MINI SPLIT
TECHNICIAN'S MANUAL

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

WhisperKOOL™

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.

04.09.2015

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*WhisperKOOL requires that a **certified HVAC-R technician** install, pipe, evacuate, charge, start and test all split systems. A NATE Certification is recomended. Please take a moment to review state and city building codes to ensure the safe and proper installation of the system.*
Read, understand and comply with the unit's installation manual, and piping diagrams.

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QUICK REFERENCE GUIDE

Front / Side View

Evaporator Unit (Fan Coil Unit)

Platinum Split
by WhisperKOOL

55

Controller

Filter Grille

Rear / Side View

EXTERIOR SHOT OF THE BACK

Mounting Key Hole (X4)

THROUGH THE WALL
Option 1
Knock Out For Wiring
Knock Out For Suction Line
Knock Out For Liquid Line
Knock Out For Drain Line

Circular Connection
Mounting Location

INSIDE CELLAR
Option 2

Knock Out For Drain Line
Knock Out For Liquid Line
Knock Out For Suction Line
Knock Out For Wiring

MPS 040915

CONTROLLER LAYOUT

Refer to page 32 for complete listing of buttons and symbols.

Menu Navigation & Value Increase

*Press and hold to manually enter Anti-Frost Mode.

Menu Navigation & Value Decrease

Power On/Off (hold for approx. 3 seconds) & Escape

Probe Values & Alarm Folder

*Press and hold to enter the parameter menu.

❄ Compressor is On

❄ Unit is in Anti-Frost Mode

✖ Fans are On

((•)) Alarm is Present

°F Temperature Measurement
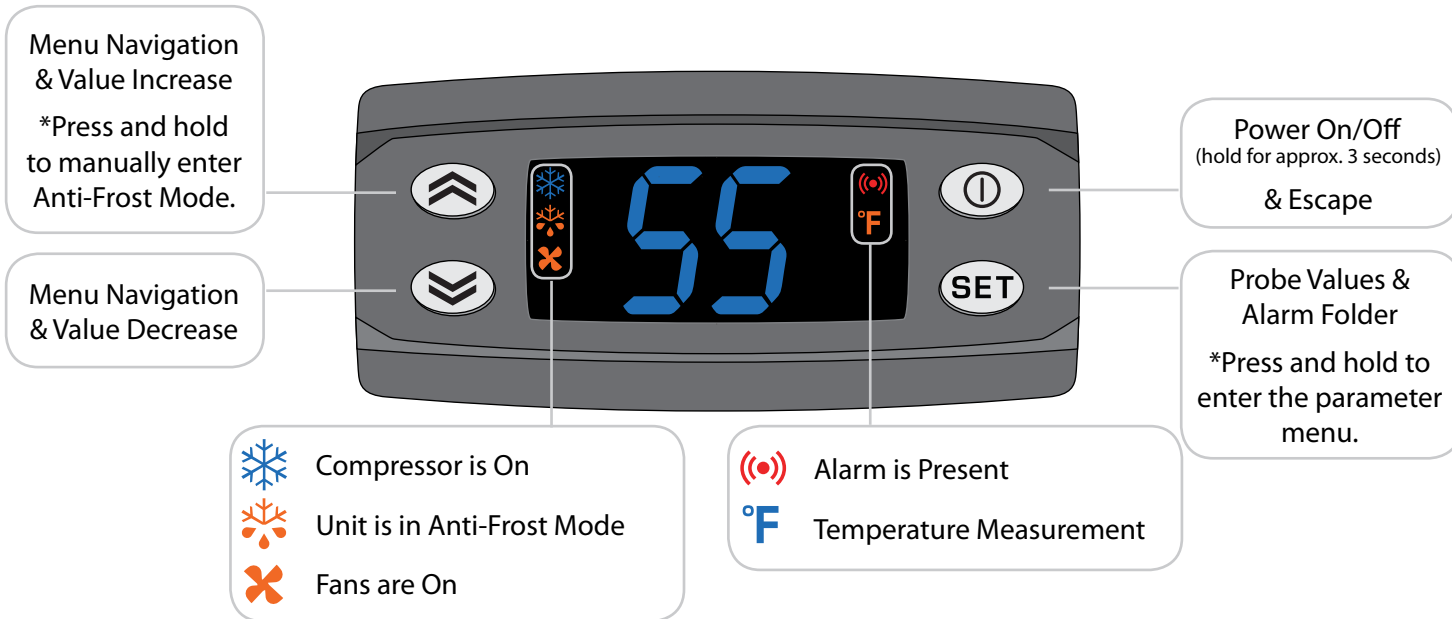
Platinum Mini-Series Specifications

Model	Mini Evaporator Unit (Fan Coil Unit)	Mini Condenser (Air Cooled Condensing Unit)
Cellar Size (cu. ft.)	500	
Dimensions	20"w x 10.5"h x 13"d	11.5"w x 9.9"h x 16"d
BTUh with 90°F air entering the condenser coil.	1540	
CFM	99	190
Refrigerant	R-134a	
Condensing Unit HP	1/5	
Voltage Rating (20 amp dedicated circuit required)	115V or 230V - 20 amp dedicated circuit required	
Weight (lbs)	25	41
AMPS (Starting/Running)	2/1	11/3.8
dBA	51	65
Line Set	Suction Line 3/8" od. Liquid Line 1/4" od.	
Drainline	1/2"	
Installation	Evaporator Unit (Fan Coil Unit) is installed in the cellar. The Condensing Unit is installed up to 100 line ft. away and in accordance with the installation specifications found in the Technician's Manual.	
Thermostat	Digital Control Display	
Temp. Delta	55°F temperature differential (maintains proper cellar temperature when exhaust environment does not exceed 110°F)	
Warranty	2-year parts and labor	

WhisperKOOL™

INTRODUCTION

Customer Service
Thank you for purchasing a WhisperKOOL 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 WhisperKOOL.com.

Using the Manual
This Owner's 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 as outlined in the Technician's Manual. It is also vital to establish a proper care and maintenance schedule. Please read and review this manual carefully and keep it for future reference.

What Is the WhisperKOOL Cooling System?
The WhisperKOOL cooling system is a specialized refrigeration system designed for one purpose only: to maintain the optimal temperature and humidity levels conducive to the proper storage and aging of fine wines. This system produces minimal in-cellar noise and has the most lenient exhaust requirements. An exterior housing is required for outdoor Condensing Unit installations.

How Does the Cooling System Work?
Similar to the air conditioning systems used for homes, the Evaporator Unit (Fan Coil Unit) and Condensing Units are installed in separate locations and are connected by a refrigerant line set. The evaporator portion is commonly installed in the wine cellar, with the Condensing Unit is located either outside or in a remote indoor location that is ventilated. An exterior housing is required for outdoor Condensing Unit installations.

Temperature Setting
The WhisperKOOL system can be set at any temperature within the acceptable wine-aging range of 45°F to 67°F. It is designed to cool up to 55°F cooler than the ambient temperature of the space to which the Condensing Unit is installed.

WARRANTY REGISTRATION

In order to activate the warranty of your system, the Verification and Operational Documentation must be completed by the certified refrigeration technician installing your system and submitted via mail, fax, or e-mail.

Mail to:
WhisperKOOL
ATTN: Warranty Registration
1738 E. Alpine Avenue
Stockton, CA 95205-2505
USA

OR

Fax to:
209-466-4606

OR

Scan and email to:
warranty@whisperkool.com

RECEIVING & INSPECTING THE SYSTEM

Upon receiving the WhisperKool Cooling Unit

- Lift only at the designated hand hold locations on the shipping container or fully support the unit from underneath. A shipment may include one or more boxes containing accessories.

- 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 24 hours prior to start up. The Condensing Unit can be placed in the installation location, piped and evacuated during this time.
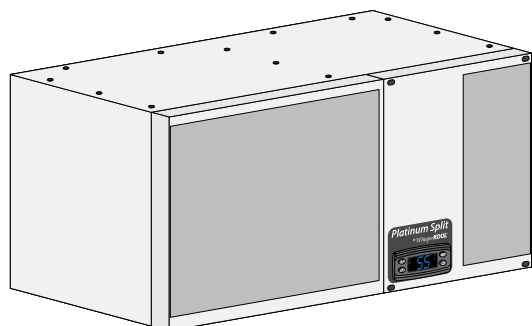
Note: WhisperKOOL units are manufactured in the USA and tested prior to shipment.

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 Unit (Fan Coil Unit) Box:

(1) 12' Bottle Probe	(1) 10" Piece of Cork Tape
(4) 2" #8 Hex Head Screws	(1) Split System Owner's Manual
(1) 10 ft. 1/2" Drain Line	(1) Split System Tech Manual
(1) ¼" Sight Glass	(1) Unit Specific Installation Guide
(1) ¼" Filter Drier	(1) Evaporator Mounting Template
(1) Power Cord Strain Relief	(1) Split System Warranty Checklist
	(1) 90° Drain Connector

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

Main Condensing Unit Box:

(1) Condensing Unit

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 34. 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.

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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.

Keep Clear

Wine Cellar
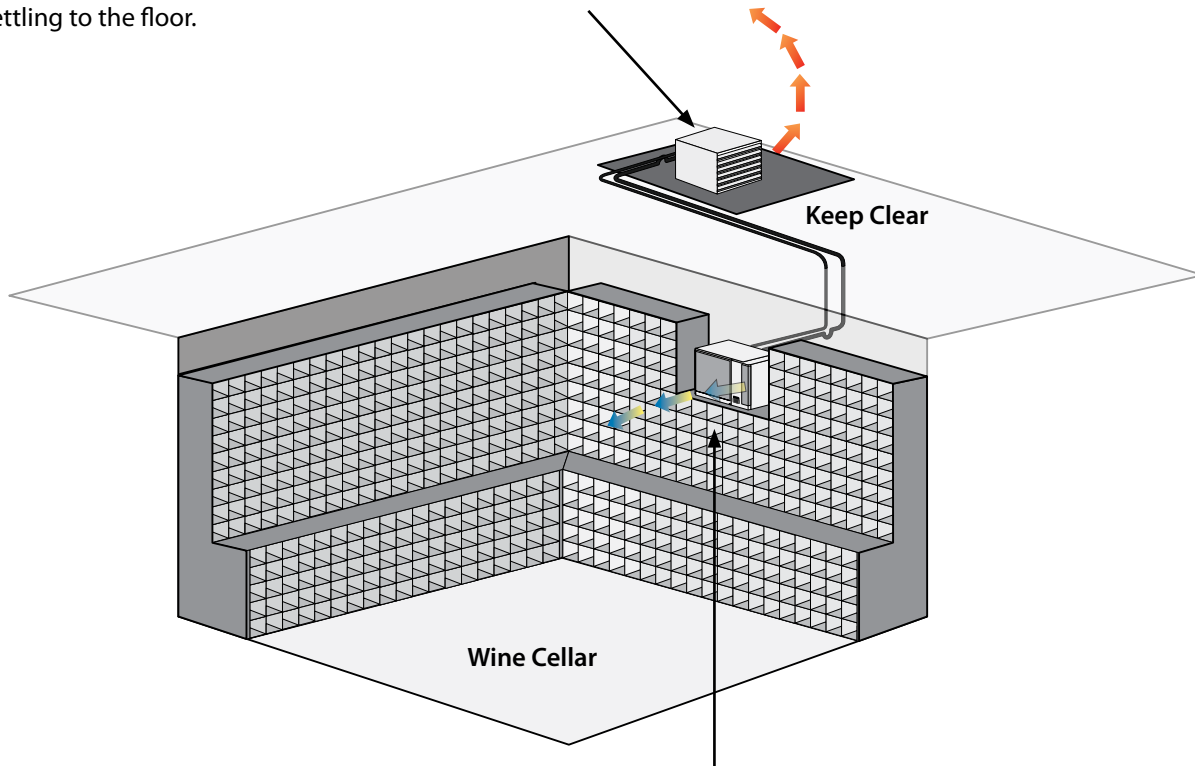
⚠ Unobstructed Airflow

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.
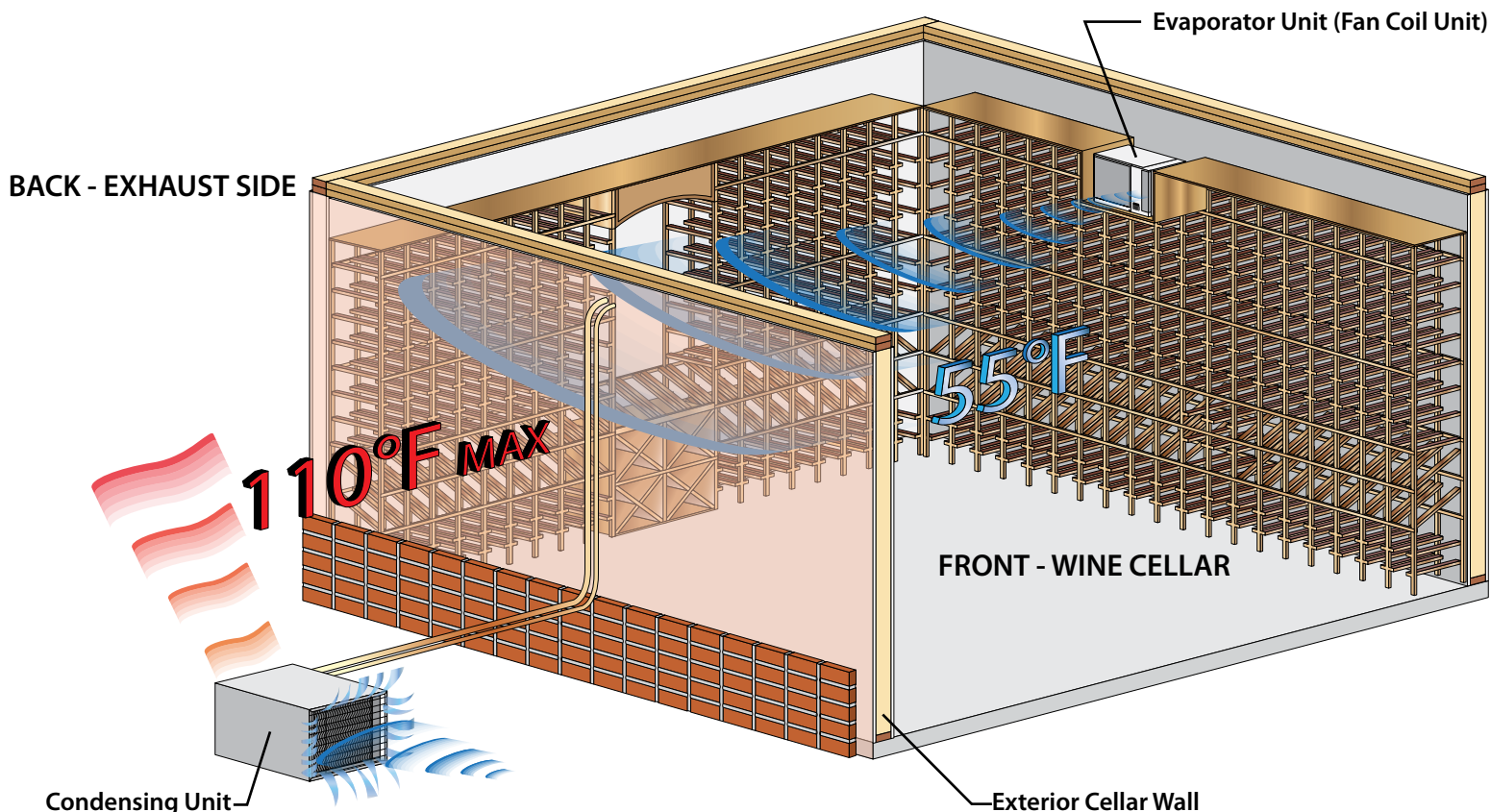
Door and Door Seal

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.
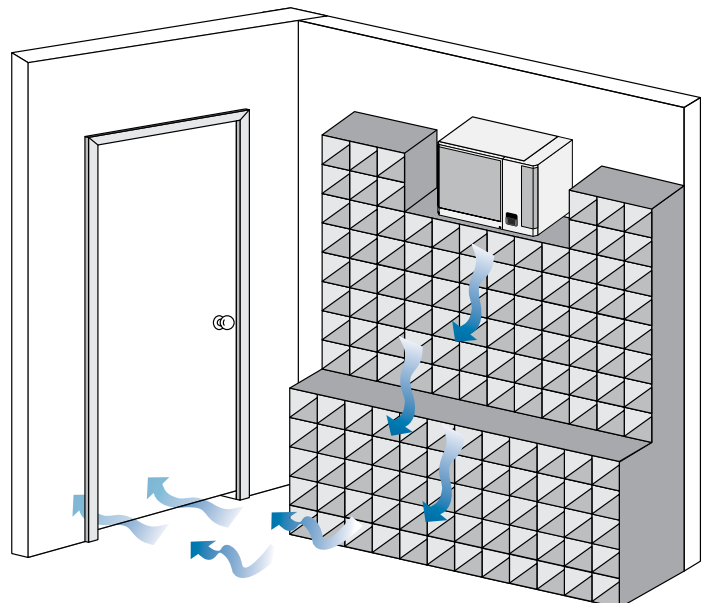
Ventilation

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.

Evaporator Unit (Fan Coil Unit)

BACK - EXHAUST SIDE

55°F

110°F MAX

FRONT - WINE CELLAR

Condensing Unit

Exterior Cellar Wall

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.

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MINI SPLIT EVAPORATOR UNIT INTERNAL QUICK REFERENCE GUIDE

BLOWER

REFRIGERANT
SOLENOID COIL

TXV SENSING
BULB

TXV
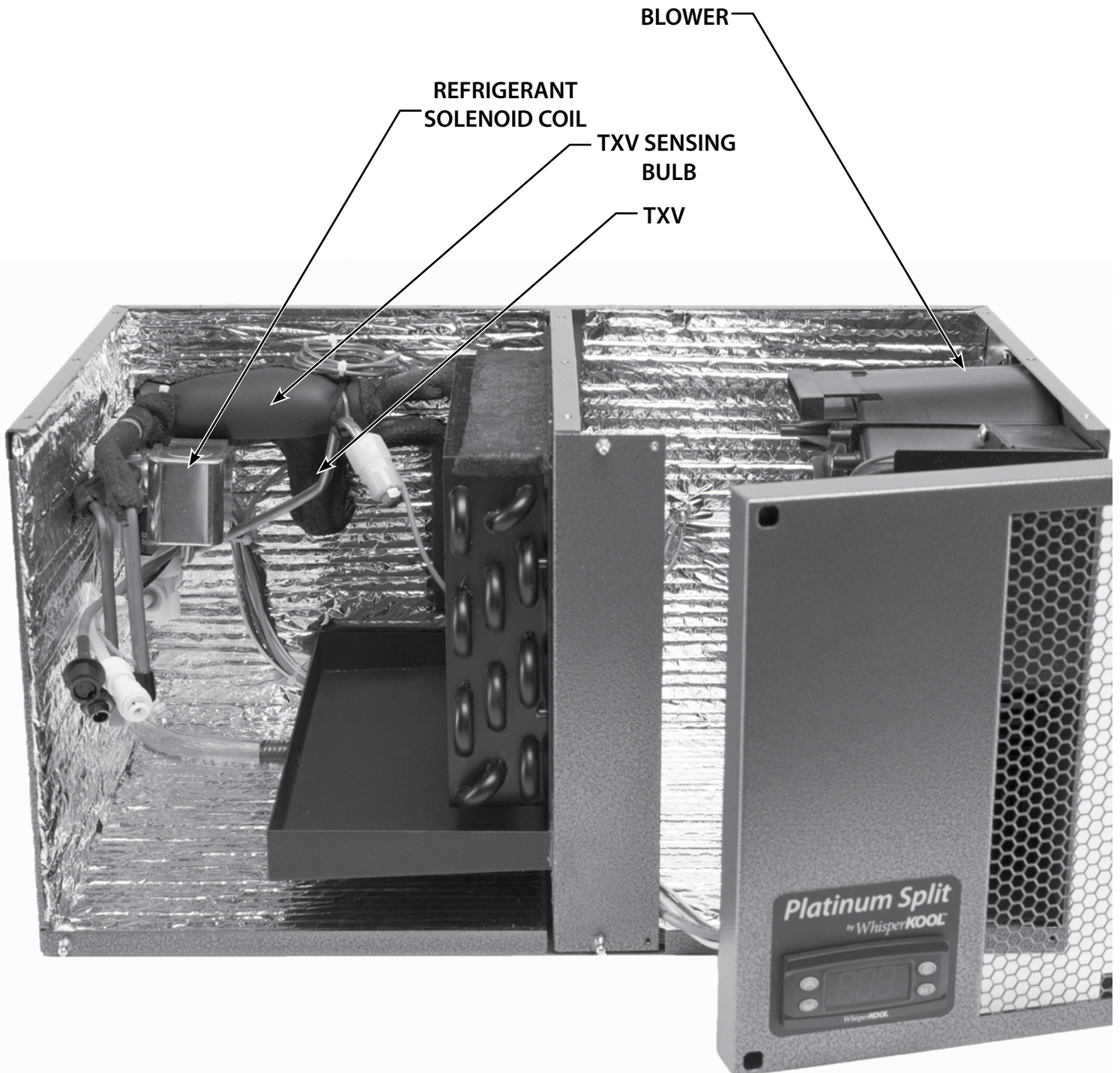
PREPARING AND INSTALLING THE EVAPORATOR UNIT (FAN COIL UNIT)

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

DRAIN PAN

REAR OF UNIT
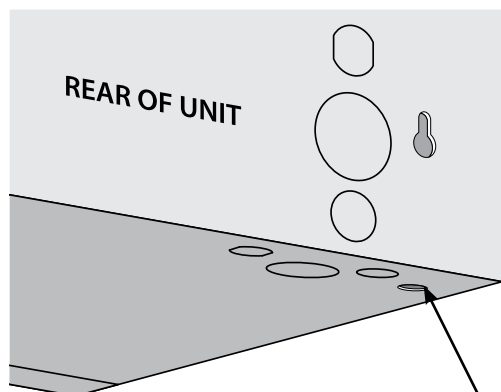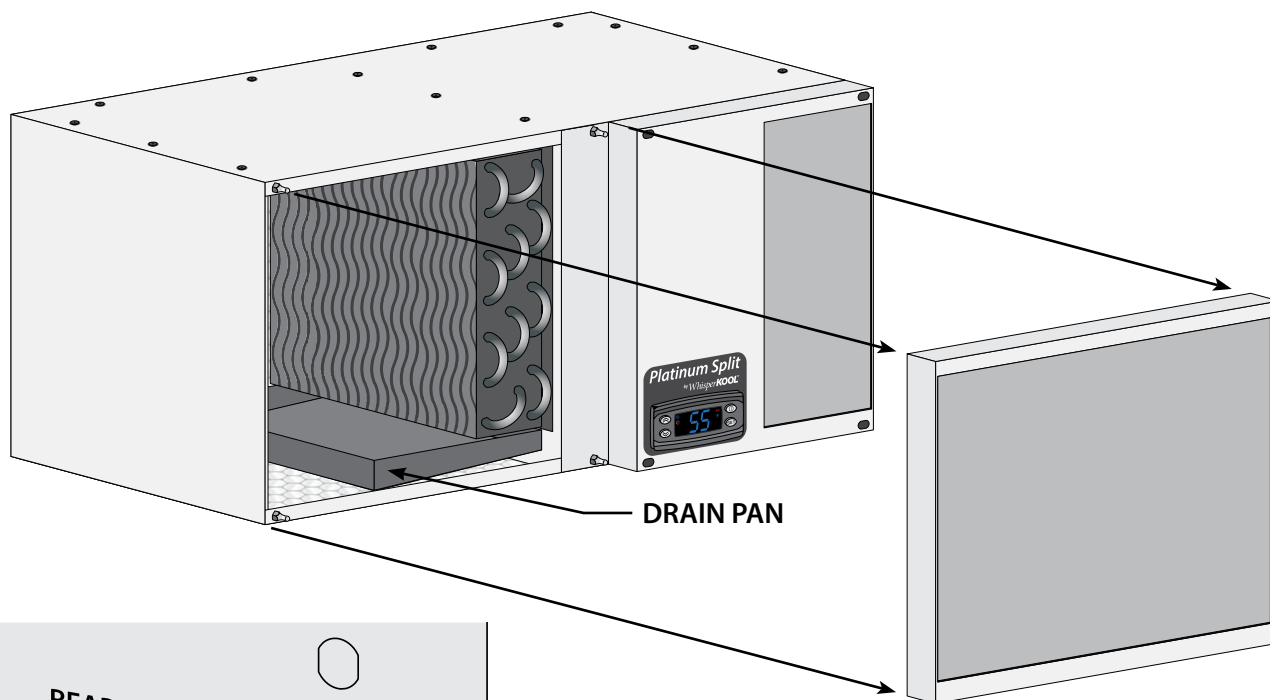
HOLE FOR CIRCULAR CONNECTOR (BOTTLE PROBE INPUT)

1. Pull apart the Filter Grille from the Evaporator Unit.
2. Cut the zip tie holding the circular connectors and wires on the rear left corner of the interior of the unit.
3. Unscrew the nut attached to the circular connector (bottle probe input.)
4. Install the circular connector (bottle probe input) in the hole located at the bottom of the housing.

NOTE: From a frontal perspective, the circular connector is located in the rear-left corner of the bottom of the unit.

5. Secure the circular connector (bottle probe input) to the unit using the provided nut (the rubber washer should remain inside the unit).

CIRCULAR CONNECTOR/ BOTTLE PROBE INPUT

RUBBER WASHER

UNIT PANEL

NUT

Length To Extend To Desired Tee Location   **3"**
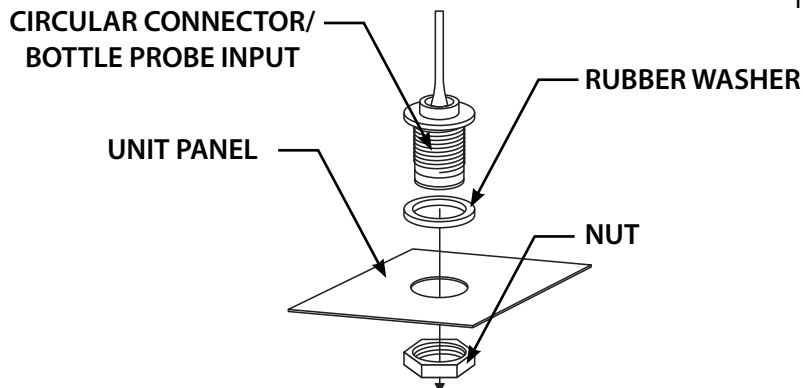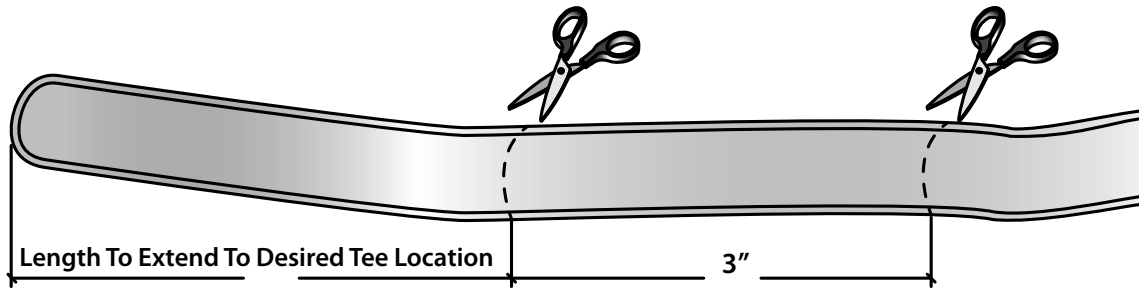
6. Cut the supplied drain tubing at a length long enough to extend from the drain pan to the desired barbed tee location and a second piece 3" long.

Power

3/8" Suction

1/4" Liquid
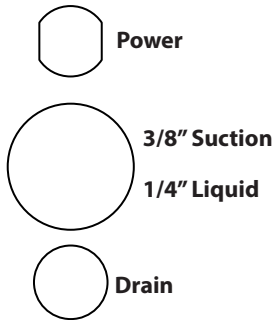
Drain

7. Depending on the desired installation, remove the rear or bottom knockouts for the line set, drain line and power cord.

8. Using a 5/32" drill bit on a drill, from the outside of the unit cut holes through the unit's insulation for the line set and drain line.

REAR OF UNIT
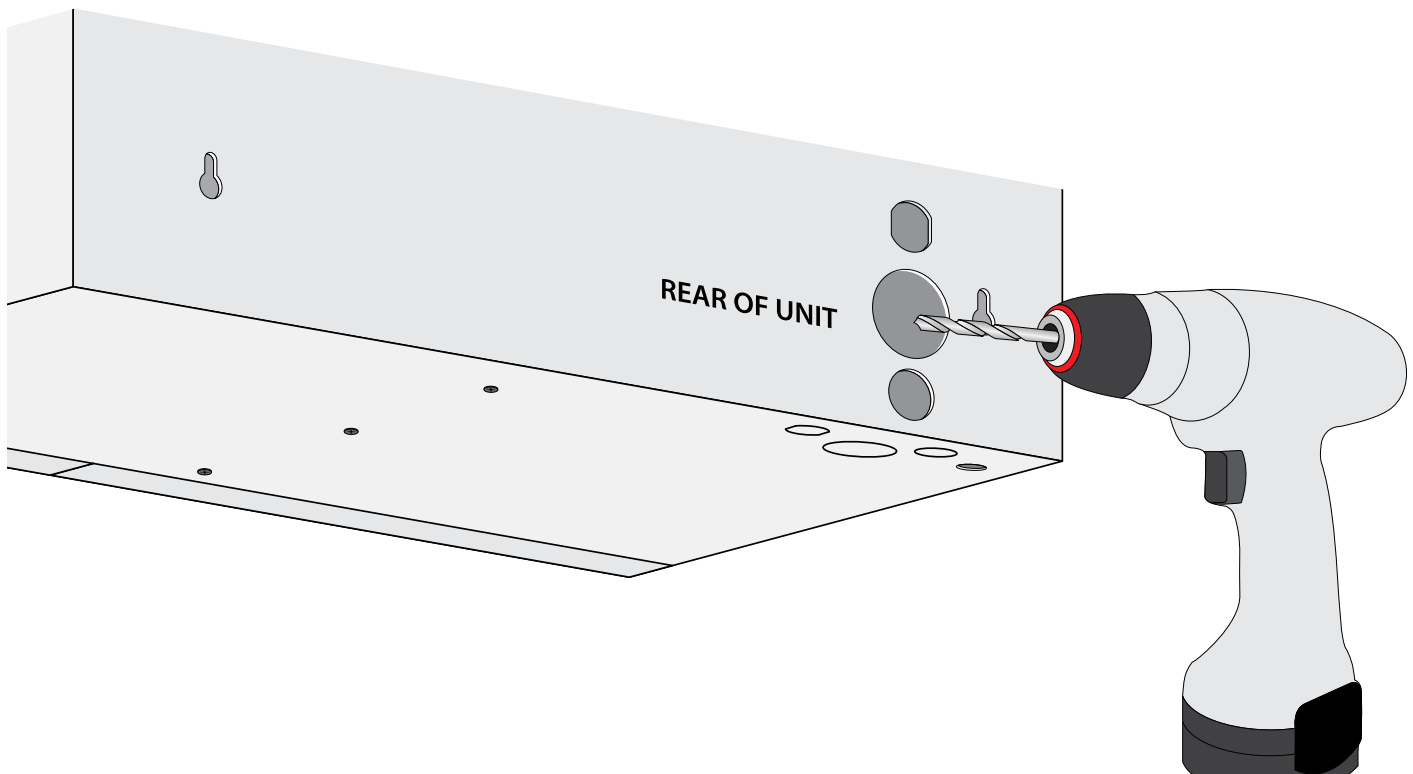
INSTALLING THE EVAPORATOR UNIT (FAN COIL UNIT)

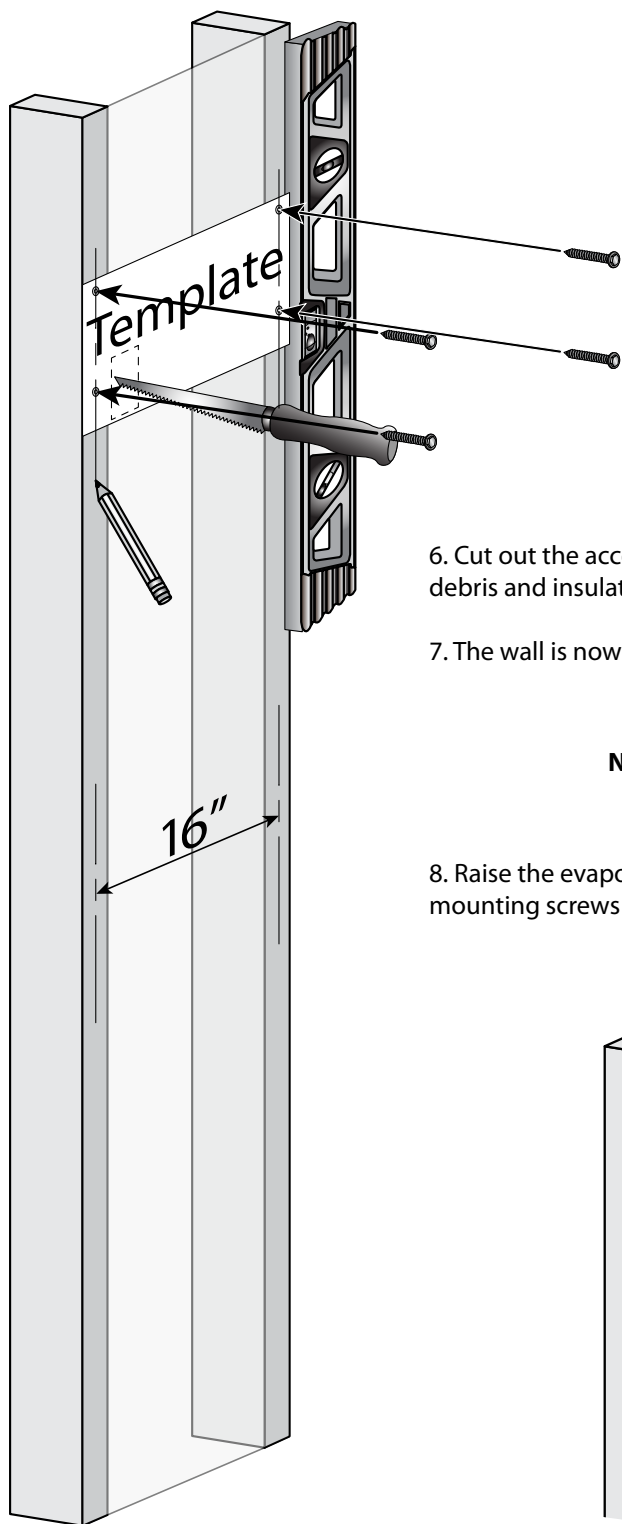**Note:** The evaporator is designed to be mounted on 2 standard 16" spaced wall studs.

1. Locate 2 desired wall studs. Mark center lines for the studs vertically on the wall (16" apart) followed by a level horizontal line at your desired height.
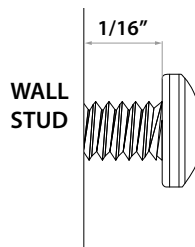
Note: The top of the unit needs to be installed at a minimum of 6" from the ceiling and no further than 18" from the ceiling.

2. Place the installation template on the wall lining up the vertical lines through the sight slots.

3. Mark through the indicated mounting screw holes and location for the access hole.

4. Set installation template aside.

5. Install the supplied four 2" #8 hex head screws into the marked mounting screw locations, leaving 1/8" between the wall surface and screw head.

1/16"

WALL STUD

6. Cut out the access hole using a drywall saw or desired method. Be sure to clear all debris and insulation.

7. The wall is now ready for installation. Place the prepared unit below the install location.

Note: During installation WhisperKOOL recommends elevating the unit close to the install height.

8. Raise the evaporator to the installation location. Align the rear key holes with the mounting screws and mount the unit.
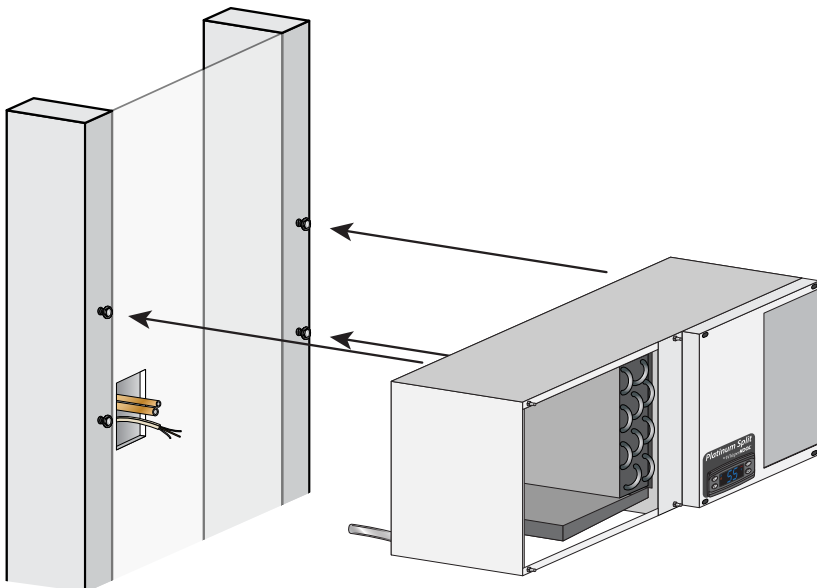
9. Using a 1/4" wrench or socket, tighten the accessible mounting screws on the left hand side of the interior of the unit.
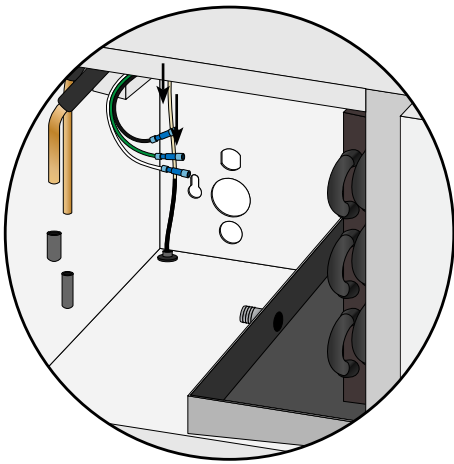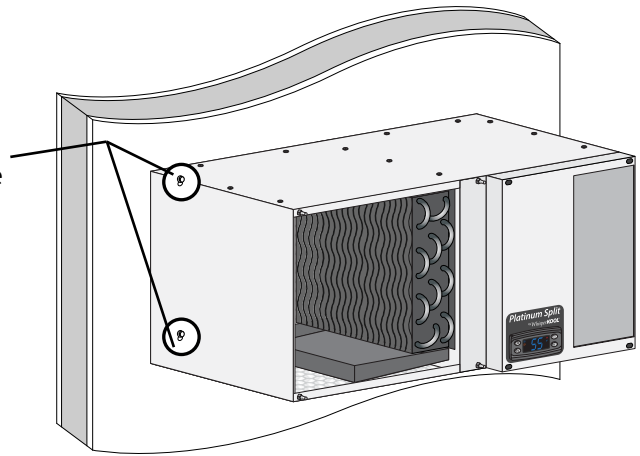
Note: For ease of installation, remove the top panel after securing unit to wall.

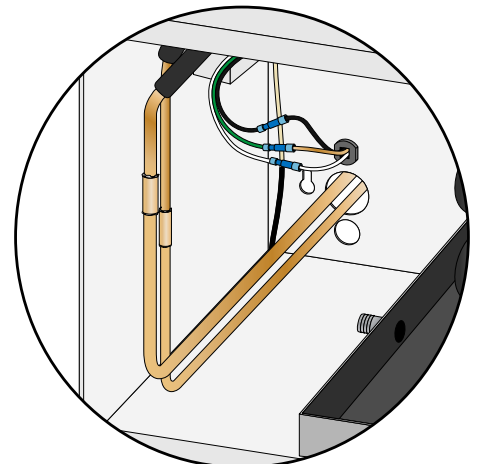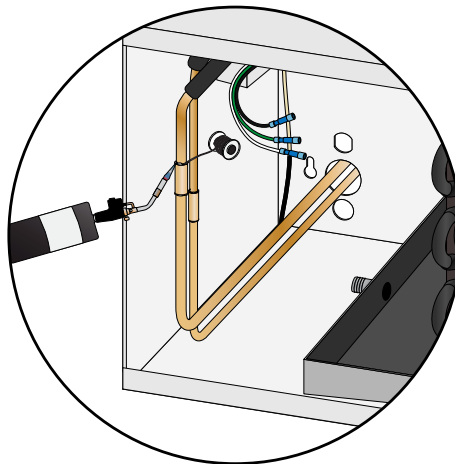10. Remove the line set caps, followed by routing the 3/8" suction line and 1/4" liquid line into the unit and braze.

Note: Angle the flame up and away from any electrical and insulation while brazing inside of the unit.

11. Route power supply wires into the unit through the power knockout and install the supplied strain relief.

12. Connect power supply wires to the pre-installed butt splice connectors located inside of the unit (Hot=Black, Neutral=White, Ground= Green).

13. Connect the Bottle Probe.

Note: Reinstall top Panel if removed.

14. Reinstall the access panel removed in step 1 of Evaporator Preparation by pushing the 4 corners into place.

15. Plug in the evaporator.

INSTALLING THE EVAPORATOR UNIT (FAN COIL UNIT): DRAIN LINE

Condensation Drain Line

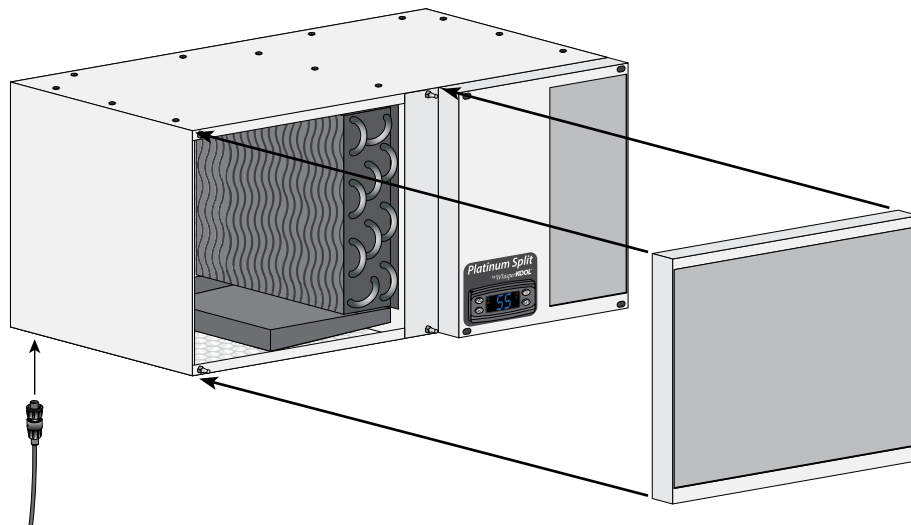The condensation drain line tube is used to remove excess condensation from the Evaporator Unit (Fan Coil Unit) to a proper discharge location. It is important that the drain line tube is properly connected and used to prevent leakage and other problems associated with excess condensation.

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.

1. Depending on your desired installation, use the barbed elbow as shown in **Figure 1** or **Figure 2** to route the drain line from the drain pan to the exterior of the unit.
2. 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 the 3" piece to the barb on top. Connect the remaining "long" piece of drain tubing to the bottom barb of the tee.

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

NOTE: Using the barbed tee as shown in **Figure 2** and **Figure 3** is recommended.

THROUGH THE WALL DRAIN LINE
OPTION 1

NOTE: The fitting should be placed vertically with the 3" cutout facing up.
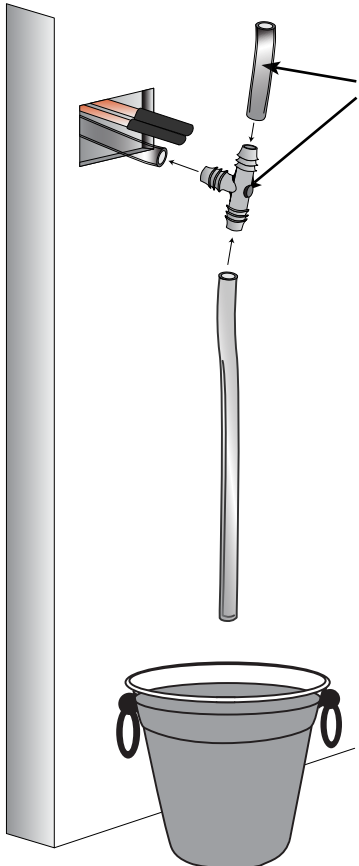
INSIDE CELLAR DRAIN LINE
OPTION 2

Figure 1

Figure 3

WRONG: Drain line is under water.

3"

CELLAR WALL

⚠ **Failure to install the drain line voids the warranty.**

WALL MOUNT CLAMP

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

BARBED TEE
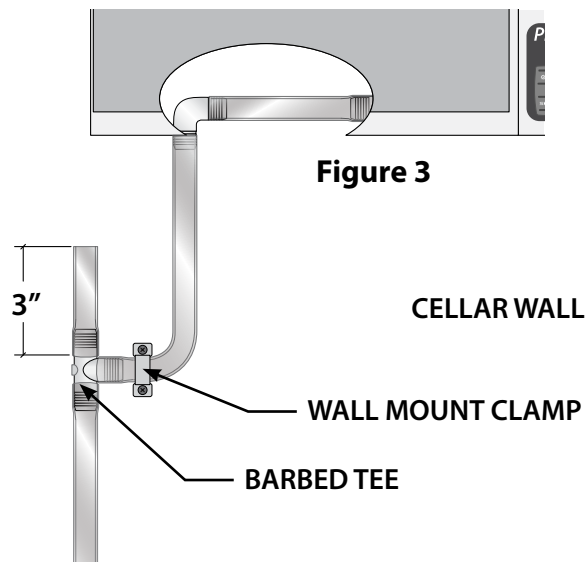
Figure 2

NOTES

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.

MISTING NOZZLE
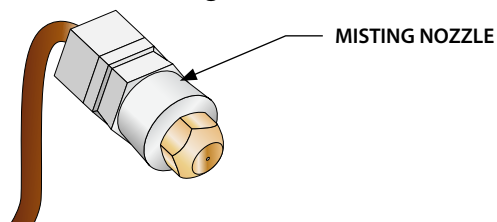
Self-Piercing Saddle Valve

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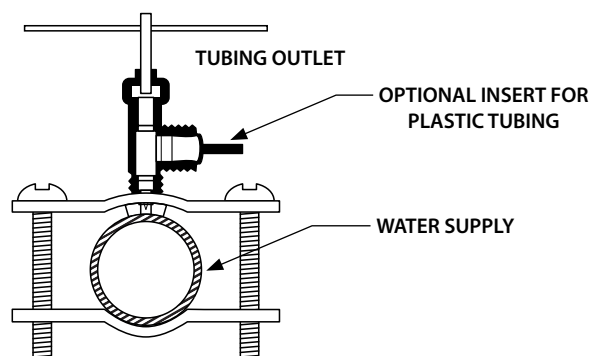
Water Flow Order

- 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.

TUBING OUTLET

OPTIONAL INSERT FOR PLASTIC TUBING

WATER SUPPLY

Figure 1

COOLING UNIT

FILTRATION SYSTEM

Figure 2

Figure 3

*Whisper**KOOL**™*
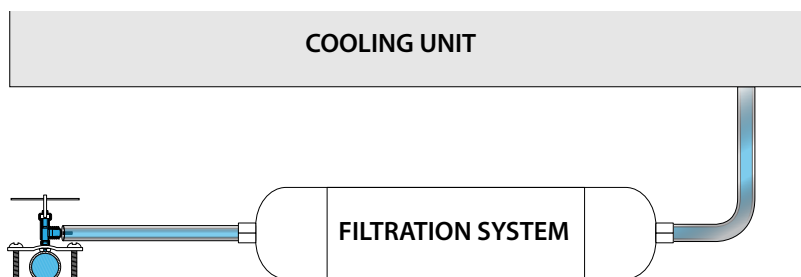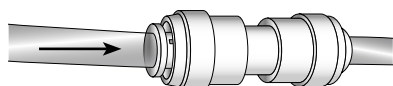
HUMIDISTAT INSTALLATION
Only a 120-Volt humidistat can be used with this unit.

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
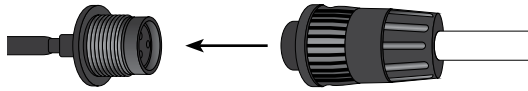
Removing the Cover
1. Move both slide controls to the bottom position.

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

Screws

Terminal Block

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.

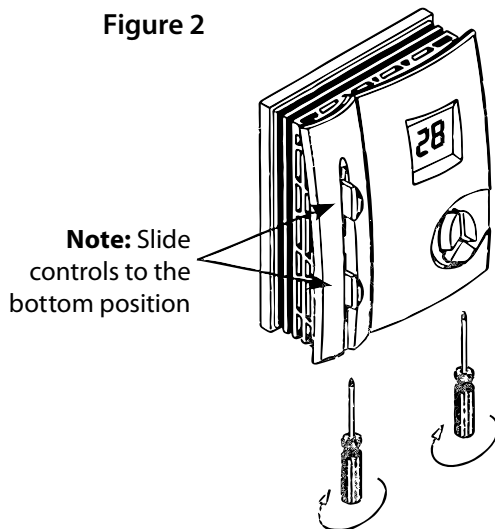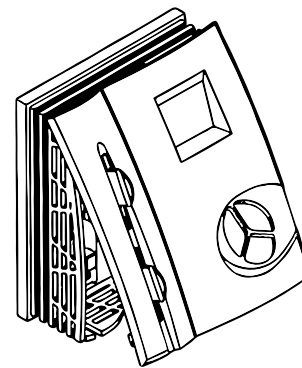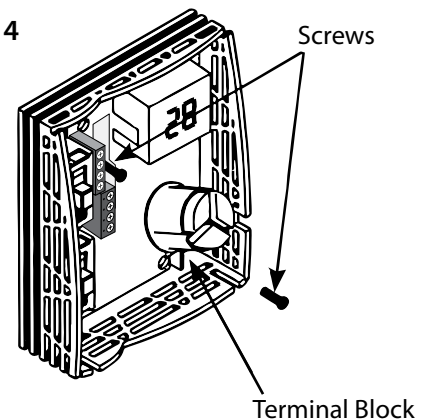6. Fasten the wall plate with two screws through the mounting holes.

7. Fasten the humidistat to the wall plate with screws through the mounting holes.

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 5

Wall anchors

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**.

Humidistat
Rubber Buttons
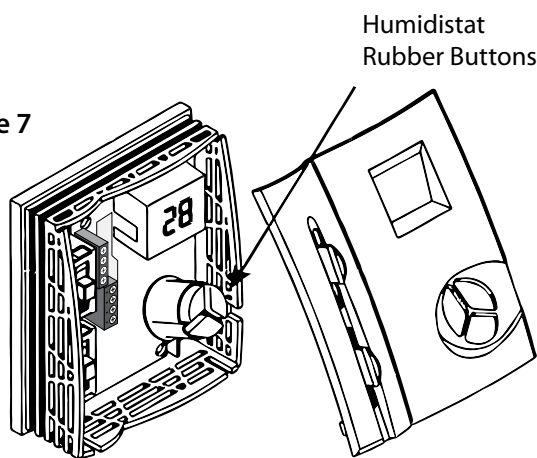
Figure 7

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

Figure 8
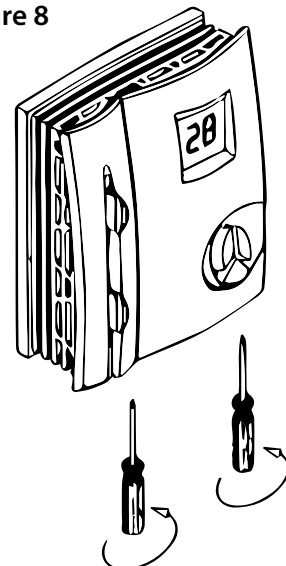
Correct Humidistat Settings

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.

NOTES

MINI SPLIT EVAPORATOR UNIT (FAN COIL UNIT TERMINAL BOARD)
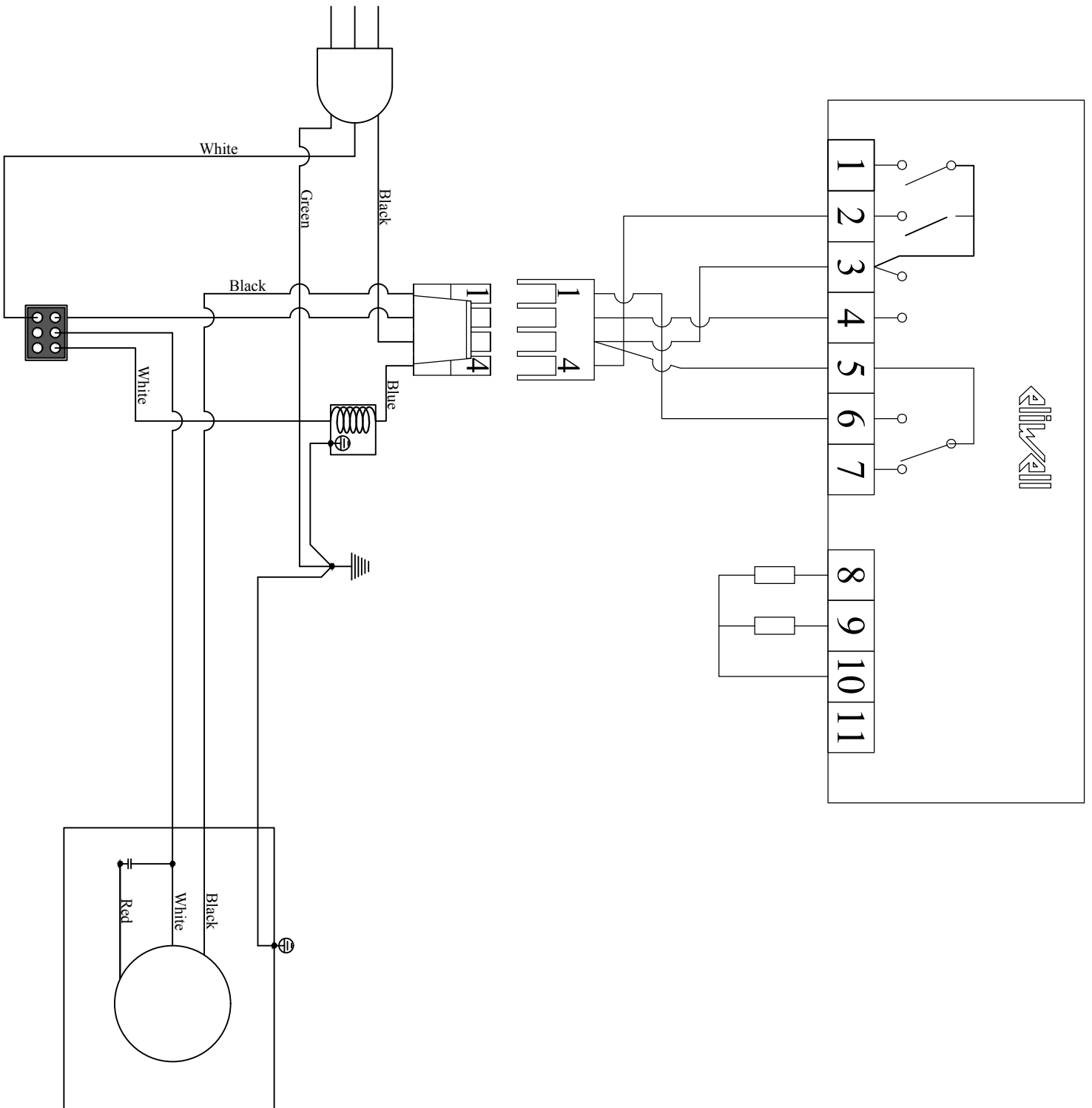
PREPARING THE CONDENSING UNIT

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's (Fan Coil Unit) power cord.
- Provide a dedicated circuit and circuit breaker for the Condensing Unit.
- Provide a weatherproof disconnect for Condensing Units 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 & 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 34.

HIGH-PRESSURE SWITCH

LOW-PRESSURE SWITCH

POWER CORD

SUCTION LINE
SERVICE VALVE
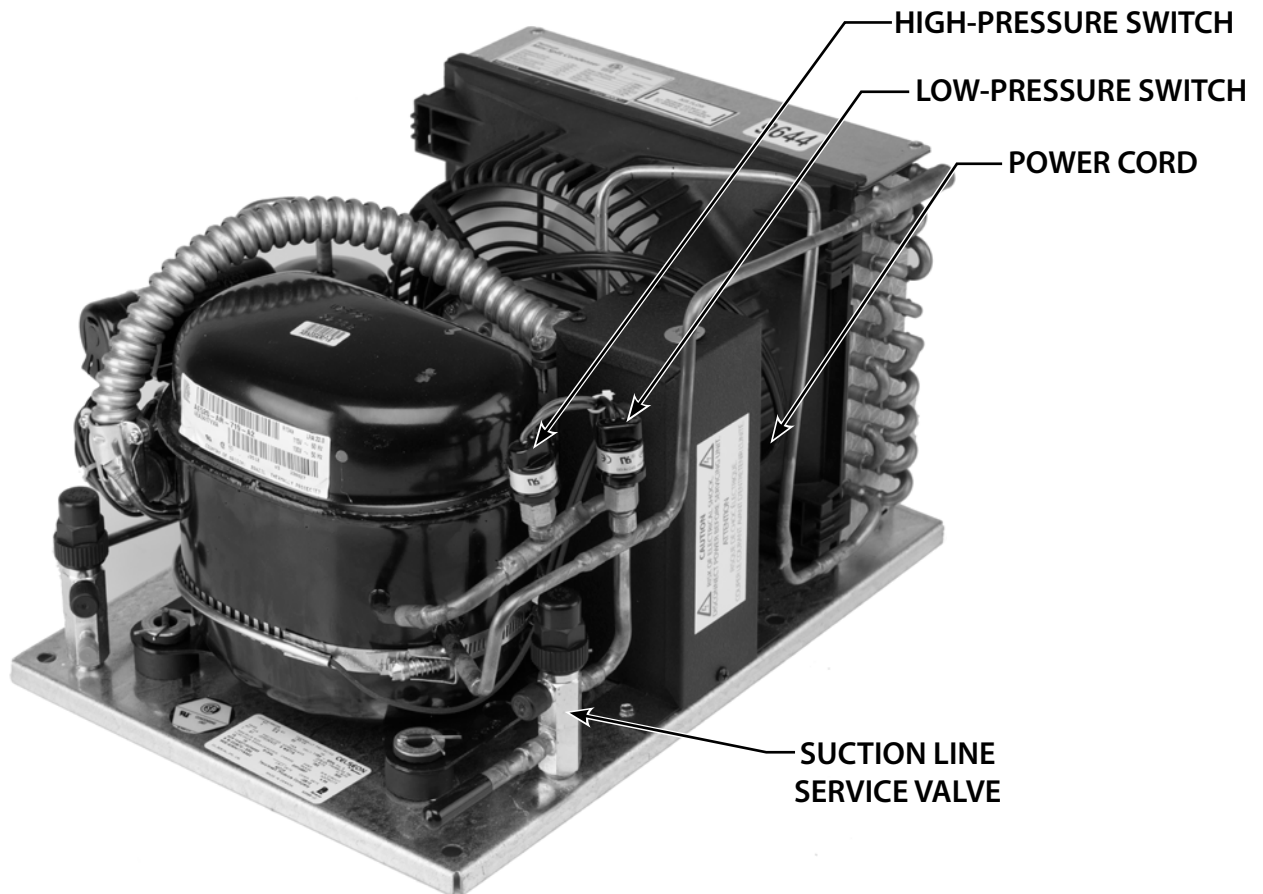
For the equipment warranty to be valid, WhisperKOOL requires that the installation is performed by a certified HVAC-R technician (NATE certified technician is recommended) per the specifications outlined in this Technician's Manual. The technician shall be required to be equipped with the proper tools of the trade including: R-134a, brazing equipment, dry nitrogen, an accurate manifold gauge set (digital preferred), plus a 4 valve manifold set for evacuation, digital micron gauge, digital scale, deep vacuum pump and accurate digital thermometers. Without the proper equipment, a professional job cannot be accomplished. Evidence of the certified tech's NATE# or other certification is required.

MINI SPLIT CONDENSER WIRING DIAGRAM

For Systems Manufactured 12-20-12 or Later
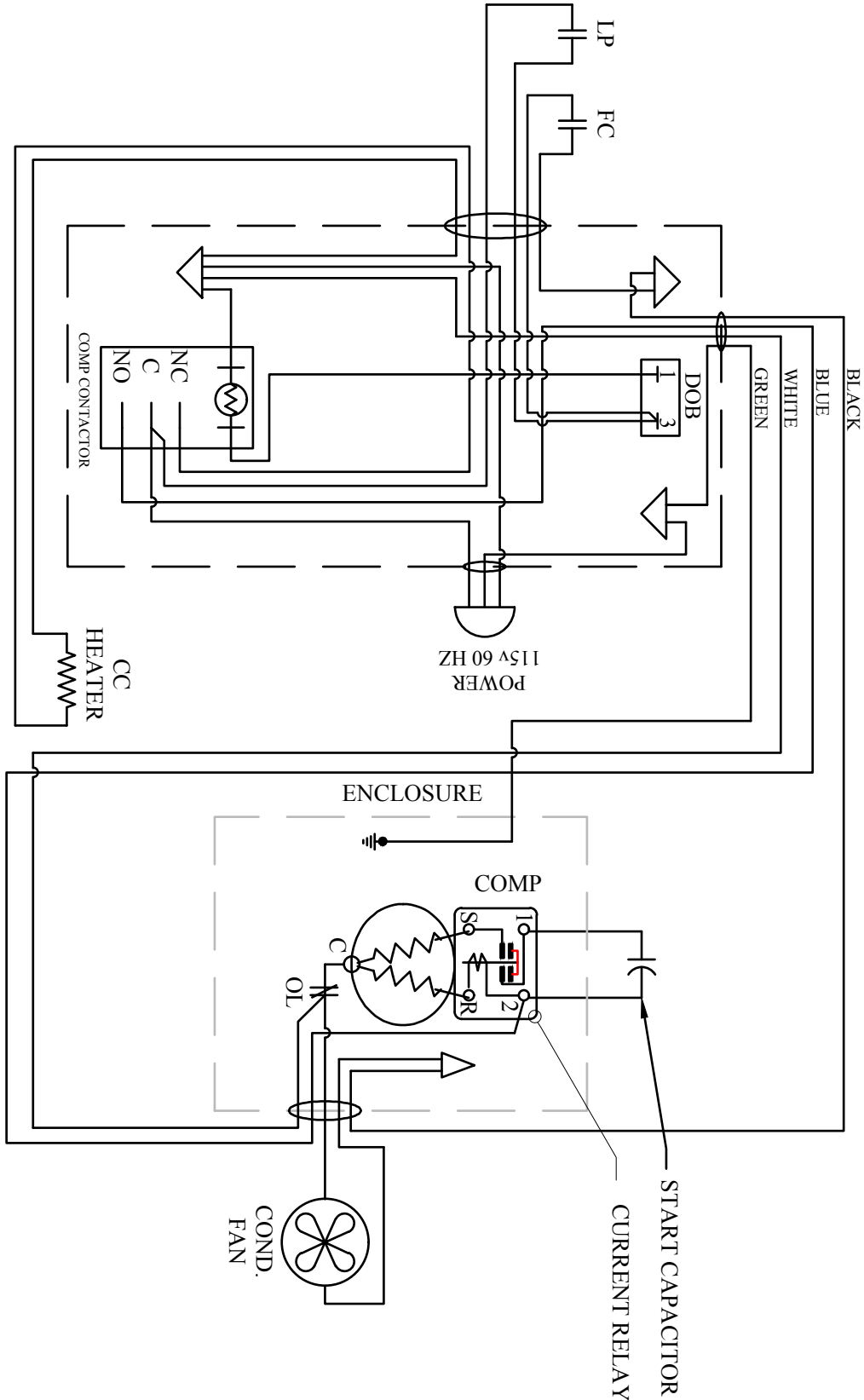
MINI SPLIT CONDENSER WIRING DIAGRAM

For Systems Manufactured 12-20-12 or Later
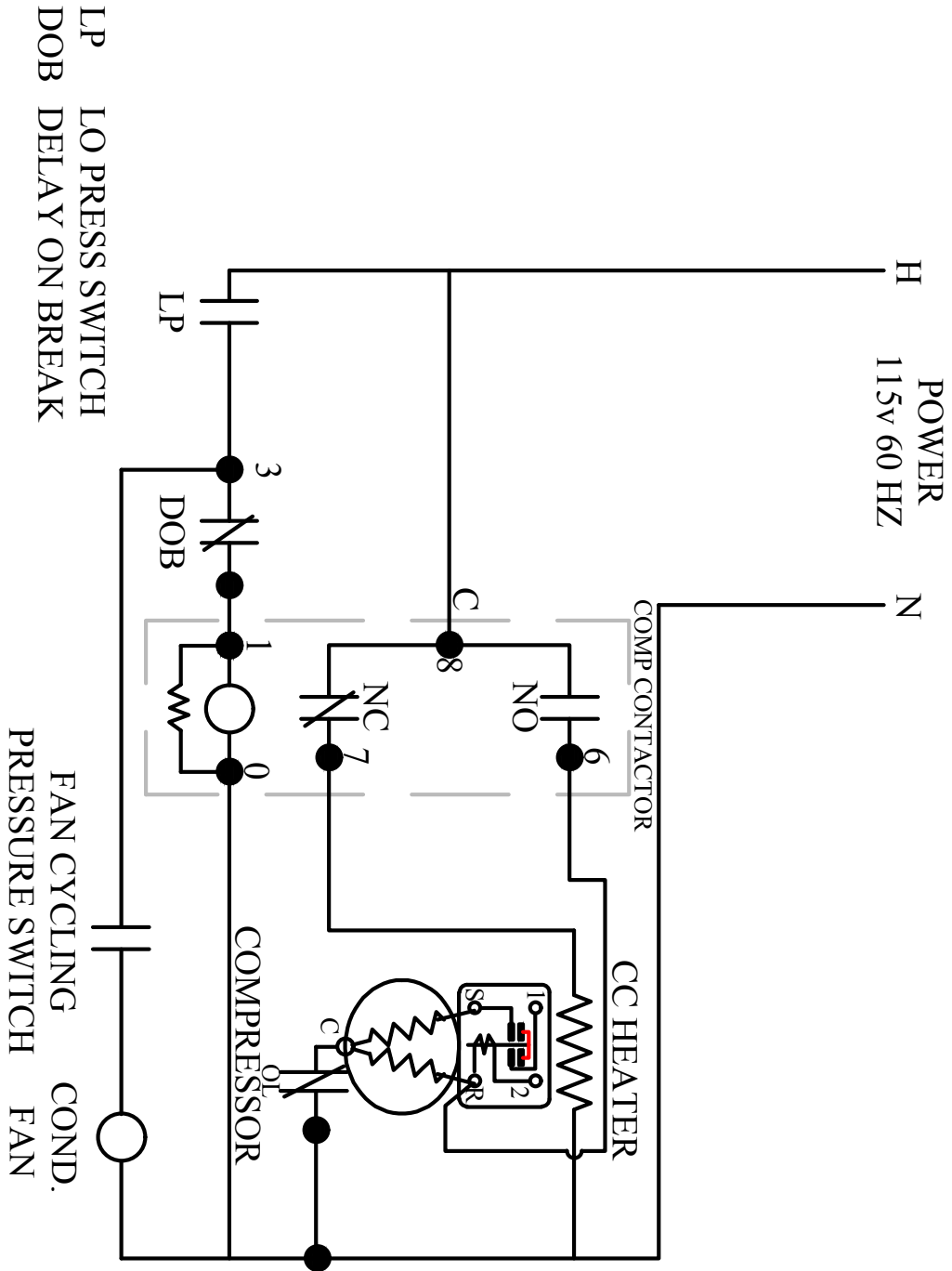
PREPARING THE CONDENSING UNIT (continued)

Installing the Condensing Unit
The Condensing Unit can be installed inside a well ventilated area of the home, but it 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 20amp circuit, non-GFI. Make sure there is a minimum 3 ft. horizontal clearance in the front and rear of the unit. The unit should be plugged in.

Set the Condensing Unit level and with proper clearances in accordance with the instructions, name plate power supplied, proper electric disconnect, and fuse protection connected but not turned on and ready for piping connections.

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 units 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 3 ft. of 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.

Fan Cycling Switch:
These switches are used to cycle the condenser fan at low ambient temperature conditions.

Refrigeration Lines:
A 1/4 inch O/D copper liquid line is required.

Model	Line Set Length	<25ft			26-50ft			50-100ft		
	Vertical Rise	<3ft	3-10ft	>10ft	<3ft	3-10ft	>10ft	<3ft	3-10ft	>10ft
Platinum Mini Split	Horizontal Tubing	3/8"								
Platinum Mini Split	Vertical Rise	3/8"								

The refrigerant drier and the sight glass shall be installed (in that order) in the direction of the refrigerant flow in the liquid line between the Condensing Unit and Evaporator Unit (Fan Coil Unit). Enclose the suction line in a cellular insulation ½" wall thickness Armaflex (brand name) or equal to reduce heat transfer.

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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
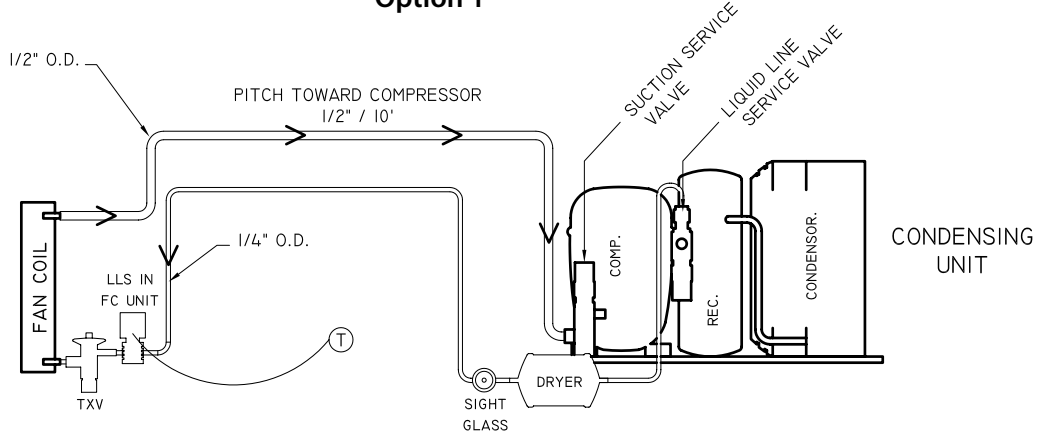
1/2" O.D.

PITCH TOWARD COMPRESSOR
1/2" / 10'

SUCTION SERVICE VALVE

LIQUID LINE SERVICE VALVE

CONDENSING UNIT

1/4" O.D.

FAN COIL

LLS IN FC UNIT

COMP.

REC.

CONDENSOR.

T

TXV

SIGHT GLASS

DRYER

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

INVERTED TRAP

1/2" O.D.

PITCH TOWARD COMPRESSOR
1/2" / 10'

SUCTION SERVICE VALVE

LIQUID LINE SERVICE VALVE

CONDENSING UNIT

3/8" O.D.

3' +

1/4" O.D.

COMP.

REC.

CONDENSOR.

SIGHT GLASS

DRYER

FAN COIL

LLS IN FC UNIT

T

TXV

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.

INSTALLING THE CONDENSING UNIT

Refrigerant Piping Procedure

When installing/routing the line set, cap both ends of each tube to prevent material or debris from entering the tubing.
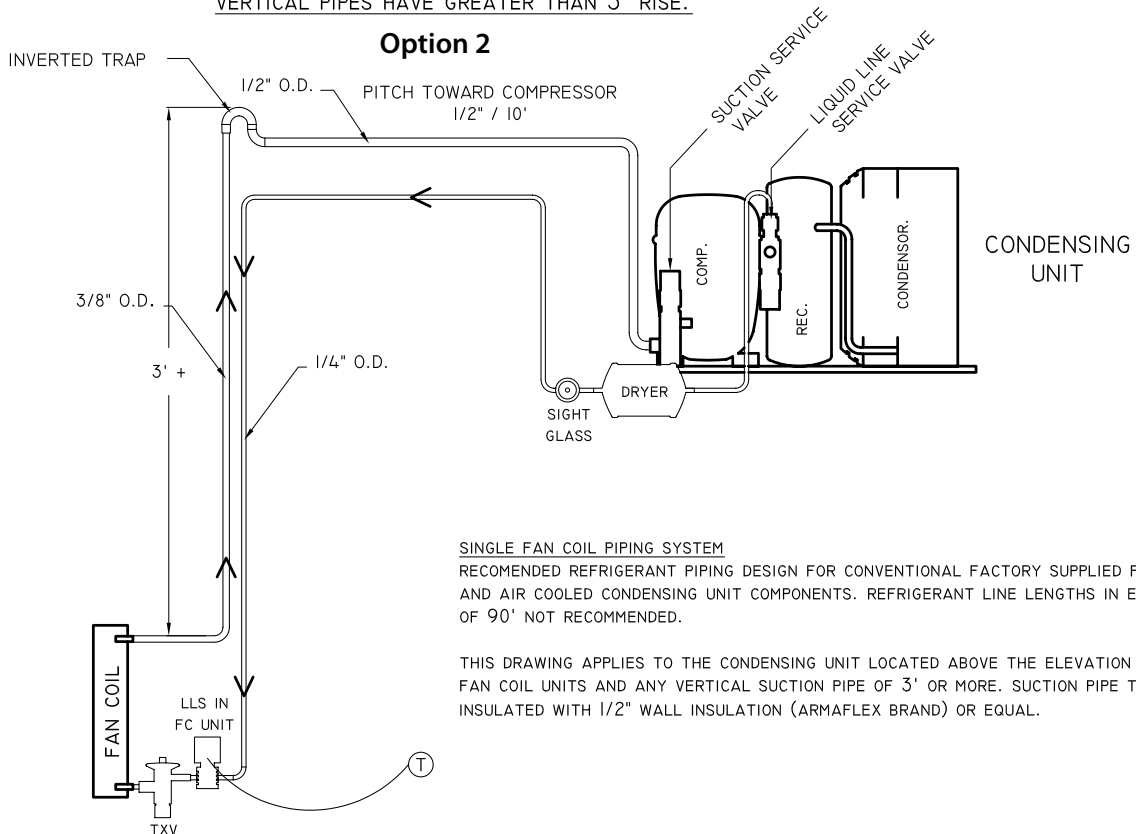
Prior to connecting the piping, loosely connect the refrigerant gauges to the service ports of the suction and liquid line service valves. Purge the charging hoses with dry nitrogen and tighten the hose connections. Remove the service valve caps and turn the valve stem clockwise (half of a complete turn) in order to unseat the valve and open the service port. The valve comes in a front seated position from the factory. Keep the piping port sealed until ready to connect to the vacuum pump.

Cleanliness is of the utmost importance. All horizontal suction piping should be pitched toward the Condensing Unit 1/2" for every 10' of pipe. During any brazing procedure, dry nitrogen should be purged through the fitting at a slow rate to prevent formation of highly abrasive copper oxide. Make sure there are no obstructions to the flow which would cause pressure build up and the brazed fittings to leak. After leak testing and confirming there are no leaks, insulate suction line with 1/2" wall thickness Armaflex or equal insulation. Seal all seems using Armaflex 520 Foam Insulation Adhesive or equivalent. Wrap each seam using line set tape.

Liquid Line Piping Procedure

It is required to use a 1/4" OD copper tube liquid line. When making connections keep the ends sealed until ready to fit the tube. First connect the supplied refrigerant drier close to the liquid service valve (king valve) on the receiver. Downstream, connect the moisture indicating sight glass in an easily visible location. Run the tubing to the Evaporator Unit (Fan Coil Unit) location and fit to the liquid line stub from the Evaporator Unit (Fan Coil Unit). Energize the Evaporator Unit (Fan Coil Unit) and set the temperature controller to call for cooling. This will activate the liquid line solenoid valve. Uncap the suction pipe to prevent obstructed nitrogen flow. Open the nitrogen to allow a slow flow and braze the liquid line fitting. Shut off the nitrogen and power until the suction line is brazed.

Suction Piping Procedure

Slide Aramaflex insulation over the tubing for the entire length of the tube and keep the end of the tube sealed during this procedure. Keep the tubing sealed while running the connection points and fit the suction tube to the Evaporator Unit (Fan Coil Unit) outlet connection. Install a Schrader Type Access Valve at the outlet of the Evaporator Unit (Fan Coil Unit) to allow for superheat checking. If there are brazed fittings along the length of the tube, apply the insulation after leak testing.

After All Piping Ran and Ready for the Brazing Process

Energize the Evaporator Unit (Fan Coil Unit) and set the temperature controller to call for cooling. Open the liquid line service valve and bleed the nitrogen through both the liquid and suction line. Loosen the suction gauge hose to relieve pressure during the brazing process. Braze the connections and cool them off quickly. With the solenoid valve still energized, connect the refrigerant cylinder and add a small amount of R-134a to both the high and low sides.

Leak Testing

Using dry nitrogen, pressurize the system to 200 psi. Check to see if there is a noticeable pressure drop. If so, locate and fix leak. With pressure at 200 psi, check for leaks with a refrigerant leak detector and/or soap bubbles. Confirm the pressure holds at 200 psi for 30 minutes. If not, check again for leaks and repair, then perform another leak test. When it is confirmed that there are no leaks, release the nitrogen pressure and leave the solenoid valve energized.

Insulate the 3/8" suction line with the 10" piece of supplied cork tape.

INSTALLING THE CONDENSING UNIT

Evacuation

Connect the evacuation type 4 valve gauge manifold to high and low-pressure service valve ports on the Condensing Unit with the valve stems mid-seated as when leak testing. Install service caps on the valves and tighten them. Energize the liquid line solenoid valve (make sure there is fresh oil in the vacuum pump). Connect a micron gauge directly to the pump, blank off, and start the pump to verify that it is capable of 200 micron vacuum and the gauge is capable of reading that vacuum. Connect the micron gauge to the access valve installed in the suction line at the evaporator. Remove the Schrader Valve Depressors from the gauge hoses to reduce restriction and connect gauges to the suction and liquid line service valve service ports on the Condensing Unit. Connect the pump to the 3/8" hose on the manifold set. Start the pump and run until the micron gauge reads 200 microns.

When a 200 micron level evacuation is achieved, break the vacuum with R-134a and add enough refrigerant to pressurize the system with a few psi of positive pressure.

Charging

Remove the vacuum pump and the micron gauge. Install a spare low-pressure gauge to the access valve at the evaporator. With the power off to the Condensing Unit, place the cylinder of R-134a on a digital scale. Admit liquid refrigerant to the system through the high-pressure side (liquid line service valve) until about 1 1/2 lbs have been added. Shut off refrigerant flow to system.

Fill a wine bottle ¾ full with water between 60-75°F. Insert the bottle probe into the neck of the bottle as far as possible. (It is important the bottle probe stopper is compressed by the neck of the bottle to ensure water will not leak out). Verify that the bottle probe is properly installed and the set point on the controller is low enough to allow the system to run continuously for 30 minutes or more. Turn on power to the Condensing Unit and the compressor should start if suction pressure is above 6 psi. If the system pumps down and the compressor shuts off, set the 5 minute time delay relay time to the lowest setting to avoid having to wait. Add refrigerant as a vapor through the low-pressure side of the system (suction service valve port).

Observe the sight glass when the compressor starts. If bubbles are present, slowly add more refrigerant in vapor form to the low side. The suction pressure and head pressure should increase as the sight glass clears. Check the superheat during the charging process. If the superheat drops to 4-5°F and sight glass still has bubbles, let the unit run until the wine cellar temperature drops and approaches 55°F. Observe the sight glass. If bubbles are present, add additional refrigerant in small increments. Let the system stabilize for about 5 minutes and check the sight glass for bubbles before adding additional refrigerant. Once the sight glass is clear, check the superheat at the outlet of the evaporator (evaporator superheat should be between 8-12°F). If superheat is not between 8-12°F, make an adjustment to the expansion valve. Depending on the temperature, the high side should be approximately 175 lbs, and the low side should be 28 lbs or more to keep the evaporator from icing.

Measure Superheat

If superheat is high and bubbles are present, add more refrigerant until it is clear. If superheat is low (around 4-6°F) and bubbles are present in the sight glass, check for liquid refrigerant entering the compressor as evidenced by cool crankcase below 100-110°F and low discharge superheat. Adjust TXV setting in small increments to increase superheat and stop liquid from going to the compressor. Check this before adding more refrigerant. If the temperature of the air entering the condenser is cold enough to cause the condenser fan to cycle, block about 60% of the coil to raise the head pressure and allow time for stabilization. Reduce blockage if the condensing temp is above 115°F Fahrenheit. Retain blockage if necessary to maintain stability for performance test listed in the Split System Warranty Checklist. If the air is cold, below 60°F entering the condenser and the sight glass is clear; allow the system to run for a while until the cellar cools off, then measure and record data on the Split System Warranty Checklist.

Confirm the controller is displaying the correct temperature and that the controller is not displaying an alarm. If the controller is displaying an alarm, reference page 33 for corrective action. Confirm that the suction line is completely insulated, from TXV to compressor. Confirm that the sight glass has no bubbles and the ambient temperature around the Condensing Unit is not getting excessively hotter. Confirm that both king valves have been back seated and the nuts have been installed back on the king service ports.

NOTES

NOTES

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 50–70F° in 1°F increments.

Cooling Operation

Cooling is activated once the bottle probe senses a temperature that is 1°F greater than the set point. The controller then energizes the solenoid relay which activates the solenoid. The evaporator fans operate with the compressor. The unit provides cooling until the bottle probe senses the set point. At this point the solenoid relay is de-energized, which stops the flow of refrigerant through the evaporator coil. The compressor will continue to run until the low side pressure reaches 5 psi. The evaporator fans will continue to run for 1 minute to re-introduce any moisture from the evaporator coil.

Humidity Features

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

Anti-Short Cycle

The Anti-Short Cycle ensures that the compressor will remain off for a period of 3 minutes after the unit has reached the set point to allow the pressure in the refrigeration unit to equalize prior to starting the compressor.

Anti-Frost Cycle

When the evaporator probe senses a temperature of 26F° for 5 minutes, the unit will go into Anti-Frost mode. This will shut down the compressor and allow the evaporator and condenser fans to run and 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. If the evaporator is not above 26°F after the Anti-Frost sequence has ended, the red error light will display in the upper right corner. Alarm "Ad3" will be recorded in the alarm folder, indicating that the Anti-Frost sequence ended based on time. The unit will run for 5 minutes and then enter another Anti-Frost sequence. This sequence will continue until the evaporator temperature increases above 26°F. "Def" will be displayed during Anti-Frost. If the Anti-Frost sequence is less than 5 minutes, the control will not allow the compressor to start until 5 additional minutes have elapsed. This is to prevent short cycling of the compressor.

Holding down the Up arrow for approximately 5 seconds manually starts the Anti-Frost sequence, but only if the evaporator is below 40°F (defrost end temperature). If the evaporator is above 40°F, the display will blink 3 times and continue 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 bottle probe and evaporator probe temperatures can all be accessed by pushing the SET button and scrolling through "PB1" (bottle probe) and "PB2" (evaporator probe).
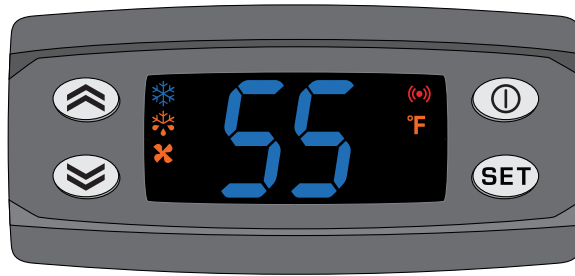
Safety Features

Once the compressor relay is de-energized the controller must wait five minutes before re-energizing the relay. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor symbol will blink, indicating that cooling is needed but the control is waiting for the Anti-Short cycle delay. In the event of a faulty bottle probe, the compressor will cycle off for 10 minutes and on for 40 minutes. "E1" will be displayed on the screen.

Alarms

See "Alarm Codes" in Controller Functions chart.

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CONTROLLER FUNCTIONS

Button/Symbol	Normal Functions
ON/OFF	Press and hold the on/off button for approximately 3 seconds to turn the unit on or off. *Note: This does not disconnect power from the unit. In order for the power to be shut off from the unit, the power cord must be unplugged from the wall receptacle.* This button also serves as an escape button.
Up and Down	Use these buttons to scroll up or down a menu. Press and hold the Up arrow for approximately 5 seconds to manually start the Anti-Frost sequence. The Anti-Frost sequence will begin, but only if the evaporator is below 40°F. If the evaporator is above 40°F, the display will blink three times, signalling that an Anti-Frost cycle is not needed, and the unit will continue normal operation.
SET	Press the set button once to view the set point, temperature of the evaporator and actual bottle temperature as well as any alarms. Once the set button is pressed "SEt" will be displayed. Press the up or down arrows to scroll through Pb1 & Pb2. Press the set button again to view any of these values. To change the set point, press the SET button. When "SEt" is displayed on the screen, press the SET button once more. Use the up and down arrow buttons in order to change the value until the desired set point is reached. Hold the set button for approximately 5 seconds to enter the CPSM (Customer Preference Selection Mode) menu. (CPSM detail on next page).

SEt	Set Point
Pb1	Liquid Temperature
Pb2	Evaporator Coil Temperature

Button/Symbol	Normal Functions
Snowflake	**Constant:** Unit is in cooling mode and the compressor is running. **Blinking:** The unit is calling for cooling, but must wait 5 minutes before restarting the compressor. This 5 minute delay serves as an anti-short cycle for the compressors protection.
Dripping Snowflake	Unit is in Anti-Frost mode. The evaporator and condenser fans are running to evaporate any frost which may have formed on the evaporator coil.
Fan	The evaporator and condenser fans are on.
Alarm	The Alarm symbol is shown and a audible buzzer will sound when the unit encounters an issue that needs attention, the displayed alarm codes are explained below. To silence the buzzer press any button, the alarm code will remain displayed until corrected.

Alarm Codes

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

CPSM (Customer Preference Selection Mode)

Press and hold the set button for approximately 5 seconds to enter the CPSM menu. "Fdc" will be displayed on the screen. Use the down arrow to access the following parameters.	
Fdc *Humidity Management/ Enhancement*	This parameter is set to 1 from the factory, which should provide adequate relative humidity for the cellar. An increase in this parameter will increase the Humidity Enhancement (%RH). This parameter should not be adjusted below 1. Adjustments should be made in increments of 5, with a maximum of 15 and a minimum of 1. After any adjustment to Humidity Enhancement 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.
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 set point
ddd	Select one of these numbers to display your preference: 0 = Set Point 1 = Bottle Probe Temperature 2 = Evaporator Probe Temperature

"CA1"	Use this parameter to calibrate the bottle probe to a known temperature. This parameter can be adjusted between -12°F and 12°F.
	Example: Bottle temperature reading = 58°F
	                    Known temperature reading = 55°F
	                    CA1 parameter setting to match known temperature = -3

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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

WhisperKOOL™

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 Housing
Protects the Condensing Unit from the weather elements when the unit is located outside.

Condensate Pump Kit
The condensate pump kit is designed as an automatic condensate removal pump for water dripping out of our Evaporator Unit's (Fan Coil Unit's) 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.

Accessories can be purchased at www.whisperkool.com

NOTES

Whisper KOOL™