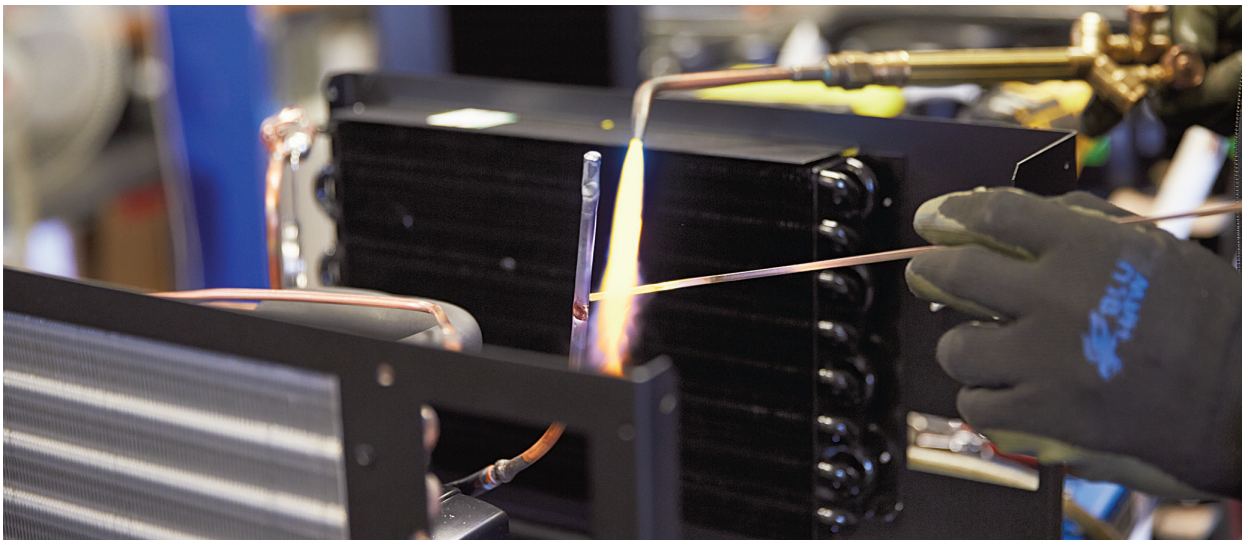
CellarPro

CONTROL THE ELEMENTS



1800 SERIES

OWNER'S MANUAL

INTERTEK ETL LISTED US
TESTED & CERTIFIED BY ETL

MADE IN THE USA

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.cellarprocoolingsystems.com/customer-service .

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@cellarprocoolingsystems.com.

Contact Information:

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

Serial Number: _____
[Can be found on the printed label on the left side of your cooling unit]

Register your cooling unit warranty at www.cellarprocoolingsystems.com/register, or scan the following QR code.

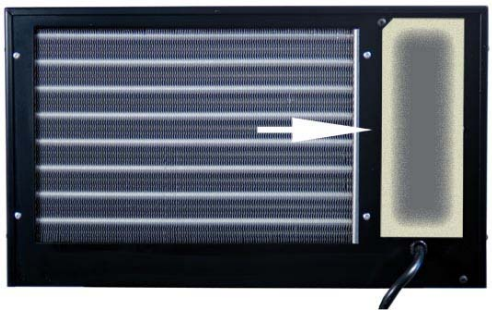
Table of Contents

I. Prior to Installation

- Test the unit BEFORE installing it.
  1. Let the unit sit upright for 24 hours before turning it on
  2. Remove the unit from the box, and **remove any materials that have been packed inside the exhaust cavity.** SAVE THE BOX AND PACKING MATERIALS.
  3. Turn on the unit. PLEASE NOTE: This cooling unit is programmed with a 3-minute delay at startup to protect its internal components.
  4. Let the unit run on a hard, flat surface *for no more than 10 minutes.*
     - Check for any alarms on the display
     - Make sure that all fans are spinning.
     - Check the cold air discharge from the bottom of the cooling unit - it should be 8-10°F colder than the readout on the digital display

- Make sure that the exhaust panel is installed in the correct position – it should cover either the TOP or the REAR exhaust vent:

  - **TOP VENT CONFIGURATION:** If the hot air will be discharged through the TOP of the cellar, install the exhaust panel on the BACK of the cooling unit (as shown in the Picture A). In this configuration, the cavity on **TOP** of the cooling unit is **OPEN.**



Picture A Top Vent Configuration

Picture B Rear Vent Configuration

- **REAR VENT CONFIGURATION:** If the hot air will be discharged through the REAR of the cellar, use the exhaust panel to seal the TOP of the cooling unit (as shown in the Picture B). In this configuration, the cavity at the **REAR** of the CellarPro is **OPEN.**

II. Overview

- CellarPro Cooling Capacity*

<u>Each of our cooling units includes sizing guidelines that are based on R19 insulation throughout the cellar and 85F peak ambient temperatures outside the cellar.*</u>

To find the BTUH output for each of our 1800 cooling units at 55F and 60F, and the thermal loads for various-size cellars, refer to the table below. In order to maintain your desired cellar temperature, the cooling unit's BTUH output (at 55F or 60F inside the cellar) must be greater than the load of your cellar, as shown in the body of the table.

*If your cellar is constructed with glass, or has uninsulated walls, or does not have a vapor barrier), the thermal load will be much higher than what's shown in the table. In this case, please visit http://www.cellarprocoolingsystems.com/request-thermal-load to request a customized thermal load calculation for your cellar:

	Cellar Temp	55 Degrees		60 Degrees	
BTUH	1800QTL-ECX	1065		1154	
BTUH	1800QT-ECX / EC	1380		1479	
BTUH	1800XT-ECX / EC	1456		1558	
BTUH	*1800XTS-ECX / EC 1800XTSx-EC*	*1886*		*2031*	
	Cellar Insulation – Walls, ceiling & floor*:	R-12	R-19	R-12	R-19
Cellar Size	Ambient Temp				
100 Cu Ft.	75 Degrees	1068	979	940	862
	85 Degrees	1180	1046	1038	920
	95 Degrees	1291	1114	1136	980
200 Cu Ft.	75 Degrees	1380	1253	1214	1103
	85 Degrees	*1538*	1349	1353	1187
	95 Degrees	*1699*	1446	1495	1272
300 Cu Ft.	75 Degrees	*1700*	*1542*	1496	1357
	85 Degrees	X	*1562*	*1672*	1463
	95 Degrees	X	*1909*	*2003*	1558
400 Cu Ft.	75 Degrees	X	*1744*	*1690*	1535
	85 Degrees	X	*1879*	*1888*	*1654*
	95 Degrees	X	X	X	*1773*

- **Size & Electrical Specifications**

Model	Dimensions W" x D" x H"	Weight (lbs)	Operating Amps	Required Circuit
1800QTL-ECX 1800QT-ECX / EC 1800XT-ECX / EC 1800XTS-ECX / EC	18 x 16.5 x 10.5	60	2.36 2.89 / 2.98 2.95 / 3.16 3.62 / 3.98	15-Amp Dedicated
1800 XTSx-EC	18.1 x 22 x 10.6	70	4.29	15-Amp Dedicated

- **Ambient Environment**

CellarPro interior cooling units are designed to operate in ambient temperatures between 45°F and 95°F, and the exterior-rated 1800XTSx is designed to operate in ambient temperatures between 20°F and 95°F.. Except for the 1800XTSx-EC cooling unit, all cooling units are designed for internal use only, and are not designed for exposure to the exterior.

CellarPro cooling units are not designed to generate heat inside the cellar, so if temperatures inside the cellar drop below proper wine storage temperatures, the cooling unit cannot increase the temperature inside the cellar.

Proper temperatures are maintained by transferring heat from inside wine cellars and exhausting heat through the top (top-vent) or rear (rear-vent) of the cooling units.

- **Insulation**

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 perimeter of the door. Surface-mounted fixtures are recommended over recessed lighting, which can allow air to leak into the cellar. **Please note:** The R-values above are the **MINIMUM** recommended amounts of insulation. It is advisable to use as much insulation as possible inside your

walls, ceiling and floor. All walls, joints, doors and windows, electrical outlets and/or switches, pipes, vents and light fixtures should be sealed to prevent ambient air and moisture from infiltrating into the cellar.

If the cellar is not well sealed, the cooling unit will build up excess condensation that eventually may damage the internal components and shorten the life of the cooling unit, and may cause water to leak from the cooling unit.

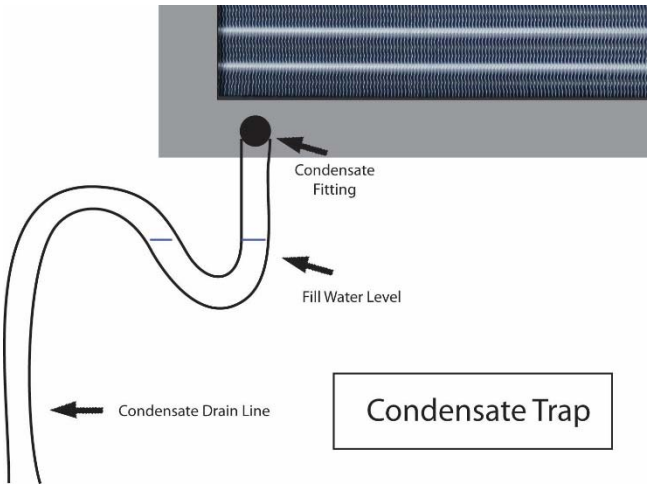
We offer 2 **Condensate Drain Line** options for cooling units that will be installed in wine cellars (as opposed to wine cabinets.) The REAR drain line configuration includes a fitting and condensate tube at the rear of the cooling unit for excess condensate to flow from the rear of the unit *outside* the cellar. The BOTTOM drain line configuration includes a custom hole, a barbed fitting and a condensate tube at the bottom of the cooling unit for excess condensate to flow from the bottom of the unit *inside* the cellar.

Our REAR drain line comes with the fitting installed in the rear of the cooling unit. Our BOTTOM drain line requires installation of the fitting. To install, apply pipe joint sealant (included) to the male threads of the barbed fitting, then hand-tighten the fitting into the threaded drain line hole. Do not force – if cross threaded, back out and realign. Finish by tightening the fitting with a wrench.

Drain lines are recommended for installations in warm and/or humid environments; however, **the drain line does not replace the requirement for a cellar to be properly constructed with proper insulation, moisture barrier and airtight seals.**

When using a drain line, **you must create a condensate trap** as follows:

As shown above, the drain line should drop, then rise (but stay below the height of the fitting), and then drop again, and must terminate in air, not liquid After installing the trap, it must be charged with water as shown.



If your unit generates excess condensate and you don't have a drain line, or you have a drain line but no trap, the condensate may leak out of the front or bottom of the cooling unit, and cause damage inside your walls or your cellar.

III. Installation Instructions – Wine Cellars

CellarPro cooling units are designed to be installed ***THROUGH THE WALL, with ample open space on the sides and rear of the cooling unit.*** A hole should be cut 1/4 inch larger than the dimensions (W x H) of the cooling unit. Horizontal 2 x 4 inch braces should be installed between the studs below and above the cooling unit. If the studs in the wall must be cut to accommodate the width of the cooling unit, vertical braces also should be installed on either side of the cooling unit.

CellarPro cooling units must always be mounted in the upright position, and tilted slightly to the rear so that excess condensate flows to the rear of the cooling unit.

Inside the cellar, the front of the cooling unit catches warm air as it rises, pulls the air across the evaporator coils, and removes the heat from the warm air. Once cooled, the cold air is discharged from the bottom of the cooling unit and circulates downward through the cellar. A minimum of 8" of the front of the cooling unit must be protruding inside the cellar, so that airflow (intake and exhaust) can occur as designed, unless the unit is installed directly above the cellar and is installed together with our front intake hood.

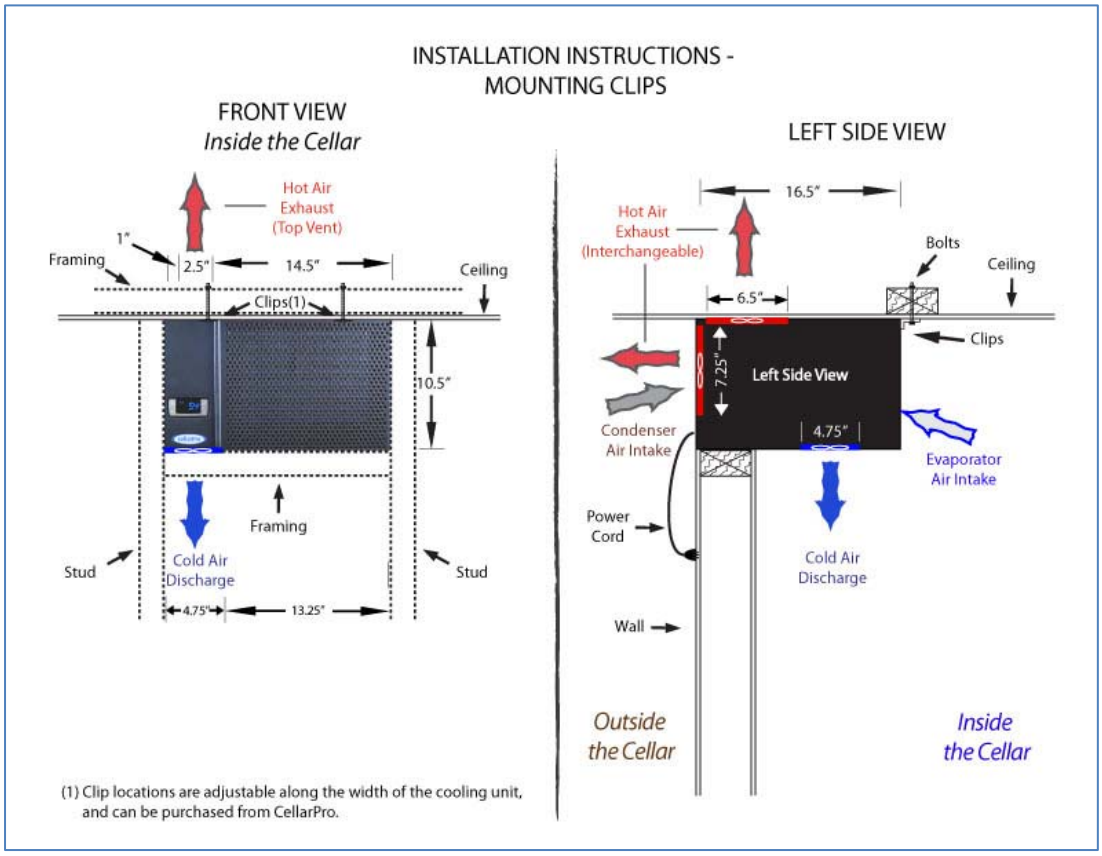
The *front* of the cooling unit requires a minimum of 3 inches of clearance inside the cellar, and the *bottom* of the cooling unit requires clearance of 8 inches below the cold air discharge.

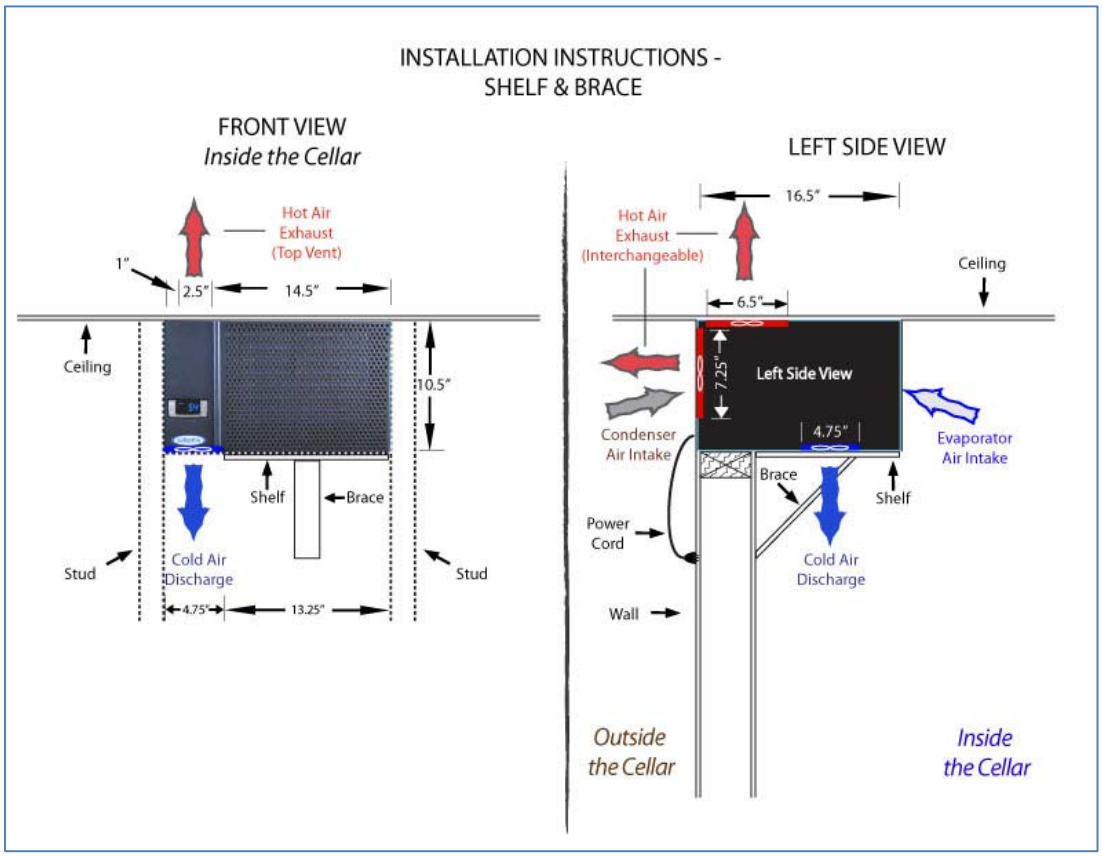
Outside the cellar, the rear of the cooling unit should be flush with the outside wall – ie the cooling unit should not be recessed in the wall unless the unit is installed with our duct kit. **The rear of the cooling unit must be installed in an open space that is at least as large as the wine cellar (unless the rear intake and exhaust are ducted).** Do not install the unit in a corner, because ample space is required to the sides and rear of the cooling unit in order for the unit's hot air exhaust to dissipate without being recycled into its fresh-air intake.

The front of the cooling unit can be supported using optional mounting clips (available for purchase from CellarPro).

Alternatively, the front of the cooling unit can be supported by a shelf and a diagonal brace. The shelf can be up to 13.25" inches wide, and should be positioned on the right side of the cooling unit so that it doesn't restrict the exhaust vent below the cooling unit.

Drawings for both types of installations are shown on the following page:


INSTALLATION INSTRUCTIONS -
MOUNTING CLIPS
FRONT VIEW
Inside the Cellar
LEFT SIDE VIEW
Hot Air
Exhaust
(Top Vent)
1"
Framing
2.5"
14.5"
Ceiling
Clips(1)
10.5"
Framing
Stud
Cold Air
Discharge
4.75"
13.25"
Stud
16.5"
Hot Air
Exhaust
(Interchangeable)
Bolts
Ceiling
6.5"
Clips
7.25"
Left Side View
Condenser
Air Intake
4.75"
Evaporator
Air Intake
Power
Cord
Cold Air
Discharge
Wall
Outside
the Cellar
Inside
the Cellar
(1) Clip locations are adjustable along the width of the cooling unit,
and can be purchased from CellarPro.


INSTALLATION INSTRUCTIONS -
SHELF & BRACE
FRONT VIEW
Inside the Cellar
LEFT SIDE VIEW
Hot Air
Exhaust
(Top Vent)
1"
2.5"
14.5"
Ceiling
10.5"
Shelf
Brace
Stud
Cold Air
Discharge
4.75"
13.25"
Stud
16.5"
Hot Air
Exhaust
(Interchangeable)
Ceiling
6.5"
7.25"
Left Side View
Condenser
Air Intake
4.75"
Evaporator
Air Intake
Brace
Shelf
Power
Cord
Cold Air
Discharge
Wall
Outside
the Cellar
Inside
the Cellar

Once the cooling unit is installed, all cracks and gaps between the cooling unit and the cellar should be sealed. We provide butyl tape (shipped in the cavity of the exhaust vent) for sealing these gaps. **The butyl tape is pliable, and is designed to be rolled and stretched in your hands to fit around the entire cooling unit.** (If you adhere the tape before rolling and stretching it, you will not have enough tape to complete the job). Pay particular attention to the seams on the back of the cellar (top and rear vent configurations) and the seams at the top of the cellar (top-vent configuration).

VENTILATION - WITHOUT DUCTING

Proper ventilation is critically important for the proper operation of your CellarPro cooling unit. The CellarPro cooling unit blows a significant amount of hot air through the top or the rear of the cooling unit, and the hot air must be exhausted into a space that is **at least as large as the wine cellar** in order for the heat to properly dissipate. If the space is too small or constrained, eg because there's a wall or obstruction to one of the sides of the cooling unit, or there's an obstruction directly behind the cooling unit, the hot exhaust will not properly dissipate and the cooling unit will be forced to recirculate its own hot air, which will impair its ability operate.

1. Condenser Air Intake (Rear). The condenser coils are located at the rear of the cooling unit. These coils require access to cool air in order for the cooling unit to produce cool air. The cooling unit must be installed so that, after its installation, there is access to the condenser coils at the rear of the cooling unit for periodic cleaning of the coils. Minimum clearance of 8 inches is required behind the cooling unit.

2. Condenser Air Exhaust (Rear or Top). Condenser air can be exhausted either through the top or the rear of the cooling unit. CellarPro units have interchangeable vent panels that can be swapped between the top and the rear of the cooling unit to match the configuration of your cellar and exhaust space.

- **Rear vent configuration (most common):** in this configuration, the panel is attached to the top of the cooling unit and hot air is freely exhausted from the rear of the cooling unit into the exhaust space, which should have the same space capacity as the wine cellar. (eg, if the cellar is 300 cubic feet, the exhaust space also should be 300 cubic feet.) In addition, this configuration requires sufficient clearance behind and to the sides of the rear of the cooling unit.

- **Top-vent configuration (less common)**: in this configuration, the panel is attached to the rear of the cooling unit and hot air is freely exhausted from the top of the cooling unit into the exhaust space. If the exhaust space is shared with the rear of the cooling unit, it should have the same space capacity as the wine cellar (eg, if the cellar is 300 cubic feet, the exhaust space also should be 300 cubic feet.)

VENTILATION - WITH DUCTING

We offer ducting options that are designed to duct the HOT side of the cooling unit – ie the hot air exhaust and the fresh air return, including:

- A duct hood that fits over the rear of the cooling unit and is designed to connect to two 6" ducts (one for intake and one for exhaust), with a removable slot for changing air filters. We offer the hoods with or without ducting.

- A 6" inline fan, plus wiring from the cooling unit that provides switched power to the fan ***(the cooling unit cannot be ducted without an inline fan)***. When connecting the fan to our switched power line, please follow local building codes, which may require the use of conduit for the wiring and junction boxes for any wire connections. **The fan always should be installed on the exhaust side of the ducting**, in the same direction as the airflow (ie away from the cooling unit).

With our duct option, the hot side of our units can be ducted up to 50 equivalent feet per duct. When calculating equivalent feet, each 90 degree turn in the ducting approximately equals 8' of ducting. **Be sure to use gradual turns to avoid restricting airflow inside the ducting.** Consult your HVAC professional for further information.

IF THE COOLING UNIT WILL BE ENTIRELY LOCATED INSIDE THE CELLAR:

- The HOT side airflows (both exhaust AND intake) MUST be vented to space outside the cellar with insulated ducting (R-6 minimum)

- The rear duct hood must be wrapped with insulation to minimize heat gain inside the cellar

- The openings at the bottom of the rear duct hood must be sealed to prevent air exchange inside the cellar

The COLD sides (ie Front) of 1800 cooling units cannot be ducted unless they are located directly above the cellar. In this scenario, our front intake hood is required, and 2 openings will be required in the ceiling – one for the cold-air discharge, and one for the return air from the cellar.

INSIDE THE CELLAR

CellarPro cooling units are designed to turn on when the temperature near the ceiling inside the cellar exceeds the **Minimum Set Point** plus the **Temperature Differential,** and turn off when the temperature inside the cellar drops below the Minimum Set Point. The Minimum Set Point and Temperature Differential can be set according to instructions in the following Chapter. 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 inside the cellar rises above 62°F, and turn off when the temperature falls below 58°F. In this example, the cellar temperature will average 60°F.

At least 8" of the front of the cooling unit must protrude inside the cellar – in other words, the front of the cooling unit cannot be buried inside the wall.

1. Evaporator Air Intake. The evaporator coils are located on the face of the cooling unit behind the grill. CellarPro cooling units are designed to be mounted at the highest point inside wine cellars, so that warm air – which rises – will be the first to pass over the evaporator coils, which will remove the heat from the air. To ensure proper airflow, a minimum of 3" of clearance is required in front of the cooling unit.

2. Evaporator Air Exhaust. Cold air is exhausted through the bottom of the cooling unit. Because CellarPro cooling units are located at the highest point inside wine cellars, the cold air will fall to the bottom of the cellar. To ensure proper airflow and reduce temperature stratification inside the cellar, the space below the cold air discharge should be clear of any obstructions, including wine bottles, wine racks, etc.

- Power Requirement

CellarPro 1800 cooling systems require a dedicated 15-amp circuit. We recommend using a surge protector to protect the internal components in case of a power surge.

The cooling unit uses approximately 3 amps during its "on" cycle. The cooling unit also offers a grounded 115V AC outlet, which is rated for 3 amps.

A number of 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 in order to maintain proper conditions inside the cellar.

Summary

- **Volume is NOT the only consideration when sizing the cooling unit.** In addition to the volume of the cellar, you must consider the R-Value in the walls, the temperatures outside the cellar and the desired temperature inside the cellar when sizing and selecting the correct cooling unit.
- **Cellars must be properly constructed.** If the cellar does not have a moisture barrier and an airtight environment inside the cellar, the cooling unit will produce buckets of water that will ruin the components and may cause damage to the cellar.
- **The cooling unit needs adequate cool fresh air from outside the cellar.** The rear (hot side) of the cooling unit must have unrestricted access to fresh air below 95F from OUTSIDE the cellar. The space should be at least as large as the wine cellar, and should not be enclosed on the sides or behind the cooling unit.
- **Minimum clearance for exhausts.** The exhausts (hot and cold) require a minimum clearance of 8 inches.
- **Low Temperature.** If the rear (hot side) of the cooling unit will be pulling air that is colder than 40F, the unit must be configured with a compressor heater.
- **Dedicated circuit.** CellarPro 1800 cooling units require a dedicated 15-amp circuit.

IV. Replacement Instructions

A. Replacement Instructions

TOOLS NEEDED:
Phillips screwdriver
7/16" open end wrench or socket
Needlenose pliers

REQUIRED PARTS
Replacement Cooling Unit
Butyl Sealant Tape

REMOVAL OF OLD COOLING UNIT:

1. Unplug the cooling unit from the wall.

FROM THE TOP OF THE CELLAR

2. If your cellar comes with a grill(s), remove and discard the grill(s) on top of the cellar. **You do not need a grill with the CellarPro cooling unit.**

3. Pull the power cord through the back of the cellar.

4. Note the location where sealant is applied to maintain an airtight seal inside the cellar.

FROM THE FRONT OF THE CELLAR

5. Open cabinet door and remove all bottles from the top of the rack.

6. Place a heavy towel or blanket on top of the wine rack for protection.

7. IF YOU HAVE A LE CACHE MODEL 2400 WITH A CENTER POST: Remove the center post by unscrewing the screws (two at the top and two at the bottom) that attach the post to the wine cabinet.

8. Unplug the light from the cooling unit inside the cellar, and also unplug the cord from the light fixture.

9. Remove the light fixture as follows:

   - Slide the light left or right, and then unscrew and remove one of the two mounting brackets that attach the light fixture to the ceiling of the cellar.

   - Slide the light fixture off the second mounting bracket.

10. With 7/16 socket wrench, remove the two hex head bolts that attach the cooling unit to the ceiling of the cellar. **Save these bolts!** Leave mounting brackets attached to the cooling unit so that the proper location can be duplicated with the replacement cooling unit.

    PLEASE NOTE: If the nut in the ceiling becomes loose, you will need to use pliers from the top of the cabinet to hold the nut and keep it from spinning with the bolt.

11. The cooling unit is now free to remove. Drop front end down, and move side to side to free from cabinet opening.

    CAUTION: Two people may be required to remove the cooling unit, which weighs 58 pounds. Do not let the cooling unit drop on unprotected bottle racks.

TO INSTALL THE REPLACEMENT COOLING UNIT

1. Carefully remove the replacement cooling unit from the packaging. NEVER store the cooling unit upside down or on its side, and NEVER turn the unit upside down. You may reuse this packaging for shipping or storing the old cooling unit

2. **Remove any materials that have been packed inside the exhaust cavity.**

3. Before installing the cooling unit, make sure it works by plugging it in and letting it run on a hard, flat surface for no more than 5 minutes. Check that cold air is being produced by the unit. **PLEASE NOTE: CellarPro cooling systems are programmed with a 3-minute delay at start-up to protect its internal components.**

4. For **top-vent configurations**, make sure that the exhaust panel is installed at the REAR of the cooling unit, so that the top of the unit has an opening for the hot air exhaust. For **rear-vent configurations**, make sure that the exhaust panel is installed in the TOP of the cooling unit, so that the rear of the unit has an opening for the hot air exhaust. In both configurations, return air from outside the cellar will come into the coils at the rear of the cooling unit.

5. If using mounting clips, attach the clips to the FRONT of the cooling unit so that the short side slides under the metal fold near the top of the cooling unit, and space the clips so that they'll line up with the holes in the ceiling of the cellar. You may need to remove the front grill (attached with two screws on each side of the cooling unit) in order to slide the mounting clips under the sheet metal, then replace the front grill after the clips are in place.

6. If your wine cabinet has three pieces of foam located on the bottom and on each side of the black metal bracket that supports the rear of the cooling unit (attached to the rear wall in most top-vented units), place these foam pieces along the bottom and sides of the metal bracket.

7. Install the cooling unit by following the removal instructions described above in reverse.

8. A complete and proper seal must be made between the cellar and the cooling unit to ensure that outside air does not enter the cellar. Use butyl adhesive tape to seal the perimeter where the cooling unit touches the cellar by rolling the tape with your fingers into a thin (pencil diameter) "rope", then press the tape into the cracks where the cooling unit touches the cellar.

9. Check the seal by having a helper stand in front of the cabinet while you shine a flashlight around the cooling unit edges to discover any gaps in sealant.

10. Wait 24-hours before running the cooling unit. We recommend plugging the cooling unit into an outlet with a dedicated 15-amp circuit and a surge protector.

RETURNING THE ORIGINAL COOLING UNIT:

If the original cooling unit is under warranty and you are returning it, please follow the instructions below:

1. Use the original packaging to repack the cooling unit.

2. Make sure that the cooling unit is upright in the box

3. The exterior of the box should be prominently marked with “This Side Up” and “Fragile” for the freight carrier

V. Operating Instructions

Overview

Please follow the instructions in Section I prior to turning on your CellarPro cooling unit.

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.

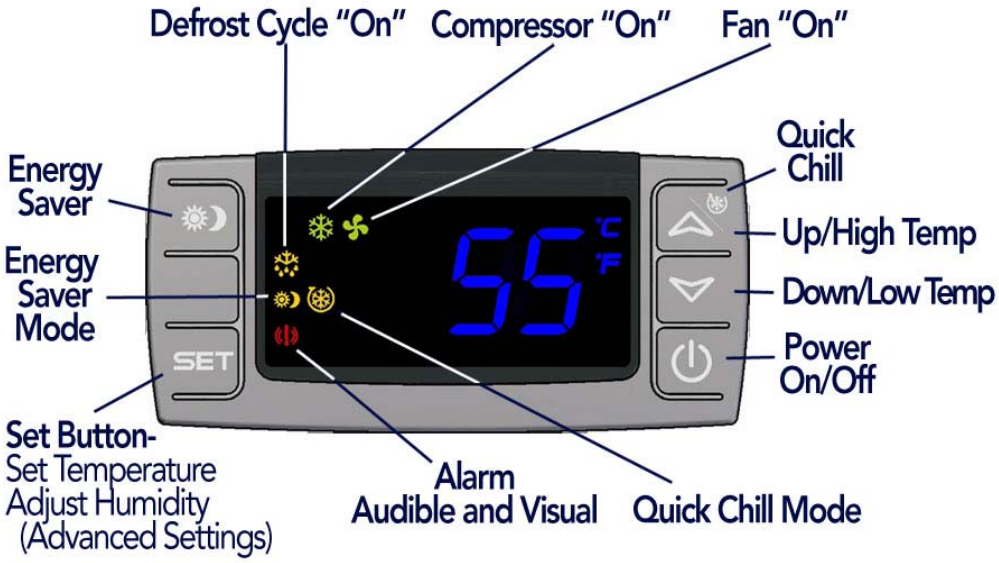
Remote Thermostat

Our remote thermostat will override the cooling unit's internal thermostat, and can be used to measure air or liquid temperatures inside the wine cellar. If measuring air, place the thermostat in the cellar in a location with good airflow. If measuring liquid, fill a bottle with mixture of water (80-90%) and rubbing alcohol (10-20%), insert the probe into the bottle and use the rubber stopper on the thermostat to seal the bottle, and place the bottle inside the cellar in a location with good airflow. **If the bottle probe is used to measure air temperatures, the differential (HY) on the cooling unit should be set to "4". If the bottle probe is used to measure liquid temperature, the differential should be set to "1".** Refer to our "Advanced Operation" instructions for further instructions how to change the HY differential.

Basic Operation

The temperature inside the cellar can be increased or decreased by changing the Minimum Set Point as described later in this chapter. 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, ranging from 50 to 70 percent, inside wine cellars. In order 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.



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, or the temperature (air or liquid) being measured by the remote thermostat (which overrides the internal probe).

Power On/Off Button

Press “Power On/Off” to turn the unit on and off

When the “Compressor On” indicator light is on, the Compressor is running. When the “Fan On” indicator light is on, the Fan is running

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,

1. Press the “Set” button for three seconds until “°F” blinks
2. Press the “Up” or “Down” button
3. 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.

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 "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 6 hours (or until the intake temperature registers 50°F). This mode is useful after loading "warm" bottles in a cellar

AIR FILTER

We offer an optional air filter that magnetically attaches to the rear of the cooling unit.

To replace the filter, remove the filter frame from the cooling unit (see the image at right), and replace the fiberglass membrane when it becomes dirty (anywhere from 3 to 9 months depending on the conditions in your location.) The air filters are disposable, they cannot be cleaned.

When replacing the filter, the blue fibers should face the cooling unit, and the white fibers should face away from the cooling unit.

Replacement filters may be purchased at www.cellarprocoolingsystems.com.

Remote Control / Display Instructions

Digital Display

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

Quick Chill Button

To activate the "Quick Chill" mode, press the "Up" button for three seconds

To deactivate "Quick Chill", press the "Up" button for three seconds again

Button

Icon

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 6 hours (or until the unit reaches set point.). This mode is useful after loading "warm" bottles in the cabinet.

Auto Defrost Mode

The cooling unit has a factory default defrost cycle that initiates every 16 hours for 20 minutes. 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 for periods where energy savings is desired.

Advanced Operation

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

- Press the "Set" button and the "Down" button together at the same time, and hold for three 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 setting is 3.

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. If using a bottle probe **in liquid**, the HY setting should be 1, otherwise the HY setting should be 4.

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 setting is 4.

Standard Protection Mechanisms

The cooling unit is programmed to shut down certain 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 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. Check to make sure that the condenser fan (ie the fan on the HOT side) is operating. If it is NOT operating, turn "off" the unit immediately. 3. Contact CellarPro for further assistance. Serious 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

Condenser Coils (Hot-Side)

The condenser coils at the rear of the cooling unit will collect dust, dirt and lint over time. It is critically important to replace the filter and/or clean the coils periodically. If the filter becomes dirty or the condenser coils become clogged, the cooling unit will not have proper airflow and its performance and longevity will be compromised.

To clean the coils, simply vacuum or brush the coils until all dust and lint have been removed. Do not use compressed air to clean the coils because it may force dirt particles into the cooling system and cause serious damage to its internal components.

To replace the filter, pull the dirty filter membrane out of the magnetic frame and replace with a new, clean filter membrane. **Never use third-party or pleated filters with CellarPro equipment.**

CellarPro filters are made from synthetic fibers that are bonded with a fire retardant resin, and meet UL Class 2 flame retardance requirements (maximum temperature is 220 degrees).

We recommend replacing the fiberglass membrane every 6 months. These filters are single-use and cannot be cleaned – ie they should be replaced after use. To purchase replacement filters, visit www.cellarprocoolingsystems.com/1800-filter-2-pack.

Evaporator Coils (Cold-Side)

The evaporator coils at the front of the cooling unit should be sprayed with Evap Fresh (bactericide formula) at least 4 times per year. Evap Fresh is designed to neutralize acids that collect on the coils over time, and to combat the formation of mold in the drain pan.

To apply, start by turning off or unplugging the cooling unit and removing the grill from the face of the cooling unit. Hold the can 6 to 8 inches in front of the evaporator coil and spray until the coils are covered with a white foam. Let the foam sit for 10 minutes, then wipe off the excess with a clean cloth. No rinsing is necessary. Replace the grill and turn on or plug in the cooling unit.

Be careful about using alternatives to the specific product linked below. Some coil products are designed to clean, rather than neutralize acids, and contain cleaning agents that could exacerbate the problem.

To purchase Evap Fresh, visit www.cellarprocoolingsystems.com/evap-foam-cleaner.

Alarms

The cooling unit has both 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 HA and LA alarms are disabled during the first 23 hours of operation after the cooling unit is plugged in and/or turned on.

The control panel also will flash a code for each alarm, as follows:

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 seals; Check if door was left open; Lower the ambient temperatures
HA2	The condenser temperature is too high (above 140°F)	Check that the condenser fan (at the rear of the cooling unit) is operating; Make sure that the filter (if used) or coils are clean; If the unit is ducted, make sure that the auxiliary fan is operating; Check for any blockages of the hot air intake or exhaust Then turn off the unit immediately and call CellarPro at 877.726.8496 or email info@cellarprocoolingsystems.com
LA	The temperature inside the cellar is too cold (below 45°F)	Raise the ambient temperature; Make sure the cold air discharge has sufficient clearance for the air to circulate Raise the "Minimum Set Point"
LA2	The temperature at the condenser coils (outside the cabinet) has dropped below the alarm temperature setting	Call CellarPro at 877.726.8496

- **The Cooling Unit Runs Constantly**

The cooling capacity of the cooling unit depends on the thermal load on the wine cellar, and the resulting BTU that is required to cool and maintain the cellar at the desired temperature. The cooling capacities of both units are shown on page 2. If the thermal load exceeds the capacity of the cooling unit, you will need to add insulation and/or raise the setpoint on the cooling unit.

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 4°F, the cooling unit will turn on above 62°F and turn off below 58°F. In this example, the average temperature inside the cellar will be 60°F.

When bottles are first loaded in the cellar, the cooling unit will run continuously (even up to a week) until the temperature inside the cellar falls below the Set Point. After the temperatures inside the wine cellar reach equilibrium, the cooling unit will run anywhere from 30 to 50 minutes in a given hour, depending on the thermal load and the setpoint.

Hot weather conditions, insufficient insulation, inadequate ventilation, mis sized cellar capacity and/or dirty condenser coils can all cause the cooling unit to run continuously.

If your CellarPro wine cooling unit runs constantly, try the following:

- Clean the condenser coils or, if using a filter, replace it with a clean filter
- Make sure that all the fans are spinning in the cooling unit
- If the cooling unit is ducted:
  - Make sure the ducts aren't kinked
  - Remove any louvered grills
- Make sure that the cooling unit is NOT in Energy-Saver Mode
- Increase the supply of cool air to the space outside the condenser coils (at the rear of the cooling unit) using a fan, exhaust system or ducting
- Raise the Minimum Set Point on the cooling unit

If you continue to have problems, please complete our Cooling Unit Troubleshooting Inquiry Form ((found online) and we'll respond by the next business day.

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

The cooling system is programmed with a **3-Minute Delay at Startup** to protect its internal components.

- **The HA2 Alarm has been triggered**

HA2 alarms should be addressed as soon as possible, otherwise permanent damage may occur to the compressor.

CellarPro cooling units are designed to trigger an HA2 alarm when the temperature at the condenser coils gets too hot. HA2 alarms generally occur when:

- The condenser fan (at the rear of the cooling unit) isn't turning, and/or
- The filter and/or condenser coils must be clean and free of blockages
- Our filters are custom-made for our cooling unit, and should never be replaced with filters that are not purchased from CellarPro
- Airflow at the rear of the cooling unit is restricted or too small for the hot air exhaust to dissipate, and/or
- Ducting at the rear of the cooling unit is incorrectly installed or too restrictive, and/or
- The thermal load of the wine cellar or cabinet exceeds the capacity of the cooling unit, and therefore the cooling unit never turns off
- The maximum intake temperature should not exceed 95F

When your cooling unit flashes an HA2 alarm, please do the following:

1. Check to see if the hot-side fan is operating when the fan icon is lit on the digital display. If the condenser fan is not operating, turn the unit "Off'", then check to see if the fan blades will spin freely

   Please note: there are multiple fans inside each cooling unit. The HA2 alarm is related to the fan **on the hot side** (ie at the rear) of the cooling unit. Even if the fan inside the cellar is operating, you must check to see if the fan(s) on the hot side is operating.

2. Confirm proper installation

   - The hot side of the cooling unit must be completely separated from the cellar – it can't pull air from the cellar, or push hot air into the cellar.
   - The cold side of the cooling unit must be completely captured inside the wine cellar.

3. Check for appropriate ventilation at the rear of the cooling unit. If the space is too small or restricted for the hot air exhaust to dissipate, you may need to add a rear duct retrofit kit to separate the hot air exhaust and the fresh air intake.

4. Check for any obstructions to the intake and exhaust at the rear of the cooling unit. If you are ducting the rear of the cooling unit, you must use an auxiliary fan, and you cannot have reducers in the ducting.

5. If the rear of the unit is recessed in the wall, make sure to separate the exhaust from the intake with an insulated board. Depending on the length of the recessed space and the cooling unit, you may need to add auxiliary fan support to overcome the static pressure that occurs from the restricted space.

6. If you have a grill or vent cover where the hot airflow terminates, they may be too restrictive for the cooling unit. To test, remove the duct covers and see if the problem is resolved. If so, you will need to replace with less restrictive duct covers.

If the rear of the unit is ducted:

- The auxiliary fan MUST be operating when the cooling unit is cycling
- The fan should be facing towards the cooling unit if installed on the intake side or way from the cooling unit (preferred) if installed on the exhaust side
- The ducting must be 6" diameter (or equivalent) from start to finish (ie no reducers)

If these actions do not resolve the issue, we will be glad to further assist you. In order to troubleshoot, start with the unit "Off" for 10 minutes, then gather the following information:

- Please send pictures of the installation, front and rear, to info@cellarprocoolingsystems.com with the pictures attached. We need 4 pictures: a closeup of the entire unit AND a picture showing the unit in the installed environment for both the front and the rear of the cooling unit.
- If the hot side of the unit is ducted, let us know if the exhaust and intake come from different spaces. If so, let us know how big is the space where you're ducting from and to

- The Cooling Unit Is Dripping

The cooling unit is designed to remove excess moisture from inside the cellar, which collects in the drip pan of the cooling unit.

Excess moisture can occur when the cooling unit runs constantly, when the Minimum Set Point is too low and/or when the cellar doesn't have a good seal from the outside environment. To eliminate overflow in the drip pan, do the following:

1. Raise the Minimum Set Point of the cooling unit to 58 degrees or above.
2. Make sure the cellar has good seals, especially at the door(s), and repair any leaks immediately.
3. If the unit is ducted at the front, make sure the ducting is tight against the face of the cooling unit and well-sealed.
4. Make sure that the cooling unit is tilted slightly to the rear
5. If your wine cooling unit came with a condensate fitting and drain line, make sure you properly setup the condensate trap (see Section II above).

If the cooling unit continues to drip, contact us at 877.726.8496 for further assistance.

- The LA2 Alarm has been triggered

The cooling unit is designed to measure the temperature of the condenser coils and, if the temperature drops below a certain point, the LA2 alarm will display on the control panel.

If you are getting an LA2 alarm, please contact us at 877.726.8496 for further assistance.

VII. Limited Warranty

1800 QTL / QT / XT / XTS: For five years from the date of original delivery, your CellarPro warranty covers all parts and labor to repair or replace any components that prove to be defective in materials or workmanship in the cooling unit.

1800XTSx: 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 purchase, your CellarPro warranty covers all parts and labor to repair or replace any components that prove to be defective in materials or workmanship in the cooling unit.

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 is 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.

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