

Ultrasonic humidifier

**orava**

# HUM-42

Instruction manual

EN



CE

HUM-42

## Intended use of the device

The device is designed exclusively for humidity treatment and distribution of humid air in enclosed living spaces, to the extent specified by technical and operational parameters and functions, safety and user instructions and external influences of the operating environment.

ORAVA electrical appliances are manufactured according to the knowledge of the current state of technology and recognized safety and technical rules. Nevertheless, incorrect and unprofessional use or use contrary to the intended purpose may create a risk of injury or endanger the life of the user or a third party, or damage to equipment and other property.

### 1. GENERAL SAFETY INSTRUCTIONS AND WARNINGS

- This document contains important safety instructions and warnings for safe, correct and economical operation of the electrical equipment. Its compliance helps the user avoid risks, increase reliability and product life.
- In this document, the general term product is used in text parts such as: electrical equipment - any device used for the production, conversion, transmission, distribution or use of electricity.
- From the point of view of the purpose of using electricity, the concept of electrical equipment in the strict sense of the word will include the following categories:
  - household electric appliances,
  - information and communication equipment,
  - consumer electronics,
  - lighting equipment,
  - electrical and electronic tools,
  - toys and equipment for sporting and recreational purposes,
  - medical devices (aids),
  - monitoring and control devices,
  - vending machines.

#### 1.1 General safety instructions

- Before operating the unit, we recommend that you carefully read the instruction manual and operate the equipment in accordance with the instructions!
- The safety instructions and warnings in this manual do not cover all the possible conditions and situations that may arise when using the device. The user must understand that a factor that cannot be incorporated into any of the products is personal responsibility and caution. These factors must therefore be ensured by users serving this device.
- Failure to follow the safety instructions and warnings is forbidden by the manufacturer for any damage to health or property!
- Keep the instruction manual as close to the device as possible throughout its service life. Always keep the instruction manual together with the appliance for future use and use by new users.
- Use the appliance only for the intended purpose and in the manner specified by the manufacturer.
- The appliance is intended for home and similar indoor use without special focus.

- This appliance is intended, in addition to domestic use, for the following uses:
  - in shops, offices and other similar work environments;
  - in economic buildings;
  - in hotels, motels and other residential environments;
  - in bed and breakfast establishments.
- It is not a professional device for commercial use.
- Do not change the technical parameters and features of the device by unauthorized modification or modification of any part of the device.
- The manufacturer is not responsible for damages caused during transportation, misuse, damage or destruction of the equipment due to adverse weather conditions.

## **1.2 Safety of the operating environment**

- Do not use the device in an industrial environment or outside environment!
- Do not expose the appliance to:
  - sources of excessive heat or open flame,
  - dripping or splashing water,
  - vibration and excessive mechanical stress,
  - insects, animals and plants,
  - aggressive and chemical substances.
- The operating environment of the device must always be in accordance with the basic characteristics set out.
- Features of the operating environment:
  1. Ambient temperature:  $+5 \div +40$  ° C
  2. Humidity:  $5 \div 85\%$
  3. Altitude:  $\leq 2\,000$  m
  4. Occurrence of water: intermittent condensation of water or occurrence of water vapor
  5. Occurrence of foreign bodies: quantity and type of dust are insignificant
  6. Protection degree: min. IP20 (device protected from touching dangerous parts by hand and non-waterproof)
- This degree of protection is not indicated on the product and on the technical parameters in the operating instructions.
- If the protection class of the product is different from IPX0, this information is then displayed on the label of the appliance or in the technical data of the operating instructions.
- Other characteristics of the domestic operating environment (mechanical stress - vibrations and vibrations, occurrence of plant, animals, weather effects ...) are negligible in terms of effect on the correct and safe use of electrical equipment.

## **1.3 Electrical safety**

- Before connecting the appliance to the power supply for the first time, make sure that the voltage on the appliance label corresponds to that of the household electrical outlet.
- The electric appliance is designed to power from 1 / N / PE ~ 230 V 50 Hz.
- The electrical safety of the appliance is guaranteed only if it is properly connected to the mains.

- Electrical protection class I equipment is equipped with a protection against electric shock by means of protective earthing of inanimate parts, which can become dangerous when the device is malfunctioning. Always connect such devices to properly installed mains sockets that are equipped with earthing conductors and have a properly grounded earthing conductor.  
All electrical equipment is equipped with a three-wire power supply.
- Class II electrical equipment is protected against electric shock by double insulation or by enhanced insulation of hazardous live electrical parts. Device of protection class II it must not be equipped with means to connect protective earthing.  
All electrical equipment is equipped with two-wire power supply.
- Class III electrical equipment is a device that is powered by a small safe voltage source (battery or accumulator) and does not present any danger to the user from electrical shock.
- In order to provide increased safety against the risk of electric shock due to the use of electrical appliances by laypersons, it is recommended to install the power supply circuit for sockets with a rated current not exceeding 20 A RCD with a rated operating current not exceeding 30 mA.  
To ensure the safety and correctness of the electrical installation, consult a qualified electrician.
- Only use a power cord with a plug (mains lead) supplied with the device and compatible with a wall socket. Using another cable may result in fire or electric shock.
- Always connect an electrical appliance to an easily accessible mains socket. In the event of an operating fault, the appliance must be switched off as soon as possible and disconnected from mains supply.
- The power cord and mains plug must always be easily accessible for safe disconnection of the electrical appliance from the power supply.
- Do not pull off the power cord by pulling the cable. Disconnect the power cord by pulling the plug behind the power cord plug.
- If you use an extension cord, make sure that the total rated power of all devices connected to the extension cord does not exceed the max. current load on the extension cable.
- If you need to use an extension cord or power supply block, make sure that the extension cord or power pack is plugged into a power socket, and not to another extension cord or power supply. The extension power cord or power supply block must be designed for grounded electrical plugs and connected to a properly grounded electrical socket.
- The power plug of the appliance must be compatible with the mains socket. Never use any adapters or modify the socket in any other way. Do not use inappropriate or damaged drawers!
- To avoid electrical shock, plug the power cables into properly grounded electrical sockets. If the device is equipped with a 3-pole plug, do not use adapters that do not have a grounding element or remove the grounding element from the plug or adapter.
- Do not bend, crush or otherwise expose the power cord of the appliance to mechanical stress or external heat sources. Damage to the power cord may result in electric shock.
- When the power cord is damaged, disconnect the appliance from the mains and do not use it again.

- If the power cord is damaged, it must be replaced by the manufacturer, its service department or a similarly qualified person to avoid the risk of electric shock.
- Regularly check and maintain the electrical appliance as well as the power cord and power socket. Disconnect the power plug regularly and clean it if necessary. Pollution by dust or other substances may cause disruption of the insulating state and consequently fire.
- Do not expose the appliance to water or moisture. The ingress of water into the appliance increases the risk of electric shock.  
If the power cord is wet or the water has penetrated the water, disconnect it immediately from the mains. If the appliance is plugged into a mains socket and if possible, turn off the power circuit before attempting to unplug the power. If you are pulling wet wires from a live power source, be very careful.
- If the electrical equipment is installed (connecting) the protective covers are dismantled, the electrical parts must not be accessible to the user when the installation is finished.

#### **1.4 Safety of persons**

- This appliance is intended for use and operation by persons without electrotechnical qualification - lay people, according to the instructions specified by the manufacturer.
- Device operation includes activities such as switching on and off, user manipulation and setting of operating parameters, visual or auditory inspection of the equipment, and user cleaning and maintenance.
- This appliance can be used by children under the age of 8 and persons with reduced physical, sensory or mental capabilities or lack of experience or knowledge when supervised or instructed to use the appliance safely and understand the dangers involved.
- Children may not play with the appliance.
- Cleaning and maintenance for users may not be performed by children unattended.
- Always keep the appliance out of reach of children during use and operation. Be sure to disconnect the appliance even for a freely accessible power cord.
- Always be careful when operating the electric appliance! Do not use an electric appliance if you are overly tired, under the influence of medication or narcotic drugs that reduce attention and focus.
- Inattention during operation may result in serious injury.

## 1.5 Cleaning, maintenance and repairs

- Observe the normal user cleaning and maintenance of the appliance in the recommended way. Do not use solvents or harsh cleaners for cleaning. Pollution and visible stains from finger contact, respectively. The hands can be cleaned using detergent detergents specially designed to clean household appliances.
- If you do not use the appliance, clean it or disconnect the appliance from the power supply when the appliance is faulty.
- Electrical appliances that are cleaned after use and are not intended to be completely or partly immersed in water or other liquid, protect against the effects of dripping and / or splashing water and before immersion.
- Electric household appliances, like all other technical devices, are subject to the surrounding environment and natural wear. Since the legal framework of regular maintenance is not laid down for lay-in electrical household appliances, the manufacturer recommends that the user have the appliance checked and cleaned at least once a year by a specialist workshop.
- By doing so, it is possible to achieve safety, operational reliability and increased service life.
- Do not disassemble the electric appliance! The appliance works with a dangerous voltage. For this reason, always switch off the appliance and disconnect it from the mains supply during user maintenance. In the event of a fault, please have the repair serviced by an authorized service center.
- Before calling a service:
  1. Turn the appliance off and on to make sure the fault reappears.
  2. If the malfunction of the appliance still persists after these operations, call the nearest specialist service center.
- Never repair the electric appliance yourself!
- Unauthorized, unqualified and improper use of an electric appliance may result in electric shock or other serious injury.
- Only carry out the warranty or post-warranty repair of an electrical appliance to an authorized qualified person <sup>(\*)</sup>.

<sup>(\*)</sup> Competent qualified expert: the sales department of the manufacturer or importer or the person qualified and authorized to carry out this type of activity with the ability to avoid all risks.

## 2. SPECIAL SAFETY INSTRUCTIONS. READ CAREFULLY

- The electrical device is designed and manufactured in such a way as to allow safe operation and use by persons without professional qualifications. Despite all the measures taken by the manufacturer for safe use, operation and use, there are certain residual risks and the associated hazards.
- The following symbols and their meanings have been used on the device and in the accompanying documentation to warn of possible dangers:



This symbol alerts users to the fact that the device operates on hazardous electrical voltage. Do not remove the protective covers on the device. Failure to observe the safety instructions for the use and operation of the device may result in:

Danger of electric shock! Danger of serious injury or death!



This symbol alerts users to the risk of serious injury or death if the safety instructions for the use and operation of the device are not observed!

Danger of equipment damage or other property damage!



This symbol used on the product replaces the sentence: Do not immerse in water or other liquids!



This symbol means that the product is made with double insulation between dangerous live parts (parts with dangerous mains voltage) and parts that are accessible during normal use.

### Transportation/Transfer

- When transporting and carrying, be careful when moving to prevent the device from tipping over and being damaged.
- Only transport / transport the device after a thorough inspection of the area and the route, which must be unobstructed.
- Do not carry the device until all cable connections have been disconnected. Never carry the device while it is in operation.
- Take extra care when carrying the device when it is filled with water. Spilling water can cause a dangerous situation or damage property.
- Carry the device by firmly grasping the bottom edge of the base or the fixed parts of the covers.
- When carrying, make sure that your hands and the device are not wet or slippery. Danger of injury!  
Danger of damaging the device!

## **Unpacking/Packaging**

- Before putting the device into operation, unpack the device and dispose of all its parts and accessories with residues of packaging materials, etiquettes and labels. Keep all packaging materials in a safe place or keep them out of the reach of children and incompetent persons.  
Danger of serious injuries!  
Danger of suffocation!

## **Inspection/Commissioning**

- We recommend performing initial and subsequent regular inspections of the device. Prior to installation and initial commissioning, make sure that the device is complete and shows no visible signs of damage.
- Do not use the device if it is incomplete, damaged or any part of it has been damaged during transport or use. In this case, have the device repaired by a specialist garage.
- Never clean the device (body with electrical parts and control panel) and the power cord with plug in a way that could cause liquid to flow into the device. Clean these parts only with a damp cloth and wipe dry or allow to dry.
- Only clean the device when it is switched off and unplugged.  
Danger of serious injuries!

## **Location/Installation**

- Only use the device in a working (vertical) position on a flat surface where there is no risk of it tipping over.
- Do not place the device:
  - on unstable tables or parts of furniture,
  - on uneven surfaces,
  - near containers with water or other liquids.
- Do not place or use the device on „soft“ surfaces, such as bed mattresses, seats for upholstered sofas and armchairs, etc.
- Always make sure that the place where you want to place the device has sufficient stability and mechanical strength.  
There is a risk of damage to the device or other property damage!
- Do not place or use the device near containers containing water. Do not remove the device if it falls into the water. First pull the mains plug out of the mains socket and only then remove the device from the water. In such cases, take the device to a specialist garage for verification that it is safe and working properly.
- Do not expose the device to mechanical, thermal, chemical or other adverse external influences



## **Operation/Supervision**

### **Caution!**

- High humidity in the room can cause a dangerous situation when using electrical and electronic device that uses dangerous mains voltage for its operation!  
There is a risk of electric shock!  
There is a risk of damage to the device or other property damage!

### **Caution!**

- Clean the device regularly and thoroughly during use!
- Improper and irregular cleaning of the device can cause the formation of internal contamination (bacterial contamination), which can result in the spread of unsuitable microorganisms in the air.  
Danger of damage to health!

### **Warning!**

- The device is intended for use in smaller living and working areas with a reduced level of humidity. Use the device only with a charge of clean water. Do not add any additives to the filling of the device.
- Distilled water can also be used in the container of the device. In this case, take extra care not to let this water be swallowed by children, other people or animals.
- Do not tilt the device, attempt to refill or empty the device during operation.
- Always keep the device under supervision during use and operation!
- This device is not intended to be operated by means of an external programmer, automatic timer and remote control, as there is a risk of fire if the device is covered or incorrectly positioned.
- Do not switch on the device unless there is enough water in the tank.
- Always disconnect the device from the mains before filling the water tank.
- Do not expose your face and eyes to the direct effect of water mist coming out of the device.
- Check the humidity of the environment during the operation of the device. Do not use the device if excessive moisture starts to form in the room, which can cause condensation to form on the windows, technical equipment or walls of the room, with a possible risk of mold growth.

- Do not partially cover the device. Do not place any objects on the device. Do not insert or allow foreign bodies to enter the openings of the device covers.
- Do not cover the air vents of the covers. Air ventilation ensures safe and reliable operation of the device.
- Leave enough free space around the device to ensure the required air circulation. It is recommended to leave min. 50 cm on all sides.

There is a risk of electric shock!

There is a risk of fire!

- Do not place any objects on the device, do not allow foreign bodies to enter the openings. Make sure that no dirt from the environment enters the device.
- To avoid a dangerous situation, do not touch the device with wet or damp hands and the device is connected to the mains.
- Do not allow children to handle the device. The device can tip over and cause serious injury. Mechanical damage (cracking or breaking of parts and covers) of the device can cause serious injuries.

Danger of serious injuries!

There is a risk of damage to the device or other property damage!

- Do not leave the device unattended during operation, especially if there are children, incompetent persons or animals near them.
- Before each connection of the device to the mains, make sure that the main switch (control knob) is in the „0“ „OFF“ position.
- Do not turn the machine on or off by plugging or unplugging the power cord.
- For normal use, always connect the appliance to the mains first and then switch it on with the main switch.
- When you have finished using the device, switch it off with the main switch and then pull the mains plug out of the mains socket.
- Do not use the device if the main power switch does not work on the device.
- The device is under dangerous voltage when the mains supply is connected.

There is a risk of electric shock!

- Never leave the device unattended and freely accessible with a loose power cord. Children, incompetent persons, or animals could pull or tip the device by the power cord.
- Unplug the power cord from the electrical socket when not in use. Store the device with the power cord attached to the solid parts of its covers.  
Danger of serious injuries!
- Never overload the device above the limits set by the technical parameters!
- Observe the operating mode of the device in accordance with the operating and operating instructions.
- If you notice any abnormalities (sounds, odors, smoke, ...) while using the device, turn off the device immediately and disconnect it from the mains. Have the device checked by a specialist garage.
- Before performing assembly, disassembly, filling, emptying, user maintenance or cleaning of the device, always switch off the device with the main switch and disconnect the power supply from the electrical socket.
- Always make sure that the device is switched off and unplugged.
- Maintain and clean the device regularly during regular and frequent use. Improper cleaning and maintenance of the device can damage the device, reduce its safety, operational reliability and service life.
- If any safety part / component (mechanical, electrical) is part of the device, never deactivate this part / component! Do not use the device if the safety part / component is damaged or non-functional!
- Never underestimate the possible dangers and take extra care!!!

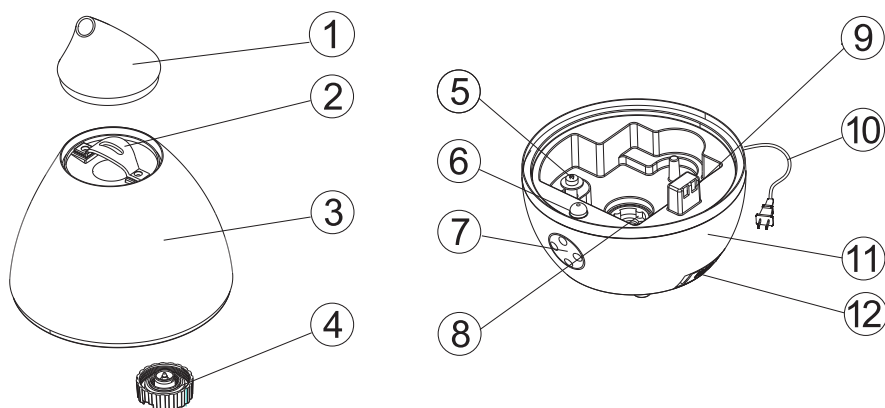
## Characteristic features and functions

The device is designed to humidify the air in the home. It has an elegant shape and low energy consumption.

Ultrasonic humidifier:

- operating time without water replenishment 14 - 35 hours depending on the selected output.
- elegant appearance
- very quiet
- adjustable output flow
- container volume 4 l
- low consumption
- no-load protection

## Description of parts



1. steam outlet nozzle
2. tank handle
3. water tank with a capacity of max. 4 l
4. water tank cap
5. water level sensor
6. LED night light
7. control panel
8. converter (area where water changes to steam)
9. air outlet
10. power cord
11. base
12. fragrance container

# Principle of operation

Ultrasonic humidifiers atomize water into microdroplets with a diameter of about 1 - 5 micrometers, using the principle of ultrasonic high-frequency oscillation. They disperse this water vapor into the air by means of an air-conditioning device in order to evenly humidify the air. This ultrasound technology is used in many areas.

## Basic information

- Automatic safety protection in case of lack of water: the water level protection switch stops the atomization performed by the inverter as soon as the water level in the water bowl falls below the pre-calculated level, thus protecting the inverter from damage, with the red power light still on and the discharge fan still he works.
- The cold steam flow can be adjusted as required.
- The water tank is transparent so that the water level is visible.

## Ideal humidity ranges

Relative humidity means the ratio of water content to vapor content in saturated air at a given temperature and in a particular space. It is generally referred to as% RH, for example 45% RH.

The air always contains water vapor and its percentage changes with temperature. The higher the temperature, the more water vapor the air absorbs. Therefore, we use the term relative humidity. In winter, when cold air enters the room, it heats up to a temperature corresponding to the indoor air and at the same time the relative humidity drops. In order to maintain a healthy humidity in the interior, it is necessary to artificially add water vapor to the air

- which is humidification of air.

Ideal relative humidity levels under different conditions (just as an example):





- ideal humidity for humans: 45% - 65% RH
- ambient humidity most suitable for disease prevention and treatment: 40% - 55% RH
- computers and communication equipment: 45% - 60% RH
- furniture and musical instruments: 40% - 60% RH
- libraries, art galleries and museums: 40% - 60% RH

# Commissioning

## Before using this device for the first time

- Remove all protective films, stickers and packing material.
- This humidifier must be left in the environment for half an hour to adjust its temperature for the first time before first use.
- The required operating environment for this humidifier is: temperature 5 - 40 ° C and max relative humidity 80% RH.
- Use clean water with a temperature below 40 ° C; filtered water is recommended.
- If some water remains in the water tank after the unit automatically shuts off due to insufficient water, this is not a malfunction but a normal phenomenon.

## Control

- 1 Open the bottom lid of the water tank (4) by turning it to the left, pour water into it (maximum 4 l) and then secure the lid by turning it to the right. Place the tank on the base (11).
- 2 Connect the humidifier to the prescribed electrical socket.
- 3 On the control panel (7), touch the power switch .
- If the water tank (3) is permanently located on the base, the green operation light on the control panel (7) will light up.
- 4 On the control panel (7), touch + or - to adjust the low or high cold steam flow.
- 5 Touch the z button on the control panel (7) to turn the LED light to color changing mode. By touching the  button again, the light stays on in the same color as when the  button was touched. Touch the  button again to turn off the light.
- 6 If the water runs out, the red low water light will flash. Fill the tank with water. The light then goes out.

If you need to clean the device or pour water out of it, prepare a container, open the lid by turning it and pour the water into the prepared container.

After emptying the device, screw the cap back on.

## Troubleshooting

If the humidifier does not work properly, check the device before contacting service and see the following overview of possible problems and their solutions.

**The device is switched on, blowing air, but without moist cold steam.**

*There is no water in the tank.*

*Fill the tank with water.*

**The container lid with the water level valve is not properly closed.**

Close the cap again.

**The strange smell of cold steam.**

*The device is new.*

Leave the water tank uncovered in a cold place for about 12 hours.

The water is dirty or has been in the tank for too long.

Clean the water tank and refill it.

**The power light is on, but no air is blowing or cold steam is being generated.**

*The water level in the tank is too high.*

Keeps the water level at a normal level.

**The device produces little cold steam.**

*The inverter is dirty.*

Clean the inverter.

*The water is dirty or has been in the tank for too long.*

Clean the water tank and refill it.

**Hear strange sounds.**

*Resonance caused by lack of water in the water tank.*

Add water to the bowl.

*Resonances of the surface on which the device is located.*

Place the device on a stable surface or on the ground.

If the humidifier does not operate normally even after performing the solutions listed here, contact your dealer or an authorized service center.

# Cleaning and maintenance

In some places, the water is hard with a high content of calcium and magnesium ions.

Therefore, when you turn on the humidifier, calcium and magnesium ions are partially atomized along with the cold steam and may settle on the surface of objects and on the floor as a white powder.

After drying, some ions settle on the surface of the transducer and the water tank in the form of a deposit. All this is caused by water impurities. The deposit on the surface of the inverter affects the efficiency of the humidification.

## Tips:

- Use clean water for humidification.
- Clean the inverter, water tank and base every week.
- Change the water in the water tank frequently to keep it clean.
- Do not leave water in the bowl or tank if you will not be using the device for a long time.
- Clean, wipe and dry all parts of the device and store them in their original packaging.

## CLEANING

### Inverter cleaning:

- Clean the surface of the inverter with a common cleaning agent (depending on the extent of deposits formed) and wait approx. 2 - 5 minutes.
- Gently wipe the surface of the inverter with a soft brush until the precipitate is removed.
- Rinse the surface of the inverter with clean water.

### Tank cleaning:

- If there is a deposit inside the water tank, clean the water tank with a soft cloth soaked in detergent.
- If there is a deposit on the water level protection valve (in the container cap), drip a few drops of detergent on it and clean it with a soft cloth (cloth).
- Rinse the water tank with clean water.



## Technical specifications

<b>Power supply:</b>	230 V ~ 50 Hz
<b>Power consumption:</b>	18 W
<b>Protection class:</b>	II (protection against electric shock is provided by double insulation)
<b>Water tank capacity:</b>	4 l (approx.)
<b>Humidifying steam capacity:</b>	280 ml/h
<b>Weight:</b>	1,4 kg (approx)
<b>Dimensions (d x h x w):</b>	approx. 22 x 33 x 22 cm
<b>Noise level:</b>	35 dB (A)

The declared noise emission value of this device is 35 dB (A), which represents the sound power level A with respect to the reference sound power of 1 pW.

**We reserve the right to make changes!**

**Producer:**

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Česká republika

**DISPOSAL OF USED ELECTRICAL AND ELECTRONIC EQUIPMENT**



The symbol on the product or on its packaging indicates that this product does not belong to household waste. It is necessary to take it to a collection point for electrical recycling and electronic equipment.

By ensuring proper disposal of this product, you will help prevent negative consequences to the environment and human health that would otherwise be caused by inappropriate disposal of this product. For more detailed information about recycling of this product, please contact your local authority, your household waste disposal service or the shop where you purchased the product.



This product meets all the essential requirements of the EU directives that apply to it.