Lo-Carbon Sentinel Kinetic Heat Recovery System

Homeowner Ventilation System Guide

Condensation and mould

In Britain, condensation in houses is a problem particularly where warm moist air is generated in areas like kitchens and bathrooms or by drying clothes over radiators. The moisture in the air gets left on surfaces in colder parts of the house resulting in water running down the windows leading to black mould on walls, ceilings and in cupboards.

How can we reduce humidity levels:

- **Adequate Heating** – Air is like a sponge, the warmer it is the more moisture it will hold
- **Adequate Insulation** – Prevents cold surfaces for moisture to condense
- **Adequate Ventilation** – Removes the excess moisture held in the warm air and provides fresh air resulting in better indoor air quality

To limit excess moisture in the indoor air and condensation in your home, the following tips may be helpful:

- Avoid drying clothes indoors, especially on radiators
- Reduce moist air spreading around your home by using boosted Mechanical Ventilation with Heat Recovery, keeping internal doors closed when cooking, bathing or showering.

Provide adequate ventilation

Traditional intermittent extract fans provide peaks of airflow, this means we are warming indoor air and then extracting it to outside, which is not energy efficient.

Instead, continuous running extract fans in bathrooms, kitchens and utility rooms work with the natural air flow in the house meaning you have a constant supply of fresh air which prevents mould and contaminants multiplying and spreading, giving you a healthy home, but without the heat loss associated with intermittent fans.

What is it and why is it there?

The Lo-Carbon Sentinel Kinetic range is a centralised mechanical ventilation unit with heat recovery. It is a centralised fan unit mounted in your loft space or cupboard that continuously extracts stale moist air, odours, and other indoor pollutants from your home, from your bathroom, kitchen, WC and removes it from the property through the circular grilles mounted in your ceiling.

At the same time the unit is drawing in fresh, filtered air from outside and providing it to the habitable rooms in the property. Heat recovery means that the supply air is passed over an internal heat exchanger which can recover up to 91% of the heat within your home, therefore helping you save on heating costs.

The average family produces approximately 27 pints of moisture per day.

Walls, ceiling, floors & soft furnishings quickly show signs of black mould growth.

DO NOT switch off

DO NOT adjust your ceiling diffusers

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What does it do?

Ventilation in your home is provided for three reasons:

1. Supply fresh air for the occupants.
2. Help to ensure good indoor air quality, which needs removal of enough moisture, odours, and other indoor pollutants.
3. Help to maintain good thermal comfort; ventilation air flows help heat to mix from different sources.

The different parts of the ventilation system work together to allow fresh air to circulate through the home.

The system has supply diffusers located within your habitable rooms, such as bedrooms and living rooms, these provide fresh air into your home. Alongside the supply diffusers, there are also extract diffusers located within your wet rooms, such as bathrooms and kitchens, these remove the stale and humid air from your home.

During the extract and supply of air within your home, the air that is removed from your wet rooms may be warmer due to heating, cooking, and cleaning. The heat energy is transferred onto the incoming air to allow fresh tempered air entering your property, recovering up to 91% of the energy. Helping you reduce your heating bill.

The system is designed to run continuously at a very low trickle rate and boost automatically when required. The fan is constantly monitoring the air it extracts and will boost itself to a higher setting when the humidity levels within the property reach a certain level.

It may not clear steam / condensation as quickly as accustomed to but will clear condensation 100% over a longer period.

How will it help?

This system will help prevent the build up of moisture in the home by removing steam and odours created whilst cooking and bathing. This will help reduce the risk of black mould forming on the walls and behind cupboards.

How do I control it?

The Lo-Carbon Sentinel Kinetic range operates continuously on 'Normal' setting to ensure your home is ventilated at the appropriate level.

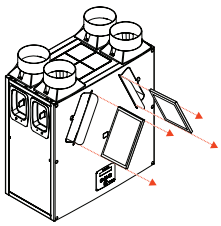
The system will automatically boost to a higher extract rate when one of the control devices is activated. A manual 'Boost' switch is also provided if a higher level of ventilation is required at any other time, e.g. on a hot day or to remove odours.

Excessive humidity and smells

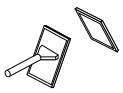
In extreme circumstances, where there is excessive moisture in the air, or strong smells are present, there may be a requirement for additional purge ventilation. The fan will not detect strong smells in the air.

Does the unit require any maintenance?

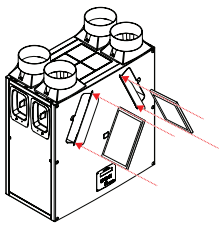
Mechanical ventilation with heat recovery unit (MVHR) filters should be checked initially at three months post installation due to construction dust in the environment and then on a regular basis, at least once every six months with the filters replaced every 12 months. The replacement schedule will depend on the external and internal environments and in more polluted environments the frequency may need to be increased.



1. When the unit control panel displays "Check filters" open the front flaps and remove the filters.



2. Gently vacuum the filters



3. Replace in reverse order. Reset the automatic message, press and hold the UP and DOWN buttons for 5 seconds.

The MVHR service requirements will also vary based on the environmental conditions, but we recommend that a maximum period to a full service is five years from the date of installation, the decision to service the unit more frequently than this can be made if required on inspection of the filters.

The replacement schedule will depend on the external and internal environments and in more polluted environments the frequency may need to be increased.

DO NOT switch off the product

The fan is set to run continuously 24 hours a day, 7 days a week. In order to allow for air to circulate around the home, the doors have undercuts which allow for air to flow between rooms. Do not block these gaps, as it will stop air flowing between the supply and extract diffusers.