



# PRO<sup>50</sup><sub>90</sub>

DEZUMIDIFICATOR PROFESIONAL  
PROFESSIONAL DEHUMIDIFIER



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Instruction manual RO EN



# EN: CONTENT

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## 1. BEFORE OPERATION

### A. PRODUCT DESCRIPTION

The dehumidifier is used to remove excessive moisture from the air. The resulting reduction in relative humidity protects buildings and their contents from the adverse effects of excess humidity.

The environmentally friendly R290 is used as the refrigerant. R290 has no damaging influence on the ozone layer (ODP), a negligible greenhouse effect (GWP) and is available worldwide. Because of its efficient energy properties, R290 is highly suitable as a coolant for this application. Special precautions must be taken into consideration due to the coolant's high flammability.

### SAFETY SYMBOLS FROM THE UNIT AND USER MANUAL



**warning**

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



Read the USER MANUAL carefully before operation.



Further information is available in the USER MANUAL, SERVICE MANUAL, and the like.



Service personnel are required to carefully read the USER MANUAL and SERVICE MANUAL before operation.

### THE FOLLOWING SHOULD ALWAYS BE OBSERVED FOR SAFETY

- It is strongly recommended that installation and service should be performed by a qualified technician or the service agency.
- The unit is designed only for use with R-290 (propane) gas as the designated refrigerant.
- THE REFRIGERANT LOOP IS SEALED. ONLY A QUALIFIED TECHNICIAN SHOULD ATTEMPT TO SERVICE
- Do not discharge the refrigerant into the atmosphere.
- R-290 (propane) is flammable and heavier than air.
- It collects first in low areas but can be circulated by the fans.
- If propane gas is present or even suspected, do not allow untrained personnel to attempt to find the cause.
- The propane gas used in the unit has no odor.
- The lack of smell does not indicate a lack of escaped gas.

- If a leak is detected, immediately evacuate all persons from the store, ventilate the room and contact the local fire department to advise them that a propane leak has occurred.
- Do not let any persons back into the store until the qualified service technician has arrived and that technician advises that it is safe to return to the store.
- No open flames, cigarettes or other possible sources of ignition should be used inside or in the vicinity of the units.
- Component parts are designed for propane and non-incentive and non-sparking. Component parts shall only be replaced with identical repair parts.

**FAILURE TO ABIDE BY THIS WARNING COULD RESULT IN AN EXPLOSION, DEATH, INJURY AND PROPERTY DAMAGE.**

## 2. FOR OUR SAFETY

our safety is the most important thing we concerned



**WARNING**

**Please read this manual carefully and fully understand before operating your dehumidifier.**

### A. OPERATIONAL PRECAUTIONS

**WARNING** - to reduce the risk of fire, electric shock or injury to persons or property:

- Always operate the unit from a power source of equal voltage, frequency and rating as indicated on the product identification plate.
- Always use a power outlet that is grounded.
- Unplug the power cord when cleaning, servicing, or when not in use.
- Do not operate with wet hands. Prevent water from spilling onto the unit.
- Do not immerse or expose the unit to rain, moisture or any other liquid.
- Do not leave the unit running unattended. Do not tilt or turn over the unit.
- Do not unplug while the unit is operating.
- Do not unplug by pulling on the power cord.
- Do not use an extension cord or an adapter plug.
- Do not put objects on the unit.
- Do not climb or sit on the unit.
- Do not insert fingers or other objects into the air outlet.
- Do not touch the air inlet or the aluminum fins of the unit.
- Do not operate the unit if it is dropped, damaged or showing signs of product malfunction.
- Do not clean the appliance with any chemicals.
- Do not operate the product with damaged plug or cord. If it is not working properly, contact a qualified electrician or service centre for examination and repair, never try to dismantle it by yourself (user).
- Take care to ensure that children do not play with the unit.
- Ensure the unit is far away from fire, inflammable, or explosive objects.
- The unit shall be installed in accordance with national wiring regulations.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacture.

- The appliance shall be stored in a room without continuously operation sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not piece or burn, even after use.
- Be aware that refrigerants may not contain an odour.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than 12m<sup>3</sup>.
- Compliance with national gas regulations shall be observed.
- Keep any required ventilation openings clear of obstruction.



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 an industry, 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.

**If you don't understand something or need help, please contact the dealer services.**



## SAFETY PRECAUTIONS ON SERVICING

Please follow these warnings when to undertake the following when servicing a dehumidifier with R290.

### 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.

### Work procedure

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

#### 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.

### 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. no sparking, adequately sealed or intrinsically safe.

### **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.

### **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.

### **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.

### **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.

### **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:

- those 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.

## C. INSTALLATION

### 1. Assembling Accessories

- |                         |               |
|-------------------------|---------------|
| 1. Main body            | 5. Main body  |
| 2. Push handle          | . Flat Washer |
| 3. Stainless Steel Bolt | . Nut         |
| 4. Flat Washer          | . Support Rod |

### 2. Operating the device safely

- Check the device after unpacking for any damage or scratches on it.
- Place the unit on a firm, level surface in an area with at least 5 cm of free space around it allow for proper air circulation.
- Do not operate in close proximity to walls, curtains, or other objects that may block inlet and outlet. Keep the air inlet and outlet free of obstacles.
- If tipped more than 45°, allow the unit to set upright for at least 24 hours before start up.
- Never install the unit where it could be subject to :
  - Heat sources such as radiators, heat registers, stoves or other products that produce heat.
  - Direct sunlight
  - Mechanical vibration or shock
  - Excessive dust
  - Lack of ventilation, such as cabinet or bookcase
  - Uneven surface



#### **WARNING**

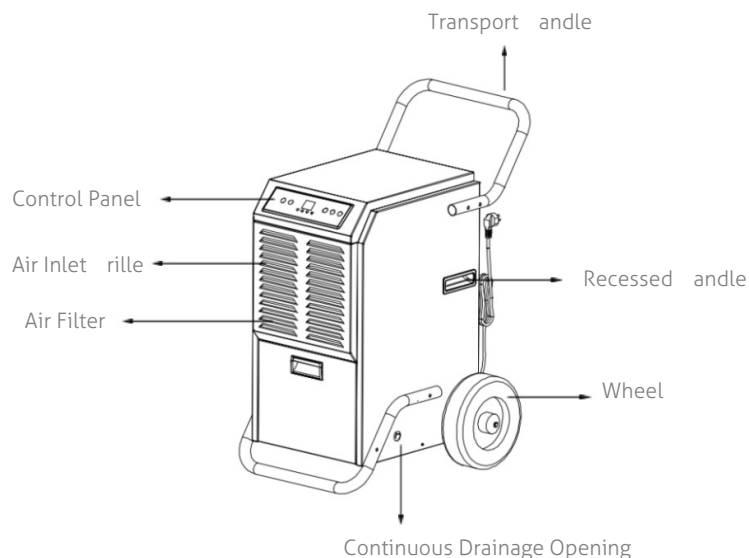
Install the unit in rooms which exceed 12 m<sup>3</sup>.  
Do not install the unit in a place where inflammable gas may leak.

#### **NOTE**

The manufacture may provide other suitable example or may provide additional information about the refrigerant odour..

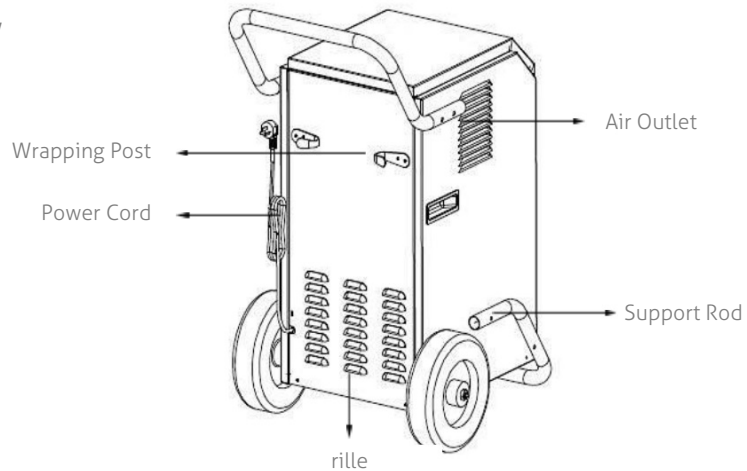
## D. PRODUCT OVERVIEW

Front view





back view



## 1. Features

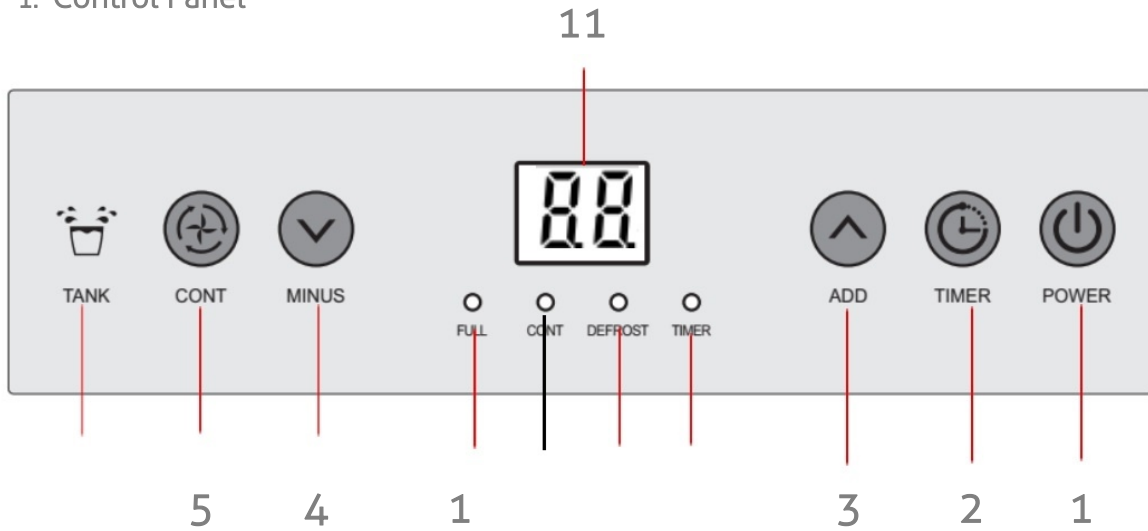
- Removes up to 3 L per day /5 pints per day
- Programmable humidity setting
- Timed operation
- Continuous draining option
- Low decibel output
- Digital humidistat control
- Caster wheels for easy mobility and storage
- Automatic Restart (humidity controller compatible)
- Auto defrosting function

## 2. Specifications

<b>MODEL</b>	<b>PRO 5</b>
Rated Capacity	51L/day (3 °C, R ) 2 . L/day (2 °C, R )
Power Supply	AC220-240 /50 Hz
Power Consumption	55W/3.1A (3 °C, R ) 54.5W/2.4A (2 °C, R )
Noise	52d (A)
Water Tank Capacity	5.5L
Maximum Refrigerant Charge	R22 /23 g
Net weight	3 kg
Maximum design pressure	3.2MPa/ . MPa
Minimum room size	12 m <sup>2</sup> (Floor area)
Dimension	430 x 515 x 250mm
Fuse type and rating	T-Type, AC 250V, 3.15A

## E. OPERATION

### 1. Control Panel



### 2. Function keys and Indicators

- |                             |  |
|-----------------------------|--|
| 1. POWER button             | Press once to switch unit on or off  |
| 2. Timer button             | Press to enable or disable the timer function.   |
| 3. Setting button (ADD)     | Adjust the humidity set-point within the range of 20%-90%.   |
| 4. Setting button (MINUS)   | Adjust the timer set-point. (1h~24h)   |
| 5. Continuous button        | Press to set the unit for continuous dehumidifying mode.   |
| 6. Tank full LED            | Lights up when water tank is almost full.  |
| 7. Timer indicator (green)  | Lights up when the timer function is set.  |
| 8. Defrost LED (green)      | Lights up when automatic defrosting is in process.   |
| 9. Continuous LED (green)   | Lights up when the continuous dehumidifying mode is turned on.   |
| 10. Water full LED (red)    | Lights up when water tank is almost full.  |
| 11. Digital Display (green) | Displays the current humidity (20-95%) and the humidity setting (20-90%).<br>Displays timer setting and temperature. |

### 3. SETTINGS

#### Operation mode:

**Continuous Operation** - Press **POWER** key to turn on the unit.

The unit starts to dehumidify in continuous operation, regardless of the humidity. The humidity set-point cannot be adjusted in this mode.

**Normal Operation** - Press **POWER** key to turn on the unit.

Press the **CONT** key to deactivate the continuous mode.

The unit operates in normal mode with the default 50% humidity set-point.

Press **POWER** key again to turn off the dehumidifier.

The fan keeps running for a while and then stops.

### **Normal Operation:**

Press **POWER** key to turn on the unit.

Press the **CONT** key to deactivate the continuous mode.

The unit operates in normal mode with the default 5 humidity set-point.

Press **POWER** key again to turn off the dehumidifier.

The fan keeps running for a while and then stops.

### **Set Humidity (setting range: 20%-90%):**

The humidity set-point can be adjusted in **normal operation**.

Press **ADD/MINUS** key repeatedly to adjust humidity set-point.

Set the humidity level between 4 and for comfort.

The unit will cycle on and off to maintain the level.

### **Timer Setting (1hour-24hours):**

The timer has two ways of operation:

To Turn **OFF** (When power on) -> Press **Timer** key to turn on the timer function -> Press **ADD/MINUS** repeatedly to set the delay **OFF** time.

To turn **ON** (When power off) -> Press **Timer** key to turn on the timer function -> Press **ADD/MINUS** repeatedly to set the delay **ON** time.

Cancel **Timer** -> Press **Timer** again to turn off the timer function.

**Note:** when press **POWER** will also exit the timer setting.

### **Water FULL Indicator**

The machine automatically shuts off once the water tank is full, alerting the user through an indicator light and buzzing for 15 times. It reminds you to check:

- If the water tank is full, empty and re-install the water tank.
- If the water tank is not in position, the full indicator always on and the unit is inoperative.

Re-install the tank correctly, and the unit will auto operating as your last setting.

### **Room Temperature Inspection**

In addition to the humidity level, the digital display (11) can also indicate the current room temperature.

Please check as follows:

Press and hold the **TIMER** button for 5 seconds.

The screen displays the temperature in degree Celsius.

### **Automatic Defrost function**

At low room temperatures, frost may buildup at the evaporator reducing the airflow across it during dehumidifying.

The dehumidifier will automatically start defrosting for 15 minutes.

The Defrost LED blinking.

The compressor stops and the fan keeps running.

Do not turn off the unit and it will automatically restart dehumidifying.

### **Overload Protection**

In the event of a power loss, to protect the compressor there is a 3-minute delay until the compressor restarting.

#### 4. DRAINAGE

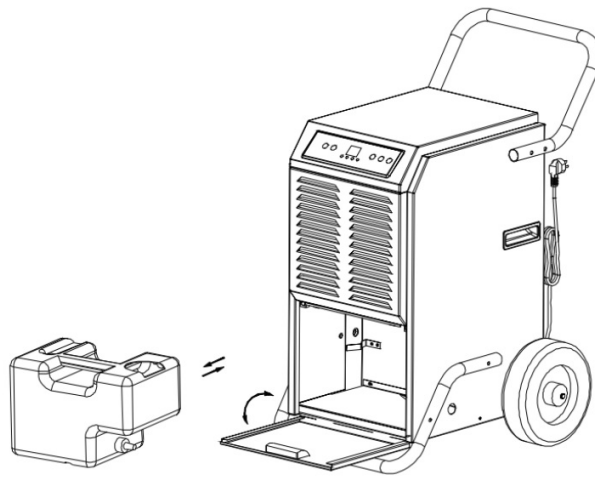
There are two ways of removal collected water produced by the unit.

- a) Manual draining: Empty water tank by manual.
- b) Continuous draining: Use gravity to drain condensate water by attaching a drain hose.

##### EMPTYING THE WATER TANK

The water tank built in unit will fill up and shut the unit down once it is full. It will run again once you empty the water tank and installed properly.

- 1) When the tank is full, the "FULL" light will turn on.
- 2) The unit will make a buzzing sound. Press the power button to turn off the machine.
- 3) To empty the water tank, open the front panel to access the water tank.
- 4) Grab the handle of the water tank and pull it out horizontally.
- 5) After disposing of the water, replace the tank and close the front panel.
- 6) Press the POWER button to resume operation.



##### CONTINUOUS DRAINING

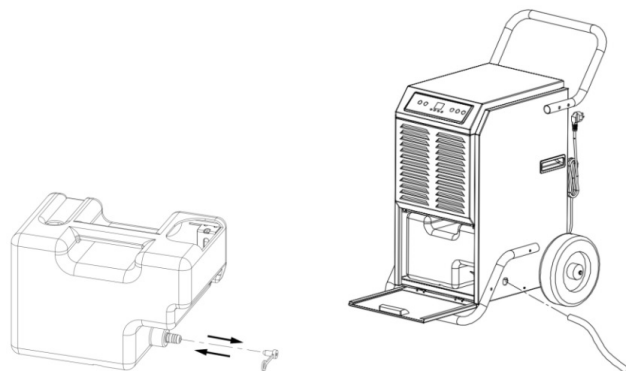
For continuous operation or unattended dehumidification, please connect the attached drain hose to the unit. Press the POWER button to turn off the machine. Open the front lower cover; remove the water tank from the unit.

Push the drain hose through the continuous drainage opening and connect one end to the hose connection. Refit the water tank in the unit and close the front lower cover. Direct the other hose end to the desired area. Make sure the drain hose is not kinked or bends.

Remove the hose and seal the hose connection off with the plug if you want to collect the water in the water tank again. Allow the hose to dry prior to storage.

##### WARNING:

Do not block the drain hose, water will not drain properly and could damage components of the unit.

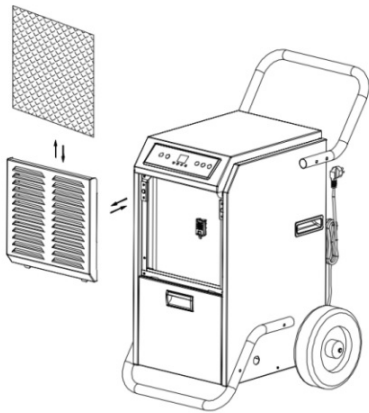


## F. MAINTENANCE

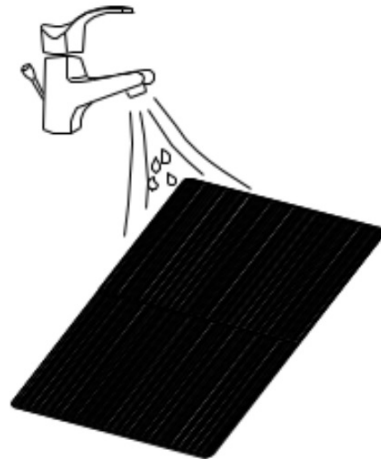
### CLEANING THE AIR FILTER (every two weeks or whenever needed)

The air filter is removable for easy cleaning. Do not operate the unit without an air filter, or the evaporator may be contaminated.

1. Clean the machine with a soft wet cloth.
2. Pull out the louver on the front panel to gain access to the filter.
3. Remove the filter mesh from the unit.
4. Use a clean rag to absorb the surface dust on the filter mesh. If the filter is extremely dirty, use tap water to flush the filter. Fully dry the filter before putting it back into the air inlet fence. A clean filter will increase the machine's capacity.



Pic. 1 - Switch off the unit and remove air filter



Pic. 2 - Rinse the air filter under running water

### **Warning!!!**

**Do not touch the evaporator surface with bare-hand, or could cause injury of your fingers.**

## CLEANING UP OF REFRIGERANT

General Measures:

1. Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level.
2. Eliminate every possible source of ignition.
3. Use appropriate personal protection equipment (PPE).
4. Evacuate unnecessary personnel, isolate, and ventilate area.
5. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or gas.
6. Prevent entry to sewers and public waters.
7. Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors.
8. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Contact competent authorities after a spill.



## DISPOSAL

Releasing refrigerant into atmosphere is strictly forbidden!  
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.



