grille screws to remove inner grille.
4. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position. 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. After installation, ensure impeller rotates freely.
7. Replace the inner grille and tighten the retaining screws. Place tile front onto the inner grille by aligning and rotating clockwise until fixed.

B. WIRING.



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

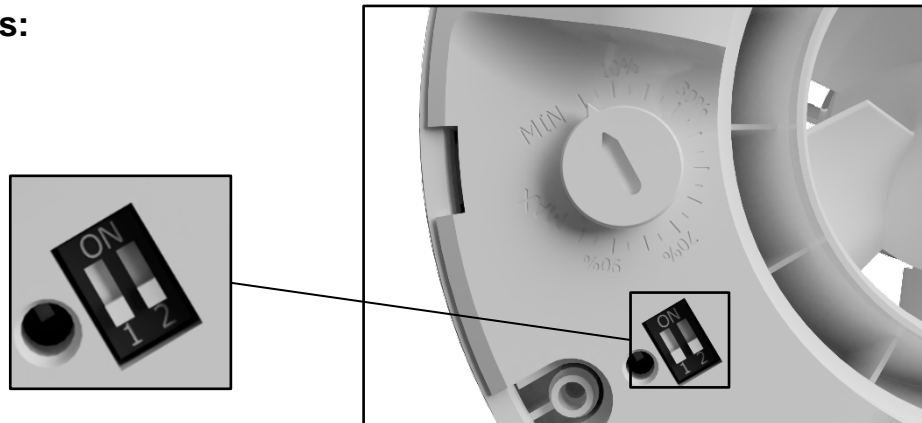
IMPORTANT

- The cross - sectional area of supply cord used should be ranged from 0.75 -1.5mm².
- This is a fixed wired product; flexible cord must not be used.
- The fan is a class II double insulated product and does not need to be earthed.

1. Wiring can be made from either the side or rear of the fan. Ensure the rubber seal integrity is maintained when piercing a hole for the cable.
2. If using side entry, wiring must be retained in suitable conduit.
3. Select and follow the appropriate wiring diagram. **(Fig. 1 or 2)**
4. Check all connections have been made correctly.
5. Ensure the impeller rotates and is free from obstructions.

C. SETUP

Installation Settings:



Dip Switch 1 (SW1) (default OFF):

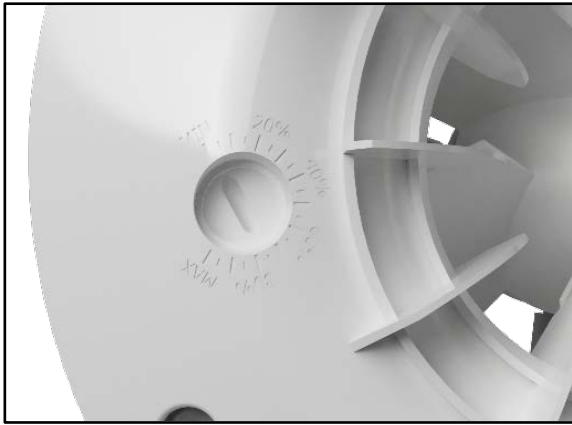
OFF = Automatic Temperature Function off (default)

ON = Automatic Temperature Function On

Speed Selection

The fan speed is only adjustable within the first 5 minutes of mains power. The overheating extract rate can be quickly adjusted via the dial as shown – either with the inner grille on or off (see below images). The 10-100% scale relates to a flow rate of between 7.5-39l/s

Inner grille on:



Inner grille removed:



Speed can be adjusted while the fan is isolated from the mains with the inner grille removed or with the inner grille screwed on and the fan powered up. Note the fan speed is only adjustable within the first 5 minutes of mains power.

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.

The following spares are available for this product range:

Part Number	Description
499836	SPARE FRONT TILE
499838	SPARE INNER COVER
499839	SPARE SPEED DIAL

Fig.1 Automatic Temperature Function. (The fan is internally fused)

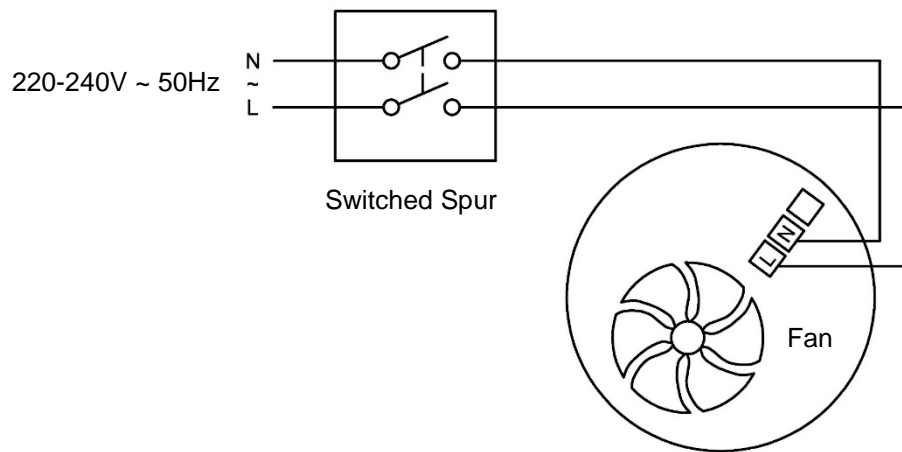
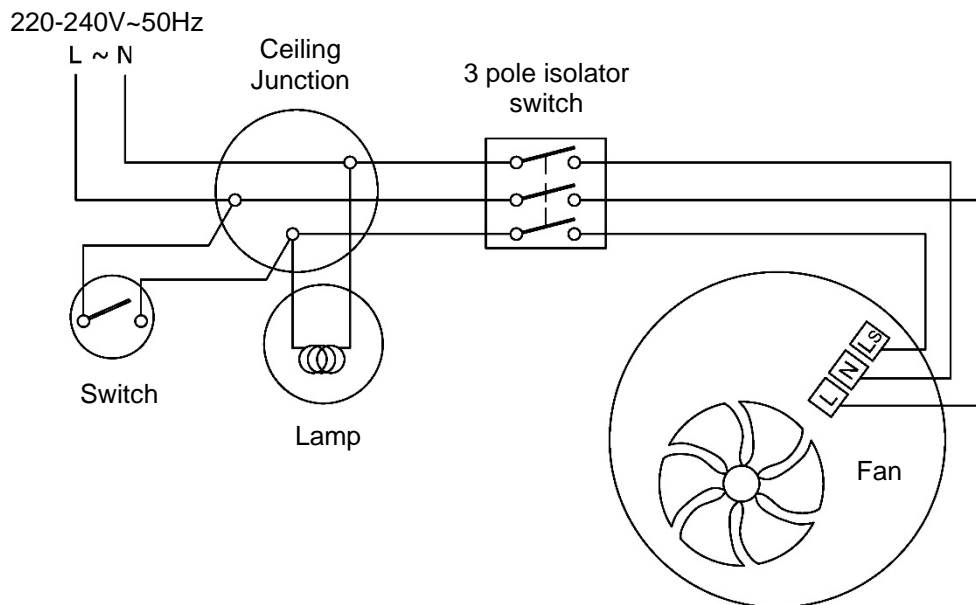


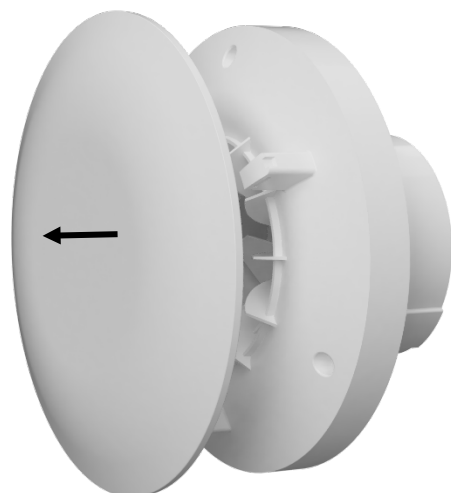
Fig.2 Automatic Temperature Function + Manual Switch (The fan is internally fused)



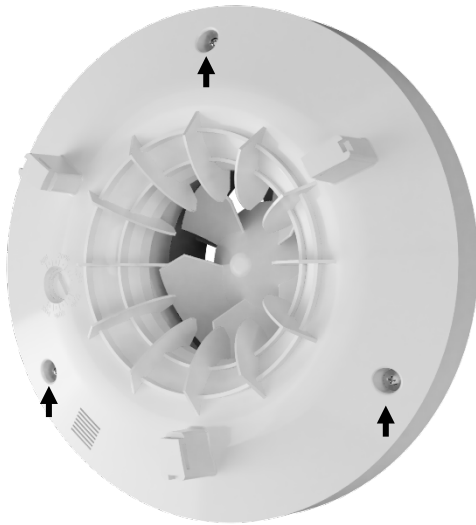
1. Rotate grille counter-clockwise



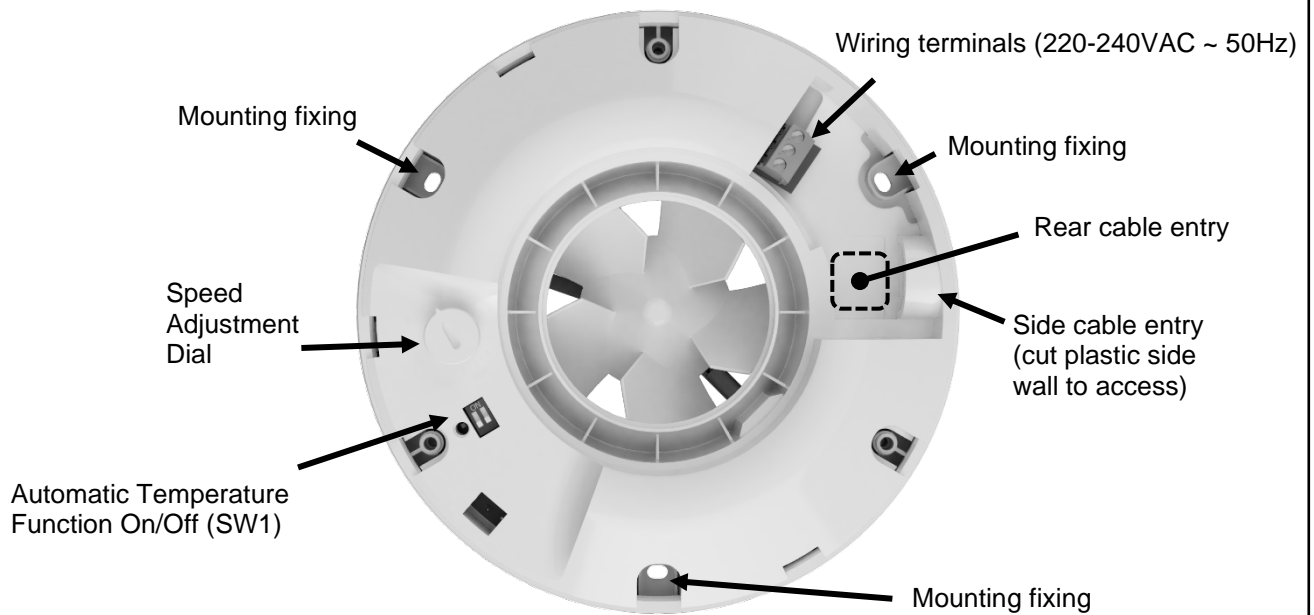
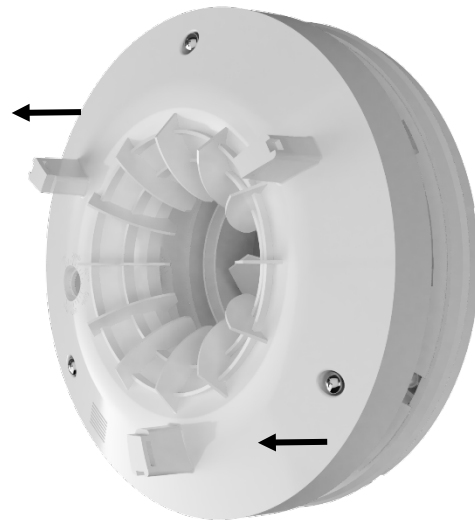
2. Remove tile cover



3. Loosen 3 grille screws (do not fully remove)



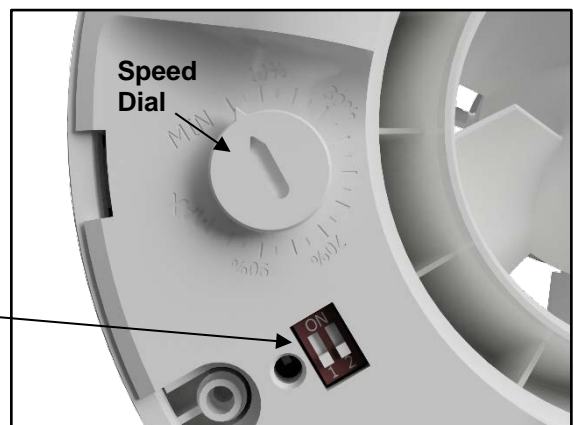
4. Pull the inner grille forward off the fan



Quick Setup

- 1) Ensure fan is isolated from mains.
- 2) Set the installation type – Automatic Temperature Function On/Off (SW1)
- 3) Set boost flow rate – Dial as shown in the table below.

Dip Switch 1 (SW1) (default OFF):
OFF = Automatic Temperature Function off (default)
ON = Automatic Temperature Function On



Speed Setting:

Dial Position %	Ducted 5.5m (l/s)
	NBR Cool Unitary
20	5
25	6
30	8
35	11
40	14
45	15
50	17
55	18
60	20 Default Setting
65	21
70	22
75	23
80	24
85	24
90	26
95	26
100	26

Note the fan speed is only adjustable within the first 5 minutes of mains power.

Using Vane Anemometers: Please refer to the operating manual for your Vane Anemometer/other types of airflow meters that use hoods. The airflow typically reduces by 20% due to the additional resistance from the hood and vane anemometer. Care should be taken to ensure the correct hood is used to prevent excessive resistance due to the tile cover.

For more details please refer to Setup section

PRODUCT FICHE

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

Name:	Vent-Axia
Model ID (Stock Ref.) :	NBR Cool Unitary - 412262
SEC Class	C
SEC Value ('Average')	-25.57
SEC Value ('Warm')	-11.20
SEC Value ('Cold')	-50.65
Label Required? (Yes/No=Out of scope)	No
Declared as: RVU or NRVU/UVU or BVU	RVU-UVU
Speed Drive	Variable Speed
Type HRS (Recuperative, Regenerative, None)	None
Thermal Eff: [(%), NA(if none)]	N/A
Max. Flow Rate (m3/h)	57.60
Max. Power Input (W): (@Max.Flow Rate)	2.61
LWA: Sound Power Level (dB)	40.32
Ref. Flow Rate (m3/s)	0.01
Ref. Pressure Diff. (Pa)	N/A
SPI [W/(m3/h)]	0.05
Control Factor & Control Typology: (CTRL/ Typology)	
Control Factor; CTRL	0.65
Control Typology	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
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	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
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	In F&W
Internet Address (for Disassembly Instructions)	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted Vus)	N/A
Air Tightness-ID/OD-(m3/h) (for Non-Ducted Vus)	N/A
Annual Electricity Consumption: AEC (kWh/a)	0.26
Annual Heating Saved: AHS (kWh/a)	
AHS: Average	26.23
AHS: Warm	11.86
AHS: Cold	51.31



Disposal

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

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 this product for 7 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 856 0590

TECHNICAL SUPPORT: Tel: 0344 856 0594

For details of the warranty and returns procedure please refer to www.vent-axia.com or write to Vent-Axia, Fleming Way, Crawley, RH10 9YX
EU Authorised Representative: Vent-Axia Sigarenmaker 5 - 5521DJ Eersel Nederland authorisedrep@vent-axia.nl