

PHANTOM SERIES **OWNER'S MANUAL**

24V Thermostat Conversion Kit

Phantom 3500

Phantom 5000

Phantom 8000

*Whisper***KOOL**[®]
The Future of KOOL

Conforms to ANSI/UL Std 427

We manufacture, test and certify 100% of our wine cooling units in the USA. By sourcing the best components and closely controlling our manufacturing processes, we can assure the highest-quality, lowest-defect manufacturing rates in the industry.

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INTRODUCTION

Customer Service

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

Using the Manual

This manual is intended to assist in the proper installation and maintenance of the WhisperKOOL cooling unit. In order to ensure the longevity of your cooling unit, the equipment should be installed correctly and have a proper care and maintenance schedule. Please read and review this manual carefully and keep it for future reference.

What is the WhisperKOOL Cooling Unit?

The WhisperKOOL cooling unit is a specialized refrigeration unit designed for one purpose only: to maintain the optimal temperature and humidity levels conducive to the proper storage and aging of fine wines. It is a self-contained cooling unit designed to be used as a forced-air, ducted unit.

How Does the WhisperKOOL Phantom Series Work?

The WhisperKOOL unit is especially designed to maintain optimal conditions for wine storage and aging. The unit is fully self-contained and is intended to be installed in an attic or utility room adjacent to the cellar. The ducted system allows a wide variety of installation options and results in quieter airflow.

Temperature Setting

The WhisperKOOL cooling unit can be set at any temperature within the acceptable wine-aging range of 55–70°F. It is designed to create a differential of up to 55°F between the cellar and the ambient temperature (if the temperature of the condenser intake air remains between 42°F and 110°F).

BEFORE YOU START

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or WhisperKOOL Customer Service at 1-800-343-9463.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The WhisperKOOL unit **requires a dedicated 115V, 20-amp circuit.** Use a surge protector with the WhisperKOOL unit. **Do not use a GFI** (ground fault interrupter) line.
4. The unit is designed to gently cool the cellar by circulating cool air throughout. Test the unit prior to installation.
5. You are **REQUIRED** to **install a drain line** to remove condensation from the unit.
6. The WhisperKOOL unit is intended for use in **properly designed and constructed wine cellars.** Hire a professional wine storage consultant with a valid contractor's license to build your wine cellar.

Never try to open the WhisperKOOL unit, repair it yourself, or use a service company without WhisperKOOL's authorization. This will void your warranty.

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

RECEIVING AND INSPECTING THE UNIT

Upon receiving your WhisperKOOL unit:

- Lift only at the designated hand-hold locations on the shipping container, or fully support the unit from underneath. A shipment may include one or more boxes containing accessories.
- Inspect the packaging for any obvious signs of damage or mishandling before opening the container.
- Note any discrepancies or visual damage on the bill of lading before signing.
- Place the box containing the WhisperKOOL unit on a tabletop to prepare it for testing prior to installation.
- Sit unit upright for 24 hours.

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

- Review the packing slip to verify the package's contents.
- Check the model number to ensure it is correct.
- Check that all factory options ordered are listed.
- Check the box for the following:

3500 / 5000 / 8000
Phantom cooling unit <ul style="list-style-type: none">• (1) Phantom Series owner's manual• (18) Anti-microbial pan tabs• (1) Drain line brush• (1) Exterior insulation blanket
Accessory kit <ul style="list-style-type: none">• (1) 8-foot power cord• (1) ½" barbed "tee" fitting• (1) Drain line tube (½" ID clear plastic tubing, 10 feet)
Phantom plenum box <ul style="list-style-type: none">• (20) #10 ½" self-tapping screws• (2) 16" x 16" x 10" return plenums• (2) 12" x 12" x 8" supply plenums• (1) Piece of evaporator return plenum insulation• (1) Piece of evaporator supply plenum insulation

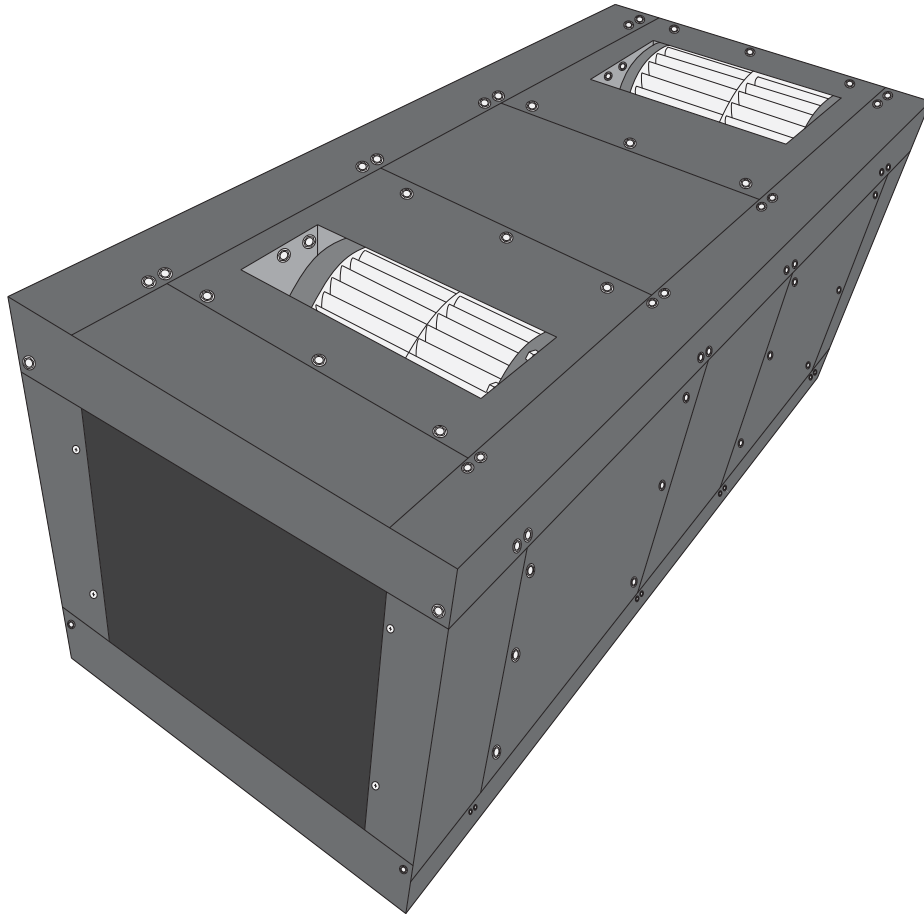
If any items listed on the packing slip do not match your order information, contact WhisperKOOL Customer Service immediately.

Please leave the WhisperKOOL unit in its original box until you are ready for installation. This will allow you to move the product safely without damaging it. When you are ready to remove the product from the box, refer to the installation instructions.

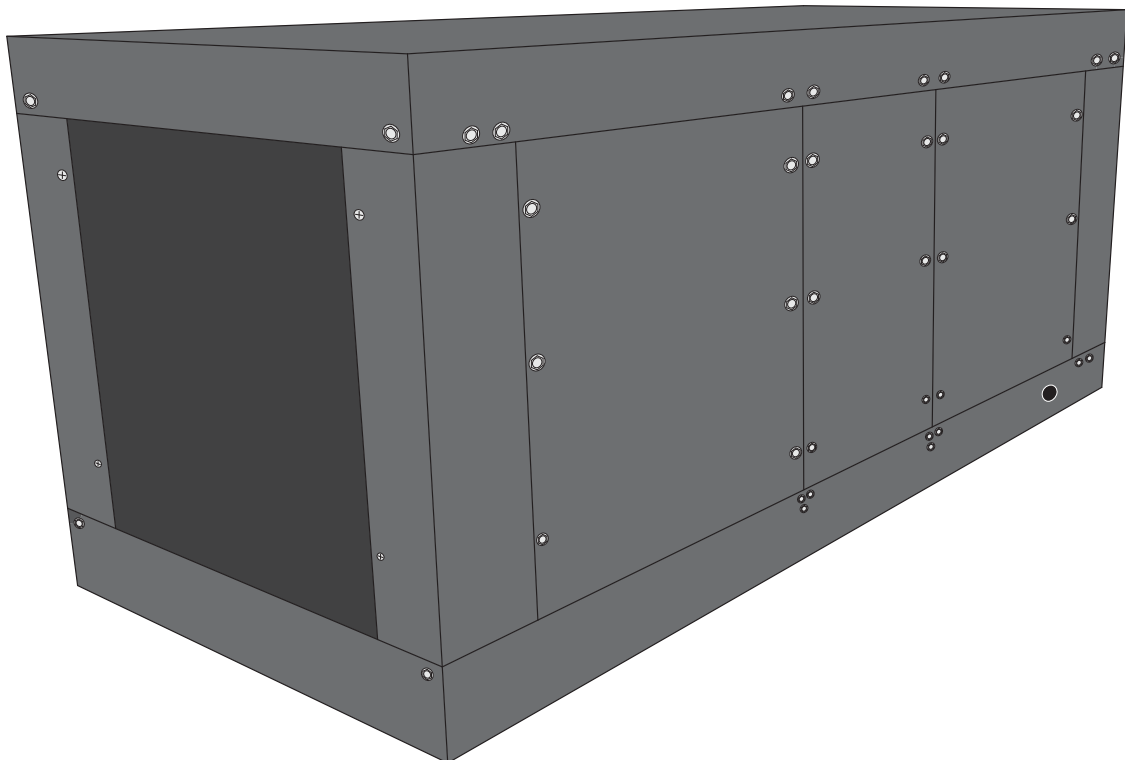
TIP: Save your box and all packaging materials. They provide the only safe means of transporting/shipping the unit.

QUICK REFERENCE GUIDE

Front / Top View



Rear / Side View



UNIT SPECIFICATIONS

Model	3500	5000	8000
Cellar Size*	Approx. 800 cu. ft. when fully insulated and sealed with a proper vapor barrier	Approx. 1250 cu. ft. when fully insulated and sealed with a proper vapor barrier	Approx. 2000 cu. ft. when fully insulated and sealed with a proper vapor barrier
BTU/h w/85°F air entering condenser coil	4060	5521	6025
Dimensions	37"L x 15.75"W x 15.75"H (without duct plenums) 48"L x 15.75" W x 22.75" H (duct plenums on top of unit) 48"L x 22.75" W x 15.75" H (duct plenums on side of unit)		
Refrigerant	R-134a		
HP	1/4	1/3	1/2
Voltage Rating	115V (20-amp dedicated circuit required); 230V (subject to availability)		
Weight (lbs.)	187		
Amps	9 (running amps)	9 (running amps)	9 (running amps)
Duct Sizing	8" supply, 10" return (evaporator and condenser)	8" supply, 10" return (evaporator and condenser)	8" supply, 10" return (evaporator and condenser)
Drain Line	½" ID clear plastic tubing		
Installation	Can be installed up to 25 duct feet away from cellar		
Thermostat	Aftermarket (24V thermostat not included)		
Temp. Delta	Can maintain a 55°F cellar temperature with up to 110°F condenser air intake temperature		
Warranty	Two-year limited warranty (parts and labor)		

* Sizing the Unit to the Room

The specification chart will provide information on the unit's cooling capacity. There are circumstances in which a cellar design may require a larger unit due to preexisting design restrictions. Certain building materials such as glass, stone, or concrete may seem adequate but do not offer the insulation capacity required to maintain the optimum temperature for storing wine. We recommend purchasing a unit with a larger capacity to compensate for these design limitations. Undersized cooling units can lead to premature failure and/or prevent the system from reaching the desired set temperature. As a result, undersized cooling units are not covered under warranty.

PREPARING THE WINE CELLAR

The performance and life of your system is contingent upon the steps you take in preparing the wine cellar. Improperly preparing your enclosure or incorrectly installing your unit may cause unit failure, leaking of condensation, and other negative side effects.

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

Wine storage professionals work with licensed contractors, refrigeration technicians, and wine rack manufacturers to build well-insulated 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 which we do not address.

Wall & Ceiling Framing

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

Insulation

Insulation is **REQUIRED** in order to properly use WhisperKOOL products. It is vital that all walls and ceilings be insulated to keep the cellar temperature as consistent as possible during the summer and winter months. Standard fiberglass or rigid foam insulation is normally used in cellar construction; in some cases, "blown-in" insulation is used. The R-value, or quality of insulation, is determined by the rate at which heat passes through the insulation. The higher the R-value, the more resistant the insulation is to conducting heat, and the more consistent your wine cellar's temperature will be. Using higher R-values in insulation will lower your operating costs and WhisperKOOL unit run time. (R-13 is the recommended minimum; R-19 is preferred for interior cellar walls, and R-30 for ceilings and exterior walls.)

Vapor Barrier

Water vapor possesses its own pressure (separate from the ambient air pressure) and will intrude into colder/drier areas. A vapor barrier is **REQUIRED** in order to prevent the intrusion of water vapor and maintain the correct cellar temperature and humidity. It is recommended that 6-millimeter plastic sheeting be applied to the warm side of the cellar walls. The vapor barrier must also be applied to the outside walls and ceiling. If it is impossible to reach the outside, then the plastic must be applied from within the cellar. The most common method is to wrap the entire interior, leaving the plastic loose in the stud cavity so the insulation can be placed between each stud. All of the walls and ceiling must be wrapped in plastic for a complete vapor barrier.

In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm moist air. The moist air can cause mold to form. Standing water in drain pans promotes microbial and fungal growth which can 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 cause a moisture leak and must be sealed. The electric conduit is a "duct" for vapor to travel in. The conduit should be caulked and sealed on the warm air end.



Unobstructed Airflow

Unobstructed airflow to and from the system is critical for the system's overall performance and lifespan. Registers must be unobstructed. The air blown by the fans needs to circulate and either dissipate or absorb heat from the space. The system will operate more efficiently with a greater amount of air to exchange.



Door and Door Seal

An exterior-grade (1 $\frac{3}{4}$ ") door must be installed as a cellar door. It is very important that weather stripping is attached to all four sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have an excellent seal to keep the cool cellar air from escaping the cellar. If the door is not sealed properly, the cooling system may run continuously, shortening its operational lifespan.

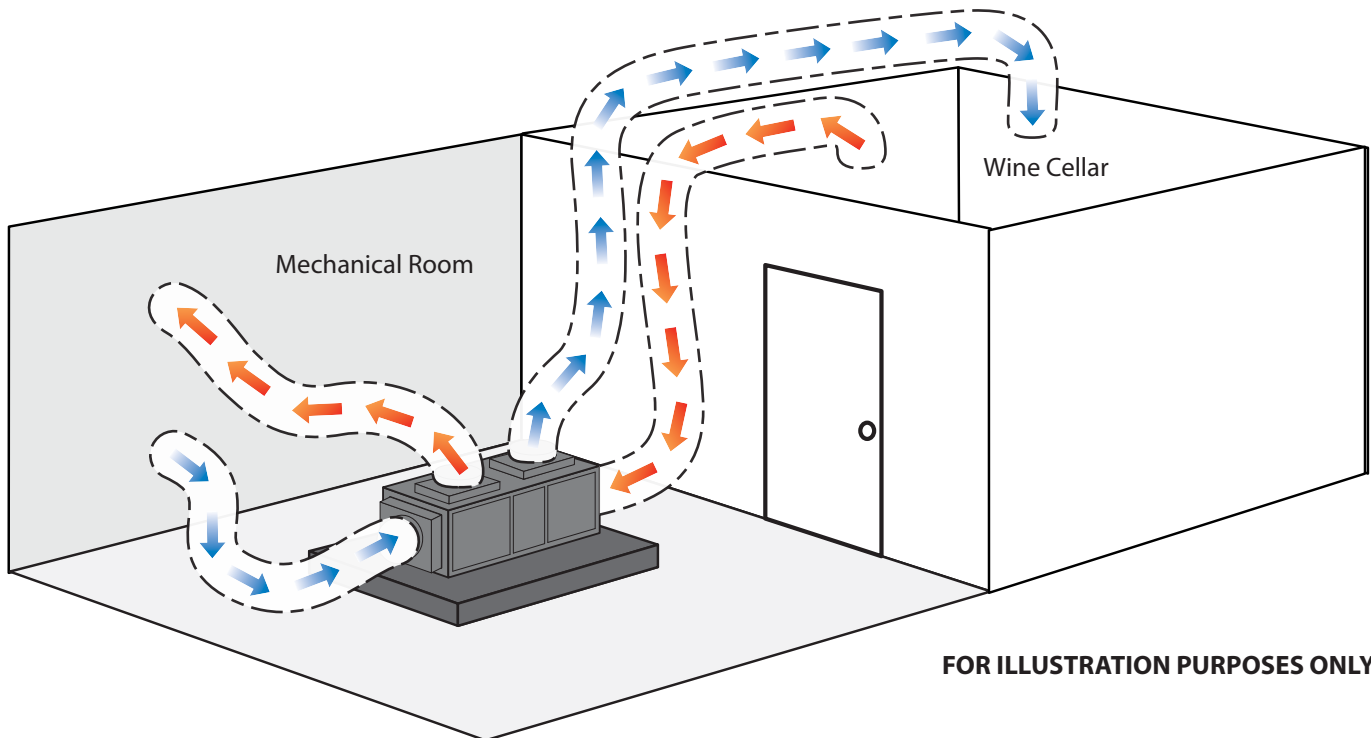
In cases where glass doors are used and the room size is close to the recommended system size, the next larger size WhisperKOOL system should be used. This will compensate for the insulation loss due to the lower insulation rating of glass.

Ventilation

The necessity of dissipating heat away from the unit is critical to the unit's performance and cannot be overstated. As the unit operates and cools, a greater amount of heat is generated on the exhaust side of the unit. Adequate ventilation is required in order to dissipate heat away from the unit. If ventilation is inadequate, the exhaust will heat the area or room and adversely affect the unit's ability to cool. In some cases, it may be advisable to install a vent fan to dissipate heat from within the exhaust area. However, you must have a fresh air inlet as well.

Using any other ducting system will void the warranty.

Note: If you are unsure whether you have adequate ventilation in your install location, please contact us to assess your specific installation at support@whisperkool.com or 1-800-343-9463.



Ambient Temperature Factor

The cooling unit has the ability to cool a wine cellar efficiently to 55°F as long as the ambient temperature of the area that it is exhausting to does not exceed 110°F. Therefore, you want to exhaust the unit in a room which will stay between 42°F and 110°F. Without proper heat dissipation the unit will not have the capacity to keep the wine at a desirable 55°F.



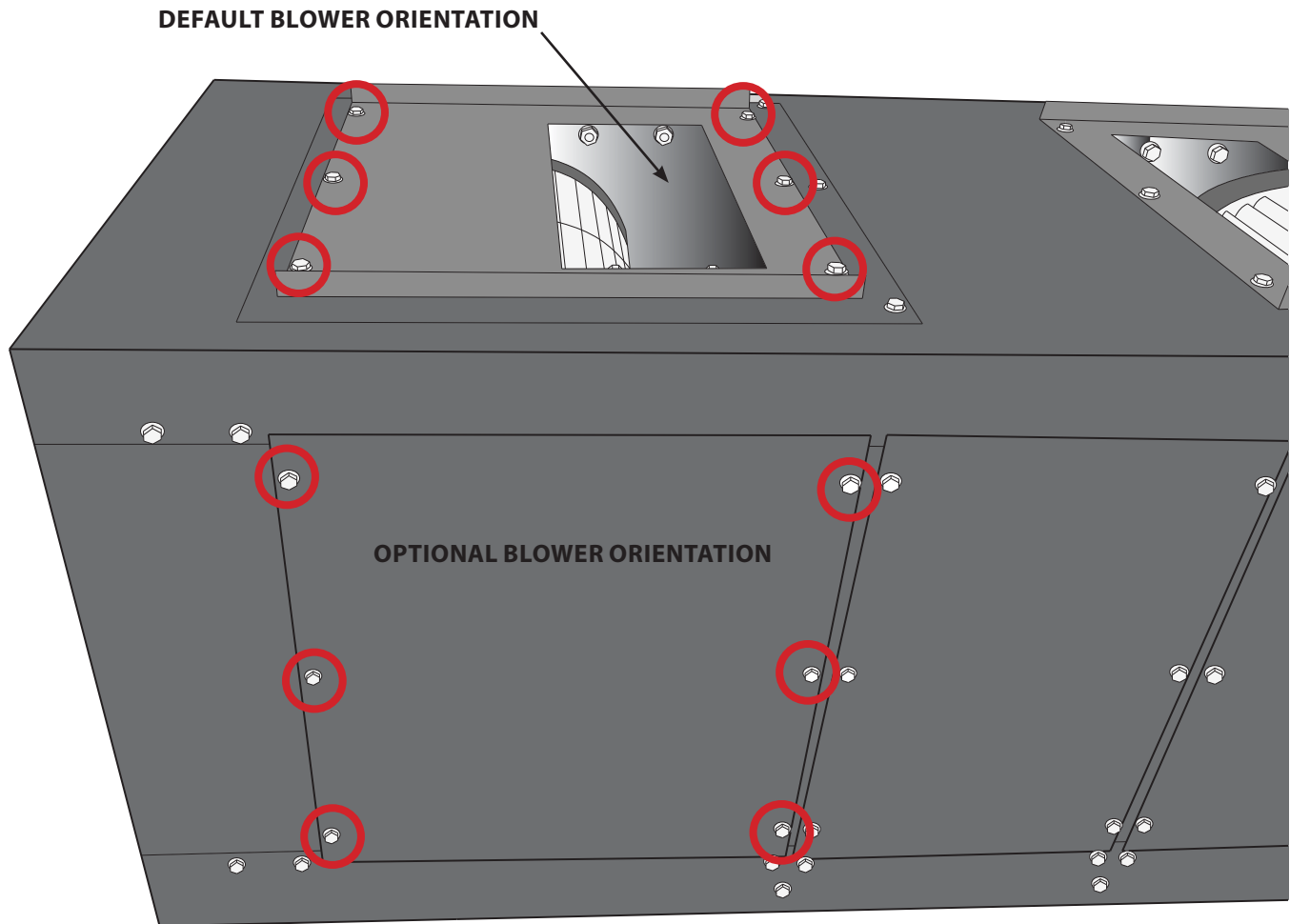
WARNING! Allowing your unit to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your unit and void your warranty.



SIDE BLOWER ORIENTATION INSTRUCTIONS

1. Disconnect power from the unit.
2. Determined the desired location of the blower.

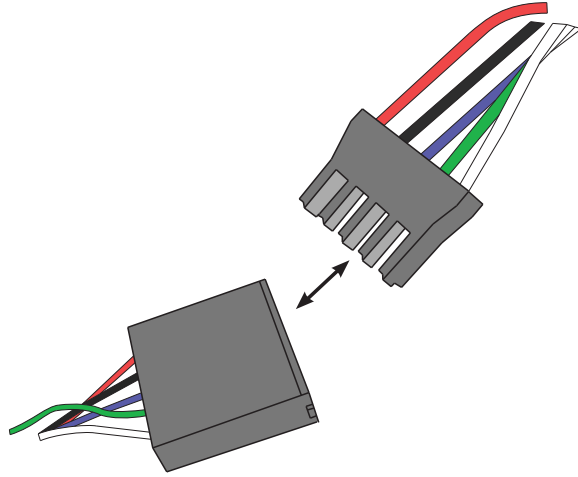
NOTE: The Phantom unit is shipped with the blowers oriented at the top of the unit. If this is your desired orientation, proceed to the plenum installation instructions on page 14. Read on to orient the blowers to the right or left sides of the unit.



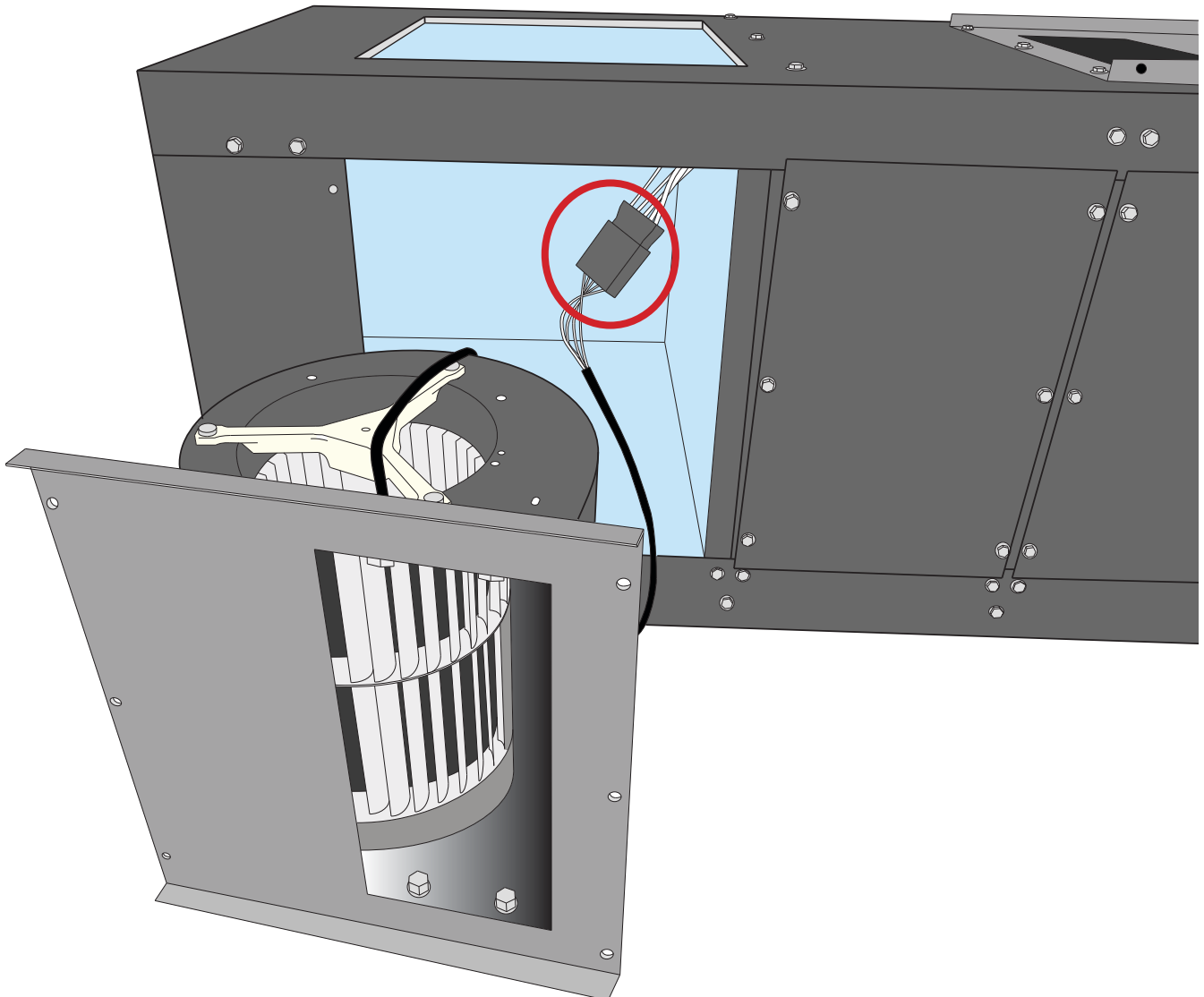
3. To reorient the blower(s), first remove the screws securing the supply panels on the top and preferred side of the unit (as shown above). Remove the panels.

BLOWER ORIENTATION INSTRUCTIONS, CONTINUED

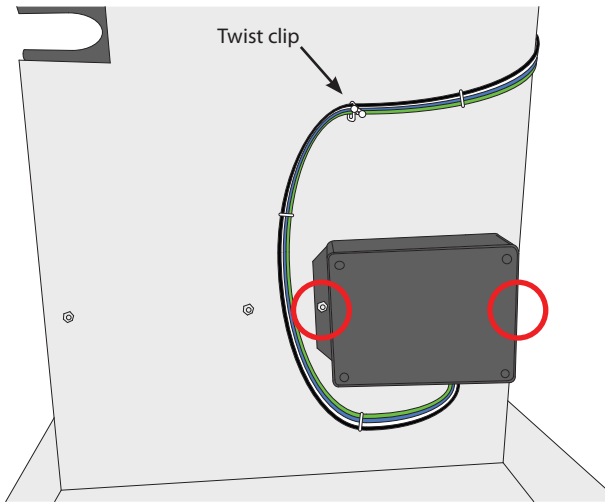
4. Next, disconnect the blower wire (with a Molex connector) located inside the unit, as shown below.



5. Remove the blower from its current location and connect the Molex connector. Ensure that the blower remains in the orientation shown.

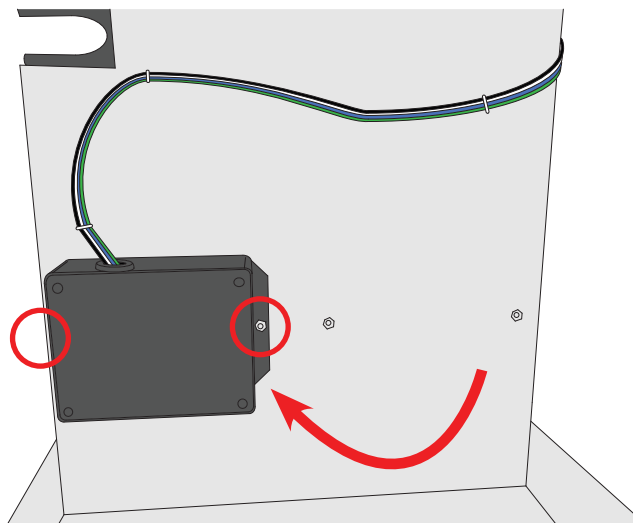


REORIENTING THE CONTROLLER BOX

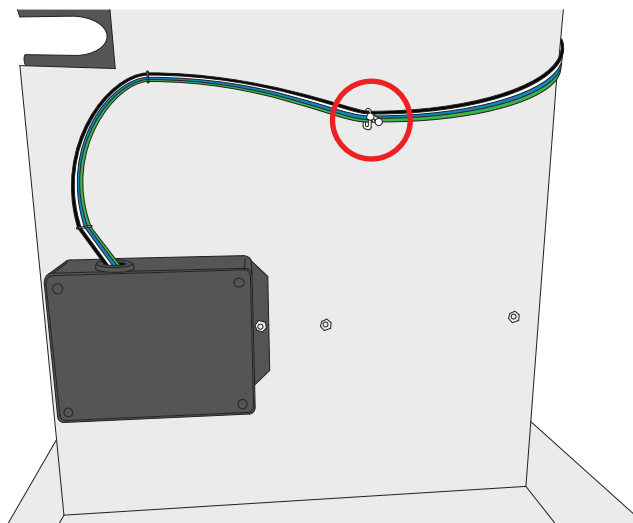


NOTE: These instructions only apply when reorienting the evaporator blower to the right.

1. First, unclip the wires from the twist clip.
2. Then, using an $1\frac{1}{32}$ " nut driver, remove the two (2) 8-32 Keps nuts securing the controller box to the divider.



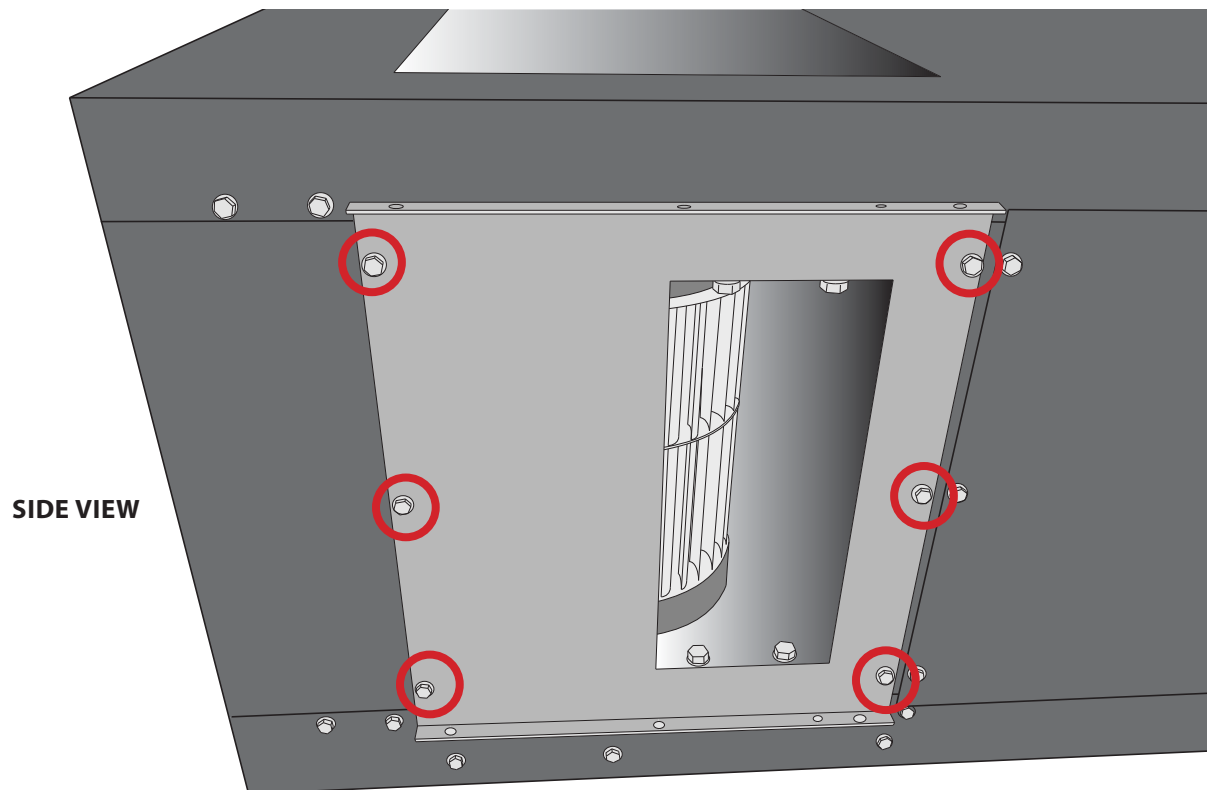
3. Rotate the controller box 180 degrees and secure it to the two studs using the two (2) 8-32 Keps nuts removed earlier. Make sure that the wires are routed as shown at left.



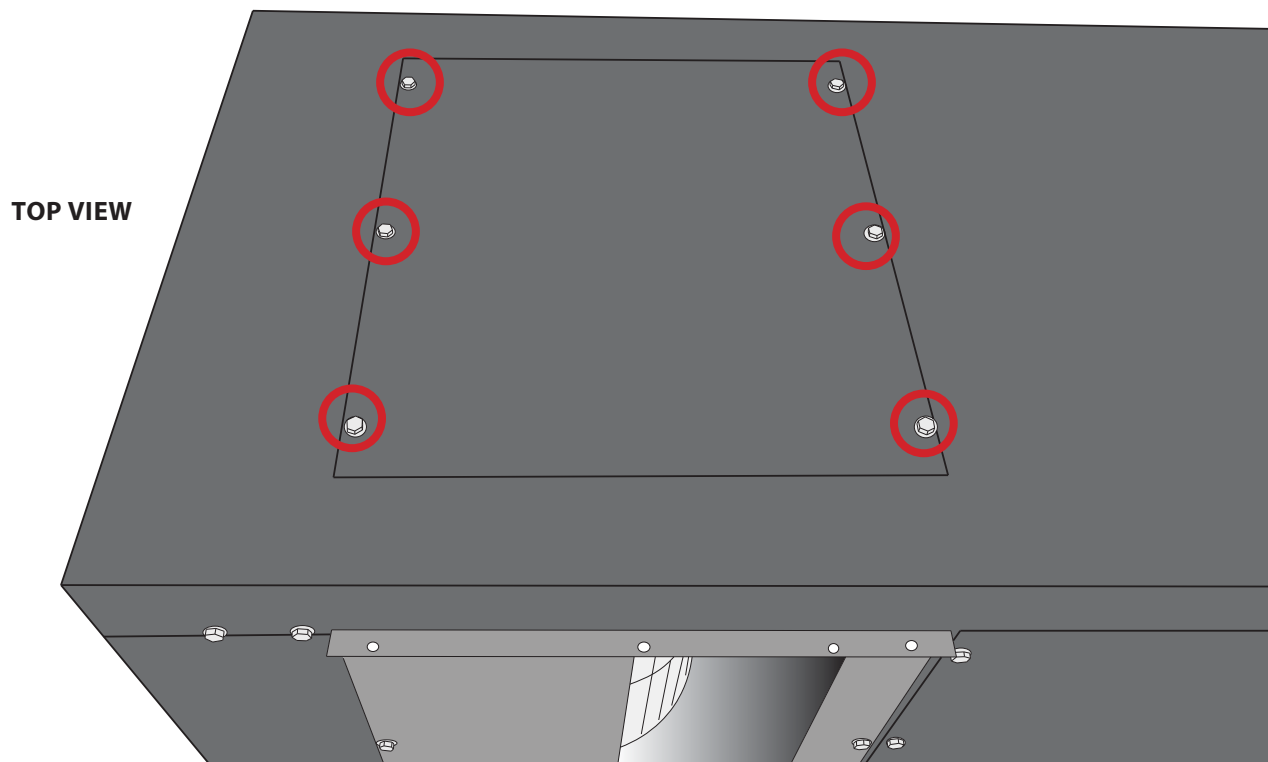
4. Resecure the wires using the twist clip.

SIDE BLOWER ORIENTATION INSTRUCTIONS, CONTINUED

5. Reinstall the blower in the desired location and reinstall the supply panel using screws removed earlier. Use a low torque setting on the drill to avoid stripping the holes. Ensure that the blower remains in the orientation shown.



6. Reinstall the previously removed side panel in the old blower location using screws removed earlier. Use a low torque setting on the drill to avoid stripping the holes.



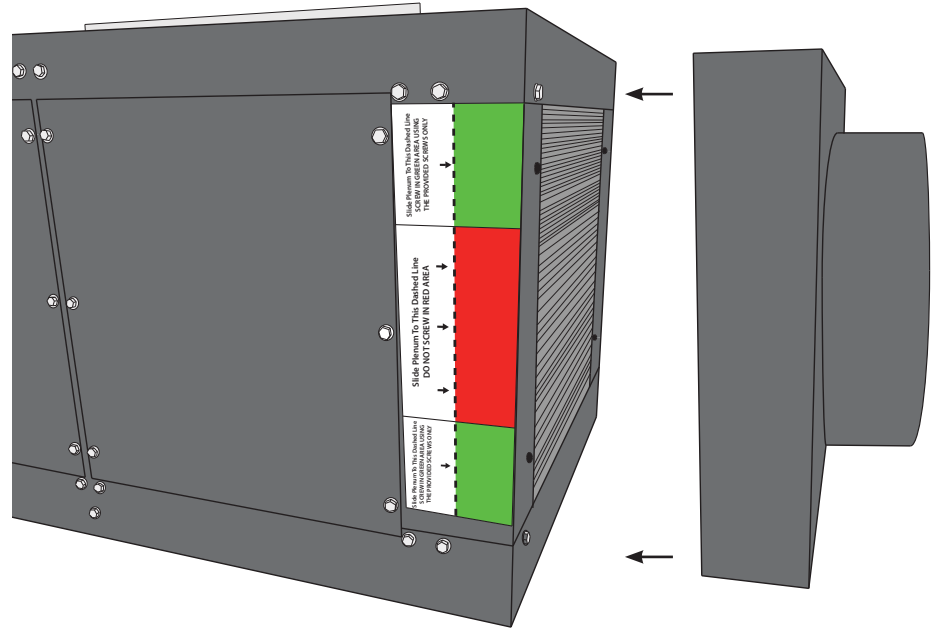
PLENUM INSTALLATION

Items needed: 16" x 16" x 10" return plenum, 12" x 12" x 8" supply plenum, supplied self-tapping screws, provided insulation

NOTE: These instructions apply to both the evaporator and condenser sides of the unit. Insulating the evaporator supply and return plenums before installation is mandatory. Use spray glue to secure the insulation to the plenum. Use foil tape to seal any seams.

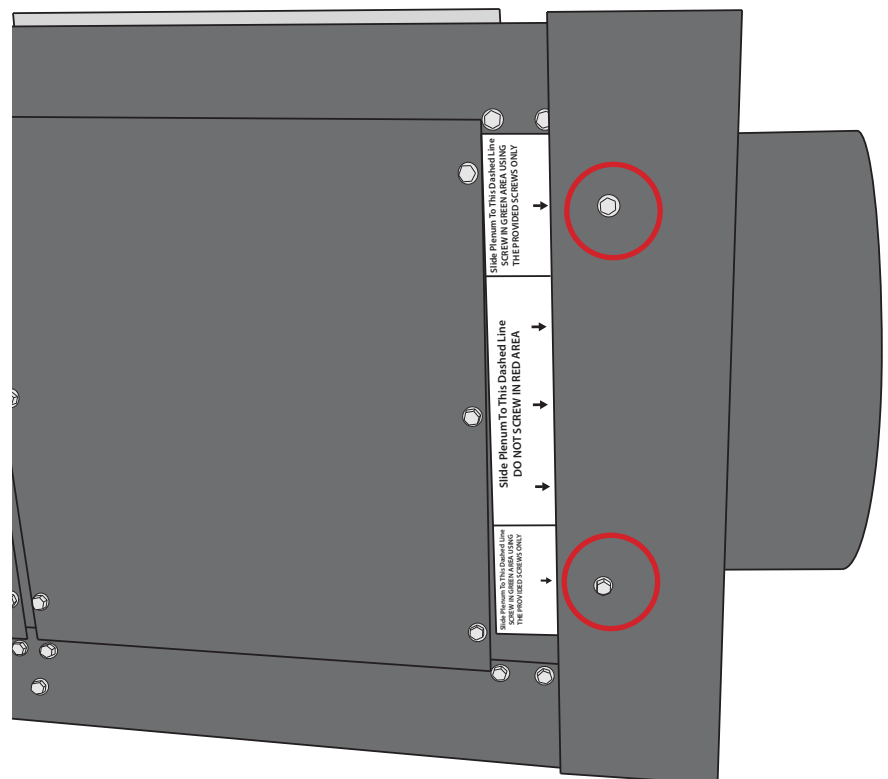
RETURN PLENUM:

1. Slide the return plenum over the front (or rear) of the unit housing until the plenum's leading edge is flush with the dashed line printed on the sticker.



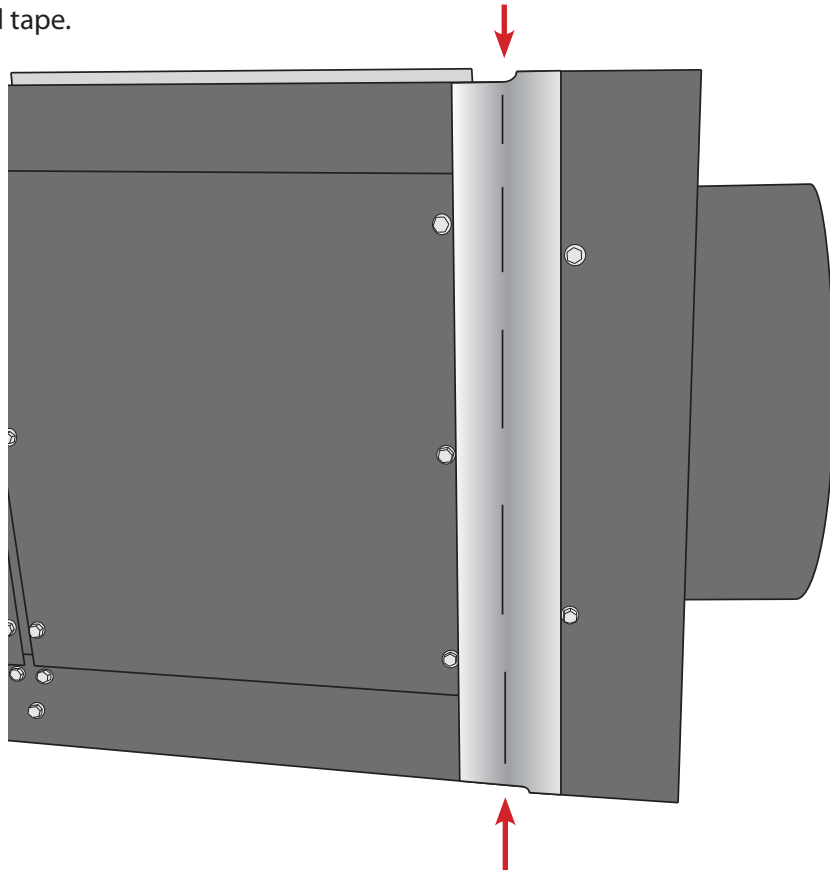
2. Drill two (2) screws through the plenum to secure it to the unit housing. Screws must be installed in the locations indicated on the red, green, and white installation sticker. Placing screws inside the red area will void the warranty.

NOTE: Use only the provided #10 1/2" self-tapping screws. Using any other size screws may result in internal damage to the unit and/or system failure.



PLENUM INSTALLATION, CONTINUED

3. Seal all seams with foil tape.



SUPPLY PLENUM:

1. Fit plenum over exposed flanges.

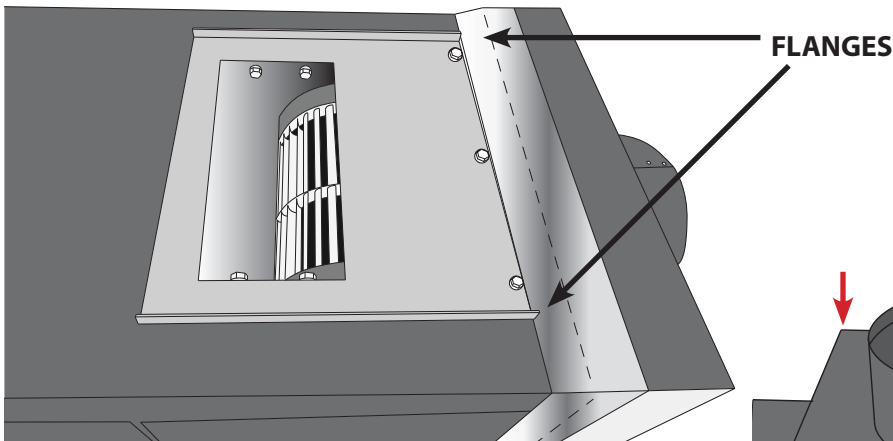


Fig. 1 - flange detail

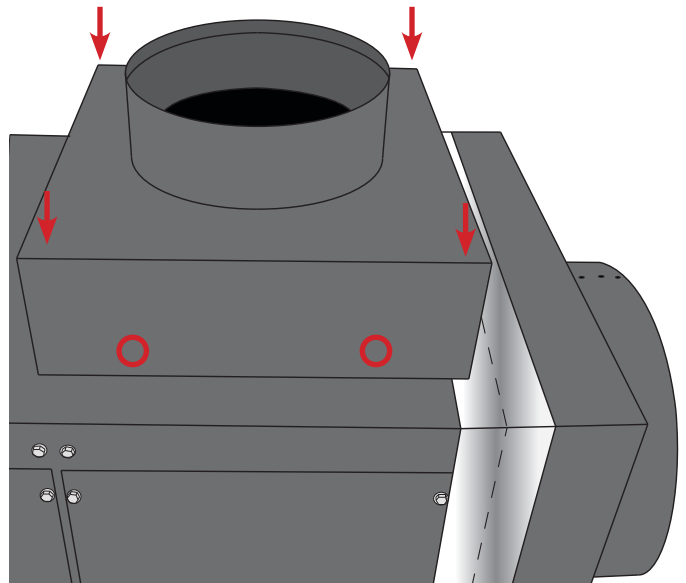
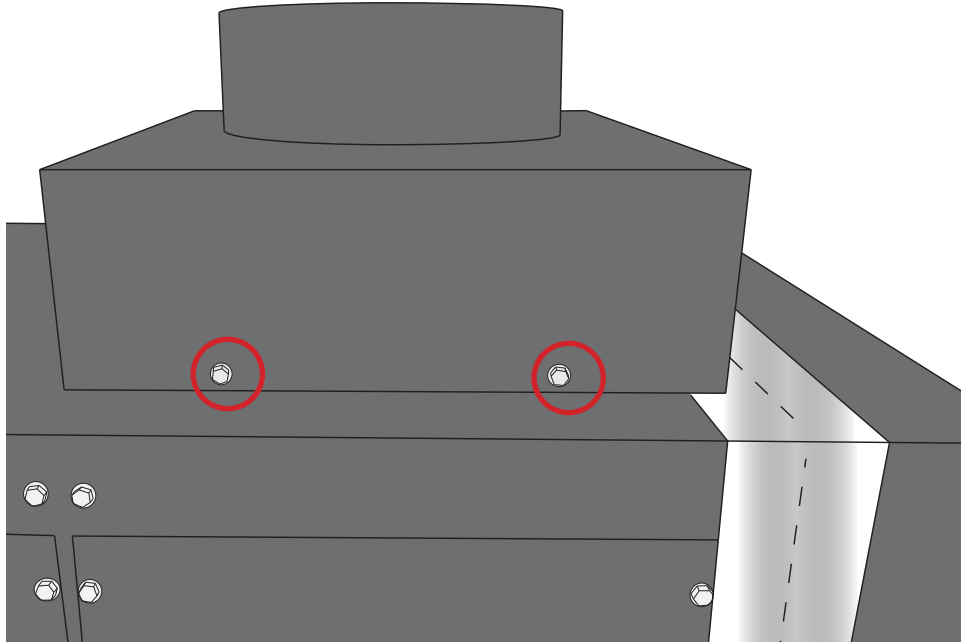


Fig. 2 - placement of plenum

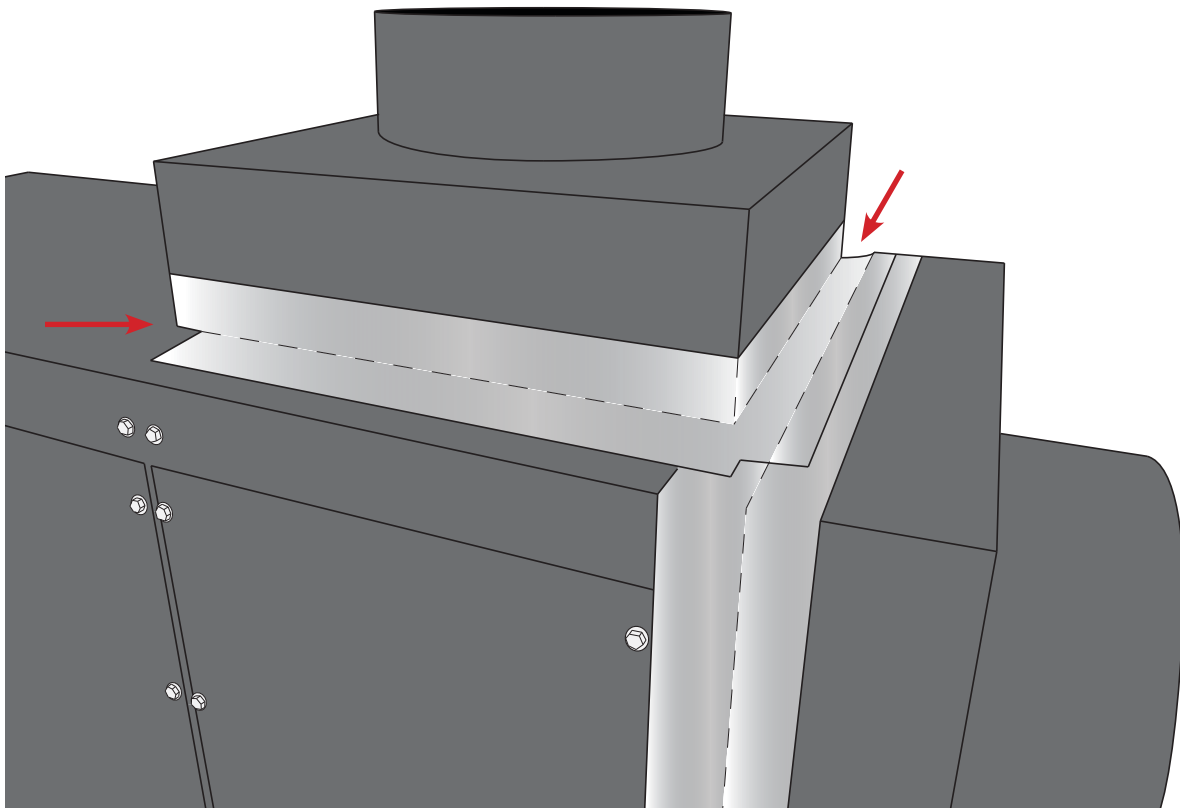
Pre-drill two (2) $\frac{1}{8}$ " holes in the locations shown.

PLENUM INSTALLATION, CONTINUED

2. Drill two (2) screws through the plenum (using the holes previously drilled in Step 1) to secure it to the unit housing. Use only the provided $\frac{5}{16}$ " x $\frac{1}{4}$ " self-tapping screws.



3. Seal all seams with foil tape as shown.



PREPARING THE UNIT FOR INSTALLATION

The WhisperKOOL unit requires a dedicated 115V, 20-amp circuit. The unit draws a large amount of amps during its initial startup. By designating a dedicated circuit breaker, you will guarantee the unit has enough power to run effectively. Contact an electrician for assistance with the installation of this dedicated electrical circuit.

The unit must sit upright for 24 hours prior to installation. To prepare the unit for installation:

- Remove unit from box.
- Match the electrical outlet to the plug provided on the WhisperKOOL unit.
- Provide a dedicated circuit and wiring for the unit (see above).
- Provide a weatherproof plug for units connected outside.

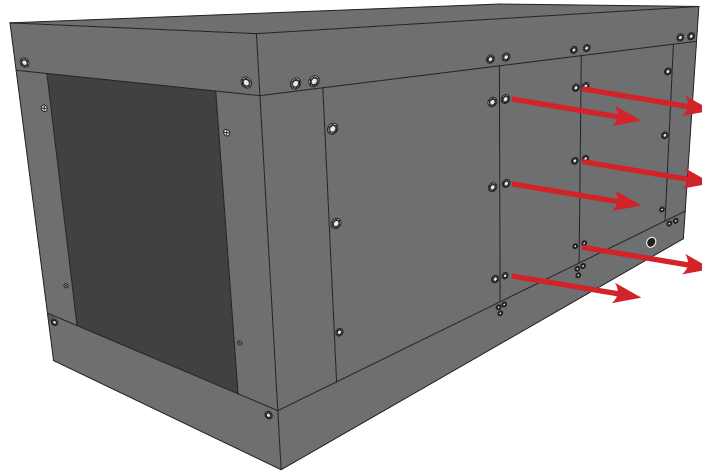
Power surges and spikes can damage sensitive electrical equipment. WhisperKOOL recommends plugging the unit into a surge protector or power conditioner in order to protect your system. As outlined in our terms and conditions, power surges and spikes are not covered under warranty.

Do not use a GFI (ground fault interrupter) with this product.

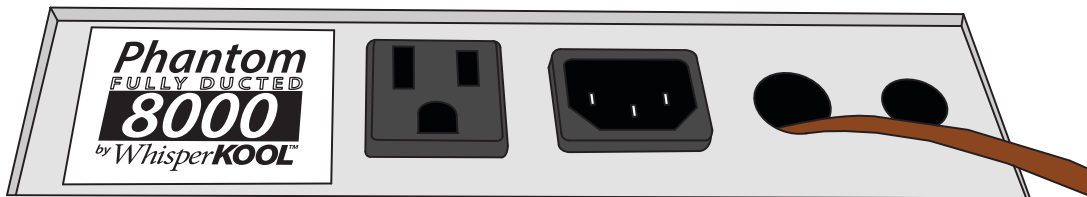
In case the unit should lose power, check the home/main circuit breaker. If the unit does not respond properly, refer to the Troubleshooting Guide.

PRE-INSTALLATION WIRING

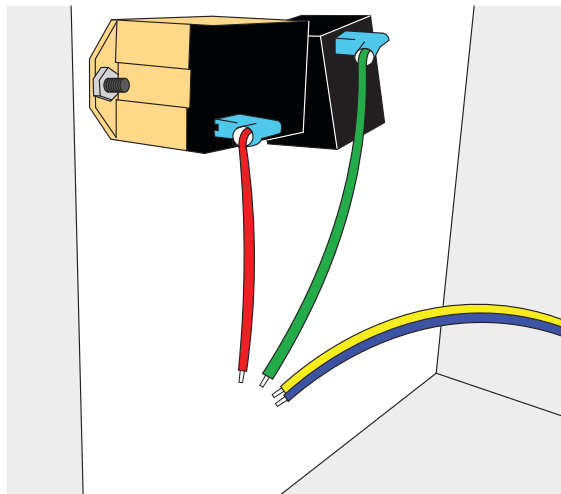
1. Remove the six (6) screws securing one of the center access panels on either side of the unit.



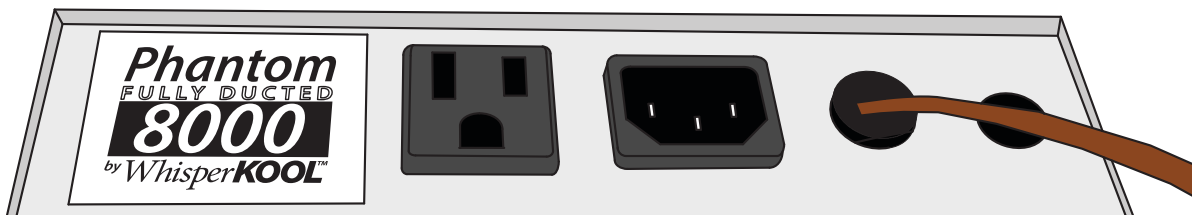
2. Insert a standard 18-5 thermostat wire through the small hole on the left side of the face plate as shown below, left.



3. Connect the 18-5 thermostat wire to the wires inside the unit as shown below. Connect the wires according to color: green to green, blue to blue, yellow to yellow, and red to red. (The white wire will not be used.)



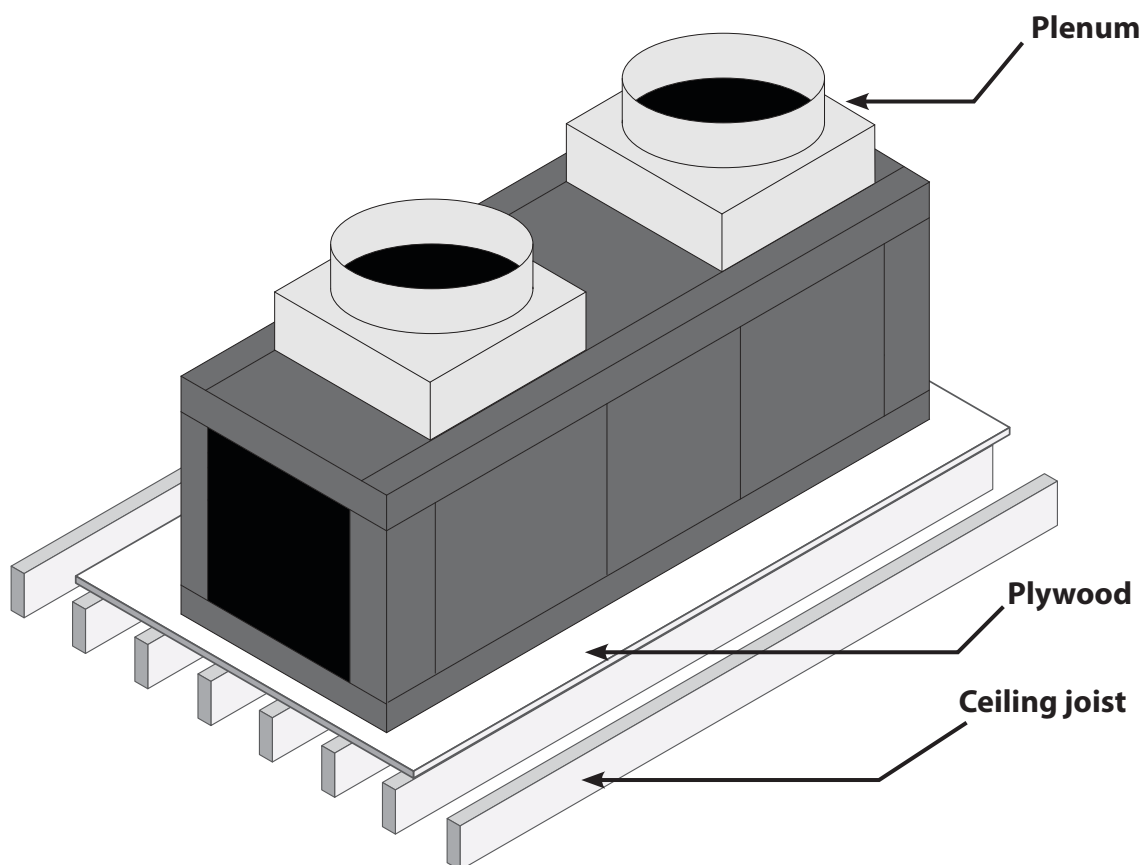
4. Replace the center access panel and re-secure using the six (6) screws removed earlier. Install a black strain relief around the 18-5 thermostat wire going into the unit as shown.



INSTALLING THE UNIT IN AN ATTIC

1. Locate the desired installation location.
2. Use a stud finder to locate the ceiling joists.
3. Place a piece of plywood atop the ceiling joists to support the unit's weight. Place the Ultimate Plus unit on top of the plywood and make sure it rests securely.
4. Secure the unit to the ceiling joists according to state and local ordinances.

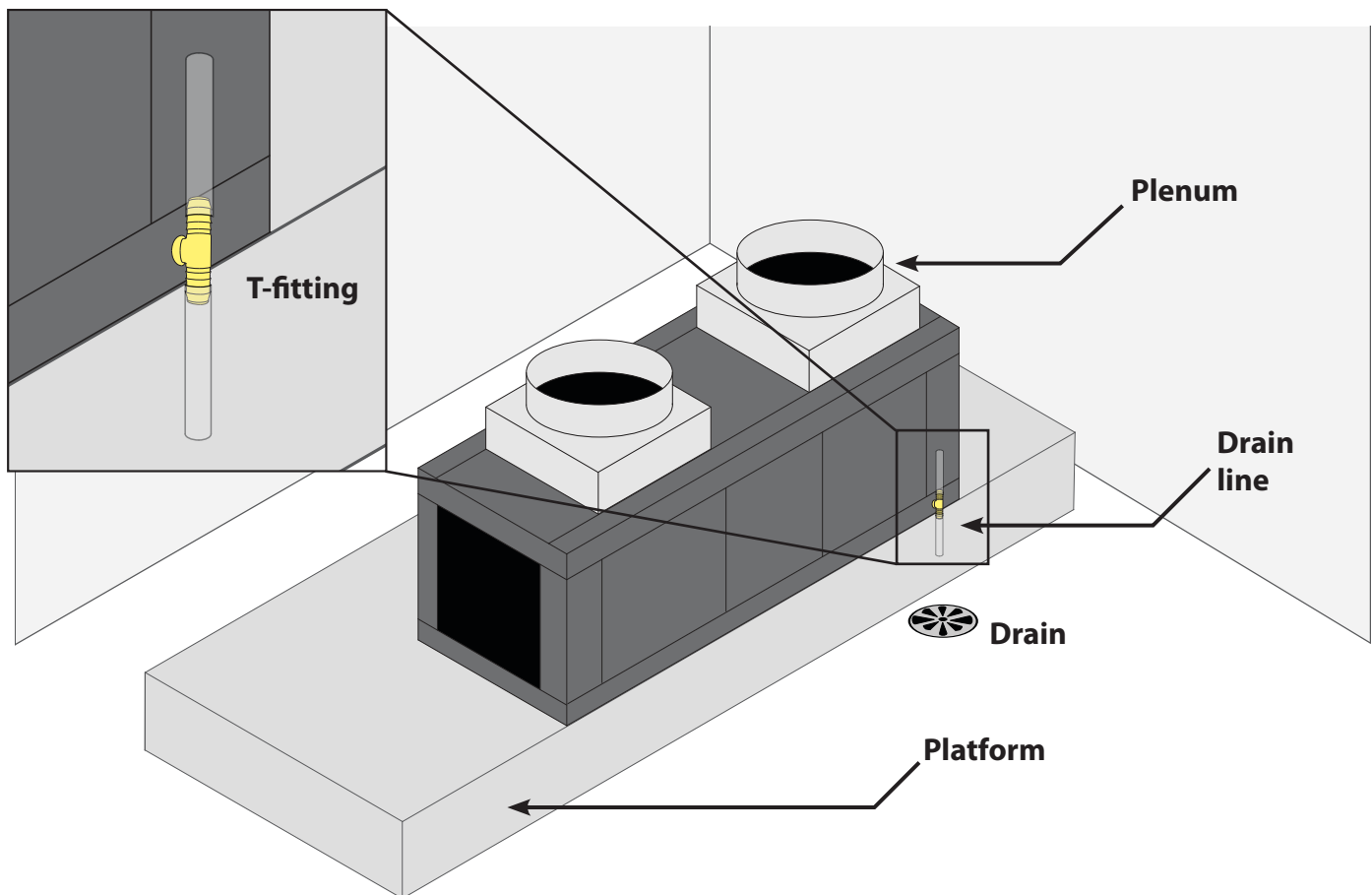
NOTE: WhisperKOOL strongly recommends the use of a secondary drain pan with the unit. Install the drain line according to the diagram on page 23.



INSTALLING THE UNIT IN AN ADJACENT ROOM

1. Locate the desired installation location.
2. Mount the unit on a cement platform or some other structure which will keep it off the ground. Make sure that the drain line T-fitting is unobstructed and the drain line can hang down vertically.
3. Route the drain line to a vessel or drain as shown below.

NOTE: The drain line must be vertical.



DUCTING OVERVIEW

Use ductwork to connect the unit to the supply and return outlets in the wine cellar. Use only insulated ductwork to minimize cooling losses, prevent sweating, and reduce noise. Use ductwork on the condenser section to redirect or absorb sound, bring in outside air to the unit inlet, and/or exhaust the hot air.

Note: Do not exceed a total of 25 feet for each length of ductwork run and a combined total of 50 feet for both the supply and return lengths.

Avoid crimping the flexible ducts. This reduces airflow, causing the unit to operate improperly. Be sure all ductwork and outer surfaces in contact with the airflow are insulated and have a vapor barrier on the outside. Uninsulated supply and return ducts may cause bare, exposed metal surfaces to sweat, further degrading the insulation and equipment cooling capacity.



Do not allow sharp turns to squeeze or decrease the inside diameter of the flexible ducting.



General duct recommendations:

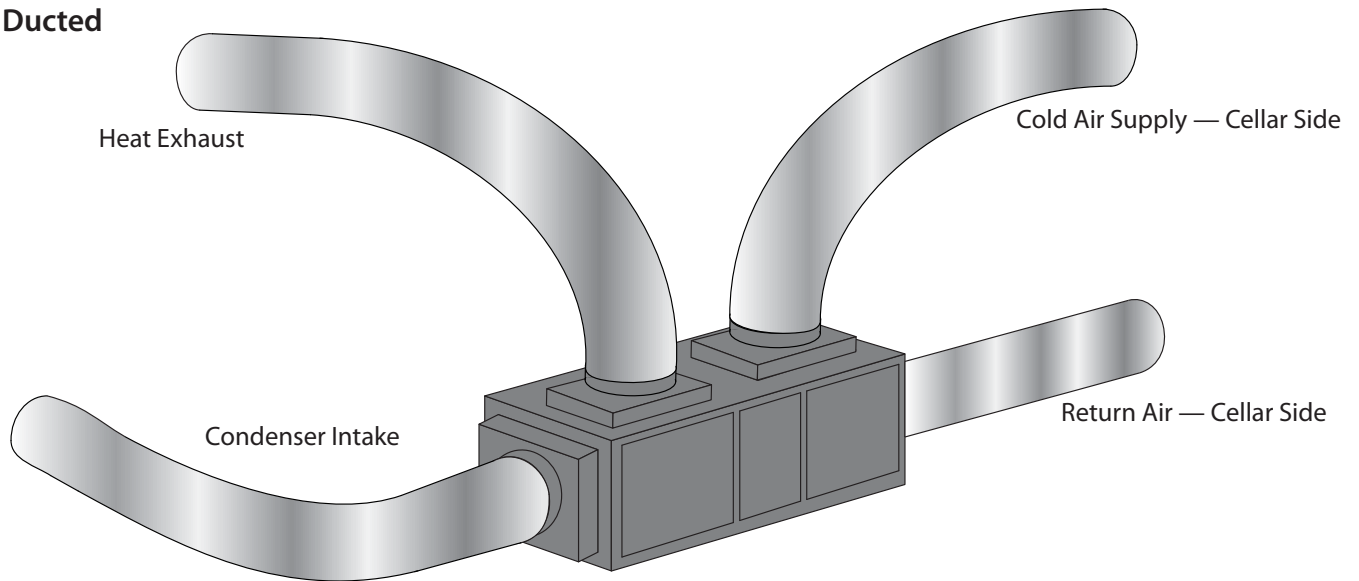
- Provide support for the flexible duct to prevent sags and bends.
- The recommended duct sizes are 10" (return) and 8" (supply).
- The recommended register size is 12" x 12". The filter should also be 12" x 12", and located at the return register. Registers and filters are not included with the unit.
- Stretch out the duct to make a smoother interior which reduces air resistance.
- Maximum duct length is 50 combined feet.
- No more than three 90° bends on each duct. Sweep 90° bends are recommended rather than sharp 90° bends.
- System can only operate with a minimum of 42°F ambient air. If the ambient air temperature is lower than 42°F, you must duct air from an air-conditioned source within the house.
- Generously apply duct sealant to all metal seams to fill in gaps that can leak air. Allow sealant to dry until firm to the touch before applying fiberglass insulation.
- Do not squeeze or reduce the inside diameter of the ducts, as this will reduce airflow.
- Use short and straight ductwork where possible. Flexible duct must be insulated (R-8 insulation rating or higher).
- Check that all fan blades move freely.
- Keep air paths free of loose foreign objects and debris.
- Locate the supply and return grilles inside the cellar to create an airflow pattern that maximizes air circulation in the room. Avoid short circulation of the air.

DO NOT:

- Install through-the-wall return air grilles at floor level where they will collect dust from the floor.
- Locate the supply or return air grille where it is blocked by bottles, boxes, or cases.

DUCTING CONFIGURATIONS

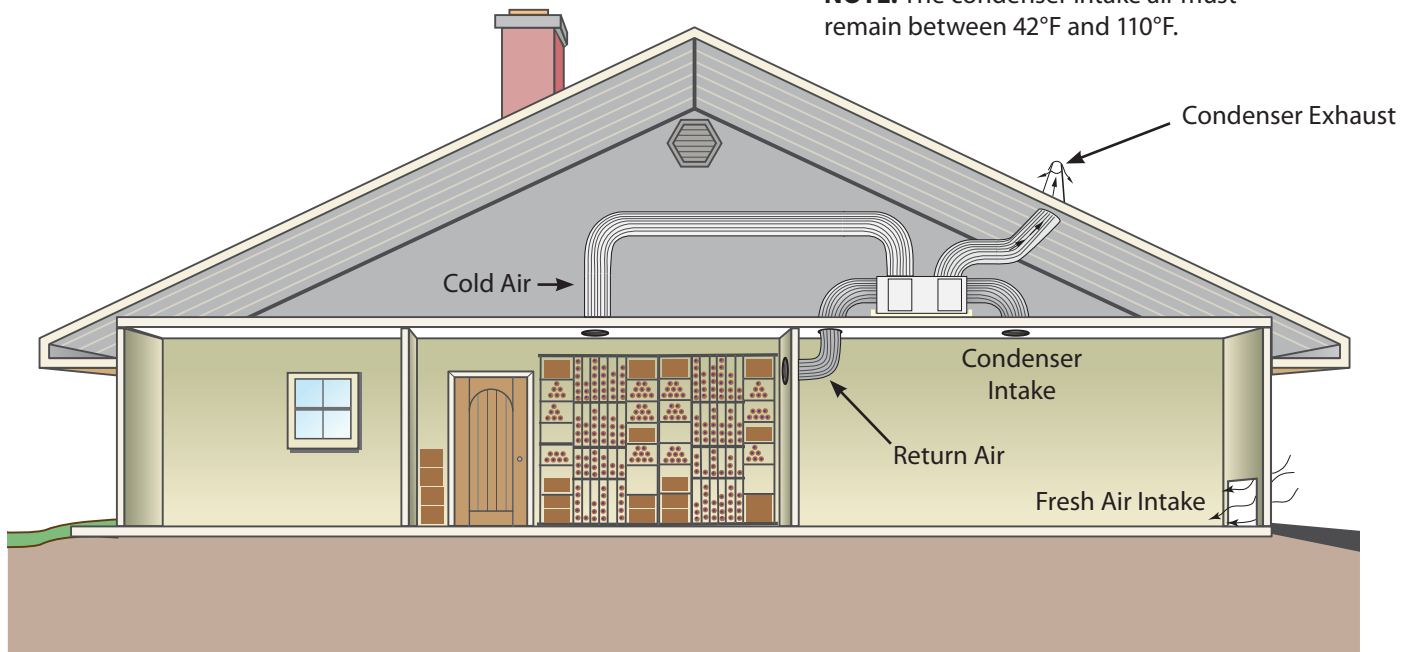
Fully Ducted



Attic Mounted Unit

It is recommended that you use a condensate pan for this application.

NOTE: The condenser intake air must remain between 42°F and 110°F.



CONDENSATION DRAIN LINE

The condensation drain line tube is used to drain excess condensation from the unit to a proper discharge location. It is important that the drain line tube be properly connected in order 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.



All units come with a drain line for additional removal of excessive condensate. It is mandatory to install the drain line with a “tee” fitting. During operation, the cooling unit will strip excess water from the air. However, in extreme humidity, additional condensate will be removed. The drain line will prevent overflow and leaking by allowing for discharge of the additional condensate.

Phantom Drain Line Installation

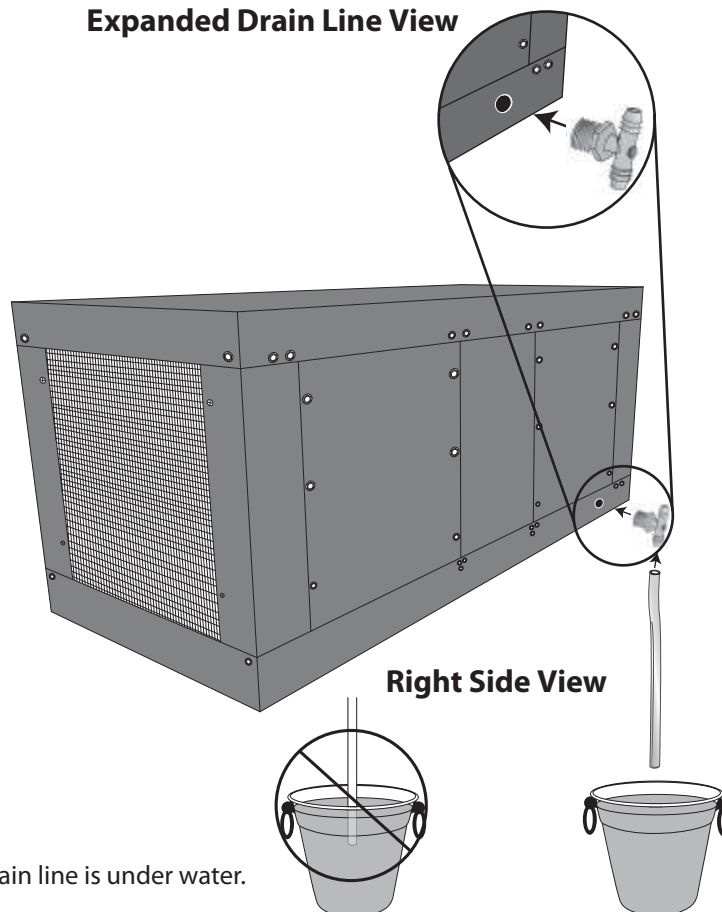
1. Wrap a barbed tee with Teflon tape one or two turns clockwise.
2. Next, thread the barbed tee into a drain port and rotate until tight. Make sure the barbed parts of the tee are vertical.
3. Next, attach a piece of ½" ID clear plastic tubing to the lower barb of the tee.
4. Every six weeks, disconnect the drain line from the tee. Remove the tee from the drain ports and clean the tee. Then use the supplied drain line brush to clean the interior drain line (see drain line information on page 29). Drop a pan tab into the drip tray to prevent the buildup of microbial growth.



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



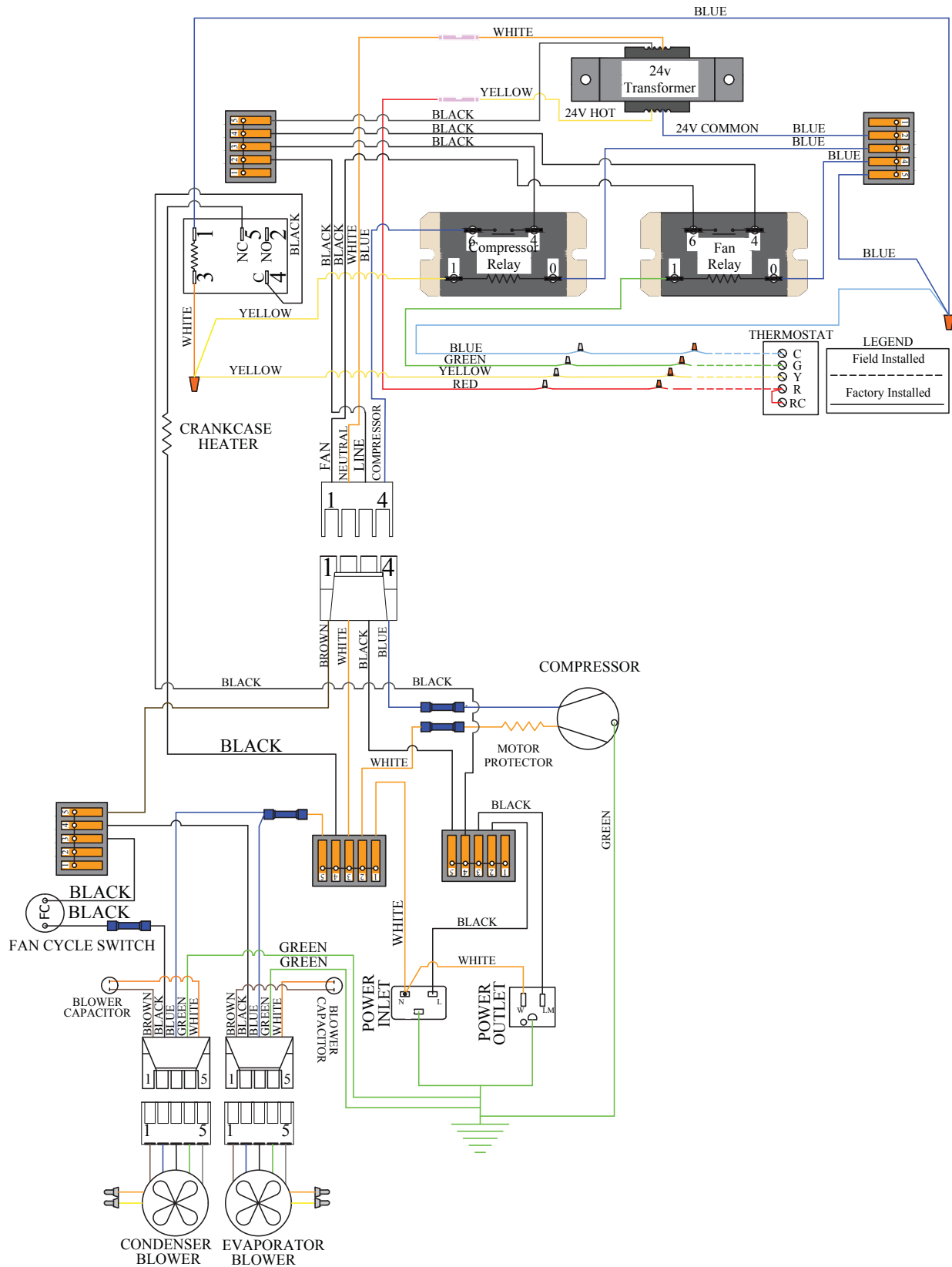
Expanded Drain Line View



WRONG: Drain line is under water.

PHANTOM 3500, 5000, & 8000

WITH 24V THERMOSTAT CONVERSION KIT WIRING DIAGRAM



UNIT OPERATION

The cooling system is equipped with the hardware needed to support a 24-volt air conditioning thermostat (not included).

Initial Start-Up

Set the thermostat to COOL and fan switch to AUTO. Lower the setpoint to the desired cellar temperature. (A temperature of 55°F is the recommended setpoint.) See thermostat instructions for details.

Normal System Cycle

The thermostat should turn the cooling system on when it senses a temperature one (1) degree higher than the setpoint. See thermostat instructions for details.

Anti-Short Cycle

Most thermostats have a safety feature that will prevent the condensing unit from cycling on and off within a short period of time. During the anti-short cycle, the compressor will typically remain off for 5-7 minutes. See thermostat instructions for details.

Fan Operation

If the fan switch on the thermostat is in the AUTO position, it will run only during the cooling cycle. If the fan switch on the thermostat is in the ON position, the fan will continuously run until the switch is set back to the AUTO position.

Anti-Frost

Systems equipped with a 24V thermostat conversion kit do **NOT** have an anti-frost feature. To reduce the possibility of the evaporator coil icing up, avoid setting the thermostat lower than 55°F.

NOTE: To ensure correct system operation, the 24V thermostat must be placed inside the wine cellar, preferably in a central location away from any airflow.

NOTES

TROUBLESHOOTING GUIDE

Unit has ice forming on the evaporator	
Possible cause	Solution
Evaporator coil is dirty	Clean the coil with a vacuum. If coil is very dirty, use a spray bottle with a small amount of liquid dish detergent or coil cleaner. Spray coil, let set for five minutes, 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 unit has not gone through an Anti-Frost Cycle yet	Check the coil for surface ice. Melt with blow drier until coil is warm to the touch. Soak up water with a towel.
The unit continues to ice	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If all the way up, the coil may be dirty or airflow is blocked.
Unit does not run/power up	
Possible cause	Solution
Unit is not plugged in	Make sure the unit is plugged into an outlet
Power switch not on	Turn unit on by pressing the power button on the control
Line voltage is incorrect rating for unit	Check line voltage to make sure there is 110V-120V
Bottle at setpoint	Lower setpoint
Thermostat not calling for cooling	Lower setpoint
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463
Cellar temperature is too warm	
Possible cause	Solution
The temperature of the room to which the unit exhausts exceeds 110°F	Intake temperature needs to drop below 110°F
The unit is undersized for the cellar	Order correct size unit
There is something blocking the supply and/or return air on evaporator or condenser side of the unit	Remove airflow obstruction
Unit is mounted too low in the cellar	Relocate unit so the distance from the ceiling and top of the unit or cold air supply duct is no more than 18"
One or more of the fans is not turning on	Call Customer Service at 1-800-343-9463
Compressor is not turning on	Call Customer Service at 1-800-343-9463
Compressor keeps cycling on overload	Make sure all fans are working and there is no airflow obstruction
Poor seal around door	Make sure there are no air gaps around the door. If door seal is damaged, replace it.
Setpoint too high	Lower the setpoint
Evaporator coil is frosted or iced up	Observe ice formation pattern. If only part way up the coil face, unit could be low on refrigerant. If so, call Customer Service at 1-800-343-9463.
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

Unit leaks water	
Possible cause	Solution
Unit is level	System should have a two-degree (2°) pitch towards the exhaust side
Drain line clogged or kinked	Check drain line to make sure water can flow freely
Drain is clogged, preventing water from escaping	1. Disconnect exterior drain line and clear it out; run provided drain line brush through the drain port and into the interior drain line. 2. Open access door and, using a flashlight, check drain line for blockage; drop a pan tab into the drip tray to prevent further blockages.
Drain line does not have a downward slope	Fix drain line so there is a downward slope from the unit to the drain
Coil is iced, causing drip tray to freeze and water to overflow	Melt ice with blow drier. Soak up with a towel.

Unit runs but does not cool	
Possible cause	Solution
Lack of airflow	Make sure fan is unobstructed and coil is clean
Compressor not running	Call Customer Service at 1-800-343-9463
Unit undersized	Call Customer Service at 1-800-343-9463
Compressor is overheating	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.

Evaporator fan runs but compressor does not	
Possible cause	Solution
Running an Anti-Frost cycle	Check evaporator coil temperature
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463
Compressor may have overheated	Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463.

Compressor runs but evaporator fan does not	
Possible cause	Solution
Faulty fan motor	Call Customer Service at 1-800-343-9463
Faulty thermostat	Call installing technician to troubleshoot

Compressor short cycles	
Possible cause	Solution
Unit low on refrigerant charge	Call Customer Service at 1-800-343-9463
Condensing fan motor/capacitor faulty	Call Customer Service at 1-800-343-9463
Compressor and/or starting components faulty	Call Customer Service at 1-800-343-9463

Humidity in cellar too low	
Possible cause	Solution
Not enough moisture	Install a humidifier or decorative fountain in the wine cellar

MAINTENANCE SCHEDULE

Monthly	<ol style="list-style-type: none"> 1. Check filters and clean if necessary 2. Check for unusual noise or vibration 3. Check exterior drain line to see if it is above the waterline (when draining into a vessel)
Every Six Weeks	<ol style="list-style-type: none"> 1. Remove one of the side panels (one not attached to a blower). Using the supplied drain line brush, clean the interior drain line leading from the drip tray. (See instructions below for more details.) 2. Drop a pan tab into the drip tray.*
Quarterly	<ol style="list-style-type: none"> 1. Clean filters** 2. Replace filters on ducted units
Annually	<ol style="list-style-type: none"> 1. Replace filters if worn or plugged beyond cleaning 2. Use a vacuum with brush attachment to clean coils; be careful not to crush coil fins 3. Inspect for corrosion 4. Check wiring connections and integrity of cords 5. Examine duct work for cracks or possible leaks 6. Pour a 50/50 bleach solution into the exterior drain line every spring

DRAIN LINE CLEANING INSTRUCTIONS

1. To clean the drain line, first remove one of the panels on the evaporator side of the unit in order to gain access to the internal compartment.
2. Remove the two (2) clear plastic drain hoses connected to the 90-degree barbed elbow fitting.
3. Insert the provided drain line brush into the drain line from the exterior of the unit. Perform several passes to ensure that all scale buildup and microbial growth has been removed.
4. Insert the provided drain line brush into the drain line from the interior of the drip tray. Perform several passes to ensure that all scale buildup and microbial growth has been removed.
5. Reconnect the clear plastic drain hoses to the 90-degree barbed elbow fitting.

*Pan tabs kill bacteria and related odors, remove sludge and scale, and help to prevent water damage caused by condensate overflow. They are non-corrosive and easy to install. Simply use the access door to drop a pan tab into the drip tray every six weeks.

**WhisperKOOL recommends filters with a mean efficiency reporting value (MERV) of 4 or better. Filters are not included with the unit.

WARNING: Keep pan tabs out of reach of children. They contain quaternary ammonium chloride and can cause skin and eye irritation. They are harmful or fatal if ingested. Wear protective gloves when handling pan tabs. Wash hands thoroughly after handling. If pan tabs make contact with eyes, rinse cautiously with water for several minutes. In case of an emergency, call 1-800-255-3924 (24 hours).

TECHNICAL ASSISTANCE

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

Contact 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.

Condensate Pump Kit

The condensate pump kit is designed as an automatic condensate removal pump for water dripping out of our cooling units' drain line. The pump is controlled by a float/switch mechanism that turns the pump on when approximately 2¼" of water collects in the tank, and automatically switches off when the tank drains to approximately 1¼". The condensate pump kit allows the excess condensate to be pumped up to 20 feet away from the unit.

Phantom Ducting Kit

This kit allows either side of the unit to be ducted. Duct the cold air through a vent into the cellar, duct the hot exhaust air out of the home. This option allows for total installation flexibility.

Note: Flex or rigid ductwork is not included.

Accessories can be purchased at www.whisperkool.com

**WhisperKOOL Product Terms and Conditions
Including Product Limited Warranty And Product Installation Requirements
For WhisperKOOL Phantom Series**

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

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

2. WhisperKOOL Product Limited Warranty:

A. Two (2) Year Limited Warranty: For the period of TWO (2) YEARS (the "Limited Warranty Period") from the date of original sale of a Product by WhisperKOOL, if a WhisperKOOL Product is found to be defective in material or workmanship after undergoing WhisperKOOL's Customer Service troubleshooting, then, subject to the WhisperKOOL Product Limited Warranty Limitations and Exclusions as well as the other Terms and Conditions stated herein, WhisperKOOL will do the following, as appropriate, for the end user ("End User") who has installed and is actually using the Product, with regard to LABOR, PARTS and FREIGHT:

1. **LABOR** — Repair or replace (at WhisperKOOL's sole option) the Product to the End User; and
2. **PARTS** — Supply to the End User, new or rebuilt replacement parts for the Product in exchange for the return of defective parts; and
3. **FREIGHT** — Cover normal ground freight charges for parts, and, in the event the Product is not repairable in the field, cover normal ground freight charges (within the continental United States) for the repair or replacement of the Product.

B. Five (5) Year Compressor Limited Warranty: WhisperKOOL Products' compressor only will be covered for five (5) years from date of purchase. Labor and freight of the compressor is the End Users responsibility.

C. Product Warranty Limitations and Exclusions:

1. This limited warranty does not cover cosmetic damage caused during installation, damage due to acts of God, commercial use, accident, misuse, abuse, negligence, or modification to any part of the Product. Delivery and installation of the Product, any additional parts required, as well as removal of the Product if warranty work is required, are all at the sole cost, risk and obligation of the End User.
2. This limited warranty does not cover damage due to improper installation or operation or lack of proper maintenance of the Product, connection of the Product to improper voltage supply, or attempted repair of the Product by anyone other than a technician approved by WhisperKOOL to service the Product.
3. This limited warranty does not cover any Product sold "AS IS" or "WITH ALL FAULTS."
4. Product that has been replaced during warranty period does not extend the warranty period past the original date of purchase.
5. (5) This limited warranty is valid only in the continental United States. Sales elsewhere are excluded from this warranty.
6. Proof of purchase of the Product in the form of a bill of sale, receipted invoice or serial number, which is evidence that the Product is within the Limited Warranty Period, must be presented by the End User to WhisperKOOL in order to obtain limited warranty service.
7. This limited warranty is void if the factory applied serial number has been altered or removed from the Product.

8. This limited warranty is voided if installed in an enclosure of insufficient design that does not follow the Product installation requirements stated herein and in the Owner's Manual.
9. Removing the rivets from the Product's unit housing without prior authorization from WhisperKOOL voids this limited warranty.
10. The End User must first contact WhisperKOOL Customer Service by telephone (at 1-800-343-9463) prior to attempting service on any Product still under the limited warranty; else the limited warranty is voided.
11. This limited warranty does not cover Product being concealed by, but not limited to; vegetation, fabric, shelving, mud, snow, or dirt. Product must not be painted or limited warranty will be void.
12. This limited warranty does not cover exposure to corroding environments such as, but not limited to; petroleum and gasoline products, cleaning solvents, caustic pool chemicals, and marine air.
13. This limited warranty does not cover any cause not relating to Product defect.
14. THE REPAIR OR REPLACEMENT OF THE PRODUCT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF YOU, THE END USER, AS WELL AS ANYONE ELSE IN THE CHAIN OF TITLE OF THE PRODUCT, DOES NOT START A NEW LIMITED WARRANTY TIME PERIOD, AND IS IN LIEU OF ALL OTHER WARRANTIES (EXPRESS OR IMPLIED) WITH REGARD TO THE PRODUCT. IN NO EVENT SHALL WHISPERKOOL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may have other rights, which vary from state to state.
15. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at WhisperKOOL's sole discretion, void this limited warranty.
16. No one has any authority to add to or vary the limited warranty on this Product.

3. Product Installation Requirements:

- A. Prior to installing a WhisperKOOL Product, the End User must read the WhisperKOOL Owner's Manual and thereafter the End User must follow the required installation, use and maintenance procedures set forth by WhisperKOOL in WhisperKOOL's Owner's Manual. The Owner's Manual is shipped with each Product and if another copy is needed, replacement copies can be downloaded from WhisperKOOL's website (www.whisperkool.com) or by contacting WhisperKOOL directly for a new copy of the Owner's Manual.
- B. It is highly recommended that the End User obtain the assistance of a wine storage professional.
- C. Failing to address all of the variables associated with proper installation will cause the Product to operate incorrectly and limit both the Product's ability to cool and the longevity of the Product itself.
- D. The End User is responsible for all risks and costs of installation of the Product, including but not limited to all labor costs as well as cost of any additional parts required for the proper and complete installation of the Product. The End User is responsible for all risks and costs of removing the Product if limited warranty work is required.
- E. The Product cannot operate at its optimum capacity if airflow is constricted by ducting or venting the exhaust side of the Product into a location with inadequate ventilation.

4. Maintenance Requirements

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

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

5. Additional End User Costs And Responsibilities

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

- A. End Users should satisfy themselves that the Product they are purchasing is suitable for their particular needs and requirements, and thus no responsibility will be placed with WhisperKOOL for the End User's decisions in this regard.
- B. It is the End User's responsibility to secure safe haven/storage for ANY AND ALL items that are being kept and stored in the End User's wine cellar, including any Product. WhisperKOOL takes no responsibility for the safety and preservation of the aforementioned items in the event that the environment becomes unsuitable to maintain a proper storage environment.
- C. End User is responsible for initial installation costs, including, but not limited to, labor costs and the cost of any additional parts necessary to complete the installation.
- D. End User is responsible for all costs incurred for the installation and/or removal of the Product, or any part thereof, unless such cost has been agreed by WhisperKOOL to be a warranty repair prior to the work being performed.

6. Sales and Use Tax

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

7. Customer Service and Troubleshooting

WhisperKOOL's Customer Service department is available to answer any questions or inquiries for End Users regarding a WhisperKOOL Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:00 a.m. to 4:00 p.m. (PST), at 1-800-343-9463. WhisperKOOL Corporation is located at 1738 East Alpine Avenue, Stockton, California 95205.

8. Miscellaneous Terms and Conditions

- A. Return Policy: All return inquiries must be made within thirty (30) calendar days of the original purchase of a Product and are subject to a twenty five percent (25%) restocking fee. Shipping costs are not refundable and the Purchaser is responsible for all return shipping costs (including customs fees and duties, if applicable).
- B. Security Interest: WhisperKOOL retains a security interest in each Product until payment in full.
- C. Construction and Severability: Every provision of these Terms and Conditions shall be construed, to the extent possible, so as to be valid and enforceable. If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will, to the extent so held, be deemed severed from the contract of sale between Purchaser and WhisperKOOL, and all of the other non-severed provisions will remain in full force and effect.
- D. Governing Law/Choice of Forum: The laws of the State of California (without regard for conflicts of law) shall govern the construction and enforcement of the these Terms and Conditions of Sale (Sections 1 through 9 inclusive, including Product Limited Warranty And Product Installation Requirements), and further these Terms and Conditions of Sale shall be interpreted as though drafted jointly by WhisperKOOL and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, WhisperKOOL, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose. No waiver by WhisperKOOL of any breach or default of the contract of sale (including these Terms and Conditions of Sale) concerning a Product will be deemed to be a waiver of any preceding or subsequent breach or default.
- E. Correction of Errors and Inaccuracies: These Terms and Conditions may contain typographical errors or other errors or inaccuracies. WhisperKOOL reserves the right to correct any errors, inaccuracies or omissions, and to change or update these Terms and Conditions, at any time without prior notice.

9. Questions, Additional Information And Technical Assistance

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

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

E-mail: support@whisperkool.com
Web: www.whisperkool.com

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

1. The model and serial number of your WhisperKOOL UNIT.
2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model _____ **Serial Number** _____

Installed by _____ **Date** _____

*Whisper***KOOL**[™]

WhisperKOOL
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