



CUBE°

User manual



CUBE°-RH

CUBE°



CUBE°-RC

Thank you!

The team from Wine Square CUBE° thanks you for purchasing this product. This revolutionary cooling system offers the most stable resting conditions for wine to mature.

Directions for Use

This system was carefully designed to recreate the same conditions as those found in an underground wine cellar. Having the right temperature, plus an impeccable humidity level will help achieve stability while creating the best conditions for your wine. These perfect resting conditions cannot be reproduced by a compressor system. It's definitely not the same type of system. Choosing the CUBE° will be beneficial in the long run.

Natural underground wine cellars experience internal variations in temperatures due to seasonal changes. During the summer months, the inside of the cellar is warmer while being cooler during the winter months. The CUBE° follows the same seasonal pattern as a natural cellar. Following the seasonal pattern, the system reproduces the same conditions related to seasonal changes by varying the temperature through an automated process. This process helps avoid humidity and temperature issues. All you have to do to achieve this peace of mind is to activate the temperature variation button in the menu.

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Security

Read and understand the content of this section.

Inadequate handling can cause serious damage.

WARNING

- Never operate the unit while it is connected to a faulty socket or a loose wall outlet. A damaged power cord must be replaced by the manufacturer or by an authorized service agent.
- NEVER cover the CUBE°'s air inlet or outlet or those of the CUBE°-RH and CUBE°-RC when the unit is in use.
- This product is not to be used by children.
- NEVER sit or place an object on the unit.
- ALWAYS disconnect and turn the system off should it require servicing or cleaning.
- Contact a Wine Square customer service agent if the unit requires maintenance.
- Disconnect the unit when not in use.
- NEVER place the power cord under a rug or carpet.
- Be aware of the surroundings when walking around the unit. This will avoid damaging the pipes, power cord or unit.
- NEVER use the unit in an environment that is used to store gasoline, paint or other inflammable products.
- Basic safety measures should always be followed when using electrical devices.
- This system was designed as a conditioning unit for a wine cellar. It should by no means be used for any other purpose than that for which it was made.
- Only use the tools supplied by The Wine Square. NEVER attempt to service the unit yourself, to connect or install it using other methods than those described in this manual. One of the aforementioned actions could void the unit's warranty.
- NEVER use an extension cord with this unit.

Warranty

The purchase of the CUBE° (the “product”) is governed by the Terms and Conditions detailed hereafter, which constitute the general conditions of the warranty, installation and maintenance (the “Conditions”) of the product between you (known hereinafter as “You” or the “user”) and The Wine Square Manufacturing Inc. (“Wine Square”). These Conditions may be modified by Wine Square at any time and without prior notice.

PLEASE READ THE FOLLOWING CONDITIONS CAREFULLY BEFORE INSTALLING THE PRODUCT. BY INSTALLING THE UNIT, YOU HEREBY AGREE TO BE BOND BY THESE CONDITIONS AND AGREE TO FULLY COMPLY TO EVERY ONE OF THEM.

1. Representations Regarding the Product, the CUBE°

For the system to function adequately and to guarantee optimal conditioning, the product must be installed and maintained within the particular specifications described in the User’s Manual. The power capacity of the conditioning unit presented in the User’s Manual is based on a 10 °C difference between the CUBE°-RC (the radiator inside the wine cellar) and the CUBE°-RH (the radiator outside the wine cellar).

2. Product related Warranty

Parts & Labour Warranty. Subject to any provisions made under the Terms and Conditions, The Wine Square warrants that the product’s projected power capacity (measured in Watts) indicated in the User’s Manual and the product itself is free from defects in materials or workmanship (the “Warranty”) during a two (2) year period from the date of purchase by the user (the “Warranty Period”). If the product, within the Warranty Period, becomes defective due to defects in materials or workmanship that cannot be corrected by The Wine Square after it has had the opportunity to do so, The Wine Square commits, subject to the limitations, exclusions and cessations mentioned hereafter, to do one or more than one of the following gestures, as the case may be, in favour of the user, and linked with the workmanship, parts and transportation:

1. Workmanship: Repair or replace the product at the sole discretion of The Wine Square;
2. Parts: Supply replacement parts, new or refurbished, for the product in exchange for the defective parts;
3. Transportation: Cover normal transportation costs for parts. In the event the product cannot be repaired on site, normal transportation costs (in Canada or the U.S.) for the product will also be covered.

3. Warranty Limitations & Exclusions

3.1 The Wine Square does not, in any way, guarantee the preservation of a given temperature.

3.2 The following damages are not covered by the warranty.

- a. Cosmetic damages done during installation;
- b. Any damages caused by the user or resulting from an accident, carelessness, improper, abusive use or commercial use, or if parts or components of the product have been modified or repaired;

Warranty

- c. Any damages by force majeure or unforeseeable events that are beyond the control of The Wine Square;
- d. Any damages arising from the lack or insufficient maintenance of the product, improper installation, connection to an incorrect voltage supply or an attempted repair done by a technician other than a Wine Square authorized service technician.

3.3 The warranty does not apply to a product malfunction that is related to the wine cellar's inadequate insulation or that the user did not buy a product with the level of performance needed for the wine cellar's surface area.

- a. The product is installed in an area where the temperature increases due to heat rejection, preventing the wine cellar from reaching the desired temperature or if the product's installation does not comply with its requirements as described here and/or in the User's Manual;
- b. The user does not respect the maintenance conditions stipulated hereafter and/or in the User's Manual;
- c. The repair work made to the product is done without The Wine Square's prior approval; or;
- d. The product has been painted or modified.

3.5 Replacement of the product or a part under warranty does not extend or restart the warranty period.

3.6 Proof of purchase in the form of a receipt, payment confirmation or the serial number ensuring that the product is still under warranty at the time of the claim must be presented by the user to The Wine Square in order for him to obtain services pursuant to the Warranty.

4. No Other Warranty or Limitation of Liability

4.1 Subject to the warranty as provided under Section 2, The Wine Square makes no warranty, express or implied, legal or contractual, and may not be held liable for any direct or indirect damages, exemplary, consequential, incidental, punitive or special damages caused by the product, including the loss of profits or opportunity suffered by the user due to the loss, damage or destruction caused to the wine cellar or its content, including the loss or damage of wine bottles.

4.2 The Wine Square offers no warranties of merchantability, fitness for a particular purpose, express or implied, legal or contractual, and will not be held liable if the product does not fully meet the user's requirements, needs and wishes.

4.3 The Wine Square's liability arising under any cause whatsoever (including, without limitations, breach of these Conditions or negligence), shall in no event exceed the sum actually paid by the user for the product

Warranty

5. Product Installation Requirements

For the system to function adequately and to ensure optimal conditioning, the product must be installed according to the particular specifications described in the User's Manual. Before installing the product, the user must read the User's Manual and follow the installation procedures described within. Any inadequate installation or one that does not comply with installation standards may not only affect the product's power capacity and efficiency, but could also affect the product's lifespan and render the warranty offered herein inapplicable. The product cannot operate to its maximum capacity if the product is stored in a room with poor ventilation or insulation.

6. Maintenance and Certain Conditions of Use

Since the product is designed to maintain the wine cellar's temperature between one and four degrees above the cellar's dew point (depending on the cellar's surface area), it's the user's responsibility to ensure that the room's humidity is controlled so that the dew point is sufficiently low.

7. Dispositions générales

The Conditions are subject to the following general provisions.

7.1 Applicable Laws

The present Conditions as well as their interpretation, validity and effect shall be subjected to the applicable laws in force in the province of Quebec as well as Canadian federal laws applicable therein.

7.2 Severability

If one of the present Conditions is deemed invalid or unwritten, only this Condition will be severed from the present Conditions without affecting the document's validity as a whole.

7.3 Notice and Communications

All notices required or provided pursuant to the present Conditions must be done in writing and will be considered as validly given if they are sent by email or by registered mail to the following address:

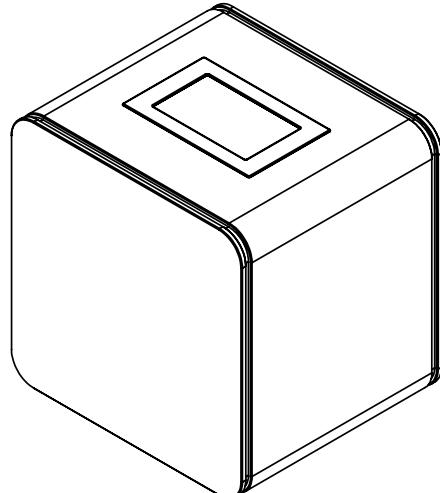
ATT: Customer Service
The Wine Square Manufacturing Inc.
500 Place de la Bonne-Entente
Trois-Rivières (Quebec) Canada
G9B 0H6
Email: info@thewinesquare.com

Parts description

The number of parts and components depends on your installation and the power capacity of your system. However, you will definitely have a CUBE°, a CUBE°-RC and a CUBE°-RH.

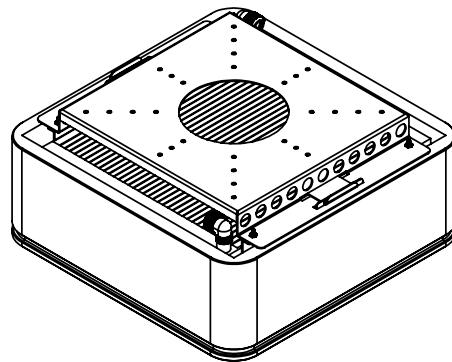
CUBE°

The CUBE° represents the system's power unit. This box, located outside the wine cellar, is used to cool the water needed to stabilize the temperature in the cellar.



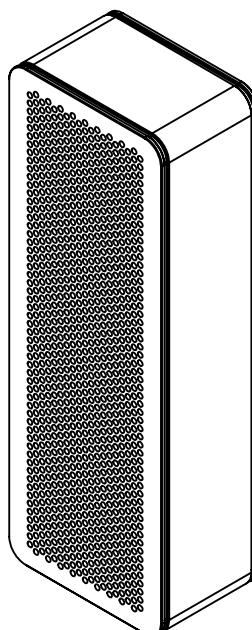
CUBE°-RC

The CUBE°-RC is located directly on the wine cellar's ceiling. This unit pumps the hot air found in the wine cellar.



CUBE°-RH

The CUBE°-RH is the unit located outside the cellar and serves to pump the hot air out of the wine cellar and into the room where the CUBE°-RH is located.



Where to install your system ?

Where to install your system ?

It is essential to find the correct location to ensure the proper operation of the system. Even if many believe air-conditioning consists of blowing cold air in a room, the truth is that it serves to take the hot air out. The CUBE° pumps the heat outside the cellar and the cold air that you can feel coming out of the system is actually air without heat.

This being said, the CUBE°'s three units operate in the following order: The CUBE°-RC pumps the heat out of the wine cellar and the CUBE°-RH pumps it into the room where it is located. The proper operation of the system depends on the location of these two units. Both units must be able to easily extract heat and push it out.

The CUBE°-RC must be positioned at the highest point of the wine cellar's ceiling. It is designed to absorb the heat found underneath it and expel the treated air towards the ceiling, making sure that the cold air is not pushed towards the bottles. Since hot air rises, everything that is located above the CUBE°-RC will not be air-conditioned. It's important to keep sufficient space under and around the CUBE°-RC so that the hot air can easily access the unit and the cold air is blown out without obstruction.

The CUBE°-RH blows the hot air out of the system. It's important that it be located in an area sufficiently ventilated so that the hot air can be expelled. To give you an estimate, the chart below represents the hot air expelled by each system. If you have a CUBE 400, your CUBE°-RH must be located in a room where 8 people could be seated without changing the room's temperature.

CUBE°-400		8 or 800W
CUBE°-600		12 or 1200W
CUBE°-800		16 or 1600W

It must also be located in a room where the temperature will never rise above 25 °C. The system's power capacity is usually calculated to maintain a maximum 10 °C difference between your wine cellar and the location of the CUBE°-RH. In other words, if the room where the CUBE°-RH is located is at 22 °C, the temperature inside your wine cellar cannot be programmed under 12 °C (22-10 = 12). It must therefore be located in an air-conditioned space. A closet or a garage is an inadequate location for placing your CUBE°-RH.

The CUBE°-RH must absolutely be positioned vertically.

As for the CUBE°, it must be located in a ventilated space since it radiates the same amount of heat as a computer. This means that it cannot be located in a non-ventilated cabinet.

System control(s)

An appropriate location for all three units will guarantee an efficient and sustainable system. Failure to comply with the proper positioning of these units will not allow your system to reach the maturing conditions needed for your bottles.

If in doubt, please contact your Wine Square authorized dealer so that he may help you with your system's positioning.

System Control(s)

The controls needed for using the system are located on the CUBE°'s touch screen. No other button or user interface is available. The system starts functioning once it is connected in an electrical outlet. The system must be disconnected for it to stop.

1-Main Display



1 Settings screen

To access the settings screen and configure the system's various settings.

2 Lock screen

Locks the system when this option is activated in the settings. To activate/deactivate this feature: Settings-Lock-On/Off.

3 Advanced settings

To access the system's advanced settings screen.

4 Desired temperature

Displays the desired temperature inside the wine cellar.

System control(s)

- 5 Humidity inside the wine cellar** Displays the relative humidity inside the wine cellar.
- 6 Temperature inside the wine cellar** Displays the actual temperature inside the wine cellar. When using the control arrows (8), the displayed value is the setpoint temperature (4).
- 7 Power Bar** Displays the percentage of the system's power capacity. As an example, when the display shows 60%, this means that the system uses 60% of its power capacity.
- 8 Control Arrows** Used to adjust the setpoint temperature.
- 9 Sound Control** To access the sound control screen for the system's ventilators.

2-Advanced settings

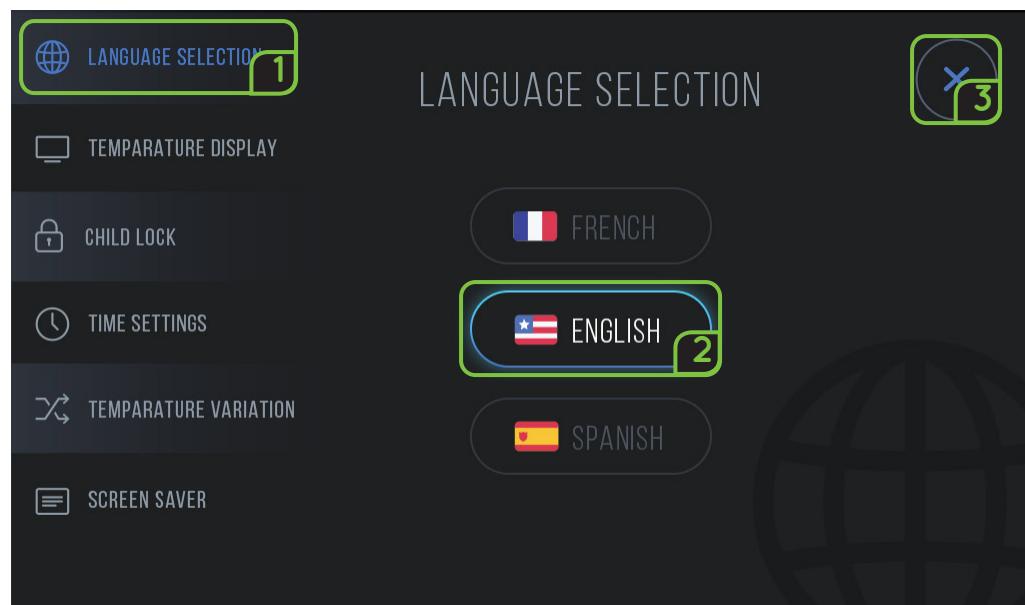


- 1 Settings Screen** To access the settings screen and configure the system's various settings.
- 2 Lock Screen** Locks the system when this option is activated in the settings. To activate/deactivate this feature: Settings-Lock-On/Off..
- 3 Advanced Settings** To access the system's advanced settings screen.
- 4 Temperature inside the wine cellar** Displays the actual temperature inside the wine cellar.

System control(s)

5 Humidity inside the wine cellar	Displays the relative humidity inside the wine cellar.
6 Temperature inside the wine cellar	Displays the actual temperature inside the wine cellar. When using the control arrows (8), the displayed value is the setpoint temperature (4).
7 Power Bar	Displays the percentage of the system's power capacity. As an example, when the display shows 60%, this means that the system uses 60% of its power capacity.
8 Control Arrows	Used to adjust the setpoint temperature.
9 Sound Control	To access the sound control screen for the system's ventilators.
10 Desired temperature	Displays the desired temperature inside the wine cellar.
11 Hot Water Temperature	Displays the temperature inside the hot water loop which supplies the CUBE°-RH.
12 Cold Water Temperature	Displays the temperature inside the cold water loop which supplies the CUBE°-RC.froide qui alimente le CUBE°-RC.

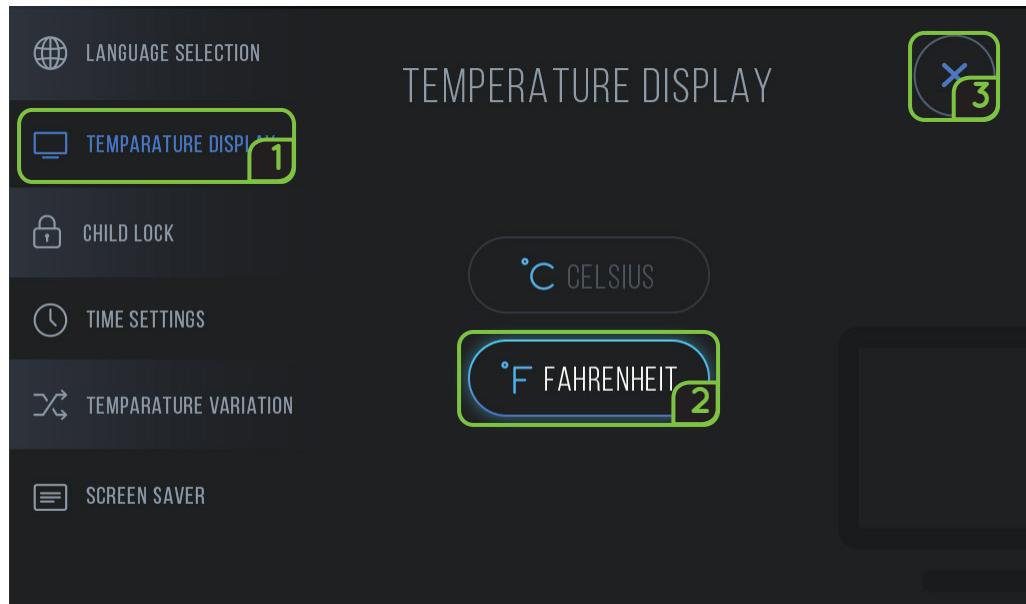
3-Language selection



System control(s)

- | | |
|-----------------------------|------------------------------------------|
| 1 Language Selection | To access the language selection screen. |
| 2 Language | To select the system's display language. |
| 3 Close | To return to the home screen. |

4-Temperature Selection

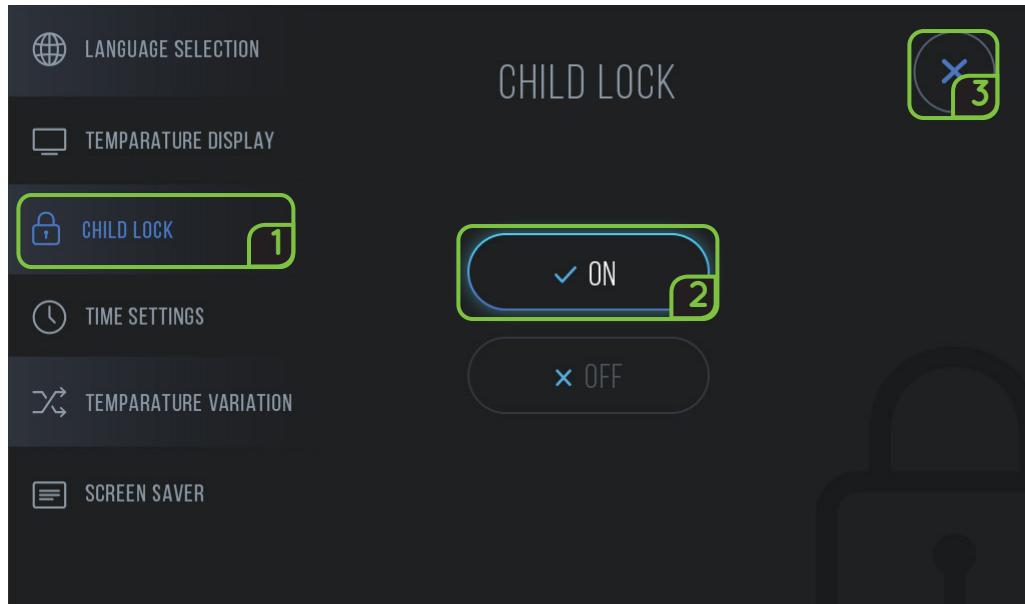


- | | |
|-----------------------------------|--------------------------------------------------|
| 1 Temperature | Displays the temperature. |
| 2 Temperature Unit Display | To select the system's temperature unit display. |
| 3 Close | To return to the home screen. |

System control(s)

5- Locking Feature

The screen's locking feature enables you to protect your system against an unwanted change in the control features. To deactivate the locking feature, you must navigate with the arrows and activate this feature.



1 Locking Feature

To access the locking feature screen.

2 On/Off

To turn the locking feature screen On/Off.

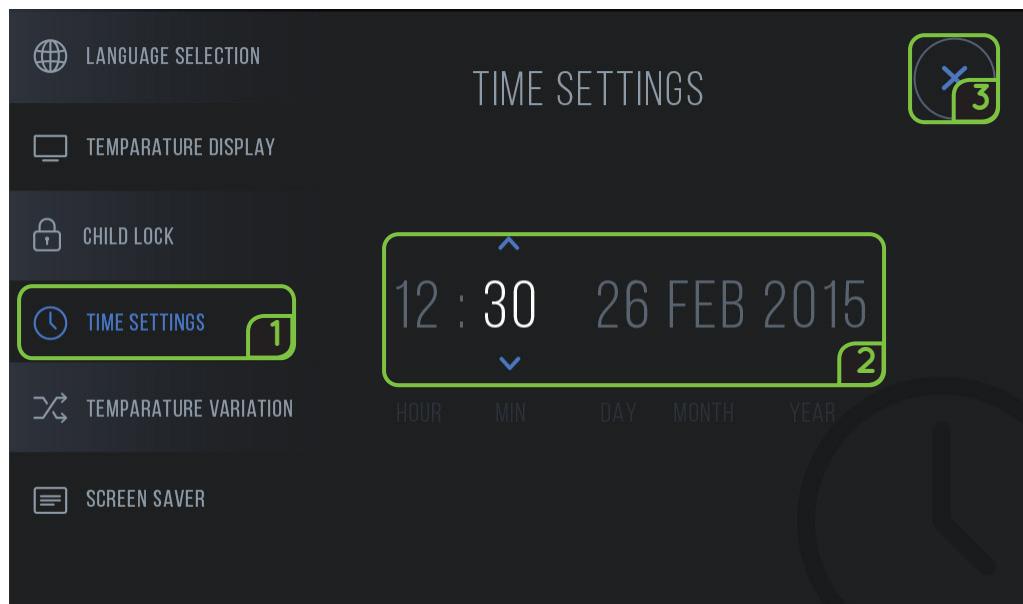
3 Close

To return to the home screen.

System control(s)

6- Time Setting

Every minute, your system stores the humidity and temperature data. This information is very useful when you want to trace the bottles' maturing conditions inside the cellar or when you need to detect a problem with the air-conditioning of your wine cellar. This data is recorded for a 20-year period inside the system. Adjusting the date and time helps associate the date with the exact moment when the data was recorded.



1 Time Setting

To access the time setting screen.

2 Adjusting the Time

To adjust the system's clock, select the number or month that needs to be modified. When the arrows appear, adjust the desired values.

3 Close

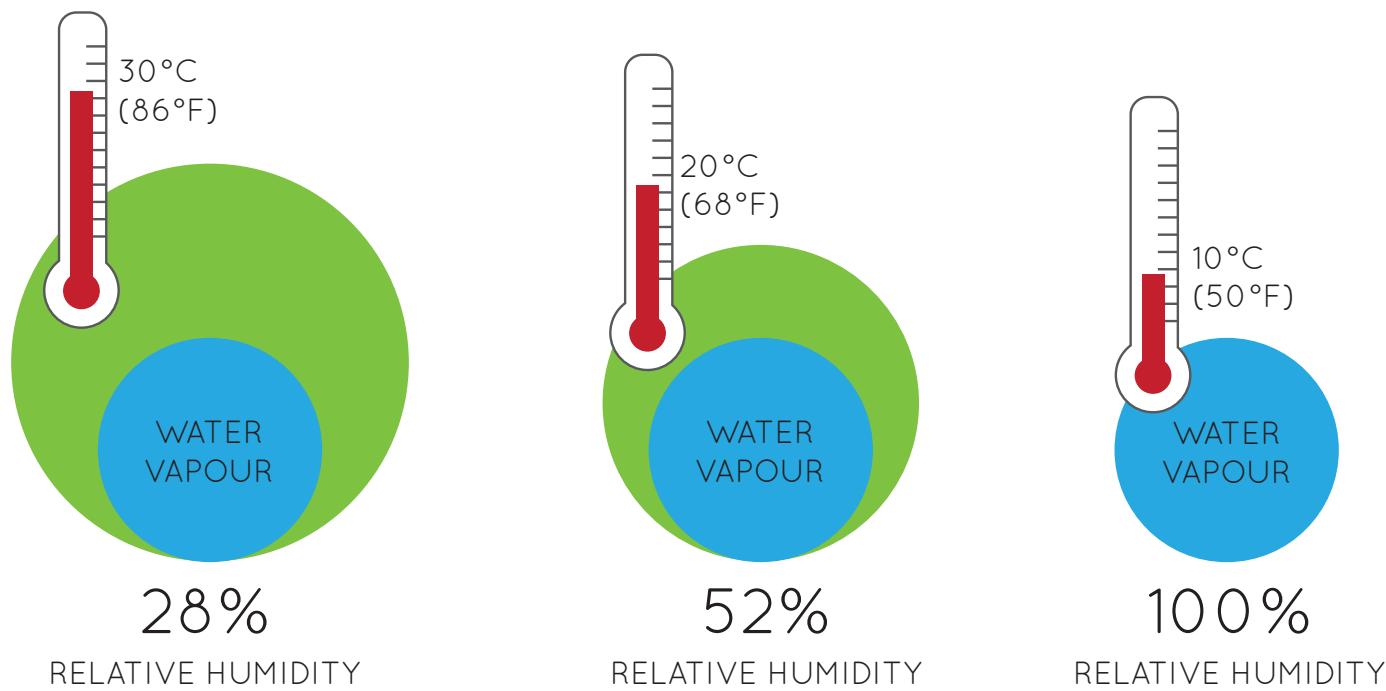
To return to the home screen.

System control(s)

7- Temperature Variation

The temperature variation feature enables you to adjust the temperature to adapt it to the realities of a changing climate just like in a natural cellar. Before moving on with this feature, it's important to fully understand the principle behind relative humidity. Relative humidity is defined as the water vapour content in a given volume of air versus the maximum it could contain at a specific temperature and pressure.

If you inflate two balloons with the air in your home, the relative humidity inside the balloons won't be the same if you put one of them in the refrigerator and the other one on the counter. The following picture represents well this principle. The green circle represents the water volume that the air can absorb at a certain temperature.



The CUBE° does not dry the air nor does it create humidity. The humidity in your cellar is in fact the humidity level contained in the air inside your home, but simply cooled. The same phenomenon can be found in natural cellars of prestigious châteaux that offer exceptional maturing conditions and simulated by the CUBE° The following table represents the humidity inside your cellar depending on the temperature and humidity level inside your home.

System control(s)

	Relative humidity in fonction of the temperature											
HR% at 22°C	18	17	16	15	14	13	12	11	10	9	8	7
70%	88	94	100									
65%	83	88	94	100								
60%	78	83	88	94	100							
55%	73	77	83	88	94	100						
50%	64	68	72	77	82	88	94	100				
45%	56	59	63	68	72	77	82	88	94	100		
40%	49	52	55	59	63	67	72	77	82	87	93	100
35%	46	49	52	55	59	63	67	72	76	82	87	93
30%	40	42	45	48	51	55	58	62	67	71	76	81
25%	32	34	36	39	41	44	47	50	54	58	62	66

If, for example, the temperature inside your home is 22 °C with a 40% humidity level, your cellar will naturally maintain a humidity level of 67% at 13 °C.

	Relative humidity in fonction of the temperature											
HR% at 22°C	18	17	16	15	14	13	12	11	10	9	8	7
70%	88	94	100									
65%	83	88	94	100								
60%	78	83	88	94	100							
55%	73	77	83	88	94	100						
50%	64	68	72	77	82	88	94	100				
45%	56	59	63	68	72	77	82	88	94	100		
40%	49	52	55	59	63	67	72	77	82	87	93	100
35%	46	49	52	55	59	63	67	72	76	82	87	93
30%	40	42	45	48	51	55	58	62	67	71	76	81
25%	32	34	36	39	41	44	47	50	54	58	62	66

For health issues, experts agree that the humidity level in your home should be between 30 and 50%. Under 30%, the air is too dry, above 50%, the air becomes polluted (mould growth, increase in allergens). Here are a few possible solutions if the humidity level in your home is too high.

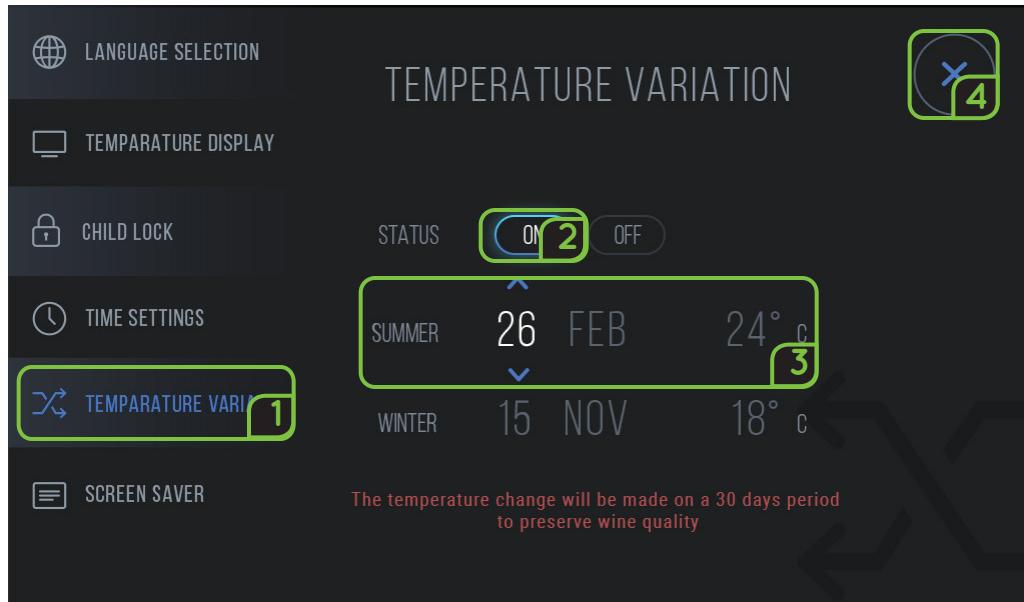
If the air-conditioner is too strong for your home, it will produce a much colder environment without lowering the humidity level, producing a cold and humid environment. Some companies still calculate the power capacity of their air-conditioning with charts that don't represent today's highly insulated buildings. Customers have systems that are much too powerful for their homes.

Is your air exchange system activated? This unit is used to lower the humidity level of your house. It should not be working when the humidity level outside is greater than the one inside your home. It's important to turn the system off during the hot and humid months of the year. Otherwise, you will never be able to control the humidity level of your home with a system that renews the air completely in less than an hour.

System control(s)

As for the temperature variation feature, it automatically adjusts the temperature to the summer and winter temperatures. As with natural cellars, you may mature your wines during the summer months while keeping higher humidity and temperature levels and lower ones during the winter months when the air's humidity level is lower. This variation will slowly take place within a 30-day period.

This is an optional feature. You may choose to activate it or not.



1 Temperature Variation

To access the temperature variation screen.

2 On/Off Temperature Variation System

To turn the system's temperature variation feature On/Off.

3 Adjusting the Temperature Variation

To adjust the system's calendar related to the temperature variation, select the number or month that needs to be modified. When the arrows appear, adjust the desired values.

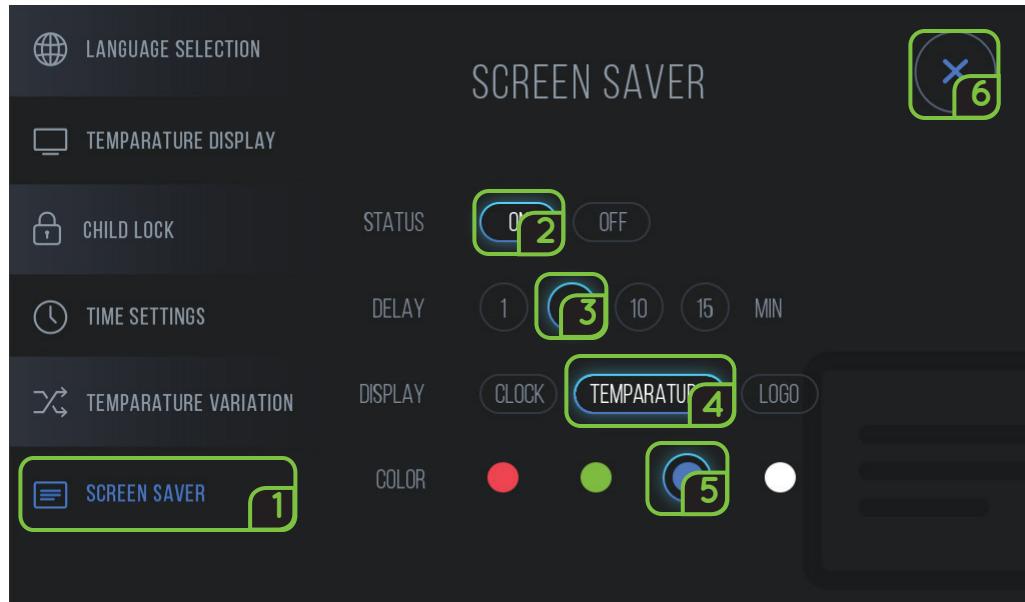
4 Close

To return to the home screen.

System control(s)

8- Standby Screen

The standby screen enables you to choose what will be appearing on the screen when you are not interacting with the CUBE°. You can activate this feature if you wish.



1 Standby Screen

To access the adjustment features of the standby screen.

2 On/Off

To turn the standby screen On/Off.

3 Time Limit

To select the time limit (in minutes) before the standby screen comes on after the last contact with the screen.veille s'ajuste suite au dernier contact avec l'écran.

4 Display

To select the image that will appear when the system enters the standby mode.

5 Colour

To select the display colour of the standby screen.

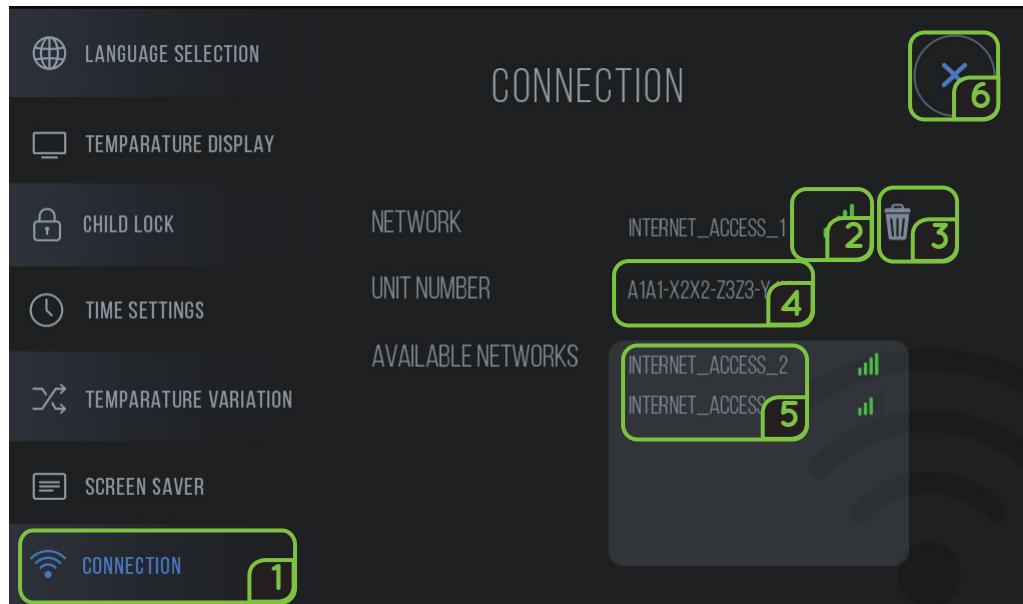
6 Close

To return to the home screen.

System control(s)

9- Login

The login screen enables you to link your system with Internet. By doing so, you will be able to link your system with your Alfred application account which will enable you to control your system and receive warnings anywhere in the world.



1 Login

To access your system's login screen.

2 Signal Power

Shows the signal power of your Wi-Fi network.

3 Trash can

Press on the trash can to delete your network's login settings.

4 Unit Number

Your system will receive a unique code needed to connect it with the Alfred application.

5 Available Network

List of available Wi-Fi networks. Select your network to connect your system to it.

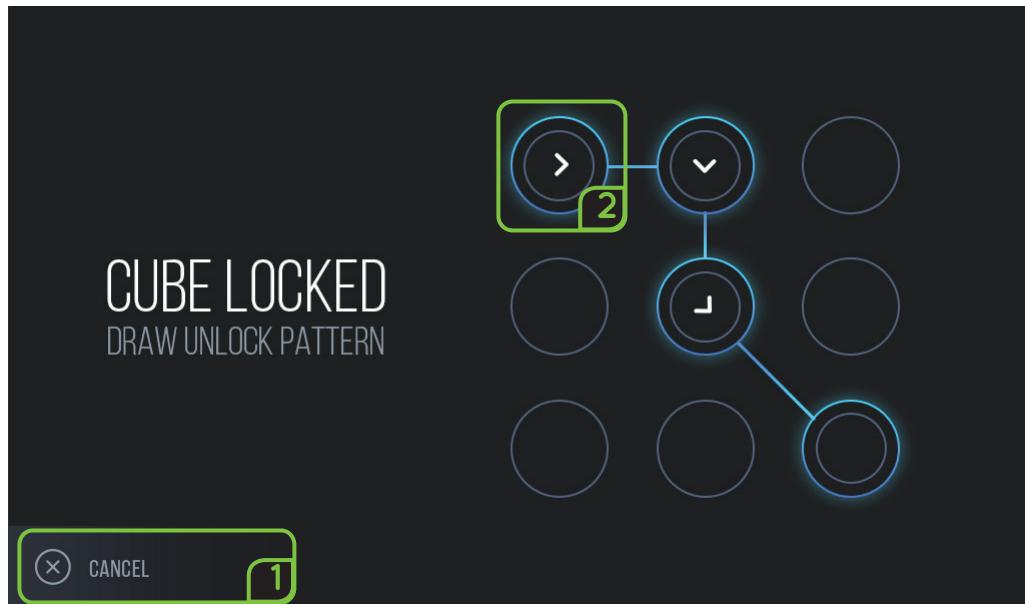
6 Close

To return to the home screen.

System control(s)

10- Locking Feature

The locking feature screen helps prevent an unintentional activation of one of the system's features. This feature is very useful when there are young children or pets around. It can be activated in the system's settings.



1 Cancel

To return to the system's standby screen.

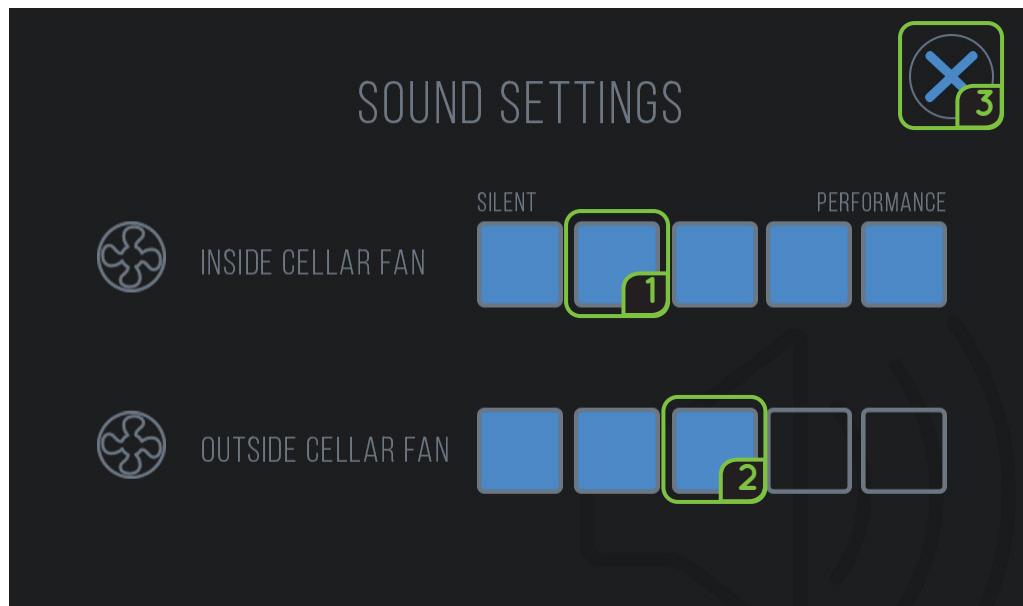
2 Start Path to the Unlocking Feature

To unlock the system, you must press the buttons alternately. The arrow of the button pressed beforehand shows which one to press. The first button that must be activated is the one in the upper right-hand corner.

System control(s)

11- Sound Settings

The sound settings feature enables you to adjust the speed of ventilators whether inside the wine cellar (CUBE°-RC) or outside (CUBE°-RH). The system will be more efficient and powerful. An optimal thermal dispersion in the cellar is possible when the ventilators have reached their performance level. Keeping the ventilators' speed at the highest level and at an acceptable sound level is recommended.



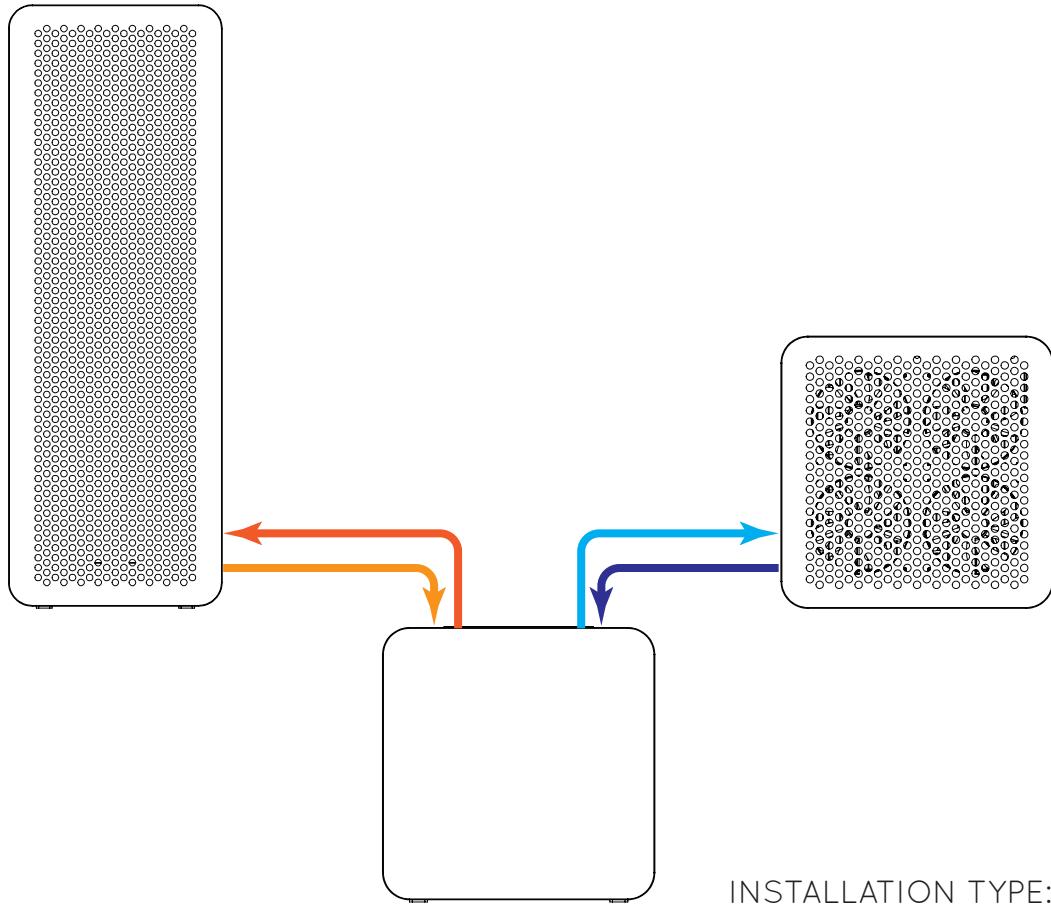
- | | |
|-----------------------------------------------------|------------------------------------------------------------------------|
| 1 Ventilators' Speed Inside the Wine Cellar | To adjust the speed of ventilators inside the wine cellar (CUBE°-RC). |
| 2 Ventilators' Speed Outside the Wine Cellar | To adjust the speed of ventilators outside the wine cellar (CUBE°-RH). |
| 3 Close | To return to the home screen. |

Hydraulic diagrams

Hydraulic Diagrams

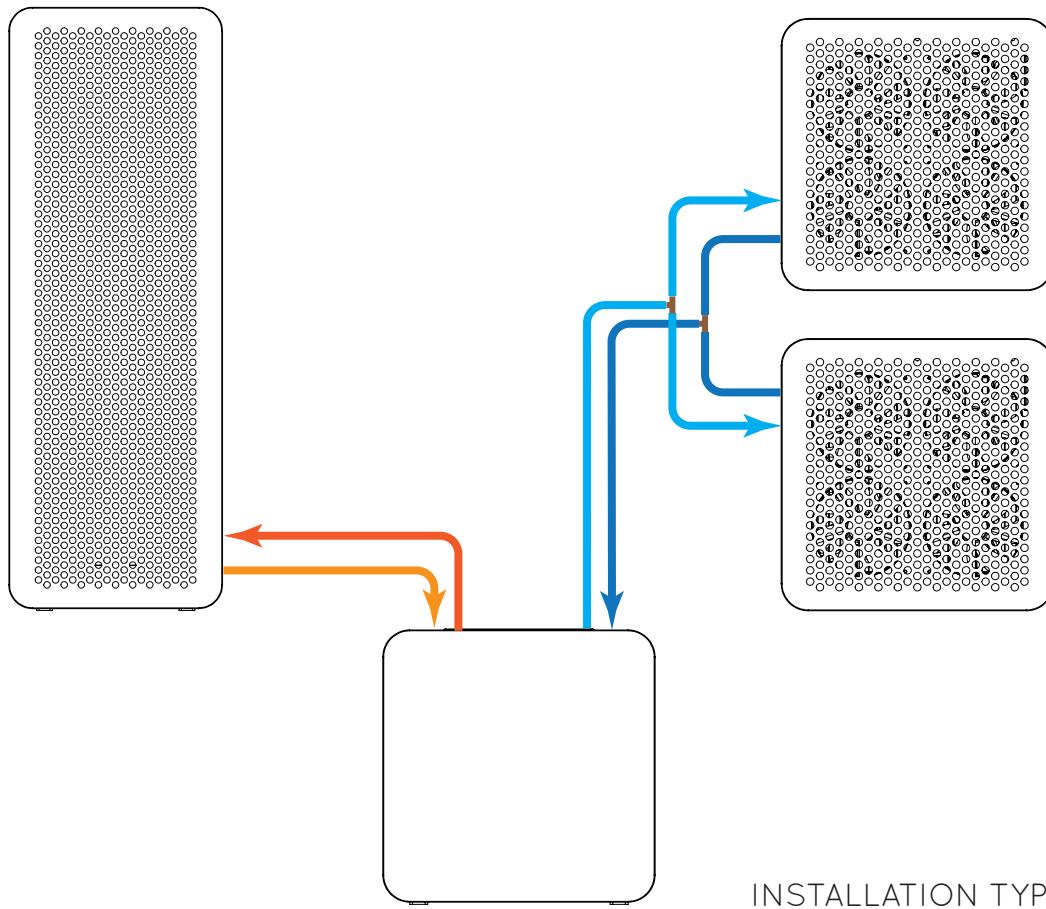
The following hydraulic diagrams represent how to connect the different units together to maximize your system's performance. Depending on the type of installation you choose (installation on wall, installation with visible tube), additional components may be added to the diagrams. The diagram shown here simply illustrates the water path.

CUBE°-400



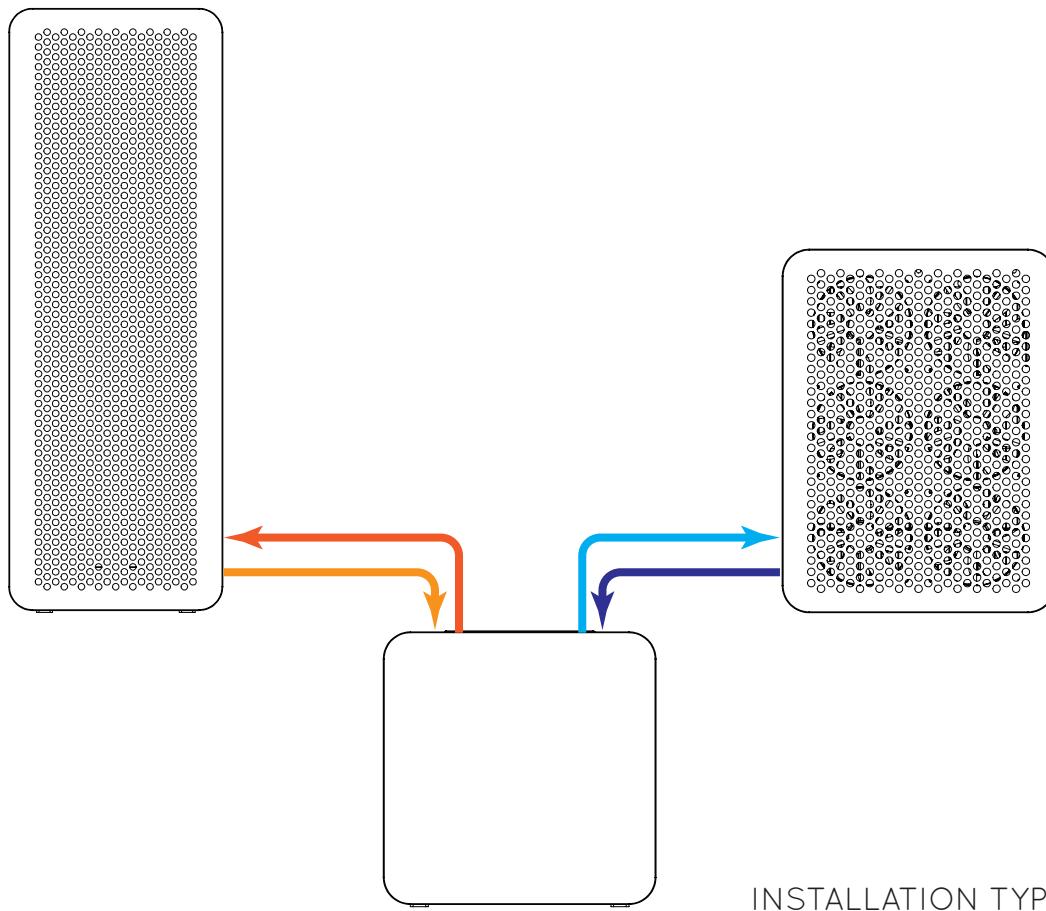
Hydraulic diagrams

CUBE°-400, 2x CUBE°-RC4 / CUBE°-600, 2x CUBE°-RC4



INSTALLATION TYPE: C

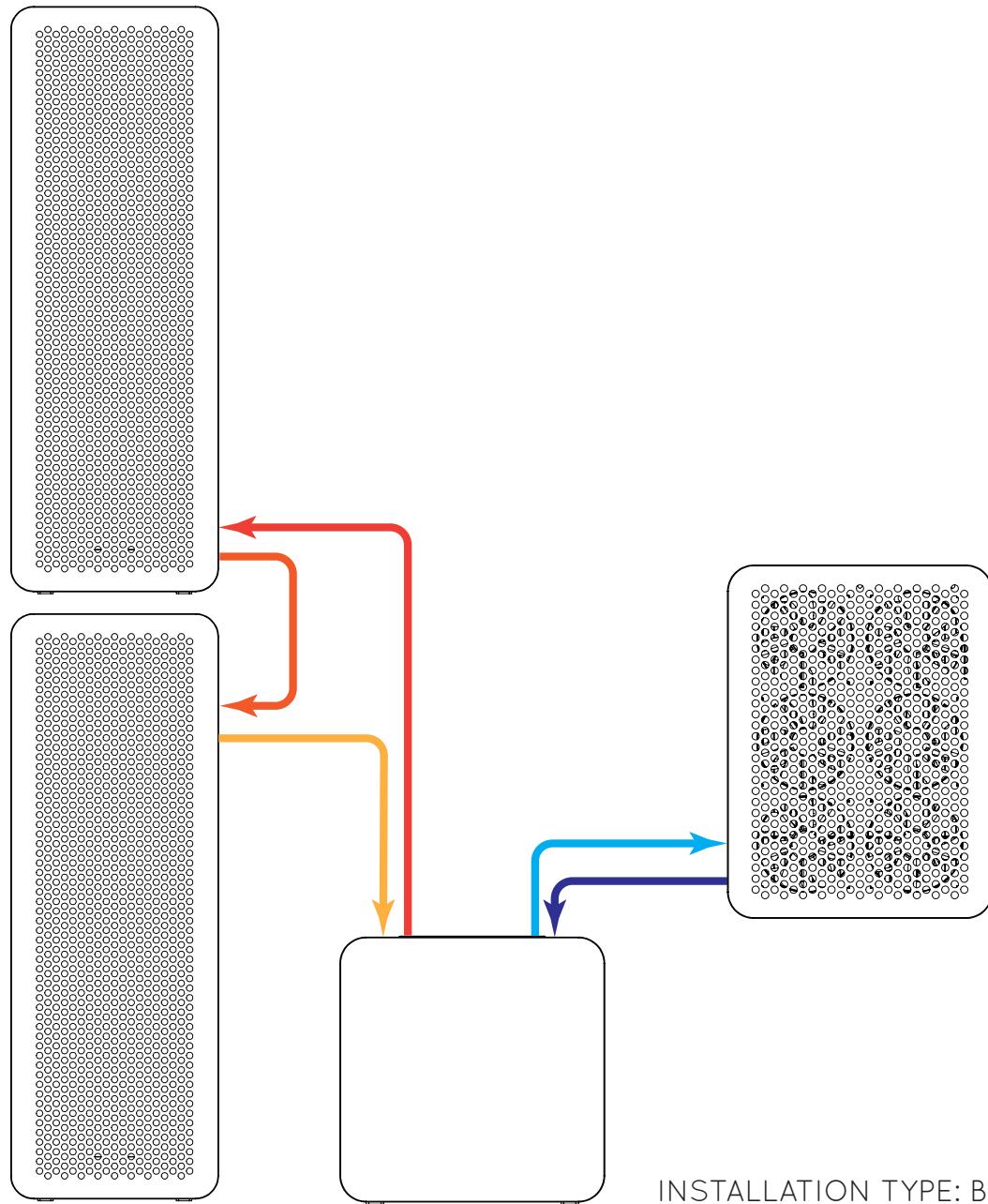
CUBE°-600



INSTALLATION TYPE: A / B

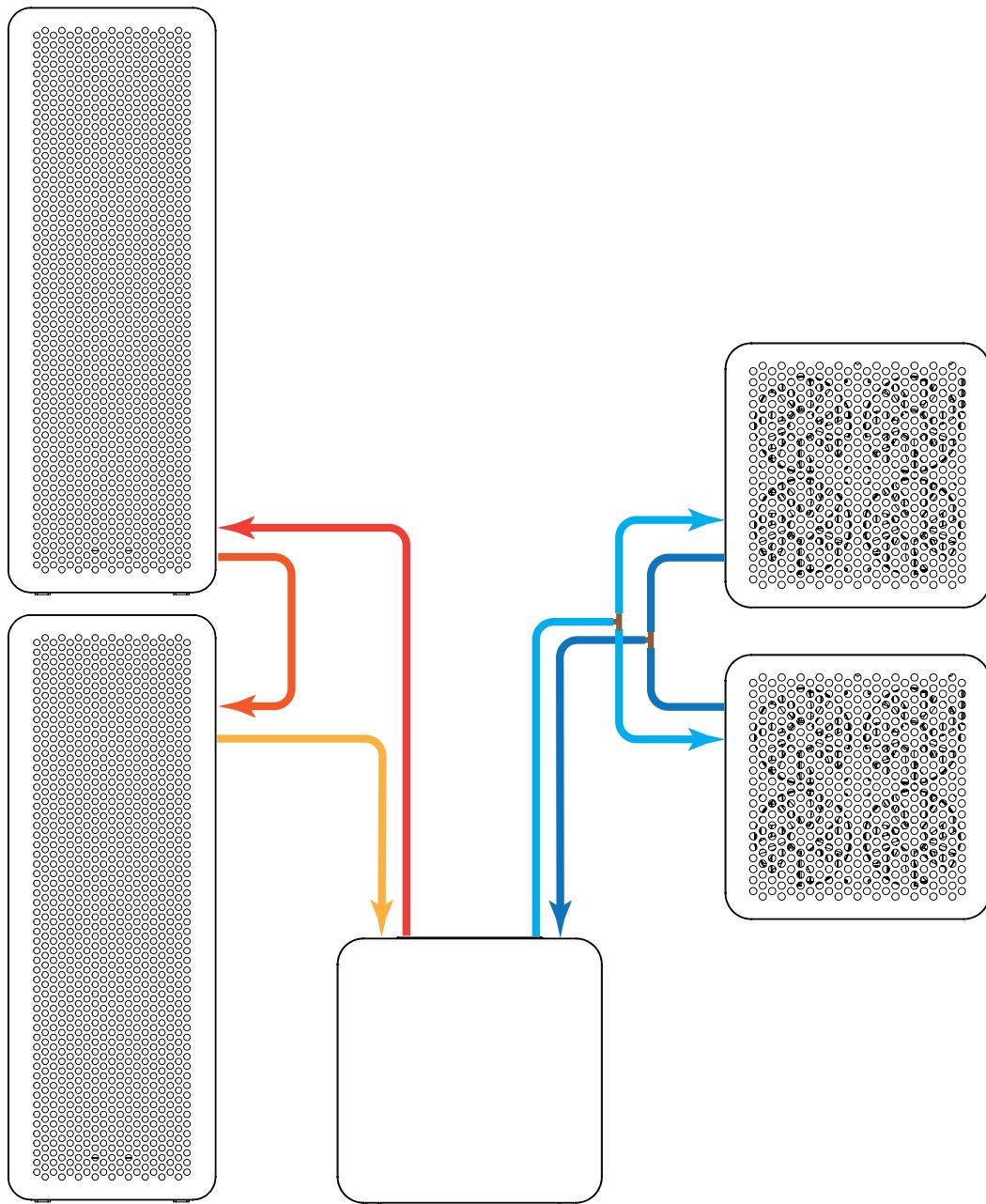
Hydraulic diagrams

CUBE°-600, 2x CUBE-RH



Hydraulic diagrams

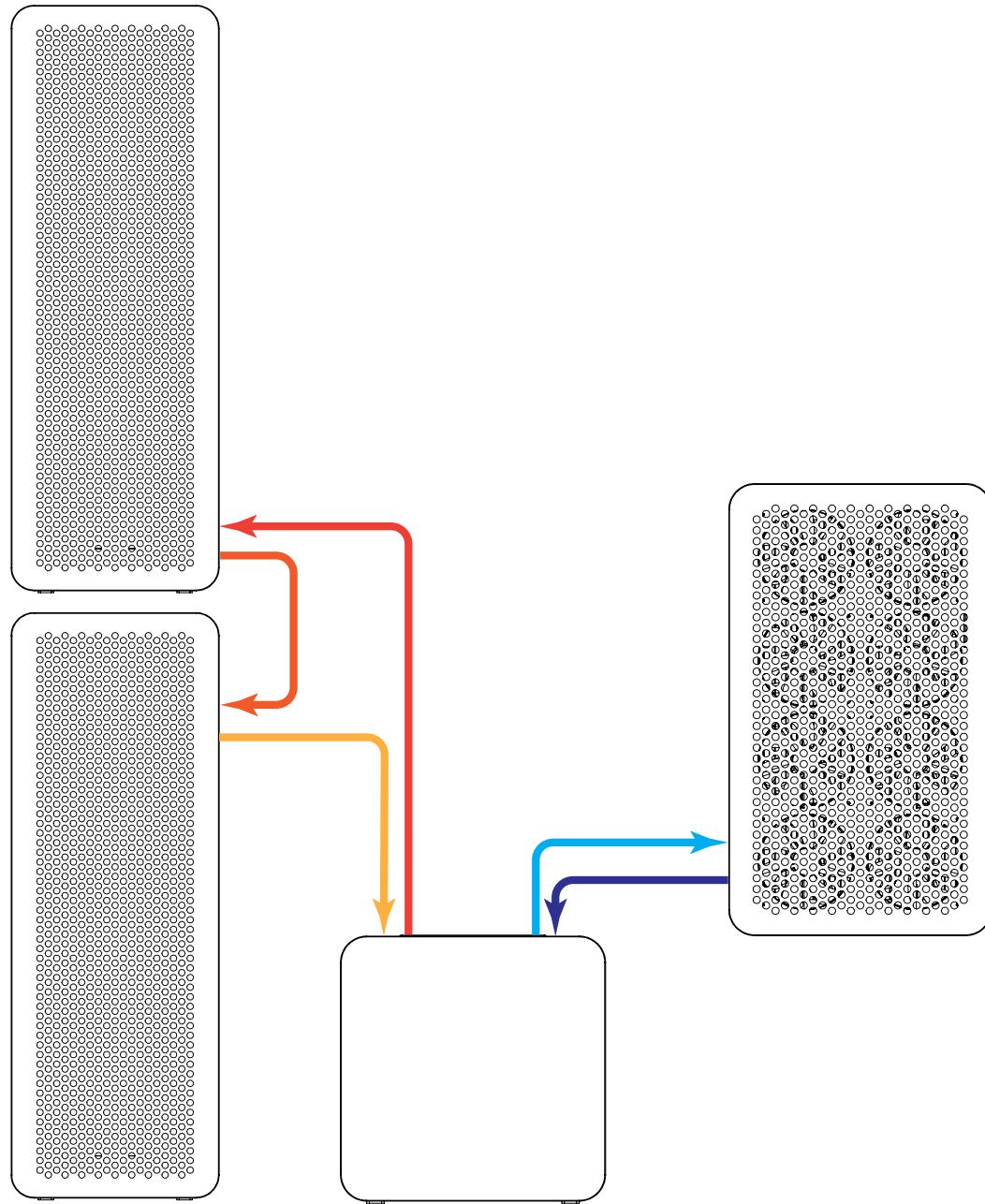
CUBE-600°, 2x CUBE°-RC4, 2x CUBE°-RH / CUBE°-800, 2x CUBE°-RC4



INSTALLATION TYPE: C

Hydraulic diagrams

CUBE°-800



INSTALLATION TYPE: A

Installation procedures

Installation Procedures

There are different types of installation with the CUBE°. Please take the time to look at the installations described below and choose the one that best illustrates your installation. Then follow the respective installation procedure to install the system in your wine cellar. If there are doubts during installation, please contact your Wine Square authorized dealer to get more information and avoid errors.

A

Installation with tubes hidden in the wall and one radiator installed on the ceiling: 2-step installation. This type of installation is recommended in a new construction, when walls are still opened. Part of the installation is done before closing the walls, the rest is done after the construction work is completed.

B

Installation with tubes that are visible and one radiator installed on the ceiling: 1-step installation. This type of installation is recommended when replacing a system, for concrete walls or when walls are already closed.

C

Installation with tubes hidden in the wall and two radiators installed on the ceiling: 2-step installation. This type of installation is recommended in a new construction when walls are still open. Part of the installation is done before closing the walls, the rest is done after the construction work is completed.

D

Installation with tubes hidden in the wall and two radiators installed on the ceiling: 2-step installation. This type of installation is recommended when replacing a system, for concrete walls or when walls are already closed.

A

Type A Installation

A

Installation with tubes hidden in the wall and one radiator installed on the ceiling:
2-step installation. This type of installation is recommended in a new construction,
when walls are still opened. Part of the installation is done before closing the
walls, the rest is done after the construction work is completed.



Tools and Materials

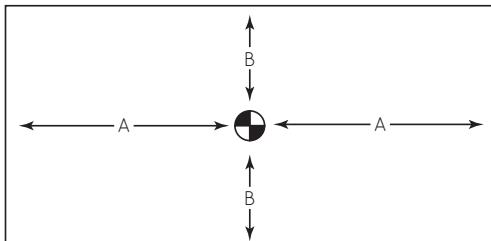
- CUBE°
- CUBE°-RC
- CUBE°-RH
- ACC-CUB-A023 : CUBE°-RC'S WALL OUTLET (colour depending on installation)
- ACC-FIT-A002 : 1/2" PEX FITTING FOR A 5/8" TUBE (2X)
- ACC-CAB-XXXX: M/M DB15 COMMUNICATION CABLE (length depending on installation)
- M108: CORROSION INHIBITOR
- CAB-RHCUBE-XX
- 1/2" PEX TUBE
- COMPRESSION RING FOR 1/2" PEX TUBE
- 90° BEND FOR 1/2" PEX TUBE
- INSULATING SLEEVE FOR 1/2" PEX TUBE
- LOOP TIE WRAP
- 1 1/2" min. WOOD SCREWS
- CAN OF POLYURETHANE FOAM
- WATER
- MEASURING TAPE
- CROSS-HEADED SCREWDRIVER (No. 2 Phillips)
- CUTTING PLIERS FOR TUBE
- CRIMPING PLIERS FOR 1/2" PEX TUBE
- LONG NOSE PLIERS
- COIN
- WIRE CUTTER
- WIRE STRIPPER
- FLAT-HEAD SCREWDRIVER



ARTICLES SOLD BY THE WINE SQUARE

Installation procedures

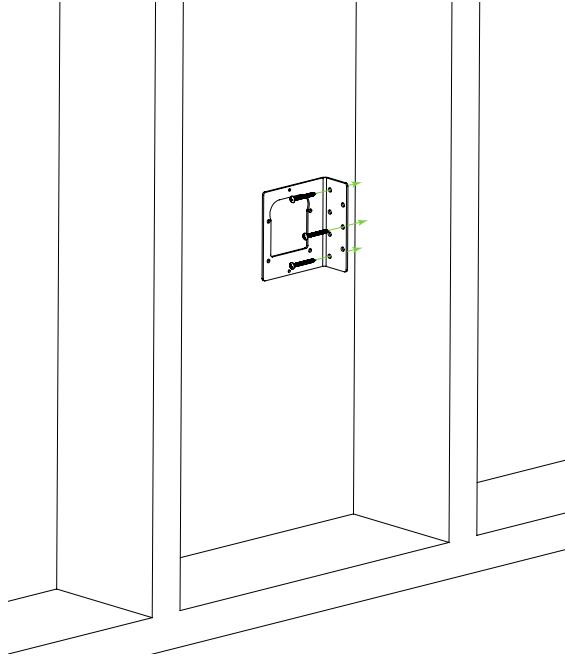
1



Start by identifying the location of your CUBE°-RC on your cellar's ceiling. It is recommended that the unit be placed in the centre of the room, enabling it to maintain a more uniform temperature inside the cellar. There must be a 13" clearance between the ceiling and the location you wish to install the unit.

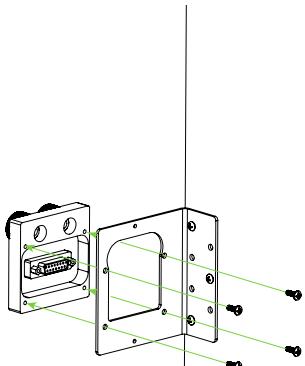
A

2



At the location you wish to install the CUBE°, fix the mounting plate for the CUBE°'s wall outlet. Even though there are no required specs, it is recommended to align the mounting plate at the same height as the electrical outlets. Wood screws should be used for this task.

3

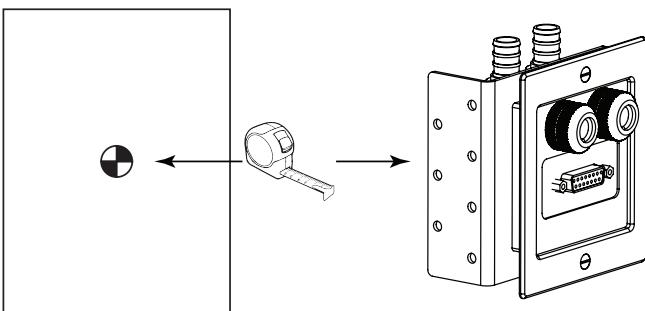


Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.

Installation procedures

4

Measure the length of the tube required from the CUBE°-RC's wall outlet to the location where the CUBE°-RC will be fitted.

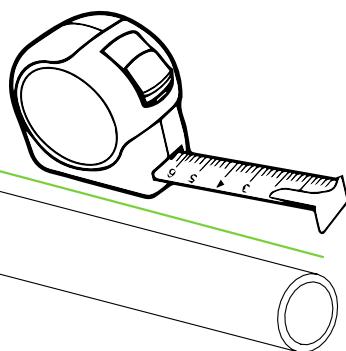


A

5

Take the length measured at step 4 and cut two lengths of 1/2" PEX tube.

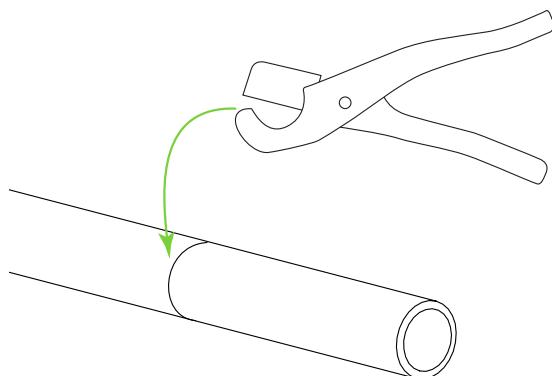
2X



6

Use a cutting tool designed for this purpose. The cut must be as straight and perpendicular as possible.

2X

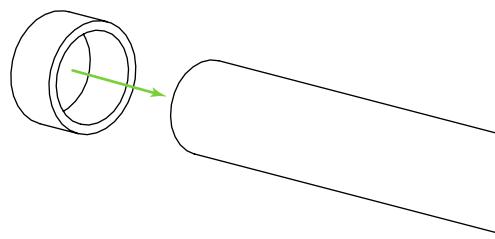


Installation procedures

7

You must slide on each tube a compression ring designed for 1/2" PEX tube at one end of the tube.

2X

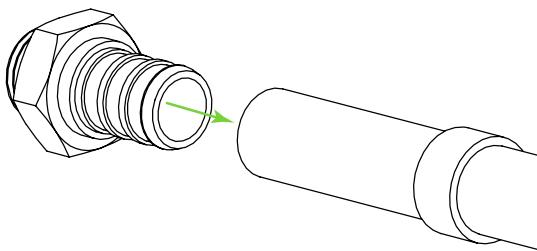


A

8

Place the 1/4" male adaptor designed for the 1/2" PEX tube (FIT-0004) at one end of each tube. It's important to push the adaptor's grooved surface completely on the tube. The adaptor is supplied with the ACC-CUB-A023: WALL OUTLET FOR THE CUBE°-RC.

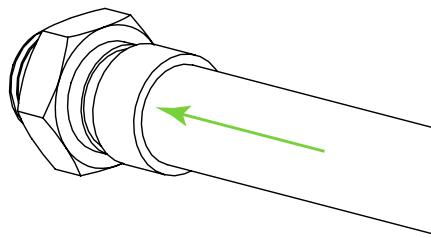
2X



9

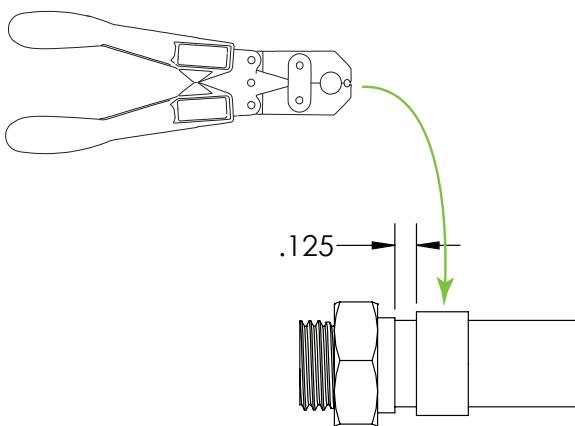
Slide the compression ring directly in front of the adaptor.

2X



Installation procedures

10



2X

Using the crimping pliers, crimp the compression ring on the adaptor. Leave a 1/8" space between the adaptor and the compression ring.

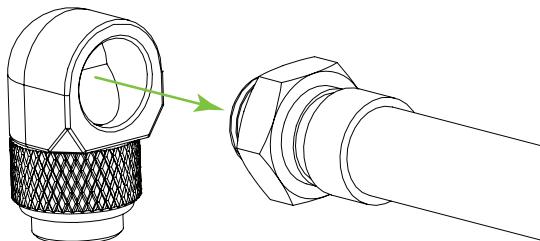


WARNING

Use the Go No/Go gauge supplied with the pliers to ensure that the crimping of the compression rings at all junctions is sufficient. If you are using a different compression ring, please refer to the manufacturer's instructions.

11

2X



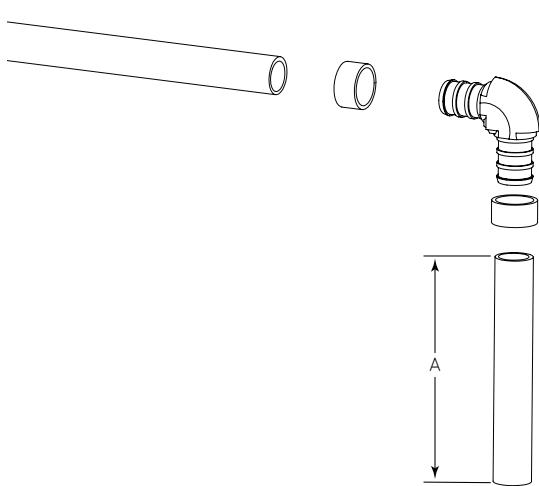
Screw the CUBE°-RC's 1/4" right-angled wall outlet adaptor to the 1/4" PEX tube adaptor installed previously. Repeat this step for each tube.

The 1/4" adaptors must be completely tightened. However, they do not need to be over tightened. Once there is contact between the metallic section of these two parts, tighten an additional one-quarter turn.



12

2X



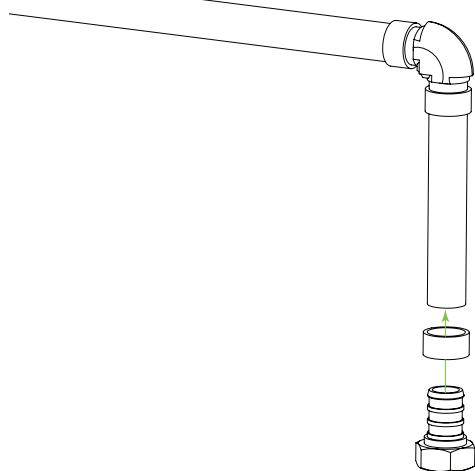
On the other end of the two tubes, slide the parts in the following order: compression ring, 1/2" right-angled PEX tube adaptor, A-length tube and another compression ring.

A: The A-length corresponds to your ceiling's thickness plus the insulation and the ceiling's finished surface. The adaptor found at the end of this tube must be flush with the ceiling's finished surface. It should not exceed the ceiling's surface or be recessed too far making it hard to connect to it.

Installation procedures

13

2X

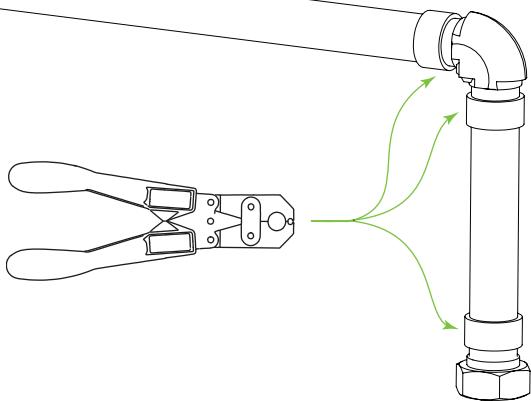


At the end fitting of the A-length tube, insert a compression ring then a 1/4" female adaptor to the 1/2" PEX tube (FIT-0005). The following is supplied with the ACC-FIT-A002 kit: 1/2" PEX FITTING FOR A 5/8" TUBE.

A

14

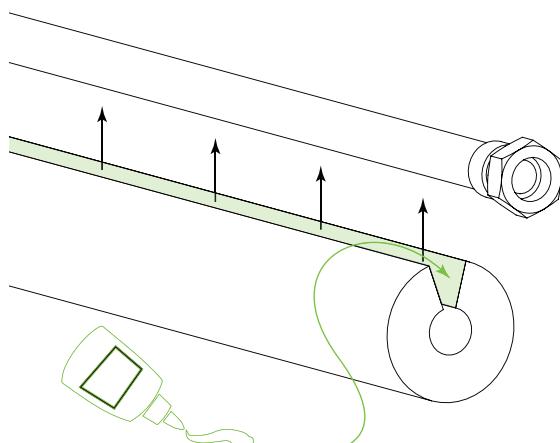
2X



By following the same procedures as for the first crimped adaptor, crimp all the compression rings that were inserted previously.

15

2X

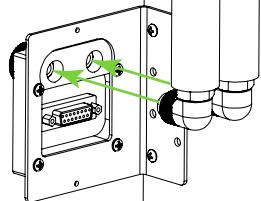


Using insulating foam and adhesive tape, cover all the tubes put together previously. It's important to use this insulating foam as it prevents condensation on the tube within the wall space.

Installation procedures

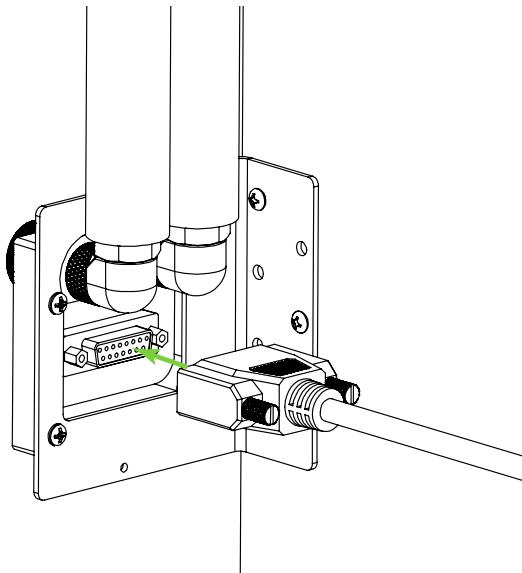
16

Using long nose pliers, tighten each of the tube adaptors to the support for the CUBE°-RC's wall adaptor.



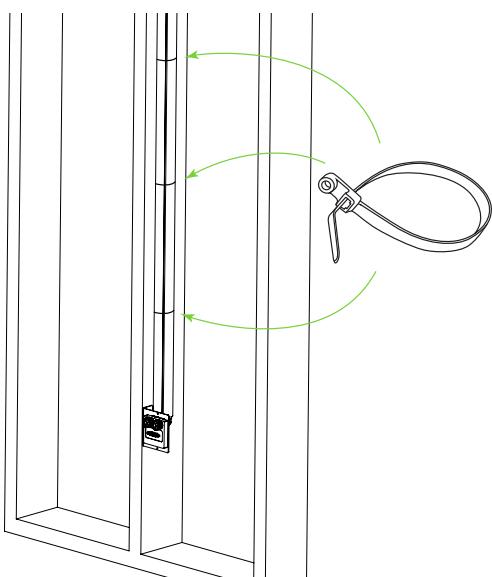
17

Connect the DB15 communication cable behind the support for the CUBE°-RC's wall adaptor. You must tighten the two adaptor screws completely to prevent the adaptor from disconnecting.



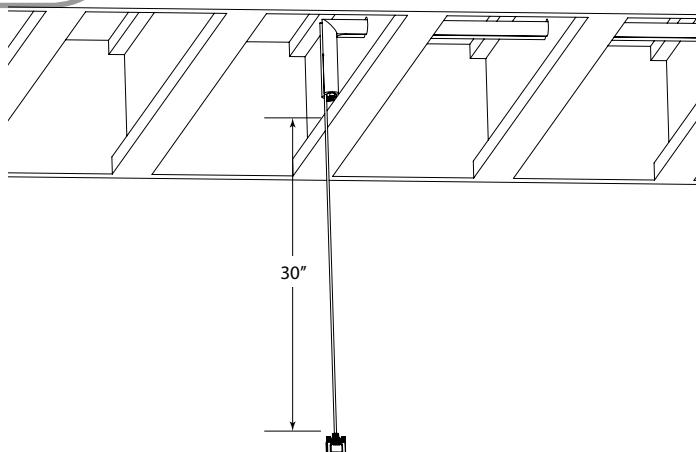
18

Place the tubes and the DB15 communication cable inside the wall while making sure they are tied with loop tie wraps. Using a wood screw, secure each tie wrap to the wall piece.



Installation procedures

19



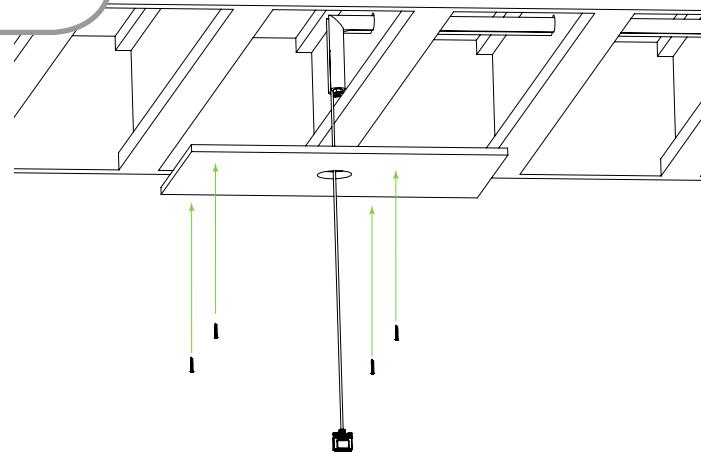
Bring the tubes and the communication cable to the CUBE°-RC located on the cellar's ceiling. Let the DB15 communication cable hang at least 30". This extra length is required to allow the hookup of the system.



WARNING

To avoid contaminants within the loop and to protect the adaptor, it is best to cover the adaptors and the communication cable with masking tape or a bag until the system's final installation.

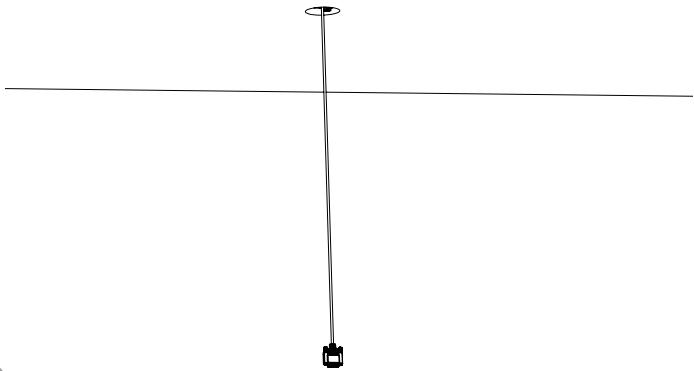
20



Add another surface such as a plywood panel to allow screwing where the CUBE°-RC will be mounted. A 12" x 12" minimum panel should be fixed. However, it is recommended to cover a slightly larger area, making the final installation easier. Using wood screws, tighten the mounting bracket on the ceiling structure.

END OF STEP BEFORE CLOSING
THE WALL

21



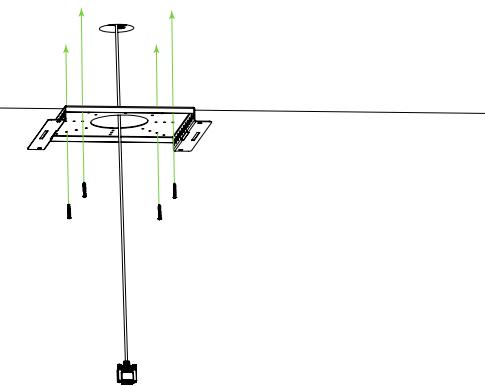
Finish building the cellar by adding insulation and a vapour barrier.

Install a lining such as a gypsum board, then do the finishing tasks (joint sealing, painting).

Allow enough time so that paint or varnish odours can dissipate before closing the room and continuing the air-conditioning's installation.

Installation procedures

22



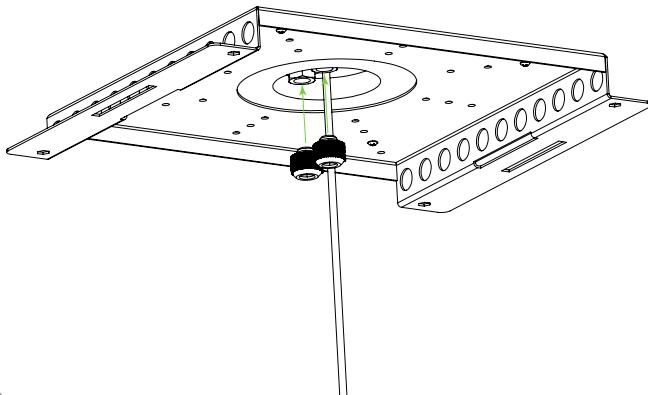
Install the CUBE°-RC's mounting plate on the wine cellar's ceiling making sure to align it properly with the walls. Use at least 4 wood screws to secure the mounting plate.



WARNING

It's important that these mounting screws be fixed upon a solid framework. The weight of the CUBE°-RC filled with water is maintained by this plate. Mounting it onto a material not as sturdy such as a gypsum board is insufficient. The Wine Square cannot be held responsible should a unit fall off the ceiling. Make sure the mounting plate is secured enough to withstand a 75 lb weight.

23

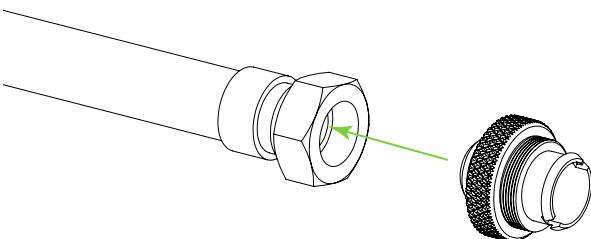


Fix the two 1/4" barb connectors for the 3/8" - 5/8" tube to the female adaptor mounted previously. You might need to use the long nose pliers to keep the adaptor in the ceiling.

24

2X

Insert the 1/4" barb connector for the 3/8" - 5/8" tube.



Installation procedures

25

2X

Slide a coin in the slot at the front of the adaptor.

A

26

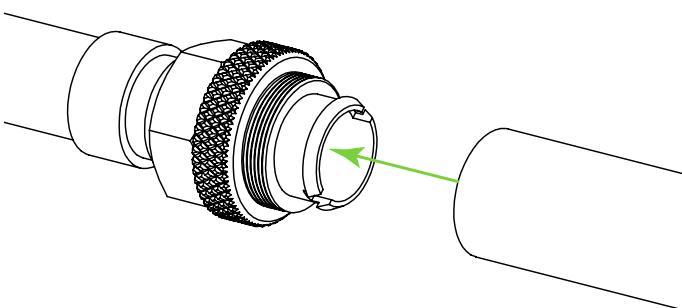
2X

Fasten the adaptor until the two metal parts come into contact. Once the contact is made, rotate one-quarter turn to tighten the adaptor properly.

27

2X

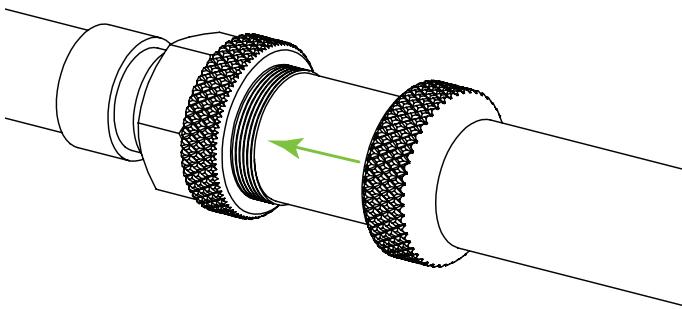
Slide the neoprene tube supplied with the CUBE°-RC on the ridges of the connector. Drive in the tube completely on the ridges up to the connector's shoulder threads.



Installation procedures

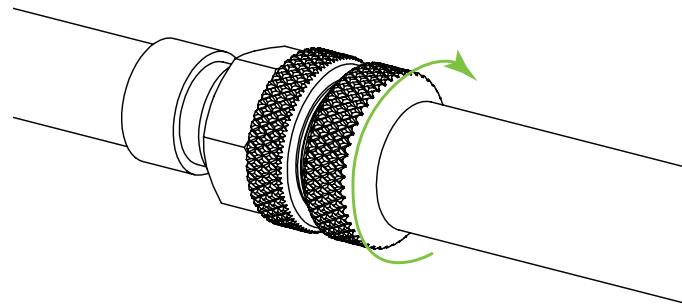
28

Slide the barb connector's compression ring directly on the tube.



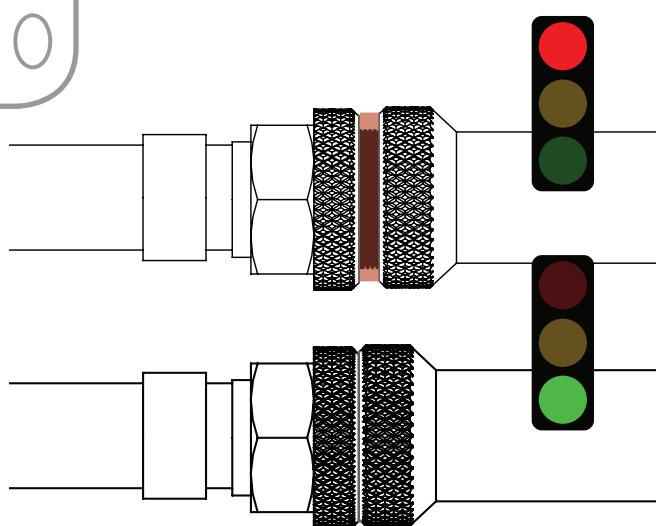
29

Fasten the barb connector's compression ring to secure it on the tube.



30

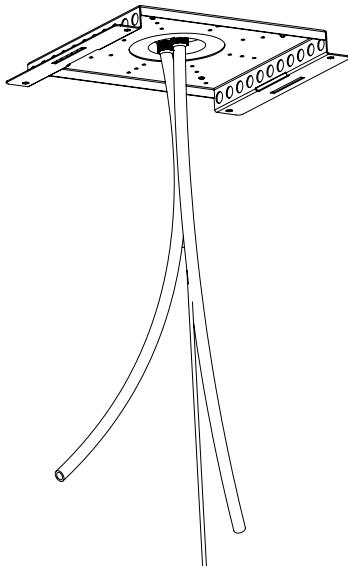
It's important to fasten the compression ring all the way. No space must be left between the compression ring and the shoulder threads of the barb connector.



When in doubt, tighten the connector ring without the tube to see how far it will go. The connector ring must end at the same place even though the tube is there. If need be, use pliers to help you tighten the connector ring.

Installation procedures

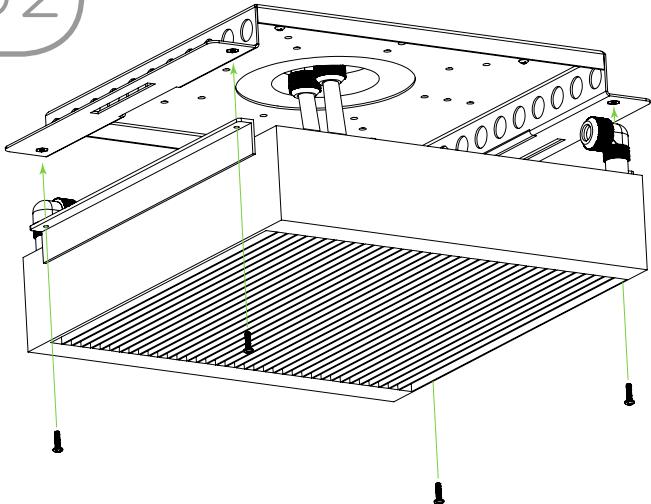
31



Once both tubes are installed and the communication cable is in place, take a polyurethane can and seal off the hole behind the barb connectors. Try not to cover the barb connectors with foam and protect the surface underneath the hole to prevent damaging.

A

32



Once the polyurethane foam has finished expanding and is no longer sticky, screw the CUBE°-RC's radiator to the mounting plate on the ceiling. Use a No. 2 Phillips screwdriver.

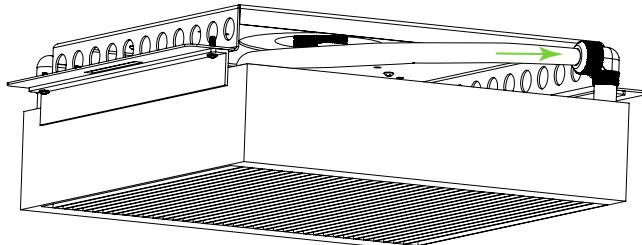


WARNING

Make sure the communication cable or the tube is not pinched during this step.

It is best if there are two people to perform this installation step. It's easier to partially tighten the four screws in order to align them with the holes. Once all four screws are aligned, tighten them.

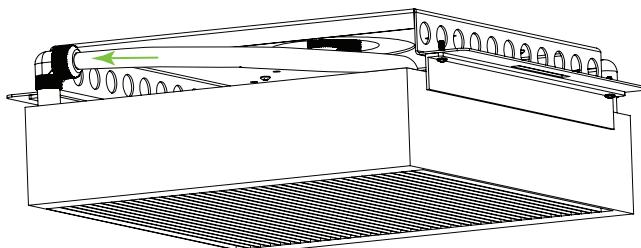
33



While making sure the tubes are not pinched or bent between the radiator and the ceiling, take one of the tubes and connect it to the radiator's 3/8" - 5/8" barb connector.

Installation procedures

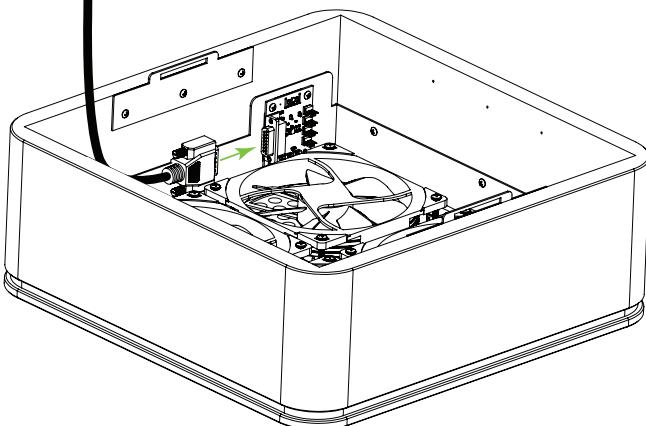
34



While making sure the tubes are not pinched or bent between the radiator and the ceiling, take the other tube and plug it in the radiator's other 3/8" - 5/8" barb connector.

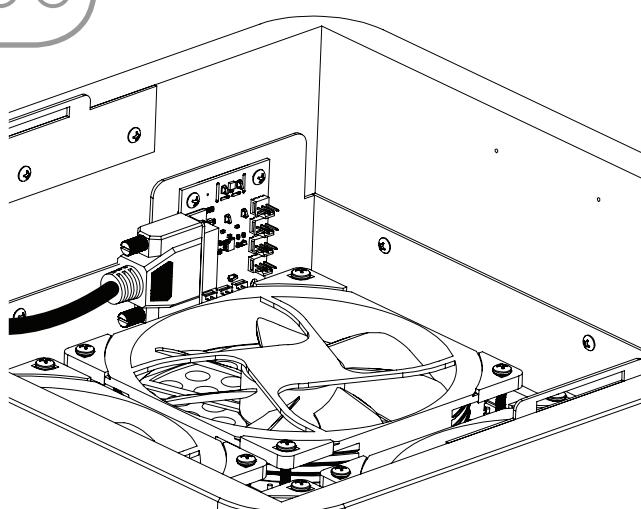
A

35



Connect the DB15 communication cable to the electronic card of the CUBE°-RC's housing.

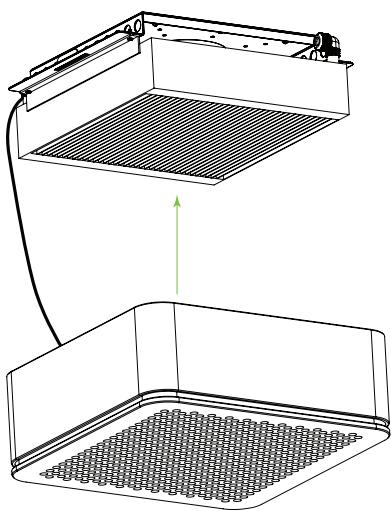
36



Make sure the barb connector is recessed against the electronic card connector to ensure effective communication with the CUBE°.

Installation procedures

37



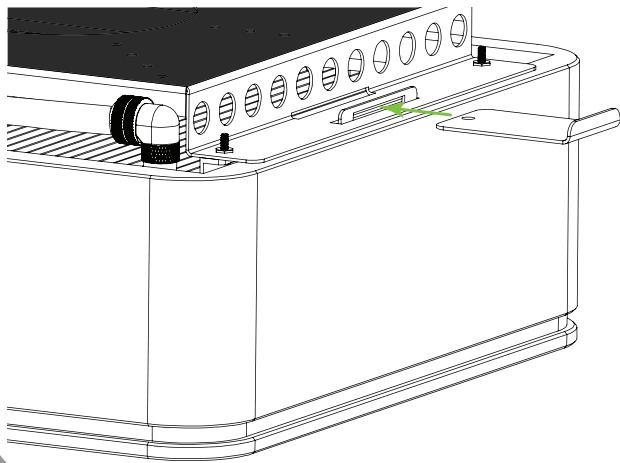
Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.



WARNING

Make sure the communication cable is not pinched during this step.

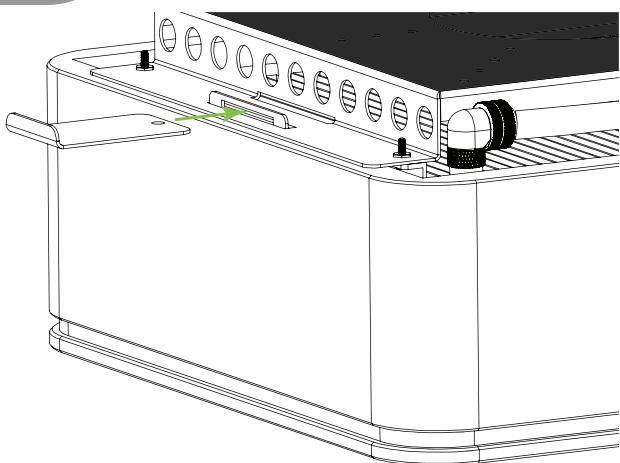
38



Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

39

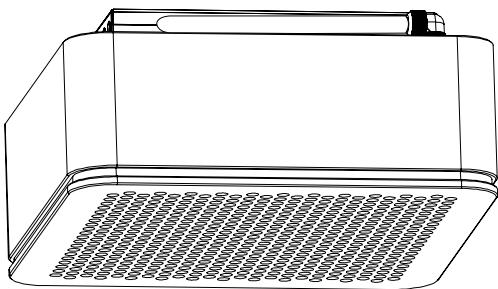


Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

Installation procedures

40



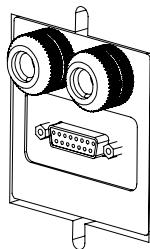
Push the excess communication cable inside the housing and replace the tubes so that they are not visible.

You have now finished installing the CUBE°-RC inside the wine cellar.

The rest of the installation is done outside the cellar where the CUBE° is located.

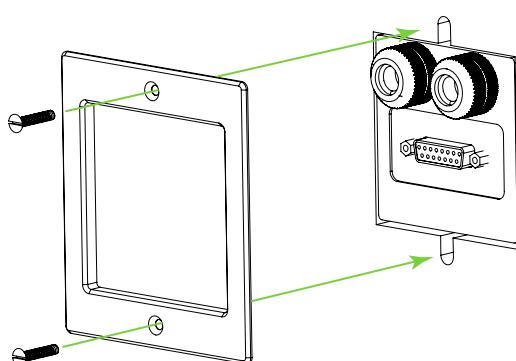
A

41



Make sure the CUBE°-RC's wall outlet is clean and that there are no contaminants on the water loop or the communication cable connectors.

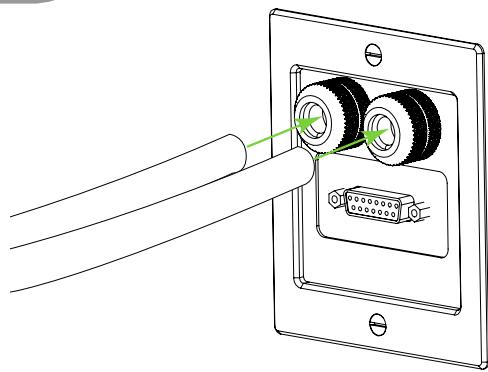
42



Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.

Installation procedures

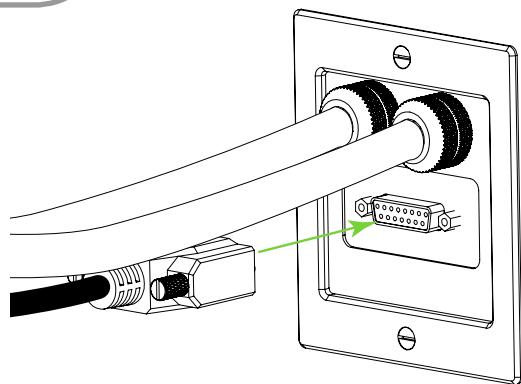
43



Connect both tubes supplied with the CUBE° to the cold water loop. The tubes for this loop are covered with an insulating sleeve.

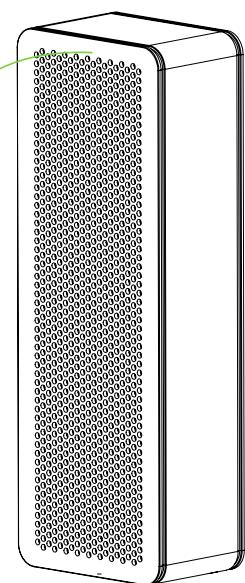
If the tubes are too long for your installation, you may cut them with a pair of scissors. Using a hot air gun, you may then slightly heat the braided nylon sleeve so that the fibres close up and the sleeve does not shred.

44



Connect the supplied communication cable with the CUBE° at the CUBE°-RC's wall outlet.

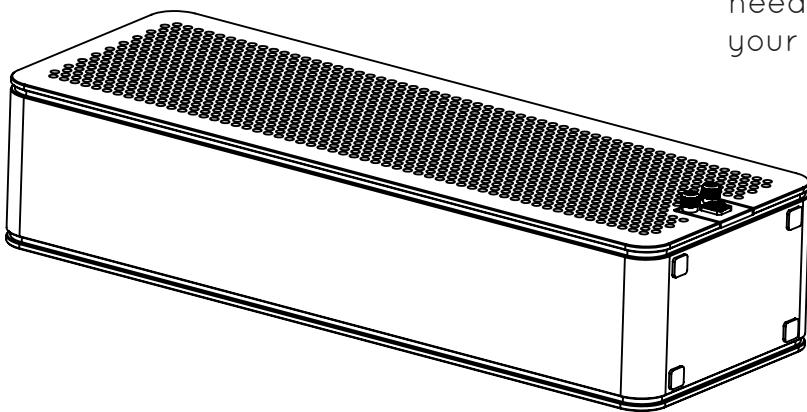
45



Place the CUBE°-RH where you wish to install it. Making sure not to damage the housing (by placing a cloth on the floor in front of the CUBE°-RH), tip the CUBE°-RH so that it is laying face down against the floor.

Installation procedures

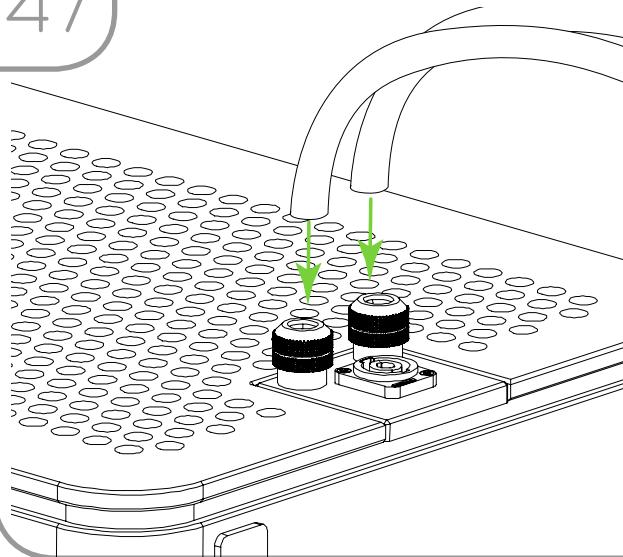
46



As with the cold water loop tubes, take the tubes (the ones without the insulating sleeves) supplied with the CUBE° and, if needed, adjust their length according to your installation.

A

47



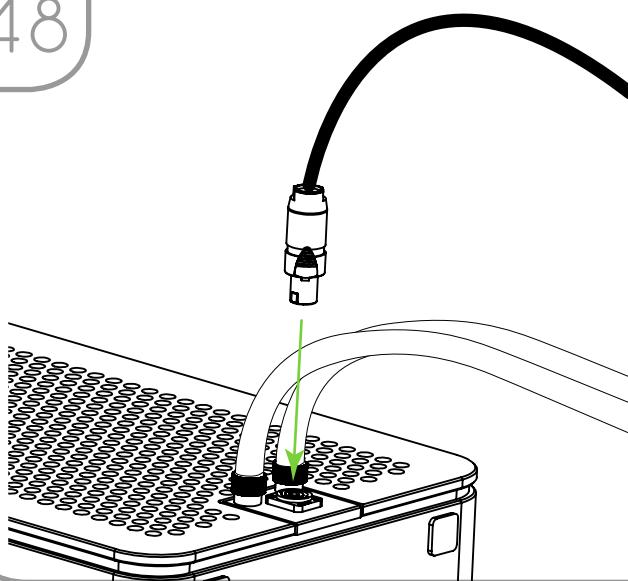
Connect both hot water loop tubes to the 3/8" - 5/8" barb connectors located on the back of unit.



WARNING

If you have more than one CUBE°-RH, you must only connect the tube to one connector for each CUBE°-RH, but not on the same CUBE°-RH. Connect one on the connector located on the right-hand side of the first CUBE°-RH and the other on the left-hand side of the second one.

48



Take the correct length of the CAB-RH-CUBE-XX's wire that links the CUBE° to the CUBE°-RH's radiator and connect it into the radiator. Make sure the wire is well inserted.

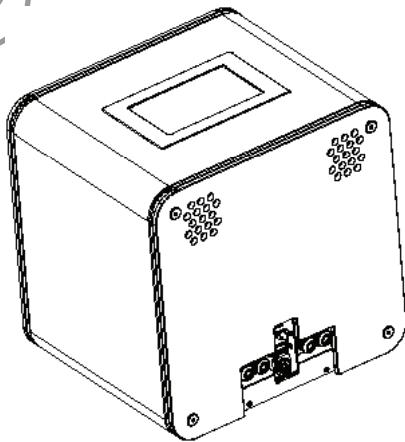


WARNING

If you have more than one CUBE°-RH, you must cut another length of wire that will link both CUBE°-RH together while respecting the colour code. This means that you will have two wires coming out of one of the units.

Installation procedures

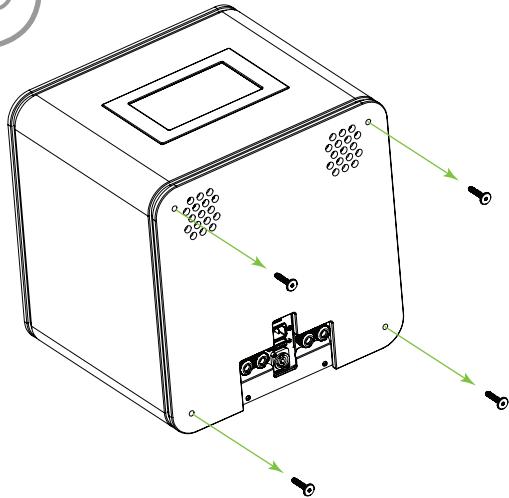
49



Place the CUBE° in order to access the back of the system.

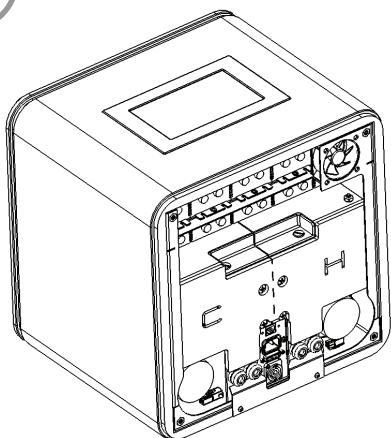
A

50



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

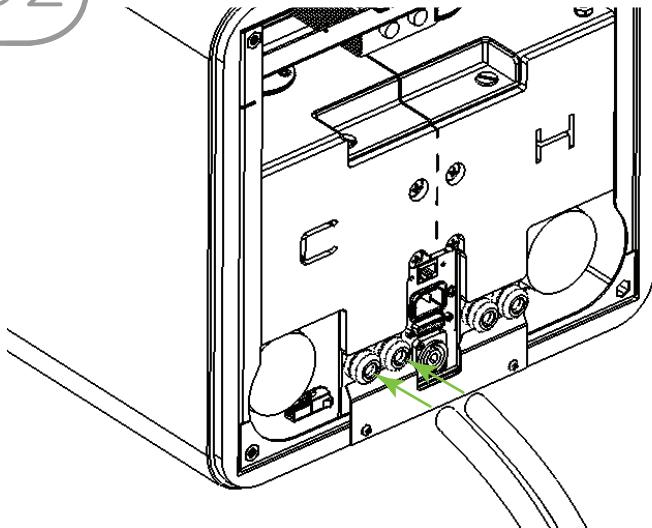
51



Remove the rear plate at the back of the unit.

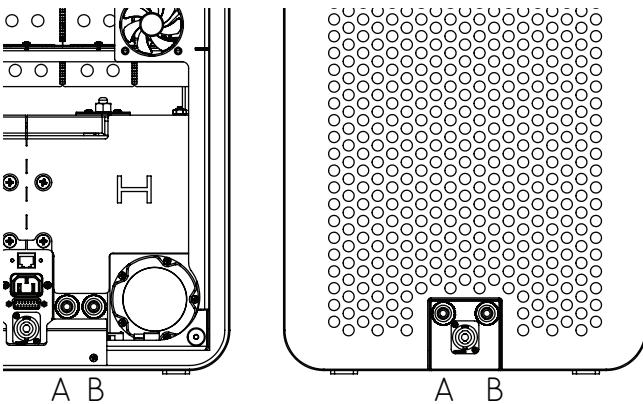
Installation procedures

52



Connect both cold water loop tubes. For this step, the location of each tube is not important. Simply connect both tubes to the 3/8" - 5/8" barb connectors located in front of the water tank marked with the letter C (Cold).

53



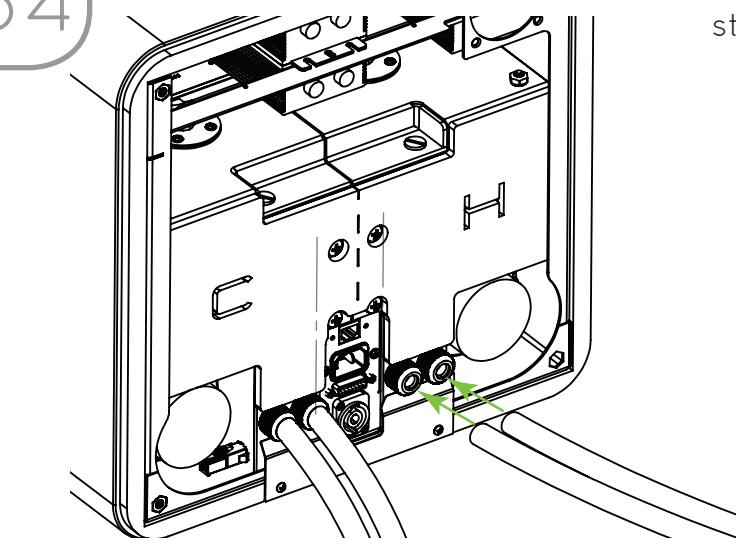
As for the hot water tube connection, the location of the tubes is crucial for the system's proper operation. Take extreme care to connect the A-position tube of the CUBE°-RH with the A-position CUBE° connector (same with the B-position).



WARNING

If you have more than one CUBE°-RH, they must be connected in series. To achieve this, you must connect the A-position CUBE° connector with the A-position tube of the first CUBE°-RH's radiator and the B-position CUBE° connector with the B-position tube of the second radiator. The remaining connectors from the radiators can then be linked together using a third tube.

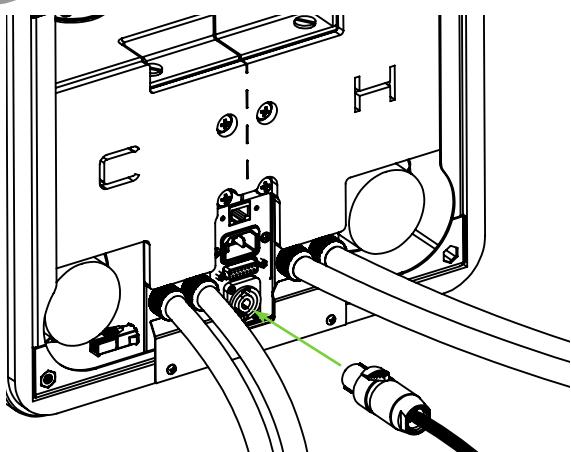
54



Connect the CUBE°-RH tubes as per instructions in the previous steps.

Installation procedures

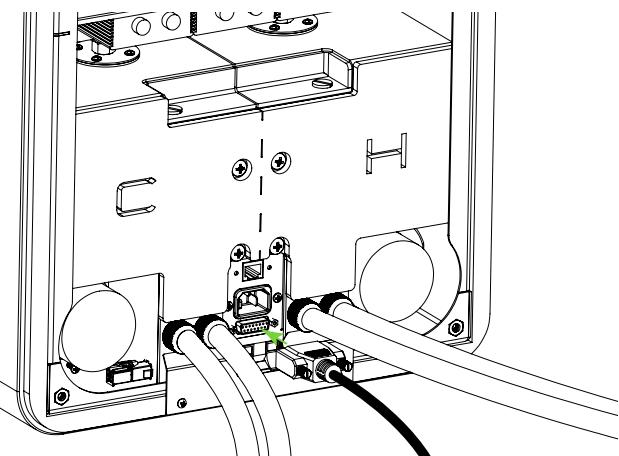
55



Connect the wire from the CUBE°-RH's radiator to the back of the CUBE° (CAB-RHCUBE-XX). Make sure the wire is well inserted.

A

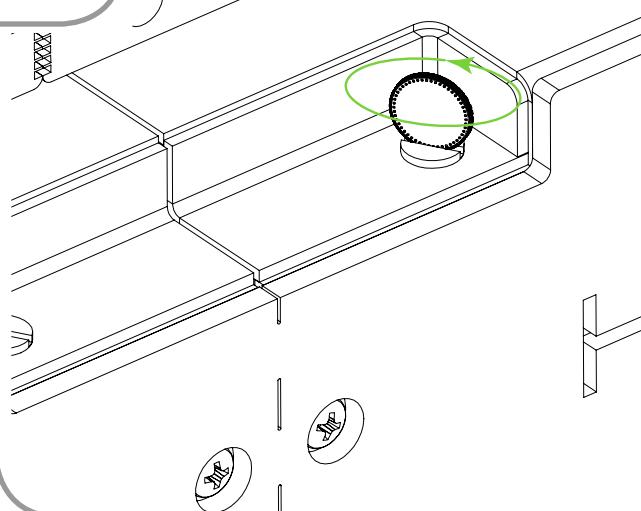
56



Connect the DB15 communication cable that comes out of the CUBE°-RC's wall outlet to the back of the CUBE°. Make sure to tighten sufficiently the connector screws to avoid disconnecting the cable.

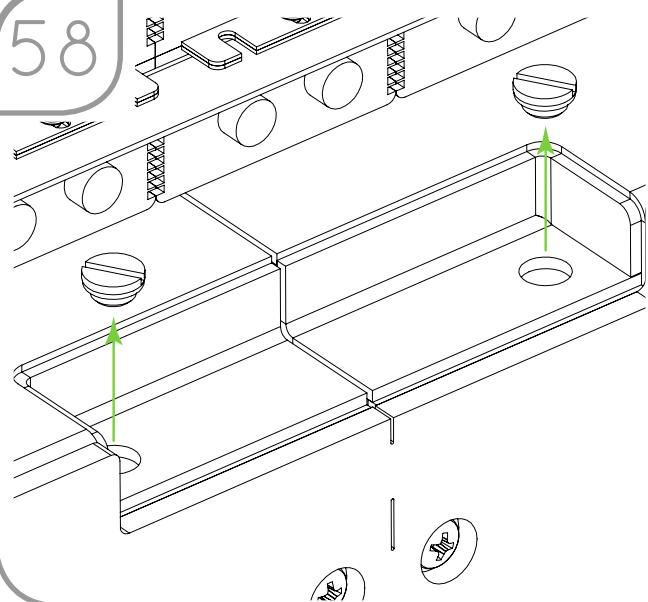
57

2X



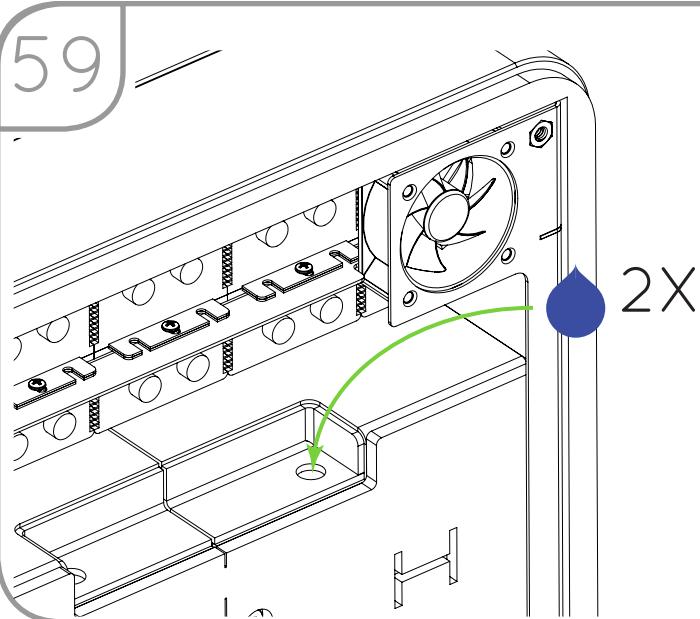
Using a coin or another tool that won't damage the plastic caps, loosen the ones from the two water tanks.

Installation procedures



Remove the plastic caps from the two water tanks.

A

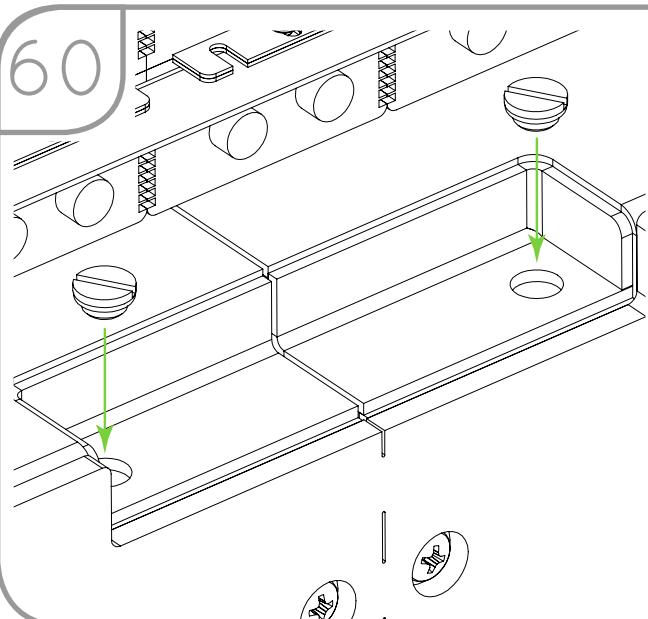


Fill the water tanks with cold and hot water to the maximum of their capacities.

For this step and the following ones, measure approximately the quantity of water poured in each loop.

⚠️ WARNING

It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

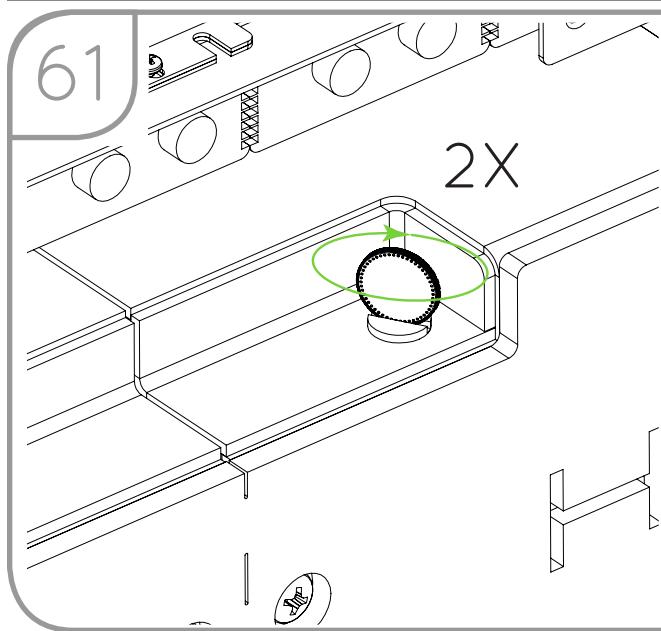


Put the plastic caps from the two water tanks back in place.

⚠️ WARNING

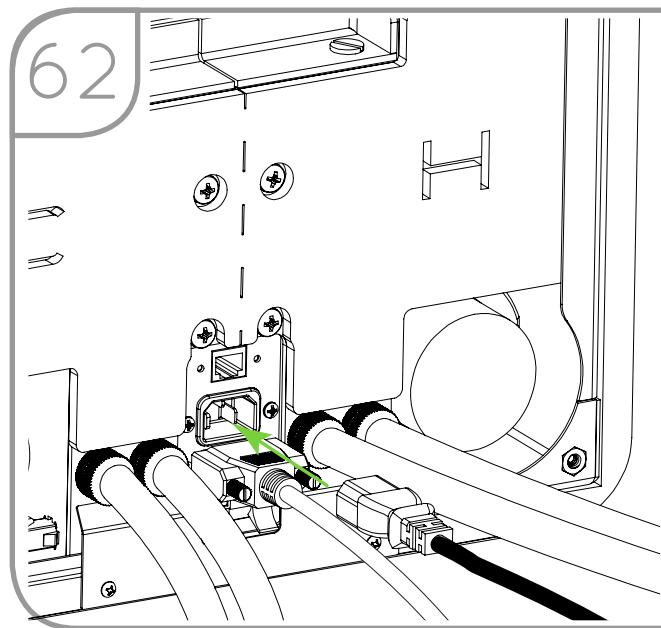
You may continue the installation process if there is less than 10 feet of height between the CUBE°-RC and the CUBE° or between the CUBE°-RH and the CUBE°. Otherwise, follow the instructions under the section Starting the CUBE° with a height over 10 feet.

Installation procedures



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

A

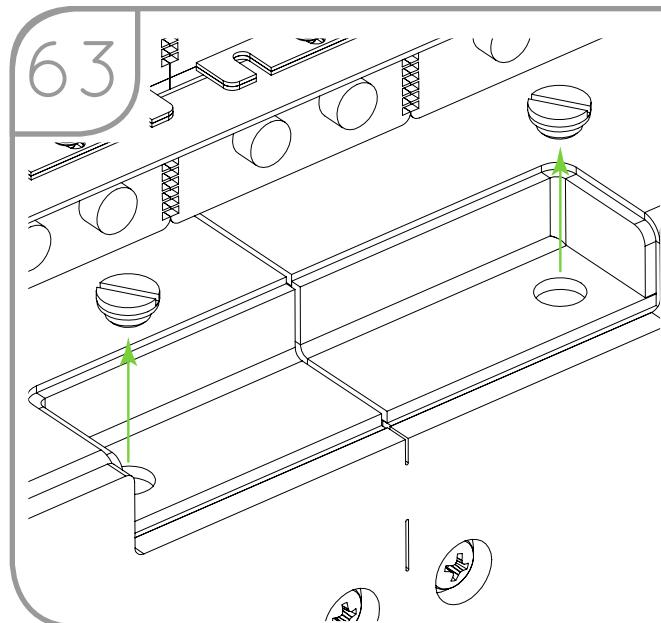


Connect the CUBE°'s power cord to the back of the CUBE°. Then plug the power cord to the system's power outlet.



WARNING

Make sure the CUBE° is the only device plugged into the power supply that is feeding it. An electrical circuit must be dedicated to the system.

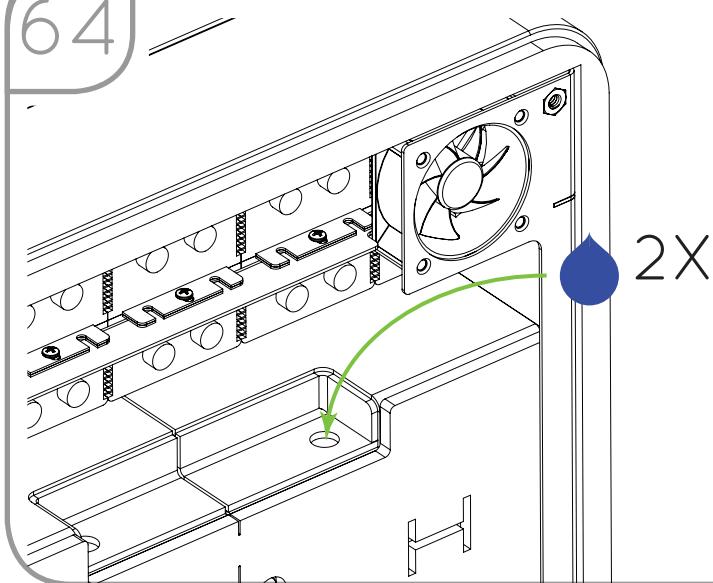


At the start of the system, the CUBE° will rapidly empty its water tanks then it will be followed by a BEEP.

Remove the plastic caps from the two water tanks.

Installation procedures

64



Fill the water tanks with cold and hot water to the maximum of their capacities. The system will stop as soon as one of the two water tank is empty. It will start again once there is water in both tanks.

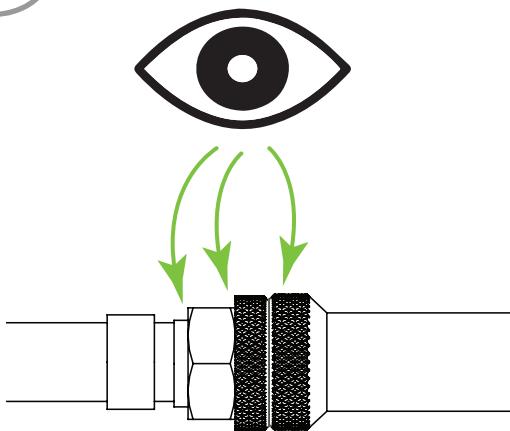
You must alternately fill up the cold and hot water tanks.



WARNING

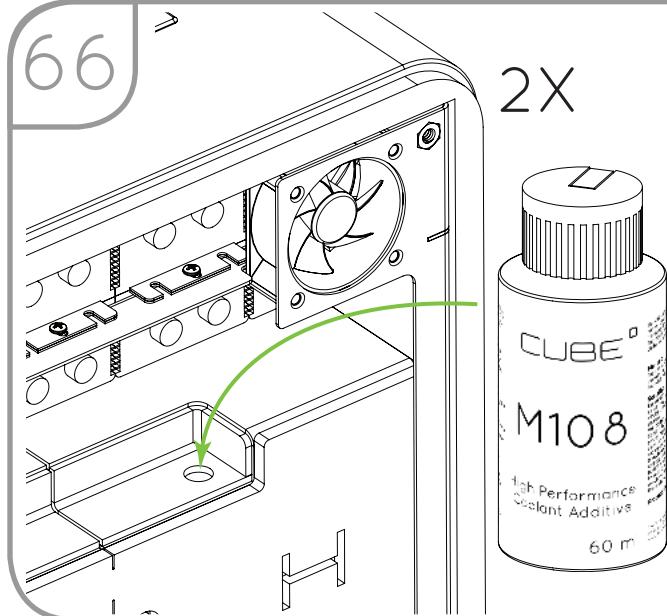
It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

65



To detect a leak, check all the different connectors of the installation. If such is the case, correct the situation before continuing.

66

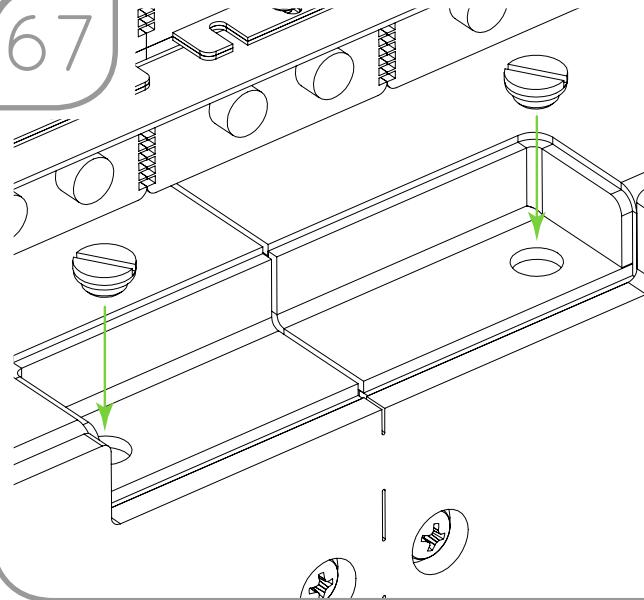


If there is no leak, you may add the M108 anticorrosive agent. This water-based agent has an intense green colour. A dye has been added to detect its presence.



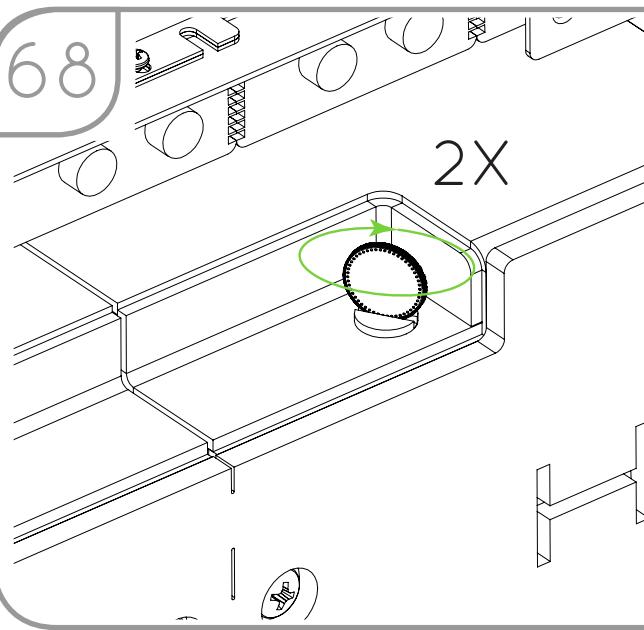
You must add 8 ml of M108 per 1 L of distilled water. The agent must be added in each water loop using the same concentration.

Installation procedures

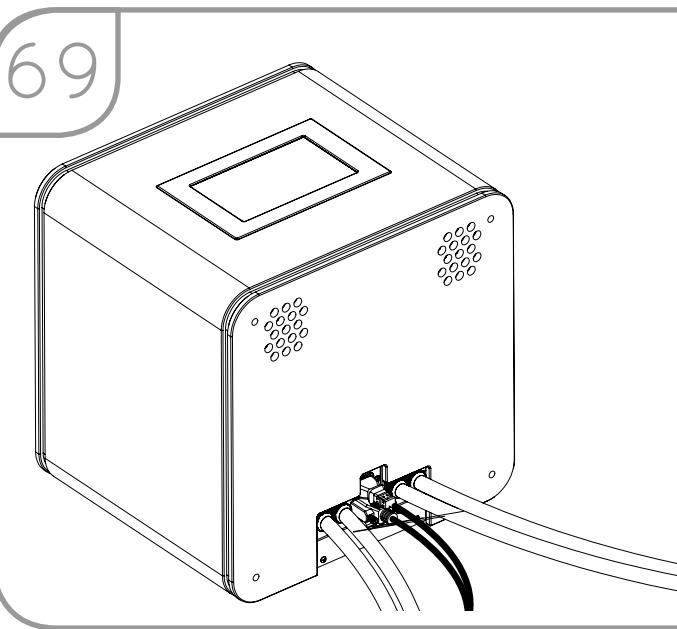


Put the plastic caps from the two water tanks back in place.

A



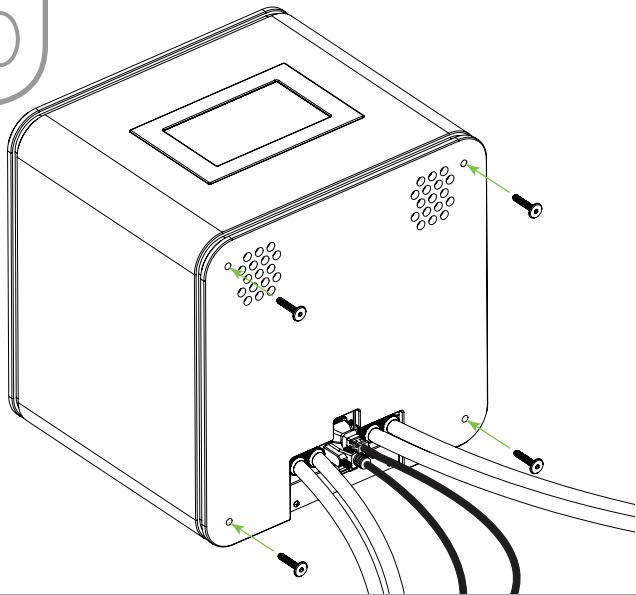
Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.



Replace the rear plate at the back of the CUBE°.

Installation procedures

70

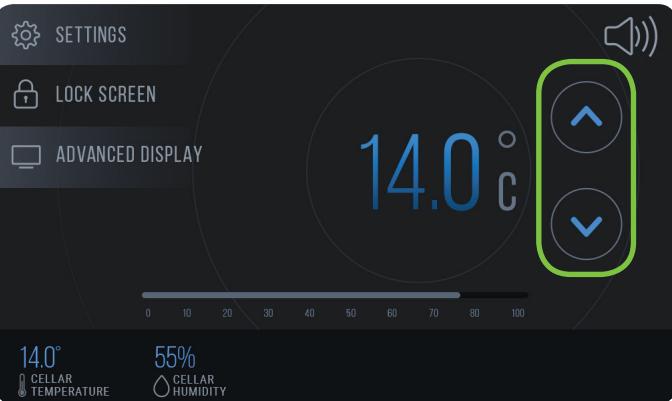


Tighten all four mounting bolts of the CUBE°'s rear plate.

A

71

Using the arrows, adjust the temperature inside the cellar to the desired aging temperature.



Installation type B

Installation with tubes that are visible and one radiator installed on the ceiling:
1-step installation. This type of installation is recommended when replacing a system,
for concrete walls or when walls are already closed.



Tools and Materials

- CUBE°
- CUBE°-RC
- CUBE°-RH
- ACC-CUB-A023: CUBE°-RC'S WALL OUTLET (colour depending on installation)
- ACC-FIT-A002: 1/2" PEX FITTING FOR A 5/8" TUBE (2X)
- ACC-CAB-XXXX: M/M DB15 COMMUNICATION CABLE (length depending on installation)
- ACC-CAB-0003: 3.5ft OF DB15 COMMUNICATION CABLE
- M108: CORROSION INHIBITOR
- ACC-TUB-XXXX: 3/8" - 5/8" NEOPRENE TUBE
- ACC-FIT-A005-X: ALUMINUM CLAMP FOR A 5/8" TUBE
- CAB-RHCUBE-XX

- LOOP TIE WRAP
- 1 1/2" min. WOOD SCREWS
- DISTILLED WATER
- MEASURING TAPE
- CROSS-HEADED SCREWDRIVER (No. 2 Phillips)
- CUTTING PLIERS FOR TUBE
- LONG NOSE PLIERS
- COIN
- WIRE CUTTER
- WIRE STRIPPER
- FLAT-HEAD SCREWDRIVER
- GYPSUM CUTTER
- STUD FINDER

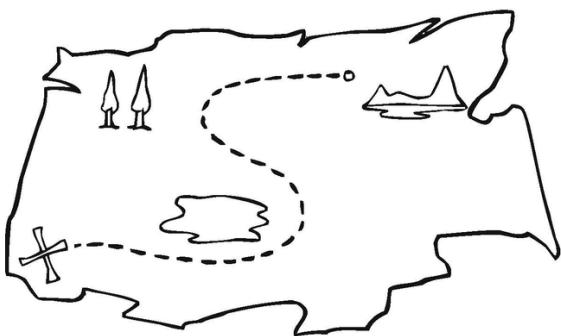
B



ARTICLES SOLD BY THE WINE SQUARE

Installation procedures

1



It's important to properly plan and visualize where the tubes will pass from the CUBE°-RH to the CUBE° before starting the installation. Find the location where the tubes and the communication cable will pass through the wall of the wine cellar.

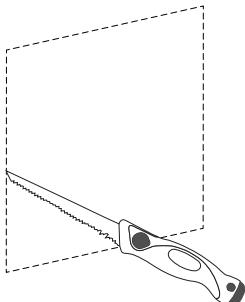
B

2



At the location where you wish to install the CUBE°-RC's wall outlet, find the studs located in the wall. The wall outlet must be fixed to the side of the stud.

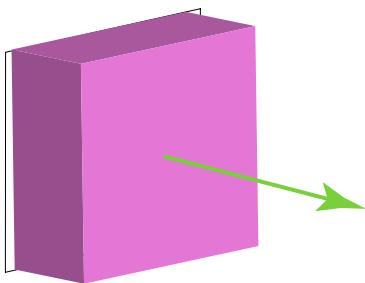
3



Cut out an opening between two studs.

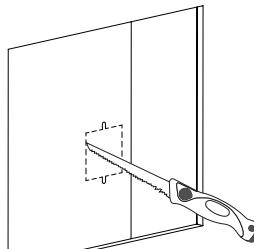
Installation procedures

4

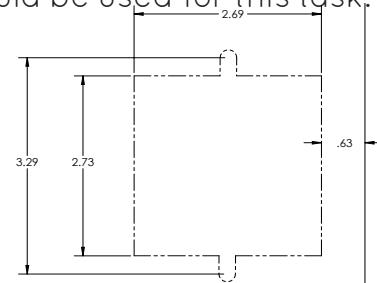


Remove the insulating materials within the wall. Cut out the vapour barrier while taking care of keeping an edge. This will make it easier to put it back in place when closing up the wall. It's important to keep an edge that is large enough to enable you to apply an adhesive tape to its surface.

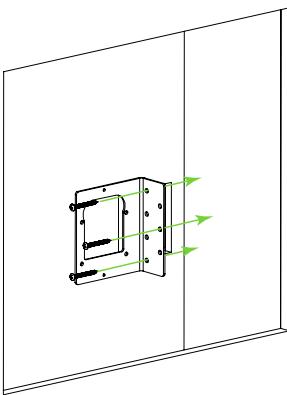
5



Cut out the wall outlet opening in the lining of the opposite side of the same wall. Make sure to properly follow the dimensions mentioned below. Even though there are no required specs, it is recommended to align the mounting plate at the same height as the electrical outlets. Wood screws should be used for this task.



6

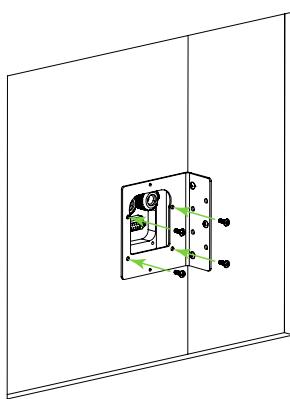


Fix the mounting plate for the CUBE°-RC's wall outlet. Wood screws should be used for this task.

B

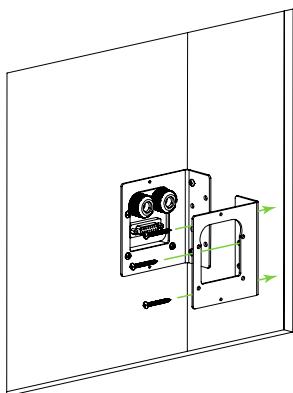
Installation procedures

7



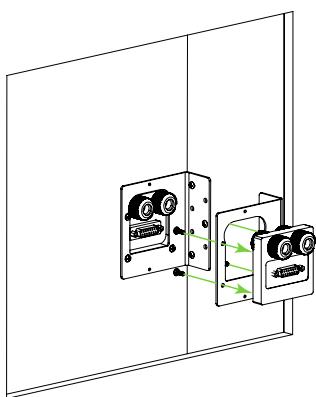
Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.

8



Fix the mounting plate for CUBE°-RC's wall outlet to the opposite side of the same wall by making sure to fix it at the same height. Wood screws should be used for this task.

9

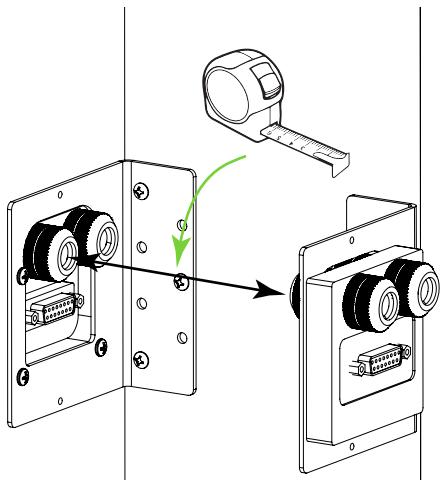


Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.

Installation procedures

10

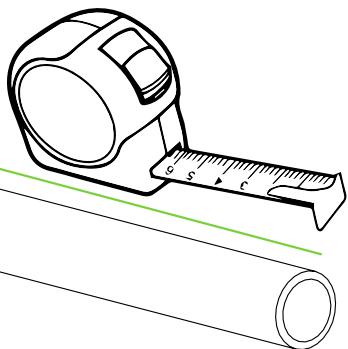
Measure the distance between the two connectors.



11

Measure two lengths of $3/8''$ - $5/8''$ neoprene tube as per the previous measure.

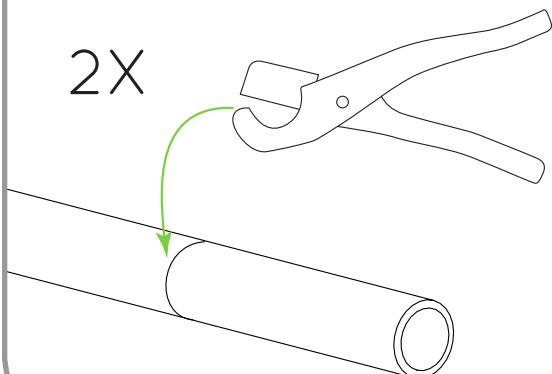
2X



12

Cut two lengths of $3/8''$ - $5/8''$ neoprene tube.

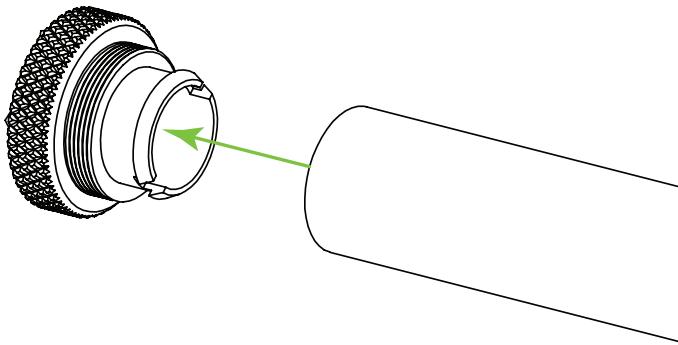
2X



Installation procedures

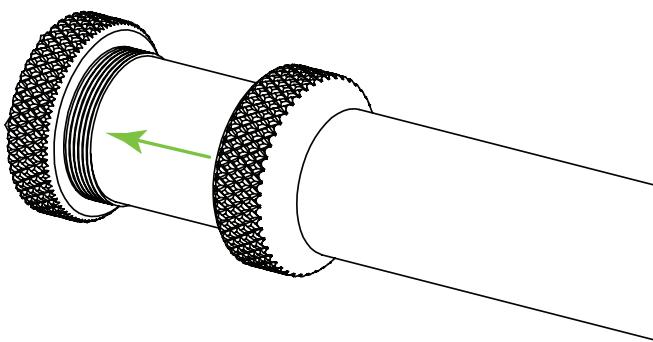
13

Slide the neoprene tube supplied with the CUBE°-RC on the ridges of the connector. Drive in the tube completely on the ridges up to the connector's shoulder threads.



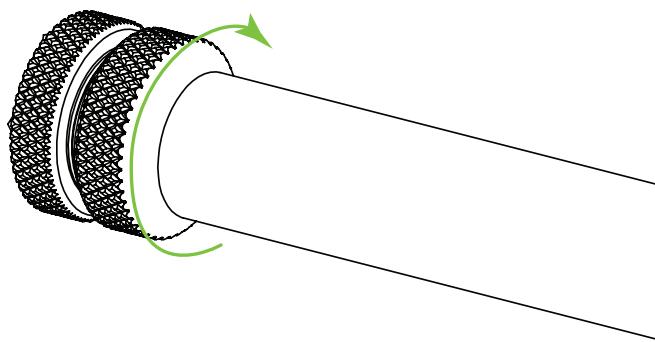
14

Slide the barb connector's compression ring directly on the tube.



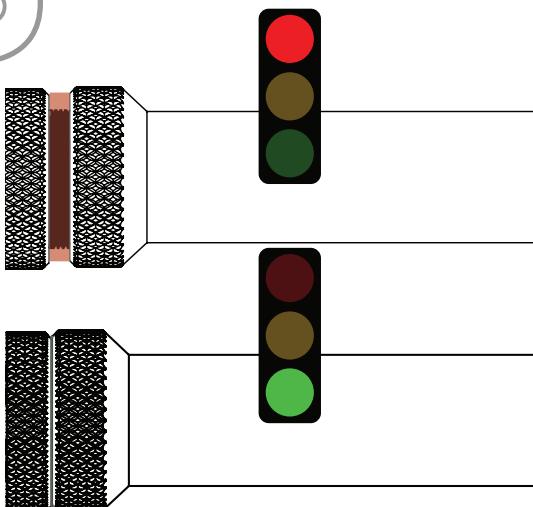
15

Fasten the barb connector's compression ring to secure it on the tube.



Installation procedures

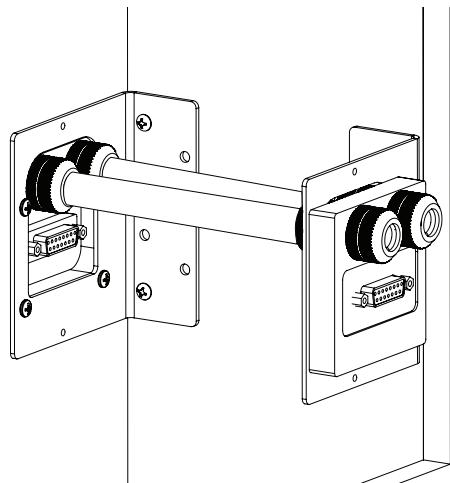
16



It's important to fasten the compression ring all the way. No space must be left between the compression ring and the shoulder threads of the barb connector.

When in doubt, tighten the connector ring without the tube to see how far it will go. The connector ring must end at the same place even though the tube is there. If need be, use pliers to help you tighten the connector ring.

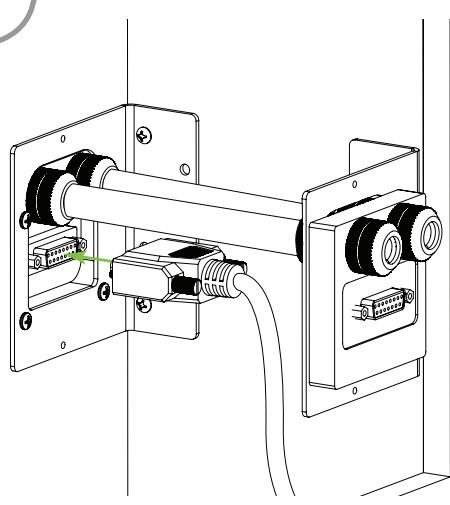
17



Connect the other end of the tubes the same way but on the CUBE°-RC's other outlet.

B

18

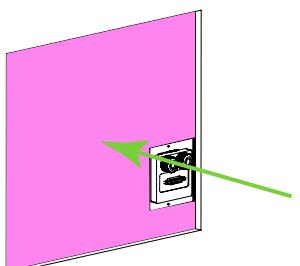


Connect the DB15 communication cable connector to one of the wall outlets and make sure the mounting screws of the connector are properly tightened.

Repeat the same procedure to connect the communication cable's other end into the other wall outlet.

Installation procedures

19



You can now put the insulation material and the vapour barrier back in place within the wall.

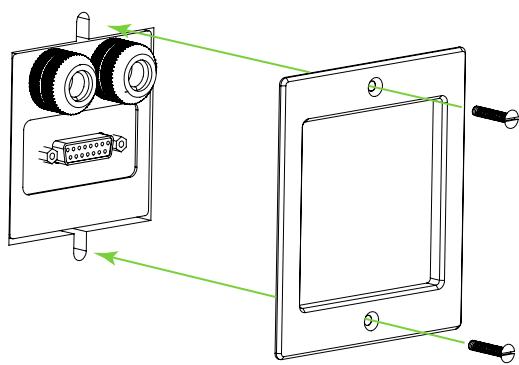
20



Replace the piece of gypsum board taken out previously. Repair the joint sealing and paint the wall.

B

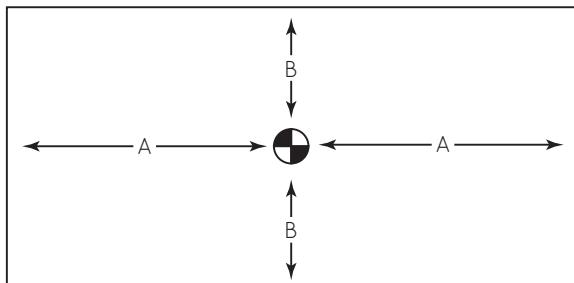
21



Inside the wine cellar, place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.

Installation procedures

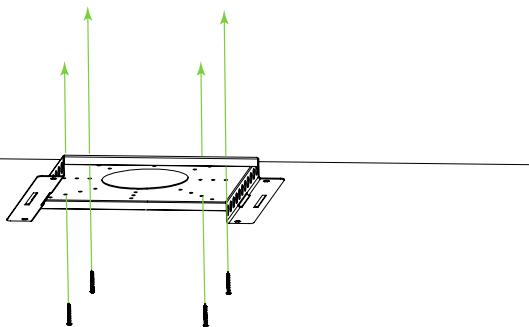
22



Start by identifying the location of your CUBE°-RC on your cellar's ceiling. It is recommended that the unit be placed in the centre of the room, enabling it to maintain a more uniform temperature inside the cellar. There must be a 13" clearance between the ceiling and the location you wish to install the unit.

23

Install the CUBE°-RC's mounting plate on the wine cellar's ceiling making sure to align it properly with the walls. Use at least 4 wood screws to secure the mounting plate.

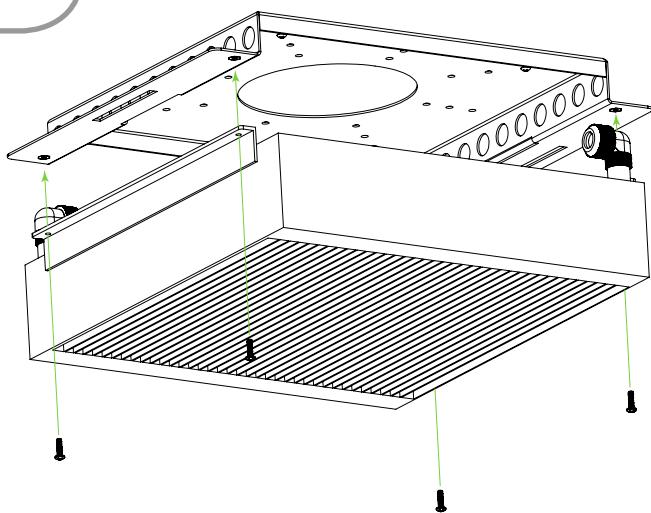


WARNING

It's important that these mounting screws be fixed upon a solid framework. The weight of the CUBE°-RC filled with water is maintained by this plate. Mounting it onto a material not as sturdy such as a gypsum board is insufficient. The Wine Square cannot be held responsible should a unit fall off the ceiling. Make sure the mounting plate is secured enough to withstand a 75 lb weight.

24

Using screws, fit the CUBE°-RC's radiator to the mounting plate on the ceiling. Use a No. 2 Phillips screwdriver.



WARNING

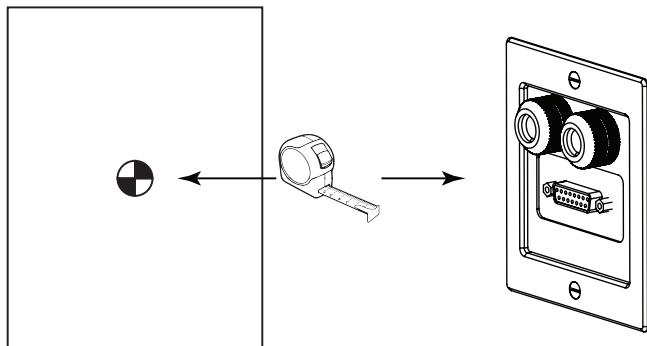
Make sure the communication cable or the tube is not pinched during this step.

It is best if there are two people to perform this installation step. It's easier to partially tighten the four screws in order to align them with the holes. Once all four screws are aligned, tighten them.

Installation procedures

25

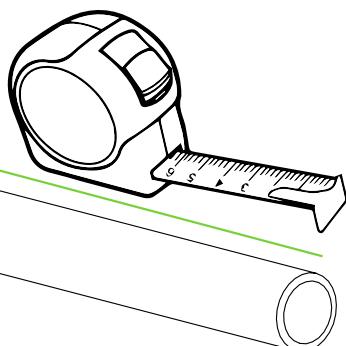
Measure the length of the tube required from the CUBE°-RC's wall outlet to the location where the CUBE°-RC will be fitted.



26

Take the length measured in the previous step and cut two lengths of 3/8" - 5/8" neoprene tube.

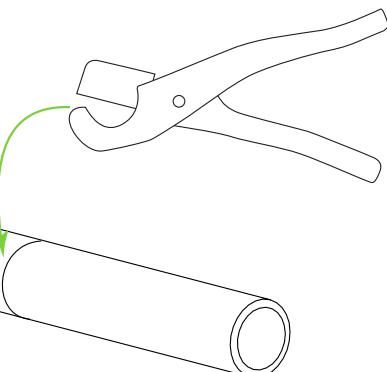
2X



27

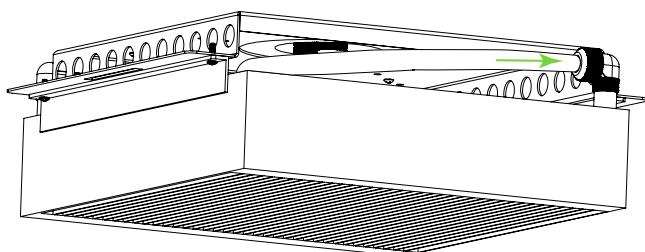
Using a cutting tool designed for this purpose, cut two lengths of neoprene tube according to the length measured previously. The cut must be straight and perpendicular.

2X



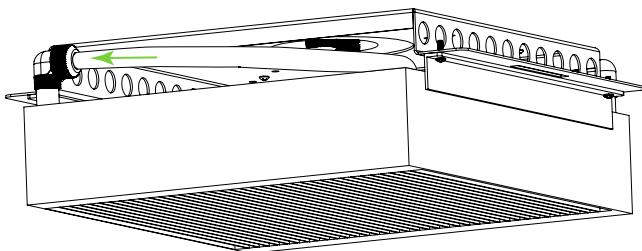
Installation procedures

28



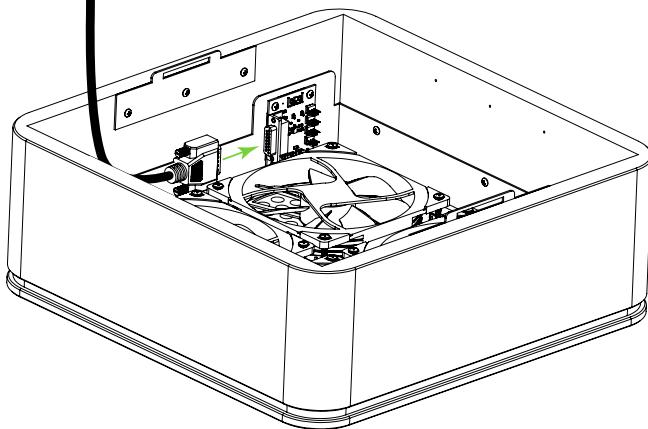
While making sure the tubes are not pinched or bent between the radiator and the ceiling, take one of the tubes and connect it to the radiator's 3/8" - 5/8" barb connector.

29



While making sure the tubes are not pinched or bent between the radiator and the ceiling, take the other tube and plug it in the radiator's other 3/8" - 5/8" barb connector.

30

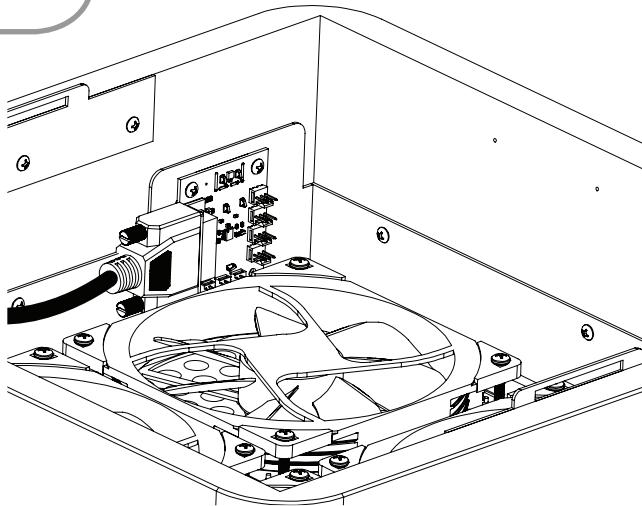


Connect the DB15 communication cable to the electronic card of the CUBE°-RC's housing.

B

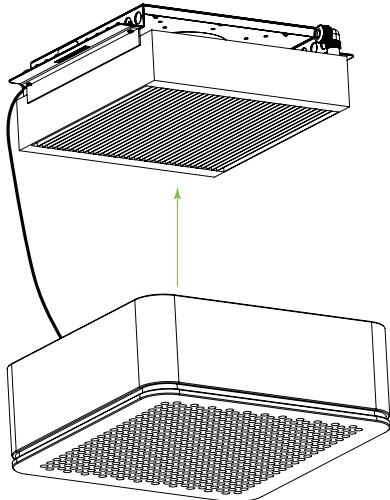
Installation procedures

31



Make sure the barb connector is recessed against the electronic card connector to ensure effective communication with the CUBE°.

32



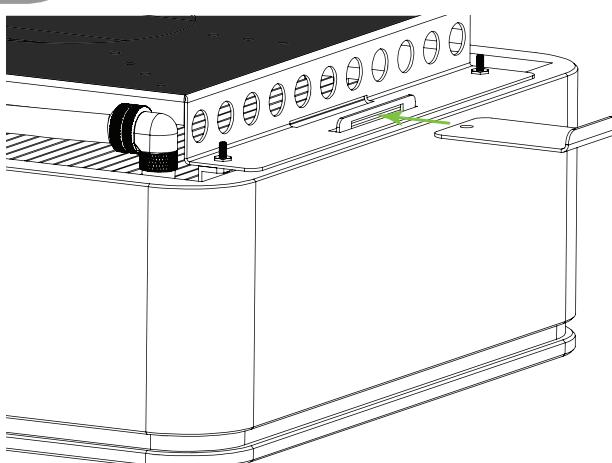
Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.



WARNING

Make sure the communication cable is not pinched during this step.

33

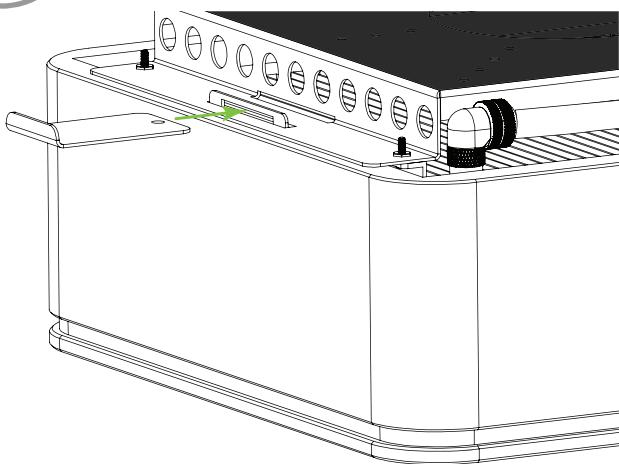


Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

Installation procedures

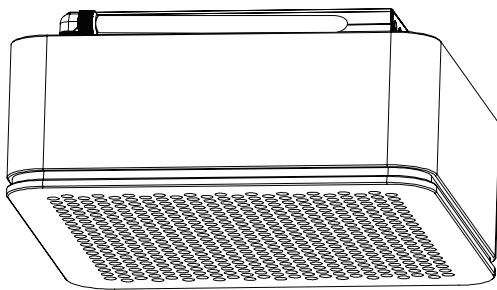
34



Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

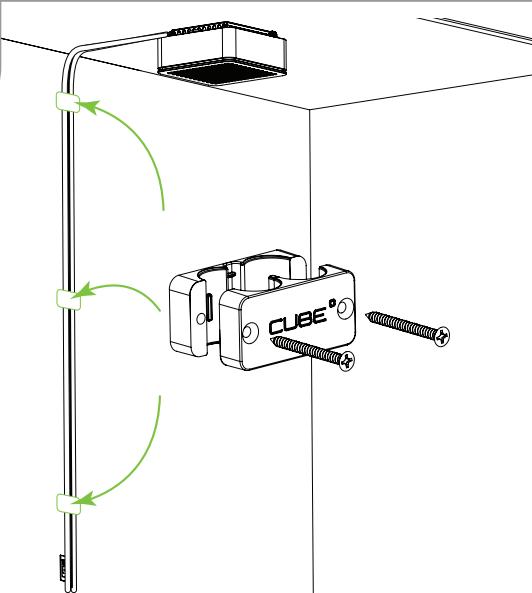
35



Replace the communication cable and the tubes so that they are not visible.

B

36

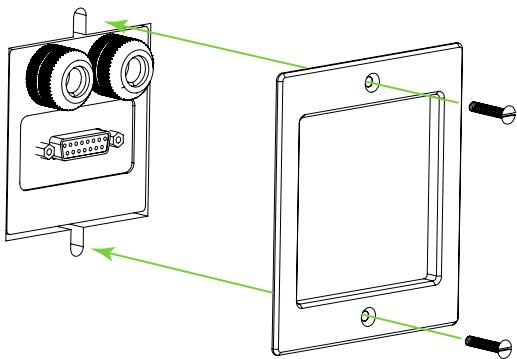


Using an aluminum clamp, fix the tubes and the communication cable to the wall.

Installation procedures

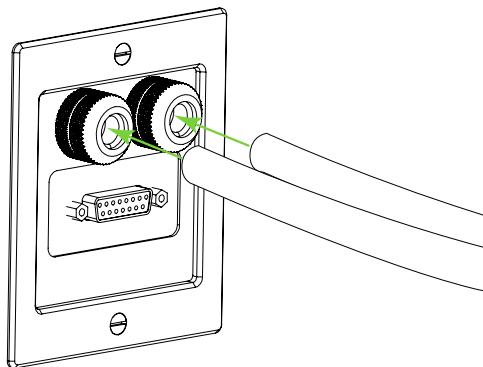
37

Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.



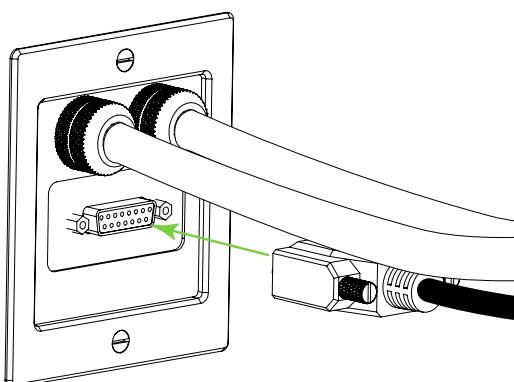
38

Connect the tubes to the CUBE°-RC's wall outlet inside the cellar. To make the installation more aesthetic, you may cut them as needed to adjust the length of the tubes. A right-angled joint (ACC-FIT-S0 90°) can also be used so that the connected tube remains pressed against the wall.



39

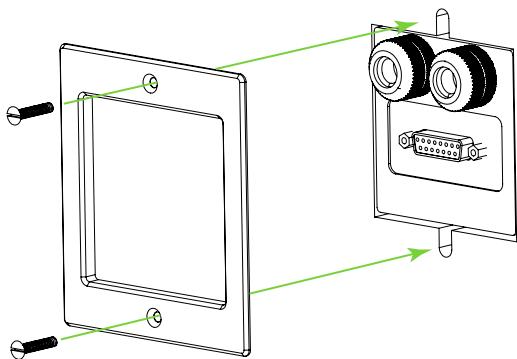
Connect the communication cable to the wall outlet inside the cellar. The excess cable can be pushed inside the CUBE°-RC located on the ceiling.



Installation procedures

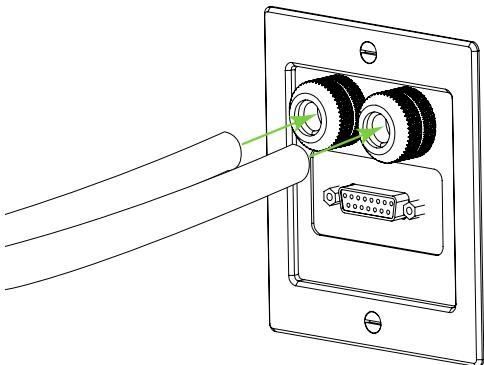
40

Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.



41

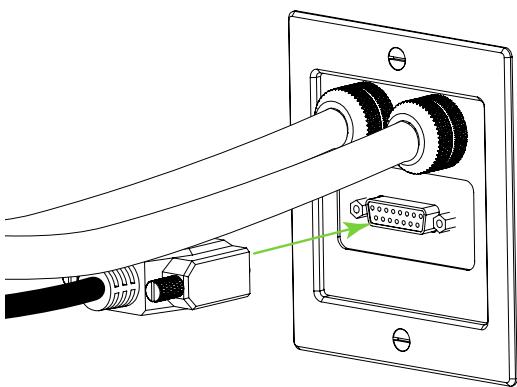
Connect both tubes supplied with the CUBE° to the cold water loop. The tubes for this loop are covered with an insulating sleeve.



If the tubes are too long for your installation, you may cut them with a pair of scissors. Using a hot air gun, you may then slightly heat the braided nylon sleeve so that the fibres close up and the sleeve does not shred.

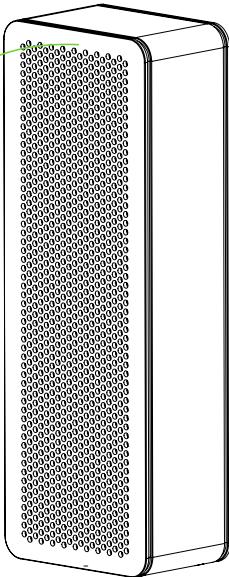
42

Connect the supplied communication cable with the CUBE° at the CUBE°-RC's wall outlet.



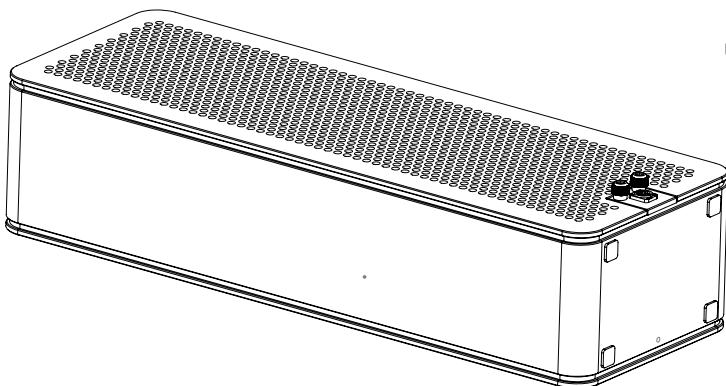
Installation procedures

43



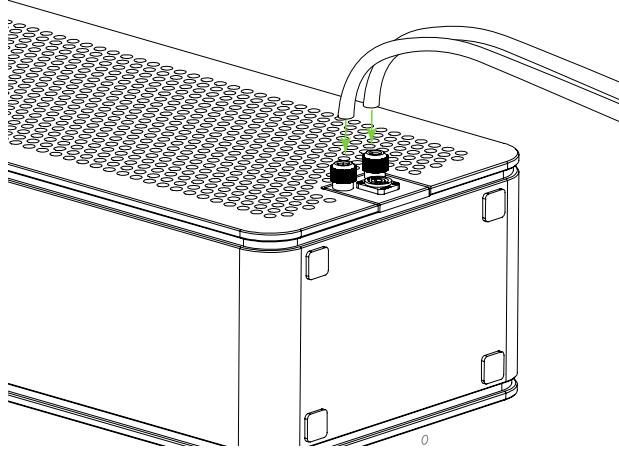
Place the CUBE°-RH where you wish to install it. Making sure not to damage the housing (by placing a cloth on the floor in front of the CUBE°-RH), tip the CUBE°-RH so that it is laying face down against the floor.

44



As with the cold water loop tubes, take the tubes (the ones without the insulating sleeves) supplied with the CUBE° and, if needed, adjust their length according to your installation.

45



Connect both hot water loop tubes to the 3/8" - 5/8" barb connectors located on the back of unit.

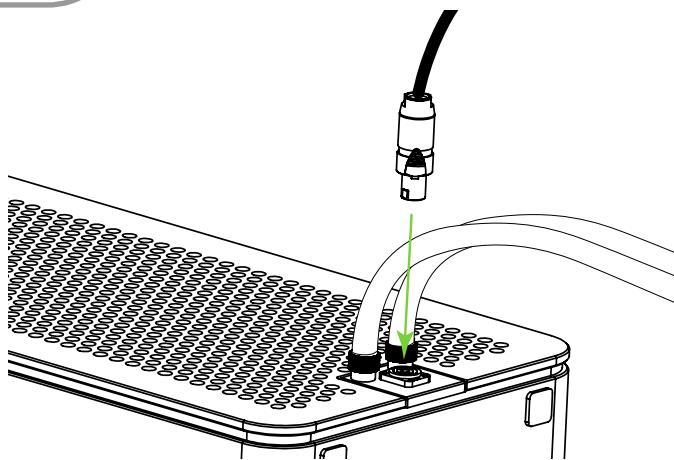


WARNING

If you have more than one CUBE°-RH, you must only connect the tube to one connector for each CUBE°-RH, but not on the same CUBE°-RH. Connect one on the connector located on the right-hand side of the first CUBE°-RH and the other on the left-hand side of the second one.

Installation procedures

46



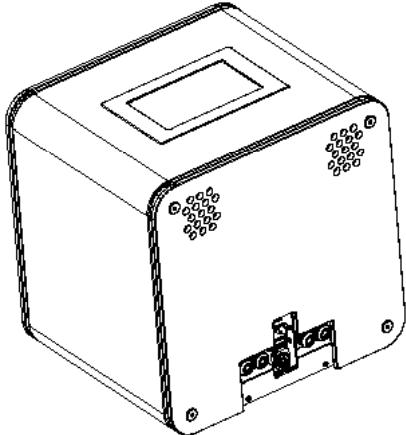
Take the correct length of the CAB-RH-CUBE-XX's wire that links the CUBE° to the CUBE°-RH's radiator and connect it into the radiator. Make sure the wire is well inserted.



WARNING

If you have more than one CUBE°-RH, you must cut another length of wire that will link both CUBE°-RH together while respecting the colour code. This means that you will have two wires coming out of one of the units.

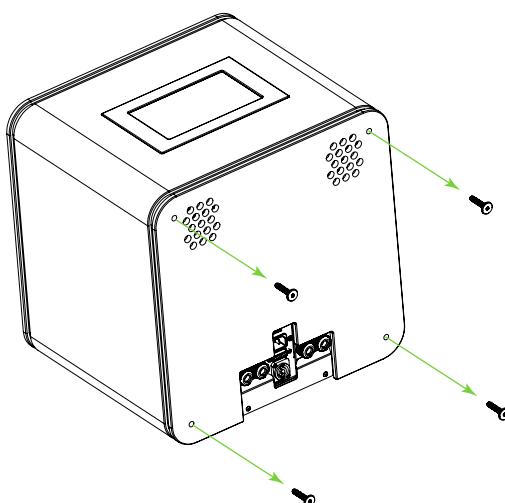
47



Place the CUBE° in order to access the back of the system.

B

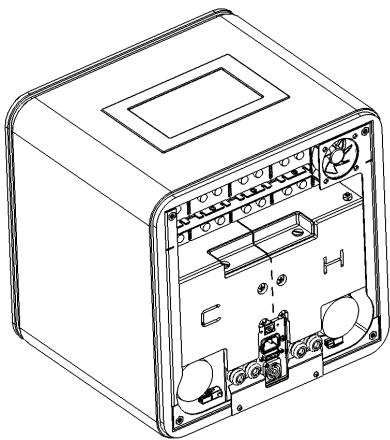
48



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

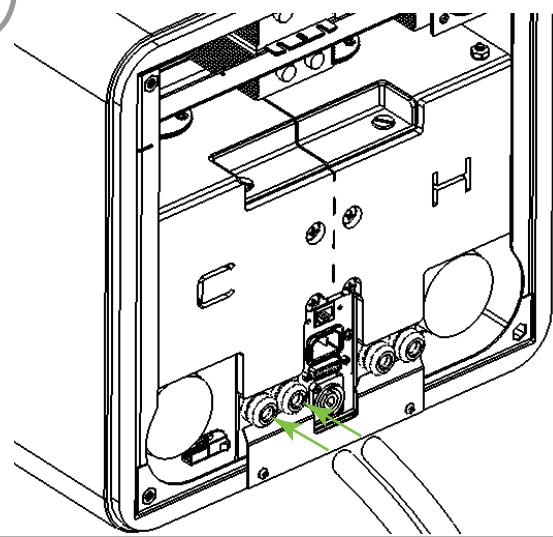
Installation procedures

49



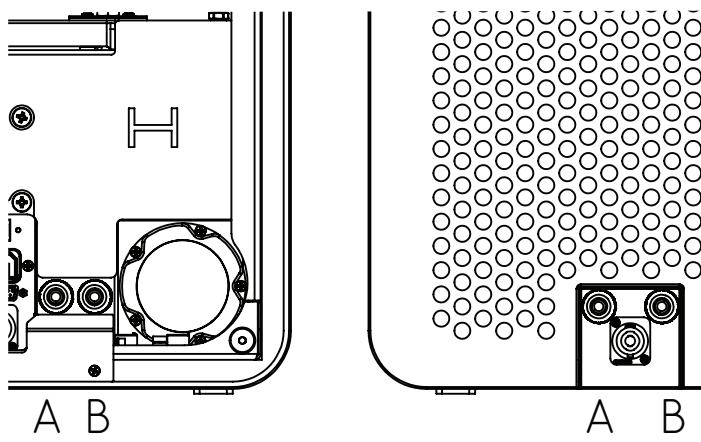
Remove the rear plate at the back of the unit.

50



Connect both cold water loop tubes. For this step, the location of each tube is not important. Simply connect both tubes to the 3/8" - 5/8" barb connectors located in front of the water tank marked with the letter C (Cold).

51



As for the hot water tube connection, the location of the tubes is crucial for the system's proper operation. Take extreme care to connect the A-position tube of the CUBE°-RH with the A-position CUBE° connector (same with the B-position).

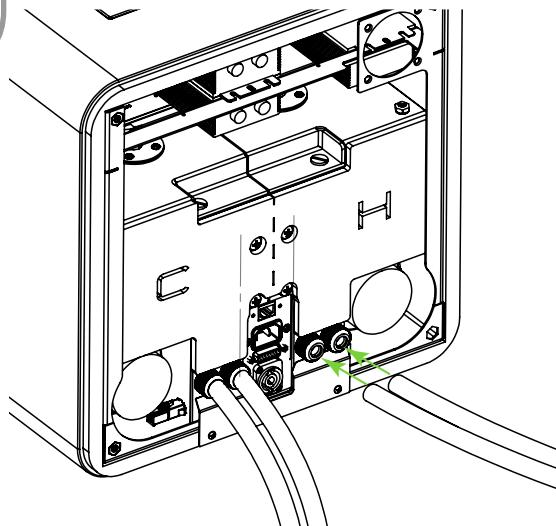


WARNING

If you have more than one CUBE°-RH, they must be connected in series. To achieve this, you must connect the A-position CUBE° connector with the A-position tube of the first CUBE°-RH's radiator and the B-position CUBE° connector with the B-position tube of the second radiator. The remaining connectors from the radiators can then be linked together using a third tube.

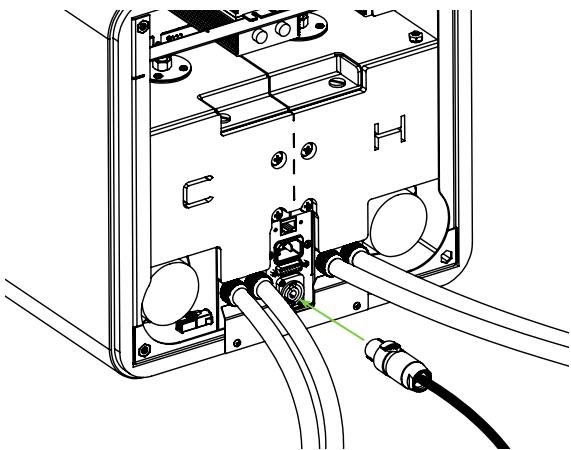
Installation procedures

52



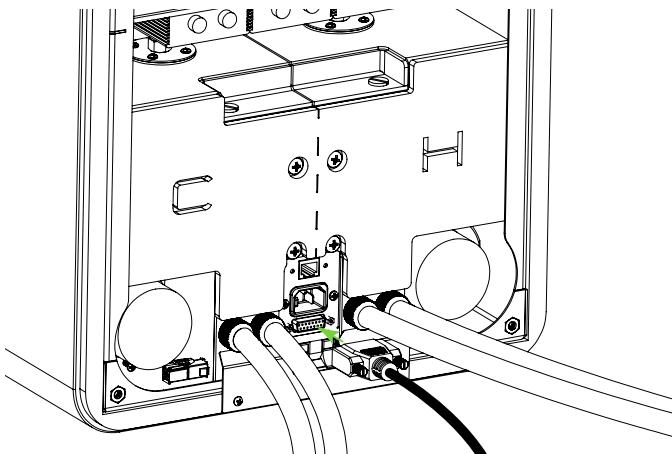
Connect the CUBE°-RH tubes as per instructions in the previous steps.

53



Connect the wire from the CUBE°-RH's radiator to the back of the CUBE° (CAB-RHCUBE-XX). Make sure the wire is well inserted.

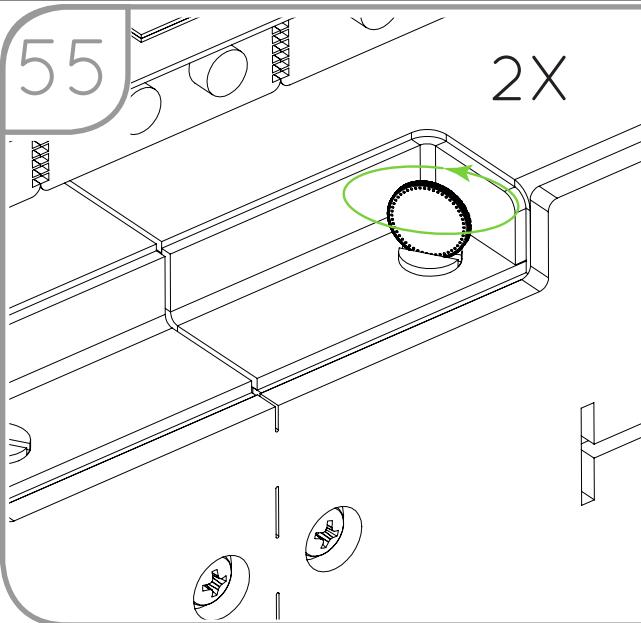
54



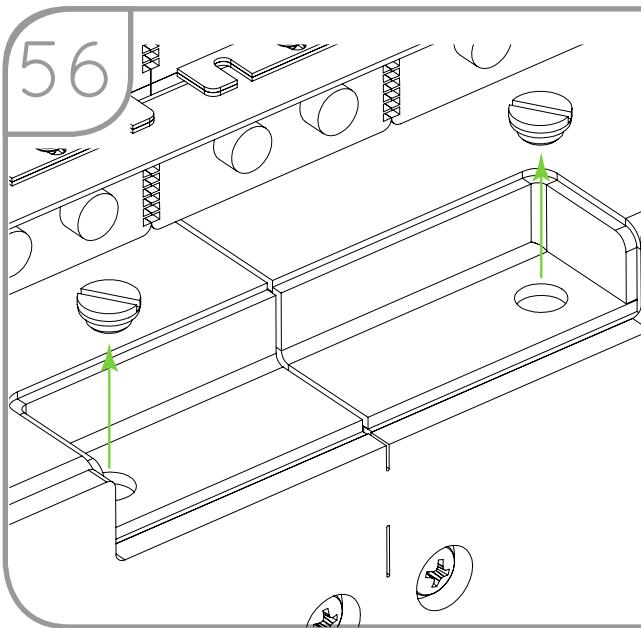
Connect the DB15 communication cable that comes out of the CUBE°-RC's wall outlet to the back of the CUBE°. Make sure to tighten sufficiently the connector screws to avoid disconnecting the cable.

B

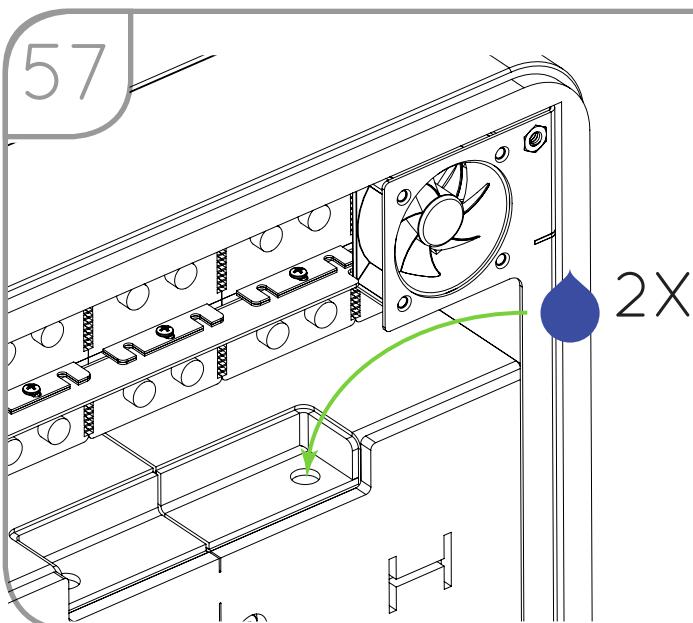
Installation procedures



Using a coin or another tool that won't damage the plastic caps, loosen the ones from the two water tanks.



Remove the plastic caps from the two water tanks.



Fill the water tanks with cold and hot water to the maximum of their capacities.

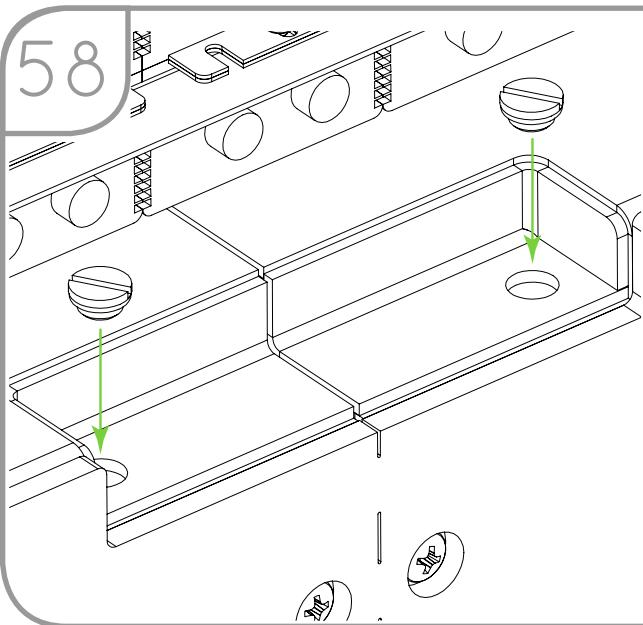
For this step and the following ones, measure approximately the quantity of water poured in each loop.



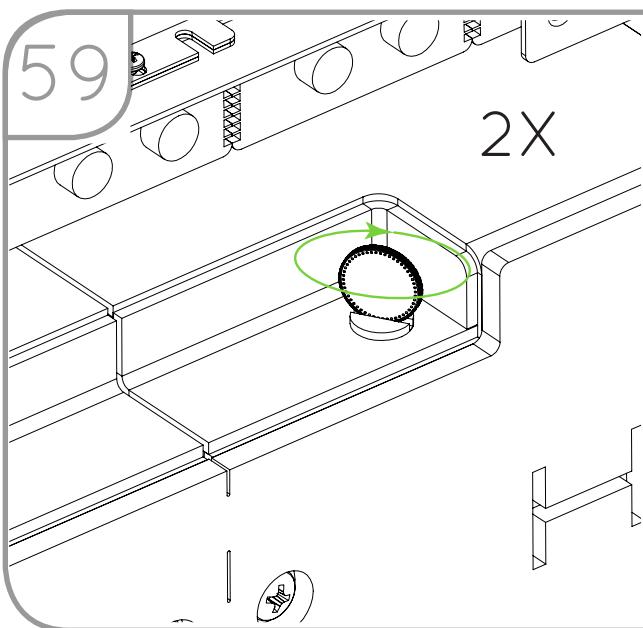
WARNING

It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

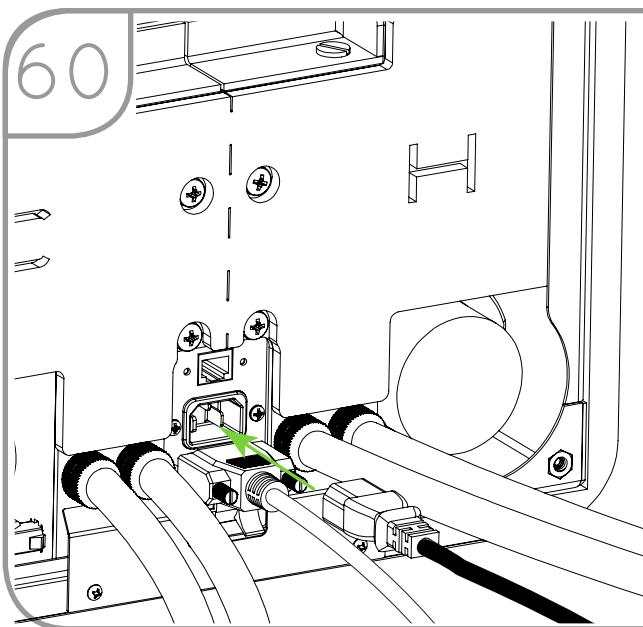
Installation procedures



Put the plastic caps from the two water tanks back in place.



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

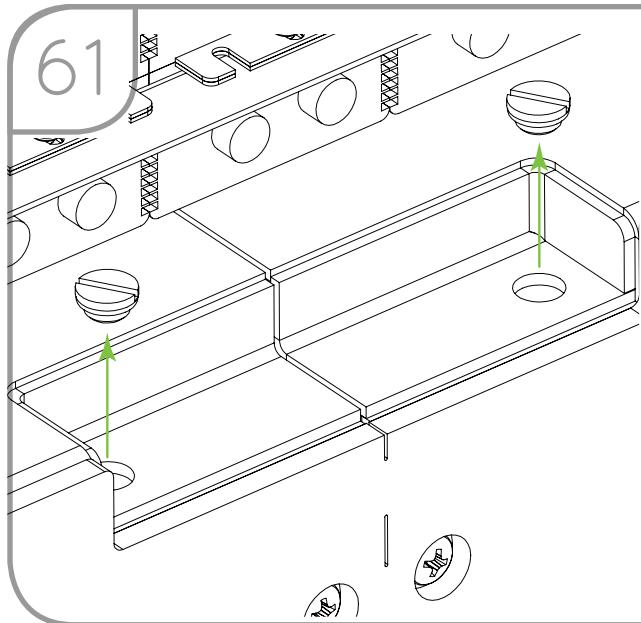


Connect the CUBE°'s power cord to the back of the CUBE°. Then plug the power cord to the system's power outlet.

⚠️ WARNING

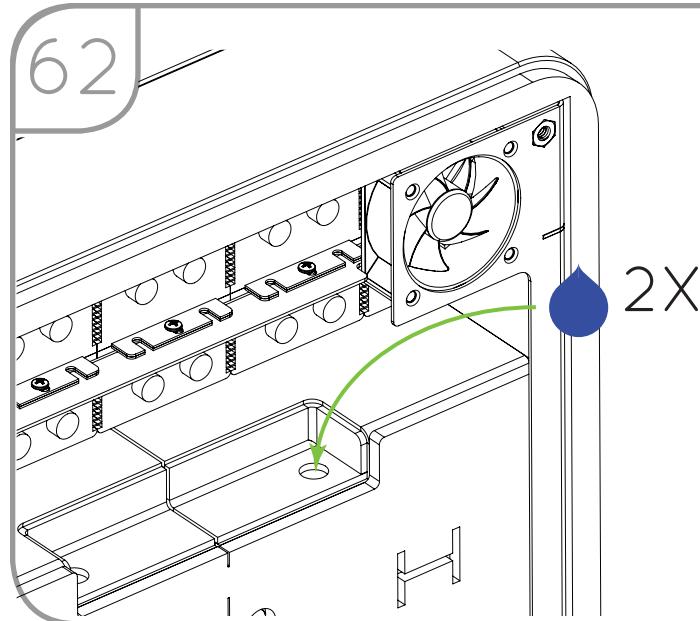
Make sure the CUBE° is the only device plugged into the power supply that is feeding it. An electrical circuit must be dedicated to the system.

Installation procedures



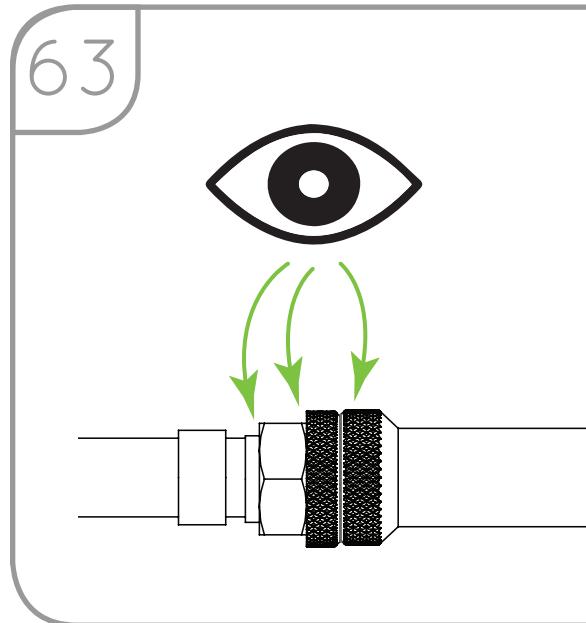
At the start of the system, the CUBE° will rapidly empty its water tanks then it will be followed by a BEEP.

Remove the plastic caps from the two water tanks.



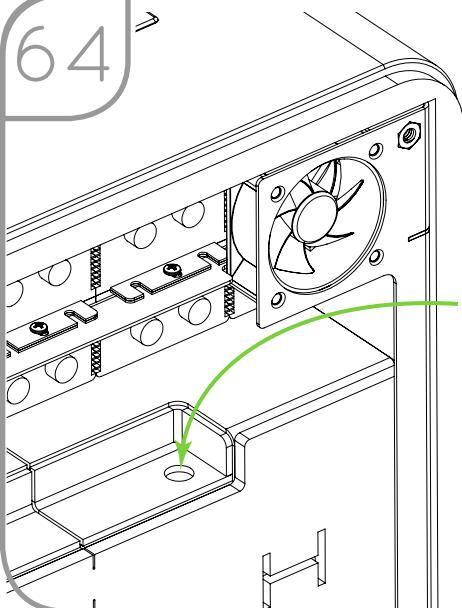
Fill the water tanks with cold and hot water to the maximum of their capacities. The system will stop as soon as one of the two water tank is empty. It will start again once there is water in both tanks.

You must alternately fill up the cold and hot water tanks.



To detect a leak, check all the different connectors of the installation. If such is the case, correct the situation before continuing.

Installation procedures

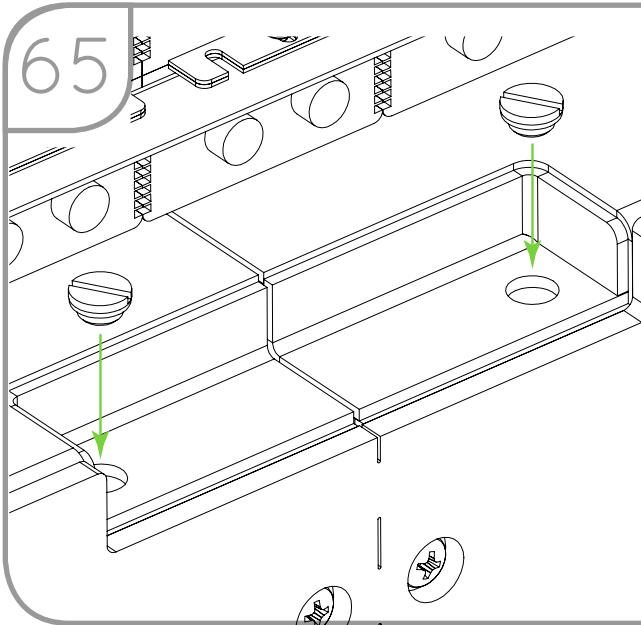


2X

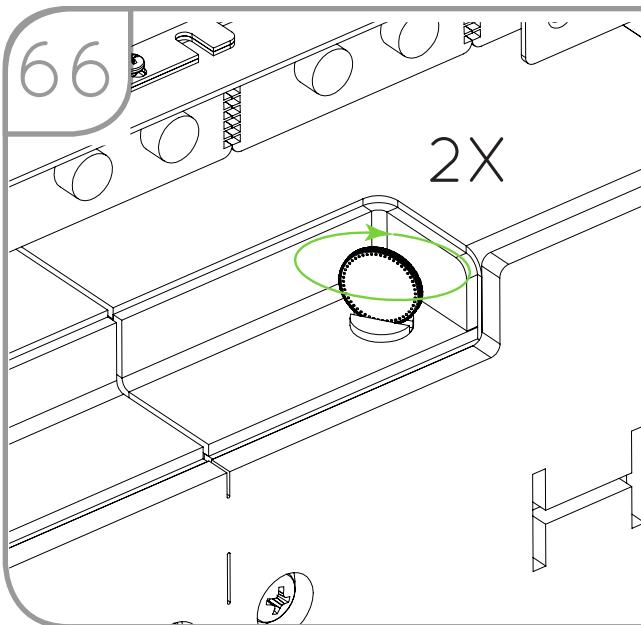


If there is no leak, you may add the M108 anticorrosive agent. This water-based agent has an intense green colour. A dye has been added to detect its presence.

You must add 8 ml of M108 per 1 L of distilled water. The agent must be added in each water loop using the same concentration.



Put the plastic caps from the two water tanks back in place.

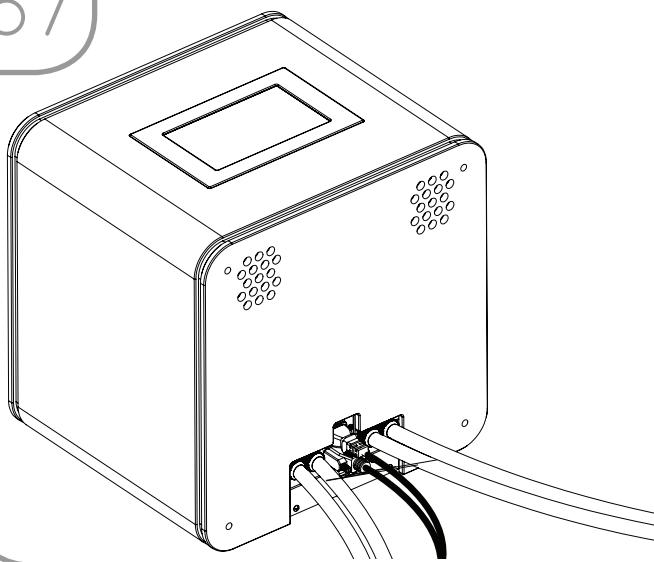


2X

Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

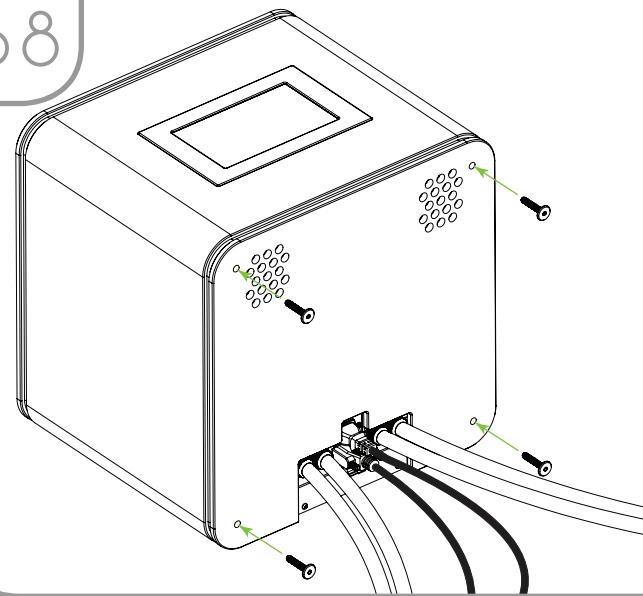
Installation procedures

67



Replace the rear plate at the back of the CUBE°.

68



Tighten all four mounting bolts of the CUBE°'s rear plate.

B
69

Using the arrows, adjust the temperature inside the cellar to the desired aging temperature.



Installation type C

Installation with tubes hidden in the wall and two radiators installed on the ceiling: 2-step installation. This type of installation is recommended in a new construction when walls are still open. Part of the installation is done before closing the walls, the rest is done after the construction work is completed.



Tools and Materials

- CUBE°
- CUBE°-RC (2X)
- CUBE°-RH
- ACC-CUB-A023: CUBE°-RC'S WALL OUTLET (colour depending on installation)
- ACC-FIT-A002: 1/2" PEX FITTING FOR A 5/8" TUBE (2X)
- ACC-CAB-XXXX: M/M DB15 COMMUNICATION CABLE (length depending on installation)
- M108: CORROSION INHIBITOR
- CAB-RHCUBE-XX
- 1/2" PEX TUBE
- COMPRESSION RING FOR 1/2" PEX TUBE
- 90° BEND FOR 1/2" PEX TUBE
- INSULATING SLEEVE FOR 1/2" PEX TUBE
- LOOP TIE WRAP
- 1 1/2" min. WOOD SCREWS

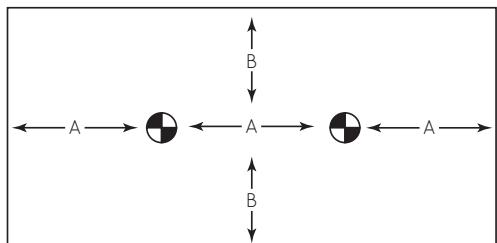
- MEASURING TAPE
- CROSS-HEADED SCREWDRIVER (No. 2 Phillips)
- CUTTING PLIERS FOR TUBE
- CRIMPING PLIERS FOR 1/2" PEX TUBE
- LONG NOSE PLIERS
- COIN
- WIRE CUTTER
- WIRE STRIPPER
- FLAT-HEAD SCREWDRIVER



ARTICLES SOLD BY THE WINE SQUARE

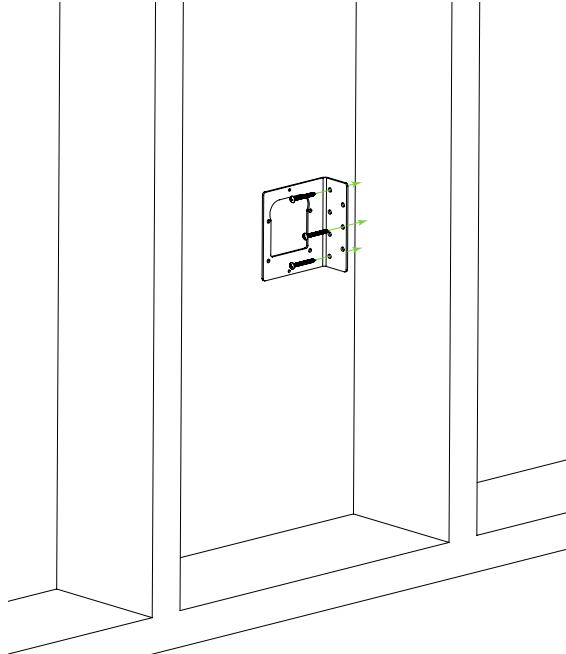
C

Installation procedures



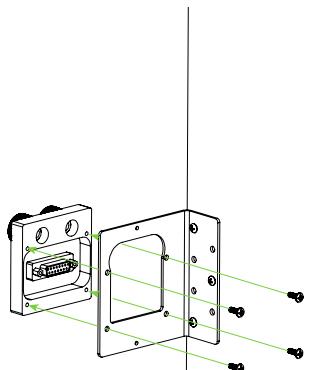
Start by identifying the location of your CUBE°-RC on your cellar's ceiling. It is recommended that the unit be placed in the centre of the room, enabling it to maintain a more uniform temperature inside the cellar. There must be a 13" clearance between the ceiling and the location you wish to install the unit.

2



At the location you wish to install the CUBE°, fix the mounting plate for the CUBE°'s wall outlet. Even though there are no required specs, it is recommended to align the mounting plate at the same height as the electrical outlets. Wood screws should be used for this task.

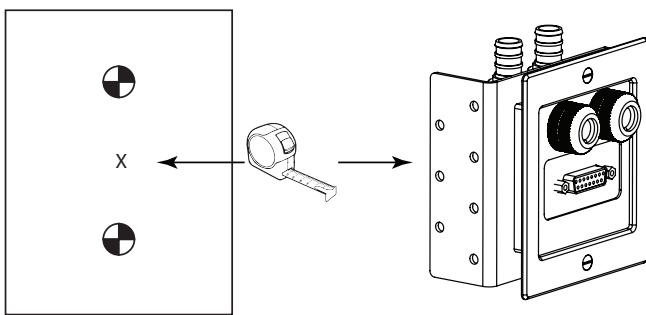
3



Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.

Installation procedures

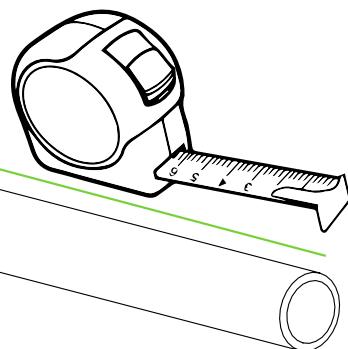
4



5

Take the length measured at step 4 and cut two lengths of 1/2" PEX tube.

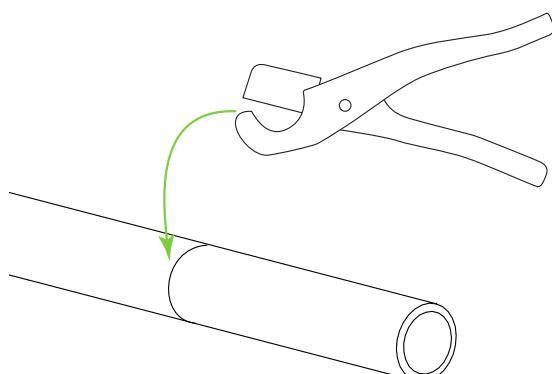
C



6

Use a cutting tool designed for this purpose. The cut must be as straight and perpendicular as possible.

2X

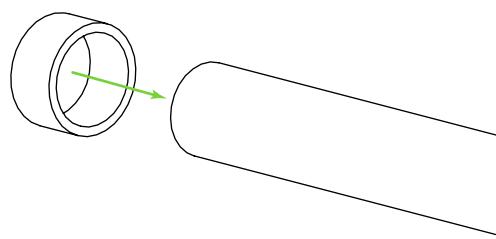


Installation procedures

7

You must slide on each tube a compression ring designed for 1/2" PEX tube at one end of the tube.

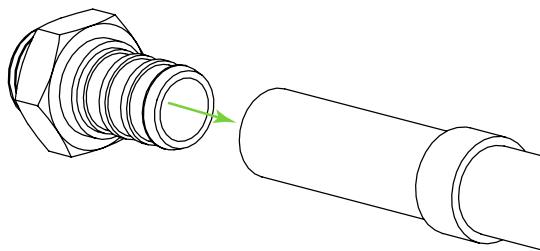
2X



8

Place the 1/4" male adaptor designed for the 1/2" PEX tube (FIT-0004) at one end of each tube. It's important to push the adaptor's grooved surface completely on the tube. The adaptor is supplied with the ACC-CUB-A023: WALL OUTLET FOR THE CUBE°-RC.

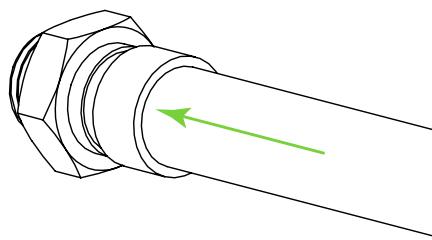
2X



9

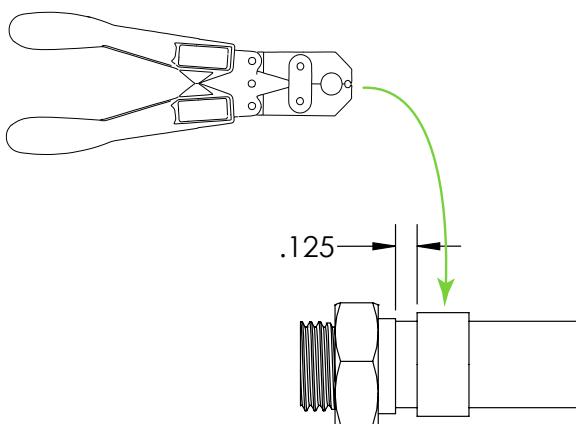
Slide the compression ring directly in front of the adaptor.

2X



Installation procedures

10



2X

Using the crimping pliers, crimp the compression ring on the adaptor. Leave a 1/8" space between the adaptor and the compression ring.

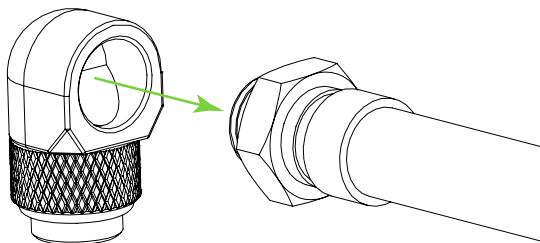


WARNING

Use the Go No/Go gauge supplied with the pliers to ensure that the crimping of the compression rings at all junctions is sufficient. If you are using a different compression ring, please refer to the manufacturer's instructions.

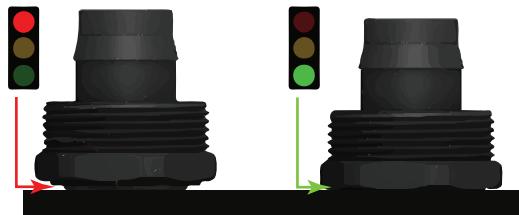
11

2X



Screw the CUBE°-RC's 1/4" right-angled wall outlet adaptor to the 1/4" PEX tube adaptor installed previously. Repeat this step for each tube.

The 1/4" adaptors must be completely tightened. However, they do not need to be over tightened. Once there is contact between the metallic section of these two parts, tighten an additional one-quarter turn.



12

At the other end of both tubes, slide a compression ring and install a T-ring seal for 1/2" PEX tube. On both ends of the T-ring seal, slide the parts in the following order: half of a B-length, two compression rings, right-angled 1/2" PEX tube adaptor, A-length tube and another compression ring.

2X

B

B: The B-length corresponds to the distance between the two CUBE°-RC inside the cellar.

A: The A-length corresponds to your ceiling's thickness plus the insulation and the ceiling's finished surface. The adaptor found at the end of this tube must be flush with the ceiling's finished surface. It should not exceed the ceiling's surface or be recessed too far making it hard to connect to it.

Installation procedures

13

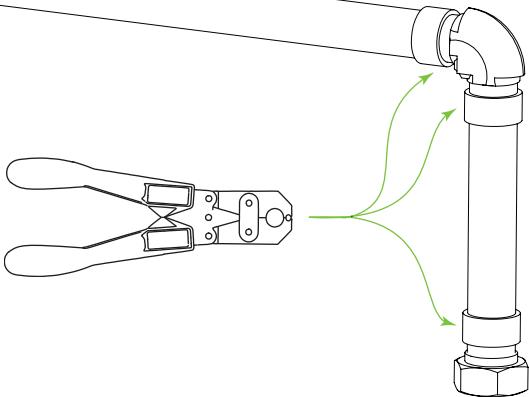
2X



At the end fitting of the A-length tube, insert a compression ring then a 1/4" female adaptor to the 1/2" PEX tube (FIT-0005). The following is supplied with the ACC-FIT-A002 kit: 1/2" PEX FITTING FOR A 5/8" TUBE.

14

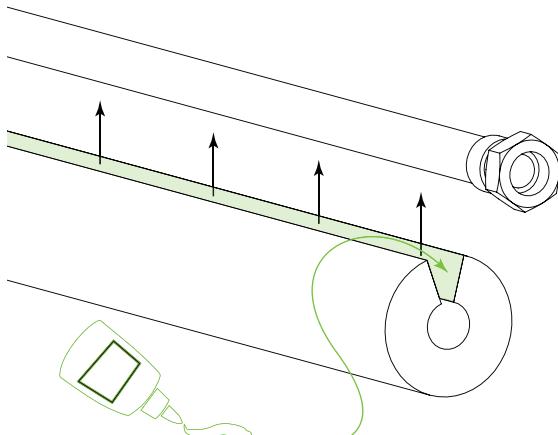
2X



By following the same procedures as for the first crimped adaptor, crimp all the compression rings that were inserted previously.

15

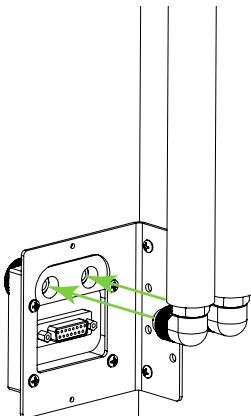
2X



Using insulating foam and adhesive tape, cover all the tubes put together previously. It's important to use this insulating foam as it prevents condensation on the tube within the wall space.

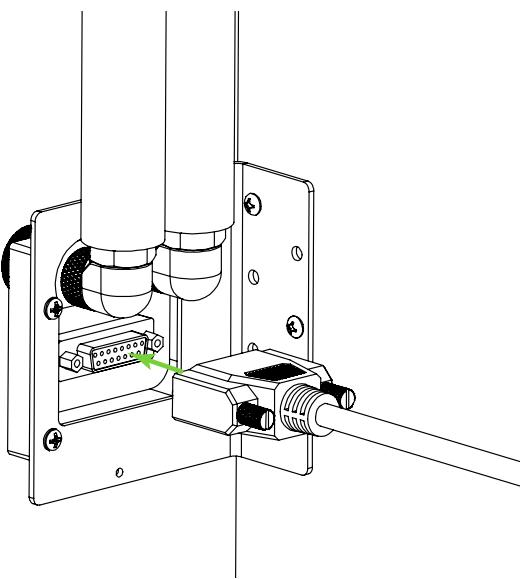
Installation procedures

16



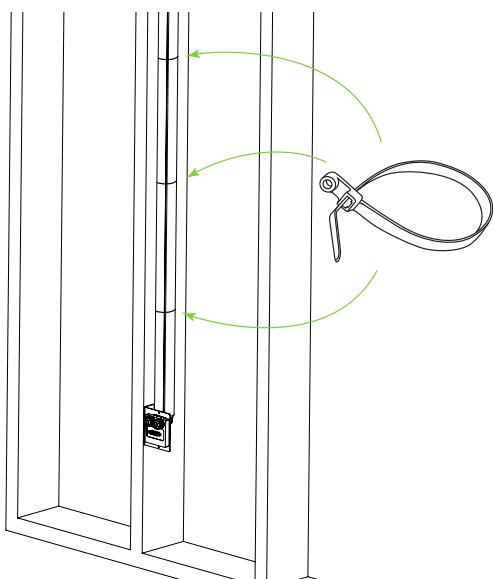
Using long nose pliers, tighten each of the tube adaptors to the support for the CUBE°-RC's wall adaptor.

17



Connect the DB15 communication cable behind the support for the CUBE°-RC's wall adaptor. You must tighten the two adaptor screws completely to prevent the adaptor from disconnecting.

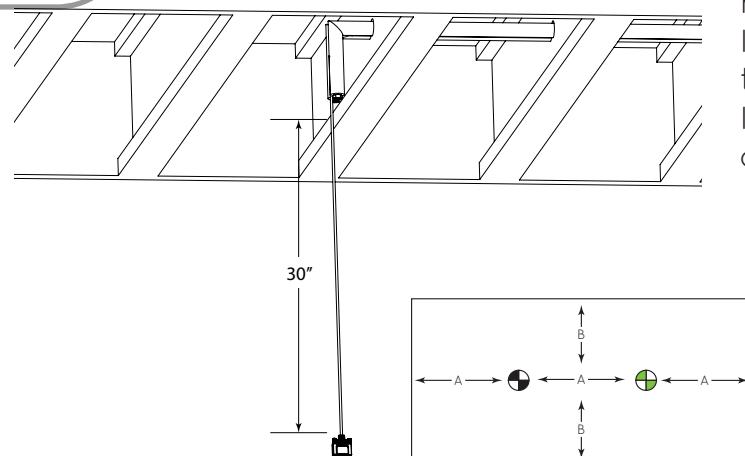
18



Place the tubes and the DB15 communication cable inside the wall while making sure they are tied with loop tie wraps. Using a wood screw, secure each tie wrap to the wall piece.

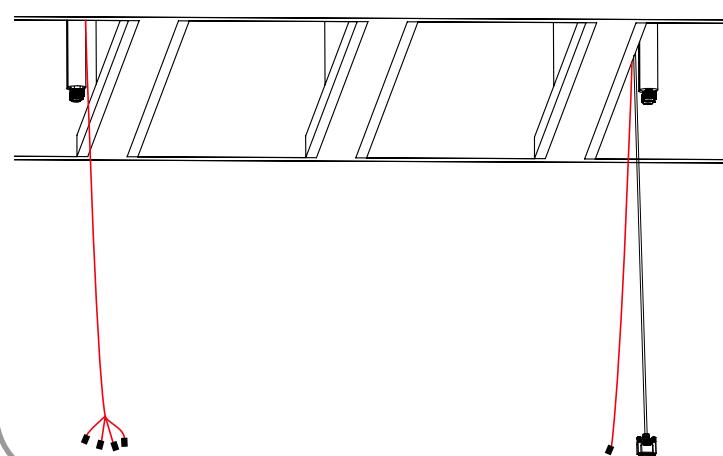
Installation procedures

19



Bring both tubes to the location of the two CUBE°-RC (cellar's ceiling). The communication cable must be taken to the location of one of the two CUBE°-RC. Let the DB15 communication cable hang at least 30". This extra length is required to allow the hookup of the system.

20



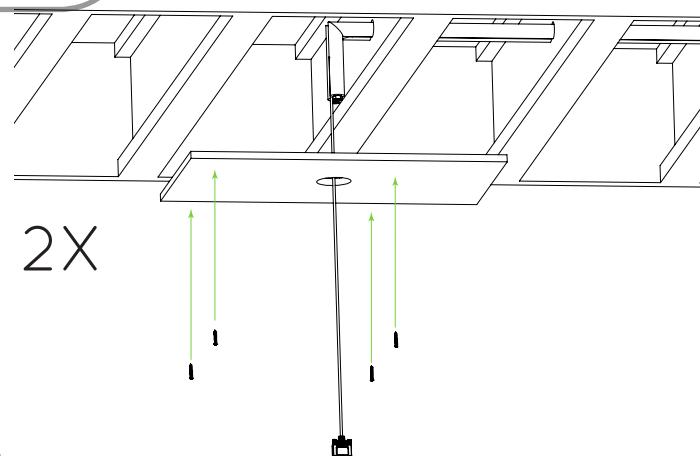
Pass the ventilators' power cord of the second CUBE°-RC between both units. The end of the power cord (with only one connector) must be positioned at the same place as the DB15 communication cable and also hang at least 30".



WARNING

To avoid contaminants within the loop and to protect the adaptor, it is best to cover the adaptors and the communication cable with masking tape or a bag until the system's final installation.

21



Add another surface such as a plywood panel to allow screwing where the CUBE°-RC will be mounted. A 12" x 12" minimum panel should be fixed. However, it is recommended to cover a slightly larger area, making the final installation easier. Using wood screws, tighten the mounting bracket on the ceiling structure.

END OF STEP BEFORE CLOSING
THE WALL

Installation procedures

22

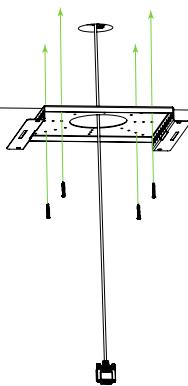
Finish building the cellar by adding insulation and a vapour barrier.



Install a lining such as a gypsum board, then do the finishing tasks (joint sealing, painting).

Allow enough time so that paint or varnish odours can dissipate before closing the room and continuing the air-conditioning's installation.

23 2X



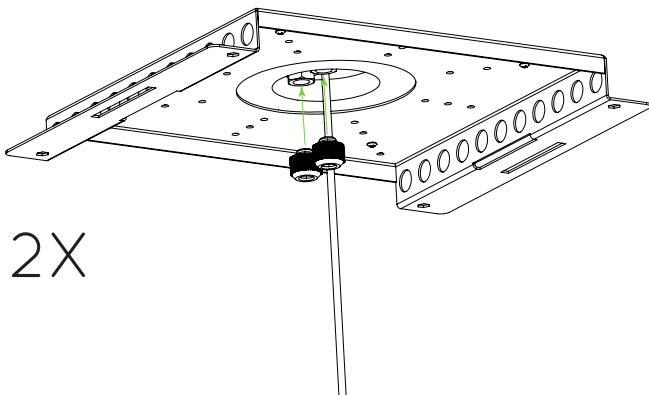
Install the CUBE°-RC's mounting plate on the wine cellar's ceiling making sure to align it properly with the walls. Use at least 4 wood screws to secure the mounting plate.



WARNING

It's important that these mounting screws be fixed upon a solid framework. The weight of the CUBE°-RC filled with water is maintained by this plate. Mounting it onto a material not as sturdy such as a gypsum board is insufficient. The Wine Square cannot be held responsible should a unit fall off the ceiling. Make sure the mounting plate is secured enough to withstand a 75 lb weight.

24



2X

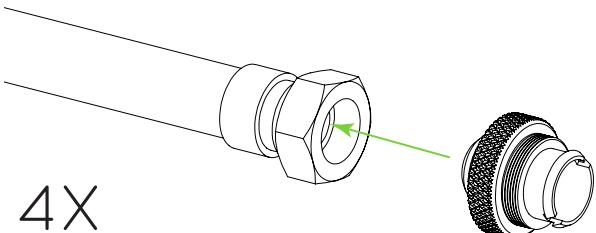
Fix the two 1/4" barb connectors for the 3/8" - 5/8" tube to the female adaptor mounted previously. You might need to use the long nose pliers to keep the adaptor in the ceiling.

Installation procedures

25

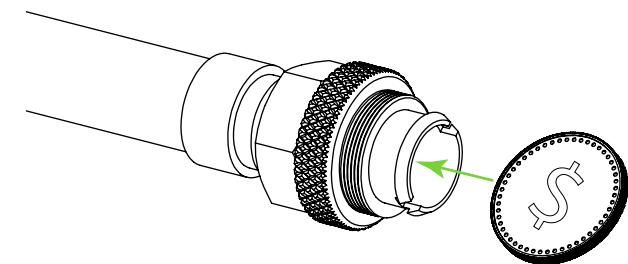
Insert the 1/4" barb connector for the 3/8"- 5/8" tube.

4X



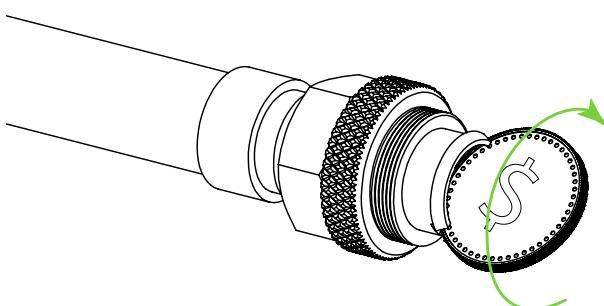
26

Slide a coin in the slot at the front of the adaptor.



27

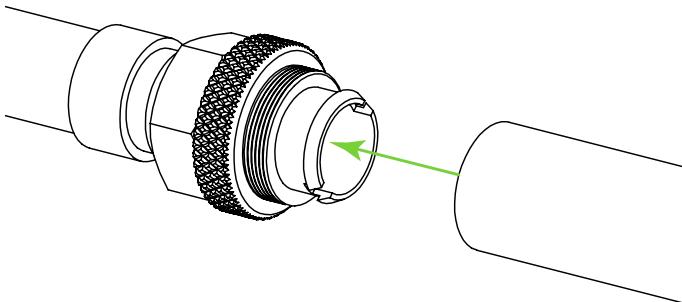
Fasten the adaptor until the two metal parts come into contact. Once the contact is made, rotate one-quarter turn to tighten the adaptor properly.



Installation procedures

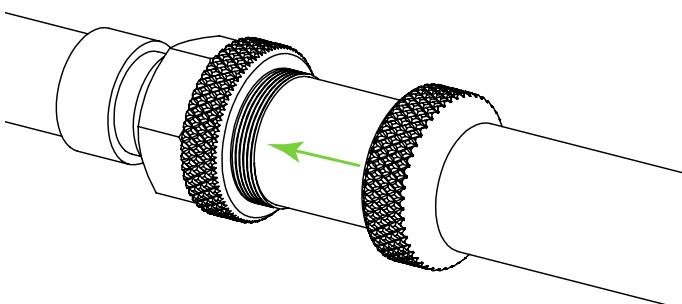
28

Slide the neoprene tube supplied with the CUBE°-RC on the ridges of the connector. Drive in the tube completely on the ridges up to the connector's shoulder threads.



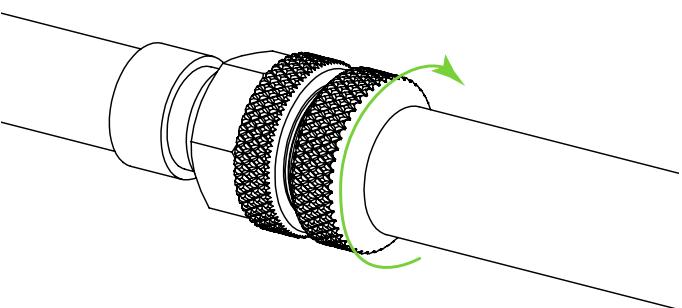
29

Slide the barb connector's compression ring directly on the tube.



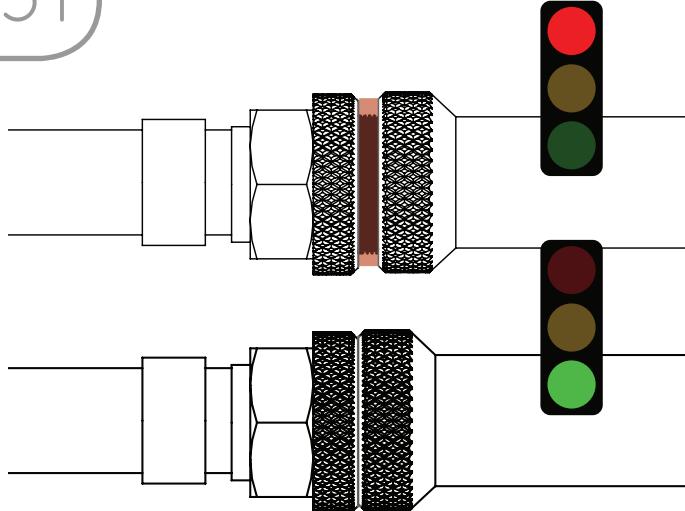
30

Fasten the barb connector's compression ring to secure it on the tube.



Installation procedures

31

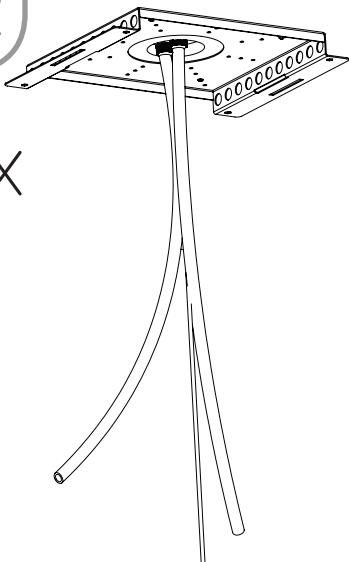


It's important to fasten the compression ring all the way. No space must be left between the compression ring and the shoulder threads of the barb connector.

When in doubt, tighten the connector ring without the tube to see how far it will go. The connector ring must end at the same place even though the tube is there. If need be, use pliers to help you tighten the connector ring.

32

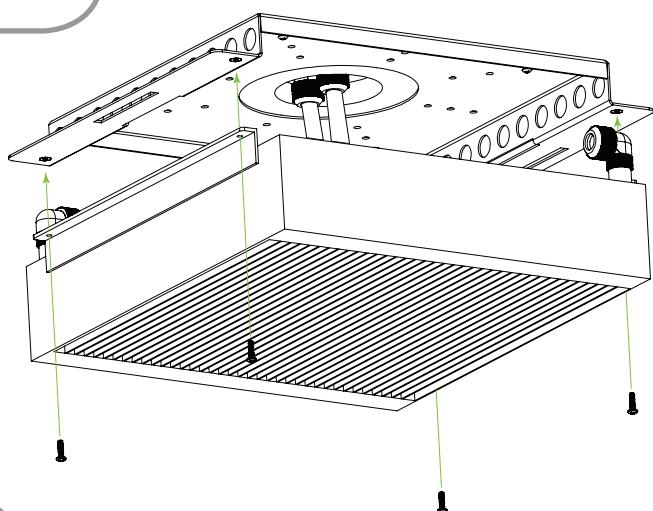
2X



Once both tubes are installed and the communication cable is in place, take a polyurethane can and seal off the hole behind the barb connectors. Try not to cover the barb connectors with foam and protect the surface underneath the hole to prevent damaging.

33

2X

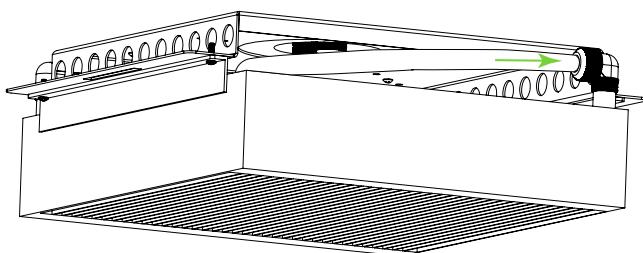


Once the polyurethane foam has finished expanding and is no longer sticky, screw the CUBE°-RC's radiator to the mounting plate on the ceiling. Use a No. 2 Phillips screwdriver.

Installation procedures

34

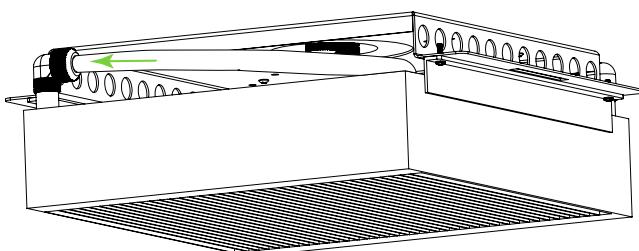
2X



While making sure the tubes are not pinched or bent between the radiator and the ceiling, take one of the tubes and connect it to the radiator's 3/8" - 5/8" barb connector.

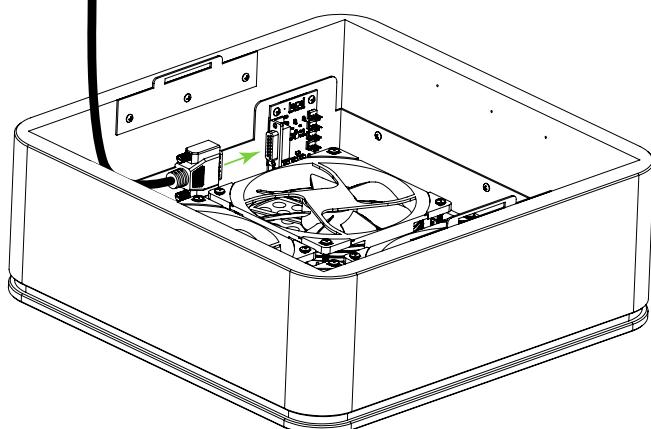
35

2X



While making sure the tubes are not pinched or bent between the radiator and the ceiling, take the other tube and plug it in the radiator's other 3/8" - 5/8" barb connector.

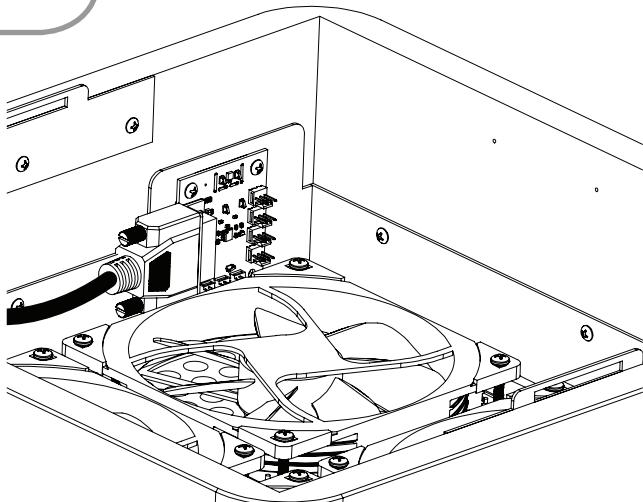
36



Connect the DB15 communication cable to the electronic card of the CUBE°-RC's housing.

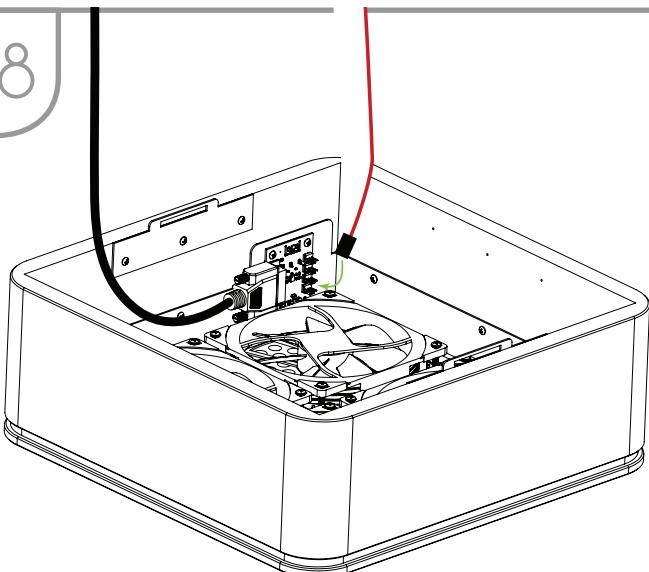
Installation procedures

37



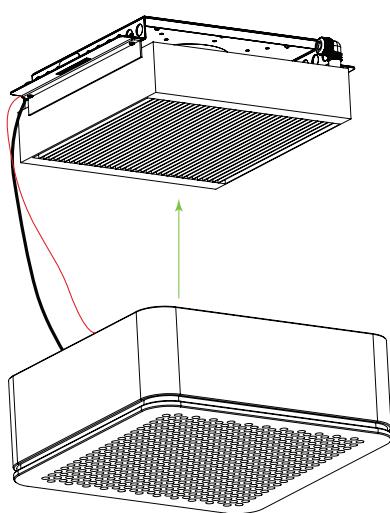
Make sure the barb connector is recessed against the electronic card connector to ensure effective communication with the CUBE°.

38



Connect the ventilators' power cord of the second CUBE°-RC to its electronic card.

39



Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.

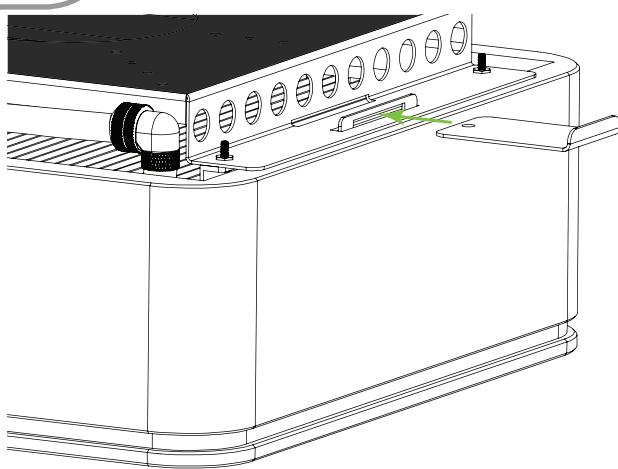


WARNING

Make sure the communication cable is not pinched during this step.

Installation procedures

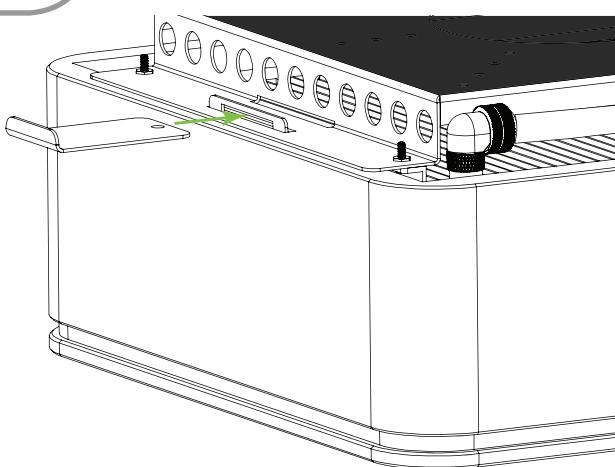
40



Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

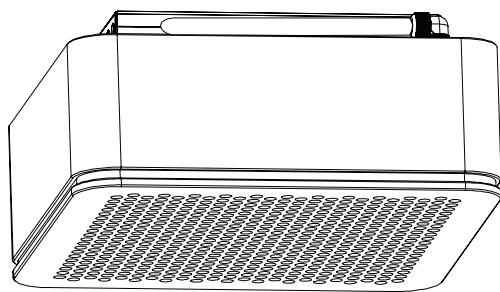
41



Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

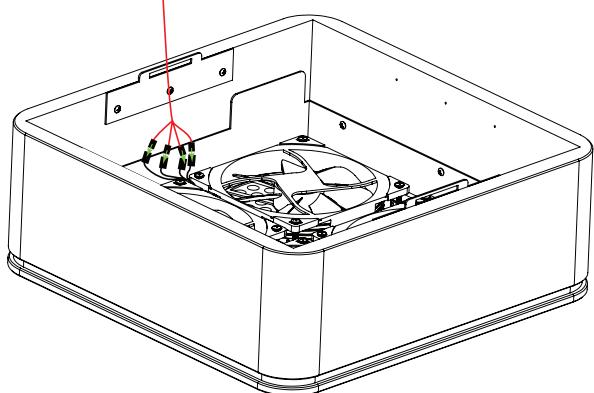
42



Push the excess communication cable inside the housing and replace the tubes so that they are not visible.

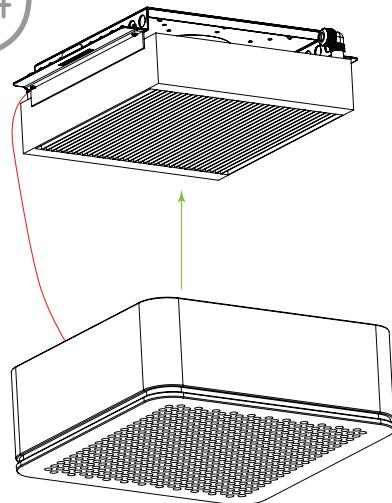
Installation procedures

43



Take the second CUBE°-RC and connect the four ventilators to the power cord's four connectors.

44



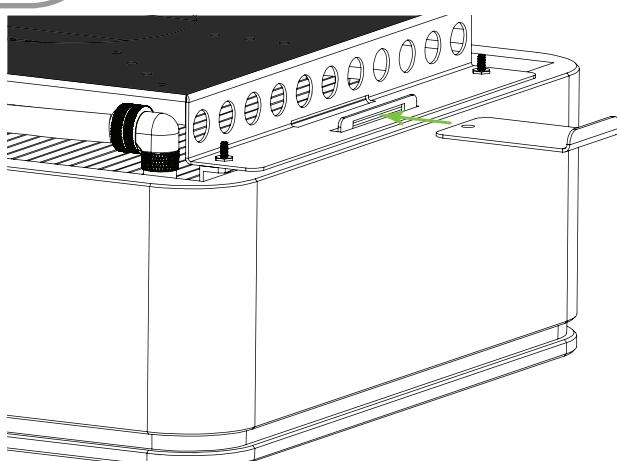
Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.



WARNING

Make sure the communication cable is not pinched during this step.

45

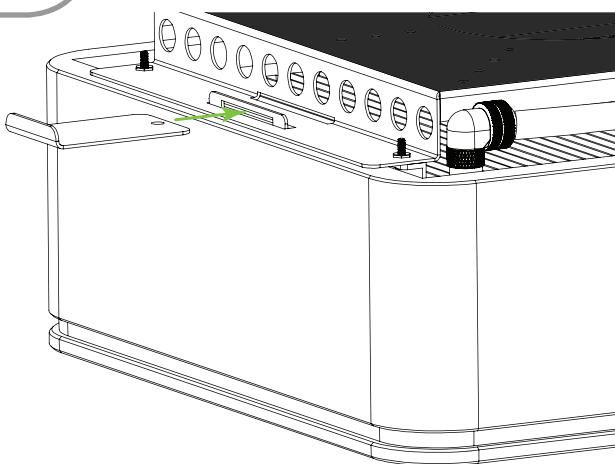


Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

Installation procedures

46



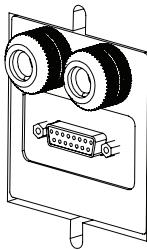
Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

You have now finished installing the CUBE°-RC inside the wine cellar.

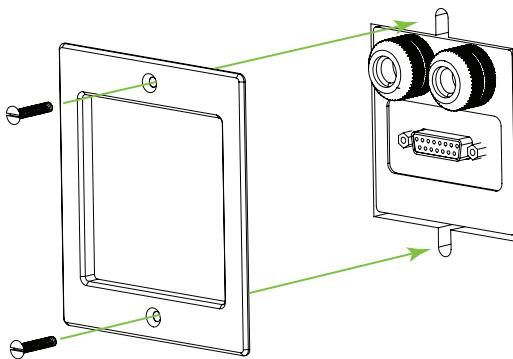
The rest of the installation is done outside the cellar where the CUBE° is located.

47



Make sure the CUBE°-RC's wall outlet is clean and that there are no contaminants on the water loop or the communication cable connectors.

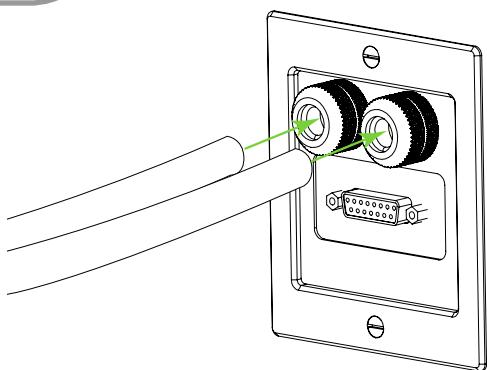
48



Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.

Installation procedures

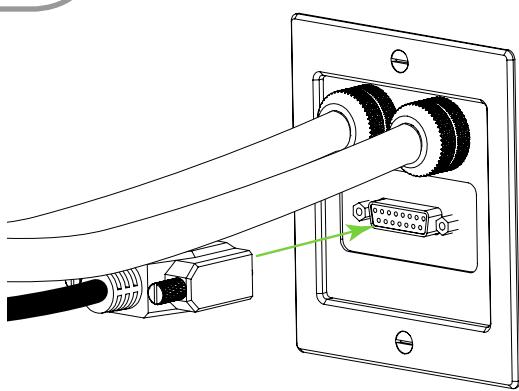
49



Connect both tubes supplied with the CUBE° to the cold water loop. The tubes for this loop are covered with an insulating sleeve.

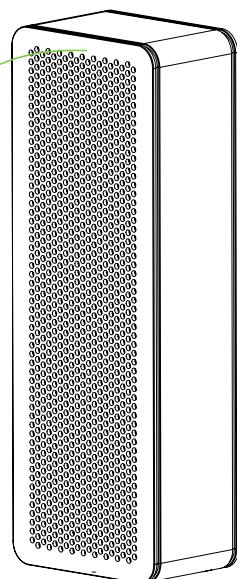
If the tubes are too long for your installation, you may cut them with a pair of scissors. Using a hot air gun, you may then slightly heat the braided nylon sleeve so that the fibres close up and the sleeve does not shred.

50



Connect the supplied communication cable with the CUBE° at the CUBE°-RC's wall outlet.

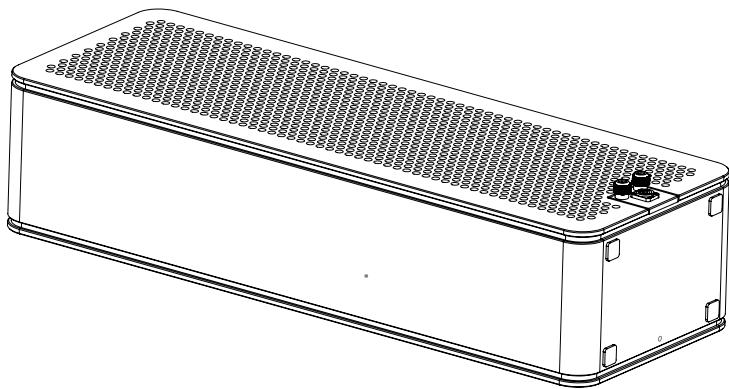
51



Place the CUBE°-RH where you wish to install it. Making sure not to damage the housing (by placing a cloth on the floor in front of the CUBE°-RH), tip the CUBE°-RH so that it is laying face down against the floor.

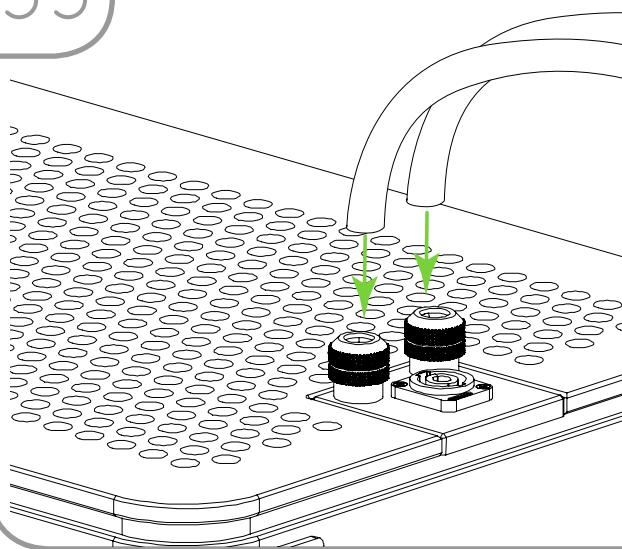
Installation procedures

52



As with the cold water loop tubes, take the tubes (the ones without the insulating sleeves) supplied with the CUBE° and, if needed, adjust their length according to your installation.

53



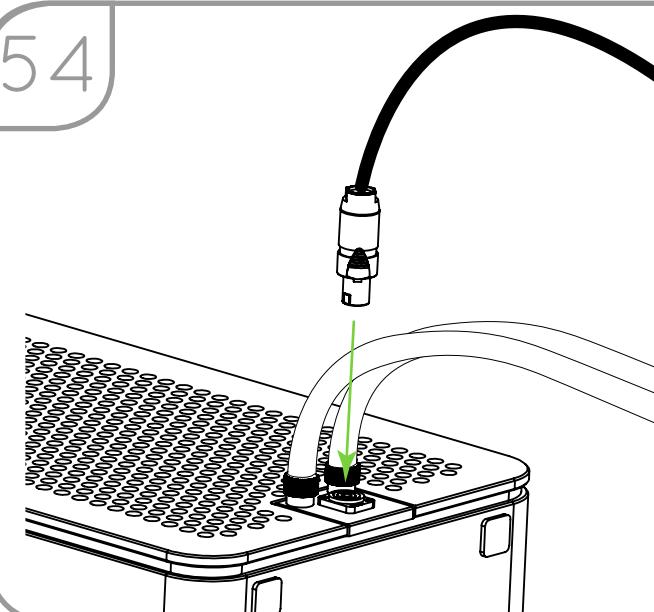
Connect both hot water loop tubes to the 3/8" - 5/8" barb connectors located on the back of unit.



WARNING

If you have more than one CUBE°-RH, you must only connect the tube to one connector for each CUBE°-RH, but not on the same CUBE°-RH. Connect one on the connector located on the right-hand side of the first CUBE°-RH and the other on the left-hand side of the second one.

54



Take the correct length of the CAB-RH-CUBE-XX's wire that links the CUBE° to the CUBE°-RH's radiator and connect it into the radiator. Make sure the wire is well inserted.

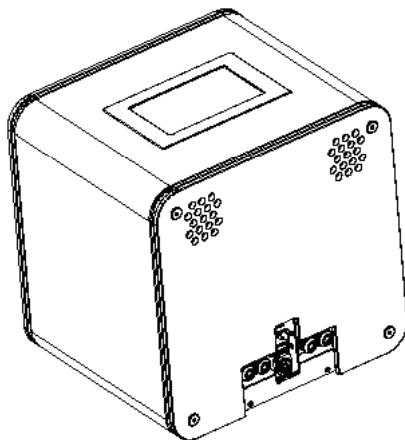


WARNING

If you have more than one CUBE°-RH, you must cut another length of wire that will link both CUBE°-RH together while respecting the colour code. This means that you will have two wires coming out of one of the units.

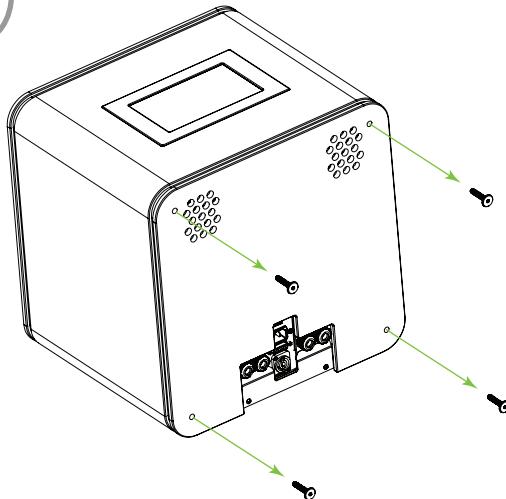
Installation procedures

55



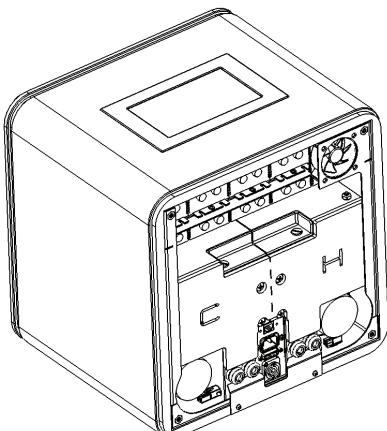
Place the CUBE° in order to access the back of the system.

56



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

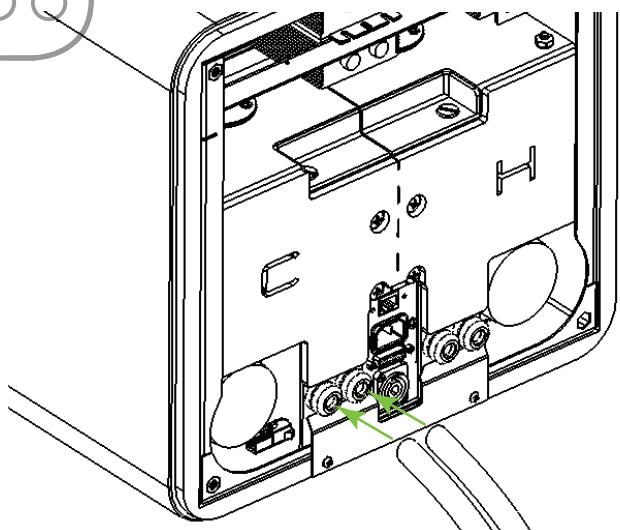
57



Remove the rear plate at the back of the unit.

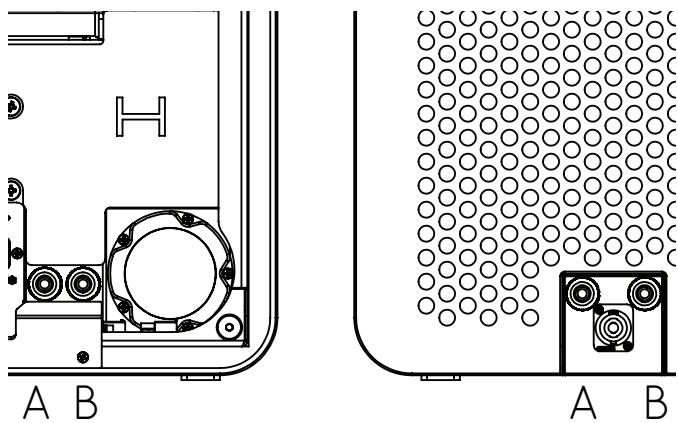
Installation procedures

58



Connect both cold water loop tubes. For this step, the location of each tube is not important. Simply connect both tubes to the 3/8" - 5/8" barb connectors located in front of the water tank marked with the letter C (Cold).

59



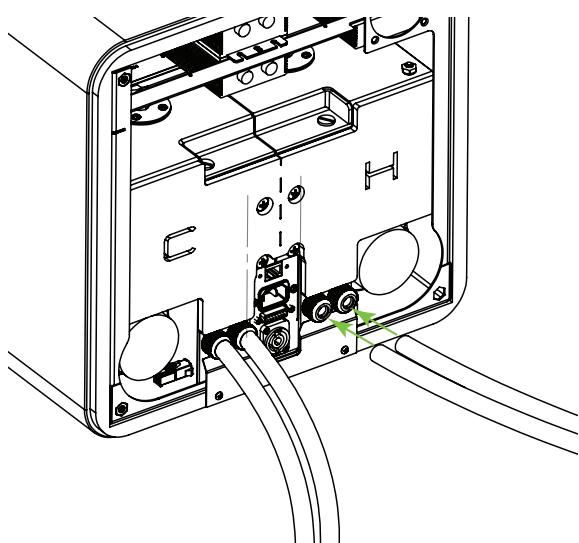
As for the hot water tube connection, the location of the tubes is crucial for the system's proper operation. Take extreme care to connect the A-position tube of the CUBE°-RH with the A-position CUBE° connector (same with the B-position).



WARNING

If you have more than one CUBE°-RH, they must be connected in series. To achieve this, you must connect the A-position CUBE° connector with the A-position tube of the first CUBE°-RH's radiator and the B-position CUBE° connector with the B-position tube of the second radiator. The remaining connectors from the radiators can then be linked together using a third tube.

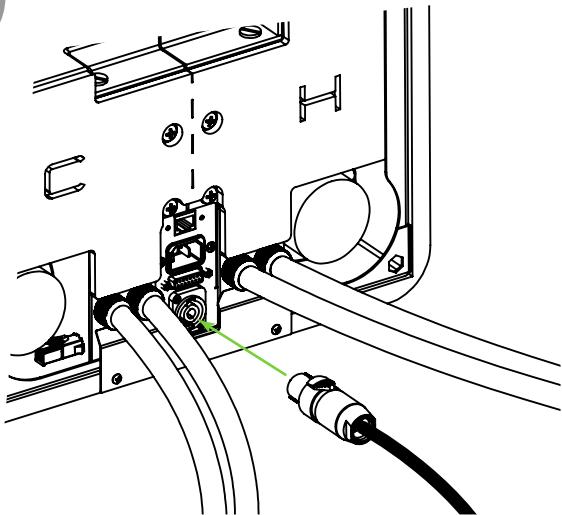
60



Connect the CUBE°-RH tubes as per instructions in the previous steps.

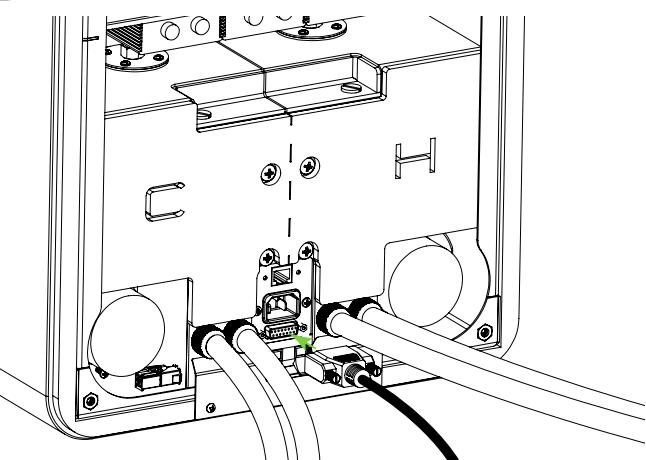
Installation procedures

61



Connect the wire from the CUBE°-RH's radiator to the back of the CUBE° (CAB-RHCUBE-XX). Make sure the wire is well inserted.

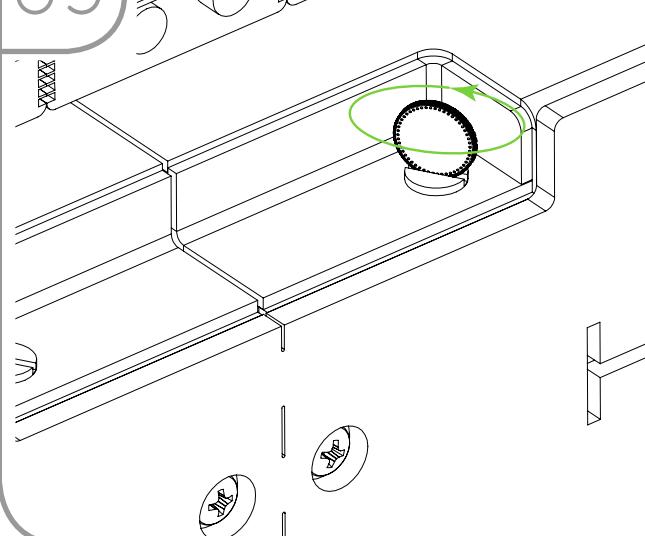
62



Connect the DB15 communication cable that comes out of the CUBE°-RC's wall outlet to the back of the CUBE°. Make sure to tighten sufficiently the connector screws to avoid disconnecting the cable.

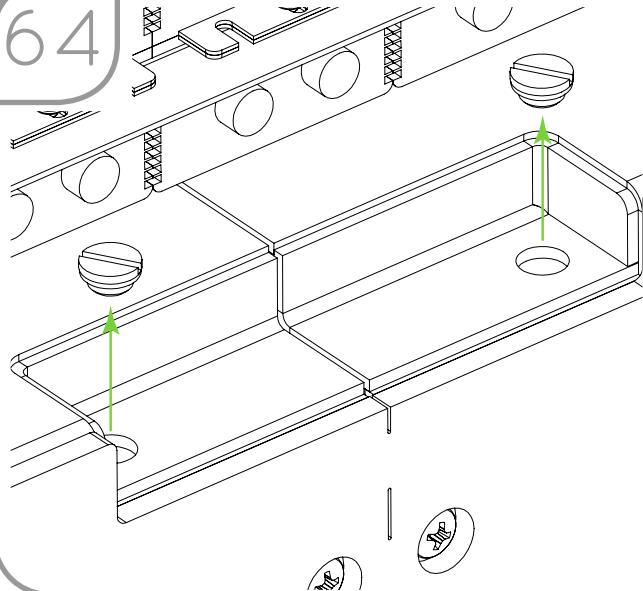
63

2X

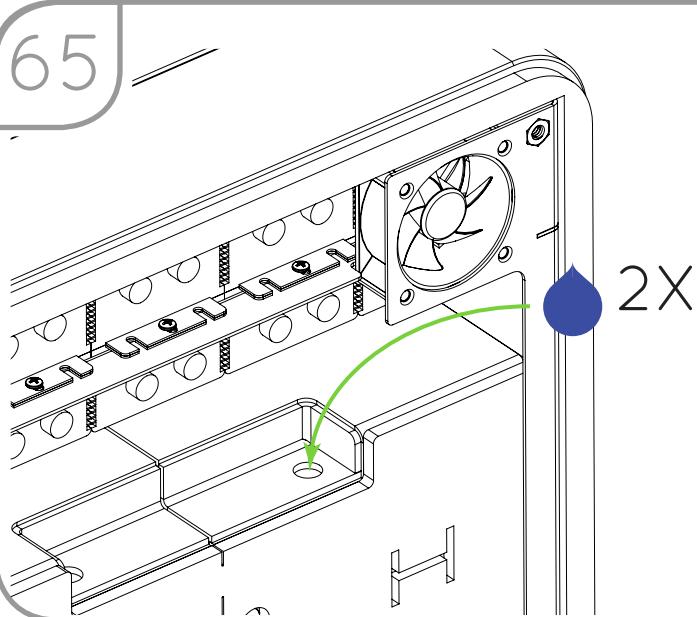


Using a coin or another tool that won't damage the plastic caps, loosen the ones from the two water tanks.

Installation procedures



Remove the plastic caps from the two water tanks.



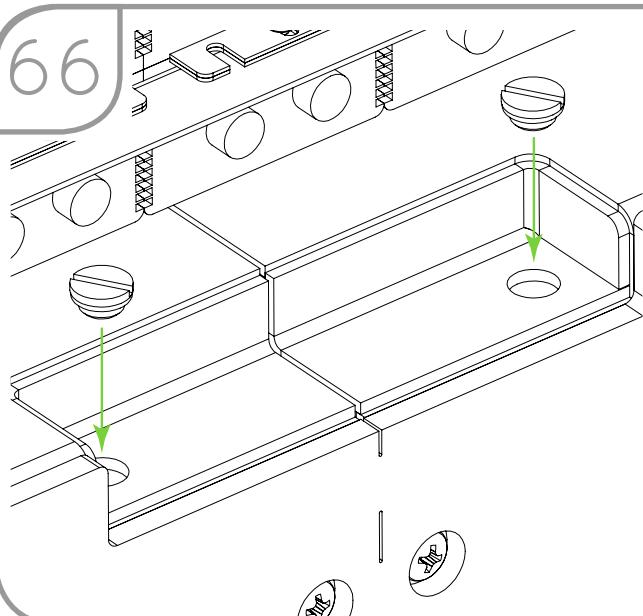
Fill the water tanks with cold and hot water to the maximum of their capacities.

For this step and the following ones, measure approximately the quantity of water poured in each loop.



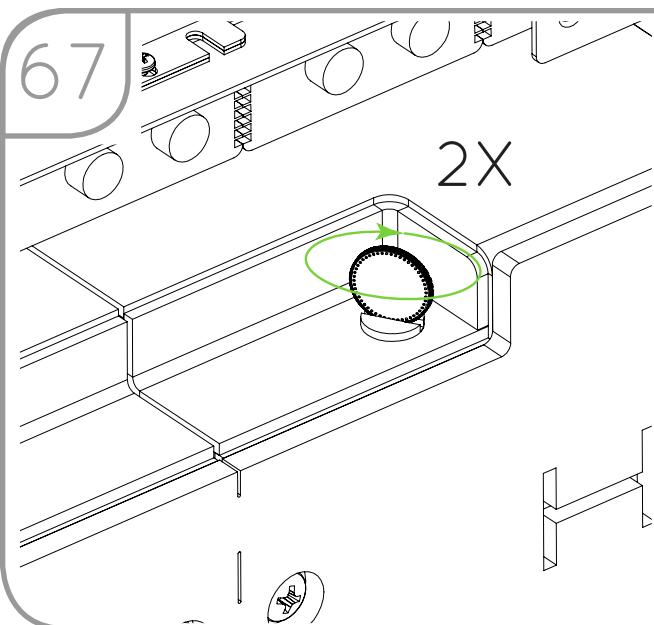
WARNING

It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

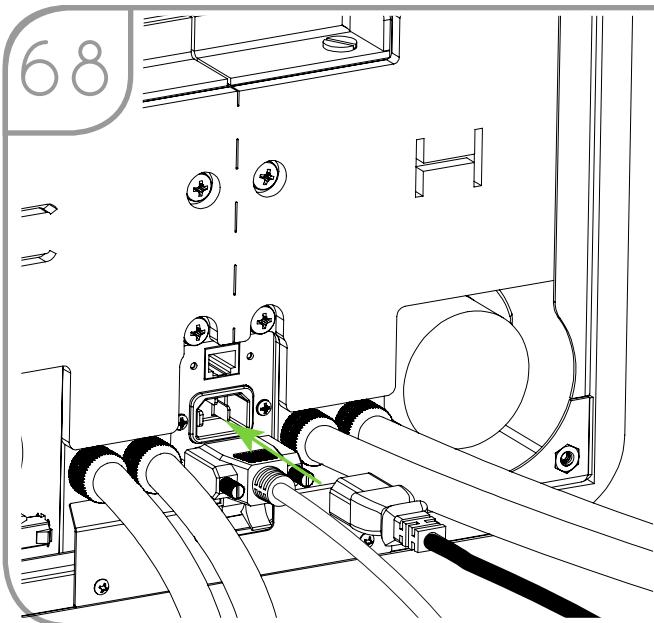


Put the plastic caps from the two water tanks back in place.

Installation procedures



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

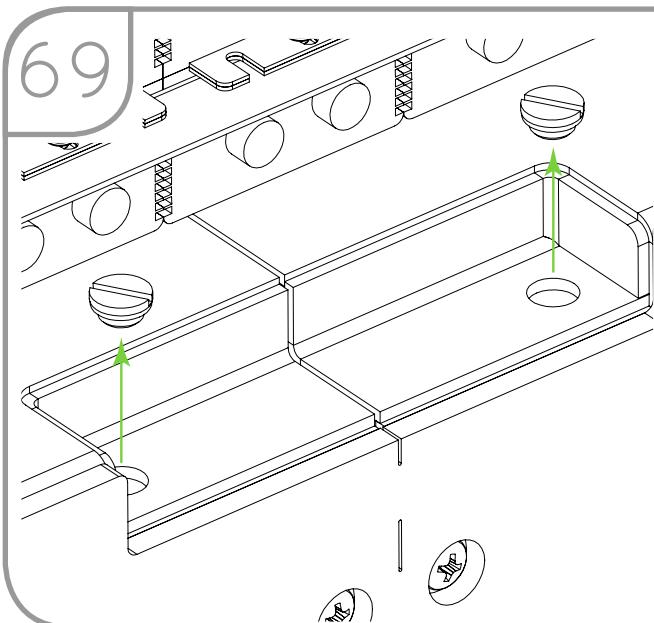


Connect the CUBE°'s power cord to the back of the CUBE°. Then plug the power cord to the system's power outlet.



WARNING

Make sure the CUBE° is the only device plugged into the power supply that is feeding it. An electrical circuit must be dedicated to the system.

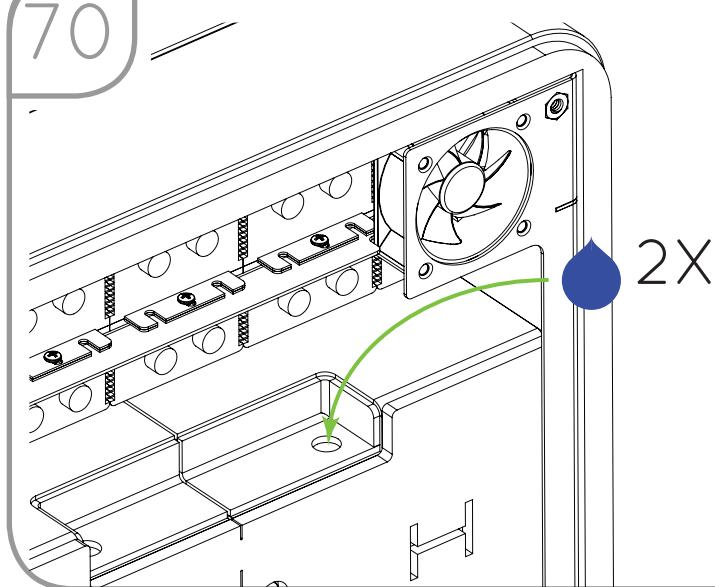


At the start of the system, the CUBE° will rapidly empty its water tanks then it will be followed by a BEEP.

Remove the plastic caps from the two water tanks.

Installation procedures

70

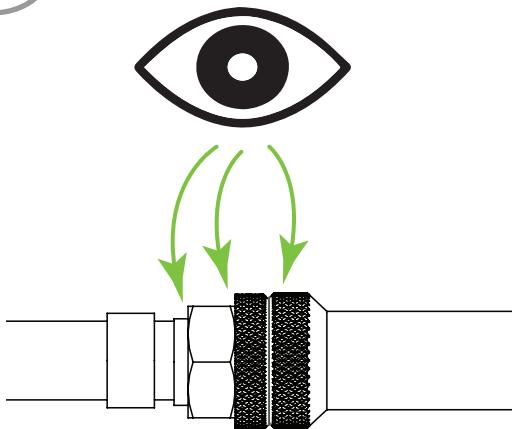


Fill the water tanks with cold and hot water to the maximum of their capacities. The system will stop as soon as one of the two water tank is empty. It will start again once there is water in both tanks.

2X

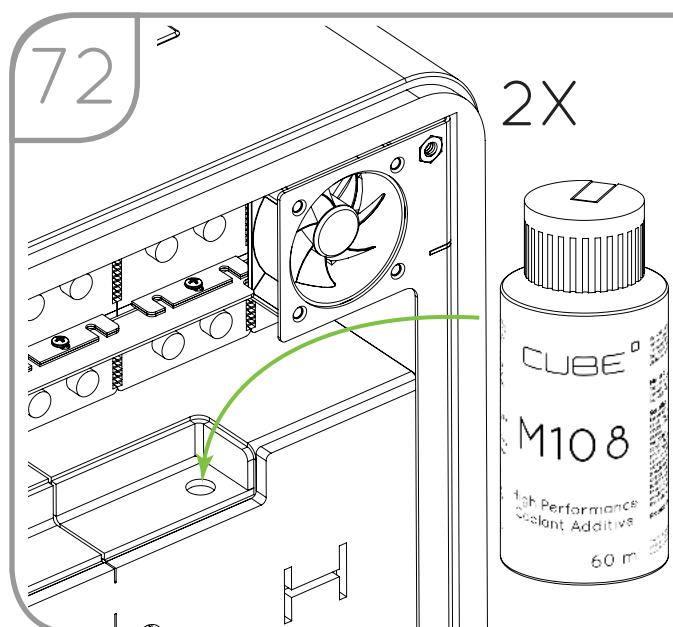
You must alternately fill up the cold and hot water tanks.

71



To detect a leak, check all the different connectors of the installation. If such is the case, correct the situation before continuing.

72



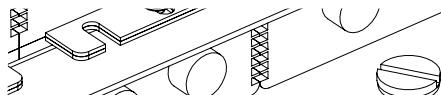
If there is no leak, you may add the M108 antifouling agent. This water-based agent has an intense green colour. A dye has been added to detect its presence.

2X

You must add 8 ml of M108 per 1 L of distilled water. The agent must be added in each water loop using the same concentration.

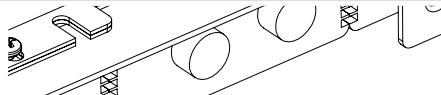
Installation procedures

73



Put the plastic caps from the two water tanks back in place.

74



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

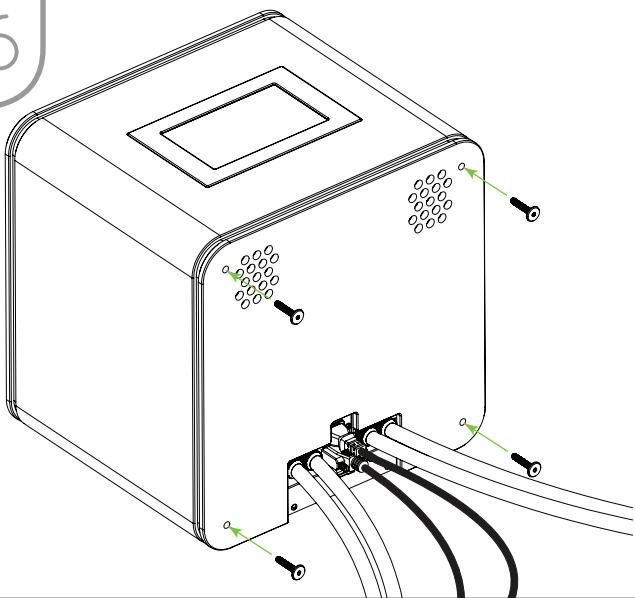
75



Replace the rear plate at the back of the CUBE°.

Installation procedures

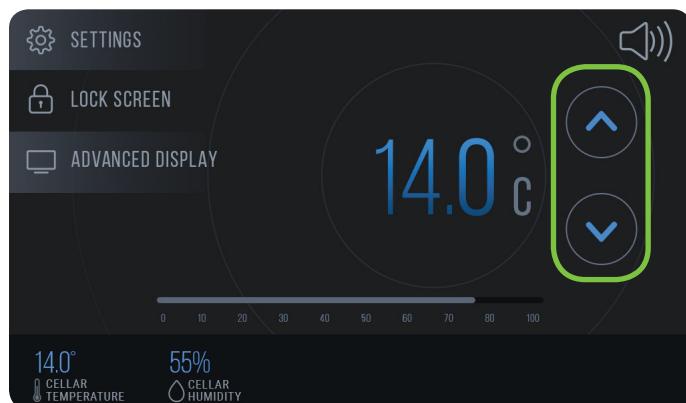
76



Tighten all four mounting bolts of the CUBE°'s rear mounting plate.

77

Using the arrows, adjust the temperature inside the cellar to the desired aging temperature.



C

Installation type D

Installation with tubes hidden in the wall and two radiators installed on the ceiling: 2-step installation. This type of installation is recommended when replacing a system, for concrete walls or when walls are already closed.



Tools and Materials

- CUBE°
- CUBE°-RC
- CUBE°-RH
- ACC-CUB-A023: CUBE°-RC'S WALL OUTLET (colour depending on installation)
- ACC-FIT-A002: 1/2" PEX FITTING FOR A 5/8" TUBE (2X)
- ACC-CAB-XXXX: M/M DB15 COMMUNICATION CABLE (length depending on installation)
- ACC-CAB-0003: 3.5ft OF DB15 CABLE
- M108: CORROSION INHIBITOR
- ACC-TUB-XXXX: 3/8" - 5/8" NEOPRENE TUBE
- ACC-FIT-A005-X: ALUMINUM CLAMP FOR A 5/8" TUBE
- CAB-RHCUBE-XX

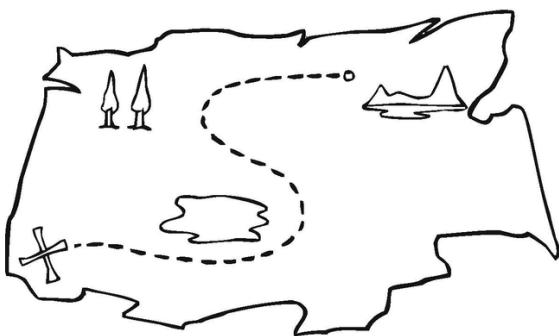
- LOOP TIE WRAP
- 1 1/2" min. WOOD SCREWS
- DISTILLED WATER
- MEASURING TAPE
- CROSS-HEADED SCREWDRIVER (No. 2 Phillips)
- CUTTING PLIERS FOR TUBE
- LONG NOSE PLIERS
- COIN
- WIRE CUTTER
- WIRE STRIPPER
- FLAT-HEAD SCREWDRIVER
- GYPSUM CUTTER
- STUD FINDER



ARTICLES SOLD BY THE WINE SQUARE

Installation procedures

1



It's important to properly plan and visualize where the tubes will pass from the two CUBE°-RH to the CUBE° before starting the installation. Find the location where the tubes and the communication cable will pass through the wall of the wine cellar.

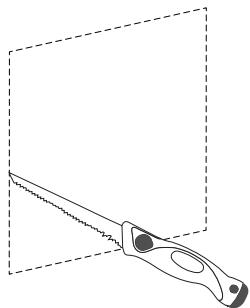
2



At the location where you wish to install the CUBE°-RC's wall outlet, find the studs located in the wall. The wall outlet must be fixed to the side of the stud.

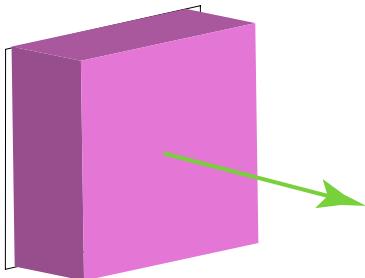
3

Cut out an opening between two studs.



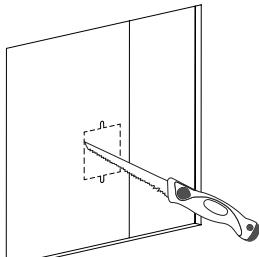
Installation procedures

4

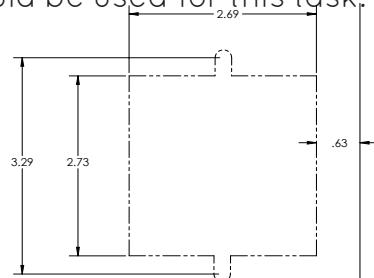


Remove the insulating materials within the wall. Cut out the vapour barrier while taking care of keeping an edge. This will make it easier to put it back in place when closing up the wall. It's important to keep an edge that is large enough to enable you to apply an adhesive tape to its surface.

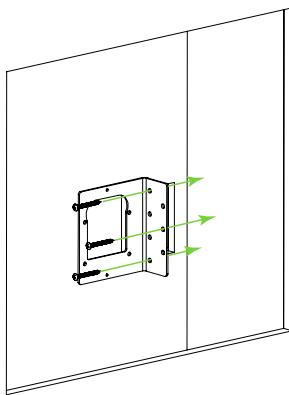
5



Cut out the wall outlet opening in the lining of the opposite side of the same wall. Make sure to properly follow the dimensions mentioned below. Even though there are no required specs, it is recommended to align the mounting plate at the same height as the electrical outlets. Wood screws should be used for this task.



6

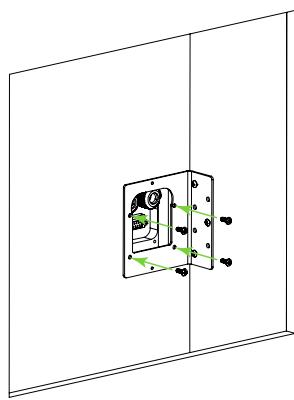


Fix the mounting plate for the CUBE°-RC's wall outlet. Wood screws should be used for this task.

Installation procedures

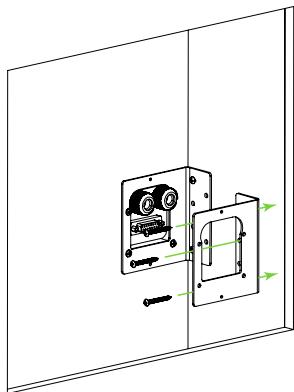
7

Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.



8

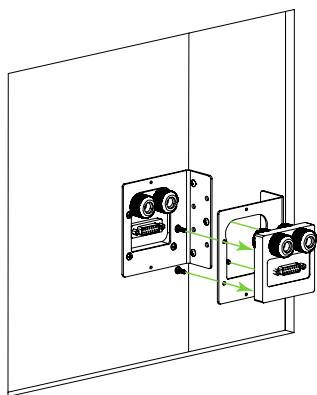
Fix the mounting plate for CUBE°-RC's wall outlet to the opposite side of the same wall by making sure to fix it at the same height. Wood screws should be used for this task.



D

9

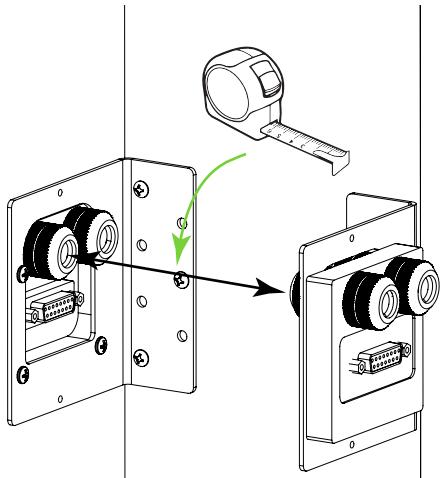
Using the No. 2 Phillips screwdriver, install the support for the CUBE°-RC's wall adaptor.



Installation procedures

10

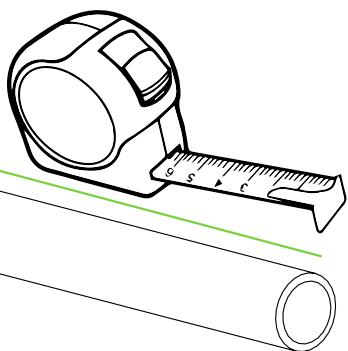
Measure the distance between the two connectors.



11

Measure two lengths of 3/8" - 5/8" neoprene tube as per the previous measure.

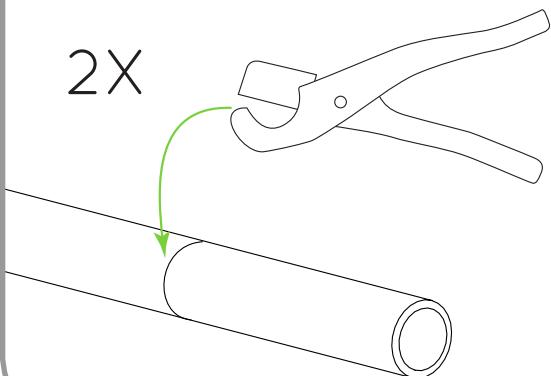
2X



12

Cut two lengths of 3/8" - 5/8" neoprene tube.

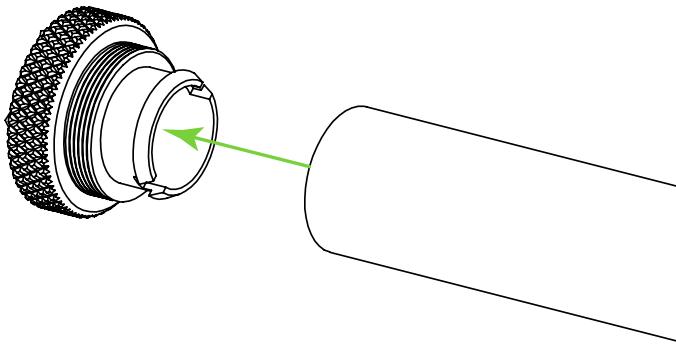
2X



Installation procedures

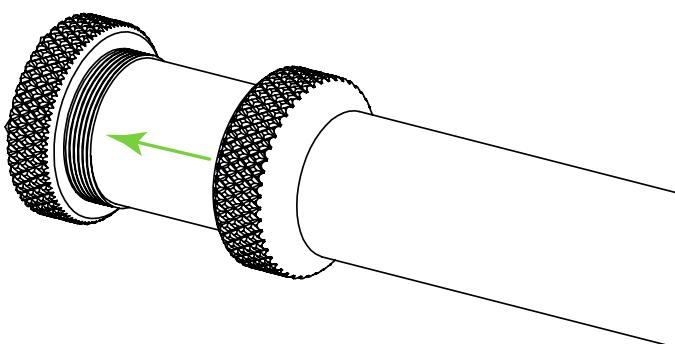
13

Slide the neoprene tube supplied with the CUBE°-RC on the ridges of the connector. Drive in the tube completely on the ridges up to the connector's shoulder threads.



14

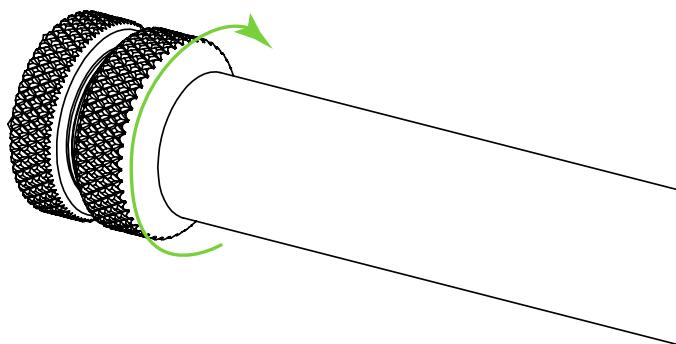
Slide the barb connector's compression ring directly on the tube.



D

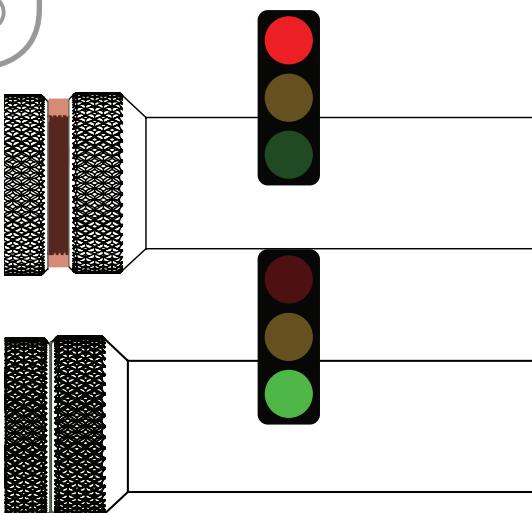
15

Fasten the barb connector's compression ring to secure it on the tube.



Installation procedures

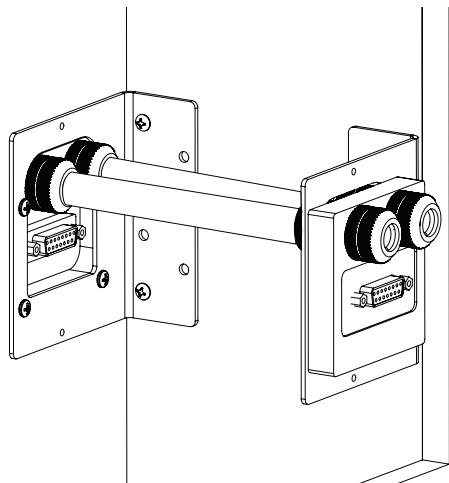
16



It's important to fasten the compression ring all the way. No space must be left between the compression ring and the shoulder threads of the barb connector.

When in doubt, tighten the connector ring without the tube to see how far it will go. The connector ring must end at the same place even though the tube is there. If need be, use pliers to help you tighten the connector ring.

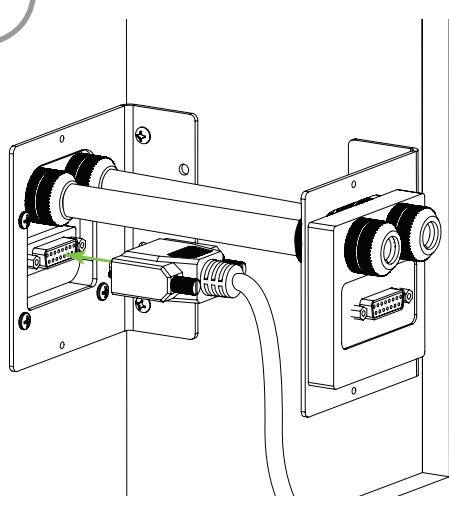
17



Connect the other end of the tubes the same way but on the CUBE°-RC's other outlet.

D

18

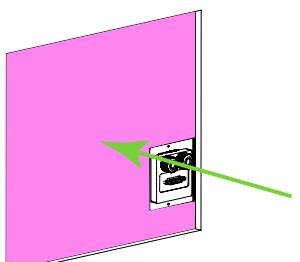


Connect the DB15 communication cable connector to one of the wall outlets and make sure the mounting screws of the connector are properly tightened.

Repeat the same procedure to connect the communication cable's other end into the other wall outlet.

Installation procedures

19



You can now put the insulation material and the vapour barrier back in place within the wall.

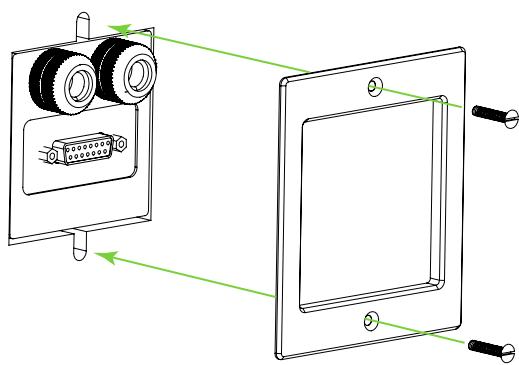
20



Replace the piece of gypsum board taken out previously. Repair the joint sealing and paint the wall.

D

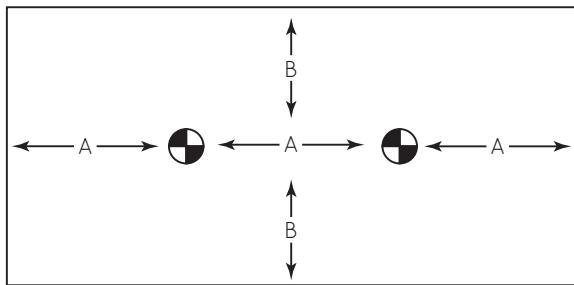
21



Inside the wine cellar, place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.

Installation procedures

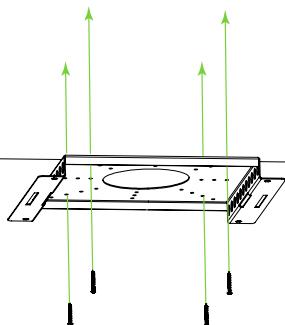
22



Start by identifying the location of your CUBE°-RC on your cellar's ceiling. It is recommended that the unit be placed in the centre of the room, enabling it to maintain a more uniform temperature inside the cellar. There must be a 13" clearance between the ceiling and the location you wish to install the unit.

23

2X



Install the CUBE°-RC's mounting plate on the wine cellar's ceiling making sure to align it properly with the walls. Use at least 4 wood screws to secure the mounting plate.

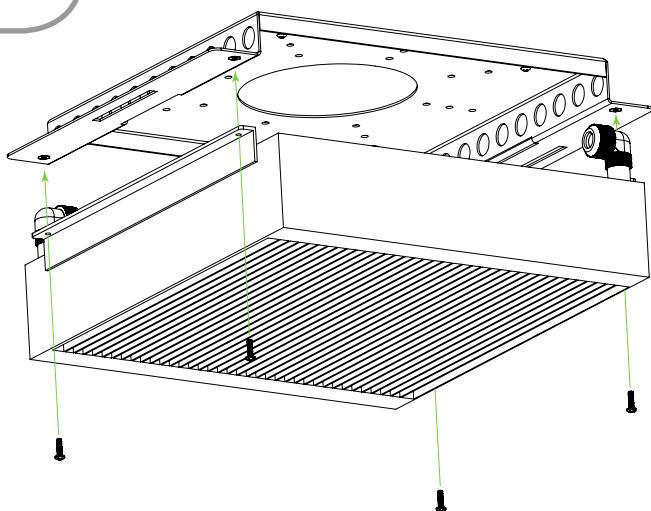


WARNING

It's important that these mounting screws be fixed upon a solid framework. The weight of the CUBE°-RC filled with water is maintained by this plate. Mounting it onto a material not as sturdy such as a gypsum board is insufficient. The Wine Square cannot be held responsible should a unit fall off the ceiling. Make sure the mounting plate is secured enough to withstand a 75 lb weight.

24

2X

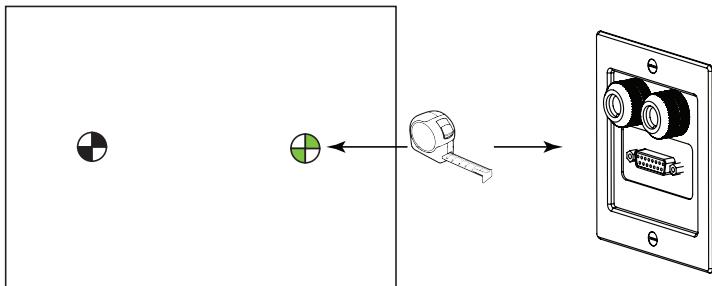


Using screws, fit the CUBE°-RC's radiator to the mounting plate on the ceiling. Use a No. 2 Phillips screwdriver.

Installation procedures

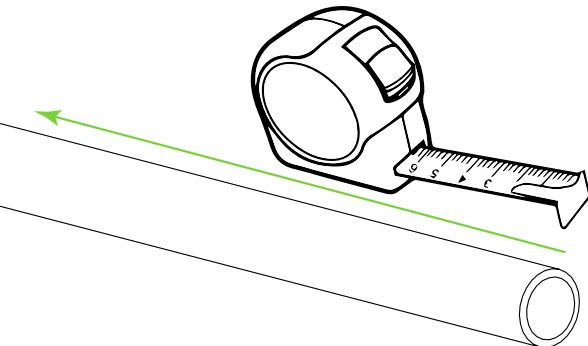
25

Measure the length of the tube required from the CUBE°-RC's wall outlet to the location where the CUBE°-RC will be fitted.



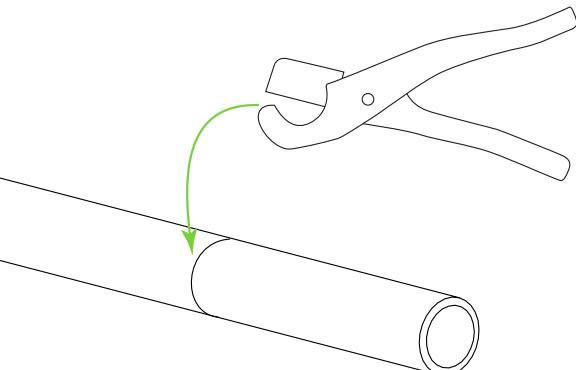
26

Take the length measured in the previous step and cut one length of 3/8" - 5/8" neoprene tube.



27

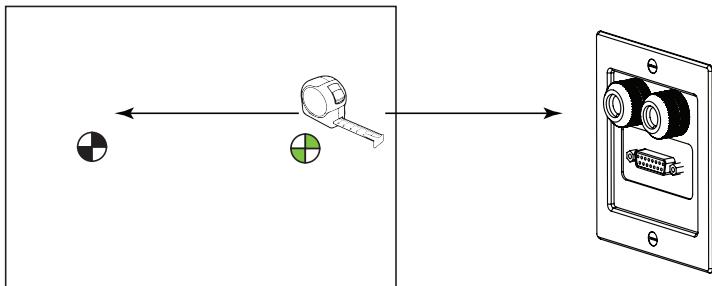
Using a cutting tool designed for this purpose, cut a length of neoprene tube according to the length measured previously. The cut must be straight and perpendicular.



Installation procedures

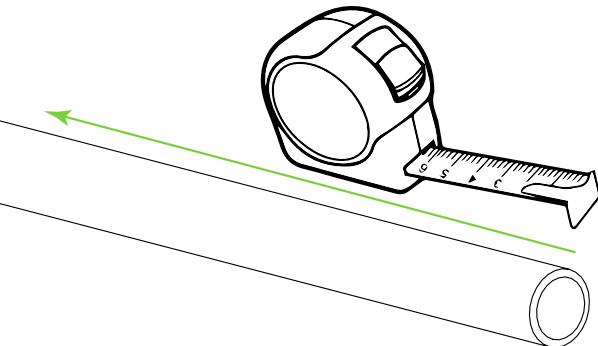
28

Measure the length of the tube required from the CUBE°-RC's wall outlet to the location where the second CUBE°-RC will be fitted.



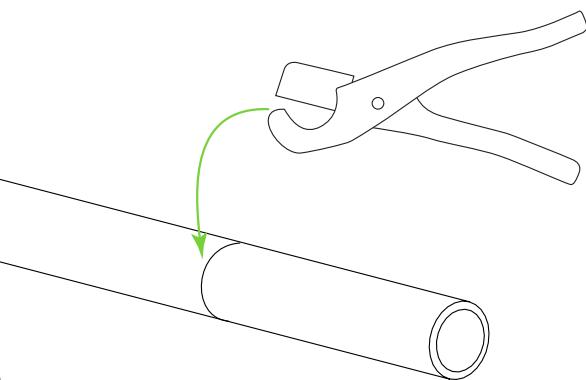
29

Take the length measured in the previous step and cut one length of 3/8" - 5/8" neoprene tube.



30

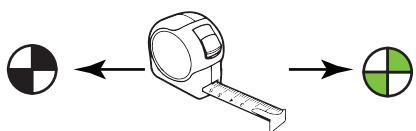
Using a cutting tool designed for this purpose, cut a length of neoprene tube according to the length measured previously. The cut must be straight and perpendicular.



Installation procedures

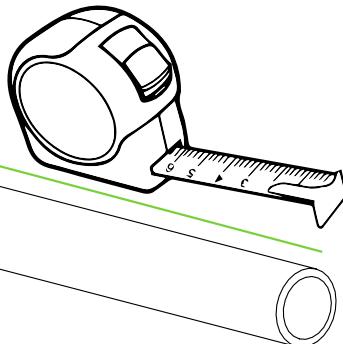
31

Measure the length of the tube required to go from one CUBE°-RC to the other.



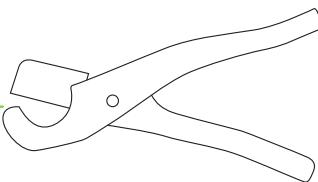
32

Take the length measured in the previous step and cut one length of 3/8" - 5/8" neoprene tube.



33

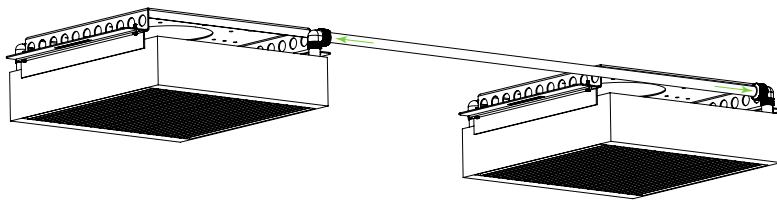
Using a cutting tool designed for this purpose, cut a length of neoprene tube according to the length measured previously. The cut must be straight and perpendicular.



Installation procedures

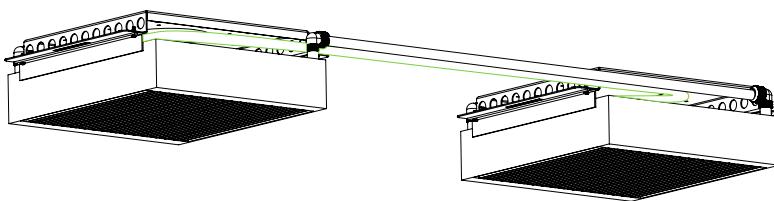
34

Take the tube that will go between both radiators and connect it to the 3/8" - 5/8" barb connector of each radiator.



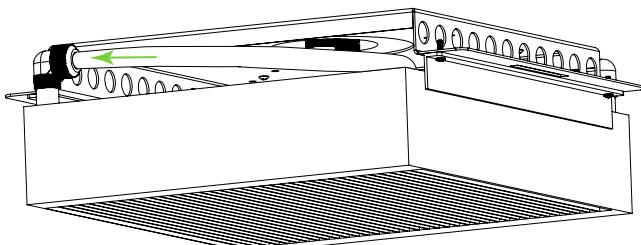
35

While making sure that the tube follows the path of the one that is already installed, guide the tube from the wall outlet to the second radiator.



36

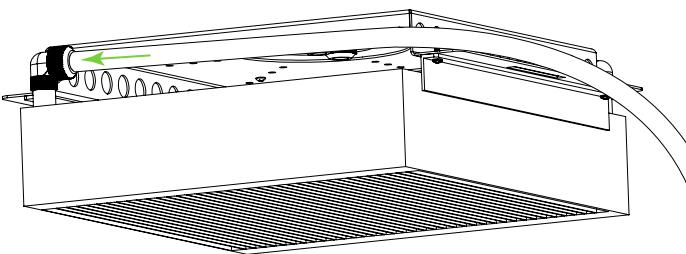
While making sure the tubes are not pinched or bent between the radiator and the ceiling, take the tube and connect it to the radiator's 3/8" - 5/8" barb connector.



Installation procedures

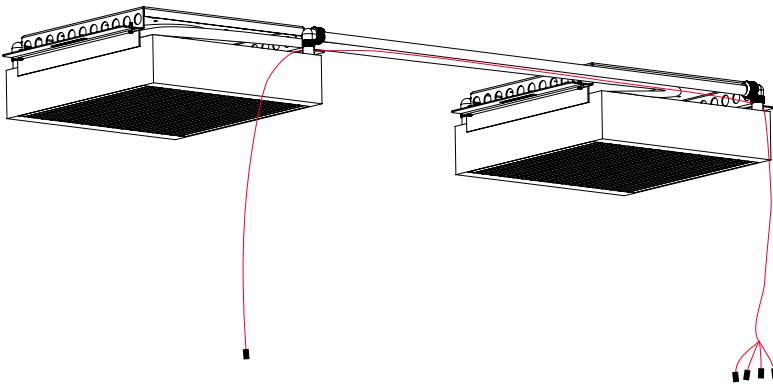
37

While making sure once again the tubes are not pinched or bent between the radiator and the ceiling, take the last tube and connect it to the 3/8" - 5/8" barb connector of the first radiator.



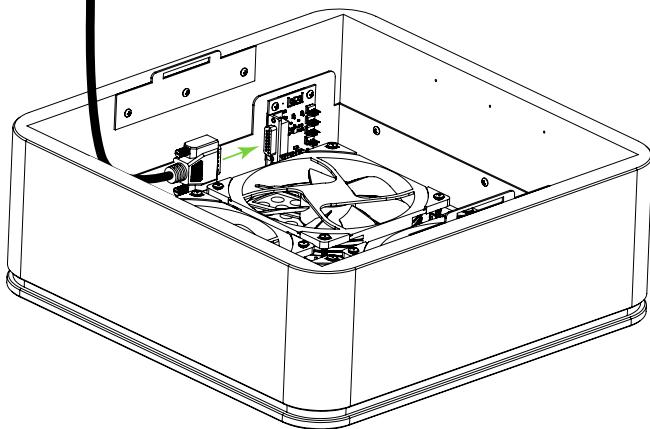
38

Pass the ventilators' power cord of the second CUBE°-RC along the tubes already installed.



39

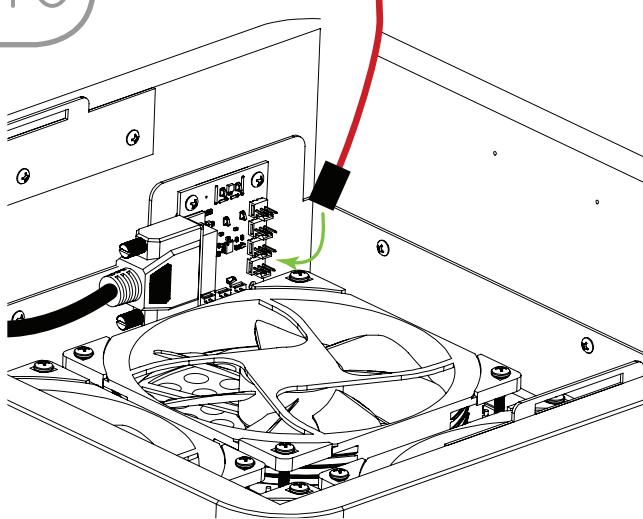
Connect the DB15 communication cable to the electronic card of the CUBE°-RC's housing.



D

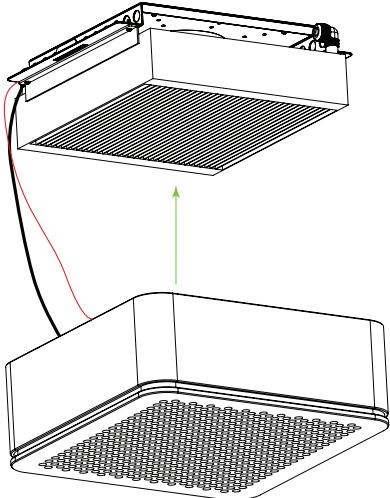
Installation procedures

40



Connect the ventilators' power cord of the second CUBE°-RC to its electronic card.

41



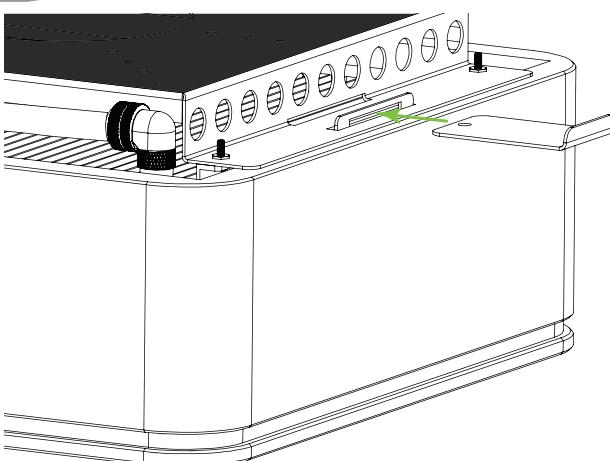
Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.



WARNING

Make sure the communication cable is not pinched during this step.

42

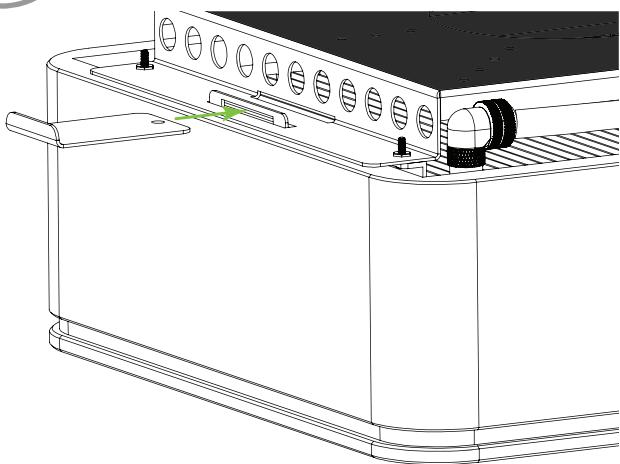


Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

Installation procedures

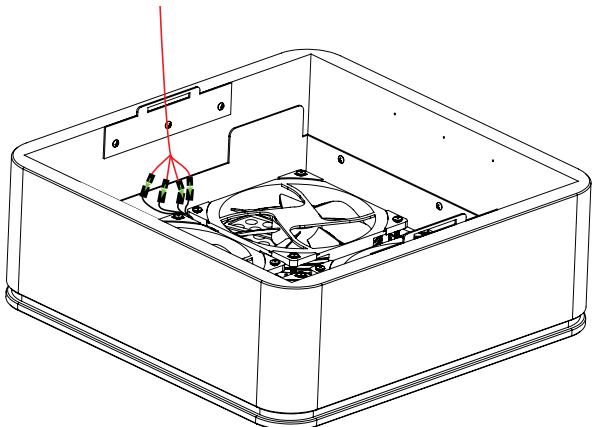
43



Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

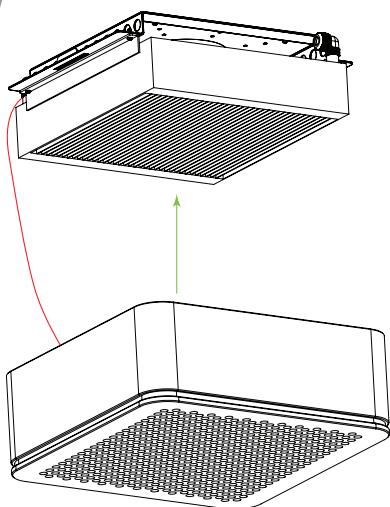
If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

44



Take the second CUBE°-RC and connect the four ventilators to the power cord's four connectors.

45



Slide the CUBE°-RC's housing over the radiator that is mounted on the ceiling. Take care to position the wood veneer joint towards a less visible area of the cellar. Align the slots of the mounting plate that is fixed on the ceiling with the steel plates that are fitted to the wood housing.

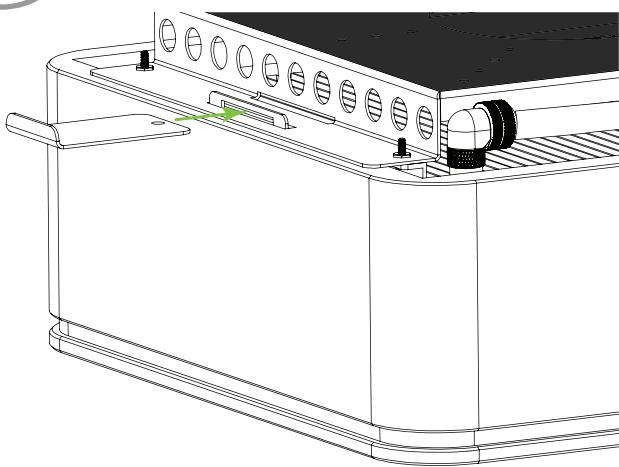


WARNING

Make sure the communication cable is not pinched during this step.

Installation procedures

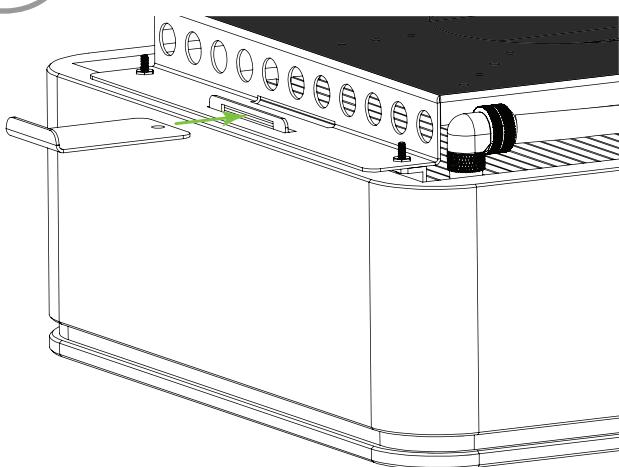
46



Once the wood housing is in place, slide a retaining plate in the slot on the side of the system. Make sure the plate that you are sliding is above the mounting plate fixed on the ceiling.

Press the retaining plate completely in.

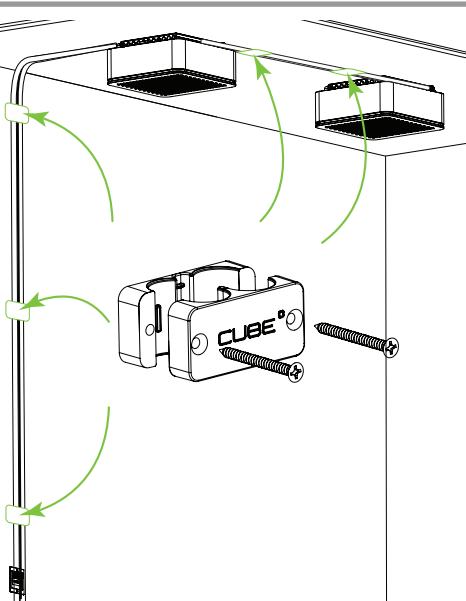
47



Repeat this step for the other side. At this stage, the CUBE°-RC should be well mounted on the ceiling.

If this is not the case, make sure the retaining plate is placed underneath the mounting plate fixed on the ceiling. Rectify its position by placing the retaining plate directly underneath it.

D
48

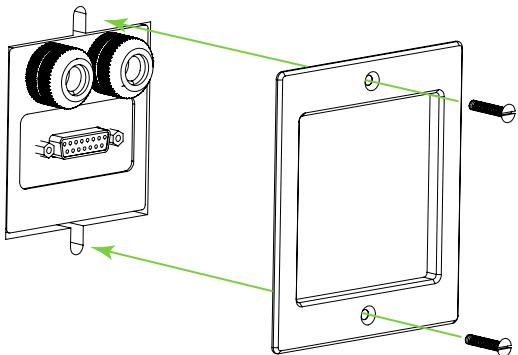


Using an aluminum clamp, fix the tubes and the communication cable to the wall.

Installation procedures

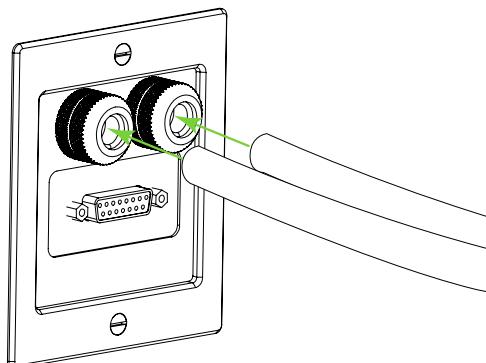
49

Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.



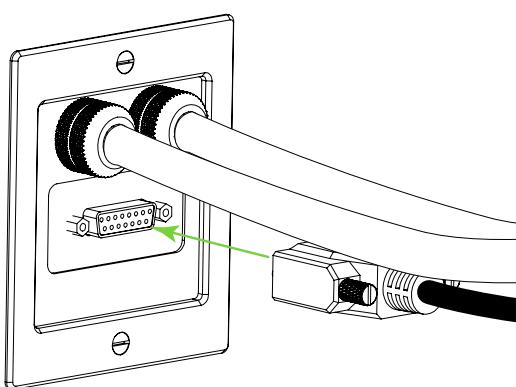
50

Connect the tubes to the CUBE°-RC's wall outlet inside the cellar. To make the installation more aesthetic, you may cut them as needed to adjust the length of the tubes. A right-angled joint (ACC-FIT-S0 90°) can also be used so that the connected tube remains pressed against the wall.



51

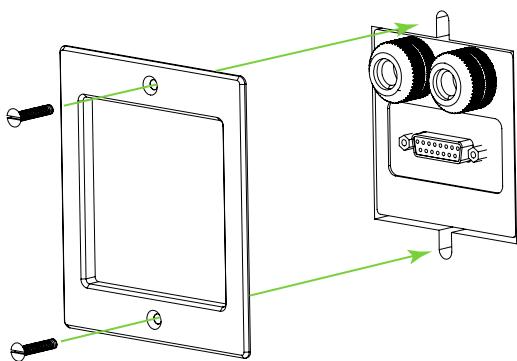
Connect the communication cable to the wall outlet inside the cellar. The excess cable can be pushed inside the CUBE°-RC located on the ceiling.



Installation procedures

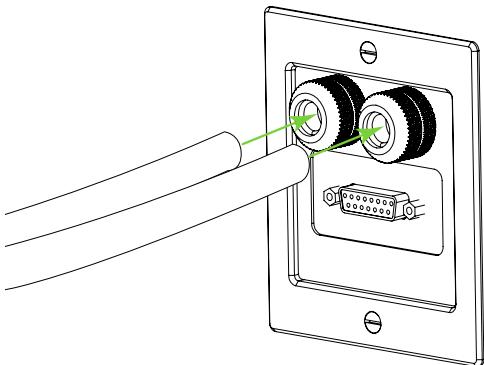
52

Place the wall plate in front of the outlet and secure it in place by using the supplied screws and a flat-blade screwdriver.



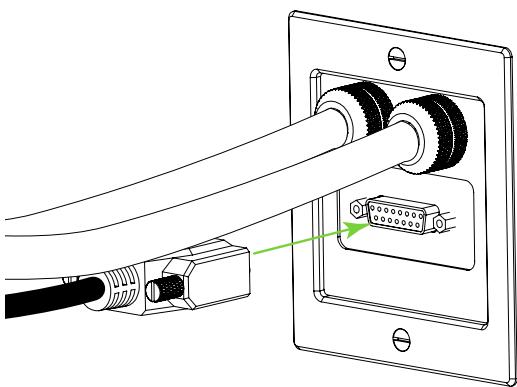
53

Connect both tubes supplied with the CUBE° to the cold water loop. The tubes for this loop are covered with an insulating sleeve.



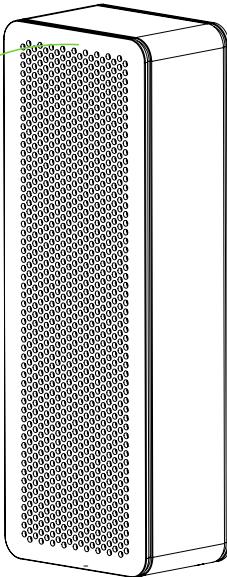
54

Connect the supplied communication cable with the CUBE° at the CUBE°-RC's wall outlet.



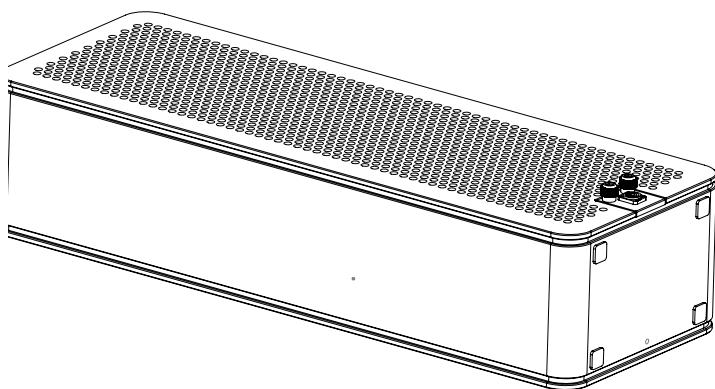
Installation procedures

55



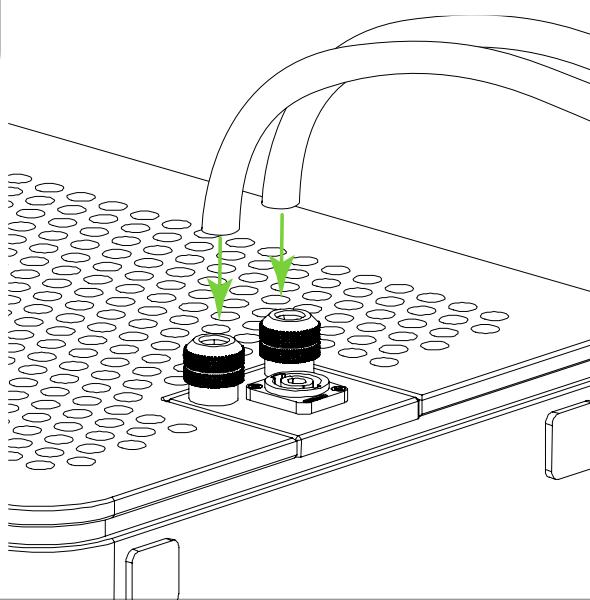
Place the CUBE°-RH where you wish to install it. Making sure not to damage the housing (by placing a cloth on the floor in front of the CUBE°-RH), tip the CUBE°-RH so that it is laying face down against the floor.

56



As with the cold water loop tubes, take the tubes (the ones without the insulating sleeves) supplied with the CUBE° and, if needed, adjust their length according to your installation.

57



Connect both hot water loop tubes to the 3/8" - 5/8" barb connectors located on the back of unit.

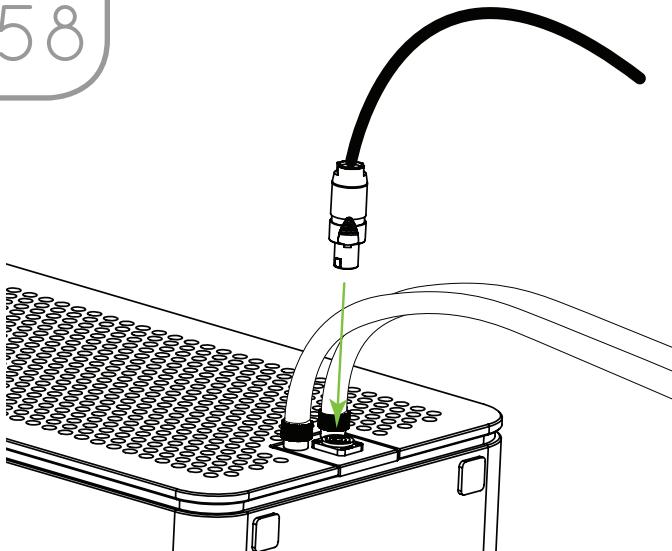


WARNING

If you have more than one CUBE°-RH, you must only connect the tube to one connector for each CUBE°-RH, but not on the same CUBE°-RH. Connect one on the connector located on the right-hand side of the first CUBE°-RH and the other on the left-hand side of the second one.

Installation procedures

58



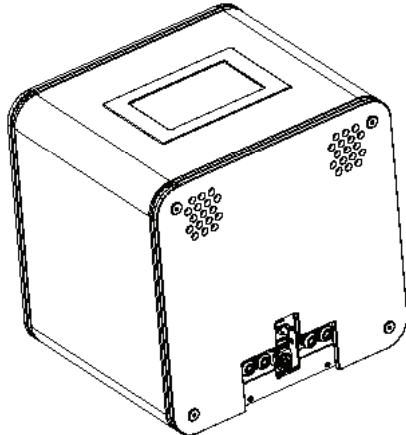
Take the correct length of the CAB-RH-CUBE-XX's wire that links the CUBE° to the CUBE°-RH's radiator and connect it into the radiator. Make sure the wire is well inserted.



WARNING

If you have more than one CUBE°-RH, you must cut another length of wire that will link both CUBE°-RH together while respecting the colour code. This means that you will have two wires coming out of one of the units.

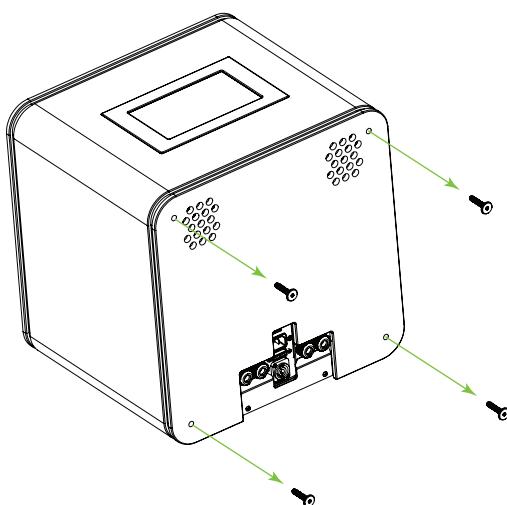
59



Place the CUBE° in order to access the back of the system.

D

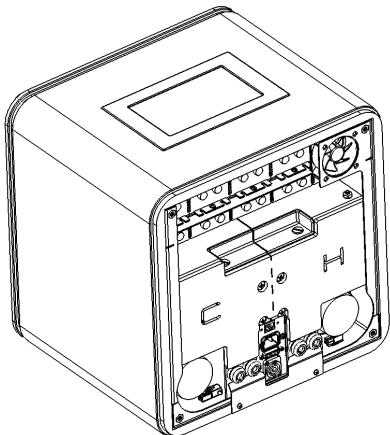
60



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

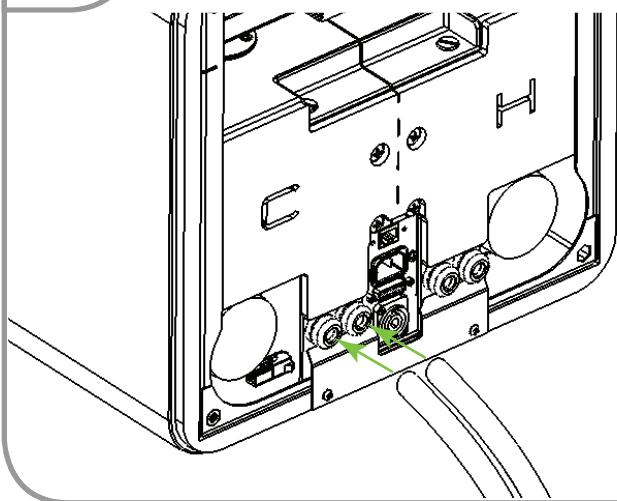
Installation procedures

61



Remove the rear plate at the back of the unit.

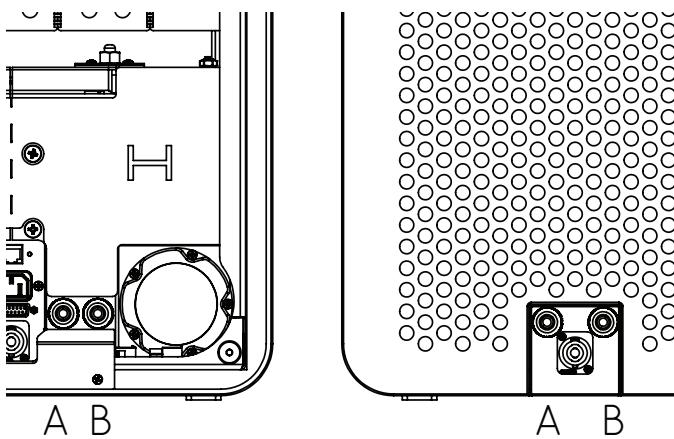
62



Connect both cold water loop tubes. For this step, the location of each tube is not important. Simply connect both tubes to the 3/8" - 5/8" barb connectors located in front of the water tank marked with the letter C (Cold).

D

63



As for the hot water tube connection, the location of the tubes is crucial for the system's proper operation. Take extreme care to connect the A-position tube of the CUBE°-RH with the A-position CUBE° connector (same with the B-position).

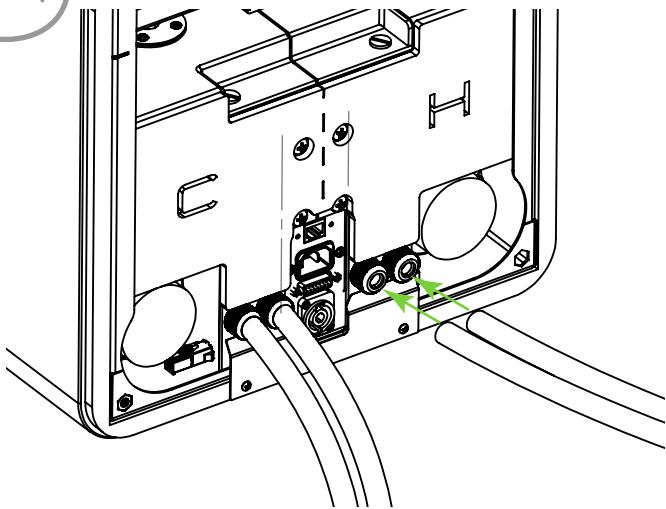


WARNING

If you have more than one CUBE°-RH, they must be connected in series. To achieve this, you must connect the A-position CUBE° connector with the A-position tube of the first CUBE°-RH's radiator and the B-position CUBE° connector with the B-position tube of the second radiator. The remaining connectors from the radiators can then be linked together using a third tube.

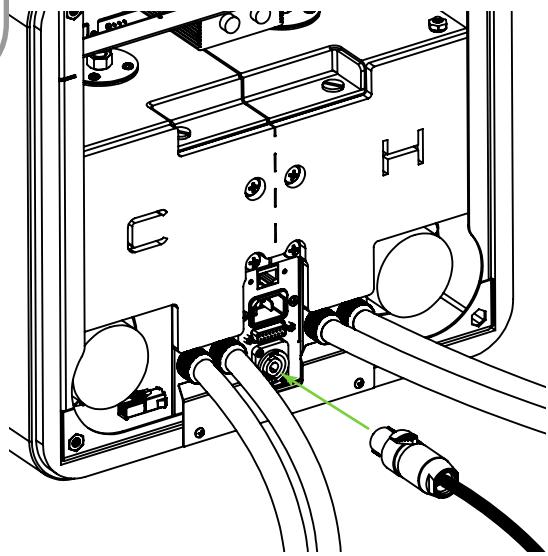
Installation procedures

64



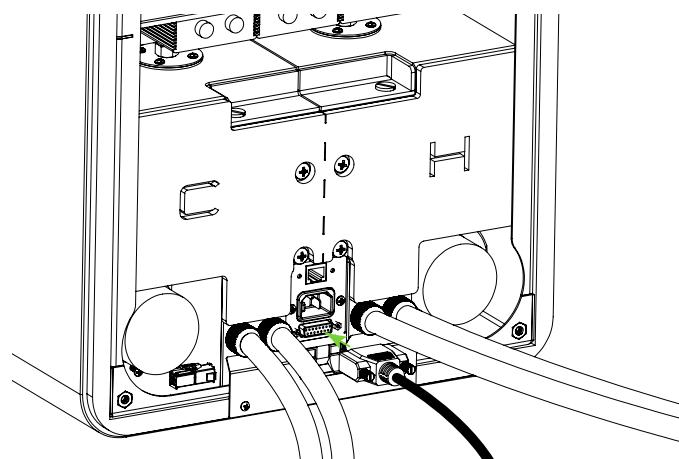
Connect the CUBE°-RH tubes as per instructions in the previous steps.

65



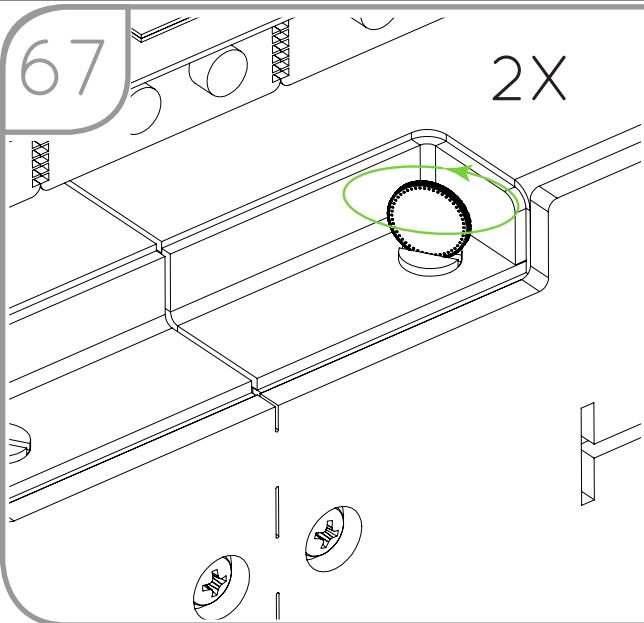
Connect the wire from the CUBE°-RH's radiator to the back of the CUBE° (CAB-RHCUBE-XX). Make sure the wire is well inserted.

D
66

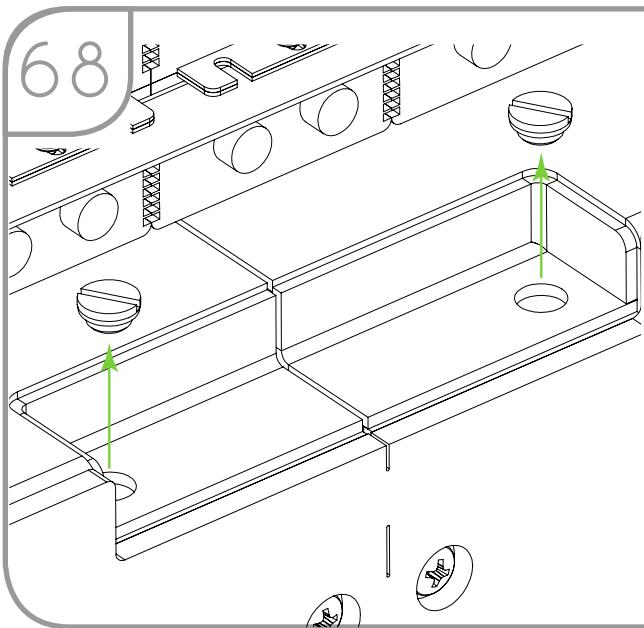


Connect the DB15 communication cable that comes out of the CUBE°-RC's wall outlet to the back of the CUBE°. Make sure to tighten sufficiently the connector screws to avoid disconnecting the cable.

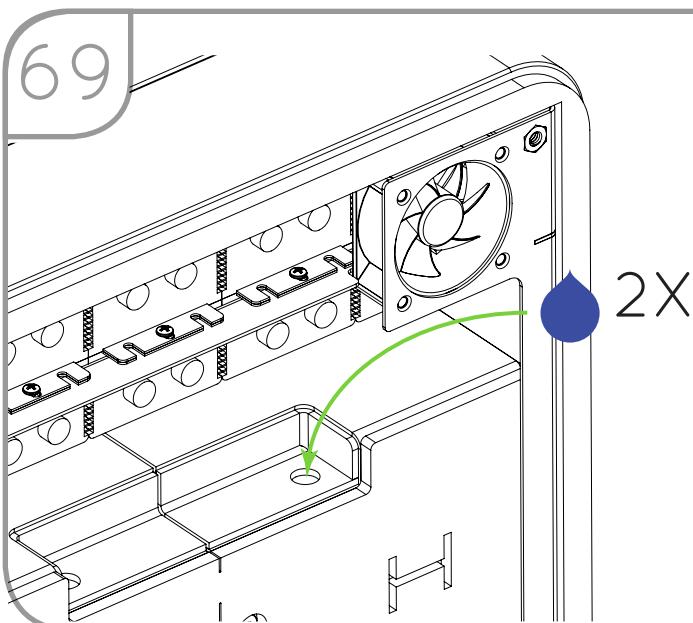
Installation procedures



Using a coin or another tool that won't damage the plastic caps, loosen the ones from the two water tanks.



Remove the plastic caps from the two water tanks.



Fill the water tanks with cold and hot water to the maximum of their capacities.

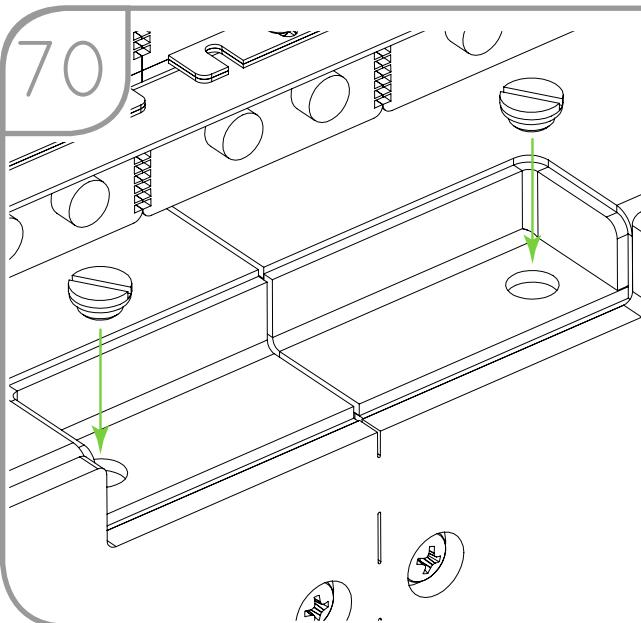
For this step and the following ones, measure approximately the quantity of water poured in each loop.



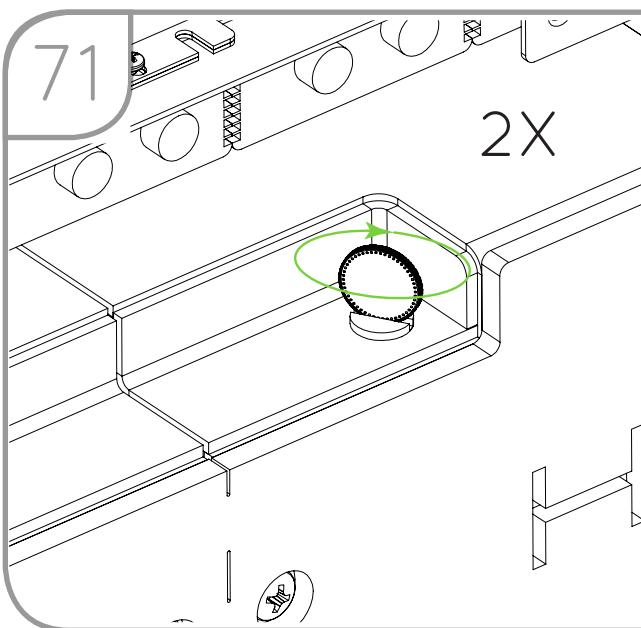
WARNING

It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

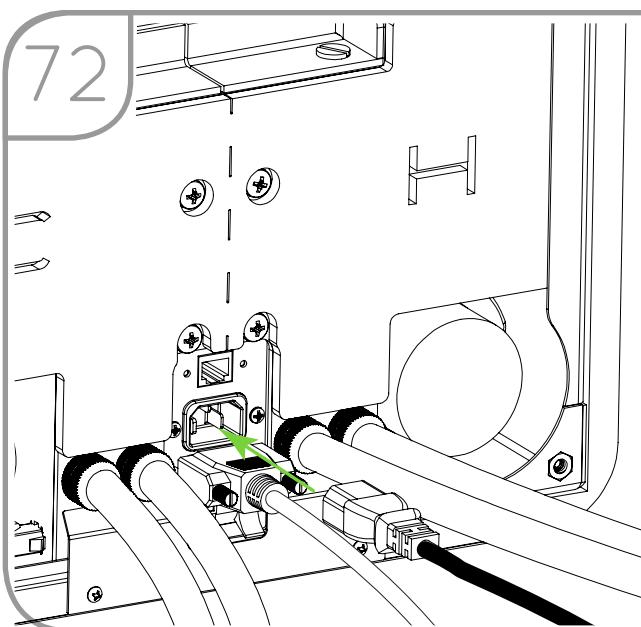
Installation procedures



Put the plastic caps from the two water tanks back in place.



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.



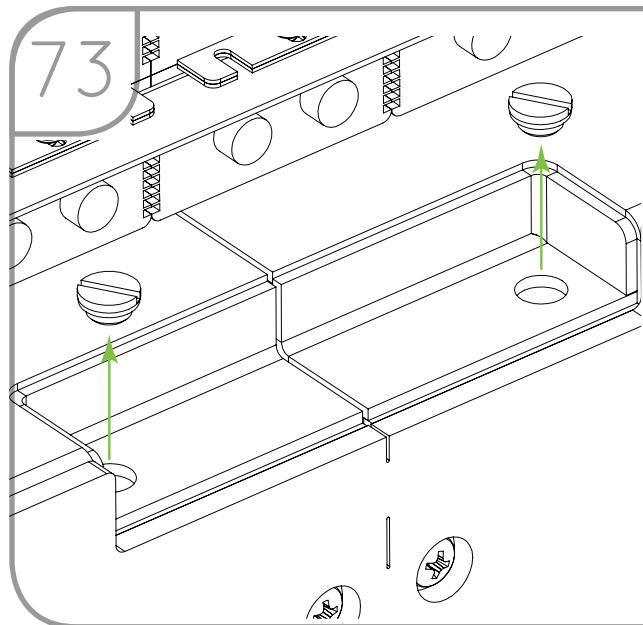
Connect the CUBE°'s power cord to the back of the CUBE°. Then plug the power cord to the system's power outlet.



WARNING

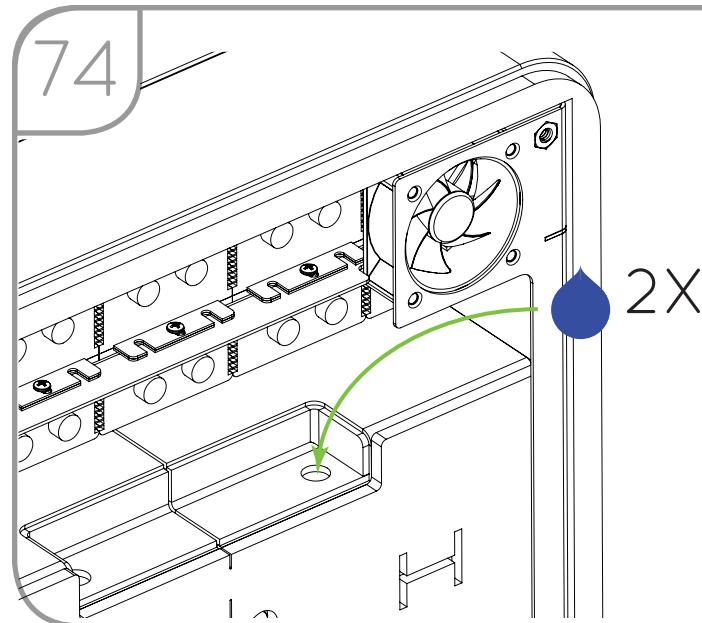
Make sure the CUBE° is the only device plugged into the power supply that is feeding it. An electrical circuit must be dedicated to the system.

Installation procedures



At the start of the system, the CUBE° will rapidly empty its water tanks then it will be followed by a BEEP.

Remove the plastic caps from the two water tanks.



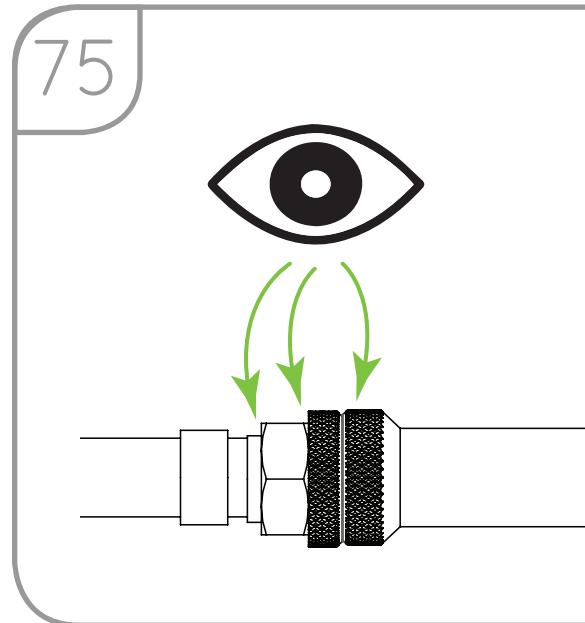
Fill the water tanks with cold and hot water to the maximum of their capacities. The system will stop as soon as one of the two water tank is empty. It will start again once there is water in both tanks.

You must alternately fill up the cold and hot water tanks.



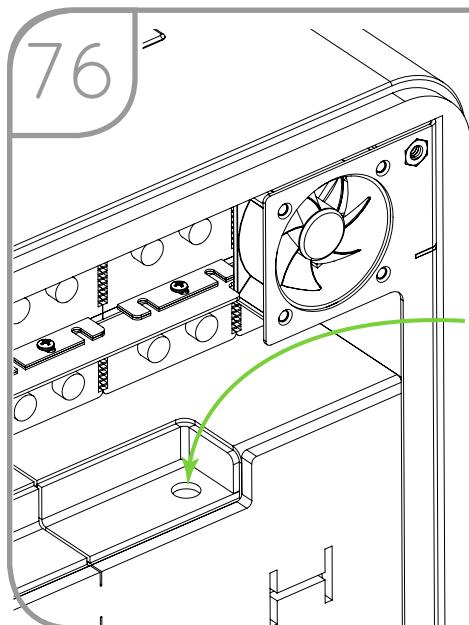
WARNING

It's important to use distilled water when filling up the system. Using other types of water could lead to an accelerated algae proliferation that could damage the system.

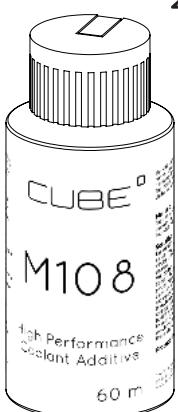


To detect a leak, check all the different connectors of the installation. If such is the case, correct the situation before continuing.

Installation procedures

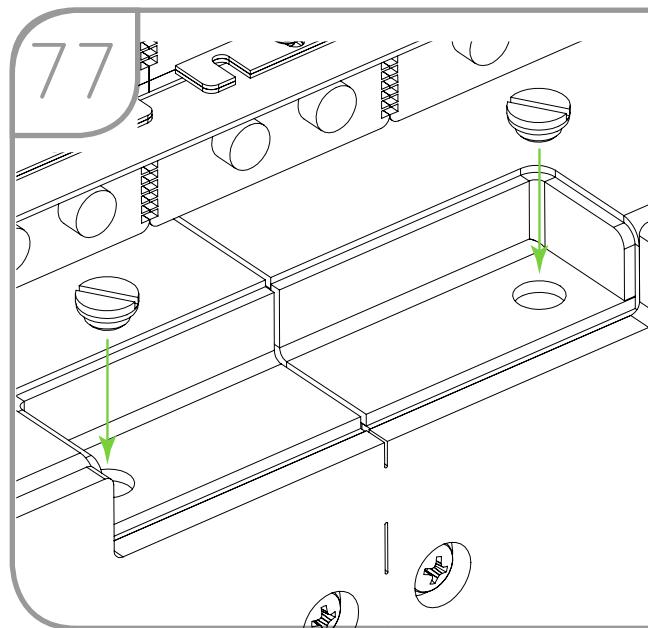


2X

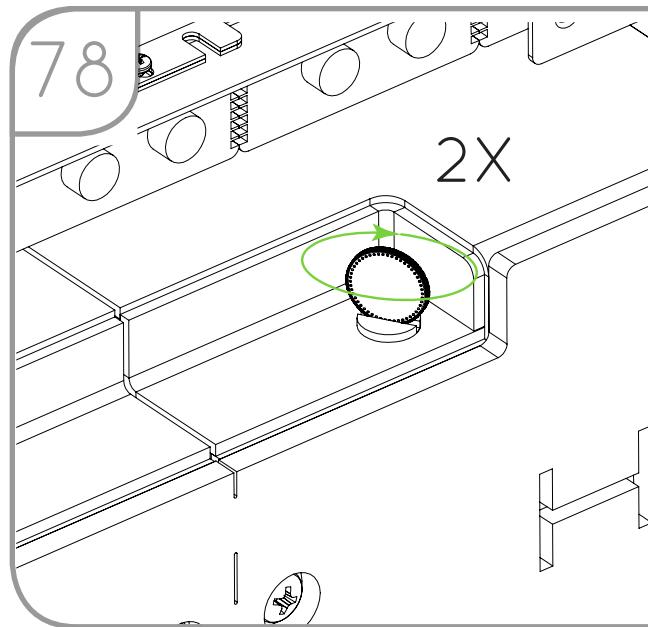


If there is no leak, you may add the M108 anticorrosive agent. This water-based agent has an intense green colour. A dye has been added to detect its presence.

You must add 8 ml of M108 per 1 L of distilled water. The agent must be added in each water loop using the same concentration.



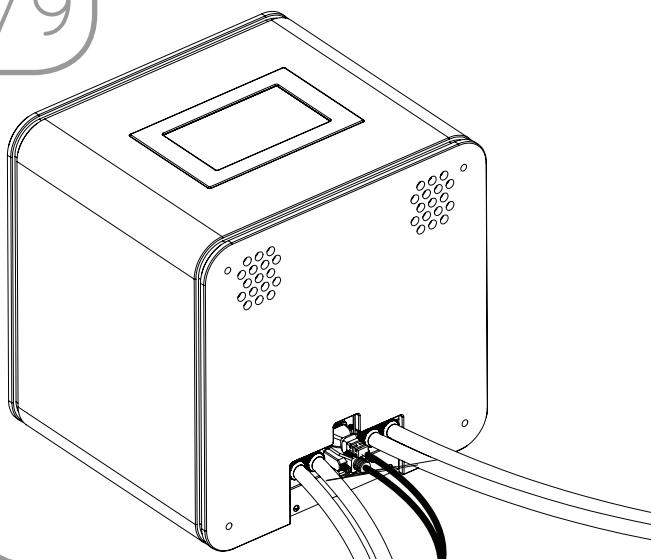
Put the plastic caps from the two water tanks back in place.



Using a coin or another tool that won't damage the plastic caps, tighten the ones from the two water tanks.

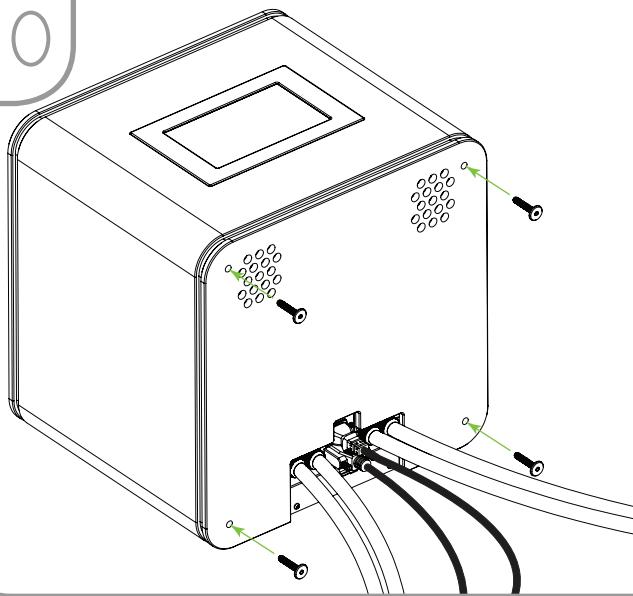
Installation procedures

79



Replace the rear plate at the back of the CUBE°.

80

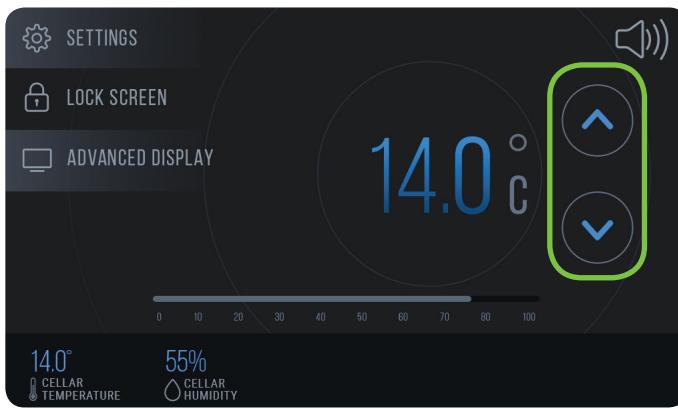


Tighten all four mounting bolts of the CUBE°'s rear plate.

D

81

Using the arrows, adjust the temperature inside the cellar to the desired aging temperature.



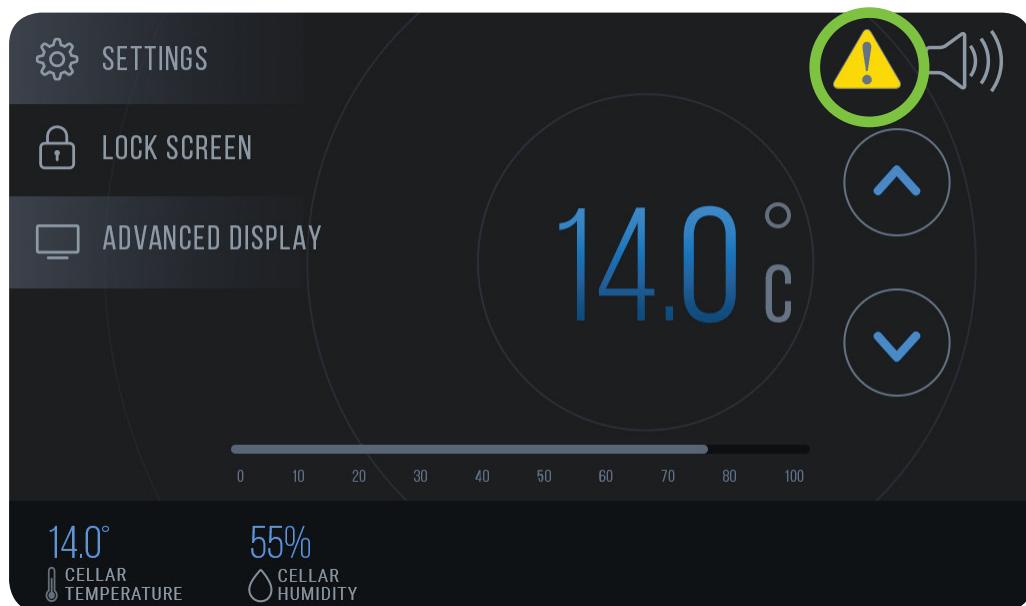
System Errors

The CUBE°'s interface enables you, through error messages, to rapidly know the status of your system. This section will help you better understand the root cause of each problem and the solution to rectify the situation rapidly. If in doubt, contact your Wine Square representative.

When the system encounters a problem, an error window will be displayed on your system's screen.



You may find the error message at all times by pressing on the alarm symbol located on the upper right-hand corner of the main screen.



System errors

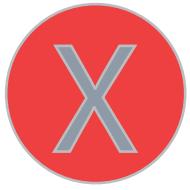
There are also various error levels. The symbol that accompanies every warning informs you on the level of urgency to correct the situation.



The blue circle corresponds to the first warning level. At this stage, the system simply informs you of the situation for which steps should be taken. In this situation, the system has not encountered any mechanical issues.



The yellow triangle corresponds to the second warning level. The system informs you that it is still functioning, but not at its normal state. This situation requires a short or medium-term intervention to correct the issue.



The red circle corresponds to the last warning level. At this stage, the system encounters major issues and is unable to function. The issues must be corrected for the system to restart.

System errors

Error List

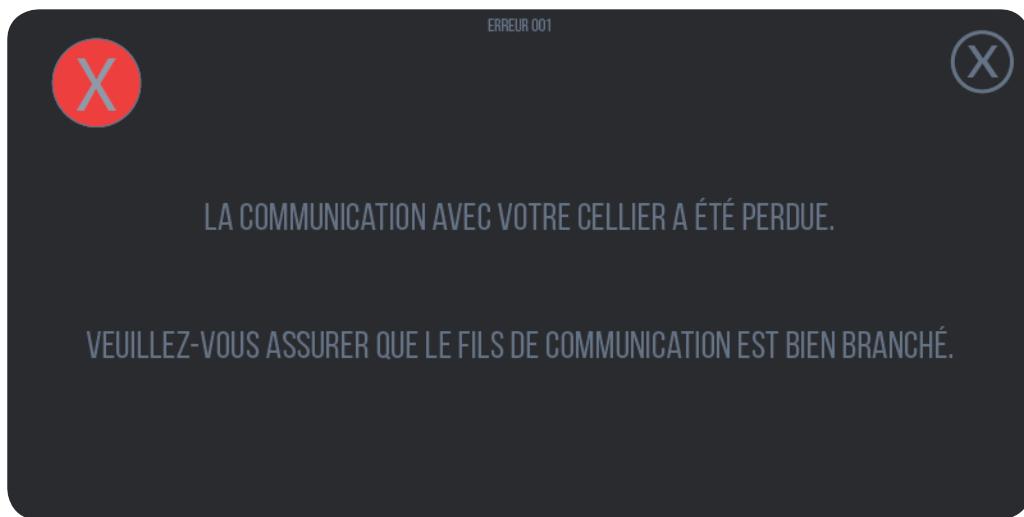
A complete list of error codes that may be displayed by your system is outlined in the following table.

No. d'error	Niv.	Description
Error 001		Lost of communication with the CUBE°-RC.
Error 002		CUBE°-RH experiences overheating.
Error 003		Humidity level is too high.
Error 004		Temperature of hot water loop is too high.
Error 005		Temperature of cold water loop is too low.
Error 006		Cold water loop pump is defective.
Error 007		Hot water loop pump is defective.
Error 008		Cellar's temperature sensor is disconnected.
Error 009		Cellar's temperature sensor is defective.
Error 010		E-COOL module is connected in reverse.
Error 011		Low water level in the cold water tank.
Error 012		Water shortage in the cold water tank.
Error 013		Low water level in the hot water tank.
Error 014		Water shortage in the hot water tank.
Error 015		Temperature sensor of the hot water tank is disconnected.
Error 016		Temperature sensor of the cold water tank is disconnected.
Error 017		Temperature reading of the dehumidifier is incorrect.
Error 018		Failure of the E-COOL system.
Error 019		CUBE°'s ventilators are defective.
Error 020		System has reached a critical temperature and has stopped.
Error 021		Wine cellar experiences overheating.
Error 022		Wine cellar is too cold.
Error 023		System experiences overheating.

System errors

Error 001

Loss of communications with your wine cellar causes the system to stop functioning. Since the CUBE° can no longer read the temperature and humidity level within the wine cellar, the system simply shuts down. The communication is done through the DB15 communication cable. In most cases, it's simply a matter of the communication cable being disconnected. This often occurs when the system is moved.



Reason 1

The DB15 communication cable located behind the CUBE° is either disconnected or not pushed in completely.

Diagnosis:

Inspect the back of the unit to see if the cable is connected properly.

Solution:

Reconnect the cable or push it in completely then tighten the two knobs completely on each side of the connector.

Reason 2

The DB15 communication cable located at the CUBE°'s wall outlet is either disconnected or not pushed in completely.

Diagnosis:

Inspect the wall outlet of the unit to see if the cable is connected properly.

Solution:

Reconnect the cable or push it

System errors

Reason 3

The computer system controlling the CUBE°-RC is defective.

Diagnosis:

Verify that the DB15 communication cable is well connected or that it is still intact.

Solution:

Disconnect the power supply of the unit completely. Wait 30 seconds then reconnect it.

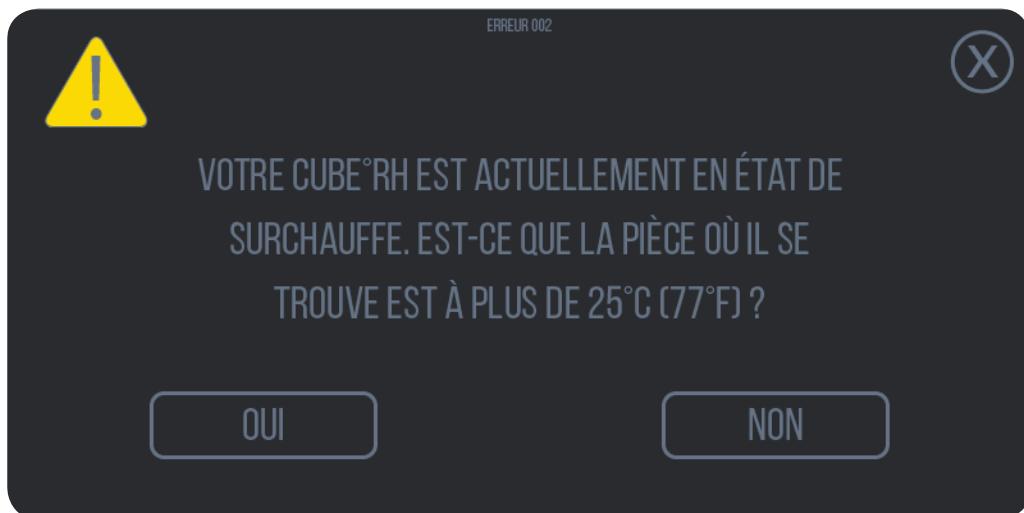
If you cannot find the solution to this problem, please contact your Wine Square authorized dealer or visit www.thewinesquare.com to find the nearest service centre.

System errors

Error 002

The CUBE°-RH is the unit through which the cellar's hot air is returned to the outside environment. Overheating of the CUBE°-RH is not a critical issue. Your system will continue to function. However, the difference in temperature between the CUBE°-RH and the CUBE°-RC must be less than 10 °C for the system to function properly.

If the system was recently started up (less than a day), this situation might simply be caused by the great amount of hot air that must be expelled from your wine cellar. Everything should return to normal in the next few hours. Otherwise, look at the various reasons that may cause this problem and apply the corrective measures.



Reason 1

The room where the CUBE°-RH is located is too warm.

Diagnosis:

The room's temperature where the CUBE°-RH is located must be under 25 °C/77 °F.

Solution:

Ventilate the room where the CUBE°-RH is located to lower its temperature.

If this situation happens regularly, please contact your installer in order to install your CUBE°-RH in a better-ventilated area. Otherwise, contact your heating/air-conditioning expert so that your central system conducts (that push and pull the air) are sized correctly to reflect the added heat coming from your system.

System errors

Reason 2

The CUBE°-RH's power supply is disconnected

Diagnosis:

Take a look at the CUBE°-RH ventilators to see if they are working. To do this, simply select the speaker symbol on the upper right-hand corner of the CUBE°'s main screen. This will take you to the sound control screen. Set the wine cellar's outside ventilators to maximum. You should clearly hear the noise from the ventilators. If this is not the case, you have found the issue.

Solution:

Reconnect the system's black and blue power cord either behind the CUBE°-RH or the CUBE°.

Make sure the power cord is clipped properly otherwise it will disconnect easily.

Reason 3

The CUBE°-RH's air filter is clogged.

Diagnosis:

Do a visual inspection of the air filter located behind the CUBE°-RH (where the tubes are connected). If it's very dirty, you have found the issue.

Solution:

Replace the CUBE°-RH's air filter. Refer to the manual's Maintenance section.

Reason 4

The hot water loop tube is pinched or wedged.

Diagnosis:

Do a visual inspection of the tubes between the CUBE°-RH and the CUBE°. If one of the tubes is bent, pinched or wedged, you have found the issue.

Solution:

Place the tube in a manner that allows the water to circulate properly.

System errors

Reason 5

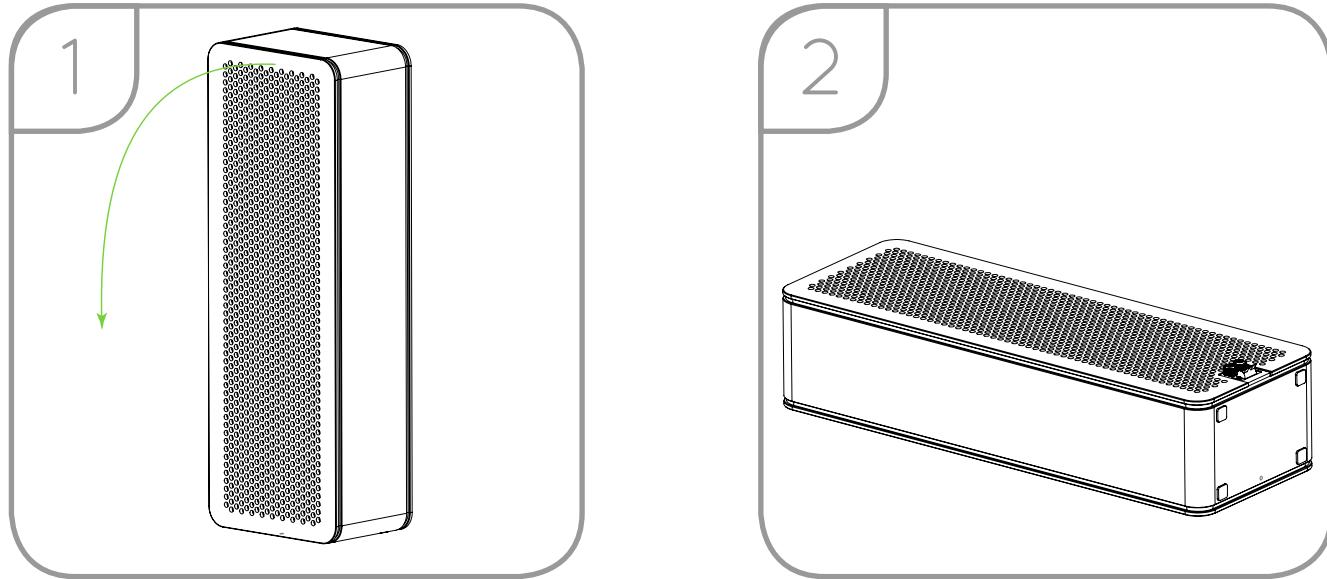
Your CUBE°-RH is full of air.

Diagnosis:

A diagnosis is difficult in this situation. The easiest way to know is to test the solution to see if you hear air bubbles move towards the CUBE°'s hot water tank.

Solution:

Lay the CUBE°-RH face down (front) against the floor. Leave the unit a few minutes in this position. You should be able to hear air bubbles move towards the hot water tank in the first few seconds. If this is not the case, disconnect the CUBE° and reconnect it while leaving the unit in the same position. If you still cannot hear the air bubbles, then the issue does not come from there.

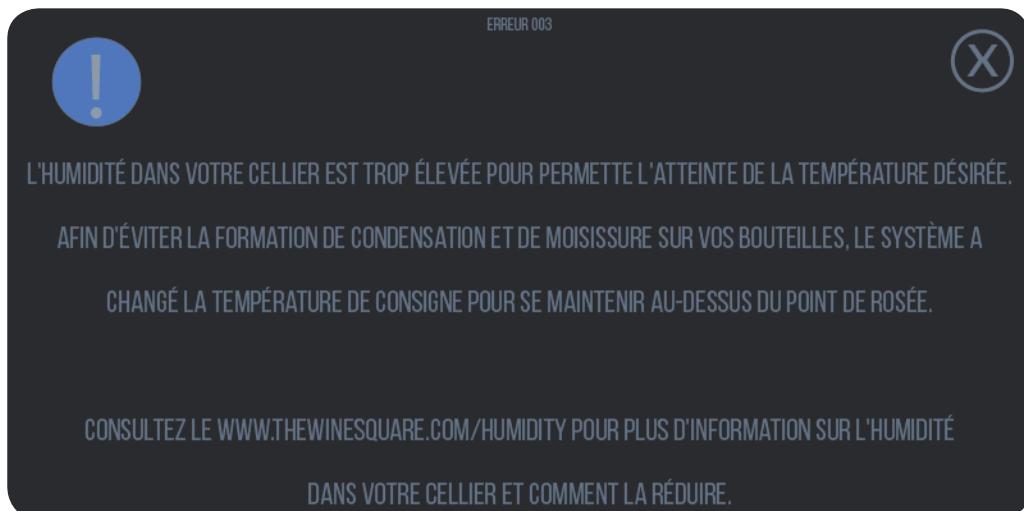


If you cannot find the solution to this problem, please contact your Wine Square authorized dealer or visit www.thewinesquare.com to find the nearest service centre.

System errors

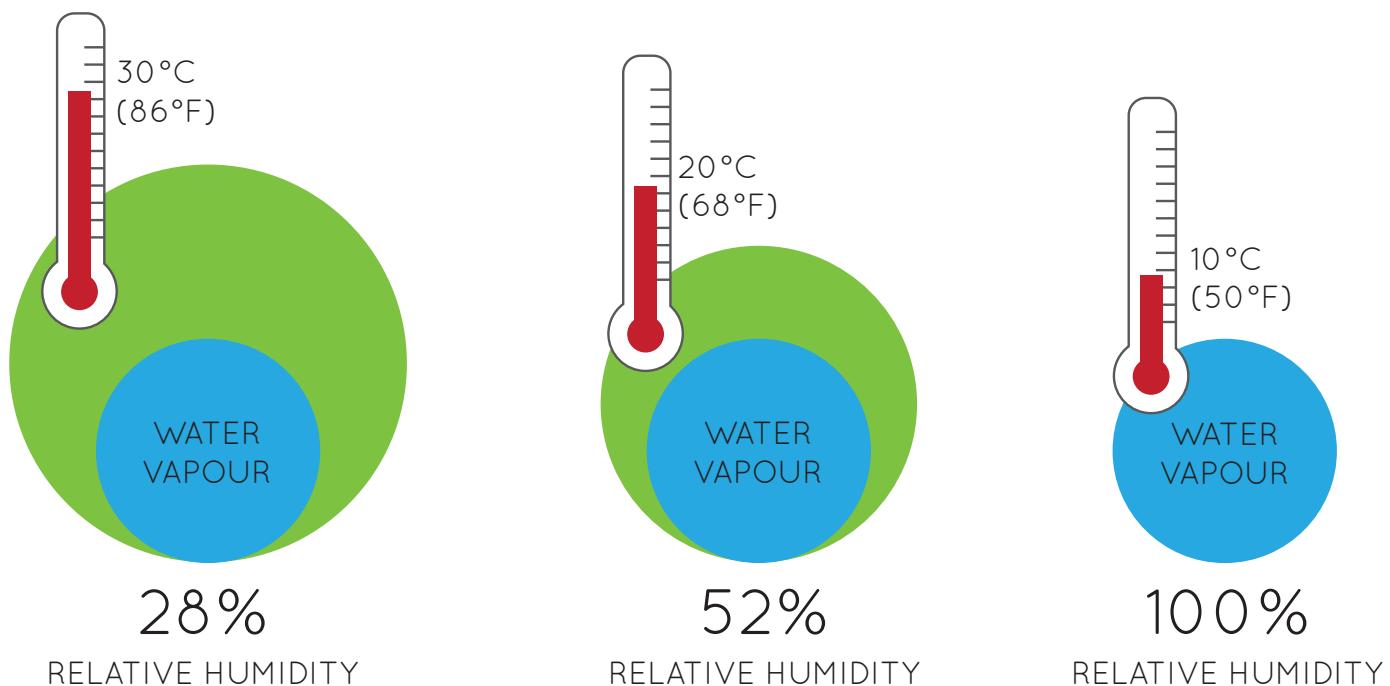
Error 003

This error is not an issue in itself. It's rather a system's warning. In this situation, the control of the temperature is replaced by an algorithm that ensures the system does not condense the water vapour inside the wine cellar. In order to protect your wine bottles, the temperature will adjust itself depending on the humidity level of the cellar (where the CUBE° is located).



Before moving on with the solutions, it's important to fully understand the principle behind relative humidity. Relative humidity is defined as the water vapour content in a given volume of air versus the maximum it could contain at a specific temperature and pressure.

This means that if you inflate two balloons with the air in your home, the relative humidity inside the balloons won't be the same if you put one of them in the refrigerator and the other on the counter. The following picture represents well this principle. The green circle represents the water volume that the air can absorb at a certain



System errors

Since the CUBE° does not dry the air nor does it create humidity, the humidity in your cellar is in fact the humidity level contained in the air inside your home, but simply cooled. The same phenomenon can be found in natural cellars of prestigious châteaux that offer exceptional maturing conditions and are simulated by the CUBE°. The following table represents the humidity inside your cellar depending on the temperature and humidity level inside your home.

	Relative humidity in fonction of the temperature											
HR% at 22°C	18	17	16	15	14	13	12	11	10	9	8	7
70%	88	94	100									
65%	83	88	94	100								
60%	78	83	88	94	100							
55%	73	77	83	88	94	100						
50%	64	68	72	77	82	88	94	100				
45%	56	59	63	68	72	77	82	88	94	100		
40%	49	52	55	59	63	67	72	77	82	87	93	100
35%	46	49	52	55	59	63	67	72	76	82	87	93
30%	40	42	45	48	51	55	58	62	67	71	76	81
25%	32	34	36	39	41	44	47	50	54	58	62	66

If, for example, the temperature inside your home is 22 °C with a 40% humidity level, your cellar will naturally maintain a humidity level of 67% at 13 °C.

	Relative humidity in fonction of the temperature											
HR% at 22°C	18	17	16	15	14	13	12	11	10	9	8	7
70%	88	94	100									
65%	83	88	94	100								
60%	78	83	88	94	100							
55%	73	77	83	88	94	100						
50%	64	68	72	77	82	88	94	100				
45%	56	59	63	68	72	77	82	88	94	100		
40%	49	52	55	59	63	67	72	77	82	87	93	100
35%	46	49	52	55	59	63	67	72	76	82	87	93
30%	40	42	45	48	51	55	58	62	67	71	76	81
25%	32	34	36	39	41	44	47	50	54	58	62	66

For health issues, experts agree that the humidity level in your home should be between 30 and 50%. Under 30%, the air is too dry, above 50% the air becomes polluted (mould growth, increase in allergens). Here are a few possible solutions if the humidity level in your home is too high.

If the air-conditioner is too strong for your home, it will produce a much colder environment without lowering the humidity level, producing a cold and humid environment. Some companies still calculate the power capacity of their air-conditioning with charts that don't represent today's highly insulated buildings. Customers have systems that are much too powerful for their homes. If such is the case, contact your heating/air-conditioning expert.

System errors

Is your air exchange system activated? This unit is used to lower the humidity level of your home. It should not be working when the humidity level outside is greater than the one inside your house. It's important to turn the system off during the hot and humid months of the year. Otherwise, you will never be able to control the humidity level of your home with a system that renews the air completely in less than an hour.

Reason 1

The humidity level of your home is over 50% at a temperature of 22 °C.

Diagnosis:

Using a hygrometer, measure the humidity level of your home. You can also look at the screen of your air-conditioning or air exchange system.

Solution:

If the humidity level is over 50%, it should be reduced for health reasons. Install the dehumidifier outside the wine cellar after making sure the air exchange system is properly closed. Since these devices tend to fill up quickly, choose a unit that is fitted with an outlet that enables you to connect it to a drain.

You do not wish to modify the humidity level of your home? Here are two other solutions:

1- Keep the temperature inside your wine cellar higher during the humid months. It's important to remember that temperatures inside natural European cellars of prestigious châteaux rise up to 18 °C during the summer months. Wines are kept this way for hundreds of years. Refer to the table on the previous page to select the maturing temperature that best suits the humidity level of your home.

Since this situation will almost certainly repeat itself each year during the summer months, why not configure it in your system? Refer to the temperature variation section of the screen to learn how to program this transition from summer to winter months.

2- Contact your Wine Square authorized dealer to learn more on our dehumidifier for your wine cellar. This unit will help you keep a different humidity level in your cellar than the one in your home. It's the perfect solution to stop worrying about what is happening inside the wine cellar.

System errors

Reason 2

The humidity level of your home is below 50% at 22 °C, but you wish to maintain a cooler temperature inside your wine cellar.

Diagnosis:

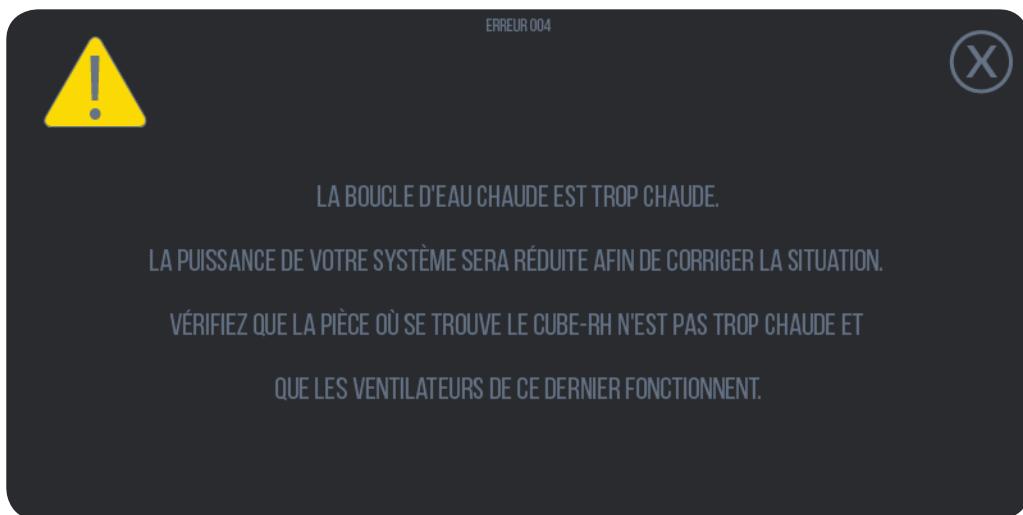
Using a hygrometer, measure the humidity level of your home. You can also look at the screen of your air-conditioning or air exchange system. The humidity level is below 50%, but the system is unable to reach the desired temperature.

Solution:

Although the CUBE° aims to maintain a good maturing temperature, it is possible to use it to keep a cooler maturing temperature. If such is the case, using a dehumidifier will be required. Contact your Wine Square authorized dealer for more information.

Error 004

The temperature of the hot water loop is above the critical value of 51 °C. At this temperature, the CUBE° is unable to function properly. The system's power capacity will be reduced until the situation is restored.



Reason 1

The CUBE°-RH's power supply is disconnected.

Diagnosis:

Take a look at the CUBE°-RH ventilators to see if they are working. To do this, simply select the speaker symbol on the upper right-hand corner of the CUBE°'s main screen. This will take you to the sound control screen. Set the wine cellar's outside ventilators to maximum. You should clearly hear the noise from the ventilators. If this is not the case, you have found the issue.

Solution:

Reconnect the system's black and blue power cord either behind the CUBE°-RH or the CUBE°.

Make sure the power cord is clipped properly otherwise it will disconnect easily.

System errors

Reason 2

The CUBE°-RH's air filter is clogged.

Diagnosis:

Do a visual inspection of the air filter located behind the CUBE°-RH (where the tubes are connected). If it's very dirty, you have found the issue.

Solution:

Replace the CUBE°-RH's air filter. Refer to the manual's Maintenance section.

Reason 3

The hot water loop tube is pinched or wedged.

Diagnosis:

Do a visual inspection of the tubes between the CUBE°-RH and the CUBE°. If one of the tubes is bent, pinched or wedged, you have found the issue.

Solution:

Place the tube in a manner that allows the water to circulate properly.

Reason 4

Your CUBE°-RH is full of air.

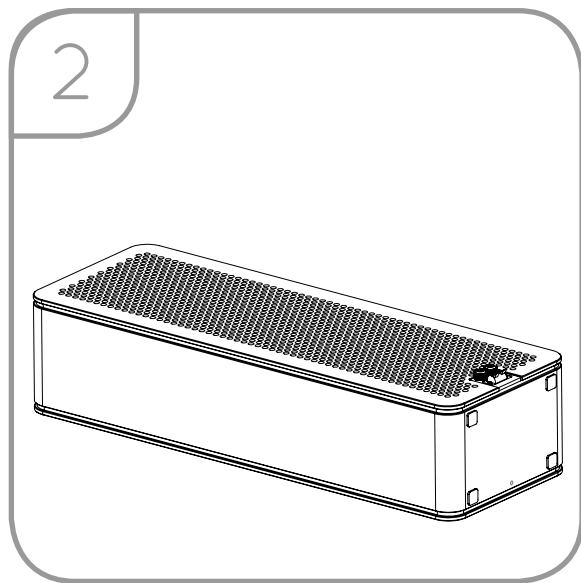
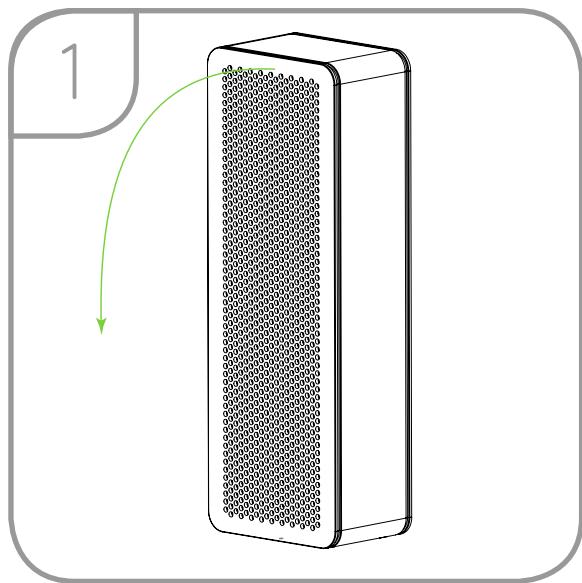
Diagnosis:

A diagnosis is difficult in this situation. The easiest way to know is to test the solution to see if you hear air bubbles move towards the CUBE°'s hot water tank.

Solution:

Lay the CUBE°-RH face down (front) against the floor. Leave the unit a few minutes in this position. You should be able to hear air bubbles move towards the hot water tank in the first few seconds. If this is not the case, disconnect the CUBE° and reconnect it while leaving the unit in the same position. If you still cannot hear the air bubbles, then the issue does not come from there.

System errors

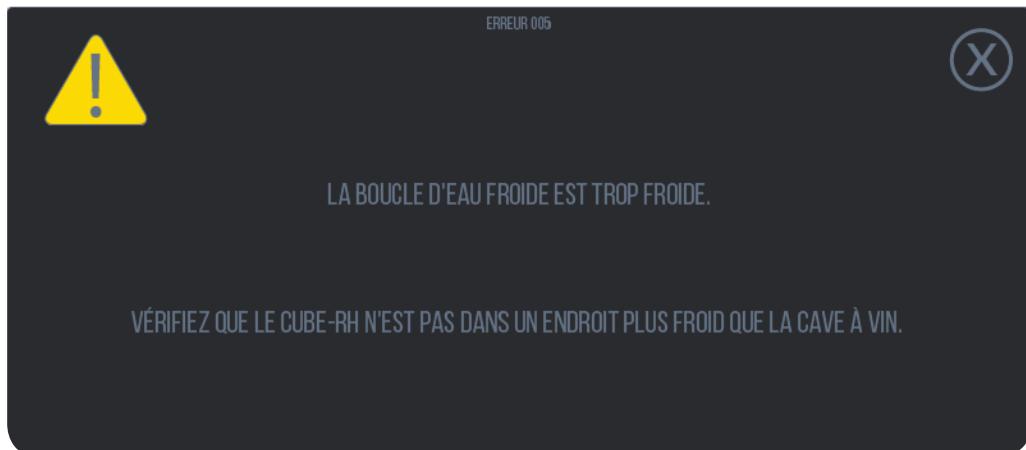


If you cannot find the solution to this problem, please contact your Wine Square authorized dealer or visit www.thewinesquare.com to find the nearest service centre.

System errors

Error 005

The temperature of the cold water loop is under the critical value of 3 °C. At this temperature, the CUBE° is unable to function properly. The system's power capacity will be reduced until the situation is restored.



Reason 1

The room where the CUBE°-RH is located is too cold.

Diagnosis:

Is the CUBE°-RH in a room where the temperature is below 3 °C? If this is the case, you have found the issue.

Solution:

Relocate the CUBE°-RH in a room where the temperature is warmer or heat the room where it is located. It must be placed in a room where the temperature is warmer than the desired temperature for your cellar.

Reason 2

The housing's ventilation openings are clogged.

Diagnosis:

Do a visual inspection of both series of ventilation openings located at the back of the CUBE°.

Solution:

Remove the object or dust that is clogging the ventilation openings.

System errors

Reason 3

The room where the CUBE° is located is too warm.

Diagnosis:

Remove the object or dust that is clogging the ventilation openings.

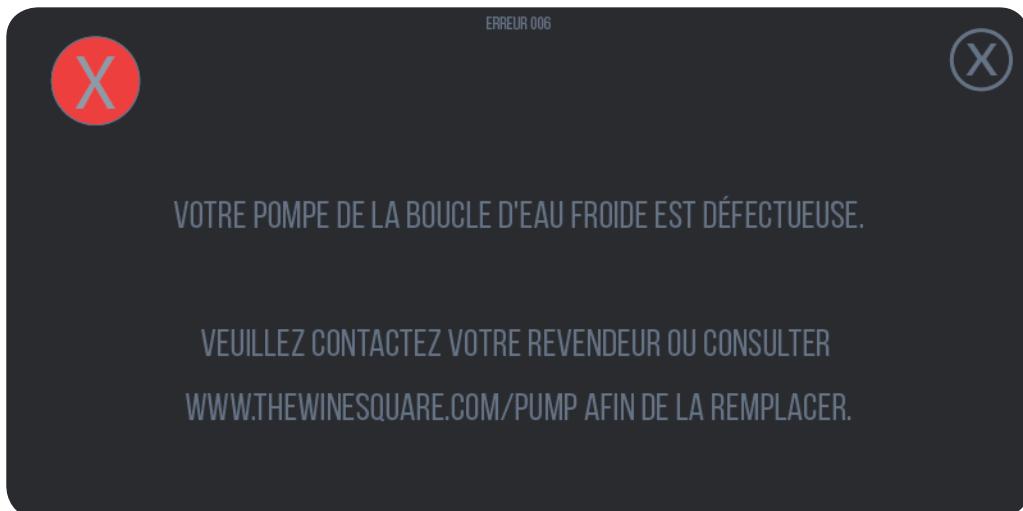
Solution:

Ventilate the room or the cabinet where the CUBE° is located in order to lower the temperature within the limits of use. If the problem occurs often, contact your installer to install a ventilation system or place the CUBE° in another room.

System errors

Error 006

The cold water pump is defective. The system doesn't receive any feedback from the pump. The system will stop to cool the wine cellar until the situation is restored.



Reason 1

The pump is defective.

Diagnosis:

- None -

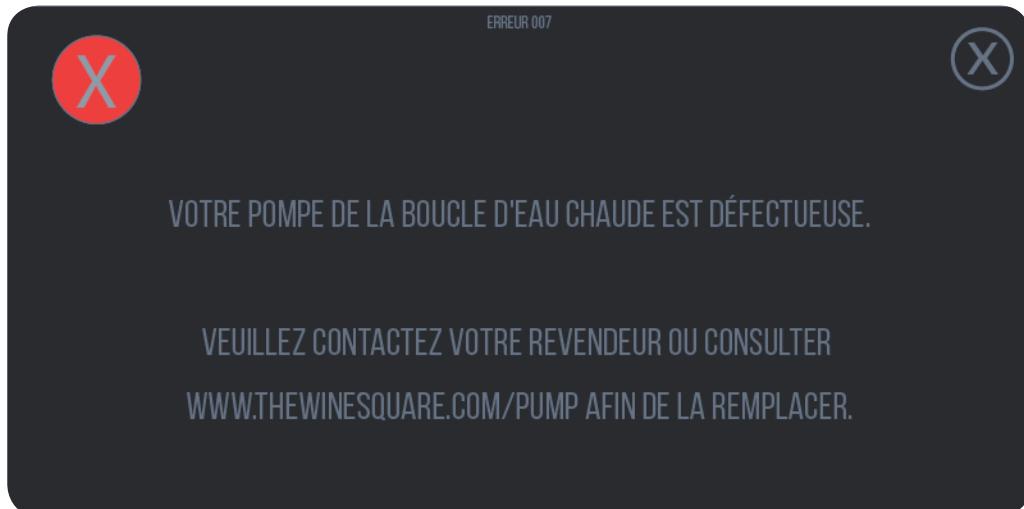
Solution:

Replace the cold water pump. To achieve this, contact your Wine Square authorized dealer. You may also refer to the MAINTENANCE section to learn how to replace the pump. You will need to order part ACC-PUMP-0001 and the cooling liquid additive M108-60.

System errors

Error 007

The hot water pump is defective. The system doesn't receive any feedback from the pump. The system will stop to cool the wine cellar until the situation is restored.



Reason 1

The pump is defective.

Diagnosis:

- None -

Solution:

Replace the hot water pump. To achieve this, contact your Wine Square authorized dealer. You may also refer to the MAINTENANCE section to learn how to replace the pump. You will need to order part ACC-PUMP-0001 and the cooling liquid additive M108-60.

System errors

Error 008

The temperature sensor inside the CUBE°-RC (located inside the wine cellar) does not send any feedback to the system. The system is unable to know what the temperature is inside the cellar, therefore, it cannot control it. The system will stop to cool the wine cellar until the situation is restored.

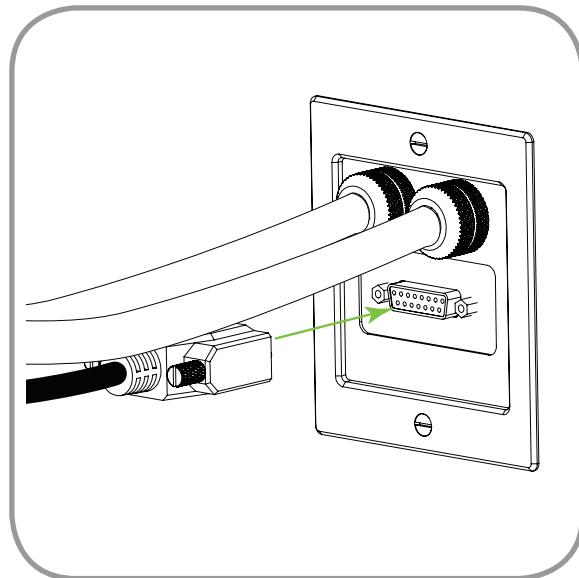
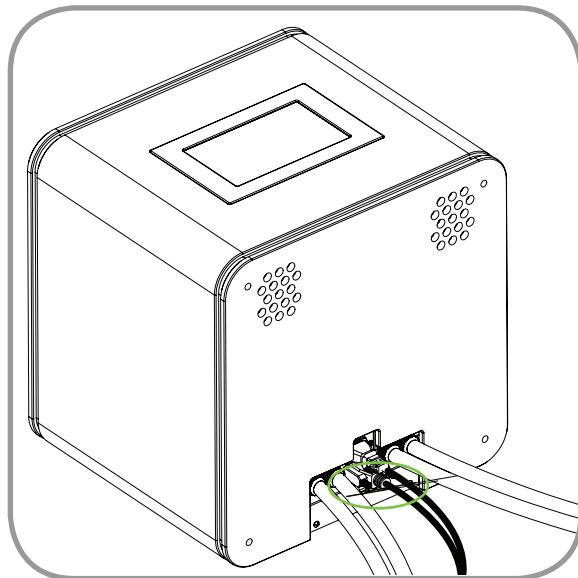


Reason 1

The DB15 communication cable is disconnected.

Diagnosis:

Verify that the communication cable located behind the CUBE°'s housing is well connected. Verify that it's also properly connected to the wall outlet.



System errors

Solution:

Reconnect the communication cable if it is disconnected or not connected properly. Make sure to tighten both of the connector's mounting knobs.

Reason 2

The system's computer has stopped responding.

Diagnosis:

Disconnect the CUBE°'s power supply for 10 seconds. Reconnect the system and look if the error message is still there.

Solution:

If the error message has disappeared, the issue has been corrected. If this situation occurs again, contact your Wine Square authorized dealer. An electronic component from your system might be defective.

Reason 3

The communication cable or the CUBE°-RC's electronic card is defective.

Diagnosis:

The issue was not solved with reasons 1 and 2.

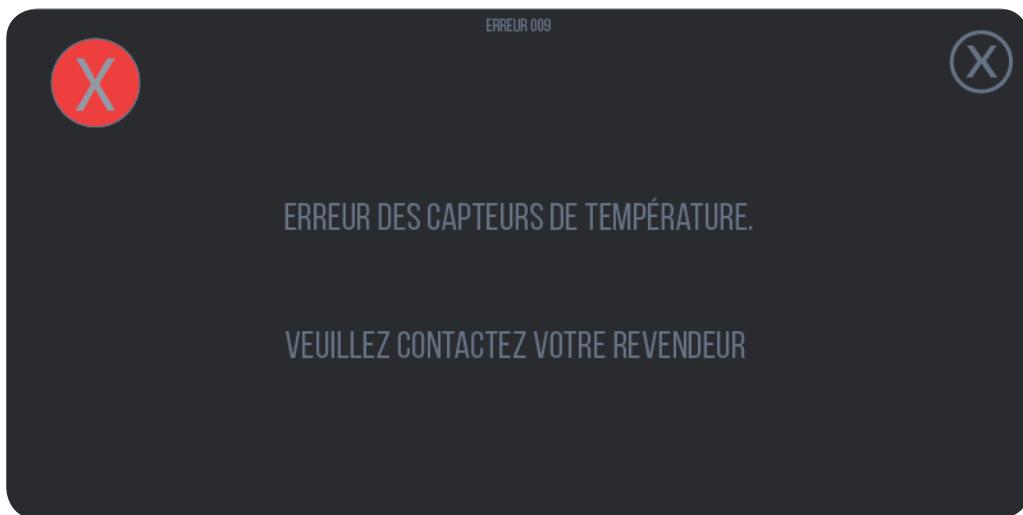
Solution:

Contact your Wine Square authorized dealer. An electronic component from your system might be defective.

System errors

Error 009

The temperature sensor inside the CUBE°-RC (located inside the wine cellar) is defective. It communicates with the system, but it transmits false data. The system is unable to know what the temperature is inside the cellar, therefore it cannot control it. The system will stop to cool the wine cellar until the situation is restored.



Reason 1

The CUBE°-RC's electronic card is defective.

Diagnosis:

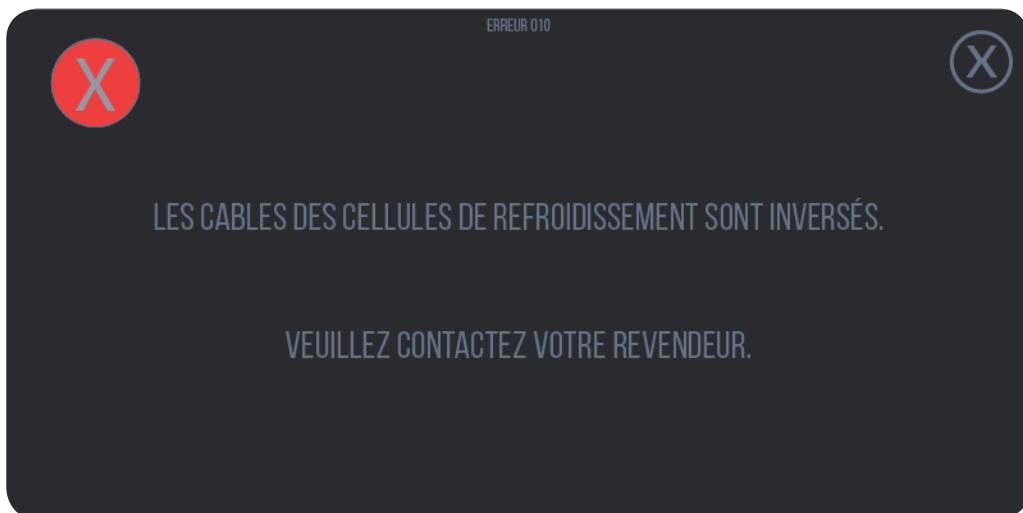
- None -

Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective electronic component.

Error 010

The wires of the E-COOL's air-conditioning units are reversed. The system heats the wine cellar instead of cooling it. This error is not likely to happen with a newly installed system, but it could happen after a technician has serviced the system. The system will stop cooling the wine cellar until the situation is restored.



Reason 1

A wrongful handling of the E-COOL unit wires or temperature sensor for the cold and hot water are reversed.

Diagnosis:

- None -

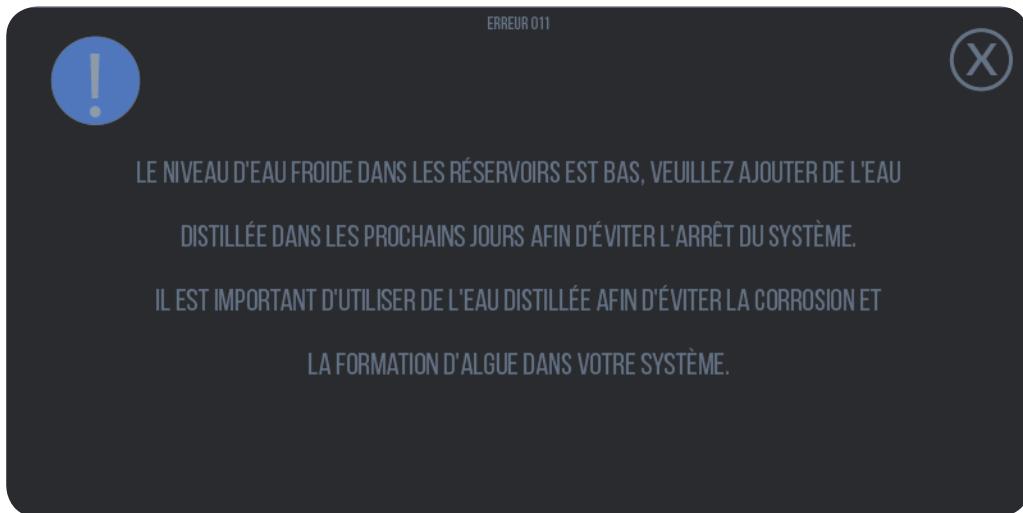
Solution:

Contact your Wine Square authorized dealer. A technician will repair the wrongful connections.

System errors

Error 011

The water level inside the cold water loop has dropped. The system functions normally, but water must be added in the next few weeks to avoid the system's shutdown.



Reason 1

After the system's start-up, small air bubbles might travel towards the water tanks in the first few days of use. This will lower the water level in the tank.

Diagnosis:

The system has been functioning for a few days and there is no leakage.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

Reason 2

If the system has been functioning for the last couple of years, it might be necessary to add water. There is an evaporation process that takes place through the tube walls, just as wine evaporates through the cork.

Diagnosis:

The system has been functioning for the last couple of years and there is no leakage.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

System errors

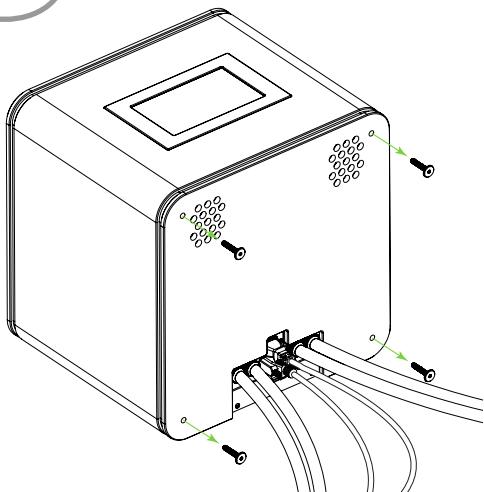
Reason 3

There is a leak somewhere within the system.

Diagnosis:

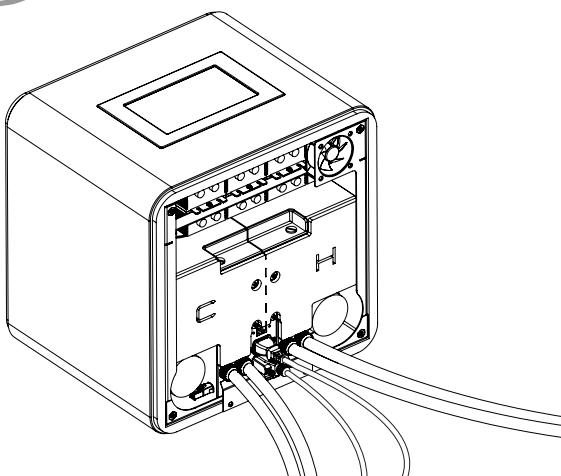
Since the water level is low in the cold water loop, the leak comes from that circuit. Start by looking to see if there is a leak inside the system.

1



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

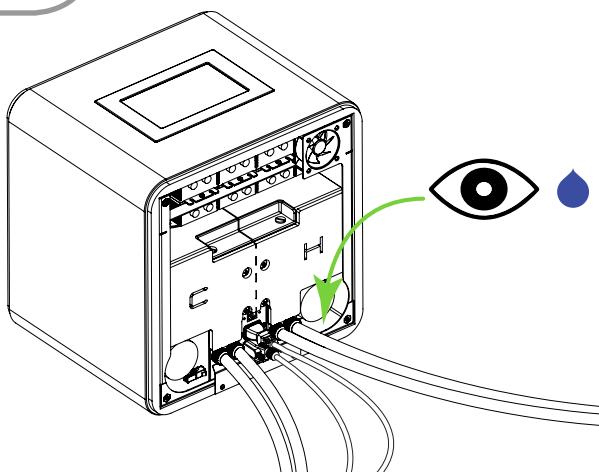
2



Remove the rear plate at the back of the unit.

System errors

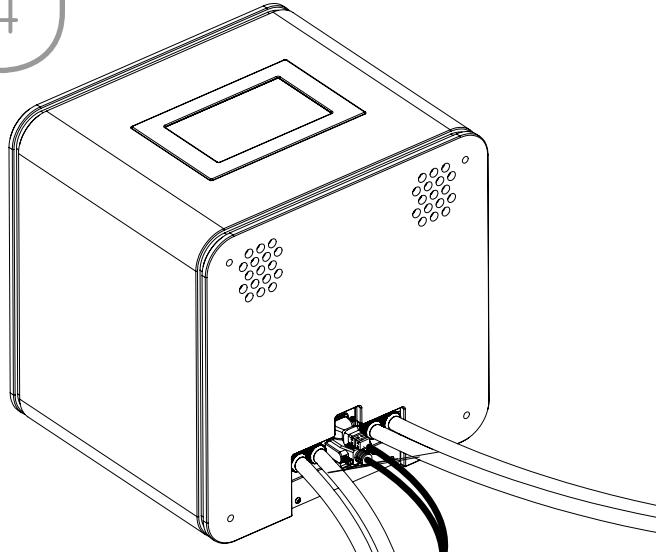
3



Look closely to see if there is water at the bottom of the unit. Carefully tip the CUBE° backward to force the water where you can see it. A few drops of clear water (approximately 50 ml) is not overly concerning. These drops of water are almost certainly caused by the condensation inside the system. If there is a leak, you will find approximately one cup of green or yellow-green water at the bottom of the unit.

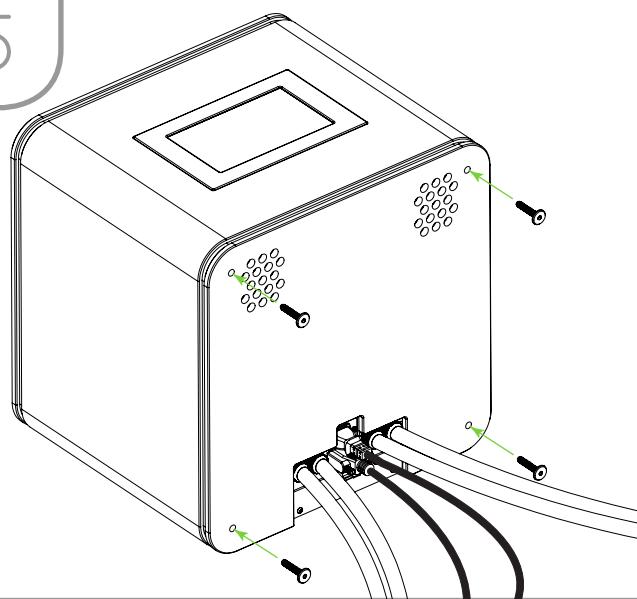
If you find a leak, contact your Wine Square product technician.

4



Replace the rear plate at the back of the CUBE°.

5



Tighten all four mounting bolts of the CUBE°'s rear plate.

System errors

If you do not see water inside the system, then the rest of the circuit must be inspected. Depending on your installation, look along the tubes that link the CUBE° to the CUBE°-RC (inside the cellar) to see if you can find a small amount of green or yellow-green water. A dye is put in both water loops to help detect leaks. Leaks are normally easy to spot.

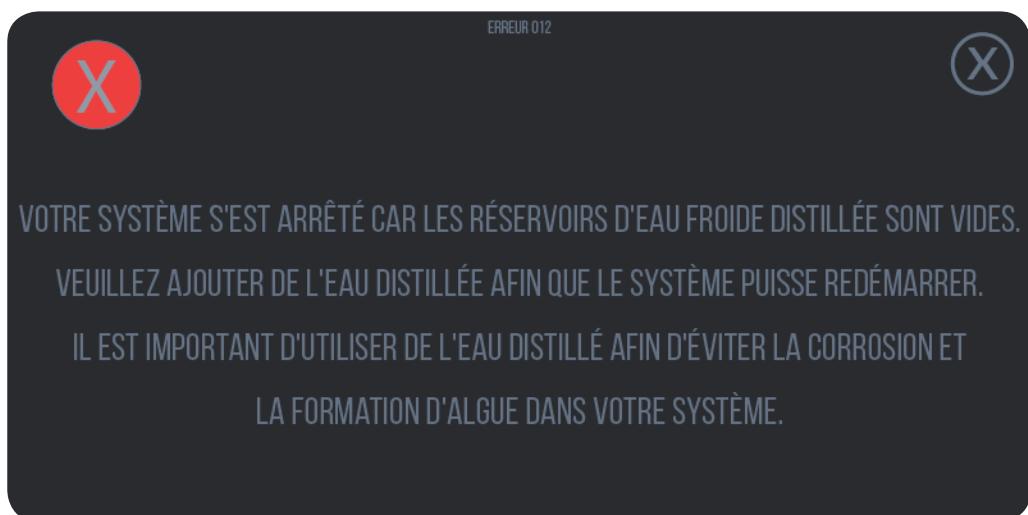
Solution:

If there is a leak, it's important to contact your technician so that the situation may be solved as quickly as possible. Once the situation is solved, water may be added according to the procedures described in the manual's Maintenance section.

System errors

Error 012

The water level inside the cold water tank is insufficient for your system to function. The system will stop until the situation is restored. The 011 error message will appear only if you have not corrected the issue and the message was displayed during several months. If not, then there's a leak in the system.



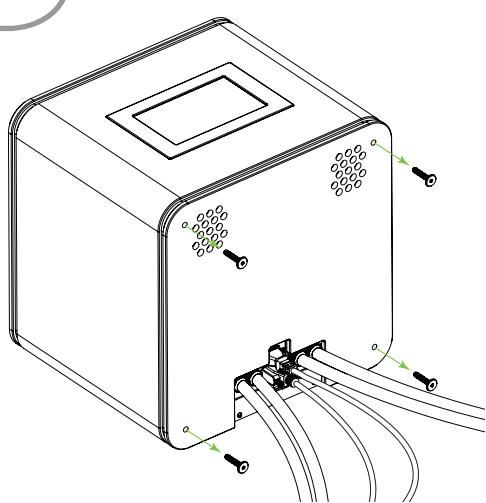
Reason 1

There is a leak somewhere within the system.

Diagnosis:

Since the water level is low in the cold water loop, the leak comes from that circuit. Start by looking to see if there is a leak inside the system.

1

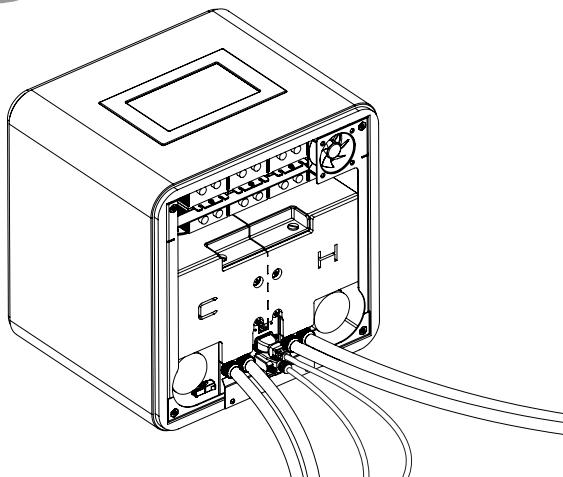


Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

System errors

2

Remove the rear plate at the back of the unit.



3

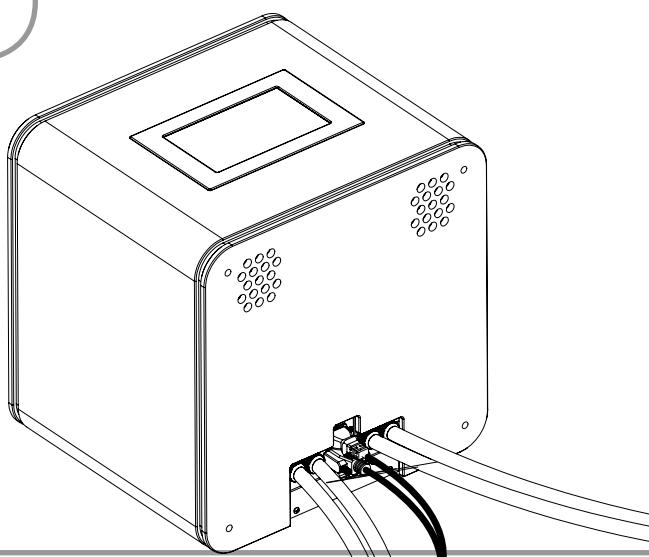
Look closely to see if there is water at the bottom of the unit. Carefully tip the CUBE° backward to force the water where you can see it. A few drops of clear water (approximately 50 ml) is not overly concerning. These drops of water are almost certainly caused by the condensation inside the system. If there is a leak, you will find approximately one cup of green or yellow-green water at the bottom of the unit.



If you find a leak, contact your Wine Square product technician.

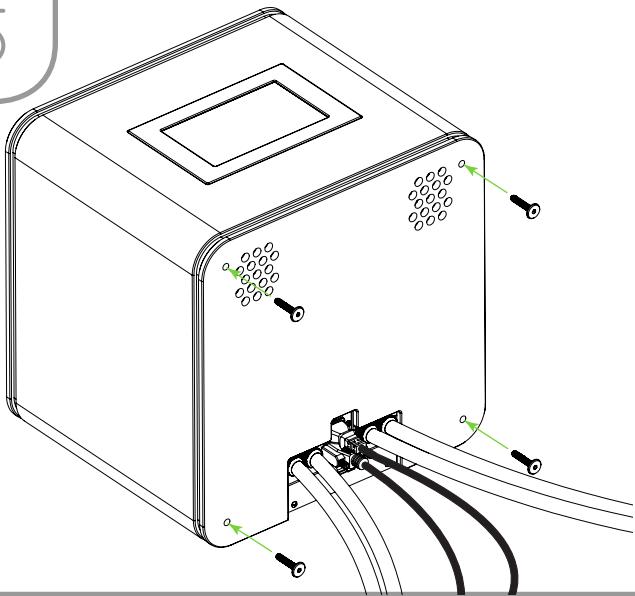
4

Replace the rear plate at the back of the CUBE°.



System errors

5



Tighten all four mounting bolts of the CUBE°'s rear plate.

If you do not see water inside the system, then the rest of the circuit must be inspected. Depending on your installation, look along the tubes that link the CUBE° to the CUBE°-RC (inside the cellar) to see if you can find a small amount of green or yellow-green water. A dye is put in both water loops to help detect leaks. Leaks are normally easy to spot.

Solution:

If there is a leak, it's important to contact your technician so that the situation may be solved as quickly as possible. Once the situation is solved, water may be added according to the procedures described in the manual's Maintenance section.

Reason 2

If the system has been functioning for the last couple of years, it might be necessary to add water. There is an evaporation process that takes place through the tube walls, just as wine evaporates through the cork. However, the 011 error message must be displayed a few months beforehand.

Diagnosis:

The system has been functioning for the last couple of years, the 011 error message was displayed during the last few months, but no leakage can be found.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

Reason 3

The water level sensor is defective.

Diagnosis:

The error message is displayed, but the cold water tank is full.

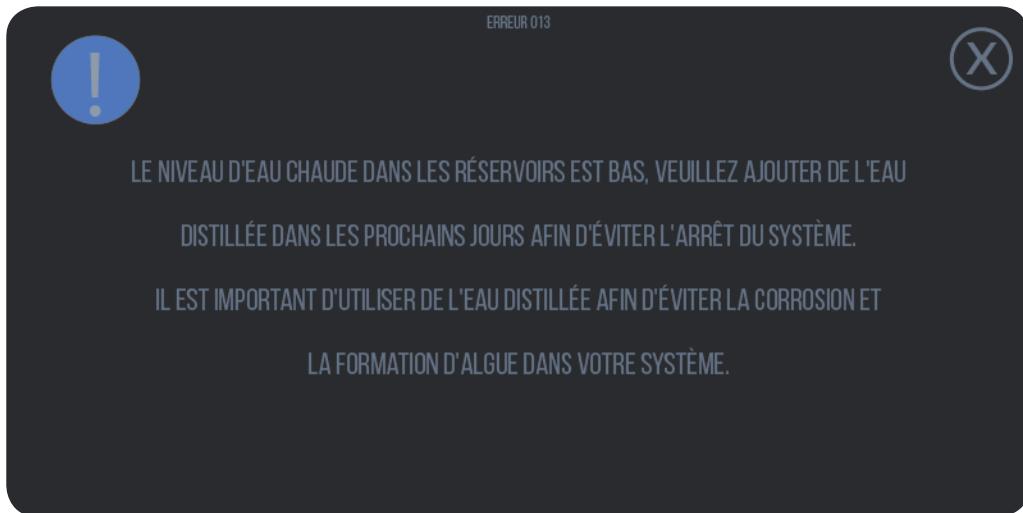
Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective electronic component.

System errors

Error 013

The water level inside the hot water loop has dropped. The system functions normally, but water must be added in the next few weeks to avoid the system's shutdown.



Reason 1

After the system's start-up, small air bubbles might travel towards the water tanks in the first few days of use.

Diagnosis:

The system has been functioning for a few days and there is no leakage.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

Reason 2

If the system has been functioning for the last couple of years, it might be necessary to add water. There is an evaporation process that takes place through the tube walls, just as wine evaporates through the cork.

Diagnosis:

The system has been functioning for the last couple of years and there is no leakage.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

System errors

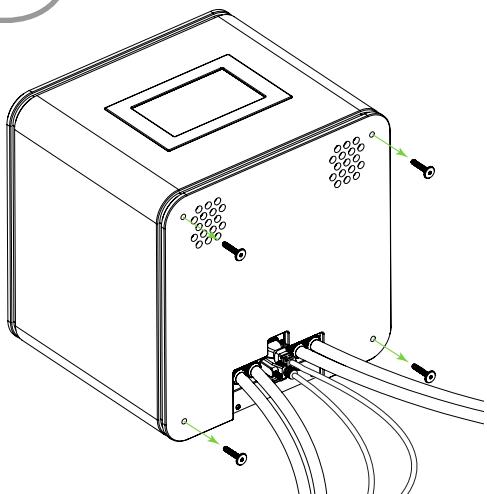
Reason 3

There is a leak somewhere within the system.

Diagnosis:

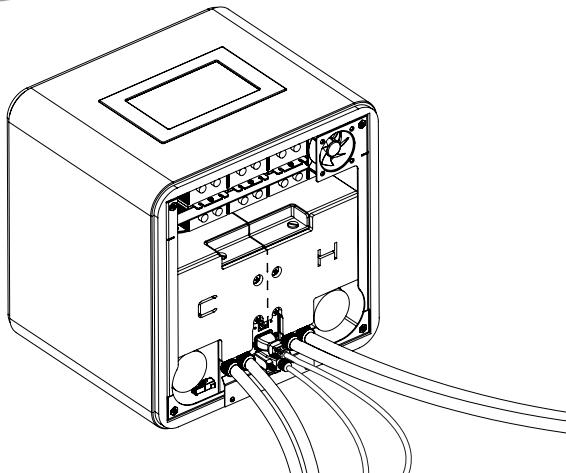
Since the water level is low in the hot water loop, the leak comes from that circuit. Start by looking if the leak comes from inside the system.

1



Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

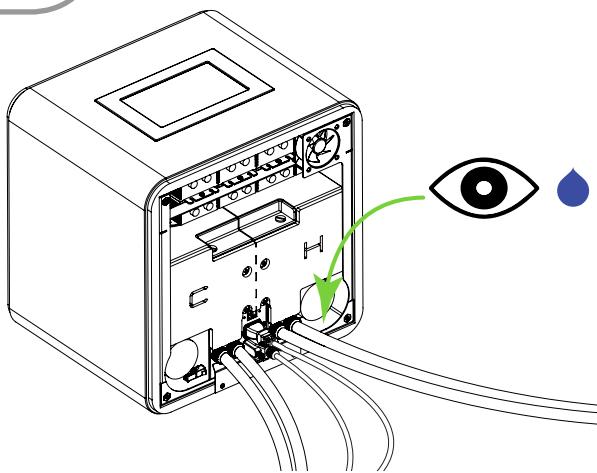
2



Remove the rear plate at the back of the unit.

System errors

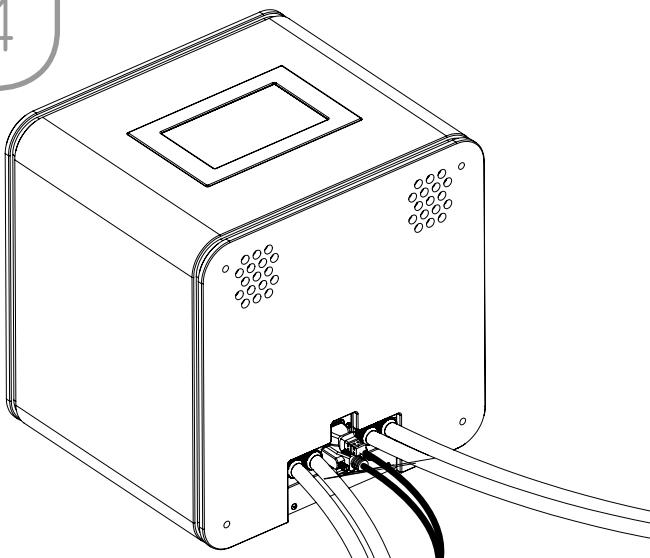
3



Look closely to see if there is water at the bottom of the unit. Carefully tip the CUBE° backward to force the water where you can see it. A few drops of clear water (approximately 50 ml) is not overly concerning. These drops of water are almost certainly caused by the condensation inside the system. If there is a leak, you will find approximately one cup of green or yellow-green water at the bottom of the unit.

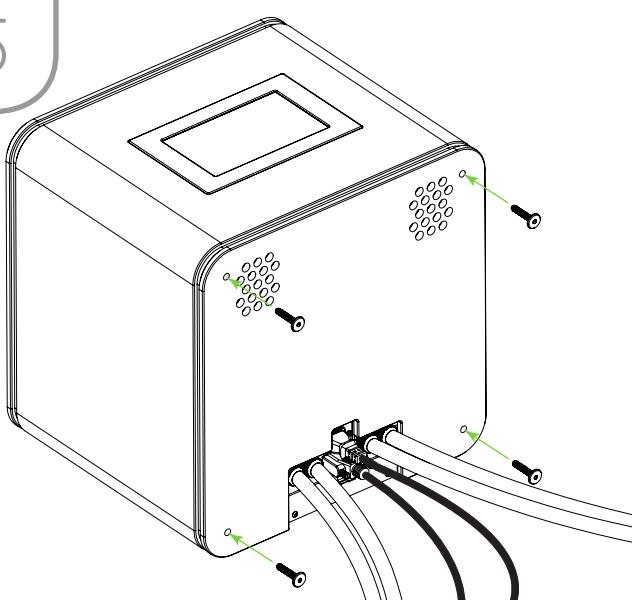
If you find a leak, contact your Wine Square product technician.

4



Replace the rear plate at the back of the CUBE°.

5



Revisser les quatre boulons de fixations de la plaque arrière du CUBE.

System errors

If you do not see water inside the system, then the rest of the circuit must be inspected. Depending on your installation, look along the tubes that link the CUBE° to the CUBE°-RC (outside the cellar) to see if you can find a small amount of green or yellow-green water. A dye is put in both water loops to help detect leaks. Leaks are normally easy to spot.

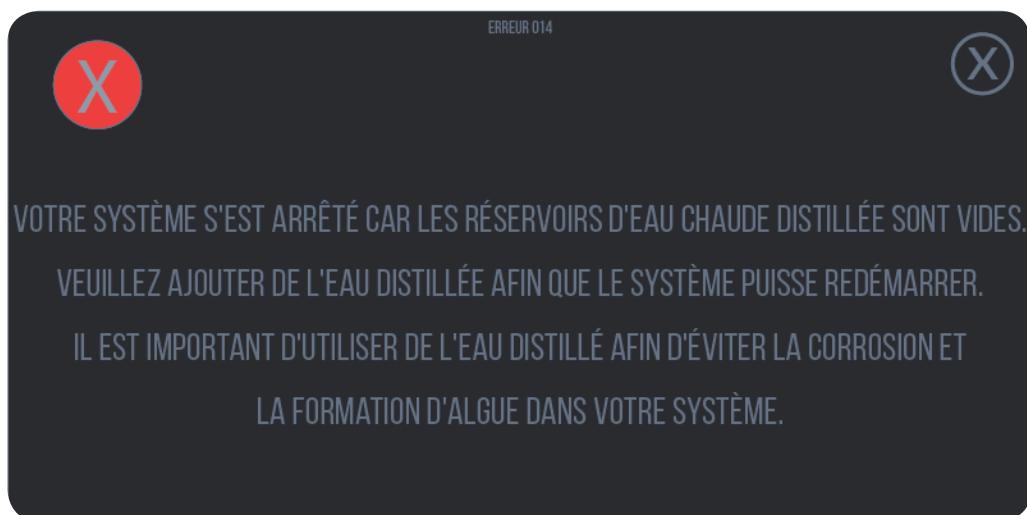
Solution:

If there is a leak, it's important to contact your technician so that the situation may be solved as quickly as possible. Once the situation is solved, water may be added according to the procedures described in the manual's Maintenance section.

System errors

Error 014

The water level inside the hot water tank is insufficient for your system to function. The system will stop until the situation is restored. The 013 error message will appear only if you have not corrected the issue and the message was displayed during several months. If not, then there's a leak in the system.



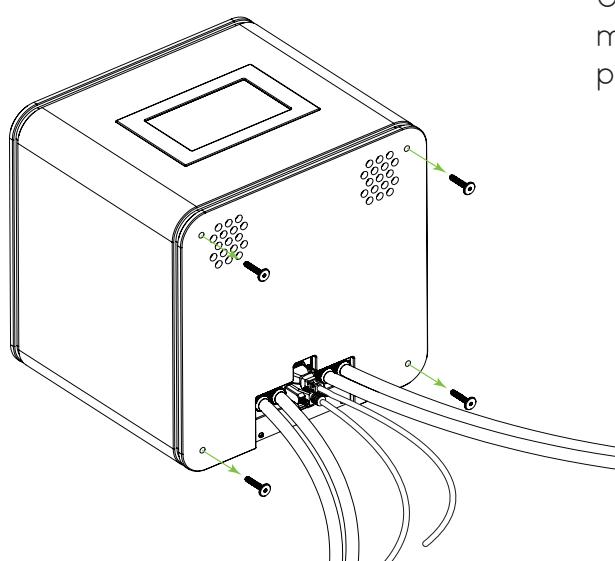
Reason 1

There is a leak somewhere within the system.

Diagnosis:

Since the water level is low in the hot water loop, the leak comes from that circuit. Start by looking if the leak comes from inside the system.

1

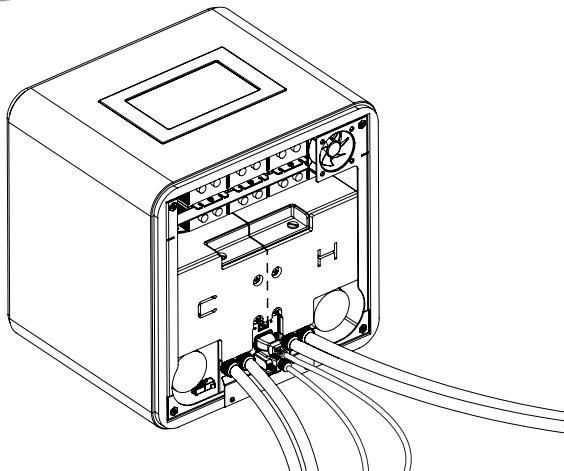


Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

System errors

2

Remove the rear plate at the back of the unit.



3

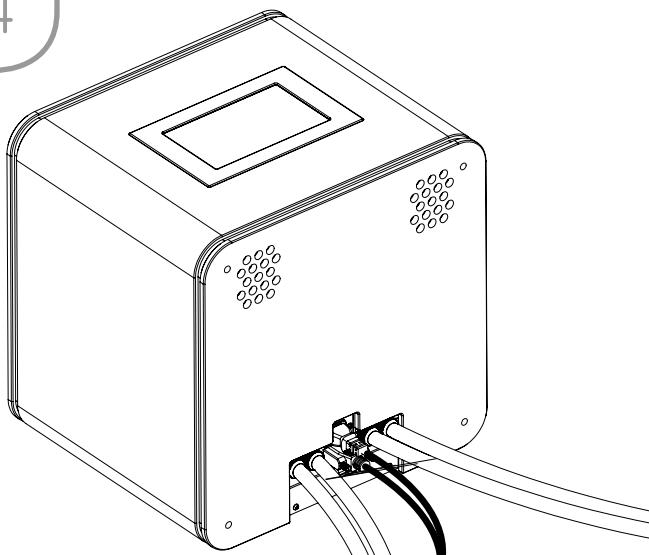
Look closely to see if there is water at the bottom of the unit. Carefully tip the CUBE° backward to force the water where you can see it. A few drops of clear water (approximately 50 ml) is not overly concerning. These drops of water are almost certainly caused by the condensation inside the system. If there is a leak, you will find approximately one cup of green or yellow-green water at the bottom of the unit.



If you find a leak, contact your Wine Square product technician.

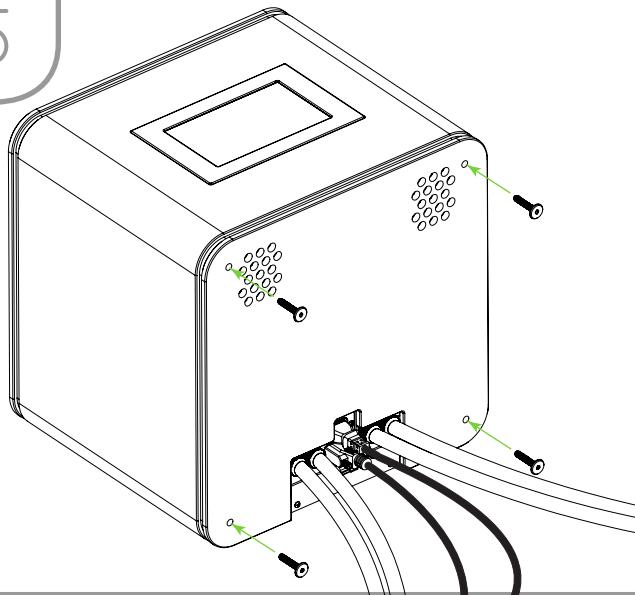
4

Replace the rear plate at the back of the CUBE°.



System errors

5



Tighten all four mounting bolts of the CUBE°'s rear plate.

If you do not see water inside the system, then the rest of the circuit must be inspected. Depending on your installation, look along the tubes that link the CUBE° to the CUBE°-RC (outside the cellar) to see if you can find a small amount of green or yellow-green water. A dye is put in both water loops to help detect leaks. Leaks are normally easy to spot.

Solution:

If there is a leak, it's important to contact your technician so that the situation may be solved as quickly as possible. Once the situation is solved, water may be added according to the procedures described in the manual's Maintenance section.

Reason 2

If the system has been functioning for the last couple of years, it might be necessary to add water. There is an evaporation process that takes place through the tube walls, just as wine evaporates through the cork. However, the 013 error message must be displayed a few months beforehand.

Diagnosis:

The system has been functioning for the last couple of years, the 013 error message was displayed during the last few months, but no leakage can be found.

Solution:

Refer to the procedures for adding water in the manual's Maintenance section.

Reason 3

The water level sensor is defective.

Diagnosis:

The error message was displayed, but the hot water tank is full.

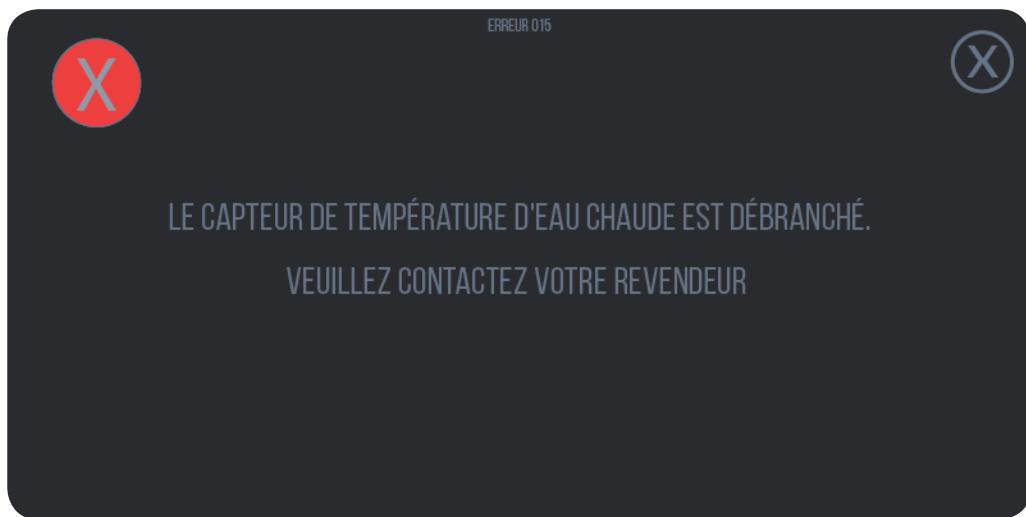
Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective electronic component.

System errors

Error 015

The hot water loop sensor cannot transmit its signal to the computer control system. In this case, the CUBE° is unable to function properly and cannot cool your wine cellar. The system will stop until the situation is restored.

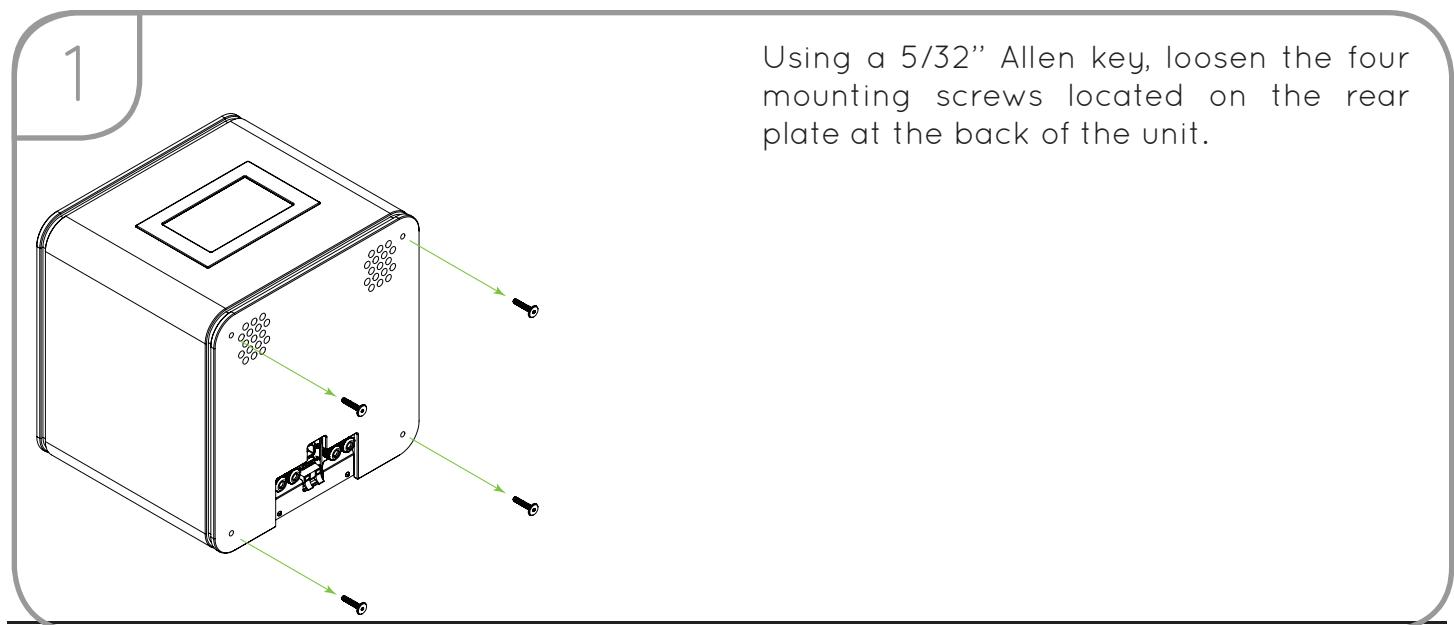


Reason 1

The temperature sensor is disconnected or defective.

Diagnosis:

Open the housing and see if the sensor is connected properly. If the sensor is disconnected, reconnect it. If the sensor is still connected, then it is defective.

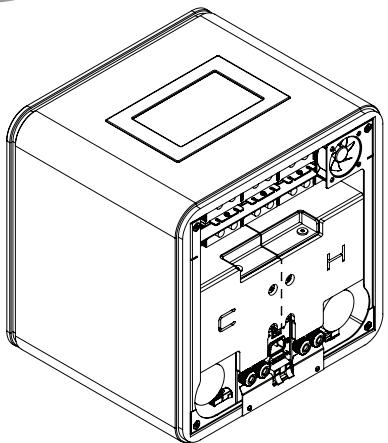


Using a 5/32" Allen key, loosen the four mounting screws located on the rear plate at the back of the unit.

System errors

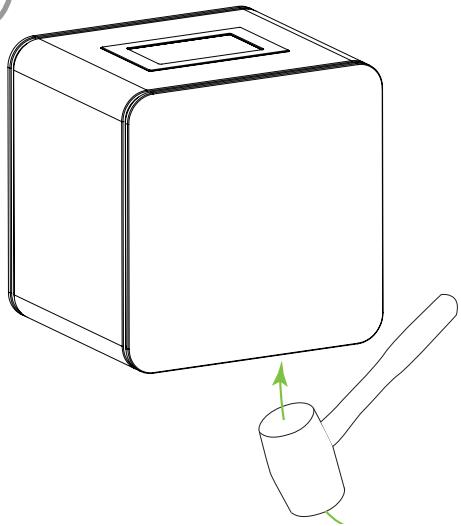
2

Remove the rear plate at the back of the unit.



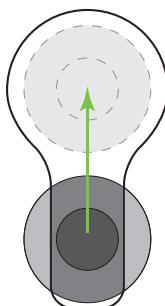
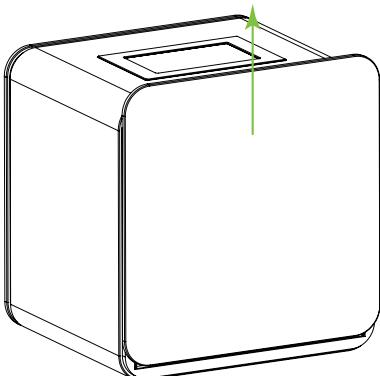
3

Using a white rubber mallet, strike underneath the CUBE°'s front plate to remove it.



4

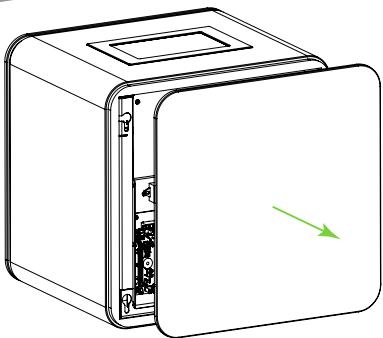
Remove the CUBE°'s front plate. The CUBE°'s front plate is kept in place by four mushroom-looking parts located in key-shaped slots.



System errors

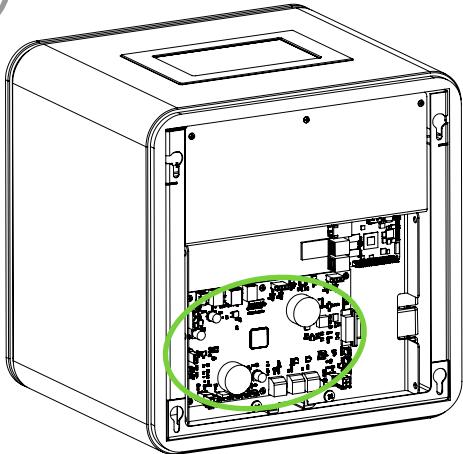
5

Remove the front plate by pulling towards you.



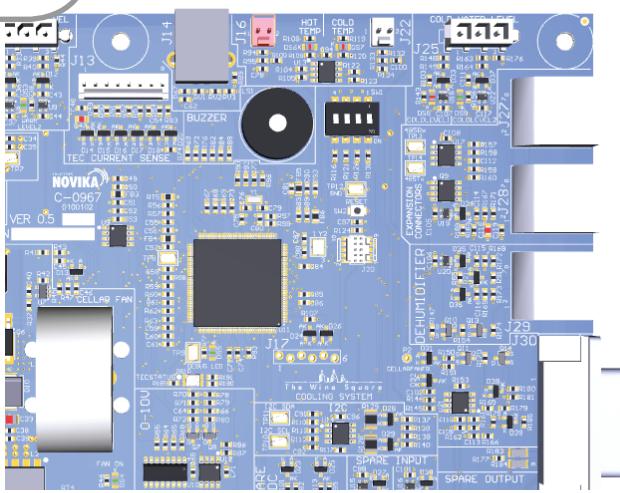
6

Identify the system's key electronic card.



7

Identify the hot water temperature sensor connector (in red in the picture).



System errors

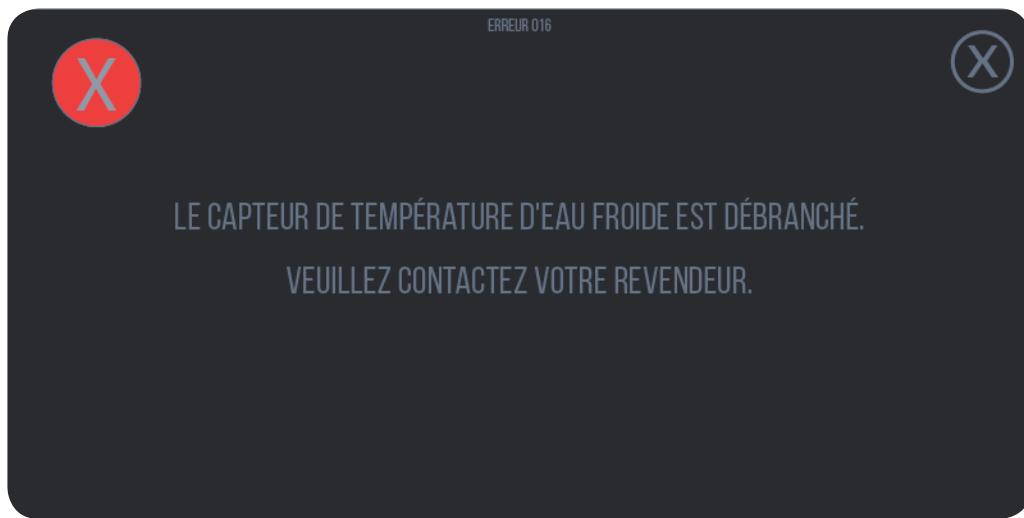
Solution:

If the wire for the temperature sensor is not connected properly, reconnect it.

If the wire for the temperature sensor is connected properly, contact your Wine Square authorized dealer. He will replace the component (SEN-AP008G).

Error 016

The cold water loop sensor cannot transmit its signal to the computer control system. In this case, the CUBE° is unable to function properly and cannot cool your wine cellar. The system will stop until the situation is restored.

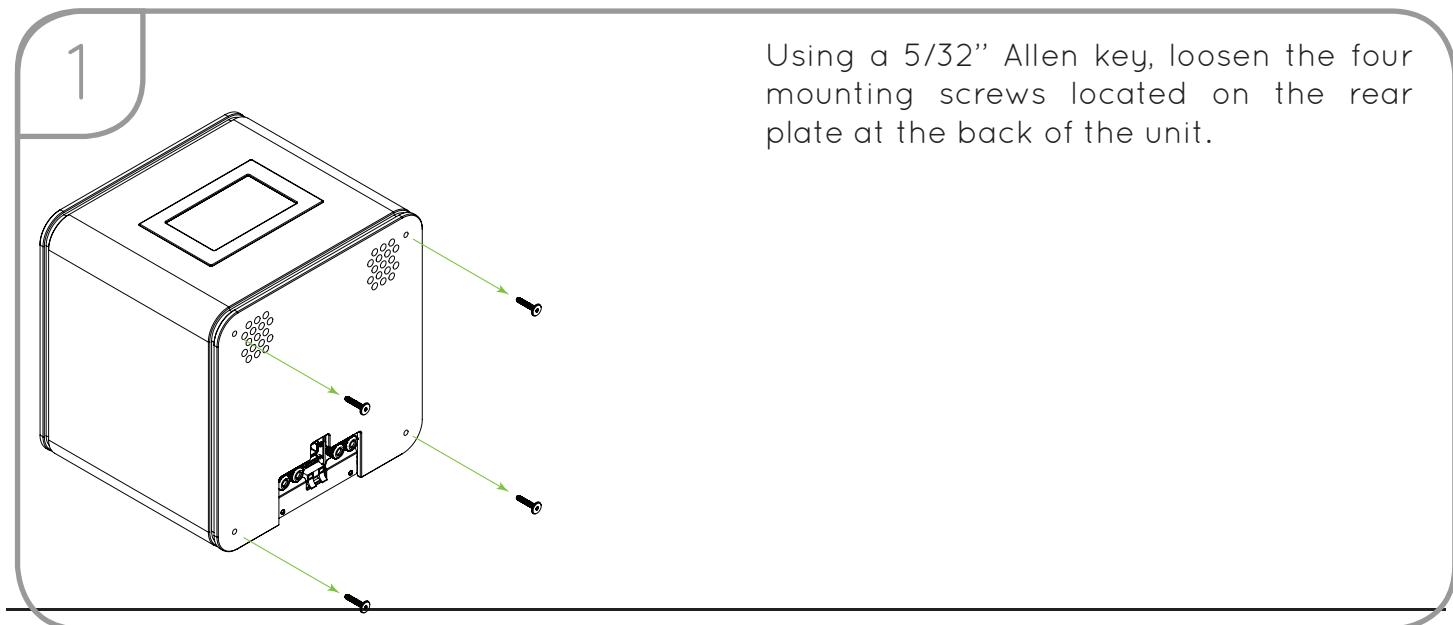


Reason 1

The temperature sensor is disconnected or defective.

Diagnosis:

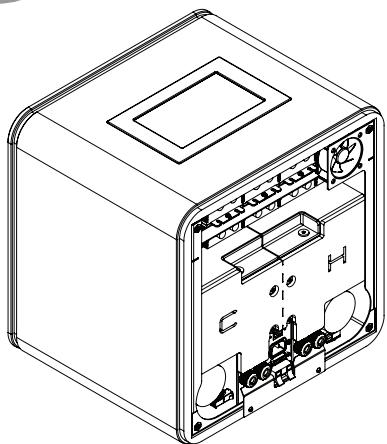
Open the housing and see if the sensor is connected properly. If the sensor is disconnected, reconnect it. If the sensor is still connected, then it is defective.



System errors

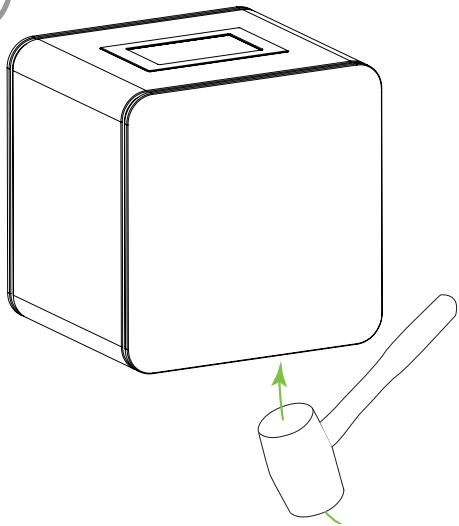
2

Remove the rear plate at the back of the unit.



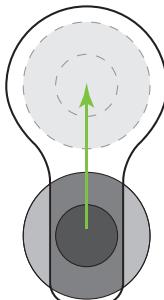
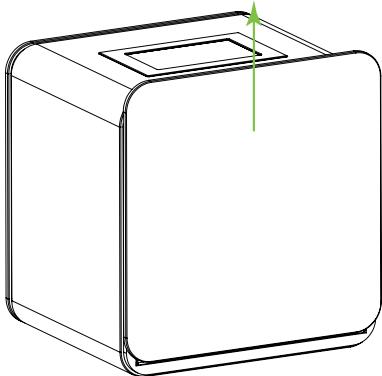
3

Using a white rubber mallet, strike underneath the front plate of the CUBE° to remove it.



4

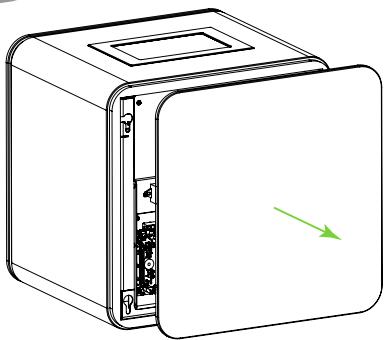
Remove the CUBE°'s front plate. The CUBE°'s front plate is kept in place by four mushroom-looking parts located in key-shaped slots.



System errors

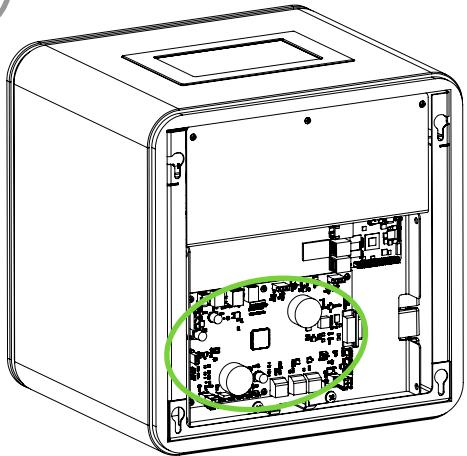
5

Remove the front plate by pulling towards you.



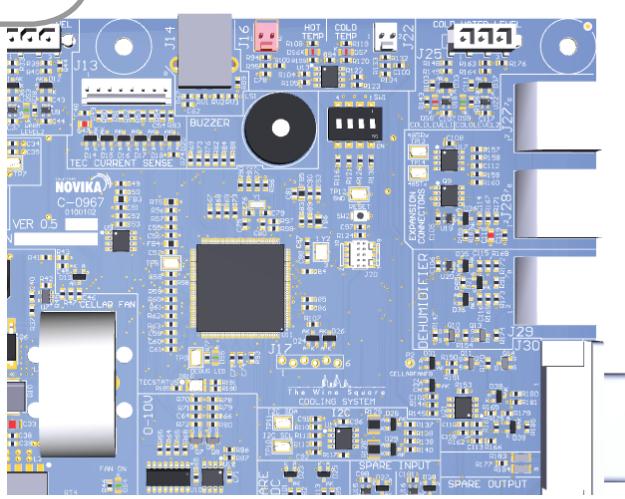
6

Identify the system's key electronic card.



7

Identify the cold water temperature sensor connector (in red in the picture).



System errors

Solution:

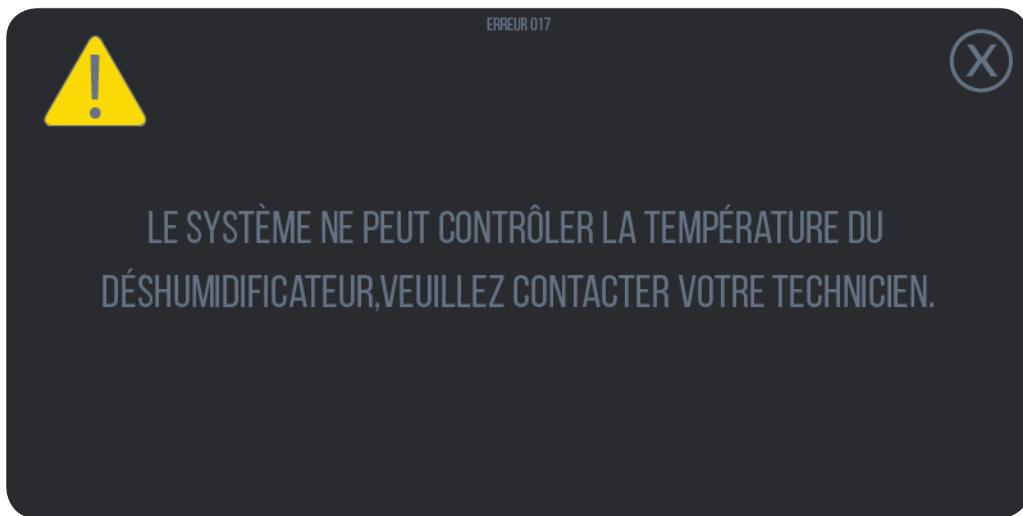
If the wire for the temperature sensor is not connected properly, reconnect it.

If the wire for the temperature sensor is connected properly, contact your Wine Square authorized dealer. He will replace the component (SEN-AP008G).

System errors

Error 017

The dehumidifier is controlled by the CUBE°'s electronics. If the CUBE° is unable to detect the dehumidifier's internal temperature and is unable to control it. The dehumidifier will stop working.



Reason 1

The DB15 communication cable is not connected properly.

Diagnosis:

Verify that the dehumidifier DB15 communication cable is connected properly in the wall and behind the CUBE°. The DB15 communication cable is made of a RJ45 wire (same type of wire used to connect your computer to Internet).

Solution:

If the DB15 communication cable is not connected properly, simply reconnect to correct the issue.

Reason 2

The DB15 communication cable is damaged.

Diagnosis:

Use another DB15 communication cable to connect the Cube° to the dehumidifier.

Solution:

If the issue is solved using the new DB15 communication cable, then the old one is defective. Throw it away.

System errors

Reason 3

The dehumidifier temperature sensor is damaged.

Diagnosis:

The other solutions do not solve the issue.

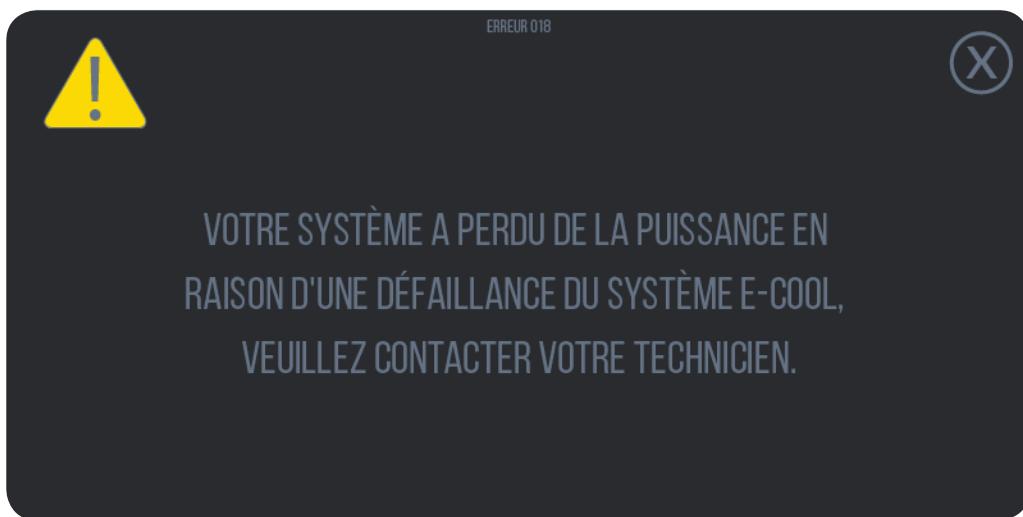
Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective component.

System errors

Error 018

One of the power units inside the CUBE° is damaged. There are more than one power unit inside the system. The CUBE° will continue to function, but its power capacity will be reduced. Replace the defective component to restore your system's full power capacity.



Reason 1

An E-COOL module is defective.

Diagnosis:

- None -

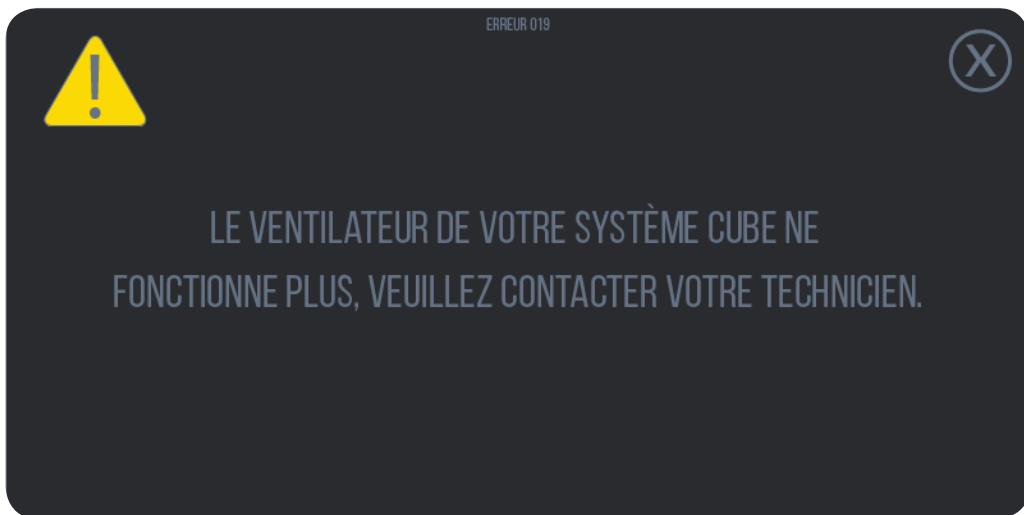
Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective electronic component (ECH-A001).

System errors

Error 019

The ventilator located inside the CUBE° is not functioning. The system still functions, but it might overheat. The situation must be solved rapidly.



Reason 1

An item prevents the ventilator from turning.

Diagnosis:

At the back of the CUBE°, verify if an item prevents the ventilator from turning. Look through the small holes at the top right-hand corner of the plate behind the CUBE°.

Solution:

Remove the item that keeps the ventilator from turning.

Reason 2

The ventilator is damaged.

Diagnosis:

Reason 1 did not correct the issue.

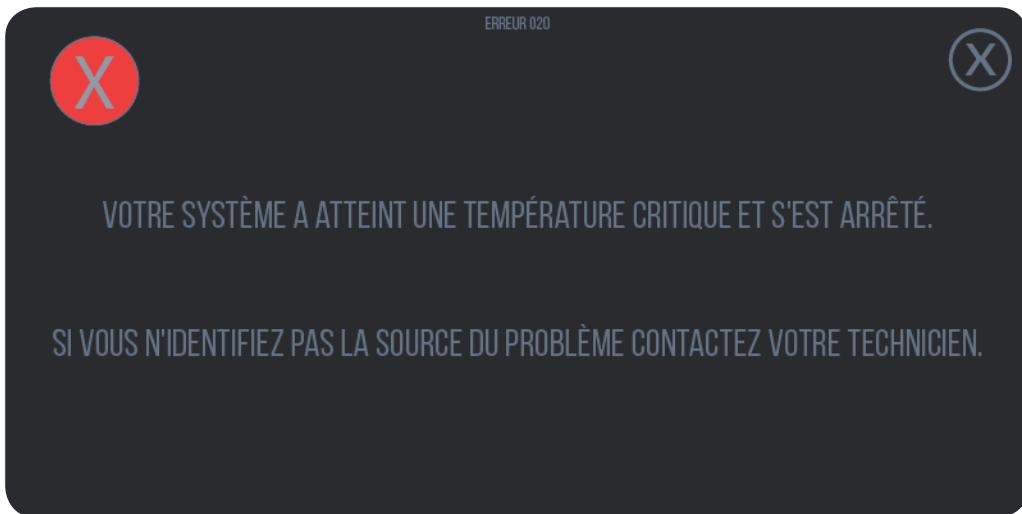
Solution:

Contact your Wine Square authorized dealer. A technician will replace the defective component (NF-A6X25 FLX).

System errors

Error 020

The temperature inside the CUBE° has reached the critical value (50 °C). In this situation, the system stops functioning to prevent damaging the content of the cellar.



Reason 1

Something is clogging the system's ventilation.

Diagnosis:

Verify that the CUBE°'s housing is in a well-ventilated room and that all ventilation openings are not clogged.

Solution:

Remove any item that might clog the system's ventilation.

Reason 2

An internal component is defective.

Diagnosis:

Nothing was found that could reduce the system's ventilation and the system is in a room where the temperature is underneath 25 °C.

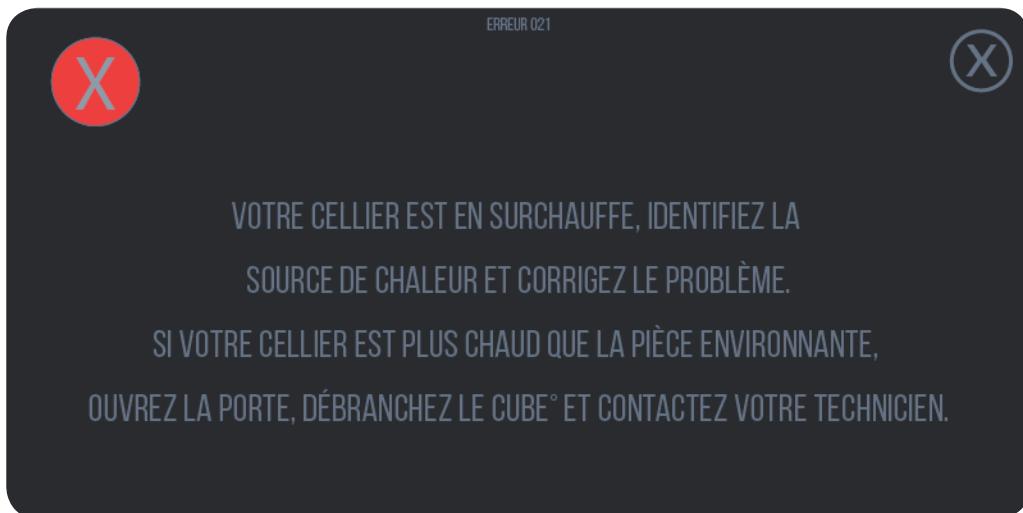
Solution:

Contact your Wine Square authorized dealer. A technician will need to evaluate your system to find the source of the overheating.

System errors

Error 021

The temperature inside the wine cellar has reached the critical value (24 °C). In this situation, the system stops functioning to prevent damaging the content of the cellar. It might be due to a system failure.



Reason 1

The CUBE° is defective or a heat source is located inside the wine cellar.

Diagnosis:

Identify the heat source responsible for the temperature increase in the cellar.

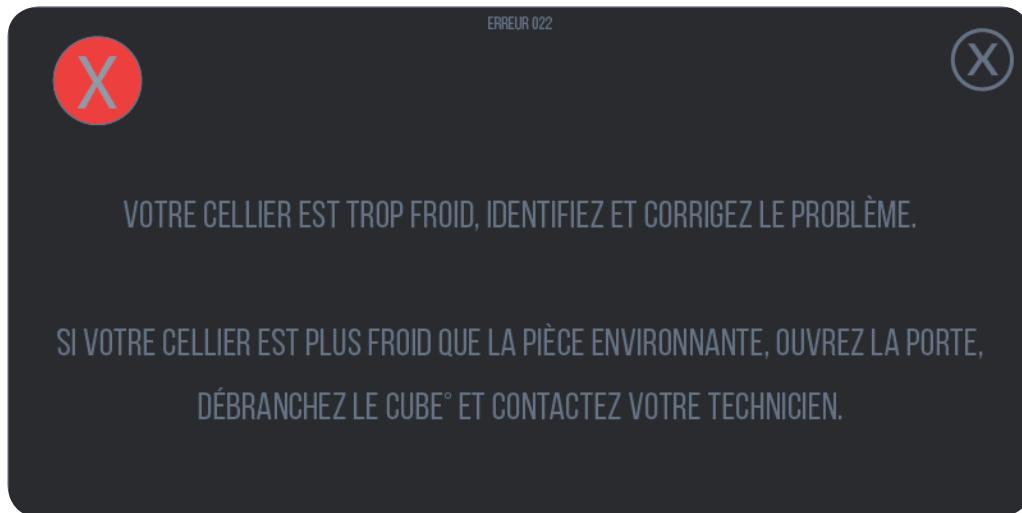
Solution:

If you cannot clearly identify the heat source responsible for this issue, contact your Wine Square authorized dealer. A technician will need to evaluate your system.

System errors

Error 022

The temperature inside the wine cellar has reached the critical point (1 °C). In this situation, the system stops functioning to prevent damaging the content of the cellar. It might be due to a system failure.



Reason 1

The CUBE° is defective or a cold source is located inside the wine cellar.

Diagnosis:

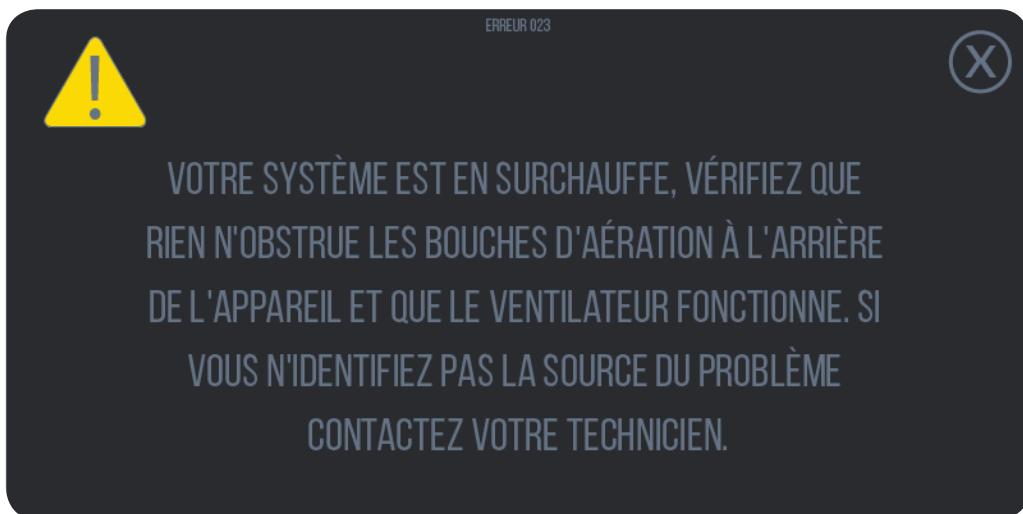
Identify the cold source responsible for the temperature decrease in the cellar.

Solution:

If you cannot clearly identify the cold source responsible for this issue, contact your Wine Square authorized dealer. A technician will need to evaluate your system.

Error 023

The temperature inside the CUBE°'s housing has reached the critical value (35 °C). At this temperature, the system protects itself by alternately supplying power to the different E-COOL modules inside your system. By doing so, your system loses some air-conditioning power capacity. The system is still functioning, but not at its full power capacity. Please correct this situation.



Reason 1

The ventilator located at the back of the CUBE° has stopped functioning.

Diagnosis:

Place your hand at the back of the CUBE° in front of the top two corners. You should feel some air movement coming from the ventilator.

Solution:

Remove the rear plate at the back of the CUBE°. You will need to replace the ventilator if it has stopped functioning while not being clogged.

The ventilator part number is the following: XXXXXXX

Reason 2

The housing's ventilation openings are clogged.

Diagnosis:

Do a visual inspection of both series of ventilation openings located at the back of the CUBE°.

Solution:

Remove the object or dust that is clogging the ventilation openings.

System errors

Reason 3

The room where the CUBE° is located is too warm.

Diagnosis:

Verify the room's temperature or the one inside the cabinet where the CUBE° is located. The temperature must be 25 °C or less.

Solution:

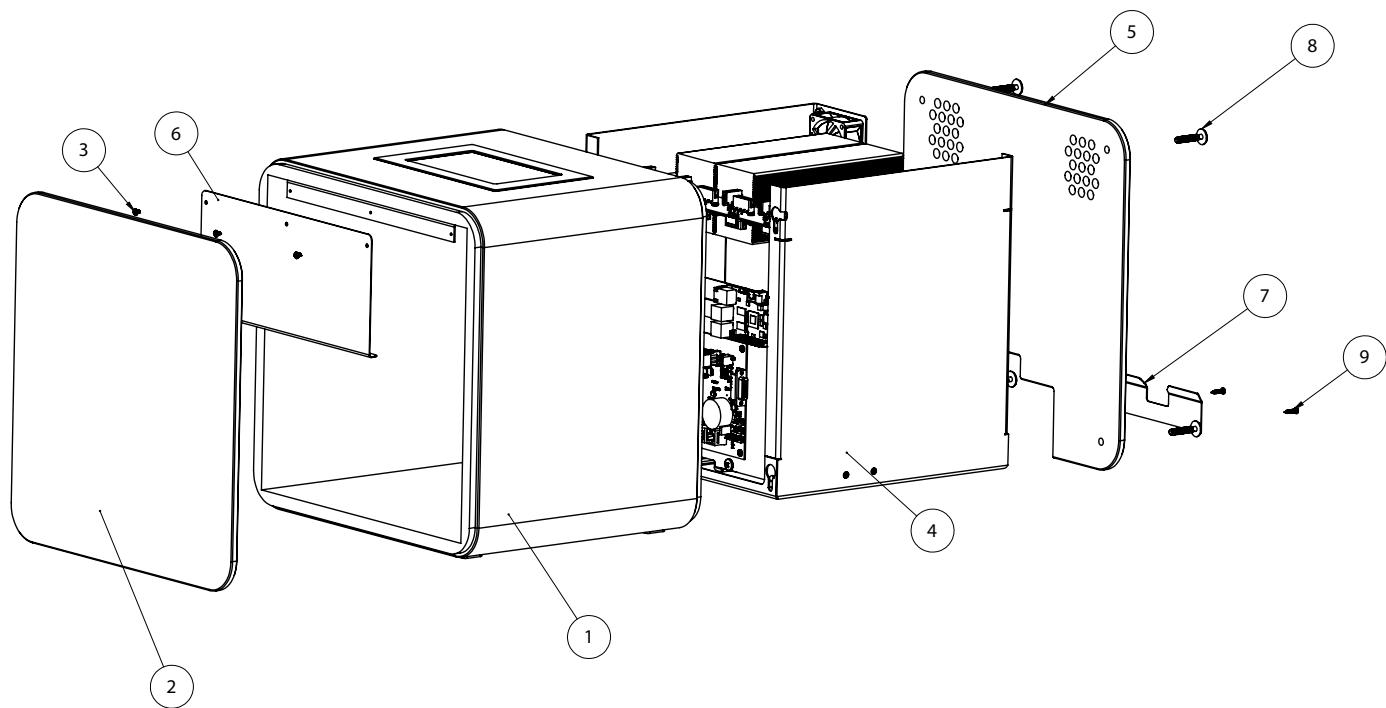
Ventilate the room or the cabinet where the CUBE° is located in order to lower the temperature within the limits of use. If the problem occurs often, contact your installer to install a ventilation system or place the CUBE° in another room.

CUBE° PART LIST

Part list

CUBE 400W CONTROL BOX

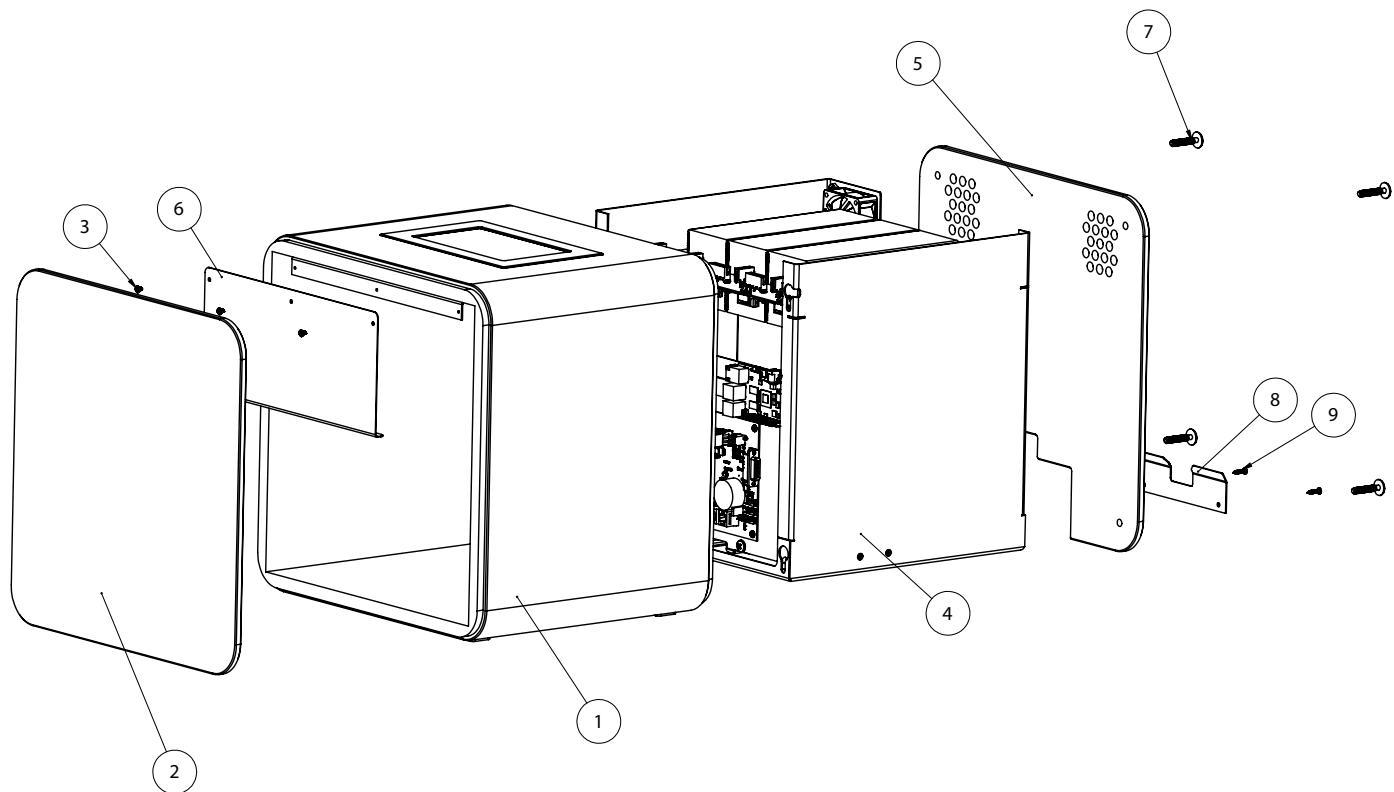
CUB-A055



Item No.	Part number	Description
1	CUB-A019	Cube wood box
2	CUB-A021	Cube front plate
3	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"
4	CUB-A056	CUBE 400W inside box
5	CUB-0025	Cube back plate
6	CUB-0085	120V protection plate
7	CUB-0112	covering back plate
8	00N16.30	1/4-20 x 30mm bolt
9	VA41.0808P	#8 wood scre 5/8"

Part list

CUBE 600W CONTROL BOX

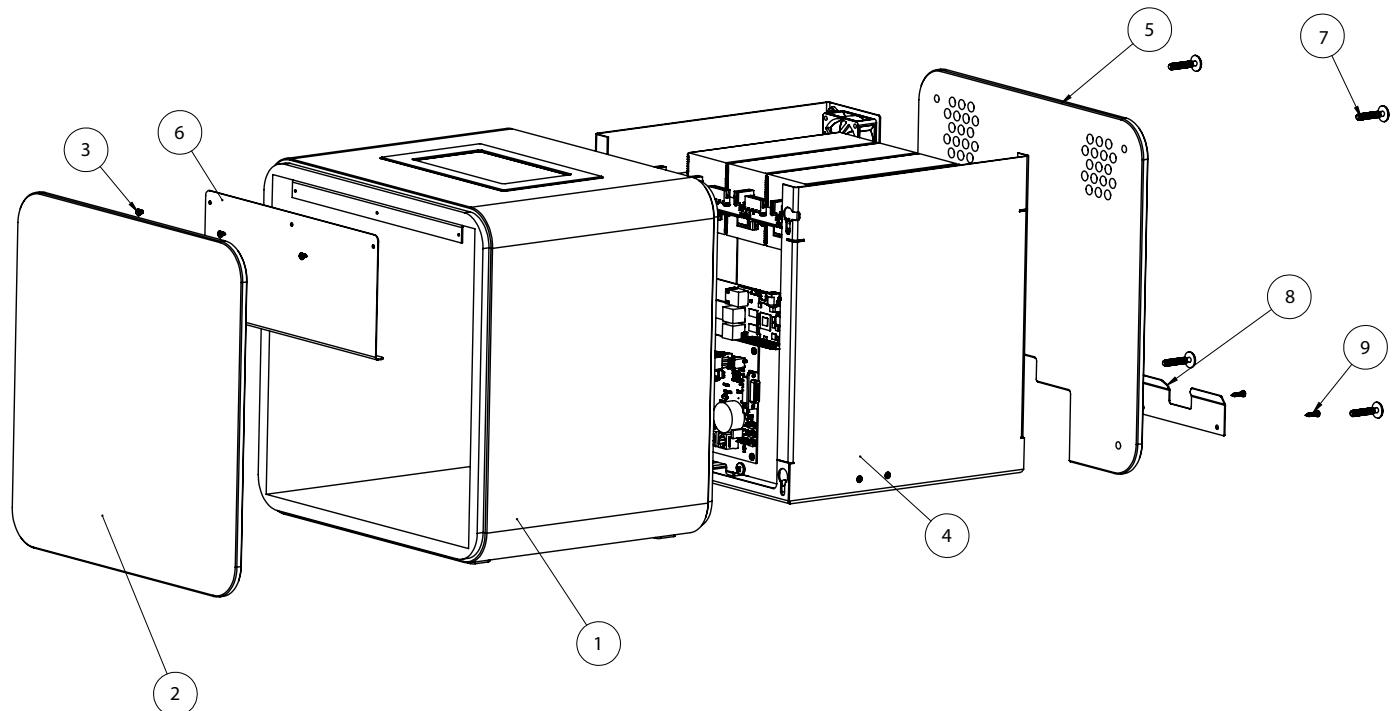


Item No.	Part number	Description
1	CUB-A019	Cube wood box
2	CUB-A021	Cube front plate
3	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"
4	CUB-A042	CUBE 600W inside box
5	CUB-0025	Cube back plate
6	CUB-0085	120V protection plate
7	00N16.30	covering back plate
8	CUB-0112	1/4-20 x 30mm bolt
9	VA41.0808P	#8 wood screw 5/8"

Part list

CUBE 800W CONTROL BOX

CUB-A060

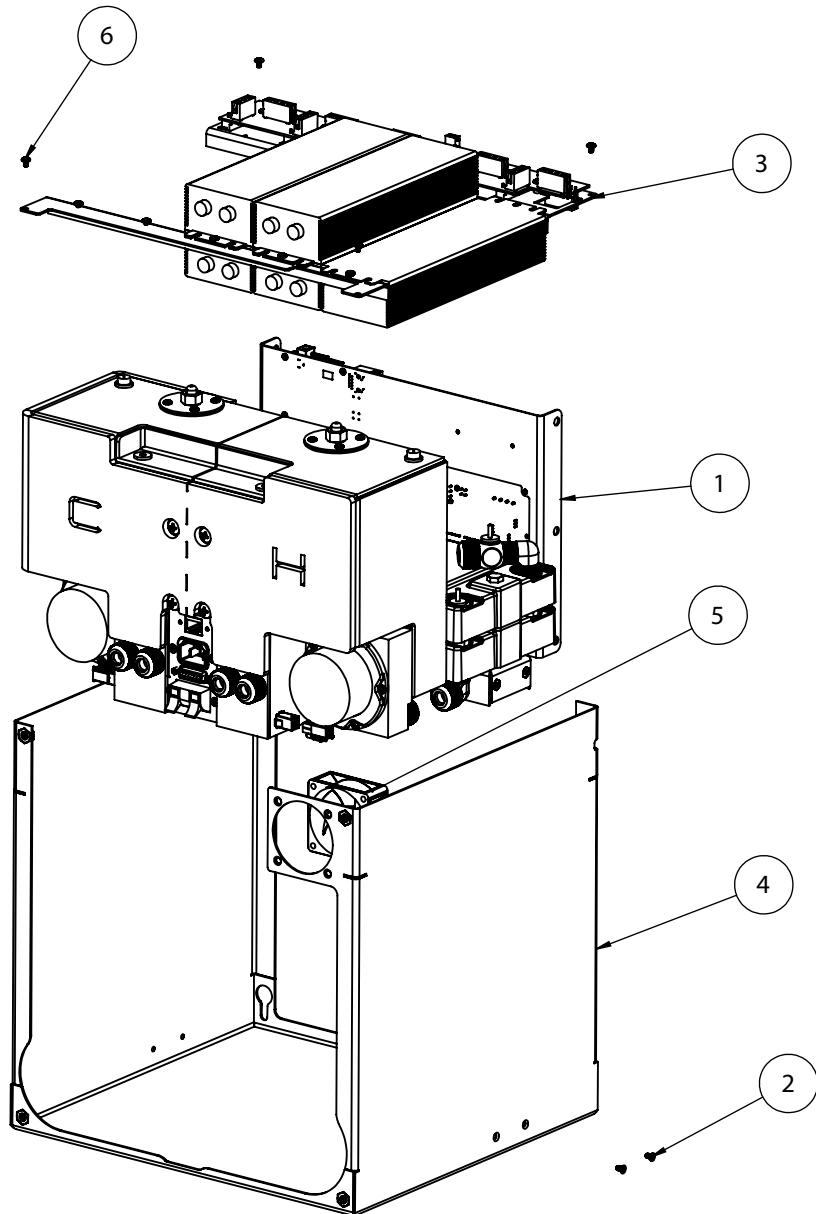


Item No.	Part number	Description
1	CUB-A019	Cube wood box
2	CUB-A021	Cube front plate
3	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"
4	CUB-A061	CUBE 800W inside box
5	CUB-0025	Cube back plate
6	CUB-0085	120V protection plate
7	00N16.30	covering back plate
8	CUB-0112	1/4-20 x 30mm bolt
9	VA41.0808P	#8 wood scre 5/8"

Part list

CUBE 400W INSIDE BOX

CUB-A056

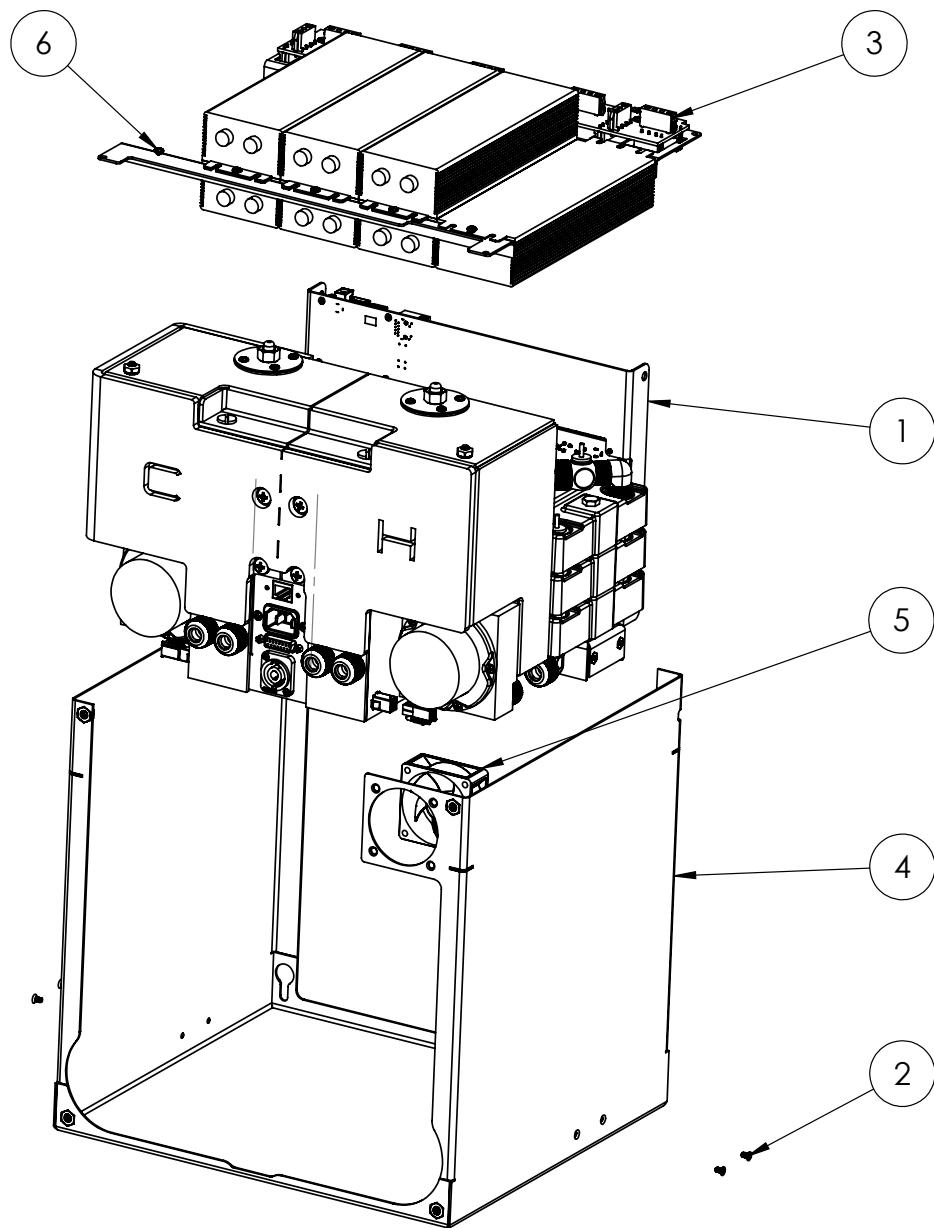


Item No.	Part number	Description
1	CUB-A057	CUBE 400W INSIDE BOX
2	91099A205	FLAT HEAD PHILIPS 6-32 x 1/4"
3	CUB-A059	power supply 400W assembly
4	CUB-A044	CUBE steel box
5	NF-A6X25-FLX	Noctua 60mm Premium Quiet Quality Fan
6	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"

Part list

CUBE 600W INSIDE BOX

CUB-A042

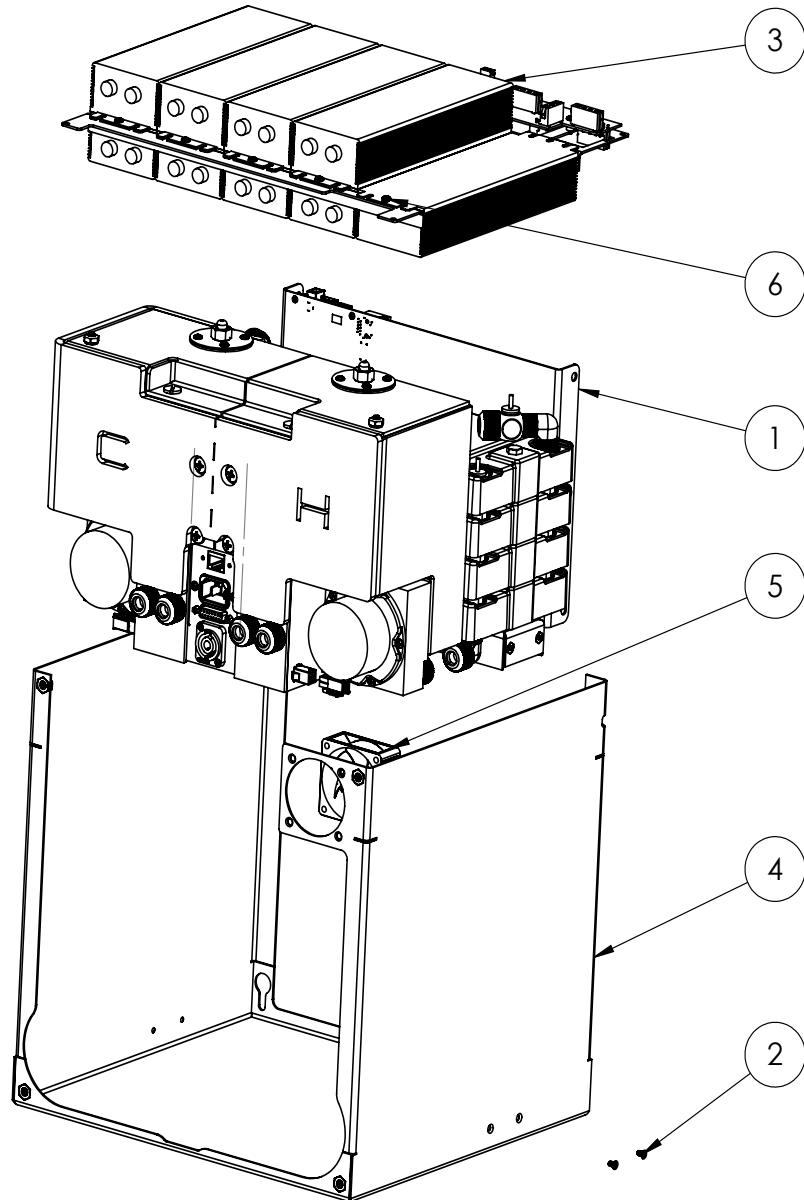


Item No.	Part number	Description
1	CUB-A035	CUBE 600W INSIDE BOX
2	91099A205	FLAT HEAD PHILIPS 6-32 x 1/4"
3	CUB-A032	power supply 600W assembly
4	CUB-A044	CUBE steel box
5	NF-A6X25-FLX	Noctua 60mm Premium Quiet Quality Fan
6	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"

Part list

CUBE 800W INSIDE BOX

CUB-A061

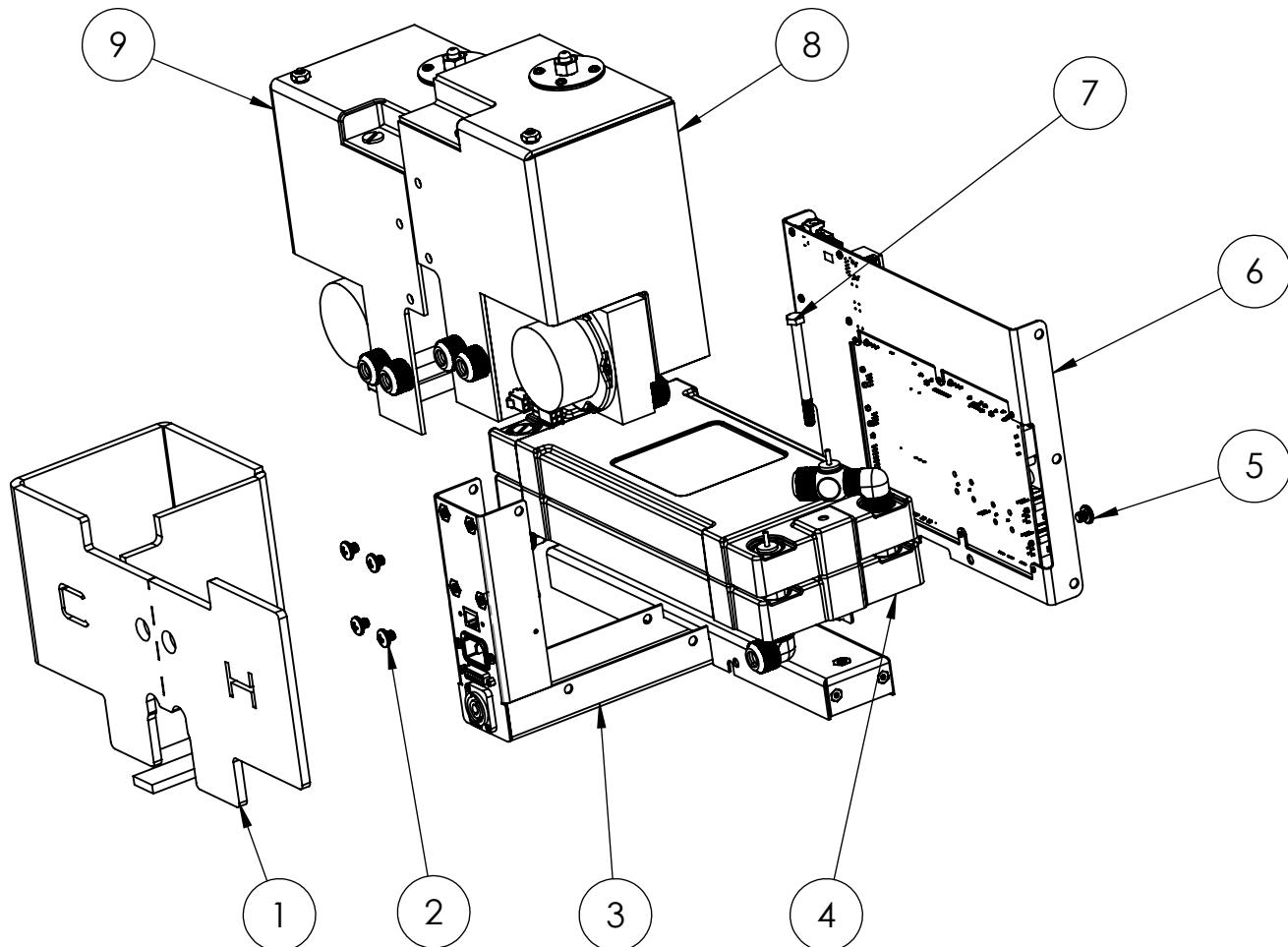


Item No.	Part number	Description
1	CUB-A063	CUBE 800W INSIDE BOX
2	91099A205	FLAT HEAD PHILIPS 6-32 x 1/4"
3	CUB-A062	power supply 800W assembly
4	CUB-A044	CUBE steel box
5	NF-A6X25-FLX	Noctua 60mm Premium Quiet Quality Fan
6	90272A143	PAN HEAD PHILIPS 6-32 x 3/16"

Part list

CUBE 400W INSIDE ASSEMBLY

CUB-A057

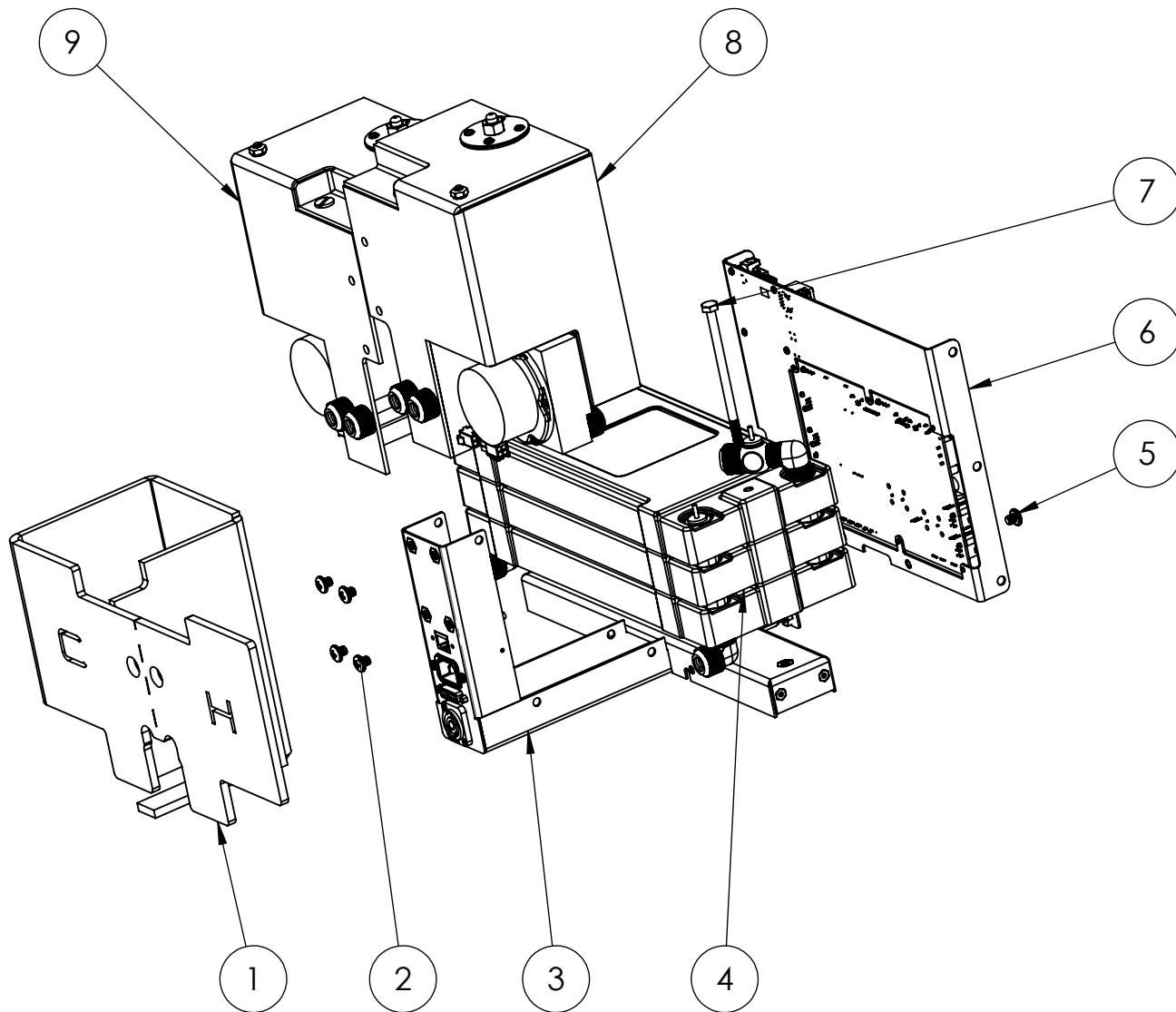


Item No.	Part number	Description
1	CUB-0124	covering foam
2	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
3	CUB-A069	Connector holder
4	CUB-A058	e-cool 400W assembly
5	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
6	CUB-A050	PCB assembly
7	92198A554	18-8 Stainless Steel Hex Head Screw, 1/4"-20 Thread Size, 3" Long, Partially Threaded
8	CUB-A070	hot water tank
9	CUB-A067	cold water tank

Part list

CUBE 600W INSIDE ASSEMBLY

CUB-A035

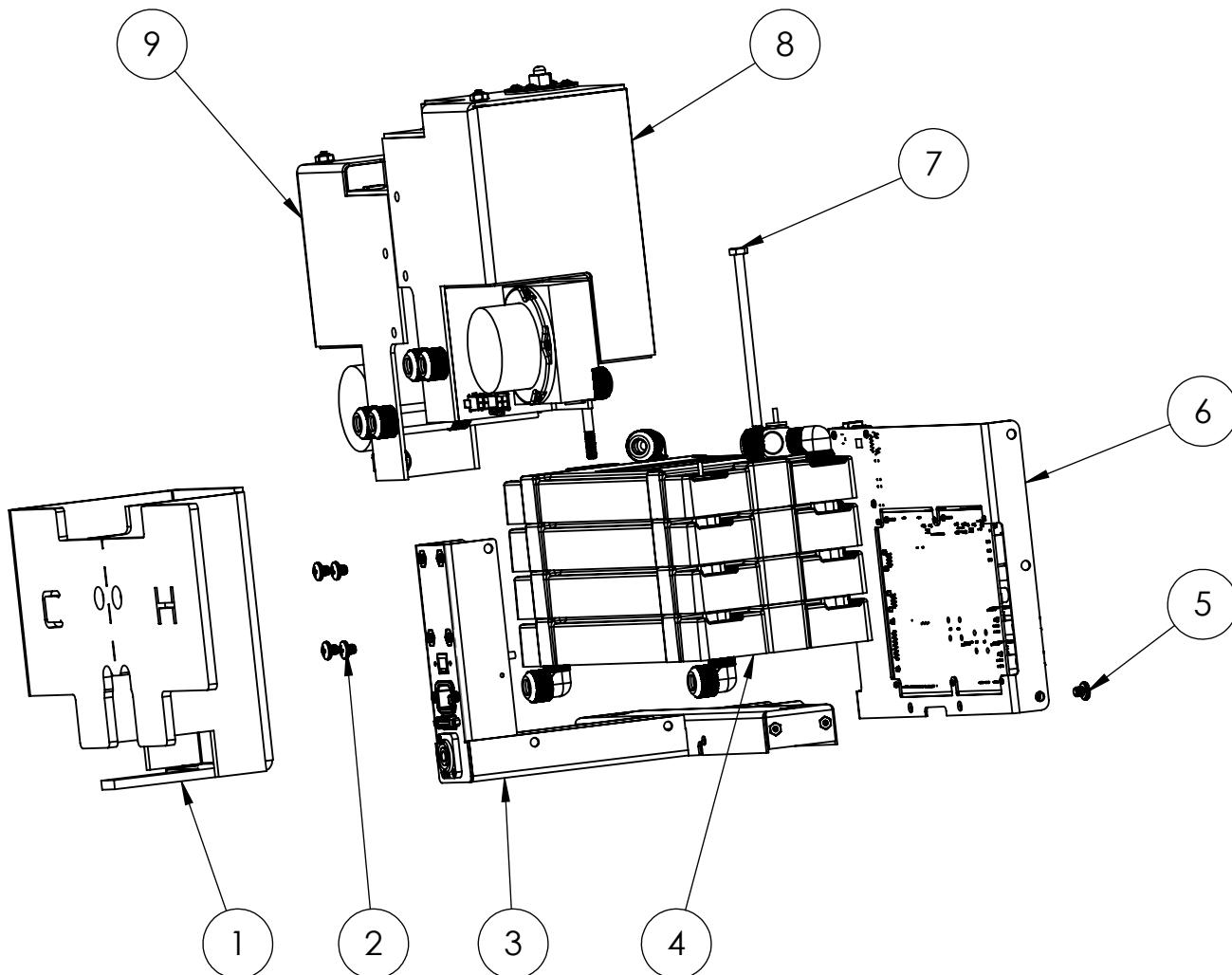


Item No.	Part number	Description
1	CUB-0124	covering foam
2	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
3	CUB-A069	Connector holder
4	CUB-A049	e-cool 600W assembly
5	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
6	CUB-A050	PCB assembly
7	92198A559	18-8 Stainless Steel Hex Head Screw, 1/4"-20 Thread Size, 3" Long, Partially Threaded
8	CUB-A070	hot water tank
9	CUB-A067	cold water tank

Part list

CUBE 800W INSIDE ASSEMBLY

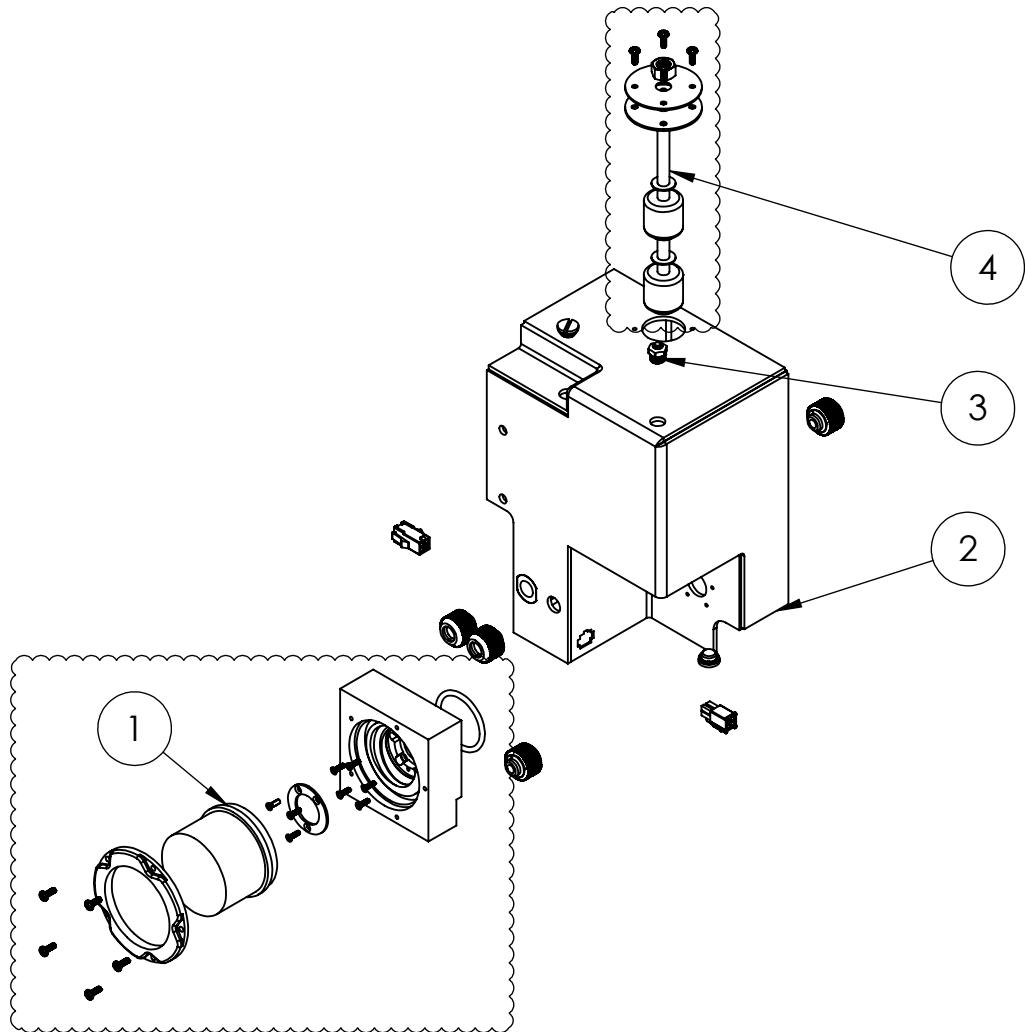
CUB-A063



Item No.	Part number	Description
1	CUB-0124	covering foam
2	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
3	CUB-A069	Connector holder
4	CUB-A064	e-cool 800W assembly
5	90272A531	Steel Pan Head Phillips Screws, 1/4"-20 Thread, 1/4" Long
6	CUB-A050	PCB assembly
7	92198A564	18-8 Stainless Steel Hex Head Screw, 1/4"-20 Thread Size, 3" Long, Partially Threaded
8	CUB-A070	hot water tank
9	CUB-A067	cold water tank

Part list

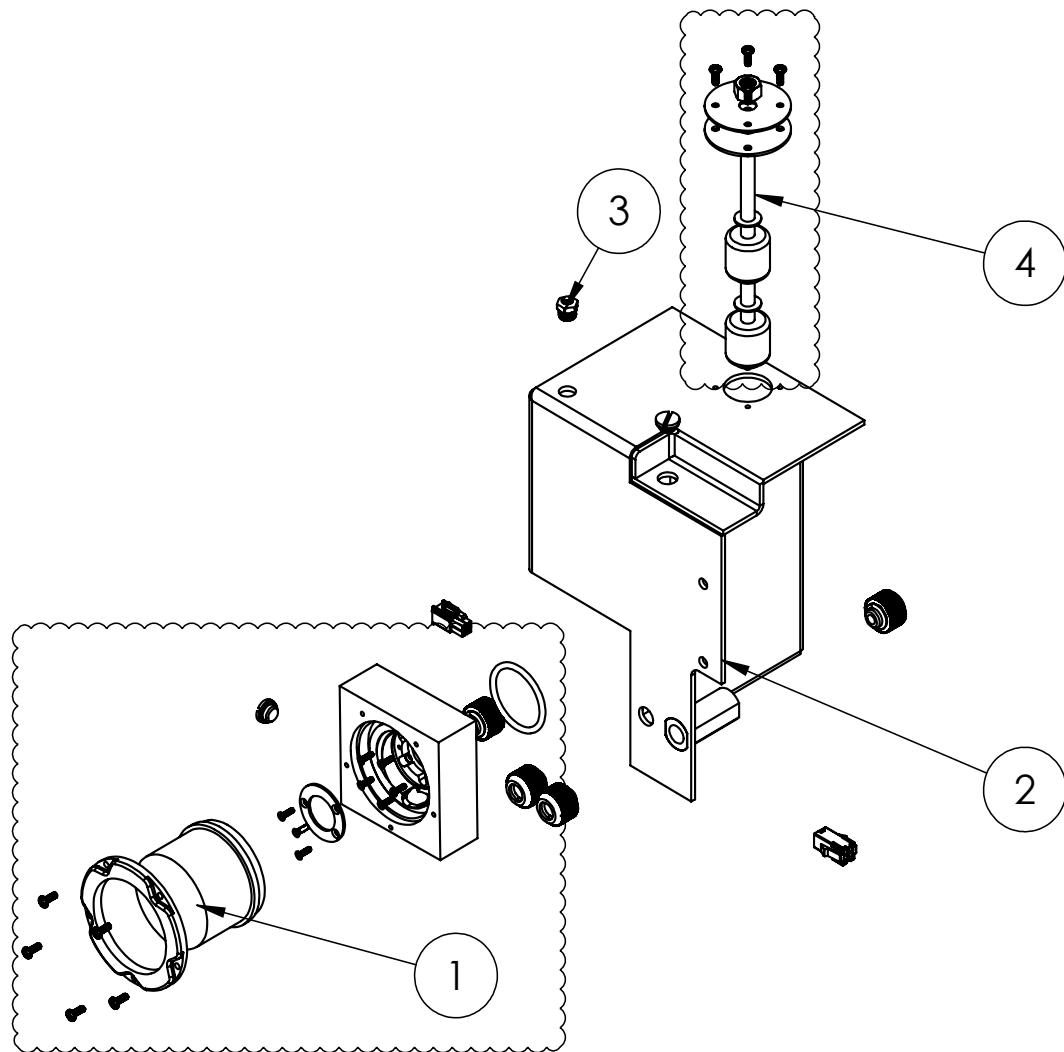
HOT WATER TANK ASSEMBLY
CUB-A070



Item No.	Part number	Description
1	ASS-POMPE	pump assembly
2	CUB-A072	hot water tank
3	1093K300	Pressure-Relief Vent, Zinc-Plated Steel, 1/8" PTF, 1/2" Overall Height, 15 to 25 PSI
4	ASS-CAPTEUR-NIVEAU-EAU	water lever sensor assembly

Part list

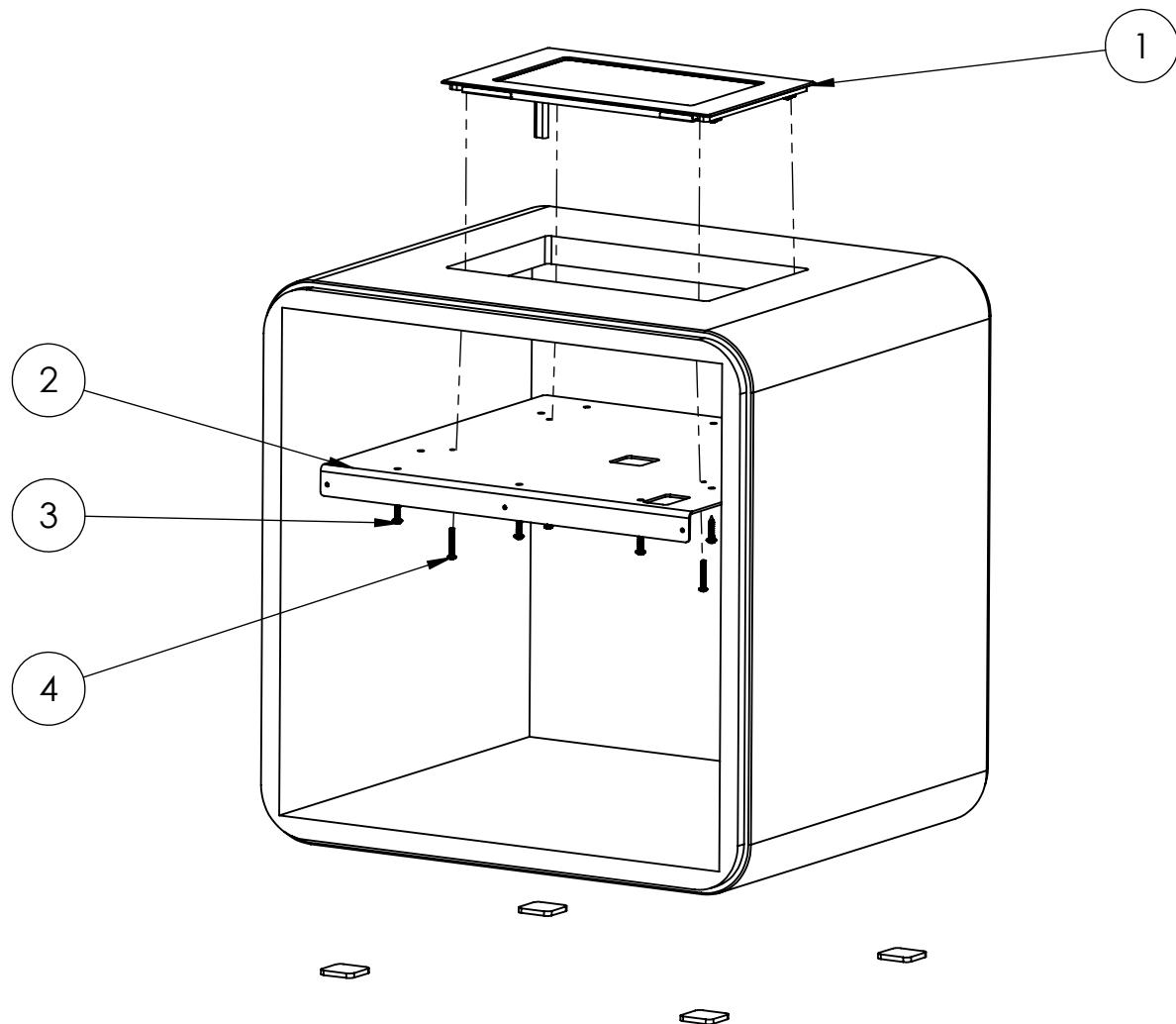
COLD WATER TANK ASSEMBLY
CUB-A067



Item No.	Part number	Description
1	ASS-POMPE	pump assembly
2	CUB-A071	cold water tank
3	1093K300	Pressure-Relief Vent, Zinc-Plated Steel, 1/8" PTF, 1/2" Overall Height, 15 to 25 PSI
4	ASS-CAPTEUR-NIVEAU-EAU	water lever sensor assembly

Part list

CUBE SCREEN assembly

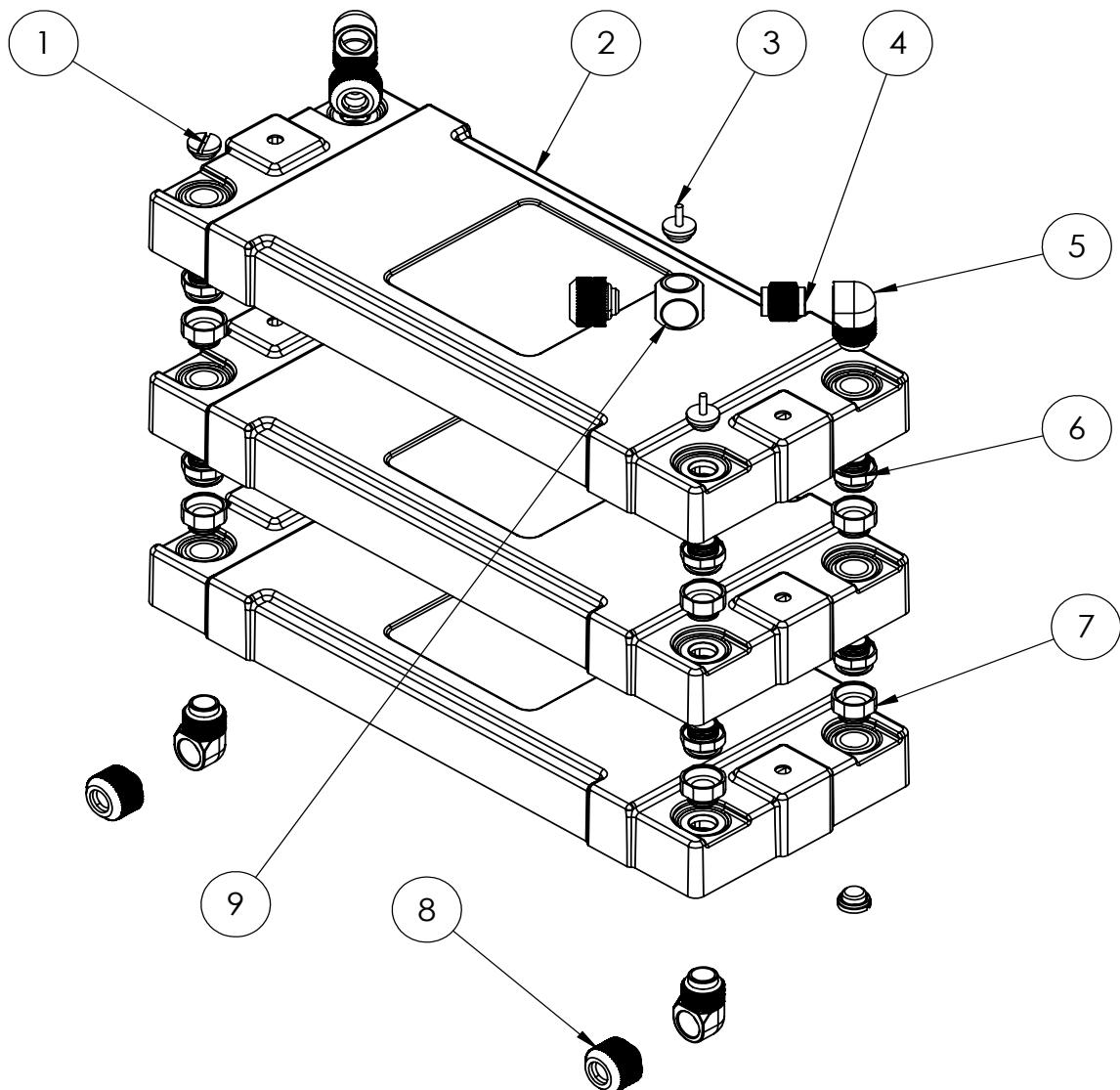


Item No.	Part number	Description
1	CUB-A031	Mimo 7" Slim Capacitive Touchscreen Open Frame Monitor, 1024x600 resolution
2	CUB-0066	screen holding plate
3	90190A150	Phillips Rounded Head Screws for Sheet Metal, Zinc-Plated Steel, Number 6 Size, 5/8" Long
4	90272A113	Steel Pan Head Phillips Screws, 4-40 Thread, 3/4" Long

Part list

MODULE E-COOL assembly

CUB-A049



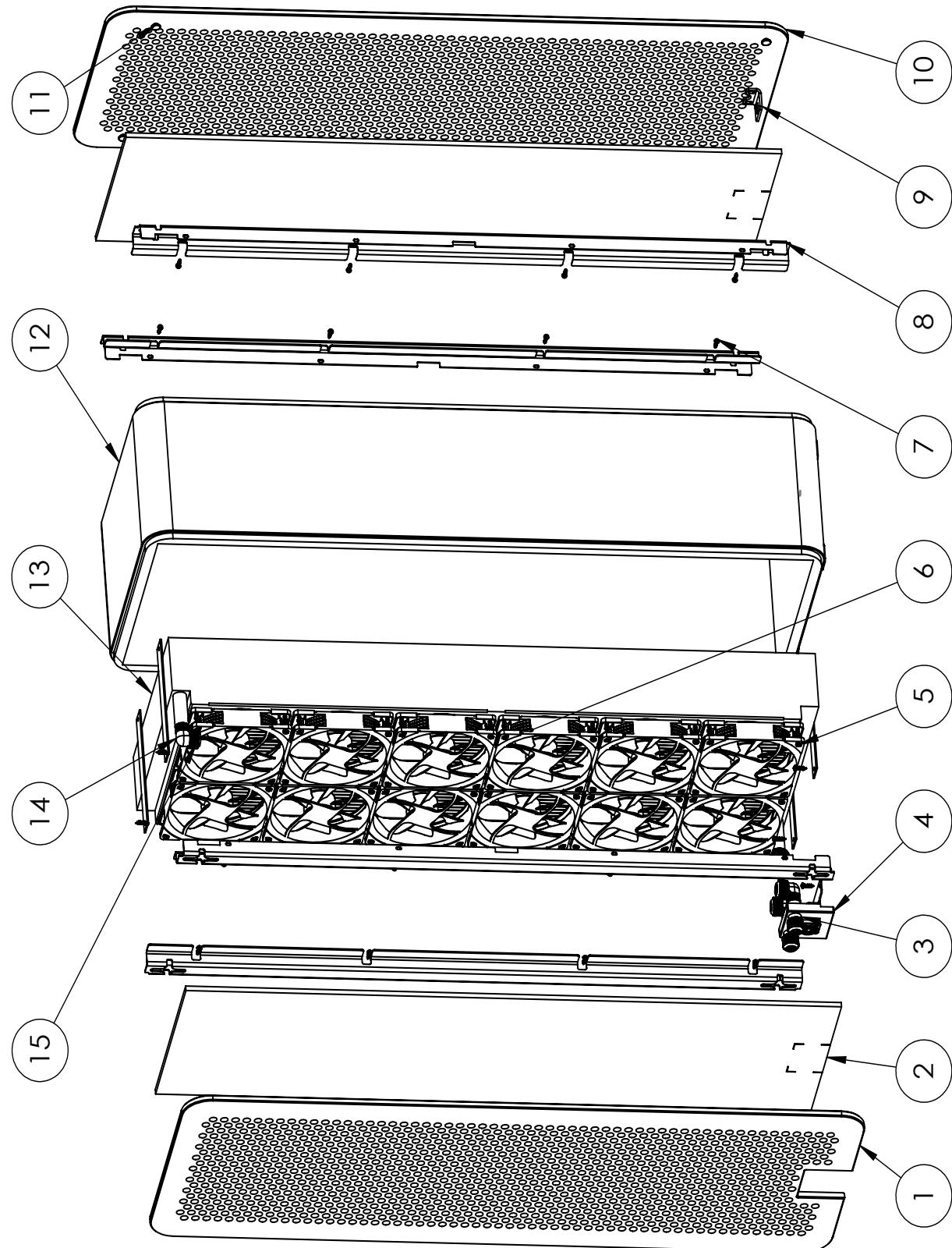
notes :

- The 400W assembly is the same except that it contains 2 e-cool unit.
- The 800W assembly is the same except that it contains 4 e-cool unit.

Item No.	Part number	Description
1	TZS1-A02-SILVER	G1/4 (1/4" BSPP) plugs
2	ECH-A001	e-cool unit
3	SEN-APO08G	Koolance G1/4" Coolant Temperature Sensor Plug, 10K Ohm
4	TX2D-02	Barrow G1/4" Male to Male Anti-Twist Rotary Adaptor
5	TWT90-V2.5	Barrow G1/4" 90 Degree Rotary Adaptor Fitting
6	FIT-0001	Male fitting
7	FIT-0002	female fitting
8	THKN-3/8-V3	Barrow G1/4" Thread 3/8" ID x 5/8" OD Compression Fitting
9	TLFT3T-A01	Barrow T-Block Ball 3 Way Tee Flow Splitting Fitting TLF3T-A01

Part list

CUBE-RH assembly
CUB-A022

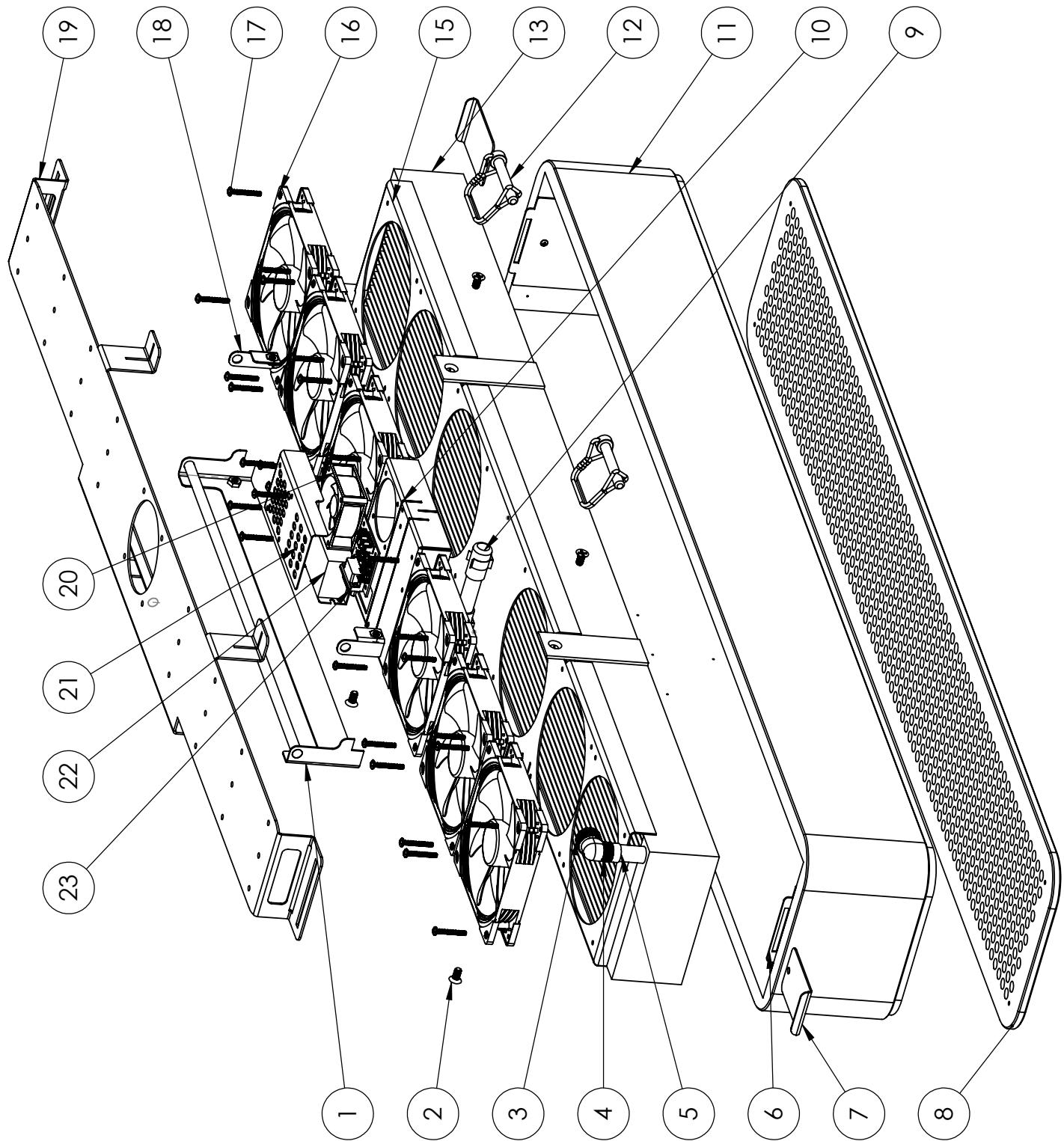


Part list

Item No.	Part number	Description
1	CUB-0034	back grill
2	CUB-0098	filter
3	POMGZ-V1	Barrow G1/4" 7.5mm Acetal Male to Female
4	CUB-A016	CUBE-RH output
5	92005A232	Steel Pan Head Phillips Screw, M4 x 0.7 mm Thread,
6	NOCTUA NF-A14	Noctua 140mm Premium Quiet Quality Fan
7	VA41.0808P	#8 woodscrew 5/8"
8	CUB-0009	front grill support
9	CUB-0063	front grill attachment
10	CUB-0033	front grill
11	CUB-0001	grill spindle
12	CUB-0015	wood box
13	CUB-0013	hot radiator
14	TWT90-V2.5	Barrow G1/4" 90 Degree Rotary Adaptor Fitting
15	THKN-3/8-V3	Barrow G1/4" Thread 3/8" ID x 5/8" OD Compression Fitting

Part list

CUBE-RC6L assembly
CUB-A086



Part list

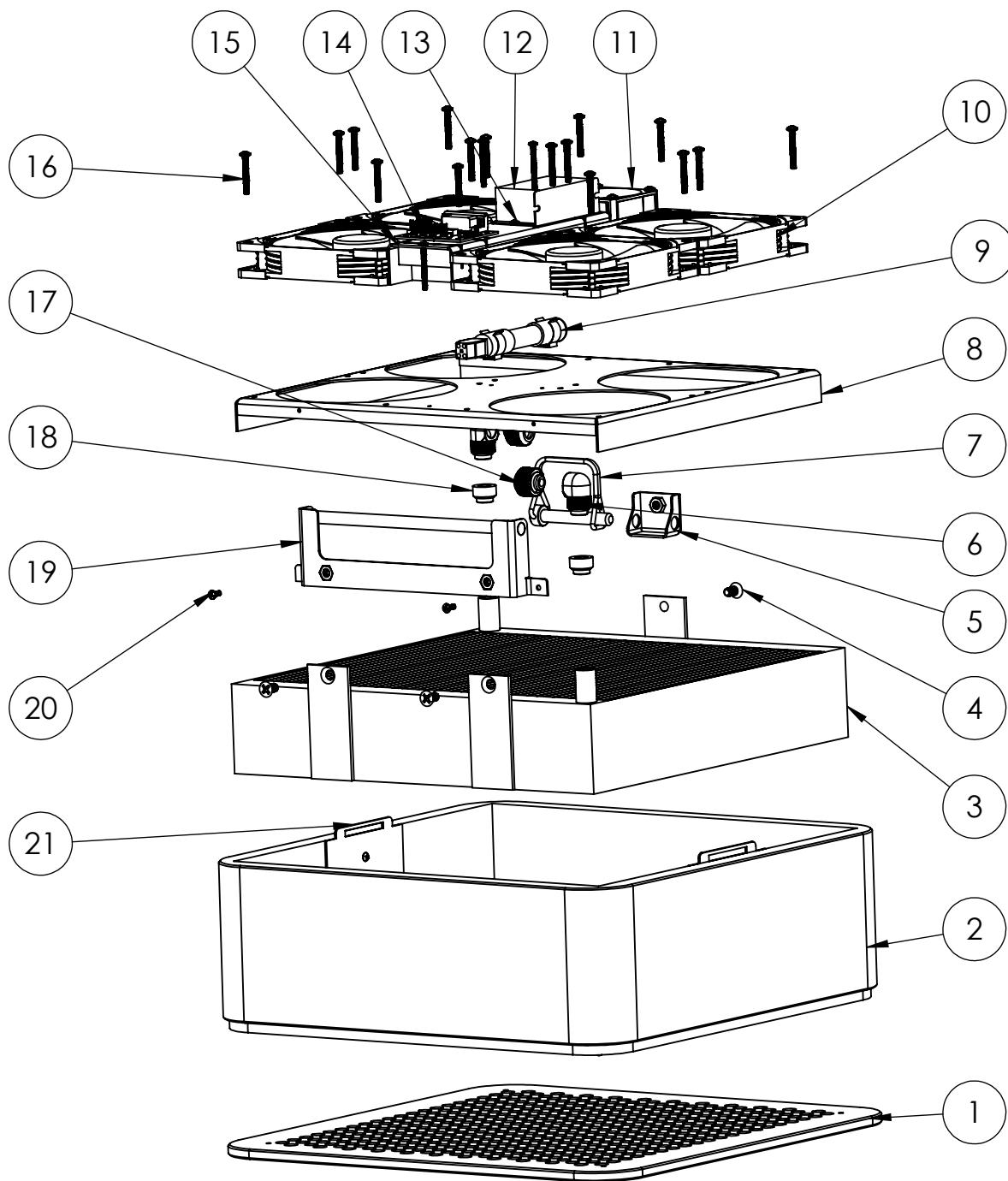
CUBE-RC6L assembly

CUB-A086

Item No.	Part number	Description
1	CUB-0149	CUBE RC6L holding rod
2	91099A450	18-8 Stainless Steel Phillips Flat Undercut Head Screws, Passivated, 1/4"-20 Thread Size, 1/2" Long
3	THKN-3/8-V3	Barrow G1/4" Thread 3/8" ID x 5/8" OD Compression Fitting
4	TWT90-V2.5	Barrow G1/4" 90 Degree Rotary Adaptor Fitting
5	POMGZ-V1	Barrow G1/4" 7.5mm Acetal Male to Female
6	CUB-0153	CUBE RC6L holding plate
7	CUB-0090	CUBE RC6L holding bracket
8	CUB-0135	6 fans long roof grill
9	CUB-OZONE-LAMPE	air sterilisation lamp
10	CUB-0146	RC6L lamp cover
11	CUB-0132	6 fans long inside wood box
12	98416A018	Zinc-Plated Steel Locking Pin with Wire Retainer, Squared, 3/8" Diameter, 1-7/8" Usable Length
13	CUB-0134	6 fans long radiator
15	CUB-0131	RC6L fan bracket
16	NOCTUA NF-A14	Noctua 140mm Premium Quiet Quality Fan
17	92005A232	Steel Pan Head Phillips Screw, M4 x 0.7 mm Thread, 30 mm Long
18	CUB-0151	CUBE RC6L locking plate
19	CUB-0133	CUBE RC roof support
20	NOCTUA-A6 FLX	Noctua 60mm Premium Quiet Quality Fan
21	CUB-0154	RC6L fan cover
22	PL15-425-18D12	Ballast
23	CELLAR WINE SYSTEM V1	cube RC PCB

Part list

CUBE-RC4 assembly
CUB-A089



Part list

CUBE-RC4 assembly

CUB-A089

Item No.	Part number	Description
1	CUB-0012	RC4 roof grill
2	CUB-0021	inside wood box
3	CUB-0022	4 fans radiator
4	91099A450	18-8 Stainless Steel Phillips Flat Undercut Head Screws, Passivated, 1/4"-20 Thread Size, 1/2" Long
5	CUB-0144	locking bracket
6	TWT90-V2.5	Barrow G1/4" 90 Degree Rotary Adaptor Fitting
7	98416A018	Zinc-Plated Steel Locking Pin with Wire Retainer, Squared, 3/8" Diameter, 1-7/8" Usable Length
8	CUB-0141	fan holding plate
9	CUB-OZONE-LAMPE	air sterilisation lamp
10	NOCTUA NF-A14	Noctua 140mm Premium Quiet Quality Fan
11	NOCTUA-A6 FLX	Noctua 60mm Premium Quiet Quality Fan
12	PL15-425-18D12	Ballast
13	90272A143	Steel Pan Head Phillips Screws, 6-32 Thread, 3/16" Long
14	CELLAR WINE SYSTEM V1	CUBE RC PCB
15	CUB-0143	RC4 lamp cover
16	92005A232	Steel Pan Head Phillips Screw, M4 x 0.7 mm Thread, 30 mm Long
17	THKN-3/8-V3	Barrow G1/4" Thread 3/8" ID x 5/8" OD Compression Fitting
18	POMGZ-V1	Barrow G1/4" 7.5mm Acetal Male to Female
19	CUB-0142	RC4 holding rod
20	90272A146	Steel Pan Head Phillips Screws, 6-32 Thread, 3/8" Long
21	CUB-0089	CUBE RC retaining plate