

**EBAC MODEL AD850  
INDUSTRIAL DEHUMIDIFIER  
OWNER'S MANUAL**

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## INTRODUCTION

The Ebac AD850 is a high capacity dehumidifier to operate at high efficiencies for domestic, commercial and industrial use. The Ebac AD850 removes moisture from the air through the refrigeration process and consists of the following components:

- Compressor
- Evaporator Coil
- Condenser Coil
- Centrifugal Fan
- Internal Humidistat
- Plastic Housing/Steel Chassis

The fan draws the moist air through the cold evaporator coil, which cools the air below its dew point. Moisture forms on the evaporator coil and is collected in the condensate tray, which is equipped with a permanent drain. The cooled air then passes through the hot condenser coil where it is reheated using the same energy removed during the cooling phase, plus the additional heat generated by the compressor. The air is, therefore, discharged from the dehumidifier at a slightly higher temperature with a lower absolute humidity than that which entered. Continuous circulation of air through the dehumidifier gradually reduces the relative humidity within the area.

The AD850 dehumidifier is a rugged, reliable drying unit designed to operate effectively over a broad temperature range to keep air dry and comfortable and maintain a better indoor environment. The AD850 prevents condensation, rust, corrosion, mold, mildew and microbial growth caused by condensation and excess humidity.

## SPECIFICATIONS

<b>MODEL:</b>	Ebac AD850
<b>HEIGHT:</b>	28"
<b>WIDTH:</b>	26"
<b>DEPTH:</b>	12"
<b>WEIGHT:</b>	100 lbs
<b>AIRFLOW:</b>	300 CFM(max)
<b>CAPACITY @ 80°F/60%:</b>	68 lbs/day
<b>MAX. AMBIENT TEMP:</b>	95°F
<b>MIN. AMBIENT TEMP:</b>	45°F
<b>REFRIGERANT (R22):</b>	26 oz
<b>POWER SUPPLY:</b>	115V/60Hz/ 1 Ph
<b>MAX. AMPS:</b>	8 Amps
<b>POWER:</b>	920 Watts

## INSTALLATION & OPERATION

The following procedures should be followed to test the Ebac AD850 for correct operation:

1. After unpacking, examine all external features to confirm damage-free shipment. Report all defects and damage at once. Do not discard the packing, for it will be useful for transporting the unit in the future.
2. Connect the power cord to a grounded 15 Amp electrical outlet. Connect the supplied plastic tubing to the drainage tube, feed the tubing through the opening in the back of the unit and run this condensate line to a local drain. Ensure that the condensate line is properly fed without kinks or upward inclines of the hose.
3. Check the dehumidification process as follows:
  - A. Place the unit on a level surface. Your unit is equipped with an adjustable humidistat. Turn the humidistat dial clockwise to the middle position. The AD850 also comes with a multiple speed fan with a fan only position. Fan speeds are as follows:

<b>POSITION WITH LARGE FAN BLADE:</b>	High Speed
<b>POSITION WITH SMALL FAN BLADE:</b>	Low Speed

- B. Turn the fan switch to the high-speed position and check that the compressor and fan are both running. If the unit is not running, adjust the humidistat dial clockwise until the unit turns on. The size of the room, the relative humidity and temperature will affect the required setting on your humidistat. Adjust the setting until the humidity level that you require is achieved.
    - C. The AD850 also incorporates an automatic defrost control, which allows operation across a broad temperature range. At low ambient conditions, frost will form on the evaporator coil. The defrost control will turn the compressor off and continue drawing air through the unit until the frost is properly removed. After defrosting, the unit will automatically restart.

Allow the unit to run 1 to 2 hours to insure that moisture is draining from the machine properly. If, after carrying out the above procedures, the unit does not appear to function properly, refer to the *Trouble Shooting* section, which follows or contact the Factory Service Center.

## SAFETY PRECAUTIONS

- **Never** drop or abuse this unit.
- **Never** Place unit in standing water due to threat of electrical shock.
- **Never** remove the cover of the unit when it is either operating or attached to a power supply.
- **Always** use a properly grounded three-prong outlet.
- Once the unit is switched off, **Always** allow 5 minutes before turning the unit back on.
- **Never** put foreign objects into the inlet or outlet grills.
- **Never** restrict the inlet or outlet grills.
- **Never** attempt any servicing of the unit. Always consult the factory and have a certified electrician or technician perform repairs.
- **Never** transport unit by pulling on the power cord.

## MAINTENANCE

To ensure continued full efficiency of the dehumidifier, it should be subjected to periodic maintenance procedures as follows:

1. Check and clean your filters periodically. They are removable and washable filters.
2. Clean the evaporator and condenser coil surfaces by blowing any dirt or lint free with compressed air. Hold the nozzle of the air hose away from the coil to ensure that the fins are not damaged.
3. Check all wiring connections.
4. inspect the condensate drain for debris.

## TROUBLESHOOTING

<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
<b>Unit inoperative</b>	1. No power to unit	1. Check the power from power supply panel
<b>Little or no airflow</b>	1. Loose fan on shaft 2. Fan motor burnt out 3. Dirty refrigeration coils 4. Loose electrical wiring  5. Fuse blown or circuit breaker tripped	1. Tighten fan 2. Replace the fan motor 3. See <i>Routine Maintenance</i> Section 4. Check the wiring diagram to find fault and repair 5. Replace the fuse or reset the circuit breaker
<b>Little or no water extraction</b>	1. Insufficient air flow 2. Compressor fault 3. Loss of refrigerant gas	1. Check all of the above 2. Contact the Factory Service Center 3. Contact the Factory Service Center
<b>Little or no defrost when required</b>	1. Faulty timer 2. Faulty by-pass valve	1. Contact the Factory Service Center 2. Contact the Factory Service Center
<b>Unit vibrates excessively</b>	1. Loose compressor 2. Damaged fan	1. Tighten the nuts on the compressor mounts 2. Replace fan
<b>Water flooding inside the machine</b>	1. Drain tube restricted 2. Drain tube inclined	1. Clear the obstruction 2. Ensure that no section of the drain hose is above the drain tray outlet

## AD850 SPARE PARTS LIST

Part Number	Description
3014336	PVC CLEAR TUBE
3022197	COMPRESSOR
3030908	CAPACITOR 35uf 240v
3040239	2uf 415V CAPACITOR
3160129	WATER PUMP
3934515	USA PLUG

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