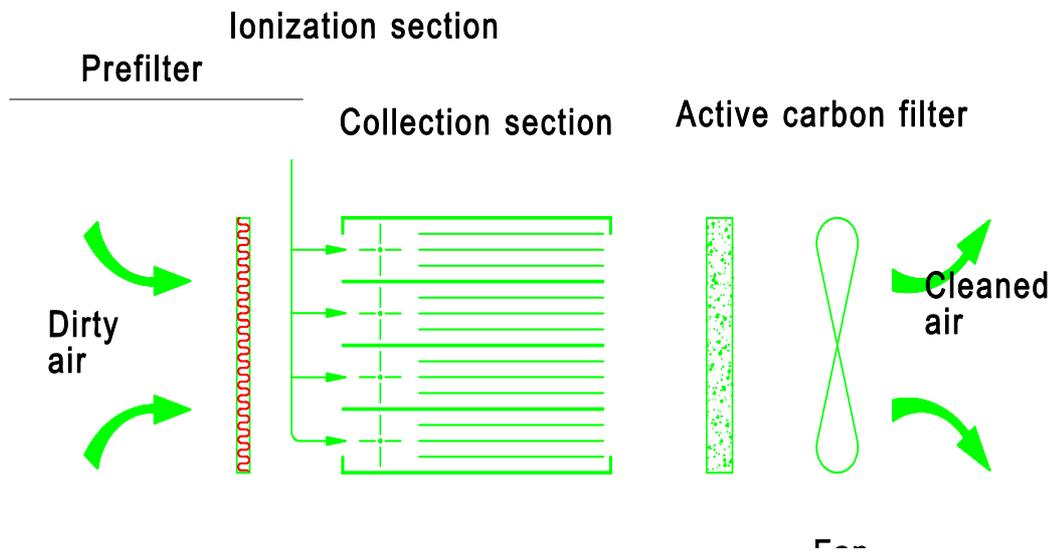


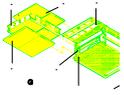
ELIXAIR E 2100 AIR PURIFIER



ELIXAIR AIR PURIFIER; OPERATING PRINCIPLE (figure 1)

1. The fan of Elixair draws the particles suspended in the air into the air purifier.
2. Fluff, fibres and other large particles remain in the prefilter.
3. The majority of airborne particles are so small that they are not caught by the prefilter. In stead they proceed to the ionization section of the electronic collector cell, where they receive a powerful electrical charge (8 kV).
4. The charged particles travel in the air stream to the collection section of the cell and are drawn to the collector plates as a result of a strong electric field (4 kV) in the same way as iron filings are drawn to a magnet. The particles cling to the plates until the cell is washed.
5. The remaining gaseous impurities, such as odours, are removed by an active carbon filter which is a standard replacement component.
6. The fan of the unit returns the clean air back to the room.

THE CONSTRUCTION OF ELIXAIR E 2100 (figure 2)



A) Active carbon filter (2 units)
(product no 030400)

B) Electronic collector cell (2
units)
(product no 250360)

C) Prefilter (2 units)
(product no 030390)

D) Grid

E) Wireless remote control

F) Service door

G) Transport supports (2 units)

THE LOCATION OF ELIXAIR E 2100 AIR PURIFIER

It is important to note that in addition to using the air purifier, ordinary ventilation is necessary to bring in oxygen and to remove carbon dioxide, cigarette smoke and gaseous impurities caused by various activities in the premises and discharged from the furniture and the structures of the building. Elixair efficiently removes airborne particles and reduces noxious gases and odours. It does not, however, render respirators or gas masks useless in such premises where harmful airborne impurities are so abundant that respirator or fresh air equipment would normally be required or where staying without any breathing protection is limited.

***Warning!* Due to its mode of operation, the electronic collector cell may occasionally emit sparks. Never use the air purifier in a place where flammable gases or liquids or large amounts of dust may combine with air to form an explosive mixture which could be ignited by a spark.**

When locating the unit please note the following:

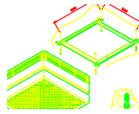
- Preferably install the unit to the ceiling. Also wall installation is acceptable. In case of wall installation, part of the air flow from the purifier may immediately return to the unit which weakens the effect of air cleaning in the premises.
- When installing your Elixair purifier, make sure to choose such a place where the normal ventilation is not disturbed and on the other hand, where the functioning of Elixair will not be disturbed. Thus avoid installing the air purifier next to fresh-air vents or exhaust vents.
- Installation inside a suspended ceiling so that just the grid is in sight is allowed only if the return flow of air from the purifier has free access back into the room. Also take

into account the extra space required for service and remote control.

- Avoid installing the purifier in a recession of the ceiling, especially if the recession is not wide enough. This would prevent both proper flow of air into the room and the maintenance of the purifier. It is even possible that the clean air from the exit would flow directly back to the intake of the purifier and leave the rest of the air in the room uncleaned.
- For best cleaning results install your Elixair purifier in the ceiling in the middle of the room. Maintenance is easy and there are no obstructions for infra-red remote control. An earthed mains socket (230 V) near the place of installation is required for power supply to the air purifier.

INSTALLATION OF ELIXAIR E 2100 AIR PURIFIER

After finding a suitable place for the air purifier, install it using the mounting bracket provided.



A) Ceiling installation (figure 3)

- 1) Attach the bracket with the enclosed screws so that the control panel of the purifier will be facing the direction where the remote control is used. Make sure to allow sufficient room on the opposite side for the service door to open for removal of the grid, the collector cells and the filters.
- 2) Drive in 2 locking screws in the bracket to prevent the purifier from sliding in too far while installing it.
- 3) Hold the unit horizontally and lift it next to the mounting bracket and push to the grooves of the bracket all the way to the locking screws.
- 4) Fasten the remaining 2 locking screws.
- 5) Open the service door and remove the two transport supports which hold the collector cells (figure 2).
- 6) *Remove the plastic wrapping from the active carbon filters* and install the filters in the grooves above the cells. Close the door properly.

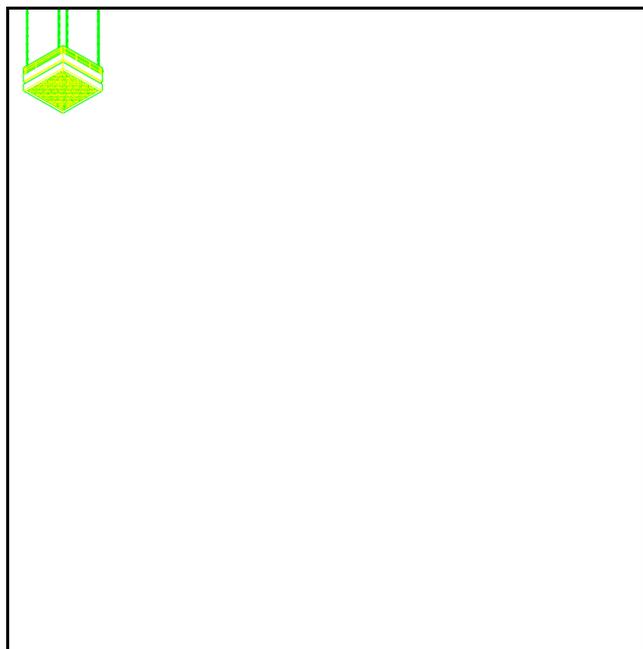
B) Wall installation

Use wall installation only when installation to the ceiling is not possible.

- 1) Attach the mounting bracket to the wall so that the grooves of the bracket run horizontally.
- 2) Drive in 2 locking screws in the bracket to prevent the purifier from sliding in too far while installing it.
- 3) Lift the unit next to the mounting bracket and push it to the grooves of the bracket all the way to the locking screws. Support the unit while you push it.
Notice that the service door opens sideways.
- 4) Fasten the remaining 2 locking screws.
- 5) Open the service door and remove the two transport supports which hold the collector cells (figure 2).
- 6) *Remove the plastic wrapping from the active carbon filters* and install the filters in the grooves above the cells. Close the door properly.

C) Suspended installation

Installing the air purifier to the ceiling in a very high room makes maintaining difficult. In such cases you may suspend the mounting bracket from the ceiling at the desired altitude using chains, wires or threaded rods (figure 4). For the rest of installation, follow the instructions of ceiling installation. An extension mains cable may be required for power supply. You can attach the cable to one of the supports. A firm table or similar platform and 1-2 assistants are required when lifting the unit to its mounting bracket.



TESTING THE OPERATION

- 1) Connect the mains cable to the wall socket. The unit is on and running at speed II (2 green bars on the control panel display). The yellow high voltage indicator is continuously on.
- 2) Test the functioning of the unit by pressing the red button on control panel. The speed of the air purifier motor rotates in the following sequence: (figure 5)

Y C stop C speed I C speed II C speed III C stop Y

- 3) Repeat the same test using the remote controller. Point the infra-red beam from the narrow end of the remote controller to the receiver in the control panel. The transmitter is operated using the press-button (under the diaphragm). Pressing the button turns on the green indicator light in front of the button. Pressing the remote control button is equivalent to pressing the button on the control panel.

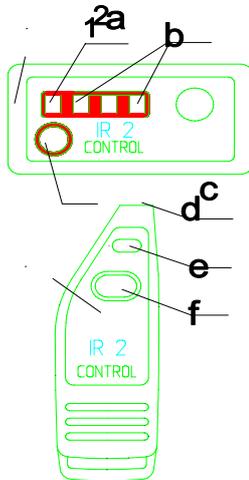
The maximum operating distance is ca. 10 m. The distance may be reduced by thick cigarette smoke or any solid structure which restricts the passage of the infra-red light.

Accurate aiming or longer pressing of the button (2-3 seconds) is required when using the remote controller at the outer limits of its operating distance.

- 4) The unit has a built-in option for wire-operated remote control. This requires, however, additional installations. If you want to use this option (equivalent to pressing control panel button) please call your authorized Elixair service company for further instructions.

THE OPERATION OF ELIXAIR E 2100 AIR PURIFIER

The purifier is designed for efficient cleaning of large amounts of air. Because of varying cleaning requirements the unit is equipped with power control system for adjusting the fan speed using infra-red remote controller (figure 5) to meet the current need.



€ Control panel

- a) High voltage indicator
- blinking light indicates a fault
- b) Fan speed indicators
- c) Power control push-button

€ Remote control unit

- d) Infra-red transmitter
- e) Indicator for signal/battery
- f) Control button

Remote control unit battery is not replaceable. Battery life is approx. n. 2000 operating cycles or 5 years.

We recommend Elixair 2100 for rooms of 80c160 m⁵ in area. In smaller rooms of around 40 m⁵, with people frequently moving about, fan speed II is used to make the air in the room circulate to the purifier. In rooms smaller than that fan speed I may be sufficient. We do not recommend installation of Elixair 2100 in rooms smaller than 30 m⁵ due to the small amounts of ozone produced during operation, unless ventilation is more efficient than normally.

Highest fan speed may be necessary in smoking areas to remove annoying cigarette smoke efficiently. In any large space where the content of dust and other impurities in the air is unusually high or where continuous use of the purifier on the highest fan speed is required, the desired cleaning results at a low noise level can be achieved by the use of two purifiers which are run at a low power level.

It is recommended to keep the air purifier running always when ventilation is on or when people are moving in the premises. You can use a timer connected to the wall socket to turn the unit off for a desired number of hours for the night. The fan runs on speed II after the power is turned on again. It is advisable to start the purifier at least half an hour before the premises are being used.

MAINTENANCE OF ELIXAIR E 2100 AIR PURIFIER

The unit is economic to use and easy to maintain. The only replacement components are the two active carbon filters.

After being neutralized by the gases and odours in the air, the activity of the active carbon can not be restored and the filters must be replaced. The frequency of replacement depends on the amount of gases to be neutralized. In smoking areas the filters should be changed ca. 2 times per year or when necessary. In workshops or other places where gaseous impurities are produced (welding, soldering etc.) the filters must be replaced always when necessary.

The amount of dirt collected in the prefilters and collector cells determine how often they should be washed. Frequent discharges of electricity with a cracking sound is a clear indication that the collector cells should be washed. This means that so much dirt has accumulated on the collector plates that the distance between them is growing too small which is the cause for electrical discharges from one plate to another.

1) Opening the air purifier

- disconnect mains cable
- **Note! Wait for ca. 1 minute to allow the high voltage in the collector cells to discharge**
- open the service door fully up so that it remains open resting on the support rod (figure 2)
- pull out the grid, the prefilters, the collector cells and the active carbon filters. You must turn aside the prefilter spring to allow space to withdraw the filters.

2) Overall cleaning

Due to the large amount of dust and other particles that pass through the purifier, part of them adhere to inner and outer surfaces of the unit. You can clean the surfaces using either a vacuum cleaner or any ordinary mild detergent and a damp cloth. Remove the grid and the filters first to facilitate cleaning. Soak the grid in a mild detergent solution (*not cell detergent*) and rinse it thoroughly with water. Let it dry in a horizontal or slanting position.

3) Washing the cell and the prefilter

Vacuum the prefilters before washing. Follow the washing instructions that apply to electronic collector cells.

NOTE!

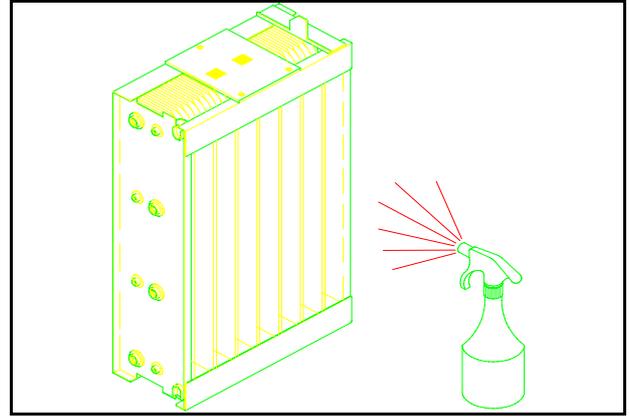
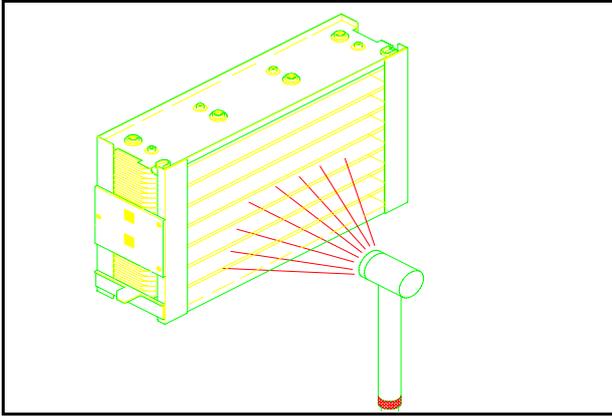
Handle the electronic collector cell with care. The metal edges may be sharp. It is advisable to wear rubber gloves when washing the cell by soaking. Use original Elixair cell detergent only. Other types of detergents may damage the cell. We do not recommend washing the cell in a dish washing machine.

A) Spray wash

1. Spray the cells with warm water using e.g. a hand shower (figure 6) in a tub or sink.
2. Spray solution of ELIXAIR cell detergent (4 parts water and 1 part detergent) on the collector plates of the cell. A flower spray bottle is handy for that purpose (figure 7). *ELIXAIR cell detergent, 3 litres; product no. 600031, 10 litres; product no. 600050.*

WARNING!

Be careful not to splash or spray the detergent in your eyes and avoid repeated skin contact with it.



3. Allow the detergent to work for about 5 to 15 minutes. Rinse then thoroughly with warm water (figure 6)

4. Check that the also the ends of the collector plates are clean. Repeat cleaning if necessary.

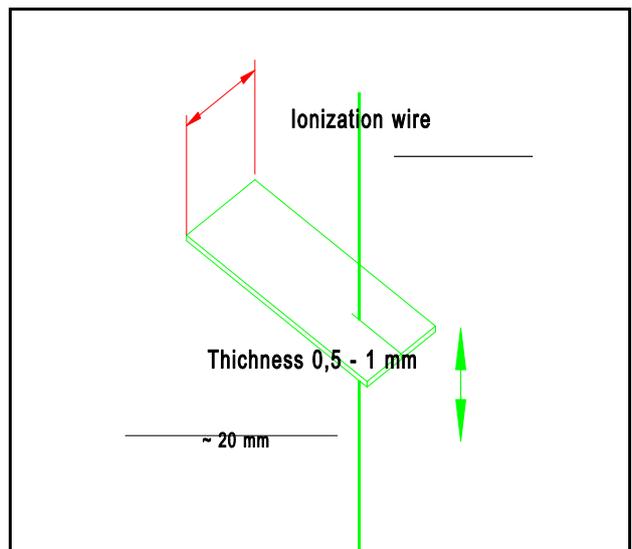
5. Allow the cells to dry thoroughly, preferably overnight. You can turn the cells over a few times to speed up drying.

6. Check the ionization wires of the cell. If the wires are dirty, clean them carefully using a thin strip of plastic with a slit cut to it (figure 8).

A layer of dirt on the ionization wires weakens the effect of the ionization section and the air purifier no longer functions satisfactorily.

B) Soaking wash

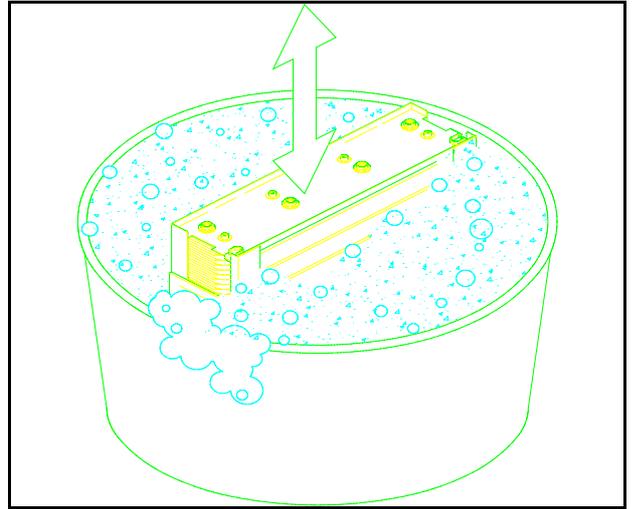
If the collector cells or prefilters are really dirty, try soaking wash to clean them.



1. First spray or flush the collector cell with warm water (figure 6).

2. Mix the detergent solution in a suitable container which is large enough to hold the cells entirely. The proportions of the solution is 5 to 8 parts of water to one part of ELIXAIR cell detergent. You can use the same solution 2 to 5 times.

3. Immerse the cells (and the prefilters if needed) in the detergent solution and allow to soak from 15 minutes to two hours. It is recommended to shake the cells a few times while soaking (figure 9).



4. Rinse the cells well with warm water and check that they are clean. If still dirty, you can wash them again. It is not necessary that the plates get shining bright. Just check to see that there is no accumulation of dirt on them.

5. Let the cells dry thoroughly in a well ventilated place, preferably overnight. You can turn the cells over a few times to speed up drying. Check that the ionization wires are clean.

4) Reinstalling the cells and the filters

- remove plastic wrappings from the active carbon filters before installing them
- make sure to install the cells the right way. The direction of air flow is from the grid towards the fan. Also check to see that the high voltage contact plates of the cells touch the counterpart contacts on the purifier frame.
- insert the prefilters in the grooves below the collector cells and return the spring in place to hold the aluminum frame of the filter. The purpose of the spring is both to prevent the vibration of the prefilter and to press the micro switch which controls the prefilter.
- push the grid in its groove and close the door by lifting up the latch and then closing the door so that the spring loaded latches lock it tightly. If the door is not properly closed, the unit will not function because the safety switch controlling the door is not closed.
- connecting the mains cable to the wall socket starts the air purifier at fan speed II (two green indicator lights of the control panel are on). The yellow indicator of high voltage is on continuously (figure 5,C) if the unit is running normally.

Blinking indicator and/or cracking noise from the collector cell refers to high voltage short circuit. The short circuit may be caused by a wet collector cell, a distorted collector plate or a snapped ionization wire which is short circuited by other metal parts of the cell or the prefilter. Straighten the distorted plate or replace the wire. If necessary call your authorized Elixair service.

If the high voltage indicator light still indicates a fault (the light is off or it blinks) take the air purifier to authorized Elixair service. *Using the purifier while the high voltage indicator is off or blinks may severely damage the unit.*

- mark on the memo sheet on page 34 the dates when you wash the purifier and change the active carbon filters. This facilitates the follow up of maintenance intervals and thus the proper and regular service of your air purifier.

EU DECLARATION OF CONFORMITY FOR ELECTRICAL APPLIANCES

Elixair Oy, Virusmäentie 65 M, 20300 Turku, Finland declares, that

Air purifier

ELIXAIR: E 2100 IR2

has been manufactured in accordance with the applicable harmonized standards. It complies with the essential elements of low voltage directive (73/23/ETY, 93/68/ETY) and the directive for compatibility on electricity (EMC 89/336/ETY, 93/68/ETY).

Year of CE marking 95

The logo for Elixair Oy, featuring the word "ELIXAIR" in a bold, italicized, sans-serif font. The letters are grey with a slight shadow effect, and the text is enclosed in a thin red vertical line on the right side.

Elixair Oy

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