



WHR150V
Whole house heat recovery unit

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Installation and maintenance instructions

Titon WHR150V Whole house heat recovery unit

Please leave this leaflet for the benefit of the user.

The WHR150 range is subject to continuous improvement. Titon reserves all rights to make alterations at any time without prior notice.

IMPORTANT!

Please read these instructions carefully before attempting installation, and retain for future reference.

- **This appliance is intended for connection to fixed wiring**
- **Check that the electrical rating shown on the unit matches the mains supply**
- **All installations must be supervised by a qualified electrician**
- **Installations and wiring must conform to current IEE Regulations (UK), local or appropriate regulations (other countries)**
- **The appliance must be sited away from direct sources of heat and not operated in ambient temperatures in excess of 40°C**

Inspection Upon Delivery

Always check the following.

- Correct product has been delivered.
- Product type identification plate.
- That the unit is undamaged.

Positioning the unit

Always position the WHR150V unit vertically and use a spirit level, this will ensure correct position of the condensate water sump.

The appliance must be sited away from direct sources of heat and not operated in ambient temperatures in excess of 40°C

The appliance must be sited away from any source of water and out of reach of any person using a fixed bath or shower.

If a grille associated with this appliance is sited in a room containing a fuel burning appliance the installer must ensure that air replacement is adequate for both appliances.

The external grilles associated with the unit must be sited at least 600mm away from the flue of a fuel burning appliance.

Do not site any associated internal grille in the vicinity of excessive levels of airborne oil or grease without adequate filtration.

Installation Instruction

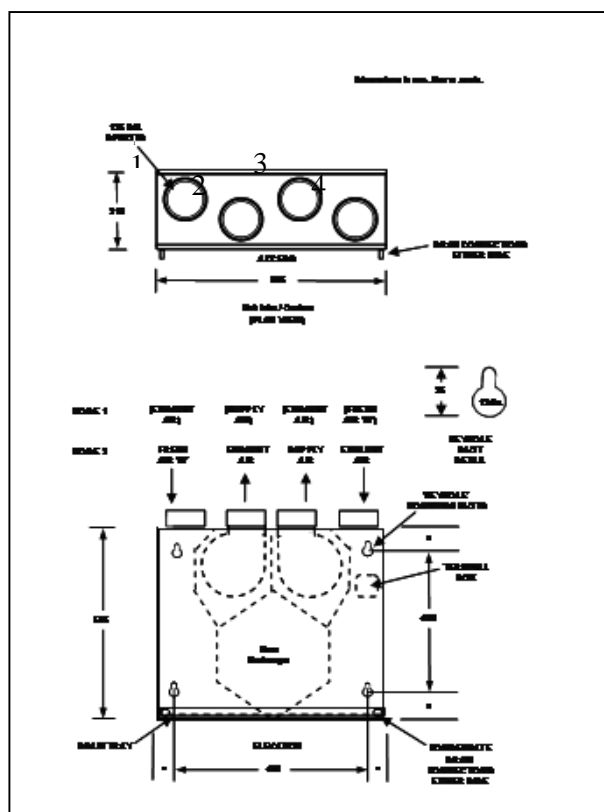
The WHR150 unit can be installed in two alternative ways to provide handed installation.

Standard Installation

Install the unit as supplied in standard configuration:

2 spigots at the topside “left” of which one spigot is for intake of fresh air from the outside, the other for intake of the stale air from the house.

2 spigots at the topside “right” of which one spigot is for discharge of the stale air to the outside, the other spigot for the heated fresh air into the house.



Standard installation, (as drawing above), fit condensate connection to left hand tube.

Alternative Installation

For alternative duct layout:

- Interchange connections 1 & 4 and 2 & 3
- Remove the condensate tube to the opposite outlet and replace it with the stopper.
- The unit is now ready for installation.

Duct Connections.

Duct dimensions are to match the nominal 125 mm dia. spigot. When designing the system, reduce to smaller diameter ducts by using a 3-way splitter or efficiency will be reduced. Use only rigid ducting to connect directly to the system.

Duct Insulation

The duct connecting the outside air intake point (grille) and the WHR150V unit must be insulated to prevent condensation on the outside surface of the duct.

(In wintertime the temperature of the air inside the duct will be identical to the outside temperature).

The duct connecting the WHR150 unit and the air discharge point of the stale air to the outside must also be insulated to prevent condensation on the outside surface of the duct. (During the wintertime the air temperature inside this duct may come close to freezing temperature).

For best practice the air discharge and supply ducting on the “in-House” side of the WHR150 unit should be insulated but need only be insulated if they pass through an unheated area.

If the ductwork passes through an unheated roof void or similar location, it should be insulated.

Condensate Drain

The appliance condensate drain must be fitted to the building drainage system.

The condensate drain-tube protrudes through a cavity at the bottom-rear of the steel housing of the WHR150V unit.

For correct functioning of the condensate drain system it is important to dispose of the condensate liquid through the drain-tube via a water trap connected to the house sewage disposal system.

The drain-tube can be adapted to the application. It is important that the “vent-hole” in the drain-tube remains positioned higher than the water level in the water trap in which the condensate drain-tube will be placed.

Positioning

For wall mounting four ‘keyhole’ slots are provided on the rear of the unit. Fix screws into position on wall and mount the unit using a spirit level. Hook the unit onto the screws and tighten until secure.

Electrical Connection Box

The electrical connection box is fitted with a cable clamp which must be fitted to the mains electricity supply cable. When using surface wiring which is not contained in conduit, anchor the cables to the mounting surface along their length and particularly adjacent to the switched connection unit which must have at least 3mm contact separation and the connection box. Ensure that all cable glands are tight to prevent any strain being transferred to electrical connections.

Electrical Connection Diagram

Ensure the mains electrical supply is switched off before commencing installation.

Power supply for the WHR150V unit is 220-240V 1PH 50Hz.

The appliance is Class 1 and it must therefore be earthed

Wiring to the appliance must be via a fused and switched connection unit incorporating a double pole isolating switch with 3mm contact separation. A 3amp fuse should be fitted.

The WHR150V unit should be connected as the electrical connection diagrams below:

The WHR150V unit should be wired accordingly to obtain the desired speed.

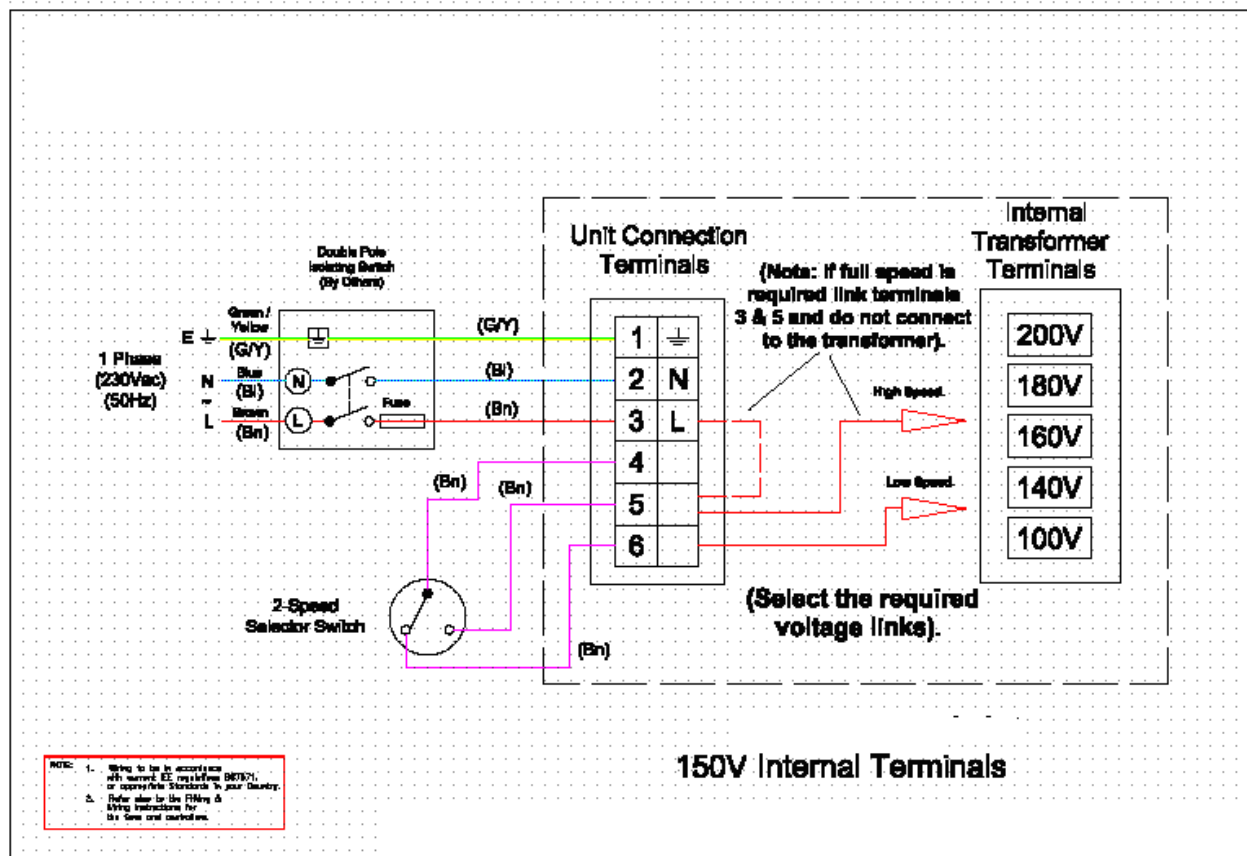
Airflow rate speed adjustment.

The WHR150V unit is supplied with 2 factory set speed settings as below:

- Speed 1 – Trickle setting – 50m³/h
- Speed 2 – Boost setting - 150m³/h

These settings can be adjusted by changing connections on the transformer to give performance appropriate to room size.

Circuit diagram.



Maintenance

ALWAYS DISCONNECT FROM THE ELECTRICITY SUPPLY BEFORE OPENING THE DOOR.

Maintenance of the WHR150V unit:

- Heat exchanger cleaning - 1 x each 6 years
- Motor / impeller cleaning - subject to level of pollution of motors

The home owner may clean the WHR150V the heat exchange unit. Cleaning of the fans must only be carried out by a qualified service engineer.

Cleaning Heat Exchanger Unit

Dependent on circumstances, the heat exchanger unit requires cleaning once every six years as a minimum and once every year as a maximum.

- Isolate the unit from the electricity supply.
- Open the inspection door with a screwdriver.
- Carefully withdraw the heat exchanger horizontally from its seating-slides in the unit making sure not to damage the seating-slides.
- Clean the heat exchanger by soaking the it for a minimum of two hours in warm water and washing up liquid.
- Rinse the unit with water and wait until all water has dripped out . Any residual moisture will evaporate during use.
- Now insert the cleaned heat exchanger unit, sliding it horizontally into its seating-slides.
- Close the inspection door and replace screws tightly.
- Reconnect the unit to the electricity supply.
- The WHR150V unit is now ready for normal service.

Cleaning of Motors

If, when removing the heat exchanger unit, the impeller blades of the ventilators appear to be dirty, then the impeller blades can be carefully cleaned by dusting with a brush. Removal of the motors must be done by a qualified service engineer.

Component Description

Outside Casing	- White epoxy powder coat,
Insulation	- High density class'O' foam
Heat recovery cell	- Contraflow type. Fully recyclable
Motor	- Energy efficient AC motors

Fault finding

FAULT	CHECK	POSSIBLE CAUSE
- Intake or Extract fan failure	- Supply available - Supply not available.	- Motors not connected - Power failure. - Fuse failure
- Air supply fan does not work	- No air from the air entry grilles	- Motor/Electrics defective. - Impeller jammed - Blocked external air inlet
- Incoming airflow restricted	- Little air coming from supply grilles	- Grilles blocked/dirty - Cell blocked/dirty
- Exhaust airflow restricted	- Little air at extract grilles	- Grilles blocked/dirty - Cell blocked/dirty
- No condensate drainage	- Waterdrops at bottom of unit	- No water in the waste trap. - Condensate drain blocked - Airlock in pipe
- Unit noisy	- Motor noise	- Increased resistance through dirty cell - Blockage in duct - Grilles insufficiently opened - Fan impeller rubbing against housing

- **Do read the instruction leaflet before commencing installation.**
- **Do install each fan with a double pole isolating switch.**
- **Do make sure the mains supply is switched off before attempting to make electrical connections or carry out any maintenance or cleaning**

Guarantee

- UK: The fan is guaranteed against defects for 3 years from the date of purchase.
- Please keep your purchase receipt.

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Titon reserve the right to alter product specifications or appearance without prior notice. All finishes and diagrams in this booklet are as accurate as printing processes allow.