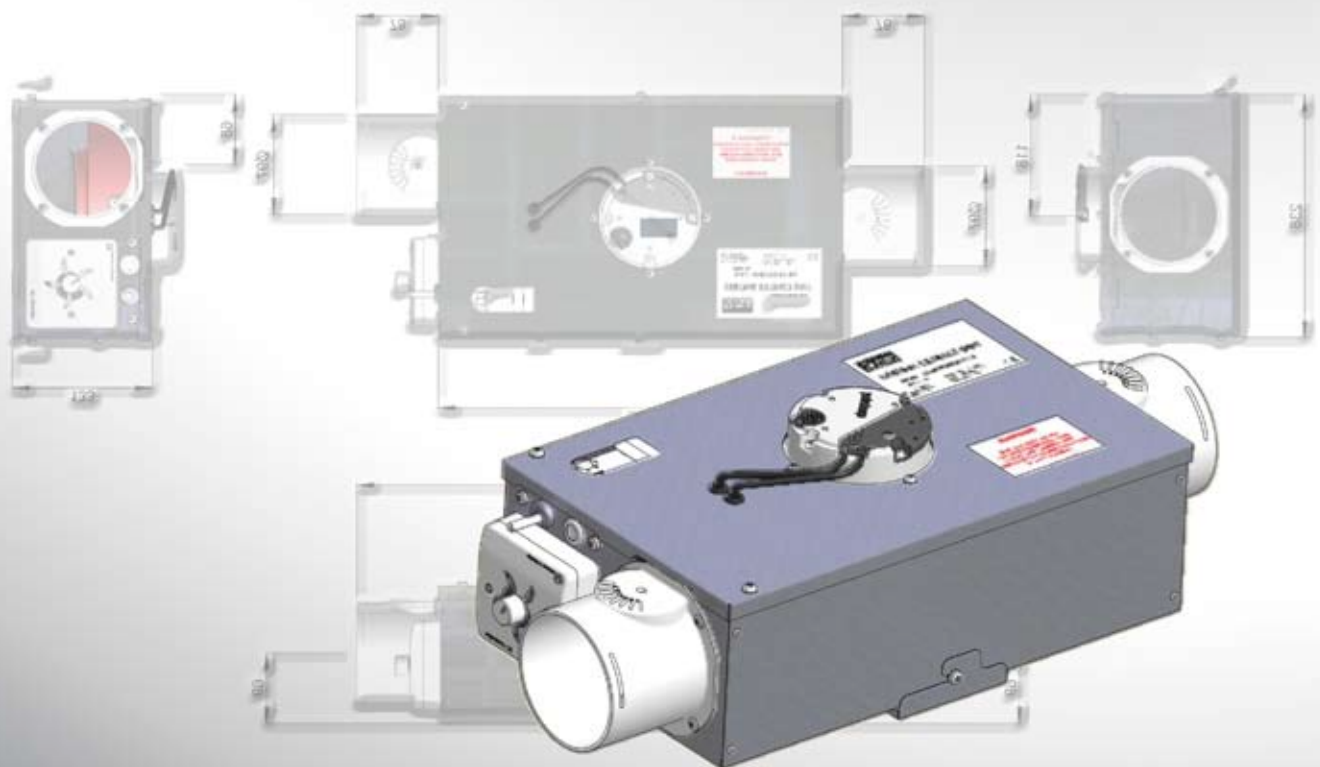


# CE180P Mk2

*inline premier*

*CENTRAL EXTRACT SYSTEM*

## Installation, Commissioning & Servicing Instructions



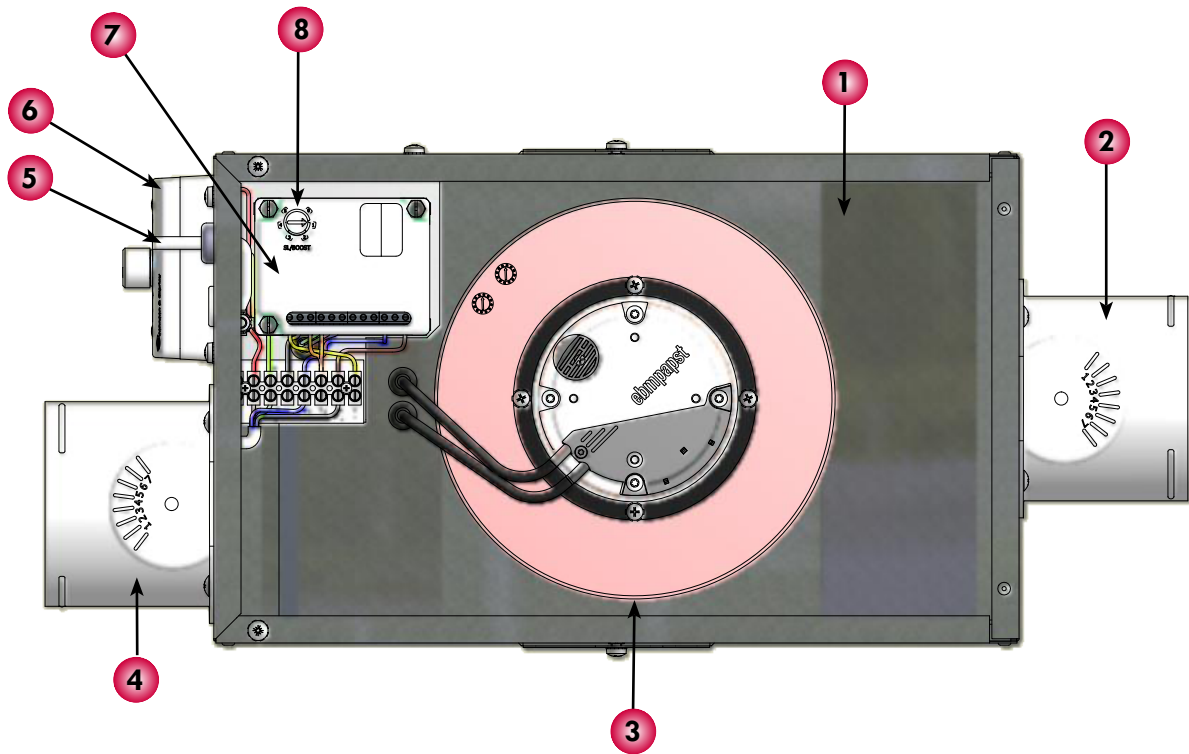
[www.johnsonandstarley.co.uk](http://www.johnsonandstarley.co.uk)

RELIABILITY YOU CAN TRUST

# CONTENTS

		pages
1	Features	3
2	General Description	3
3	Building Standards & Regulations	4
4	Technical Data	4
5	Preparation & Safety Notes	4
6	Installation Instructions	7
7	Electrical	7
8	Circuit Diagram	9
9	Commissioning	10
10	Servicing & Maintenance	11
11	Instruction for User	12
12	Dimensions	13
13	Spares List	14
14	Exploded Diagram	15

## 1. FEATURES



### FEATURES

- |                         |                              |
|-------------------------|------------------------------|
| 1. Case Assembly        | 5. Mains Lead                |
| 2. 100mm Spigot         | 6. Fan Speed Controller      |
| 3. Fan Assembly         | 7. Electrical Panel Assembly |
| 4. 100mm Exhaust Spigot | 8. Switch Line/Boost Control |

## 2. GENERAL DESCRIPTION

	COMPONENT CHECK LIST	QTY
1	CE180P Mk2 <i>inline premier</i> Central Extract Unit	1
2	Heyco Bush	1
3	Back Box - Single Gang	1
4	Front Cover - Single Gang	1
5	Installation Instructions	1
6	Users Instructions	1

- 2.1 CE180P Mk2 *inline premier* Central Extract System provides mechanical exhaust ventilation from single dwellings. The unit is designed to provide low level extraction from kitchens, bathrooms, shower rooms, utility rooms and WC's to a central extract fan via a system of ductwork and grilles. The extracted air is discharged to outside via a single duct and grille.
- 2.2 The case is constructed in aluminium/zinc coated steel. Internal faces of the casing are acoustically lined with flame retardant acoustic foam.

### 3. BUILDING STANDARDS & REGULATIONS

Installation shall be in accordance with the following:-

**Building Standards** (Scotland Consolidation) **Regulations**

**Part F of the Building Regulations**

**British Standard BS7671**

**Institute of Electrical Engineers (I.E.E.) Regulations**

**Good Practice Guide 268**

### 4. TECHNICAL DATA

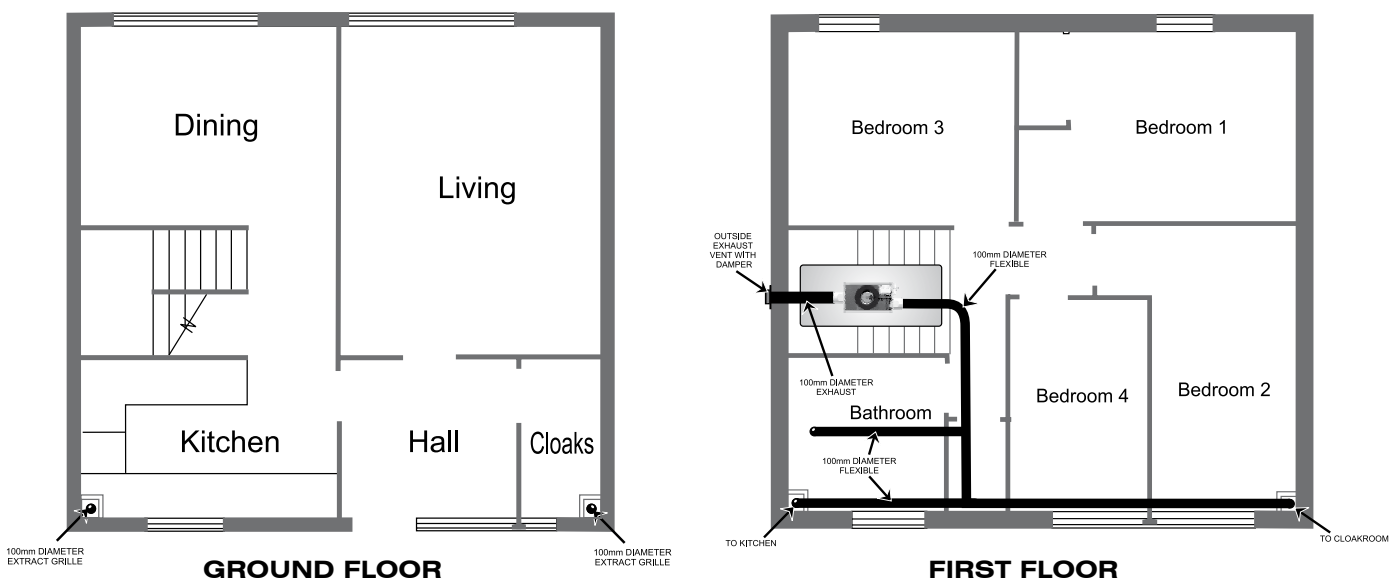
Volts :- 230V ~ 50Hz  
Input:- 6W Min - 77W Max  
Fuse rating:- 3A

### 5. PREPARATION AND SAFETY NOTES

#### 5.1 SAFETY INFORMATION

- 5.1.1 Ensure the mains supply voltage, frequency, number of phases and power rating comply with details on the rating label on the unit.
- 5.1.2 All wiring must be in accordance with the appropriate standards. The equipment must be provided with a local double pole isolator switch.
- 5.1.3 Ensure safety regulations and practices are adhered to when installing and using this equipment.
- 5.1.4 When a fan is used in or extracting from a room with a fuel burning appliance, the installer must ensure the replacement air is adequate for both the fan and the fuel burning appliance.
- 5.1.5 Do not install this appliance where it is liable to be subject to water spray or where ducted air ambient temperature may exceed 40°C.

#### TYPICAL HOUSE LAYOUT

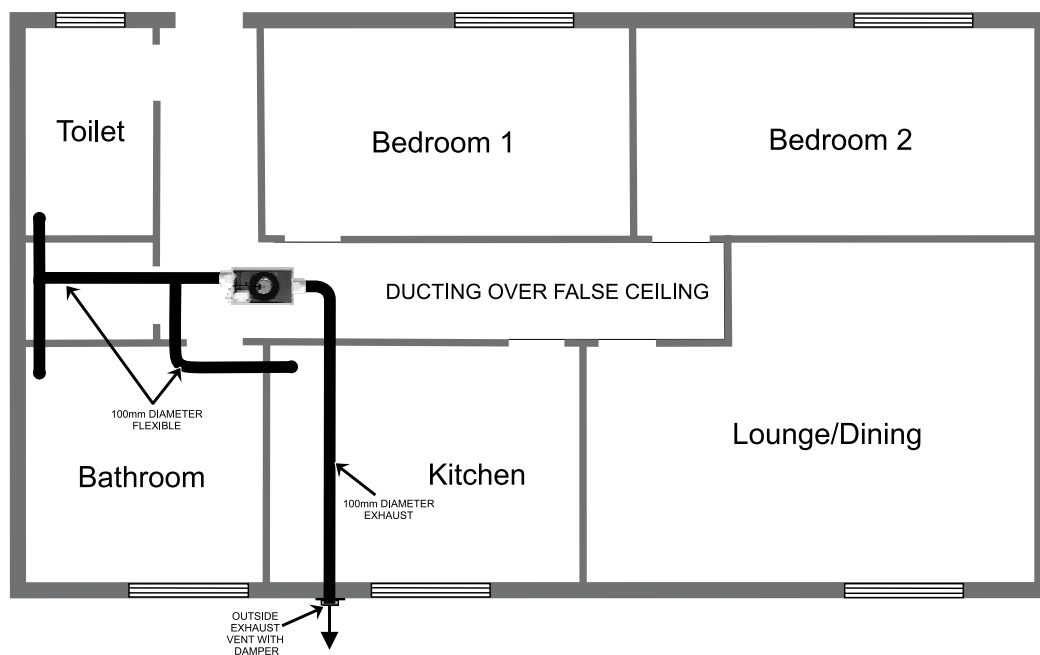


- 5.1.6 When the fan is used to handle moist air, a suitable condensate trap and drainage system should be incorporated in the exhaust duct to ensure safe and healthy operating conditions.
- 5.1.7 DO NOT use this appliance where excessive moisture, excessive dust or fibres, grease or oil laden air, corrosive or flammable atmospheres are present.
- 5.1.8 When installing the unit, take care not to damage electrical or other hidden utilities.
- 5.1.9 Exhaust air must be vented to the outside.
- 5.1.10 The fan motor is fitted with sealed for life bearings and therefore does not require lubrication.

## 5.2 DUCTING INFORMATION

- 5.2.1 It is an advantage to have all the compatible ductwork already installed and ready to connect to the inlet spigots.
- 5.2.3 Ducting passing through unheated roof voids should be insulated. Ducting runs should be as straight as possible and the horizontal exhaust ducting should always slope downwards from the CE180P Mk2 *inline premier* unit.
- 5.2.4 The recommended types of ducting are:- flexible duct, ridged plastic duct and spiral wound duct. These can all be used with the CE180P Mk2 *inline premier* unit.
- 5.2.5 For any exhaust duct passing through a roof use a suitable Vertical Terminal or Ridge Terminal. For details on these contact our sales department for further information.

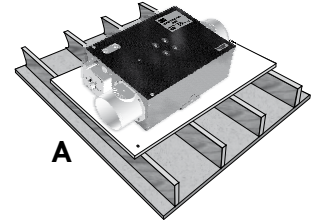
### TYPICAL FLAT LAYOUT



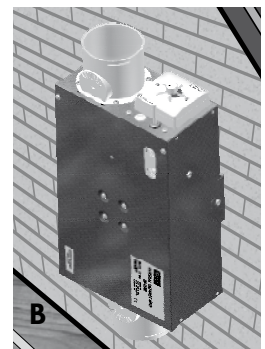
### 5.3 POSITIONING THE UNIT

- 5.3.1 Ensure there is adequate access for installation and maintenance. Installation can be at any 90° angle. Ensure the selected electrical mains wiring has as an isolator near the unit for servicing.
- 5.3.2 Position the CE180P Mk2 *inline premier* unit taking into consideration the position of the rooms being ventilated, the exhaust exit position and electrical services. Also make sure when choosing you take into consideration the accessibility of the BOOST control.
- 5.3.3 It is the responsibility of the installer to ensure that all aspects of the system design are taken into consideration. The CE180P Mk2 *inline premier* System is designed as a ducted unit and should only be used in ducted situations.
- 5.3.4 The unit has 1 exhaust connection spigot. 1 x ø 100mm

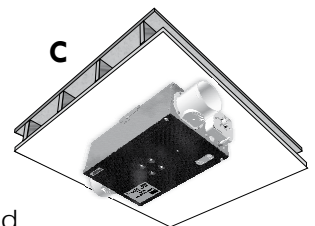
- A** **Base Mounted** - with ducting connected horizontally and exhaust exiting through a wall or roof terminal. If used in this position make sure there is an adequate working area with a secure base. Antivibration insulation is recommended between the base and the unit. (Not supplied)
- B** **Vertically Mounted** - when using flexible ducting ensure the connections are made, with the correct radius bends.
- C** **Suspended** - Ensure ductwork is supported throughout it's length, particularly flexible duct



A



B



C

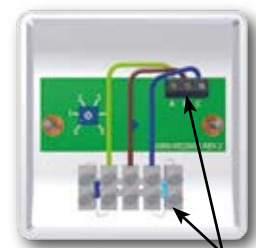
**PLEASE NOTE:** A clear space of at least 365mm x 250mm is required to allow the cover to be removed and provide sufficient access for maintenance.

### 5.5 REMOTE SPEED CONTROL POSITION

- 5.5.1 The speed control can be removed from the unit and mounted in a position of your choosing. Ensure new single gang back box is 32mm deep to accept the front plate assembly. (A surface mounted single gang back box is supplied with the unit).
- 5.5.2 To connect your new wiring leads into the central extract unit remove the 2 screws securing the front plate assembly, and retain.
- 5.5.3 Disconnect and discard the 3 wires, blue, brown and green/ yellow connected between the 3 terminal blocks at the back of the plate assembly.
- 5.5.4 Connect your new wiring leads between these 3 terminal blocks leaving the existing back box on the central extract unit. You will need to make a hole in the back box to bring your cable through. Polarity of these 3 connections are important.
- 5.5.5 Using the single gang blanking plate, supplied with unit, seal the front of the central extract back box.
- 5.5.6 Secure speed control front plate assembly into the new back box using fixings from 5.5.2.



SPEED CONTROL



Terminal Block

INSIDE SPEED CONTROL

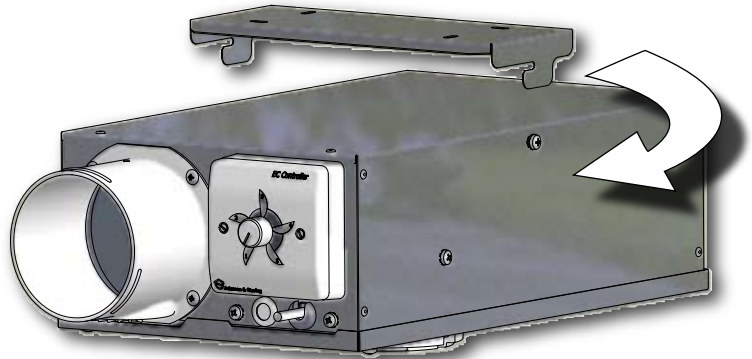
## 6. INSTALLATION INSTRUCTIONS

**NOTE: The installation should be carried out by a competent person in accordance with the appropriate authority and conforming to all the statutory and governing regulations.**

### 6.1 FIXING BRACKET

**When fixing the bracket (vertically) you must make sure the slots do not point downwards.**

- 6.1.1 When location of the unit has been chosen fix the bracket using 4 screws appropriate for the surface you are fixing to.
- 6.1.2 Place the unit into position and slide the flanges between the 2 screws and washers on the casing. Tighten the screws.



## 7. ELECTRICAL

**WARNING: THIS APPLIANCE MUST BE EARTHED. ALL WIRING MUST CONFORM TO INSTITUTE OF ELECTRICAL ENGINEERS (I.E.E.) REGULATIONS & BS7671**

The unit is designed to be wired directly to the mains supply through a fused spur, isolator which allows it to run continuously.

- 7.1 The unit is suitable for a 230V, 50Hz single phase supply fused at 3A.
- 7.2 The unit is supplied with a mains flexible cord (PVC sheathed, 4-core brown, blue, black and green/yellow 0.75mm<sup>2</sup> to BS 6500,) connected to a terminal block and exiting through a cable clamp.
- 7.3 A fused spur, or double pole switch having a minimum contact separation of 3.0mm, must be used to provide isolation for the unit.

### 7.4 ELECTRICAL WIRING OPTIONS

The unit is normally designed to ventilate the property continuously to give between 0.3 and 0.7 air changes per hour.

A facility is included which boosts the duty as required. The boost can be achieved by the following methods:-

- a. Turning control knob to the desired setting.
- b. Connecting black wire (from the mains lead) to an external 230V AC live source e.g. bathroom light switch or humidistat.

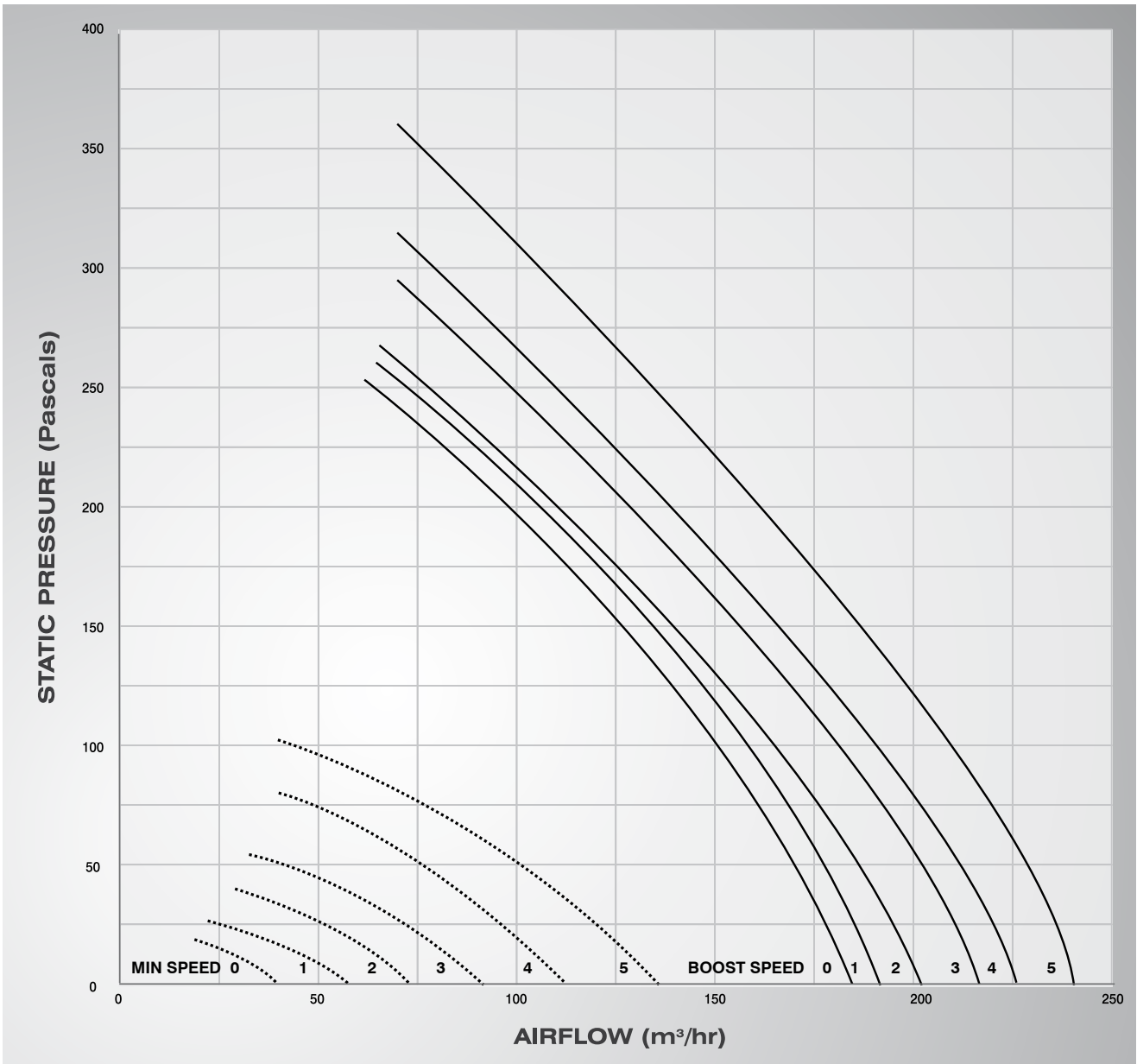
If connecting to an external source then boost speed of fan is determined by preset boost speed (set by installer) and NOT the control knob.

### 7.5 OVER-HEAT PROTECTION

The fan motor is fitted with standard thermal Overload Protection. This will automatically switch the fan off in the event of a fault condition. If this occurs isolate the fan, check for and remove any obstruction, leave for a short time for the motor to cool before reconnecting. If this recurs, isolate and contact a service engineer.

# FAN PERFORMANCE

(NOTE:- Performance graphs shown for two extracts, kitchen & bathroom)

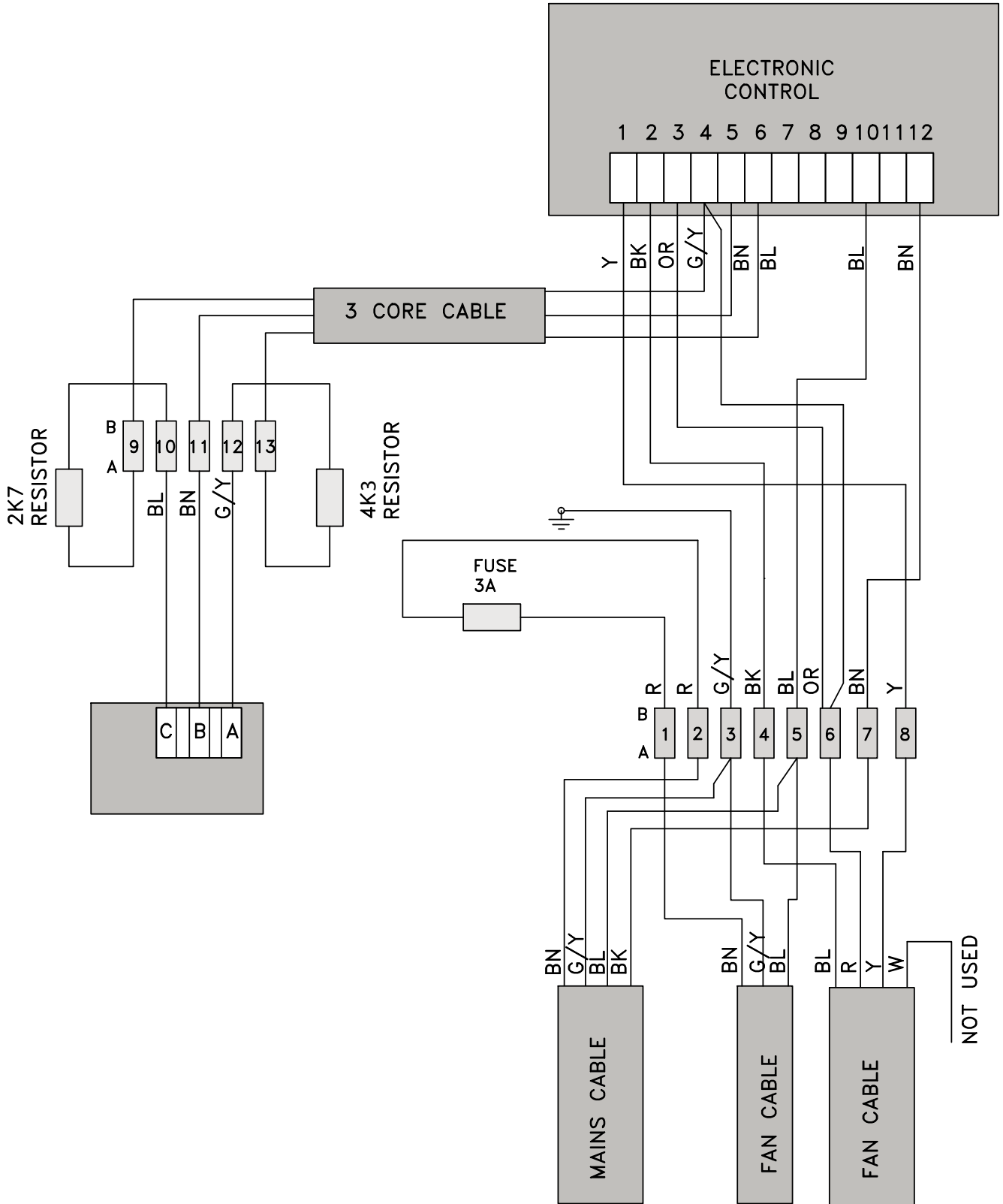


**BOOST SPEED SETTING**      **—————**

**NORMAL SPEED SETTING**      **.....**



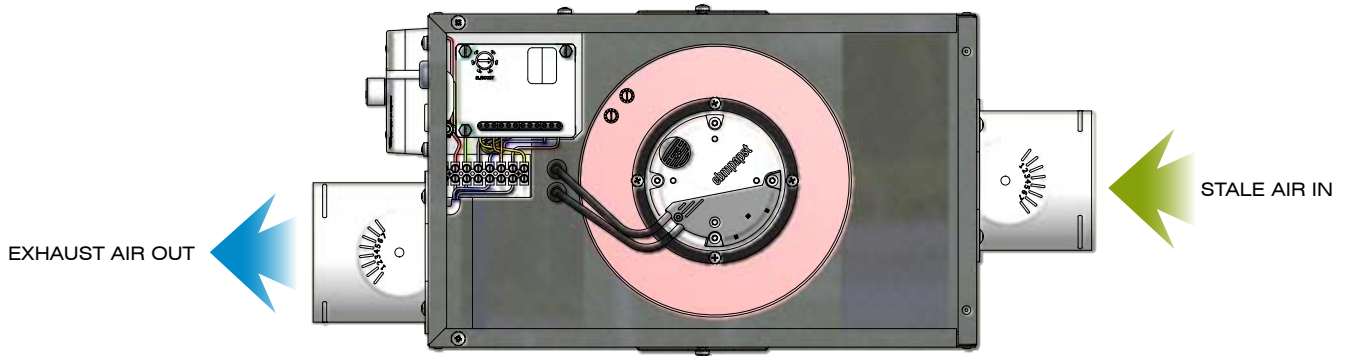
# 8. CIRCUIT DIAGRAM



Ref: 1000-2221730 10/2010

## 9. COMMISSIONING

### 9.1 AIRFLOW THROUGH THE UNIT



### 9.2 SETTING THE CONTROLS

The fan is designed to run continuously in the NORMAL mode with occasional BOOST airflow (A High Speed Setting) as and when required.

9.2.1 **NORMAL** - Continuous running minimum ventilation requirement. This speed is easily and fully adjustable by the installer on commissioning.

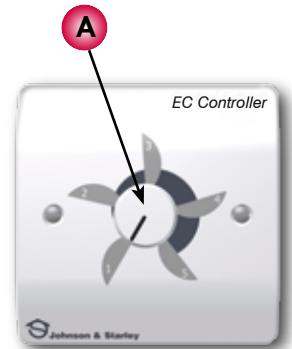
- i. To set the minimum setting first turn the boost speed controller (A) to minimum. Refer to fan performance graph and read off airflow and guide minimum set point (B) on the speed control and set to the required number.
- ii. Measure the airflow at the terminals to confirm required minimum airflow.
- iii. Increase or decrease minimum airflow by re-adjusting the minimum set point (B) on the speed control.

9.2.2 **BOOST** - Higher Airflow setting when additional short term ventilation is required.

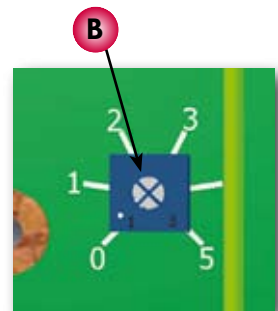
- i. The Boost Speed is adjusted by turning the control knob on the remote boost control (A) to a higher setting.

9.2.3 **ADDITIONAL REMOTE BOOST** - this facility enables additional controls i.e. remote humidistat, to boost the unit to a preset level using the switch line connection.

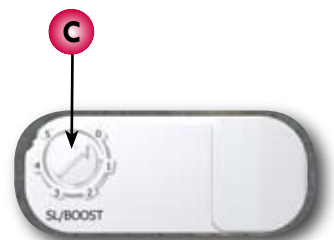
- i. Refer to fan performance graph and read off required guide airflow and switch live boost set point (C) and set to the required number.
- ii. Measure the airflow at the terminals to confirm the required airflow.
- iii. Increase or decrease airflow by re-adjusting the switch live set point (C) on the electronic module.



**SPEED CONTROL**



**MINIMUM SET POINT  
(inside speed control)**

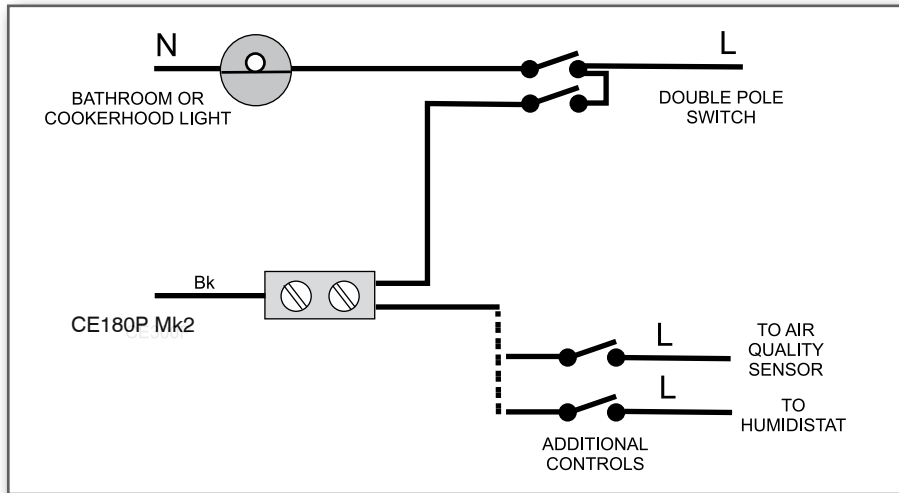


**SWITCH LIVE BOOST  
SET POINT**

9.3.3 Refer to the design drawing or specification sheet and measure the airflow at the terminals and re-adjust the dampers where required.

#### 9.4 ADDITIONAL CONTROLS

- i) Humidistat Sensor
- ii) Pull Cord, i.e bathroom
- iii) Air Quality Sensor
- iv) Boost Overrides



**ELECTRICAL CIRCUIT FOR REMOTE SPEED CONTROLLER**

## 10. SERVICING & MAINTENANCE

- 10.1 Maintenance must be carried out by a qualified engineer.
- 10.2 Before any maintenance or cleaning operation, switch off the power supply and other boost controls to the unit.
- 10.3 The fan and motor should be checked at least every twelve months. During the cleaning operation, check the integrity of all the components and parts.
- 10.4 It is inevitable that even with filtered extract, as recommended in Good Practice Guide 268 some dust, fluff etc. will pass through a filter, if fitted externally, and which if allowed, will build up internally on motors and impellers, shortening the life of the unit and in severe cases, leading to overheating of motors.
- 10.5 Turn off electrical supply. Unscrew the fan assembly panel from the case assembly and remove it without disconnecting the electrical wires. (see page 14)
- 10.6 To remove the Central Extract Unit from its mounting, release the ducts and loosen the fixing screws.
- 10.7 Clean the inside of the fan using a soft brush or dry cloth.
- 10.8 Do not use solvent. Do not put into water.

## 11. INSTRUCTIONS FOR USER

### 11.1 INTRODUCTION

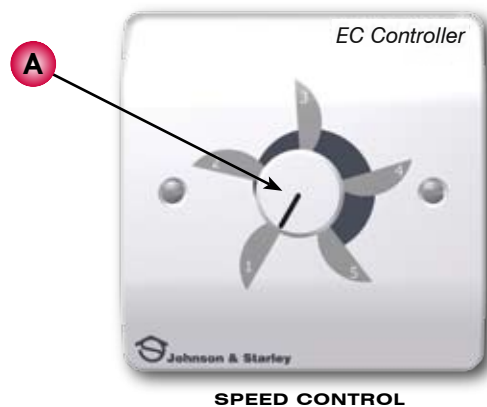
The CE180P Mk2 *inline premier* is a Central Extract System that extracts stale or humid air from wet rooms, typically kitchens, bathrooms and utility rooms and is exhausted to outside. A boost facility is provided to enable higher rates of extract when required.

This type of system complies with Approved Document F of the Building Regulations F1 Means of Ventilation.

Installation of the CE180P Mk2 *inline premier* will have been commissioned and balanced by a competent person.

### 11.2 USER INSTRUCTIONS

- 11.2.1 Turn on the CE180P Mk2 *inline premier* appliance at the fused spur.
- 11.2.2 The CE180P Mk2 *inline premier* unit will now commence extraction at the normal set speed.
- 11.2.3 To manually boost the CE180P Mk2 *inline premier* unit when required rotate the control knob on the boost control (A) to the desired setting. When the boost is no longer required rotate the control knob to the original position.
- 11.2.4 The CE180P Mk2 *inline premier* unit may be fitted with additional remote automatic boost switches that will automatically boost the airflow to a predetermined extract rate.
- 11.2.5 The period of time that the unit will run at boost speed will depend upon the type of automatic boost control fitted.
- 11.2.6 Maintenance of the CE180P Mk2 *inline premier* unit is required annually to clean the fan assembly.

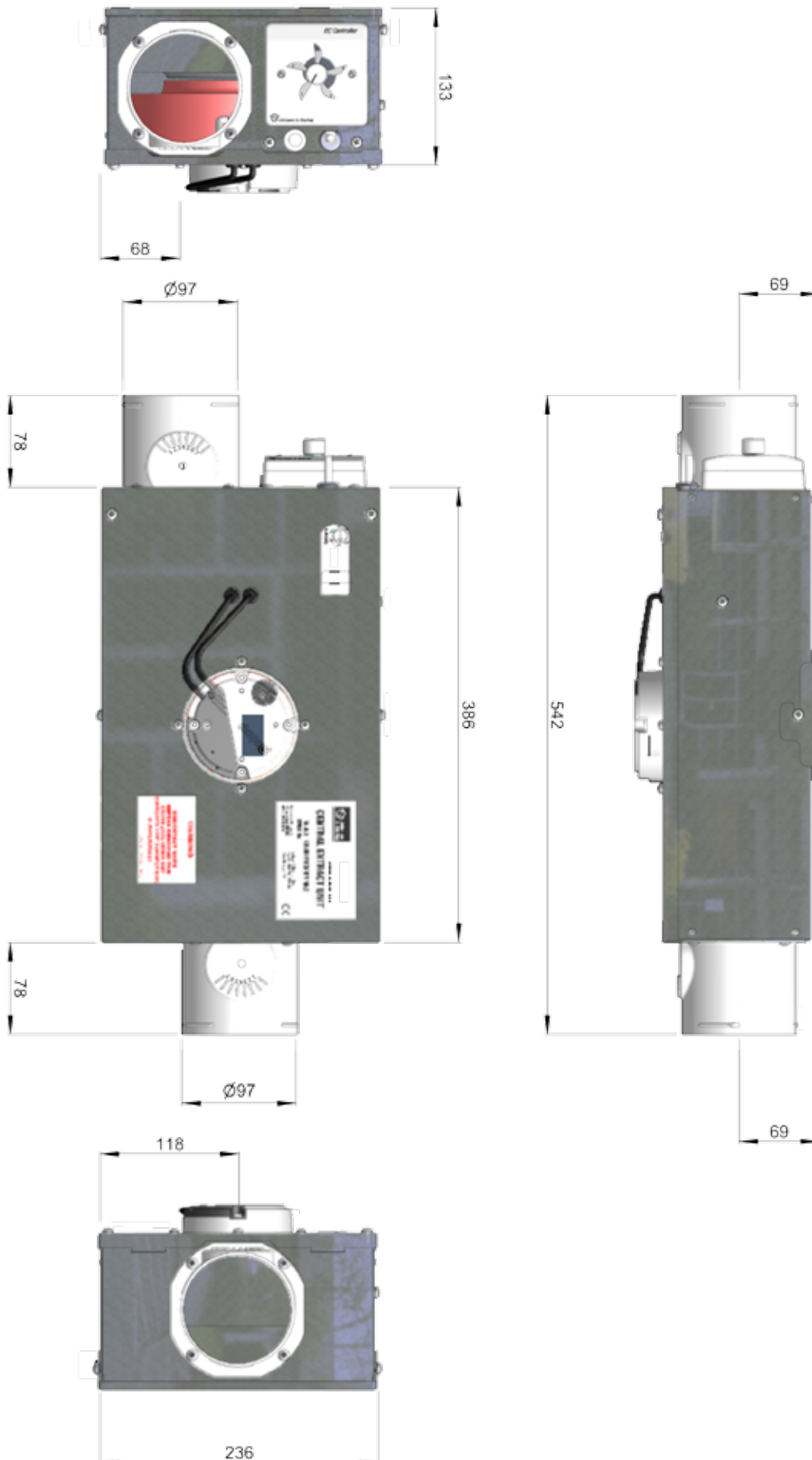


#### PLEASE NOTE:

Orientation of this control switch can be changed to suit if required. Remove the two screws and re-position.

## 12. DIMENSIONS

All dimension are measured in millimetres.

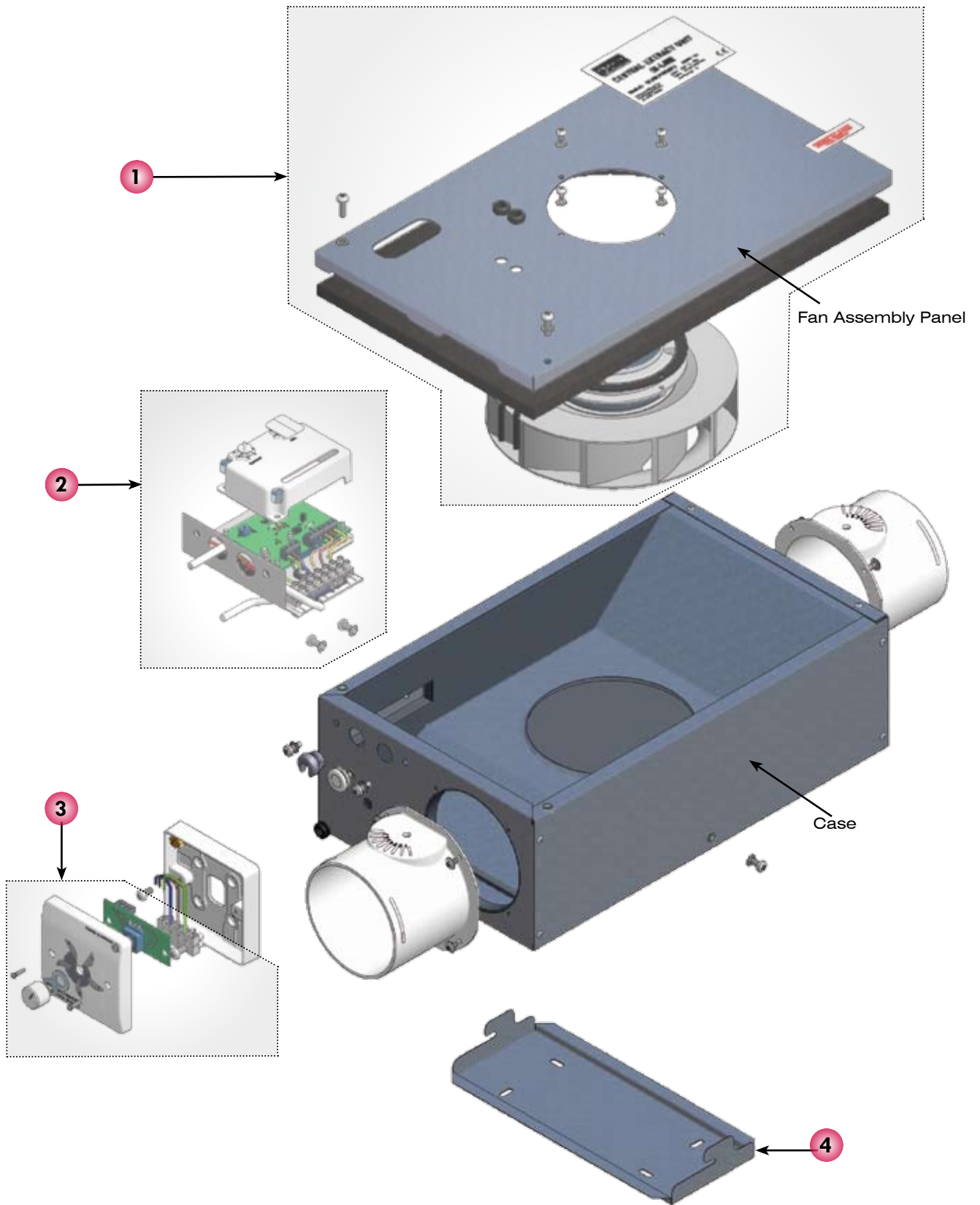


## 13. SPARES LIST

Should any of the components need replacing contact Johnson and Starley Spares Department. When ordering, please quote the serial number of the unit and the model number.

ITEM	PART No.	DESCRIPTION	QTY
1	X182-0106005	Cover Assembly (Complete with fan)	1
2	X182-0109005	Electrical Panel Assembly (EC)	1
3	1000-0523665	Controller Assembly (EC Version)	1
4	X180-0111000	Mounting Bracket	1
5	1000-0525465	Fan Assembly (EC)	1

# 14. EXPLODED DIAGRAM



**Johnson & Starley** are the leading UK & European manufacturers of a complete range of **Domestic Warm Air Heaters**.

All the heaters suit both **Replacement** and **Upgrade** needs and are compliant with the new (2006) amendments to Part L of the Building Regulations.

## HOME COMFORT SOLUTIONS

### Company Details

Website Address [www.johnsonandstarley.co.uk](http://www.johnsonandstarley.co.uk)  
Email [sales@johnsonandstarley.co.uk](mailto:sales@johnsonandstarley.co.uk)  
[marketing@johnsonandstarley.co.uk](mailto:marketing@johnsonandstarley.co.uk)  
Telephone Number **01604 762881** (Main switchboard)  
Fax Number **01604 767408**

### Spares

Telephone **01604 707012**  
Fax **01604 762884**

### Sales

Telephone **01604 707012**  
Fax **01604 764879**

### Service

Telephone **01604 707011**  
Fax **01604 707017**

### Warm Air Upgrade Enquiry Service

Telephone **01604 707026**  
Fax **01604 707017**

## COMMERCIAL & INDUSTRIAL H&V SOLUTIONS

### Company Details

**Johnson & Starley** Dravo Division Industrial H&V  
Website Address [www.dravo.co.uk](http://www.dravo.co.uk)  
Email [dravo@johnsonandstarley.co.uk](mailto:dravo@johnsonandstarley.co.uk)  
Telephone Number **01604 707022**  
Fax Number **01604 706467**



RENO BOILER RANGE



HI-SPEC WARM AIR HEATERS



ECONOMAIRE WARM AIR HEATERS



HOME 'N' DRY VENTILATION



DRYFLOW



HEAT RECOVERY



**Johnson & Starley**