



energiSava 380

INSTALLATION GUIDE FOR
ENGINEER / INSTALLER



Lifetime Range®

01 Introduction



Made in Harrogate
UK

Thank you for choosing EnviroVent

The fastest growing ventilation company in the UK

You are about to install a product that is designed to outlast the life-cycle of the building. Once installed the unit will operate continuously for 5 years and beyond without a major service. Please therefore ensure that this product is treated with care and installed properly i.e. for the life of the building. If the unit is mishandled you might break it! This invalidates the warranty.

And remember, if you have any problems please call our dedicated Technical Team. We are always pleased to help and in an emergency will come out to site quickly, completely free of charge.



Scan the QR code to watch the step by step installation video.

HOTLINE: 0345 27 27 810

Due to our policy of continuous innovation and improvement EnviroVent reserves the right to alter products specification and appearance without notice.

AFTER INSTALLING THIS UNIT PLEASE PASS ONTO END USER
DO NOT THROW AWAY


envirovent.

02

02 About The Unit

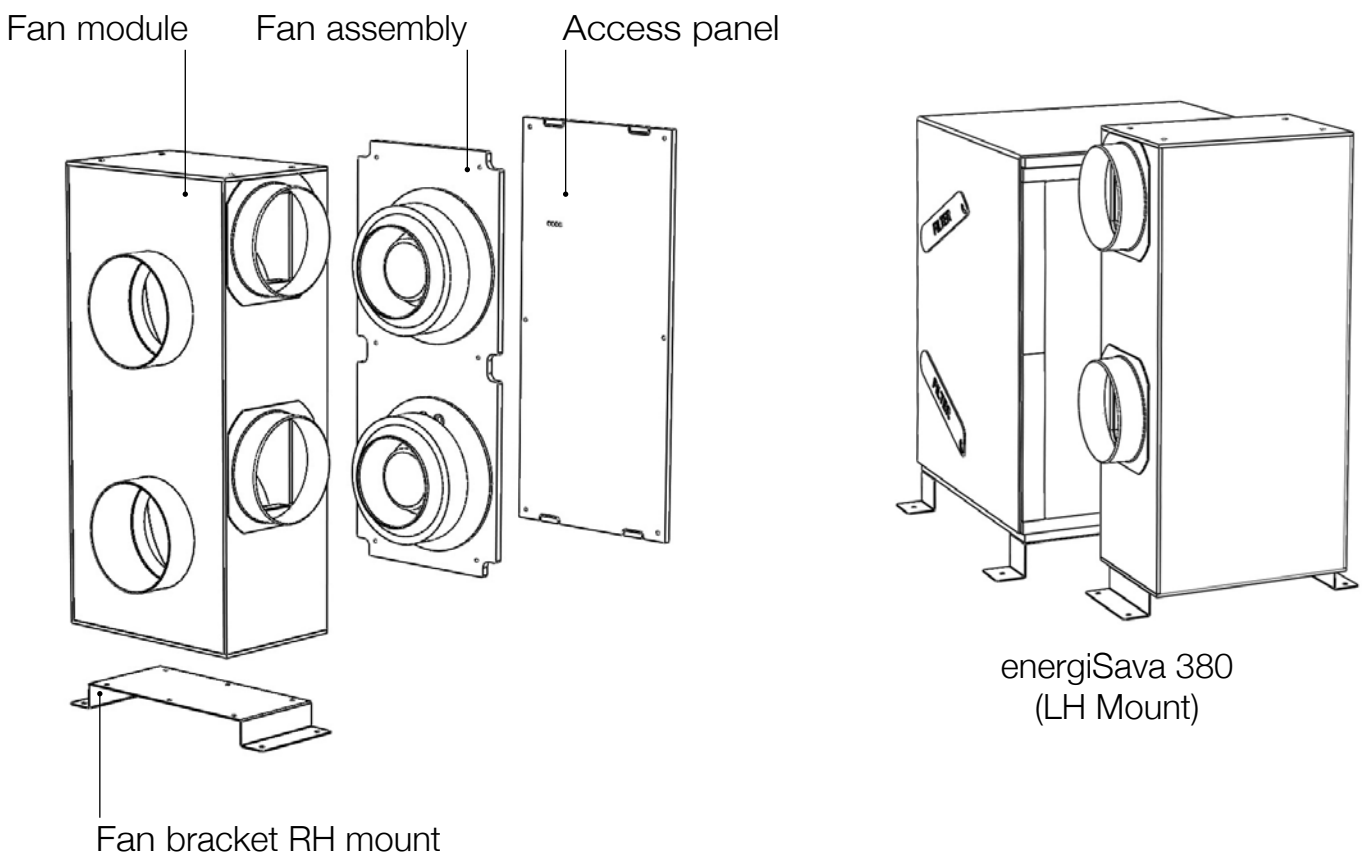
The energiSava 380 is a modular whole house heat recovery unit which works by continuously extracting stale, moisture-laden air from the “Wet Rooms” of the apartment or a house - the kitchen, bathroom and en-suite rooms - and ducts this to a central unit. This extracted air passes through a high efficiency counter-flow heat exchanger before being ducted to the outside. Fresh air is drawn into the unit from outside, which is warmed by the heat exchange cell and delivered into the living, dining and bedroom areas. The unit can be installed in a loft space or utility area.

Humidity sensing- This unit is fitted with humidity tracking as standard to maintain the required ventilation rates in the wet rooms of the accommodation.

Frost protection - when the cell temperature falls below 5°C the unit automatically warms the cell with extracted air to prevent the formation of frost.

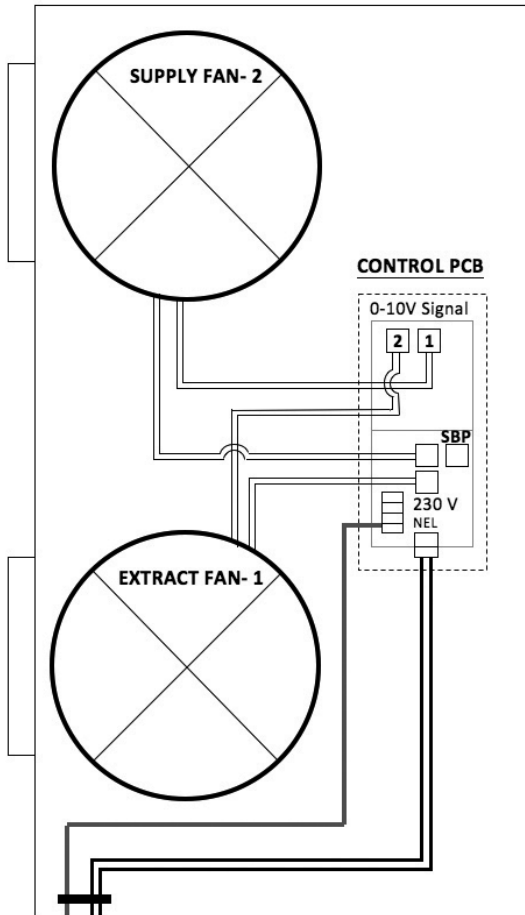
For unit controls see page 18.

EXPLODED VIEW (fan module)



03 Wiring Diagram

Left Hand Mounting

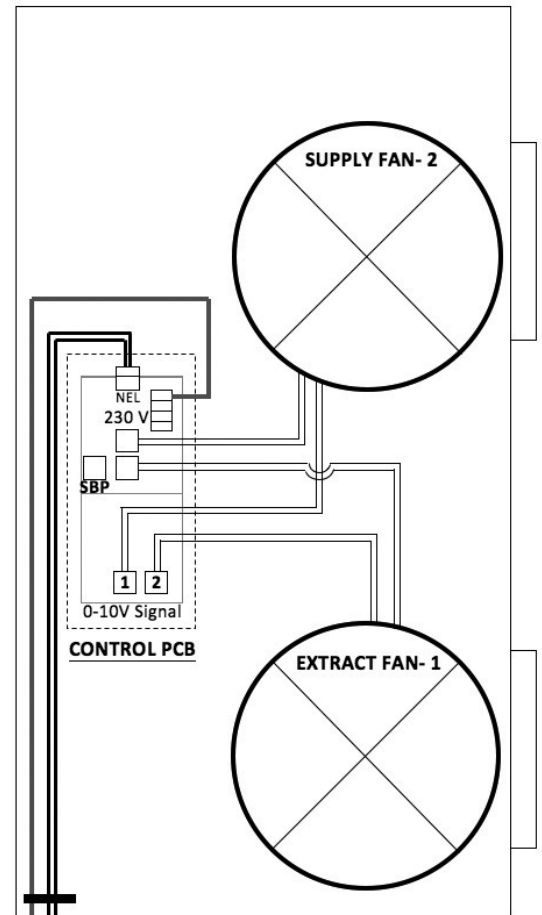


Switch live
Boost 230V

3 core power cable. 230V
Wire to 3A fuse spur

For summer bypass
connect to SBP

Right Hand Mounting



Switch live
Boost 230V

3 core power cable. 230V
Wire to 3A fuse spur

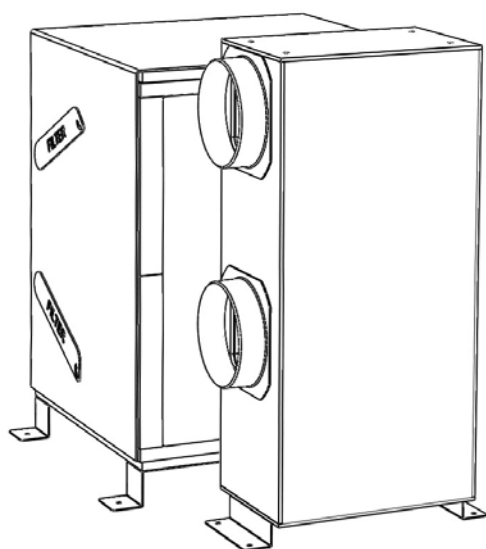
For summer bypass
connect to SBP

⚠ Emergency shutdown details - Unit to be isolated from the mains by turning it off at the isolating switch, this should be located within 1m of the unit.

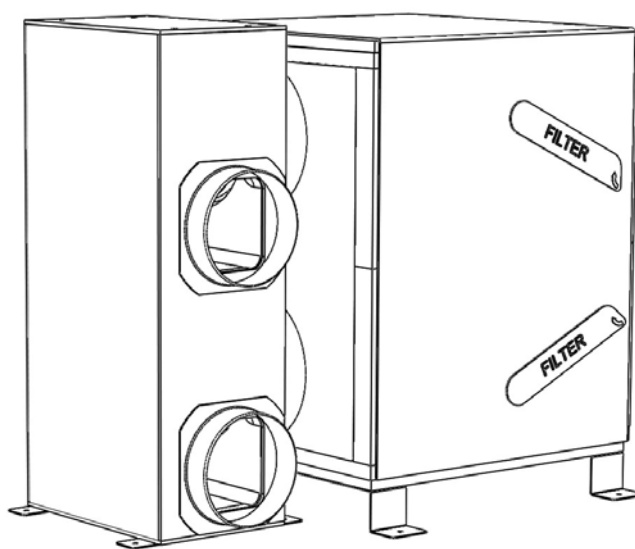
After Sales Service - We recommend you do not dismantle or remove any other parts than those mentioned, as any tampering would automatically cancel the guarantee. If you detect any fault please contact EnviroVent.

04 Technical Specifications

Supply Voltage	230v / 50Hz / 168W MAX / 1.4A MAX	
Dimensions (w x h x d) mm	FAN UNIT - 430 x 686 x 237 (including mounting brackets) HEAT CELL - 505 x 643 x 566	
Ventilation Capacity	Supply Airflow	105 l/s @ 100 pa, Max 125 l/s
	Extract Airflow	105 l/s @ 100 pa, Max 125 l/s



LH



RH

Approvals

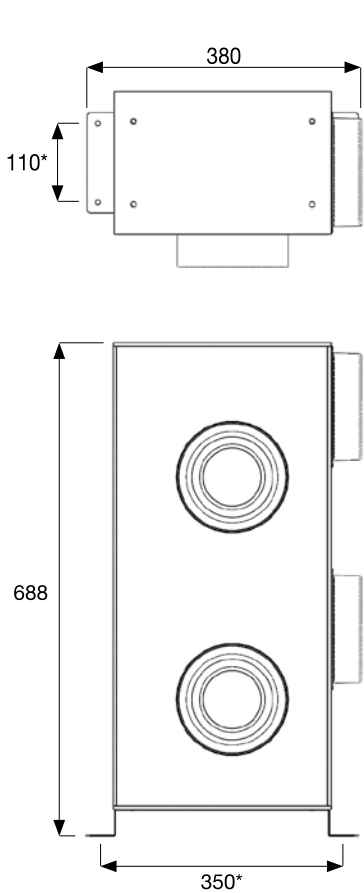
EMC testing (Electromagnetic Compatibility)	Emissions EN55014 - 2006 + A1: 2009 EN61000 - 3 - 2: 2006 + A1: 2009 EN61000 - 3 - 3: 2008	Immunity EN55014 - 2: 1997 + A1: 2001 + A2: 2008
LVD testing (Low Voltage Directive)	EN 60335-2-80: 2003 + A2: 2009. EN 60335 - 1: 2002 + A15: 2011	

This product shall be installed according to EnviroVent instructions and other relevant industry standards and regulations.

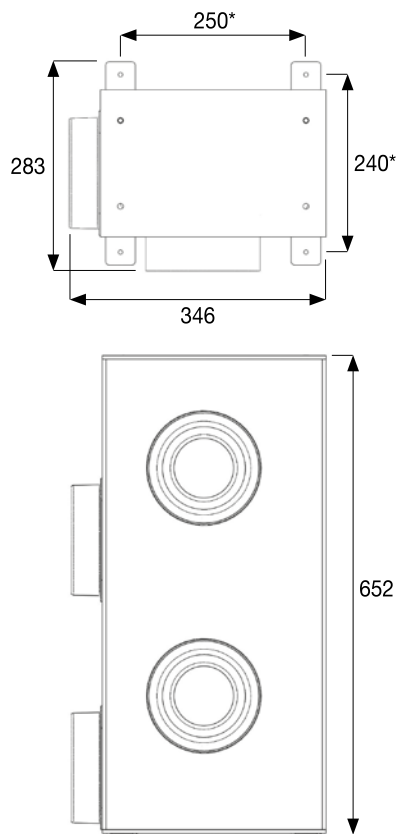
04 Technical Specifications

Product Dimensions (mm)

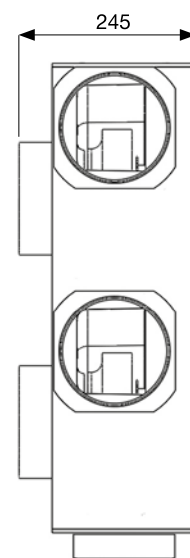
Fan Module LH Mount



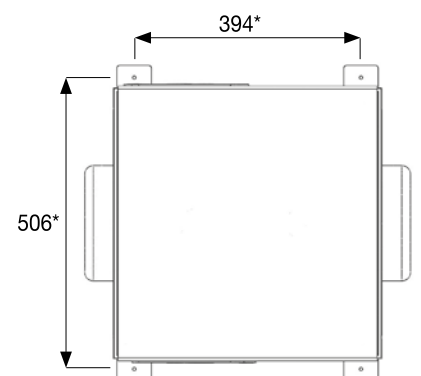
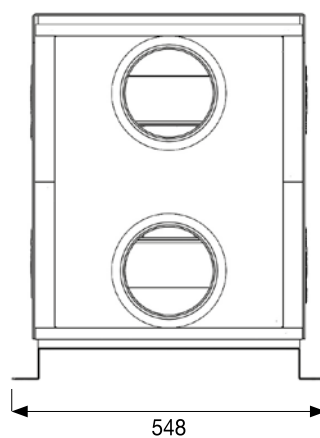
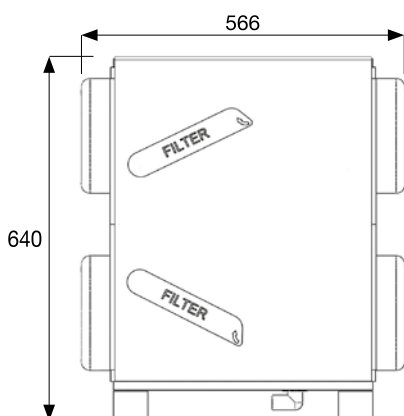
Fan Module RH Mount



LH & RH Mount



Heat Exchange Block

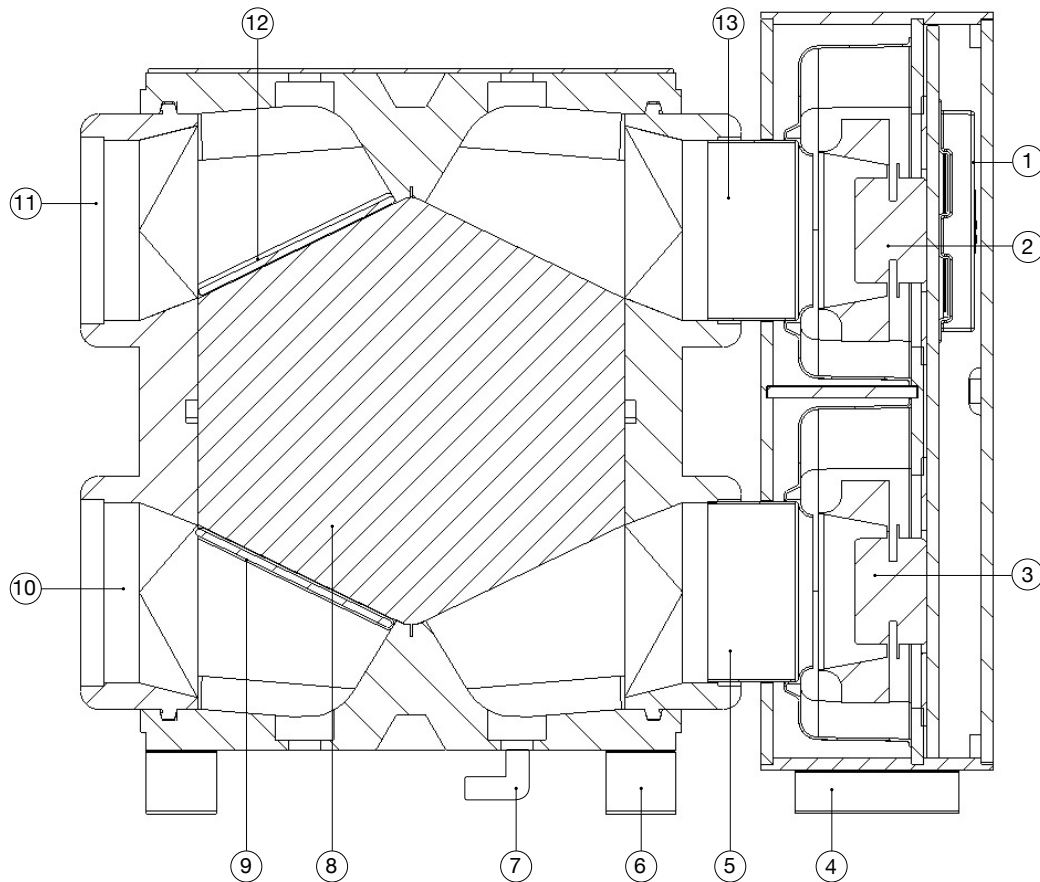


The energiSava 380 unit should be situated so that access for maintenance is possible.

*Fixing centres.

AFTER INSTALLING THIS UNIT PLEASE PASS ONTO END USER
DO NOT THROW AWAY

04 Technical Specifications



1	Control Panel
2	Supply Fan
3	Extract Fan
4	Steel mount - Fan Tower
5	Extraction connection between Heat Exchanger and Fan Tower
6	Steel mount - Heat Recovery Cell
7	Drain fitting
8	Heat Recovery Cell
9	Filter - Supply
10	Ø150mm inside diameter spigot; from atmosphere to deliver fresh air into property
11	Ø150mm inside diameter spigot; from dwelling
12	Filter - Extract
13	Supply connection between Heat Exchanger and Fan Tower

05 Installation Instructions

IMPORTANT

Be sure to have read and understood these instructions before beginning the installation process.

PRE-INSTALLATION CHECK LIST

Make sure that the unit can physically fit in to the desired location. The unit requires a standard 720 x 560mm loft opening.

The energisava380 unit should be situated so that access for maintenance or replacement of parts is possible. Use maximum diameter ductwork ensuring that runs are as short as possible. Having the most direct route and using as few bends as possible will reduce air resistance and improve the efficiency of the unit.

SAFETY AND RECOMMENDATIONS

- All wiring must comply with Building Regulations and the current I.E.E. Wiring Regulations (BS7671) or the equivalent standards for your country. The final installation should be examined and tested by a qualified electrician.
- The means of disconnection from the mains supply must be incorporated in the fixed wiring in accordance with the wiring rules.
- If the supply cord is damaged it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Precautions must be taken to avoid the back-flow of gases into the dwelling from the open flue of gas or other fuel-burning appliances.

- Make sure that the external supply and extract grilles are at least 1m away from any gas flue outlet (increase to 3m if mounted directly above a flue). Ensure that the MVHR's external supply and extract grilles are 2m apart.
- Make sure the mains supply complies with the rating label for voltage, frequency and phase.
- 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.

05 Installation Instructions

Control Options



Frost Protection

When the cell temperature in the unit falls below 3°C the unit automatically warms the cell with extracted air to prevent the formation of frost.



Boost - Switch Live

The energisava 380 comes with Switch Live as standard. It is an automatic function, sending the unit to boost when the bathroom or kitchen light is on.



Summer Bypass

Summer bypass is fitted as standard and helps reduce the air temperature coming into the dwelling during the summer months. It is an automatic function and operates when the supply air temperature to the property is above 25°C.



Humidity Tracking

When the energisava 380 unit senses a rise in humidity, caused by increased moisture generation such as through cooking or showering, the extract and supply airflows will slowly begin to increase in direct proportion to the increase in humidity.

It will then automatically track back down again when humidity falls. This controls condensation quietly and efficiently.



Boost - Remote Control

The energisava 380 unit also comes with a remote control switch which can be used at any time to send the unit to boost for 20 mins (see pg 18).

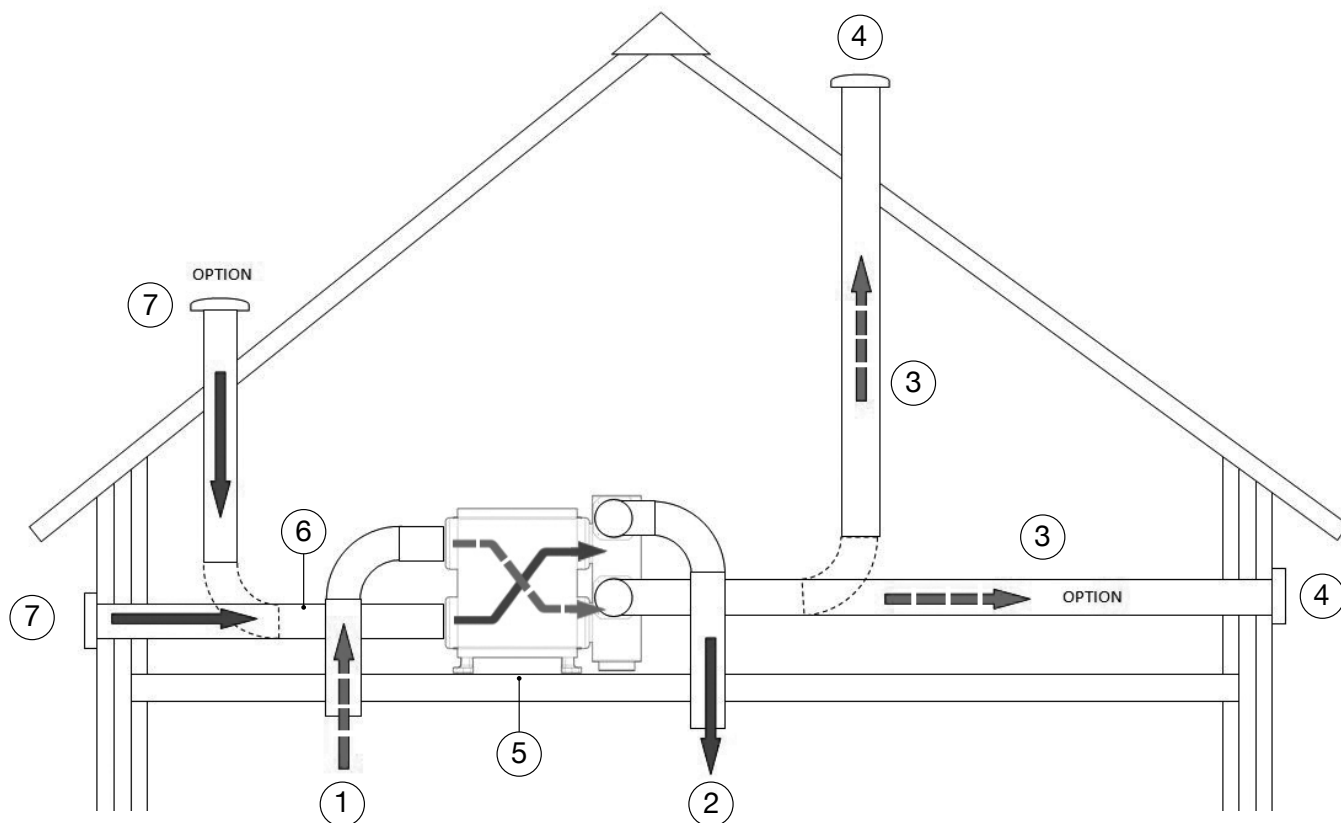
Control Options	
Frost Protection	✓
Boost Switch Live	✓
Summer Bypass	✓
Humidity Tracking	✓
Boost - Remote Control	✓

05 Installation Instructions

What's in the box	Description	Quantity	Item
Box 1	Heat Exchange Block (Cell Housing Unit)	1x	
	Mounting Bracket	2x	
	30mm Screw	6x	
Box 2	Fan Module	1x	
	LH Mount Bracket	1x	
	RH Mount Bracket	2x	
	M5 x 16mm Screw	4x	
	Spare Strain Relief Block	1x	
	Boost Switch	1x	
Fixing Kit	Sealing Strip	4x	
	Foam Pad	16x	
	Penny Washer	8x	
	50mm Screw	8x	

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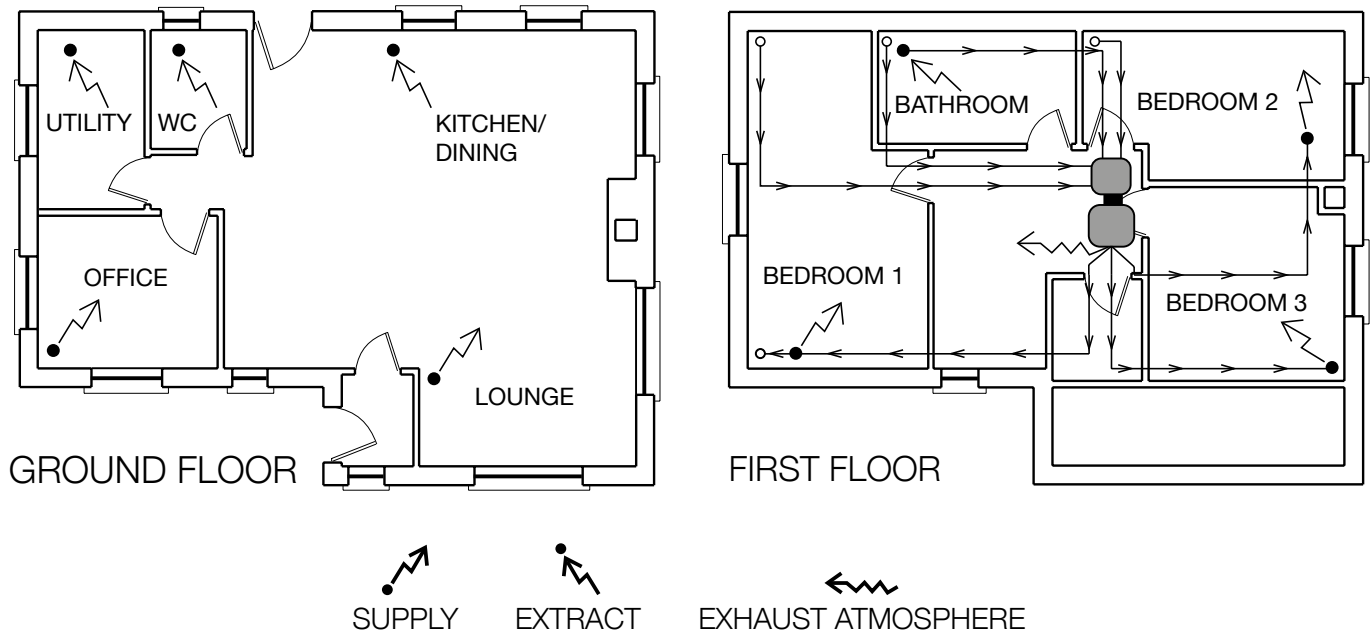
05 Installation Instructions



1	Ducts from dwelling (Ø150mm); insulated within loft space
2	Ducts to dwelling (Ø150mm); insulated within loft space, with 1.5-2m of acoustic ducting attached to unit
3	Extract duct to atmosphere (Ø150mm); insulated flexible ducting recommended
4	Recommended location ventilation air output
5	Position the unit on wooden battens (not supplied) laid across the joists
6	Supply duct from atmosphere to draw fresh air to dwelling (Ø150mm)
7	Recommended fresh air inlet

05 Installation Instructions

Installation Example



FIRST FIX

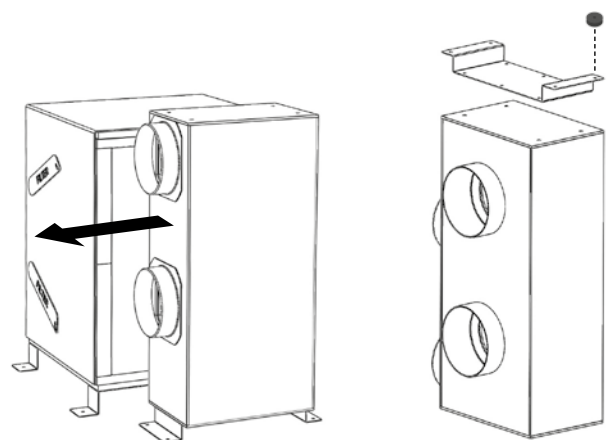
1. Duct within house - use $\text{Ø}150\text{mm}$ or $204 \times 54\text{mm}$ where necessary (also see points 3 & 4 second fix).
2. Power to the unit - locate a 3 amp fused spur within 1m of the unit.

SECOND FIX -

1. Setup the fan unit and decide the mounting orientation.

a) LEFT HAND MOUNT (LH) (Standard mounting orientation)

- Fix the mounting bracket to the underside of the unit with 4 x M5 x 16mm screws as shown.
- Apply self adhesive rubber mounts to the underside of the brackets, over the four mounting holes.

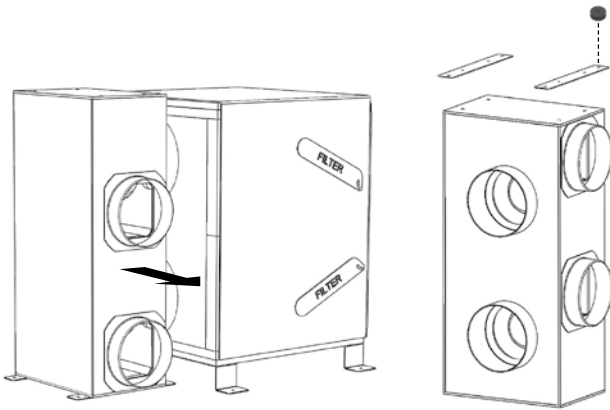


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05 Installation Instructions

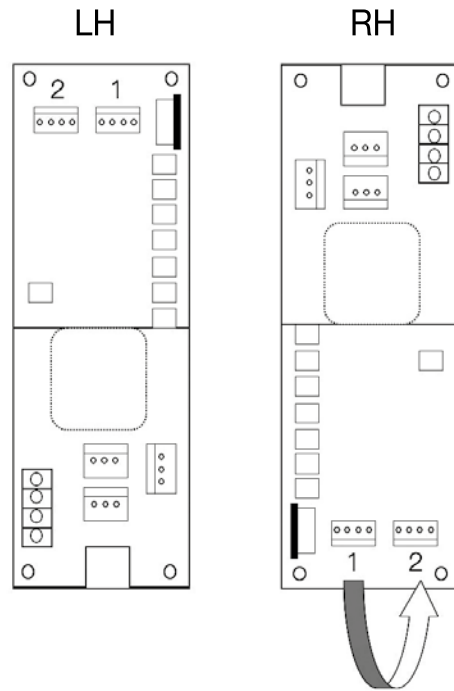
SECOND FIX CONT. -

1.
 - b) RIGHT HAND MOUNT (RH)

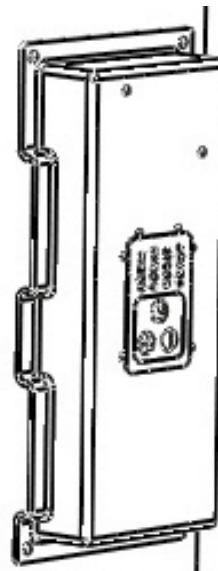


- Fix the mounting strips to the underside of the unit with 4 x M5 x 16mm screws as shown.
- Apply self adhesive rubber mounts to the underside of the brackets, over the four mounting holes.
- On RH mount units only, the fan signal connectors should be swapped over on the PCB control board to ensure proper function of the unit. Units are configured for LH mounting as standard.

⚠ For RH mount, reverse fan signal connections. The extract fan is always located at the bottom of the fan tower. The bottom fan must always be positioned on fan connector 2 indicated as 'FAN 2' on the PCB.



- The PCB control board is found behind the electronics cover on the reverse of the fan unit.

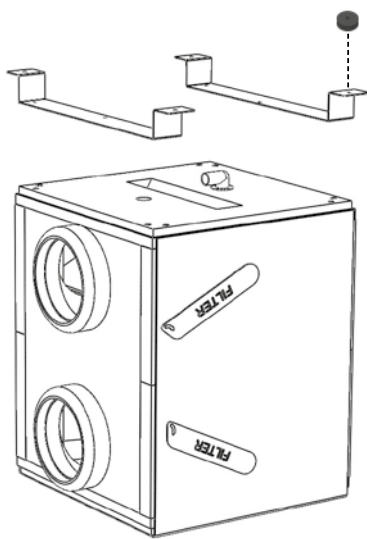


05 Installation Instructions

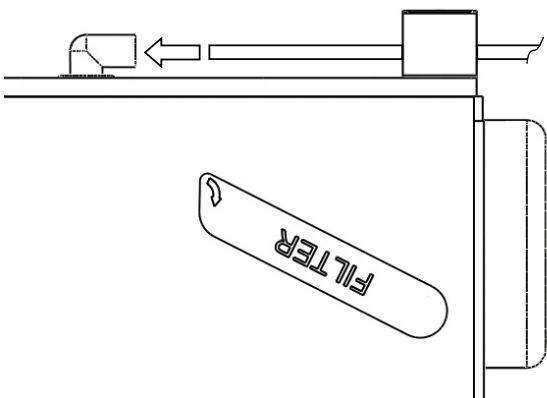
SECOND FIX CONT.

2. Setup the heat cell

a) Brackets- Fix brackets x 2 onto the base of the heat cell unit using 6 x 30mm screws as shown. Ensure that the card sleeve is in place to protect the white cover. Apply self adhesive rubber mounts to the underside of the bracket, over the four mounting holes.

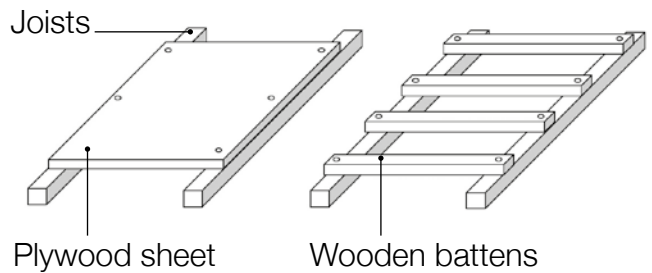


b) Condense pipe - Fix the required length of condense pipe into the drain with solvent.



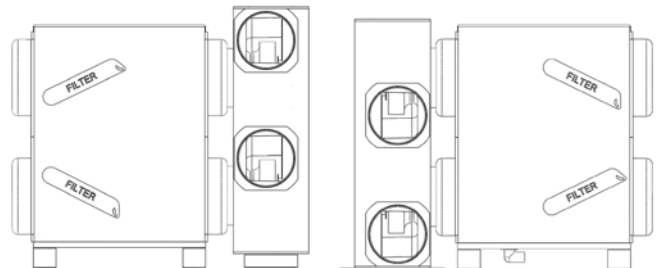
3. Mounting

a) Position the energiSava 380 fan unit and heat cell on a plywood sheet or battens.

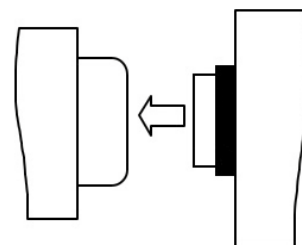


b) The unit must be mounted so that the feet are facing down and the units are level.

c) Push the two sections together so that the Ø150 spigots on the fan unit are fully located inside the heat cell spigot.



d) Unit connection must be fully sealed.



e) Sealing strips provided may be used to help seal units.

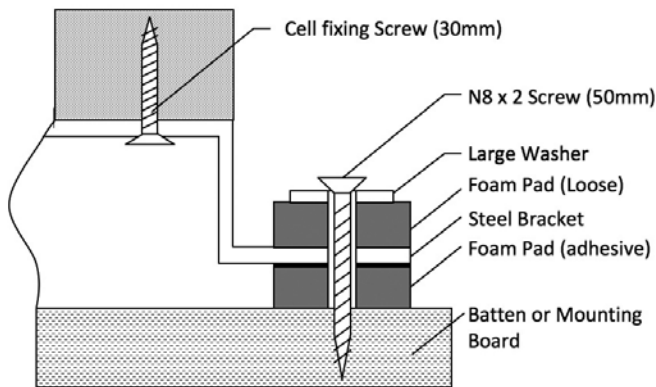
05 Installation Instructions

SECOND FIX CONT.

3. Mounting

- f) If you are fitting an option summer bypass ensure 350mm clearance between the units. Make sure that any ducting fitted between the two units is insulated and slopes slightly towards the heat cell.
- g) Lightly secure the units with 8 x 50mm screws and the additional rubber mount and large washers.

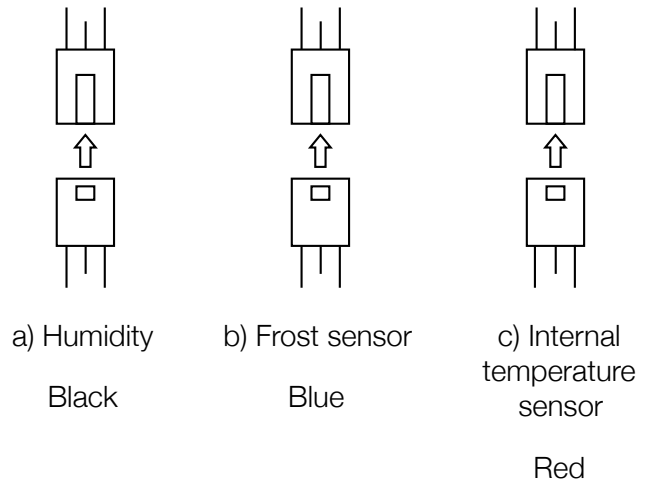
⚠ Do not over tighten the screws.



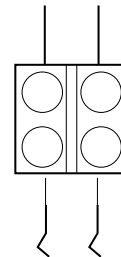
- h) Make sure that the connection between the fan unit and heat cell are airtight.

4. Connecting to the unit

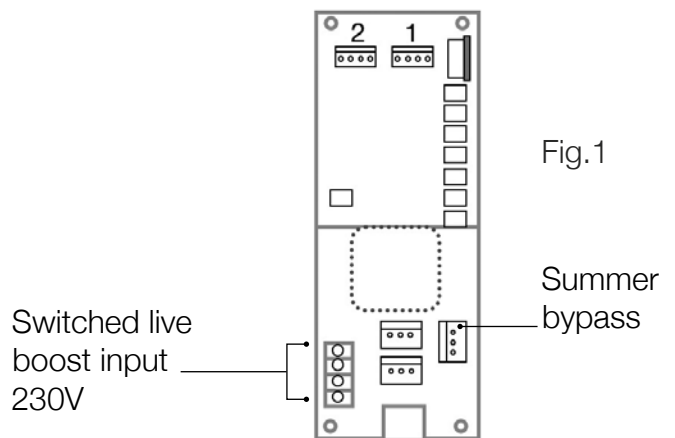
- a) Connect the three sensor cables so that the colours match. The sensors are located behind the rear panel on the fan unit and tapped to the spigot on the heat cell.



- b) Connect to the volt free boost if required (non-remote control versions only). The connection is located behind the rear panel on the fan unit. (See fig.2). Orientation not important. Closed to boost.



- c) On summer bypass specified units, connect the bypass to the connector on the control PCB located behind the electronics cover.



05 Installation Instructions

SECOND FIX CONT.

4. Connecting to the unit

- d) Where switch live boost is required, fix the live from the lighting circuit to one of the four switch live connection points. Use spare strain relief block on live wire (See fig.1).
- e) Ensure Supply and Extract fans have been configured as instruction 1b. The supply fan is always located at the bottom of the fan tower. If the extract and supply flows appear to be reversed, the fan connections on the PCB control may need to be swapped over (See instruction 1b).

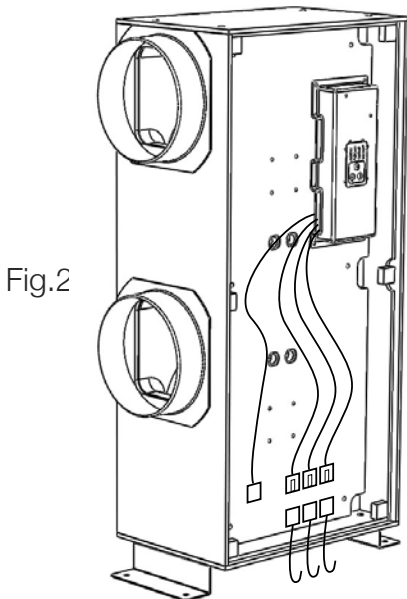


Fig.2

⚠ Important note: When the rear cover panel is replaced, strain relief blocks should be located within the unit to be effect. Sensor cables should run underneath the fan tower.

5. Ductwork in loft space

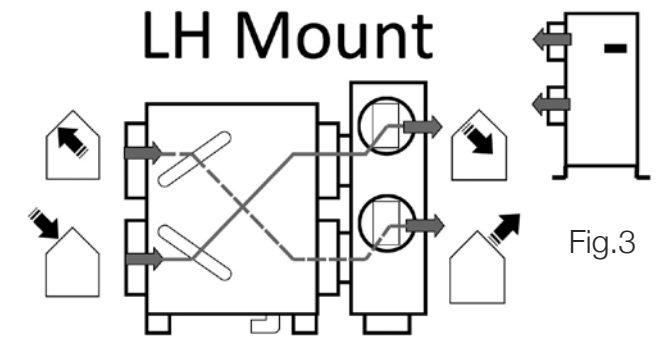


Fig.3

Connect LH mount duct work

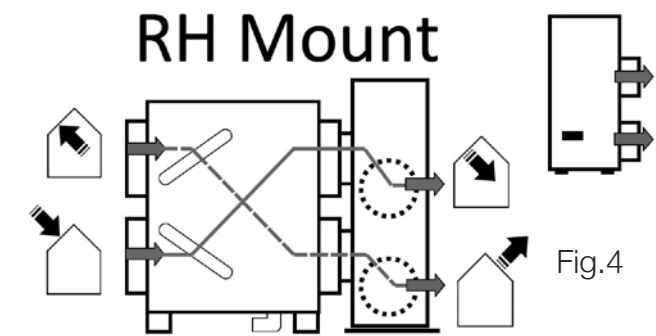


Fig.4

Connect RH mount duct work

----- Extract
 _____ Supply

- Make the ductwork runs as short as possible. Having the most direct route and using as few bends as possible will reduce air resistance and improve the efficiency of the unit.
- Any ducting that is situated in an unheated loft space or similar site should be insulated.

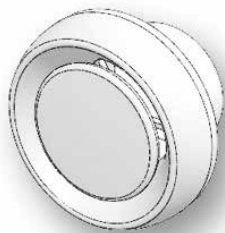
⚠ Important note: Make sure that the external supply and extract grilles are at least 1m away from any gas flue outlet (increase to 3m if mounted directly above a flue). Ensure that the MVHR's external supply and extract grilles are 2m apart.

05 Installation Instructions

SECOND FIX CONT.

6. Fitting grilles

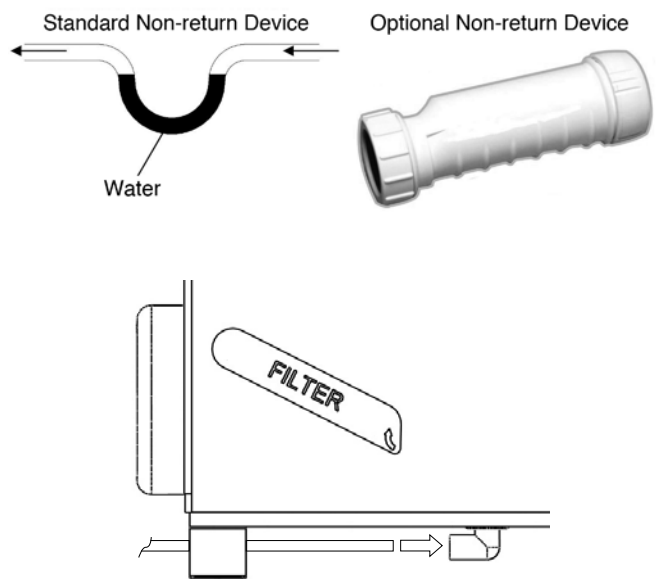
- a) Position a dust sheet beneath the site you have chosen for cutting the hole for the diffuser. Protect your lungs with a mask.
- b) Check there are no obstructions to your chosen position for the diffuser.
- c) Cut hole diameter dependant on diffuser size in the ceiling in the position chosen where air is required to be delivered/extracted.
- d) Connect the ducting onto the neck of the diffuser. Ensure that the connection is airtight and that there is a mechanical fixing for strength.
- e) Adjust if necessary.
- f) Fix the diffuser in position using plasterboard plugs and screws.
- g) Remember to adjust the vent opening.



Adjustable ceiling diffuser
(Ø100mm-125-150mm)

7. Drain connection

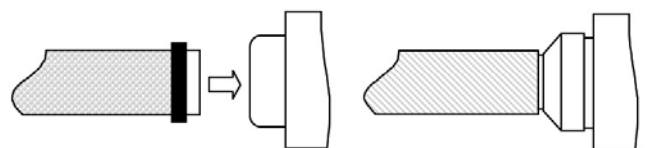
The drainage from the unit may be connected to a foul drain. Alternatively it may be connected to an internal waste water system via a non-return device and insulated if it's in an unheated loft space.



8. Duct connection

(See page 9 for duct types)

- a) Ducts must be securely attached to the unit.
- b) Ducts must be fully sealed.
- c) Sealing strips provided may be used to seal ridged sections to the heat cell.
- d) Ø200 to Ø150 reducers may be used to connect to the heat cell.



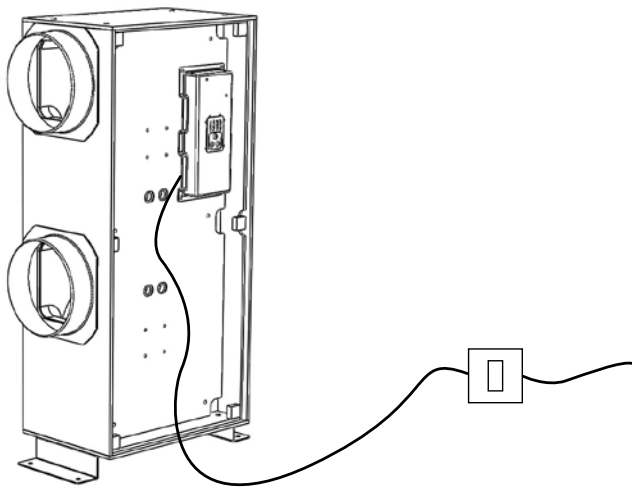
05 Installation Instructions

SECOND FIX CONT.

9. Putting into operation

Switching on:

- a) Mains power: Connect the mains wire to the electric installation. The wire is stored behind the rear access panel. Once you turn the switch ON, the appliance will start to operate.



10. Commissioning

The system should be commissioned in conjunction with a system design if provided by EnviroVent Ltd.

Boost Controls

The system operates continuously at a low rate known as 'trickle', to ensure your home is ventilated at the appropriate level. The system will automatically vary its extract rate when it senses an increase in the moisture level running through the unit. You can also boost the system via the remote switch when required.

For remote control switches, press the button once to see the current status of your unit and again to boost the unit. The boost LED will light and the unit will go to boost for 20 minutes.

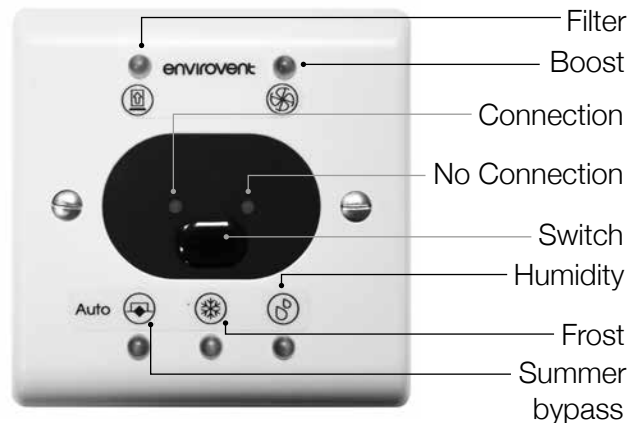
Indications:

To view the current status of your unit press the button once. The functions currently in operation will be indicated with a lit LED.

If the filter light is on the filters will need checking, see maintenance page 24.

Warnings:

All LEDs flashing indicates a fault with the unit. For hard wired switches press the switch to the ON position to send the unit to boost. The unit will stay at boost until the switch is turned to the OFF position.



Batteries:

When the battery requires changing, unscrew the switch front cover. The battery is located on the back of the cover. Battery type - 3V Lithium, CR2032.

06 Commissioning Part 1

Commissioning of a continuous running ventilation system- MVHR

Commissioning of the system is necessary to provide adequate ventilation to the dwelling, as stipulated in **Approved Document F (ADF) of the Building Regulations***

Conditions - all maintenance and development works should be completed prior to the commissioning of the unit, this is to avoid high levels of dust being drawn into the system and general disturbance to the setup. The unit should only be commissioned when fully installed, with power, ductwork, valves and vents in place. **See Domestic Ventilation Compliance Guide.**

Equipment required - Anemometer which is capable of measuring l/s or m³/hr.

Commissioning method - Once the previous conditions are met, boost and trickle rates need to be set. These should be set as outlined in the commissioning guide (See page 20).

Extract and Supply - (flow rates should be balanced on boost and trickle)

Commissioning guide

Boost rate (minimum high rate)

- Determine the whole building ventilation rate. **See ADF of the Building Regulations.**
- Open ceiling/wall valves.
- Measure all extract points summing the individual room rates. Measurements to be carried out with an appropriate anemometer.

- Adjust using ⊕ and ⊖ buttons, press up or down until the total extract rate is met. See the individual product's instruction guide for method (See page 20).
- When the desired overall extract rate is achieved, the individual valves should then be adjusted to draw the appropriate volume of air from each room, typically starting with the largest extract requirement first: kitchen, bathroom, utility room, en-suite and WC.
- It may be necessary to adjust the fan unit slightly to account for increased pressure.
- When adjustments are completed the valves should be locked into position to maintain settings.

Trickle rate

- This should be set around about 75% of the Boost rate. **See ADF of the Building Regulations.**
- As the valves have been commissioned at boost they will not need to be altered further, the trickle buttons should be adjusted up or down, until the lower extract rate is met. See the individual product's instruction guide for method on page 20.

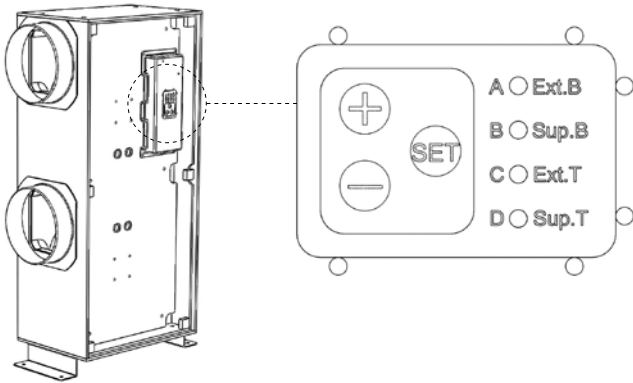
For guidance on good installation practice for MVHR systems see the latest edition of the latest edition of the **Domestic Ventilation Compliance Guide***. This guide provides in depth information on all aspects installation, inspection, testing and commissioning.

*Applicable in England and Wales. For other countries please refer to your local building regulations.

07 Commissioning Part 2

Setup guide for the energiSava 380

The control switch is found behind the rear cover panel



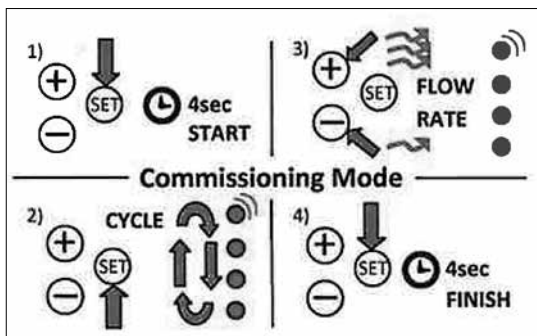
Commissioning mode is chosen by pressing the SET button for 4 seconds, all sensor inputs will be disabled in this mode so that they do not interfere with flow rates. All LEDs will light with the Extract Boost flashing, this indicates that the flow rate may now be increased/decreased as required. The next press of the SET button will move commissioning to the next setting, Sup.B and so on. When the unit has been fully commissioned, press the SET button for 4 seconds and this will put the unit back into status mode. If the unit is not put back into status mode after commissioning, it will automatically revert back to status mode after an hour.

Note: Settings will be retained if the power supply is interrupted.

Commissioning Mode	
LED 1 flashing	Extract Boost - Ext.B, default start point
LED 2 solid	Supply Boost - Sup.B, first press
LED 3 solid	Extract Trickle - Ext.T, second press
LED 4 solid	Supply Trickle - Sup.T, third press (fourth press will move setting back Ext.B)

⚠ Please note the supply fan is always located at the top of the fan tower. If the extract & supply flows appear to be reversed, the fan connections on the PCB control may need to be reversed (see instruction 1b).

In Status Mode the LEDs may indicate the following information:



Constant LED		Flashing LED
A Frost protection mode ON	A	A Supply motor has stopped
B Boosted state - Humidity ON	B	B Extract motor has stopped
C Boosted state - Switched input ON	C	C N/A
D Summer bypass mode ON	D	D Check filter*

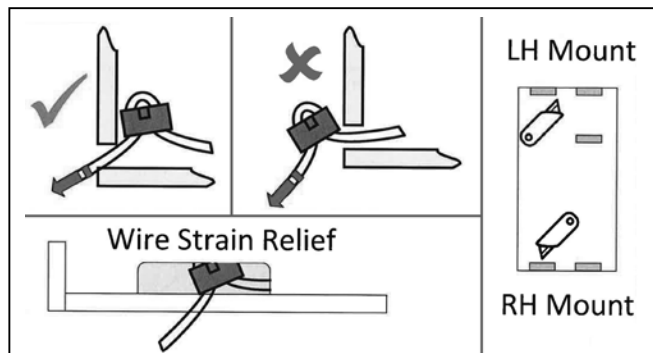
*To reset filter indication, see maintenance section on page 23.

07 Commissioning Part 2

Setup guide for the energiSava 380

Cable strain relief

Important note: when the rear cover panel is replaced after commissioning, the strain relief blocks on the power and sensor cables should be located within the unit to be effect.

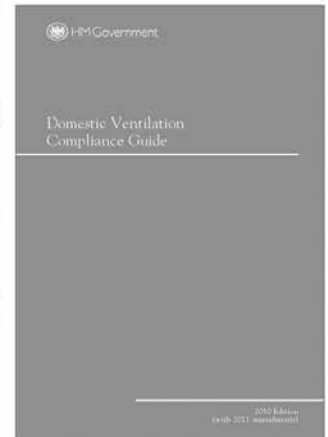


The wires should exit the rear of the unit through slots in the rear cover panel. They need to be cut out by the installer when the mounting orientation has been decided.

⚠ Note: the control panel LEDs should always be visible through the rear panel.

08 Checklist

Checklist to ensure Guaranteed Installed Performance



energiSava 380 installation instructions have been understood	✓
Duct work is Ø150mm with no more than 10% flexi used (90% ridged)	✓
All ducts, vents and diffusers are securely connected & sealed, with supply and extract filters in place	✓
The unit is securely fixed into position with enough space left for servicing	✓
Condense drain is tight, drains to a suitable location and has been water tested	✓
On LH Mounted Units - ensure the fan signal connectors located on the control PCB have been swapped over	✓
All major building works have been completed prior to commissioning	✓
Supply and extract have been commissioned to meet Part F of the Building Regulations with a calibrated anemometer	✓
Commissioning data has been recorded	✓
Inform building owner/user on how to operate and maintain the system	✓
<p>These checks are required to ensure the proper function of this unit. For EnviroVent Technical help call 01423 810 810</p>	

09 Maintenance

Recommended maintenance schedule

The following checks are recommended to ensure that this heat recovery system operates at its optimum level.

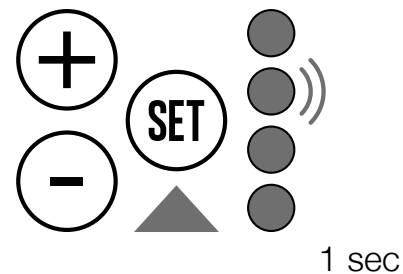
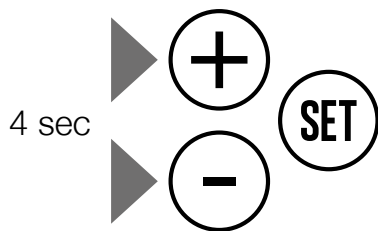
Yearly checks

To be carried out by the user or maintenance company.

- Check there is sufficient airflow coming through the diffusers.
- Change filters x 2 (see illustrations on page 24)

Clearing filter indication

- To clear the filter indication light press plus (+) and minus (-) on the switch panel for 4 seconds.
- When all the LEDs light up press SET for 1 second.



This will reset the filter counter and no more action is required. Filter indicator is set to 12 months as standard.

⚠ Filter maintenance is required for the proper function of the unit, not doing so may invalidate the warranty.

09 Maintenance

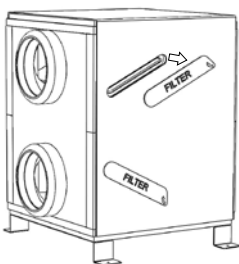
Major service (five years)

To be carried out by EnviroVent or maintenance company. Refer to maintenance procedure SOP 089.

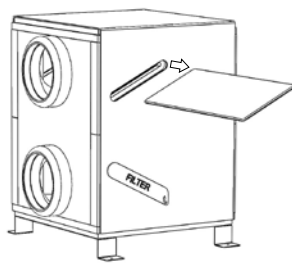
1. Check the general condition of the diffusers, clean filters if fitted
2. Check condition of the ducting
3. Check energiSava 380 unit
 - a. Fans to be vacuumed
 - b. Cell surfaces to be vacuumed
 - c. General clean
 - d. Check humidity and temperature sensors
4. Clean inline filter if fitted
5. Check external inlets and outlets
6. Condense drain to be checked and cleaned if required
7. Check summer bypass function if fitted
8. The unit should also undergo a commissioning check to ensure airflows

The end user does not need to remove the covers from the unit, any repair work should be carried out by a qualified person to avoid hazard. If the supply cord is damaged, it must be replaced by the manufacturer, service agent or similarly qualified person.

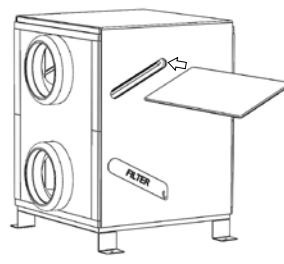
Filter Replacement



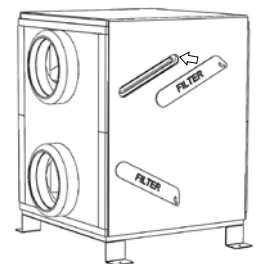
Remove the filter plug



Remove filter



Replace filter



Replace filter plug

10 Guarantee

The EnviroVent energiSava 380 is covered by a full 5 year warranty which will benefit the occupier over many years. The unit will be set according to the size of the property and will operate continuously. There is no requirement for any maintenance within the 5 year period.

What should I do if I have a problem?

If, after thoroughly reading this booklet, you feel that your energiSava 380 is not working correctly, you can telephone 0345 27 27 810 (operational from 8:00am to 5:00pm Monday to Friday), and ask for technical assistance. You will either be given guidance over the telephone, or an arrangement will be made for an engineer to visit. In any event, please have the following information ready. This will enable your call to be dealt with quickly and efficiently.

Please note that proof of purchase by the way of a receipt is required and that any fans bought from an unapproved source, including but not limited to Ebay, will render the guarantee invalid.

Serial number of the unit:

11 Warranty

We appreciate you choosing this quality EnviroVent product, which is designed and manufactured to the highest specification in Harrogate, North Yorkshire. We are confident that you will be delighted with the performance of the system and the resulting improvement in air quality in your home after the installation of the unit.

Your warranty covers any defect or break down that arises due to faulty materials or construction.

WARRANTY CONDITIONS AND EXCLUSIONS

- The system must be correctly installed and operated according to the instructions contained in the user guide supplied.
- The warranty will be rendered invalid if the system has been serviced, maintained, repaired, taken apart or tampered with by any person not authorised by EnviroVent Ltd.
- The warranty will be rendered invalid if the unit is turned off. Turning the unit off can damage it.
- The warranty does not cover accidental damage, misuse or abuse.
- The warranty is in addition to your statutory or legal rights.
- The guarantee will only be honoured from approved suppliers.



Delivering innovative and sustainable
ventilation solutions worldwide



Lifetime Range®



Please read carefully to ensure simple installation and a long trouble free life for the user.

AFTER INSTALLING THIS FAN PLEASE PASS ONTO END USER - **DO NOT THROW AWAY**

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Due to our policy of continuous innovation and improvement EnviroVent reserves the right to alter products specification and appearance without notice.