~klereo

SWIMMING POOL AUTOMATION SYSTEM

Kalypso PRO

Instruction manual

À lire attentivement et à conserver pour consultation ultérieure. Prière de lire attentivement le manuel avant toute mise en service du système (Version 1.0 du document)

1- The content of this booklet may be modified without prior notice.

2 - Printing restrictions mean that the displays shown in this booklet may vary from those actually appearing on the product.

3 - The content of this booklet may not be reproduced in any way without the manufacturer's permission.

Kalypso USER GUIDE

I – Navigation in the Klereo menus
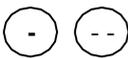
Key	Definition
(-) (- -)	Screen selection keys: each display defines the function of these keys. Their functions vary from menu to menu.
(browse arrows)	Browse key: for browsing and sometimes for changing values displayed.
OK	Confirm key: for accessing a sub-menu or confirming an action
C	Back or Cancel key: for cancelling an action or returning to the previous menu.
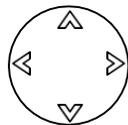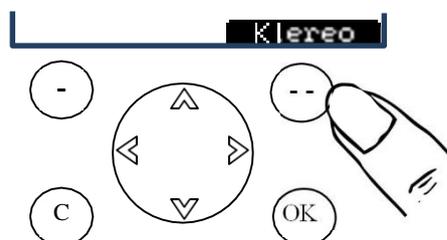
Klereo	Messages
	Sensors
	Consumption
	Control modes
	System status
	Parameters
	Software

II – Maintenance

- The pH and ORP sensors must be calibrated at least at the beginning of each swimming season (follow the instructions in the Maintenance/Calibration *menu).
- The Santoprene tubes of the dosing pumps must be replaced in case of wear.
- The injectors must be cleaned or replaced in case of wear.
- For a better regulation please adjust at least once a year:
  - The alkalinity of the water TAC: The value must be between 100 and 200 mg/l. Use the Taylor balance in the Water Treatment/balance pH menu to enter the TAC and TH (water hardness) values and determine the balance pH of the water. This should ideally be between 7.2 and 7.4 (7.6 if bromine treatment).
  - The stabilizer: The value must be between 15 and 30 mg/l.

* only in swimming pool

Table of contents

1. DESCRIPTION

You have just purchased your Klereo KALYPSO Pro system. It controls water pH and chemicals, and includes a smart control of filtration, It has different water disinfection: salt chlorinator, liquid chlorine, bromine, or active oxygen.

Kalypso Pro can control standard ON/OFF pumps and Klereo Flo, the variable speed pump and Klereo THERM, the full inverter heat pumps. When installed with Klereo THERM and Klereo Flo, Kalypso Pro has a smart control of the filtration pump speed and optimizes the power of the heat pump to reduce the power consumption of your swimming pool. It can activate the Klereo VALVE 5-way automatic valve to regularly clean the filter and improve quality level of the water. Kalypso Pro can also be used to control another equipment like swimming pool light, pool cleaner, garden lighting, etc.

1.1.   Kalypso PRO Interface

 is the interface between the user or installer and the Klereo system.

The screen allows you to view the pool's parameters and control the pool's functions: filtration, lighting, heating, or other auxiliary functions, depending on the configuration of the device during installation.
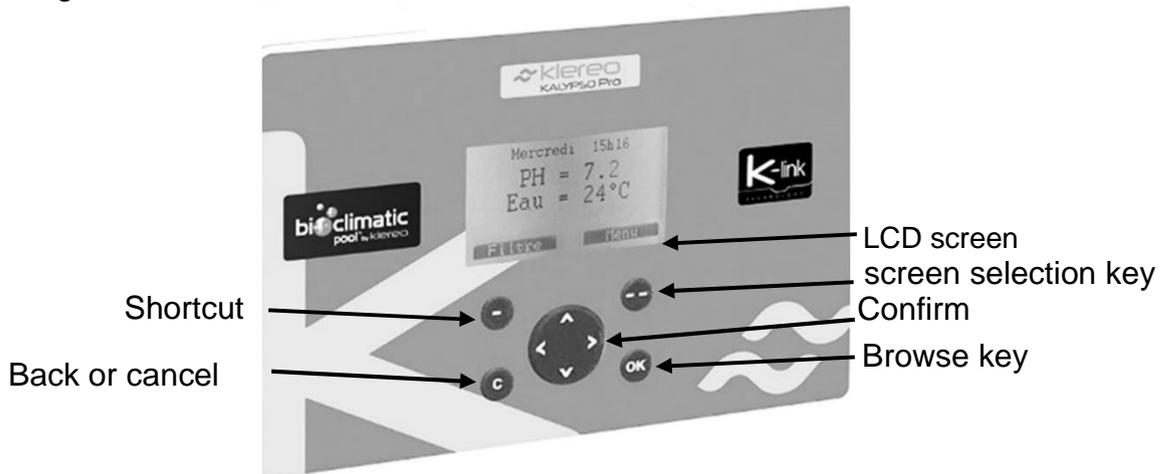
Figure 1. Kalypso PRO display and navigation buttons

2. HOME SCREEN

Once the display is switched ON, It displays the following home screen

1. Sensor values
2. Access to the Klereo menu
3. Filtration status
4. Disinfection mode
5.   Auxiliary shortcut
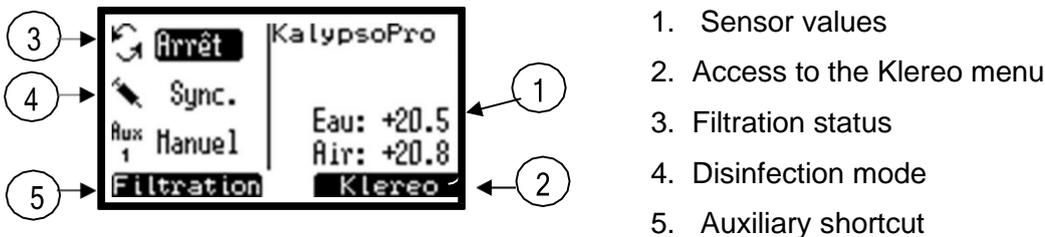
Figure 2. HOME SCREEN

The values of the Ph , water and ORP sensors flash when filtering is stopped. Their display is steady when filtering is running for at least 10 to 30min

Navigation :

Key	Definition
(-) (--)	Screen selection key: a display on the lower part of the LCD screen defines the function of these keys. The functions vary according to the menu shown.
⋀ ◁ ▷ ⋁	Browse key: for browsing and sometimes for changing values displayed.
(OK)	Confirm key: for accessing a sub-menu or confirming an action.
(C)	Back or cancel key :for cancelling an action or returning to the previous menu
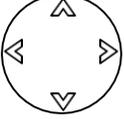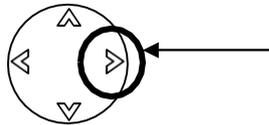
The browse key   Quick access to the "system status" report

When pressing the browse key on the right, you will get a screen with the Klereo system status. It will provide a summary of filtering, heating and water treatment (pH + disinfectant) settings.

An alternative home screen is available. To use it, just go to the menu:

Klereo	Parameters	Interface	Home screen	Simple control
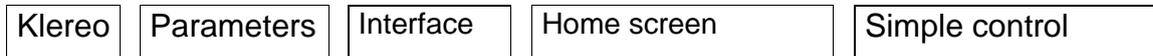
Check the box Simple control

The alternative display mode of the home screen is as follows:
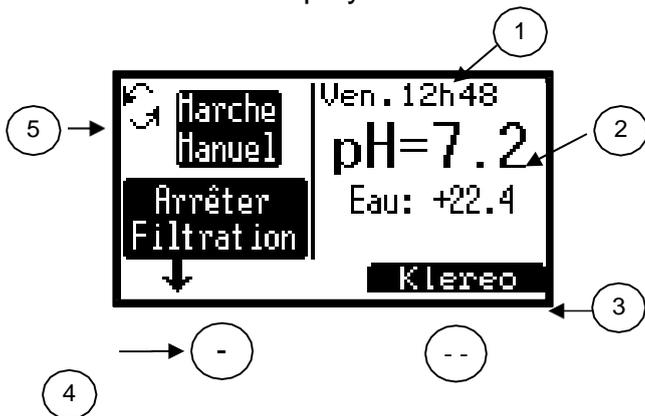
1. Date and time. Alternately with "messages" if any.
2. Sensor values
3. Access to the Klereo menu
4. Filtration On/Off/Auto button*.
5. Programmed modes and status of functions

* Press and hold button 4 for 5 seconds to switch to auto mode

Figure 3. Simple control home screen

Press button 4 to stop the filtration or to start it again (to wash the filter for example). In this case the filtration will go into maintenance mode or forced stop. Keep the button pressed for 5 seconds to switch to auto mode.

3. MAIN MENU

Press screen selection key◯ to access main menu, use the browse key to select the required sub-menu and press OK to enter.

The main menu is used to access the pool functions and other sub-menus:

- **Messages:** to read the pool alerts.

- **Sensor value:** list of sensors value

- **Consumption:** Measurement of filtration time and production time.

- **Filtering, Lighting, Heating, Auxiliary:** to parameter the different pool equipments.

- **Control mode**: Allows you to choose the desired operating mode.

- **System Status**: shows the operational status of the Klereo system

- **Parameters**: to access system parameters
- **Software** : to know the installed software version and do the updating.

Klereo	Messages
	Sensors
	Filtration
	Heating (if installed)
	Lighting (if installed)
	Auxiliary (if installed)
	Consumption
	Control modes
	System status
	Parameters
	Software

⚠

IMPORTANT
In case of message, the symbol « MESSAGES » flashes on the top right end of the display alternately with the date and time. A sub-menu « messages » is then added in the main menu listing.

4. SENSORS VALUES

To check the values measured for the sensors, go to the menu :

Klereo	Sensors

The pH and ORP values shown are only used for regulation after a filtration period of 10 min (pH) and 30 to 90 min (ORP).

5. PROGRAMMING OF THE EQUIPMENT TO BE PILOTED

Kalypso Pro has an output to control the filtration of the pool according to the water temperature. If necessary, this output can be configured at the installation to control a heater, a light, or an auxiliary.

You can access these functions by going through the main menu or using the shortcut selection key on the home screen.

5.1. Filtration Available programming modes

Function	Programming Mode	Operating Mode
Filtering	Regulated	Filtering regulated according to water temperature
	Time slots	Operation programmed in time slots
	Manual	Always ON or OFF
Lighting	Timer	Automatically turned OFF at the end of the setup time.
	Impulse	Start of output according to a recurrence programmed.
	Time slots	Operation programmed in time slots
	Force Filt.	Filtering is ON when lighting is ON
	Manual	Always ON or OFF
Auxiliaire	Timer	Automatic shutdown at the end of the programmed time period
	Impulse	Start of output according to a recurrence programmed.
	Time slots	Operation programmed in time slots
	Manual	Always ON or OFF
	Filtering Sync	Auxiliary is on when filtering is on.

5.2. Manual Mode

The manual mode is for setting the function ON or OFF.

If filtering is on OFF manual mode, Klereo system will not regulate water treatment and heating. A message «filt. manual off» will appear on the display.

5.3. Regulated Mode (Filtering)

With this mode filtering is regulated according to the water temperature.
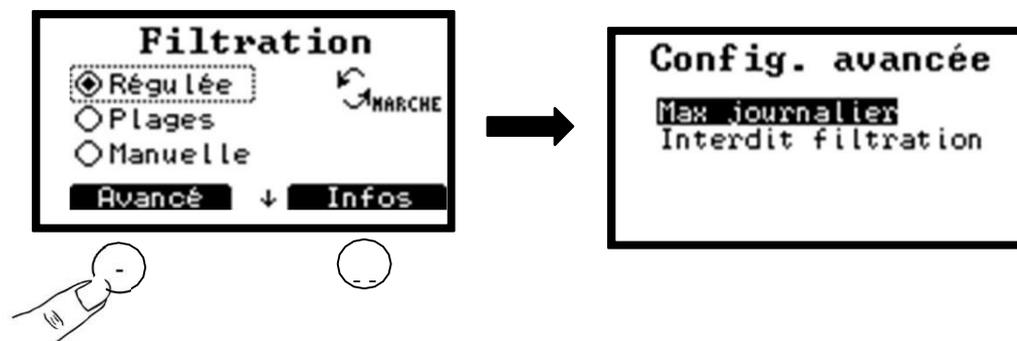
Figure 3. Filtering programming screens in regulated mode

Figure 4. Display Lighting, Auxiliary

Press screen selection key (- -) below « info » to visualize the current filtering daily time slots .
To obtai this information, filtering must have been on for at least 10'.

Press screen selection key (-) below « avanced » to access 2 additional funstions:

Daily max: this function allows you setting up the number of maximum daily hours that you want filtering to be on. Set up by 15 min time slot, minimum 8h, maximum 24 h.

Prohibited filtering time : this function allows you setting up one or more time slots during which you do not wish filtering to be on. Time slots are adjustable by 15 mn slot.

For example: you can forbid the filtration from 2pm to 3pm, the time to take a nap by the pool without being disturbed by the noise of the filtration.

5.4. Time Slots Mode

With this mode you can decide the filtering time slots that you wish to program.

For filtering, lighting and the auxiliaries you can define time slots with a 15 min minimum duration time. For filtering, time slots must be at minimum 2 hours in a row. Indeed, to guarantee a good treatment regulation (pH and disinfectant), filtering programming must include 2 consecutive hours minimum time slots

Figure 5. Time slots mode adjustment screen

Browse :

Key	Definition
	⌃⌄ change of status: On / Off ◁▷ change of time slot. Time slot is adjustable with 15min.time step*
OK	confirm
C	Cancel or return to previous menu

** Programming time is indicated above the programming slots bar.

5.5. Impulse mode

The lighting and/or auxiliary output pulse mode can be programmed with an hourly recurrence, every 2 hours, daily, bi-weekly (every Wednesday and Sunday), weekly (every Sunday), bi-monthly (every 1st and 15th of the month) or monthly (every 1st of the month).

Figure 6. Recurrence programming screens

5.6. Timer Mode

With this mode, lighting and auxiliaries will automatically turn off at the end of the programmed time. This mode works with lighting and auxiliaries. You can adjust the timer with1 minute time slot, the minimum duration being 2 minutes with a maximum of 4 hours.
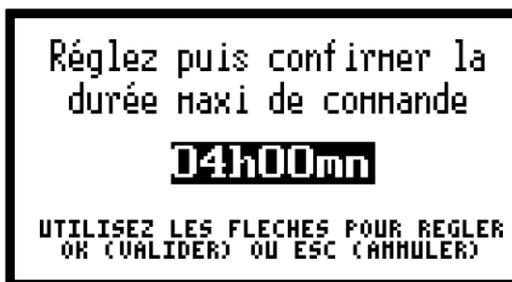
Figure 7. Timer mode adjustment screen

When the timer mode is checked, you must exit the menu and re-enter to select recurrence:

Figure 8. Recurrence Programming screens

Browse :

Key	Definition
	For changing duration time
(OK)	Confirm
(C)	Cancel or return to previous menu

5.7.   Synchronized Mode

With this mode, lighting or an auxiliary will work at the same time as filtering does. The auxiliary output will be activated 10s after filtering starts.

5.8.   Variable speed pump

Kalypso PRO can control the Klereo FLO variable speed pump. The installation and configuration of the control unit must be done correctly according to the Klereo installation instructions.

5.8.1   Manual Mode

In manual mode, press the (- -) and (-) keys to increase or decrease speeds and stop the pump.

Figure 9. Manual mode setting screen

5.8.2 Time Slot Mode

You can program several speeds at different time slots in steps of 15min.
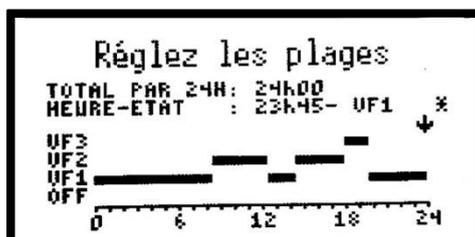
Figure 10.Manual mode setting screen

5.8.3 Regulated Mode

Figure 11.Regulated mode setting screen

By pressing the display selection key (- -) under "info" you can view the calculated filter range for the day. To get this information, the filtration must have been running for at least 10 minutes. By pressing the screen selection button (-) under "advanced" you can access the settings for two advanced functions:

Figure 12.Advanced Regulated Mode Setting Screen

Daily max: this function allows you setting up the number of maximum daily hours that you want filtering to be ON. Set up by 15 min time slot, minimum 8h, maximum 24 h..

Prohibited filtering time: this function allows you setting up one or more time slots duringwhich you do not wish filtering to be ON. Time slots are adjustable by 15 mn slot.

For example: you can forbid the filtration from 2pm to 3pm, the time to take a nap by the pool without being disturbed by the noise of the filtration.

Skimming Schedule: this allows you to program a skimming time slot. This is done at a high pump speed (to be programmed during installation).

Figure 13.Skimming Schedule Setting Screen

6. HEATING

The menu « Heating » is displayed once a heating system is installed. If is not the case, check the installation manual, Outputs assignment, to set up P-Q output in heating mode.
You can access the heating menu by going through either the main menu or the shortcut selection key on the home screen

Klereo	Heating

6.1.   Heating Target Value Adjustment

Go to menu:

Klereo	Heating	Heating target

Heating can be programmed in OFF mode or AUTO (self-regulated mode). In self-regulated mode, enter the desired temperature target value and the heating system will stay ON until the water reaches the temperature target value. Heating regulation is not possible when filtering is OFF.

If there is no heating system, set the heating on 'OFF' position.

Figure 14.Heating target value setting screen

Browse

Key	Definition
(- -)	Valeur Typique : correspond à la valeur par défaut programmée en usine
(-)	Auto/Off: to stop heating or set heating in self-regulated mode
(arrows)	Change of target value
(OK)	Confirm
(C)	Cancel or return to previous menu

6.2.   Prohibit Heating

Klereo	Heating	Prevent heating

This function allows you setting up one or more time slots during which you do not wish heating to be ON. For example, this allows you to stop the operation of a heat pump from 2pm to 3pm while you take a nap near the pool.

Figure 15.Prohibit heating setting up

7. CONSUMPTIONS

This menu displays the pH and disinfectant consumptions as well as filtering, heating, lighting and auxiliaries outputs operating times according to set up equipment. Press any selection key to access to the list of parameters.

Klereo	Maintenance	Consumptions
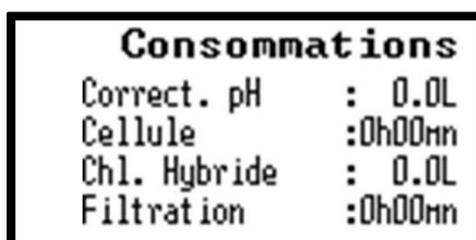
Figure 15.Consumption display screen

8. MAINTENANCE PROCEDURES

Check regularly the pool water level as well as water chemical parameters using a chemical analysis test kit.

Use regularly the cleaning robot or brush the pool walls.

Before conducting any operation on Klereo Kompact control box unit, turn off the power supply.

## 8.1.	Changing Water Treatment Product

When you see an empty tank message, it means that you must replace the corresponding water treatment product feeder. Change the tank, using adapted protective wear (gloves, glasses, closed shoes…) in order to avoid chemicals projections on the skin:

➔ In the absence of detection canes:

Enlever le tube du bidon vide en gardant la crépine installée et positionnez le tout dans le nouveau bidon.

➔ In the presence of detection canes :
- Unscrew the cap of the canister and carefully remove the tube containing the transparent hose (PVC) and the cable from the empty canister.
- Reuse the cap from the old canister if it is the same product. OR
- Drill a 32mm diameter hole in the cap of the canister
- Insert the cane into the cap.
- The positioning of the black cone-shaped collar must be adjusted so that it is embedded in the hole and the bottom of the level sensor is at the bottom of the can. When placing the tube back into the new canister, make sure it remains in an upright position

8.2. Wintering

Lors de l'hivernage de la piscine, il faut prendre soin de stocker les capteurs pH et Redox. Pour cela :
- Retirer le capteur de la tuyauterie de la piscine
- Rincer le capteur avec de l'eau du robinet
- Remplir le capuchon de protection avec de l'eau du robinet
- Remettre le capuchon sur l'extrémité du capteur
- Ou laisser les sondes tremper dans un verre avec de l'eau du robinet en s'assurant que les têtes des sondes restent toujours immergées.

When wintering the pool, we advise to store pH and ORP probes as follows:
- remove the probe from the probe holder
- rinse the probe with tap water
- fill the protective cap with tap water
- put back the probe head into the protective cap
- or let the probes heads into a glass of tap water checking regularly that the heads are always into water.

> **Important**
>
> **The pH and ORP probe heads must never remain dry but should be stored in tap water. Do not use distilled water.**
>
> **Regularly check that the probe heads are well immersed.**

> **WARNING:** If your technical room is outside (in the garden...) and the temperature of the water or air falls below 0°C, it is essential to winterize the probes (pH and ORP probes) as well as the pressure sensor in order to avoid any deterioration in the event of frost.
> Use the plugs (supplied in the kit depending on the model or available as an option) and install them on sensors connectors.
> **Store them in a room temperate.**

8.3.   Swimming pool Re-Opening

- Measure the water chemical parameters (TAS, TH, pH, Chlorine and stabilizer) and modify pH and ORP target values if necessary.

- Check the ph and ORP probes head

- Calibrate the pH probe:

- Check the ORP probe:

- Check the dosing pumps santoprene tubes (to be changed every year)

- Check pH and Chlorine suction and feed tubes of the peristaltic pumps and remove any impurities or crystalized chlorine.

- Check the pH and ORP target values.

9. CONTROL MODES

Klereo	Control modes

With this menu, you can choose between the comfort and the eco mode:

Comfort mode will always care of water quality. Indeed, when filtering time is coming to the end of its daily cycle, it will continue if one of the parameters has not reached its target value. Filtering will stop when the target value is reached. This control mode is ideal during the season to guarantee the best water quality.

Eco mode for energy savings. When filtering time is coming to the end of its daily cycle, filtering will stop even though one of the parameters has not reached its target value. Regulation will restart the following day after the new filtering cycle has been initiated. This control mode can be used at the beginning and at the end of the season.

10.   SYSTEM STATUS

Klereo	System Status

This menu sums up the pool and its equipments information. Press any key to access the listing.

.

Shortcut: the browse key
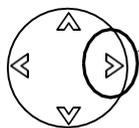
Quick access to the "system status"

When pressing the arrow on the right, you will get a screen with the Klereo system status. It will provide a summary of filtering, heating, and water treatment (pH + disinfectant) settings.

11.   PARAMETERS

Some functions are not detailed into this manual but are available for consultation inside the installation manual as they have to be set up during installation: sensors set-up, equipments set-up, inputs set-up and installation tests.

We present and explain below the sub-menus that might be useful to you using your klereo Kompact/Kompact+ during the season or when starting the season every year.

INTERFACE
The « **Interface** » menu is used to set date and time, select language and adjust brightness and contrast on the screen. The date and time are set in the factory. This information should be modified when time periods are changed (summer-winter time).

Klereo	Parameters	Interface	Adjust the date
			Adjust the time
			Language
			Contrast

Browse :

Key	Definition
(--)	Typical value in the backlight and contrast menu matches the default value set in the factory

(arrows icon)	$\wedge$ $\vee$ change of values $\triangleleft$ $\triangleright$ selecting active field
(OK)	For accessing a sub-menu or confirming an action
(C)	Cancel or return to previous menu

12.   SOFTWARE

This menu indicates your Klereo software version and enables to decide if you need an updating or not.

13.   ACTIVATION OF THE KLEREO CONNECTION

Refer to the Klereo Connect manual.

14.   PROBLEMS SOLVING

The following table shows the list of possible messages, their definition and how to resolve it. For some messages, we have not detailed all possibilities but indicated a cross-reference number to additional tables at the end.

MESSAGES	DEFINITION	RESOLUTIONS
Sensor broken +"**sensor designation**	The sensor is defective	Check the probe wiring connexion / calibration. If negative, change the probe.
Invert pH/ORP	pH and ORP probes are inverted	Invert the probes
Low battery **+ " Device name**	The battery needs to be changed.	Change the batteries without delay
Minimum **+" sensor designation**	The value measured by the probe is below the minimum set level.	Check the treatment product injections or Check the set values and modify them if necessary
Maximum **+" sensor designation**	The value measured by the probe is above the maximum set level	Check the treatment product injections or Check the set values and modify them if necessary
Not transmitted **+" sensor designation**	The probe has not transmitted for over 1 hour	Check the probe wiring connexion / calibration. If negative, change the probe.

Calibration/checking **+" sensor designation PH OR ORP**	The probe is not calibrated or must be re-calibrated	
pH>8 Ineff.disinfect	Disinfectant is inefficient as long as pH is that high	Check pH probe, the water treatment regulations and the injector valve condition.
Low filter pump flow	Filter pump undersized compared to the pool volume	Change the filtration pump
Regul. stopped	pH or disinfectant regulation has been stopped manually	Set up again pH and disinfectant treatments in regulated mode (installation mode)
Boost treatment	Filtering is forced for 24H	Filtration must be « ON »
Day limit injection **+ " Treatment probe designation**	Daily maximum quantity has been injected	Check probes, pool volume Chemicals injections
Bromine Problem	The ORP value does not increase ….	Check if there are tablets in the brominator and the valve operation in the menu: Klereo / Parameters / Tests-Install. / Regulation tests (installation mode)
Chlorinator cell	Short circuit or water conductivity problem	Check message on Salt Chlor. display (ex lack of salt, gaz, overheating and so on) and possible short circuits
Salt Chlor. security..	The Salt Chlorinator cannot produce ….	increat the water temperature more than the programmed security level or increase ORP maximum value
Sensor set-up problem	Selected sensors do not match the selected water treatment	Check the selected treatment mode
Link problem **+ "Equipment name "**	The Klereo treatment (1) is not matched with the Kalypro PRO	For matching go to menu: Klereo / Parameters / Set-up / Radio match
Sensor. ORP Very low	O.R.P. less than 50mv or more than 2200 mV	Check probe connection/calibration/change probe

15.   SECURITY INSTRUCTIONS

The Klereo electrical installation must be made by the approriate sate of the art professional respecting the local electrical standards..

A Before conducting any operation on Klereo Kompact control box unit, turn off the power supply.

The water treatment products must not be placed directly on the floor. Install them on a waterproof rack. By using a drip tub to put each tank in, you avoid mixing chemical products in case of leaks. When handling chemical products, use protective wear: gloves and glasses.
It is also important to work in a sufficiently ventilated room to avoid fumes built-up.

Avoid any contact between liquid Chlorine, Bromine and pH- or pH+. Mixing the water treatment products is extremely dangerous. Klereo disclaim all responsibility

16.   BATTERIES AND ELECTRONIC EQUIPMENTS DISPOSAL

IMPORTANT:

This equipment carries the 'waste separation' symbol for electric and electronic equipments recycling purposes. It means that this equipment must be taken care by a waste collecting system according to the 2002/96/CE EEC guideline in order to be either recycled or dismantled to eliminate any environmental damage. For more information, please contact your local governing administration.
Electronic products not going through a waste separation process are potentially dangerous to the environment and human health because of potential harmful substances.

klereo

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