



ZODIAC

Uranus⁺



GB Exchanger Instructions for installation and use



Cette notice d'installation fait partie intégrante du produit et doit être impérativement remise à l'utilisateur.

Lire attentivement les avertissements contenus dans le présent livret car ils fournissent des indications importantes au niveau de la sécurité d'utilisation et de manutention. Conserver ce livret afin de pouvoir toujours le consulter.

L'installation doit être effectuée, conformément aux normes en vigueur et en respectant les instructions du fabricant, par une personne professionnellement qualifiée.

Par "personne professionnellement qualifiée", il s'entend une personne ayant les compétences techniques dans le secteur des composants P.S.A. et des installations de chauffage.

Un défaut dans l'installation peut entraîner des dommages sur des personnes, animaux ou objets pour lesquels le fabricant ne saurait être tenu responsable.

Après avoir retiré l'emballage de l'appareil, s'assurer de l'état du contenu.

Avant de raccorder l'appareil, s'assurer que les données fournies par P.S.A. sont compatibles avec l'installation à réaliser dans les limites maximales autorisées du produit concerné.

Au préalable de toute opération d'entretien, de manutention ou de réparation sur l'appareil, couper l'alimentation électrique sur ce dernier.

En cas de panne et/ou de fonctionnement anormal de l'appareil n'envisager aucune tentative de réparation sur celui-ci, couper l'alimentation électrique sur ce dernier.

L'éventuelle intervention de réparation devra être effectuée par un service d'assistance autorisé qui utilisera exclusivement des pièces de remplacement d'origine. Le non respect des clauses décrites ci-dessus peut compromettre la sécurité d'utilisation de l'appareil.

Pour garantir l'efficacité de l'appareil et pour son fonctionnement correct, il est indispensable de faire effectuer un entretien périodique de ce dernier en se conformant aux instructions fournies par P.S.A.

Dans le cas où l'appareil devrait être vendu ou transféré chez un utilisateur différent, s'assurer que ce livret accompagne le matériel afin que le nouveau propriétaire ou l'installateur puisse le consulter.

Cet appareil devra être destiné exclusivement à l'usage pour lequel il a été conçu; toute autre utilisation aléatoire devra être considérée comme impropre et dangereuse.

Sont exclues toutes responsabilités contractuelles ou extracontractuelles de P.S.A. pour des dommages causés suite à des erreurs d'installation ou d'utilisation, ou par un non respect des instructions fournies par P.S.A. ou des normes d'installation en vigueur concernant le matériel en objet.

IMPORTANT - CAUTION - IMPORTANT

This manual is an integral part of the product and must be supplied to the installer and the end user.

The advice included in this manual must be carefully read as they supply important indications about safety and maintenance. Keep this manual in order to consult it if necessary.

The appliance must be installed according to the standards in force, by qualified personnel, this means by personnel having skill to care of PSA products and heating installations.

A failing installation can cause damages to persons, pets or items. In any case, the manufacturer can be considered as responsible of such damages.

When unpacking the unit, check its state.

Before connecting the unit, make sure that the advice supplied by this manual are in accordance with the installation and its conditions of use.

Before any servicing, maintenance and repair, switch off the main supply.

In event of failure or abnormal operation, switch off the unit before any repair.

Any repair shall be performed by PSA authorized service personnel with genuine spare parts. The use of non-genuine parts can be harmful to the unit and to the persons.

In order to ensure a long-lasting efficiency of the unit, it shall be maintained in accordance with the instructions included in this manual.

In event of sale or transfer of this unit to another user, make sure this manual is supplied as well.

This unit must be exclusively used for the use it was designed to. Any other use shall be considered as improper and hazardous.

In event of damages due either to an improper installation or use or if the instructions provided by PSA or the standards in force are improperly applied, all PSA responsibilities will be void.

IMPORTANT - CAUTION - IMPORTANT

SUMMARY

1. GENERAL.....	2
1.1 General terms of delivery.....	2
1.2 Voltage.....	2
1.3 Water treatment.....	2
2. DESCRIPTION.....	2
2.1 Presentation.....	2
2.2 Dimensions.....	3
3. INSTALLATION OF THE UNIT.....	4
4. CONNECTIONS.....	4
4.1 Hydraulic connections.....	4
4.2 Electric connections.....	5
5. USE OF THE CONTROL DISPLAY.....	5
5.1 Presentation.....	5
5.2 Setting of required temperature.....	6
6. STARTING UP.....	6
6.1 Before starting up, check.....	7
6.2 Starting up.....	7
6.3 Checking.....	7
6.4 Failure.....	7
6.5 Winter storage.....	7
7 WARNING.....	8
8 RECYCLING THE PRODUCT.....	8
9 ELECTRIC DIAGRAM.....	9

1. GENERAL

1.1 General terms of delivery

Any equipment, even CARRIAGE and PACKING FREE, travels at the consignee's risk. The consignee shall make reserves in writing on the carrier's delivery bill if he notes damage caused during the transport (confirmation to be sent to the carrier within 48 hours by registered mail and Acknowledgement of Receipt).

1.2 Voltage

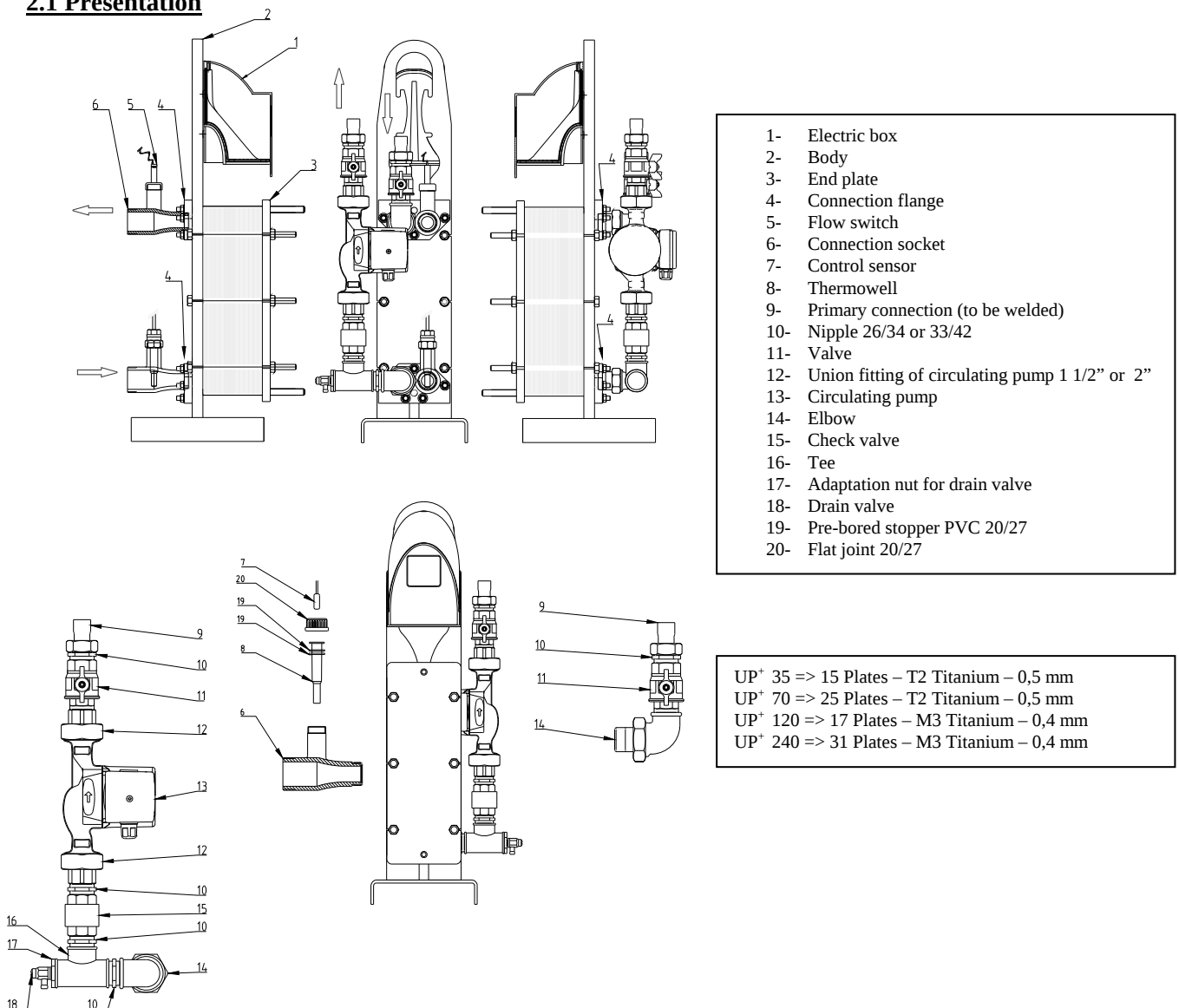
Prior to any operation, check that the voltage on the identification plate of the appliance corresponds to the mains voltage provided on site.

1.3 Water treatment

In order to use our appliances in the best conditions, swimming pool water shall comply with the following values: free chlorine: max. 2.5 mg/l, total bromine: max. 5.5 mg/l, pH between 6.9 and 8.0. For any other treatment, the fitter and the user shall apply to the supplier of the planned disinfection process (chemical, electrochemical or electrophysical) for the compatibility with the materials of our appliances. In any case, treatment shall be installed downstream the heating equipment.

2. DESCRIPTION

2.1 Presentation



UP⁺ 35-70 are fitted with circulating pumps :

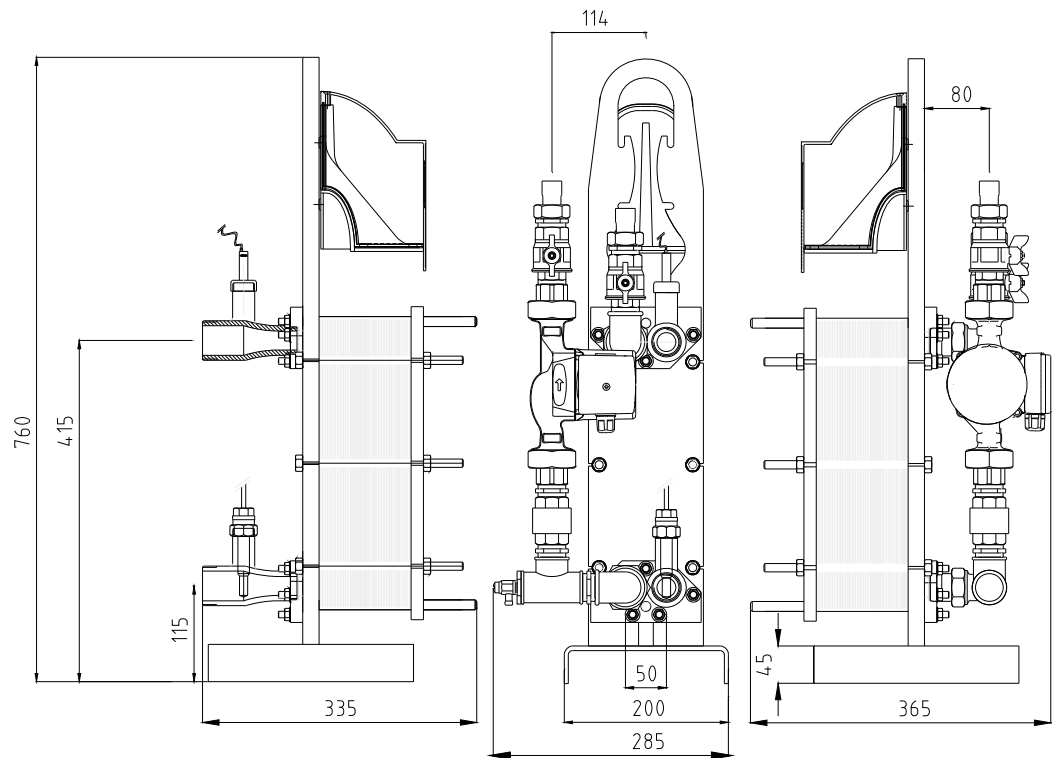
UPS 25/60 - Length 180 mm – Consumed power 90 W (Speed 3) – In (A) 0,40 (Speed 3) - Capacitor : 2 ,5 µF 400V.

UP⁺ 120-240 are fitted with circulating pumps :

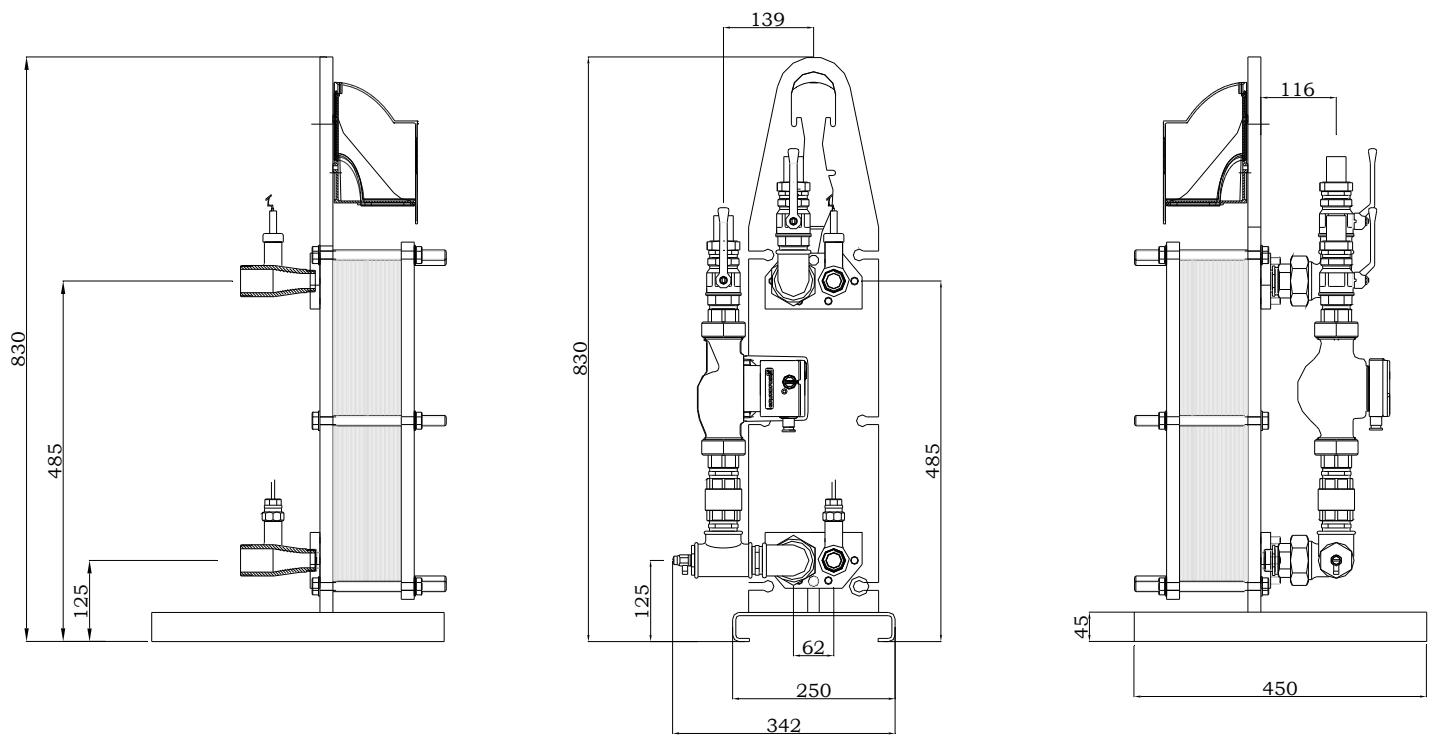
UPS 32/80 – Length 180 mm - Consumed power 245 W (Speed 3) – In (A) 1,05 (Speed 3) - Capacitor : 5 µF 400V.

2.2 Dimensions

UP⁺ 35-70



UP⁺ 120-240



Dimensions in mm

3. INSTALLATION OF THE UNIT

The appliance shall be installed in a technical facility close to the boiler and to the filter of the pool. It shall be fixed onto the floor, making sure it can't be flooded when cleaning the technical facility with a nozzle. In the event the boiler is away from the technical facility, install the exchanger close to the boiler in order to reduce thermal losses on primary circuit. Connect to the circuit of the pool by means of Ø 50mm pipes.

Notice: If the exchanger is far away from the boiler, provide the hydraulic connection with appropriate section taking account of the distance, the flow rate and the pressure drop. In some cases, the circulating pump should be replaced with a more powerful pump. In any case, these connections shall be properly insulated and fitted with automatic air bleed on high points of the circuit.

4. CONNECTIONS

4.1 Hydraulic connections

- **Circuit to pool:**

The heat exchanger shall be connected from a by-pass onto the filtration circuit upstream any disinfection process. Inlet of water on the bottom, outlet on the top shall be respected.

- **Circuit to boiler**

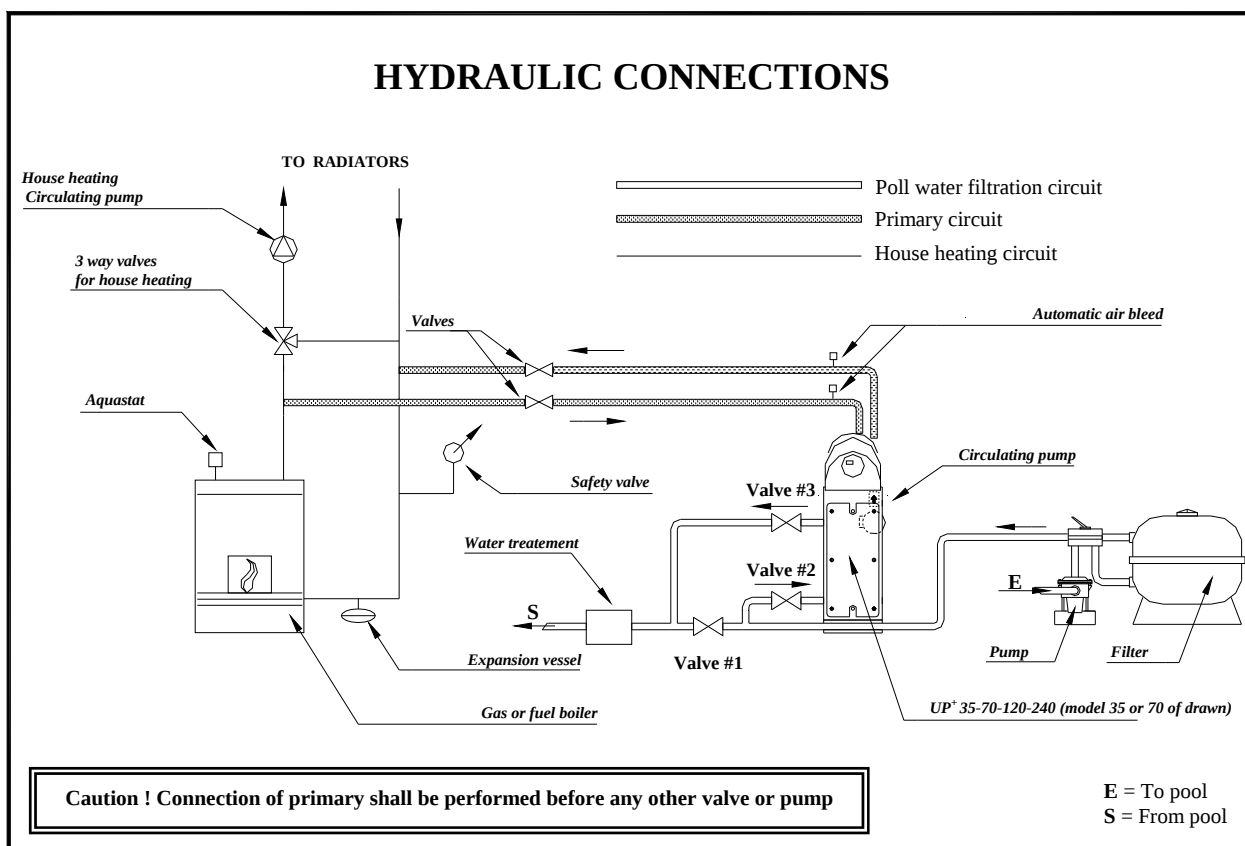
The exchanger shall be connected directly to the primary circuit of the boiler supplying constant temperature (90°C/70°C mandatory). Install automatic air-bleed on high points of primary circuit.

- **Circulation direction**

Circulation of both circuits shall be counter-current. Caution, pool water inlet shall always be on the side of the thermo-well.

Tested pressure of hydraulic circuit : 4 to 5 bars.

Service pressure of hydraulic circuit : 1 to 2 bars.

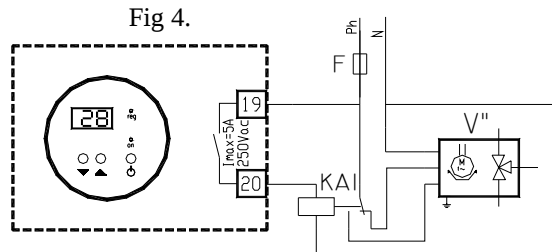
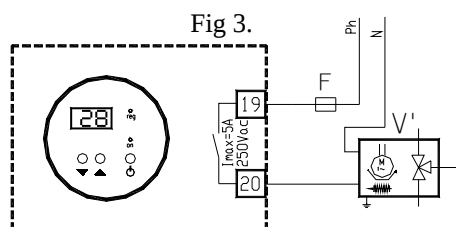
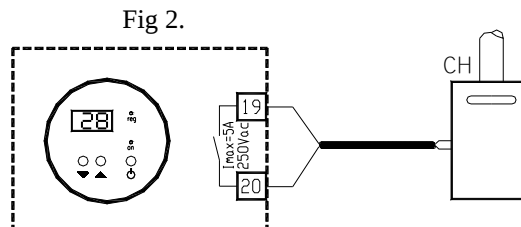
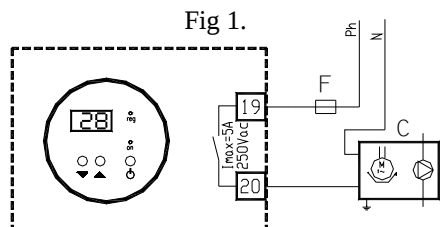


4.2 Electric connections

The power supply of the heat pump shall be insured by a cable as per indications below and protected by a differential 30mA circuit breaker (not provided), according to the national regulation.

Use the cable and plug provided or replace with a cable 3 x 1,5mm² single phase 230V/1N/50 Hz. This section is indicative and must be checked and adapted, according to the installation. In case of using the provided plug, don't use any extension cable, but install a socket close to the appliance.

Use a 3G1 wire (1 mm² section) if you wish to control an electric valve or a boiler to provide power to the primary circuit of the exchanger. This function is carried out via the dry contact without polarity 'normally open at rest' (Imax 5A at 250 Vac 50-60hZ) available on the regulator terminals 19-20.



C : Pump

CH : Existing boiler

F : Fuse

KA1 : Control relay

V' : 3 port valve with mechanical return

V'' : 3 port motorized valve with movement in two directions

Ph : Phase
N : Neutral

The elements : C – CH – F – KA1 –V' –V'' are not supplied with this device.

Notice:

Electric cables shall be fixed.

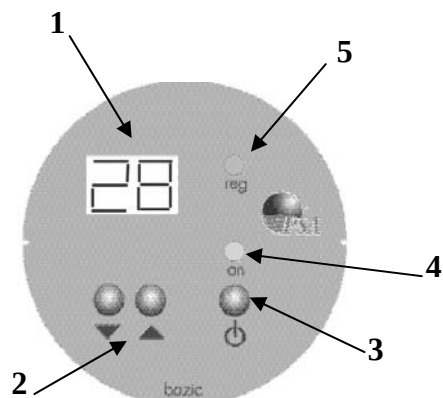
The wire connected to terminals 19-20 must go through the additional discharger 'grommet' (supplied) which should be installed on the base of the box.

5. USE OF THE CONTROL DISPLAY

5.1 Presentation

The "Bazic" control unit fitted in the front side is equipped with :

- A digital display of 2 digits (1) to display the current and required pool's temperatures
- Two sensitive switches to adjust the required temperature (2)
- A sensitive ON/OFF switch (3)
- An ON/OFF LED (on : LED red)(4)
- An operation state LED (5) → while heating : fix LED
→ temporisation in process: blinking LED



CAUTION ! Before any intervention switch-off the power supply of the unit.



❶ Protection fuse (T3,15H250V)

Notice: Neither display nor operation if out of order

Comments :

*the adjustment range of the set point varies between 2° and 40°C. This max. temperature may be decreased in order to protect the swimming pool liner, or it may be increased for specific purposes.

In order to change this max. set point, access the menu parameters and change the parameter "r2" (**see procedure below**):

- 1 – Turn the regulator switch OFF; the "on" light goes off and the water temperature of the pool is displayed.
- 2 – Press the UP and DOWN (▼ + ▲) keys simultaneously for five seconds until 88 is displayed.
- 3 – Press the ⏻ key to re-enter the number 80, the access code for the **menu parameters**, using the ▲ or ▼ keys.
- 4 – Press the ⏻ key to validate this code; 88 is displayed.
- 5 – Press the UP and DOWN (▼ + ▲) keys simultaneously for five seconds.
- 6 – Press the UP (▲) key to view each parameter until 88 is displayed.

Note: in order to display the parameter value "r2", press the key ⏻, then to change it, press the ▲ or ▼ key.

- **Important:** press the ⏻ key in order to validate this new setting –

- 7 – Press the UP and DOWN (▼ + ▲) keys simultaneously to return to the pool water temperature display screen.

5.2 Setting of the temperature

The temperature is set by means of the sensitive keys (2)

Display the value of the required temperature by pushing either the downward or upward key.

6. STARTING UP

Technical features

* With primary 90°C and secondary 26°C/46°C

** With primary 90°C and secondary 25°C/50°C

Model	Power	Flow rate primary circuit	Pressure drop primary circuit	height of pressure available primary	Flow rate secondary circuit	Pressure drop secondary circuit	Primary connection	Secondary connection	Weight
UP ⁺ 35	35 kW [*]	1,5 m ³ /h	1,2 mWC	2,5 mWC	1,5 m ³ /h	1,4 mWC	1''	PVC Ø50	37 Kg
UP ⁺ 70	70 kW [*]	1,5 m ³ /h	0,4 mWC	4,4 mWC	3 m ³ /h	1,7 mWC	1''	PVC Ø50	38 Kg
UP ⁺ 120	120 kW ^{**}	3,5 m ³ /h	2,1 mWC	3,4 mWC	4,16 m ³ /h	3,1 mWC	1'' ¼	PVC Ø50	65 Kg
UP ⁺ 240	240 kW ^{**}	7,06 m ³ /h	2,5 mWC	1,0 mWC	8,32 m ³ /h	3,8 mWC	1'' ¼	PVC Ø50	70 Kg

With primary 45°C/40°C and secondary 28°C/38°C

Model	Power	Flow rate primary circuit	Pressure drop primary circuit	height of pressure available primary	Flow rate secondary circuit	Pressure drop secondary circuit	Primary connection	Secondary connection	Weight
UP ⁺ 35	12 kW	2,1 m ³ /h	1,6 mWC	1,9 mWC	1,0 m ³ /h	0,5 mWC	1''	PVC Ø50	37 Kg
UP ⁺ 70	18 kW	2,7 m ³ /h	1,3 mWC	1,4 mWC	1,5 m ³ /h	0,5 mWC	1''	PVC Ø50	38 Kg
UP ⁺ 120	27 kW	4,3 m ³ /h	3,2 mWC	2,0 mWC	2,8 m ³ /h	1,5 mWC	1'' ¼	PVC Ø50	65 Kg
UP ⁺ 240	41 kW	6,6 m ³ /h	2,2 mWC	1,8 mWC	3,7 m ³ /h	0,8 mWC	1'' ¼	PVC Ø50	70 Kg

• Protection index: IP 34

6.1 Before starting up, check:

- The hydraulic fittings are correctly tightened.
- There is no leak.
- The appliance is stable.
- The connections of the electric cables are correctly tightened. Incorrectly tightened cables may cause overheating of terminals.
- The appliance is correctly connected to the ground.

After a long stop, check if the circulation pump is not blocked by turning the axle of its motor with a screw driver.

6.2 Starting up

- Start the filtration pump.
- Purge the air from circuit and make sure no air remains in the appliance.
- Set the by pass in order to provide enough flow rate in the secondary circuit:
 - Valve #1 slightly closed to increase the filter pressure by 200-300g
 - Valve #2 fully open
 - Valve #3 fully open
- Switch on the mains supply circuit breaker.
- Set the required temperature on the display to be on demand (REG light flashing) see§ 5.2
- Press key (). If the appliance is on demand, the LED **reg** blinks for 15 seconds then turns steady and the circulating pump runs. The internal contact to the regulator terminals 19-20 is then switched off.
- When the temperature of the pool meets the required temperature, the LED **reg** goes out and the heater stops automatically.

Caution

- If the flow rate is lower than 1.1 m³/h, the heat exchanger won't work (flow switch remains open), and LED **reg** remains blinking.
- If flow switch switches Off and On when the heater is working, make sure the flow rate through the appliance is regular and sufficient.

6.3 Checking

Make sure that the heat exchanger stops when:

- decreasing the required temperature on the control thermostat.
- filtration is switched off or closing a valve #2 or #3.
- When pressing key ().

Important: Before any intervention, make sure the unit is switched off.
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6.4 Failure

Message **E0** displayed: control sensor disconnected or out of order. Check connection or replace sensor. E0 message will disappear automatically.

6.5 Winter storage

- Switch off the appliance by pressing key ().
- Switch off the power supply
- Drain the pool circuit by removing both connection union fittings in order to avoid the risk of frost.
- Drain the primary circuit by removing the drain plug if frost can be expected.

The guarantee will be cancelled in event of frost of the appliance due to an improper winter storage.

7. WARNING

MAKE SURE THE APPLIANCE IS DISCONNECTED FROM MAINS SUPPLY BEFORE ANY INTERVENTION.
ANY INTERVENTION SHALL BE PERFORMED BY QUALIFIED AND AUTHORISED PERSONNEL ONLY

8. RECYCLING THE PRODUCT



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.

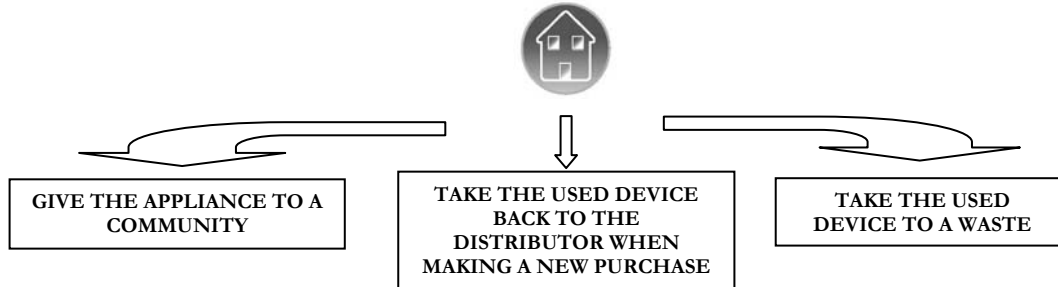
When this symbol appears on a new appliance, it means that the equipment must not be thrown away and that it will be collected selectively so that it can be reused, recycled or recovered. Any substances it may contain which are potentially dangerous to the environment will be eliminated or neutralised.

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.

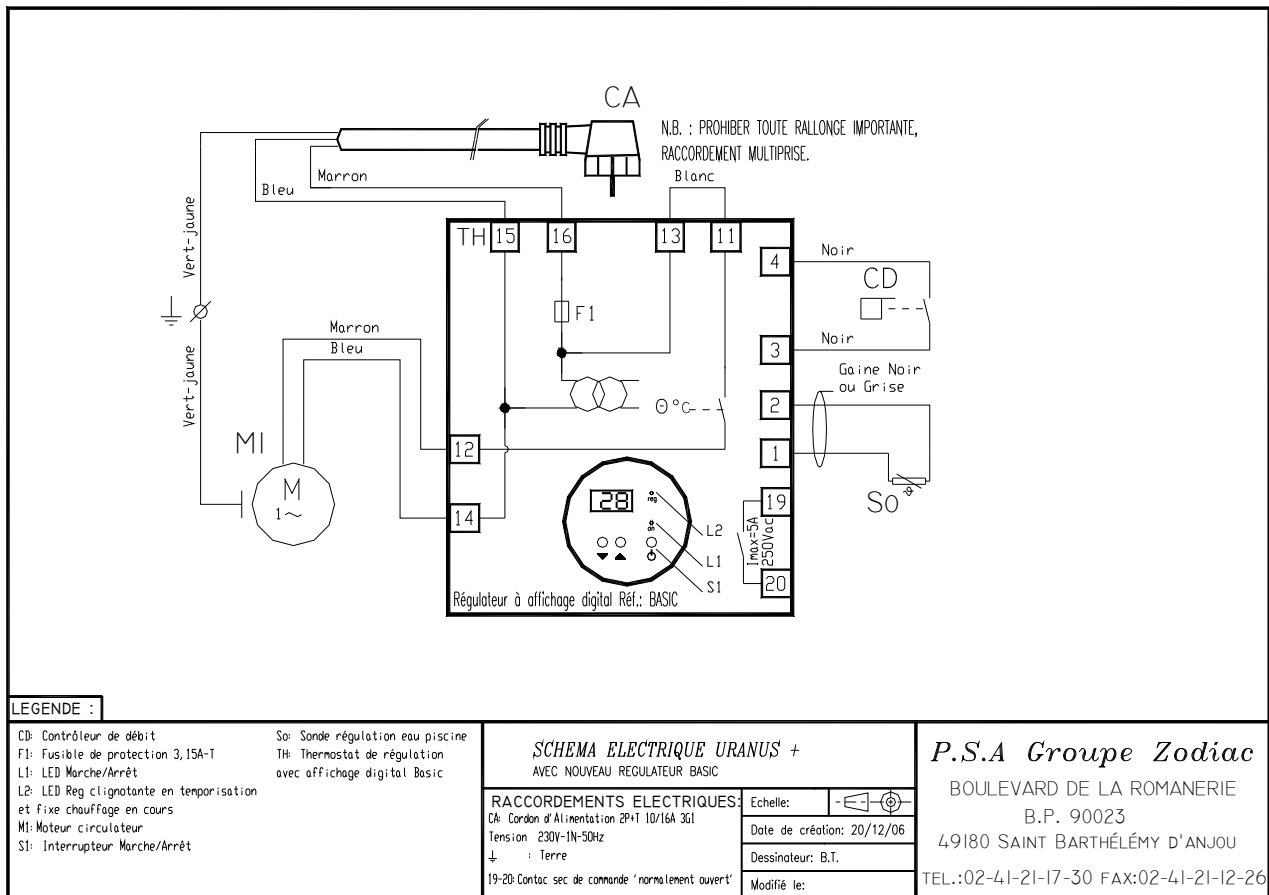
This is known as a **"One-for-One"** exchange.

Otherwise please take it to a waste collection centre, if your local council has set up a selective collection system for these products.



GB

9. ELECTRIC DIAGRAM



LEGENDE	LEGENDE
CD : Contrôleur de débit	CD : flow switch
F1 : Fusible de protection 3.15 A-T	F1 : Protection fuse 3.15 A
L1 : LED Marche / Arrêt	L1: On / Off LED
L2 : LED reg clignotante en temporisation, fixe en fonctionnement	L2 : LED reg: blinking when temporisation in process, steady while operating
M1 : Moteur du circulateur	M1: Motor of the circulating pump
S1 : Interrupteur Marche / Arrêt	S1: On / Off switch
So : Sonde régulation	So: Control sensor
TH : Thermostat de régulation avec affichage digital	TH: Control thermostat with digital display
CA : Cordon d'alimentation 230V-1N-50Hz	CA: Cable 230 V-1N-50Hz~
Terre	Grounding
19-20 : contact sec de commande « normalement ouvert »	19-20 : dry contact without polarity 'normally open at rest'

IMPORTANT!

ELIMINATION OR SHUNTING OF ONE OF THE SAFETY OR REMOTE CONTROL ORGANS LEADS AUTOMATICALLY TO THE CANCELLATION OF THE GUARANTEE

With an aim to improving its products, PSA reserves the right to modify the characteristics without prior notice
- Edition 12/06 -

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Handwriting practice lines consisting of multiple horizontal dashed lines on a white background.

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DECLARATION C E DE CONFORMITE

déclare que les produits ou gammes ci-dessous :

declares that the herewith products or ranges

ECHANGEURS DE CHALEUR SPECIAL PISCINE
HEAT EXCHANGERS SPECIALLY DESIGNED FOR POOLS

URANUS + (UP+)

sont conformes aux dispositions :

are in conformity with the provisions

⇒ **de la directive COMPATIBILITE ELECTROMAGNETIQUE 89/336/CEE** amendée
par 93/068/CEE.

⇒ *of the ELECTROMAGNETIC COMPATIBILITY directive 89/336/EEC, as amended 93/068/EEC.*

Les normes harmonisées suivantes ont été appliquées :

The harmonized standards have been applied

EN 55011
EN 55022
CEI 801-4
CEI 801-2
CEI 801-3

⇒ **de la directive BASSE TENSION 73/23/CEE, amendée par 93/068/CEE.**

⇒ *of the LOW VOLTAGE directive 73/23/EEC, as amended 93/068/EEC .*

Les normes harmonisées suivantes ont été appliquées :

The harmonized standards have been applied

EN 60335-1

S.A.S P.S.A - Groupe Zodiac

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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 !

