Ne^{xx}t: Description and Functions of the Control Element

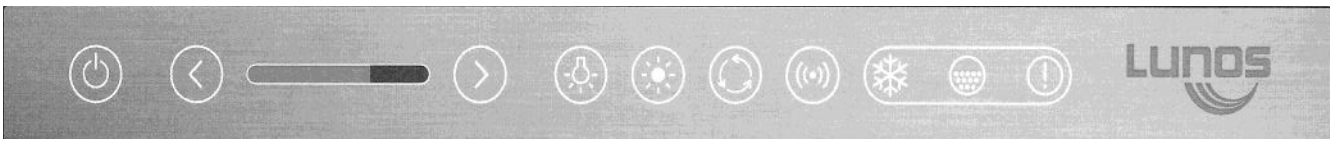
Preface

This information is primarily aimed at users of the Ne^{xx}t. We assume that the device and possible additional ventilation components have been installed and put into operation by a specialist.
We also assume that it is known which ventilation units and additional components have been installed and where and how they are connected.

The Ne^{xx}t is a state-of-the-art ventilation unit that can provide virtually constant air conditioning in the area of application without user intervention. Fully automatic functions for humidity control allow simple and highly effective ventilation, which no longer needs to be controlled by manual intervention of the user.
For example, a sensor-based automatic mode can be activated, which optimally controls the ventilation based on indoor and outdoor air values and regulates the airflow. Thereby, all necessary parameters are collected and processed. The Ne^{xx}t controls and regulates the necessary airflow volume automatically and adjusts to the existing conditions. The proper airflow volume is always selected automatically to prevent increased humidity levels.
All functions are structured in such a way that the required airflow volume of fresh air can be ensured and a minimum energy consumption is achieved at all times.

The following information relates to units with the firmware 0.91. Please refer to our homepage www.lunos.de to check whether there is a new firmware available.
LUNOS periodically releases new versions of the firmware, which may involve program improvements or even provide new functions for the Ne^{xx}t.

Description



1	ON/OFF	Button and display
2	Airflow volume lower	Button
3	Airflow level	Display
4	Airflow volume higher	Button
5	Display brightness control	Button and display
6	Summer ventilation	Button and display
7	Automatic mode	Button and display
8	Coupling of radio components*,**	Button and display
9	Warning indicator frost protection mode	Display
10	Filter replacement indicator	Display
11	Error display**	Display

* Only required when using one of the optionally available modules EnOcean and / or WiFi
** Still without function with the current firmware 0.91, can be activated via update at a later date

See www.lunos.de for further details

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Operation and Functions

Turning the unit on and off

Button 1 is used to turn the Nexxt on and off. When turning the device on, a short self test is carried out during which all LEDs light up briefly.

Adjusting the airflow volume

Manual control of the airflow volume is carried out via button 2 to reduce the airflow volume, and via button 4 to increase the airflow volume. The airflow volume can be continuously adjusted via the available eight stages to optimally meet the requirements.
The active stage is indicated by display element 3. One red light spot stands for one stage.

Display brightness control

Using button 5 the lighting of the control element can be switched on or set. LED brightness can be adjusted via eight stages. Brightness control is carried out by rolling, i.e. brightness is increased by one stage per button press up to maximum brightness. A further press turns the light off. By the next press of button 5 the light is switched on again at the lowest brightness level and can be increased from there on.
The respective brightness level is indicated by display element 3.

Summer ventilation

Summer ventilation can be activated via button 6 in conjunction with the buttons 2 and 4. This function enables the simulation of a so-called "summer bypass". In this way, the Ne^{xx}t obtains the opportunity to get fresh air from the outside into the apartment without heat transfer. In the summer months, for example, this function can be activated at night to cool the apartment with outside air.
Pressing button 6 in conjunction with button 4 for 10 seconds will switch the Ne^{xx}t to sole exhaust air mode. In this way, the Ne^{xx}t transfers the warm and stale room air to the outside and fresh cool outside air flows in via an open window or an optional ALD.
If another device of the type Ne^{xx}t is installed in a residential unit, this device can be set to sole supply air mode by pressing the buttons 6 and 2 for 10 seconds. The two devices in simultaneous operation will then provide a cooling down of the apartment even with the windows closed.

Frost protection mode

Permanent lighting up of display 9 indicates the activated frost protection mode. If a room air temperature of less than 8°C is measured, the Ne^{xx}t will switch off automatically. The ventilation mode is resumed only at a measured room temperature of greater than or equal to 15°C to prevent the residential unit from overcooling, which may damage the heating system .
If display 9 lights up for one minute at intervals of 30 minutes, the Ne^{xx}t is in dew-point monitoring mode. The operation is then optimally adjusted to the given conditions at low outdoor temperatures. In this way, excessive formation of condensate is avoided, which in turn puts off possible formation of ice in the heat exchanger.

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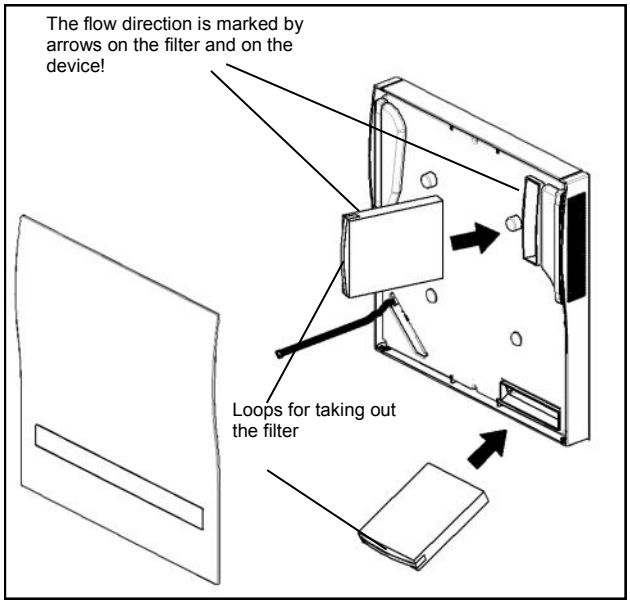
Protective functions and notes

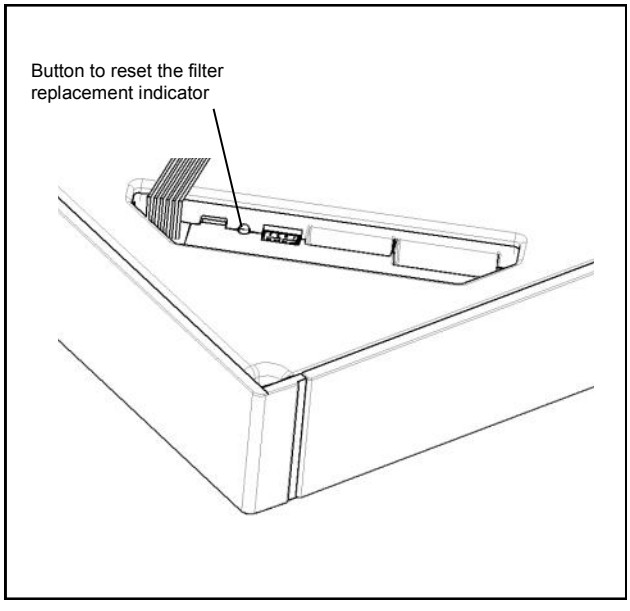
Humidity-sensitive automatic mode

Button 7 activates or deactivates the humidity-sensitive automatic mode. With the humidity-sensitive automatic mode activated, button 7 lights permanently and turns off when the mode is deactivated.
Manual changes of the airflow level carried out via buttons 2 and 4 during automatic mode are only valid for one hour. Thereafter, the Ne^{xx}t resumes the fully automatic adjustment of the airflow volume.
To enable optimal adjustment of the airflow volume to the local conditions, the Ne^{xx}t is supplied with eight sensors as standard. Both in supply air and exhaust air there are one humidity/temperature sensor each in front of and behind the heat exchanger.
This arrangement enables the Ne^{xx}t to decide independently when and how much ventilation is carried out. By comparing the humidity content of the room air (exhaust) to the outside air (fresh air) it is determined whether an increased ventilation makes sense. This is only the case if the humidity content within the residential unit can thereby be reduced. In this way, it is avoided that in the case of high humidity outside, e.g. during the summer months, indoor humidity is even enhanced by "wrong" ventilation measures.
If it is determined in the activated automatic mode that outside humidity is higher than indoors, the Ne^{xx}t will automatically return to a barely perceptible basic ventilation stage to merely provide a minimum air exchange.
If inside air humidity is higher than outside, the Ne^{xx}t will switch to the next higher ventilation stage at a relative humidity of 40% (factory setting) within the residential unit, which will be further increased depending on the relative humidity. In this way, it is ensured - as quietly as possible - that the humidity content is reduced as quickly as possible. The highest ventilation stage is reached at a relative humidity greater than or equal to 75% (factory setting).

Filter replacement indicator

Permanent lighting up of display 10 indicates a necessary filter change. Both the supply air and exhaust air filter should be changed in order to ensure proper operation of the Ne^{xx}t.
After changing the filters, reset the filter replacement indicator via the reset button behind the inner screen.





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