



# Dave Extract DE-BC/NC



## Extract Fan with Basic/No Control Installation Manual



### 1.0 SAFETY INFORMATION

- The provision of the electrical supply and the connection of the unit to the electrical supply must be carried out by a qualified electrician.
- Isolate from power supply before removing any covers. During installation / maintenance ensure all covers are fitted before switching on the mains supply.
- All-pole disconnection from the mains as shown in the wiring diagram must be incorporated within the fixed wiring and shall have a minimum contact separation of 3mm in accordance with latest edition of the wiring regulations.
- This unit must be earthed.
- Ducting must be securely fixed with screws to the spigot to prevent access to live parts. Duct runs terminating close to the fan must be adequately protected by suitable guards.
- This appliance should not be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the appliance by a person responsible for their safety. Children shall not play with the appliance. Cleaning and user maintenance shall not be carried out by children.

#### 1.1 Symbols



#### **GENERAL WARNING**

Signifies a general warning regarding hazard specified by supplementary information.



#### **ELECTRIC SHOCK**

This unit must be completely electrically isolated before any panels are removed. Check mains supply and control connections.



#### **ROTATING PARTS**

This unit contains fast moving rotational parts which may start automatically. It is the sole responsibility of the installer to adequately guard these components.



#### **REFER TO INSTRUCTION MANUAL**

Read and understand the installation and maintenance manual before installing, operating or maintaining this product.

### 1.2 Important Information

This manual contains important information on the safe and appropriate assembly, transport, commissioning, operation, maintenance, disassembly and simple troubleshooting of the product.

While the product has been manufactured according to the accepted rules of current technology, there is still a danger of personal injury or damage to equipment if the following general safety instructions and the warnings contained in these instructions are not complied with.

- Read these instructions completely and thoroughly before working with the product.
- Keep these instructions in a location where they are accessible to all users at all times.
- Always include the operating instructions when you pass the product on to third parties.

### 1.3 Personal Protective Equipment

The following minimum Personal Protective Equipment (PPE) is recommended when interacting with Nuaire product:

- Protective Steel Toed Shoes - when handling heavy objects.
- Full Finger Gloves (Marigold PU800 or equivalent) - when handling sheet metal components.
- Semi Fingerless Gloves (Marigold PU3000 3DO or equivalent) - when conducting light work on the unit requiring tactile dexterity.
- Safety Glasses - when conducting any cleaning/cutting operation or exchanging filters.
- Reusable Half Mask Respirators - when replacing filters which have been in contact with normal room or environmental air.

Nuaire would always recommend a site specific risk assessment by a competent person to determine if any additional PPE is required.

## 2.0 INTRODUCTION

The Dave range of in-line backward curve fans consists of 9 sizes with a maximum duty of 1.1m<sup>3</sup>/s (1100l/s).

Units are manufactured from aluzinc, rectangular in section and have circular rigid spigots at each end. All units are supplied with fixing brackets designed to simplify installation.

### 2.1 Code Description:

1	2	3	4	-	5	-	6
DE	2	H	A	-	NC	-	C4

- 1. Range: **DE** = DAVE Extract
- 2. Unit Size: **1 - 7**
- 3. Fan Type: **[none]** = Standard Fan  
**H** = High Pressure Fan (Size 2 & 4 only)
- 4. Case Type: **[none]** = Standard Case  
**A** = Extended Case (with G3 Filter)
- 5. Control: **BC** = Basic Control  
**NC** = No Control
- 6. Paint Protection: **[none]** = Standard Finish  
**C4** = Suitable for C4 coastal application

## 3.0 DELIVERY & RECEIPT OF EQUIPMENT

All equipment is inspected prior to despatch and leaves the factory in good condition. Upon receipt of the equipment an inspection should be made and any damage indicated on the delivery note.

Particulars of damage and/or incomplete delivery should be endorsed by the driver delivering the goods before offloading by the purchaser.

No responsibility will be accepted for damage sustained during the offloading from the vehicle or on the site thereafter.

All claims for damage and/or incomplete delivery must be reported to Nuaire within two days of receipt of the equipment.

### 3.1 Offloading & Handling

The weight of the unit modules and palletised items are displayed on the packaging.

Some of the modules have an uneven weight distribution, and this will be indicated by labelling where appropriate.

Offloading and positioning of the equipment is the responsibility of the purchaser. Items should only be lifted by competent personnel following appropriate risk assessment.

**1** Typical Loading Methods

Slings via spreaders fitted to unit with base frame.

Forklift

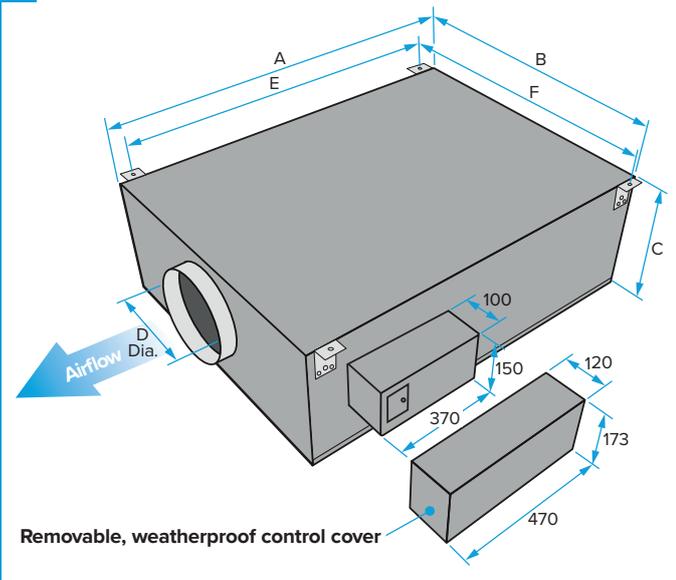
Assembly with base frame

Palletised

Please note that above images are examples of typical lifting methods. Actual unit lifting plan and risks must be assessed by competent personnel before moving the unit.

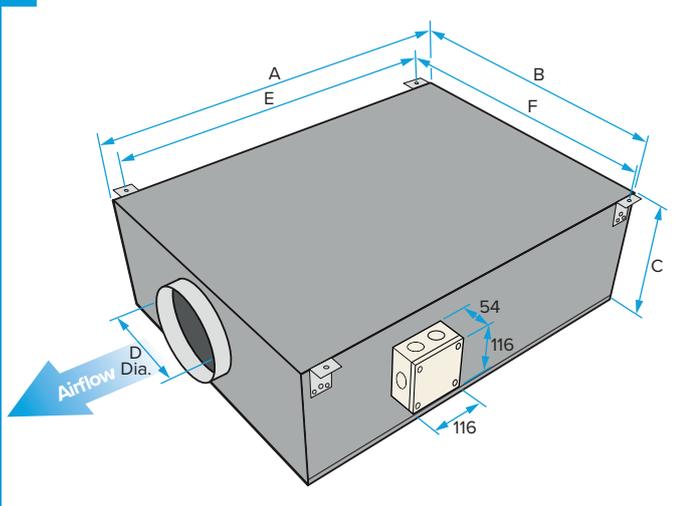
### 4.0 DIMENSIONS (mm) & WEIGHTS (kg)

#### 2 Ecosmart Control (ES) and No Control (NC) Unit Dimensions



Unit Size (any suffix)	A	B	C	D	E	F	Weight (kg)
DE1	605	567	237	150	560	609	25kg
DE1A	1004	567	237	150	960	609	30kg
DE2	605	703	304	200	560	746	25kg
DE2A	1004	703	304	200	960	746	40kg
DE2H	605	703	304	200	560	746	25kg
DE2HA	1004	703	304	200	960	746	45kg
DE3	605	788	349	200	560	830	30kg
DE3A	1004	788	349	200	960	830	50kg
DE4	605	848	374	250	560	890	35kg
DE4A	1004	848	374	250	960	890	67kg
DE4H	605	848	374	250	560	890	40kg
DE4HA	1004	848	374	250	960	890	67kg
DE5	605	992	414	315	560	1034	59kg
DE5A	1004	992	414	315	960	1034	70kg
DE6	605	1100	459	400	560	1142	69kg
DE6A	1004	1100	459	400	960	1142	75kg
DE7	605	1208	504	400	560	1250	82kg
DE7A	1004	1208	504	400	960	1250	90kg

#### 3 Basic Control (BC) Unit Dimensions



### 5.0 MECHANICAL INSTALLATION

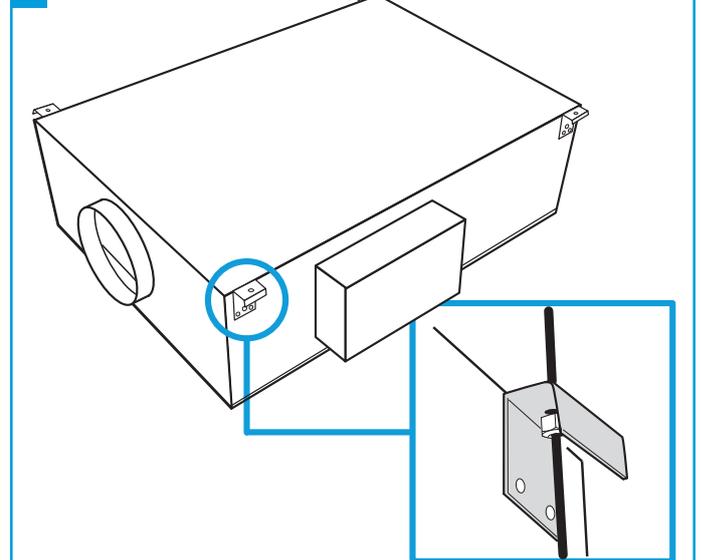
Installation must be completed by competent persons, in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, etc.

**Service / Maintenance Access – Unit must be installed with a minimum of unit depth as additional clearance i.e. DS1A-NES either allow 233mm above or below unit.**

**Access to the unit for maintenance is via the top or bottom lid, this should be taken into account before installation takes place (see important note).**

Dave extract fans can be installed in any orientation. Units are supplied complete with four support mounting brackets for quick and easy installation, either surface mounted or suspended with drop rods.

#### 4 Unit Mounting Brackets (M8)



## 6.0 ELECTRICAL INSTALLATION

**Isolation - Before commencing work, make sure that the unit and Nuair control are electrically isolated from the mains supply.**

### 6.1 Unit Details

Unit details including Full Load Current, Voltage, fan speed etc. can be found on the unit label.

### 6.2 Wiring Diagrams

The wiring illustrations below are for units without control. All wiring is terminated in junction boxes fitted to the side of the unit.

**Local isolator (by others)**

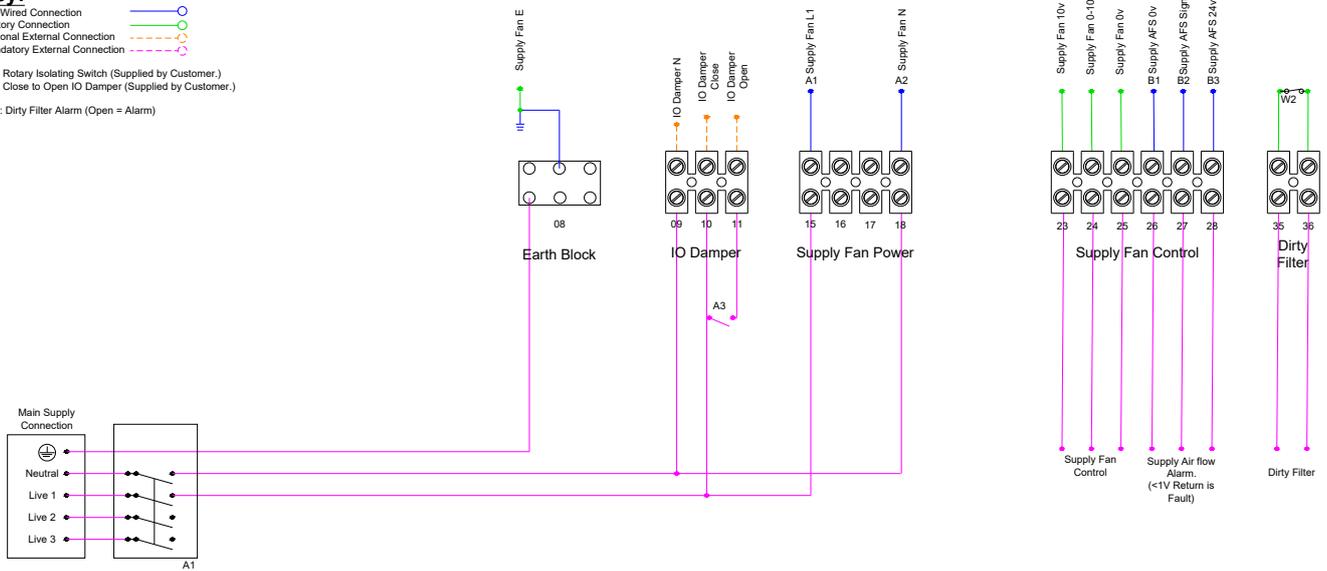
### 6.3 DE1-4

#### 5 Wiring - DE1-3

**Key:**

- Pre-Wired Connection —○—
- Factory Connection —○—
- Optional External Connection - - -○-
- Mandatory External Connection - - -○-

A1 : Rotary Isolating Switch (Supplied by Customer.)  
 A3 : Close to Open IO Damper (Supplied by Customer.)  
 W2 : Dirty Filter Alarm (Open = Alarm)



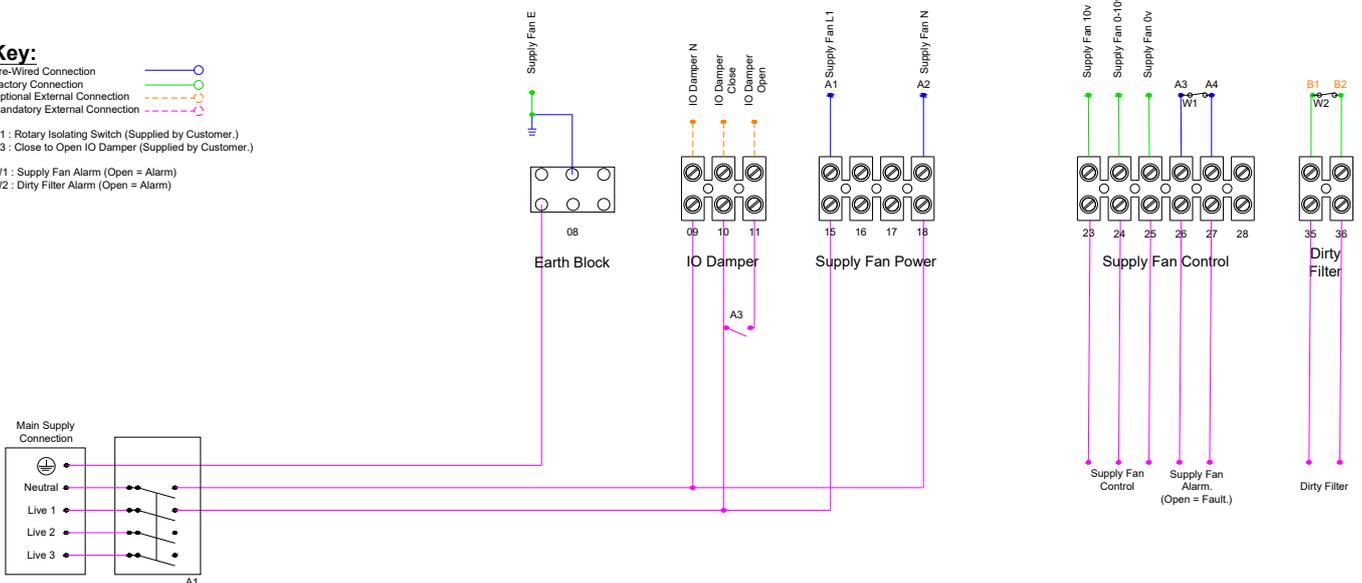
### 6.4 DE5-7

#### 6 Wiring - DE4-7

**Key:**

- Pre-Wired Connection —○—
- Factory Connection —○—
- Optional External Connection - - -○-
- Mandatory External Connection - - -○-

A1 : Rotary Isolating Switch (Supplied by Customer.)  
 A3 : Close to Open IO Damper (Supplied by Customer.)  
 W1 : Supply Fan Alarm (Open = Alarm)  
 W2 : Dirty Filter Alarm (Open = Alarm)



## 7.0 CONTROLS

The Basic/No Control (BC/NC) units described in this manual are supplied without any controls. It is the installer's responsibility to select and install suitable controller(s) and circuit(s) to produce the desired output from the units while remaining within the units safe performance envelope.

## 8.0 MAINTENANCE

**Isolation - Before commencing work, make sure that the unit and Nuair control are electrically isolated from the mains supply.**

It is important that maintenance checks are recorded and that the schedule is always adhered to, in all cases, the previous report should be referred to.

Motors are fitted with sealed for life bearings and do not require any lubrication.

### 8.1 Routine Maintenance

- Remove the top or the bottom cover and carefully clean out the interior as necessary.
- Check all parts for security and that the impeller rotates freely, taking care not to disturb the balance.
- The filter (where applicable) will require cleaning on a regular basis. The frequency of the cleaning operation will depend on the site conditions.
- Ensure all control components are secure and clean.
- Refit the cover.

### 8.2 Annually

- All electrical terminals within the unit should be tightened.
- Check all earth connections.

### 8.3 Dirty Filter Alarm (Extended Case Models Only)

Units pre fitted with a panel air filter are equipped with an visual Red LED alarm on the side of the control. The pressure switch is pre set at 150pa and positioned within the unit and accessed via the removable top or bottom panel. If required, the alarm signal can be positioned to another area by others using the pre fitted terminal block - A volt free relay must be used between the control and customer wiring.

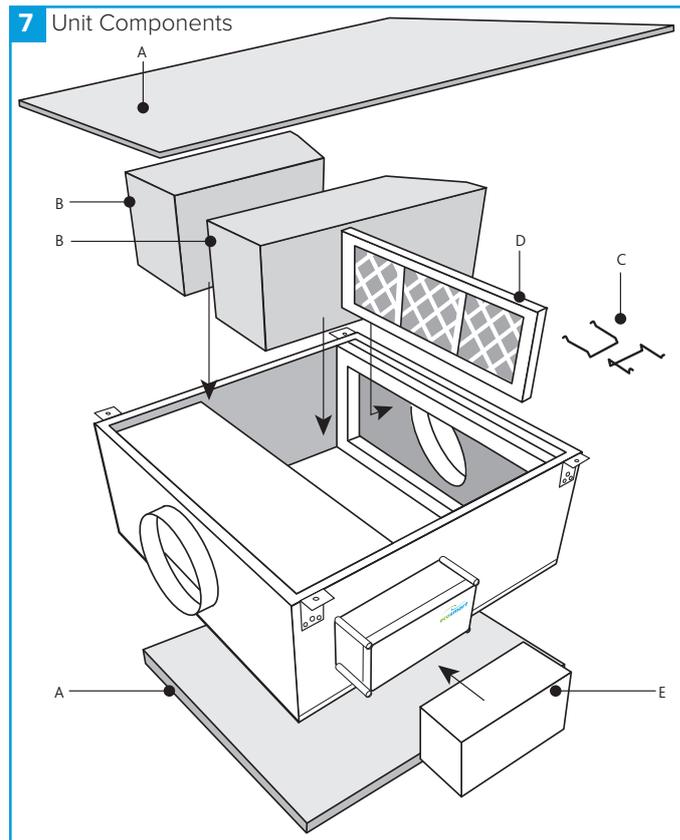
**LED On** = Pressure exceeds the maximum allowable final pressure drop.

Replacement filter part numbers are shown below.

### 8.4 G3 Filter Replacement (Extended Case Models Only)

Unit	Replacement Part Number
DE1A	D1A-G3FILTERKIT
DE2A	D2A-G3FILTERKIT
DE2HA	D2HA-G3FILTERKIT
DE3A	D3A-G3FILTERKIT
DE4A	D4A-G3FILTERKIT
DE4HA	D4HA-G3FILTERKIT
DE5A	D5A-G3FILTERKIT
DE6A	D6A-G3FILTERKIT
DE7A	D7A-G3FILTERKIT

## 8.5 Unit Components



Key	Components
A	Lid / Base
B	Attenuation Pods ('A' models with extended case only)
C	Attenuation Pods Retaining Clips ('A' models only)
D	G3 Filter ('A' models with extended case only)
E	Weather Cover for External Control Box Installation (If required)

## 9.0 WARRANTY

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining period covers replacement 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 Nuair International Sales office for further details.

**Failure to maintain the unit as recommended will invalidate the warranty.**

## 10.0 END-OF-LIFE AND RECYCLING

**Ensure that Nuaire product is made safe from any electrical / water / refrigerant supplies before dismantling commences. This work should only be undertaken by a qualified person in accordance with local authority regulations and guidelines, taking into account all site based risks.**

Where possible Nuaire use components which can be largely recycled when the product reaches its end-of-life:

- Fans, motors, controls, actuators, cabling and other electrical components can be segregated into WEEE recycling streams.
- Sheet metal parts, aluminium extrusion, heating/cooling coils and other metallic items can be segregated and fully recycled.
- EPP, plastic ducting, nylon corner pieces, plastic heat exchangers, packaging material and other plastic components can be segregated into mixed plastic and widely recycled.
- Cardboard packaging, wood, used filters and other paper components can be largely recycled or fully processed in energy from waste centres.
- Remaining Items can be further segregated and processed in accordance with the zero waste hierarchy. Please call After Sales Support for further information on items not listed above.

## 11.0 AFTER SALES AND REPLACEMENT PARTS

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

If ordering spares please quote the serial number of the unit together with the part number, if the part number is not known please give a full description of the part required. The serial number will be found on the identification plate attached to the unit casing.

**Telephone 02920 858 400**  
**aftersales@nuaire.co.uk**

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.



