

VI. MAINTENANCE

AIR FILTER

Under normal circumstances, the filter in the dehumidifier should be cleaned or replaced once a year. A clean filter is necessary to prevent damage to the dehumidifier and allow it to function at full capacity. To remove the filter, first unplug or disconnect power to the dehumidifier, then remove the air filter via the access panel on the side of the dehumidifier. To clean, flush with warm water and detergent solution. After a clean or new filter is reinstalled, replace the access panel and reconnect power to the dehumidifier. The replacement filter for the dehumidifier is Model 4510 and is available from most HVAC contractors in your area or Aprilaire.com

DRAIN

The drain trap or outlet should be checked and cleaned of debris annually.

NOTE: The drain trap needs to be primed with water prior to start-up and after extended periods of unit shut down (winter months).

VII. LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Dehumidifier is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any component which is found to be defective within such five (5) year period and which is returned not later than thirty (30) days after said five (5) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the model number and installation date of the dehumidifier.

THIS WARRANTY SHALL NOT OBLIGATE RESEARCH PRODUCTS CORPORATION FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY YOUR INSTALLER AS CONTRASTED TO DEFECTS IN THE DEHUMIDIFIER ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID FIVE YEAR PERIOD. RESEARCH PRODUCTS CORPORATION'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS UNIT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages so the above exclusion or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

WARRANTY REGISTRATION

Please... Take a few minutes to visit us online at www.aprilaire.com to register your Aprilaire product.

If you do not have on-line access, please mail a postcard with your name, address, phone number, email address, product purchased, model number, date of purchase and dealer name and address to:

Research Products Corporation
P.O. Box 1467
Madison, WI 53701

Thank you!

Your Warranty Registration information will not be sold or shared outside of this company.

RESEARCH PRODUCTS CORPORATION

1015 E. WASHINGTON AVE. • MADISON, WI 53703 • PHONE: 608/257-8801 • FAX: 608/257-4357 • www.aprilaire.com

Aprilaire®

Dehumidifier



Model 1710A Dehumidifier

Installation & Owner's Manual

Includes Safety & Operating Instructions and Warranty Information

READ AND SAVE THESE INSTRUCTIONS

⚠ WARNING

120 volts may cause serious injury from electric shock. Disconnect electrical power before servicing.

Sudden operation may cause personal injury or property damage. Unplug the dehumidifier before servicing.

Unit weight and dropping may cause personal injury or equipment damage. Handle with care.

⚠ CAUTION

Do not use solvents/cleaners on or near the control board.

Corrosive environments can damage electrical equipment. Do not use in pool applications.

INSTALLER – PLEASE NOTE!

- 1. INSTALLATION MUST CONFORM TO ALL APPLICABLE STATE OR LOCAL CODES.**
- 2. A 15 Amp circuit is required for proper operation of the dehumidifier. Do not use an extension cord.**
- 3. For protection of the compressor, unit must be transported and installed in an upright position.**
If the unit was shipped or stored on its side, a 24 hour settling period is required before running the unit.

I. PRINCIPLE OF OPERATION

The purpose of the Aprilaire® Dehumidifier is to keep humidity in a space at acceptable limits to reduce the unwanted effects of high humidity. The dehumidifier measures the condition of the air in the space to decide when to run.

II. SPECIFICATIONS

Dimensions: 20³/₄" W x 24" L x 20³/₈" – 23⁵/₈" H **Design Airflow:** 275 CFM @ 0.6 in. w.c.

Weight: 93 lbs.

Capacity: 90 pints per day @ 60%RH, 80°F (ANSI/AHAM DH-1-2003 standard conditions)

Power: 115 VAC, 8 Amps, Unit is equipped with an 8 ft. grounded cord.

Filter: MERV 8 Filter

Cabinet Insulation: 1" foil faced EPS insulation

Inlet Air Operating Conditions: 40°F to 105°F

Ambient Air Operation Conditions: 40°F to 150°F

III. INSTALLATION INSTRUCTIONS

1. Install the drain line

NOTE: The provided condensate trap must be installed to the dehumidifier.

- Verify the bottom of the dehumidifier is 2 1/2" or higher above the floor.
- Insert the high side of the trap into the drain outlet (water flow direction is shown on the trap and should point away from the dehumidifier)
- If there is not enough room to install the trap directly into the dehumidifier, use the provided 90° elbow to position the trap close to the dehumidifier

IMPORTANT: The bottom of the trap outlet must be at least 1/2 inch below the bottom of the dehumidifier to ensure a proper drainage slope (see **Figure 1**).

- After verifying that the trap is in the proper orientation, use PVC primer and cement to secure the trap in place. Cement the supplied threaded coupler to the outlet of the trap.
- Screw the supplied hose barb fitting into the coupler and attach the supplied 1/2 inch I.D. drain hose. Route the hose to the nearest drain.

IMPORTANT: To prevent a pressure lock within the drain line, the tube **MUST** be installed with a constant downward slope.

Prime the drain system by filling the drip pan in the dehumidifier with water until flow is completed to the drain.

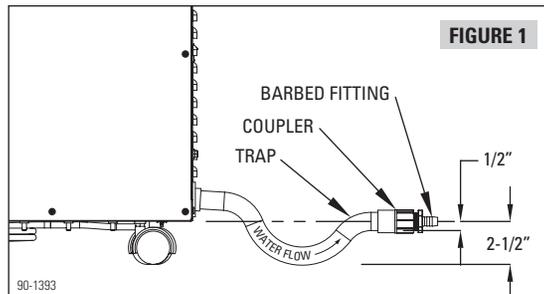
2. Plug the dehumidifier directly into an outlet – DO NOT USE AN EXTENSION CORD.

NOTE: A 15 amp circuit is required for proper operation.

3. Turn the ON/OFF switch to ON.

4. System Checkout:

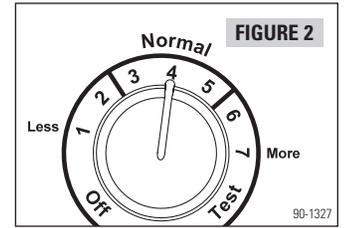
- Rotate the control knob clockwise to the "Test" position.
 - The blower will start immediately and after three minutes the compressor will start.
 - Both will run for one minute then both will shut off.
 - Turn the control knob to the desired setting.
- If the unit does not run, refer to the **Troubleshooting Guide**.



IV. OPERATING INSTRUCTIONS

Use the main control knob (**Figure 2**) on the outside of the unit to set the dehumidifier dryness setting. Start with a "NORMAL" setting for most installations. Moving the knob clockwise to "MORE" will make conditions drier. Moving the knob toward "LESS" allows for higher moisture levels.

Based on the indoor temperature, use the following table to determine the control knob setting to reach the desired RH value. The dehumidifier will work to achieve these values.



%RH (± 5%) based on Control Knob Setting and Indoor Temperature

Control Knob Setting	Indoor Temperature			
	65°F	70°F	75°F	80°F
1 – "LESS"		84%	71%	60%
2	86%	73%	61%	52%
3 – "NORMAL"	74%	63%	53%	45%
4 – "NORMAL"	64%	54%	45%	39%
5 – "NORMAL"	55%	46%	39%	33%
6	47%	39%	33%	28%
7 – "MORE"	40%	34%	28%	24%

EXAMPLE: At an indoor temperature of 75°F with a dehumidifier control knob setting of 3, the dehumidifier will work to achieve an RH value of 53%.

NOTES:

1. %RH values are ±5% and are to be used as a **GUIDE ONLY** for initial set-up.
2. Indoor Temperature is measured at the inlet to the dehumidifier.

V. TROUBLESHOOTING GUIDE

SYMPTOM	TROUBLESHOOTING PROCEDURE / POSSIBLE REASON
Dehumidifier is producing hot air	<ul style="list-style-type: none"> • Reheat of outgoing air will cause a temperature increase across the dehumidifier • Unit will possibly run continuously initially. After unit has "dried" home, dehumidifier will cycle, reducing load
Dehumidifier not adequately dehumidifying	<ul style="list-style-type: none"> • Unit will need time to "dry" materials in home before effectively changing RH. • Compressor is not turning on • System undercharged
Dehumidifier is not draining properly	<ul style="list-style-type: none"> • Check condensate trap to be sure it is clear • Check drain line for continuous slope
Dehumidifier does not run	<ul style="list-style-type: none"> • Follow all of the system checkout procedures. Make sure power switch is on! • Check that circuit breaker is not tripped. The dehumidifier requires a minimum of 8 amps. The dehumidifier should be placed on its own dedicated 15 amp circuit

LED CODES

Green LED	
Activity	Status
ON Solid	Compressor ON
Blinking 1 second on, 1 second off	Sampling
Blinking 1/2 second ON, 1/2 second OFF	Defrosting

Red LED	
Activity	Status
1 Blink every 5 seconds	There is an error with the RH sensor
2 Blinks every 5 seconds	The board temperature sensor is opened or shorted
3 Blinks every 5 seconds	The Model 70 Living Space Control fails to respond after 3 consecutive attempts
4 Blinks every 5 seconds	The refrigerant charge has been detected as low
5 Blinks every 5 seconds	The temperature sensor is out of the operating range
6 Blinks every 5 seconds	The internal frost sensor is opened or shorted
7 Blinks every 5 seconds	The float switch has opened

Test Mode

At the end of test mode (3 minutes of DEH Fan + 1 minute of Compressor ON & DEH Fan), the Red and Green LEDs will turn ON and OFF alternately until the knob has been turned away from "TEST".