

DDQ10L

desiccant dehumidifier

 **Kullhaus**
BETTER AIR



User Manual

Thank you for choosing Kullhaus.

Please read this instructions carefully before using the dehumidifier and keep the user manual safe, where it is easily accessible for future reference.

IMPORTANT SAFETY INSTRUCTIONS

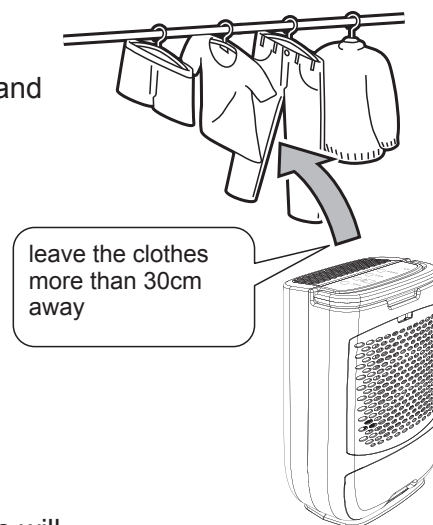
WARNING - This appliance is intended for use in a domestic environment only. Any other use is not recommended by the manufacturer and may cause fire, electrical shocks or other injury to person or property. Place the unit in an upright position on a stable, flat surface.

When using electrical appliances, basic safety precautions should always be followed:

1. 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.
2. 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.
3. This unit should always be kept in an upright position to avoid any damage. Locate the unit on a flat stable surface.
4. Check the household voltage to ensure it matches the units rated specification before operating.
5. **Where possible, avoid the use of an extension cable as they may overheat and cause a risk of fire. Only use an extension cord after ensuring it is in perfect condition. Extension leads can also cause voltage drop which will affect the dehumidifier. Do not use the appliance in overloaded extension cord.**
6. **Do not use the appliance with Timer Plug Socket**
7. **Do not use the unit without the air filters and make sure that the filters are kept clean to avoid malfunction and invalidating the warranty.**
8. Operate this unit in an ambient temperature between 1°C and 40°C.
9. Ensure that the air inlets and outlets are not blocked or covered.
10. Do not place the unit too close to curtains or other objects - minimum distance 40cm.
11. When using the unit to dry wet clothes in the room, please keep the clothing at a safe distance from the unit to prevent water from dropping onto the unit.
12. Never place anything on top of the unit and do not cover with any kind of material while in use.
13. This product is intended for domestic and light office use ONLY and not for commercial, industrial or outdoor use. Never use in very damp rooms (bathroom for example).
14. To protect against electrical shocks, do not immerse unit, plug or cord in water, or spray with liquids.
15. **Never unplug the power cord without pressing the « Power key» first, as this could damage the unit. Never unplug the dehumidifier before the fan has stopped blowing.**
16. Always unplug the unit when not in use or moving location. To disconnect from the power supply, grip the plug and pull from the power socket. Never pull by the cord.
17. Always empty the water tank before storing the unit away.
18. Using the dehumidifier in front of a warm radiator can result in the dehumidifier not collecting any water because of the heat from the radiator.
19. Do not run power cord under carpeting, or cover with rugs or runners. Arrange the cord away from areas where it may be tripped over
20. Never operate or store the unit in direct sunlight.
21. 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.

FEATURES

- **Compressorless dehumidifier** ~ uses desiccant rotor technology
- **Environmentally friendly** with no harmful gasses & quiet in operation
- **Moisture removal** ~ 10litres/day (20 C, 60%RH)
- **Water tank capacity** ~ 4.2 litres
- **Automatic dehumidification** according to power level (H/L) and humidity settings Digital humidity display
- **2, 4, 8, 12 hours timer**
- **Temperature range for use** ~ 1°C - 40°C
- **Light & portable with carry handle**
- **Removable water bucket with handle**
- **Auto restart after power cut**
Once the power is restored after a power failure, the appliance will continue to operate at the selected settings prior to the power failure.
- **Ioniser for cleaner air**



Do not use the appliance to heat the room. The dehumidifier is not a heating fan. Excessive use of the dehumidifier in LAUNDRY mode can harm the device.

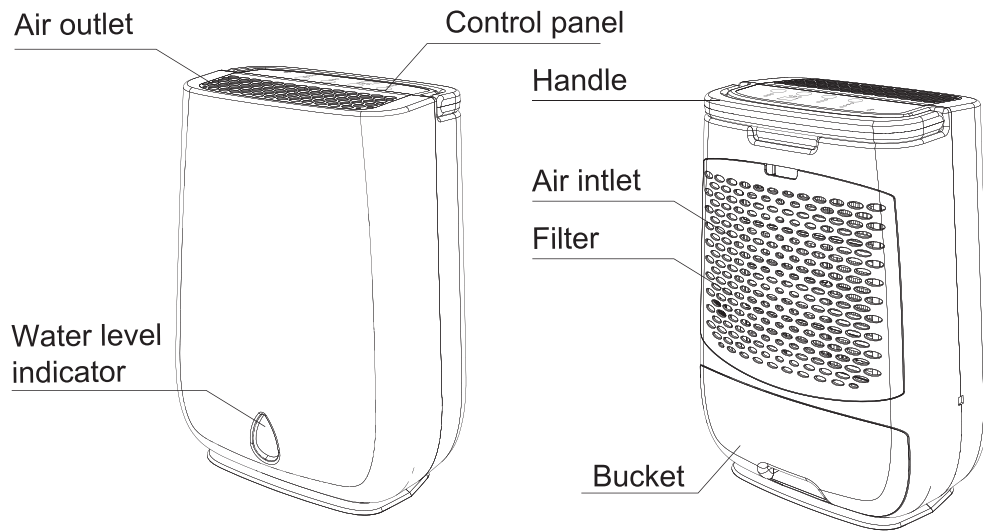


The device should always be operated under the supervision of an adult who has read and understood the instructions for the safe operation of the device.

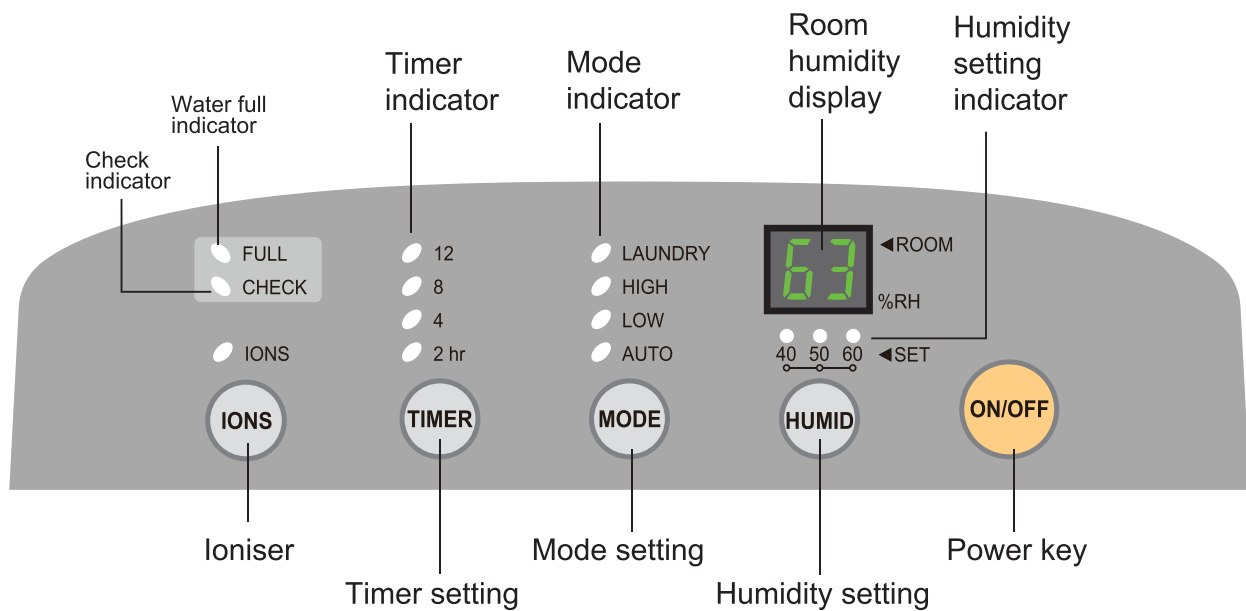


When you press the OFF button, the fan will continue to operate for 2 minutes, before the device is switched off. This function is normal and you should allow the dehumidifier to work smoothly without unplugging it until the operation is complete. For the desiccant dehumidifier it is important to cool and protect the internal components after dehumidification.

PRODUCT DESCRIPTION



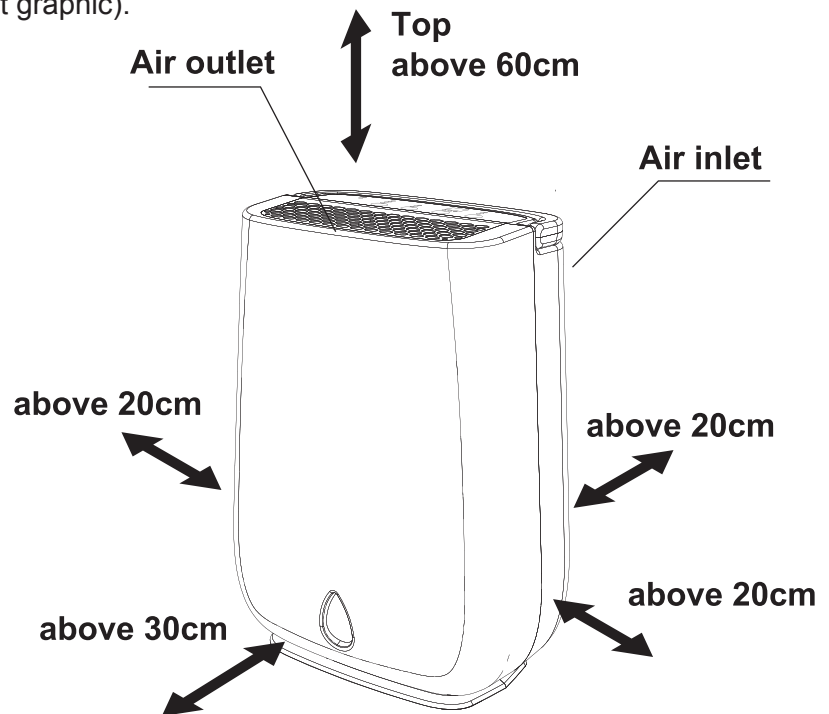
THE CONTROL PANEL



Note: The humidity settings are displayed with single or two LEDs, e.g. both 40% and 50% means 45%.

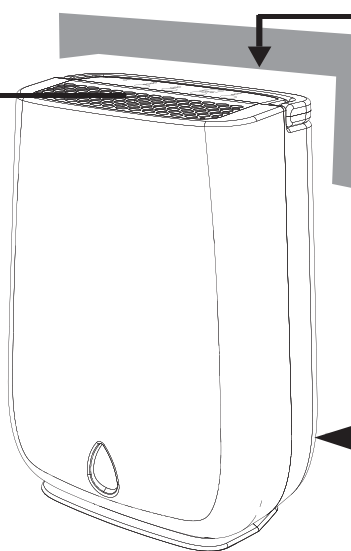
UNIT SETUP

- Place the unit in an upright position on a stable, flat surface.
- Please ensure the unit is a safe distance away from a wall or furniture (see the right graphic).
- Please keep clothes at a safe distance of 30 cm from air outlet of the unit to prevent water dripping into the unit.
- Where to position your dehumidifier? For best results position the dehumidifier somewhere central like a landing or a hallway. Do not position in front of a radiator or in direct sunlight.



TO OPERATE SAFELY

- Do not insert small objects into the unit or this will damage it and cause a hazard.
- Do not use the appliance with Timer Plug Socket
- Keep the filters clean. Never use the unit without filters
- Keep suitable space as above.
- Do not remove bucket when running or water may leak.
- Ensure bucket is fitted correctly, if the bucket is full or is not in place, the water full indicated and the machine stops.



OPERATING INSTRUCTIONS

■ Power key

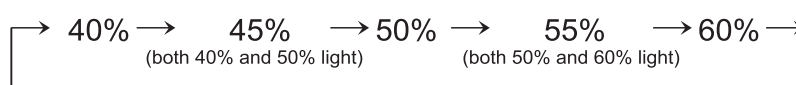
Press power key to turn on or off the unit.

The appliance will be on with prior settings of last run, including humidity and fan settings, except timer.

The fan will continue to run for two minutes to help cooling and protecting the internal components. Once the power is restored after a power failure, the appliance will continue to run the prior settings (including timer) before power failure.

■ Humidity setting

Press the humidity setting button to set the humidity in the following loops with 1 or 2 LED, 5% stage display:



KULLSAVE

The Energy Saving Smart Operation

Press the Humid button to select the target relative humidity, in steps of 5%, ideally 50-55%. If the target humidity is lower than the room relative humidity, the humidity setting LED will light steadily and the dehumidifier will work for as long as it takes to achieve the goal.

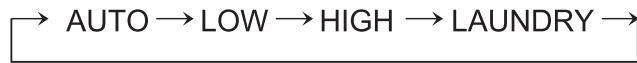
When the desired relative humidity is reached, the LED humidity control indicator flashes, and the dehumidifier will enter energy saving mode: THERMAL RESISTANCE STOPS immediately, and the fan will continue to work for 2 minutes, as the device needs to cool down. The device will go to sleep mode for 15 minutes.

After 15 minutes pause, the fan will start to run for 2 minutes to check that the relative humidity is steady. Kullhaus DDQ10L will go back to work whenever the humidity level has increased about 5% higher than the target level. Otherwise, it stops for another 15 minutes and so on.

OPERATING INSTRUCTIONS

■ Mode setting

Press the MODE button to select modes in the following loop:



AUTO [SMART OPERATION]: automatically adjusts fan speed and the heater to achieve optimal performance and lower consumption. When the relative humidity is 10% higher than the setting, the dehumidifier uses the high fan speed. When it is 5% or less it uses the low fan speed and low heater.

LOW: the machine runs with low fan speed and low heater.

HIGH: the machine runs with high fan speed and high heater.

LAUNDRY: While selecting the laundry mode, the display will show “Co “. In LAUNDRY, the Humidity Setting is disabled (the humidity setting LEDs are all off) and the machine runs continuously (Continuous Operation).

Note : The display will go back to the ambient humidity level in 3 seconds after setting.

■ Timer setting

Press the TIMER button to set the timer and the remaining time is displayed with the operation:



■ Ioniser setting

Press the «IONS» button to turn the ionizer on and off.

When the LED is on, the unit releases negative ions from the air outlet.



It is important for the desiccant dehumidifier to cool down after the dehumidifying process. To release the heat generated during operation. This is the reason why the fan continues to operate for 2 minutes. Never unplug the dehumidifier before the dehumidifier cooling cycle is complete.

UNDERSTANDING AND USING A DEHUMIDIFIER

How does the Kullhaus DDQ10L dehumidifier work?

The desiccant dehumidifier draws the air in from the room over the filters and drives it to the rotating wheel with the Zeolite material, which absorbs the excess water out of the air. The heater and the fan blow hot and dry air on the Zeolite, eliminating moisture from the wheel. Zeolite is now warm and dry again, and can absorb excessive humidity in the next cycle of operation. The hot, humid air ends up on a metal surface that condenses excess moisture and water droplets end up in the device's water tank. The air coming out of the dehumidifier is dry and about 10-12 ° C warmer than the air entering the unit.

Will a dehumidifier do the whole house?

The Kullhaus DDQ10L dehumidifier can cover a small 5 bedroom house. The volume of dry air created by dehumidifier can cover this space. In addition, it helps the fact that moist air always migrates to dry areas. So once you leave all the internal doors open, the dehumidifier will be able to capture excessive moisture and mold throughout the house.

Where to place the dehumidifier?

When the dehumidifier is used for the first time in the room, it would be better to operate it primarily in the room that has the biggest problem of excessive humidity. Set the desired humidity to 55% and let the dehumidifier work continuously until it drops the humidity to the desired level and stops working.

Then place the Kullhaus dehumidifier in the central spot of the house, usually the beginning of the corridor that connects all the rooms. The internal doors of the rooms should be open so that the dehumidifier can absorb moisture! In homes with multiple rooms separate by doors or long hallways, you may need to move the dehumidifier from room to room as needed.

Important: Close windows in the home when running the dehumidifier to reduce costs and to get the most benefit from the machine. You can ventilate the room for a few minutes in the morning, after turning off the dehumidifier. Once you have completed the ventilation of the house, close the windows and turn on the dehumidifier again.

Does the Zeolite wheel need replacement;

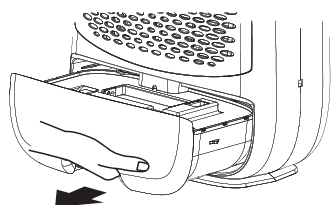
The Zeolite material inside the desiccant dehumidifier lasts for many years. More specifically, its lifespan depends on how «heavy» the use of the dehumidifier is. In general, the zeolite wheel should be replaced every five years. The reason is that with time and use zeolite [porous absorption material], loses its absorbency and this makes it less efficient.

How many hours should the dehumidifier work?

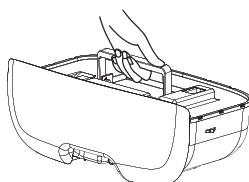
The answer would be: as many hours as it takes for moisture levels to fall to the ideal, healthy levels of about 55%. At Kullhaus we encourage our customers to operate the dehumidifier continuously, in automatic mode. In any case, Kullhaus dehumidifiers can achieve the desired humidity setting and maintain it accurately. When target humidity is reached the dehumidifier it will stop working. So the humidity inside is maintained at healthy levels and the house is protected.

TO EMPTY THE BUCKET

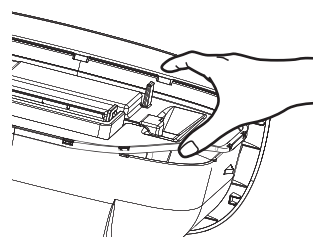
1. When the bucket is full, the « FULL » led blinks and the unit stops in a few minutes.
2. Do not move the unit or remove the bucket if the machine is still operating, as water may leak, damage the unit or cause an electric shock.
3. To remove the bucket, pull it out and lift carefully.
4. Pour the water away, clean the bucket and restore the cover and the bucket to the correct position.



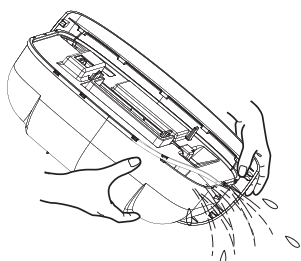
A Pull bucket out



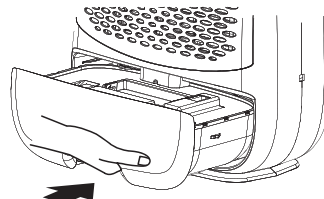
B Lift by the handle



C Open the corner of bucket cover



D Pour water away



E Restore the bucket

NOTE:

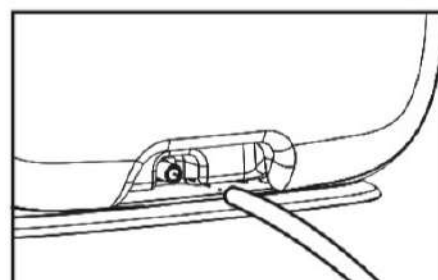
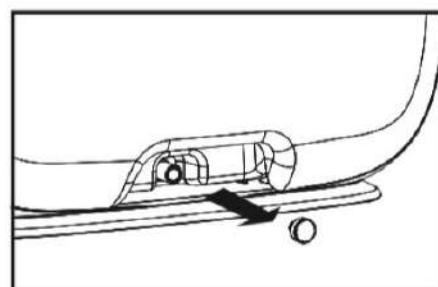
- Clean the bucket with clean water if needed. Do not use solvent, abrasive or hot water.
- Do not remove or damage the float in the bucket, or the unit cannot work correctly.
- The « FULL » led blinks if the bucket is not well in place.

TO DRAIN WATER

You may use a hose with an inner diameter of 12mm for continuous drainage:

1. Remove the plug from the drain hole at the bottom of the bucket and store it properly.
2. Fit the hose firmly on the drain connector. The tubing must have a downward slope without creases and lead to drainage. If possible, place the dehumidifier at a certain height to maximize the downward slope of the pipe.

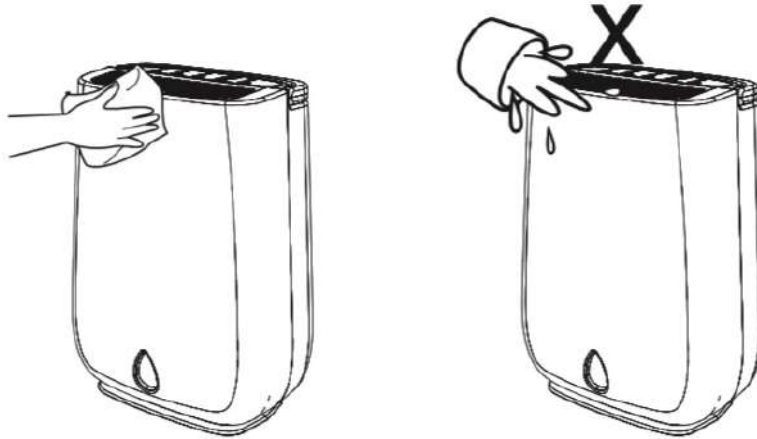
Note: The bucket must be in the correct position for running.



MAINTENANCE

Cleaning the unit

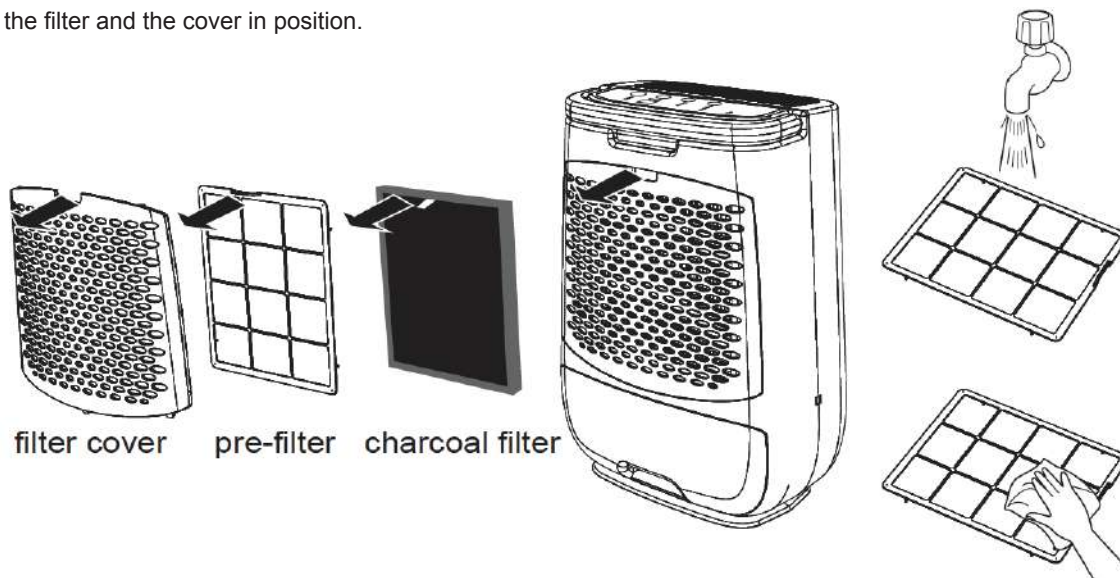
1. Turn off the unit, wait for the fan to stop and unplug from the power socket.
2. Clean the surface with a soft damp cloth.
3. Dry thoroughly with a towel after cleaning.
4. In order to avoid damage, do not wash the machine with water, or let water drip into the air inlet or outlet.



Cleaning the filters

If the filters are covered with dust, the airflow and the performance of the unit will be affected. It is recommended to check and clean the filters every two weeks. Never use the dehumidifier without its filters.

1. Turn off the unit and remove the filter cover, pre-filter and Charcoal filter from the unit.
2. The pre-filter can be washed and wiped gently.
3. Vacuum the Carbon filter. Never with water. It should be replaced after one year use.
4. Place the filter and the cover in position.



Before storing

1. Turn off the unit, wait for it to stop and unplug from the power socket.
2. Clean and dry the bucket. Leave the unit to drain for approximately one day.
3. Clean the filters and the unit. Cover the unit to prevent it from gathering dust. Store the device in an upright position, in a cool dry place.
4. Do not expose to direct sunlight.

TROUBLE SHOOTING

Problem	Possible Solution
The device does not dehumidify.	The water tank is full.
	The water tank has not been replaced correctly.
	Clean the air filters.
	The relative humidity in the room where the dehumidifier is operating is too low.
	The operating range of the dehumidifier is $\approx 1-40^{\circ}\text{C}$ approx. Beyond this temperature range the dehumidifier will stop operating.
I press the OFF button, the fan continues to operate for 2 minutes before it is switched off.	It is normal. Desiccant dehumidifier has to cool down after dehumidification. Do not unplug or move the until the cooling operation is complete.
The dehumidifier works, but reduces the relative humidity insufficiently/there is little water in the water tank.	The house is too big. This dehumidifier can dry up to about a small five bedroom house.
	There are too many sources of moisture. Bathing, washing, drying clothes and cooking all puts moisture into the air. The dehumidifier needs more time to operate.
	There is too much ventilation. Close the doors.
	The air filters are blocked and the reduced air flow is effecting performance. Clean the filters.
Smell coming from the dehumidifier.	This is a normal and harmless smell from the Zeolite desiccant material. The smell is due to the fact that zeolite absorbs odors from cigarettes, cosmetics, hair sprays, building materials and new furniture, and when heated the smell is secreted in the room. Operate the dehumidifier in fresh air for 5-6 hours, e.g. at the balcony.
The " CHECK " led is blinking to signify a blockage in the air inlet or outlet	The filters are dirty or clogged. Please check and clean them.
Hose is fitted for continuous drainage but the water still goes into the tank.	Negative air pressure in the room is pulling the water back into the dehumidifier overflow. Make a 4mm hole into the top of the tube 30mm down from the spout. This will introduce air into the tube and balance out the air pressure.
	Place the dehumidifier at a height so that there is a greater slope in the drain pipe.
Water not draining down the hose. Water still goes into the tank.	This usually means that the dehumidifier is standing on a non-flat surface or that the filters have not been cleaned or that dirt has clogged the dehumidifier.

WARNING: If there is still another problem, contact the seller or the specialised service. DO NOT attempt to repair the appliance yourself, as this may result in electric shock and cancellation of your warranty.

TECHNICAL SPECIFICATIONS

Model	DDQ10L
Power supply	220-240V~ 50Hz
Dehumidifying capacity	10 litres / day (20°C,60%RH)
Power consumption	740W(High) / 420W(Low)
Air flow	H: 120 L: 65 m³/h
For homes up to	5 bedroom house
Fan speed	2 High/Low
Capacity water container	4,2L
Sound pressure level	H: 47 L: 38 dB(A)
Operating range	1°C-40°C
Timer	2, 4, 8, 12h
Net weight	7,5 kg
Dimensions (WxDxH)	379 x 239 x 520mm

The above technical details are for reference only. We reserve the right to modify them without notice.



this product should not be disposed with other household wastes throughout the EU. The appliance and packaging must be sorted and disposed of at the local recycling center and processed in an ecological manner.

CONDITIONS OF WARRANTY

**There is a two year warranty on your dehumidifier from the date of purchase.
All material or manufacturing defects will be repaired free of charge.**

The following applies:

1. Any repairs or replacement of components during the warranty period will be not result in an extension of the warranty period.
2. The warranty will expire if any alterations have been made, not genuine components have been fitted or if the dehumidifier has been repaired by a third party.
3. Components subject to normal wear and tear, such as the air filters, are not covered by the warranty.
4. The warranty is only valid on presentation of the original, unaltered, and date-stamped purchase receipt.
5. The warranty is not valid for:
 - Damages is caused by actions that deviate from those as described in the user's manual or by neglect.
 - Damages caused from intervention of unauthorized personnel.
 - Bad or insufficient maintenance.
 - Factors for which the production factory does not have any responsibility (variations in power supply beyond the specifications of the unit, etc.), connection in non-grounded power supply socket etc.
 - All claims for compensation, including consequential damage, will not be entertained.
6. In case of any unit's damage you should refer to the company that sold the unit.
7. The transportation costs from and back to technical department and the probable insurance of the units are under the customer's choice and responsibility.

Sani hellas
AIR TREATMENT

SANI HELLAS

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