



Instructions Manual

Positive Input Ventilation Unit - Everdri XEL & XELH

Product Number: 110015 Everdri XEL
110022 Everdri XELH



Please read and
keep these
instructions

Glen Dimplex UK LTD, trading as,
Glen Dimplex Heating & Ventilation

Web: www.gdhv.co.uk

Millbrook House, Grange Drive, Hedge End, Southampton, SO30 2DF.

If you are an installer, please follow this address:

<https://www.dimplex.co.uk/resources/installer-support-hub>

If you are a consumer, please follow this address:

<https://www.dimplex.co.uk/resources/customer-hub>

www.xpelair.co.uk



Important Notes

In this manual, especially important notes are marked as WARNING! or NOTE!



WARNING: Warnings against hazards and errors that can cause severe or fatal injuries or can have serious consequences for the product.



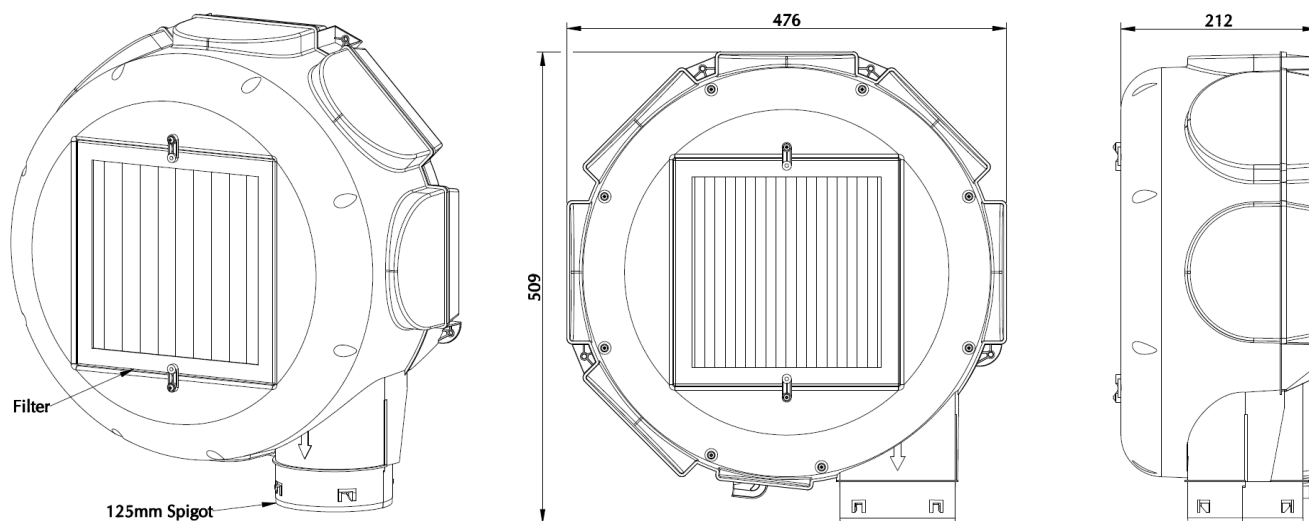
NOTE!
Useful notes and additional information.

This manual forms part of the ventilation unit and must be kept readily available at all times. It must be handed over to any technicians carrying out work on the unit and must be handed over to the new tenants when moving home.

Description

This ventilation unit is designed to combat condensation and improve air quality through positive input ventilation. An efficient centrifugal fan is used to take fresh air from the loft space, filter it and introduce it into the living quarters through a single ceiling diffuser.

The electric motor and fan are enclosed in the ventilator casing. Air is drawn into the unit via the G4 filter on the cover. The casing incorporates a 125mmØ spigot for easy connection to the supplied ducting.



Safety Instructions

This ventilation unit is intended exclusively for the ventilation of rooms within a property. Any other use and any use exceeding the design limits is not permitted. Any improper use can damage the unit and can cause severe hazards.

The unit must not be altered or modified. The unit is guaranteed safe to use in accordance with these instructions.

Failure to observe the safety instruction can cause hazards to the user as well as the unit and will invalidate the guarantee.



WARNING: This appliance is not intended for use by persons (including children and the infirm) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.



WARNING: Children should be supervised to ensure that they do not play with the appliance.

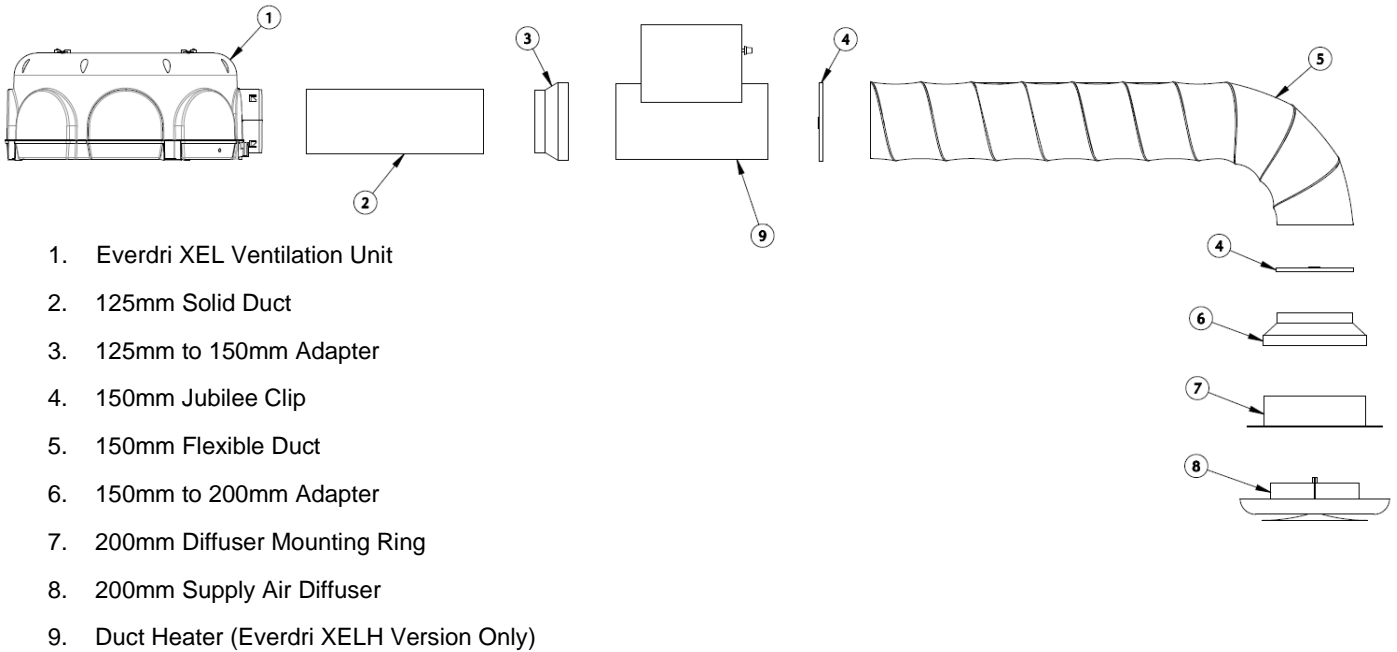
CE-Conformity and Rating

This unit meets all relevant CE standards. This fan is rated to IPX2.

Installer Information



WARNING: READ THE ENTIRE INSTRUCTION MANUAL BEFORE COMMENCING THE INSTALLATION. DO NOT POWER THE UNIT WITHOUT THE ENTIRE DUCTING SECURED.

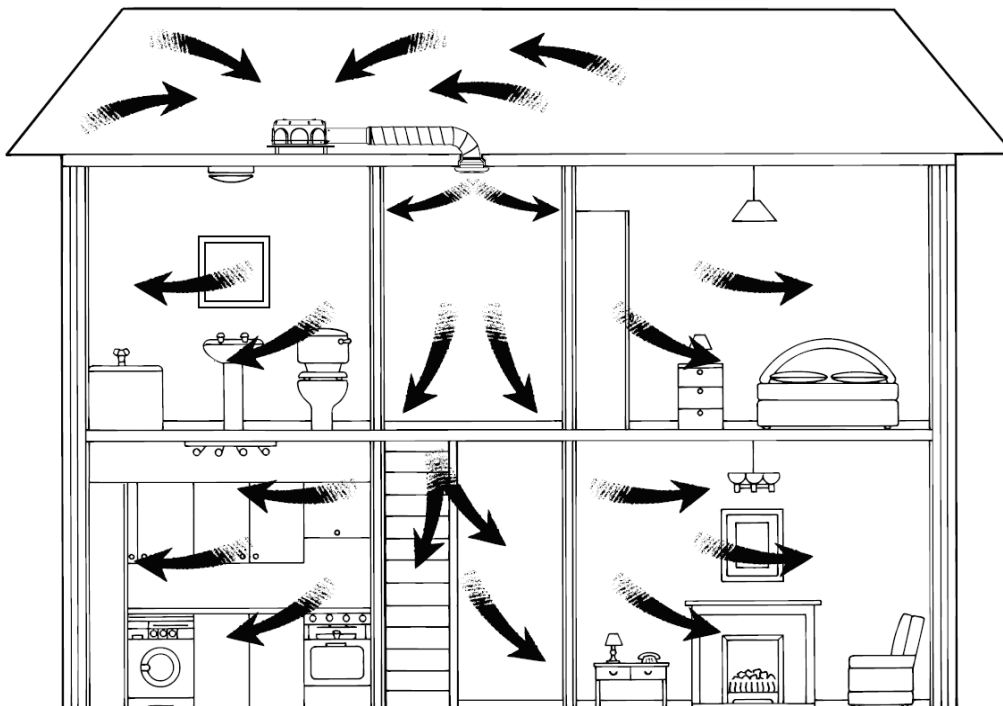


Position of air supply diffuser

It is recommended that the supply air diffuser is installed in a central location to allow air into all rooms in the house. In the central hallway of a single storey dwelling or in the ceiling of the top floor landing of a multi-storey building would be a good position.



WARNING: It is important to ensure that the diffuser is NOT placed within 1m of a smoke alarm.



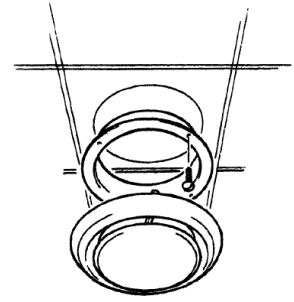
Installing the Diffuser

The diffuser should be fitted a minimum of 1m away from any smoke or CO detectors.

Prepare a hole in the ceiling.

Using the mounting ring as a template, drill 4 holes and fix using the screws provided.

Finally, screw the valve body into the ceiling mounted ring.



Location of the Ventilation Unit

Locating the ventilation unit in a well-ventilated loft space is recommended to ensure sufficient fresh air is available. The unit should be installed in a position where the air inlet cannot be obstructed.

Ducting should be considered when choosing the location for the ventilation unit. The installation should aim to minimise air resistance and prevent any leakage in the ducting. Where possible the use of flexible ducting should be minimised. Flexible duct should not be compressed.



NOTE:

Care should be taken to ensure ducting is as straight and uncompressed as possible with minimal bends. This will reduce resistance in the air flow path allowing greater performance at lower speed settings thus improving energy efficiency and reducing noise.



NOTE:

Use of solid duct exclusively may result in increased noise as a result of vibration. A short length of flexible duct should be used to transition from solid duct to the diffuser.

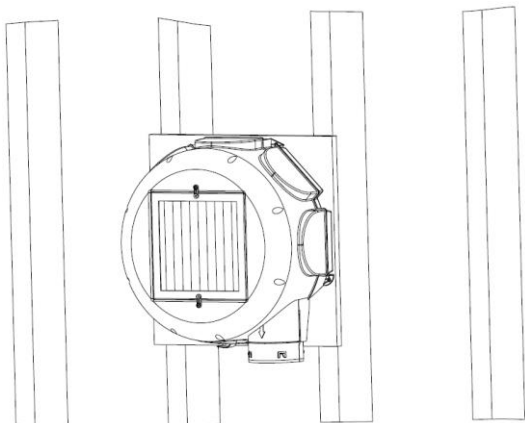


WARNING: DO NOT install this product in areas where the following may be present or occur:

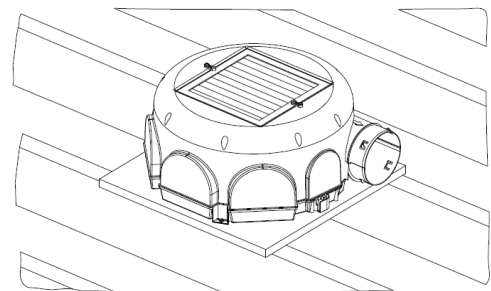
- Corrosive or flammable gases, liquids or vapours.
- Ambient temperatures are higher than 50 °C or less than -5 °C
- Possible obstructions which hinder access to or removal of the Fan.

Orientation of the Unit

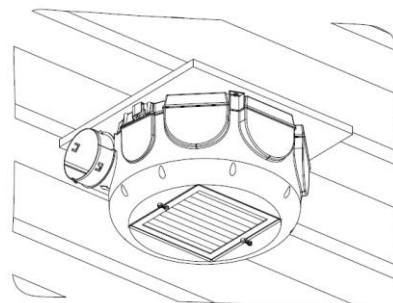
The unit is designed to be screwed down to a robust impermeable surface horizontally, vertically, or inverted as shown below.



In the vertical position, the outlet must face down



Horizontal position



Ceiling and Rafter Mounted

Installing the Ventilation Unit

The ventilation unit must always be firmly fixed through the four mounting points provided

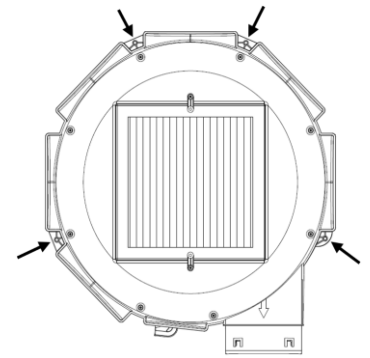
Ensure the unit is installed by either of the following methods:

1. Using suitable wood screws with a head size $\geq 8\text{mm}$
2. Using threaded bolts $\leq 5\text{mm}$ with a head size $\geq 8\text{mm}$

NOTE:

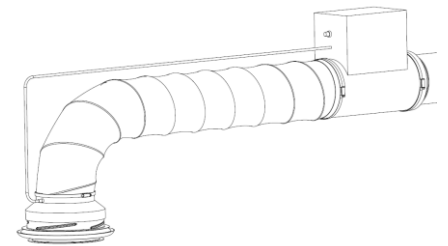


The ventilation unit is well balanced however, if desired, antivibration mounts with threaded bolts $\leq 5\text{mm}$ could be used.



Connecting the Ducting

1. Push the 125mm solid duct on the XEL spigot.
2. Push the 125mm to 150mm adapter into the 125mm solid duct.
3. (XELH version only) Insert the cold side of the heater into the adapter.
4. Place one of the supplied worm drive clips over the flexible duct.
5. Fix the flexible ducting to the adapter or heater and tighten the worm drive clip.
6. Place the second worm drive clips over the flexible duct.
7. Fix the flexible ducting to the 150mm to 200mm adapter.
8. (XELH version only) Drill an 8mm hole in the 150mm side of the adapter and insert the temperature probe from the heater as shown on the right.
9. Push the adapter onto the installed diffuser mounting ring.



NOTE:

When testing the ventilation unit check the ducting for any air leaks and seal with duct tape if necessary.

Electrical Connection



WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING INSTALLATION OR MAINTENANCE.

All installations must be supervised by a qualified electrician. Installations and wiring must conform to current IET Wiring Regulations (BS7671) (UK), local or appropriate regulations (other countries).

A means for disconnection must be incorporated in the fixed wiring in accordance with wiring regulations.

Check that the electrical rating shown on the fan matches the mains supply.

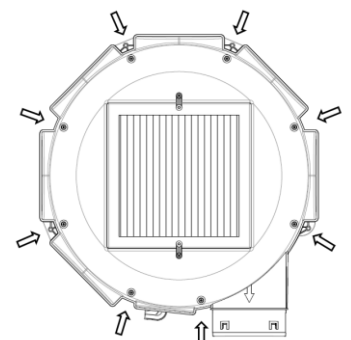
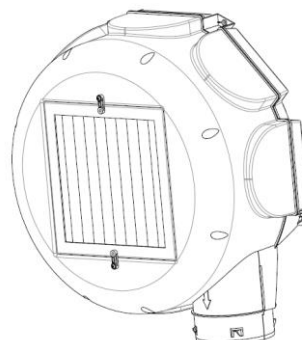
This appliance is intended for connection to fixed wiring. The connection should be made with a double insulated cable with cable cores greater than 0.75mm^2 ; which has been appropriately specified for this specific application by a qualified professional.



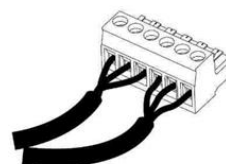
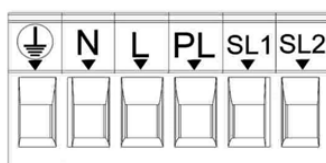
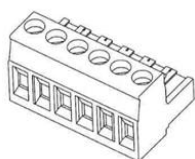
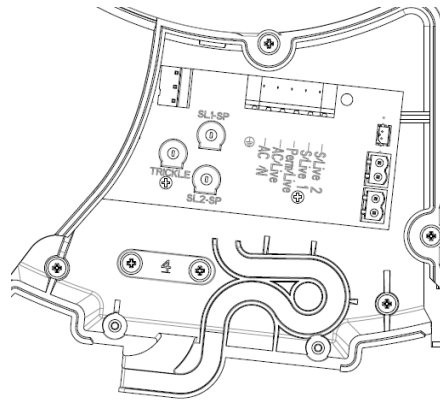
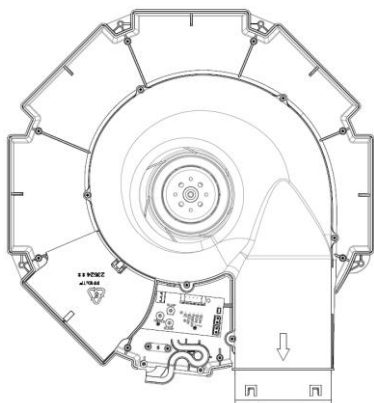
WARNING: THIS APPLIANCE MUST BE EARTHED.

Remove the cover by undoing the eight screws identified in the image to the right.

A long reach PZ2 screw driver at least 150mm long is required for this step.



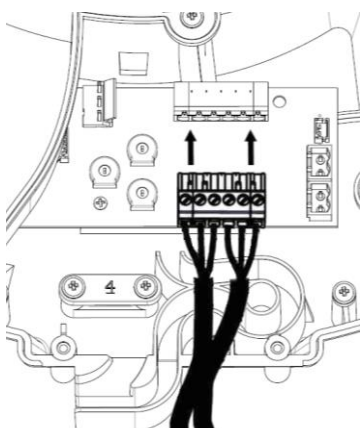
Removing the cover gives access to the PCB for power connection and speed control settings.



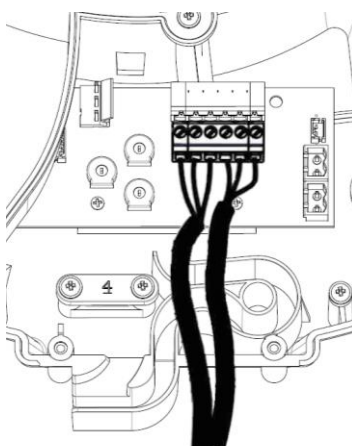
Locate the PCB termination plug which comes plugged into the termination socket on the PCB

Identify the correct power and control connections for your system requirements

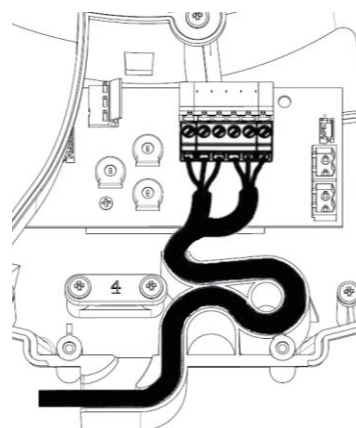
Connect the power and control wires to the PCB termination plug and fix with a screw driver



Align the PCB termination plug with the PCB termination socket



Firmly connect the two sides of the plug



Fix the cables by either;
Routing the cable in the labyrinth
Fixing with the cable clamp



NOTE:

If using the labyrinth, ensure a 7-7.6mm Ø cable is securely fitted inside the entire length of the labyrinth.
If using the cable clamp, ensure a 6-10mm Ø cable is used to achieve a firm grip.

If you have any queries regarding the installation of this product, please call the Technical Hotline. Our engineers are there to help during normal office hours (UK only) and may be faxed at all times.

Customers outside the UK please contact your local Xpelair distributor, details of which are available from the UK office.



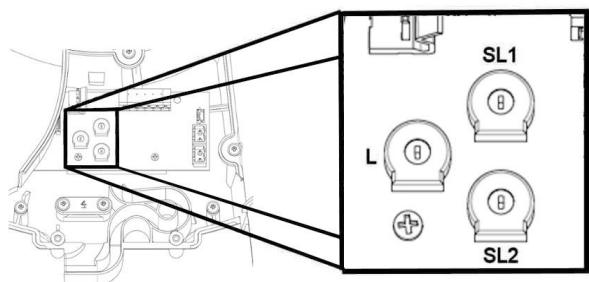
NOTE:

The heater supplied with the XELH version is a standalone product not controlled directly by the PIV unit. Please refer to the manufacturer's instructions supplied with the device for correct installation and setup procedures.

The heater is not intended to heat the dwelling, it is used to temper incoming air when it falls below the switching temperature. 10°C is a suitable switching temperature for most applications.

Commissioning and Speed Control

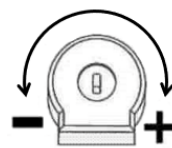
The Everdri has potentiometer speed control, this enables the air flow to be set for your specific systems requirements, while maximising energy efficiency. Each speed (trickle, speed 1 and speed 2) has an individual potentiometer which is adjustable from 0-100% of the total fan performance.



SL1: Speed 1 Control

SL2: Speed 2 Control

L: Trickle Speed



Using a small long handle screw driver, adjust the potentiometer as required by turning the knob using the central slot.

Turn clockwise to increase speed.

Turn anti clockwise to decrease speed.

Refit the cover when finished.

Isolate the unit from the power supply before commencing.

Identify the speed control potentiometer for the speed to be adjusted.

Recommended minimum airflow rate settings for trickle speed based on house size are shown on the right. Add 4 l/s for a poorly insulated property. Add 4 l/s for higher than typical moisture production in property (e.g. excessive indoor clothes drying, high levels of cooking activity, bottled gas heater, fish tanks, etc.)

Adjust speed 1 and 2 to match the occupancy level as follows:

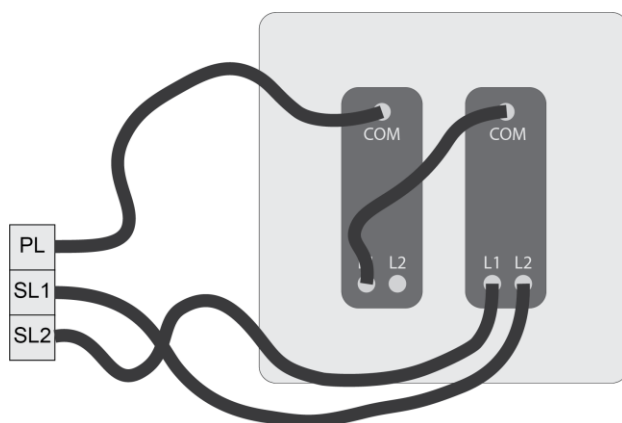
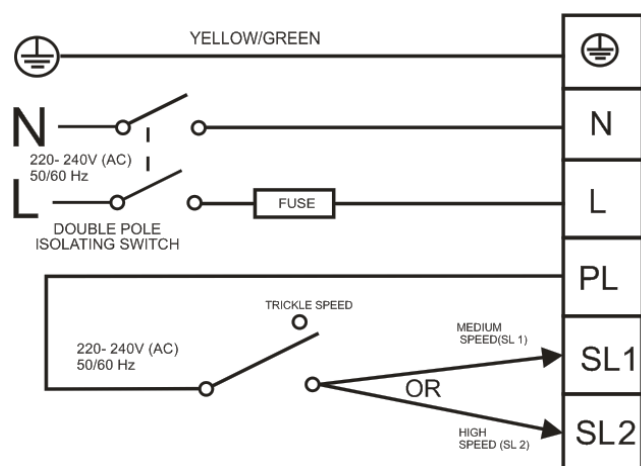
- Speed 1 = Trickle \times 1.4
- Speed 2 = Trickle \times 1.9

The Guidance Document on Positive Input Ventilation (PIV) Systems by the Property Care Association (www.property-care.org) provides further commissioning details for installations in terraced, semi-detached or 3+ storey dwellings.

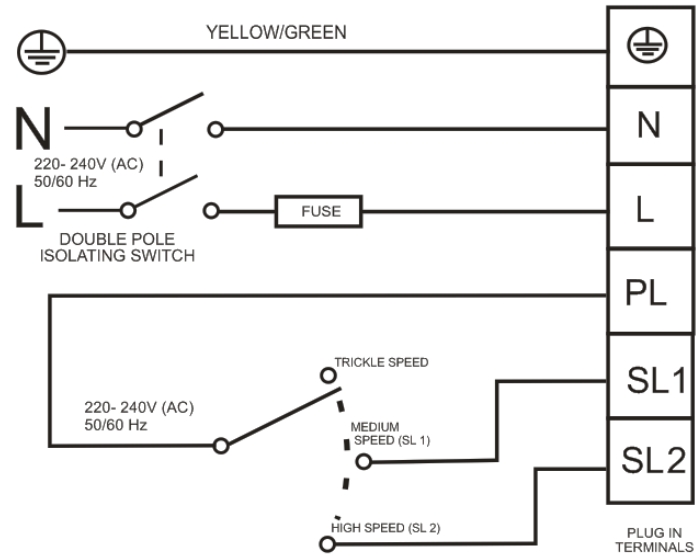
House Size	Volume Flow Rate
45 m ²	17 l/s
60 m ²	21 l/s
75 m ²	25 l/s
90 m ²	29 l/s
110 m ²	33 l/s
140 m ²	37 l/s
170 m ²	41 l/s
200 m ²	45 l/s

Manual Override Switch Connection

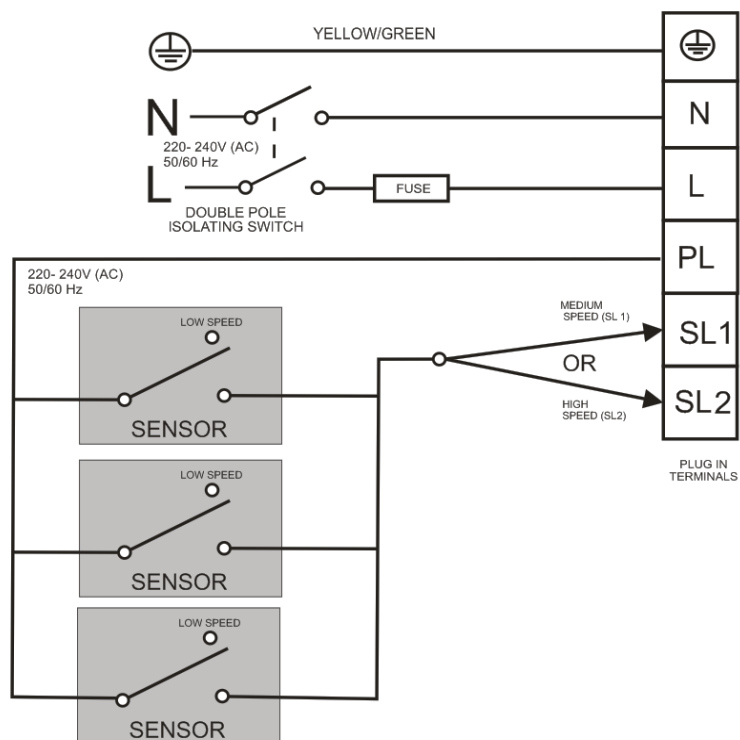
The ventilation unit is supplied with a manual override switch which allows the user to switch from trickle mode to manual mode and then select speed 1 or 2.



Alternative Switch Option



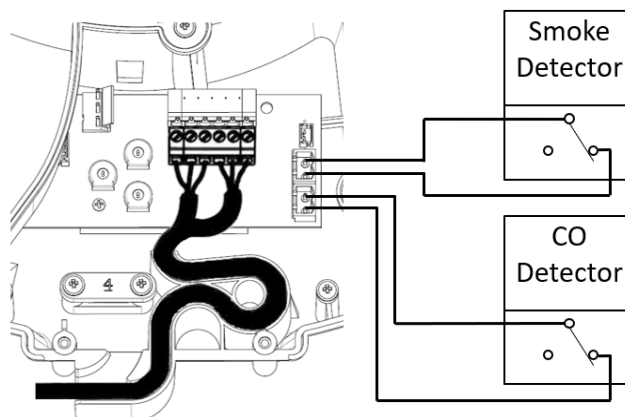
Connection with a three speed selector switch



Connection with sensors or several change over switches

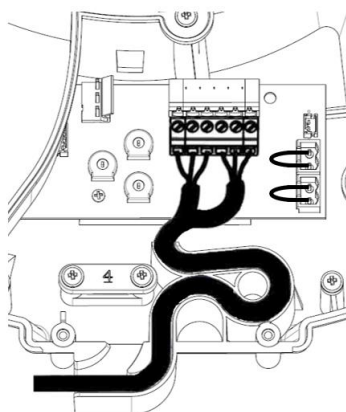
Installation of Smoke Detector or CO Detector (optional)

To enable the safe cut-out of the ventilation system in case of fire, the ventilation unit can be connected to an optional smoke detector or CO detector with a volt free output. The smoke or CO detector must be normally closed (NC) and will go open circuit (OC) in the event of a fire. When the ventilation unit detects an open circuit, the fan will stop to prevent feeding fresh air to a fire and will not restart until it is powered down and restarted.



NOTE:

If an external smoke detector is not used then a link wire **MUST** be fitted across the "Smoke Detector" terminals on the Main Connector PCB. These link wires are fitted to all units leaving the factory.



User Information

Your home has been fitted with a highly energy efficient mechanical ventilation system. The system should consist of an Everdri XEL central mechanical supply fan, ducting and discharge diffuser. The correct working system will provide a healthy indoor atmosphere and will help eliminate condensation and unwanted odours by supplying filtered fresh air into your home.

The fan is designed to run continuously 24 hours a day. It is fitted with an energy efficient electronic motor.

Manual Override Switch Control Options

The Everdri XEL system is supplied with a Manual over-ride switch, allowing you to switch between a low trickle speed (in Automatic mode) and 2 additional speeds in Manual mode. The high-speed setting * is a boost position to allow for the extract of cooking smells or moisture-laden air. When in use, it is advisable to open window vents or a window to allow the moisture laden air to escape. The middle position would be the normal running position in a house with the low speed position as a background position if the house is not fully occupied. In a smaller dwelling or flat the low speed position could be the normal running position with the middle position as boost.

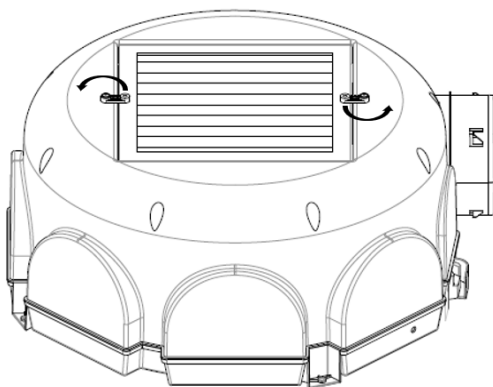


Maintenance

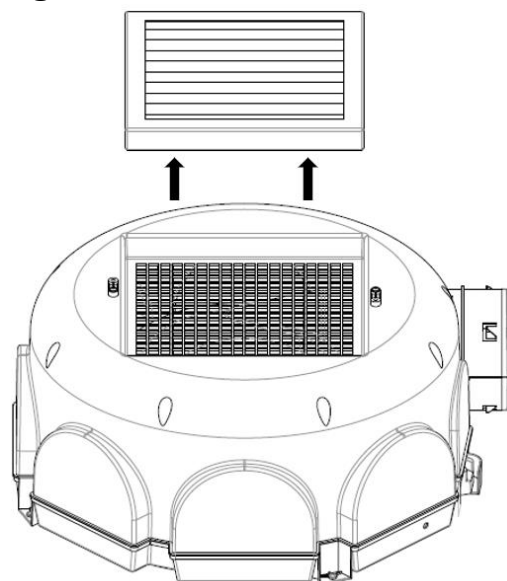
The fresh air input is protected by a G4 filter which should be inspected every 6 months, cleaned and if required replaced. The following procedure can easily be used to remove the filter for cleaning or to be replaced if necessary.



WARNING: Make sure that water does not get into the motor or electrical termination box during cleaning.



Rotate filter locking tabs through 90 degrees



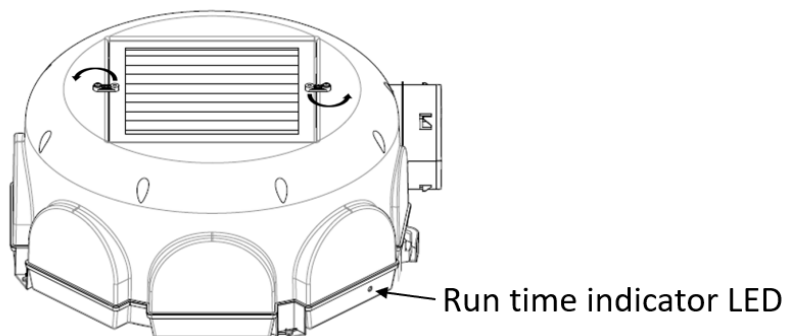
Lift filter straight up taking care not to drop dust into the fan

**NOTE:**

It is advisable to have the unit inspected by your installer annually.

Hours Run Meter

Both XEL and XELH ventilation units incorporate an hour run meter that allows the installer to measure the actual running time of the fan after installation. The meter records continuous power supply on time and displays this via an on-board red LED that always flashes to indicate the total number of hours the supply has been on.

**LED flash sequence to indicate hour run:**

- LED off for 2 seconds to indicate the start of the count, then:
- 0 to 2000 hours: LED on for 1 short flash (0.5s on / 0.5s off)
- 2000 to 3000 hours: LED on for 2 short flashes
- 3000 to 4000 hours: LED on for 3 short flashes
- 4000 to 5000 hours: LED on for 4 short flashes
- 5000 to 6000 hours: LED on for 5 short flashes
- 6000 to 7000 hours: LED on for 6 short flashes
- 7000 to 8000 hours: LED on for 7 short flashes
- 8000 to 9000 hours: LED on for 8 short flashes
- 9000 to 10000 hours: LED on for 9 short flashes
- Each 10000 hours is indicated by 1 long flash (2.0s on / 0.5s off)

Examples:

542 hours total on time:
(2s off), (0.5s on/0.5s off). Repeat.

1921 hours total on time:
(2s off), (0.5s on/0.5s off). Repeat.

2780 hours total on time:
(2s off), (0.5s on/0.5s off), (0.5s on/0.5s off). Repeat.

24355 hours total on time:
(2s off), (2s on/0.5s off), (2s on/0.5s off), (0.5s on/0.5s off), (0.5s on/0.5s off), (0.5s on/0.5s off), (0.5s on/0.5s off). Repeat.

Additional Information

Technical Data

Speed	Air flow rate (l/s)	Power (W)
Trickle	30	5.5
Sp.1	45	9
Sp.2	60	14

Switches and Controller Options



Manual Override Switch MOS (Supplied)
Ref. 90199AW



Change Over Switch COS
Ref. 90108AW



Passive Infrared Sensor XPIRA
Ref. 21871AA



Remote Humidistat XRH
Ref. 21856AW



Time Delay Unit DT20B
Ref. 21850AW



Air Quality Sensor AQS
Ref. 92097AW



Three Speed Selector Switch
Ref. 91266AW



Three Speed Controller
Ref. 91457AA

Ancillaries

Duct Heater
Ref. 300001022



Raises the temperature of incoming air above 10°C during sub-zero conditions. Supplied as standard with the XELH version of this ventilation unit.

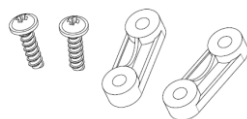
Three-Storey Kit (XEL3SK)
Ref. 111067



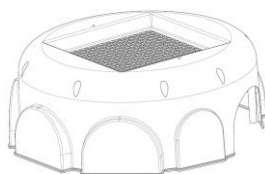
Includes a 200mm diffuser with an intumescent element which expands in the event of a fire to restrict air flow and delay the spread of the fire.

Spares

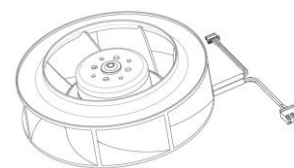
Filter Clips and Screws
Ref. 300001021



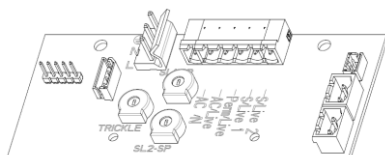
Inlet Housing
Ref. 300000989



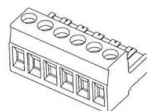
Centrifugal Fan
Ref. 300000983



Control PCB
Ref. 300000988



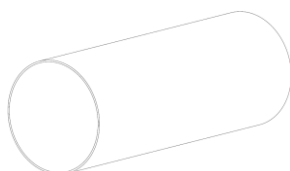
Termination Plug
Ref. 41983SK



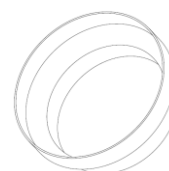
G4 Filter
Ref. 300001020



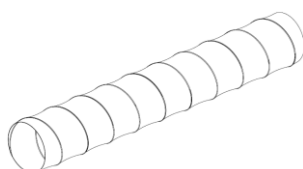
125mm Solid Duct
Ref. 300000984



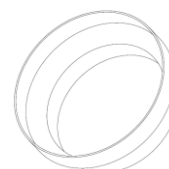
Duct Adapter 125mm/150mm
Ref. 300000985



150mm Flexible Duct
Ref. 300000986



Duct Adapter 150mm/200mm
Ref. 300000987



Customer Service and Warranty

Guarantee

UK: This ventilation unit is guaranteed against defects for 5 years from date of purchase.

Xpelair reserve the right to repair or replace the unit.

Keep your purchase receipt. Any problems, contact the address below.

Outside the UK: See International section.

In the unlikely event of a product breakdown during the guarantee period you should contact our Service and Repair Helpline who will be able to assist with the repair and advise the best course of action to be taken.

Please DO NOT remove the product prior to making this call as this may invalidate your guarantee.

Technical advice and Service

Tel +44 (0) 344 879 3588

Email: customer.services@glendimplex.com

UK Sales Office and Spares

Tel: +44 (0) 344 879 3588

International

Guarantee – Contact your local distributor or Xpelair direct.

Technical advice and Service – Contact your local Xpelair distributor.



NOTE:

Please be prepared to tell us the exact device type and serial number S/N, for your ventilation unit so that we can process your enquiry, customer service order or complaint correctly. You can find this information on the rating plate located next to the display and control panel on the main cover of the ventilation unit.

Environment and Disposal

Be conscious about the environment and help to protect it.

Disposal of packaging

The ventilation unit has been packaged carefully to protect it from damage during transport. The transport packaging consists of recyclable raw materials.

Please ensure to dispose of it in an environmentally responsible way.

Disposal of the device



Devices marked with this symbol must not be disposed of as normal residual waste. The device must be collected separately including accessories, empty batteries and rechargeable batteries. The disposal must be correct and in accordance with the applicable laws and regulations.

Contact details

Glen Dimplex UK Ltd,
Millbrook House, Grange Drive, Hedge End, Southampton, SO30 2DF
Telephone: +44 (0) 344 879 3588
Email: customer.services@glendimplex.com
Web: www.xpelair.co.uk

Glen Dimplex Europe Limited,
Airport Road, Cloghran, Co. Dublin, K67 VE08
Telephone: +353 (0)1 8523400
Email: serviceireland@glendimplex.com

© Glen Dimplex

(Glen Dimplex reserves the right to alter product specification or appearance without notice).

