Instructions for installation and use (Keep safe for future reference).

WineSP40CEPRO

## **INFORMATION PROVIDED ON THE IDENTIFICATION PLATE OF THE DEVICE:**

14/09/2021

- Serial no.: Date of purchase: .....



VERSION 02

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## INTRODUCTION

Thank you for selecting a WINEMASTER<sup>®</sup> air conditioner.

No effort has been spared in its design and marketing to offer you an exclusive and very high quality product. Your WINEMASTER<sup>®</sup> air conditioner is the fruit of work by a team dedicated to ensuring your satisfaction, and we hope that it will enable you to store and mature your wine in the best possible way for peerless tasting pleasure.

Because we believe customer satisfaction is our primary goal, we would like to make you familiar with your new air conditioner and guide you in how to get the best service from it day after day. This manual therefore provides you with the technical information and instructions that will allow you to install your machine easily for optimum operation.

THE WINEMASTER<sup>®</sup> TEAM.



## **1 GENERAL FEATURES**

## 1.1 TECHNICAL SPECIFICATIONS

	Outdoor unit	Indoor unit
Device dimensions, H x W x D	642 x 857 x 424 mm	with cladding: 153 x 950 x 700 mm without cladding: 152 x 806 x 692 mm
Weight of the device	55 kg	with cladding: 28 kg without cladding: 16 kg
Temperature setting	Preset to 12°C, adjustable from 8°C to 18 °C $^{*}$	
Max. outdoor temperature	40 °C**	
Cooling capacity	900 W at 15 °C**	
Electric power supply	230/240V-50 Hz	
Electrical power in cooling mode	600 W	
Electrical power in heating mode	500 W	
Gas	R449	

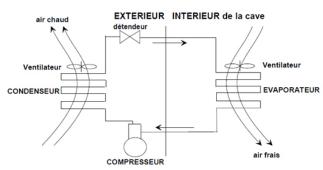
\* With insulation appropriate for the temperature and volume of the room.

**\*\*** As a result of power reduction depending on the outdoor temperature, the device may lose its capacity to maintain 12°C if the outdoor temperature approaches 40 °C.

The circuit breaker rating must be **16 Amperes.** 

If the thermal safety system trips too frequently, that may damage the compressor prematurely. In any event, **steps must be taken to prevent the temperature of the discharge room being continually near 40** °**C**; that high temperature must be limited to the summer period at the most.

## VENTILATED OR NO-FROST COOLING (schematic diagram)



EXTERIEUR	OUTDOOR
INTERIEUR de la cave	INDOOR, in the cellar
Air chaud	Hot air
détendeur	expansion valve
Ventilateur	Fan
CONDENSEUR	CONDENSER
COMPRESSEUR	COMPRESSOR

INSTALLATION AND USAGE GUIDE WINESP40CEPRO

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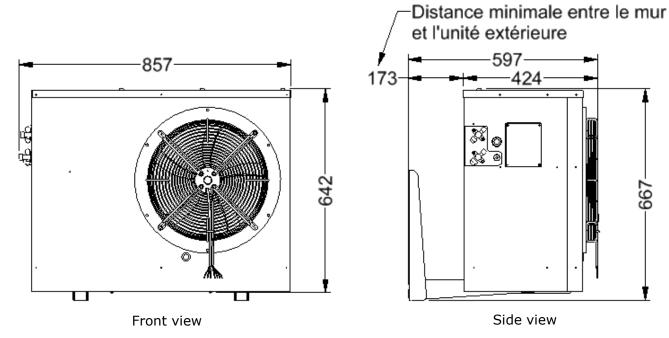
Ventilateur	Fan
EVAPORATEUR	EVAPORATOR
Air frais	Cool air

Benefits of ventilated cooling:

- No frost formation other than on the evaporator.
- Automatic defrosting, leading to maximum refrigeration efficiency.
- More uniform cooling due to the continuous movement of air, no air stratification.
- Air circulation allows a rapid return to the selected temperature.

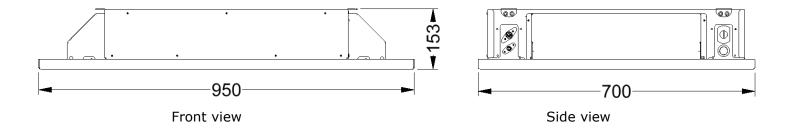
## 1.2 OVERALL DIMENSIONS

• Outdoor unit

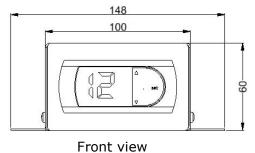


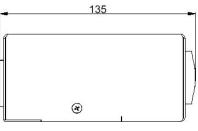
Distance minimale entre le mur et l'unité	Minimum distance between wall and outdoor unit
extérieure	

## • Indoor unit



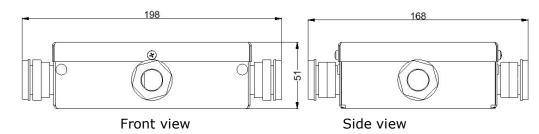
### • Thermostat housing





Side view

• Connections housing



## **2** ARRANGEMENT

The air conditioner is made up of two separate units, a thermostat housing and a connections housing. They must be connected to each other by rigid refrigeration piping and electrical connections. The length of the refrigeration piping between the two units **may not exceed 20 m**.

## 2.1 <u>OUTDOOR UNIT</u>

It may be placed outdoors or in an adjoining room.

If the unit is installed outdoors:

- Place the unit so that the air intake and discharge are not impeded by any obstacles
- Leave space above the unit (filter maintenance),
- Select a clear location away from sunlight,
- Raise the unit to avoid the build-up of water or snow,
- Be mindful of noise and its effect on the neighbourhood.

If the unit is installed in a room:

- Place the unit so that the air intake and discharge are not impeded by any obstacles,
- Make sure the room is adequately ventilated,
- Maximum non-permanent temperature in the room: 40 °C,
- Recommended average temperature in the room: 20 °C.

## 2.2 INDOOR UNIT

The indoor unit must necessarily be installed inside the air-conditioned room.

## 2.3 THERMOSTAT HOUSING

The thermostat housing is installed either inside or outside the air-conditioned room.

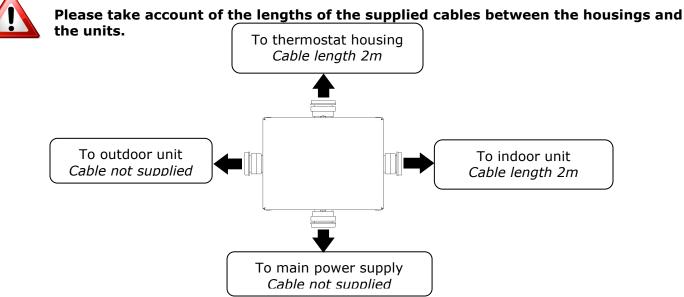
For its part, the probe must always be placed in the air-conditioned room.

The supplied probe is 1.5 m long. It may be extended using insulated flexible cable with two conductors with a minimum section of 0.5 mm<sup>2</sup>.

## 2.4 CONNECTIONS HOUSING

The connections housing may also be installed inside or outside the air-conditioned room. If the housing is installed outside the room, take account of the cable length (2 m).

## 2.5 <u>CONNECTIONS DIAGRAM</u>



## 2.6 <u>ROOM INSULATION</u>

**It is a determining factor** for the proper working of the WINEMASTER<sup>®</sup> air conditioner. Appropriate insulation will help keep **the temperature and humidity more stable**. The table below (choice of insulation) will help you identify the type and thickness of the insulation required depending on the interior volume of the cellar for 12°C interior temperature.

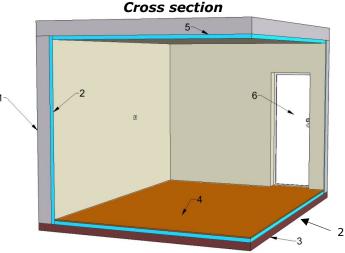
## **Continuity of insulation**

The insulating materials should preferably be assembled:

- By fitting the grooves of panels into each other
- or

-

- By gluing the panels to each other.
- $\rightarrow$  GOAL: Avoiding the unwanted entry of heat and humidity that could be harmful for regulation.



- 1. WALL
- 2. INSULATION
- 3. FLOOR
- 4. FINISHED FLOOR
- 5. CEILING
- 6. INSULATED DOOR

### **IMPORTANT**

The validity of the guarantee covering the WINEMASTER<sup>®</sup> air conditioner depends on strict compliance with the values in the table (choice of insulation) for all the walls of the room (including floor, ceiling and door), perfectly continuous insulation and installation in accordance with the instructions.

## Choice of insulation

Volume of air- conditioned room (m <sup>3</sup> )	Thickness of expanded polystyrene (mm) ( $\lambda = 0.044 \text{ W.m}^{-1}.\text{K}^{-1}$ )	Thickness of extruded polystyrene (mm) $(\lambda = 0.030 \text{ W.m}^{-1}.\text{K}^{-1})$	Thickness of polyurethane (mm) $(\lambda = 0.025 \text{ W.m}^{-1}.\text{K}^{-1})$
4	20	10	10
8	30	20	20
12	50	30	30
16	60	40	40
20	80	50	50
24	90	60	50
28	100	70	60
32	120	80	70
36	140	90	80
40	150	100	90

If glazed walls are used, the coefficient Ug of the glazing must be no more than  $1.0 \text{ W/m}^2\text{K}$ . Further, the glazed surface may not represent more than 50% of the total surface of the walls of the air-conditioned room.

## 2.6.1 INSULATION OF WALLS, CEILING AND FLOOR

## Choice of insulating panels

Manufacturers offer different insulating panels:

- Insulation alone,
- "Complexes", or insulation with facing (plaster, mineral, etc.),
- Sandwich panels, or insulation faced on each side with wooden or plaster boards.

**Important:** The facing **protects the insulation from impacts and thus ensures durability. Avoid using mineral fibre insulation** (glass wool, rock wool, etc.) as it may absorb humidity and lose its insulating capacity, and also fine insulation materials that are not effective against the cold.

## **DID YOU KNOW?**

Some insulating materials are damaged by rodents (mice, rats, etc.). That is why you need to make sure that the walls of the room do not contain any holes that would allow rodents to get to the insulation. Such insulation must be covered on the inside of the room with protective facing.

 $\rightarrow$  Because of its chemical composition, polyurethane insulation is not attacked by rodents.

## Floor insulation

The floor of the room must support the weight of the shelving and the wine. That is why the selected insulation must offer sufficient compressive strength.

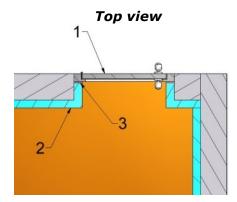
Resistance to piercing (feet of shelves in particular) achieved with:

- Insulation complexes with a sufficiently strong panel on the top.
- **Insulation lined with wood chipboard** (approximately 15 mm thick), or any other appropriate covering (e.g. screed and slab).

### 2.6.2 DOOR

It helps to keep the insulation continuous. Two solutions are possible:

- Insulating the existing door with insulation of the same type as on the walls of the room and inserting a seal (e.g. in foam) between the door leaf and frame, over the entire perimeter.
- Using a WINEMASTER<sup>®</sup> insulating door with polyurethane foam and a seal over its entire perimeter.



- **1** Insulating door
- 2 Insulation
- 3 Seal

### 2.6.3 INSULATION OF OTHER ELEMENTS

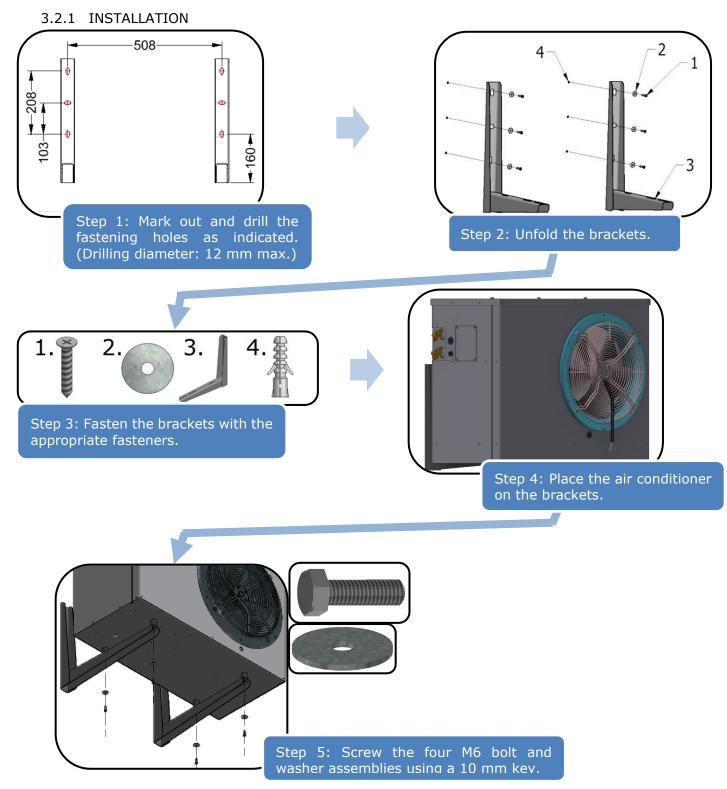
**Do not place a wine cabinet or a freezer** in the room, as they produce heat. **Central heating pipes must be reinsulated** if they are routed in the room.

## **3 INSTALLING THE WINEMASTER® AIR CONDITIONER**

## 3.1 LIST OF EQUIPMENT REQUIRED

- 4G1.5mm<sup>2</sup> cord for connecting the outdoor unit
- 3G1.5mm<sup>2</sup> cord for connecting the connections housing
- 1/4" and 3/8" copper pipes for refrigeration connections
- Fasteners and tools for fastening the outdoor unit

## 3.2 PUTTING IN PLACE THE OUTDOOR UNIT



3.2.2 AIR FLOW



## 3.3 PUTTING IN PLACE THE INDOOR UNIT

Because of the diversity of locations, each fitter must adapt to the constraints of the particular installation.



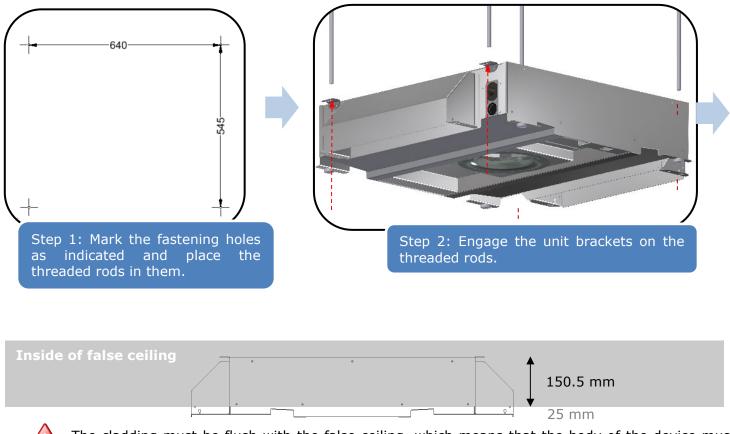
Leave space for the refrigeration and electrical connections and the condensate drain pipe. The intake and discharge openings must not be obstructed, even in part.

The discharge and intake must be separated in order to avoid taking back discharged air, even in part (as a test, the intake temperature must be identical to the temperature in the room when the device is cooling it).

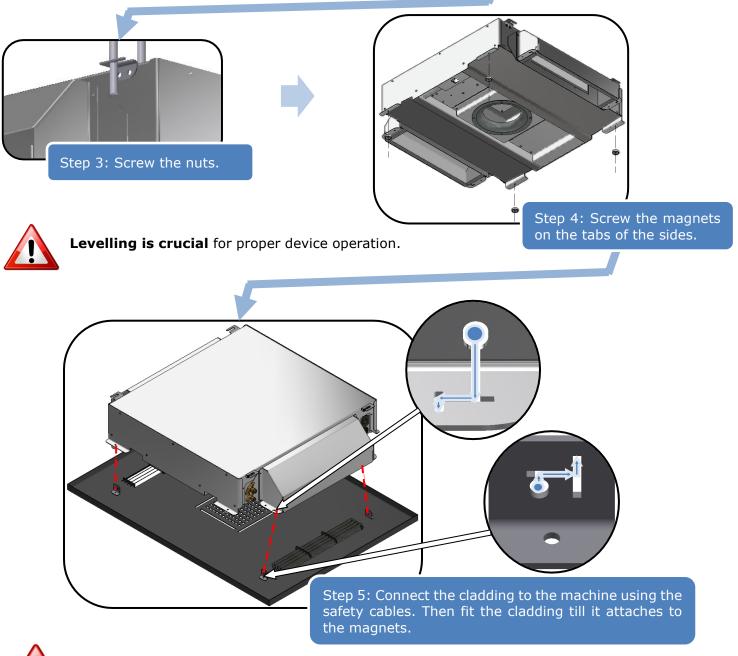


Make the electrical connections before fastening the indoor unit to the ceiling if permitted by the cable lengths (see section 3.5.2, p 19).

### 3.3.1 INSTALLATION

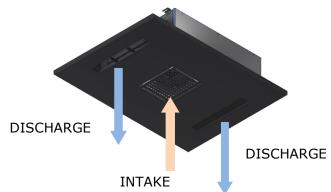


The cladding must be flush with the false ceiling, which means that the body of the device must protrude out of it over at least 25 mm.



Important: The machine cladding is heavy and must be handled with care <u>even when</u> <u>it is held by the cables</u>!

3.3.2 AIR FLOW



## 3.4 <u>PIPING CONNECTIONS</u>

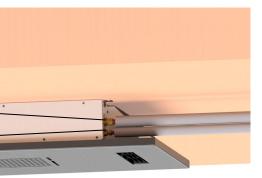


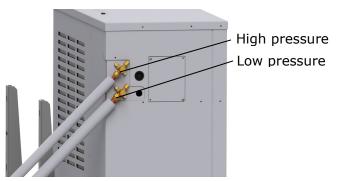
## Piping connections must be made by a professional refrigeration technician.

The two units are filled with inert gas (nitrogen). They should be connected by a 1/4'' copper line for the liquid line and 3/8'' for the gas line. The nuts are supplied. They should be put on the rigid copper tube before the flare is made.

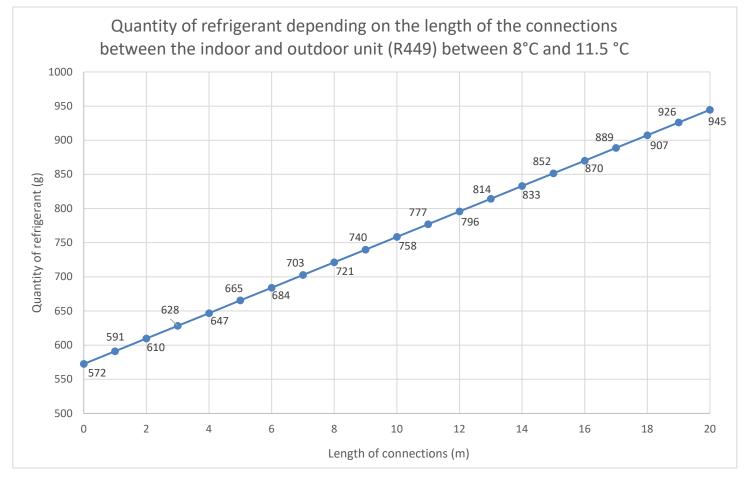
The maximum length of each pipe is 20 metres, and the maximum height difference is 10 metres. The number of bends per connection may not exceed 10.

Low pressure High pressure



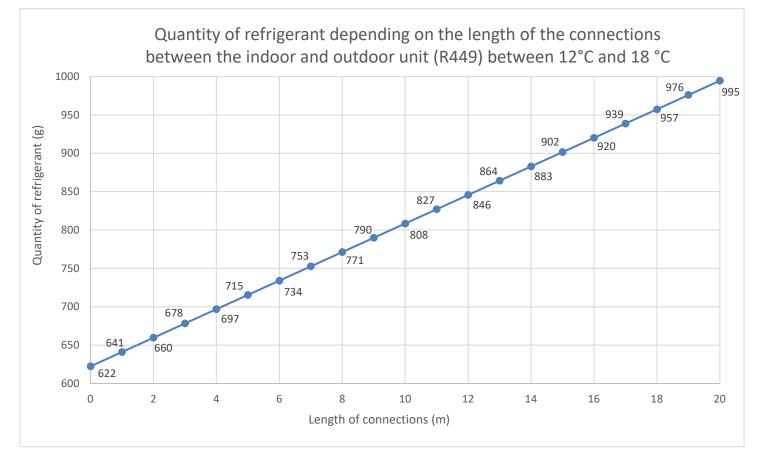


# For storage temperature that is chiefly between 8°C and 11.5 °C, refer to the curve below for the refrigerant charge:





# For storage temperature that is chiefly between 12°C and 18 °C, refer to the curve below for the refrigerant charge:



When satisfactory operation is obtained, loosen the connecting valves fully before disconnecting the piping fittings.

The connections can then be disconnected and plugs put back on the valves.

### 3.5 ELECTRICAL CONNECTIONS



The device must be installed in accordance with national electrical installation rules.

If the power cable is damaged, it may only be replaced by the manufacturer, its aftersales department or a party with similar qualification.

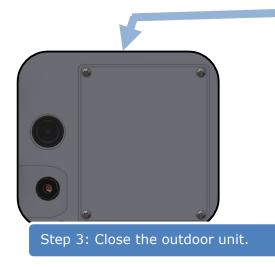
### 3.5.1 CONNECTING THE OUTDOOR UNIT



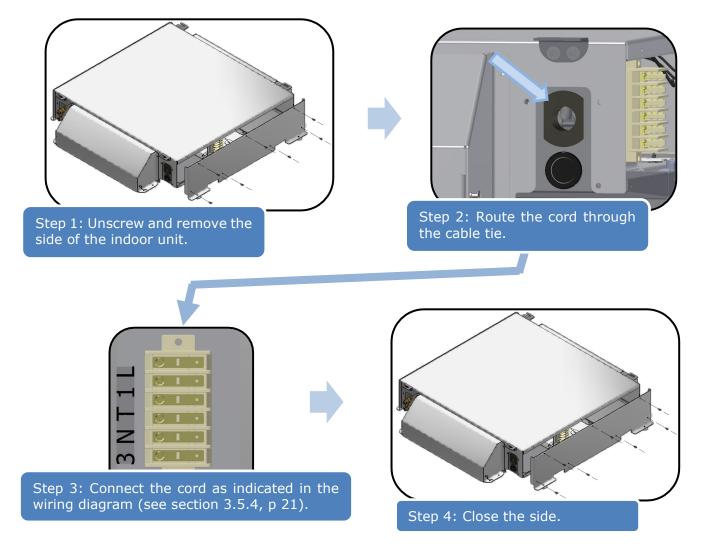
Step 1: Unscrew and remove the electrical access plate of the outdoor unit.



Step 2: Connect the connections housing and the outdoor unit through the cable tie with the 4G1.5 cord (not supplied) as shown in the wiring diagram (see section 3.5.4, p 21).



3.5.2 CONNECTING THE INDOOR UNIT

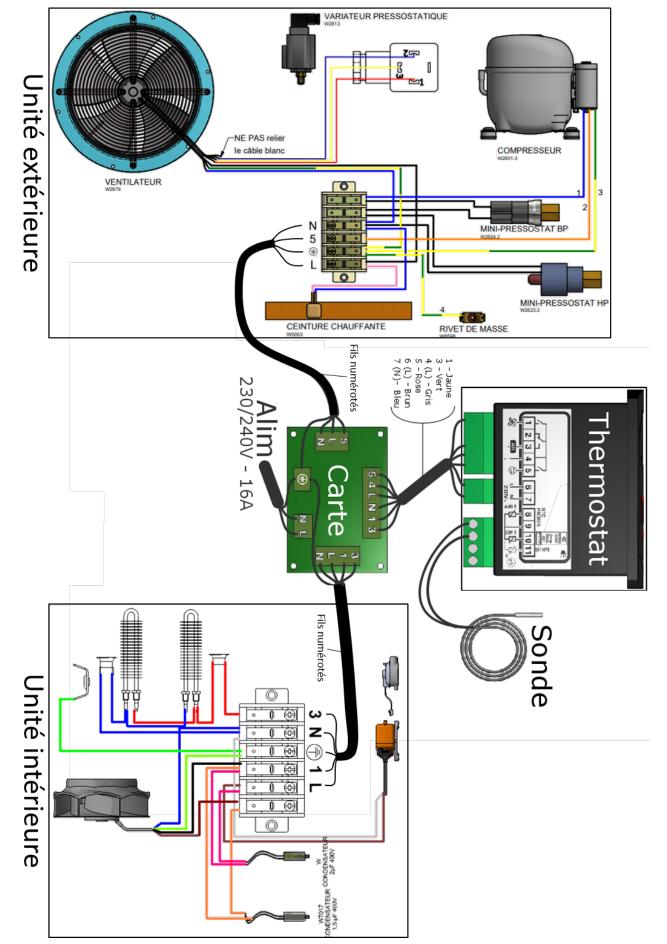


### 3.5.3 POWER CONNECTION

The connections housing must be connected to a single-phase electricity line protected by a 230V - 16A two-pole circuit breaker.

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3.5.4 WIRING DIAGRAM



INSTALLATION AND USAGE GUIDE WINESP40CEPRO

PRESSURE ACTUATED SPEED CONTROLLER	Thermostat
DO NOT connect the white cable FAN	Probe
COMPRESSOR	1 - Yellow
LP MINIATURE PRESSURE SWITCH	3 - Green
HP MINIATURE PRESSURE SWITCH	4 (L) - Grey
HEATING BELT GROUND RIVET	5 - Pink 6 (L) – Brown
	7 (N) – Blue
	Numbered wires
	Power
	CONDENSER
Outdoor unit	Indoor unit

## 3.6 INSTALLING THE CONDENSATE DRAIN

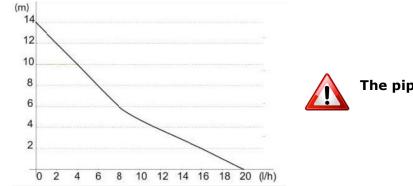
A lift pump integrated into the machine will carry away the condensates resulting from refrigeration.



- Condensation water is removed through a hose that is already in place, which comes out under the cable tie.

The drain hose must not be blocked!

The curve below shows the removed flow in I/h depending on the length of the hose.



The pipe length must be below 14 m.

## **4 STARTING UP THE WINEMASTER® AIR CONDITIONER**

The thermostat displays the air temperature inside the air-conditioned room within a range of 2°C. The thermostat is factory set for a setting of 12°C. When the air conditioner is started up, check and modify that temperature if required using procedure (4.2.1, p23).

## 4.1 <u>Connecting the air conditioner</u>

#### When you start the air conditioner, the room temperature is displayed:

- If the temperature is above the thermostat setting, the air conditioner starts up after a two-minute delay.
- If the temperature is below the thermostat setting, the compressor does not start up. Only the fan of the indoor unit operates.

## 4.2 <u>Starting up</u>

4.2.1 TEMPERATURE SETTING

The temperature is set on the thermostat:

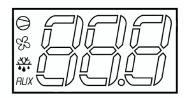


set  $^{\circ}$  for a second till the temperature setting flashes.

- $\mathbb{D}$  Use the button  $\mathbb{O}$  to increase the temperature setting.
  - Use the button  $\nabla^{\bullet\bullet\bullet}$  to decrease the temperature setting.
- When the setting is as required, press the button  $\checkmark$  to confirm.

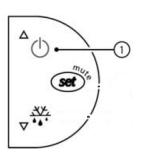
## Explanations of main symbols on the digital display:

- Press the button



Red  $\bigcirc$  indicator lit on the display = cooling mode engaged (compressor) Red  $\bigcirc$  indicator lit on the display = high-speed ventilation during cooling mode Red  $\overset{\checkmark}{\bullet}$  indicator lit and message "DF" on the display = defrosting mode in progress Red  $\overbrace{HUX}$  indicator lit on the display = heating mode engaged (resistor)

### 4.2.2 STANDBY MODE



- Putting the air conditioner on standby: keep button 1 pressed in for 3 seconds. The compressor will stop and the fan will switch to slow speed.
- The thermostat will alternately display "OFF" and the cellar temperature.
- To exit the standby mode, keep button 1 pressed in for 3 seconds once again.
- The thermostat will display "ON" for 1 second.

### 4.2.3 AUTOMATIC DEFROSTING

The thermostat is programmed to regularly carry out automatic defrosting. That **stops the compressor**, and the **fan of the indoor unit continues to operate at slow speed**. Any condensate resulting from defrosting is drained through the condensate pipe.

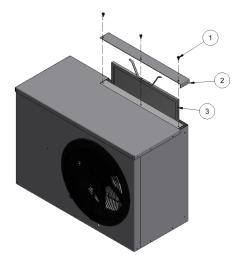
## 5 CARING FOR AND MAINTAINING THE WINEMASTER<sup>®</sup> AIR CONDITIONER

CAUTION

Before starting any work on the machine, make sure that it is disconnected.

## 5.1 CLEANING THE FILTER AND OUTDOOR UNIT

The outdoor unit has a washable reusable filter.



- Unscrew the two plastic screws (1)
- Take off the filter cover (2)
- Take out the filter (3)
- Wash the filter with hot water

• Once the filter is clean and drained, put it back in place and close the opening

Regularly inspect and clean the filter → Fouled filter = air conditioner damaged Regularly inspect and clean the openings

→ Opening clogged = air conditioner damaged

## 5.2 INFORMATION ABOUT DEVICE SAFETY SYSTEMS

This air conditioner has a manual reset high-pressure safety pressure switch and an automatic reset lowpressure safety pressure switch **located between the valves and the electrical hatch of the outdoor unit.** 

The high-pressure safety pressure switch protects the compressor if the pressure rises abnormally, which may be due to several reasons (intake or discharge of the outdoor unit blocked, filter fouled, failure of the fan of the outdoor unit, room in which the outdoor unit is located improperly ventilated, presence of obstacles that impede the air flow, etc.)

If a safety system trips, you only need to reset the device after first removing the cause (see below). In all other cases, a technician will need to be called in. The low-pressure safety device protects the compressor in the event of certain operating problems (evaporator iced up, poor exchange in evaporator, outdoor temperature too low at the start, indoor unit fan failure, no refrigerant due to a leak, etc.). However, since the device is reset automatically, the air conditioner should be stopped and a technician should be called in if the problem recurs.



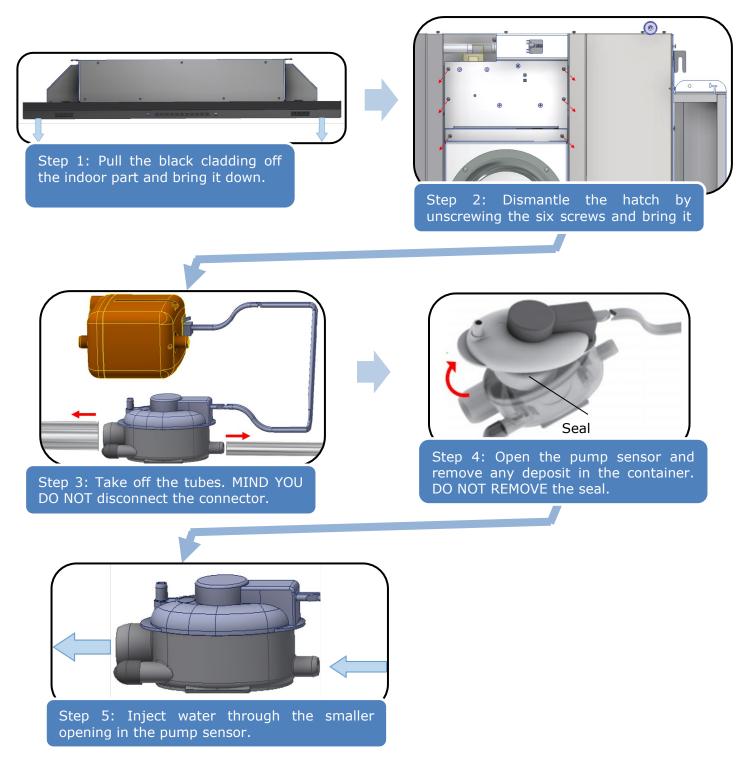
## 5.1 LIFT PUMP MAINTENANCE



## CAUTION

Before starting any work on the machine, make sure that it is disconnected.

If there is any problem with the condensate removal flow, check that the pipes are not blocked and clean the pump sensor container. This should be done once a year.



Reverse the order of operations for reassembly.

## **6 GUARANTEE**

## 6.1 <u>LEGAL GUARANTEE</u>

The legal guarantee for latent defects applies as provided in articles 1641 et sequentes of the French Civil Code. The legal guarantee of conformity applies as provided in articles L217-1 et sequentes of the French Consumer Code.

## 6.2 CONTRACTUAL TWO-YEAR GUARANTEE

The air conditioner is **guaranteed for two years** to be free from manufacturing defects.

During the contractual guarantee, WINEMASTER<sup>®</sup> shall replace any part recognised to be faulty. Depending on the circumstance, the After-Sales Service department of WINEMASTER<sup>®</sup> may ask for the faulty part to be returned. Any replacement or repairs of parts shall not extend the guarantee period. Transport costs shall be paid by the user.

# Items may only be returned with the written consent of the After-Sales Service Department of WINEMASTER<sup>®</sup>.

## 6.3 GUARANTEE TERMS AND CONDITIONS

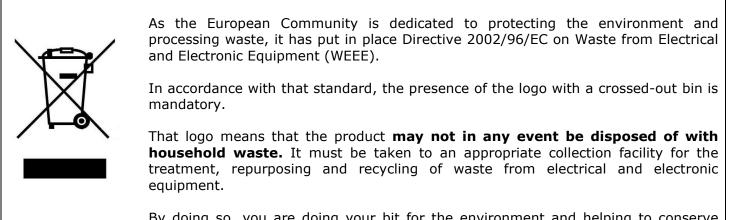
The contractual guarantee shall apply to all devices installed and used in accordance with the Installation and Usage Guide. It shall only apply if the purchase invoice or a copy thereof can be produced.

## 6.4 GUARANTEE EXCLUSIONS AND LIMITS

#### The guarantee shall not apply in the following cases:

- The insulation of the air-conditioned room or installation **are not in accordance with this guide**.
- The problem is due to negligence, improper maintenance, faulty or inappropriate use of the WINEMASTER<sup>®</sup> air conditioner (particularly if the filters are fouled).
- The device has been modified.

WINEMASTER<sup>®</sup> shall not be liable in any event for the direct or indirect consequences of any failure of the air conditioner. **The guarantee shall be limited to the product supplied by WINEMASTER<sup>®</sup>**.



By doing so, you are doing your bit for the environment and helping to conserve natural resources and protect human health.