



Operating & Maintenance Manual

Circulaire®
Chemical Chemical Storage

FSC600/FSC800/FSC1200/FCS1500

THE MARKET LEADER IN *CLEAN AIR SOLUTIONS*
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Warning - This cabinet 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 Monmouth Scientific: +44 (0) 1278 458090

INTRODUCTION

Monmouth Formalin Storage Cabinets are designed for the safe storage of samples and other items containing formalin or formaldehyde. The use of this system ensures that COSHH requirements are met for the safe storage of samples in pathology laboratories.

The cabinets are available in six standard sizes. 600mm, 800, 900, 1200mm, 1300mm and 1500mm wide. Any combination of systems can be placed side-by-side to ensure a continuous run of shelving and cabinets.

Each cabinet has separate stainless-steel shelves, the upper ones of which are adjustable/removable, and acrylic lockable doors for added security. The cabinet is continuously ventilated to prevent the build up of fumes in the storage area and therefore prevent anyone from being exposed to chemical inhalation. The air is drawn through an activated carbon filter sited above the cabinet to remove fumes before being returned to the laboratory.

INSTALLATION

The Formalin Storage Cabinet requires a 13A electrical supply and is supplied with a 2m mains lead terminated with a 13A plug fitted with a 5A fuse.

The cabinet should be placed in position and the levelling feet adjusted if necessary, to ensure the cabinet is stable.

For taller units, a tether kit is provided for the restraint of the cabinet and to assist in the stability of the enclosure. To fit, the eye-bolt should be screwed into the threaded hole that is located on rear/top centre of the enclosure. The wall anchor point should be fitted to a suitable wall or structure and no more than 300mm away from the eye-bolt. The restraint tether cable should then be attached to each point with the sprung clips provided.

OPERATION

Switch the cabinet on with the green rocker switch on the control panel.

The airflow is continuously monitored by an airflow monitoring system and will provide a visual and audible alarm if the airflow drops below a safe level.

For models fitted with an optional carbon filter condition monitor (SA option), the exhaust air is also continuously monitored.

An audible and visual alarm will be provided if filter breakthrough is detected.

The cabinet should be left running continuously to ensure containment of fumes.

MAINTENANCE

CHANGING PRE-FILTERS

Filters concentrate dust, pollutants etc. and care must be taken when changing them.

IMPORTANT: Personal Protective Equipment must be worn when changing filters including gloves and particulate face mask.

If the airflow monitoring system indicates a low airflow this normally indicates that the Pre-Filter/s require changing

1. Turn the system off
2. Remove the front cover of the filtration unit using the key provided.
3. The pre-filter is situated on top of the main carbon filter and held in position by a metal frame
4. Remove the retaining frame and fit a replacement pre-filter
5. Replace the retaining frame, fit the front cover and turn the cabinet on.

CHANGING MAIN CARBON FILTERS

1. Turn the system off
2. Remove the front cover of the filtration unit using the key provided.
3. Lift and slide the carbon filter out of the cabinet with the pre-filter still in position on top
4. Replace both the carbon and pre-filter and re-fit them
5. Replace the front cover and turn the cabinet on.

REPLACEMENT FILTER PART NUMBERS

Replacement filters are available from Monmouth Scientific:

UNIT	PRE-FILTER	QTY	MAIN FILTER	QTY
FSC600	PF-0028	1	CF-0119	1
FSC800	PF-0028	1	CF-0119	1
FSC900	PF-0086	1	CF-0407	1
FSC1200	PF-0028	2	CF-0119	2
FSC1300	PF-0028	2	CF-0119	2
FSC1500	PF-0028	2	CF-0119	2

Carbon filters for use with other chemicals are available.

Please contact Monmouth Scientific with your requirements.

SETTING FAN SPEED

This procedure requires the use of a rotating vane anemometer and exposure to live circuits. The procedure should only be carried out by trained personnel.

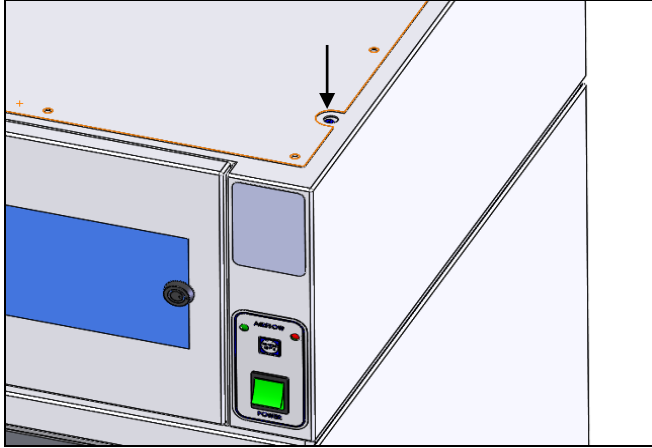
The fan speed can be adjusted by using a “live working” flat screwdriver to turn the control potentiometer located behind the front panel above the power switch.

The speed should be adjusted to provide an average velocity of 0.75m/sec across the air inlet grille located at the inside/ top of the filtration unit.



CALIBRATION OF LOW AIRFLOW ALARM

1. With new Pre-Filters fitted set the normal running fan speed using the procedure above
2. Remove the speed control blanking plug located above the switch and airflow alarm.



3. Turn the cabinet off and then on again while pressing the alarm mute button. Hold down for 3 secs, when the button is released the cabinet will enter calibration mode
4. The airflow alarm warning lights will flash alternately.
5. Adjust the speed control until the reading is approx. 0.4m/sec (clockwise to increase/anti-clockwise to decrease).
6. When the airflow has stabilised, press the Alarm Mute button again to store the set point.
7. Re-Adjust the speed control to give a reading of 0.75m/sec – this is the normal operating speed.
8. The Low airflow alarm operation can be checked by closing the door and blocking the slots with paper or tape. With the doors closed and the slots blocked, the alarm should sound and the warning light illuminate.
9. Refit the speed control blanking plug.
10. The cabinet is now ready for use.

CALIBRATION OF THE OPTIONAL FILTER CONDITION ALARM

New carbon filters must be fitted before calibrating the alarm.

- 1) Whilst pressing and holding the 'Mute' button, turn on the cabinet. When an audio beep is heard release the button.
- 2) The red and green indicators will flash alternately showing that the alarm is in calibration mode.
- 3) Leave the cabinet running for at least 15 minutes to allow the sensor to stabilise.
- 4) Press the 'Mute' button once. The indicators will stop flashing with the green remaining on.
- 5) The filter condition alarm is now calibrated.

SERVICING

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

- Check / replace pre-filter
- Check condition / replace main carbon filters
- Check airflow monitor and re-calibrate if necessary
- Check and record air velocity readings
- Check general condition of system.
- Issue test report and airflow certificate.

**For parts or service information please contact Monmouth Scientific:
+44 (0) 1278 458090**

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