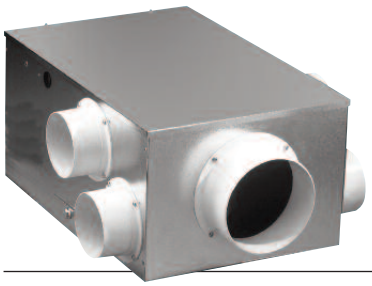


Opus 100-M & 150-M

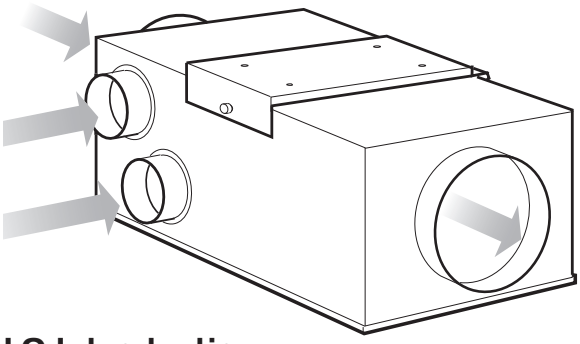
Duct Mounted Extract Fans

Installation and Maintenance

The EMC Directive 2014/30/EU
The Low Voltage Directive 2014/35/EU

Note: For EMC the ambient temperature limit for the Opus plus range is 24 deg C (or 25 deg if the speed pot is restricted to ¼ turn above minimum).

Figure 1. General view of unit showing airflow.



1.0 Introduction

Manufactured in galvanised steel, the unit is designed to serve toilets, store rooms, small offices, restaurants, smoking areas etc. and for duct mounting applications usually in the ceiling or service voids above the areas served. For full specification, dimensions and weights etc. refer to catalogue.

Opus fan range

Code	Description	Power/ FLC at full speed
OPUS 100-M	A single fan unit	100W/0.39A
OPUS 100-2M	A twinfan unit with run and standby and auto duty share	100W/0.39A
OPUS 150-M	A dual fan unit with both motors running	200W/0.78A

2.0 Installation

The installation must be completed by competent persons in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, COHSE, HVCA etc.

The unit comprises a full length access cover, to reveal filter and fans and is supplied with outlet spigot fitted and 'knockouts' to be removed at the chosen inlet positions.

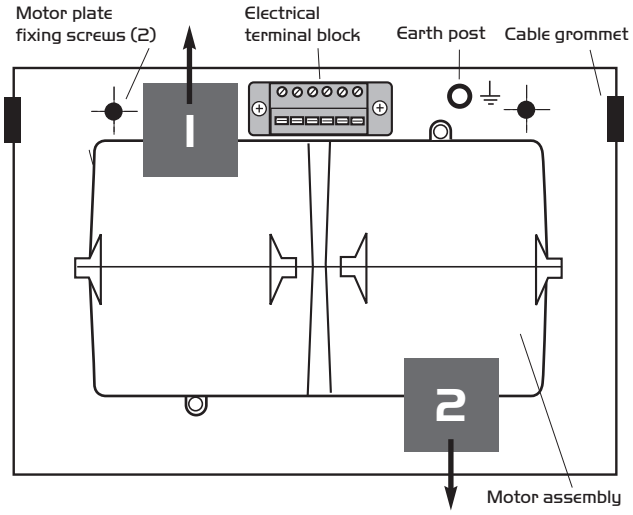
Prepare the unit for installation by removing the access cover, all internal packaging and the fan assembly (which is supplied loose in the box). Replace the unit cover and knock out the chosen inlet spigot points and fit the matching spigots.

Ensure that all electrical and ducting services are compatible to the installation and the desired control function.

IMPORTANT

WARNING -
REMOVE TRANSIT PACKING PIECES BEFORE APPLYING POWER TO UNIT

Figure 2. Removing the impeller transit-packing pieces (1 and 2).

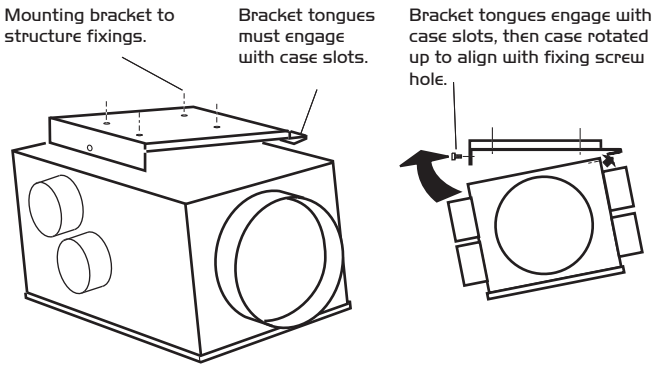


3.0 Mechanical installation

Select a solid non-reverberant mounting position, remove the unit support bracket and fix the bracket to the chosen structure with appropriate anchor bolts or screws.

The fan can be installed using the integral mounting bracket supplied (Figure 3). Offer the unit to the bracket as shown and secure into position with the one point-fixing bolt. Connect inlet and outlet ducting.

Figure 3.



Nuaire: A Trading Division of Polypipe Limited Western Industrial Estate Caerphilly United Kingdom CF83 1NA
T: 029 2088 5911 F: 029 2088 7033 E: info@nuaire.co.uk W: www.nuaire.co.uk

12. 05. 17. Leaflet Number 671218

4.0 Electrical installation

Offer the single phase supply wiring, 230V switched live wire and the wires of any externally installed sensors or controls via the case side grommets.

Notes

- **To ease electrical connection, remove the six-way termination block**
- **The mains wiring must be from a fixed wiring installation and both mains and switched live must be connected via a common local isolator**
- **The earth wire must be connected to the earth post provided and not to the six-way termination block**
- **Refer to remote sensor data sheets for their installation and connection**

Figure 4. Wire for full speed operation only.

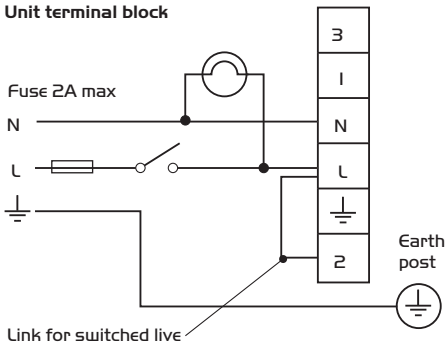
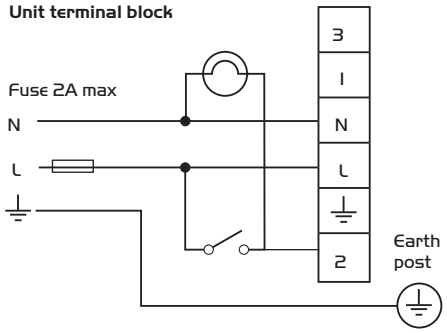
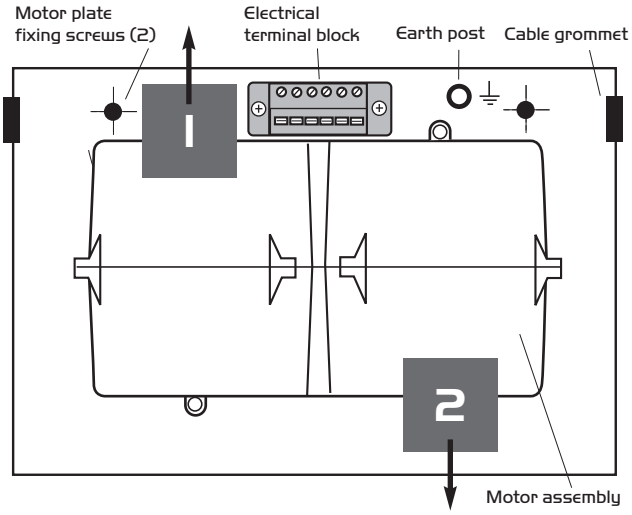


Figure 5. Wire for trickle vent/boost and timed overrun.



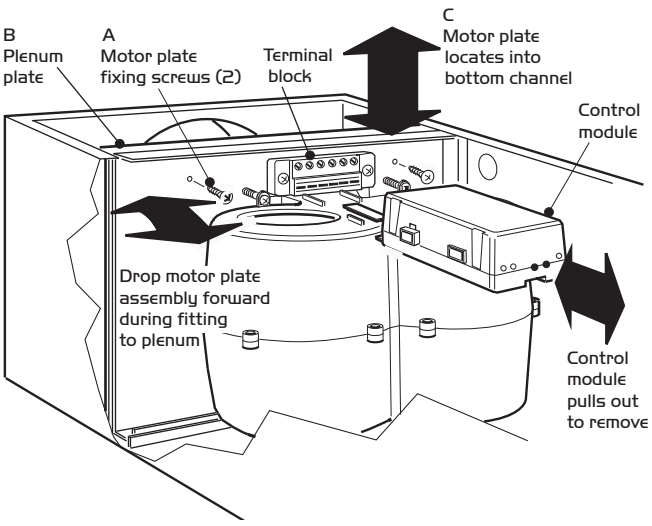
5.0 Installing and removing the blowers and control module

Figure 6. Removing the impeller transit-packing pieces (1 and 2).



Remove the cover and withdraw the 'V' shape filter from the case. Lift out the loose blower assembly, remove the two motor retaining screws (A) which will be used to fix the motor plate into position.
Tilting the top of the mounting plate forwards, locate the bottom of the plate into the channel provided in the case (C). Swing up the motor flush with the plenum (B) and secure with the two fixing screws (A). Expand 'V' shape filter and fit into case.

Figure 7. Fitting/removing the motor plate assembly.

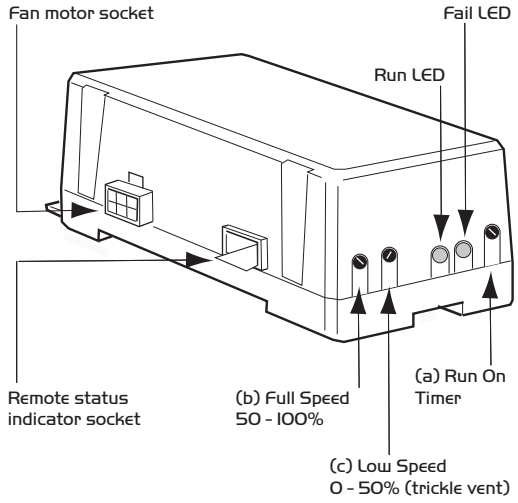


Finally locate the control module in to the blowers moulded guides and push the module in to the terminal block, ensuring that spade connections are engaged. Connect the motor plugs and remote status indicators (if used) to the sockets in the control module.
Turn on mains power and test run the unit.

6.0 Setting to work

All the control functions and adjustments are located on the electronic control module. An adjusting tool is provided clipped to the blower casing.

Figure 8. Electronic control module adjustments.



(a) Setting the run on timer

The overrun feature is only active when the fan is connected to a switched live as in wiring diagram 4 on page 2. The overrun time is factory set at zero, fully anti clockwise and can be adjusted up to thirty minutes by turning the adjustment clockwise. Test by activating/deactivating the switched live circuit.

(b) Setting the full (MAX) speed

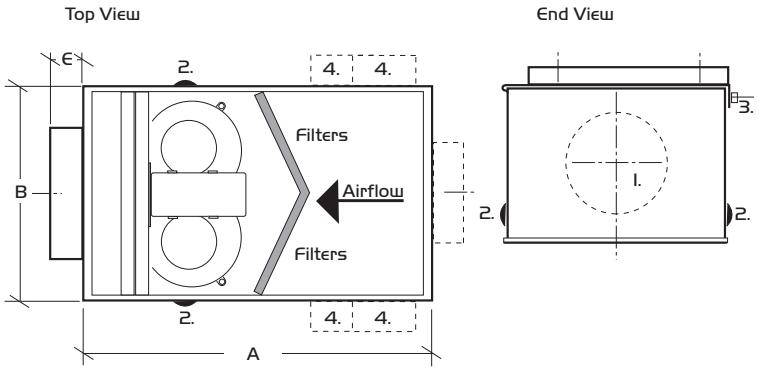
The full/MAX speed is factory set at 100%, fully clockwise and can be adjusted down to 50% (fully anti clockwise) by adjusting the setting screw anti clockwise with the setting tool supplied.

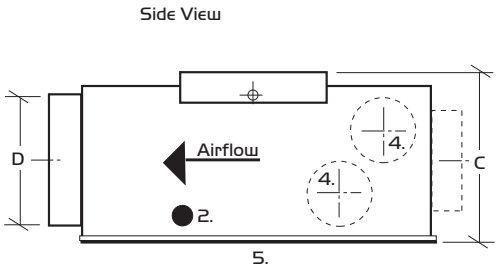
(c) Setting the low (MIN or trickle) speed

The low or trickle speed is factory set at zero, fully anti clockwise and can be adjusted upwards to a maximum of 50% speed by turning the adjusting screw clockwise with the setting tool supplied.

Note; the fan has to be wired as diagram 5 on page 2 and activated via the switched live for the trickle (low speed) to boost (max speed) to be operative.

7.0 Dimensions and Weights





Key:
1. 1 x 150 Dia. Spigot Knockout
2. Cable Access
3. Single Screw Unit Fixing
4. 4 x 100 Dia. Spigot Knockouts
5. Access Panel (full length of unit)

Dimensions (mm) & weights

Fan Unit	A	B	C	D	E	Weight (Kg)
OPUS100-2M	500	330	260	200	50	11
OPUS100-M	500	330	260	200	50	10
OPUS150-M	500	330	260	200	50	11

12. 05. 17. Leaflet Number 671218

8.0 Maintenance

Maintenance should only be completed by competent persons in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, COHSE, HVCA etc.

Before removing covers ensure that all electrical services (including the switched live) are fully isolated from the mains supply.

The fan should be examined three months after commissioning and, dependent on the level of contamination present, at six monthly intervals thereafter.

Remove the filter and wash in tepid water with a mild detergent added, shake out excess water and allow to dry naturally. Do no replace until dry.

Remove the blower assembly as Figure 7. Inspect all parts and take care to retain all control settings, with a brush or dry cloth remove all dirt and debris from the fan plate and case, lightly brush away all dirt and debris from the fan assembly. Reassemble the unit and test/run.

9.0 Optional external sensors and controls

Refer to the appropriate data sheet for installation and usage details.

Device	Code	Data sheet ref.
PIR sensor	230-PIR NT	670610
Thermostat	OPUS+TSTAT	670988
Humidistat	OPUS+HUMISEN	670987
Remote speed control	OPUS-SPD	671219
Volt free status indicator	OPUS100/150VF	671197

10.0 Replacement of parts

Nuaire keep extensive stocks of spares for quick delivery, when ordering please clearly identify the part required and quote the product code, serial number and ARC number from the fan rating label.

11.0 3 Year Warranty

The three-year warranty starts from the day of delivery and includes parts and labour for the first year, the remaining period covers parts only.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuaire International Sales office for further details.

12.0 After Sales Enquiries

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

Telephone 02920 858 400