



Control the Elements



1800H-HE Houdini Series

OWNER'S MANUAL



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CONGRATULATIONS!

Thank you for purchasing a new CellarPro cooling system.

Please take a minute to read through this Owner's Manual before you unpack, install and turn on your Cooling Unit.

If you have any questions about your new cooling unit, it is likely that you will find the answers in this Owner's Manual. We also have more information on our website, including the latest version of the Owner's Manual, at www.cellarpro.com.

If you still have questions, please don't hesitate to contact your dealer or CellarPro directly. We can be reached during normal business hours at 1.877.726.8496. You also may contact us anytime via email at info@cellarpro.com.

Contact Information:

CellarPro Cooling Systems
1445 N. McDowell Blvd
Petaluma, CA 94954
877.726.8496
Email: info@cellarpro.com
Website: www.cellarpro.com

Serial Number*: _____

*We recommend that you take a minute to fill in your CellarPro serial number above. The serial number can be found on the printed label on the side of your cooling unit, which may not be accessible after you install your cooling unit. You may need this serial number in the event your cooling unit needs service.

Don't forget to register your cooling unit warranty at www.cellarpro.com/register, or scan the following QR code:





Table of Contents

I. Safety Instructions	5
II. Specifications & Requirements	7
III. Installation Instructions	15
IV. Operating Instructions	24
V. Troubleshooting	34
VI. Limited Warranty	36

I. Safety Instructions

Section I.1:



R-290

This cooling unit contains highly flammable **R-290** refrigerant, as well as insulation which contains one or more of the following flammable blowing agents: **a)** trans-1,3,3,3-tetrafluoropropene, HFO-1234ze(E); **b)** Azodicarbonamide, ADC; **c)** 1,1 Difluoroethane, HFC-152a. Please read this manual carefully before installing, operating, and servicing this equipment to ensure safe operation. This cooling unit is manufactured to meet all safety requirements as certified by ETL/Intertek in accordance with UL/CSA-60335-2-89. The cooling unit is to be installed in accordance with the Safety Standard for Refrigeration Systems, ANSI/ASHRAE 15.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Section I.2:

- **WARNING**
 - Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
 - The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.)
 - Do not pierce or burn.
 - Be aware that refrigerants may not contain an odour.
- **MISE EN GARDE**
 - Ne pas utiliser de moyens autres que ceux recommandés par le fabricant pour accélérer le processus de degivrage ou pour nettoyer l'appareil.
 - L'appareil doit être entreposé dans un local ne contenant pas de sources d'inflammation permanentes (Hammes nues, appareil à gaz ou dispositif de chauffage électrique en fonctionnement, par exemple).
 - Ne pas percer ou
 - Attention, les fluides frigorigènes peuvent ne pas dégager d'odeur.
- **WARNING: Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.**
- **WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.**
- **WARNING: Do not use electrical appliances inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.**



- **WARNING:** Do not damage the refrigerating circuit.

Section I.3:

Keep required ventilation openings clear of obstructions.

Section I.4:

Servicing shall be performed only as recommended by CellarPro. For repairs to the refrigeration system requiring replacement of coils, filter/drier, expansion valve, compressor, or leak repair, the technician servicing the unit must be certified to work on refrigeration systems containing flammable refrigerants. For full details, refer to the CellarPro Maintenance, Repair, and Decommissioning Manual available on the CellarPro website.

If replacing parts, use CellarPro parts only. Use of non-OEM parts will void the warranty and increase the risk of fire or explosion.

If the power supply cord is damaged, it must be replaced by CellarPro, or a qualified service agent or similarly qualified persons, using CellarPro parts only to avoid a hazard.

When servicing the unit, ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

Section I.5:

If the product is connected to ducting, auxiliary devices which may be ignition sources shall not be installed in the ductwork, other than auxiliary inline duct fans approved for use with cooling unit by CellarPro.

Section I.6:

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects. This check shall also consider the effects of aging or continual vibration from sources such as compressors or fans.

Section I.7:

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems:

- Electronic leak detectors may be used to detect refrigerant leaks but, in the case of **FLAMMABLE REFRIGERANTS**, the sensitivity might not be adequate or might



need re-calibration (detection equipment shall be calibrated in a refrigerant-free area). Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25% maximum) is confirmed.

- Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine can react with the refrigerant and corrode the copper pipework.

If a leak is suspected, all naked flames shall be removed/extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system. For specific refrigerant removal and evacuation instructions, refer to the CellarPro Service Manual available on the CellarPro website.

Section I.8 – PRIOR TO INSTALLATION:

- **Test the unit BEFORE installing it.**

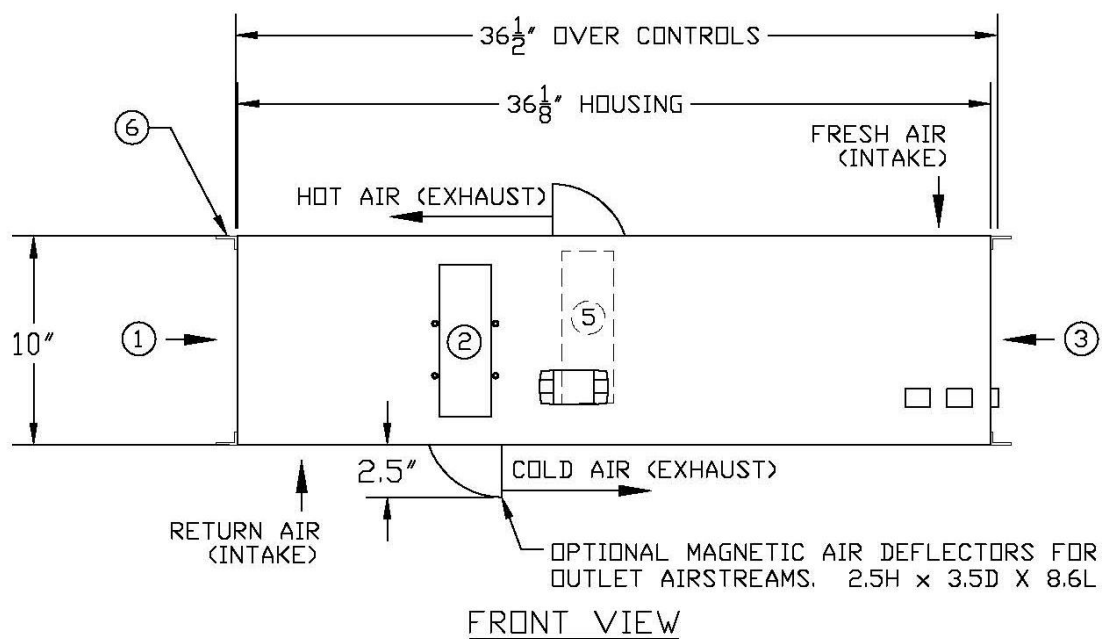
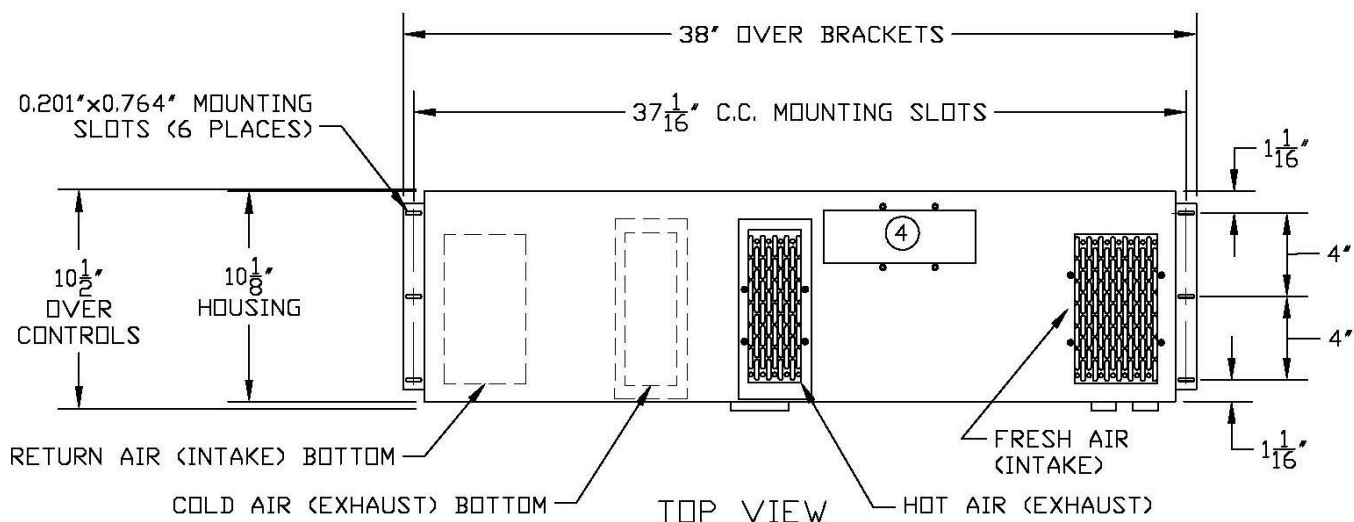
1. Remove the unit from the box. **SAVE THE BOX AND PACKING MATERIALS.**
2. Ensure the unit is in a well-ventilated area. Plug in the power cord. The cooling system is programmed with a **3-minute Delay at Startup** to protect its internal components.
3. **Let the unit run on a hard, flat surface for no more than 10 minutes.** The cold air intake and discharge is at the bottom left of the cooling unit. Make sure these openings are not blocked when testing.
4. Make sure that **both fans in the cooling unit are spinning** by confirming that airflow is exiting from the exhaust vents at the top and the bottom of the cooling unit.
5. Confirm that the cooling unit is **discharging cold air** from the bottom that is approximately 10°F colder than the temperature on the digital display.
6. Turn the unit “off” and install.

We recommend that you wait 24 hours before operating your CellarPro cooling unit. The delay will protect the unit from internal damage that could arise if the unit was shipped, stored or tilted on its side.

II. Specifications & Requirements			
Configuration	Dimensions W" x D" x H"	Weight (lbs)	Operating Amps*
Without Ducting	36.5 x 10.5 x 10**	70	5.52
As Ducted (hot side only)	36.5 x 10.5 x 24.8**	73	
As Ducted (cold side only)	51.3 x 24.9 x 10		

* Add 3 amps maximum if using the light receptacle. Add 0.97 amps if using optional auxiliary duct fan.

** Air diverters add 2.5" to height.

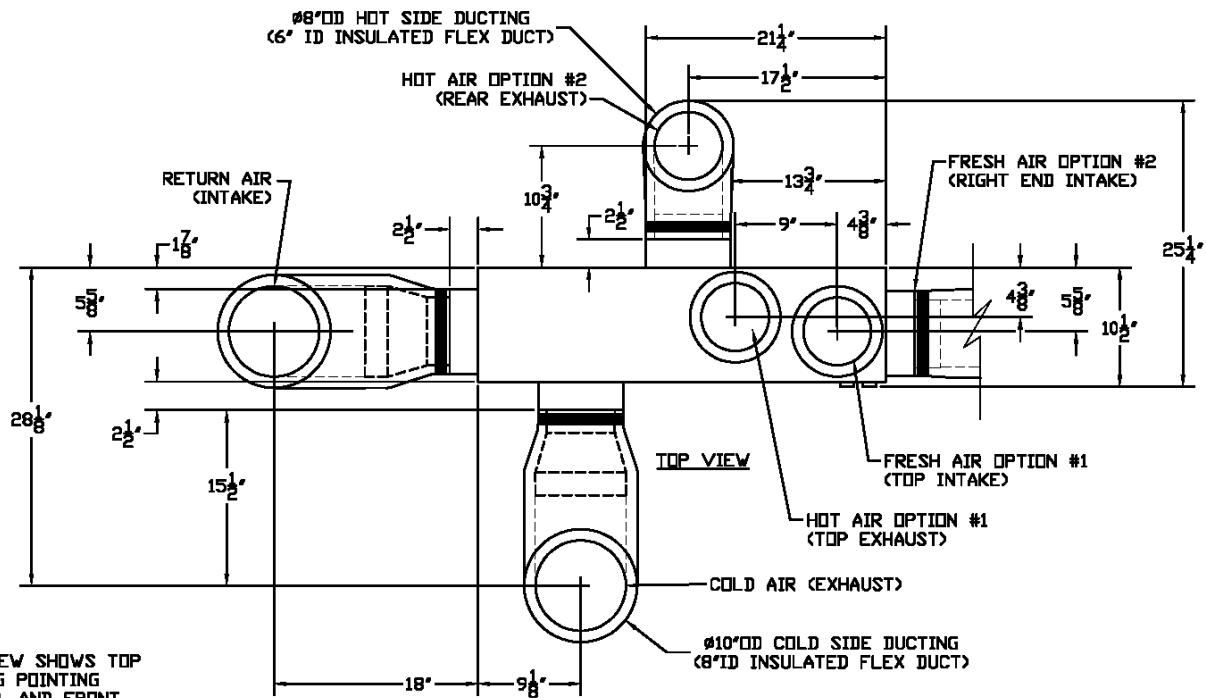


NOTES:

- ① ALTERNATE RETURN AIR (INTAKE) - LEFT END
- ② ALTERNATE COLD AIR (EXHAUST) - FRONT. THE FRONT GRILL MUST BE REMOVED IF USING THIS VENT OPTION. REPLACE ALL SCREWS AFTER REMOVING GRILL.
- ③ ALTERNATE FRESH AIR (INTAKE) - RIGHT END
- ④ ALTERNATE HOT AIR (EXHAUST) - TOP REAR
- ⑤ ALTERNATE HOT AIR (EXHAUST) - BACK CENTER
- ⑥ TWO MOUNTING BRACKETS SHIP LOOSE WITH UNIT. UNIT HAS MOUNTING BRACKET HOLES FOR INSIDE CELLAR OR ABOVE CELLAR MOUNTING. REFER TO THROUGH CEILING MOUNTING DIAGRAM FOR OTHER MOUNTING OPTIONS.

1800H OVERALL DIMENSIONS AND AIR VENT LOCATIONS

2127B_R03



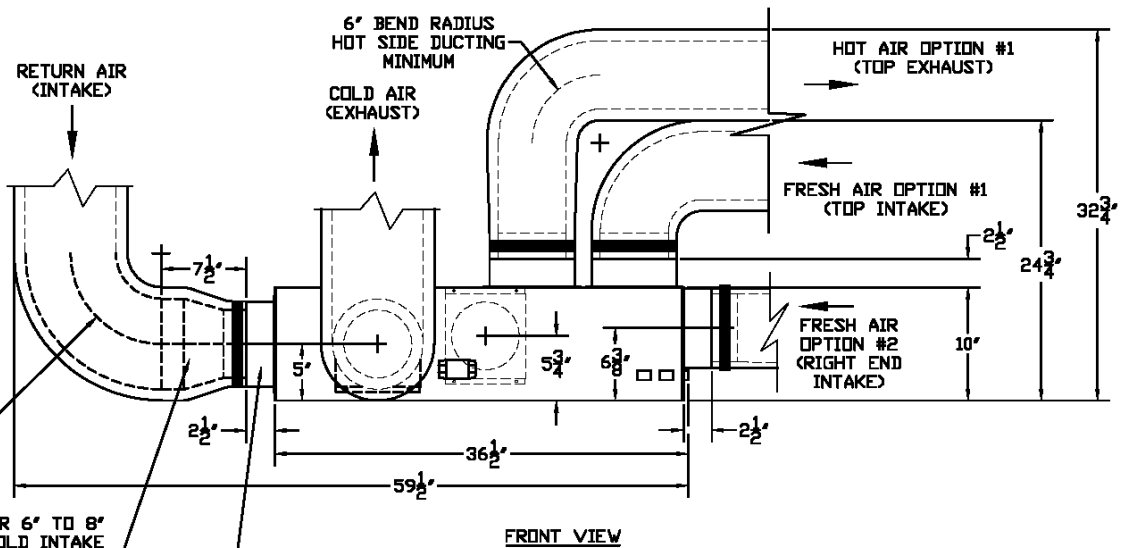
NOTES:

1. TOP VIEW SHOWS TOP DUCTING POINTING UPWARD, AND FRONT VIEW SHOWS TOP DUCTING POINTING TO THE RIGHT.
2. COLD SIDE DUCTING IS 8" ID. 6" DUCT ADAPTERS AND 6"x8" DUCT INCREASERS ARE PROVIDED LOOSE.
3. HOT SIDE DUCTING IS 6" ID. DUCT ADAPTERS ARE PROVIDED LOOSE.
4. FRONT GRILL IS NOT PROVIDED IF DUCTING THE COLD SIDE.
5. TOP MOUNTING BRACKETS CANNOT BE USED WITH FRESH AIR OPTION #2.

8" BEND RADIUS COLD SIDE MINIMUM. COLD SIDE DUCTING MUST BE INSULATED TO R-6.

DUCT INCREASER 6" TO 8" REQUIRED FOR COLD INTAKE AND EXHAUST (PROVIDED LOOSE)

6" DUCT ADAPTERS (PROVIDED LOOSE)



FRONT VIEW

1800H AS DUCTED

2127A_R06



- **Placement**

CellarPro 1800H Houdini cooling units can be installed in a variety of configurations, as follows:

- Inside the cellar, attached to the ceiling, with the hot air exhaust and intake vented through the ceiling to the space above the cellar
- Directly above the cellar, with the cold air exhaust and intake vented down through the ceiling (venting should be sealed and insulated to eliminate infiltration and heat loss)
- Within the ceiling joists above the cellar, with the hot side exposed to the space above the cellar, and the cold side exposed to the cellar
- Any of the above, with the hot side ducted up to 25 equivalent feet per side (supply and return) using 6" ducting from start to finish – requires the hot-side fan to be set to "high"
- Outside the cellar, with the cold side ducted up to 25 equivalent feet per side (supply and return) using 8" ducting from start to finish (ducting must be insulated to R-6 or better) - requires the cold-side fan to be set to "high."

Please note: the cooling unit requires at least 8" of clearance opposite all points of airflow.

- **Ambient Environment**

The fresh air intake (on the hot side of the cooling unit) must have access to cool air ranging from 40°F to 95°F. With the addition of our fan cycling switch, the lower limit of the intake temperature can drop to -20°F. Under no circumstances should the cooling unit be located in an environment that drops below freezing.

If the hot air exhaust will be directed to a common space that is the same as the fresh air intake, the space will need to be at least as large as the wine cellar to ensure that the hot exhaust is sufficiently dissipated before the unit pulls its fresh air.

CellarPro cooling units are not designed to add heat to the cellar space, so if temperatures drop below proper wine storage temperatures, the cooling unit cannot create heat inside the cellar.

- **Insulation and Airtight Construction**

CellarPro cooling units are designed to be installed inside wine cellars that have proper insulation, moisture barriers and an airtight seal from the environment outside the cellar. Interior walls and floor should have a minimum of R-11 insulation, and a vapor barrier on the warm side of the insulation. The ceiling should have a minimum of R-19 insulation and a vapor barrier on the warm side of the insulation. Doors also should be insulated and tightly sealed with weather stripping around the door's perimeter. Surface-mounted fixtures are recommended over recessed lighting, which can allow air to leak into the cellar.

All walls, joints, doors and windows, electrical outlets and switches, pipes, vents and light fixtures must be sealed to prevent air and moisture from entering the cellar. If there is a leak in the cellar, the cooling unit will build up excess condensation.



- **Sizing**

Our 1800H Houdini cooling unit is sized to handle cellars with lots of glass, within certain limitations. For example, assuming 75°F ambient temperature, R-13 insulation in the non-glass walls, and no ducting, the unit would work in cellars with the following attributes:

<u>Cellar Dims</u>	<u>Cellar</u> <u>Cu Ft</u>	<u>Glass Sq Ft</u>	<u>Glass</u> <u>Pane</u>	<u>Cellar</u> <u>Temp</u>	<u>1800H-</u> <u>HE Total</u> <u>BTUH</u>	<u>Cellar</u> <u>Total</u> <u>BTUH</u>
6'w x 2 1/2'd x 9'h	135	54 (Front Wall)	Single	60 ° F	2046	1735
7'w x 2 1/2'd x 10'h	175	70 (Front Wall)	Double	55 ° F	1900	1681
7'w x 2 1/2'd x 10'h	175	120 (Front & Side Walls)	Double	58 ° F	1988	1922

- **Condensate Management System**

CellarPro 1800H Houdini cooling units have a condensate management system, which includes an oversized stainless-steel pan and a thermostatically controlled electric heating element. The cooling unit can be configured to include a condensate drain line for overflow moisture at an additional cost.

- **Bottle Probe**

Our bottle probe, inserted in a bottle filled with liquid (we recommend 90% water and 10% rubbing alcohol), must be used with all 1800H Houdini cooling units. The bottle with the probe must be located inside the wine cellar, in the upper third of the cellar and in a location with good airflow, not buried in the back of the wine racks.

IMPORTANT NOTE: The temperature differential (HY) factory setting is “4”. This setting must be changed to “1” when using the bottle probe in liquid. Refer to the “Advanced Operation” section for instructions on how to change the HY setting.

- **Fan Speeds**

CellarPro 1800H Houdini cooling units include dual variable high-velocity fans, which can be set independently to achieve desired results, as follows:

- Variable fan speed for the cold side provides cooling flexibility
 - Low fan speed: 1486 BTUH @ 55 ° F / 51 ° F lowest achievable cellar temperature
 - High fan speed: 1900 BTUH @ 55 ° F / 51 ° F lowest achievable cellar temperature
- Variable fan speed for the hot side provides the choice between maximizing performance vs minimizing noise
 - Low fan speed: 49 dBA / 85 ° F maximum intake temperature
 - High fan speed: 55 dBA / 95 ° F maximum intake temperature



- **Vent Configurations (Not Ducted)**

CellarPro 1800H Houdini cooling units provide maximum flexibility for positioning air intake and exhaust on the cold side and the hot side of the cooling unit, which allows the unit to be placed inside or atop the cellar.

- Choice of airflows on the cold side
 - Intake from bottom or left side
 - Exhaust from bottom or front
 - Air deflector optional
- Choice of airflows on the hot side
 - Intake from top or right side
 - Exhaust from top in a choice of 3 orientations: 2 top and 1 back
 - Air deflector optional

CellarPro cooling units create significant hot air that must be exhausted into an appropriately sized space to dissipate heat. If the space is constrained and/or too small, the heat will not dissipate and/or may create back pressure. In this event, the cooling unit may be forced to re-circulate its hot air exhaust and be unable to pull fresh air across the condenser coils. If this happens, the cooling unit will go into HA2 alarm mode, and the cooling unit's ability to create cold air inside the cellar will be compromised.

The hot exhaust and fresh air intake must be directed to a space that is at least as large as the wine cellar, unless the two airflows are ducted to separate spaces.

- **Ducting Configurations**

Ducting on the cold side, hot side or both sides of the cooling unit is possible without the need for an auxiliary fan.

- Cold side
 - Up to 50 equivalent feet (25' per duct) using our OEM duct hoods, 8-inch insulated ducting (R-6 or better) from start to finish, and high EVAPORATOR fan speed.
 - **Ducting requires the use of our OEM duct hoods.**
 - Intake on the left / exhaust from the front.
- Hot side
 - Up to 50 equivalent feet (25' per duct) and 85° F maximum intake temperature (no auxiliary fan required).
 - Up to 100 equivalent feet (50' per duct) and 95° F maximum intake temperature (requires auxiliary fan).
 - **Ducting requires the use of our OEM duct hoods**, 6-inch ducting from start to finish, and high CONDENSER fan speed.
 - Intake and exhaust from the top.
 - Optional intake from the right end, exhaust from the back center.



- **Ducting – Hot Side**

We offer duct hoods and kits that allow the fresh air intake and/or hot exhaust to be ducted up to 50 equivalent feet combined with a minimum of 6" diameter ducting from start to finish, or 100 equivalent feet each with our auxiliary fan and 6" diameter ducting from start to finish. **Genuine CellarPro duct hoods must be used to maintain warranty coverage**, and the fan speed on the CONDENSER fan must always be set to HIGH when ducting the hot side of the cooling unit.

When ducting any airflow, the perforated plate should be removed from the body of the cooling unit.

Avoid the following when ducting our cooling unit, which could cause permanent damage to your cooling unit:

- Using custom duct adapters instead of CellarPro duct adapters.
- Reducing the ducting below 6" diameter.
- Using hot-side fan at low fan speed
- Exceeding the equivalent length limits

- **Ducting – Cold Side**

We offer duct hoods and kits that allow the cold air exhaust and return air from the cellar to be ducted up to 50 equivalent feet combined using 8" diameter **insulated** ducting from start to finish. (Unlike the hot side, however, the cold side distance can **never** be extended with an auxiliary fan). All ducting must be insulated to R-6 or better, and genuine CellarPro duct hoods must be used for all ducting to maintain warranty coverage. The HIGH fan speed must be used on the EVAPORATOR fan when ducting the cold side of the cooling unit.

When ducting any airflow, the perforated plate should be removed from the body of the cooling unit.

Avoid the following when ducting our cooling unit, which could cause permanent damage to your cooling unit:

- Using custom duct adapters instead of the CellarPro duct adapters.
- Using ducting that is insulated less than R-6.
- Reducing the ducting below 8" diameter.
- Using cold-side fan at low fan speed.
- Exceeding the equivalent length limits.

- **Fresh Air Intake Filter**

When the fresh air intake of the cooling unit cooling unit IS NOT DUCTED, the provided magnetic filter screen should be installed over the intake vent plate. The size of the filter is 5 3/8" x 8 5/8" and can be cleaned with warm water. If the unit is mounted inside the cellar, make sure the fresh air intake opening in the ceiling is large enough for filter removal, or relocate the filter to the opposite side of the ceiling and secure in place.

For systems where the hot side fresh air intake IS DUCTED, the 6" ducting should terminate with a grill that measures 10" x 10" (or equivalent).



- **Power Requirements**

CellarPro cooling systems should be plugged into a dedicated non-GFI outlet connected to a 15-amp circuit. The cooling unit uses approximately 5.5 amps during its “on” cycle (does not include use of receptacle, 3 amps maximum).

Several variables, including the minimum set point, the temperature in the ambient environment, the insulation of the cellar, and the thermal mass inside the cellar, will affect the cooling unit’s runtime. It is normal for the cooling unit to run up to 75 percent of the time to maintain proper conditions inside the cellar.

Select a power receptacle (Side or Rear) and plug the provided power cord into that receptacle. Plug the other end of the power cord into a dedicated 15-amp circuit. A surge-protected circuit is recommended. Set the power selector switch to energize the appropriate receptacle used (Side or Rear).



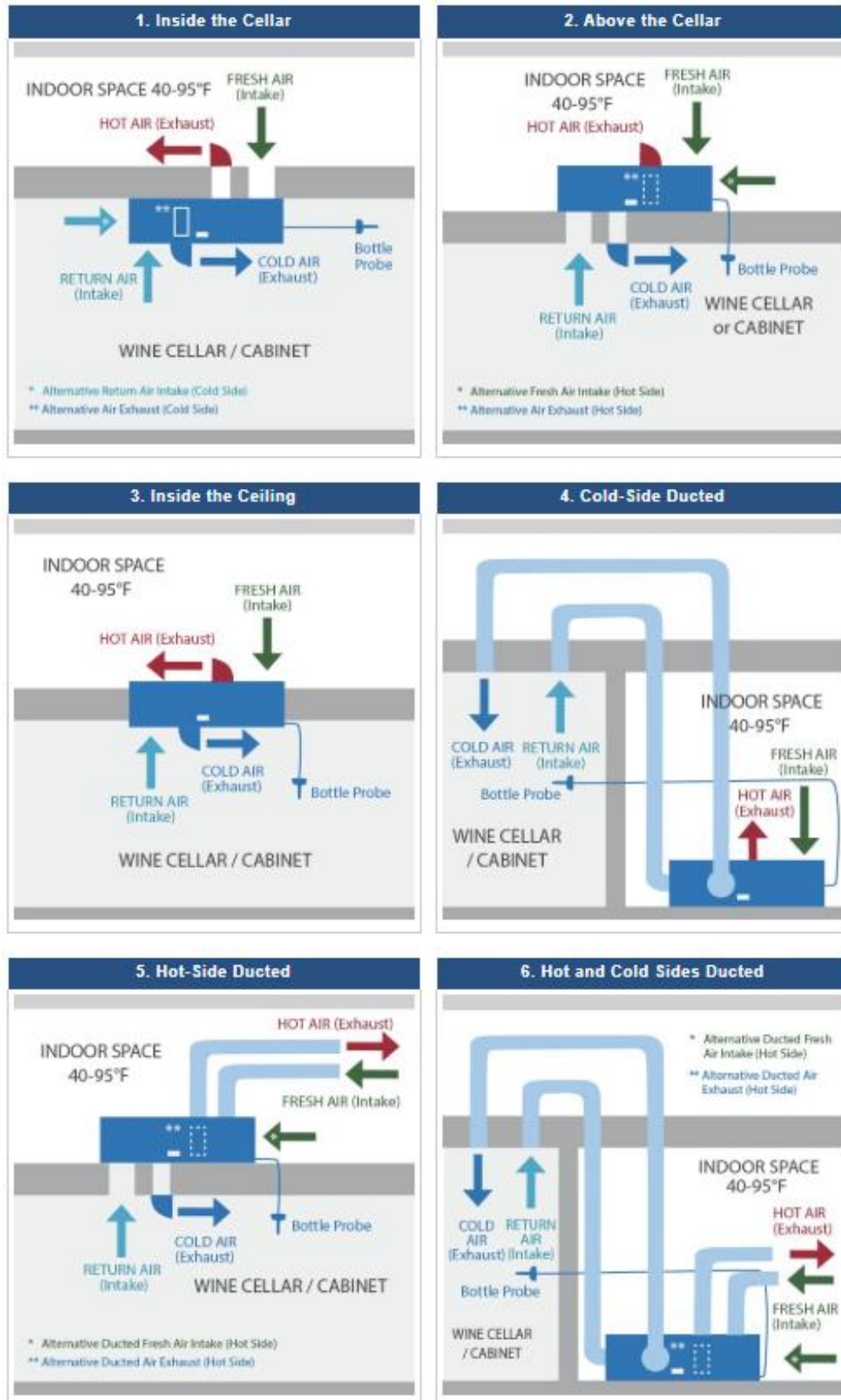
III. Installation Instructions

- **TEST THE UNIT BEFORE INSTALLING IT:**



1. Remove the unit from the box. **SAVE THE BOX AND PACKING MATERIALS.**
 2. Plug in the power cord. The cooling system is programmed with a **3-minute delay at startup** to protect its internal components
 3. **Let the unit run on a hard, flat surface for no more than 10 minutes.** The cold air intake and discharge is at the bottom left of the cooling unit. Make sure these openings are not blocked when testing.
 4. Make sure that **both fans in the cooling unit are spinning**, by confirming that airflow is exiting from the exhaust vents at the top and the bottom of the cooling unit.
 5. Confirm that the cooling unit is **discharging cold air** from the bottom that is approximately 10°F colder than the temperature on the digital display
 6. Turn the unit “off” and install.
- CellarPro cooling units must always be mounted in the upright position.
 - Each airflow opening (intake and exhaust) should have a minimum of 8” of clearance to allow air to circulate freely into and out of the cooling unit.
 - Ideally the cold air exhaust and return air intake will be located near the top of the cellar. Because cold air falls, it is best to exhaust the cold air at the top of the cellar, and because warm air rises, it is best to catch the warm air when it first begins to accumulate at the top of the cellar.
 - Once the cooling unit is installed, all cracks and gaps between the cooling unit and the cellar should be sealed.
 - Mounting brackets should be attached to the sides of the cooling unit, and then used to attach the cooling unit to the ceiling inside the cellar, to the floor above the cellar, through the ceiling of the cellar, or in a remote location with the addition of our duct adapters.

- The cooling unit can be configured in several ways, with or without ducting, as shown:

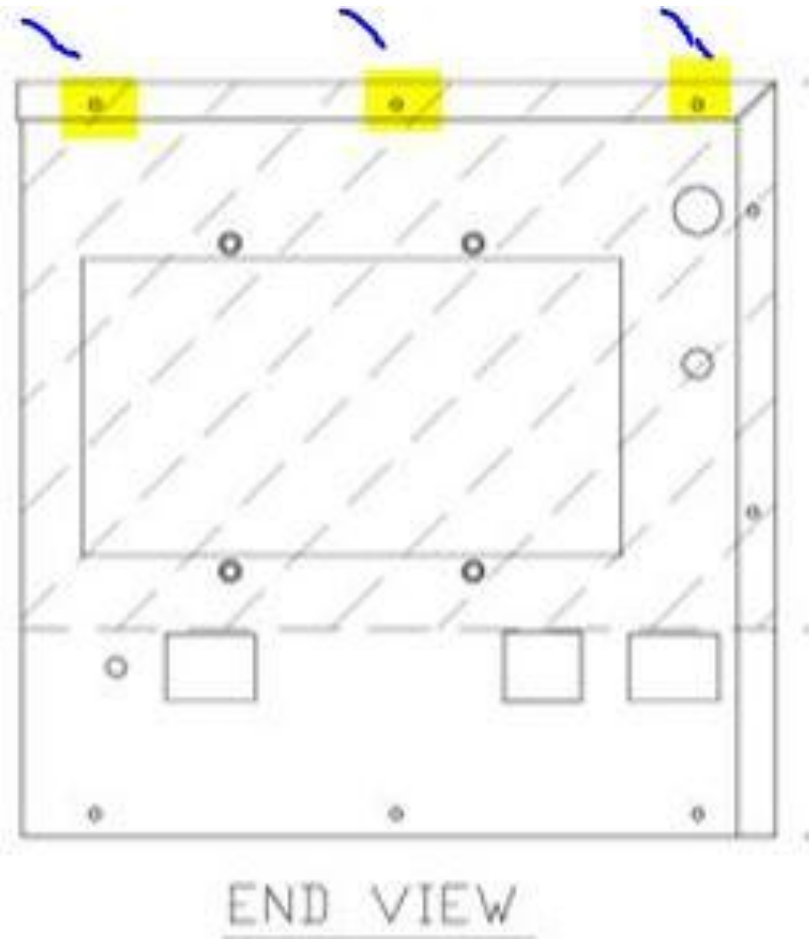




- The unit is shipped with standard equipment that includes 2 mounting brackets and a fresh-air disposable filter, as discussed below.

1. Mounting **BELOW** the Ceiling:

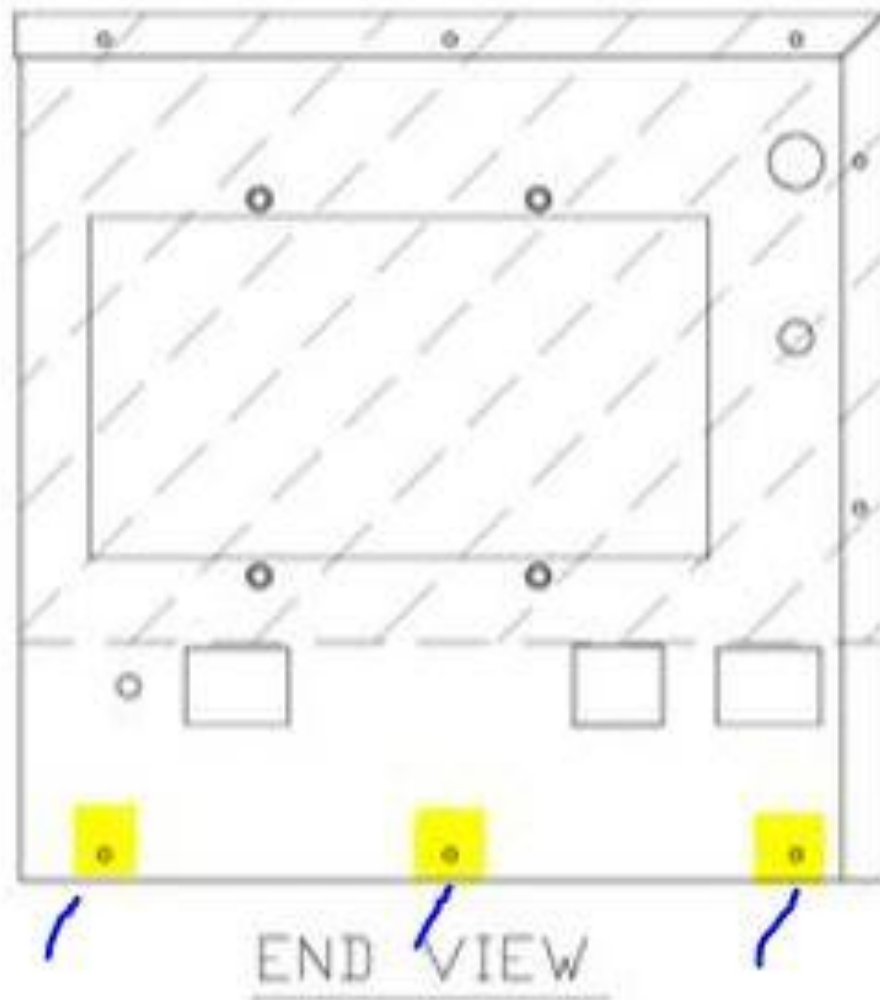
- Start by removing the 6 screws on the sides of the cooling unit (3 screws on each side along the top edge of the cooling unit, as shown in the drawing below). Place a mounting bracket over the open screw holes, one bracket per side, then re-attach the sheet metal screws. Attach the brackets to the cooling unit using the round holes, so that the wide slot openings are perpendicular to the cooling unit. Once the brackets are attached to the cooling unit, use the six #8 x 3/4" wood screws (included), to attach the brackets to framing in the ceiling.



- In this configuration, 2 sealed openings in the ceiling will need to be created for the hot exhaust and the fresh air intake, and the filter should be placed **above the opening for the fresh air intake**, where it will be most conveniently accessible.
- We offer an optional air deflector that can be placed below the cooling unit, using its magnets, to direct the cold-air discharge to the right, away from the return air opening. A deflector also can be purchased to direct the hot air exhaust away from the fresh air intake atop the cooling unit if necessary.

2. Mounting ABOVE the Ceiling:

- Start by removing the 6 screws on the sides of the cooling unit (3 screws on each side along the bottom edge of the cooling unit, as shown in the drawing below). Place a mounting bracket over the open screw holes, one bracket per side, then re-attach the sheet metal screws. Attach the brackets to the cooling unit using the round holes, so that the wide slot openings are perpendicular to the cooling unit. Once the brackets are attached to the cooling unit, use the six #8 x 3/4" wood screws (included), to attach the brackets to framing in the ceiling.

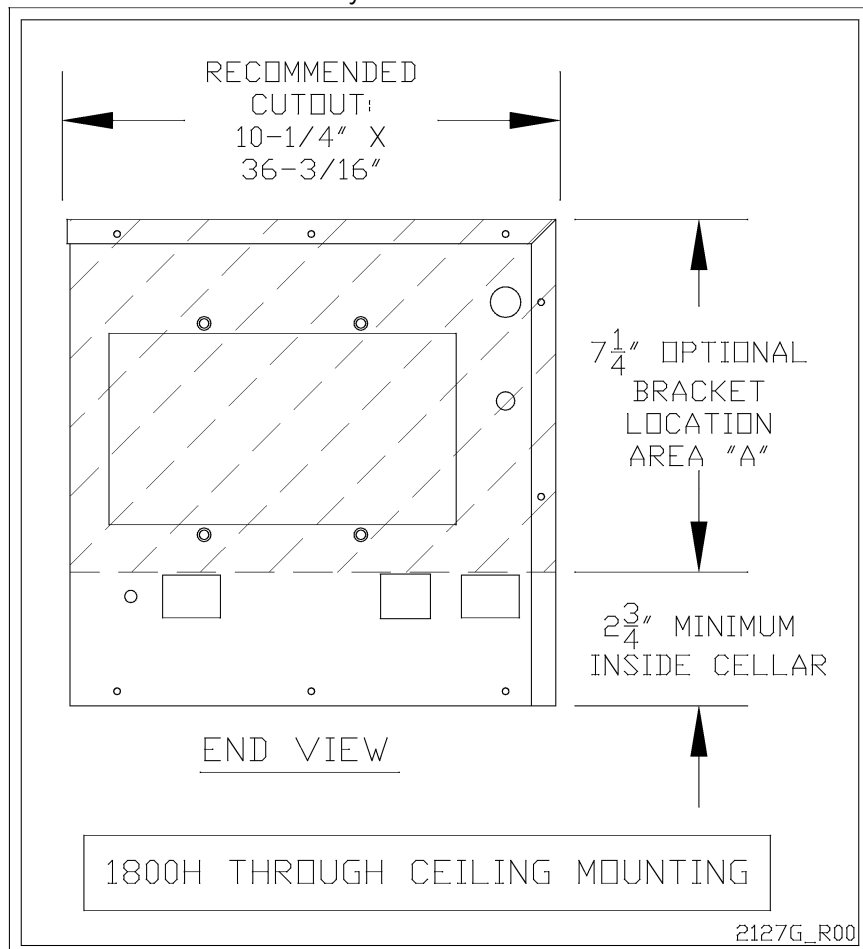


- In this configuration, 2 sealed openings in the ceiling will need to be created for the cold exhaust and the return air from the cellar.
- The filter will be **attached to the fresh air intake atop the cooling unit**, using the magnets on the filter frame.
- Our optional air deflector can be positioned below the opening for the cold exhaust, so that it directs the cold-air discharge to the right, away from the return air opening. An additional deflector can be purchased to direct the hot air exhaust away from the fresh air intake if necessary.



3. Mounting IN the Ceiling:

- Start by cutting out a hole in the ceiling that measures 36 3/16"W x 10 1/4"D. **Slide the unit into the hole from below**, and mark the desired location of the mounting brackets along the sides of the cooling unit. Take care to ensure that the mounting brackets are in the same position on both sides of the cooling unit, so that it is level when installed. **The brackets can be located anywhere in area "A" on the sides of the cooling unit, as shown in the diagram below, to achieve desired height of the unit inside or outside the cellar. Do not attempt to drill in the front or the rear of the unit.** Drill 1/8" holes in the sides of the cooling unit (3 holes per side) for attaching the mounting brackets. Use a drill bit with a stop at 1" depth to prevent damage to internal components. Attach the brackets to the cooling unit using the round holes, so that the wide slot openings are perpendicular to the cooling unit. Once the brackets are attached to the cooling unit, use the six #8 x 3/4" wood screws (included), to attach the brackets to framing in the ceiling. If framing to support the sides of the cooling unit doesn't exist, you will need to add framing blocks in the ceiling for attachment of the mounting brackets.
- In this configuration, the filter will be **attached to the fresh air intake atop the cooling unit** using the magnets on the filter frame.
- The optional air deflector would be placed below the cooling unit, using its magnets, so that it directs the cold-air discharge to the right, away from the return air opening. An additional deflector also can be purchased to direct the hot air exhaust away from the fresh air intake if necessary.



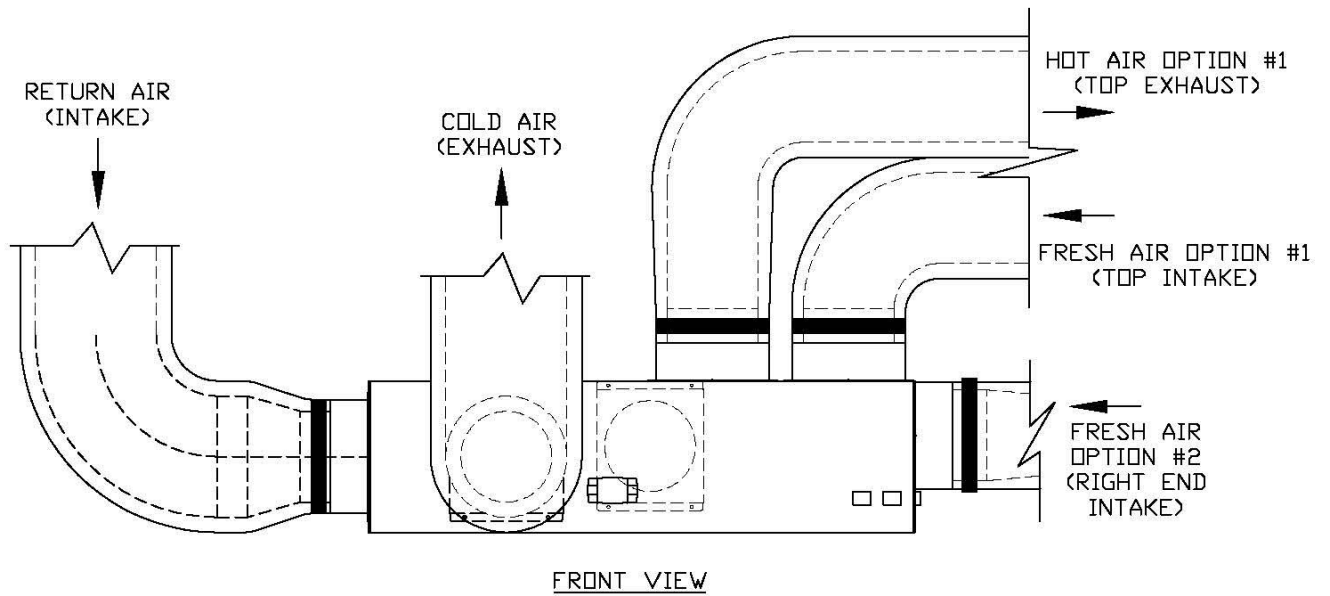
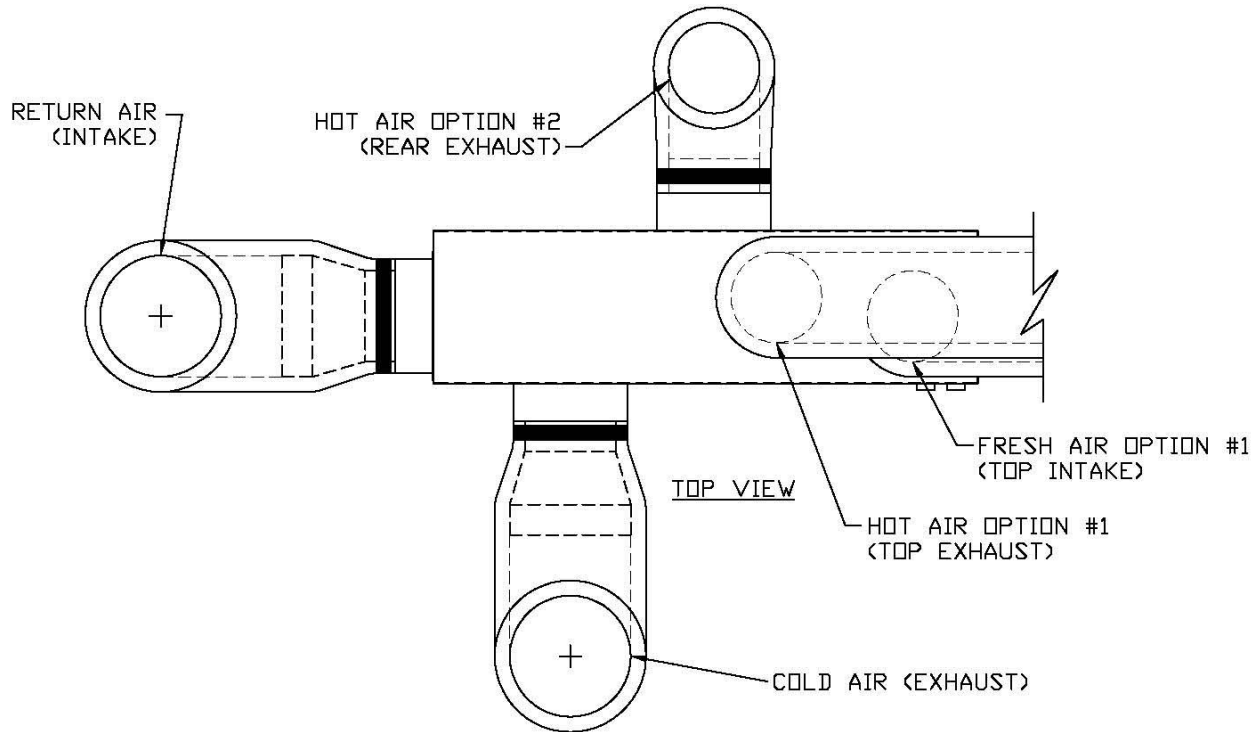


4. Ducted Installations – Cold Side Ducting

- The unit can be ducted up to 50 equivalent feet (25 equivalent feet per duct). **Cold-side ducting must be attached to BOTH the intake and exhaust openings, with BOTH connecting to the wine cellar.**
- When ducting, the perforated (and solid) vent plates should be removed before attaching the duct hood. (If your configuration is known when the unit is being assembled at the factory, we will remove the plates before shipping the cooling unit.) See instructions for removing and replacing plates later in this section.
- One duct adapter is designed for intake and will cover the left side opening of the cooling unit. The second adapter is designed for the exhaust and will cover the opening on the left face of the cooling unit. Both adapters are designed to attach to the cooling unit with 3/8" self-tapping screws (included). **DO NOT USE SCREWS LONGER THAN 3/8".**
- Seal by applying silicone caulking or foil tape on all seams.
- These specifications are based on 8" diameter flex ducting that is fully extended to ensure a smooth inner duct wall. All elbows and bends must have a minimum radius of 8 inches. Elbows, bends, grills, and adapters will add to the equivalent length.
- The "High" fan speed setting for the EVAP FAN must be used when the airflow is ducted.

5. Ducted Installation – Hot Side Ducting

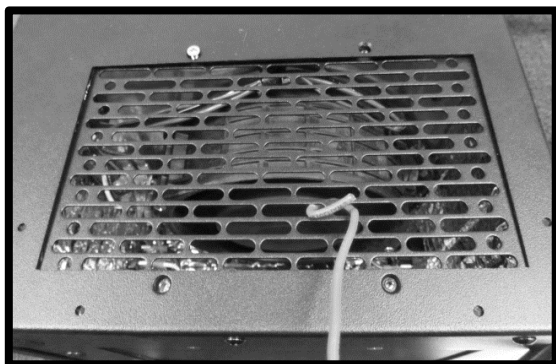
- Ductwork may be attached to the hot air exhaust, the fresh air intake, or both. If ducting is attached only to one adapter, both spaces must be able to provide **110 CFM** of independent exhaust and supply ventilation, otherwise the performance and longevity of the cooling unit will be at risk.
- When ducting, the perforated (and solid) vent plates should be removed before attaching the duct hood. (If your configuration is known when the unit is being assembled at the factory, we will remove the plates before shipping the cooling unit.) See instructions for removing and replacing plates later in this section.
- The unit can be ducted up to 50 equivalent feet (25 equivalent feet per duct) **with 85° F maximum intake temperature** (no auxiliary fan required). With the addition of our auxiliary fan, the duct length can be extended up to 100 equivalent feet (50 equivalent feet per duct) and 95° F maximum intake temperature.
- These specifications are based on 6" diameter flex ducting that is fully extended to ensure a smooth inner duct wall. All elbows and bends must have a minimum radius of 8 inches. Elbows, bends, grills, and adapters will add to the equivalent length.
- The "High" fan speed setting for the COND FAN must be used when the unit is ducted.



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- In configurations 2 - 5 above, when the cooling unit is partially or completely outside the wine cellar, the left side of the cooling unit may generate condensation on the outside of the case.
 - To avoid water damage to the area around the cooling unit, we recommend wrapping the left side of the cooling unit (from the control panel to the left edge of the cooling unit) in 1" foam insulation.
 - If the unit is ducted on the cold side, we recommend insulating the outside of the hoods with 1" foam insulation.
- Once the cooling unit is installed, fill any gaps where the cooling unit or ductwork enter and exit the cellar, to create an insulated and airtight seal between the cellar and the ambient environment.
- The cooling unit comes with an oversized stainless-steel drain pan and a 100 W condensate evaporator so that a condensate drain line shouldn't be necessary in most applications.
 - If your cellar does not have a vapor barrier and/or has air gaps between the cellar and the ambient environment, the unit may create condensation faster than the heating element can evaporate the moisture. If this occurs, you can purchase a drain line to relieve the overflow condensation. When installed properly, the drain line will drop into an open drain or bucket. The 1800H Houdini cooling unit does not require – and should not include – a drain trap in the overflow condensate line.
- The intake and discharge vent and cover plates can be removed and/or relocated, as follows:
 - **IMPORTANT: Before relocating vent plates make sure the unit is unplugged.**
 - When ducting, permanently remove the vent plate before attaching the duct hood.
 - Never operate the unit with an exposed vent (i.e. without a vent plate and without a duct hood).
 - Always start by removing the perforated vent plate first, followed by the solid cover plates.
 - Always reattach the solid cover plate first, then attach the perforated vent plate.
 - If relocating a vent plate to the front face of the cooling unit, **DO NOT** reinstall the decorative grill that covers the entire front face, as this is too restrictive on the fans.
 - When removing and installing the perforated vent plates, use a wire to hold the plate while inserting the screws (as shown below):



Use a wire to hook the perforated vent plate.



- **Summary**

Keep in mind the following guidelines before purchasing a wine cooling unit from CellarPro:

- If the sizing of the cooling unit is too small for the cellar, or the sizing of the cooling unit doesn't account for the type of materials (e.g. glass, uninsulated concrete, etc.) used in constructing the cellar, the cooling unit will run non-stop and may be unable to achieve the desired temperature inside the cellar.
- A vapor barrier and an airtight environment is required to limit the amount of infiltration of ambient air into the cellar. Otherwise, the cooling unit potentially will produce buckets of water and/or cause damage to the cellar.
- The hot side of the cooling unit must have access to a space that is at least as large as the wine cellar, and the cooling unit must have access to sufficient supply of fresh air intake, which CANNOT come from the cellar, in order for the cooling unit to be able to do its job.
- Unless modified with a fan cycling switch, the cooling unit's fresh air intake should not dip below 40° F.
- The cooling unit always should never be located in temperature conditions at or below freezing.
- All airflows require a minimum clearance of 8 inches.

Failure to follow the guidelines above, as well as the guidelines throughout this owner's manual, may cause damage to the unit's internal components, and/or limit the expected useful life of the wine cooling unit, and/or cause the product's warranty to become null and void.



IV. Operating Instructions

- Overview

Please follow the instructions in Section I prior to turning on your CellarPro cooling unit, and test the cooling unit to make sure it is working properly before installation (refer to the instructions at the beginning of the previous section).

CellarPro cooling units are designed to maintain optimal conditions for wine storage and aging. These conditions include steady, cool temperatures, high humidity, minimal vibration and light, and clean air.

The settings on your CellarPro cooling unit have been preset and optimized by the factory. Before changing any settings below, we recommend waiting 14 days to allow the cooling unit to “break in.”

The cooling unit is designed to cool the cellar gently without stripping moisture out of the cellar environment. Therefore, it is not uncommon for the cooling unit to run nonstop for up to a week initially, depending on the temperature inside the cellar, the size of the cellar, and the temperature of the ambient environment. Once the cellar has reached equilibrium, it is normal for the cooling unit to run as much as 75 percent of the time.

CellarPro cooling units are designed to maintain optimal temperatures for **storing and aging** fine wine. CellarPro cooling units are not designed to maintain temperatures for **serving** wine, which tend to be much colder than storage temperatures, especially serving temperatures for white and sparkling wines.

CellarPro cooling units must be used, stored, moved and/or shipped in the upright position. Be careful when turning the unit on its side. The unit NEVER should be turned upside down.

The cooling system is programmed with a **3-minute delay at startup** to protect its internal components.

- Temperature Control

CellarPro cooling units are designed to turn “on” when the air temperature passing over the evaporator coils inside the cellar exceeds the **Minimum Set Point** plus the **Temperature Differential**, and turn “off” when the temperature drops below the **Minimum Set Point**. For example, if the Minimum Set Point is 58 °F and the Temperature Differential is 4 °F, the cooling unit will turn on when the temperature rises above 62 °F inside the cellar, and it will turn off when the temperature falls below 58 °F. In this example, the average temperature inside the cellar will be 60 °F.

Our bottle probe will override the cooling unit’s internal thermostat and can be used to measure liquid temperatures inside the wine cellar. **All 1800H Houdini cooling units must have a bottle probe inserted in a bottle filled with liquid (we recommend 90% water and 10% rubbing alcohol).** The bottle with the probe must be located inside the wine cellar, in the upper third of the cellar and in a location with good airflow, not buried in the back of the wine racks.

IMPORTANT NOTE: The temperature differential (HY) factory setting is “4”. This setting must be changed to “1” when using the bottle probe in liquid. Refer to the “Advanced Operation” section for instructions on how to change the HY setting.



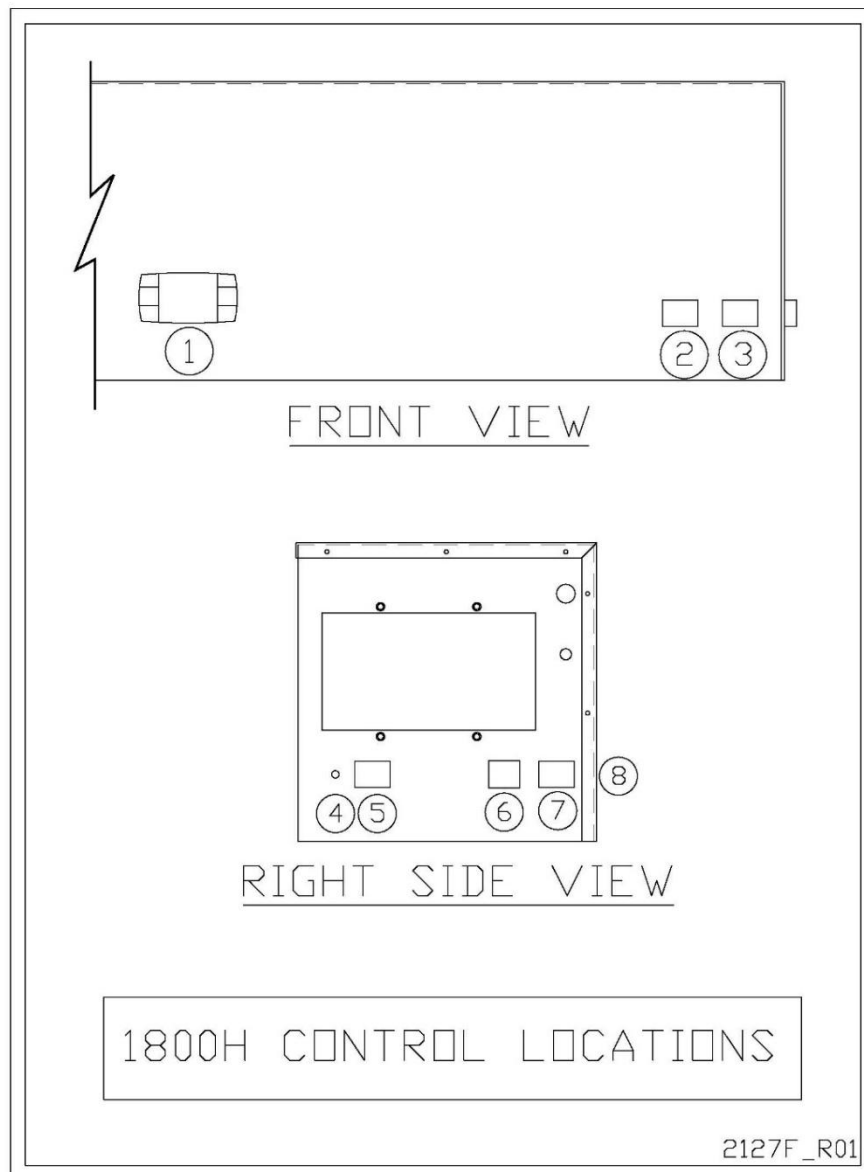
- **Basic Operation**

The temperature inside the cellar can be increased or decreased by changing the Minimum Set Point as summarized below, and detailed later in this chapter.

- Press the “Set” button for three seconds until the snowflake or °F blinks.
- Press “Up” or “Down” button.
- Press “Set” button to confirm.

If the cooling unit runs too much, you can raise the Minimum Set Point to reduce the cycle “on” time. Most wine collectors store their wine in the range of 55 - 60°F. CellarPro cooling units are designed to maintain appropriate levels of humidity (50 to 70 percent) inside wine cellars. To increase or decrease humidity inside the cellar, the **Fon** setting can be changed as described in the “Advanced Operation” section later in this chapter.

- **Switch Instructions**





(1) Control Panel: Maintains desired cellar environment. Factory settings are optimized for peak performance. Controller is described in detail in the following section.

(2) Evaporator Fan Speed Selector Switch (Low - High): The evaporator (cold side) fan operates on 2 speed settings: Low, and High. For optimum sound and energy efficiency, select the lowest fan speed that will maintain the desired cellar temperature. High speed is recommended for initial cellar pull down and extreme temperature conditions, and **is required** for ducted installations.

(3) Condenser Fan Speed Selector Switch (Low - High): The condenser (hot side) fan operates on 2 speed settings: Low, and High. For optimum sound and energy efficiency, select the fan speed based on the maximum fresh air intake temperature. Low fan speed is suitable up to 85 °F fresh air intake, and high fan speed up to 95 °F. High speed is recommended for initial cellar pull down and extreme temperature conditions, and **is required** for ducted installations.

(4) Bottle Probe Jack (Bottle Probe): Plug in the remote bottle probe, and insert the probe into a bottle filled with liquid (we recommend 90% water and 10% rubbing alcohol). The bottle with the probe must be located inside the wine cellar, in the upper third of the cellar and in a location with good airflow, not buried in the back of the wine racks.

When using the bottle probe, the **Temperature Differential** (HY) setting must be changed to “1”. For instructions on changing the HY setting, refer to the “Advanced Operation” section below.

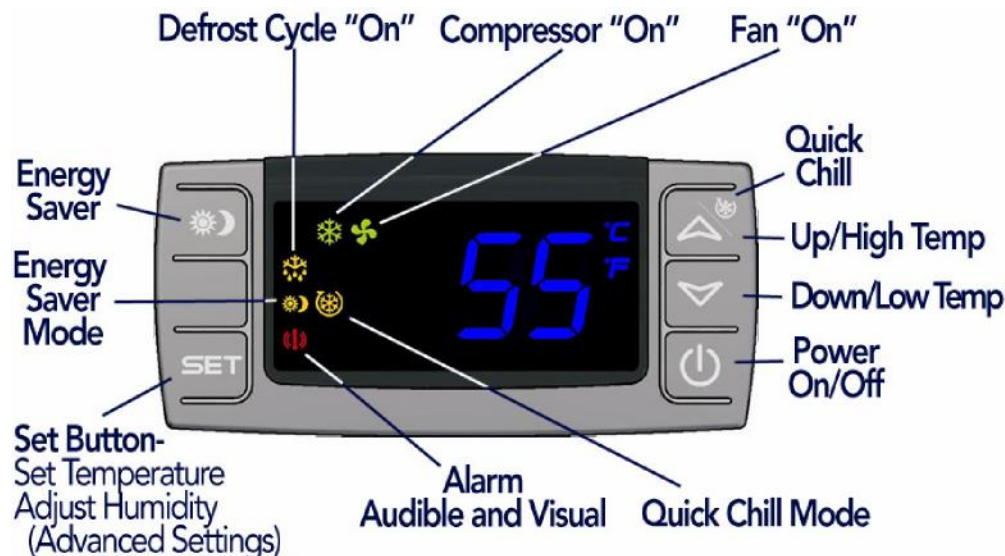
(5) Power Selector Switch (Right - Rear): The unit is powered by installing the provided plug cord in the right side or rear of the unit. To use the receptacle on the right side, set switch to “Right” and plug in the cord at the right side of the unit (location #7). To use the receptacle on the rear, set to “Rear” and plug in the cord at the rear of the unit (location #8).

(6) Outlet For Light (3 amps max.): One grounded power receptacle is available for powering a cabinet light. The receptacle must be used for lighting only, rated 3 amps or less. The outlet provides power at all times unless the main cooling unit power supply cord is disconnected.

(7/8) Grounded Power Receptacle: One receptacle is located on the right (#7) and one on the rear (#8). Use the receptacle that is most convenient for the installation. Enable the receptacle by setting the power location switch (#5) to “Right” or “Rear”.



- Control Panel Instructions



Digital Display



The temperature displayed on the control indicates the real-time air temperature as measured by Probe 1 (P1), located behind the front grill of the cooling unit.

Power "On" / "Off"



Press "Power" to turn the unit on and off.

When the "Compressor On" indicator light is on, the Compressor is running.

The Fan is running when the "Fan On" indicator light is on.

Please note: The cooling system is programmed with a **3-minute delay at startup** to protect internal components.

Up and Down Buttons



To view the “**High Temp**” recorded by the cooling unit, press the “Up” button once.

To view the “**Low Temp**” recorded by the cooling unit, press the “Down” button once.

To **reset** the “High Temp” or “Low Temp”, press the “Set” button for three seconds while “Hi” or “Lo” is displayed. “RST” will blink three times to indicate confirmation.

Set Button



The cooling unit is factory preset with a Minimum Set Point of 58°F and a Temperature Differential of 4°F. This means that the cooling unit will turn on when the display rises above 62°F (58°F + 4°F), and turn off when the display falls below 58°F. In this example, the average temperature inside the cellar will be 60°F.

To view the Minimum Set Point, press the “Set” button for one second.

To change the Minimum Set Point,

- Press the “Set” button for three seconds until °F” blinks
- Press “Up” or “Down” button
- Press “Set” button to confirm

The “Set” temperature will blink three times to indicate confirmation.

The recommended Minimum Set Point range is 53 - 60°F. To change the Temperature Differential, see “Advanced Operation” later in this chapter.

Energy Saver Button



To activate and deactivate the “Energy Saver” mode, press the “Energy Saver” button.

The “Energy Saver” indicator light will turn on when the cooling unit is in “Energy Saver” mode.

In “Energy Saver” mode, the Minimum Set Point increases 4°F and the Temperature Differential is unchanged.

Quick Chill Button



To activate the “Quick Chill” mode, press the “Up” / “Quick Chill” button for three seconds.

To deactivate “Quick Chill,” press the “Quick Chill” button for three seconds again.

The “Quick Chill” indicator light will turn on when the cooling unit is in “Quick Chill” mode.

In the “Quick Chill” mode, the cooling unit will run continuously for up to 6 hours, depending on the model. This mode is helpful after loading “warm” bottles in a cellar.



• Remote Control / Display Instructions



Digital Display

The temperature displayed on the control is red instead of blue.

Set Button

The cooling unit is factory preset with a Minimum Set Point of 58°F and a Temperature Differential of 4°F.

This means that the cooling unit will turn on when the display rises above 62°F (58°F + 4°F) and turn off when the display falls below 58°F. In this example, the average temperature inside the cellar will be 60°F. To view the Minimum Set Point, press the “Set” button for one second.

To change the Minimum Set Point,

- Press the “Set” button for three seconds until the snowflake blinks
- Press the “Up” or “Down” button
- Press the “Set” button to confirm

The “Set” temperature will blink three times to indicate confirmation

The recommended Minimum Set Point range is 53 - 60°F. To change the Temperature Differential, see “Advanced Operation” later in this chapter.

Quick Chill Button

To activate the “Quick Chill” mode, press the “Up” button for 3 seconds



Button



Icon

To deactivate “Quick Chill,” press the “Up” button for 3 seconds again

The “Quick Chill” indicator (Row 3) light will turn on when the cooling unit is in “Quick Chill” mode,

In the “Quick Chill” mode, the cooling unit will run continuously for up to 6 hours, depending on the model. This mode is helpful after loading “warm” bottles in the cellar. **When using Quick Chill, the bottle probe should always be unplugged.**

Auto Defrost Mode

The cooling unit is factory programmed with an auto defrost cycle. When the cooling unit is in auto-defrost mode, the “Defrost” Indicator light (Top row) will turn on, and the evaporator fan will run.

Manual Defrost



Hold the defrost button in for 3 seconds to initiate a manual defrost. The “Defrost” Indicator light (Top row) will turn on for a 20-minute defrost cycle.

Light



The light button function is disabled; however, pressing it will turn on/off the light indicator on the display (2nd row).

Energy Saver

The remote display is not configured with an Energy Saver mode. The set point can be raised manually when energy savings are desired.



- **Advanced Operation**

CellarPro cooling systems can be programmed with advanced settings to achieve more control over conditions inside the cellar. Conditions like humidity, Temperature Differential, and alarm settings can all be modified for custom applications. To access the advanced settings, do the following:

- Press the “Set” button and the “Down” button together simultaneously, and hold for 3 seconds. Then, use the “Up” or “Down” button to scroll to the following screen:



HUMIDITY: The factory preset for this setting is “3”.

If the humidity inside the cellar is too low, press the “Set” button, then use the “Up” button until the desired setting is reached. The recommended range for this setting is 0-6.



TEMPERATURE DIFFERENTIAL: The factory preset for this setting is “4”.

This setting determines the Temperature Differential and therefore the temperature at which the unit will cycle on. The recommended setting is 4 unless using a bottle probe **in liquid**, in which case the recommended setting is 1.



HIGH TEMPERATURE ALARM: The factory preset for this setting is “70”.

This setting designates the High temperature inside the cellar at which the alarm is triggered. We recommend leaving this setting at the factory preset.



LOW TEMPERATURE ALARM: The factory preset for this setting is “45”.

This setting designates the Low temperature inside the cellar at which the alarm is triggered. We recommend leaving this setting at the factory preset.



ENERGY SAVINGS MODE DIFFERENTIAL: The factory preset for this setting is “4”.

This setting increases or decreases the Temperature Differential for the Energy Savings Mode. The recommended range for this setting is 2-4.



- **Standard Protection Mechanisms**

The cooling unit is programmed to shut down specific components to protect those components, as well as the wine inside the cellar, under the following circumstances:

Scenario	What it means	What happens
P1 Alarm	Probe 1, which senses the temperature inside the cellar and controls the on/off cycles of the cooling unit, has failed.	The cooling unit enters a timed auto-cycle mode until Probe 1 is repaired or replaced. In this mode, the cooling unit will turn on for 12 minutes and off for 8 minutes.

Scenario	What it means	What happens
HA2 Alarm P3 > 140 °F	The cooling unit is overheating. If you get an HA2 alarm, 1. Press the “Set” button to turn off the alarm, 2. ensure that the condenser fan (i.e., the fan on the HOT side) is operating. If it is NOT operating, turn “off” the unit immediately. 3. Contact CellarPro for further assistance. Severe damage to the compressor may occur if the compressor continues to run without the fan.	The compressor will turn off until the condenser temperature falls below 95 °F.





- **Maintenance**

The filter on the fresh air intake of the cooling unit will collect dust, dirt and lint over time. It is critically important to clean the reusable filter. If the condenser coils or filter become clogged, the cooling unit will not have proper airflow, and its performance and longevity will be compromised.

Only the factory-provided filter should be used. Substituting with another filter will cause severe damage to the condenser fan and the compressor.

In non-ducted installations, the filter attaches to the cooling unit with magnets and can be easily removed and cleaned with warm, soapy water. In ducted installations, the filter is embedded inside the return air grill, which can be removed easily and cleaned with warm, soapy water.

- **Alarms**

The cooling unit has an audible notification and a visual alarm indicator (shown in “red” on the control panel) that are activated when an alarm is triggered. **Please note:** the temperature alarm (HA) is disabled during the first 23 hours of operation after the cooling unit is turned on:

Alarm Code	What it means	What to do
P1, P3	Probe Failure	- Call CellarPro at 877.726.8496
HA	The temperature inside the cellar is too warm (above 70°F for more than 1 hour)	- Check if the cellar has a leak - Check if a door has been left open - Lower the ambient temperatures
HA2	The condenser temperature is too high (above 140°F)	- Check that the condenser fan (on the right side of the cooling unit) is operating (i.e., confirm that hot air exhaust is being produced) - Make sure that the COND fan is set to “High.” - Make sure that the filter on the fresh air return opening is clean - Check for any blockages of the fresh air intake and hot air exhaust. - Then Turn off your cooling unit immediately and call CellarPro at 877.726.8496 or email info@cellarpro.com
LA	The temperature inside the cellar is too cold (below 45°F)	- Raise the ambient temperature - Raise the “Minimum Set Point”
LA2	The temperature at the condenser coils (outside the cabinet) has dropped below the alarm temperature setting.	Turn off your cooling unit immediately and call CellarPro at 877.726.8496 or email info@cellarpro.com



V. Troubleshooting

- **Cooling Unit Runs Constantly**

Improper installation, inadequate insulation, or a cellar that is too large will cause the cooling unit to run continuously and cannot be troubleshooted.

The cooling unit is designed to turn on when the air temperature in the cellar rises ABOVE the Minimum Set Point + Temperature Differential and turn off when the air temperature falls below the Minimum Set Point. For example, if the Minimum Set Point is 58°F and the Temperature Differential is 1°F, the cooling unit will turn on above 59°F and turn off below 58°F. In this example, the average temperature inside the cellar will be 58.5°F.

When bottles are first loaded in the cellar, the cooling unit will run continuously (even up to a week) until the temperature falls below the Set Point.

Hot weather conditions, insufficient ventilation and dirty condenser filters may cause the cooling unit to run continuously. To reduce cycle times,

1. Remove any obstructions to airflow to or from the unit
2. Check to make sure the condenser filter is clean
3. Increase the Fan speed to High
4. Increase the supply of cool air to the space outside the condenser coils, using a fan, ducting or an exhaust system to remove heat from the space.
5. Raise the Minimum Set Point on the cooling unit

- **Cooling Unit Is Dripping**

The cooling unit is designed to remove excess moisture from inside the cellar, which collects in the cooling unit's drip pan and evaporates by the condensate heater. Excess moisture can occur when the cooling unit runs constantly, when the Minimum Set Point is too low and when the cellar doesn't have a good seal from the outside environment. To eliminate overflow, do the following:

1. If the unit's cold side is ducted, ensure the ducting is tight against the cooling unit and well-sealed.
2. If the optional condensate drain line came with the cooling unit, make sure the drain line is free of obstructions and terminates in an open drain. 1800H cooling unit condensate lines do not need – and should not have – a drain trap.
3. Raise the Minimum Set Point of the cooling unit.
4. Check to ensure the cellar has airtight seals, including the door(s), light fixtures, and all walls, ceiling and floor.



- **HA2 Alarm Has Been Triggered**

The cooling unit is designed to measure the temperature of the condenser coils, and if the temperature exceeds 140°F, the HA2 alarm will be displayed on the control panel.

If this alarm happens **when you first receive and start operating your CellarPro cooling unit**, check for appropriate installation and ventilation on the Hot Side of the cooling unit (Chapter II). Also, make sure that there aren't any obstructions to the intake and exhaust vents.

If the cooling unit has been operating for several months without any problems and the alarm occurs, **turn the unit off immediately**, check the filter to make sure it's clean, check the condenser fan to make sure it's working, and then call CellarPro at 877.726.8496 or email info@cellarpro.com before turning on the unit.

- **LA2 Alarm has been triggered**

As noted above, the cooling unit is designed to measure the temperature of the condenser coils. The LA2 alarm will be displayed on the control panel if the temperature drops below a certain point. Please call CellarPro at 877.726.8496 if this alarm occurs.

- **Cooling Unit Won't Turn On**

The cooling system is programmed with a **3-minute delay at startup** to protect its internal components.

If the unit is configured with a remote display, the wiring must be connected for the unit to run.



VI. Limited Warranty

For five years from the date of original delivery, your CellarPro warranty covers the internal compressor if it proves to be defective in materials or workmanship. In addition, for two years from the date of original delivery, your CellarPro warranty covers all parts and labor to repair or replace any components in the wine cooling unit that prove to be defective in materials or workmanship.

Under the terms of this warranty, CellarPro will repair or replace the original cooling unit with a new or refurbished cooling unit and, once replaced, the original cooling unit must be returned to CellarPro.

All service provided by CellarPro under the above warranty must be performed by a designated repair center, unless otherwise specified by CellarPro. Purchaser is responsible for shipping the cooling unit to and from CellarPro or to and from a designated repair facility, and for removing and reinstalling the cooling unit from the wine cellar.

The limited warranty applies only to cooling units purchased from the factory or an authorized dealer. Damage caused by others or by any cause beyond the control of CellarPro, shall not be considered defects in material or workmanship and are not covered by the warranty. The limited warranty does not cover any parts or labor to correct any defect caused by negligence, commercial use, accident, or improper use, maintenance, installation, service or repair.

THE REMEDIES DESCRIBED ABOVE FOR EACH WARRANTY ARE THE ONLY ONES, WHICH CELLARPRO WILL PROVIDE, EITHER UNDER THESE WARRANTIES OR UNDER ANY WARRANTY ARISING BY OPERATION OF LAW. CELLARPRO WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM THE BREACH OF THESE WARRANTIES OR ANY OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.

To receive parts and/or service and the name of a CellarPro designated repair facility nearest you, contact your CellarPro dealer. You may also contact CellarPro directly by calling us at 1.877.726.8496.