

CX SERIES OWNER'S MANUAL

cx2200

cx3300

cx4400

cx8800

CELLARCOOL

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.

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TABLE OF CONTENTS

Introduction	2
Before You Start	3
Receiving & Inspecting The Unit	4
Quick Reference Guide	
Unit.....	5
Specifications	6
Preparing the Wine Cellar	7
Installation	
Airflow Control.....	9
Preparing the Installation Location.....	10
Preparing the Unit for Installation.....	11
Installing the System	11
Drain Line.....	13
System Operation	14
Controller Functions	15
Wiring Schematics	
cx2200 & cx3300	17
cx4400	18
cx8800.....	19
Troubleshooting Guide	21
Maintenance Schedule	23
Technical Assistance & Accessories	24
Installation Terms & Conditions	25

INTRODUCTION

Customer Service

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

Using the Manual

This manual is intended to assist in the proper maintenance of the cooling system. 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 CellarCool Cooling Unit?

The CellarCool 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 CellarCool Cooling Unit Work?

The CellarCool 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 through the wall. The unit is temperature-controlled via an air sensor.

Temperature Setting

The CX Series unit can be set at any temperature within the acceptable wine-aging range of 50°F to 67°F. It is designed to cool 30°F cooler than the ambient temperature of the space to which it is exhausting.

BEFORE YOU START

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

Upon receiving the CellarCool cooling unit:

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or CellarCool Customer Service at 1-800-343-9463.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The CellarCool unit **requires a dedicated 115-volt, 20-amp circuit.** Use a surge protector with the CellarCool 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 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 CellarCool 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 CellarCool unit, repair it yourself, or use a service company without CellarCool's authorization. This will void your warranty.

If you encounter a problem with your CellarCool unit, please refer to the Troubleshooting Guide. If you have any further questions or concerns, or need technical assistance, please contact CellarCool 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.

CELLARCOOL

RECEIVING AND INSPECTING THE UNIT

Upon receiving your CellarCool 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 CellarCool unit on a tabletop to prepare it for testing prior to installation.
- Sit unit upright for 24 hours.
- 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:

cx2200	cx3300 and cx4400	cx8800
<p>Accessory kit #1:</p> <ul style="list-style-type: none"> • (1) CellarCool CX Series owner's manual • (2) Mounting flanges • (2) Magnetic deflectors for airflow control • (18) Anti-microbial pan tabs • (1) Drain line brush <p>Accessory kit #2:</p> <ul style="list-style-type: none"> • (8) #6 x 1¾" hex washer head screws • (6) ½" pan-head screws • (1) ½" ID plastic tubing (10 feet) • (2) Pieces of insulation foam (20") • (2) Pieces of insulation foam (17") 	<p>Accessory kit #1:</p> <ul style="list-style-type: none"> • (1) CellarCool CX Series owner's manual • (2) Mounting flanges • (2) Magnetic deflectors for airflow control • (18) Anti-microbial pan tabs • (1) Drain line brush <p>Accessory kit #2:</p> <ul style="list-style-type: none"> • (8) #6 x 1¾" hex washer head screws • (6) ½" pan-head screws • (1) ½" ID plastic tubing (10 feet) • (2) Pieces of insulation foam (20") • (2) Pieces of insulation foam (17") 	<p>Accessory kit #1:</p> <ul style="list-style-type: none"> • (1) CellarCool CX Series owner's manual • (2) Mounting flanges • (2) Magnetic deflectors for airflow control • (18) Anti-microbial pan tabs • (1) Drain line brush <p>Accessory kit #2:</p> <ul style="list-style-type: none"> • (8) #6 x 1¾" hex washer head screws • (6) ½" pan-head screws • (1) ½" ID plastic tubing (10 feet) • (2) Pieces of insulation foam (20") • (2) Pieces of insulation foam (17")

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

Please leave the CellarCool 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.

Electrical Outlet

Power surges and spikes can damage sensitive electrical equipment. CellarCool 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.

Testing Unit

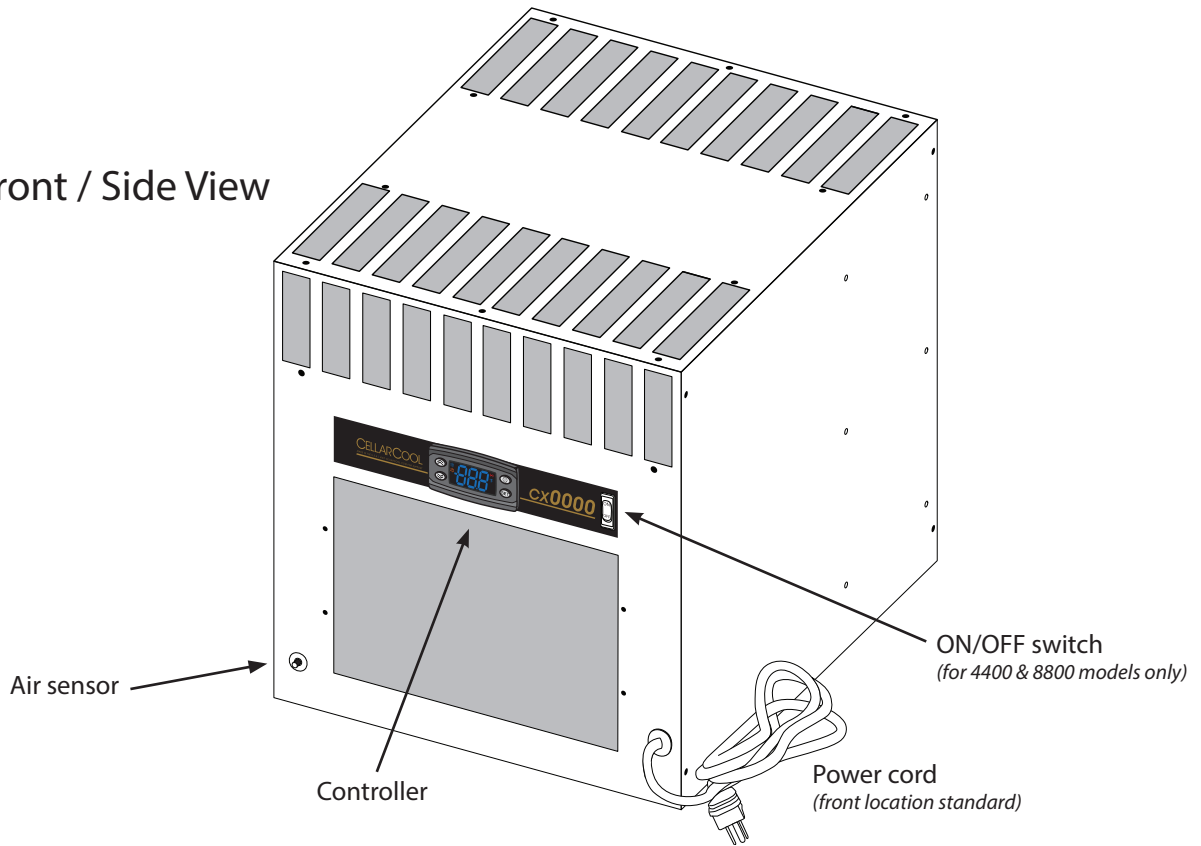
Carefully remove your CellarCool unit from the box. Place the CellarCool system on a tabletop to prepare it for installation and testing. Plug system into a live electrical outlet and turn it on. The system may take up to 10 to 15 minutes before all four fans are running, cold air is coming out on the cellar side, and hot air is coming out on the exhaust side. Once the operation has been tested, turn the unit off and unplug it from the electrical outlet.*

* **NOTE:** If the system does not seem to be fully functional after 15 minutes, please refer to the Troubleshooting Guide on page 19.

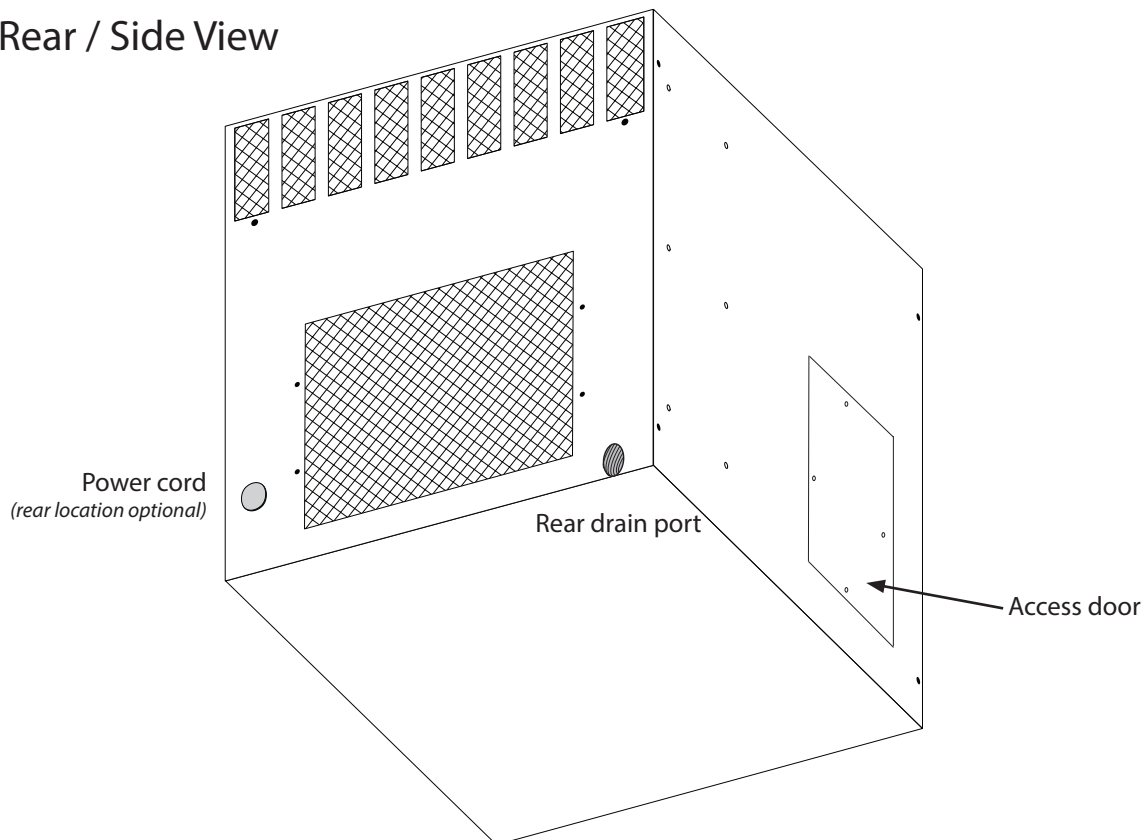
Units weigh 55-101 pounds and are cumbersome for one person to carry. We recommend that you get someone else to help you during the installation process. **NEVER LAY UNIT ON ITS SIDE.**

QUICK REFERENCE GUIDE

Front / Side View



Rear / Side View



UNIT SPECIFICATIONS

	cx2200	cx3300	cx4400	cx8800
Cellar Size (cu. ft.)*	300	650	1000	2000
Dimensions	14.25"W x 13.25"H x 16.38"D	14.25"W x 19.75"H x 21.63"D		16.25"W x 22"H x 22.25"D
Weight (lb.)	45	55	67	75
Amps (running)	3	5	7	10
dBA	60	60	60	65
Installation	Through the wall			
Thermostat	Digital display			
Temp. Delta	30°F temperature differential between wine cellar and ambient temperature (maintains proper cellar temperature when exhaust environment does not exceed 85°F)			
Warranty	2 years (parts and labor) / 5 years (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. CellarCool 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

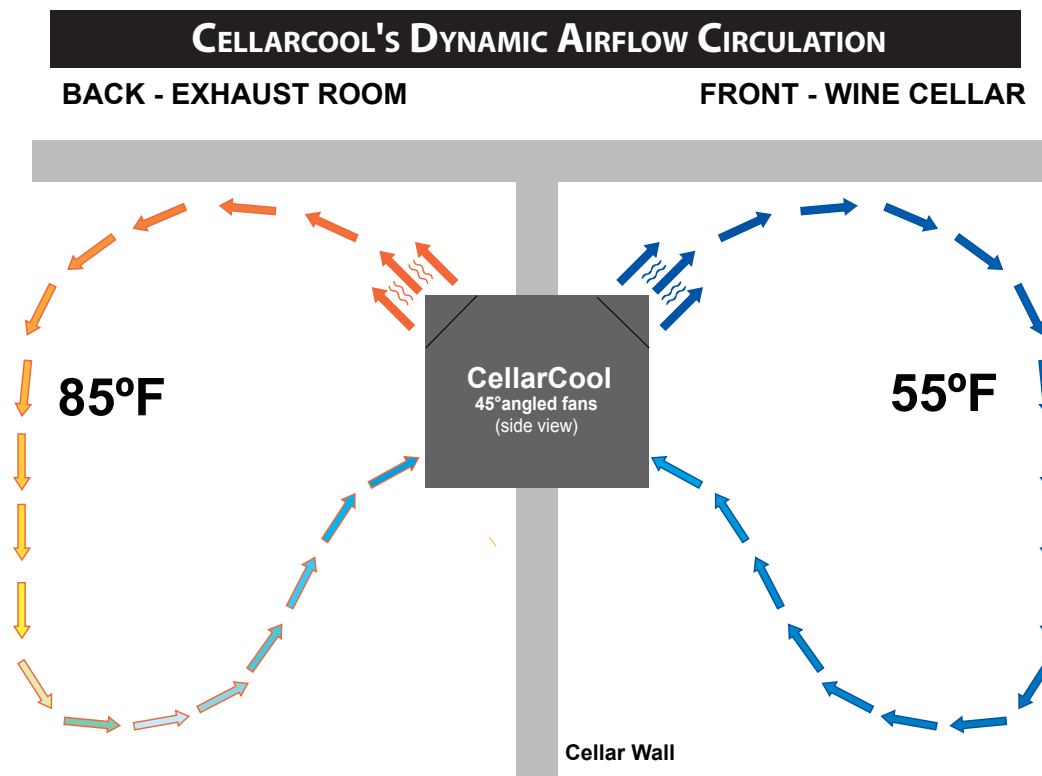
Build wine cellar walls using standard 2x4 or 2x6 boards and ceiling joists without violating local or state codes in your area. As a general rule, the thicker the walls and the higher the insulation value, the more consistent your cellar temperature will be.

Insulation

Insulation is **REQUIRED** in order to properly use CellarCool 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 CellarCool 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.)

Mounting the Unit

The unit should 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 the unit's inability to draw warm air from the ceiling down to the unit itself.



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 up and adversely affect the unit's ability to cool.

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 drip trays 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 (a cut, a nail hole, overlapping, 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.

Unobstructed Airflow

Unobstructed airflow to and from the unit is a critical factor in the unit's overall performance. Make sure there is a minimum of three feet of clearance in every direction around the unit (five feet is ideal). This will assure that the unit can move the air around in an efficient manner. 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 CellarCool Customer Service with any questions or concerns regarding installation requirements.

Ambient Temperature Factor

The cooling system has the ability to cool a maximum of 30°F below the ambient temperature of the room to which it is exhausting. Therefore, you want to exhaust the unit in a room which will not exceed 85°F and preferably remains at a consistent 75°F. Otherwise the unit will not have the capacity to keep the wine at a desirable 55°F.

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 an excellent seal to keep the cool cellar air from escaping the cellar. If the door is not sealed properly, the cooling system may run continuously, shortening its operational lifespan.

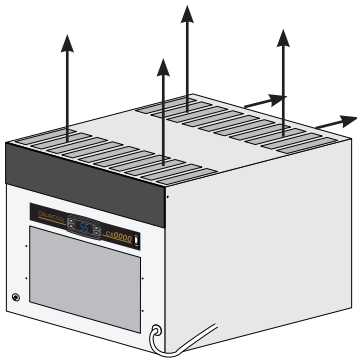
AIRFLOW CONTROL

Airflow Options

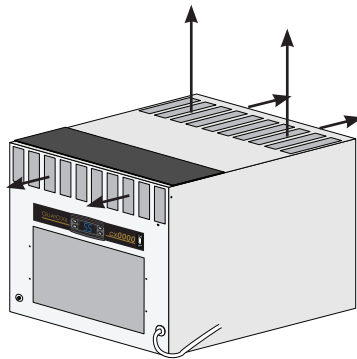
The magnetic deflectors can be used in a variety of ways, such as mounting the system lower in the cellar, flush-mounting the condenser side of system, and directing airflow to avoid recirculation. Simply apply the magnetic deflectors in one of the positions displayed below. Choose the option that will 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.

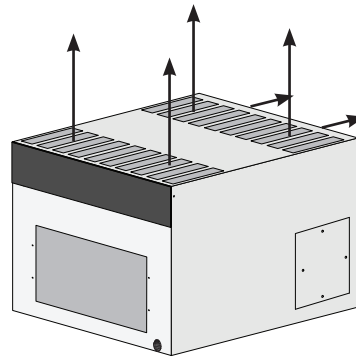
ONE-SIDE SELECTIVE AIRFLOW OPTIONS



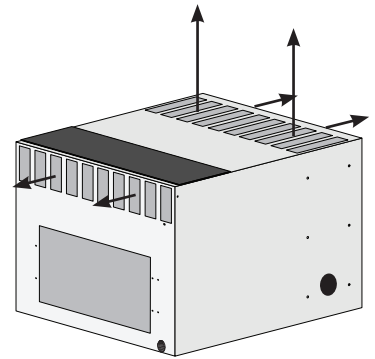
OPTION 1



OPTION 2

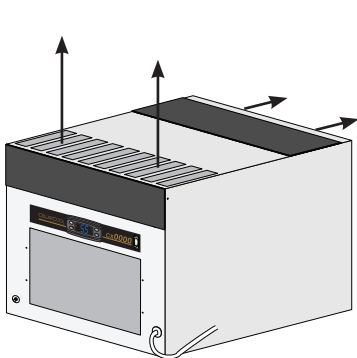


OPTION 3

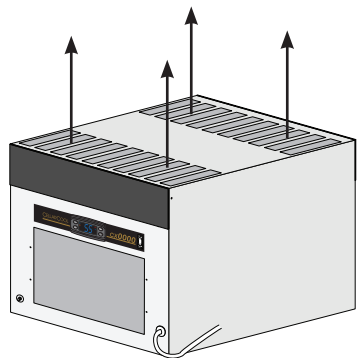


OPTION 4

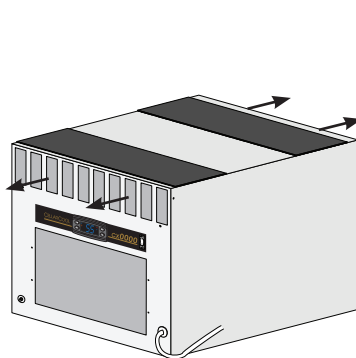
TWO-SIDE SELECTIVE AIRFLOW OPTIONS



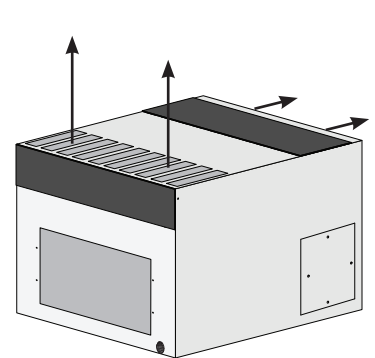
OPTION 5



OPTION 6

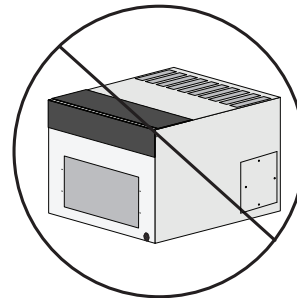
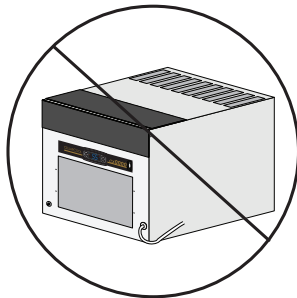


OPTION 7



OPTION 8

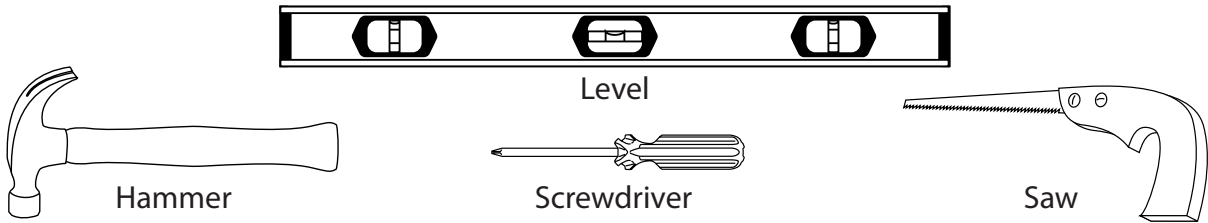
NOTE: Do not cover both of the openings on the same side of the unit for any reason. This will cause cooling issues and premature failure.



NOTE: If installing the magnetic deflectors on the face of the cx4400 unit, excess material may need to be trimmed.

PREPARING THE INSTALLATION LOCATION

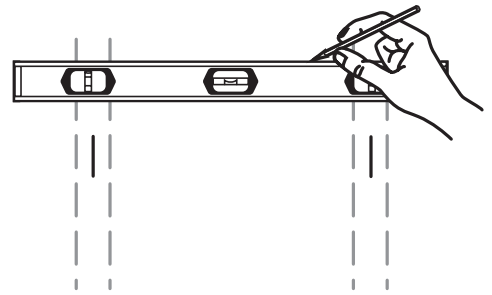
Minimum Tools Needed:



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 1½ inches and no more than 18 inches from the ceiling.

** For the cx8800, special consideration needs to be used when selecting the installation location. The system is wider than the 16 inches at which wall studs are typically spaced, and will require the removal of at least one stud.*

Using a ruler or measuring tape, measure vertically down 13.5 inches for the cx2200, 20 inches down for the cx3300/cx4400, and 22.5 inches for the cx8800. Mark another horizontal line parallel to the first one.

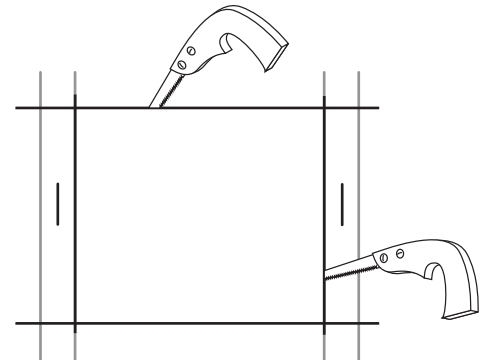


Using a saw, cut along the uppermost horizontal line until your saw reaches the stud. Turn the saw around, inserting it into the cut you have just made, and cut toward the opposite stud so that you have a clean horizontal cut between the two studs. Be careful not to cut into the studs themselves.*

** For the cx8800, cut out your drywall first and cut through your studs when you have a clear understanding what is inside the wall.*

Now make the second horizontal cut from stud to stud on the line below the first cut.

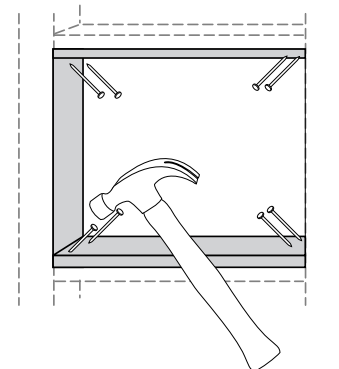
Once the horizontal lines have been cut, make vertical cuts using the inside edge of the studs as a guide. Once you have made both vertical cuts, you should have a rectangular hole in the sheetrock. Now make the same hole on the other side of the wall. Since you already have one hole, this is an easy process. Using a nail, mark all four corners of the first hole by making nail holes through the sheetrock. Then, on the other side of the wall, connect the holes with a pencil mark and cut.



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

Using two 2x4s at 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 the same so that the system will fit snugly through the framed cut-out.*

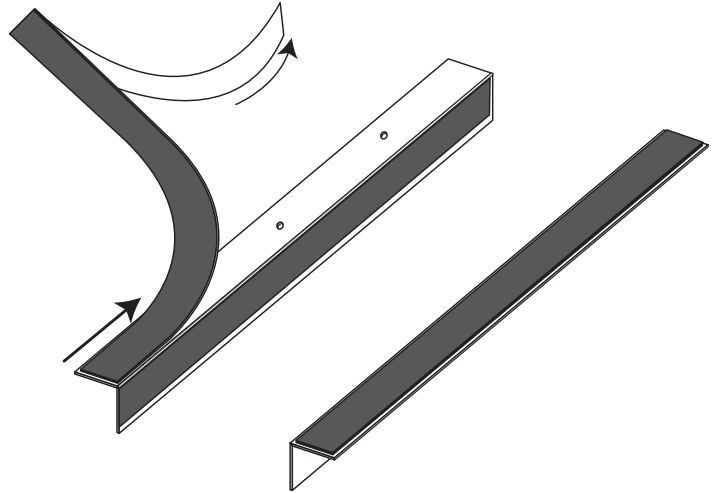
** For the cx8800, it is recommended that the entire opening be framed. This system is heavy and the sturdier the frame, the better.*



PREPARING THE UNIT FOR INSTALLATION

Two-Piece Mounting Flanges

The unit utilizes two (2) mounting flanges that attach to each side of the unit on the exterior side of the installation location.



Applying Insulation Tape

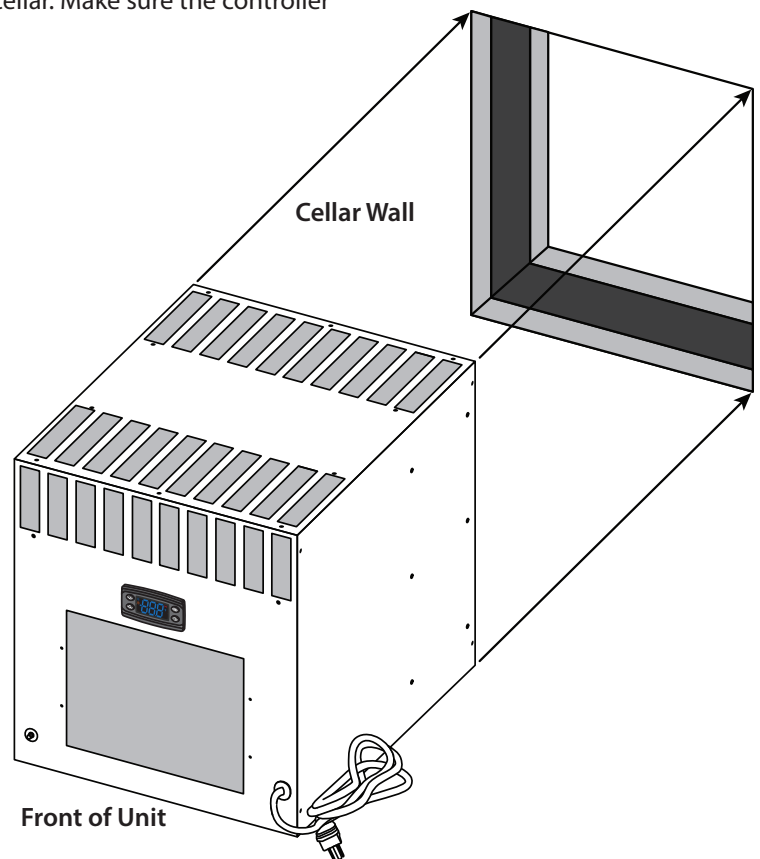
Locate the two (2) 17-inch pieces and two (2) 20-inch pieces of insulation foam tape provided with the unit. Peel back the white-paper adhesive covering and place on the mounting flanges as shown. The 20-inch pieces will go between the unit and the bracket, and the 17-inch pieces will go between the bracket and the wall. This foam creates a tight seal around the unit.

INSTALLING THE UNIT

Installing the Unit

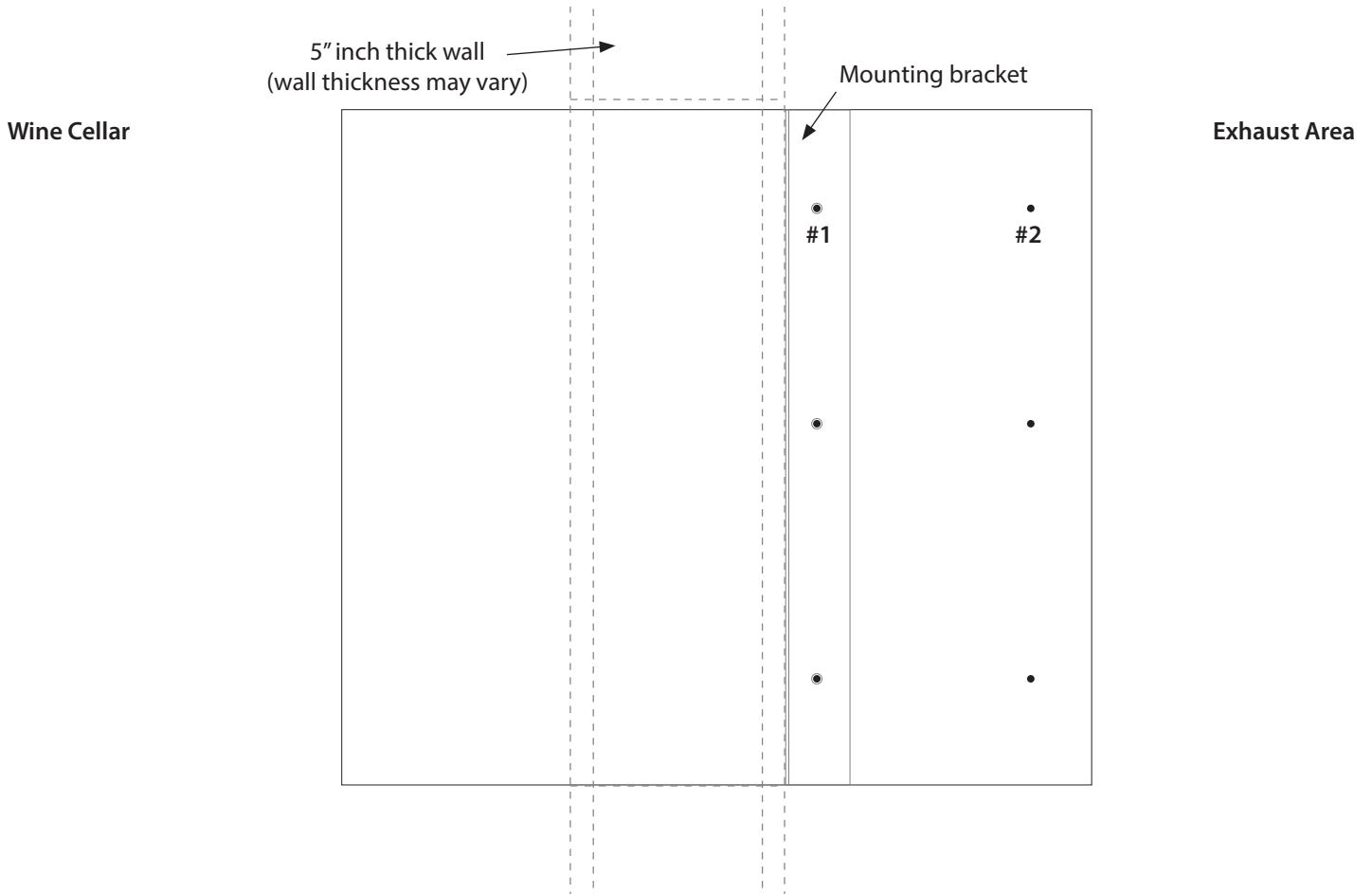
1. Slide the unit into the installation location from **inside** the cellar. Make sure the controller side of the unit is inside of the cellar.

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 incase the unit needs servicing.



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 almost flush with the exterior wall. Place the flanges onto unit. Pay special attention to the direction the foam side is facing: it needs to be towards the wall. Use the (6) ½" hex-head self-tapping screws to fasten the bracket to the unit. Do **NOT** use screws longer than ½" in length.



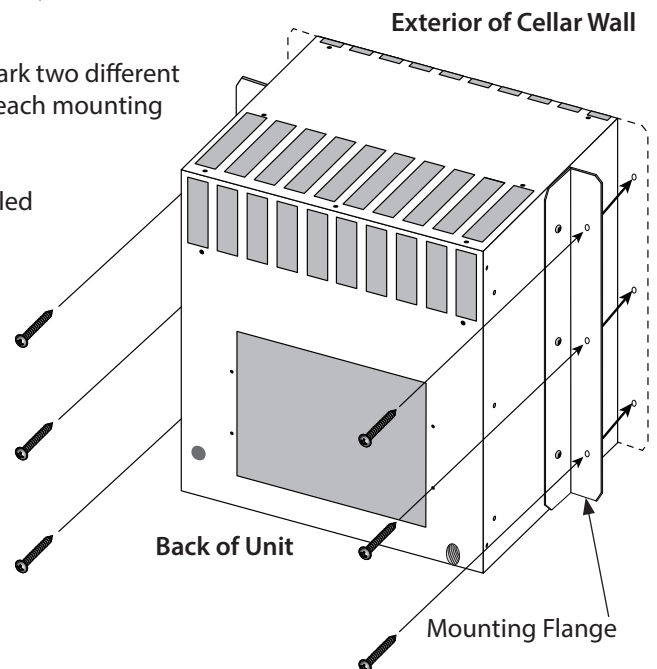
Installing the Mounting Flange (from outside the cellar)

1. On each side of the side of the unit you will notice 6 indents; these mark two different installation depths. Select one of the two mounting depths and attach each mounting bracket to the unit with the supplied self-tapping screws.

2. Finally, secure the mounting brackets to the wall through the pre-drilled holes with the supplied #6 1¼" hex-head screws. The screws should penetrate the studs to provide adequate support for the unit (see illustration).

3. Use the two (2) remaining pieces of supplied foam tape to seal the gaps at the top and bottom of the unit.

4. Seal any remaining cracks and gaps around the unit from inside the cellar with an airtight sealant or caulking to prevent air leakage.



DRAIN LINE

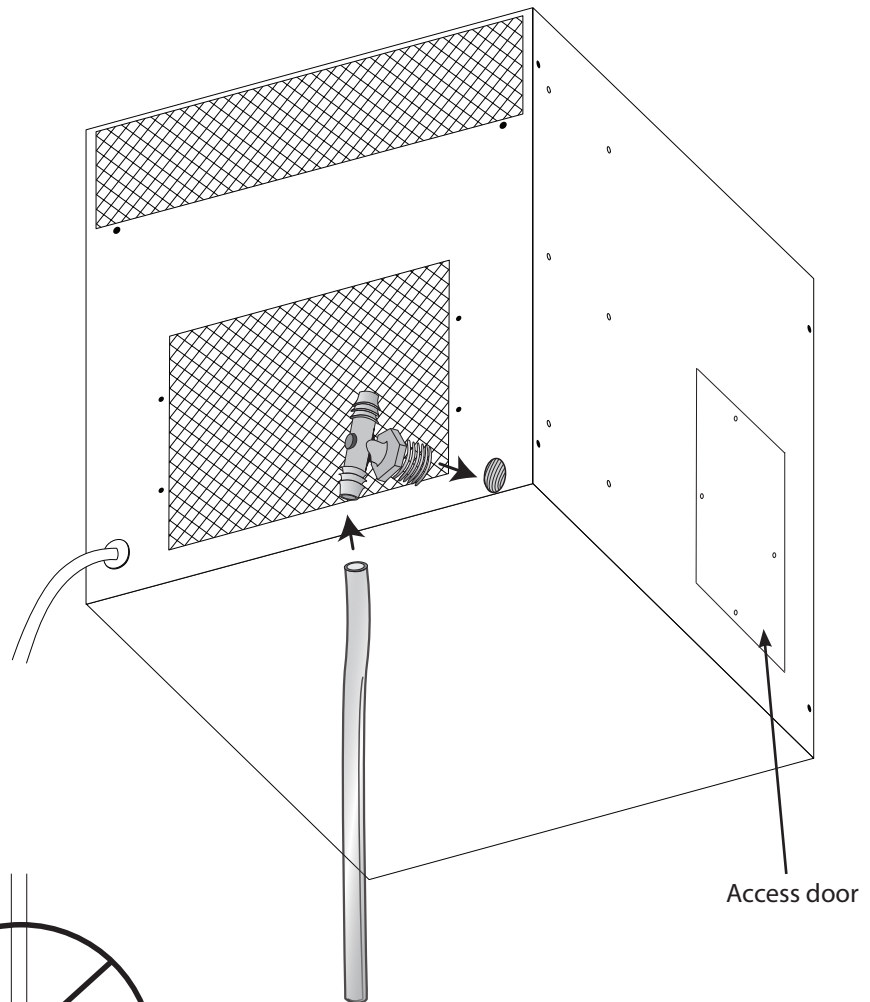
Condensation Drain Line Tube

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 be properly connected and used to prevent leakage and other problems associated with excess condensation.

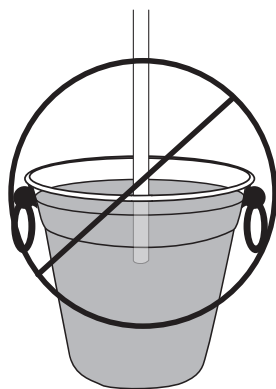
Failure to use the condensation drain line tube will void the warranty on the unit.

To attach the drain line tube:

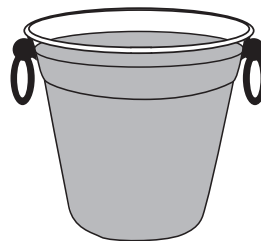
1. Wrap tee with Teflon tape one or two turns clockwise.
2. Next, thread the barb tee into the rear drain port and rotate until tight. Make sure the tees of the barb are sticking straight up and down.
3. Next, attach the piece of rubber $\frac{1}{2}$ " ID hosing to the lower tee of the barb.
4. Every six weeks, disconnect the drain line from the barb tee. Remove the barb 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 (pictured at right) to drop a pan tab into the drip tray to prevent the buildup of microbial growth.



* **INCORRECT:** Do not allow the drain line to be submerged (if draining into a vessel).



* **CORRECT:** Drain line should hang above the waterline.



Drain Line Connection

It is important that the drain line tube be properly connected and used to prevent leakage and other problems associated with excess condensation. If the drain line is draining into a vessel, make sure that the drain line hangs above the surface and is not submerged. This will prevent the formation of mold.

SYSTEM OPERATION

Initial Start-Up

When power is applied to the unit, the control will briefly display all symbols, and the snowflake symbol will be displayed (if unit is calling for cooling). There may be a brief delay (up to 60 seconds) 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 CellarCool 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.

Setpoint

The setpoint is preset at the factory (CellarCool) to 55°F. It can be adjusted by the customer between 50°F and 70°F (in 1°F increments).

Cooling Operation

Cooling is activated once the air sensing probe senses a temperature that is 4°F greater than the setpoint. 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 air-sensing probe senses the setpoint has been reached. At this point the compressor relay is de-energized, which stops the compressor.

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 setpoint to allow the pressure in the refrigeration unit to equalize prior to starting the compressor.

Anti-Frost Cycle (defrost)

After two hours of compressor operation, the controller will activate the Anti-Frost cycle. The compressor relay will de-energize, stopping the compressor, evaporator fans, and condenser fans. The compressor relay will remain de-energized for five minutes, and then the unit will return to normal operation. The setpoint and the dripping snowflake symbol will be displayed during the Anti-Frost cycle.

Air-Sensing Probe Failure Protection

In the event that an air-sensing probe should fail, the APST (Advance Product Safety Technology) will automatically transition the compressor to a timed cycle based on detailed laboratory testing, which will ensure that the product is kept within a safe temperature range.

Display

The setpoint is displayed by default. "Def" is displayed during Anti-Frost. The air sensing probe and evaporator probe temperatures can be accessed by pushing the SET button and scrolling through "PB1" (air sensing probe).

Safety Features

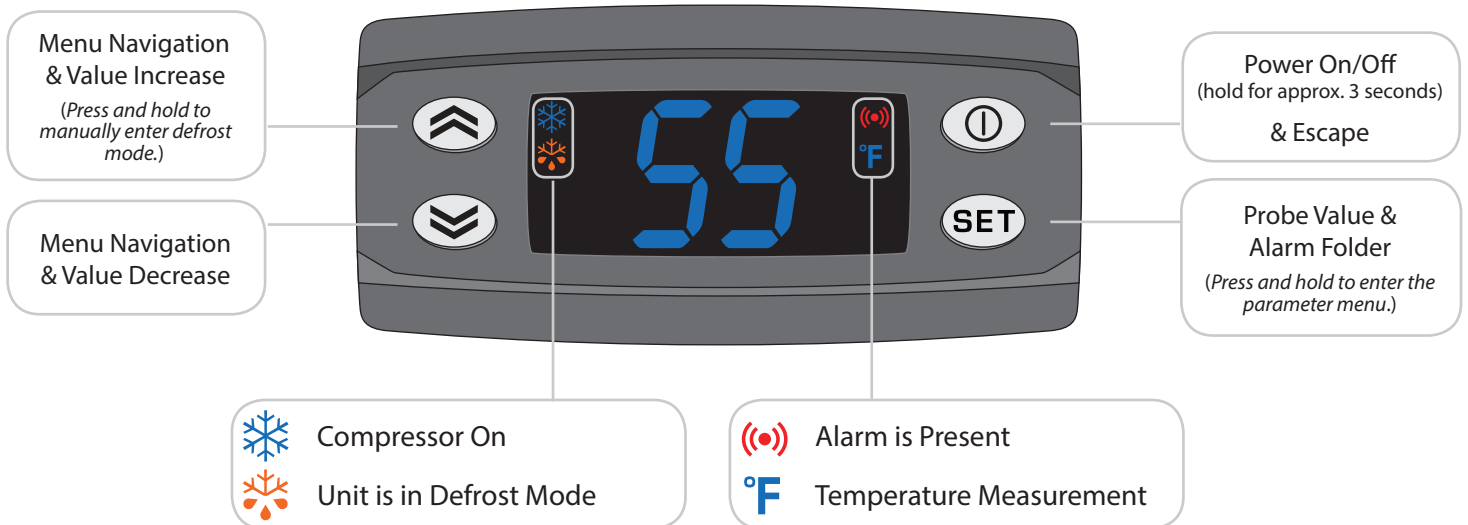
Once the compressor relay is de-energized the controller must wait five minutes before reenergizing the relay. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor symbol will blink, indicating that cooling is needed but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







In the event of a faulty air-sensing 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 Controller Function chart.

CONTROLLER FUNCTIONS



Button/Symbol	Normal Functions
 <p>ON/OFF</p>	<ul style="list-style-type: none"> Press and hold the ON/OFF button for approximately three (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.
 <p>UP/DOWN ARROWS</p>	<ul style="list-style-type: none"> Use these buttons to scroll up or down a menu. Press and hold the UP ARROW button for approximately five seconds to manually start the Anti-Frost Cycle.
 <p>SET</p>	<ul style="list-style-type: none"> Press the SET button once to view the setpoint or the temperature of the air-sensing probe. Once the SET button is pressed "SEt" will be displayed. Press the UP or DOWN ARROW buttons to scroll through Pb1 and the setpoint parameter. Press the SET button again to view any of these values. 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. Hold the set button for approximately 5 seconds to enter the CPSM (Customer Preference Selection Mode) menu. CPSM details are available on the next page.
 <p>SNOWFLAKE</p>	<p>Constant: The unit is in cooling mode and the compressor and fans are running.</p> <p>Blinking: The unit is calling for cooling, but must wait 5 minutes before restarting the compressor. This five-minute delay serves as an anti-short cycle for the compressors protection.</p>
 <p>DRIPPING SNOWFLAKE</p>	<p>The unit is in defrost mode. The compressor and fans will be turned off during this cycle.</p>
 <p>ALARM</p>	<p>The alarm symbol is shown when the unit encounters an issue that needs attention. The displayed alarm codes are explained on the next page. The alarm code will remain displayed until corrected.</p>

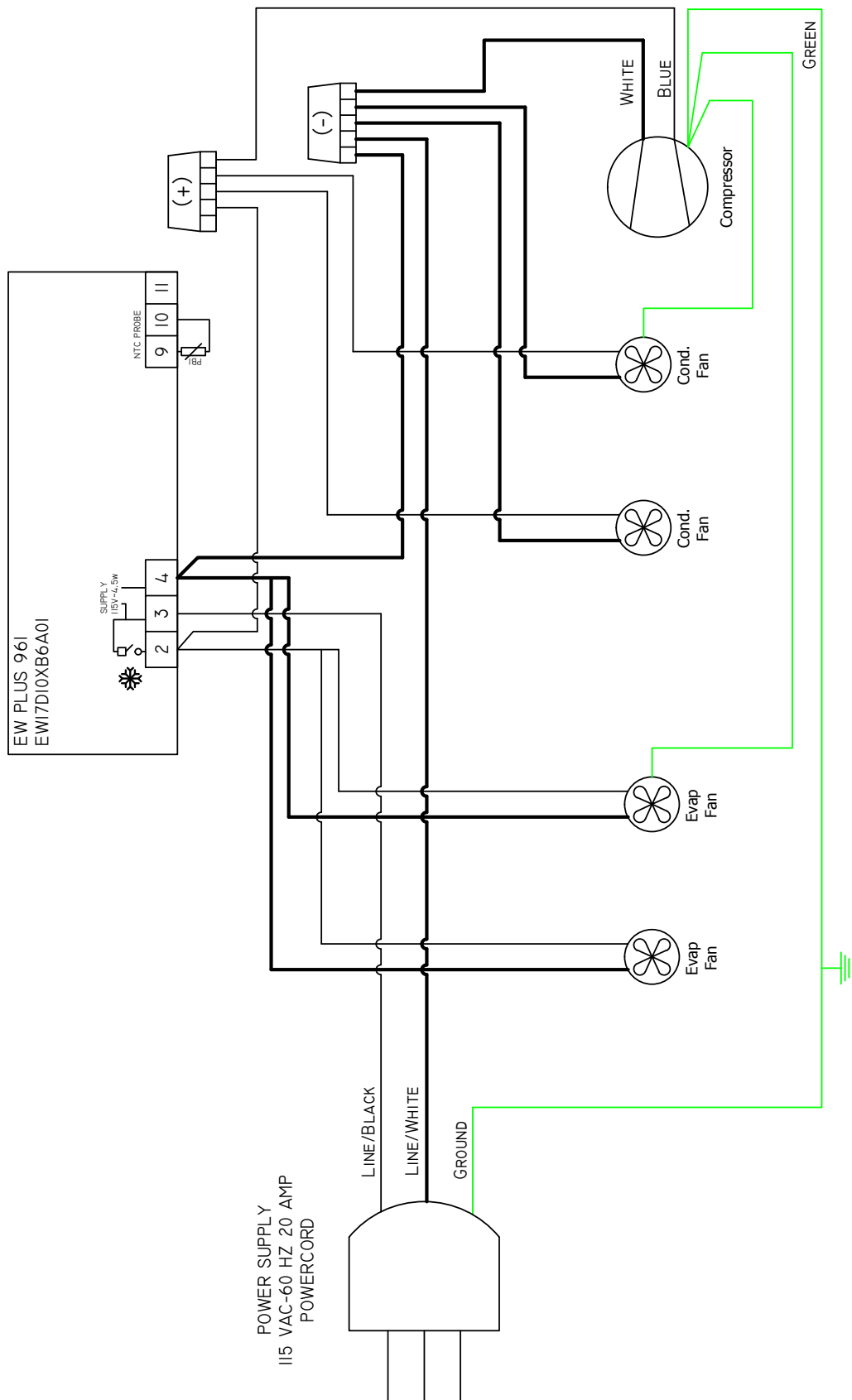
ALARM CODES

Message	Cause	Solution
"E1"	Faulty air-sensing probe	Contact Customer Service at 1-800-343-9463.
"AH1"	The air probe is sensing a temperature that is 10° above the setpoint	<ol style="list-style-type: none"> 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 air probe is sensing a temperature that is 10° below the setpoint	<ol style="list-style-type: none"> 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.

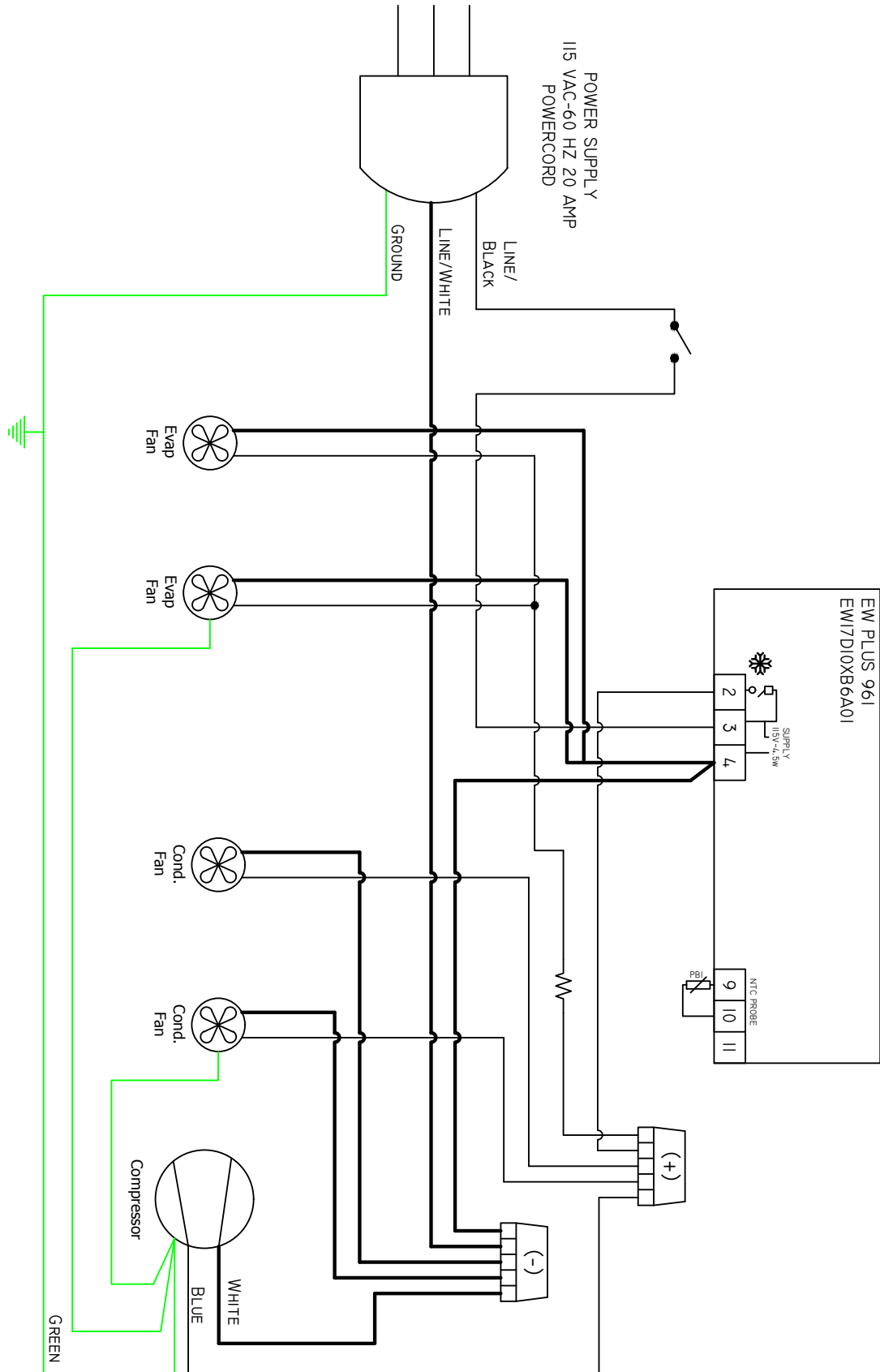
CPSM (CUSTOMER PREFERENCE SELECTION MODE)

Press and hold the SET button for approximately 5 seconds to enter the CPSM menu. Use the DOWN ARROW button to access the following parameters.	
PA2	No adjustable settings in this parameter.
tab	No adjustable settings in this parameter.
Rel	No adjustable settings in this parameter.
LOC	Change this parameter from "n" to "y" to lock the keyboard from changes to the setpoint.
CA1	Increase or decrease the temperature reading of the air sensor. (This process recalibrates to the sensor.) Increasing the value by 1 means an increase in the temperature reading by 1 degree. This parameter can be adjusted +- 12 degrees. If needed: Adjust this setting to match your temperature sensor located inside of the cellar.

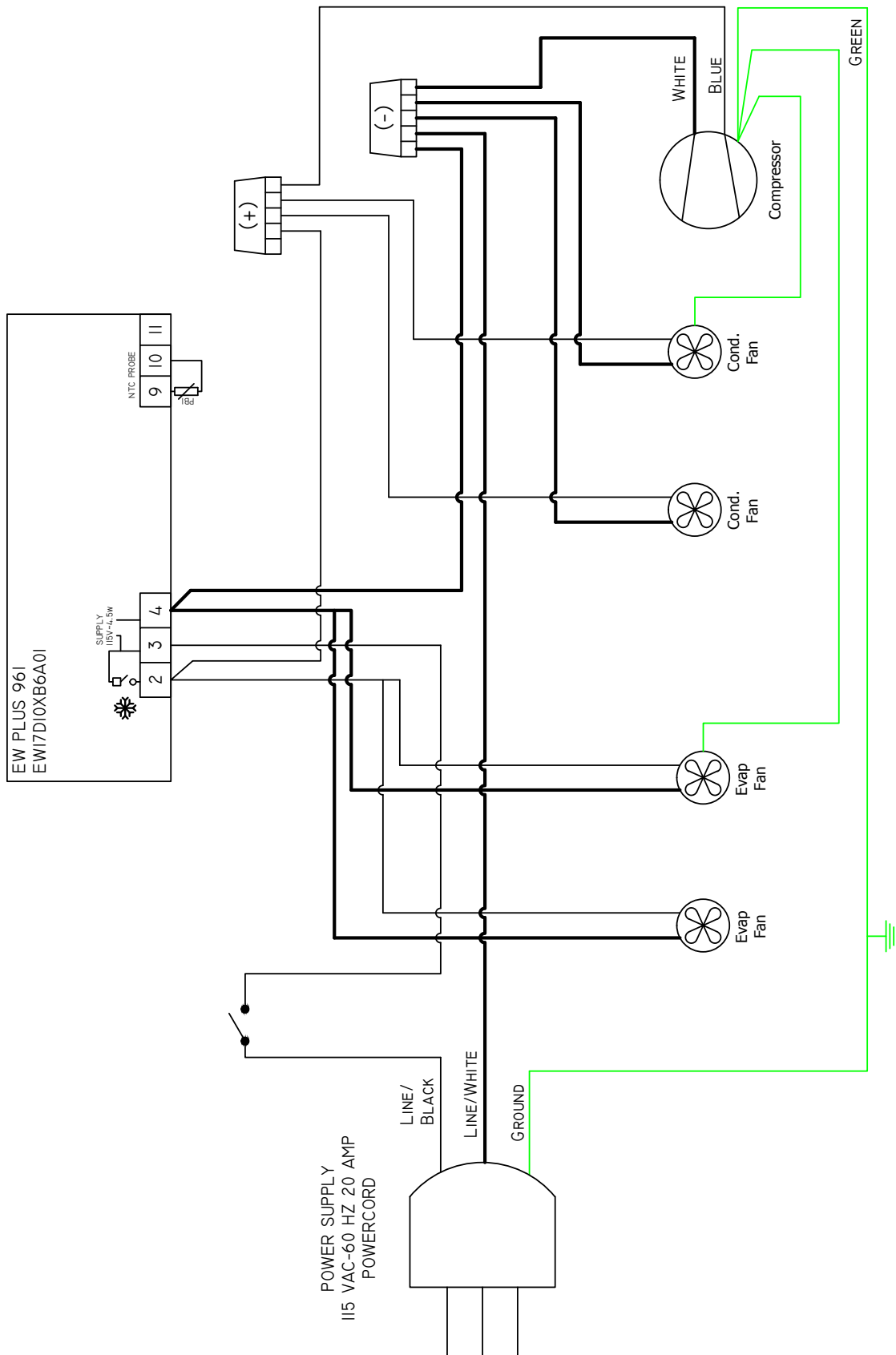
cx2200 & cx3300 CONTROLLER WIRING SCHEMATIC



CX4400 CONTROLLER WIRING SCHEMATIC



cx8800 CONTROLLER WIRING SCHEMATIC



NOTES

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 detergent. Spray coil, let set for 5 minutes, then flush with fresh water.
Something is blocking the supply and/or return air	Remove blockage
Evaporator fan is not turning on	Call installing technician to troubleshoot
The temperature of the room to which the unit is exhausting has dropped below 50°F	Raise the temperature of the exhaust room
Unit has not gone through an Anti-Frost Cycle	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
No power to outlet	Contact an electrician
Line voltage is incorrect rating for unit	Check line voltage to make sure there is 110V-120V
Room at setpoint	Lower setpoint
Thermostat not calling for cooling	Lower setpoint
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar temperature is too 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 correctly sized unit
Something is 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 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 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.

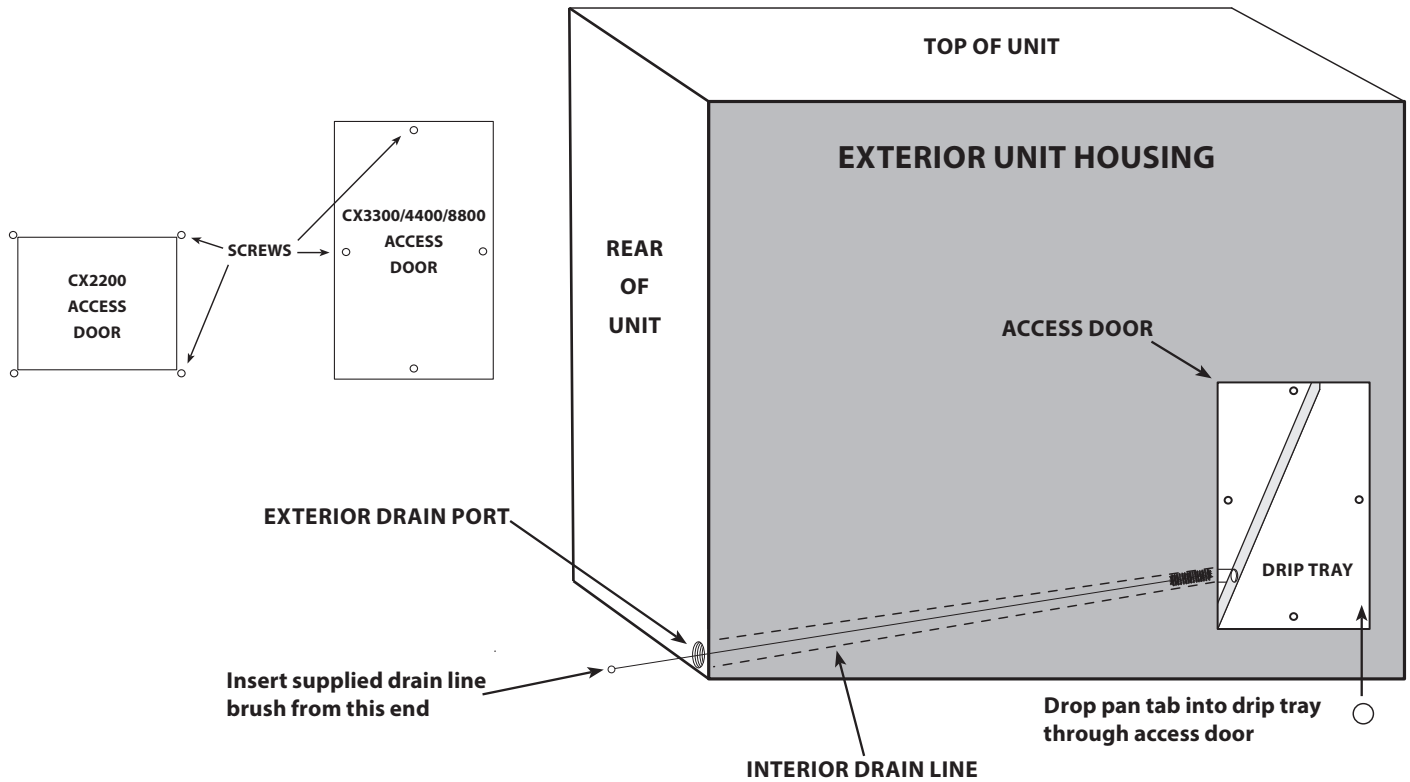
CELLARCOOL

TROUBLESHOOTING GUIDE

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 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 port 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 drain port to the discharge location
Coil is iced, causing the drip tray to freeze and water to overflow	Melt ice with blow drier. Soak up water with a towel.
Unit runs but does not cool	
Possible cause	Solution
Lack of airflow/heat exhaust (outer room)	Make sure fan is unobstructed; clean evaporator if necessary
The unit is undersized for the room	Purchase correctly sized unit
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 controller	Call Customer Service at 1-800-343-9463
Compressor short cycles	
Possible cause	Solution
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463
Humidity in cellar too high	
Possible cause	Solution
Cellar vapor barrier not sufficient	Install proper vapor barrier

MAINTENANCE SCHEDULE

Monthly	<ol style="list-style-type: none"> 1. Check for unusual noise or vibration. 2. Check drain line for proper drainage and make sure there is no mold is in the drain line.
Every Six Weeks	<p>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).</p>
Quarterly	<p>Use a vacuum with brush attachment to clean coils; be careful not to crush coil fins when cleaning.</p>
Annually	<ol style="list-style-type: none"> 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.



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 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).

TECHNICAL ASSISTANCE

CellarCool 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 CellarCool 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 CellarCool Customer Service

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

Email: support@cellarcool.com

Tech Support & Customer Service: 1-800-343-9463

Sales & Sizing Assistance: 1-855-235-5271

Fax: 209-466-4606

ACCESSORIES FOR COOLING UNITS

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

Condensate Pump Kit

The condensate pump kit automatically removes water that drips out of the evaporator unit's 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.

Accessories can be purchased at www.cellarcool.com

CELLARCOOL

CellarCool Product Terms and Conditions Including Product Limited Warranty And Product Installation Requirements

ATTENTION: PLEASE READ THESE TERMS OF USE CAREFULLY BEFORE INSTALLING YOUR CELLARCOOL COOLING SYSTEM. INSTALLING YOUR CELLARCOOL 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 CellarCool 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 (CellarCool.com) or by contacting CellarCool directly for a new copy. CellarCool reserves the right, in its sole discretion, to change its Terms and Conditions at any time, for any reason, without notice.

2. CellarCool 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 CellarCool, if a CellarCool Product is found to be defective in material or workmanship after undergoing CellarCool's customer service troubleshooting, then, subject to the CellarCool Product Limited Warranty Limitations and Exclusions as well as the other Terms and Conditions stated herein, CellarCool 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 CellarCool'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. CellarCool 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 CellarCool 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 CellarCool 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. 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.
8. Removing the rivets from the Product's unit housing without prior authorization from CellarCool voids this limited warranty.

9. The End User must first contact CellarCool 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.
10. 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.
11. 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.
12. This limited warranty does not cover any cause not relating to Product defect.
13. 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 CELLARCOOL 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.
14. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at CellarCool's sole discretion, void this limited warranty.
15. 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 CellarCool Product, the End User must read the CellarCool Owner's Manual and thereafter the End User must follow the required installation, use and maintenance procedures set forth by CellarCool in CellarCool'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 CellarCool's website (www.cellarcool.com) or by contacting CellarCool 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 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 CellarCool 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. CellarCool 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 CellarCool to be a warranty repair prior to the work being performed.

6. Sales and Use Tax

CellarCool only collects California sales tax for orders shipped within the State of California; CellarCool 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

CellarCool's customer service department is available to answer any questions or inquiries for End Users regarding a CellarCool Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:30 a.m. to 4:00 p.m. PST, at telephone number 1-800-343-9463. CellarCool 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. CellarCool 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 CellarCool, 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 CellarCool and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, CellarCool, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose. No waiver by CellarCool 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. CellarCool 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
CellarCool Corporation
1738 E Alpine Ave
Stockton, CA 95205

Email: support@cellarcool.com
Web: www.cellarcool.com

B. Technical Assistance. CellarCool Customer Service is available Monday through Friday from 6:30 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 CellarCool UNIT.
2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model **CX** _____ Serial Number **C** _____

Installed by _____ Date _____

CELLARCOOL