

## 1. Maintenance

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## 1. Half yearly maintenance – Heat exchanger

### DANGER

- **Do not perform any maintenance activities other than specified in this manual.**
- **Make sure the main switch is in OFF position during replacing the Heat exchanger.**
- **Do not put the main switch in ON position when the Heat exchanger is taken out.**

### CAUTION

- **Do not clean the Heat exchanger with hot water. This can damage the Heat exchanger permanently. The water should not be warmer than 40°C.**
- **Do not touch, brush or scrub the copper wire of the heat exchanger.**

**Every half year the heat exchanger needs to be cleaned in order to keep the Fresh-r in optimum performance.**

To clean the Heat exchanger, do the following:

- Open the door.
- Put the main switch in OFF position. You can find the switch in the top left corner.

#### Fresh-r Filter model – remove the filter

- Unscrew the two thumb screws
- Tilt the filter forward as shown below – if you have a filter with sensors you can now detach the cabling – this is a small RJ45 plug that has a clip that needs depressing similar to an internet cable plug.
- Lift the filter free from the two hooks in the unibody
- Careful not to damage/penetrate the filter cartridge



Figure 1 - Filter thumb screws



Figure 2 – Filter inserted into hooks on unibody

### Fresh-r Everywhere – remove the top panel

- To remove the top panel, release the two retention screws, tilt the panel away from the heat exchanger clamp and pull the panel downwards from the retention bracket at the top of the unibody. There are two retention hooks at the top of the unibody similar to those on the filter shown above.



Figure 3 Top cover thumb screw

### Fresh-r air separator bar/heat exchanger clamp

- Remove the air separator bar by removing the two retention bolts with Allen key 4 mm
- Pull the separator bar straight away
- Pull the Heat exchanger out the unibody



Figure 4 - Fresh-r middle bar separator



Figure 5 – Heat exchanger ready to be removed

Use one of the methods pictured below to flush the heat exchanger



**OK**



**OK**



**OK**

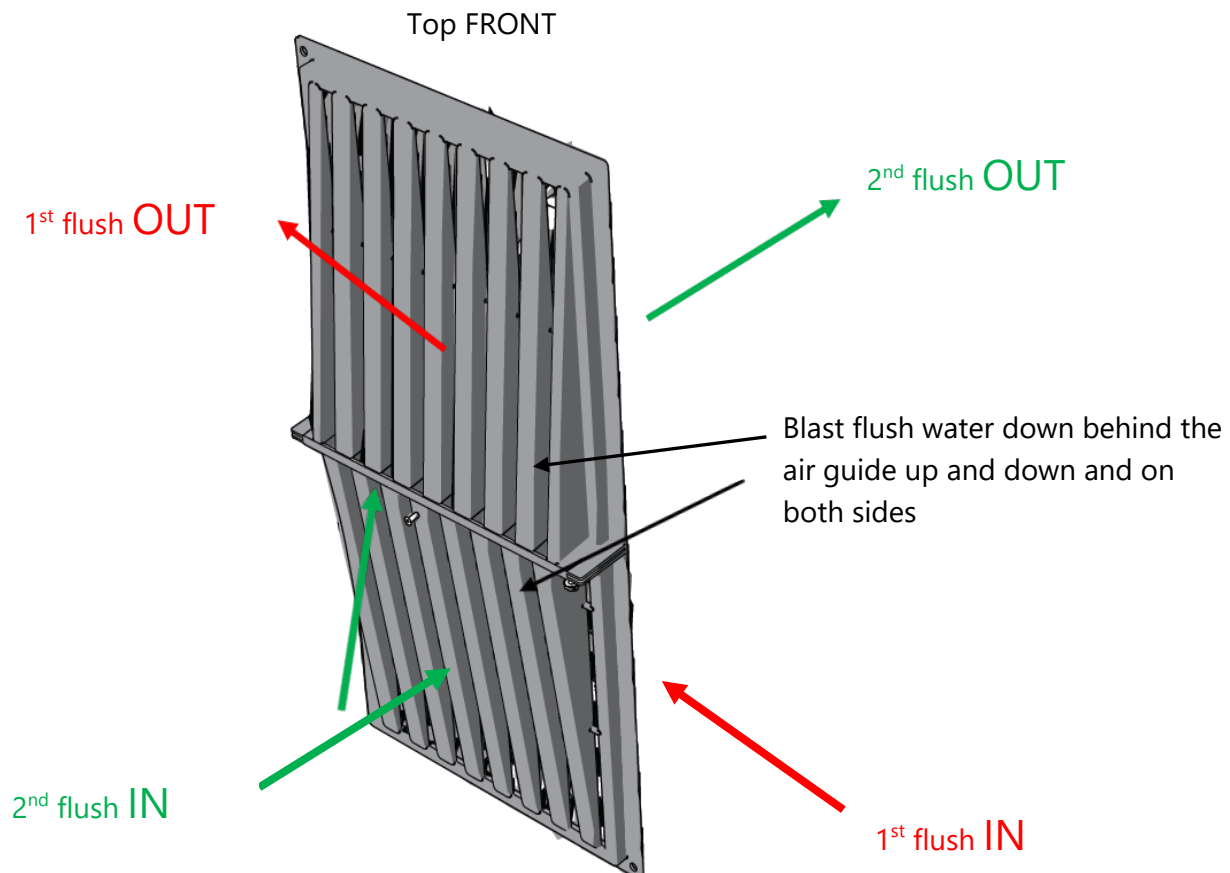


**NOT OK**

Flushing the heat exchanger

- Flush water (max 40°C) through the heat exchanger as directed below using
  - a shower head
  - garden hose
  - pressure washer
- After the first and second flush, flush water in the reverse direction in the same manner, i.e Front -top and bottom & back side top and bottom

Some visible dirt and stains will remain – **DO NOT BRUSH OR SCRUB the copper wire**



## NOTE

**In an extreme case where the heat exchanger cleaning has been neglected**

Flush as directed in the diagram using a pressure washer **without chemical additives and for maximum 10 minutes to avoid complete saturation of the gaskets.**

- After flushing shake excess water from the heat exchanger and replace directly
- Assemble in reverse order of removal
- Do not use tools to tighten the thumb screws, if available lubricate threads with grease (even olive oil can be used) This will make the thumb screws easier to turn by hand.
- Once assembled switch the Fresh-r on and close the door

## 2. Annual Maintenance – Fine dust filter

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**Every year the filter needs to be replaced in order to keep the Fresh-r in optimum performance.**

To replace the filter, do the following:

- Open the door
- Put the main switch in OFF position. You can find the switch in the top left corner.
- Remove the filter as described above
- Remove the two wing nuts at the bottom and remove the filter brace
- Release tension from the m6 countersunk nuts
- Remove and replace the filter cartridge
- Re- assemble - pinch top clamp tightly to the frame and tighten nuts, fit lower clamp.
- Re-mount filter carrier to Fresh-r. Switch on and close the door



*Figure 11 Rear side of filter after removal from the Fresh-r*

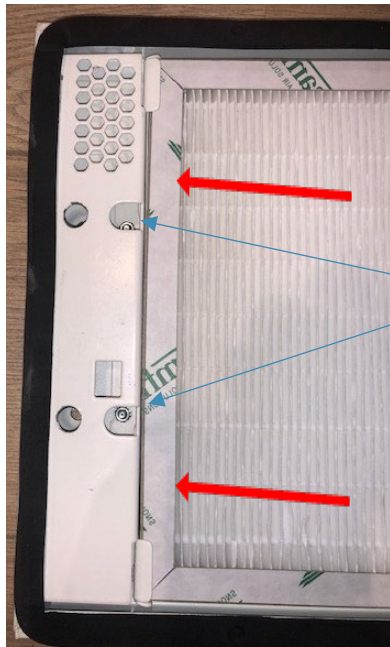


Figure 12 Top clamp

Countersunk M8 nuts holding top clamp. Push towards frame (red arrows) when re-tightening



Figure 13 Lower clamp

Wing nuts holding filter brace

### 3. Maintenance every three years – Fan modules

Every three years the area behind the fan needs to be cleaned in order to keep the Fresh-r in optimum performance.

#### **⚠ DANGER**

- **Make sure the main switch is in OFF position during cleaning the fan modules.**
- **Do not put the main switch in ON position when one or both fan modules are taken out.**

To clean the area behind the fan, do the following:

- Open the door.
- Put the main switch in OFF position.
- Remove internal door (Everywhere version) and filter if fitted
- Un-clip the two electrical connections of the fan – they are dedicated connectors and cannot be reconnected wrongly
- Gently remove the rubber mounted temperature sensor. Some versions have a little wire protruding from the end, be careful not to damage this wire protruding. Let the cable hang down in front of the heat exchanger
- The two operations above may require several cable ties to be cut away. Afterwards you can replace these with new ones, but this is not necessary.



- Unscrew the 4 screws of the fan using a Torx T20.
- Make sure the rubber grommets don't drop away and become lost.
- Move the fan module gently out the unibody.

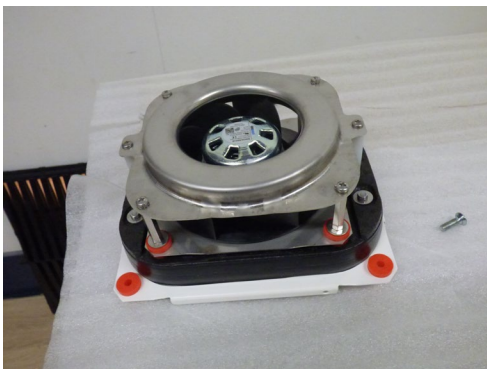


*Figure 3 fan module as installed*



*Figure 2 fan ready to be removed – just pull*

- Use a vacuum cleaner to clean the area behind the fan inside of the unit. Make sure you clean the area carefully. You may damage the sensors.
- Scrub the fan impeller clean with a brush – use wipes or a cloth if necessary.



*Figure 5 Fan module as removed*

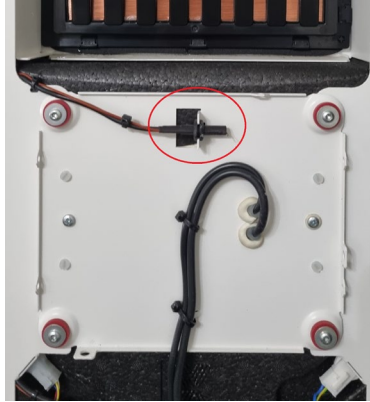


*Figure 4 Brush dirt from impeller*

- Put the fan module back into the Fresh-r unit.
- Make sure the fan module is placed correctly. The temperature sensor of the top fan module is on the right side, see image 5 below. The temperature sensor of the bottom fan is at the top, see image 6 below.



*Figure 5 Top fan with sensor on the right (circled in red)*



*Figure 6 Bottom fan with sensor at the top (circled in red)*

- Mount the 4 screws of the fan, re-connect the electrical connection and replace the temperature sensor into its mounting.
- Optionally, you can secure the cables again with tie-wraps, but this is not necessary.
- Repeat above in order to clean the area behind the other fan.
- Re-instate everywhere panel and filter if previously removed.
- Switch the Fresh-r back on and close the door.