WINE GUARDIAN®

穿墙式
酒窖制冷系统
安装、运行及维护手册

Through-the-Wall
Wine Cellar Cooling Systems
Installation, Operation and Maintenance Guide

型号：WG15/ WG25
50Hz

Models: WG15 and WG25
50Hz

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该控件已布线，并已在出厂时设置为使用默认设置进行测试。它是一种用于一级冷却的电子数字恒温器。除了根据您的喜好调节酒窖温度外，无需进行其他调节。如果需要进行其他调整或更改，请参阅本手册中的“配置设置”部分 39
Controller Functions 39
开/关–“开/关”按钮将用于打开或关闭系统。当设置为关闭模式时，控制器将不允许任何输出通电以有效锁定系统。在使用 ON / OFF 按钮打开系统之前，不允许任何输出通电。应该注意的是，即使控制系统不允许将其切换到输出，当系统设置为关闭时，主控制板上仍会存在高压。

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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.

词汇表
Directory of Terms

环境空气：酒窖之外区域（如其他房间、地下室、车库或室外等）的空气。
Ambient Air – The surrounding area outside the cellar such as a room, basement, garage or outdoors.

CACLS：立方英尺/秒；经风扇处理的空气的计量单位。
CACLS – Cubic feet per second. A unit of measurement for the amount of air handled by the fan.

冷凝/冷凝水：当温度下降到一定程度时（即露点温度），空气中的水蒸汽即会在管道或冰冷的表面上凝结成汗滴一样的水珠。本设备会将冷凝水收集到蒸发器或冷盘管底部，并通过排水管排出。
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.

冷凝器（排热）部/旋管：冷凝器利用压缩机、冷盘管与风扇将热量从制冷剂排放到酒窖之外的空气中。冷凝器一词指制冷剂从气体到液体状态的冷凝过程。
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.

CE：欧洲质量认证
CE – Certificate of European conformity

废气：由本产品蒸发器或冷凝器排出的气体。
Exhaust Air – The air leaving the evaporator or condenser section of the Wine Guardian unit.

蒸发器（制冷）部/旋管：蒸发器利用冷盘管与风扇将酒窖*内*的热量转移至制冷剂中，以此来冷却空气并将空气中的水蒸汽冷凝。所谓"蒸发"，是指制冷剂会在冷盘管中由液态蒸发为气态。蒸发器与酒窖相连，或直接安装在酒窖之中。

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.

热增量/损耗：在酒窖与其外部空间之间传导的热量，以瓦特计算。本产品须抵消热负荷。

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.

入风：进入本设备蒸发器与冷凝器的空气。
Inlet Air – The air entering the evaporator and condenser sections of the Wine Guardian unit.

NEC：全国电气规范
NEC – National Electrical Code

恢复量：在酒窖升温时（如有人或温酒进入窖内时），该设备将其温度降至预设值所需冷却的热量。

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.

回风：流出酒窖并流回蒸发器旋管的空气。
Return Air - The air leaving the cellar and returning to the inlet of the evaporator coil.

SP：静压。经过风扇的空气的压力，以英寸水柱（In. w.c.）计算。
SP – Static pressure. Unit of measurement (inches of water column) of the pressure of the air handled by the fan.

设定值：在恒温或恒湿器上设定的所需温度或湿度。
Set Point – The desired temperature or humidity set on the thermostat or humidistat.

送风：从蒸发器排气口流入酒窖中的空气。
Supply Air - The air entering the cellar from the discharge of the evaporator coil.

验收及开箱

Receiving, Inspecting and Unpacking the Wine

Guardian System

请注意：Wine Guardian酒窖制冷系统在装运前就已由生产厂家安装并测试完毕。

NOTE: Wine Guardian systems are factory assembled and tested prior to shipment.

Wine Guardian酒窖制冷系统是装在专用瓦楞纸箱中单独装运的，其包装具有保护功能。
Wine Guardian systems are shipped individually in corrugated boxes specially designed to protect the equipment during shipment.

✓ 拆开包装之前，请先仔细检查纸箱上是否有破损或不当处置所留下的痕迹。
✓ Before opening the container, inspect the packing crates or boxes for obvious signs of damage or mishandling.

✓将货物与实物不符之处以及可见损伤填写在提货单上，然后签名。
✓ Write any discrepancy or visual damage on the bill of lading before signing.

✓仔细检查设备，看其是否有运输过程中留下的损伤。
✓ Inspect all equipment for any sign of damage caused during transit.

✓马上将所有可见或隐蔽损伤报告给搬运人，并提出索赔。
✓ Report all visual or concealed damage to the carrier and file a claim immediately.

重要事项：
IMPORTANT:

如果您不遵循本步骤，航运公司可能会拒绝赔偿；而此时一切损失都将由收货人自己承担。请不要将产品寄回生产厂家。
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.

*搬运时请勿接触设备前部塑料片，以防止造成损害。
* DO NOT LIFT THE UNIT UP FROM ITS PLASTIC FRONT PIECES TO AVOID DAMAGING THEM

**搬运时应托举设备下部两端的底座。
**THE UNIT SHOULD BE LIFTED FROM UNDERNEATH ITS BASE AT BOTH ENDS OF THE SYSTEM.

核实装箱单：
Review the Packing Slip to Verify:

✓型号
✓ Model number

✓工厂安装选项
✓ Factory-installed options

✓系统配件
✓ System accessories

如果装箱单内容与您的订单不符，请立即与经销商联系。
If any items listed on the packing slip do not match your order information, contact the place of purchase immediately.

箱内应有：
Check the unit for:

✓一根电源线（已安装在冷凝器侧部）；
✓ An electrical power cord (factory installed on condenser side)

✓ Easy Mount™穿墙式安装固定套筒；
✓ The Easy Mount™ Through-the-Wall mounting sleeve.

✓冷凝器风管卡圈或卡圈组、可选控制组件（如订购）等附件；
✓ Accessories such as condenser air duct collar or duct collar kit, and optional controls, if ordered.

✓ EasyMount™穿墙式安装固定套筒。
✓ The EasyMount™ Through-the-Wall mounting sleeve.

概述

General Description

Wine Guardian穿墙式酒窖冷却系统是一种专业级、可独立使用的控温系统。该设备专为满足储酒温控需要而设计，安装及操作极为简便。本系统使用数字电子控制与R-134a环保制冷剂。所有50Hz Wine Guardian产品均已通过CE认证。产品均附带密封CE认证电源线与插头，可插在该设备的任意一端。Wine Guardian产品均在美国制造。

The Through-the-Wall Wine Guardian cooling system is a professional grade, self-contained climate control system 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. All 50Hz Wine Guardian equipment is CE certified. Each system is factory installed with a sealed, CE-approved power cord and plug that can be mounted on either end of the cooling system. Wine Guardian products are made in the USA.

Wine Guardian穿墙式酒窖制冷系统功能齐备，自带集成式空气冷凝器。从功能上看，本系统可分为两部分：蒸发器/制冷部与冷凝器/排热部。这两个部都带有旋管与风扇。旋管供加热或排热用，而风扇则可通过旋管实现酒窖与外部环境的空气流通。

The Wine Guardian Through-the-Wall system is completely self-contained and includes an integral air cooled condenser. The system 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 our or out of the cellar or adjacent space.

酒窖中的空气首先会进入冷盘管并被管内的制冷剂冷却。此时空气中多余的水汽会冷凝为水珠，积聚在底部的排水盘内，并于流入冷凝水排水管时在设备内部蒸发。空气随后进入风扇，受压后排出系统。本设备上的恒温器会自动启动或暂停制冷，以保证酒窖温度维持在预设值。如果您订购了远程接口控制器，也可以实现遥控操作。

Air from the cellar first 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 internally evaporates as it comes in contact with the integral condensate removal coil. Air then enters the fan where it is pressured and discharged out of the system. The thermostat, located on the system, or through the optional remote interface controller, turns the cooling on and off as needed to maintain its set point.

系统制冷时就会启动压缩机与冷凝器。酒窖外界的空气通过冷凝器风扇、流过冷凝旋管并吸收管内制冷剂中的热量后，再由冷凝器风扇排出系统，经管道流向外界或通过可选冷凝管组件流到其他地方。

The compressor and condenser section are activated whenever the system is cooling. The condenser fan draws air from the surrounding or ambient space. The airflows through the condenser coil where it absorbs heat from the refrigerant in the coil. The air is finally discharged out of the

system by the condenser fan, and can be ducted outside or to an unused space by an optional condenser
duct kit.

由冷凝器风扇排出的空气的温度比进入风扇的空气高20华氏度左右。
THE AIR EXHAUST FORM THE CONDENSER FAN IS WARM AND CAN BE 20 DEGREES F ABOVE THE ENTERING AIR TEMPERATURE.

控制系统

Wine Guardian Controls

Wine Guardian酒窖制冷设备采用了数字电子控制系统，可通过多种方式来监控酒窖的温度与湿度。其控制系统由主控制板、本地用户界面、远程用户界面以及远程温湿度感应器四个组件构成。而本产品只需使用主控制板与本地/远程用户界面之一即可正常工作。用户也可根据自己的需要自定义控制功能（请参考下文关于控制板与可选感应器的说明）。

Wine Guardian's digital electronic control series offers a versatile solution for controlling and monitoring your wine cellar temperature and humidity. This series consists of four controls; a main control board; a local user interface; a remote user interface; and a remote temperature and humidity sensor. The system only required the use of the main control board and one of the user interfaces (local or remote) to function. However, users have the following options to customize the control capabilities for their application: (See pg. 8 for description of control boards and optional sensors).

本产品的数字电子控制系统可控制压缩机、冷凝器风扇、蒸发器风扇与增湿器（可选）的运行。其压力监控开关还配有干接点报警信号输出单元，在压力开关发生故障、温/湿度过高或过低时即会发出警告。本地与远程用户界面使用菜单驱动，操作极为方便，只需按下控制台上的模式按钮5秒钟即可启动菜单。进入菜单之后，用户可通过模式按钮与上下箭头来更改设置，可自定义的选项包括：温度单位（°F/°C）、高/低温湿度警报触发点、压缩机抗短路周期延时（1到10分钟）、传感器平均读数、启用/禁用除霜功能、键盘锁密码（可选）、差动/死区调整、室温校准、启用/禁用加湿器、风扇自动或连续运转设定等。如欲退出菜单，只需再次按模式按钮5秒即可（如果您在10秒钟内未做出任何操作，系统将自动保存设定并退出菜单）。两种用户界面中都设有开/关（ON/OFF）按钮，供开关设备使用。

The Wine Guardian's digital electronic controls are designed to control the operation of the compressor, condenser fan, evaporator fan, and optional humidifier. There also is pressure switch monitoring with a dry contact alarm output that will energize in the event of a pressure switch fault or a high/low temperature or humidity alarm. The local and remote user interface controls employ user-friendly, menu-driven programming features that can easily be accessed by holding the mode button on the control for five seconds. Once in the program menu, the user can scroll through the setting by pressing the mode button and can adjust each setting by using the up and down arrows. The programming mode allows the user to customize features such as °F or °C temperature scale, high/low temperature and humidity alarm set points, an adjustable 0-10 minute compressor anti-short cycle delay, sensor averaging options, enable or disable the defrost feature, an optional keypad lockout code, differential and dead band adjustments, room temperature calibration, enable or disable the humidifier, and automatic or continuous fan option. To exit the programming mode the user may either hold the mode button for 5 seconds, or the control will automatically store the settings and exit the programming mode after 10 seconds of inactivity. Each user interface control will also employ an ON/OFF button that turns the system on or off respectively.

控制系统

Wine Guardian Controls

主控制板：管理开关功能及输入与输出界面。主控制板可与本地或远程用户界面以及远程温/湿度感应器连接。
Main Control: Performs all switching functions and interfaces with inputs and outputs. It can connect to local or remote user interface, as well as remote temperature/humidity sensor.

本地用户界面将用户设置报给主控制板，而后者则将警告信号及温湿度读数反馈给本地用户界面。
Two way communications: local user interface reports settings back to main control, main control
energizes outputs and reports alarms and temp/humidity readings to local user interface.

双向通信：远程用户界面将用户设置报给主控制板，而后者则将警告信号及温湿度读数反馈给远程用户界面
Two way communications: remote user interface reports settings back to main control, main control energizes outputs and reports alarms and temp/humidity readings to remote user interface.

单向通信：远程温/湿度感应器将温湿度读数报给主控制板。
One way communication: remote temp/humidity sensor reports temp and humidity readings to main control.

远程用户界面：配合主控制板进行远程设定调整、读取温湿度读数以及故障代码等。
Remote User Interface: Can be with Main Control for adjusting settings, reading temp/humidity, and reading fault codes in a remote location away from the unit.
temperature/humidity sensor.

本地用户界面：配合主控制板进行设定调整、读取温湿度读数及故障代码等。
Local User Interface: Can be used with Main Control for adjusting settings, reading temp/humidity, and reading fault codes at the unit.

温/湿度感应器：配合主控制板报告酒窖内温/湿度，无需在酒窖内安装任何用户界面。
Temperature/Humidity Sensor: Can be used in conjunction with the Main Control to report temp/humidity from inside the wine cellar without requiring a user interface to be located inside the wine cellar

标准规格

Standard Specifications

请注意
产品设计与规格可能会有所调整，恕不另行通知。

IMPORTANT
Design and specifications are subject to change without notice

Wine Guardian 酒窖制冷系统组件包括：
The Wine Guardian System Contains

✓用以将制冷器导入蒸发器旋管的毛细管网
✓ A capillary tube expansion to control the flow of refrigeration into the evaporator coil

✓一台可保证制冷剂不受杂质污染的过滤干燥机
✓ A filter dryer to keep the refrigerant clean and free of contaminants

✓两只蒸发器及压缩机塑料送风/回风网格
✓ Dual factory mounted plastic supply/return air grilles for evaporator and condenser air movement

✓用以将冷空气导入酒窖的活动式进气百叶窗（出厂时已安装好）
✓ Movable supply air louvers for side-to-side directing of cold air into the wine cellar

✓安装在冷凝器排气口处的高压开关，可为压缩机提供高压保护。开关需手动重置。
✓ A manually reset, high-pressure switch on the condenser discharge to protect the compressor from high pressures

✓R-134a环保型制冷剂
✓ Environmentally friendly R-134a refrigerant

✓内置/外置数字电子控制系统，用户可对其进行多种设定
✓ An internally/externally mounted digital electronic control with many user-controlled settings

✓安置在设备冷凝器端的辅助排水接口
✓ Auxiliary drain port connection at condenser end of unit

设备外部框架以厚度为0.063英寸的铝板制成，均经亚光处理，可防尘防腐蚀。所有旋管及铜管均附有铝质翅片。蒸发器带有“E”涂层，可避免过早腐蚀。多余水汽将在设备内部处理，不会再次进入酒窖。设备压缩机端设有辅助排水接口，供人工排水使用。
All exterior framing of the Wine Guardian is powder coated, 0.063" gauge aluminum to prevent rust and corrosion. All coils are copper tubes with aluminum fins. The evaporator is coated with an “E” coat finish to prevent premature corrosion. The system uses an internal drain system to remove excess moisture and does not reintroduce it back into the cellar. An auxiliary drain port is located at the condenser end of the unit should there be a need to physically remove the excessive moisture.

标准配备下，每台设备均接有经测试的数字电子恒温器（本地用户界面）；您也可以选择订购安装远程恒温器（远程用户界面）。恒温器有控制风扇与系统运行、制冷（如有所需设备）及保湿等功能。
Each system is provided with a pre-wired and tested electronic digital thermostat (local user interface) as standard, or an optional remote mounted thermostat (remote user interface) in the wine cellar. The thermostat has multiple control functions for the fan, operation, cooling (if equipped), and maintaining humidity.

本品采用永久密封的往复式压缩机，有自动润滑、内部过载保护功能。厂家提供至少一年保修，您也可以选择五年保修。压缩机安装在具有减噪减震功能的抗剪橡胶隔离器上。
Compressors are self-lubricating, permanently sealed, hermetic reciprocating type compressors, with internal overload protection and capacity 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.

产品自带电源线及插头。电源线接在酒窖端或设备冷凝器端均可；包装时插头已插在冷凝器端。设备配有24伏内部变压器。
Electric power is supplied by a single, factory-furnished cord and plug that can be connected on the cellar side or the condenser side of the unit. Units are shipped from the factory with a plug attached on the condenser side. All controls are 24-volt supplied from an internal transformer.

配件及可选设备

Accessories and Optional Equipment

安装套筒
Installation Sleeve

每台Wine Guardian设备均配有EasyMount™安装固定套筒，供将本品以穿墙方式安装在预定地点使用。本套筒为系统提供必要支持，同时也为安装提供了极大方便。墙洞最大宽度为386毫米，最大高度为413毫米。

Each Wine Guardian system includes an EasyMount™ installation sleeve to be used in the mounting of the system through-the-wall at the desired location. The sleeve is essential for the proper support of the Wine Guardian system and ease of installation. The maximum dimensions of the wall opening should be 386mm wide by 413mm high.

为保证系统正常运行（可顺利排水，且不会产生过大的噪音及震动），套筒须与墙洞平行，且将其两侧稳固地固定在墙柱上。请见第32页。

For proper operation of the system, including drainage and undue noise and vibration, the Installation Sleeve must be mounted level within the wall cutout and securely fastened to the wall studs on either side of the sleeve as shown on page 18.

延长压缩机保修期
Extended Compressor Warranty

Wine Guardian采用的是市面上最好的压缩器。但考虑到压缩机是本设备中最为昂贵的组件，因此建议您付费将其保修期延长至5年。

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 system, it is recommended that you purchase the extended, five-year warranty option.

风管卡圈接合器
Duct Collar Adapter

您可以选择使用风管卡圈组将暖空气导出该设备。本套组包含1只风管卡圈、15英尺6英寸长的圆形柔韧管道系统以及2条绑带（供连接管路与风管卡圈使用）。该套组不包含远端点或室外接头。

An optional duct collar kit is available for ease in directing the warm condenser air away from the through-the-wall unit mounting. The kit includes one (1) duct collar, 15-feet of 6-inches round flexible ductwork and two (2) tie wraps for connection of the ductwork to the duct collar. The kit does not include connections at the tie-in point to the remote location or outdoors.

远程温度I湿度控制器
Remote Temperature/Humidity Controller

远程温/湿度控制器（远程用户界面）专为用户进行远程操作而设计。本控制器可安装在距本设备较远的酒窖内，作为远程感应器/控制器使用；也可直接安装在酒窖外部作为远程指示器使用（无需安装感应器）。该远程界面控制器功能强大，配有温/湿度背光显示屏，用户可进行设定操作。

The remote temperature/humidity controller (Remote Interface Controller) is intended to provide a means for user interface at a remote location. The controller can be used as a remote sensor/controller mounted within the wine cellar remote from the Through-the-Wall system. The controller can also be used as a remote indicator (without sensor) mounted directly outside of the wine cellar of the residence or building. The Remote Interface Controller includes a backlit face for temperature and humidity indication along with controller set-up and operational functions.

远程温度I湿度感应器
Remote Temperature/Humidity Sensor

远程温/湿度感应器用于检测酒窖内一处或多处的温度与湿度，配合远程界面控制器或Wine Guardian穿墙式酒窖制冷系统自带的本地界面控制器使用。系统将算出多个读数的平均值，并将酒窖温/湿度控制在某一特定值上。该传感器不具备温/湿度读数显示功能，且必须安装在酒窖之内。

The remote temperature/humidity sensor is intended to provide a means of sensing one or more locations within the wine cellar ands designed to work in conjunction with the Remote Interface Controller or Local Interface Controller integral to the Wine Guardian Through-the-Wall system. Multiple sensor readings are averaged and controlled to a single point. The sensors do not have any temperature or humidity indication and must be mounted within the wine cellar.

加湿器
Humidity Option

您也可以选择订购并安装独立式加湿器，使本系统更加完整。该加湿器可通过喷水盘喷出水蒸汽达到自动增湿的效果。

An optional stand-alone humidifier comes fully assembled and tested for field installation. It automatically adds moisture into the cellar by the evaporation of water over a distribution pad.

第36-39页已列出安装要点。

See page 27 for key installation information.

连接加湿器：*您可以将加湿器低压接口连接至本制冷系统在酒窖内的控制面板上。该加湿器线路已预置完毕，本制冷系统可通过它来调节酒窖内的湿度。*

Humidifier Connection*: You can locate the low voltage connection for field optional remote humidifier on side of control panel on the wine cellar side of the WG cooling unit. The optional humidifier comes pre-wired to fit directly to this connection for the WG unit to control cellar humidity level desired*

服务温度选项: 出厂配置的服务温度选项使 Wine Guardian 装置可以控制从 42°F 到 64°F（5°C-18°C）的扩展温度范围。非常适合单柜到多柜的应用以及小型酒室，在这些酒室中，首选采用消耗温度的冷却方式。它还允许用户轮流调配葡萄酒储备并根据季节更改设置点，使其非常适用于餐厅，酒吧，俱乐部等。

Serving Temperature Option
The factory configured serving-temperature option allows a Wine Guardian unit to control to an extended temperature range from 42° F to 64° F (5°C - 18°C). Perfect for single to multiple cabinet applications and small wine rooms in which consumption-temperature cooling is preferred. It also allows the user to rotate wine stock and change the set point from season to season, making it ideal for restaurants, wine bars, clubs, etc.

Wine Guardian 酒窖制冷系统概观
Overview of the Wine Guardian Unit

请参考第 22 页的图示
Refer to illustrations on page 10

机箱：本品采用经亚光处理的防腐蚀铝质机箱，造型优美，便于维护。温度较低的部分附有隔离层，防止冷凝作用。
Cabinet – The cabinet is 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.

冷凝部：外界空气将通过永久润滑的直驱机动风扇在冷凝器部循环。压缩机与电子控制系统也安置在这里。
Condensing Section - Ambient air is circulated through the condenser section by a direct drive, permanently lubricated, motorized impeller blower. This section also contains t he compressor and the electrical controls.

蒸发器部：酒窖空气将通过永久润滑的直驱机动风扇在蒸发器部循环。蒸发器旋管表面积较大，可有效减少冷凝水残留和空气压降、优化热传导效果。旋管下方配有铝质防尘防腐蚀排水盘，用于收集冷凝水。
Evaporator Section – Wine cellar air is circulated through the evaporator section by a direct drive, permanently or lubricated motorized impeller blower. 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.

电子控制系统：所有电子控制固件都与设备内部或外部组件相连，其连接方式与电话线类似。连接控制固件时无需打开底座。其内部线路均符合国家电气规范（National Electrical Code）。各种电线的编号与颜色均与布线图相符。
Electrical Controls –All solid state electronic controls are connected internally and/or externally through a phone cord-type connection. There is no need to open the chassis to access the factory mounted and wired control. All internal wiring is in accordance with the National Electrical Code. Wires are numbered and color coded to match the wiring diagrams.

出厂检测：每台 Wine Guardian 产品在出厂时，其性能都已经过严格检测。
Factory Tested – All Wine Guardian units are factory run-tested and checked for operational performance.

内部排水系统：蒸发器旋管内的冷凝水将通过冷凝水排出系统（位于设备的冷凝器端），流入排水盘。您无需安装其他设备来收集冷凝水。

Internal Drain – Condensate from the evaporator coil is directed to the condensate removal system at the condenser end of the unit. This allows the drain pan to drain freely. No external trap is required.

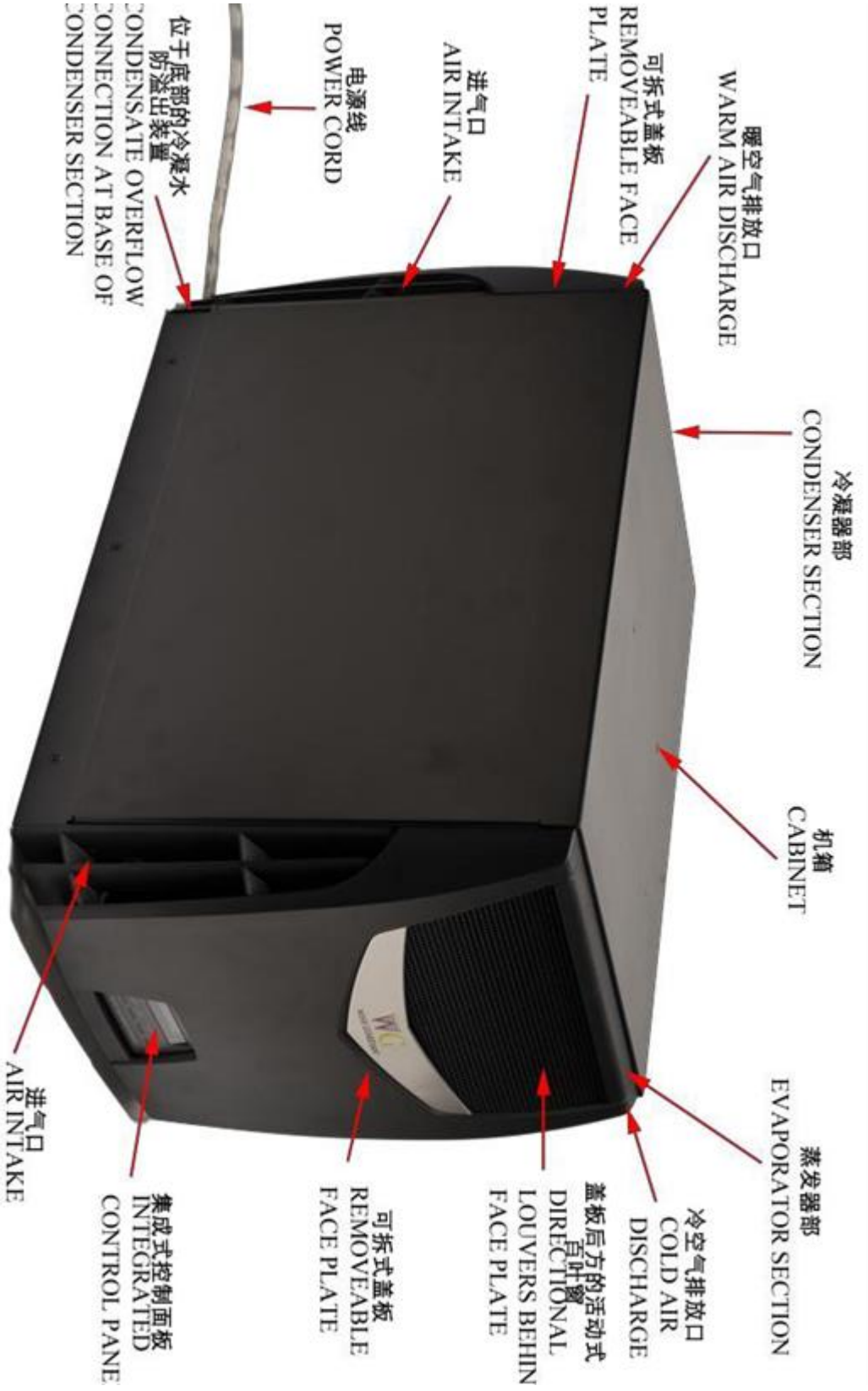
制冷剂回路：由生产厂家安装的制冷剂回路由毛细管网、过滤干燥器以及手动重置式高压开关组成。请见第 22 页的图示。
Refrigerant Circuit – The factory-charged circuit includes a capillary tube expansion device, a filter dryer, and a manual reset high pressure switch. **See Refrigeration Illustration on page 10.**

送风/回风网格：网格由坚固的 ABS 塑料制成，已由厂家安装完毕，固定在底座上。空气将通过设备两侧及底部送入，并由前部排出。
Supply/return grilles – These are made of rugged ABS plastic and factory mounted to automatically seal to the chassis. Air is introduced through the sides and bottom and discharged through the front perforated section.

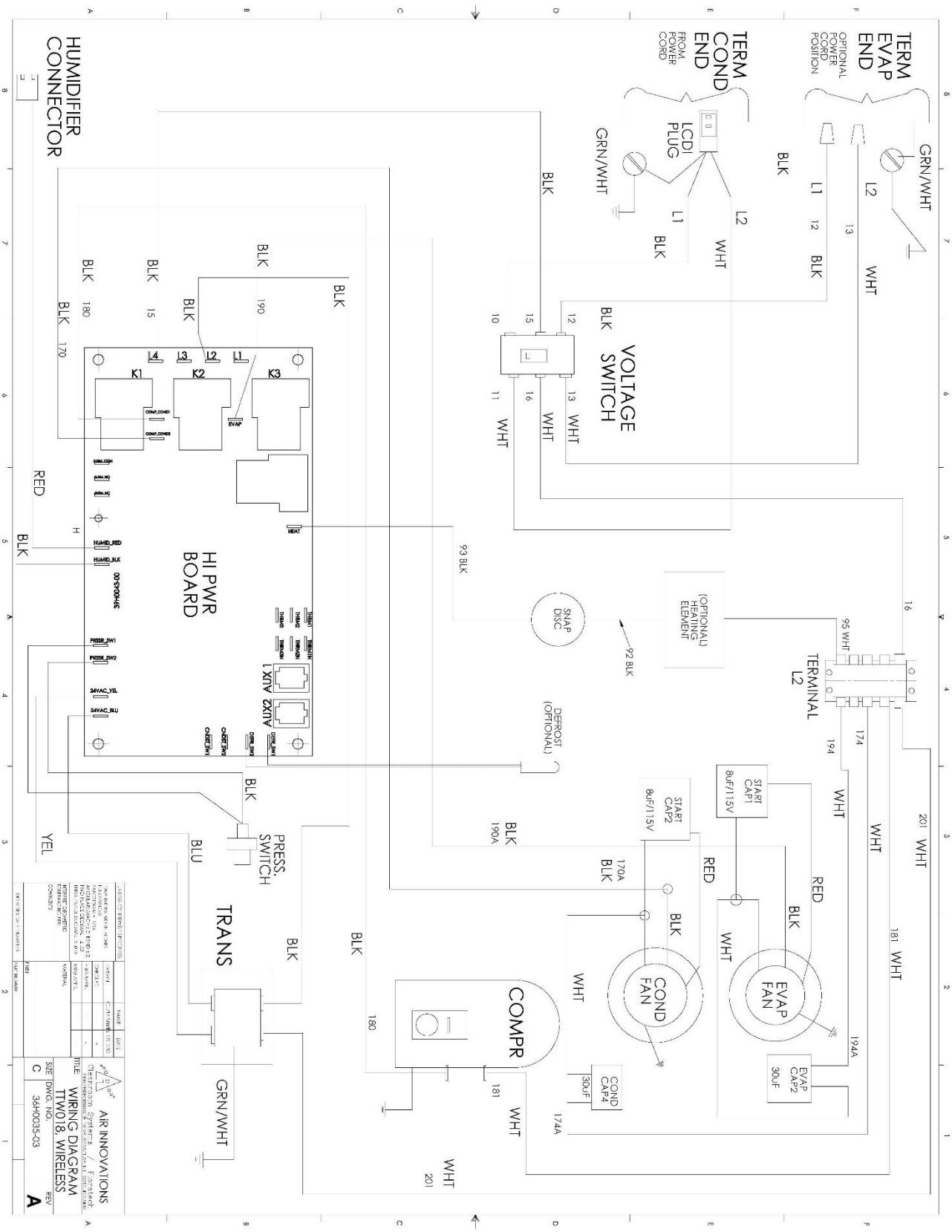
活动式百叶窗：蒸发器送气口处安装有两扇活动式百叶窗，在拆除酒窖一面的盖板后即可看到。您可以通过手动调节百叶窗来决定空气流向。在本设备安装在酒窖角落中时，冷空气也可通过百叶窗直接到达房间中心。

Directional Louvers – Two directional louvers are located within the evaporator supply air dis- charge opening on the Wine Guardian unit and can be accessed by removal of the wine cellar side faceplate. The louvers are designed to be manually adjusted to direct air flow from side-to- side or straight on. The louvers can help direct cold air into the center of the wine cellar should the Through-the-Wall unit be mounted in a corner of the room.

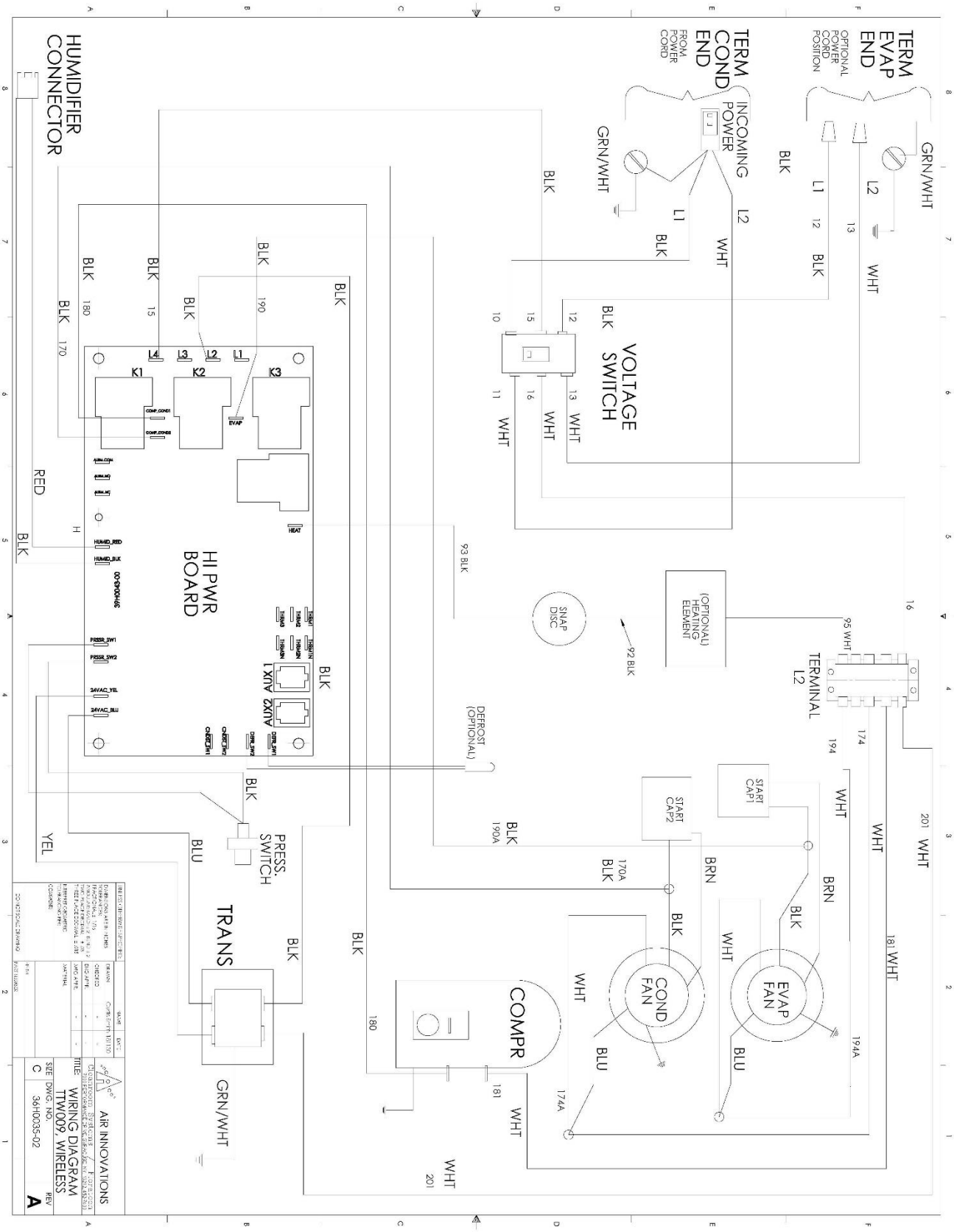
产品概观
Overview



TTW018 and WG25



TTW009 and WG15



安全须知

Safety

建议您在安装维护Wine Guardian系统之前：
The following is suggested before installing or maintaining the Wine Guardian System:

1) 仔细阅读本手册
1) Read these instructions

2) 将本手册妥善保管
2) Keep these instructions

3) 留意所有警告信息
3) Heed all warnings

4) 按照本手册的说明进行操作
4) Follow all instructions

安全讯息简介
Safety Message Conventions

本手册中的安全信息分为“危险”、“警告”与“注意”几种，均以红色粗体字显示，十分醒目。
Safety messages contained in this manual, DANGER, WARNING, and CAUTION are bold and highlighted in red for quick identification.

危险
Danger

“**危险**”讯息提示您，如果不避免某种情况的发生，可能就会由此而引发严重伤亡事故。在本手册中，只有最为严重的状况才标有“危险”标记。

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

高压电：可造成死亡或严重身体伤害。
机箱内存在高压电。
请在打开机箱之前关闭所有电源
请按照隔离锁定步骤打开机箱

警告
Warning

“**警告**”讯息提示您，如果不避免某种情况的发生，可能就会由此引发伤亡或身体伤害。

A **WARNING** message indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

本手册中的“警告”讯息如下例所示：
Following is a typical example of a **WARNING** message as it could appear in the manual:

警告

擅自改装本设备可能会对使用者身体
或本产品造成损害。

WARNING

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

隔离锁定程序

Lockout/Tagout Procedure

1) 使用本地界面控制器关闭本设备（显示屏将显示系统已关闭）。
1) Turn the system to off at the local interface controller (the display will indicate the system is off).

2) 拔掉设备电源插头，盖好插座，以防电源意外接通。
2) Unplug the unit from the electrical outlet and cover the outlet to prevent accidently plugging in the system.

安全原则
Safety Considerations

如严格按照本手册的说明来安装与操作，即可保证本设备的安全性与可靠性。为防止在安装或使用本设备时造成人身伤害、设备损坏或财产损失，请让有经验的专业人员通过正确判断与安全手段进行安装及专业技术操作。见下方的警示声明。

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.

该设备的安装与维护必须由熟悉当地法规且熟悉本类设备的专业人员来完成。
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.

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).

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）。

安全隐患
Safety Hazards

只有专业维护人员才可在存在安全隐患的区域活动。维护时请务必遵循本章列明的隔离锁定步骤。请仔细阅读本手册的维护安全指南部分。

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

请注意

本系统为电气设备。在使用本设备时请务必严格遵循本手册所列明的安全步骤。

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.

触电危险
Electrical Hazards

本设备高压电可能会造成生命危险，请务必留意，并仔细阅读设备上的警示标签。

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 system.

电击危险
Electrical Shock Hazards

请在安装或维护本设备之前切断所有电源（有时可能涉及多个电源），防止因电击而造成伤亡。

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.

高温零件
Hot Parts Hazards

请在维护设备之前将所有电阻加热元件（如有）取下。为防止电热设备自动启动起火，请在进行维护之前切断所有电源电路。

Electric Resistance heating elements (if equipped) must be disconnected prior to servicing. Electric heaters may start automatically, disconnect all power and control circuits prior to servicing the system to avoid burns.

运动机件
Moving Parts Hazards

发动机与鼓风机须在打开盖板之前与设备断开。否则发动机可能或自动启动。为防止造成人身伤害，请在进行维护之前切断所有电源电路。

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.

风扇可能会在断电后继续转动。请在风扇完全停转后再进行维护操作，以避免割伤。

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

Wine Guardian设备中还安装有**旋转叶轮**。用手接触加电状态下的叶轮，可能会造成重伤。请在维护本部分时严格遵循隔离锁定步骤、拔掉电源。

Rotating Fan Blades are present in the Wine Guardian system. 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.

设备安全联动锁
Equipment Safety Interlocks

系统内并没有安装电气安全锁。请在维护电子系统之前切断控制盒电源。

There are no electrical safety lockouts installed within the system. 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.

开关装置
On/Off Switch

欲切断系统内部高压电，请务必拔出电源线。

To shut down all high volt power internally, the power cord must be removed from power outlet.

电源类型 **EnergyType**	电压 **Voltage**

危险 .....可致电死、电伤或休克

Hazard .....Electrocution, electrical burns and shock

电量..... 230伏，50赫兹单相交流电

Magnitude ..... 230 Vac, 1 phase, 50 cycles

控制方法.....关闭开关并切断电源

Control Method..... Disconnect power cord and On/Off Switch

危险

- 请不要在风扇转动时将手探入设备。
- 请不要将设备置于雨中或潮湿环境中，以防止起火或漏电。

DANGER

- **Never** reach into the system while the fan is running.
- **Avoid** risk of fire or electric shock. **Do not** expose the system to **rain** or **moisture**.

警告

- 支撑体必须能够完全支撑该设备重量以及额外恒载与活载。
- 支撑体必须符合当地法规规定。
- 请勿在风扇完全静止之前打开盖板。叶轮转动产生的压力可能会压紧盖板。
- 在切断电源后，叶轮还会继续转动一段时间。

WARNING

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

注意

CAUTION

- 请不要堵塞送风口与回风口。请依照本手册说明安装设备。
- **Do not** block any supply or return air opening. Install in accordance with the instructions in the Wine Guardian manual.

- 请勿踩踏或挤压电源线。其插头、插座以及与设备的连接处更需特别留意。

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

- 只可使用生产厂家指定的组件与配件。
- **Only** use attachments/accessories specified by the manufacturer.

- 本设备只能使用220/240V 、50Hz单相交流电。
- **Always** operate this equipment from a 220/240Vac, 1 phase 50Hz power sources only.

- 请务必采用接地保护，防止电涌与静电造成损坏（请参考《国家电气规范》（National Electric Code）第810款）。
- **Always ground the outlet** to provide adequate protections against voltage surges and built-up static charges (see Section 810 of the National Electric Code).

- 请让有资历的专业人员来进行维修工作。设备在发生以下状况时必须予以维修：
- **Refer all servicing to qualified service personnel.** Servicing is required when the system has been damaged in any way, such as:

  ✓电源线或电源插头损坏
  ✓ Power supply cord or plug is damaged

  ✓漏液或有异物进入系统
  ✓ Liquid has been spilled or objects have fallen into the system

  ✓系统进水或受潮
  ✓ The system has been exposed to rain or moisture

  ✓系统运转不正常
  ✓ The system does not operate normally

  ✓设备摔坏
  ✓ The system has been dropped

安装

Installation

注意
请注意不要被锐边割伤

CAUTION
SHARP EDGES
RISK OF SERIOUS INJURY

Wine Guardian 某些组件的边缘十分锋利
Sharp edges are present inside the Wine Guardian system.

安装前测试

Pre-installation Test

请在安装前测试本设备，看是否存在因装运造成的隐性损坏。
Test the system before installing it to check for non-visible shipping damage.

欲测试系统，请：
To test the system:

✓将设备置于地面或坚固的水平表面上
✓ Set the system on the floor or a sturdy level surface

✓接通电源
✓ Plug in the system

✓按下开关。指示灯亮起即表示系统已加电。
✓ Press the on/off switch, control illuminates. This indicates the system has power.

✓机内计时器可防止短循环与突然启动。在室温高于预设点时，系统会自动启动并运行。几分钟后，冷空气即会从设备蒸发器部流出，而热空气则会从冷凝器部流出。请留意是否有异常噪音或震动。
✓ **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.

空气流动图示

Air Flow Illustration

⚠警告⚠

⚠WARNING⚠

防止造成人身伤害或系统损坏

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT

改装系统可能会造成人身伤害或系统损坏

Modification to the equipment may cause injury or damage to the equipment.

⚠危险⚠

⚠DANGER⚠

本设备十分沉重。请将其置于地面或可完全支撑其重量的坚固水平表面上。

✓ **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.**

✓请勿改装本设备，否则即违反了保修规定，也可能会造成设备损坏。

✓ **Do not modify the equipment, it may cause damage to the equipment and voids the warranty.**

✓请不要在设备顶部放置任何物品。

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

✓请不要堵塞或遮蔽其送风口及进气口。

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

✓请勿踩踏或挤压电源线。

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

✓请勿使用破损电源线或乱接电线。

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

✓请勿擅自接续电缆。

✓ **Do not use extension cords.**

✓避免插座过载。

✓ **Never overload wall outlets.**

✓在尚未关闭系统、切断电源之前，请勿拆卸或打开盖板。

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

✓请使用本型号设备专用插座，以满足其对插座负载能力与相关配置的要求。

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

注意

CAUTION

小心造成人身伤害或系统损坏

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT

安装不当可能会造成系统故障或产生安全隐患。请在安装本设备之前仔细阅读安装说明。

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

准备安装

Planning the Installation

所需工具
Tools required

钻头/十字螺丝头
Drill/Phillips head

水平仪
Level

墙柱探测器
Stud finder

卷尺
Tape measure

角尺
Square

墙用螺丝
Drywall screws

聚氨酯嵌缝膏
Urethane caulk

手锯
Hand saw

干式墙用锯
Drywall saw

坚固美工刀
Heavy duty
Snap knife

✓应当把设备安装在哪里？*可将其水平安装在支架或酒窖的墙壁上。*

✓ Where to locate the unit? *It can be mounted flush with the racking or flush with the wall on the wine cellar side.*

✓如何安装设备？*使用本品附带的EasyMount™固定套筒。*

✓ How to mount the unit? *A mounting EasyMount™ kit is supplied.*

✓请将本设备置于电源插座附近。**请勿接续电线！**

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

✓出厂时电源线接在本设备的冷凝器端。*建议您只在必要时将电源线移至面向酒窖的一端。*

✓ Factory supplied power cord on condenser side of the unit. *It is preferred to be on the condenser side of the unit, the cord can be moved to accommodate wine cellar side if need be.*

✓如果您需要将冷凝器排出的废气引出，*请另行订购所需组件。*

✓ Does the condenser heat exhaust need to be ducted away? *An optional kit is available.*

使用远程界面控制器时，应当把恒温器安装在哪？

✓ Where to locate the thermostat, if remote interface control is ordered?

恒温器应当安装在酒窖墙体中部，请保证空气流通。

Thermostat should be located midpoint on a wall within the wine cellar and provide sufficient access and exposure to airflow.

✓怎样安装排水系统？*请将冷凝水引至地漏、容器或冷凝水泵中。*

✓ How to install the drain line. *Run to an open floor drain, container, or condensate pump.*

✓安装还需要什么？*固定套筒、垫圈、密封紧固件。*

✓ Are all the parts here to complete the installation? *Installation sleeve, gasket, sealant fasteners*

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

✓检查断路器规格是否与产品标牌相符。

✓ Check for the properly sized breaker as dictated by the system rating plate data.

安置设备
Locating the System

为方便使用，Wine Guardian设备应安装在与使用者视线平行的地方。同时其冷凝器端还会排出暖空气，考虑到这一点，可将其置于机房隔壁或外墙附近，这样暖空气即可被引至4.5米的高空。在电线移除以后，请务必拧紧冷凝器端黑色与白色引线上的接线螺帽。

Wine Guardian systems are typically installed at the user's eye level for ease of operation. The Through-the-Wall system discharges warm air from its condenser end so this should be considered when determining the location for the system. Locating the system adjacent to a mechanical room or in close proximity to an exterior wall may be required if ducting the warm condenser air is being considered. The warmer condenser air can be ducted up to 4.5 meters away. Be sure to install wire nuts onto the black and white wire leads at the condenser end, once the cord is removed.

接入电源线
Power Cord Location

前面已经介绍过，设备出厂时电源线即已插在冷凝器端上。如果您为方便起见，要将其移至酒窖一端，请拆下3根引线（其中包括地线），将引线及其接头移至另外一端，并用螺帽将黑色与白色电线接在系统自带的引线上。电线需经修剪及剥皮处理。最后将地线引线插入支架上的孔内，拧紧即可。

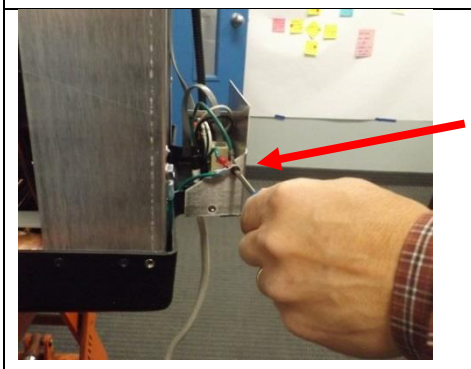
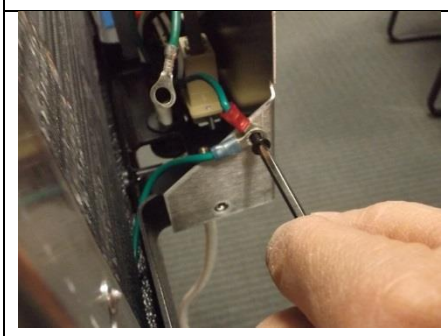
As previously noted, the power cord is factory wired on the condenser side of the system. If you require the cord on the wine cellar side for plugging into an available outlet, this can be accomplished by removing the 3-wire leads (ground included) and moving the cord with connector to the opposite side control bracket and wire nutting the black and white wires to the factory supplied leads. The wires must have the terminations cut off and stripped first. Then screw the ground lead to the hole supplied in the control bracket.

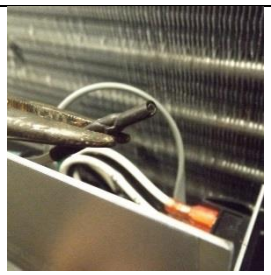
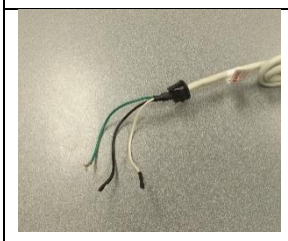
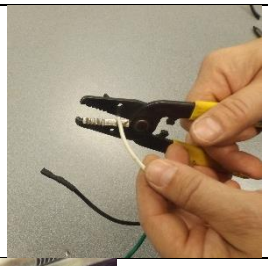
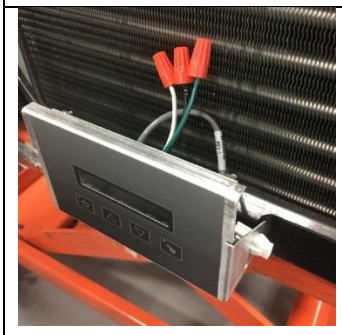
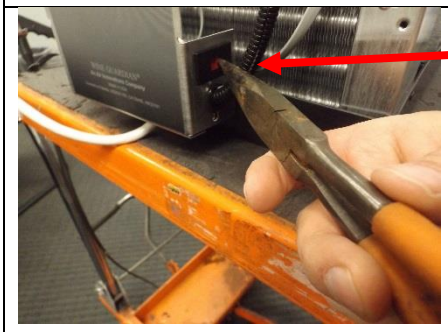
请务必将红色的电压开关拨到与原来相反的位置，使内功率从冷凝器端转移到面向酒窖的一端（请见图示）。

You must then move the red voltage switch in the opposite direction as from the factory to move the internal power from the condenser side to the wine cellar side. (See Illustrations on the following page)

重新安置电源线

Relocating the power cord

	1.卸下**每个盖板底部的两个螺**钉，从设备两端卸下面板。向下拉每个盖板，使其脱离本机。 1. Remove Face Plates from both ends of unit by removing two screws at the base of each cover. Pull each cover down and away from unit.
	2.如图所示，在设备的冷凝器端（暖风侧）从机箱上拧下接地片，并拔下连接到电源线的绿线。 2. At the condenser end (warm air side) of the unit unscrew the ground lug from chassis and remove the green wire connected to the power cord as shown.
	3.如图所示，将接地片重新连接到机箱上，并确保另外两根绿色的接地线已固定并重新连接到机箱上。 3. Re-attach the ground lug onto the chassis and ensure the other two green ground wires are secure and attached back onto the chassis as shown.
	4.使用钳子或平头螺丝刀推入将电源线固定在机箱支架内的索环侧面的卡舌。下拉电源线以从支架上松开。可以旋转电源线，以便更轻松地访问标签 4. Use pliers or flat blade screw driver to push in the tab on the side of the grommet that holds the power cord within the chassis bracket. Pull down on power cord to release from bracket. Power cord can be rotated for easier access to tab.

	5.如图所示，断开黑色和白色电线与支架背面的电源控制开关的连接。 5. Disconnect the black and white wires from the power control switch at the back of the bracket as shown.
 	6.切断并剥去电源线末端的黑色，白色和绿色电线。 6. Cut and strip the Black, White and Green wires at the end of the power cord.
	7.在设备的蒸发器一侧（酒室一侧），将黑色，白色和绿色电线从电源线穿过支架底部的孔向上插入，直到索环卡入到位。 7. At the evaporator side (wine room side) of the unit feed the Black, White and Green wires from the power cord up through the hole in the bottom of the bracket until grommet snaps into place.
	8.在设备的酒室一侧，将每根电源线连接到各自的底盘上。即白色到白色，黑色到黑色和绿色到绿色。使用机箱电线上随附的电线螺母完成安装。 8. At the wine room side of the unit, attach each power cord wire to their respective chassis wire. i.e. white to white, black to black and green to green. Use wire nuts supplied on chassis wires to complete the installation.
	9.在设备的冷凝器端（暖风侧），将电源控制开关滑到相反的位置，以将功率从冷凝器端移到酒室端。 9. At the condenser end of the unit (warm air side) slide the power control switch to the opposite position to move power from the condenser end to the wine room end.

	10.重新安装单元两端的面板。 10.Reinstall face plates at both ends of the unit.

网格
Grilles

出厂时网格已安装在本设备上，保证正常的空气流通，使系统能够发挥最佳性能。

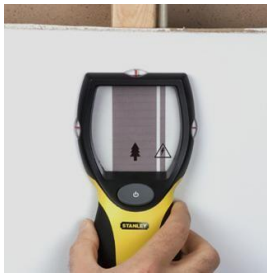
Factory supplied and installed for proper air intake and discharge for optimal system performance.

安装系统
Mounting the System

请依照以下步骤安装Wine Guardian穿墙式酒窖制冷系统。

Follow the steps below for installation of the Wine Guardian Through-the-Wall unit.

第1步
Step 1



找到墙柱的位置、安装设备。若酒窖内外的墙壁均铺有石膏板，那么这一步就尤为重要。请使用优质墙柱探测器找到酒窖墙壁墙柱的中心与边缘，做好记号后进行第2步。

Find wall stud locations. If both wine cellar side and finished basement side of walls have drywall already installed it is important to locate the wall studs in the area chosen to mount the Through-the-Wall system. Use of any high quality stud finder is recommended for locating the center and edges of the wall studs on the wine cellar wall. Once located, the stud edges should be clearly marked prior to following Step 2 below.

第2步
Step 2

打好墙洞以放置固定套筒。计算出墙洞的尺寸之后，在酒窖内外的墙上做好记号。请注意，设备的安装高度最好与人眼齐平；控制板也应在人所能及的范围之内。墙洞宽度与高度分别不得超过368毫米与413毫米，无需改动螺栓位置。

Preparing wall penetration for Installation Sleeve. Mark the penetration dimensions on the wall (wine cellar and finished basement side) at the desired mounting location for the Wine Guardian Through-the-Wall unit. Keep in mind the ideal height should be at eye level to the user. The unit controls should be reachable upon installation completion. The wall penetration should be no more than 368mm wide by 413mm high stud-to- stud dimension so modifying stud locations is not required.

⚠注意⚠

⚠CAUTION⚠

小心造成人身或伤害或设备损坏
RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT

请确定所选墙体内外没有铺设电线或管道，否则可能会造成财产损失或人身伤害。如果墙内存在电线或管路，请立即停止安装，并让专业电工或管道工来为电线/管道改道，或者另选地点安装设备。

Ensure that the area chosen does not have electrical or plumbing interference within the wall or along the outside of the wall. Failure to do so could cause property damage or personal injury. If the wall does include electrical wiring or plumbing DO NOT CONTINUE. Contact a qualified electrician or plumber to relocate these services or choose an alternate location for mounting the WG system.

第三步
Step 3

将EasyMount™套筒插入墙洞，使其折边卡在墙面上。在确定套筒的水平/垂直程度之后，用螺栓将其固定在墙上。
Slide the EasyMount™ sleeve through the wall penetration so that the flanged area of the sleeve sits flush with the surface of the wall. Ensure the EasyMount™ sleeve is level and plumb prior to fastening to the existing studs

新设计的 EasyMount™套筒

New Design EasyMount™ Sleeve

新型设计的 EasyMount 套筒通过左侧的两侧的四（4）个孔固定。

The new design EasyMount sleeve is fastened through the four (4) holes located on either side as shown on left.

请注意
为保证设备正常工作，套筒需水平安装，否则可能会导致排水不畅、设备固定不牢或产生震动与噪音。

IMPORTANT
The Installation Sleeve must be installed level within the wall opening to provide proper operation of the Wine Guardian system. Failure to do so may result in improper drainage, excessive ware, vibration and noise.

注意

CAUTION

小心造成人身伤害或设备损坏

RISK OF PERSONAL INJURY OR DAMAGE TO EQUIPMENT

套筒折边必须固定在墙面上，这样才能保证本设备与之齐平。

Flange side of the sleeve must be mounted on side of wall you intend to have the WG flush mounted.

第4步
Step 4

将EasyMount™套筒固定在墙柱上（套筒每边已有6个钻孔）。首先将木螺丝插入下方的孔内，将其拧牢；随后为上方与中间的钻孔拧上螺丝。螺丝不能拧歪，也不要拧得太紧。

Fasten the EasyMount™ sleeve to the wall studs through the six (6) pre- drilled holes located on either side of the EasyMount™ sleeve. Start by inserting a wood screw into the lower pre-drilled holes on both sides of the sleeve, and tighten until snug. Do not over tighten. Then insert screws into the upper pre-drilled holes on both sides of the sleeve, continue to middle set of holes. Ensure screws are flush with wall sleeve inside surface. Do not over tighten.

第5步
Step 5

将酒卫穿墙式制冷系统插入EasyMount™套筒内，插入深度由您自己决定。请保证先让不带电源线的一端进入套筒，将设备安置在适当位置。

Slide the Wine Guardian Through-the-Wall system through the EasyMount™ sleeve to the desired depth. Please note the Through-the-Wall system must be slid so that the power cord side is last, not first, to enter the sleeve. Do not slide the system past the desired flush mounting point.

第6步
Step 6

用嵌缝膏填满EasyMount™套筒与本设备边缘之间的空隙，防止设备左右滑动。随后将绝缘胶带贴在设备底座与套筒折边上，防止液体渗出。

Seal joint between EasyMount™ sleeve and Wine Guardian system on the flange side of system with a latex caulk to ensure a tight seal and prevent the system from horizontal movement. After caulking, add the kit supplied self adhesive insulate strips tight to the chassis and cover the wall sleeve flanges to prevent possible sweating

安装冷凝水防溢出装置
Installing the Condensate Overflow

空调系统会自然而然地产生冷凝水。酒窖最佳湿度应在55% RH与70% RH之间，Wine Guardian冷盘管是以此为标准而设计的。如果酒窖防潮层质量不佳、地下室或其周围环境过于潮湿，那么冷盘管所产生的冷凝水会很多。冷凝水将积聚在排水盘中，最后将流向压缩机下方的冷凝水排出系统。Wine Guardian制冷系统在冷凝器端盖板下方设有辅助排水接口。如果您发现系统产生的冷凝水过多，请按照以下步骤接好排水管。

Condensate generation is a natural by-product of air conditioning systems. The Wine Guardian cooling coils are designed with the understanding that optimal wine cellar humidity levels are between 55% RH and 70% RH. If the vapor barrier of the wine cellar is poorly constructed or excessive moisture is in the basement or surrounding area then the cooling coil may generate excessive amounts of moisture. The condensate will appear in the form of water at the cooling coil drain pan and eventually will travel to the condensate removal system located below the compressor. The Wine Guardian system features an auxiliary drainport connection located at the condenser end of the system directly below the plastic face plate. In the event there is excessive moisture we recommend connecting the drainport as indicated on the following page.

安装排水管
Installing the Drain Line

- ✓排水管应当从本设备通向下水道，其内径不得小于6. 35毫米。
- ✓ The drain line must extend from the system to an external drain or disposal site. Do not use drain tubing any smaller than 6.35mm inside dimension on the system.
- ✓如果酒窖内没有地漏，用水桶接水也可。排水管不得伸入水桶边缘。注意及时倒水。
- ✓ If no floor drain is available, use a bucket. Do not extend the drain below the rim of the bucket. Empty the bucket periodically.

请保证排水管高度。如向附近水池排水，系统需安置在水池上方，这样才能利用重力排水。排水管内径至少应为6.35毫米。 “配件及可选设备”一节有关于冷凝泵的说明。

Allow enough height for the drain line to function properly. If draining into a nearby sink, the system must be elevated higher than the rim of the sink in order for the water to drain by gravity. Install with a 6.35mm per linear foot of pitch. See Accessories and Optional Equipment section for information about the condensate pump.

使用存水弯
Priming the Drain Trap

设备运行一段时间以及系统停止运转后，存水弯中会有积水，积水速度由排水管滴水速度决定。

The internal drain trap primes itself automatically once the unit has run for a period of time and after the system cycles off. This is confirmed by water dripping from the drain.

为系统加电
Wiring the System for Power

警告

WARNING

小 心 触 电

ELECTRICAL SHOCK HAZARD

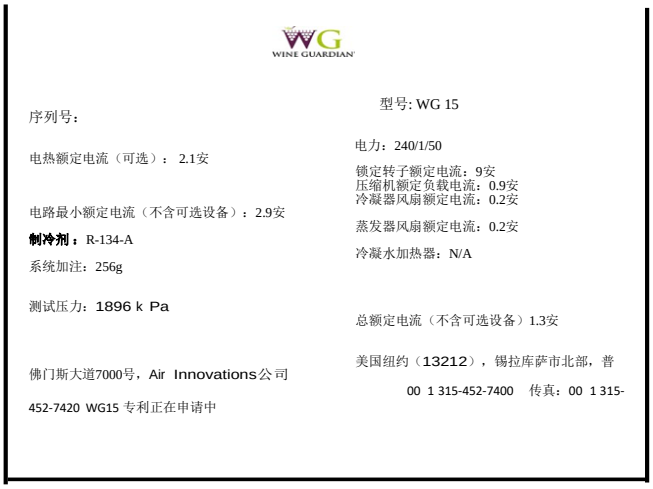
插座与布线必须符合国家及本地建筑规定。
The electrical outlet and wiring installation must meet the national and local building codes.

请务必
DO:

✓选择与Wine Guardian设备插头相符的插座。
✓ Match the electrical outlet to the plug provided on the Wine Guardian.

✓为本设备使用专用线路。
✓ Provide dedicated circuit and wiring for the system.

✓保证线路与断路器规格与产品标牌相符。如下例所示。
✓ Match the wiring and breaker size to the rated load as shown on the serial plate and in this guide. See sample serial plate illustration below.



Model No. WG15		Serial No.	
Electrical	240/1/50	Electric Heat Amps (Opt.)	2.1
Locked Rotor Amps	9		
Compressor RLA	0.9		
Condenser Fan Amps	0.2	Min. Circuit Amps (w/o opt.)	2.9
Evaporator Fan Amps	0.2	**Refrigerant**	R-134-A
Condensate Heater	N/A	System Charge	256 g
Total Unit Amps (w/o opt.)	1.3	Test Pressure	1896 k Pa

请勿：
DO NOT:

以任何方式改装插头
DO NOT MODIFY THE PLUGS IN ANY WAY!
或接续电线！
Do not use extension cords.

请注意
请按照系统要求使用 240 伏、50Hz 单相交流电。实际电源情况与此标准差额不得超过 4%，否则系统可能会损坏。

IMPORTANT
The electrical power supply must be 240 volt AC 1 phase 50 cycle, depending on the model of the system, and cannot vary more than +/- 4% or damage may occur to the unit.

将本设备插头插入插座。轻轻晃动插头，保证其已插牢。
Plug the system into the wall outlet. Gently pull on the plug to make sure it is tight.

电器插头配置仅60Hz型号
Electrical Plug Configuration 60Hz Models Only

为了符合 UL STD 484，该系统包含工厂提供的 LCDI（漏电检测断流器）电源线，该电源线指定单相便携式空调装置包含保护装置，以减少电源线中发生电弧故障的风险。这些提供了可靠的方法来防止由于电源线损坏而引起火灾的危险。它们具有电子检测功能，可在系统电源线中检测到电流泄漏情况时自动切断设备电源

To comply with the UL STD 484 this system contains a factory supplied LCDI (leakage current detection interrupter) power cord, which specifies that single phase portable air conditioning units contain a protection device to reduce the risk of an arc fault occurring in the power cord. These provide a reliable way to prevent the risk of fire due to a damaged power cord. They feature electronic detection to automatically cut off power to the unit when a current leakage condition is detected in the systems power cord.

电器插头配置 50Hz 仅限型号
Electrical Plug Configuration 50Hz Models Only

这是出厂时为欧洲应用提供的插头的配置。更换此插头以替代电源需要工厂批准。 LCDI（泄漏电流检测断路器）电源线，它指定单相便携式空调装置包含一个保护装置，以减少电源线中发生电弧故障的风险。这些提供了可靠的方法来防止由于电源线损坏而引起火灾的危险。它们具有电子检测功能，可在系统电源线中检测到电流泄漏情况时自动切断设备电源。

This is the configuration of the factory supplied plug for European applications. Alterations to this plug for alternative power sources would require factory approval. LCDI (leakage current detection interrupter) power cord, which specifies that single phase portable air conditioning units contain a protection device to reduce the risk of an arc fault occurring in the power cord. These provide a reliable way to prevent the risk of fire due to a damaged power cord. They feature electronic detection to automatically cut off power to the unit when a current leakage condition is detected in the systems power cord.

一旦电源关闭，在解决不安全电流泄漏情况之前，将无法复位设备。通过电源线电源头上的“重置”按钮恢复电源。

Once power is shut off, the device will not be able to be reset until the unsafe current leakage situation is resolve. Power is restored by the “reset” button on the cord’s power head.

Starting-up and Operating the Wine Guardian

控制设定

Control Settings

该控件已布线，并已在出厂时设置为使用默认设置进行测试。它是一种用于一级冷却的电子数字恒温器。除了根据您的喜好调节酒窖温度外，无需进行其他调节。如果需要进行其他调整或更改，请参阅本手册中的“配置设置”部分

The control has been wired and set up in the factory for testing with default settings. It is an electronic digital thermostat for one-stage cooling. No additional adjustments should be necessary except adjusting the cellar temperature to your preference. If additional adjustments or changes are necessary, please refer to the configuration settings section in this manual.

控制器功能

Controller Functions

开/关–“开/关”按钮将用于打开或关闭系统。当设置为关闭模式时，控制器将不允许任何输出通电以有效锁定系统。在使用 ON / OFF 按钮打开系统之前，不允许任何输出通电。应该注意的是，即使控制系统不允许将其切换到输出，当系统设置为关闭时，主控制板上仍会存在高压。

ON/OFF – The ON/OFF button will be used to turn the system on or off. When set to the off mode the control will not allow any of the outputs to energize effectively locking the system out. It will not allow any outputs to energize until the system is turned on with the ON/OFF button. It should be noted that high voltage will still be present at the main control board when the system is set to off even though the control will not allow it to switch to the outputs.

向上箭头-向上箭头将允许用户增加设置。

UP Arrow – The UP arrow will allow the user to increase settings.

向下箭头–向下箭头将允许用户减少设置

DOWN Arrow – The DOWN arrow will allow the user to decrease settings.

设置–设置按钮将用于在加热，冷却和自动模式之间进行选择，以及输入配置设置。按住 **SETTINGS** 按钮 **5** 秒钟将进入配置模式。进入配置模式后，用户可以通过按 **UP** 或 **DOWN**

箭头来调整设置。一次按**"**设置**"**按钮将进入下一个配置设置。在配置模式下按住 **SETTINGS** 按钮 **5** 秒钟将存储所有更改并退出配置模式。

SETTINGS – The setting button will be used to select between HEAT, COOL and AUTO MODE, as well as entering the configuration settings. Holding the SETTINGS button for 5 seconds will enter configuration mode. Once in configuration mode the user can adjust settings by pressing the UP or DOWN arrows. Pressing the SETTINGS button once will advance to the next configuration settings. Holding the SETTINGS button for 5 seconds while in configuration mode will store all changes and exit configuration mode.

仅用于制冷操作：60Hz 型号的冷却出厂设置为 55°F，50Hz 型号的冷却设置为 13°C。可以通过按 UP 或 DOWN 箭头更改此设置，但是与高温警报设置和低温警报设置相比，请参考配置设置 2 和 3，以了解限制。

For cooling operation only: Cooling for **60Hz models** is set at 55°F from the factory and 13°C for **50Hz models**. This can be changed by hitting the UP or DOWN arrow, but please refer to configuration settings # 2 and # 3 for limitations in comparison to the High and Low temperature alarm settings.

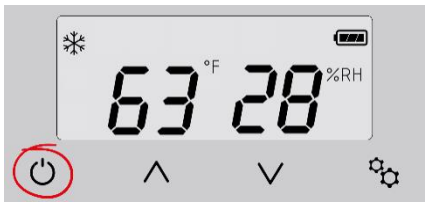
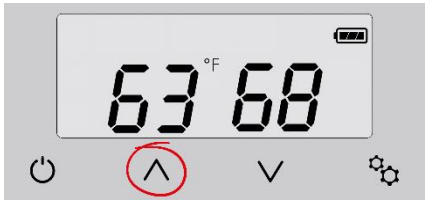
对于带有由 TTW WG 控制的可选加湿器的设备：RH％出厂设置为 55％。可以通过参考配置设置 6 来更改此设置。如果未连接加湿器，则控件将读取 RH％，但不会对其进行控制。

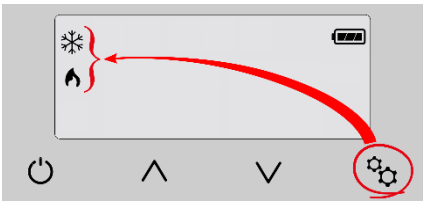
For units with optional humidifier controlled by TTW WG: The RH% is factory set at 55%. This can be changed by referring to configurations setting # 6. If no humidifier is attached, the control will read RH%, but will not be controlling it.

更改风扇操作：出厂默认设置为" AUTO"风扇。如果需要，可以通过访问配置设置＃7 将其更改为"打开"风扇。

Changing fan operation: The default setting from the factory is "AUTO" fan. If desired it can be changed to fan "ON" by accessing configuration setting # 7.

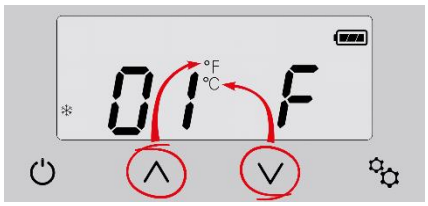
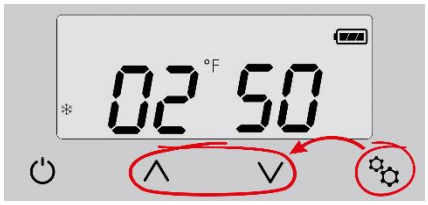
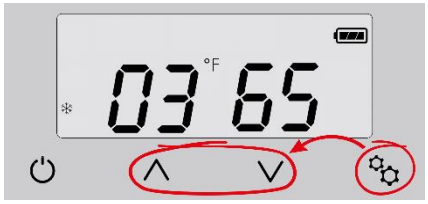
标准控制器功能

如何：		
打开/关闭系统 **Turn system on/off**		• 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。** Press the “On/Off” button once. Note: There is a five (5) minute time delay before the system turns on or turns off.
变更温度 **Change temperature**		• 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。 • Press the “Up” arrow once. The display will show the existing temperature setpoint. • Press the up or down arrow buttons to adjust the temperature to the desired set point.
变更湿度 **Change humidity**		• 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”。** • Press the “Up” arrow once. This display will show the existing temperature setpoint. • Press the “Settings” button once to display the “Humidity” setpoint. • Press the “Up” or “Down” arrows to adjust the humidity to the desired set point. Note: A Wine Guardian humidifier must be installed and Setting 6 set to “1” or “2” before the controller

		will let you change percent humidity.
变更设置 **冷却/加热/自动** **Change Settings** **Cooling/ Heating / Auto**		• 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。 • Press the Setting button once to display the setting function at the bottom of the screen. • Press the Settings button again to scroll through settings for cool only, heat only or heat/cool only – auto mode.

设置–按住“设置”按钮五（5）秒以进入以下设置。

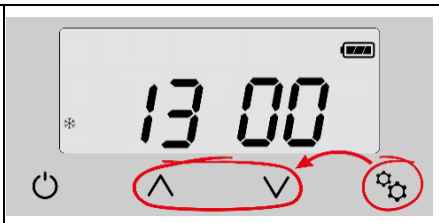
Settings – Press and hold the “Settings” button for five (5) seconds to access the following settings.

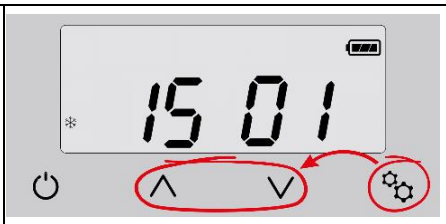
华氏度或摄氏度 **Degrees F or Degrees C**		**设置 1** • 按下“向上”箭头将华氏度更改为摄氏度。 • 按下“向下”箭头将摄氏度更改为华氏度。 **Setting 1** • Press the “Up” arrow to change temperature from °F to °C. • Press the “Down” arrow to change temperature from °C to °F.
低温警报设定点 **Low temperature alarm setpoint**		**设置 2** • 按下“设置”按钮进入设置 2。 • 按”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）。 **Setting 2** • Press “Settings” button to advance to Setting 2. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. Factory default is 50°F (10°C).
高温警报设定点 **High temperature alarm setpoint**		**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）。 **Setting 3** • Press “Settings” button to advance to Setting 3. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. Factory default is 65°F (18°C).
低湿度警报设定点 **Low humidity alarm set point**		**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%。 **Setting 4** • Press “Settings” button to advance to Setting 4. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. Factory default is 5%.
高湿度警报设定点 **High humidity alarm setpoint**		**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%。 **Setting 5** • Press “Settings” button to advance to Setting 5. • Press the up or down arrow buttons to adjust to the desired setpoint. Factory default is 95%.

添加或移除加湿器 **Add or remove humidifier**		**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 **Setting 6** • Press “Settings” button to advance to Setting 6. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. Factory default is zero (0). Zero (0) = No humidifier One (1) = Integral Wine Guardian mounted humidifier Two (2) = Stand-alone remote mounted humidifier
风扇自动或打开 **Fan AUTO or ON**		**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 Setting 7 • Press “Settings” button to advance to Setting 7. • Press the “Up” or “Down” arrow buttons to adjust number to the desired set point. Factory default is zero (0). Zero (0) = Auto–fan only turns on when there is a call for cooling or heating One (1) = Fan On–fan remains on continuously

压缩机防短循环 **Compressor anti-short cycling**		**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。** Setting 8 • Press “Settings” button to advance to Setting 8. • Press the “Up” or “Down” arrow buttons to adjust to the desired time in one-minute increments. Maximum is 10 minutes, minimum is 3 minutes. Factory default is 5 minutes. Compressor anti-short cycling time is the amount of allowable time between compressor stop and restart. Rapid start/stop of compressors can cause premature failure. WINE GUARDIAN DOES NOT RECOMMEND SETTINGS LOWER THAN FACTORY DEFAULT.
除霜传感器启用/禁用 **Defrost sensor enable/disable**		**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。 **Setting 9** • Press “Settings” button to advance to Setting 9. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. 1 will equal enabled and a 0 (zero) will equal disabled.
除霜切入温度 **Defrost cut-in temperature**		**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。 **Setting 10** • Press "Settings" button to advance to Setting 10. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. This setting is adjustable from 25°F to 40°F. Factory default is 39°F. There must be at least a 1°F difference between defrost cut-in and cut-out set points.

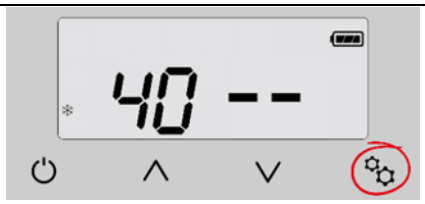
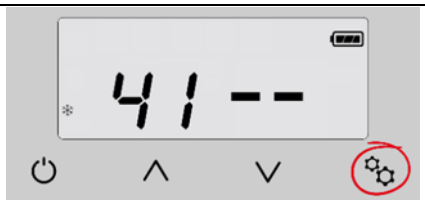
除霜切出温度 **Defrost cut-out temperature**		**设置 11** • 按下“设置”按钮进入设置 11。 • 按”向上”或“向下”箭头按钮以调整到所需的设定点。该设置可由 35 华氏度调节至 50 华氏度。出厂默认值为 40 华氏度。 **注意：该设定点须比设置 10 高出 1°F/°C。** **注意：如果选择了°C，然后切换回°F，则默认切出温度将变为 41°F。** Setting 11 • Press "Settings" button to advance to Setting 11. • Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. This setting is adjustable from 35°F to 50°F. Factory default is 40°F. Note: This setpoint must be 1°F/°C higher than setting 10. Note: If °C is selected and then switched back to °F the default cut-out will change to 41°F.
除霜检查间隔 **Defrost check interval**		**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。 **Setting 12** • Press "Settings" button to advance to Setting 12. Press the “Up” or “Down” arrow buttons to adjust to the desired setpoint. This setting is adjustable from 30 min at 0 (zero), 1 hour at 1, and then in 1 hour increments up to a maximum of 12 hours at 12.

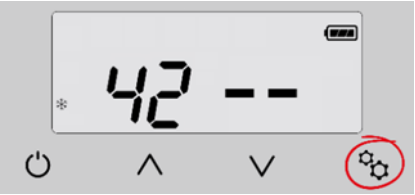
室温偏差 **Room temperature offset**		**设置 13** • 按下“设置”按钮进入设置 13。 • 按”向上”或“向下”箭头按钮以调整到所需的设定点。最大设置为+5°F，最小设置为-5°F。出厂默认值为零（0）。 室温偏移将实际显示读数（仅温度）更改为该设置值。 示例：传感器读数 = 55°F (13°C) 设置 15 设置为+4 显示读数 = 59°F (15°C) **Setting 13** • Press “Settings” button to advance to Setting 13. • Press the “Up” or “Down” buttons to adjust to the desired set point. Maximum setting is +5°F, minimum setting is -5°F. Factory default is zero (0). Room temperature offset changes the actual display reading (temperature only) by the value of this setting. Example: Sensor reading = 55°F (13°C) Setting 15 set to +4 Display reading = 59°F (15°C)
相对湿度偏差 **RH offset**		**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。 Setting 14 • Press “Settings” button to advance to Setting 14 • Press the “Up” or “Down” buttons to adjust to the desired setpoint. This setting allows the adjustment of %RH reading by +/-10%. Factory default is 0%RH.

差温调节 **Differential temperature adjustment**		**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) Setting 15 • Press “Settings” button to advance to Setting 15 • Press the “Up” or “Down” buttons to adjust to the desired setpoint. This setting changes the system/compressor turn-on temperature above setpoint. Factory default is 1°F. Example: Sensor reading = 55°F (13°C) Setting 17 set to +3°F System/compressor turns on at 58°F (14°C)
温度死区 **Temperature deadband**		**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)。 Setting 16 • Press “Settings” button to advance to Setting 16. • Press the “Up” or “Down” buttons to adjust to the desired setpoint. This setting is the minimal allowable temperature difference between heating and cooling setpoints. Maximum is 5°F (3°C), minimum is 1°F (1°C). Factory default is 2°F (1°C).
冷凝开关 **Condensate switch**		**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。 **Setting 17** • Press “Settings” button to advance to Setting 17. Press the “Up” or “Down” buttons to adjust to the desired setpoint. This setting disables or enables the Condensate switch. 0 (zero) is disabled, 1 is enabled. Factory default is 0.

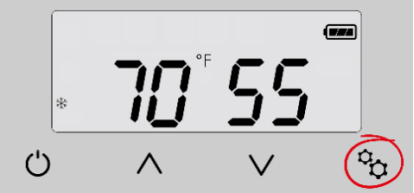
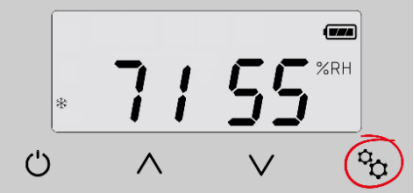
备用 **Reserved**		**设置 18&19** 为其他字段备用。 Settings 21-29 Reserved for additional fields.
系统类型默认值		**设置 20** 系统设置**请勿更改。**
备用		**设置 21-29** 为其他字段备用。

定义远程用户界面 **Define remote user interface**		**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 **Setting 30** • Press “Settings” button to advance to Setting 30 • Press the “Up” or “Down” buttons to adjust to the desired setpoint. 1 = Remote User interface #1 mounted within the wine room space and enabled 2 = Remote User interface #2 mounted within the wine room space and enabled 3 = Remote User Interface #1 disabled - will display only and can be mounted outside of wine room 4 = Remote User Interface #2 disabled - will display only and can be mounted outside of wine room

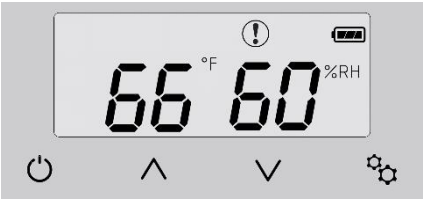
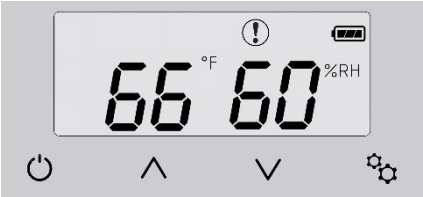
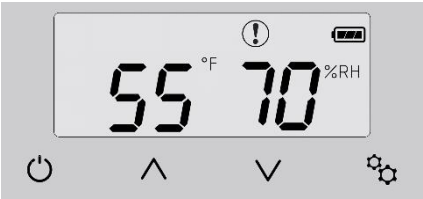
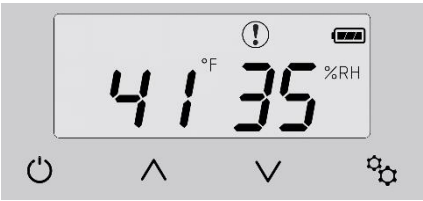
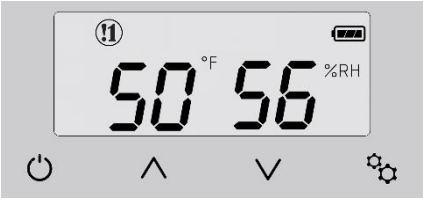
RF 频道选择		**设置 31** • 按下“设置”按钮进入设置 31。 • 按”向上”或“向下”箭头按钮以调整到所需的设定点。 各系统要求所有设备均处于同一 RF 频道。 0=RF 禁用 - 系统必须硬连线 1 至 12=RF 启用，且 12 个频道都可用 **Setting 31** • Press “Settings” button to advance to Setting 31. • Press the “Up” or “Down” buttons to adjust to the desired setpoint. Each system needs all devices to be on the same RF channel. 0 = RF disabled - system must be hardwired 1 through 12 = RF enabled and 12 channels available
备用 **Reserved**		**设置 32-39** 为其他字段备用。 **Settings 32-39** Reserved for additional fields.
热敏电阻 1 **Thermistor 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 **Setting 40** • Press “Settings” button to advance to Setting 40. Not Available Reserved for Thermistor
热敏电阻 2 **Thermistor 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 **Setting 41** • Press “Settings” button to advance to Setting 41. Not Available Reserved for Thermistor

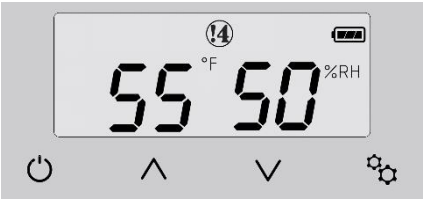
热敏电阻 3 **Thermistor 3**		**设置 42** • 按下“设置”按钮进入设置 42。 无法使用 保留给热敏电阻 **Setting 42** • Press “Settings” button to advance to Setting 42. Not Available Reserved for Thermistor

热敏电阻 4 **Thermistor 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。 **Setting 43** • Press “Settings” button to advance to Setting 43. No setting adjustment. Displays the defrost sensor temperature.
备用 **Reserved**		**设置 44-49** 为其他字段备用。 **Setting 44-49** Reserved for additional fields.
输出测试 **Output test**		**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=用 1=启用 **Setting 50** • Press “Settings” button to advance to Setting 50. • Press the “Up” or “Down” buttons to adjust to the desired setpoint. Steps through relays as output test. 0=Disabled
备用 **Reserved**		**设置 51-69** 为其他字段备用。

默认温度 **Default temperature**		**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。 **Setting 70** • Press “Settings” button to advance to Setting 70. No setting adjustment. Initial temperature set point. Will revert to this setting upon loss of power.
默认相对湿度% **Default %RH**		**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。 **Setting 71** • Press “Settings” button to advance to Setting 71. No setting adjustment. Initial relative humidity set point. Will revert to this setting upon loss of power.
默认模式 **Default mode**		**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 **Setting 72** • **Press “Settings” button to advance to Setting 72.** • **Press the “Up” or “Down” buttons to adjust to the desired setpoint.** **Initial mode set point. Will revert to this setting upon loss of power.** **1 = Auto** **2 = Cool** **3 = Heat**

警报模式
Alarm Codes

高温警报 **温度值闪烁** **High temperature alarm** **Flashing temperature number**		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。 Flashing temperature number along with (!) symbol will remain on screen until temperature falls below the High Temperature Alarm set point (Setting 3).
低温警报 **温度值闪烁** **Low temperature alarm** **Flashing temperature number**		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。 Flashing temperature number along with (!) symbol will remain on screen until temperature rises above the Low Temperature Alarm set point (Setting 2).
高湿度警报 **湿度值闪烁** **High humidity alarm** **Flashing humidity number**		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。 Flashing humidity number along with (!) symbol will remain on screen until humidity falls below the High Humidity Alarm setpoint (Setting 5).
低湿度警报 **湿度值闪烁** **Low humidity alarm** **Flashing humidity number**		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。 **Flashing humidity number along with (!) symbol will remain on screen until humidity rises above the Low Humidity Alarm set point (Setting 4).**
!1 = 高压开关故障 **!1 = High Pressure Switch Fault**		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。 **THIS ALARM FORCES THE SYSTEM TO SHUT DOWN** **(!1) will remain on screen until the High Pressure reset switch has been reset.** **See the trouble shooting guide page 57 for “Instructions to Reset High Pressure Switch”.**

!2 = CS （冷凝开关故障） **!2 = CS (Condensate Switch Fault)**		**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。 **THIS ALARM FORCES THE SYSTEM TO SHUT DOWN** **(!2) will remain on screen until the CS (condensate switch) fault is resolved and reset.**
!3 = 除霜传感器故障 **!3 = Defrost Sensor Fault**		**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。 **THE SYSTEM REMAINS OPERATIONAL DURING THIS ALARM** Defrost sensor has been shorted, disconnected or open. (!3) will remain on screen until the defrost sensor issue has been resolved.
!4 = 通信损耗 **!4 = Communication loss**		**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。 **THE SYSTEM REMAINS OPERATIONAL DURING THIS ALARM** **Bad or no data transfer between sensing device and main control board.** **“!4” will remain on screen until communication is re-established.**

！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

!WARNING!

Only one Unit can be set up at a time. Ensure other units are unplugged while pairing a unit to ensure there are no communication issues between Wine Guardian Units

附加的远程接口：

在向系统添加其他远程接口之前，您必须更改第一个控件上的设置 30 以为其提供不同的地址。请参阅第 39 页，获取有关如何访问界面设置的说明，并进入设置 30（第 49 页）。

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）。

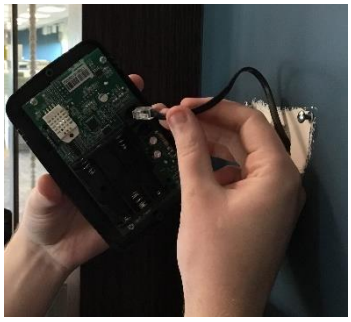


图 5

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

图 4

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）。

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）。

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。**

安装遥感器（无线）

图 1

图 2

图 3

图 4

图 5

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

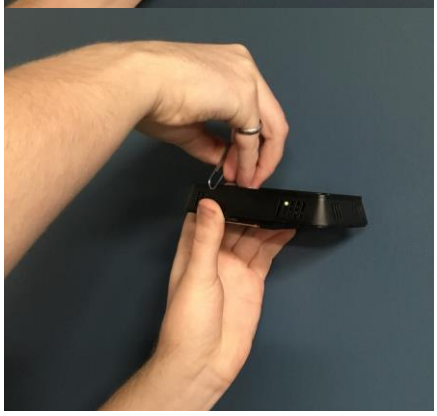


图 2

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。

调节酒窖温度
Regulating the Wine Cellar Temperature

欲保持酒窖温度，请将恒温器送气扇设定为常开状态（即不是在需要制冷时才启动）。在风扇设定项中将“AUTO”改为“ON”即可。

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

改变气流方向
Changing the Air Flow Direction

Wine Guardian制冷系统采用的网格只可单向进风，但您可以通过自行调整盖板后的百叶窗来改变气流方向。拧下前方盖板底部的两个螺丝，打开盖板，即可摸到百叶窗。
The grilles furnished with Wine Guardian are single directional, but the wine cellar airflow can be directed manually by setting the louvers behind the plastic panel to the desired direction. You
must first remove the 2 screws at the bottom of the plastic front panel to gain access to the louvers.

维护

Maintenance

在进行设备维护之前，请务必仔细阅读本手册的安全须知部分。
BEFORE PERFORMING MAINTENANCE ON THE SYSTEM, READ AND UNDERSTAND THE SAFETY INFORMATION CONTAINED WITHIN THE SAFETY CHAPTER OF THE WINE GUARDIAN MANUAL.

高压电：小心造成伤亡事故
HIGH VOLTAGE - RISK OF SERIOUS INJURY OR DEATH

机箱内存在高压电。请在拆卸盖板之前严格遵循隔离锁定步骤、切断电源。
High voltages are present in the cabinets. Turn off all power. Use the Lockout/Tagout procedure before removing end panels or cover.

小心被锐缘割伤
SHARP EDGES
RISK OF SEROUS INJURY

本设备内部存在高压电，且风扇、机壳、插口及旋管边缘极为锋利。请务必让专业人员进行维护操作。某些问题可能需机械或电气专业知识才能解决。请确保自己已对维护潜在风险、安全操作步骤以及本品上的安全标签详加了解。
SHARP EDGES ARE PRESENT ON THE FAN WHEELS, HOUSEING, INS AND COILS. Maintenance on Wine Guardian system 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 system

微生物（霉菌）可导致严重健康问题。如不及时清除排水盘内的积水，可能会为微生物提供生长环境、产生异味、污染室内空气。若水质已发霉，请立即清除霉菌并进行消毒。
EXPOSURE TO MICROBIAL GROWTH (MOLD) CAN CAUSE SERIOUS HEALTH PROBLEMS 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 system.

Wine Guardian只需最低程度的维护。本品采用的密封制冷系统与永久润滑风扇无需维护，

您只需稍加清理随气流进入设备的尘土即可。
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 system may be required due to dust or dirt in the air stream.

维护计划
Maintenance Schedule

月度维护
Monthly

（根据酒窖情况不同，也可将其定为季度维护）

(Or quarterly depending on experience with individual cellar)

✓检查噪音或震动

✓ Check for noise or vibration.

✓检查系统短期循环状态：连续开关系统8次以上。

✓ Check for short-cycling of the system – a turning on and off of the compressor unit more than eight (8) times/hour.

年度维护
Yearly

（除进行月度维护之外：）

(In addition to monthly)

✓检查蒸发器和冷凝器旋管，看是否有尘土堆积：用带刷头的真空吸尘器清理旋管

✓Check evaporator and condenser coils for dirt – use a vacuum with a brush attachment to clean the coils.

✓冲洗蒸发器旋管下的冷凝水排水盘，不要留下任何污垢。

✓Clean condensate pan under the evaporator coil by flushing. Be careful to keep the drain pans clear of any and all debris.

✓检查机箱，看其是否被腐蚀或生锈：清除锈迹，重新刷漆。

✓Inspect cabinet for corrosion or rusting – clean and paint.

✓检查设备内部是否有尘土堆积。用真空吸尘器吸去或扫掉尘土。

✓Inspect for dirt buildup on or inside the unit. Clean system by vacuuming or wiping it down.

✓检查绝缘垫、紧固件、垫圈或接头是否牢固。

✓Check for loose insulation, fasteners, gaskets or connections.

✓检查电线接头与电缆是否完好。

✓Check the wiring connections and integrity or cords.

✓检查冷凝器导管（若有），看其是否开裂破损。

✓Examine condenser duct (if option is used) for any cracks or breach.

高压开关跳闸时

High Pressure Switch has Shut the System Down

每台Wine Guardian制冷设备均配有手动复位式高压开关，在电压过高时开关将自动跳闸，关闭压缩机与冷凝器以保护设备。因冷盘管积尘太多、风管或网格阻塞而导致的气流受阻是致使电压过高的最常见原因。

Every Wine Guardian system 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 coil or an obstruction blocking the airflow in the duct or grille.

可能原因 **Possible Cause**	解决方法 **Solution**
电压过高可能是因为气流受阻所致。 Head pressure in unit is too high because an obstruction is restricting air flow through the unit.	清理风管、网格或旋管，复位高压开关后重启系统。 Remove the obstruction in the duct or grille or clean the coil. Then restart the system after resetting the high pressure switch.

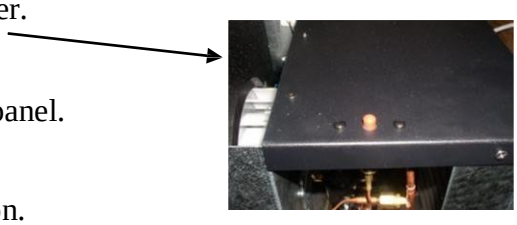
高压开关复位指南
Instructions to Reset High Pressure Switch

✓使用本地或远程界面控制器关闭Wine Guardian制冷系统。

✓ Turn the Wine Guardian system off at the control panel (local or remote interface).

✓在冷凝器端送风口处找到高压开关。开关上有一红色按钮，拆下盖板即可看到。

✓ Locate the high pressure reset switch which is located within the air outlet section at the condenser side of the system. The switch has a red push button and is accessible by removing the plastic end cover.



✓拆下冷凝器端的塑料盖板。

✓ Remove the condenser side plastic access panel.

✓按住红色按钮直到其锁定为止。

✓ Push in the button until it locks into position.

✓装好塑料盖板。

✓ Place the condenser side plastic panel back on.

✓使用本地或远程界面控制器启动系统。

✓ Restart the unit at the control panel (local or remote interface).

警报
Alarm Annunciation

发出警报时，显示器将闪光，同时显示故障信息。按下本地用户界面上的任意键即可让显示屏停止闪光，但在故障解除后，警报信息才会消失。

When an alarm condition occurs, the control will flash the backlight on the display in addition to annunciating the actual fault on the screen. The user can make the backlight flashing stop by pressing a button on the local user interface. However, the alarm annunciation will not actually clear on the display until the fault is corrected.

寻找/排除故障

Troubleshooting

警告
WARNING

请务必在检修之前仔细阅读本手册中的安全须知部分。

BEFORE PROCEEDING, READ AND UNDERSTAND THE SAFETY INFORMATION CONTAINED IN THE SAFETY SECTION OF THE WINE GUARDIAN MANUAL.

请注意
IMPORTANT

本章只供参考。欲知详细修理过程或零件更换步骤，请向配套服务公司咨询。您可在致电技术人员之前查阅下方表格了解大致的故障解决方法。

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.

常见启动问题
Typical Start-up Problems

可能原因 ***Possible Cause***	*解决方法* ***Solution***
恒温器或增湿器故障 Incorrect thermostat or humidistat	检查恒温/增湿器设定。在恒温器安装及运行说明部分查找故障解决办法。 Check the thermostat and humidistat setup for the application. Read the thermostat troubleshoot guidelines in the Thermostat Installation and Operating Instructions.

恒温器设定已更动 Changed settings on the thermostat	通常是由于未等到设备内部计时器数完延迟时间所致。请等待五分钟让压缩机启动。 A common problem is not waiting long enough for the internal timers to complete their timed delay. Allow 5 minutes for compressor to start.

设备启动失败
Unit Does not Start-up

恒温器灯不亮 ***Thermostat light is off*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
电压开关未复位 Voltage switch not in correct position 供电不正常 No power to outlet 插头未插好 Unit not plugged in LCDI tripped	检查开关状态 Check position of voltage switch 检查断路器及布线情况 Check circuit breaker and wiring 插好插头 Plug in the unit 重启 Reset
恒温器灯常亮 ***Thermostat light is on*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
恒温器设定不正确 Thermostat is not set up properly	检查恒温器设定 Check thermostat set up in the guide

设备已运转，蒸发器也能送风，但不制冷
Unit is Operating and Blows Evaporator Air,
But the Supply Air is not Colder than the Return Air from the Cellar

可能原因 ***Possible Cause***	*解决方法* ***Solution***
恒温器设定不正确 Thermostat not set up properly 压缩机不工作 Compressor not operating 冷凝器气流受阻 Condenser airflow is blocked 排出压力（HP）开关为开 Head Pressure (HP) switch is open	检查恒温器设定 Check thermostat setup in the manufacture's thermostat guide 开启高压开关（扣住）（见下） High pressure switch open (button up) (see below) 清理阻塞物 Remove blockage 如有需要，清理旋管 Clean coil (if needed) 复位高压开关：**请见第67页的高压开关复位指南** Reset HP switch – ***see reset instructions on page 37***

温控问题
Problems Controlling Cellar Temperature

***有时系统看似工作正常——蒸发器风扇可送风，压缩机与冷凝器风扇也在转动，但实际已发生问题*
***Problems are occurring even though the unit seems to be fully operational – evaporator fan blows air into the cellar and compressor and condenser fans run*

Cellar temperature is low (below 51° when unit is running ***系统运行时酒窖温度过低（51华氏度以下）*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***

恒温器制冷起点过低 Thermostat set too low on cooling 恒温器未控温 Thermostat not controlling temperature	重新设定制冷起点 Reset thermostat to higher cooling temperature 发生短路，重新布线 Wiring integrity compromised (shorted), replace wiring
系统未运行时酒窖温度过低（51度以下） ***Cellar temperature is too cold (below 51°) when unit is not running*** ***可能原因*** ***Possible Cause***	***解决方法*** ***Solution***
流失热量过多 Too much heat loss to adjacent spaces	改善管路与门户的隔热状况 Increase insulation around the ductwork and doorways 安装加热器 Add heater
设备可制冷，但酒窖温度还是太高 ***Cellar temperature is too high, but supply air is cold*** ***可能原因*** ***Possible Cause***	***解决方法*** ***Solution***
蒸发器气流阻塞 Not enough evaporator airflow 酒窖热负荷过高 Cellar heat loads are too high	清理送风管及回风管阻塞物 Remove blockage in supply or return 检查并清理旋管 Check and clean coil 旋管若已结冰，请关闭系统两小时 Coil frozen – shut off unit for two hours 增加隔热设备 Install additional insulation 更换大功率制冷设备 Replace with larger sized unit

湿度控制问题
Problems Controlling Cellar Humidity

未安装独立式增湿器时湿度太低、送风过冷 ***Humidity too low or supply air is too cold, without optional Standalone humidifier*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
蒸发器气流受阻 Not enough evaporator airflow 设备或旋管未正确安装 Defective or incorrect expansion device or coils	清理送风管及回风管阻塞物 Remove blockage in supply or return ductwork 检查并清理旋管 Check and clean coil 旋管若已结冰，请关闭系统两小时 Coil frozen – shut off system for two hours 向厂家咨询 Call factory for service
未安装独立式增湿器时湿度太低 ***Humidity too low, without optional humidifier*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
未安装加湿器 No moisture being added to cellar	安装Wine Guardian增湿器或其他加湿器 Add Wine Guardian humidifier or room
加湿器运行时湿度太低：请参考加湿器故障排除部分 ***Humidity too low with optional humidifier – read humidifier troubleshooting*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***

加湿器未工作 Humidifier not operating 加湿器已工作 Humidifier operating	检查线路是否松动、损坏，接头是否完好 Check wiring for loose, broke or frayed connections 检查加湿器设定 Check humidistat set up 检查水流与电磁阀运行情况 Check for water flow & solenoid valve operation 检查水是否已加热 Check for water being hot 检查过滤棉垫，如有水锈请及时更换 Check drop pad – replace if scaled 酒窖未安装蒸汽屏障 No vapor barrier installed around cellar
系统运行时湿度太高，但设备不制冷 ***Humidity too high when unit is running, but not cooling*** ***可能原因*** ***Possible Cause***	***解决方法*** ***Solution***
压缩机未工作 Compressor not operating 周围环境温度过高 Ambient temperature is too high	检查并复位高限制开关 Check and reset high limit switch 清理冷凝器送风口堵塞物 Clear blockage of condenser airflow 降低周围环境温度，或让压缩器从别处进风 Reduce temperature or draw condenser air from another space

湿度控制问题
Problems Controlling Cellar Humidity continued

系统未运行时湿度过高 ***Humidity too high when unit is not running*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
系统需运行除湿 System needs to run to dehumidify	温度设定点过低。清理并密封门户。 Lower room temperature setpoint. Seal openings around doors (gasket and sweep)
系统运行制冷时湿度过高 ***Humidity too high when unit is running and cooling*** *可能原因* ***Possible Cause***	*解决方法* ***Solution***
酒窖太潮 Too much moisture in cellar	蒸汽屏障质量不佳 Poor vapor barrier installation 增湿器故障，请参考相关说明 Humidifier malfunction refer to the humidifier instructions 安装除湿器 Add dehumidifier to surrounding space

其他问题
Other Miscellaneous Problems

系统漏水 ***System is leaking water*** ***可能原因*** ***Possible Cause***	***解决方法*** ***Solution***
冷凝水排水盘堵塞 Condensate pan plugged 设备倾斜 Unit not level	清理堵塞物 Remove blockage and clean 用垫片将设备垫平 Level with shims
系统运转正常，但噪音太大 ***System is running properly, but the sounds of unit is objectionable*** ***可能原因*** ***Possible Cause***	***解决方法*** ***Solution***
气流产生噪音过大 Noise is from airflow	将气流从冷凝器引至户外 Duct airflow from condenser to outdoors

Warranty and Service Procedures 服务流程

服务流程
Service Procedure

如需更换零件或获取相关服务，请与 Wine Guardian 授权经销商联系。
Contact your authorized Wine Guardian distributor for parts and service.

请根据 Wine Guardian 产品序列号索取零件或相关服务。
Refer to the Wine Guardian unit's serial number when requesting parts and service.

Warranty Procedure
保修流程

Wine Guardian 产品的序列号及装运日期均已标注在装箱单与提货单上，并已由 Wine Guardian 归档以备保修使用。
Your Wine Guardian unit's serial number is noted on all packing lists and bills of lading, and, along with the shipping date, is kept on file at Wine Guardian for warranty purposes.

请在保修申请单中写明相关产品的型号与序列号。请注意，若产品序列号有所涂改、或其压缩机已被改装、拆除或损坏，该产品不予保修。
All correspondence regarding warranty must include the model number and serial number of the unit involved. Note that the warranty is null and void if the serial number on the unit or compressor is altered, removed or defaced.

请根据您在购买产品时收到的保修条款所列明的规定，将保修询问函或申请单提交至 Wine Guardian 授权经销商处。
All inquiries or correspondence regarding warranty should be handled in accordance with the Warranty you received at time of sale and be directed to your authorized Wine Guardian distributor.

Wine Guardian
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A division of Air Innovations

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