Instructions for installation and use

(Keep safe for future reference).

WineSP40DUPRO

INFORMATION PROVIDED ON THE IDENTIFICATION PLATE OF THE DEVICE:

1. Model: ……
2. Serial no.: ……
3. Date of purchase: ……

05/01/2021

WINEMASTER

le temps d'être différent

CONTENTS

INTRODUCTION

Thank you for selecting a WINEMASTER® air conditioner.

No effort has been spared in its design and marketing to offer you an exclusive and very high quality product. Your WINEMASTER® 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® 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	317 x 638 x 546 mm
Weight of the device	55 kg	26 kg
Temperature setting	Preset to 12°C, adjustable from 8 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	

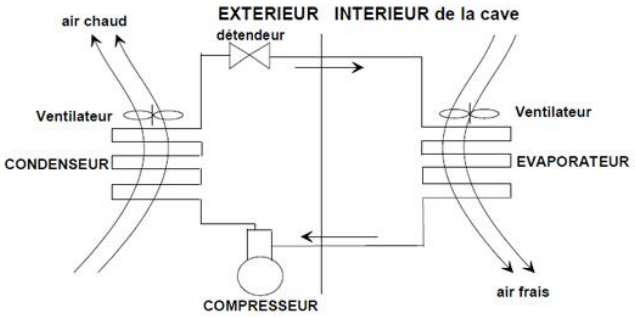
* *With insulation appropriate for the temperature and volume of the room.*

** *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
Ventilateur	Fan

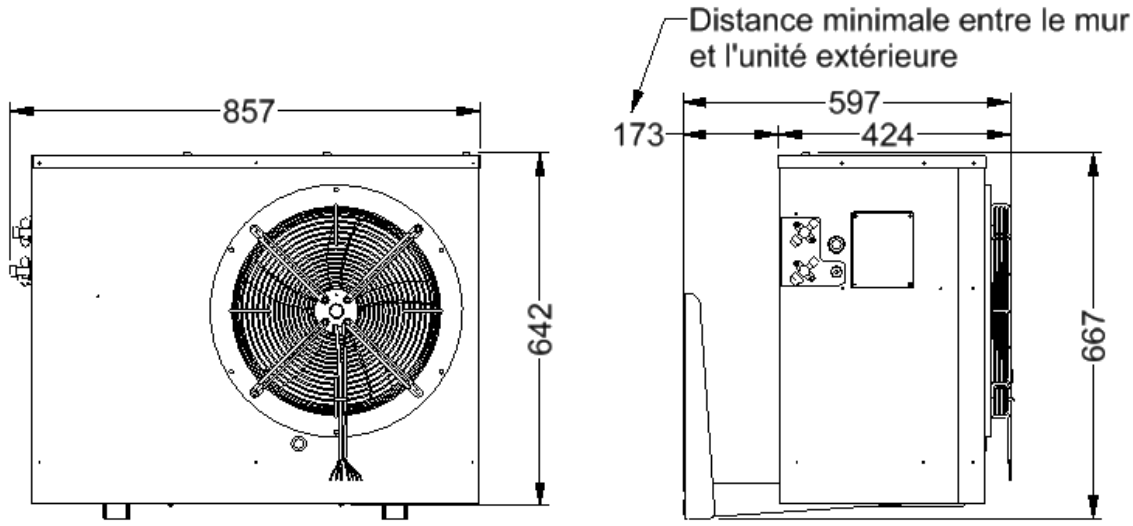
EVAPORATEUR	EVAPORATOR
Air frais	Cool air

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

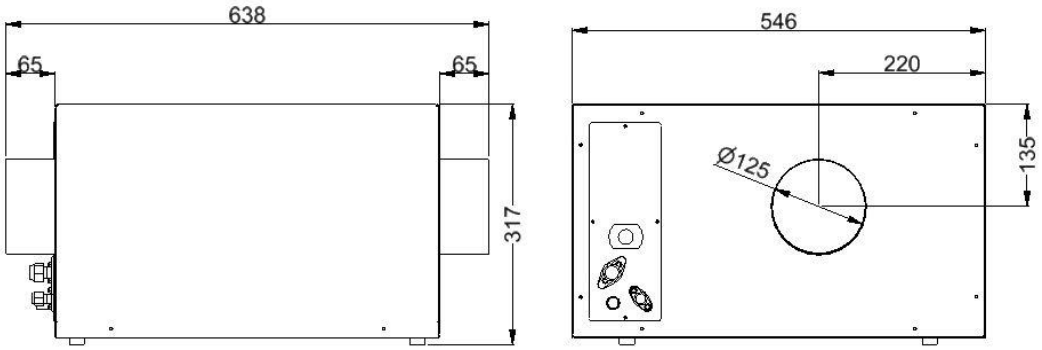
- **Outdoor unit**



Front view Side view

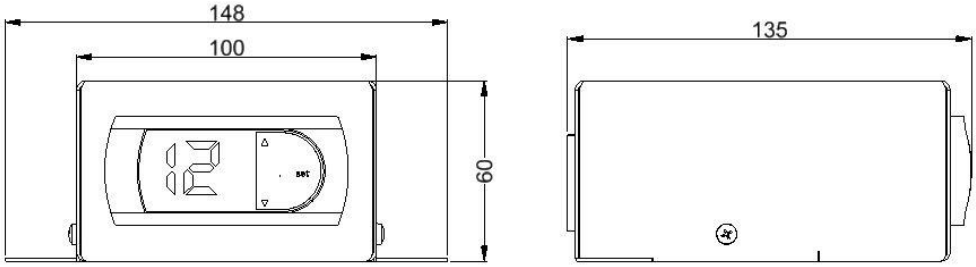
Distance minimale entre le mur et l'unité extérieure	Minimum distance between wall and outdoor unit

- **Indoor unit**



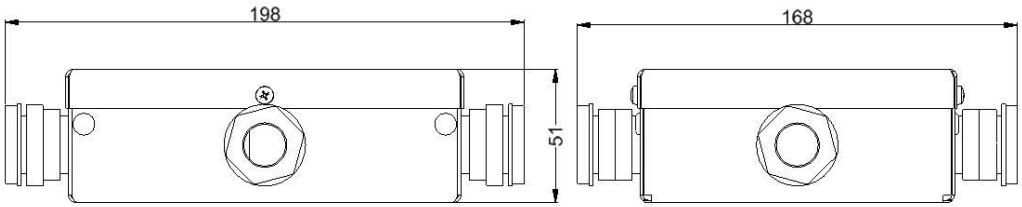
Front view Side view

- **Thermostat housing**



Front view Side view

- **Connections housing**



Front view Side view

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 OUTDOOR UNIT

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

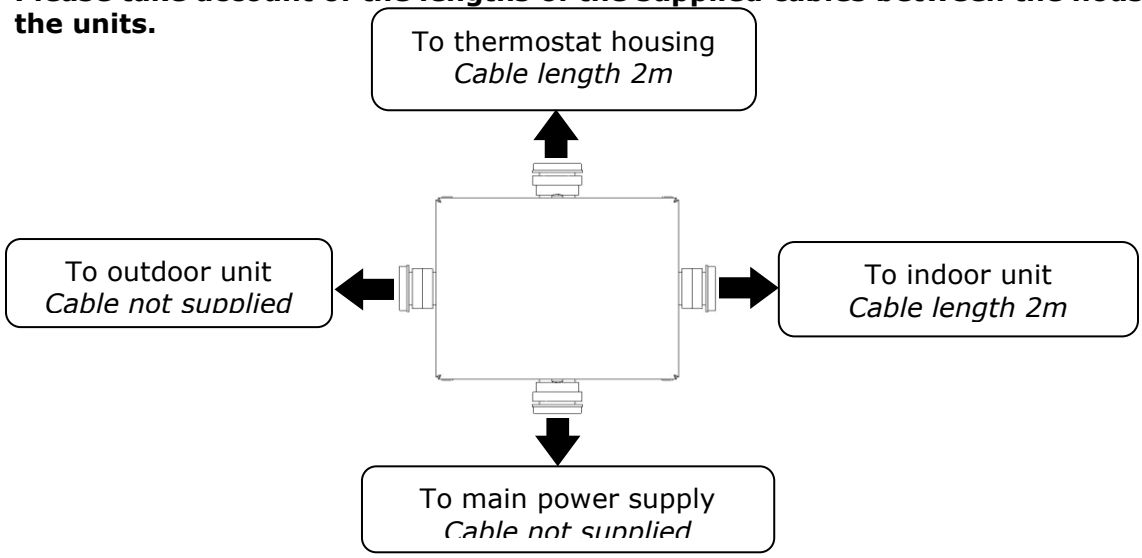
The thermostat housing is installed either inside or outside the air-conditioned room.
For its part, the probe must always be placed in the air-conditioned room.
The supplied probe is 1.5 m long. It may be extended using insulated flexible cable with two conductors with a minimum section of 0.5 mm².

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 CONNECTIONS DIAGRAM

Please take account of the lengths of the supplied cables between the housings and the units.



2.6 ROOM INSULATION

It is a determining factor for the proper working of the WINEMASTER® 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.

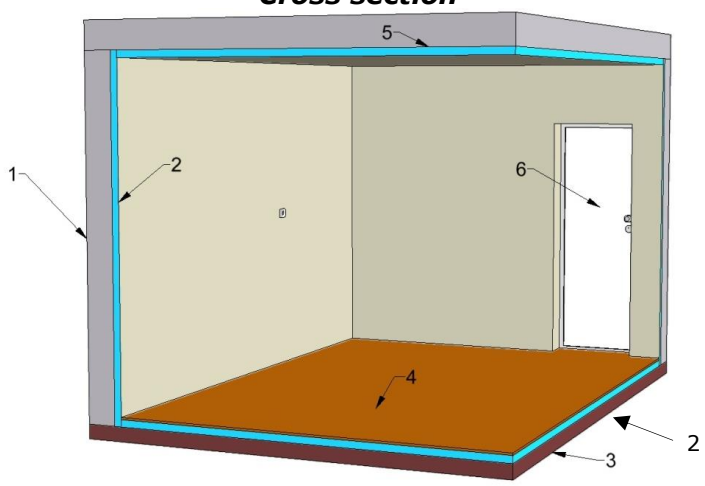
Continuity of insulation

The insulating materials should preferably be assembled:

- By fitting the grooves of panels into each other
  or
- By gluing the panels to each other.

→ **GOAL: Avoiding the unwanted entry of heat and humidity that could be harmful for regulation.**

Cross section



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

IMPORTANT

The validity of the guarantee covering the WINEMASTER® 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^3)	Thickness of expanded polystyrene (mm) (λ = 0.044 $W.m^{-1}.K^{-1}$)	Thickness of extruded polystyrene (mm) (λ = 0.030 $W.m^{-1}.K^{-1}$)	Thickness of polyurethane (mm) (λ = 0.025 $W.m^{-1}.K^{-1}$)
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 W/m^2K. 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.

→ **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:

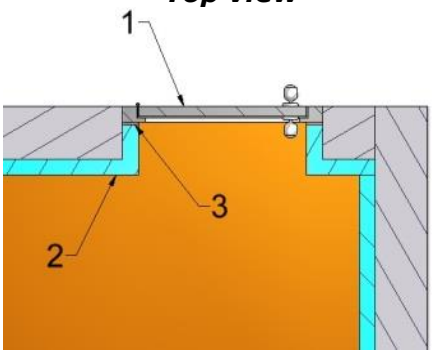
- **Insulation complexes** with a sufficiently strong panel on the top.
- **Insulation lined with wood chipboard** (approximately 15 mm thick), or any other appropriate covering (e.g. screed and slab).

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® insulating door** with polyurethane foam and a seal over its entire perimeter.

Top view



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.

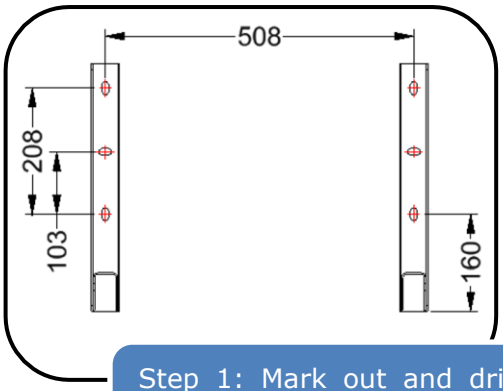
3 INSTALLING THE WINEMASTER® AIR CONDITIONER

3.1 LIST OF EQUIPMENT REQUIRED

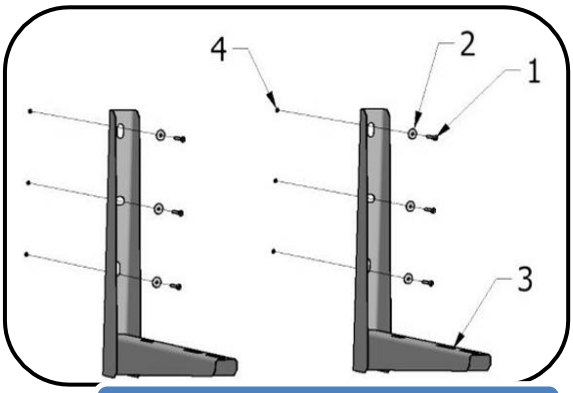
- 4G1.5mm² cord for connecting the outdoor unit
- 3G1.5mm² cord for connecting the connections housing
- 1/4" and 3/8" copper pipes for refrigeration connections
- Fasteners and tools for fastening the outdoor unit

3.2 PUTTING IN PLACE THE OUTDOOR UNIT

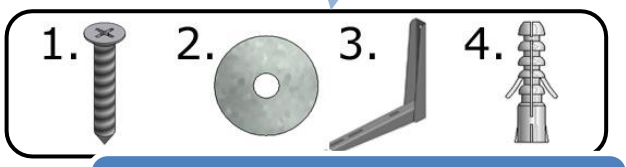
3.2.1 INSTALLATION



Step 1: Mark out and drill the fastening holes as indicated. (Drilling diameter: 12 mm max.)

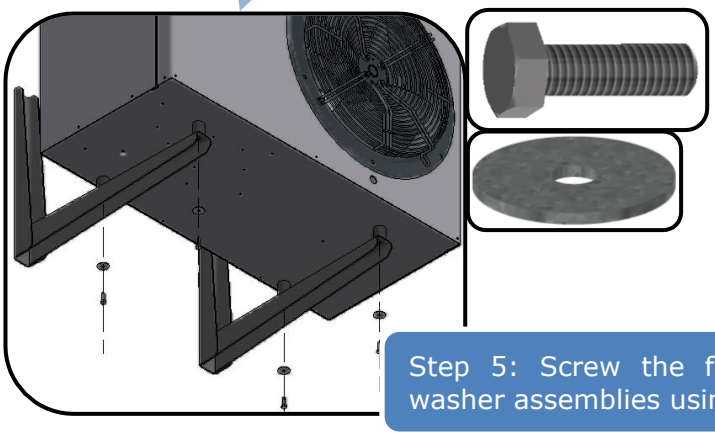


Step 2: Unfold the brackets.



Step 3: Fasten the brackets with the appropriate fasteners.

Step 4: Place the air conditioner on the brackets.



Step 5: Screw the four M6 bolt and washer assemblies using a 10 mm key.

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).

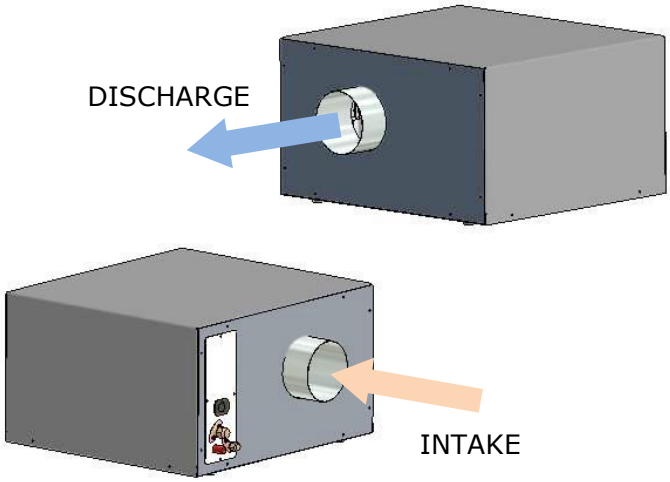
Make the electrical connections before fastening the indoor unit to the ceiling if permitted by the cable lengths (see section 3.6.2, p 19).

3.3.1 INSTALLATION

- Use insulated ducts, Ø125mm
- Make sure you select the ideal location so that the duct length is as short as possible (14 m max in all/reduce by 1 m per number of bends)
- Bend radius ≥ 175 mm
- Do not reduce the duct section

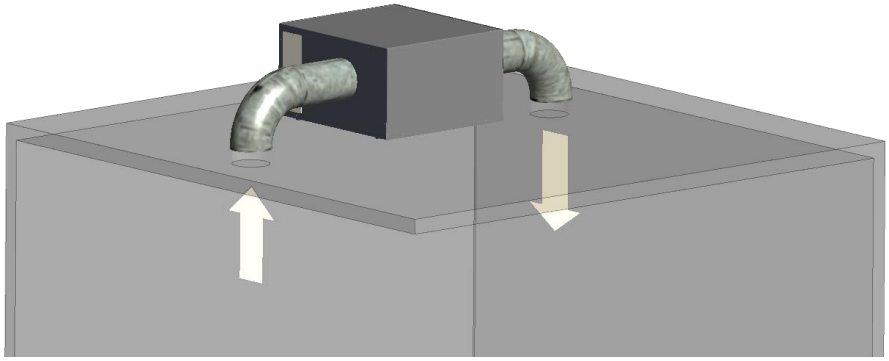
Two finishing grilles are supplied with the device. They are adapted for the air flow of the air conditioner.

3.3.2 AIR FLOW

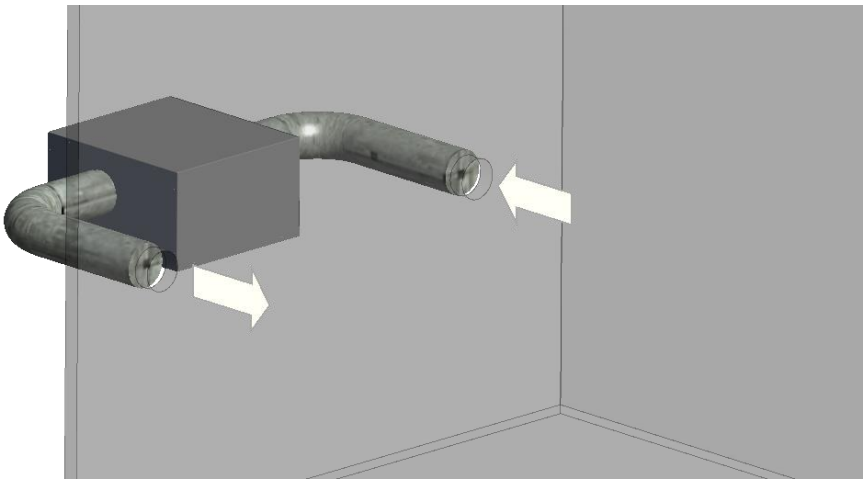


3.3.3 EXAMPLES OF ASSEMBLY OF THE INDOOR UNIT

Installation on the air-conditioned room



Installation near the air-conditioned room

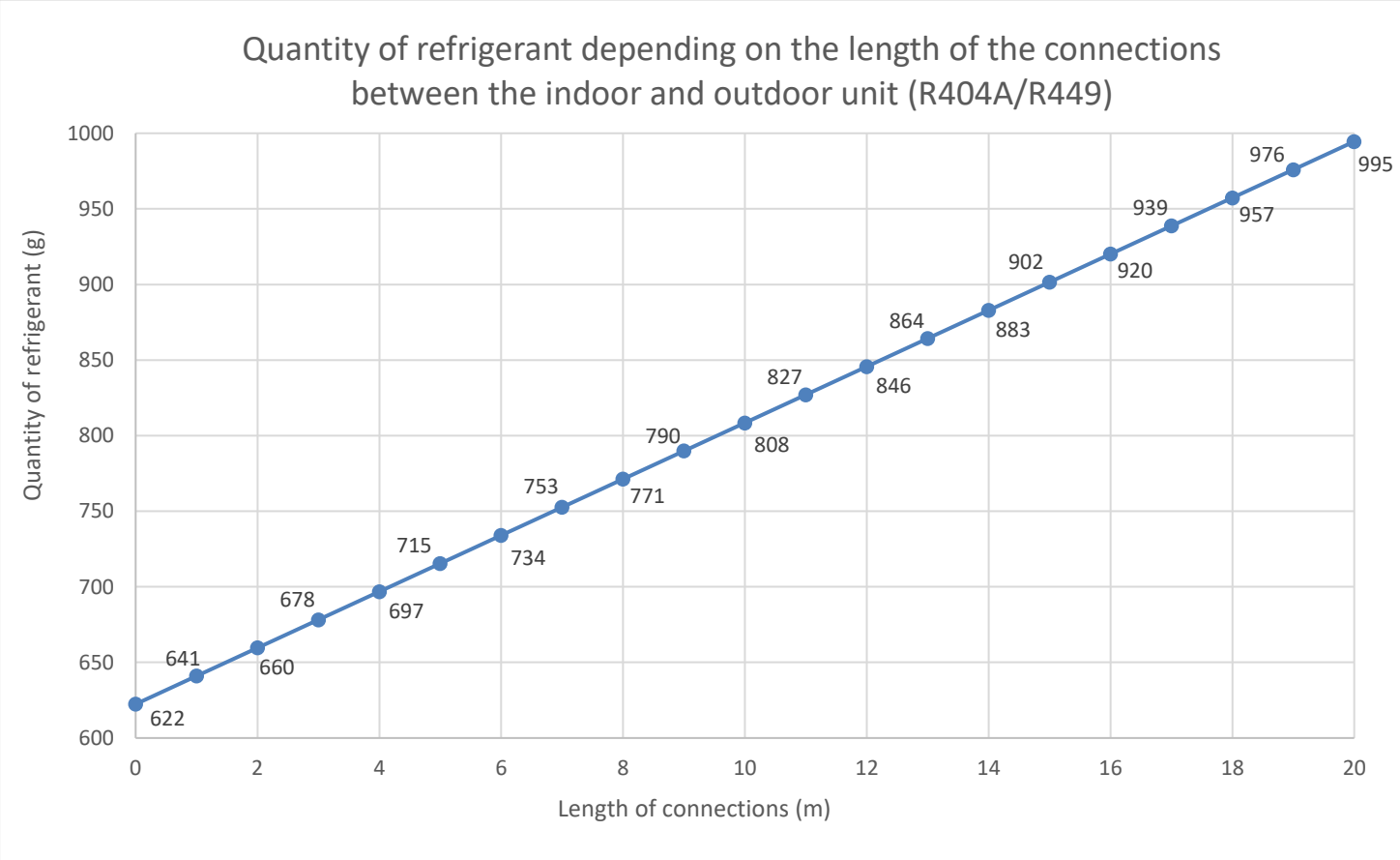


3.4 PIPING CONNECTIONS

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.

In order to have the right quantity of refrigerant in the device, refer to the curve below for the refrigerant charge:

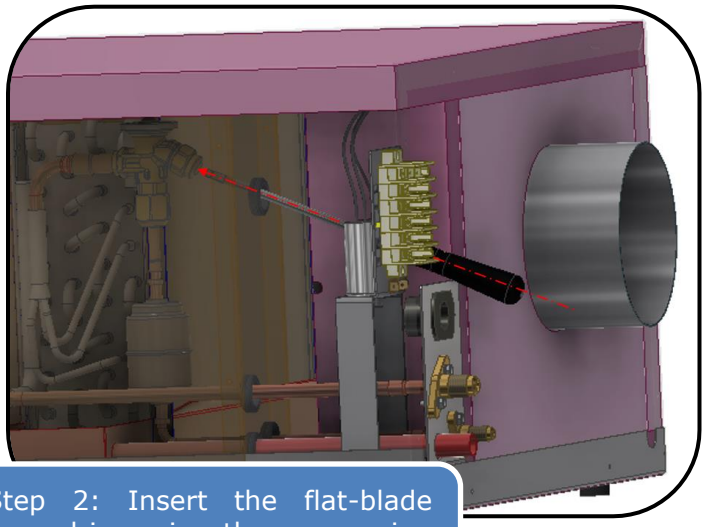


When satisfactory operation is obtained, loosen the connecting valves fully before disconnecting the piping fittings.

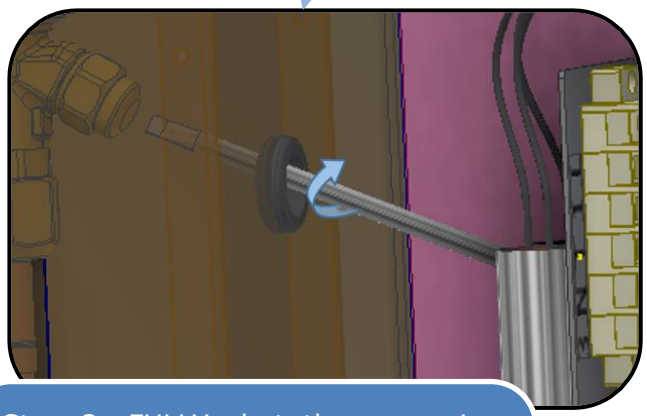
The connections can then be disconnected and plugs put back on the valves.

3.5 ADJUSTING THE EXPANSION VALVE

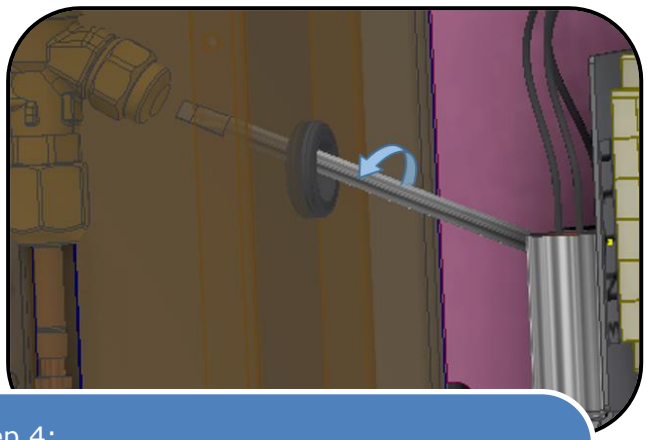
Step 1: Take off the cover to reach the expansion valve



Step 2: Insert the flat-blade screwdriver in the expansion valve adjusting screw



Step 3: FULLY shut the expansion valve (turn the screwdriver clockwise). Check the position of the tip of the screwdriver (to give it the right number of turns for correct expansion valve adjustment)



Step 4:

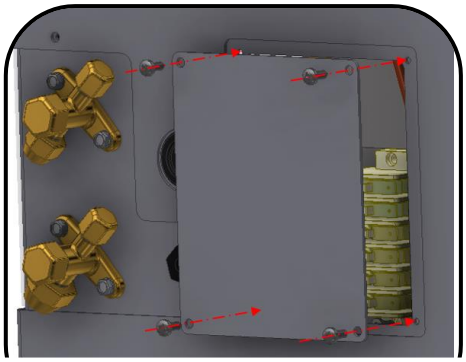
- For **R449**: **OPEN (default adjustment)** the expansion valve by **2 TURNS** (turn the screwdriver anticlockwise)
- FOR **R404A**: **OPEN** the expansion valve by **4 TURNS** (turn the screwdriver anticlockwise)

3.6 ELECTRICAL CONNECTIONS

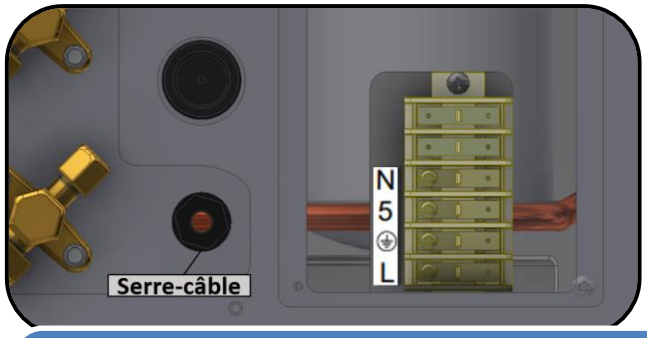
The device must be installed in accordance with national electrical installation rules.

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

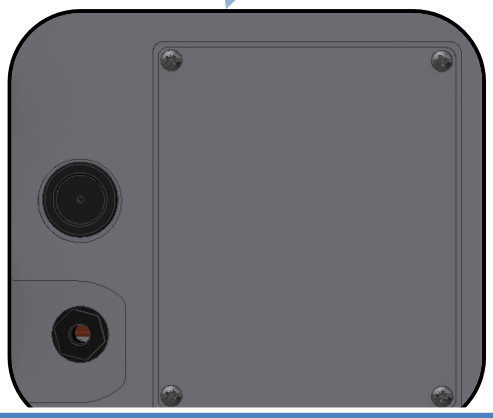
3.6.1 CONNECTING THE OUTDOOR UNIT



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



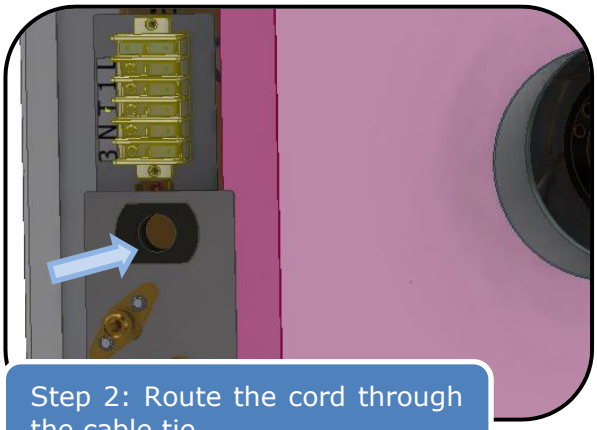
Step 2: Connect the connections housing and the outdoor unit through the cable tie with the 4G1.5 cord (not supplied) as shown in the wiring diagram (see section 3.6.4, p 20).



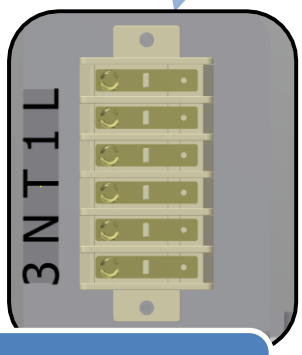
Step 3: Close the outdoor unit.

3.6.2 CONNECTING THE INDOOR UNIT

Step 1: Unscrew and remove the front cover.



Step 2: Route the cord through the cable tie.



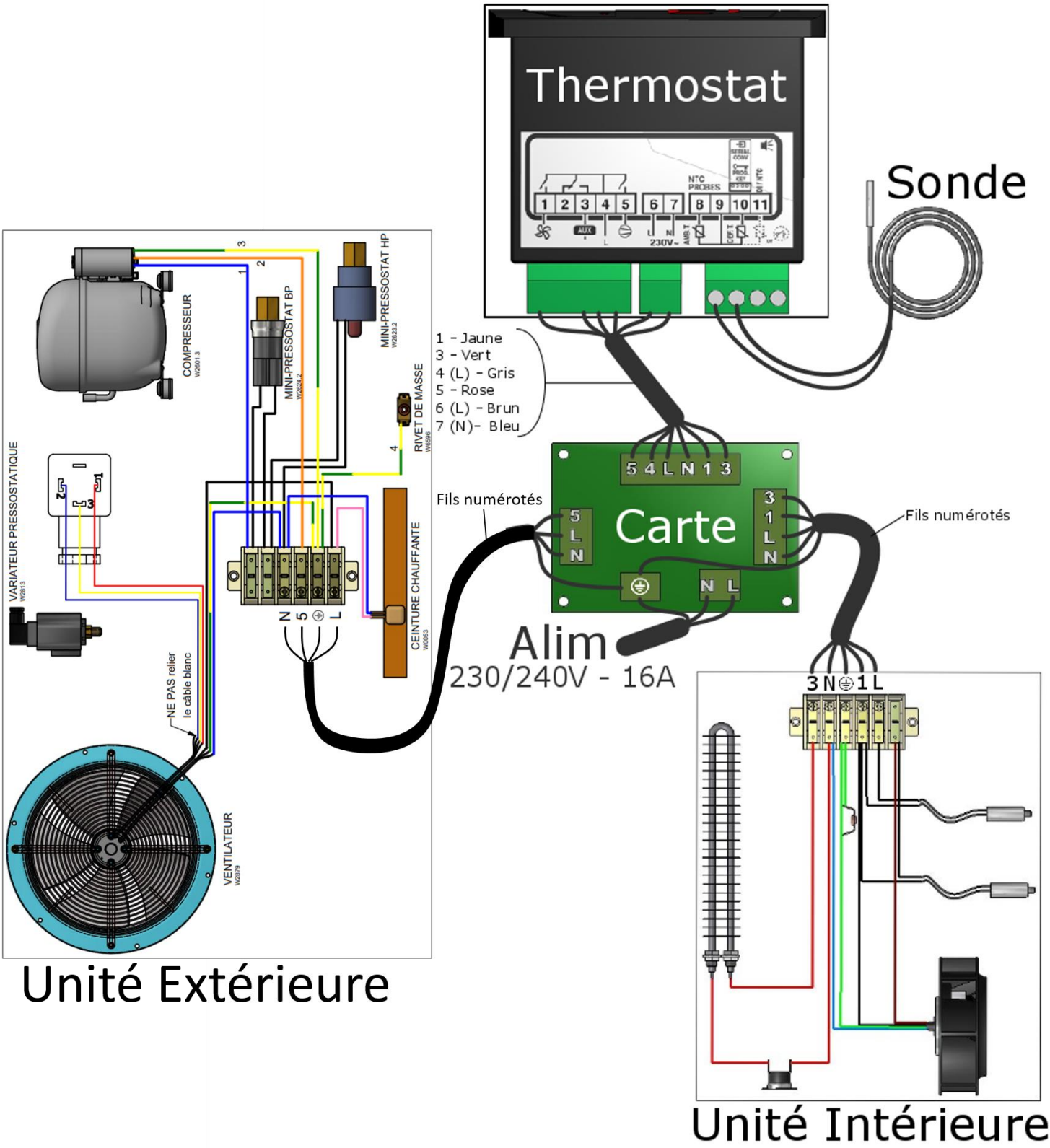
Step 3: Connect the cord as indicated in the wiring diagram (see section 3.6.4, p 20).

Step 4: Close the cover.

3.6.3 POWER CONNECTION

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

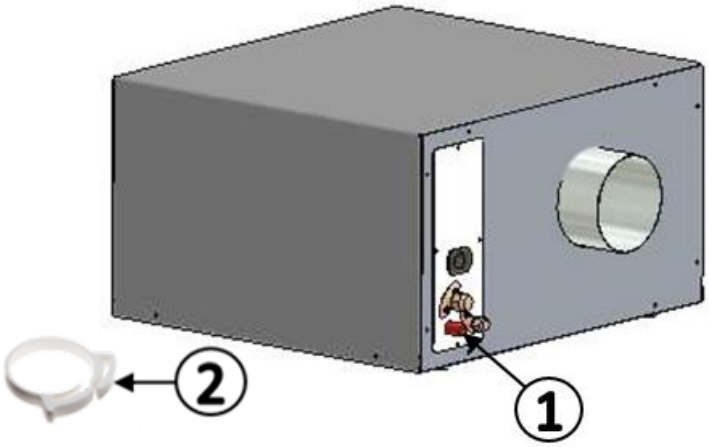
3.6.4 WIRING DIAGRAM



PRESSURE ACTUATED SPEED CONTROLLER DO NOT connect the white cable	Thermostat Probe

FAN COMPRESSOR LP MINIATURE PRESSURE SWITCH HP MINIATURE PRESSURE SWITCH HEATING BELT GROUND RIVET	 1 - Yellow 3 - Green 4 (L) - Grey 5 - Pink 6 (L) – Brown 7 (N) – Blue Numbered wires Power
Outdoor unit	**Indoor unit**

3.7 INSTALLING THE CONDENSATE DRAIN



- Condensation water is removed through a hose that is delivered with the device
- Fasten the hose to the outlet pipe (1) with the clamp (2) supplied with the device
- The water flows by gravity and must be connected to a waste water drain or into a bucket that must be emptied regularly

The drain hose must not be stuck or form an upward loop!
The recovery container could overflow if the hose is not turned downward.

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, p21).

4.1 Connecting the air conditioner

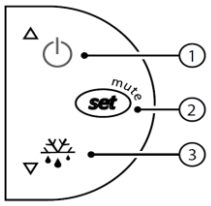
When you start the air conditioner, the room temperature is displayed:

- 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 Starting up

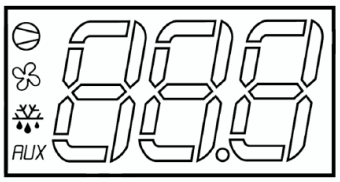
4.2.1 TEMPERATURE SETTING

The temperature is set on the thermostat:



- Press the button set for one second till the set temperature flashes.
- Use the button △ to increase the temperature setting.
- Use the button ▽ to decrease the temperature setting.
- When the setting is as required, press the button set to confirm.

Explanations of main symbols on the digital display:



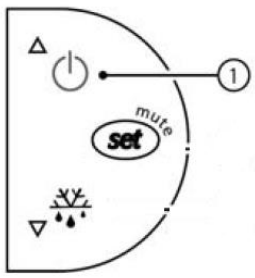
Red indicator lit on the display = cooling mode engaged (compressor)

Red indicator lit on the display = high-speed ventilation during cooling mode

Red indicator lit and message "DF" on the display = defrosting mode in progress

Red AUX 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

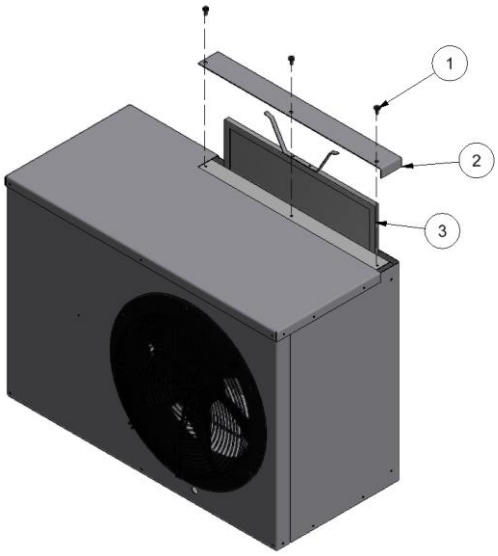
The thermostat is programmed to regularly carry out automatic defrosting. That **stops the compressor**, and the **fan of the indoor unit continues to operate at slow speed**. Any condensate resulting from defrosting is drained through the condensate pipe.

5 CARING FOR AND MAINTAINING THE WINEMASTER® 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 CONDENSATE DRAINING PIPE

Check that it is not blocked and clean it at least once a year.

5.3 INFORMATION ABOUT DEVICE SAFETY SYSTEMS

This air conditioner has a manual reset high-pressure safety pressure switch and an automatic reset low-pressure 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.

6 GUARANTEE

6.1 LEGAL GUARANTEE

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® shall replace any part recognised to be faulty. Depending on the circumstance, the After-Sales Service department of WINEMASTER® 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®.

6.3 GUARANTEE TERMS AND CONDITIONS

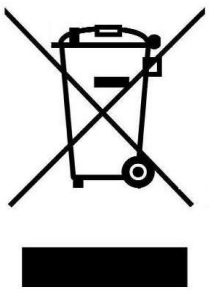
The contractual guarantee shall apply to all devices installed and used in accordance with the Installation and Usage Guide. It shall only apply if the purchase invoice or a copy thereof can be produced.

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® air conditioner (particularly if the filters are fouled).
- The device has been modified.

WINEMASTER® 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®.**



As the European Community is dedicated to protecting the environment and processing waste, it has put in place Directive 2002/96/EC on Waste from Electrical and Electronic Equipment (WEEE).

In accordance with that standard, the presence of the logo with a crossed-out bin is mandatory.

That logo means that the product **may not in any event be disposed of with household waste.** It must be taken to an appropriate collection facility for the treatment, repurposing and recycling of waste from electrical and electronic equipment.

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