Platinum Split
TECH MANUAL

FOR SYSTEMS EQUIPPED WITH:
WATER COOLED CONDENSING UNIT

*Whisper*KOOL™
The Coolest Thing In Wine Storage

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.

10.25.13

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

Evaporator Unit (Fan Coil Unit)

Filter Grille

Controller

Platinum Split
by Whisper**KOOL**

55°

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

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 Wiring

Liquid Line Knock Out
Suction Line Knock Out

PSWC 102513
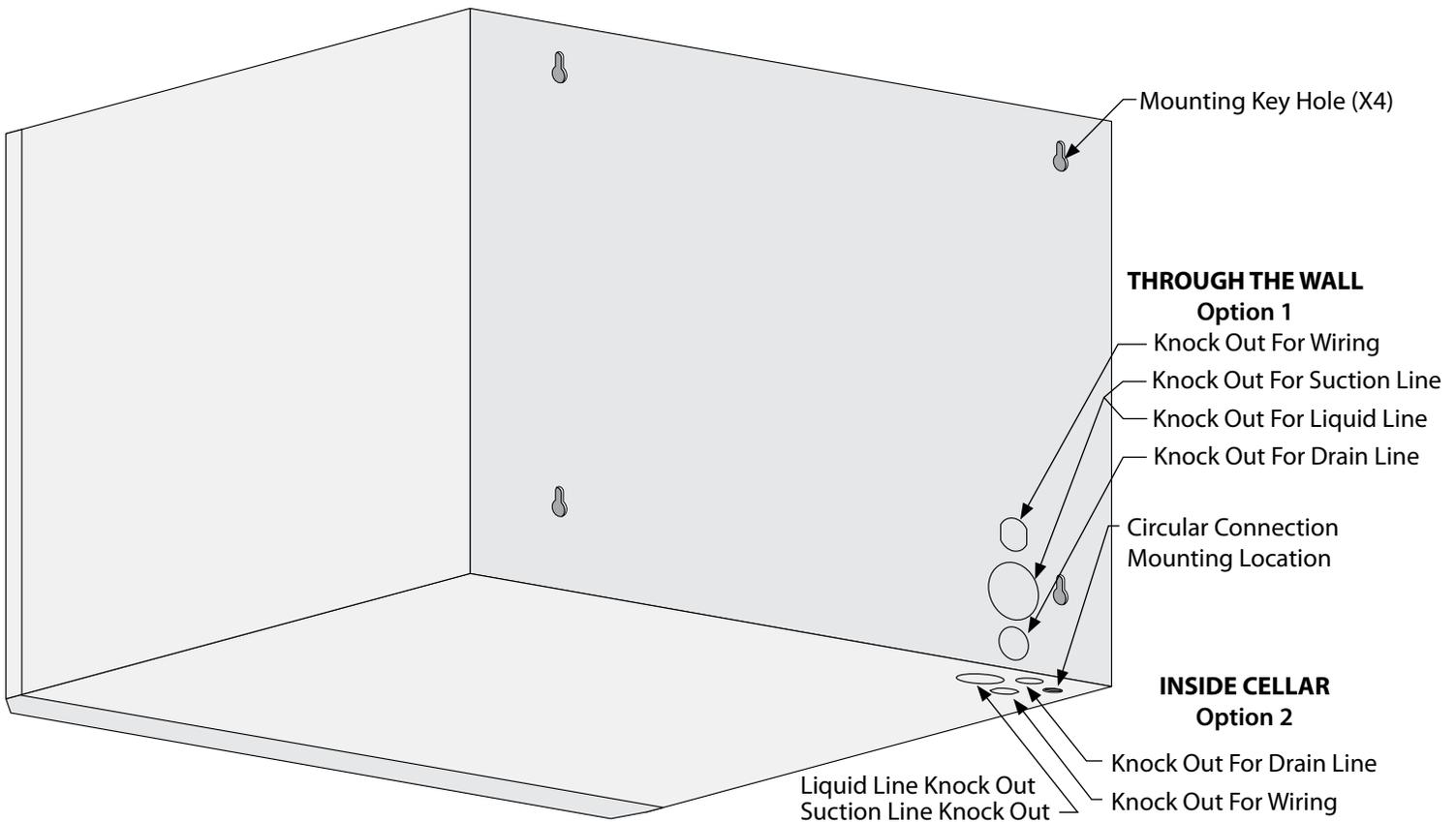
QUICK REFERENCE GUIDE
Controller Layout

Refer to page 34 for complete listing of buttons and symbols.

Inactive	
View Set Point / Change Set Point *(Press and hold 3-5 sec)*	
High History Scroll Button / Cellar Pre-Chill *(Press and hold 3-5 sec)*	
Low History Scroll Button	
Power On/Off	

55 °F

❄ Compressor On

✿ Fans are On

❄ Unit is in Anti-Frost Mode

❄ Unit is in Pre-Chill Mode

(!) Alarm is Present
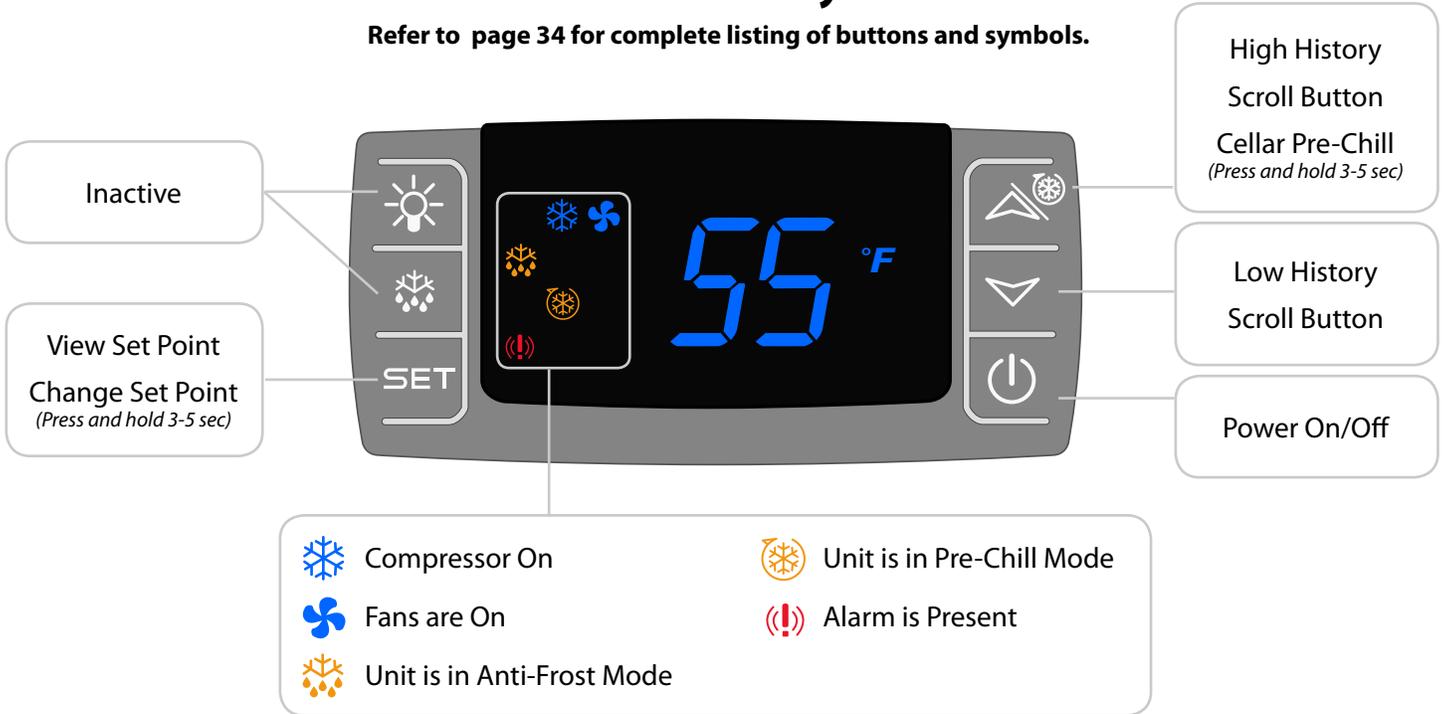
WALL MOUNTED PLATINUM SPLIT UNIT SPECIFICATIONS

Model	4000 Evaporator (Fan Coil Unit)	4000 Condenser (Water Cooled Condensing Unit)
Cellar Size (cu. ft.)	1000	
Dimensions	20.5"w x 15.625"h x 16.0625"d	13"w x 10"h x 18.5"d
BTUh with 90° air entering the Condenser Coil	3650	
CFM	270	N/A
Refrigerant	R-134a	
Condensing Unit HP	1/3++	
Voltage Rating (20 amp dedicated circuit required)	115V	
Weight (lbs)	56	44
AMPS (Starting/Running)	2/1	32.7/7.2
dBA	54	50
Drainline	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	

QUICK REFERENCE GUIDE

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

Supply Air

Return Air

Duct Plenum

Keypad
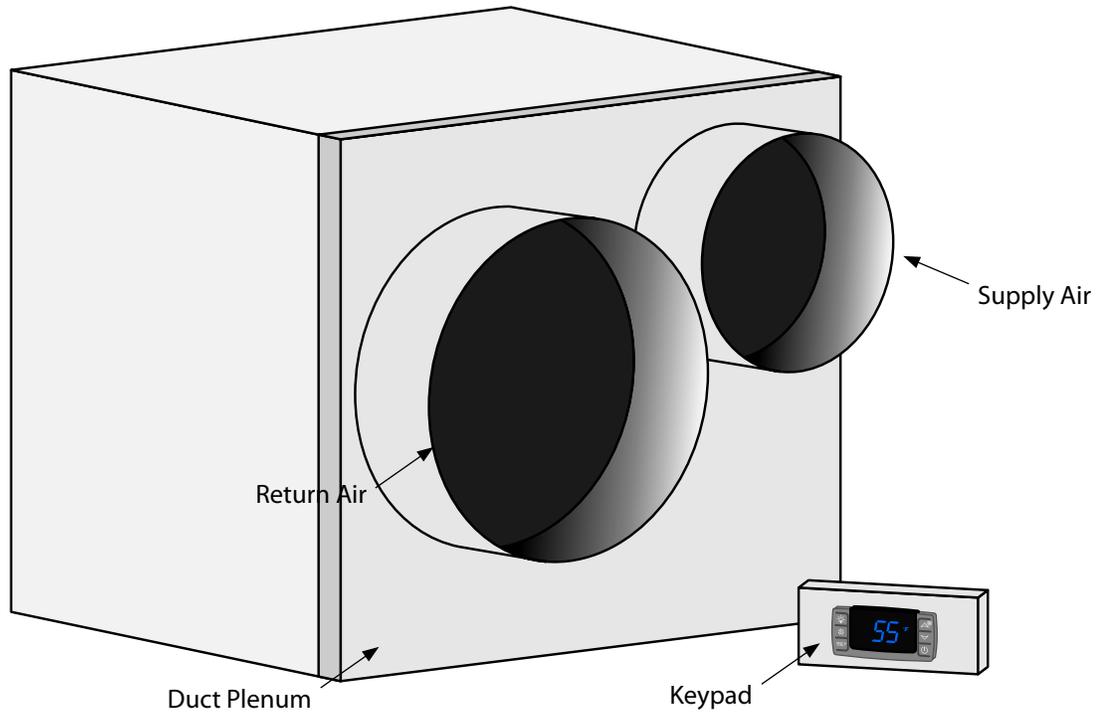
DUCTED PLATINUM SPLIT UNIT SPECIFICATIONS

Model	4000 Evaporator (Fan Coil Unit)	4000 Condenser (Water Cooled Condensing Unit)
Cellar Size (cu. ft.)	1000	
Dimensions	20.5"w x 15.625"h x 20"d	13"w x 10"h x 18.5"d
BTUh with 90° air entering the Condenser Coil	3650	
CFM	270	N/A
Refrigerant	R-134a	
Condensing Unit HP	1/3++	
Voltage Rating (20 amp dedicated circuit required)	115V	
Weight (lbs)	56	44
AMPS (Starting/Running)	2/1	32.7/7.2
dBA	54	50
Drainline	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	

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   Main Condensing Unit Box
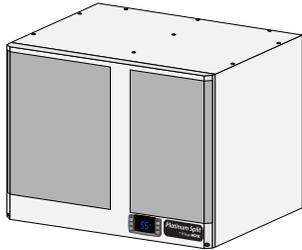
(1) Installation Kit which includes:
    (2) ½" 90° Barb fittings
    (1) ½" barb tee
    (1) 10 ft. 1/2" Drain Line
    (4) 1 ¾" hex head screws
    (1) Bypass plug

(2) Cable tie mounts and cable ties
(1) Black Strain relief
(1) 1/4" sight glass
(1) 1/4" filter drier

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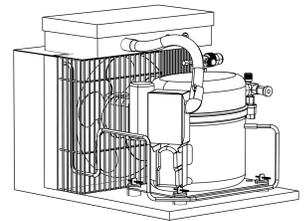
(1) Condensing Unit

Wall-Mount Accessory Kit
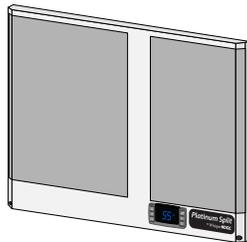
(1) Platinum Split Tech Manual
(1) Platinum Split Owners Manual
(1) Split System Warranty Checklist
(1) 12 ft. Bottle Probe
(10) 6-32 3/8" Phillips Pan Head Screw
(1) Display Adapter

(1) Filter Grille

Ducted Accessory Kit
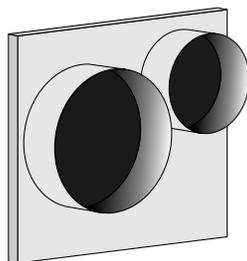
(1) Platinum Split Tech Manual
(1) Platinum Split Owners Manual
(1) Split System Warranty Checklist
(1) 50 ft. Bottle Probe
(1) Remote Keypad
(1) 50 ft. Keypad Communication Cable

(1) Duct Plenum

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 115-volt 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 16. 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.

⚠ **Unobstructed Airflow**
Unobstructed airflow to and from the system is critical for the system's overall performance and life-span. A minimum three-foot clearance (five foot 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's ability to work efficiently.

Keep Clear

Wine Cellar
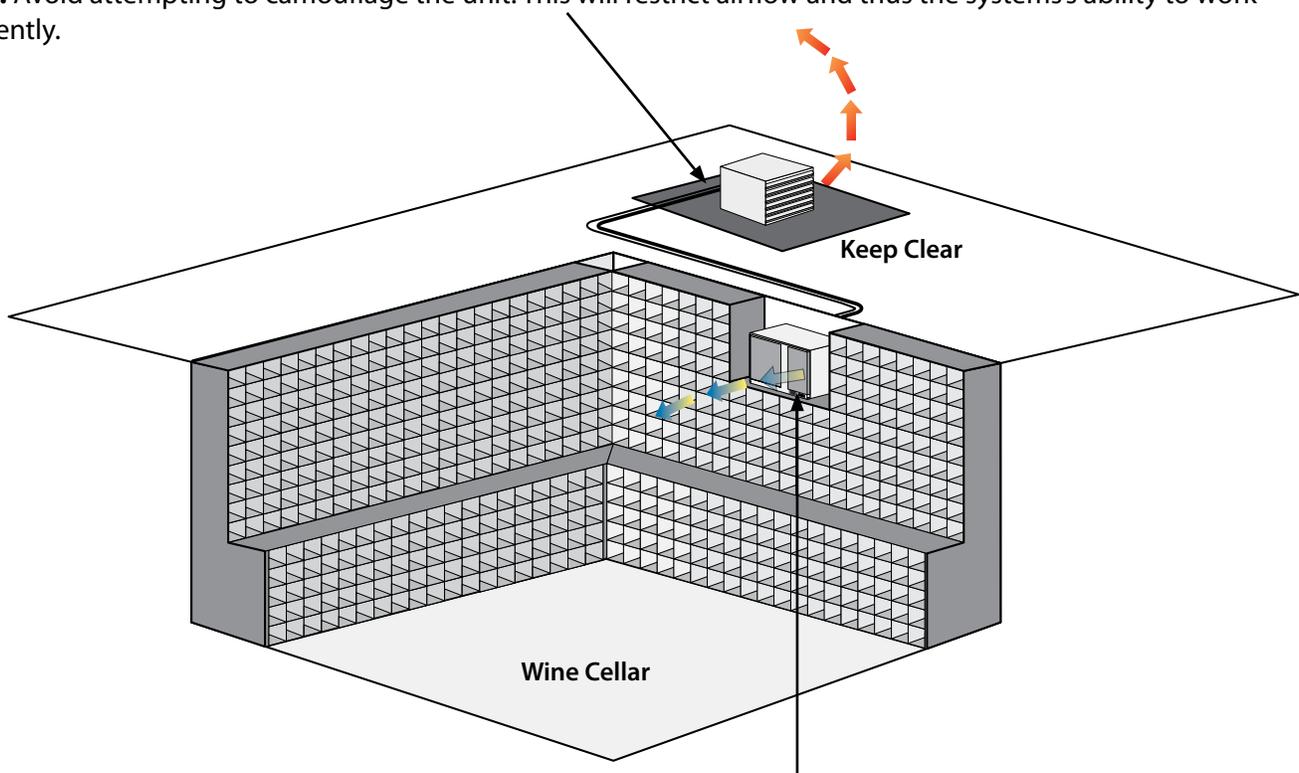
Mounting the Unit
The evaporator unit must be mounted within 18" of the top of the room in order to achieve sufficient cooling. As the room cools down, the warm air will rise to the ceiling. Mounting the unit high in the room will create a consistently cool environment by capturing the warm air and replacing 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.

Door and Door Seal
An exterior grade (1 3/4") door must be installed as a cellar door. It is very important 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 seal to keep the cool cellar air from escaping out of 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.
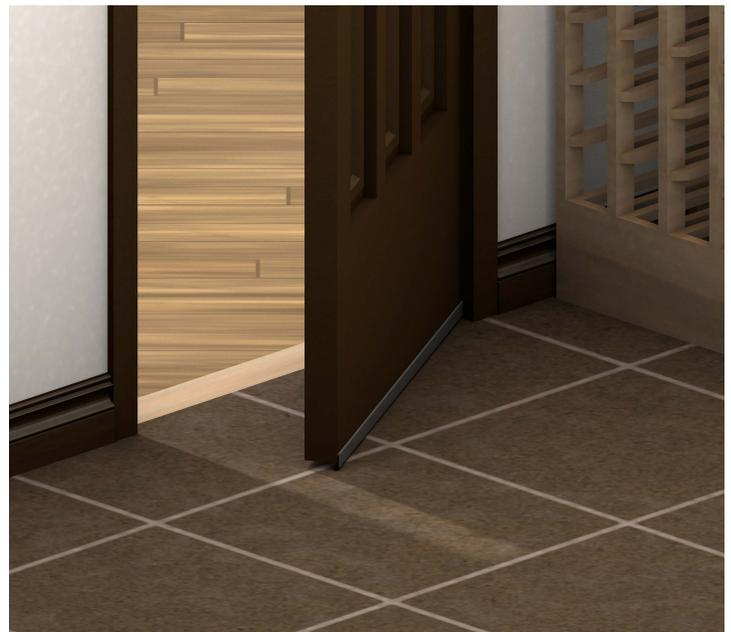
Ventilation

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
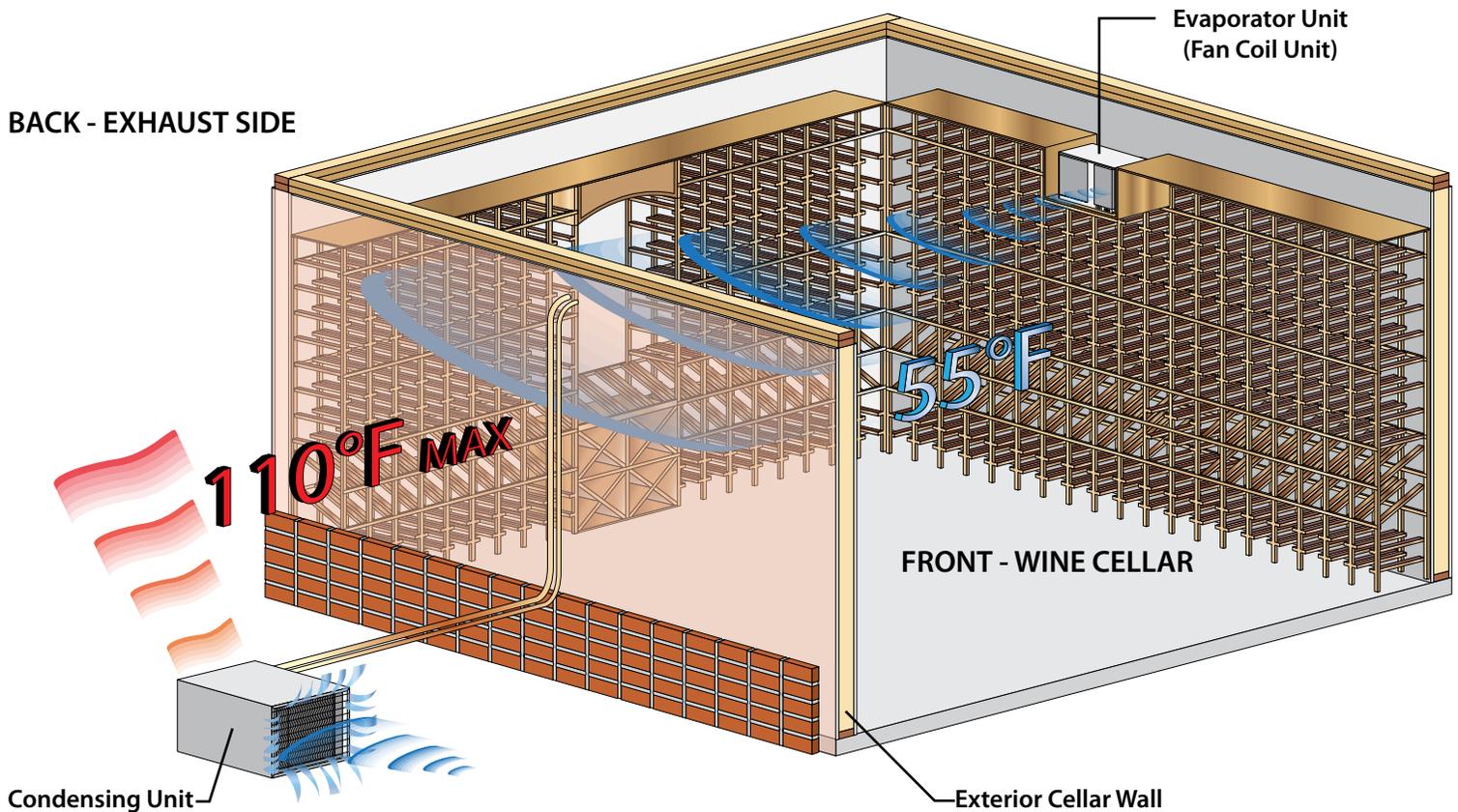
Ambient Temperature Factor

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.

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

Required Tools:

• Drill	• 1/4" Wrench	• Brazing Torch	• Level
• 5/32" Drill Bit	• Phillips Head Screwdriver	• Drywall Saw	• Pliers
• 1/4" Socket Drill Bit	• Tape Measure	• Ladder	• Pencil
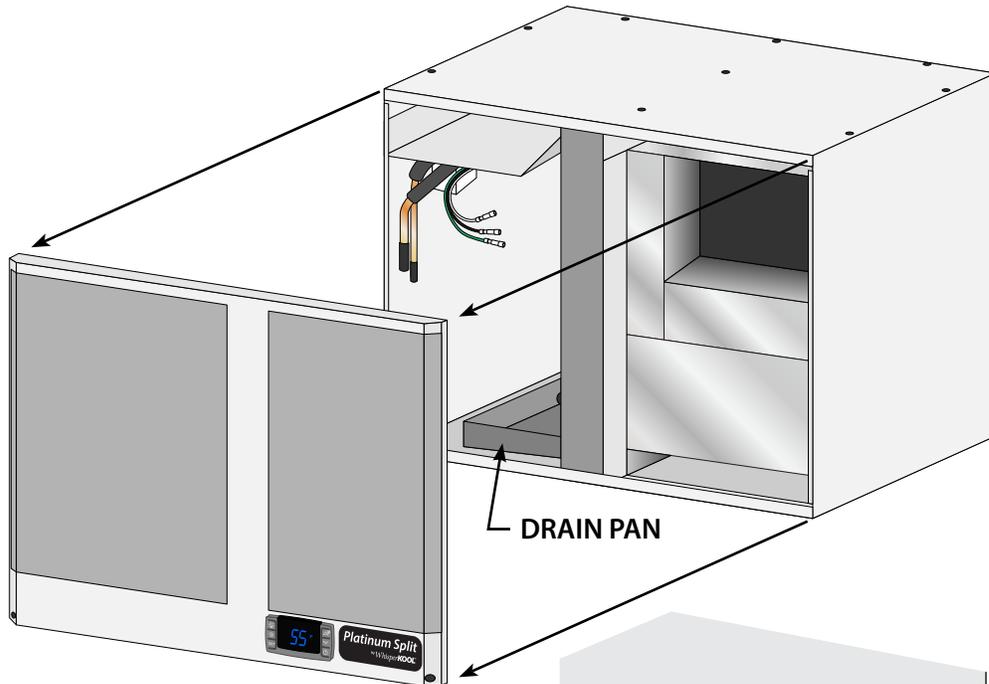
DRAIN PAN
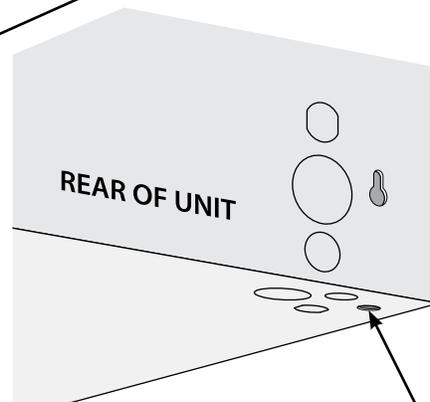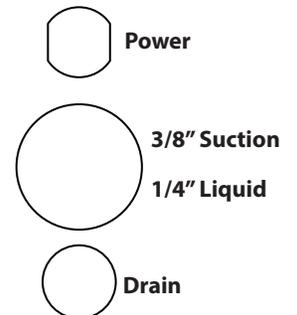
1. Remove the knockouts for the drain line, line set, and electrical on the bottom or rear of the unit depending on your installation preference.
2. Remove the knockout on the bottom of the unit for the bottle probe connector
3. Remove the insulation from the knockout holes.
4. Remove the nut from the 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.

REAR OF UNIT

Power

3/8" Suction

1/4" Liquid

Drain

HOLE FOR CIRCULAR CONNECTOR (BOTTLE PROBE INPUT)

CIRCULAR CONNECTOR/ BOTTLE PROBE INPUT
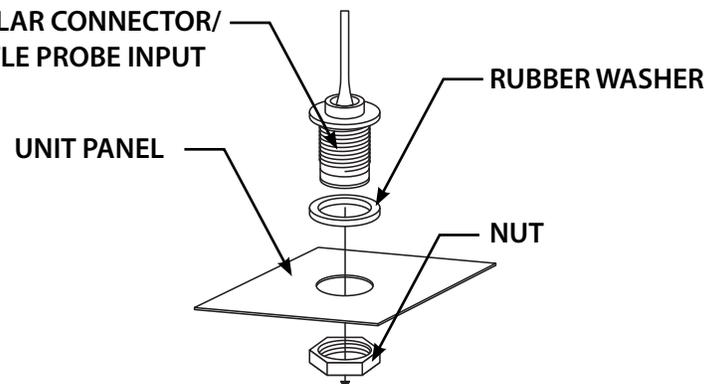
RUBBER WASHER

UNIT PANEL

NUT

INSTALLING THE WALL MOUNTED EVAPORATOR (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.
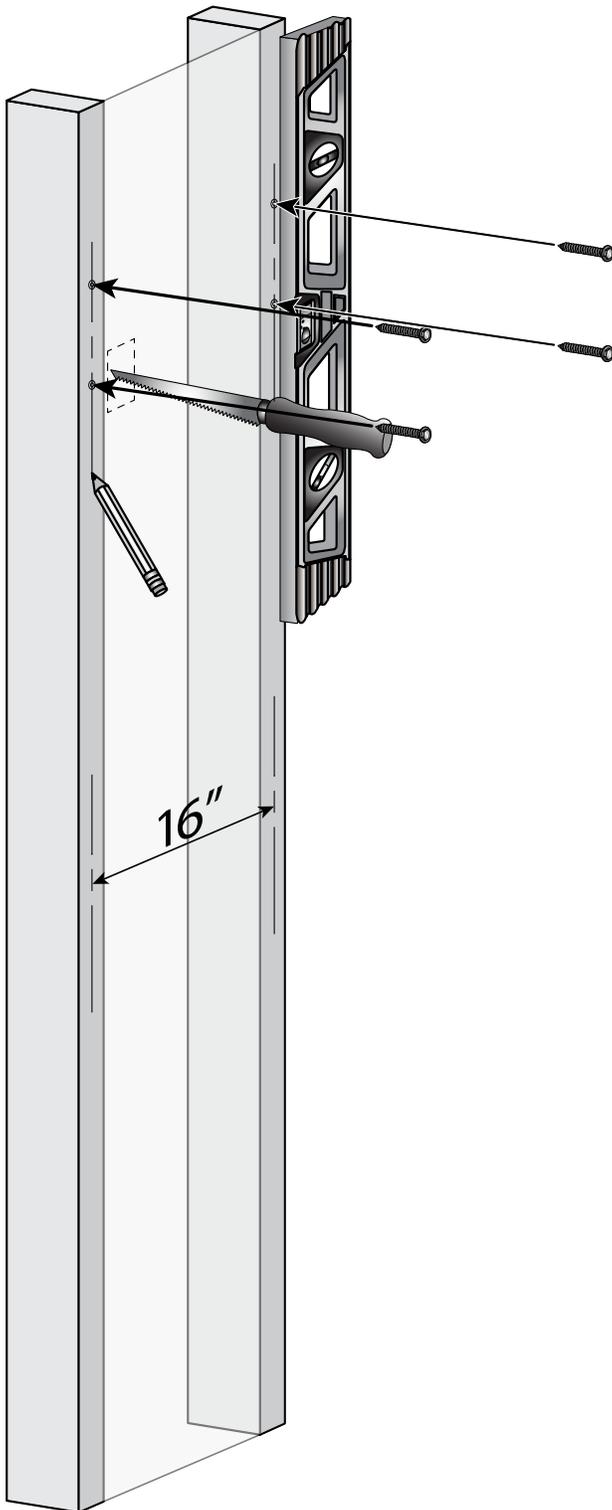
5. Install the 4 supplied 1 ¾" hex head screws into the studs at the locations marked leaving 1/8" between the wall surface and screw head.

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.
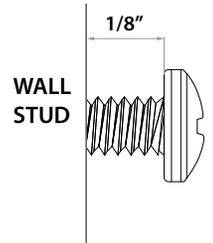
INSTALLING THE WALL MOUNTED EVAPORATOR (FAN COIL UNIT)

9. 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.

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).
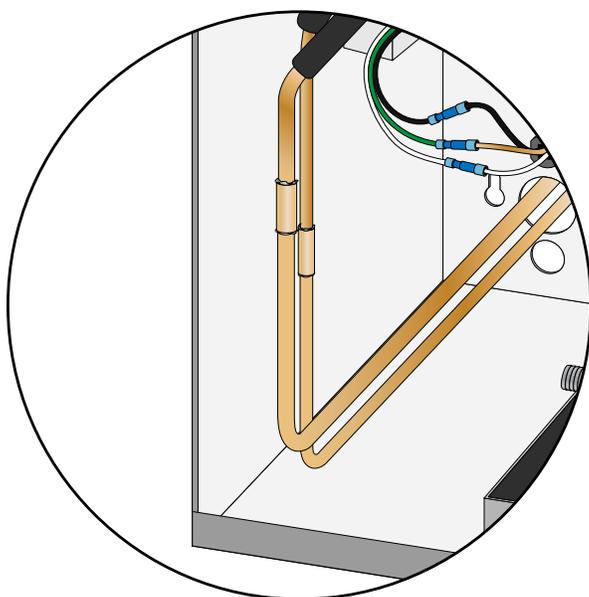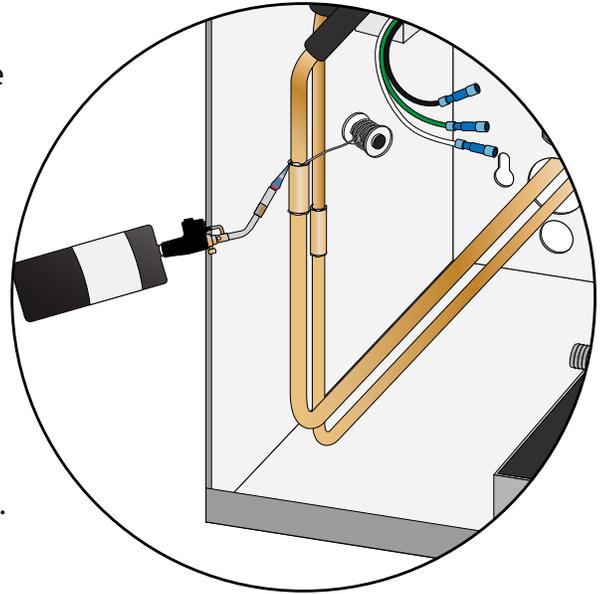
21. Install the supplied black strain relief to secure the power supply wires in the housing.

22. Route the display adapter through the grommet below the drip dray 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 13 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 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 removal of excessive condensate. It is mandatory to install the drain line. 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 three inch 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 vertical with the three inch piece facing up.

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

⚠ **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.
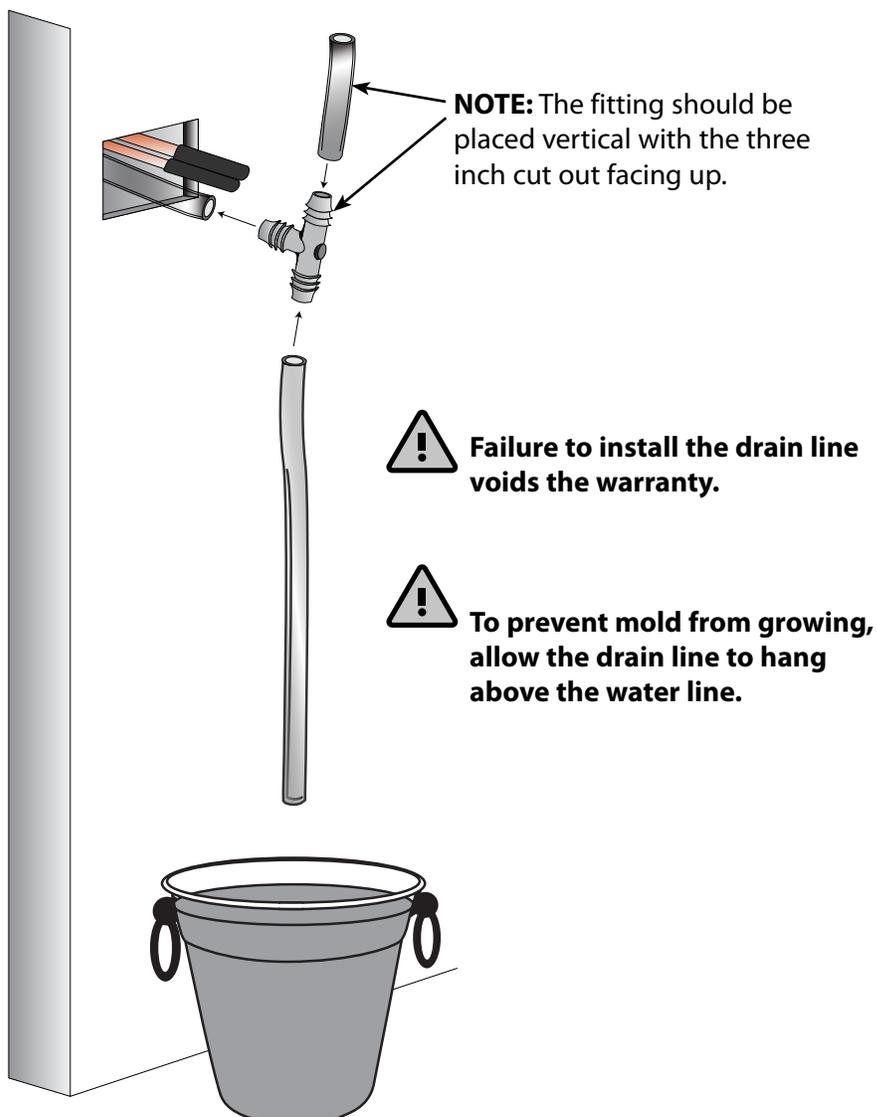
LIQUID MEASURING THERMOSTAT

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 feet away from the air output and not in the flow of the air.

To Use the thermostat:
1. Locate an empty wine bottle.
2. Fill 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.
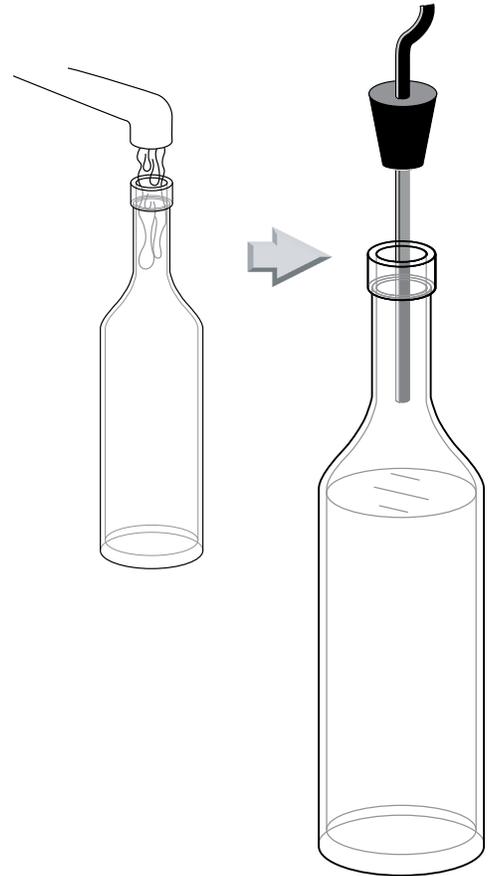
PREPARING THE FULLY DUCTED EVAPORATOR (FAN COIL UNIT)

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 13 for correct installation and location of the bottle probe.

4. Follow the directions on page 32 to mount the remote keypad and run the communication cable to the evaporator unit.
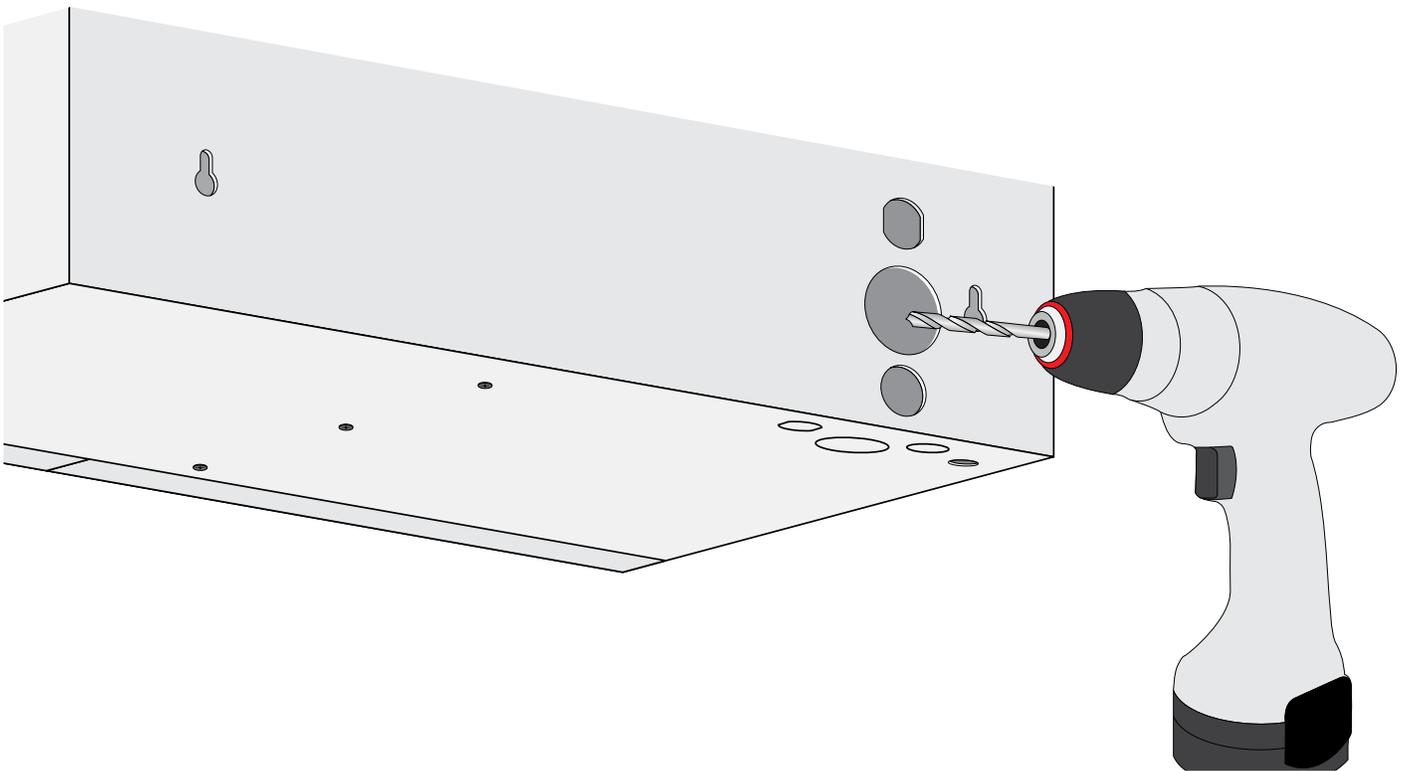
INSTALLING THE FULLY DUCTED EVAPORATOR (FAN COIL UNIT)

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

Power

3/8" Suction

1/4" Liquid

Drain
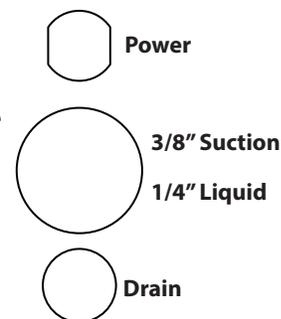
INSTALLING THE FULLY DUCTED EVAPORATOR (FAN COIL UNIT)

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 12 for drain line routing instructions.

REAR OF UNIT

HOLE FOR CIRCULAR CONNECTOR
(BOTTLE PROBE INPUT)

CIRCULAR CONNECTOR/
BOTTLE PROBE INPUT

RUBBER WASHER

UNIT PANEL

NUT
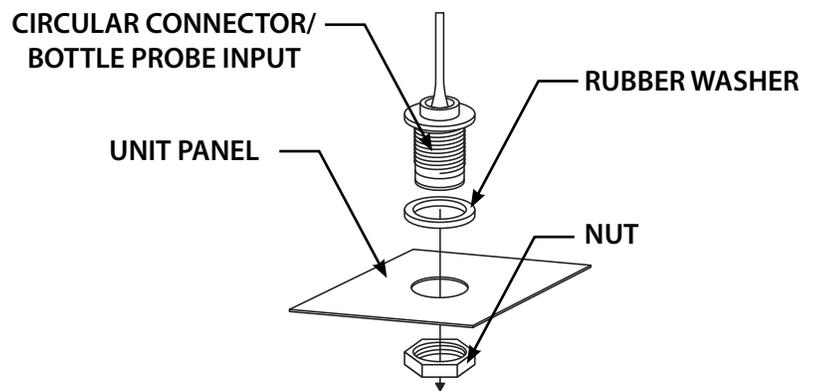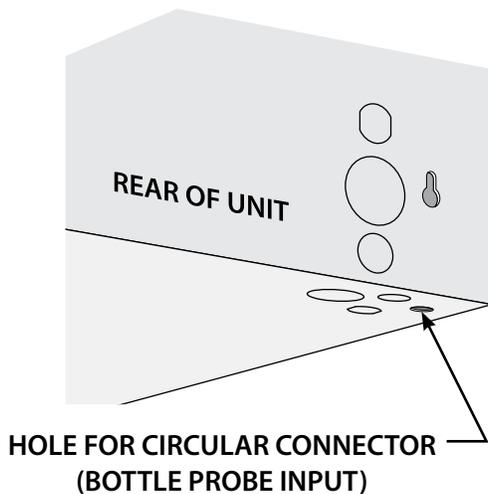
REMOTE KEYPAD: INSTALLATION AND CONFIGURATION

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

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

Red Wire

Black Wire
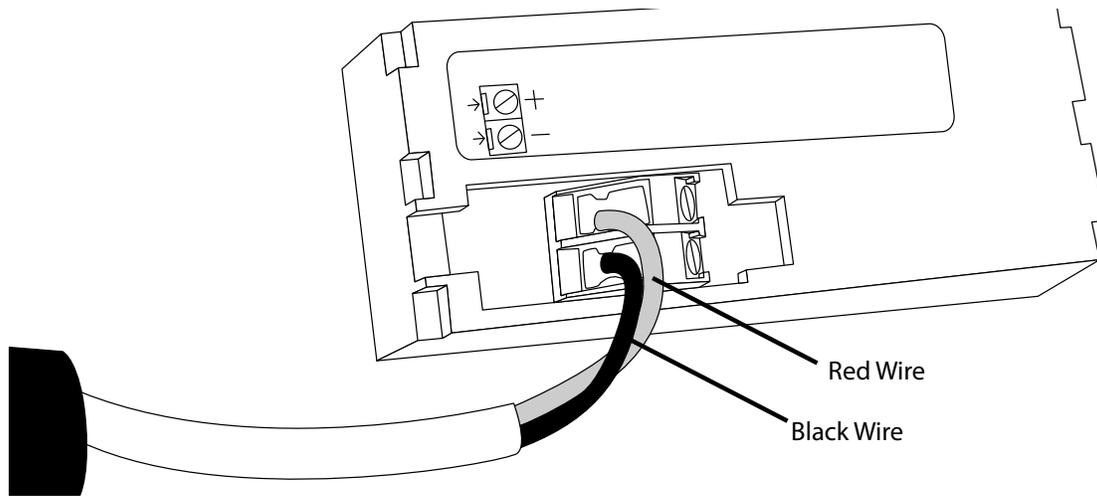
Route the communication line from the evaporator unit to the desired keypad location. Remove the wall mount bracket from the display housing. Using appropriate anchors or fasteners, secure the wall mount bracket to the wall. If routing the communication line through a wall, connect the wires to the back 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.
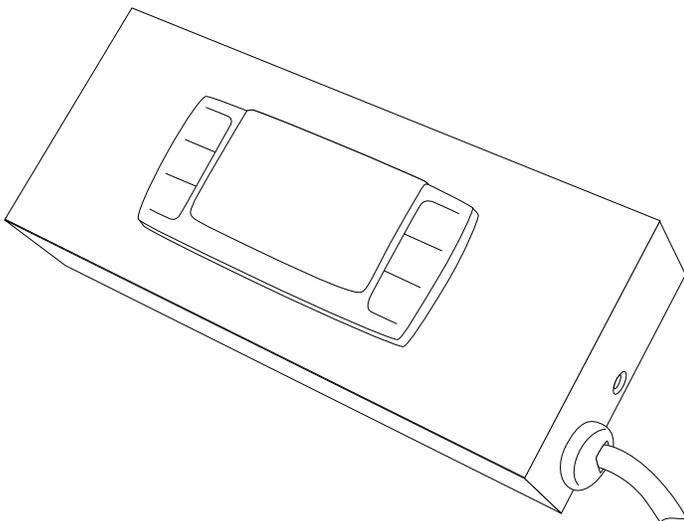
Connection wire in Side Mount configuration
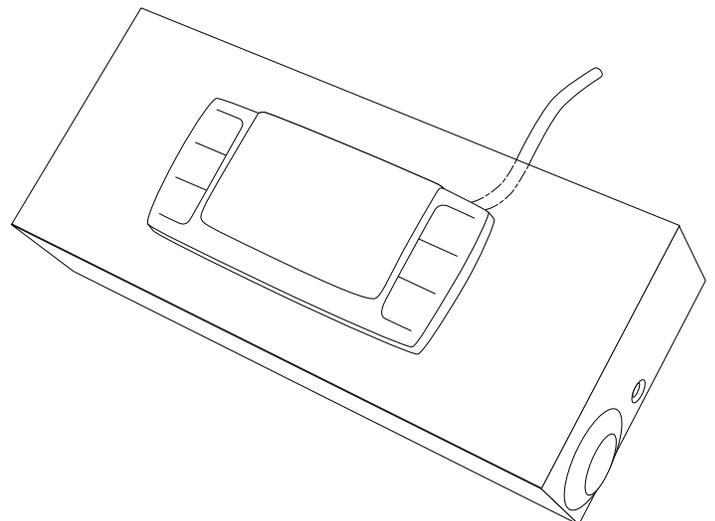
Connection wire in Rear Mount configuration

PLATINUM SPLIT WIRING DIAGRAM
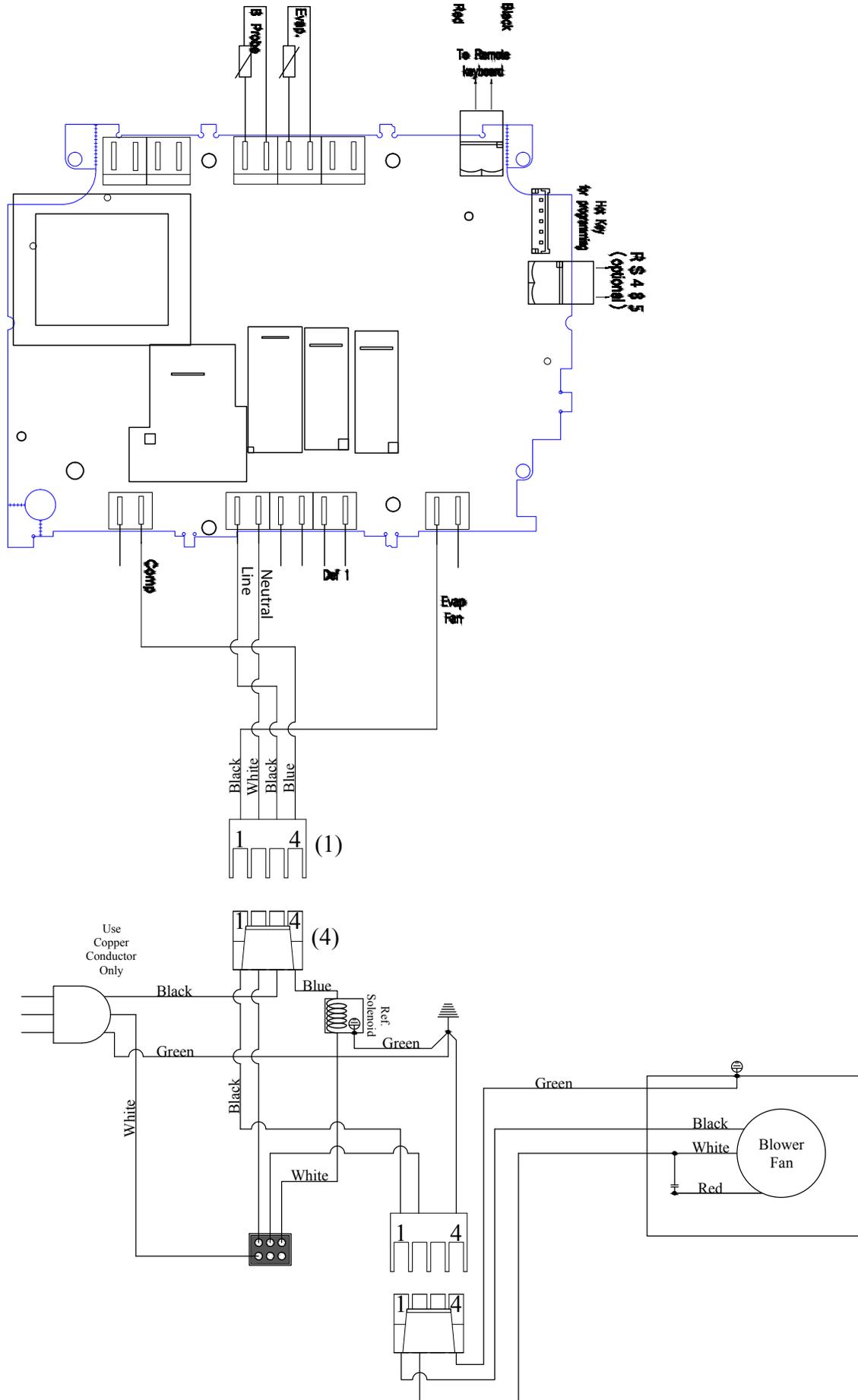
PLATINUM SPLIT WITH HUMIDITY WIRING DIAGRAM
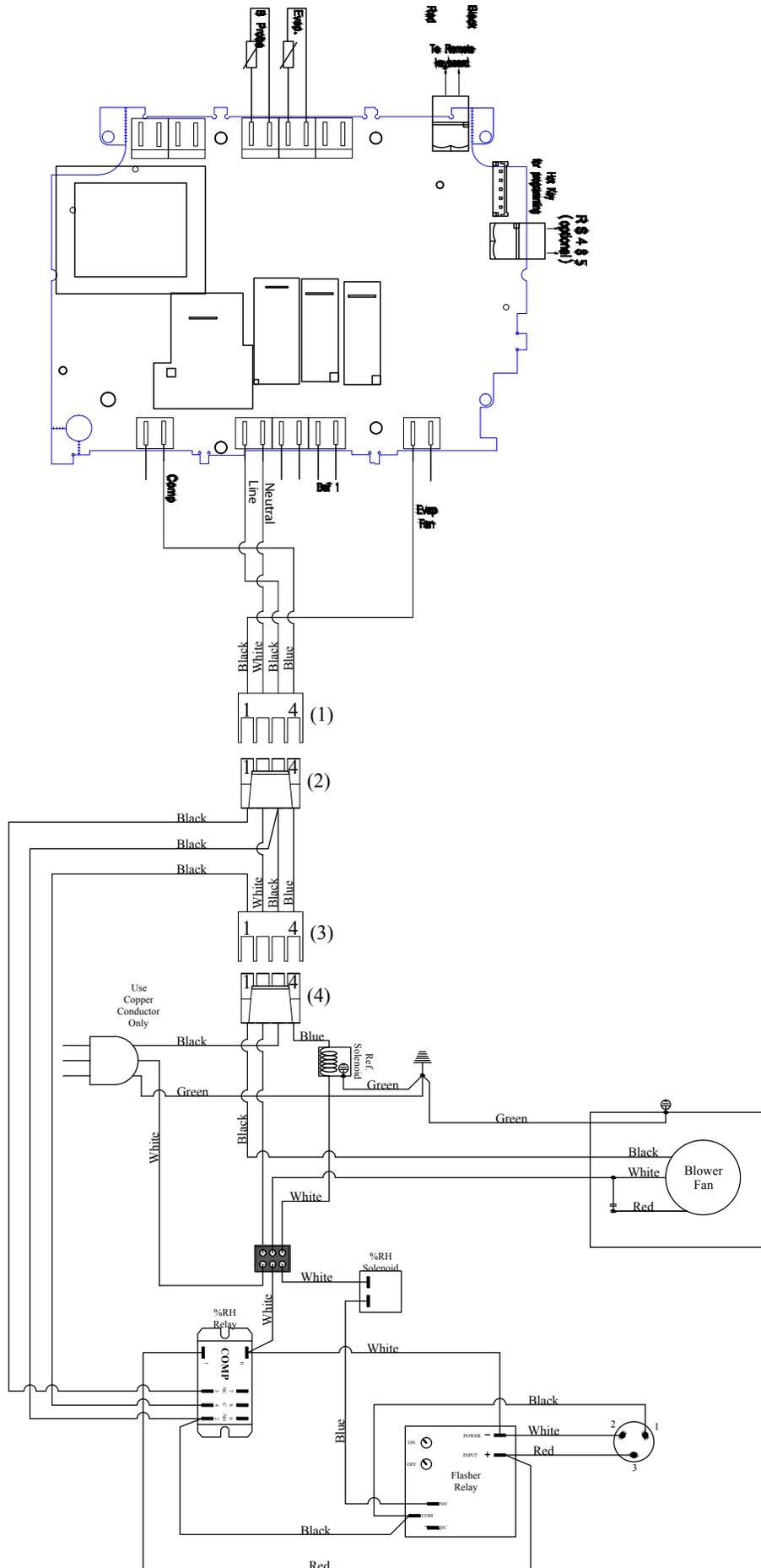
CONDENSING UNIT WIRING DIAGRAM

CAPACITOR

COMPRESSOR
TERMINALS

UNIT GROUND
CONNECTION

GREEN

POWER CORD
(GROUND TYPE)

L1

L2

1

C

2

1

3

S

R

OVERLOAD

RELAY

IDENTIFICATION RIB
(NEUTRAL)

NOTE: When T.P. Co.
approved alternate relay
is used, connect leads to
same numbered terminals
regardless of location.

PRESSURE
CONTROL
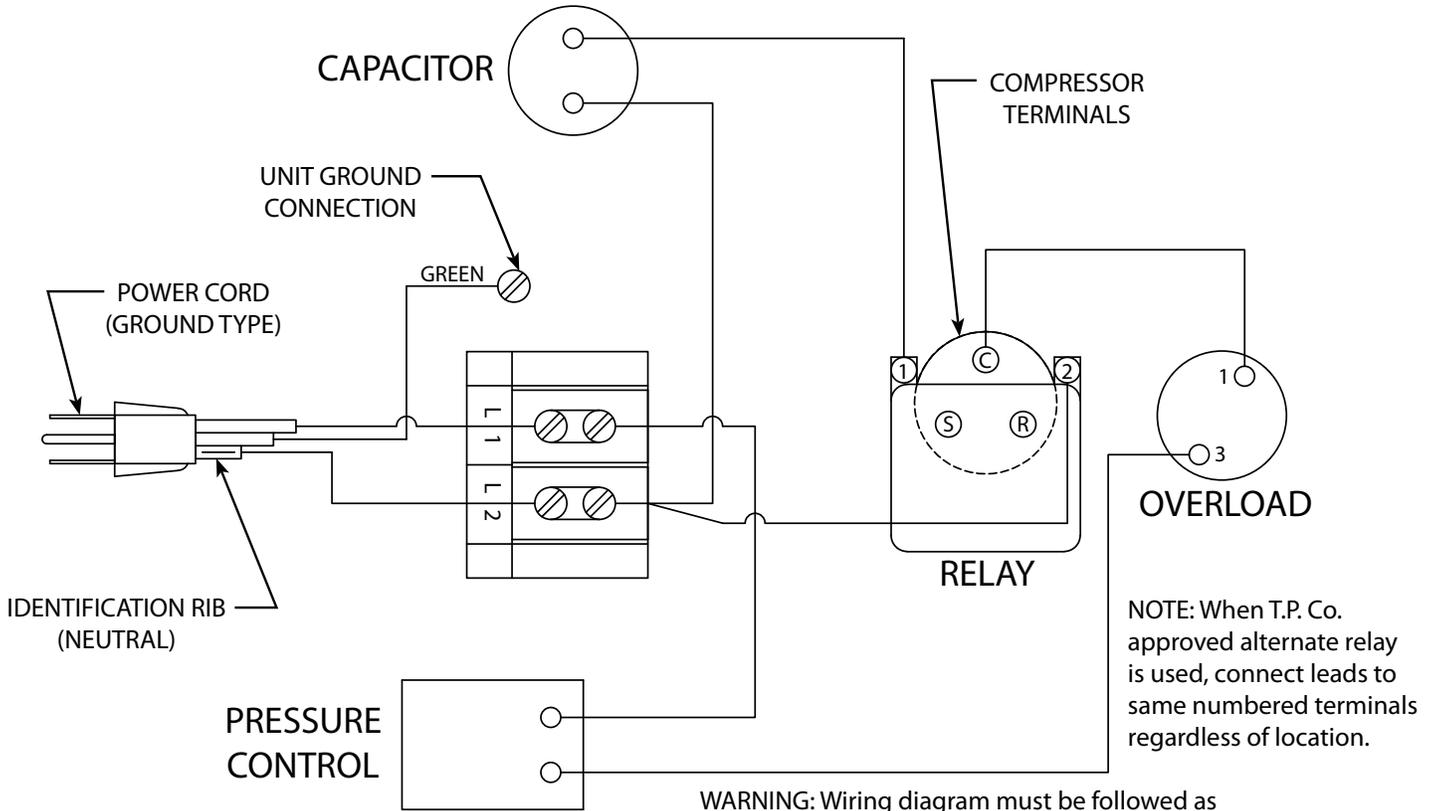
WARNING: Wiring diagram must be followed as
shown. Any incorrect wiring can cause serious
electrical hazard and potential damage or
rupture of component electrical parts.

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 tubbing 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

TUBING OUTLET

OPTIONAL INSERT FOR PLASTIC TUBING
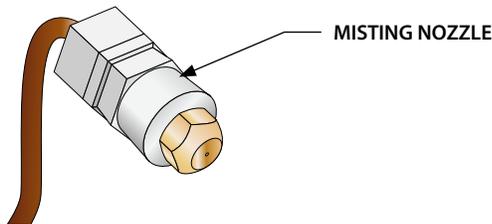
WATER SUPPLY

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**.
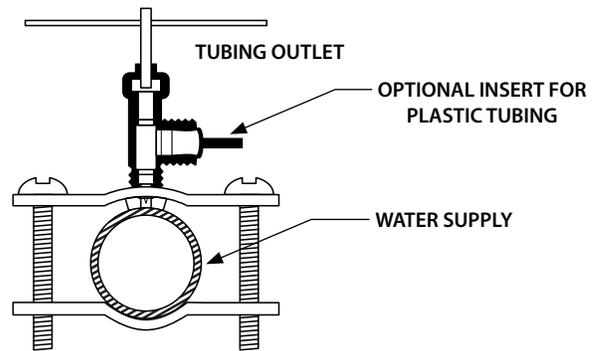
Figure 1

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.

COOLING UNIT

FILTRATION SYSTEM
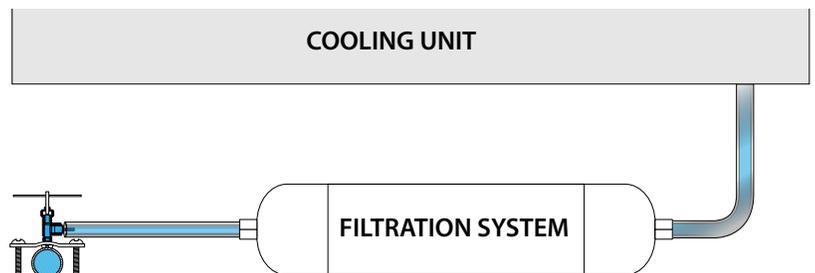
Figure 2
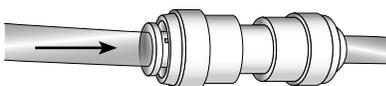
Figure 3

PSWC 102513

HUMIDISTAT INSTALLATION

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.
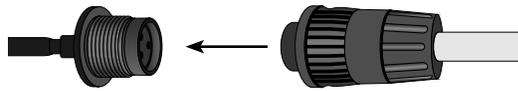
Figure 1

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**.

Slide controls
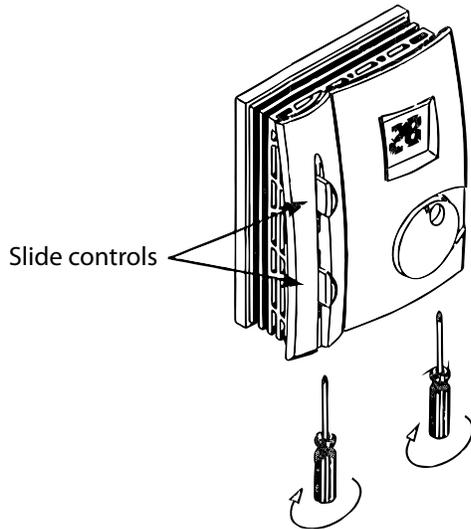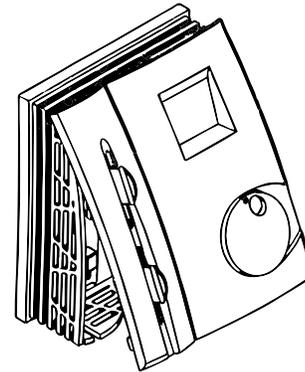
Figure 3

3. Carefully remove the cover as shown in figure **Figure 3**.

Figure 2

Mounting Without a Wall Mount Plate
1. Make sure the humidistat electrical is unplugged before installing the unit.
2. Position the back half of the humidistat cabinet on the wall or junction box and ensure it is level and covers the junction box completely.
3. Pull the electrical wires through the hole at the terminal block of the humidistat.
4. Drill holes in the wall through the 2 mounting holes in the back of the humidistat cabinet as shown in **Figure 4** and insert anchors into the holes.
5. Fasten the humidistat to the wall with screws through the mounting holes.

Screws

Terminal Block
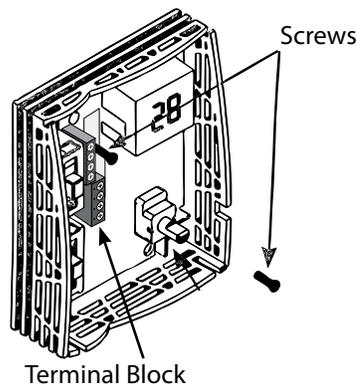
Figure 4

HUMIDISTAT INSTALLATION

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 and 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 2 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 2 screws through the mounting holes.
7. Then fasten the humidistat to the wall plate with screws through the mounting holes.
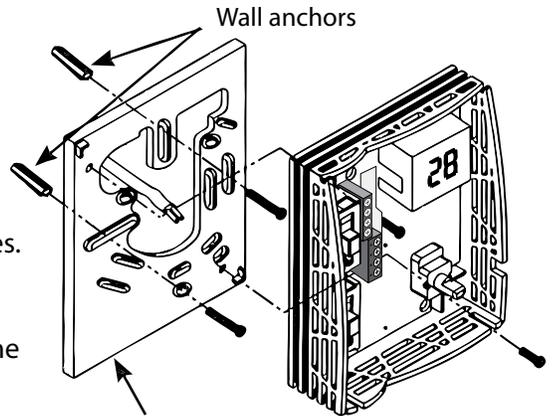
Electrical Connection

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 1 terminal and the black wire to the L terminal on the humidistat.

Wall anchors

Figure 5

Figure 6

Humidistat Dial
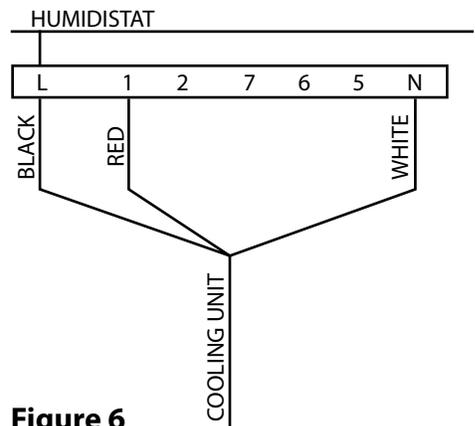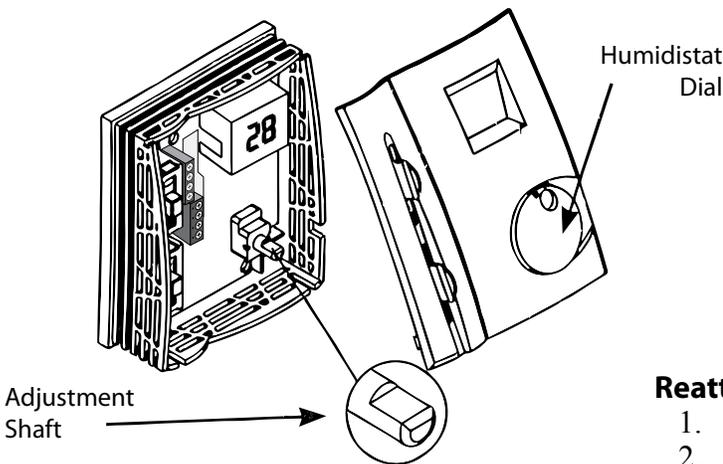
Adjustment Shaft

Figure 7 - Make sure the Dial is Vertical and the Adjustment Shaft is Horizontal

Reattaching the Cover

1. Move both slide controls to the bottom position.
2. Align the humidistat adjustment shaft horizontally as shown in **Figure 7**.
3. In order for the humidistat dial to fit on the shaft, it must be aligned with the pointer above the dial.
4. Carefully attach the top cover and ensure the cover locks into place by pushing down on the top and then pushing inward toward the wall.
5. Attach the screws again at the bottom of the cover and tighten into place as shown in **Figure 8**.
6. Check that the adjustment dial and slide controls can be moved smoothly, otherwise remove the cover and check the alignment of the dial and the adjustment shaft and slide controls.
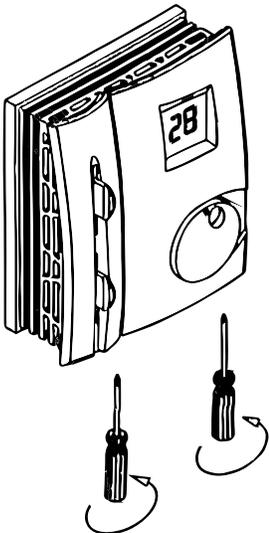
Correct Humidistat Settings

1. Rotate the dial to the desired humidity level.
2. Set the bottom selector switch to the Humid setting.
3. Set the top selector switch to the Hi setting.

Figure 8

PREPARING THE CONDENSING UNIT

Electrical Needs

The condensing unit requires a dedicated 115 volt, 20 amp circuit. A dedicated circuit breaker ensures that 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 and condensing unit.

- Provide an outlet for the condensing unit that matches the plug provided on the unit
- Ensure the voltage supplied matches the rating specified on the unit spec label
- 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.

In case the system should lose power, check the home/main circuit breaker. If the system does not respond properly, refer to the Troubleshooting section on page 34.

QUICK REFERENCE GUIDE
Water Cooled Condensing Unit

Suction Line Connection

Water Outlet Connection

Head Pressure Control Water Valve

Water Inlet Connection 3/8 NPT

Low Pressure Fitting

Mounting Holes

Liquid Line Connection

Wiring Diagram (Underneath Cover)

Low Pressure Control

Power Cord
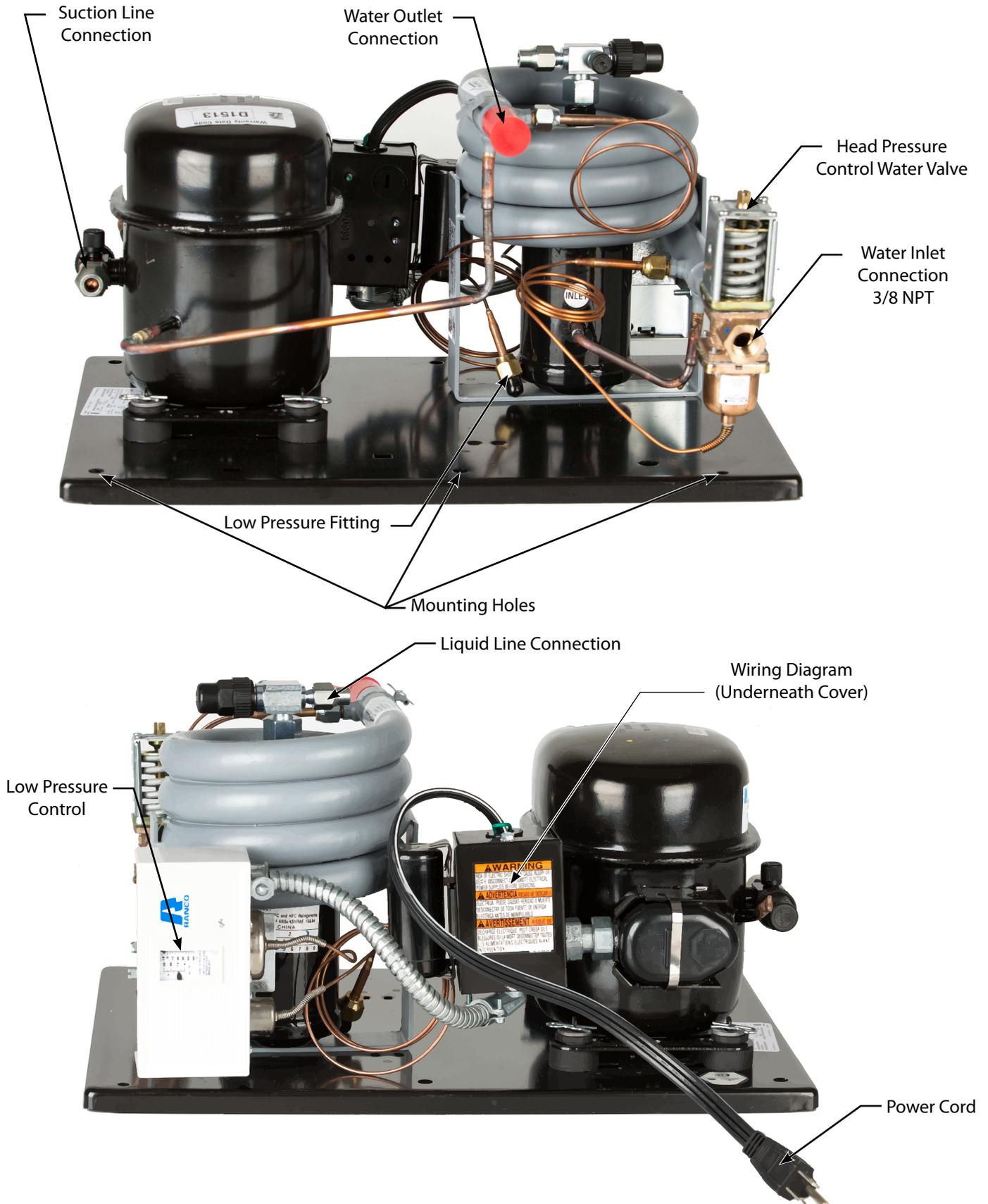
LINE SET PIPING DIAGRAMS

These are two 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
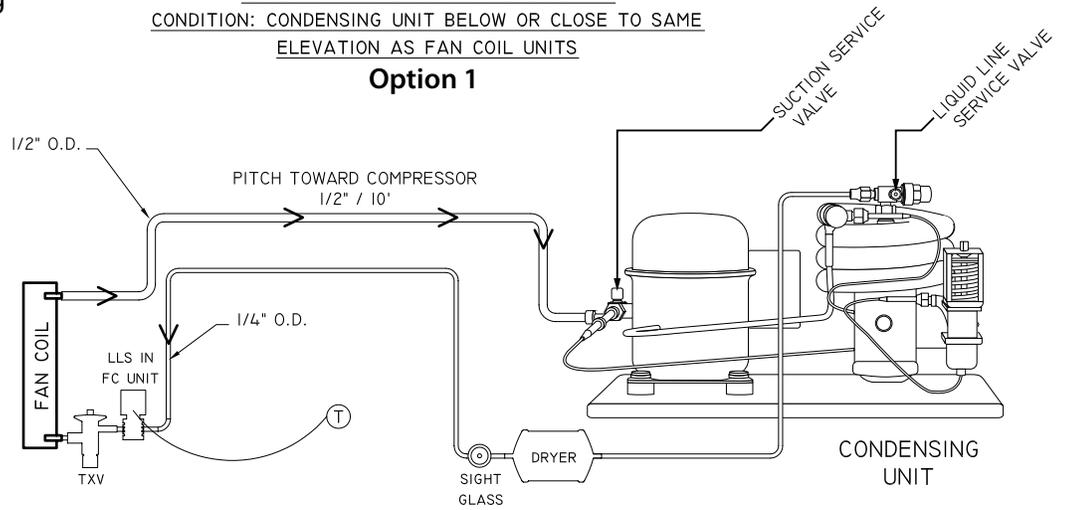
1/2" O.D.
PITCH TOWARD COMPRESSOR 1/2" / 10'
SUCTION SERVICE VALVE
LIQUID LINE SERVICE VALVE
FAN COIL
LLS IN FC UNIT
1/4" O.D.
TXV
T
SIGHT GLASS
DRYER
CONDENSING UNIT

	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 WATER 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
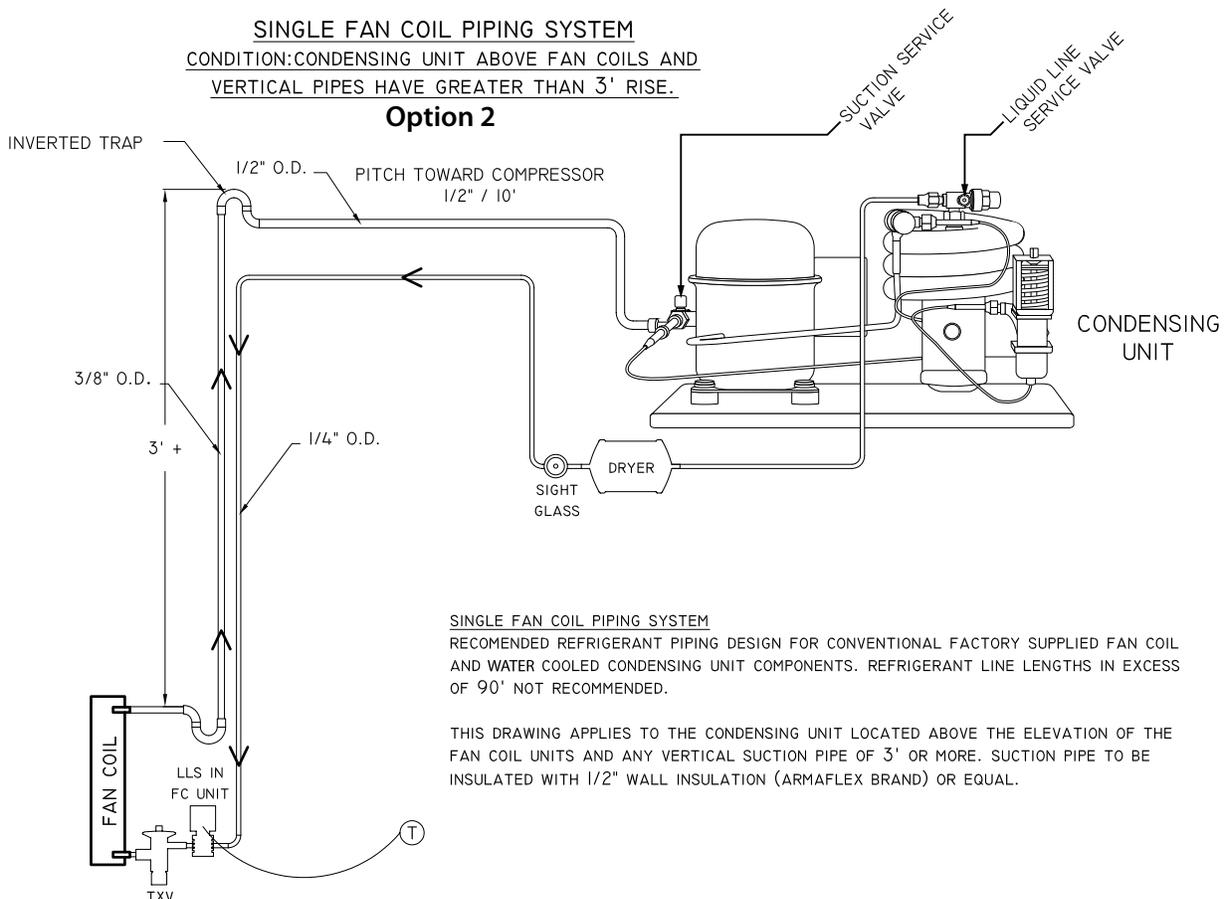
INVERTED TRAP
1/2" O.D.
PITCH TOWARD COMPRESSOR 1/2" / 10'
SUCTION SERVICE VALVE
LIQUID LINE SERVICE VALVE
3/8" O.D.
3' +
1/4" O.D.
CONDENSING UNIT
SIGHT GLASS
DRYER
FAN COIL
LLS IN FC UNIT
TXV
T

SINGLE FAN COIL PIPING SYSTEM
RECOMENDED REFRIGERANT PIPING DESIGN FOR CONVENTIONAL FACTORY SUPPLIED FAN COIL AND WATER 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

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

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

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.

Most water cooled units are installed indoors. Since this unit rejects all of its heat to a water source, there is no need to provide special ventilation when installing indoors. If this unit is installed outdoors it must be installed in a location which shelters it from adverse conditions such as direct sunlight and rain.
Using the mounting holes located in the base, fasten the condensing unit to a secure foundation.

Refrigerant Piping Overview
•   Using the charts and illustrations found on the previous page, 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.
    o   Purge the hoses with dry nitrogen and tighten the hose connections.
    o   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.
•   Flare a short piece of ¼" copper tubing.
•   Remove the flare nut from the fitting on the liquid line valve.
•   Slide the nut over the piece of tubing and attach the tubing to the fitting on the liquid line 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
•   Flare a short piece of 3/8" or ½" copper tubing. The correct size will depend on your model type.
•   Remove the flare nut from the fitting on the suction line service valve.
•   Slide the nut over the piece of tubing and attach the tubing to the fitting on the suction line service valve.
•   Install an access valve close to the tubing and another at the outlet of the evaporator unit (fan coil 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).

INSTALLING THE CONDENSING UNIT (continued)

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.
- Open the suction line service valve and purge nitrogen through the system.
- Braze all connections and cool off quickly
- Cap both access valves on the suction line
- Connect the high pressure hose from the manifold to the liquid line 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
- Install the low pressure fitting onto the access valve near the suction line service valve.
- 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.

Water Piping Procedures
- While unit is pulling a vacuum, install all water line connections.
- If the supply water is above 80 psi, a pressure reducer must be installed before the condenser inlet so that the water valve will work properly.
- Installations in closed loop systems should have bleed valves and sediment traps to prevent fouling the condenser with suspended matter.
- Connect a minimum 3/8" water line capable of supplying at least 1 gpm to the 3/8 NTP water inlet connection on the condensing unit. **There must be sufficient water flow so that the outlet temperature does not exceed 95°F.**
- Connect copper, Pex or similar tubing in accordance with local laws capable of handling hot water to the water outlet connection of the condensing unit.
- Turn on the water supply and check for leaks.

INSTALLING THE CONDENSING UNIT (continued)

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.
- Verify that the low pressure control is set to 20 PSI for high event and 15 PSI for the differential.
- Plug in the condensing unit to a dedicated 20 amp electrical outlet. 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 degrees.**
- Adjust the head pressure control until the head pressure is 125 PSI. **The head pressure control must be set to maintain a head pressure no higher than 150 PSI.**

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 32 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.

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 grill with the 4 ball studs on the housing. Push the front grill onto the balls studs until it snaps into place.
5. Using a Phillips head screwdriver, fasten the bottom two screws to fasten the grille to the unit

DRAIN PAN
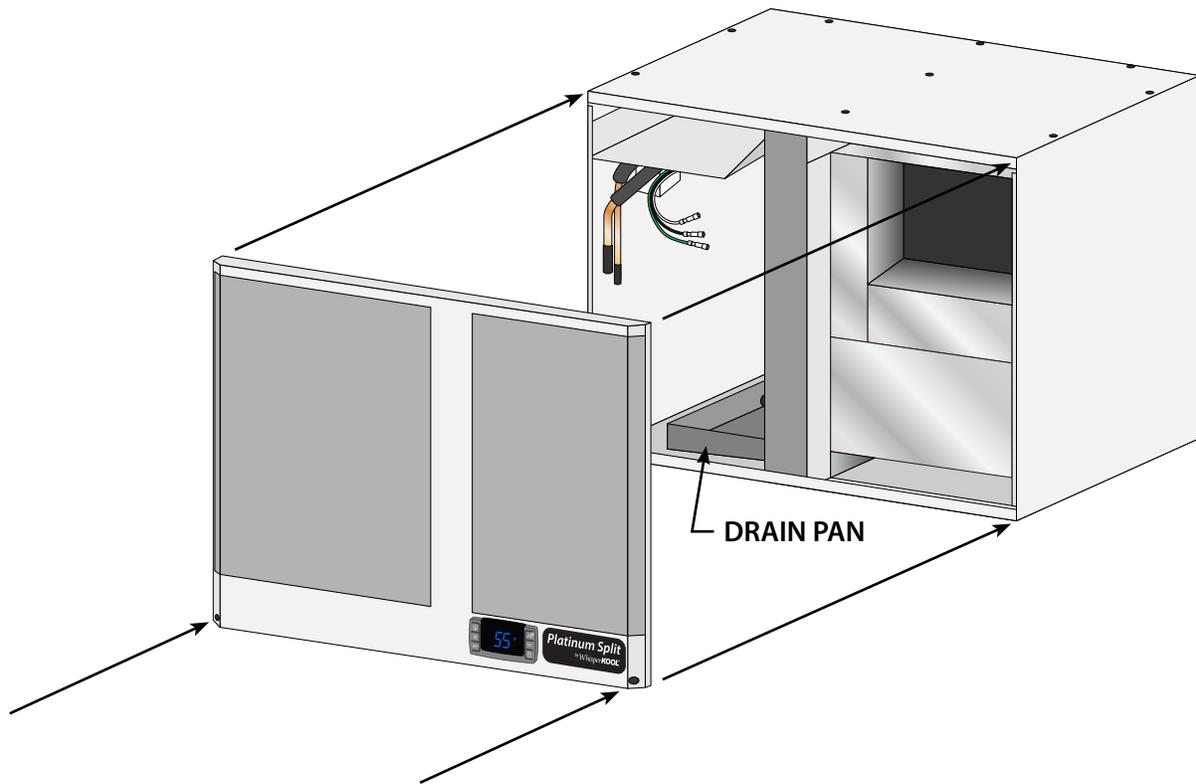
INSTALLING THE DUCT PLENUM

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 two 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 Snow Flake symbol will be displayed (if unit is calling for cooling). There may be a brief delay prior to the evaporator fan turning on, as the fan will not turn on until the evaporator probe temperature drops below 70°F. When the evaporator fan is activated the Fan symbol will be displayed. The temperature control feature for the evaporator fan is a feature applicable to WhisperKOOL. This is the Advance Product Safety Technology (APST), which 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.

Normal System Cycle
After 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, which is a feature of the WhisperKOOL Humidity Management (WHM) system. The WHM is an adjustable feature which allows the customer the convenience of managing the humidity enhancement of their wine cellar. The WHM is one of the many Customer Preference Selection features which allow the customer the ability to fine tune the controls.

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 prevent short cycling of the compressor.

Anti Frost Cycle
The Anti Frost Cycle is a precautionary measure, as icing or frosting of the coil does not occur during normal operation.   The system will go through a defrost cycle every 4 hours. During the defrost cycle, the indoor fan will provide air flow across the indoor coil, which will evaporate any frost accumulation.

Low Ambient Conditions
If the condensing unit is installed outside (which will 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.

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.

Remote Control Panel (standard on ducted units)
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.

Display Set Point

High Temp / Pre-Chill

Low Temp

ON / OFF

TEMPERATURE

Button	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 hrs. 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	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.
SET		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	1. 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° 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" buttons for 3 to 5 seconds to disable, "PON" should appear

CPSM Mode	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. 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 three 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
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 to Warm

Possible Cause	Solution
The temperature or the room condensing unit is exhausting to has exceeded 110°F	Intake temperature needs to drop below 85°.
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 are 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 7)

TROUBLESHOOTING GUIDE

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 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 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 you 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
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 two screws on the front of the grille or duct plenum
3. Pull the grill 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 two 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.

NOTES

TECHNICAL ASSISTANCE

WhisperKOOL Customer Service is available Monday through Friday from 8:00 a.m. to 4:00 p.m. Pacific Time.

The customer service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:
- 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(855) 235-5271
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 20ft 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™
The Coolest Thing In Wine Storage

WhisperKOOL Product Terms and Conditions
Including Product Limited Warranty And Product Installation Requirements
For WhisperKOOL Split System Series

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

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

2. WhisperKOOL Product Installation and Limited Warranty

    A. Purchaser of the product must arrange for the product to be installed by a certified HVAC/R technician in accordance with procedures set forth by WhisperKOOL and described in the WhisperKOOL Owner's Manual.

    B. The HVAC/R technician installing the product must complete the designated portion of the Split Startup Checklist and provide licensing or certification identification number information to assist in the warranty registration process.

    C. Purchaser must return the completed Split Startup Checklist to WhisperKOOL within thirty (30) days of installation of Product. The Split Startup Checklist must be approved by WhisperKOOL to activate the Limited Warranty. If the Split Startup Checklist is approved, Purchaser will be sent activation approval documents and will start receiving the benefits of the Limited Warranty throughout the warranty period. If the Split Startup Checklist is incomplete, Purchaser will be informed they have five days to complete the Split Startup Checklist and re-submit to WhisperKOOL. The Split Startup Checklist will be reviewed again, and if denied, Purchaser will be informed that they have 10 business days for corrective action. Failure to register the Product may result in loss of warranty.

    D. Purchaser is responsible for the full costs of installation and any additional parts required for the proper and complete installation of the product.

    E. For Split Systems returned to WhisperKOOL in accordance with the terms and conditions of the Limited Warranty, WhisperKOOL warrants against defects in material and workmanship as follows:

        1. LABOR - For a period of two (2) years commencing on the date of purchase, WhisperKOOL will, at its option and discretion, reimburse up to $250 to the End User for cost incurred for servicing, repairing, removing or installing warranty parts. Invoice for service must be forwarded to WhisperKOOL for assessment and processing. The Split System warranty is invalid if there is attempted repair by anyone other than an HVAC/R technician approved by WhisperKOOL to service the Product.

        2. PARTS - For a period of two (2) years commencing on the date of purchase, WhisperKOOL will supply, at no charge, new or rebuilt replacement parts in exchange for defective parts. Replacement parts are warranted only for the remainder of the original warranty period.

        3. FREIGHT - For a period of two (2) years commencing on the date of purchase, if after WhisperKOOL approved evaluation the original Product failure is determined to be the cause of a manufacturers defect, and not the cause of an installation error or other cause, WhisperKOOL will cover at its option, freight for the replacement parts or Product.

The following part or cause of failure is not the responsibility of WhisperKOOL:

- Improper voltage supply
- Line set with screw connectors (high end and low end)
- Leaks found at the braze points when performing pressure check
- Unit that has been charged incorrectly
- Incorrect tubing diameter used on line set
- A unit that has been wired incorrectly
- Valve stem on condenser side
- Improper installation of P-Trap
- Lack of P-Trap (if required)
- Condensers that are installed outdoors or in elements that would affect operation without proper cover or housing. (Housing is available from Manufacturer).

Product Warranty Limitations and Exclusions.

1. This limited warranty does not cover cosmetic damage caused during installation, damage due to acts of God, commercial use, accident, misuse, abuse, negligence, or modification to any part of the Product. Delivery and installation of the Product, any additional parts required, as well as removal of the Product if warranty work is required, are all at the sole cost, risk and obligation of the End User.
2. This limited warranty does not cover damage due to improper installation or operation or lack of proper maintenance of the Product, connection of the Product to improper voltage supply, or attempted repair of the Product by anyone other than a technician approved by WhisperKOOL to service the Product.
3. This limited warranty does not cover any Product sold "AS IS" or "WITH ALL FAULTS."
4. Product that has been replaced during warranty period does not extend the warranty period past the original date of purchase.
5. This limited warranty is valid only in the continental United States.   Sales elsewhere are excluded from this warranty.
6. Proof of purchase of the Product in the form of a bill of sale, receipted invoice or serial number, which is evidence that the Product is within the Limited Warranty Period, must be presented by the End User to WhisperKOOL in order to obtain limited warranty service.
7. This limited warranty is void if the factory applied serial number has been altered or removed from the Product.
8. This limited warranty is voided if installed in an enclosure of insufficient design that does not follow the Product installation requirements stated herein and in the owner's manual.
9. Removing the rivets from the Product's unit housing without prior authorization from WhisperKOOL voids this limited warranty.
10. The End User must first contact WhisperKOOL Customer Service by telephone (at 1-800-343-9463) prior to attempting service on any Product still under the limited warranty; else the limited warranty is voided.
11. 11. This limited warranty does not cover Product being concealed by, but not limited to, vegetation, fabric, shelving, mud, snow, or dirt. Product must not be painted or limited warranty will be void.
12. This limited warranty does not cover exposure to corroding environments such as, but not limited to, petroleum and gasoline products, cleaning solvents, caustic pool chemicals, and marine air.
13. This limited warranty does not cover any cause not relating to Product defect.
14. THE REPAIR OR REPLACEMENT OF THE PRODUCT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF YOU, THE END USER, AS WELL AS ANYONE ELSE IN THE CHAIN OF TITLE OF THE PRODUCT, DOES NOT START A NEW LIMITED WARRANTY TIME PERIOD, AND IS IN LIEU OF ALL OTHER WARRANTIES (EXPRESS OR IMPLIED) WITH REGARD TO THE PRODUCT. IN NO EVENT SHALL WHISPERKOOL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THE IMPLIED WARRANTIES OF MERCHANTABILITY

1. AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

2. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at WhisperKOOL's sole discretion, void this limited warranty.

3. No one has any authority to add to or vary the limited warranty on this Product.

3. Maintenance Requirements

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

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

4. Additional End User Costs And Responsibilities

Terms and conditions for replacing the Product that is being evaluated for limited warranty.

1. After evaluation by a certified HVAC/R technician and the Product is found to be un-repairable in the field, contact WhisperKOOL Customer Service to arrange for replacement under the warranty guidelines. When a claim for warranty is submitted for a condenser skid, the End User must purchase a new condenser skid from WhisperKOOL at retail price. Upon installation of the new condenser skid by a certified HVAC/R Technician, the HVAC/R Technician must complete the Installation Checklist and End User must submit the Installation Checklist to WhisperKOOL Customer Service for approval. The original condenser skid must be returned within 21 days to WhisperKOOL for failure analysis. If the Installation Checklist is approved and the failure is evaluated as defective and not installation error or other reason, the End User will be refunded for the cost of the replacement skid.

2. If the Product failure is evaluated and it is determined that it is an installation error or other reason, all costs, including shipping will be the responsibility of the End User.

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

A. End Users should satisfy themselves that the Product they are purchasing is suitable for their particular needs and requirements, and thus no responsibility will be placed with WhisperKOOL for the End User's decisions in this regard.

B. End Users must assure that the product is installed by a certified HVAC/R technician. Failure to do so will result in Voiding the Limited Warranty.

C. It is the End User's responsibility to secure safe haven/storage for ANY AND ALL items that are being kept and stored in the End User's wine cellar, including any Product. WhisperKOOL takes no responsibility for the safety and preservation of the aforementioned items in the event that the environment becomes unsuitable to maintain a proper storage environment.

D. End User is responsible for initial installation costs, including, but not limited to, labor costs and the cost of any additional parts necessary to complete the installation.

E. End User is responsible for all costs incurred for the installation and/or removal of the Product, or any part thereof, unless such cost has been agreed by WhisperKOOL to be a warranty repair prior to the work being performed.

5. Sales and Use Tax

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

6. Customer Service and Troubleshooting

WhisperKOOL's customer service department is available to answer any questions or inquiries for End Users regarding a WhisperKOOL Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:30 a.m. to 4:00 p.m. PST, at telephone number 1-800-343-9463. WhisperKOOL reserves the right to have a certified, WhisperKOOL-approved, HVAC/R technician go on site and inspect the product if the initial trouble shooting warrants further investigation. WhisperKOOL Corporation is located at 1738 East Alpine Avenue, Stockton, California 95205.

7. Request for Product Evaluation and Repair Under Warranty

SPLIT SYSTEM FIELD SERVICE WARRANTY POLICY: This Policy is to clarify what falls under Warranty Service and what becomes the responsibility of the Owner. WhisperKOOL ("manufacturer") strives to provide our customers with a superior Product and we back our Product with a Two Year Limited Warranty. Please review the WhisperKOOL Product Terms and Conditions including Product Limited Warranty and Product Installation Requirements to ensure you have a complete understanding of our Policy and coverage of your Split System.

ARBITRATION: Any disputes arising out of or in connection with the installation and warranty of the Split System shall be referred to and finally resolved by a WhisperKOOL approved Independent Certified HVAC/R Technician. The evaluation of the Technician on all issues or matters of identifying the responsible party (WhisperKOOL or Installing Technician) shall be determined in a written report. This report will be made available to all concerned parties. If discovered under warranty, WhisperKOOL will assume the financial responsibility under their warranty guidelines. If the report finds the Owner's Installer as the responsible party, WhisperKOOL will provide all documentation to the customer to substantiate the findings. This will include the Invoice from the Independent Certified HVAC/R Technician and the written report of the findings. The Owner will become responsible for payment directly to WhisperKOOL for all charges incurred for repairs (labor, parts and shipping costs) on the Split System.

8. Miscellaneous Terms and Conditions

A. Return Policy. All return inquiries must be made within thirty (30) calendar days of the original purchase of a Product and are subject to a twenty five percent (25%) restocking fee. Shipping costs are not refundable and the Purchaser is responsible for all return shipping costs (including customs fees and duties, if applicable).

B. Security Interest. WhisperKOOL retains a security interest in each Product until payment in full.

C. Construction and Severability. Every provision of these Terms and Conditions shall be construed, to the extent possible, so as to be valid and enforceable. If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will, to the extent so held, be deemed severed from the contract of sale between Purchaser and WhisperKOOL, and all of the other non-severed provisions will remain in full force and effect.

D. Governing Law/Choice of Forum. The laws of the State of California (without regard for conflicts of law) shall govern the construction and enforcement of the these Terms and Conditions of Sale (Sections 1 through 9 inclusive, including Product Limited Warranty And Product Installation Requirements), and further these Terms and Conditions of Sale shall be interpreted as through drafted jointly by WhisperKOOL and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, WhisperKOOL, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose. No waiver by WhisperKOOL of any breach or default of the contract of sale (including these Terms and Conditions of Sale) concerning a Product will be deemed to be a waiver of any preceding or subsequent breach or default.

E. Correction of Errors and Inaccuracies. These Terms and Conditions may contain typographical errors or other errors or inaccuracies. WhisperKOOL reserves the right to correct any errors, inaccuracies or omissions, and to

change or update these Terms and Conditions, at any time without prior notice.

9. Questions, Additional Information And Technical Assistance

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

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

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

B. Technical Assistance. WhisperKOOL Customer Service is available Monday through Friday from 6:30 a.m. to 4:00 p.m. PST. The Customer Service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

1. The model and serial number of your WhisperKOOL UNIT.

2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model __Platinum Split_____   **Serial Number** __C__ ___ ___ ___ ___ ___

Installed by _____   **Date** _____

*Whisper**KOOL**™*