

1 / SAFETY INSTRUCTIONS

 **READ AND FOLLOW CAREFULLY ALL INSTRUCTIONS BEFORE INSTALLING AND USING THIS DEVICE**

In this manual, this symbol indicates a **WARNING**.

It will alert you of the risk of damage to equipment or serious injury on people. It is **IMPERATIVE** always comply with this warnings!

In order to improve the product quality, the manufacturer reserves the right to change the characteristics of its products at any time and without prior notice.



RISK OF ELECTRIC SHOCK

To prevent injuries or accidents, install the equipment out of reach of children.

Ensure that the local installation complies with the regulations in force in the country of installation. The pump timer power supply line of filtration should be protected by a differential circuit breaker with a tripping safety device of 30 mA maximum with opening distance of contact, of at least 3 mm on all the poles. Not confuse with the differential circuit breaker protecting the whole house which is about 300 to 500 mA. In case of doubt, get a qualified electrician to check the whole installation in your area installation. The installation of this equipment should be performed by a qualified person in accordance with the electrical standards in force in the country of installation.

The power supply cables and the cell must be protected against accidental damage. A damaged cable must be replaced immediately and exclusively with an original cable. Never cut or extend the cables.

It is imperative to turn off the power supply before carrying out any technical operation on the device. Do not modify the device. Any modification may damage the device or be dangerous for people. Only qualified person should carry out maintenance or repairs in case of breakdown.

This device is intended for use in buried family pools only.

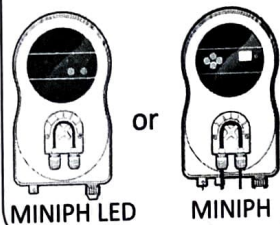
NON OBSERVANCE OF THESE INSTRUCTIONS MAY CAUSE DAMAGE TO THE DEVICE OR SERIOUS INJURY

The safety instructions detailed in this manual are not exhaustive. They highlight the most common risks of using electrical equipments in the presence of water. Any installation and use of this equipment should be carried out with caution and common sense.

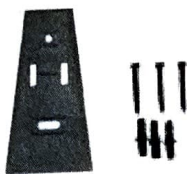
2/ PACKING LIST

MINIPH LED MODEL

1 Controller box



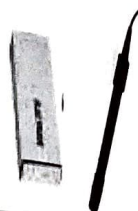
1 fixing support
and its kit



2 saddles



1 pH probe



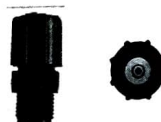
5 m semi flexible
tubing



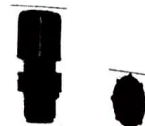
1 suction strainer



1 injection
connector $\varnothing \frac{1}{2}$ "



1 probe holder $\varnothing \frac{1}{2}$ "



1 plug for probe
calibration



3/ INSTALLATION

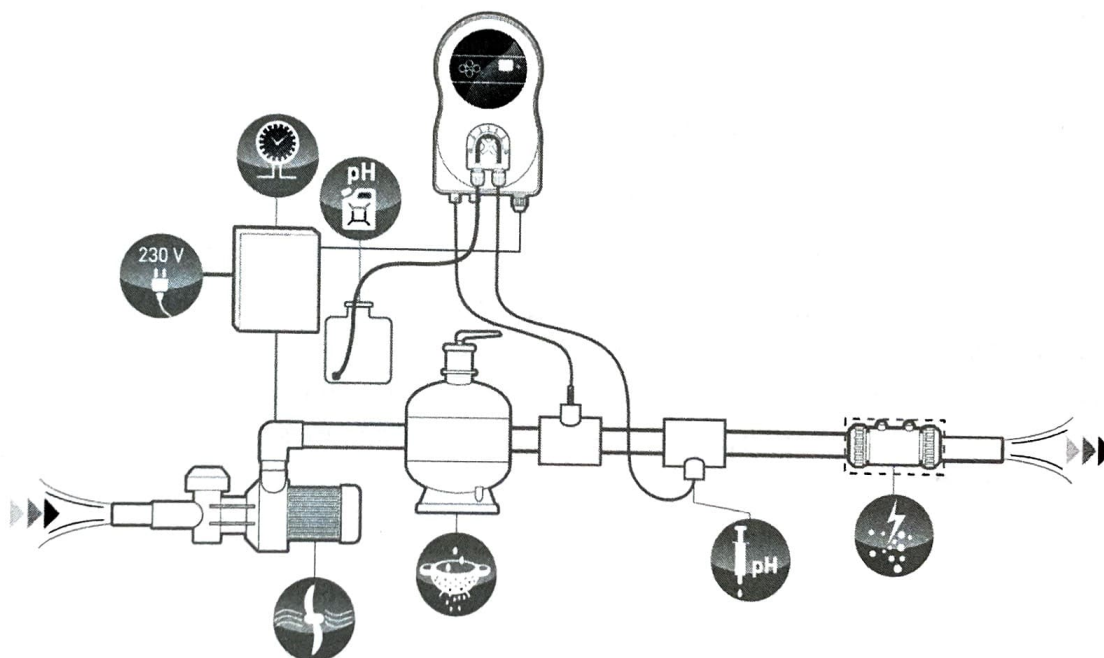


Before proceeding with the installation of the device, it is very important to check the following points :

- ✓ The installation area should be dry and properly ventilated, protected from rain, splashes, water spray, and UV radiation.
- ✓ Ensure that the pH corrector product container is kept in a place sufficiently remote from any electrical equipment and any other chemical product. Failure to comply with this instruction will lead to abnormal oxidation of the metallic parts which could result in complete breakdown of the device.
- ✓ The assembly of the device and its accessories must be performed strictly in compliance with the following layout diagram.



The device is designed to work only in acid mode (pH minus injection).



1 CONTROLLER BOX

- ✓ Choose a location that is easily accessible, close to the pump timer, far apart 2 meters maximum from the chlorinator cell. Install the controller box vertically, far enough away from the pool to comply with the regulatory distance in force in your country. Do not cover.
- ✓ Controller must be permanently connected to the pump timer by enslaving to the pump timer. **Do not use an extension cord. Do not plug the device into an electric power outlet.** Beforehand, turn off the differential circuit breaker. Ensure that the controller box well switches off when the filtration pump stops.



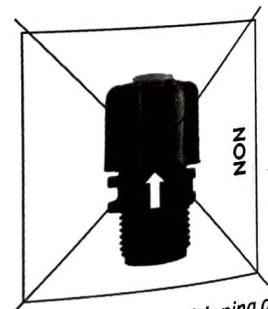
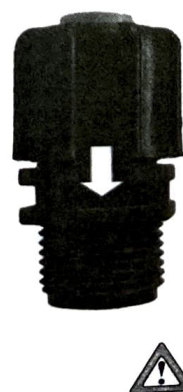
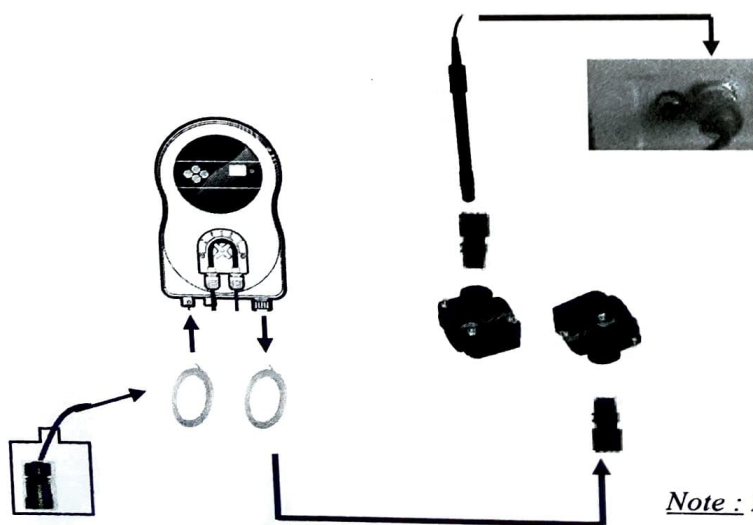
Any contact between the controller box and the water of the pool can entail a risk of electrocution.

2 ACCESSORIES

- ✓ Put the first saddle at the middle of the horizontal pipe of a minimal length of 40 cm. Direct the opening upward. Mark then drills the pipe. Rise with some Teflon the probe holder on the saddle. Direct the opening upward. Mark then drills the pipe. Rise with some Teflon the probe holder on the saddle.
- ✓ Remove the protection rubber of the redox probe and then take up on probe holder on the saddle.
- ✓ Connect the cable of the pH probe (BNC jack) on the base of the controller box. Take away it from quite different electric cable to avoid electromagnetic disturbances which can falsify the measures.
- ✓ Position the second saddle after the first one. Direct the opening rather downward. Mark then drill the pipe. Rise with some Teflon the injection connexion $\frac{1}{2}$ " on the saddle. The injection connector has to be much closed to the expulsion towards the swimming pool.
- ✓ Connect the suction strainer to the pH pump with a part of the supplied pipe. Respect the sense of arrows representing on the top of the pH pump.
- ✓ Connect the exit of the pH pump of the injection connector with the rest of the supplied pipe.

3 PH PROBE AND INJECTION SYSTEM

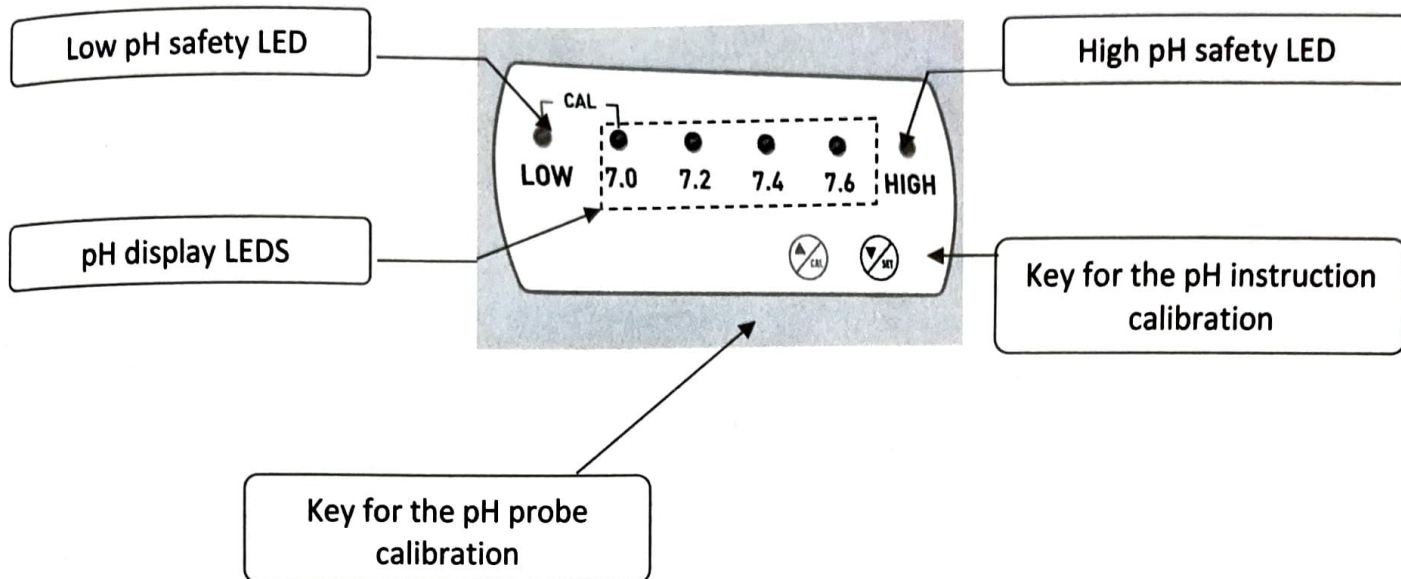
- ✓ Connect the suction strainer to the pH pump with a part of the supplied pipe. Respect the sense of arrows representing on the top of the pH pump.
- ✓ Screw the injection connector under the accessories holder and connect the exit of the pH pump to the injection connector with the rest of the supplied pipe.
- ✓ Screw the probe holder on the accessories holder with Teflon. Remove the rubber protection at the end of the pH probe. Screw the probe on the top of the accessories holder (make sure that it is not in abutment with the waterworks).
- ✓ Connect the cable of the pH probe (BNC jack) under the controller box.



An incorrect positioning of the injection connector can entail the deterioration of the pump.



Note : Do not put the corrective tin directly under the device



1 CONTROL PANEL FOR MINIPH LED MODEL





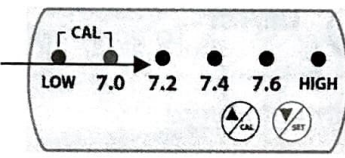
1- PH INSTRUCTION SETTING

- ✓ 4 setpoints are available: 7.0 - 7.2 - 7.4 - 7.6
- ✓ The device is programmed in factory with a 7.2 setpoint.
- ✓ To change this value :

1/ Press 3s on the key SET  3s  the recorded setpoint LED flashes

2/ Adjust the desired setpoint using the keys  

3/ To valid, press 3s on the key SET  3s  the setpoint LED freezes.



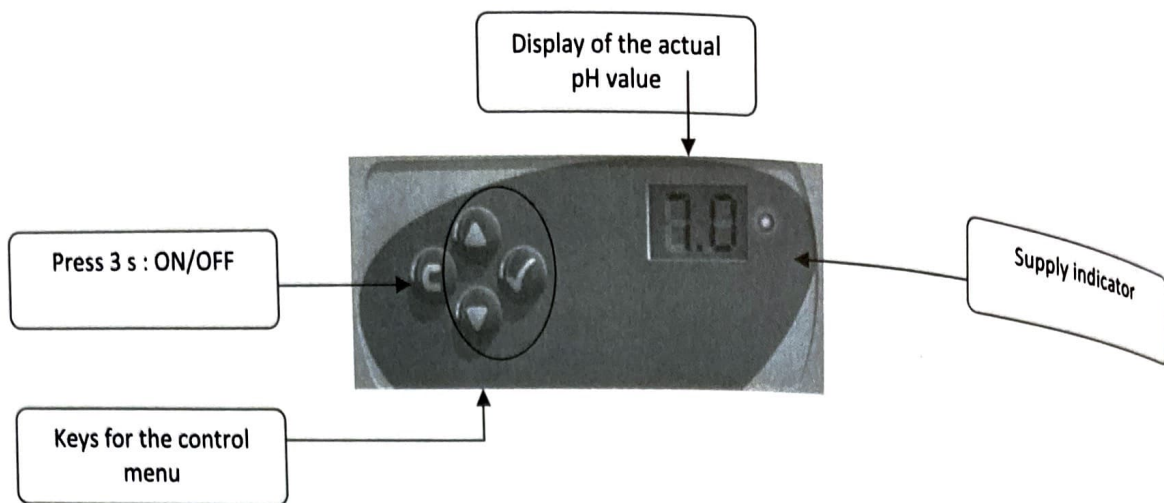
Then, the device goes to the choice of pH corrective mode

Press on key  during 3 seconds allows returning on pH display.

Maintenance advises:

Never use hydrochloric acid. Only use a pH corrector product which is recommended by your professional. The use of any other chemical product can lead to irreversible damage to the device.

2 CONTROL PANEL FOR MINIPH MODEL

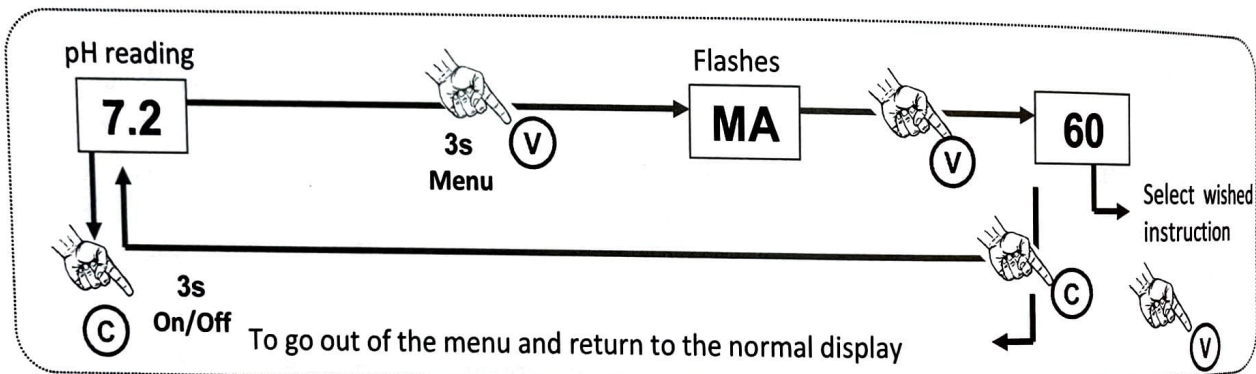


1- CONFIGURATION

To reach the setting menu: press 3 s on ∇ .

- Select the function code using \triangle ∇ then confirm by ∇ .
The value flashes.

- Select the desired value using \triangle ∇ then confirm by ∇ .
The value is frozen and the device returns to the previous menu.



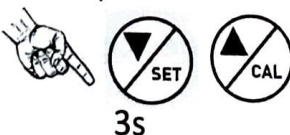
Adjustment menu:

Code	Function	Setting
MA	Start a manual injection of the pH pump. When installing, allows starting the pH pump and allows correcting manually the pH without manipulate the tin.	From 0 to 9,5 mn
Ad	Calibrate the pH probe. Allows by the device to display the pH value found in your swimming pool with your analysis kit.	+/- 0,5 compared to the displayed value
Co	Choose the type of corrective agent (by default: acid). Allows modifying the pH corrective mode between acid (make fall down the pH) or basic (make rise the pH up). Beforehand, by changing corrective product can (pH + liquid), you can modify the pH corrective mode in basic (make rise the pH up).	Acid (pH-) Basic (pH+)

CA	Maintenance /Diagnostic of failures : Calibrate the pH probe : with the standard solutions ph7 and pH 10 (see § 6.2).																																																																			
CP	Adjust the volume of the pool. This device has a proportional regulation to the volume of the pool. For an optimal efficiency, register in the device, the code corresponding to the volume of the pool : <table><tr><th>Pool volume</th><th>Code</th><th>Pool volume</th><th>Code</th><th>Pool volume</th><th>Code</th></tr><tr><td>0 to 1 m³</td><td>01</td><td>10 to 15 m³</td><td>11</td><td>60 to 70 m³</td><td>21</td></tr><tr><td>1 to 2 m³</td><td>02</td><td>15 to 20 m³</td><td>12</td><td>70 to 80 m³</td><td>22</td></tr><tr><td>2 to 3 m³</td><td>03</td><td>20 to 25 m³</td><td>13</td><td>80 to 90 m³</td><td>23</td></tr><tr><td>3 to 4 m³</td><td>04</td><td>25 to 30 m³</td><td>14</td><td>90 to 100m³</td><td>24</td></tr><tr><td>4 to 5 m³</td><td>05</td><td>30 to 35 m³</td><td>15</td><td>100 to 110m³</td><td>25</td></tr><tr><td>5 to 6 m³</td><td>06</td><td>35 to 40 m³</td><td>16</td><td>110 to 120 m³</td><td>26</td></tr><tr><td>6 to 7 m³</td><td>07</td><td>40 to 45 m³</td><td>17</td><td>120 to 130 m³</td><td>27</td></tr><tr><td>7 to 8 m³</td><td>08</td><td>45 to 50 m³</td><td>18</td><td>130 to 140 m³</td><td>28</td></tr><tr><td>8 to 9 m³</td><td>09</td><td>50 to 55 m³</td><td>19</td><td>140 to 150 m³</td><td>29</td></tr><tr><td>9 to 10 m³</td><td>10</td><td>55 to 60 m³</td><td>20</td><td>150 to 160 m³</td><td>30</td></tr></table>	Pool volume	Code	Pool volume	Code	Pool volume	Code	0 to 1 m ³	01	10 to 15 m ³	11	60 to 70 m ³	21	1 to 2 m ³	02	15 to 20 m ³	12	70 to 80 m ³	22	2 to 3 m ³	03	20 to 25 m ³	13	80 to 90 m ³	23	3 to 4 m ³	04	25 to 30 m ³	14	90 to 100m ³	24	4 to 5 m ³	05	30 to 35 m³	15	100 to 110m ³	25	5 to 6 m ³	06	35 to 40 m ³	16	110 to 120 m ³	26	6 to 7 m ³	07	40 to 45 m ³	17	120 to 130 m ³	27	7 to 8 m ³	08	45 to 50 m ³	18	130 to 140 m ³	28	8 to 9 m ³	09	50 to 55 m ³	19	140 to 150 m ³	29	9 to 10 m ³	10	55 to 60 m ³	20	150 to 160 m ³	30	From 1 to 160 m ³
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2 to 3 m ³	03	20 to 25 m ³	13	80 to 90 m ³	23																																																															
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4 to 5 m ³	05	30 to 35 m³	15	100 to 110m ³	25																																																															
5 to 6 m ³	06	35 to 40 m ³	16	110 to 120 m ³	26																																																															
6 to 7 m ³	07	40 to 45 m ³	17	120 to 130 m ³	27																																																															
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SE	Adjust the pH instruction (7, 2 by default). Allows adjusting the pH value to maintain in the swimming pool.	From 6.8 to 7.6																																																																		
OP	Stay on: off (by default).	ON/OFF																																																																		

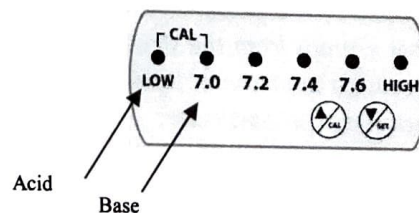
3 CORRECTIVE MODE SETTING (MINIPH LED model)


- ✓ 2 kind of correctives : ACID – BASE
- ✓ During the start-up, the device is programmed in factory with an ACID corrective mode.
- ✓ To change this value, it has to reach instruction pH menu

1/ Press 3s simultaneously on the keys  3s

 *If manipulation is done out of pH menu, The device will put on hold.*

The LED of corrective mode related flash



2/ Put the corrective mode wished with keys 

3/ To validate, press 3s on key SET  3s  the LED of corrective mode freeze.
Then, the device goes to the choice of pH corrective mode.

Press 3s on the key  makes it return on pH display.

5/ USE

1 CHECK THE WATER PARAMETERS

At the beginning of all new season and at the moment of installing the device, check and correct the following points imperatively:

State of the water	Clear, free from seaweeds and sediments.
pH	Stabilized between 7.0 and 7.4 <i>Important : Whatever is the system of chemical process, the efficiency of the chlorine decreases very quickly with the increase of the pH and the scale deposits appear all the more fast as the pH rate is high or unstable.</i>
TAC / TH	The water must be correctly balanced (TAC, TH) : <ul style="list-style-type: none">➤ The TAC (Permanent Hardness) indicates the bicarbonates rate dissolved in water.✓ Le TH, indicates the hardness of water, it means the content in salts of calcium or magnesium dissolved in water.

Be careful : the non compliance with these recommendations will involve inevitably a misuse of the device, which may entail the annulations of the guarantee.

Be careful with natural water sources (drilling waters) !



Preferably use water from the public water supply. Avoid using any water from natural sources (rain, run off water, reservoirs, and wells) under risk of early deterioration of chlorinator cell.

Your device is now ready

Important :

For the protection and longevity of equipments of your pool, it is imperative to respect literally the instructions of use mentioned in this manual. The presence of an amperometric chlorine regulation, of a redox production controller or a pH regulation do not exempt from the strict respect of the instructions and do not have authority to eliminate the risks and damages but only to limit them. Indeed, in spite of the smooth running of a control or regulation device, other factors may cause damage, in particular:

- an insufficient ventilation in case of covered pool (shelter, tarpaulin, cover)
- a maintenance default of analysis probes (calibration, addition of the consumable...)
- manual processing of supplements excessive or not adapted (choc processing...)
- the non compliance with the instructions of use described in the present user manual

These isolated or organized factors will tend to cause oxidation on all metallic parts and of automatic cover pins and slats, telescopic shelters and heat exchangers can lead to irreversible deterioration (discoloration) of the pool lining.

Therefore, if the manufacturer's responsibility was engaged for a malfunction of the control or regulation device, it would be limited to the repair or the replacement of the product free of charge. Then, it is strongly recommended to check the levels of chlorine and pH each week with your usual analysis kit.

6/ MAINTENANCE

1 WINTERIZING


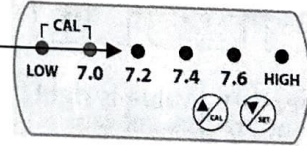
In case of pool winterizing (draining and/or stop of the filtration), achieve the following operations:

- ✓ Remove the pH probe of the pipe. Keep it in his original protection filled with city water (or in a glass), in a place where it will not freeze during winter.
- ✓ On the pipe, instead of the probe, use the supplied plug.
- ✓ Rinse the flexible pipe of the peristaltic pump with clean water.
- ✓ Put a tin of water in the place of the pH corrective agent tin and use the function "MA" of the pH control menu (for MINIPH model).


2 CALIBRATION OF THE PH PROBE

MINIPH LED MODEL

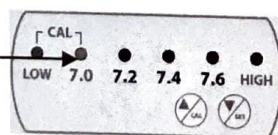
- ✓ At the initial installation :
The pH probe is calibrated in factory; therefore **no calibration is needed at the initial startup of the unit.**
- ✓ At each starting up of the season and any change of the pH probe : a calibration of the probe is necessary to insure an optimal regulation :
- ✓ Unscrew then remove the nut and pH probe from the probe holder. Use provided plug to seal orifice.

1/ Press 3s on the button CAL  , the 7.0 LED flashes 

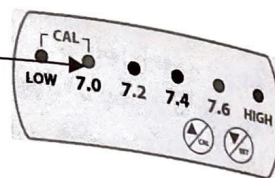
2 / Put the pH probe in a pH 7 solution (not supplied). The standard solution is single-use . Cast it after use.

3/ Press 3s on the button CAL  , the LEDs flash while the device calibrates the probe.

4/ when the probe is calibrated, the 7.0 LED freezes
Then the device returns to the display of the actual pH reading.



If the LOW LED shines, your pH probe is used.
Contact your professional to get a new probe and make a new calibration.



In case of false manipulation, a cancellation is possible by pressing 3 s on the key







MINIPH MODEL

The pH probe is submitted to the referential curve which moves in the time, depending on the using of the pool. For an optimal regulation, it is important to proceed to a calibration each starting of the swimming pool or changing of the probe.

Before proceeding to a calibration, provide you of pH7 and pH10 standard solutions. (Not supplied).



Unscrew then remove the nut and pH probe from the probe holder. Use provided plug to seal orifice.

- ✓ Reach the setting menu and then press 3 s on the key .
- ✓ Select the « CA » code using the keys   and valid by .
- ✓ The screen flashes « 7,0 », the first calibration point.


CA 7.0

- ✓ Dip the pH probe in the pH 7 solution, waiting 2 min and valid by .

The displayer will show alternatively 7,0 and – flashing during the calibration (1 to 5 minutes).

7.0 -- 7.0

If the measured value is correct, the device shows « oh » and then displays the value 10.

- ✓ Rinse the pH probe in the water and drain it without drying it with a rag.
- ✓ Insert the pH probe in the pH 10 solution, waiting 2 min and then valid by .

The displayer will show alternatively 10 and – – flashing during the calibration (1 to 5 minutes).

10 -- 10

If the measured value is right, the device shows « Oh » and then fall over towards the current display of the pH.

Note : the probe being in the pH 10, the device flashes 10, because it measures a high pH. The pH high alarm will disappear from the real measure of the swimming pool.

If one of the values is incorrect, the device shows « Er ». Your pH probe is probably no more usable (lifespan), to proceed to its replacement, contact your professional.

- ✓ Remove the cork and then put back the probe on the probe holder.

7/ DIAGNOSTIC OF THE FAILURES

1 SECURITIES

MINIPH LED MODEL

The device is protected by several securities:

SECURITY	CAUSES / REMEDIES
<p>Red LOW set LED</p> <p>LOW</p>	<p>The device has detected a pH < 6.6. This value is not normal. The CONTROL is interrupted only on ACID corrective mode.</p> <p>Check the pH value in the pool using your usual test kit :</p> <p>1/ If the value is close to 6.6 :</p> <ul style="list-style-type: none"> Stop the device. Add basic pH corrector (pH too low) directly in to the pool, in order to restore a pH near 7.2. Wait 30 minutes, restart the device and check that the pH returned to a value close to 7.2 <p>2/ If the value is far from 6.6, calibrate the pH probe (see § 6.2).</p>
<p>Red HIGH set LED</p> <p>HIGH</p>	<p>The device has detected a pH > 8.0. This value is not normal. The CONTROL is not interrupted only on BASE corrective mode.</p> <p>Check the pH value in the pool using your usual test kit :</p> <p>1/ If the value is close to 8.0 :</p> <ul style="list-style-type: none"> Stop the device. Add acid pH corrector (pH too high) directly in to the pool, in order to restore a pH near 7.2. Wait 30 minutes, restart the device and check that the pH returned to a value close to 7.2 <p>2/ If the value is far from 8.0, calibrate the pH probe (see § 6.2).</p>
<p>LOW and HIGH set LEDS</p> <p>LOW + HIGH</p>	<p>The unit has detected that the latest attempts to correct the pH were unsuccessful. The CONTROL is interrupted.</p> <p>1 / Check that the pH corrective tin is not empty.</p> <p>2 / Measure manually the pH in the pool with your usual test kit and compare it with the value indicated by the device:</p> <ul style="list-style-type: none"> If the value is different, calibrate the probe (see § 6.2). If the value is similar, contact your professional.

MINIPH MODEL

Causes / Remedies	
Securities	
pH value flashing	<p>The device has detected an abnormal value of the pH, either too high (example: 8.2) or too low (example: 6.0). The regulation is interrupted.</p> <p>1/ Control the pH value directly in the pool with your usual analysis kit.</p> <p>2/ In case of abnormal pH, stop the device. Add the pH acid corrector (pH too high) or pH basic (pH too low) directly in the pool to the buzzards of expulsion. Wait for 30 minutes. Restart the device up. In case of normal pH, calibrate the pH probe (see § 6.2, p.19).</p>
« AL » message flashing	<p>The device has detected that the last pH correction attempts are unsuccessful. The REGULATION is interrupted.</p> <p>1/ Check that the pH corrective tin is not empty.</p> <p>2/ Measure by hand the value of the pH in the pool with your usual analysis kit and compared it with the value indicated by the device :</p> <ul style="list-style-type: none">▪ If the value is different, calibrate the probe (see §, p. 19)▪ If the value is similar, contact your professional.

8/ WARRANTY

Before contacting your retailer, please provide you following elements:

- ✓ Proof of purchase.
- ✓ Serial number of the controller box and the pH probe.
- ✓ Date when the device was installed.

Parameters of your pool (salinity, pH, chlorine rate, water temperature, stabilizing agent rate, pool volume, daily filtration time...).

All our care and technical experiment was brought into making this device. It has undergone quality control. If in despite of all the care and the technical know-how brought into its manufacture, you have to involve our warranty, this one would apply only to the free replacement of the defective parts of our material (not inclusive transport costs).

1 – Warranty term (as attested by date on the invoice)

Controller box :	2 YEARS
pH probe Amber	1 YEAR
pH probe Blue	2 YEARS
After sales service and spare parts :	1 MONTH

2 – Purpose of the warranty

The warranty applies to all parts except wear parts which must be regularly replaced. The device is covered for any manufacturing defect in the strict executive of a normal use in family pool. A use for public pools cancels any warranty.

3 – After Sales Service

- ✓ All repairs are done in our workshop.
Return transport costs are payable by the user. In case of possible repair, no allowances will be giving for downtime and loss of use of a device.
- ✓ In every case, the equipment is always transported at the risks and the dangers of the user. Before accepting delivery, it is up to the user to check that the equipment is in perfect condition and if necessary to express reservations on the carrier's transport slip. Confirm this to the carrier within 72 hours by registered letter with acknowledgement of receipt.

IMPORTANT: A replacement under warranty will in no case extend the initial term of the warranty.

4 – Scope limits of warranty – the warranty does not cover :

The installation, the repair and generally, any intervention concerning Manufacturer products, must be realised exclusively by professional. This warranty shall not apply if those interventions are realised according to the existing standards in the country of installation in the time of installation. **To use a part, which is not the one of the origin cancels the warranty on the whole device, by that fact.**

1. Equipment and labour provided by a third party during the installation of the equipment.
2. Damage caused by not corresponding and not certified installation.
3. Problems caused by an alteration, accident, excessive treatment, professional or final user neglecting, unauthorised repairs, fire, floods, lightening, frost, armed conflict or any other case of absolute necessity.

BE CAREFUL : The warranty does not cover any equipment damaged further to non compliance with the safety instructions, installation, operation and maintenance instructions set out in the present manual.

Every year, we shall bring new improvements of our software and products. Those new versions are compatible with the previous models. Within the warranty's framework, the new versions of the equipment and the software cannot be added to the previous models.

5 – Application of the warranty

For more information on the current warranty, get in touch with a professional or with our after sales service. Any request should be accompanied by a copy of the invoice (proof of purchase).

6 – Laws and disputes

The present warranty is subjected to French Law and all other European directives or international treaties which are in force at the time of the claim and which are applicable in France. In case of dispute on its performance or its execution, it is confer of jurisdiction only for the TGI (High court) of Montpellier (France).