

allergic reaction to mold?

dust mites?

musty odors?

feeling clammy?



Powerful, compact, energy efficient,  
whole house dehumidification.

**Ultra·Aire**<sup>TM</sup>  
**65H**



4027170

**Introducing the most compact  
whole house ventilating  
dehumidifier anywhere.**

#### **WHOLE HOUSE VENTILATING DEHUMIDIFICATION**

To avoid the problems caused by moisture, and create a comfortable environment, a dehumidifier is necessary to maintain relative humidity between 45-50% throughout the home. Only supplemental dehumidification provides indoor humidity control regardless of air conditioner operation or outside moisture conditions.

The highly efficient and compact Ultra-Aire 65H utilizes refrigeration and internal air circulation to cool the incoming air stream below its dew point. 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 warm, filtered dry air returning to your home.

The Ultra-Aire 65H is controlled by a variety of 24 volt remote wired controls, suitable to various applications.

#### **FRESH AIR VENTILATION**

Optional fresh outdoor air may be ducted to the unit via a "T" to the inlet 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 65H includes air filtration to improve indoor air quality. A MERV-11 media filter is standard.

**65H**

# Specifications and Installation

<b>Part Number:</b>	4027170
<b>Blower:</b>	190 CFM @ 0.0" WG
<b>Power:</b>	680 Watts @ 80°F and 60% RH
<b>Supply Voltage:</b>	110-120 VAC – 1phase – 60 Hz
<b>Current Draw:</b>	5.50 Amps
<b>Energy Factor:</b>	2.0 L/kWh
<b>Operating Temp.:</b>	Between 40°F and 90°F Max
<b>Sized for:</b>	Up to 1600 Sq. Ft. - Typical
<b>Minimum Performance at 80°F and 60% RH</b>	
Water Removal:	65 pints/day
Efficiency:	4.3 Pints/kWh
<b>Air Filter:</b>	MERV-11
Efficiency:	Standard 65% Efficient ASHRAE Dust Spot Test
Size:	9" x 11" x 1"
<b>Power Cord:</b>	9', 110-120 VAC, Ground
<b>Drain Connection:</b>	3/4" Threaded MPT
<b>Drain Hose:</b>	5/8" ID x 8'

Dimensions	Unit	Shipping
Width:	21"	27"
Height:	12"	17"
Depth:	12"	17"
Weight:	55 lbs	59 lbs

## OPTIONAL ACCESSORIES

4027158	MERV 11 Filter
4027422	MERV 11 4-Pack
4027427	MERV 11 12-Pack
4028085	Pump Kit
4028111	Hang Kit
4028074	Duct Kit
4023647	8" Gravity Damper
4020646	8" Butterfly Damper
4027415	8" Flex Duct
4020177	8" Flex Duct (Insulated)
4027430	Register Head 8"
4020126	Register Grill (White)

## INSTALLATION MATERIALS

Control Options	Part Number
DEH 3000 - Digital Control	4028539
DEH 3000R - Digital Control	4028407

Ducting Options	Part Number
6", 2 wire 24 volt Electric Air Damper	4023672
8" Gravity Damper	4023647
8" Butterfly Damper	4020646
8" Flex Duct	4027415
8" Flex Duct (insulated)	4020177
Duct Tape (Not Provided)	N/A
Large Cable Ties (Not Provided)	N/A
Insulated 6" Air Duct (Flex) - 25 ft.	4020128
Insulated 10" Air Duct (Flex) - 25 ft.	4022126

### Plumbing - Not Provided By Therma-Stor

3/4" PVC Pipe
3/4" PVC Threaded Nipple
3/4" PVC Elbow
PVC Primer and Glue

### Electrical - Not Provided By Therma-Stor

12-2 Non-Metallic Sheeted NM-B (Romex) Wire
20 AMP 120 Volt Single Pole Breaker
20 AMP 120 Volt Rated (3) Prong Outlet
Thermostat Wire (5Conductor, 18 AWG)
Wire Staples
Outlet Cover
Outlet Box

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 Ultra-Aire 65H when central (A/C) fan is on and the Ultra-Aire fan is off.

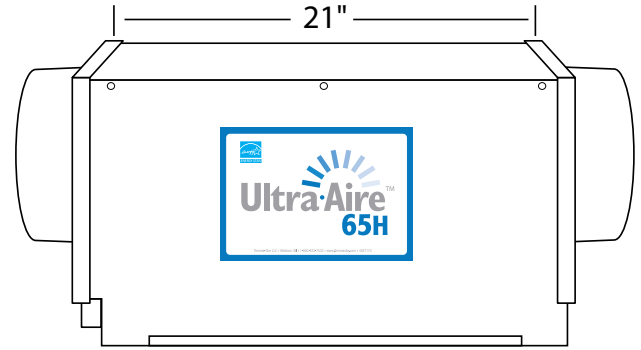
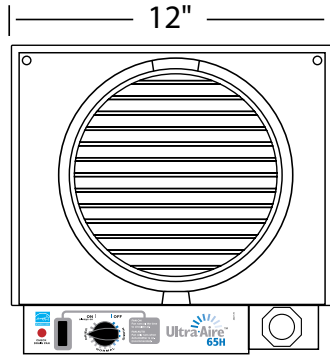
**Therma-Stor does not recommend drawing air from the return ducting system and discharging into the supply for two reasons:**

**Central Fan On:** The Ultra-Aire 65H is pulling against a negative pressure (intake side) and discharging against a positive pressure (outlet side), which results in lower airflow and reduced capacity.

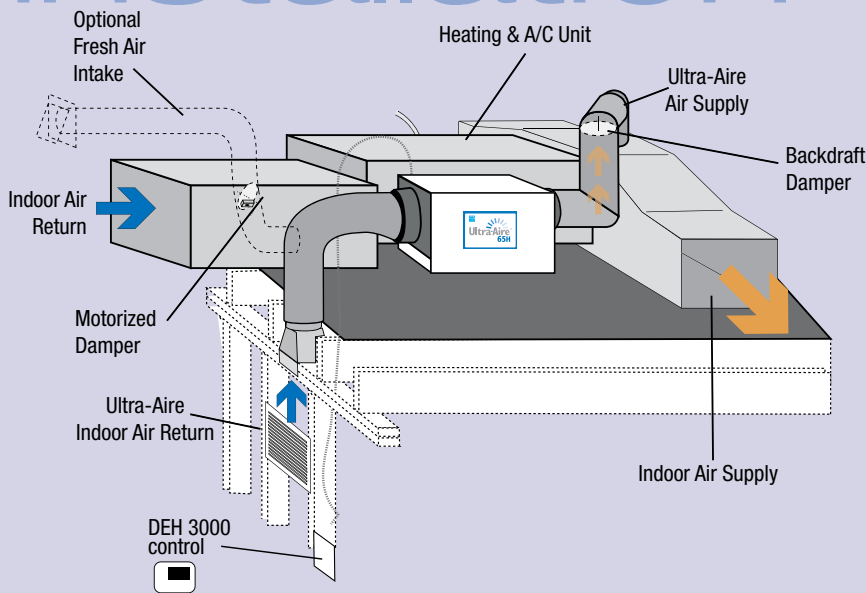
**Central Fan Off:** Discharge air may counter-flow from the supply duct directly to the return duct and not be distributed throughout the home effectively.

# Ultra-Aire 65H

Ultra-Aire™  
65H

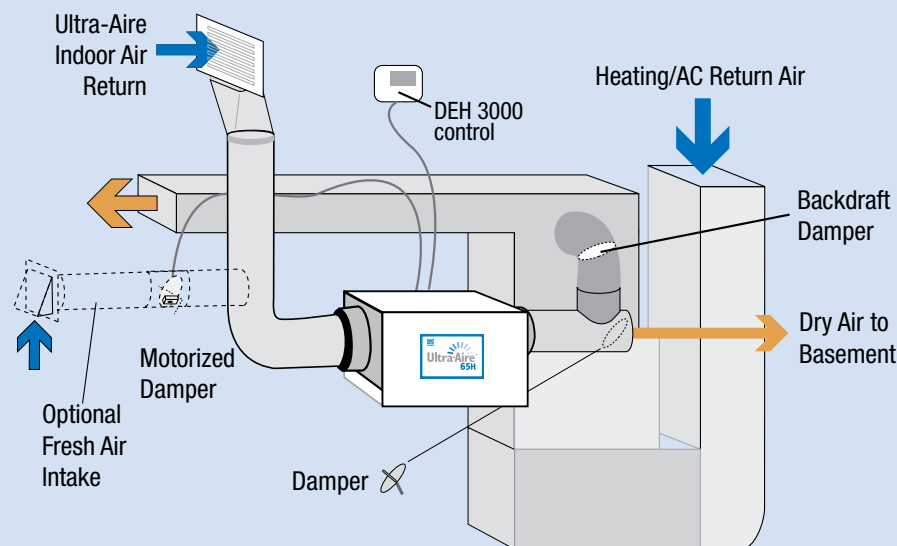


## installation



### ULTRA-AIRE 65H 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 Ultra-Aire 65H.



### ULTRA-AIRE 65H BASEMENT OR CRAWLSPACE 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/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 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 Ultra-Aire 65H.

# Additional Ultra-Aire Accessories



4026208

## Do you know the relative humidity levels in your home?

The Humidity Alert™ was designed to discriminate between occasional periods of high humidity and the prolonged periods that create a risk of unhealthy biological activity. It's a simple, inexpensive device that monitors temperature and relative humidity conditions and records data that is known to contribute to **wood rot, mold growth, musty odors and increased pest activity.**

### Easy to use:

1. Place the meter in the desired space.
2. Collect the necessary humidity data.



4028539

## Ultra-Aire Digital Controller

You will enjoy the comfort that comes with precise regulation of your indoor environment with our new **DEH 3000 Digital Control**. This control will allow you the ability to monitor and control relative humidity levels in your home. The DEH 3000 is designed to accommodate your personal comfort level.

This unit replaces the DEH 2000 Digital Control. To be used with Ultra-Aire Whole House Ventilating Dehumidifiers.