

# ***PHANTOM SERIES*** **OWNER'S MANUAL**

Phantom 3500

Phantom 5000

Phantom 8000

*Whisper***KOOL**<sup>®</sup>  
The Future of KOOL

**Conforms to ANSI/UL Std 427**

## **WhisperKOOL**

**“Engineered, Designed and Assembled in the USA”**

**WhisperKOOL products are composed of parts and materials that were imported to the United States and then assembled into the final products in Stockton, California.  
The WhisperKOOL split system condensers are sourced internationally.**

Copyright © 2024. WhisperKOOL. All rights reserved.

WhisperKOOL copyrights this manual, the product design, and the design concepts, with all rights reserved. Your rights with regard to the hardware and manual are subject to the restrictions and limitations imposed by the copyright laws of the USA. Under copyright laws, this manual may not be copied, reproduced, translated, transmitted, or reduced to any printed or electronic medium or to any machine-readable form, for any purpose, in whole or in part, without the written consent of WhisperKOOL.

Every effort has been made to ensure that the information in this manual is accurate. WhisperKOOL is not responsible for printing or clerical errors.

WhisperKOOL reserves the right to make corrections or improvements to the information provided and to the related hardware at any time, without notice. Please visit our web site for the most current version of the WhisperKOOL manual and other literature.

Vinothèque and WhisperKOOL are registered trademarks, and ECE is a trademark of WhisperKOOL. All rights reserved.

Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. WhisperKOOL assumes no liability with regard to the performance or use of these products.

# TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>Introduction</b> .....  | <b>2</b>  |
| <b>Before You Start</b> .....  | <b>3</b>  |
| <b>Receiving &amp; Inspecting the Unit</b> .....                         | <b>4</b>  |
| <b>Quick Reference Guide</b> .....                                       | <b>5</b>  |
| Unit Specifications .....  | <b>6</b>  |
| <b>Preparing the Wine Cellar</b> .....                                   | <b>7</b>  |
| <b>Blower Reorientation Instructions</b> .....                           | <b>10</b> |
| <b>Reorienting the Controller Box</b> .....                              | <b>12</b> |
| <b>Plenum Installation</b> .....   | <b>14</b> |
| <b>Preparing the Unit for Installation</b> .....                         | <b>17</b> |
| <b>Installation Instructions</b>   |           |
| Installing the Unit in an Attic .....                                    | <b>18</b> |
| Installing the Unit in an Adjacent Room .....                            | <b>19</b> |
| Ducting Overview .....   | <b>20</b> |
| Ducting Configurations .....   | <b>21</b> |
| <b>Condensation Drain Line</b> .....                                     | <b>22</b> |
| <b>Liquid-Temperature-Measuring Thermostat System (Bottle Probe)</b> ... | <b>23</b> |
| <b>Remote Display: Installation and Configuration</b> .....              | <b>24</b> |
| <b>Phantom Wiring Diagram</b> .....                                      | <b>30</b> |
| <b>Unit Operation</b> .....  | <b>31</b> |
| <b>Controller Functions</b> .....  | <b>33</b> |
| <b>Troubleshooting Guide</b> .....                                       | <b>38</b> |
| <b>Maintenance Schedule</b> .....  | <b>40</b> |
| <b>Technical Assistance &amp; Accessories</b> .....                      | <b>41</b> |
| <b>Installation Terms &amp; Conditions</b> .....                         | <b>42</b> |

## 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](http://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. The unit is temperature-controlled via a bottle probe. The unit includes a remote controller that can be located up to 50 feet from the cooling unit.

### Temperature Setting

The WhisperKOOL cooling unit can be set at any temperature within the acceptable wine-aging range of 50–70°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 assembled 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  |  |
|---|--|
| <b>Phantom cooling unit</b> <ul style="list-style-type: none"> <li>• (1) Phantom Series owner's manual</li> <li>• (18) Anti-microbial pan tabs</li> <li>• (1) Drain line brush</li> <li>• (1) Bottle probe (50 feet)</li> <li>• (1) Display cable (50 feet)</li> <li>• (1) Wall mount display bracket</li> <li>• (1) Flush mount bracket</li> <li>• (1) Display panel</li> <li>• (4) Drywall anchors</li> <li>• (4) Mounting screws</li> <li>• (1) Rubber grommet (1<sup>3</sup>/<sub>2</sub>" ID)</li> <li>• (1) 1/2" nylon plug</li> <li>• (1) Flush mount template</li> <li>• (1) Exterior insulation blanket</li> </ul><br><b>Accessory kit</b> <ul style="list-style-type: none"> <li>• (1) 8-foot power cord</li> <li>• (1) 1/2" barbed "tee" fitting</li> <li>• (1) Drain line tube (1/2" ID clear plastic tubing, 10 feet)</li> </ul> | <b>Phantom plenum box</b> <ul style="list-style-type: none"> <li>• (20) #10 1/2" self-tapping screws</li> <li>• (2) 16" x 16" x 10" return plenums</li> <li>• (2) 12" x 12" x 8" supply plenums</li> <li>• (1) Piece of evaporator return plenum insulation</li> <li>• (1) Piece of evaporator supply plenum insulation</li> </ul> |

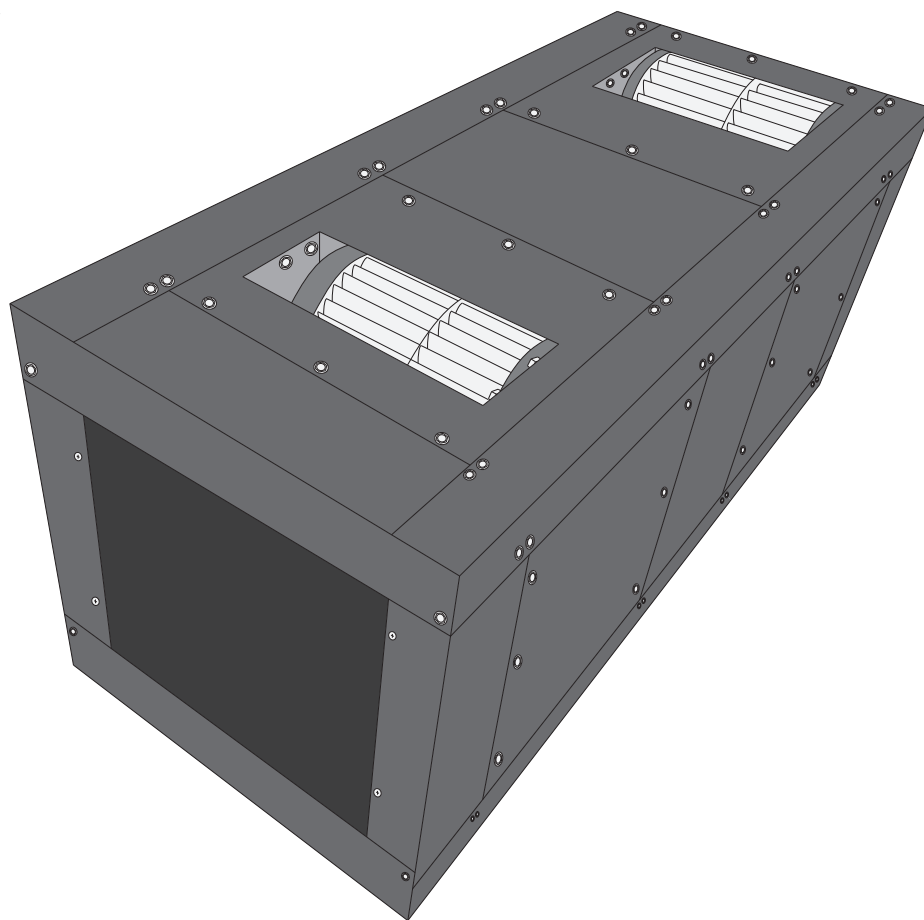
**If any items listed on the packing slip do not match your order information, contact WhisperKOOL Customer Service immediately.**

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.

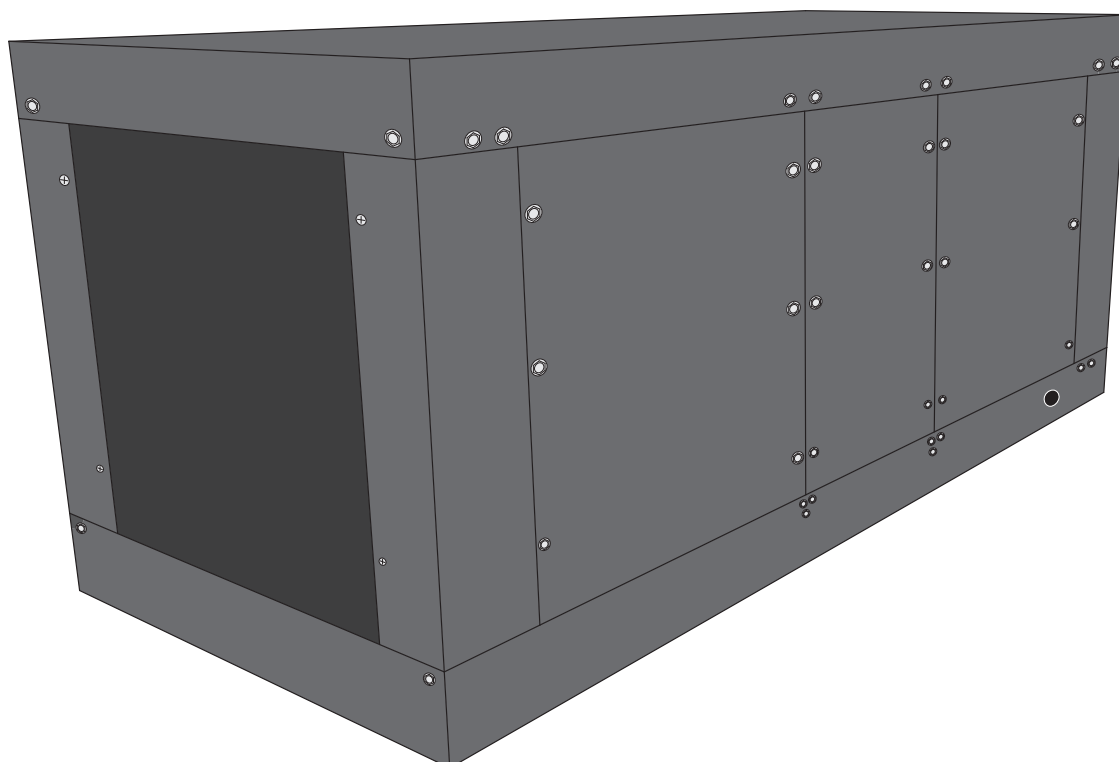
**TIP:** Save your box and all packaging materials. They provide the only safe means of transporting/shipping the unit.

## 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)<br>48"L x 15.75" W x 22.75" H (duct plenums on top of unit)<br>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)   |  |  |
| Weight (lbs.)                            | 115  |  |  |
| Amps                                     | 6 (running amps)   | 7.6 (running amps)   | 10 (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                               | Advanced digital display (50-ft. cable), liquid-temperature-measuring bottle probe (50-ft. cable)  |  |  |
| 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 (1¾") door must be installed as a cellar door. It is very important that weather stripping is attached to all four sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have an excellent seal to keep the cool cellar air from escaping the cellar. If the door is not sealed properly, the cooling system may run continuously, shortening its operational lifespan.

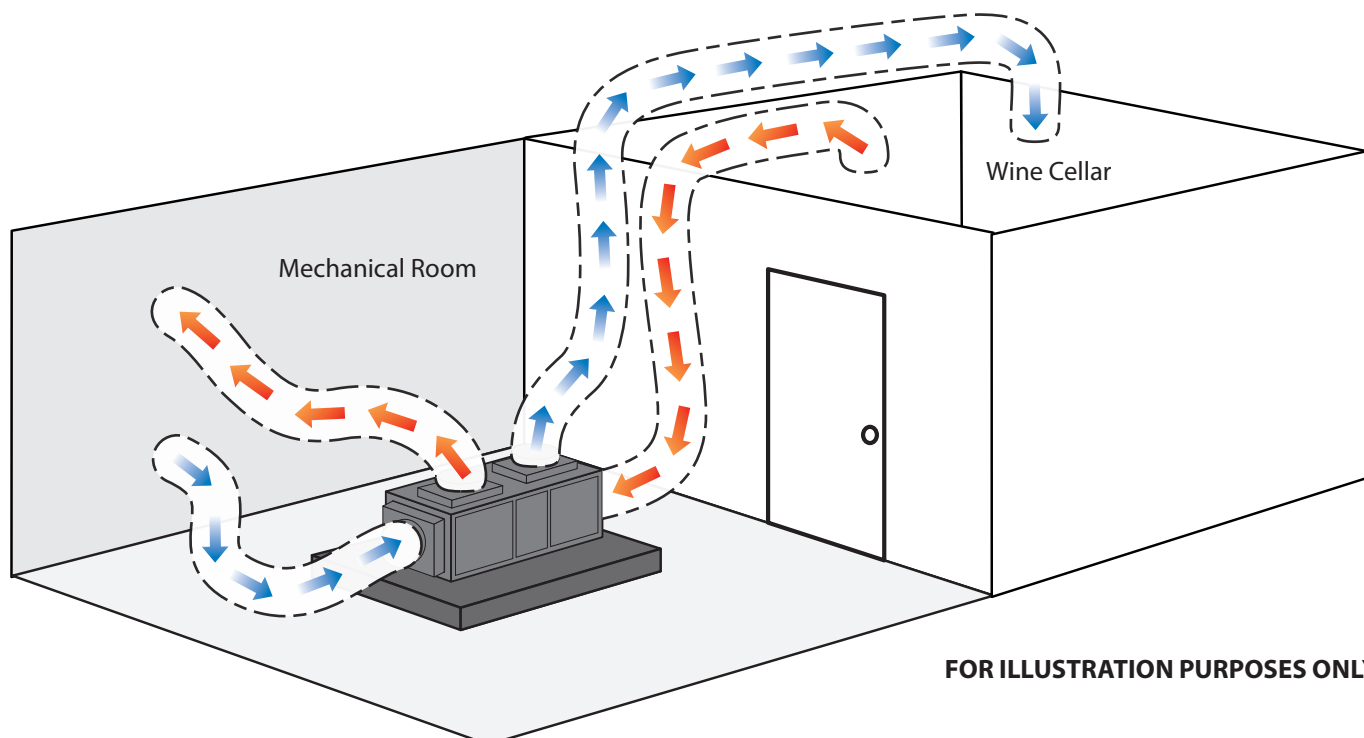
In cases where glass doors are used and the room size is close to the recommended system size, the next larger size WhisperKOOL system should be used. This will compensate for the insulation loss due to the lower insulation rating of glass.

## 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](mailto: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.



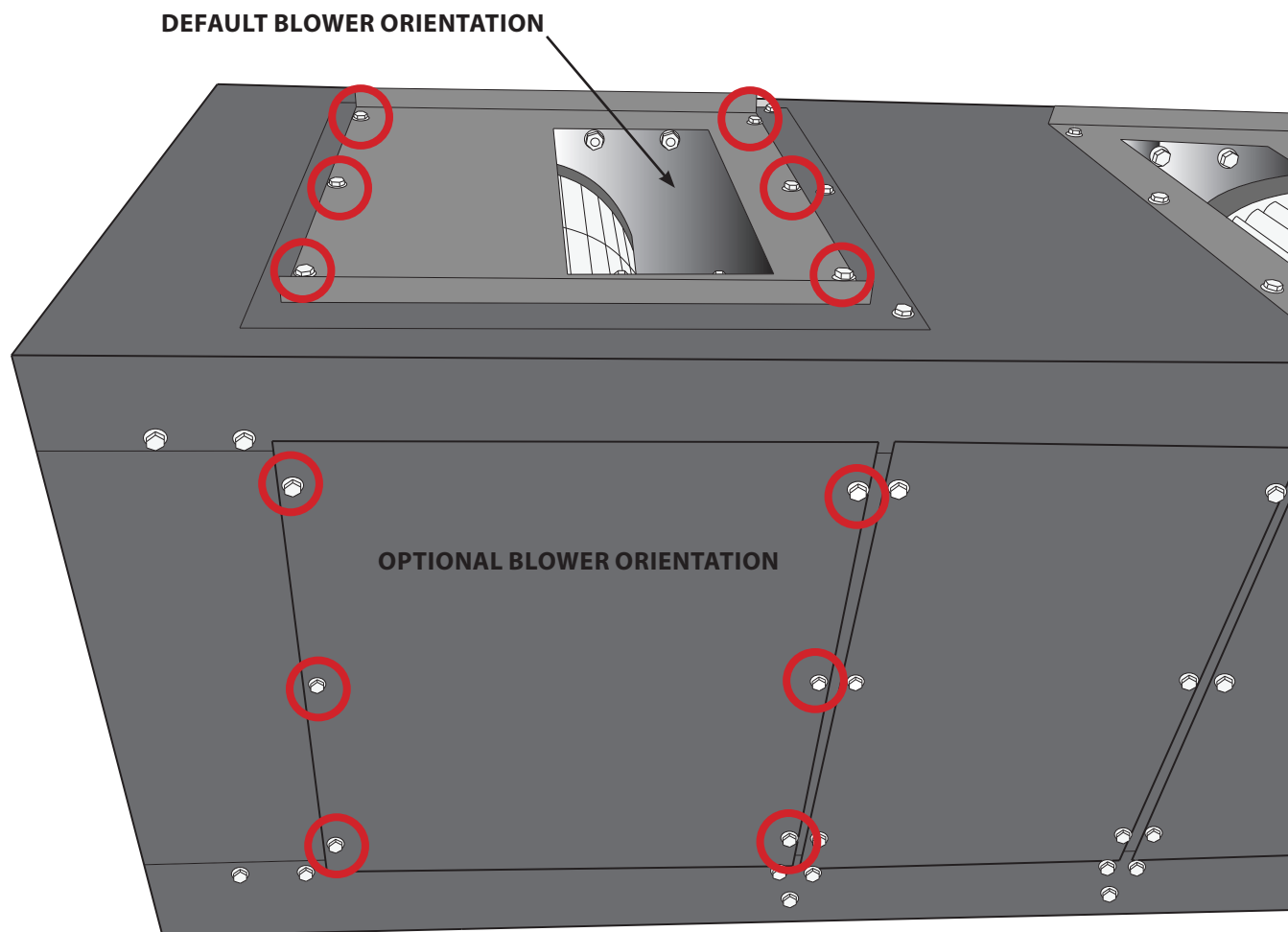
**WARNING! Allowing your unit to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your unit and void your warranty.**



## SIDE BLOWER ORIENTATION INSTRUCTIONS

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

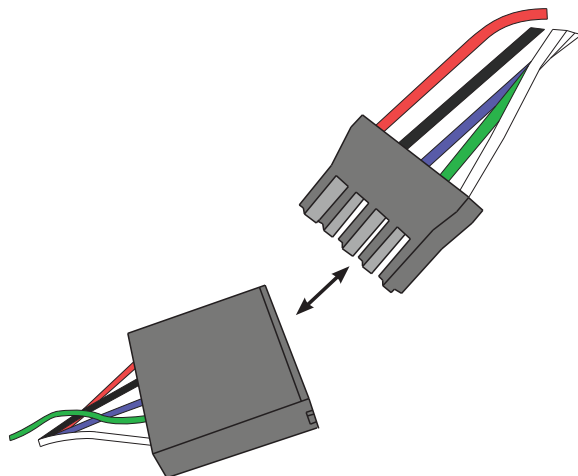
**NOTE:** The Phantom unit is shipped with the blowers oriented at the top of the unit. If this is your desired orientation, proceed to the plenum installation instructions on page 14. Read on to orient the blowers to the right or left sides of the unit.



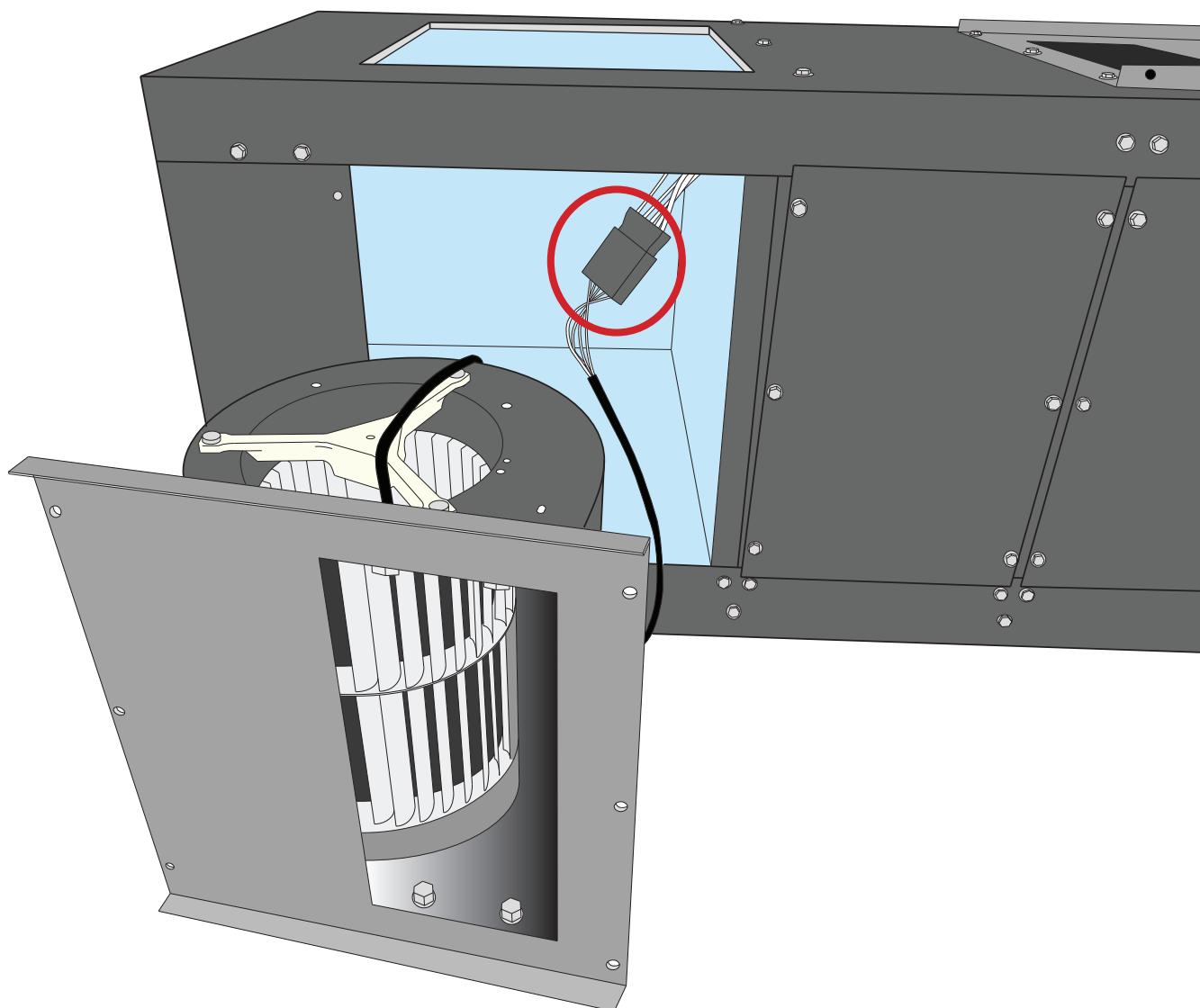
3. To reorient the blower(s), first remove the screws securing the supply panels on the top and preferred side of the unit (as shown above). Remove the panels.

## BLOWER ORIENTATION INSTRUCTIONS, CONTINUED

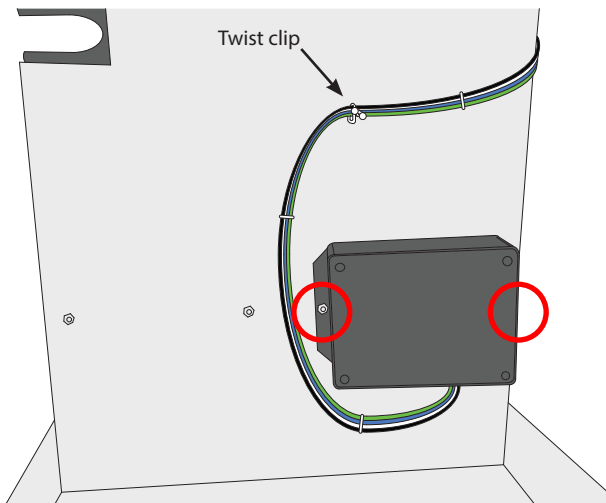
4. Next, disconnect the blower wire (with a Molex connector) located inside the unit, as shown below.



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

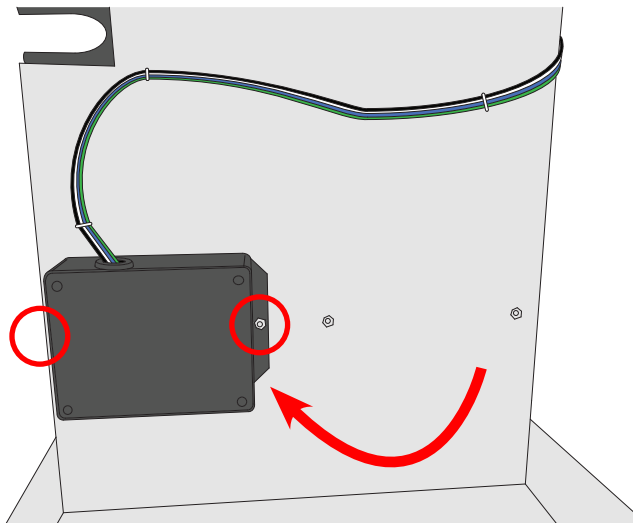


## REORIENTING THE CONTROLLER BOX

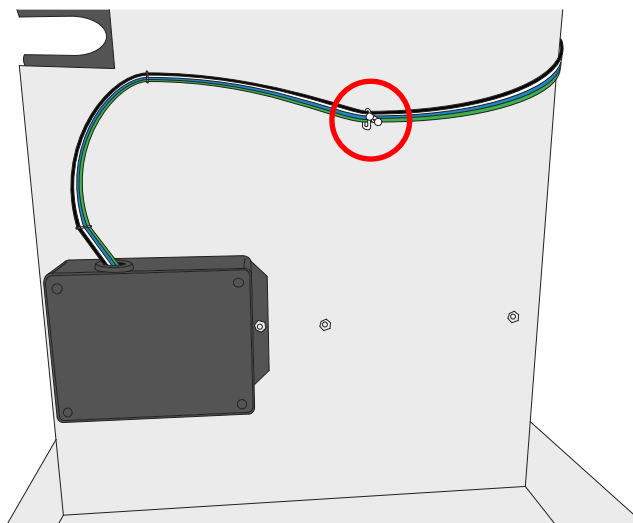


**NOTE:** These instructions only apply when reorienting the evaporator blower to the right.

1. First, unclip the wires from the twist clip.
2. Then, using an  $\frac{1}{32}$ " 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.

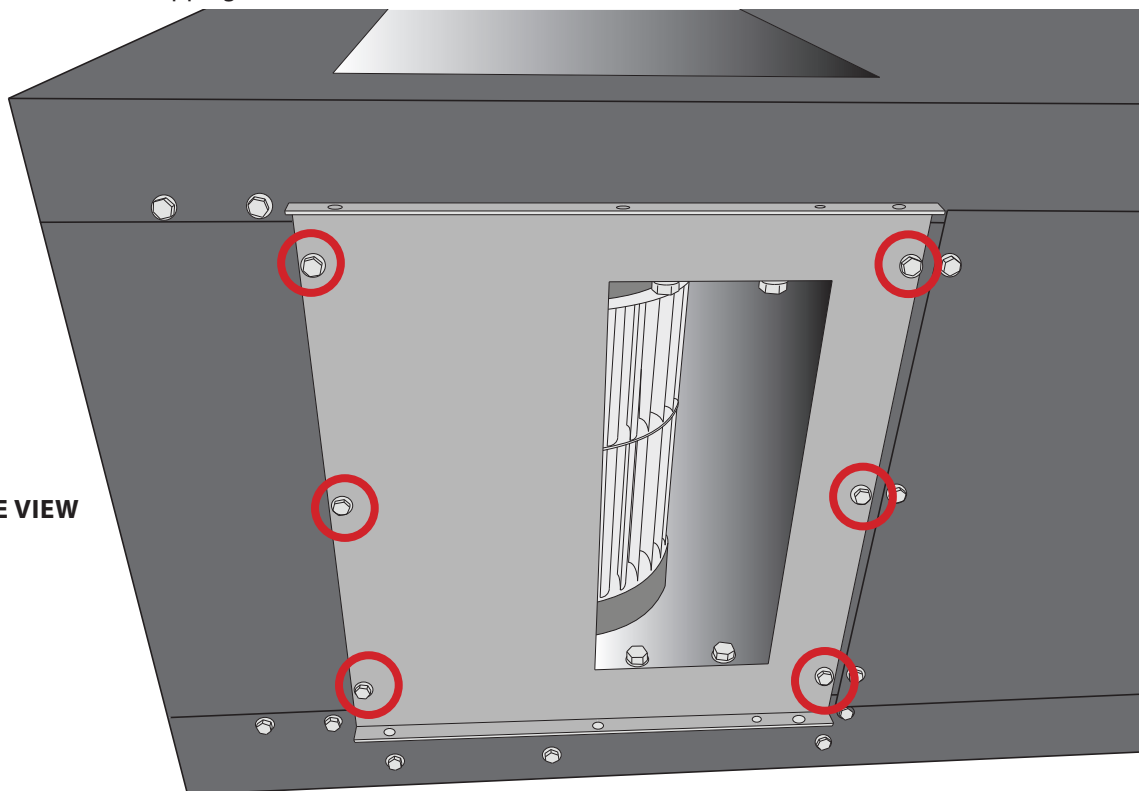


4. Resecure the wires using the twist clip.

## SIDE BLOWER ORIENTATION INSTRUCTIONS, CONTINUED

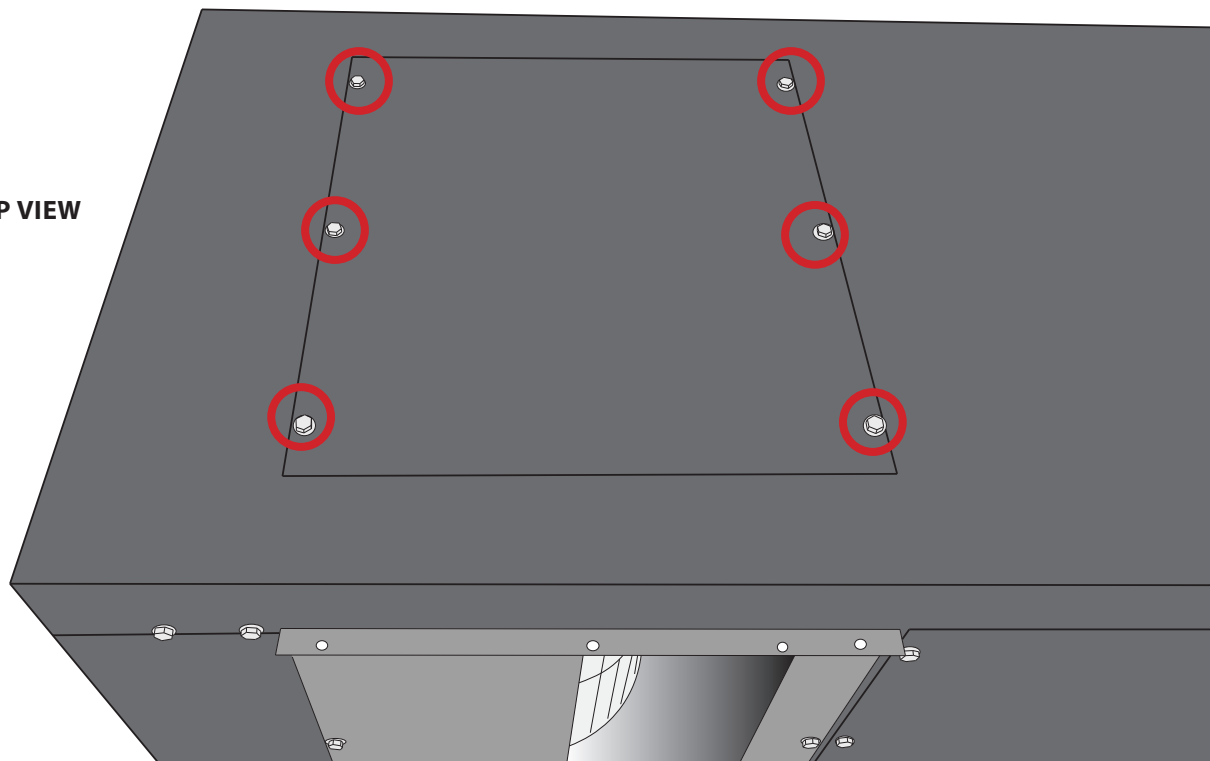
5. Reinstall the blower in the desired location and reinstall the supply panel using screws removed earlier. Use a low torque setting on the drill to avoid stripping the holes. Ensure that the blower remains in the orientation shown.

**SIDE VIEW**



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.

**TOP VIEW**



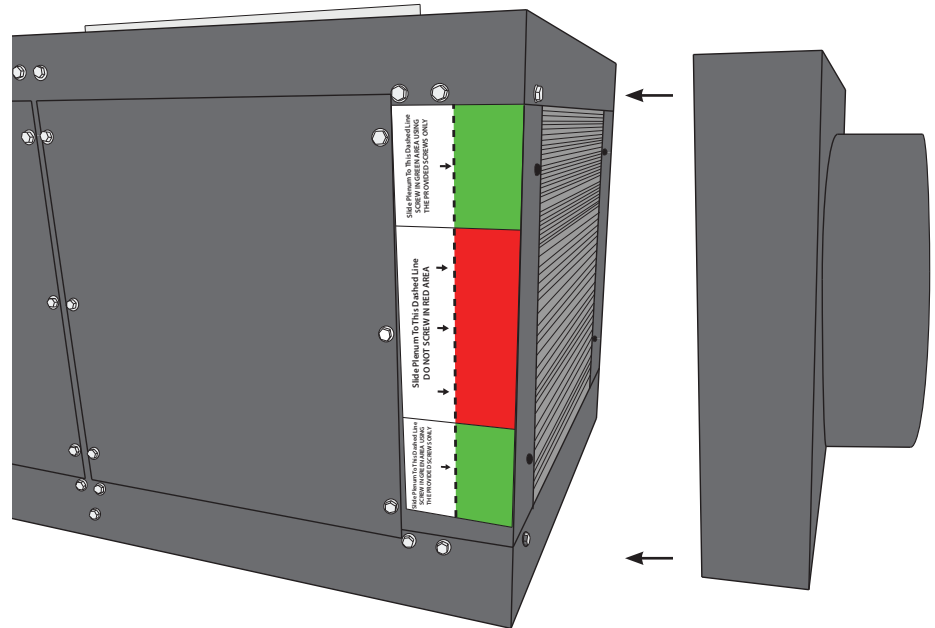
## PLENUM INSTALLATION

**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.

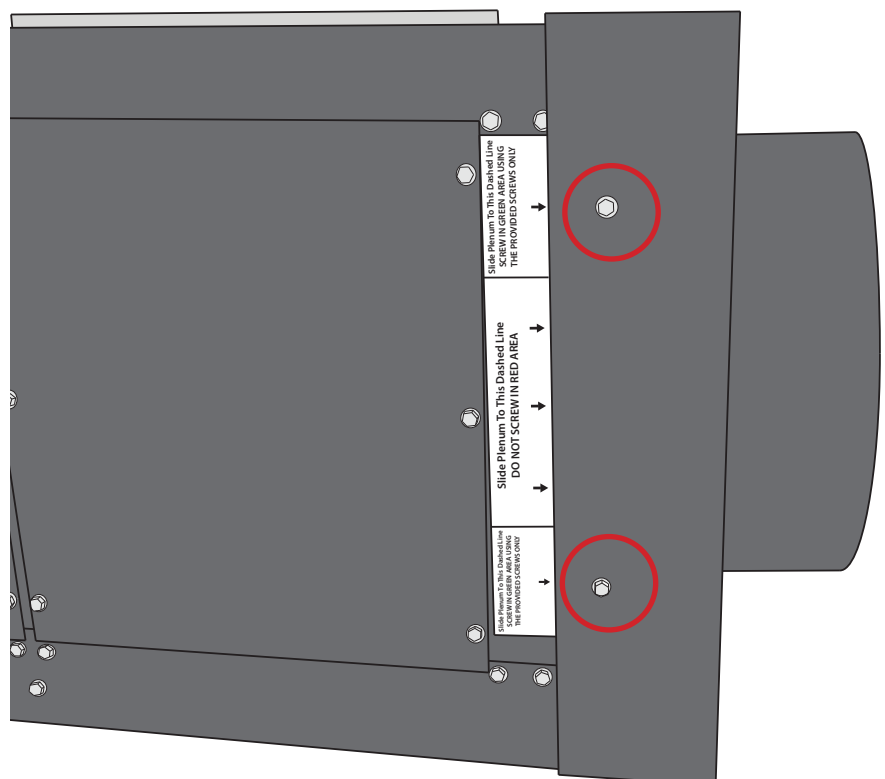
### RETURN PLENUM:

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.

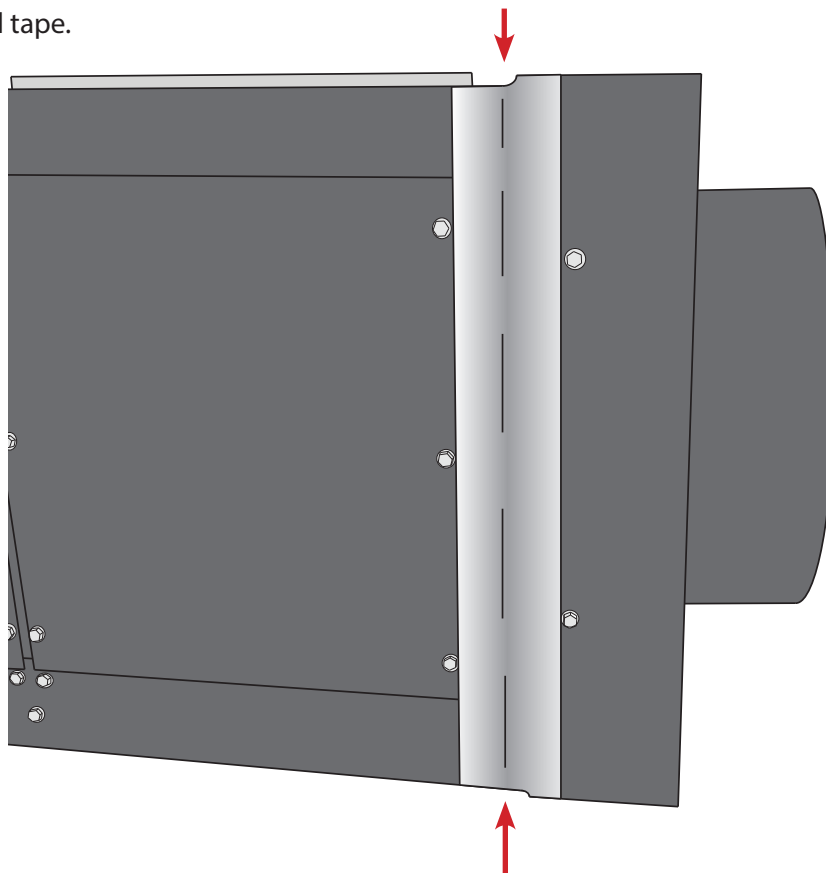
**NOTE:** Use only the provided #10 ½" self-tapping screws. Using any other size screws may result in internal damage to the unit and/or system failure.





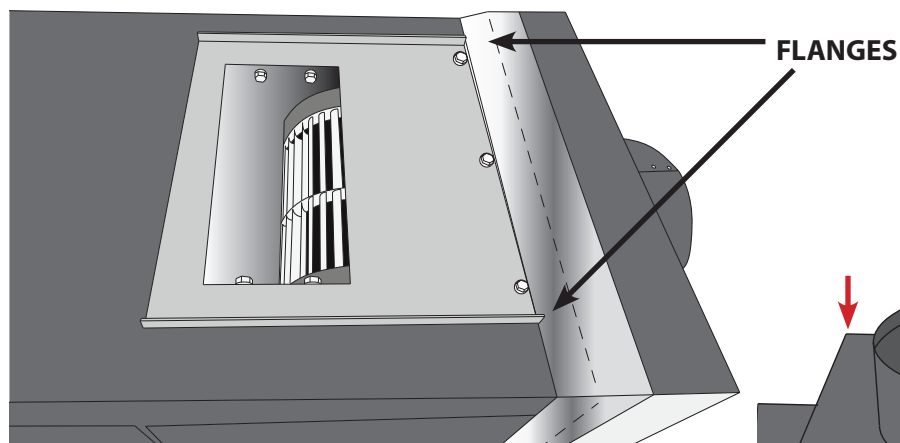
## PLENUM INSTALLATION, CONTINUED

3. Seal all seams with foil tape.

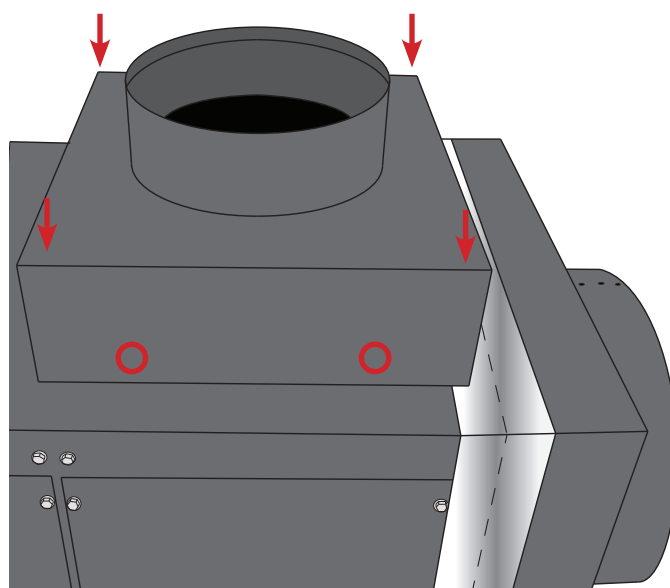


### SUPPLY PLENUM:

1. Fit plenum over exposed flanges.



**Fig. 1** - flange detail

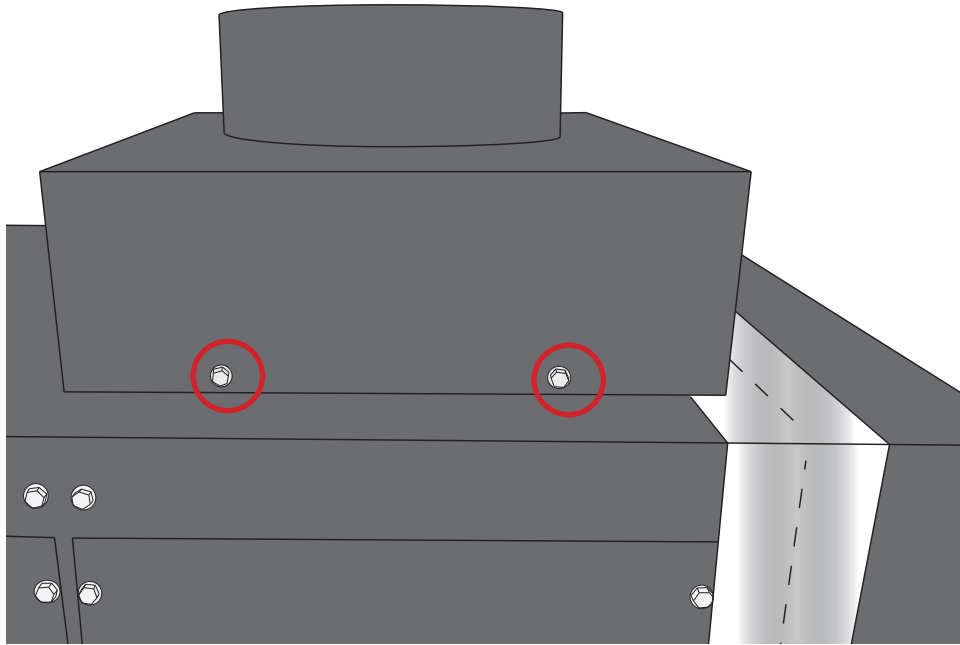


**Fig. 2** - placement of plenum

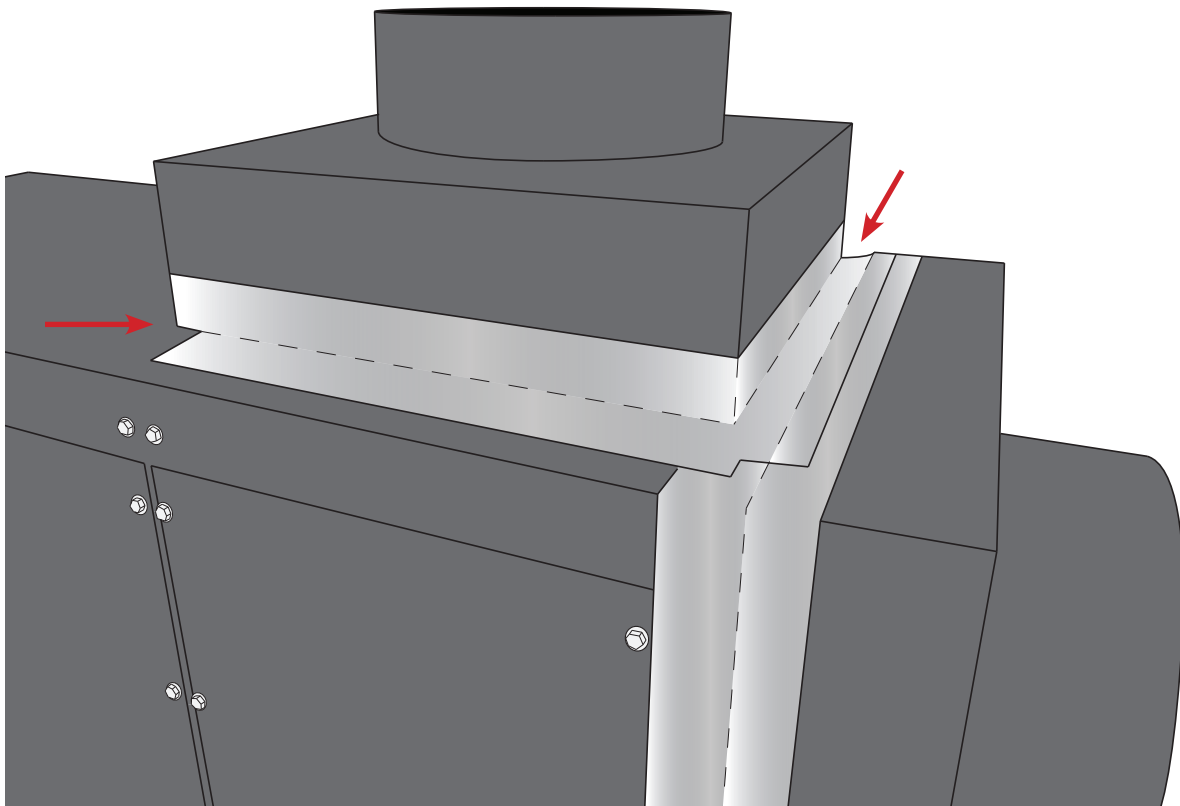
Pre-drill two (2)  $\frac{1}{8}$ " holes in the locations shown.

## 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.

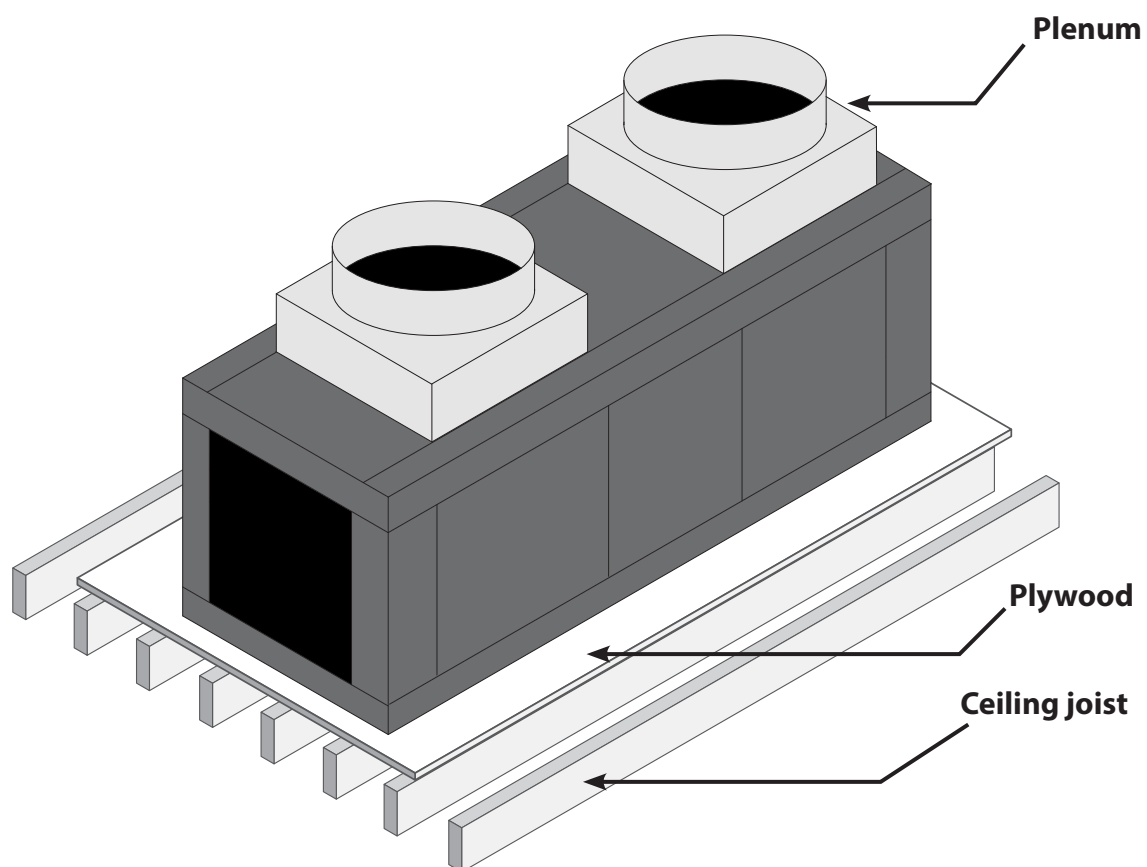
**Do not use a GFI (ground fault interrupter) with this product.**

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.

## 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 Phantom 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.

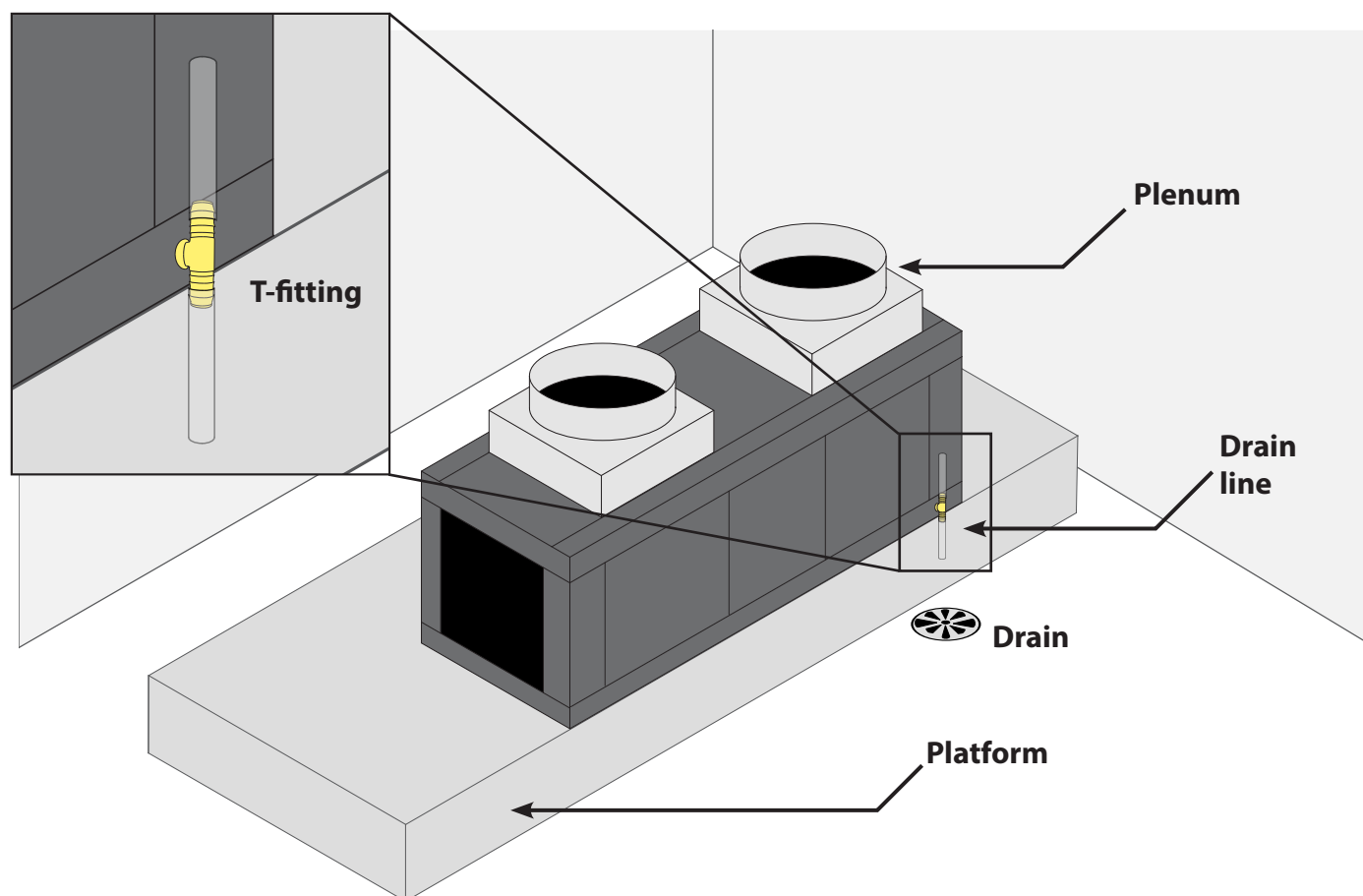
**NOTE:** WhisperKOOL strongly recommends the use of a secondary drain pan with the unit. Install the drain line according to the diagram on page 22.



## 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:

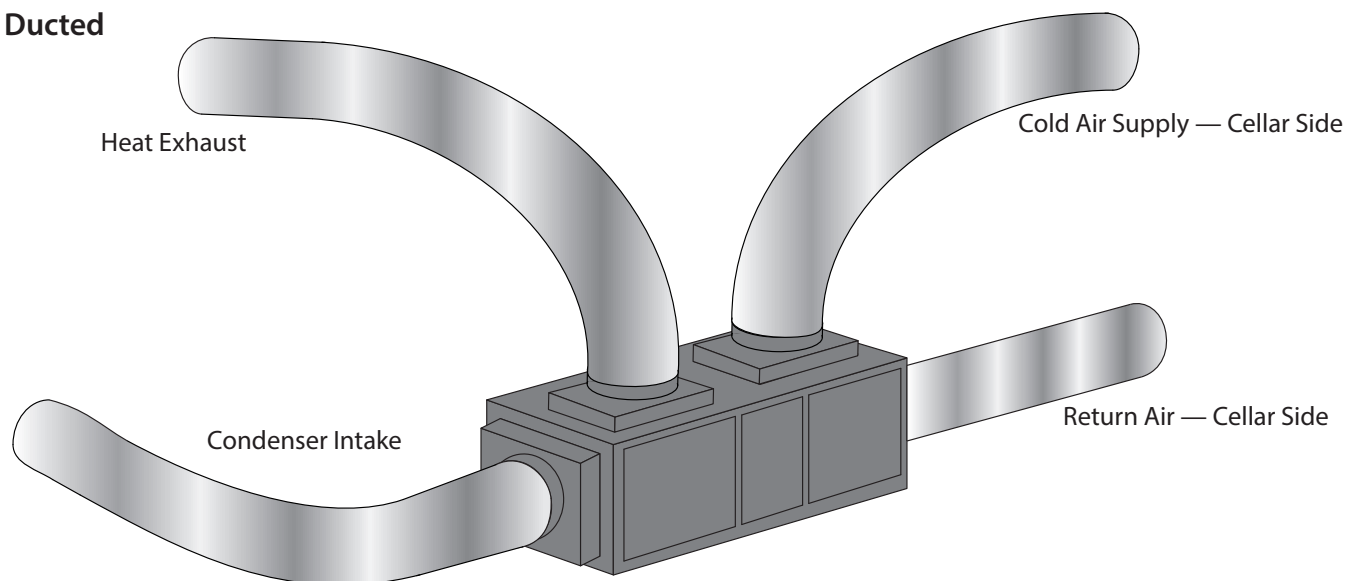
- Provide support for the flexible duct to prevent sags and bends.
- The recommended duct sizes are 10" (return) and 8" (supply).
- The recommended register size is 12" x 12". The filter should also be 12" x 12", and located at the return register. Registers and filters are not included with the unit.
- 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

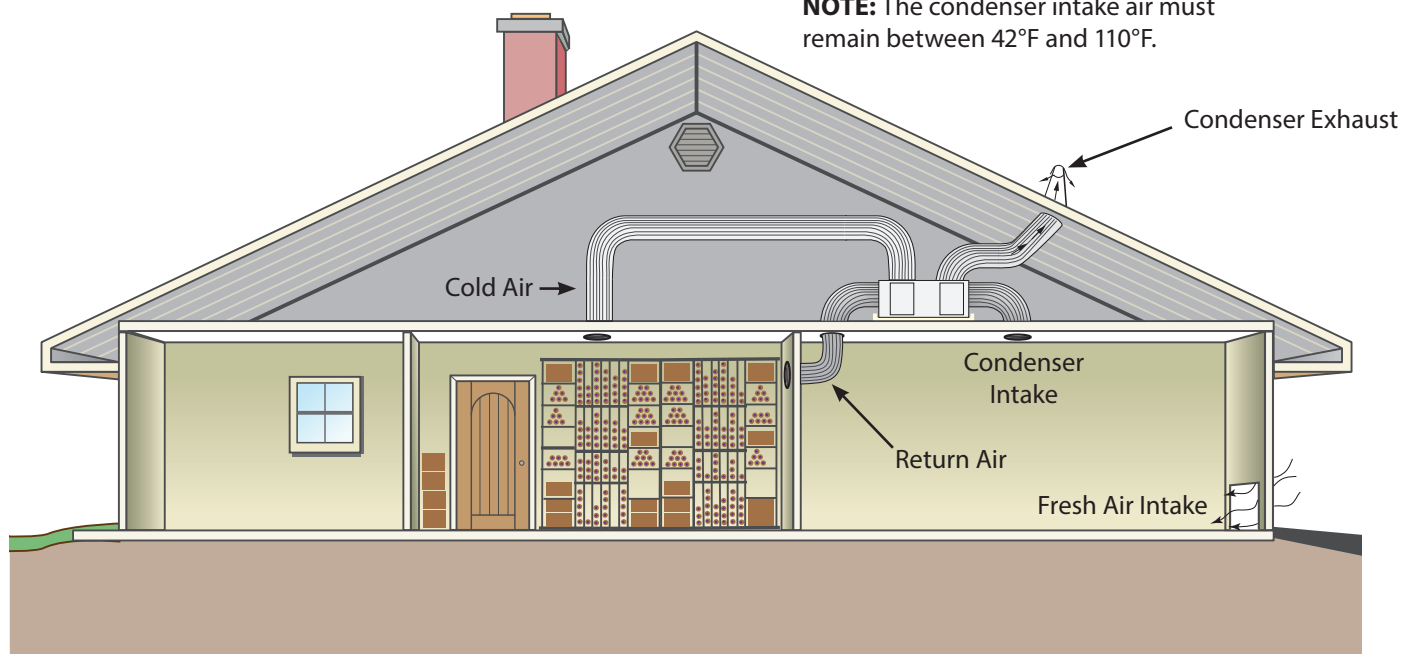
### Fully Ducted



### 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

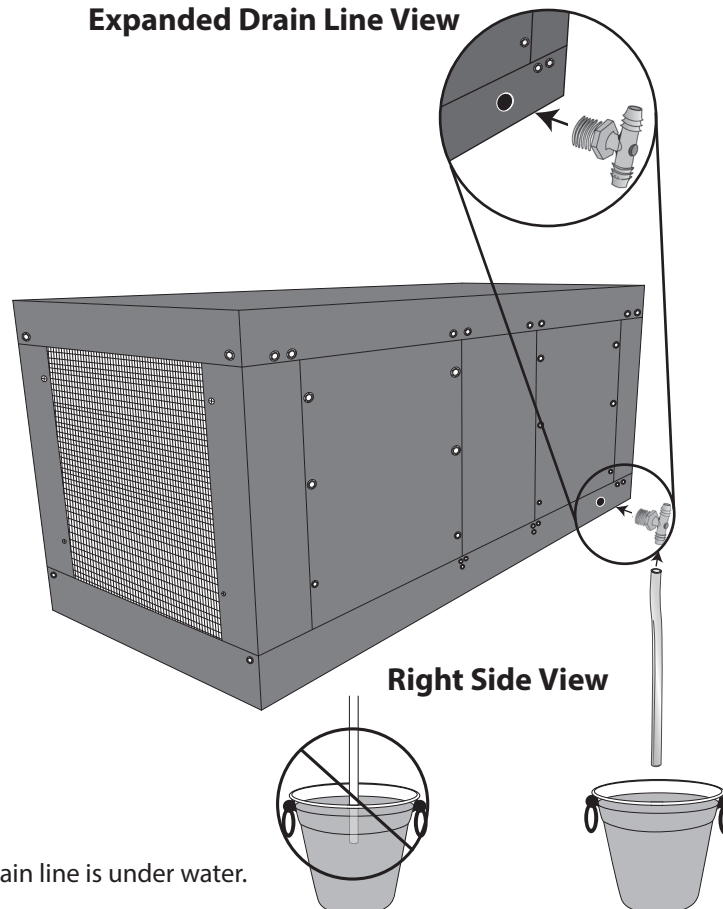
1. Wrap a barbed tee with Teflon tape one or two turns clockwise.
2. Next, thread the barbed tee into a drain port and rotate until tight. Make sure the barbed parts of the tee are vertical.
3. Next, attach a piece of ½" ID clear plastic tubing to the lower barb of the tee.
4. Every six weeks, disconnect 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 40). 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





## LIQUID-TEMPERATURE-MEASURING THERMOSTAT SYSTEM (BOTTLE PROBE)

WhisperKOOL cooling units come with a liquid-temperature-measuring thermostat. The self-calibrating probe contains a sensor chip, which communicates back and forth with the thermostat. This results in a consistent temperature setting and accuracy. Wine should be kept at a very precise, controlled temperature and humidity. By measuring the liquid temperature rather than air, the unit will operate 75–80% of the time.

### Setting up the Bottle Probe:

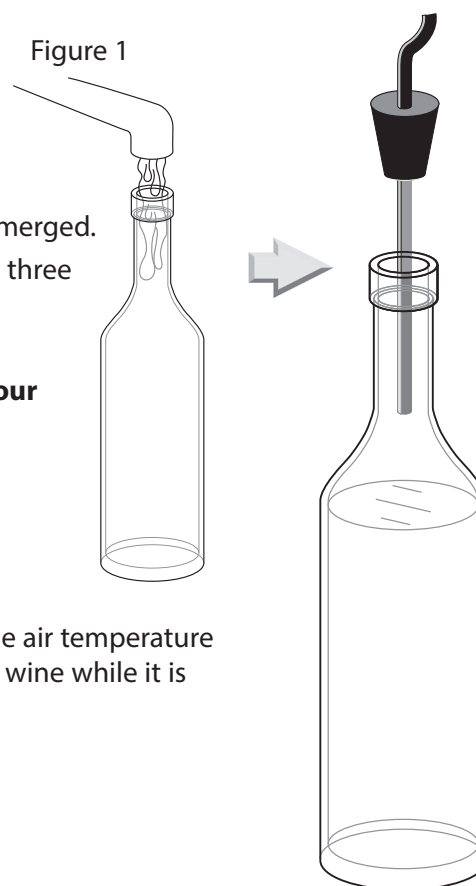
1. Locate an empty wine bottle.
2. Fill it 75% full with room-temperature tap water.
3. Place bottle probe securely into bottle as seen in Figure 1.
4. Attach bottle probe to circular connector on unit.
5. Place the wine bottle in your wine cellar. Ensure sensor tip is fully submerged.
6. To ensure a consistent temperature, place bottle probe approximately three (3) feet away from the air output and not in the flow of the air.

**It is recommended that the bottle be placed in a central location of your wine cellar.** Avoid pulling too much on the probe cord. It may become disconnected resulting in limited functionality of the unit.

**Note:** The thermostat can be set between 50–70°F.

**Remember:** The 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 reaching the optimum balanced temperature.



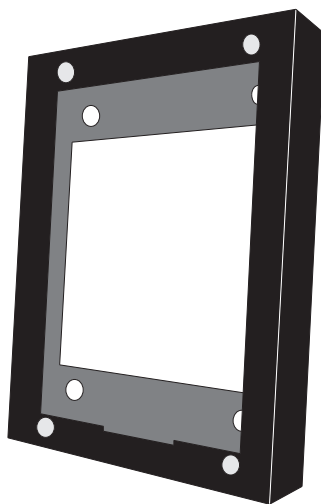
## REMOTE DISPLAY: INSTALLATION AND CONFIGURATION\*

**Tools needed:** 5/16" drill bit, 3/16" drill bit, drywall saw, level, pencil

**What's included:** Display panel, wall mount bracket, flush mount bracket, flush mount template



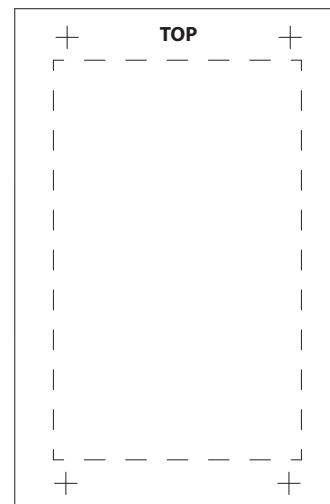
Display panel



Wall mount bracket



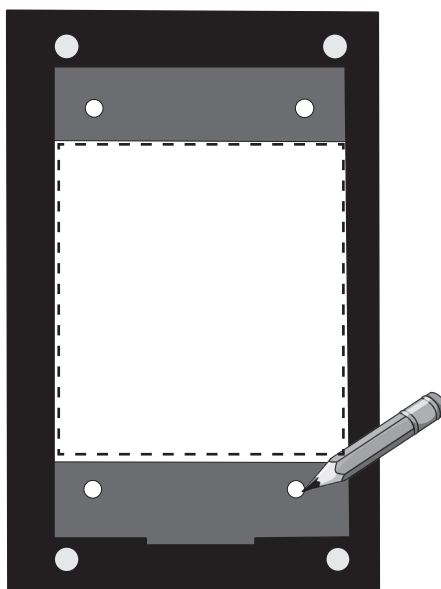
Flush mount bracket



Flush mount template

### WALL MOUNT BRACKET INSTALLATION

1. Place the bracket on the wall. Use a level to ensure that the bracket is level. Using a pencil, mark the four screw holes in the rear of the bracket.

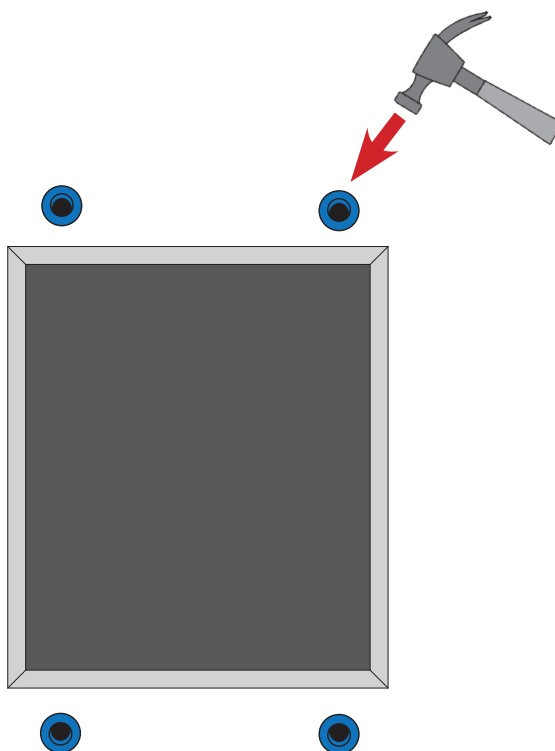


**NOTE:** Cut hole in the location shown for routing the display cable.

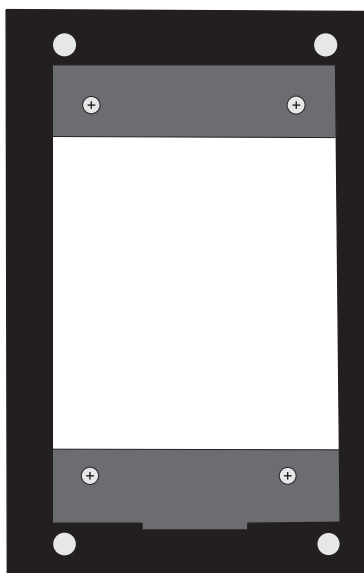
\* The display can be mounted on any wall (inside or outside the wine cellar), up to 50 feet from the cooling unit.

## WALL MOUNT BRACKET INSTALLATION, CONTINUED

2. Using a drill with a  $\frac{3}{16}$ " bit, drill four holes in the drywall for the screws. Insert the four (4) provided drywall anchors into the drywall, then tap them in with a hammer until they are flush with the wall.



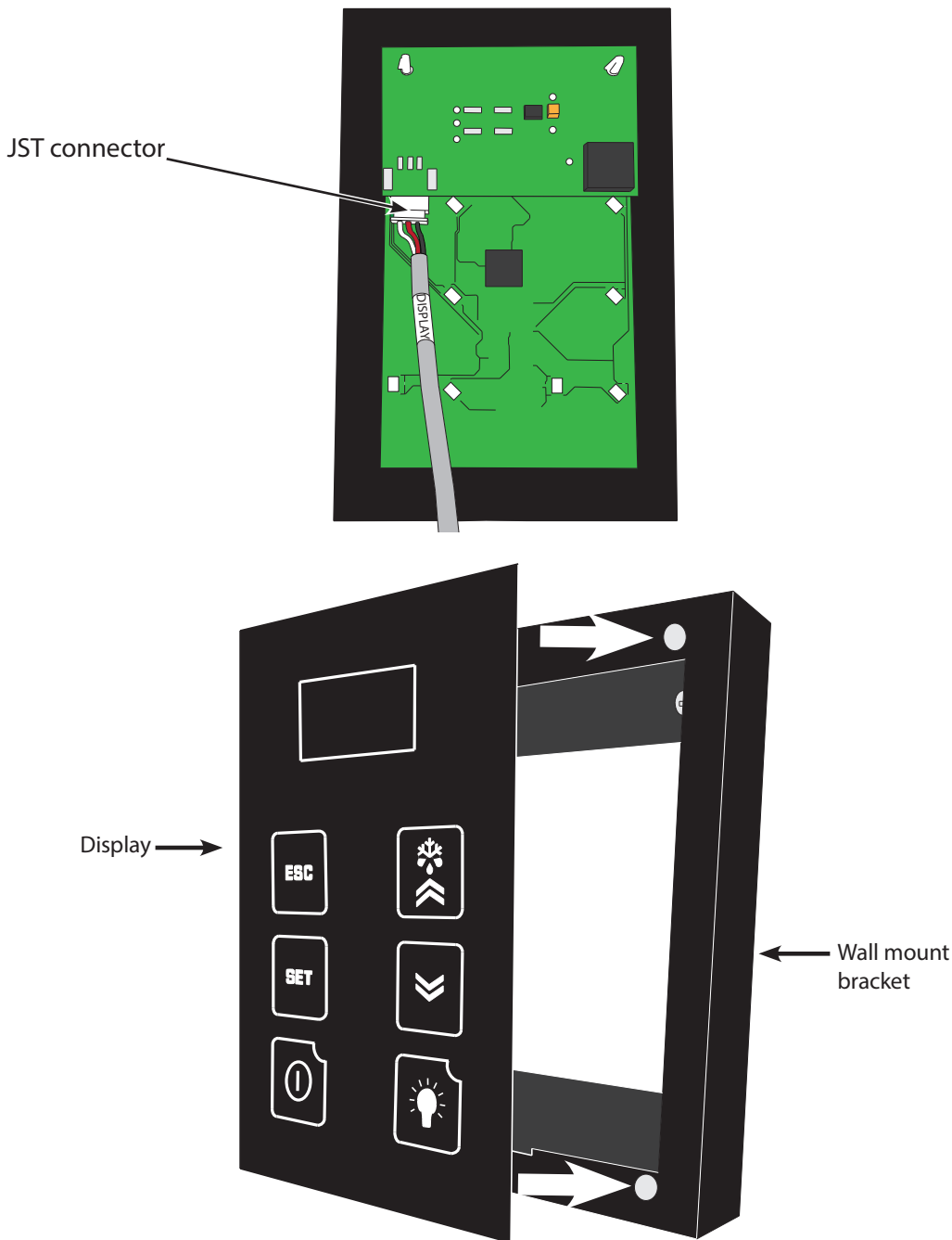
3. Place bracket against wall, aligning screw holes with drywall anchors. Insert the four supplied Phillips-head screws into the drywall anchors. Tighten the screws to secure the bracket to the wall.



## WALL MOUNT BRACKET INSTALLATION, CONTINUED

**NOTE:** Before you continue to Step 4, locate the area where the display will be mounted. You may route the display wire into the housing one of three ways: either through the wall or through one of the holes on the top or bottom edges of the wall mount bracket. If you'd like to route the display cable through one of these holes, place a rubber grommet into the hole and then route the display cable through the grommet and into the wall mount bracket.

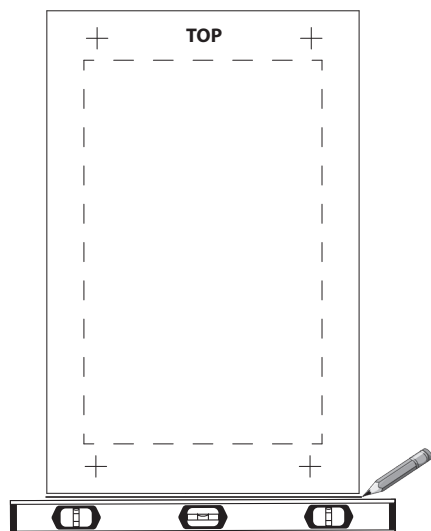
4. Connect the end of the display cable labeled “**DISPLAY**” to the JST connector on the back of the display.



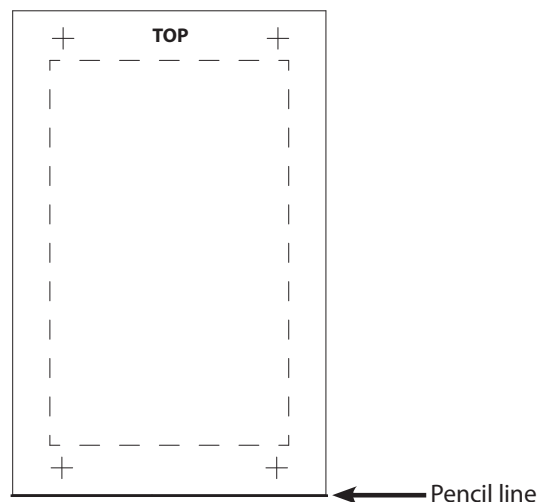
5. Place the display on the wall mount bracket as shown, attaching the back of the display panel to the magnets on the mounting bracket. Make sure that the alignment tab on the back of the display panel sits in the notch on the bottom of the bracket.

## FLUSH MOUNT BRACKET INSTALLATION

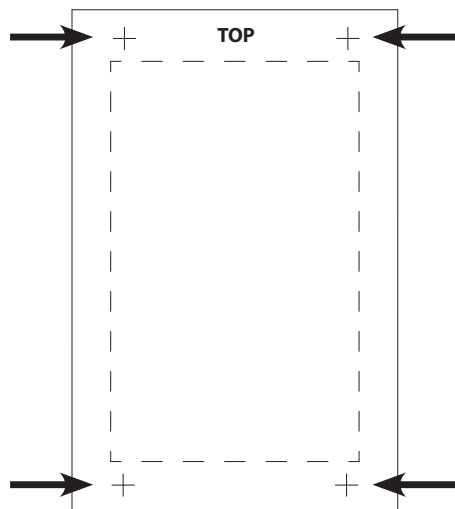
1. Square the flush mount template on the wall using a level. Then draw a 3" line along the bottom edge of the template.



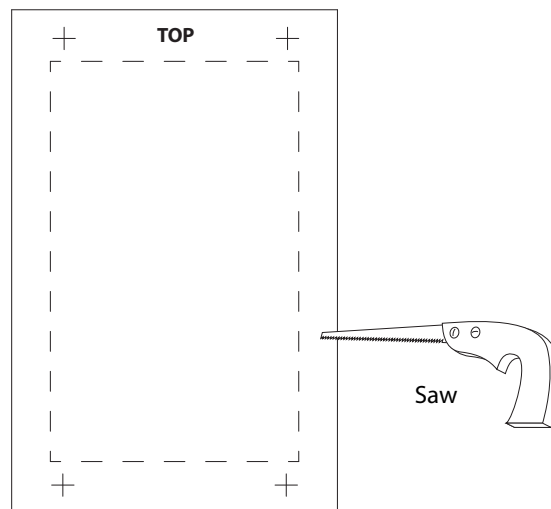
2. Peel the backing off the template and stick it to the wall, aligning the bottom edge with the line drawn in Step 1.



3. Use a  $\frac{5}{16}$ " drill bit to drill a hole in the center of each cross (+).

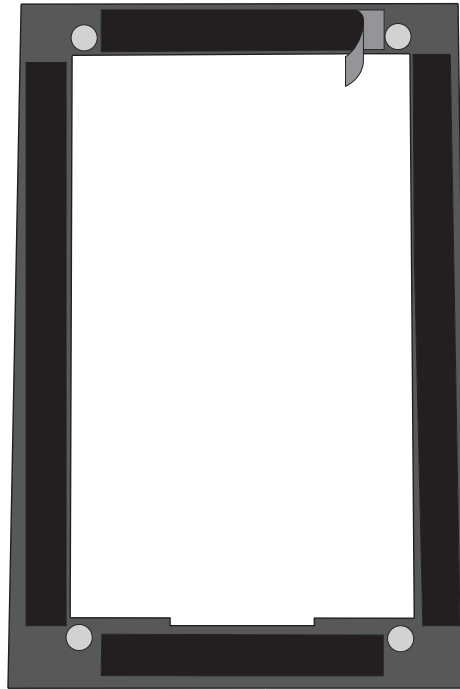


4. Cut along the perforated lines. When finished, remove template from wall.

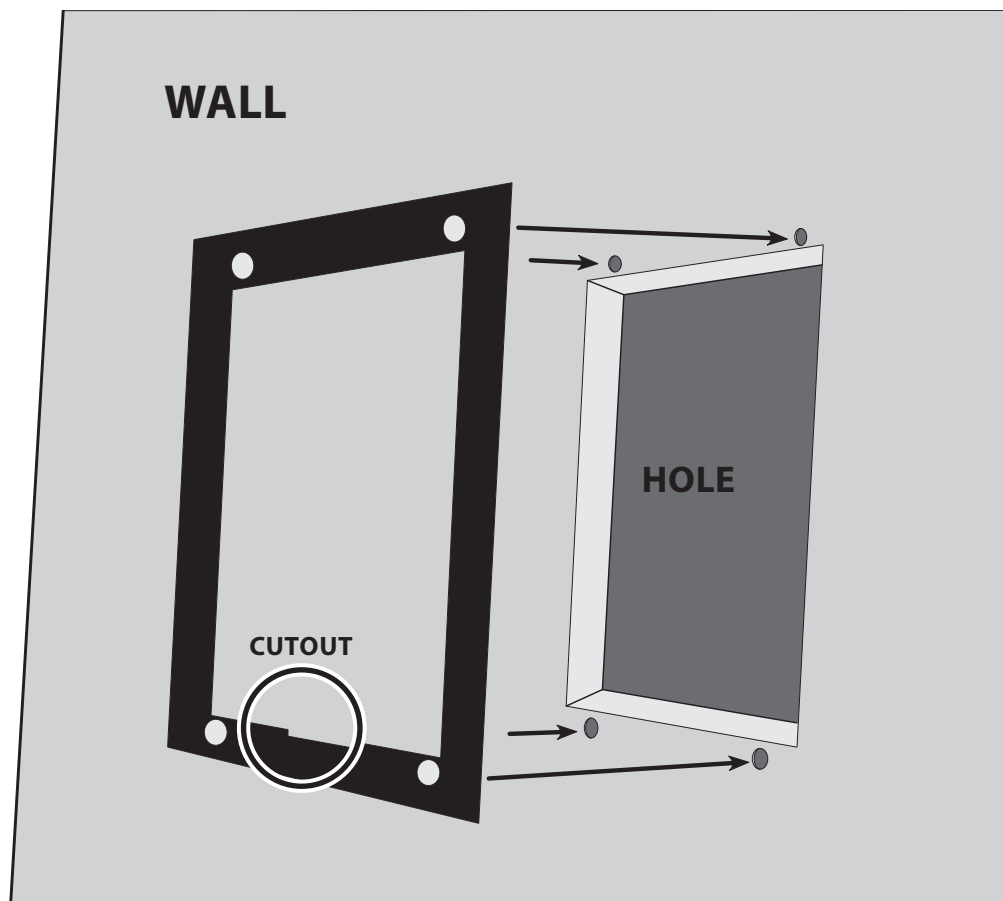


## FLUSH MOUNT BRACKET INSTALLATION, CONTINUED

5. Remove the backing from the double-sided tape on the flush mount bracket.

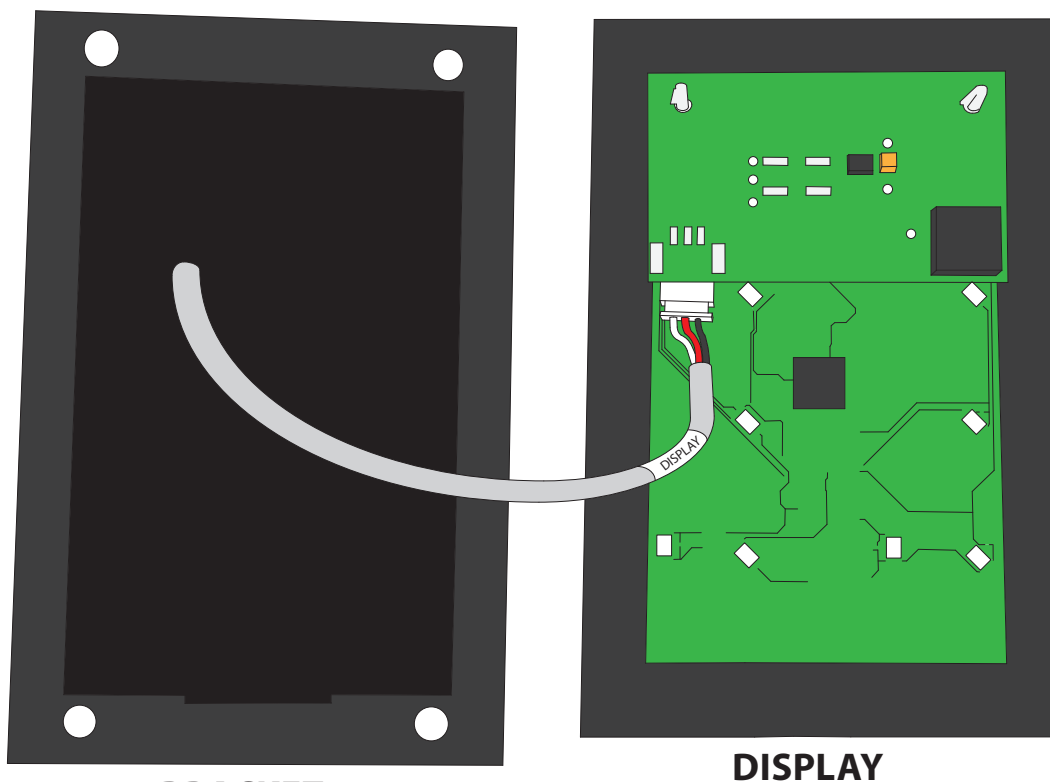


6. Align magnets with previously drilled holes. Make sure the cut-out portion of the bracket (circled below) is on the bottom. Press the bracket firmly against the wall.

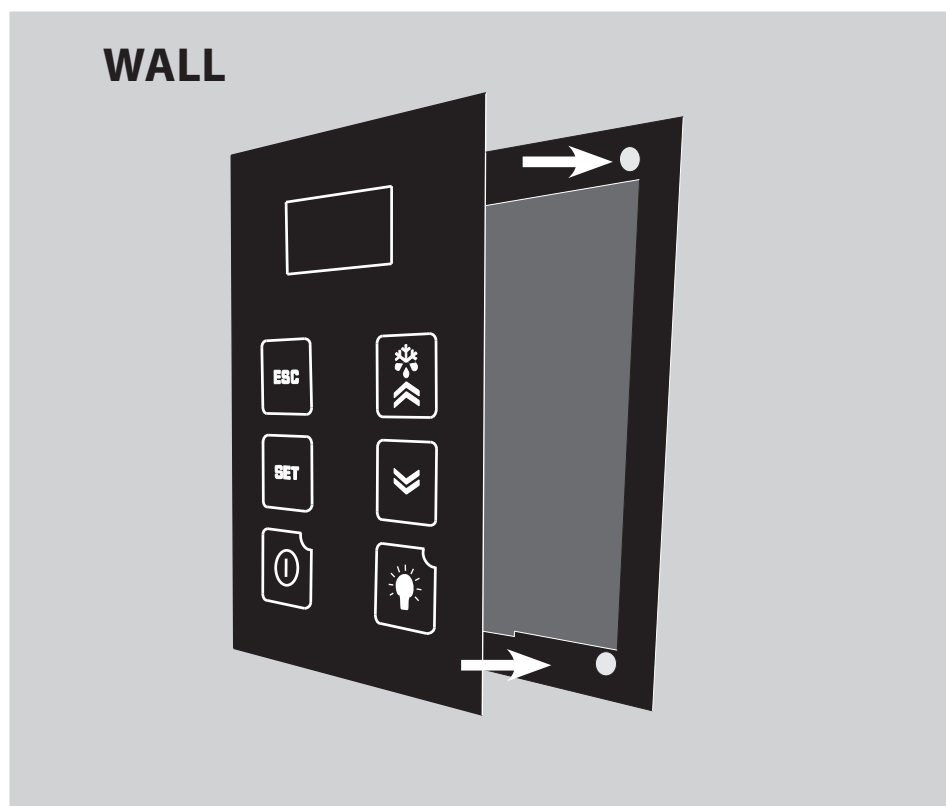


## FLUSH MOUNT BRACKET INSTALLATION, CONTINUED

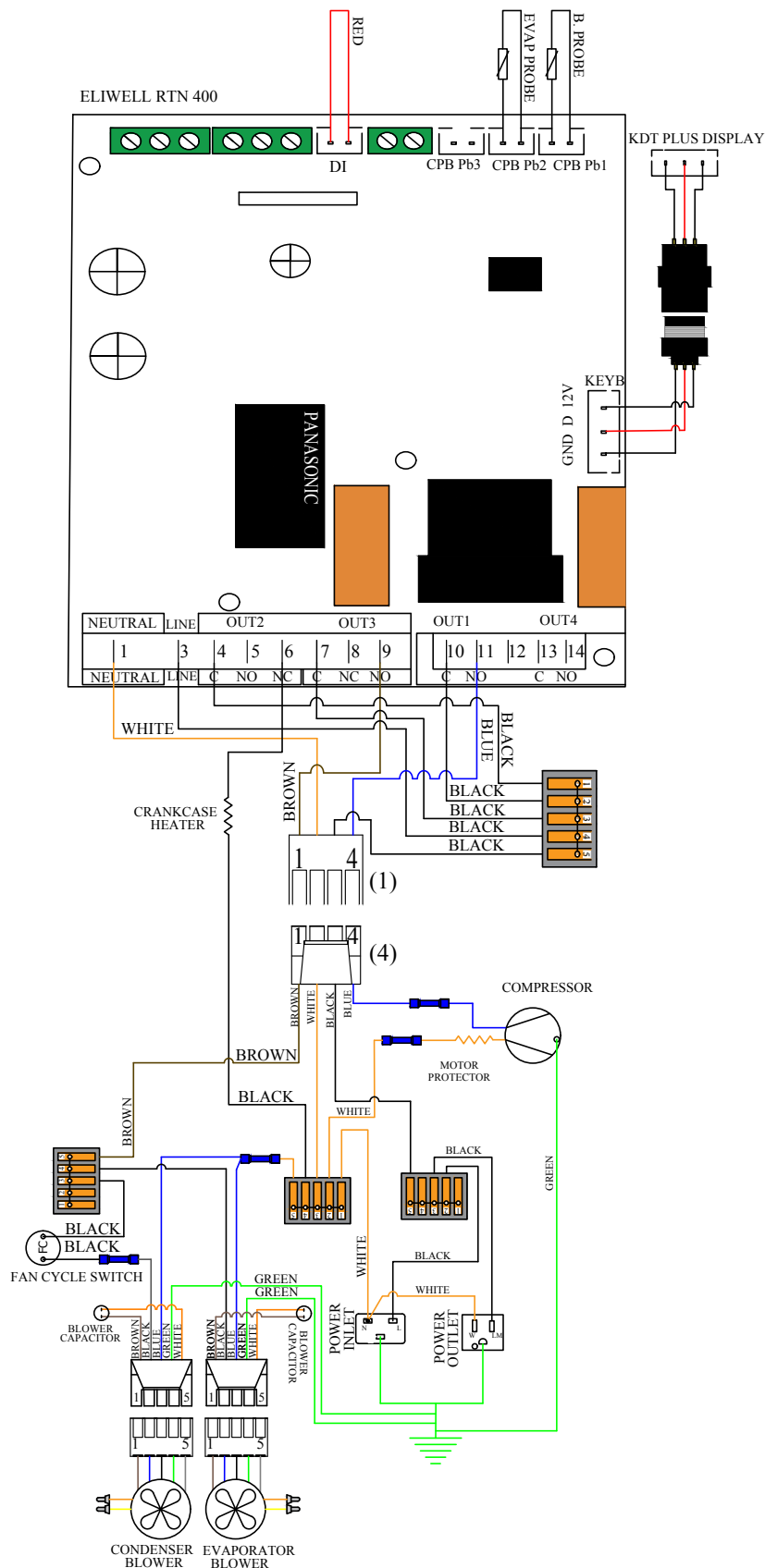
7. Connect the end of the display cable to the JST connector on the display panel.



8. Place the display on the flush mount bracket as shown, attaching the back of the display panel to the magnets on the mounting bracket. Make sure that the alignment tab on the back of the display panel sits in the notch on the bottom of the bracket.



# PHANTOM 3500, 5000, & 8000 WIRING DIAGRAM





## UNIT OPERATION

### Initial Start-Up

When the unit is plugged in and power is sent to the controller, a beep will sound, confirming that the controller is getting power. All LEDs on the display will blink three times. Three dashes will then appear on the screen. All display LEDs will then blink three times. Once the controller has gone through the initial startup process, and all LEDs have cycled, the home screen will be displayed.

### Setpoint

The setpoint is preset at the factory to 55°F. It can be adjusted by the customer between 50–70°F in one-degree increments.

### Evaporator Fan Operation

The indoor fan will run when the controller is calling for cooling and turn off once the cooling cycle has ended. During the cooling cycle, the system will remove some relative humidity from the cellar. Some of the humidity that was removed can be reintroduced into the cellar by adjusting the “fan on” and “fan off” functions. (The cooling system is not equipped with a humidifier and does not add humidity.)

The FOF cycle should be shortened first. This will reduce the amount of time that the fan remains off following a cooling cycle. When the unit has completed a cooling cycle, the compressor and the condenser fan will turn off, but the evaporator fan will continue to run for whatever length of time the customer has set. The Fon function may then be lengthened to allow the fan to run longer and reintroduce moisture from the evaporator coil back into the wine cellar.

For more information about fan settings, refer to the User Menu on page 36.

### Anti-Short Cycle

The Anti-Short Cycle ensures that the unit will remain off for a period of five minutes after the unit has reached the setpoint. This allows the pressure in the refrigeration system to equalize prior to starting the compressor.

Once the compressor is turned off, the controller must wait five minutes before reactivating the compressor. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor icon will blink, indicating that cooling is needed but the controller is waiting for the Anti-Short Cycle delay.

### Anti-Frost Cycle

When the evaporator probe senses a temperature of 26°F for a duration of one minute, an Anti-Frost Cycle will be initiated. This will shut down the compressor, allowing the evaporator fan to run and melt any frost accumulation on the coil. While the Anti-Frost Cycle is running, “dEF” will be displayed on the screen. The compressor will remain off until the evaporator coil reaches 40°F, or for a maximum of one hour. The unit will then return to normal operation.

### Digital Display

The display is designed to give the user the ability to adjust the setpoint, Fon/FOF parameters, and other settings. (See User Menu on page 36 for more details.) The bottle probe temperature is displayed by default. “dEF” will be displayed during an Anti-Frost Cycle. The bottle probe and evaporator probe temperatures can be accessed by pushing the SET button and scrolling through “Pb1” (bottle probe) and “Pb2” (evaporator probe). The light button may be used as an unlock button.

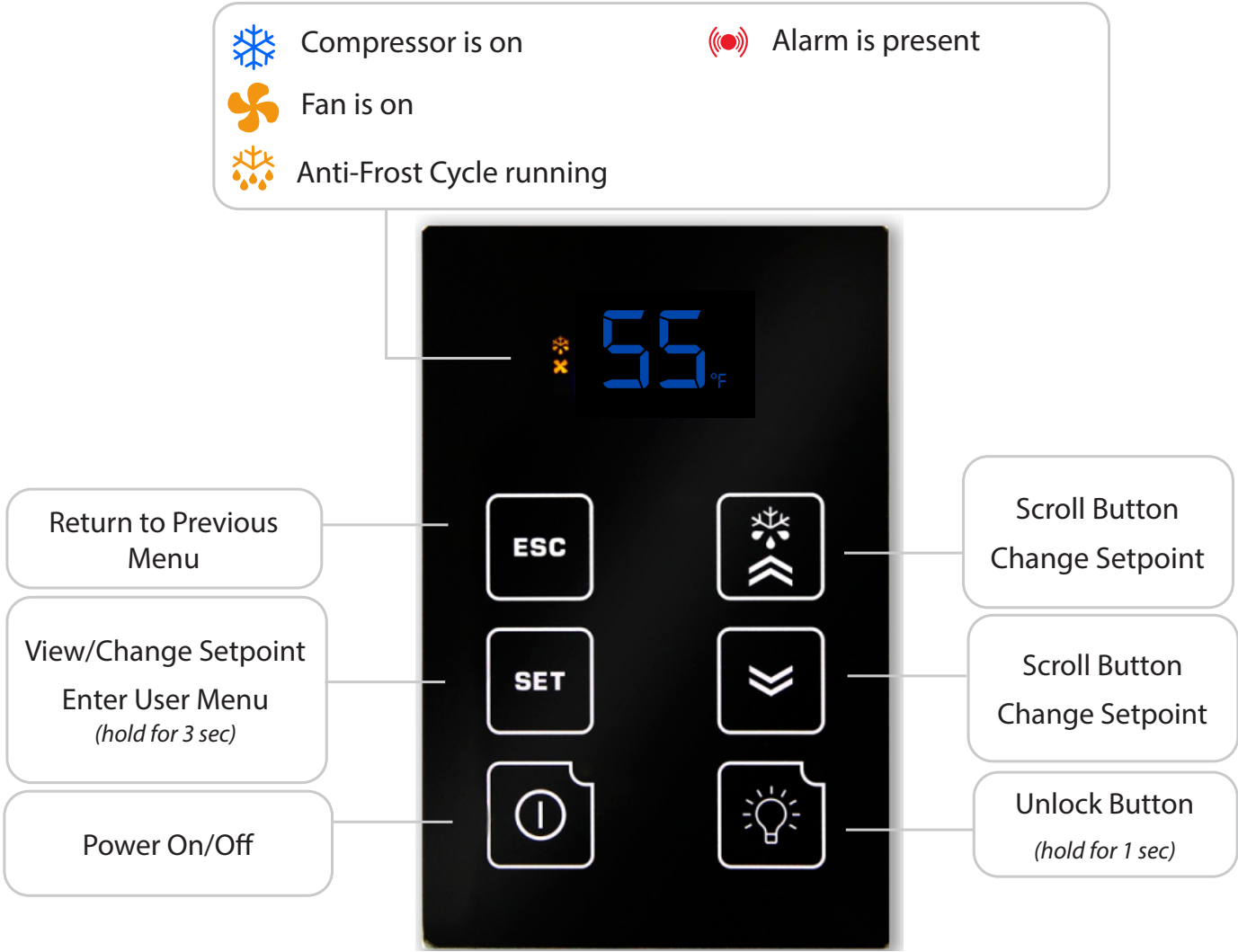
### Safety Features

In the event of a faulty bottle probe, the compressor will cycle off for 10 minutes and on for 40 minutes. “E1” will be displayed on the screen.






### Alarms

See “Alarm Codes” in the Controller Functions chart.





DISPLAY LAYOUT





## CONTROLLER FUNCTIONS

| Button  | Normal Functions   |     |          |            |              |            |                                   |            |                             |
|---|--|-----|----------|------------|--------------|------------|-----------------------------------|------------|-----------------------------|
| <b>INITIAL STARTUP</b>  | When the unit is plugged in and power is sent to the controller, a beep will sound, confirming that the controller is getting power. All LEDs on the display will blink three times. Three dashes will then appear on the screen. All display LEDs will then blink three times. Once the controller has gone through the initial startup process, and all LEDs have cycled, the home screen will be displayed.   |     |          |            |              |            |                                   |            |                             |
| <b>UNLOCKING THE DISPLAY</b>  | Press and hold any button for one second to unlock the display. (A white LED will appear in the top left corner of the button being pressed.) A beep will sound, signifying that the display is unlocked. <b>NOTE:</b> The display must be unlocked before any button functions become available.  |     |          |            |              |            |                                   |            |                             |
| <b>ON/OFF</b><br>  | To turn the unit ON, press and hold the ON/OFF button until the red LED turns OFF.<br><br>To turn the unit OFF, press and hold the ON/OFF button until the red LED turns ON.   |     |          |            |              |            |                                   |            |                             |
| <b>UP/DOWN</b><br> | The up and down arrows are used to navigate through menus and adjust parameters such as setpoint, Fon/FOF, etc.  |     |          |            |              |            |                                   |            |                             |
| <b>SET</b><br>   | <ul style="list-style-type: none"> <li>To change the setpoint, press the SET button. When "SEt" is displayed on the screen, press the SET button once more. Use the UP and DOWN ARROW buttons in order to change the value until the desired setpoint is reached.</li> <li>The SET button allows you to view the setpoint, evaporator temperature, bottle temperature, alarms, and the hidden menu.</li> <li>Press the SET button once. "SEt" will be displayed. Press the UP or DOWN ARROW buttons to scroll through ALr, Pb1, or Pb2.</li> </ul> <table border="1"> <thead> <tr> <th>Set</th><th>Setpoint</th></tr> </thead> <tbody> <tr> <td><b>ALr</b></td><td>Alarm folder</td></tr> <tr> <td><b>Pb1</b></td><td>Liquid (bottle probe) temperature</td></tr> <tr> <td><b>Pb2</b></td><td>Evaporator coil temperature</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>Press the SET button again to view any of these values.</li> <li>Hold the SET button for approximately 5 seconds to enter the User Menu. (More information about the User Menu is available on page 36.)</li> <li>Other parameters in the User Menu which are not available for adjustment include: idF, rEL, and LAn.</li> </ul> | Set | Setpoint | <b>ALr</b> | Alarm folder | <b>Pb1</b> | Liquid (bottle probe) temperature | <b>Pb2</b> | Evaporator coil temperature |
| Set   | Setpoint   |     |          |            |              |            |                                   |            |                             |
| <b>ALr</b>  | Alarm folder   |     |          |            |              |            |                                   |            |                             |
| <b>Pb1</b>  | Liquid (bottle probe) temperature  |     |          |            |              |            |                                   |            |                             |
| <b>Pb2</b>  | Evaporator coil temperature  |     |          |            |              |            |                                   |            |                             |
| <b>ESC</b><br>   | This button confirms changes made to parameters such as the setpoint and returns you to the previous menu.   |     |          |            |              |            |                                   |            |                             |
| <b>LIGHT</b><br> | The light function is not in use. However, this button can still be used to unlock the display.  |     |          |            |              |            |                                   |            |                             |

# ICON GLOSSARY

| Icon  | Meaning   |
|---|---|
| <div>SNOWFLAKE</div>           | <p><b>Blinking:</b> The unit is calling for cooling, but must wait five minutes before restarting the compressor. This five-minute delay serves as an Anti-Short Cycle for the compressor’s protection.</p> <p><b>Constant:</b> The unit is in cooling mode and the condensing unit is running.</p>           |
| <div>DRIPPING SNOWFLAKE</div>  | <p>The unit is undergoing an Anti-Frost Cycle. While the Anti-Frost Cycle is running, “dEF” will be displayed on the screen. See Unit Operation page for further details.</p>   |
| <div>FAN</div>                 | <p>The evaporator fan is running.</p>   |
| <div>ALARM</div>               | <p>The alarm icon is shown when the unit encounters an issue that needs attention. Alarm codes are explained on the following page. All temperature-related alarms are blocked for the first 10 hours after the unit is plugged in to allow the system to stabilize and acclimate to the new environment.</p> |

## ALARM CODES

| Code   | Cause  | Solution  |
|--|--|---|
| The following alarm codes will be displayed on the screen along with the alarm icon.    |  |   |
| E1   | Bottle probe is not connected  | Attach bottle probe to circular connector (see instructions on page 23)   |
|  | Faulty bottle probe connection   | Locate faulty bottle probe connection by inspecting all wiring connections between the bottle probe and the circuit board. The two-pin connector for the bottle probe should be connected to the CPB/PB1 terminal on the circuit board. If it is not connected, plug it in. If a faulty connection has been identified, correct the issue or contact customer service for further assistance.<br><br><b>NOTE:</b> The E1 code will not appear in the alarms menu. It will be permanently displayed on the screen. |
|  | Defective bottle probe   | Replace the bottle probe  |
| E2   | Faulty evaporator probe connection                                       | Locate faulty evaporator probe connection by inspecting evaporator probe wire. The two-pin connector for the evaporator probe should be connected to the CPB/PB2 terminal on the circuit board. If it is not connected, plug it in.   |
|  | Defective evaporator probe   | Replace the evaporator probe  |
| E7   | No communication between keypad and circuit board for 60 seconds         | Verify that the display cable is connected to the keypad and the circuit board and is not damaged, frayed, or kinked. If problem persists, contact Customer Service for troubleshooting information.  |
| E10  | Clock battery is dead  | Replace battery<br><br><b>NOTE:</b> A dead clock battery will not affect the operation of your cooling unit.  |
| The following alarm codes will not be displayed on the home screen. However, the alarm icon will be displayed in the event of an alarm. The alarms can be viewed in the Set Menu's ALr folder.  |  |   |
| EA   | Unit is not draining properly  | 1. Check to see that the unit is level; if not, level it<br>2. Verify that the drain line is not clogged; if so, clear obstruction<br>3. Ensure that the condensate pump is operating<br><br><b>NOTE:</b> If the drain line is obstructed or the pump fails for some reason, and the water level in the drip tray gets too high, the unit will not operate until the water in the internal drip tray drops back below the proper level.   |
| AH1  | The bottle probe is sensing a temperature that is 8°F above the setpoint | 1. Allow time for the wine to reach the desired temperature<br>2. Ensure that the cellar is sealed properly<br>3. Verify that the bottle probe is calibrated correctly (refer to the User Menu on the following page)<br>4. Verify that the unit is sized correctly for the cellar  |
| AL1  | The bottle probe is sensing a temperature that is 8°F below the setpoint | 1. Make sure the unit is not in cooling mode (the snowflake icon will not be illuminated)<br>2. Add heat to the room until the wine reaches the desired temp<br>3. Verify that the bottle probe is calibrated correctly (refer to the User Menu on the following page)  |
| Ad2  | The Anti-Frost Cycle ended on time-out                                   | 1. Check the evaporator coil for ice buildup. Unplug the unit and allow the coil to thaw before restarting.<br>2. Make sure the room to which the unit is exhausting is not below 60°F<br>3. If the unit repeatedly goes into Anti-Frost Cycles (one per minute), call Customer Service for more troubleshooting information  |

## USER MENU

The User Menu is accessed by **pressing and holding the SET button for 3 seconds**. Use the UP and DOWN ARROW buttons to navigate to desired parameters. Press the SET button again to view these parameters. Press the UP and DOWN ARROW buttons to adjust a parameter.

The following parameters are available in the menu:

| Parameter                                   | Description  |
|---|--|
| <b>Fdc - humidity enhancement</b>           | This parameter is measured in minutes, and is preset at the factory to 1. An increase in this parameter will increase the humidity enhancement of your cellar. This parameter should not be adjusted to zero. Adjustments should be made in increments of 5, with a maximum of 15 and a minimum of 1. After making any adjustments to humidity enhancement, <b>you should wait a minimum of 3 days</b> before making any additional adjustments. This will allow sufficient time for the cellar to acclimate to the new setting. |
| <b>FOF - "fan off"</b>                      | This setting controls how long the fan stays off after the setpoint has been reached. It is preset to 15 minutes. This setting should not be adjusted, as most properly constructed wine cellars retain an ample amount of humidity during the "fan off" cycle. If, however, you wish to decrease the duration of the "fan off" cycle (in order to increase the wine cellar's relative humidity), you can adjust this setting in the User Menu.  |
| <b>Fon - "fan on"</b>                       | The "fan on" time is preset to zero minutes. This keeps the relative humidity of the wine cellar at a stable level. If, however, you wish to raise the relative humidity of your wine cellar, you can increase the duration of the "fan on" cycle in increments of five (5, 10, or 15 minutes). After making any adjustment to the "fan on" cycle, <b>you should wait a minimum of 3 days</b> before making any additional adjustments. This will allow sufficient time for the cellar to acclimate to the new setting.          |
| <b>CA1 - bottle probe (Pb1) calibration</b> | <b>CA1 - bottle probe (Pb1) calibration:</b> You may use this parameter to calibrate the bottle probe to a known temperature. This parameter can be adjusted between -12°F and 12°F. For example, if the bottle probe temperature is 58°F, and the known temperature is 55°F, you can set the CA1 parameter to -3°F to match the known temperature.  |
| <b>PA2 - installer menu</b>                 | This menu is only accessible using a password and is not available for adjustment.   |
| <b>dOA - digital input</b>                  | <p>This setting determines which of the unit's components will be activated or deactivated when a certain electrical relay is activated or deactivated in response to an alarm. The controller comes pre-programmed with a factory setting of 2.</p> <p>2 = activates the compressor and fans<br/>5 = disables the compressor and fans</p> <p><b>NOTE:</b> Setting the dOA to any number other than 2 or 5 will prevent the unit from operating properly.</p>  |

## 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.<br>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   |
| "Fan on" (FOn) setting has been increased, allowing fans to run after the compressor turns off | Lower the "fan on" (FOn) time   |
| Compressor may have overheated   | Shut unit off for 1 hour to allow compressor to cool. Turn back on and check for cooler air to flow out. If compressor runs, check for and clean condenser coil as a possible cause of compressor overheating. If problem repeats, call Customer Service at 1-800-343-9463. |

**Compressor runs but evaporator fan does not**

| Possible cause    | Solution                                |
|-------------------|---|
| Faulty fan motor  | Call Customer Service at 1-800-343-9463 |
| Faulty controller | Call Customer Service at 1-800-343-9463 |

**Compressor short cycles**

| Possible cause                               | Solution                                     |
|--|--|
| Evaporator blows on bottle probe             | Move bottle probe to a more central location |
| 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

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

## 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](http://www.whisperkool.com)

**Email:** [support@whisperkool.com](mailto: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](http://www.whisperkool.com)**

**WhisperKOOL Product Terms and Conditions  
Including Product Limited Warranty And Product Installation Requirements  
For WhisperKOOL Fully-Ducted Self Contained & Self Contained Units**

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](http://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 and up to an additional (6) month grace period, if a WhisperKOOL Self-Contained Product is found to be defective in material or work-manship 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 replace the Product with an authorized factory replacement under the terms of our Replacement Agreement. The Replacement Agreement outlines the terms, procedures, and additional considerations should the End User request a replacement for a cooling unit that is found to fall under warranty. For more information on our Replacement Agreement, visit [www.whisperkool.com/warranty-information](http://www.whisperkool.com/warranty-information).
- 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](http://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 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 6:30 a.m. to 4:00 p.m. PST, at telephone number 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 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

Email: [support@whisperkool.com](mailto:support@whisperkool.com)

Web: [www.whisperkool.com](http://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.





## Replacement Agreement

WhisperKOOL will replace the item(s) with the same or compatible item(s) for products that fail within warranty. Before initiating a warranty claim, the customer must complete all troubleshooting steps and the warranty claim process with a customer service representative.

### Terms and Conditions

1. The customer will be charged a deposit to replace and ship the item via standard ground shipping under warranty. The total deposit amount will depend on the item being replaced. The customer is responsible for all shipping costs to and from the facility and any cost associated with the removal or reinstall of the product.
2. For Unit Replacements:
  - a. The cellar must be constructed per the guidelines in the Owner's Manual; an adequately built wine cellar must be fully insulated and include a completely sealed vapor barrier that will prevent excessive moisture from entering the wine cellar.
  - b. The cooling unit must be installed with no obstruction to the airflow. Adequate ventilation is required to dissipate heat away from the unit.
  - c. The condenser intake air temperature must not exceed the maximum recommended by WhisperKOOL.
  - d. The customer must install the external drain line to dispel the condensate.
  - e. **Warranty will be void if the unit is not installed, operated, maintained and serviced in accordance with instructions issued by WhisperKOOL, and a replacement will not be covered.**

### Required Procedures

- An RMA (Return Merchandise Authorization) number will be issued at the time of the order.
  - Once the replacement item has been received and installed, use the new packaging to re-pack the original item and ship it back to the factory.
  - The customer is responsible for the return shipping of the item.
    - We recommend that you insure your shipment to cover any potential losses or damages that may occur during the shipping process.
  - Please fill out the credit card information below to complete the Replacement Agreement. **Providing a major credit card is a requirement of completing this agreement.**
    - Your credit card will be pre-authorized for the total deposit and charged when the replacement order is shipped and invoiced.
- **If you fail to return the original WhisperKOOL unit or part to the factory within 30 days, or no problem is found with the product, you will not be eligible for a refund.**
- All orders covered by warranty will receive a partial or full refund after evaluation has been completed and the claim has been verified, excluding items not covered under warranty, additional fees associated with the claim, and any expedited shipping charges associated with the order.

### Additional Considerations

- This program is only for existing WhisperKOOL units under warranty.
- Replacement units are subject to availability. Your size replacement may not be available at all times.
- Refurbished cooling units may also have minor cosmetic imperfections.
- Factory-Authorized Replacements have been tested and are in proper operating condition at the time of shipment.
- The customer's responsibility is to secure haven/storage for ANY AND ALL items kept and stored in their wine cellar. WhisperKOOL takes no responsibility for the safety and preservation of the items mentioned above if the environment becomes unsuitable to maintain a proper storage environment.
- If you have any questions or require further assistance, please contact our Customer Service Department at 1-(800) 343.9463 or email at [support@whisperkool.com](mailto:support@whisperkool.com).

Model \_\_\_\_\_ Serial Number \_\_\_\_\_

Installed by \_\_\_\_\_ Date \_\_\_\_\_



*Whisper***KOOL**<sup>™</sup>

WhisperKOOL  
1738 E. Alpine Ave  
Stockton, CA 95205  
1-800-343-9463  
[www.whisperkool.com](http://www.whisperkool.com)