

# Ultrasonic humidifier

## Airbi STAR



## Instruction manual

(version 1.0)



# 1 Before first use

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## 1.1 Why humidify the air?

Stay in heated rooms can be not only unpleasant, but also insanitary. One of the main reason is low humidity. Optimal humidity is between 45% and 60%, while in many of our homes in winter humidity drops below 20%.

What does low humidity causes? Dust particles, bacteria, viruses, dust mite feces are collected by nasal mucosa are exhaled back in normal state, but due to dry air these particles get into the lungs and reduce natural defense. This actions overload the immune system and irritate the mucous membranes, cough, cracked lips and it is very close to any kind of disease.

Ultrasonic humidifiers Avair are ideal for apartments, offices, everywhere where low humidity can cause health problems for people. Ultrasound produced vapor is harmless to health. The biggest advantage of the ultrasonic humidifiers is high performance together with low energy consumption.

## 1.2 Principle of ultrasonic humidifier

Ultrasonic Humidifier use the ultrasonic high-frequency oscillator to break up water into tiny water particles with the diameter of about 1-5 $\mu$ m. The ventilation system blows out this water into the dry air where they evaporate to give the required humidity. The clearly visible smooth and even fog can be seen out of the unit.

## 1.3 Security instructions

- Always read the user guide instructions carefully before using the device.
- Keep this User's Manual for future reference.
- After unpacking, make sure that humidifier wasn't damaged during transport. If you find any damage, contact your dealer as soon as possible. We recommend you keep the packaging for possible future use .
- Before first use check that the device parameters (electric voltage, etc.) correspond to local conditions.
- Always put the humidifier on a hard, flat horizontal surface, at least 15cm from the walls and away from any source of heat such as burners, radiators etc. The humidifier cannot operate on a surface that is not horizontal.
- Keep the humidifier out of reach of children. Do not permit children to play with it.
- Before using the humidifier, unwind the cord and check if it is not damaged. Do not use it if the cord is damaged.
- Do not plug or unplug the humidifier with wet hands.
- Never disassemble the basic unit.
- Never operate the humidifier with a defective plug or cord, or after a breakdown or damage of any kind. In these cases, return the appliance to the nearest approved dealer/repairer for verification and any necessary repairs or adjustments.
- Do not use additives such as perfumes, essences, etc.
- Do not shake the humidifier. This could spill water into the base unit and affect its operation.

- Do not leave the humidifier in the sun for a long period.
- If an unusual odour occurs during normal use, turn off the appliance, unplug it and have it verified by qualified personnel.
- Unplug the humidifier before cleaning or if removing the tank.
- Never touch the water or the immersed components when the appliance is in operation.
- Never turn on the humidifier when there is no water in the tank.
- Never scratch the transducer.
- To prevent any damage to the components, do not allow water to splash inside the base unit.
- Never wash the entire unit with water; do not immerse it.
- The ultrasonic humidifier should be cleaned regularly. To do this, refer to the cleaning instructions in this manual and respect them.
- Do not use the humidifier if the air in the room is already sufficiently moist (more than 50% relative humidity). Excessive humidity gives rise to condensation on cold surfaces or walls in the room.
- Device is only for indoor use.
- This device is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they are supervised or have the person responsible for their safety.
- Clean and dry device according to the following guidelines before storage. Don't store device when the water is inside. Store device on dry and cool place, out of reach of children.

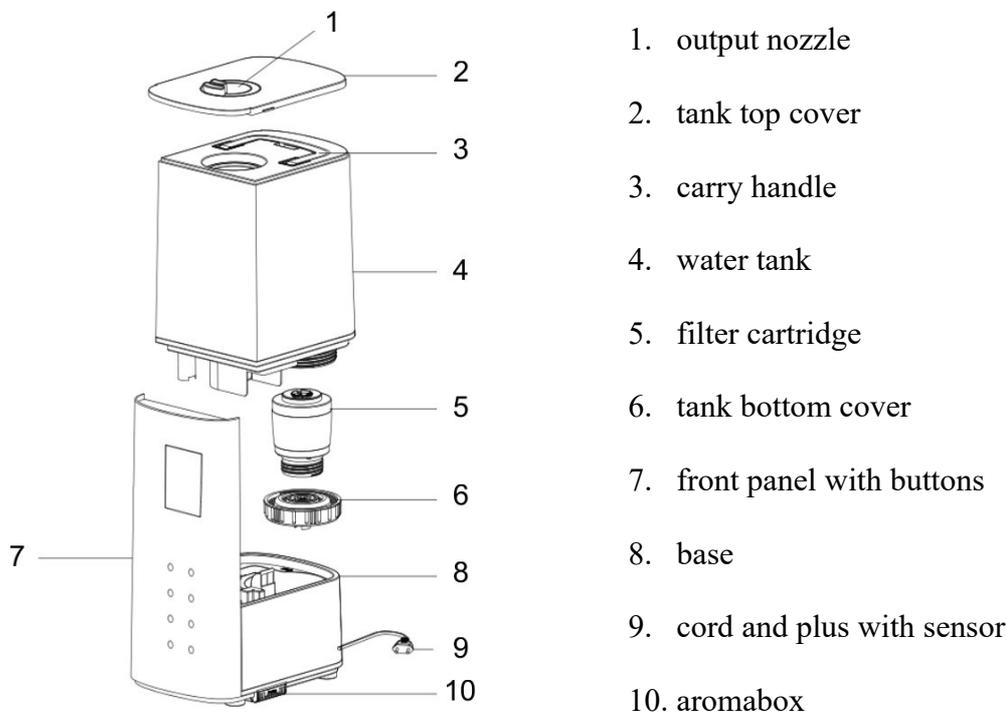
## 2 Description

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### 2.1 Technical specification

Model: SPS-921A  
 Evaporation rate: 120-350 ml/hod  
 Water tank capacity: 6 litres  
 Dimensions (V x Š x H): 26 x 18 x 35 cm  
 Weight: 2,5 kg without water  
 Color: black  
 Noise level: < 35 dB (A)  
 Power supply: 220-240 V  
 Frequency: 50/60 Hz  
 Total power: 30-110 W

### 2.2 Humidifier's diagram



### 2.3 Features and functions

- Low energy consumption, save 85-90 percent of electricity of normal steam humidifier.
- Lack-water security protection.
- Aromatherapy
- Low noise
- Plasma system to benefit your health.
- Timer function
- Ceramic filter to soften and purify the water.
- Preheating function
- Double mist output nozzle

- Large LCD display
- Night mode
- Remote control
- Releases abundant anion, promotes cellular metabolism, increases vitality and appetite, purifies blood and soothes one's nerve.
- Easy to refill water into the water tank
- Increase and regulate relative humidity of the room air.
- Eliminate electrostatic charges.
- Prevent different diseases.
- Keep your appearance fit and protect your skin.
- Long lifetime.

## 2.4 Plasma system

Plasma system function produces large amounts of positive and negative ions that break apart airborne pollutants on a molecular level, without producing harmful ozone.

## 3 Operation instructions

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### 3.1 Display control

You can control humidifier with 8 buttons on display.



ON/OFF



TIMER



MAX/MIN



HUMIDITY



PLASMA



LIGHT



MODE



HEATING

#### Buttons

**ON/OFF** – turn on/off humidifier

**TIMER** – turn on/off timer

**MAX/MIN** – set the mist output level

**HUMIDITY** – set the target humidity level

**PLASMA** – turn on/off plasma system function

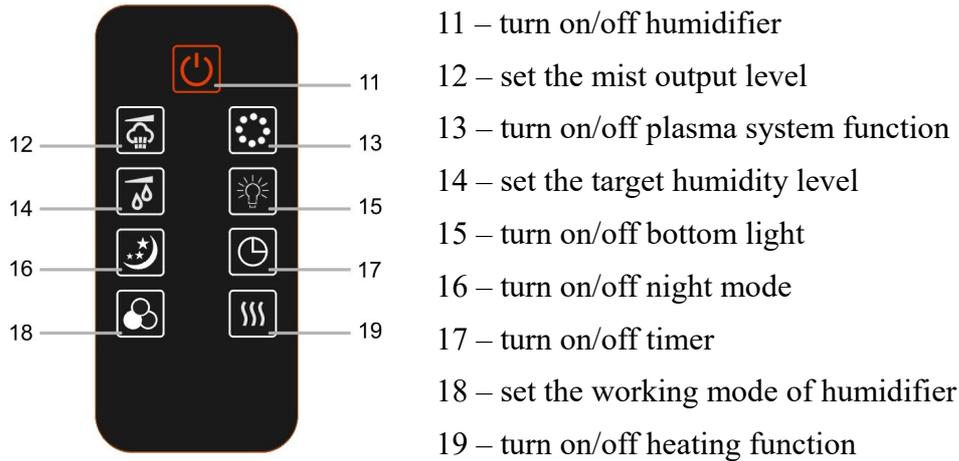
**LIGHT** – turn on/off bottom light

**MODE** – set the working mode of humidifier

**HEATING** – turn on/off heating function

### Remote control

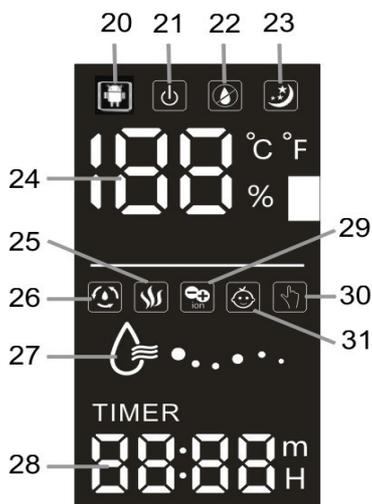
The unit can also be operated with 9 buttons on the remote control. Their function is the same as the function of the buttons with the same name directly on the device. If there is a protective plastic strip in the battery compartment, it must be removed before using the remote control for the first time.



- 11 – turn on/off humidifier
- 12 – set the mist output level
- 13 – turn on/off plasma system function
- 14 – set the target humidity level
- 15 – turn on/off bottom light
- 16 – turn on/off night mode
- 17 – turn on/off timer
- 18 – set the working mode of humidifier
- 19 – turn on/off heating function

### 3.2 LCD display

The LCD display shows the measured values of temperature and humidity around the device and the other symbols for the different functions of the device.



Description of all segments on LCD display:

- 20. icon for SMART mode
- 21. icon switch OFF
- 22. icon of empty water tank
- 23. icon of night mode
- 24. temperature (°C) or relative humidity (%)
- 25. icon of heating function
- 26. icon of AUTO mode
- 27. animation of mist volume
- 28. timer
- 29. icon of Plasma function
- 30. icon of MANUAL mode
- 31. icon of CHILD mode

### 3.3 Getting started

Before first use, allow the device to adjust room temperature at least half an hour. The device is recommended for use in the temperature range 5-40 °C and relative humidity less than 80%. Remove the top water tank cover (2) and lift by carry handle (3) water tank (4) from base. Unscrew the cover from the bottom of the tank and fill the tank with clean water (water temperature should be under 40°C). After filling water tank close it. There is no need to tighten the cap (6) too much as re-enabling could require more force.

Check the bottom part of the humidifier and make sure that this part is clean. Carefully place the water tank on the base, put top cover on water tank and wait a few seconds before the water gets into the basin. Plug the cord into the outlet and make sure that humidifer is installed on solid and flat surface. Switch on the humidifer with on/off button (NEVER SWITCH ON DEVICE WITHOUT WATER IN BASIN). If the device is switched off but plugged in el. network, display shows switch off icon (21).

Turn on the unit using the ON / OFF button on the front of the unit or on the remote control. After the humidifier is started, a visible mist will come out of its output nozzle after a while.

Double output nozzle of the humidifier can be set in two different direction. The outlet nozzles should not be set directly on persons in the vicinity of the device (eg sleeping baby, etc.) or towards the built-in hydrostat on the supply cable as the falling mist can affect the measured relative humidity values.

You can use one of the 4 modes by mode button:

**SMART** - an intelligent working mode where the device itself sets the target humidity level, which it tries to maintain depending on the ambient temperature (the SMART mode icon is lit on the display). The lower the ambient temperature, the higher the target humidity.

**MANUAL** – in this mode you can set the intensity of the mist output. Use the mode button (18) to switch to MANUAL mode. The MANUAL mode icon (30) lights up on the display. Use the mist output level button (12) to select one of three levels (low, medium, high). Depending on the selected stage, the animation on the display (27) changes.

**AUTO** – in this mode you can set the target humidity value you want the device to maintain. Use the mode button (18) to switch to AUTO mode. The AUTO mode icon (26) lights up on the display. Use the target humidity setting button (14) to set the relative humidity value you want to maintain (from 35% to 75% in increments of 5%, Co means continuous humidification). When editing this mode, the currently set value is shown on the display, after a few seconds of inactivity, the display switches to displaying the current humidity value.

**CHILD** – in this mode is device preset to the target value of 55%, Plasma system function and heating function is activated on the device.

You can use the **PLASMA** button to activate / deactivate the Plasma System function. For more information on this feature, see section 2.4 of this manual. This function is indicated by the icon (29) on the display. When the function is active, the icon on the LCD will be light on.

You can use the **TIMER** button to set a timer that determines how long the machine will operate. The user can set the time of 1-12 hours and after this time the device switches itself off. When this function is active, the time (28) for which the device is still operating will be lit on the display.

The **LIGHT** button can be used to adjust the backlight on the bottom of the unit. With the same button, the backlight can be dimmed or turned off completely.

You can use the **HEATING** button to activate the heater function on the unit. When this function is activated, the icon for this function (25) lights up on the display. The heater function warms the water slightly in the lower chamber before leaving. When the heating function is on, the consumption of el. power of the device is higher.

If the water tank is depleted during operation, the unit switches off automatically, a beep sounds and the empty container indicator light (22) lights up.

Holding down the PLASMA button for 2 seconds will deactivate / activate all device beeps.

Holding the HUMIDITY button for 2 seconds activates the night mode of the device. The night mode icon (23) lights up on the display, the beeps are turned off, and the display goes out

completely after a few seconds - only the night mode icon is dimmed. When any button is activated, the LCD will light up and if no button is pressed, the backlight will be muted again after about 5 seconds.

The device is equipped with a ceramic water filter (see diagram of the device, point 5), which consists of an inner cylinder, an outer cover and ceramic balls. The plastic part contains silver nanoparticles that sterilize water and destroy microbes (anti-bacterial functions). Ceramic balls soften water (trap minerals) and remove unusual odor of water.

If the appliance is used regularly, it is necessary to change the water filter regularly once a year. Once a month, the filter must be cleaned for perfect water filtration. For more information, see Section 5 - Maintenance.

### 3.4 Aromatherapy

Humidifier enables the use of aromatic essences. Open the aroma box (10) at the side of the device, pour 5 – 10 drops of your favorite essential oil on the pad and close the aroma box. Humidifier uses the latest techniques based on ultrasound, so that essential oils and water atomized into microscopically small droplets. With this technology, you can take advantage of the positive potential of aromatherapy for their needs.

**Please note:** excessive use of aromatic essences may damage plastics in the device. **Never add aromatic substances directly into the water container or into the lower chamber of the device.** In case you want to use a different scent, it is recommended to use a new piece of dry cotton wool or felt in aroma box. Use only fragrance, aroma essences that do not contain alcohol. Alcohol can damage equipment. Equipment that is damaged by alcohol essences can not be guaranteed.

## 4 Troubleshooting

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Trouble	Possible reason	Solution
Power lamp off, humidifier does not work	No power supply	Connect power supply, switch on
Power lamp on, no mist outlet with wind	No water in water tank	Fill water into water tank
Abnormal smell mist	New unit	Take out water tank, open cover, let it stay 12 hours in cool position
	Dirty water or long time staying water	Cleaning water tank, fill in clear water
Power lamp on, unit doesn't work, water is leaking.	Cover of water tank is loose.	Tighten the cover properly.
	Water tank is broken	Contact authorized service
Mist fog is too small	Too much scum in the water basin	Clean transducer
	Water is too dirty or water kept too long in the tank	Clean water tank, change to fresh clear water
Abnormal noise	Resonant in water tank when water is too less	Fill water into water tank

	Unit is on an unstable surface	Move the unit to a stable flat surface
Mist coming out from around nozzle	There are apertures between the nozzle and water tank	Dip the nozzle in water for a while and then fix it to the socket on water tank

**As faulty is not considered the following :**

1. If use too hard water in humidifier white coating of sediment may appear in the room. This is not malfunction. Please use soft water.
2. Gurgle of water which can be heard close to humidifier is a normal sound.
3. The device operates quietly, but not completely noiseless. Noise less than 35 db is not considered as defect.

**WARNING!**

**Should up mentioned solutions do not work please contact the manufacturer or agent. Do never arbitrarily disassemble, repair or restructure the apparatus.**

## 5 Maintenance

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In case when the water is hard which means water contains too much calcium and magnesium, they can cause “white powder” problem and give heavy scum on the surface of water basin, transducer and inner surface of the water tank. Scum on the surface of transducer will make the unit work improperly.

**We recommend:**

1. Use cold boiled water or distilled water.
2. Clean the transducer, water tank and basin unit every week.
3. Change the water in water tank more often to keep it fresh.
4. Clean the whole unit, and make sure to keep all parts of the unit dry completely when the unit is not in use.

**How to clean the transducer:**

1. Put 5-10 drops of vinegar on the surface of the transducer, wait for 2-5 minutes.
2. Brush out the scum on the surface.
3. Rinse the transducer with clean water.
4. Never use sharp and solid objects for cleaning of transducer

**How to clean the basin unit:**

1. Clean the water basin with soft cloth and the vinegar if there is scum in it
2. If the scum is covered on the security switch, drop the vinegar on the scum and clean it out with the brush.

3. Rinse the water basin with clean water.

#### **How to clean water filter:**

1. Take the filter system away from the tank cover.
2. Put the filter system into the white vinegar for about 10 minutes.
3. Take the filter system away from the white vinegar; shake for several times, clean it with clear water.

#### **How to replace water filter:**

1. Take the filter system away from the tank cover.
2. Fix new water filter.
3. Replacement is finished.

If you don't plan to use humidifier longer time remove the water filter and let it dry thoroughly. Then wrap it in protective packaging and keep it dry and dark place.

## 6 Disposal of the device (environment)

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At the end of the product lifecycle, you should not throw this product into the normal household garbage but bring the product to a collection point for the recycling of electrical and electronic equipments. The symbol on the product, user guide and/or box indicate this. Some of the product materials can be re-used if you bring them to a recycling point. By reusing some parts or raw materials from used products you make an important contribution to the protection of the environment. Please contact your local authorities in case you need more information on the collection points in your area.

**Batteries must be removed before disposing of the device.**

**Dispose of the batteries in an environmental manner according to your country regulations.**

This product is in compliance with the essential requirements and other relevant provisions of Directive 89/336/EEC. The device was approved for use in EU countries, therefore, bear the CE. All necessary documentation is available at the importer address.

Changes in technical parameters, properties, printing errors in the instruction manual reserved.

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