



FUME EXTRACTOR

User Manual



Applicable product models:
FC2002/FC-2002A/FC2003/FC2004

◆ Thank you for purchasing this fume purification system. Please read this manual carefully before use and store it in a safe place for future reference.

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1. Product Overview

This product features a comprehensive purification system specifically designed by our company for work environments including laser cutting, mechanical processing, SMT reflow soldering, wave soldering, manual soldering lines, mechanical polishing, and manual polishing. The filtration system effectively purifies dust, smoke, and exhaust gas generated in these workplaces. It adopts a multi-layer filtration device and allows airflow adjustment based on exhaust gas volume. With a purification rate of up to 99.97%, the cleaned air can be directly discharged indoors.

2. Product Features

1. Equipped with a brushless motor, offering low noise, high speed, stable operation, long service life, low power consumption, and high efficiency. No motor wear and no additional maintenance required.
2. Vortex fan design ensures fatigue resistance, smooth operation, strong suction, and high efficiency.
3. Digital models come with a stepless speed adjuster and remote control functionality, enabling customizable airflow adjustment.
4. Multi-layer filtration design thoroughly removes toxic and harmful substances from smoke, effectively protecting the environment and human health.
5. All filter cartridges are individually replaceable, extending service life and reducing filter replacement costs.
6. Simple and convenient installation – ready for use with basic assembly, contributing to a clean and tidy workspace.
7. All-metal frame construction provides impact and vibration resistance.

3. Unboxing Inspection

Please carefully check for missing or damaged accessories. If any items are missing or damaged, contact the factory or dealer immediately.

Part Name	Quantity	Size	Model	Notes
Mainframe	1 Unit	285*285*450mm	FC-2002	
		285*285*450mm	FC-2002A	
		315*315*510mm	FC-2003	
		350*350*575mm	FC-2004	
Power cord	1 PCS	1.5M/10A		
pipe	1 PCS			FC2003 FC2002A is 2pcs
Warranty Card	1 PCS			
Instruction manual	1 PCS			
Filter cartridge	1 Set			Installed in the machine
Remote Control	1 PCS			Only for digital models
External Vent			FC-2002A	

4. Pre-Use Inspection

◆ Before using the product for the first time, verify the following items to ensure safe and reliable operation:

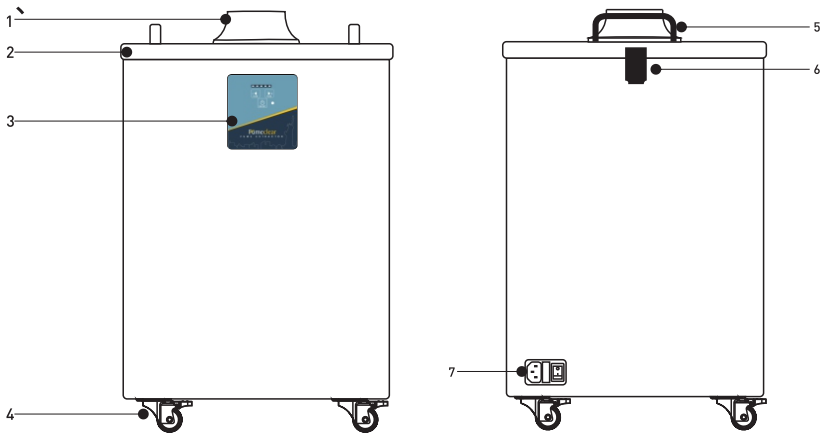
1. Check for any external damage to the unit.
2. Confirm the power switch is in the "OFF" position.
3. Ensure the internal filter cartridges are properly seated.
4. Verify the unit is securely assembled.

5. Safety Summary

◆ Before use, familiarize yourself with the following safety precautions to avoid fire hazards and personal injury:

1. Do not use this product in high-temperature environments (ambient temperature exceeding 60°C), or in flammable, explosive, wet, or oil-contaminated areas.
2. The power cord must be grounded during operation.
3. The internal voltage of the product can reach up to 310V. Non-professionals are prohibited from opening the back panel for inspection.
4. Do not remove or install filter cartridges while the unit is in operation.

6. Product Structure and Dimensions



Part Name
1 - Air intake
2 - Top cover
3 - Control panel
4 - Moving casters

Part Name
5 - Metallic Hand
6 - Hinge metal buckle
7 - Power master switch

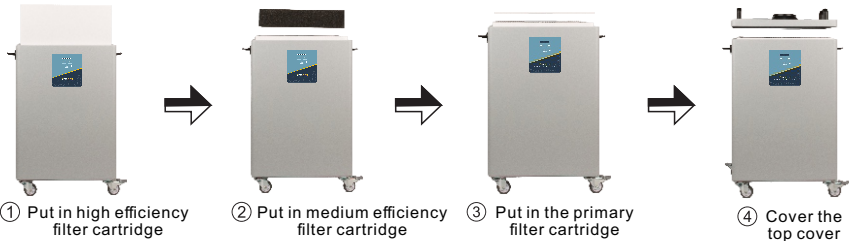
7. Performance Indicators

Model Parameters	FC-2002	FC-2002A	FC-2003	FC-2004
Into the socket	Φ55	Φ55	Φ55*2	Φ75*1.4
Input Voltage	AC 220V/AC110V			
Power	160W	160W	200W	360W
System traffic	260M3/h	260M3/h	2*165M ³ /h	420M ³ /h
Speed	16M/S	16M/S	2*12M/S	30M/S
Filtration effect	0.3μm/99.97%			
Number of filter layers	3 levels	3 levels	3 levels	3 levels
Noise	<55dB	<55dB	<56dB	<58dB
Tobacco pipe length	Φ50*1.2M	Φ50*1.2M	Φ50*1.2M	Φ75*1.4M
Livesize	285*285*450MM	285*285*450MM	315*315*500MM	350*350*575MM
Weight	10.7KG	10.7KG	14.5KG	18.5KG

8. Usage Instructions

8.1 Filter Cartridge Installation Instructions

Open the top cover of the main unit. Install the high-efficiency filter, medium-efficiency filter, and primary filter into the chassis in the correct order. Close the top cover and secure the buckles on both sides.



8.2 Air Intake Housing Cleaning, Maintenance, and Replacement

1. Unfasten the buckles on both sides and open the top cover.
2. Pull the pull tab starting from the top to remove the filter cartridges.
3. After replacing the filter cartridges, reinstall them in the specified order from bottom to top.

Attention

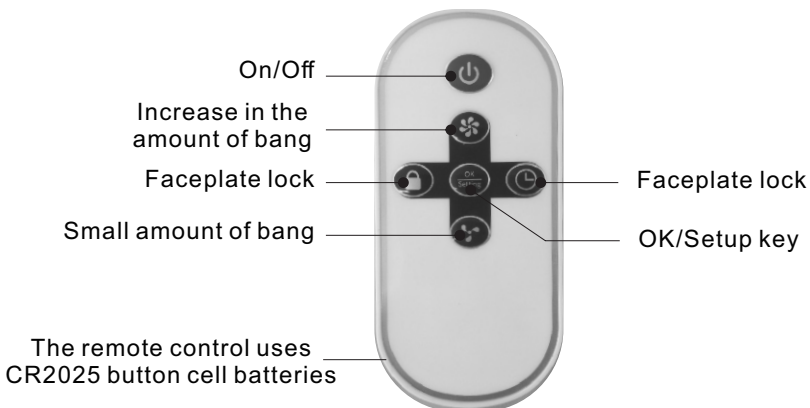
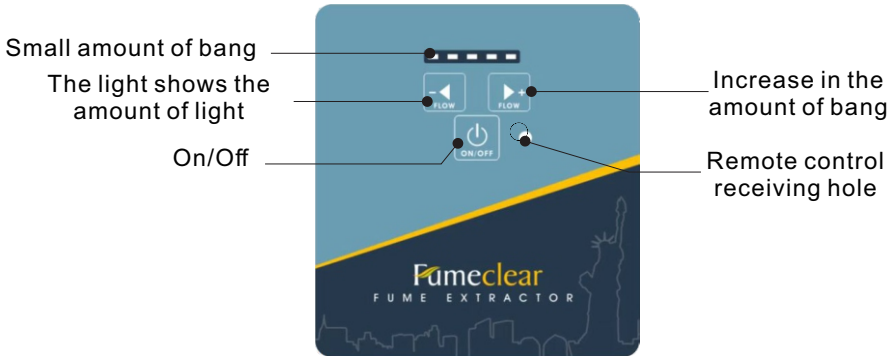
Clean the air intake housing regularly (recommended at least once per week) to prevent premature clogging of the filtration system and extend the service life of the main filter cartridges.

8.3 Smoke Pipe Installation Instructions

1. Remove the smoke pipe from the packaging and attach it to the flange at the top rear of the unit.
2. Rotate the pipe to align the fume hood with the smoke-generating area, and adjust the distance of the smoke outlet based on the application scenario.

Attention
<ul style="list-style-type: none">· When adjusting the pipe orientation, keep the pipe gently curved; sharp bends will reduce suction power. The smoke outlet should be directly facing the work area, with the distance kept within 150mm whenever possible.· Do not use in areas with strong air currents, as this may reduce or eliminate suction power.

8.4 Control Panel Description



8.5 Button Function Descriptions

Power Button:

Serves as the unit's standby switch. Press the red power button to start the unit; press it again to stop operation.

(Note: For long-term shutdown, turn off the main power switch and unplug the power cord.)

Increase Airflow Button:

When pressed during operation, the digital display increases by 10 increments, up to a maximum of 10 (full speed).

Decrease Airflow Button:

When pressed during operation, the digital display decreases by 10 increments, with a minimum of 1.

Panel Lock Button:

When pressed during operation, all functions on the control panel will be locked and unavailable. Press this button again, or disconnect and reconnect the power supply, to unlock the panel.

9. Troubleshooting

Critical Safety Reminder: Always disconnect the power supply before inspecting or servicing the unit!

Phenomenon 1: The unit is running, but suction power is weak and significantly reduced.

Possible Causes: Clogged air inlet, foreign objects in the pipe, or saturated filter cartridges (no clogging alarm triggered).

Troubleshooting Steps:

1. Turn off the power, open the front panel, and check for foreign objects blocking the air inlet and outlet.
2. If the suction power of the empty unit (without filters) is normal, replace the filter cartridges.

Phenomenon 2: The unit starts but shuts down automatically, and the issue repeats after restarting.

Possible Cause: Insufficient internal airflow due to excessive filter cartridge resistance, leading to oversized startup current and automatic protective shutdown.

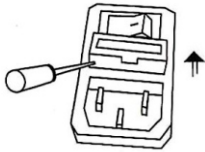
Troubleshooting Steps:

1. Turn off the power, open the top cover, and check for foreign objects blocking the air inlet.
2. If no issues are found, set the airflow to the minimum level, restart the unit, and then adjust to the appropriate airflow.

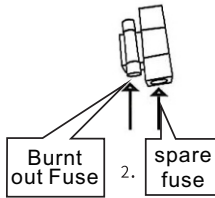
Phenomenon 3: The power switch is turned on, but the indicator light does not illuminate.

Possible Cause: The fuse near the power supply may be faulty and requires replacement.

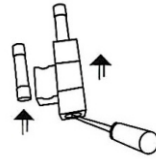
Fuse Replacement Procedure:



1. Turn off the power and pry open the fuse holder with a screwdriver.



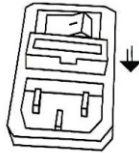
2.



3. Remove the damaged fuse with a screwdriver.



4. Install a new (spare) fuse.



5. Reinstall the fuse holder.



6. Confirm the fuse replacement is complete.

Note: If the issue persists after the above checks and maintenance, contact the factory or dealer for assistance.

10. Filtration System Usage and Maintenance

1. Pre-filter

Usage: Open the top cover and insert the filter into the fixed frame.

Replacement: Replace the filter wool when it has accumulated more than 70% dust and is no longer cleanable.

2. Medium-Efficiency Filter

Clean the filter element immediately when it becomes dusty; replace it if it cannot be cleaned.

3. High-Efficiency Filter

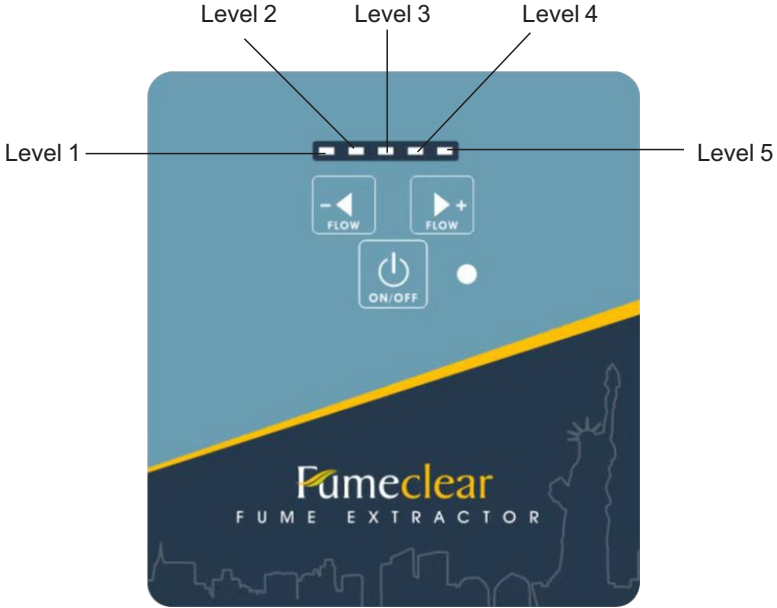
The filter is located at the bottom of the unit. Replace it when the unit clearly fails to effectively remove odors from smoke during use.

10. Filtration System Usage and Maintenance

1. Operate the unit within the specified rated voltage range (refer to the power label on the unit). Do not operate it if the voltage is too high or too low. If the ambient voltage is unstable, turn off and unplug the unit, and resume use only when the voltage stabilizes.
2. The ambient temperature range for gas and dust inhaled by the air inlet is 0°C to 50°C. Do not operate the unit outside this temperature range.
3. The humidity range for gas and dust inhaled by the air inlet is 40% to 80%. Excessively high humidity will quickly damage the filter cartridges and the unit's internal circuitry; do not use the unit in environments with humidity exceeding 80%.
4. If the unit is equipped with primary filter cotton, ensure it is properly installed before use. The primary filter cotton is a single-use consumable and must not be washed or reused. Regularly replace it with the original factory-supplied version. Do not operate the unit without primary filter cotton or with low-quality aftermarket filter cotton. (Low-quality or washed primary filter cotton has poor filtration performance, which will quickly clog and damage the subsequent medium and high-efficiency filter cartridges, resulting in greater losses.)
5. Never operate the unit without installing the filter cartridges. Directly sucking oil fumes or dust particles into the unit will damage the fan and control system. Any damage caused by operating the unit in this manner will not be covered under warranty, and repairs will be at the user's expense.
6. Do not continue operating the unit if the filter cartridges and filter cotton are severely clogged. This will greatly shorten the unit's service life and may cause damage. Perform regular cleaning and maintenance, and replace the filter cartridges periodically to ensure optimal performance.
7. If the unit's suction power decreases due to clogged filter cartridges or if odor filtration fails, do not reduce the number of filter layers or omit the primary filter cotton. Always replace filter cartridges and primary filter cotton with the original factory-supplied versions.
8. Never open the unit for internal maintenance. The warranty sticker on the unit is the sole proof for receiving after-sales service; do not tear or damage it.

The company shall not be liable for any losses caused by non-compliance with the above precautions, and such losses will not be covered under warranty.

12. Airflow Levels



The fume extractor features 5 airflow levels, categorized into 3 types based on application scenarios:

Low Airflow Levels (Levels 1 and 2): Suitable for light to moderate smoke pollution. Saves energy, reduces noise, and effectively purifies air during light welding, soldering, or laser engraving tasks.

Medium Airflow Levels (Levels 3 and 4): Suitable for moderate to heavy smoke pollution. Effectively removes odors and smoke, filters tiny air particles, and improves indoor air quality during extended welding, soldering, or laser engraving tasks.

High Airflow Level (Level 5): Suitable for severe air pollution. Removes smoke, odors, and harmful substances such as particles and bacteria, significantly improving indoor air quality during high-intensity welding, soldering, or laser engraving tasks.

Note: The above suggestions are for reference only. Select the appropriate level based on actual usage. To save energy, turn off the purifier when not in use.

Product Warranty Card

Product Information	Product Name			Product Name		
	Product Name			Date of manufacture		
Customer Information	Unit Name				Contact Us	
	Address				Contact Number	
Sales Information	Sellers				Contact Us	
	Address				Contact Number	
	Sales Date				Invoice number	
	Warranty Period					
Maintenance records	Fault condition	Repair results	Guest Signature	Repairer's signature	Date	

Frequently Asked Questions (FAQs)

Q: Is the Fumeclear fume extractor suitable for cosmetic nail services?

A: Yes! All our fume extractor models are suitable for laser engraving machines, desktop soldering, and nail services. Select the appropriate model based on your specific needs.

Q: Can Fumeclear fume extractors effectively remove acrylic odors?

A: Yes! All Fumeclear fume extractors can effectively remove odors from various materials, including iron filings, wood, acrylic, and plastic.

Q: Where can I purchase replacement filters for these fume extractors?

A: Replacement filters for all our models are available on Amazon and our official website. You don't have to worry about after-sales support, as they are delivered directly to your doorstep.

Q: How often should I replace the filters?

A: Under normal usage conditions, the pre-filter lasts approximately 2-4 weeks, the medium-efficiency filter lasts 3-6 months, and the final activated carbon filter lasts over 6 months.

After-Sales Support

FUMECLEAR is dedicated to providing our customers with outstanding after-sales support. Our customer service team is available 24/7 to assist you with any questions or issues regarding our products.

If you experience any problems with your fume extractor, please feel free to contact us at

support@fumeclear.com

Our team of experts will work with you to resolve any problems and ensure your product operates optimally.

In addition to email and our official website, you can also contact our customer service through the Amazon platform, which also provides 24/7 support.

Thank you for choosing Fumeclear. We look forward to serving you!

Best regards,

The Fumeclear Team



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