SUMMARY FAN DATA SHEET

Nuaire Limited, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email:info@nuaire.co.uk
UK Commercial Enquiries T:029 2085 8200 UK Residential Enquiries T:029 2085 8500 International Enquiries T:+44.29 2085 8497

This data sheet produced on 14 Oct 2016 15:12 using software version 3.3.19.1041 - 7-October-2016

Technical Data

XS - Window Mounted Extract Fan
Window Mounted Axial - Supply or Extract

Fan Code:	**XS9GL**
Installation Manual Links:	671050
Nominal Fan Speed:	4 Pole 1,400 RPM
Electrical Supply:	230 V 1 Phase 50 Hz
Motor Rating:	0.05 kW
Motor Current:	flc: 0.24 A
Motor Current:	sc: 0.72 A
Max. Operating Temp.:	60°C

Sound Data

Inlet Noise (dBA): 41 dBA @ 3m
Outlet Noise (dBA): 40 dBA @ 3m

Sound Power Levels re 1 pWatts (Hz):

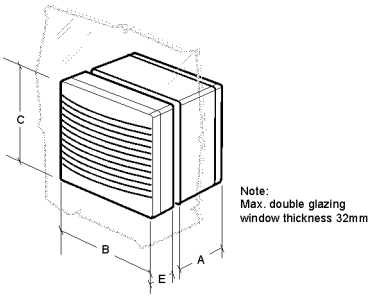
Hz	63	125	250	500	1k	2k	4k	8k
Open Inlet	47	64	55	52	57	56	53	44
Open Outlet	46	61	57	53	55	56	51	42

Please note that the noise data stated on this data sheet for the unit and/or silencer is tested in accordance with UK, European and International industry laboratory standards. However onsite conditions may vary and we would recommend that this information is verified by an acoustic specialist in order to ensure its suitability for the intended application.

Specification

Window mounted extract fan manufactured from ABS material. The fan is to have an externally weather louvre and a thermally actuated anti-backdraught shutter at the rear of the fan and the impeller at the front. The fans are controlled via a full range of integral sensors matched to an external remote controller providing on/off, extract, variable / fixed economy speed, auto / manual functions.

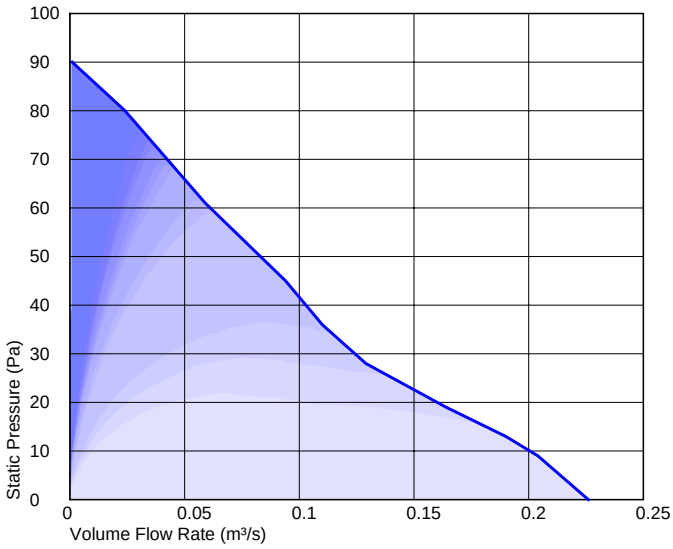
Fan Dimensions



A	B	C	E	kg
158	342	342	35	6.3

The drawing is for dimensional purposes only. Dimensions in mm.

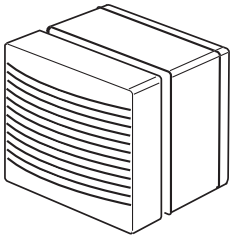
Performance Curve



Additional Supporting Documentation

The following pages contain these additional supporting documents:

24. 03. 15. Leaflet Number 671050
XS Window Fan Kits Supply/Extract Units Installation and Maintenance



XS Window Fan Kits

Supply/Extract Units

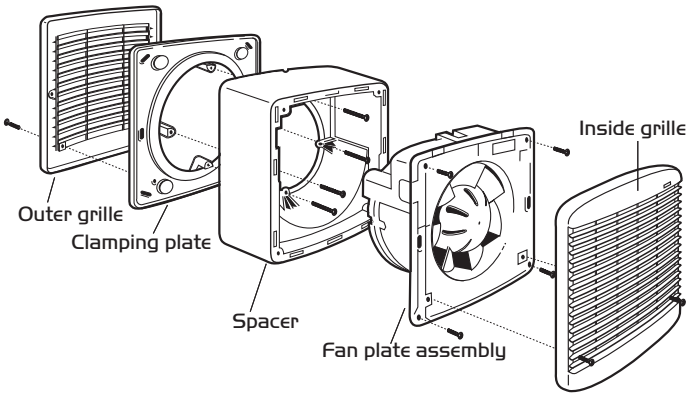
Installation and Maintenance

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

Introduction

The Nuaire XS Window 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.

Fig 1 Main components of Window installation assembly.



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.

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.

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 and downward sloping external vanes throw off rain. The fan is IP24 splash proof approved with the motor rated at IP44.
All external components are made in soft grey colours from ultra violet stable ABS material so they will blend with most decors and will not fade in sunlight.

Coding for Window Fan Kits

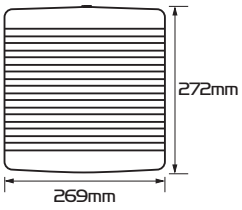
Description	Code
6 inch Window Fan kit complete	XS6GL
9 inch Window Fan kit complete	XS9GL
12 inch Window Fan kit complete	XS12GL

Window Fan Kits are supplied as a complete package with all window installation parts included and are suitable for glazing thickness of up to 32mm and wall/panels of 360mm.

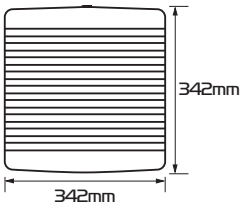
Dimensions Fig 2.

Front view

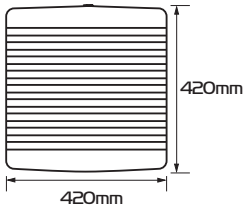
XS6GL (6 inch)



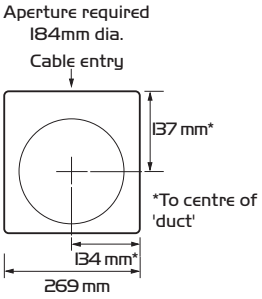
XS9GL (9 inch)

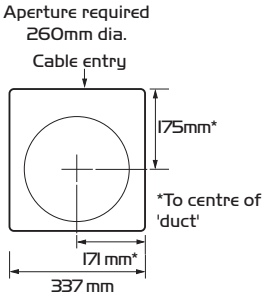


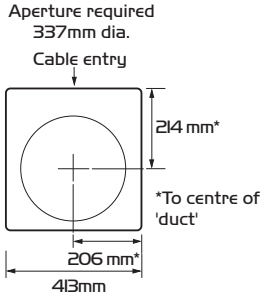
XS12GL (12 inch)



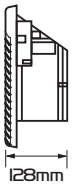
Rear view

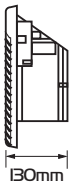


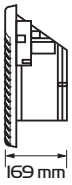




Side view







Nuaire Limited Western Industrial Estate Caerphilly United Kingdom CF83 1NA
T: 029 2088 5911 F: 029 2085 8444 E: info@nuaire.co.uk W: www.nuaire.co.uk

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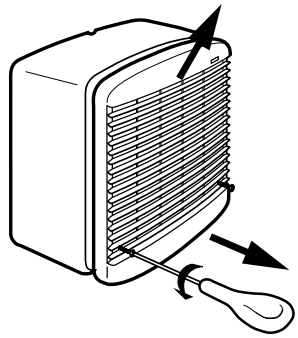
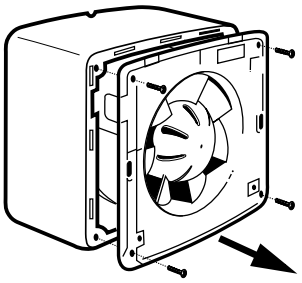
Installation of Window Fan kits

1



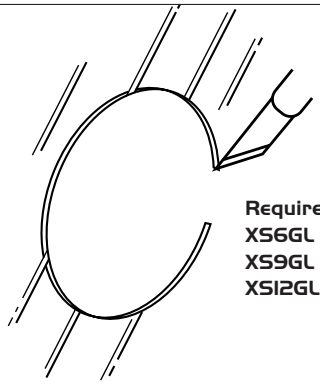
Remove front grille.
Release 2 screws. Lift grille upwards.

2



Remove fan plate.

3

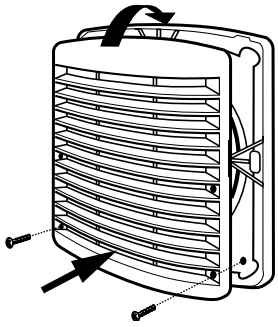


Required Glass Aperture

XS6GL	184 dia
XS9GL	260 dia
XS12GL	337 dia

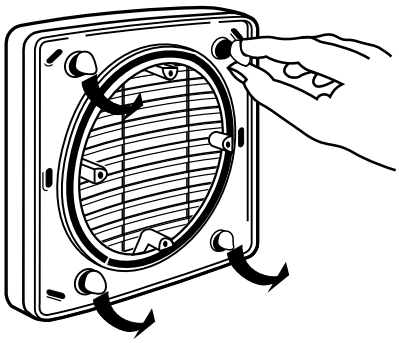
Prepare the window.

4



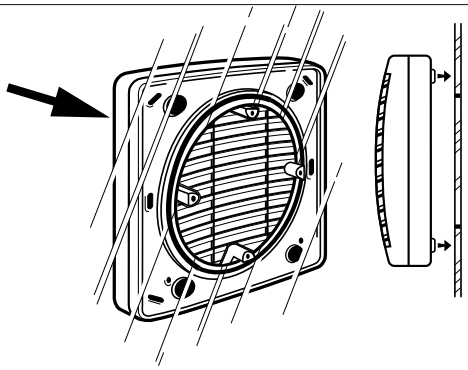
Fix outer grille to spigot plate. Check plate orientation is vertical. Note grille locates over top lugs on spigot plate.

5



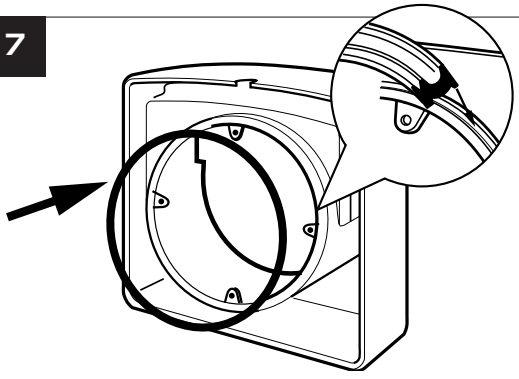
Remove adhesive pad covers.

6



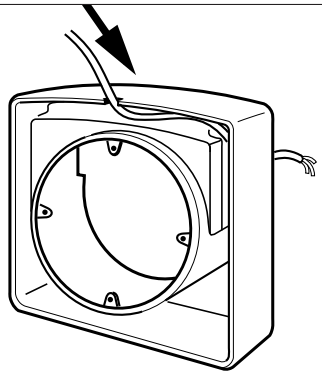
Clean the window glass and affix the outer grille assembly over window aperture.

7



Ensure rubber seal is located into case spigot.

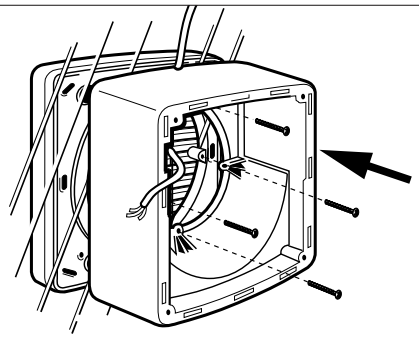
8



Feed supply cable into the case.

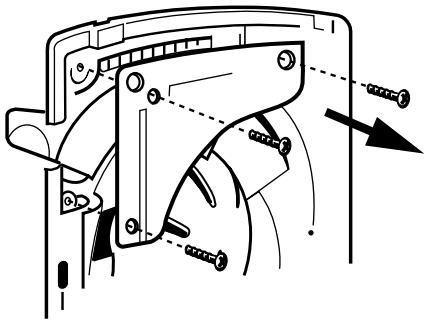
Installation of Window Fan

9



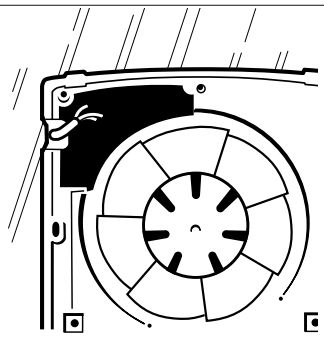
Screw the case/ grille assembly together.

10



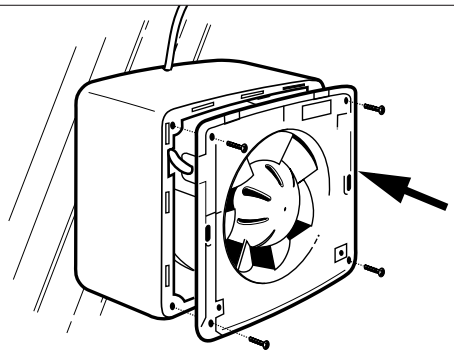
Release the electrical cover from the fan plate.

11



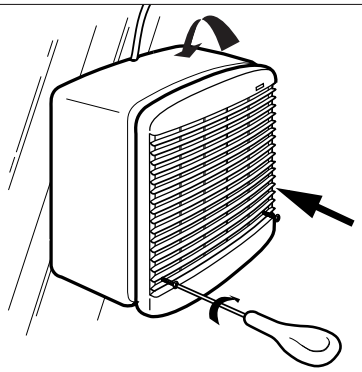
For various wiring options see page 5.

12



Assemble the fan plate to the case.

13



Fit the inside grille, locating it over the top lip before engaging screws.

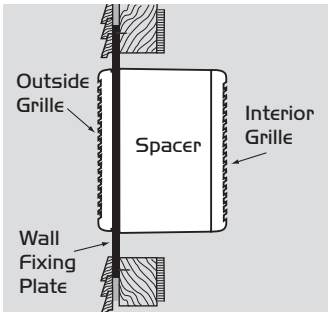
IMPORTANT

(Shutter Operation XS fans)
There will be a short delay on startup and shutdown of approximately 40 seconds. This is normal.

Fitting Ancillaries (Also see page 8)

Thin wall installation

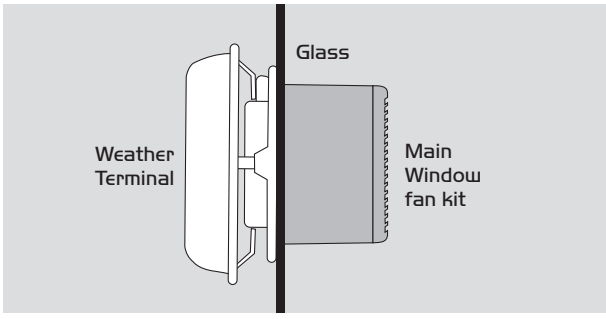
The diagram shows the unit installed in a timber wall.
A Wall Fixing Plate is used to support the fan assembly and the installation is similar to that for a window.



Fitting Ancillaries (Also see page 8)

Weather Terminal

The optional Weather Terminal is offered for use in exposed site conditions.
The illustration shows the Weather Terminal installed replacing the Outside Grille assembly. Terminal is held in position using the same fixings as the Outside Grille assembly. The base of the Terminal incorporates a foam strip which is designed to adhere to the glass surface assisting fitting and also as a seal for the joint when assembled together with the fan unit.



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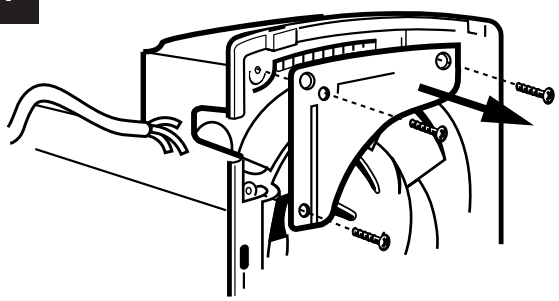
Electrical Installation

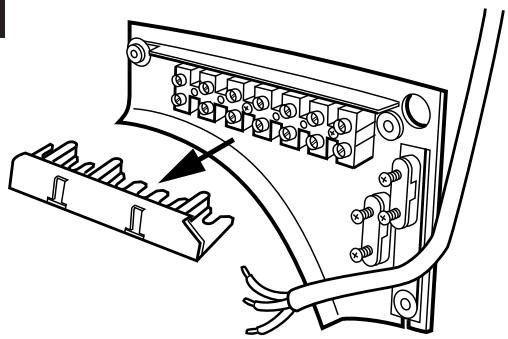
Electrical work should be undertaken by a qualified electrician in accordance with the wiring regulations.

1



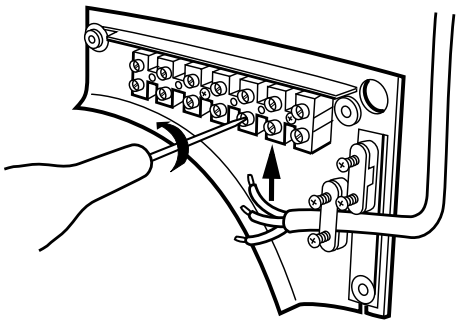
Release the electrical panel from the fan plate.

2



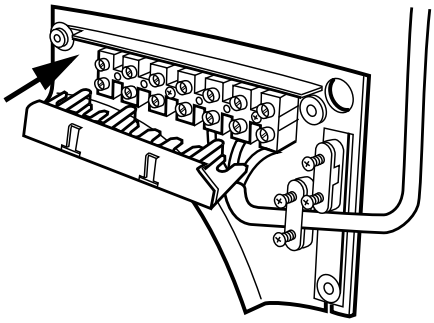
Remove the terminal cover.

3



Clamp the cable and complete the connections.

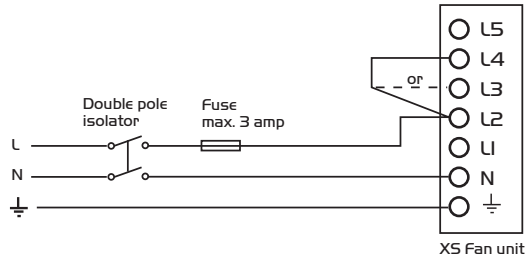
4



Refit terminal cover before replacing the electrical panel.

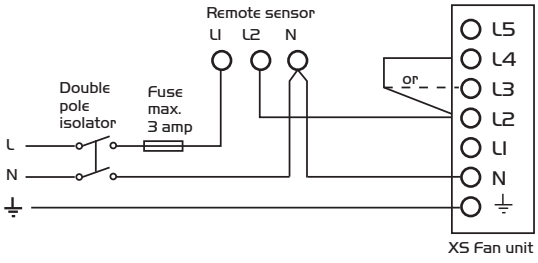
Wiring

Fan operated by on / off switch



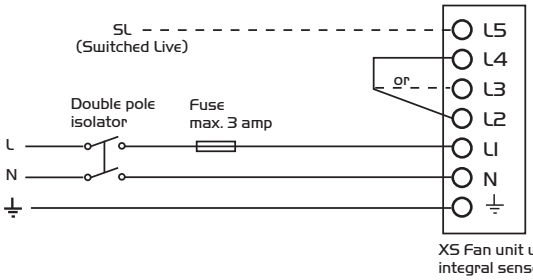
Connect link wire between L2 & L4 for extract
or Connect link wire between L2 & L3 for supply.

Basic fan operated by remote sensor



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

Fan operated by integral sensor



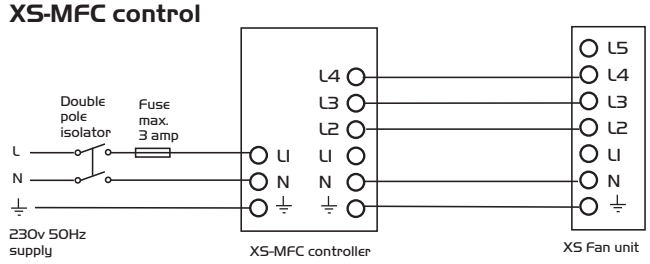
Connect link wire between L2 & L4 for extract
or Connect link wire between L2 & L3 for supply.
Connect switched live signal to L5 for integral timer module.

IMPORTANT

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

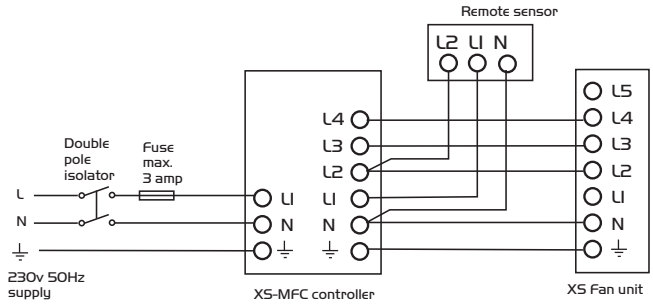
Electrical Wiring cont.

Supply / Extract fan operated via remote XS-MFC control



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

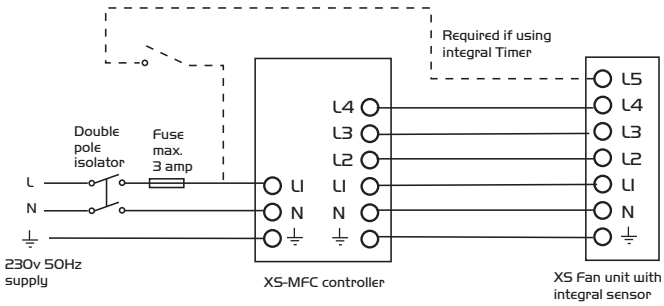
Supply / Extract fan operated via remote XS-MFC control & Remote Sensor(s)



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: X S-AQR
Passive Infra Red Sensor: XS-PIRR.

Supply / Extract fan operated via remote XS-MFC control and Integral Sensor



Remote switch may be set: On/Off, Forward/Reverse, Ecnomy/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.

IMPORTANT

(Shutter Operation XS fans)
There will be a short delay on startup and shutdown of approximately 40 seconds. This is normal.

XS6GL Consumption and weight

Model	Input Power Watts		Weight kg
	Max.	Economy	
XS6GL supply + extract	38	20	4.1

Note figures are for extract only.

Electrical Specification

230V ~ 50Hz 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).

XS9GL Consumption and weight

Model	Input Power Watts		Weight kg
	Max.	Economy	
XS9GL supply + extract	50	37	5.7

Note figures are for extract only

Electrical Specification

230V ~ 50Hz 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).

XS12GL Consumption and weight

Model	Input Power Watts		Weight kg
	Max.	Economy	
XS12GL supply + extract	100	70	8.6

Note figures are for extract only

Electrical Specification

230V ~ 50Hz 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:

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 IA, 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.

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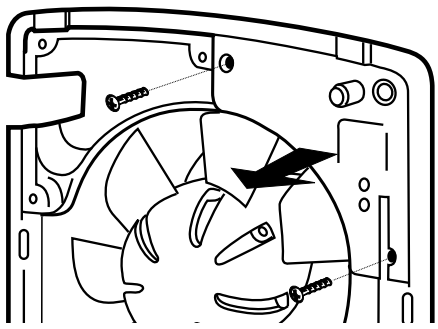
Fitting Integral Sensors (optional)

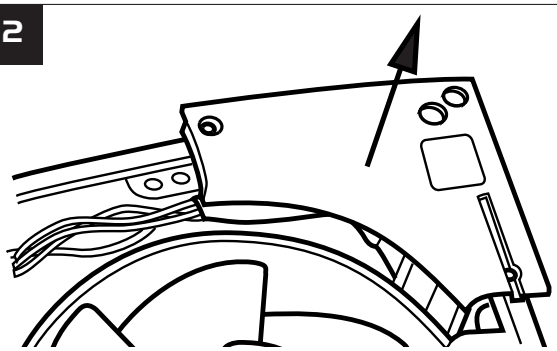
Note: Before following the pictorial sequence shown, first remove the fans front cover grille (2 screws). Release the four main corner screws and lift out the motor/fan plate assembly. Remove the electrical cover plate opposite the sensor plate. Follow the pictorial sequence on this page.

1



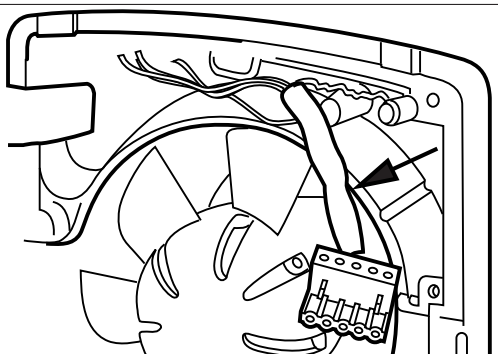
Unscrew the module plate from motor plate assy.

2



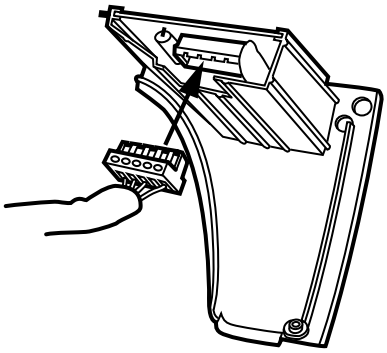
Remove the module plate.

3



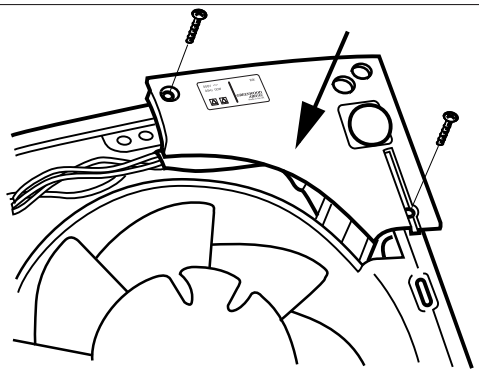
Lift out the sensor module wiring connector.

4



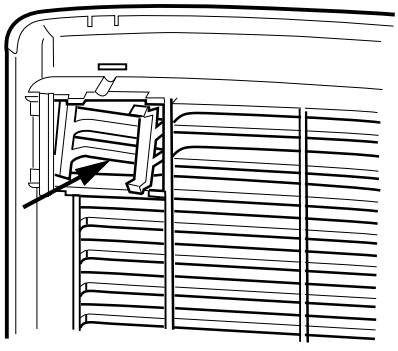
Plug the connector into the required sensor module.

5



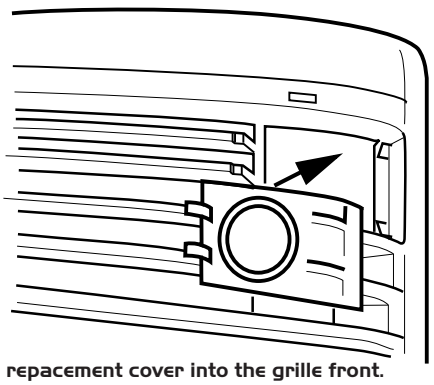
Screw the sensor module into position.

6



Push out the sensor area cover from the grille.

7



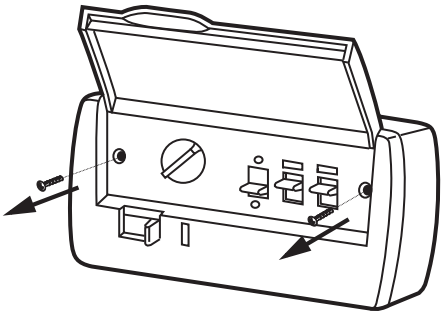
Push the repacement cover into the grille front.

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.

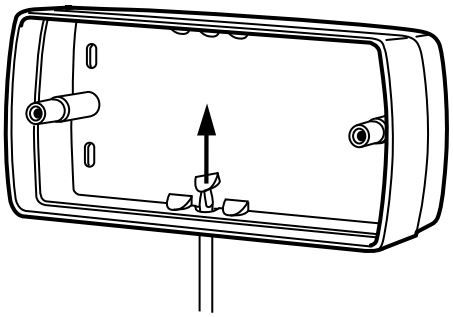
Note: Up to 5 fans (size 6 / 9 inch) can be controlled by one XS-MFC.
Up to 2 fans (size 12 inch) can be controlled by one XS-MFC.
Do not mix different fan sizes on the same controller.

1



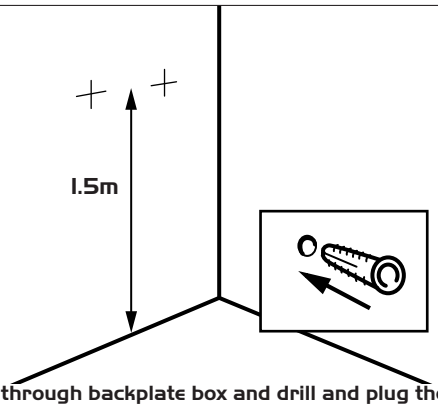
Lift up panel and remove two screws to dismantle unit.

2



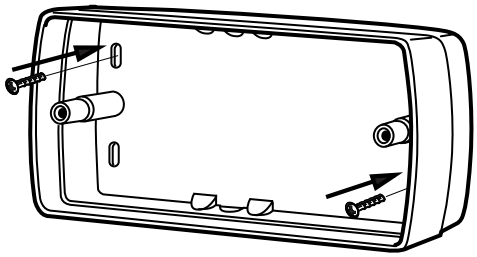
Push out backplate box cable entry using a screwdriver.

3



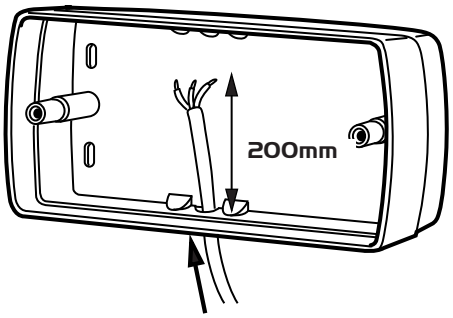
Spot through backplate box and drill and plug the wall.

4



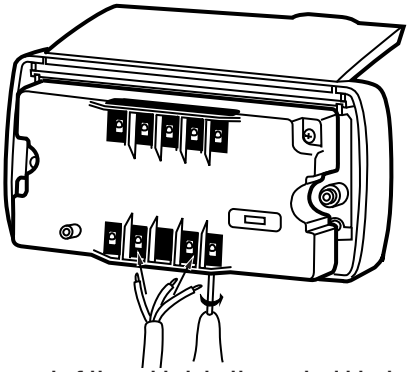
Fix backplate box to the prepared wall.

5



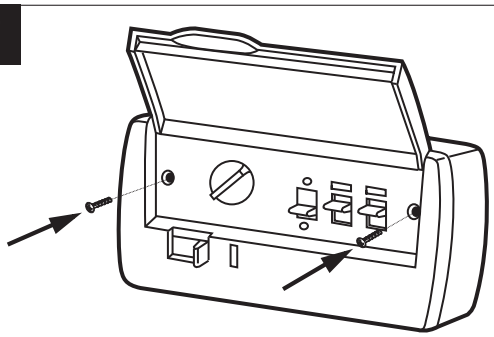
Feed approx. 200mm of supply cable into the box

6



Connect the end of the cable into the control block.

7



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

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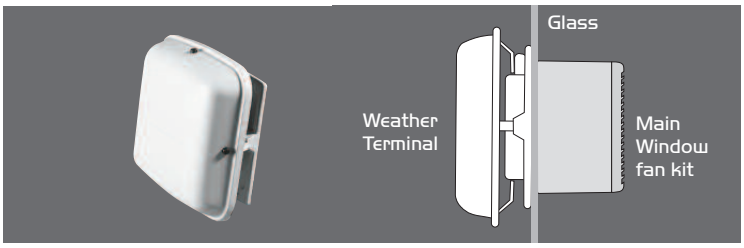
Ancillaries



Weather Terminal

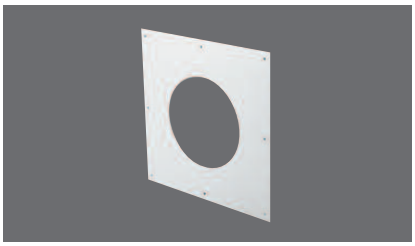
Used for exposed site wall installations, comprising one weather terminal.
Manufactured from HIPS.

Order Code XS-WT6
Dimensions: 360 x 360 x 170mm

Order Code XS-WT9
Dimensions: 425 x 425 x 180mm

Order Code XS-WT12
Dimensions: 506 x 506 x 185mm

The Weather terminal unit replaces the outside grille and is supplied with installation details.



Wall Fixing Plate

The Wall Fixing Plate is used for thin wall and above ceiling applications, to support the Fan assembly.

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.**

Replacement of Parts

As a manufacturer Nuaire is aware that time is important. In the event of a breakdown of this equipment, it should be adequately packaged and returned to Nuaire. IMPORTANT! Please telephone Nuaire before posting your unit. We will give you a returns number to identify your package.
We will endeavour to repair or replace it within five working days of receipt. See our warranty terms.

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 conditional on planned maintenance being undertaken.

Terms

This warranty applies to units installed and used in the United Kingdom.

The equipment will be repaired or replaced at Nuaire's cost provided that the appliance:

1. Has been installed and used in accordance with the fitting and wiring instructions supplied with each unit.

2. Has not been connected to an unsuitable electrical supply. (The correct supply voltage is shown on the appliance rating label attached to the unit).

3. Has not been modified or repaired by persons not authorised by Nuaire.

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

Service Enquiries

Nuaire can assist you in all aspects of service. Our service department will be happy to provide any assistance required, initially by telephone and If necessary arrange for an engineer to call within 48 hours if possible.

Telephone 029 2085 8400