

Ultra-Aire™ SD12 Split Dehumidifier

The revolutionary new Ultra-Aire SD12 is the first split whole house ventilating dehumidifier that does not add sensible heat load to the living space. The unit is ideal for homes in hot, humid climates. The two-piece design allows the sensible heat generated from dehumidifying to be released from the outdoor condensing unit. The Ultra-Aire SD12 also provides sensible cooling to the living space (approximately 1/3 ton) — allowing for first stage cooling and 180 pints per day of water removal.

The Ultra-Aire SD12 is designed for areas up to 4,000 square feet. The unit features MERV-13 high efficiency filtration, remote dehumidistat and thermostat control, and is certified.



Ultra-Aire SD12 Specifications

DEHUMIDIFIER SPECIFICATIONS

Part Number:	4033175	
Blower:	406 CFM @ 0.0" WG	
	374 CFM @ 0.2" WG	
	348 CFM @ 0.4" WG	

Power:	160 Watts @ 80°F and 60% RH		
Supply Voltage:	115 VAC – 1 Phase – 60 Hz.		
Current Draw:	1.4 Amps		
Energy Factor:	3.1 L/kWh		

Operating Range: 49°F Min, 95°F Max (Inlet Air Temperature)

Sized for: 4,000 Sq. Ft. Typical

Minimum Performance at 80°F and 60% RH

Water Removal: 184 Pints/Day
Sensible Cooling: 4,300 BTUs/Hour
Efficiency: 6.6 Pints/kWh

Duct Connections:

6" Round Inlet; 10" Round Inlet; 10" Oval Outlet

Air Filter: MERV-13, Standard Pleat Efficiency: 90% ASHRAE Dust Spot

Size: 16" x 20" x 2"

Optional Air Filters:

MERV-11, Standard Pleat

Efficiency: 65% ASHRAE Dust Spot

Size: 16" x 20" x 2"

MERV-14, Embossed Pleat (will need filter housing)

Efficiency: 95% ASHRAE Dust Spot

Size: 20" x 24" x 4"

Power Cord: 9', 115 VAC, Ground

Drain Connection: 3/4" Threaded Female NPT

Refrigerant Type: R410A (Refer to manufacturers label for more

information)

Refrigerant Amount: 42 oz.

Dimensions:	Unit With Collars	Unit Without Collars	Shipping
Width:	20 1/4"	20 1/4"	35"
Height:	21 3/4"	21 3/4"	44"
Length:	41 1/2"	37 3/4"	44"
Weight:	110 lbs.	109 lbs.	225 lbs.

DEHUMIDIFIER AND CONDENSING UNIT SPECIFICATIONS

Part Number: 4033170
Shipped Together on Pallet

Pallet Dimensions: 42"W x 32"H x 42"L - 220 lbs.

CONDENSING UNIT SPECIFICATIONS

Part Number: 4033192
Power: 1080 Watts @ 80°F and 60% RH
Supply Voltage: 115 VAC – 1 Phase – 60 Hz.

Current Draw: 9.7 Amps

Minimum Circuit

Ampacity: 20 AMPS

Maximum Fuse/

Breaker Size: 20 AMPS

Refrigerant: R410a

Operating Range: 40°F Min, 115°F Max

Dimensions: 10"W x 25.5"H x 33"L - 75 lbs.

Power Cord: Hard-Wired



The Best in the Industry!

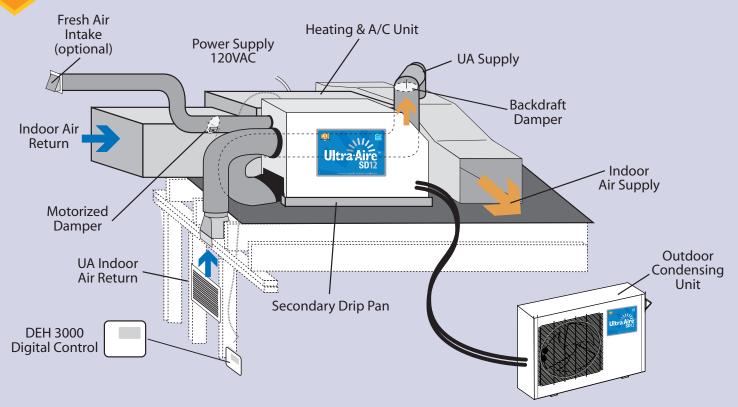








Ultra-Aire™ SD12 Installation



Ultra-Aire SD12 Attic Installation

- 1. The indoor air return should come from an open area on the first floor or main level of the home / building.
- 2. The Ultra-Aire supply can be ducted into the forced air system downstream of the air conditioning coil. The duct connection should be perpendicular to the air flow. You may also run an independent supply directly from the dehumidifier into a large open room. Depending on the application, multiple returns and or supplies may be needed.
- 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. 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. (When ducting into the forced air systems)
- 5. A back draft damper should be installed when ducting into the forced air system. This prevents counter-flow of the A/C supply air through the UA SD12. A back draft damper is not needed when ducted independently.
- 6. If placed over a finished area, a secondary drip pan is recommended
- 7. Place condensing unit outside of the structure on a level pad (or bracket). If placed on a roof, vibration dampening material may be used.
- 8. Install a dedicated 120VAC branch circuit for the condensing unit.
- Supply a line set suitable for use with R410A refrigerant to connect the indoor unit to the outdoor unit. The maximum allowable length of the line set is 50 feet.
 Braze the lines to the dehumidifier and the condensing unit.

Optiona	al Accessories
4028539	DEH 3000 Control
4028407	DEH 3000R Control (with remote)
4037723	MERV-13 Filter (16" x 20" x 2")
4037733	MERV-13 Filters 4-Pack
4037734	MERV-13 Filters 12-Pack
4021475	MERV-11 Filter (16" x 20" x 2")
4027420	MERV-11 Filters 4-Pack
4027424	MERV-11 Filters 12-Pack
4025287	MERV-14 Filter Housing
4024370	MERV-14 Filter (20" x 24" x 4")
4029087	MERV-14 Filters 3-Pack
4028614	Pump Kit
4036685	Hang Kit
4023672	6" Motorized Damper
4026859	6" Flex Duct 25'
4020128	6" Flex Insulated Duct 25'
4020656	6" Inlet Hood
4024375	10" Gravity Damper
4026969	10" Flex Duct 25'
4022126	10" Flex Insulated Duct 25'
4028399	10" Oval to Round Adapter

Please Note: Therma-Stor does not recommend drawing air from the return ducting system and discharging into the supply, because it could reduce the capacity and may cause counterflow through the air conditioning unit. Preferred installation is to draw air from a separate return 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 SD12 when central (A/C) fan is on and the Ultra-Aire fan is off.