SC SERIES
OWNER'S MANUAL

SC 2000i
SC 3000i
SC 3000i
SC 4000i
SC 6000i
SC 8000i

WhisperKOOL™
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.

06.08.2015

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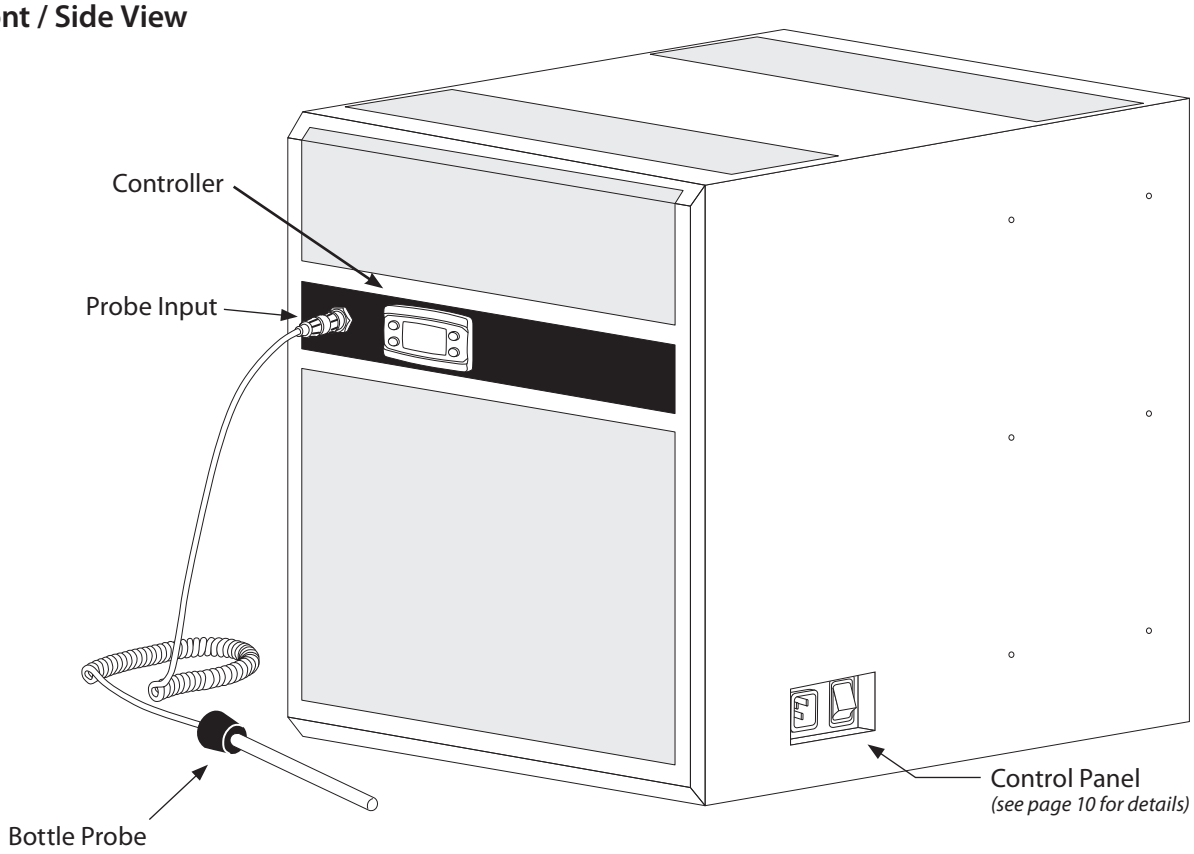
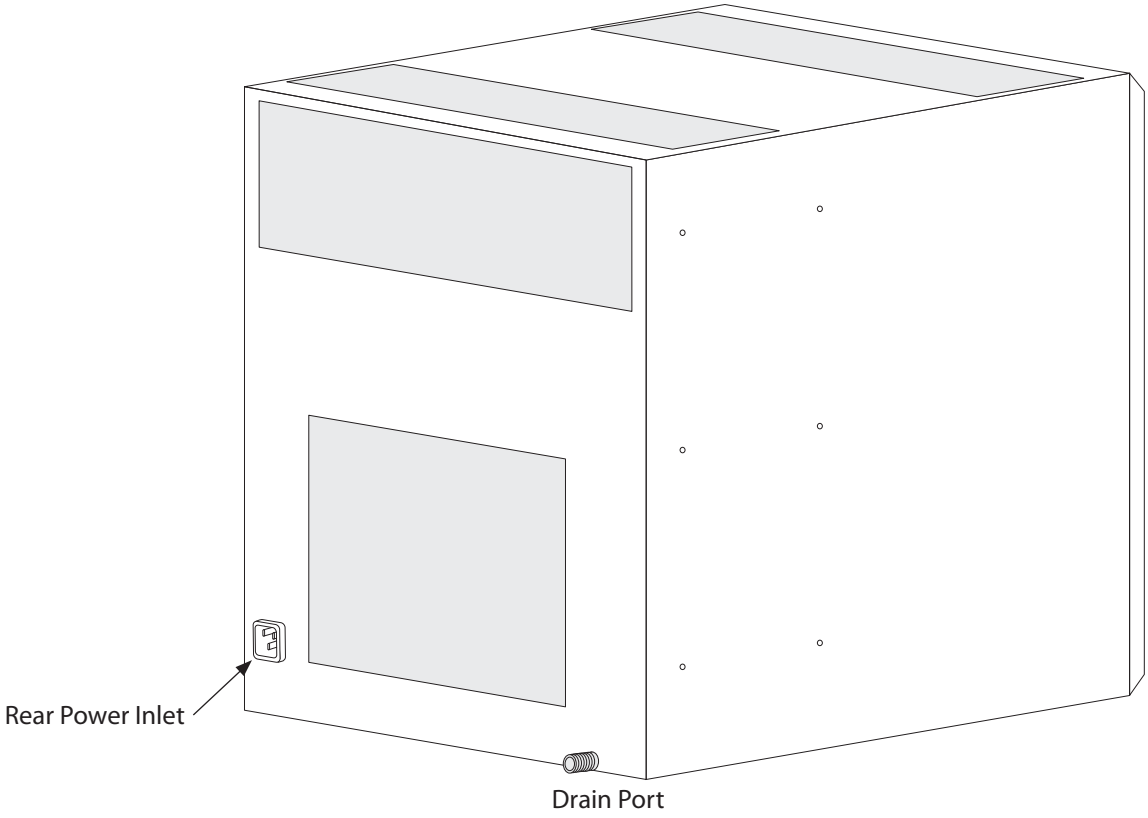
QUICK REFERENCE GUIDE

Front / Side View

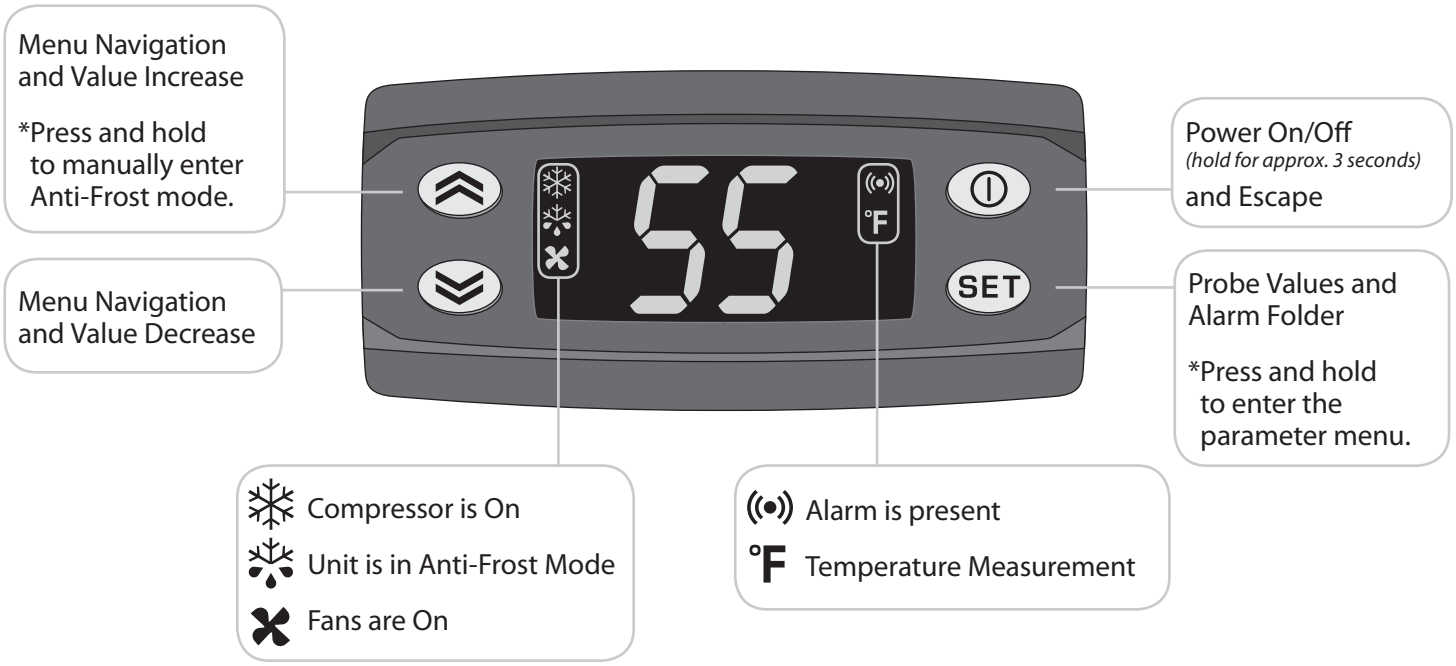


Rear / Side View



Controller Layout

Refer to page 30 for complete listing of buttons and symbols.



Unit Specifications

	2000i	3000i	4000i	6000i	8000i
Cellar Size (cu. ft.)	300	650	1000	1500	2000
Dimensions	14.25"W x 15.75"H x 17.5"D			14.25"W x 22.56"H x 21.64"D	
Weight (lb.)	65	67	67	104	104
Amps (running)	2.7	4.9	4.9	10.3	10.3
dBA	60	60	60	65	65
Installation	Through-the-Wall, Partially Ducted				
Thermostat	Digital control display				
Temp. Delta	30°F temperature differential (maintains proper cellar temperature when exhaust environment does not exceed 85°F)				
Outside Venting	**! Not Recommended !** — Can only be done if the outside temperature does not exceed 85°F, the optional external grille cover is required				
Duct Options	Exhaust air can be ducted using the optional ducting kit				
Warranty	2-year parts and labor / 5-year compressor				

INTRODUCTION

Customer Service

Thank you for purchasing a WhisperKOOL *SC* 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 whisperkool.com.

Using the Manual

This Owner's 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 properly and have a proper care and maintenance schedule. Please read and review this Owner's 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 Cooling Unit Work?

The WhisperKOOL cooling unit is specially designed for the use and application to maintain optimal conditions for wine storage and aging. The unit is fully self-contained and can be installed as a through-the-wall application with the ability to duct the exhaust air. The unit is temperature controlled via a bottle probe.

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 cool up to 30°F cooler than the ambient temperature of the space to which it is exhausting.

RECEIVING AND INSPECTING THE UNIT

Upon Receiving the WhisperKOOL Cooling 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 installing.
- 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 Contents

- Check the model number to ensure it is correct.
- Check that all factory options ordered are listed.

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

Check the Box for the Following Contents:

2000i / 3000i / 4000i

Single Piece Mounting Bracket

Accessory Kit One:

- WhisperKOOL Owner's Manual
- Bypass Plug
- Bottle Temperature Probe

Accessory Kit Two:

- 8' Power Cord
- Mounting Bracket Insulation Foam 14.5" (2)
- Mounting Bracket Insulation Foam 18" (2)
- 1¾ Standard Screws (11)
- ½ Self-Tapping Screws (6)
- ⅜ x ¼ Barbx FNPT Fitting
- Drain Line Tube (1)
- Connection "T" (1)
- Magnetic Deflectors for Airflow Control (2)

6000i / 8000i

Single Piece Mounting Bracket

Accessory Kit One:

- WhisperKOOL Owner's Manual
- Bypass Plug
- Bottle Temperature Probe

Accessory Kit Two:

- Power Cord
- Mounting Bracket Insulation Foam 14.5" (2)
- Mounting Bracket Insulation Foam 25" (2)
- 1¾ Standard Screws (11)
- ⅜ Self-Tapping Screws (6)
- ⅜ x ¼ Barbx FNPT Fitting
- Drain Line Tube (1)
- Connection "T" (1)
- Magnetic Deflectors for Airflow Control (2)

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 START GUIDE

This guide is meant to serve as a quick reference for installation of the WhisperKOOL unit. The remainder of this Owner's Manual will provide more detailed information and instructions.

Upon Receiving the WhisperKOOL Cooling Unit

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or WhisperKOOL Customer Service at 1-800-343-9463 ext. 799.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The WhisperKOOL unit **requires a dedicated 115V 20A circuit**. Use a surge protector with the WhisperKOOL unit. **Do not use a GFI** (Ground Fault Interrupter) line.
4. For your convenience, the WhisperKOOL unit has two power inlets: one on the side of the unit, and the other on the back. Use the selector switch, located on the right side of the unit, to select the inlet you would like to use.
5. The unit is designed to gently cool down the temperature of the cellar over time by cycling cooler air throughout. **Test the unit prior to installation**.
6. It is **Required** to **install a drain line** to remove condensation from the unit.
7. 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. Refer to the *How to Build a Wine Cellar* video available on the WhisperKOOL website at www.whisperkool.com.
8. Install the foam strips along the inside edge of the unit's flange to assure a proper seal against the wall.

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 on page 22. If you have any further questions, concerns, or need assistance, please contact WhisperKOOL Customer Service at 1-800-343-9463 ext. 799. Please be sure all testing has been completed prior to contacting Customer Service. Please have your results ready for your representative.

PREPARING THE WINE CELLAR

The performance and life of your WhisperKOOL unit is contingent upon the steps you take in preparing the wine cellar.

Note: Improperly preparing your enclosure or incorrectly installing your WhisperKOOL 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 provided 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 that we do not address.

How to Build a Wine Cellar Instructional Video

WhisperKOOL has a tutorial available online at www.whisperkool.com. This tutorial will walk you through the steps of constructing a properly built wine cellar and the installation of the WhisperKOOL product line.

Wall and Ceiling Framing

Build wine cellar walls using standard 2x4 or 2x6 construction methods and ceiling joists following the guidelines of local and state codes in your area. As a general rule, the thicker the walls and the higher the insulation value in your cellar, the better it will be at maintaining a consistent temperature.

Insulation

Insulation is **Required** with the use of the WhisperKOOL product. Standard fiberglass or rigid foam insulation is normally used in cellar construction or, in some cases, "blown-in" insulation is used. It is very important that all walls and ceilings are insulated to keep the cellar temperature as consistent as possible during the summer and winter months. 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. Using higher R-values in insulation will lower your operating costs and unit run time (R-13 minimum, R-19 recommended, R-30 for ceiling and exterior walls).

Vapor Barrier

Water vapor creates its own pressure (separate from the air pressure) and will intrude into colder/drier areas. A vapor barrier is **Required** to prevent the intrusion of water vapor so that the cellar can be kept at the correct temperature and humidity. 6 mm plastic sheeting (recommended) should 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.

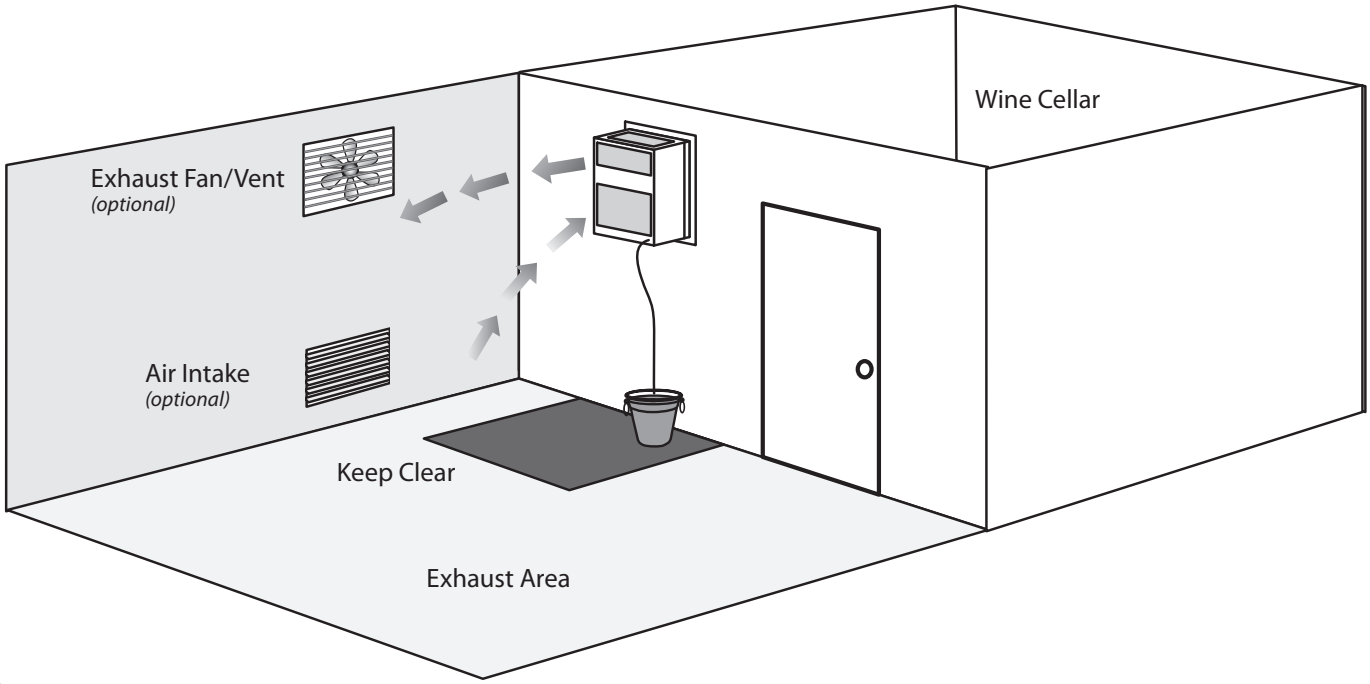
In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm, moist air. The moist air can cause mold to form, and standing water in drain pans promote microbial and fungal growth that cause unpleasant odors and indoor air quality problems. If mold 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 allow 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" of the top of the room 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 the unit's inability to draw warm air from the ceiling of the cellar to the unit itself, and cold air settling to the floor.



Unobstructed Airflow

Unobstructed airflow to and from the unit is critical for the unit's overall performance and life span. A minimum three-foot clearance (five-foot is ideal) area is crucial. 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: Avoid attempting to camouflage the unit. This will restrict airflow, and thus the unit's ability to work efficiently.

Door and Door Seal

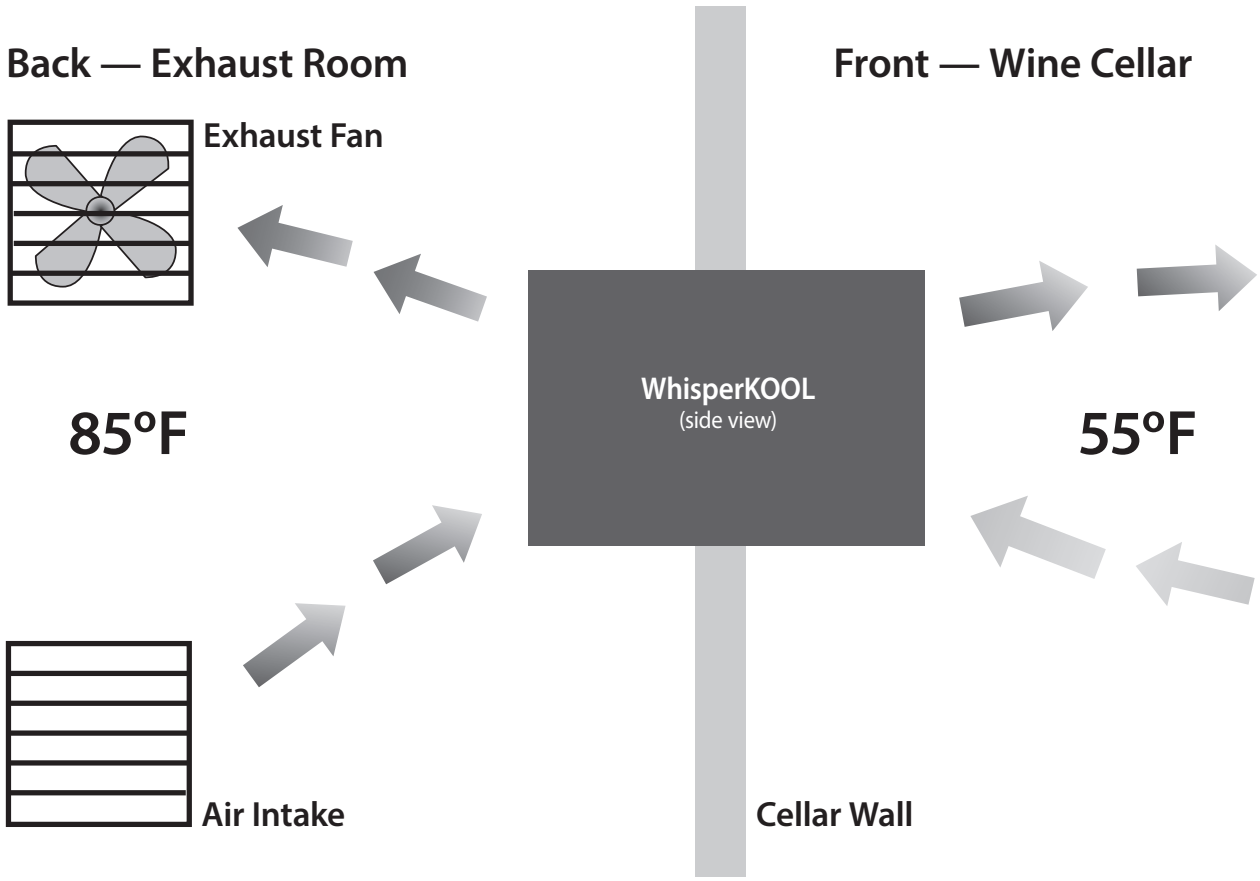
An exterior grade (1¾") door must be installed as a cellar door. It is very important that weather stripping is attached to all four sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have a very good seal to keep the cool cellar air from escaping out of the cellar. One of the most common problems with cooling units running continually is due to the door not sealing properly. 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 insulating 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 about having 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 85°F. Therefore, you want to exhaust the unit in a room which will not exceed 85°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.

PRE-INSTALLATION

Test the Unit Prior to Installation

To prepare the unit for testing before installation in wall

- Unit needs to be in the upright position for 24 hours before starting
- Remove unit from box
- Place unit on tabletop
- Plug in unit to electrical outlet
- Plug in bottle probe
- Turn on to test for approximately 20–30 minutes
- Turn off after test
- Disconnect bottle probe

Electrical Needs

The WhisperKOOL unit requires a dedicated 115V 20A circuit. The unit draws a large amount of amps at initial start up. 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:

- Match the electrical outlet to the plug provided on the WhisperKOOL unit.
- Provide a dedicated circuit and wiring for the unit.
- Provide a weatherproof plug for units connected outside.

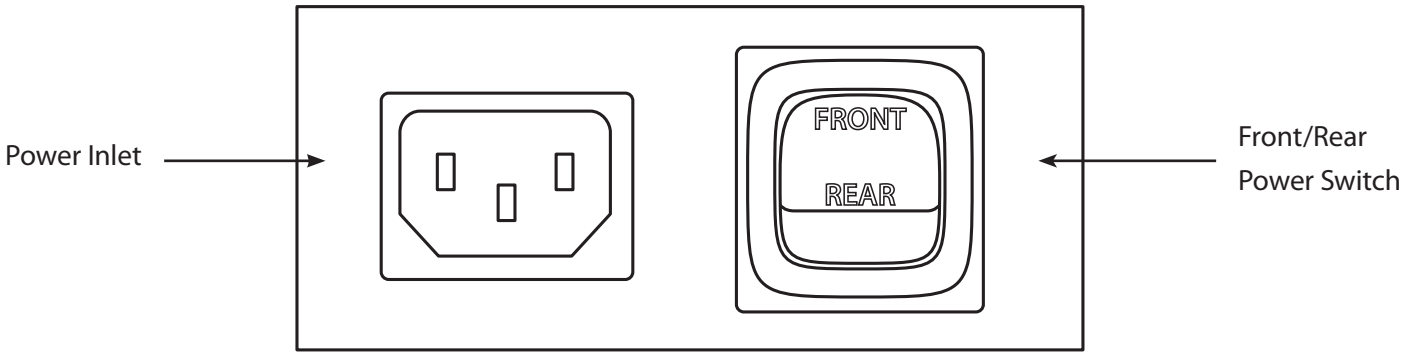
Plug your WhisperKOOL unit into a surge protector or power conditioner. As with any sensitive electrical equipment, the WhisperKOOL electrical equipment may be damaged by power surges and spikes. Power surges and spikes are not covered under warranty.

We recommend that you do not use a GFI (Ground Fault Interrupter) with this product.

Electrical Inlets

The unit is equipped with two power inlets. One is located on the right side of the unit, (inside of the cellar) 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 utilize. 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.



AIRFLOW CONTROL

Note: We do not recommend the unit to be mounted low. The magnetic deflector is to combat this issue, but is not intended as "recommended."

Airflow Options

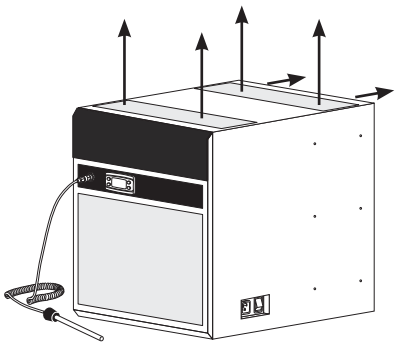
The Magnetic Deflectors can be used in a variety of situations:

- Mounting the system lower in the cellar
- Flush mounting the condenser side of system
- Directing airflow to avoid recirculation

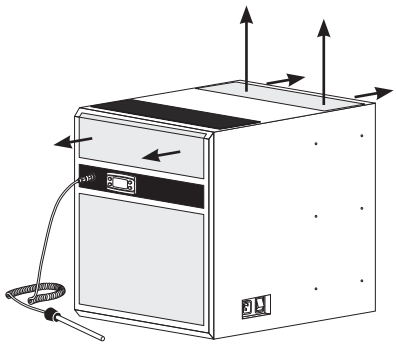
Apply the Magnetic Deflectors in one of the positions displayed below. Choose the option that will best suit your installation.

Note: Do not cover both of the openings on the same side of the unit for any reason. This will cause cooling issues and premature failure.

One Side Selective Airflow Options



OPTION 1



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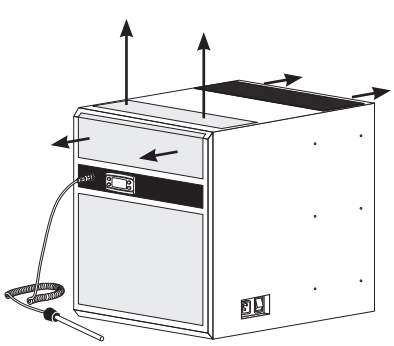

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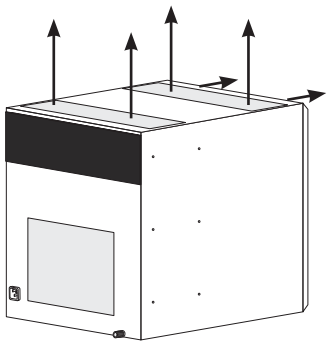
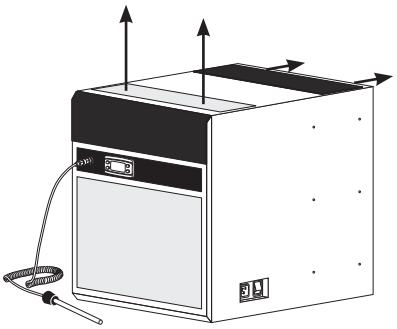
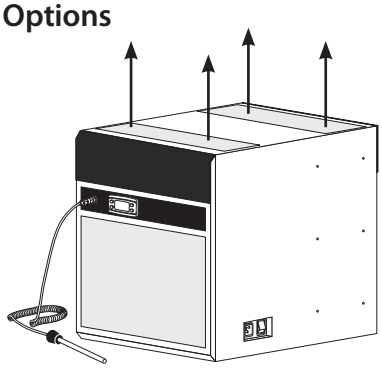


OPTION 4

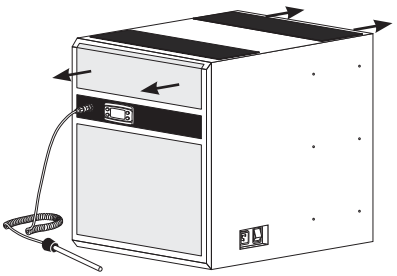
Two Side Selective Airflow Options



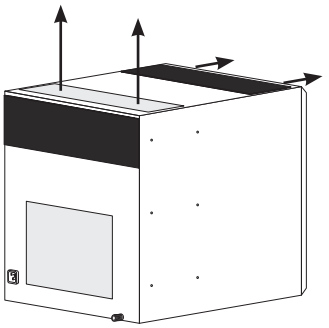
OPTION 5



OPTION 6

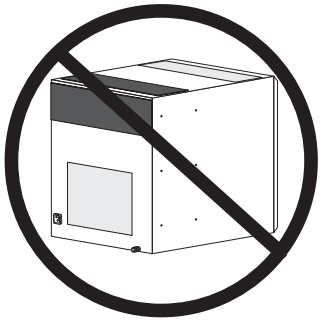


OPTION 7



OPTION 8

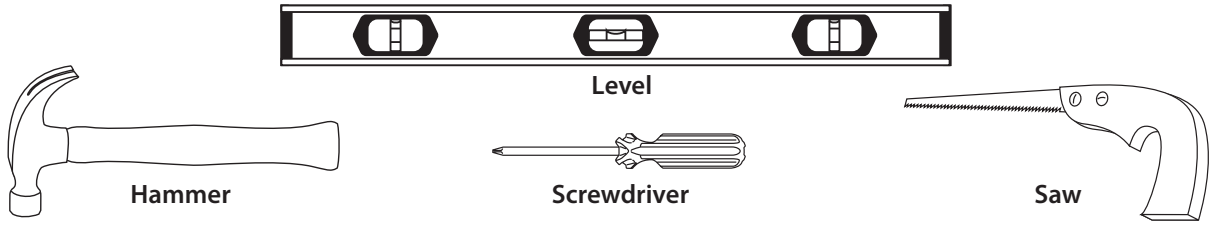
Note: Do not cover both of the openings on the same side of the unit for any reason. This will cause cooling issues and premature failure.

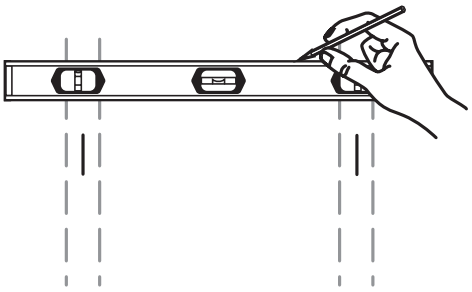


THROUGH-THE-WALL INSTALLATION

Preparing the Installation Location

Minimum Tools Needed

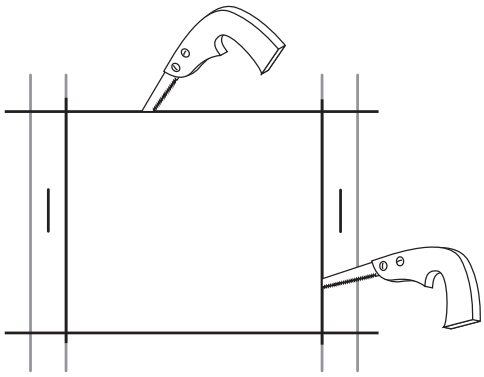




Locate the desired installation location (no lower than 18" inches from the ceiling). Using a stud finder, locate the studs on either side of the center point, and mark them with vertical lines.

Using a level and a pencil, mark a horizontal line on the wall between the two studs, no less than 1.5" and no more than 18" from the ceiling.

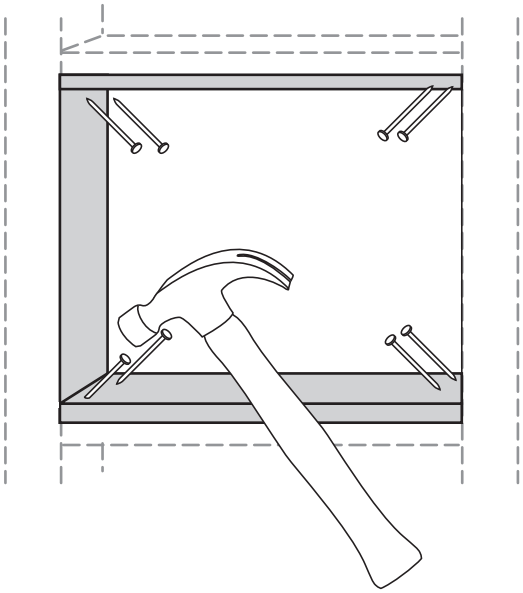
Using a ruler or measuring tape, measure 16" down (2000/3000/4000) or 22.75" down (6000/8000), and mark another horizontal line parallel to the first one. The unit is designed to fit between two studs that are 16" apart on center, enabling the unit to fit in the 14.5" horizontal space.



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" 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.

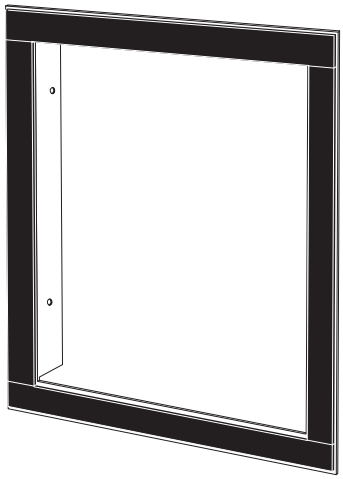


Sheetrock alone cannot support the weight of a cooling unit. Therefore, it is necessary to frame the hole that has just been cut with upper and lower supports. These supports also provide solid material for the mounting bracket screws.

Using two 2x4s at 14.5" 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" (2000/3000/4000) or 22.75" (6000/8000) so that the WhisperKOOL unit will fit snugly through the framed cut-out.

SC 060815

Preparing the Unit for Installation



Single Piece Mounting Bracket

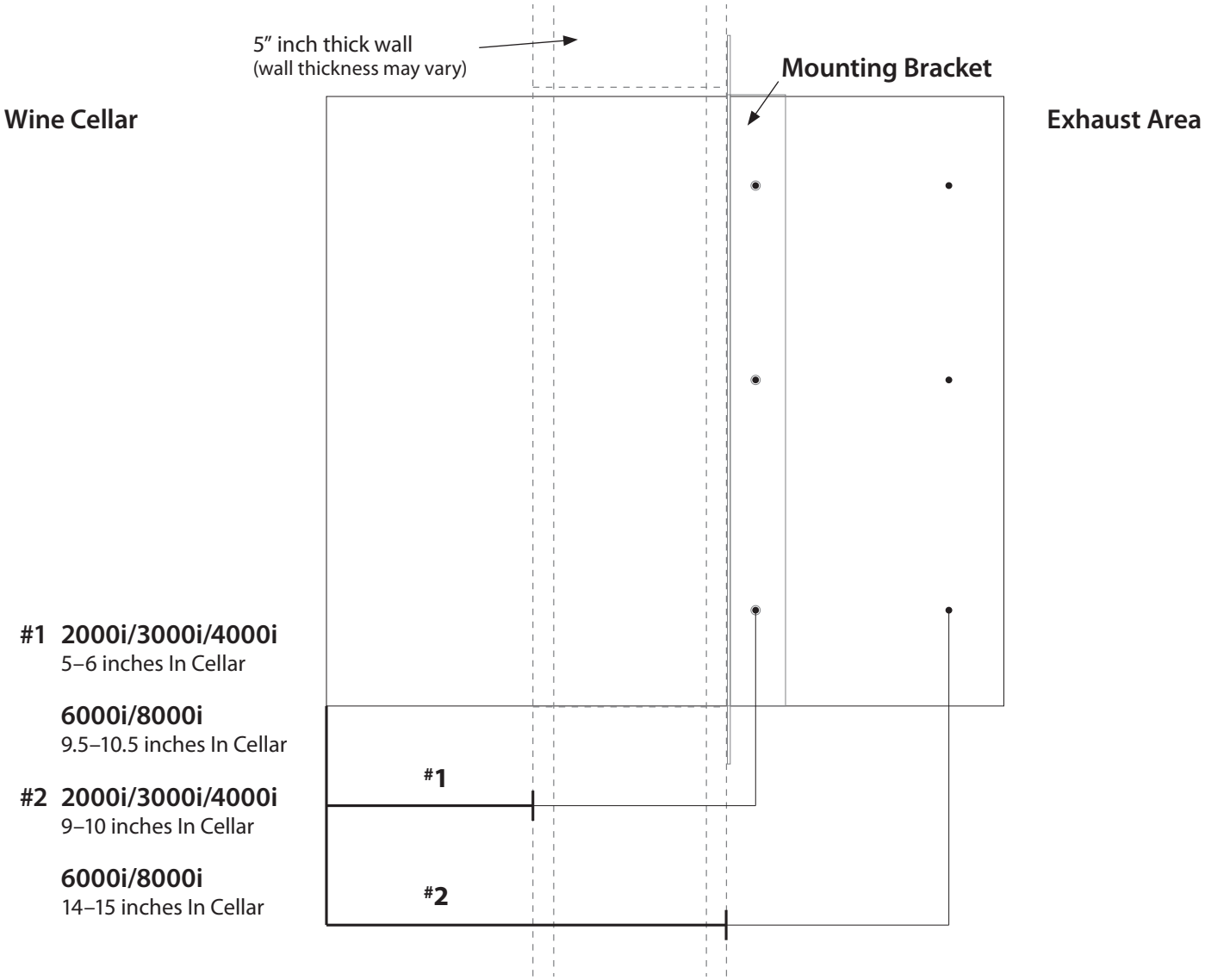
The *SC* Series utilizes a single piece mounting bracket. This sturdy bracket frames the installation location and secures the unit to the wall.

Applying Insulation Tape

Locate the four pre-cut pieces of black foam tape included with the unit, two larger pieces and two smaller pieces. To apply, simply peel back the white-paper adhesive covering and place on the mounting bracket. The large pieces are applied to the top and bottom, while the smaller pieces are for the sides. This foam creates 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 #2 makes the back of the unit near flush on the exterior wall. Slide the bracket onto the unit, paying special attention to the flanges for mounting to the unit. Make sure they are pointing towards the back. For the 2000i, 3000i, and 4000i Models, use the six ½" self tappers to fasten the bracket to the unit. It is imperative not to use self tapping screws longer than ½" in length. For the 6000i/8000i Models, use the six ⅜" self-tappers to fasten the bracket to the unit. It is imperative not to use self tapping screws longer than ⅜" in length.



Installing the Unit

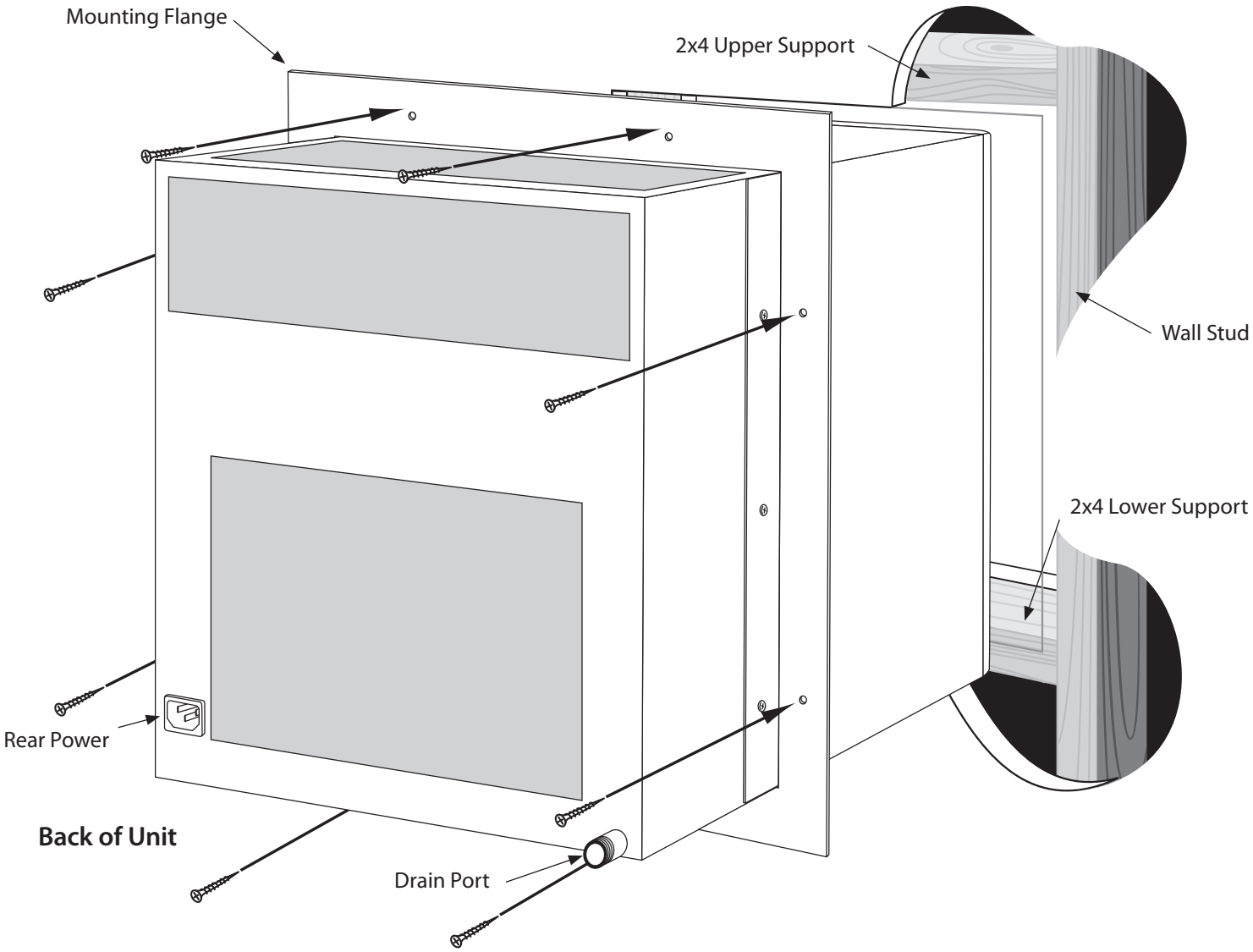
Select Power Location

Before installing the unit into the installation location, select either the front or the rear on the power panel located on the side of the unit to correspond with the side you have chosen to have the power supply.

Installing the Unit

Slide the unit from the outside wall into your wine cellar with the outer flange flush to the wall. Secure the flange to the wall through the pre-drilled holes. The 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 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.



CONDENSATION DRAIN LINE

Condensation Drain Line Tube

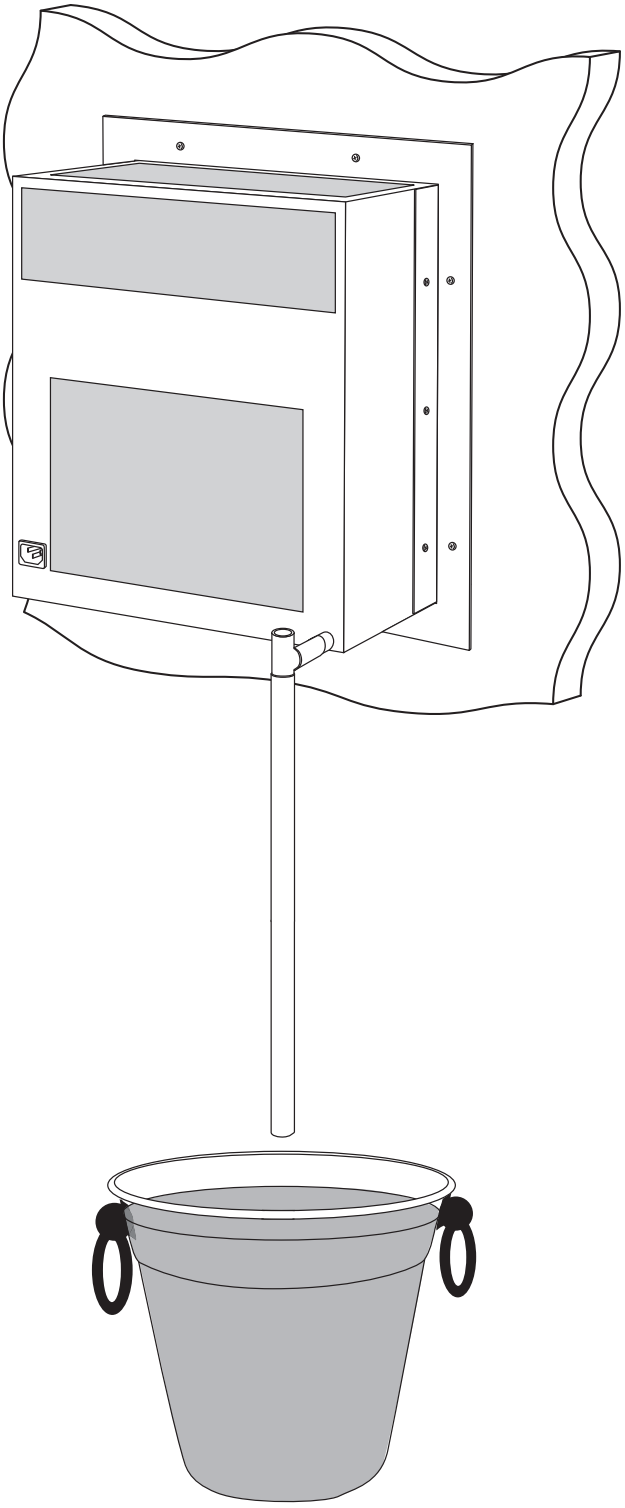
The condensation drain line tube is used to remove excess condensation from the unit to a proper discharge location. It is important that the drain line tube is properly connected and used to prevent leakage and other problems associated with excess condensation.

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

Drain Line

All units come with a drain line for additional removal of excessive condensate. It is mandatory to install the drain line with a "T" fitting. During operation, the cooling unit will strip excess water from the air in order to maintain the proper level of humidity within the cellar. 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.



WRONG: Drain line is under water.

LIQUID MEASURING THERMOSTAT SYSTEM

The WhisperKOOL Series cooling units come equipped with a liquid temperature-measuring thermostat. This system incorporates the following advantages:

Self-Calibrating Bottle Probe

The bottle probe contains a sensor chip, which communicates back and forth with the thermostat. This results in a consistent temperature setting and accuracy.

1. Wine temperature is kept in a very precise, controlled environment. This assures a consistent temperature.
2. By measuring the liquid temperature rather than air, the unit will operate 75–80% of the time.

Liquid Temperature Measuring Thermostat

To assure a consistent temperature, place bottle probe approximately 3 feet away from the air output and not in the flow of the air.

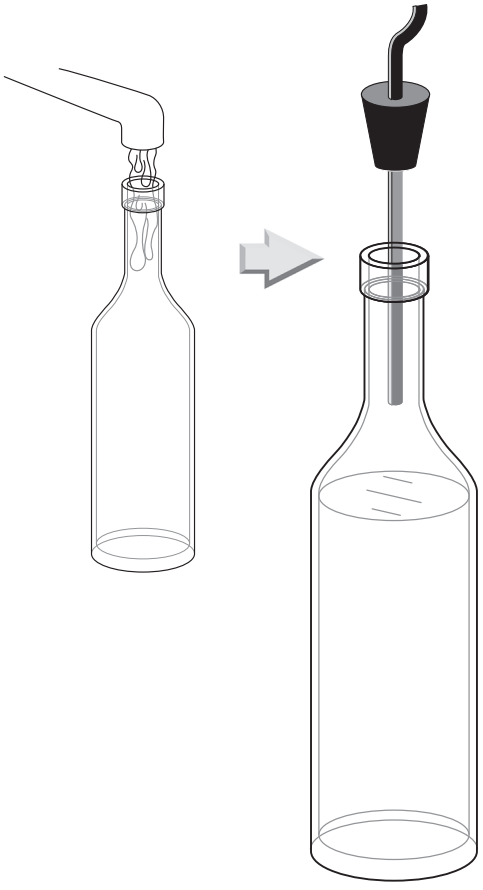
To Use the Thermostat:

1. Locate an empty wine bottle.
2. Fill ¾ full with room temperature tap water.
3. Place bottle probe securely into bottle making
4. Place bottle with probe level and to the side of the unit in your wine cellar.

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 non-operation of the unit.

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

Remember: The WhisperKOOL 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 optimum balanced temperature.



UNIT OPERATION

Initial Start-Up

When power is applied to the unit, the control will briefly display all symbols, and the Snow Flake symbol will be displayed (if unit is calling for cooling). There may be a brief (up to 60 sec.) delay prior to the evaporator fan turning on. When the evaporator fan is activated the Fan symbol will display.

APST (Advance Product Safety Technology) is a temperature control feature for the evaporator fan that comes standard with all WhisperKOOL units. APST ensures that in the possible event of a cooling deficiency, the heat from the indoor fan will not raise the temperature of the wine cellar, which could otherwise have an adverse effect on the wine-aging process.

Set Point

The set point is set from the factory (WhisperKool) at 55F°. It can be adjusted by the customer between 50–70F° in one degree increments.

Cooling Operation

Cooling is activated once the bottle probe senses a temperature that is 1° greater than the set point. The controller then energizes the compressor relay which activates the compressor. The evaporator and condenser fans operate with the compressor. The unit provides cooling until the bottle probe senses the set point. At this point the compressor relay is de-energized, which stops the compressor. The evaporator and condenser fans will continue to run for one minute to re-introduce any moisture from the evaporator coil and reduce the head pressure.

Humidity Features

The Fdc parameter can be increased to allow the evaporator and condenser fans to run for a longer period of time after the compressor turns off, allowing more moisture to be re-introduced into the wine cellar.

Anti-Short Cycle

The Anti-Short Cycle ensures that the compressor will remain off for a period of three minutes after the unit has reached the set point to allow the pressure in the refrigeration unit to equalize prior to starting the compressor.

Anti-Frost Cycle (defrost)

When the evaporator probe senses a temperature of 26F° for five minutes, the unit will go into Anti-Frost mode. This will shut down the compressor and allow the evaporator and condenser fans to run to evaporate any frost accumulation on the coil. The compressor will remain off until the evaporator coil reaches 40F°, or for a maximum of ten minutes. The unit will then return to normal operation.

If the evaporator is not above 26F° after the Anti-Frost sequence has ended, the red error light will display in the upper right corner. Alarm "Ad3" will be recorded in the alarm folder, indicating that the Anti-Frost sequence ended based on time. The unit will run for five minutes and then enter another Anti-Frost sequence. This sequence will continue until the evaporator temperature increases above 26F°.

"Def" will be displayed during Anti-Frost. If the Anti-Frost sequence is less than five minutes, the control will not allow the compressor to start until five additional minutes have elapsed. This is to prevent short cycling of the compressor.

Holding down the up button for approximately five seconds manually starts the Anti-Frost sequence, but only if the evaporator is below 40F° (defrost end temperature). If the evaporator is above 40F°, the display will blink three times and continue normal operation.

Bottle Probe Failure Protection

In the event that a bottle probe should fail, the APST (Advance Product Safety Technology) will automatically transition the refrigeration compressor cycles to a pre-determined time series (based on detailed laboratory testing), which will ensure that the product is kept within the safe range.

Display

The bottle probe temperature is displayed by default. "Def" is displayed during Anti-Frost. The bottle probe, evaporator probe, and condenser probe temperatures can all be accessed by pushing the SET button and scrolling through "PB1" (bottle probe), "PB2" (evaporator probe), and "PB3" (condenser probe).

Safety Features

Once the compressor relay is de-energized the controller must wait five minutes before re-energizing the relay. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor symbol will blink, indicating that cooling is needed but the control is waiting for the Anti-Short cycle delay.

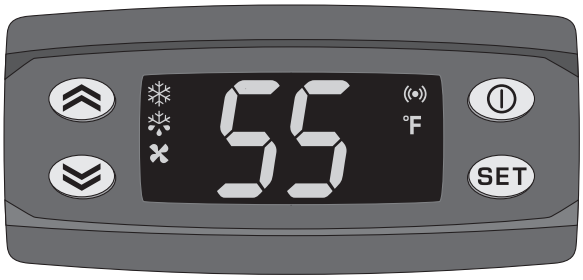
In the event of a faulty bottle probe, the compressor will cycle off for 10 minutes and on for 40 minutes. "E1" will be displayed on the screen.

If the condenser temperature reaches 145F°, the compressor will shut down. The red alarm light will be displayed in the upper corner of the display. "COH" will be displayed on the screen. The evaporator and condenser fans will continue to run until the time set by the FDC parameter has elapsed. The unit will continue normal operation once the condenser has reached 135F°.

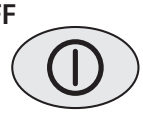
Alarms

See **Alarm Codes** in the Controller Function chart on page 19.

CONTROLLER



Functions

Button/Symbol	Normal Functions
ON/OFF 	• Press and hold the on/off button for approximately 3 seconds to turn the unit on or off. **Note:** *This does not disconnect power from the unit. In order for the power to be shut off from the unit, the power cord must be unplugged from the wall receptacle.* • This button also serves as an escape button.
Up **Down** 	• Use these buttons to scroll up or down a menu. • Press and hold the up button for approximately five seconds to manually start the Anti-Frost sequence. The Anti-Frost sequence will begin, but only if the evaporator is below 40°F. If the evaporator is above 40°F, the display will blink three times, signalling that an Anti-Frost cycle is not needed, and the unit will continue normal operation.
SET 	• Press the SET button once to view the set point, temperature of the evaporator, condenser, and actual bottle temperature as well as any alarms. • Once the SET button is pressed "SEt" will be displayed. Press the up or down arrows to scroll through Pb1, Pb2, Pb3. • Press the SET button again to view any of these values. • To change the set point, 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 set point is reached. • Hold the SET button for approximately 5 seconds to enter the CPSM (Customer Preference Selection Mode) menu. (CPSM detail on next page)
Snowflake 	**Constant:** The unit is in cooling mode and the compressor is running. **Blinking:** The unit is calling for cooling, but must wait 5 minutes before restarting the compressor. This 5 minute delay serves as an anti-short cycle for the compressors protection.
Dripping Snowflake 	Unit is in Anti-Frost mode. The evaporator and condenser fans are running to evaporate any frost which may have formed on the evaporator coil.
Fan 	The evaporator and condenser fans are on.
Alarm 	The alarm symbol is shown and an audible buzzer will sound when the unit encounters an issue that needs attention. The displayed alarm codes are explained below. To silence the buzzer, press any button. The alarm code will remain displayed until corrected.

SEt	Set Point
Pb1	Liquid Temperature
Pb2	Evaporator Coil Temperature
Pb3	Condenser Coil Temperature

Alarm Codes

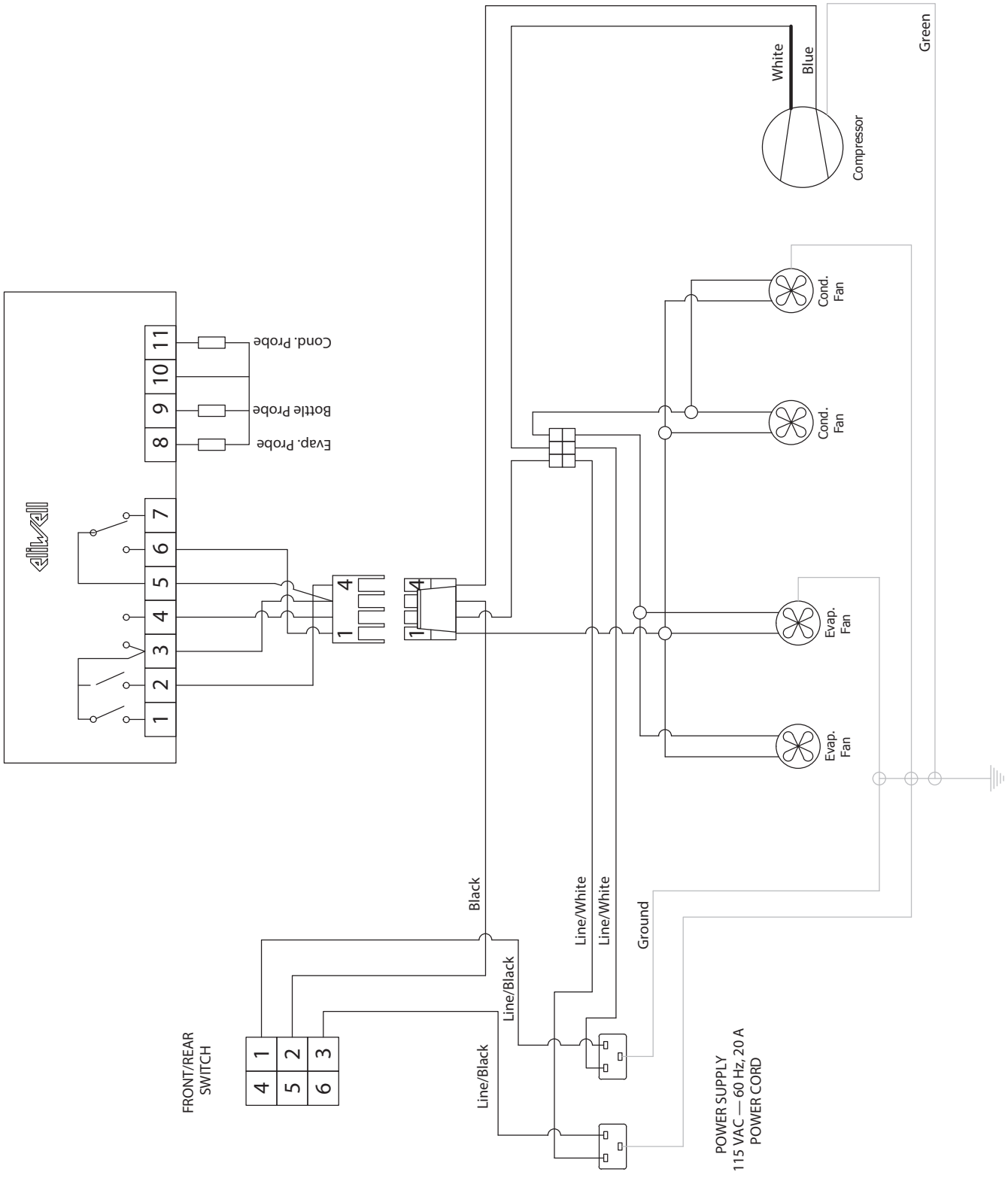
Message	Cause	Solution
"E1"	Bottle probe is unplugged	Attach bottle probe to unit
	Faulty bottle probe connection	1. Check bottle probe attachment at circular connector 2. Check bottle probe connection at the back of controller
	Defective Bottle Probe	Replace the bottle probe
"E2"	Faulty Evaporator Probe Connection	Check evaporator probe connection at the back of controller
	Defective Evaporator Probe	Replace the Evaporator Probe
"E3"	Faulty Condenser Probe Connection	Check the condenser probe connection at the back of the controller
	Defective Condenser Probe	Replace the Condenser Probe
"AH1"	The bottle probe is sensing a temperature that is 8° above the set point	1. Allow time for the wine to reach the desired temperature 2. Make sure all windows and doors are closed and have a proper seal 3. Follow the procedures in the pre-installation instructions to test the unit for proper cooling
"AL1"	The bottle probe is sensing a temperature that is 8° below the set point	1. Make sure unit is not in cooling mode (the snowflake symbol will not be lit). 2. Add heat to the room until the wine reaches the desired temperature.
"COH"	The condensing unit temperature is above 145°F	1. Check the condenser coil and clean if necessary. 2. Make sure the room to which the unit is exhausting is not more than 85°F. 3. Make sure both condenser fans are working properly.
"Ad3"	Anti-Frost ended on time-out	1. Check the evaporator coil for ice buildup. Unplug the unit and allow the coil to thaw before re-starting. 2. Make sure the room to which the unit is exhausting is not less than 60°F. 3. If the unit continues to go into continuous Anti-Frost cycles (every 5 minutes), call Customer Service for more troubleshooting information.

CPSM (Customer Preference Selection Mode)

Press and hold the SET button for approximately 5 seconds to enter the CPSM menu. "Fdc" will be displayed on the screen. Use the down arrow to access the following parameters.

Fdc *Humidity Management/ Enhancement*	This parameter is set to 1 from the factory, which should provide adequate relative humidity for the cellar. An increase in this parameter will increase the Humidity Enhancement (%RH). This parameter should not be adjusted below 1. Adjustments should be made in increments of 5, with a maximum of 15 and a minimum of 1. After any adjustment to Humidity Enhancement, wait a minimum of three days before making any additional adjustments. This will allow the cellar sufficient time to acclimate to the new setting.
PA2	There are no adjustable settings in this parameter.
tab	There are no adjustable settings in this parameter.
Rel	There are no adjustable settings in this parameter.
loc	Change this parameter from "n" to "y" to lock the keyboard from changes to the set point.
ddd	Select one of these numbers to display your preference: 0 = Set Point 1 = Bottle Probe Temperature 2 = Evaporator Probe Temperature 3 = Condenser Probe Temperature
"CA1"	Use this parameter to calibrate the bottle probe to a known temperature. This parameter can be adjusted between -12°F and 12°F. **Example:** Bottle temperature reading = 58°F Known temperature reading = 55°F CA1 parameter setting to match known temperature = -3

WIRING SCHEMATIC



MAINTENANCE SCHEDULE

Monthly	1. Check coils 2. Check for unusual noise or vibration 3. Check drain line to see if it is above the waterline when draining into a vessel
Quarterly	1. Use a vacuum with brush attachment to clean coils. Be careful not to crush coil fins when cleaning
Annually	1. Inspect for corrosion 2. Check wiring connections and integrity of cords 3. Pour a 50/50 bleach solution into the drain line every spring

TROUBLESHOOTING GUIDE

Unit Has Ice Forming on the Evaporator	
Possible Cause	**Solution**
Evaporator coil is dirty	Clean coil with a vacuum If coil is very dirty, use a spray bottle with a small amount of liquid dish washing detergent. Spray coil, let set for 5 min, then flush with fresh water
Something is blocking the supply and/or return air	Remove blockage
Evaporator fan is not turning on	Call a service tech to troubleshoot
Unit has not gone through its Anti-Frost sequence	Check for ice in the depth of the coil. Melt with blow drier until coil is warm to the touch. Soak up water with a towel
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 set point	Lower set point
Thermostat not calling for cooling	Lower set point
Power select switch in wrong position	See page 10 for correct switch position
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar Temperature is to Warm	
Possible Cause	**Solution**
Temperature of the room unit is exhausting to has exceeded 85°F	Intake temperature needs to drop below 85°F
Unit is undersized for the cellar	Order correct size unit
Something is blocking the supply and/or return air, on evaporator or condenser side of the unit	Remove air flow obstruction
Unit is mounted too low in the cellar	Re-locate unit so the distance from the ceiling and top of the unit 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
Controller set too high	Lower the set point
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 7).

Unit Leaks Water	
Possible Cause	**Solution**
Unit is not level	Unit should be level in wall to prevent leaking
Drain line clogged or kinked	Check drain line to make sure water can flow freely
Drain is clogged preventing water form escaping	Disconnect drain and clear out, open access door and check drain for blockage
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 drain pan ice and overflowing water.	Melt ice with blow drier. Soak up with a towel
Unit Runs But Does Not Cool	
Possible Cause	**Solution**
Lack of air flow	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
Fdc parameter has been increased, allowing fans to run after the compressor turns off	Lower the Fdc parameter
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	Raise the Fdc setting to increase the humidity level

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 unit.

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

E-mail: 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

The exterior grille protects the unit from the weather elements when placed on the exhaust side.

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.

Ducting Kit

This kit allows the exhaust side of the unit to be ducted to an area where the additional heat will not matter (usually to the exterior of the home).

Accessories can be purchased at www.whisperkool.com

NOTES

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 SC_____ **Serial Number** A_____

Installed by _____ **Date** _____

WhisperKOOL™

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Stockton, CA 95205
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www.whisperkool.com