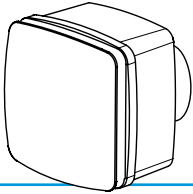


CYFAN

230V / 24V DC SELV Surface Mounted & Semi-Recessed Domestic Extract Fans Installation and Maintenance



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

1.0 SAFETY INFORMATION

- Before removing any covers or commencing work, ensure that the unit and Nuaire control are electrically isolated from the mains supply.
- Disconnection from the supply mains must be incorporated within the fixed wiring in accordance with the wiring regulations and shall have a minimum contact separation of 3mm in accordance with the latest edition of the IEE Wiring Regulations.
- During installation / maintenance ensure all covers are fitted before switching on the mains supply.
- 24V fan units must be installed in accordance with these instructions and IEE Wiring Regulations BS7671 for SELV installations.
- Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.
- In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

*IPX4 to EN60335-2-80 (with all covers fitted) for the voltage range as required by the Low Voltage Directive 2014/35/EU.

2.0 INTRODUCTION

The Nuair CYFAN centrifugal extract fan is a major advancement and has been designed to meet the flow rates for all wet room applications such as the bathroom, kitchen, utility and WC etc.

The unit discharges air through a 100mm or 125mm diameter spigot which for surface and semi-recessed mounted units exits at the rear of the unit. The subsidiary spigot kit allows the fan to extract air through the side of the fan via a 50mm diameter spigot.

The motor is 24V brushless DC. Bearings are sealed, self-lubricating ball type with integral locked rotor protection.

Units are supplied with a separate transformer enclosure if fans are required for SELV usage.

IMPORTANT

ISOLATION:

Before removing any covers or commencing work, ensure that the unit and Nuair control are electrically isolated from the mains supply.

During installation / maintenance ensure all covers are fitted before switching on the mains supply.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

CAUTION:

In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

2.1 Unit Operation includes 230V to 24V conversion, continuous or intermittent

The fan can be converted to operate as a 24V DC SELV for zone 1 and 2 applications. The fan has the option to select continuous or intermittent operation up to an installed performance of 60 l/s.

2.2 Mounting options

The CYFAN range can be:

- **Surface Mounted**
- **Semi-Recessed Mounted:** Using the optional extra Semi-Recessed mounting frame kit suitable for 100mm and 125mm diameter duct, consists of mounting plate and mounting flange.
- **Window Mounted:** Using the optional kit.
- **Surface mounted with side spigot:** Using the optional kit (see section 2.3 for part numbers).

2.3 CYFAN Ancillaries

•Wall Mounting Kit

Part Number	Colour
CYFAN-WALLKIT-WH	White
CYFAN-WALLKIT-BR	Brown
CYFAN-WALLKIT-COT	Cotswold
CYFAN-WALLKIT-TC	Terracotta

• **Optional window mounting kit** - Part number: CYFAN-WKIT

• **Optional spigot kit for ventilation of adjacent bathroom/ separate toilet** - Part number: CYFAN-DKIT

• **Semi-recessed mounting kit** - Part number: CYFAN-RKIT

• **Optional filter available** - Part number: 7702017

2.4 Box Contents

The following components are included:

2.4.1 Fan Body

- Fan Scroll including Motor and Removable Impeller
- Control / PSU PCB, complete with Boost Pull Switch
- PCB Cover
- Front Grille
- Front Cover
- 100mm Spigot (fitted)
- Additional 125mm Ø Spigot
- 2 off 100mm Back Draught Spigot
- 2 off 125mm Back Draught Spigot
- 24V Transformer Enclosure
- 15mm deep mounting skirt

2.4.2 Fixing Kit

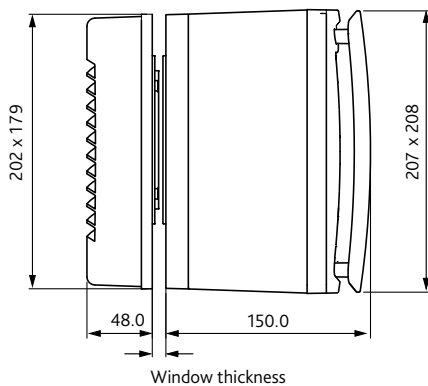
- 8 off No6 x 3/4" Pozi Pan Screw
- 6 off No6 x 1/2" Pozi Pan Screws
- 2 off No8 x 3/8" Pozi Pan Screws
- 3 off Cable Clamps
- 1 off Shutter Spring

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3.2 Optional Window Kit Dimensions

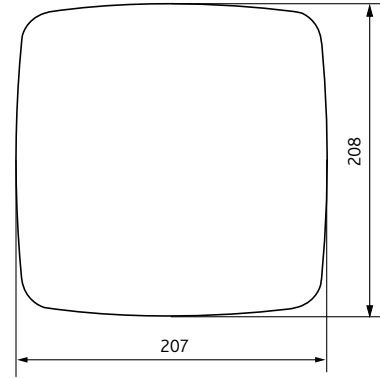
Figure 2. Dimensional drawing of optional window kit



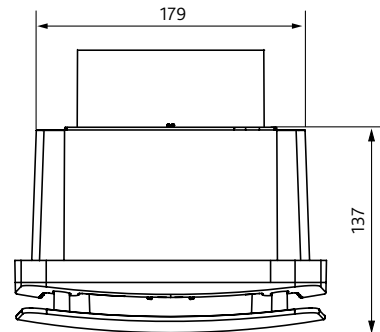
3.1 CYFAN Unit Dimensions

Figure 1. Dimensional drawing of CYFAN units.

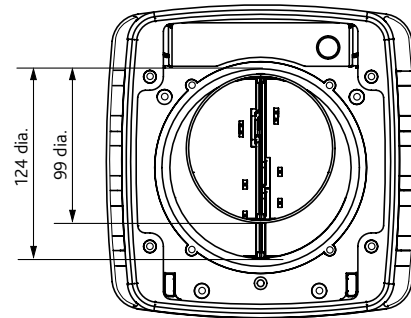
Front view



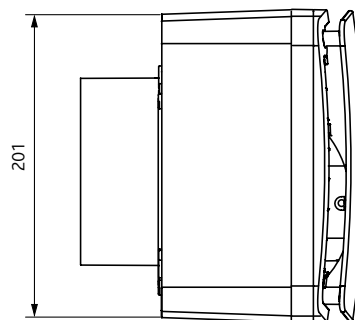
Top view



Back view

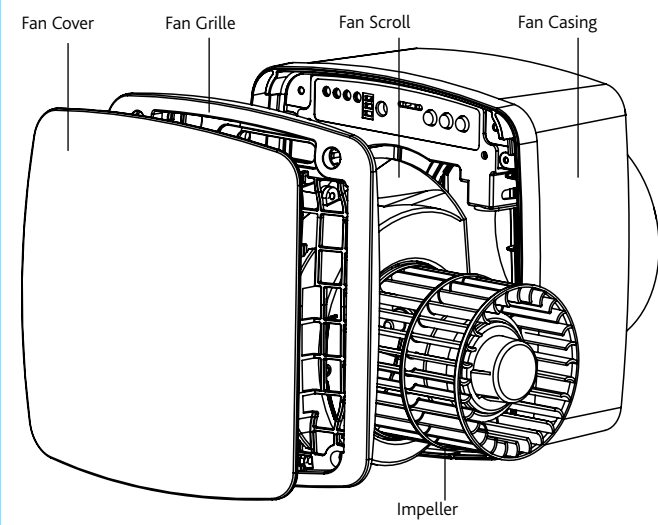


Side view



4.0 PREPARING FOR INSTALLATION

Figure 3. Exploded view of fan unit

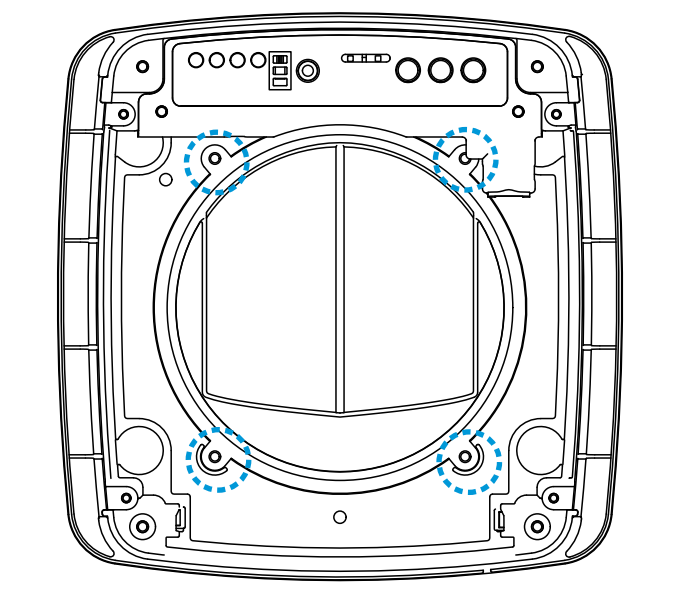


4.1 Changing the Spigot

For kitchen installations it is recommended that the 125mm diameter spigot is fitted.

1. Remove the front cover and grille.
2. Remove fan scroll from fan casing (Do not disconnect wiring).
3. Using a PH2 screw head driver remove 4 of No.8 x 1/4" screws.
4. Remove spigot.
5. Place the required spigot into position (see Figure 4).
6. Replace 4 off No8 1/4" screws.
7. Replace fan scroll on fan casing.
8. Replace front cover and grille.

Figure 4. Spigot change screw locations



4.2 Fitting Back-Draught Shutters

The CYFAN kit comes complete with back draught shutters for 100mm and 125mm spigots however these are not fitted as standard and **should not be used when using your CYFAN in continuous operation.**

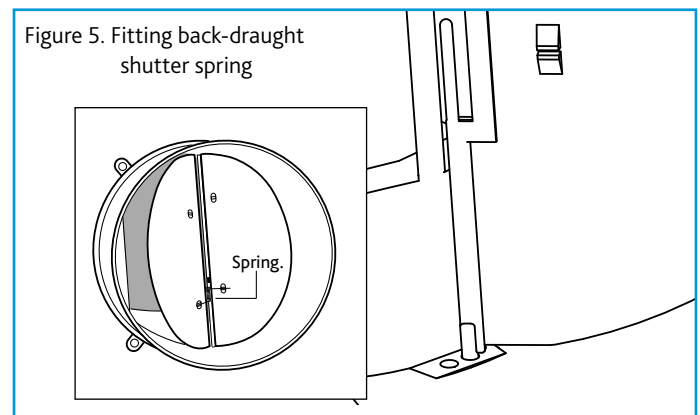
It is also recommended that you should not fit back draught shutters if your intermittent operation duties are below 15 l/s and for installations other than directly through the wall application to avoid failure of the shutters opening.

Please follow these simple steps to fit your back draught shutters if required: **It is advised to fit the shutters before installing the fan unit.**

1. Collect all required parts
2. 125mm shutters (2 of 41285) or 100mm shutters (2 of 41286)
3. Spring (Part of Fixing Kit 770173)

Fit 1 of the required diameter shutters with the part number facing in, by placing the bottom pin into the bottom hole, slightly deflect the shutter and then fit the top pin into the top hole. Repeat this process for the other shutter.

Figure 5. Fitting back-draught shutter spring



4.3 Conversion from 230V to 24V

1. Unpack the fan unit, components and transformer. Ensure that all parts listed on page 1 are present. If not please contact the manufacturer for replacement / missing parts.
2. Place the front cover and inlet grille to one side.
3. Remove the PCB cover by removing 2 off No.6 x 1/2" screws.
4. Partially remove the PCB assembly from the fan casing by placing a fingertip behind the dip switches and pulling the PCB away from the fan casing (see Figure 6).
5. Separate section 2 of the PCB from section 1 by cutting the tabs in the positions shown (see Figure 7 on page 5). Replace section 2 of the PCB into the fan unit.

Figure 6. Removal of PCB cover

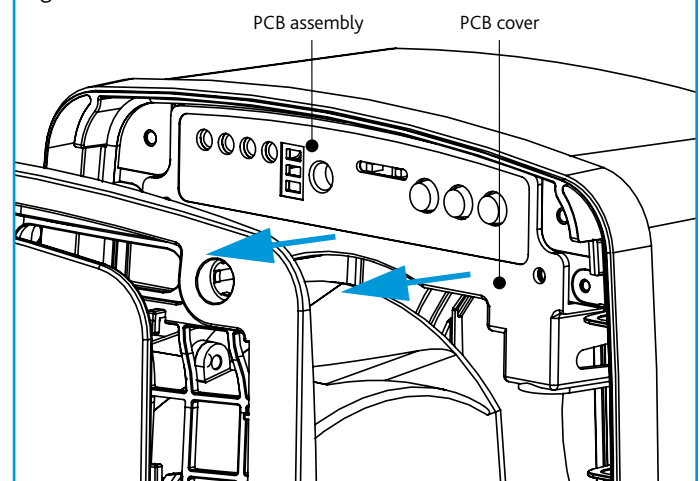


Figure 7. Separated PCB sections

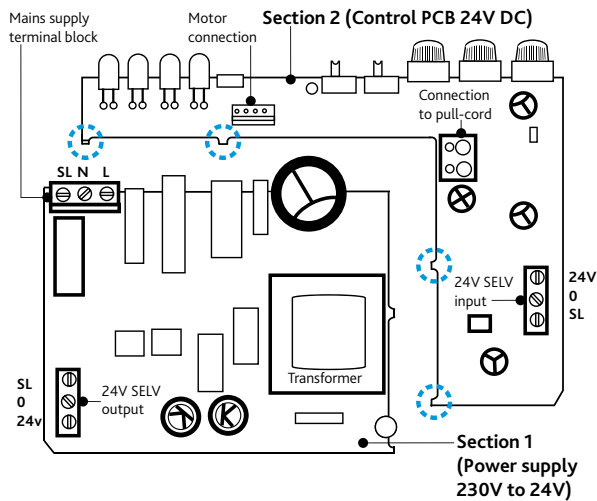
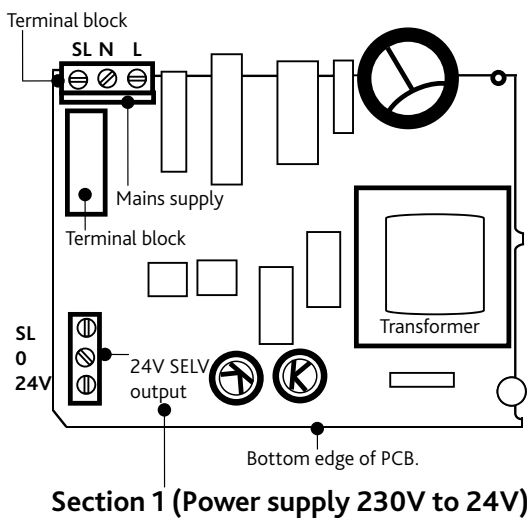


Figure 8. 24V PCB section to be installed into transformer enclosure after completion of 24V wiring



Section 1 (Power supply 230V to 24V)

IMPORTANT

24V fan units must be installed in accordance with these instructions and IEE Wiring Regulations BS7671 for SELV installations.

4.4 Transformer Enclosure (24 Volt units only)

The enclosure containing the transformer is intended to be mounted out of sight (e.g. in a loft, cupboard, under floorboards etc.).

However, if this is not possible the transformer enclosure should be mounted as close to the ceiling, or as far from the "splash zone" as possible (see below for definition of the splash zone).

As can be seen from the table of wiring sizes, it is advisable to place the enclosure as close to the fan as possible to reduce the costs of wiring and assist in installation.

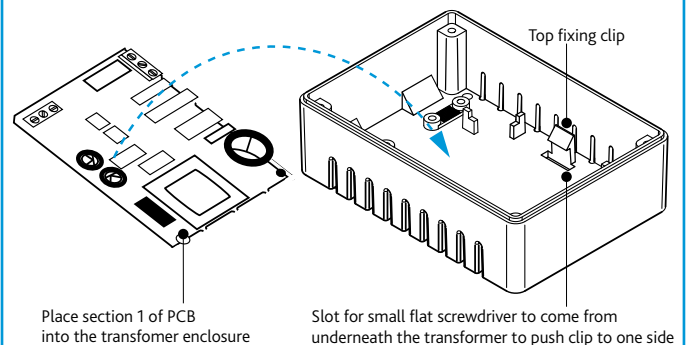
4.4.1 Splash Zone

The 'Splash Zone' can be considered to be an area within a bathroom or shower room where a person using the bath or shower can effectively reach.

An arm's reach is defined as 0.6 metres from the edge of the bath or shower up to a height of 2.25 metres.

1. Installing the Transformer
2. Remove the transformer cover.
3. Position the transformer base enclosure on mounting surface and route cables through knock outs. Mark the fixing points on the mounting surface. Secure using suitable fixings (by others).
4. Before fitting section 1 of the PCB into the transformer enclosure connect wiring as shown in section "5.3.5 Window Kit Installation Procedure" on page 9. Fit section 1 of the PCB by first slotting the bottom edge (see Figure 9) into the fixing clip inside the base of the transformer enclosure then press on the transformer and terminal block until the PCB clicks into place. Complete by replacing the transformer cover using the screws provided. **Keep vents clear of obstruction.**
5. Complete the installation of components by securing the PCB cover on the fan. **Note: No earth is to be connected between transformer and fan.**

Figure 9. Fitting section 1 of the PCB into transformer enclosure



4.4.2 Wire Sizes for Transformer Installation

It is important to note that the size of wire used between the transformer and the fan unit can have an adverse effect on the units' performance if the following table is not adhered to.

Cable Type	Cable Size
Main Supply - 230V	0.5 mm sq
Transformer to Fan Cable Runs (max. 10 metres) - 24V Units Only	
Up to 2m	0.75 mm sq
Up to 4m	1.0 mm sq
Up to 6m	1.5 mm sq
Up to 10m	2.5 mm sq

Note to installing electrician: To avoid cable insulation contact with hot transformer, always use the knock out at PCB end.

4.5 Wiring Diagrams

IMPORTANT

ISOLATION:

Before removing any covers or commencing work, ensure that the unit and Nuair control are electrically isolated from the mains supply.

Disconnection from the supply mains must be incorporated within the fixed wiring in accordance with the wiring regulations and shall have a minimum contact separation of 3mm in accordance with the latest edition of the IEE Wiring Regulations.

4.5.1 Wiring Options - 24V

Figure 10. 24V SELV Wiring (via remote switch)

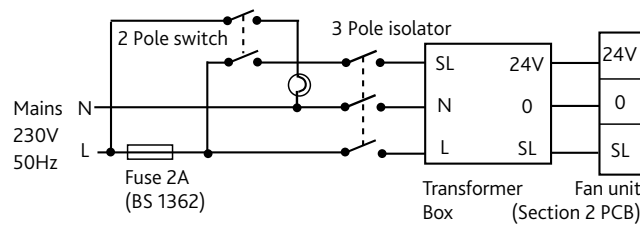
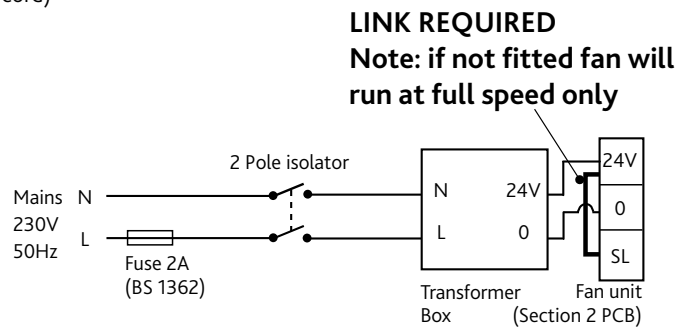


Figure 11. 24V SELV Wiring (via pull-cord)



4.5.2 Wiring Options - 230V

Figure 12. Unit Serving Bathroom (via remote switch)

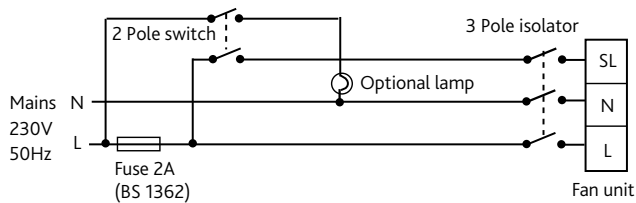
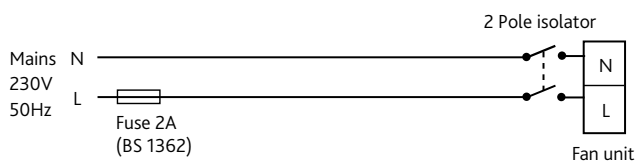


Figure 13. Unit Serving Bathroom (via pull-cord)



4.5.3 Wiring Options - 230V Two Room Installation (Side Spigot)

Figure 14. Wiring for Two Room Installation (no run-on)

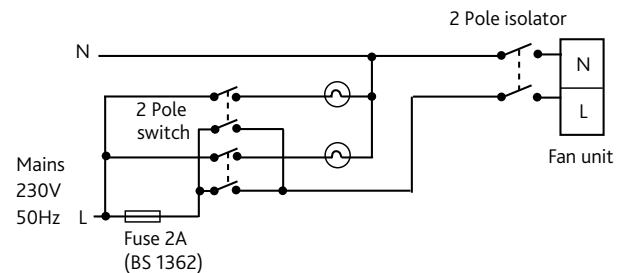
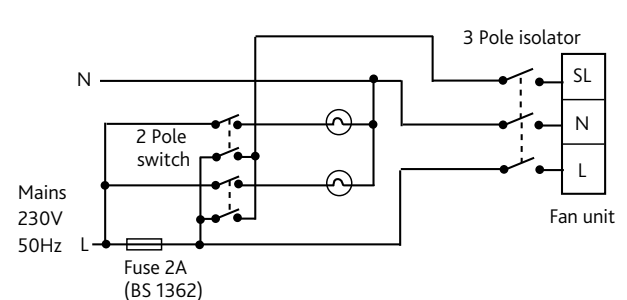


Figure 15. Unit Serving Bathroom (via pull-cord)



5.0 INSTALLATION

5.1 Surface Mounted Installation

5.1.1 Fan Installation

Installation must be completed by qualified personnel. A solid non reverberant mounting position must be selected and passages for ductwork from the outlet spigot, as well as electrical connection prepared. Compatible ductwork should have already been installed.

5.1.2 Required Tools

- Drill
- PH2 Screwdriver
- Terminal Screwdriver
- Tape Measure
- 100 / 125mm diameter core cutter

5.1.3 Surface Mounted Fan Installation Procedure

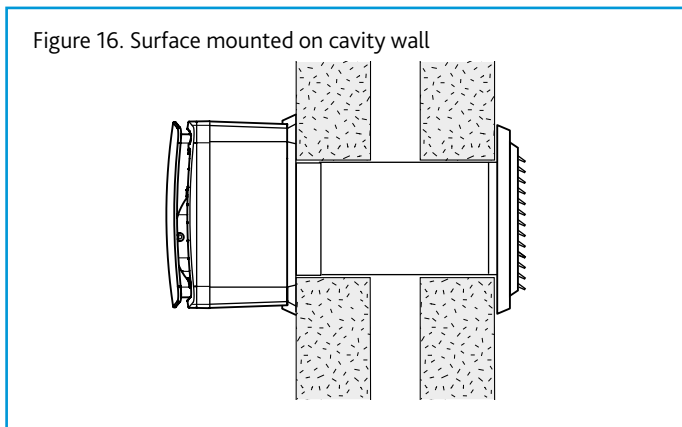


Figure 16. Surface mounted on cavity wall

1. Unpack the fan unit and other components, and ensure that all parts listed in section "2.4 Box Contents" on page 2. If not please contact the manufacturer for replacement / missing parts.
2. Place the front cover and inlet grille to one side.
3. Remove the PCB cover by removing 2 off No.6 x 1/2" screws.
4. Partially remove the PCB assembly from the fan casing by placing a fingertip behind the dip switches and pulling the PCB away from the fan casing (see Figure 17).

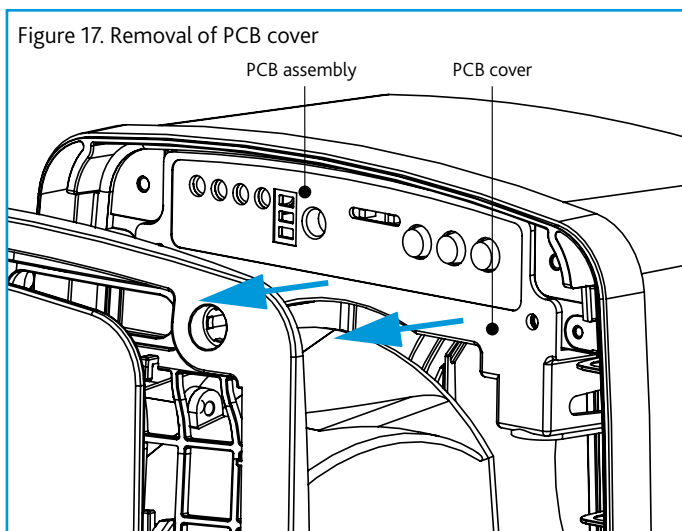


Figure 17. Removal of PCB cover

5. Disconnect and remove the fan scroll from assembly and completely remove the PCB assembly. **Note: if the pull cord is not required, remove it completely.**
6. Using the template in section "10.0 DRILL PATTERN TEMPLATE" on page 14, mark out the position of the spigot hole (depending on spigot size chosen) and the four mounting holes.
7. Core cut centre and drill and plug mounting holes.
8. Choose one of the four cable entries on the fan skirt for the supply wiring and carefully trim out or alternatively feed cable through hole in wall.
9. Secure skirt to wall (fixings supplied by others). Note: use wood screws not countersink screws to avoid distorting the skirt.
10. Feed cable through the back of the fan casing and wire cable into the PCB terminal block (see section "4.5 Wiring Diagrams" on page 6).
11. Replace PCB into fan casing and secure cable into place using cable clamps and screws provided in the CYFAN fixing kit.

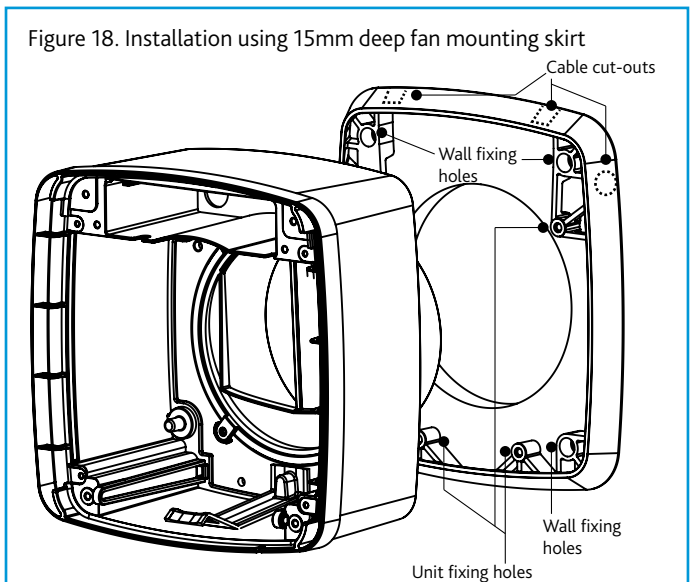


Figure 18. Installation using 15mm deep fan mounting skirt

12. Secure unit to skirt using 4 off No.6 x 1/2" screws provided.
13. Replace fan scroll assembly and plug motor into PCB, replace PCB fully into position by pushing the dip switches.
14. Replace PCB cover by fitting with 2 off No.6 x 1/2" screws.
15. Fit front inlet grille using 4 off No.6 x 3/4" screws found in the fixing kit.
16. Remove rubber gasket and adjust control to required settings shown in section "6.0 OPERATION" on page 13. Once required settings are complete and desired airflow rate is achieved replace rubber gasket.
17. Complete the fan installation by fitting (push fit) the front cover.

5.2 Semi-Recess Mounted Installation

5.2.1 Fan Installation

Note: Semi-Recess mounting requires the optional mounting kit, Part number: CYFAN-RKIT.

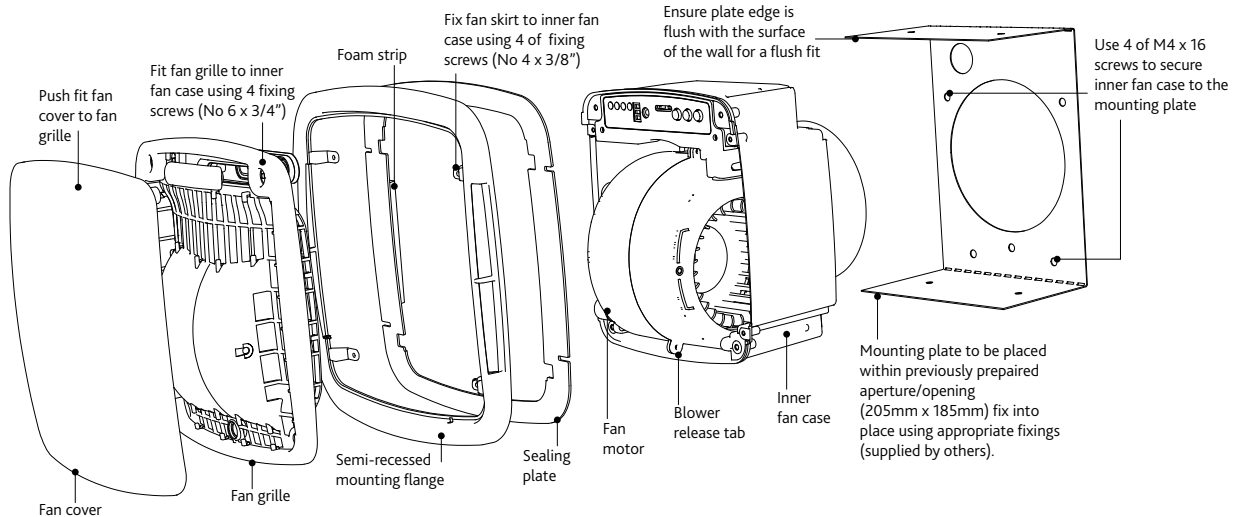
Installation must be completed by qualified personnel. A solid non reverberant mounting position must be selected and passages for ductwork from the outlet spigot, as well as electrical connection prepared. Compatible ductwork should have already been installed.

5.2.2 Required Tools

- Drill
- PH2 Screwdriver
- Terminal Screwdriver
- Tape Measure

5.2.3 Semi-Recessed Fan Installation Procedure

Figure 19. Semi-Recess mounting kit suitable for 100mm and 125mm diameter duct



1. Unpack the fan unit and other components, and ensure that all parts listed in section "2.4 Box Contents" on page 2. If not please contact the manufacturer for replacement / missing parts.
2. Place the front cover and inlet grille to one side.
3. Remove the PCB cover by removing 2 off No.6 x 1/2" screws.
4. Partially remove the PCB assembly from the fan casing by placing a fingertip behind the dip switches and pulling the PCB away from the fan casing (see Figure 20).
5. Disconnect and remove the fan scroll from assembly and completely remove the PCB assembly. **Note: if the pull cord is not required, remove it completely.**
6. Using the template on page 13, mark out the position of the spigot hole (depending on spigot size chosen) and the four mounting holes.
7. Core cut centre and drill and plug mounting holes.
8. Choose one of the four cable entries on the fan skirt for the supply wiring and carefully trim out or alternatively feed cable through hole in wall.
9. Secure skirt to wall (fixings supplied by others). Note: use wood screws not countersink screws to avoid distorting the skirt.
10. Feed cable through the back of the fan casing and wire cable into the PCB terminal block (see section "4.5 Wiring Diagrams" on page 6).
11. Replace PCB into fan casing and secure cable into place using cable clamps and screws provided in the CYFAN fixing kit.
12. Secure unit to skirt using 4 off No.6 x 1/2" screws provided.
13. Replace fan scroll assembly and plug motor into PCB, replace PCB fully into position by pushing the dip switches.
14. Replace PCB cover by fitting with 2 off No.6 x 1/2" screws.
15. Fit front inlet grille using 4 off No.6 x 3/4" screws found in the fixing kit.
16. Remove rubber gasket and adjust control to required settings (see section "6.0 OPERATION" on page 13). Once required settings are complete and desired airflow rate is achieved replace rubber gasket.
17. Complete the fan installation by fitting (push fit) the front cover.

Figure 20. Removal of PCB cover

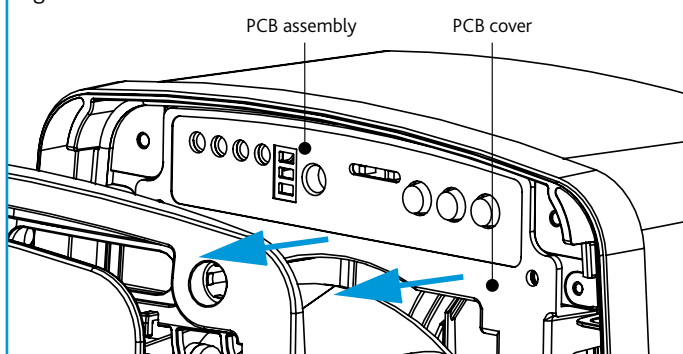
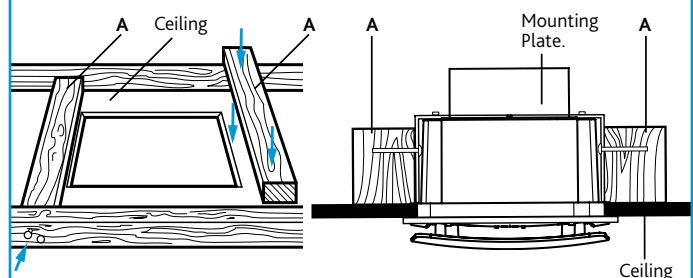


Figure 21. Ceiling mounting using the Semi-Recessed mounting kit.

First cut an aperture for the fan in the ceiling, cut and fit (A) timber supports (not supplied) and fit fan as shown. Note: Remove the shutters from the spigot if you are mounting CYFAN in the ceiling. Note: pull-cord must be removed.



5.3 Window Mounted Installation

5.3.1 Fan Installation

Note: Window mounting requires the optional mounting kit, Part number: CYFAN-WKIT.

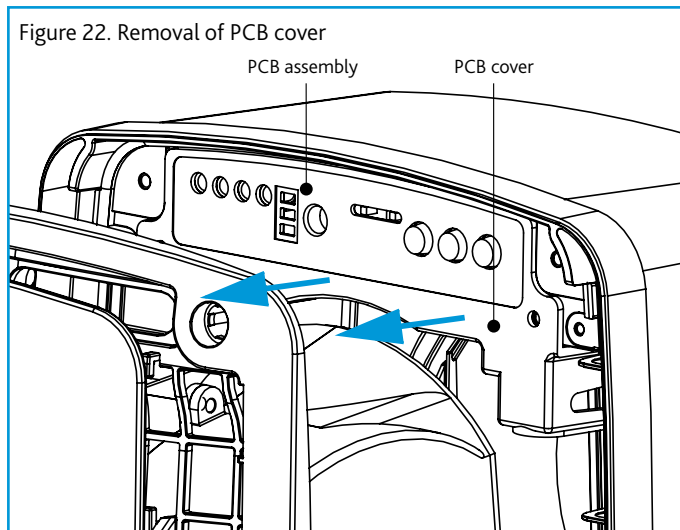
Installation must be completed by qualified personnel.

5.3.2 Required Tools

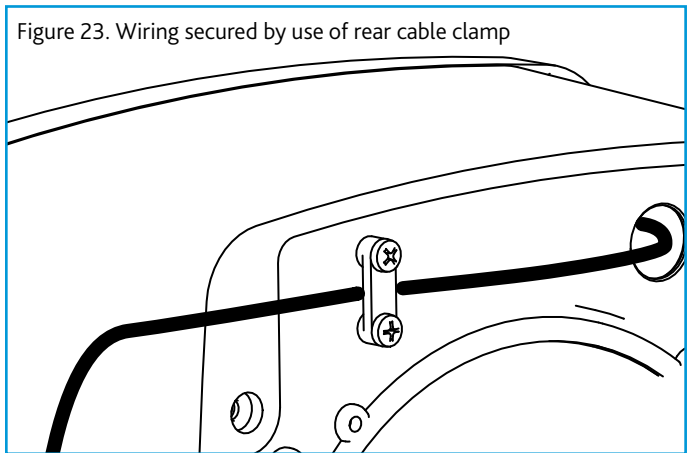
- Drill
- PH2 Screwdriver
- Terminal Screwdriver
- Tape Measure

5.3.3 Window Fan Installation Procedure

1. Unpack the fan unit and window kit components, and ensure that all parts listed are present (see sections "2.4 Box Contents" on page 2 & "5.3.4 Window Kit Contents" on page 9). If not please contact the manufacturer for replacement / missing parts.
2. Place the front cover and inlet grille to one side.
3. Remove the PCB cover by removing 2 off No.6 x 1/2" screws.



4. Partially remove the PCB assembly from the fan casing by placing a fingertip behind the dip switches and pulling the PCB away from the fan casing (see "Figure 22. Removal of PCB cover" on page 9).
5. Disconnect and remove the fan scroll from assembly and completely remove the PCB assembly. **Note: if the pull cord is not required, remove it completely.**
6. Feed wiring flex through the back of the fan casing and secure into place using cable clamps and screws provided in the CYFAN fixing kit.
7. Secure the case to the window kit. **Note: care must be taken not to twist or distort the case whilst fitting.**
8. Partially replace PCB into the fan casing and wire flex into the terminal block.
9. Replace fan scroll assembly and plug motor into PCB, replace PCB fully into position by pushing the dip switches.
10. Replace PCB cover by fitting with 2 off No.6 x 1/2" screws.
11. Fit front inlet grille using 4 off No.6 x 3/4" screws found in the fixing kit.



12. Remove rubber gasket and adjust control to required settings (see section "6.0 OPERATION" on page 13). Once required settings are complete and desired airflow rate is achieved replace rubber gasket.
13. Complete the fan installation by fitting (push fit) the front cover.

5.3.4 Window Kit Contents

CYFAN-WKIT Checklist

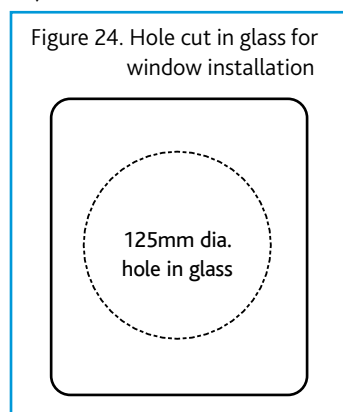
Quantity	Description	Part No.
1 off	Window Cover	041351
1 off	Outside Clamp	041350
1 off	Inner Clamp	041349
2 off	Back-draught Shutter	041286
1 off	Screw Kit Containing Shutter Spring	772285

Screw-Kit (772285) Checklist

Quantity	Description	Part No.
2 off	No.8 x 1" CSK HD Supascrew	691646
4 off	No.8 x 1-1/2" CSK HD Supascrew	680193
4 off	No.8 x 1-3/4" CSK HD Supascrew	691647
2 off	No.8 x 2-1/4" CSK HD Supascrew	691648
3 off	No.8 x 3/4" Panhead Pozi (Main Case to Inner Clamp)	180394
1 off	Spring	580069

5.3.5 Window Kit Installation Procedure

The window kit is designed for mounting the unit into windows 4mm to 32mm thick using a 125mm diameter hole in the glass (see Figure 24).



1. Employ a qualified glazier to cut a hole 125mm diameter in the glass or, alternatively, replace your window with new glass incorporating a pre-cut hole.
2. The outer assembly consists of a cover complete with clamping plate and an 'O' ring seal. The clamping plate incorporates a moulded spigot which is designed to locate inside the 125mm diameter hole in the glass.

3. Back draught Shutters (see Figure 5 and Figure 25) are clipped into Inner clamp and the spring is fitted in the lower position).
4. Position the assembly on the outside of the glass. If only one person is installing the fan it may be helpful to tape the assembly to the outside glass at this stage during installation as all fixings and assembly are completed from inside.
5. Working from inside the room with the clamp. Position this inner clamp over the hole in the glass and line up the 4 mounting holes.
6. Select appropriate screws from the screws kit supplied for mounting into different thickness's of glass, see section "5.3.6 Window Mounting Screws". Should the screws foul on the back of the grille during installation, replace with the next size down. There are 2 long and 2 short screws for each thickness of glass with the shorter screws located at the top.
7. Using four screws locate the screw bosses in the outer assembly and draw the inner and outer assemblies together. Remove any tape supporting the outer assembly and continue to draw the units together until the 'O' ring is compressed on the window. **Note: do not over tighten the fixing screws as this may distort the assembly.**
8. Wire unit in accordance with the appropriate wiring diagram. A cable clamp is provided inside the case. **Note: the remaining installation procedures for Window Mounting are as the description in section "5.3.3 Window Fan Installation Procedure".**

5.3.6 Window Mounting Screws

Window Thickness	Quantity	Screw Size
4 - 11 mm	2 off	No.8 x 1" CSK HD Supascrew
	2 off	No.8 x 1-1/2" CSK HD Supascrew
12 - 21 mm	2 off	No.8 x 1-1/2" CSK HD Supascrew
	2 off	No.8 x 1-3/4" CSK HD Supascrew
22 - 32 mm	2 off	No.8 x 1-3/4" CSK HD Supascrew
	2 off	No.8 x 2-1/4" CSK HD Supascrew

Figure 25. Back-draught spring assembly (also see Figure 5)

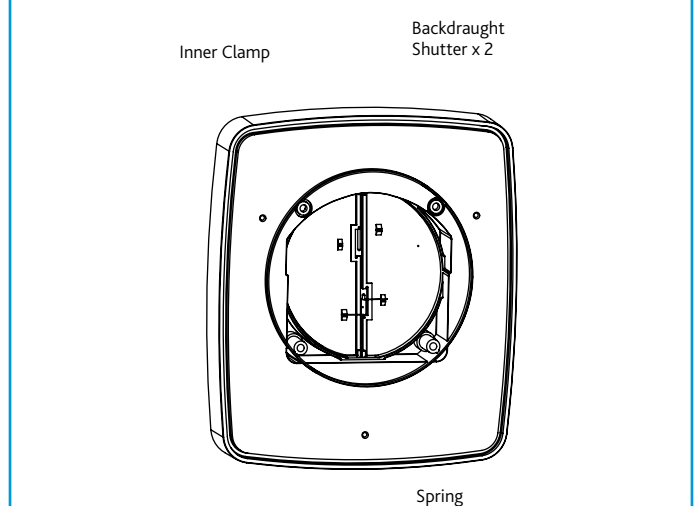
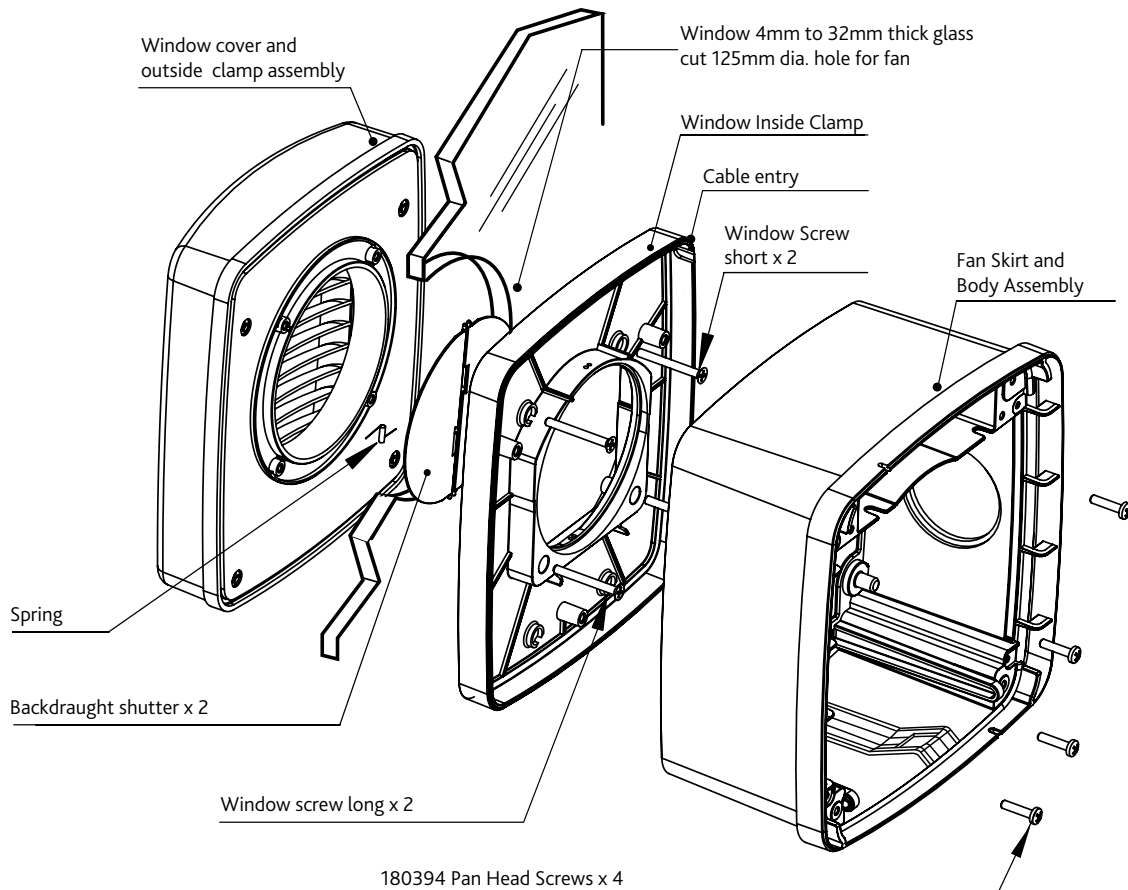


Figure 26. Window mounted (4 - 32 mm thick) using optional window mounting kit with 125mm diameter hole in the glass



5.4 Surface Mounted with Side Spigot Installation

CYFAN-DKIT is recommended for Intermittent Extract Only.

5.4.1 Fan Installation

Note: Surface mounting with side spigot requires the optional mounting kit, part number: CYFAN-DKIT.

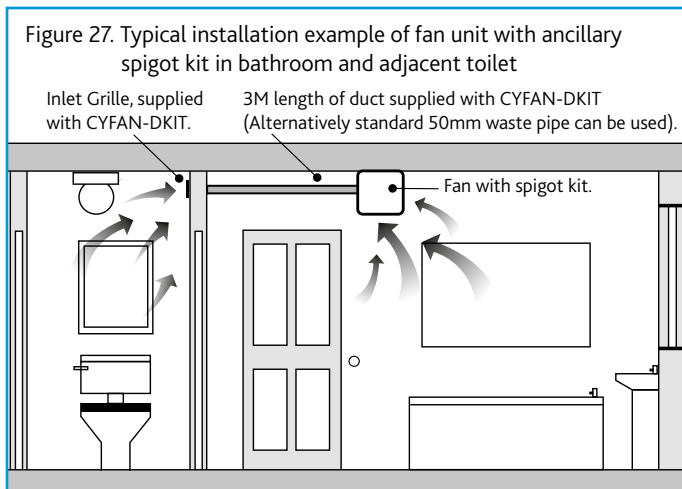
Installation must be completed by qualified personnel. A solid non reverberant mounting position must be selected and passages for ductwork from the outlet spigot, as well as electrical connection prepared. Compatible ductwork should have already been installed.

5.4.2 Required Tools

- Drill
- PH2 Screwdriver
- Terminal Screwdriver
- Tape Measure

5.4.3 Spigot Kit Contents

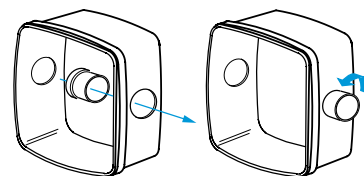
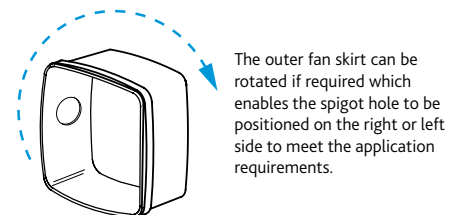
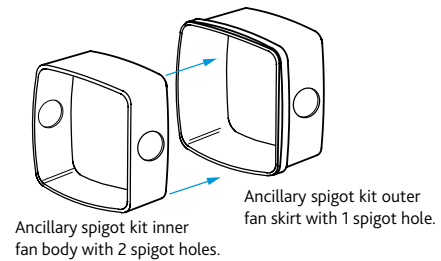
- Replacement Outer Fan Skirt with 50mm diameter hole in one side
- Replacement Fan Body with 55mm diameter hole in each side
- 50mm diameter Spigot
- 3M of 50mm Duct
- Inlet Grille with Filter
- Reduction Filter



5.4.4 Installation Procedure

1. Unpack the fan unit and components, and the subsidiary spigot kit. Ensure that all parts are present. If not please contact the manufacturer for replacement / missing parts.
2. Place the front cover to one side.
3. Place the reduction filter over the grille. Secure the filter by pressing the filter under the lugs located around the grille (see Figure 29).
4. Remove the PCB cover by removing 2 off No.6 x 1/2" screws.
5. Partially remove the PCB assembly from the fan casing by placing a fingertip behind the dip switches and pulling the PCB away from the fan casing (see Figure 30).
6. Disconnect and remove the fan scroll from assembly and completely remove the PCB assembly. **Note: if the pull cord is not required, remove it completely.**

Figure 28. Example of spigot kit (Code: CYFAN-DKIT)
Note: 50mm grille available (Code: 50IG)



Install the 50mm dia. subsidiary spigot from inside both the inner fan body and outer skirt, by ensuring both lugs have been passed through the cut-out. Turn the spigot a quarter turn to lock.

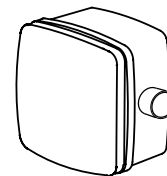
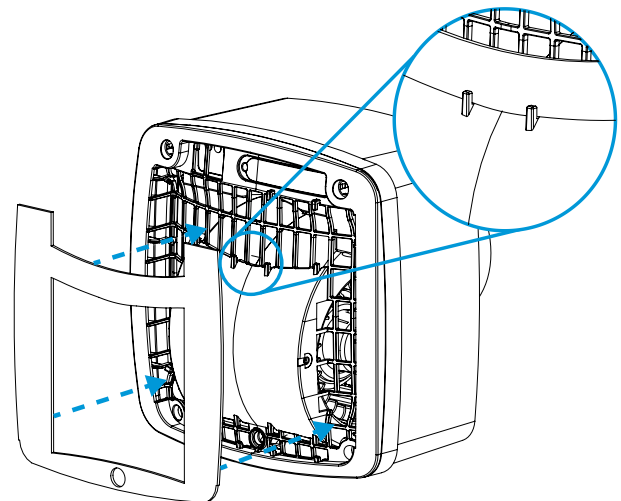
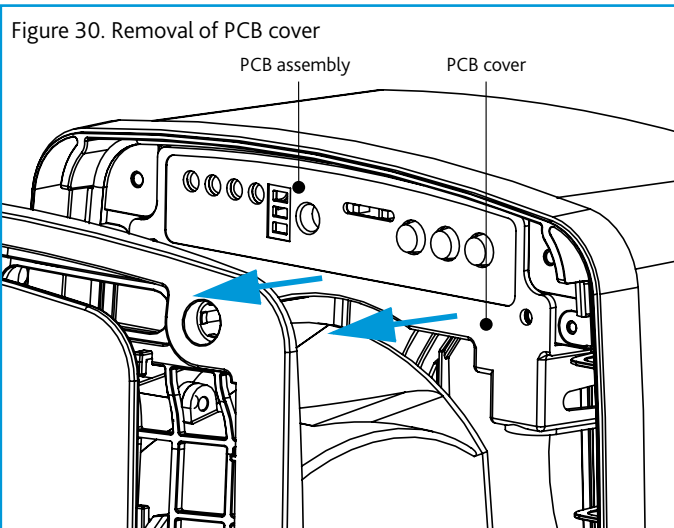


Figure 29. Reduction Filter insert and fixing lugs

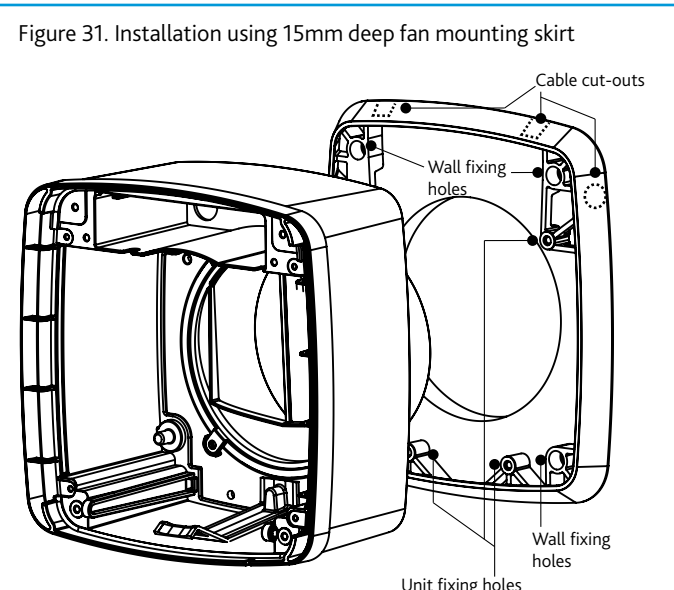




- Figure 30. Removal of PCB cover
7. If using surface mounted wiring the 15mm fan skirt must be used, see point 13 onwards.
 8. Core cut a hole through mounting surface at desired mounting position to suit the size of the discharge spigot required, 100mm or 125mm diameter.
 9. Place the fan casing in the mounting position (spigot placed into core cut hole) and use the base as a template to mark the mounting screw hole positions (x4). Remove casing once marks are made.
 10. Drill and plug (if necessary) the mounting surface.
 11. Feed wiring flex through the back of the fan casing and secure into place using cable clamps and screws provided in the CYFAN fixing kit.
 12. Secure the case to the surface (fixings supplied by others). Note: care must be taken not to twist or distort the case whilst fitting.
 13. Partially replace PCB into the new fan casing and wire flex into the terminal block (see section "4.5 Wiring Diagrams" on page 6).
 14. Whilst utilising the fan skirt, use the template in section "10.0 DRILL PATTERN TEMPLATE" on page 14 to mark out the position of the spigot hole (depending on spigot size chosen) and the four mounting holes.
 15. Core cut centre and drill and plug mounting holes.
 16. Choose one of the four cable entries and carefully trim out.
 17. Secure skirt to wall (fixings supplied by others). **Note: use wood screws not countersink screws to avoid distorting the skirt.**
 18. Feed cable through skirt and offer up fan case to skirt. Feed cable through unit and secure unit to skirt using 4x No.6 x 1/2" screws provided.
 19. Replace fan scroll assembly and plug motor into PCB, replace PCB fully into position by pushing the dip switches.
 20. Replace PCB cover by fitting with 2 off No.6 x 1/2" screws.
 21. Fit front inlet grille with reduction filter fitted using 4 off No.6 x 3/4" screws found in the fixing kit.
 22. Remove rubber gasket and adjust control to required settings (see section "6.0 OPERATION" on page 13). Once required settings are complete and desired airflow rate is achieved replace rubber gasket.
 23. Complete the fan installation by fitting (push fit) the front cover

5.4.5 Setting the Fan for Intermittent Use

The unit should be configured for intermittent use. To achieve 17L/s through the CYFAN front grille, and 6L/s through the subsidiary spigot the boost speed control should be set approximately to the 11 O'clock position.



6.0 OPERATION

6.1 Default Settings

As default Cyfan units are set as follows:

- **Intermittent setting** – Fan will only operate from pull-cord or switched live to boost flow rate.
- **Continuous running (background ventilation)** – OFF
- **Humidity sensing** – OFF
- **Air flow rate (boost)** – 15 l/s
- **Run-on timer (from switched live only)** – 1 minute

6.2 Building Regulations Part F 2010 Flow Rates

Room	Intermittent Extract	Continuous Extract	
	Minimum Rate	Minimum High Rate	Minimum* Low Rate
Kitchen	30 l/s adjacent to hob; or 60l/s elsewhere.	13 l/s	8 l/s
Utility Room	30 l/s	8 l/s	6 l/s
Bathroom	15 l/s	8 l/s	6 l/s
Sanitary Accommodation	6 l/s	6 l/s	6 l/s

*Recommended values, please refer to Part F for further information.

6.3 Continuous / Intermittent Switch

Continuous – Fan running to provide background ventilation.

The amount of airflow can be set between 6 to 30 l/s.

Operating the pull cord or remote switch will boost the fan to the adjustable set point available between 8 to 60l/s.

Intermittent – Fan does not operate continuously but only when the pull cord or remote switch is activated.

The amount of airflow is adjustable from 8 to 60 l/s.

6.4 Humidity Tracker Switch

The default setting is off. Switching to 'ON' will enable the unit to sense the humidity in the room. The fan will switch itself on when the humidity rises above 60% and will slowly speed up as the humidity rises, as per the example table below.

Relative Humidity	Intermittent Boost Set at 60 l/s	Intermittent Boost Set at 30 l/s
60%	20 l/s	10 l/s
70%	30 l/s	15 l/s
80%	40 l/s	20 l/s
90%	50 l/s	25 l/s
100%	60 l/s	30 l/s

6.5 Run-on Timer

The run-on timer is adjustable from 1 to 30 minutes and can operate off a remote switch (e.g. bathroom light switch).

6.6 Airflow Adjustment

The unit adjustment dials have been set for a unit that has been installed directly through a wall and with a 125mm spigot. If the 100mm spigot is used and resistance is placed on the fan (long duct runs) the airflow should be checked using an appropriate measuring instrument.

7.0 MAINTENANCE

Before any maintenance or cleaning operation, switch off the fan and disconnect from the power supply.

The push fit front cover can be removed and cleaned with water and a mild detergent using a soft cloth and the motor fan assembly can be cleaned with a dry brush or dry cloth. Any other maintenance or cleaning should be carried out by properly qualified personnel.

Ensure the unit does not come into contact with any kind of liquid or solvent. If this should occur, contact a qualified technician before reassembling the fan.

NOTE: The motor does not require lubrication as it is of the maintenance free "sealed for life" type.

8.0 WARRANTY

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year.

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 Nuaire International Sales office for further details.

9.0 AFTER SALES

Nuaire can assist you in all aspects of service. Our After Sales department will be happy to provide any assistance required.

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.

10.0 DRILL PATTERN TEMPLATE

