



Opus 100-B & 150-B Surface Mounted Extract Fans

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

Installation and Maintenance

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 1/4 turn above minimum).

1.0 Typical arrangements

Figure 1. Wall mounting

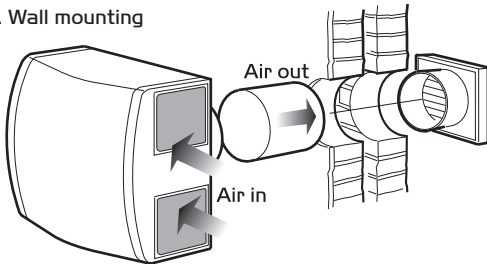
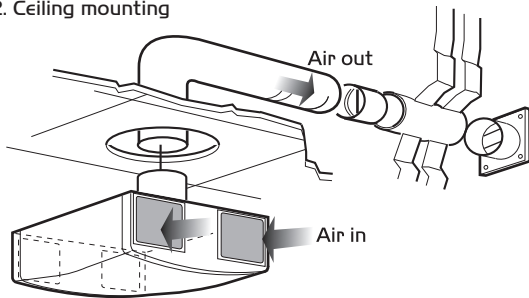


Figure 2. Ceiling mounting



2.0 Introduction

A surface mounted unit designed to serve toilets, store rooms, small offices, restaurants, smoking areas etc. for installation on the ceiling or wall of the area served.

For full specification, dimensions and weights etc. refer to catalogue.

The range includes single and twin fan models, air inlet is via front side mounted filters exiting via a 125mm spigot at the rear. Back-draught shutters are an optional extra LED indicators on the case cover provide local run/fail status indication.

Opus fan range

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

3.0 Installation

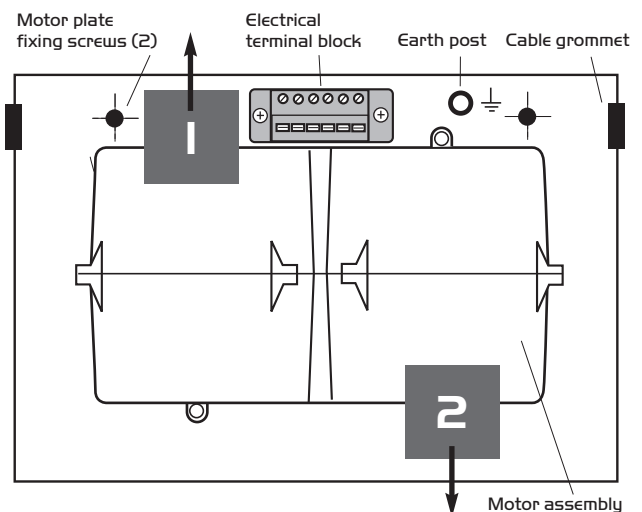
The installation must be completed by competent persons in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, COHSE, HVCA etc.

The unit comprises a full-length removable access cover to reveal and remove fan internals and facilitate first fix installation. Ensure that all electrical and ducting services are compatible to the installation and the desired control function before proceeding.

IMPORTANT

**WARNING -
REMOVE TRANSIT PACKING PIECES BEFORE
APPLYING POWER TO UNIT**

Figure 3. Removing the impeller transit-packing pieces (1 and 2).



4.0 Mechanical installation

Remove the unit internals; release the two M4 cover screws and remove the cover, lift the electronic control module (about 15mm) to disengage from the base socket. Disconnect the PIR (if fitted) and unscrew the four M5 x 35mm blower assembly retaining screws and lift out the fan unit internals.

Select a solid non-reverberant mounting position with a minimum of 50mm from any side-wall and ceiling. Observe the footprint detail, particularly the mains cable entry point, mark and drill the chosen structure and fix the case with appropriate anchor bolts or screws. Connect and fix.

5.0 Electrical installation

Notes

- To ease electrical connection, remove the six-way termination block and inlet filter grilles
- 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
- For units with integral PIR option; the PIR is situated in an aperture behind the front cover and activates the unit to full speed when movement is detected. In this instance the overrun timer operates in both wiring modes

Figure 4. Wire for full speed operation only (on/off), no trickle vent and no run on timer.

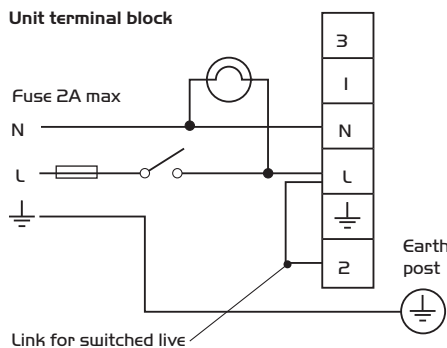


Figure 5. Wire for trickle vent/ boost vent and timed overrun. Either feature can be nullified by setting the adjustment screws to zero.

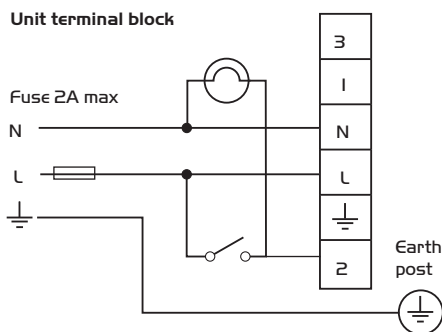
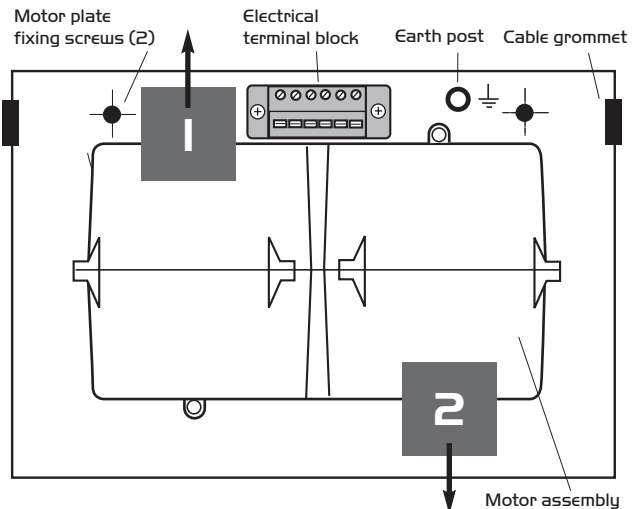


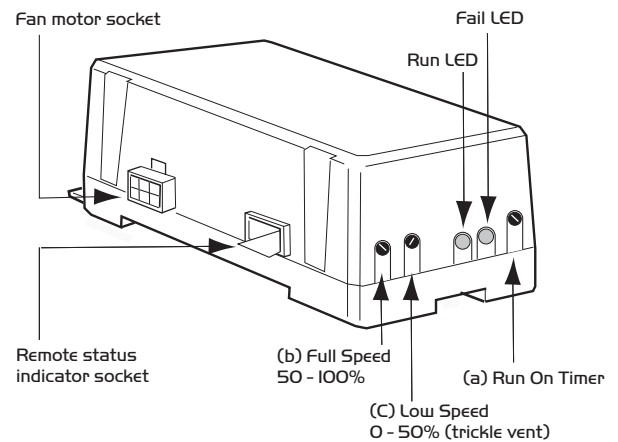
Figure 6. Removing the impeller transit-packing pieces (1 and 2).



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 7. 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. 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

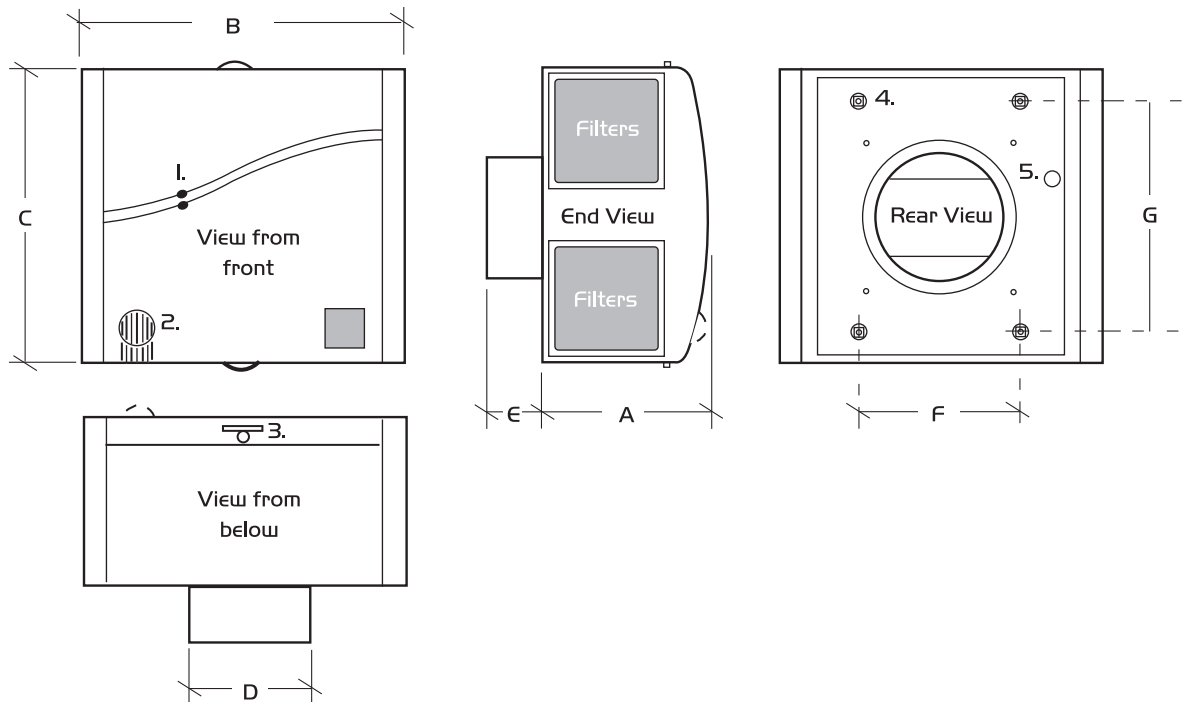
The full/MAX speed is factory set at 100%, fully clockwise and can be adjusted down to 50% (fully anti clockwise) by adjusting the setting screw anti clockwise with the setting tool supplied.

(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 and activated via the switched live for the trickle (low speed) to boost (max speed) to be operative.

7.0 Dimensions (mm) and Weights



Key: 1. LED Run and Fail Indicators, 2. Optional Fascia P.I.R.
3. Cover Fixing Screws, 4. Fixing Points, 5. Cable Access

Dimensions (mm) and weights

Fan Unit	A	B	C	D	E	F	G	Weight
OPUS100-B	160	335	320	125	50	160	248	5 kg
OPUS100-BP	160	335	320	125	50	160	248	5 kg
OPUS100-2B	160	335	320	125	50	160	248	6 kg
OPUS100-2BP	160	335	320	125	50	160	248	6 kg
OPUS150-B	160	335	320	125	50	160	248	6 kg
OPUS150-BP	160	335	320	125	50	160	248	6 kg

8.0 Maintenance

IMPORTANT

Isolation - Before commencing work make sure that the unit is electrically isolated from the mains and switched live supply.

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, HVCA etc.

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 not replace until dry.

Remove the blower assembly as Figure 5. 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

Nuairé 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 Nuairé 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