HOME'N'DRY WALL
POSITIVE INPUT VENTILATION UNIT
INSTALLATION INSTRUCTIONS

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1. **GENERAL DESCRIPTION**

1.1 The **HOME'N'DRY WALL** unit must be installed by a competent person. All electrical wiring must be installed by a suitably qualified person and conform with I.E.E. Regulations (current edition.).

1.2 **HOME'N'DRY WALL** is a domestic ventilation unit that provides thermostatically controlled filtered air to the dwelling, thereby improving the living environment. **HOME'N'DRY WALL** combats condensation and its effects by increasing the saturation point of the air within the dwelling. Air volume provided by **HOME'N'DRY WALL** is selectable between 12 litres/ sec and 24 litres/sec by adjustment of a potentiometer situated on the printed circuit board (PCB). Due to the increase in power consumption at position 4, this setting should only be used in extreme circumstances.

1.3 **HOME'N'DRY WALL** automatically operates within the temperature range of 5^{O}C (minimum) and 24^{O}C (maximum). The facility for fitment of low and high temperature override controls and a humidistat, is provided by removing the required link and connecting the desired control to the PCB (see Fig. 10 for wiring configuration).

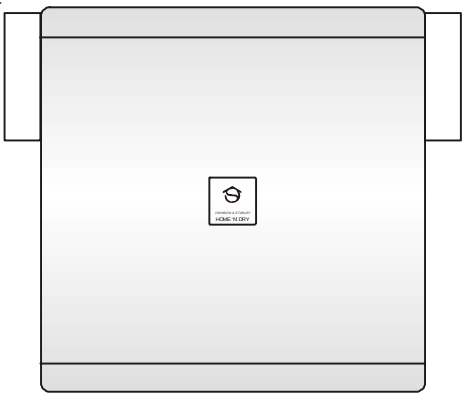


Fig. 1
HOME 'N' DRY WALL unit
(with cover in place)

2. **INSTALLATION REQUIREMENTS**

2.1 **INSTALLATION AND DUCTING:** The **HOME'N'DRY WALL** ventilation unit is designed to be wall mounted in any room in the dwelling and the position of the spigots is such that the unit can be located at the top of the wall, with the minimum amount of space between the unit and the ceiling. For complete flexibility, the unit is supplied with 2, 120mm x 60m rectangular and 2, 100mm round spigots and the spigots can be rotated through 360^{o}. In addition, the front cover can be rotated through 180^{o} so that the unit can be hung upside down so that that the spigots are at the bottom of the unit.

2.2 **CONFIGURATION:** The **HOME 'N' DRY WALL** ventilation unit can be configured so that fresh air is drawn in through either the left or right hand side of the unit. In addition, fresh air can be drawn in through the rear of the unit. **NOTE: where fresh air is drawn in through the side of the unit, the ducting should be kept as short as possible in order to prevent condensation forming on the ducting ! (see fig. 2)**

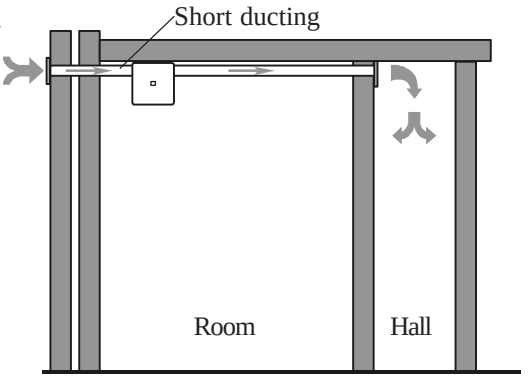


Fig. 2
Typical installation(showing short input ducting)

2.3 **ELECTRICAL:** Electrical installation requires the provision of a 3 amp fused, 230V 50 Hz supply incorporating a protective earth link. Connection to the unit must be made using 2 core (Brown-Blue, 6A, 0.75mm^2 cross sectional area (provided), via a double pole switch having a contact separation of at least 3mm at each pole.

2.4 **GRILLES:** To prevent ingress of moisture, the inlet grille must be fitted so that the louvres face downwards. The discharge grille should be fitted as close to the ceiling and the centre of the dwelling as possible, with louvres facing upwards to avoid downdraught. The discharge grille must not be fitted with any form of fly screen or filter!

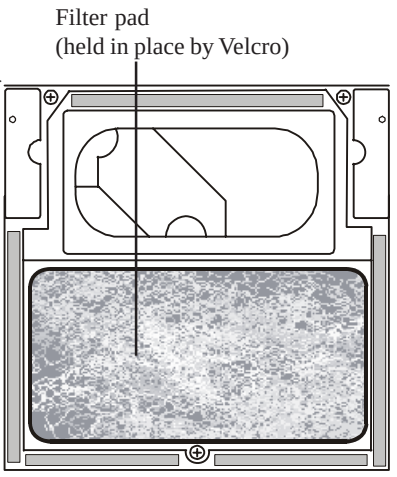


Fig. 3
Front cover removed
(showing filter pad)

3. **INSTALLATION**

3.1 Decide on the chosen location for the unit.

3.2 Remove the front cover of the unit by pulling it away from the Velcro pads holding it in place.

3.3 Remove the filter pad by pulling it off the Velcro fixing strips.

3.4 Remove the fixing screws and take the cover off the electrical PCB (see fig. 4)

3.5 Referring to fig. 5, disconnect the electrical connection to the fan by breaking the terminal block connector and carefully pull the two orange power supply wires from

the board. Feed the wires and terminal block through the hole in the filter holder assembly.

3.6 Remove the three fixing screws holding the filter holder assembly in place and lift the assembly out of the unit (see fig. 5).

3.7 Fit the ducting spigots (or one spigot and the blanking plate if the incoming air is through the rear of the unit) in the required position so that the holes align (see fig. 7) and secure using two plastic snap rivets on each outlet. The snap rivets are locked into postion by pressing down on the shaft of the rivet (see figs 8 & 9)

3.8 Offer the unit up the wall and mark the wall through the three fixing holes (see figs 6 & 7)

3.9 Drill the wall with a 6mm masonary drill and plug the holes

3.10 Hang the unit and tighten all three fixing screws.

3.11 Connect the unit to the electrical supply as follows:

Blue wire to '**NEUTRAL**'
Brown wire to '**LINE**'
Green/Yellow to **'EARTH'**

3.12 Referring to figs 6 & 7, fit the air deflector so that the air from the unit is directed through the desired outlet and spigot.

3.13 Refit and secure the filter holder assembly and the electrical PCB and reconnect the power supply wires and the fan.

3.14 Refit the PCB cover and filter pad and secure the front cover by pressing it firmly onto the Velcro pads.

3.15 Connect and secure the ducting as required.

ATTENTION!

If the incoming air is to be drawn through the rear of the unit, the incoming air duct will require securing to the spigot on the rear of the unit prior to securing on the wall. After the unit has been secured, remove the round blanking cover (see figs 6 & 7) and fit the spigot blanking plate into the unused outlet and secure using the plastic snap rivet (see figs 8 & 9)

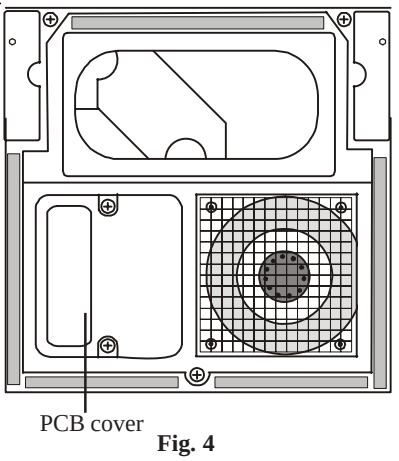


Fig. 4
Filter pad removed to expose PCB cover

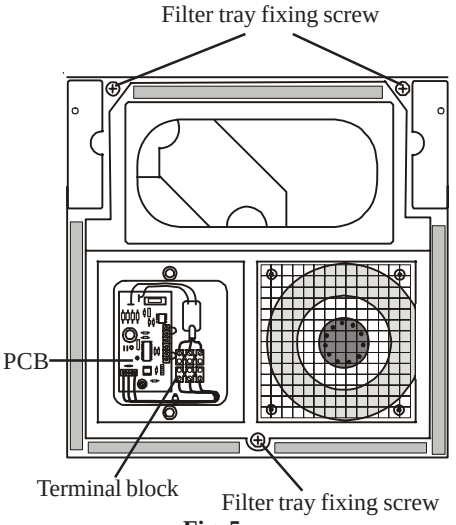
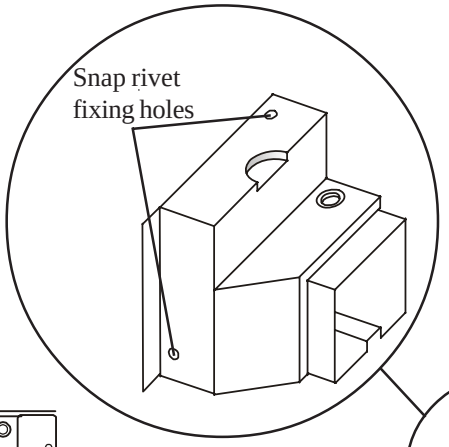


Fig. 5



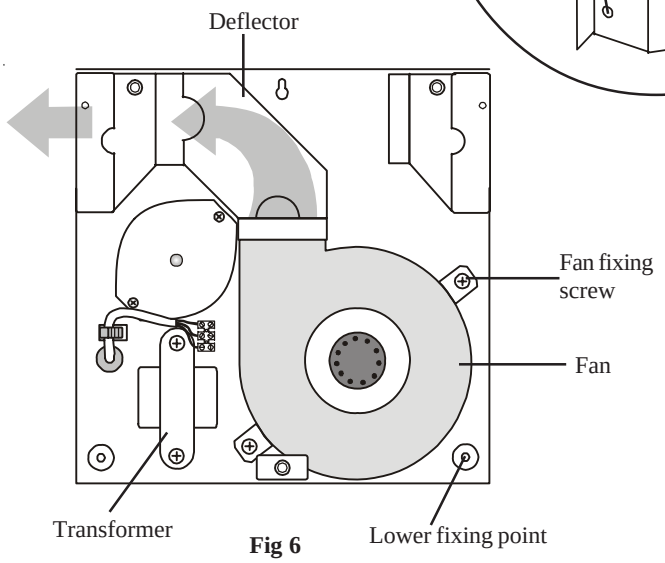


Fig 6
Deflector set for output on the left hand side.

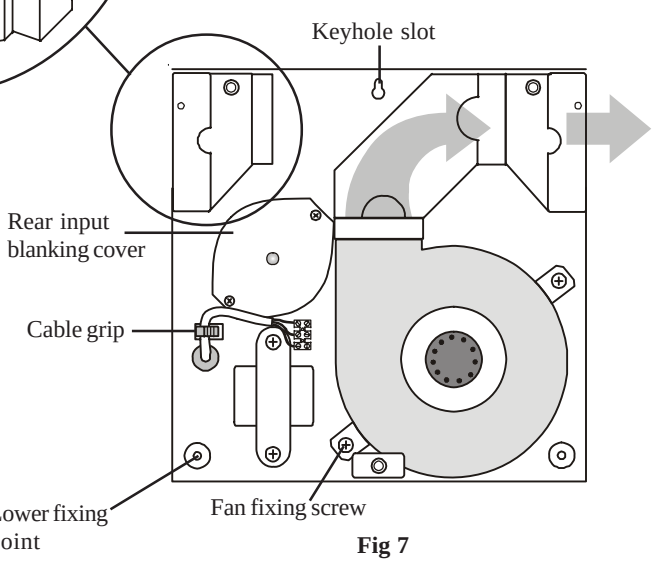


Fig 7
Deflector set for output on the right hand side.

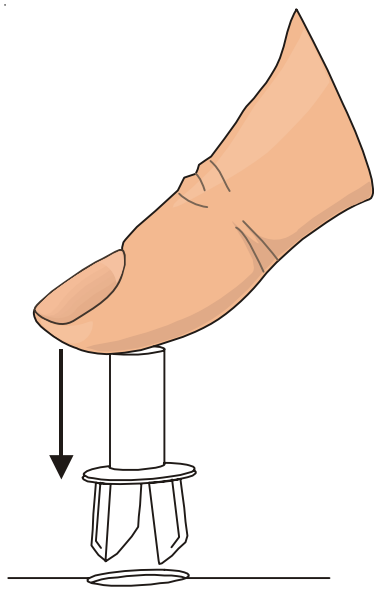


Fig. 8
Plastic snap rivet

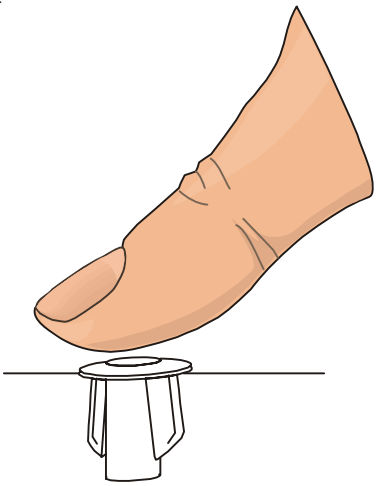


Fig. 9
Plastic snap rivet in locked position

4. COMMISSIONING

4.1 The air volume provided is controlled by setting the Fan Speed potentiometer situated on the PCB.

4.2 Whilst the control can be set anywhere between the minimum and maximum settings, the following settings offer a guide:
Setting 1 provides 12 litres/sec (6 watts)
Setting 2 provides 16 litres/sec (9 watts)
Setting 3 provides 20 litres/sec (11 watts)
Setting 4 provides 24 litres/sec (13 watts)

4.3 Referring to para 4.1, set the fan speed potentiometer to the setting suitable to the size of dwelling. More accurate delivery of air volume can be achieved by calculating the flow rate required, measuring the output at the discharge grille using a suitable monitoring device and setting the Fan Speed potentiometer to provide the required flow rate.

5. MAINTENANCE

IMPORTANT: Following any maintenance task, the HOME'N'DRY WALL must be fully re-commissioned in accordance with para 4 of these instructions.

5.1 **FAN REMOVAL AND CLEANING:**

5.1.1 Ensure that the electrical supply to the unit is switched OFF and isolated.

5.1.2 Follow the procedure outlined in para 3.2 to 3.5 in order to gain access to the fan.

5.1.3 Remove the air deflector.

5.1.4 Release the 2 securing screws and withdraw the fan, taking care to avoid causing damage to the fan blades.

5.1.5 Remove all dust from the impeller blades using a soft brush or vacuum cleaner, taking care to avoid causing damage to the impeller.

5.1.6 Refitment or replacement is in reverse order.

5.2 **TRANSFORMER REMOVAL:**

5.2.1 Ensure that the electrical supply to the unit is switched OFF and isolated.

5.2.2 Follow the procedure outlined in para 3.2 to 3.6 in order to gain access to the transformer.

5.2.3 Disconnect the BROWN and BLUE wires from the terminal block.

5.2.4 Release the 2 x securing screws and withdraw the transformer.

5.2.5 Refitment or replacement is in reverse order.

5.3 **PCB REMOVAL:**

5.3.1 Ensure that the electrical supply to the unit is switched OFF and isolated.

5.3.2 Follow the procedure outlined in para 3.2 to 3.4 in order to gain access to the PCB.

5.3.3 Referring to fig. 5, disconnect the electrical connection to the fan by breaking the terminal block connector and carefully pull the two orange power supply wires from the board.

5.3.5 Depress the lug on each of the 4 PCB mounting pillars, and ease the PCB upwards to remove.

5.3.6 Refitment or replacement is in reverse order.

5.4 **FILTER PAD REMOVAL**

5.4.1 Remove the front cover of the unit by pulling it away from the Velcro pads holding it in place.

5.4.2 Remove the filter pad by pulling it off the Velcro fixing strips.

5.4.3 Refitment or replacement is in reverse order.

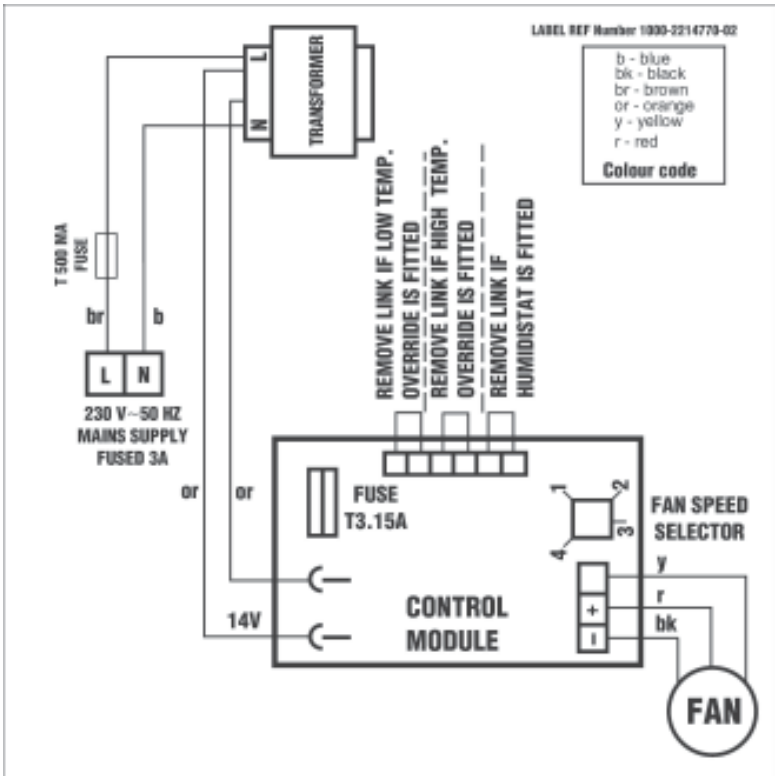


Fig. 10
HOME'N'DRY 'WALL' Wiring Diagram

6. **SPARES LIST**

Description	Part No.	Qty.
Centrifugal Fan	HD10-0109000	1
Printed Circuit Board	1000-0520130	1
Transformer	HD10-0502000	1
Filter pad	1000-1507240	1

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