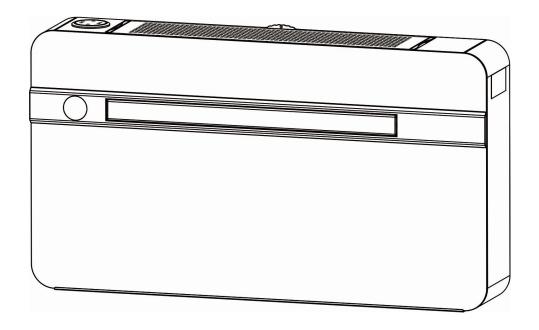
# **Installation and User Manual**

SILENT INVERTER

MODEL: SILENT HYBRID INVERTER

CLIMA PURO





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# **WARNING: R32 Refrigerant**

Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.

The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater). Do not pierce burn.

Be aware that refrigerants may not contain an odour.









If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

- a warning to keep ventilation openings clear of obstruction;
- a notice that servicing shall be performed only as recommended by the manufacturer.

Keep any required ventilation openings clear of obstruction Servicing shall be performed only as recommended by the manufacturer

#### Checks to the area:

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is 3inimized. For repair to the refrigerating system, the following precautions shall be completed prior to conducting work on the system.

#### Work procedure:

Work shall be undertaken under a controlled procedure so as tominimise the risk of a flammable gas or vapour being present while the work is being performed.

#### General work area:

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.

#### **Checking for presence of refrigerant:**

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e.non-sparking, adequately sealed or intrinsically safe.

#### Presence of fire extinguisher:

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

#### No ignition sources:

No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept



sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

#### Ventilated area:

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

#### **Checks to the refrigerating equipment:**

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance. The following checks shall be applied to installations using flammable refrigerants:

- the actual refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed;
- the ventilation machinery and outlets are operating adequately and are not obstructed;
- if an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

#### **Checks to electrical devices:**

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

#### Initial safety checks shall include:

- •that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while charging, recovering or purging the system;
- •that there is continuity of earth bonding.

#### **Repairs to sealed components:**

During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is



affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.

Ensure that the apparatus is mounted securely.

Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

#### Repair to intrinsically safe components:

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use. Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating. Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

#### Cabling:

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

#### **Detection of flammable refrigerants:**

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems. Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Removal and evacuation.

#### Removal and evacuation:

When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. However, for flammable refrigerants it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:

- remove refrigerant;
- purge the circuit with inert gas;
- evacuate;
- purge with inert gas;
- open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. For appliances containing flammable refrigerants other than A2L refrigerants, the system shall be purged



with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process may need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems.

For appliances containing flammable refrigerants, other than A2L refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place.

Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and that ventilation is available.

#### **Charging procedures:**

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to 6inimize the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care shall be taken not to overfill the refrigerating system.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

#### **Decommissioning:**

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.

- a) Become familiar with the equipment and its operation.
- b) Isolate system electrically.
- c) Before attempting the procedure, ensure that:
- mechanical handling equipment is available, if required, for handling refrigerant cylinders;
- •all personal protective equipment is available and being used correctly;
- •the recovery process is supervised at all times by a competent person;
- •recovery equipment and cylinders conform to the appropriate standards.
- d) Pump down refrigerant system, if possible.
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place.
- g) Start the recovery machine and operate in accordance with instructions.
- h) Do not overfill cylinders (no more than 80 % volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.



#### Labelling:

Equipment shall be 7abeled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

#### **Recovery:**

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants including, when applicable, flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.

The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely

#### Qualification requirement for installation and maintenance man:

All the work men who are engaging in the refrigeration system should bear the valid certification awarded by the authoritative organization and the qualification for dealing with the refrigeration system recognized by this industry. If it needs other technician to maintain and repair the appliance, they should be supervised by the person who bears the qualification for using the flammable refrigerant.

It can only be repaired by the method suggested by the equipment's manufacturer.



#### 1. **GENERAL INFORMATION**

#### 1.1 INTRODUCTION

PLEASE NOTE: Do not dispose of any packaging until the installation of the air conditioner is completed.

After having removed the packing, check that all the content is intact and complete. (See list of accessories). In the event of missing parts, contact your retailer.

This air conditioner has been designed to cool or heat the air of a room and should only be used for this purpose.

The manufacture cannot be held liable for damage caused to property or injury to persons or animals due to incorrect installation, regulation and maintenance or improper use.

This air conditioner contains R32 refrigerant, at the end of its life, the disposal of this air conditioner must be in accordance with the strict regulation governing the recycling of this product, please operate with caution during the disposal. Please contact your local authority or regulatory advice.

Do not switch on before having totally assembled the air conditioner and before installing in its correct operating position.

Before starting the appliance, check that it is correctly earthed, according to the legislation in force in the country concerned.

## 1.2 IMPORTANT SAFETY INSTRUCTIONS



When using electrical appliances, basic safety precautions should always be followed:

Do not place objects on the product or allow objects to obstruct the inlet or outlet openings.

Extreme care should be taken when any product is used by, or near children and pets, and whenever the product is left operating and unattended.

Please note:

Before operating the product remove the air conditioner from its packaging and check it is in good condition.

Do not let children play with the packaging, for example plastic bags.

Do not operate any product with a damaged cord or lug, or after the air conditioner malfunctions, has been dropped, or damaged in any manner. Return the air conditioner to an authorized service center for examination and repair to avoid a hazard.

Do not attempt to repair or adjust any electrical or mechanical functions on this air conditioner as this may void warranty, contact your service engineer.

Always operate the product from a power source of the same voltage, frequency and rating as indicated on the product identification plate.

This air conditioner is not intended for use in wet or damp locations.

Do not place the air conditioner near an open flame, cooking or heating appliance, or hot surface.

Do not let the power cord hand over the edge of a table or counter. Arrange the power cord away from an area where it may be tripped over.

Never place the power cord under a carpet or rug. Do not operate the air conditioner in areas where petrol, paint, or other flammable liquids are used or stored.

Do not carry out any cleaning or maintenance, or access internal parts until the air conditioner has been disconnected from the mains electricity supply.

Do not alter the safety or regulating devices without the permission and instructions of the air conditioner manufacture.

Do not pull, remove or twist the electrical cable connected to the air conditioner, even if disconnected from the mains electricity supply.



Avoid prolonged direct contact with the flow of the air from the air conditioner and the room being closed with no ventilation for a long period of time.

Repair or maintenance work must be carried out by a service engineer or by qualified technicians in compliance with the instructions given in this booklet. Do not alter the appliance, since hazardous situations could be created while the manufacture of the appliance will not be liable for any damage or injury caused.

This instruction booklet is an integral part of the appliance and should therefore be carefully preserved and always accompany the appliance in the event of transfer to another owner or user or another installation engineer. Should the booklet be damaged or lost, please request an additional.

## 1.3 RECEIVING THE GOODS

The air conditioner is delivered in a protective packaging and is accompanied by an instruction manual.

IMPORTANT NOTE: Preserved the original packaging for the period of warranty of 2 years. In the event of a fault or failure, the device must be taken to the nearest service center with its original packaging. The return of the product without original packaging, will void the warranty terms of 2 years.

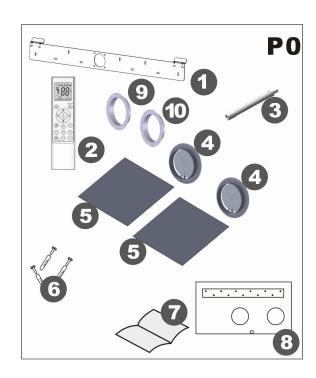
This manual is an integral part of the air conditioner and should therefore be carefully read and preserved. When the air conditioner is unpacked, please check that the air conditioner and the accessory pack are complete and undamaged.

#### 1.4 HANDLING

Be fully aware of the weight of the air conditioner before attempting to lift it. Take all necessary precautions to avoid damaging the product or causing personal injury. It is advisable to remove the packaging only when the air conditioner has been located in the point of installation. Carefully remove the adhesive strips positioned on the air conditioner. Packaging components must be disposed correctly and not left within reach of children, since they are a potential source of danger.

#### 1.5 LIST OF ACCESSORIES(PO)

- 1. FASTENING BRACKET
- 2. REMOTE CONTROL
- 3. DRAINAGE PIPE
- 4. EXTERNAL GRATING
- 5. AIR PIPE FILM
- 6. KIT OF SCREWS
- 7. INSTRUCTION MANUAL
- 8. PAPER TEMPLATE FOR WALL DRILLING
- 9. 160mm ring
- 10. 150mm ring





Silent Inverter, Silent Hybrid Inverter, Clima Puro are conform to the European directives :

- Low voltage 2014/35/EU.
- Electro-magnetic compatibility 2014/30/EU.
- Use restrictions of hazardous substances in electrical and electronic equipment 2011/65/EU and its amendment Directive (EU) 2015/863. (RoHS2)
- Waste electrical and electronic equipment 2002/96/ EC (WEEE).
- Energy consumption indication on the labels of energy related products 2010/30/EU





Waste electrical products should be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

Any batteries used in the remote control contain materials, which are hazardous to the environment. They must be removed from the remote control when they reach the end of their life and disposed of responsibly.

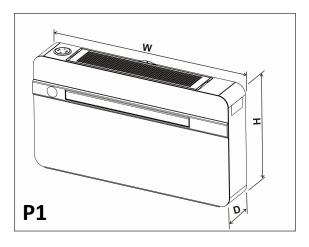
#### 1.6 TECHNICAL FEATURES(P1,P2)

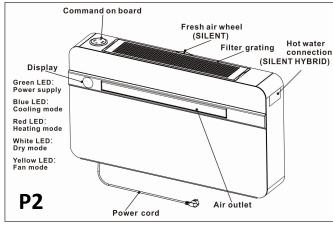
	SILENT SILENT HYBRID			
Model	INVERTER	INVERTER	CLIMA PURO	
Cooling consoits* W / PTI I/b	2350(1000~2590)	2350(1000~2590)	2350(1000~2590)	
Cooling capacity* W / BTU/h	/8020(3410~8840)	/8020(3410~8840)	/8020(3410~8840)	
Heating congoity* \M/PTII/b)	2320(800~3820)	2320(800~3820)	2320(800~3820)	
Heating capacity* W(BTU/h)	/7920(2730~13040)	/7920(2730~13040)	/7920(2730~13040)	
Electrical heat* W(BTU/h)	1550(5300)	1550(5300)	1550(5300)	
Hot water capacity** W(BTU/h)		1160(3960)		
Rated voltage (V)	230	230	230	
Absorbed power in cooling* (W)	750	750	750	
Absorbed current in cooling* (A)	3.33	3.33	3.33	
Absorbed power in heating* (W)	720	720	720	
Absorbed current in heating* (A)	3.19	3.19	3.19	
ESP filter consumption power (W)			15	
ESP filter working voltage (KV)			-6.5	
Air flow (m3/h)	360	360	360	
Noise level (dB/A)	50	50	50	
Dehumidification capacity* (L/24h)	9.6	9.6	9.6	
Optional temperature(remote	40.0000	40.0000	10.0000	
control)	18-30°C	18-30℃	18-30°C	
Fuse (T3,15L)	250V	250V	250V	
Refrigerant	R32	R32	R32	
Global warmer potential(GWP)	675	675	675	
Dimensions H/W/D(cm)	55x100x16	55x100x16	55x100x16	
Weight(kg)	49	50	50	

<sup>\*</sup>The above data could be change without notice in order to improve the performances.

<sup>\*\*</sup> Hot water temperature is  $50^{\circ}$ C in/40°C out.







# STANDARD TEST CONDITIONS –EN 14511OPERATING CONDITIONS IN COOLING AND DEHUMIDIFICATION MODE:

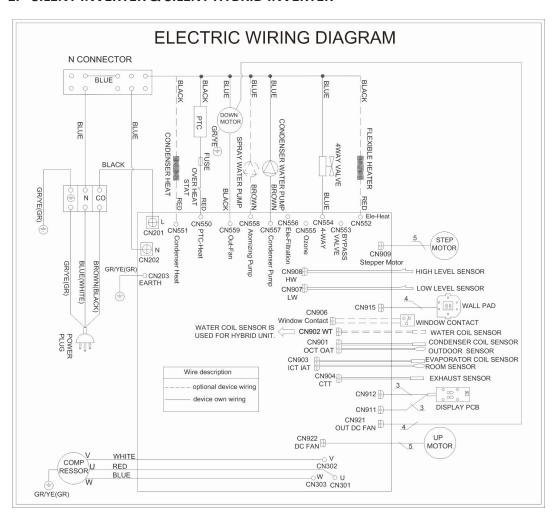
- -Inside 27°C DB, 19°C WB
- -Outside 35°C DB, 24°C WB

#### **OPERATING CONDITIONS IN HEATING MODE:**

- -Inside 20°C DB
- -Outside 7°C DB, 6°C WB

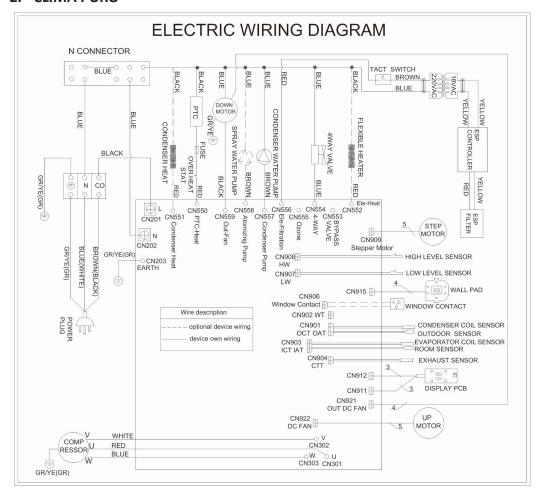
#### 1.7 WIRING DIAGRAM

#### 1. SILENT INVERTER & SILENT HYBRID INVERTER





#### 2. CLIMA PURO

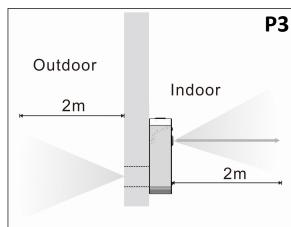


## 2 **INSTALLATION**

#### 2.1 POSITIONING THE AIR CONDITIONER(P3)

To maintain the best performance from your air conditioner, prevent breakdowns or hazards, you must position it correctly. Please follow the guidelines and instruction below in full, as failure to do so could cause potential installation problems.

- -The air conditioner must be installed on an exterior wall that has access to the outside with a minimum of a meters clearance to the outside.
- -The air conditioner must be fitted leaving room all around as illustrated in the paper template.
- -The wall on which the air conditioner is installed must be sturdy and able to withstand the weight of the air conditioner.



After determining the best place for installation as described above, please check to ensure that the wall can be drilled in the chosen area without interfering with other structures or installation (beams, piers, pipes, wires, etc.).

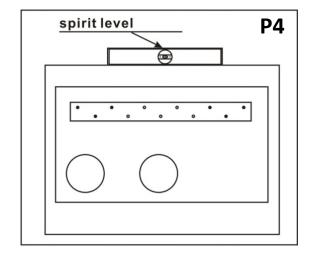
Please also ensure that there are no obstacles on the outside of the wall, which may obstruct air circulation through the drilled holes, for example: plants and their leaves, slats or paneling, drain pipes, overflows and gratings, etc. Any obstruction could interfere with the correct performance of the conditioner.

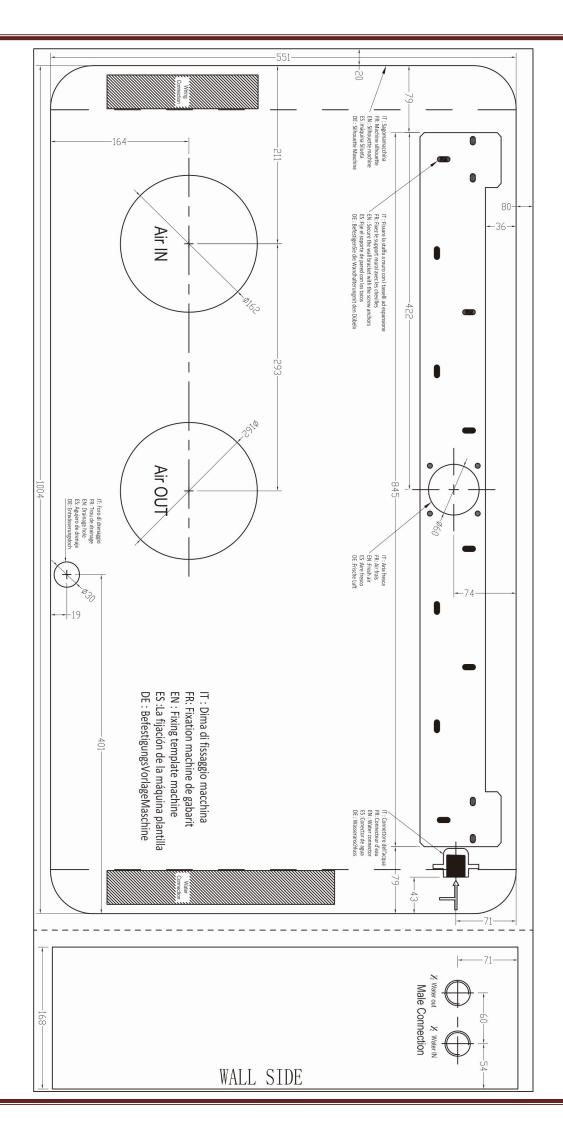


#### 2.2 PAPER TEMPLATE (P4)

Fasten the template to the wall once the following guidelines have been thoroughly checked.

- -Do not drill any holes until you are completely confident that there are no obstacles in the area you wish to drill and there are no obstructions, which could be hidden by the construction of the wall, for example: Electrical wiring, water & gas pipes or supporting lintels or beams.
- -Ensure that a spirit level is used, as the air conditioner must be level.
- -Follow the installation instruction in full.







#### 2.3 DRILLING THE WALL (P5)

Please note: If you are drilling the hole above ground floor level, please ensure that an area has been secured and while the holes are drilled the outside area is supervised, until drilling has been completed.

#### **INTAKE AND OUTLET HOLES:**

- -This operation should be carried out using the proper tools (diamond tip or core borers drills with high twisting torque and adjustable rotation speed).
- -Fasten the template to the wall taking care to check the distance from the floor or ceiling and keep it horizontal by using a spirit level.
- -Use a pilot drill to mark the centre of each core hole to be drilled.

Use a core boring head having a diameter of 162mm to drill the two holes for intake and outlet the air.



It is recommended that the holes must have a slightly downward inclination of 3-5 degree to prevent any backflow of water from the pipes.



Indoor Outdoor

#### **DRAINAGE HOLE**

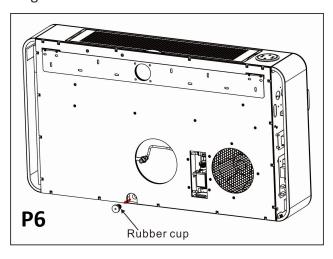
This air conditioner has a double drainage system to drain the condensate moisture automatically. Before install the air conditioner, choose which one is the suitable system for your installation. Please read carefully the following instructions.

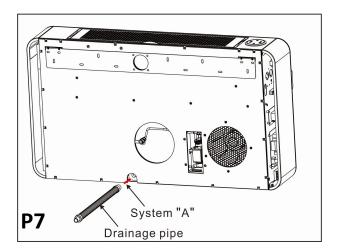
#### System "A": (P6,P7)

Please unplug the rubber cup from drainage hole (P6).

Connect the drain pipe (from rubber terminal) to the back side of air conditioner.

System "A" is more common use, and the discharge pipe go outside where there is no problem to connect or to discharge it, this solution is ok for hot country and normal cold temperature outside. With this solution, you can drain the condensate moisture to a suitable place, do not cause any problem to your neighbors.







#### System "B": Atomizing system (P8)

In case of impossibility to install the drainage pipe as showed on "A" system, atomizing system is available for this unit. If use system "B", please block the black

rubber cup from system "A".

Atomizing nozzle is fixed in the center of grating, connect the water pipe with atomizing nozzle first, then fix the grating

on the wall (see 2.7).

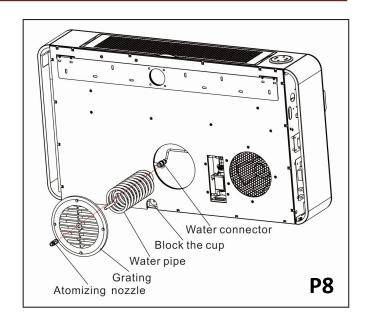
Before fitting the air conditioner on the bracket, it is necessary to connect the water pipe with water connector on the unit.

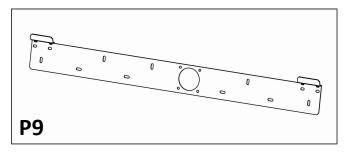
# 2.4 FASTENING THE BRACKET (P9)

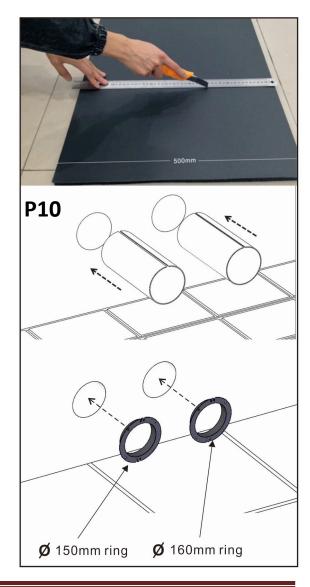
- -Drill the holes for anchoring the fastening bracket to the wall using preferably the 17 holes showed in black on the paper template.
- -The anchor bolts provided require a 8mm hole. The wall should be inspected to determine if provided bolts are useful or if it is necessary to use a different anchorage. The manual facture is not liable in case of underestimation of the structural consistency of the anchorage made at the time of installation.

## 2.5 INSTALLATION OF THE PIPES (P10)

- After drilling the holes, the plastic sheet supplied with the air conditioner need to be fitted through them.
- Measure the depth of the wall and cut supplied plastic sheet.
- Roll the sheet and insert it into the hole, paying attention to the joint line, which must be always upper position. Remember that the sheet must have the same inclination of the holes(min 3°).
- -Insert the rings into the holes.





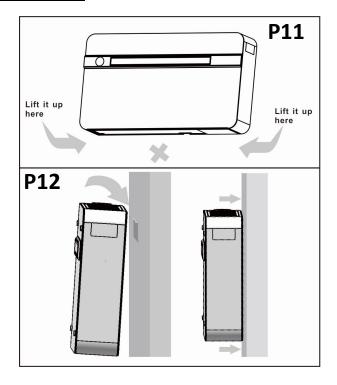




#### 2.6 FITTLING THE AIR CONDITIONER ON BRACKET(P11, P11)

After checking again that the fastening bracket is securely fastened to the wall, and that any necessary preparations for electric connection and condensate drainage (if it needs) have been made, fasten the air conditioner to its supporting bracket.

Lift it up by holding the sides at the bottom. Tilt the air conditioner slightly toward you to facilitate the operation of fastening it to the bracket. The air conditioner can now be pushed firmly against the wall. Inspect carefully the installation to make sure that the insulating back panel must fit firmly against the wall and there are no fissures at the back of the air conditioner.





The appliance shall not be installed the laundry.

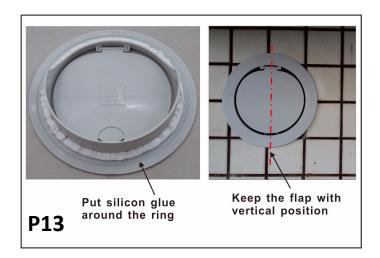
The appliance must be positioned so that the plug is accessible.

The appliance shall be installed in accordance with national wiring regulations.

#### 2.7 FITTLING THE GRATINGS(P13)

To fit the external two gratings, please proceed as following:

- -Put the silicon glue around the ring, and fix the two gratings from outside.
- -Pay attention the flap direction, always keep the shaft side with upper direction.
- -Try to open and close the flap, should be no any interference.
- -For gratings surface, we could paint them like the wall if necessary.

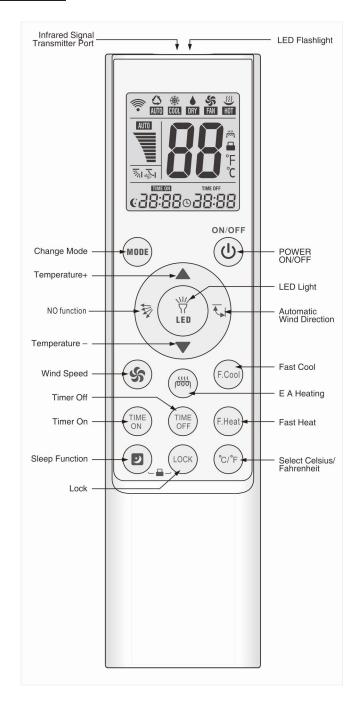




## **3 CONTROL OPERATION AND MAINTENANCE**

#### 3.1 INTRODUCTION OF LCD ICONS

Icons	Means
AUTO	Auto
<del>業</del> COOL	Cooling
DRY	Dry
SS FAN	Fan
<b>≅)</b>	Heating
AUTO	Fan speed
	Wind direction
88	Display
സ്റ്റ്	Electrical heat
	Lock
۴ °	Celsius/ Fahrenheit
CSS:88	TIMER ON
TIME OFF	TIMER OFF





#### 3.2 REMOTE CONTROL FUNCTIONS

#### 1. Celsius/Fahrenheit function "°C/°F":

Press "°C/°F" button to switch between "Celsuis" and "Fahrenheit".

#### 2. Timer ON/OFF:

This function can be effective only when the original remote control has timer function. After pressing "TIMER ON" or "TIMER OFF" buttons, the timer indicator is displayed, and the A/C is now in timer state.

#### 3. Child Lock:

**Lock:** Press " and "**LOCK**" buttons at the same time, then the " " icon will appear on the display screen.

**Unlock:** Press " and "**LOCK**" buttons at the same time, then the " " icon will disappear from the display screen.

#### 4. Clock:

- 1) Press and hold " and "MODE" buttons at the same time and the remote control will enter into a clock mode, with corresponding hour digits starting to flash.
- 2) Press "TEMP ▲ " (TEMP ▼ ) button to increase (decrease) 1 hour at each press. Hold for 2 seconds to increase or decrease continuously.
- 3) Press " y " button to complete setting the appropriate hour.
- 4) At this point, the corresponding minute digits begin to flash, use the "TEMP ▲ " (TEMP ▼ ) button to set appropriate minutes.
- 5) After setting minutes, press " v button to quite clock settings.

#### 5. Fast cooling and fast heating:

**Fast cooling:** Press **"F.COOL"** button to set cooling mode, 18°C, strong wind and auto wind direction.

**Fast heating:** Press **"F.HEAT"** button to set heating mode, 30°C, strong wind and auto wind direction.

#### 6. Battery replacement memory:

The remote control's chip has a built-in memory function, ensuring that there is no need to reset for a short-term power off like battery replacement etc.

#### 7. Backlight

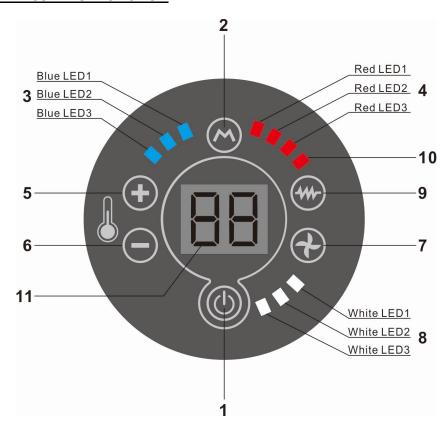
The backlight covers the whole panel. Press any button to light it, and it will switch off after 10 seconds if there is no operation.

#### 8. LED Flashlight

Press&hold the "LED " " button to switch on the LED light, release it to switch it off.



#### 3.3 ON BOARD CONTROL FUNCTION



- 1. **ON/OFF button:** Turn on or turn off the air conditioner.
- 2. **MODE button:** Set up the air conditioner working mode. COOLING, HEATING, FAN, DRY and AUTO mode are for selection. When DRY mode is acted, blue LED1 and red LED1 will be ON.
- 3. COOLING LED: Blue LED1, LED2, LED3 show cooling state.
- **4. HEATING LED:** Red LED1, LED2, LED3 show heating state.
- **5. UP button:** Increase the temperature or time.
- **6. DOWN button:** Decrease the temperature or time.
- **7. FAN SPEED button:** Set up the fan speed, High, Middle, Low and AUTO speed are for selection.
- **8. FAN SPEED LED:** White LED1, LED2, LED3 relate fan speed state. LED1 ON means LOW speed; LED1 and LED2 ON means MIDDLE speed; LED1, LED2 and LED3 ON means HIGH speed. LED1, LED2 and LED3 flash means AUTO speed.
- **9. ELECTRICAL HEAT button:** Turn on or Turn off the electrical heater.
- **10. ELECTRICAL HEAT LED:** Shows the electrical heater state.
- 11. TEMPERATURE/TIME/MODE display window:

This window will show temperature, time, setting mode and working program.

1) Select working mode by pressing MODE button, window will show working mode signal for 5 seconds, then will display ambient temperature for 60 seconds. See below table for different signal indication:

Signal	Со	HE	dE	FA	AU
Mode	COOLING	HEATING	DRY	FAN	AUTO

2) After adjusting the setting temperature, the setting temperature will flash 15 seconds, then window will show ambient temperature for 60 seconds. After that, the window will be off until next operation.



#### 3.4 PROGRAM SETTING

Unit can work with different program modes, P1~P6 as below are available for the unit.

#### 1. Program description

NO.	Control item	Program parameter		
		01 ( default setting )	02	03
P1	Temperature unit	Celsius degree °C	Fahrenheit degree °F	NO
P2	Indoor fan speed	Low-Mid-High	Low-Mid-High Low-Mid-High	
		850-1000-1250	918-1080-1350	990-1165-1460
Р3	Heating mode	HP+PTC	HP +PTC+Condenser HP ( or Hot water o	
			heater	+PTC
P4	Ozone function	Auto mode	Manual mode NO	
P5	Flap angle	Low installation	High installation NO	
P6	Display LED	ON OFF after 30 seconds		

Note: 01 setting is default setting from factory.

**P1 program**: 01 is for Celsius degree, 02 is for Fahrenheit degree. When 01 is selected, the temperature range is 18-30°C. When 02 is selected, the temperature range is 64-86°F.

**P2 program**: This program setting is for indoor fan speed. 01 is for silent operation, 03 is for big capacity.

**P3 program**: This program is used for heating mode. 01 is basic setting, there is PTC fixed on the unit. We can open/close the PTC by pressing "Electrical heat" button. 02 is optional function, there is extra condenser heater fixed on the unit. When unit is working very low outdoor temperature, condenser heater will be on automatically to improve the heating performance. 03 setting is used for SILENT HYBRID INVERTER model. There is hot water coil fixed on the unit. When unit works with heating mode, hot water temperaure ≥38°C(100°F), compressor will stop working, unit will work with Hot water coil function for heating.

**P4 program**: Ozone function is optional. When work with 01, the ozone function will work automatically. When 02 is selected, a extra remote control will be needed to control the ozone function.

**P5 program**: Unit can be fixed with low installation or high installation. 01 setting is for low installation purpose. 02 setting is for high installation purpose.

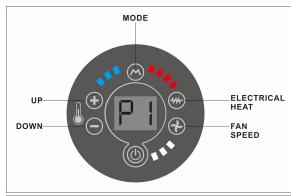
**P6 program:** Normally when unit is working, the corresponding LED lamp will be ON to show working condition. When 01 is selected, the LED lamp will be on all the time. When 02 is selected, the LED lamp will be ON for about 30 seconds after receiving the signal from remote control or command on board, then all LED lamp will be OFF.

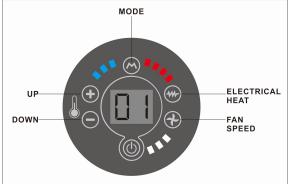


#### 2. How to set program

We can change the program setting by pressing the buttons on the command on board.

- 1. When unit is with standby condition, press both "MODE" and "FAN SPEED" buttons for 5 seconds, the window will show P1 first.
- 2. Press "UP" and "DOWN" button, we can change P1-P6 one by one.
- 3. When window shows P1, pressing "MODE" button, window will show 01, by pressing "ELECTRICAL HEAT" button, display will change 01,02,03.
- 4. After P1 program setting is finished, press "MODE" button to confirm setting, and display will show P1 again.
- 5. With same procedure, P2-P6 setting will be set accordingly.
- 6. After all programs setting is finished, pressing both "MODE" and "FAN SPEED" buttons for 5 seconds, program setting is finished.





## 3.5 ESP FILTER FUNCTION( FOR CLIMA PURO)

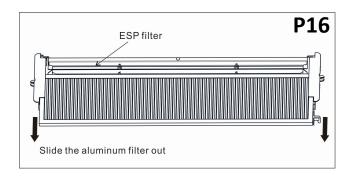
ESP filter is a patented technology in adaptive voltage control system.

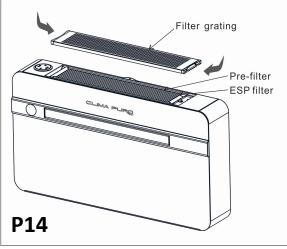
The ionising section of the filter, powered by 6500V, ionises the particles as they pass through so that they can be captured by the collector.

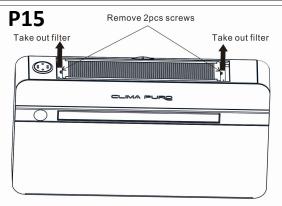
Wash the ESP filter once every three months, it does not require replacement.

#### How to remove the ESP filter:

- 1. Make sure that disconnect the unit from electrical supply.
- 2. Take out the filter grating as P14.
- 3. Remove 2pcs screws on both sides of the filter and take out the filter assy.
- 4. Slide the aluminum filter out, and wash it like below solution.









#### How to wash the ESP filter:

- 5. Soak the ESP filter in water and diswashing soap for 30-40 minutes.
- 6. Remove all dirt by placing it under running water.
- 7. Dry the filter completely with a blow dryer or a fan.

#### Important note:

Before placing the ESP filter back in the machine, make sure that it is completely dry and has no water drops on its surface. Since the filter is supplied with electrical energy, if it is not completely dry, the humidity may reduce the clearances between the conductive parts, creating electrical discharges and damaging the device and the circuit board.

#### 3.6 MAINTENANCE

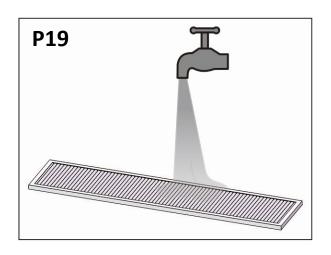
#### FILTER CLEANING(For Pre-filter):

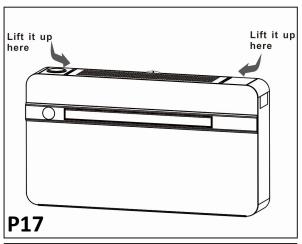
The filter should be regularly cleaned to keep the air conditioner running efficiently. Clean the filter every two weeks.

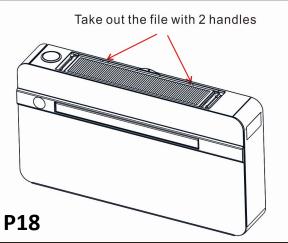
How to proceed:

- -Disconnect the air conditioner from the electrical supply.
- -Remove the top inlet grille as pic showed. (P17)
- -Take out the filter as shown. (P18)
- -Proceed to wash it (not use hot water) and only when they are dried replace them in the same way.

ATTENTION: Do not use the air conditioner without filter as it could seriously damage the air conditioner.







#### **EXTERNAL CLEANING:**

- -Disconnect the air conditioner from the electrical supply.
- -Wipe external surfaces clean with a damp cloth only.
- -Do not use an abrasive cloth and/or solvents, as this may damage the surfaces.
- -Do not use excessively wet cloth or sponges, as water stagnation could damage the air conditioner and compromise safety.



#### 3.7 FRESHA AIR SYSTEM

When the fresh air system is open, the air conditioner will change the room air automatically, in this way new clean and fresh air will intake to the room. You can open or close the fresh air system any moment.

If the air fresh system is close, the air conditioner performance is more high, so we suggest to maintain the fresh air system closed and open it just a few minutes per day.



#### 3.8 PROBLEM SOLVING



-If the supply cord damaged, it must be replaced by manufacture or its service agent or a similar qualified person in order to avoid a hazard.

- The unit has Auto-restart function. When electrical current is switched off during working mode, the unit would stop working. When electrical current is switched on, unit would work with former working mode automatically, no need to Turn ON the unit by remote control.
- -The max operation temperature for the air conditioner (max cooling: outdoor DB43°C/WB26°C, indoor DB32°C/WB23°C; min heating: outdoor DB-5°C/WB-6°C, indoor DB20°C).
- -This appliance is not intended for use by person(including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. -Children should be supervised to ensure that they do not play with the appliance.

#### **FAULT CODE DESCRIPTION:**

Fault description	Fault code	Running state
Power supplier protection	E0	Unit no works
Indoor temperature sensor fault	E1	Unit no works
Indoor coil temperature sensor fault	E2	Unit no works
Indoor motor fault	E3	Unit no works
Outdoor coil temperature sensor fault	E4	Compressor no works
Compressor discharge temperature sensor fault	E5	Compressor no works
Hot water coil temperature sensor fault	E7	Hot water coil function no works.
Water full protection	E8	Compressor no works
Outdoor fan fault	E9	Unit no works
Indoor and outdoor communication fault	EE	Unit no works
Indoor E program fault	F0	Unit no works
Outdoor temperature sensor fault	F1	Compressor no works
Outdoor E program fault	F2	Unit no works
Compressor starting fault	F3	Unit no works
Outdoor temperature too high/low protection	F4	Unit no works
Driver E program,compressor or PFC fault	F5	Unit no works
Electrical PCB fault	F6	Unit no works

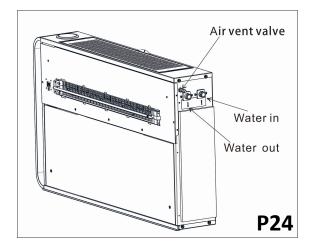


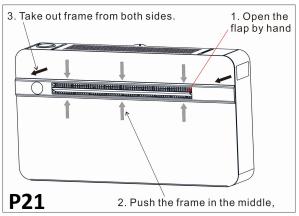
#### 4 ACCESSORY INSTALLATION

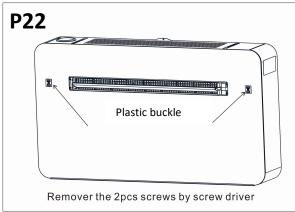
#### **4.1 SILENT HYBRID WATER CONNECTION**

Hot water exchanger is a useful option to replace water radiator below the window, improving machine performance and energy saving for your room installation.

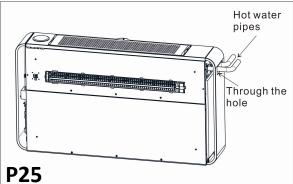
- -To install this you must remove the plastic outlet frame and glass panel first. (P21)
- Be careful, do not damage the glass panel.
- Remove the 2pcs screws and plastic buckles carefully. (P22)
- Then remove the glass panel carefully.
- -Slide the side plate as arrow direction, and take out the side plate. (P23)
- -Connect inlet & outlet water pipe well. Check carefully, if necessary, need to pass the pipes through the side plate first. (P24,P25)
- Fix the side plate same solution like removing it.
- -Open the water system device. Open the air purge valve to release the air inside the exchanger. If there is no air inside the air purge pipe, close the valve. And check the hydraulic seal of the gasket.
- Fix the glass panel and outlet plastic frame. Be careful, no damage the glass panel.











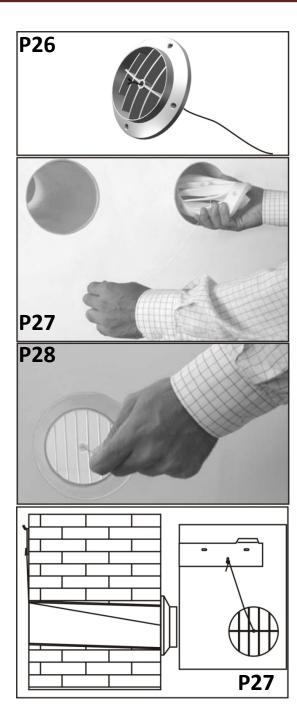


#### **4.2 SOFT GRATINGS INSTALLATION**

To fix the external two soft gratings, please proceed as following:

Familiarize yourself with the fitting of the grating to the tube before installation. Insert the cords through the centre hole of grating. Fold the outer grating in half grasping the cord with your free hand. Insert your arm inside the pipe with the grating and push all the way to the outside. Let the grating unfold and pull the cord toward you. Both gratings fit on the inside of the tube. With a little patience and manipulation the 2 gratings will fit the end of the tubes. Grasping the cord, insert our fingers between the fins and pull the grating toward you until the same is properly slipped in the pipe, keeping the fins in vertical position.

If the external grating is accessible to prevent its removal, it is recommended to fasten it to the wall with wall plugs and screws with a diameter of 6mm. Tighten the cord and fasten it to the dent on the internal flanges.



# Smaltimento delle apparecchiature obsolete Disposal of your old appliance Entsorgung von Altgeräten Élimination des appareillages obsolètes o deshacerse de aparatos elèctricos y electrónicos fieic

Como deshacerse de aparatos elèctricos y electrónicos fiejos

Eliminação do seu antigo aparelho





#### Smaltimento delle apparecchiature obsolete

- 1. Quando su n prodotto è riportato il simbolo di un bidone della spazzatura sbarrato da una croce significa che il prodotto è coperto dalla Direttiva Europea 2002/96/EC.
- 2. Tutti i prodotti elettrici ed elettronici dovrebbero essere smaltiti separatamente rispetto alla raccolta differenziata municipale, mediante impianti di raccolta specifici designati dal governo o dalle autorità locali.
- 3. Il corretto smaltimento delle apparecchiature obsolete contribuisce a prevenire possibili conseguenze negative sulla salute umana e sull'ambiente.
- 4. Per informazioni più dettagliate sullo smaltimento delle apparecchiature obsolete, contattare il comune, il servizio di smaltimento rifiuti o il negozio in cui è stato acquistato il prodotto.



# Élimination des appareillages obsolètes

- 1. Quand figure sur un produit le symbole représentant une poubelle barrée d'une croix, cela indique que le produit est assujetti à la Directive européenne 2002/96/EC.
- 2. Tous les appareils et composants électriques et électroniques doivent être éliminés auprès de déchetteries spécifiques indiquées par les pouvoirs publics nationaux ou par les autorités locales.
- 3. La bonne élimination des appareillages obsolètes contribue à prévenir les conséquences dommageables pour la santé des personnes et pour l'environnement.
- 4. Pour plus d'informations concernant l'élimination des appareillages obsolètes, veuillez contacter votre mairie, le service d'élimination des ordures ou encore le magasin où le produit a été acheté.



#### Disposal of your old appliance

- 1. When this crossed-out bin symbol appears on a product it means that the product is covered by European Directive 2002/96/EC.
- 2. All electrical and electronic products should be disposed of separately from the municipal waste stream via specific collection facilities designated by the government or the local authorities.
- **3.** Proper disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- **4.** For more detailed information about disposal of your old appliance, please contact your municipality, the waste disposal service or the shop where you purchased the product.



#### Entsorgung von Altgeräten.

- 1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
- **2.** Alle Elektro–und Elektronik-Altgeräte müssen getrennt vom Hausmüll über dafür staatlich vorgesehene Stellen entsorgt werden.
- 3. Eine ordnungsgemäße Entsorgung des Altgeräts trägt dazu bei, Schäden an der Umwelt und der menschlichen Gesundheit zu vermeiden.
- 4. Weitere Informationen zur Entsorgung des Altgeräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, in dem Sie das Produkt erworben haben.



# Como deshacerse de aparatos elèctricos y electrónicos fieios

- 1. Si en un profucto aparece el símbolo de un contenedor de basura tachado, significa que èste se acoge a la Directiva 2002/96/EC.
- 2. Los aparatos elèctricos no se deben desechar junto con los residuos domèsticos, sino a travès de puntos de recogida designados por el gobierno o las autoridades locales.
- **3.** La correcta recogida y tratamiento de los dispositivos inserivbles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
- 4. Para obtener más información sobre cómo deshacerse de sus aparatos elèctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.

# Eliminação do seu antigo aparelho

- 1. Quando este símbolo de caixote do lixo com uma cruz em cima estiver afixado a un produto, significa que o produto se encontra abrangido pela Directiva Europeia 2002/96/EC.
- 2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente do lixo domèstico atravès de pontos de recolha designados para o efeito pelo governo ou pelas autoridades locais.
- **3.** A eliminação crrecta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
- 4. Para obter informações mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.