LABHUB

Operating & Maintenance Manual

Vertical Laminar Flow Cabinets

VLF65E

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Warning

This system must be used in compliance with these instructions and any repairs or maintenance carried out by qualified personnel.

For parts or service information
please contact LabHub on +44 (0) 845 094 0951

SECTION 1

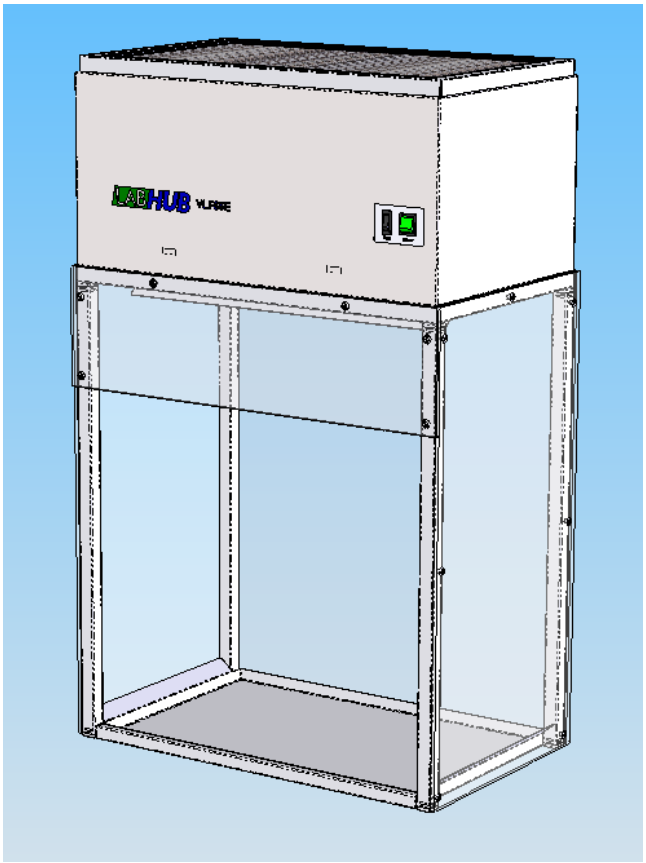
DESCRIPTION

The LabHub VLF650E Vertical Laminar Flow cabinet provides Class 100 clean air at an average velocity of greater than 0.35metres/second over the entire work area.

The filtration system is self-contained and requires no external connection.
Air is initially pulled through an easy-to-change, high-quality G4 grade pleated panel pre-filter to remove all gross particulate. All air then passes through the fan system, before being passed through an H14 HEPA filter which removes 99.995% of all particles >0.3 microns in size. This provides a better than Class 100 (ISO 5) working environment.

The VLF65E head section is manufactured from epoxy powder coated Zintec mild steel and is fitted with a recessed fluorescent strip light to illuminate the working area. In addition, the base section frame is manufactured from epoxy powder coated steel, with 6mm clear acrylic glazing panels to all sides to give maximum visibility within the work area.

The VLF65E is ideal for a huge variety of uses, from laboratories, forensics and Industry to research and manufacturing.



SPECIFICATION	
Model	LabHub VLF65E
Dimensions	
External	671mm wide 506mm deep 1086mm high
Internal	607mm wide 402mm deep 708mm high
Aperture	600mm wide 570mm high (550mm when spillage tray fitted)
Weight	
Packed	40 kg
Airflow	
Velocity @ 150mm from filter face	0.25 – 0.45m / second
Air volume	230m³ / hour nom.
Electrical	
Power	230V, 50 Hz, < 80 watts
Lighting	> 640 Lux (fluorescent 16W T4)
Fan	Centrifugal
Controls	Mains on/off switch
Front @ 1m	< 62 d (B) A
Pre-filter	Grade G4 Pleated long life panel
Main filter	HEPA Grade H14 99.995% @ 0.3µ particles
Filtration head	Epoxy painted corrosion resistant zinc coated steel
Enclosure	Clear acrylic all round Epoxy painted zinc coated steel frames

SECTION 2

INSTALLATION

GENERAL

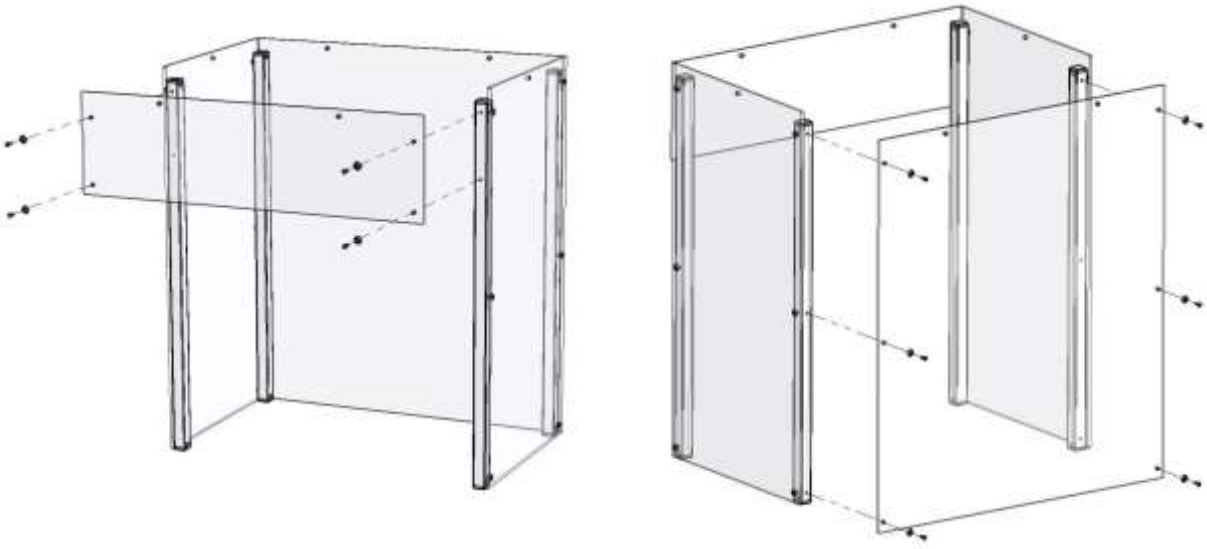
The following guidelines should be observed when installing the cabinet

- Site the cabinet in a draught free position with a minimum clearance of 200mm from the top of the cabinet to the ceiling to prevent obstructing the air inlet and to provide access to change the pre-filter.
- Connect the cabinet to a 13A socket.

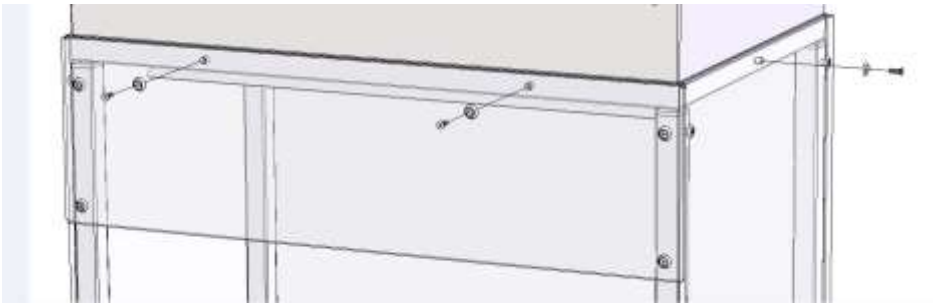
ASSEMBLY

The cabinet may be delivered fully or partially assembled. The details below show assembly of the lower section and head section if required.

- Attach front and rear glazing sections to the pre-assembled side panels with supplied screws and washers



- With assistance, position head section onto the lower section and secure with supplied screws and washers.



TESTING / COMMISSIONING

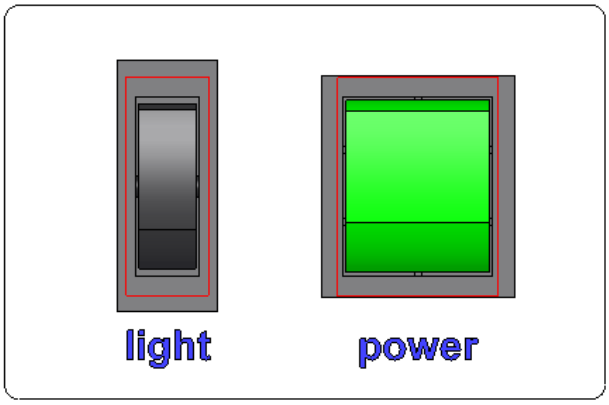
A test certificate is supplied for conformity to CE marking, and electrical test.
The main HEPA filter will have been factory tested before delivery.

The airflow should be checked using a vane anemometer and the results recorded.
A DOP filter challenge test should be carried out to verify filter integrity when the cabinet is installed prior to use.

THE CABINET SHOULD BE TESTED EVERY 12 MONTHS.

OPERATION

Master power on/off and lighting on/off control switches are provided on the front panel.



The cabinet should be left running for 10 minutes prior to starting any procedure to allow the working area to purge and achieve class 100 status.

SECTION 3

PRE-FILTER – CHANGING

Replacement pre-Filter Part Number is K-PF0022, available from LabHub

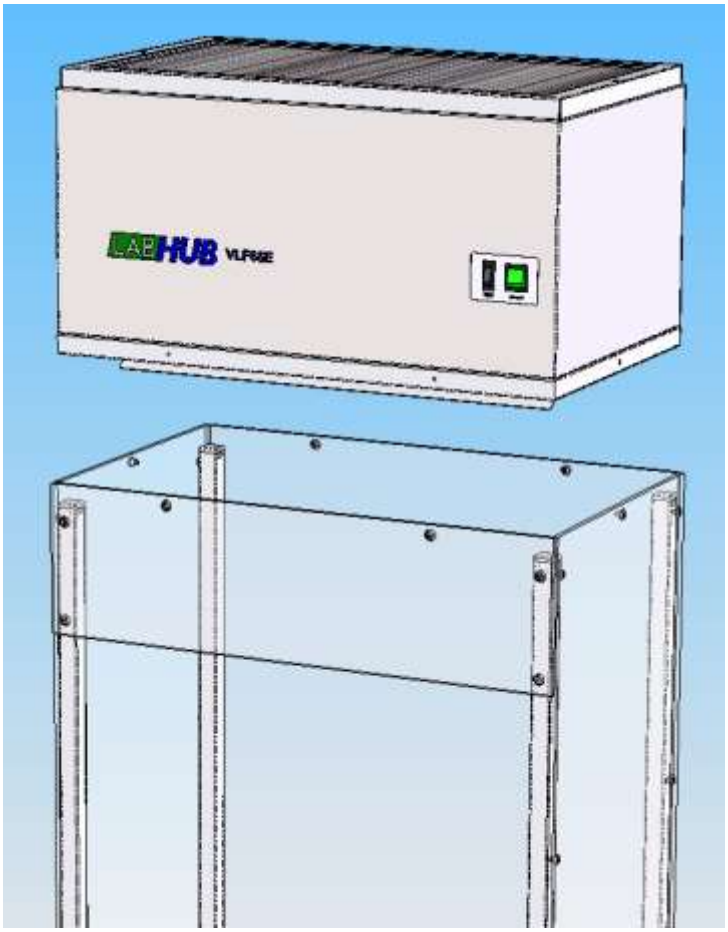
This is located on top of the cabinet and can be accessed by removing the screws on the securing frame.

Note - Orientation of pre-filter prior to refitting. Metal gauze should be on the inside

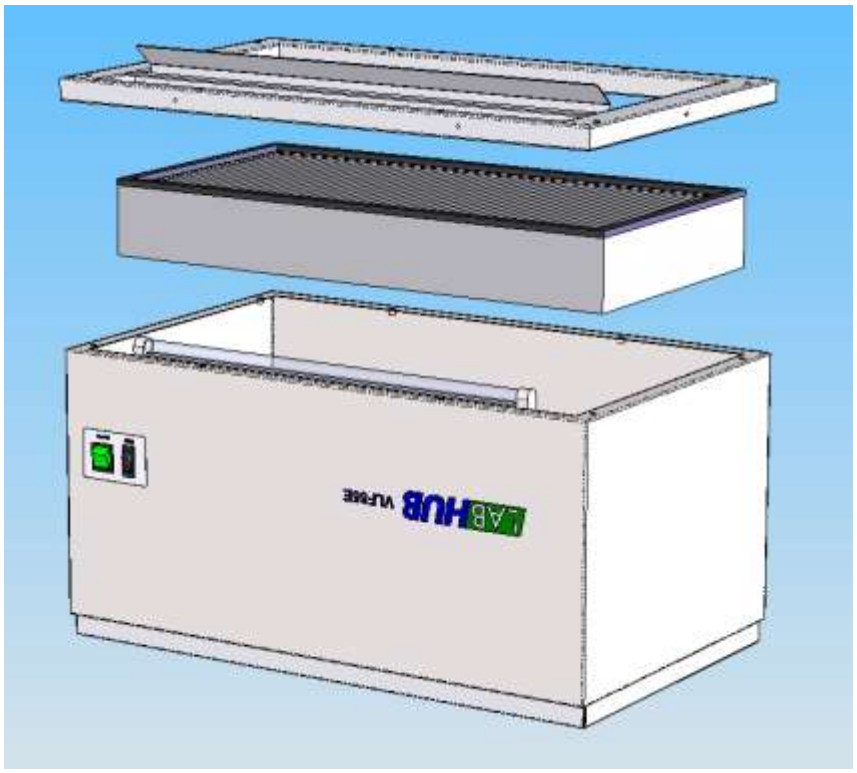
MAIN HEPA FILTER – CHANGING

Replacement HEPA main filter Part Number is K-HF0308, available from LabHub

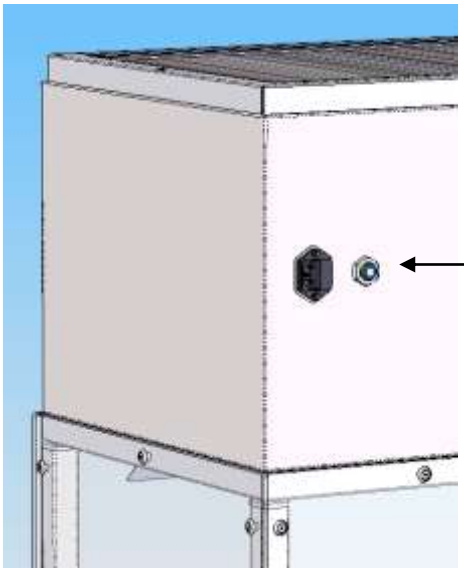
- Isolate from the electricity supply and remove the mains inlet cable.
- Filter changing requires removal of the fan module from the lower enclosure.
- Remove the 6 screws in the glazing panels to enable the fan module to be lifted off with assistance.



- Turn the fan module upside down and remove the 8 screws securing the HEPA filter retaining frame.
- The filter can now be lifted out and replaced



- The replacement filter should be DOP tested prior to use and the airflow checked. DOP upstream sample port is located on the rear, next to the power inlet socket.



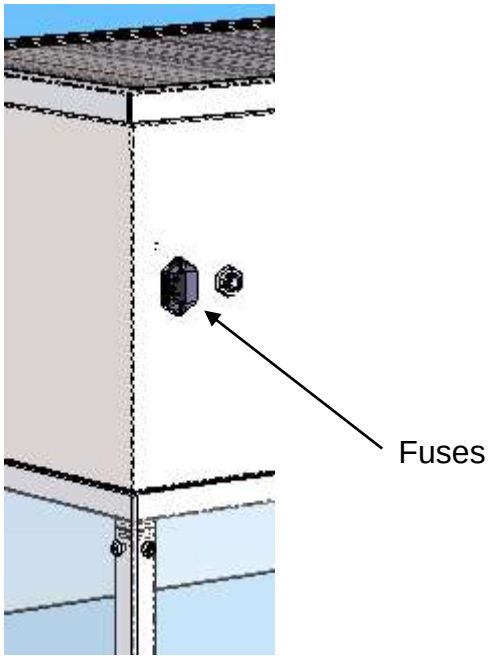
SECTION 4

MAINTENANCE

The cabinet should be isolated from the electricity supply before carrying out any maintenance procedures.

FUSES

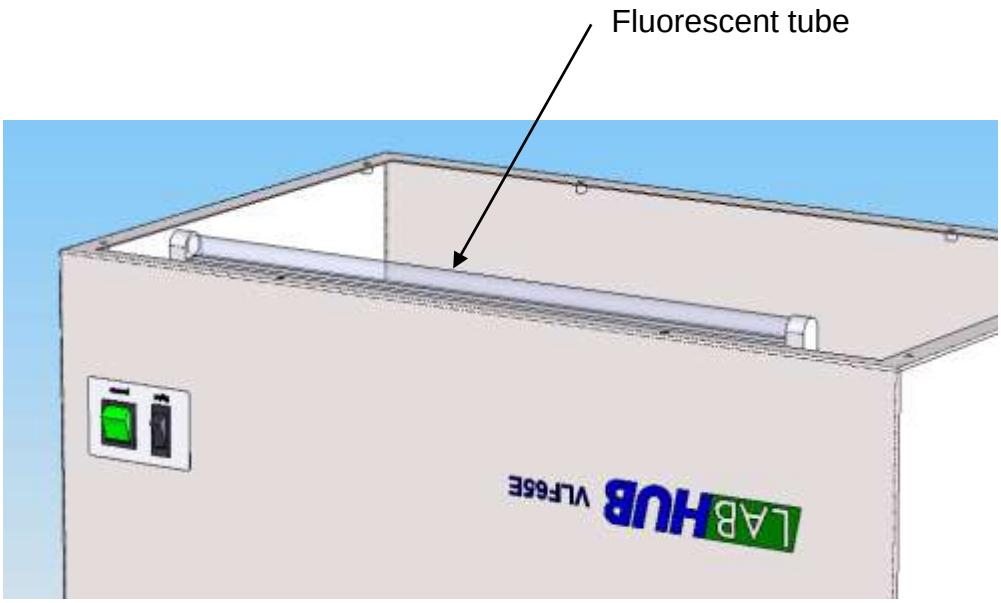
Two main fuses are located within the mains IEC inlet socket located on the rear of the cabinet. Remove the mains lead and withdraw the fuses using a small screwdriver. Always replace with the correct type and rating – 3A Type T.



FLUORESCENT LIGHT

To replace the fluorescent tube, it is necessary to remove the filtration head from the lower section.

- Follow previously detailed procedure for removing main HEPA filter retaining frame to gain access to light fitting.
- Unplug the light fitting and unclip from its mounting.
- The tube may now be replaced.
- Replacement Tube – 16w T4 Triphosphor.



SECTION 5

SERVICING

An annual service is recommended to maintain optimum operating conditions and will include the following points:-

- Check / replace pre-filter
- DOP test the main HEPA filter
- Check and record down flow velocity readings
- Check general condition of cabinet - glazing, hinges etc.
- Inspect electrical components, lighting, cables etc.
- Issue test report and airflow certificate.

For parts or service information please contact
LabHub on +44 (0) 845 094 0951

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