

FUMAIR AMS-6 OPERATING INSTRUCTIONS

Ensure mains electrical power is connected to the fume cupboard with the controller displaying 'Off'.

Switching On/Off

Press the **on/off** button to start the extract fan. The controller will count down a pre-set number of seconds before sampling the air flow and displaying the average face velocity.

To switch off, press the **on/off** button, the controller will count down a delay off period until the display returns to an '**Off**' position and the fan stops.

Automatic Speed Switching.

The controller will automatically switch the fan to a higher speed setting when the fume cupboard sash is raised above 250mm opening.

Manual Speed Switching.

When the sash is below 250mm opening it is possible to create a higher face velocity by pressing the '**Boost**' button. This switches the fan from low to high speed (effectively doubling the face velocity) and displays '**hi**' on the controller. To switch back to low speed either press the **boost** button or raise the sash above 250mm and then back down.

Sash Overheight

The normal working height of the sash is 500mm. To facilitate loading/unloading of the fume cupboard it is possible to raise the sash a further 150mm. This will cause the controller to display '**Lo Air**' and an audible alarm to sound. It is possible to mute the alarm by pressing the '**Mute sash alarm**' button. After approximately 5 minutes the alarm will re-sound reminding the user that the sash is still high. Pressing the button again will repeat the mute alarm period.

Air Failure

In normal operation the display will show the average face velocity. Should this velocity drop below the low air alarm trigger point (default 0.4 m/s) the extract failed alarm will sound. This feature should be periodically tested by pressing and holding in the '**Test**' button to slow the fan until an extract failed alarm sounds.

Mains Failure

If the controller is switched on and a mains failure occurs, an alarm will sound. To test this, switch off the fume cupboard isolator with the controller in the '**On**' position; wait at least 1 minute before switching power back on to the controller to allow the extract inverter to reset itself.

Fumair AMS-6 Controller – Set up and Calibration

The Fumair AMS-6 controller is designed as an airflow monitor with two speed variable extract control. The controller features a set of program parameters that require configuring on site before the controller can be used normally.

Starting Set-up Procedure.

The following steps allow access to the program menu.

Note: The fault button doubles as the enter button.

Action	Display
Power up controller.	OFF
Press test and fault buttons simultaneously.	0.000
Press up/down arrows to obtain 1.	1.000
Press enter.	10.00
Press up/down arrows to obtain 8.	18.00
Press enter.	180.0
Press up/down arrows to obtain 7.	187.0
Press enter.	1870.
Press up/down arrows to obtain 1.	1871
Press enter.	1.871
Press enter.	End

When the controller displays **End** it is in the program menu and can be scrolled using the up/down arrows.

Menu Program Parameters.

- | | | |
|-----|-------------|---|
| 1. | Date | Not used. |
| 2. | SA | Mute sash alarm. |
| 3. | U | Baffle wash output (not normally used). |
| 4. | L.ALr/H.ALr | Low air alarm (trigger point). |
| 5. | Aur | Average air sampling rate. |
| 6. | Null | Not used. |
| 7. | L.Air/H.Air | Air gain setting. |
| 8. | L.Op2/H.Op2 | Room supply output (not normally used). |
| 9. | L.Fan/H.Fan | Fan speed settings. |
| 10. | d-Of | Delay off time. |
| 11. | d-On | Delay on time. |

Note: Parameters not used should not be modified.

2. Mute sash alarm.

When the sash is raised above the maximum safe working height an alarm is activated. The mute sash alarm time can be adjusted to suit the user. The options on this setting allow the alarm to be off/on or timed 1 – 59 minutes from when the mute sash alarm button is pressed.

Action	Display
Scroll through the menu.	SA
Press enter to access the settings	SAOS
Use the up/down arrows to set the mute time.	SA10
Press enter to return to the menu.	SA

The example steps shown increase the mute time from 5 minutes to 10 minutes.

4. Low Air Alarm.

This is a trigger setting that sounds an alarm when the average face velocity of a fume cupboard falls to an unsafe level. The trigger point can be set from 0.02m/s to 9.95m/s for high and low speeds.

Action	Display
Scroll through the menu.	L.Alr
Press enter to access the setting.	t0:39
Use the up/down arrows to set the low air trigger point.	t.050
Press enter to return to the menu.	L.Alr

The example steps shown increase the trigger point from 0.39m/s to 0.50m/s.
To set high speed trigger point raise the sash above 250mm.

5. Average air sampling rate.

This setting is used when there is excessive air turbulence within an extract system, resulting in an unstable reading on the display. The sample rate can be increased or decreased to compensate air turbulence. The setting range is between 0 and 9 where 0 is the fastest sample rate.

Action	Display
Scroll through the menu.	AUr
Press enter to access the settings.	AUr5
Use the up/down arrows to set the sample rate.	AUr8
Press enter to return to the menu.	AUr

The example steps shown decrease the sample rate from 5 to 8.

7. Air gain setting.

This setting displays the average face velocity of the fume cupboard. The face velocity can be set between 0.00 and 9.95m/s for high and low fan speed. When this parameter is being accessed allow a few seconds for the extract fan to ramp up/down before setting.

Action	Display
Scroll through the menu.	L.Air
Press enter to access the settings.	GO.75
Use the up/down arrows to set the average face velocity.	GO.50
Press enter to return to the menu.	L.Air

The example steps shown increase the average face velocity to 0.5m/s in low speed.
To access high speed raise the sash above 250mm.

9. Fan speed settings.

This sets the approximate percentage of extract fan speed. When accessing these figures use the up/down arrows to increase/decrease the fan speeds, while using an anemometer measuring air flow across the face of the fume cupboard.

Action	Display
Scroll through the menu.	L.Fan
Press enter to access.	LO.25
Use the up/down arrows to set the fan speed.	LO.30
Press enter to return to menu.	L.Fan

This example increases low fan speed from 25 to 30.
To access high fan speed raise the sash above 250mm.

10. Delay off time.

This sets the shut down time of the extract fan from when the on/off button is pressed on the control panel. The time delay can be set from 0 to 255 seconds.

Action	Display
Scroll through the menu.	d-OF
Press enter to access the settings.	d15
Use the up/down arrows to set the delay off time.	d60
Press enter to return to the menu.	d-OF

The example steps shown increase the delay off time from 15 to 60 seconds.

11. Delay on time.

This sets the controller delay on time. It allows the extract fan time to reach its running speed. The delay on time can be set from 0 to 255 seconds.

Action	Display
Scroll through the menu.	d-On
Press enter to access the settings.	d 5
Use the up/down arrows to set the delay on time.	d10
Press enter to return to the menu.	d-On

The example steps shown increase the delay on time from 5 to 10 seconds.

Exit the setup menu.

When the required parameters have been programmed it is time to exit the menu to resume normal operation.

Action	Display
Scroll through the menu.	End
Press enter to exit the menu.	OFF

When the controller displays OFF it is ready for normal operation.

Note: Pressing the up/down arrows when the controller is in the off mode will change the display.

This setting is for the extract fan tickover speed. It should normally be set at zero, but can be increased/decreased by using the up/down arrows.

To return to 'OFF' display press enter.