

EXTREME SERIES **OWNER'S MANUAL**

**24V CONVERSION KIT MANUAL
LOCATED AFTER OWNER'S MANUAL**

Extreme 3500tiR

Extreme 5000tiR

Extreme 8000tiR

Extreme 3500tiR FD

Extreme 5000tiR FD

Extreme 8000tiR FD

***Whisper* KOOL™**
The Coolest Thing In Wine Storage

Conforms to ANSI/UL Std 427

Certified to CAN/CSA Std C22.2 No. 120

We manufacture, test and certify 100% of our wine cooling units in the USA. By sourcing the best components and closely controlling our manufacturing processes, we can assure the highest-quality, lowest defect manufacturing rates in the industry.

Copyright © 2017. WhisperKOOL. All rights reserved.

WhisperKOOL copyrights this manual, the product design, and the design concepts, with all rights reserved. Your rights with regard to the hardware and manual are subject to the restrictions and limitations imposed by the copyright laws of the USA. Under copyright laws, this manual may not be copied, reproduced, translated, transmitted, or reduced to any printed or electronic medium or to any machine-readable form, for any purpose, in whole or in part, without the written consent of WhisperKOOL.

Every effort has been made to ensure that the information in this manual is accurate. WhisperKOOL is not responsible for printing or clerical errors.

WhisperKOOL reserves the right to make corrections or improvements to the information provided and to the related hardware at any time, without notice.

Vinothèque and WhisperKOOL are registered trademarks, and ECE is a trademark of WhisperKOOL. All rights reserved.

Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. WhisperKOOL assumes no liability with regard to the performance or use of these products.

TABLE OF CONTENTS

Introduction	2
Before You Start	3
Receiving & Inspecting the Unit	4
Quick Reference Guide	5
Fan Speed & Unit Specifications.....	7
Preparing the Wine Cellar	8
Preparing the Unit for Installation	11
Through-the-Wall Installation	
Preparing the Installation Location.....	12
Optional Exterior Grille	14
Installing the Unit	15
Ducted Installation	
Ducting Overview.....	16
Ducting Configurations.....	17
Installing the Duct Plenums.....	19
Condensation Drain Line	20
Liquid Measuring Thermostat System (Bottle Probe)	21
Multi-Speed Fan Control	22
Remote Display: Installation and Configuration	23
Extreme 3500tiR/FD, 5000tiR/FD, & 8000tiR/FD Wiring Diagram	29
System Operation	31
Controller Functions	33
Troubleshooting Guide	38
Maintenance Schedule	40
Technical Assistance & Accessories	42
Installation Terms & Conditions	43

INTRODUCTION

Customer Service

Thank you for purchasing a WhisperKOOL Extreme Series cooling unit. We strive to provide the highest-quality products and the best possible customer service. If you have any questions about your WhisperKOOL unit, please call us at 1-800-343-9463 or visit www.whisperkool.com.

Using the Manual

This manual is intended to assist in the proper installation and maintenance of the WhisperKOOL cooling unit. In order to ensure the longevity of your cooling unit, the equipment should be installed correctly and have a proper care and maintenance schedule. Please read and review this manual carefully and keep it for future reference.

What is the WhisperKOOL Cooling Unit?

The WhisperKOOL cooling unit is a specialized refrigeration unit designed for one purpose only: to maintain the optimal temperature and humidity levels conducive to the proper storage and aging of fine wines. It is a self-contained cooling unit designed to be used as a forced-air, through-the-wall unit.

How Does the WhisperKOOL Extreme Series Work?

The WhisperKOOL unit is especially designed to maintain optimal conditions for wine storage and aging. The unit is fully self-contained and can be installed through most walls. The unit is also capable of a more flexible ducted application, which allows the unit to be placed in an indoor remote site, resulting in a quiet airflow. The standard through-the-wall and ducted units are temperature-controlled via a bottle probe. The ducted unit comes standard with a remote controller that can be located up to 50 feet from the cooling unit.

NOTE: The remote unit comes standard with a 50-foot bottle probe and a 50-foot cable for the remote controller. Additional lengths are available from WhisperKOOL.

Temperature Setting

The WhisperKOOL cooling unit can be set at any temperature within the acceptable wine-aging range of 50–70°F. It is designed to create a differential of up to 55°F between the cellar and the ambient temperature (as long as the space to which the unit is exhausting does not exceed 110°F).

BEFORE YOU START

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or WhisperKOOL Customer Service at 1-800-343-9463.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The WhisperKOOL unit **requires a dedicated 115V, 20-amp circuit.** Use a surge protector with the WhisperKOOL unit. **Do not use a GFI** (ground fault interrupter) line.
4. The unit is designed to gently cool down the temperature of the cellar over time by cycling cooler and cooler air throughout. Test the unit prior to installation.
5. You are **REQUIRED** to **install a drain line** to remove condensation from the unit.
6. The WhisperKOOL unit is intended for use in **properly designed and constructed wine cellars.** Hire a professional wine storage consultant with a valid contractor's license to build your wine cellar.

Never try to open the WhisperKOOL unit, repair it yourself, or use a service company without WhisperKOOL's authorization. This will void your warranty.

If you encounter a problem with your WhisperKOOL unit, please refer to the Troubleshooting Guide. If you have any further questions, concerns, or need assistance, please contact WhisperKOOL Customer Service at 1-800-343-9463. Please be sure all testing has been completed prior to contacting Customer Service. Please have your results ready for your representative.

RECEIVING AND INSPECTING THE UNIT

Upon receiving your WhisperKOOL unit:

- Lift only at the designated hand-hold locations on the shipping container, or fully support the unit from underneath. A shipment may include one or more boxes containing accessories.
- Inspect the packaging for any obvious signs of damage or mishandling before opening the container.
- Note any discrepancies or visual damage on the bill of lading before signing.
- Place the box containing the WhisperKOOL unit on a tabletop to prepare it for testing prior to installation.
- Sit unit upright for 24 hours.

NOTE: WhisperKOOL units are manufactured in the USA and tested prior to shipment.

- Review the packing slip to verify the package's contents.
- Check the model number to ensure it is correct.
- Check that all factory options ordered are listed.
- Check the box for the following:

3500tiR / 5000tiR / 8000tiR

Extreme cooling unit

- (1) Extreme Series owner's manual
- (18) Anti-microbial pan tabs
- (1) Drain line brush
- (1) Bottle probe (50 feet)
- (1) Display cable (50 feet)
- (1) Wall mount display bracket
- (1) Flush mount bracket
- (1) Display panel
- (4) Drywall anchors
- (4) Mounting screws
- (1) Rubber grommet (1 $\frac{1}{16}$ " ID)
- (2) $\frac{1}{2}$ " nylon plugs
- (1) Flush mount template

Single-piece mounting bracket*

Accessory kit:

- (1) 8-foot power cord
- (1) Piece of mounting bracket insulation foam (6 feet)*
- (11) 1 $\frac{3}{4}$ " standard screws
- (7) $\frac{1}{2}$ " Phillips pan-head screws
- (1) $\frac{1}{2}$ " barbed "tee" fitting
- (1) Drain line tube ($\frac{1}{2}$ " ID clear plastic tubing, 10 feet)

*Not included with fully ducted Extreme tiR units.

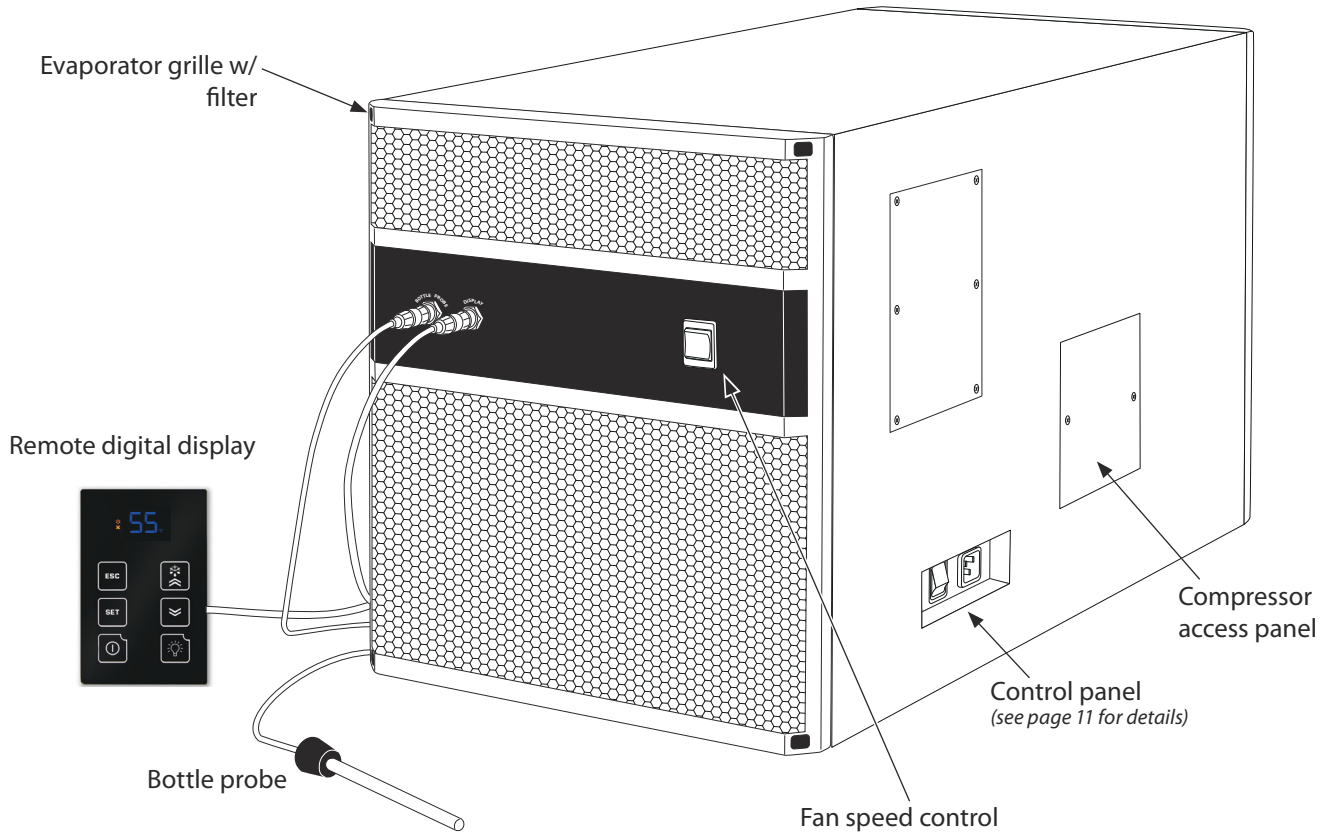
If any items listed on the packing slip do not match your order information, contact WhisperKOOL Customer Service immediately.

Please leave the WhisperKOOL unit in its original box until you are ready for installation. This will allow you to move the product safely without damaging it. When you are ready to remove the product from the box, refer to the installation instructions.

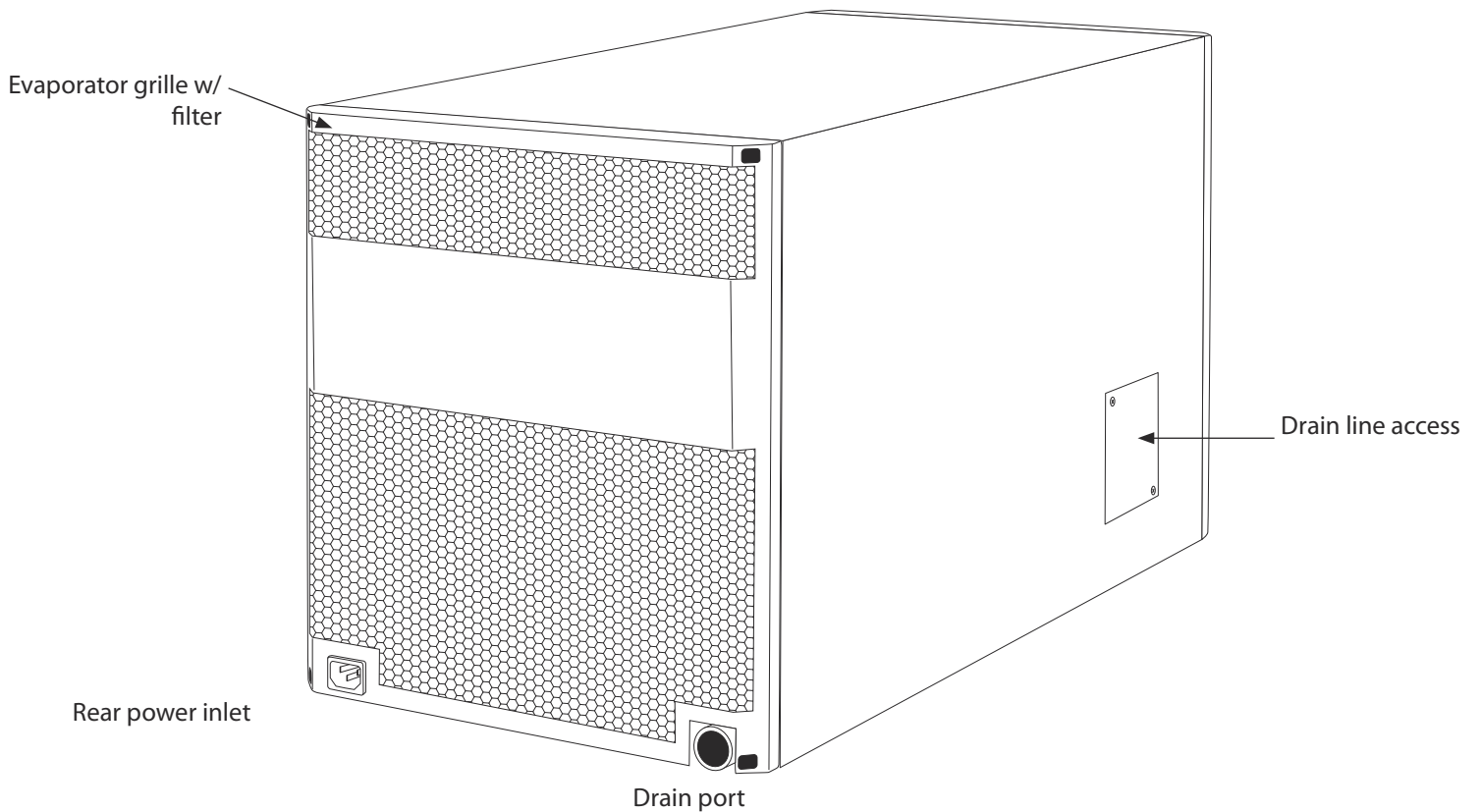
TIP: Save your box and all packaging materials. They provide the only safe means of transporting/shipping the unit.

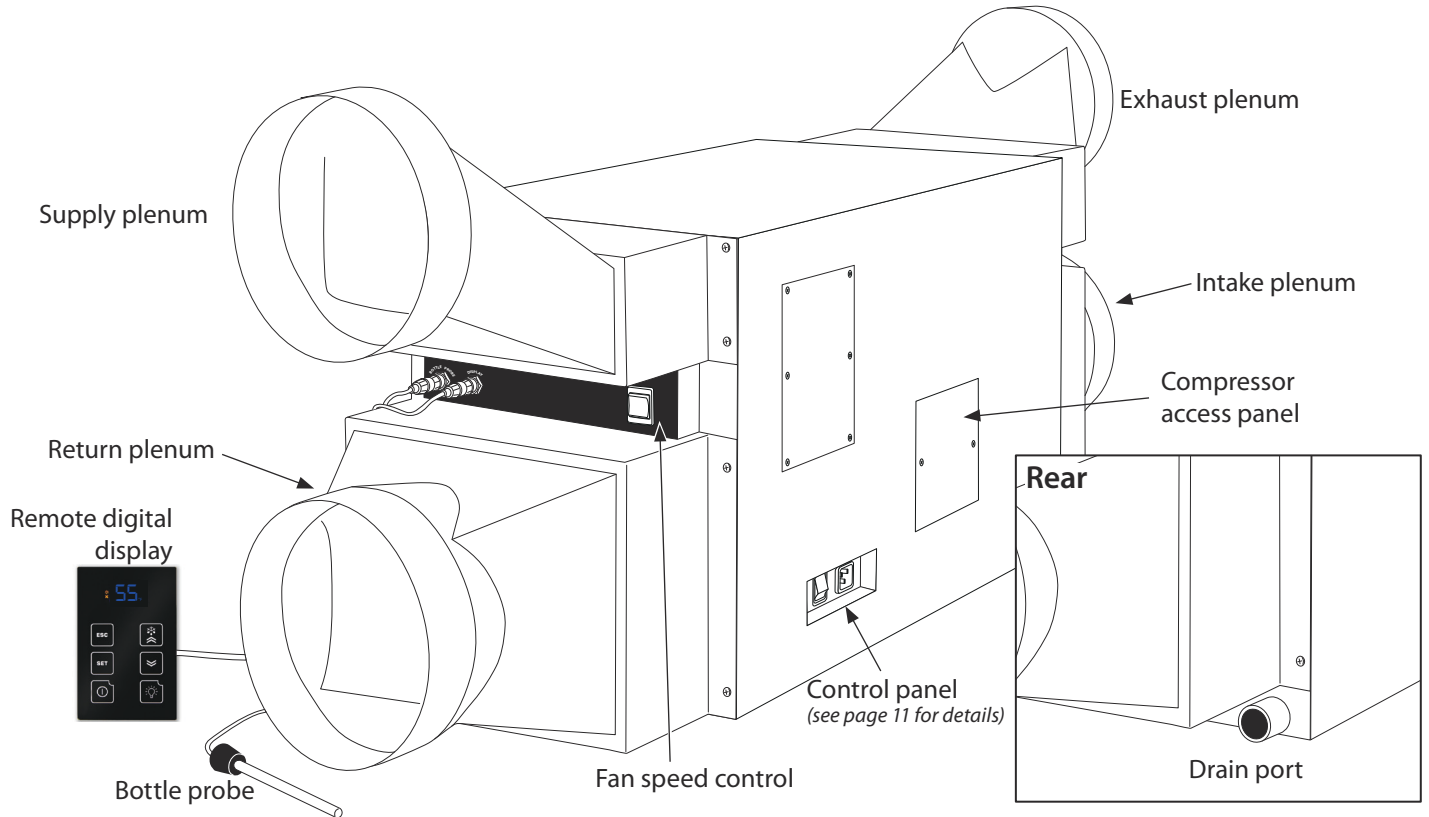
QUICK REFERENCE GUIDE

Front / Side View



Rear / Side View





NOTE: Grilles and filters are *not* included with the fully ducted Extreme tiR.

FAN SPEED

Fan speed selection is determined by the amount of heat that needs to be removed from the cellar and the type of installation (through-the-wall or fully ducted). Fan speed selection is based on the cellar size, insulation factor, door seal, and desired wine temperature. When initially installing the unit, set the fan speed to the **High** setting to quickly chill the wine cellar. Once the wine cellar reaches the desired temperature, a lower fan speed may be selected. In the event that the outdoor temperature rises above 90°F, (when exhausting to the outdoors) a higher fan speed may be required.



Fully ducted units should be set to the HIGHEST fan speed selection for maximum performance.



UNIT SPECIFICATIONS

	3500tiR/tiR FD	5000tiR/tiR FD	8000tiR/tiR FD
Cellar Size*	Approx. 800 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier	Approx. 1250 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier	Approx. 2000 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier
BTU/h w/85°F condenser air intake temp.	2688	3794	5760
Dimensions	39.5"L x 14.25"W x 22.5"H (with duct plenums)		39.5"L x 14.25"W x 26"H (with duct plenums)
Refrigerant	R-134a		
HP	1.05	1.5	2.26
Voltage Rating	115V (20-amp dedicated circuit required); 230V (subject to availability)		
Weight (lbs)	115		150
Amps	9 (running amps)		10 (running amps)
Duct Size	8" supply, 8" return (evaporator and condenser)		8" supply, 10" return (evaporator and condenser)
Drain Line	¾" ID clear plastic tubing		
Installation	Can be installed up to 25 duct feet away from cellar		
Thermostat	Advanced digital display (50-ft. cable), liquid-temperature-measuring bottle probe (50-ft. cable)		
Temp. Delta	Can maintain a 55°F cellar temperature with up to 110°F condenser air intake temperature		
Warranty	Two-year limited warranty (parts and labor) / Five-year limited warranty (compressor)		

* Sizing the Unit to the Room

The specification chart will provide information on the unit's cooling capacity. There are circumstances in which a cellar design may require a larger unit due to preexisting design restrictions. Certain building materials such as glass, stone, or concrete may seem adequate but do not offer the insulation capacity required to maintain the optimum temperature for storing wine. We recommend purchasing a unit with a larger capacity to compensate for these design limitations. Undersized cooling units can lead to premature failure and/or prevent the system from reaching the desired set temperature. As a result, they are not covered under warranty.

PREPARING THE WINE CELLAR

The performance and life of your system is contingent upon the steps you take in preparing the wine cellar. Improperly preparing your enclosure or incorrectly installing your unit may cause unit failure, leaking of condensation, and other negative side effects.

It is highly recommended that you obtain the assistance of a wine storage professional.

Wine storage professionals work with licensed contractors, refrigeration technicians, and racking companies to build well-insulated, beautiful, and protective wine cellars. WhisperKOOL has put together some useful tips to assist in the installation process. Our recommendations are meant to act as a guide in the process of building a proper enclosure. Your intended location may have specific needs which we do not address.

Wall & Ceiling Framing

Build wine cellar walls using standard 2x4 or 2x6 boards and ceiling joists without violating local or state codes in your area. As a general rule, the thicker the walls and the higher the insulation value, the more consistent your cellar temperature will be.

Insulation

Insulation is **REQUIRED** in order to properly use WhisperKOOL products. It is vital that all walls and ceilings be insulated to keep the cellar temperature as consistent as possible during the summer and winter months. Standard fiberglass or rigid foam insulation is normally used in cellar construction; in some cases, “blown-in” insulation is used. The R-value, or quality of insulation, is determined by the rate at which heat passes through the insulation. The higher the R-value, the more resistant the insulation is to conducting heat, and the more consistent your wine cellar’s temperature will be. Using higher R-values in insulation will lower your operating costs and WhisperKOOL unit run time. (R-13 is the recommended minimum; R-19 is preferred for interior cellar walls, and R-30 for ceilings and exterior walls.)

Vapor Barrier

Water vapor creates its own pressure, separate from the ambient air pressure, and will intrude into colder/drier areas. A vapor barrier is **REQUIRED** in order to prevent the intrusion of water vapor and maintain the correct cellar temperature and humidity. It is recommended that 6-millimeter plastic sheeting be applied to the warm side of the cellar walls. The vapor barrier must also be applied to the outside walls and ceiling. If it is impossible to reach the outside, then the plastic must be applied from within the cellar. The most common method is to wrap the entire interior, leaving the plastic loose in the stud cavity so the insulation can be placed between each stud. All of the walls and ceiling must be wrapped in plastic for a complete vapor barrier.

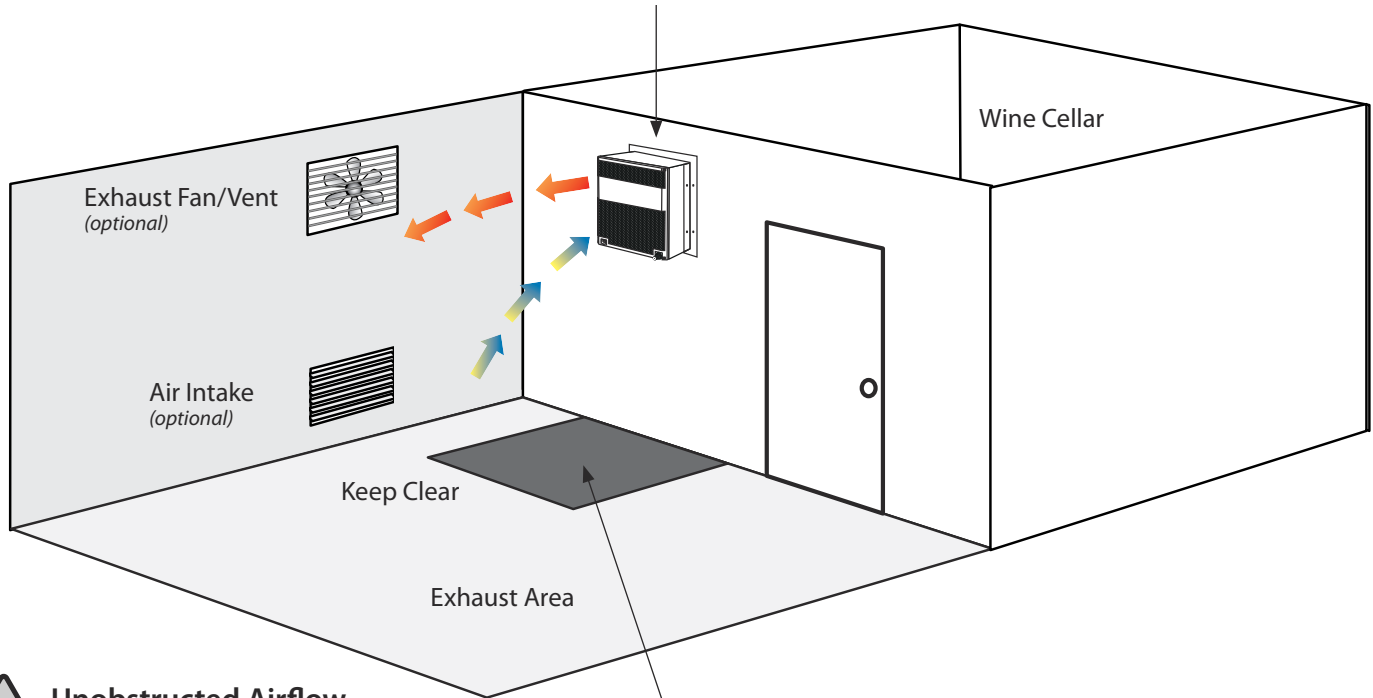
In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm moist air. The moist air can cause mold to form, and standing water in drain pans promote microbial and fungal growth that cause unpleasant odors and indoor air quality problems. If mold is found, remove it immediately and sanitize that portion of the unit.

Note: High humidity significantly increases the heat load on the cooling system.

Any break in the vapor barriers (cut, nail hole, over-lapping, etc.) will cause a moisture leak and must be sealed. The electric conduit is a “duct” for vapor to travel in. The conduit should be caulked and sealed on the warm air end.

Mounting the Unit

The unit must be mounted within 18 inches of the ceiling in order to achieve sufficient cooling. As the room cools down, the warm air will rise to the ceiling. Mounting the unit high in the room will create a consistently cool environment by capturing the warm air and replacing it with cool air. Mounting the unit low in the room will result in a temperature variation in the room due to (a) the unit's inability to draw warm air down from the ceiling and (b) cold air settling to the floor.



Unobstructed Airflow

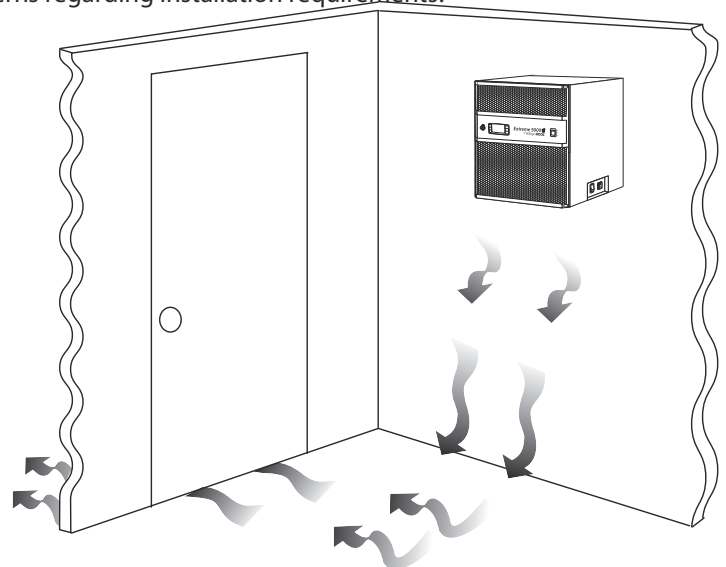
Unobstructed airflow to and from the unit is critical for the unit's overall performance and lifespan. Make sure there is a minimum of three (3) feet of horizontal clearance in every direction around the unit (five feet is ideal). The air blown by the fans needs to circulate and either dissipate or absorb heat from the space. The system will operate more efficiently with a greater amount of air to exchange.

NOTE: Do not attempt to mount the unit in a wall recess or attempt to camouflage or cover the unit with any sort of aftermarket grille, accessory, etc. This can restrict airflow, prevent the unit from working properly, and void the warranty. Please feel free to call WhisperKOOL Customer Service with any questions or concerns regarding installation requirements.

Door and Door Seal

An exterior-grade (1 $\frac{3}{4}$ " door must be installed as a cellar door. It is very important that weather stripping be attached to all four sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have a very good seal to keep the cool cellar air from escaping out of the cellar. If the cellar door does not seal properly, the unit will run continuously.

In cases where glass doors are used and the room size is close to the recommended unit size, the next larger size WhisperKOOL should be used. This will compensate for the insulation loss due to the lower insulation rating of glass.

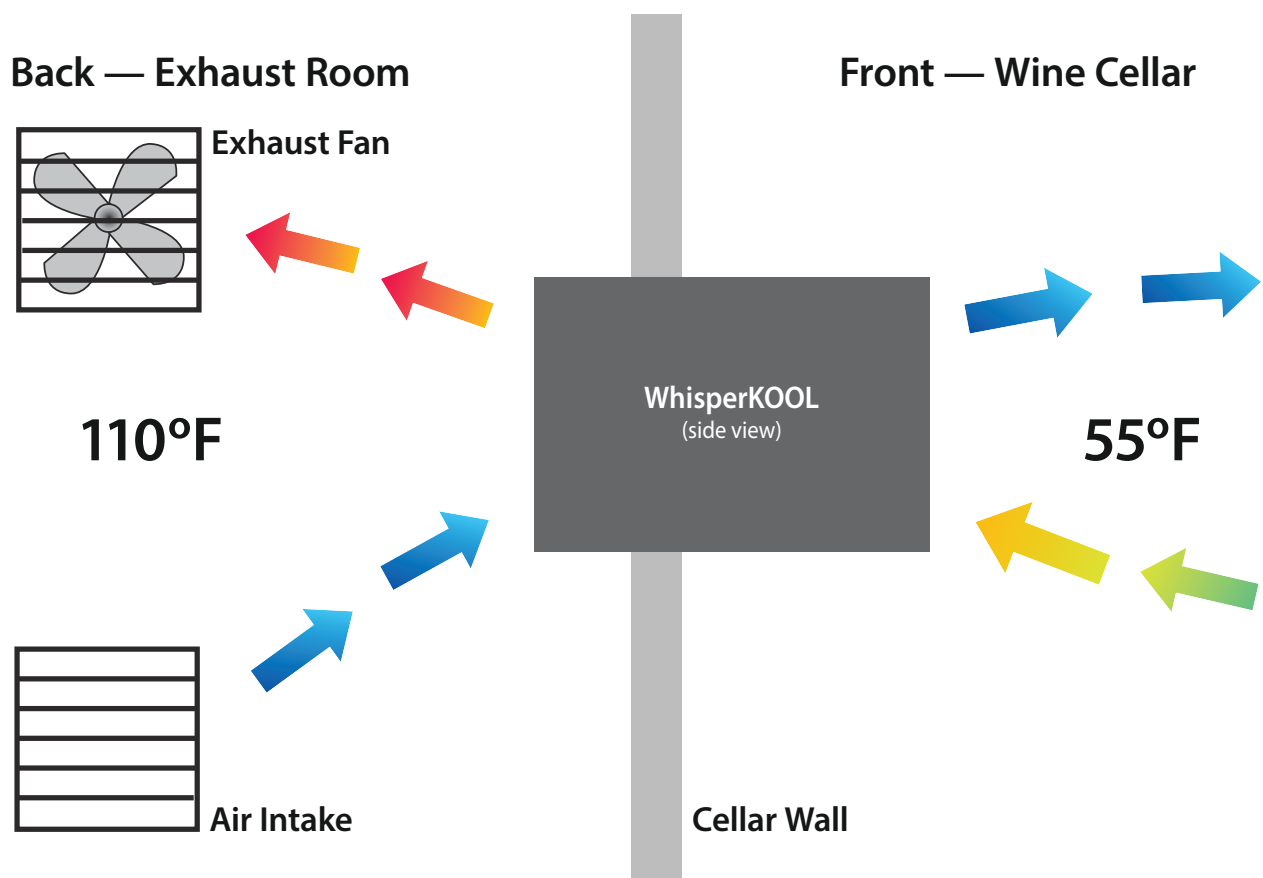


Ventilation

The necessity of dissipating heat away from the unit is critical to the unit's performance and cannot be overstated. As the unit operates and cools, a greater amount of heat is generated on the exhaust side of the unit. Adequate ventilation is required in order to dissipate heat away from the unit. If ventilation is inadequate, the exhaust will heat the area or room and adversely affect the unit's ability to cool. In some cases, it may be advisable to install a vent fan to dissipate heat from within the exhaust area. However, you must have a fresh air inlet as well. If your unit requires ducting, please contact WhisperKOOL to obtain a specially designed ducting plenum for the unit.

Using any other ducting system will void the warranty.

Note: If you are unsure whether you have adequate ventilation in your install location, please contact us to assess your specific installation at support@whisperkool.com or 1-800-343-9463.



Ambient Temperature Factor

The cooling unit has the ability to cool a wine cellar efficiently to 55°F as long as the ambient temperature of the area that it is exhausting to does not exceed 110°F. Therefore, you want to exhaust the unit in a room which will not exceed 110°F. Without proper heat dissipation the unit will not have the capacity to keep the wine at a desirable 55°F.



WARNING! Allowing your unit to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your unit and void your warranty.



PREPARING THE UNIT FOR INSTALLATION

The WhisperKOOL unit requires a dedicated 115V, 20-amp circuit. The unit draws a large amount of amps during its initial startup. By designating a dedicated circuit breaker, you will guarantee the unit has enough power to run effectively. Contact an electrician for assistance with the installation of this dedicated electrical circuit.

The unit must sit upright for 24 hours prior to installation. To prepare the unit for installation:

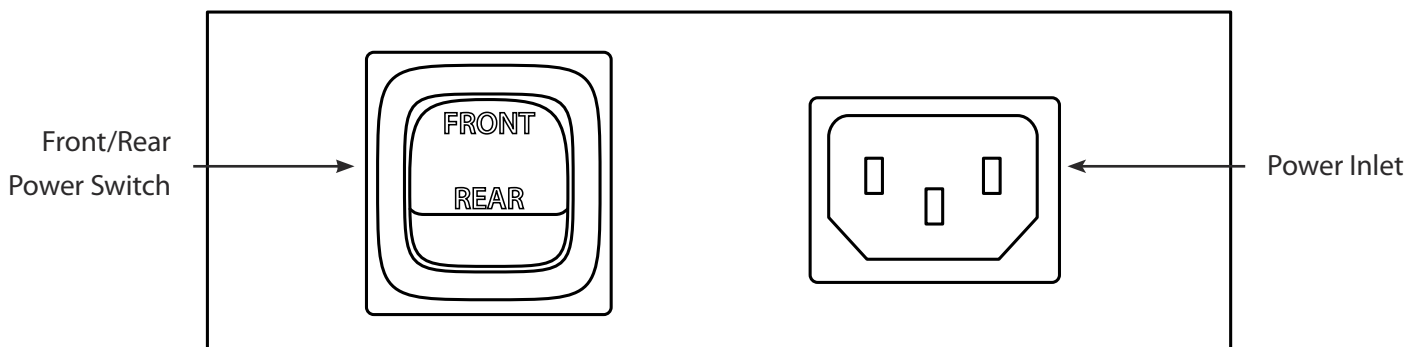
- Remove unit from box.
- Match the electrical outlet to the plug provided on the WhisperKOOL unit.
- Provide a dedicated circuit and wiring for the unit (see above).
- Provide a weatherproof plug for units connected outside.

Power surges and spikes can damage sensitive electrical equipment. WhisperKOOL recommends plugging the unit into a surge protector or power conditioner in order to protect your system. As outlined in our terms and conditions, power surges and spikes are not covered under warranty.

Do not use a GFI (ground fault interrupter) with this product.

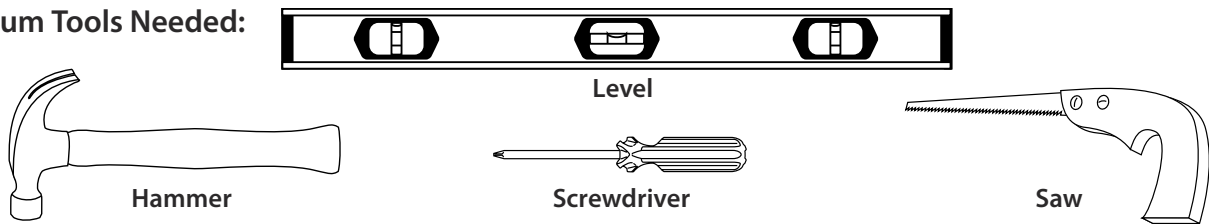
The unit is equipped with two power inlets. One is located on the right side of the unit (inside of the cellar), and the other is located on the rear of the unit (outside of the cellar). Use the selector switch located on the right side of the unit to select which power inlet you would like to use. If you would like to plug the unit into a socket outside of the cellar, set the selector switch to rear. If you would like to plug the unit into a socket inside of the cellar, set the selector switch to the front position. When placed in either position, power can only enter the unit utilizing the power inlet you've selected.

In case the unit should lose power, check the home/main circuit breaker. If the unit does not respond properly, refer to the Troubleshooting Guide.

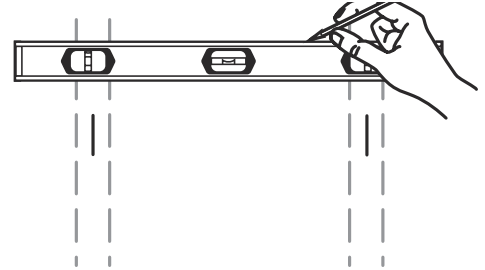


PREPARING THE INSTALLATION LOCATION

Minimum Tools Needed:



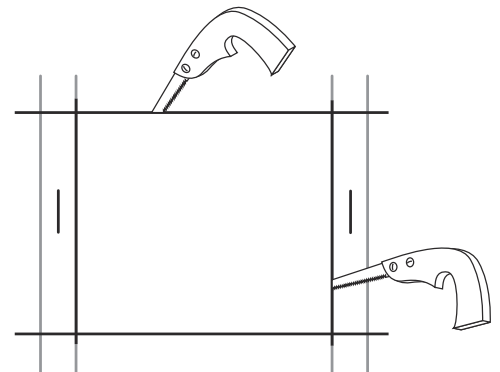
Locate the desired installation location (no more than 18 inches from the ceiling). Using a stud finder, locate the studs on either side of the center point and mark them with vertical lines.



Using a level and a pencil, mark a horizontal line on the wall between the two studs, no less than 1½ inches and no more than 18 inches from the ceiling.

Using a ruler or measuring tape, measure 16 inches down (3500tiR and 5000tiR) or 22.25 inches down (8000tiR), and mark another horizontal line parallel to the first one.

Using a saw, cut along the uppermost horizontal line until your saw reaches the stud. Turn the saw around, inserting it into the cut that has just been made, and cut toward the opposite stud so that there is a clean horizontal cut between the two studs. Be careful not to cut into the studs themselves.

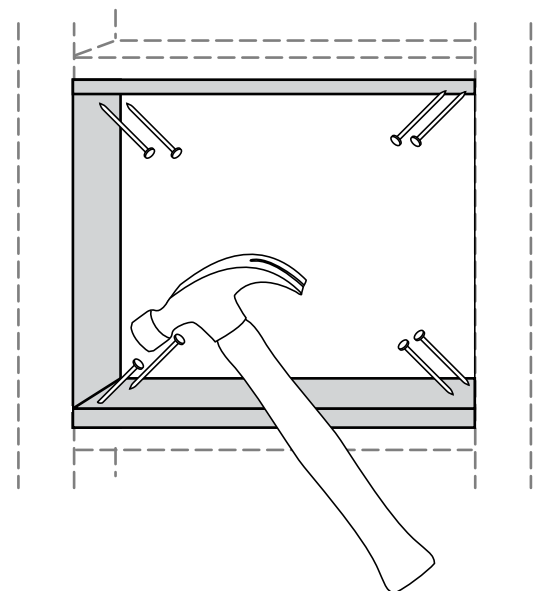


Make the second horizontal cut from stud to stud on the line 16 inches below the first cut.

Once the horizontal lines have been cut, make vertical cuts using the inside edge of the studs as a guide. Once both vertical cuts have been made, there should be rectangular hole in the sheetrock. Make the same hole on the other side of the wall. Using a nail, mark all four corners of the first hole by making nail holes through the sheetrock. Connect the holes with a pencil mark and cut on the other side of the wall.

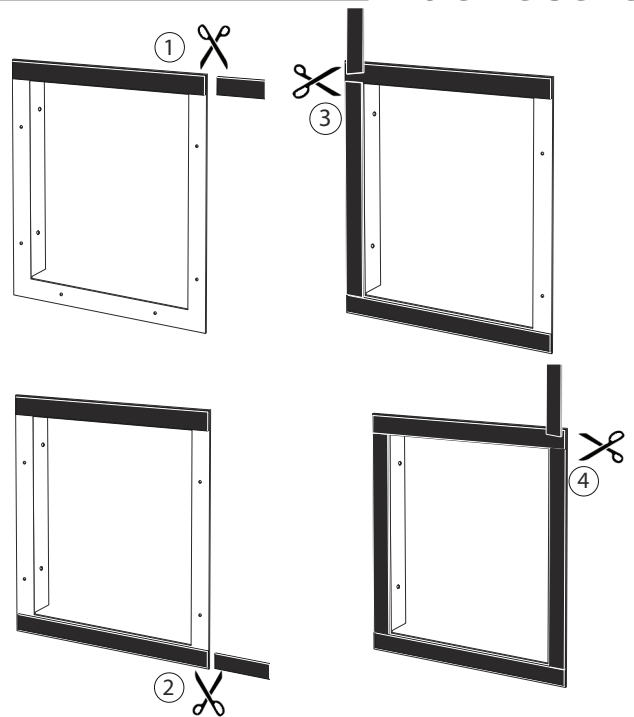
Sheetrock alone cannot support the weight of a 96-lb cooling unit. Therefore, it is necessary to frame the hole that has just been cut with upper and lower supports. These supports also provide solid material for the mounting bracket screws.

Using two 2x4s (14.5 inches in length) and eight 6d nails, secure the upper and lower supports to the right and left studs, just inside the sheetrock. Make sure that the internal height remains at 16 inches (3500tiR and 5000tiR) or 22.25 inches (8000tiR) so that the WhisperKOOL unit will fit snugly through the framed cut-out.



PREPARING THE UNIT FOR INSTALLATION

A sturdy single-piece mounting bracket is used to frame the installation location and secures the unit to the wall studs. The bracket has been designed to hold the unit at a two-degree (2°) angle. This helps project air into the space and aids in condensation drainage.



Applying Insulation Tape

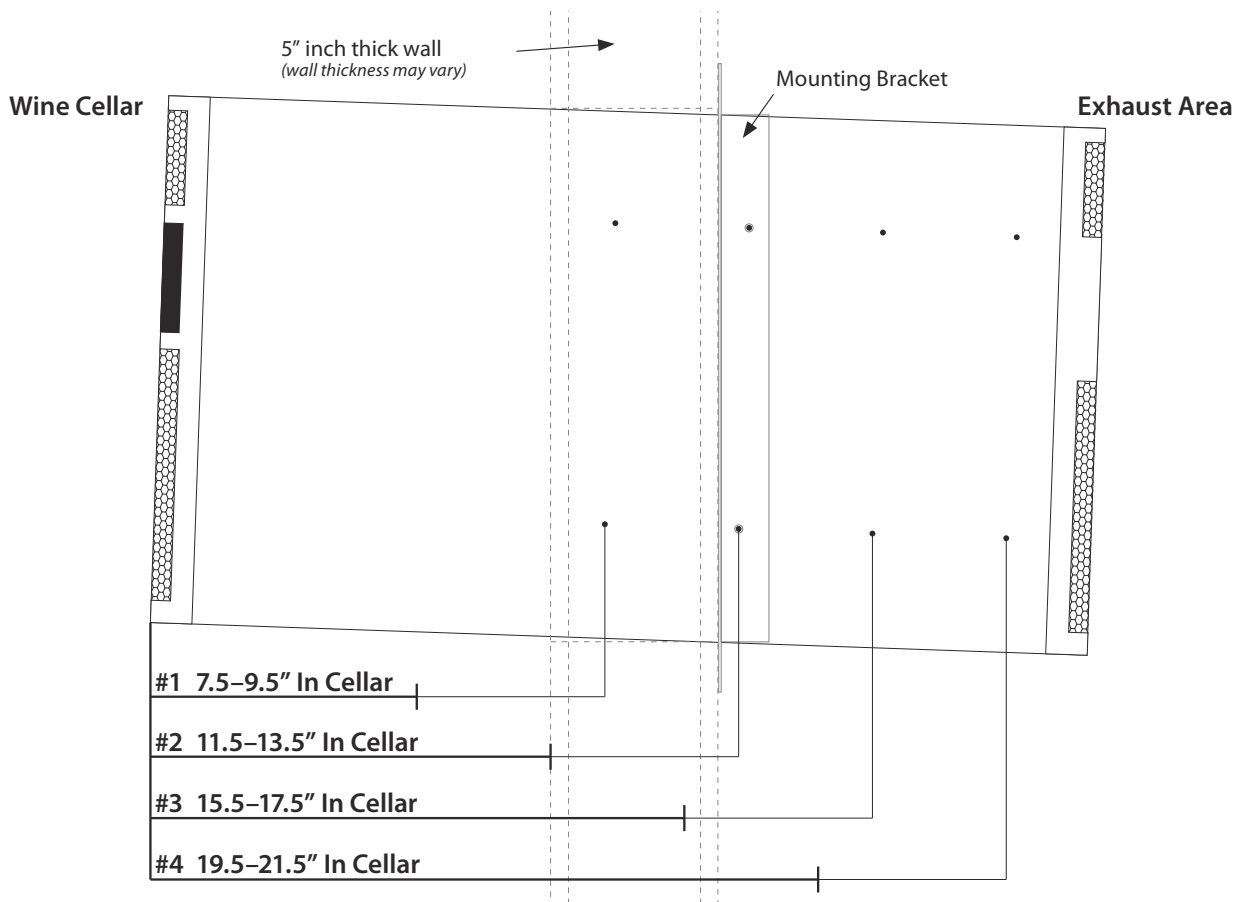
Locate the six-foot piece of black foam tape included with the unit. Align one end of the foam tape with the upper left corner of the rear side of the mounting bracket. Stretch the tape across the rear of the bracket and cut the tape at the opposite edge. Peel off the white paper backing and attach the cut piece of foam tape to the top rear side of the mounting bracket. Follow the same procedure to place a piece of tape on the bottom edge of the mounting bracket. Place the remaining piece of foam tape on one side of the mounting bracket (spanning the distance between the pieces of tape on the top and bottom edges of the mounting bracket), then cut, remove paper backing, and secure. Do the same on the opposite side of the bracket. Discard any excess. The foam tape will create a tight seal between the bracket and the wall.

Mounting Bracket Installation

Select your desired bracket mounting location (see diagram below). This location determines the depth of the installation. For example, position #1 keeps most of the unit out of the cellar while position #4 sets the back of the unit near flush with the exterior wall. Slide bracket onto unit. Ensure that the TOP label on the bracket and the unit mounting flanges are towards the back. Use the four supplied 1/2" pan-head screws to fasten the bracket to the unit. It is **imperative** that you use screws no longer than 1/2" in length.



If you are installing through an exterior wall, please review the next page for specific instructions on exterior grill installation.



OPTIONAL EXTERIOR GRILLE

The exterior grille is required on all installations where the exhaust side of the unit is exposed to the outdoors (i.e., rain and other adverse weather conditions).

Non-Flush Installation

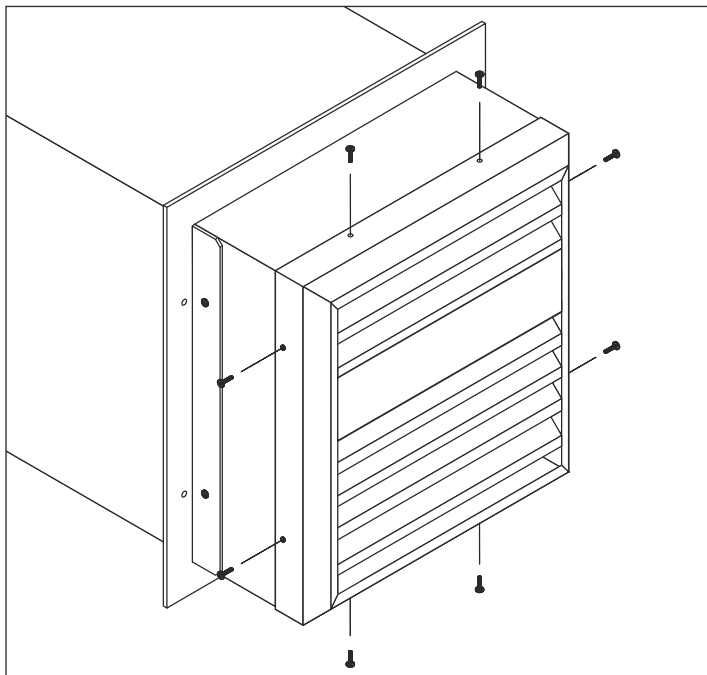
Install the unit according to the standard through-the-wall procedure. After the unit is installed, place the exterior grille over the exhaust side filter grille and line up the screw holes on the top, bottom, and sides. Use the supplied 1/2" pan-head screws to fasten the grille to the unit.

Flush Installation

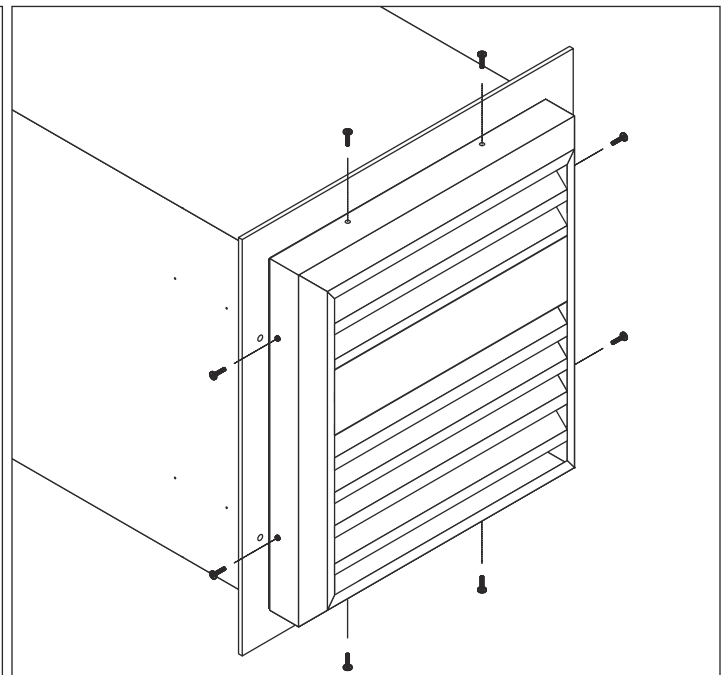
This installation is slightly different because you are utilizing the same holes for both the mounting bracket and exterior grille.

1. Slide the mounting bracket onto the unit followed by the exterior grille, bring the two pieces together by sliding the exterior grille over the mounting bracket side flanges.
2. Align the two top screw holes of the exterior grill with the top screw locations on the unit, use the supplied 1/2" pan-head screws to fasten the grille.
3. Repeat Step 2 on the bottom of the unit.
4. Use the supplied 1/2" pan-head screws to fasten the grille and bracket to the unit ensuring the bracket stays perpendicular/square.
5. Continue through-the-wall installation.

You are required to use the 1/2" pan-head screws provided. Do not drill holes into unit.



Non-Flush Installation*



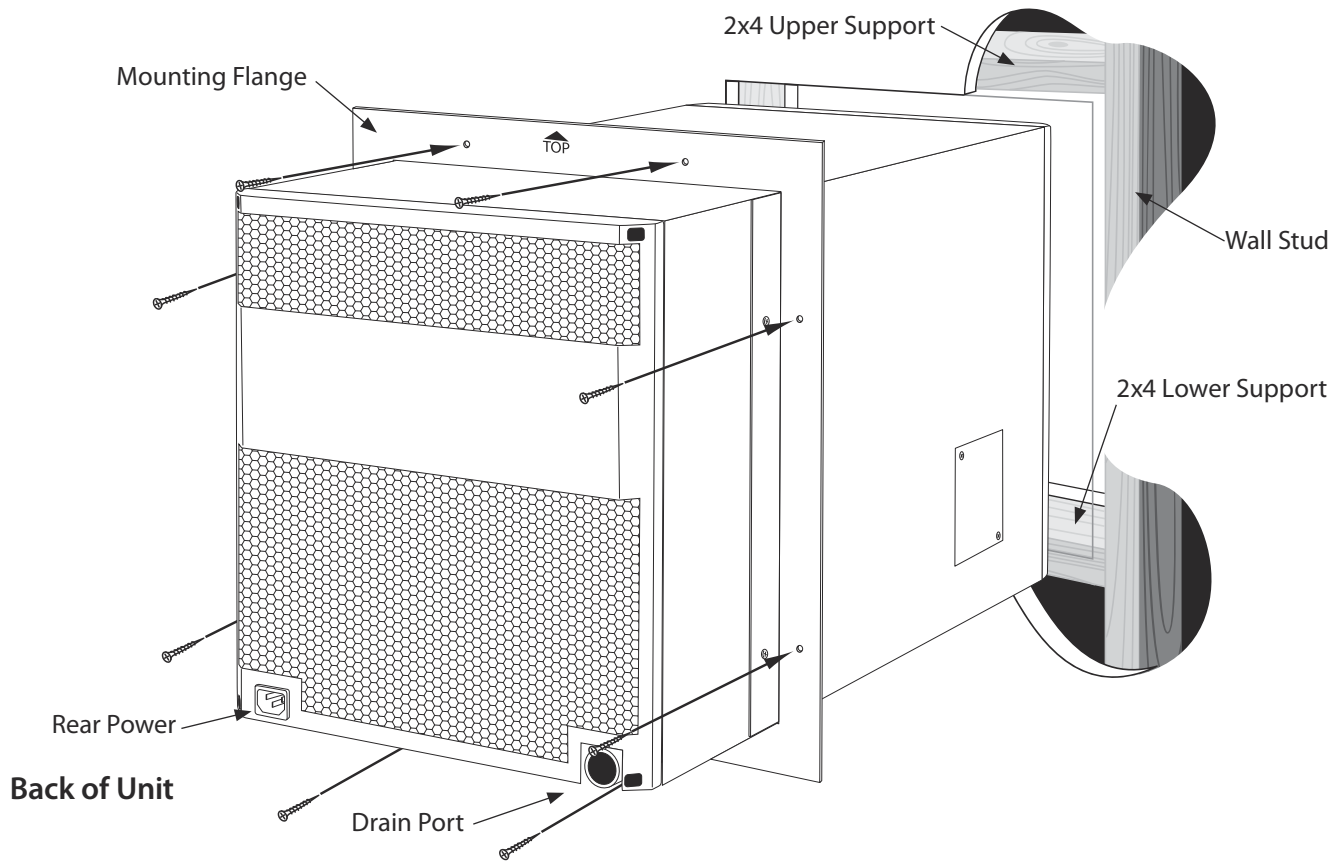
Flush Installation*

***Pictured:** Extreme 8000. Exterior grilles for the Extreme 3500 and 5000 will only have four screws (two on each side).

INSTALLING THE UNIT

Slide the unit from the outside wall into your wine cellar with the outer flange flush with the wall. Secure the flange to the wall using the pre-drilled holes. The 1 $\frac{3}{4}$ " screws should penetrate the studs as well as the upper and lower supports to provide adequate support for the WhisperKOOL unit (see illustration). Seal all cracks and gaps around the WhisperKOOL Extreme unit with an air-tight sealant or caulking to prevent air leakage.

Note: If you use decorative moulding, it should be attached to the walls and *never* to the cooling unit itself. The moulding itself should be removable in case the unit needs servicing.



DUCTING OVERVIEW

Use ductwork to connect the unit to the supply and return outlets in the wine cellar. Use only insulated ductwork to minimize cooling losses, prevent sweating, and reduce noise. Use ductwork on the condenser section to redirect or absorb sound, bring in outside air to the unit inlet, and/or exhaust the hot air.

Note: Do not exceed a total of 25 feet for each length of ductwork run and a combined total of 50 feet for both the supply and return lengths.

Avoid crimping the flexible ducts. This reduces airflow, causing the unit to operate improperly. Be sure all ductwork and outer surfaces in contact with the airflow are insulated and have a vapor barrier on the outside. Uninsulated supply and return ducts may cause bare, exposed metal surfaces to sweat, further degrading the insulation and equipment cooling capacity.



Do not allow sharp turns to squeeze or decrease the inside diameter of the flexible ducting.



General duct recommendations:

- Provide support for the flexible duct to prevent sags and bends.
- 3500tiR and 5000tiR duct size: 8" supply and return
- 8000tiR duct size: 8" supply and 10" return
- Stretch out the duct to make a smoother interior which reduces air resistance.
- Maximum duct length is 25 feet.
- For 90° bends, use a 90° adjustable elbow.
- No more than two 90° bends on each duct. Sweep 90° bends are recommended rather than sharp 90° bends.
- Generously apply duct sealant to all metal seams to fill in gaps that can leak air. Allow sealant to dry until firm to the touch before applying fiberglass insulation.
- Do not squeeze or reduce the inside diameter of the ducts, as this will reduce airflow.
- Use short and straight ductwork where possible.
- Check that all fan blades move freely.
- Keep air paths free of loose foreign objects and debris.
- To provide adequate airflow the fan speed must be set to high when the unit is ducted.
- Locate the supply and return grilles inside the cellar to create an airflow pattern that maximizes air circulation in the room. Avoid short circulation of the air.
- If the unit is installed through the wall, it must be mounted no more than 18 inches from the wine cellar ceiling. If the unit is ducted, the cold air supply duct must be installed no more than 18 inches from the wine cellar ceiling.

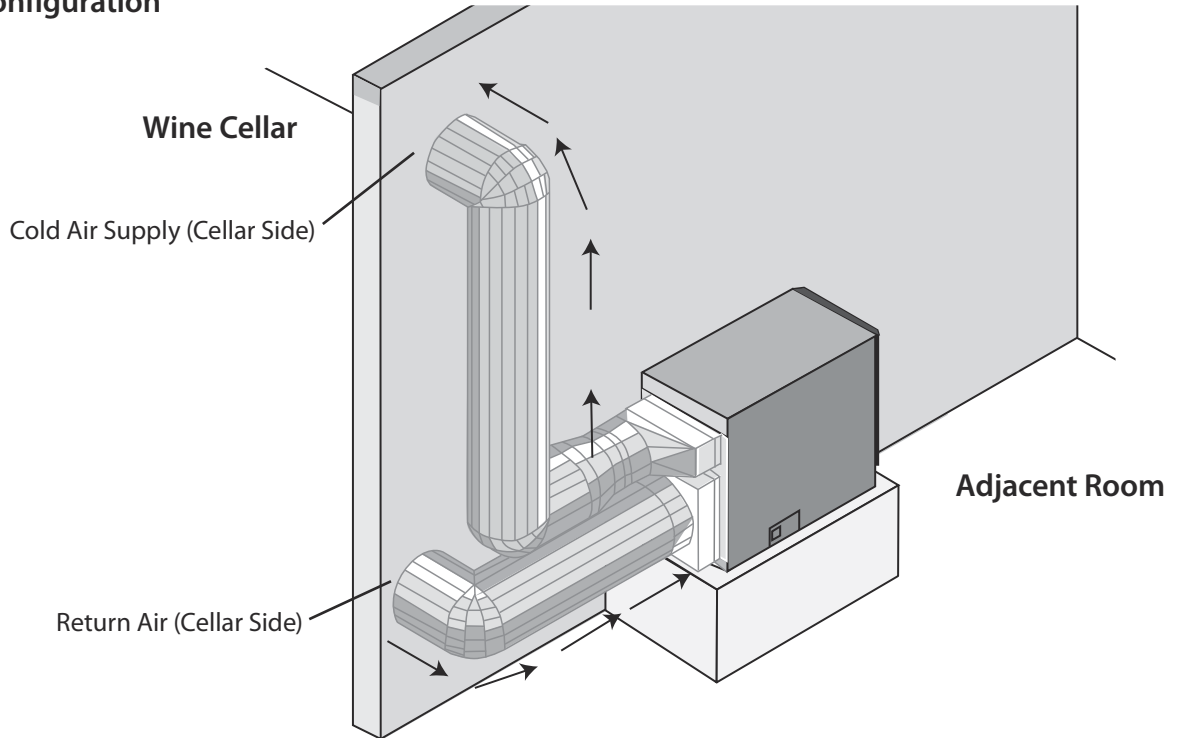
DO NOT:

- Install through-the-wall return air grilles at floor level where they will collect dust from the floor.
- Locate the supply or return air grille where it is blocked by bottles, boxes, or cases.

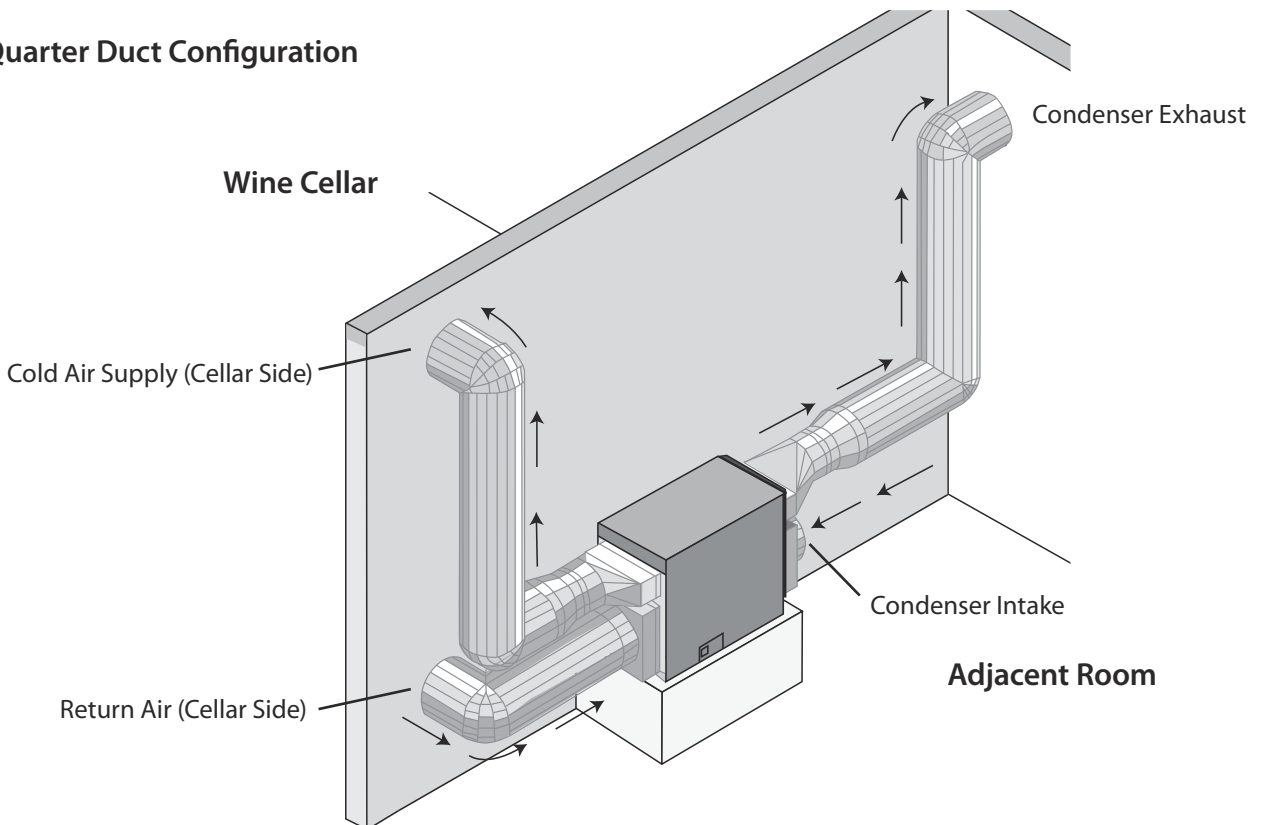
DUCTING CONFIGURATIONS

There are a variety of ways to duct this unit. Please review the different configurations to determine a basis for your particular installation. Remember to contact a wine cellar professional if you have any questions.

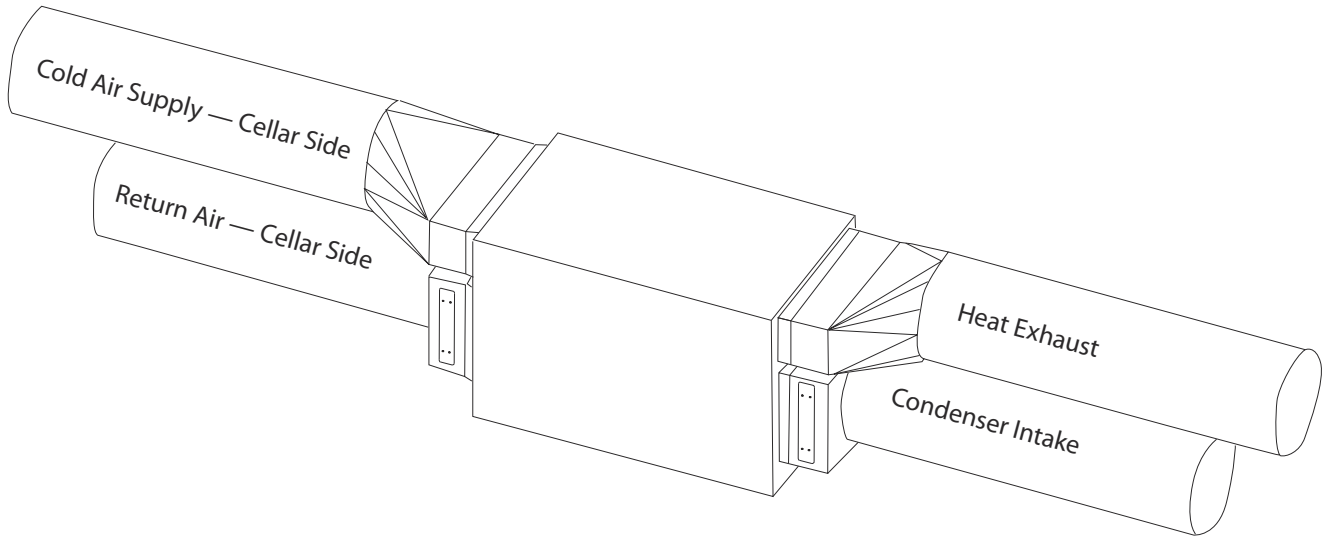
Half Duct Configuration



Three-Quarter Duct Configuration

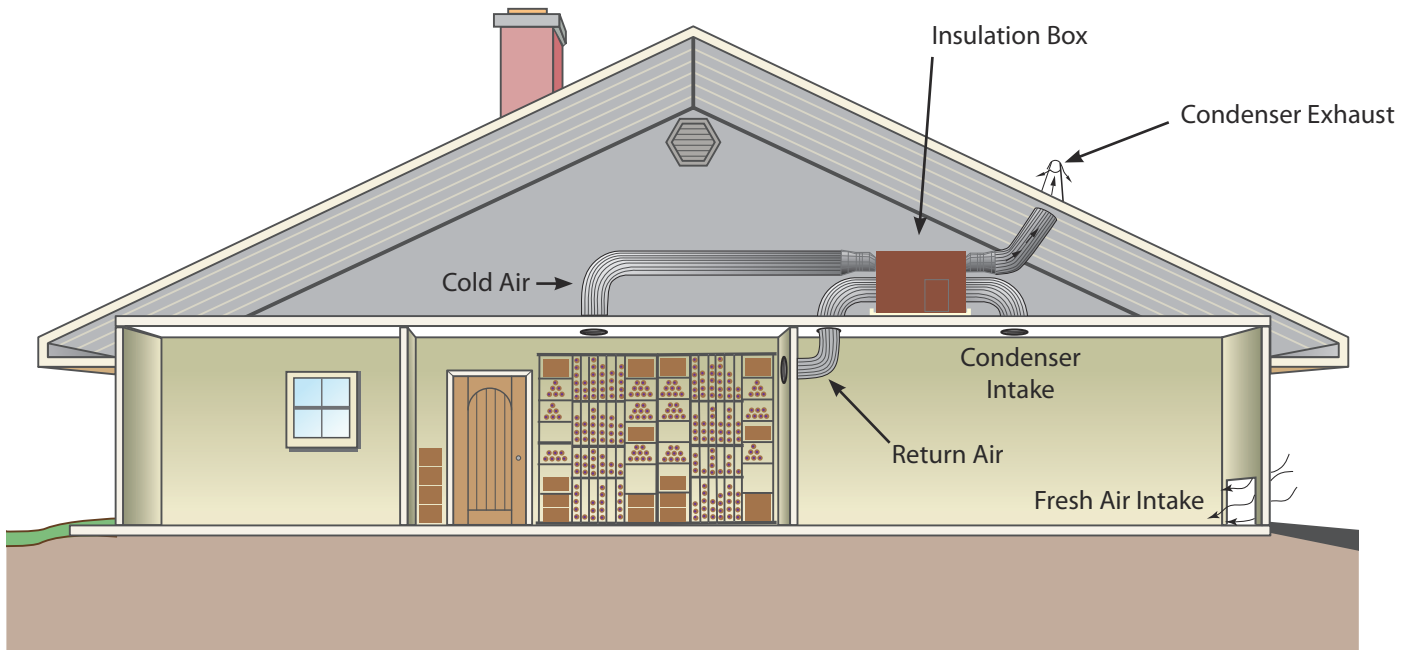


Fully Ducted



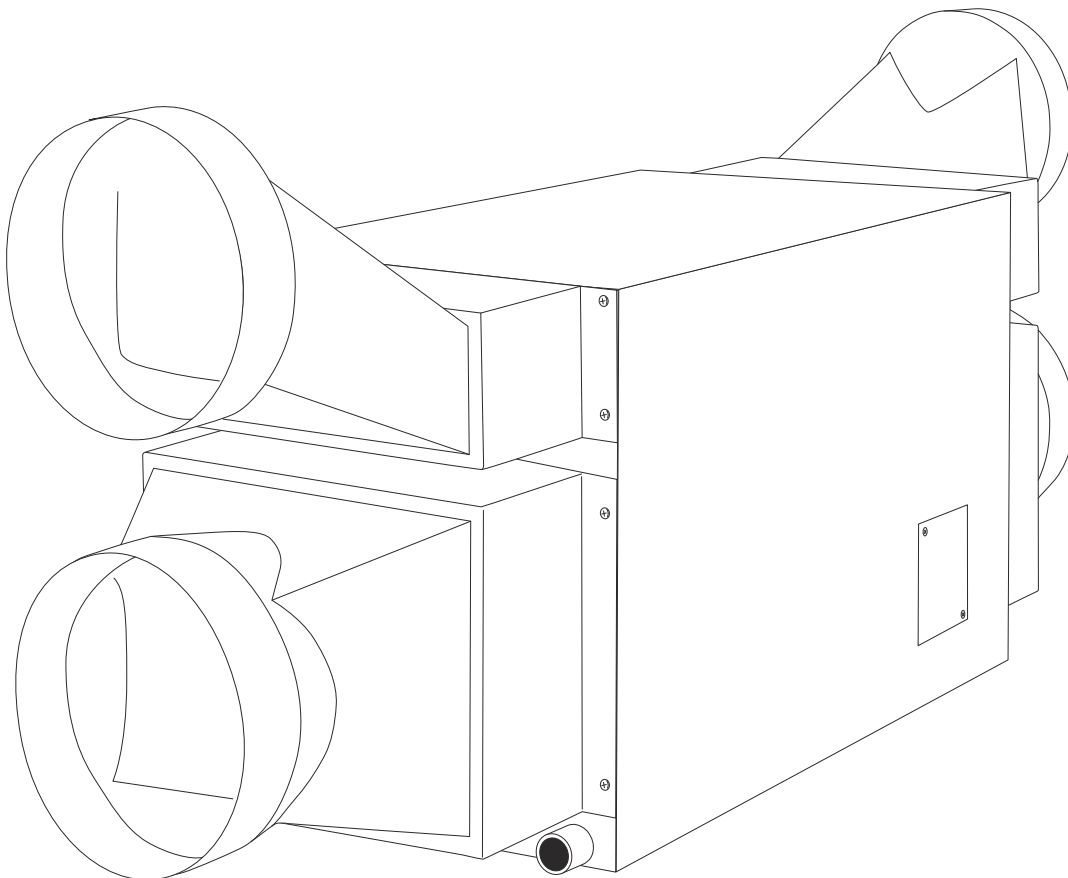
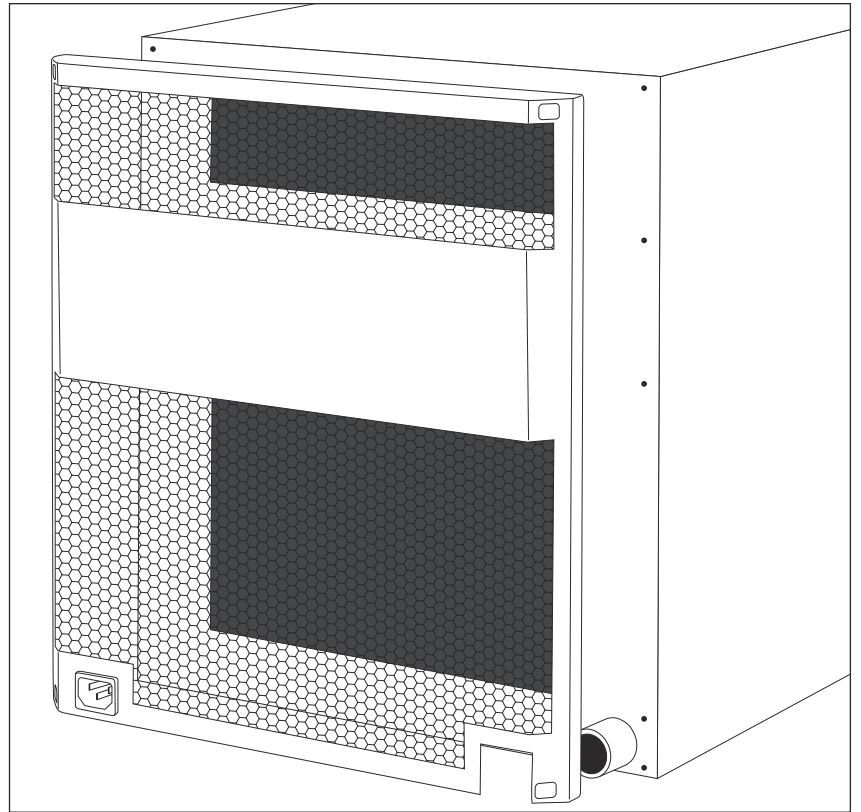
Attic Mounted Unit

It is recommended that you use a condensate pan for this application.



INSTALLING THE DUCT PLENUMS

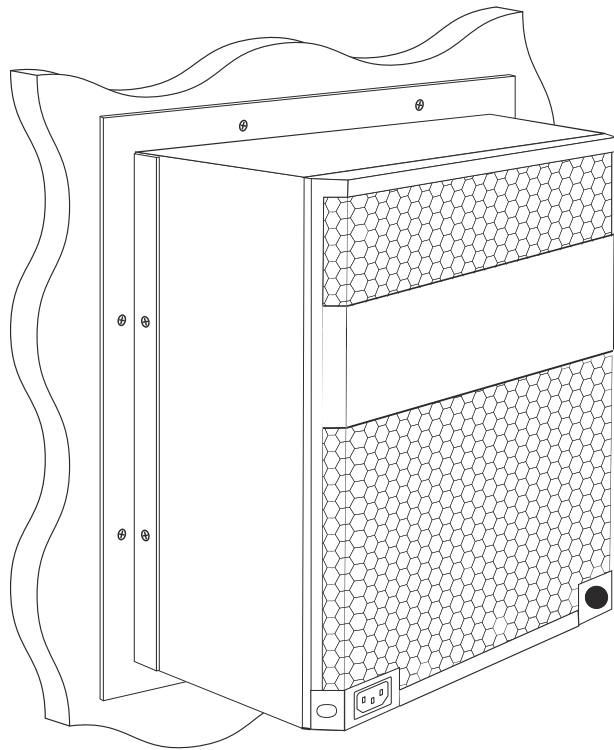
1. Remove the filter grille from the unit by unscrewing the screws that hold it in place.
2. Move the ducting adapters into place.
3. Screw the ducting adapters into place using the supplied screws.



CONDENSATION DRAIN LINE

The condensation drain line tube is used to drain excess condensation from the unit to a proper discharge location. It is important that the drain line tube be properly connected in order to prevent leakage and other problems associated with excess condensation.

Failure to use the condensation drain line tube will void the warranty on the unit.



All units come with a drain line for additional removal of excessive condensate. It is mandatory to install the drain line with a "tee" fitting. During operation, the cooling unit will strip excess water from the air. However, in extreme humidity, additional condensate will be removed. The drain line will prevent overflow and leaking by allowing for discharge of the additional condensate.

To prevent mold from growing, allow the drain line to hang above the water line.

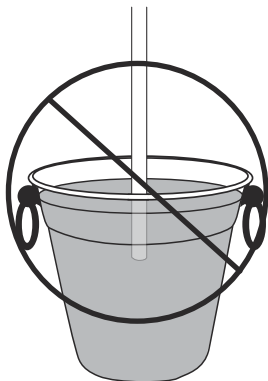


Black 1/2" tee

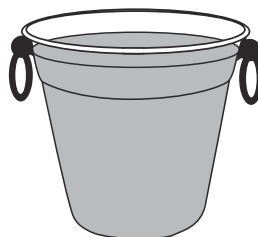
Drain line

Extreme Drain Line Installation

1. Wrap tee with Teflon tape one or two turns clockwise.
2. Next, thread the barbed tee into the drain port and rotate until tight. Make sure the barbed parts of the tee are vertical.
3. Next, attach the piece of 1/2" ID clear plastic tubing to the lower barb of the tee.
4. Every six weeks, disconnect the drain line from the tee. Remove the tee from the rear drain port and clean it. Then use the supplied drain line brush to clean the interior drain line. Use the drain line access door to drop a pan tab into the drip tray to prevent the buildup of microbial growth.



WRONG: Drain line is under water.



LIQUID-MEASURING THERMOSTAT SYSTEM (BOTTLE PROBE)

WhisperKOOL cooling units come with a liquid-temperature-measuring thermostat. The self-calibrating probe contains a sensor chip, which communicates back and forth with the thermostat. This results in a consistent temperature setting and accuracy. Wine should be kept at a very precise, controlled temperature and humidity. By measuring the liquid temperature rather than air, the unit will operate 75–80% of the time.

Setting up the Bottle Probe:

1. Locate an empty wine bottle.
2. Fill it 75% full with room-temperature tap water.
3. Place bottle probe securely into bottle as seen in Figure 1.
4. Attach bottle probe to circular connector on unit shown in Figure 2.
5. Place bottle off to the side of the unit in your wine cellar, with the probe level.
6. To ensure a consistent temperature, place bottle probe approximately three (3) feet away from the air output and not in the flow of the air.

It is recommended that the bottle be placed in a central location of your wine cellar. Avoid pulling too much on the probe cord. It may become disconnected resulting in limited functionality of the unit.

Note: The thermostat can be set between 50–70°F.

Remember: The unit operates based on the temperature of the water. Do not be misled by thermostats reading air temperature. The air temperature in the cellar will be cooler than the liquid temperature of the wine while it is reaching the optimum balanced temperature.

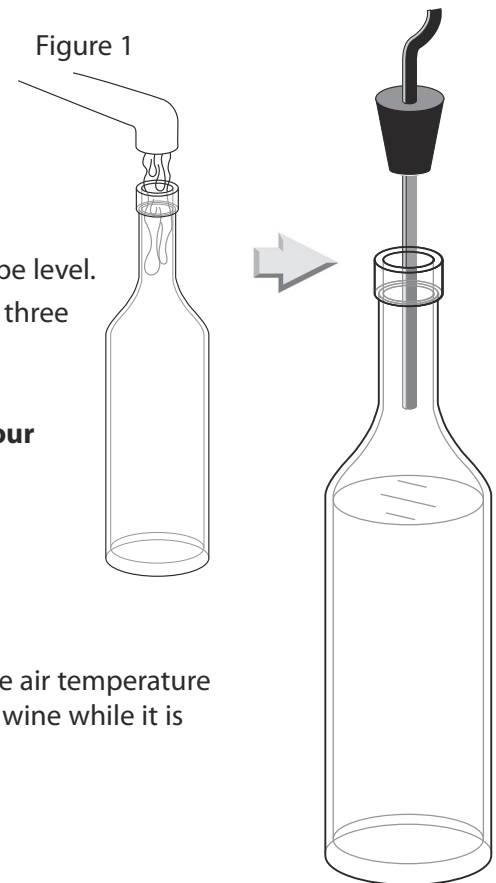
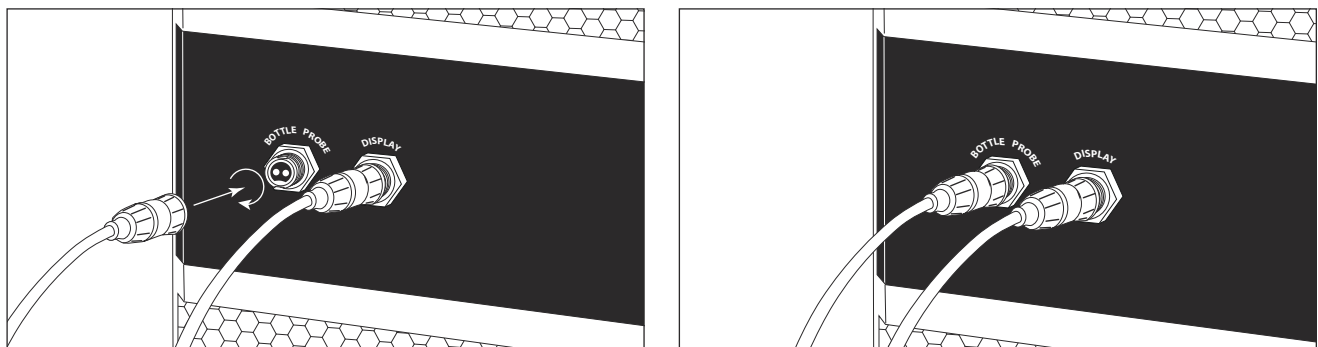


Figure 2

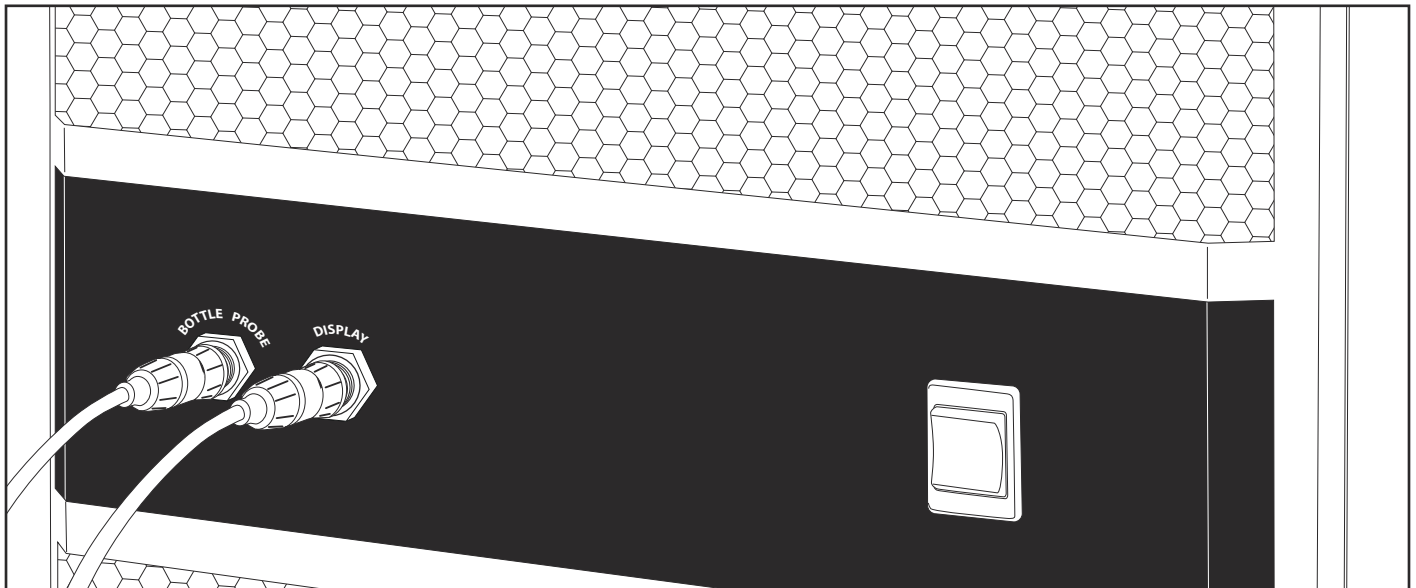


MULTI-SPEED FAN CONTROL

Designed for wine cellars up to 1000 and 2000 cubic feet, Extreme 3500tiR, 5000tiR, and 8000tiR units feature multi-speed fans. These fans have a high setting for maximum performance in high-temperature (+110°F) environments and a low setting for super-quiet operation.

Fan Speed Selector Switch (Low/Med/High)

The cooling unit fans operate on three speed settings: **Low**, **Medium**, and **High**. For optimum sound and energy efficiency, select the lowest fan speed that will maintain the desired cellar temperature. If the relative humidity is low, a higher fan speed will cause less moisture to be removed during cooling. High speed is recommended for initial cellar cool-down, extreme temperature conditions, and ducted installations.



Fan speed selection is determined by the amount of heat that needs to be removed from the cellar and the type of installation (through-the-wall or fully ducted). Fan speed selection is based on cellar size, insulation ratings, door seals, and the desired wine temperature. When initially installing the unit, set the fan speed to the **High** setting to quickly cool down the cellar. Once the wine cellar reaches the desired temperature, a lower fan speed may be selected. In the event that the outdoor temperature rises above 90°F (when exhausting to the outdoors), a higher fan speed may be required.



Fully ducted units should be set to the HIGHEST fan speed selection for maximum performance.



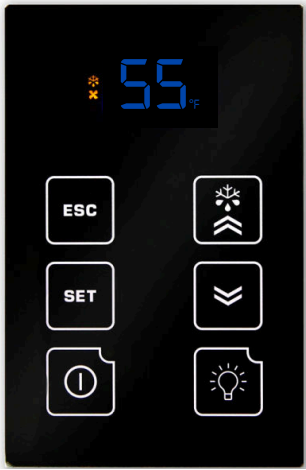
	3500tiR/tiR FD			5000tiR/tiR FD			8000tiR/tiR FD		
Speed Selection	Low	Med	High	Low	Med	High	Low	Med	High
Airflow (CFM)	147	180	256	147	180	256	274	318	333
Sound (dBA* In Cellar / Out of Cellar)	51/51	58/57	66/65	51/51	58/57	66/65	57/57	59/59	60/61
Cooling Capacity (BTU/h)	2374	2514	2693	2998	3264	4126/ 3794	5140	5606	5760

* To give you a feeling for decibels, a food blender at 3 ft. is 90 dBA, a garbage disposal at 3 ft. is 85 dBA, a vacuum cleaner at 10 ft. is 75 dBA, normal speech at 3 ft. is 79 dBA, a dishwasher in the next room is 55 dBA, and a quiet night is 35 dBA.

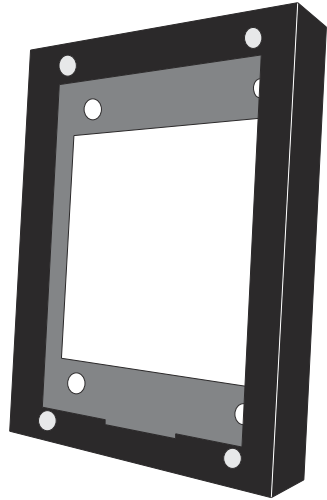
REMOTE DISPLAY: INSTALLATION AND CONFIGURATION

Tools needed: 5/16" drill bit, 3/16" drill bit, drywall saw, level, pencil

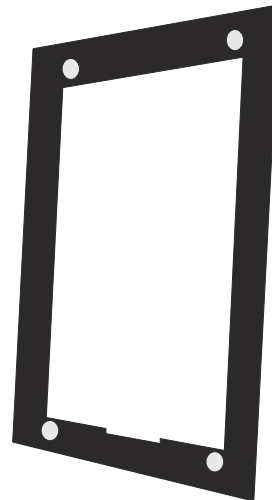
What's included: Display panel, wall mount bracket, flush mount bracket, flush mount template



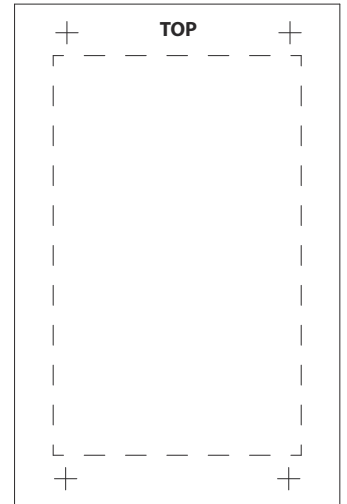
Display panel



Wall mount bracket



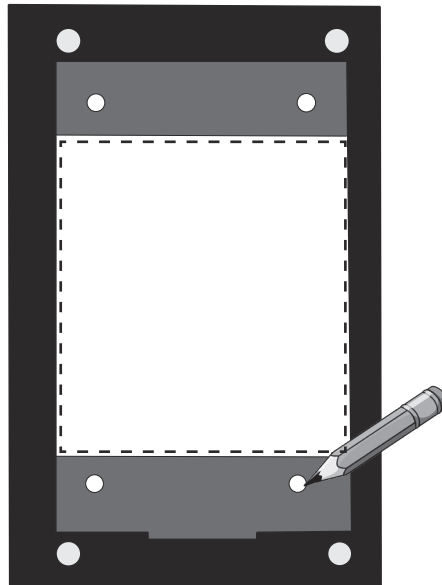
Flush mount bracket



Flush mount template

WALL MOUNT BRACKET INSTALLATION

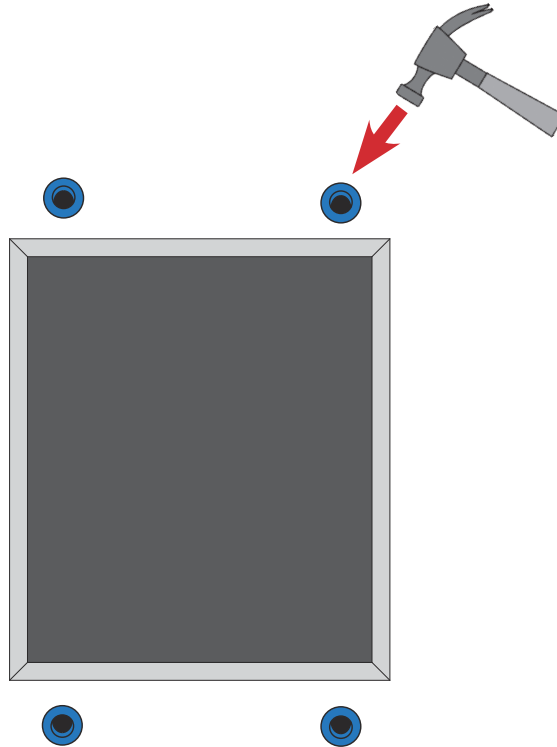
1. Place the bracket on the wall. Use a level to ensure that the bracket is level. Using a pencil, mark the four screw holes in the rear of the bracket.



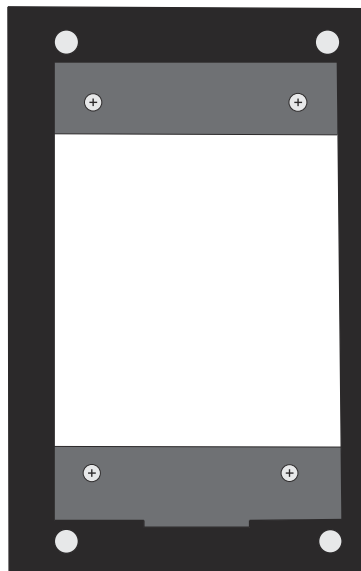
NOTE: Cut hole in the location shown for routing the display cable.

WALL MOUNT BRACKET INSTALLATION, CONTINUED

2. Using a drill with a $\frac{3}{16}$ " bit, drill four holes in the drywall for the screws. Insert the four (4) provided drywall anchors into the drywall, then tap them in with a hammer until they are flush with the wall.



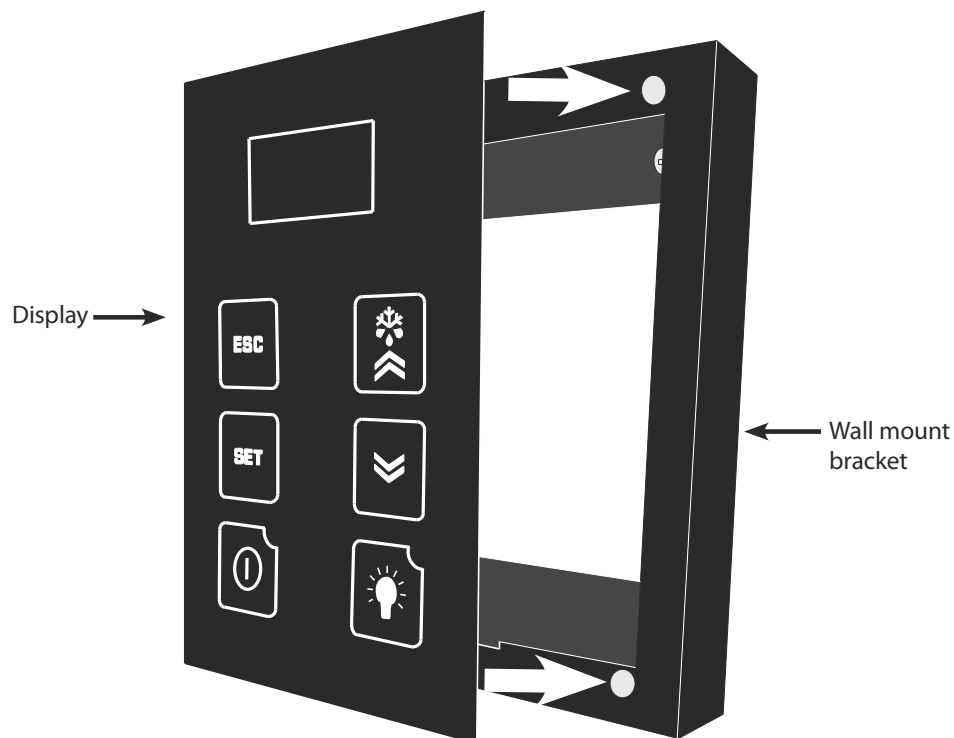
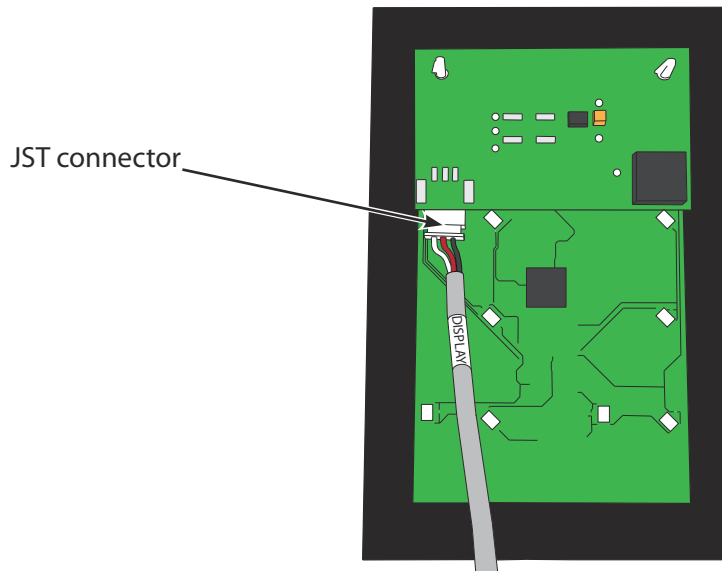
3. Place bracket against wall, aligning screw holes with drywall anchors. Insert the four supplied Phillips-head screws into the drywall anchors. Tighten the screws to secure the bracket to the wall.



WALL MOUNT BRACKET INSTALLATION, CONTINUED

NOTE: Before you continue to Step 4, locate the area where the display will be mounted. You may route the display wire into the housing one of three ways: either through the wall or through one of the holes on the top or bottom edges of the wall mount bracket. If you'd like to route the display cable through one of these holes, place a rubber grommet into the hole and then route the display cable through the grommet and into the wall mount bracket.

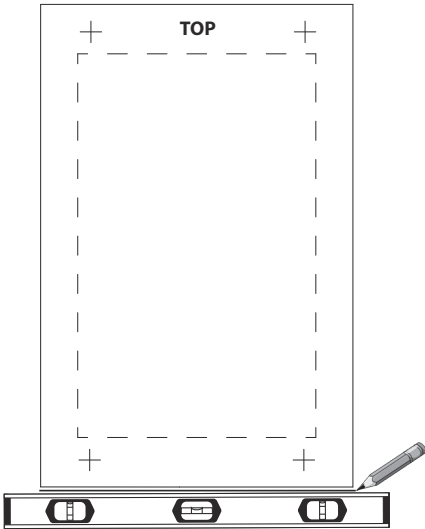
4. Connect the end of the display cable labeled "DISPLAY" to the JST connector on the back of the display.



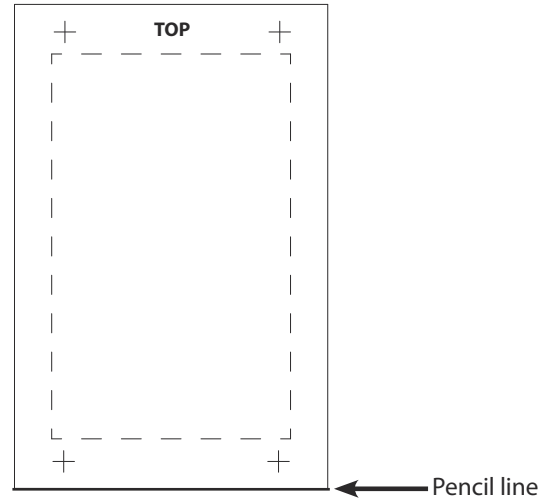
5. Place the display on the wall mount bracket as shown, attaching the back of the display panel to the magnets on the mounting bracket. Make sure that the alignment tab on the back of the display panel sits in the notch on the bottom of the bracket.

FLUSH MOUNT BRACKET INSTALLATION

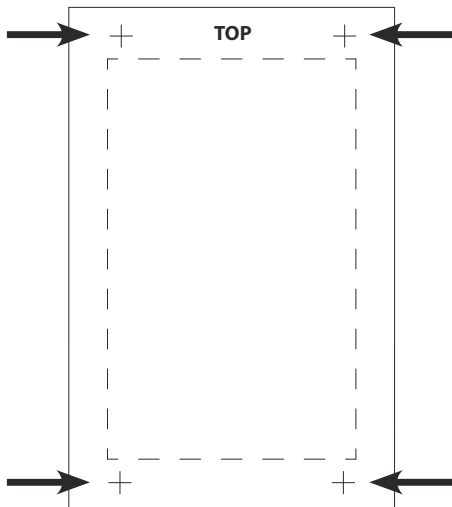
1. Square the flush mount template on the wall using a level. Then draw a 3" line along the bottom edge of the template.



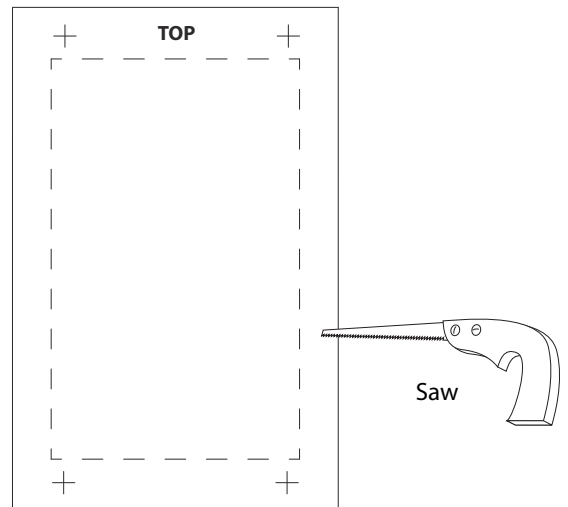
2. Peel the backing off the template and stick it to the wall, aligning the bottom edge with the line drawn in Step 1.



3. Use a 5/16" drill bit to drill a hole in the center of each cross (+).

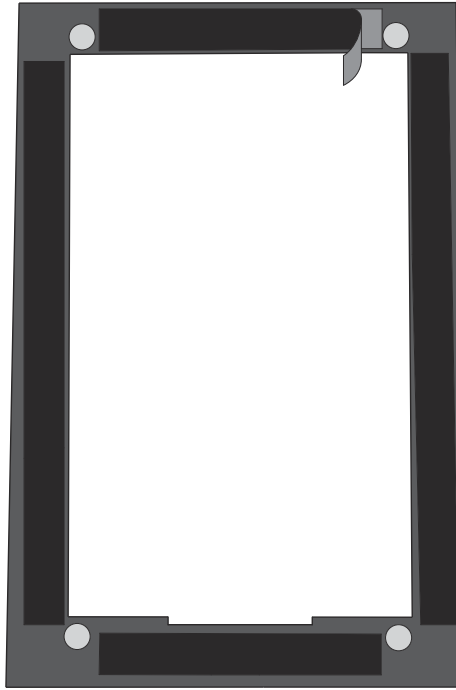


4. Cut along the perforated lines. When finished, remove template from wall.

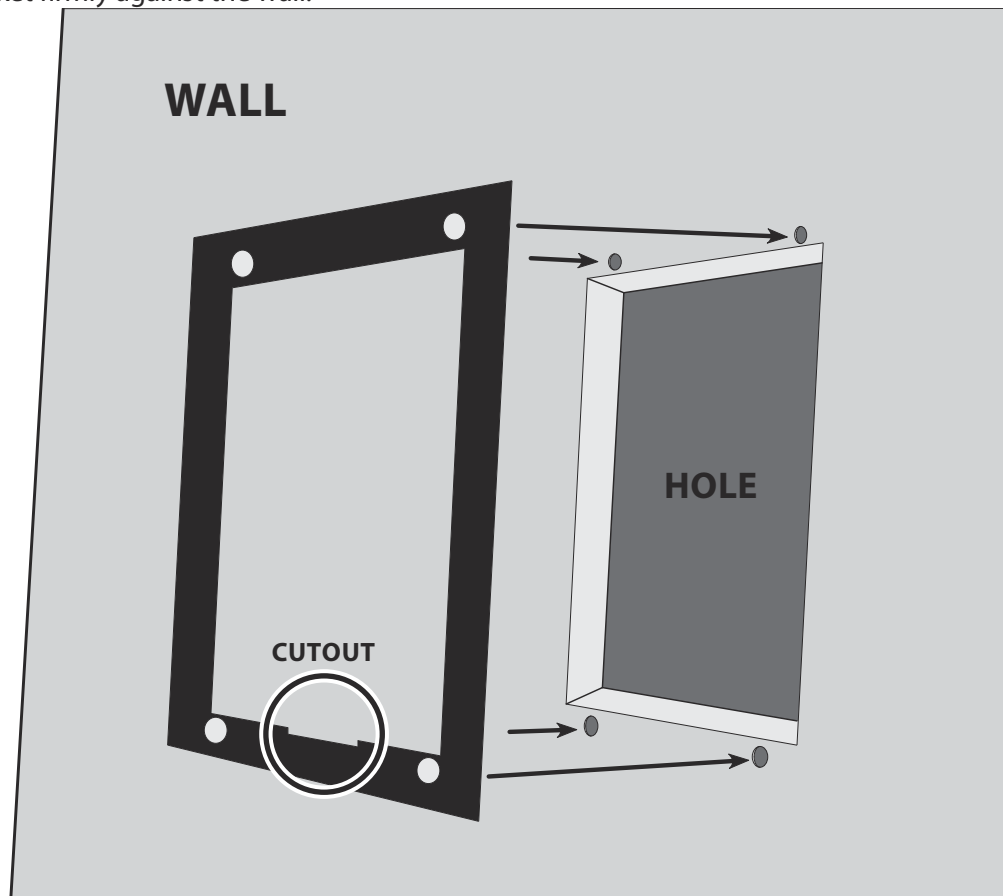


FLUSH MOUNT BRACKET INSTALLATION, CONTINUED

5. Remove the backing from the double-sided tape on the flush mount bracket.

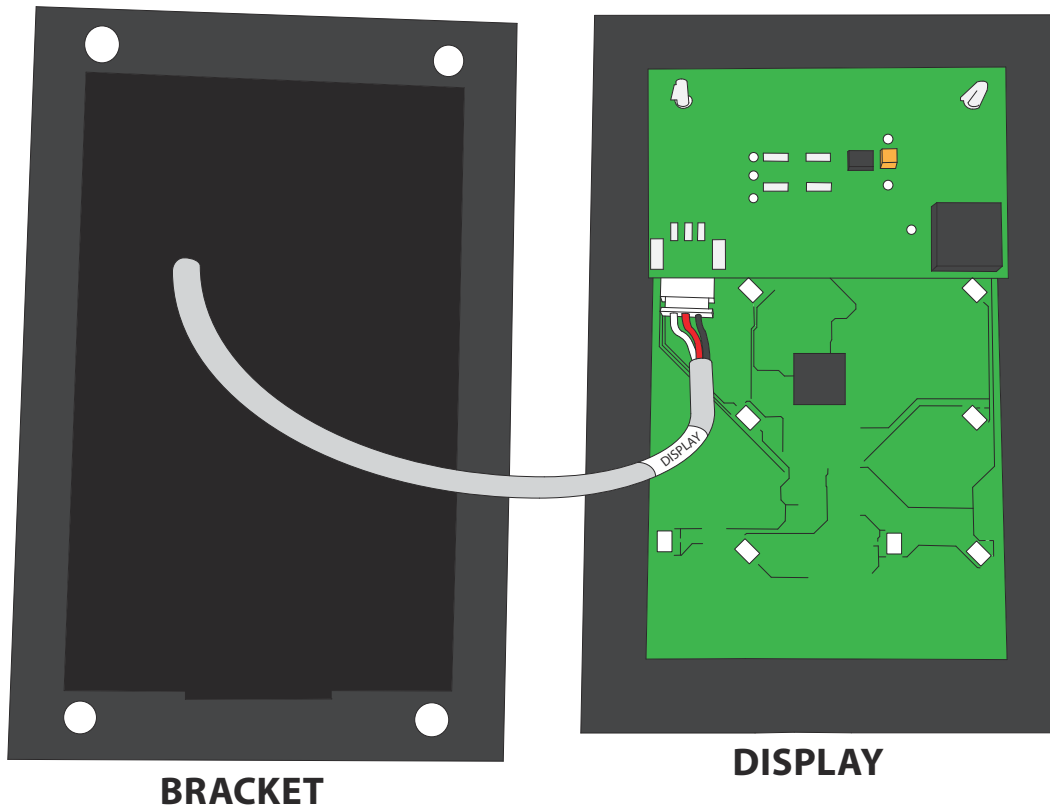


6. Align magnets with previously drilled holes. Make sure the cut-out portion of the bracket (circled below) is on the bottom. Press the bracket firmly against the wall.

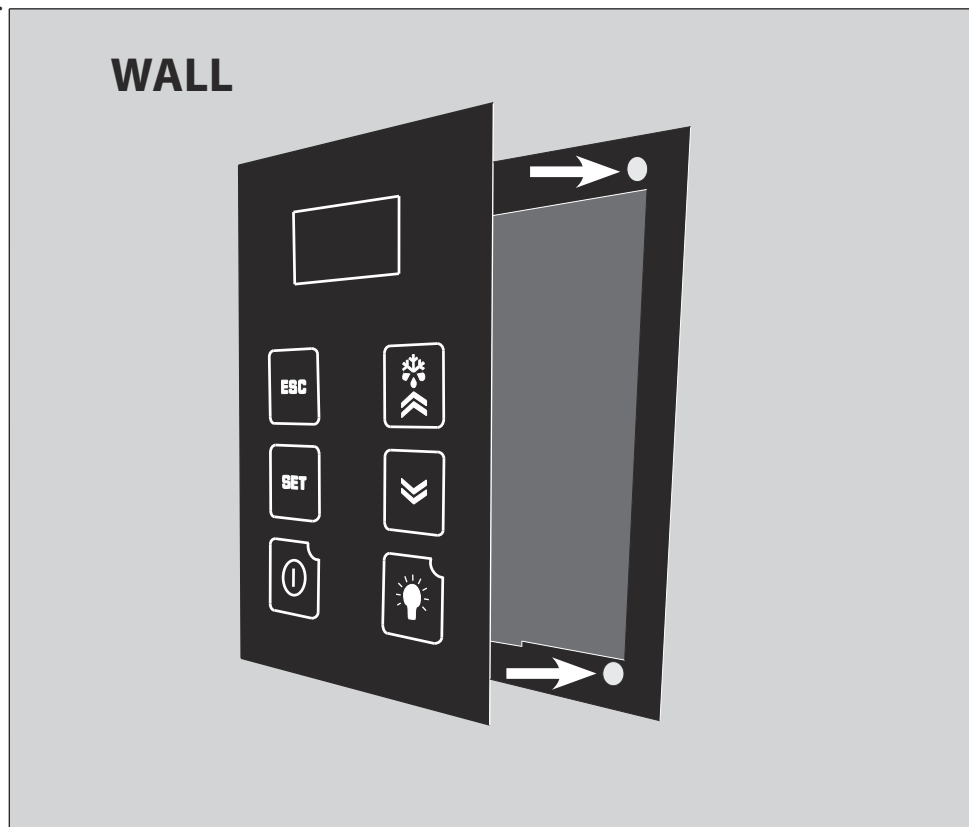


FLUSH MOUNT BRACKET INSTALLATION, CONTINUED

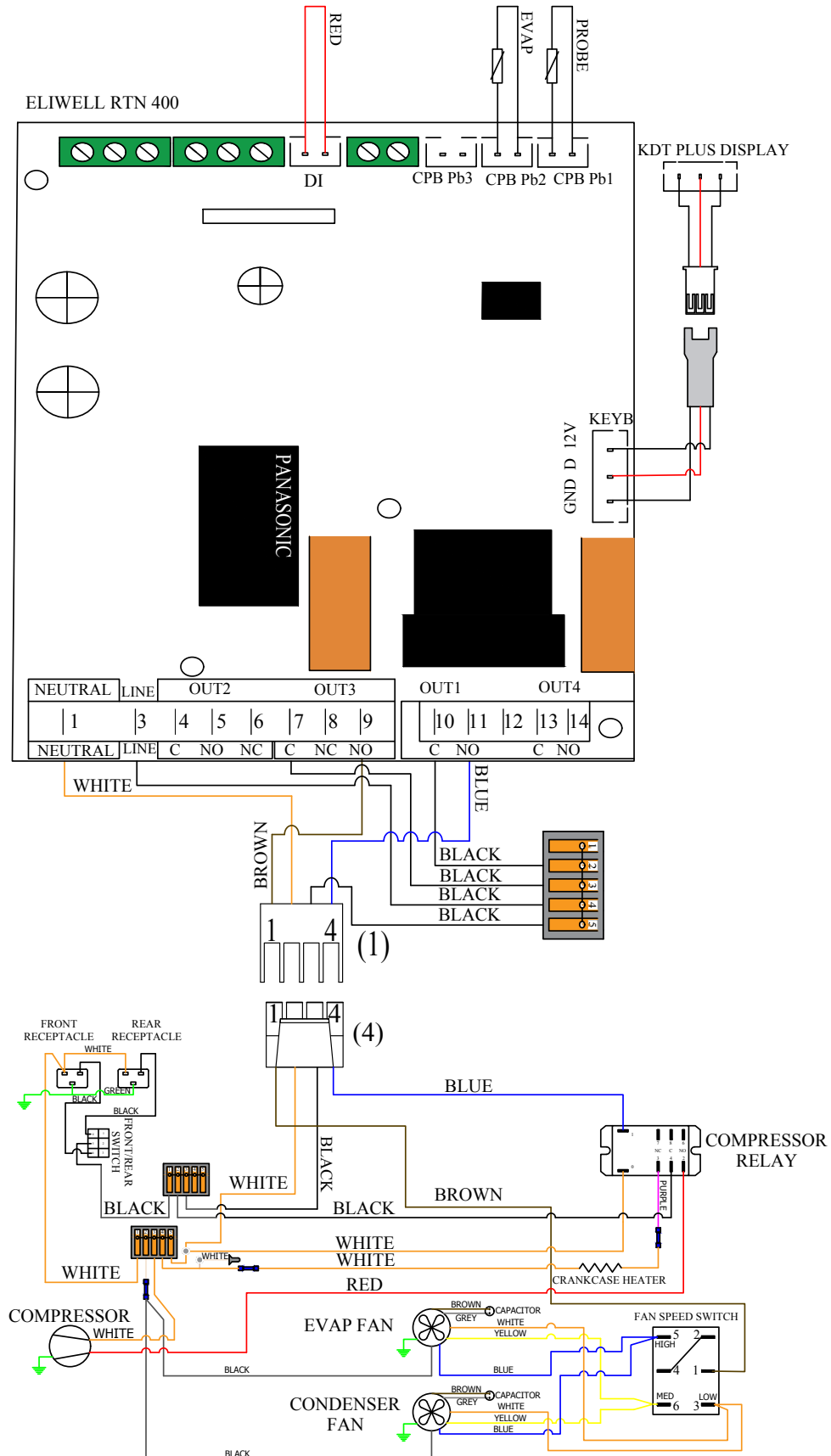
7. Connect the end of the display cable to the JST connector on the display panel.



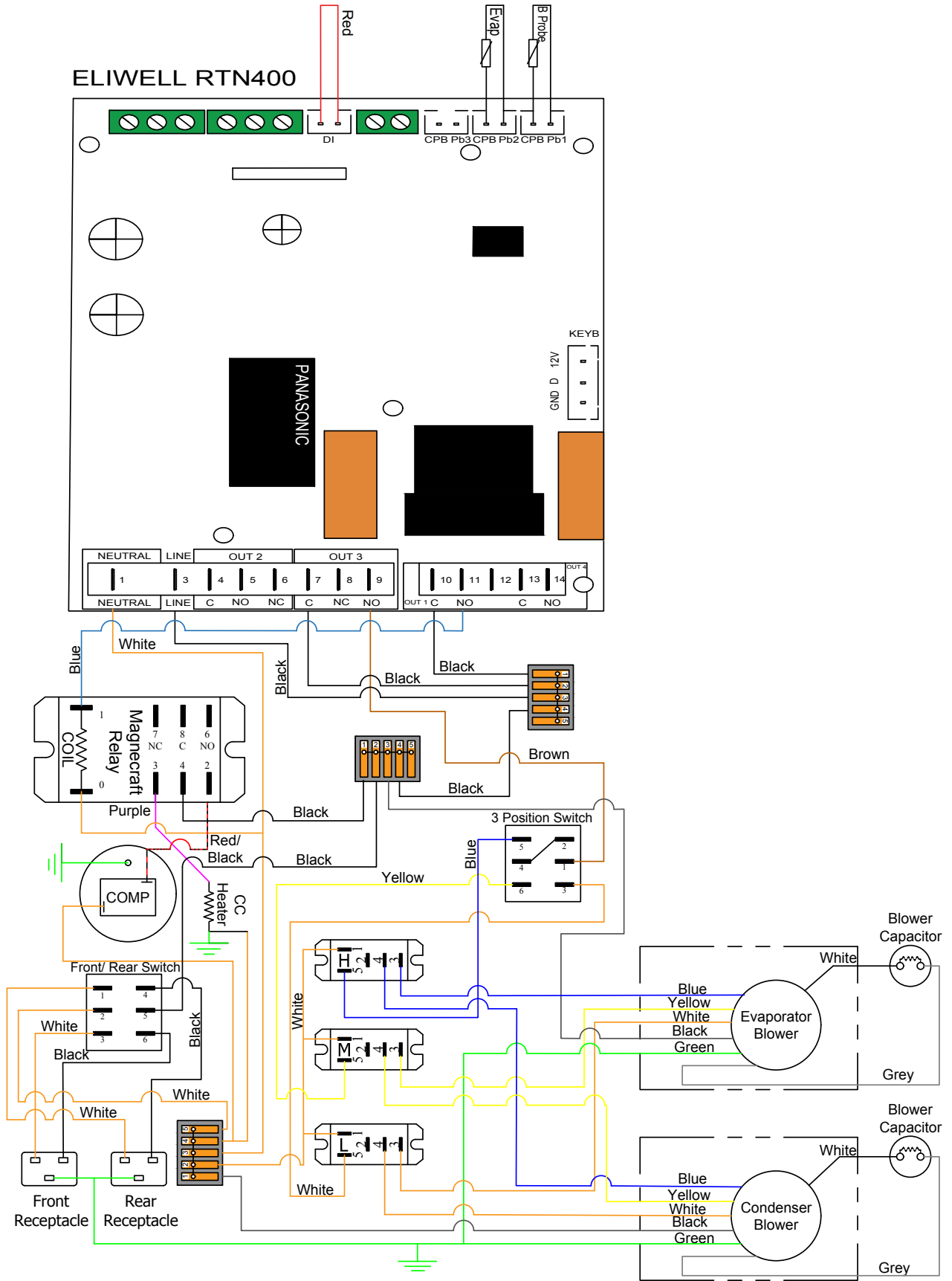
8. Place the display on the flush mount bracket as shown, attaching the back of the display panel to the magnets on the mounting bracket. Make sure that the alignment tab on the back of the display panel sits in the notch on the bottom of the bracket.



EXTREME 3500tiR/tiR FD, 5000tiR/tiR FD, & 8000tiR/tiR FD WIRING DIAGRAM



EXTREME 3500tiR/tiR FD, 5000tiR/tiR FD, & 8000tiR/tiR FD 220V WIRING DIAGRAM



SYSTEM OPERATION

Initial Start-Up

When the unit is plugged in and power is sent to the controller, a beep will sound, confirming that the controller is getting power. All LEDs on the display will blink three times. Three dashes will then appear on the screen. All display LEDs will then blink three times. Once the controller has gone through the initial startup process, and all LEDs have cycled, the home screen will be displayed.

Setpoint

The setpoint is preset at the factory to 55°F. It can be adjusted by the customer between 50–70°F in one-degree increments.

Evaporator Fan Operation

The indoor fan will run when the controller is calling for cooling and turn off once the cooling cycle has ended. During the cooling cycle, the system will remove some relative humidity from the cellar. Some of the humidity that was removed can be reintroduced into the cellar by adjusting the “fan on” and “fan off” functions. (The cooling system is not equipped with a humidifier and does not add humidity.)

The FOF cycle should be shortened first. This will reduce the amount of time that the fan remains off following a cooling cycle. When the unit has completed a cooling cycle, the compressor and the condenser fan will turn off, but the evaporator fan will continue to run for whatever length of time the customer has set. The Fon function may then be lengthened to allow the fan to run longer and reintroduce moisture from the evaporator coil back into the wine cellar.

For more information about fan settings, refer to the User Menu on page 36.

Anti-Short Cycle

The Anti-Short Cycle ensures that the unit will remain off for a period of five minutes after the unit has reached the setpoint. This allows the pressure in the refrigeration system to equalize prior to starting the compressor.

Once the compressor is turned off, the controller must wait five minutes before reactivating the compressor. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor icon will blink, indicating that cooling is needed but the controller is waiting for the Anti-Short Cycle delay.

Anti-Frost Cycle

When the evaporator probe senses a temperature of 26°F for a duration of one minute, an Anti-Frost Cycle will be initiated. This will shut down the compressor, allowing the evaporator fan to run and melt any frost accumulation on the coil. While the Anti-Frost Cycle is running, “dEF” will be displayed on the screen. The compressor will remain off until the evaporator coil reaches 40°F, or for a maximum of one hour. The unit will then return to normal operation.

Digital Display

The display is designed to give the user the ability to adjust the setpoint, Fon/FOF parameters, and other settings. (See User Menu on page 36 for more details.) The bottle probe temperature is displayed by default. “dEF” will be displayed during an Anti-Frost Cycle. The bottle probe and evaporator probe temperatures can be accessed by pushing the SET button and scrolling through “Pb1” (bottle probe) and “Pb2” (evaporator probe). The light button may be used as an unlock button.

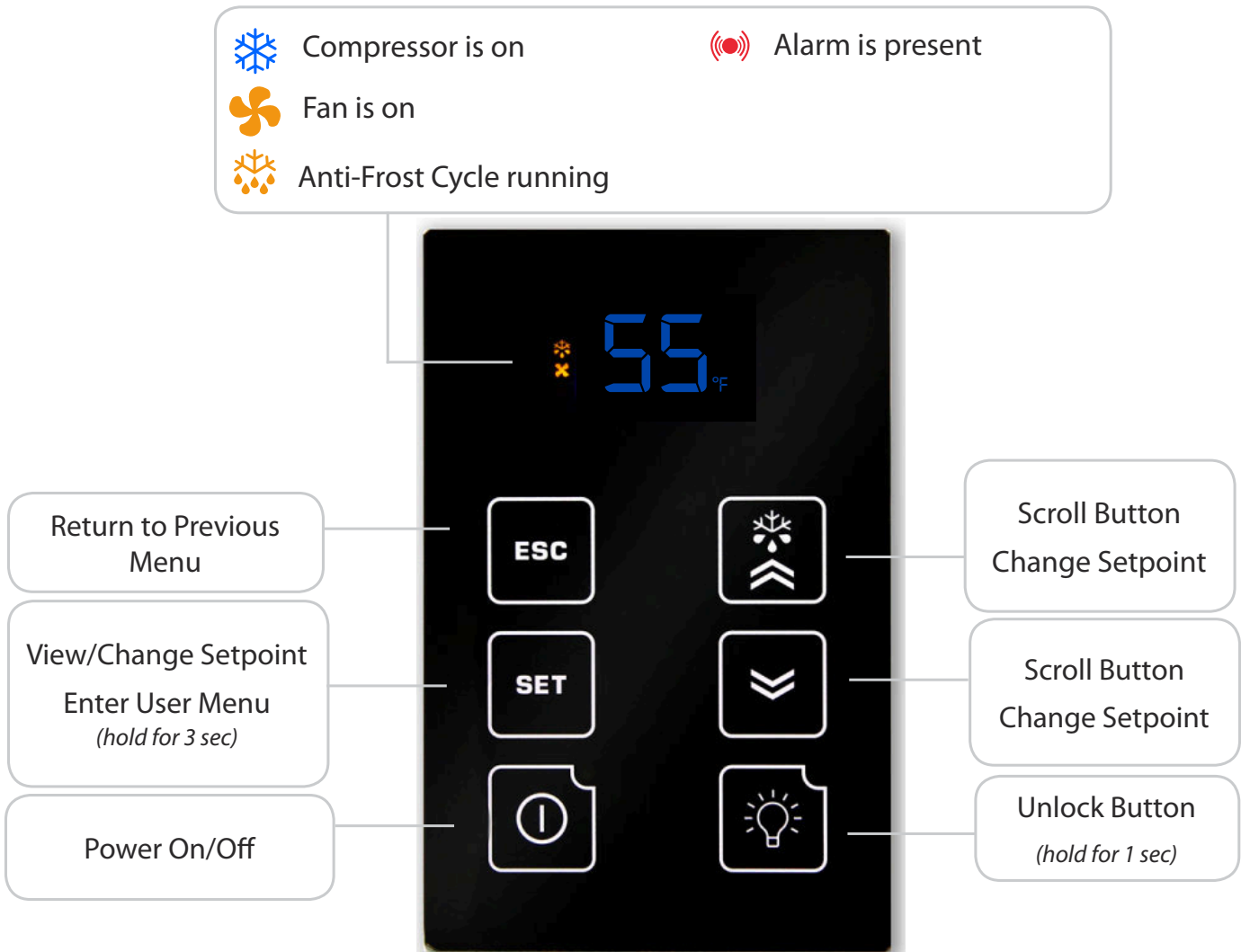
Safety Features

In the event of a faulty bottle probe, the compressor will cycle off for 10 minutes and on for 40 minutes. “E1” will be displayed on the screen.






Alarms

See “Alarm Codes” in the Controller Functions chart.





DISPLAY LAYOUT





CONTROLLER FUNCTIONS

Button	Normal Functions								
INITIAL STARTUP	When the unit is plugged in and power is sent to the controller, a beep will sound, confirming that the controller is getting power. All LEDs on the display will blink three times. Three dashes will then appear on the screen. All display LEDs will then blink three times. Once the controller has gone through the initial startup process, and all LEDs have cycled, the home screen will be displayed.								
UNLOCKING THE DISPLAY	Press and hold any button for one second to unlock the display. (A white LED will appear in the top left corner of the button being pressed.) A beep will sound, signifying that the display is unlocked. NOTE: The display must be unlocked before any button functions become available.								
ON/OFF 	To turn the unit ON, press and hold the ON/OFF button until the red LED turns OFF. To turn the unit OFF, press and hold the ON/OFF button until the red LED turns ON.								
UP/DOWN 	The up and down arrows are used to navigate through menus and adjust parameters such as setpoint, Fon/FOF, etc.								
SET 	<ul style="list-style-type: none"> To change the setpoint, press the SET button. When "SEt" is displayed on the screen, press the SET button once more. Use the UP and DOWN ARROW buttons in order to change the value until the desired setpoint is reached. The SET button allows you to view the setpoint, evaporator temperature, bottle temperature, alarms, and the hidden menu. Press the SET button once. "SEt" will be displayed. Press the UP or DOWN ARROW buttons to scroll through ALr, Pb1, or Pb2. <table border="1" data-bbox="467 1205 1511 1373"> <thead> <tr> <th>Set</th> <th>Setpoint</th> </tr> </thead> <tbody> <tr> <td>ALr</td> <td>Alarm folder</td> </tr> <tr> <td>Pb1</td> <td>Liquid (bottle probe) temperature</td> </tr> <tr> <td>Pb2</td> <td>Evaporator coil temperature</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Press the SET button again to view any of these values. Hold the SET button for approximately 5 seconds to enter the User Menu. (More information about the User Menu is available on page 36.) Other parameters in the User Menu which are not available for adjustment include: idF, rEL, and LAN. 	Set	Setpoint	ALr	Alarm folder	Pb1	Liquid (bottle probe) temperature	Pb2	Evaporator coil temperature
Set	Setpoint								
ALr	Alarm folder								
Pb1	Liquid (bottle probe) temperature								
Pb2	Evaporator coil temperature								
ESC 	This button confirms changes made to parameters such as the setpoint and returns you to the previous menu.								
LIGHT 	The light function is not in use. However, this button can still be used to unlock the display.								

ICON GLOSSARY

Icon	Meaning
<p>SNOWFLAKE</p> 	<p>Blinking: The unit is calling for cooling, but must wait five minutes before restarting the compressor. This five-minute delay serves as an Anti-Short Cycle for the compressor's protection.</p> <p>Constant: The unit is in cooling mode and the condensing unit is running.</p>
<p>DRIPPING SNOWFLAKE</p> 	<p>The unit is undergoing an Anti-Frost Cycle. While the Anti-Frost Cycle is running, "dEF" will be displayed on the screen. See System Operation page for further details.</p>
<p>FAN</p> 	<p>The evaporator fan is running.</p>
<p>ALARM</p> 	<p>The alarm icon is shown when the unit encounters an issue that needs attention. Alarm codes are explained on the following page. All temperature-related alarms are blocked for the first 10 hours after the unit is plugged in to allow the system to stabilize and acclimate to the new environment.</p>

ALARM CODES

Code	Cause	Solution
The following alarm codes will be displayed on the screen along with the alarm icon. 		
E1	Bottle probe is not connected	Attach bottle probe to circular connector (see instructions on page 21)
	Faulty bottle probe connection	Locate faulty bottle probe connection by inspecting all wiring connections between the bottle probe and the circuit board. The two-pin connector for the bottle probe should be connected to the CPB/PB1 terminal on the circuit board. If it is not connected, plug it in. If a faulty connection has been identified, correct the issue or contact customer service for further assistance. NOTE: The E1 code will not appear in the alarms menu. It will be permanently displayed on the screen.
	Defective bottle probe	Replace the bottle probe
E2	Faulty evaporator probe connection	Locate faulty evaporator probe connection by inspecting evaporator probe wire. The two-pin connector for the evaporator probe should be connected to the CPB/PB2 terminal on the circuit board. If it is not connected, plug it in.
	Defective evaporator probe	Replace the evaporator probe
E7	No communication between keypad and circuit board for 60 seconds	Verify that the display cable is connected to the keypad and the circuit board and is not damaged, frayed, or kinked. If problem persists, contact Customer Service for troubleshooting information.
E10	Clock battery is dead	Replace battery NOTE: A dead clock battery will not affect the operation of your cooling unit.
	The following alarm codes will not be displayed on the home screen. However, the alarm icon will be displayed in the event of an alarm. The alarms can be viewed in the Set Menu's ALr folder. 	
EA	Unit is not draining properly	1. Check to see that the unit is level; if not, level it 2. Verify that the drain line is not clogged; if so, clear obstruction 3. Ensure that the condensate pump is operating NOTE: If the drain line is obstructed or the pump fails for some reason, and the water level in the drip tray gets too high, the unit will not operate until the water in the internal drip tray drops back below the proper level.
AH1	The bottle probe is sensing a temperature that is 8°F above the setpoint	1. Allow time for the wine to reach the desired temperature 2. Ensure that the cellar is sealed properly 3. Verify that the bottle probe is calibrated correctly (refer to the User Menu on the following page) 4. Verify that the unit is sized correctly for the cellar
AL1	The bottle probe is sensing a temperature that is 8°F below the setpoint	1. Make sure the unit is not in cooling mode (the snowflake icon will not be illuminated) 2. Add heat to the room until the wine reaches the desired temp 3. Verify that the bottle probe is calibrated correctly (refer to the User Menu on the following page)
Ad2	The Anti-Frost Cycle ended on time-out	1. Check the evaporator coil for ice buildup. Unplug the unit and allow the coil to thaw before restarting. 2. Make sure the room to which the unit is exhausting is not below 60°F 3. If the unit repeatedly goes into Anti-Frost Cycles (one per minute), call Customer Service for more troubleshooting information

USER MENU

The User Menu is accessed by **pressing and holding the SET button for 3 seconds**. Use the UP and DOWN ARROW buttons to navigate to desired parameters. Press the SET button again to view these parameters. Press the UP and DOWN ARROW buttons to adjust a parameter.

The following parameters are available in the menu:

Parameter	Description
Fdc - humidity enhancement	This parameter is measured in minutes, and is preset at the factory to 1. An increase in this parameter will increase the humidity enhancement of your cellar. This parameter should not be adjusted to zero. Adjustments should be made in increments of 5, with a maximum of 15 and a minimum of 1. After making any adjustments to humidity enhancement, you should wait a minimum of 3 days before making any additional adjustments. This will allow sufficient time for the cellar to acclimate to the new setting.
FOF - "fan off"	This setting controls how long the fan stays off after the setpoint has been reached. It is preset to 15 minutes. This setting should not be adjusted, as most properly constructed wine cellars retain an ample amount of humidity during the "fan off" cycle. If, however, you wish to decrease the duration of the "fan off" cycle (in order to increase the wine cellar's relative humidity), you can adjust this setting in the User Menu.
Fon - "fan on"	The "fan on" time is preset to zero minutes. This keeps the relative humidity of the wine cellar at a stable level. If, however, you wish to raise the relative humidity of your wine cellar, you can increase the duration of the "fan on" cycle in increments of five (5, 10, or 15 minutes). After making any adjustment to the "fan on" cycle, you should wait a minimum of 3 days before making any additional adjustments. This will allow sufficient time for the cellar to acclimate to the new setting.
CA1 - bottle probe (Pb1) calibration	CA1 - bottle probe (Pb1) calibration: You may use this parameter to calibrate the bottle probe to a known temperature. This parameter can be adjusted between -12°F and 12°F. For example, if the bottle probe temperature is 58°F, and the known temperature is 55°F, you can set the CA1 parameter to -3°F to match the known temperature.
PA2 - installer menu	This menu is only accessible using a password and is not available for adjustment.
dOA - digital input	This setting determines which of the unit's components will be activated or deactivated when a certain electrical relay is activated or deactivated in response to an alarm. The controller comes pre-programmed with a factory setting of 2. 2 = activates the compressor and fans 5 = disables the compressor and fans NOTE: Setting the dOA to any number other than 2 or 5 will prevent the unit from operating properly.

NOTES

TROUBLESHOOTING GUIDE

Unit has ice forming on the evaporator	
Possible cause	Solution
Evaporator coil is dirty	Clean the coil with a vacuum. If coil is very dirty, use a spray bottle with a small amount of liquid dish detergent or coil cleaner. Spray coil, let set for five minutes, then flush with fresh water.
There is something blocking the supply and/or return air	Remove blockage
The evaporator fan is not turning on	Call a service tech to troubleshoot
The unit has not gone through an Anti-Frost Cycle yet	Check the coil for surface ice. Melt with blow drier until coil is warm to the touch. Soak up water with a towel.
The unit continues to ice	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If all the way up, the coil may be dirty or airflow is blocked.
Unit does not run/power up	
Possible cause	Solution
Unit is not plugged in	Make sure the unit is plugged into an outlet
Power switch not on	Turn unit on by pressing the power button on the control
Line voltage is incorrect rating for unit	Check line voltage to make sure there is 110V-120V
Bottle at setpoint	Lower setpoint
Thermostat not calling for cooling	Lower setpoint
Power select switch in wrong position	See page 11 for correct switch position
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar temperature is too warm	
Possible cause	Solution
The temperature of the room to which the unit exhausts exceeds 110°F	Intake temperature needs to drop below 110°F
The unit is undersized for the cellar	Order correct size unit
There is something blocking the supply and/or return air on evaporator or condenser side of the unit	Remove airflow obstruction
Unit is mounted too low in the cellar	Relocate unit so the distance from the ceiling and top of the unit or cold air supply duct is no more than 18"
One or more of the fans is not turning on	Call Customer Service at 1-800-343-9463
Compressor is not turning on	Call Customer Service at 1-800-343-9463
Compressor keeps cycling on overload	Make sure all fans are working and there is no airflow obstruction
Poor seal around door	Make sure there are no air gaps around the door. If door seal is damaged, replace it.
Setpoint too high	Lower the setpoint
Evaporator coil is frosted or iced up	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If so, call Customer Service at 1-800-343-9463.
System runs constantly	
Possible cause	Solution
Leaky door seal or poorly insulated cellar	Fix leaky door seal and insulate cellar in accordance with this manual (page 9)

Unit leaks water

Possible cause	Solution
Unit is level	System should have a two-degree (2°) pitch towards the exhaust side
Drain line clogged or kinked	Check drain line to make sure water can flow freely
Drain is clogged, preventing water from escaping	1. Disconnect exterior drain line and clear it out; run provided drain line brush through the drain port and into the interior drain line. 2. Open access door and, using a flashlight, check drain line for blockage; drop a pan tab into the drip tray to prevent further blockages.
Drain line does not have a downward slope	Fix drain line so there is a downward slope from the unit to the drain
Coil is iced, causing drip tray to freeze and water to overflow	Melt ice with blow drier. Soak up with a towel.

Unit runs but does not cool

Possible cause	Solution
Lack of airflow	Make sure fan is unobstructed and coil is clean
Compressor not running	Call Customer Service at 1-800-343-9463
Unit undersized	Call Customer Service at 1-800-343-9463
Compressor is overheating	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.

Evaporator fan runs but compressor does not

Possible cause	Solution
Running an Anti-Frost cycle	Check evaporator coil temperature
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463
"Fan on" (FOn) setting has been increased, allowing fans to run after the compressor turns off	Lower the "fan on" (FOn) time
Compressor may have overheated	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.

Compressor runs but evaporator fan does not

Possible cause	Solution
Faulty fan motor	Call Customer Service at 1-800-343-9463
Faulty controller	Call Customer Service at 1-800-343-9463

Compressor short cycles

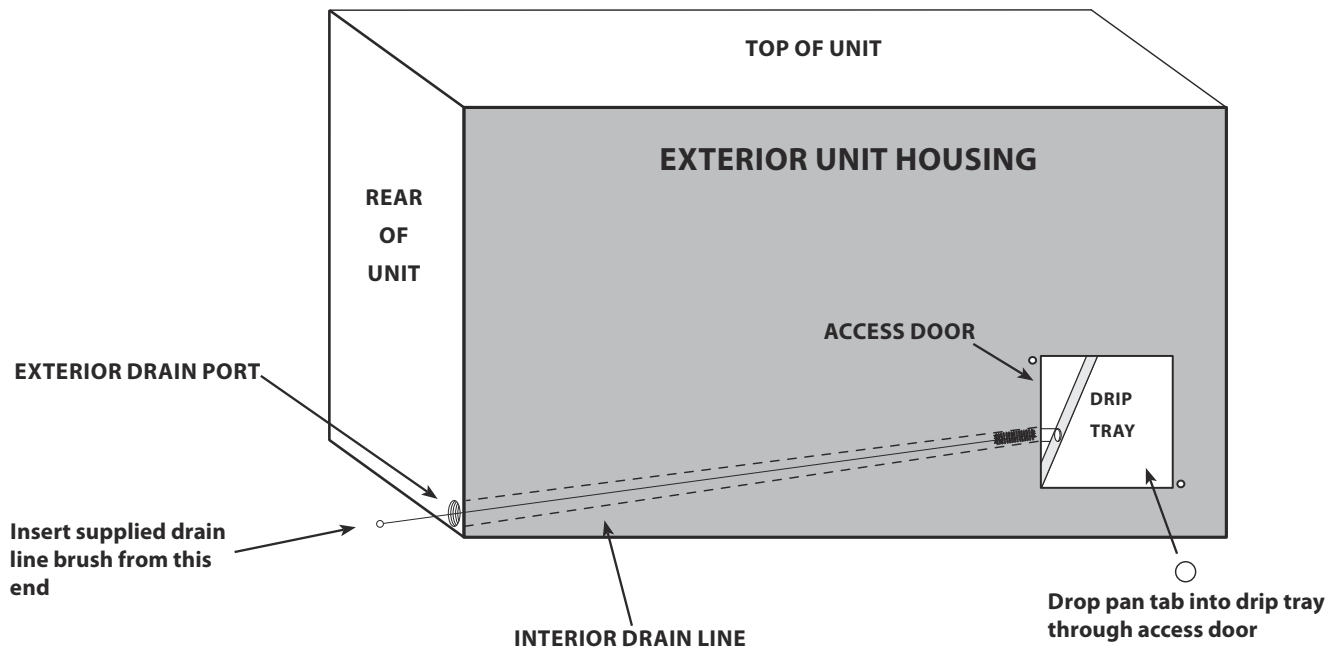
Possible cause	Solution
Evaporator blows on bottle probe	Move bottle probe to a more central location
Unit low on refrigerant charge	Call Customer Service at 1-800-343-9463
Condensing fan motor/capacitor faulty	Call Customer Service at 1-800-343-9463
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463

Humidity in cellar too low

Possible cause	Solution
Not enough moisture	Install a humidifier or decorative fountain in the wine cellar

MAINTENANCE SCHEDULE

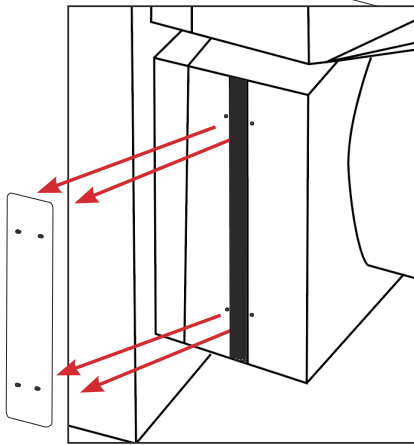
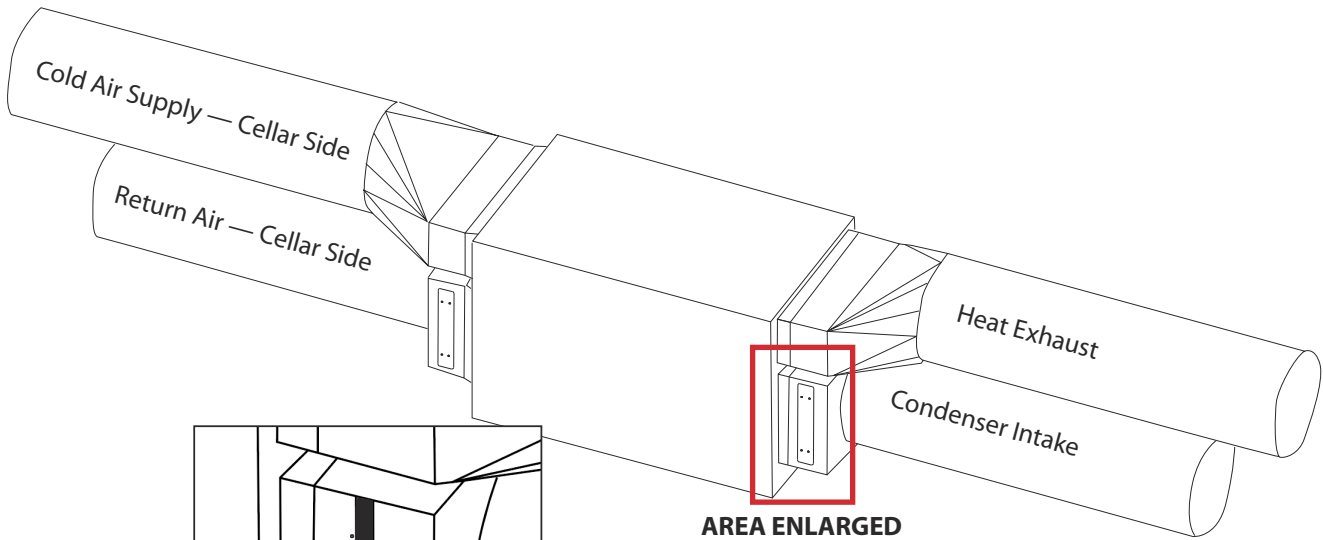
Monthly	<ol style="list-style-type: none"> 1. Check filters and clean if necessary 2. Check for unusual noise or vibration 3. Check drain line to see if it is above the waterline (when draining into a vessel)
Every Six Weeks	Using the supplied drain line brush, clean the interior drain line leading from the drip tray and drop a pan tab into the drip tray (see illustration below for more details).
Quarterly	<ol style="list-style-type: none"> 1. Clean filters 2. Replace filters on ducted units (see diagram below)
Annually	<ol style="list-style-type: none"> 1. Replace filters if worn or plugged beyond cleaning 2. Use a vacuum with brush attachment to clean coils; be careful not to crush coil fins 3. Inspect for corrosion 4. Check wiring connections and integrity of cords 5. Examine duct work for cracks or possible leaks 6. Pour a 50/50 bleach solution into the external drain line every spring



Pan tabs kill bacteria and related odors, remove sludge and scale, and help to prevent water damage caused by condensate overflow. They are non-corrosive and easy to install. Simply use the access door to drop a pan tab into the drip tray every six weeks.

WARNING: Keep pan tabs out of reach of children. They contain quaternary ammonium chloride and can cause skin and eye irritation. They are harmful or fatal if ingested. Wear protective gloves when handling pan tabs. Wash hands thoroughly after handling. If pan tabs make contact with eyes, rinse cautiously with water for several minutes. In case of an emergency, call 1-800-255-3924 (24 hours).

FILTER REPLACEMENT PROCEDURE (FOR DUCTED UNITS)



Filter replacement procedure (for ducted units): First, unscrew the four screws on the side of the condenser intake and cellar-side return air plenum housings. Once the screws are removed, remove the slender panels from the side of the plenum housings. Slide the old filters out of duct plenums and replace them with new ones. Replace panel and screws when finished.

TECHNICAL ASSISTANCE

WhisperKOOL Customer Service is available Monday through Friday from 6:00 a.m. to 4:00 p.m. Pacific Standard Time.

The appointed customer service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

- The model and serial number of your WhisperKOOL system(s).
- Location of unit and installation details, such as ventilation, ducting, construction of your wine cellar, and room size.
- Photos of the cellar and installation location may be needed.

Contact WhisperKOOL Customer Service

1738 E. Alpine Ave
Stockton, CA, 95205
www.whisperkool.com

Email: support@whisperkool.com

Phone: 209-466-9463

US Toll Free: 1-800-343-9463

Fax: 209-466-4606

ACCESSORIES FOR COOLING UNITS

WhisperKOOL offers accessories to enhance and customize your wine cooling unit.

Exterior Grille

Protects the unit from the weather elements when placed on the exhaust side.

- Small exterior grille (used for Extreme 3500tiR and 5000tiR)
- Large exterior grille (used for Extreme 8000tiR)

Condensate Pump Kit

The condensate pump kit is designed as an automatic condensate removal pump for water dripping out of our cooling units' drain line. The pump is controlled by a float/switch mechanism that turns the pump on when approximately 2¼" of water collects in the tank, and automatically switches off when the tank drains to approximately 1¼". The condensate pump kit allows the excess condensate to be pumped up to 20 feet away from the unit.

Extreme Ducting Kit

This kit allows either side of the unit to be ducted. Duct the cold air through a vent into the cellar, duct the hot exhaust air out of the home. This option allows for total installation flexibility.

Note: Flex or rigid ductwork is not included.

Accessories can be purchased at www.whisperkool.com

**WhisperKOOL Product Terms and Conditions
Including Product Limited Warranty And Product Installation Requirements
For WhisperKOOL Extreme Series**

ATTENTION: PLEASE READ THESE TERMS OF USE CAREFULLY BEFORE INSTALLING YOUR WHISPERKOOL COOLING SYSTEM. INSTALLING YOUR WHISPERKOOL COOLING SYSTEM INDICATES THAT YOU ACCEPT AND AGREE TO EACH OF THE TERMS AND CONDITIONS SET FORTH HEREIN ("TERMS OF USE"). IF YOU DO NOT ACCEPT THESE TERMS OF USE, YOU RISK VOIDING YOUR WARRANTY AND ASSUMING ADDITIONAL REPAIR AND REPLACEMENT COSTS.

1. Purchase of a WhisperKOOL Cooling System assumes that the Purchaser ("End User") fully accepts and agrees to the Terms and Conditions set forth in this document. The Terms and Conditions of Sale and Owner's Manual are shipped with each unit and, if another copy is needed, replacement copies can be downloaded from the company website (whisperkool.com) or by contacting WhisperKOOL directly for a new copy. WhisperKOOL reserves the right, in its sole discretion, to change its Terms and Conditions at any time, for any reason, without notice.

2. WhisperKOOL Product Limited Warranty:

A. Two (2) Year Limited Warranty: For the period of TWO (2) YEARS (the "Limited Warranty Period") from the date of original sale of a Product by WhisperKOOL, if a WhisperKOOL Product is found to be defective in material or workmanship after undergoing WhisperKOOL's Customer Service troubleshooting, then, subject to the WhisperKOOL Product Limited Warranty Limitations and Exclusions as well as the other Terms and Conditions stated herein, WhisperKOOL will do the following, as appropriate, for the end user ("End User") who has installed and is actually using the Product, with regard to LABOR, PARTS and FREIGHT:

1. **LABOR** — Repair or replace (at WhisperKOOL's sole option) the Product to the End User; and
2. **PARTS** — Supply to the End User, new or rebuilt replacement parts for the Product in exchange for the return of defective parts; and
3. **FREIGHT** — Cover normal ground freight charges for parts, and, in the event the Product is not repairable in the field, cover normal ground freight charges (within the continental United States) for the repair or replacement of the Product.

B. Five (5) Year Compressor Limited Warranty: WhisperKOOL Products' compressor only will be covered for five (5) years from date of purchase. Labor and freight of the compressor is the End Users responsibility.

C. Product Warranty Limitations and Exclusions:

1. This limited warranty does not cover cosmetic damage caused during installation, damage due to acts of God, commercial use, accident, misuse, abuse, negligence, or modification to any part of the Product. Delivery and installation of the Product, any additional parts required, as well as removal of the Product if warranty work is required, are all at the sole cost, risk and obligation of the End User.
2. This limited warranty does not cover damage due to improper installation or operation or lack of proper maintenance of the Product, connection of the Product to improper voltage supply, or attempted repair of the Product by anyone other than a technician approved by WhisperKOOL to service the Product.
3. This limited warranty does not cover any Product sold "AS IS" or "WITH ALL FAULTS."
4. Product that has been replaced during warranty period does not extend the warranty period past the original date of purchase.
5. (5) This limited warranty is valid only in the continental United States. Sales elsewhere are excluded from this warranty.
6. Proof of purchase of the Product in the form of a bill of sale, receipted invoice or serial number, which is evidence that the Product is within the Limited Warranty Period, must be presented by the End User to WhisperKOOL in order to obtain limited warranty service.
7. This limited warranty is void if the factory applied serial number has been altered or removed from the Product.

8. This limited warranty is voided if installed in an enclosure of insufficient design that does not follow the Product installation requirements stated herein and in the Owner's Manual.
9. Removing the rivets from the Product's unit housing without prior authorization from WhisperKOOL voids this limited warranty.
10. The End User must first contact WhisperKOOL Customer Service by telephone (at 1-800-343-9463) prior to attempting service on any Product still under the limited warranty; else the limited warranty is voided.
11. This limited warranty does not cover Product being concealed by, but not limited to; vegetation, fabric, shelving, mud, snow, or dirt. Product must not be painted or limited warranty will be void.
12. This limited warranty does not cover exposure to corroding environments such as, but not limited to; petroleum and gasoline products, cleaning solvents, caustic pool chemicals, and marine air.
13. This limited warranty does not cover any cause not relating to Product defect.
14. THE REPAIR OR REPLACEMENT OF THE PRODUCT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF YOU, THE END USER, AS WELL AS ANYONE ELSE IN THE CHAIN OF TITLE OF THE PRODUCT, DOES NOT START A NEW LIMITED WARRANTY TIME PERIOD, AND IS IN LIEU OF ALL OTHER WARRANTIES (EXPRESS OR IMPLIED) WITH REGARD TO THE PRODUCT. IN NO EVENT SHALL WHISPERKOOL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may have other rights, which vary from state to state.
15. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at WhisperKOOL's sole discretion, void this limited warranty.
16. No one has any authority to add to or vary the limited warranty on this Product.

3. Product Installation Requirements:

- A. Prior to installing a WhisperKOOL Product, the End User must read the WhisperKOOL Owner's Manual and thereafter the End User must follow the required installation, use and maintenance procedures set forth by WhisperKOOL in WhisperKOOL's Owner's Manual. The Owner's Manual is shipped with each Product and if another copy is needed, replacement copies can be downloaded from WhisperKOOL's website (www.whisperkool.com) or by contacting WhisperKOOL directly for a new copy of the Owner's Manual.
- B. It is highly recommended that the End User obtain the assistance of a wine storage professional.
- C. Failing to address all of the variables associated with proper installation will cause the Product to operate incorrectly and limit both the Product's ability to cool and the longevity of the Product itself.
- D. The End User is responsible for all risks and costs of installation of the Product, including but not limited to all labor costs as well as cost of any additional parts required for the proper and complete installation of the Product. The End User is responsible for all risks and costs of removing the Product if limited warranty work is required.
- E. The Product cannot operate at its optimum capacity if airflow is constricted by ducting or venting the exhaust side of the Product into a location with inadequate ventilation.

4. Maintenance Requirements

It is the End User's responsibility to clean off any accumulated dust, lint, or other debris from the front and rear intake grills. Failure to do this on a regular basis will restrict the airflow and may affect the Product's ability to function properly. Periodically cleaning the Product's vents will help assure maximum cooling efficiency. The drain line tube must also be checked and kept clean and free of debris and mold to maintain proper performance.

Mold is a natural living organism in the environment. It exists in the air in the form of microscopic spores that move in and out of buildings through doors, windows, vents, HVAC systems and anywhere else that air enters. Once it is discovered, mold must be addressed quickly and appropriately. Delayed or improper treatment of mold issues can result in costly and reoccurring repairs. If the End User suspects a mold problem, it is always best to hire a qualified and experienced mold remediation specialist.

5. Additional End User Costs And Responsibilities

The following items are not covered under any warranty and are the sole responsibility of the End User:

- A. End Users should satisfy themselves that the Product they are purchasing is suitable for their particular needs and requirements, and thus no responsibility will be placed with WhisperKOOL for the End User's decisions in this regard.
- B. It is the End User's responsibility to secure safe haven/storage for ANY AND ALL items that are being kept and stored in the End User's wine cellar, including any Product. WhisperKOOL takes no responsibility for the safety and preservation of the aforementioned items in the event that the environment becomes unsuitable to maintain a proper storage environment.
- C. End User is responsible for initial installation costs, including, but not limited to, labor costs and the cost of any additional parts necessary to complete the installation.
- D. End User is responsible for all costs incurred for the installation and/or removal of the Product, or any part thereof, unless such cost has been agreed by WhisperKOOL to be a warranty repair prior to the work being performed.

6. Sales and Use Tax

WhisperKOOL only collects California sales tax for orders shipped within the State of California. WhisperKOOL does not collect sales tax for orders shipped to other states. However, the Purchaser and the End User may be liable to the taxing authority in their state for sales tax and/or use tax on the Product. The Purchaser and the End User should each check with their state's taxing authority for sales and use tax regulations.

7. Customer Service and Troubleshooting

WhisperKOOL's Customer Service department is available to answer any questions or inquiries for End Users regarding a WhisperKOOL Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:00 a.m. to 4:00 p.m. (PST), at 1-800-343-9463. WhisperKOOL Corporation is located at 1738 East Alpine Avenue, Stockton, California 95205.

8. Miscellaneous Terms and Conditions

- A. Return Policy: All return inquiries must be made within thirty (30) calendar days of the original purchase of a Product and are subject to a twenty five percent (25%) restocking fee. Shipping costs are not refundable and the Purchaser is responsible for all return shipping costs (including customs fees and duties, if applicable).
- B. Security Interest: WhisperKOOL retains a security interest in each Product until payment in full.
- C. Construction and Severability: Every provision of these Terms and Conditions shall be construed, to the extent possible, so as to be valid and enforceable. If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will, to the extent so held, be deemed severed from the contract of sale between Purchaser and WhisperKOOL, and all of the other non-severed provisions will remain in full force and effect.
- D. Governing Law/Choice of Forum: The laws of the State of California (without regard for conflicts of law) shall govern the construction and enforcement of the these Terms and Conditions of Sale (Sections 1 through 9 inclusive, including Product Limited Warranty And Product Installation Requirements), and further these Terms and Conditions of Sale shall be interpreted as though drafted jointly by WhisperKOOL and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, WhisperKOOL, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose. No waiver by WhisperKOOL of any breach or default of the contract of sale (including these Terms and Conditions of Sale) concerning a Product will be deemed to be a waiver of any preceding or subsequent breach or default.
- E. Correction of Errors and Inaccuracies: These Terms and Conditions may contain typographical errors or other errors or inaccuracies. WhisperKOOL reserves the right to correct any errors, inaccuracies or omissions, and to change or update these Terms and Conditions, at any time without prior notice.

9. Questions, Additional Information And Technical Assistance

A. Questions: If you have any questions regarding these Terms and Conditions or wish to obtain additional information, contact us via phone at 1-800-343-9463 or please send a letter via U.S. Mail to:

Customer Service
WhisperKOOL Corporation
1738 E Alpine Ave
Stockton, CA 95205

E-mail: support@whisperkool.com
Web: www.whisperkool.com

B. Technical Assistance: WhisperKOOL Customer Service is available Monday through Friday from 6:00 a.m. to 4:00 p.m. (PST). The Customer Service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

1. The model and serial number of your WhisperKOOL UNIT.
2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model **EX** _____ Serial Number **A** _____

Installed by _____ Date _____

*Whisper***KOOL™**

WhisperKOOL
1738 E. Alpine Ave
Stockton, CA 95205
1-800-343-9463
www.whisperkool.com

EXTREME SERIES OWNER'S MANUAL

24V Thermostat Conversion Kit Option

Extreme 3500tiR

Extreme 5000tiR

Extreme 8000tiR

Extreme 3500tiR FD

Extreme 5000tiR FD

Extreme 8000tiR FD

***Whisper*KOOL™**
The Coolest Thing In Wine Storage

Conforms to ANSI/UL Std 427

Certified to CAN/CSA Std C22.2 No. 120

We manufacture, test and certify 100% of our wine cooling units in the USA. By sourcing the best components and closely controlling our manufacturing processes, we can assure the highest-quality, lowest defect manufacturing rates in the industry.

Copyright © 2017. WhisperKOOL. All rights reserved.

WhisperKOOL copyrights this manual, the product design, and the design concepts, with all rights reserved. Your rights with regard to the hardware and manual are subject to the restrictions and limitations imposed by the copyright laws of the USA. Under copyright laws, this manual may not be copied, reproduced, translated, transmitted, or reduced to any printed or electronic medium or to any machine-readable form, for any purpose, in whole or in part, without the written consent of WhisperKOOL.

Every effort has been made to ensure that the information in this manual is accurate. WhisperKOOL is not responsible for printing or clerical errors.

WhisperKOOL reserves the right to make corrections or improvements to the information provided and to the related hardware at any time, without notice.

Vinothèque and WhisperKOOL are registered trademarks, and ECE is a trademark of WhisperKOOL. All rights reserved.

Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. WhisperKOOL assumes no liability with regard to the performance or use of these products.

TABLE OF CONTENTS

Introduction	2
Before You Start	3
Receiving & Inspecting the Unit	4
Quick Reference Guide	5
Fan Speed & Unit Specifications.....	7
Preparing the Wine Cellar	8
Preparing the Unit for Installation	11
Through-the-Wall Installation	
Preparing the Installation Location.....	12
Optional Exterior Grille	14
Installing the Unit	16
Ducted Installation	
Ducting Overview.....	17
Ducting Configurations.....	18
Installing the Duct Plenums.....	20
Condensation Drain Line	21
Multi-Speed Fan Control	22
Extreme 3500tiR/FD, 5000tiR/FD, & 8000tiR/FD with 24V TCK	
Wiring Diagram	23
System Operation	24
Troubleshooting Guide	26
Maintenance Schedule	29
Technical Assistance & Accessories	31
Installation Terms & Conditions	32

INTRODUCTION

Customer Service

Thank you for purchasing a WhisperKOOL Extreme Series cooling unit. We strive to provide the highest-quality products and the best possible customer service. If you have any questions about your WhisperKOOL unit, please call us at 1-800-343-9463 or visit www.whisperkool.com.

Using the Manual

This manual is intended to assist in the proper installation and maintenance of the WhisperKOOL cooling unit. In order to ensure the longevity of your cooling unit, the equipment should be installed correctly and have a proper care and maintenance schedule. Please read and review this manual carefully and keep it for future reference.

What is the WhisperKOOL Cooling Unit?

The WhisperKOOL cooling unit is a specialized refrigeration unit designed for one purpose only: to maintain the optimal temperature and humidity levels conducive to the proper storage and aging of fine wines. It is a self-contained cooling unit designed to be used as a forced-air, through-the-wall unit.

How Does the WhisperKOOL Extreme Series Work?

The WhisperKOOL unit is especially designed to maintain optimal conditions for wine storage and aging. The unit is fully self-contained and can be installed through most walls. The unit is also capable of a more flexible ducted application, which allows the unit to be placed in an indoor remote site, resulting in a quiet airflow.

Temperature Setting

The WhisperKOOL cooling unit can be set at any temperature within the acceptable wine-aging range of 55–70°F. It is designed to create a differential of up to 55°F between the cellar and the ambient temperature (as long as the space to which the unit is exhausting does not exceed 110°F).

1-800-343-9463

BEFORE YOU START

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or WhisperKOOL Customer Service at 1-800-343-9463.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The WhisperKOOL unit **requires a dedicated 115V, 20-amp circuit.** Use a surge protector with the WhisperKOOL unit. **Do not use a GFI** (ground fault interrupter) line.
4. The unit is designed to gently cool down the temperature of the cellar over time by cycling cooler and cooler air throughout. Test the unit prior to installation.
5. You are **REQUIRED** to **install a drain line** to remove condensation from the unit.
6. The WhisperKOOL unit is intended for use in **properly designed and constructed wine cellars.** Hire a professional wine storage consultant with a valid contractor's license to build your wine cellar.

Never try to open the WhisperKOOL unit, repair it yourself, or use a service company without WhisperKOOL's authorization. This will void your warranty.

If you encounter a problem with your WhisperKOOL unit, please refer to the Troubleshooting Guide. If you have any further questions, concerns, or need assistance, please contact WhisperKOOL Customer Service at 1-800-343-9463. Please be sure all testing has been completed prior to contacting Customer Service. Please have your results ready for your representative.

RECEIVING AND INSPECTING THE UNIT

Upon receiving your WhisperKOOL unit:

- Lift only at the designated hand-hold locations on the shipping container, or fully support the unit from underneath. A shipment may include one or more boxes containing accessories.
- Inspect the packaging for any obvious signs of damage or mishandling before opening the container.
- Note any discrepancies or visual damage on the bill of lading before signing.
- Place the box containing the WhisperKOOL unit on a tabletop to prepare it for testing prior to installation.
- Sit unit upright for 24 hours.

NOTE: WhisperKOOL units are manufactured in the USA and tested prior to shipment.

- Review the packing slip to verify the package's contents.
- Check the model number to ensure it is correct.
- Check that all factory options ordered are listed.
- Check the box for the following:

3500tiR / 5000tiR / 8000tiR
Extreme cooling unit <ul style="list-style-type: none">• (1) Extreme Series owner's manual• (18) Anti-microbial pan tabs• (1) Drain line brush
Single-piece mounting bracket*
Accessory kit: <ul style="list-style-type: none">• (1) 8-foot power cord• (1) Piece of mounting bracket insulation foam (6 feet)*• (11) 1¾" standard screws• (7) ½" Phillips pan-head screws• (1) ½" barbed "tee" fitting• (1) Drain line tube (½" ID clear plastic tubing, 10 feet)

*Not included with fully ducted Extreme tiR units.

If any items listed on the packing slip do not match your order information, contact WhisperKOOL Customer Service immediately.

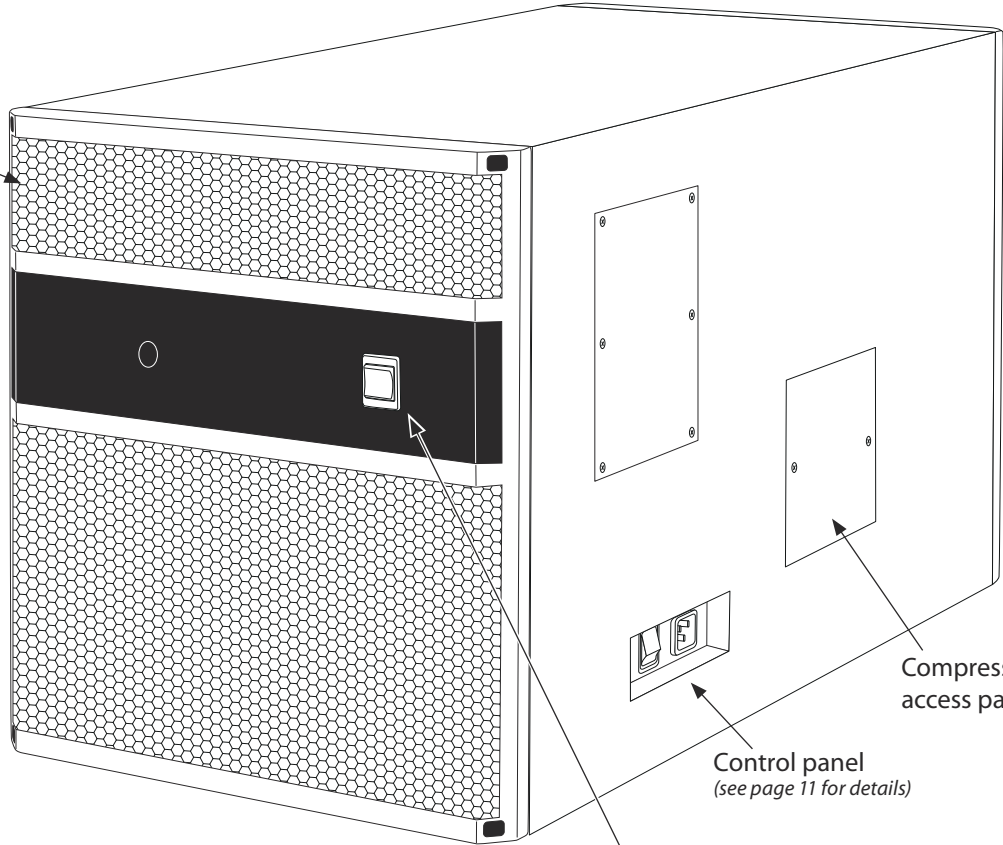
Please leave the WhisperKOOL unit in its original box until you are ready for installation. This will allow you to move the product safely without damaging it. When you are ready to remove the product from the box, refer to the installation instructions.

TIP: Save your box and all packaging materials. They provide the only safe means of transporting/shipping the unit.

QUICK REFERENCE GUIDE

Front / Side View

Evaporator grille w/
filter



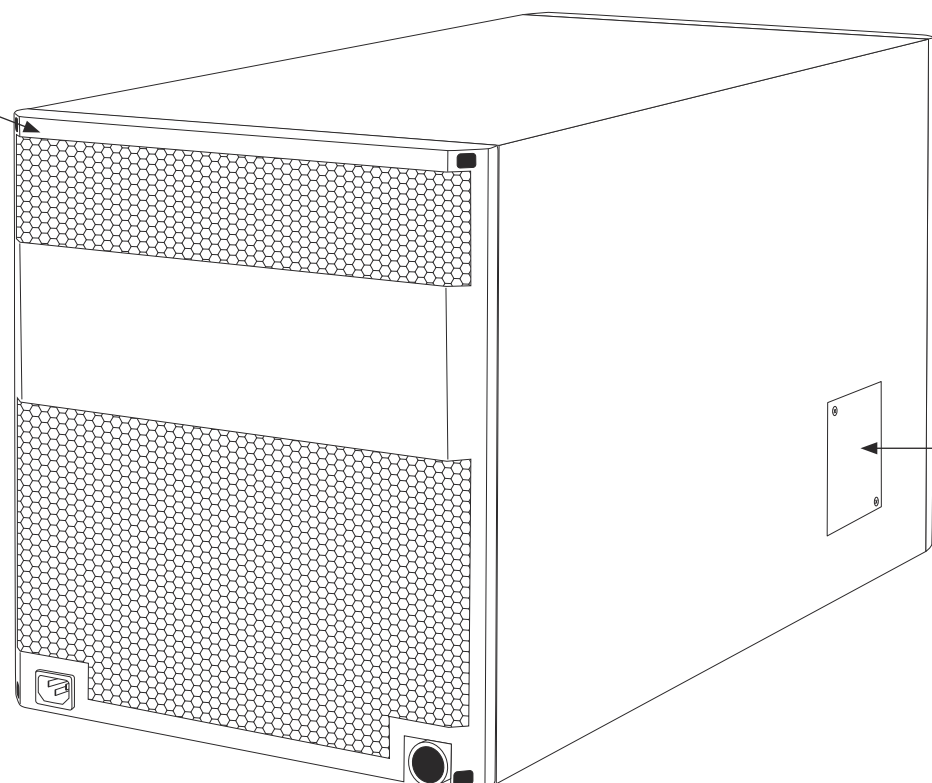
Compressor
access panel

Control panel
(see page 11 for details)

Fan speed control

Rear / Side View

Evaporator grille w/
filter

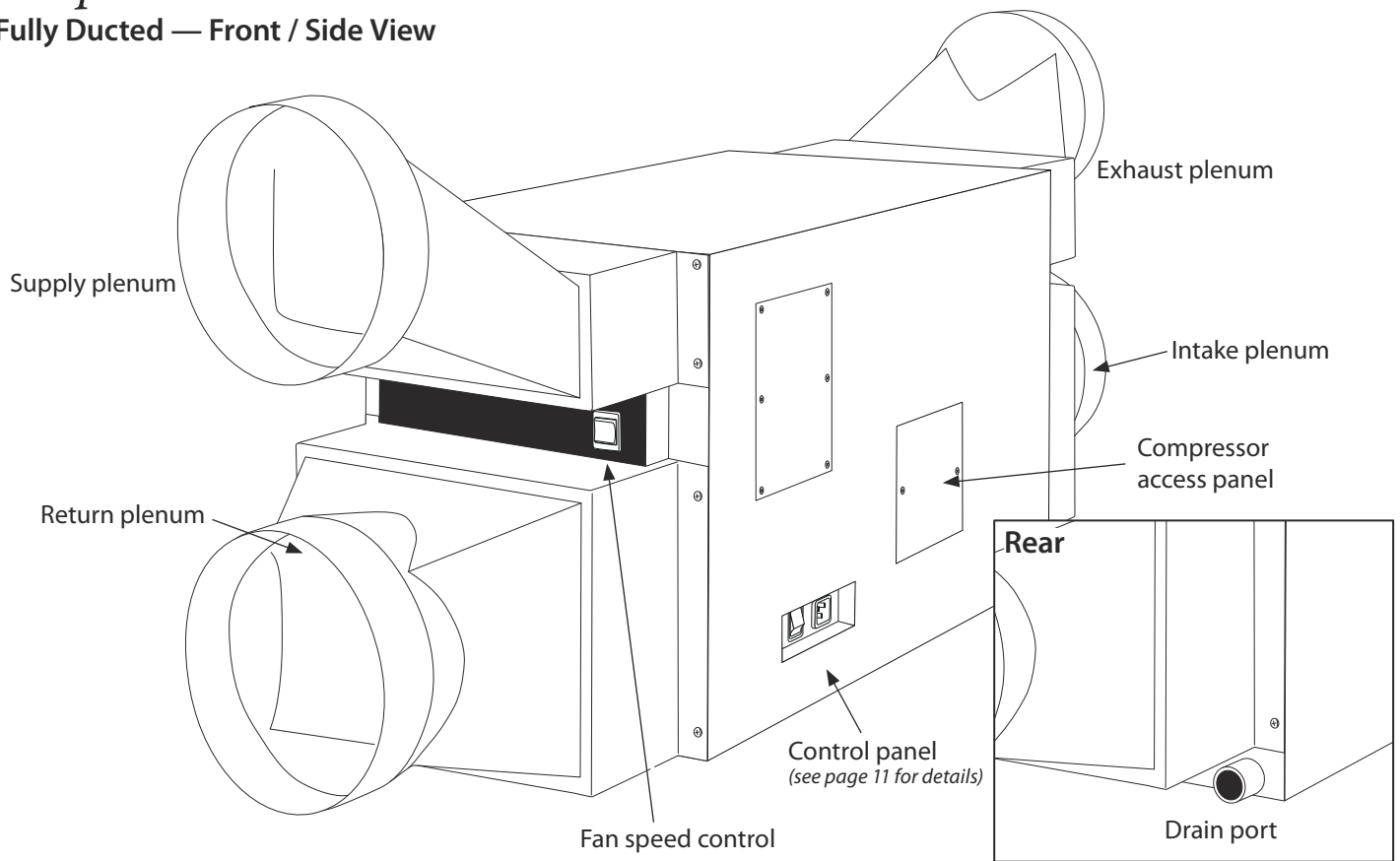


Drain line access

Rear power inlet

Drain port

Fully Ducted — Front / Side View



NOTE: Grilles and filters are *not* included with the fully ducted Extreme tiR.

FAN SPEED

Fan speed selection is determined by the amount of heat that needs to be removed from the cellar and the type of installation (through-the-wall or fully ducted). Fan speed selection is based on the cellar size, insulation factor, door seal, and desired wine temperature. When initially installing the unit, set the fan speed to the **High** setting to quickly chill the wine cellar. Once the wine cellar reaches the desired temperature, a lower fan speed may be selected. In the event that the outdoor temperature rises above 90°F, (when exhausting to the outdoors) a higher fan speed may be required.



Fully ducted units should be set to the HIGHEST fan speed selection for maximum performance.



UNIT SPECIFICATIONS

	3500tiR/tiR FD	5000tiR/tiR FD	8000tiR/tiR FD
Cellar Size*	Approx. 800 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier	Approx. 1250 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier	Approx. 2000 cu. ft. when cellar is fully insulated and sealed with a proper vapor barrier
BTU/h w/85°F condenser air intake temp.	2688	3794	5760
Dimensions	39.5"L x 14.25"W x 22.5"H (with duct plenums)		39.5"L x 14.25"W x 26"H (with duct plenums)
Refrigerant	R-134a		
HP	1.05	1.5	2.26
Voltage Rating	115V (20-amp dedicated circuit required); 230V (subject to availability)		
Weight (lbs)	115		150
Amps	9 (running amps)		10 (running amps)
Duct Size	8" supply, 8" return (evaporator and condenser)		8" supply, 10" return (evaporator and condenser)
Drain Line	¾" ID clear plastic tubing		
Installation	Can be installed up to 25 duct feet away from cellar		
Thermostat	Aftermarket (24V thermostat not included)		
Temp. Delta	Can maintain a 55°F cellar temperature with up to 110°F condenser air intake temperature		
Warranty	Two-year limited warranty (parts and labor) / Five-year limited warranty (compressor)		

* Sizing the Unit to the Room

The specification chart will provide information on the unit's cooling capacity. There are circumstances in which a cellar design may require a larger unit due to preexisting design restrictions. Certain building materials such as glass, stone, or concrete may seem adequate but do not offer the insulation capacity required to maintain the optimum temperature for storing wine. We recommend purchasing a unit with a larger capacity to compensate for these design limitations. Undersized cooling units can lead to premature failure and/or prevent the system from reaching the desired set temperature. As a result, they are not covered under warranty.

PREPARING THE WINE CELLAR

The performance and life of your system is contingent upon the steps you take in preparing the wine cellar. Improperly preparing your enclosure or incorrectly installing your unit may cause unit failure, leaking of condensation, and other negative side effects.

It is highly recommended that you obtain the assistance of a wine storage professional.

Wine storage professionals work with licensed contractors, refrigeration technicians, and racking companies to build well-insulated, beautiful, and protective wine cellars. WhisperKOOL has put together some useful tips to assist in the installation process. Our recommendations are meant to act as a guide in the process of building a proper enclosure. Your intended location may have specific needs which we do not address.

Wall & Ceiling Framing

Build wine cellar walls using standard 2x4 or 2x6 boards and ceiling joists without violating local or state codes in your area. As a general rule, the thicker the walls and the higher the insulation value, the more consistent your cellar temperature will be.

Insulation

Insulation is **REQUIRED** in order to properly use WhisperKOOL products. It is vital that all walls and ceilings be insulated to keep the cellar temperature as consistent as possible during the summer and winter months. Standard fiberglass or rigid foam insulation is normally used in cellar construction; in some cases, “blown-in” insulation is used. The R-value, or quality of insulation, is determined by the rate at which heat passes through the insulation. The higher the R-value, the more resistant the insulation is to conducting heat, and the more consistent your wine cellar’s temperature will be. Using higher R-values in insulation will lower your operating costs and WhisperKOOL unit run time. (R-13 is the recommended minimum; R-19 is preferred for interior cellar walls, and R-30 for ceilings and exterior walls.)

Vapor Barrier

Water vapor creates its own pressure, separate from the ambient air pressure, and will intrude into colder/drier areas. A vapor barrier is **REQUIRED** in order to prevent the intrusion of water vapor and maintain the correct cellar temperature and humidity. It is recommended that 6-millimeter plastic sheeting be applied to the warm side of the cellar walls. The vapor barrier must also be applied to the outside walls and ceiling. If it is impossible to reach the outside, then the plastic must be applied from within the cellar. The most common method is to wrap the entire interior, leaving the plastic loose in the stud cavity so the insulation can be placed between each stud. All of the walls and ceiling must be wrapped in plastic for a complete vapor barrier.

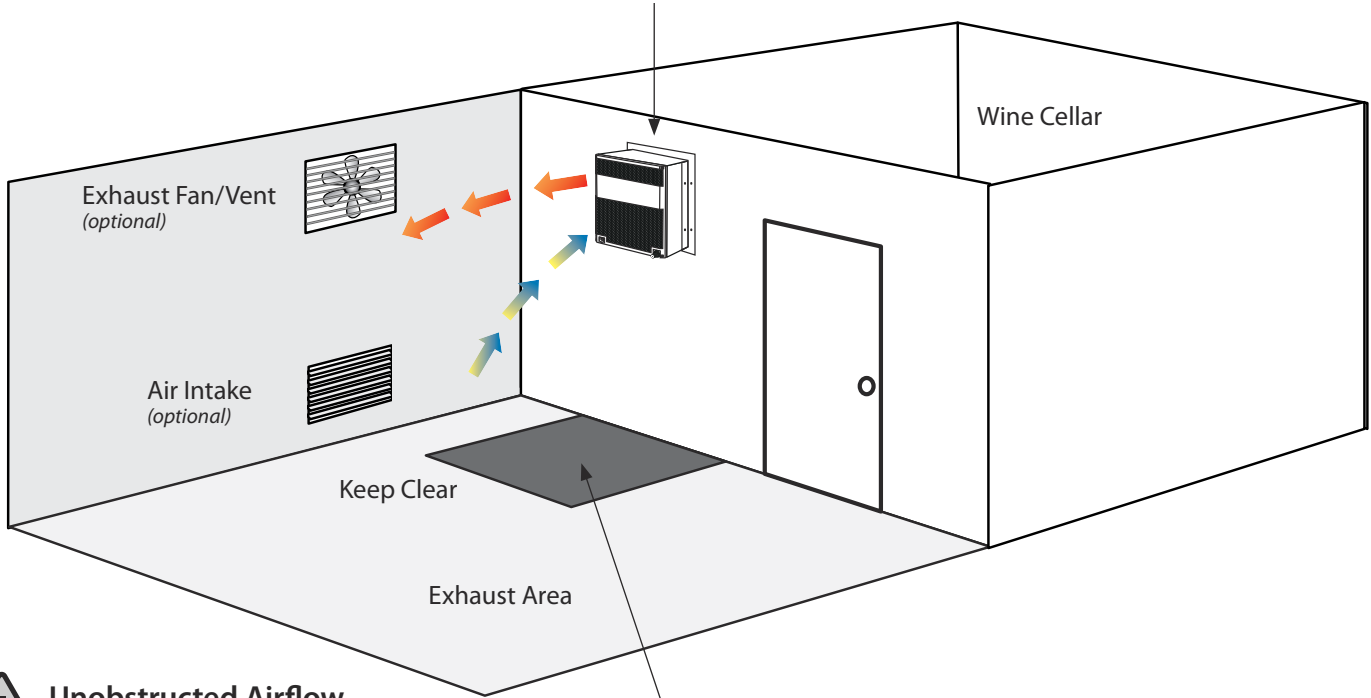
In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm moist air. The moist air can cause mold to form, and standing water in drain pans promote microbial and fungal growth that cause unpleasant odors and indoor air quality problems. If mold is found, remove it immediately and sanitize that portion of the unit.

Note: High humidity significantly increases the heat load on the cooling system.

Any break in the vapor barriers (cut, nail hole, over-lapping, etc.) will cause a moisture leak and must be sealed. The electric conduit is a “duct” for vapor to travel in. The conduit should be caulked and sealed on the warm air end.

Mounting the Unit

The unit must be mounted within 18 inches of the ceiling in order to achieve sufficient cooling. As the room cools down, the warm air will rise to the ceiling. Mounting the unit high in the room will create a consistently cool environment by capturing the warm air and replacing it with cool air. Mounting the unit low in the room will result in a temperature variation in the room due to (a) the unit's inability to draw warm air down from the ceiling and (b) cold air settling to the floor.



Unobstructed Airflow

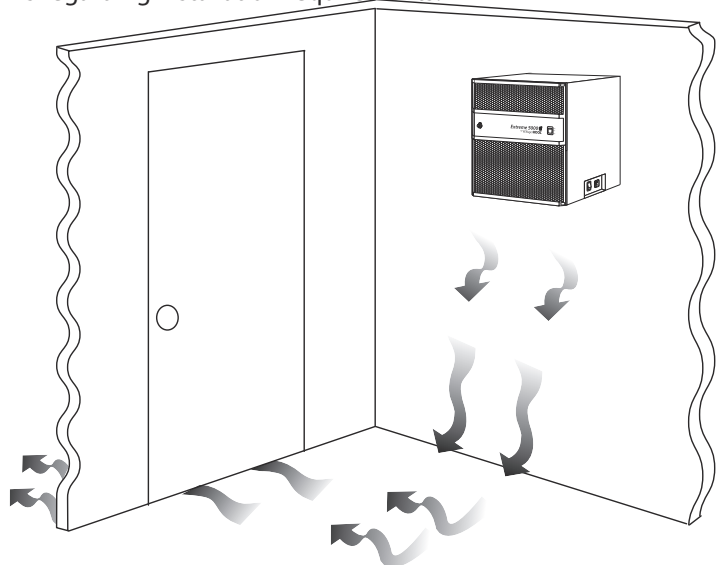
Unobstructed airflow to and from the unit is critical for the unit's overall performance and lifespan. Make sure there is a minimum of three (3) feet of horizontal clearance in every direction around the unit (five feet is ideal). The air blown by the fans needs to circulate and either dissipate or absorb heat from the space. The system will operate more efficiently with a greater amount of air to exchange.

NOTE: Do not attempt to mount the unit in a wall recess or attempt to camouflage or cover the unit with any sort of aftermarket grille, accessory, etc. This can restrict airflow, prevent the unit from working properly, and void the warranty. Please feel free to call WhisperKOOL Customer Service with any questions or concerns regarding installation requirements.

Door and Door Seal

An exterior-grade (1 $\frac{3}{4}$ " door must be installed as a cellar door. It is very important that weather stripping be attached to all four sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have a very good seal to keep the cool cellar air from escaping out of the cellar. If the cellar door does not seal properly, the unit will run continuously.

In cases where glass doors are used and the room size is close to the recommended unit size, the next larger size WhisperKOOL should be used. This will compensate for the insulation loss due to the lower insulation rating of glass.

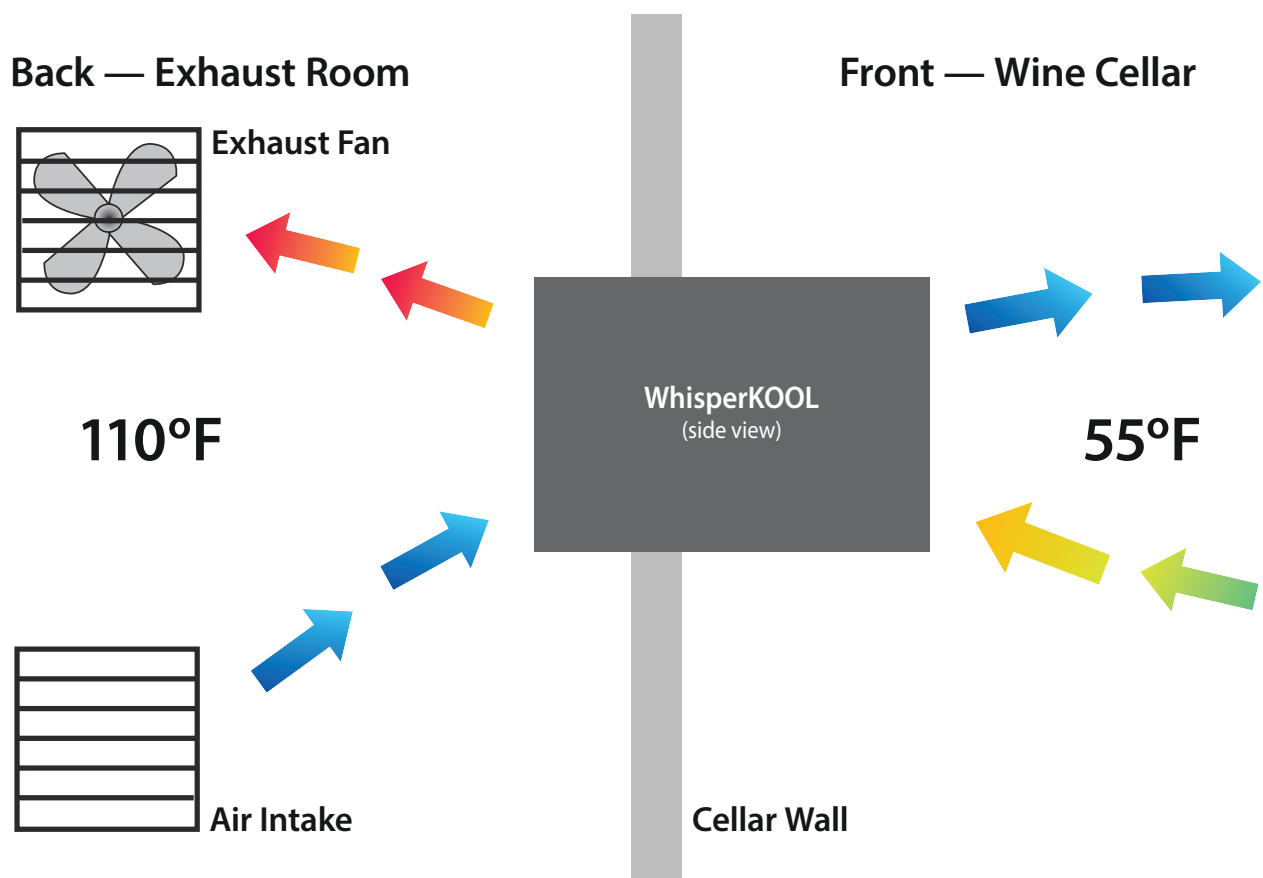


Ventilation

The necessity of dissipating heat away from the unit is critical to the unit's performance and cannot be overstated. As the unit operates and cools, a greater amount of heat is generated on the exhaust side of the unit. Adequate ventilation is required in order to dissipate heat away from the unit. If ventilation is inadequate, the exhaust will heat the area or room and adversely affect the unit's ability to cool. In some cases, it may be advisable to install a vent fan to dissipate heat from within the exhaust area. However, you must have a fresh air inlet as well. If your unit requires ducting, please contact WhisperKOOL to obtain a specially designed ducting plenum for the unit.

Using any other ducting system will void the warranty.

Note: If you are unsure whether you have adequate ventilation in your install location, please contact us to assess your specific installation at support@whisperkool.com or 1-800-343-9463.



Ambient Temperature Factor

The cooling unit has the ability to cool a wine cellar efficiently to 55°F as long as the ambient temperature of the area that it is exhausting to does not exceed 110°F. Therefore, you want to exhaust the unit in a room which will not exceed 110°F. Without proper heat dissipation the unit will not have the capacity to keep the wine at a desirable 55°F.



WARNING! Allowing your unit to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your unit and void your warranty.



PREPARING THE UNIT FOR INSTALLATION

The WhisperKOOL unit requires a dedicated 115V, 20-amp circuit. The unit draws a large amount of amps during its initial startup. By designating a dedicated circuit breaker, you will guarantee the unit has enough power to run effectively. Contact an electrician for assistance with the installation of this dedicated electrical circuit.

The unit must sit upright for 24 hours prior to installation. To prepare the unit for installation:

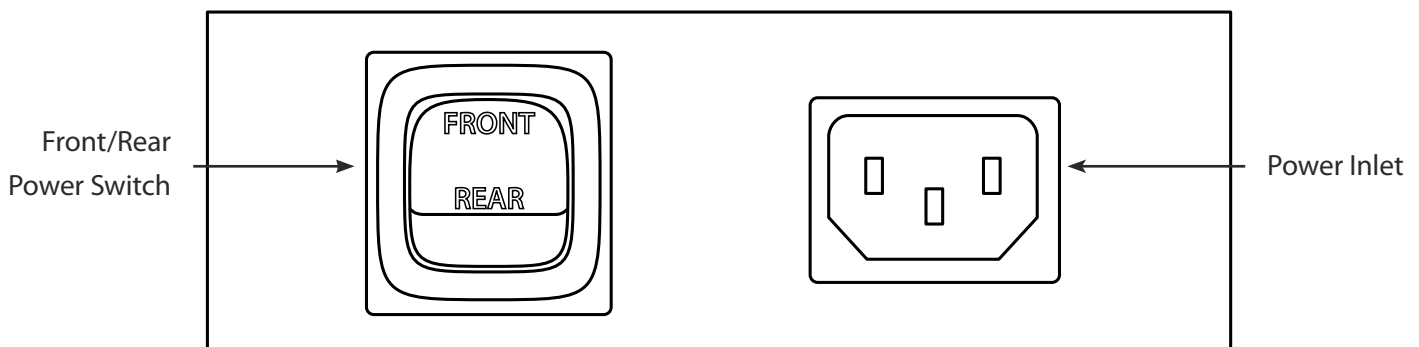
- Remove unit from box.
- Match the electrical outlet to the plug provided on the WhisperKOOL unit.
- Provide a dedicated circuit and wiring for the unit (see above).
- Provide a weatherproof plug for units connected outside.

Power surges and spikes can damage sensitive electrical equipment. WhisperKOOL recommends plugging the unit into a surge protector or power conditioner in order to protect your system. As outlined in our terms and conditions, power surges and spikes are not covered under warranty.

Do not use a GFI (ground fault interrupter) with this product.

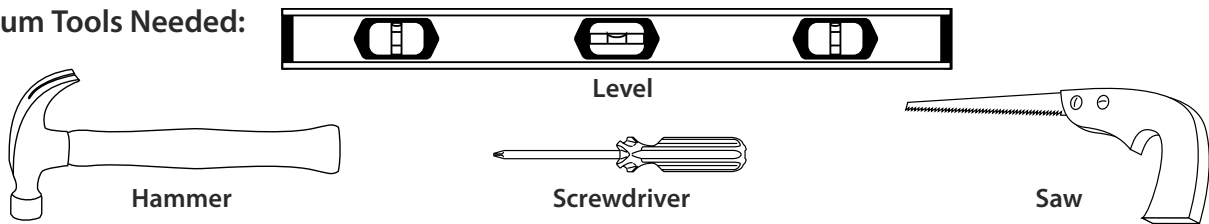
The unit is equipped with two power inlets. One is located on the right side of the unit (inside of the cellar), and the other is located on the rear of the unit (outside of the cellar). Use the selector switch located on the right side of the unit to select which power inlet you would like to use. If you would like to plug the unit into a socket outside of the cellar, set the selector switch to rear. If you would like to plug the unit into a socket inside of the cellar, set the selector switch to the front position. When placed in either position, power can only enter the unit utilizing the power inlet you've selected.

In case the unit should lose power, check the home/main circuit breaker. If the unit does not respond properly, refer to the Troubleshooting Guide.

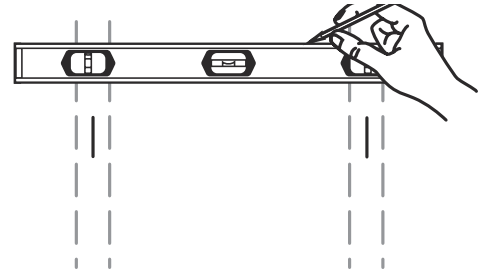


PREPARING THE INSTALLATION LOCATION

Minimum Tools Needed:



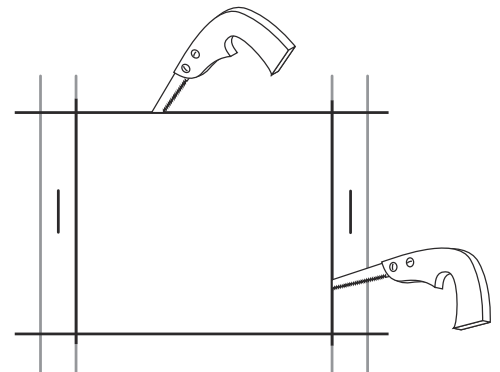
Locate the desired installation location (no more than 18 inches from the ceiling). Using a stud finder, locate the studs on either side of the center point and mark them with vertical lines.



Using a level and a pencil, mark a horizontal line on the wall between the two studs, no less than 1½ inches and no more than 18 inches from the ceiling.

Using a ruler or measuring tape, measure 16 inches down (3500tiR and 5000tiR) or 22.25 inches down (8000tiR), and mark another horizontal line parallel to the first one.

Using a saw, cut along the uppermost horizontal line until your saw reaches the stud. Turn the saw around, inserting it into the cut that has just been made, and cut toward the opposite stud so that there is a clean horizontal cut between the two studs. Be careful not to cut into the studs themselves.

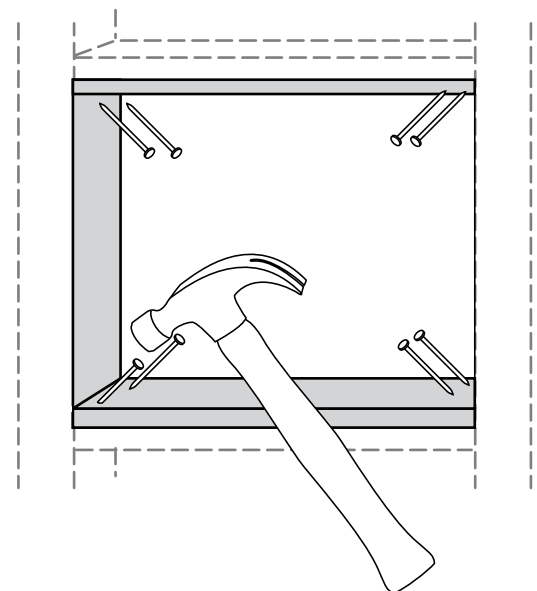


Make the second horizontal cut from stud to stud on the line 16 inches below the first cut.

Once the horizontal lines have been cut, make vertical cuts using the inside edge of the studs as a guide. Once both vertical cuts have been made, there should be rectangular hole in the sheetrock. Make the same hole on the other side of the wall. Using a nail, mark all four corners of the first hole by making nail holes through the sheetrock. Connect the holes with a pencil mark and cut on the other side of the wall.

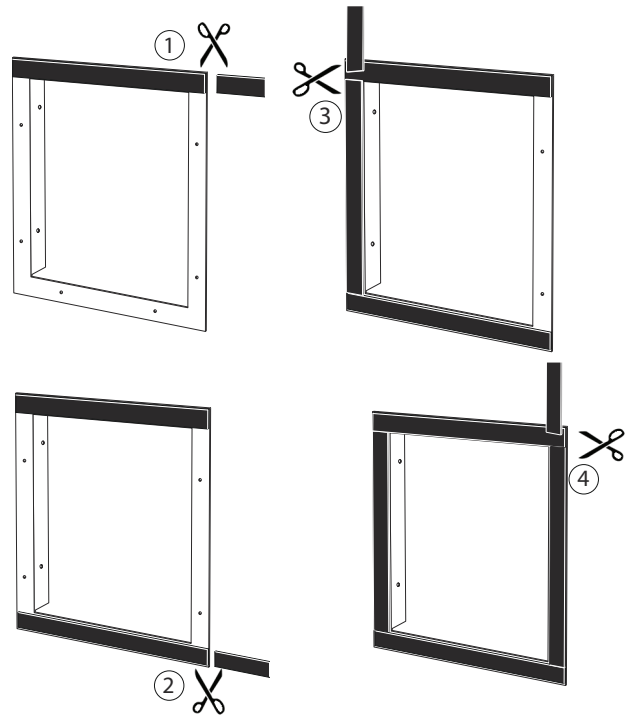
Sheetrock alone cannot support the weight of a 96-lb cooling unit. Therefore, it is necessary to frame the hole that has just been cut with upper and lower supports. These supports also provide solid material for the mounting bracket screws.

Using two 2x4s (14.5 inches in length) and eight 6d nails, secure the upper and lower supports to the right and left studs, just inside the sheetrock. Make sure that the internal height remains at 16 inches (3500tiR and 5000tiR) or 22.25 inches (8000tiR) so that the WhisperKOOL unit will fit snugly through the framed cut-out.



PREPARING THE UNIT FOR INSTALLATION

A sturdy single-piece mounting bracket is used to frame the installation location and secures the unit to the wall studs. The bracket has been designed to hold the unit at a two-degree (2°) angle. This helps project air into the space and aids in condensation drainage.



Applying Insulation Tape

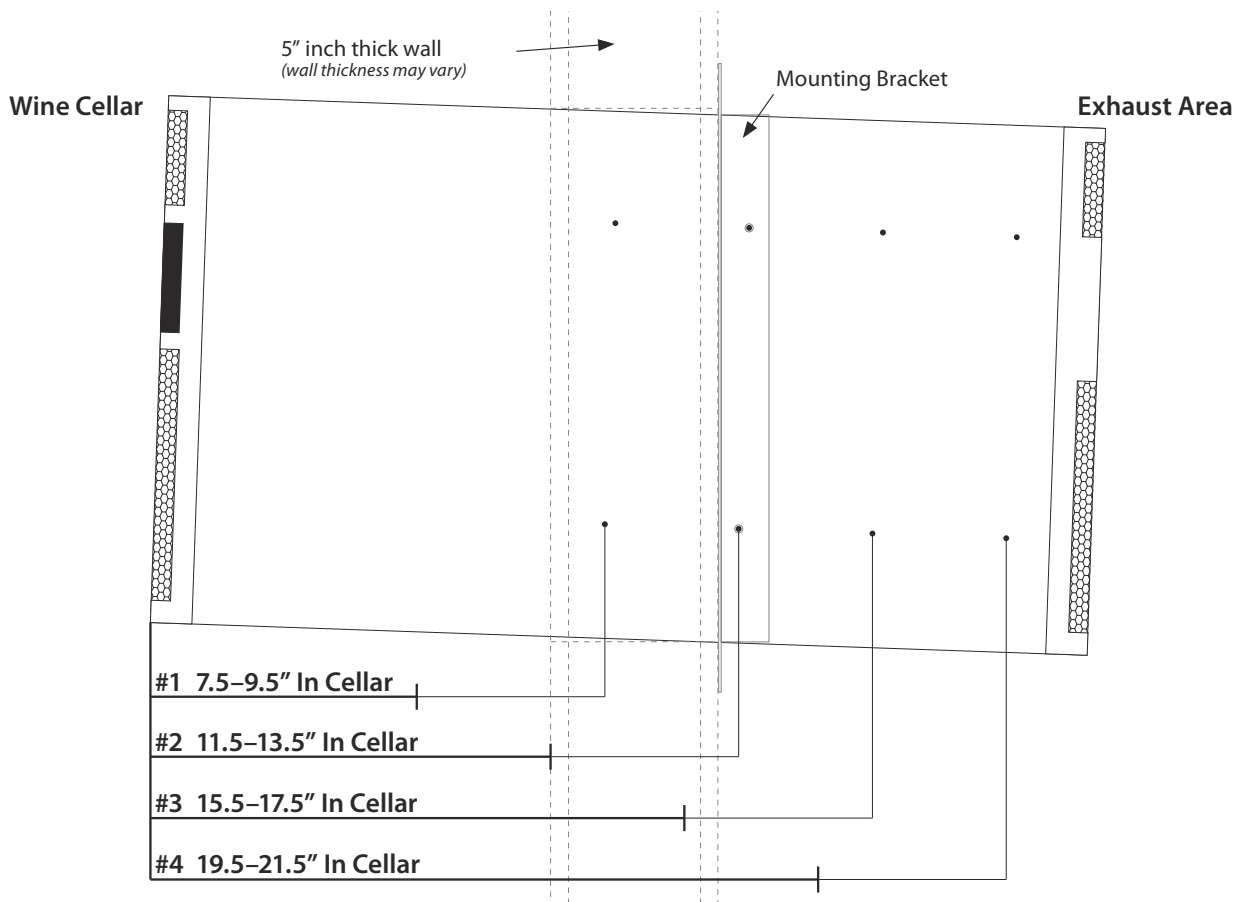
Locate the six-foot piece of black foam tape included with the unit. Align one end of the foam tape with the upper left corner of the rear side of the mounting bracket. Stretch the tape across the rear of the bracket and cut the tape at the opposite edge. Peel off the white paper backing and attach the cut piece of foam tape to the top rear side of the mounting bracket. Follow the same procedure to place a piece of tape on the bottom edge of the mounting bracket. Place the remaining piece of foam tape on one side of the mounting bracket (spanning the distance between the pieces of tape on the top and bottom edges of the mounting bracket), then cut, remove paper backing, and secure. Do the same on the opposite side of the bracket. Discard any excess. The foam tape will create a tight seal between the bracket and the wall.

Mounting Bracket Installation

Select your desired bracket mounting location (see diagram below). This location determines the depth of the installation. For example, position #1 keeps most of the unit out of the cellar while position #4 sets the back of the unit near flush with the exterior wall. Slide bracket onto unit. Ensure that the TOP label on the bracket and the unit mounting flanges are towards the back. Use the four supplied 1/2" pan-head screws to fasten the bracket to the unit. It is **imperative** that you use self-tapping screws no longer than 1/2" in length.



If you are installing through an exterior wall, please review the next page for specific instructions on exterior grill installation.



OPTIONAL EXTERIOR GRILLE

The exterior grille is required on all installations where the exhaust side of the unit is exposed to the outdoors (i.e., rain and other adverse weather conditions).

Non-Flush Installation

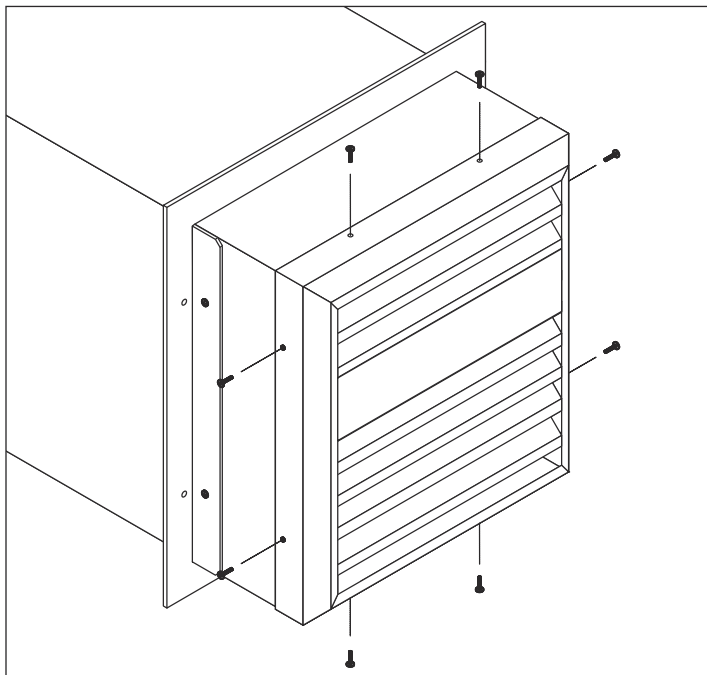
Install the unit according to the standard through-the-wall procedure. After the unit is installed, place the exterior grille over the exhaust side filter grille and line up the screw holes on the top, bottom, and sides. Use the supplied ½" pan-head screws to fasten the grille to the unit.

Flush Installation

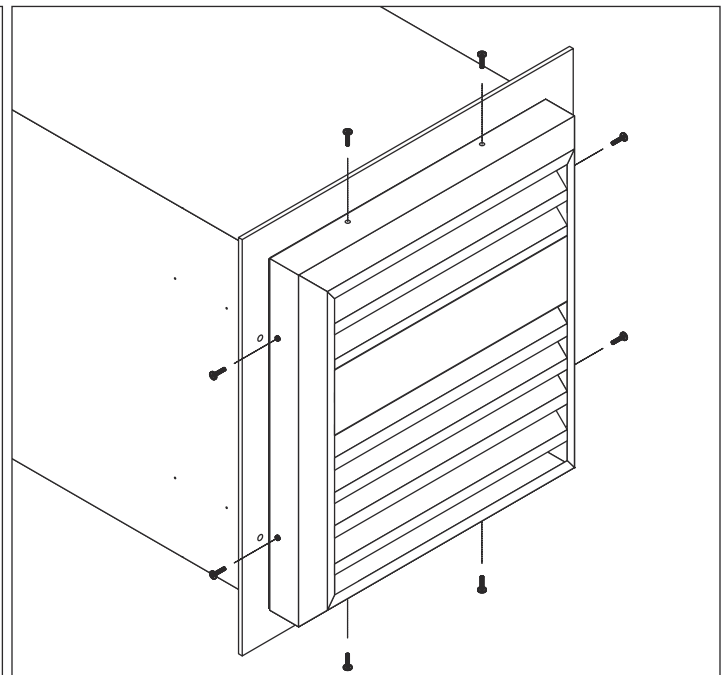
This installation is slightly different because you are utilizing the same holes for both the mounting bracket and exterior grille.

1. Slide the mounting bracket onto the unit followed by the exterior grille, bring the two pieces together by sliding the exterior grille over the mounting bracket side flanges.
2. Align the two top screw holes of the exterior grill with the top screw locations on the unit, use the supplied ½" pan-head screws to fasten the grille.
3. Repeat Step 2 on the bottom of the unit.
4. Use the supplied ½" pan-head screws to fasten the grille and bracket to the unit ensuring the bracket stays perpendicular/square.
5. Continue through-the-wall installation.

You are required to use the ½" pan-head screws provided. Do not drill holes into unit.



Non-Flush Installation*

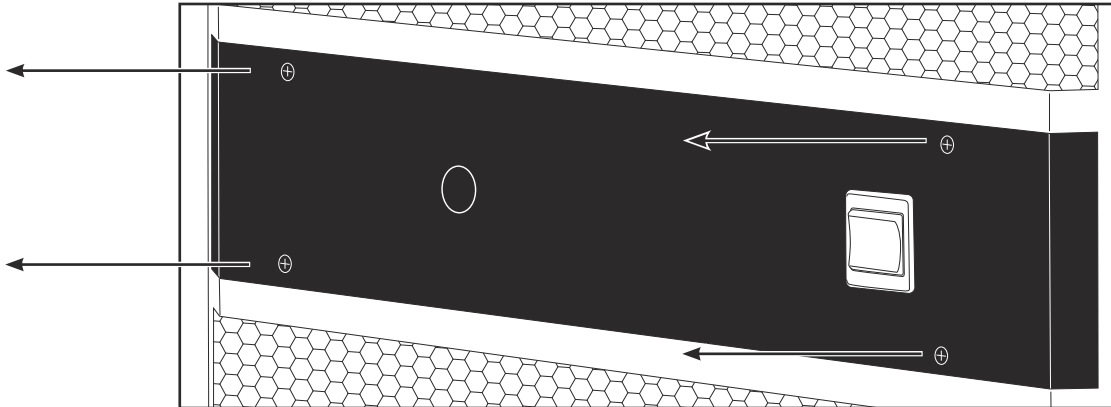


Flush Installation*

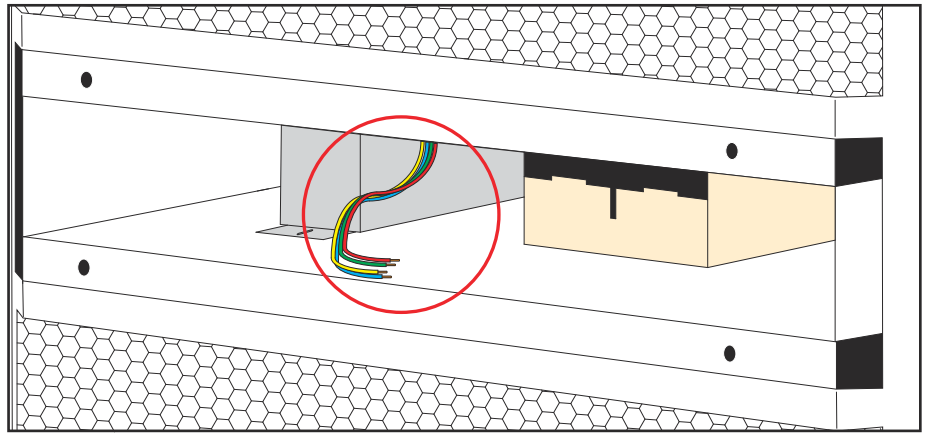
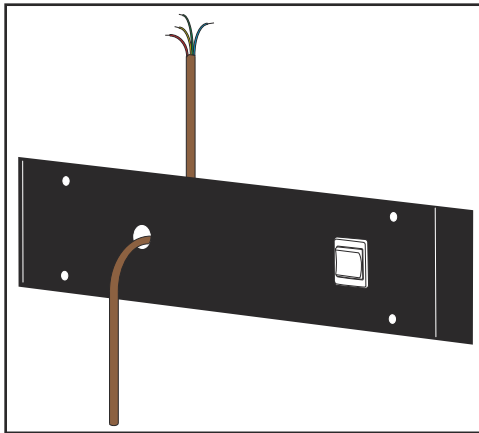
***Pictured:** Extreme 8000. Exterior grilles for the Extreme 3500 and 5000 will only have four screws (two on each side).

PRE-INSTALLATION WIRING

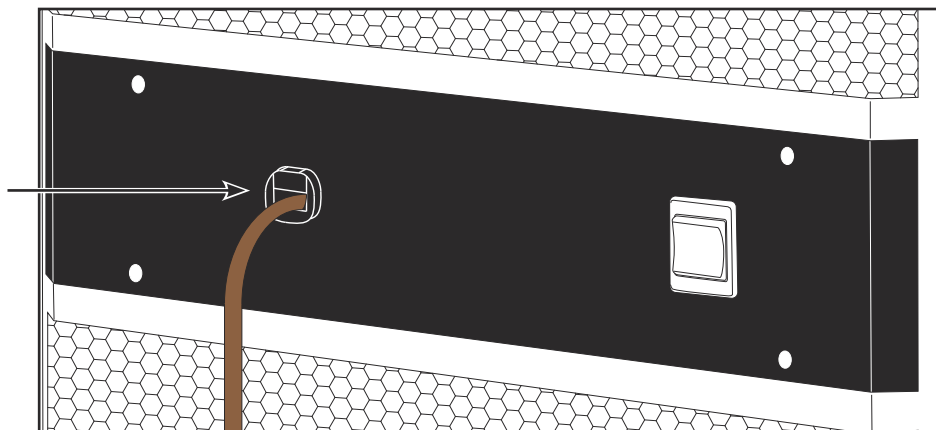
1. Remove the face plate by removing the four screws at each corner.



2. Insert a standard 18-5 thermostat wire through the small hole on the left side of the face plate as shown below, left. Connect it to the wire behind the panel inside the unit (circled in red below, right). Connect the wires according to color: green to green, blue to blue, yellow to yellow, and red to red. (The white wire will not be used.)



3. Replace the face plate and tighten the four screws in each corner.
4. Install the supplied black strain relief around the 18-5 thermostat wire where it enters the unit.



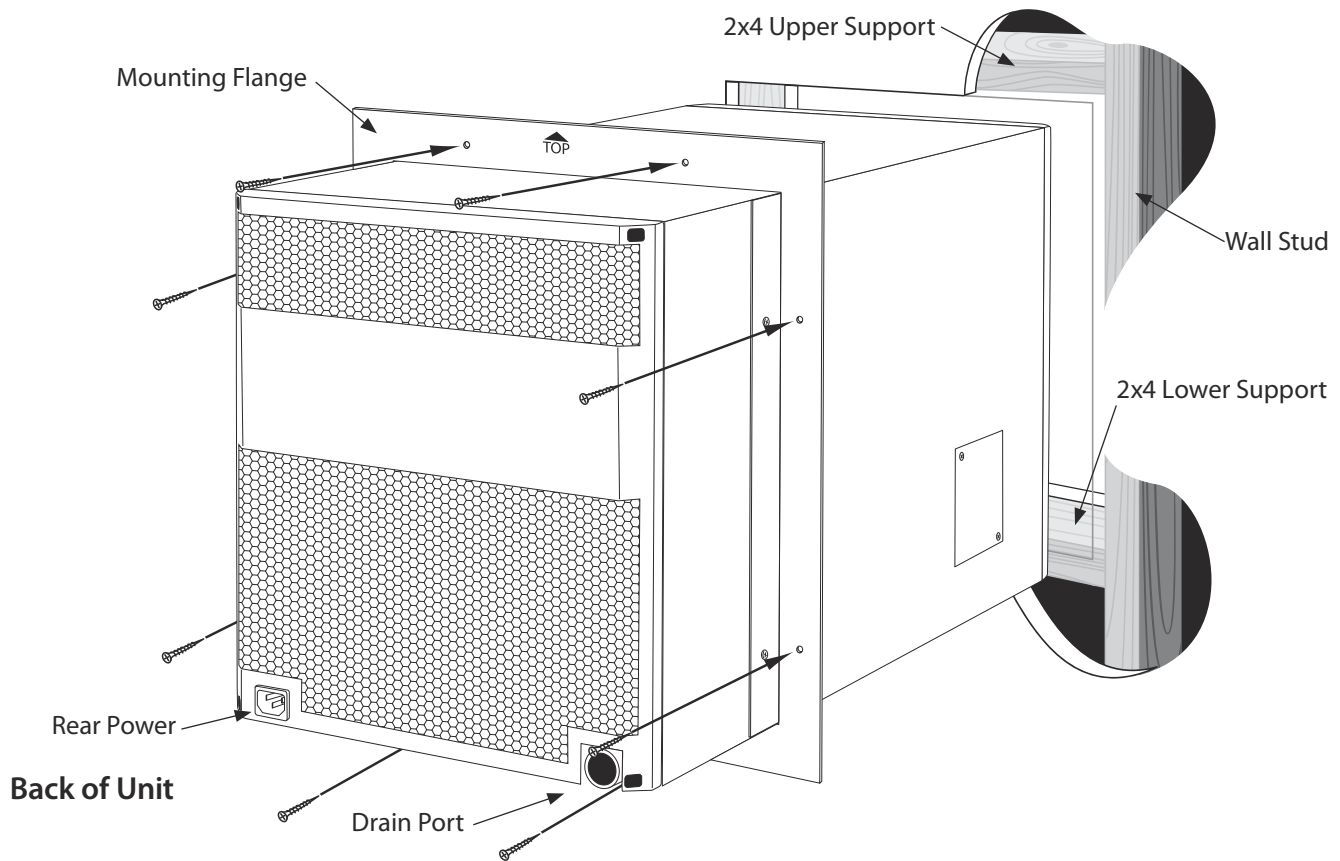
5. Continue through-the-wall installation.

NOTE: To ensure correct system operation, the 24V thermostat must be placed inside the wine cellar, preferably in a central location away from any airflow.

INSTALLING THE UNIT

Slide the unit from the outside wall into your wine cellar with the outer flange flush with the wall. Secure the flange to the wall using the pre-drilled holes. The 1 $\frac{3}{4}$ " screws should penetrate the studs as well as the upper and lower supports to provide adequate support for the WhisperKOOL unit (see illustration). Seal all cracks and gaps around the WhisperKOOL Extreme unit with an air-tight sealant or caulking to prevent air leakage. Connect the other end of the 18-5 thermostat wire that was routed into the unit (see previous page) to the 24V thermostat. At the thermostat terminal block, connect the wires according to color: yellow to Y, blue to C, green to G, and red to R.

Note: If you use decorative moulding, it should be attached to the walls and **never** to the cooling unit itself. The moulding itself should be removable in case the unit needs servicing.



DUCTING OVERVIEW

Use ductwork to connect the unit to the supply and return outlets in the wine cellar. Use only insulated ductwork to minimize cooling losses, prevent sweating, and reduce noise. Use ductwork on the condenser section to redirect or absorb sound, bring in outside air to the unit inlet, and/or exhaust the hot air.

Note: Do not exceed a total of 25 feet for each length of ductwork run and a combined total of 50 feet for both the supply and return lengths.

Avoid crimping the flexible ducts. This reduces airflow, causing the unit to operate improperly. Be sure all ductwork and outer surfaces in contact with the airflow are insulated and have a vapor barrier on the outside. Uninsulated supply and return ducts may cause bare, exposed metal surfaces to sweat, further degrading the insulation and equipment cooling capacity.



Do not allow sharp turns to squeeze or decrease the inside diameter of the flexible ducting.



General duct recommendations:

- Provide support for the flexible duct to prevent sags and bends.
- 3500tiR and 5000tiR duct size: 8" supply and return
- 8000tiR duct size: 8" supply and 10" return
- Stretch out the duct to make a smoother interior which reduces air resistance.
- Maximum duct length is 25 feet.
- For 90° bends, use a 90° adjustable elbow.
- No more than two 90° bends on each duct. Sweep 90° bends are recommended rather than sharp 90° bends.
- Generously apply duct sealant to all metal seams to fill in gaps that can leak air. Allow sealant to dry until firm to the touch before applying fiberglass insulation.
- Do not squeeze or reduce the inside diameter of the ducts, as this will reduce airflow.
- Use short and straight ductwork where possible.
- Check that all fan blades move freely.
- Keep air paths free of loose foreign objects and debris.
- To provide adequate airflow the fan speed must be set to high when the unit is ducted.
- Locate the supply and return grilles inside the cellar to create an airflow pattern that maximizes air circulation in the room. Avoid short circulation of the air.
- If the unit is installed through the wall, it must be mounted no more than 18 inches from the wine cellar ceiling. If the unit is ducted, the cold air supply duct must be installed no more than 18 inches from the wine cellar ceiling.

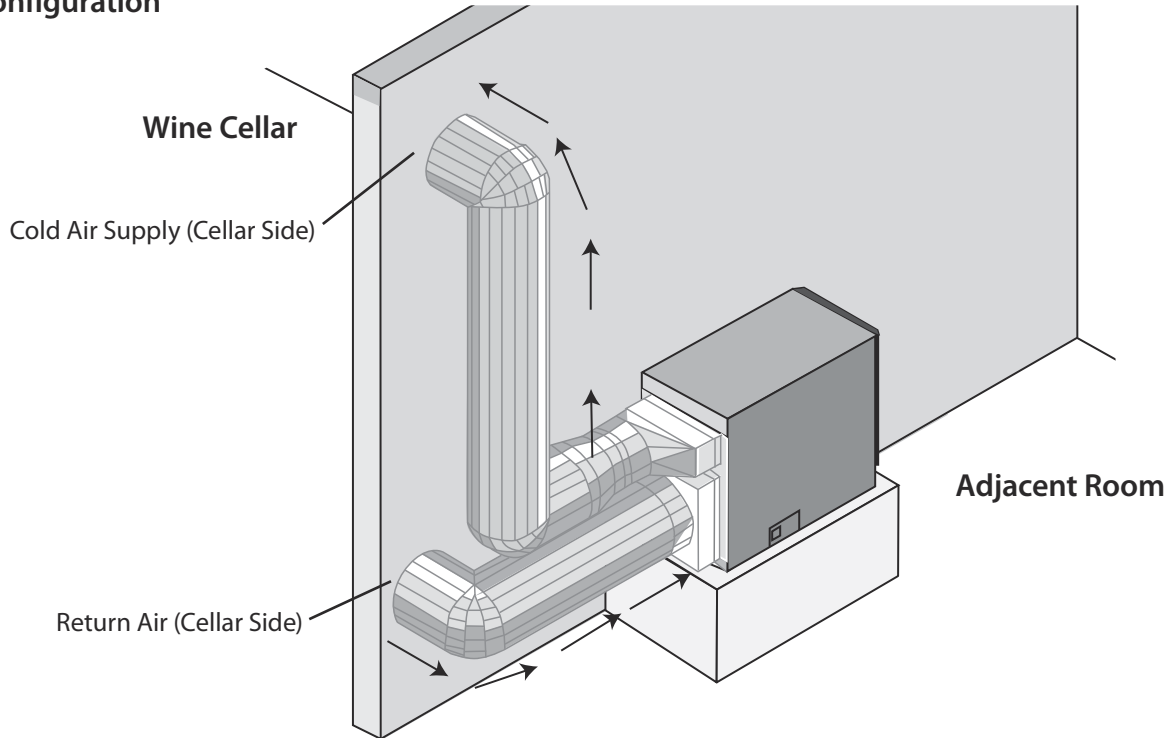
DO NOT:

- Install through-the-wall return air grilles at floor level where they will collect dust from the floor.
- Locate the supply or return air grille where it is blocked by bottles, boxes, or cases.

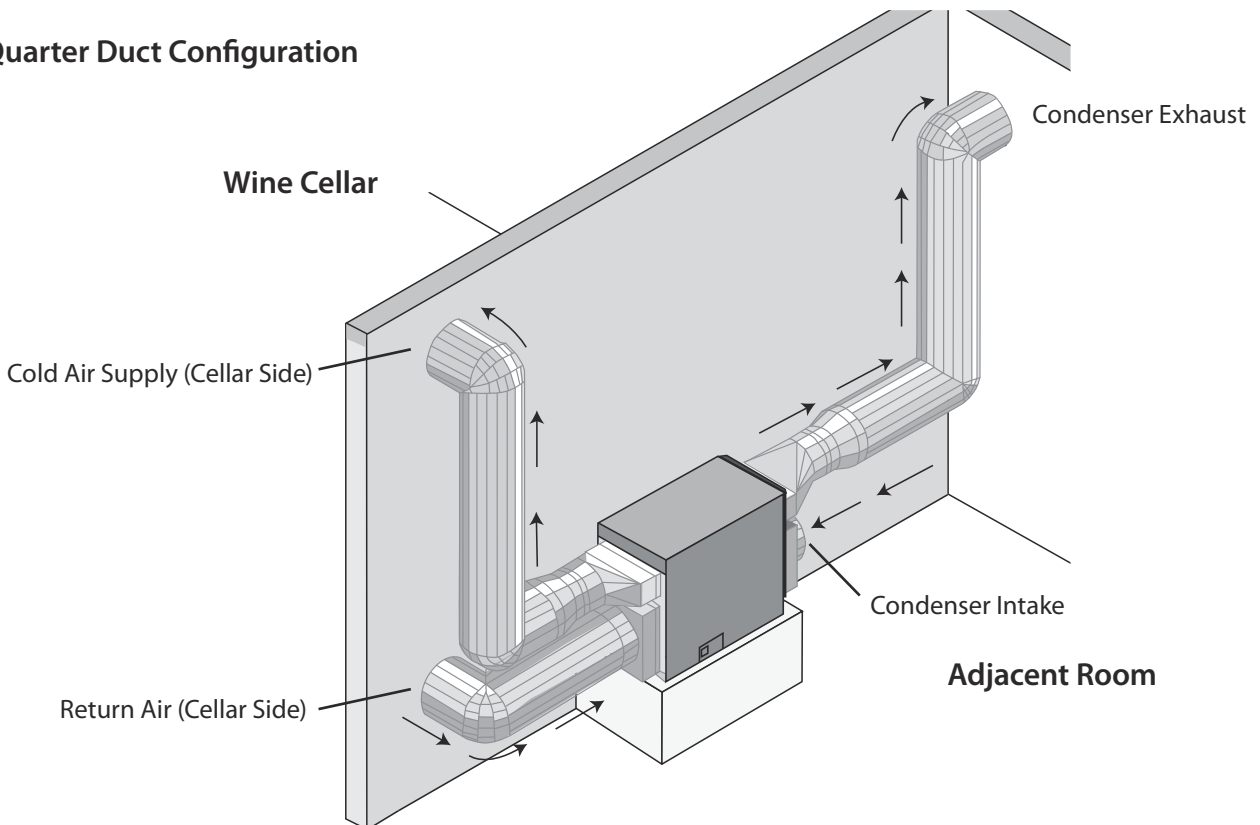
DUCTING CONFIGURATIONS

There are a variety of ways to duct this unit. Please review the different configurations to determine a basis for your particular installation. Remember to contact a wine cellar professional if you have any questions.

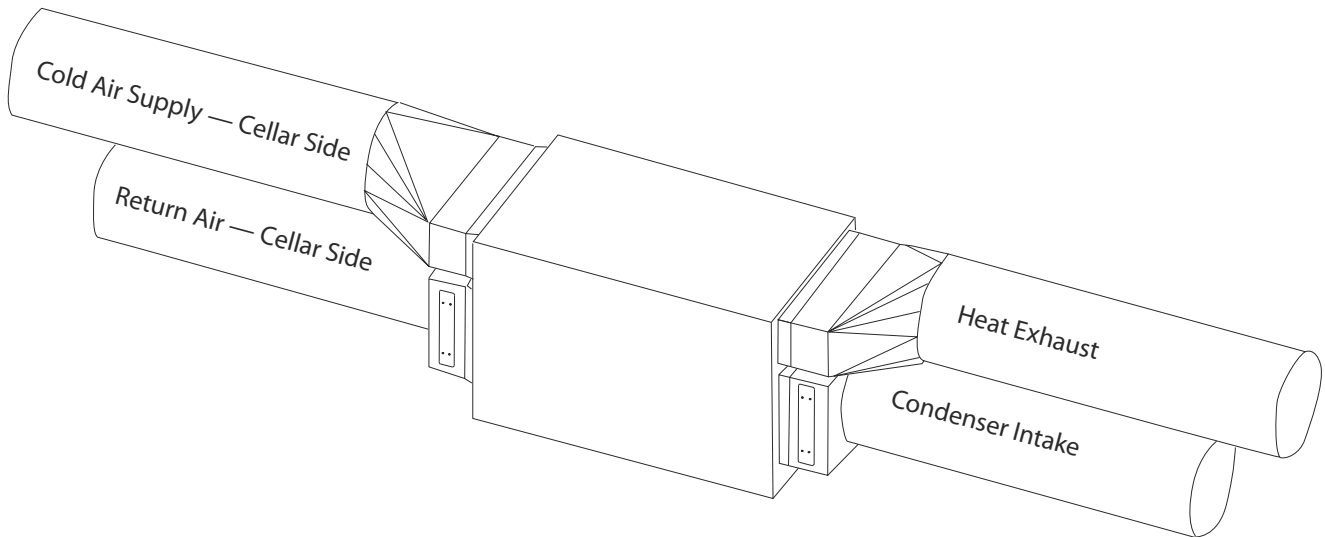
Half Duct Configuration



Three-Quarter Duct Configuration

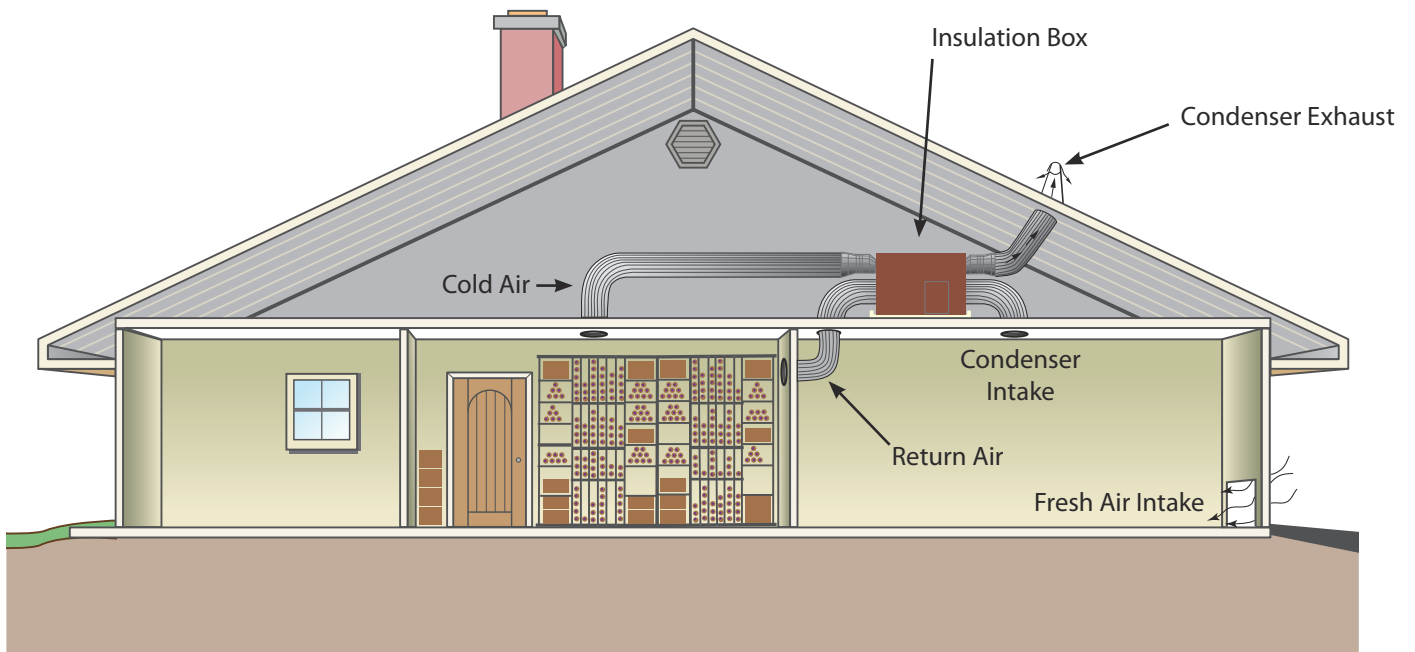


Fully Ducted



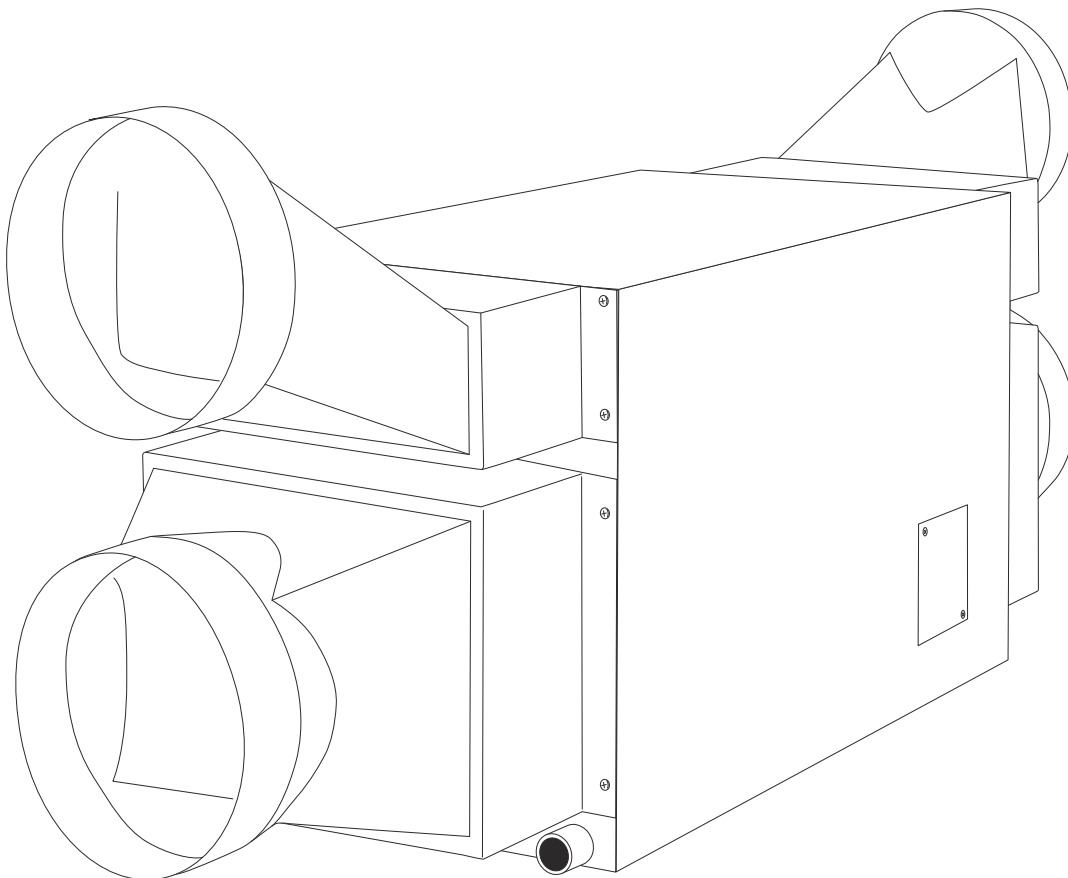
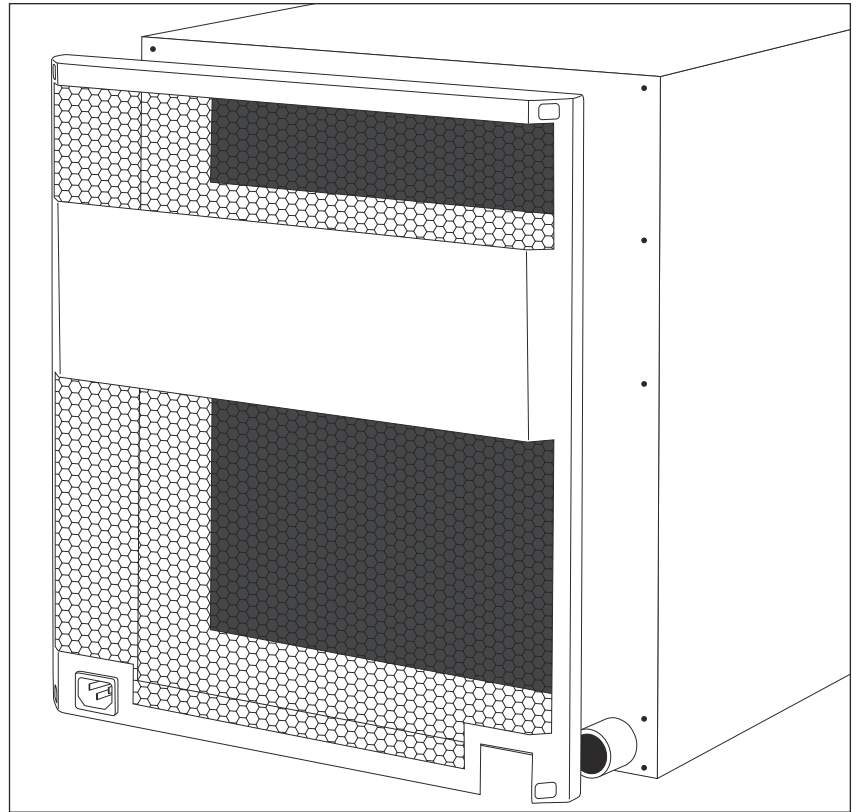
Attic Mounted Unit

It is recommended that you use a condensate pan for this application.



INSTALLING THE DUCT PLENUMS

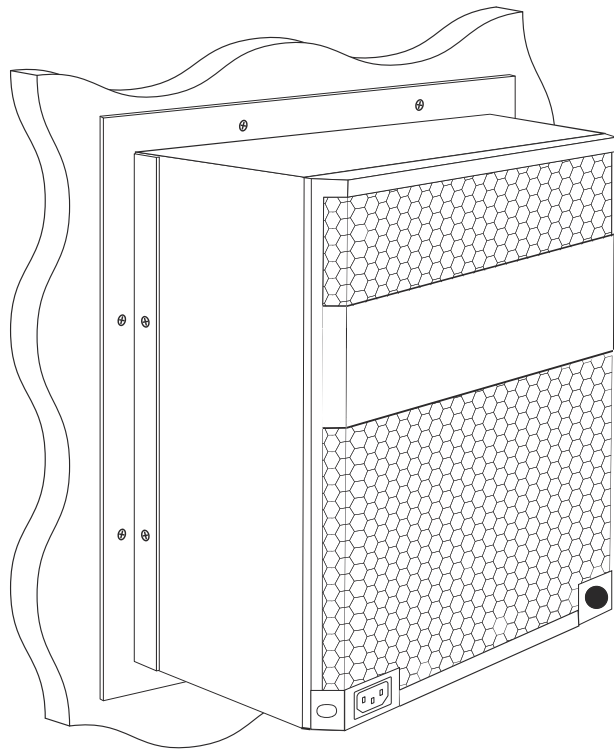
1. Remove the filter grille from the unit by unscrewing the screws that hold it in place.
2. Move the ducting adapters into place.
3. Screw the ducting adapters into place using the supplied screws.



CONDENSATION DRAIN LINE

The condensation drain line tube is used to drain excess condensation from the unit to a proper discharge location. It is important that the drain line tube be properly connected in order to prevent leakage and other problems associated with excess condensation.

Failure to use the condensation drain line tube will void the warranty on the unit.



All units come with a drain line for additional removal of excessive condensate. It is mandatory to install the drain line with a "tee" fitting. During operation, the cooling unit will strip excess water from the air. However, in extreme humidity, additional condensate will be removed. The drain line will prevent overflow and leaking by allowing for discharge of the additional condensate.



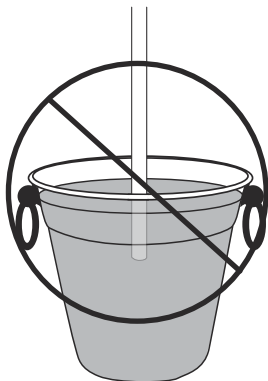
To prevent mold from growing, allow the drain line to hang above the water line.

Black 1/2" tee

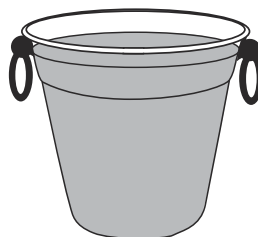
Drain line

Extreme Drain Line Installation

1. Wrap tee with Teflon tape one or two turns clockwise.
2. Next, thread the barbed tee into the drain port and rotate until tight. Make sure the barbed parts of the tee are vertical.
3. Next, attach the piece of 1/2" ID clear plastic tubing to the lower barb of the tee.
4. Every six weeks, disconnect the drain line from the tee. Remove the tee from the rear drain port and clean it. Then use the supplied drain line brush to clean the interior drain line. Use the drain line access door to drop a pan tab into the drip tray to prevent the buildup of microbial growth.



WRONG: Drain line is under water.

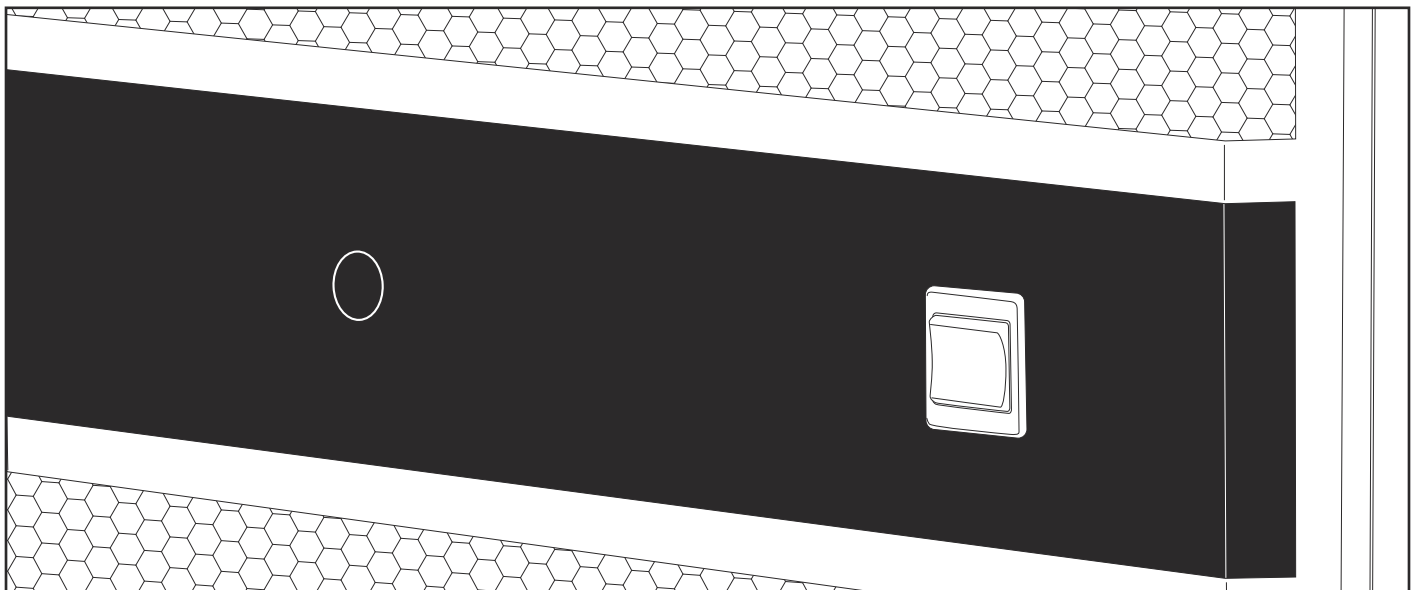


MULTI-SPEED FAN CONTROL

Designed for wine cellars up to 1000 and 2000 cubic feet, Extreme 3500tiR, 5000tiR, and 8000tiR units feature multi-speed fans. These fans have a high setting for maximum performance in high-temperature (+110°F) environments and a low setting for super-quiet operation.

Fan Speed Selector Switch (Low/Med/High)

The cooling unit fans operate on three speed settings: **Low**, **Medium**, and **High**. For optimum sound and energy efficiency, select the lowest fan speed that will maintain the desired cellar temperature. If the relative humidity is low, a higher fan speed will cause less moisture to be removed during cooling. High speed is recommended for initial cellar cool-down, extreme temperature conditions, and ducted installations.



Fan speed selection is determined by the amount of heat that needs to be removed from the cellar and the type of installation (through-the-wall or fully ducted). Fan speed selection is based on cellar size, insulation ratings, door seals, and the desired wine temperature. When initially installing the unit, set the fan speed to the **High** setting to quickly cool down the cellar. Once the wine cellar reaches the desired temperature, a lower fan speed may be selected. In the event that the outdoor temperature rises above 90°F (when exhausting to the outdoors), a higher fan speed may be required.



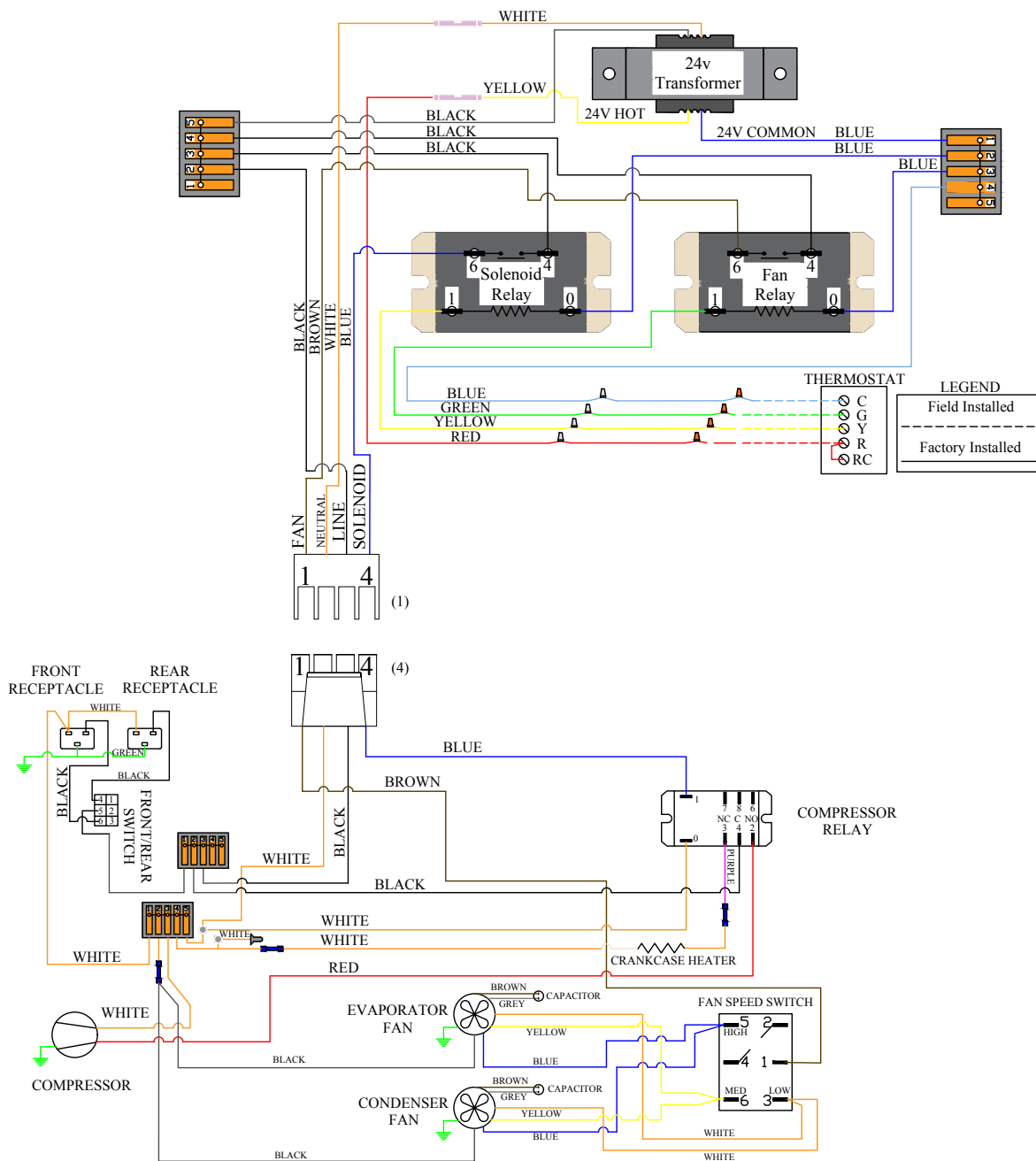
Fully ducted units should be set to the HIGHEST fan speed selection for maximum performance.



	3500tiR/tiR FD			5000tiR/tiR FD			8000tiR/tiR FD		
Speed Selection	Low	Med	High	Low	Med	High	Low	Med	High
Airflow (CFM)	147	180	256	147	180	256	274	318	333
Sound (dBA* In Cellar / Out of Cellar)	51/51	58/57	66/65	51/51	58/57	66/65	57/57	59/59	60/61
Cooling Capacity (BTU/h)	2374	2514	2693	2998	3264	4126/ 3794	5140	5606	5760

* To give you a feeling for decibels, a food blender at 3 ft. is 90 dBA, a garbage disposal at 3 ft. is 85 dBA, a vacuum cleaner at 10 ft. is 75 dBA, normal speech at 3 ft. is 79 dBA, a dishwasher in the next room is 55 dBA, and a quiet night is 35 dBA.

EXTREME 3500tiR/tiR FD, 5000tiR/tiR FD, & 8000tiR/tiR FD WITH 24V THERMOSTAT CONVERSION KIT WIRING DIAGRAM



SYSTEM OPERATION

The cooling system is equipped with the hardware needed to support a 24-volt air conditioning thermostat (not included).

Initial Start-Up

Set the thermostat to COOL and fan switch to AUTO. Lower the setpoint to the desired cellar temperature. (A temperature of 55°F is the recommended setpoint.) See thermostat instructions for details.

Normal System Cycle

The thermostat should turn the cooling system on when it senses a temperature one (1) degree higher than the setpoint. See thermostat instructions for details.

Anti-Short Cycle

Most thermostats have a safety feature that will prevent the condensing unit from cycling on and off within a short period of time. During the anti-short cycle, the condensing unit will typically remain off for 5-7 minutes. See thermostat instructions for details.

Fan Operation

If the fan switch on the thermostat is in the AUTO position, it will run only during the cooling cycle. If the fan switch on the thermostat is in the ON position, the fan will continuously run until the switch is set back to the AUTO position.

Anti-Frost

Systems equipped with a 24V thermostat conversion kit do **NOT** have an anti-frost feature. To reduce the possibility of the evaporator coil icing up, avoid setting the thermostat lower than 55°F.

NOTE: To ensure correct system operation, the 24V thermostat must be placed inside the wine cellar, preferably in a central location away from any airflow.

NOTES

TROUBLESHOOTING GUIDE

Unit has ice forming on the evaporator	
Possible cause	Solution
Evaporator coil is dirty	Clean the coil with a vacuum. If coil is very dirty, use a spray bottle with a small amount of liquid dish detergent or coil cleaner. Spray coil, let set for five minutes, then flush with fresh water.
There is something blocking the supply and/or return air	Remove blockage
The evaporator fan is not turning on	Call a service tech to troubleshoot
The unit continues to ice	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If all the way up, the coil may be dirty or airflow is blocked.
The setpoint is too low	Raise setpoint to recommended setpoint of 55°F
Unit does not run/power up	
Possible cause	Solution
Unit is not plugged in	Make sure the unit is plugged into an outlet
Power switch not on	Turn unit on by pressing the power button on the control
Line voltage is incorrect rating for unit	Check line voltage to make sure there is 110V-120V
Thermostat not calling for cooling	Lower setpoint
Power select switch in wrong position	See page 11 for correct switch position
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar temperature is too warm	
Possible cause	Solution
The temperature of the room to which the unit exhausts exceeds 110°F	Intake temperature needs to drop below 110°F
The unit is undersized for the cellar	Order correct size unit
There is something blocking the supply and/or return air on evaporator or condenser side of the unit	Remove airflow obstruction
Unit is mounted too low in the cellar	Relocate unit so the distance from the ceiling and top of the unit or cold air supply duct is no more than 18"
One or more of the fans is not turning on	Call Customer Service at 1-800-343-9463
Compressor is not turning on	Call Customer Service at 1-800-343-9463
Compressor keeps cycling on overload	Make sure all fans are working and there is no airflow obstruction
Poor seal around door	Make sure there are no air gaps around the door. If door seal is damaged, replace it.
Setpoint too high	Lower the setpoint
Evaporator coil is frosted or iced up	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If so, call Customer Service at 1-800-343-9463.
System runs constantly	
Possible cause	Solution
Leaky door seal or poorly insulated cellar	Fix leaky door seal and insulate cellar in accordance with this manual (page 9)

Unit leaks water	
Possible cause	Solution
Unit is level	System should have a two-degree (2°) pitch towards the exhaust side
Drain line clogged or kinked	Check drain line to make sure water can flow freely
Drain is clogged, preventing water from escaping	1. Disconnect exterior drain line and clear it out; run provided drain line brush through the drain port and into the interior drain line. 2. Open access door and, using a flashlight, check drain line for blockage; drop a pan tab into the drip tray to prevent further blockages.
Drain line does not have a downward slope	Fix drain line so there is a downward slope from the unit to the drain
Coil is iced, causing drip tray to freeze and water to overflow	Melt ice with blow drier. Soak up with a towel.
Unit runs but does not cool	
Possible cause	Solution
Lack of airflow	Make sure fan is unobstructed and coil is clean
Compressor not running	Call Customer Service at 1-800-343-9463
Unit undersized	Call Customer Service at 1-800-343-9463
Compressor is overheating	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.
Evaporator fan runs but compressor does not	
Possible cause	Solution
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463
Compressor may have overheated	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.
Compressor runs but evaporator fan does not	
Possible cause	Solution
Faulty fan motor	Call Customer Service at 1-800-343-9463
Faulty thermostat	Call installing technician to troubleshoot
Compressor short cycles	
Possible cause	Solution
Thermostat location	Move thermostat out of airflow
Unit low on refrigerant charge	Call Customer Service at 1-800-343-9463
Condensing fan motor/capacitor faulty	Call Customer Service at 1-800-343-9463
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463
Humidity in cellar too low	
Possible cause	Solution
Not enough moisture	Install a humidifier or decorative fountain in the wine cellar

Units equipped with the 24V Thermostat Conversion Kit:

Unit does not power up/run

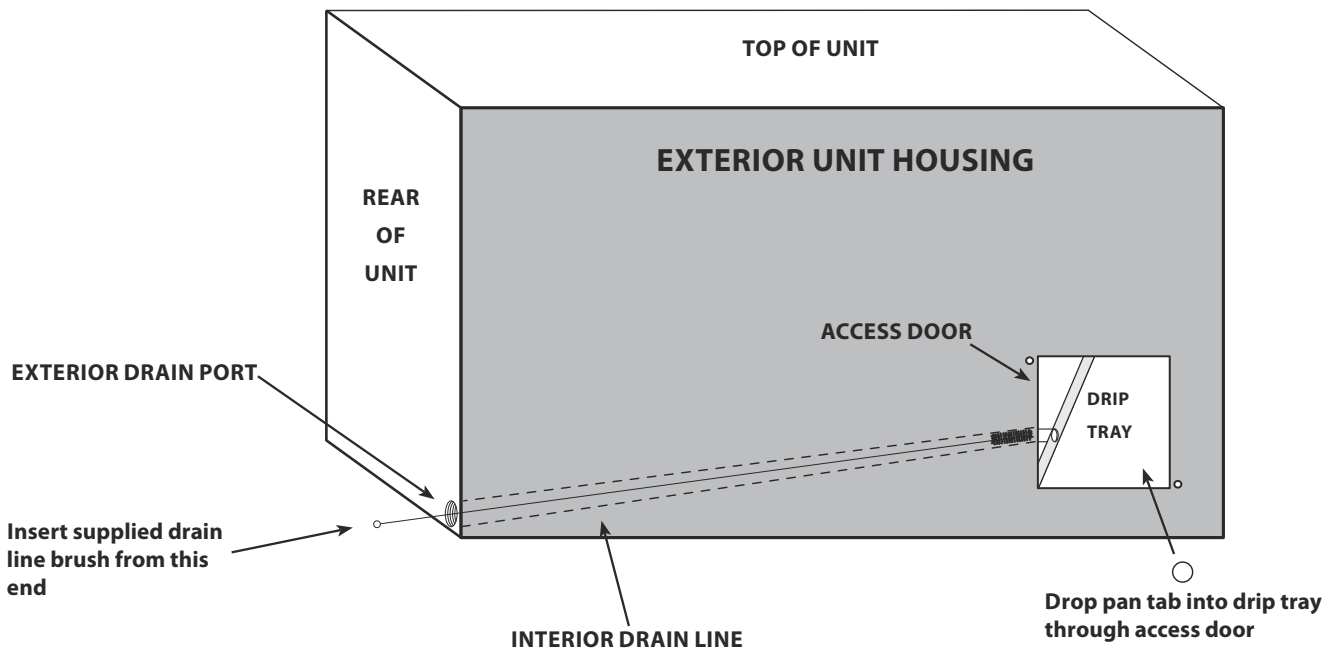
Possible cause	Solution
Batteries on thermostat have lost their charge	Change batteries
Thermostat wired incorrectly	Check wiring on 24V thermostat and correct
24V transformer has failed	Call Customer Service at 1-800-343-9463

Evaporator fan runs continuously

Possible cause	Solution
Fan switch on thermostat set to "on"	Set fan switch to the "auto" position

MAINTENANCE SCHEDULE

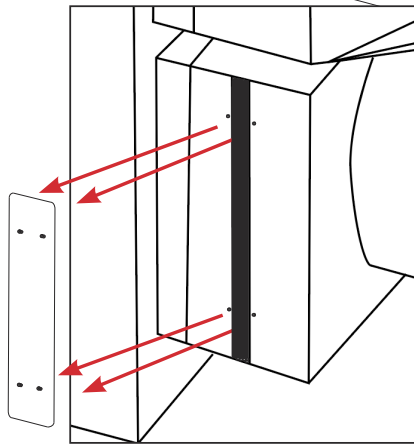
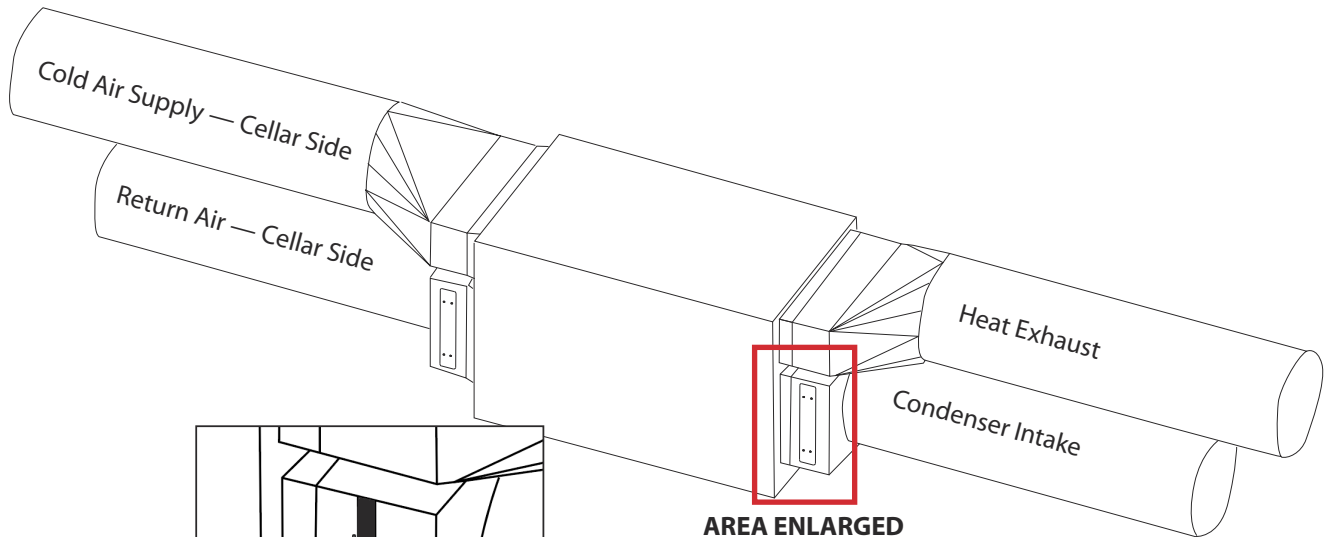
Monthly	<ol style="list-style-type: none"> 1. Check filters and clean if necessary 2. Check for unusual noise or vibration 3. Check drain line to see if it is above the waterline (when draining into a vessel)
Every Six Weeks	Using the supplied drain line brush, clean the interior drain line leading from the drip tray and drop a pan tab into the drip tray (see illustration below for more details).
Quarterly	<ol style="list-style-type: none"> 1. Clean filters 2. Replace filters on ducted units (see diagram below)
Annually	<ol style="list-style-type: none"> 1. Replace filters if worn or plugged beyond cleaning 2. Use a vacuum with brush attachment to clean coils; be careful not to crush coil fins 3. Inspect for corrosion 4. Check wiring connections and integrity of cords 5. Examine duct work for cracks or possible leaks 6. Pour a 50/50 bleach solution into the external drain line every spring



Pan tabs kill bacteria and related odors, remove sludge and scale, and help to prevent water damage caused by condensate overflow. They are non-corrosive and easy to install. Simply use the access door to drop a pan tab into the drip tray every six weeks.

WARNING: Keep pan tabs out of reach of children. They contain quaternary ammonium chloride and can cause skin and eye irritation. They are harmful or fatal if ingested. Wear protective gloves when handling pan tabs. Wash hands thoroughly after handling. If pan tabs make contact with eyes, rinse cautiously with water for several minutes. In case of an emergency, call 1-800-255-3924 (24 hours).

FILTER REPLACEMENT PROCEDURE (FOR DUCTED UNITS)



Filter replacement procedure (for ducted units): First, unscrew the four screws on the side of the condenser intake and cellar-side return air plenum housings. Once the screws are removed, remove the slender panels from the side of the plenum housings. Slide the old filters out of duct plenums and replace them with new ones. Replace panel and screws when finished.

TECHNICAL ASSISTANCE

WhisperKOOL Customer Service is available Monday through Friday from 6:00 a.m. to 4:00 p.m. Pacific Standard Time.

The appointed customer service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

- The model and serial number of your WhisperKOOL system(s).
- Location of unit and installation details, such as ventilation, ducting, construction of your wine cellar, and room size.
- Photos of the cellar and installation location may be needed.

Contact WhisperKOOL Customer Service

1738 E. Alpine Ave
Stockton, CA, 95205
www.whisperkool.com

Email: support@whisperkool.com

Phone: 209-466-9463

US Toll Free: 1-800-343-9463

Fax: 209-466-4606

ACCESSORIES FOR COOLING UNITS

WhisperKOOL offers accessories to enhance and customize your wine cooling unit.

Exterior Grille

Protects the unit from the weather elements when placed on the exhaust side.

- Small exterior grille (used for Extreme 3500tiR and 5000tiR)
- Large exterior grille (used for Extreme 8000tiR)

Condensate Pump Kit

The condensate pump kit is designed as an automatic condensate removal pump for water dripping out of our cooling units' drain line. The pump is controlled by a float/switch mechanism that turns the pump on when approximately 2¼" of water collects in the tank, and automatically switches off when the tank drains to approximately 1¼". The condensate pump kit allows the excess condensate to be pumped up to 20 feet away from the unit.

Extreme Ducting Kit

This kit allows either side of the unit to be ducted. Duct the cold air through a vent into the cellar, duct the hot exhaust air out of the home. This option allows for total installation flexibility.

Note: Flex or rigid ductwork is not included.

Accessories can be purchased at www.whisperkool.com

**WhisperKOOL Product Terms and Conditions
Including Product Limited Warranty And Product Installation Requirements
For WhisperKOOL Extreme Series**

ATTENTION: PLEASE READ THESE TERMS OF USE CAREFULLY BEFORE INSTALLING YOUR WHISPERKOOL COOLING SYSTEM. INSTALLING YOUR WHISPERKOOL COOLING SYSTEM INDICATES THAT YOU ACCEPT AND AGREE TO EACH OF THE TERMS AND CONDITIONS SET FORTH HEREIN ("TERMS OF USE"). IF YOU DO NOT ACCEPT THESE TERMS OF USE, YOU RISK VOIDING YOUR WARRANTY AND ASSUMING ADDITIONAL REPAIR AND REPLACEMENT COSTS.

1. Purchase of a WhisperKOOL Cooling System assumes that the Purchaser ("End User") fully accepts and agrees to the Terms and Conditions set forth in this document. The Terms and Conditions of Sale and Owner's Manual are shipped with each unit and, if another copy is needed, replacement copies can be downloaded from the company website (whisperkool.com) or by contacting WhisperKOOL directly for a new copy. WhisperKOOL reserves the right, in its sole discretion, to change its Terms and Conditions at any time, for any reason, without notice.

2. WhisperKOOL Product Limited Warranty:

A. Two (2) Year Limited Warranty: For the period of TWO (2) YEARS (the "Limited Warranty Period") from the date of original sale of a Product by WhisperKOOL, if a WhisperKOOL Product is found to be defective in material or workmanship after undergoing WhisperKOOL's Customer Service troubleshooting, then, subject to the WhisperKOOL Product Limited Warranty Limitations and Exclusions as well as the other Terms and Conditions stated herein, WhisperKOOL will do the following, as appropriate, for the end user ("End User") who has installed and is actually using the Product, with regard to LABOR, PARTS and FREIGHT:

1. **LABOR** — Repair or replace (at WhisperKOOL's sole option) the Product to the End User; and
2. **PARTS** — Supply to the End User, new or rebuilt replacement parts for the Product in exchange for the return of defective parts; and
3. **FREIGHT** — Cover normal ground freight charges for parts, and, in the event the Product is not repairable in the field, cover normal ground freight charges (within the continental United States) for the repair or replacement of the Product.

B. Five (5) Year Compressor Limited Warranty: WhisperKOOL Products' compressor only will be covered for five (5) years from date of purchase. Labor and freight of the compressor is the End Users responsibility.

C. Product Warranty Limitations and Exclusions:

1. This limited warranty does not cover cosmetic damage caused during installation, damage due to acts of God, commercial use, accident, misuse, abuse, negligence, or modification to any part of the Product. Delivery and installation of the Product, any additional parts required, as well as removal of the Product if warranty work is required, are all at the sole cost, risk and obligation of the End User.
2. This limited warranty does not cover damage due to improper installation or operation or lack of proper maintenance of the Product, connection of the Product to improper voltage supply, or attempted repair of the Product by anyone other than a technician approved by WhisperKOOL to service the Product.
3. This limited warranty does not cover any Product sold "AS IS" or "WITH ALL FAULTS."
4. Product that has been replaced during warranty period does not extend the warranty period past the original date of purchase.
5. (5) This limited warranty is valid only in the continental United States. Sales elsewhere are excluded from this warranty.
6. Proof of purchase of the Product in the form of a bill of sale, receipted invoice or serial number, which is evidence that the Product is within the Limited Warranty Period, must be presented by the End User to WhisperKOOL in order to obtain limited warranty service.
7. This limited warranty is void if the factory applied serial number has been altered or removed from the Product.

8. This limited warranty is voided if installed in an enclosure of insufficient design that does not follow the Product installation requirements stated herein and in the Owner's Manual.
9. Removing the rivets from the Product's unit housing without prior authorization from WhisperKOOL voids this limited warranty.
10. The End User must first contact WhisperKOOL Customer Service by telephone (at 1-800-343-9463) prior to attempting service on any Product still under the limited warranty; else the limited warranty is voided.
11. This limited warranty does not cover Product being concealed by, but not limited to; vegetation, fabric, shelving, mud, snow, or dirt. Product must not be painted or limited warranty will be void.
12. This limited warranty does not cover exposure to corroding environments such as, but not limited to; petroleum and gasoline products, cleaning solvents, caustic pool chemicals, and marine air.
13. This limited warranty does not cover any cause not relating to Product defect.
14. THE REPAIR OR REPLACEMENT OF THE PRODUCT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF YOU, THE END USER, AS WELL AS ANYONE ELSE IN THE CHAIN OF TITLE OF THE PRODUCT, DOES NOT START A NEW LIMITED WARRANTY TIME PERIOD, AND IS IN LIEU OF ALL OTHER WARRANTIES (EXPRESS OR IMPLIED) WITH REGARD TO THE PRODUCT. IN NO EVENT SHALL WHISPERKOOL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may have other rights, which vary from state to state.
15. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at WhisperKOOL's sole discretion, void this limited warranty.
16. No one has any authority to add to or vary the limited warranty on this Product.

3. Product Installation Requirements:

- A. Prior to installing a WhisperKOOL Product, the End User must read the WhisperKOOL Owner's Manual and thereafter the End User must follow the required installation, use and maintenance procedures set forth by WhisperKOOL in WhisperKOOL's Owner's Manual. The Owner's Manual is shipped with each Product and if another copy is needed, replacement copies can be downloaded from WhisperKOOL's website (www.whisperkool.com) or by contacting WhisperKOOL directly for a new copy of the Owner's Manual.
- B. It is highly recommended that the End User obtain the assistance of a wine storage professional.
- C. Failing to address all of the variables associated with proper installation will cause the Product to operate incorrectly and limit both the Product's ability to cool and the longevity of the Product itself.
- D. The End User is responsible for all risks and costs of installation of the Product, including but not limited to all labor costs as well as cost of any additional parts required for the proper and complete installation of the Product. The End User is responsible for all risks and costs of removing the Product if limited warranty work is required.
- E. The Product cannot operate at its optimum capacity if airflow is constricted by ducting or venting the exhaust side of the Product into a location with inadequate ventilation.

4. Maintenance Requirements

It is the End User's responsibility to clean off any accumulated dust, lint, or other debris from the front and rear intake grills. Failure to do this on a regular basis will restrict the airflow and may affect the Product's ability to function properly. Periodically cleaning the Product's vents will help assure maximum cooling efficiency. The drain line tube must also be checked and kept clean and free of debris and mold to maintain proper performance.

Mold is a natural living organism in the environment. It exists in the air in the form of microscopic spores that move in and out of buildings through doors, windows, vents, HVAC systems and anywhere else that air enters. Once it is discovered, mold must be addressed quickly and appropriately. Delayed or improper treatment of mold issues can result in costly and reoccurring repairs. If the End User suspects a mold problem, it is always best to hire a qualified and experienced mold remediation specialist.

5. Additional End User Costs And Responsibilities

The following items are not covered under any warranty and are the sole responsibility of the End User:

- A. End Users should satisfy themselves that the Product they are purchasing is suitable for their particular needs and requirements, and thus no responsibility will be placed with WhisperKOOL for the End User's decisions in this regard.
- B. It is the End User's responsibility to secure safe haven/storage for ANY AND ALL items that are being kept and stored in the End User's wine cellar, including any Product. WhisperKOOL takes no responsibility for the safety and preservation of the aforementioned items in the event that the environment becomes unsuitable to maintain a proper storage environment.
- C. End User is responsible for initial installation costs, including, but not limited to, labor costs and the cost of any additional parts necessary to complete the installation.
- D. End User is responsible for all costs incurred for the installation and/or removal of the Product, or any part thereof, unless such cost has been agreed by WhisperKOOL to be a warranty repair prior to the work being performed.

6. Sales and Use Tax

WhisperKOOL only collects California sales tax for orders shipped within the State of California. WhisperKOOL does not collect sales tax for orders shipped to other states. However, the Purchaser and the End User may be liable to the taxing authority in their state for sales tax and/or use tax on the Product. The Purchaser and the End User should each check with their state's taxing authority for sales and use tax regulations.

7. Customer Service and Troubleshooting

WhisperKOOL's Customer Service department is available to answer any questions or inquiries for End Users regarding a WhisperKOOL Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:00 a.m. to 4:00 p.m. (PST), at 1-800-343-9463. WhisperKOOL Corporation is located at 1738 East Alpine Avenue, Stockton, California 95205.

8. Miscellaneous Terms and Conditions

- A. Return Policy: All return inquiries must be made within thirty (30) calendar days of the original purchase of a Product and are subject to a twenty five percent (25%) restocking fee. Shipping costs are not refundable and the Purchaser is responsible for all return shipping costs (including customs fees and duties, if applicable).
- B. Security Interest: WhisperKOOL retains a security interest in each Product until payment in full.
- C. Construction and Severability: Every provision of these Terms and Conditions shall be construed, to the extent possible, so as to be valid and enforceable. If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will, to the extent so held, be deemed severed from the contract of sale between Purchaser and WhisperKOOL, and all of the other non-severed provisions will remain in full force and effect.
- D. Governing Law/Choice of Forum: The laws of the State of California (without regard for conflicts of law) shall govern the construction and enforcement of the these Terms and Conditions of Sale (Sections 1 through 9 inclusive, including Product Limited Warranty And Product Installation Requirements), and further these Terms and Conditions of Sale shall be interpreted as though drafted jointly by WhisperKOOL and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, WhisperKOOL, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose. No waiver by WhisperKOOL of any breach or default of the contract of sale (including these Terms and Conditions of Sale) concerning a Product will be deemed to be a waiver of any preceding or subsequent breach or default.
- E. Correction of Errors and Inaccuracies: These Terms and Conditions may contain typographical errors or other errors or inaccuracies. WhisperKOOL reserves the right to correct any errors, inaccuracies or omissions, and to change or update these Terms and Conditions, at any time without prior notice.

9. Questions, Additional Information And Technical Assistance

A. Questions: If you have any questions regarding these Terms and Conditions or wish to obtain additional information, contact us via phone at 1-800-343-9463 or please send a letter via U.S. Mail to:

Customer Service
WhisperKOOL Corporation
1738 E Alpine Ave
Stockton, CA 95205

E-mail: support@whisperkool.com
Web: www.whisperkool.com

B. Technical Assistance: WhisperKOOL Customer Service is available Monday through Friday from 6:00 a.m. to 4:00 p.m. (PST). The Customer Service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

1. The model and serial number of your WhisperKOOL UNIT.
2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model **EX** _____ Serial Number **A** _____

Installed by _____ Date _____

*Whisper***KOOL**[™]

WhisperKOOL

1738 E. Alpine Ave

Stockton, CA 95205

1-800-343-9463

www.whisperkool.com