

Smart decentralized ventilation recuperation system

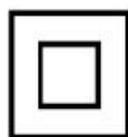
# ARS NORDIC LIGHT

USER MANUAL

TECHNICAL PASSPORT



Manufacturer: ARS NORDIC.LT



## Description

The device is designed to ensure constant air circulation in the premises. The device is designed and tested for Lithuanian climatic conditions!

The device is equipped with a ceramic air regenerator, which absorbs and retains the heat of the air leaving the room and heats the fresh water entering the room, thus ensuring minimal heat loss during the winter season. An electric heater, located at the outdoor temperature, heats the fresh water entering the room to the required temperature if necessary, thereby reducing energy costs for heating the outdoor air, preventing condensation and moisture from forming in the room, and protecting the room from mold and mildew.

The electric heater operates only in the mode when fresh air enters the room from the outside and when the outdoor temperature is below 5 degrees C.

The device is equipped with a specially designed ceramic air regenerator, which absorbs and accumulates the cooled moisture of the air leaving the room and thus cools the room with fresh air entering it, thus ensuring minimal energy consumption during the hot summer season.

The device is designed to operate continuously, i.e. 24 hours a day.

The maximum effect of the device is achieved only when operating continuously and in optimal mode.

**Attention!** Read the operating instructions carefully before using the device!

**Attention!** When unpacking the device, make sure that it is not visually damaged.

**Attention!** Keep the purchase receipt together with the stamped warranty card in case of any claims. Failure to do so will invalidate the warranty and will not apply.

**Attention!** Before installation, check that the voltage (V) and voltage frequency (Hz) correspond to the specified parameters.

**Attention!** When connecting the device, it is important to observe the polarity (see the "Installation and maintenance" section).

**Attention!** This device may only be used by children aged 14 and over, as well as by persons with physical and mental disabilities, if they have read and understood the instructions for use and the safety rules for this device. Children are not allowed to play with this device. Children are not allowed to service or clean the device.

**Attention!** All electrical connection and installation work must be carried out in accordance with current national and local laws and regulations.

**Attention!** All electrical connections and installation work must be carried out by technically trained and qualified personnel.

**Attention!** Before installing or connecting this device, you must turn off the main power supply.

**Attention!** This device is not intended for heating rooms and cannot replace heating rooms with heating devices.

**Attention!** This device is not intended for cooling rooms and cannot replace air conditioning. The device can be equipped with a screen and can be mounted on the wall, in the wall / concealed / suspended!

**Attention!** All specified parameters are valid at a distance of three meters from the device, at an altitude of 0 m above sea level and at an air temperature of +25°C to -5°C

**Attention!** Before installing and servicing the device, it is necessary to turn off the voltage in the electrical network.

**Attention!** At night, we recommend turning on the device in silent mode. If the device somehow interferes with sleep at night, it is better to completely disconnect the device during the night.

**Attention!** The device may only be installed by a qualified electrician.

### Technical data

Parameter	Value
Ventilation type	Decentralized regenerative ventilation
Heat recovery type	Ceramic regenerative heat exchanger
Airflow range	18 – 130 m <sup>3</sup> /h
Noise level	10 – 36 dB(A)
Supply voltage	220–240 V
Frequency	50 Hz
Maximum power consumption	16 W
Standby power consumption	< 1 W
Heater power	Up to 100 W
Control interface	Remote control
Environmental monitoring	Not available
Protection class	IPX4
Operating temperature	-30 °C to +50 °C

Minimum wall thickness – 28-33 cm.

## ARS NORDIC LIGHT:

Simple control. Smart functions. Reliable operation.

ARS NORDIC LIGHT is a two-fan mini recuperator, designed for the Lithuanian and Nordic states climate, where high humidity, frequent temperature fluctuations and a long heating season prevail.

The device is controlled by a simple remote control, without using apps or complex settings. Each remote control command is confirmed by a short sound signal coming from the internal control module - this way the user always knows that the device has successfully received the command.

### Automatic heating and protection

The ARS NORDIC LIGHT recuperator has an integrated automatic heating element, which:

- protects the heat accumulating element from possible freezing,
- protects the entire system from overheating or possible ignition.

All protections operate completely autonomously - no user intervention is required.

This is especially important when operating the device in Nordic climatic conditions, when the outdoor temperature often fluctuates around zero.

## Simple and clear control with the remote control

Top buttons of the remote control:

- LOW / MED / HI – three fan speeds
- STOP – fan stop
- Central button (ON / OFF) – device on / off

Bottom buttons – delayed shutdown timer:

- 1H / 2H / 4H / 8H

After the selected time, the device turns off completely, only the remote control receiver remains active.

This function is especially convenient in rooms that will not be used for some time after ventilation:

- saunas,
- sauna halls,
- homesteads,
- temporary housing.

## Switching on and operating logic

When the device is connected to the mains (~230 V):

- a short sound signal is heard,
- the fans are in STOP mode,
- frost protection is active even when the fans are not yet rotating.

When any fan speed is selected:

- first the air supply fan operates for up to 3-4 minutes,
- then the device switches to the standard cyclic operating mode

## Stable duty cycles

The fans operate alternately, ensuring stable heat accumulation:

- Air supply: ~1 min 40 s
- Air extraction: ~1 min 50 s

The time intervals do not change when changing the speed, but may change minimally at very low or high mains voltage.

The fan speeds are fixed:

- LOW – 5.5 W
- MED – 10 W
- HI – 18 W

At low mains voltage (<200 V), the fans may not spin at the lowest speed.

## Timer and shutdown

When the recuperator is turned on, you can activate the timer (1–8 hours).

When it is activated:

- the recuperator turns off completely,
- the frost protection also turns off.

To turn the device back on after the timer has been turned off, you must:

1. press ON / OFF,
2. select the desired speed LOW / MED / HI.

## **Automatic safety features**

- Frost protection – turns on and off automatically based on the coolant temperature. Does not work if the device is turned off by the timer or ON / OFF button.
- Overheating protection – always active, regardless of the device's operating status.

## **Energy consumption**

- Maximum fan power – 18 W
- Maximum heating element power – 21 W, decreases to ~4 W when reaching +80 °C
- Control electronics power – 1 W

## **Installation and connection**

Recommended electrical connection diagram:

- red wire – phase (“L”),
- black wire – neutral (“N”).

## **Unique remote control**

Each remote control has a unique paired code and works only with the device assigned to it. Other remote controls will not work with this device.

This is especially important in apartment buildings - your neighbors' remote controls cannot control your device

Filters - activated carbon filter and particulate filter - help ensure clean air flow in polluted urban and industrial areas. Helps clean the air from odors, dust, bacteria, soot, car exhaust fumes, etc.;

Telescopic air duct - allows you to adjust the length of the device depending on the wall thickness;

External grille with insect mesh - protects the device from moisture, even during heavy rain, and from insects entering the premises

## **MAINTENANCE**

### **Attention!**

Before performing maintenance on the device, you must turn off the power supply. Make sure that the device is completely disconnected from the power supply. Work should be carried out carefully, trying not to break plastic parts, damage or disconnect wires and electronic components. It is best to entrust the work to specialists!

The device should be cleaned regularly from dust and dirt.

To perform maintenance, you need to remove the decorative part of the internal grille with a screwdriver. Then easily remove the air filter, rinse it of dust, dry it. It is recommended to clean the device itself with a vacuum cleaner, and the fan blades with a damp cloth. Put the decorative grille back and install it.

Old dirty filters should be washed with warm water and soap and dried thoroughly so that they can be used the next time the device is cleaned.

The device should be cleaned once every three months, but at least once every 6 months or at least 2-4 times a year. By cleaning the unit more often, it will last longer and will not accumulate dust and dirt on the fans, which can cause damage due to fan imbalance.

To ensure maximum heat exchange efficiency, it is necessary to clean the unit regularly! The unit can be cleaned with a vacuum cleaner. After cleaning the unit, it must be wiped with a dry cloth.

## **WARRANTY AND SERVICE CONDITIONS**

### **1. Warranty period**

The manufacturer provides a 36 (thirty-six) month warranty from the date of purchase of the device.

The warranty is valid only upon presentation of:

- a valid purchase document (receipt or invoice), or
- a properly completed warranty card with the seller's signature and stamp.

The warranty applies only to manufacturing defects and structural failures of the device.

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### **2. Warranty application limits**

The warranty does not apply in the following cases:

- mechanical damage;
- improper installation;
- incorrect electrical connection;
- non-compliance with polarity;
- non-compliance with the operating instructions;
- unauthorized disassembly or modification of the device;
- use of the device for purposes other than its intended purpose;
- operation without filters or with clogged filters;
- failures caused by construction dust or environmental pollution;
- failures caused by unstable or improper electrical voltage.

Natural wear and contamination of filters are not considered a warranty case.

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### **3. Remote control**

Each remote control is factory-paired with a specific device and has a unique code.

A device does not work without an assigned remote control.

A remote control only works with the device assigned to it.

The warranty does not apply to:

- a lost remote control,
- a mechanically damaged remote control,
- damage due to incorrectly inserted batteries,
- remote control failures due to improper use.

Replacing or reprogramming the remote control, when it is not a factory defect, is a paid service.

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### **4. Maintenance and user responsibility**

The device must be regularly maintained.

The frequency of cleaning depends on:

- the purpose of the premises,
- environmental pollution,
- construction or repair work.

Filter cleaning or replacement can be performed by the user.

It is recommended that the internal cleaning of the device be performed by a qualified specialist.

If the device is not maintained or operated with clogged filters, the following may occur:

- the noise level may increase,
- the air flow may decrease,
- energy consumption may increase,
- mechanical failures may occur.

Failures caused by neglect are not covered by the warranty.

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#### 5. Service calls

If during a service visit it is determined that:

- the device is disconnected from the power supply;
  - the remote control batteries are incorrectly inserted or discharged;
  - the timer is set and the device is turned off;
  - the filters are not cleaned or are heavily contaminated;
  - the device is contaminated with construction dust;
  - the failure occurred due to improper operation;
- such a case is considered non-warranty.

In this case, the customer pays:

- arrival costs,
  - diagnostic time,
  - work performed.
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#### 6. Limitation of liability

The manufacturer and installer are not liable for:

- indirect or consequential losses;
- damage caused by improper operation;
- malfunctions of the device due to environmental conditions or instability of the power supply;
- noise or reduced performance due to uncleaned filters.

The manufacturer undertakes to eliminate only those defects that have arisen due to manufacturing or design flaws.

**Specifications and accessories are subject to change without notice.**

## Disposal



Disposal information. This symbol means that this electrical and electronic equipment must not be disposed of as household waste, but must be taken to a collection point for the recycling of electrical and electronic equipment.