PLATINUM SPLIT
TECHNICIAN'S MANUAL

WhisperKOOL™
The Coolest Thing In Wine Storage

PS 071615

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.

07.16.2015

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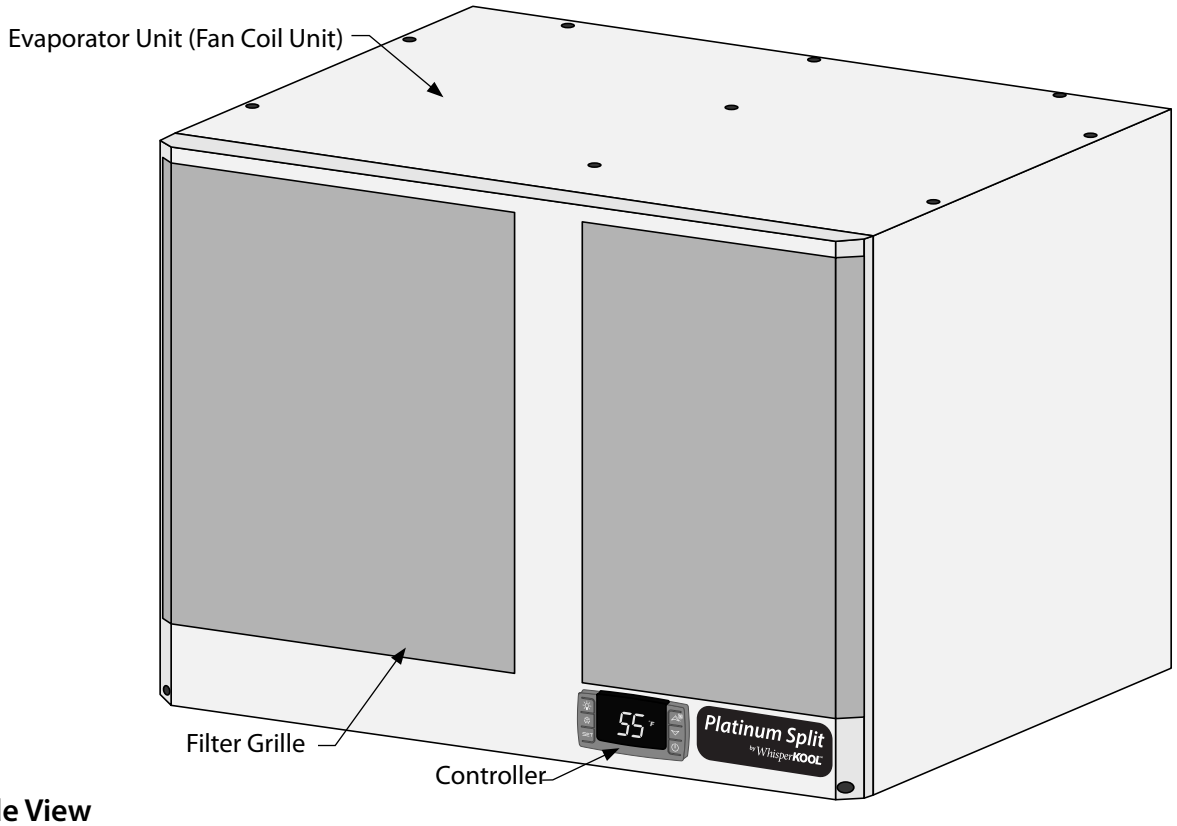
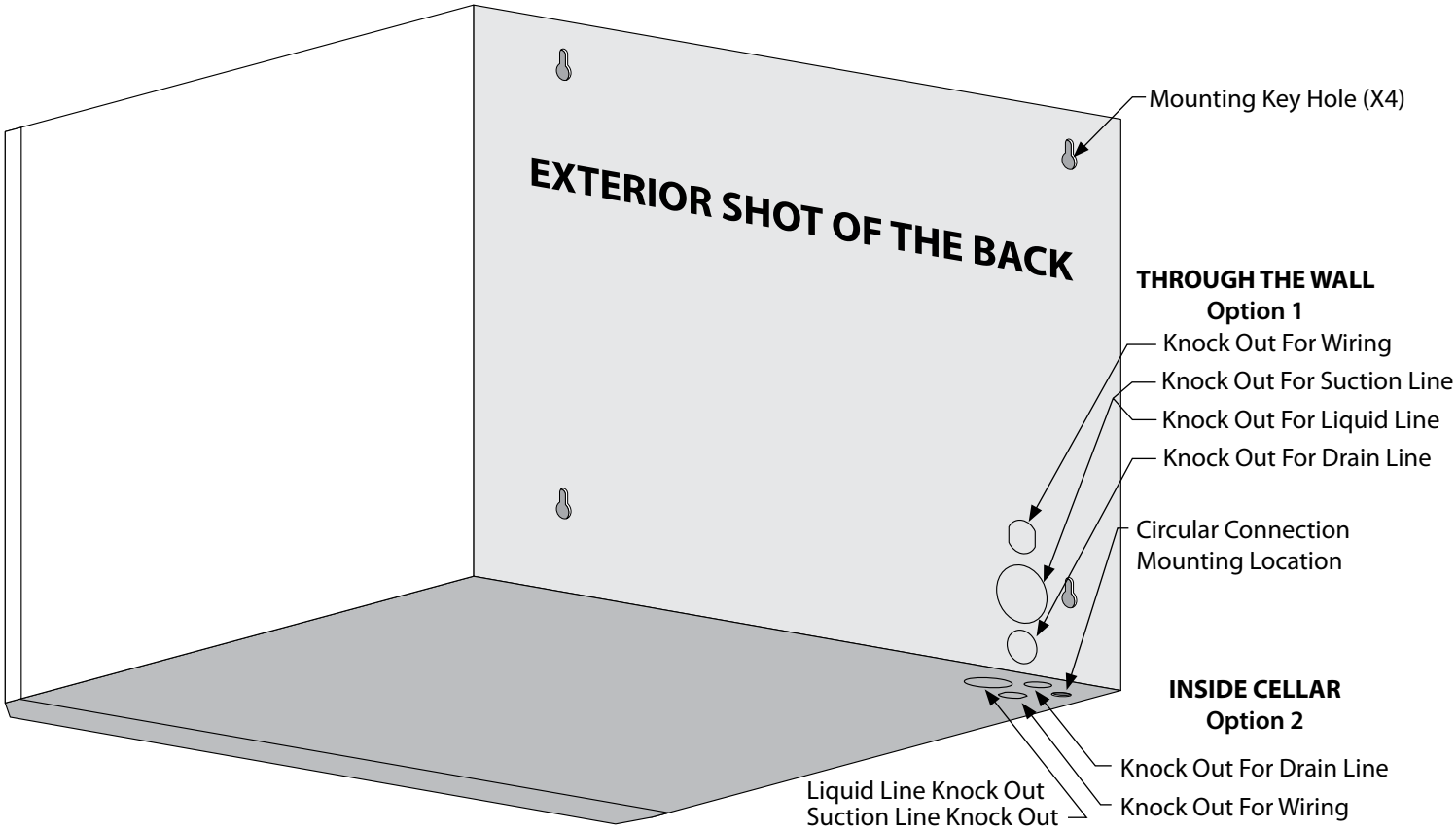
QUICK REFERENCE GUIDE

Front / Side View

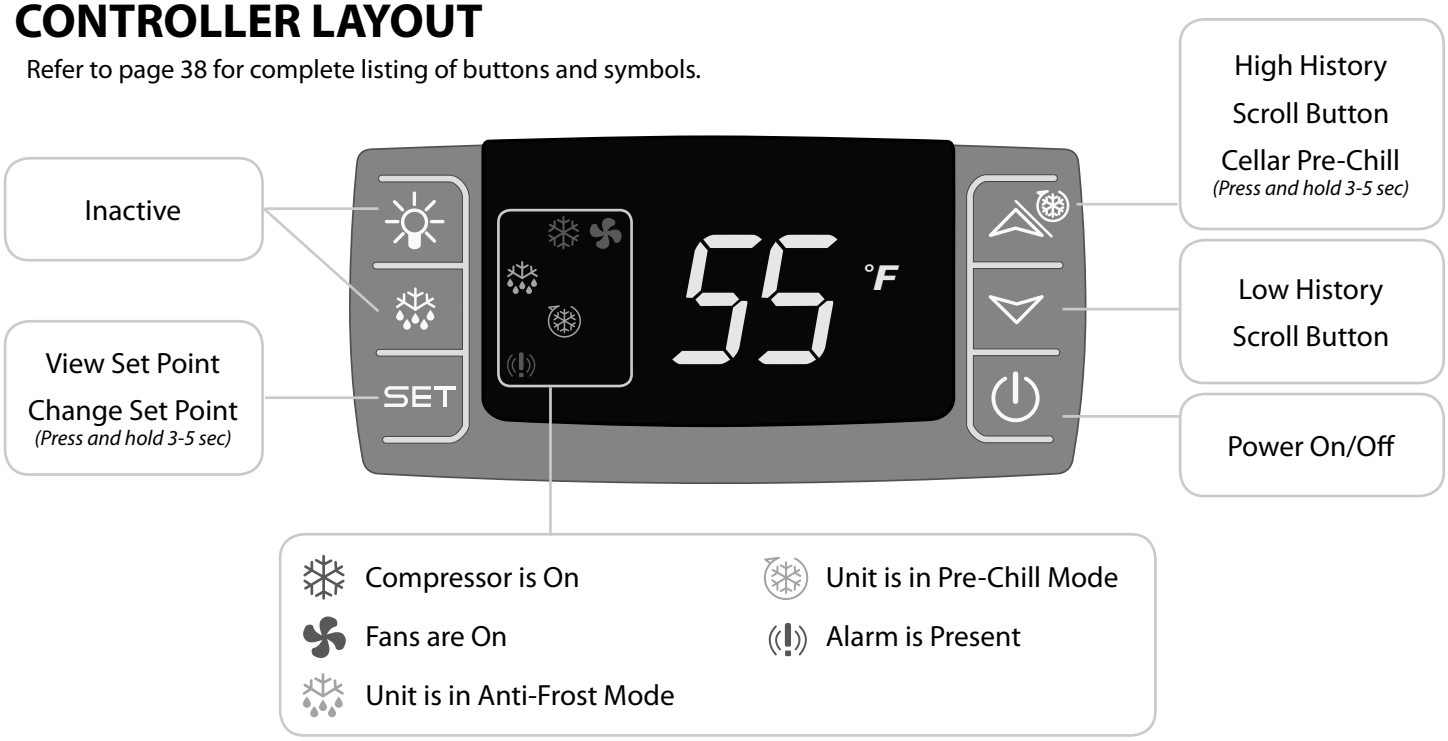


Rear / Side View



CONTROLLER LAYOUT

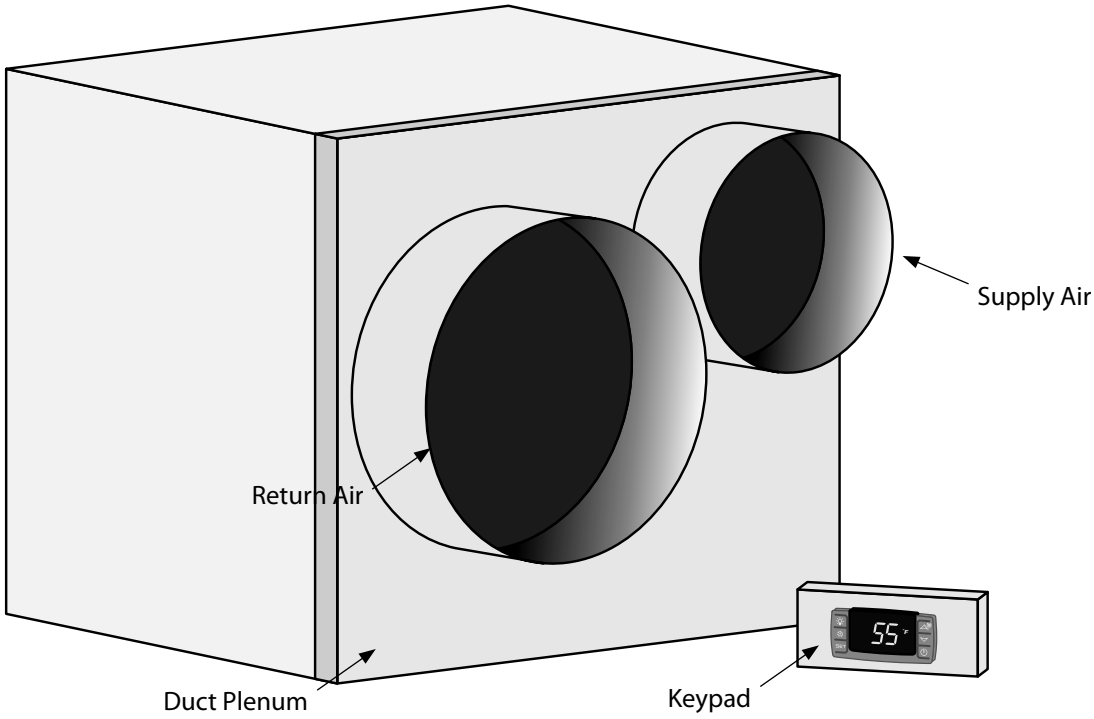
Refer to page 38 for complete listing of buttons and symbols.



Wall Mounted Platinum Split Unit Specifications

Model	4000 Evaporator (Fan Coil Unit)	4000 Condenser (Air Cooled Condensing Unit)	8000 Evaporator (Fan Coil Unit)	8000 Condenser (Air Cooled Condensing Unit)
Cellar Size (cu. ft.)	1000		2000	
Dimensions	20.5"w x 15.625"h x 16.0625"d	12"w x 13.5"h x 18"d	20.5"w x 15.625"h x 16.0625"d	12"w x 13.5"h x 18"d
BTUh with 90°F air entering the condenser coil	3650		4450	
CFM	270	190	278	350
Refrigerant	R-134a			
Condensing Unit HP	1/3++		1/2	
Voltage Rating (20 amp dedicated circuit required)	115V or 230V			
Weight (lbs)	56	56	56	66
AMPS (Starting/Running)	2/1	32.7/7.2	2/1	48/9.5
dBA	54	65	54	65
Drain Line	1/2" Condensate			
Installation	Evaporator Unit (Fan Coil Unit) is installed in the cellar or up to 25 ducted ft. away, condenser is installed up to 100 ft. from Evaporator Unit (Fan Coil Unit)			
Thermostat	Digital Control Display			
Temp. Delta	55°F temperature differential between the cellar temperature and condenser air intake temperature.			
Warranty	2-year parts and labor			

Platinum Split Evaporator Unit (Fan Coil Unit) Front / Side View



DUCTED PLATINUM SPLIT UNIT SPECIFICATIONS

Model	4000 Evaporator (Fan Coil Unit)	4000 Condenser (Air Cooled Condensing Unit)	8000 Evaporator (Fan Coil Unit)	8000 Condenser (Air Cooled Condensing Unit)
Cellar Size (cu. ft.)	1000		2000	
Dimensions	23.75"w x 15"h x 22.5"d	12"w x 13.5"h x 18"d	23.75"w x 15"h x 22.5"d	12"w x 13.5"h x 18"d
BTUh with 90°F air entering the Condenser Coil	3120		3788	
CFM	200	190	200	350
Refrigerant	R-134a			
HP	1/3++		1/2	
Voltage Rating (20 amp dedicated circuit required)	115V or 230V			
Weight (lbs)	57	56	57	66
AMPS (Starting/Running)	2/1	32.7/7.2	2/1	48/9.5
dBA	54	65	54	65
Drain Line	1/2" Condensate			
Installation	Use 8" supply and 10" return insulated ducting. Ducting should not exceed 25 ft. from the cellar.			
Thermostat	Optional Digital Remote Display			
Temp. Delta	55°F temperature differential between the cellar temperature and condenser intake air temperature.			
Warranty	2-year parts and labor			

RECEIVING & INSPECTING THE SYSTEM

Receiving and Inspecting the System

- 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.
- Before opening the container, inspect the packaging for any obvious signs of damage or mishandling.
- Write any discrepancy or visual damage on the Bill of Lading before signing.
- Allow the Condensing Unit to sit for 24 hours prior to start-up. The Condensing Unit can be placed in the installation location, piped and evacuated during this time.

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

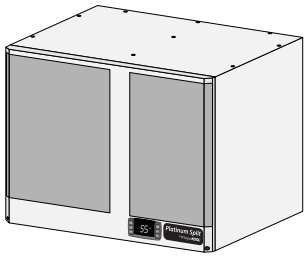
Review the Packing Slip to Verify Contents

- 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:

Main Evaporator Box

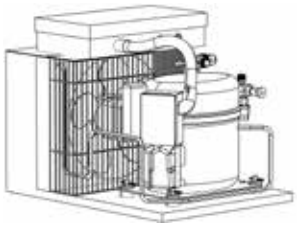


(1) Platinum Split Evaporator Unit (Fan Coil Unit)

(1) Installation Kit Includes:
- (2) ½" 90° Barb Fittings
- (1) ½" Barb Tee
- (1) 10 ft. 1/2" Drain Line
- (4) 1 ¾" Hex Head Screws
- (1) Bypass Plug

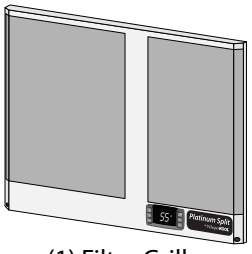
(2) Cable Tie Mounts and Cable Ties
(1) Black Strain Relief
(1) 1/4" Sight Glass
(1) 1/4" Filter Drier

Main Condensing Unit Box



(1) Condensing Unit

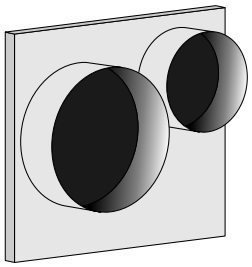
Wall-Mount Accessory Kit



(1) Filter Grille

(1) Platinum Split Tech Manual
(1) Platinum Split Owner's Manual
(1) Split System Warranty Checklist
(1) 12 ft. Bottle Probe
(10) 6-32 3/8" Phillips Pan Head Screw
(1) Display Adapter

Ducted Accessory Kit



(1) Duct Plenum

(1) Platinum Split Tech Manual
(1) Platinum Split Owner's Manual
(1) Split System Warranty Checklist
(1) 50 ft. Bottle Probe
(1) Remote Keypad
(1) 50 ft. Keypad Communication Cable

Please leave the 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.

BEFORE YOU START

1. **Inspect all components prior to installation.** If damage is found, please contact your distributor or WhisperKOOL Customer Service at 1-800-343-9463.
2. The Condensing Unit **requires a dedicated 115V, 20 amp circuit**. Use a surge protector with the unit. **Do not use a GFI** (Ground Fault Interrupter) line.
3. It is **REQUIRED** to **install a drain line** to remove condensation from the Evaporator Unit (Fan Coil Unit).
4. The system 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.
5. WhisperKOOL requires that all Split Systems are installed by a certified HVAC-R technician only. NATE or equivalent is recommended.
6. Warranty is not active until a Warranty Checklist has been received, reviewed, and approved.

If you encounter a problem with your WhisperKOOL system, please refer to the Troubleshooting Guide on page 42. If you have any further questions, concerns, or need assistance, please contact WhisperKOOL's 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.

PREPARING THE WINE CELLAR

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

Note: Improperly preparing your enclosure or incorrectly installing your unit may cause unit failure, leaking of condensation, and other negative side effects.

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

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

Wall & 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.

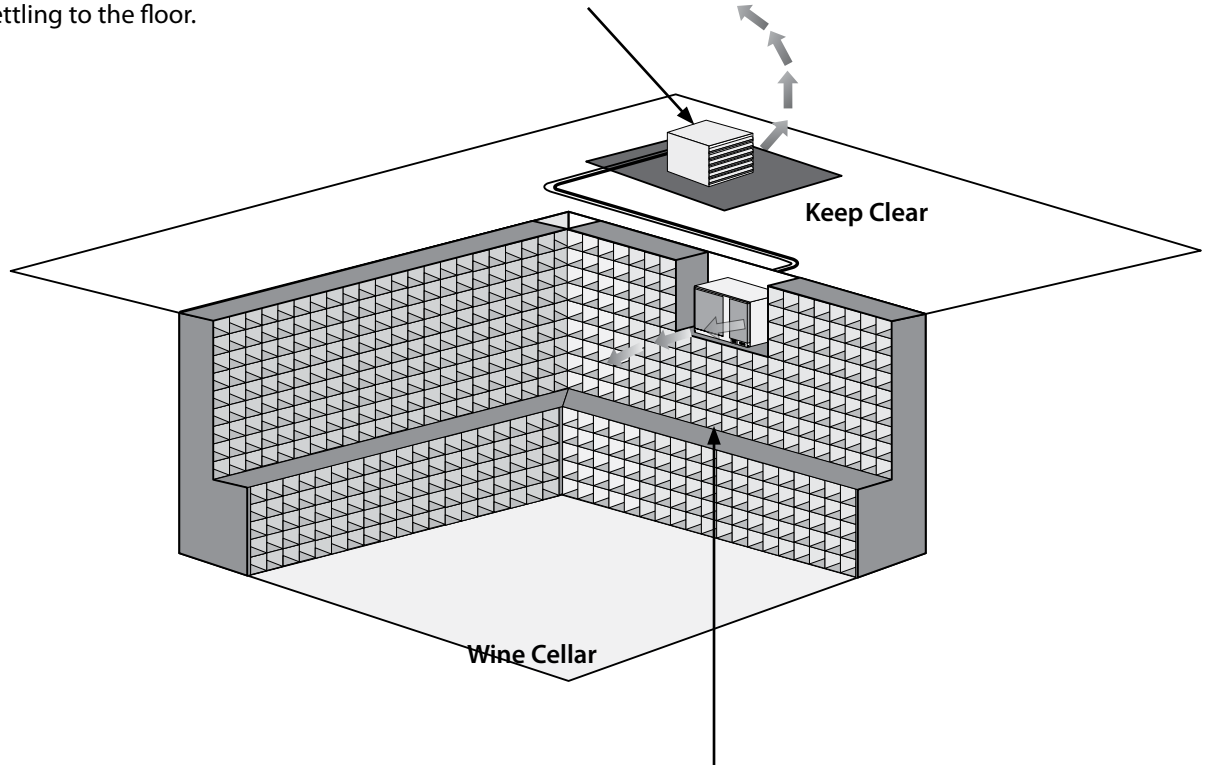
In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm moist air. The moist air can cause mold to form, and standing water in drain pans promote microbial and fungal growth that cause unpleasant odors and indoor air quality problems. If mold is 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. Electric conduit is a "duct" for vapor to travel in. The conduit should be caulked and sealed on the warm air end.

Mounting the Evaporator Unit (Fan Coil Unit)

The Evaporator Unit (Fan Coil 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 system is critical for the Evaporator Unit (Fan Coil Unit) and Condensing Units overall performance and lifespan. A minimum 3 ft. clearance (5 ft. is ideal) area is crucial. The air the fans blow needs to circulate and either dissipate or absorb heat from the space. The more air to exchange, the more efficient the system will operate.

Note: Avoid attempting to camouflage the unit. This will restrict airflow and thus the systems ability to work efficiently.

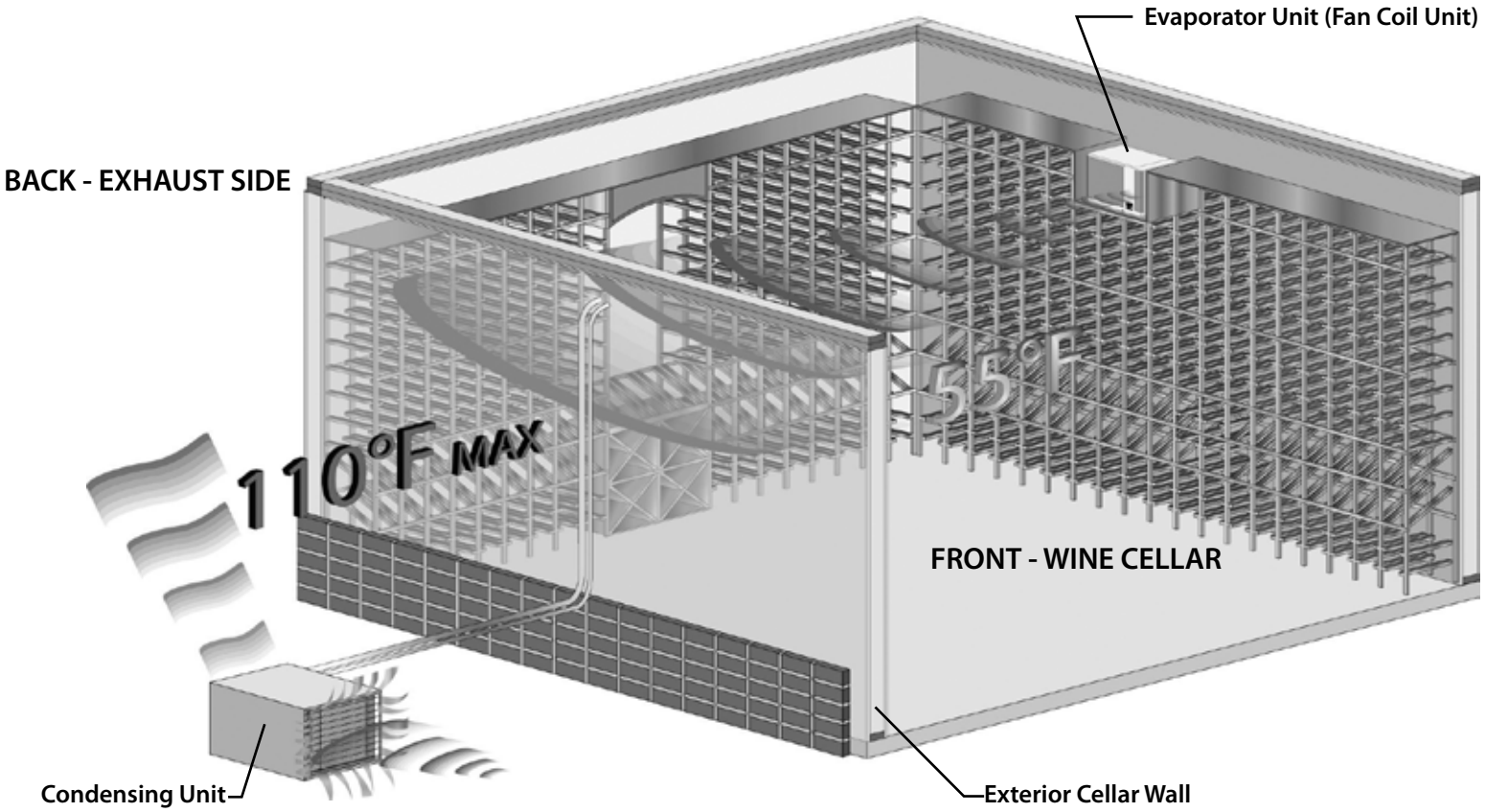
Door and Door Seal

An exterior grade (1 3/4") door must be installed as a cellar door. It is essential that weather stripping is attached to all 4 sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have a very good vapor seal to prevent warmer moist air from leaking into the cellar. One of the most common problems with cooling systems 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 system size, the next larger size WhisperKOOL system 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 Condensing Unit is critical to the performance and cannot be overstated. As the system operates and cools, a greater amount of heat is generated on the condensing side of the system. Adequate ventilation is required in order to dissipate heat away from the Condensing Unit. If ventilation is inadequate, the exhaust will heat up the area or room and adversely affect the systems ability to cool. In some cases, it may be advisable to install a vent fan to dissipate heat within the exhaust area on the condensing side of the system. However, you must have a fresh air inlet as well.

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

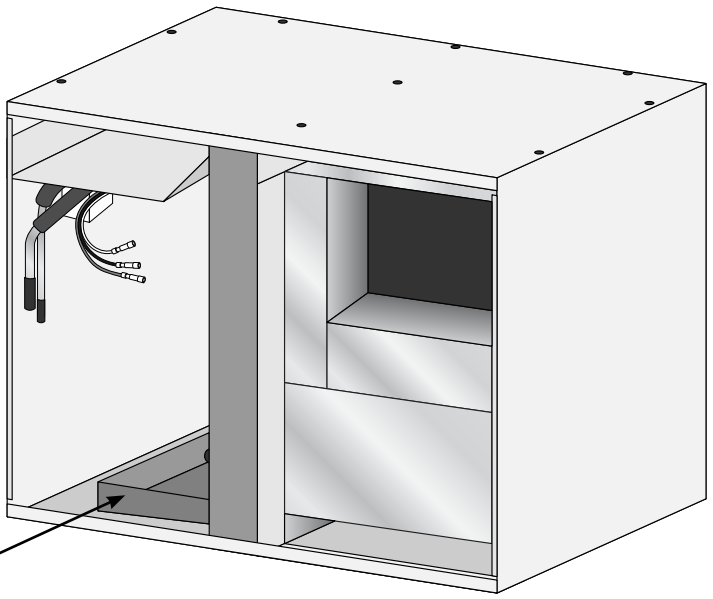
The cooling system has the ability to cool a wine cellar efficiently to 55°F as long as the ambient temperature of the area that it is exhausting to does not exceed 110°F. Therefore, you want to exhaust the Condensing Unit in a space which will not exceed 110°F. Otherwise the system will not have the capacity to keep the wine at a desirable 55°F.

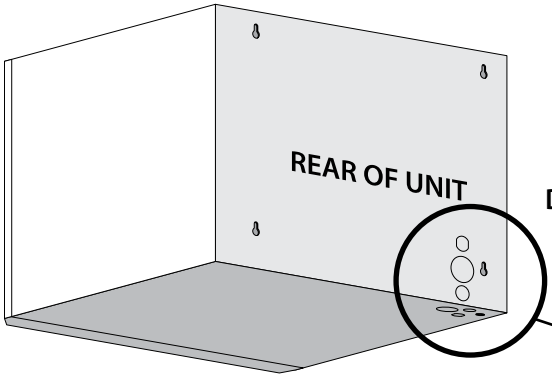
WARNING! Allowing your system to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your system and void your warranty. The cooler the temperature of the air entering the condenser coil, the more cooling capacity the system has. The less heat gain through the common wall, the less the electricity consumption.

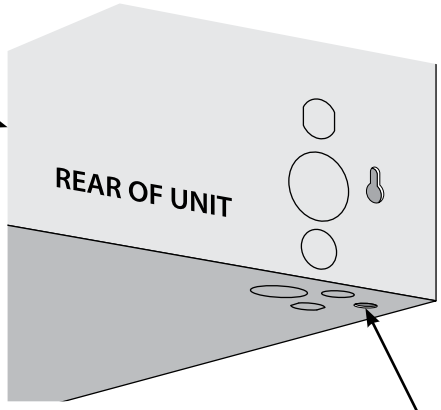
PREPARING AND INSTALLING THE WALL MOUNT EVAPORATOR UNIT (FAN COIL UNIT)

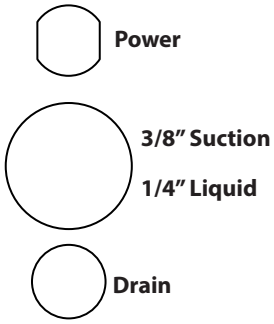
Required Tools:

- Drill
- 5/32" Drill Bit
- 1/4" Socket Drill Bit
- 1/4" Wrench
- Phillips Head Screwdriver
- Tape Measure
- Brazing Torch
- Drywall Saw
- Ladder
- Level
- Pliers
- Pencil

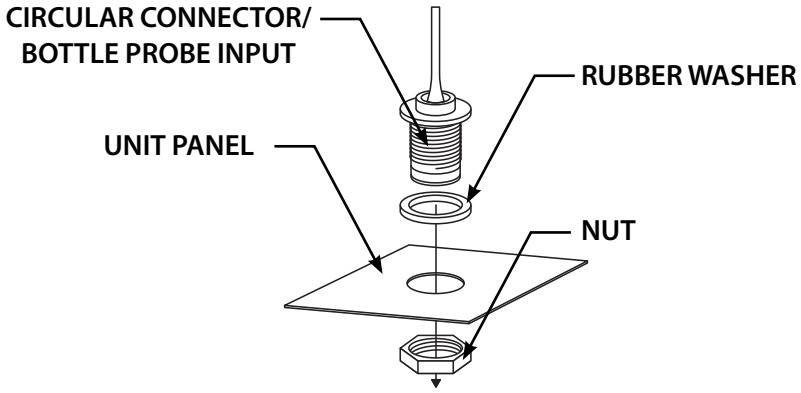






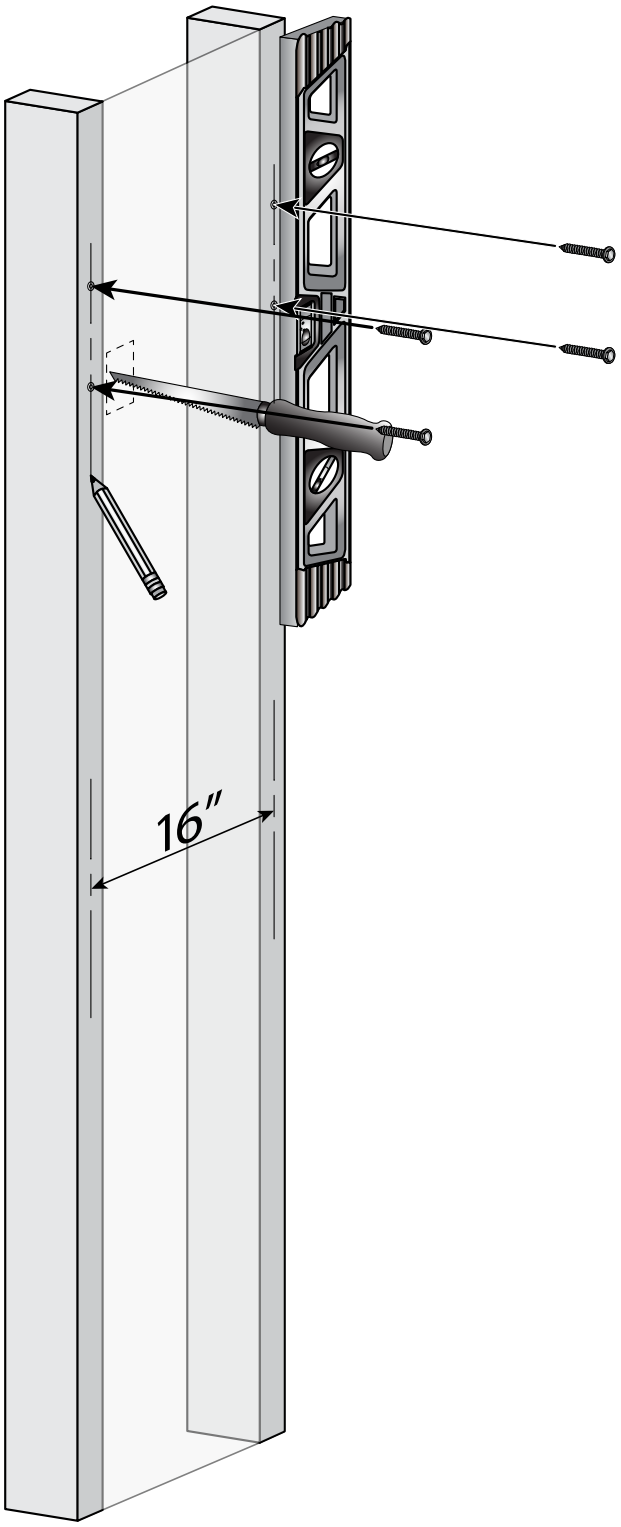


1. Remove the knockouts for the drain line, line set, and electrical on the bottom or rear of the unit, depending on your installation preference.
2. Remove the knockout on the bottom of the unit for the bottle probe connector.
3. Remove the insulation from the knockout holes.
4. Remove the nut from the bottle probe connector.
5. Insert the bottle probe connector through the knockout.
6. Secure the bottle probe connector to the wrapper with the nut removed in step 4.
7. For ease of installation, remove the 9 screws securing the top and remove the top.

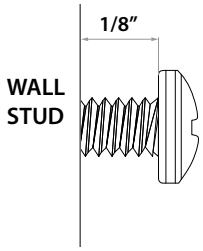


INSTALLING THE WALL MOUNTED EVAPORATOR UNIT (FAN COIL UNIT)

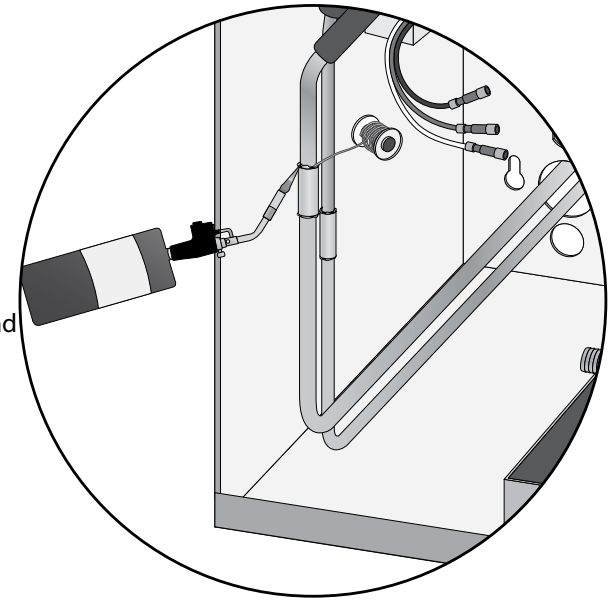
1. Locate 2 wall studs in the desired mounting location spaced 16" on center.
2. Mark vertical lines on each stud 16" apart.
3. Mark an intersecting, horizontal line at the desired height of the unit.
4. Make a mark on each stud 13 ½" down from the intersection of the horizontal and vertical lines.



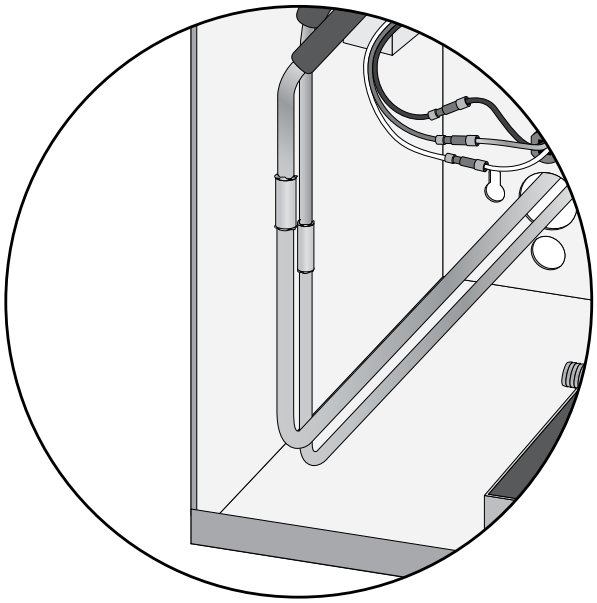
Note: The top of the unit needs to be installed at a minimum of 6" and a maximum of 18" from the ceiling.



5. Install the 4 supplied 1 ¾" hex head screws into the studs at the locations marked leaving 1/8" between the wall surface and screw head.
6. If routing through a wall, cut out an access hole for the line set, drain line and electrical.
7. Raise the evaporator to the installation location. Align the rear key holes with the mounting screws and mount the unit.
8. Using a ¼" wrench or socket, tighten the top mounting screws.
9. Using ¼" and ½" copper tubing, route the liquid and suction lines through the knockouts in the wrapper. Be sure to extend the tubing far enough outside of the wrapper to extend through the wall if necessary. Note: ½" copper tubing will slip over the 3/8" suction line on the evaporator for an easy connection.
10. Remove the solenoid coil and wrap the solenoid valve with a wet rag to prevent overheating.
11. To prevent oxidation, purge nitrogen through the system.
12. Braze the copper tubing to the connections on the Evaporator Unit.
13. Insulate the suction line using Armaflex or similar insulation.
14. Cut a short piece of ½" drain line and connect a ½" barb 90° to the drain line.
15. Route the drain line out of the wrapper through the hole for the drain line. Use the second barb 90° if going through the bottom of the wrapper. Be sure to extend the tubing far enough outside the wrapper to extend through the wall if necessary.
16. Using the cable ties and cable tie mounts provided, secure the drain line to the bottom of the wrapper to ensure a downward slope.
17. If you have purchased the Active Humidity Option, route the ¼" water line out of the Evaporator Unit with the line set.
18. Route the power supply wires into the unit through the knockout.



19. Remove the wire nuts from the black, white and green wires located in the lower left corner of the Evaporator Unit.
20. Following the supplied wiring diagram, connect the power supply wires to the black, white and green wires using the supplied wire nuts (Hot=Black, Neutral=White, Ground= Green).
21. Install the supplied black strain relief to secure the power supply wires in the housing.
22. Route the display adapter through the grommet below the drip tray and into the blower compartment.
23. Connect the display adapter to the circular connector for the display located in the lower left corner of the housing.
24. If the unit was equipped with the Active Humidity Option, route the communication cable from the desired control mounting location into the Evaporator Unit.
25. Connect the communication cable to the circular connector located in the lower left corner of the housing.
26. Secure all wiring neatly and close to the left wall to minimize obstructing the airflow.
27. Attach the supplied bottle probe to the circular connector on the bottom of the unit. Follow the directions on page 14 for correct installation and placement of the bottle probe.



DRAIN LINE

Condensation Drain Line

The condensation drain line tube is used to remove excess condensation from the Evaporator Unit (Fan Coil 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 systems come with a drain line for additional removal of excessive condensate. It is mandatory to install the drain line, whether it leads through the wall and out of the cellar or remains inside the cellar. During operation, the cooling system 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, thus the drain line will prevent overflow and leaking by allowing for discharge of the additional condensate.

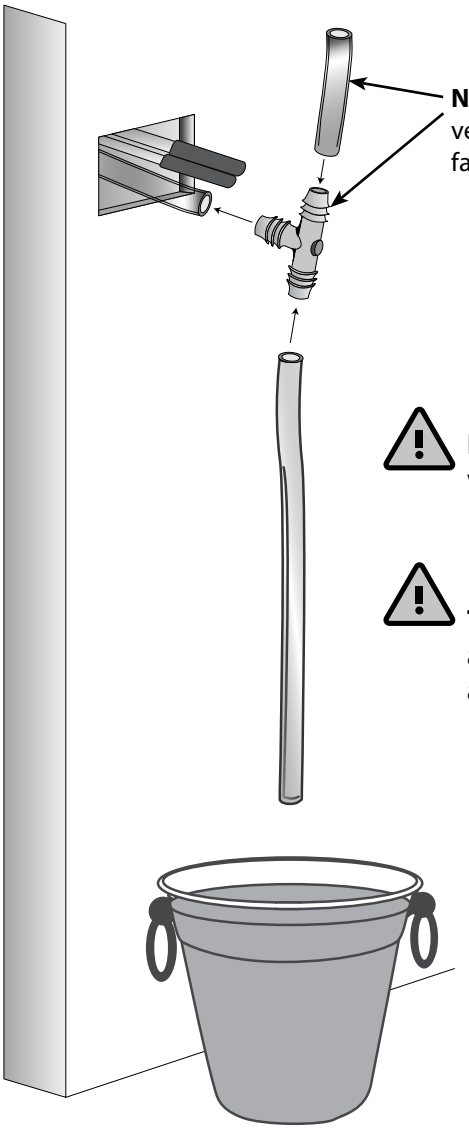
If the drain line is routed through the rear of the unit:

Insert the middle barb of the barbed tee fitting into to the end of the drain line coming from the evaporator. Rotate fitting so tee is in the orientation shown in the diagram on the right. Connect a 3" piece of 1/2" drain line to the barb on top. Connect the remaining "long" piece of drain tubing to the bottom barb of the tee. Route the drain line to an appropriate drain location.

NOTE: The fitting should be placed vertically with the 3" piece facing up.

If the drain line is routed through the bottom of the unit:

Connect the drain line directly to the second barbed 90° installed in step 15 of the installation instructions. Route the drain line to an appropriate drain location. No tee is required if draining through the bottom of the unit.



NOTE: The fitting should be placed vertical with the three inch cut out facing up.

Failure to install the drain line voids the warranty.

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

WRONG: Drain line is under water.

LIQUID MEASURING THERMOSTAT

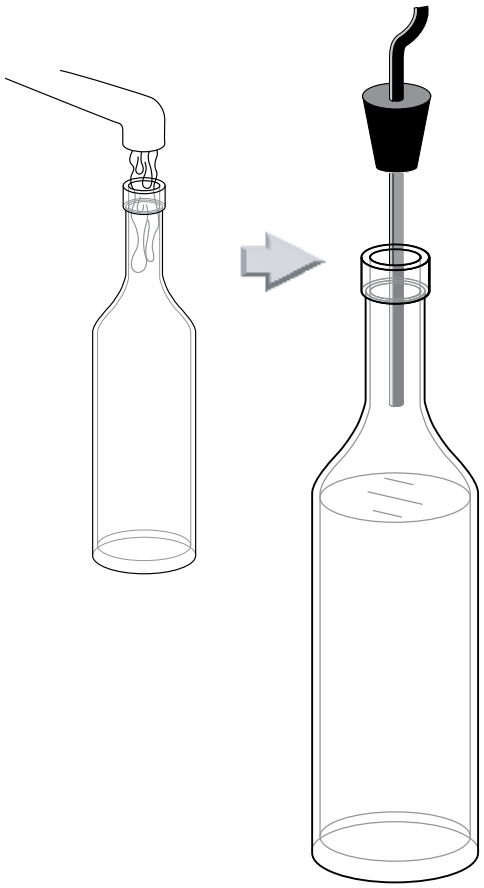
The WhisperKOOL Series cooling units come equipped with a liquid temperature measuring thermostat. This incorporates the following advantages:

Liquid Measuring Thermostat

To assure a consistent temperature, place bottle probe at least 3 ft. 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 3/4 full with room temperature tap water.
3. Place bottle probe securely into bottle.
4. Place bottle with probe level and to the side of the unit in your wine cellar. ***It is recommended that it is 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.

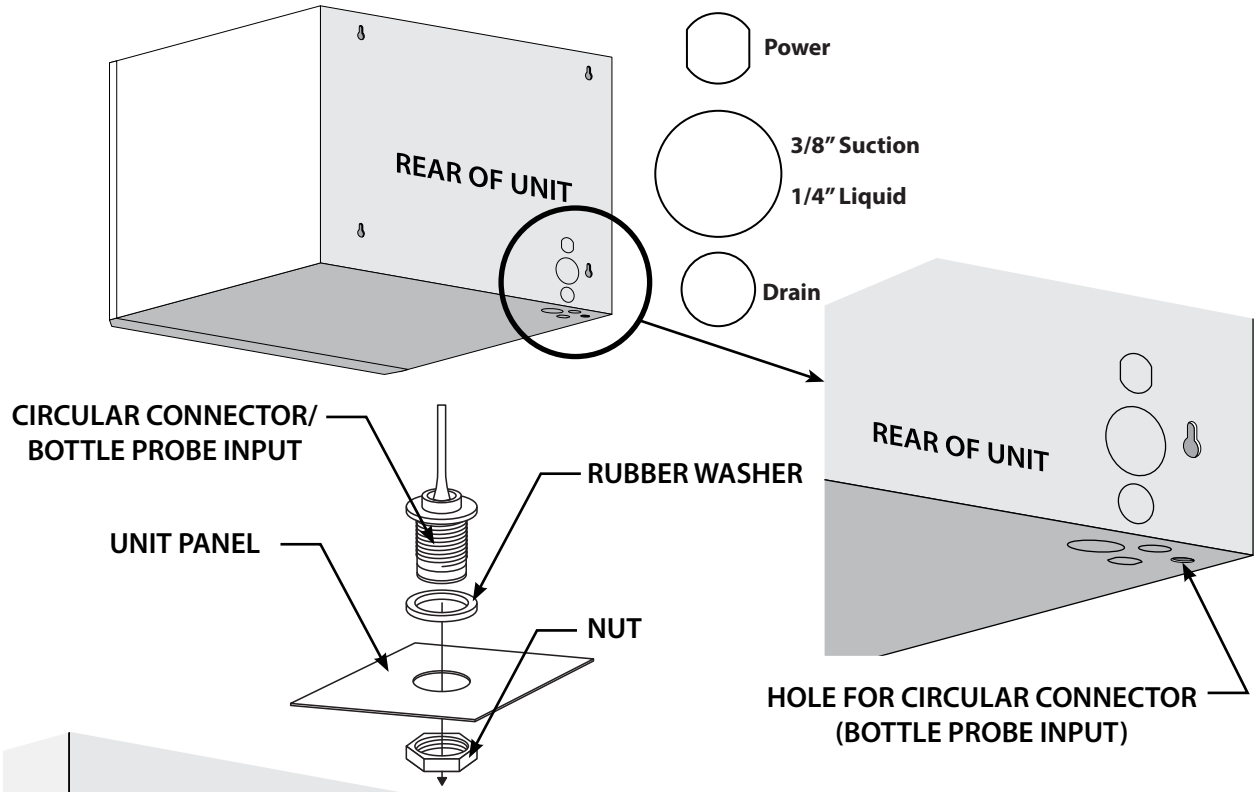


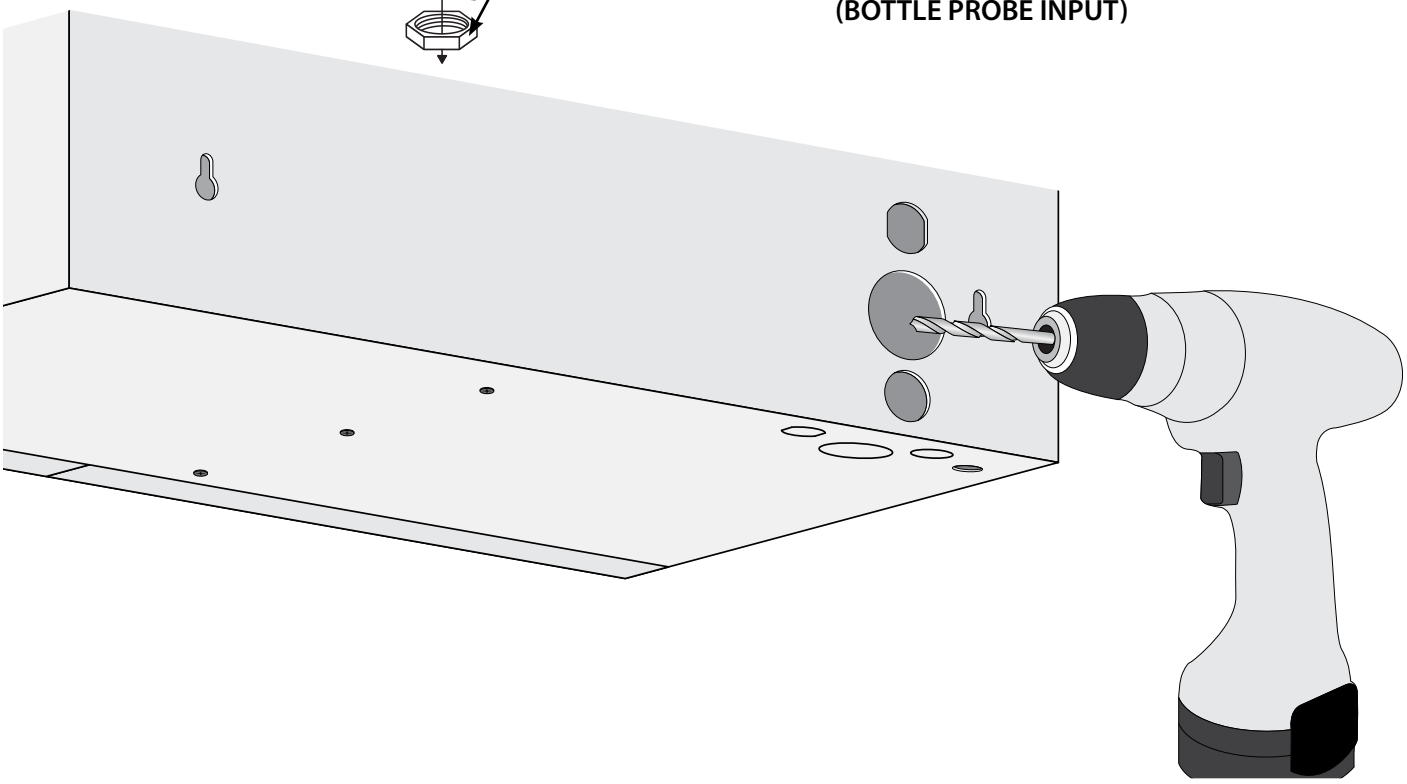
Note: The thermostat can be set between 50°F and 67°F.

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 coming to optimum balanced temperature.

PREPARING THE FULLY DUCTED EVAPORATOR UNIT (FAN COIL UNIT)

1. Remove the knockouts for the drain line, line set, and electrical on the bottom or rear of the unit depending on your installation location.
2. Remove the insulation from the knockout holes.
3. Route the bottle probe from the cellar to the Evaporator Unit. Follow the directions on page 14 for correct installation and location of the bottle probe.
4. Follow the directions on page 18 to mount the remote keypad and run the communication cable to the Evaporator Unit.





INSTALLING THE FULLY DUCTED EVAPORATOR (FAN COIL UNIT)

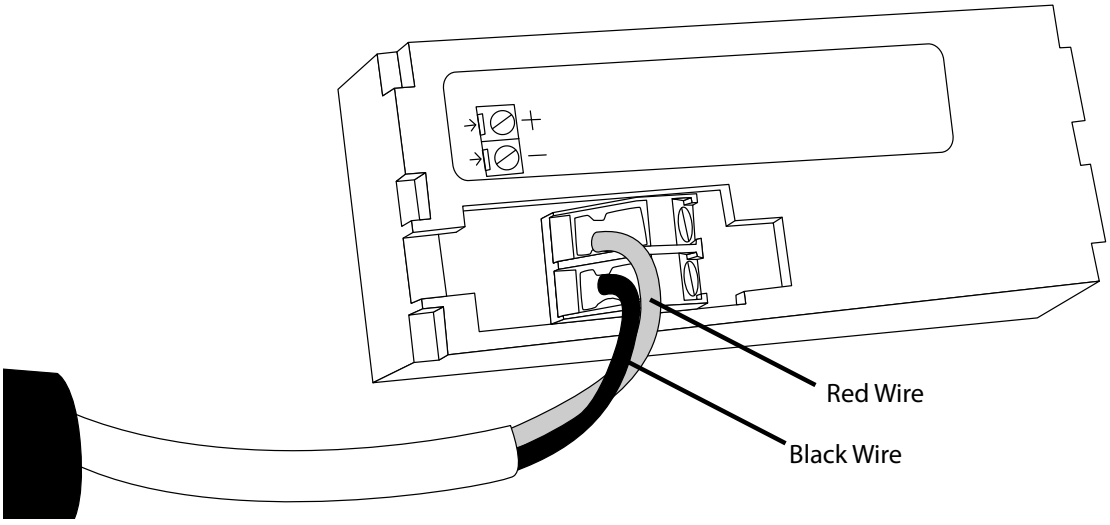
1. If mounting the unit to a wall, see steps 1-8 of the instruction for installing the Wall Mounted Evaporator Unit.
2. Using 1/4" and 1/2" copper tubing, route the liquid and suction lines through the knockouts in the wrapper. Be sure to extend the tubing far enough outside of the wrapper to extend through the wall if necessary. Note: ½" copper tubing will slip over the 3/8" suction line on the evaporator for an easy connection.
3. Remove the solenoid coil and wrap the solenoid valve with a wet rag to prevent overheating.
4. To prevent oxidation, purge nitrogen through the system.
5. Braze the copper tubing to the connections on the Evaporator Unit.
6. Insulate the suction line using Armaflex or similar insulation.
7. Cut a short piece of ½" drain line and connect a ½" barb 90° to the drain line.
8. Route the drain line out of the wrapper through the hole for the drain line. Use the second barb 90° if going through the bottom of the wrapper. Be sure to extend the tubing far enough outside the wrapper to extend through the wall if necessary.
9. Using the cable ties and cable tie mounts provided, secure the drain line to the bottom of the wrapper to ensure a downward slope.
10. If you have purchased the Active Humidity Option, route the ¼" water line out of the Evaporator Unit with the line set .
11. Route the power supply wires and the circular connector from the 50' bottle probe into the unit through the knockout for the electrical.
12. Remove the wire nuts from the black, white and green wires located in the lower left corner of the Evaporator Unit.
13. Following the supplied wiring diagram, connect the power supply wires to the black, white and green wires using the supplied wire nuts.
14. Connect the bottle probe to the circular connector located in the lower left side of the housing. Follow the directions on page 14 for correct installation and placement of the bottle probe.
15. Install the supplied black strain relief to secure the power supply wires and bottle probe wire in the housing.
16. Route the communication cable from the remote display into the evaporator housing.
17. Connect the communication cable to the circular connector located in the lower left corner of the housing.
18. If the unit was equipped with the Active Humidity Option, route the communication cable from the desired control mounting location into the Evaporator Unit.
19. Connect the communication cable to the circular connector located in the lower left corner of the housing.
20. Secure all wiring neatly and close to the left wall to minimize obstructing the airflow.
21. See page 13 for drain line routing instructions.

NOTES

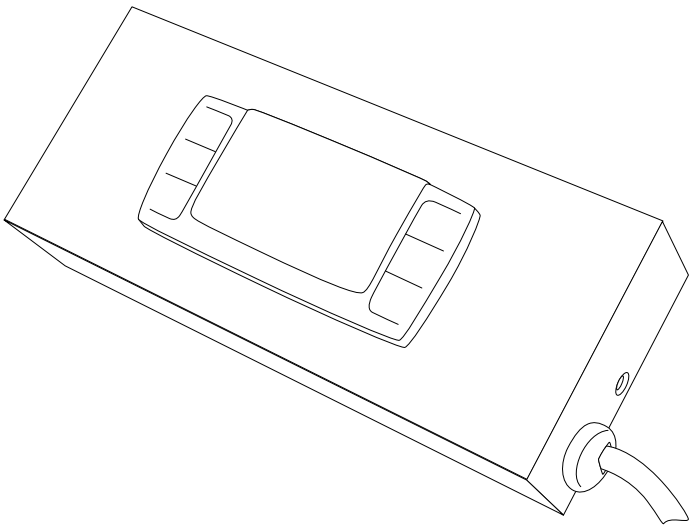
REMOTE KEYPAD: INSTALLATION & CONFIGURATION

If you have a system with a remote keypad, please review this section for installation.

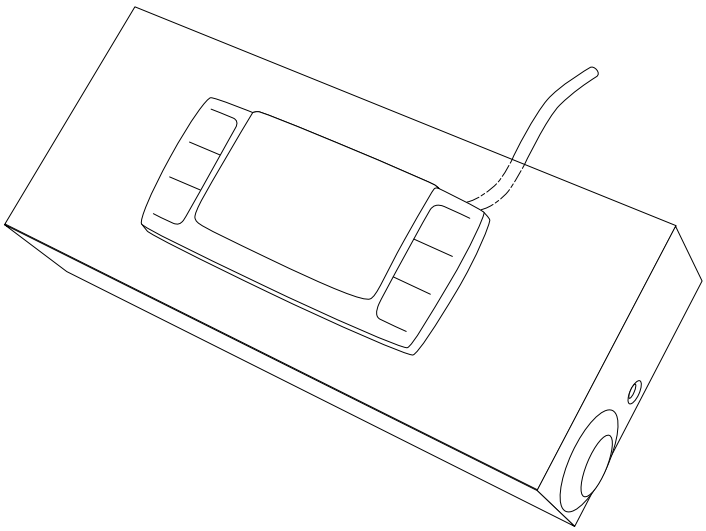
Note: 50 ft. of communication line is included. The keypad can be installed up to 300 line ft. away. Longer lengths of communication line can be ordered by calling 1-800-343-9463 ext. 751.



Route the communication line from the Evaporator Unit to the desired keypad location. Remove the wall mount bracket from the display housing. Using appropriate anchors or fasteners, secure the wall mount bracket to the wall. If routing the communication line through a wall, connect the wires to the back of the control following the image above. Connect the red wire to the upper (+) terminal. Connect the black wire to the lower (-) terminal. If the communication wire is not routed through the wall, remove the plug in the side of the display housing. Route the wire through the hole and connect to the back of the display as shown above.

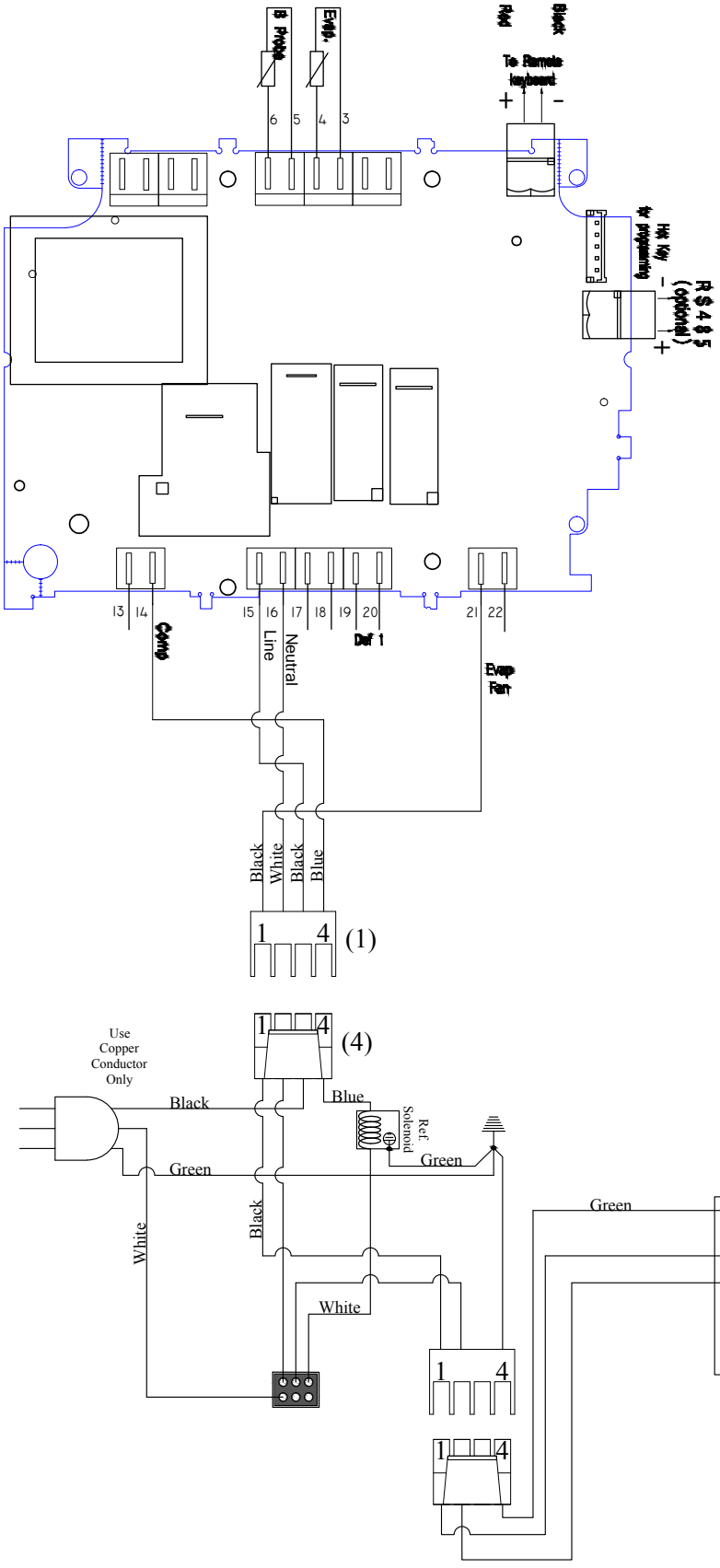


Connection wire in Side Mount configuration

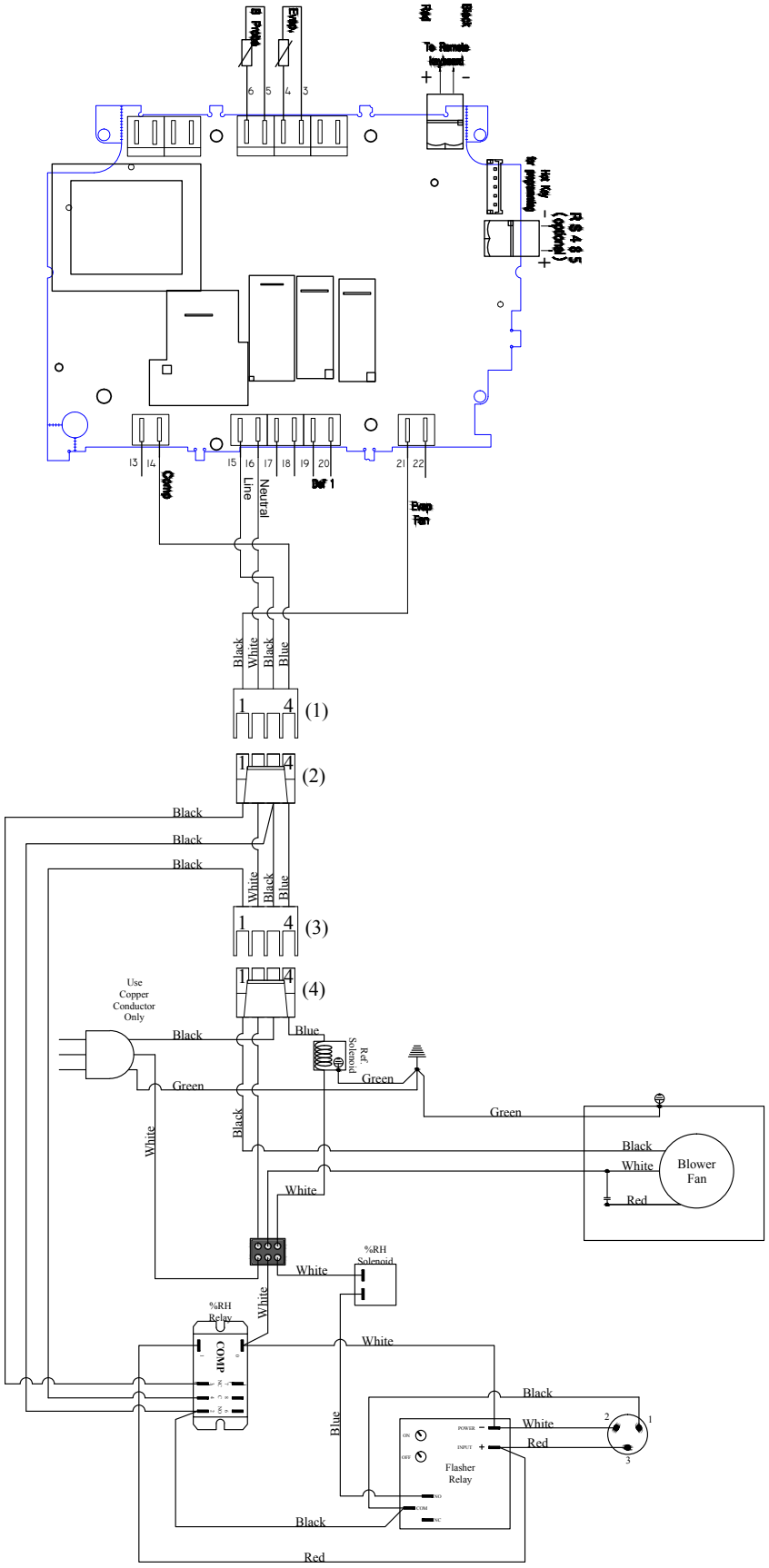


Connection wire in Rear Mount configuration

PLATINUM SPLIT WIRING DIAGRAM



PLATINUM SPLIT WITH HUMIDITY WIRING DIAGRAM

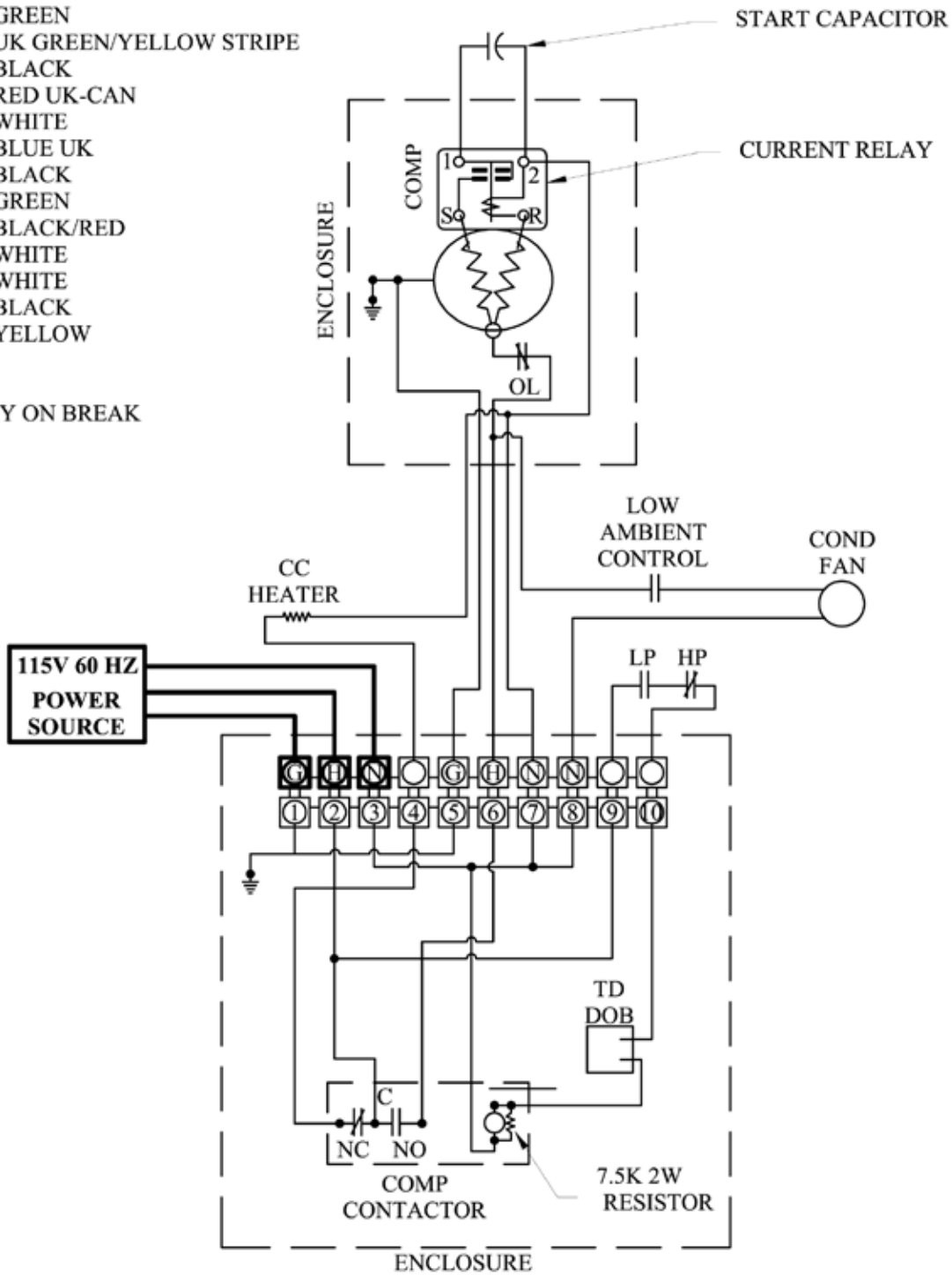


4000 CONDENSING UNIT WIRING DIAGRAM

LEGEND:
TERMINAL BOARD

BD #	SERVES	COLOR
1	GROUND	GREEN UK GREEN/YELLOW STRIPE
2	L1-115V-HOT	BLACK RED UK-CAN
3	115V-NEUTRAL	WHITE BLUE UK
4	CC HEATER	BLACK
5	COMP GND	GREEN
6	H-COMP	BLACK/RED
7	N-COMP	WHITE
8	N-COND FAN	WHITE
9	H-LP-HP	BLACK
10	LOAD TD&CC	YELLOW

TD=TIME DELAY, DELAY ON BREAK

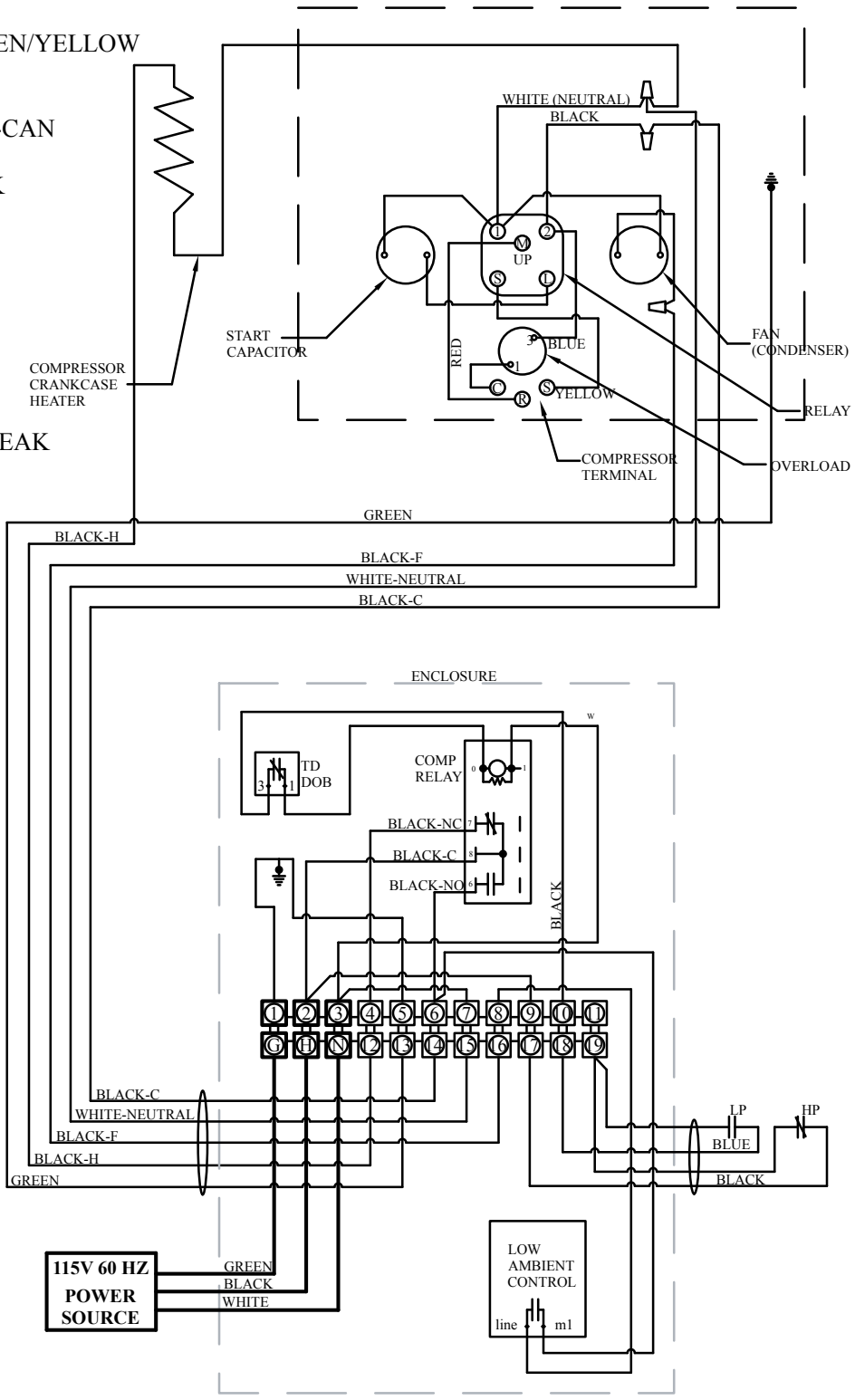


8000 CONDENSING UNIT WIRING DIAGRAM

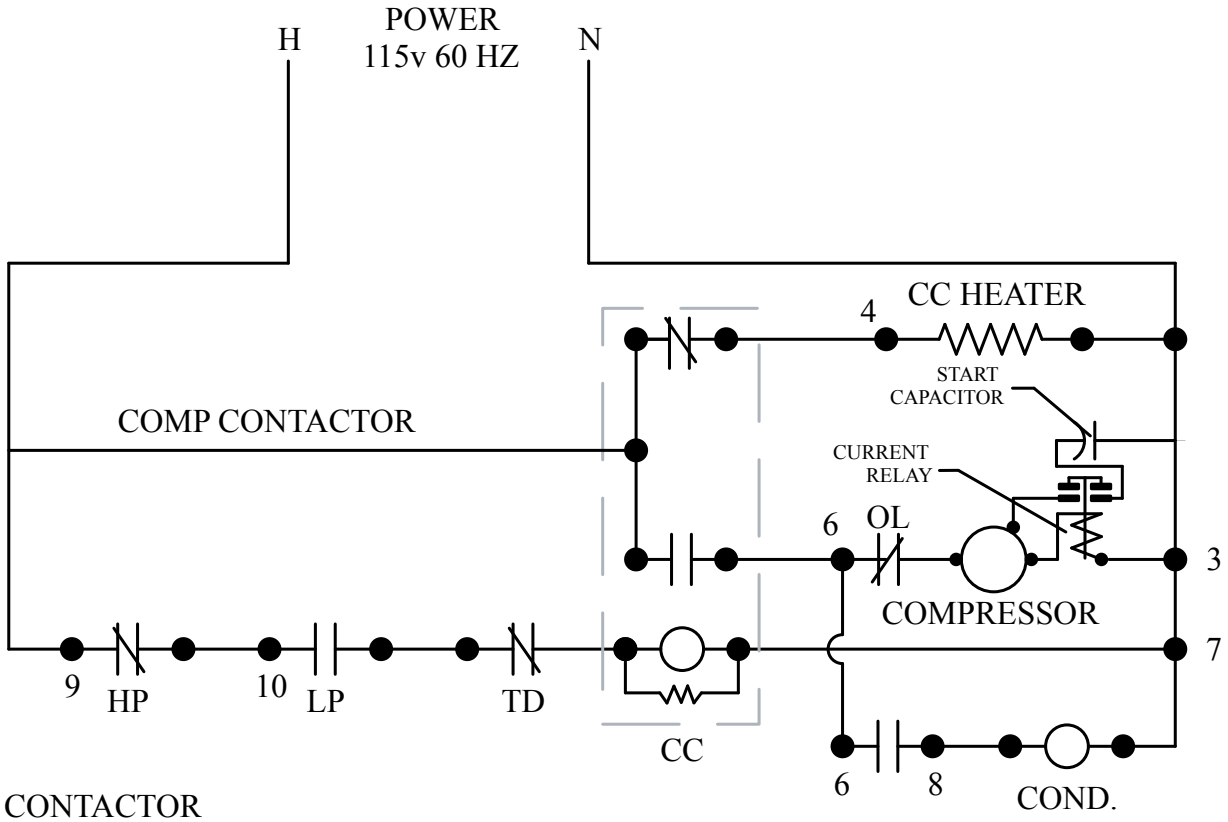
LEGEND:
TERMINAL BOARD

BD #	SERVES	COLOR
1	GROUND	GREEN UK GREEN/YELLOW STRIPE
2	L1-115V-HOT	BLACK RED UK-CAN
3	115V-NEUTRAL	WHITE BLUE UK
4	CC HEATER	BLACK
5	COMP GND	GREEN
6	H-COMP	BLACK
7	N-COMP	WHITE
8	H-COND FAN	BLACK
9	LINE H-LP-HP	BLACK
10	LOAD H-LP-HP	BLUE

TD=TIME DELAY, DELAY ON BREAK



8000 CONDENSING UNIT WIRING SCHEMATIC



CC COMP CONTACTOR
HP HI PRESS SWITCH
LP LO PRESS SWITCH
TD TIME DELAY

ACTIVE HUMIDITY OPTION OVERVIEW

ACTIVE HUMIDITY SPECIFICATIONS

Power Consumption	0.2 amps @ 120V/60 Hz
dBA	TBD
Humidistat Range	30-90% RH
Humidistat Accuracy	± 1%
Humidistat Adjustment Increments	1%
Water Supply Feed Rate	0.63 gph @ 40 psi

Accessory Included with Active Humidity Option:
(1) 25 ft. Humidistat Cable
(1) Dayton Humidistat

Use of the Active Humidity Option

Humidity may fluctuate in the wine cellar. The Active Humidity Option stabilizes the environment by adding moisture when the wine cellar is becoming dry. Using a humidistat and a water source, the Active Humidity Option is able to regulate and establish a humid environment suitable for wine storage.

Note: The ideal humidity of a wine cellar is between 50%-70%.

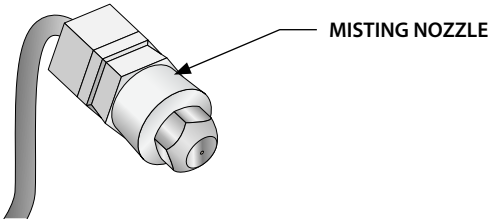
General Active Humidity Option Recommendations

- Water source needs to have at least 40 psi.
- Water tubing size: 1/4" O.D
- Water source should be tested for content and characteristics.
- In areas that are known to have hard water, the use of a water-softener system is required.

Note: Failure to install a water-softener or a filtration system will allow an excessive particle residue buildup and may lead to system failure.

- Even if the area is not known to have hard water, the use of a filtration system (particle filter) is required.
- Clean the evaporator coil every 3 months to remove particle residue buildup.
- It might be best to use a self-piercing saddle valve as a simple connection to a water source.
- Clean or replace the misting nozzle every 12 months.

Do not allow water leakage inside of the unit.



Self-Piercing Saddle Valve

Install a self-piercing saddle valve to a near by water supply for simple connection to a water source as shown in **Figure 1**.

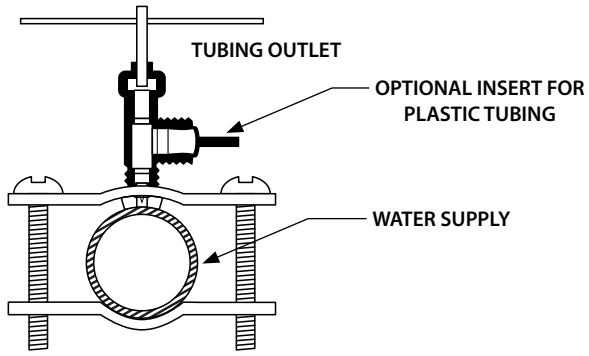


Figure 1

Water Flow Order

- The water supply should pass through either a water-softener or a filtration system before reaching the unit as shown in **Figure 2**.
- Route a 1/4" copper, pex or equivalent tubing from the water source and connect to the water inlet fitting on the unit as shown in **Figure 3**.
- Turn on the water and check for leaks.

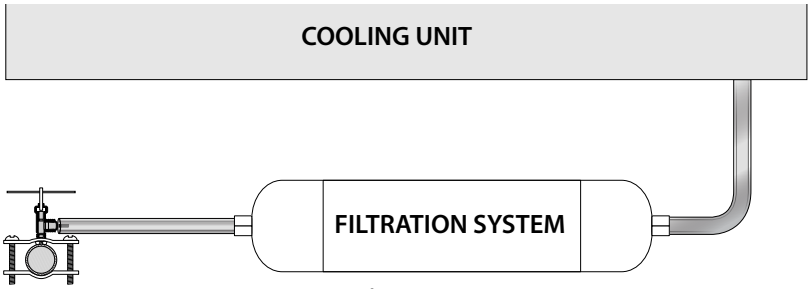


Figure 2

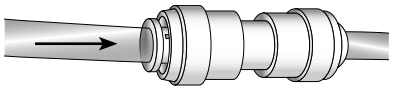


Figure 3

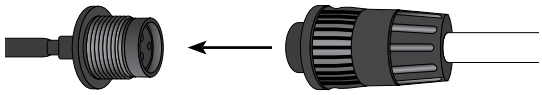
HUMIDISTAT INSTALLATION

Only a 120-Volt humidistat can be used with this unit.

Routing the Wiring

1. Plug the circular connector from the humidistat cable into the circular connector on the unit as shown in **Figure 1**.
2. Route the wire from the unit to the desired humidistat location.

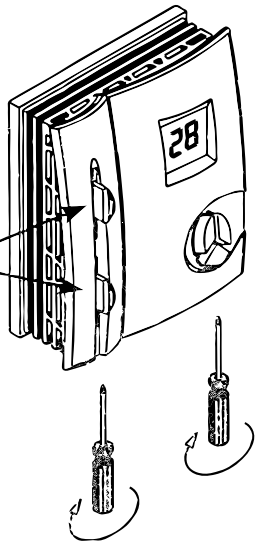
Figure 1



Removing the Cover

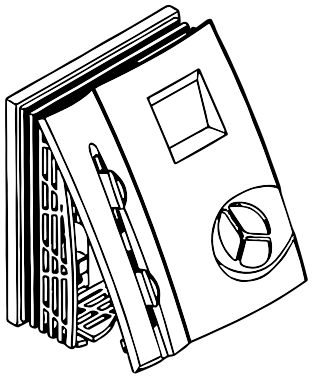
1. Move both slide controls to the bottom position.
2. Use a screwdriver to loosen the screws at the bottom of the humidistat as shown in **Figure 2**.
3. Carefully remove the cover as shown in figure **Figure 3**.

Figure 2



Note: Slide controls to the bottom position

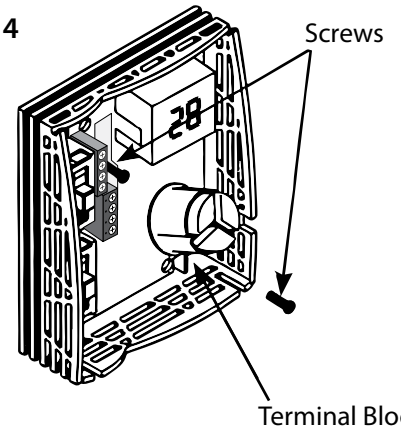
Figure 3



Mounting Without a Wall Mount Plate

4. Make sure the humidistat electrical is unplugged before installing the unit.
5. Position the back half of the humidistat cabinet on the wall or junction box to ensure it is level and covers the junction box completely.
6. Pull the electrical wires through the hole at the terminal block of the humidistat.
7. Drill holes in the wall through the two mounting holes in the back of the humidistat cabinet as shown in **Figure 4** and insert anchors into the holes.
8. Fasten the humidistat to the wall with screws through the mounting holes.

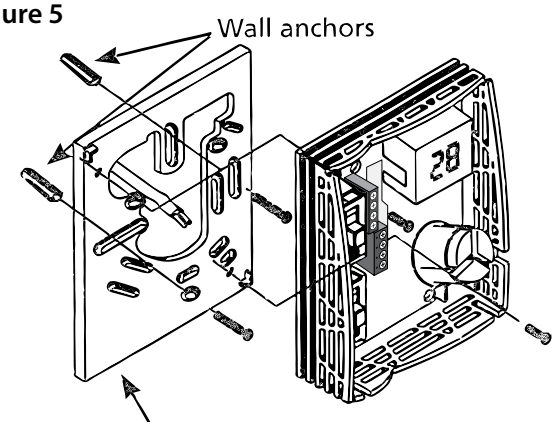
Figure 4



Mounting With a Wall Mount Plate

1. Make sure the humidistat is unplugged before installing the unit.
2. Position the wall mount plate on the wall or junction box to ensure the plate is level and covers the junction box completely.
3. Pull the electrical wires through the hole in the wall mount plate.
4. Drill holes in the wall through the two mounting holes in the back of the wall plate as shown in **Figure 5** and insert anchors into the holes.
5. Pull the electrical wires through the hole at the terminal block.
6. Fasten the wall plate with two screws through the mounting holes.
7. Fasten the humidistat to the wall plate with screws through the mounting holes.

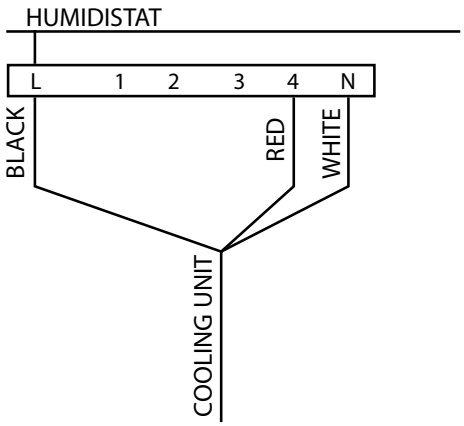
Figure 5



Electrical Connection

1. Connect the electrical wires to the corresponding terminals on the terminal block following the circuit diagram inside the top cover of the unit, see **Figure 6**.
2. Connect the white wire to the N terminal, the red wire to the 4 terminal, and the black wire to the L terminal on the humidistat.

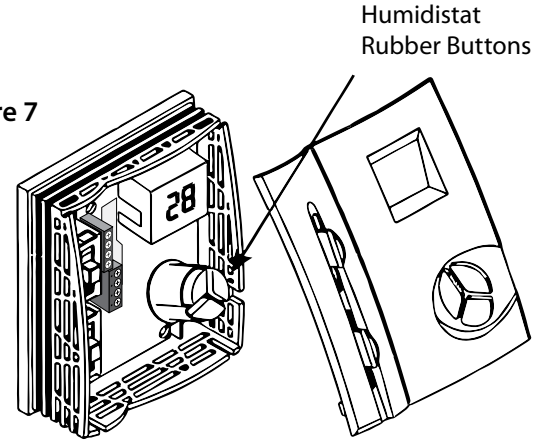
Figure 6



Reattaching the Cover

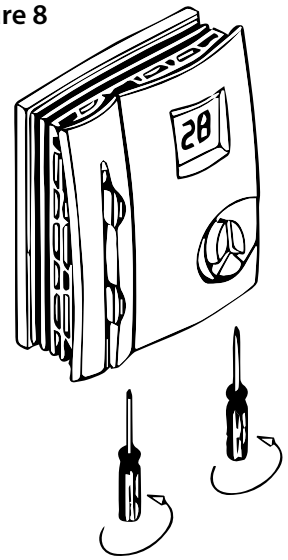
1. Move both slide controls to the bottom position.
2. Align the humidistat rubber buttons with the holes in the cover as shown in **Figure 7**.
   Note: If the controls are not lined up when the faceplate is being reattached, then the controls may become stuck. In order to reattach the faceplate correctly move the slide controls to the bottom position.
3. Carefully attach the top cover. Ensure the cover locks in place by pushing down on the top of the faceplate and then pushing inward toward the wall.
4. Attach the screws at the bottom of the cover and tighten into place as shown in **Figure 8**.

Figure 7



Make sure the rubber buttons align with the holes in the cover.

Figure 8



Correct Humidistat Settings

1. Use the UP or DOWN arrow to reach the desired humidity level on the display and press ENTER.
2. Set the top selector switch to the HUMID setting.
3. Set the bottom selector switch to the OFF setting.

PREPARING THE CONDENSING UNIT

Electrical Needs

The Condensing Unit requires a dedicated 115V, 20 amp circuit. The unit draws a large inrush current for about 1 second the instant the compressor starts. With a dedicated circuit and circuit breaker, the Condensing Unit will have sufficient power for effective operation. (The compressor is controlled by a low-pressure switch mounted on the Condensing Unit. This feature eliminates the need for wiring between the Evaporator Unit (Fan Coil Unit) and the Condensing Unit.)

- Ensure the voltage supplied matches the rating specified on the unit spec label.
- Provide a non GFI dedicated circuit and an appropriate outlet for the Evaporator Unit.
- Provide a dedicated circuit and circuit breaker for the Condensing Unit.
- Provide a weatherproof disconnect for Condensing Unit located outside.

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

WE RECOMMEND THAT YOU DO NOT USE A GROUND FAULT INTERRUPTER (GFI) WITH THIS PRODUCT.

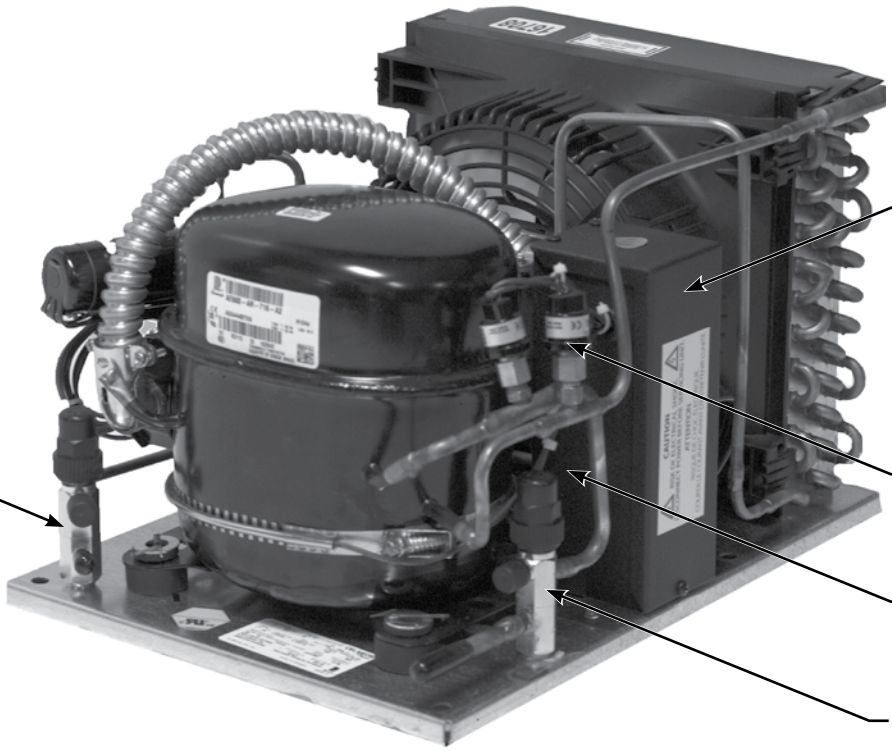
In case the system should lose power, check the home/main circuit breaker. If the system does not respond properly, refer to the Troubleshooting Guide on page 42.

Cold Weather Start Kit

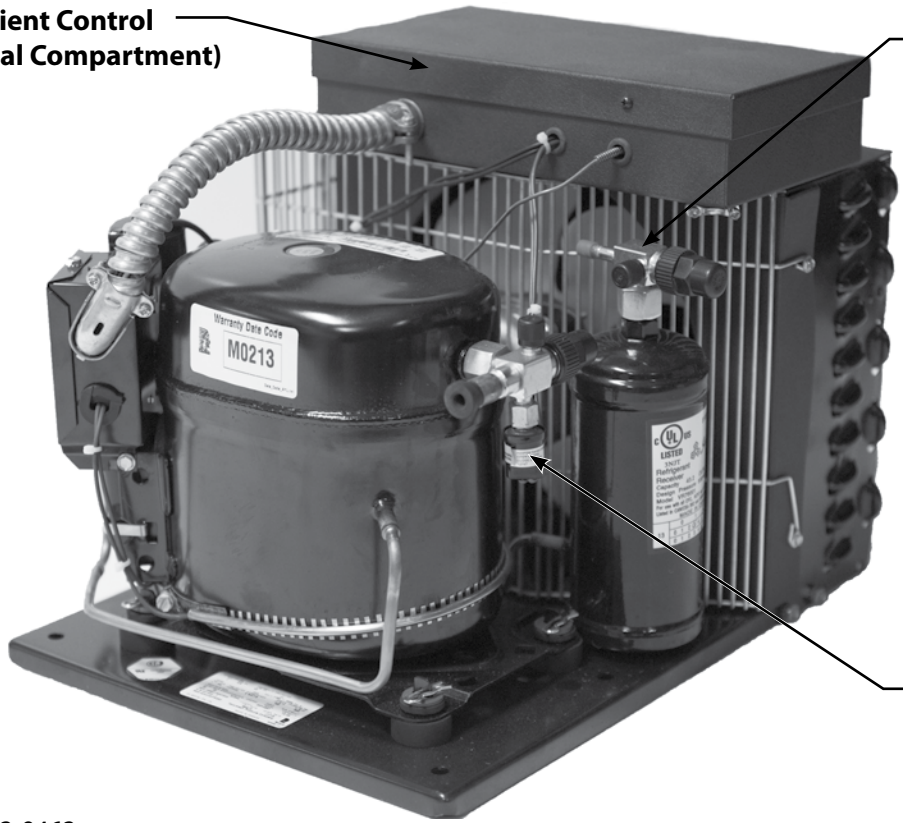
For systems equipped with the Cold Weather Start Kit; Run a two wire 18-20 awg thermostat wire from the evaporator unit to the condensing unit. Connect one end of the thermostat wire to the 24v hot and 24v neutral wires located in the evaporator unit. Connect the other end of the thermostat wire to the 24v hot and 24v neutral wires located in the electrical box on the condensing unit.

CONDENSING UNIT QUICK REFERENCE GUIDE

Platinum Split 4000 Condensing Unit



Platinum Split 8000 Condensing Unit



INSTALLING THE CONDENSING UNIT

Installing the Condensing Unit

The Condensing Unit can be installed inside a well-ventilated area of the home, but is typically installed outside. Exterior applications will require the use of a protective housing, and the amount of sun exposure should be considered when selecting the placement of the Condensing Unit .The Condensing Unit requires a dedicated 20 amp circuit (non-GFI). Make sure there is a minimum 3 ft. horizontal clearance in the front and rear of the unit. The unit may either be hard wired or plug-in, depending on local electrical codes.

Inside Condensing Unit Installations: Inside installations require special consideration, as there must be adequate ventilation to remove the heat created during normal operations. An exhaust port with fan may need to be installed to ensure that heat is effectively removed from the utility room. A return grille or provision for 500 - 600 cfm of cool air to enter the room to replace the exhausted air will accomplish this. Unobstructed airflow to and from the unit is a critical factor in the unit's overall performance. Make sure there is a minimum 3 ft. horizontal clearance in the front and rear of the Condensing Unit and at least 1 ft. on each side. This will assure that the unit can move the air around the room in an efficient manner.

Outdoor Condensing Unit Installations: You must utilize the exterior Condensing Unit housing for outdoor installations. Place the Condensing Unit on a solid foundation in a location with adequate ventilation. There should be a 3 ft. clearance in the front and rear of the unit and 1 ft. on each side. The unit should be elevated 18" in order to avoid any possible flooding or damage by animals, and should be clear of leaves, dirt, and other debris.

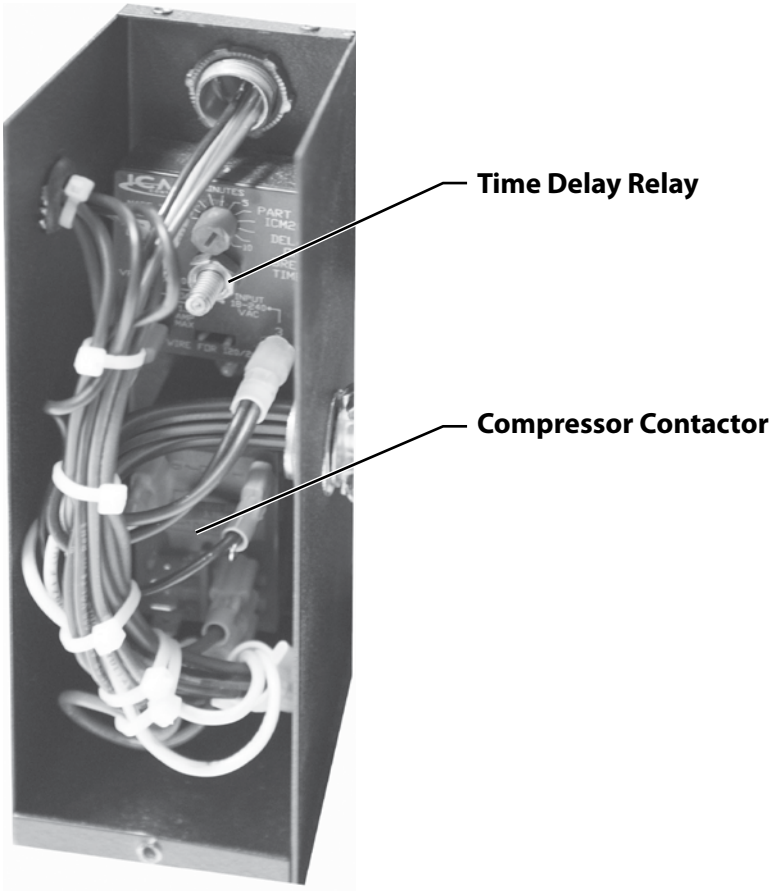
INSTALLING THE CONDENSING UNIT

Wiring Procedures Platinum Split 4000

1. Locate or install an electrical outlet near the Condensing Unit.
2. Plug the Condensing Unit's power cord into the electrical outlet.
3. Leave the circuit breaker off until the unit is ready to charge.

Note: Do not apply power to a system without refrigerant.

Platinum Split 4000 Wiring

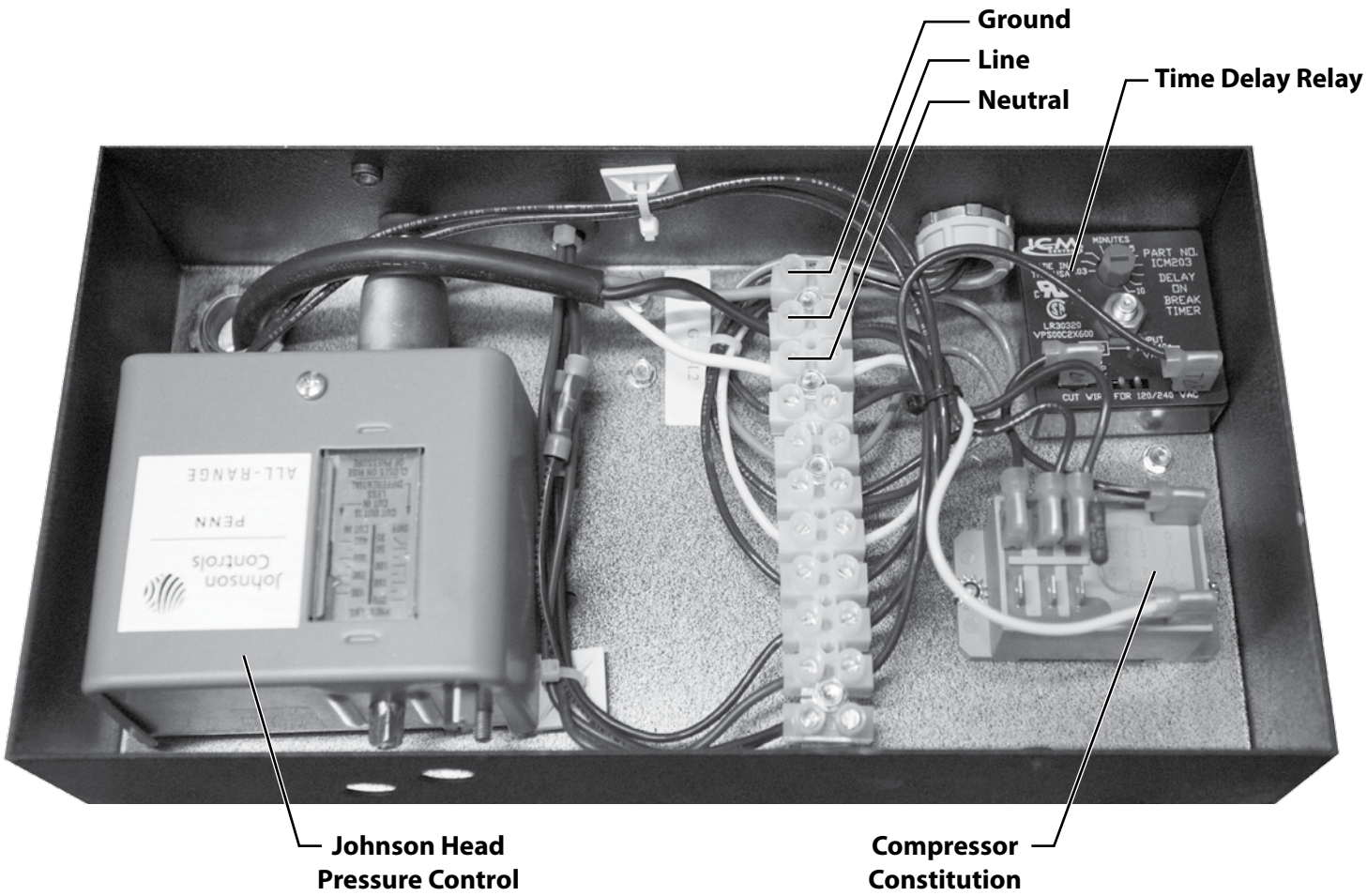


INSTALLING THE CONDENSING UNIT

Wiring Procedures Platinum Split 8000

1. Route 14 AWG copper wiring to the Condensing Unit.
2. Remove screw securing the cover to the electrical box. Remove the top cover of the electrical box.
3. Route the wiring through the strain relief in the side of the electrical box and to the terminal block.
4. Tighten the strain relief to secure the wires.
5. Wire the unit as shown in the image below.
6. Verify that the Johnson Control is set for 170 PSIG cut-in and 70 PSIG differential. This may need to be adjusted based on your ambient temperatures.
7. Verify that the time delay relay is set for 5 minutes.
8. Leave the circuit breaker off until the unit is ready to charge. Do not apply power to a system without refrigerant.

Platinum Split 8000 Wiring

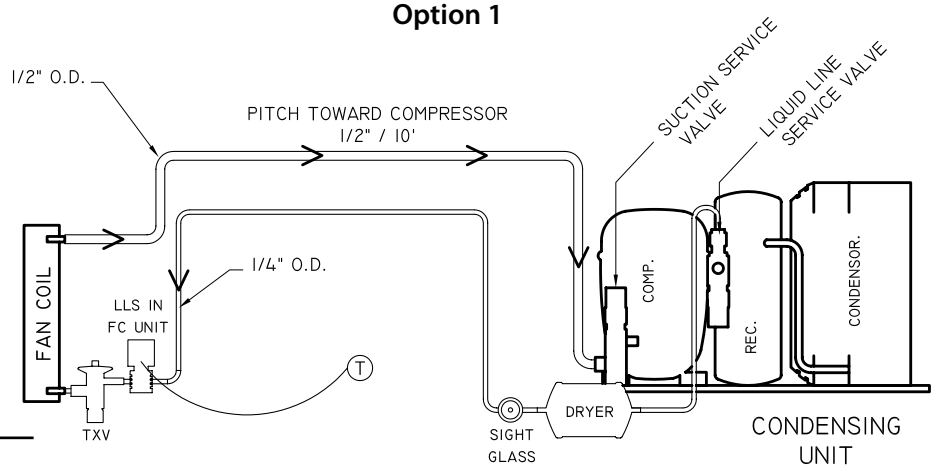


LINE SET PIPING DIAGRAMS

These are 2 options for running the line set from the coil to the Condensing Unit. Option 1 is specifically for when the system is installed with the Condensing Unit below or leveled to the coil. Option 2 is for when the system is installed with the Condensing Unit at a higher elevation than the coil.

SINGLE FAN COIL PIPING SYSTEM
CONDITION: CONDENSING UNIT BELOW OR CLOSE TO SAME ELEVATION AS FAN COIL UNITS

Option 1



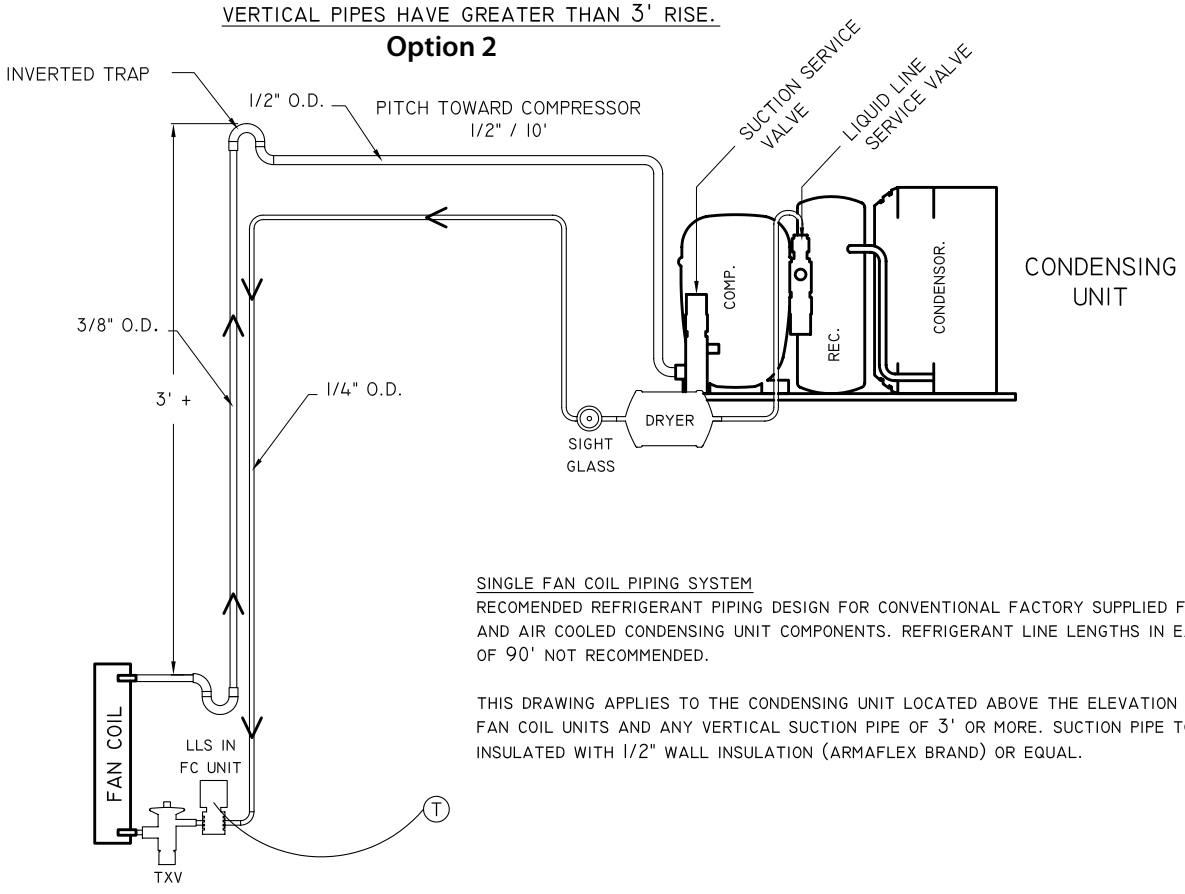
	LEGEND
LLS	Liquid Line Solenoid
TXV	Thermal Expansion Valve
COMP	Compressor
REC	Receiver
EVAP.	Evaporator
O.D.	Outer Diameter

SINGLE FAN COIL PIPING SYSTEM
RECOMENDED REFRIGERANT PIPING DESIGN FOR CONVENTIONAL FACTORY SUPPLIED FAN COIL AND AIR COOLED CONDENSING UNIT COMPONENTS. REFRIGERANT LINE LENGTHS IN EXCESS OF 90' NOT RECOMMENDED.

THIS DRAWING APPLIES TO CONDENSING UNIT LOCATION AT OR BELOW THE ELEVATION OF THE FAN COIL UNIT. SUCTION PIPE TO BE INSULATED WITH 1/2" WALL INSULATION (ARMAFLEX BRAND) OR EQUAL.

SINGLE FAN COIL PIPING SYSTEM
CONDITION:CONDENSING UNIT ABOVE FAN COILS AND VERTICAL PIPES HAVE GREATER THAN 3' RISE.

Option 2



SINGLE FAN COIL PIPING SYSTEM
RECOMENDED REFRIGERANT PIPING DESIGN FOR CONVENTIONAL FACTORY SUPPLIED FAN COIL AND AIR COOLED CONDENSING UNIT COMPONENTS. REFRIGERANT LINE LENGTHS IN EXCESS OF 90' NOT RECOMMENDED.

THIS DRAWING APPLIES TO THE CONDENSING UNIT LOCATED ABOVE THE ELEVATION OF THE FAN COIL UNITS AND ANY VERTICAL SUCTION PIPE OF 3' OR MORE. SUCTION PIPE TO BE INSULATED WITH 1/2" WALL INSULATION (ARMAFLEX BRAND) OR EQUAL.

It is required to size the suction line tubing according to this chart.

Model	Line Set Length	<25ft			26-50ft			50-100ft		
	Vertical Rise	<3ft	3-10ft	>10ft	<3ft	3-10ft	>10ft	<3ft	3-10ft	>10ft
Platinum Split 4000	Horizontal Tubing	1/2″						5/8″		
	Vertical Rise	3/8″						5/8″	5/8″	1/2″
Platinum Split 8000	Horizontal Tubing	1/2″			5/8″					
	Vertical Rise	1/2″								

Refrigerant Piping Overview

- Using the charts and illustrations found on previous pages, route the line set between the Evaporator Unit and Condensing Unit. Be sure to reference the chart for correct line set sizing. All horizontal suction piping should be pitched toward the Condensing Unit ½″ for every 10′ of pipe. When installing and routing the line set, cap both ends of each tube to prevent debris from entering the tubing.
- Prior to connecting the piping to the evaporator and Condensing Units, loosely connect a refrigerant manifold to the suction and liquid line service valves.
    - Purge the hoses with dry nitrogen and tighten the hose connections.
    - Remove the service valve caps and turn the valve stem clockwise ½ turn to unseat the valve and open the service port. Keep the piping ports sealed until ready to braze.
- Purge dry nitrogen through the fittings at a slow rate to prevent formation of highly abrasive copper oxide.
- Perform all brazes.
- Pressure test the system and check for leaks.
- Insulate the suction line using ½″ wall cellular insulation or equivalent. Seal all seams with Armaflex 520 Foam Insulation Adhesive or equivalent. Wrap each seam using line set tape.

Liquid Line Piping Procedure

- ¼″ OD copper tubing is required for the liquid line on all systems.
- Braze a short piece of ¼″ copper tubing to the liquid line service valve.
- Connect the supplied refrigerant drier to the tubing.
- Downstream from the drier, connect the moisture indicating sight glass in an easily visible location.
- Run the tubing to the Evaporator Unit (Fan Coil Unit) and attach to the liquid line connection on the Evaporator Unit (Fan Coil Unit).

Suction Piping Procedure

- Install an access valve at the outlet of the Evaporator Unit (Fan Coil Unit).
- Connect an appropriately sized suction line to the suction line service valve on the Condensing Unit.
- Run the pre-insulated suction line to the Evaporator Unit (Fan Coil Unit) and attach to the suction line connection on the Evaporator Unit (Fan Coil Unit).

Brazing Procedure

- Connect the bottle probe to the Evaporator Unit (Fan Coil Unit).
- Fill a wine bottle ¾ full of room temperature water. Insert the bottle probe into the neck of the bottle as far as possible. It is important that the bottle probe stopper be compressed by the neck of the bottle to ensure water will not leak.
- Energize the Evaporator Unit (Fan Coil Unit) and set the controller to call for cooling.
- Verify that the set point on the control is set low enough to allow the unit to run for the entire length of the brazing, evacuation, and charging procedure.
- Remove the valve depressors from the gauge hoses on a four-valve manifold.
- Connect the manifold to the low-pressure service valve port on the Condensing Unit and a nitrogen tank.
- Open the suction line service valve and purge nitrogen through the system.
- Braze all connections and cool off quickly.
- Cap the access valve on the suction line.
- Connect the high-pressure hose from the manifold to the liquid line service valve port.
- Pressure test the system at 150 psi for 20 minutes.
- Check all braze joints with leak detector or soap bubbles.
- Release the nitrogen once it is confirmed that there are no leaks.

Evacuation

- Remove the nitrogen tank from the manifold and attach the manifold to the refrigerant tank.
- Install a micron gauge onto the access valve near the Evaporator Unit (Fan Coil Unit).
- Mid seat both service valves.
- Install service caps on the valves.
- Energize the liquid line solenoid valve.
- After confirming there is fresh oil in the vacuum pump, connect the 3/8" hose from the manifold to the pump.
- Start the pump and run until the micron gauge at the Evaporator Unit (Fan Coil Unit) reads 200 microns or less.
- Disconnect the vacuum pump from the system.
- Break the vacuum by pressurizing the system to approximately 5 PSI with R-134a.
- Remove the micron gauge from the access valve.

Charging

- Install a low-pressure gauge on the access valve near the Evaporator Unit (Fan Coil Unit).
- With the power off to the Condensing Unit, admit liquid refrigerant through the liquid line service valve until the refrigerant stops flowing.
- Turn on the circuit breaker for the Condensing Unit. The compressor should turn on if the pressure in the suction line is above 20 psi.
- Add refrigerant as a vapor through the low side of the system.
- Observe the sight glass. If bubbles are present, add more refrigerant in vapor form to the low side.
- Once the sight glass is clear, check the superheat at the outlet of the Evaporator Unit (Fan Coil Unit). Adjust the TXV until the superheat is between 8-12°F degrees.
    - If TXV adjustment is necessary, remove the drip tray on the Evaporator Unit to access the TXV from the cellar. The drip tray is secured to the wrapper with 2 screws. Once the screws are removed the drip tray will slide down and out of the Evaporator Unit.

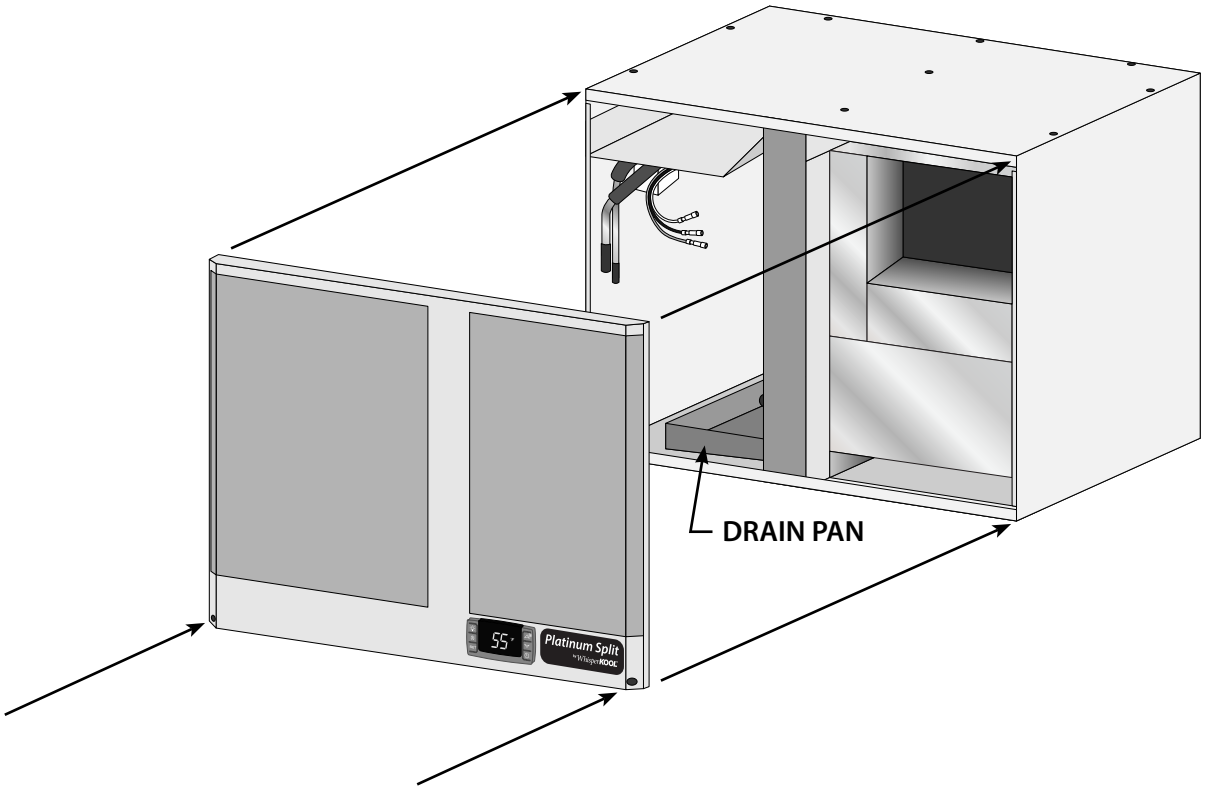
- Under normal operation, with the wine cellar at 55°F and the ambient temperature at 85°F, the low side pressure should be between 28-32 PSI and the high side should be between 170-180 PSI.

Finalizing the Installation

- Confirm that the entire suction line from the TXV to the suction line service valve is insulated using ½" wall cellular insulation or equivalent. Seal all seams with Armaflex 520 Foam Insulation Adhesive or equivalent.
- Re-install the drip tray and Front Access Panel.
- Confirm that the control is displaying the correct temperature and that no alarms are present. Refer to page 39 for corrective action if alarms are present.

INSTALLING THE WALL MOUNT KIT

1. If removed, re-install the top onto the unit.
2. Connect the red wire from the display adapter to the upper (+) terminal on the display located on the front grille.
3. Connect the black wire from the display adapter to the lower (-) terminal on the display.
4. Align the front grille with the 4 ball studs on the housing. Push the front grille onto the balls studs until it snaps into place.
5. Using a Phillips head screwdriver, fasten the bottom 2 screws to fasten the grille to the unit.



INSTALLING THE DUCTED PLENUM

1. If removed, re-install the top onto the unit.
2. Align duct plenum with the 4 ball studs on the housing. Push the duct plenum onto the balls studs until it snaps into place.
3. Using a Phillips head screwdriver, fasten the bottom 2 screws to fasten the plenum to the unit.
4. Connect the supply and return duct work to the unit.
5. Using duct tape or foil tape, seal the seam between the plenum and unit.
6. Insulate all exposed metal on the unit to prevent surface condensation.

NOTE: A 12"x12" return air filter grille must be installed to prevent contaminants from entering the cooling system.

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 (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 45–67F° in 1°F increments.

Cooling Operation

The FON function is an adjustable feature which allows the customer the convenience of re-introducing some of the humidity removed by the fan coil during the cooling process. The FON Function controls the evaporator fan operation once the set point has been reached. When the bottle probe has reached the set point (all units are shipped with the set point of 55°F and a differential of 1°F), the compressor and the condenser fan will turn off, but the indoor fan will continue to run for about 5 minutes to re-introduce any moisture from the evaporator coil. All units come with this feature turned off. If low humidity is a problem an increase in this setting will raise the humidity level. The FON function is one of the many Customer Preference Selection features that allow the customer the ability to fine tune the controls.

Humidity Features

The Fon 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 unit will remain off for a period of 5 minutes after the unit has reached the set point to allow the pressure in the refrigeration system to equalize prior to starting the compressor.

Anti-Frost Cycle

The system will go through an Anti-Frost cycle every 4 hours. 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 40°F, or for a maximum of 10 minutes. The unit will then return to normal operation.

Low Ambient Conditions

If the Condensing Unit is installed outdoors (which allows the condenser to be exposed to low ambient temperatures), the condenser fan may cycle on and off. The purpose of the fan cycling is to maintain the system high side pressure, which will ensure an adequate refrigeration process. The fan cycling process is accomplished by way of a Johnson Control or fan cycling switch attached to the Condensing Unit.

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 air sensing probe and evaporator probe temperatures can be accessed by pushing the SET button and scrolling through "PB1" (bottle probe), and "PB2" (evaporator probe).

Safety Features

Once the compressor relay is de-energized the controller must wait 5 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.

Alarms

See "Alarm Codes" in Controller Function chart.

Remote Control Panel (ducted units only)

The remote keypad is designed to give the user the ability to monitor and change cellar conditions when the evaporating unit is placed in a remote location outside of the cellar.

CONTROLLER FUNCTIONS

If your unit has a remote keypad then you will have the Remote Controller.

High Temp / Pre-Chill

Low Temp

Display Set Point

ON / OFF

TEMPERATURE

Button/Symbol	Normal Functions
ON/OFF	The ON/OFF button allows the customer the convenience of turning the refrigeration system ON or OFF from the control panel. This feature 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. Press the ON/OFF button once for button application.
Up and Down Arrows	Use these buttons to scroll up or down the CPSM (Customer Preference Selection Mode) menu. Displays the highest and lowest temperature sensed by the bottle probe. This feature allows the customer instant access to the recorded data applicable to the bottle probe temperatures. It can be easily reset to reflect current temperatures. 1. Press the Up arrow or the Down arrow once, and the highest or lowest temperature (Hi/Lo) sensed by the bottle probe will be displayed. 2. To reset the Hi/Lo, press and hold the SET button when the Hi/Lo value is displayed on the digital display. Continue to hold the SET button until "rst" appears on the digital display and then blinks. This will erase the past recorded "Temperature Data History" and start recording, from the current time and temperature, forward. Temperatures displayed would reflect bottle probe temperatures from that point in time, and beyond. 3. The Hi/Lo feature should be reset at initial start-up and after the cellar or cabinet has obtained normal operating temperatures, which is generally 55°F.
Cellar PreChill (CPC)	The CPC feature is activated by pressing the Up button for 3-5 seconds, and the CPC logo will be displayed on the digital display. The CPC feature can be terminated by pressing the Up button for 3-5 seconds, or the feature will self terminate after 6 hours. 1. The (CPC) feature may be used to pre-chill the cellar prior to loading it with warm product. The feature will shift the set point down to a lower setting of 52°F for the next 6 hours. After the 6 hour time period, the set point will automatically return to the original set point. 2. The CPC feature can be conveniently adjusted to the customer's specific needs by accessing the "Customer Preference Select Mode" (CPSM). See Customer Preference Select Mode Instructions.

SET SET	1. Press the SET button once and it will display the Set Point. After approximately 5 seconds, the display will return to normal operation and display the Bottle probe temperature. 2. Press the SET button once and it will display the Set Point. Press the Up and Down arrows to change the set point. Press the SET button again and the numbers will blink, confirming the change in Set Point. 3. Press and hold the SET button during the display of the Hi/Low "Temperature Data History" (hold button unit "rst" blinks on display), and it will erase the past recorded data file and start recording, from the current time and temperature. 4. Press the SET and the Down arrow buttons simultaneously, for **3-5 seconds**, and you will access the Customer Preference Selection Mode (CPSM). The CPSM allows the customer to fine tune the Control Operating System to their applicable choice.
Alarm 	The Alarm symbol is shown when the unit encounters an issue that needs attention, the displayed alarm codes are explained below.

Alarm Codes

Message	Cause	Solution
"P1"	Faulty bottle probe connection	Check bottle probe connection at green terminal block on controller.
	Defective bottle probe	Replace the bottle probe
"P2"	Faulty evaporator probe connection	Check evaporator probe connection at green terminal block on controller
	Defective evaporator probe	Replace the evaporator probe
"HA"	Defective bottle probe	Replace the bottle probe
"LA"	The bottle probe is sensing a temperature of 10°F below the set point	Allow the room to warm up which will increase the temperature of the wine
	Defective bottle probe	Replace the bottle probe
"POF"	The keypad is locked	Hold Up and Down arrows for 3 to 5 seconds to disable. "PON" should appear

CPSM Mode	Press the SET button and the Down arrow simultaneously for **3-5 seconds** and you will access the Customer Preference Selection Mode (CPSM). The CPSM allows the customer to fine tune the Control Operating System to their applicable choice. The following CPSM options are available for adjustment: Fon – Humidity Management Enhancement: This parameter is normally set at 0, which should provide adequate relative humidity for the cellar. • An increase in this parameter will increase the Humidity Enhancement (%RH), and a decrease in the parameter will decrease Humidity Enhancement (%RH). • Adjustments should be made in increments of 5, with a maximum of 15, and a minimum of 0. • After any adjustment to Humidity Enhancement, **you should wait a minimum of 3 days** before making any additional adjustments. This will allow the cellar sufficient time to acclimate to the new setting. Fof - Humidity Management Enhancement: This parameter is normally set at 15. This parameter should not be adjusted, as it simply provides an OFF cycle time for the fan, during the compressor OFF cycle. However, the parameter is located within the CPSM as a convenience to the customer, should it need to be adjusted. CCT - Cellar Pre-Chill Duration: This parameter is set to 6 hours, but can be changed between 0-23.5 hours. Con/Cof – Compressor On time (Con) and Off time (Cof) with a Probe 1 failure/alarm: These parameters are set at Con 40 min./Cof 10 min. In the event that there is a Probe 1 failure/alarm, the compressor/ refrigeration system automatically starts a predetermined ON/OFF cycle, which is controlled by the Con and the Cof parameters. The customer can adjust these parameters to maintain the desired air temperature.

MAINTENANCE SCHEDULE

Monthly	1. Check coils 2. Check for unusual noise or vibration 3. Check the drain line to see if it is above the waterline if 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 Unit (Fan Coil Unit)	
Possible Cause	**Solution**
Evaporator filter or coil is dirty	Remove the filter and wash, then clean the coil with a vacuum. If coil is very dirty, use a spray bottle with a small amount of liquid dish washing detergent or coil cleaner. Spray coil, let set for 5 min, then flush with fresh water
There is something blocking the supply and or return air	Remove blockage
The evaporator fan is not turning on	Call a service tech to troubleshoot
The Evaporator Unit (Fan Coil Unit) has not gone through its Anti-Frost sequence yet	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
If Evaporator Unit (Fan Coil Unit) continues to ice	Observe ice formation pattern. If only part way up the coil face, the system 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**
Evaporator Unit (Fan Coil 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 the system	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
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar Temperature is Too Warm	
Possible Cause	**Solution**
The temperature of the room Condensing Unit is exhausting to has exceeded 110°F	Intake temperature needs to drop below 85°F
The system is undersized for the cellar	Order correct size system
There is something blocking the supply and/or return air on the Evaporator Unit (Fan Coil Unit) or the Condensing Unit	Remove air flow obstruction
Evaporator Unit (Fan Coil 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 are not turning on	Please contact the installing technician to troubleshoot
Compressor is not turning on	Please contact the installing technician to troubleshoot
Compressor keeps cycling on overload	Make sure all fans are working and there is no airflow obstruction
Poor seal around door or other areas requiring a seal (around the unit, wall joints, etc.)	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, Evaporator Unit (Fan Coil Unit) could be low on refrigerant. If so, contact your installing technician to assist with troubleshooting
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 8)

Unit Leaks Water	
Possible Cause	**Solution**
Evaporator Unit (Fan Coil Unit) is not level	Evaporator Unit (Fan Coil Unit) should be level on the 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 water overflowing	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; Make sure the evaporator filter, evaporator coil, and condenser coil are clean and free of debris
System undersized	Contact Customer Service at 1-800-343-9463
Compressor is overheating	Shut system off for 1 hour to allow compressor to cool. Turn back on and check for cooler air flow out. If compressor runs, check for and clean condenser coil as possible cause of compressor overheating. If problem repeats, contact you installing technician to assist with troubleshooting
Evaporator Fan Runs But Compressor Does Not	
Possible Cause	**Solution**
Running an Anti-Frost cycle	1) If the system is maintaining the correct cellar temperature and there is a dripping snowflake symbol illuminated on the control, the system is going through an Anti-Frost cycle. No action Required. 2) If the system is not maintaining the correct cellar temperature this may be caused by a dirty evaporator filter or coil. 3) Call installing technician to troubleshoot as the system may be low on charge or may require an adjustment to the TXV
Compressor and/or starting components faulty	Please contact the installing technician to troubleshoot
System may be performing the WHM function	Allow cooling system to revert back to cooling mode
Compressor may have overheated	Shut system off for 1 hour to allow compressor to cool. Turn back on and check for cooler air flow out. If compressor runs, check for and clean condenser coil as possible cause of compressor overheating. If problem repeats, contact your installing technician to assist with troubleshooting
Compressor Runs But Evaporator Fan Does Not	
Possible Cause	**Solution**
Faulty fan motor	Please contact the installing technician to troubleshoot.
Faulty controller	Please contact the installing technician to troubleshoot.
Compressor Short Cycles	
Possible Cause	**Solution**
Evaporator Unit (Fan Coil Unit) blows on bottle probe	Move bottle probe to a more central location
System low on refrigerant charge	Please contact the installing technician to troubleshoot
Condensing fan motor/capacitor faulty	Please contact the installing technician to troubleshoot
Compressor and /or starting components faulty	Please contact the installing technician to troubleshoot
Humidity in Cellar Too Low	
Possible Cause	**Solution**
Not enough moisture	Raise the Fon setting to increase the humidity level

BYPASS TEST PROCEDURE

NOTE: If instructed by a WhisperKool representative, follow the directions below to test the cooling unit using the bypass plug provided in the accessory kit.

1. Disconnect power from the Evaporator Unit.
2. Loosen the 2 screws on the front of the grille or duct plenum.
3. Pull the grille or duct plenum away from the Evaporator Unit.
4. Remove the screw securing the control panel in place.
5. Slide the control panel down, out of the evaporator housing. The control panel has 2 hooks which allow it to attach to the Evaporator Unit for easy serviceability.
6. Disconnect the Molex connector labeled #4.
7. Locate the bypass plug included in the accessory kit.
8. Plug the bypass plug into the male Molex connector.
9. Connect power to the Evaporator Unit. The unit should immediately turn on. If all the components are not operational, disconnect power immediately and contact customer service. If all components seem to be operating correctly, allow the unit to run for 4 hours. Monitor the temperature of the cellar to determine if the unit is cooling properly.
10. Once the test is complete, remove the bypass plug. Plug the Molex connector back in to the unit's wiring.
11. Replace the control and faceplate.

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 systems.

Location of unit and installation details, such as ventilation, ducting, construction of your wine cellar, and room size. Photos of the cellar and installation location may be needed.

Contact WhisperKOOL Customer Service

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

Email: support@whisperkool.com
Phone: 209-466-9463
US Toll Free: 1-800-343-9463
Fax: 209-466-4606

ACCESSORIES FOR COOLING UNITS

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

Exterior Grille

Protects the Evaporator 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 Evaporator Units' drain line. The pump is controlled by a float/switch mechanism that turns the pump on when approximately 2-1/4" of water collects in the tank, and automatically switches off when the tank drains to approximately 1-1/4". The condensate pump kit allows the excess condensate to be pumped up to 20 ft. away from the unit.

Ducting Kit

This kit allows the exhaust side of the unit to be ducted to an area (most cases outside) that the additional heat will not matter.

Accessories can be purchased at www.whisperkool.com

WhisperKOOL™

WhisperKOOL
1738 E. Alpine Ave
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