

JBC

www.jbctools.com

Product
website



INSTRUCTION MANUAL



FAE2

Fume Extractor for 2 Workbenches

This manual corresponds to the following references:

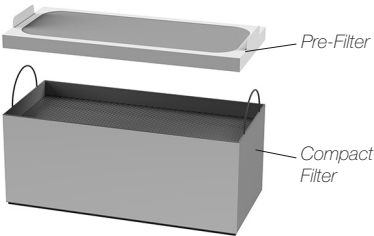
F AE2-5B (100 V / 120 V / 230 V)

Packing List

The following items are included:



Unseal the filter and remove its bottom protection before its first use



Fume Extractor for 2 Workbenches ...1 unit

Filter for FAE2 1 unit
Ref. FAE2-100 *(already assembled)*



Power Cable 1 unit
Ref. 0023715 (100 V / 120 V)
0023714 (230 V)



Compact Station Cable (USB A/B) 2 units
Ref. 0021042



Compact Station Adapter (RJ12 to USB A) 2 units
Ref. 0023504



Cleaning Brush 1 unit
Ref. 0004009

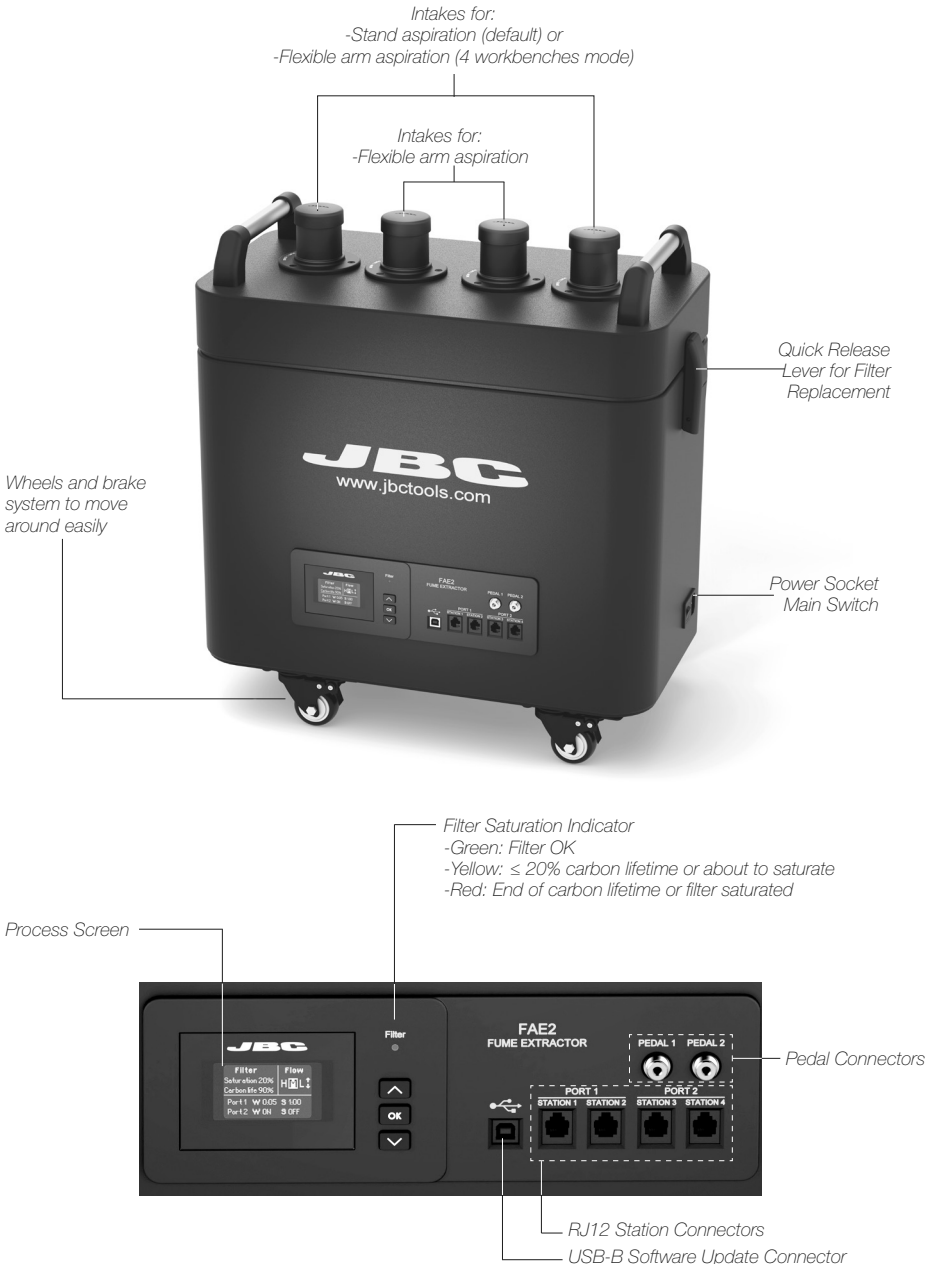


Premium Station Cable (RJ12) 2 units
Ref. 0019751



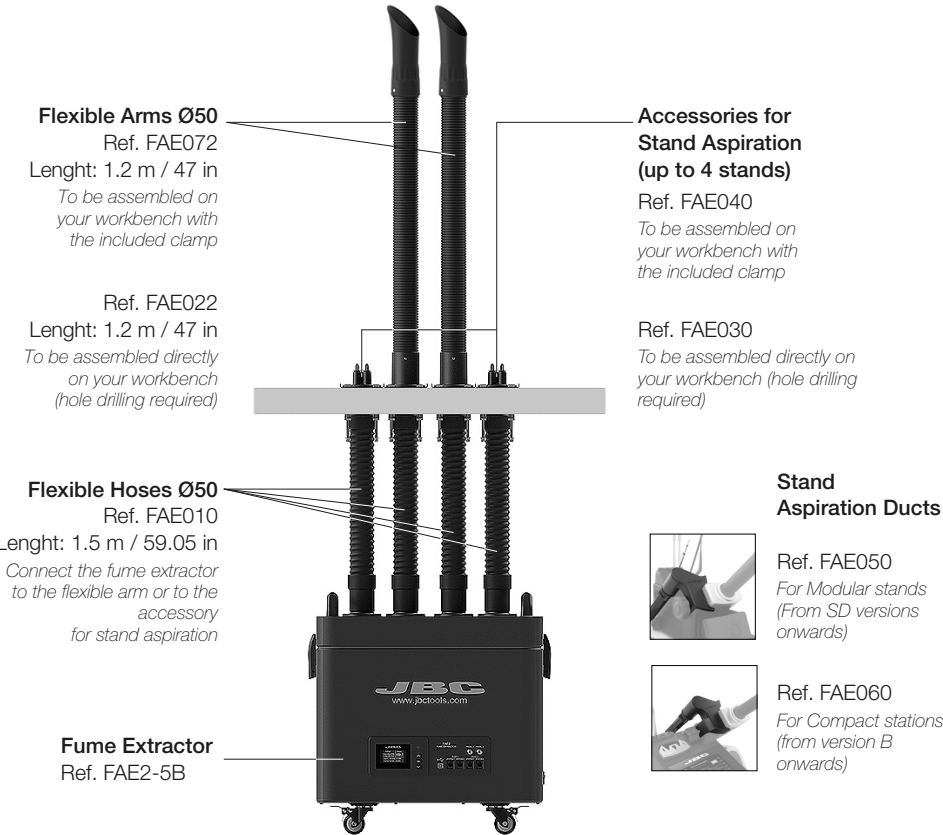
Manual 1 unit
Ref. 0028160

Features and Connections



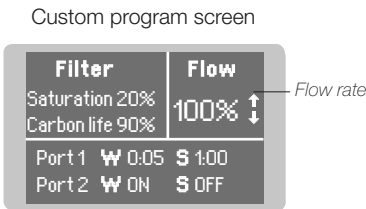
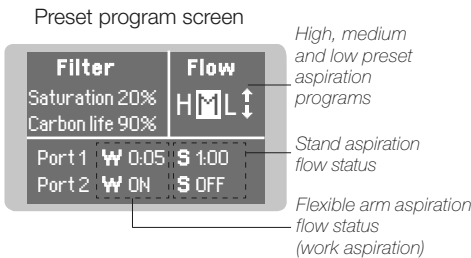
Assembly Options

2 Workbenches Configuration (default)

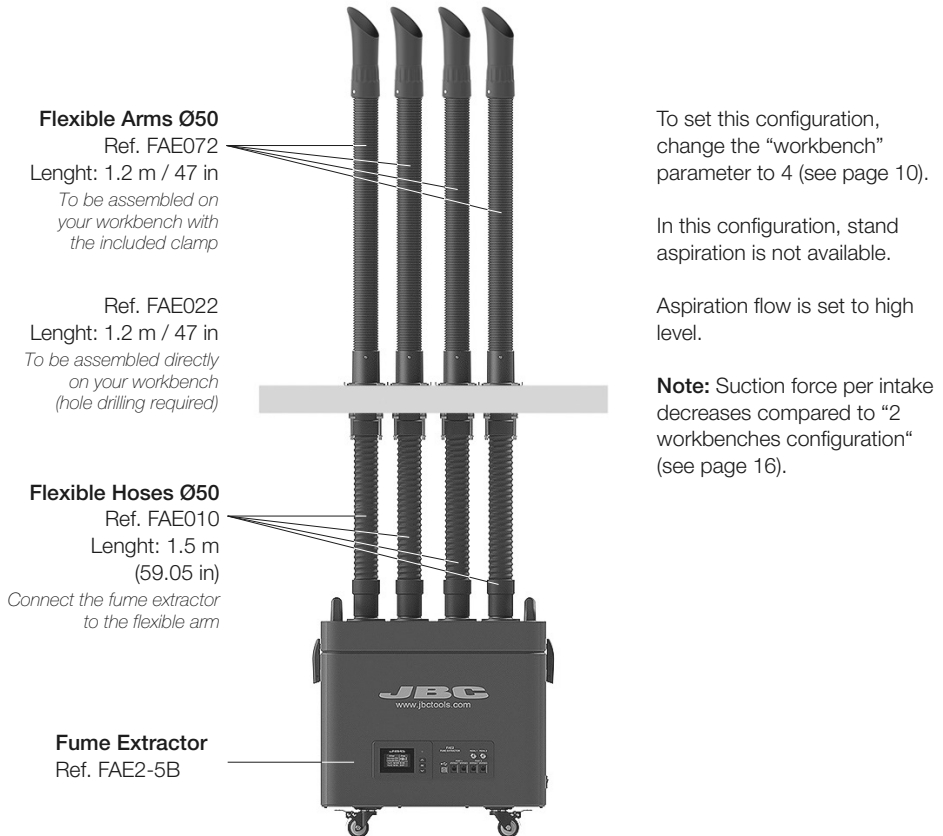


Main Screen

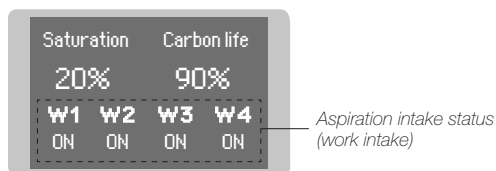
Access by and to change the aspiration program.



4 Workbenches Configuration *(optional)*



Main Screen



Compatibilities

This table shows the compatibility between the different ranges of nozzles and flexible arms for fume extraction that are available from JBC.

		FUME EXTRACTION ARMS			
		FAE020 <i>Compressed length: 0.9 m / 36.22 in</i>	FAE070 <i>Compressed length: 0.9 m / 36.22 in</i>	FAE022 <i>Compressed length: 1.2 m / 47 in</i>	FAE072 <i>Compressed length: 1.2 m / 47 in</i>
N O Z Z L E S	FAE080	OK	OK	X	X
	FAE081	OK	OK	X	X
	FAE082	OK	OK	X	X
	FAE083	OK	OK	X	X
	FAE090	X	X	OK	OK
	FAE091	X	X	OK	OK
	FAE092	X	X	OK	OK
	FAE093	X	X	OK	OK

All fume extraction arms are compatible with FAE1 and FAE2.

Connection: FAE with NAE, DI and Modular Control Units

JBC control units can be connected to the fume extractor using an RJ12 cable (exception: to connect DI control units use the adapter and the USB-A/USB-B connection cable). This way, the fume extractor automatically starts extraction when the soldering tool is in use.

Update the control units with the latest software version (download from www.jbctools.com/software.html).

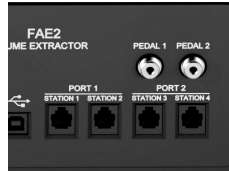
Minimum required software version to function with FAE:

Control units	Software version
DDE, HDE, NAE	8886160
DME	8886162
DI	8886602

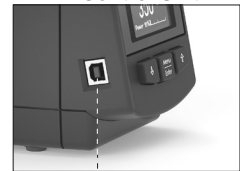
Modular Control Unit



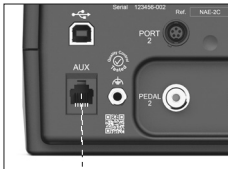
Fume Extractor



DI Control Unit



NAE Control Unit

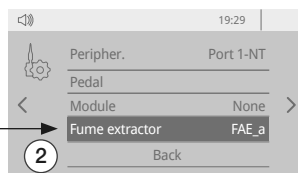
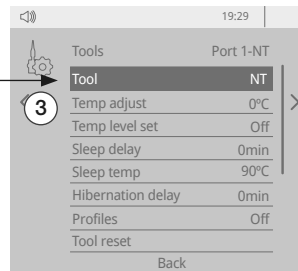
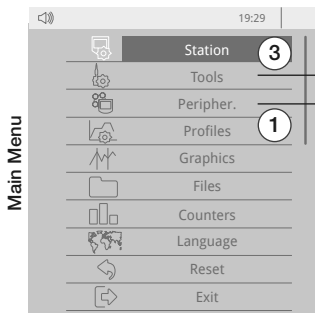


Station Adapter
(RJ12 to USB-B)



From software versions 8886887 (DDE,HDE) and 8886784 (NAE) on, the connected fume extractor can be configured and controlled through the Peripherals (1) menu of the control units. DI does not support this function.

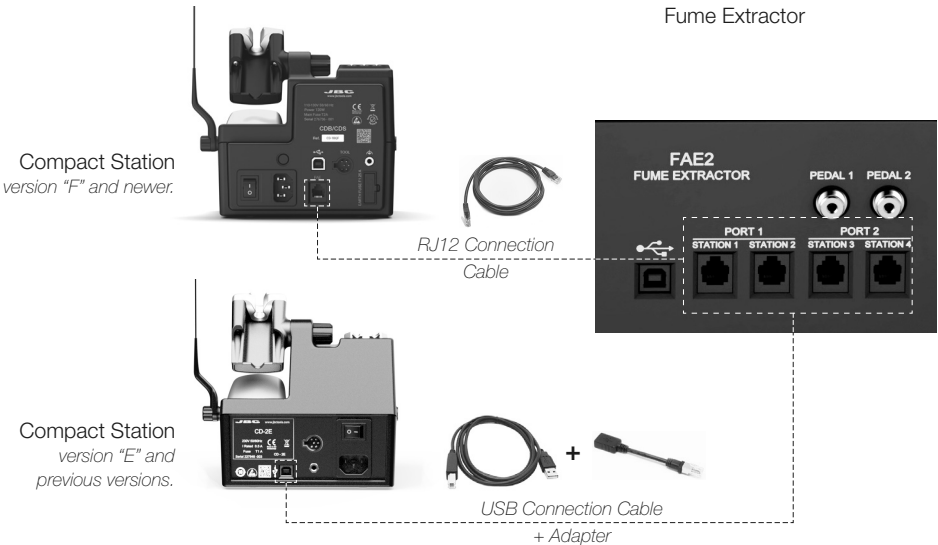
Each control unit detects the fume extractor as "FAE_a" (2). The tool that should activate the fume extraction needs to be configured on the control unit main menu through the tool menu option (3).



Connect up to 4 control units (connector FAE/ROBOT) to the fume extractor connectors (STATION 1, STATION 2, ...). Each tool connected to these control units can start and stop the fume extractor.

Connection with Compact Stations

Use the USB connection cable and the adapter or the RJ12 cable to connect JBC Soldering Stations. Both connections allow activating the extraction automatically when the tools are in use.



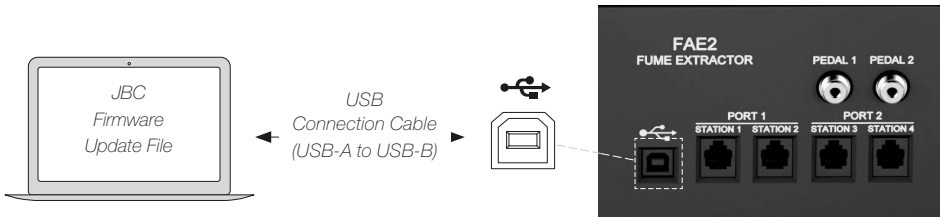
Important:

First connect the compact station to the fume extractor and then switch on the fume extractor. Otherwise the compact station will not be able to control the fume extractor.

Fume Extractor Firmware Update

FAE fume extractor can be updated via its USB-B connector by means of the USB connection cable. The firmware update file can be downloaded from www.jbctools.com/software.html.

Note: The RJ12 station connection cable must be disconnected for the update process. If a station is connected to the RJ12 connector, the update process will not start.



Workbench Configuration:

For 2 Workbenches:

Stations (Excellence or Advanced range) connected to RJ12 connectors station1 and station2 can control flexible arm1/stand1 aspiration intakes, whereas those which are connected to station3 and station4 can control flexible arm2/stand2 aspiration intakes.

For 4 Workbenches:

Each station connected to RJ12 connector stationX can control flexible armX aspiration intake (e.g. station2 controls aspiration arm2).

Continuous Mode

When continuous mode is enabled, the 4 aspiration intakes are open and fume extraction is activated. Aspiration remains active until continuous mode is disabled or the equipment is powered off (see details on page 9).

Equipment Software Update

JBC Updater

The fume extractor can be updated via the USB-B connection by means of JBC Updater software. Download software from: **www.jbctools.com/software.html**.

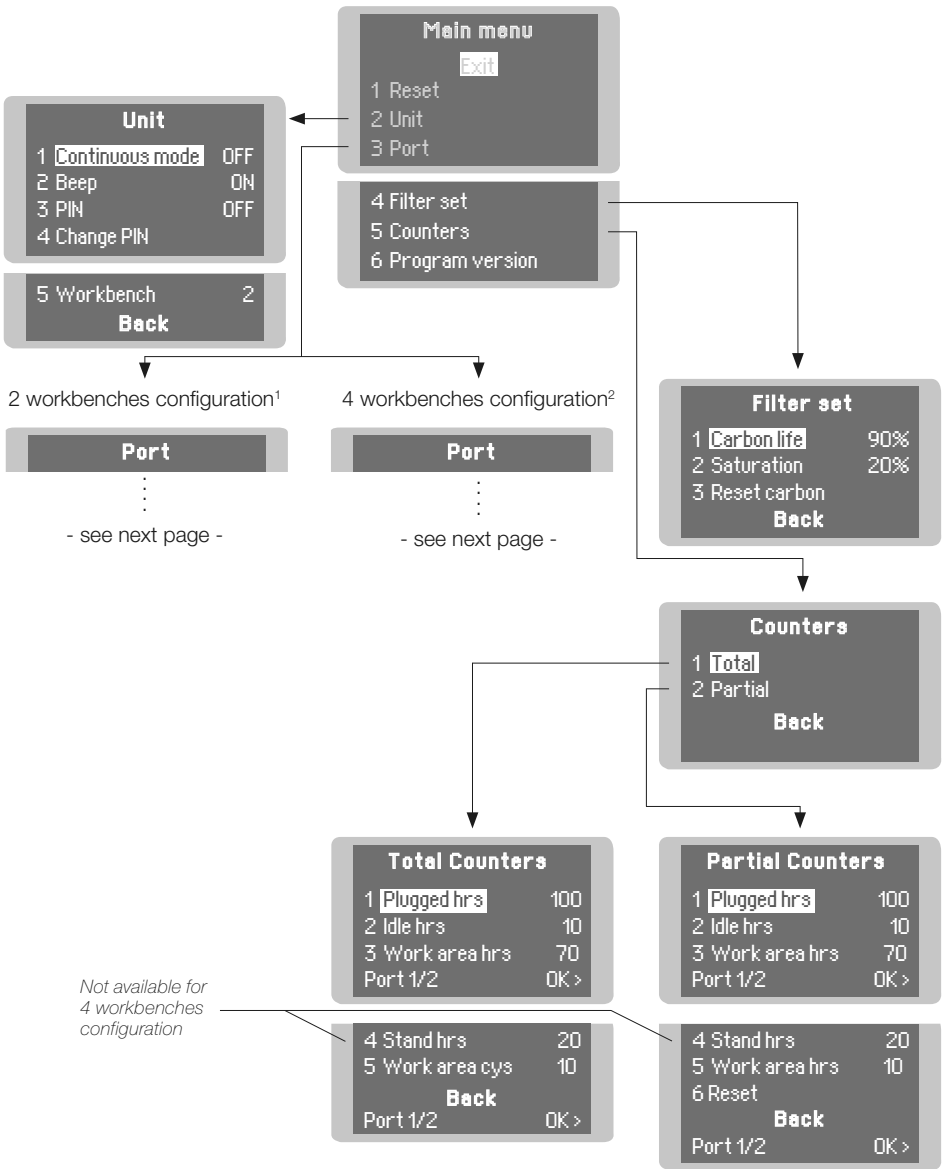
Note: For the updating process the Premium Station Cable (RJ12) has to be disconnected. If a station is connected to RJ12 connector the update process will not start.



Menu Interface

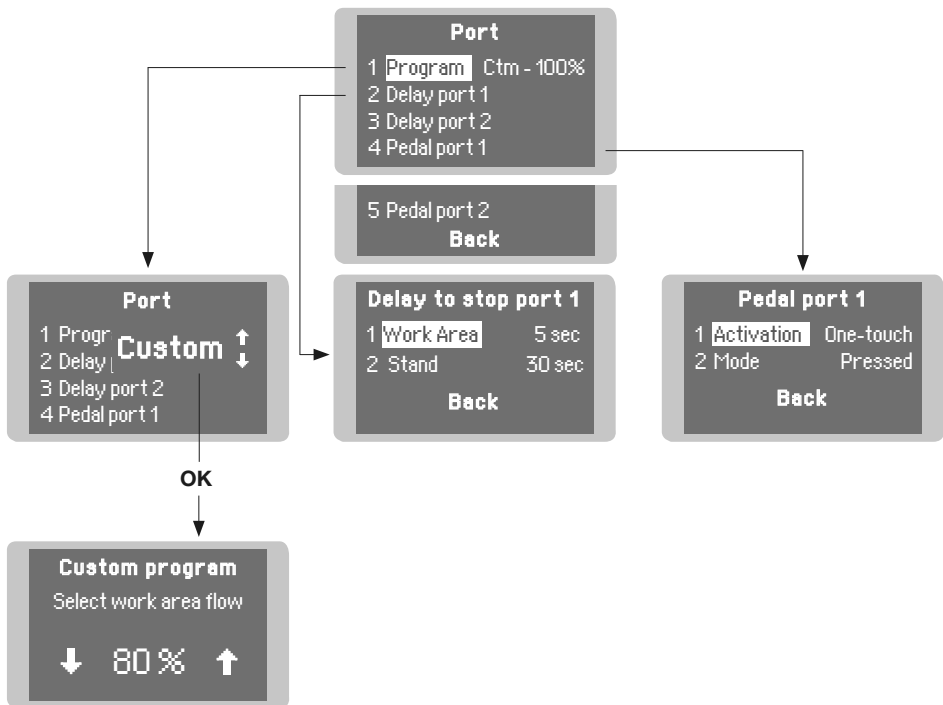
Main Menu Parameters

Original Pin: 0105

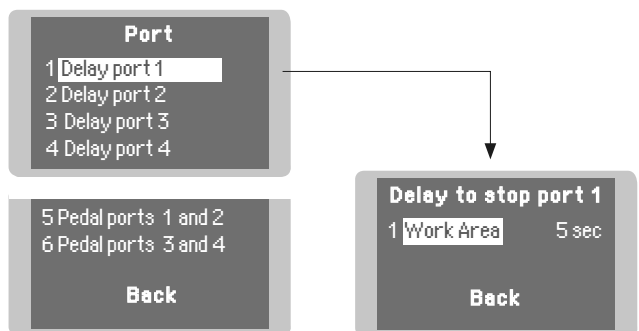


Menu Interface

¹ Port Menu for 2 Workbenches Configuration

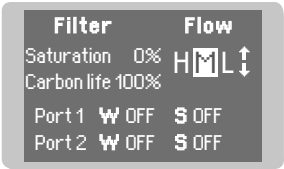


² Port Menu for 4 Workbenches Configuration



Fume Extractor Activation

Once the fume extractor is switched on, the display shows a similar screen as the following one and the filter saturation indicator is green if the carbon lifetime is higher than 20%.



- Green: Filter OK
- Yellow: ≤ 20% carbon lifetime or about to saturate
- Red: End of carbon lifetime or filter saturated

If the display shows STOP#4 or STOP#7, power off the fume extractor, remove the cover, place it back and secure it using the quick release levers.



If the STOP#7 remains, replace the valve (ref. 0018831).

Parameters



Important: Power off any station or device connected to the fume extractor before modifying any parameter.

Unit

Parameter	Description
Continuous mode	Enable/disable continuous aspiration. When enabled the 4 aspiration intakes are opened and fume extractor suction is activated. Aspiration remains active until continuous mode is disabled or the equipment is powered off. By default Continuous mode is OFF.
Beep	Enable/disable the sound of the keypad. By default Beep is ON.
PIN	Enable/disable PIN request when modifying parameters. By default PIN is ON.
Change PIN	Change the default security PIN code. By default the PIN is 0105.
Workbench	Select working mode for 2 or 4 workbenches. By default workbench is 2.

Port

Parameter	Description
Program	It sets the fume extractor aspiration flow. You can select between preset and custom aspiration programs. H (High), M (Medium) or L (Low) are the three preset options available. Use up and down keys to switch between them while being on the main screen. Up to ten aspiration levels between H (High) and L (Low) can be selected for custom program (range 10-100%). If a custom aspiration program is selected, the selected aspiration level can be changed on the main screen. By default M (Medium) aspiration program is selected.
Delay to stop / Stand	It sets the time that a fume extractor keeps aspirating fumes at the stand once the tool is returned to it (range 0-999 seconds). By default stand time is 60 seconds.
Delay to stop / Work area	It sets the time that a fume extractor keeps aspirating fumes at the work area once the tool is returned to the stand (range 0-300 seconds).
Pedal / Activation	It sets the pedal activation mode. One-touch: Press the pedal once to activate aspiration. Press again to stop aspiration. Pressed: (for activation mode must be selected "pressed") aspiration is active as long as the pedal is kept pressed. By default activation mode is "pressed".
Pedal / Mode	When the activation parameter is set to pressed, the mode parameter can be configured to released mode. In this mode aspiration is always active until the pedal is pressed. By default mode is pressed.

Filter Set

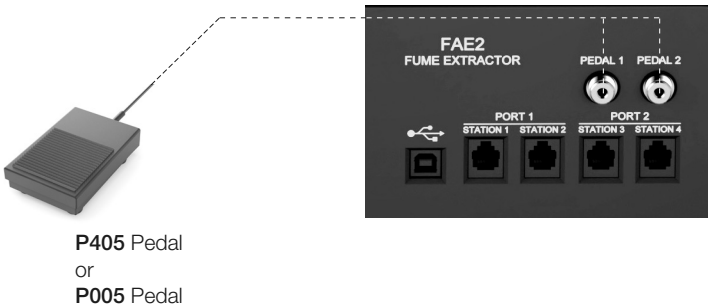
Parameter	Description
Carbon life	It shows remaining activated carbon lifetime expressed in %. It is also displayed on the main screen. When 0% is reached the system will show pop-up message STOP#1 to replace the filter.
Saturation	It shows saturation status of HEPA + carbon filter set, expressed in %. It is also displayed on the main screen. When 100% is reached the system will show pop-up message STOP#2 to replace the filter.
Reset carbon	Perform this action after replacing the HEPA + carbon filter set. The carbon lifetime counter will not start until the filter is detected for the first time. After executing that function Carbon life will be 100%.

Extraction Control

Fume extractor aspiration may be controlled by:

Pedal Connection

Connect the pedal to the pedal connector and read the description for “Pedal / Activation” and “Pedal / Mode” on the previous page.



Fume Extractor Configurations

Some parameters, features and the performance vary depending on fume extractor working mode, see the following table:

	Mode: 2 Workbenches	Mode: 4 Workbenches
Flexible Arm Aspiration Intakes	2	4
Stand Aspiration Intakes	2	Not available
Flow per Flexible Arm Intake	76 m3 / h (44.73 cfm)	52 m3 / h (30.6 cfm)
Flow per Stand Intake	4 m3 / h (2.35 cfm)	Not available
Preset Aspiration Programs	3	1
Custom Aspiration Programs	9	Not a available
Power Consumption	400 W	500 W

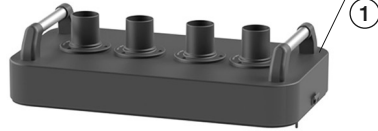
Maintenance - Filter Replacement

- The fume extractor unit indicates by means of the display and the LED indicator (3) that the filters need to be replaced.
- To replace the filters remove the cover (1) by opening the quick release levers (2), located on both sides of the casing.
- If the LED indicator (3) remains red after replacing the pre-filter (4), this means that the main filter (5) is saturated and must also be replaced.
- After replacing the main filter (5), the carbon filter counter must be reset (Main Menu: *Filter Set > Reset Carbon*).
- The service life of the main filter is a maximum of 1 year after opening its packaging.
- If the filter is changed while the fume extractor is switched on, the fume extractor unit automatically starts the filter detection process and activates the aspiration for a few seconds.
- If the display shows an error when the equipment is switched on, the cover and casing connectors are probably dirty (6) and making false contact. Remove the cover and clean both connectors carefully, using a soft plastic brush.



Important: Before using, unseal the new filter and remove the bottom protection of the compact filter.

Cover

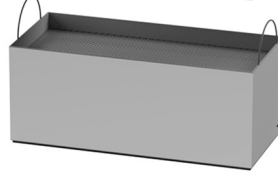


Pre-Filter



5

Main Filter
(includes carbon
+ HEPA filter)



2



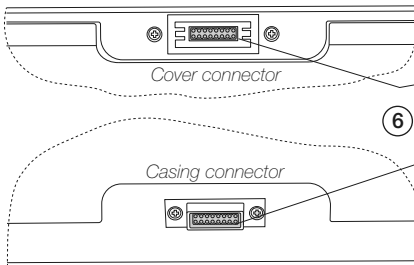
2

Quick Release
Lever

Display and filter saturation
LED indicator

3

Casing



Cover connector

6

Casing connector

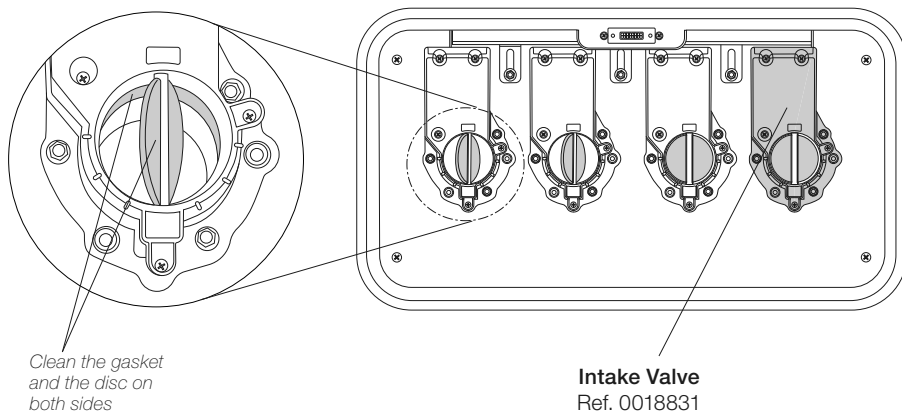


Note:

The cover has a given position. Make sure the cover connector is aligned with the casing connector.

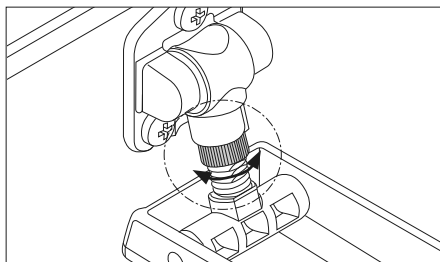
Maintenance - Valves

- Check the status of the valves when replacing the pre-filter or the compact filter.
- Use the cleaning stick if necessary and clean with alcohol to remove dirt residues.



Quick Release Lever Adjustment

- The locking force between casing and cover can be adjusted by turning the knurled nut of the locking mechanism.
- Turn clockwise to loosen and counterclockwise to tighten.



Read the safety guidelines thoroughly to perform the equipment maintenance safely.

Safety



Follow safety guidelines to prevent electric shock, injury, fire or explosion.

- The equipment is designed to filtrate only the fumes generated by soldering.
- Do not use the units for the filtration of combustible, explosive or corrosive gasses. Incorrect use may cause fire.
- The power cord must be plugged into approved bases. Be sure that it is properly grounded before use. When unplugging it, hold the plug, not the wire.
- Do not leave the appliance unattended when it is on.
- Do not cover the ventilation grills. Heat can cause inflammable products to ignite.
- This appliance can be used by children over the age of eight and persons with reduced capabilities or lack of experience provided that they have been given adequate supervision or instruction concerning use of the appliance and understand the hazards involved.
- Maintenance must not be carried out by children unless supervised.
- Keep your workplace clean and tidy. Wear appropriate protective mask, glasses and gloves when handling dirt filter or pre-filter.
- The quick release levers of the casing are only for handling the cover, not the complete equipment.
- Do not use the equipment without the filters.
- Saturated filters can not be cleaned and reused.
- Avoid blowing the filter or the dirty parts of the equipment, if necessary it is advisable to vacuum.
- Avoid losing particles in the filter during handling it.
- Treat the saturated filters as waste depending on the filtered contaminant and the applicable standards in each country. This is the European Waste Catalog classification:
 - 15 02: Absorbents, filter materials, wiping cloths and protective clothing.
 - 15 02 02: Absorbents, filter materials (including oil filters not otherwise specified, wiping cloths, protective clothing contaminated by dangerous substances.
 - 15 02 03: Absorbents, filter materials, wiping cloths and protective clothing.
- In case of not complying with the filter change recommendations, the maximum particle and gas concentrations established in each country could be exceeded.

Notes

[illegible]

Notes

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Notes

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Specifications

FAE2

Fume Extractor for 2 Workbenches

Ref.: **FAE2-5B** 120 V 50/60 Hz. Input power: 500 W

Ref.: **FAE2-5B** 230 V 50/60 Hz. Input power: 500 W

Ref.: **FAE2-5B** 100 V 50/60 Hz. Input power: 320 W

- Working Areas (Workbenches): 2 or 4
- Fuse: 8 AT
- Blower Type: Brushless
- Noise: 54 dB
- Max. Flow Rate: 290 m³/h / 10241.25 f³/h
- Max. Vacuum: 6.1 KPa / 0.88 psi
- Connections: USB-B (to PC)
RJ12 (to stations)
- Filters:

	Class	Standard	Efficiency
Pre-Filter	M5	EN 779	40-60 % @ 0.4 µm
	ePB10	ISO 16890	60% ≤ 10 µm
Particle Filter <i>(Compact Filter)</i>	HEPA H13	EN 1822	99.95% @ MPPS*
Gas Filter <i>(Compact Filter)</i>	Activated carbon		

*MPPS (Most Penetrating Particle Size) usually between 0.1-0.3 µm

- Fume Extractor Dimensions / Weight: 560 x 320 x 590 mm / 33,6 kg
(L x W x H) 22.05 x 12.59 x 23.23 in / 74.08 lb
- Total Package Dimensions / Weight: 725 x 485 x 760 mm / 36 kg
(L x W x H) 28.54 x 19.09 x 29.92 in / 79.37 lb

Complies with CE standards.
ESD safe.



Warranty

JBC's 2 year warranty covers this equipment against all manufacturing defects, including the replacement of defective parts and labor.

Warranty does not cover product wear or misuse.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased.

Get 1 extra year JBC warranty by registering here:

<https://www.jbctools.com/productregistration/>

within 30 days of purchase.

If you register, you will receive e-mail notifications about new software updates for your registered product.



This product should not be thrown in the garbage.

In accordance with the European directive 2012/19/EU, electronic equipment at the end of its life must be collected and returned to an authorized recycling facility.



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