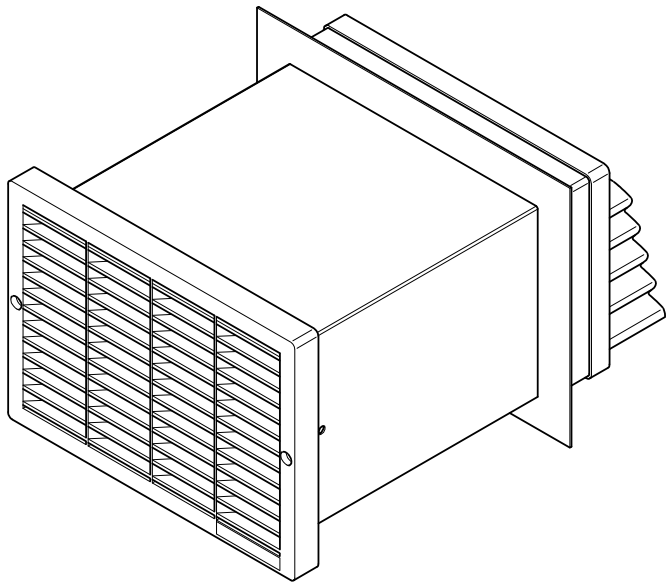
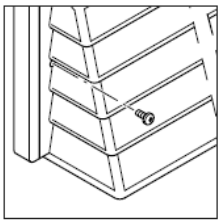
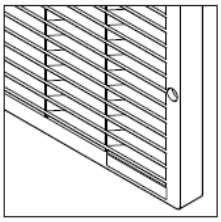
Please leave these instructions with the user

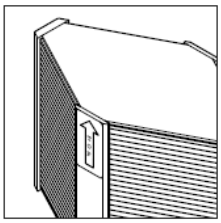
Through The Wall Heat Recovery Ventilators

Installation and Servicing Instruction.









Contents

2.0 Site Requirements

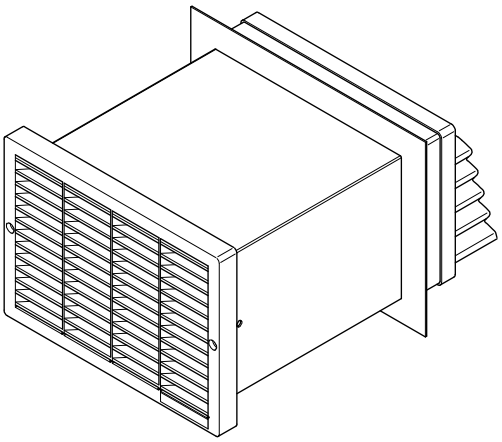


Fig. 1

Description

1. The units are "through the wall" heat recovery ventilators, for use in areas such as kitchens, bathrooms and single occupancy bedrooms.

2. The units are fitted with twin impeller and heat exchanger arrangements which 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. A boost speed facility is available for periods when higher air change rates are required.

3. Installation and maintenance for all units is the same, therefore the majority of this booklet is based on the standard unit (Fig.1) For additional information on the other humidistat model, please refer to additional information (section 6.0)

1.0 Introduction

2.1 Information

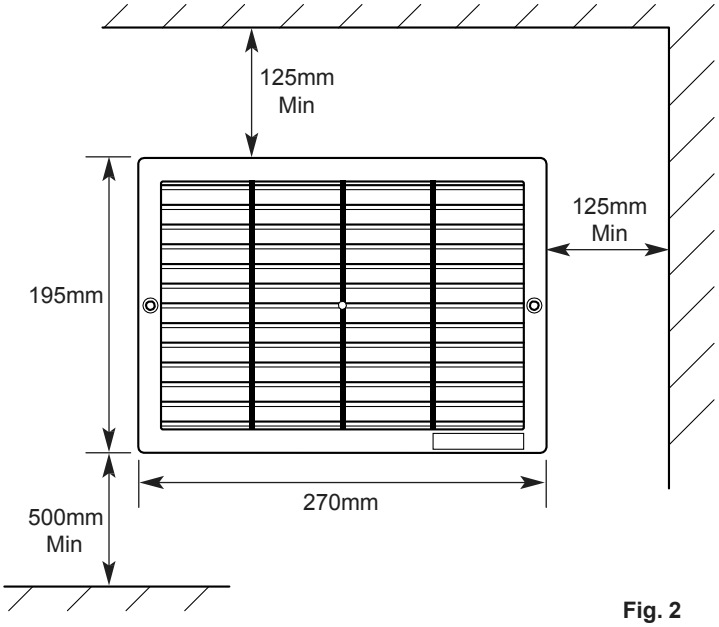


Fig. 2

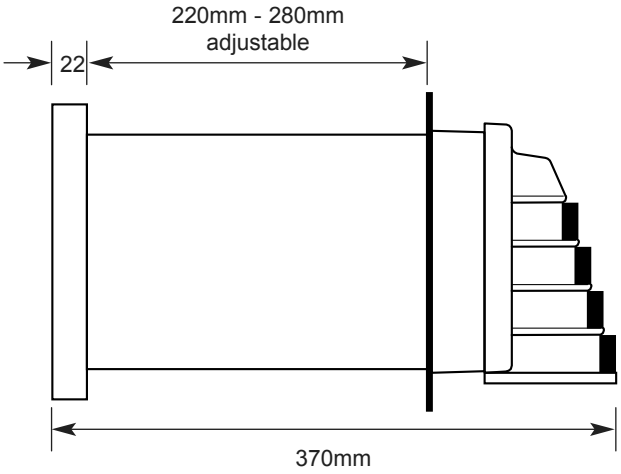


Fig. 3

1. The unit is designed for installation in external walls with a thickness of up to 280mm (Fig. 3). For wall thicknesses above 280mm, an extension kit must be used.

2. The unit must be sited and connected by a suitably qualified person and be in accordance with current U.K. Building Regulations and I.E.E. Wiring Regulations (BS 7671).

3. The unit is intended for permanent connection to the mains electrical supply.

4. The unit is intended for fixed wiring installation.

5. Ensure that the mains electrical supply is compatible with the product's rating label.

6. The unit must be sited away from direct sources of heat in excess of 40°C.

7. Do not site the appliance in the vicinity of excessive levels of airborne oil or grease.

8. If the unit is installed in a room containing a fuel burning appliance, the installer must ensure that air replacement is adequate for both appliances.

9. The internal grille surround must be sited a minimum of 125mm away from any wall or projecting surface (Fig. 2).

10. The external cowl of the unit must be sited a minimum of 500mm away from the flue of gas or open fire appliances. This is to avoid back flow of gases entering the room.

11. All safety regulations and requirements must be strictly followed to prevent hazards to life and property both during and after installation and during subsequent maintenance or servicing.

12. Ensure the mains electrical supply is isolated before commencing installation, or maintenance.

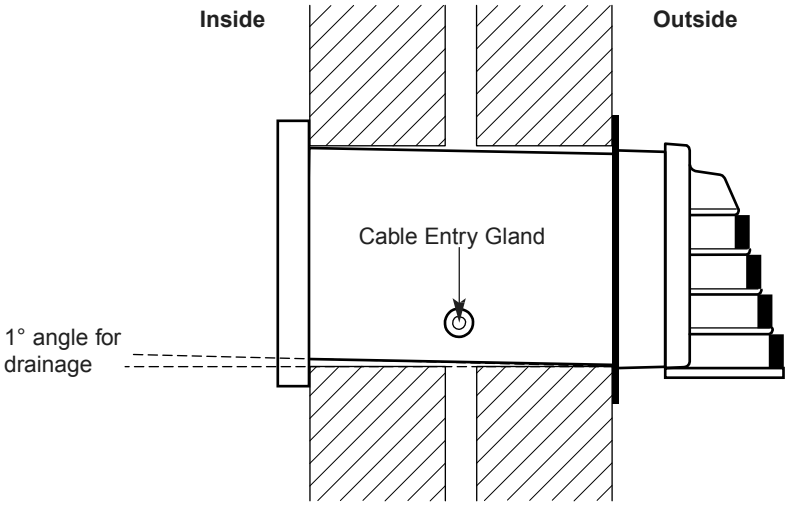


Fig. 4

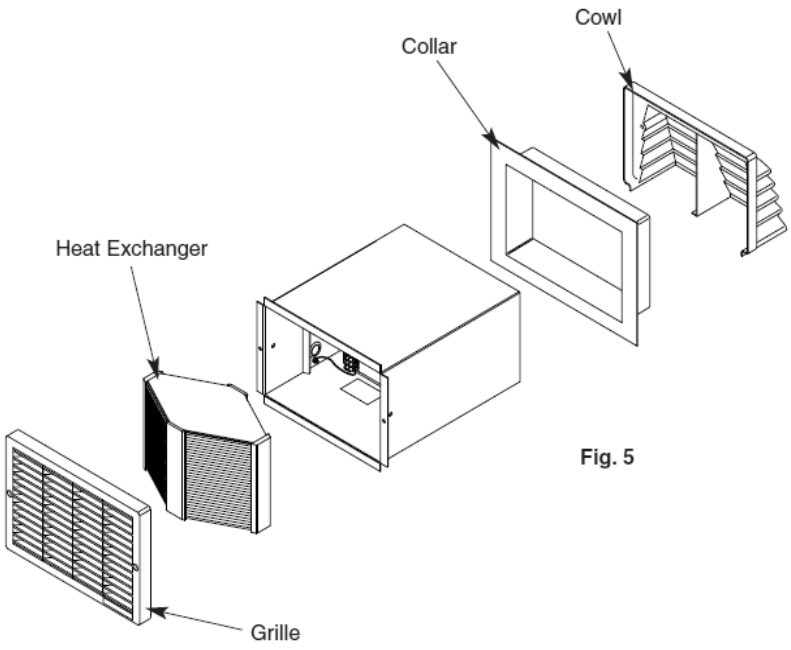


Fig. 5

3.0 Installation

Controllers

The unit can be installed in conjunction with a number of controllers.

A dedicated controller is a, suitable for ON/OFF and two speed control of the unit only.

A Pullcord switch, suitable for manual switching between HIGH and LOW speeds of the unit.

A manual switch for switching between HIGH and LOW speeds of the unit.

A humidity sensor for switching between HIGH and LOW speeds during the daytime according to relative humidity levels.

An overrun timer which can also be used to control the unit via a light switch or remote sensor e.g. PIR detector.

3.2 Initial Preparation

1. Select an approved electrical control arrangement for the unit (above).

2. After considering the site requirements (page 5), select a suitable site for the unit and controllers and work out the cable runs.

WARNING: Before deciding on the final position for the unit, check there are no buried cables, pipes or obstructions on the outside wall.

Cable requirements:
Three core for single speed operation.
Four core for two speed operation.
See page 8 for wiring options.

3. Install the cable runs and appropriate controllers in conjunction with a fused connection unit. Contact gap must not be less than 3mm.

4. Working from the inside, mark out the position of the mounting hole - 240mm wide x 160mm high (see Fixing Template - page 11).

5. Carefully cut the holes in the inner and outer brick courses to form a suitable aperture to receive the unit. Ensure that this is level, or angled down slightly to outside (Fig. 4).

NOTE: Bricks will cut more easily and accurately if a series of holes are drilled close together along the marked lines.

6. Remove the grille, heat exchanger, outer collar and cowl from the unit (Fig. 5).

3.0 Installation

3.3 Installing the Appliance

From inside

1. Slide the unit into the mounting hole and ensure that the rear of the mounting flange can be set flush with the internal wall finish (Figs. 6 & 7).

> **NOTE:** The unit has a maximum overhang on the outside of 60mm. If the overhang exceeds 60mm, the unit must be pushed inwards until the maximum overhang is achieved.

2. Feed the power supply cable through the gland (Fig. 6).

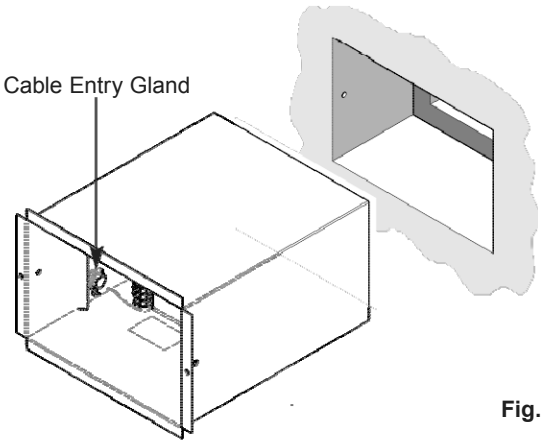


Fig. 6

3. Ensure that the unit is square and true with the outside wall face. If firmer fixings are required, secure the unit in place with the two fixing screws provided (Fig. 7).

4. Make good around the case.

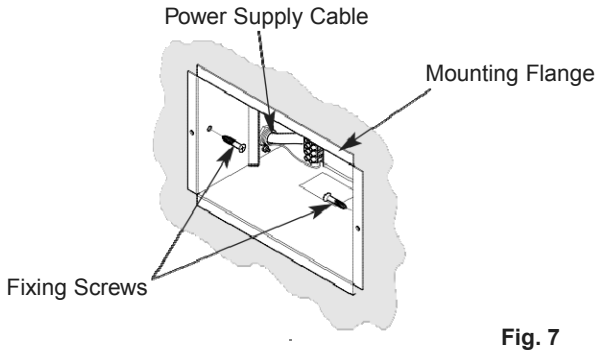


Fig. 7

From outside

1. With the cowl removed, slide the collar (flange first) on to the unit and press the flange firm against the outer wall (Figs. 8 & 9).

2. Mark and trim the small end of the collar flush with the metal casing of the unit (Fig. 9).

3. Make good between the face of the flange and the wall using an appropriate waterproof mastic seal.

4. If firmer fixings are required, secure the flange to the wall using plugs and screws (Fig. 8).

5. Fit the cowl in place and secure using the two screws provided (Fig. 9).

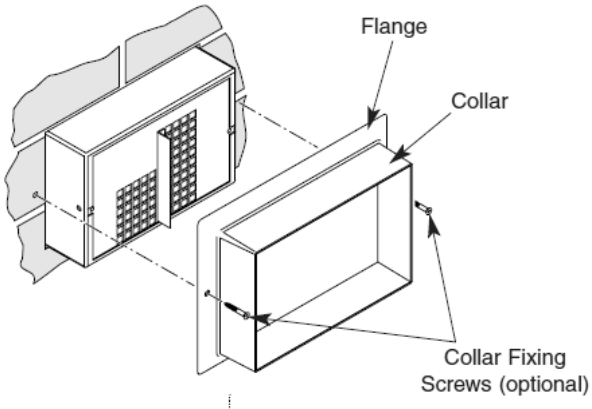


Fig. 8

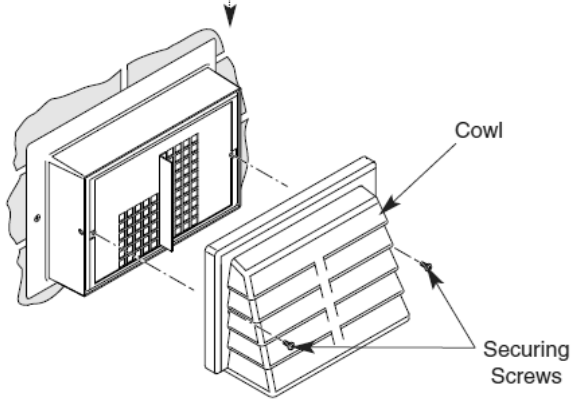


Fig. 9

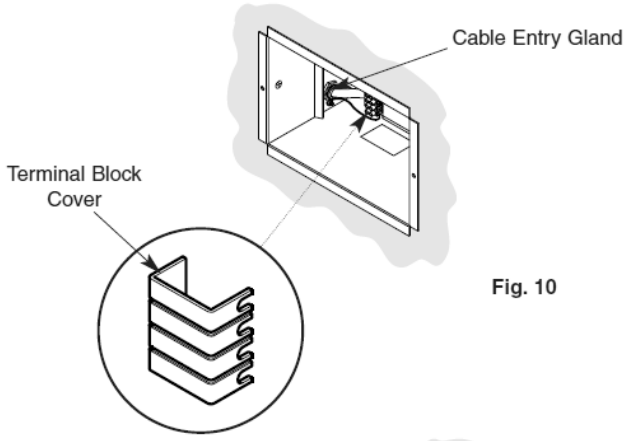


Fig. 10

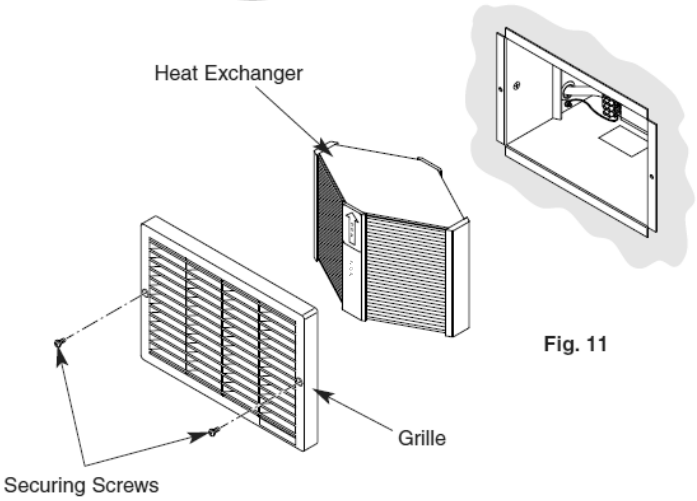
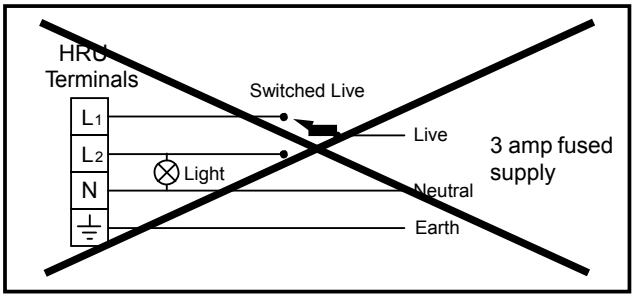


Fig. 11

The unit must not be wired in conjunction with a light switch, units will fail.



4.0 Electrical

4.1 Electrical Connections

230V 50Hz 12W (normal) 31W (boost)

1. The unit is supplied with an in-built two speed motor fitted.
2. Wiring must be via a 3A fused switched spur with a 3mm contact separation in each pole. The wiring should be suitably (Basec or Har) approved cable of appropriate current carrying capacity.

3. Ensure that the mains power supply is isolated prior to installation.

4. Remove the terminal block cover (Fig. 10) and connect incoming wires to the appropriate terminals, see relevant wiring diagram (For humidistat model see page 10)

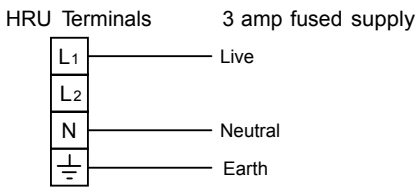
5. Replace the terminal block cover and tighten the cable gland (Fig. 10).

6. Slide the heat exchanger into the unit, ensuring the 'Top' label is facing the front and pointing upwards (Fig. 11).

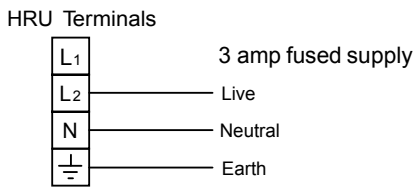
7. Locate the grille on to the front of the unit and secure with the two screws provided (Fig. 11).

8. Switch on the mains electrical supply and check the operation of the unit.

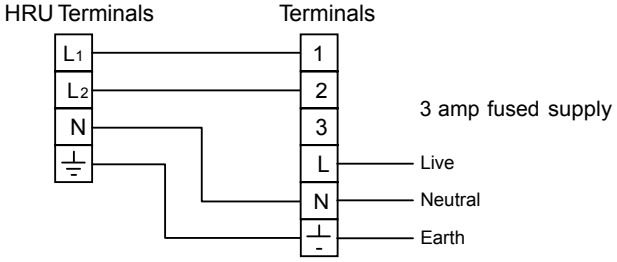
HRU continuous normal speed.



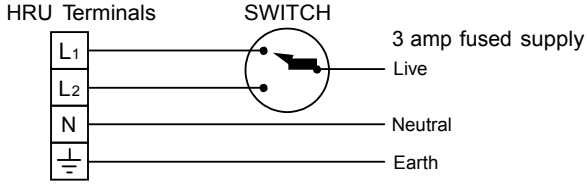
HRU continuous boost speed.



HRU wiring to controller for manual, on/off, normal and boost switching.



HRU wiring to pullcord or switch for manual, normal and boost switching.



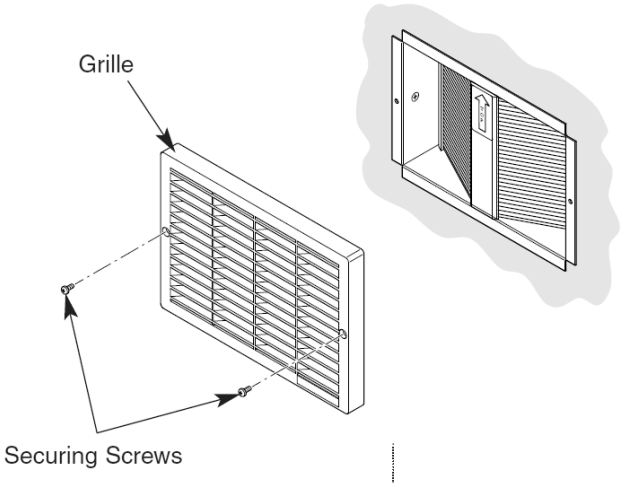


Fig. 12

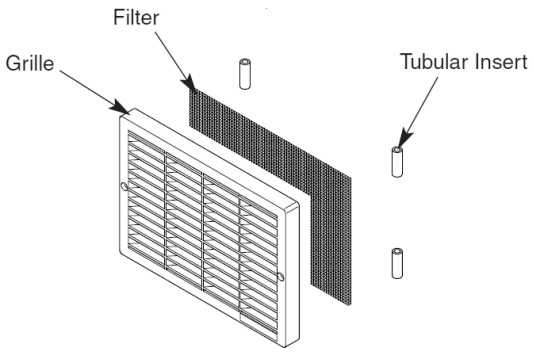


Fig. 13

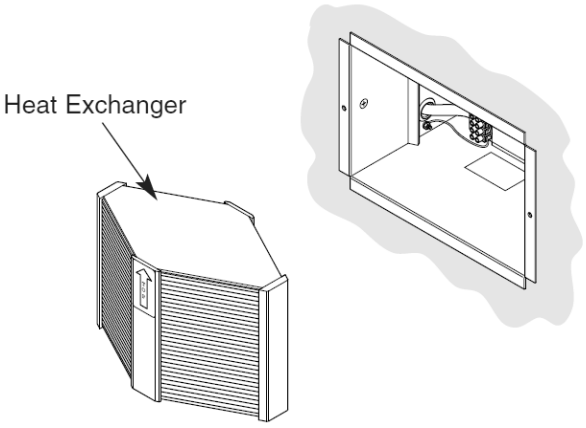


Fig. 14

5.0 Maintenance

5.1 Cleaning the Unit

1. In addition to 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 and appearance of the unit.

2. To ensure optimum performance, the unit should be cleaned every three to six months or at periods determined by the level of contamination experienced, and according to the following procedure.

3. Isolate the mains power supply.

4. Undo the two grille securing screws and remove the grille (Fig. 12).

5. Pull the four tubular inserts out of the rear of the grille and remove the filter (Fig. 13).

6. Slide out the heat exchanger (Fig. 14).

7. Wash the grille, filter and heat exchanger in warm water using a mild detergent and dry thoroughly.
Keep water away from all electrical components and wiring within the unit.
If the filter cannot be cleaned, a replacement is necessary.

8. Reassemble in reverse order ensuring that the filter and inserts are seated correctly in the grille. The heat exchanger should be repositioned with the ‘Top’ label facing the front and pointing upwards.

9. Switch the power supply on and check the operation of the unit.

The unit is supplied with four, 6-month Timestrip indicators. A Timestrip is a single use self-adhesive label that once activated will turn red over 6 months. It should be used to keep track of when the filter and cell need cleaning/replacement. Using the self-adhesive backing the strip can stuck near the units controls, or in a easily visible place.

A normal cleaning schedule for a unit would be as follows:

After installation	Activate the 1st Timestrip
After 6 months	Clean cell, clean filter, activate 2nd Timestrip
After 12 months	Clean cell, clean filter, activate 3rd Timestrip
After 18 months	Clean cell, clean filter, activate 4th Timestrip
After 24 months	Clean cell, **replace filters**, the new filters will be supplied with 4 additional Timestrip indicators

Note: The above is the minimum requirement; more frequent cleaning intervals may be needed depending on the environment the unit is installed in.

Activating the Timestrip.

1. Activation: Fully squeeze the activation button between thumb and finger. A red line will appear within 1-2 minutes to show that the Timestrip has been activated.

2. Peel off the backing liner and stick the Timestrip to the Unit or near the controls of the unit. The location should make it obvious to the person responsible for maintenance that the unit needs attention.

3. Once activated, the red dye will indicate elapsed time by moving through the white window and past each time marker. The progress of the red dye is irreversible and each Timestrip can only be used once.

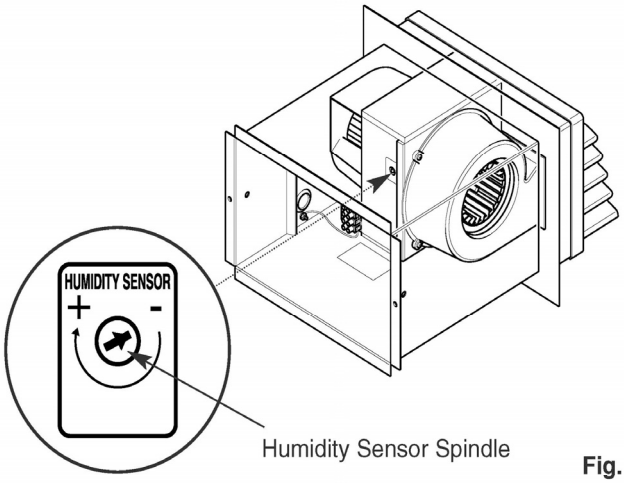


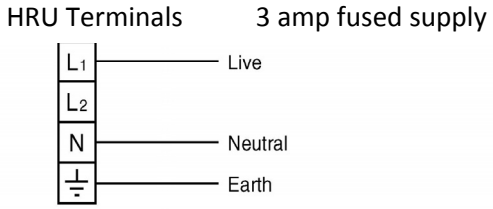
Fig. 15

6.0 Additional Information

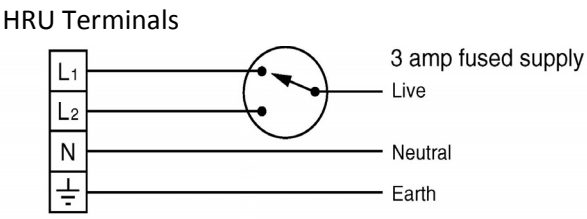
6.1 HRU Humidistat model

1. The humidistat model is fitted with an adjustable humidity sensor.
2. It is factory set to automatically switch to BOOST speed at approximately 70% relative humidity at 20°C.
3. To adjust this setting, remove the grille and slide out the heat exchanger (see page 8).
4. The adjustment spindle is positioned on the front of the motor housing (Fig.15).
5. Turn the spindle clockwise (+) to raise the set point, making the unit BOOST at a higher relative humidity.
6. Turn the spindle anticlockwise (-) to lower the set point, making the unit BOOST at a lower relative humidity.
7. Reassemble the unit in reverse order.

HRU Humidistat model automatic speed control.



HRU Humidistat model manual/normal/boost override using 2 way switch



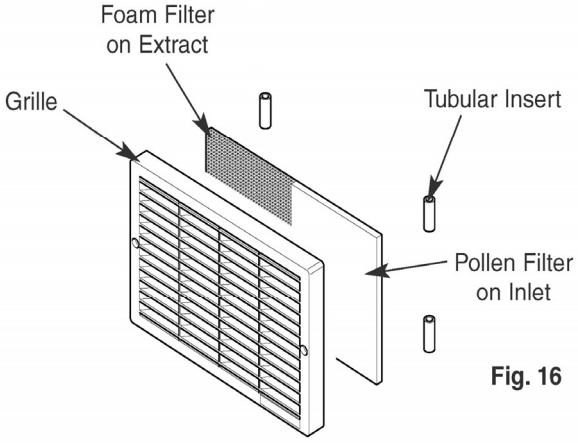
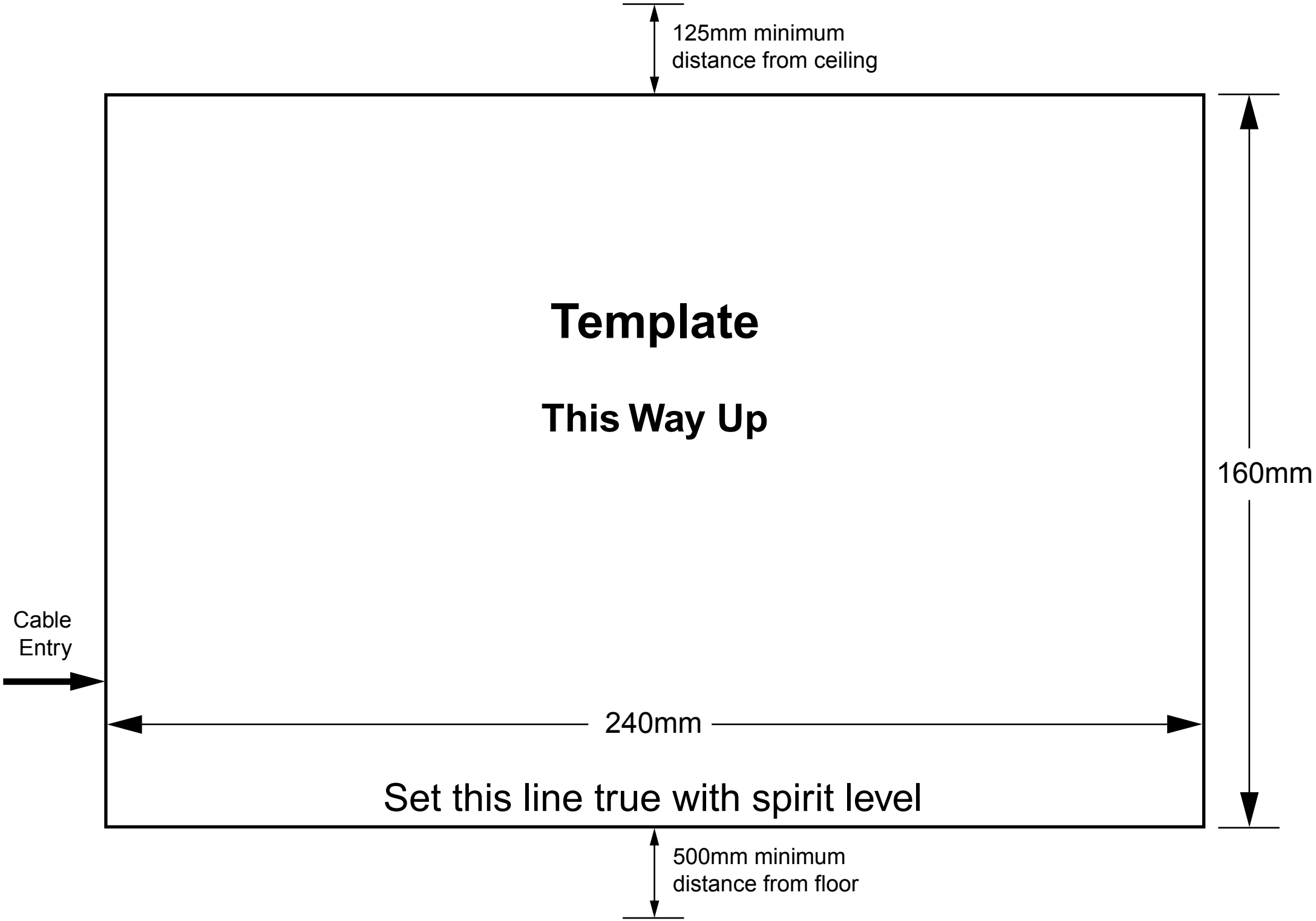


Fig. 16


125mm minimum
distance from ceiling
Template
This Way Up
160mm
Cable
Entry
240mm
Set this line true with spirit level
500mm minimum
distance from floor