

# Integra

Heat Recovery Ventilation unit

Installation and Wiring Instructions



Stock Ref. N°

456864

220-240V~50Hz

**Vent-Axia®**

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH ILLUSTRATIONS.  
PLEASE SAVE THESE INSTRUCTIONS.

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# VENT-AXIA INTEGRA - HEAT RECOVERY VENTILATION UNIT

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

*Read the following instructions in conjunction with the illustrations before commencing installation.*

### PRODUCT DESCRIPTION

The Integra is a void/ loft mounted heat recovery ventilation unit for domestic and commercial applications. It is designed for connection to 100mm-diameter insulated flexible ducting on to rigid ventilation ducting.

The unit's two fans and heat exchanger arrangement simultaneously supply and extract air while transferring heat from the stale exhaust airflow to the fresh intake airflow. This provides up to 70% heat recovery from the stale extracted air.

Separation of the exhaust airflow and intake airflow is maintained throughout the unit.

The fan motors have maintenance free self lubricating long life bearings and are fitted with thermal overload protection, which in the event of a fault causing a motor to overheat will cut off the electrical supply to that motor.

The electrical power consumption of the unit is 170 watts when running at full speed.

The unit can be controlled by a trickle/ boost switch (455213) (See Fig.2a) or with an ambient response humidity sensor (563550) for humidity control (See Fig. 2b). For maximum controllability we recommend that the 150VA transformer (563538A) is used which enables the selection of trickle settings to match a dwellings volume.(See Fig.2c & Fig.2d) These are available from your local Vent-Axia stockist.

### IMPORTANT POINTS TO NOTE

1. THIS APPLIANCE IS INTENDED FOR PERMANENT CONNECTION TO THE MAINS ELECTRICAL SUPPLY FIXED WIRING AND MUST BE INSTALLED BY A SUITABLY QUALIFIED PERSON.
2. THIS APPLIANCE MUST BE SITED AND CONNECTED IN ACCORDANCE WITH CURRENT UK BUILDING, FACTORY AND IEE WIRING REGULATIONS (BS7671) OR THE APPROPRIATE NATIONAL REGULATIONS IN YOUR COUNTRY.
3. WIRING TO THE APPLIANCE IN THE UK MUST BE VIA A FUSED AND SWITCHED CONNECTION UNIT INCORPORATING A DOUBLE POLE SWITCH WITH 3mm CONTACT SEPARATION AND CONFORMING TO BS5733 OR BS1363 PART 4. A 3 AMP BS1362 FUSE SHOULD BE FITTED TO THE CONNECTION UNIT, WHICH MUST BE LOCATED OUTSIDE OF A ROOM CONTAINING A FIXED BATH OR SHOWER.
4. WARNING: THIS APPLIANCE IS CLASS I AND IT MUST THEREFORE BE EARTHED.
5. CHECK THE RATING LABEL ON THE APPLIANCE TO ENSURE THAT THE ELECTRICAL SUPPLY IS COMPATIBLE WITH THE APPLIANCE WHICH IS RATED AT 220-240V 50 Hz AC.
6. THIS APPLIANCE MUST BE SITED OUT OF REACH OF ANY PERSON USING A FIXED BATH OR SHOWER.
7. IN SITUATIONS WHERE MOISTURE CAN BE PRESENT IN THE AIR, THE APPLIANCE SHOULD BE CONNECTED TO A DRAINAGE SYSTEM.
8. IN ENVIRONMENTS WHERE PARTICAL LADEN AIR IS BEING EXTRACTED PROVISION MUST BE MADE FOR ADEQUATE FILTRATION BEARING IN MIND SYSTEM RESISTANCE AND REGULAR FILTER MAINTENANCE.
9. THIS APPLIANCE MUST BE SITED AWAY FROM DIRECT SOURCES OF HEAT IN EXCESS OF 40 DEGREES C.
10. SITE THE APPLIANCE AND ARRANGE THE ASSOCIATED DUCTING AND GRILLES TO PROVIDE A BALANCED CIRCULATION OF AIR.
11. THE EXTERNAL INTAKE TERMINALS ASSOCIATED WITH THIS APPLIANCE MUST BE SITED AT LEAST 600mm AWAY FROM THE FLUE OF A FUEL BURNING APPLIANCE/ OTHER EXTERNAL GRILLE.
12. ALL SAFETY REGULATIONS AND REQUIREMENTS MUST BE STRICTLY FOLLOWED TO PREVENT HAZARDS TO LIFE AND PROPERTY BOTH DURING AND AFTER INSTALLATION AND DURING ANY SUBSEQUENT MAINTENANCE AND SERVICING.
13. SWITCH OFF THE MAINS ELECTRICAL SUPPLY BEFORE COMMENCING INSTALLATION, MAINTENANCE OR SERVICING.
14. IF THE DUCTWORK PASSES THROUGH AN UNHEATED LOFT VOID OR SIMILAR LOCATION, IT SHOULD BE INSULATED.
15. CERTAIN APPLICATIONS MAY REQUIRE THE INSTALLATION OF SOUND ATTENUATION TO ACHIEVE THE SOUND LEVELS REQUIRED.

### FITTING INSTRUCTIONS

1. Remove the ventilation unit, together with the ceiling hanger kit from the packaging.
2. After noting the positions of the duct spigots, cable and drainage connection on the ventilation unit (see Fig. 1). Select a suitable installation site and type. Note that the unit must be mounted with the drainage at the bottom (2-degree tilt towards the drain). The site selected must allow sufficient space around the unit for the removal of the ducts, cover and heat exchanger for maintenance and servicing purposes.
3. If appropriate, provide mains electrical supply and drainage system in the vicinity of the installation site.
4. Typically there are three forms of installation for the Integra.

**To mount the unit on joists:** Place the unit across two beams and attach the appropriate cabling, drainage and ductwork to the unit, with the Vent-Axia logo facing up. For optimum performance, ensure the ductwork does not turn 90deg directly off the spigots. The unit should, for optimum drainage, be tilted by 2 degrees towards the drain side. See Fig. 1a.

**To suspend the unit from rafters:** Use the kit 456428 four strap-hangers and mounting channels. Attach four hooks to the joists then attach the mounting channels to the base of the unit with the 4 screws & washers provided then attach the strap-hangers onto the channel fixing holes. With the Vent-Axia logo facing down, lift by the strap-hangers and hang on the hooks on the joists in a horizontal position. The unit should, for optimum drainage, be tilted by 2 degrees towards the drain side. See Fig. 1b.

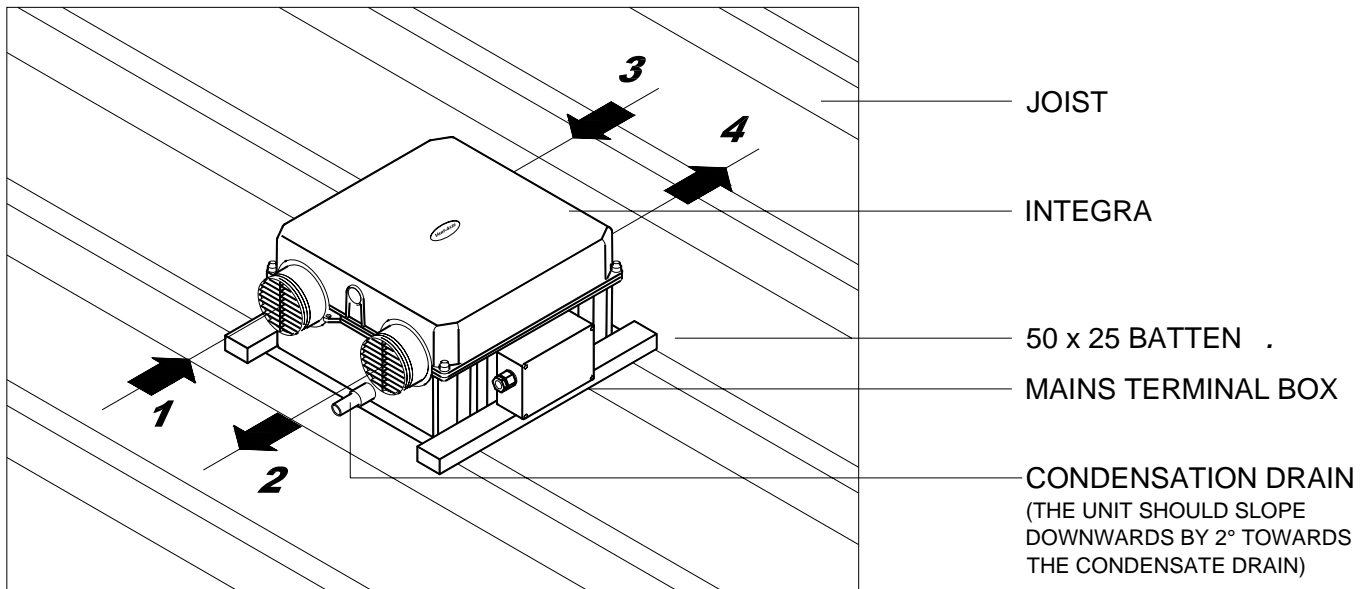
**To suspend the unit in a ceiling void:** Use the kit 456428 four strap-hangers and mounting channels. Attach four hooks to ceiling structure then attach the mounting channels to the base of the unit with the 4 screws & washers provided then attach the strap-hangers onto the channel fixing holes. With the Vent-Axia logo facing down, lift by the strap-hangers and hang onto the hooks on the ceiling structure in a horizontal position. The unit should, for optimum drainage, be tilted by 2 degrees towards the drain side. See Fig. 1c.

**Please note - the situation and type of installation for the unit must be decided and assembled before any drainage knockouts are removed, as they cannot be refitted.**

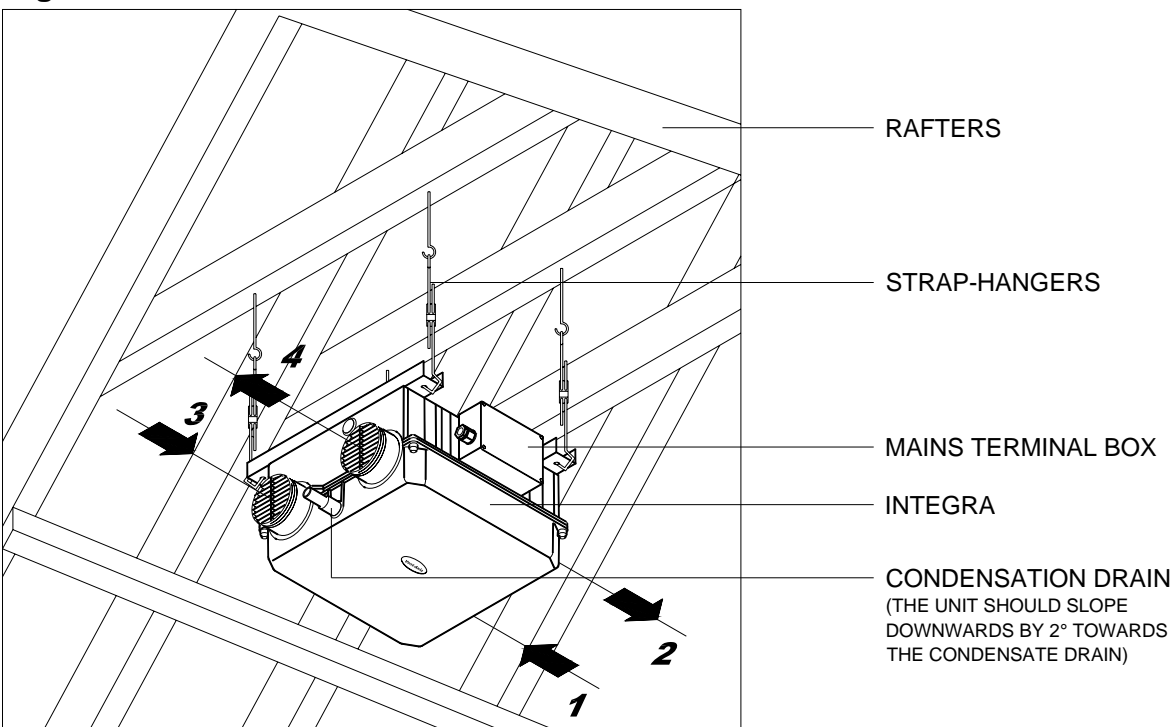
5. Having decided upon a location and position remove the knock out for the condensate drain, this must be at the lowest point. Connect the drain of the ventilation unit to the drainage system.
6. Install suitable internal and external grilles/ terminals and connect them to the ventilation unit using suitable 100mm ducting. If flexible ducting is used, it should be stretched in order to obtain the best performance.

## MOUNTING OPTIONS

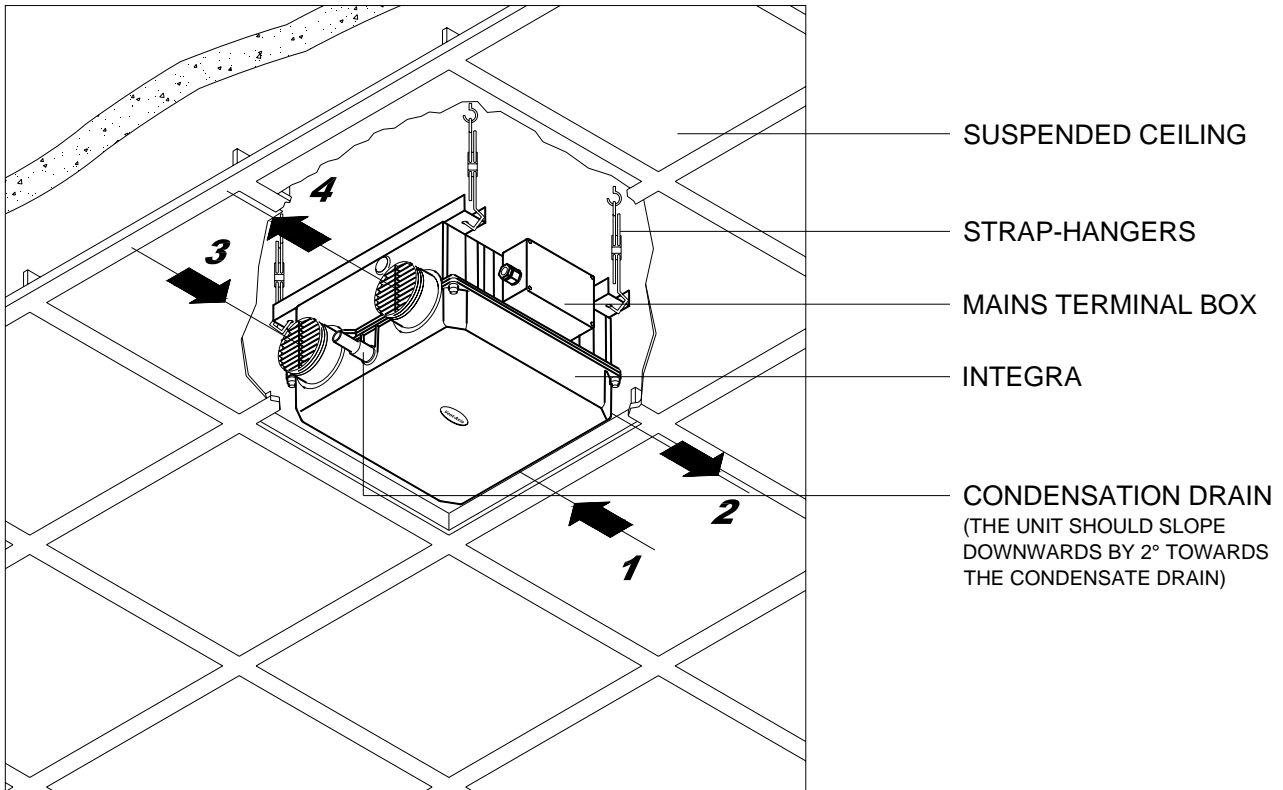
**Fig. 1a. MOUNTED ON JOISTS**



**Fig. 1b. SUSPENDED FROM RAFTERS**

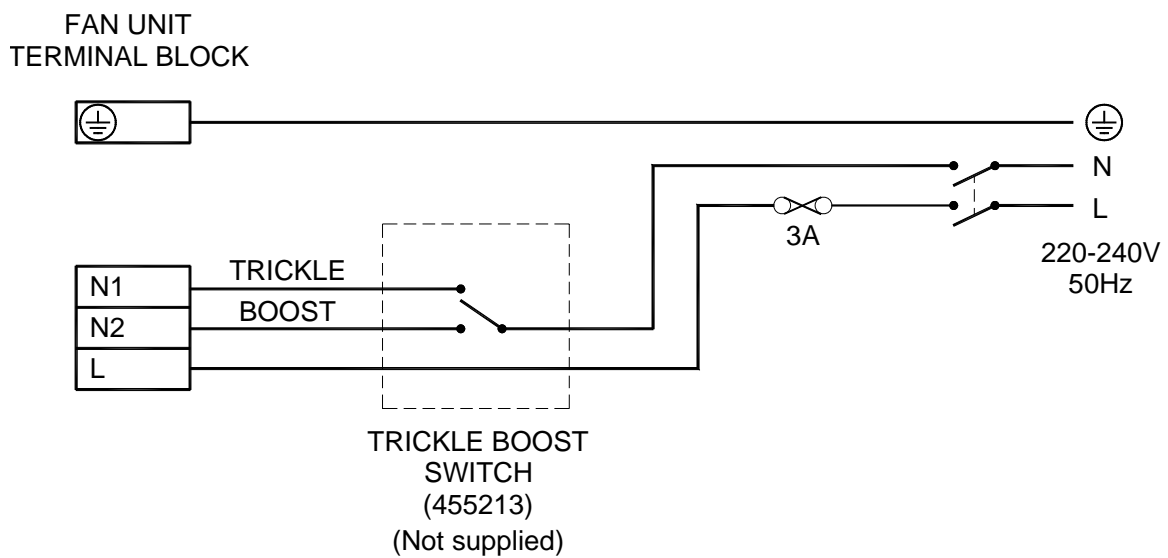


**Fig. 1b. SUSPENDED IN ROOF VOID**

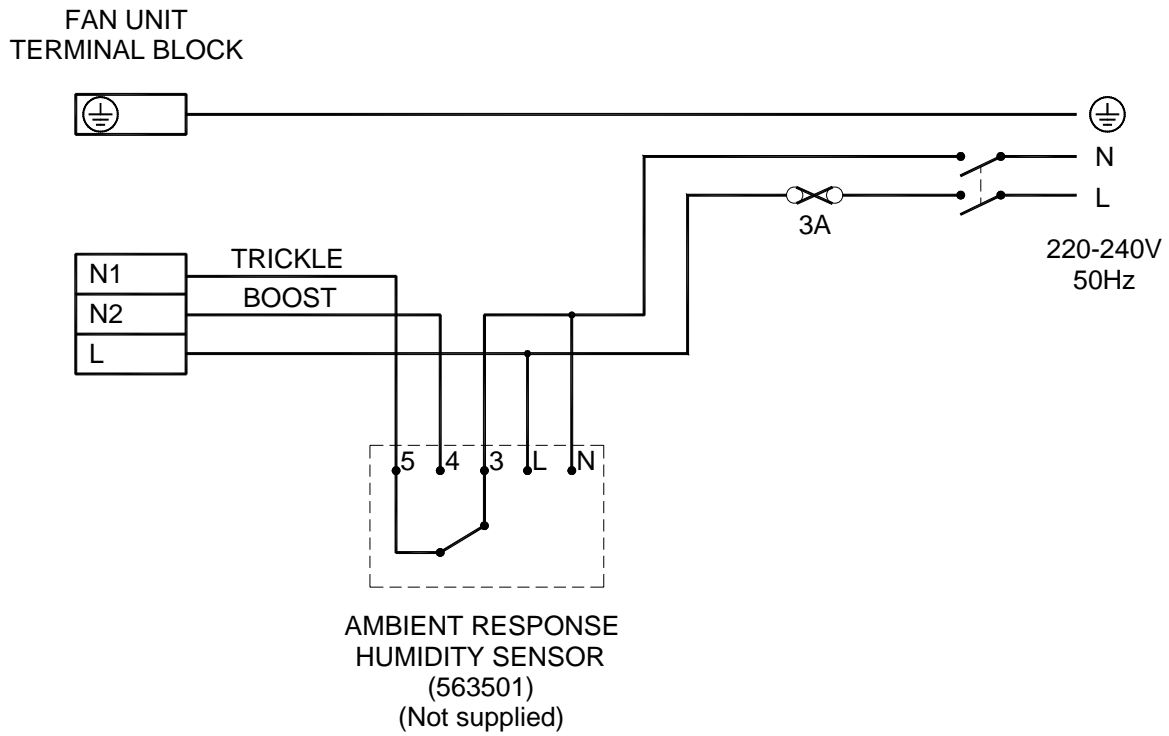


- 1. Stale exhaust air from inside**
- 2. Fresh intake air to inside**
- 3. Fresh intake air from outside**
- 4. Stale exhaust air to outside**

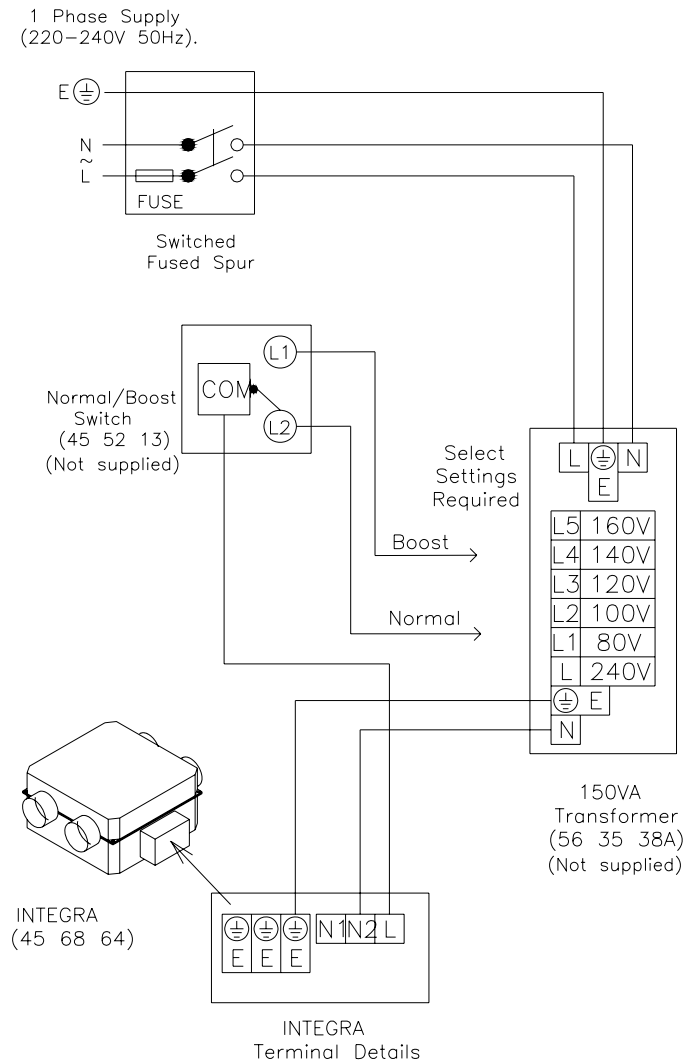
**Fig.2a (Integra operated by a Trickle/Boost switch)**



**Fig.2b (Integra operated by an Ambient Response humidity sensor)**

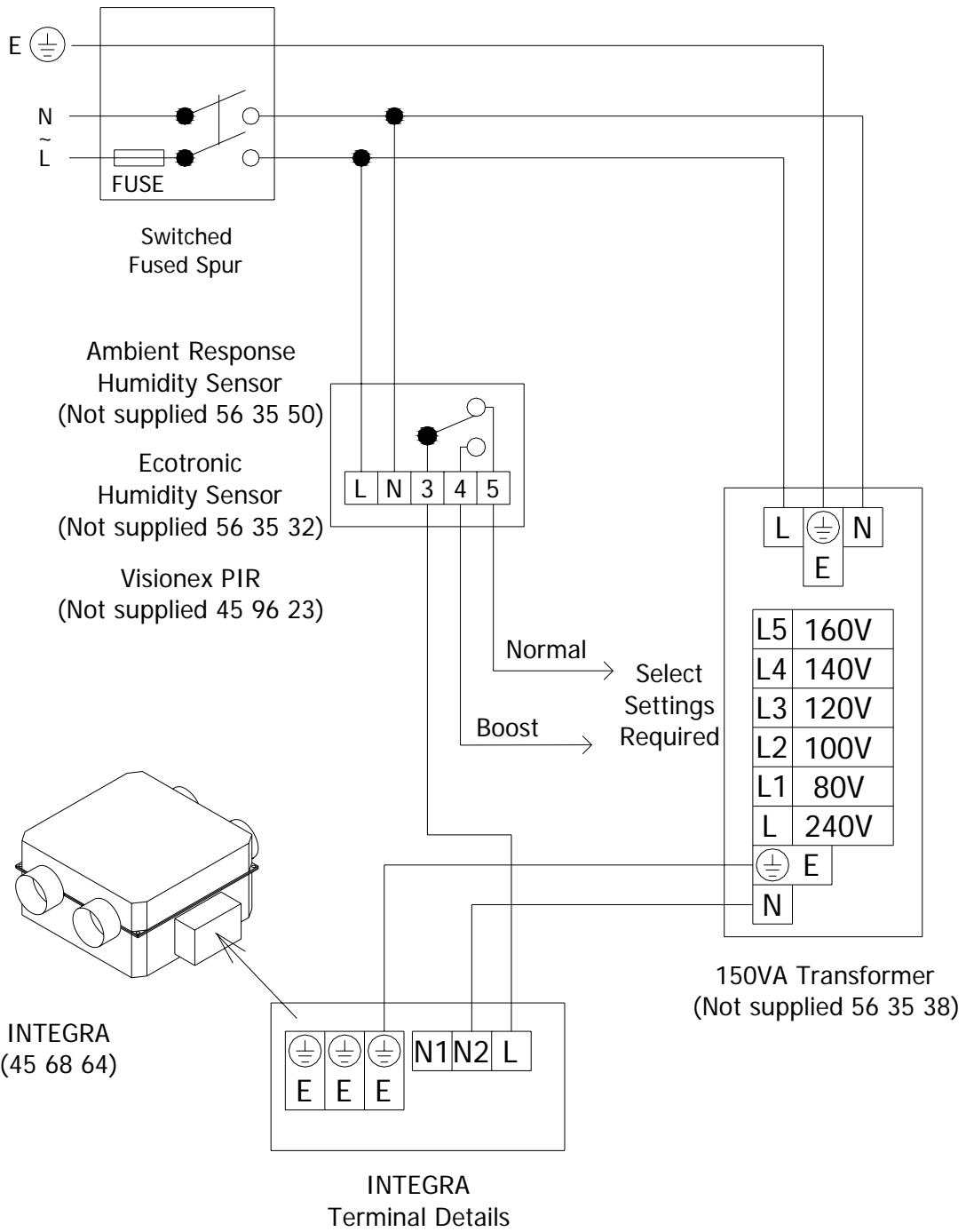


**Fig.2c (Integra Controlled by a single Trickle/Boost switch via a 150VA transformer)**



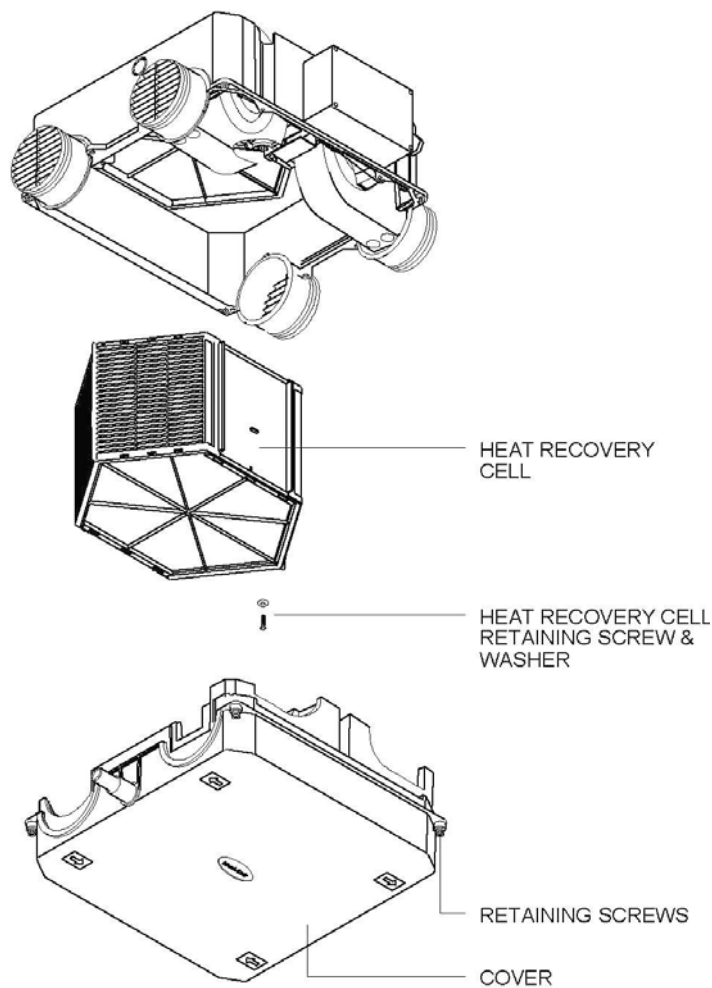
**Fig.2d (Integra Controlled by a single external Sensor for Trickle/Boost operation via a 150VA transformer).**

1 Phase Supply  
220-240V 50Hz.



# CLEANING INSTRUCTIONS

(Cleaning to be carried out by a competent qualified person)



Apart from removing odours, providing fresh air and recovering heat, this unit 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 unit should be cleaned regularly at intervals determined by the level of contamination experienced to the following procedure: (Fig.3).

1. Switch off the mains electrical supply to the unit.
2. Remove the cover from the unit after releasing the four retaining screws.
3. Unscrew and remove the single screw retaining the heat recovery cell.
4. Withdraw the heat recovery cell.
5. Wash the heat recovery cell in warm water using a mild detergent then ensure that it is thoroughly dried.  
NOTE: Keep water away from all electrical components and wiring inside and outside the unit. There may be some condensation present in the cell. Remove carefully and avoid tilting as the cell retains some water.
6. Replace the heat recovery cell in the direction of the arrow.
7. Replace the cover and secure with the retaining screws.
8. Switch on the mains power supply and check for satisfactory fan operation.

## The **Vent-Axia** Guarantee

Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.

Vent-Axia guarantees its products for two years from date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's option replaced, without charge, provided that the product:-

- Has been installed and used in accordance with the instructions given with each unit.
- Has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit).
- Has not been subjected to misuse, neglect or damage.
- Has not been modified or repaired by any person not authorised by the company.

### IF CLAIMING UNDER TERMS OF GUARANTEE

Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked "Guarantee Claim" stating the nature of the fault and providing evidence of date and source of purchase.

The guarantee is offered to you as an extra benefit, and does not effect your legal rights

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