

# How to Install Heat Recovery Ventilation Systems



## Introduction:

HRVU's work constantly in the background and keep your house ventilated throughout the year; it is a simple process and one that when completed you can "fit and forget". They have a great advantage over the traditional extractor fans in that as well as the exceptionally low noise levels they reduce heat loss. Extracting warm moist air from rooms such as kitchens, bathrooms and wet rooms, the HRVU passes this heat to fresh air drawn from the outside through a heat exchanger rather than expelling it.

Your HRVU will assist in reducing condensation as the moist warm internal air is exchanged for fresh, dryer air brought in from outside.

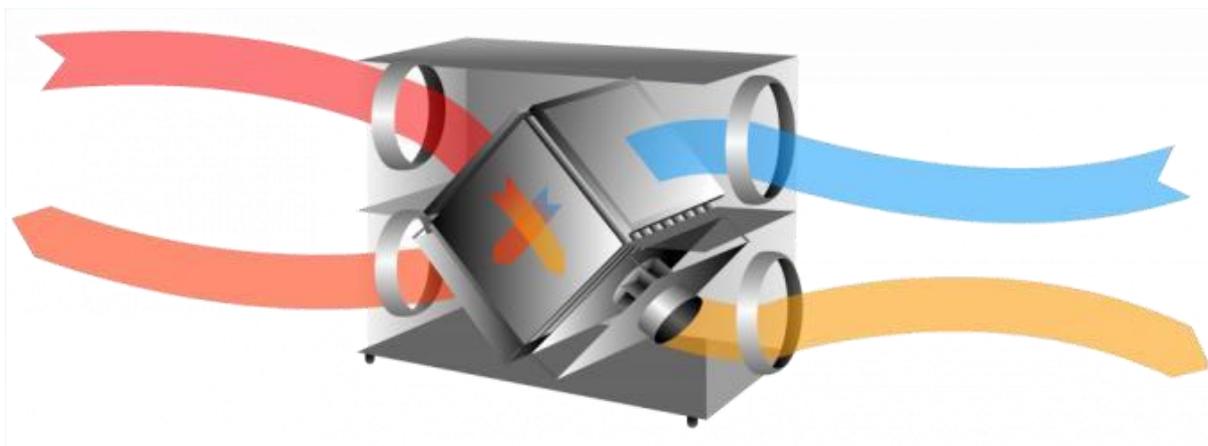
A HRVU system is not a heating system, it is a ventilation system! It will help moderate and balance temperatures around the home as it does its job. Many wood burner owners find the excess heat of a wood burning stove can be a benefit all around the home when a HRVU is installed.

Our range of DHV and AHE units are heat recovery ventilation units designed to provide balanced ventilation with up to **75% heat recovery**. These units are ideal for domestic and commercial use and are available in a range of capacities to match the size of your property/building. Our units have three different operating speeds to ensure you get the best flow of air for your needs.

Our models come with three options:

1. **Standard** – recover heat while exchanging stale air to fresh air
2. **Pre Heater** – heats the cool air taken in from outside in addition to the heat exchanged from the internal air
3. **Auto Bypass** – provides the opportunity to bypass the heat exchanger, meaning the heat energy is not transferred to the incoming air

Installation and maintenance for all units is the same.



## Installation:

HRVU's can be situated in the loft (make sure there is adequate room around the unit), mounted on the joists or floor or raised on a plinth (normally fitted on anti-vibration mounts). We advise planning easy access to mains electricity, in close proximity to an external wall and to plan, in advance, the routes the pipes/ducting/cabling will take to the rooms you are ventilating or fitting your controller. We also recommend placing the unit in a position that minimizes the amount of ducting required to reach your rooms.



When planning where the pipes/ducting should go remember that it is optimal for the room vents to be situated as far away from the door to the room they are in as possible. Also, in all cases make sure there is an adequate gap between the exhaust vents and the incoming vents to maximise effectiveness.

### Aim for:

- Adequate space (for unit, pipes, cabling and maintenance)
- Access to electricity
- Efficient cable / pipe runs (placement)

## Wiring

The HRVU system needs access to mains power to run. You should plan your wiring run or placement of the unit to make this an easy process.

The HRVU controls (either **manual** or **LCD**) should be situated in a location with convenient access and requires direct wiring to the unit. As such it may be necessary to run cables down through the roof / walls. Click [here](#) to go to our downloads page with all of the information for our controllers.



## Ducting

The unit needs a connection to the outside of your house for both incoming air and outgoing air (each capped with external grilles).

Depending on the size of your ducting, you will need **reducers/spigots** attached to your unit to fit the size of ducting you need. Internally your system will need two loops, one to provide rooms with fresh air and the other to extract the air that has circulated. Both loops will run around the top layer of your house with Tees used on each circuit to run down to individual rooms. These fittings are very easy to connect, you simply have to plan your ducting runs and cut to size.



Checklist:

- Unit is mounted in a good place with a decent amount of space surrounding
- Make sure unit has power available
- Ducting is looped with the in/out flows using Tees to travel to and from rooms
- Grilles and Inlet/Outlet valves are fastened securely, and the ends of your ducting circuits are in place
- Controls are conveniently placed and wired to the HRVU unit

After everything is installed it is important to get a professional to balance your system. It is vital that the in/out flow of air are matched otherwise you will impede the systems' performance.