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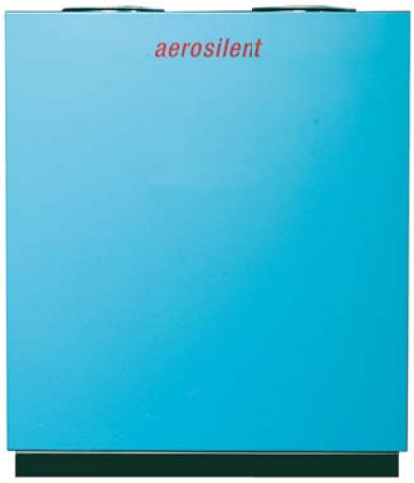


aerosilent standard

Operating, Maintenance, Commissioning

Contents

Technical data

Mains supply	230 VAC / 50 Hz
Recommended fuse	13 A
Nominal air quantity	160 m³/h
Max. air quantity at 100 Pa external	230 m³/h
Heat provision level	85–93 %
Maximum power consumption of the fans (total)	100 W
Sound power level at nominal air quantity and 100 Pa external:	
Housing	35 dB(A)
Air inlet	35 dB(A)
Air vent	49 dB(A)
Weight aerosilent standard	71 kg
Heat recovery level according to VDI 2071 with nominal volumetric flow	85 %

Customer information

This handbook contains important notes and tips for the operation of your comfort ventilation unit which will protect you from personal injury and guarantee a long service life for the unit. The figures all depict the right-hand version of the unit (supply air connection located on the right). However, all instructions are equally applicable to the left-hand version (supply air connection located on the left). Please keep the operating instructions for future reference. Please pay attention to the safety notes.

Product description

aerosilent standard is a comfort ventilation unit consisting of a ventilation module with highly efficient heat recovery characteristics.

Proper application

The unit is designed for the ventilation of living rooms and lounges in passive houses and, in some cases, for near-passive buildings depending on the associated calculations and building design.

Unsuitable application

No uses other than those specified under 'Proper usage' are permissible.
The unit must not be used to dehumidify buildings under construction. Drying of a building structure can cause considerable damage to the unit.. The ventilation of rooms with extremely high humidity levels, such as saunas, or heavily contaminated extract air (fumes, air with a high fat content, explosive extract air) is also not permitted..

Safety notes

WARNING: Indicates that failure to follow the recommended safety procedures could result in damage to the unit or personal injury.

CAUTION: Indicates that failure to observe the recommended safety procedures could result in damage to the unit.

NOTE: Helpful information and useful tips.

Operation

The aerosilent standard comfort ventilation unit is operated using a room operating panel. Two different room operating panels are available that provide different functions:

- 3-level switch
- 3-stage timer

The 3-level switch provides simple, manual fan control. In contrast, the 3-stage timer can be used to set an individual weekly programme.

3-level switch

Selecting the fan level

You use the function button to select the required fan level. Once you have pressed the button, the LED for the activated level lights up.

0 ... System off
1 ... Reduced air quantity
2 ... Nominal air quantity
3 ... Increased air quantity

Special 'Party' mode

This function sets the ventilation unit to level 3 for one hour. Press the function button for approx. 3 seconds. LED 3 flashes. Once the hour has elapsed, the fan level automatically returns to the level that is currently set.

Filter/Fault LED

LED constantly illuminated:

Coarse particle filter needs replacing in the unit. Please refer to the 'Maintenance' section.

LED flashes:

A fault has occurred. Possible causes are:

- The supply air or extract air fan has failed.

Please contact customer service.

3-stage timer

The following functions are available with the 3-stage timer:

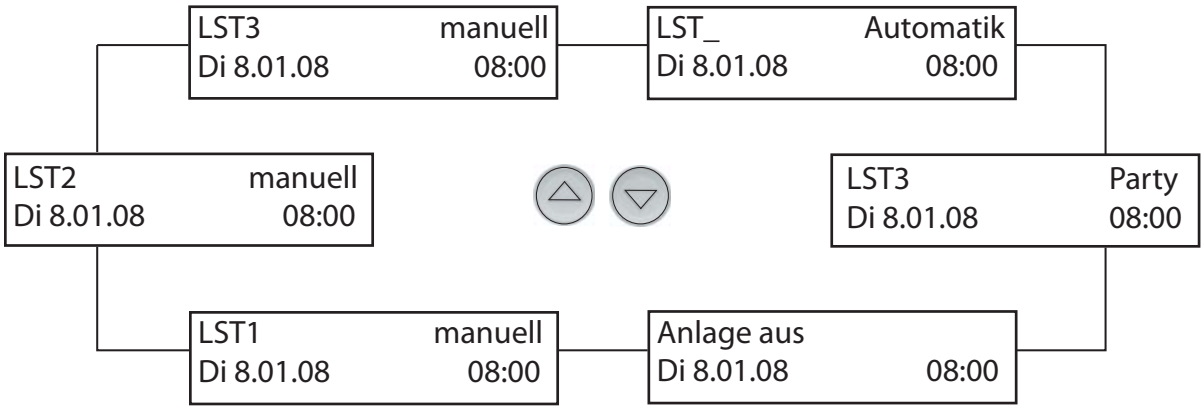
- Manual selection of one of the 6 operating modes
- Programming an automatic weekly schedule for the fan levels 1, 2, 3 and 0
- Monitoring fan failure
- Monitoring the condition of the filter

General functions of the buttons:

The "Arrow Up" and "Arrow Down" buttons can be used to select or change values depending on the cursor position.
The "Enter" button is used to save the values that have been set or select menu options.

Operating modes

The unit can be used in 6 different operating modes which are selected using the "Arrow Up" and "Arrow Down" buttons. The date and time are displayed together with the operating mode.



Anlage aus (System off)

Both fans are switched off and the controller works solely in standby mode. The message "Anlage aus" appears on the screen.

Manual fan level 1/2/3

The ventilation unit works permanently with the selected fan level. The message "LSTx - manuell" appears on the screen, whereby "x" represents the relevant fan level.

Automatik (Automatic)

The ventilation unit works at the fan level specified in the weekly programme. The current fan level is indicated on the display.

Party

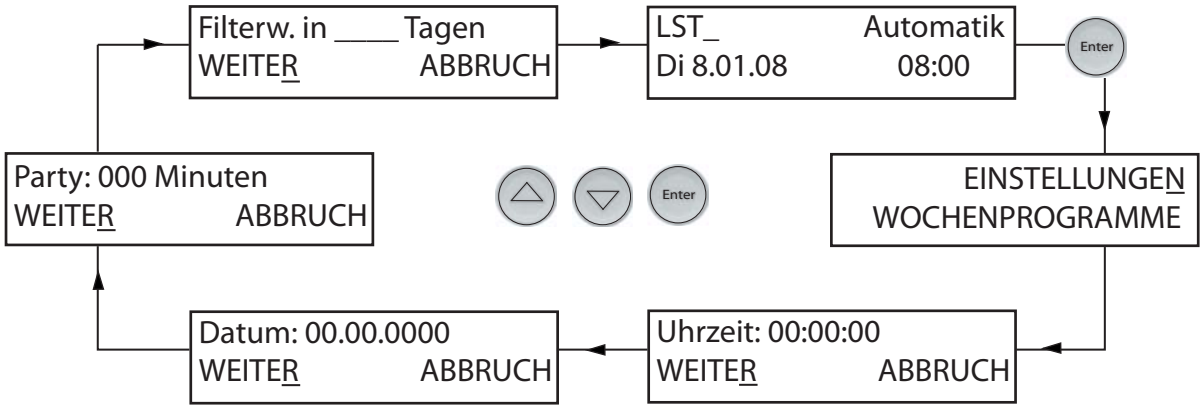
In "Party" mode, the ventilation unit is set to fan level 3 for a limited period of time for high-power ventilation. The screen displays the message "LST3 – Party".
The time period for "Party" mode can be changed to a value between 15 and 120 minutes in the "Settings" menu. Once this time period has elapsed, the system reverts to the previously active mode.

Settings

The time, date and duration of "Party" mode can be changed in the "Settings" for the the 3-stage timer. You can also check the remaining service life for the filters in the ventilation unit.
Press the "Enter" button in any operating mode to access the "Settings" menu.

Confirm values and options by pressing the "Enter" button.

Use the arrow buttons to select options and change values.



Weekly programmes

The weekly programmes define which fan level (LST) is activated at various points of time.
From a technical perspective, the ventilation unit has 4 levels - 0, 1, 2 and 3 - whereby fan level 0 (LST0) is equivalent to switching off the unit.

After commissioning, the following values and settings apply:

Fan level 0: Both fans are switched off
Fan level 1: 30% below the nominal air quantity
Fan level 2: Nominal air quantity
Fan level 3: 30% above the nominal air quantity

It is not necessary to programme a time period for fan level 2 (nominal air quantity). Fan level 2 is always active when no other fan level has been programmed. Therefore, only the settings for levels 0, 1 and 3 are available in the menu.

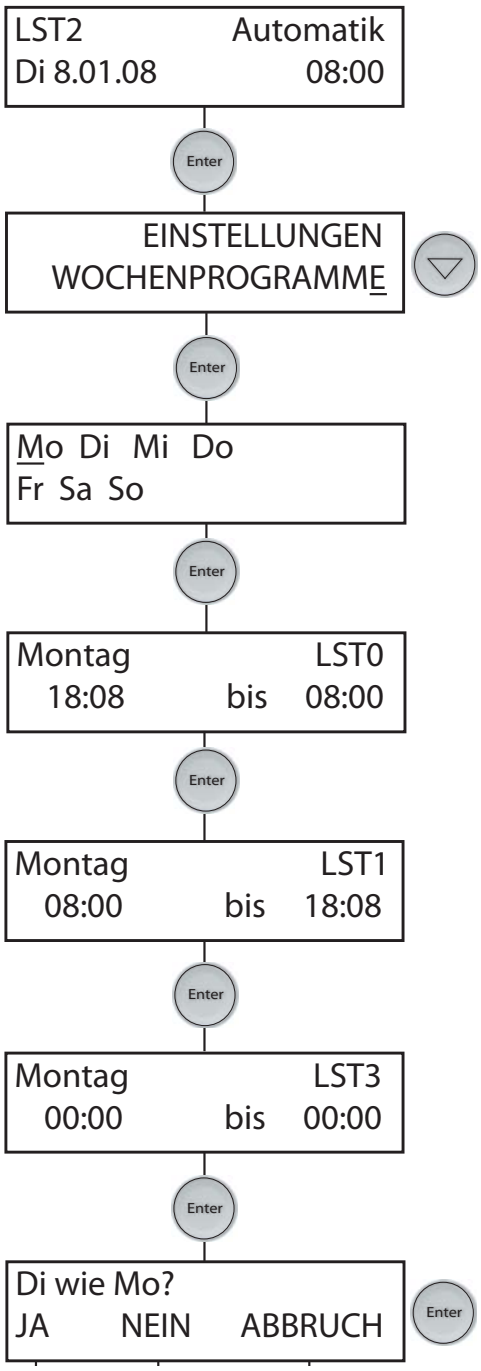
Creating the weekly programme:

The fan levels can be set separately for each day of the week. This means that reduced ventilation can be set at night and at weekends or a short period of high-power ventilation can be programmed.

Use "Enter" to select and confirm values;
change values using the arrow buttons.

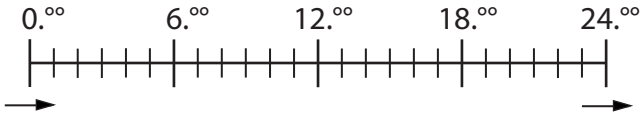
In order to access the weekly programme, press the "Enter" button in any of the operating modes. Use the arrow buttons to select "Wochenprogramme" and confirm this with the "Enter" button (hold for 2 seconds).

The example on the right illustrates the setting for Monday (Mo). The settings for Tuesday (Di) to Sunday (So) are made in the same way. The programme for one day of the week can be copied to the following day.

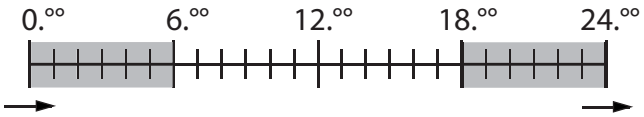


Programming during the night:

A time period of 0°° to 24°° hours is available for each day of the week.



Each fan level can be set once for each day. If you wish to set a specific fan level for throughout the night, the time period from evening until morning is always valid for the same day.
E.g.: Monday, from 18:00 to 06:00

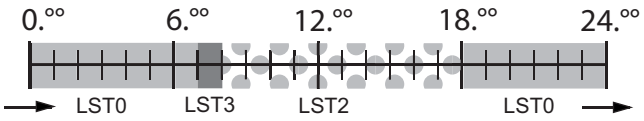


Example:

In the following example, the system is switched off during the night and over the week-end. High-power ventilation takes place prior to business hours.

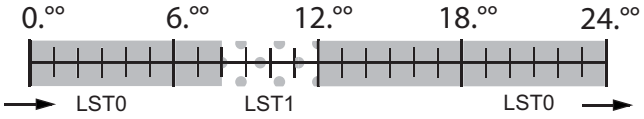
Weekly programme:

Monday, LST3 from 07:00 to 08:00, LST0 from 18:00 to 06:59

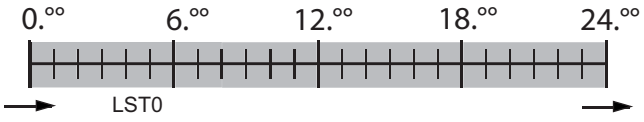


Copy the programme for all weekdays including Friday.

Saturday, LST1 from 08:00 to 11:59, LST0 from 12:00 to 07:59



Sunday, LST0 from 00:00 to 23:59



Fan level 2 is always used if a different fan level is not programmed.

Faults/messages

If faults occur or messages are issued, they are displayed instead of the date and time and the background illumination of the display flashes.

"Störung Venti." (Fan fault)

This error message appears if a fault occurs on one of the two fans. For safety reasons, the second fan is also deactivated.
Please contact your authorised technician.

"Filterwechsel" (Filter change)

The 3-stage timer includes a background counter that monitors the service life of the filters and prompts you to change them when necessary.

Maintenance

System maintenance is mainly limited to changing the coarse particle filters in the ventilation module and the fine particle air filter in the outside air unit on a regular basis. The operating unit counts the system operating hours in the background and provides notifications of when the coarse particle filter needs to be changed. It will display a coarse particle filter change notification approximately every 90 days. The fine particle air filter only needs to be changed at a fixed point in time once or twice a year; for example, at the start of the heating period (dependent on the filter type and environment). The flow capacity and acoustics of the ventilation unit are affected by the amount of dirt in the filters. We therefore recommend that filters are changed regularly. No tools are required.

Caution: Possible damage to the unit resulting from dust and contamination. The coarse particle filters in the unit not only improve your air quality, but also protect the entire ventilation system. The system must not be operated without a coarse particle filter.

Note: The filter should be changed within 2-4 weeks of the 'Filter change' message appearing..

Safety notes for filter changes

Caution: The filter change intervals are only valid for a completely run-in system. After the initial commissioning, the filters can sometimes become very dirty after a relatively short period of time (construction dust). An error message is not displayed in this case.

Caution: Filters cannot be washed or vacuum cleaned, as this would drastically affect their effectiveness. Contaminated filters must always be replaced with clean filters. Used filters should be disposed of in the residual waste.

Caution: To ensure that the ventilation unit continues to operate correctly, we recommended that a service is carried out by an authorised technician after two years of operation (check the fans, clean the air module). Local laws and regulations governing maintenance intervals must be adhered to.

Changing coarse particle filters

Do not switch off the unit or unplug it from the mains as the controller will not detect the change of filter.

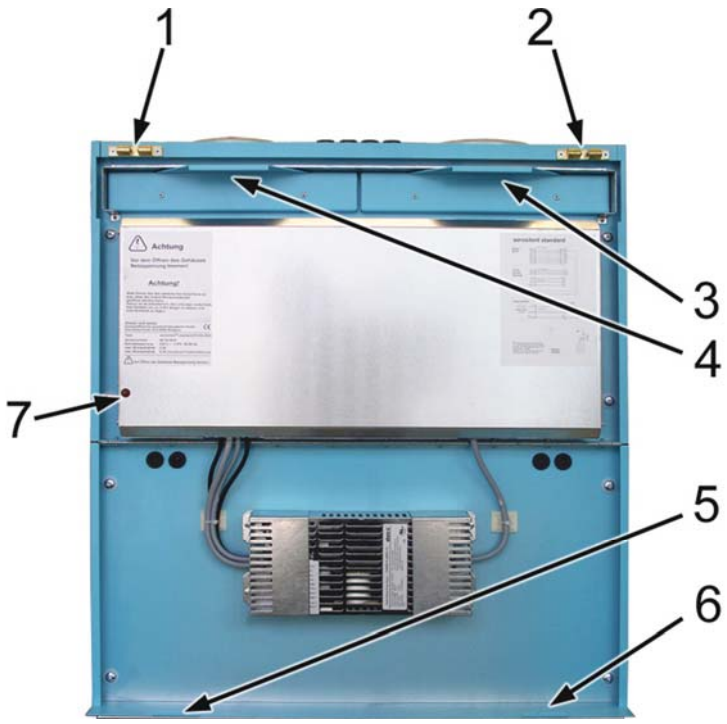
Open the inspection cover while the unit is operating. The cover is held in place by latches and can be removed by a slight tug on the the upper recessed grip without the need for any tools. Opening the inspection cover activates the contact switch and the unit switches off.

▼

Lift the cover out of the lower retaining collars and place it to one side.

▼

Remove both filter cartridges
(see figure).



1, 2 Latches
3, 4 Filter cartridges
5, 6 Retaining collars
7 Contact switch

▼

Remove the contaminated filter pads.

▼

Insert new filter pads and push the cartridges back into the openings.

▼

Reattach the inspection cover.
Ensure that the cover is properly locked in place
(the contact switch on the control unit must be activated).

▼

Unit starts automatically.

▼

Note the filter change date in the unit data.

Spare filter:
Please order the coarse particle filters from your authorised technician.

Part description	**Number**
Spare filters for aerosilent standard..... (10 per packet)	193.0891

Changing the fine particle air filter

The fine particle air filter is located in the outside air unit and not in the ventilation unit. Depending on the arrangement of the ventilation system, numerous filter types can be used. Change the contaminated fine particle air filter for a new filter of the same type. For some filter types, the ventilation direction must be taken into consideration (marked by an arrow). Changing the fine particle air filter does not need to be acknowledged.
Note the date on which the fine particle air filter was changed in the unit data.

Fig.:
Examples of external filters

Commissioning

Prerequisites for commissioning

The water, air, electrical and mechanical connections for the comfort ventilation unit must be carried out in accordance with the installation instructions. This particularly applies to the insulation of the air lines and the condensation connection.

Caution: The unit must not be operated without complete insulation of the air pipes (exhaust and outside air) as any condensation could damage the individual unit components, such as the electronics or the fans.

Initial commissioning

Warning: Electrically conductive components can cause serious personal injury! Improper working procedures could damage unit components. The initial commissioning may only be carried out by suitably qualified and authorised technicians.

When the controller is powered on for the first time, it first performs a self-test. (If you are operating the unit using a 3-stage timer, the version number of the controller appears on the display when the unit is switched on.)

Fault messages during initial commissioning

Please note that the filters can become clogged very soon after initial commissioning of the unit as the air can contain high levels of dust (construction dust). An error message is not displayed in this case. Should abnormal sounds occur or condensation form on the outside of the unit, please have the entire system checked by an authorised technician.

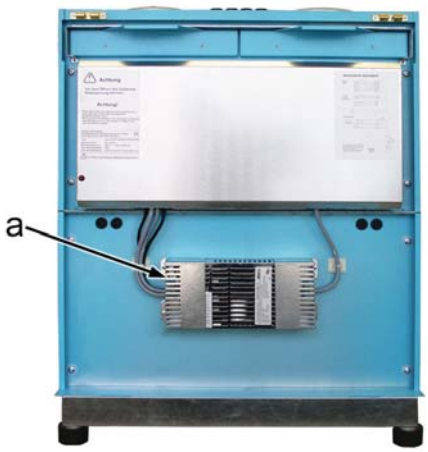
Adjusting the air quantity for each fan level

Warning: Serious personal injury may result from improper working procedures. These procedures may only be carried out by suitably qualified and authorised technicians. Before setting the nominal air quantity, the unit must be fully disconnected from the mains.

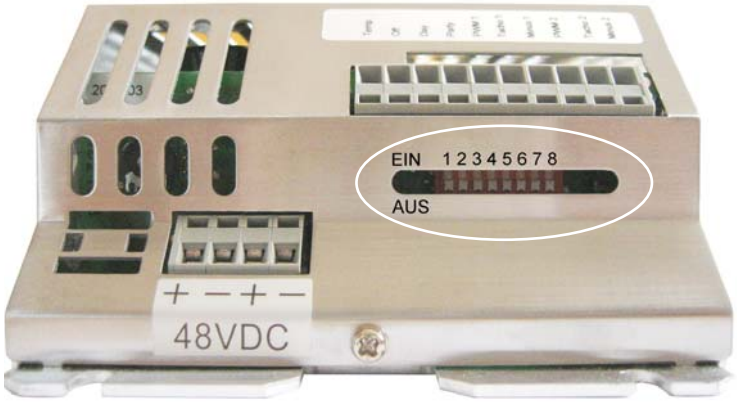
Open the unit's inspection cover.

▼

Remove the cover guard from the control unit (a) using a suitable Phillips screwdriver.



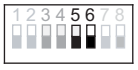
The nominal air quantity for the unit is set using DIP switches 1 to 6 on the controller board.

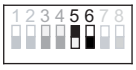


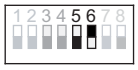
Example: Nominal air quantity, 140 m³/h, 3 = OFF, 4 = OFF 

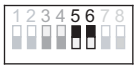
Nominal air quantity, 210 m³/h, 3 = ON, 4 = ON 

Level 1 (reduced air quantity) DIP switches 5 and 6:

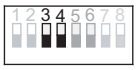
 50 m³/h

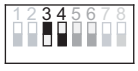
 95 m³/h

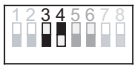
 75 m³/h

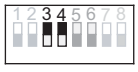
 120 m³/h

Level 2 (nominal air quantity) DIP switches 3 and 4:

 140 m³/h

 185 m³/h

 165 m³/h

 210 m³/h

Level 3 (increased air quantity) DIP switches 1 and 2:

Air quantities above 230 m³/h are only possible if there is an very low external pressure drop (<100 Pa).

 230 m³/h

 275 m³/h

 255 m³/h

 300 m³/h

Note: DIP switches 7 and 8 must always be left at the factory settings (7=0; 8=0).

Settings on the overall system

After initial commissioning of the unit, check the air flow volumes for the supply and extract air valves as given in the plans.

▼

Measure and record the air quantities.

Fault prevention / checklist

✓	
Air quantities set for each fan level	
Filters in the unit	
Inspection covers installed	
Contact switch checked	
Overall system set up	

Decommissioning

Warning: Serious personal injury may result from improper working procedures. Decommissioning may only be carried out by suitably qualified and authorised technicians.

Disconnect all electrical connectors from the unit and remove the water and ventilation connections in accordance with local safety regulations. The unit still contains valuable materials, as well as substances that may not be disposed of in the residual waste. Please arrange for your old unit to be recycled at a collection point for recyclable materials.

Important unit information (logbook)

Your authorised technician has handed over the unit to you with the following settings. Please keep this information to hand in case you have any queries.

Customer:	
Location:	
Unit type:	
Serial number:	
Initially commissioned on:	
Installation company:	
Authorised technician:	

	Air quantity in m^3/h
Level 1	
Level 2	
Level 3	

Filter change (date):			

Maintenance (date):			

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