



morphy richards

3 Year
Guarantee*

*Upon registering your product
at morphyrichards.co.uk

PUREFRESH 20 Litre Dehumidifier



Model No.

822501
822502

User Manual

Please read and keep these instructions for future use





HEALTH AND SAFETY

The use of any electrical appliance requires the following common sense safety rules.

Please read these instructions carefully before using the product.

- **WARNING:** Disconnect from the mains supply before carrying out any routine maintenance.
- **WARNING:** Misuse of the appliance could cause personal injury.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children unless they are older than 8 years and supervised.



HEALTH AND SAFETY

- Keep the appliance and its cord out of reach of children less than 8 years.
- Do not use in an inflammable or explosive environment or which is above 35°C. Ideal operating environment temperature is 15°C - 32°C. Low temperatures may reduce dehumidification efficiency.
- This appliance is not intended to be operated on an extension cable or by means of an external timer or separate remote control system.
- This appliance is intended for indoor household use only. It is not suitable for use in staff kitchen areas in shops, offices and other commercial environments.



HEALTH AND SAFETY

MAINS CABLE

- Do not place the mains cable across an open space where it can cause a trip hazard or in a position where it can be pulled by children or animals.
- The mains cable should reach from the socket to the product without straining the connections.

OTHER SAFETY CONSIDERATIONS

- Only use for its intended purpose.
- Do not in any way obstruct the air inlets and outlets of the appliance.
- Do not attempt to repair or adjust any electrical or mechanical element of the appliance. Doing so may be unsafe and will void your warranty.

PERSONAL SAFETY

- Do not allow water or other liquids to run into the appliance as it could create a fire/electrical hazard.
- Dispose of water collected from the dehumidifier. This water is not drinkable.
- Do not touch the cable or plug with wet hands.
- Do not pull the cable when unplugging.
- Keep hands, hair and clothing away from the appliance while

in operation, to prevent personal injury and/or damage to the appliance.

- Do not push any objects in to the air inlet or outlet grilles as this may cause electric shock, fire or damage the appliance.
- In the unlikely event technical problems develop, stop using the product immediately and seek advice from the manufacturer.
- **WARNING:** Do not wrap the adapter cable around the main body of the appliance during or after use.

LOCATION

- Ensure the appliance is used on a firm, flat surface.
- The appliance **MUST** have a minimum clearance of 20cm around all sides.
- Do not cover or place any objects on the dehumidifier.
- Do not use this appliance near water or in the immediate surroundings of a bath, shower or swimming pool.
- Do not use outdoors, this appliance is intended for indoor household use only.
- The appliance should not be installed in laundry or wet rooms where the humidity is higher than 85% RH.



HEALTH AND SAFETY

ELECTRICAL DETAILS

- Make sure that the power voltage used is consistent with the voltage specified on the rating plate of the device.
- Should the fuse in the mains plug require changing, replace it with one of the same rating as originally fitted.
- **WARNING: This appliance must be earthed**

SAFETY RELATING TO REFRIGERANT R290 (PROPANE)

- Read the entire instruction manual carefully before attempting to use the appliance.
- This appliance contains the refrigerant R290. R290 is a refrigerant that complies with the relevant European Directives. Never perforate the refrigerant circuit.

CAUTION: R290 (propane) is flammable

- DO NOT store the appliance in a room containing other continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- DO NOT pierce or burn any of the components of the cooling circuit of the unit.

- DO NOT set the unit on fire.
- Take care to store the appliance in such a way as to prevent mechanical faults or damage from occurring.
- Be aware that the refrigerant may be odourless, and that leaks may not be detectable by smell.
- ALWAYS take care to comply with national gas regulations.
- Keep ventilation openings clear of obstruction.
- Store the appliance in a well-ventilated area where the room size corresponds to the room area specified for operation.
- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.

WARNING: Do not place the unit on or near a hot gas or electric burner.



R290



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 are maybe 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 a risk of fire or close to a naked flame



Where it may be damaged by chemicals



Where there is a risk of interference by foreign objects



This product is not made for DIY repair



If there is a risk of water falling on the unit

INSTALLATION

Remove any water from the water tank before starting the unit. In order to save energy, do not open windows or doors while the unit is running. Place the unit on a hard/flat surface. On first use run the unit continuously for 24hrs.

To reduce noise levels:

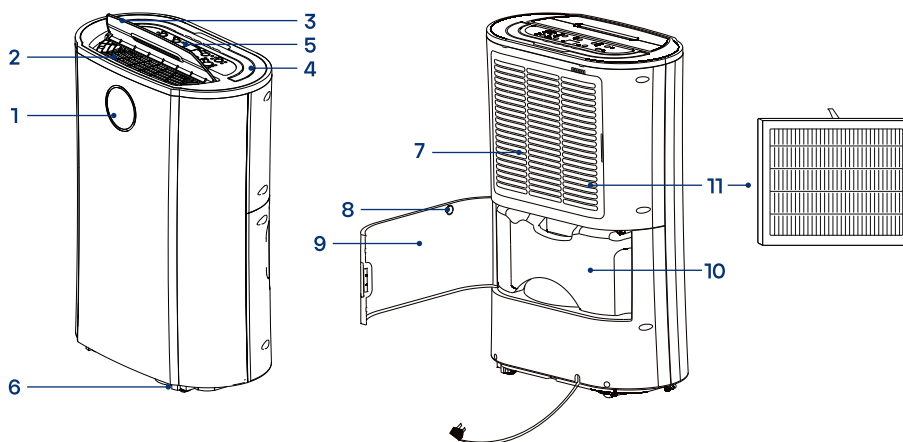
Place a rubber mat under the unit to reduce any vibrations while the unit is running.



KNOW YOUR DEHUMIDIFIER

- This dehumidifier uses compressor technology to extract water from the environment.
- Compressor dehumidifiers are ideal for normal domestic or office environments which are heated during the winter months with temperatures above 12-15°C.
- It is easy to move around on castors.
- This intelligent dehumidifier will extract unwanted humidity and includes a humidistat which is adjustable in increments of 5% from 35-80% relative humidity (RH) ensuring your room does not become too dry and power is not wasted.

PRODUCT OVERVIEW

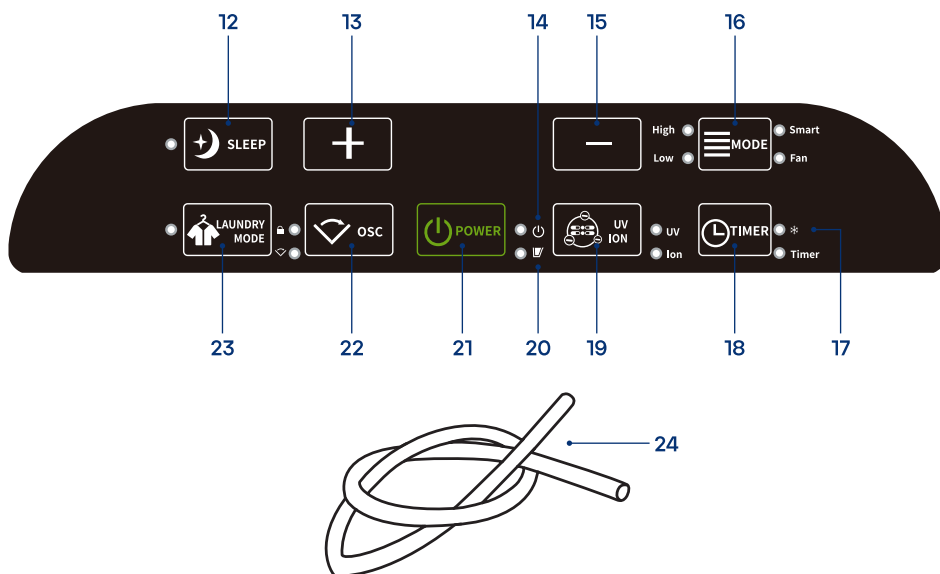


- | | |
|-------------------------------|---|
| 1. Humidity Indicator Display | 7. Air Inlet removable cover (with mesh filter) |
| 2. Air Outlet | 8. Continuous Drain Port |
| 3. Up/down oscillating louvre | 9. Back Cover |
| 4. Handle | 10. Water Tank |
| 5. Control Panel | 11. Hepa Filter (behind air inlet cover) |
| 6. Castors | |





PRODUCT OVERVIEW



- 12. Sleep Button
- 13. Increase Button
- 14. Power Indicator
- 15. Decrease Button
- 16. Mode Button
- 17. Defrost Indicator
- 18. Timer Button

- 19. UV/ION Button
- 20. Water Tank Full Indicator
- 21. Power ON/OFF Button
- 22. Oscillating Button
- 23. Laundry Mode Button
- 24. Drainage pipe

INTENDED USE

The dehumidifier is built to be compact and lightweight. The castors on the bottom of the unit make it easy to move from room to room.

- Your Morphy Richards 20L Dehumidifier is ideal for use in a room 30m² to 40m².

This appliance is intended for indoor household use only.





BEFORE FIRST USE

- Remove all packaging and ensure that all parts are included and undamaged prior to use.
- Ensure that the dehumidifier is assembled correctly.
- The water tank should be fitted securely and the Hepa filter installed behind the Air Inlet cover.

POSITIONING THE DEHUMIDIFIER

A badly positioned dehumidifier will have little effect. Ensure circulation of air is not restricted around the appliance.

- Place the dehumidifier on a flat, firm, level surface.
- Allow at least 20cm clearance from walls/obstructions all around the appliance.
- This dehumidifier is designed for indoor residential use only. Commercial or industrial use will invalidate the warranty.
- Use in an enclosed area for maximum efficiency. Close all external doors and windows to create an effective operating environment.
- Do not use outdoors.
- Excess moisture is dispersed throughout your home, therefore the dehumidifier should be positioned in a central and unobstructed location so that it can draw the moist air towards it. A warm hallway or landing is an excellent position for your dehumidifier. If possible, leave interior doors ajar to allow air circulation.
- Alternatively, if you have a serious problem in one area you can begin by positioning the dehumidifier there and move it to a more central location at a later date.

Note: The dehumidifier should not be placed directly against a radiator or other heat source.

Note: When positioning your dehumidifier, ensure that it is placed clear of any obstacles that may limit the air circulation.

Note: Do not force the castors to move over carpet or uneven surfaces or move the appliance with water in the tank as it may tip over and spill water.



KNOW YOUR DEHUMIDIFIER



Power Button:

Press the Power Button to turn the appliance On and Off.



Mode Button:

Select the mode of the unit between: SMART and FAN. The unit will default to SMART mode the first time it is switched on and remains in this mode until another option is chosen.

SMART Mode - Desired humidity is set to 50-55% relative humidity and can be adjusted by pressing + or - button.

HIGH/LOW Mode - Select the fan speed, the desired humidity can then adjusted using the Up and Down buttons.

FAN Mode -No moisture will be extracted in this mode, which when used with filters will purify the air. The UV and ION can also be used in this mode to further improve the quality of air emitted

Press the Mode button to select FAN mode, the FAN indicator light will illuminate. Only the fan will run in this mode, water is not extracted.



Sleep:

Press the SLEEP button to activate the SLEEP mode. The indicator light will illuminate.

Press the SLEEP button again to exit the SLEEP mode, the appliance will work as per the last setting before the SLEEP mode.

If you want to turn off the humidity light on the front panel, make sure that you exit SLEEP mode first, then press the SLEEP button for 3 seconds, the humidity light on the front panel will turn off. Press for another 3 seconds and the light will turn on again.



KNOW YOUR DEHUMIDIFIER



Humidity Setting:

Press the + or - buttons to select the desired relative humidity level, default relative humidity is 55%. If relative humidity, 35% is selected, the compressor will not stop until the water tank is full.



Timer (Timer Function):

Press the Timer button to set the timer programmes. The TIMER light comes on while the timer is being programmed. Before programming make sure that the timer function has not been activated (the light must be off).

The following timer programs are available:

- Delayed power-on function (the appliance is in stand-by status to set this function). Use the + or - buttons to set the time period (1 - 24 hours), the appliance will start when the time reaches the set value.
- Delayed power-off function (set while the appliance is running), the appliance will stop when the time reaches the set value.



Laundry:

Press this button, to turn the function on and off. The dry mode indicator will illuminate. After the function is turned on, the front panel humidity display shows 35%, the humidity is not adjustable in this mode, the compressor does not stop and continues to run until the water tank is full, you turn off this function or the appliance is switched off.



UV & ION:

UV function and ION function are controlled by one button. Press the button to select the desired function and the corresponding light will come on.



KNOW YOUR DEHUMIDIFIER



OSC (Oscillating Function):

The louvres will swing up and down between 45° and 90° when the OSC button is pressed. When it is pressed again, the louvres will remain in their current position.

*Press and hold this button for 3 seconds to enter the child lock mode, the child lock indicator lights up, and other touch button touches are invalid. To exit, press and hold the button for another 3 seconds, the child lock indicator light goes off and the other touch button are effective again.



Intelligent Defrost:

The appliance will defrost automatically as programmed once the coil sensor detects that temperature is too low and the defrosting indicator will illuminate at the same time.

When defrosting has finished, the appliance will recover to its previous running mode.



Tank-Full:

If the water tank is full, the indicator light comes on and flashes.



QUICK REFERENCE GUIDE

Power Button

- Press to turn the dehumidifier On or OFF.

Timer

- To set the Timer press the Timer button then adjust the time using the  or  button the range is 1-24hrs.
- When setting the timer while the dehumidifier is operating will represent the number of hours the unit will run for before turning off. This will remain unaffected if the unit goes into defrost mode or the tank is emptied and then reinserted.
- If setting the timer while the appliance is in standby mode the set number represents the period in hours after which the unit will start.
- To cancel the timer press the timer button again.

Humidity Buttons

- Press the  or  button when the appliance is displaying is the current relative humidity to select the desired humidity level. The humidity level can be set between a range of 35% RH (Relative Humidity) to 80% RH in 5% increments.



QUICK REFERENCE GUIDE

SMART Mode



Is designed for maximum convenience as it maintains the room at an ideal domestic environment humidity level of 50-55%RH, while saving electricity. This is the default mode and recommended for most users.

- When the humidity setting is finished, the appliance will operate according to the target setting humidity. When it reaches the target humidity (the selected humidity is 2% lower than the user selected humidistat setting), the compressor stops running, the fan continues running for five minutes and then stops, the louvre will close, but the display remains.
- The appliance remains in this status for 30 minutes. The louvre will then open, and the fan will start. The fan runs to test the current humidity. If it has reached the set value the compressor starts running. If the current humidity has not reached the set value, the fan will stop after 5 minutes, the louvre closes and goes back into the cycle above.

Low Fan Mode:

- The fan will move the air around the room ensuring the entire air in the room is processed and the relative humidity correctly measured. This mode gives you the ability to adjust the desired humidity, while running the fan at a lower speed.

High Fan Mode:

- The fan will move the air around the room ensuring the entire air in the room is processed and the relative humidity correctly measured. This mode gives you the ability to adjust the desired humidity, while running the fan at a high speed, allowing more air to pass over the coils than in low fan speed.
- When the humidity setting is finished, the appliance will operate according to the set, target humidity, When it reaches the target humidity (the selected humidity is 2% lower than the user selected humidistat setting), the compressor stops running, the fan continues to run for five minutes and then stops, and the louvre will close, but



QUICK REFERENCE GUIDE

the display remains on. The appliance remains in this status for 30 minutes, the louvre will then open, and the fan starts running to test the current humidity. If it has reached the set value, the compressor starts running. If the current humidity has not reached the set value, the fan will stop after 5 minutes and the louvre closes. It remains in this status for 30 minutes and starts the above cycle again.

Laundry Mode

Is designed so the dehumidifier operates continuously with maximum water extraction until the tank is full.

- Set the humidity level to 35%-50%RH. 35% is very dry and the unit will work until the water tank is full as 35% RH is hardly achievable in a domestic environment.
- Set the louvres either to swing mode or to 45 degrees directing the airflow on to clothes/ laundry dryer.
- Do not place clothes directly over any of the dehumidifier vents. Make sure that there is nothing blocking the exhaust airflow and for best results place the laundry within 1.5 meters of the dehumidifier.

Note: If the High/Low mode is set at 35% humidity, and the appliance is running in Laundry drying mode it will continue dehumidifying, even if the ambient humidity is less than 35%, the compressor will not shut down. This mode applies to drying clothes and other occasions if the permanent drainage pipe is fitted the unit will not stop running. Humidity set to achieve room humidity of around 35% is good for a quick drying boost on an initial run or for emergencies. It is not recommended for normal operation in a domestic/ home office environment.

- To allow more moisture in the air, press the humidity control key and set to a higher percent value (e.g. 60-70%).
- Humidity set to 50-55% RH, recommended setting, great for domestic operation and dry storage.



USING YOUR DEHUMIDIFIER

- Humidity set to 60% RH; great for personal comfort and applications where 50% RH is considered too dry.
- Humidity set to 70% RH; ideal for unoccupied properties or where economical run is needed without the need to go drier than 70% RH.

OTHER FEATURES AND INDICATORS

Tank Full Light:

The Tank Full light will illuminate, the appliance beeps and the water level control switch shuts off the dehumidifier when the tank needs emptying, or when the tank is removed and/or is not replaced in the proper position. Empty and replace to resume operation.

Auto Defrost:

Indicates activation of the intelligent defrosting function. The appliance is able to automatically eliminate frost that forms inside it in the event of an excessively low temperature.

- Wait for the appliance to defrost or move to a warmer area to speed up defrosting.
- When the appliance has defrosted the Defrost Indicator will go out and start operating again.

Humidistat Control and Fan / Compressor Operation:

- When the selected humidity is 2% lower than the user selected humidistat setting; the dehumidifier's compressor will be shut off automatically.
- When the humidity is equal or higher than user selected humidity the compressor will restart once the 3 minutes delay compressor protection expires.



OTHER FEATURES AND INDICATORS

Humidity Indicator Light:

- The humidity indicator light of this dehumidifier has three colours: blue, green and red and is located underneath the louvre. It changes according to the humidity conditions in the area which it is situated.
- The display colours represent the following humidity conditions:

Red – High humidity, Relative Humidity $\geq 80\%$.

Green – Comfortable level, $80\% > RH \geq 60\%$.

Blue – Air is dry, Relative Humidity $< 60\%$.

Auto-Restart:

- If the unit turns off unexpectedly due to the power cut, it will automatically restart with the previous function selected when the power resumes.

Power:

- After the unit has stopped, it is not recommended to resume operation for at least 10 minutes. This is to protect the compressor.
- Operation can resume after this period lapses. When the unit is restarted there is a 3 minutes delay before the compressor will start.

Lightweight Portable Design on Castors:

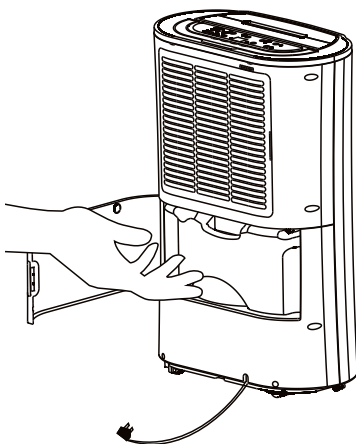
The dehumidifier is built to be compact and lightweight. The castors on the bottom of the unit make it easy to move from room to room.



EMPTYING THE WATER TANK

WARNING: The appliance **MUST** be unplugged from the mains outlet before emptying the water tank.

- When the water tank is full, the Water Tank Full Indicator will flash and the appliance will turn off automatically.
- Open the back cover of the dehumidifier.
- Hold the water tank by the handle and pull it out slowly.
- Empty the water tank, replace the lid on the tank, dry any water that may have dripped from the appliance while the tank has been removed and refit the tank securely into the appliance.
- The dehumidifier will re-start when the water tank is securely re-fitted.



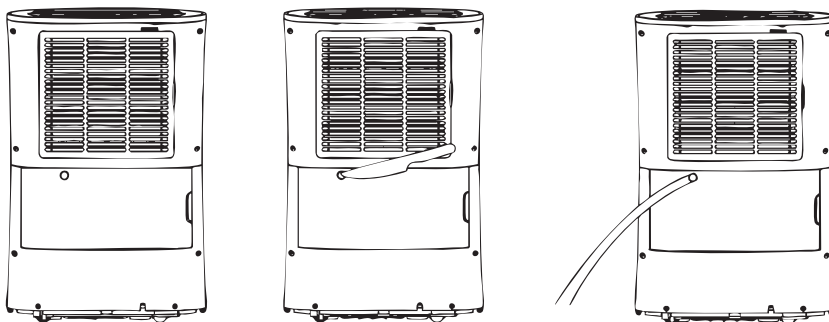
- **Note:** When you remove the water tank, do not touch sensors or any parts which are situated behind the tank. Doing so may damage the product. Be sure to push the water tank gently all the way into the unit.
- Knocking the water tank against anything or failing to push it in securely into place may cause the unit not to operate.
- Do not remove any parts from the water tank or the tank enclosure. The water full sensor may no longer be able to detect the water level correctly causing leaks from the water tank.



CONTINUOUS DRAINAGE

By connecting the water pipe to the back of the appliance water can be drained continuously.

- Carefully remove the cover of the Continuous Drain Port.
- Attach the pipe to the drainage outlet, ensuring that the pipe is firmly connected (as shown below).
- Water can be drained into a sink, a larger bucket or through the wall into an outside drain by attaching the pipe to the unit (9mm internal diameter pipe, included). Insert the pipe into the drain outlet at the back of the unit as shown.
- This appliance uses gravity fall to dispose of the water hence the drain should be lower than the appliance water outlet.
- Do not kink or bend the pipe.



Note: When using the continuous drain pipe, DO NOT remove the water tank or the Water Tank Full Indicator will flash and the dehumidifier will not operate.

Note: The drainage pipe should not be positioned outdoors at low temperatures.

Note: When the continuous drain feature is not being used, remove the drain hose from the outlet.





CARE AND CLEANING

WARNING: The appliance **MUST** be unplugged from the mains outlet before cleaning.

- Wipe the main unit with a soft, dry cloth to remove any light dust or debris.

Cleaning the Air Inlet Cover with Mesh Filter:

- Remove the Air Inlet Cover with Mesh Filter from the dehumidifier, using a soft brush remove any dust/debris that may have built up on the cover.
- Using warm water and mild detergent wash the cover before rinsing with clean water.
- Dry thoroughly before refitting to the dehumidifier.

Cleaning the HEPA Filter:

IMPORTANT: DO NOT wet the Hepa filter or use cleaning agents. Washing with water or other liquids may damage the structure of the Hepa filter and reduce filtration efficiency.

- Remove the Air Inlet cover and lift out the Hepa filter.
- Using a vacuum cleaner or soft bristled brush gently remove surface dust. Avoid excessive friction which could cause damage to the filter.
- Re-fit the filter and replace the Air Inlet cover securely.

Note: To maintain optimum performance of your dehumidifier, we recommend the HEPA filter is replaced every 3-6 months; depending on the frequency of use and environment conditions.



CARE AND CLEANING

Cleaning the Water Tank:

WARNING: Never leave water in the water tank when the appliance is not in use.

The water tank should be cleaned every few weeks to prevent growth of mould, mildew and bacteria. **DO NOT** use a dishwasher to clean the tank.

- Remove the tank from the dehumidifier and partially fill it with clean water and a little mild detergent. Swish the water around in the tank, empty and rinse with clean water.
- Ensure the tank is dry before refitting securely in the dehumidifier.

Storage:

- Ensure the dehumidifier, filters and water tank are clean and dry before storing.
- To store your product out of season we recommend using the original box or similar size box.
- Store in a safe, clean and dry place when not in use.



FAQ'S

Why doesn't the dehumidifier seem to extract much water if the temperature is low?

This is a compressor dehumidifier which works best in temperatures above 15°C. If the temperature is low and the air is dryer than the setting on the humidistat the unit will not extract water. If you want to use a dehumidifier for outside buildings, unheated properties, boats or garages please check our desiccant range.

Why doesn't the unit work/or stops suddenly?

The water tank may be full or displaced. To rectify: empty the tank and carefully place the tank back in the unit. Also the unit maybe running in dehumidifying mode with a low room temperature. Please check if the room temperature is lower than 5°C. If so, the unit will stop working while in dehumidifying mode (it may be defrosting).

The ambient operating range is between 5°C and 35°C with a relative humidity ranging from 35% to 80%. For maximum efficiency use the unit between 15°C and 32°C.



TROUBLESHOOTING

Problem	Possible Cause	Solution
Appliance does not operate.	Is the plug properly inserted in the mains outlet?	Insert the plug into the socket and turn the switch on.
	Does the fuse need changing?	Replace the fuse in the plug with a fuse of the same rating as originally fitted.
	Is the mains outlet faulty?	Try a different appliance in the socket.
	Is the tank full indicator lit blue?	Tank full, float displaced or tank not properly inserted. Empty tank, check float and make sure tank is properly inserted in the appliance.
Front louvres do not open.	Louvre motor is blocked.	Check if anything is blocking the louvre. Try to move the louvres gently up and down while the appliance is switched off.
Dehumidifier does not extract water.	Is the unit set to a humidity level lower than the one in the room?	Set the humidity level on the humidistat below current humidity reading.
	Is the temperature too low for water extraction to be efficient?	Increase temperature in the room or reposition the appliance.
	Is any inlet or outlet grille obstructed? Is the appliance too close to a wall/obstruction.	Remove obstructions and restart the appliance. Ensure a distance of at least 20cm between the appliance & walls.



TROUBLESHOOTING

Problem	Possible Cause	Solution
Airflow seems weak.	Is filter dirty?	Clean the filters regularly. Follow instructions in the Care and Cleaning section.
Unit is noisy during operation.	Is the appliance on an uneven surface?	Place on firm, flat horizontal surface.
	Is the filter dirty?	Clean the filters regularly. Follow instructions in the Care and Cleaning section.
E3 or E4.	Humidity sensor error.	Use the appliance within the suggested humidity range.
		Switch off and unplug the appliance. Allow it to stand for 30 minutes before using it again.
E1 or E2.	Temperature sensor error.	Use the appliance within the suggested temperature range.
		Switch off and unplug the appliance. Allow it to stand for 30 minutes before using it again.
E5 or E6.	Abnormal coil sensor temperature or current.	Use the appliance within the suggested humidity and temperature range. Switch off and unplug the appliance. Allow it to stand for 30 minutes before using it again.
Defrost light is on and the appliance stops regularly.	Unit is defrosting	Switch off and unplug the appliance. Allow it to stand for 30 minutes before using it again.
Water tank full light is illuminated.	Water tank full is full or is not fitted correctly.	Empty the water tank and refit to the appliance.





SPARES

Part Number	Description	Qty Per Product	Features Key Number
33043	Water Tank	1	10
33044	Air Inlet Cover grey with mesh filter	1	7
33045	Air Inlet Cover white with mesh filter	1	7
33046	Drainage Pipe	1	24
33047	Hepa Filter	1	11

TECHNICAL DATA

Model No.:	822501 822502
Dehumidify Capacity:	20L/Day(30°C RH80%)
	10L/Day (26.7°C RH60%)
Rated Voltage:	AC 220-240V
Rated Frequency:	50Hz
Max power input:	365W
Rated Input power:	270W
Tank Capacity:	4L
Air Volume:	180m³/h
Noise Level:	42dB(A)
Refrigerant:	R290/75g
Net weight:	13.8kg
Suction pressure:	0.7Mpa
Discharge pressure:	3.2Mpa



PRODUCT REPAIRS

WARNING: The appliance should be stored in a well-ventilated room. The area of the room should be equal to the room area required for maintenance.

Warning: Appliances should be stored in rooms where there is no continuous burning fire (such as ignited gas appliances) and ignition sources (such as electric heaters at work).

- All operators or refrigeration circuit maintenance personnel should obtain a valid certificate issued by an industry-approved assessment agency to determine their qualification for safe disposal of refrigerants as required by the industry-approved assessment specification.
- The maintenance and repair of the equipment can only be carried out according to the method recommended by the equipment manufacturer. If other professionals are required to assist in the maintenance and repair of the equipment they should be supervised by personnel qualified to use flammable refrigerants.

Inspection of the Site:

- Prior to servicing with flammable refrigerants, a safety inspection must be performed to ensure that the risk of fire is minimized. When servicing the refrigeration system, the following precautions should be observed before handling the system.

Operating Procedure:

- Work should be performed under controlled procedures to ensure that the risk caused by combustible gases or vapors during operations is lowest.



PRODUCT REPAIRS

General Working Area:

- All maintenance personnel and other personnel in the work area should be aware of the nature of the work being performed and should work within a confined space that should be avoided. The work area should be properly segregated to ensure the safety of working conditions in the work area by controlling combustible materials.
- Check if the Refrigerant is Present:
- Pre-operation and during operation should be monitored in the area using an appropriate refrigerant monitor to ensure that the technicians are aware of the presence of potentially flammable gases and that all leak detection equipment is suitable for flammable refrigerants, such as: no spark, fully enclosed or intrinsically safe.

Fire Extinguisher Placement:

- When performing heat-processing operations on the refrigeration system or related components, the appropriate fire extinguisher should be located nearby and the refrigerant injection area should be equipped with a dry powder or carbon dioxide fire extinguisher.

Prohibition of Fire:

- When working in connection with exposed pipelines that contain or have contained flammable refrigerants, all forms of ignition sources that may cause fire or danger to the station should not be used. All sources of ignition, including smoking, are combustible. The agent may be released into the surrounding environment. It must be far away from the area where it is installed, repaired, relocated or disposed. Before starting work, the surrounding environment of the equipment must be inspected strictly to ensure that there is no danger of flammability or fire, should set up the mark of "No Smoking".



PRODUCT REPAIRS

Ventilated Area:

- Ensure that the work area is open or fully ventilated before opening the system or performing hot work operations. Ventilation should be maintained during operation. Ventilation will safely dilute the leaked refrigerant and quickly release it into the atmosphere.

Inspection of Refrigeration Equipment:

If you replace electrical components, these electrical components should be installed in accordance with the day-to-day and night-time operating regulations. At all times, the manufacturer's maintenance and repair guides should be followed. If in doubt consult the manufacturer's technical department. The following inspection items apply to the installation of flammable refrigerant appliances:

- The charge should be determined according to the size of the room containing the refrigerant containing components.
- Ventilation equipment should operate normally and vents should be free from obstructions.
- If an inter-refrigeration, refrigeration cycle is used, check the presence of refrigerant in the secondary circuit.
- The logo on the appliance should be clearly visible. Marks and symbols that are indelible.
- Refrigerating lines or electrical components should not be installed in environments that contain possible housing contact elements, unless the electrical components are made of corrosion-resistant materials or suitable corrosion protection measures are taken.



PRODUCT REPAIRS

Inspection of Electrical Installations:

- The repair and maintenance of electrical components should include initial safety inspections and component inspection procedures. If there is a defect that compromises safety, the appliance power supply must be de-energised until the defect is properly disposed of. If the defect cannot be completely eliminated in the end, and must continue to operate, then appropriate temporary solutions should be taken, report the situation to the owner of the appliance, and warn all relevant personnel.

- The initial security check should include:

Capacitor discharge should be performed in a safe manner to avoid sparks.

No exposed electrical components and wiring during filling, recycling and cleaning of the system.

Continuity of grounding.

Maintenance of Sealing Elements:

When repairing close components, disconnect the power supply of the device before opening the sealed cover. If there is power supply during the maintenance process, uninterrupted leak detection should be performed on the most dangerous parts to prevent potential dangerous situations from occurring.

- In the following maintenance of electrical components, special care shall be taken not to cause maintenance methods affecting the degree of protection of the enclosure. Improper maintenance may result in damage to the cables, excessive connection, improper installation of the terminals, damage to the seals and sealing. Cover installation errors and other hazards. Ensure the installation of the equipment is safe and reliable.
- Ensure that the sealing or sealing material does not lose its effect of preventing the entry of flammable gases due to aging, and the replacement parts should comply with the manufacturer's specifications.



PRODUCT REPAIRS

- **Note:** The use of silicon-containing sealants may reduce the detection capabilities of leak detection equipment, intrinsically safe components do not have to be isolated before operation.

Intrinsically Safe Component Maintenance:

- If it cannot be ensured that the appliance does not exceed the limits of the allowable voltage and current during use, no permanent inductance or capacitive load must be used in the circuit. The essential Ankh-type element is the only element that can continue to operate within the flammable gas. The test instrument should be set in the correct gear.
- If the replacement component can only use components specified by the manufacturer, other components may cause the refrigerant that is leaking in the air to catch fire.

Cable:

- Check the cable for wear, corrosion, overpressure, vibration, sharp edges or other adverse environmental effects. This inspection should also consider the impact of aging or the continuous vibration of the compressor and fan on the cable manufacturing.

Inspection of Flammable Refrigerants:

- Inspection of refrigerant leakage should be done in an environment where there is no potential source of ignition and should not be detected using a halogen probe (or any other detector using an open flame).



PRODUCT REPAIRS

Leak Detection Method:

For systems containing flammable refrigerants, the following methods for detecting leaks are acceptable:

- Electronic leak detectors can be used for the detection of flammable refrigerants, but the sensitivity may not be sufficient or may require recalibration (the instrument calibration should be performed in a refrigerant-free environment) to ensure that the leak detector does not become a potential ignition source, and applies to the measured refrigerant the leak detector should be set to the lowest flammable concentration of the refrigerant (in percent), calibrated with the used refrigerant and adjusted to the appropriate gas concentration test range (max.25%).
- The leak detection fluid is suitable for most refrigerants, but do not use oxygenated solvents to prevent oxygen and refrigerant from reacting and corroding the copper pipeline.
- If leakage is suspected, all open flames should be removed from the site or extinguished.
- If a leak occurs where welding is required, all the refrigerant should be recovered, or the refrigerant should be completely isolated away from the leak (using shut-off valves). Before welding and during welding, use oxygen-free. Nitrogen (OFN) purifies the entire system.



PRODUCT REPAIRS

Remove and Vacuum:

- When performing maintenance or other operations on the refrigeration circuit routine procedures should be followed, but the flammability of the refrigerant should also be considered. Follow these procedures:
 - Clear refrigerant.
 - Purge the line with inert gas.
 - Vacuum.
 - Purge the pipe again with inert gas.
 - Cutting pipelines or welding.
- Refrigerant should be recycled to a suitable storage tank. The system should be purged with oxygen-free nitrogen to ensure safety. This process may need to be repeated several times. This operation must not be performed with compressed air or oxygen.
- In the purging process, the system is filled with oxygen-free nitrogen to reach the working pressure under the vacuum state, and then the oxygen-free nitrogen is discharged to the atmosphere. Finally, the system is evacuated to a vacuum, and the process is repeated until the refrigerant in the system is completely removed. After the last charge of anaerobic nitrogen, the gas is released to atmospheric pressure and the system can then be welded. Such as pipe welding operations, the above operation is very necessary.
- Make sure there are no ignition sources near the outlet of the vacuum pump and that it is well ventilated.



PRODUCT REPAIRS

Charge the Refrigerant Program:

As a supplement to regular procedures, add the following requirements:

- Ensure that when using the refrigerant charging equipment, no inter-contamination between different refrigerants will occur, and the piping for charging the refrigerant should be as short as possible to reduce the residual amount of refrigerant therein.
- Tanks should be kept vertically upward.
- Ensure that the cooling system has been grounded before filling the refrigerant.
- Label the system after filling (or when it has not been completed).
- Must pay attention not to overcharge.

The pressure test was performed with oxygen-free nitrogen before recharging the system. After the filling was completed, a leak test was performed before the test operation. A leak test should be conducted when leaving the area.



PRODUCT REPAIRS

Retired:

Before proceeding with this procedure, technicians should be fully familiar with the equipment and all its features and recommend the practice of safe recovery of refrigerants. To recycle the recovered refrigerant, analyse the refrigerant and oil samples before performing the work.

Before testing, ensure that you have the necessary power supply.

- A. Familiar with the equipment and operation.
- B. Disconnect the power.
- C. Before proceeding with this procedure, ensure that:
 - If necessary, mechanical operating equipment should facilitate the operation of refrigerant storage tanks.
 - All personal protective equipment is effective and can be used correctly.
 - The entire recycling process should be conducted under the guidance of qualified personnel. Recycling equipment and storage tanks should meet the appropriate standards.
- D. If possible, vacuum the cooling system.
- E. If the vacuum state is not reached, extraction should be performed from multiple places to extract the refrigerant in each part of the system.
- F. Ensure that the volume of the tank is sufficient before beginning recovery.
- G. Start and operate the recycling equipment according to the manufacturer's operating instructions.



PRODUCT REPAIRS

- H. Do not talk about tanks being overfilled. (Liquid injection volume does not exceed 80% of the tank volume.)
- I. The maximum working pressure of the tank must not be exceeded even for a short period of time.
- J. After the tank filling is completed and the working process is completed, ensure that the tank and equipment are quickly removed and all shut off valves on the equipment are closed.
- K. The recovered refrigerant must not be injected into another refrigeration system until it has been purified and tested.



PRODUCT REPAIRS

Recycling:

The refrigerant in the system needs to be removed during maintenance or scrap. It is recommended that the refrigerant be completely removed.

When loading the refrigerant into the tank, use only a dedicated refrigerant tank. It is necessary to ensure that the capacity of the tank is compatible with the amount of refrigeration injection in the entire system. All are tanks intended to be used for refrigerant recovery and are identified with this refrigerant (i.e. refrigerant recovery dedicated tanks). Tanks should be fitted with pressure relief and shut-off valves and in good condition. If possible, empty storage tanks should be evacuated and kept at room temperature before use.

The recovery equipment should maintain a good working condition, and the equipment operation instructions should be provided for easy reference. The equipment should be suitable for the recovery of flammable refrigerants. In addition, there must be qualified weighing instruments that can be used normally. The hose should be connected using a leak free, releasable joint and keep it in good condition. Before using the recycling equipment, check whether it is in good condition, whether it is well maintained, and all the electrical components are sealed to prevent the fire from leaking once the refrigerant leaks. If in doubt, consult the manufacturer. Recovered refrigerant should be contained in the used storage tank, attached with shipping instructions and returned to the chiller manufacturer. Do not mix the refrigerant in the recovery equipment, especially the storage tank.

If you remove the compressor or remove the compressor oil make sure that the compressor is evacuated to a suitable level to ensure that there is no residual flammable refrigerant in the lubricant. Evacuation is performed before the compressor returns to the supplier. Only use electric heating to heat the compressor housing to speed up this process. When the oil is discharged from the system, safety should be ensured.



CONTACT US

If you are having a problem with your appliance, please contact our Helpline, as we are more likely to be able to help than the store you purchased the item from. Please have the product name, model number and serial number to hand when you contact us to help us deal with your enquiry quicker.

email: hello@morphyrichards.co.uk

www.morphyrichards.co.uk

PRODUCT RECYCLING



For electrical products sold within the European Community, at the end of the electrical products useful life, it should not be disposed of with household waste.

Please recycle where facilities exist.

Check with your Local Authority or retailer for recycling advice in your country.





REGISTERING YOUR 3 YEAR GUARANTEE

Your standard 2 year guarantee is extended for an additional 1 year when you register the product within 28 days of purchase with Morphy Richards. If you do not register the product with Morphy Richards within 28 days, your product is guaranteed for 2 years.



To validate your 3 year guarantee,
scan the QR code or register online
at www.morphyrichards.co.uk

N.B. Each qualifying product needs to be registered with Morphy Richards individually. Please note that the 2 year guarantee is only available in the UK. Please refer to the 2 year guarantee for more information.

YOUR 2 YEAR GUARANTEE

It is important to retain the retailer's receipt as proof of purchase. Staple your receipt to the back cover for future reference.

Please quote the following information if the product develops a fault. These numbers can be found on the base of the product.

Model no.

Serial no.

All Morphy Richards products are individually tested before leaving the factory. In the unlikely event of any appliance proving to be faulty within 28 days of purchase, it should be returned to the place of purchase for it to be replaced. If the fault develops after 28 days and within 24 months of original purchase, you should contact the Helpline quoting Model number and Serial number on the product, or write to Morphy Richards at the address shown. You may be asked to return a copy of proof of purchase.

Subject to the exclusions set out on the next page (see Exclusions), the faulty appliance will then be repaired or replaced as appropriate and dispatched usually within 7 working days of receipt.

If, for any reason, this item is replaced or repaired during the 2 year





REGISTERING YOUR 3 YEAR GUARANTEE

guarantee period, the guarantee on the new item will be calculated from the original purchase date. Therefore it is vital to retain your original till receipt or invoice to indicate the date of initial purchase.

To qualify for the 2 year guarantee, the appliance must have been used according to the instructions supplied.

The appliance is intended for domestic use only. Misuse or use for commercial or any other purpose will render the guarantee invalid.

Exclusions

Morphy Richards shall not be liable to replace or repair the goods under the terms of the guarantee where:

1. The fault has been caused or is attributable to accidental use, misuse, negligent use or used contrary to the manufacturer's recommendations or where the fault has been caused by power surges or damage caused in transit.
2. The appliance has been used on a voltage supply other than that stamped on the products.
3. Repairs have been attempted by persons other than our service staff (or authorised dealer).
4. The appliance has been used for hire purposes or non domestic use.
5. The appliance is second hand or refurbished.
6. Morphy Richards reserves the right not to carry out any type of servicing under the guarantee at its discretion.

This guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an additional benefit and does not affect your statutory rights as a consumer. Morphy Richards products are intended for household use only. See usage limitations within the location safety instructions.

Disclaimer

Morphy Richards has a policy of continuous improvement in product quality and design. The company, therefore reserves the right to change the specification of its models at any time.

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