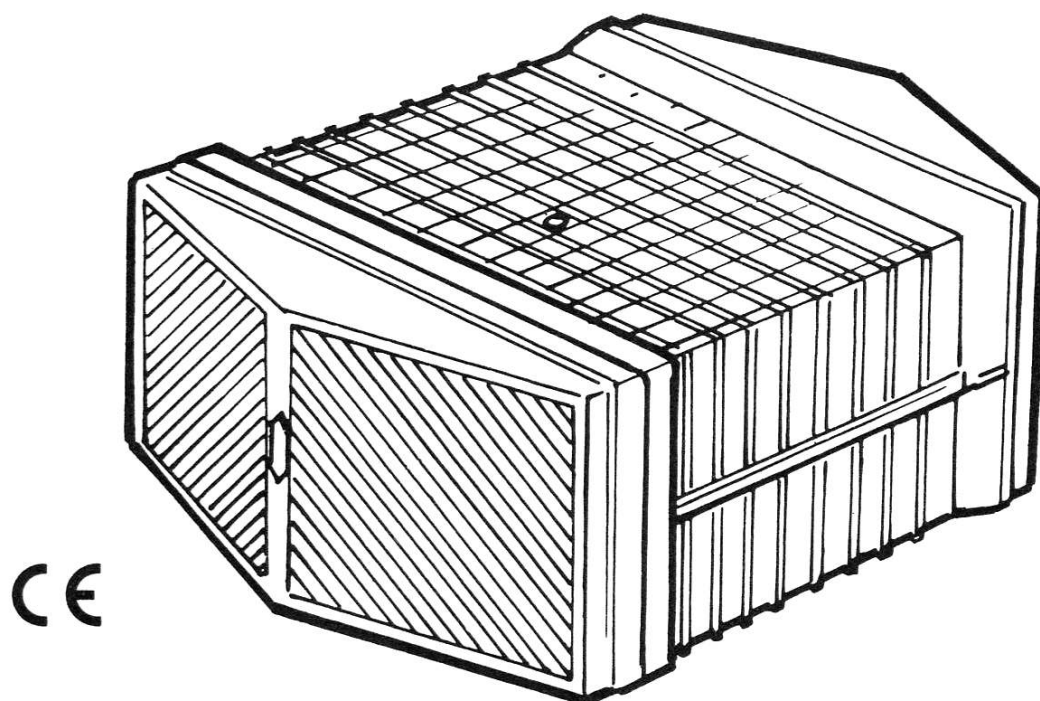


Vent-Axia®

FITTING AND WIRING INSTRUCTIONS

HR500 MKIII and HR500X Wall Mounting Heat Recovery Ventilation Units



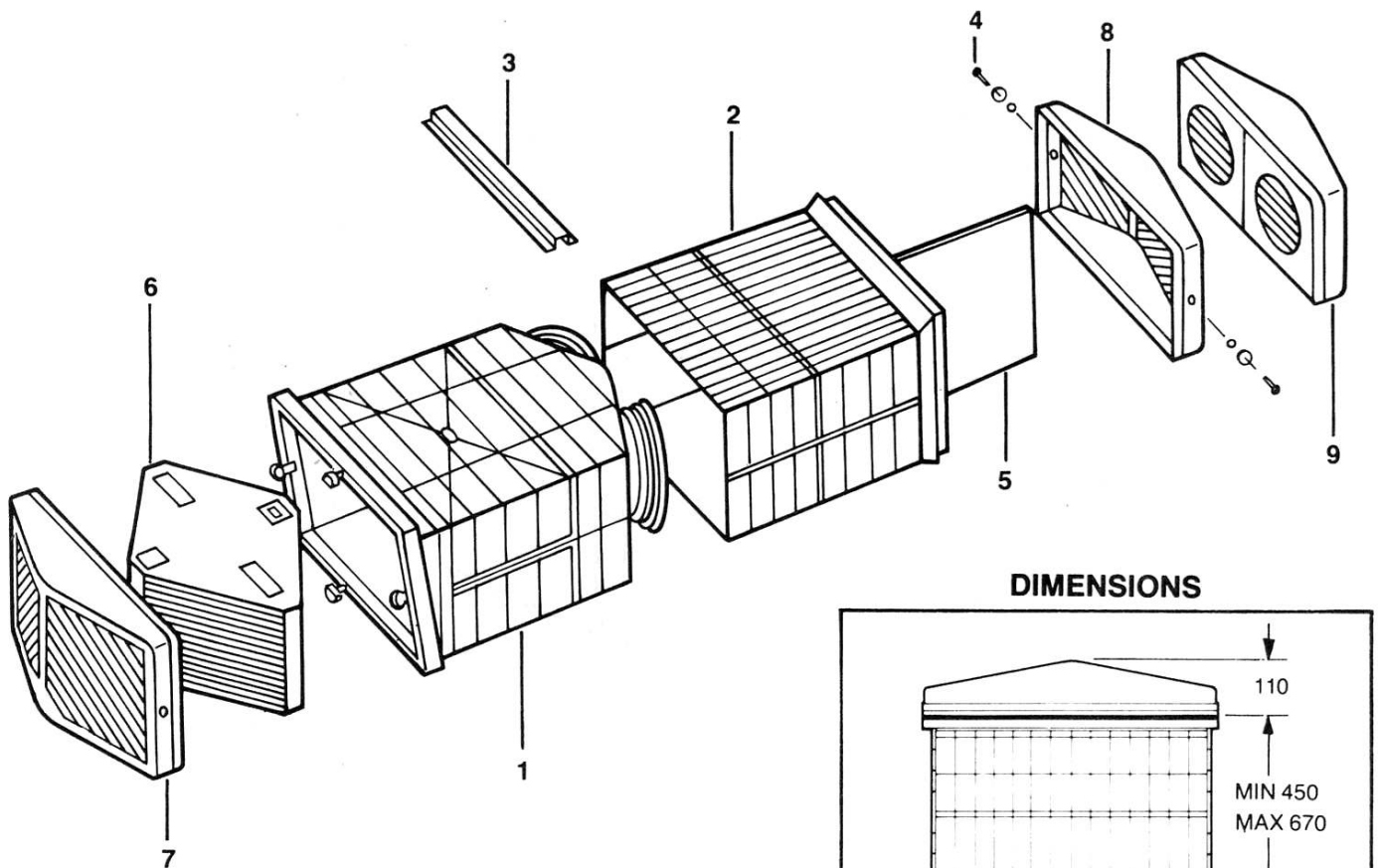
**HR500 MKIII (WITHOUT SHUTTER)- STOCK REF: 141 01 010B
220-240V 50/60Hz 200W**

**HR500X (WITH SHUTTER) - STOCK REF: 141 01 070
220-240V 50/60Hz 220W**

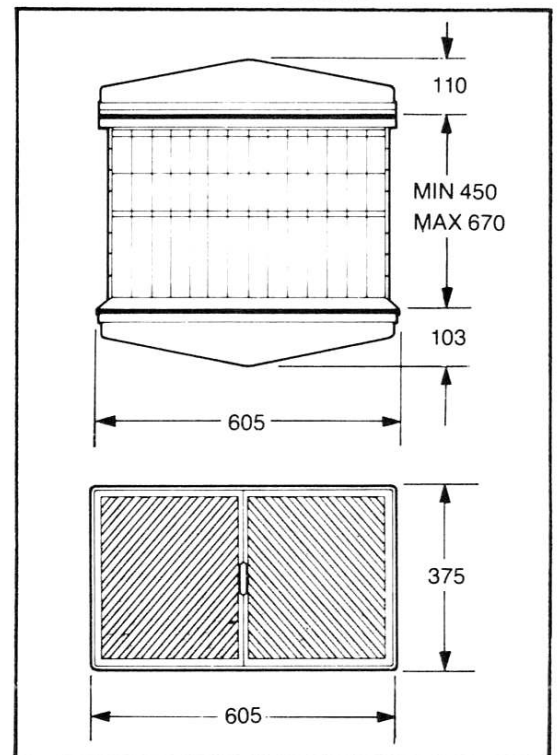
IMPORTANT - Siting a Vent-Axia Heat Recovery Ventilation Unit

FOR SAFETY YOUR ATTENTION IS DRAWN TO THE I.E.E. REGULATIONS

1. The unit must be sited and connected in accordance with current I.E.E. Regulations (UK), BS 7671, and local building regulations or the appropriate standards in your country.
2. The units should be sited to provide a balanced circulation of air. Units should be placed as high as possible in an exterior wall to within a minimum of 125mm (5") from the ceiling. The incoming air supply should not be directed at a wall or solid surface and areas adjacent to doors should be avoided if possible. Care should be taken to avoid structural elements such as joists or beams. Site away from direct sources of heat in excess of 40°C and direct water spray.
3. Ensure the wall can support the weight of the unit, (16Kg for HR500 MKIII and 18.5Kg for HR500X). Assistance may be required for installation.
4. If the unit is installed in a room containing a fuel burning appliance, the installer must ensure that air replacement is adequate for both the unit and the fuel burning appliance, and that the air intake is located at least 600mm away from any flue outlet.
5. Wiring should be via a fused double pole isolator switch having a contact separation of not less than 3mm.



DIMENSIONS



Parts List

1. Inner Case with Fans
2. Outer Case
3. Galvanised Lintel
4. Two Outer Grille Screw and Washer Assemblies
5. Divider Board
6. Heat Exchanger
7. Inner Grille complete with Filters
8. Outer Grille without Shutter (discard for HR500X)
9. Outer Grille with Shutter (HR500X only)

Fig. 1

INSTALLATION

1. Check the components supplied against the parts list (see Fig. 1).
2. Before deciding on the final position of the unit, check that there are no buried cables, pipes or obstructions on the outside wall.
3. Working from the inside, mark out the position of the hole to be cut 615mm wide x 385mm high. Mark the centre point by drawing diagonals (see Fig. 2).
4. Drill horizontally through the wall at the marked centre point using a long reach drill.
5. Estimate the wall thickness and mark the position of the hole to be cut in the outer wall using the centre hole as a guide. Hole size 615mm wide x 385mm high.

NOTE: Outer hole should be marked 12mm to 32mm (225mm wall to 600mm wall) lower than inner hole so as to produce a 3 degree slope toward the outside (see Fig. 3).

6. Carefully cut the holes in the inner and outer leaves to form a suitable aperture to receive the unit.
NOTE: Bricks will cut more easily and accurately if a series of holes are drilled close together along the marked lines.

7. Remove the inner and outer grilles. While the inner grille is released by depressing the buttons projecting through its side walls, the outer grille is released by removing the screw and washer assemblies passing through the side walls.

8. After turning the heat exchanger retaining knobs to the unlocked position, withdraw the heat exchanger (see Fig. 6).

NOTE: The heat exchanger should be handled by the grey top and bottom plates and frame only. Care should be taken so as not to damage the element.

9. Try the casing assembly in the wall and ensure that the shoulder on the inner case can be set flush with the internal wall surface (see Fig. 4).

10. Choose the site for the controller or switch box and run a suitable length of 5-core 0.75mm² cable (Vent-Axia Stock Ref. Nos. 562030 or 562031) to the unit. If using a proprietary cable it must be round with a diameter of between 7 and 10 mm to suit the supply cable gland (i.e. the largest gland) in the terminal box.

11. Position the unit in the wall aperture with the galvanised lintel placed on top of the ribs on the case to provide support for the outer wall. Thread the cable from the controller between the inner and outer cases and through the hole located on the left side of the top face of the inner case.

12. Position the shoulder of the inner case flush with the interior wall surface (see Fig. 4). This will

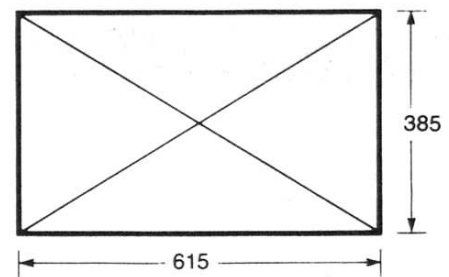


Fig. 2

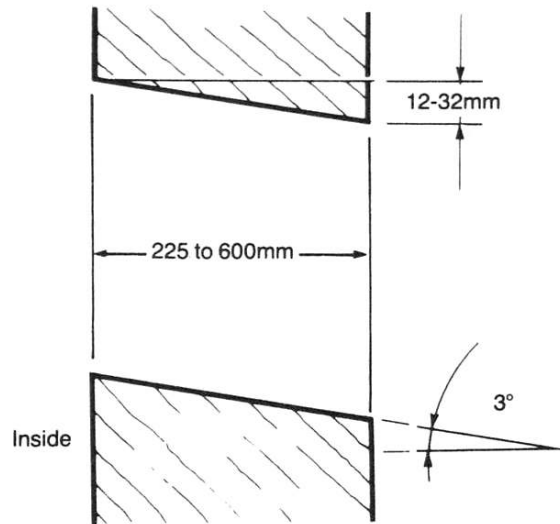


Fig. 3

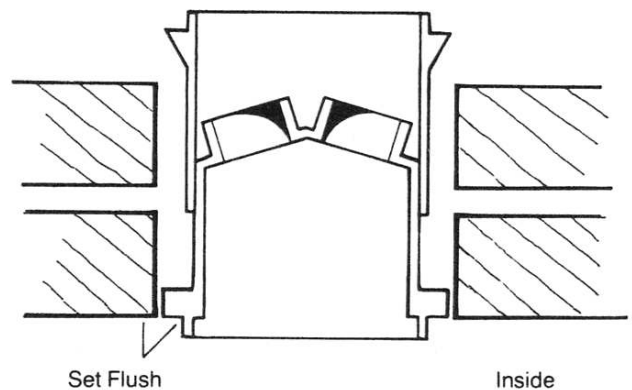


Fig. 4

automatically result in the designed 3 degree slope to outside. If necessary, extend the telescopic outer case so that the lower shoulder of the outer case is flush with or proud of the outer wall surface (see Fig. 7).

13. Make good around the inner and outer cases. If firmer fixings are required secure the inner and outer cases in place by plugging and screwing into the wall leaves.

CAUTION – Care should be taken not to distort either inner or outer cases when fixing and making good.

14. Working from outside, position the divider board in the channel between the fan housings by

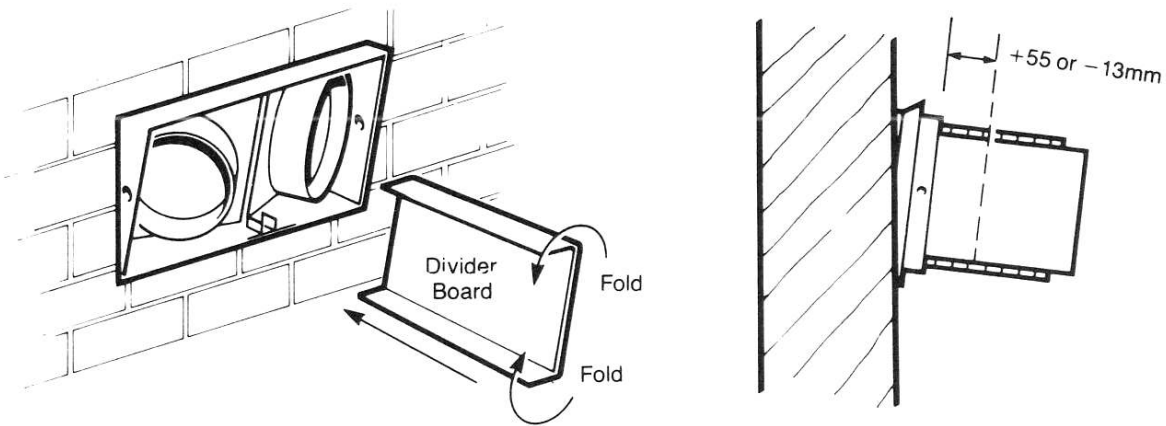


Fig. 5

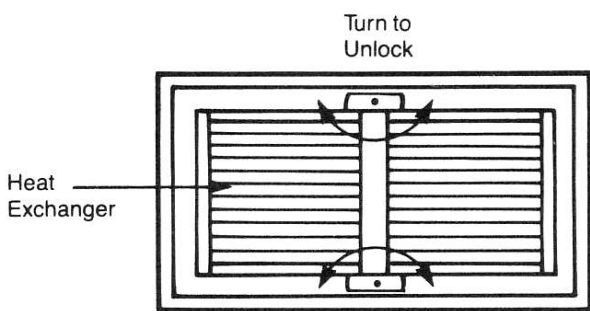


Fig. 6

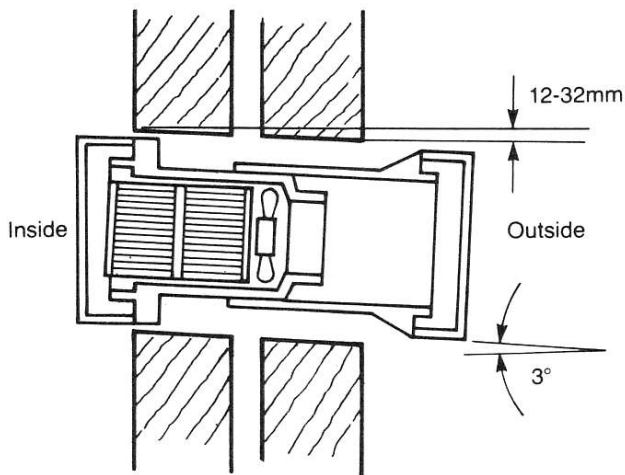
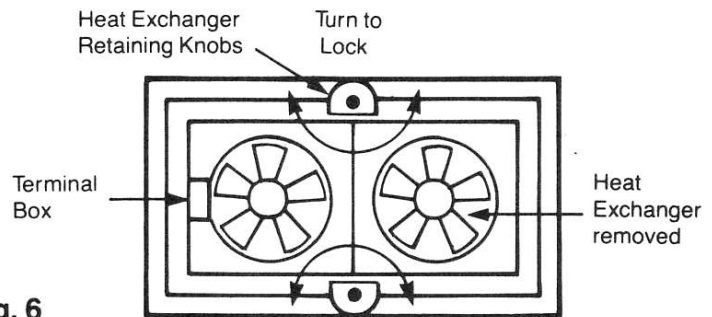


Fig. 7

folding the edges down. Cut the board such that it extends beyond the end of the outer case by 55 mm for the HR500 MKIII type and falls short of the end of the outer case by 13mm for the HR500X type (see Fig. 5). Replace the outer grille and retain it with the screw and washer assemblies previously removed. Before replacing and fixing the outer shuttered grille on the HR500X type pass the cable from the grille through the hole with a grommet in the right hand end face of the inner case.

15. Internal wiring connections.

● **WARNING – THIS EQUIPMENT MUST BE EARTHED.**

● **MAINS SUPPLY MUST BE ISOLATED BEFORE MAKING CONNECTION.**

Pass the supply cable through the largest cable gland in the side of the terminal box. For the HR500X the cable from the shuttered grille passes through the remaining free cable gland. Cut the cables to the minimum length required and make the internal wiring connections within the terminal box (see Fig. 6). Connect the supply cable from the Vent-Axia Controller to the appropriate terminals of the terminal block within the terminal box as shown in Fig. 9. If a Vent-Axia Controller is not used, connect the supply cable as shown in Fig. 10. Ensure all cable glands are tightened sufficiently to seal onto the cables.

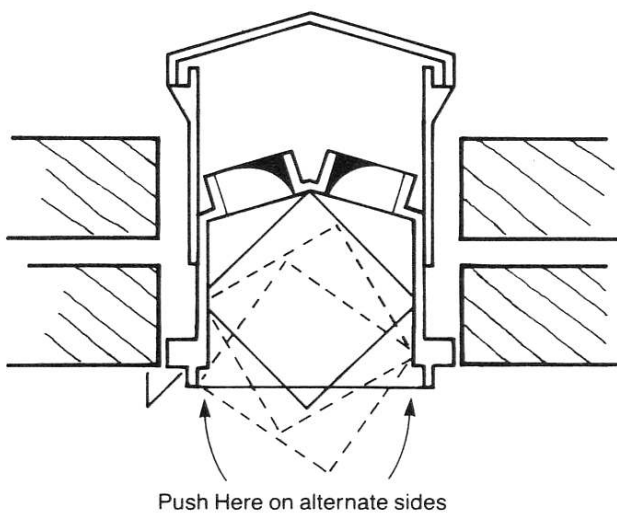


Fig. 8

16. Fit the heat exchanger into the casing of the unit. Pressing lightly on alternative side legs, "walk" the heat exchanger firmly into place (see Fig. 8).

**Fig. 9 Wiring Diagram with Vent-Axia Controller
(up to two units per controller)**

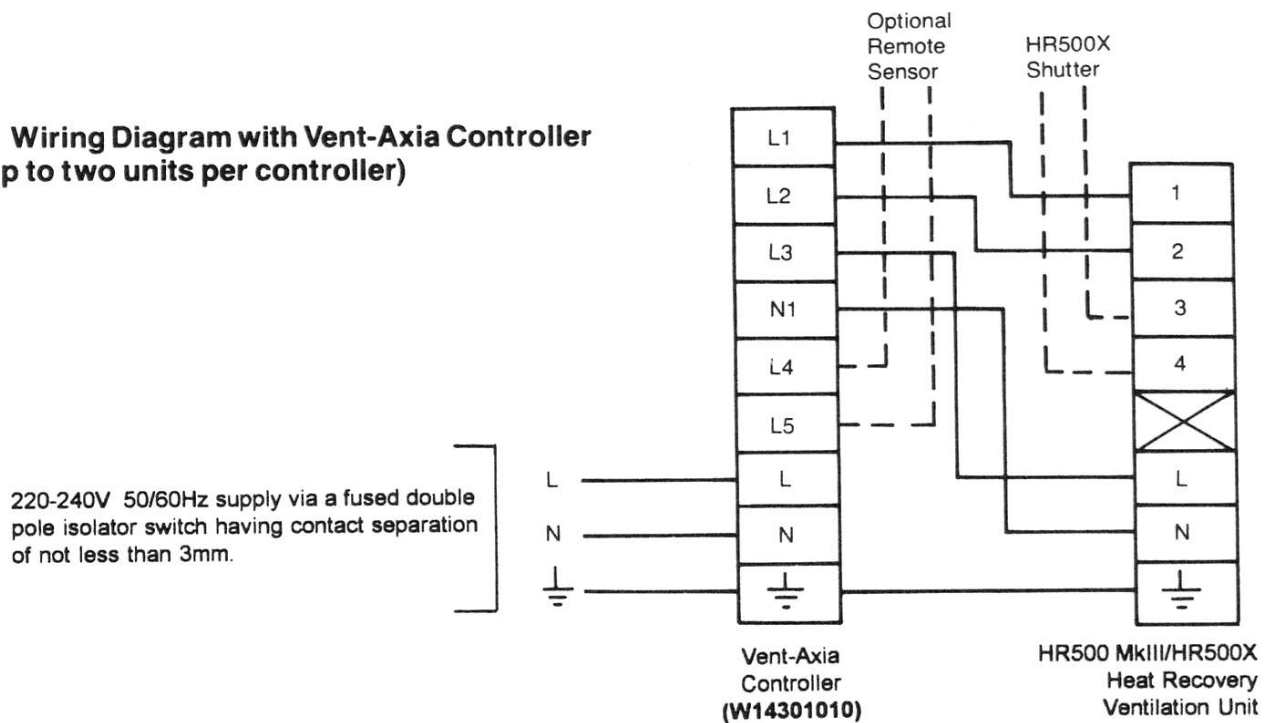
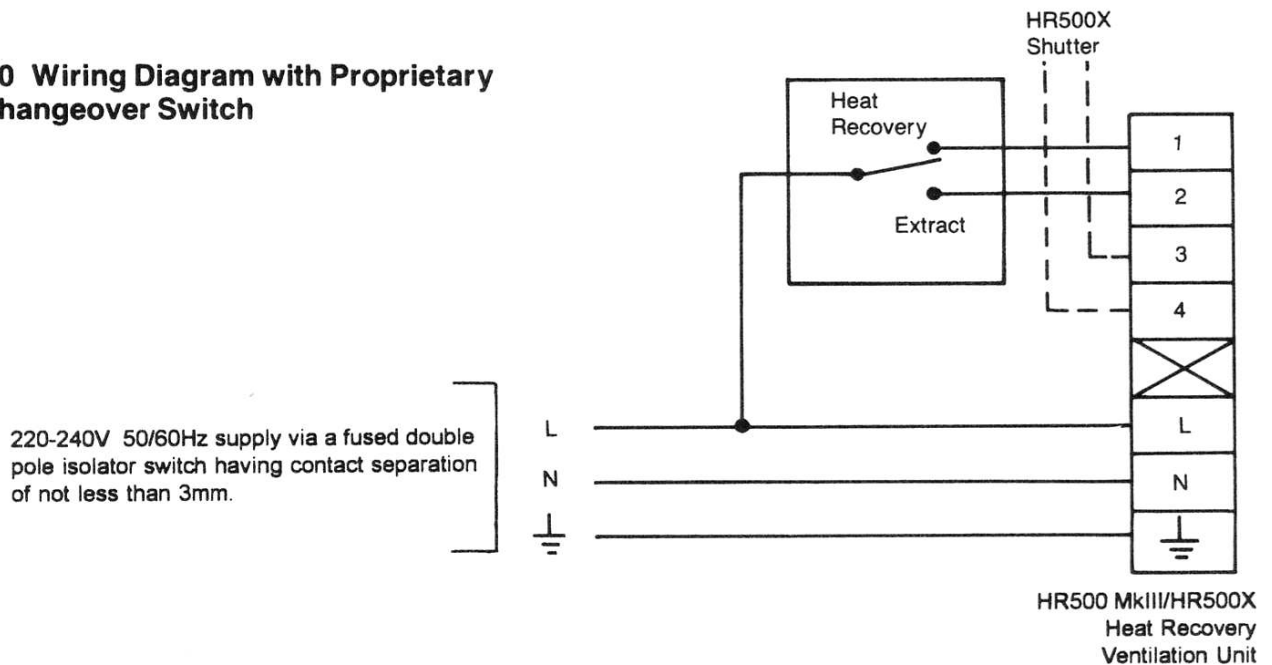


Fig. 10 Wiring Diagram with Proprietary Changeover Switch



17. Fix the inner grille to the casing by depressing the button on each side and sliding the grille over them so that they locate in the corresponding holes in the grille sides. Ensure that the buttons are positioned on their fixing screws so that the seal on the inner edge of the grille is pressed against the mating face on the inner case to give an airtight seal.

18. Connect to the mains and turn the power on.

19. Switch on at the controller and select the speed and function required – see operating instructions supplied with the controller.

20. Apart from removing odours, providing fresh air and recovering heat, this appliance extracts airborne impurities such as dust, dirt and grease. These gradually build up and detract from the efficiency of the unit. Therefore to ensure peak performance, the appliance should be cleaned regularly at intervals determined by the level of contamination experienced, after initial intervals of 3-6 months. The heat exchanger can be cleaned by washing it in warm water with a mild detergent added while the unit can be cleaned with a damp cloth from this solution.

N.B. Switch off the electrical supply before commencing any maintenance or servicing and keep water away from all electrical components and wiring inside and outside the appliance.

