



**ASPIRCOMFORT PRO X 380V** NSTALLATION, USE AND MAINTENANCE MANUAL

# 1. GENERAL

### 1.1 INTRODUCTION

This manual was prepared with the aim of making the installation and management of your system as simple as possible.

By reading and applying the suggestions of this manual, you can achieve the best performance of the purchased product.

We would like to thank you for choosing to purchase one of our products.

Read this file carefully before performing any operation on the unit.

The unit must not be installed, nor must any operation be performed on it, without firstly reading and understanding the entirety of this manual. In particular it is necessary to adopt all of the precautions listed in the manual.

The documentation provided with the unit must be delivered to the system manager for safe keeping (at least 10 years) for future assistance, maintenance and repairs.

Unit installation must take into account the strictly technical needs for good operation, as well as any local legislation in force and specific requirements.

Make sure that when the unit is delivered there are no evident signs of damage caused by transport. If there is, state this on the delivery note.

This manual reflects the state of the technical standards at the time of sale and cannot be considered inadequate if updated at a later date based on new experiences. The Manufacturer reserves the right to update production and the manuals without being required to update previous ones, except in exceptional cases.

Contact the Manufacturer's Sales Office to receive further information or updates on/to the technical documentation and for any suggestions for improvement to this manual. All suggestions shall be strictly vetted.

# 1.2 FUNDAMENTAL SAFETY RULES



Remember that the use of products that use electrical energy and water requires certain fundamental safety rules to be followed:

- Unable and unassisted persons are forbidden from using the device.
- It is forbidden to touch the device in bare feet and with wet or damp parts of the body.
- Any cleaning activity is forbidden without firstly disconnecting the device from the electrical power mains by
  placing the system's main switch on 'off'.
- It is forbidden to modify the safety or regulation devices without the authorisation and indications of the device manufacturer.
- It is forbidden to pull, detach, twist the electrical cables coming out of the device, even if it is disconnected from the electrical power mains.

- It is forbidden to insert objects and substances through the air intake and supply grids.
- It is forbidden to open the access doors to the inside of the device, without firstly placing the system's main switch on 'off'.
- It is forbidden to release and leave packaging material within the reach of children as it is a potential source
  of danger.
- Comply with the safety distances between the machine and other devices or structures to guarantee enough
  access space to the unit for maintenance and assistance operations as stated herein.
- The unit's Power supply must be provided with electrical cables duly sized for the power of the unit. The
  voltage and frequency values must match those stated for the respective machines; all machines must be
  earthed according to the regulations in force in the various countries.
- Do not release R410Anell into the atmosphere: R410A is a fluorinated greenhouse gas, referred to in the Kyoto protocol, with a global warming potential (GWP) of =1975.

# 1.3 SYMBOLS

The symbols used in the following file quickly provide information necessary for the correct use of the unit. Safety symbols.



### ATTENTION

Authorised personnel only. This means that the stated operations are important to safe machine operation.



### DANGER

Risk of electric shock. This means that failure to comply with the warnings poses the risk of electric shock.



### DANGER

This means that failure to comply with the warnings poses the risk of injury to the exposed persons.



### WARNING

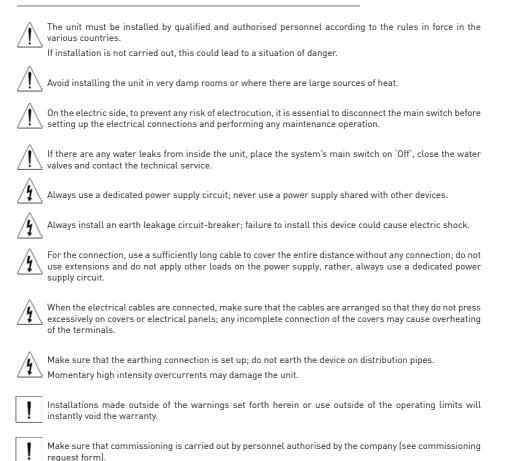
This means that failure to comply with the warnings poses the risk of damage to the unit or system.



### DANGER

This means that there are moving parts and poses the risk of harm to exposed persons.

### 1.4 WARNINGS



## 1.5 CONFORMITY

The CE marking (applied on each machine) certifies compliance with the following Community standards: • Low Voltage Directive 2014/35/EC

- Electromagnetic Compatibility Directive 2014/30/EC
- RoHS2 2011/65/UE
- WEEE 2012/19/EC

### 1.6 RANGE

Code	Total Flow Rate/renewal air flow rate	Type of installation
AP20069	Up to 380 m3/h	Vertical

# 1.7 IDENTIFICATION

- The unit can be identified by the rating plate attached to the front bottom panel.

 $\mid$  - On the packaging there is another identification rating plate with the unit model and the shipping  $\overline{}$  references.

The rating plate on the packaging is not valid for tracking the product over the years after sale.

The removal, deterioration and illegibility of the rating plate attached to the unit makes machine identification and ordering spare parts very difficult, and therefore all future maintenance.

### 1.8 CONSTRUCTION FEATURES

The ASPIRCOMFORT PRO X 380V units are designed for the renewal of the air in rooms. The easy installation through two holes diam. 160 mm and the high flow rate of fresh air, allows the application in situations such as residential buildings, schools, clinics, offices and all contexts where it is necessary to change the air; The thermodynamic recovery allows to have an integration with respect to the environmental climatic conditions, helping the air conditioning system to meet the internal comfort; In addition, the air introduced is always at a temperature close to or better than the environment, thus ensuring a higher perceived comfort; The unit consists of a monoblock including all components for proper operation: fans, cooling circuit with high-efficiency compressors, air filtration sections and high-efficiency contercurrent heat recovery unit.

### ALL IN ONE

Complete unit capable of exchanging air and integrating the cooling thermal demands of the served rooms. The unit is complete with all components for its operation and ready to use.

### UVC lamp (ACCESSORY AP20384) AND VOC SENSOR

The unit is equipped with a UVC lamp (AP20384 accessory), which enables a germicidal action to be carried out on the air introduced from outside through the effect of UVC; the lamp is activated automatically according to the quality of the room air.

#### VENTILATION

Fans with directly coupled brushless motor; the fans operate in various modes controlled mainly by the air quality sensor located inside the unit.

#### ACTIVE THERMODYNAMIC RECOVERY

The unit allows active recovery of energy from the exhaust air. The thermodynamic recovery allows, thanks to its cooling circuit, to supply energy to the environment in a higher quantity than that taken away by the ventilation for 90% of the unit's operation.

#### FILTRATION

There are 2 ePM1 filters on the extract air and the supply air; the filter on the supply air is placed after the coil to completely filter out any impurities in the supply air, On the outdoor air there is a Coarse pre-filter that protects the cleanliness of the unit.

### STRUCTURE

#### Self-supporting sheet metal frame.

Self-supporting sheet metal structure, externally painted (in the visible versions), with polyethylene and EPDM thermal and acoustic insulation in between.

#### COOLING CIRCUIT

Built with braze welded copper, complete with: High efficiency BLDC compressor, filter dryer, finned coils, electronic expansion valve, reversing valve and safety devices.

#### ADJUSTMENT

Electric panel on-board the unit with microprocessor and dedicated regulation. Fan management, temperature display and setpoint, timed dirty filter management. Management of defrosting algorithm optimised for operation at low external temperatures; Panel with graphic interface on board the machine and remote control included in the visible versions.

The units are prepared for transport secured to a wooden pallet and placed inside cardboard boxes. To facilitate relocation, the units have a wooden pallet and hooks on the base so it can be lifted and positioned in the place of installation. The unit can be stored in a room protected against the weather at temperatures of no less than 0°C up to a maximum of 40°C.

### 1.11 RECEIVING, CHECKING AND HANDLING

The unit is shipped fully loaded with refrigerant gas in the circuits and non-freezing oil in the compressors. In no

case can there be water in the hydraulic circuits, since the unit is carefully emptied after final testing. Upon arrival the customer is required to inspect the unit, including the inside, to ensure that no damage occurred during transport; the unit left the factory in perfect conditions. If damage is found the customer must immediately report this to the courier by providing details on the extent of the damage on the delivery note, providing photographic evidence of the alleged damage and notifying the shipping company of any alleged damage by registered mail with return receipt.

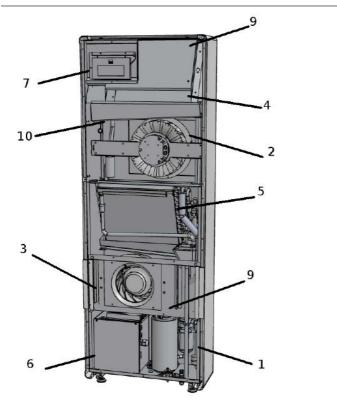
The manufacturer will not be held liable for damage caused by transport even if he himself did the shipping. It is necessary to be very careful when handling the unit during unloading and positioning on site so as to avoid damage to the enclosure and the more delicate inside parts such as compressors, exchangers, etc. in any case keep the unit upright without tilting it. All of the indications on what precautions to take to prevent damage to the unit and the indications of its weight, are provided on the packaging. The packaging can be composed of various materials such as wood, cardboard or polyethylene (plastic). It is good practice to send them for disposal or recycling through specialised companies to reduce the impact on the environment.

# 1.12 DISASSEMBLY AND DISPOSAL

Do not take down or dispose of the product on your own. The product must be disassembled, demolished, disposed of by authorised personnel in compliance with local regulations.



# 1.9 MAIN COMPONENTS OF THE UNIT



- 1. Compressor
- 2. Intake fan
- 3. Exhaust fan
- 4. Input coil
- 5. Exhaust coil
- 6. Electrical panel
- 7. Display
- 8. Outdoor air pre-filter
- 9. Epm1 filters
- 10. UVC lamp (AP20384 accessory)

# 1.10 PACKAGING AND TRANSPORT

# 2. INSTALLATION

# 2.1 INSTALLATION CONDITIONS

The unit must be installed based on national and local regulations governing the use of electrical devices and based on the following indications:

- install the unit inside residential buildings with room temperature between 0°C and 45°C;
- avoid areas near sources of heat, steam, inflammable and/or explosive gases and particularly dusty areas;
- install the unit in a place that is not subject to frost (the condensation water must be discharged not frozen, at a certain slope, using a trap);
- do not install the unit in zones with a high relative humidity rate (such as bathroom or toilet) to avoid condensation on the external surface;
- choose a place of installation where there is enough room around the unit for the connections of the air ducts and to perform maintenance activities;
- the consistency of the ceiling/wall/floor where the unit will be installed must be suitable for the weight of the unit and not cause vibrations.

The installation position of the unit, in order to obtain the best operating efficiency and to avoid faults or hazardous conditions, must have the following requirements:

- Respect the spaces indicated in the figure.
- The wall on which the unit is to be fixed must be sturdy and suitable to support its weight.
- It must be possible to leave space around the unit for maintenance.
- There must be no obstacles to the free circulation of air in the upper intake area (curtains, plants, furniture) or in the front air outlet area; this could cause turbulence that would inhibit the correct operation of the appliance.
- The unit can be placed on the floor or suspended.
- The appliance is rated IPX0, so it is not suitable for outdoor installation.
- Check that there are no structures or installations (beams, pillars, water pipes, electric cables, etc.) at the points where you intend to drill the holes that would prevent the necessary holes from being drilled. Check that there are no obstacles to the free circulation of air through the holes you are going to make (plants and their foliage, slats, shutters, grills or grates that are too thick, etc.).
- The appliance must not be in a position where the air flow is aimed directly at people nearby.
- The appliance is not directly above an electrical appliance (television, radio, refrigerator, etc.), or above a heat source.

The room chosen for installation must have:

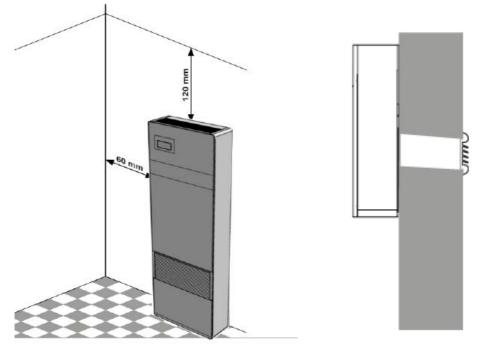
- Outdoor air duct connections;
- 230V single-phase electrical connection;
- Connection for the condensate discharge.

# 2.2 UNIT POSITIONING

### TYPE OF INSTALLATION

The unit requires two Ø162 holes to be drilled as indicated on the drilling template in order to operate; The maximum permissible hole length is 1 m and no bends may be made. It is necessary to use the grids supplied, or grids with the same characteristics.

Drilling into the wall must be carried out using appropriate equipment that facilitates your work and avoids excessive damage or disturbance to your customer. The best tools for drilling large diameter holes in walls are special drills (called 'core drills') with high torque and adjustable rotation speed depending on the diameter of the hole to be drilled and the material. To prevent the spread of large quantities of dust and debris in the environment, core drills can be coupled to suction systems consisting essentially of a hoover to be connected to an accessory (such as a suction cup) to be placed close to the drill bit.



Proceed as follows to perform drilling:

 Place the drilling template supplied against the wall, observing the minimum distances: from the ceiling, floor and side walls indicated on the template itself, which can be held in place with adhesive tape.

- Using a small drill or an awl, carefully mark out the centre of the various holes to be drilled before making them.

- Drill two holes for the air inlet and outlet using a drill bit.

These holes must be drilled with a slight downward slope to prevent water from flowing back through the pipes.

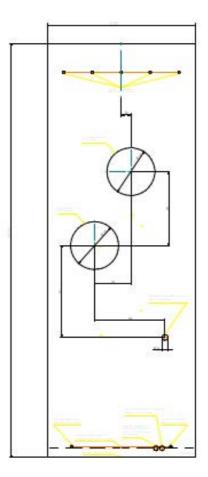
Most of the material removed is ejected outwards, so care must be taken to ensure that it does not strike people or objects below as it falls. In order to avoid breaking the external plaster as much as possible, the final part of the hole should be drilled very carefully, loosening the pressure on the core drill a little.

Drill the 6 holes for anchoring the wall mounting bracket as indicated on the drilling template.

The greatest weight of the appliance is on the right-hand side, so it is preferable to secure a firmer fixing on this side. The 6 dowels supplied require a hole diameter of 8 mm.

In any case, a careful examination of the characteristics and consistency of the wall is necessary to determine the number of fixings to be made and the possible choice of specific anchors for particular situations. In the case of installation on plasterboard or walls with a low consistency, provide a bracket on the outside, if necessary, that can guarantee the safe support of the machine.

The manufacturer cannot be held responsible for any underestimation of the structural consistency of the anchorage provided by the installer. We, therefore, invite you to pay the utmost attention to this operation. Do not install the unit with the sides directly touching the walls to avoid possible noise from contact, insert rubber or neoprene strips in that case.



Provide enough space to perform maintenance activities: it must be possible to open the cover of the unit (front).

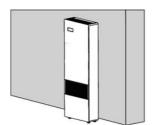
### POSITIONING ON MOUNTING BRACKET

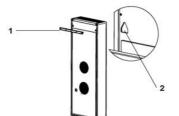
After checking that the fixing bracket is firmly fixed to the wall and that the electrical and condensate discharge connections have been made, you can attach the air conditioner. Lift it up by gripping the sides of the lower base until the bracket engages in the points provided on the unit. To facilitate the docking operation you can tilt the unit slightly towards you.

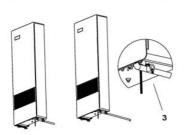
Direct electrical connection (by disconnecting the power cable with plug) and fixing the condensate discharge must be carried out with the appliance away from the wall by means of a wooden wedge or similar object.

At the end of the work, carefully check that no cracks remain behind the back of the unit, especially in the area of the air inlet and outlet ducts.

To increase installation safety, the machine can be anchored to the wall by means of a special anti-lifting bracket on the underside of the machine. The drilling position is shown on the installation template.







1 - Mounting bracket 2 - Anchor holes 3 - Anti-lifting bracket

### 2.3 CONDENSATE DISCHARGE CONNECTION



Due to the cooling system, the condensate discharge pipe (Ø16mm internal not supplied) must be connected to the pipe at the rear of the unit. For this reason, it is essential that the discharge line has a minimum slope of at least 3% at each point. The tube to be used can be rigid or flexible with a minimum internal diameter of 16 mm. If the line enters a sewage system, siphoning must be carried out before the pipe enters the main discharge. This siphon must be at least 300 mm below the inlet of the appliance.

If the drainage line flows into a container (tank or other), it must be ensured that the container is hermetically sealed and above all that the drainage pipe does not remain immersed in water.

The hole for the condensate pipe must always have an outward slope.

The exact position of the pipe opening in relation to the machine is defined on the drilling template.

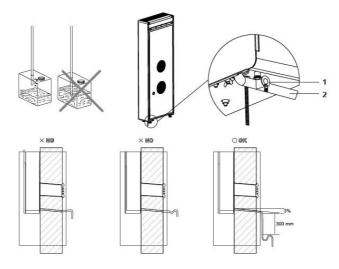
Take care in this case that the water expelled does not cause damage or inconvenience to property or persons. During the winter period this water can cause ice sheets to form outside.

When connecting the condensate discharge, take care not to crush the rubber hose.

If necessary, the condensate tray can be emptied through a safety drain on the base of the appliance.

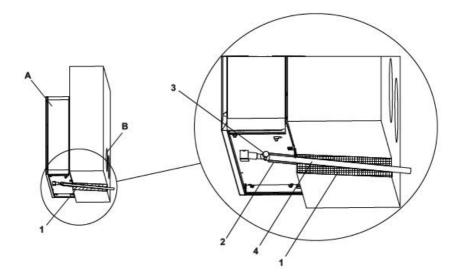
N.B.: for the installation of the condensation discharge pipe towards the outside, it is recommended to cover the internal pipe supplied with the appliance with anti-condensation insulation with an internal diameter of 10 mm (see ref. 2 in the figure).

The insulation must be inserted up to the mouth of the external condensate discharge pipe embedded in the wall.



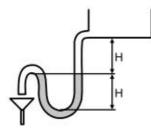
1 - Safety drain for emptying the water tray

2 - Condensate discharge pipe



1 - Wall section 3- Emergency drain 2- Insulation

- 4- Condensate discharge pipe



Condensate discharge connection

# 3 AERAULIC CONNECTIONS

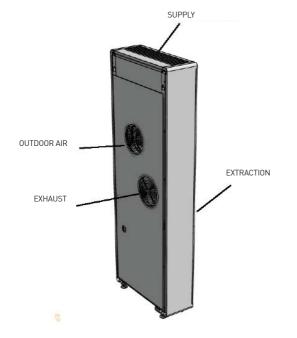
# 3.1 AERAULIC ORIENTATIONS

The unit has 4 male circular rear fittings of different  $\emptyset$  and one rectangular front opening based on the size; To correctly connect the air ducts, refer to the following diagram and stickers on the unit.

Table of unit aeraulic connection diameters

Codes	AP20069	
Ø Outdoor air mm	160 mm	
Ø Exhaust mm	160 mm	

### AIRFLOW CONFIGURATIONS



Rear view

### 3.2 INSTALLATION OF EXTERNAL GRILLES

Once the holes have been drilled, the plastic sheets supplied must be inserted into them.

Roll up the sheet and insert it into the hole, paying attention to the seam line A, which must always be positioned upwards.

Cut off any excess part of the tube using a standard cutter.

To position the external grilles, proceed as follows:

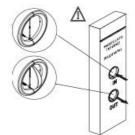
- attach the chains to the end of the springs;
- fold the external dampers back on themselves;
- insert the arm into the hole until the damper protrudes completely outwards, holding the end of the chains with the other hand to prevent accidental falls;
- re-open the damper on the outside of the hole;
- turn the damper so that the flap is in the vertical position C and check that the closing mechanism works;
- pull the chains by tensioning the springs;
- use a wire cutter to cut off the excess chain links;
- fix the chain hook to the wall B.

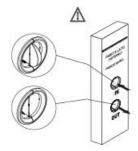
Use only the grills supplied or grills with the same characteristics.

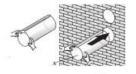
The dampers must be positioned with the flap vertical.

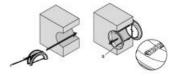
The dampers are different. A distinction must be made between the one on the inlet and the one on the outlet, depending on the direction of opening of the flaps.

Once the installation of the grilles is complete, check their opening (towards the inside of the duct for the intake grill "IN" and towards the outside of the duct for the exhaust grill "OUT"). Please note that the grilles open when the flow of outside air is activated to allow the cooling or heating function. For their testing, it is therefore essential to operate the air conditioning system for cooling or heating.









# 4 ELECTRICAL CONNECTIONS

## 4.1 GENERAL



- Before starting any operation to perform the electrical connection make sure that the unit is not electrically powered.
- Perform the necessary electrical connections referring exclusively to the wiring diagram attached to this manual.
- Install a suitable cut-off and breaker device exclusively serving the unit.
- It is essential for the unit to be earthed.
- Check that the electrical components chosen for installation (main switch, breakers, cable size and terminals) are suitable for the electrical power of the installed unit and that they take into account the start-up currents of the compressor in addition to the maximum achievable load. The relative data is stated on the attached wiring diagram and on the unit's rating plate.
- It is forbidden to enter the unit with electrical cables except where specified in this file.
- Use duly-sized electrical cables and conductors that comply with the regulations in force in the various countries.
- Strictly avoid feeding through the electrical cables so that they are directly touching pipes or parts inside the unit.
- After the first moments of operation, check the tightness of the power supply terminal screws.

Table for power supply line sizing

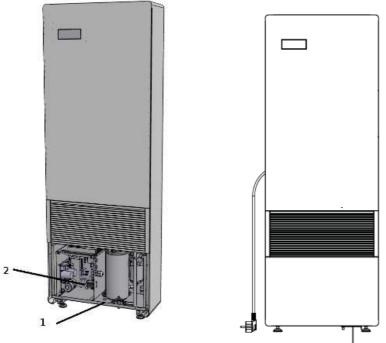
Power supply	V/Ph/Hz	230/1/50
Max absorbed current	А	5.0

# 4.2 POSITIONING AND PROCEDURES OF THE CONNECTIONS

The unit is supplied with all electrical connections prepared and with a schuko plug for connection to the mains;

The electrical cable entry is located at the bottom of the unit where the cable holes are located;

The connections are inside the electrical compartment, located in the lower left-hand corner where the terminal block with power supply and ON OFF control is clearly visible;



1 - Cable entry 2 - Terminal block

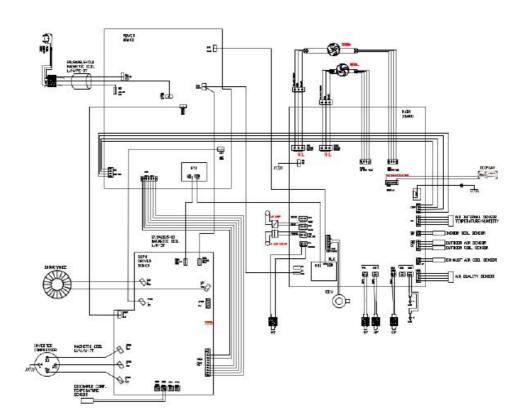
# 4.3 INSERTION OF REMOTE CONTROL BATTERIES



Only a CR2025 3 V dry lithium battery (included in the scope of supply) may be used for the remote control. Spent batteries may only be disposed of at collection points set up by Local Authorities for this type of waste. To insert the battery, open the snap-on battery door at the bottom of the remote control. The battery must be inserted carefully observing polarity. Close the snap-on door once the battery is inserted.



# 4.4 WIRING DIAGRAM



# 4.5 CONNECTIONS

### N-L-PE - POWER SUPPLY

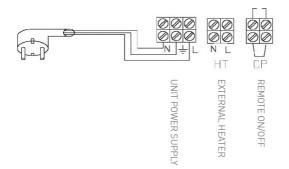
The unit is supplied with a power supply socket connected to terminals N, L, PE.

### HT- EXTERNAL HEATER

It provides for the connection of the additional electrical resistance (Accessory) to be inserted on the air supply duct.

## CP- ON OFF REMOTE

Provides an external connection to enable the unit as a presence or window contact; Comes with a bridge supplied.



## 5 COMMISSIONING AND METHOD OF USE

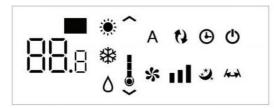
# 5.1 OPERATION OF ON-BOARD CONTROL PANEL AND REMOTE CONTROL

The unit is controlled via the supplied infrared remote control.

The display normally shows the operating status (see paragraph Description of operation) and any alarms (see paragraph Display alarms). In addition, the various functions can be selected by pressing the various symbols. By pressing the keys it is possible to set the various functions (see paragraph Description of operation). The remote control supplied with the appliance has been designed to be extremely sturdy and functional, but must be handled with care.

Avoid:

- leaving it exposed to rain, spill liquids on its keyboard or drop it in water
- subjecting it to heavy impacts or dropping it on hard surfaces
- leaving it exposed to sunlight



Machine panel



Remote control

#### SWITCHING THE UNIT ON AND OFF

In order to operate the appliance using the remote control or the touch screen display, it is necessary to either switch on the main switch which has been provided on the power supply line (the technician who installed the appliance will be able to be more precise about its position), or insert the appliance's power plug into the system's socket. Once the described operations have been carried out, by prolonged pressure (3 seconds) on the symbols on the touch screen display, or with the remote control, it is possible to manage the system. In order to transmit commands to the indoor unit, the front of the remote control must be turned towards the display of the indoor unit. Receipt of the command is confirmed by the buzzer sounding a note and being shown on the display. The maximum distance at which commands can be received is approximately 8 metres.

Using the stand-by button, you can switch the appliance off or on. The appliance's control system has a memory, which means that all settings will not be lost either when the appliance is switched off or in the event of a power failure. This button is used to activate and deactivate the device for short periods.

In the event of prolonged standstill of the appliance, it must be switched off by disconnecting the main switch or removing the plug from the socket.

### TEMPERATURE SET MODIFICATION

On the display there are buttons for selecting the desired temperature of the unit; Whenever the set temperature is changed, the display will also show the change in set point required.

### FAN SPEED MODIFICATION

By pressing this button sequentially, the power supplied by the appliance can be set to 5 settings: Minimum, Medium, Maximum, Dual Power and Automatic.

The higher the power setting, the greater the output of the appliance, but the quieter it is.

The Dual Power function (visible by the flashing of the 3 speed bars on the display and the scrolling of the 7 bars, red or blue, on the digital thermometer), available only in heating and cooling mode, provides an overboost for 30 minutes.

The controller then inhibits the function and switches to automatic operation.

By setting the Automatic choice (visible through the scrolling of the 3 speed bars on the display) the on-board microprocessor automatically adjusts the power, keeping it higher the greater the difference between the room temperature and the set temperature. In dehumidification only and night wellness mode, power control is not possible as the appliance can only be operated at minimum power.

#### AUTOMATIC FUNCTION

By setting this function, the appliance sets itself up so as to achieve optimal comfort in the air-conditioned room. Depending on the set temperature, the air conditioner automatically selects the operating mode (cooling, or heating), and the ventilation speed according to the room temperature and the detected air quality;





Temperature set modification



Fan speed management



### VENTILATION-ONLY FUNCTION

When this function is activated, the compressor is never switched on and the appliance has no effect on either the temperature or the humidity of the air in the room. It is possible to select the fan speed.

### NIGHT WELLNESS FUNCTION

With the appliance switched on and the cooling or heating mode selected, pressing the button allows multiple functions to be performed to maximise the quietness of the appliance, save electricity and regulate night wellness.

In this mode, fan operation is set to minimum speed.

This function should be activated immediately before falling asleep.

- In cooling mode, the set temperature set is increased by 1 °C after one hour and by a further 1 °C after 2 hours. After the second hour, the temperature set is not altered any further and after a further 6 hours the appliance is placed in stand-by.
- In heating mode, the set temperature is reduced by 1 °C after one hour and by a further 1 °C after 2 hours.

After the second hour, the temperature set is not altered any further and after a further 6 hours the appliance is placed in stand-by.

This function is not available for dehumidification-only, ventilation-only and economic automatic operation and can be overridden at any time (ideally when waking up) by pressing the button again.

If the timer function is set at the same time, the device will switch off after the set time has elapsed.

### DEHUMIDIFICATION FUNCTION

Using this mode, the appliance dehumidifies the room. Activating this function is therefore particularly useful in the mid-seasons, i.e. on days [such as rainy days] when the temperature is pleasant, but the excessive humidity makes you feel a certain sense of discomfort. In this mode, both the room temperature setting and the fan speed setting are ignored and always correspond to the minimum. In this mode it is normal for the appliance to operate intermittently.

### CHANGE OF SEASON

The change of season must be carried out from the keyboard. Press and hold the season change button for at least 3 seconds to change the season status. This operation must be carried out in order to activate the correct logics.

Symbol logic: SUN = WINTER

SNOWFLAKE = SUMMER





Night wellness





Change of Season

### TIMER FUNCTION

The logic of the device provides the user with the possibility of programming its activation or deactivation, as desired.

While the air conditioner is on, you can program it to turn off by pressing the Timer button, followed by setting the number of hours (from 1 to 24) after which the unit will be put in standby. - When the air conditioner is off, you can program it to turn on by pressing the Timer button, followed by setting the number of hours (from 1 to 24) after which the unit will start up.

Subsequent pressing of the key for confirmation.

# 5.2 AIR QUALITY SENSOR OPERATION

The unit provides for the operation of the fans according to the selected speed and the internal logic linked to the air quality value detected; for each speed, if the air quality is not optimal, the fans increase the flow rates in order to have a greater exchange of air and improve the indoor air quality.

### 5.3 UVC LAMP OPERATION (AP20384)

The unit operates a germicidal UVC lamp (AP20384 accessory) in the fresh air inlet section. The lamp is permanently activated together with the activation of the fans.









### 6 MAINTENANCE

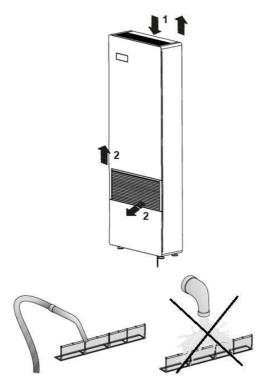
To always guarantee correct and optimal unit operation, it is necessary to periodically perform all of the maintenance activities.

# 6.1 EPM1 FILTER CLEANING OR REPLACEMENT

To replace the filters, or periodically clean them, do the following:

- cut off the power to the unit;
- remove the air intake grille (2);
- remove the 2 dirty filters by pulling them out at the front;
- remove the air outlet grille (1);
- remove the 2 dirty filters by pulling them out of the top;
- gently insert the new ones;
- close the air intake and outlet grilles;

If the conditions of the filters allow it, it is possible to proceed with cleaning them using a vacuum cleaner or low pressure compressor.



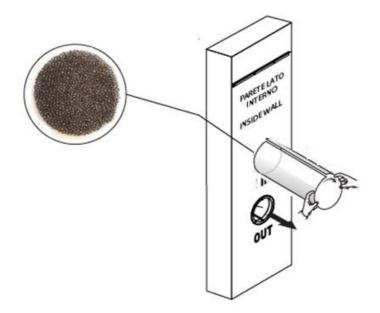
## 6.2 PRE-FILTER REPLACEMENT

To clean the outside air prefilter, proceed as follows:

- cut off the power to the unit;
- remove the air outlet grille;
- remove the filter;

If the conditions of the filters allow it, it is possible to proceed with cleaning them using a vacuum cleaner or low pressure compressor.

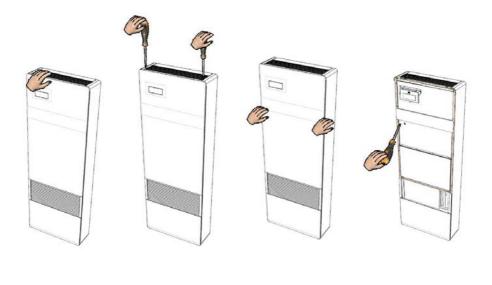
• close the filter cover again, ensuring that all screws are tightened;



# 6.3 UVC LAMP MAINTENANCE (AP20384)

To service the UVC lamp (AP20384 accessory) :

- Remove the upper grille and the front grille;
- Remove the two screws securing the front panel under the grille;
- Remove the front panel by sliding it upwards;
- Remove the two front covers to access the external air section;
- Above the inlet fan the lamp and its lamp holder will be visible;
- To remove the lamp, rotate the lamp in relation to the lamp holder and pull it out in the opposite direction to the lamp holder;
- Carry out the operation carefully and gently;
- Replace the lamp, ensuring that it is properly coupled to its holder;
- Replace the front covers, front panel and grilles;





# 7 ALARMS

In case of any problems or failures, take note of any error code appearing on the remote control screen, take note of the model and the serial number of the unit you possess (data provided on the identification plate attached on the side of the unit) and contact the installer.

# 7.1 PROBLEMS WITHOUT ANY INDICATION OF THE ERROR ON THE DISPLAY

PROBLEM	CAUSES	SOLUTIONS
Display off	No power supply (luminous switch off)	Check the connection to the electrical mains
		Check and if necessary replace the fuse on the power supply connector (black) on the side of the unit.
Poor or no air flow rate	Clogged filters	Change the filters
The rooms remain humid	Clogged exchanger	Clean the exchanger
	Frozen exchanger	Take the exchanger to a warm place and wait for it to defrost, do not heat with direct sources of heat.
	Dirty fan	Clean the fan
	Clogged fan ducts	Clean the fan ducts
	Outdoor temperature below 0 °C	The unit might be in anti-freeze mode, wait until the outdoor temperature rises or install an electric heater for pre-heating.
High noise level	Noise generated by the unit	Check for cracks and/or air leaks from the unit panels
		Check the trap connection
		Check whether the motors are spinning correctly (bearings)
	Noise coming from the ducts	Check for cracks on the suction / intake / ejection ducts

High vibrations	Vibrating panels	Check the integrity of the unit panels and profiles
		Check the correct closing of the unit cover and the panel that covers the electronic board
		Make sure there are no walls that can transmit vibrations to the wall / floor / false ceilings
	Imbalanced fan blades	Check the integrity of the blades
		Clean the fans
		Make sure the small metal blade balancing clips are still on the fans
Condensation leak	Clogged condensation discharge	Clean the condensate discharge.
	The condensation does not flow from the discharge duct to the collection tray	Make sure that the unit is perfectly level
		Check that the condensation discharge connections are not clogged
The appliance does not switch on	No power supply	Check whether there is voltage in the mains (by switching on a light bulb in the house, for example).
		Check that the exclusive thermomagnetic switch protecting the appliance has not tripped (if so, reset it). If the problem recurs, contact the Service Department immediately and do not attempt to operate the appliance.
The appliance does not cool/heat sufficiently	Set temperature too high or too low	Check and correct the temperature setting if necessary.
	The air filter is clogged	Check the air filter and clean it if necessary.
	Check that there are no obstructions to the flow of air inside or outside.	Remove anything that might obstruct airflow.

# 7.2 TABLE OF ALARMS REPORTED ON THE DISPLAY

ALARM	CAUSE	OPERATION
E1	Room temperature probe RT faulty	The Cooling, Dehumidification and Heating functions can be activated regularly. The control only monitors the internal battery antifreeze.
E2	IPT internal battery probe faulty	The Cooling, Dehumidification and Heating functions can be activated regularly.
E3	Faulty OT outdoor air temperature probe	The Cooling, Dehumidification and Heating functions can be activated regularly.
E4	Faulty OPT external battery probe	The Cooling, Dehumidification and Heating functions can be activated regularly. The control runs defrosting cycles at fixed times.
E5	Faulty internal fan motor	No operation of the device can be activated.
E6	Faulty external motor fan	No operation of the device can be activated.
E7	Lack of communication with the display	No operation of the device can be activated.
E8	Compressor discharge probe fault	No operation of the device can be activated.
CP	CP Presence contact open	The device is only activated when the contact is closed. Check the connection of the terminals.

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