



**USER MANUAL** 

### **DEAR CUSTOMER**

Thank you for purchasing the Ionmax ION90 Hybrid UV Humidifier. The ION90 reintroduces moisture into the air to help you maintain a comfortable humidity level in your home. Utilising a combination of UV LED and Bio-photocatalyst technology, the ION90 sterilises and deodorises the air before allowing it to emit clean, pure mist.

Please read this manual carefully to ensure proper usage and save these instructions for future reference.

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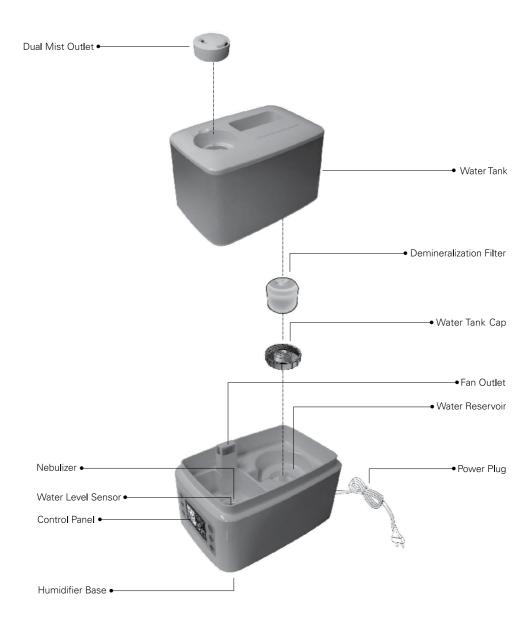
This product includes:

- 1 x Water Tank
- 1 x Demineralisation Anti-bacterial Nano-Silver filter

<sup>\*</sup> Please contact us immediately if any of the above mentioned items are not included



# PRODUCT DESCRIPTION



## CONTROL PANEL DESCRIPTION

#### LCD Display: LCD **6** Common Cold Mode UV Light Sterilization Power Control Atopy Mode \*\*\*\*\* Humidity Level Indicator POWER Humidity Reading from 40%-75% Mist Volume Sleep Mode 88 Control LEVEL NO WATER Water Shortage Indicator CURRENT Current Relative Humidity Humidity Setting DESIRED ٠ Baby Mode DESHED Desired Relative Humidity Timer 3 Warm Mode TIMER Timer Setting of 1-9 Hours Warm/Cool Mist $\odot$ Auto Mode C0 Continuous Humidification Programmed Humidity Setting

## **TECHNICAL SPECIFICATIONS**

Humidification Technology Ultrasonic Cool and Warm Mist with Humidistat Control

and UV Bio Photo Catalyst

Power Consumption Cool Mist - 40W

Warm Mist - 125W UV LED Light - 1W

Coverage 16-30m<sup>2</sup>

Tank Capacity 6.5 litres

Humidification Rate Cool Mist - 300 ml/hr

Warm Mist - 400 ml/hr

Continuous Humidification Cool Mist - Minimum 21 hr

Warm Mist - Minimum 16 hr

Empty Weight 3.5 kg

Product Dimension (W x D x H) 180mm (w) x 260mm (d) x 315mm (h)

Humidifier Settings LED Display Screen

Humidity Status

Humidifier Settings

Features 

• Auto Mode

• UV Bio-Photocatalyst Sterilization and Deodorization

· Dual Mist Outlet

· Duo - Humidification Methods

Humidity Level Control

Humidification Timer

· Hydrostat for Pre-set Humidity Level

Programmed Humidity Settings

Sleep Mode

· Water Shortage Indicator

Regulated Mist Volume 3 levels of Mist Volume

Colors Available White

Optional Product Accessory Demineralisation Filter or Brush

## **GENERAL INFORMATION**

#### What is Humidity?

Humidity is the amount of dampness or water vapour in the air.

### What is Relative Humidity (RH)?

The Relative Humidity is the relative ratio of the amount of dampness or water vapour in the air, at a specific temperature, to the maximum amount that the air could hold at the temperature, expressed as a certain percentage.

#### What are the consequences of low humidity levels to the human body?

When a person is exposed to low humidity levels, his or her hydration levels will be reduced and many negative bodily symptoms either occur or are aggravated.

#### Some of the common symptoms include:

- · Blocked, stuffed or running nose
- Difficulty in breathing

Drv. scalv and chapped skin

Sore and dry throatSore and dry eves

- Electrostatic shocks
- Fatigue, sleeplessness and poor concentration
- Infections and illnesses of our respiratory system like Asthma
- · Dry skin disease like Eczema

#### What is the desired Relative Humidity Level?

A comfortable indoor relative humidity level of between 60% to 70% is recommended\*.

| Humidity Levels                                    | RH (%)    |
|--|-----------|
| Humidity Level in an air conditioned room (indoor) | 30% - 40% |
| Ideal Humidity Level (indoor)                      | 60% - 70% |
| Outdoor Humidity Level                             | 70% - 95% |

<sup>\*</sup> Recommended by the Guideline for Good Indoor Air Quality

#### Why use Ultrasonic Technology for humidification?

**Ultrasonic Technology** is an extremely **effective** and **economical** method of maintaining and moderating the relative humidity level in the surrounding air. Ultrasonic Technology works in **soundless** operation and creates high oscillations and vibrations that transform water into fine vapourised mist. The mist is then dispersed into the surrounding air to add humidity into the air.

#### How does the lonmax ION90 Humidifier work?

When water is poured into the Water Tank, it flows into the **Water Reservoir**. Here, the water comes in contact with the ultrasonic resonator called the **Nebuliser**. The Nebuliser vibrates at a rapid speed of up to one million times per second. This high-speed vibration causes the water to break up into minute fine droplets that then pass through the **Mist Outlet** to increase the humidity level in the room effectively.

### **FEATURES**

### **AUTO MODE**

When set to , the lonmax ION90 Humidifier will automatically adjust the level of mist volume to accommodate the surrounding humidity level till it reaches the DESIRED relative humidity.

The desired humidity level is between 50% and 65% RH.



#### UV BIO-PHOTOCATALYST STERILISATION AND DEODORISATION

Relying on the fan outlet to deliver mist, the lonmax ION90 Humidifier uses a combination of UV LED and Bio-Photocatalyst to constantly sterilise and deodorise the air before allowing it to blow out clean, pure mist.

The combination of bio material and photocatalyst acts as an environmental friendly oxidising agent when activated by ultraviolet ray. When the photocatalyst captures ultraviolet light, it forms activated oxygen from water or oxygen in the air. The formed activated oxygen effectively decomposes smelly particles to achieve maximum deodorisation and sterilisation effects.

#### **DUAL MIST OUTLET**

For a more comprehensive coverage of the surroundings, the lonmax ION90 Humidifier has two mist outlets which can be rotated accordingly to your surrounding for optimal efficiency.

#### **DUO-HUMIDIFICATION METHODS**

The Ionmax ION90 Humidifier has the capability to use two types of humidification methods. **Heat Vapourising** (Warm Mist) and Ultrasonic Humidification (Cool Mist). Both methods utilise ultrasonic vibrations.

It is recommended to use the Warm Mist option if you want humidification to take place faster. The mist that is emitted via the Warm Mist option is around 35°C whilst the Cool Mist option is room temperature.



### **HUMIDITY LEVEL CONTROL**

IONMAX Humidifier ION90 allows you total control in presetting and choose from a humidity level of 40% to 75% RH (at an increment of 5%) or even in Continuous mode.



#### **HUMIDIFICATION TIMER**

IONMAX Humidifier ION90 can be programmed to work from 1 to 9 hours or run continuously. The time advances by 1 hour each time the 

is pressed.



#### HYDROSTAT FOR PRE-SET HUMIDITY LEVEL

The Ionmax ION90 Humidifier comes with an in-built hydrostat that works as an automatic sensor of the surrounding relative humidity and hence facilitates it to continuously moderate and sustain your desired relative humidity.

When the pre-set or programmed relative humidity is reached, the humidification process will pause automatically. Alternatively, the humidification process will resume again if the relative humidity drops below the pre-set level.

#### PROGRAMMED HUMIDITY SETTINGS

#### COMMON COLD

In this mode, the Ionmax ION90 Humidifier will maintain the relative humidity from 56% to 70% RH. It helps to keep the relative humidity high for better breathing as well as to alleviate cold symptoms.



#### **ATOPY**

The Ionmax ION90 Humidifier is also able to help people with Atopy\* by maintaining the relative humidity from 50% to 62% (at an increment of 2%). This range of relative humidity is also suitable and comfortable for babies.

\*An allergy that makes a person susceptible to certain allergic responses such as hay fever and asthma.



#### REGULATED MIST VOLUME

Regulate the mist volume of your Ionmax ION90 Humidifier by choosing between levels of "Low" ......, "Medium" ....... or "High" ..........



#### SLEEP MODE

When set to **SLEEP**, the lonmax ION90 Humidifier LCD becomes dimmer with the relative humidity set at 60%. It will operate continuously for 8 hours with **WARM mist** before powering off automatically.



#### WATER SHORTAGE INDICATOR

The Ionmax ION90 Humidifier comes with an inbuilt water shortage sensor that will inform you when the water level is low. The unit will beep 5 times and the will blink continuously to alert you of the status. This is useful in reminding the user to refill the **Water Tank**.



### **DEMINERALISATION FILTER**

When water goes through the Demineralisation Filter, it is restructured at an ionic level and the dissolved mineral salts and other additives are removed, thereby softening the water. This aids in reducing mineral buildup at the nebuliser and producing finer ultrasonic humidification.

## **USING THE IONMAX HUMIDIFIER**

Ensure that the power cord is removed from the power supply at all times during installation, refilling of water, maintenance and transportation.

#### **OPERATING NOTICE**

- Step 1: Remove the unit from all packaging. Check and ensure that there are no foreign objects inside the Water Tank and Water Reservoir.
- Step 2: Remove the **Water Tank** from the base and fill it with clean, tepid or cool water from the tap. **NOTE:** DO NOT use water above 40 ° C.
- Step 3: Empty water from base.
- Step 4: Fasten the cap of the Water Tank snugly and place it back onto the Humidifier Base. Please note that whenever a filled Water Tank is placed onto the Humidifier Base, the sound of gurgling water is normal. This happens when water is travelling from the Water Tank into the Water Reservoir. Wait for a while for the water to fill up the Water Reservoir.





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### Step 5:

Select a stable surface to situate the unit. Plug the power cord into the power supply and switch on. A beep signal will be heard. Press the "POWER" button and the unit will commence operation in mode. Read more on the "FEATURES" section to understand the various functions of the lonmax ION90 Humidifier. To power off, press the "POWER" button again.



Please note that the unit might stop from time to time if:

- 1) The programmed relative humidity is met.
- 2) There is a shortage of water supply.
- 3) There is a disruption of power supply.

### **CLEANING & MAINTENANCE**

#### RECOMMENDED MAINTENANCE

It is recommended to clean and maintain the lonmax ION90 Humidifier at least once a week.

#### BEFORE YOU START:

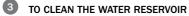
- DO NOT use any detergents, solvents or aggressive agents to clean the unit.
- DO NOT use brushes or cloths that are abrasive or might cause scratches or damage to the unit.
- DO NOT allow water to sit in the tank for more than 1 week.



The Ionmax ION90 Humidifier should always be regularly maintained and cleaned. For external maintenance, regularly use a damp cloth to wipe the surface to prevent the accumulation of dust.



Remove sediments or scale buildup by shaking the **Water Tank** vigorously after refilling the **Water Tank**. Pour out the water and wipe the internal tank thoroughly with a soft cloth.



Pour water away from the **Water Reservoir** as shown in the picture. DO NOT let water get into the **Fan Outlet**. Remove sediments or scale buildup inside the **Water Reservoir** by using a damp cloth to wipe the surface.







#### IMPORTANT

- 1) When the Nebuliser is not regularly cleaned, the efficiency of the unit will be compromised or even damaged depending on the severity.
- 2) **DO NOT** clean the Nebuliser with any solvents or aggressive agents.
- 3) DO NOT scratch or rub the surface of the Nebuliser with a sharp article.

#### STORING GUIDE

To keep or store the Ionmax ION90 Humidifier, ensure that water is thoroughly drained, removed and dried from the Water Tank and Water Reservoir before storing in a cool and dry place.

# TROUBLESHOOTING

| PROBLEM   | POSSIBLE CAUSE  | WHAT TO DO?   |
|---|---|---|
| Humidifier does not operate                               | <ul> <li>Power cable not plugged in.</li> <li>Humidifier not switched on.</li> <li>There is a water shortage.</li> <li>(No Water indicator lit up)</li> </ul> | Plug in power cable. Push the POWER Button. Refill the Water Tank.  |
| No Mist Output  | Desired pre-set humidity level has been met.     There is a water shortage.     (No Water indicator lit up)     Mineral/Sediment buildup at the Nebuliser     | Increase pre-set humidity level or wait till surrounding humidity level drops. Refill the Water Tank. Regular maintenance of humidifier   |
| Mist With Odour   | Ill-maintained humidifier     Water is unclean     Stale Water  | Regular maintenance of humidifier     Remove all existing water in the tank and base, clean with fresh water and refill with fresh water. |
| No Water Indicator<br>lits up despite<br>sufficient water | Water Level Sensor float stuck     Unit not sitting level   | Gently release Water Level<br>Sensor float.   |

## **IMPORTANT NOTICE**

#### WATER OVERFLOW

The ION90 humidifier water feed system relies on gravity and vacuum in the reservoir (tank) to control water flow to the unit. When the tank is installed on the base, a certain amount of water will be drawn from the tank to create a vacuum. If water is already present in the base, overflowing may occur which can cause the unit to appear to be leaking.

To ensure no overflow occurs, please follow the steps below when operating your device:

- 1. Empty the base of all water during each refill.
- 2. Completely fill the reservoir (tank) during each refill.

If possible, refill the unit only when the 'empty' light comes on as the base will already be empty.

#### CONDENSATION

Occasionally, water may pool at the base of the unit due to condensation build-up which may make the unit to appear to be leaking. This can occur when the air temperature drops as warm air holds more water than cold air.

Switching from cool to warm mist increases the air temperature slightly. Reduce the humidity settings to prevent too much moisture from being created.

Do not operate a humidifier in a small room where the temperature is low as condensation may occur on walls and windows.

Air conditioners act as dehumidifers removing moisture from the air. Turning off or reducing the intensity of your air conditioner will help the humidifier to work more efficiently.



ionmax.com.au 1300 800 200

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