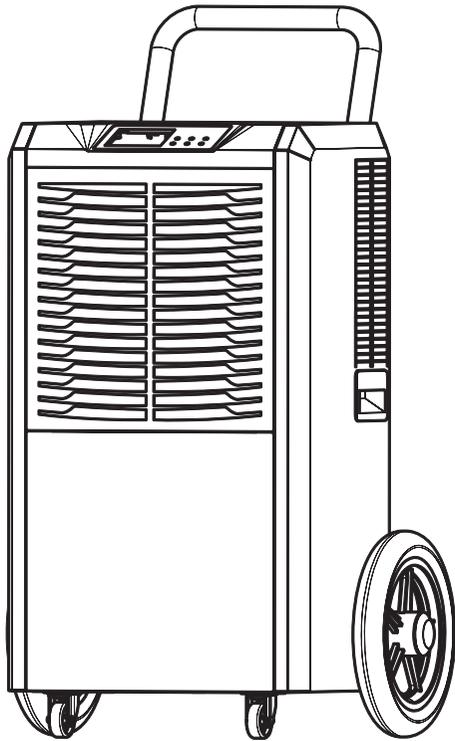


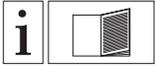
INDUSTRIAL DEHUMIDIFIER

MODEL : DY-870T



INSTRUCTION MANUAL

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE



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.



Recycle unwanted materials instead of disposing of them. All appliances and packaging should be sorted and tendered at a regional recycling centre and be processed in an ecological manner.



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.

PRODUCT INSTRUCTIONS

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 INSTRUCTIONS

- 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.
- 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.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be disconnected from its power source during maintenance.
- Ensure the unit is far away from fire, inflammable, or explosive objects.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacture.

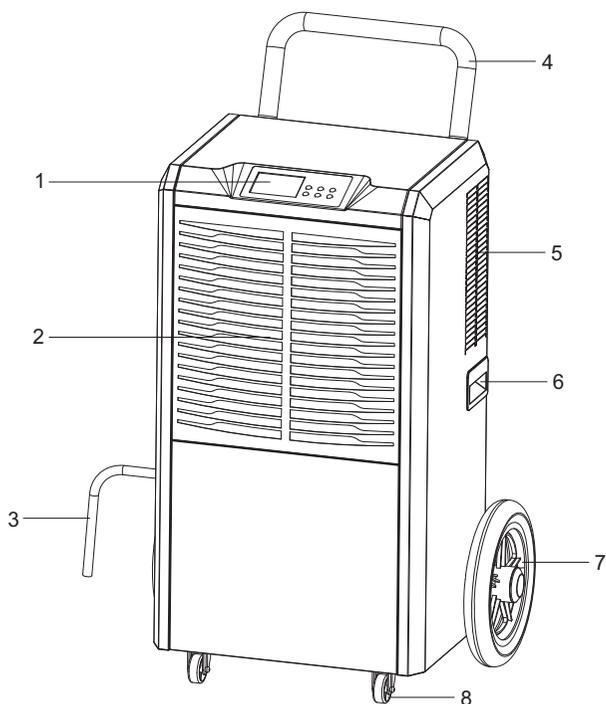
SAFETY INSTRUCTIONS

- 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).
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Do not piece or burn, even after use.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than 8 m².
- Compliance with national gas regulations shall be observed.
- Keep any required ventilation openings clear of obstruction.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

Warning

- Failure to abide by this warning could result in an explosion, death, injury and property damage.
- 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.

STRUCTURE DIAGRAM



- 1 Control Panel
- 2 Air Inlet Grille
- 3 Water Pipe
- 4 Push Rod

- 5 Exhaust Grille
- 6 Handle
- 7 Wheel
- 8 Caster

WARNING

DO NOT OBSTRUCT THE AIR INLET OR OUTLET.

SETTING UP INSTRUCTIONS



IMPORTANT

Place dehumidifier in the upright position. When transporting a dehumidifier to site, allow the dehumidifier to stand for 30 minutes before switching ON. This is necessary to allow the refrigerant system to stabilise and avoid system damage.

SETTING UP THE DEHUMIDIFIER:

Operate the dehumidifier in an enclosed area as this creates a drying chamber. Close all doors, windows or areas that open to external areas to maximize the dehumidifier's water removal efficiency. Keep traffic through the drying chamber to a minimum. Place the dehumidifier in the centre of the room away from walls and furnishings. **DO NOT** allow the airflows to be obstructed.

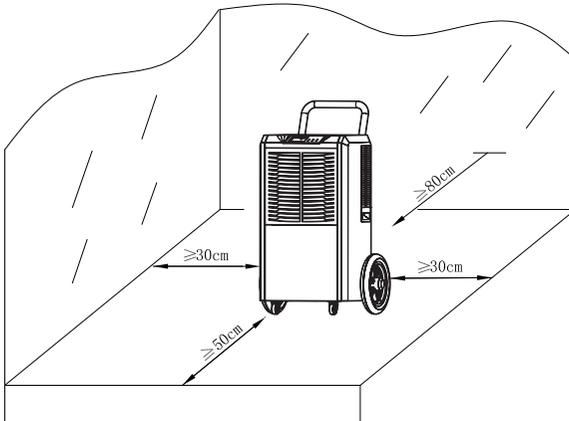
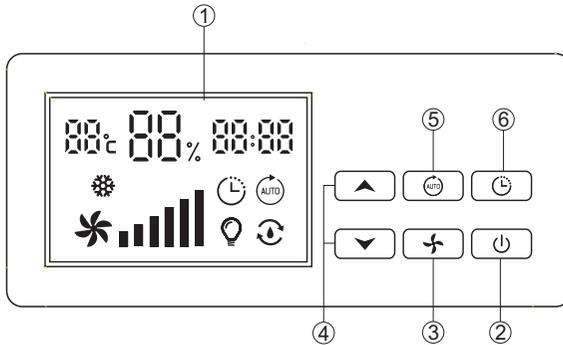


Illustration of correct positioning for best performance

CONTROL PANEL



- ① FND display
- ② “” ON/OFF: press once to turn the unit ON or OFF.
- ③ “” button: press the fan speed button to change the fan speed between high fan and low fan.
- ④ “” up and “” down
 - a. used to set the target humidity, the value will rise or drop 1% by each pressing down, from CO-26%-27%-28%-----90%-CO.
 - b. used to set the current time and target timer on/off, the value will rise or drop 1 hour or 1 minute by each pressing down, from 00:00-23:59.
 - c. used to set the lock key by pressing “” and “” keys at the same time for 2s.
- ⑤ “” button: press the auto button to select the auto dehumidifying mode.
- ⑥ “” button: press the timer button to set the timer on/off and time.

OPERATING INSTRUCTIONS

Power Button

Press power “” button once to turn on the unit, running “” icon keeps light, the screen shows the current relative humidity. The unit runs on default mode for continuous dehumidifying with high fan speed.

Press power “” button to turn off the unit, it will stop working, fan will continue for a few seconds to blow out the hot air inside the unit.

OPERATING INSTRUCTIONS

Timer Button

• Time Settings

Press timer “⌚” button for 2s, hour “🕒” icon will flash and show current value, press “▲” or “▼” button to set the target hours, it ranges from 00 to 23 hours, if no further operation within 5s, hour setting succeeds and then minute “🕒” icon will flash. Repeat the same operation to set the target minutes, it ranges from 00 to 59 minutes. If the time is displayed normally, the time setting is complete.

• Timer On

Press timer “⌚” button, hour “🕒” icon and timer “⌚” icon will flash. After start-up, the original value is 00:00, press “▲” or “▼” button to set the target hours, it ranges from 00 to 23 hours, if no further operation within 5s, hour setting succeeds and then minute “🕒” icon and timer “⌚” icon will flash. Repeat the same operation to set the target minutes, it ranges from 00 to 59 minutes. After the timer on setting is complete, “⌚” icon keeps light.

• Timer Off

Press timer “⌚” button, and the same operation as timer on setting to complete the timer off setting. Note:

- After the timer on/off setting succeeds, press timer on/off button once to check the setting timer, press again to cancel timer on/off setting within 5s. If only press once and no further operation within 5s, the display recovers to the current time.
- Timer on/off setting can be set when the unit is off/on.
- If you turn on/off the unit before setting timer on/off reached, then the timer setting will be canceled.

Fan Speed Button

Press fan speed “🌀” button to change the fan speed between high fan and low fan.

Auto Dehumidification Button

Press auto dehumidifying “🌫️” button, “🌫️” icon keeps light, the unit runs automatically accordance to the ambient humidity detected below.

Ambient RH% detected	Compressor	Fan Speed Level
RH% > 60%	Working	High
55% < RH% ≤ 60%	Working	Low
RH% ≤ 55%	Stop working	Low

OPERATING INSTRUCTIONS

Continuous Dehumidification Function

When the unit is in auto dehumidifying mode, press the “” button, unit exits the auto dehumidifying mode and enters the (CO) continuous dehumidifying mode, “” icon keeps light.

Safety Childlock Function

press “” and “” at the same time for 2s to lock all the buttons, the same operation can unlock it.

Protection Function

• Automatic Defrosting

When the unit has started for a long time at a low temperature, moisture in the air would condense into frost which will adhere in the evaporator, so it will reduce the dehumidification effect. In order to effectively solve the problem, automatic defrosting according to the temperature set in the unit. When the unit defrosts, the compressor stops running, the fan motor runs at high fan, and defrost “” indicator lights.

• Compressor Delay Protection

In order to ensure the appliance to normally operate for a long time in a safe condition, the compressor 3 minutes delay protection function is designed for this unit to ensure that the time between operating and stopping of the compressor is not less than 3 minutes.

• Memory Function

When switched on or the power is reset, the unit can automatically recover to its previous status. Note: After power failure, the working mode, target humidity, fan speed, timer setting and lock key setting all keep its previous status.

MAINTENANCE CLEANING THE AIR FILTER

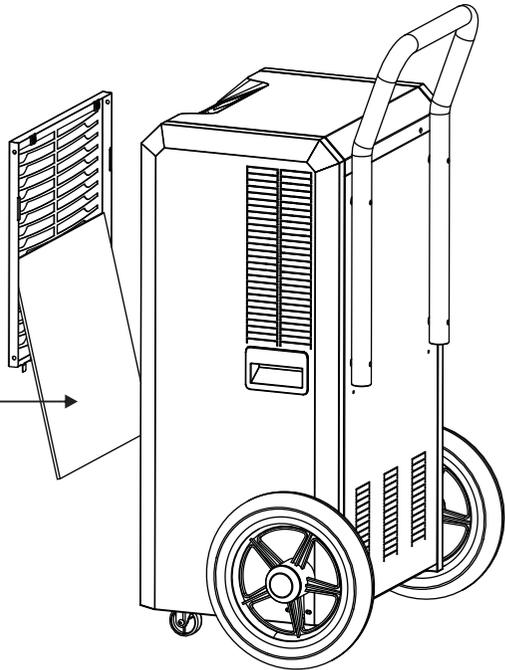
Ensure the dehumidifier is turned OFF and the plug is removed from the power socket before maintenance is carried out.

The working performance of the dehumidifier will be greatly reduced if the filters become blocked.

1. Remove the filter as shown in the diagram.
2. Vacuum any debris from the filter using the vacuum hose and nozzle attachment.
3. Using luke-warm water and a mild detergent wash the filter and allow to dry.
4. Once dry, re-install the filter into the dehumidifier

Open the air inlet grille and
remove air filter for cleaning
or renewal

Air Filter →



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.

SAFETY PRECAUTIONS ON SERVICING

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.

Releasing refrigerant into atmosphere is strictly forbidden!

TROUBLE SHOOTING

Situation	Reason		Treatment method
Unit does not operate	No power supply displays out	Plug has not been put into the socket	Put the plug into socket
		No power supply	Recover power supply
		Fuse of control panel is burned out	Change new fuse
	Power supply displays out	Transformer of control panel is damaged	Change transformer
		Environment humidity is lower than target humidity	Set the humidity again
		Power socket is missing null line	Add null line
	Voltage of power is low	Recover right voltage	
E1	Temperature sensor error		Change temperature sensor
E2	Humidity sensor error		Change humidity sensor
E3	Motor is abnormally working	Capacitance is damaged	Change capacitance
		Shaft is stuck	Change motor
		Inside loop is damaged	Change motor
	Compressor is abnormally working	Capacitance of compressor is damaged	Change capacitance
		Piston of compressor is stuck	Change compressor
		Inside loop is damaged	Change compressor
Lack of refrigerant		Check the point of leakage, recover it. Create a vacuum again, add refrigerant	
Effect of dehumidification is not satisfying	Filter is blocked		Clean the filter
	There is barrier at intake or outlet holl		Wipe up the barrier
	The door or windows are open		Close door and windows
Noise	The position of machine is uneven		Put the machine on a steady place
	Filter is blocked		Clean the filter
Water leaked	The machine is oblique		Put the machine on a steady place
	Water pipe is blocked		Remove the front panel, clean the sundries

- 1.If the unit still can't operate correctly after the above checks, please contact local distributor. Forbid to disassemble or repair the unit without approval.
- 2.When the machine is running or stops running, you will hear a sound of refrigerant cycle, this is a normal phenomenon.