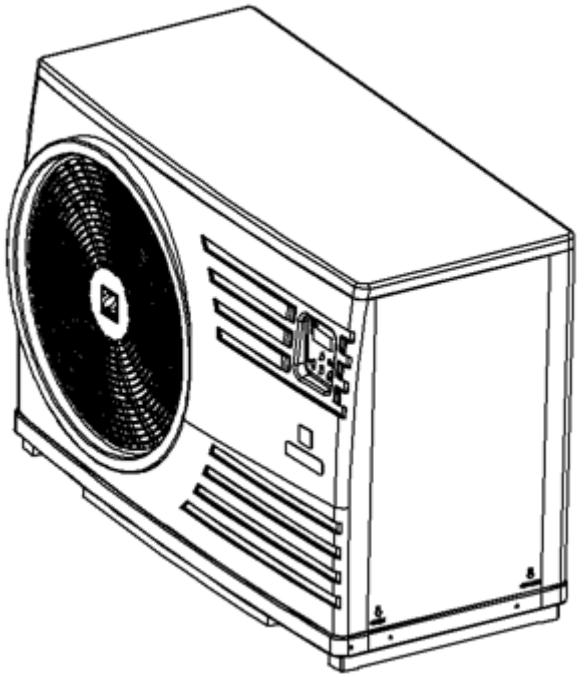
ZODIAC

POWER PAC
1M-2M-3M



GB **Heat pump** ..... Instructions for installation and use

Ed. 09/2008
Réf. : 1011505-01 / 374274003-00

PSA®

IMPORTANT

These installation instructions are an integral part of the product and must be given to the installer and kept by the user.

The warnings and indications contained in the present handbook must be carefully read and understood as they provide important information relative to handling and operating safety. This handbook must therefore always be kept available for later consultation.

Installation must be carried out in compliance with valid regulations and the manufacturer's instructions by a qualified professional.

The term «qualified professional» refers to a person possessing the technical knowledge associated with P.S.A. components and heating installations.

An installation error could result in physical injury to persons or animals as well as mechanical damage for which the manufacturer may under no circumstances be held responsible.

After having unpacked the heat pump, the content should be checked for possible damage.

Before connecting the heat pump, ensure that the data provided by P.S.A. is compatible with the true installation conditions and does not exceed the maximum authorised limits for the product in question.

Before beginning any installation, handling or repair work on the heat pump, always isolate the electrical power supply to the unit.

In the case of a fault and/or operating error on the heat pump, the electrical power supply must be isolated and no attempt should be made to repair the fault.

Repair work may only be carried out by **an authorised technical assistance service** using **original spare parts only**. Non-respect of the aforementioned clauses may have a negative influence on the operating safety of the heat pump.

To guarantee the efficiency and correct operation of the heat pump, it is important to ensure it is regularly maintained in compliance with the instructions provided by P.S.A.

In the case where a heat pump is sold or transferred to another user, always ensure that all technical documentation is sent with the equipment to be used by the new user or installer.

This heat pump may only be used for the purpose for which it was designed: to heat a swimming pool; all other uses must be considered inappropriate, incorrect or even dangerous.

All contractual or extra-contractual responsibilities of P.S.A. will be considered nil and void for any damage caused by installation or operating errors, or due to non-respect of the instructions provided by P.S.A. or valid installation standards for the equipment object of the present document.

CONTENTS

INTRODUCTION

General delivery terms

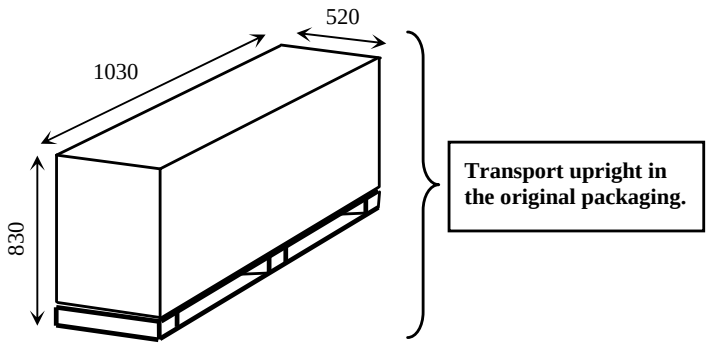
All equipment, even POST and PACKAGING PAID, is shipped at the sole risk of the receiver. The latter must record all reserves in writing on the shipping note of the HAULER in the case of visible or possible transport damage (Confirmation must be sent to the HAULER by registered mail within 48 hours).

The unit must always be stored and transported upright on a pallet and in the original packaging.

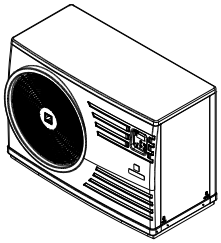
Remark: if this is not the case, place the unit upright on the pallet and check its general state (if there is a doubt concerning correct machine operation, note the appropriate reserves on the hauler's shipping note).

If the unit is stored or transported laying down, wait at least 12 hours before switching on.

Packaging and content



Transport upright in the original packaging.

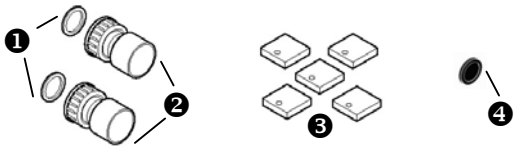


Technical instructions + **Warranty card**

Weight of heat pump **PowerPAC 1M** with packaging : ≅ **55** kg
Weight of heat pump **PowerPAC 2M** with packaging : ≅ **56** kg
Weight of heat pump **PowerPAC 3M** with packaging : ≅ **75** kg

An accessories sachet is placed inside the unit (to recover this sachet, refer to the chapter «CONNECTIONS» paragraph «Access to technical compartment»).

Contents of sachet :
2 sealing rings ❶ + 2 half-union connectors Ø50 to be glued ❷ + 5 anti-vibration pads ❸ + 1 cable gland Ø21❹.



Product name plate

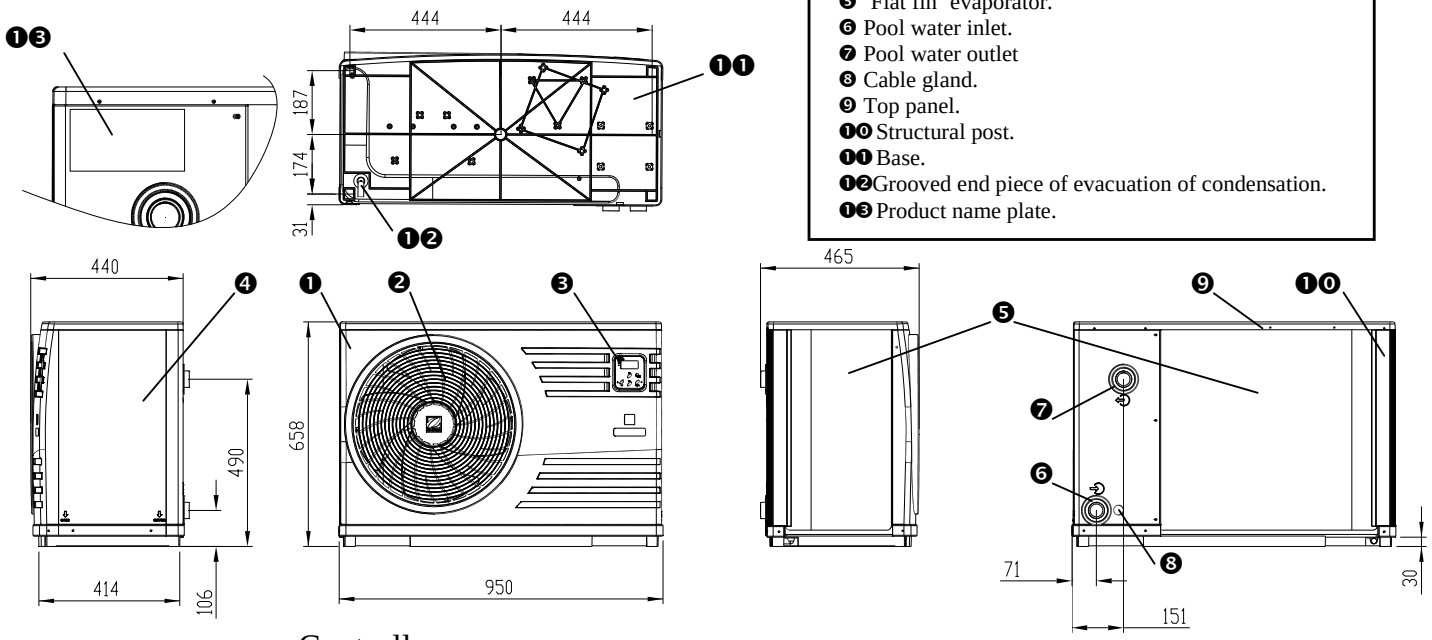
Before using or working on the unit, always check that the voltage indicated on the name plate corresponds to the power supply available (refer to the chapter «DESCRIPTION» for location of the name plate).

Water treatment

For our appliances to function under the best possible conditions, the following parameters must be respected: free chlorine: max. 2.5 mg/l, total bromine : max. 5.5 mg/l, pH between 6.9 and 8.0. When using a chemical or electrical disinfecting system, the installer and user must check with the manufacturer that this system is compatible with our equipment. These systems must always be installed after the heating system.

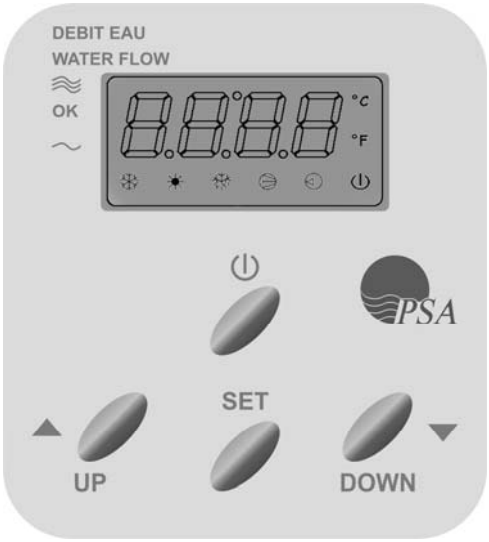
DESCRIPTION

Heat pump dimensions



❶ Front panel.
❷ Fan grid.
❸ Controller.
❹ Side panel (access to technical zone).
❺ 'Flat fin' evaporator.
❻ Pool water inlet.
❼ Pool water outlet
❽ Cable gland.
❾ Top panel.
❿ Structural post.
⓫ Base.
⓬ Grooved end piece of evacuation of condensation.
⓭ Product name plate.

Controller



⏻ : On/Off or Stand-by (press and hold 3 s).
SET : Display required water temperature.
SET + UP : Increase required water temperature.
SET + DOWN : Decrease required water temperature.

⏻ **Controller ON indicator**
Priority Heating output enabled indicator
Compressor ON (steady) or timed (blinking) indicator
Defrost in progress (steady) or timed (blinking) indicator
Indicators not active

Technical characteristics

Heat pump	Input*	Output*	Nominal current consumption*	Max. current consumption	Sound power	Sound pressure at 10 m	Net weight
PowerPAC 1M	**1.42** kW	**6.6** kW	**6.28** A	**9** A	**66.4** dBA	**38.4** dBA	**45** kg
PowerPAC 2M	**1.64** kW	**7.8** kW	**7.34** A	**10** A	**67.4** dBA	**39.4** dBA	**46** kg
PowerPAC 3M	**2.2** kW	**11** kW	**10.5** A	**14.5** A	**68** dBA	**40** dBA	**60** kg

* With an ambient air temperature of + 15°C and a pool water temperature of 24°C

- Unit protection class: **IP 24**
- Type of refrigerant: **R410A**

(see product name plate for refrigerant charge)

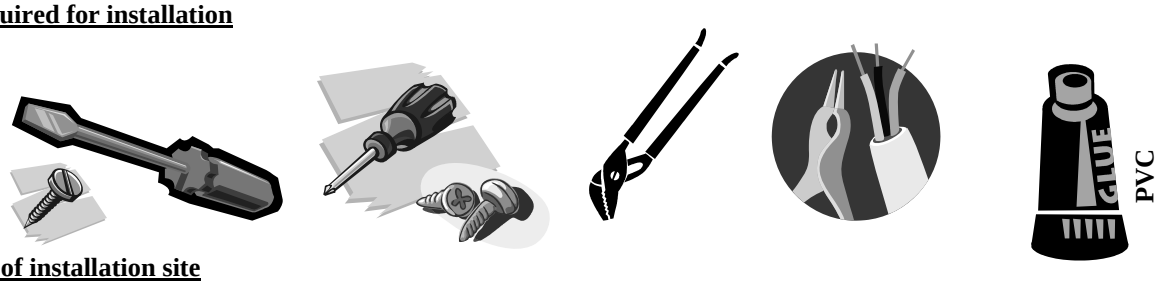
Do not vent R410A into atmosphere: R410A is a fluorinated greenhouse gas, covered by Kyoto Protocol, with a Global Warming Potential (GWP) = 1975 - (Directive of the EC 842/2006)

- Ambient operating temperature (TS): Min. **5°C** / Max. **38°C**

INSTALLATION

During installation, do not pick up the unit by the top panel, use the base to lift the unit.

Tools required for installation



Selection of installation site

• the unit must be ***installed outdoor***.

• a ***free space must be left around the unit*** (see minimum dimension in the figure below) to avoid any risk of recycling the cold air generated.

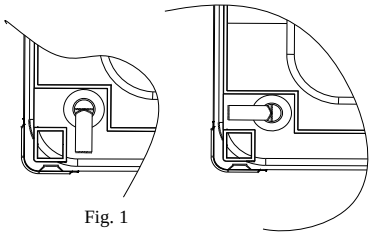


Fig. 1

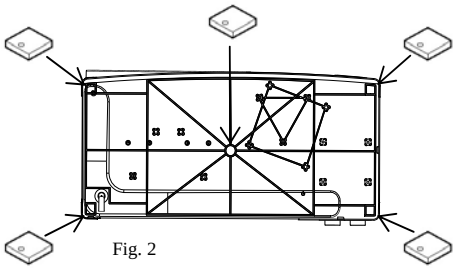
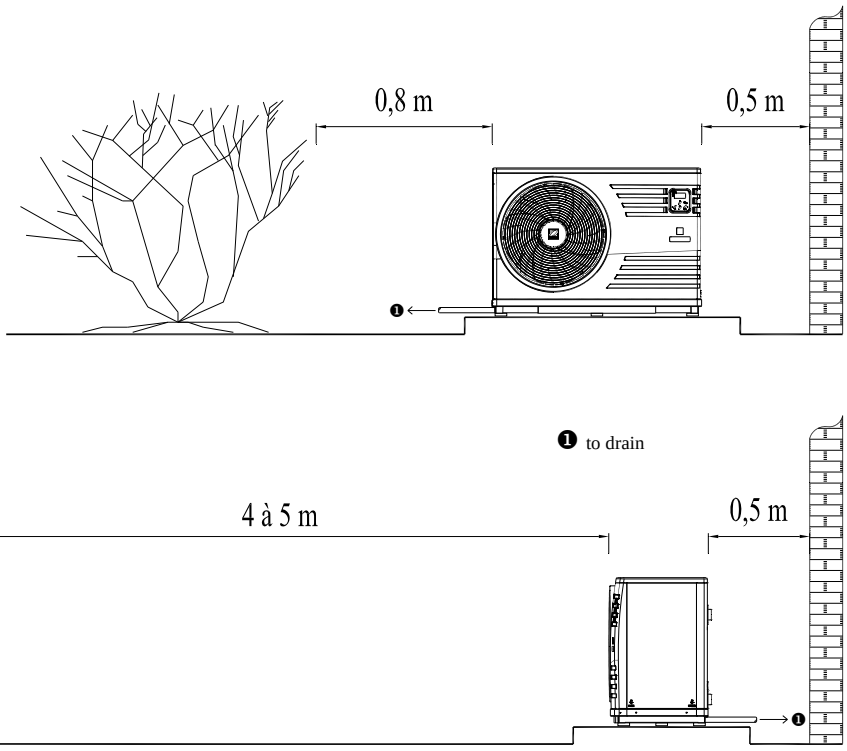


Fig. 2



• ***Installation*** must be ***simple*** and allow ***easy access for later work***.

• The unit must rest on a ***stable and solid surface*** (type concrete slab) and must be ***protected against any risk of accumulation*** of condensation water generated during operation. To achieve this, a groove-end tube (**Ø18 inside**) (fig. 1) installed on the base (two outlet configurations possible: to the rear or to the side). The ***5 anti-vibration pads*** (Fig. 2) provided must be i***nstalled*** under the unit

• The unit must be ***installed level*** to enable correct evacuation of condensation water during operation.

• The ***blower*** must ***not*** be ***directed toward windows*** in the vicinity.

• The ***heat pump*** must be ***installed at a minimum distance from the pool. This distance is defined by the locally valid electrical regulations***. In France, the standard NF C 15 100 (section 702) specifies that the unit may not be installed closer than 2 metres from any pool or water reserve, but may be installed at a distance of 2 to 3.5 metres provided it is not subjected to splashing. If this is the case, then the minimum distance to be respected is 3.5 metres.

• ***Do not install the heat pump close to a source of inflammable gas***.

• ***Do not install the heat pump close to a road or path to avoid mud splashing on the unit.***

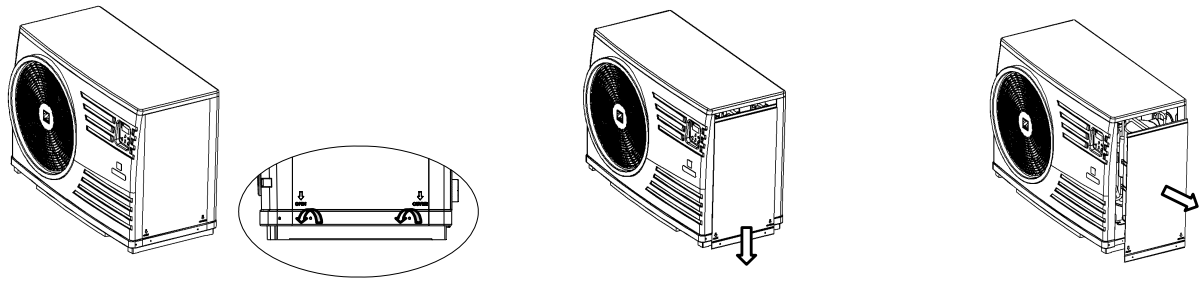
• ***Avoid zones exposed to strong wind, especially if it blows in the opposite direction to the air evacuated by the unit.***

• ***Installation, electrical and hydraulic connections must be carried out in compliance with valid standards, in particular the standard NF C 15 100 for France (equivalent to CE I 364) .***

• ***Keep***, whenever possible, the unit ***out of reach of children***.

CONNECTIONS

Access to technical compartment



Hydraulics

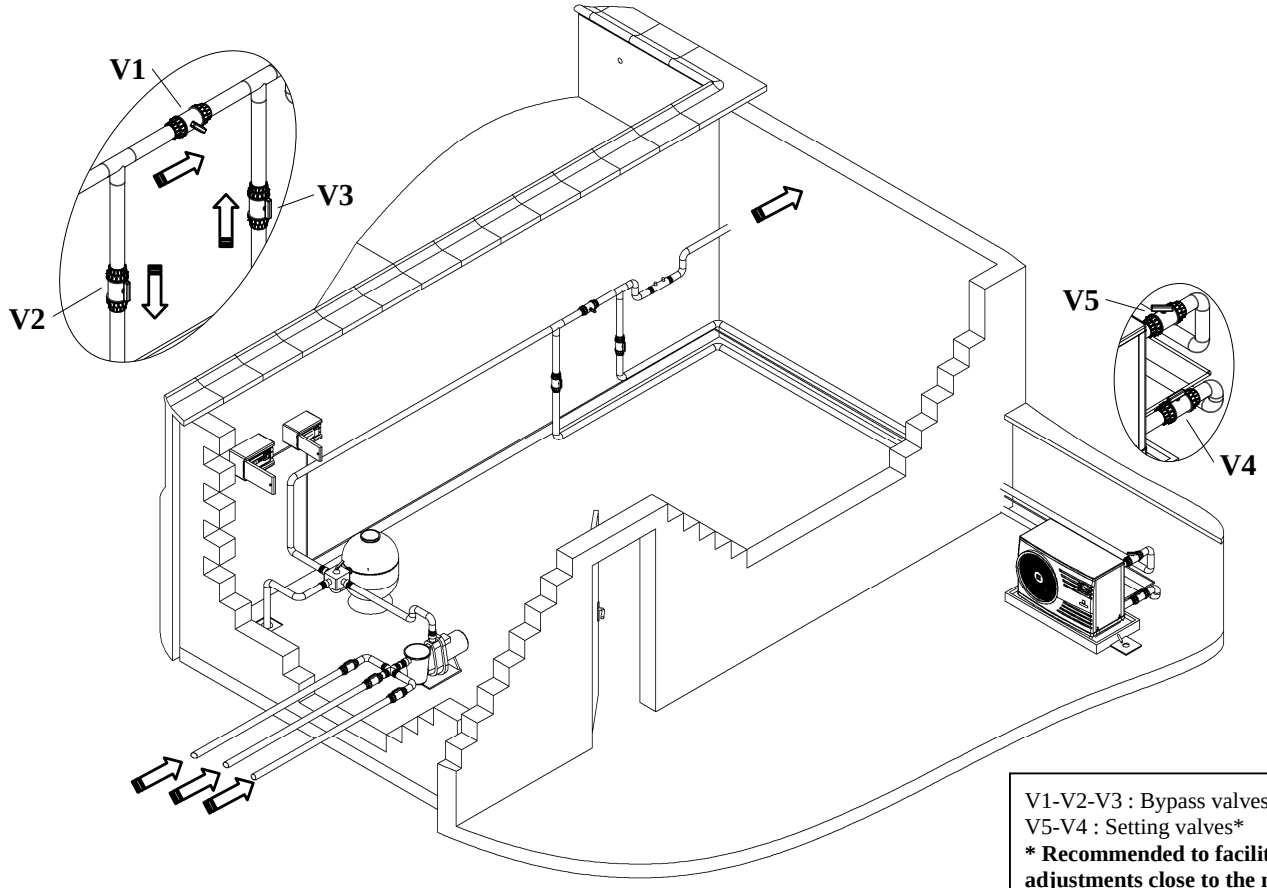
Connect the pool water inlet and outlet (respect symbols) of the unit using Ø 50 PVC pipe and the removable connectors provided with the heat pump. The following symbols will help you:

for **inlet** and for **outlet**.

The connection passes via a by-pass in the pool filter circuit located after the filter and before the water treatment (see diagram below).

- Hydraulic circuit test pressure: 3 bars ***- Hydraulic circuit operating pressure: 1.5 bar***

Heat pump PowerPAC 1M/2M/3M : - Average water flow-rate 2.8 / 3.5 / 5 m^3/h – head loss 0.12 to 0.15 bar –



V1-V2-V3 : Bypass valves
V5-V4 : Setting valves*
*** Recommended to facilitate adjustments close to the machine.**

Electrical

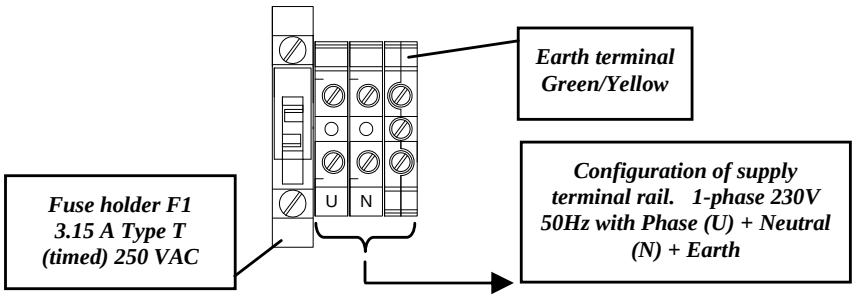
• The electrical power supply to the heat pump must be protected with a fuse and isolator switch (not provided) in compliance with standards and regulations valid in the country in which the system is to be installed.

• The unit is designed for connection to a general power supply with full earth and neutral or neutral earth systems (in compliance with NF C 15-100).

• Cable size Ø 9 to 18 mm : 3 x 2.5 mm² (Single-phase 230V/1/50Hz)

This section is an indication only and must be checked and adapted when necessary according to installation conditions.

• Electrical protection: by **16 A** circuit-breaker (graph D) or **16 A** fuse (Am) and with a 30 mA differential trip switch at the head of the supply line (circuit-breaker or switch).



Important remarks:

- A voltage variation of ±10 % during operation is acceptable.
- The electrical supply conduits must be securely fastened.
- The **cable must be suitable for outdoor use**.
- Use a cable gland to pass the power supply cable into the unit.

Presentation of the «Priority Heating» function:

The aim of this **priority heating** function is to keep the **pool water at the required temperature**, independent of the filtering time.

When filtering is switched off by its timer, the heat pump switches on the filter pump every hour by shunting the filter timer switch:

- if the pool temperature is higher than the required temperature, the heat pump stops the filter system after 5 min.
- if the pool temperature is below the programmed temperature, the heat pump switches on and keeps the filter pump running until the correct temperature is attained.

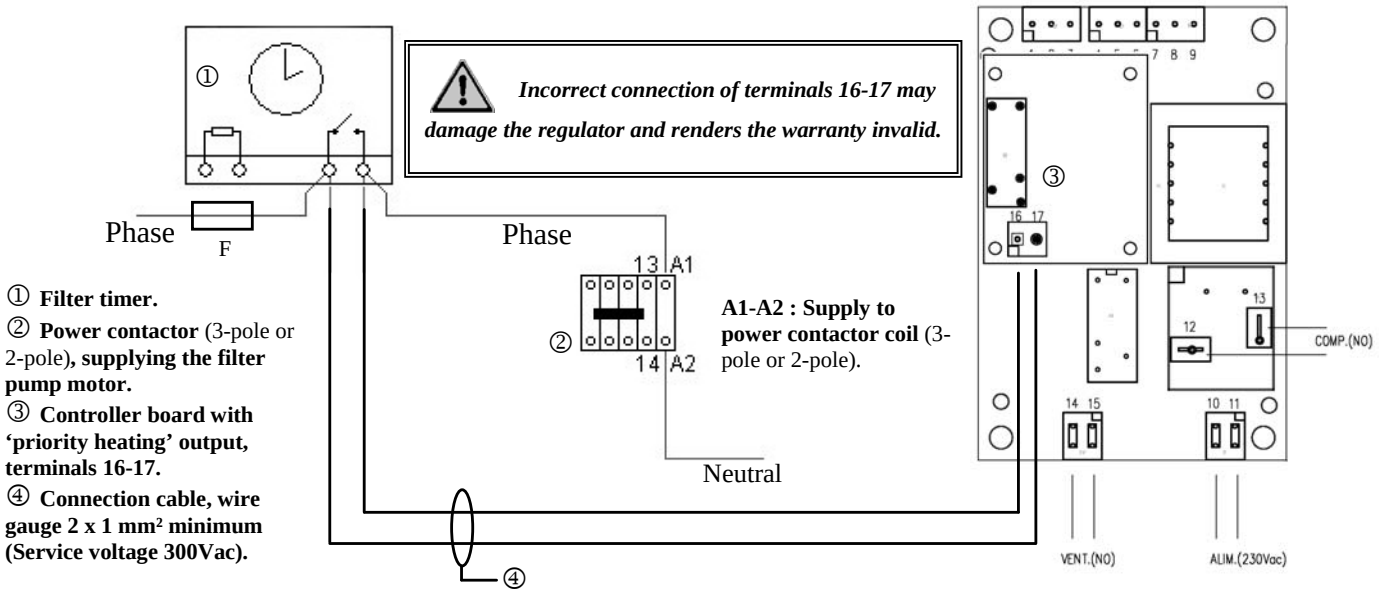
Main advantages offered by this function:

- a guarantee that the heat pump operates long enough to attain the required temperature, in particular during initial warm-up periods (no longer necessary to manually switch on the filter system 24/24).
- constant control and monitoring of the pool heating requirements, even when the filter system has been switched off by the timer.

Connection of the «Priority Heating» function:

Use terminals 16 and 17 to control filter pump operation with a **potential-free** contact (I max. = 5 A at 230Vac with circuit class AC1 and I max. = 1.2A at 230Vac with circuit class AC3), see diagram below.

«Priority heating» wiring and operating diagram:



① **Filter timer.**

② **Power contactor** (3-pole or 2-pole)**, supplying the filter pump motor.**

③ **Controller board with 'priority heating' output, terminals 16-17.**

④ **Connection cable, wire gauge 2 x 1 mm² minimum (Service voltage 300Vac).**

Never power the filter pump motor directly through terminals 16-17 located on plate ③.

Terminals 16-17 may remain live even if the heat pump is disconnected from the power source.

Before performing any work on the machine, cut off the power to the filter timer at its circuit breaker (F on the diagram above.)

Important :

The minimum wire gauge for connection of the priority heating function is: 1 mm².

Remove the plug (next to the packing gland) and fit the cable gland for passage of the cable into the unit.

Note: The cable used for priority heating and the electrical power supply cable must be strapped together inside the unit until just after the cable packing gland.

COMMISSIONING

Preliminary inspections

- check that the hydraulic connections are tight.
- check that the unit is stable (as well as level and upright).
- check that all cables are secure and all terminal connections are correct.

Incorrectly tightened terminals may cause overheating of the electrical terminal rail.

- check that the electrical supply and priority heating cables are not exposed to sharp or hot elements which could damage them, both inside and outside the unit.
- check that the unit is connected to earth (Green/Yellow conductor).
- ensure not tools or other objects have been left inside the unit.
- ensure the side panel providing access to the technical section is in place.

Commissioning step-by-step

Recommendations to attain the required temperature:

❶ Protect the pool with a cover (blister cover, roller cover …).

Heating a pool without a cover is like heating a house with the windows open!

❷ Switch the filter system to «Manual» mode, 24/24 (unless priority heating is connected).

❸ Take advantage of periods when the outside temperature is mild (> on average 10 °C) in order to facilitate the temperature increase. The task of the heat pump is to extract the heat from the surrounding air and transfer it to the pool water. The higher the air temperature, the more heat the heat pump will be able to transfer to the pool water.

Remark: before beginning commissioning step-by-step, note the position of each of the valves V1, V2, V3, V4 and V5, in the hydraulic circuit of the pool (see chapter «CONNECTIONS » paragraph «Hydraulics»).

-1- To begin with, the by-pass and regulator valves are placed as follows:
- Valve V1 completely open.
- Valves V2-V3-V4-V5 closed.

Note: in the aforementioned configuration, the heat pump is not yet supplied with pool water.

-2- Switch on the filter system.

-3- Progressively close valve V1 in order to increase the filter pressure to **150** g (**0.150** bar).

-4- Open valves V2, V3 and V4 completely, then half open valve V5 (the air accumulated in the heat pump condenser unit and in the filter circuit is then evacuated).

➢ If valves **V4 and V5** are **not present**, **open valve V2 completely** and **half close valve V3**.

-5- Switch on the electrical supply to the heat pump.

➢ When the regulator is first switched on, the following information messages appear:
REXX then MAPX.

-6- If the heat pump is in stand-by (red dot between the first 2 digits ), press and hold for **3 s** the key ⏻ ,  appears for **5 s** and then the water temperature is displayed.

-7- Set the temperature to the value required* (keys SET + UP or SET + DOWN) =>. If the pool requires heating, the indicator ⛀ blinks for 2 to 3 minutes then remains on and the heat pump compressor + fan start up at the same time.

*** also referred to as target point, this value is limited to 32°C in order to protect the pool liner. However, this max. limit may be adjusted by the installer with the assistance of the P.S.A. after-sales service dept. but the installer remains responsible for this modification.**

➢ During the first 5 minutes of compressor and fan operation, the 3 coloured bars located left of the display blink  , then only one bar remains on. This indicates whether the water flow-rate through the heat pump is: too low  **(bottom «red» bar)** correct  **(middle «green» bar)** or too high  **(top «red» bar)**

-8- If the regulator detects that the flow-rate is too low or too high, valve V5 (or V3 if V5 is not present) must be adjusted until the «green» middle bar lights up. **Attention !** During this adjustment phase, wait 30 s after each valve position change as the regulator response time is not instantaneous.

Remark: Once the pool has attained the required temperature, the heat pump switches off automatically (indicators and off).

Important remark:

- If the water flow-rate through the heat pump is less than 1.2 m3/h for more than 3 seconds, the heat pump is switched to stand-by (unit off), by the flow switch and the controller displays .

- If the water flow-rate through the heat pump is less than 1.2 m3/h for more than 3 seconds during heat-pump operation, then it is switched off (e.g. by the filter timer or due to air bubbles in the pool water circuit). Once the correct flow-rate has been re-established (> 1.2 m3/h) and heating is required, the unit will start up again after a time period ranging from 120 to 130 seconds*.

*** this time is extended when the defrost cycle is tripped or the compressor stoppage time is less than 180 s.**

- In case of mains power failure, when the power supply is restored, the heat pump starts up after a time period of 125 s.

- When the ambient temperature is between 5 and 12°C, the heat pump may start a defrost cycle (indicators and on). In this case, the compressor stops but the fan keeps running in order to defrost the evaporator with the ambient air. Once the end of defrost cycle has been detected (sensor ST3, located in the refrigerant circuit, returns between -5 and +5 °C), the fan is switched off. The compressor and fan restart after a time period** of 2 to 5 minutes.

**** varies according to the compressor stoppage time.**

- If the ambient temperature drops below +5°C, the heat pump switches off and the regulator displays alternating with the pool water temperature.

Checks during use

- The heat pump must switch off when:
  - the target temperature is decreased on the digital display of the thermostat.
  - filtering is stopped or valve V2 (or V4 if present) is closed.
  - when the key is pressed and held for 3 seconds (except when a defrost cycle is in progress [indicators and on]. In this case the fan remains on until the end of this cycle).

MESSAGES DISPLAYED BY THE REGULATOR

Stand-by

Display	Designation	Cause	Remedy	Reset
	Flow switch Off for more 3s.	1- Filtration pump off (the filtration timer is outside the operating time span) 2- Insufficient flow switch through the unit 3- Flow switch defective or disconnected	1- Wait for the programmed filter operating period *** Test possible in mode: «manual» filtration** 2- Adjust the BYPASS *** Filter in operation** 3- Replace or reconnect the flow switch	Automatic after timer
 (Alternating with the pool water temperature)	Antifreeze safety On	Outside temperature too low (ST2 < + 5°C) *Check possible using the sensor reading function (see box Display values of sensors ST1-ST2-ST3 and ST4) see page 10.*	Wait for the outside temperature to increase naturally	Automatic

Note: The indicator remains on for 120s after the message or .

Fault trip

Display	Designation	Cause	Remedy	Reset
	Control sensor fault (ST1)	Sensor defective or disconnected	Replace or reconnect the sensor	Switch the power supply off and then back on again or press the key ⏻ if the message dSr is blinking
	Antifreeze sensor fault (ST2)	Sensor defective or disconnected	Replace or reconnect the sensor	Switch the power supply off and then back on again or press the key ⏻ if the message dSr is blinking
	Defrost sensor fault (ST3)	Sensor defective or disconnected	Replace or reconnect the sensor	Switch the power supply off and then back on again or press the key ⏻ if the message dSr is blinking
	Refrigerant circuit low pressure fault	Insufficient refrigerant	Contact a PSA-approved technician to detect the leak and top up the refrigerant	Automatic (if less than 4 dbP or dHP faults in one hour) or press the key ⏻ if the message dSr is blinking
	Refrigerant circuit high pressure fault	1- Turbulent air and water flow through the unit 2- Excessive refrigerant	- Bleed the air from the hydraulic circuit 2- Contact a PSA-approved technician to check the refrigerant level	Automatic (if less than 4 dbP or dHP faults in one hour) or press the key ⏻ if the message dSr is blinking
 (Alternating with the pool water temperature)	Water flow-rate sensor fault (ST4)	Sensor defective or disconnected	Replace or reconnect the sensor	Switch the power supply off and then back on again or automatic if the fault disappears.
	Refrigerant circuit pressure fault	High or low pressure fault tripped while sensor ST4 detects fault Est4	Cancel the fault EST4 (see message above)	Automatic (if less than 4 dbP or dHP faults in one hour) or press the key ⏻ if the message EST4 is blinking
	Defrost cycle time exceeded	Defrost cycle too long (> one hour) This is due either to: - excessive ice formation on the evaporator (low temperature with evaporator blocked or no ventilation during the defrost cycle). - or an incorrect ST3 sensor value. *Check possible using the sensor reading function (see box Display values of sensors ST1-ST2-ST3 and ST4) see page 10.*	Cancel the fault , then check that the defrost cycle operates correctly. In case of repeated fault: Contact a PSA-approved technician to check the sensor ST3, as well as the load of gas.	Switch the power supply off and then back on again or press the key ⏻ if the message dtd is blinking (case after stand-by following regulator start up by pressing ⏻)
	EEPROM fault (microprocessor)	The parameters data in the controller chips are damaged	Contact a PSA-approved technician to install a new controller	Switch the power supply off and then back on again

Note: The indicator ◁ remains on for 120s after one of the messages indicated above. The fault  alternating with the pool water temperature, does not block operation of the heat pump.

Display the values of sensors ST1-ST2-ST3 and ST4 (refer to the electrical diagram to identify the function of each sensor):

-1- Press and hold for 3 s the keys UP =>  => **display with the key** SET **(return by pressing** SET **again)**

-2- Display  =>  =>  **by pressing** UP .

Note: - the DOWN **key is disabled in this menu.**

- quit the sensor display function by pressing and holding for 3 s the key UP ***or*** **automatic after a time period of 70 s (without touching the regulator).**

OVERWINTERING

Step-by-step

-1- Switch the regulator to ***«Stand-by»*** mode by pressing and holding for **3 s** the key ⏻ ,  then appears on the screen for

5 s before a small red dot appears  .

Important remark:

- If the indicator ⏲ is on during step **-1-,** it will remain on for **120 s** before switching off.

Note: with the priority heating function connected, the filter remains on for **2 minutes**, after switching the heat pump to ***«Stand-by»*** (outside the programmed filter periods).

- If a heat pump defrost cycle is in progress during step **-1-** the fan remains on until the end of this defrost cycle.

-2 Close valves V2 and V3 of the BY-PASS.

-3- Open valves V4 and V5 on the side of the machine (if present).

-4- Drain the water condenser **(*RISK OF FROST*)** by removing the two pool water inlet and outlet connections at the back of the heat pump.

-6- Retighten these connections one turn to avoid penetration of foreign bodies into the condenser.

-7- Open valve V1 of the BY-PASS.

-8- Cover the heat pump with a micro-breathing overwintering cover (optional accessory).

⚠ ***Under no circumstances should the unit be hermetically wrapped and sealed (risk of condensation).***

MAINTENANCE

Regular

• Ensure that the evaporator is always clean as this is the element recovering energy from the surrounding air. Use a brush with soft bristles and a gentle water spray ***(under no circumstances use a high-pressure spray)***.

• Ensure no foreign bodies obstruct the fan grid**.**

Annual (by a qualified and authorised technician)

• Carry out the regular maintenance tasks (refer to paragraph above).
• Check the target values and operating points.
• Check safety devices.
• Check that electrical cables are securely fastened (retighten the power supply cable if necessary).
• Check that all metal elements are connected to earth.
• Clean the outside of the unit with a solvent-free product. A specific PSA NET cleaning kit is available as an optional extra.

⚠ ***Before beginning work on this appliance, ensure it is disconnected from the power source.***

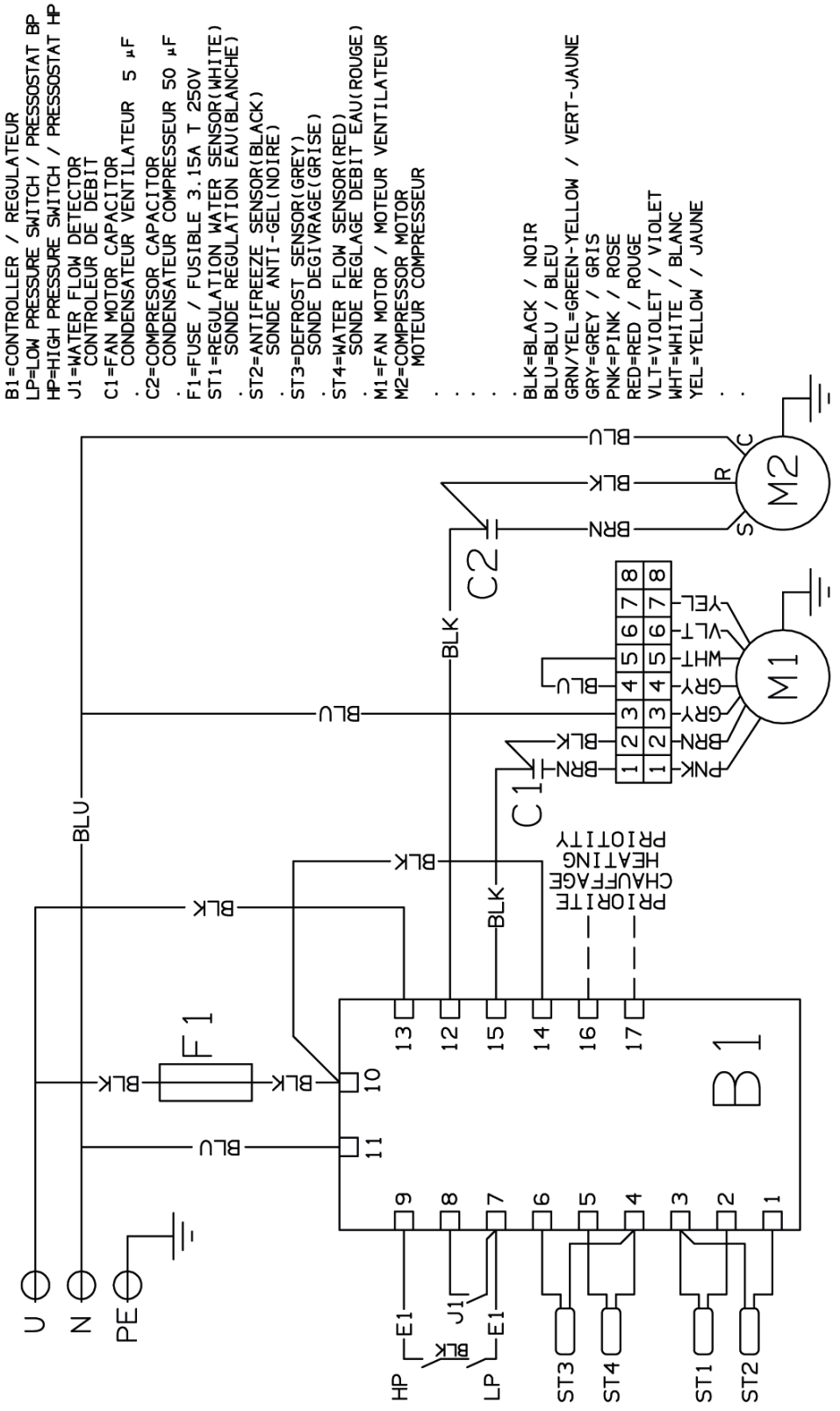
Warning! If the "Heating priority" function is connected, voltage may remain in the adjustment plate.

Repairs and maintenance must be performed by a qualified technician with experience of this type of appliance.

PRODUCT RECYCLING

Please refer to the paragraph with the  symbol at the end of the instructions.

ELECTRICAL WIRING DIAGRAM



IMPORTANT

Elimination or shunting of a safety or remote-control device automatically voids the WARRANTY.

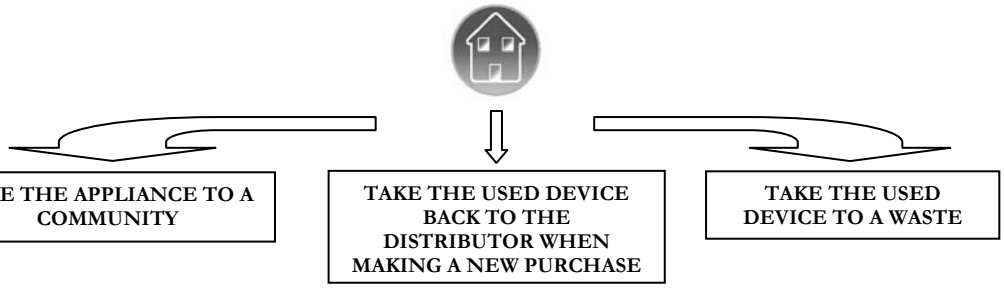
With an aim to continuous improvement, the products may be modified without prior notice.

- Edition of 09/08 A -

Your appliance is reaching the end of its working life. You would like to get rid of it or replace it.
Please do not throw it into the dustbin or into your local council's selective sorting containers.

When this symbol appears on a new appliance, it means that the equipment must not be thrown away and that it will be collected selectively so that it can be reused, recycled or recovered. Any substances it may contain which are potentially dangerous to the environment will be eliminated or neutralised.

You can give it to a community association who will be able to repair it and put it back into circulation.
If you buy a new one, you can take the old one to the store or ask the delivery man to take it back.
This is known as a "**One-for-One**" exchange.
Otherwise please take it to a waste collection centre, if your local council has set up a selective collection system for these products.



GB

- Notas - Nota

- Notas - Nota

ADDITIONAL RECOMMENDATIONS
In relation with the Pressurised Equipment Directive (PED-97/23/CE)

I. Installation and maintenance

• Before beginning any installation, commissioning, operation or maintenance work, the persons responsible for these tasks must have read and understood all instructions and recommendations contained in the unit installation instructions as well as in the project technical file.
• The person responsible for final acceptance of the unit must carry out a visual inspection to detect any damage the unit may have suffered during transport: refrigeration circuit, electrical enclosure, frame and casing.
• The unit may not be installed close to:
- a heat source
- combustible materials
- the air duct outlet of an adjacent building.
• For certain appliances, it is essential to fit protection grids if the unit is installed in an area which is unprotected and easily accessible.
• The appliance may only be installed, commissioned, serviced and repaired by properly qualified persons in accordance with directives, laws, valid regulations and acceptable professional practice.
• During installation, repair and maintenance work, it is strictly prohibited to step on pipes and hoses as these could break and the escaping refrigerant could cause serious scalding.
• When servicing the appliance, the composition and state of heat carrying fluid must be checked, as well as the absence of any refrigerant.
• During the annual unit sealing test in accordance with valid legislation, the high and low pressure switches must be checked to ensure they are securely fastened to the refrigeration circuit and that they shut-off the electrical circuit when tripped.
• During maintenance work, ensure there are no traces of corrosion or oil around refrigeration components.
• Before beginning work on the refrigeration circuit, isolate the appliance and wait several minutes before removing the temperature or pressure sensors. Certain elements such as the compressor and associated piping may attain temperatures in excess of 100°C and high pressures with the consequent risk of severe scalding.

II. Repair

• All work on the refrigeration circuit must be carried out with total respect of valid safety regulations and acceptable professional practice: recuperation of refrigerant, nitrogen brazing, etc…
• All brazing work must be carried out by a qualified brazer/welder.
• In the case of units filled with R410A, refer to the specific indications in the installation instructions.
• This unit contains pressurized components, some of which may be manufactured by PSA, this is the case of piping elements.
Only use the original spare parts indicated in the spare parts list to replace a defective refrigeration component.
• Replacement pipes must always be made of copper in compliance with standard NF EN 12735-1.
• Leak detection, pressure test:
- never use oxygen or dry air, risk of fire or explosion
- use dry nitrogen or the mixture of nitrogen and refrigerant indicated on the name plate
- The test pressure for both the high and low pressure circuits must not exceed 42 bar.
• The high pressure circuit pipes are made of copper and have a diameter equal to or greater than 1''5/8. A certificate as indicated in §2.1 in compliance with standard NF EN 10204 will be requested from the supplier and filed in the installation technical documentation.
• The use of non-original spare parts, modifications to the refrigeration circuit, replacement of the refrigerant with a refrigerant type other than that indicated on the name plate, use of the appliance under conditions outside the application limits indicated in the associated documentation will result in a cancellation of the EC label and PED conformity and the person who carried out these modifications will be sole responsible for the consequences.
• The technical data relative to the safety requirements of the various applicable directives must be indicated on the name plate. **This data must be recorded in the unit installation instructions which are included in the installation technical file**:
- Model – code – serial number
- Max. and min. OT
- OP
- Year of manufacture
- EC label
- Manufacturer's address
- Refrigerant and weight
- Electrical parameters
- Thermo-dynamic and acoustic performance.

CONFORMITY CERTIFICATE
SWIMMING POOL HEAT PUMPS : POWERPAC 1M-2M-3M

CE

Are fully compliant with:
• ELECTROMAGNETIC COMPATIBILITY directive 89/336/CEE
• LOW VOLTAGE directive 73/23/CEE
The following harmonised standards have been applied:
NF EN 60335.1
NF EN 60335.2.40

Votre installateur - Your installer

Zodiac, la maîtrise des éléments.

Mondialement reconnu pour la qualité et la fiabilité de ses produits dans les secteurs de l'aéronautique et du nautisme, Zodiac engage son nom dans l'univers de la piscine pour vous offrir toute une gamme de piscines, nettoyeurs automatiques, systèmes de traitement d'eau, systèmes de chauffage et de déshumidification de piscines. En s'appuyant sur le savoir-faire technologique et l'expérience de PSA, Zodiac vous apporte la garantie d'appareils de très haut niveau tant dans leur conception que dans leurs performances.
Un véritable gage d'efficacité et de tranquillité !

Zodiac, mastering the elements.

Renowned worldwide for the quality and reliability of its products in the aeronautical and marine sectors, Zodiac has now brought its expertise to swimming pools, to bring you a full range of pools, automatic pool cleaners, water treatment systems, heating and dehumidification units.
Backed by PSA technology, expertise and experience, Zodiac brings you the reassurance of top quality equipment in terms of both design and performance.
A real guarantee of efficiency and peace of mind !

ZODIAC

Chauffage et déshumidification de piscines - Heating and dehumidification of pools
PSA - Boulevard de la Romanerie BP 90023 - 49180 Saint Barthélemy d'Anjou Cedex - France
Tél. +33 2 41 21 17 30 - Fax +33 2 41 21 12 26 - www.psa-zodiac.com
R.C.S. NANTERRE : 410 245 906 - Code APE : 292 F

Cachet du revendeur / Seal of retailer

Cachet de l'installateur / Seal of installer

S.A.S PSA - Groupe Zodiac

Boulevard de la Romanerie - B.P. 90023 – 49180 SAINT BARTHELEMY-D'ANJOU Cedex – France

: +33 (0)2 41 21 17 30 : +33 (0)2 41 21 12 26 – http : //www.psa-zodiac.com

Madame, Monsieur,

Nous vous remercions de votre confiance et vous souhaitons une excellente baignade à 28 °C …

Merci de consacrer quelques minutes à remplir ce bon de garantie avec votre installateur ou/et la station service agréée PSA.

Vos coordonnées pourront être traitées conformément à la Loi Informatique et Libertés du 6 janvier 1978. Vous disposez d'un droit d'accès, de rectification ou de radiation des informations vous concernant qui pourra être exercé auprès de PSA- Groupe ZODIAC – Bd de la Romanerie – B.P. 90023 – 49180 St Barthélemy d'Anjou Cedex – France.

Dear costumer,

Thank you for trusting us and enjoy your bath at 28 °C …

Please take a little time to fill in this guarantee form with your pool adviser.

Your details may be treated according to the law Informatique et civil rights dated 6th January 1978. You got rights to access, modification and cancellation of them that should be applied to PSA- Groupe ZODIAC – Bd de la Romanerie – B.P. 90023 – 49180 St Barthélemy d'Anjou Cedex – France.

S.A.S PSA – Groupe ZODIAC
Boulevard de la Romanerie
B.P. 90023
49180 SAINT BARTHELEMY D'ANJOU
Cedex
FRANCE

Coupon à conserver par l'utilisateur / copy to be kept by owner

BON DE GARANTIE / GUARANTY FORM

(A nous retourner impérativement, dûment rempli et signé, pour la prise sous garantie du matériel)

(To be filled, signed and sent back to valid guaranty)

GARANTIE 2 ans tous les produits

GUARANTY 2 years all the products

Type de matériel et n° de série / Type and serial number

Garantie /guaranty

Date de livraison / Delivery date : / /

Date de mise en route / Date of start UP : / /

Négociation d'un contrat d'entretien / Maintenance contract : ❒ NON/NO ❒ OUI/YES

(Nbre d'années/Number of years : ……)

Utilisateur/Owner

Nom : ……
/ Name
Prénom : ……
/First Name
Adresse : ……
Adress ……
Tél. / Phone : ……
Fax : ……
Email : ……
Dimensions de votre piscine : …… m² - …… m³

Signature

Installateur/installer

Nom : ……
/ Name
Adresse : ……
Adress ……
Tél. / Phone : ……
Fax : ……
Email : ……

Signature

Station service agréée PSA / Technical support

Nom : ……
/ Name
Adresse : ……
Adress ……
Tél. / Phone : ……
Fax : ……
Email : ……

Signature

ATTENTION : la garantie contractuelle ou complémentaire(1) ne pourra être validée auprès de l'installateur ou de PSA qu'à la seule condition que ce bon ait été retourné dûment rempli et signé ! / **CAUTION :** The guaranty is valid only if this form is properly filled in , signed and sent back !

S.A.S PSA - Groupe Zodiac
Boulevard de la Romanerie - B.P. 90023 – 49180 SAINT BARTHELEMY-D'ANJOU Cedex - France

Avant de retourner ce coupon, n'oubliez pas d'en faire une copie !
Advice : Keep at least a copy before sending this form back !

(1) voir conditions particulières de ventes/Conditions of application as per general condition of sales