

[®]
Dayton



Dehumidifier

Models: 821P87A, 821P88A, 821P89A

®
Dayton

**PLEASE READ AND SAVE
THESE INSTRUCTIONS.
READ CAREFULLY
BEFORE ATTEMPTING
TO ASSEMBLE, INSTALL,
OPERATE OR MAINTAIN THE
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND
OTHERS BY OBSERVING ALL
SAFETY INFORMATION. FAILURE
TO COMPLY WITH INSTRUCTIONS
COULD RESULT IN PERSONAL
INJURY AND/OR PROPERTY
DAMAGE! RETAIN INSTRUCTIONS
FOR FUTURE REFERENCE.**

**PLEASE REFER TO BACK COVER
FOR INFORMATION REGARDING
DAYTON'S WARRANTY
AND OTHER IMPORTANT
INFORMATION.**

Model #: _____

Serial #: _____

Purch. Date: _____

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Dayton® Dehumidifiers

Description

Dayton 22-pint, 35-pint, and 50-pint dehumidifiers are rugged and compact to provide reliable, trouble-free service. These units include a standard garden hose fitting for quick and easy continuous drainage and a water bucket assembly for manual drainage. Units also include a "Full" indicator light, a "Power" indicator light, and humidistat control.

MODELS: 821P87A, 821P88A, 821P89A



Unpacking

1. Remove dehumidifier from carton.
2. Remove any protective packaging applied to dehumidifier for shipment.
3. Check for loose or missing parts. Check for shipping damage. If any parts are missing or damaged, promptly contact the dealer for additional instructions.

Specifications

Capacity*	22.31 pints per day (821P87A) 35.50 pints per day (821P89A) 49.66 pints per day (821P88A)
Power Supply	115 V, 60 Hz, AC Only, 1 Phase
Amps	3.9A(821P87A), 6.5A(821P89A), 8.5A(821P88A)
Power Consumption	400W(821P87A), 710W(821P89A), 880W(821P88A)
Operating Ambient	
Temperature Range	41°F to 90°F (821P87A, 821P89A, 821P88A)
Relative Humidity Range	35%-85%RH (821P87A, 821P89A, 821P88A)
Bucket Capacity	6.3 pints (821P87A), 12.7 pints (821P89A, 821P88A)
Net Weight	32.41Lbs(821P87A), 40.56Lbs(821P89A), 41.23Lbs(821P88A)
Receptacle Requirement	NEMA 5-15P
Wire size	#18 (A.W.G.) (821P87A), #16 (A.W.G.) (821P89A, 821P88A) 3-Conductor Use Copper Wire Only
Circuit Protection	15 Amp Time Delay Fuse or Circuit Breaker

(*) Capacity will vary according to actual room ambient temperature and humidity conditions.

Dimensions

Model	H in. (cm)	W in. (cm)	D in. (cm)
821P87A	20.94 (53.2)	16.54 (42.0)	11.69 (29.7)
821P89A, 821P88A	25.87 (65.7)	16.93 (43.0)	12.99 (33.0)

Models: 821P87A, 821P88A, and 821P89A

General Safety Information

CAUTION Before you use your dehumidifier, please read this instruction manual carefully.

FUNCTIONS

- Dehumidifiers help to remove excessive moisture from the air when operating in an enclosed space.
- To obtain the best performance, ensure that all cupboards, drawers, doors and/or cabinets in the space have been opened and all windows have been closed before starting the dehumidifier.

SAFETY NOTES

- Do not connect unit to any AC electrical outlet that is damaged.
- Ensure removable covers and containers are correctly fitted before switching on unit.
- Always switch the unit OFF via the ON/OFF button prior to unplugging the unit from the wall.
- Do not use in the following locations:
 - Next to source of heat e.g. a radiator or heater, tumble dryer etc.
 - An area where oil or water is likely to splash.
 - An area exposed to direct sunlight.
 - Near a bath, shower or a swimming pool.
 - In a greenhouse.

- Never insert your finger or other foreign objects into grills or openings. Take special care to warn children of these dangers.
- Always store the unit upright to prevent damage to the compressor or any other part of the unit. Leave the unit upright for at least 24 hours before restarting.
- Always power OFF the unit and then unplug it from the wall before cleaning.
- Do NOT cover the dehumidifier for any reason while it is operating.
- Do not spray insecticides or any other flammable sprays on the machine.
- Do not spray water on the dehumidifier.
- There are no user-serviceable parts.**
- Empty the water tank before moving the dehumidifier.
- Models 821P87A, 821P88A, and 821P89A are fitted with an auto-defrost feature that starts when the evaporator starts to accumulate ice-buildup. This function ensures continuous running when the temperature is 55°F (13°C).
- These Dehumidifiers are intended for general air dehumidification ONLY.
- They must NOT be used in potentially dangerous or hazardous locations such as flammable, explosive, chemical-laden, or wet atmospheres.
- Do NOT use the dehumidifiers in or near a window, since rain may create an electrical hazard.
- Do not attach ductwork to the dehumidifiers.

WARNING ELECTRICAL SHOCK HAZARD

Plug unit only into grounded electrical outlet.

Do not use an extension cord or plug adaptor with this unit.

Do not operate unit with filter removed.



Failure to follow the above precautions could result in electrical shock, fire or personal injury.

The unit may be on a fuse or circuit breaker with other devices. However, the maximum amp draw of all devices on that fuse or circuit breaker cannot exceed the ampacity of the fuse or circuit breaker.

WARNING Do not operate this dehumidifier without proper time delay circuit protection. Refer to serial plate for proper power supply requirements.

WARNING Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. The fumes can create a fire hazard or explosion.

SAFETY MANUAL

FOR R32 REFRIGERANT MODEL

North America Products



CAUTION:
Risk of fire
flammable materials

IMPORTANT NOTE: Read this manual carefully before installing or operating your new dehumidifier. Make sure to save this manual for future reference.

Explanation of symbols displayed on the unit

	CAUTION	This symbol shows that the operation manual should be read carefully.
	CAUTION	This symbol shows that a service personnel should be handling this equipment with reference to the installation manual.
	CAUTION	This symbol shows that information is available such as the operating manual or installation manual.

WARNING

- 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.
- DO NOT modify the length of the power cord or use an extension cord to power the unit.
- DO NOT share a single outlet with other electrical appliances. Improper power supply can cause fire or electrical shock.
- Please follow the instruction carefully to handle, install, clear, service the dehumidifier to avoid any damage or hazard. Flammable Refrigerant R32 is used within dehumidifier.
- When maintaining or disposing the dehumidifier, the refrigerant (R32) shall be recovered properly, shall not discharge to air directly.
- Compliance with national gas regulations shall be observed.
- 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 an industry recognized assessment specification. All training shall follow the ANNEX HH requirements of UL 60335-2-40 4th Edition.

Examples for such working procedures are:

- breaking into the refrigerating circuit;
 - opening of sealed components;
 - opening of ventilated enclosures.
- Ensure there is no open fire or device like switch which may generate spark/arcing shall be around dehumidifier to avoid causing ignition of the flammable refrigerant used. Please follow the instruction carefully to store or maintain the dehumidifier to prevent mechanical damage from occurring.
 - 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) and ignition source or (for example: an operating electric heater) close to the appliance.
 - Do not pierce or burn.
 - Be aware that the refrigerants may not contain an odor.

1. Transport of equipment containing flammable refrigerants

See transport regulations.

2. Marking of equipment using signs

See local regulations.

3. Disposal of equipment using flammable refrigerants

See national regulations.

4. Storage of equipment/appliances

The storage of the appliance should be in accordance with the applicable regulations or instructions, whichever is more stringent.

5. Storage of packed (unsold) equipment

Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge. The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

6. 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 vapor 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. 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 refrigerating 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 refrigerating 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 actual refrigerant charge is in accordance with the product's nameplate label;

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;

Refrigerating 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 are no live electrical components and wiring are exposed while charging, recovering or purging the system; That there is continuity of earth bonding.

7. Sealed electrical components shall be replaced**8. Intrinsically safe components must be replaced****9. 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.

10. 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 an open flame) shall not be used.

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 open 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. Removal of refrigerant shall be according to Removal and evacuation.

11. Removal and evacuation

When breaking into the refrigerant circuit to make repairs – or for any other purpose—conventional procedures shall be used.

However, for flammable refrigerants it is important that best practice be followed, since flammability is a consideration. The following procedure shall be adhered to:

- a) safely remove refrigerant following local and national regulations;
- b) purge the circuit with inert gas;
- c) evacuate (optional for A2L);
- d) purge with inert gas (optional for A2L);
- e) open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems. For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and that ventilation is available.

12. 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 minimize the amount of refrigerant contained in them. Cylinders shall be kept in an appropriate position according to the instructions. 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.

13. 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 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.

14. 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.

15. 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.

Models: 821P87A, 821P88A, and 821P89A

CONTROL PADS ON THE DEHUMIDIFIER

NOTE: The control panel of the unit you purchased may be slightly different according to the models.

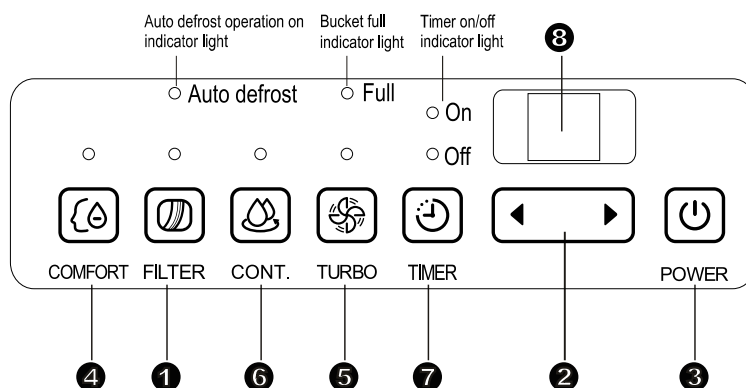


Fig.1

- 1** FILTER button

The check filter feature is a reminder to clean the Air Filter for more efficient operation. The FILTER light will illuminate after 250 hours of operation to indicate that the filter requires cleaning. To reset after cleaning the filter, press the FILTER button and the light will go off.
- 2** UP/DOWN buttons

 - Humidity Set Control buttons
 - The humidity level can be set within a range of 35% RH (Relative Humidity) to 85% RH (Relative Humidity) in 5% increments. For drier air, press the ◀ (or <) button and set to a lower percent value(%). For damper air, press the ▶ (or >) button and set a higher percent value(%).
 - TIMER Set Control buttons
 - Use the UP/DOWN buttons to set the Auto start and Auto stop time between 0.0 and 24 hours.
- 3** POWER button

Press to turn the dehumidifier ON or OFF.
- 4** COMFORT button

Press to activate the "comfort" dehumidifying feature. Note that the user cannot set the humidity level for this function. The unit will automatically sense the humidity in the room and adjust it accordingly to maintain a comfortable environment. Pressing the UP/DOWN buttons simultaneously will cancel this feature.
- 5** TURBO Button

Control the fan speed. Press to select either High or Normal fan speed. Set the fan control to High for maximum moisture removal. When the humidity has been reduced and quiet operation is preferred, set the fan control to Normal.
- 6** CONTINUE button

Press to activate the continuous dehumidifying operation.
- 7** Timer button

Press to initiate the Auto start and Auto stop feature, in conjunction with the ◀ and ▶ (or < and >) buttons.
- 8** Display

Shows the set % humidity level from 35% to 85% or auto start/stop time (0-24hr) while setting, then shows the actual room % humidity level (± 5% accuracy) in a range of 30% RH (Relative Humidity) to 90%RH (Relative Humidity).

Error Codes and Protection Code:

 - AS-Humidity sensor error--Unplug the unit and plug it back in. If error repeats, call for service.
 - ES-Tube Temperature sensor of the evaporator error--Unplug the unit and plug it back in. If error repeats, call for service.
 - P2-Bucket is full or bucket is not in right position--Empty the bucket and replace it in the right position.(only available for the unit with no pump feature).
 - Eb-Bucket is removed or not in right position-- Replace the bucket in the right position. (only available for the unit with pump feature).

Note: Applies to all all the above codes except P2, turn off the unit, and check for any obstructions. Restart the unit, if the malfunction is still present, turn off the unit and unplug the power cord. Contact the manufacturer or its service agents or a similar qualified technician for service.

Models: 821P87A, 821P88A, and 821P89A

Other features

Bucket Full Light

Glowes when the bucket is ready to be emptied.

Auto Shut Off

The dehumidifier will shut off after approximately 30 seconds when the bucket is full, or when the bucket is removed or not replaced in the proper position. When the setting humidity is reached, the unit will be shut off automatically. For some models, the fan motor will continue operating.

Auto Defrost

When frost builds up on the evaporator coils, the compressor will cycle off and the fan will continue to run until the frost disappears.

Wait 3 minutes before resuming operation

Once the unit has stopped, it should NOT be manually restarted for at least 3 minutes. This is to protect the unit. The unit will restart normal operation automatically after 3 minutes.

Check filter feature

The system starts to count the time once the fan motor operates. The check filter feature can only be activated when the accumulated operation time achieves 250 hours or more. The Reset light (FILTER indicator light) flashes at one time per second. Once the air filter has been cleaned, press the Filter pad and the Reset light (Clean filter indicator light) will go off.

Auto-Restart

If the unit turns off unexpectedly due to a power source interruption, the unit will restart with the previous function setting automatically when the power source is restored.

Setting the Timer

- When the unit is on, press the TIMER button, the Timer Off indicator light illuminates. It indicates the Auto Stop program is initiated. Press it again and the Timer On indicator light illuminates. It indicates that the the Auto Start is initiated.
- When the unit is off, first press the TIMER button, the timer on indicator light illuminates. It indicates the Auto Start program is initiated. Press it again and the Time Off indicator light illuminates. It indicates the Auto Stop is initiated.
- Press or hold the UP or DOWN button to change the Auto time by 0.5 hour increments, up to 10 hours, then at 1 hour increments up to 24 hours. The control will count down the time remaining until the dehumidifier starts.
- The selected time will register in 5 seconds and the system will automatically revert back to display the previous humidity setting.
- When the Auto start & Auto stop times are set, within the same program sequence, TIMER ON/OFF indicator lights illuminate identifying both ON and OFF times are now programmed.
- Turning the unit ON or OFF at any time or adjusting the timer setting to 0.0 will cancel the Auto Start/Stop function.
- When LED display window displays the code of P2, the Auto Start/Stop function will also be cancelled.

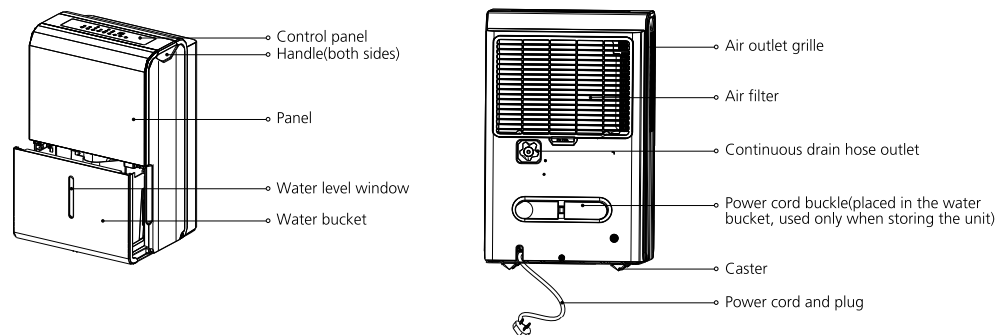
Models: 821P87A, 821P88A, and 821P89A

IDENTIFICATION OF PARTS

Identification of parts

NOTE:

All of the illustrations in the manual are for explanation purposes only. Your machine may be slightly different. The actual shape shall prevail. The unit can be controlled by the unit control panel alone.



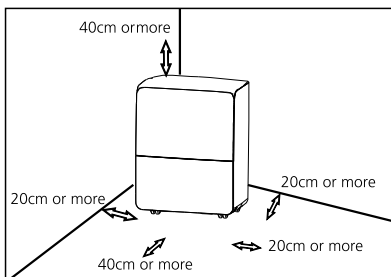
Design Notice

In order to ensure the optimal performance of our products, the design specifications of the unit are subject to change without prior notice.

Models: 821P87A, 821P88A, and 821P89A

OPERATING THE UNIT

Positioning the unit



Casters (At four points on the bottom of unit)

- Casters can move freely.
- Do not force casters to move over carpet, nor move the unit with water in the bucket. (The unit may tip over and spill water)

A dehumidifier operating in a basement will have little or no effect in drying an adjacent enclosed storage area, such as a closet, unless there is adequate circulation of air in and out of the area.

- Do not use outdoors.
- This dehumidifier is intended for indoor residential

applications only. This dehumidifier should not be used for commercial or industrial applications.

- Place the dehumidifier on a smooth, level floor strong enough to support the unit with a full bucket of water.
- Allow at least 20cm of air space on all sides of the unit for good air circulation (at least 40cm of air space on air outlet).
- Place the unit in an area where the temperature will not fall below 41°F (5°C). The coils can become covered with frost at temperatures below 41°F (5°C), which may reduce performance.
- Place the unit away from the clothes dryer, heater or radiator.
- Use the unit to prevent moisture damage anywhere books or valuables are stored.
- Use the dehumidifier in a basement to help prevent moisture damage.
- The dehumidifier must be operated in an enclosed area to be most effective.
- Close all doors, windows and other outside openings to the room.

When using the unit

- When first using the dehumidifier, operate the unit continuously 24 hours.
- This unit is designed to operate with a working environment between 41°F (5°C) and 90°F (32°C) and between 35% RH and 85% RH.
- If the unit has been switched off and needs to be switched on again quickly, allow approximately three minutes for the correct operation to resume.
- Do not connect the dehumidifier to a multiple socket

outlet, which is also being used for other electrical appliances.

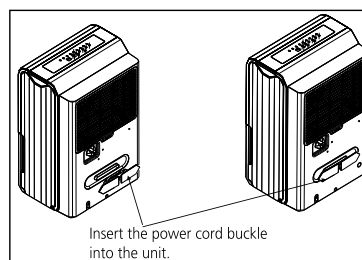
- Select a suitable location, making sure you have easy access to an electrical outlet.
- Plug the unit into an electrical socket-outlet with earth connection.
- Make sure the Water bucket is correctly fitted otherwise the unit will not operate properly.

Accessories(placed in the bucket of the unit)

Power cord buckle (1 pc)



Installation of the power cord buckle



Models: 821P87A, 821P88A, and 821P89A

OPERATING THE UNIT

Removing the collected water

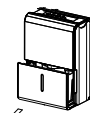
There are two ways to remove collected water.

1. Use the bucket

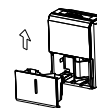
- When the unit is off, if the bucket is full, the Full indicator light will illuminate.
- If the bucket reaches full capacity when the unit is operating, both the compressor and the fan will turn off, the FULL indicator light will illuminate and the digital display will show "P2".
- Slowly pull out the bucket. Grip the left and right handles securely, and carefully pull out straight so water does not spill. Do not put the bucket on the floor because the bottom of the bucket is uneven. Failure to do so can cause the bucket to tip over and spill water.
- Pour out the water and replace the bucket. The bucket must be in the right place and securely seated for the dehumidifier to operate.
- The machine will restart when the bucket is restored in its correct position.

- Make sure the hose is secure so there are no leaks and the end of the hose is level or angled down to let the water flow smoothly.
- Direct the hose toward the drain, making sure that there are no kinks that will stop the water flowing. Make sure the water hose is lower than the drain hose outlet of the unit.
- Select the desired humidity setting and fan speed on the unit for continuous draining to start.

1. Pull out the bucket a little.



2. Hold both sides of the bucket with even strength, and pull it out from the unit.



3. Pour the water out.

Notes:

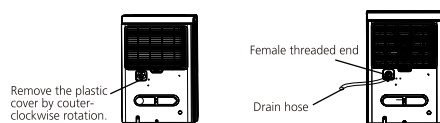
- When you remove the bucket, do not touch any parts inside of the unit. Doing so may damage the product.
- Be sure to push the bucket gently all the way into the unit. Banging the bucket against anything or failing to push it in securely may cause the unit not to operate.
- When you remove the bucket, if there is some water in the unit you must dry it.
- When the unit is on, if the bucket is removed, the compressor and the fan turn off, then the unit will beep 8 times and the digital display shows P2.
- When the unit is off, if the bucket is removed, the unit will beep 8 times and the digital display shows P2.

2. Continuous draining

- Water can be automatically emptied into a floor drain by attaching the unit with a water hose (ID≥5/16 not included) with a female threaded end (ID:M=1 not included)

Note: On some models, the female threaded end is included.

- Remove the plastic cover from the drain outlet. Attach a garden hose and direct it to a floor drain.



Models: 821P87A, 821P88A, and 821P89A

CARE AND MAINTENANCE

Care and cleaning of the dehumidifier

Turn the dehumidifier off and remove the plug from the wall outlet before cleaning.

Clean the Grille and Case

- Use water and a mild detergent. Do not use bleach or abrasives.
- Do not splash water directly onto the main unit. Doing so may cause an electrical shock, cause the insulation to deteriorate, or cause the unit to rust.
- The air intake and outlet grilles get soiled easily, so use a vacuum attachment or brush to clean.

Clean the bucket

Every few weeks, clean the bucket to prevent growth of mold, mildew and bacteria. Partially fill the bucket with clean water and add a little mild detergent. Swish it around in the bucket, empty and rinse.

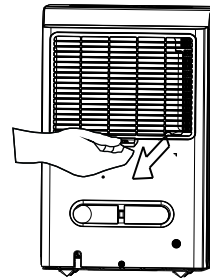
Note: Do not use a dishwasher to clean the bucket. Once cleaned, the bucket must be in place and securely seated for the dehumidifier to operate.

Clean the air filter

- Remove the filter every two weeks based on normal operating conditions.
- To remove the filter, pull filter outwards.
- Wash the filter with clean water then dry.
- Reinstall the filter, replace Bucket.

⚠ CAUTION

DO NOT operate the dehumidifier without a filter. Dirt and other debris can accumulate in the evaporator coil and reduce the overall performance of the unit.



When not using the unit for long time periods

- After turning off the unit, wait one day before emptying the bucket.
- Clean the main unit, water bucket and air filter.
- Wrap the cord with the power cord buckle.
- Cover the unit with a plastic bag.
- Store the unit upright in a dry, well-ventilated place.

Models: 821P87A, 821P88A, and 821P89A

TROUBLESHOOTING TIPS

Before calling for service, review the troubleshooting tips below.

Problem	What to check
Unit does not start	<ul style="list-style-type: none"> · Make sure the dehumidifiers plug is pushed completely into the outlet. · Check the house fuse/circuit breaker box. · Dehumidifier has reached its preset level or bucket is full. · Water bucket is not in the proper position.
Dehumidifier does not dry the air as it should	<ul style="list-style-type: none"> · Did not allow enough time to remove the moisture. · Make sure there are no curtains, blinds or furniture blocking the front or back of the dehumidifier. · The humidity control may not be set low enough. · Check that all doors, windows and other openings are securely closed. · Room temperature is too low , below 5 °C(41° F). · There is a kerosene heater or something giving off water vapor in the room.
The unit makes a loud noise when operating	<ul style="list-style-type: none"> · The air filter is clogged. · The unit is tilted instead of upright as it should be. · The floor surface is not level.
Frost appears on the coils	<ul style="list-style-type: none"> · This is normal. The dehumidifier has Auto defrost feature.
Water on floor	<ul style="list-style-type: none"> · Hose to connector or hose connection may be loose. · Intend to use the bucket to collect water, but the back drain plug is removed.
ES, AS,P2,Eb appear in the display	<ul style="list-style-type: none"> · These are error codes and protection codes. See the CONTROL PANEL FEATURES section.

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**Dayton Electric Mfg. Co.,
100 Grainger Parkway, Lake Forest, IL 60045 U.S.A.
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