



INSTRUCTIONS MANUAL [EN]

HP50

CONTENTS	PAGE
1. GENERAL SAFETY INFORMATION	1
2. APPLIANCE RELEVANT SAFETY INFORMATION	13
3. GENERAL ADVICE	15
4. DEHUMIDIFIER PRINCIPLES	15
5. INSTALLATION AND TRANSPORTATION	15
6. OPERATING INSTRUCTIONS	16
7. ELECTRONIC CONTROL	17
8. AUTOMATIC DEFROSTING SYSTEM	20
9. WORKING MODE WITH CONDENSATE PUMP (OPTION)	20
10. ELECTRICAL CONNECTIONS	21
11. OPERATING CONDITIONS	21
12. SPECIFICATIONS	21
13. TROUBLESHOOTING	22
14. MAINTENANCE	23
15. ELECTRIC DIAGRAMS	24
16. EXPLODED VIEW	25
17. SUBASSEMBLIES	25
18. DISPOSAL	26

1. GENERAL SAFETY INFORMATION



The operator must provide the user with the operating instructions and ensure that the user understands the contents.



- The appliance contains a mildly flammable refrigerant.
- This is a blend of a mildly flammable (A2L) and a fluorinated (A1) refrigerant.



- Read the supplied instructions/warnings.



- Read the service manual.



- Read the operators manual.

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 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 without supervision.



WARNING

Risk of fire/flammable materials

WARNINGS

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that the refrigerants may not contain an odour.
- Appliance should be installed, operated and stored in a room with a floor area larger than 4 m².
- Compliance with national gas regulations shall be observed.
- R290 has a low GWP (Global Warming Potential) of 3 and an ODP (Ozone Depletion Potential) of 0.
- The maximum refrigerant charge amount: 0,150 kg.
- Keep ventilation openings clear of obstruction.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- A warning that the appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as 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 authorizes their competence to handle refrigerants safely in accordance with industry's recognized assessment specification.
- Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.

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INFORMATION ON SERVICING

1. Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

2. Work procedure

Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapour being present while the work is being performed.

3. General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

4. Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

5. Presence of fire extinguisher

If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.

6. No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. No Smoking signs shall be displayed.

7. Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work

is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

8. Checks to the refrigeration equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.

The following checks shall be applied to installations using flammable refrigerants:

- The charge size is in accordance with the room size within which the refrigerant containing parts are installed;
- The ventilation machinery and outlets are operating adequately and are not obstructed;
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

9. Checks to electrical devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.

If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

- That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- That there no live electrical components and wiring are exposed while charging, recovering or purging the system;
- That there is continuity of earth bonding.

Repairs to sealed components

1. During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

2. Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.

Ensure that apparatus is mounted securely.

Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

NOTE: The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment. Intrinsically safe components do not have to be isolated prior to working on them.

Repair to intrinsically safe components

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.

Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating.

Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

Cabling

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

Detection of flammable refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

Leak detection methods

The following leak detection methods are deemed acceptable for systems containing flammable refrigerants.

Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

Removal and evacuation

When breaking into the refrigerant circuit to make repairs or for any other purpose conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration.

The following procedure shall be adhered to:

Remove refrigerant;

Purge the circuit with inert gas;

Evacuate;

Purge again with inert gas;

Open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. The system shall be flushed with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task. Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place. Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

Charging procedures

In addition to conventional charging procedures, the following requirements shall be followed.

Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them. Cylinders shall be kept upright.

Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.

Label the system when charging is complete (if not already).

Extreme care shall be taken not to overfill the refrigeration system.

Prior to recharging the system it shall be pressure tested with OFN. The system shall be leak tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.

a) Become familiar with the equipment and its operation.

b) Isolate system electrically.

c) Before attempting the procedure ensure that:

- Mechanical handling equipment is available, if required, for handling refrigerant cylinders;
- All personal protective equipment is available and being used correctly;
- The recovery process is supervised at all times by a competent person;
- Recovery equipment and cylinders conform to the appropriate standards.

d) Pump down refrigerant system, if possible.

e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.

f) Make sure that cylinder is situated on the scales before recovery takes place.

- g) Start the recovery machine and operate in accordance with manufacturer's instructions.
- h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

Labelling

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves

in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.

The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.

2. APPLIANCE RELEVANT SAFETY INFORMATION



ATTENTION

This dehumidifier must not be used in rooms under the following conditions:

- **Potentially explosive atmosphere**
- **Aggressive atmospheres**
- **Featuring a high concentration of solvents**
- **An extremely high ratio of dust**

Keep Unit Grounded: Always operate the unit with a grounding plug and a grounded electrical outlet. A grounding plug is an essential safety feature that helps reduce the risk of shock or fire.

Protect Power Cord from Damage: Never operate a unit with a damaged power cord, as this may lead to electrical or fire hazards. If the power supply cord is damaged, it must be replaced by a cord of the same type and amperage rating.

Extension Cords: Extension cords must be grounded and able to deliver the appropriate voltage to the unit.

Handle with Care: Do not drop, throw or crash the dehumidifier. Rough treatment can damage the components or wiring and create a hazardous condition.

Run on Stable Surface: Always operate the unit on a stable, level surface, for example the floor or a strong counter, so that the dehumidifier cannot fall and cause injury.

Keep Out of Water: Never operate the unit in pooled or standing water, as this may create a risk of injury from electrical shock. Do not store or operate outdoors. If electrical wiring or components become wet, thoroughly dry them before using the unit. If in doubt do not use the dehumidifier and consult a qualified technician or a vendors approved engineer.

Keep Air Intakes Clear: Do not clog or block the air intakes by placing the dehumidifier too close to curtains, walls or anything that will restrict the air inlet. This may cause the unit to overheat and result in a fire or electrical hazard.

Keep Filter Clean: Always use a clean air filter. Do not allow any material to clog the filter, as this may cause the dehumidifier to overheat. Never use without a filter. Always check, and if necessary, clean the filter before switching the dehumidifier on. Do not allow oil, grease, or other contaminants to be drawn into the dehumidifier.

Keep Electrical Components Dry: Never allow water inside the dehumidifier's electrical components. If these areas become wet for any reason, thoroughly dry them before using the dehumidifier. If in doubt do not use the dehumidifier and consult a qualified technician or a vendors approved engineer.

3. GENERAL ADVICE

Before putting your dehumidifier into operation for the first time, the instructions manual should be studied carefully.

After receiving the unit, you should check your dehumidifier for any transport damage. In case of damage, you should inform the sender immediately.

Transport damages should be stated after unpacking the equipment. The respective seller or specialised reseller should be contacted immediately.

Keep the packaging for the dehumidifier in a safe place in order to be able to dispatch the dehumidifier safely if it requires a service. In order to save space, you can simply cut through the adhesive tape using a knife and fold up the cardboard box.

4. DEHUMIDIFIER PRINCIPLES

This dehumidifier is designed to reduce humidity from the air in a building or part of a building. The purpose is to prevent humidity damage, and to dry out wet materials such as carpet, floors, walls, furniture, contents, timber, and structural materials.

This dehumidifier can prevent the formation of condensation, reduce air humidity and keep constant a desired relative humidity value. The time necessary for the dehumidifier to dry a room and reach the desired relative humidity depends on the environmental conditions prevailing within the room. For example, the number of air changes with outside, any sources of moisture and the room temperature can all either speed up or slow down the dehumidification process.

The dehumidifier functions according to the condensation principle with heat recovery. The fan takes the humid air from the room in and across a filter and then through an evaporator. Here the air is cooled below dew point so that the water vapour of the air forms a condensate on the coils which flows into the water collecting tank. The cooled and dried air is heated again by a condenser. By recycling the room air through the dehumidifier over and over again the moisture content and relative humidity of the air is reduced.

5. INSTALLATION AND TRANSPORTATION

For installation and transportation, the following instructions must be considered:

- ⇒ The air inlet and the air outlet must not be covered whilst the dehumidifier is in operation.
- ⇒ Before any moving the dehumidifier, the mains plug is to be removed from the socket and the water tanks should be emptied.
- ⇒ For transport purposes the dehumidifier should be secured on a levelled base and must be prevented from rolling around.
- ⇒ The dehumidifier must always be transported vertically.
- ⇒ This dehumidifier must be used exclusively for air dry.
- ⇒ If the dehumidifier has been in a horizontal position for any time over a few minutes, you must let it stand in the upright position for at least 30 minutes before operating. This allows the oil to drain back into the compressor.

6. OPERATING INSTRUCTIONS



ATTENTION

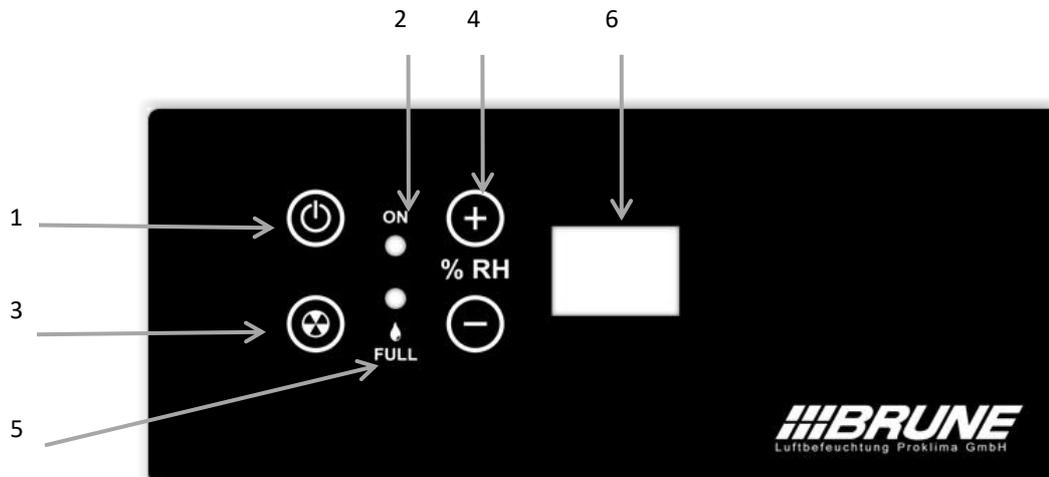
- Operate the dehumidifier only in the upright position.
- Plug in to a standard outlet with the correct voltage and amperage for the unit.
- Allow five minutes before restarting after the unit shuts off for any reason. This will avoid damaging the compressor.
- Check dehumidifier daily for correct operation.
- Protect floor surfaces from water.

Please proceed as follows to start using this dehumidifier:

- ⇒ After transported, the dehumidifier should be allowed to stand for 30 minutes. This procedure is recommended to extend the compressor's operating lifetime.
- ⇒ Put the plug into the socket.
- ⇒ Check that the water tanks are in position.
- ⇒ The operating indicator (2 – green light) must be illuminated after plugging in the unit to the mains.
- ⇒ Press the ON/OFF key (1) and start the device.
- ⇒ After a short start-up phase, the current room humidity is shown on the display (6).
- ⇒ Set the electronic humidistat (4 - +/- key) to the desired humidity level.
- ⇒ Check for the proper operation of both fan and compressor before leaving the unit unattended.

7. ELECTRONIC CONTROL

This unit is equipped with an electronic control system. The individual LEDs and corresponding symbols have the following meaning:



1 - ON/OFF key (standby key) to switch the dehumidifier on and off

2 - Operation indicator - LED lights up when the dehumidifier is connected to the power supply.

3 - Blower level key/SET key to change the operating modes in the special menu

4 - +/- key for setting the target humidity value

5 - TANK indicator LED lights up -> tank full

6 - Display to show actual/desired humidity/operating modes

1) On/off key

Switches the machine on or off (standby mode).

2) LED "ON"

The "ON" LED lights up when the unit is supplied with mains voltage.

Attention: Before working on the unit, pull the mains plug.

3) SET key / Blower level key

You can change the menus in the special menu with the Set key. Also, blower level can be set. (level 1: high output, level 2: lower output) If blower level is changed, selected level is shown on the display. The display changes back to the current ACTUAL humidity after a short time.

4) Control for the relative air humidity

Use the "+ % RH" and "- % RH" keys to set the desired relative humidity.

If one of the keys is pressed, the display changes from displaying the ACTUAL humidity to displaying the SET humidity. Once the desired target humidity is set, the display changes back to the current ACTUAL humidity after a short time (3 seconds).

A SET value of 31-90 % relative humidity can be set. When the desired humidity is reached, the unit switches off automatically.

The unit switches on at a difference of +1 between desired and actual value and switches off at a difference of -2. The compressor has a minimum running and pause time of 1 minute, therefore it can switch on with a time delay.

If a SET value of 30 % relative humidity is set, the unit runs in continuous operation and **does not switch off even after the set value has been reached!**

5) LED "Water tank full"

If the "FULL" LED lights up, minimum one of the two water tanks is either full or not correctly inserted.

The unit then automatically stops operating.

Empty the tanks and make sure that they are correctly inserted in the machine. After a short delay, the unit will resume operation.

If one of the tanks is removed during operation, a beep is heard and the unit stops operating.

If the red "FULL" LED **flashes**, the unit is in drain mode.

6) Display

The display shows the current ACTUAL humidity as standard.

If the desired SET humidity is changed, the display shows the set SET humidity.

If there is an interruption in the transmission of the radio humidity transmitter (optional accessory) to the unit, the code "05" is displayed.

If the unit was disconnected from the mains, the software version is displayed the first time the unit is switched on.

After a short time, the display automatically switches back to showing the ACTUAL humidity.

7) Further setting options

- Operation with the radio humidity transmitter (optional accessory)

Optionally the unit can be equipped with a **radio humidity transmitter**.

The radio humidity transmitter must be coupled to the unit. See item "Special menu".

If the connection between the dehumidifier and the radio humidity transmitter is disturbed (e.g. no radio reception for 10 minutes), the display shows "05". Please note that each time the unit is switched on, the connection must first be established and "05" is also shown in the display until the first valid radio signal is received.

- Key lock

To prevent accidental settings and to protect the unit from unauthorised access, the unit has a key lock.

To activate the key lock, press and hold the "**+ % RH**" and "**- % RH**" keys simultaneously **for 6 seconds**. The display shows "**88**" during activation and for 3 seconds after activation.

To release the key lock, repeat the procedure and press the "**+ % RH**" and "**- % RH**" keys simultaneously for 6 seconds.

If you press a key when the keylock is active, the display shows "**88**".

- Special menu

In this menu, you can make special settings such as the coding of the radio humidity transmitter, the deactivation of the tanks for direct drainage or the condensate pump.

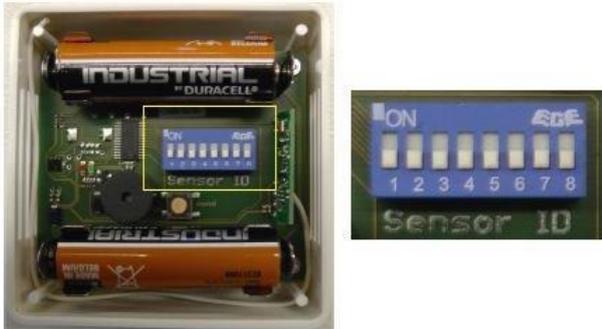
To activate this menu, please proceed as follows. Switch the machine off with the **on/off key** (1).

Now press the **on/off key** and hold it down for 5 seconds. The display shows **Ad**.

You can now switch to other sub-menus by pressing the "**Set**" key. You can change the settings in the menus with the plus/minus key.

Coupling the radio humidity transmitter with the dehumidifier

Menu Ad: Here you can couple the radio humidity transmitter to the unit. You can choose between 256 address codes. On the radio humidity transmitter, the setting is made with the 8-digit coding switch. You can find the corresponding address code in the unit in the enclosed list. Use the +/- key to select the desired radio code.



For better orientation, radio humidity transmitters within range transmit their current code to the device. You can recognise this by a short beep and two flashing dots in the display next to the address code. Caution: If several radio humidity transmitters are within range, different codes are displayed.

When setting the unit code, you can therefore use the table in the annex as a guide or follow the display of the transmitted code of the radio humidity transmitter.

After you have made your settings, exit the menu by pressing the on/off key.

Activation/deactivation of the beep

In the special menu, use the SET key to switch to item **b0**. You can now use the “- % RH” to activate (**b1**) or deactivate (**b0**) the audible signal.

After you have made your settings, exit the menu by pressing the on/off key.

Readjustment of the humidity display

With this function you can define a correction value. To do this, select **OF** in the special menu using the SET key. The value can be set with the “+ % RH” and “- % RH” keys.

Setting range: -9% ... +9% relative humidity

After you have made your settings, exit the menu by pressing the on/off key.

Activation of the "direct drainage" mode / condensate pump



If the “direct drainage” mode is activated, the water level sensor of the tank is deactivated! This suppresses the switching off of the unit and the error message when the tanks are full.

Remove the tanks from the machine. In the special menu, use the set key to jump to menu **A0** and activate the direct drainage mode / condensate pump (**A1**) with the “- % RH”. When the direct drainage mode / condensate pump is activated the red tank LED blinks continuously.

After you have made your settings, exit the menu by pressing the on/off key.

NOTE: If the tanks are re-inserted when direct drainage is activated, this function is automatically deactivated!

Display temperature of the evaporator or condenser

In the special menu, use the SET key to switch to **EP** (evaporator) or **CO** (condenser). Current temperature conditions are displayed there.

After you have made your settings, exit the menu by pressing the on/off key.

8. AUTOMATIC DEFROSTING SYSTEM

During normal dehumidifying operation, ice may form on the evaporator. This dehumidifier is equipped with an automatic hot-gas defrosting system. If ice is detected by the temperature sensor, it will defrost automatically according to the following principle:

- ⇒ If operation lasts longer than one hour and the temperature on the evaporator falls below 0°C, the defrosting process will start.
- ⇒ The blower continues to operate and supplies warm air to the evaporator, which melts the ice.
- ⇒ The next defrosting cycle will start after a minimum of approx. 1 hour.

9. WORKING MODE WITH CONDENSATE PUMP (OPTION)

- ⇒ Switch off the unit and disconnect the mains plug of the unit from the mains supply;
- ⇒ Remove the water tanks from the dehumidifier and empty them;
- ⇒ Now insert the pump plug into the corresponding socket on the device, which is located below the mounting plate above the tanks. Insert the condensate pump with the bracket and turn the locking clips outwards in order to fasten the condensate pump to the rear side of the housing;



- ⇒ If necessary, extend the hose to the intended collection container or drain.

NOTE: The maximum discharged head of our pump is 5 m.

- ⇒ Activate the operating mode of the condensate pump according to the instructions in the special menu.

⇒ Connect the dehumidifier and set the desired humidity.

10. ELECTRICAL CONNECTIONS

This dehumidifier was designed to operate in a 220-240 V~50Hz electrical installation. Make sure that the electric sockets are connected to earth and that all safety precautions are taken.

11. OPERATING CONDITIONS

This dehumidifier can be operated within an ambient temperature range from +5 to +32°C and with a relative humidity from 35% to 90%. It is suitable for application in residential buildings, offices, museums, archives, garages and storage rooms.

12. SPECIFICATIONS

Model		HP 50
Temperature Range		+5 °C - +32°C
Relative Humidity Range		35% - 90%
Nominal Airflow (m ³ /h)	n = 1700 rpm	1065
	n = 1200 rpm	885
Defrosting System		Hot gas bypass
Rated Voltage		220-240 V~50 Hz
Power Consumption	32°C – 80%	1220 W
Refrigerant	0,650 kg R454C	
GWP		154
ODP		0
This is a hermetic cooling circuit filled with a mildly flammable fluorinated refrigerant		
Drying Capacity (l/24h)	27°C – 80%	45
	32°C – 60%	50
Dehumidifier Dimensions W×D×H [mm]		455 x 540 x 770
Weight		48 kg
Electronic Control		✓
Operating Hours Counter		✓

13. TROUBLESHOOTING

Trouble	Cause	Solution
Unit does not operate	No power to the unit	Plug in the unit; check power at outlet
	Water tank must be emptied and installed again	Completely filled water tank
Doesn't dehumidify	Ambient temperature is lower than +5°C	Under this condition the dehumidifier becomes inefficient. It is recommended to switch off the dehumidifier
	Ambient temperature exceeds 32°C	Under this condition the compressor is overloaded and switches off automatically. It is recommended to switch off the dehumidifier.
	The ambient air humidity is lower than 35 %	Under this condition the dehumidifier becomes inefficient. It is recommended to switch off the dehumidifier
	The air filter is strongly soiled	The air filter must be exchanged
	Not enough time to dry	Allow more time to dry
Compressor will not start	Overload protector is defective	Consult reseller or authorized workshop
The fan is out of operation	Fan not running	Consult reseller or authorized workshop
Unit continuously in defrost and you can see an ice block on the evaporator	Defective control assembly	Consult reseller or authorized workshop
	The room temperature is lower than +5°C	Assure that the device is only set up in rooms with temperatures above +5°C.
	Defective bypass relay valve	Consult reseller or authorized workshop
Unit does not defrost	Defective temperature sensor	Consult reseller or authorized workshop
	Defective control assembly	Consult reseller or authorized workshop
	Defective bypass relay valve	Consult reseller or authorized workshop
The display shows 0.5.	No radio signal	Check signal from radio humidity transmitter / replace batteries
	Continuous operation is set (SET-value 30%)	
The display shows 0.6.	The internal sensor is defective.	Consult reseller or authorized workshop
C.O.	The sensor on the condenser is defective.	Consult reseller or authorized workshop
E.P.	The sensor on the evaporator is defective.	Consult reseller or authorized workshop
O.H.	Overheating of the capacitor.	Please switch off the device and let it cool down.

14. MAINTENANCE

Always turn off the power and disconnect the main cable before performing maintenance procedures. All service procedures below are to **be executed with the unit unplugged**. Perform before each use or as needed.

INSPECT ELECTRICAL SYSTEM

Inspect the electrical cord for damage at regular intervals.

KEEP OUT DUST

Keep dust from surfaces and volumes to dry

KEEP AIR FILTER CLEAN

Inspect air filter regularly so that it doesn't get clogged.

There are two air filters located on the sides of the dehumidifier, one each for the intake and the exhaust.

They filter out dust and other particles of the ambient air and thus must be cleaned regularly.

The air filters should be cleaned as necessary but at least once a month.

In order to remove the filters, you should follow these steps:

Remove the grating by unscrewing the screws (located as shown)

Then remove the clamp bracket on the back of each grating by gently bending it outwards.

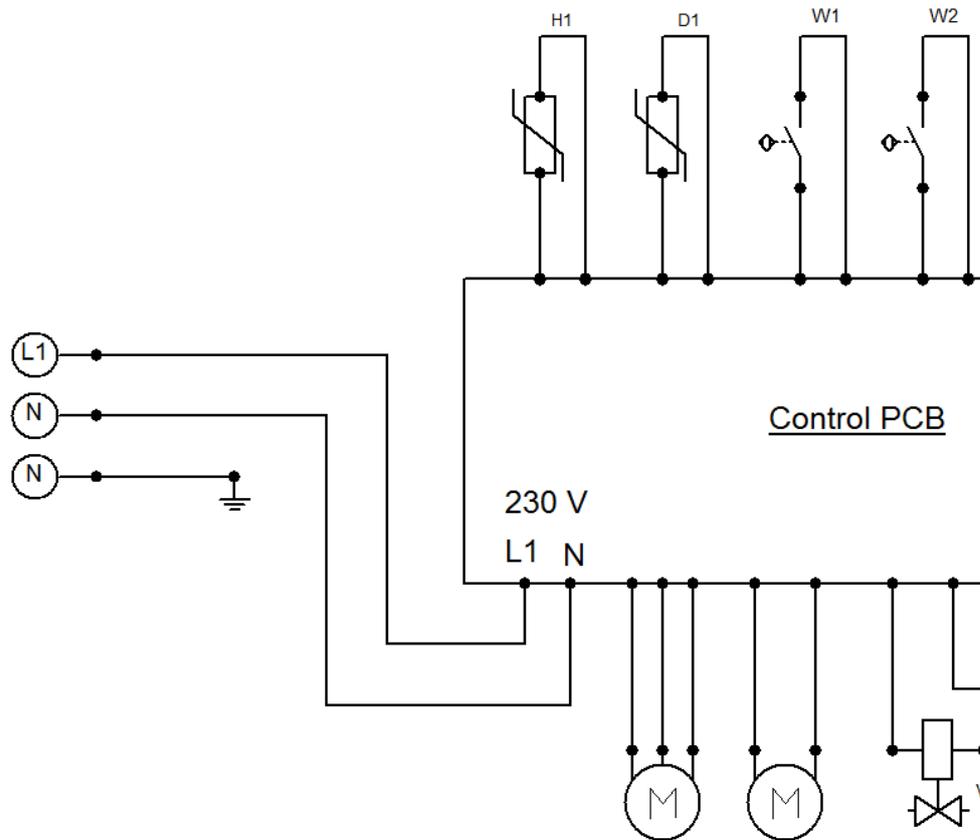
You can remove the filter from the grating



Clean the filter by blowing it out/vacuuming it off or sluicing it down if applicable.

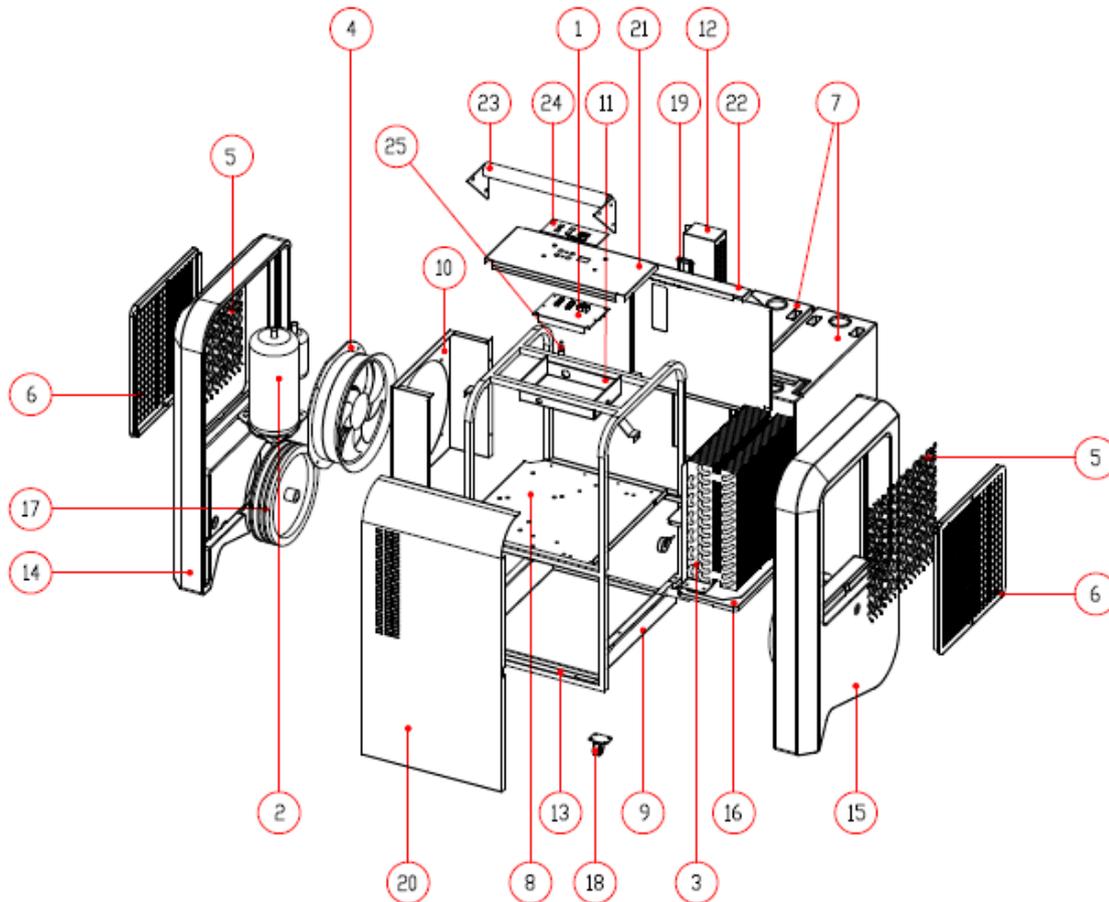
In case cleaning the filter is not possible / sufficient or if the filter is damaged you should replace it.

15. ELECTRIC DIAGRAMS



Pos.	Description	Pos.	Description
M	Blower	H1	Sensor for overheating protection
C	Compressor	D1	Defrosting sensor
V	Valve	W1/W2	Water level sensor

16. EXPLODED VIEW



17. SUBASSEMBLIES

Pos.	Description	Pos.	Description
1	Circuit board	13	Structural frame
2	Compressor	14	Plastic cover right
3	Evaporator	15	Plastic cover right
4	Blower	16	Water collection tub
5	Air filter	17	Wheel
6	Filter bracket	18	Swivel caster
7	Water tank	19	Plug holder
8	Mounting plate	20	Stainless steel front cover
9	Support for water tanks	21	Stainless steel top cover
10	Support for blower	22	Stainless steel rear cover
11	Support for circuit board	23	Stainless steel handle
12	Cable housing	24	Operating panel

18. DISPOSAL



In the European Union electronic equipment must not be treated as domestic waste. It must be disposed of professionally, in accordance with Directive 2019/19/EU of the European Parliament and Council of 4th July 2019 concerning old electrical and electronic equipment.

At the end of its life please dispose this equipment in an appropriate manner, according to the relevant legal requirements.

Check with your local authorities or local store for recycling advice.



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