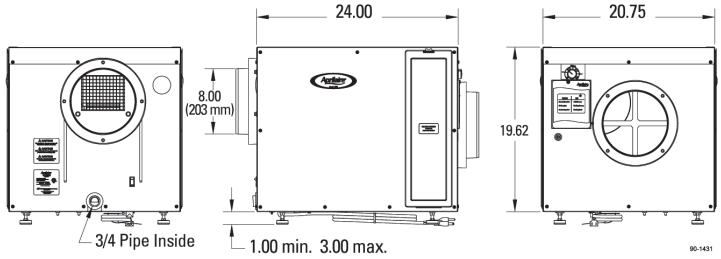
SPECIFICATION SHEET
DEHUMIDIFIER
MODEL 1770A

PRODUCT SPECIFICATIONS	
Capacity[1]	135 ppd
Energy factor [1]	1.8 L/kW-h
Airflow @ varying E.S.P. (external static pressure - dry coil)	
0.0" w.c.	580 CFM
0.3" w.c.	565 CFM
0.6" w.c.	530 CFM
0.9" w.c.	500 CFM
Voltage, phase, frequency	120VAC, 1, 60 Hz
Current draw [1]	14.5 Amps
Noise	53 dBA ducted 67 dBA ducted
Dimensions (cabinet)	Width: 20.75" w/filter doors Height: 19.62" cabinet 20.62"-22.62" w/leveling feet Length: 24" cabinet, 29" w/collars
Weight	100 lbs
Inlet air operating conditions	Dehumidification: 50°F – 105°F, 40°F dew point min. Ventilation: 40°F – 140°F, 0% – 95%RH (non-condensing)

[1] Rated capacity and energy factor test done and current draw measured in accordance with AHAM DH-1 2008 at 80°F/60%RH inlet air at 500 CFM.

PRODUCT FEATURES	
Capacity at 550 CFM in non-rating conditions	
70°F / 60% RH = 118 ppd	80°F / 50% RH = 104 ppd
65°F / 60% RH = 101 ppd	70°F / 50% RH = 79 ppd
60°F / 60% RH = 66 ppd	65°F / 50% RH = 65 ppd
Controls	Built-in automatic control or Model 76 control (accessory)
Cabinet insulation	1" foil faced EPS
Air discharge orientation	End opposite inlet
Inlet/Outlet duct collars	8" dia.
Backdraft damper at outlet	Included
Filter	1" washable, MERV 8
Refrigerant	R410A
8' power cord plug type	NEMA 5-20P
Discharge air temperature rise	10°F-30°F
Drain	0.75" PVC; trap and 90° elbow included
Warranty	5 Years



PRINCIPLE OF OPERATION

The Aprilaire Model 1770A is designed to dehumidify the air coming into the unit by passing the incoming air over an evaporator coil to drop the air temperature below the dewpoint of the air. Moisture is removed from the air and drained out of the unit to a common floor or waste drain. The air is then reheated in the condenser coil and exits the unit.

Dehumidification occurs until the set dewpoint is reached, then shuts off until periodic sampling determines a need for operation.

Do not use the 1770A in pool areas. Chemicals in the air will cause degradation of the components in the dehumidifier.

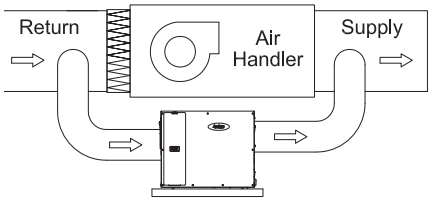
VENTILATION

The Model 1770A has the ability to bring in fresh air. Fresh air will dilute stale air and pollutants and will reduce humidity in the winter months. The fresh air is brought in through a 6" round duct and 6" round normally closed damper. The dehumidifier has built in controls to adjust the amount of fresh air that is brought in.
The Aprilaire dehumidifiers are not designed for pool applications or any application where airborne chemicals are present.

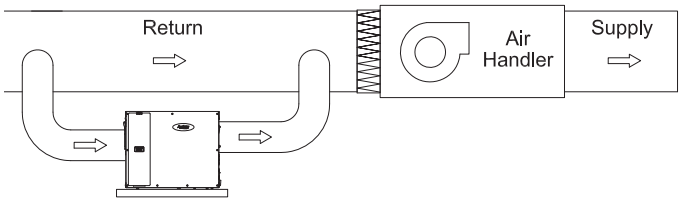
Do not use a dehumidifier to prevent window condensation during the winter. Indoor humidity levels must typically get lower than what dehumidifiers can achieve during cold winter months. Use ventilation to control high winter indoor RH, such as the Aprilaire dehumidifiers ventilation feature, Aprilaire Model 8126 or Aprilaire Model 8100 or Aprilaire Model 8910 Home Comfort Control.

Features Of The Aprilaire 1770A Dehumidifier

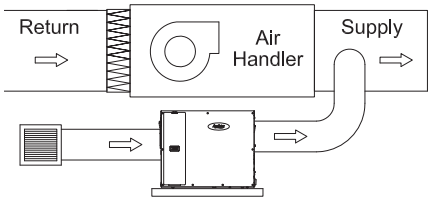
Main Return to Main Supply



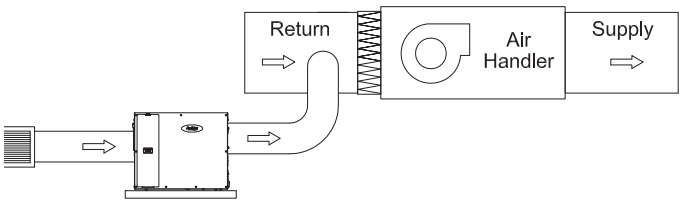
Main Return to Main Return



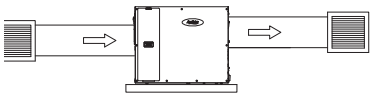
Dedicated Return to Main Supply



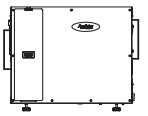
Dedicated Return to A/C Return



Dedicated Return to Return



Unducted



Model 76 Wall Mount Dehumidifier Control

- On/Off buttons
- Wall mounted living space control
- Displays RH
- Works as an external control or remote control

Application (return to supply)

- This is the most common whole house installation
- Air is pulled from the return duct, dehumidified, and returned to the supply plenum
- Minimizes re-evaporation off of cooling coil
- This application is used in basements, attics*, equipment closets, etc.

Application (return to return)

Application (return to return)

- This application can be used when a supply duct is not available
- Air is pulled from the return duct, dehumidified, and returned to the return duct
- Assures that the dehumidified air is mixed with rest of the air in the duct before it re-enters the house
- This application is used in basements, attics*, crawl spaces, etc.

Application (dedicated return to supply or return)

- This application can be used when a return duct is not available
- Air is pulled through a dedicated return grille, dehumidified, and returned to the supply plenum or return

Application (dedicated supply and return)

- For homes without duct work
- Dries a specific area that has a moisture issue
- Dehumidifier can be located in a closet, mechanical room or unfinished area and ducted into a finished room

Application (freestanding)

- Model 1770A unducted
- Air is pulled into the dehumidifier directly from the space, dehumidified, and return back to the space
- This application is used in basements, crawlspaces, etc.

SPECIFICATIONS

ELECTRICAL	EXTERNAL	REMOTE
Input voltage and current	Voltage: 24VAC +/20% Current: 25mA (nominal), 50mA (max.) at 24VAC	Voltage: 9VDC (supplied by dehumidifier control board)
Output	Dry contact, normally open	Communication (RS485)

CONTROL	EXTERNAL	REMOTE
Control range	40% - 80% RH	1 (less dry) - 7 (more dry) 65ºF - 40ºF dew point
Accuracy	+/-5% RH	See dehumidifier specifications
Differential	3% RH	
Low limit	40ºF dew point	50ºF dry bulb, 40ºF dew point minimum
High limit	99ºF dry bulb	105ºF dry bulb

* For attic installations, the Model 76 wall mount dehumidifier control is recommended

MADE IN U.S.A.

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