

Ultra-Aire UA-100V Whole House Ventilating Dehumidifier

The Ultra-Aire UA-100V dehumidifier performs multiple indoor air quality functions in an easy-to-install, vertically-configured enclosure:

- High-Capacity Dehumidification
- Fresh Air Ventilation
- Air Filtration

Dehumidification

The highly efficient Ultra-Aire UA-100V dehumidifier utilizes refrigeration to cool the incoming air stream below its dew point. This cooled and drier air is used to pre-cool the incoming air stream resulting in a significant increase in overall efficiency. After the pre-cooling stage, the processed air is reheated by passing through the condenser coil. The heat removed by the evaporator coil is returned to the air stream, resulting in an overall temperature increase of the air leaving the unit.

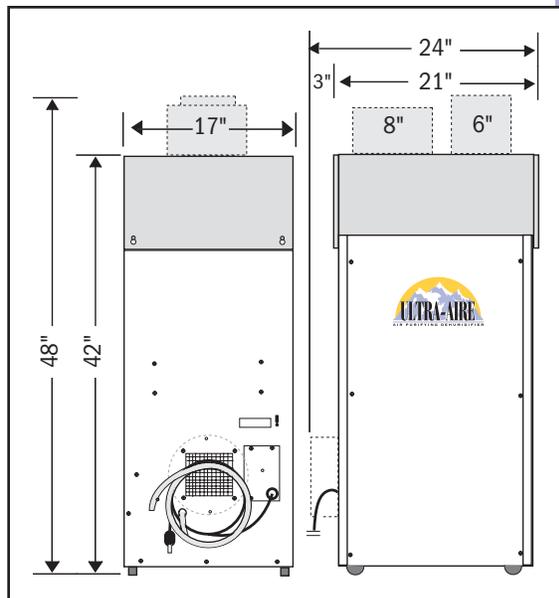
The Ultra-Aire UA-100V is controlled by 24 volt remote wired controls. A variety of controls are available suitable to various applications.

Fresh Air Ventilation

Optional fresh outdoor air may be ducted to the unit via a six inch round duct. This provides fresh air to dilute pollutants and maintain high oxygen content in the air. The amount of fresh air ventilation can be regulated by a variety of dampers and controls.

Air Filtration

The UA-100V includes air filtration to improve indoor air quality. A MERV-11 media filter is standard. An optional MERV-14 deep pleated 95% media filter is available for optimum air filtration and to reduce potentially harmful airborne particles. If the optional filter is chosen, the standard filter operates as a prefilter.



Ultra-Aire UA-100V Capacities and Performance:

Part Number:	4022200
Blower:	240 CFM @ .1 IWG
Supply Voltage:	115 Volt – 1 Phase – 60 Hz.
Amps:	6.8
Operating Temp.:	56°F Min, 100°F Max
Capacity:	100 Pints/Day (80°F, 60% RH)

UA-100V Duct Connections:

6" Round Inlet	
8" Round Inlet	
8" Round Outlet	
Filter Efficiency:	Standard MERV-11 (65% ASHRAE Dust Spot) Optional MERV-14 (95% ASHRAE Dust Spot)

Power Cord:	10', 115V With Ground
Drain Connection:	.56" ID x 8' Vinyl Hose

UA-100V Dimensions:

Width:	21" without collars 24" with collars
Height:	42" without collars 48" with collars
Depth:	17"
Weight:	119 lbs

Shipping Specs:

Width:	30"
Height:	47"
Depth:	25"
Weight:	134 lbs

Installation Recommendations and Options

Preferred installation is to draw air from a separate intake duct located in the central part of the home. Duct the outlet air into the supply duct for distribution throughout the home. A backdraft damper prevents air from the supply duct from being pushed backward through the UA-100V when central (A/C) fan is on and the Ultra-Aire fan is off.

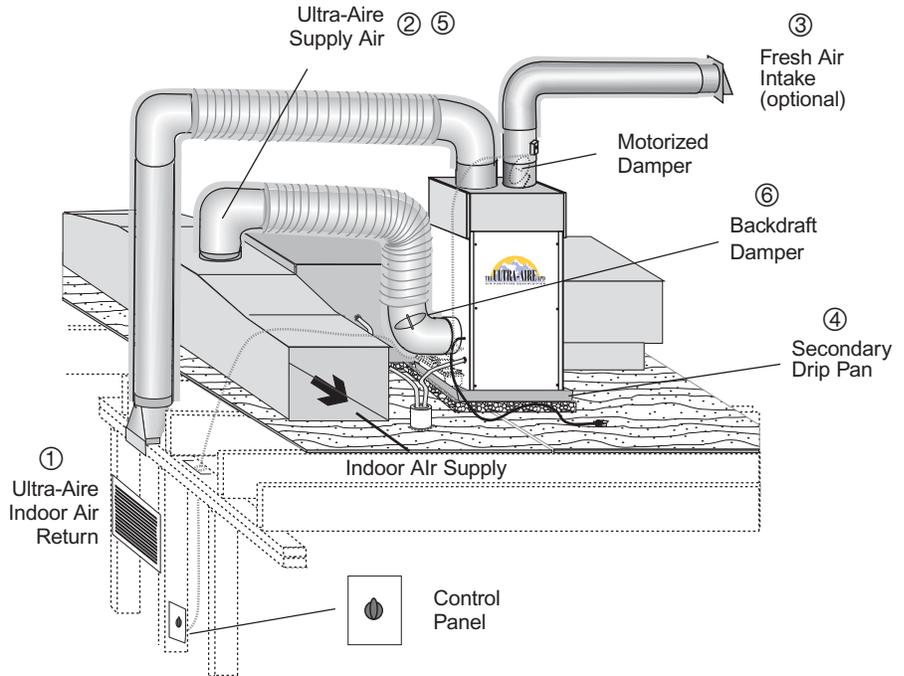
Therma-Stor does not recommend drawing air from the return ducting system and discharging into the supply for two reasons:

Central Fan On: The UA-100V is pulling against a negative pressure (intake side) and discharging against a positive pressure (outlet side), which results in lower airflow and reduced capacity.

Central Fan Off: Discharge air may counter-flow from the supply duct directly to the return duct and not be distributed throughout the home effectively.

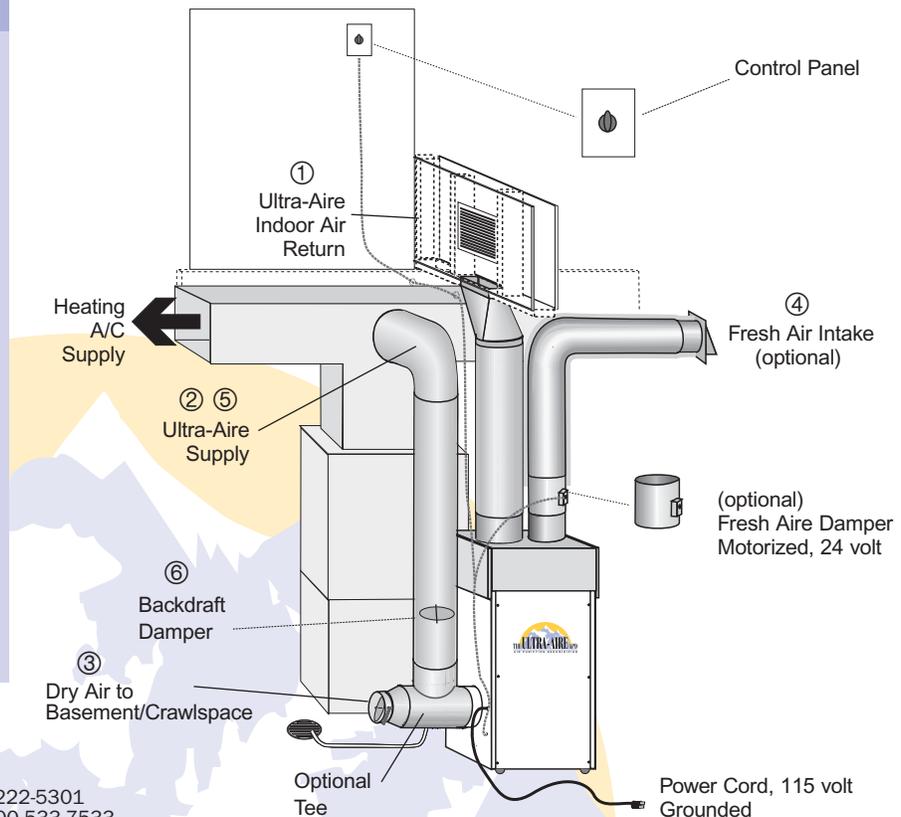
Ultra-Aire UA-100V Attic Installation:

1. Indoor air return should come from an open area of the first or second floor.
2. The Ultra-Aire supply should be ducted into the forced air system past the air conditioning coil. The duct connection should be perpendicular to the air flow.
3. The optional six inch fresh air intake should be located at least six feet away from any exhaust ports, such as, dryer, range hood, or combustion device exhaust. Intake location should be consistent with local codes.
4. If placed in a high humidity location, an optional insulation kit is available to prevent condensation occurring on the Ultra-Aire cabinet. Use of a secondary drip pan is recommended.
5. A section of flex duct or vibration absorbing duct should be located between the connections of the Ultra-Aire ductwork and the forced air system ductwork.
6. The backdraft damper prevents counter-flow of the A/C supply air through the UA-100V.



Ultra-Aire UA-100V Basement or Crawl Space Installation

1. Indoor air return should come from an open area of the first or second floor.
2. The Ultra-Aire supply should be ducted into the forced air system supply beyond the air conditioning coil. The duct connection should be perpendicular to the air flow.
3. An optional eight inch tee fitting with an adjustable blade damper on the straight run may be attached at the Ultra-Aire supply duct. This allows for increased air flow to the basement/crawlspace during the summer months.
4. The optional six inch fresh air intake should be located at least six feet away from any exhaust ports, such as, dryer, range hood, or combustion device exhaust. Intake location should be consistent with local codes.
5. A section of flex duct or vibration absorbing duct should be located between the connections of the Ultra-Aire ductwork and the forced air system ductwork.
6. The backdraft damper prevents counter-flow of the A/C supply air through the UA-100V.



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