

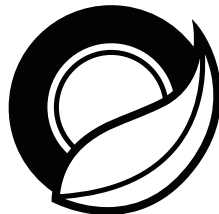
Drop Air>X

Industrial Ultrasonic Humidifier

»»»450 PINT

OPERATION INSTRUCTIONS

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DL WHOLESALE
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Important Information

- Ensure that the unit is in a vertical position and on a stable and flat surface during both operation and storage.
- Ensure that there is at least (1") of clearance along all sides of the appliance during both operation and storage.
- Do not place the unit on soft or unstable surfaces.
- Do not obstruct the unit's intake or exhaust grills.
- The unit is compatible for indoor use only.
- The unit is not suitable for use in confined spaces such as within vehicles or small rooms.
- Allow the unit to settle for one hour before connecting to a power supply after transport or after it has been tilted from maintenance or cleaning.
- The used power supply must conform to the specification shown on the rating plate at the back of the unit.
- Avoid overloading circuits during the operation of the unit. Excessive heat production and the risk of electrical fire can result from overloaded circuits.
- Avoid having the unit come into contact with water to prevent electrical shorts.
- Periodically check the power cord. Ensure that the power cord is not punctured or frayed and that the plug is not bent or cracked.
- Ensure that the unit is operated in a clean and uncluttered space free of hazards.
- Do not leave the unit plugged into the power supply for extended periods of time or non use.
- Connect the unit to a grounded power supply only.
- If the power cord is damaged, it must be repaired or replaced by a qualified professional.
- Never power off the unit by unplugging it from the power supply. Always use the control panel to power off the unit.
- Before transporting the unit, ensure that it is powered off, unplugged from the power supply, and that the water tank has been emptied.
- Do not use flammable cleaners or sprays near the unit.
- Only a qualified professional is permitted to dismantle or modify the appliance.
- Maintenance performed by a qualified professional is highly recommended.
- **STAY ALERT!** Always use common sense when operating the unit. Do not use the appliance when you are tired, distracted, or under the influence of drugs, alcohol, or medication.

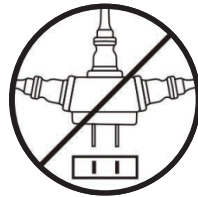
Safety

The following information explains the important aspects of safety to ultimately prevent personal injury or property damage to the user and their surroundings. Please read the following information on the basis of fully understanding its contents and be sure to follow the safety precautions.

To prevent personal injury and/or electric shock while cleaning the unit, ensure that it is powered off and disconnected from the power source. Also ensure that the internal rotor has ceased spinning before cleaning and maintenance is started. Clean and maintain the unit's air filter frequently. Contamination of the unit's air filter may result in reduced dehumidification and increased power consumption.



Do not connect the unit's power cable in parallel with other powered appliances. If the unit's power cord is damaged do not attempt to repair or replace it without the help of a qualified professional. Unauthorized disassembly, modification, repair, or cleaning of the internal or external components is prohibited and will void any current warranty.



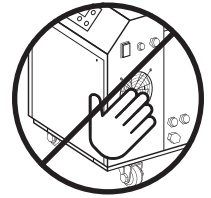
Do not operate or store flammable substances or gases in close proximity to the unit. Operation of the unit near flammable substances or gases may result in an fire and/or explosion. Do not place the unit near a heat source.



Do not operate the unit in unsafe environments or wet conditions. Do not flush the unit directly with water. Do not place or operate the unit near open or standing water as this may cause short circuits and/or electric shock.



Do not put your hand into the air inlet. Do not climb or sit on the unit. This can cause the unit to deform or cause irreversible damage. Do not allow children or incompetent individuals near the unit while it is operating.



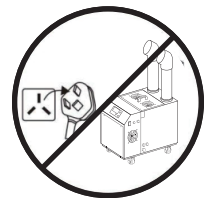
Do not operate the unit during a thunderstorm as this can cause the unit to short out and will result in irreversible damage. Ensure that the unit is disconnected from the power source during a thunderstorm.



Place the unit on a stable and level surface. If the unit is not operated on a stable and level surface it may affect the overall performance. Never store or place anything on or inside the unit.



Do not power off the unit directly by disconnecting it from the power source. Always use the control panel to stop the operation of the unit initially or before unplugging the unit from the power source. Disconnect the unit from the power source during extended periods of no use.



When an abnormal phenomenon occurs such as an odd smell or noise originated from the unit, the unit should be powered off and disconnected from the power source immediately. Continued use may result in a malfunction, electrical shock, or fire. Contact your local Drop Air X dealer or a qualified professional for repairs.



How the Humidifier Works...

Drop Air X Industrial Ultrasonic Humidifiers use something called a piezoelectric transducer to create a high-frequency mechanical oscillation in a body of water. The water attempts to follow the high-frequency oscillation but cannot because of its comparative weight and mass inertia. This causes a momentary vacuum to be created on the negative oscillation, which in turn causes the water to vaporize. The transducer follows this with a positive oscillation that creates high-pressure compression waves on the water's surface, releasing tiny vapor molecules of water into the air. This is an extremely fine mist, about one micron in diameter, that is quickly absorbed into the airflow. Since the mist is created by oscillation and not heat, a high water temperature is not necessary for optimal vaporization. The Drop Air X Industrial Ultrasonic Humidifier, therefore, can create instantaneous humidity with no need for a heating element to boil the water. This precise on/off humidity control is the hallmark of Drop Air X Industrial Ultrasonic Humidifiers. In addition, unlike wet pad humidifiers, ultrasonic units can be of comparatively small size, and still produce significant amounts of vapor. When the sensors detect a decrease in humidity below a certain level in the air, the humidifier will begin to operate. When the sensors detect an increase in humidity above a certain level in the air, the cool mist humidifier is turned off. Drop Air X Industrial Ultrasonic Humidifiers are therefore able to maintain a high degree of humidity within a room both accurately and effectively.

Features

1. Produces no mechanical drive and little noise overall.
2. Stainless steel body, and powder coated accessories that sport a low failure rate and provide easy overall maintenance.
3. High atomization efficiency (nearly 100%): producing small and even fog, saving water and time as a result.
3. Smaller droplet size compared to competitors: 1-micron droplets allow for immediate evaporation similar to steam.
4. Healthy alternative to steam: all dissolved liquids are removed from the water feeding into the ultrasonic system.
5. Low energy cost: generates 1-micron size droplets for as little as 1/13 the price of steam-producing humidifiers. This can save thousands of dollars in annual operating costs.
6. Instantaneous on/off capability: ultrasonic humidifiers provide instantaneous on and off operation while steam units require preheating as well as more electricity to operate.
7. Easy overall maintenance: water is purified before entry into the ultrasonic humidifier resulting in considerably less maintenance required of an ultrasonic system as opposed to steam.
8. Overall relative humidity accuracy.

Components

- | | |
|--------------------|--------------------|
| 1. Control Panel | 7. Fog Hole |
| 2. Humidity Sensor | 8. Casters |
| 3. Auto-Off Main | 9. Water Outlet |
| 4. Power Cord | 10. Water Overflow |
| 5. Radiator Fan | 11. Water Inlet |
| 6. Fog Fan | |

Operation

1. AUTO / OFF / MAN

AUTO - Unit is set to Auto Control Mode.

OFF - Unit is powered off.

MAN - Unit is set to Manual Control Mode.

2. **POWER** - Powers on/off the unit.

3. **SET** - Sets the humidity and cleaning time.

4. (+ / -) - Adjusts the humidity value and cleaning time.

5. **CALIBRATION** - Press set for 5-seconds, then press (+ / -) to unify the current value to other meters.

Control Panel

1. Connect both the Power Supply and the Humidity Sensor; set to **AUTO** (Auto Control Mode), the LCD screen will display the ambient humidity; Press **POWER**, the LCD screen will display "RUN" and the RUN indicator will illuminate; Press **POWER** again, the RUN indicator will be off. (The fan will continue to run for 30 seconds.) If the unit is set to **OFF**, the fan will shut off immediately.
2. When the ambient humidity is higher than the set humidity, the unit will be set to standby; when the ambient humidity is lower than the set humidity, the unit will operate automatically.
3. Press **SET** to set the humidity; press + or - to set the required humidity.
4. Press **SET** twice to start the Cleaning Mode; the LCD screen will display "CLOCK", when "CLOCK" on the LCD screen begins flashing, press +; the unit will stop operating after 150 hours to remind the user that the Cleaning Mode should be initiated. Press - to cancel the setting.
5. Connect the Power Supply; set to **MAN** (Manual Control Mode), the LCD screen will display nothing, and the unit will operate without the humidity sensor.

Warning

Water Outlet: The Water Outlet must be closed during operation. It can only be opened while the unit is being cleaned.

Water Inlet: Water pressure range (~0kg/cm - 4kg/cm) Avoid 100um granules. Avoid using a hard water source. Watering from the mist outlet is not advised. The reason is the control board will not acquire the precise water level.

Fuse pipe: Avoiding device overload, and further breakdown. Do not change the large capacity fuse pipe randomness.

Power Wire: 110V / 60Hz (±2Hz) the ground line must be needed. The total fluctuation ≥1.2 Rating Power.

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Installation

Figure 1 represents an acceptable pipeline setup which will ultimately prevent leakage. When the unit is used in a larger area, small fog mouths can be drilled in pipe. The example shown in Figure 2 is not a recommended setup.

Figure 1

Figure 2

Installation Drawing

Height / Length Limit

The mist pipe's vertical height should be within 1 to 3 meters (3 - 9 feet). Refer to the below table for an appropriate horizontal length.

Installation

Maintenance

To ensure that your Drop Air X Industrial Ultrasonic Humidifier continuously operates at max efficiency, clean the unit once a month and always run a Cleaning Mode cycle after 150 hours. Be sure to also clean the water filter at regular intervals along with the unit.

Cleaning the Unit

1. Open the cover and use a soft cloth or brush to clean the atomization device.
2. Always ensure that you DO NOT scratch the atomization device or the water level induction switch.
3. DO NOT use any solvents or home cleaning detergents on any part of the unit ever.
4. Clean away any hard water scaling by hand only.
5. While cleaning, always ensure that you do not pour water into the circuit board, this may lead to a short circuit in the unit permanently damaging it.

Water Level Conditions

The atomizing air contains very high moisture around the mouth, avoiding these atomizing air back flow inside the equipment, ensure the straight pipe goes up 1.5m minimum requirements.


The best water level is seen below.

Troubleshooting

Fault	Reason	Solution
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Rating Label Information

Drop AirX	
Industrial Ultrasonic Humidifier	
Model	524109
Humidification Capacity	450 Pint/Day
Voltage	115V
Power Frequency	60Hz
Rated Power	900W
Rated Current	7.8A
Air Volume	18000ft ³ /h
Fog Outlet	4.3-Inch (2pcs)
Waterproof Level	IPX0
Noise	≤ 43db(A)
Anti-Shock Type	I
Unit Net Weight	77lbs
Unit Dimensions	25.2" x 16.5" x 19.7"


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Warranty

The Drop Air X Industrial Ultrasonic Humidifier features a 1-year limited warranty. Please contact DL Wholesale for more information regarding the 1-year limited warranty and its coverages.