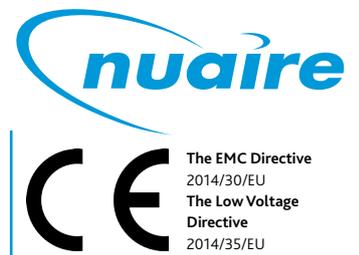


# XS Ceiling Fan Kits 50 / 60Hz

## Supply / Extract Units

### Installation and Maintenance



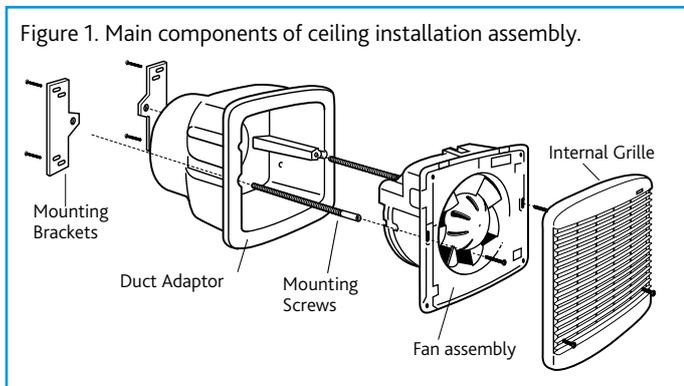
## 1.0 Safety Information

**IMPORTANT:** Installation or replacement of units or spare parts must be carried out by a qualified or Nuairé approved service engineer/ electrician and in accordance with IEE or local national wiring regulations.

## 2.0 Introduction

The Nuairé XS Ceiling Fan Kit is available in 6, 9 and 12 inch impeller sizes suitable for supply or extract and can be the heart of a room's automatic ventilation system.

Ensure adequate air replacement for the fan and any fuel burning appliance in the room.



## 2.1 Switching

Operated via a separately wired 3 amp fused spur (by others) or operated via the optional XS-MFC remote controller allowing supply or extract, variable speed and automatic or manual switching of several fans if desired.

## 2.2 Sensors

Sensors are available as remote units or integral 'plug in' units. They are able to control multiple fans, depending on sensor and fan types. Integral sensors are quick and easy to install and are aesthetically pleasing, whilst remote sensors give the benefit of location close to the pollutant source. Remote sensors can be fitted with an optional security strap to prevent unwanted tampering.

## 2.3 General

The removable interior grille provides easy access while the external rotor motor makes for simple removal of the push-on impeller for cleaning. Upward angled interior grille vanes shield workings from view. The fan is IP24 splash proof approved with the motor rated at IP44.

Fan casing, impeller and shutter shall be manufactured from UV stabilised ABS polymer. All models shall include an economy /high efficiency setting facility and are dove grey in colour.

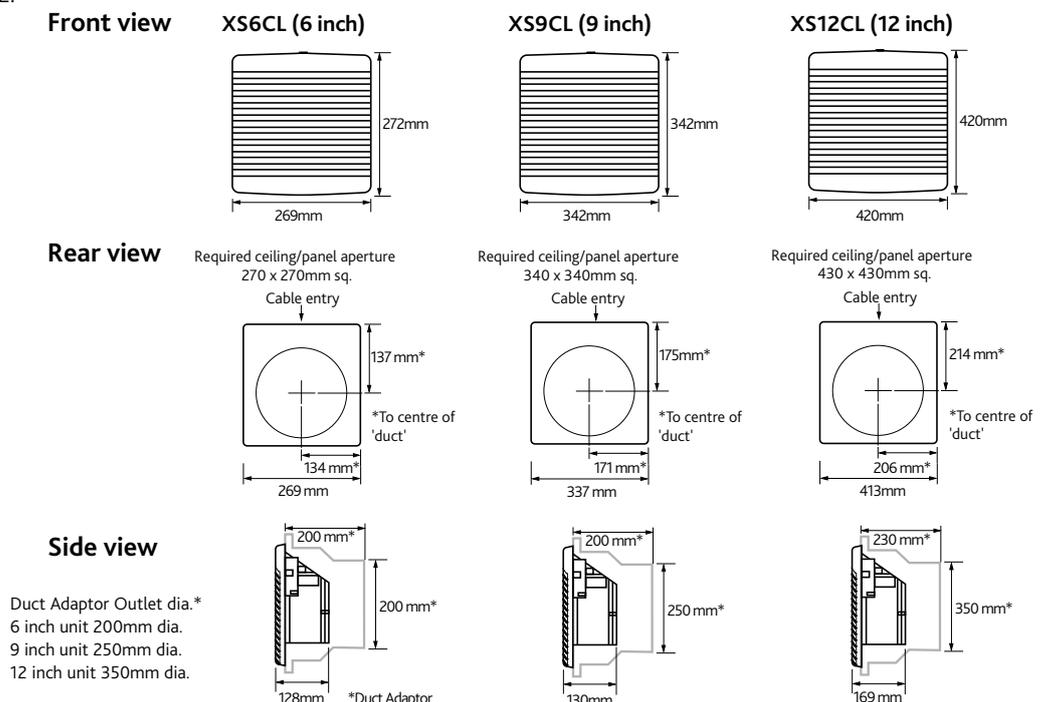
### 2.3.1 Coding For Ceiling Fan Kits

Description	Code (50 Hz)	Code* (60 Hz)
6 inch Ceiling Fan Kit Complete	XS6CL	XS6CLH
9 inch Ceiling Fan Kit Complete	XS9CL	XS9CLH
12 inch Ceiling Fan Kit Complete	XS12CL	XS12CLH

**\* H indicates 220V 60Hz 1ph**  
**Ceiling Fan Kits are supplied as a complete package with all installation parts included.**

## 3.0 Dimensions

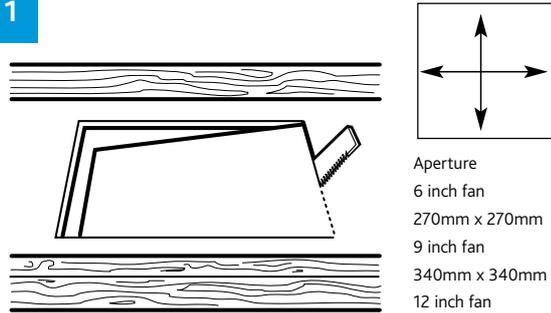
Figure 2.



## 4.0 Installation

### 4.1 Installation Of Ceiling Fan Kits

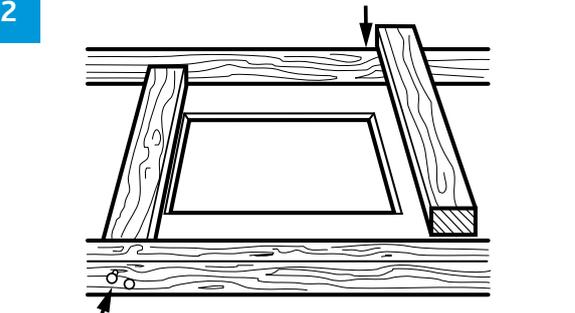
**1**



Aperture  
 6 inch fan  
 270mm x 270mm  
 9 inch fan  
 340mm x 340mm  
 12 inch fan  
 430mm x 430mm

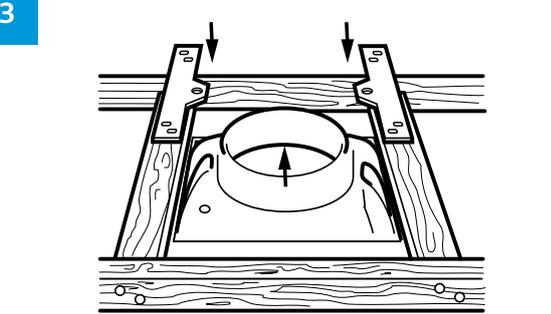
Prepare the aperture to suit the fan size.

**2**



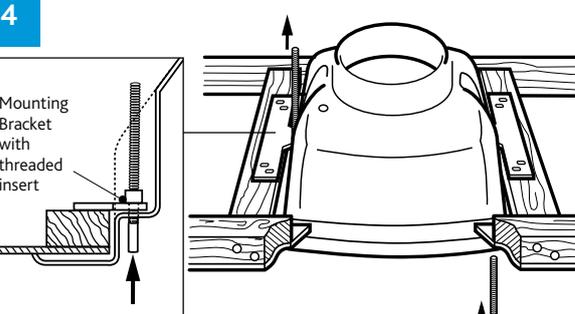
Cut and fit timber supports (not supplied) for aperture as shown.

**3**



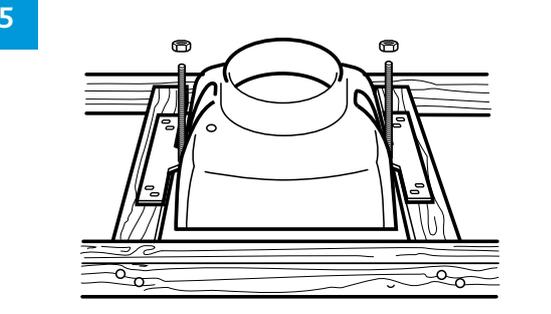
Offer the duct adaptor and the two metal brackets into position.

**4**



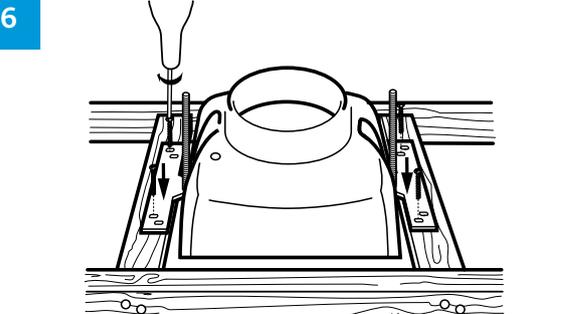
Screw the 2 mounting rods into the brackets from below.

**5**



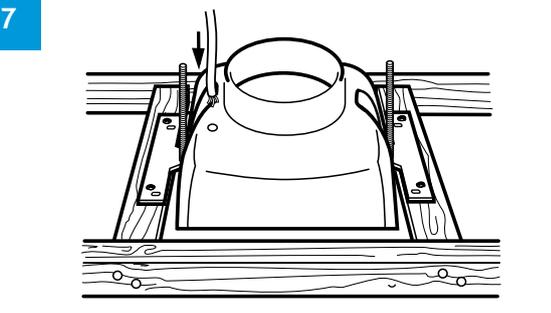
Lock the screw rods with the nuts provided.

**6**



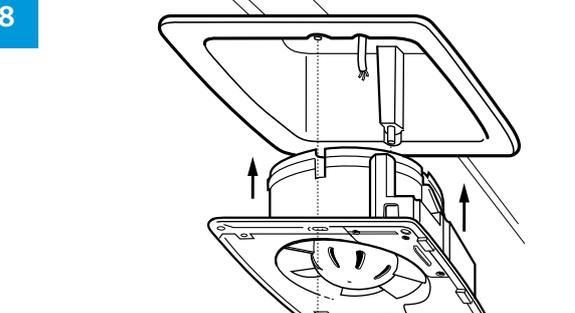
Fix the metal brackets to the cross battens.

**7**



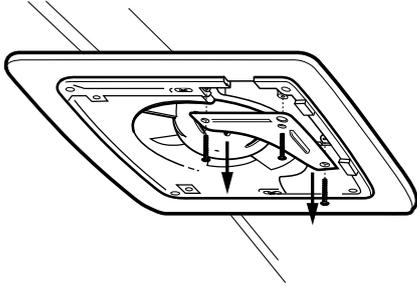
Feed the supply cable through the duct adaptor.

**8**



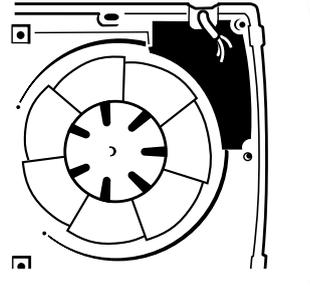
Offer the fan up into the duct adaptor and fix using the two screws.

9



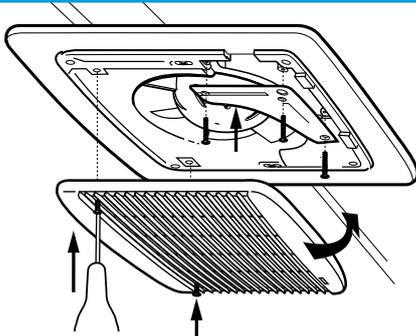
Remove the electrical connection panel (top left).

10



Bring the cable through the fan plate approx 150mm. See wiring page 4 for various wiring options.

11



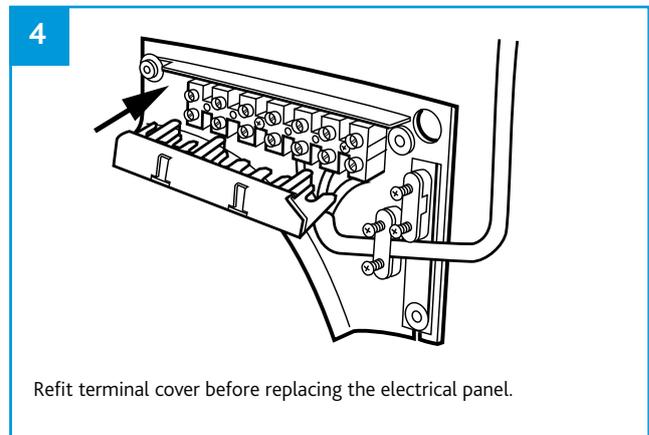
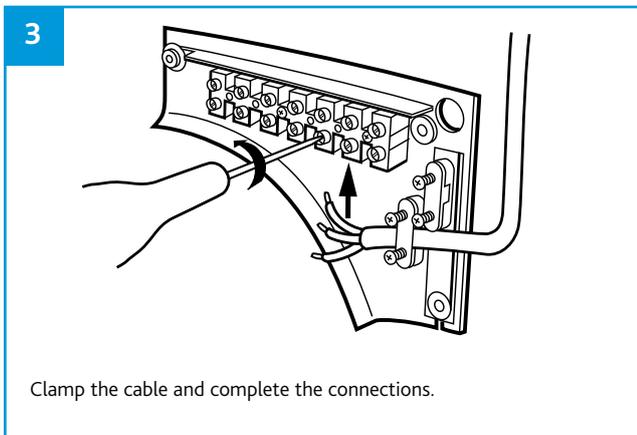
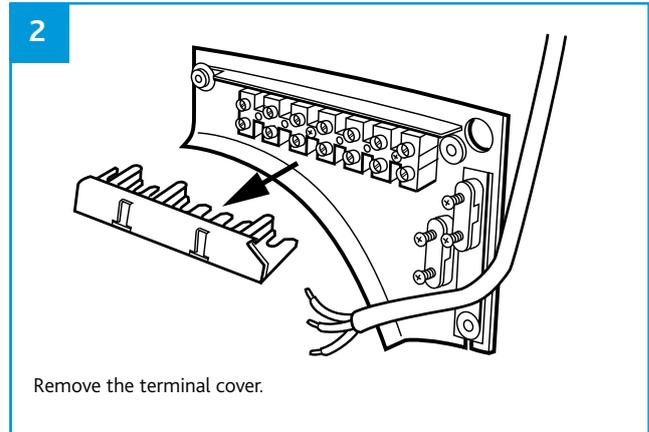
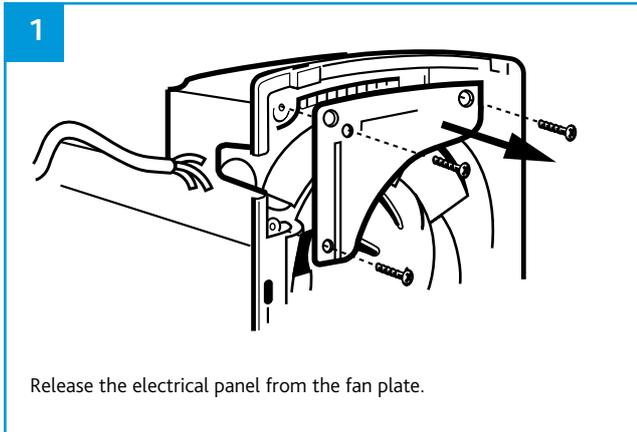
Fix the electrical connection before offering up the internal grille. Note grille clips over top edge before being fixed.

### IMPORTANT

(Shutter Operation XS fans)  
There will be a short delay on start-up and shutdown of approximately 40 seconds, this is normal.

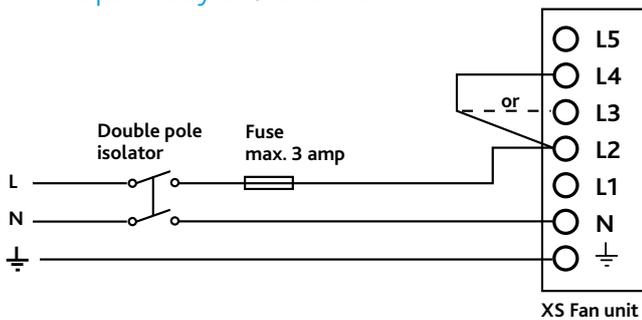
## 5.0 Electrical Installation

Electrical work should be undertaken by a qualified electrician in accordance with the wiring regulations.



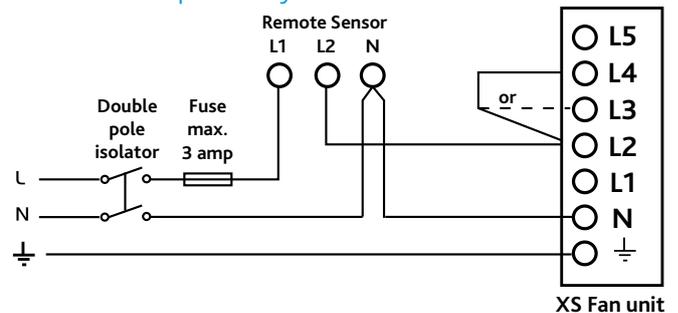
## 5.1 Wiring

### 5.1.1 Fan Operated By On / Off Switch



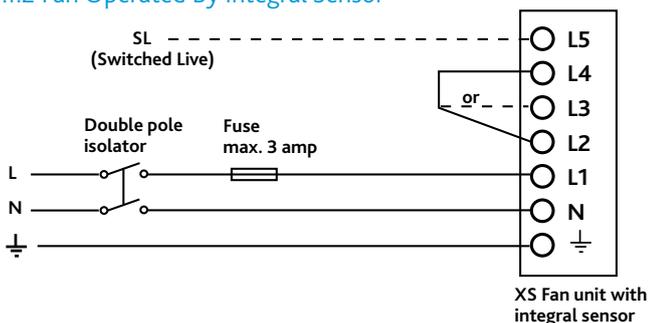
Connect link wire between L2 & L4 for extract OR connect link wire between L2 & L3 for supply.

### 5.1.3 Basic Fan Operated By Remote Sensor



Connect link wire between L2 & L4 for extract OR connect link wire between L2 & L3 for supply.

### 5.1.2 Fan Operated By Integral Sensor

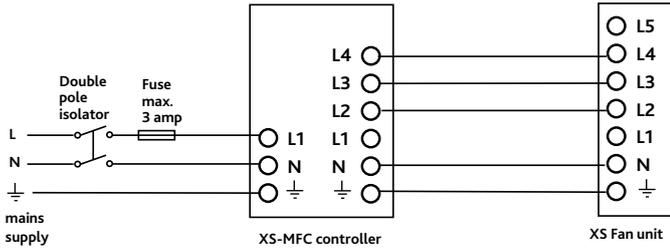


Connect link wire between L2 & L4 for extract OR connect link wire between L2 & L3 for supply.  
Connect switched live signal to L5 for integral timer module.

## IMPORTANT

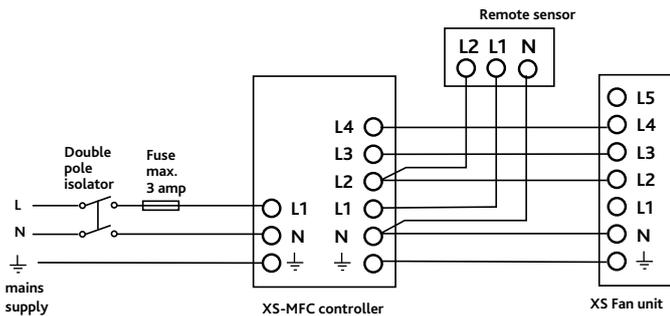
Isolation - Before commencing work, make sure that the unit is electrically isolated from the mains supply.

### 5.1.4 Supply / Extract Fan Operated via remote XS-MFC Control



Remote switch may be set: On/Off, Forward/Reverse, Economy/Std. (variable speed), Auto/Manual.

### 5.1.5 Supply / Extract Fan Operated via remote XS-MFC Control and Remote Sensor



Remote switch may be set: On/Off, Forward/Reverse, Economy/Std. (variable speed), Auto/Manual.

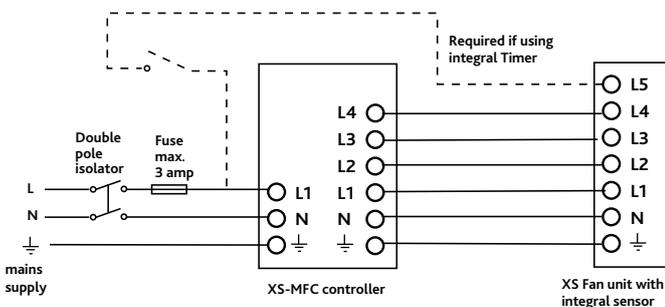
One or more Remote Sensors may be wired in parallel to one XS-MFC Control.

Humidity Sensor: XS-HR

Air Quality Sensor: XS-AQR

Passive Infra-Red Sensor: XS-PIRR

### 5.1.6 Supply / Extract Fan Operated via remote XS-MFC Control and an Integral Sensor



Remote switch may be set: On/Off, Forward/Reverse, Economy/Std. (variable speed), Auto/Manual.

Maximum one Integral Sensor per fan, 6/9/12 denotes unit size identity.

Humidity Sensor: XS-H6/9/12

Air Quality Sensor: XS-AQ6/9/12

Passive Infra Red Sensor: XS-PIR6/9/12

Temperature Sensor: XS-TH6/9/12

Run on Timer: XS-TA6/9/12.

A single sensor will switch all fans if more than one fan is being operated by a single XS-MFC controller.

**NOTE: Multi-fan options:**

Up to 5 fans (size 6"/9") can be controlled by one XS-MFC.

Up to 2 fans (size 12") can be controlled by one XS-MFC.

Do not mix different fan sizes on the same controller.

### 5.2 Unit Consumption & Weight

Model	Input Power (W)		Weight (kg)
	Max.	Economy	
XS6CL supply & extract	38	20	3.95
XS9CL supply & extract	50	37	5.5
XS12CL supply & extract	100	70	8.7

Note figures are for extract only at 50hz.

### 5.3 Electrical Specification

230V ~ 50Hz / 220V ~ 60Hz Class I. Motor thermally protected by overload device. Cable: 1mm max. or min. Fuse: 3 amp (if fan is supplied from a 5A lighting circuit, no local fuse is required).

**Note:** If 2 x 12 inch fans or 3 x 6 or 9 inch fans are used in the same operating mode in the same room they should all be controlled from the same MFC speed control. This avoids the possibility of one fan (if speed controlled at a lower flow rate) being stalled by the other fan(s).

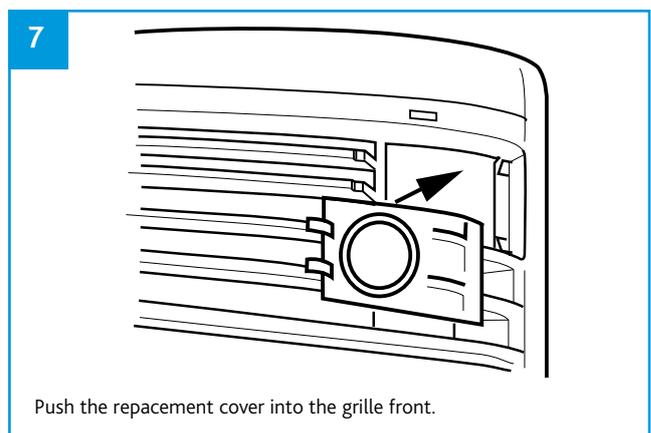
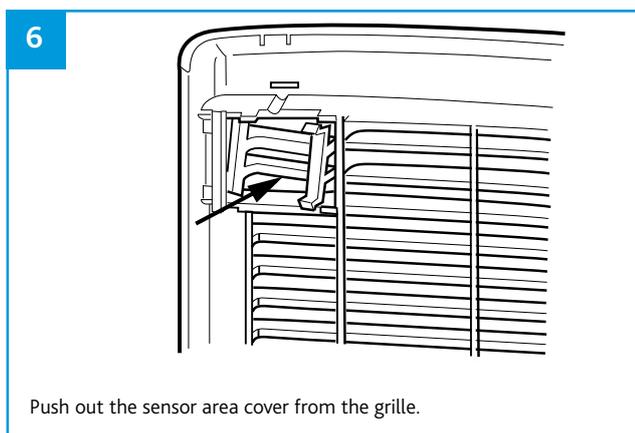
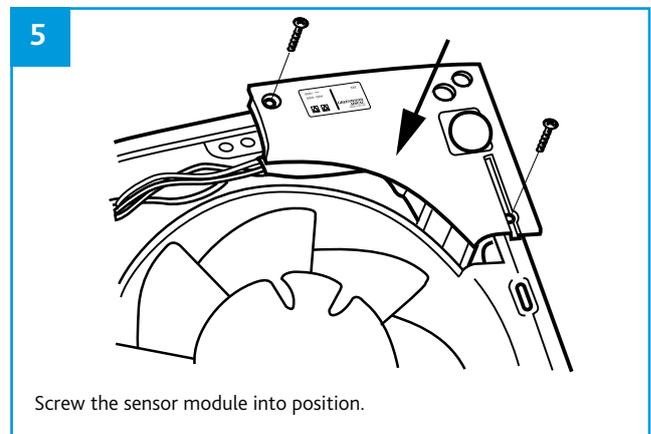
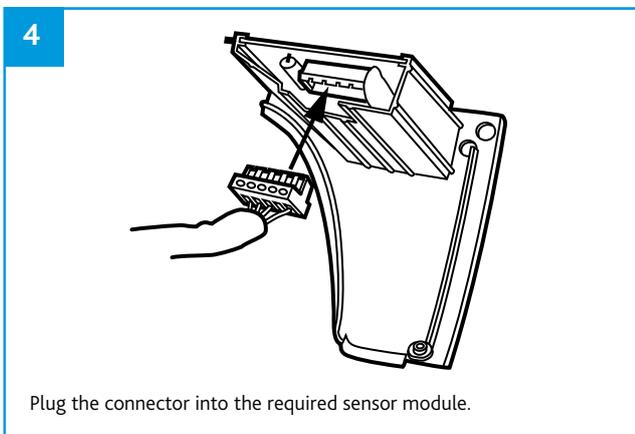
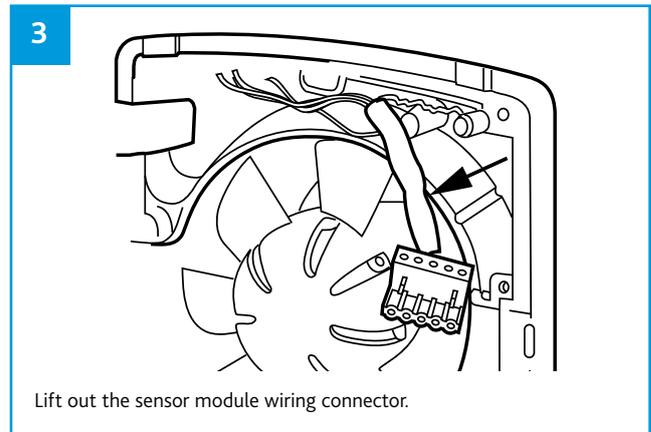
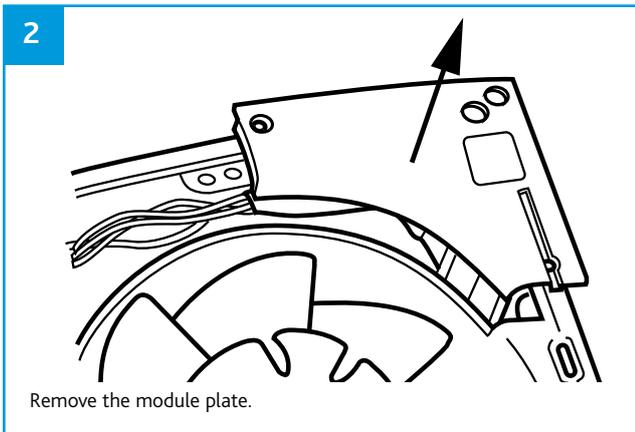
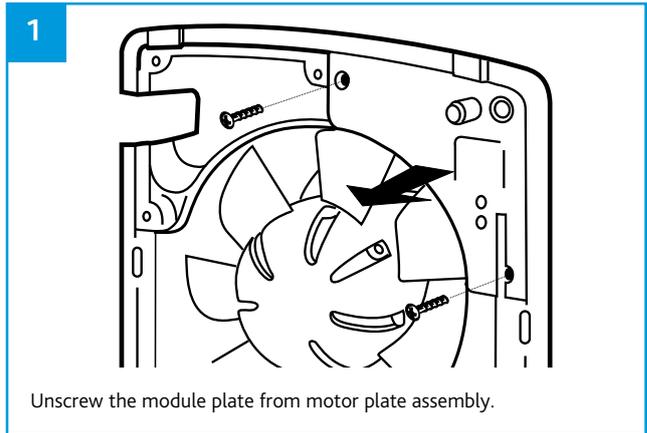
Adequate make-up air provision sufficient to provide ventilation in accordance with building regulations is required in all rooms. This should be checked during commissioning with all fans in the same room running together in all possible configurations.

The automatic shutters, motor bearings should be frequently inspected and maintained to ensure they open fully/operate satisfactorily. Use of an RCD and fused spur with 1A, Bussmann TDC180, BS1362, fuse (Farnell order no: 1123029) for 1 fan or 2A, Bussmann TDC180, BS1362 fuse (Farnell order no: 1123032) for 2 or 3 fans is recommended.

Always confirm airflow direction before commissioning.

### 5.4 Fitting Integral Sensors (Optional)

Note: Before following the pictorial sequence shown, first remove the fans front cover grille (2 screws). Release the four main corner screws and lift out the motor/fan plate assembly. Remove the electrical cover plate opposite the sensor plate. Follow the pictorial sequence on this page.



### 5.5 Fitting Remote Controller XS-MFC or Remote sensors (optional)

The XS-MFC Multi Fan Control provides supply or extract, variable speed and automatic or manual switching of several fans if desired, (see note below). The control is best mounted approx 1.5m above the floor. Remote Sensors are available for Humidity, Air Quality and Passive Infra Red control. Remote Sensors should be positioned at least 1.5m above the floor and away from direct heat sources e.g. radiators.

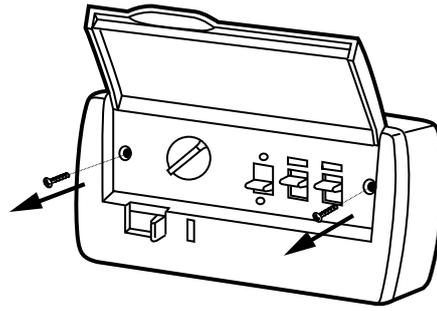
**Note:**

Up to 5 fans (size 6 / 9 inch) can be controlled by one XS-MFC.

Up to 2 fans (size 12 inch) can be controlled by one XS-MFC.

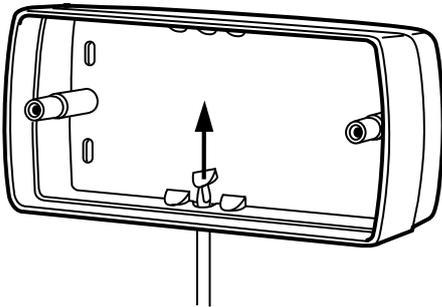
Do not mix different fan sizes on the same controller.

1



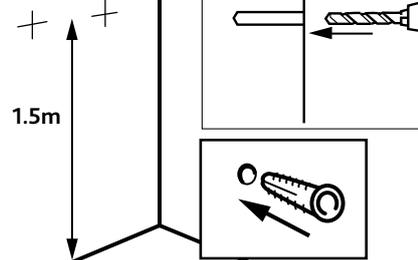
Lift up panel and remove two screws to dismantle unit.

2



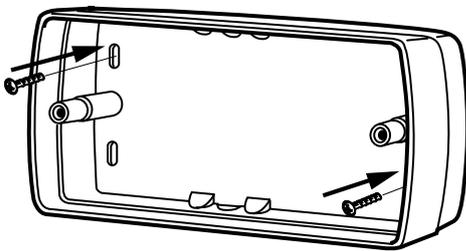
Push out backplate box cable entry using a screwdriver.

3



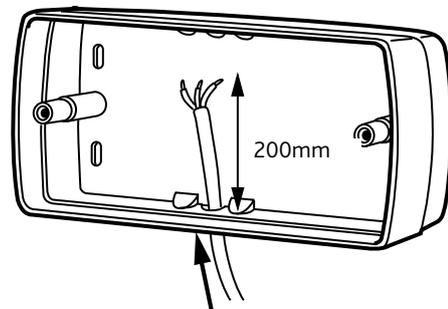
Spot through backplate box and drill and plug the ceiling.

4



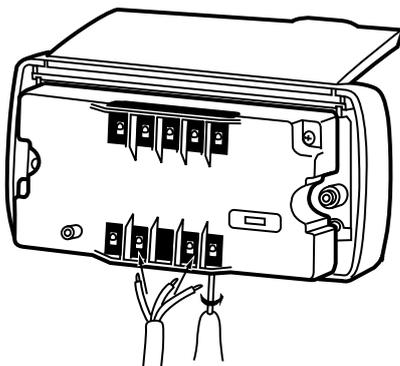
Fix backplate box to the prepared ceiling.

5



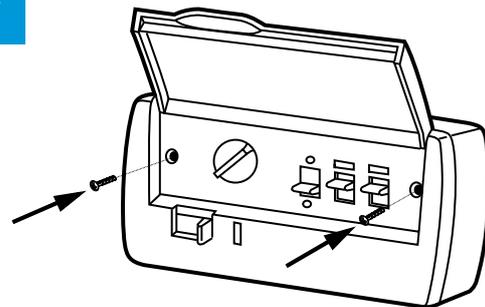
Feed approx. 200mm of supply cable into the box

6



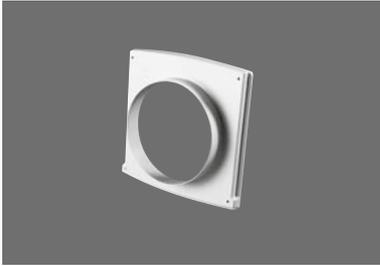
Connect the end of the cable into the control block.

7



Fit the control into the backplate box and secure. Test the installation.

### 6.0 Ancillaries

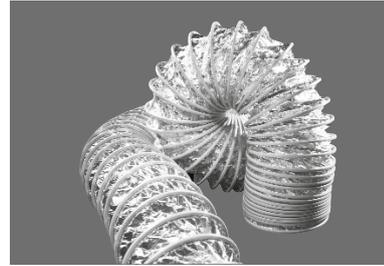


#### Single Spigot Adaptor

Used in conjunction with flexible ducting systems.

Mounted onto the front of the Spacer section using the 4 off 5mm x 40mm brass screws supplied with the Single Spigot Adaptor. Replaces the internal grille.

Can also be used connected directly to a Roof Terminal using the 4 off 5mm x 40mm brass screws supplied with the Single Spigot Adaptor. Manufactured from HIPS material.



#### Flexible Ducting and Installation Accessories

A full range of ducting and installation accessories is available from Nuair. Call Nuair on 02920 885231 to request literature.

### 7.0 Maintenance

Periodically, at least once a year or more frequently in case of heavy use, remove the dirt and encrustation from the grille(s) fan impeller and motor casing. Ensure the impeller is not cracked or deformed and is able to rotate freely and without oscillation.

**Do not use any solvents to clean this product.**

### 8.0 Replacement Of Parts

As a manufacturer Nuair is aware that time is important. In the event of a breakdown of this equipment, it should be adequately packaged and returned to Nuair.

Please telephone Nuair before posting your unit. A returns number will be issued to identify your package.

We will endeavour to repair or replace it within five working days of receipt. See our warranty terms.

### 9.0 Warranty

The 3 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.

Installation or replacement of units or spare parts must be carried out by a qualified or Nuair approved service engineer/ electrician and in accordance with IEE or local national wiring regulations.

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. A unit returned to Nuair should be suitably protectively packaged and clearly marked with the 'returns number' obtained from Nuair prior to posting.

### 10.0 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**  
**[aftersales@nuair.co.uk](mailto:aftersales@nuair.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.