Ventilation with Heat Transfer injection

This Heat Transfer Add-On kit is designed to work in conjunction with an EVOAQ Ventilation fan. The wall controller is connected to both fans through the supplied control box, and is used to switch between the two operating modes of the system.

Summer Mode – Ventilation

In ventilation mode, all rooms receive fresh air from the ventilation fan like normal operation.

Air is taken from the ceiling or outside via the fan and filtered to be supplied to all rooms. Sensors in the fan and input from the controller are used to constantly monitor the quality of the supply air and to adjust the ventilation air flow accordingly.

Airflow is blocked from going back into the lounge through the heat transfer fan by a one-way valve between the fan and Y-branch. The heat transfer fan is turned off in ventilation mode.

Winter Mode - Heat Transfer

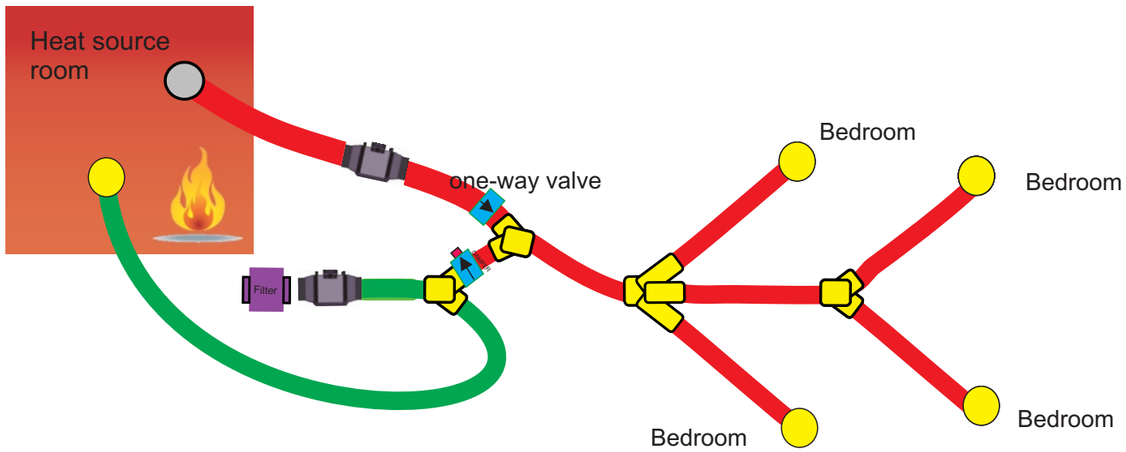
When switched to heat transfer mode, the motorised damper will close and the heat transfer fan starts running at low speed, monitoring the temperature of the lounge (or other heat source room).

Once the temperature in the lounge rises enough, the heat transfer fan starts its heat transfer process and begins to speed up. The fan will keep running at higher speed while the air is continued to be heated by the heat source, transferring the air with excess heat to the bedrooms. Sensors within the fan itself are used to regulate the fan speed based on the amount of heat available for heat transfer. Once no more heat is available to transfer, the fan slows down and goes back to running at low speed until heat transfer mode is switched off or the lounge is once again heated.

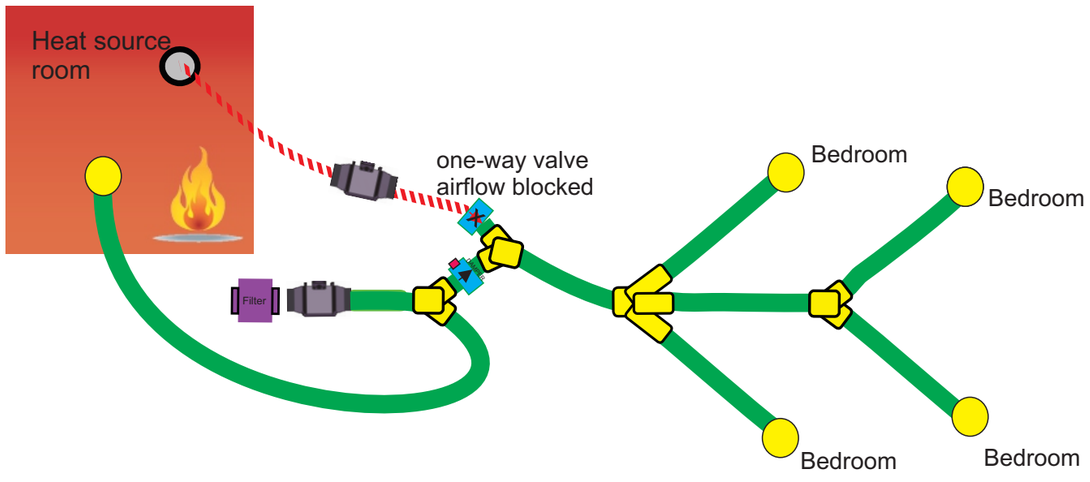
During this heat transfer process, the ventilation fan keeps running at a low speed to continue to provide fresh air to the lounge areas which are blocked off from the other bedrooms by the damper. This fresh air is used to replace the air taken from the lounge by the heat transfer process, and as it is heated by the heat source the humidity level of the air becomes very low – which helps to prevent condensation forming within the house during heat transfer.

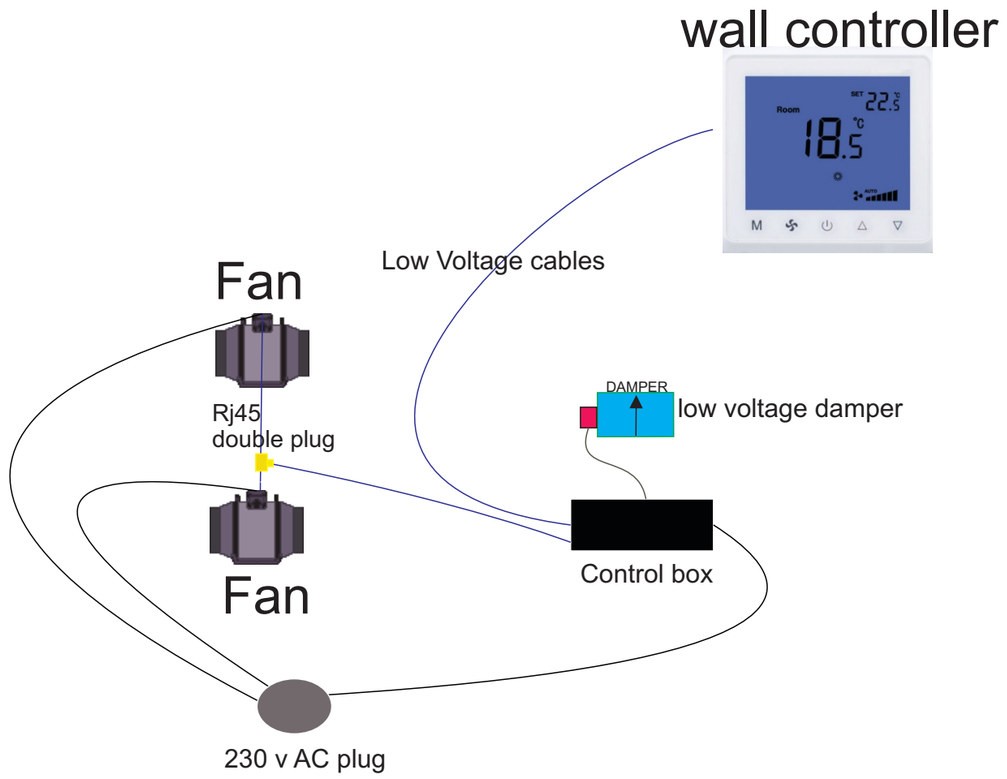
The user can turn off heat transfer at any time by turning off the controller (both fans turned off) or by switching the mode back to Summer mode, turning off the heat transfer fan and resuming ventilation to all rooms.

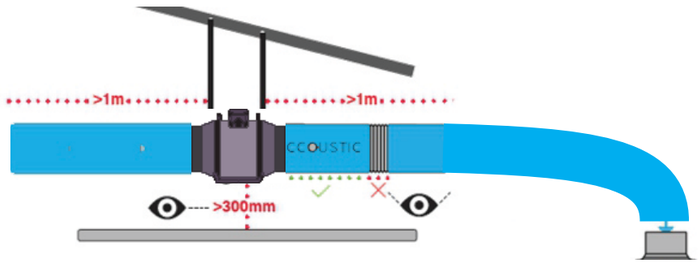
Heat Transfer Mode
Heat Transfer fan starts on Trickle
Motorise damper closes.
All fresh air is directed into the lounge
When heated air from the heat source room reaches 20 °C the heat transfer process begins

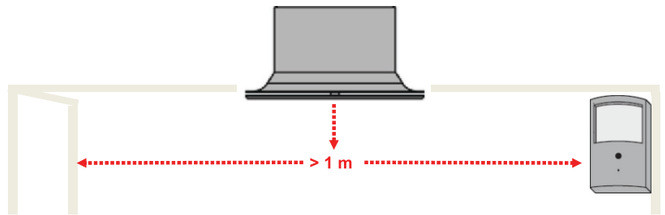


Ventilation mode:
Heat transfer fan is off.
Air flow is blocked through
Heat transfer fan by back draft shutter
Motorised damper is open allowing airflow to the rest of the house

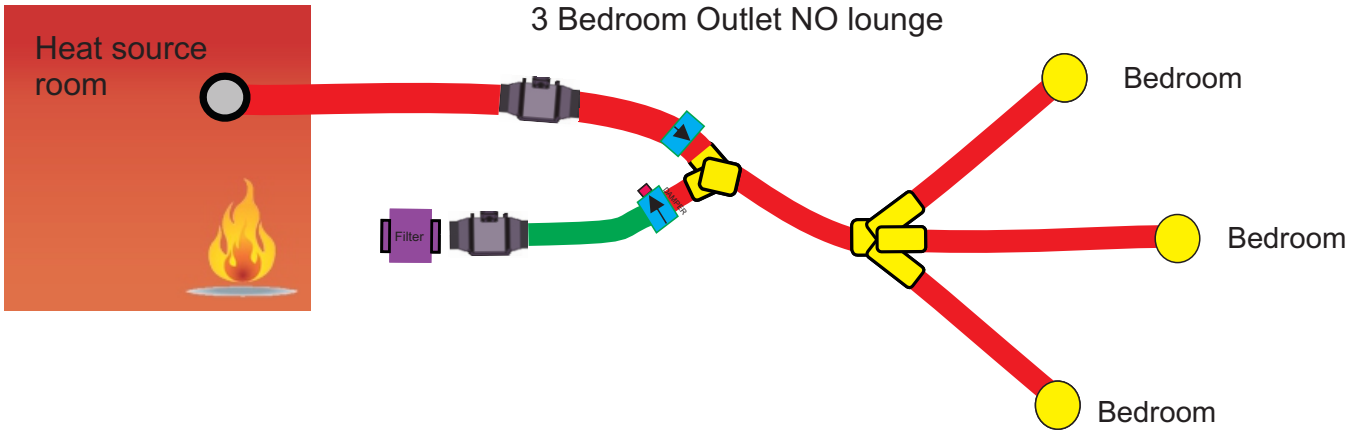




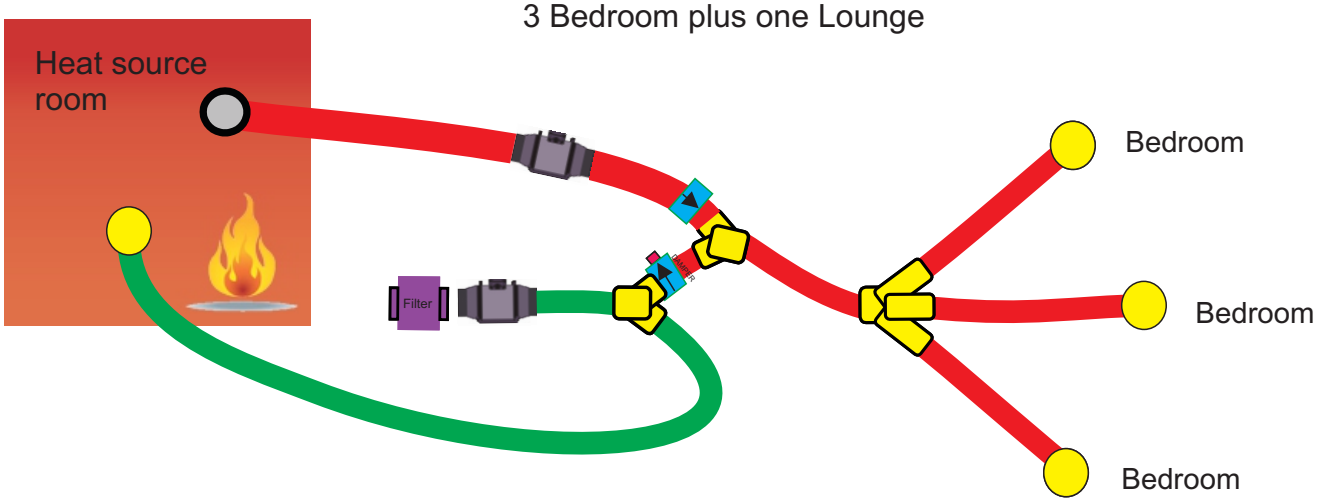




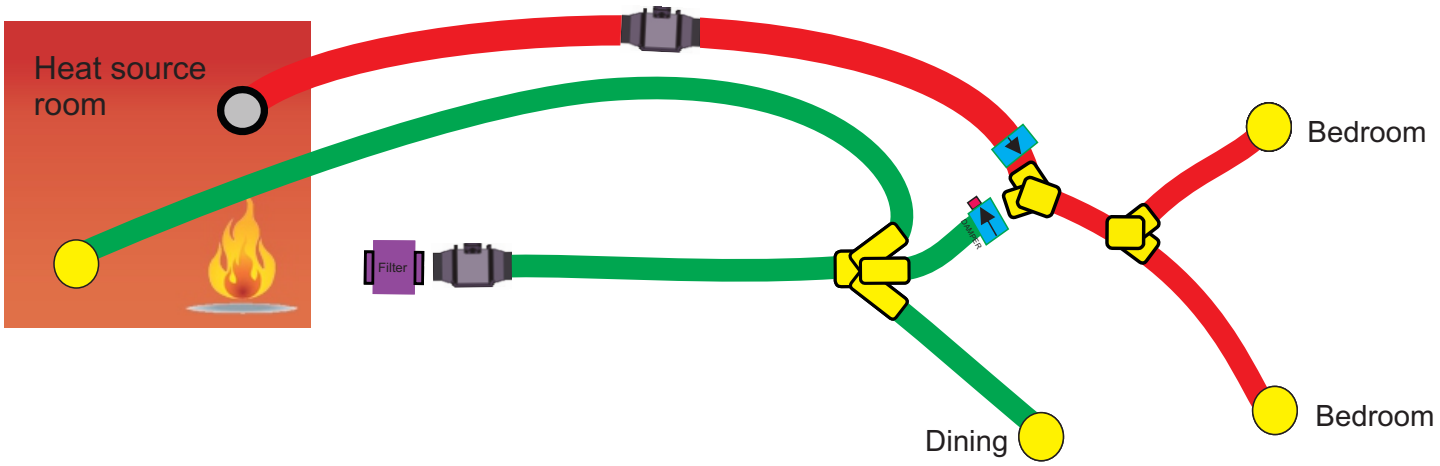
3 Bedroom Outlet NO lounge



3 Bedroom plus one Lounge



2 Bedroom plus one Louge plus one living



3 Bedroom plus one Lounge plus one living