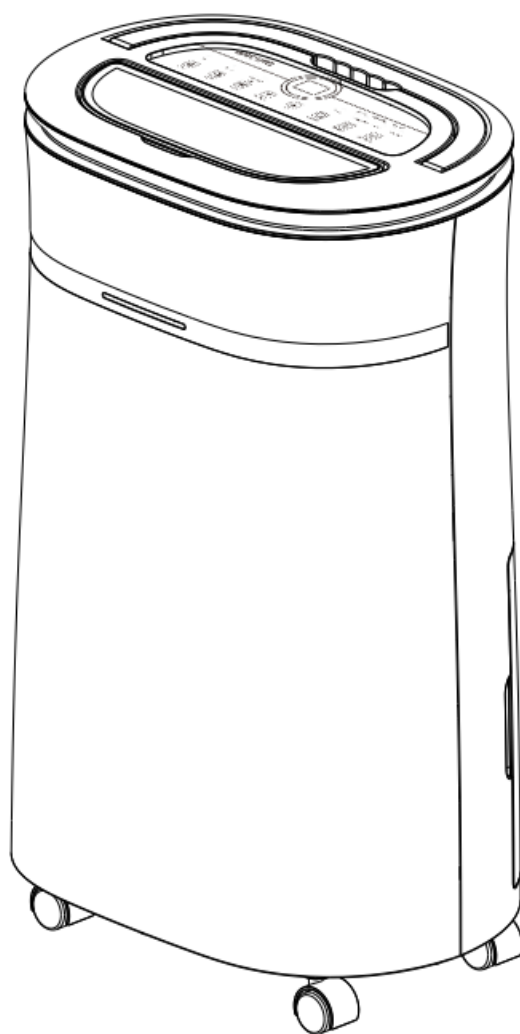


DEHUMIDIFIER USER MANUAL

20L COMPRESSOR DEHUMIDIFIER WITH DIGITAL HUMIDISTAT — MODEL DH-520C



Dear Customer — thank you for selecting this dehumidifier for your home and family. This manual explains the proper use and maintenance of the unit; please take a few minutes to read it and become familiar with its performance. Please keep this manual for further reference.

SAFETY INSTRUCTIONS

- Carefully read the instructions before operating the unit.
- This appliance is for indoor, domestic use only. Any other use may cause fire, electrical shock or injury.
- Rating: connect only to a 220–240 V / 50 Hz earthed outlet. Installation must comply with local regulations.
- If in doubt about the suitability of your electrical supply, have it checked and, if necessary, modified by a qualified electrician.
- Disconnect the power before dismantling, assembling or cleaning. Avoid touching moving parts and never insert fingers, pencils or other objects through the guard.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or a lack of experience and knowledge, unless supervised or instructed by a person responsible for their safety. Do not leave children unsupervised with this appliance.
- Do not clean the unit by spraying it or immersing it in water.
- Never connect the unit using an extension cord. If no outlet is available, have one installed by a qualified electrician.
- Never operate the appliance if the power cord or plug is damaged, and ensure the cord is not stretched or exposed to sharp edges. A damaged cord must be replaced by the manufacturer or a qualified electrician.
- Any service other than regular cleaning or filter replacement should be performed by an authorised service representative; failure to comply could void the warranty.
- Do not tilt the unit while in use — it is designed to work only in a vertical position, and must always be stored and transported upright. If in doubt, wait at least 24 hours before starting after transportation.
- Avoid restarting the dehumidifier unless 5 minutes have passed since it was turned off, to prevent compressor damage.
- Never use the plug as a switch; use the ON/OFF button on the control panel. Always place the unit on a dry, stable surface.
- Do not install in laundry or wet rooms where humidity is higher than 85% RH. Do not dry laundry above the unit; place laundry at least 1 metre away.
- Before moving the appliance, empty the water tank. The handle aids movement only and should not support the full weight of the unit; do not use it if its fixings show damage.
- Place the appliance in a room without sources of ignition (open flames, an operating gas appliance or an operating electric heater).

Refrigerant (R290)

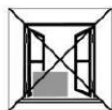
- R290 refrigerant gas complies with European environmental directives and has a low Global Warming Potential (GWP) of 3. The unit contains about 80 g of R290.
- Do not use or store the appliance in an unventilated space smaller than 4 m² per unit. Refrigerant gas may be odourless.
- If the refrigerant system may have been compromised, do not use the product and contact the retailer for advice. The refrigerant system must not be perforated or punctured, and repairs must only be carried out by a suitably qualified engineer.

- Do not place the unit next to heat sources, and avoid dropping or throwing it. Do not store or use flammable vapours or liquids nearby, and do not use in spaces with a high concentration of gases, solvents or volatile organic compounds, or in very dusty or flammable environments.
- Ensure the louvre is open before operating the unit.

Energy Saving and Unit Protection Tips

- Do not cover or restrict airflow from the outlet or inlet grills. For maximum performance keep a minimum distance of 20 cm from walls or objects.
- Keep filters and grills clean — under normal conditions clean about once every three weeks. More frequent cleaning may be needed depending on air quality.
- Vacuum both the mesh and optional HEPA filter, and wash the mesh filters in hot soapy water and dry them before refitting.

Visual Safety Guide — Where or When Not to Use Your Dehumidifier



Exposed to the weather outdoors



Near water



If the power cable wires are frayed or cut



Where small children may be left unattended



If an extension lead may become overloaded



Where the power cable may be damaged



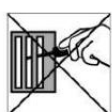
On a slope or uneven surface



Where there is risk of fire or close to a naked flame



Where it may be damaged by chemicals



Where there is a risk or interference by foreign objects



This product is not made for DIY repair



If there is a risk of water falling on the unit

Do not use the dehumidifier in any of the conditions shown above.

INFORMATION ON INDOOR POLLUTANTS

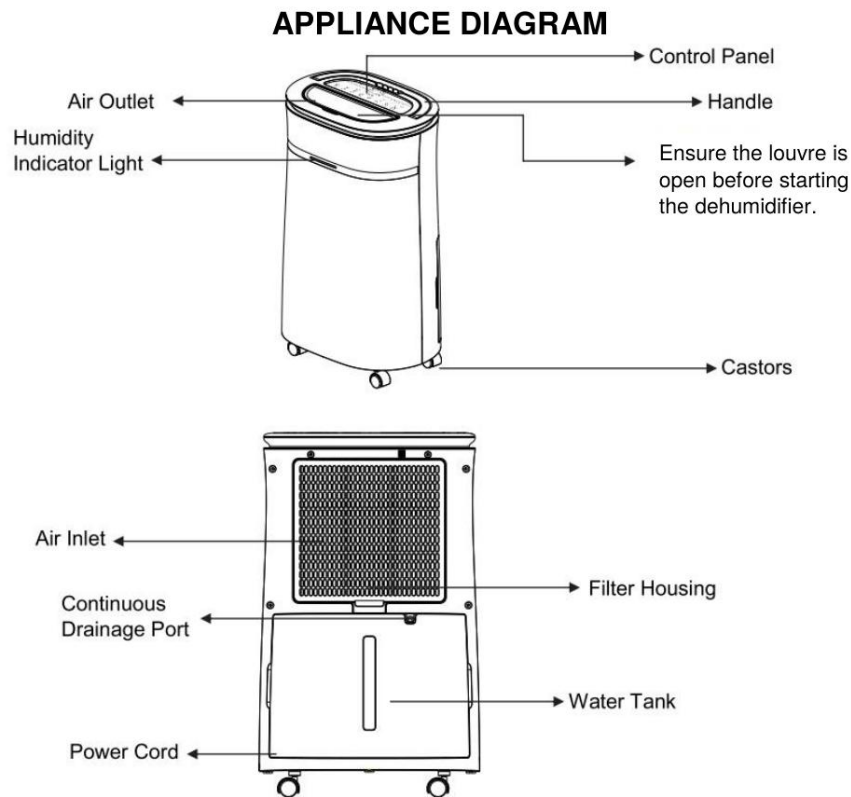
VOC (Volatile Organic Compound): VOCs come from vehicle exhausts, gasoline vapour, formaldehyde, ammonia and solvents such as paints and glues, or as a by-product of mould growth. They can irritate the eyes and nose and cause headaches, nausea and potential nervous-system damage. Common sources include pressed wood furniture, newly decorated rooms, paint and cleaning solvents.

Mould / Fungus: These can affect the respiratory system and cause allergic reactions such as a runny nose, eye and throat irritation, headaches, fatigue and aggravation of asthma. Other indoor pollutants include bacteria, viruses, dust mites and pollen.

Office equipment emissions: Studies (including from the EPA and UC Berkeley) report that emissions from computers and printers include VOCs, ultra-fine particles and ozone, which can be reduced with an air purifier.

HEPA and Carbon filters: An effective HEPA filter is essential to remove particles even at a microscopic level and ensures they are not spread.

APPLIANCE OVERVIEW

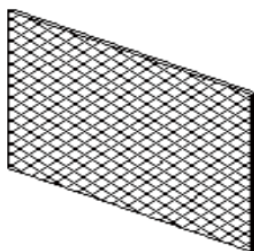


Appliance diagram — front and rear views.

Front of unit: Control Panel, Air Outlet, Humidity Indicator Light, Handle, and Castors. Ensure the louvre is open before starting the dehumidifier.

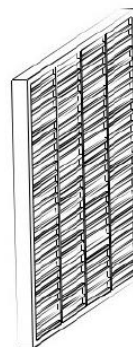
Rear of unit: Air Inlet, Filter Housing, Continuous Drainage Port, Water Tank, and Power Cord.

Optional Filters



CARBON FILTER

Replacement filters are available from the retailer under code: ACFIL-CDLEX



HEPA FILTER (NOT SUPPLIED)

Filters are available from the retailer under code: HEPA-CDL

Note: Diagrams are for illustrative purposes only. The design of the parts may vary from

Optional Carbon and HEPA filters.

- Carbon Filter — replacement filters available from the retailer under code ACFIL-CDLEX.
- HEPA Filter (not supplied) — filters available from the retailer under code HEPA-CDLEX.

Note: Diagrams are for illustrative purposes only. The design of the parts may vary from what is shown.

FEATURES

Your dehumidifier features power-saving logic.

1. Easy-to-use controls.
2. Cost-effective way to combat mould, condensation and damp.
3. Optional HEPA and Carbon filters for air purification.
4. Dries laundry more efficiently than a tumble dryer.
5. Designed to complement any modern space; castors for improved mobility.
6. Intelligent CPU-controlled digital humidistat with 35–80% RH and room-humidity display.
7. 24-hour start / stop timer.
8. Tank operation or permanent drainage option with a splash-proof tank.
9. Tank-full alarm and auto-stop function.

These compressor dehumidifiers are ideal for domestic or office environments heated during the winter and kept above 12–15 °C. The humidistat can be adjusted in 5% increments between 35% and 80%, ensuring the air is not too dry and power is not wasted.

INSTALLATION

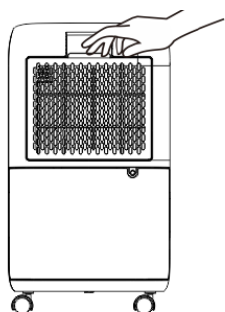
Remove any water from the tank before starting. To save energy, do not open windows or doors while the unit runs. Place the unit on a hard, flat surface. On first use, run the unit continuously for 24 hours.

To reduce noise: Place a piece of carpet or a rubber mat under the unit to reduce vibrations.

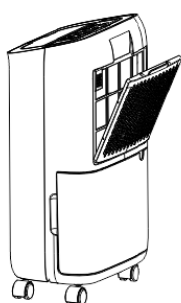
Fitting the Optional Filters

The optional HEPA filter fits into the rear of the filter housing; the optional Carbon filter is placed between the unit and the filter housing.

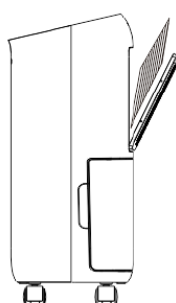
1. Unclip the filter housing.
2. Remove the filter housing and fit the HEPA filter (if required).
3. Refit the filter housing and place the Carbon filter in position (if required).
4. Ensure the filter housing is securely fastened into position.



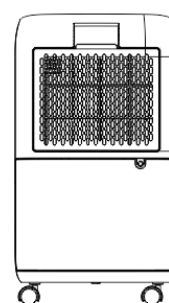
Unclip the filter housing.



Remove the filter housing and fit the HEPA filter. (If required)



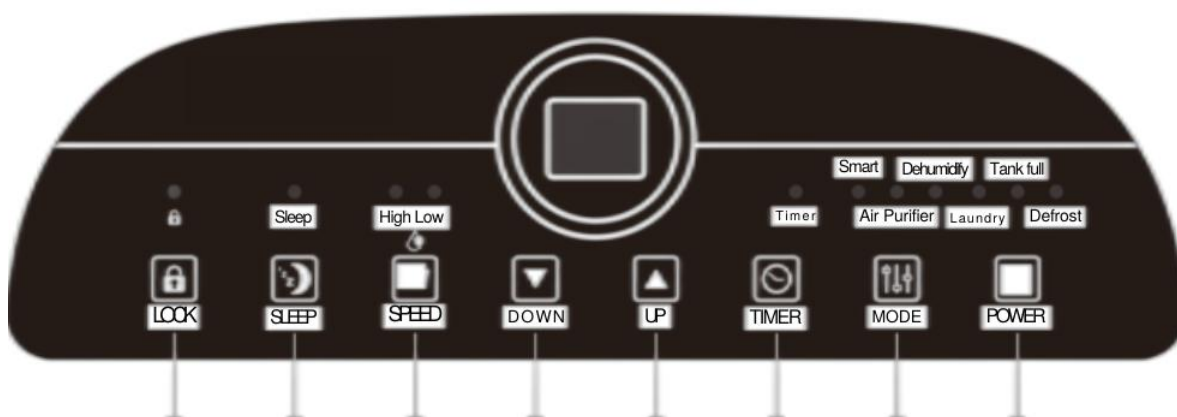
Refit the filter housing and place the Carbon filter in position.



Ensure the filter housing is securely fastened into position.

Fitting the optional filters — unclip, fit HEPA, place Carbon, refasten.

CONTROL PANEL



Control panel layout and button positions.

Button	Function
POWER	Turns the appliance on/off. Ensure the louvre is open before starting.
MODE	Selects the function: SMART, AIR PURIFIER, DEHUMIDIFY or LAUNDRY. SMART mode (default) aims for 50–55% RH. AIR PURIFIER runs the fan only (no water extraction), used with the optional filters or as a fan. DEHUMIDIFY removes moisture to a set level. LAUNDRY runs continuously at high fan speed to dry clothes.

UP / DOWN	Sets the desired relative humidity (default 55%). At a 35% setting the compressor runs until the tank is full.
SPEED	Changes fan speed between HIGH and LOW; the LED above the button shows the selection.
LOCK	Press and hold for 3 seconds to activate the child lock; hold again to release.
TIMER	Programs a delayed power-on (in stand-by) or delayed power-off (while running) from 0–24 hours using the UP/DOWN buttons.
SLEEP	Enters sleep mode — the unit runs at low fan speed and other indicators turn off. Press again to exit.

Indicators

Humidity Indicator: Turns on automatically. RED = high humidity ($RH \geq 70\%$), ORANGE = above ideal ($70\% > RH \geq 60\%$), GREEN = ideal ($RH < 60\%$). Toggle it on/off by holding SPEED for 3 seconds. Colour changes can take about 2 minutes.

Intelligent Defrost: The unit defrosts automatically when the coil sensor detects the internal temperature is too low, then returns to the previous mode.

Tank Full: When the tank is full the indicator flashes and the unit stops. Once emptied and correctly replaced, operation resumes.

Optional Carbon and HEPA filters: Vacuum the filters every 2–3 weeks and replace them every 3–6 months to keep the room fresh and odour-free.

Humidity Level & Timer Display

The two-digit LED shows the room humidity when plugged in, the desired humidity when UP/DOWN are pressed, and the timer duration when programmed. It shows “LO” below 20% ambient humidity and “HI” above 90%.

OTHER FEATURES AND INDICATORS

Auto Defrost: When frost builds on the evaporator coils the compressor cycles off and the unit defrosts, then returns to the previous settings. Between 5 °C and 12 °C it defrosts roughly every 30 minutes; between 12 °C and 20 °C, roughly every 45 minutes.

Humidistat & fan/compressor operation: When room humidity is 2% below the target the compressor stops but the fan keeps running to avoid stale air. When humidity is equal to or above the target, the compressor restarts after a 3-minute protective delay.

Auto-restart: After a power cut the unit restarts with the previous settings once power returns and the 3-minute compressor protection has elapsed.

Power: After stopping, do not resume operation for at least 10 minutes to protect the compressor; there is a 3-minute delay before the compressor starts on restart.

QUICK REFERENCE — OPERATING MODES

SMART Mode: Default mode, recommended for most users. Targets the ideal 50–55% RH while saving electricity. The compressor runs until the target is reached and then stops; the fan keeps circulating the air.

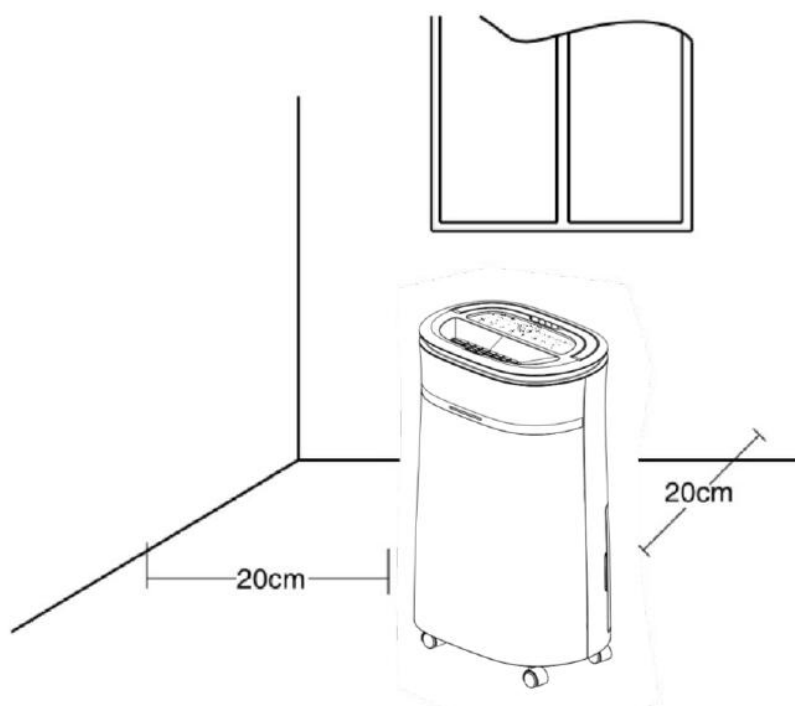
Dehumidify Mode: Standard operating mode; set the desired humidity with the UP/DOWN buttons.

Laundry Mode: For drying clothes the unit runs continuously at maximum extraction until the tank is full. Do not place clothes directly over the vents, keep the hot-air exhaust clear, and place laundry within 1.5 metres of the unit.

Recommended Humidity Settings

- With a permanent drain fitted the unit runs continuously. A 35% setting suits laundry mode, a quick drying boost or emergencies, but is not recommended for long normal operation.
- To allow more moisture in the air, set a higher target (e.g. 60–70%).
- 50–55% is recommended for domestic operation and dry storage.
- 60% suits personal comfort where 50% RH feels too dry.
- 70% is ideal for unoccupied properties or an economical run.

POSITIONING THE DEHUMIDIFIER



Allow at least 20 cm of clearance around the unit.

A badly positioned dehumidifier will have little effect. Ensure air circulation around the unit is not restricted and allow at least 20 cm of space around it. This unit is designed only for indoor residential or small-office use; commercial or industrial use invalidates the warranty.

Use in an enclosed area for maximum efficiency — close all doors and windows. Do not use outdoors. Position the unit centrally and clear of obstacles so it can draw moist air from across the space; a warm hallway or landing is an excellent location. Leave interior doors ajar to aid circulation, and keep the unit away from radiators and other heat sources.

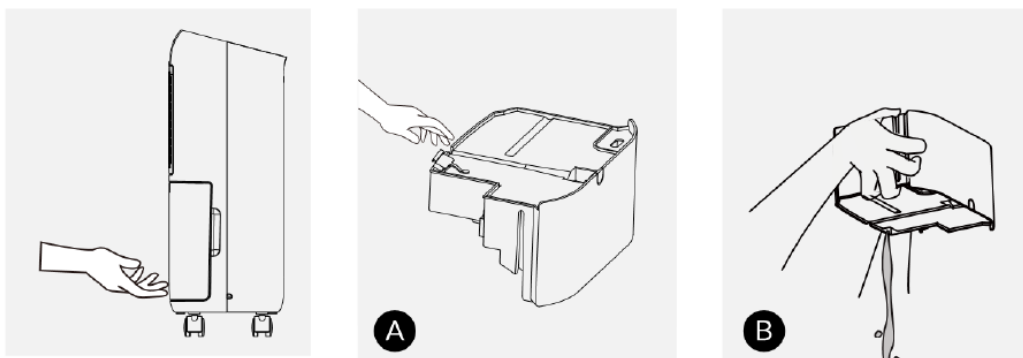
Note: Before moving, empty the tank. Do not force the castors over carpet or uneven surfaces, and do not move the unit with water in the tank as it may tip and spill. Place the unit on a flat, dry surface.

WATER DRAINAGE

When the tank is full the unit stops automatically and the TANK FULL light illuminates. Only empty the tank when it is full or before moving or storing the unit. There are two ways to dispense the collected water.

1. Use the Tank

When full, the unit stops and the Tank Full indicator flashes. Grip the tank by its handle and pull it out carefully, empty it, and reinsert it. The tank must be correctly seated for the unit to restart.

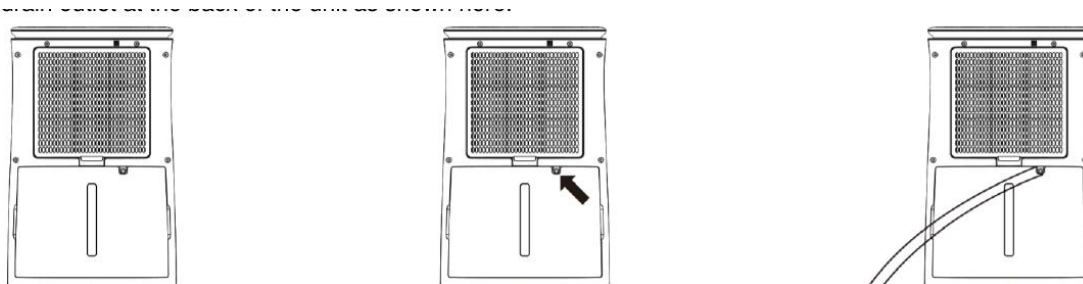


Removing and emptying the water tank.

Notes: Do not touch the sensors or parts behind the tank. Push the tank gently all the way in; banging it or failing to seat it may stop the unit working. Do not remove any parts from the tank or enclosure, or the water-full sensor may fail and the tank may leak.

2. Continuous Drainage

Water can be plumbed to a sink, a larger container or an outside drain using a pipe of 10 mm internal diameter (not included). Insert the pipe into the drain outlet at the back of the unit and ensure the connection is tight and leak-free.



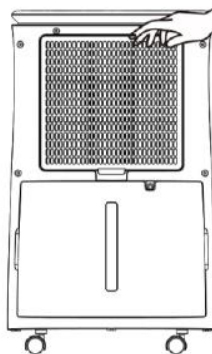
Continuous drainage — attach a 10 mm pipe to the rear drain outlet.

Direct the pipe to a suitable drainage point. The unit drains by gravity, so the drain must be lower than the water outlet. Run the pipe downward, keep it straight, and do not kink or bend it. The permanent drain can be used with a water pump (for example when draining from a cellar) to lift the water upwards.

CARE AND MAINTENANCE

Always switch off and unplug the unit before cleaning or maintenance. For long periods of disuse, remove the plug. Do not use chemical solvents (benzene, alcohol or gasoline) as they may cause irreversible damage.

Clean the Grille and Case



Use water and a mild detergent on the washable mesh filter — do not use bleach or abrasives. Do not splash water onto the main unit, as this may cause electrical shock, deteriorate the insulation or cause rust. Use a vacuum attachment or soft brush on the intake and outlet grilles, and wipe the body with a soft damp cloth.

Remove the filter housing and, if the optional filters are fitted, Hoover them gently every 2–3 weeks. Hoover the mesh filter; if heavily soiled, wash it in warm soapy water and dry it thoroughly before refitting. Replace the optional filters every 3–6 months.

Note: The HEPA and Carbon filters are optional, but never run the unit without the mesh filter housing correctly inserted.

Clean the Water Tank

Every few weeks, partially fill the tank with clean water and a little mild detergent, swish, empty and rinse to prevent mould, mildew and bacteria. Do not use a dishwasher. The tank must be reinserted securely to restart operation.

End of Season Maintenance

1. Empty and clean the water tank.
2. Clean the unit and filters as above.
3. Coil the power cord on the storage rest at the back of the unit.
4. Cover the unit and keep it in a dry place.
5. Ensure the louvre is in a closed position when not in use.

TROUBLESHOOTING

Issue	Cause / Solution
Hot or cold air is produced	Normal operation. In dehumidifying mode the unit absorbs humid air and freezes it to reduce humidity — cold air during the cold cycle, warm dry air during the defrost cycle.
Unit does not operate	Check the plug is inserted and the socket switched on. If the tank-full indicator is red, the tank is full, the float is displaced, or the tank is not properly inserted — empty, check the float and reinsert.
Dehumidifier does not extract water	The set humidity may be lower than the room humidity — set it below the current reading. The temperature may be too low — increase it or reposition the unit. Remove any obstruction from the grills and keep at least 20 cm from walls.
Airflow seems weak	Filters may be dirty or clogged — service them as per this manual.
Unit is noisy	Place on a flat, horizontal surface (soft, such as rubber or carpet, where possible). Check the filter is not clogged.
E3 or E4	Humidity sensor error. Use within the prescribed humidity range; unplug, rest and plug back in. If it repeats, call the service centre.
E1 or E2	Temperature sensor error. Use within the prescribed temperature range; unplug, rest and plug back in. If it repeats, call the service centre.
E5 or E6	Abnormal coil sensor temperature or current. Use within the prescribed range; unplug, rest and plug back in. If it repeats, call the service centre.
Defrost light on / unit stops regularly	The unit is defrosting; it will clear automatically. Increase the room temperature if this repeats too often.
Tank full red light	Tank full or wrongly positioned — empty and replace correctly.

Note: Any other malfunction must be reported to the service centre. Do not attempt unauthorised repairs, as these may invalidate the warranty.

FREQUENTLY ASKED QUESTIONS

Why doesn't the unit extract much water when it is cold? This is a compressor dehumidifier that works best above 15 °C. If it is cold and the air is drier than the humidistat setting, the unit will not extract water. For outbuildings, unheated properties, boats or garages, consider a desiccant model.

Why doesn't the unit work or stop suddenly? The tank may be full or displaced — empty and reseal it. The room may be below 5 °C, in which case the unit stops in dehumidifying mode (it may be defrosting). The operating range is 5–35 °C at 30–80% RH; for maximum efficiency use it between 15 °C and 32 °C.

Why does cold and/or hot air come from the outlet? In dehumidifying mode, the unit freezes humid air to reduce humidity — cold air during the cold cycle and hot dry air during the hot cycle.

TECHNICAL DATA

Specification	DH-520C
Voltage	220–240 V ~ 50 Hz
Dehumidifying capacity	20 L / day (at 30 °C / 80% RH)
Fan speeds	2
Power consumption	280 W
Running amps	1.2 A
Tank capacity	6 litres
Desired humidity range	35 – 80%
IP rating	IPX1
Refrigerant	R290, 80 grams
Airflow	180 m ³ /h
High / low pressure	3.2 / 0.7 MPa
Filters	Carbon (supplied), HEPA (optional)
Dimensions (W × D × H)	370 × 255 × 615 mm
Weight	14 kg
GWP	3



Conforms to CE. Contains R290 flammable refrigerant — handle in accordance with the safety instructions in this manual.