



Installation and Operations Manual



Read and Save These Instructions

Distributed Exclusively By:

Air Cleaning Equipment, Inc.

Broadway, NC 27505

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Manufactured by:



Safety Notes:

- The Superdryer Series Dehumidifier must always be connected using the grounded electrical connection as required from all electrical appliances. The warranty is voided and all responsibility for the operation is born by the owner if non-grounded wiring is utilized.
- The Superdryer Dehumidifiers must only be maintained and serviced by a qualified technician.
- The Superdryer Dehumidifiers are designed to be transported and operated in the vertical position. Any other orientation could cause water to come in contact with the electrical components. Remove plug before moving dehumidifier. If any water may have spread throughout unit, the unit should be opened and allowed to dry thoroughly before reconnected to electric and restarting.
- For proper operation, neither the inlet nor discharge should be positioned against a wall. The inlet requires a minimum of 12" clearance and the discharge needs a minimum of 48" clearance.
- If the unit is utilized in a narrow room, the unit should be positioned so that the inlet and discharge are facing the longest straight runs.
- Do not insert any objects into the inlet or discharge. If service is required, call a qualified technician. All work on unit should be done with the unit "off" and unplugged.
- Do not use water to clean unit exterior. Only use a damp cloth with unit unplugged.
- Do not use unit as shelf or device to hang clothes. This could cause damage to unit.
- The inlet filter generally needs cleaned once per month. Check unit on a weekly basis to insure that more frequent cleaning is not required.

Pertinent Technical Standards and Regulations:

The Superdryer dehumidifier has been designed and manufactured to all the following European Standards (Norms) and Regulations:

- MACHINES NORMS (D.P.R., NR. 459 - 24th July 1996) ;
- SECURITY REGULATIONS FOR LOW TENSION APPLIANCES 2006/95/CE);
- ELECTROMAGNETIC COMPATIBILITY (EMC) – 2004/108/CE.
- It is hereby certified that this Dehumidifier conform to the:
- IEC Regulations CEI-EN 60335-2-40, CEI-EN 55014-1, 55014-2.
- The machine is built according to RoHS European Norms

Identification:

For future reference, write down the model, serial number, date of purchase and use this information whenever corresponding concerning your dehumidifier.

Model Number Superdryer 62
Serial Number _____
Date of Purchase _____

Customer Service:

For additional questions concerning the operation of your dehumidifier, please:

- ❑ Contact your installing contractor
- ❑ Please call ACE at 919-258-3330
- ❑ Email: sales@aircleaningequipment.com

Warning

120 Volts AC may cause serious injury from electric shock.

1. Disconnect electrical power before servicing or moving
2. Plug unit only into grounded electrical outlet
3. Do not use extension cord
4. Do not use plug adapter

Power Supply: 115V, 60 Hz, Single Phase
Outlet Requirement: 3-Prong
Circuit Protector: 15 Amp Time Delay Fuse or Circuit Breaker

Principle of Operation

The Superdryer Series Dehumidifier utilizes its integral humidistat to monitor the conditioned space. When the relative humidity goes above the selected set point, the dehumidifier will energize. Air is drawn across an evaporator coil. The evaporator coil is cooler than the dew point of the air so moisture will condense out of the air (below 70°F you will actually see ice forming on the evaporator coil). Air is then reheated through the condenser coil and distributed back into the room.

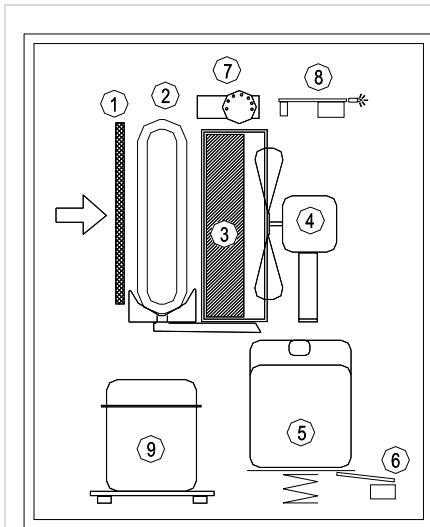


Fig. 1
Machines with water
reservoir

Reference: (Fig. 1/2), **De-humidistat (7)** starts the functioning of the dehumidifier when the humidity is higher than the preset level. Air is drawn in through the **filter (1)** flows through the aluminium refrigerated **coil/ evaporator (2)**, through the **heat exchanger/ condenser (3)**. Finally, **the motor fan (4)** expels the air back into the room through the front grilled panel. The condensed water is collected in the **tank (5)**. A **micro-switch (6)** stops the machine when the water in the tank reaches the correct level activating the full circuit. An **electronic circuit (8)** controls the defrosting and prevents the **compressor (9)** from short cycling.

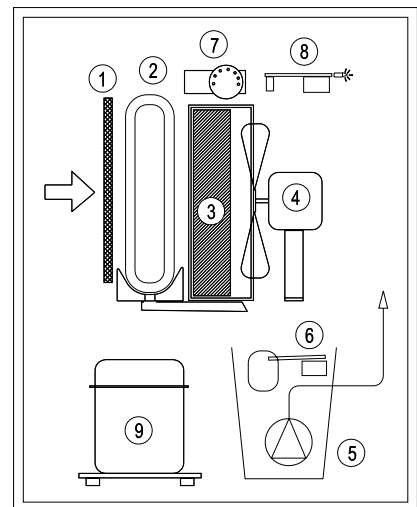


Fig. 2
Machines with condensate pump

Unit Set-Up

The unit will only function properly in a closed area. All windows and doors must be closed to allow "drying" to occur.

WARNING: It is recommended to remove dehumidifier from area if applying a liquid vapor barrier. Some coatings dry via "solvent evaporation," which can be harmful to certain components in your dehumidifier. Allow coating to completely dry and exhaust vapors prior to positioning dehumidifier. Read and follow coating manufacturer's instructions completely.

- Place dehumidifier on level surface

WARNING – If during handling, the dehumidifier is moved in such a manner that the compressor didn't remain in a vertical orientation, wait a minimum of 2 hours before turning the unit "on."

- Route drain line (**3/4" ID tubing on gravity drain, 3/8" ID tubing on units with condensate pump**) to drain or outside of the area. Note: On units with gravity drain, **Drain line must have a downward slope to drain.** (Not applicable to units with reservoirs)

- Plug unit into 15 amp grounded outlet.
- To operate unit, turn humidistat knob clockwise until unit energizes.
 - Unit will run fan only for approximately 2 minutes and then compressor will energize.
 - Confirm compressor is running and allow to run for minimum of 15 minutes
 - If under 70°F, a layer of ice will form on evaporator coil
 - If over 70°F, a layer of frost or water droplets will form on coil
- After you've confirmed satisfactory operation of unit, humidistat should be set at desired position for automatic operation.

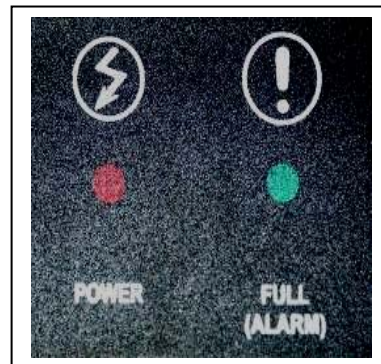
Position of Dehumidistat Knob	1	2	3	4	5	
Approximate Room Setpoint	70%	60%	48%	35%	25%	Relative Humidity

- In "OFF" the machine will never start
- In "CONT" the machine will never stop

NOTE: Humidistat settings are approximate only. For critical applications, you may want to confirm actual settings with a psychrometer and adjust according.

Display Panel Indications:

- "Power" Indication: Red light illuminates when unit is plugged into outlet
- "Full" Indication: Green light illuminates when either water tank is "full" or condensate pump is not working properly. When light is "on", unit will be in "off" condition.
- "Defrost" Indication: Red light illuminates during initial "soft-start" or any normal defrost cycle.
- "Working" Indication: Red light illuminates (together with "Power" light) when machine is operating in normal dehumidification mode.



Operation

During normal operation, the dehumidifier will automatically cycle “on” and “off” to maintain your desired set point. If it should need to run for extended periods of time, the dehumidifier features an automatic defrost cycle to melt any ice that accumulates on evaporator coil. Approximately every 35 minutes of continuous operation, the unit will test for the need for a defrost cycle. If required, it will defrost for approximately 3 minutes.

Warning: Never apply an external source of heat to melt ice off coil.

Maintenance – Annual Inspection of Coils and drain line is required.

1. Unplug Unit
2. Filter may be cleaned by
 - a. Vacuuming
 - b. Washing with warm, soapy water. Rinse and shake dry.
3. Coils may be cleaned by
 - a. Vacuuming the external surfaces of coil
 - b. Blowing compressed air from behind coils. Hold air nozzle 6” away from coil to avoid damage.

Warning: Do not steam clean refrigerant coils.

4. Plug in Unit
5. Test Refrigerant Charge
 - a. Confirm compressor is running and allow to run for minimum of 15 minutes
 - i. If under 70°F, a layer of ice will form on evaporator coils
 - ii. If over 70°F, a layer of frost or water droplets will form on coil
6. Test Defrost System
 - a. Leave unit running for approximately 35 minutes (45-55 minutes). The unit should enter a defrost mode for approximately 3 minutes. The unit will run fan only for a period of time and then check the temperature of the coil. If necessary, the unit will enter a defrost mode with the compressor operating and fan off to defrost the coil. If the unit will not defrost, either
 - i. Control board may be defective
 - ii. Bypass valve may be defective
7. After routine maintenance has been completed, return humidistat to desired setting.
8. When you are ready to move unit, depress button on condensate pump (while unit is “on”) to drain condensate or empty water tank prior to moving. This will prevent water from splashing on inside of unit.

If any problems occur during routine maintenance, contact your contractor or the factory.

Specifications:

MODEL	Superdryer 62
HEIGHT	21"
WIDTH	21"
LENGTH	36"
WEIGHT	102.00 LBS
AIRFLOW	360 CFM
MOISTURE REMOVAL AT 80F/60% RH	65 PINTS PER DAY
POWER SUPPLY	115 VOLT/60 HERTZ SINGLE PHASE
FINISH	POWDER-COATED EPOXY
OPERATING RANGE	33 F TO 90 F
REFRIGERANT	R-22
CONDENSATE DRAIN SIZE	3/8" Tube on Pump
AMPS (FULL LOAD) AT 80F/60%	5.8 FLA
POWER CORD	20' GROUNDED PLUG
FILTER SIZE	13.5" x 12"

Troubleshooting:

1. Unit will not operate
 - a. Insure unit is plugged in and red "power" lamp is illuminated
 - b. Insure humidistat is set to high enough level to operate.
 - c. If unit plugged in and red "power" lamp is "off", check fuse or breaker for outlet to make sure power is getting to unit
2. If green "full" light is "on"
 - a. On units with reservoir, insure reservoir is empty and properly placed back in unit to allow operation
 - b. On units with condensate pump, check that drain line is not blocked preventing pump from discharging water to drain.

Warranty

Seller warrants the equipment to be free from defects in workmanship and material for a period of 12 months after shipment (36 months on compressor). This warranty is limited, however, to the repair or replacement of defective equipment, which is returned, freight prepaid, to the Seller's factory.

This limited warranty does not apply to any part or component that is damaged in transit or when handling, has been subject to misuse, has not been installed, operated or serviced according to the Seller's instructions, or has been operated beyond the factory-rated capacity or has been altered in any way. Routine maintenance is not covered by this warranty.

Seller's liability is limited to replacement of defective parts or components and does not include any cost of labor (including, but not limited to, labor to remove and/or reinstall any defective part).

ACE/Fral shall not be responsible for loss of use of any product, loss of time, inconvenience, or damage to other equipment, or any other indirect or consequential damage with respect to property whether as a result of breach of warranty, neglect, or otherwise.

THE WARRANTIES AND LIABILITIES SET FORTH ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, IN LAW OR IN FACT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE.

The foregoing shall constitute the total liability of seller in the case of defective performance of all or any of the equipment or services provided to Buyer. Buyer agrees to accept and hereby accepts the foregoing as the sole and exclusive remedy for any breach or alleged breach of warranty by Seller.