

# Model: Kair Kalahari Loft Unit

## Model Number: KWH150

### Installation, Maintenance Instructions and User Guide (ver 1.8)



6 Chiltonian, Manor Lane, Lee, SE12 0TX  
Tel: 08451 66 22 40 Fax: 08451 66 22 50  
Web: [www.kair.co.uk](http://www.kair.co.uk)

#### ■ GENERAL

These instructions should be read fully, prior to installation.

Kair™ Kalahari KWH150 Whole House Input Ventilators (Loft units) have been designed to create a continuous input of air (providing a capacity to move a maximum of 375m<sup>3</sup> per hour). This will effectively combat condensation dampness and mould growth and meets or contributes towards the F1 Building Regulation requirements for ventilation.

The Kair™ Kalahari KWH150 Loft Input Ventilation unit provides a continuous air change, replacing stale moisture-laden air with fresh, pre-warmed air from outside. The continuous controlling of Relative Humidity levels ensures that conditions will not exist in which condensation or mould growth problems can develop and thrive.

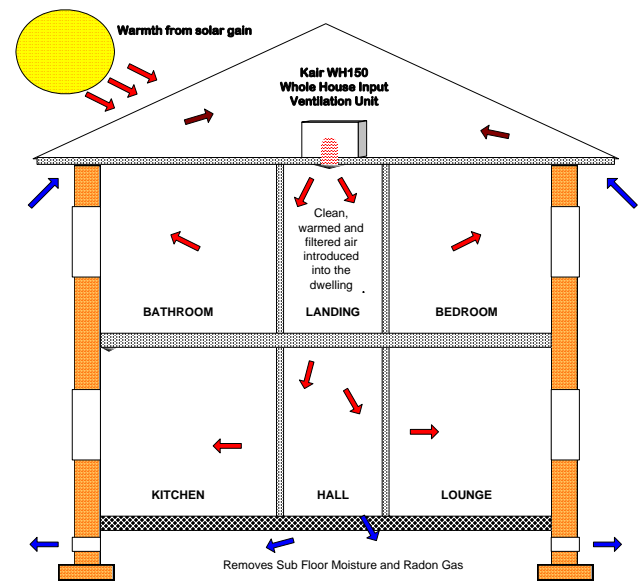


#### ■ SITE REQUIREMENTS

The Kair™ Kalahari unit is designed for easy installation by use of circular ducting. Installation can, if required, be undertaken entirely within a building with no requirement for external access. This feature can dramatically reduce installation costs when compared with other forms of ventilation such as extractor fans.

The units are factory set to provide a positive pressure and the input supply of air should be directed to a central point such as a landing stairwell, main entrance hall or passage.

Where condensation is a severe problem, it is recommended that once installed, the unit should be left on Boost speed for as long as possible over a period of 2 weeks to allow the property to dry out.



#### ■ CONTROL

A variety of manual or automatic controls are available including:

- K-2SPC – Two-speed switch for manual override (included as standard).
- K-HC - Automatic switching two-speed humidistat



## ■ SITING THE UNIT

### *Internal Supply Point / Diffuser:*

Air should always be supplied to a central point such as an entrance hall, a passage or landing stairwell to create pressurisation and continuous air movement. Select a suitable site for the circular diffuser (experience has shown that, in most cases, a central location above the **stairwell** of the property is the most effective).

### *Main Ventilation Unit:*

Inspect the loft void and identify a suitable site to either suspend or mount the unit (i.e. within 1 metre of the intended siting of vent). Ensure that the intake of the Kair unit is distanced from any water tanks or that any water tanks are covered).

It is important that there is plenty of fresh air entering the loft of the property. If the unit is sited in a loft, ensure that there is adequate ventilation within the loft space itself and that this cannot be obstructed by insulation. If the loft is not adequately ventilated, a supply air duct can be fed directly from the outside air supply via ridge, tile or soffit vents etc. If used, any external grille must be sited at least 500mm away from the flue of gas or open fire appliances, to avoid the possibility of backflow from exhaust gas. This equipment should not be used where it is liable to be subjected to water spray.

## ■ INSTALLING THE UNIT

**IMPORTANT: Ensure that the mains electrical supply is switched OFF before commencing installation or maintenance.**

There are two options for 'mounting' the unit:

### *1. Suspended*

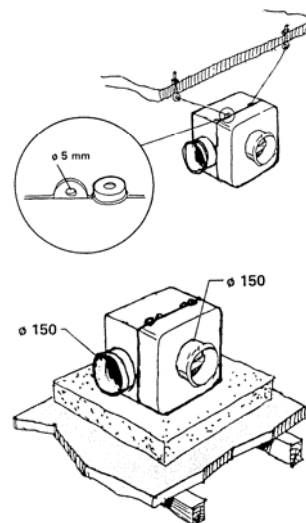
If the unit is to be suspended, there are four integral 5mm diameter holes, which allow standard garden wire to provide a more than satisfactory means of support (remember that the flexible ducting is only 1 metre long).

### *2. Mounted to frame*

When mounted, the unit is best mounted on either Polystyrene or similar 'foam-like' material to reduce any vibration.

N.B. All ducting terminals and joins should be sealed with mastic sealant to ensure airflow efficiency.

Screwdriver access must be provided to the sides of the machine to allow removal of unit lid for maintenance and filter cleaning.



## ■ DUCTING THE UNIT

At the selected location for the circular output diffuser, cut a hole approximately 162mm in diameter. This 162mm hole will allow the mounting ring to be secured to the ceiling.

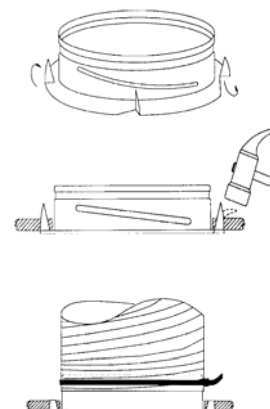
Bend up the cut-outs and install the mounting ring from the underside of the ceiling and secure with suitable screws to the ceiling.

From above, knock over cut-outs with hammer or press by hand, ensuring flange is tight and secured against ceiling.

The flexible ducting can then be secured with the enclosed metal clamping ring. The air valve is then fitted into the mounting ring from the underside of the ceiling by a "screwing action" to locate the valve lugs into the special grooves.

The vent can then be opened from below the ceiling by rotating the cover anti-clockwise. When the unit is running, the airflow can be adjusted by rotating the vent in either direction.

The ducting is then connected to the coloured plastic adaptor on the unit, which in turn is clipped onto the main unit. This adaptor fits onto the unit easiest when the short lip is at the corner of the main unit.



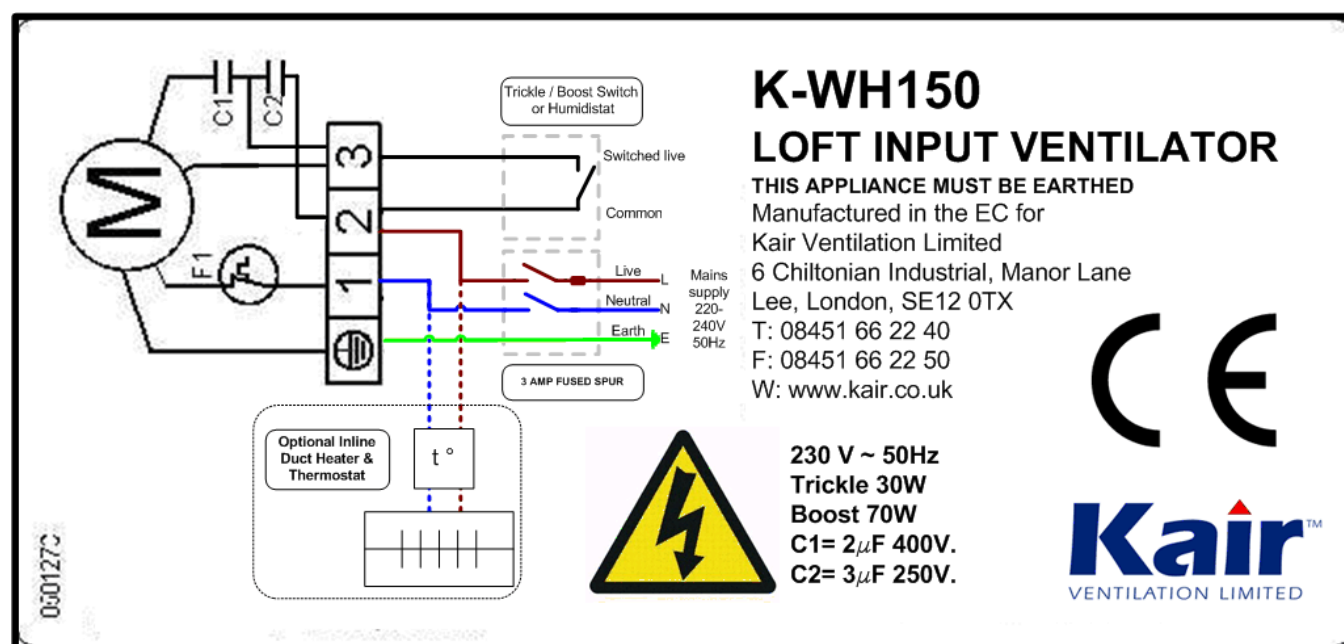
## ■ WIRING INSTALLATION

**WARNING:** Always switch off the power supply, before installation  
Ensure mains supply is correct for the unit  
This unit must be earthed  
All wiring must be in accordance with current I.E.E. Regulations  
This unit must be fitted with a 3 Amp isolator switch with at least 3mm pole separation

Remove the electrical cover on the side of the unit and wire the supply to the terminals inside the unit from a 3 Amp isolator switch or 3 Amp fused plug as shown below.

Where required, a speed control switch or humidistat switch operating the Trickle and Boost settings should also be connected as below. An optional inline duct heater and thermostat is available to heat incoming air supply. Care should be taken to ensure that the duct heater is mounted either vertically or horizontally with clear access to the connection box.

Always connect the wiring in accordance with the wiring diagram on the Unit.



## ■ MAINTENANCE

All Kair Anti-Condensation Units are fitted with sealed for life bearings and do not require lubrication.

The unit should be properly maintained with filters being cleaned or changed at least once a year under normal circumstances.

Supply and exhaust grilles should be cleaned and kept clear of dust, organic debris etc to ensure free flow of air. Full maintenance / repair service is available from your installer.

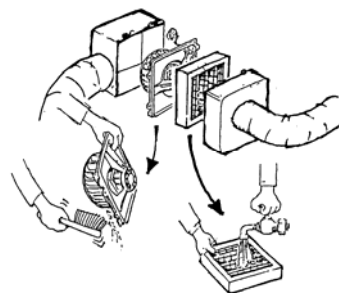
We recommend that after six months of operation the fan should be inspected to ensure there is no build up of dirt or other deposits. It is important to either clean or replace the filter once it becomes dirty, to ensure that the fan continues to function properly. Under normal use, the filter within this unit will clog, if it didn't, it would not be working properly. The prime consequences of the filter becoming blocked are as follows:

- The airflow through the unit may reduce to the extent where condensation may return.
- The noise emitted by the unit may increase.

If either of these symptoms are noticed, DON'T PANIC, a simple procedure will return your unit to its original performance.

## ■ INSTRUCTIONS FOR CLEANING or REPLACING THE KAIR FILTER

- 1) For routine maintenance, isolate the *Kair Kalahari* from the electrical supply.
- 2) Wait a minimum of five minutes for the fan blades to stop rotating.
- 3) Where possible the unit should be serviced in its fully installed location. If the unit has been suspended, the means of suspension will have to be released carefully. If the unit has been mounted, the restraints may prevent access to the filter, thus the restraints may have to be released.
- 4) Now the four discs on the unit can be removed from the unit (careful use of a screwdriver may help lever them off quickly).
- 5) Carefully remove the lid from the base unit noting its orientation; it should be replaced in exactly the same manner. The dirty white filter should then be visible.
- 6) Remove filter from the unit and clean by one of three ways:
  - i) Clean using a vacuum cleaner to remove dust (just like cleaning a household carpet)
  - ii) Wash the filter material either by hand, or in a normal washing machine (having removed frame). (N.B. The filter must be completely dry before replacing in unit).
  - iii) Remove the filter and replace it with a completely new piece that covers the wire frame. Replacement filters should be available from your supplier.
- 7) If required the motor plate may be removed and brushed down using a soft brush.
- 8) Once the servicing of the filter is completed, the filter and wire frame must be tightly held in the lid, before the lid is replaced. Do not use excessive force to replace the lid onto the unit; it may not be aligned correctly.
- 9) Replace the four coloured discs
- 10) Now switch on the electrical supply. The fan should now operate correctly.



## ■ INSTALLATION DETAILS

Installer stamp:

SERIAL NUMBER:  
DATE INSTALLED:

## ■ SUPPLIER DETAILS

Suppliers stamp:

## ■ TECHNICAL ASSISTANCE

For technical assistance on any matter concerning this unit you may contact the above or the manufacturer:

Kair Ventilation Limited  
Post: 6 Chiltonian Industrial Estate, Manor Lane, Lee, London, SE12 0TX  
Tel: 08451 66 22 40  
Fax: 08451 66 22 50  
Email: [info@kair.co.uk](mailto:info@kair.co.uk)  
Web: [www.kair.co.uk](http://www.kair.co.uk)

As a result of continued product development, Kair reserves the right to alter design and specification of our products.

**Please leave these instructions with the end user**