Filter Systems

OPERATING MANUAL

FC800

Filter system

FOR A BETTER WORKBENCH ENVIRONMENT

RoHS • WEEE COMPLIANT

Filter Systems

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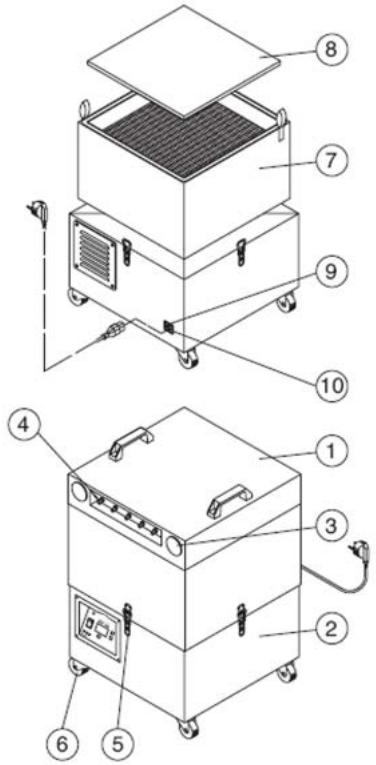
1. Introduction

FC800 is a central system suitable for continous operation in industry and is only intended for spot suction directly on the soldering iron.

2. Content

1. Filter house
2. Blower house
3. Vacuum connecter for pipe system
4. Nipple for push-on vacuum connection
5. Locking clamp
6. Transport rollers
7. Main filter
8. Prefilter
9. Power supply
10. Fuse



9. Warranty

General conditions according to ORGALIME S 2000. Filtronic AB guarantees the product for manufacturing failures for a time period of two (2) years on filter units and accessories, consumptions not enclosed. The time is measured from date of invoice. Only use genuine Filtronic AB consumables and spare parts in order to ensure reliable function and to maintain the unit´s warranty. Repairs must be performed by personnel trained by Filtronic AB.

The information given is not binding and does not free the user from his or her responsibility to check the equipment before using it. Filtronic AB reserves the right to introduce technical changes in the course of product development. Always contact the supplier before return a product. The invoice has to be shown at the time of the complaint.

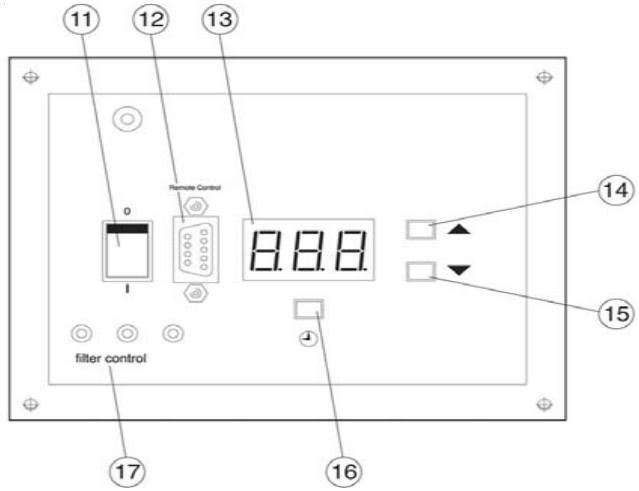
7. Technical data FC800

Max connected soldering irons	50 pcs
Width x height x depth	450x695x450 mm
Weight	45 kg
Sound level, at 1 m	51 dB(A)
Voltage	230 V, 50 Hz
Effect	630 W
Max suction capacity/system	800 L/min
Blower capacity	1700 L/min
Max vacuum	12 000 Pa
Micro filter - filtration degree,	>99,97 %
Filter monitoring system	Yes
Warranty (excl. filter)	2 years
CE-guidelines	2006/95/EG
RoHS	Yes

8. Article number

Filter system FC800	800-0000
Replacement filter	802-2000
Prefilter (10 pcs)	802-5000

11. Main switch
12. Power supply for controller
13. Display
14. Push button "UP"
15. Push button "DOWN"
16. Push button "TIMER"
17. Filter status display



3. Safety instructions

The unit must not be exposed to temperatures exceeding 50°C, open flames or condensated solvents.
Switch off the filter unit when changing filter.

A high concentration of pollutants will result in the active carbon heating up. The equipment should run for several minutes in a pollutant free air before being switched off in order to prevent heating.

4. Put into operation

The FC800 filter system is fitted for a maximum of 50 soldering irons with tip extaction. Small facilities can connect five soldering irons direct to the nipples on the units cap. More than five soldering irons needs a pipe line. The pipe line connects to the units filter house with a flexible hose (min. 1,5 m), since the units filter house must be lifted of open when filter is changed.

In order to connect the hose system for the soldering irons, a Ø 8.0 mm hole must be tapped in the required position, the push-on nipple must be screwed into it and the vacuum hose from the soldering irons must then be pushed onto the nipple. (Art.no. nipple 520-1014).

The hoses for all soldering iron shall have the same length and diameter.

Electrical connection
The mains voltage must be checked against the details given on the type plate in prior to commissioning. If the mains voltage is correct, connect the unit to the power supply (9) and switch on the equipment using the main switch (11). A green LED (filter is OK) indicates that the unit is running. The percentage details for the turbine rotational speed are shown on the display (13).

Operating
The filter system is pre set and ready to operate when it leaves the factory. The vacuum level is set to 8kPa. This is the ideal setting for tip extraction in hand soldering applications. Changes of vacuum level can be set from 5kPa and 10kPa, in steps of 0,1 kPa. If you increase the vacuum level, you increase the suction capacity, but the noise level rise and it also shortens the lifetime of the filter.

The software for the filter system are designed with three modes, "0" operating mode, "1" Manual speed setting and "2" Vacuum setting. To switch mode, hold in the **up** + **down** buttons (14+15) when switching on the unit, switch mode with the **timer** button (16). When the **up** + **down** buttons (14+15) is released, the unit starts in the set operation mode.

Operating mode "0"	Shows the required value. E.g. 80 = 8kPa
Manual speed setting "1"	Shows the % of the blower speed. This can be altered between 20% - 100%, by using the up + down buttons. The current value is saved.
Vacuum setting "2"	Shows the required value. This can be altered by using the up + down buttons. The current value is saved.

It is possible to control the actual value of the filters systems vacuumlevel by pressing the **timer** buttom and the **down** button at the same time. The display shows e.g. 49 = 4.9 kPa.

Filter change
Filter change can be set by operating hours. When the set operation hours has expired, the unit will be switched off and "filter change required" will be indicated on the display (13) and the illumination of the red LED (17). To set the operation hours, press at the same time the **timer** button (16) and both the **up + down** buttons (14+15). Then you set the exact time with the **up + down** buttons (14+15). Note that the shown operating hours is display x 10.

RS232 Interface
It is possible to control the FC800 via a PC using hte integrated standard RS232 interface (12).

5. Troubleshooting

Do not modify the filter unit. Repairs must be performed by personnel trained by Filtronic AB.

- If the FC800 fails to run it can be caused by the minimum pressure hose not was replaced after filter change. It can also thermally be switched off. Leave the FC800 to cool down for approx. 3 hours.
- If suction power is missing, the pipe system can be leaking, the filter can be used up or the vacuum is too low. Reseal the pipe system, exchange filter or increase the suction capacity (mode 1 only).
- If the filter display is yellow it´s time to change the filter and it turns red when the filter is clogged up and need to be exchanged. See chapter 6 " Maintenance and service".
- If the particle filter is clogged up to quickly, check that the prefilter is placed correctly.

6. Maintenance and service

The filter status display (17) indicates when (through filter differential pressure measurement) the permitted degree of contamination has been exceeded and when the filter has to be changed. The red filter control LED will illuminate and the unit will be switched off. The prefilter (8) has to be changed more often. The prefilter change is satisfactory, if the red LED (17) is no longer illuminated when the equipment is switched back on.

Exchange the main filter:

1. Switch off the unit
2. Open the locking clamps (5) between the blower house (2) and the filter house (1)
3. Lift the filter house away
4. Pull the vacuum hose off the main filter
5. The main filter (7) and the prefilter (8) can be removed using the carrying straps
6. Exchange the main filter (7) and prefilter (8)
7. Replace the vacuum hose
8. Turn the carrying straps downwards
9. Press the **timer** button (16) and the current filter operating hours will be displayed (display X 10). Flashing display. The operating hours display must be manually reset after a filter change. Keep the **timer** button (16) pressed down until the display is reset to 000