

**Ultrasonic Humidifier**  
with Ionizer and Aromatherapy  
CA-602



Thank you for purchasing the innovative **Clean Air Optima CA-602** ultrasonic humidifier with Ionizer.

We wish you many years of healthy indoor air with this efficient and effective product.

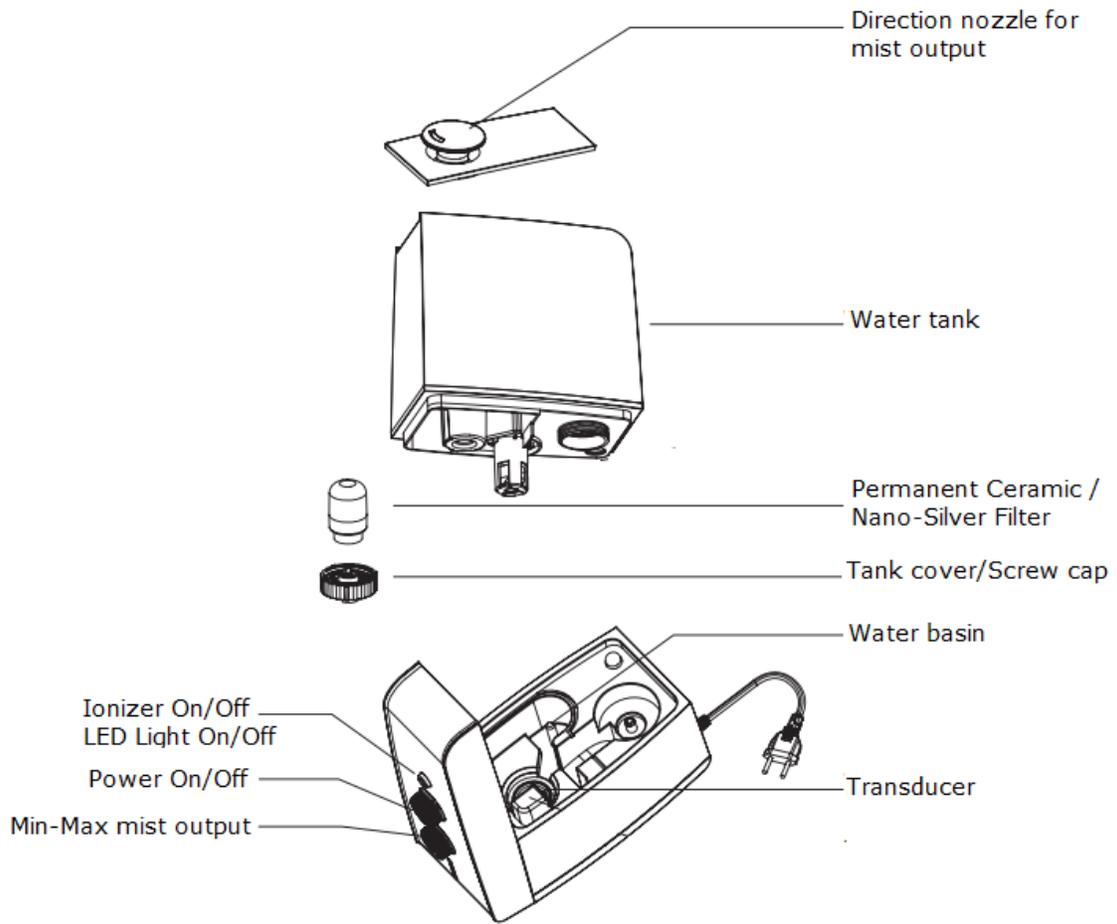
Ensure that all safety precautions are followed when using this electrical appliance for the proper operation of the device. These instructions describe the safety precautions to be observed during operation. They are designed to prevent injuries or damage to this device.

## Safety Precautions

- The inner ultrasonic transducer is highly sensitive. Do not touch it with bare fingers or scrape it with metal tools, or it will reduce mist output. When cleaning this area please use a small cleaning brush, cotton swab or tooth brush. Do not use hot water as it may damage the misting parts.
- Use proper voltage - AC 110~120V 60Hz in Canada/USA; AC 220~240V 50Hz in Europe. Use of improper voltage may cause fire hazard or electric shock.
- To prevent electric shock, do not dismantle, repair or modify this product. Maintenance and cleaning should be followed exactly as instructed in this manual. In the event of a malfunction, please contact an authorized **Clean Air Optima** maintenance center.
- Do not use in areas where flammable or explosive materials are stored.
- Do not place this device in direct sunlight or near objects that generate high temperature heat. The heat may cause deformation or warping of the outer casing.
- Do not use the humidifier in a room that already has humidity levels above 50% relative humidity. Excessive humidity in the room gives rise to condensation on cold surfaces such as walls or windows.
- Do not operate the unit without water in the basin.
- Do not insert foreign objects into the device. Do not touch the transducer or the lower water basin when the unit is operating. Do not scratch the transducer. Do not touch the mist output when producing warm mist.
- Do not submerge this device in water. Water or cleaning liquids may only be used on parts to be cleaned according to the cleaning and maintenance instructions.
- Only use lime scale remover or vinegar to clean mineral deposits from the basin or transducer. Do not use any harsh detergents that may damage the unit.
- If you smell an abnormal odour, please turn off and unplug the unit and call **Clean Air Optima** technical support.
- Clean and dry the device before storage (including the removal of all water from the inside of the device). Store the machine in a cool and dry place outside the reach of children.
- Do not use fabrics or other materials to cover this device. Obstructed air inlets and outlets will result in improper operation of this unit and may result in fire or other damage.
- To prevent interference and damage to other electronic devices, this machine should be placed at least 1 meter away from a computer, television, radio or other electronic equipment.
- The ultrasonic humidifier should be cleaned regularly for proper operation and long life. See cleaning instructions.
- The high frequency vibrations cannot be heard by humans or animals, and are completely safe.
- For safety reasons and to prevent fire or electric shock, unplug the power cord from the electric outlet socket whenever you:
  - Do not use the device for a long period of time.
  - Remove the tank, clean or service the machine or the permanent filter.
  - Move or transport the device.

If the power cord is damaged, then it must be replaced by an authorized service person to prevent electric shock or fire.

# Diagram humidifier CA-602



# Aromatherapy

## Important

In order to reach the best results and to enjoy your **CLEAN AIR OPTIMA ultrasonic air humidifier** as much as possible, we advise to read carefully the following instructions regarding the use of essential oils in the **ultrasonic air humidifier CA-602 by CLEAN AIR OPTIMA**.

## Use of essential oils in the CLEAN AIR OPTIMA CA-602

Use our high quality essential oils and enjoy your personal aromatherapy! A scent sensation at its highest level!

You can find high quality essential oils in our assortment. They perfectly fit to the **CLEAN AIR OPTIMA ultrasonic air humidifier CA-602 and have been specially developed for the use with this ultrasonic humidifier.**



### To order:

[www.cleanairoptima.co.uk](http://www.cleanairoptima.co.uk)  
[www.cleanairoptima.com](http://www.cleanairoptima.com)

## Effectiveness

Essential oils (also called volatile oils) stimulate our olfactory sense through their volatility and are perceived as aromatic. Essential oils naturally evaporate with time.

The **air humidifier CA-602 by Clean Air Optima works** according to the newest nebulisation technology based on ultrasound in order to atomise essential oils and water into microscopically small drops. Thanks to this technology the components and the water can unfold their beneficial potential for humans.

## Filling and refilling with essential oils:



Open the aroma box at the backside of the device, pour 5 – 10 drops of your favorite essential oil on the pad and close the aroma box. In order to reach the best effect, **please ONLY use the high quality essential oils and compositions from the Clean Air Optima assortment.**

## Warning!

**The use of other essential oils not made for this air humidifier or other additives (for example pure essential oils, fragrances, water purification products) can damage the air humidifier and must NOT be used! Even a small quantity can damage the plastic and cause cracks. The material is not made for the use of additives. One drop is enough to damage the water tank/ basin and disable the device. Devices that are damaged through additives are excluded from the guarantee.**

The **Clean Air Optima CA-602** is equipped with a **Permanent Reusable White Dust & Anti-Microbial Filter**. It consists of an inner cylinder, an outer cover and a number of small plastic and ceramic balls. The plastic balls are embedded with nano-silver, an anti-microbial agent designed to purify the water and destroy microbes such as bacteria and mould. The ceramic balls function to soften the water by adhering to minerals that cause white dust. They also serve to remove any unpleasant odour from the water. The filter requires cleaning about once a month or 1,000 hours of use. See the **Maintenance section** of more information.



## Operating Instructions

Before getting started, please remove the **Clean Air Optima CA-602** from its box and allow it to become accustomed to the room temperature for at least 30 minutes especially if the machine is cold from the outside air. The CA-602 is designed to operate at temperatures between 5 -40 °C and relative humidity of less than 80%.

To get started, first remove the nozzle than flip the tank over and unscrew and remove the water tank lid and filter.

Then place the water tank under the faucet for filling. Fill the tank with tap water (or other clean water source with water temperature under 40°C), re-insert the lid and filter. Flip the water tank once again until it is on the right side up. Ensure that the basin is clean and then carefully place the water tank back on the lower body.

Wait a few seconds until the water tank lid starts to release water into the basin. You will hear a bubbling sound as the air enters the water tank. Plug the power cord into the electrical outlet (NEVER SWITCH ON THE HUMIDIFIER WITHOUT WATER IN THE BASIN).

Turn the **"Power knob ON/OFF"** to the right to turn the humidifier on. The water will be turned into micro-fine steam through high frequency vibration, which will be dispensed into the indoor air and directly evaporates. Make sure that the steam does not face electrical sockets, walls or other objects.

Turn the **"Max – Mid - Min knob"** to the right to adjust the amount of mist output.

Push the **"ION"** button to turn the Ionizer and LED light on.

The air will be enriched with additional negative ions. The integrated ionizer cleans and refreshes the air with additional negative oxygen ions. The effect is completely natural: After a summer thunderstorm the air is filled with negative ions and especially fresh.

### **Amount of ions per cubic centimetre air:**

In high altitude: 8000 ions /ccm

At sea level: 4000 ions / ccm

Countryside: 1200 ions / ccm

In the city: 2000 ions / ccm

In the office: Only 20 ions / ccm

In case there is no or too little water in the tank you will hear a signal.

# Humidity

The percentage of water steam in a room and the temperature are the relative air humidity. The air contains more or less air humidity. The ration of water steam to the air varies with the different temperature. The higher the temperature in the room, the less water steam will be in the air. In winter the cold air from outside enters the room, the relative air humidity decreases. The air humidity can be increased with the Clean Air Optima air humidifiers.

The relative air humidity should be:  
Bed and living room: 45 -60 %  
Examination room: 40 – 50 %  
Library: 40 – 50 %

# Troubleshooting

The following is a troubling shooting guide to help you solve any issues that you may have with the operation of the **Clean Air Optima CA-602**.

<b>Trouble</b>	<b>Possible reasons</b>	<b>Solution</b>
Power icon is off or does not work.	Humidifier not plugged into the power outlet.	Connect power cord to electrical outlet and turn rotary knob.
Power light is on but no mist.	No water in water tank.	Fill water tank with water.
The mist has a strange odour.	A new machine.	Remove the water tank, unscrew the lid and let it air out in a cool area for 12 hours.
	It either has dirty water or the water has been stagnant too long.	Clean the water tank and refill with clean water.
Power light is on, but the machine doesn't work.	Too much water in the water basin.	Remove the water tank. Take a small cup and remove some of the water from the machine's water basin. Reinsert the water tank and make sure that it sits properly.
The volume of spray mist is too low.	Too much mineral scale in the water basin.	Clean transducer.
	Water is too dirty or water was kept too long in the tank.	Clean the water tank and refill with clean water.
Abnormal noise	Vibration in the water tank because the water level is too low.	Fill the water tank.
	Machine is on an unstable surface.	Move the unit to a stable flat surface.
Spray mist is coming out of the area around the jet.	There are gaps between the housing around jet nozzle and the top of the water tank.	Remove the jet nozzle from the top of the water tank and clean with a damp cloth. Reattach to the water tank.

**The following is not considered faulty operation:**

- If your water is very hard (containing abnormally high levels of minerals) the humidifier may produce white dust. This is not a malfunction. The solution would be to clean the filter more often or use softer water.
- If you stand very close to the humidifier, you will hear the gurgling sound of water. This is normal.
- The machine operates very quietly but it is not completely silent. Noise levels less than 25 db is considered normal.

**WARNING!**

**If the above recommended solutions do not work, please contact *Clean Air Optima* technical support at the telephone number for your region. Do not attempt to disassemble, repair and reassemble the machine as it may void the warranty.**

## Cleaning and Maintenance

You can ensure many years of trouble free operation of your **Clean Air Optima CA-602** humidifier by following a few simple maintenance procedures. If your water is hard, containing high concentrations of calcium and other minerals, then over a period of time white dust will start to deposit on the various surfaces in the room. A white, film-like substance will also start to develop in the water basin, on the transducer and on the inner surface of the water tank. This white film will impede the proper function of the transducer and the operation of the machine.

**We recommend the following**

1. If your water is very hard, we recommend that you boil it first, allow it to cool completely before use in the humidifier. The boiling will reduce the mineral concentration in the water. The other option is to use distilled water if your mineral level is still too high.
2. If you are using the machine on a daily basis, clean the transducer, water tank and basin once a week.
3. When the water tank needs a refill, empty the remaining water from the tank and fill it with fresh water.
4. Clean the whole machine and make sure to keep all the parts completely dry when the machine is not in use.

**How to clean the transducer**

1. Place 5-10 drops of vinegar on the surface of the transducer and wait for 2-5 minutes.
2. Using a small brush, cotton swab or tooth brush, gently clean the mineral film from the surface of the transducer.
3. Rinse the transducer with clean water.
4. Never use sharp or solid objects for cleaning the transducer

**How to clean the water basin**

1. Clean the water basin with a soft damp cloth. If there is excess film on the surfaces, then soak the cloth with vinegar and repeat the process.
2. If there is a film in any of the depressions along the basin, drop a bit of vinegar into depression and clean it out with a brush.
3. Rinse the basin with clean water.

### How to clean the White Dust & Anti-Microbial Filter

1. Remove the filter from the water tank.
2. Put some white vinegar into a glass. Soak the filter in the vinegar for about 10 minutes.
3. Remove the filter from the glass and shake it several times.
4. Clean and rinse the filter once again with fresh water.



If you don't plan to use the humidifier for a long time, remove the filter from the water tank and let it dry thoroughly. Then wrap it in protective packaging and keep it next to the humidifier in a cool, dry and dark storage space.

## Why humidify the Air?

When the air is dry, especially in the winter months, it can become unpleasant and even unhealthy, leading to increased levels of static electricity, dry skin, cracked lips and even nose bleeds. Optimal humidity is between 45 to 55% relative humidity. During the winter months though, relative humidity in the average home can drop to below 20%. Low humidity can lead to a variety of conditions that cause ill health. Dust particles, bacteria, viruses, dust mite feces that are normally trapped by the moist nasal membrane lining in the nose can more easily get into the lungs when the air is dryer and thus reduce the body's natural defence mechanism. These invaders overload the immune system and irritate the mucous membranes resulting in more coughing and susceptibility to disease. The **Clean Air Optima CA-602** is an ideal ultrasonic humidifier for homes, apartments, offices and anywhere where is low humidity. Ultrasonic water vapour is highly beneficial to individuals. Their biggest advantage is high performance combined with low energy consumption.

## Do not use additives

Water additives (e.g. essential oils, fragrances, water conditioners etc.) must NOT be used! Even a small amount can cause damage to the tank material. The material is not suitable for the use of such additives. One drop is enough to damage the tank and render the appliance unusable. Appliances that are damaged by such additives will not be covered by the manufacturer's warranty.

## The major benefits

- Air humidification and air purification, refreshes and improves indoor air quality
- 3-in1: Humidification, Purification and Aromatherapy!
- Permanent ceramic / nano-silver filter: no replacement filters needed!
- Built-in Ionizer purifies the air additionally and provides fresh air
- Virtually silent operation ensures a quiet and restful sleep
- The ultrasonic is hygienically flawless if cleaned regularly and the ceramic/nano-silver cartridge is cleaned as indicated
- Permanent, easy to clean ceramic nano-silver filter for control of white dust, mould and bacteria
- Safely and automatically shuts off when it runs out of water
- Large capacity water tank (3,5L) easy refills with normal tap water
- Runs up to 3 nights or 30 ours without refilling (low setting)
- Save money. No wicks or filters to replace!
- Low power consumption

*Applicable for small and larger rooms up to 375 ft<sup>2</sup> / 35m<sup>2</sup> / 80m<sup>3</sup>*

## Benefits of proper humidification

- reduces discomfort, tiredness, sickness
- reduces susceptibility to colds
- reduces chapped lips, dry, red eyes and dry, itchy skin
- helps to feel and sleep better
- can help you recover sooner from a cold
- reduces damage to wooden objects
- reduces the negative effect of dry air on musical instruments
- reduces static electricity charge
- helps to keep your voice tuned

## Benefits of ionisation

Ionised air strengthens our defence systems and our vitality and ionisation purifies the air by reducing the particles, micro-organisms, viruses & allergens!

## Product specifications

- Type: Clean Air Optima CA-602
- Ultrasonic humidifier for cold mist capacity
- Mist Evaporation Rate: Low 120 ml / hr (3.4 fl oz) High 300 ml / hr (10.1 fl oz)
- Negative Ion Output: 3.000.000/cm<sup>3</sup> (49.161.000/inch<sup>3</sup>)
- Active oxygen <0.05 ppm
- Water tank capacity 3,5L
- Very low noise level <25 dB
- Dimensions (LxWxH) 29,5 x 16 x 33,5 cm
- Weight: 1,7kg (8.2lbs) dry
- Color: white with transparent water tank
- Energy consumption only 30 watts
- Power supply 220 - 240V, 50/60 Hz

At the end of the product life cycle, you should not throw this machine into the normal household garbage but bring the product to a collection point for the recycling of electrical and electronic equipment.



# WARRANTY CERTIFICATE FOR THE **Clean Air Optima CA-602** ULTRASONIC HUMIDIFIER with Ionizer and Aromatherapy

**Date of purchase:** .....

**Customers name:** .....

**Address:** .....

**Telephone:** .....

**Email:** .....

**Seller's name:** .....

**Address:** .....

1. Please fill in completely this Warranty Certificate. Send it with the invoice and the unit, postage pre-paid and using the original packing box, to your distributor. Make sure to include the appropriate return postage for the package.
2. Please enclose a short description of the damage, fault or malfunction, and the circumstances under which these problems arose.

The **Clean Air Optima CA-602** is subjected to strict testing procedures before leaving the factory. If within two years from the date of purchase the product does not perform according to the specifications, because of factory defects, the purchaser is entitled to free repairs or replacement of parts upon presentation of this warranty (provided that the malfunction or damage to the device and/or parts occurred under normal operating conditions). What is covered: All parts defective in material and workmanship. For how long: Two years from purchase date. What we will do: Repair or replace any defective parts. Exclusions: Regular replacement parts such as filter cartridges.

### **Other Conditions**

The provisions of this warranty are in lieu of any other written warranty whether express or implied, written or oral, including any warranty of merchantability or fitness for a particular purpose. The manufacturer's maximum liability shall not exceed the actual purchase price paid by you for the product. In no event shall the manufacturer be liable for special, incidental, consequential, or indirect damages. This warranty does not cover a defect that has resulted from improper or unreasonable use or maintenance, faulty assembly, accident, natural catastrophes, improper packing, or unauthorized tampering, alteration, or modification as determined solely by us. This warranty is void if the label bearing the serial number has been removed or defaced.

### **Clean Air Service Center**

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