

Ultra-Aire 90H • Whole House Ventilating Dehumidifier

Ultra-Aire 90H

Capacities and Performance:

Part Number:	4025700
Blower:	240 CFM @ 0.0" WG 220 CFM @ 0.4" WG
Supply Voltage:	110-120 Volt – 60 Hz.
Amps:	6.3
Operating Temp.:	56°F Min, 100°F Max
Capacity:	90 Pints/Day (80°F, 60% RH)
UA-90H Duct Connections:	6" Round Inlet 10" Round Inlet 10" Round Outlet
Filter Efficiency:	Standard MERV-11 (65% ASHRAE Dust Spot)
Power Cord:	7.5', 115V With Ground
Drain Connection:	3/4" Threaded MPT

UA-90H Dimensions:

Width:	15 3/4"
Height:	20 7/8"
Length:	34 1/2" without collars 40 1/2" with collars
Weight:	92 lbs

Shipping Specs:

Length:	42"
Height:	25 7/8"
Width:	20 1/2"
Weight:	99 lbs

OPTIONAL FILTER BOX

Part Number: 4025287

Filter Box Dimensions:

Length:	24"
Height:	19 15/16"
Width:	7 3/4"
Weight:	19 lbs

Duct Connections: 6" Round Inlet
10" Round Inlet
10" Round Outlet

Filter Efficiency: Optional MERV-14
(95% ASHRAE Dust Spot)

For more information call 1-800-533-7533 or visit our website at www.thermastor.com



The Ultra-Aire 90H performs multiple indoor air quality functions in a single, compact unit:

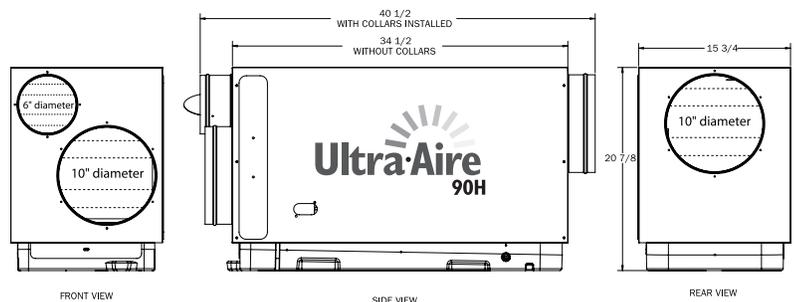
- High-Capacity Dehumidification
- Fresh Air Ventilation
- Air Filtration

Dehumidification

The highly efficient Ultra-Aire 90H dehumidifier utilizes refrigeration and internal air circulation 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 helping to cool the incoming air, 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 to the processed air.

The Ultra-Aire 90H is controlled by a variety of 24 volt remote wired controls.



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 a normal oxygen content in the air. The amount of fresh air ventilation can be regulated by a variety of dampers and controls.

Air Filtration

The Ultra-Aire 90H includes air filtration to improve indoor air quality.

A MERV-11 media filter is standard. A separate, optional filter housing is available which provides additional filtration up to MERV-14 efficiency.

Ultra-Aire 90H • Installation Recommendations and Options

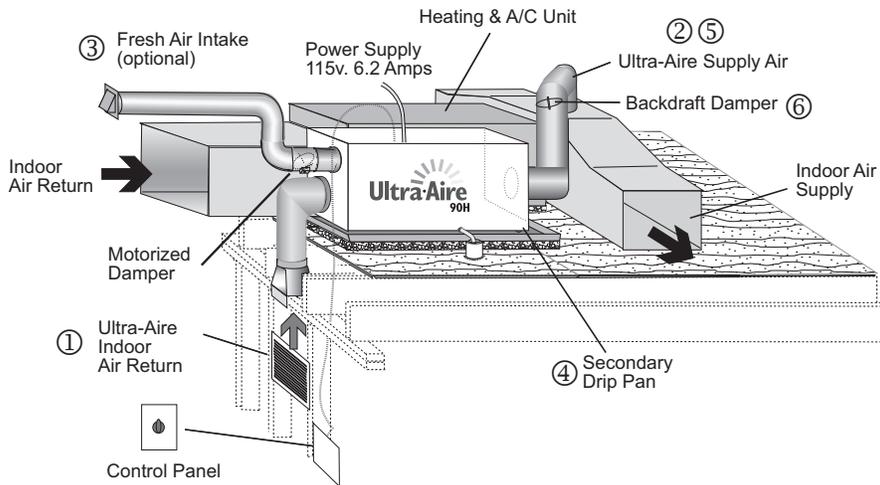
Preferred installation is to draw air from a separate intake duct located in the central part of the home. Duct the outlet air into the supply duct for distribution throughout the home. A backdraft damper prevents air from the supply duct from being pushed backward through the UA-90H when central (A/C) 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-90H is pulling against a negative pressure (intake side) and discharging against a positive pressure (outlet side), which results in lower airflow and reduced capacity.

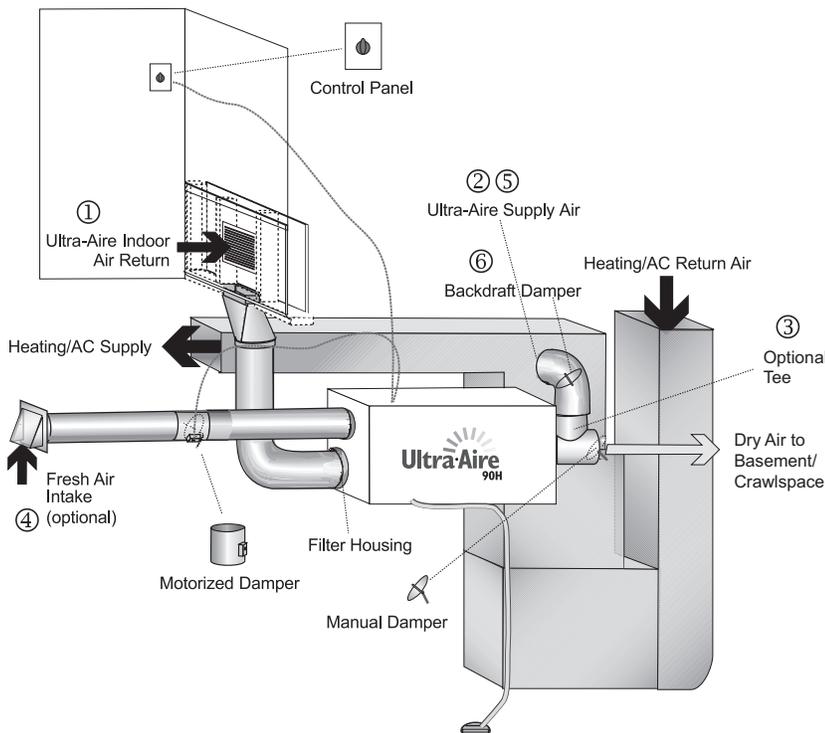
Central Fan Off: Discharge air may counter-flow from the supply duct directly to the return duct and not be distributed throughout the home effectively.

Ultra-Aire 90H 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 must be consistent with local codes.
4. If placed over a finished area, 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-90H.

Ultra-Aire 90H 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 ten inch tee fitting with an adjustable blade damper on the straight run may be attached at the Ultra-Aire supply. This allows for increased air flow to the basement/crawl space 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 must 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-90H.