MFX-2200
Fume Extraction System

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OK INTERNATIONAL
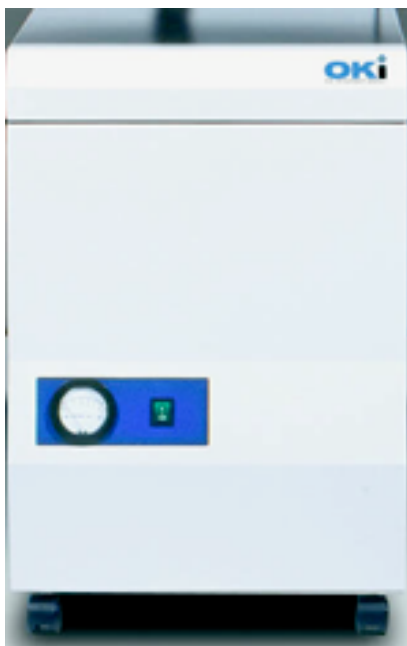
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System User Guide

Safety Warnings

For safe and successful operation of this equipment, please read this user guide completely. If the instructions stated herein are not observed or followed, the manufacturer cannot assume responsibility for any harm or damage to the operator or equipment. Please retain this manual for future reference.

Always disconnect the power supply before servicing the equipment.

Do not operate this equipment without filter inserts as contaminants in the extracted air will damage the blower. Use only filters recommended or supplied by OK International.

The MFX-2200 is designed for the removal of fumes and gases only. Consult your company's Safety Department when using this equipment for filtering of flammable gases to ensure that the equipment is adequate for your application. This equipment is not explosion safe and can **only** be used for the extraction of vapors that have a concentration level well below the lower explosive limit.

This equipment is equipped with "automatic reset overload protection" that may restart the equipment automatically after an overload shutdown.

This equipment is to be repaired only by an authorized OK International Service Representative while it is under warranty.
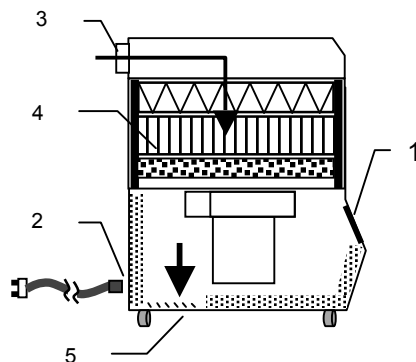
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Items supplied

    1 - Filter unit with filters installed
    1 - Power cord (110VAC or 230VAC)
    1 - User Guide

Description

Parts and Functions

(1) Control panel (with On / Off switch)

(2) Power inlet and circuit breaker

(3) Air inlet - port sizes vary by model number.

(4) Filters

(5) Air outlet

Model Variations

Model Number	Power Supply	Filtration	Control Panel
MFX-2200C-A	110 V, 50/60 Hz	Pre – HEPA - Gas	Analog
MFX-2200C-D	110 V, 50/60 Hz	Pre – HEPA - Gas	Digital
MFX-2200G-A	110 V, 50/60 Hz	Pre – Gas	Analog
MFX-2200G-D	110 V, 50/60 Hz	Pre – Gas	Digital
MFX-2206C-A	230 V, 50 Hz	Pre – HEPA - Gas	Analog
MFX-2206C-D	230 V, 50 Hz	Pre – HEPA - Gas	Digital
MFX-2206G-A	230 V, 50 Hz	Pre – Gas	Analog
MFX-2206G-D	230 V, 50 Hz	Pre – Gas	Digital

Models with Pre / HEPA / Gas filtration:
Supplied with a Pre-filter (1) and a Combination-filter (HEPA / Gas) (2) - these models are designed for the removal of solder, laser-, and other fumes which have a high particulate content.

Models with Pre / Gas filtration:
Supplied with a Pre-filter (1), a high capacity Gas-filter (2) and an After-filter (3) - these models are designed for the absorption of gases and the removal of odors.
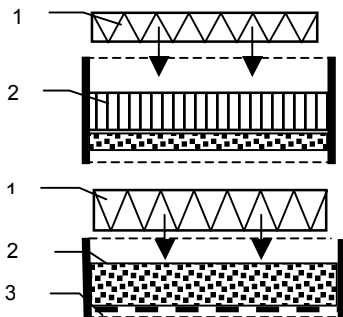
⚠ For use on "flammable" gases refer to "Safety Warnings" above.

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Installation

<u>Set-Up</u>

> Position equipment in the work area and make sure there is ample access to the unit for filter maintenance.
>
> Connect extraction hoses to the air inlets.
>
> Connect the power cord to the equipment and to a grounded wall socket.
>
> Follow operating and maintenance procedures stated in this user guide.

Operation

⚠ Do not operate the equipment without installing filters. Unfiltered air contaminants may damage motor bearings and other components. Use only factory recommended filters.

<u>Models with Analog Control</u>
> Toggle switch (1) to turn the unit ON / OFF
> Monitor the gauge (2) for filter condition
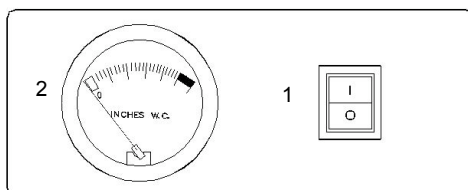
<u>Models with Digital Control</u>

Display Functions:
(1) Start / Stop
(2) Operation Indicator Light
   o Green: Unit is on. No alert.
   o Blinking Green – Orange: Pre-Alarm is On
   o Blinking Green – Red: Alarm is On
   o Blinking Red: Pump is OFF / Alarm is On / Auto-shut-down is ON.

(3) Particulate Filter Condition – blockage in %
(4) Exhaust Air Temperature
(5) Setup Button
(6) Time to Service
(7) Actual Run Time
(8) Particulate Filter Condition – Bar Graph
(9) Quick View Button of Set Parameters
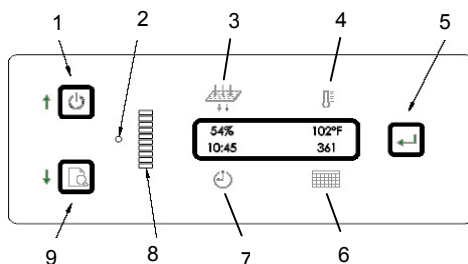
> All alarms are "visual". No acoustical alarms. In an alarm condition one or several LCDs (3) (4) (6) or (7) will be blinking to indicate which alarm flag is ON.

> Press (1) to turn the equipment ON / OFF
> Monitor the following parameters
>   o LED (2) for any ALERT conditions.
>   o Particulate filter condition (3) and (8) for any alarm condition

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- o Temperature (4). Unit will turn off when exceeding 80C or 175F.
- o Time to Service. The alarm setting may have been turned ON.
- o Actual run time. A specific run time may have been set and the alarm turned ON.

Press (9) to view programmed settings for (4)Temperature, (6)Time-to-Service and (7) Run Time.

For additional information and programming steps please refer to Section "Digital Control" in this manual.

⚠ This equipment is equipped with "automatic reset overload protection" that may restart the equipment automatically after an overload shutdown.

Maintenance

Filter Replacement Timing

Models with Pre / HEPA / Carbon filters
When (a) the gauge needle falls into the red marked field (analog units), or (b) when the LED of the Bar Graph turns red (digital units), it is time to change filters. Change pre-filter first. If the needle of the analog gauge remains near to the "red" mark (analog units), or the LED of the particulate-filter monitor remains orange or red (digital units), also replace the HEPA filter.

Models with Pre / Gas filters
When odor is noticeable in the exhaust air, change the pre-filter and gas-filter simultaneously.

Filter Replacement Procedure

Turn equipment off and disconnect the power cord from the wall socket

Unlatch the filter unit lid

Remove the lid

Replace filters

Place lid back on and close the latches

Turn equipment on

Always use new replacement filters from the original manufacturer!

Filter Disposal

Keep "used" filters in disposable bags or closed containers to avoid contamination of other areas. While the filter material is none-hazardous, the contaminants captured inside the filter may be hazardous. Please consult the MSDS Sheets for the material used at your facility and follow the prescribed handling instructions. Follow your local regulations for disposal of used filters.

Features:

- Displays all critical system parameters
- Alerts when critical conditions exist
- Allows quick-view of programmed settings
- Reset of factory default settings possible
- Programmable auto-shut-down (ASD) except for temperature

	Display Functions	**Description**	**Factory Default**
(1)	Start / Stop	Turns unit On and Off	N/A
(2)	Operation Indicator Light o Green: Unit is on. No alert. o Blinking "Green – Orange": Pre-Alarm is ON o Blinking "Green – Red": Alarm is On o Blinking "Red": Pump is OFF / Alarm is ON / Auto-shut-down is ON.	Color of indicator light displays operating condition of unit. If an alarm has been triggered, the critical system parameter will blink on the display.	N/A
(3)	Particulate Filter Condition – blockage in %	Measures the differential pressure across the filters and compares the value against a factory-set value. Change filters if factory-set value is reached	ASD = OFF
(4)	Exhaust Air Temperature	Protects the equipment against over-heating due to very hot incoming air. The operation indicator light (2) will display an ALERT at 70C (158F) and turns unit off, if temperature exceeds 80C (175F).	ASD = ON
(5)	Setup Button – Used to program alarm conditions and values.	Used for programming of Set-Values and turning Alarm feature ON/OFF in programming mode.	N/A
(6)	Time to Service	This feature allows scheduling of mandatory service if required. When unit is commissioned, the Time-to-Service is reset to 365 days. Every calendar day (not 24 hrs operating time), the Time-to-Service is reduced by 1 day.	ASD = OFF

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	Display Functions	Description	Factory Default
(7)	Actual Run Time	Displays the accumulated operating time. Can also be used as an alarm when setting a specific run time in Set-Up mode and turning the alarm feature to ON.	ASD = OFF Run time = 99999
(8)	Particulate Filter Condition – Bar Graph	Displays graphically the particulate filter condition. If filter is in good condition, the bar graph color is green. The color changes with increasing saturation to yellow and then red. Change filters when graph turns red.	N/A
(9)	Quick View Button	Displays Settings for o Particulate filter condition Auto Shut-Down o Temperature readings in C or F and Auto Shut-Down o Time-to-Service Auto Shut-Down o Run Time max. value and Auto Shut-Down	N/A

ASD = Auto Shut-Down
All alarms are "visual". No acoustical alarms.

<u>Setup of Parameters</u>

Program Buttons:
- (5) Setup
- (1) Up
- (9) Down
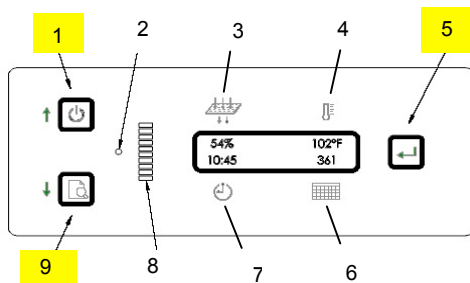
Steps	Description	Action
Enter Setup mode		Press and hold down <Setup> for 2 seconds.
Select parameter you wish to change:	Parameters which can be changed: (3) % particulate filter condition (4) temperature (6) time-to-service (7) run time	Press <Setup> repeatedly until desired parameter display **blinks.**

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Steps	Description	Action
In blinking mode of: (3) % Particulate Filter Condition	Change Auto Shut-Down to ON or OFF	Press <Up> to toggle between ON and OFF.
	No other functions possible.	
In blinking mode of: (4) Temperature	Auto Shut-Down	Factory set to ON. Not programmable
	To switch between Celsius or Fahrenheit	Press <Down> to toggle between C and F
In blinking mode of: (6) Time-to-Service	Reset to 365 days. (The value cannot be changed.)	Press and hold down <Down> for 2 seconds.
	Change Auto Shut-Down to ON or OFF	Press <Up> to toggle between 1 and 0.
In blinking mode of: (7) Run Time	Set value for Run Time	Press <Up> or <Down> to change the value.
	Reset Run Time	Press and hold down <Down> for 2 seconds.
	Change Auto Shut-Down to ON or OFF	Press <Up> to toggle between 1 and O.
To exit Setup mode		Press and hold down <Setup> for 2 seconds.

Troubleshooting

Problem	Possible Cause	Check and Correction
Equipment does not turn on	No power	Check ON / OFF switch Check power cord connections and integrity Check circuit breaker (at rear of unit) Check "Automatic Shut-Down" functions on units with digital control
Minimum air flow	Air leak	Check lid for properly closure and latching
	Air blockage	Check extraction hose for any blockage Check filter monitor for filter saturation

Models	**MFX-2200C-A (analog)** **MFX-2200C-D (digital)** **110V**	**MFX-2206C-A (analog)** **MFX-2206C-D (digital)** **230V**
Air inlet openings	4 x Ø2.5"	4 x Ø63mm
Fan capacity	600 cfm	900 m^3/h
Flow Rate	400 cfm	600 m^3/h
Max. Static Pressure	4.5" WC	1075 Pa
HEPA efficiency	99.97% at 0.3mic	99.97% at 0.3mic
Power supply	100-120VAC, 60 Hz	220 – 240VAC, 50Hz
Power	400 Watt	400 Watt
Noise level, approx.*	58 dBA	58 dBA
Dimensions (W/D/H mm)	17.7"x20.75"x26.4"	450x525x670mm
Weight, approx.	93 lbs	43 kg
Certification	UL, CSA	CE

Models	**MFX-2200G-A (analog)** **MFX-2200G-D (digital)** **110V**	**MFX-2206G-A (analog)** **MFX-2206G-D (digital)** **230V**
Air inlet openings	2 x Ø4" and 2 x Ø2.5"	2xØ100mm and 2xØ63mm
Fan capacity	600 cfm	900 m^3/h
Flow Rate	350 cfm	550 m^3/h
Max. Static Pressure	4.5" WC	1075 Pa
Power supply	100-120VAC, 60 Hz	220 – 240VAC, 50Hz
Power	400 Watt	400 Watt
Noise level, approx.*	58 dBA	58 dBA
Dimensions (W/D/Hmm)	17.7"x20.75"x28"	450x525x710mm
Weight, approx.	115 lbs	52 kg
Certification	UL, CSA	CE

* Notice: The noise level is approximately only and varies with number of exhaust arms connected or amount of airflow.

Part Numbers

Filter Units

MFX-2200C-A	Filter Unit Analog P/H/G 400 cfm 110VAC/ 60Hz
MFX-2200G-A	Filter Unit Analog P/G 350 cfm 110VAC/ 60Hz
MFX-2200C-D	Filter Unit Digital P/H/G 400 cfm 110VAC/ 60Hz
MFX-2200G-D	Filter Unit Digital P/G 350 cfm 110VAC/ 60Hz
MFX-2206C-A	Filter Unit Analog P/H/G 600m3/h 230VAC/ 50Hz
MFX-2200G-A	Filter Unit Analog P/G 550m3/h 230VAC/ 50Hz
MFX-2206C-D	Filter Unit Digital P/H/G 600m3/h 230VAC/ 50Hz
MFX-2200G-D	Filter Unit Digital P/G 550m3/h 230VAC/ 50Hz

Options

AC2202	Top Cover Kit with 4 air inlets Ø 2.5"
AC2204	Top Cover Kit with two 4" and two 2.5" air inlets

Replacement Filters

For "Pre / HEPA / Gas" Models

Fil22P030	Pre-filter Pleated 60% efficiency 2-pack
Fil22H070	Combination Filter HEPA / Carbon

For "Pre / Gas" Models

Fil22P040	Pre-filter Pleated 85% efficiency
Fil22G010	Gas Filter Cartridge 11kg (25lbs)
Fil22G020	Carbon Refill Kit 11kg (25lbs)

Warranty

OK International warrants the MFX-2200 Series against any defects in materials or workmanship for one (1) year from the date of purchase by the original owner. This warranty excludes normal maintenance and shall not apply to any opened, misused, abused, altered or damaged items. If the product should become defective within the warranty period, OK International will repair or replace it free of charge at its sole option. The repaired or replacement item(s) will be shipped, freight prepaid, to the original purchaser. The warranty period will start from the date of purchase. If the date of purchase cannot be substantiated the date of manufacture will be used as the start of the warranty period.

For repair or return of the equipment anytime, a Return Material Authorization Number (RMA #) from OK International is required.

Contact Information

For Sales and Customer Care

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