

Ionmax Rhine user manual

v1.0. Updated August 2022.

Please read the user manual to ensure safe and proper usage.

Please read the instructions carefully before using and be sure to keep the user manual where it is easily accessible for future reference.



Table of contents

Important Safety Instructions

Operational Precautions

Features

Specifications

Unit Setup

Operating Instructions

Maintenance

Troubleshooting

Warranty Details

Warranty Registration

PLEASE NOTE:

The user manual may be altered at any time to assist in quality improvement.

The design and product development may be upgraded without public notice.



This unit uses a flammable refrigerant. If the refrigerant leaks and comes in contact with fire or heating parts, it will create harmful gas and there is a risk of fire.



Read the user manual carefully before operation.



Further information is available in the user manual and service manual.



Service personnel are required to read the user manual and service manual carefully before operation.

SAVE AND READ THESE IMPORTANT SAFETY INSTRUCTIONS

Important Safety Instructions

i Please read all instructions carefully before operating

⚠ This appliance is intended for use in an indoor environment only. Any other use is not recommended by the manufacturer and may cause fire, electrical shocks or other injuries to surrounding people or property.

⚠ This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



This unit uses a flammable refrigerant. If the refrigerant leaks and comes in contact with fire or heating parts, it will create harmful gas and there is a risk of fire.

- The unit is designed only for use with R290 (propane) gas as the designated refrigerant.
- The refrigerant loop is sealed. Only qualified technicians should attempt to service this unit.
- Do not discharge the refrigerant into the atmosphere.
- R290 (propane) is flammable and heavier than air. It collects first in low areas but can be circulated by a fan.
- If propane gas is present or even suspected, do not allow untrained personnel to attempt to find the cause.
- The propane gas used in the unit has no odours. The lack of smell does not indicate a lack of escaped gas.
- If a leak is detected, immediately evacuate all persons from the room, ventilate the room and contact the local fire department to advise them that a propane leak has occurred.
- Do not let any persons back into the room until the qualified service technician has arrived, inspected the situation and advised that it is safe to return to the room.
- No open flames, cigarettes or other possible sources of ignition should be used inside or in the vicinity of the unit.
- Component parts are designed for propane and non-sparking. Component parts should only be replaced with identical repair parts.

⚠ Failure to abide by this warning could result in an explosion, death, injury, and property damage.

Operational Precautions

- This unit is intended for domestic and light commercial/industrial use ONLY and not for heavy commercial/industrial or outdoor use.
- Install the unit on a flat and stable surface to reduce vibrations or noise.

- Do not tip the unit to any side as spilled water may damage the unit.
- Ensure that the drainpipe is placed downwards after installation so that the water can be continuously discharged.
- Never immerse the unit in water or other liquids, or touch the unit with wet hands.
- Do not operate the unit with a damaged cord or plug, after it malfunctions or has been dropped or damaged in any way. Return to an authorised service facility for examination and repair.
- When the unit is being moved, cleaned, serviced or stored, be sure to unplug and switch off the main power supply.
- Please connect the unit to a power socket with a grounding wire and ensure that the wiring of the socket is installed in accordance with national regulations.
- Where possible, avoid the use of an extension cable as it may overheat and cause a risk of fire. Only use an extension cord after ensuring it is in perfect condition.
- Check the household voltage to ensure it matches the unit's rated specification before operating.
- The unit contains a compressor. If the unit has been tilted or laid on its back, stand the unit upright for at least 1 hour before operating.
- Operate this unit at an ambient temperature between 5°C and 35°C.
- If the unit is used in the basement, storage room, or other environments, there must be sufficient air circulation, otherwise, the dehumidification function may not be effective.
- Ensure that the air inlets and outlets are not blocked or covered.
- Never insert any object into the unit to avoid any hazard or unit failure.
- Do not place the unit too close to curtains or other objects - minimum 30cm.
- When using the unit to speed up the drying of wet clothes in the room, please keep the clothing at a safe distance from the unit to prevent water from dropping onto the unit.
- Never place anything on top of the unit and do not cover it with any kind of material while in use.
- To protect against electrical shocks, do not immerse the unit, plug or cord in water, or spray with liquids.
- Never unplug the power cord without pressing the Power button to switch off the unit first, as this could damage the unit.
- Always unplug the unit when not in use or moving locations. To disconnect from the power supply, grip the plug and pull from the power socket. Never pull by the cord.
- Always empty the water tank before storing the unit away.

- Do not run the power cord under carpeting, or cover it with rugs or runners. Arrange the cord away from areas where it may be tripped over.
- Never operate or store the unit in direct sunlight.
- To repair the unit, take it to a qualified service engineer. Repairs carried out by unqualified people may cause damage to the unit or injury to persons or property and void the warranty.
- Do not use the unit without the air filter.
- Do not use any means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The unit should be stored in a room without continuously operating sources such as open flames, operating gas appliances or operating electric heaters.

⚠ Any persons involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry-recognised assessment specification.

⚠ Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of a person competent in the use of flammable refrigerants.

For the service manual or further assistance, please contact Ionmax.

Features

- **Compressor dehumidifier** - suitable for warm climates
- **Environmentally friendly** - uses eco-friendly R290 refrigerant
- **Moisture removal** - 50 litres/day (30°C RH80%)
- **Water tank capacity** - 5.1 litres
- **Digital humidity display** - set and view relative humidity levels with ease
- **Up to 24-hour timer** - for added convenience
- **Continuous mode** - dry laundry faster indoors
- **Temperature range for use** - 5°C to 35°C
- **Ergonomic carry handle and universal wheels for easy portability**
- **Removable water tank**

- **Auto pause and restart function to save energy** - pauses dehumidification once the desired humidity level has been reached and restarts on previous settings if the humidity level increases
- **Washable pre-filter** - removes large particles such as dust and hair from dehumidified air
- **Continuous drainage option** - drainage hose provided
- **WiFi app control** - remote monitoring and settings via mobile app

Specifications

Model: Ionmax Rhine ION650

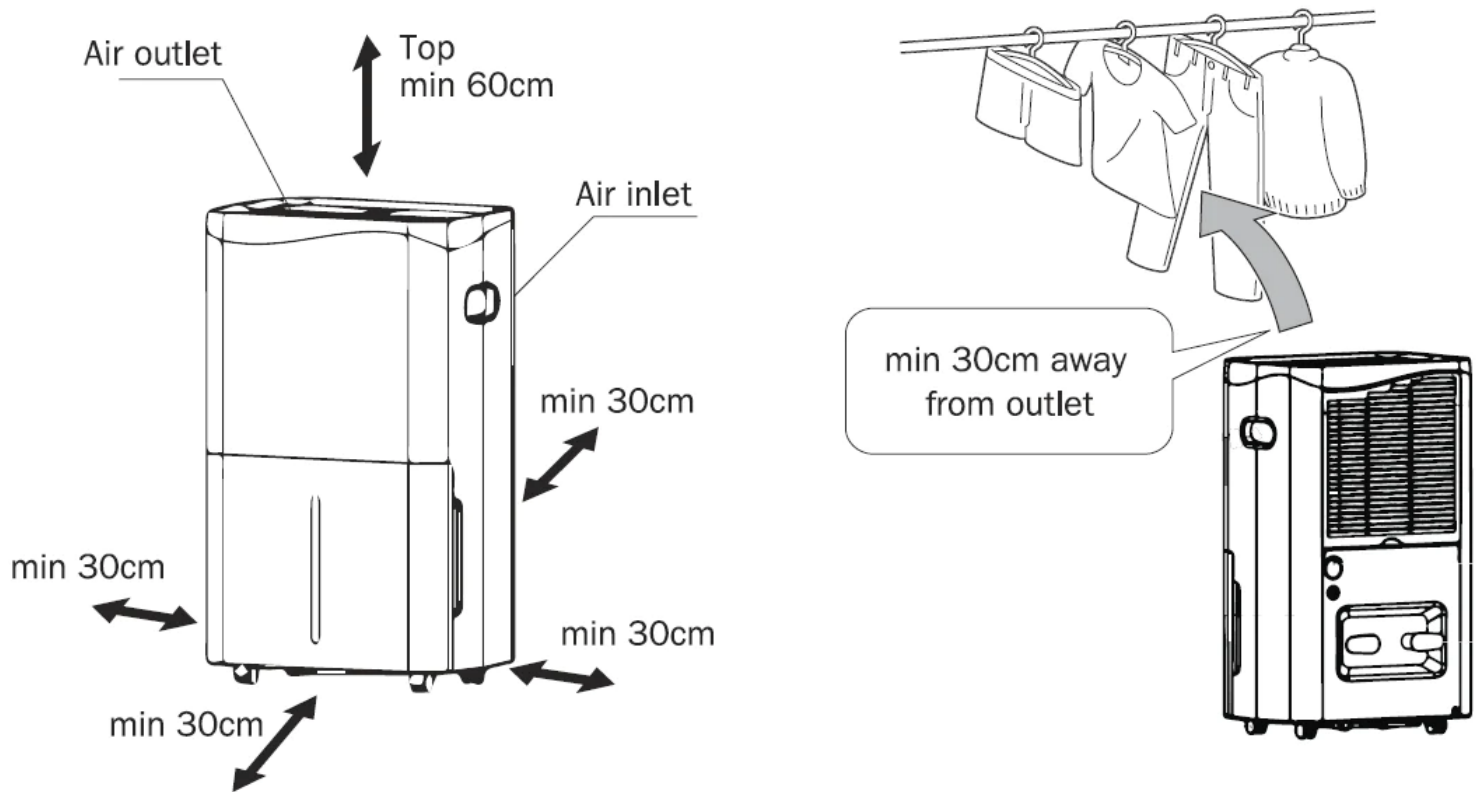
Voltage: AC 220V 50Hz

Power consumption: 793W

Net weight: 19kg

Dimensions (W x D x H): 368 x 256 x 620mm

Unit Setup



1. Place the unit in an upright position on a stable, level surface. Please ensure the unit is not sitting on its own cable.
2. Only use the unit in areas larger than 7 square meters.
3. Please ensure the unit is a safe distance away from walls and furniture (as shown above).
4. Please keep clothes at a safe distance of 30cm from the air outlet of the unit to prevent water from dripping into the unit.
5. For best results, position the dehumidifier somewhere central like a landing or a hallway. As long as the internal doors are open, the excess moisture from all of the rooms in the house will migrate naturally towards the dehumidifier and be processed.



Do not install or operate the dehumidifier in the following conditions:

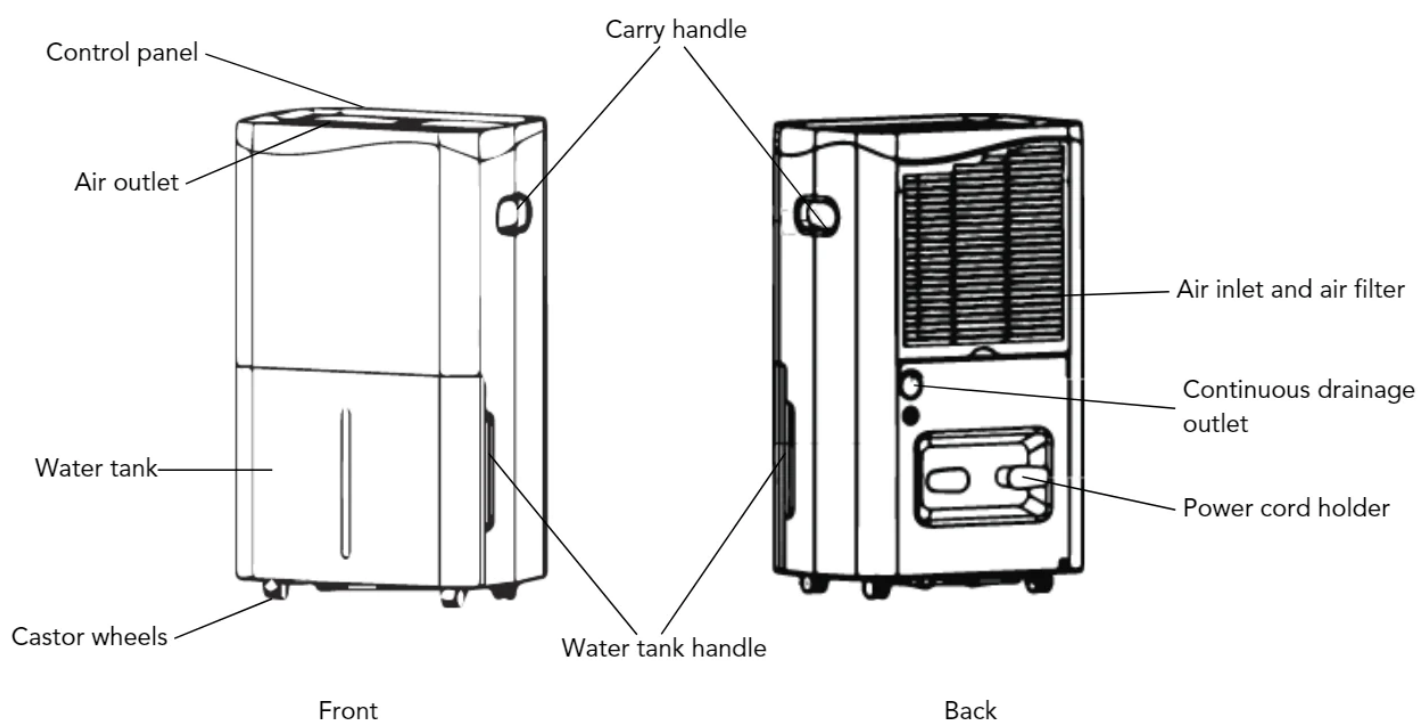


- areas smaller than 7 square meters
- small unventilated rooms or confined areas
- areas where flammable gas may leak
- in close proximity to a heat source such as radiators, tumble driers and stoves

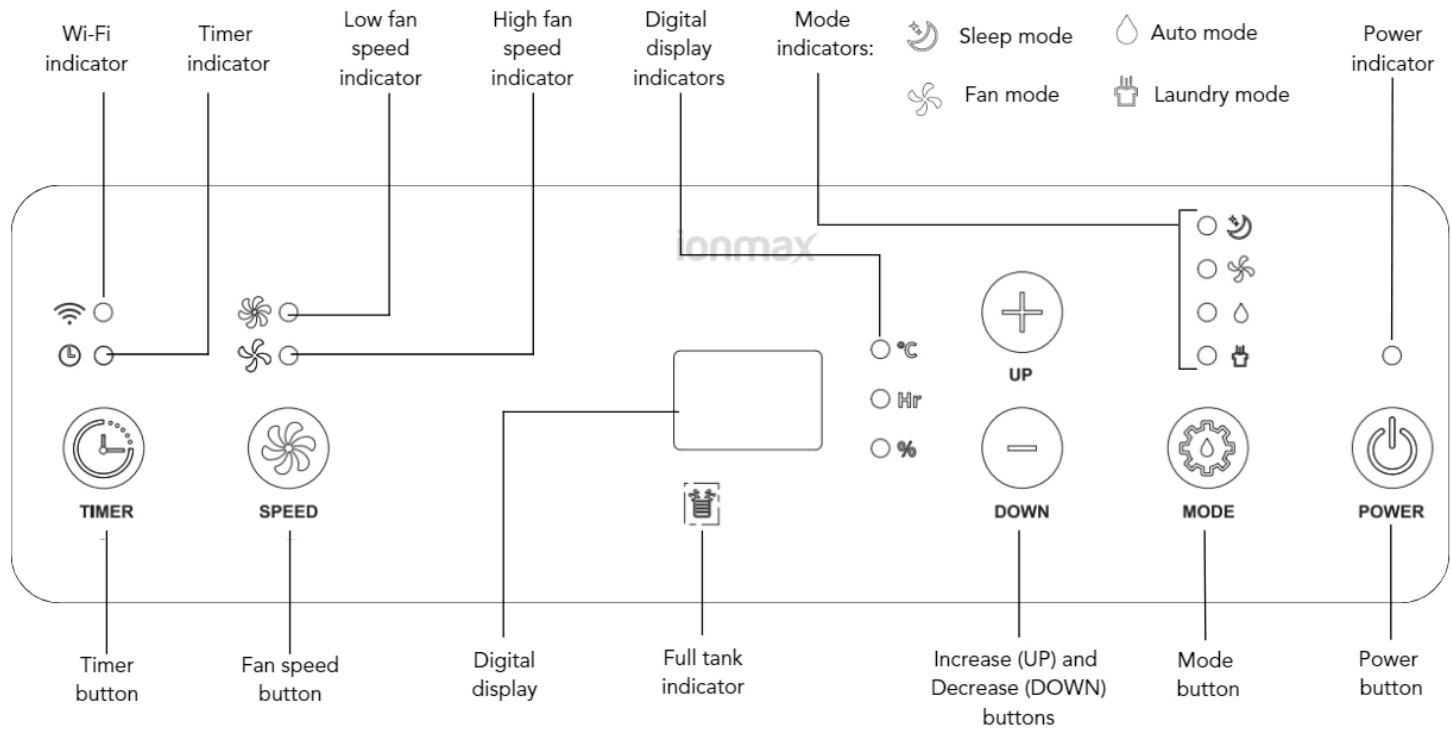


- under direct sunlight
- areas where oil or water may be splashed
- mechanical vibrations or shock
- excessive dust
- uneven surface

Product Description



Control Panel



Operating Instructions

i There is a protective 3-minute time delay on the compressor. Please allow 3 minutes for the unit to resume the dehumidification process.



Power button

Connect the power plug to an appropriate electrical outlet. The digital display will show the ambient relative humidity (RH) level.

Press the Power button to switch on the unit and begin operation. The Power indicator will light up and the unit will begin operating in Auto mode by default.

To switch off the unit, press the Power button. The indicator lights will switch off and the compressor will stop immediately, while the fan will shut down after 30 seconds.

Note: If the unit has been switched off and on again, it will resume operation in the same mode selected from its last use.



Mode button

Press the Mode button to choose between different modes. The corresponding mode's indicator will light up when selected:



Sleep mode

In sleep mode, the power indicator, sleep mode indicator, digital display and other indicators will be disabled. Normal display will resume if other buttons are pressed.



Fan mode

In fan mode, only the unit's fan will be functioning and not the compressor. Fan speeds can be adjusted while humidity levels cannot. The room's humidity will be shown on the digital display.



Auto mode

This is the unit's default mode for dehumidification.

In Auto mode, the unit's fan and compressor settings will be automatically controlled until the set humidity level has been reached.

Once the set humidity level is reached, the compressor will stop operating and the fan will stop after a 30-second delay.

Both the fan speed and desired humidity level can be set in Auto mode.

Digital Display

The digital display shows the current relative humidity (RH) level by default at all times.

To view the room's ambient temperature on the digital display, hold down the Increase button.

While in Timer setting mode, the digital display will show the number of hours selected.

While using the Increase and Decrease buttons to set a desired humidity level, the digital display will show the selected humidity level.

The desired humidity level can be set in increments of 5%, from 30% to 80% RH.

Humidity Level	Recommendations
> 60%	Maintain the room at a comfortable indoor humidity level
50%	Inhibit mould and bacteria growth
For daily normal household use to maintain humidity at a healthy level of ~55% RH (bacteria and mould will not breed at this level)	
< 40%	Super dry mode to prevent condensation
To control a very damp room in the first couple of days.	
Then, switch to 50% or higher to save energy.	

Note:

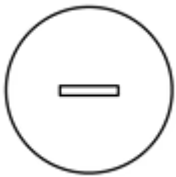
- RH indicated has a +/- 10% RH tolerance and may vary depending on the room temperature.
- While in operation, the unit will begin dehumidifying the air if the room's relative humidity (RH) level is 3% higher than the selected RH level.



Increase (UP) button

Press the Increase button to increase the timer (during Timer setting mode) or to increase the desired humidity level.

Note: While the unit is operating, hold down the Increase button to view the room's ambient temperature on the digital display.



Decrease (DOWN) button

Press the Decrease button to decrease the timer (during Timer setting mode) or to decrease the desired humidity level.



Fan Speed button

Press the Fan Speed button to toggle between High and Low fan speeds. The corresponding fan speed indicator will light up when selected.



Low fan speed



High fan speed

Note: Fan Speed toggling is disabled during Laundry mode.



Timer button

Press the Timer button to enter Timer setting mode.

Use the Increase and Decrease buttons to set a timer from 1 to 24 hours, or "00" to cancel the timer function (the Timer indicator light will switch off).



Once a timer has been set, the Timer indicator will remain lit up during the timing period.

Press the Timer button to cancel and exit the Timer setting mode.

During the timing period, press the Timer button to view the time remaining. Press the Timer button again to cancel the timing.

*The Timer button is also used to activate WiFi pairing. View Mobile App Setup instructions for further instructions.

Intelligent defrosting indicator

1. The unit will go into intelligent defrost mode if the ambient temperature is below 24°C.
2. Compressor will not function during this mode.
3. When room temperature is between **17°C and 24°C**, the compressor will run for 45 minutes before defrosting for 5 minutes.
4. When room temperature is between **12°C and 17°C**, the compressor will run for 25 minutes before defrosting for 10 minutes.
5. When room temperature is between **5°C and 12°C**, the compressor will run for 20 minutes before defrosting for 10 minutes.



6. The selected mode will be flashing during the defrosting process.



Mobile App Setup



Download the Ionmax app on your phone.

Scan the QR code or visit ionmax.com.au/app

1. Register a new account on your phone, or log in to your existing account for the Ionmax app.
2. Place the dehumidifier at a distance of at least 5 meters from your router. Plug the dehumidifier into an appropriate power outlet and switch it on.
3. Ensure that the WiFi indicator on the dehumidifier is flashing during the connection process. If the WiFi indicator is not lit, hold down the Timer button on the

dehumidifier for 5 seconds until the WiFi indicator is flashing quickly. This indicates that the dehumidifier is ready for connection.

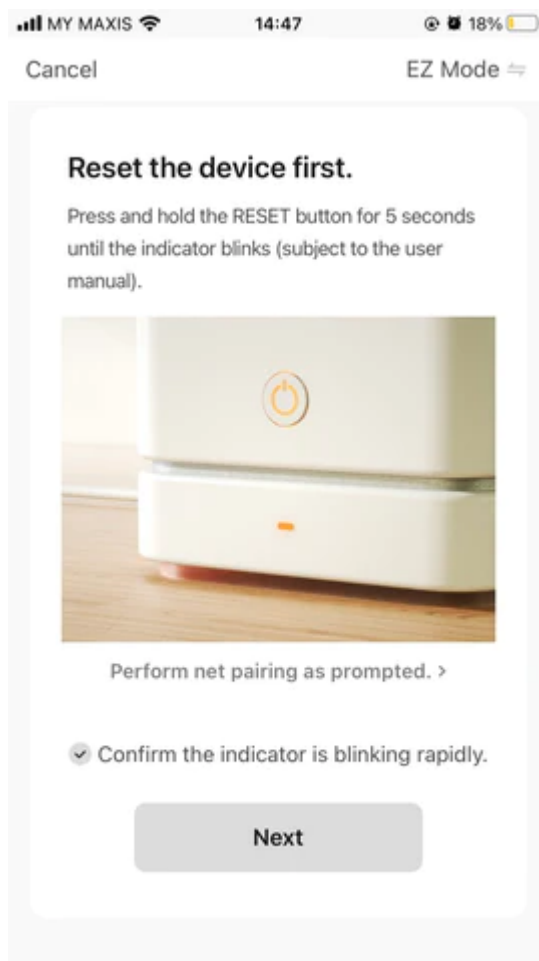
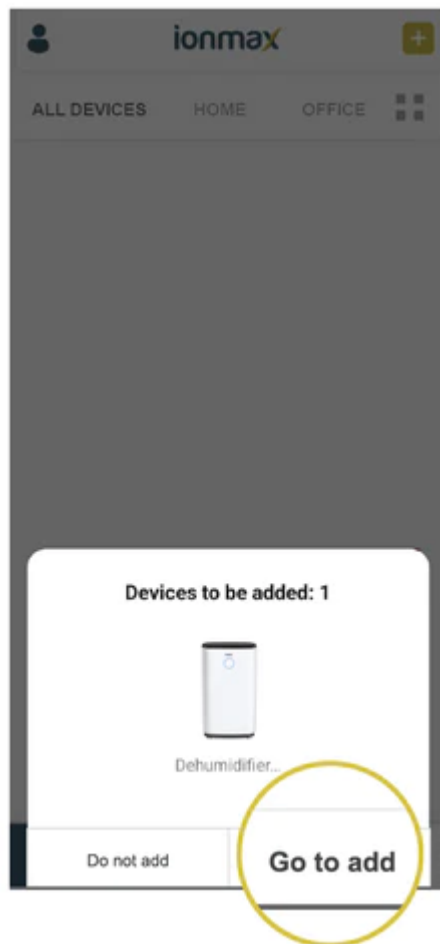
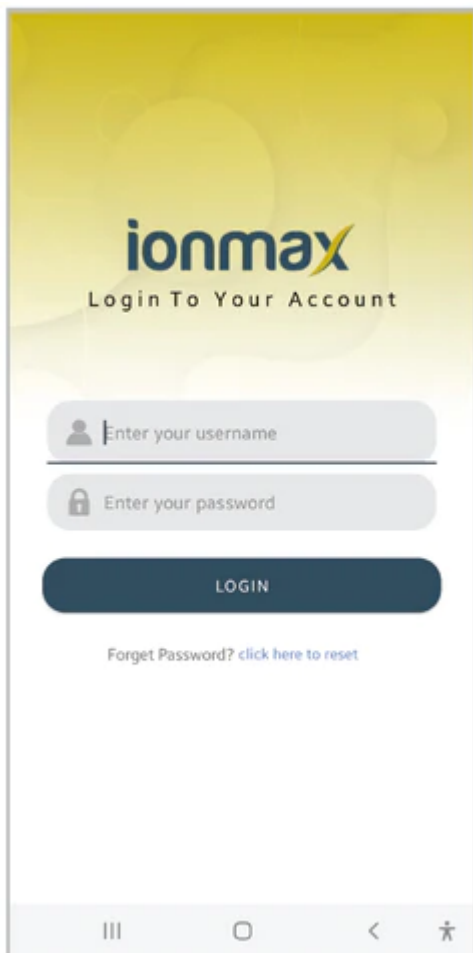
4. The Bluetooth feature and a stable WiFi connection is needed to sync the unit to your mobile device.

1. Method 1: Auto Scan

1. Enable the Bluetooth function on your mobile phone.
2. Open the Ionmax app on your mobile phone.
3. The app will search for the dehumidifier and connect automatically.
4. Ensure the WiFi indicator is blinking for Auto Scan to function.
5. Follow the prompts on the app to finish the Bluetooth connection.

2. Method 2: Add Manually

1. On your Ionmax app, select or create a new location for your dehumidifier .
 2. Select "Devices" and click on "+" to add a new device.
 3. Select product type "Dehumidifier".
 4. Enter your WiFi network SSID and password on the app. **Please use a 2.4GHz network only.*
 5. Confirm that the WiFi indicator on the device is blinking and click 'Next'.
 6. The app will search for the dehumidifier and prompt for connection automatically.
5. Once the dehumidifier is successfully connected, the WiFi indicator will stop flashing and remain lit up. You can now monitor and operate the dehumidifier using the mobile app.

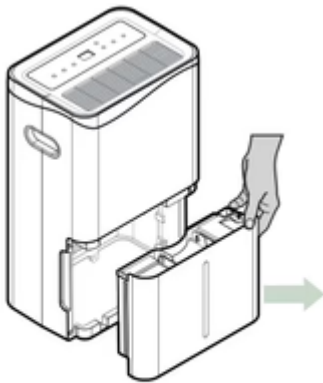


Emptying the Water Tank

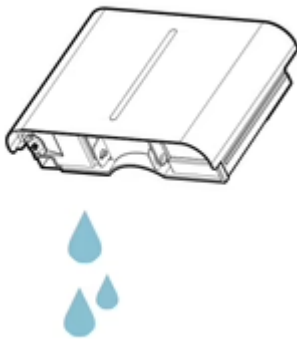
1. When the water tank is full, the Full Tank indicator will blink and the unit will beep and stop operating.
2. Do not move the unit or remove the water tank if the unit is still operating as water may leak, damage the unit, or cause an electric shock.



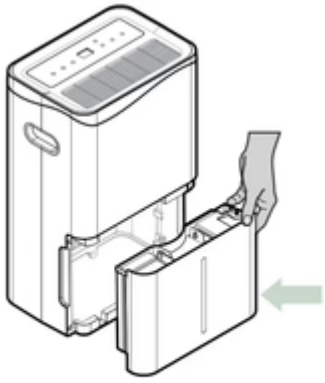
Full tank indicator



1

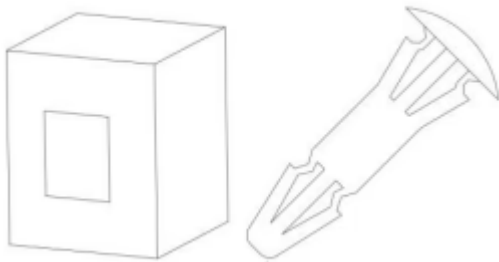


2



3

1. To remove the water tank, grip the handles of the water tank and carefully pull it out.
2. Discard the water from the tank.
3. Clean the water tank and reinstall it back into the unit. The Full Tank indicator light will switch off and the unit can resume normal operation.

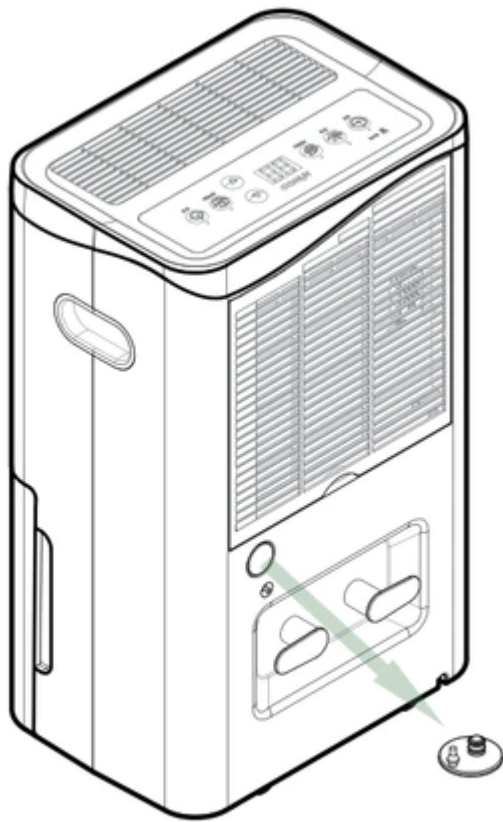


Note:

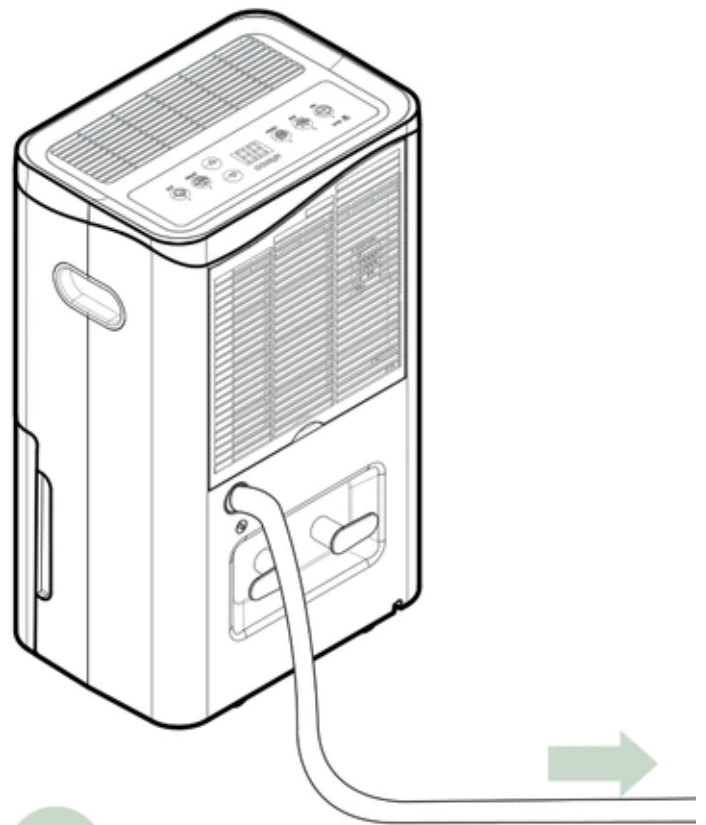
- Do not discard the magnets and plastic rivets from the water tank; the unit will not work correctly.
- If needed, clean the water tank by rinsing it with clean water. Avoid using any detergents, chemicals, diluents, solvents, steel wire balls or any other item that might damage it.
- The Full Tank indicator light will light up and the unit will not operate if the water tank is not positioned correctly.

Continuous Drainage Option

The unit comes with a hose that can be connected for continuous drainage. This removes the need to empty the water tank periodically.



Pull the drainage outlet's protective cover aside and insert one end of the drainage hose into the outlet.



The hose must lead to an appropriate drain at a downward slope with no sharp bends.

Note:

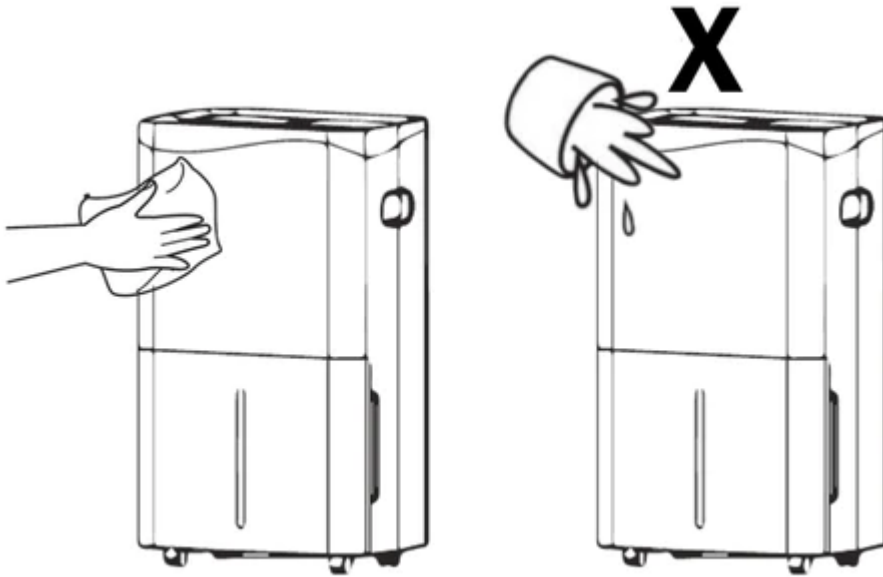
- Ensure the drainage hose is firmly attached to the continuous drainage outlet.
- The drainage hose should **not** be elevated higher than the drainage outlet of the unit.
- Do not discard the drainage outlet's protective cover. Plug it securely back into the outlet when the drainage hose is not in use.

Maintenance

Cleaning the unit

1. Switch off the unit, wait for the fan to stop, then unplug the power cord from the electrical outlet.

2. Clean the outer casing of the unit using a soft damp cloth with warm water and mild detergent. Do not use solvents or abrasive materials.
3. Dry thoroughly with a soft dry cloth after cleaning.
4. In order to avoid damage, do not wash the machine with water or let water drip into the air inlet or outlet.

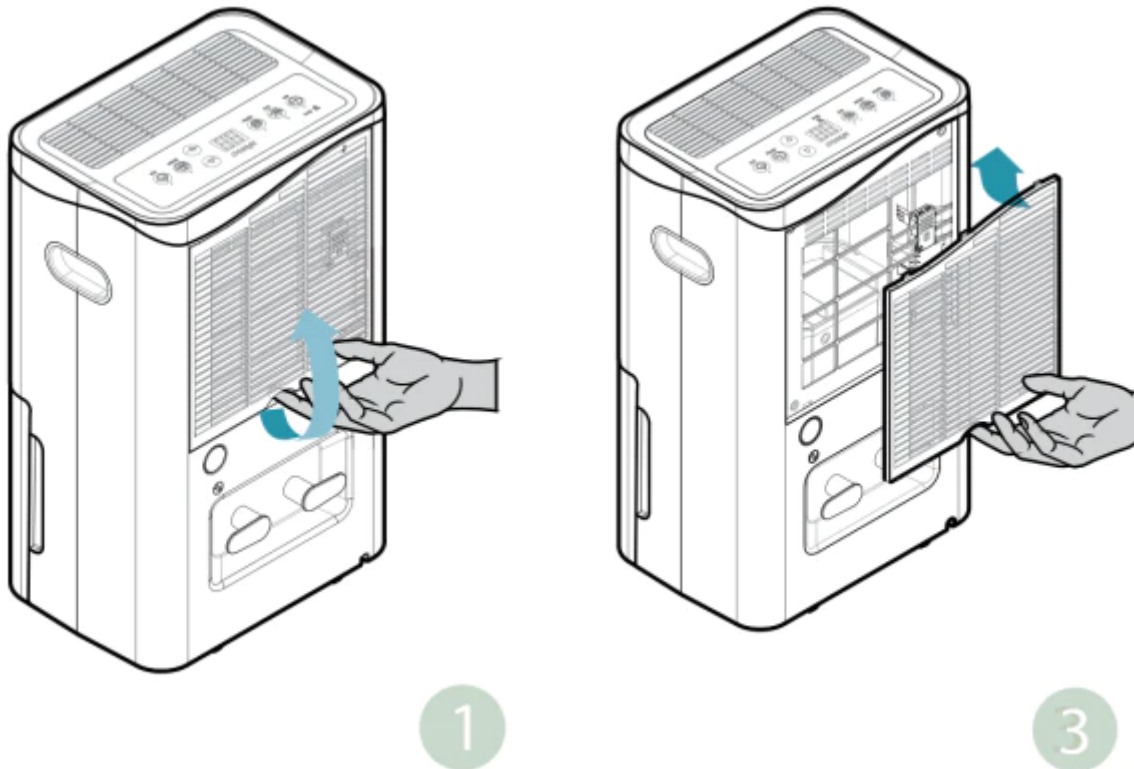


Cleaning the filter

If the filter is covered with dust, the airflow and performance of the unit will be affected.

Check the filter periodically to ensure any dust is removed.

It is recommended to clean the air filter every 2 weeks or at an appropriate frequency depending on your usage and air environment.



1. Switch off the unit, wait for the fan to stop, then unplug the power cord from the electrical outlet. Remove the filter located at the back of the unit.
2. Clean the filter gently using a vacuum cleaner with a soft brush, or by rinsing with water.
3. Leave the filter to dry completely. Then, restore the filter into the unit.

! Caution: Never run the unit without the filter. Dust build-up in the unit can cause malfunction and overheating.

Before storing

1. Switch off the unit, wait for the fan to stop, then unplug the power cord from the electrical outlet.
2. Clean and dry the water tank. Leave the unit to drain for approximately one day.
3. Clean the filter and the unit. Cover the unit to prevent it from gathering dust.
4. Store the unit upright in a cool dry place. Do not expose it to direct sunlight.
5. Store the unit in a well-ventilated area larger than 7 square meters that does not have continuously operating sources such as open flames, operating gas appliances or operating electric heaters.

Troubleshooting

The following conditions are normal:

- The compressor will stop or rest for 3 minutes every time the unit shuts down or is plugged into the electrical outlet. This helps ensure a smooth start for the dehumidifier.
- The unit works within room temperature of about 5~35°C. It may stop operation when the room temperature is out of this range or when the air inlet or outlet is covered.
- The unit could increase the room temperature by 1~3°C

If your dehumidifier is not operating as expected, please check the following solutions first:

Problem	Possible cause	Solution
Dehumidifier not operating	The unit is unplugged	Make sure the power plug is pushed completely into the electrical outlet and switched on
	The water tank is full or not in place (the Full Tank indicator is lit up)	Empty the water tank and make sure it is reinstalled into position correctly
	Room temperature is less than 5°C or more than 35°C	This is normal and is a self-protection mechanism designed to protect the unit.
Very little water is collected	The room humidity has reached the setting	This is normal. Choose a lower relative humidity setting for drier air.

Problem	Possible cause	Solution
	The ambient temperature is too low	This is normal if the temperature is low
	The ambient temperature is too high that it causes overheating	Do not use the unit in small and closed spaces where heat may accumulate. Move the unit to a cooler place and wait at least 10 minutes before resuming operation.
	Air filter is dirty or clogged	Clean the air filter
	The air inlet or outlet is blocked	Ensure nothing is obstructing the unit's air inlets and outlets and that the unit is set up correctly according to the Unit Setup guide
Unit is leaking	The unit is not on a level surface	Ensure that the unit is placed on a level surface and not accidentally sitting on a cable etc.
	The drainage hose is clogged or loose	Ensure the drainage hose is firmly attached to the continuous drainage outlet
	The drainage hose is kinked or has bends	Ensure the hose is leading to an appropriate drain at a downward slope with no sharp bends
	Unit is leaking while being moved	Empty the water tank before moving the unit
Unit is noisy	Unit is not on a flat and level surface	Move and restart the unit on a flat and level surface

Problem	Possible cause	Solution
	Air filter is dirty or clogged	Clean the air filter
	Noise sounds like water flowing	The noise is coming from the flowing refrigerant and is normal.
Powered on but compressor is not running	Humidity level sets incorrectly	Set the desired humidity level lower than the current room humidity level
	Compressor start is delayed	Allow a few minutes for the compressor to settle down before it is switched on
	Compressor is faulty	Contact Ionmax support and do not attempt to fix this as it may cause injury

Error codes

Error code	Possible Cause	Solution
E1	The temperature and/or humidity sensor is faulty	The compressor will run for a total of 30 minutes and defrost for 10 minutes
CL	Displays when room temperature is below 5°C	This is normal. The compressor will stop operating and the fan will stop running after 30 seconds.
CH	Displays when room temperature is above 38°C	This is normal. The compressor will stop operating and the fan will stop running after 30 seconds.

Error code	Possible Cause	Solution
LO	Displays when room relative humidity is below 20% RH	This is normal. The compressor will stop operating and the fan will stop running after 30 seconds.

Please contact Ionmax support if any problem persists. Do not try to repair the unit yourself, as this could cause an electrical shock and void your warranty.

Warranty Details



Congratulations on your purchase! It is our aim to provide you with quality products that you can trust. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The Guarantee

The product is guaranteed to be free from defects in workmanship and parts for a period of 24 months from the date of purchase. Defects that occur within this warranty period, under normal use and care, will be repaired, replaced or refunded at our discretion, solely at our option with no charge for parts and labour. The benefits conferred by this warranty are in addition to all rights and remedies in respect of the product that the consumer has under the Trade Practices Act and similar state laws.

Proof of Purchase

This warranty is valid for the original purchase and is not transferable. Please keep your purchase docket or receipt as proof of purchase and as proof of date on which the

purchase was made. The purchase docket (or a copy) or receipt must be presented with the warranty when making a claim under this warranty.

Service during the Warranty Period

To claim for warranty, contact us on 1300 800 200 or support@andatech.com.au to get an RA# (Return Authorisation Number) or submit a support ticket on my.andatech.com.au. Ensure that the RA# is clearly stated on the outside of the packaging and that the product is properly packaged so that no damage occurs to the product during transit. Shipping of the product back to us for warranty will be at your cost. A product return without the RA# will not be accepted.

Extent of Warranty

This warranty is limited to defects in workmanship or parts. All defective products or parts will be repaired or replaced. This warranty does not cover manuals and packaging.

Normal Wear and Tear

This warranty does not cover normal wear and tear to the product or parts.

Exclusions

This warranty does not cover:

- Any defect caused by an accident, misuse, abuse, improper operation, lack of reasonable care, unauthorised modification, loss of parts, tampering or attempted repair by a person not authorised by the distributor.
- Any product that has been damaged by a lightning strike either directly or indirectly or a main power surge or liquid ingress.
- The product if it is located outside of Australia.
- Any damage caused by improper power input or improper cable connection.

Warranty Registration

Register your Ionmax Rhine online at my.andatech.com.au or fill out this form and forward it to the address below with a copy of your proof of purchase. Contact us at **1300 800 200** or visit ionmax.com.au for options to extend your warranty.

Andatech Pty Ltd

PO Box 3038, Nunawading VIC 3131, Australia.

Phone: 1300 800 200 Fax: 1300 883 802 Email: support@andatech.com.au

Date of Purchase	
Place of Purchase	
Serial No.	
Surname	
Given Name	
Address	
Suburb	
Postcode	
State	
Contact No.	
Email	