酒卫

酒卫酒窖冷却系统 安装，使用和保养指南

60Hz 型号: D025, D050, D088, D200, D050V, D088V

50Hz 型号: WG40, WG75, WG100, WG175

Ducted Wine Cellar Cooling Systems

Installation, Operation and Maintenance Guide
Models: WG 40, WG 75, WG 100, WG 175
Manufactured by:

制造商
美国空气创新公司
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Wine Guardian 是空气创新公司的注册商标（注册号 76/551,126）
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Wine Guardian division of Air Innovations, Inc. Syracuse, NY
wineguardian.com   airinnovations.com

Table of Contents 目录

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注意：根据 FCC 规则第 15 部分的规定，本设备已经过测试，符合 B 类数字设备的限制。这些限制旨在为住宅安装中的有害干扰提供合理的保护。本设备会产生，使用并辐射射频能量，如果未按照说明进行安装和使用，可能会对无线电通信造成有害干扰。但是，不能保证在特定安装中不会发生干扰。如果此设备确实对无线电或电视接收造成有害干扰（可以通过打开和关闭设备来确定），则鼓励用户尝试通过以下一种或多种措施来消除干扰：

- 重新调整或摆放接收天线
- 增加设备和接收器之间的距离.
- 将设备连接到与接收器不同电路的插座上
- 向经销商或有经验的无线电/电视技术人员咨询以获得**帮**助.

RSS GEN

此设备包含符合加拿大创新，科学和经济发展局的免许可证 RSS 的免许可证发射器/接收器。操作必须符合以下两个条件：

1. 本设备不会造成干扰。
2. 本设备必须接受任何干扰，包括可能导致设备意外操作的干扰

RSS GEN (French)

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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Directory of Terms 缩写语言索引

Ambient Air – The surrounding area outside the cellar such as a room, basement, garage or outdoors.

环境空气 - 酒窖外的环境，如一个房间，地下室，车库或室外区域

CLS – Cubic litres per second. A unit of measurement for the amount of air handled by the fan.

CLS-立方升每秒。一种用于空气由风机处理的测量单位。

Condensate / Condensation – The water formed out of the air when it is cooled below a certain temperature (called dew point). Often referred to as "sweating" on pipes and cold surfaces. This water collects at the bottom of the evaporator or cooling coil and drains out of the unit through the drain line.

凝结水/冷凝 当低于某一特定温度时空气中的水分会凝结成水。通常被称为管道和冷表面"出汗"。这种水通过蒸发器底部或冷却盘管或透过排水渠底的排水管线收集。

Condenser (Heat Rejection) Section / Coil – The Condenser Section uses the compressor, condenser coil and fan to remove heat from the refrigerant to the ambient air *outside* the wine cellar. The word condenser refers to the condensation of the refrigerant from gas to liquid phase.

冷凝器（散热）第/线圈 - 冷凝器部分使用压缩机，冷凝器线圈和风扇制冷剂去除酒窖外空气的热量。这个词指的是冷凝器的制冷剂从气体冷凝成液体。

CE – Certificate of European conformity CE-符合欧洲认证

Exhaust Air – The air leaving the evaporator or condenser section of the Wine Guardian unit.

排风 - 空气离开酒卫主机机组蒸发器或冷凝器部分。

Evaporator (Cooling) Section / Coil – The Evaporator Section uses the cooling coil and the fan to remove heat from the air *inside* the wine cellar to the refrigerant, cooling the air and condensing moisture out of the air. The word evaporator refers to the evaporation of the refrigerant from liquid to gas phase in the coil. The Evaporator Section is connected to or inside the wine cellar.

蒸发器（制冷）组/线圈 - 蒸发段采用风扇冷却线圈和去除酒窖内的空气热的制冷剂，冷却空气中的空气和水分冷凝出来。这个词是指蒸发器的制冷剂从液态气体在线圈蒸发。蒸发段是连接酒窖或在酒窖内部。

Flexible Duct – Round ducts with steel reinforced plastic liners, a layer of insulation and an outer plastic layer used to convey the air from the unit to the cellar or ambient space.

柔性管道 - 钢纤维增强的塑料管 带间层绝缘材料，外面有塑料层，以用来传送从主机组到酒窖的空气或环境空间。

Grille or Diffuser – Inlet or outlet plates to direct the airflow or protect the inside of the unit.

格栅或扩散片 -空气进口或出口引导板，或机器的保护板。

Heat Gain / Loss – The amount of cooling or heating expressed in watts transferred between the wine cellar and the ambient space. The Wine Guardian must offset this load.

热增益/损失 - 酒窖和环境空间的冷却或加热的总额用瓦表示。酒卫主机机组必须抵消这种负荷。

Inlet Air – The air entering the evaporator and condenser sections of the Wine Guardian unit. **NEC**– National Electrical Code

进气 - 空气进入机组的蒸发器和冷凝器部分。 NEC 公司，美国国家电气规程

Recovery – The amount of cooling the unit does to return the cellar to its set point temperature after some new load is introduced, such as people or new cases of warm wine entering the cellar.

恢复 – 增加新的负载后，如进人或暖酒进窖，主机恢复酒窖设定温度所需的制冷量。

Return Air - The air leaving the cellar and returning to the inlet of the evaporator coil.

回风 - 空气离开地窖并返回到蒸发器盘管的入口。

SP – Static pressure. Unit of measurement (mm of water or pascals of water column) of the pressure of the air handled by the fan.

警司 - 静态压力。计量单位（水或水柱帕斯卡毫米）的风扇所处理的空气压力。

Set Point – The desired temperature or humidity set on the thermostat or

humidistat.设置点 –在恒温或恒湿设置 所需的温度或湿度。

Supply Air - The air entering the cellar from the discharge of the evaporator coil.

供应空气 - 空气通过蒸发器线圈进入酒窖。

Receiving, Inspecting and Unpacking the Wine Guardian Unit 接收，检查和打开酒卫主机

Receiving and Inspecting the Unit 接收，检查

<p style="text-align:center;color:red;">NOTE 注意
Wine Guardian units are factory assembled and tested prior to shipment.
酒卫主机是工厂组装，先测试后装运。</p>

Wine Guardian units are shipped in individual cardboard boxes.酒卫主机通过独立的纸盒装运

✓ Lift at the designated handhold locations only or fully support from underneath. A shipment may include one or more boxes containing accessories.

请在指定的位置提起或只从下方全力支持。一个货件可包括一个或多个配件盒子。

✓ Before opening the container, inspect the packing crates or boxes for obvious signs of damage or mishandling.

在打开包装之前，检查包装箱是否明显的包装损坏或处理不当的地方

✓ Write any discrepancy or visual damage on the bill of lading before signing.

签收前注明或写下任何关于提单签署前明显损坏和差异的地方

✓ Inspect all equipment for any sign of damage caused during transit.

✓ 检查所有设备是否有任何在运输过程中造成的损害

✓ Report all visual or concealed damage to the carrier and file a claim immediately.

✓ 报告所有可见或隐蔽的损害并向承运人文件索赔。

✓ Thoroughly inspect the contents for any visible damage or loose parts.

✓ 全面检查任何可见的损坏或松散的部分内容。

<p style="text-align:center;color:red;">IMPORTANT 重要</p>

<p style="color:red;">If this procedure is not followed, the shipping company may reject the claim and the consignee may suffer the loss. Do not return the shipment to the factory. 如果不遵循这一程序，轮船公司可以拒绝索赔和收货人可能蒙受的损失。不要运回工厂。</p>

Review the Packing Slip to Verify:

✓ Model number

✓ Factory installed options

✓ Unit accessories

If any items listed on the packing slip do not match your order information, contact the place of purchase immediately.

审查装箱单验证：
- 型号
- 工厂安装选项
- 设备附件

如果在装箱单所列不符合您的订单信息，请与购买地立即联系

Check the unit for:

✓ An electrical power cord

✓ A thermostat with communications cable plugged into side of unit

✓ A drain line coming out of the unit

检查主机：
- 一个电源线
- 一个具有通信电缆插入的温控器
- 一个主机带有的排水管

General Description 概述

View the Overview Illustration on page 8 for details. 查看详细资料见插图 8。

The Wine Guardian cooling unit is a professional grade American manufactured, self-contained climate control unit designed specifically for the storage of wine at cellar temperatures. It is designed for easy installation and operation. Wine Guardian uses digital electronic controls and environmentally friendly R-134a refrigerant.

酒卫主机冷却装置是一家专业级美国制造的，为酒窖储酒特别设计的自给自足的气候控制设备。它易于安装和操作。酒卫主机采用数字电子控制系统与环境友好 相符的 R - 134a 制冷剂。

All Wine Guardian 50Hz units carry the CE mark. Each unit is furnished with a sealed, CE-approved power cord and plug.

所有的酒卫主机 50Hz 带有 CE 标志。每个单位都配有一个密封的，CE 认证电源线和插头。

The Wine Guardian unit is completely self-contained and includes an integral air or water cooled condenser. The unit is functionally divided into two sections, the evaporator or cooling section and the condenser or heat rejection section. Each section contains a coil to add or remove heat and a fan to move the air through the coil and into or out of the cellar or adjacent space. The Wine Guardian unit is designed to be used either as a free-blowing, through- the-wall unit, or as a remote mount unit with external ductwork connections.

酒卫主机组是完全独立的，包括一个完整的空气或水冷却冷凝器。本机在功能上分为两部分，蒸发器或冷凝器和冷却段或散热部分。每一节都包含一个线圈来添加或删除热量和风扇线圈和移动进或出库或相邻空间的空气。机组被设计成以自由吹制，通过墙式单位，或作为远程安装与外部管道连接装置。

Air from the cellar first enters a filter to remove any airborne dust particles and then enters the cooling coil. Air passes through the cooling coil and is cooled by the refrigerant inside the coil. This causes any excess humidity in the air to condense and be captured in the drain pan and piped outside the unit. Air then enters the fan where it is pressurized and discharged out of the unit. Optional heating coils are located between the cooling coil and the fan. These coils heat the air to prevent low temperatures in the cellar. The thermostat, located in the cellar, turns on the cooling or heating as needed to maintain its set point. It does not allow the cooling and heating to be on at the same time.

空气从地窖首先进入过滤器，以清除空气中的灰尘颗粒，然后进入冷却线圈。空气通过冷却盘管，由线圈内的制冷剂冷却。这会导致空气中的任何多余的湿气凝结后收集在接水盘由排水管接出。然后空气进入增压和排放出风扇。可选项的加热线圈位于冷却线圈和风扇之间。空气通过这些线圈加热，以防窖内温度过低。恒温器，设于窖内，根据情况开启冷却或加热，以维持其设置点，它不允许冷却和加热同时进行。

The compressor and condenser sections are activated whenever the unit is cooling. The condenser fan draws air from the surrounding or ambient space either directly or through a duct. The air is first drawn through a filter to remove any airborne dust particles to keep the coil clean. Then the air flows through the condenser coil where it absorbs heat from the refrigerant in the coil. The air is finally discharged out of the unit by the condenser fan.

主机制冷时，压缩机和冷凝器部分启动。冷凝器风扇直接或通过导管从周围空气或环境空间吸收空气。首先空气经过滤，以清除空气中的灰尘颗粒，以保持线圈干净。然后空气流经冷凝器线圈，空气吸收线圈中的制冷剂的热量。最后空气是由冷凝器风扇排出。

<div align="center">

IMPORTANT 注意
The air exhaust from the condenser fan is hot and will be 15 to 18 degrees C above the entering temperature. This may cause overheating problems in the summer months, especially with high humidity. Exhaust the hot air to the outside. In the winter, this heated air can help to heat the surrounding space.

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从冷凝器风扇排出的空气是热的，比进入时的温度高 15 至 18 度。在夏天，特别在高湿度情况下这可能会导致过热的问题。请将热空气排向外界。在冬天，热空气可以帮助周围的空间加热。

Standard Specifications 标准规格

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IMPORTANT 注意
Design and specifications are subject to change without notice

设计和规格如有变更，恕不另行通知

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<u>The Wine Guardian Unit Contains 酒卫主机组包括</u>：

✓ A thermal expansion valve to control the flow of refrigerant into the evaporator coil

✓ A filter dryer to keep the refrigerant clean and free of contaminant

✓ A sight glass to observe the level of refrigerant

✓ An automatic low pressure switch on the discharge to protect the compressor form high pressures

✓ The unit uses only environmentally friendly refrigerant R-134a

✓ A built-in condensate drain trap. No external trap is required.

一个热力膨胀阀控制制冷剂进入蒸发器盘管流
· 干燥过滤器，以保持制冷剂清洁，无污染物
· 一个透视镜观察制冷剂水平位置
· 自动低压开关，压缩机遇高压自动打开，保护压缩机。
· 该单位只使用环保冷媒 R - 134a
· 内置冷凝水排水陷阱。无需外部排水陷阱。

The Wine Guardian meets or exceeds its rated capacities for total watts and cubic litres per second at design cellar conditions and external static pressures. Both the evaporator and condenser fans are capable of rated CFM against the external static pressure imposed by recommended ductwork. Both fans are motorized impeller plug fans, statically and dynamically balanced, and use permanently lubricated direct drive motors requiring no maintenance. 酒卫主机额定容量达到或超过酒窖设计和外部静压达额定容量的总瓦数和所需的每秒立方米升制冷量。蒸发器和冷凝器风扇能够有足够风力，抵消管道外部的静态压力。两个电动马达叶轮堵塞风扇，保持静态和动态的平衡，使用终身润滑，直接驱动马达不需要维护。

All exterior framing of the Wine Guardian is powder coated 1.6mm gauge aluminum to prevent rust and corrosion. All coils are copper tubes with aluminum fins. The unit uses an external drain to remove excess moisture and not reintroduce it into the cellar or ambient space. Removable, multiple access doors are provided to facilitate cleaning and maintenance, duct connections, and access to components and wiring.

所有的酒卫主机框架采用粉末涂层 1.6mm 厚的铝合金 ，以防止生锈和腐蚀。线圈都是铝翅片铜管。该装置采用外部排水去多余的水分，而不是重新引入到地下室或环境空间。可移动式多门入口便于清洗和维护、管道连接,和接触元件和线路。

Both the evaporator and the condenser coils have pre-filters on the inlet to prevent dust and dirt from fouling the coils, thereby reducing capacity. Each unit has at least three discharge outlets on both the evaporator and the condenser coils to facilitate custom installations.

蒸发器和冷凝器线圈的入口都有预过滤，以防止灰尘和污垢的线圈，从而导致容量减少。每个主机蒸发器和冷凝器线圈都有至少三个排风口，以便定制安装。

Each unit is provided with a pre-wired and tested electronic digital thermostat for remote mounting in the cellar. The thermostat has multiple control functions for the fans, cooling and heating. It has a fully automatic mode to switch between heating and cooling.

每个机组都提供了一个预接线和已测试过的电子数字温度调节器以便远程安装在酒窖里。温控器为风扇提供多个控制功能，冷却和加热，并具有加热和冷却之间完全自动切换模式的功能。

Compressors are rotary, self-lubricating, permanently sealed, hermetic reciprocating type compressors, with internal overload protection and capacitor start with a minimum of one-year manufacturer's warranty and an optional five-year warranty. Compressors are mounted on rubber-in-shear isolators to reduce noise and vibration.

压缩机是旋转式，自润滑性，永久密封，全封闭活塞式压缩机具备过载保护电容器。有一年期最低保修和可选的五年保修期。压缩机安装在橡胶隔离体上，以减少噪音和振动。

Electric power is supplied by a single factory furnished cord and plug. All external controls are 24 volt supplied from an internal transformer.

电力来由工厂提供的一体电源线和插头。所有的外部控制是内部 24 伏变压器供电。

Accessories and Optional 附件和选项

Heating Coils

An optional heating coil is built-in and requires no additional power source. The electric heating option is factory installed and includes primary and secondary over-temperature protection devices per UL and NEC.

加热线圈

一个可选的加热线圈是内置的，不需要额外的电源。电热选项是工厂安装，包括初级和根据 UL 和 NEC 二级的超温保护装置。

Water Cooled Option

A water cooled option is available that uses a tube-in-tube heat exchanger in place of the condenser coil and fan. Waste heat from the refrigerant is transferred to the water. A control valve is used to regulate the flow of water to maintain head pressure.

水冷方案：

水冷选项是放置在一个筒中的管式换热器，水冷方案可避免使用冷凝器线圈和风扇。制冷剂的废热量转移到水中。控制阀是用来调节水流量，以维持冷凝器部分的头部压力。

Duct Collars and Flexible Ducts

Ducting for the Wine Guardian is sold in kits by size for each unit. Each kit contains two adapter collars, one 7.3 meter length of round flexible duct and two straps. The number of duct kits needed depends on the layout. The size of the kit depends on the model Wine Guardian selected. Follow installation instructions carefully. Poorly or incorrectly installed ducts can degrade the performance of your unit dramatically.

管领和柔性管道

酒卫主机的管道按不同主机大小分别成套出售。每个套件包含两个管领适配器，一个 7.3 米的圆形柔性管和两根皮带。风管套件所需的数量取决于设计图纸。该套件的大小取决于选定的酒卫主机型号。仔细按照安装说明。不佳或不正确的管道安装可以降低主机的工作性能。

Extended Compressor Warranty

The Wine Guardian uses only the best commercially available compressors on the market. However, since the compressor is the single most expensive component in the unit, it is recommended that you purchase the extended warranty option.

延长压缩机保修

该机组采用了市场上最好的商用压缩机。然而，由于压缩机是在机组中最昂贵的部件，建议您购买延长保修选项。

Low Ambient Option

A factory installed Low Ambient option is available which makes the Wine Guardian capable of exposure to low ambient temperatures. This feature controls the condenser fan operation based on head pressure and heats the oil reservoir. The Low Ambient Option (LAO) is recommended whenever the condenser section is exposed to air temperatures below 50°C. This can occur if the unit is placed in a garage or under an outdoor canopy or if the unit is located

inside a heated space but the condenser air is ducted in from the outside.

　　低温环境选项

工厂安装的低环境安装选项让酒卫主机有抵抗低环境温度的能力。在头部压力并加热储油器的基础上此功能控制冷凝器风扇运行。在冷凝器部分暴露在低于 50 ℃ 时，建议使用低温环境选项（LAO）。此低温环境包括主机安装在车库或室外檐篷下，或安装在一个加热的空间，但冷凝器进气从外面管道引入。

Condensate Pump

An optional Wine Guardian automatic condensate pump is available to pump the water to a sink or outside. It requires a separate 220/240 volt electrical outlet.

凝结水泵

酒卫主机可用自动冷凝泵（选项）把凝结水抽入水槽或室外。它需要一个单独的 220/240 伏的电源插座。

Humidifier and Humidistat

Another popular option for the Wine Guardian is a humidifier. It comes with a sheet metal adapter box and a pre-wired humidistat. The humidifier is available for field installation and can be retrofitted onto an existing unit. Each humidifier is furnished with an electronic digital humidistat to control the humidity in the cellar. The humidifier mounts directly onto the Wine Guardian unit and uses the common drain. The humidifier requires a HOT water supply and no additional external power.

加湿机和湿度调节器

另一种受欢迎的选择是酒卫系统加湿机。它配备了一个金属接口配板和预接线的湿度调节器。加湿机是用于现场安装，也可以改装到现有的冷却主机上。每个加湿机都配有一个电子数字湿度调节，控制酒窖里的湿度。加湿机可直接安装到酒卫主机，请使用共同的排水管道。加湿机需要热水供应，不需要额外的外部电源。

⚠️　**CAUTION**　⚠️
警告
CAREFULLY FOLLOW THE INSTALLATIONS INSTRUCTIONS INCLUDED WITH THE HUMIDIFIER. REFER TO THE IN-STRUCTIONS CONTAINED IN THE BOX FOR THE HUMIDISTAT.
仔细按照加湿机的说明安装，请参考箱内的湿度调节器说明。

Overview of the Wine Guardian Unit 酒卫主机概述

Refer to illustrations on page 8 请参阅第 8 页插图

Cabinet – The cabinet and access doors are constructed of aluminum with a powder coated finish for corrosion protection and an attractive, maintenance free appearance. Areas in contact with cold temperatures are lined with insulation to prevent condensation.
主机框架 —主机框架 和风门口是铝合金制造，粉末涂层，防腐蚀，免维修，外观 漂亮。与低温接触的面板带绝缘内衬，以防止结露。

9

Condensing Section – Ambient air is circulated through the condenser section by a direct drive, permanently lubricated, motorized impeller blower. This section also contains the compressor and the electrical controls. If the water cooled option is purchased, a heat exchanger is used in place of the condenser coil and blower.

冷凝部分（段）- 周围空气的循环通过冷凝器部分的电动叶轮鼓风机，直接驱动，风机永久润滑。这一部分还包含了压缩机和电控制设备。如果选择是购买水冷方案，热交换器代替冷凝器盘管和风机。

Evaporator Section – Cellar air is circulated through the evaporator section by another blower the same as above. The large evaporator coil face area eliminates condensate carry-over, reduces air pressure drop and optimizes heat transfer. A drain pan is located directly below the coil to capture condensate and is fabricated from aluminum to prevent rust and corrosion. The electric heating coil, if ordered, is factory installed between the evaporator coil and the blower, and is complete with contactor(s) and limit controls.

蒸发器部分 (段) - 跟上面一样，酒窖空气流通是通过另一个鼓风机循环的。大蒸发器线圈上面部分消除冷凝物,遗留物，降低空气压力和优化热传递。接水盘位于线圈下方收集冷凝水，是铝合金制造，以防止生锈和腐蚀。电加热线圈，如果订购，安装在蒸发器和鼓风机之间，并具备（一个或多个）接触器和限制器。

Electrical Controls – Most of the electrical components and controls are located in a separate area accessible through the condenser section. Wires are numbered and color coded to match the wiring diagrams.

电气控制 – 大部分电气元件和控制器位于一个独立的区域，靠近冷凝部分（段）。电线的编号和颜色编码，要和布线图匹配。

Factory Tested – All Wine Guardian units are factory run-tested and checked for operational performance.

工厂测试 - 所有的酒卫主机机组都做过工厂运行测试和检查。

Filters – Nominal 25mm thick filters are provided on both the evaporator and condenser inlets to protect the coils from dust and dirt. These filters are washable and reusable.

过滤网 - 过滤网 厚度 25mm，位于蒸发器和冷凝器空气入口，以防止线圈灰尘和污垢。过滤网经水洗，可重复使用。

Humidity Option – The optional humidifier comes fully assembled and tested for field installation onto the Wine Guardian without any additional electrical power wiring. It automatically adds moisture into the cellar by the evaporation of water over a distribution pad. A cellar mounted digital electronic humidistat automatically controls the amount of moisture added.

湿度选项 - 可选项加湿机组装完毕，与酒卫主机集成安装在现场无需任何额外的电力线路。它会通过滴灌蒸发垫 -又称"分布垫"自动添加水分。酒窖内的数字式电子湿度调节器 （或称 "恒湿器"）自动控制水分添加量。

Internal Drain Trap - Water condensate from the evaporator coil fills the trap and forms a seal to prevent air from being drawn back through the drain tube. This allows the drain pan to drain freely. No external trap is required.

内部排水口陷阱 - 蒸发器中的冷凝水流入填补排水口陷阱成了一个密封，以防止空气通过排水管回流。这使得接水盘排放自由。无需外部排水陷阱。

Refrigerant Circuit – The factory charged circuit includes a thermal expansion valve with an external equalizer, sight glass with moisture indicator, a filter dryer, an automatic low pressure switch, and a manual reset high pressure switch. For the low ambient option, an automatic pressure switch controls the operation of the condenser blower and a heating element is added to the compressor oil reservoir. **See Refrigeration Illustration on next page.**

制冷剂回路 -工厂配置的制冷管路带有一个外部均衡器的热胀阀门，湿度指示器观察孔，一个过滤器干燥器，自动低压开关和手动复位高压开关。如选用低温环境选项，自动压力开关控制冷凝器风机运作，一个加热元件配置于压缩机的储油库。参见下页插图制冷。

Supply/return grilles – Powder-coated steel single direction grilles are provided for the inlets to the evaporator and condenser sections. One grille is provided on an outlet. These are readily interchangeable with access doors to control and direct the airflow. These grilles may be used in the room on the end of the ducts in ducted systems.

供应/返回格栅 - 粉末涂层钢格栅是单方向入口，提供给蒸发器和冷凝器部分。一个出风口配一个格栅。这些格栅与维修口面板可互换使用，便于控制和引导气流。这些格栅可用于管道系统的管道尾部，装于窑内。

Overview Illustration of the Wine Guardian Unit 酒卫主机插图概述
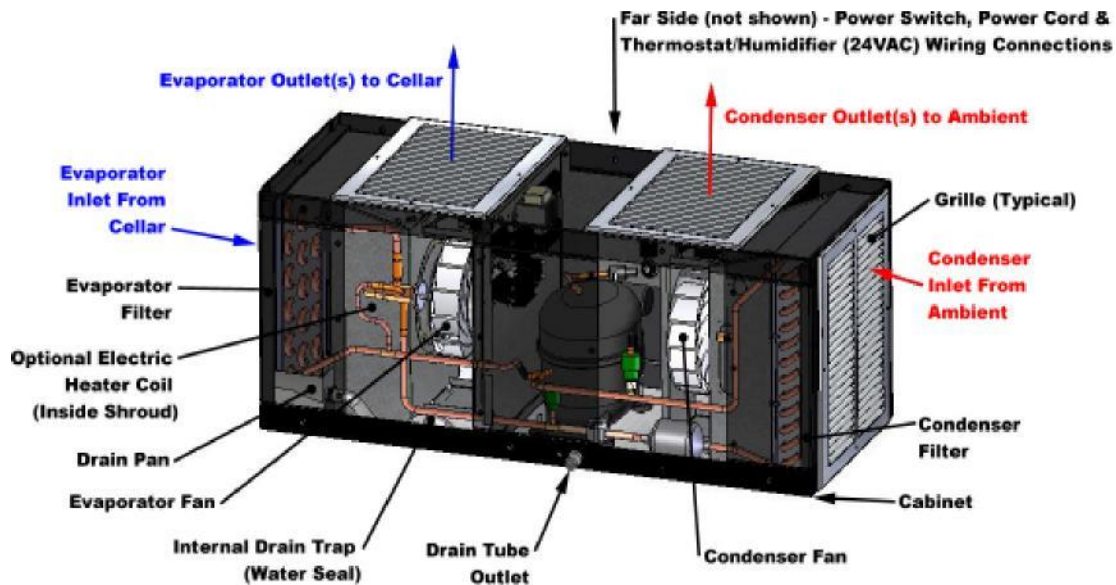
Refrigeration Illustration - Vapor Compression System 制冷插图 - 蒸气压缩系统
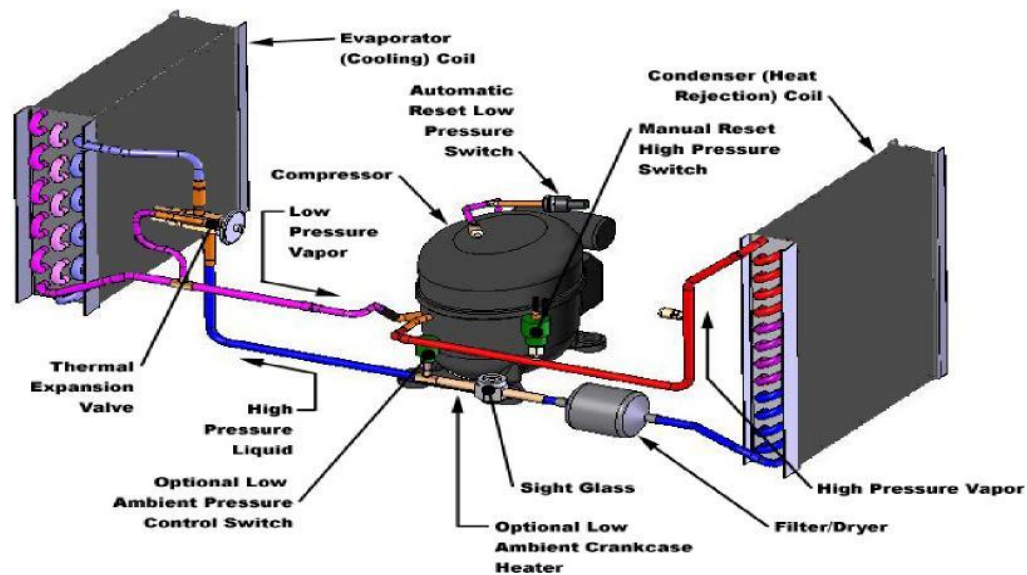
D025, D050, D050V, WG40 和 WG75 的接线图 Wiring diagram for D025, D050, D050V, WG40, and WG75
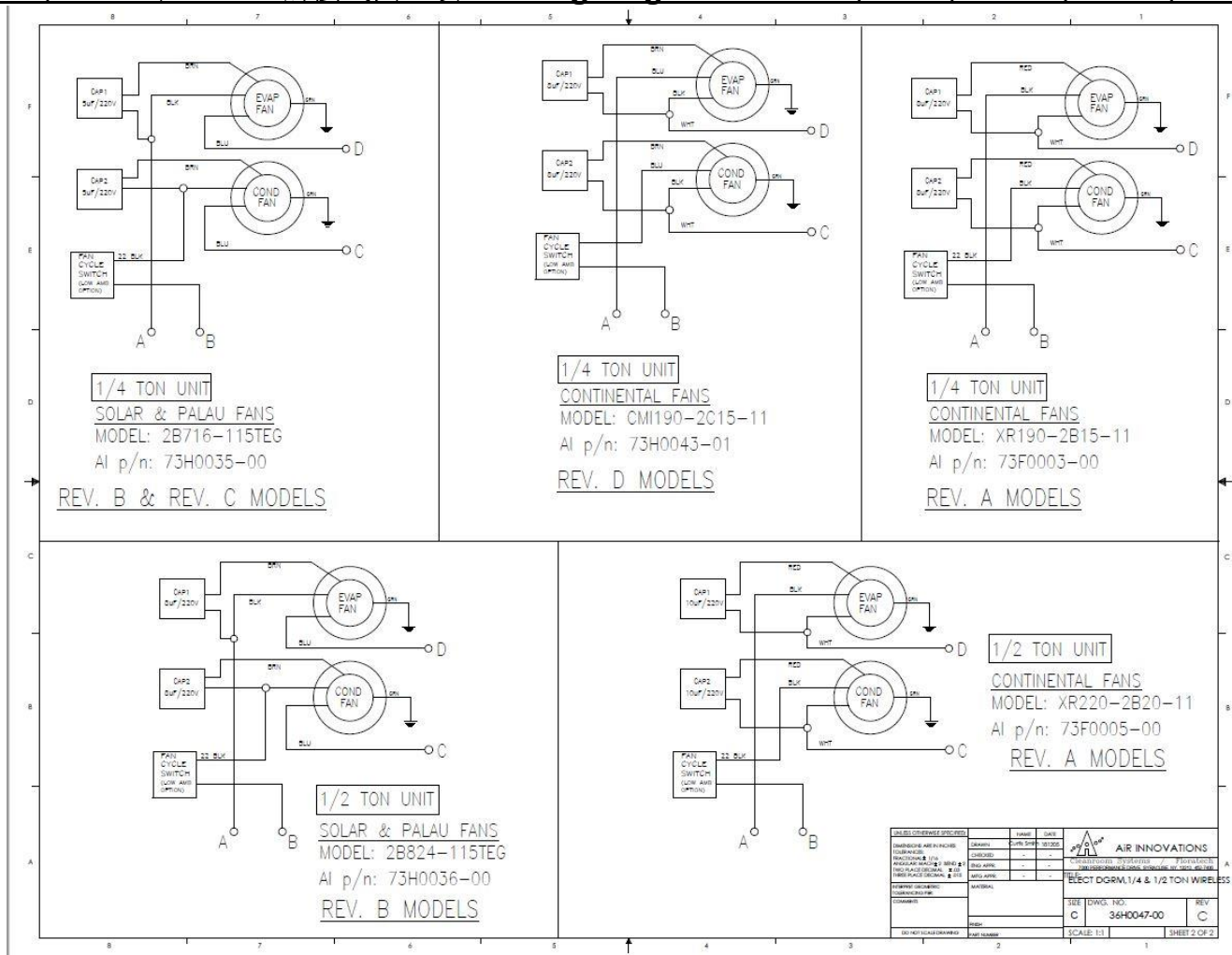
13

D088, D088V 和 WG100 垂直型号的接线图 Wiring diagram for D088, vertical model D088V, and WG100

D088, D088V 和 WG100 垂直型号的接线图 Wiring diagram for D088, vertical model D088V, and WG100
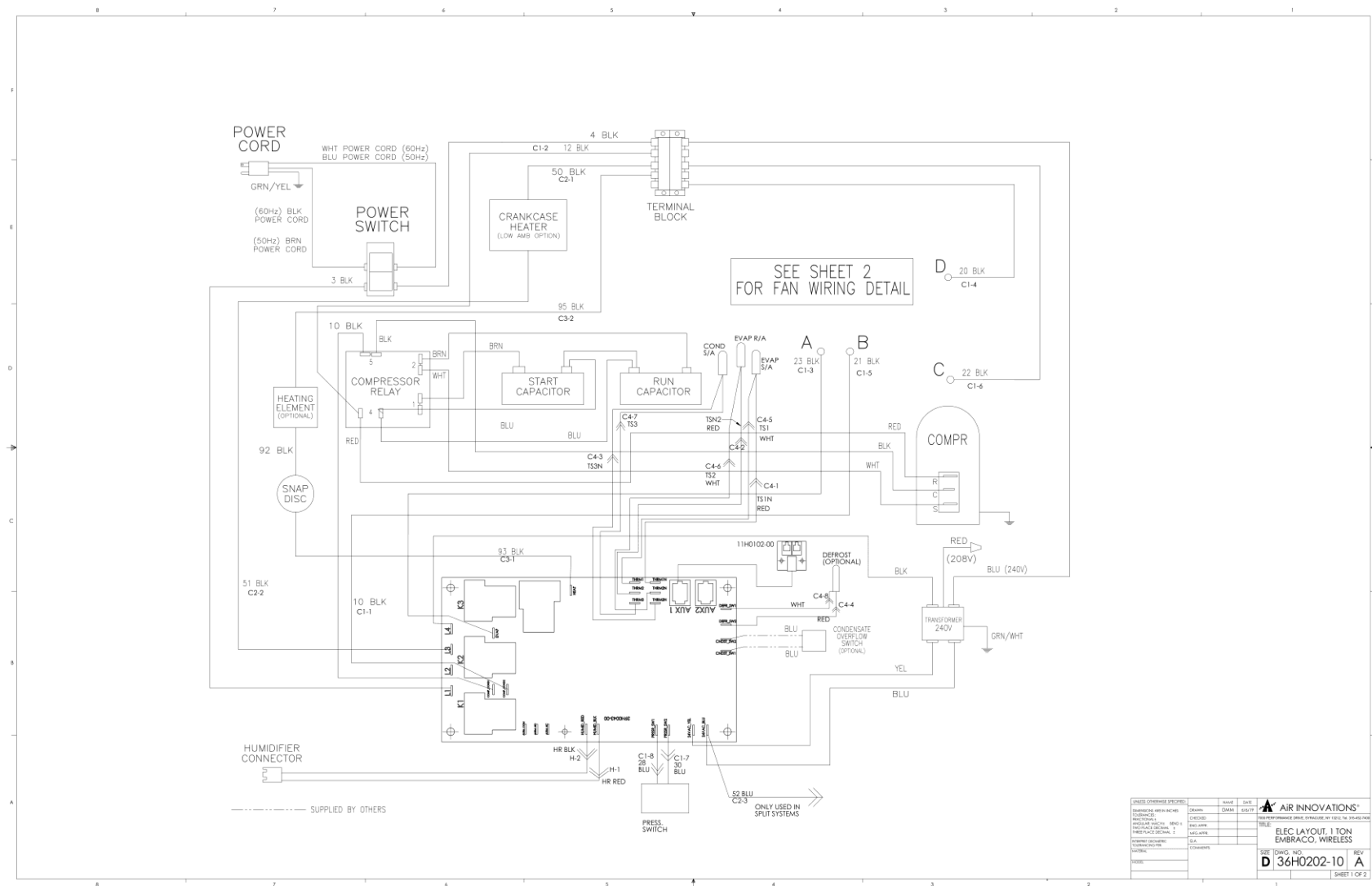
D088, D088V 和 WG100 垂直型号的接线图（续）Wiring diagram for D088, vertical model D088V, and WG100 (cont.)
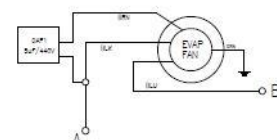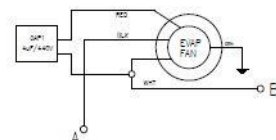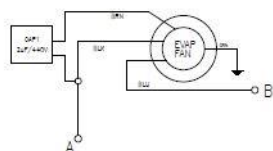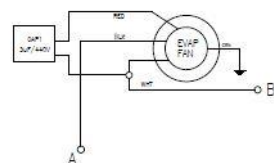
D200 和 WG175 的接线图 Wiring diagram for D200 and WG175
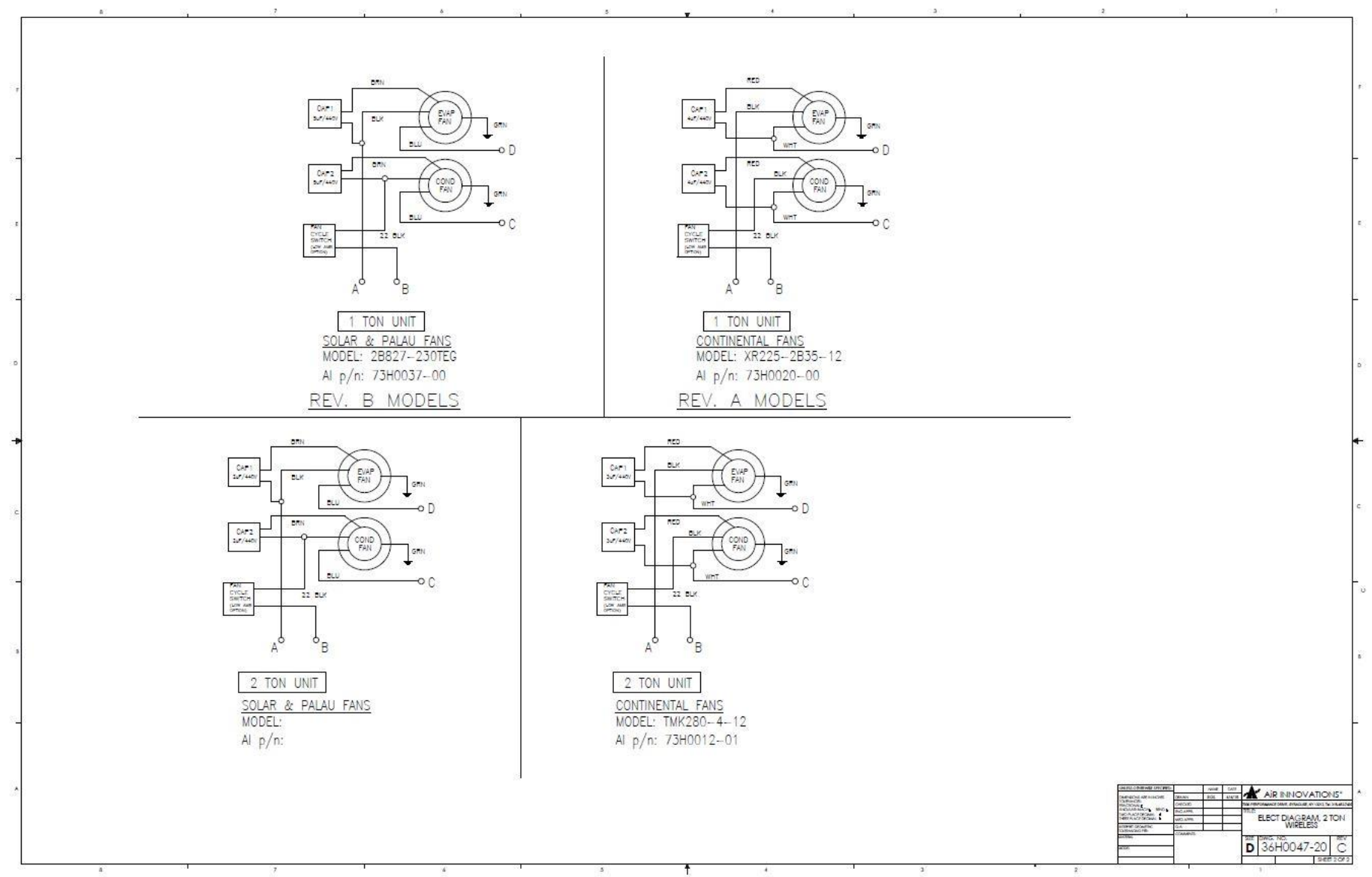
D025 和 D050 水冷接线图 Wiring diagram for water-cooled D025 and D050
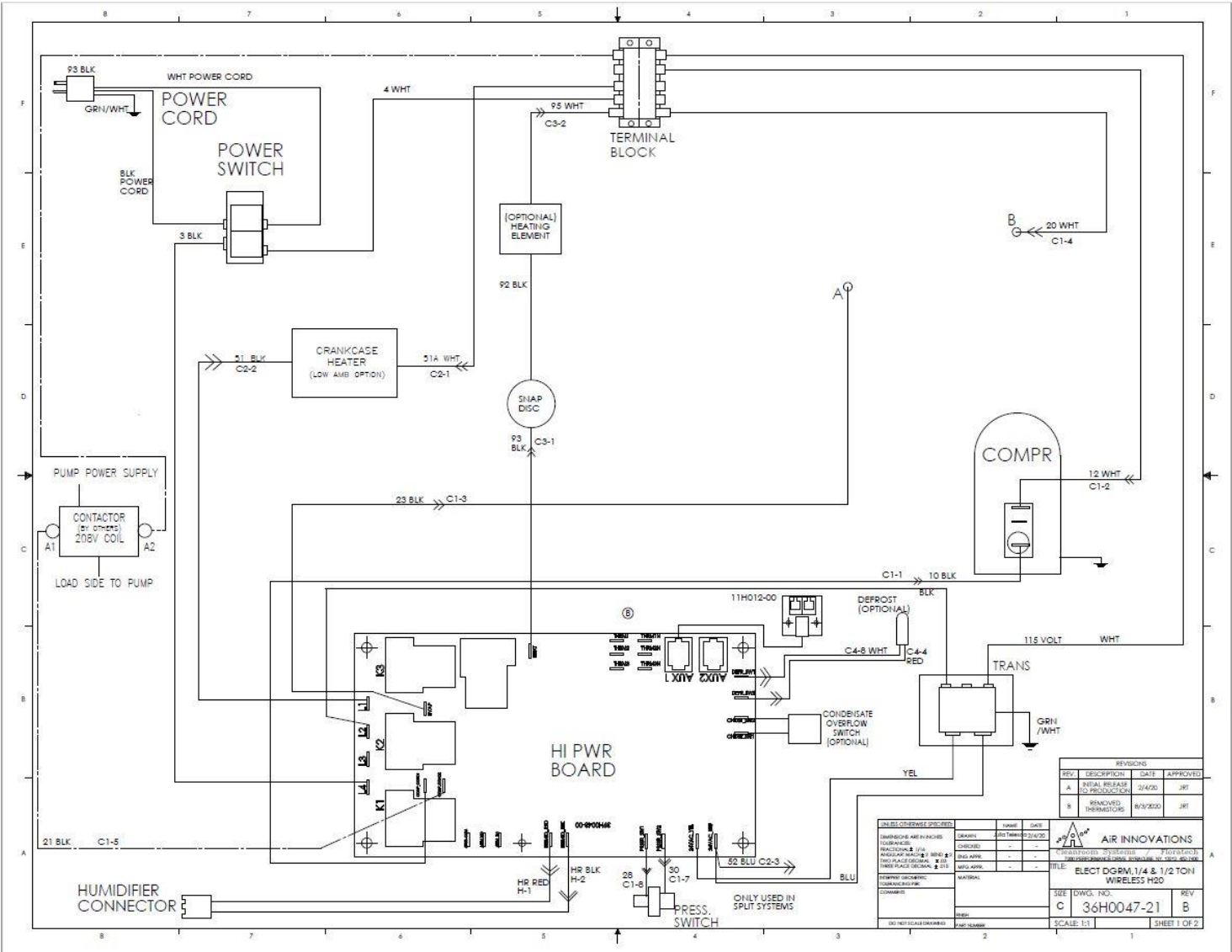
D025 和 D050 水冷接线图（续) Wiring diagram for water-cooled D025 and D050 (cont.)
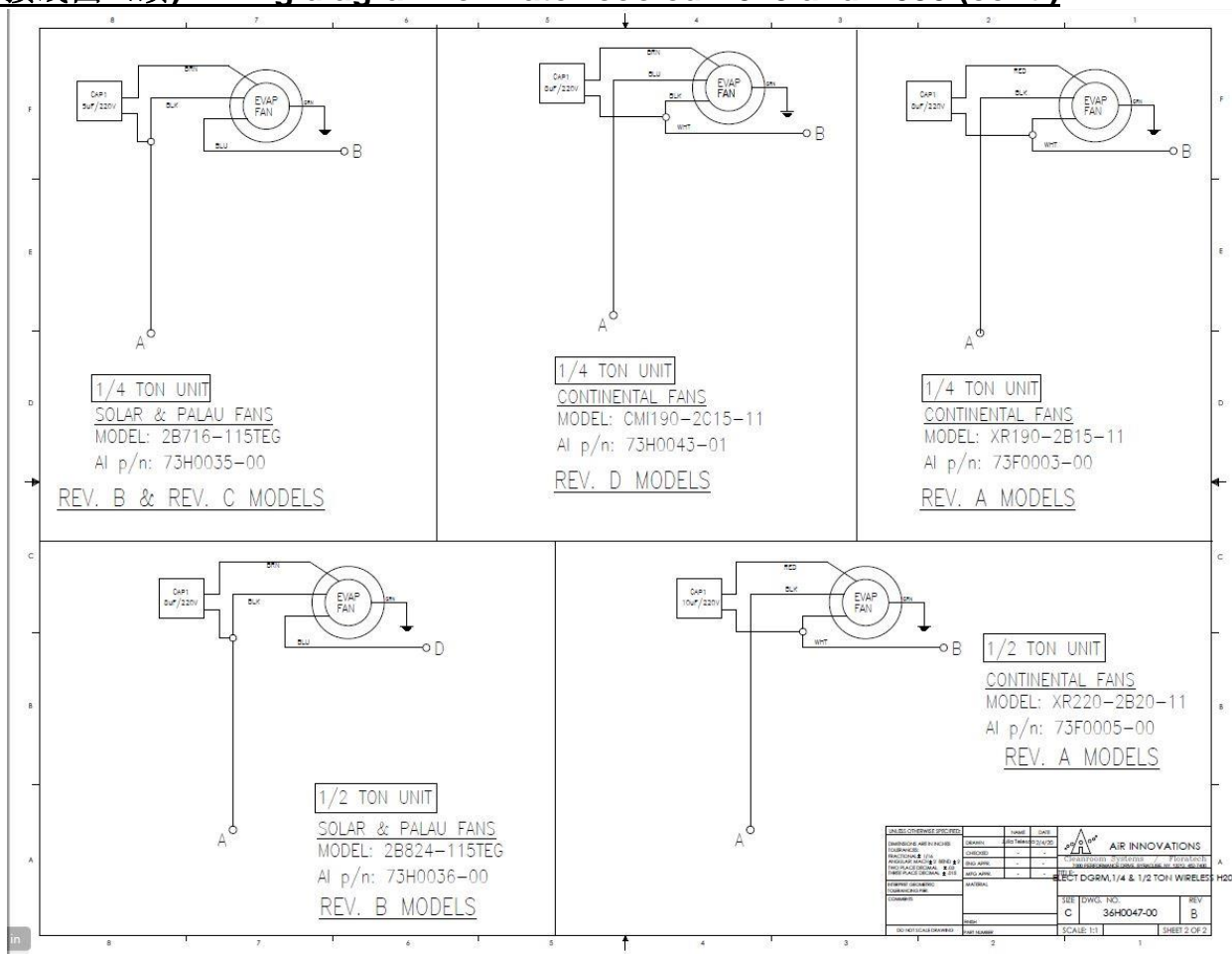
D088 和 D200 水冷接线图 Wiring diagram for water-cooled D088 and D200
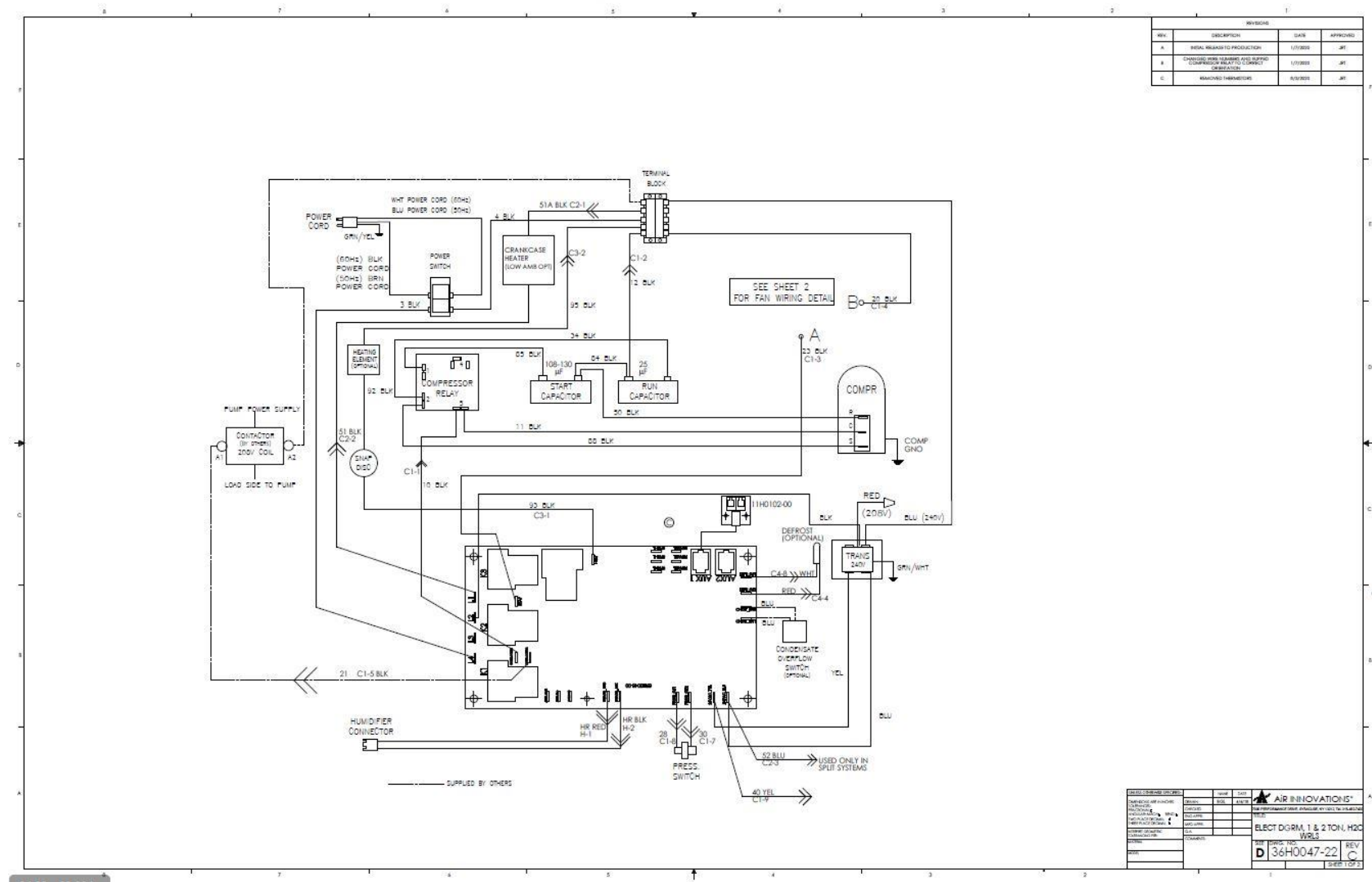
D088 和 D200 水冷接线图（续）Wiring diagram for water-cooled D088 and D200
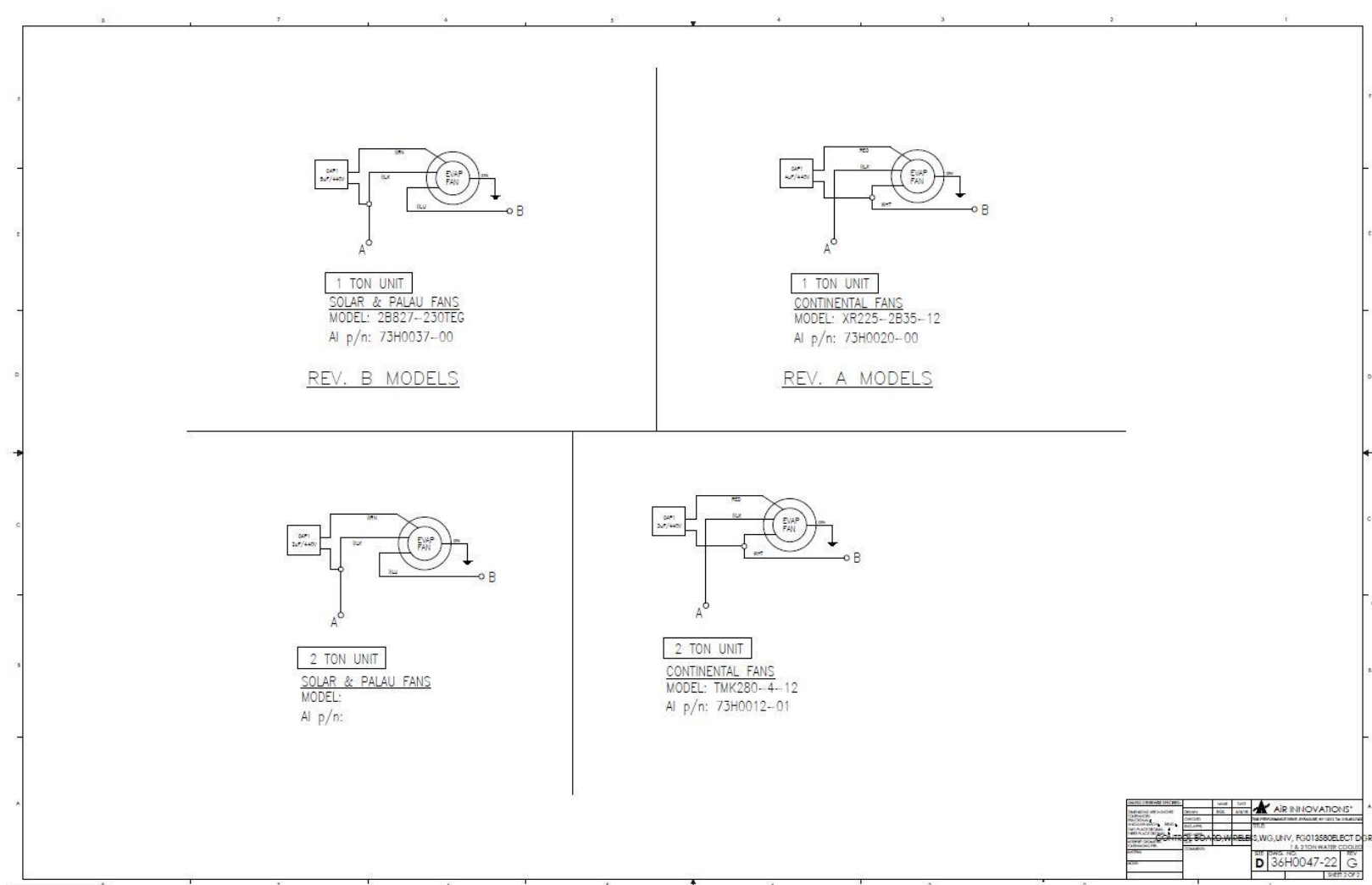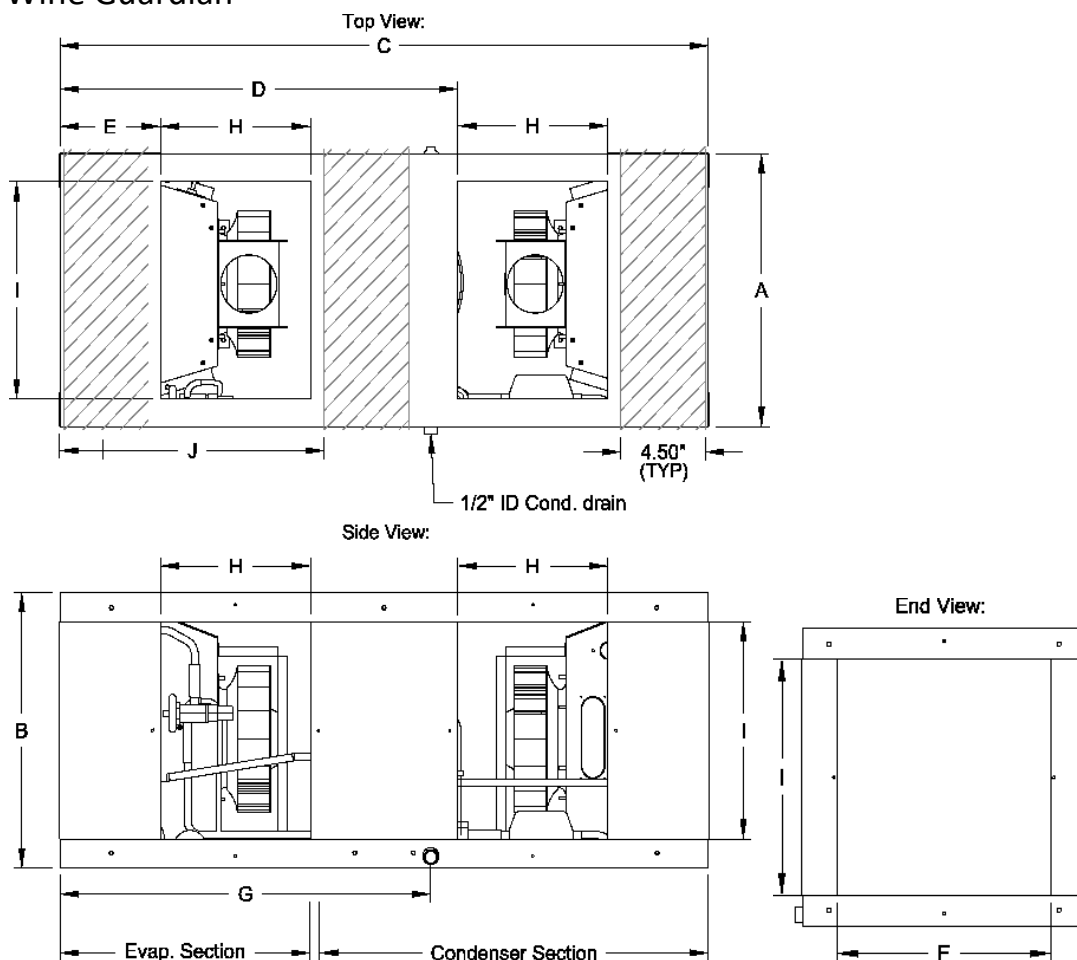
24

Wine Guardian

Top View:

Side View:

Evap. Section | Condenser Section

End View:

1/2" ID Cond. drain

4.50" (TYP)

Wine Guardian Dimensional Data 酒卫外形尺寸

Model Number		WG40	WG75	WG100	WG175
Dimensions - Nominal - add 9.5mm for each grille					
A - Width	mm	356	559	559	559
B - Height	mm	356	356	356	457
C - Length	mm	889	991	991	1092
D – Cond. discharge location	mm	540	591	591	660
E – Evap. discharge location	mm	137	137	137	137
F - Inlet opening width	mm	267	470	470	479
G - Drain outlet location	mm	502	552	552	619
H - Discharge opening width	mm	63	254	254	295
I - Inlet opening Height	mm	202	282	282	381
J - Location to wall	mm	368	419	419	457

25

Weight	kg	36.3	56.7	65.8	88.4
Refrigerant Charge – 134A	g	539	737	964	1417

型号		WG40	WG75	WG100	WG175
尺寸 – 标称 – 为每个格栅增加 9.5mm					
A – 宽度	mm	356	559	559	559
B – 高度	mm	356	356	356	457
C – 长度	mm	889	991	991	1092
D – 冷凝器排风位置	mm	540	591	591	660
E – 蒸发器排风位置	mm	137	137	137	137
F – 进风口宽度	mm	267	470	470	479
G – 排风口位置	mm	502	552	552	619
H – 排风口宽度	mm	63	254	254	295
I – 进风口高度	mm	202	282	282	381
J – 距墙位置	mm	368	419	419	457
重量	kg	36.3	56.7	65.8	88.4
制冷剂容量 – 134A	g	539	737	964	1417

Safety 安全

Before installing or maintaining the Wine Guardian Unit do the following:

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

在安装或维护酒卫主机机组做到以下几点：

1）请阅读这些说明。
2）保留这些说明。
3）请注意所有的警告。
4）遵守所有的指示。

IMPORTANT
The equipment described in this manual uses electricity. When using this equipment, be sure to follow the safety procedures outlined in the Wine Guardian Manual.

重要

本手册中所描述的设备都使用电力。当使用
这种设备，一定要遵守酒卫主机使用手册中关于安全程序的概述

Safety Message Conventions 安全信息公约

Safety messages contained in this manual, DANGER, WARNING, and CAUTION are bold and highlighted in red for quick identification.

本手册中包含安全信息，危险，警告和警示以红色粗体标出，以帮助快速识别。

Danger

A Danger message indicates an imminently hazardous situation which, if not avoided, results in death or serious injury. Messages identified by the word **DANGER** are used sparingly and only for those situations presenting the most serious hazards.

危险

一个危险的消息表明即将发生的危险情况，如果不避免，可导致死亡或严重伤害的结果。少用标有"**DANGER**"**的信息**，只有那些提出最严重的危害情况下。

Following is a typical example of a Danger message as it could appear in the manual:

以下是一个典型的会出现在该手册当中的危险信息例子:

⚠ **DANGER** ⚠

危险

HIGH VOLTAGE - RISK OF SERIOUS INJURY OR DEATH
High voltages are present in the cabinets.
Before opening panels turn off all power.
Use the Lockout/Tag out procedure .
高电压 - 严重伤害或死亡
高电压在橱柜中。
在打开面板前关闭所有电源。
使用安全挂牌标示。

Warning

A Warning message indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
警告
警告信息是指潜在的危险情况，如果不避免，可能导致死亡或严重伤害。
Following is a typical example of a Warning message as it could appear in the manual:

以下是一个典型的会出现在该手册当中的警告信息例子

⚠ **WARNING** ⚠

警告

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT
Modification to the equipment may cause injury.

造成人身伤害或设备损坏
修改设备可能造成伤害。

Caution

A Caution message indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.
警示
一个警示信息表明一种潜在的危险情况，如果不避免，可能导致轻微或中度的伤害。它也可以用来警惕不安全的做法。

 Following is a typical example of a Caution message as it could appear in the manual:

以下是一个警示消息，是一个典型的会出现在该手册当中的警示信息例子：

28

Lockout/Tag out Procedure

1) Turn off the power switch (indicator light should be off)

2) Unplug the unit from the electrical outlet and cover the outlet to prevent accidently plugging in the unit.

安全挂牌标示程序
1）关闭电源开关（指示灯应熄灭）
2）拔掉机组电源插座和覆盖，并将插座覆盖，以防止议意外的电源接通。

Safety Considerations 安全注意事项

The equipment covered by this manual is designed for safe and reliable operation when installed and operated within its designed specifications. To avoid personal injury or damage to equipment or property when installing or operating this equipment, it is essential that qualified, experienced personnel perform these functions using good judgment and safe practices. See the following cautionary statements.

本手册所涵盖的设备是专为在涉及规格范围内安全安装和运行设计的。为了避免在安装和使用设备时造成人身伤害或设备或财产损坏时，合格有经验的人员是必须的，执行这些功能时他们拥有良好的判断力和安全技术。请参阅下面的警告性声明。

Installation and maintenance of this equipment is to be performed only by qualified personnel who are familiar with local codes and regulations, and are experienced with this type of equipment.
该设备的安装和维护只能由熟悉当地的法规和规章，并熟悉使用这种类型的设备的人来进行。

NOTE: If the external flexible cable or cord of this appliance is damaged, it should be exclusively replaced by the manufacturer or his service agent, or a similar qualified person, in order to avoid a hazard. If you are uncertain, please contact Air Innovations (manufacturer).

注意：如果该设备的外部电缆有损坏，更换工作应由制造厂商和服务代理商，或类似的合格人员来完成。如果你不能确定， 以避免发生危险，请与空气创新公司联络（制造商）。

29

Safety Hazards

Exposure to safety hazards is limited to maintenance personnel working in and around the unit. When performing maintenance, always use the Lockout/Tagout procedure, which is described in this chapter. Observe the maintenance safety guideline in the Wine Guardian Manual.

安全隐患

安全隐患暴露时仅限于维修人员在机组内或者周围工作。当进行维修时，要使用安全挂牌标示程序，这在本章描述过遵守酒卫主机手册中的维修安全指引。

Electrical Hazards

Working on the equipment may involve exposure to dangerously high voltage. Make sure you are aware of the level of electrical hazard when working on the system. Observe all electrical warning labels on the unit.

电击危险

对设备的工作可能涉及危险的高电压。确保工作时了解电击危险的级别。观察所有电击设备的警告标签。

Electrical Shock Hazards

All power must be disconnected prior to installation and servicing this equipment. More than one source of power may be present. Disconnect all power sources to avoid electrocution or shock injuries.

触电事故

在设备安装和维修之前必须断开所有电源。可能存在不止一个电源。断开所有电源，避免触电或电击的伤害。

Hot Parts Hazards

Electric Resistance heating elements must be disconnected prior to servicing. Electric Heaters may start automatically, disconnect all power and control circuits prior to servicing the unit to avoid burns.

热部件的危害

电阻加热元件必须在维修前断开。电热可能会自动启动，维修前断开所有电源和控制电路，以避免烧伤。

Moving Parts Hazards

The Motor and Blower must be disconnected prior to opening access panels. The motor can start automatically. Disconnect all power and control circuits prior to servicing to avoid serious injuries or possible dismemberment.

运动部件的危害

检修门打开前必须切断马达和鼓风机。马达可自动启动。电路维修前断开所有电源和控制电路，以避免可能的严重伤害或肢解。

The fans are free-wheeling after the power is disconnected. Allow the fans to stop completely before servicing the unit to avoid cuts or dismemberment.

切断电源后风扇自动旋转。为避免割伤，维修机组前让风扇完全停止。

Rotating Fan Blades are present in the Wine Guardian unit. Sticking a hand into an exposed fan while under power could result in serious injury. Be sure to use the Lockout/Tagout procedure when working in this area or remove the power cord.

旋转风扇叶片也在酒卫主机机组内。在带电的情况下把手伸向暴露的风扇可能导致严重伤害。在这个区域工作或拔下电源线时一定要使用安全/挂牌标示程序，。

Equipment Safety Interlocks 设备安全联锁

There are no electrical safety lockouts installed within the unit. The power cord attached to the control box must be disconnected from the power sources prior to working on any part of the electrical system.

机组内没有安装电气安全封锁。连接到控制箱的电源线必须先从电源断开，才能使电力系统作业。

Main Power Switch 主电源开关

The main power switch is located on the side of the Wine Guardian unit. **(See Overview Illustration on page 14)** It shuts off the power to the unit.

主电源开关位于酒卫主机机组的一面。 （见第 8 页的插图概述）它切断主机电源。

Energy Type 能源类型 **Electrical** 电

Hazard ....Electrocution, electrical burns and shock
Magnitude.................................. 230 volts AC 1 phase, 50 cycles
Control Method .... Disconnect power cord and On/Off Switch

危险---------------------------电击，电烧伤，休克
大小------------------------------230 伏交流电一相，50 个周期
控制方法--------------------------拔下电源线和开/关开关

⚠️ **DANGER** ⚠️
危险

- **Never** reach into a unit while the fan is running.

- **Never** open an access door to a fan while the fan is running.

- **Disconnect** the power cord switch before working on the unit. The unit may have more than one power source to disconnect.

- **Avoid** risk of fire or electric shock. **Do not** expose the unit to **rain** or **moisture**.

- 风扇运行时永远接触不到机组。
- 风扇运转正常时切勿打开检修门。

- 在机组工作前切断电源开关。该装置可以有一个以上的电源断开。
- 避免发生火灾或触电。不要让本机受雨淋或受潮。

<p align="center">⚠ WARNING ⚠</p>

<p align="center">警告</p>

- **Check** weights to be sure that the rigging equipment can support and move the Wine Guardian unit safely. Note any specific rigging and installation instructions located in the Installation section of the Wine Guardian Manual.

- All supports for the unit **must** be capable of safely supporting the equipment's weight and any additional live or dead loads encountered.

- All supports for the unit **must** be designed to meet applicable local codes and ordinances.

- **Do not** remove access panels until fan impellers have completely stopped. Pressure developed by moving impellers can cause excessive force against the access panels.

- Fan impellers continue to turn (free-wheel) after the power is shut off
  . •检查重量，以确保索具设备能够安全的支持和移动机组。请注意每个索具和安装说明都在酒卫主机手册的安装部分
  •所有的支撑必须能安全支撑机组的重量和遇到的任何其他活的或固定负载
  •所有对机组的支持的设计必须符合适用地方的法规和条例。
  •不要在风扇叶轮完全停止前移动检查口。 移动叶轮所产生的压力会对检修门产生过强的压力。
  •风扇叶轮会在电源关闭后继续旋转。

<p align="center">⚠ CAUTION ⚠</p>

<p align="center">警示</p>

- **Clean** only with a dry cloth.只能用干布清洁

- **Never** pressurize equipment above specified test pressure. See Wine Guardian Specification Sheet 不要施加压力，上述规定的试验压力设备。见 WG 规格表

- **Do not use the Wine Guardian near water.** 不要让酒卫主机靠近水。

- **Do not** block any supply or return air register or duct. Install in accordance with the instructions in the Wine Guardian Manual. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

•不要堵住供应或回风管道。安装按手册中的指示进行。不要忽视了两极化或接地

32

型插头的安全。两极性插头有两片，其中一个比另一个宽。接地型插头有两片，第三个接地叉子。宽的一片或第三个是为您提供安全。如果提供的插头不能插入插座，请找电工更换旧插座。

- **Protect** the power cord from being walked on or pinched, particularly at the outlet plugs, convenience receptacles, and the point where it exits the unit.

- 保护电源线不被踩踏或挤压，特别是在出口插头，插座，以及出口处

- **Only** use attachments/accessories specified by the manufacturer.

- 仅使用制造商指定的附件。

- **Always** operate this equipment from a 230 VAC, 1 phase 50Hz power sources only. 始终使用 230 伏交流电，单相 50Hz 功率电源。

- **Always** ground the outlet to provide adequate protection against voltage surges and built-up static charges 始终接好地线插座，以防止电压激增及内置静电放电

- **Refer all** servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way. such as:
请找有维修资格的服务人员，任何损害都需要维修，例如：

  ✓　The power supply cord or plug is damaged

  ✓　Liquid has been spilled or objects have fallen into the unit

  ✓　The unit has been exposed to rain or moisture

  ✓　The unit does not operate normally

  ✓　The unit has been dropped

  电源线或插头损坏
  液体溅入或物体掉入机组
  机组暴露在雨中或潮湿
  机组不能正常工作
  该主机组坠落

33

Installation　安装

Pre-installation Test 安装前的测试

Test the system before installing it to check for non-visible shipping damage.

在安装前测试，检查系统是否有不可见的运输损坏。

To test the system: 测试系统：

- ✓ Set the system on the floor or a sturdy level surface. 将设备放在坚固,水平的地面。

- ✓ Plug in the system. 插入电源。

- ✓ Press the on/off switch, control illuminates. This indicates the system has power.

  按 ON / OFF 开关，控制灯亮起。这表明该系统已通电。

- ✓ **The built in timer prevents short cycling and keeps the system from turning on right away.** The system comes on and runs as long as the temperature of the space is above the thermostat set point. After several minutes, cold air comes out of the system from the evaporator section side and hot air comes from the condenser section. Listen for any unusual noise or vibration.

内置定时器防止短期循环，从而马上启动系统。只要空间温度高于温控器设定值，系统就开始运转。几分钟后，冷空气从蒸发段出来，热空气从冷凝端出来。聆听任何不寻常的噪音或振动。

Air Flow Illustration 气流插图
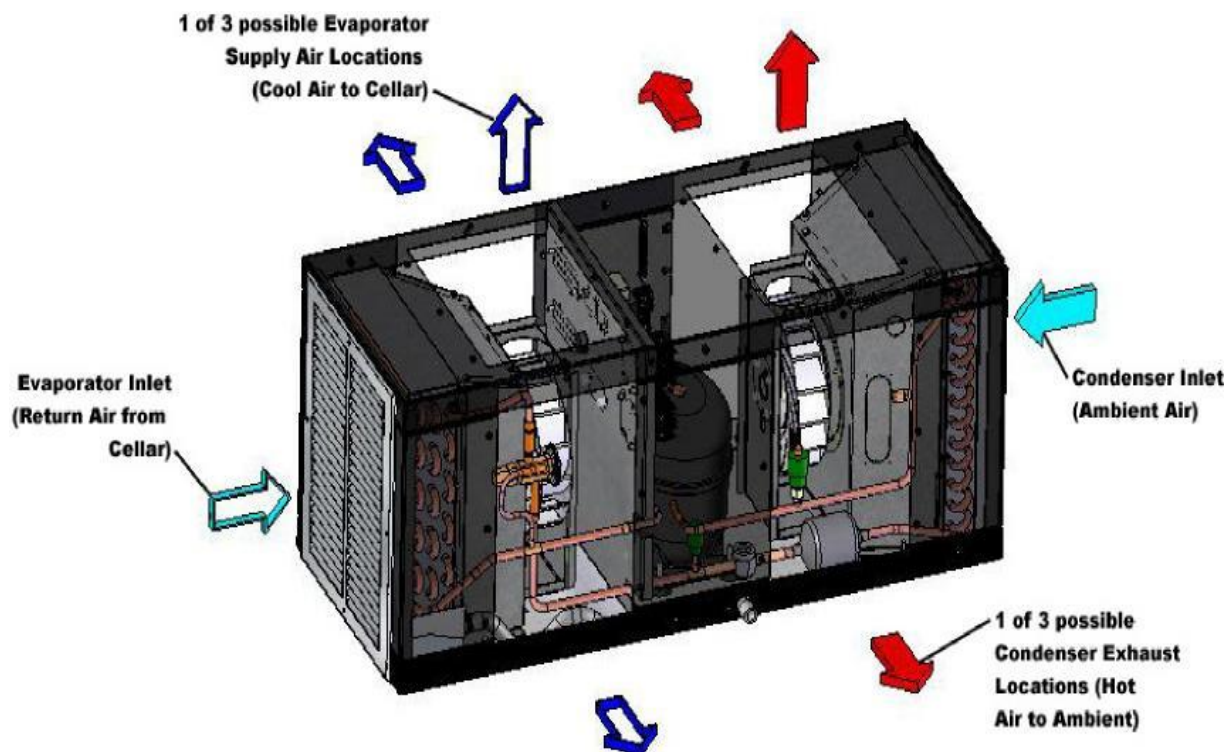
1 of 3 possible Evaporator
Supply Air Locations
(Cool Air to Cellar)

Evaporator Inlet
(Return Air from
Cellar)

Condenser Inlet
(Ambient Air)

1 of 3 possible
Condenser Exhaust
Locations (Hot
Air to Ambient)

⚠️ **WARNING** ⚠️
警告

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT
Modification to the equipment may cause injury or damage to the equipment

造成人身伤害或设备损坏
修改该设备可能造成伤害或损坏设备。

⚠️ **DANGER** ⚠️
危险

· **This equipment is heavy. Place the unit on the floor or on a level and stable surface that can support the full weight of the unit.**

· **Do not modify the equipment, it may cause damage to the equipment and will void the warranty.**

· **Never place anything on top of the unit.**

· **Never block or cover any of the openings or outlets to the unit.**

35

- **Never allow anything to rest on or roll over the power cord.**

- **Never place the unit where the power cord is subject to wear or abuse.**

- **Do not use extension cords.**

- **Never overload wall outlets.**

- **Do not remove or open any cover unless the unit is turned off and the power cord is plugged in.**

- **Use only dedicated power outlet boxes of the correct capacity and configuration for the unit model.**

· 该设备沉重。放在可以支持机组全部重量地板上或水平和稳定的表面。
· 不要修改设备，它可能会导致设备损坏，并会导致保修失效。
· 不要在机组上部放任何东西。
· 请勿阻塞或遮盖机组的任何开口和插座。
· 绝不允许任何东西压轧电源线。
· 切勿将机组放在电源线已受磨损或滥用的地方。
· 不要使用电源延长线。
· 使用墙上插座切勿超载。
· 不要删除或打开任何覆盖，除非机组已关闭，电源已切断。
· 只能使用专用的电源和主机型号配置的电源插座盒。

⚠️**CAUTION**⚠️

警示

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT

Improper installation may result in the equipment malfunctioning and a safety hazard. Read all of the installation instructions before installing the Wine Guardian unit

造成人身伤害或设备损坏
安装不当可能会导致设备故障和安全隐患。安装之前，请阅读酒卫主机机组所有的
安装说明

Planning the Installation 规划安装

Addressing Items in the Planning Process 解决规划过程中的问题

✓ Where to locate the unit? Should it be built into the wall or mounted remote and ducted into the cellar?

✓ How to mount the unit?

✓ Decide where to locate the supply and return grilles in the room to achieve the temperature gradient and circulation preferred.

✓ Locate the electrical power outlet close to the unit, in cellar or out. **Do not use an extension cord!**

✓ Does the condenser heat exhaust need to be ducted away?

✓ Where to locate the thermostat?

✓ Where to run the drain line?

✓ Are all the parts here to complete the installation?

✓ · 在哪里安装主机？是将系统安装到墙上或主机安装窖外，由通风管道引入酒窖？

✓ · 如何安装机组？
· 决定在何处安装供给和返回格栅，以达到温度梯度和理想的循环

✓ · 将电源插座靠近机组，窖内，窖外？不要使用延长线！
· 冷凝器热排气管道必须排出室外？
· 在哪里安装恒温器？
· 往哪里运行排水管线？
· 是否所有的部件在这里完成安装？

Performing a Pre-installation Check 执行安装前检查

✓ Check for the proper installation of the electrical plug configuration.

✓ Check for the properly sized breaker.

✓ Is the cellar built with adequate insulation and vapor barriers?

✓ Are ducts installed above the ceiling or in accessible places properly sized before being covered?

✓ Is enough space available around the unit for service and repair?

检查了电源插座的配置是否正确安装。
· 检查合适尺寸的断路器。
· 是否有足够的绝缘和防潮层？
· 被覆盖之前，通风管道安装是否高于天花板顶部，或在出入方便的地方进入酒窖
· 设备周围是否有足够的空间可用来服务和维修设备？

Locating the Unit

Wine Guardian units are typically installed indoors located near the cellar to minimize the duct runs. Each unit is provided with one entering or return air inlet and three possible supply air outlets for each of the evaporator and condenser sections. A maximum cumulative total length for both supply and return ducts (including bends) of 7.5 metres is recommended. If longer runs are needed use more than one supply opening to reduce the airflow in each duct by 1/2. **See Recommended Flexible Ductwork Sizing Chart on page 30.**

主机定位

酒卫主机通常安装在室内酒窖的附近，以减短通风管的长度。每个主机的蒸发器和冷凝器的部分（段）各 提供个一个进风入口，或回风 口和三个 可用的送风/出风口。推荐的送风和回风管道总长度累积一起(包括弯曲)应是 7.5 米。如 需使用更长的通风管道，请使用两个以上的供应风口，以减轻各通风管的气流量 至 50%。**推荐的柔性管道系统尺寸图见第 30 页。**

Provide a 1-metre clearance around the unit for removal of grilles or ductwork, access to filters and unit maintenance. If the humidifier is used, provide access space in front of it for service.

主机周围应提供一米左右的空间，便于移动格栅或通风管道，清理过滤网和机器的维护。如果使用加湿机，应保证设备前方有维修服务空间。

Grilles

Each of the inlets and one evaporator outlet and one condenser outlet come from the factory with grilles over the openings. The grilles are removable. Remove the necessary grilles for installing ductwork between the unit and the cellar. If desired, use the grilles as wall grilles inside the cellar. The return air, or inlet, to the unit must connect to the return air outlet from the cellar. Any of the three supply air outlets on the unit can be used for the ductwork to the supply grille inside the cellar. The factory installed outlet grille can be relocated to any of the other two openings. The procedures below apply to both the evaporator and the condenser sections. In most cases, no ducts are installed on the condenser section because the unit is located in a mechanical or storage type space. If exhaust heat is undesirable use the grilles to install ductwork to move the heat outdoors or to another space. Also, use ductwork to direct condenser air noise away from occupants.

格栅

每一台主机的蒸发器和冷凝器的出气口和每一个进风口都配有工厂提供的格栅。格栅是可移动的。安装主机的通风 管道进入酒窖前，取下格栅。如果需要，可用格栅覆盖窖内墙壁的进风口。回风，或主机的进风入口，必须连接到酒窖的回风口。这三个供应风口都可以用管道接入酒窖内的格栅。工厂提供的出风口格栅都可以覆盖 其它的两个开口。下面的程序同时适用于蒸发器和冷凝器的部分。在大多数情况下，制冷主机安装在机房或储藏室空间，冷凝器部分不需要接通风管道。如果余热废气造成麻烦，用格栅安装管道将热风 移 到室外或另一个空间。此外，使用通风管道可以把冷凝器的噪音传离住宅。

Reducing Noise from the Unit

Consider noise when locating the unit close to the cellar or an adjacent occupied space. A piece of 25 or 50mm dense rubber or Styrofoam with foil face in between the unit and the wall absorbs and reduces the noise from the unit. For air noise use better grilles or block the

noise with a solid piece of wood or Styrofoam. Sound usually travels as a line of sight. Sound is reduced when it turns a corner, such as, passing through a bend in ductwork. If the unit is supported from a wall or joist, using a rubber pad under the unit will reduce vibration transmission.

减少主机的噪音

选择主机的定位时，不管是靠近酒窖， 还是相邻的占用空间，应考虑到设备的噪音。使用 25mm 或 50mm 厚的橡胶或带箔片的泡沫塑料隔离主机与墙壁之间， 能吸收和减少噪音。此外，使用更好的格栅，或用木板或泡沫塑料在格栅前阻碍一下进气的噪音。声音通常以直线传播。气流通过角落或管道的弯曲部分都会减低噪音。如果设备安装在墙上或托梁上，支持部分请使用橡胶垫，以减少振动传输。

Installing the Unit Outdoors

The Wine Guardian is NOT **designed nor approved for direct outdoor installation. If it is located outdoors, it** MUST **be protected with a rain-proofed enclosure.**

- Mount it above the ground on a solid, waterproof base to protect the unit from ground water.
- Do not locate it where grass clippings or leaves can blow into the unit.
- Keep the area around the unit clean and free of debris.
- Protect from damage when the unit is located in a garage or unheated shed. In both cases, the unit **MUST** have the low ambient controls built into the unit.
- Double insulating ducts with exterior grade insulation is recommended to keep the ducts dry and effective. Wine Guardian suggests installing one sized flexible duct inside the next larger size duct where ductwork is exposed.
- Allow enough space at both ends of the unit to remove the grilles or ductwork and allow access to the filters.

设备安装在户外

酒卫主机并非设计或批准为直接室外安装。如果位于室外，必须做到防雨保护。

•安装在有防水基础，坚实的地面。

•避免装在剪草或树叶可以吹到的位置。

•保持设备周围的区域清洁，无杂物。

•如主机位于一个车库或不加热的敞棚，应注意防止损害。在这两种情况下，设备必须具有低温环境控制选项内置。

•建议通风管外层使用双层 绝缘材料，保持通风管道干燥，高效。酒卫建议在一个较大尺寸的管内安装 小尺寸的灵活通风管道。

•主机两端应提供足够的空间 ，便于移动格栅或通风管道，清理过滤网和机器的维护。

Mounting the Unit 安装主机

⚠️ **CAUTION** ⚠️

警示

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT
造成人身伤害或设备损坏危险

Check supporting structure for load bearing capacity to support the Wine Guardian.
All supports must be designed to meet applicable local codes and ordinances.
If in doubt, consult a qualified architect, engineer or contractor.

检查负载支撑结构的承载能力是否可以支持酒卫主机。

所有支持的设计必须符合地方法规和条例。

如有疑问，请咨询合格的建筑师，工程师或承包商。

Note: Review the mounting illustrations on pages 32 and 33 before mounting the unit.

注意：回顾前 32 页，33 页上机组安装插图。

Floor Mounting

Mount the Wine Guardian on the floor but elevate it on frame with a plywood surface to keep it away from water. Allow adequate space for the external drain.

地板安装
如果酒卫主机安装在地板上，请使用框架，上面加胶合板，保持离水。允许足够的排水管空间。

Wall Mounting

If the unit is mounted through the wall, adequately support it on both sides of the wall. Use floor or knee braces to transfer the load of the unit to the floor or wall.

壁挂式安装
如果主机是穿墙 安装，墙的两边都要有充分的支撑。使用地板或三角支撑，把主机的重量转移到地面或墙上。

Ceiling Mounting

Construct a structurally sound, level platform to place the unit on when hanging it from the ceiling joists. The Wine Guardian is **NOT** designed to be suspended from the top of the unit. Place the unit on a platform to ensure that the unit is supported on all for corners. Leave adequate space on the top of the unit to remove the access doors for service.

In all cases the unit must be level to within +/- 6mm end-to-end and +/- 3mm side-to-side for proper operation. Locate the unit as close to the wine cellar as possible to reduce the length of the duct runs. If possible, use short and straight ducting on all ductwork. The addition of 6mm thick rubber pads helps prevent the transmission of vibration and noise.

天花板安装

天花板安装，在天花板上面，构建一个水平和结构牢固的平台。酒卫主机的设计不允许从机体上方悬吊。若放置在平台上，请确保设备的四个角都有支撑。主机上端应提供足够的空间，便于移动机器维护盖板。

任何情况下，为保证设备的正常运行，主机两端的水平度必须保证在 + / - 6mm 左右，两边水平度必须保证在 + / - 3mm 左右.。主机的安装尽可能接近酒窖，减少通风管道长度。如果可能的话，使用短而直的管道。使用 6mm 厚的橡胶垫有助于防止振动和噪声的传播。

Installing the Condensate Drain Connection

The Wine Guardian unit provides dehumidification for the inside of the wine cellar. It cools the air down to the dew point corresponding to the temperature set point of the thermostat. If the vapor barrier of the wine cellar is poorly constructed or excess moisture is in the basement, the unit has to remove excessive amounts of moisture from the wine cellar. The moisture appears in the condensate drain of the unit.

凝结水排水连接安装

酒卫主机提供窖内除湿功能。空气冷却至露点，即达到对应的恒温器设定点温度。如果酒窖防潮层 建造得不好，或地下室存在多余的水分，主机必须除去酒窖内过量的水分。水分会出现在设备的冷凝水排水管。

Note: If moisture becomes excessive, install a room type dehumidifier to dehumidify the basement so as to not overload your Wine Guardian.

注意
如果水分过多，在地下室安装一个普通房间型除湿机
以减轻酒卫主机的负担。

Installing the Drain Line 排水管线安装

- ✓ The drain line must extend from the unit to an external drain or disposal site. Do not use drain tubing any smaller than 12mm inside dimension on the unit.

- ✓ Splice the drain extension onto the drain outlet with a sort piece of 12mm copper tubing and secure with claps.

- ✓ If not drain is available, use a bucket. Do not extend the drain below the rim of the bucket. Empty the bucket periodically.

- ✓ 排水管线必须从主机延伸到外部排水或处理场。
  不要使用内径小于 12mm 的排水管道。

- ✓ 用 12mm 的铜管做排水管延伸管道，接入主排水管道。

- ✓ 如果没有排水管就用水桶。排水管延伸不能超过水桶边缘。定期清除水桶。

The Guardian Unit is provided with a built-in drain trap. The drain trap creates a water seal to prevent air from backing up into the drain pan and causing the drain pan to overflow. Do not create secondary traps in the external drain line.

主机配备一个内置的排水陷阱。 陷阱的水具有密封作用，,以防止空气倒抽入接水盘，造成排水盆泛滥。请不要在外部排水管道上再做陷阱。

Allow enough height for the drain line to function properly. If draining into a nearby sink, the unit must be elevated higher than the rim of the sink in order for the water to drain by gravity. Install with a 10mm per linear metre. **Do not** tie the condensate drain line directly into the sanitary sewer system. See Accessories and Optional Equipment section for information about the Condensate Pump.

为了排水正常，请允许排水管道有足够的高度。如果排水流入附近的水槽，机组必须高于水槽的边缘，保证重力排水。不要把冷凝水排水管线直接进入下水道系统。请参阅附件和选装设备部分提供的凝结水泵的有关信息。

Priming the Drain Trap 引导排水陷阱

The internal drain trap primes itself automatically once the unit has run for a period of time and after the unit cycles off. This is confirmed by water dripping from the drain.
主机运行一段时间后 （一个循环后），内部排水陷阱会自动引导。确认排水管出水。

Wiring the Unit for Power 机组电力线路

⚠️ **DANGER** ⚠️
危险
ELECTRICAL SHOCK HAZARD
RISK OF SERIOUS INJURY OR DEATH
The electrical outlet and wiring installation must meet the national and local building codes.
触电
严重伤害或死亡的危险
电源插座和电线安装必须符合国家和地方建筑规范。

NOTE: The WG175 does not come shipped with a cord or plug. The installer is responsible for providing a power cord that meets the following specifications:

- *Capable to handle up to 20 AMPS*

- *PVC flexible insulated power cable*

- *Diameter no smaller than 3x2.0 mm²*

- *Must be stamped CCC approved*

注意：WG175 不附带电源线或插头。安装人员提供的电源线应符合以下规格：
- 能够处理高达 20 安培的电流
- 电缆应该是有柔性的 PVC 绝缘电力电缆
- 直径不小于 3 X 2.0 **mm²**
- 必须加盖 CCC 认证标签

DO: 做到以下

- ✓ Match the electrical outlet to the plug provided on the Wine Guardian.
- ✓ Provide dedicated circuit and wiring for the system.
- ✓ Match the wiring and breaker size to the rated load as shown on the serial
- ✓ 匹配电源插座和酒卫提供的插头。
- ✓ 提供专门的系统电路和接线。
- ✓ 按标牌显示，接线匹配，额定负荷断路器匹配

Model No. WG40	WG WINE GUARDIAN	Serial No.	
Electrical	240/1/50	Electric Heat Amps (Opt.)	4.4
Locked Rotor Amps	18.5	Humidifier Amps (opt.)	0.3
Compressor RLA	2.4	Crankcase Htr. Amps (opt.)	0.4
Condenser Fan Amps	0.7	Min. Circuit Amps (w/o opt.)	4.4
Evaporator Fan Amps	0.7	**Refrigerant**	R-134-A
Condensate Heater	N/A	System Charge	625 g
Total Unit Amps (w/o opt.)	3.8	Test Pressure	1896 k pa
Air Innovations, 7000 Performance Drive, North Syracuse, New York 13212			
00 1 315-452-7400 * Fax: 00 1 315-452-7420			

DO NOT: 不做以下

- ✓ DO NOT MODIFY THE PLUGS IN ANY WAY!
- ✓ Do not use extension cords.
- ✓ 请勿以任何方式修改插头！
- ✓ 不要使用延长线插座。

安装温控器和通信电缆

The Wine Guardian Wireless-to-base Remote Interface Controller is a combination temperature and humidity controller with single stage cooling, heating and humidity control. Its capacitive touch screen incorporates an on/off switch, adjustment arrows and settings buttons for ease of use and programming. The controller can be installed one of two ways:

酒卫无线至基站远程接口控制器结合了温度和湿度控制，可做到单级冷却、加热和湿度控制。其电容式触摸屏包含一个开关、调整箭头和设置按钮，便于使用和编程。该控制器可以通过以下两种方式其中之一进行安装：

Wired (recommended) – wired directly to the Wine Guardian unit through an RJ-9 communication cable. 50' (15.25 meters) of control cable is included with each controller with longer lengths available as an option.

有线（推荐）—通过 RJ-9 通信电缆直接连接到酒卫装置上。每个控制器包括 50'（15.25 米）的控制电缆，可选择更长的长度。

IMPORTANT

重要事项

Whenever possible we strongly suggest wiring the Remote Interface Controller directly to the Wine Guardian unit to avoid periodic battery changes and uninterrupted service.
如果条件允许，我们强烈建议将远程接口控制器直接连接到酒卫装置上，以避免定期的电池更换和持续性的服务。

Wirelessly - connects wirelessly to the Wine Guardian unit by Radio Frequency connectivity through one of twelve selectable channels.

无线 — 通过 12 个可选频道之一的射频连接，无线连接到酒卫装置上。

IMPORTANT

重要事项

Wireless installation may result in limited communication range and connectivity issues depending upon building construction and distance between Wine Guardian unit and Remote Interface Controller and/or Remote Sensors.
无线安装可能会造成通信范围有限和连接问题，具体取决于建筑结构和酒卫装置与远程接口控制器和/或远程传感器之间的距离。

The Wine Guardian Wireless-to-base Remote Interface Controller is a configurable device that can be fine-tuned through a series of individual settings. The controller incorporates eight (8) key temperature, humidity and system alarm points. Remote alarm indication is possible through terminal point connections at our main control board.

酒卫无线至基站远程接口控制器为可配置设备，可以通过一系列单独设置进行微调。控制器包括八（8）个关键温度，湿度和系统警报点。通过主控制板上的终端连接，可实现远程报警指示。

In most applications, the remote interface controller will be mounted within the wine cellar. The remote interface controller can also be mounted directly outside of the wine cellar or in any other room of the home or building. When mounted outside of the wine cellar, a remote sensor kit or a

second wireless remote interface must be purchased and installed within the wine cellar.

在大多数应用实例中，远程接口控制器会安装在酒窖中。远程接口控制器也可以直接安装在酒窖外或家中或建筑物的任何其他房间。安装在酒窖外时，必须购买一个遥感器套件或另一个无线遥控接口，并将其安装在酒窖内。

IMPORTANT

重要事项

Regardless of wired or wireless each, Wine guardian System can have a maximum of two (2) Remote Interface Controllers and three (3) Remote Sensors.

无论是有线安装还是无线安装，酒卫系统最多拥有两个（2）远程接口控制器和三个（3）遥感器。

附加的远程接口：

在向系统添加其他远程接口之前，必须更改第一个控件上的设置 30，以为其提供不同的地址。有关如何访问界面设置的说明，请参阅第 53 页，然后转到设置 30（第 60 页上显示）。

控制器规格

应用	仅适用于 WG、单级冷却或加热加湿
可编程	否
转换	自动或手动、风扇打开或自动
颜色	黑色（仅此一种）
用户界面	触摸屏
自动除霜控制	有，设有温度选项
连接	通信 – RJ-9 电缆
无线至基座通信范围	40'直线对传
无线至基座频道	12
遥感器	有，有线或无线
温度调节	34 至 97 华氏度（1 至 36 摄氏度）
耐温性	+/- 2 摄氏度 (+/- 1.1 华氏度)
湿度调节	相对湿度 2% 至 93%
耐湿性	相对湿度+/- 10%

系统温度诊断	无法使用
警报	高温、低温。 高湿度、低湿度。 高压故障。 冷凝、除霜、通信错误

安装远程接口控制器（有线）

图 1

图 2

图 3

图 4
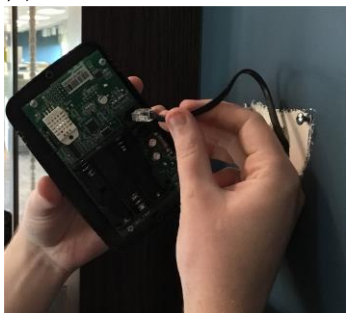
图 5

1. Disconnect the communication cable from the side of
the Wine Guardian unit and the remote interface controller. (Fig. 1)
1. 从酒卫装置和远程接口控制器一侧
断开通信电缆。（图 1）

    a. Route the communication cable within the wall
and/or ceiling structure of the wine cellar to the desired controller
mounting location.

    a. 在墙内
和/或酒窖的吊顶结构上计划安装控制器的位置布设通信电缆。

    b. Plan on mounting the remote interface controller on a solid
surface away from doors, corners, air outlets, drafts or heat
generating equipment. Do not mount the remote interface
controller directly on an outside wall, a wall adjacent to a boiler
room, or other hot area. Use a piece of foam insulation behind
the sensor to insulate it from a hot or cold surface. The
recommended height is four to five feet above the finished floor.

    b. 请计划将远程接口控制器安装在远离门、角落、出风口、通风或
发热设备的固体表面上。请勿将远程接口控制器直接安装在外墙、邻
近锅炉房的墙壁或其他高温区域内。请在传感器后面使用一块泡沫绝
缘材料将其与热表面或冷表面隔离。建议高度为竣工地面以上 4 至 5
英尺。

2. Remove the back plate of the controller (Fig. 2) by removing two (2) screws
that hold it in place on the remote interface. Place the back plate against the
wall and mark the location of the two mounting points (Fig. 3). Also mark the
location of the penetration for the communication cable as this area will
require sufficient clearance for the cable to exit the wall and attach to the back
of the controller.
2. 卸下将控制器背板固定在远程接口上的两（2）个螺钉，从而卸下控制器背板
（图 2）。将背板靠墙放置，并标记两个安装点的位置（图 3）。同时标记通信
电缆的穿透位置（因为该区域需要足够的间隙以使电缆隔开墙壁并附着到控制
器的背面）。

3. Drill two one-eighth inch holes and insert anchors at the marked locations.
Anchors may not be required if securing to a wall stud or racking system.
Insert the screws into the holes and test fit the backing plate to ensure it
mounts easily onto the two screws and slides down onto the slotted opening
freely (Fig. 4).
3. 在标记位置钻两个八分之一英寸的孔并插入锚。如果是固定在墙柱或支架系
统上，可能不需要锚。将螺钉插入孔中，并测试安装背板，以确保其可以很容
易安装到两个螺钉上，并可顺利滑入开槽开口（图 4）。

图 5

4. Re-install plastic face plate on to backing plate.
4. 将塑料面板重新安装到背板上。

5. Plug in the communication cable to the back of the remote interface controller backing plate. (Fig. 5)
5.将通信电缆插入远程接口控制器背板的背面。（图 5）

  a. If using multiple Remote Interfaces either connect each Sensor to each other in series using RJ9 cable or purchase a RJ9 Splitter to be used on the unit.
  a. 如果使用多个远程接口，请使用 RJ-9 电缆将每个传感器串联起来，或购买一个 RJ-9 分路器，以便在装置上使用。

6. Attach the Controller to the wall
6. 将控制器固定到墙上

7. Re-attach the communication cable to the side of the Wine Guardian cooling unit.
7. 将通信电缆重新固定到酒卫冷却装置的侧面。

安装远程接口控制器（无线）

图 1

图 2

图 3

1. Disconnect the controller wire from the side of the Wine Guardian unit and save for future use.
1. 断开酒卫装置侧面的控制器电线，以备后续使用。

2. Plan on mounting the remote interface controller on a solid surface away from doors, corners, air outlets, drafts or heat generating equipment. Do not mount the remote interface controller directly on an outside wall, a wall adjacent to a boiler room, or other hot area. Use a piece of foam insulation behind the sensor to insulate it from a hot or cold surface. The recommended height is four to five feet above the finished floor.

2. 请计划将远程接口控制器安装在远离门、角、出风口、通风或发热设备的固体表面上。请勿将远程接口控制器直接安装在外墙、邻近锅炉房的墙壁或其他高温区域内。请在传感器后面使用一块泡沫绝缘材料将其与热表面或冷表面隔离。建议高度为竣工地面以上 4 至 5 英尺。

3. Unscrew and remove the back plate from the Remote Interface Controller (Fig. 1)
3. 从远程接口控制器上拆下并移除背板（图 1）

4. Place the back plate against the wall and mark the mounting points at the desired location. (Fig. 2)
4. 将背板靠墙放置，并在所需位置标记安装点。（图 2）

5. Drill two one-eighth inch holes and insert anchors within the mounting surface. Anchors may not be required if securing to a wall stud or racking system. Insert the screws into the holes and test fit the backing plate for mounting to ensure it mounts easily onto the two screws and slides down onto the slotted openings freely (Fig. 3)

5. 在安装面上钻两个八分之一英寸的孔并插入锚。如果是固定在墙柱或支架系统上，可能不需要锚。将螺钉插入孔中，并测试安装背板，以确保其可以很容易安装到两个螺钉上，并可顺利滑入开槽开口（图 3）。

48

图 4

6. Reattached the back plate to the Remote Interface Controller. (Fig. 4)
6. 将背板重新固定到远程接口控制器上。（图 4）

7. Insert the three AA batteries.
(only applicable with wireless installations)
7. 装入三节 AA 电池。
　　　（仅适用于无线安装）

8. The system will automatically acknowledge a wireless device (Remote Interface or Remote Sensor). Go to Setting "30" to define the Remote User Interface use.
8. 系统将自动确认无线设备（远程接口或遥感器）。转到设置"30"，以定义远程用户界面的使用。

9. Attach controller to the wall.
9. 将控制器固定到墙上。

安装酒卫远程遥感器

The wireless remote sensor is a combination temperature and humidity sensor only. It is designed to be mounted within the wine cellar and can be used in combination with the remote interface controller or up to two additional remote sensors to read and control multiple areas within the wine cellar.
无线远程遥感器仅结合了温度和湿度遥感。它被设计安装在酒窖内，可与远程接口控制器或最多两个额外的遥感器结合使用，以读取和控制酒窖内多个区域的温度和湿度。

For a wired application you will require a RJ-9 communication cable.
有线应用时，您需要 RJ-9 通信电缆。

安装有线遥感器（有线）

图 1
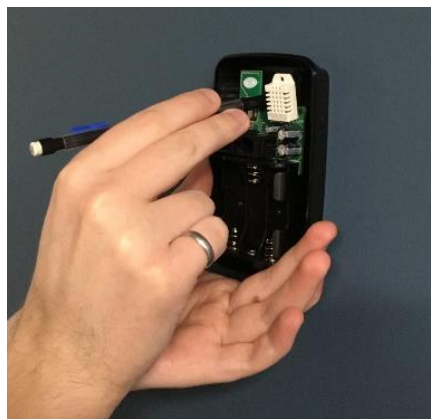
图 2

1. Disconnect the communication cable from the side of the Wine Guardian unit and the remote sensor. Route the communication cable within the wall and/or ceiling structure of the wine cellar to the desired controller mounting location.

1. 将酒卫装置和遥感器一侧的通信电缆断开。在墙内和/或酒窖的吊顶结构上计划安装控制器的位置布设通信电缆。

2. Plan on mounting the remote sensor on a solid surface away from doors, corners, air outlets, drafts or heat generating equipment. Do not mount the remote sensor directly on an outside wall, a wall adjacent to a boiler room, or other hot area. Use a piece of foam insulation behind the sensor to insulate it from a hot or cold surface. The recommended height is four to five feet above the finished floor.

2. 请计划将遥感器安装在远离门、角、出风口、通风或发热设备的固体表面上。请勿将遥感器直接安装在外墙、邻近锅炉房的墙壁或其他高温区域。请在传感器后面使用一块泡沫绝缘材料将其与热表面或冷表面隔离。建议高度为竣工地面以上 4 至 5 英尺。

3. Remove the remote sensor's face plate (Fig. 1) and mark the mounting points at the desired location within the wine cellar (Fig. 2). Also, mark the location of the communication cable connection as this area will require sufficient clearance, for the cable to exit the wall and attach to the back of the sensor.

3. 卸下遥感器背板（图 1）并在酒窖内所需位置标记安装点（图 2）。同时标记通信电缆连接的位置（因为该区域需要足够的间隙以使电缆隔开墙壁并附着到传感器的背面）。

50

图 3

图 4

图 5

4. Drill two one-eighth inch holes and insert anchors within the mounting surface. Anchors may not be required if securing to a wall stud or racking system. Insert the screws into the holes and test fit the backing plate for mounting to ensure it mounts easily onto the two screws and slides down onto the slotted openings freely. (Fig. 3)

4. 在安装面上钻两个八分之一英寸的孔并插入锚。如果是固定在墙柱或支架系统上，可能不需要锚。将螺钉插入孔中，并测试安装背板，以确保其可以很容易安装到两个螺钉上，并可顺利滑入开槽开口。（图 3）

5. Plug in the communication cable to the remote sensor and mount the Remote Sensor to the wall. (Fig. 3)

5. 将通信电缆插入遥感器并将遥感器安装到墙上。（图 3）

6. Reattach the sensor's faceplate (Fig. 4)

6. 重新固定传感器面板（图 4）

7. If multiple sensors are being used either connect each Sensor to each other in series using RJ9 cable or purchase a RJ9 Splitter
(Fig. 5) to be connected to the unit.

7. 如果使用多个传感器，请使用 RJ-9 电缆将每个传感器串联起来，或购买一个 RJ-9 分路器
（图 5）以与装置相连。

NOTE: **Remote Sensor's will always be treated as "enabled" when hardwired. Their temperature and humidity readings will always be calculated towards the average by the system.**

注意： 硬连线时，遥感器须始终处于"启动"状态。其温度和湿度读数始终由系统按平均值计算。

图 1

图 2

图 3

图 4

图 5

1. Disconnect the controller wire from the side of Wine Guardian unit and save for future use.
1. 断开酒卫装置侧面的控制器电线，以备后续使用。

2. Plan on mounting the remote sensor on a solid surface away from doors, corners, air outlets, drafts or heat generating equipment. Do not mount the remote sensor directly on an outside wall, wall adjacent to a boiler room, or other hot area as this runs the risk of influencing its temperature readings. The recommended height is four to five feet above the finished floor.

2. 请计划将遥感器安装在远离门、角、出风口、通风或发热设备的固体表面上。请勿将遥感器直接安装在外墙、邻近锅炉房的墙壁或其他高温区域内，因为这样可能影响其温度读数。建议高度为竣工地面以上 4 至 5 英尺。

3. Remove the sensor face plate (Fig. 1). Mark the mounting points at the desired location within the wine cellar (Fig. 2).

3. 卸下传感器面板（图 1）。在酒窖内所需位置标记安装点（图 2）。

4. Drill two one-eighth inch holes and insert anchors within the mounting surface. Anchors may not be required if securing to a wall stud or racking system. Insert screws to secure the sensor to the wall to ensure it mounts easily onto the two screws and slides down onto the slotted openings freely.

4. 在安装面上钻两个八分之一英寸的孔并插入锚。如果固定在墙柱或支架系统上，可能不需要锚。插入螺钉，将传感器固定到墙上，以确保其可以很容易安装到两个螺钉上，并可顺利滑入开槽开口。

5. Input the three AA batteries. (Fig. 3)
   (only applicable with wireless installations)
5. 装入三节 AA 电池。（图 3）
   （仅适用于无线安装）

6. Pair the sensor with the unit
   (See Page 45 for Pairing Instructions)
6. 将传感器与装置配对
   （见 59 页的配对说明）

NOTE: Once Paired the Remote Interface's readings will be included into the system's temperature and humidity averages.
注意：配对完成后，远程接口控制器读数将纳入系统的温度与湿度平均值。

7. Mount the Remote Sensor on the wall (Fig. 4)
7. 在墙上安装遥感器（图 4）

8. Reattach the sensor's faceplate (Fig. 5)

8. 重新固定传感器面板（图 5）

遥感器配对说明—多个传感器（无线）

图 1

图 2

If using multiple remote temperature/humidity sensors in your application, refer to the figures and the procedure below to change each remote sensor's device number (Three Remote Sensors maximum). Each Remote Sensor must have its own device number and must also be on the same RF channel (Setting 31) as the system they are being paired with.

如您在应用中使用多个远程温度/湿度传感器，请参考下面的图片和步骤来更改每个遥感器的设备号（最多三个遥感器）。每个遥感器必须拥有其自己的设备号，且必须处于同一 RF 频道（设置 31），因为该频道为遥感器与系统配对的频道。

1. To change the remote sensor's device number, see the following instructions:
1. 如须更改遥感器设备号，请见以下说明：

a. Use a pin to press the button for about half a second and release (Fig. 1).

a. 用别针按住按钮约半秒钟，然后松开（图 1）。

b. Observe the LED on the side of the remote sensor (Fig. 2). The LED will flash once for a Device #1, twice for a #2, three times for a #3. At any time, while in this mode press the button once to change the device number. Once each remote sensor has its own unique device number simply wait for the LED to stop flashing and the setting will be saved.

b. 观察遥感器一侧的 LED 灯（图 2）。1 号设备 LED 灯闪一次，2 号设备 LED 灯闪 2 次，3 号设备 LED 灯闪 3 次。在此模式下，可随时按下按钮以更改设备号。各遥感器的设备号设置完成后，LED 灯将停止闪烁，说明设置已被保存。

2. 如须更改遥感器 RF 频道，请见以下说明：
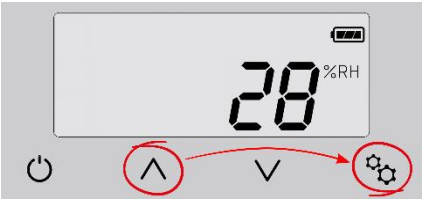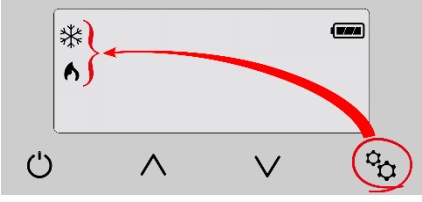
NOTE: Check what RF Channel the System is set to using Setting 31 to more easily connect your Remote Sensors.

注意：使用设置 31 检查系统设置的 RF 频道，以便更轻松地连接遥感器。

a. Use a pin to press the red button at the back of the Remote Sensor for 5 seconds until the LED blinks rapidly then release the button.

a. 使用别针按下遥感器背面的红色按钮 5 秒钟，直至 LED 快速闪烁，然后松开按钮。

b. The LED will flash a number of times to portray which RF channel it is set to and repeat a total of 3 times.

b. LED 将闪烁多次，以说明其设置为哪个射频通道，并重复 3 次。

c. To change the RF channel, press the button once to increment the RF channel. There are 12 possible RF channels. All Remote Sensors will need to be on the same channel for the system to detect them. To save the RF channel setting simply wait for the mode to time out by not pressing the button.

c. 要更改 RF 频道，请按一下按钮以增加 RF 频道。有 12 个 RF 频道可供选择。所有遥感器必须处于同一频道，系统才能检测到它们。如要保存 RF 频道设置，只需松开按钮，等待模式超时即可。

标准控制器功能

"冷却"符号

警报

"加热"符号

电池寿命

设置和除霜区域

湿度

温度

打开/关闭按钮　　　向上按钮　　　向下按钮　　设置按钮

如何：		
打开/关闭系统		• 按一下"打开/关闭"按钮。 **注意：系统打开或关闭前有五（5）分钟的延迟。**
变更温度		• 按一下"向上"箭头按钮。显示器将显示现有的温度设定点。 • 按向上或向下箭头按钮将温度调整到所需的设定点。
变更湿度		• 按一下"向上"箭头按钮。显示器将显示现有的温度设定点。 • 按一下"设置"按钮以显示"湿度"设定点。 • 按向上或向下箭头按钮将湿度调整到所需的设定点。 **注意：在控制器允许您变更湿度百分比之前，必须安装酒卫加湿器并将设置 6 设置为"1"或"2"。**
变更设置 冷却/加热/自动		• 按一下设置按钮，屏幕底部将显示设置功能。 • 再次按下设置按钮可滚动浏览"仅冷却"、"仅加热"或"手动—仅加热/冷却"的设置。
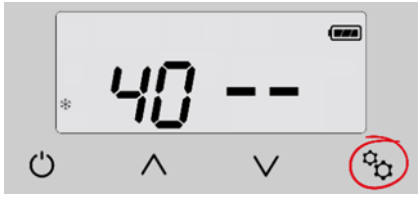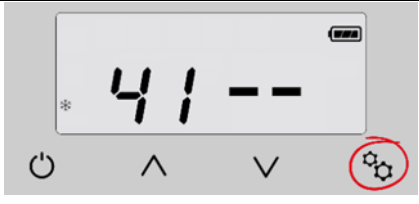
设置–按住"设置"按钮五（5）秒以进入以下设置。
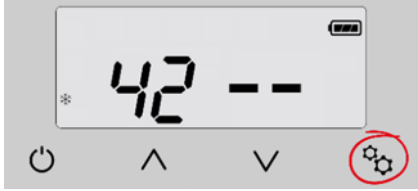
华氏度或摄氏度	
	`01 °F`
	`  °C`
		设置 1
		• 按下"向上"箭头将华氏度更改为摄氏度。
		• 按下"向下"箭头将摄氏度更改为华氏度。

低 温警报设定点	`02 °F 50`	**设置 2** • 按下"设置"按钮进入设置 2。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。出厂默认温度为 50°F（10°C）。
高温警报设定点	`03 °F 65`	**设置 3** • 按下"设置"按钮进入设置 3。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。出厂默认温度为 65°F（18°C）。
低湿度警报设定点	`04 05 %RH`	**设置 4** • 按下"设置"按钮进入设置 4。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。出厂默认湿度为 5%。
高湿度警报设定点	`05 95 %RH`	**设置 5** • 按下"设置"按钮进入设置 5。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。出厂默认湿度为 95%。
添加或移除加湿器	`06 00`	**设置 6** • 按下"设置"按钮进入设置 6。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。出厂默认湿度为零（0）。 零（0）=无加湿器 一（1）=集成式酒卫安装加湿器 二（2）=独立远程安装加湿器

56

风扇自动或打开		**设置 7** • 按下"设置"按钮进入设置 7。 • 按"向上"或"向下"箭头按钮将数字调整到所需的设定点。出厂默认值为零（0）。 零（0）=自动-只有在需要冷却或加热时，风扇才会打开 一（1）=风扇打开-风扇持续打开
压缩机 防短循环		**设置 8** • 按下"设置"按钮进入设置 8。 • 按"向上"或"向下"箭头按钮以调整到以一分钟为增量的所需时间。最多 10 分钟，最少 3 分钟。出厂默认值为 5 分钟。 压缩机防短循环时间是指压缩机停止和重新启动之间允许的时间量。压缩机的快速启动/停止可能导致过早故障。 **对酒卫来说，不建议设置低于出厂默认值。**
除霜传感器启用/ 禁用		**设置 9** • 按下"设置"按钮进入设置 9。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。 1=启用，零（0）=禁用。
除霜切入温度		**设置 10** • 按下"设置"按钮进入设置 10。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置可由 25 华氏度调节至 40 华氏度。出厂默认值为 39 华氏度。 除霜切入和切出设定点之间须至少有 1 华氏度的差异。

除霜切出温度		**设置 11** • 按下"设置"按钮进入设置 11。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置可由 35 华氏度调节至 50 华氏度。出厂默认值为 40 华氏度。 **注意：该设定点须比设置 10 高出 1°F/°C。** **注意：如果选择了°C，然后切换回°F，则默认切出温度将变为 41°F。**
除霜检查间隔		**设置 12** • 按下"设置"按钮进入设置 12。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置可从 0（零）处的 30 分钟、1 处的 1 小时调整，然后在 1 小时内增加到 12 处的最大值 12 小时。
室温偏差		**设置 13** • 按下"设置"按钮进入设置 13。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。最大设置为+5°F，最小设置为-5°F。出厂默认值为零（0）。 室温偏移将实际显示读数（仅温度）更改为该设置值。 示例：传感器读数 = 55°F (13°C) 设置 15 设置为+4 显示读数 = 59°F (15°C)
相对湿度偏差		**设置 14** • 按下"设置"按钮进入设置 14。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置可将%RH 读数调节为+/-10%。出厂默认值为 0%RH。
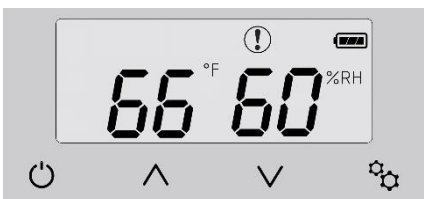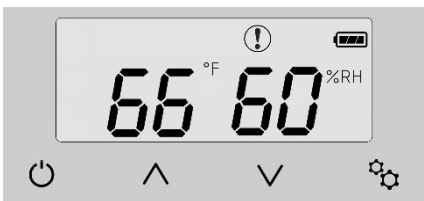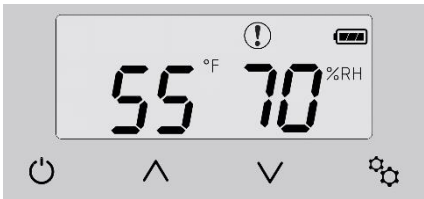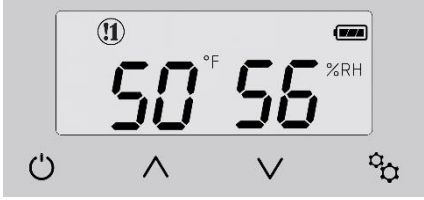
差温调节		**设置 15** • 按下"设置"按钮进入设置 15。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置将系统/压缩机开启温度更改为高于设定值。出厂默认值为 1°F。 示例：传感器读数 = 55°F (13°C) 设置 17 设置为+3°F 系统/压缩机启动温度为 58°F (14°C)
温度死区		**设置 16** • 按下"设置"按钮进入设置 16。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。此设置是加热和冷却设定点之间的最小允许温差。最大为 5°F (3°C)，最小为 1°F (1°C)。出厂默认温度为 2°F (1°C)。
冷凝开关		**设置 17** • 按下"设置"按钮进入设置 17。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。该设置禁用或启用冷凝开关。0（零）为禁用，1 为启用。出厂默认值为 0。
备用		**设置 18&19** 为其他字段备用。
系统类型默认值		**设置 20** 系统设置**请勿更改。**
备用		**设置 21-29** 为其他字段备用。
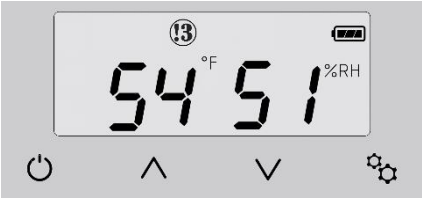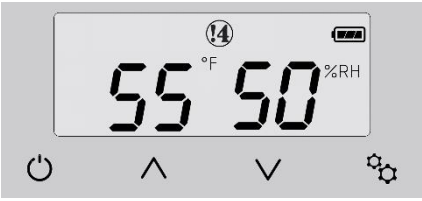
定义远程用户界面		**设置 30** • 按下"设置"按钮进入设置 30。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。 1 = 远程用户界面#1 安装在葡萄酒房间内并启用 2 = 远程用户界面#2 安装在葡萄酒房间内并启用 3 = 远程用户界面#1 已禁用-仅显示，可安装在葡萄酒房间外 4 = 远程用户界面#2 已禁用-仅显示，可安装在葡萄酒房间外
RF 频道选择		**设置 31** • 按下"设置"按钮进入设置 31。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。 各系统要求所有设备均处于同一 RF 频道。 0=RF 禁用 - 系统必须硬连线 1 至 12=RF 启用，且 12 个频道都可用
备用		**设置 32-39** 为其他字段备用。
热敏电阻 1		**设置 40** • 按下"设置"按钮进入设置 40。 无法使用 保留给热敏电阻
热敏电阻 2		**设置 41** • 按下"设置"按钮进入设置 41。 无法使用 保留给热敏电阻

热敏电阻 3		**设置 42** • 按下"设置"按钮进入设置 42。 无法使用 保留给热敏电阻
热敏电阻 4		**设置 43** • 按下"设置"按钮进入设置 43。 无设置调整。 显示除霜传感器温度。
备用		**设置 44-49** 为其他字段备用。
输出测试		**设置 50** • 按下"设置"按钮进入设置 50。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。 使用继电器作为输出测试。 0=禁用 1=启用
备用		**设置 51-69** 为其他字段备用。
默认温度		**设置 70** • 按下"设置"按钮进入设置 70。 无设置调整。 初始温度设定点将在断电时恢复该设置。
默认相对湿度%		**设置 71** • 按下"设置"按钮进入设置 71。 无设置调整。 初始相对湿度设定点。将在断电时恢复该设置。

默认模式		**设置 72** • 按下"设置"按钮进入设置 72。 • 按"向上"或"向下"箭头按钮以调整到所需的设定点。 初始模式设定点。将在断电时恢复该设置。 1=自动 2=冷却 3=加热

警报模式

高温警报 温度值闪烁		温度值持续闪烁，且屏幕上显示（！）符号，直到温度降至高温警报设定点（设置 3）以下。
低温警报 温度值闪烁		温度值持续闪烁，且屏幕上显示（！）符号，直到温度升至低温警报设定点（设置 2）以上。
高湿度警报 湿度值闪烁		湿度值持续闪烁，且屏幕上显示（！）符号，直到湿度降至高湿度警报设定点（设置 5）以下。
低湿度警报 湿度值闪烁		湿度值持续闪烁，且屏幕上显示（！）符号，直到湿度升至低湿度警报设定点（设置 4）以上。
!1 = 高压开关故障		**该警报会迫使系统关闭** (!1)将一直显示在屏幕上，直到高压重置开关被重置。 有关"重置高压开关的说明"，请参阅故障排除指南第 57 页。

!2 = CS （冷凝开关故障）		该警报会迫使系统关闭 (!2)将一直显示在屏幕上，直到 CS（冷凝开关）故障被排除并重置。
	⑫ 54 °F 68 %RH ⏻ ∧ ∨ ⚙	

!3 = 除霜传感器故障		该警报期间，系统会持续工作 除霜传感器短路、断开或开路。 (!3)将一直显示在屏幕上，直到除霜传感器问题被排除。
	⑬ 54 °F 51 %RH ⏻ ∧ ∨ ⚙	

!4 = 通信损耗		该警报期间，系统会持续工作 传感装置与主控板之间的数据传输不良或无数据传输。 "!4"将一直显示在屏幕上，直到重新建立通信。
	⑭ 55 °F 50 %RH ⏻ ∧ ∨ ⚙	

！警告！
每次只能设置一个装置。请确保在配对一个装置时，其他装置的插头未连接，从而保证酒卫装置之间无通信问题

Location of Supply and Return Grilles
供应和回笼格栅位置

Locate the supply and return grilles inside the cellar to create an airflow pattern that maximizes air circulation in the room. Avoid short circulating of the air.

Do Not:
- Install the return air grilles directly on the floor as the grilles will collect dust from the floor.

- Locate the supply or return air grille where it is blocked by bottles, boxes or cases.
- Locate the supply air grille where it blows directly on the thermostat.

酒窖内供应和回笼格栅位置的选择应 最大限度地提高室内空气的流通。避免小范围的空气循环。

禁忌：
- 把回风格栅直接安装在地板上，因为格栅将直接收集地板上的粉尘。
- 供应或回风格栅的位置可能被箱或其他东西所封挡。
- 定位送风格栅的位置直接吹到温控器上。

Relocating a grille on the Wine Guardian 酒卫格栅迁移

1) Remove the fasteners from the grille. 1）松开格栅上的螺丝。
2) Remove the fasteners from the access door panel to be replaced by the grille. 2）松开盖板螺丝（格栅将取代盖板）
3) Relocate the outlet grille to its new location and secure in place using its fasteners. 3）重新定位出口格栅到新的位置，紧固螺丝。
4) Replace the access door panel where grille was located. 4）用盖板盖好原格栅口。

Installing the Ductwork

Use ductwork to connect the unit to the supply and return outlets in the wine cellar. Use only insulated ductwork to minimize cooling loses, prevent sweating, and to reduce noise.

Use ductwork on the condenser section to redirect or absorb sound, to bring in outside air to the unit inlet, and/or to exhaust the hot air out of the ambient space

安装管道系统
用通风管道连接酒窖，应该尽量使用带隔热绝缘的通风管道，以减少冷气流失，防止产生冷凝水，也减少噪音。
冷凝部分（段）使用风管可起定向消声作用，也可以把室外空气送到主机进风口，和/或 将热气排出室内环境空间。

NOTE: Do not exceed a total of 7.5 metres for each length of ductwork run.

注：

每条管道长度不要超过 7.5 米。

Recommended Insulated Flexible Ductwork Sizing Chart						
		Evaporator Coil		Condenser Coil		
Model	Inlet	Single Outlet	Double Outlet	Inlet	Single Outlet	Double Outlet
WG40	200	200	150	200	200	150
WG75	250	250	200	250	250	200
WG100	250	250	200	250	250	200
WG175	300	300	250	300	300	250

⚠ **CAUTION** ⚠
注意
RISK OF DAMAGE TO EQUIPMENT
Avoid crimping the flexible ducts. This chokes down the inside area and reduces the airflow causing the unit to operate erratically.
Be sure all ducts and surface in contact with the airflow are insulated and have a vapor barrier on the outside surface.

Uninsulated ducts and surfaces cause bare exposed metal surfaces to sweat, further degradation of the insulation and a loss of equipment cooling capacity.

注意
损坏设备危险
避免挤压灵活的管道，减少管道内部空间，降低空气流 量，
影响主机运作。
要确保所有的管道和气流接触面绝缘，并且外表面有防潮层。
无绝缘管和表面导致裸露部分的金属表面的水珠 会进一步降低绝缘和冷却设备
的功能。

General Duct Recommendation 一般通风管道的建议

✓ Support the flexible duct often to prevent sags or bends. 灵活管道需多处支撑，防止凹陷和弯曲。

✓ Stretch the duct to make for a smoother interior for less air resistance 伸展管道， 使得内部顺畅，以减少空气阻力。

✓ For a 90 degree bend, insert a metal elbow inside the flexible duct to avoid crimping.
如有用九十度的弯曲，在管道内插入金属弯头，以避免挤压。

✓ Do not squeeze or reduce the inside diameter of the ducts. This restricts the airflow.
不要挤压或降低管道内径。限制了气流。

✓ Use short and straight ductwork.
使用短而直的风管道。

✓ Review the configuration schematic on the Overview Sketch on page 8 for information about which panels are available for duct connections and service.
检讨第 8 页的概述插图，分清哪些盖板是用于通风管连接，哪一个是用于服务盖板。

✓ Remove the panels or grilles from the openings to connect the ductwork.
取出盖板或格栅开口， 连接风管。

✓ Check that all the fan blades move freely.
检查所有风扇叶片自由移动。

✓ Check for loose foreign objects in any of the air paths.
检查通风管道中的任何松动异物。

✓ Connect the round flexible ducts to the Wine Guardian using the duct collars provided with the duct accessory kit.
使用灵活的圆形管道，连接到酒卫提供的管道项圈（附件包内）。

✓ Pull the outer plastic wrapping and insulation away from the end of the duct to expose the reinforced inside duct liner.
推开塑料外包装和绝缘材料，暴露硬质内管。

✓ Use tie straps of clamp around the **inside liner** to fasten the duct collar.
使用尼龙拉带将硬质内管拉紧，固定到管道项圈。

Do not clamp around the outside insulation. It compresses and loosens over time.
避免从绝缘材料外面固定项圈。一段时间后，接口会变松。。

✓ Secure the duct collar to the unit using the screws provided. Be careful not to damage or bend the gasket.

用提供的螺丝固定管道项圈。小心不要损坏或弯曲垫圈。 Not Using Ductwork

不使用通风管道系统

✓ The supply and return grilles stay on the unit if no ductwork is used.
如果不使用通风管道，请保留供应和回笼格栅。

✓ The supply and exhaust grilles may be relocated to any of three openings. (Refer to the manufacturers installation instructions located in the box of flexible ductwork).
✓
供应和排气格栅可以移迁至任何三个开口。（参阅制造商安装指令）。

<u>Using Ductwork</u> 使用通风管道系统

Cold Air to/from Wine Cellar　进出酒窖的冷空气

- ✓ Remove supply air grille or access door panels to install ductwork between the Wine Guardian unit and the cellar.
  移开 供应格栅或服务盖板，安装通风管道连接酒卫主机和酒窖。

- ✓ Connect the supply air ductwork form the cellar to the supply air inlet at the Wine Guardian unit.
  酒窖供应进风口应连接酒卫送风管道口。

- ✓ Connect the return air ductwork from the cellar to the return air inlet at the Wine Guardian unit.
  酒窖回笼管道口应连接酒卫回笼管道进风口。

Warm Air to/from Condenser 冷凝器进出的暖空气

- ✓ Connect ductwork on the condenser to direct heat and the air noise away from occupants.

- ✓ 冷凝器部分安装通风管道，便于热气外排，减低室内噪音
- ✓ Connect ductwork to another space within the basement, a building or to the outdoors if the heat being exhausted is undesirable.
- ✓ 如果废热造成麻烦， 用管道连接到地下室的另一个空间，或排到室外。

Typical Mounting Arrangements 典型安装的安排

下面的插图为安装和安排建议。这些插图并不完整，如需帮助，请致电客户服务部或 00 1 315-452-7434，传真或电子邮件 00 1 315-452-7420（info@wineguardian.com）

The following illustrations are suggested mounting arrangements. These illustrations are not intended to be complete and detailed installation drawings. For questions or help regarding installation, call customer service at or 00 1 315-452-7434, fax 00 1 315-452-7420 or email (info@wineguardian.com) a sketch of the proposed area where the unit is to be installed.

Remote Mount on Floor 地板上的分体支架
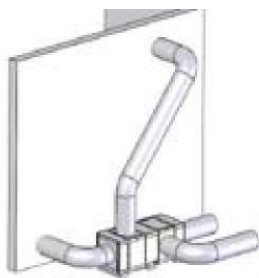
Condenser inlet and exhaust – to outside 压缩机进风口和排风口 – 至外部

Ceiling Mounts 天花板支架
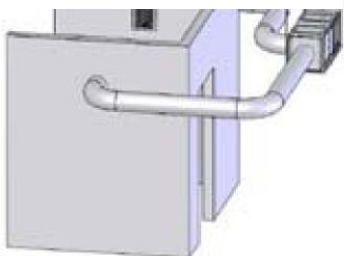
Through-Wall ceiling mount with dual supply 带有双进气口的穿墙天花板支架
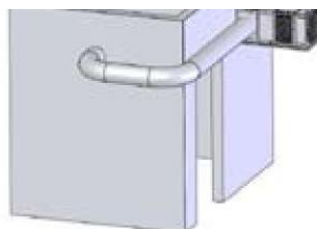
Outside Mounts 外部支架
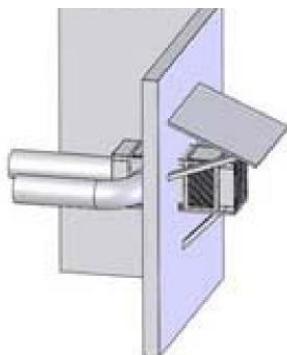
Outside Remote Mount 外部分体支架
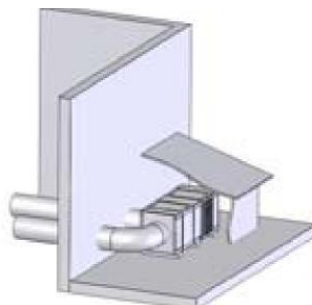
Duct Adapter Sizes

UNIT SIZE	LOCATION	ROUND	OPENING SIZE		FLANGE SIZE	
		DUCT	WIDTH	HEIGHT	WIDTH	HEIGHT
WG40	INLET	202	267	283	295	346
WG40	OUTLET	202	203	283	244	346
WG75/10	INLET	252	346	283	549	346
WG75/10	OUTLET	253	254	283	295	346
WG100	DUAL	202	254	283	295	346
WG175	INLET	303	479	381	549	448
WG175	OUTLET	303	295	381	346	448
WG175	DUAL	252	295	381	346	448

管道适配器尺寸

主机尺寸	位置	圆形	开口尺寸		边缘尺寸	
		管道	宽度	高度	宽度	高度
WG40	进气口	202	267	283	295	346
WG40	排气口	202	203	283	244	346
WG75/10	进气口	252	346	283	549	346
WG75/10	排气口	253	254	283	295	346
WG100	双出口	202	254	283	295	346
WG175	进气口	303	479	381	549	448
WG175	排气口	303	295	381	346	448
WG175	双出口	252	295	381	346	448

Ducting Options 管道选项

Single Outlet Duct Installation 单排气口管道安装
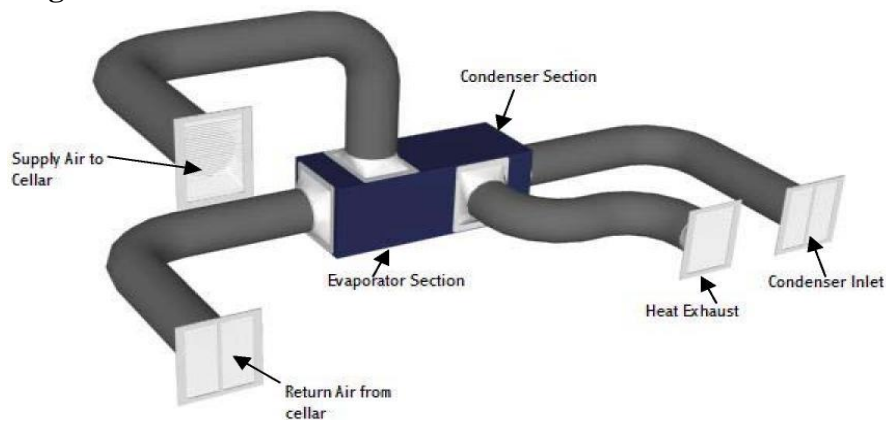
Dual Outlet Duct Installation 双排气口管道安装
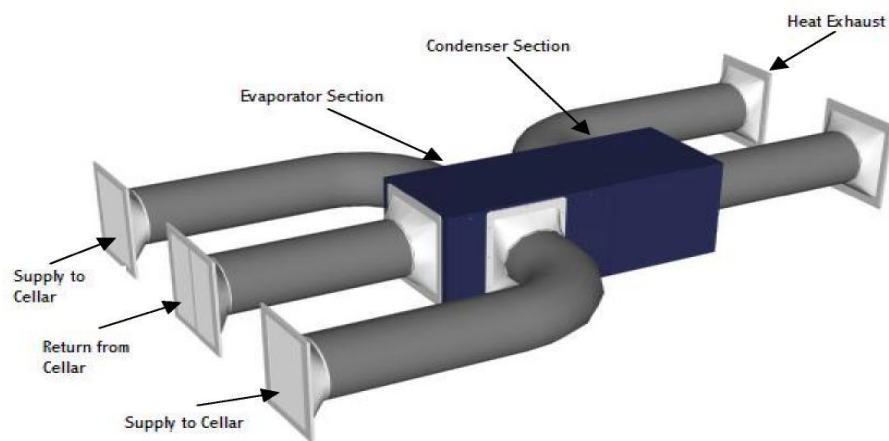
Inspection and Start-up Checklists 检查和启动检查清单

Receiving and Inspecting 接收和检查

☐ Unit received undamaged 完整无损地器材单元接受

☐ Unit received complete as ordered including accessories 收到完整的器材包括附件

Handling and Installing 搬运和安装

☐ Unit mounted on solid level surface 装置安装在坚实平坦的表面

☐ Sufficient space allowed for access to unit and accessories ☐☐Proper electrical service provided 设备周围有足够的空间，电力供应正确

☐ Hot water provided to humidifier 加湿机热水供应

☐ Drain lines and trap installed properly 排水管线和安装正确的陷阱

☐ Ductwork, fittings and grilles installed properly 管道，配件及格栅正确安装

☐ All cold duct surfaces insulated 所有冷风管道表面绝缘

☐ Low ambient control included if freezing condition present ☐☐No obstructions to air   flow to condenser 低温环境控制考虑到冰冻状态，冷凝器空气 流动没有障碍物干扰。

Starting-up the Unit 启动主机

☐ General visual inspection looks good ☐All wiring connections checked 一般目视检查过关☐所有线路连接检查过关

☐ All ducts, grilles and panels in place 通风管道，格栅和盖板全部到位道。

☐ Start unit 启动主机

☐ Check ducts and connections for air leaks 检查管道和连接处空气泄漏

☐ Balance air distribution 平衡空气分布

☐ Confirm condenser airflow is unrestricted 确认冷凝器气流不受限制

☐ Verify cooling and heating operation   检查冷却和加热操作

☐ Check for excessive noise or vibration 检查噪音或震动过大

Starting-up and Operating the Wine Guardian　启动和操作酒卫

Now that the installation is complete, it's time to start the unit up. Check to make sure all ductwork and electrical connections are secure.
安装完成后，就该启动测试了。检查以确保所有管道和电气连接牢固。
Replace all panels which were removed during installation. Check that all of the openings in the unit are covered with a blank panel, a ductwork connection or a grille.

放回所有在安装过程中的去掉的面板。检查确认主机的所有开口都有空白面板，管道连接或格栅覆盖。

⚠️ **CAUTION** ⚠️
Rick of personal injury.
危险警告

Cover all openings of the unit to prevent a hand or finger from access inside the unit.
覆盖主机的所有开口，以防止手或手指伸到设备内部

Turn on the Unit　开动主机

Plug in the unit. Turn-on the rocker switch on the side of the unit. The rocker switch lights up to indicate power to the unit. The unit may not come on right away due to the timer built into the circuiting to prevent short-cycling.
插入电源。开启机器侧面摇杆开关。摇杆开关灯亮，表示电源接通。机器可能不会马上启动，内置定时器以防短路循环。

Testing the Fan　测试风扇

（配置设置 7）
自动风扇运行意味着只有当温控器要求制冷，制热，或选购的湿度调节器是加湿要求。
　Factory default is AUTO FAN operation. You change into setting 7 to change from "AUTO" to "ON. 出厂默认值为自动风扇操作。你可以改变设置 7 从自动更改为"开"模式。

- ON means the fan runs continuously and indicates that the power is on and the control circuit is energized and operating.
- •ON 表示风扇持续地运行，表明该电源开启和控制电路通电正常工作。
- AUTO means the fan runs only when the thermostat is calling for cooling, heating, or the optional humidistat is calling for humidification.
- •自动风扇运行意味着温控器可以满足制冷，制热，或加湿的要求。

Running the Unit 运行酒卫机器系统

√□□□Check unit to confirm the compressor is running, such as the hum of the compressor or cool air leaving the unit. 检查设备确认压缩机运行，比如压缩机的冷却或者机器有冷空气输出。

√ □Check for any unusual noise or vibration, such as clanking or rubbing.

检查是否有任何不寻常的噪音或震动或摩擦，如很大的噪音声响。

Initially, the unit may run continuously for several hours, up to a day or more, while it lowers the cellar temperature. Once the unit reaches the set point temperature, it shuts off and starts to cycle on and off as it continues to lower the bottle temperature to the set point. The cellar air reaches set point before the bottles. If the cellar temperature started at 24°C, the supply air temperature discharged from the unit will probably be 8°C to 11°C colder. As the cellar temperature decrease to 13°C, the supply temperature differential decreases 6 to 7°C colder.

机器第一次运行，设备可能连续运行几个小时，到一天以内，让酒窖温度降低。一旦设备达到设定温度，它会关闭，并开始循环启动和关闭，直至 达到酒瓶设定温度。温度设定点应先达酒窖温度点，后达酒瓶设定温度点。如果酒窖温度开始在 24℃，机器排出送风温度可能是 8°C 至 11°C 左右。当酒窖里的温度下降到 13℃，供应温差可能减小在 6 至 7°C 之间。

Cycling the Unit 机器循环

The fans continue to free-wheel for several minutes when the unit cycles off. This is normal.

If the unit is furnished with a low ambient control, the condenser fan also cycles on and off during cooling. This maintains the head pressure on the compressor under low ambient conditions, and is normal. The bottom of the compressor stays warm even when the unit is off to keep the lubricating oil warm and separated from the refrigerant.

机器关闭以后，风扇继续转动几分钟，这是正常的。

如果本机配有一个低温环境控制选项，冷凝器风扇在制冷过程中也会循环开和关。由此保持低温环境条件下对压缩机头压力，是正常的。压缩机的底部保持温暖，即使是关闭的机器，保持润滑油温暖，保证制冷剂不分离。

Setting the Thermostat 设置温控器

Normal settings are between 12 and 14°C. If the optional heating coil is furnished, enter a separate temperature setting to maintain the lower setting. To prevent the unit from short cycling, the setting between heating and cooling cannot be closer than 2°C.

正常设置是 12 至 14°C。如果主机配有加热选项，请输入一个分开的温度设定，这可以维持较低的设置。的加热线圈的设定在一个分开的温度设定，这可以维持较低的设置。为了避免机器短循环，加热和冷却温度差的设置不能小于 2°C。

Regulating the Wine Cellar Temperature 酒窖温度调节

Wine cellars have a natural temperature gradient of approximately 3°C between floor and ceiling. To increase or decrease the temperature in various zones, change the air flow patterns.

To keep the entire wine cellar at the same temperature, set the thermostat to run the supply fan continuously and not just when the cooling is operating. Set Fan switch to ON instead of AUTO.

酒窖地板和天花板之间有大约 3° C 间自然温度梯度。若要增加或减少各个区的温度，可以改变空气流动模式。

为了保持整个酒窖在同一温度下，设置温控风扇连续运行，而不仅仅是冷却运转。设置风扇为"开"代替"自动模式"。

NOTE 注意 To monitor the Cellar Temperature, place thermometers in various locations in thecellar to monitor the temperature zones. Change the temperature in various zones by shifting the air flow patterns.

为了监测在不同地点，在地窖里的温度，放置温度计
酒窖温度监测区。更改在不同区域温度
空气流动模式转变。

注意

为了监测地窖里的温度，在酒窖温度监测区，不同地点放置温度计。如果要变换不同区域温度，可以改变空气流动模式。

Changing the Air Flow Direction 改变气流方向

The grilles furnished with Wine Guardian are single directional. Rotate the grilles to change the direction of the air flow.

When using multiple supply ductwork balance the air flow between the ductwork. If too much air flows though one duct but not enough air flows from the other duct, install a damper or other restriction into the duct with too much air. That will force more air to flow out the other duct.
酒卫提供的是单向格栅。旋转格栅改变空气流动的方向。
如使用多个供应管道，请掌握管道气流之间的平衡。如果某一管道供气太足，而其它管道气流则不够，供气太足的管道应安装一个管道限制风门，这将迫使更多的空气流向其它的管道里。

Maintenance 维修

General   警告

 WARNING
警告

BEFORE PERFORMING MAINTENANCE ON THE UNIT, READ AND UNDERSTAND THE SAFETY INFORMATION CONTAINED WITHIN THE SAFETY CHAPTER OF THE WINE GUARDIAN MANUAL.

在进行酒卫维护之前，阅读和理解
酒卫安全手册。
危险

DANGER

HIGH VOLTAGE - RISK OF SERIOUS INJURY OR DEATH
High voltages are present in the cabinets. Turn off all power. Use the Lockout/ Tagout procedure before opening panels.

高电压 - 风险的严重伤害或死亡
高电压在橱柜中。关闭所有电源。使用锁定/挂牌程序开放前面板。
警告

 CAUTION
SHARP EDGES
RISK OF SEROUS INJURY
Sharp edges are present on the fan wheels, housing, fins and coils.

Maintenance on Wine Guardian units requires working with high voltage and sheet metal with possible sharp edges. Only qualified personnel should perform maintenance. Some tasks require knowledge of mechanical and electrical methods. Make sure you are familiar with all hazards, general safety related procedures, and safety labels on the unit.

尖锐边角损伤的风险
风机轮毂，外壳，和线圈的尖锐的边角。酒卫的维护需要与高压电工作，板材金属边角可能很锋利。只有合格的人员才可以进行维护。有些任务需要的机械和电器知识。确保你熟悉设备所有的危险，一般安全相关程序和安全标签。

Standing water in drain pans promote microbial growth (mold) that cause unpleasant odors and serious health-related indoor air quality problems. If mold is found, remove it immediately and sanitize that portion of the unit.

The Wine Guardian is designed for minimum maintenance. The refrigerant system is hermetically sealed and requires no maintenance. The fans are permanently lubricated and require no maintenance. Some maintenance to the unit may be required due to dust or dirt in the air stream.

在管道的积水可能促进微生物的生长（霉菌），这导致异味和严重的健康相关的室内空气质量问题。如果发现霉菌，立即清理和消毒发霉的部分。酒卫是专为最简单的维护。制冷系统密封性，密封，无需维护。风扇永久润滑，无需维修。有些部分仅仅因为气流带来的灰尘或污垢可能需要维修。

Cleaning the Filters　清洁过滤网

The evaporator and condenser coils are provided with reusable, washable air filters. The filters protect the coils from becoming coated or plugged by dust. Frequency of cleaning the filters is based on the amount of dust or dirt generated in the cellar or basement.

蒸发器和冷凝器线圈提供了可重复使用，可清洗的空气过滤网。过滤网保护和防止线圈被灰尘覆盖或堵塞。可以根据酒窖或地下室灰尘或污垢产生量来决定滤波器清洗的频率。

1. Remove the grille or duct collar on the inlet end of the unit.

   取下机器入风口端格栅或管道项圈 。

2. Remove the filter covering the face the coil.
   卸下覆盖线圈的过滤网

3. Wash it under warm water.
   用温水洗净

4. Shake off excess water.
   甩掉多余的水

5. Inspect and clean the face of the coil.
   检查和清洁线圈表面

6. Reinstall the filter. 重新安装线圈

7. Replace the grille or duct collar. 重新装上格删和管领

Cleaning the Condensate Drain System   清洁排水系统

The condensate drain system traps dust and dirt. Clean the drain system once a year.
冷凝水排水系统会累积灰尘和污垢。排放系统需要每年清洁一次。

1. Shut off the rocker switch and unplug the unit. 关掉摇杆开关，拔开设备电源线。
Remove the grille or duct on the evaporator inlet. 取下蒸发器上的格栅或通风管道。
Remove the filter and inspect the drain pan under the coil. 取下过滤网，检查线圈下的接水盘。

2. If drain pan appears soiled, pour some hot water mixed with liquid bleach (diluted solution) along the length of the pan to flush the dirt down the drain tube. Continue this treatment until the drain appears clean and free of dirt 如果接水盘有污垢，倒入一些漂白剂（稀释后 ）和热水混合液体 ，冲洗排水管污垢。继续，直到冲洗 干净，无污物 。

3. Reinstall filter and grille or duct collar. 重新安装过滤网，格栅或管道项圈。
7   Plug in the unit and restart. 插上机器并重新启动。

Cleaning the Humidifier (optional)

清洁加湿机（可选）
If the unit was furnished with a humidifier it requires periodic maintenance. Follow the instructions in the humidifier guide.

如果主机带加湿机，该设备也需要定期维护。按照手册中的加湿机说明

Heating Coil Option 加热线圈选项

The heating coil is located between the evaporator coil and blower inside the transition duct. It contains the heating element and high temperature limit switches. The heating coil is wired to

work in conjunction with the thermostat. Since the thermostat prevents the heating and cooling circuits from being energized at the same time, no additional power wiring is needed. We do recommend using the AUTO mode on the thermostat so it can switch from heating to cooling automatically. If using either the heat or cool only mode, the thermostat will **not** switch automatically.

加热线圈位于线圈和内部的蒸发器管道风机的之间。它包含了加热元件和高温限制开关。加热线圈控制线路已连接温控器。由于温控器会阻止的通电加热和冷却同时工作，没有必要连接额外的电源线。我们建议使用温控器的自动模式（AUTO），因此它可以切换自动加热和冷却。如果只使用加热或制冷的唯一模式，调温器不会自动切换。

No additional maintenance is required for the heating coil. To test the heating coil operation, set the thermostat on HEAT and set the temperature above the cellar temperature. The supply air temperature should rise above the return air temperature by an amount shown in the specifications.
加热线圈没有额外的维护要求。为了测试加热线圈操作，在温控器上设置加热（HEAT）并将温度设置高于现有酒窖温度 。送风温度应该升高，温度应超越回风温度。

Low Ambient Option 低温环境选项

The purpose of the Low Ambient Option is to protect the compressor and refrigerant system. It has two distinct components, a crankcase heater to keep the oil in the compressor warm and prevent slugging on system start-up and a head pressure control to cycle the condenser fan on and off automatically to maintain system head pressure.

低温环境选项的目的是保护压缩机和制冷剂系统。它有两个不同的组件，曲轴箱加热器，保持 压缩机油的温暖，防止系统启动时的循环阻塞；另一个为冷凝器头部压力控制， 以控制风扇的起动和关闭，维持系统 头部压力。

To confirm that the system is working, feel the bottom of the heater when the compressor unit has cycled off. When the unit starts, the condenser fan does not start at the same time as the compressor. The condenser fan starts after the head pressure has built up. As the unit is running the condenser fan cycles off and on while it holds the head pressure within a fixed range. The amount of cycling (frequency and duration) depends on the air temperature. The colder the air, the more frequent the cycling and with a longer duration.
为了证实该系统工作正常，可以在循环压缩机组关闭时，用手感觉压缩机底部的加热器。当设备启动时，冷凝器风扇不会在压缩机同一时间开始工作。头部压力建立起来后，冷凝器风扇才启动。由于设备运行后，冷凝器风扇开始开启和关闭周期，维持头部压力在一个固定的范围。循环量（频率和持续时间）取决于空气的温度。寒冷的空气，更频繁的循环和持续时间较长。

Maintenance Schedule 维护时间表

Monthly 每月

(or quarterly depending on experience with individual cellar) （或每季度根据每个地窖的情况而定。

- ✓ Check filter and drain trap – clean if needed. 检查过滤器和疏水器 - 如果需要清洁的话。

- ✓ Check for noise or vibration. 检查噪音或振动。

- ✓ Check for short-cycling of the unit – a turning on and off of the compressor unit more than either (8) times/hour. 检查机器的短循环 - 一压缩机开启和关闭每小时 8 次以上。

Yearly 每年

(in addition to monthly) （除每月）

- ✓ Replace filters if worn or plugged beyond cleaning. 如果过滤网磨损， 清更换。

- ✓ Check evaporator and condenser coils for dirt – use a vacuum with a brush attachment to clean the coils. 检查蒸发器和冷凝器线圈的污垢 - 用毛刷或真空吸尘清洁线圈。

- ✓ Clean condensate pan under the evaporator coil by flushing. Be careful to keep the drain pans clear of any and all debris. 用水冲洗蒸发器冷凝盘管。要小心，以保持排水盘没有任何杂物。

- ✓ Inspect cabinet for corrosion or rusting – clean and paint. 检查机箱 清洁和油漆 - 腐蚀或生锈检查机箱。

- ✓ Inspect for dirt buildup on or inside the unit. Clean unit by vacuuming or wiping it down. 检查主机是否有灰尘堆积。用吸尘器或擦拭清洁设备。
下来。

- ✓ Check for loose insulation, fasteners, gaskets or connections. 检查绝缘材料是否松动，紧固件，垫圈或连接处。

- ✓ Check the wiring connections and integrity or cords.检查连线和电线连接的完整性

- ✓ Examine ducts for any cracks or breach.检查管道的任何裂缝或缺口

- ✓ Check fan and solenoid on humidifier. 检查风扇和加湿器电磁阀

- ✓ Replace humidifier pad (if used). 更换加湿器垫（如果使用过）

Troubleshooting 疑难解答

IMPORTANT 重要

This section is intended as a diagnostic aid only. For detailed repair or parts replacement procedures, contact a qualified service company. Check the following table for some solutions before calling a service technician.

这部分的目的是作为诊断辅助而已。如需详细的维修或更换零件
程序，请联系专业服务公司。在调用服务技术员之前检查一些解决的办法，如下表。

Typical Start-up Problems 典型的启动问题

Possible Cause 可能的原因	Solution 方法
Loose, improper or defective thermostat or humidistat 恒湿或恒温器电线松散，和温控器或湿度调节器	Check power, and thermostat or humidistat cable 检查温控器或湿度调节器电源，电缆
Incorrect thermostat or humidistat (optional) settings 不正确恒湿恒温器（可选）设置	Check the thermostat and optional humidistat setup for the application. Read the thermostat troubleshoot guideline in the Thermostat Installation and Operating Instructions. 常见的问题是没有等待足够长的内部定时器定时延迟完成。这些定时器可以手动覆盖。按照制造商的自动调温器指示。

Changed settings on the thermostat
改变恒温器设置

A common problem is not waiting long enough for the internal timers to complete their timed delay. These timers can be manually overridden. Follow the manufacturer's instructions.

　　常见的问题是没有等待足够长的内部定时器定时延迟完成。这些定时器可以手动覆盖。按照制造商的自动调温器指示。

Unit Does Not Start-up 主机不启动机器

Power Switch Light is Off 电源开关灯不亮

Possible Cause 可能的问题	**Solution** 解决方案
Switch not on 开关没开	Turn on switch 打开开关
No power to outlet 插座无电源插座	Check circuit breaker and wiring 检查断路器
Unit not plugged in 机器没有插上	Plug in the unit 插上机器电源

Power Switch Light is On and the Thermostat Light is Off
电源灯亮起，恒温器灯不亮

Possible Cause 可能的问题	Solution 解决方法
No power to thermostat 恒温器无电源	Check wiring for loose broken or frayed connections 检查接线是否松动，断裂连接 Check transformer for 24v output 检查温控器 24V 变压器输出电压

Power Switch Light is On and the Thermostat Light is On

电源开关指示灯亮起，恒温器灯亮

Possible Cause 可能的问题	**Solution** 解决方法
Thermostat is not set up properly 温控器设置不正确	Check thermostat set up in the guide. 检查温控器设置指南。 Press fan ON switch to check evaporator fan only. 按风扇开关，只检查蒸发器风扇。

Unit is Operating and Blows Evaporator Air, but the Supply Air is Not Colder Than the Return Air from the Cellar

主机工作，吹出蒸发器空气，但气源温度低于地窖里的回风空气

Possible Cause 可能的问题	Solution 解决方法
Thermostat not set up properly 温控器设置不正确	Check thermostat setup in the manufacture's thermostat guide 检查温控器设置指南
Compressor not operating 压缩机不工作	High pressure switch open (button up) 高压开关打开
Condenser airflow is blocked 冷凝器气流受阻	Remove blockage 取除堵塞 Clean filter and coil (if needed) 清洁过滤网和线圈（如需要）
Head Pressure (HP) switch is open 头压力开关打开	Reset HP switch **See reset instructions on page 42** 复位高压卡关。见 42 页。

Problems Controlling Cellar Temperature 酒窖温度控制问题

Problems are occurring even though the unit seems to be fully operational – evaporator fan blows air into the cellar and compressor and condenser fan runs.

主机全面运行，仍然有问题 - 蒸发器风扇向酒窖吹风，压缩机和冷凝器风扇运行

Cellar Temperature too cold (below 11°C) when unit is running
设备运行时，酒窖温度太冷（低于 **11** ° **C**）

Possible Cause 可能的问题	Solution 解决方法
Thermostat set too low on cooling 温控器冷却设置太低，	Reset thermostat to higher cooling temperature 复位并提高温控器冷却温度
Heating coil (optional) not operating 加热线圈（可选）不工作	Check for temperature rise across coil 检查线圈温度上升
Thermostat set too low on heating	Reset thermostat to higher heating temperature

温控器加热设置太低	提高温控器 加热设置
Thermostat not controlling temperature	Wiring integrity compromised (shorted), replace wiring
温控器不控制温度。	接线完整性受损（短路），更换电线

Cellar Temperature is too cold (below 11°C) when unit is not running
设备未运行时，酒窖温度过冷（低于 **11 ° C**）

Possible Cause 可能的问题	Solution 解决方法
Too much heat loss to adjacent spaces	Increase insulation around the ductwork Check and clean filter and coil Coil frozen – shut off unit for two hours
过多的热量损失到相邻的空间	增加通风管道保温绝缘材料，检查和清洁过滤网，线圈。如果线圈冷冻- 关闭主机两个小时。
Cellar loads are too high	Install additional insulation Replace with larger sized unit
需要制冷的酒太多	增加 道保温绝缘材料，换大号主机。

Problems Controlling Cellar Humidity 酒窖湿度控制问题

Humidity too low or supply air is too cold, without optional humidifier
湿度太低或送风太冷，无可选加湿机器

Possible Cause 可能的问题	Solution 解决方法
Not enough evaporator airflow	Remove blockage in supply or return ductwork Check and clean filter and coil Coil frozen – shut off unit for two hours
没有足够的蒸发器气流	清除供应和回风管道堵塞，检查和清洁过滤网，线圈。如果线圈冷冻- 关闭主机两个小时。

Defective Thermal Expansion Valve	If under warranty call for service If not under warranty call a refrigeration technician
热膨胀阀损害	如果在保修期内，申请服务。如果在保修期外， 请联系制冷技师。

Humidity too low, without optional humidifier 湿度太低，无可选加湿机器

Possible Cause 可能的问题	**Solution 解决方法**
No moisture being added to cellar	Add Wine Guardian humidifier or a room humidifier
酒窖没有加湿	添加酒卫加湿机或房间用加湿机器

Humidity too low with optional humidifier 有选项加湿机，湿度太低

Possible Cause 可能的问题	**Solution 解决方法**
Humidifier not operating	Check wiring for loose, broken or frayed connections Check humidistat set up Check for water flow & solenoid valve operation Check damper operation
加湿机不工作	检查接线是否松动，破损或磨损的连接 检查湿度调节设置 检查水流量及电磁阀门的运行 检查风量限制门。
Humidifier operating	Check for water being hot Check drip pad – replace if scaled No vapor barrier around cellar
加湿机工作	检查水是否热 检查滴灌垫 –是否有矿物质集结 酒窖周围没有隔湿屏障

Humidity too high when unit is running but not cooling 主机运行，湿度过高，但不制冷

Possible Cause 可能的问题	**Solution 解决方法**
Compressor not operating	Check and reset high limit switch Clear blockage of condenser airflow

压缩机不工作	检查复位高限位开关 清除冷凝器气流阻塞
Ambient temperature is too high	Reduce temperature or draw condenser air from another space
环境温度过高	降低空气温度 或从另一个空间给冷凝器送风

Humidity too high when the unit is not running 设备未运行，湿度过高

Possible Cause 可能的问题	**Solution** 解决方法
Unit needs to run to dehumidify	Run unit. Seal openings around doors (gasket and sweep)
除湿依靠机器运行封	运行机器，门周围密 （密封垫片）

Humidity too high when unit is running and cooling
设备运行和制冷时，湿度过高

Possible Cause 可能的问题	**Solution** 解决方法
Too much moisture in cellar	Poor vapor barrier installation Humidifier malfunction refer to the humidifier instructions. Add dehumidifier to surrounding space
酒窖里湿气太大	隔湿屏障不好 加湿机故障，参考加湿机指示 周围空间需添加除湿机

Other Miscellaneous Problems 其他杂项问题

Unit operates but the power switch light is not ON 机器运行但指示灯不亮

Possible Cause 可能的问题	**Solution** 解决方法
Bulb is burned out 灯泡烧坏	Replace bulb 更换灯泡

Unit is leaking water 机器漏水

Possible Cause 可能的问题   **Solution 解决方法**

Trap plugged   杂物进入   Clean trap 清除杂物

Condensate pan plugged 凝结水盆堵塞   Remove blockage and clean 清除堵塞物并清
洁
Unit not level 机器不平   Level with shims 垫垫片

Unit is running properly, but the sound of the unit is objectionable 机器运行，但声音不正常

Possible Cause 可能的问题   **Solution 解决方法**

Noise is from airflow   Redirect airflow 重定向气流
声音来自气流   Add baffles 添加挡板
                                                       Add insulated ductwork 增加绝缘管道

Noise is from unit

声音来自机器   Add sound baffle between unit and occupied
                                                       space
                                                       增加声源和机器之间的隔离

High Pressure Switch has Shut the Unit Down 高压开关已将机器关闭

Every Wine Guardian unit has a manual reset high pressure switch in the refrigeration system. This switch shuts the compressor and condenser down if the head pressure in the system is too high. It is intended to protect the compressor. Restricted airflow through the condenser is the most common reason for the pressure to become too high. This can be caused by dust covering the filter or an obstruction blocking the airflow in the duct or grille.

每个酒卫机器有在高压制冷系统手动复位开关。如果系统水头压力过高此开关将关闭压缩机和冷凝器。它的目的是保护压缩机。通过冷凝器的气流受限是压力变得过高的最常见原因。这可能是由于灰尘覆盖过滤器或障碍物阻挡在管道或格栅气流。

Possible Cause 可能的问题   **Solution   解决方法**

Head Pressure in unit is too high because   Remove the obstruction in the duct or grille or
an obstruction is restricting air flow
机器压力过高，由于阻力限制了空气流动

                                                     clean the filter. Then restart the unit after
                                                     resetting the using the high pressure switch.
                                                     移除阻碍物，格栅，或者清洁线圈。然
                                                     后重启机器然后用高压开关复位。

Instructions to Reset High Pressure Switch 重设高压开关说明

✓ Remove the access panel, grille or duct collar at the condenser opening labeled "High Press. Manual Reset Switch ----- "Remove panel or grille to access"

卸下检修面板，格栅或导管，在标有"高压
　。手动复位开关-----"删除面板或服务格栅"

✓ Locate the high pressure switch near the compressor (a cylindrical device piped into the

　refrigeration system with two wires a red button on the top).

找到附近的压缩机高压开关（一圆柱形设备插入管道
　　制冷系统两线，顶部红色的按钮）。

✓ Push in the button until it locks into position.

按下按钮，直到其锁定到位。

✓ Push the rocker switch to restart the unit.

推动摇杆开关重新启动机器。

Advanced Troubleshooting 高级故障排除

IMPORTANT 重要事项

THIS SECTION IS INTENDED FOR QUALIFIED REFRIGERATION SERVICE TECHNICIANS ONLY.
THE TECHNICIAN SHOULD REPEAT ALL OF THE PREVIOUS TROUBLESHOOTING STEPS
BEFORE TAKING ACTION ON THESE MORE TECHNICAL SOLUTIONS.
重要事项
这部分是合格的制冷维修技术顾问。
技术人员应重复把以前的所有疑难解答步骤
在服用于此技术解决方案的行动。

遇到问题是，技术人员应多次尝试以上可能遇到问题的后的解决方法，实在不行，在打客服技术人员电
话。

Evaporator Coil is Freezing 蒸发器线圈冷冻

Solution:

Possible Cause 可能遇到的问题	Solution 解决方法
Charge too low　电量太低	Check sight glass 检查视镜
	Check for leaks 检查是否有泄漏
	Add refrigerant 添加制冷剂

High Pressure Switch Keeps Tripping Even After Checking for Obstructions and Dirty Filters/Coils
即使检查过障碍和较脏的过滤网/线圈，高压开关继续跳闸

Possible Cause 可能 的问题	Solution 解决方法
Condenser fan not operating 冷凝器风扇不工作	Repair or replace 修理或更新

Unit Cycles on and off more than 8 times/hr
主机每小时循环和关闭超过 8 次

Possible Cause 可能遇到的问题	Solution 解决方法
Thermostat malfunctioning 温湿器失灵	Check the thermostat guide for thermostat information 检查恒温器
Low suction pressure　低压	Check low pressure switch 检查低压开关
	Check pressure and adjust superheat 检查压力并调整
过热	

High Pitched or Loud Rubbing Noise, Clanking or Vibration 有高声摩擦，高噪音，高震动

Possible Cause 可能的问题	Solution 解决方法
Fans loose or malfunctioning　风扇松动或出现故障	Repair or replace 修理或更换
Excessive compressor vibration 压缩机过度振动	Replace　更换
TXV malfunctioning　　　TXV 故障	Repair or replace 修理或更换

Replacing the Blowers　更换鼓风机

When replacing the fan or motor, replace the fan and motor as a unit. Do not remove the motor from the impeller wheel.
当更换风扇或电机时，更换组风机和电机作为一整体。不要只叶轮电机的马达。