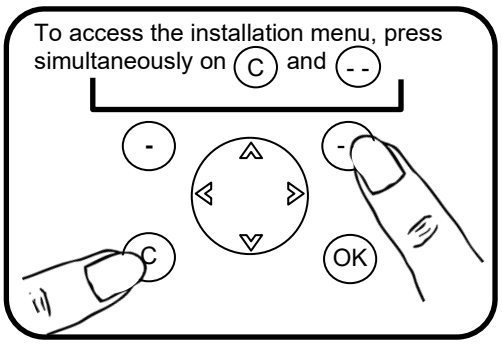
SWIMMING POOL MONITORING SYSTEM



Installation Manual

kompact by klereo

M5-M9

Read carefully and keep for future reference. Please study the manual closely, before bringing the system into service (Version 5.31)

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.
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1. KLEREO KOMPACT MODELS DESCRIPTION:

Kompact regulates the filtering cycles depending on the water temperature and the pool characteristics (volume in m^3, power and flow rate of the filter pump). It regulates also the pH and disinfectant.

The Klereo Kompact basic kit includes already a pH regulation. For the disinfectant regulation you have previously selected either active Oxygen (which is managed by the basic kit), or liquid Chlorine or Salt Chlorinator or Bromine.

There are two ranges of Kompact: the Kompact M5 (5 connections) with the possibility of controlling 5 equipment and the Kompact M9 (9 connections). Kompact allows controlling also auxiliary outputs: lighting, cleaning robot, whirlpool, cc swim, garden lighting, water fountain, and so on.

1.1. Klereo Kompact kits Contents

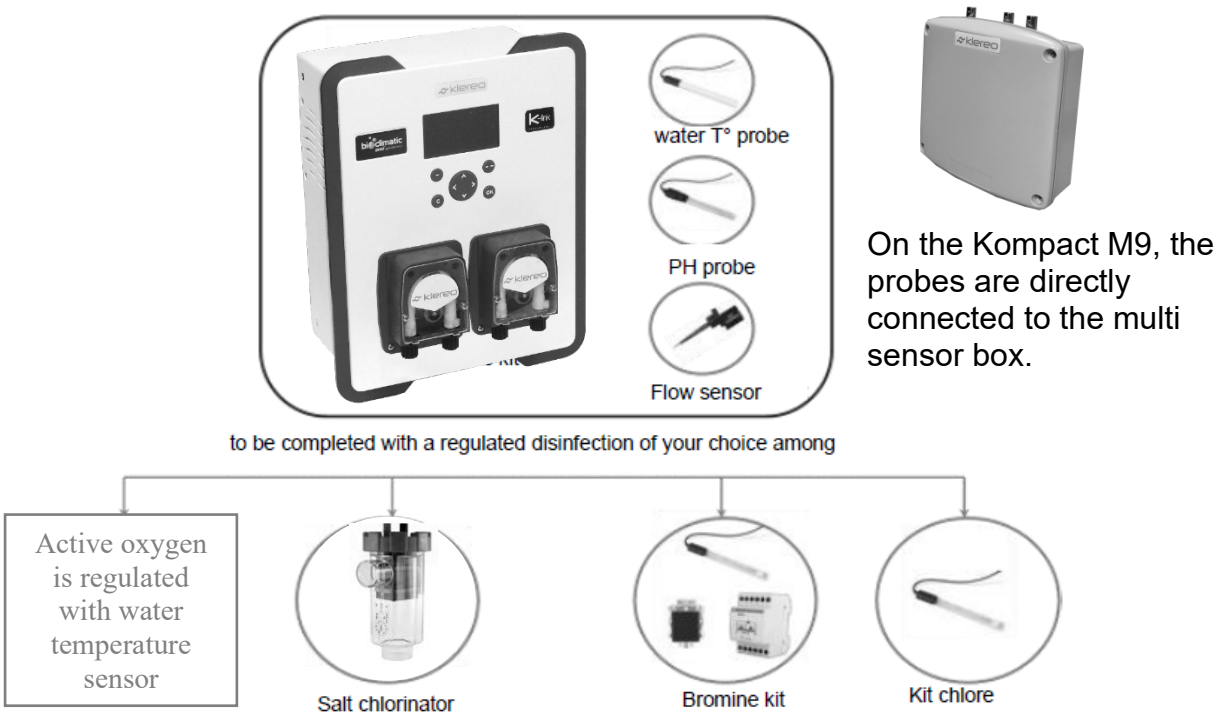


Figure 1. The different Klereo Kompact regulation kits

The Klereo Kompact kit consists of the following items:

- A control box unit with a user-friendly interface thanks to an LCD screen display
- 2 x 1.5l/h dosing pumps for pH and disinfectant or flocculant (according to selected options) injection
- A flow switch sensor
- A water temperature sensor
- A pH probe

- Probe holders and accessories for injection (pipe, Teflon, injection valve…)
- The tool to insert electrical cables
- The installation manual, maintenance and user manual as well as the warranty (to send to Klereo)

1.2. Disinfectant options

1.2.1. Liquid chlorine regulation kit

It is composed of:

- An ORP probe
- A probe holder
- A tap for wintering

Figure 2. Liquid Chlorine regulation kit

1.2.2. Bromine regulation kit

It is composed of:

- An ORP probe
- A probe holder
- A tap for wintering
- A solenoid valve
- A transformer for the solenoid valve

Figure 3. Bromine regulation kit

- Optional*: Hydraulic kit for Bromine with 2 collars and 4 unions*
  For Ø50mm (Ref : KL20-KH50)
  For Ø63mm (Ref: KL20-KH63).

1.2.3. Klereo salt chlorinator

It is composed of:

- A Salt Chlorinator cell
- An electronic control box unit

Figure 4. Salt chlorinator regulation Kompact

1.3. KOMPACT options

1.3.1. Air temperature sensor

The antifreeze function kit (REF :KL10-TA) is) is composed of an air temperature sensor working with supplied batteries. It completes the Kompact+ features since it allows:

- The display of the air temperature
- Automation of antifreeze function
- Alert when temperature is under the programmed threshold

Figure 5. antifreeze function kit

1.3.2. The remote Display

Remote display is possible on Klereo Kompact + thanks to the Klereo Pad control (Ref.: KL20-AF1 for the Kompact+ M5 range or KL21-AF1 for the Kompact+ M9 range).
The PAD is the interface between the user or installer and the Klereo Kompact + system. It allows you to visualize the pool parameters and remotely control the pool functions: filtration, lighting, heating and other auxiliary functions: garden lighting, fountain, water blade, counter-current swimming, cleaning, etc...

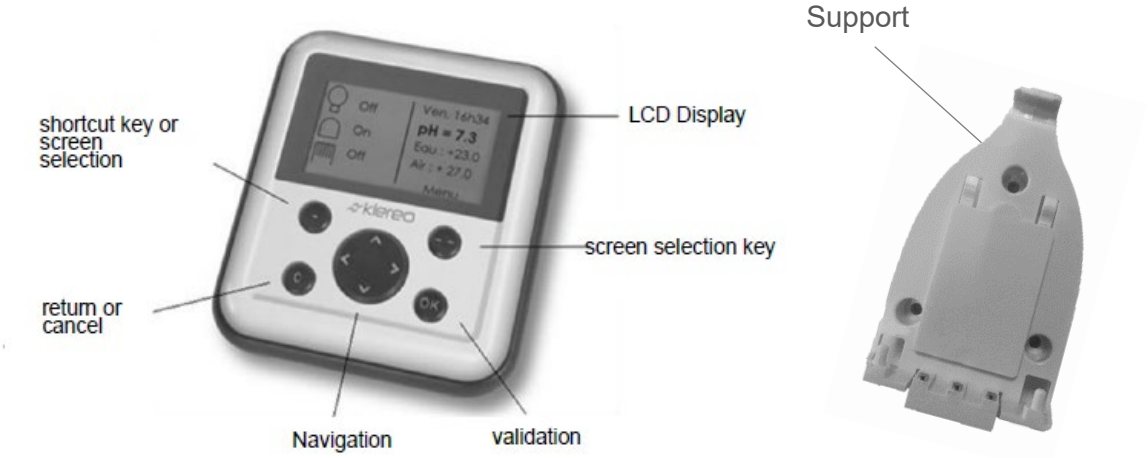


Figure 6. Klereo PAD display and navigation keys

1.3.3. The internet connect : Klereo connect

The Klereo Connect option (Ref: KL60-C2) allows remote monitoring of the pool.
A simple interface allows you the setting view and control the pool equipment.

Figure 7. Klereo Connect

1.3.4. Detection of Empty tank

The drawing cane equipped with a canister end detector send the information to the central unit, the remote viewing and on the Internet.

1.3.5. Pressure sensor

Accurately measures hydraulic pressure and alerts when filter cleaning is required (M9 compatible only)

1.3.6. Flow meter

Measures the water flow rate, displays the basin consumption and alerts in case of water leakage (M9 compatible only)

1.3.7. Amperometric sensor

An amperometric sensor that measures the free chlorine level in the pool (M9 compatible only) regulates the liquid chlorine injection.

1.3.8. SPA adaptation

Klereo Kompact+ can be adapted for spas. In this case, we integrate 0.4l/h metering pumps to be able to treat small volumes of water

1.3.9. Large pool adaptation

Dosing pumps with flow rates ranging from 5 l/h to 15 l/h allow the treatment of large basins.

1.4. Klereo Kompact control box display

It is the interface between the user or the installer and the Klereo system.
The display enables to visualize the pool parameters and to pilot the following pool functions: filtration, lighting, heating or other auxiliaries.

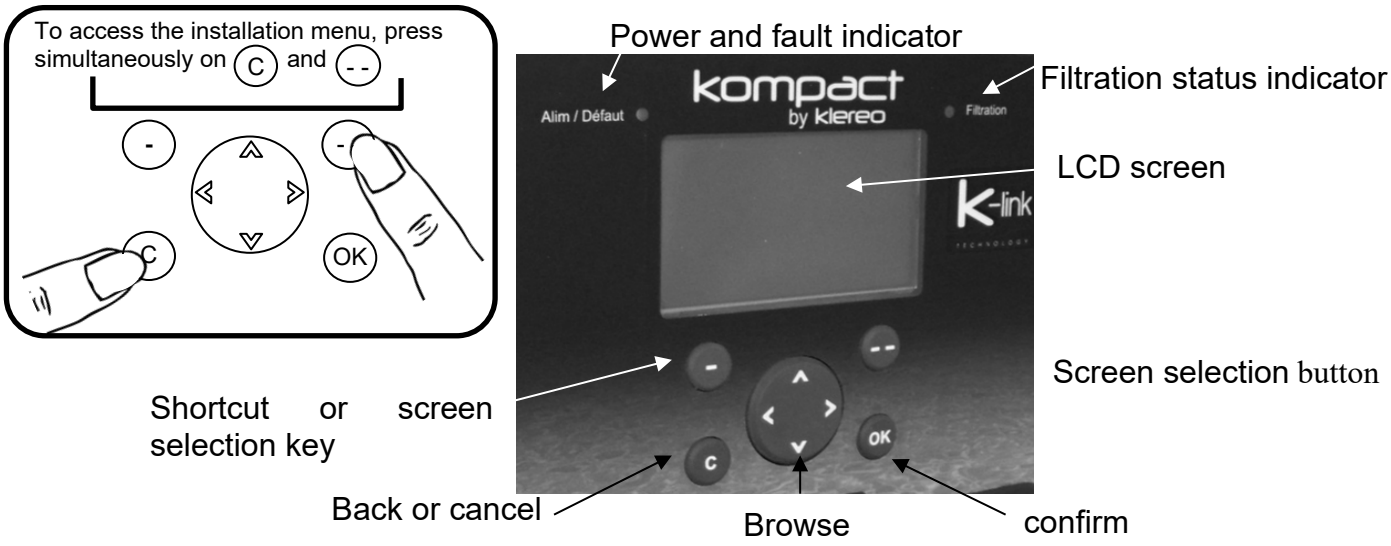


Figure 8. Klereo Kompact display and navigation buttons

2. USAGE LIMITATIONS

The installation must meet the following conditions to ensure the Klereo kompact system operates correctly:

- pool containing a volume of water greater than that recommended depending on the dosing pump chosen
- The control unit box is not equipped with the electrical modules to control the filtration pumps directly. For this reason, a connection to filter pump control box is necessary.
- Water pressure: 1.5 bar max
- Minimum water flow rate: 4m^3/h
- Maximum water flow rate for the probes: 18 m^3/h
- Klereo is suitable for traditional installations using sand or cartridge filters or diatomite.
- Disinfectant used previously: liquid Chlorine, active Oxygen, UV, Ozone, salt chlorinator (non-stabilized salt) and Bromine.
- The TH value (hardness) must be between 10°F and 25°F (or 100 to 250mg/l). The TAC value (alkalinity) must be between 5°F and 20°F (or 50 to 200mg/l).
- If stabilizer is used, it must not exceed 50mg/l (we advised not to exceed 30 mg/l when an ORP probe is installed). If the rate exceeds this, it is advisable to drain some or all the water from the pool, to avoid upsetting the measurements, so that the pool is effectively disinfected.
- Automatic filter adjustment depends on the water temperature as well as on the volume of water and pump flow rate. The pump flow rate must be sufficient to renew the volume of water in the pool every 4 to 8 hours, in order to ensure this function operates correctly.
- For solar heating used with another heating system (electric, heat exchanger or pump), the installation must have several water temperature sensors fitted. In some cases, Klereo may not be able to run the heating system correctly (consult Klereo).
- When the disinfectant is a salt chlorinator, **it is very important to install a ground pool before the heating system and before the salt chlorinator**.

3. Hydraulic Installation

3.1. Before starting installation

The following tools are needed for installing the Klereo system:

Figure 9.

- A saw
- A drill
- A screwdriver
- A cross-head screwdriver
- A ratchet spanner Ø 13
- PVC glue
- A spanner Ø 13mm
- The special tool to insert wiring cables (delivered into the kit)

Figure 10. Tools for installation

3.2. Installation Diagram

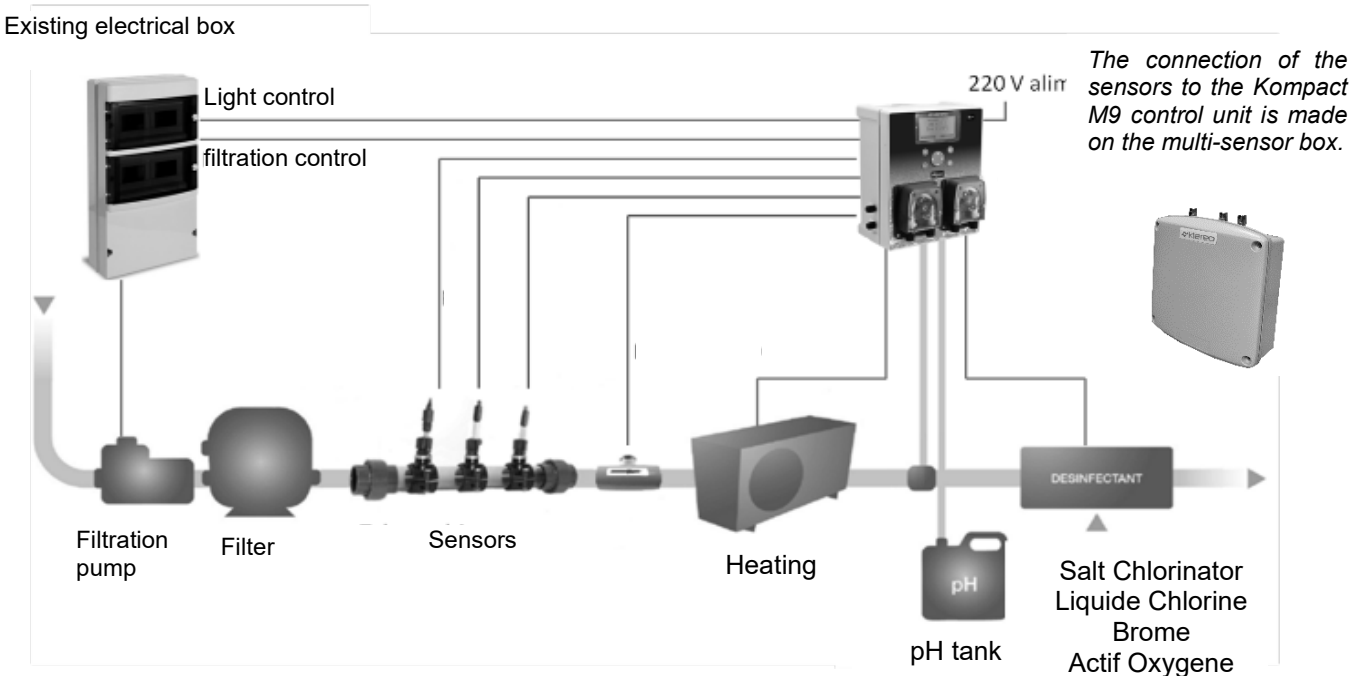


Figure 11. Kompact installation diagram.

The flow switch and water temperature sensor as well as pH and ORP probes must be installed:

- After the filter
- Before the heating system (Heating pump or heat exchanger) as well as before the water treatment injection points or the Salt Chlorinator cell.

Water treatment injection points and the Salt Chlorinator cell must be located after all pool control systems and equipments, in the water flow in order not to cause any damage to them.

Accessories to fix the probes and liquid water treatment (pH, liquid Chlorine and active Oxygen) injections are optional with 4 solutions to select:

- Holding collars for probes and injections
- T shape collar for injections
- A multi-sensor tube for probes
- A chamber of analysis for the probes

IMPORTANT

- Maximum distance between the pH and ORP probes must not exceed 20cm
- The probes must not be installed near the 220V cable or the filter pump, to avoid interference from electromagnetic fields on the measurements (recommended distance 50 cm).
- Minimum distance between the water treatment injection points must not be less than 40cm
- We advise to use T shape collars for water treatment injections: pH, liquid Chlorine or active Oxygen.

3.3. Hydraulic accessories positioning

3.3.1. The Tube 5 probes

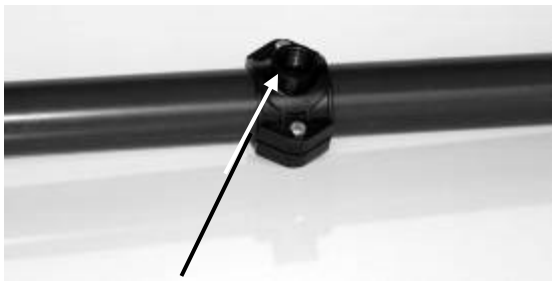
The Kit is supplied with a 5 probe transparent tube. The probe holders are supplied with an O-ring and can be screwed without using Teflon. The tube has a diameter of 63mm and is supplied with 2 ×50mm adapters.

Figure 12. Tube 5 probes

3.3.2. Holding collars (optional)

Install the collars directly onto the existing pipe. There are 2 models: Ø 50mm or Ø 63mm. Probes must be relatively close to each other.

Put the seal into place



Drill a 13mm hole for the probes and an 8mm one for the injections

For an easy probe insertion, center the drill hole and collar.

Figure 13. Fitting holding collars

3.3.3. The multi-sensor tube (optional)

Cut the pipe to a length of 440 mm for Ø 50 mm multi-sensor tubes and 550 mm for Ø 63 mm ones. If there is an elbow bend on the filter circuit, it must be at least 10cm from the multi-sensor tube.

Figure 14. Multi-sensor tube

3.3.4. T shape collar (optional)

Cut the pipe to a length of 55 mm for Ø 50 mm T shape collars and 65 mm for Ø 63 mm ones.

Figure 15. T shape collar

3.3.5. Chamber of analysis (optional)

The chamber is screwed onto the wall. Read carefully the installation manual to ensure correct mounting and probe installation.

Figure 16. Analysis chamber

3.4. Fixing the probes

The necessary parts to fix the pH, ORP probes and water temperature sensor are detailed as follows:

WARNING: The probes are fragile elements, must be handled and installed with care and without

Figure 17. Probe holder

The following procedure should be used when inserting the probes into the holders. Do not force them into place but rather:

1. insert the probe into the probe holder
2. Screw up the probes. The head of the probes are fragile, adjust the height of the probe so that it does not touch the bottom of the plastic tube (1 to 2 cm space clear).

WARNING: Adjust the positioning of the probe holder so the end of the probe does not touch the bottom of pipe, which the direction of joints and washers should be

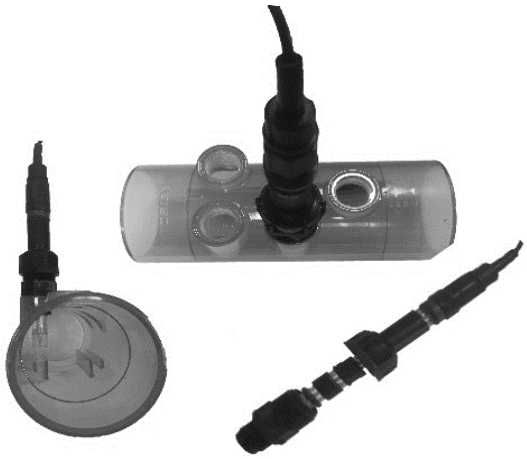
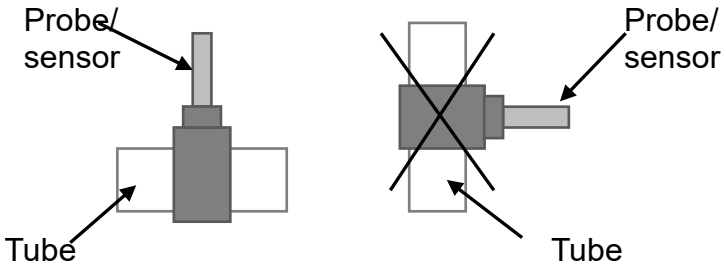


Figure 18. Assembly of probe-holders and water temperature sensor

IMPORTANT

The holding collars must be placed so that the pH and ORP probes are held vertically (+/- 10°) with or without the multi-sensor tube.



3.5. Installing the flow switch

Before mounting the flow switch, screw the nipple ¾ ½ into the 5 probe tube. Avoid overtightening the detector (manual tightening only).

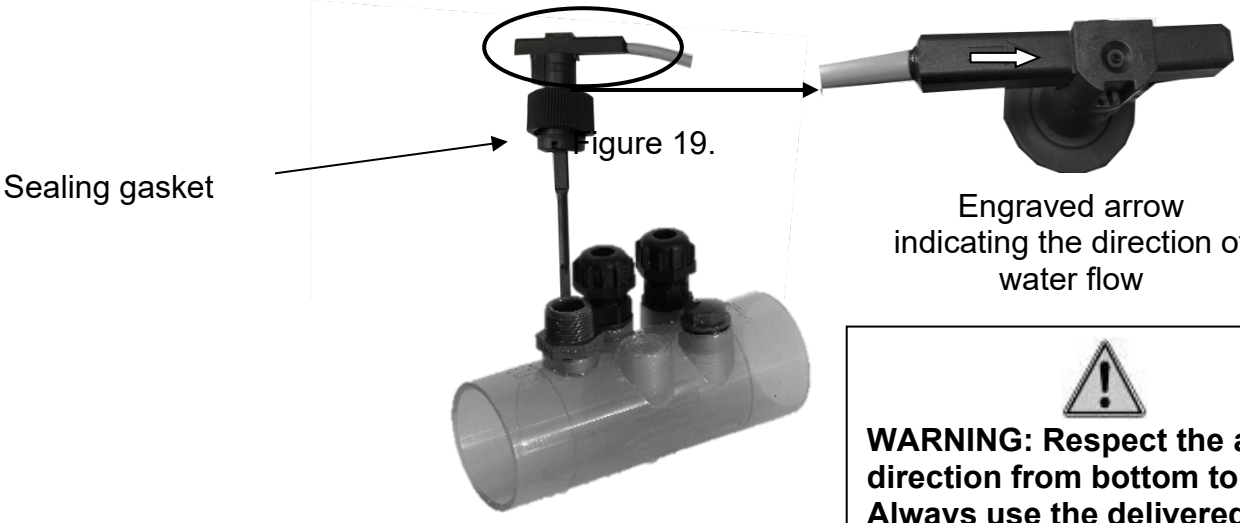


Figure 19.

WARNING: Respect the arrow direction from bottom to top. Always use the delivered T shape collar for the flow switch

Figure 20. Installing the flow switch

Recommendations:	**Technical specifications:**
- Tightening torque : 7.5 N.m - It is important to respect the installation direction mentioned by an arrow representing the direction of water circulation. - Use only the 5-probe tube provided to install the flow switch.	Pallet flow switch with magnetic back position NORYL body PA6 female connection rotating G ¾ Maximum pressure: 10 bar Maximum temperature: 70 ° c Equipped with a contact positioned NO Maximum admissible speed: 34 m3 / h for a DN 63 Potential free reed contact 1A / 230 VAC / 26 VA

3.6. Connecting the pipes of the metering pumps

Figure 21. dosing pump kit presentation

Insert both pipes onto the dosing pump (check the arrows showing the direction of input of the water treatment products)

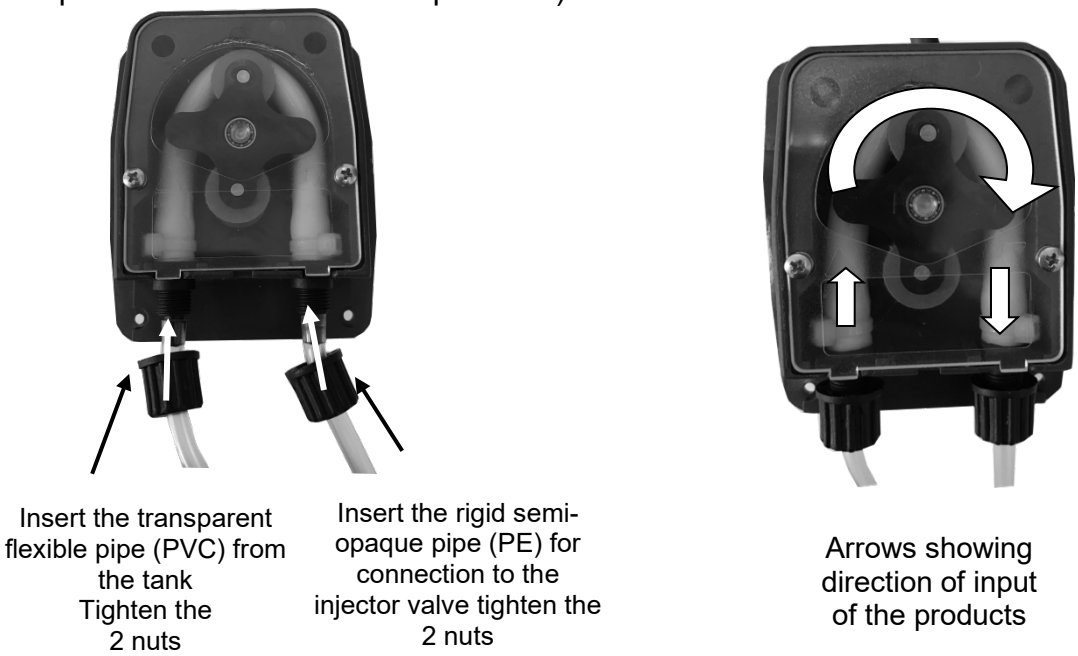


Figure 22. Mounting dosing pumps (see manual for metering pump)

Put the rigid, semi-opaque pipe (PE) onto the injector valve, then screw it into t the holding collar (apply Teflon tape to seal).

Figure 23. Mounting injector valve

To mount the transparent flexible pipe onto the drawing strainer, proceed as follows:

Strainer
Transparent flexible pipe

Remove the strainer nut
Insert the pipe into the nut

Insert the transparent flexible pipe onto the strainer

Figure 24. Mounting the drawing strainer

3.7. Installing of cans and injections of liquid chemicals

IMPORTANT:

Never mix the chemical products. Use normal protective wear (gloves, face mask and eye protectors) to handle tanks of chemical products.
Check that the holding collars used to inject the products are sealed. The room must be ventilated. Keep a minimum distance of 1 m between the tanks and the Klereo components, to avoid fumes from the products damaging the system.
When changing a tank, handle carefully the tube or the cane. Do not force on the strainer and the empty tank level detector at the end of the cane (when using a drawing cane with empty tank level detector: optional).

Use sodium hypochlorite in liquid form as liquid chlorine disinfectant, sulfuric acid as pH minus and sodium hydroxide) pH plus.

When replacing a tank, check that the chlorine injection pump is connected to the liquid chlorine tank, and the same for the pH minus or pH plus product injection pump.

Put each tank into a holding tray to avoid mixing chemical in case of leaks.

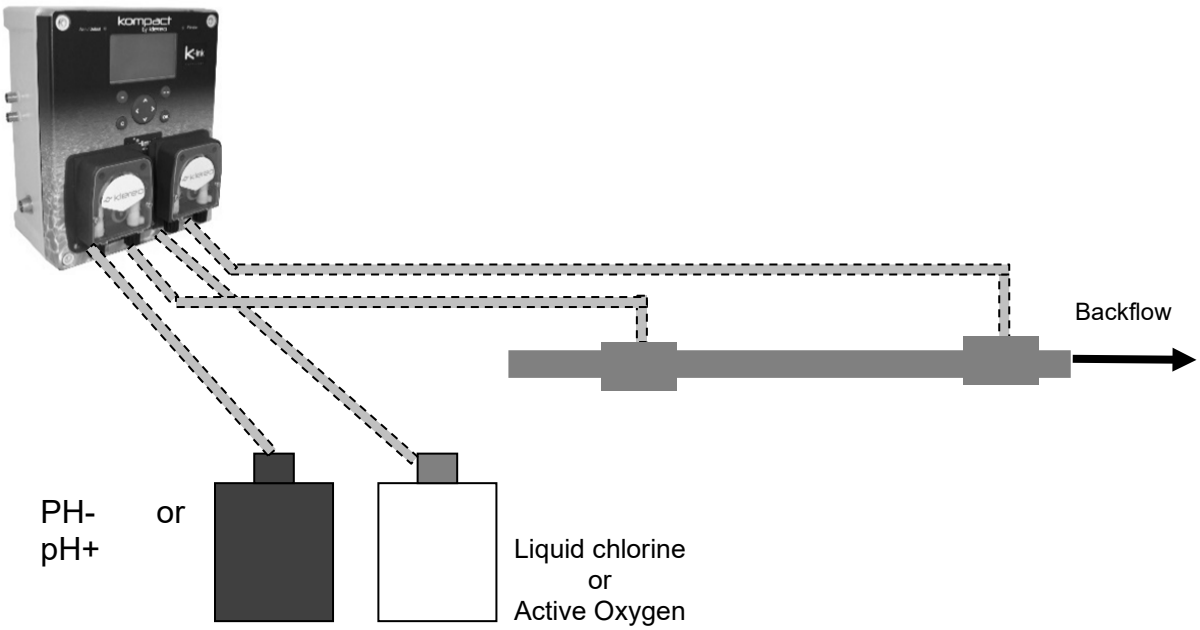


Figure 25. Mounting the metering pumps and empty tanks detectors

The holding collars used for injecting products must be placed at the end of the filtering circuit before the backflow.
Maximum distances between Klereo control box unit and the tanks or the injection points are 2m maximum.
The minimum distance between two injection points is 40cm . A drawing up cane with empty tank level detector is optional.

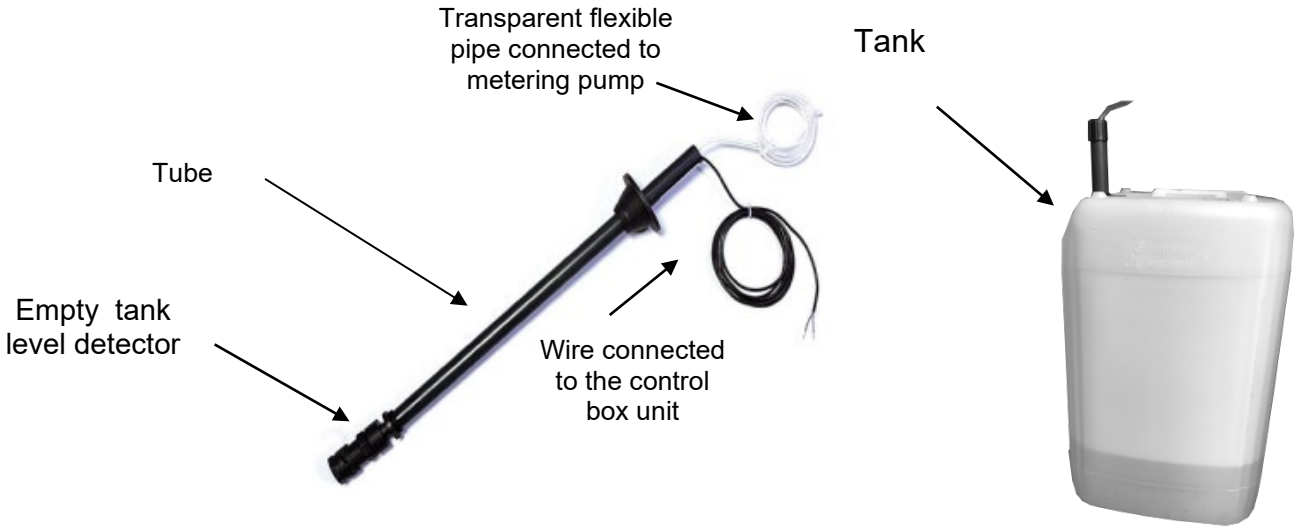


Figure 26. Empty tank detector

3.8. Installing the solenoid valve for Kompact with Bromine tablets

The Kompact for Bromine regulates disinfection by opening a solenoid valve letting the water going through a brominator filled with bromine or a chlorinator filled with Chlorine tablets. There are 2 possibilities to install the Bromine regulation kit.

Respect the direction identified by the arrow on the

Figure 27. Selenoid valve

In any cases, it is necessary to install pre-filter of this kind to avoid clogging of the solenoid valve (1mm mesh)

Figure 28. Prefilter for selenoid valve KL10-PF32

First possibility:

The valve is installed in a by-pass after the filter and before the pool backflow as shown on the diagram below.

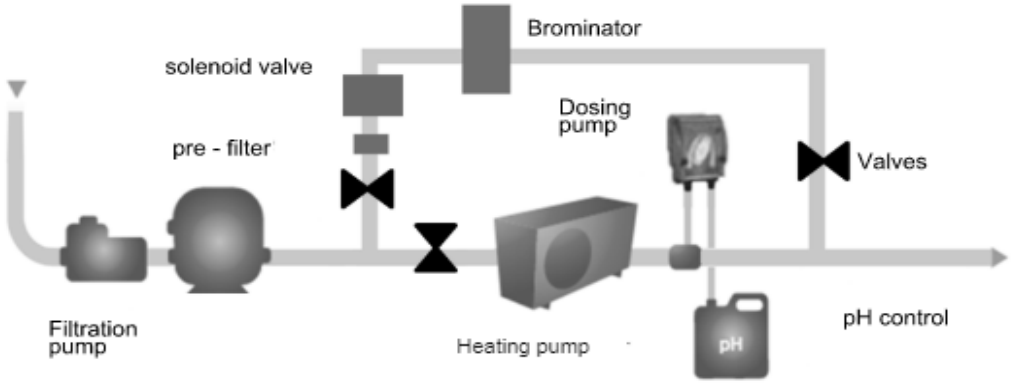


Figure 29. First possibility for installing the bromine regulation kit

Second possibility:

In case of low water flow rate, position the by-pass entrance between the pump and the filter. Add a primary filter to avoid the valve clogging

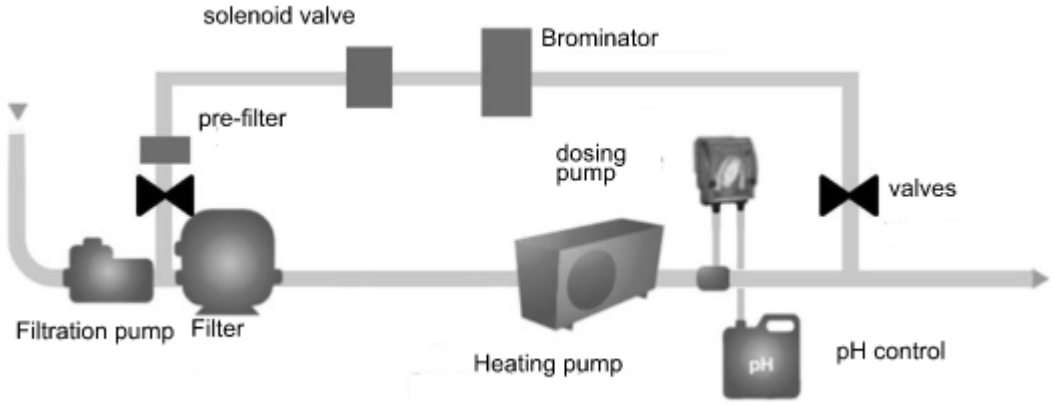


Figure 30. Second possibility for installing the bromine regulation kit

Connecting the solenoid valve is done in Ø 32mm. Use unions in case of pipes Ø 50 or 63mm. Hydraulic kits for Bromine are optional:

- KL20-KH50: 2 collars 3/4" Ø 50mm and 4 unions ¾ Ø32mm
- KL20-KH63: 2 collars 3/4" Ø 63mm and 4 unions ¾ Ø32mm

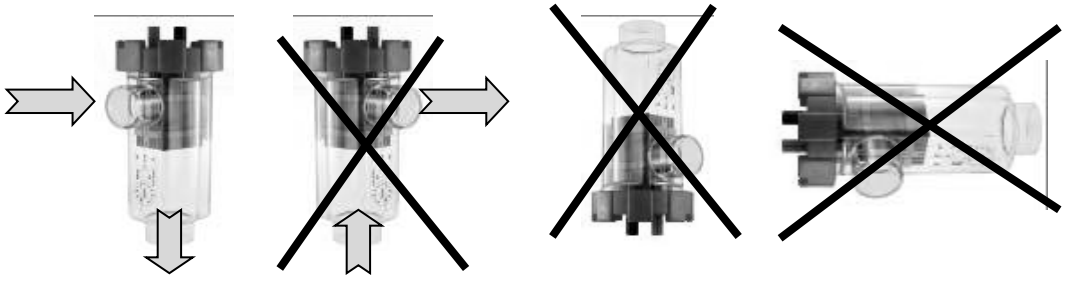
The brominator tap adjusting the water flow must be fully opened (refer to the Brominator manual).

Install manual valves at the by-pass level for easy maintenance.

3.9. Installing the cell with Klereo Salt Chlorinator

Allow a maximum distance of 1.5m between the cell and the control box unit (it is actually the length of the cable between the 2 units). Connecting the cell is done in Ø 50mm. Thanks to respect the following recommendation:

- **The cell must be installed vertically with connectors up** for maximum efficiency.



- The cell is installed after filtration and heating system but before the pool backflow.
- For easy maintenance, the cell can be installed on a by-pass as shown below:

The 3 gate valves installed on the by-pass are only used to make maintenance easier. Valves 1 & 2 must remain imperatively fully open in order to have the maximum flow going through the cell. Valve 3 must remain closed.

4. Electrical Installation

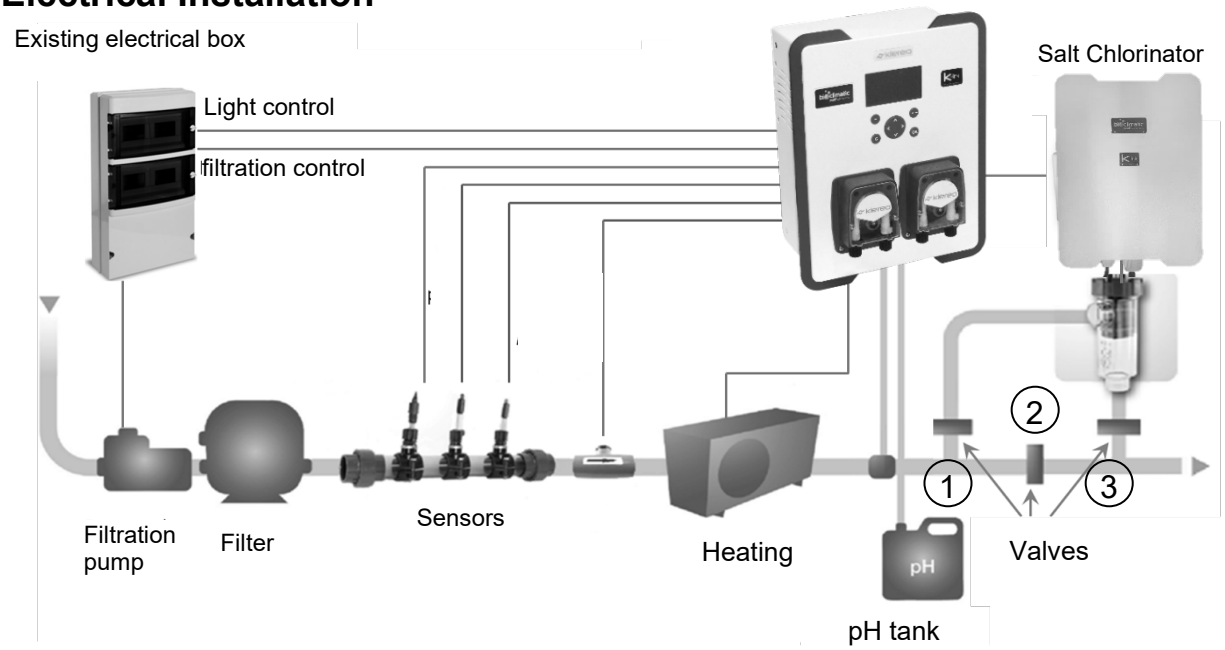


Figure 31. Installing the salt chlorinator cell

4.1. Connecting the sensors

PH and ORP probes, water temperature and flow switch sensors must be connected to the appropriate inputs on the Kompact+ control box unit as shown below:

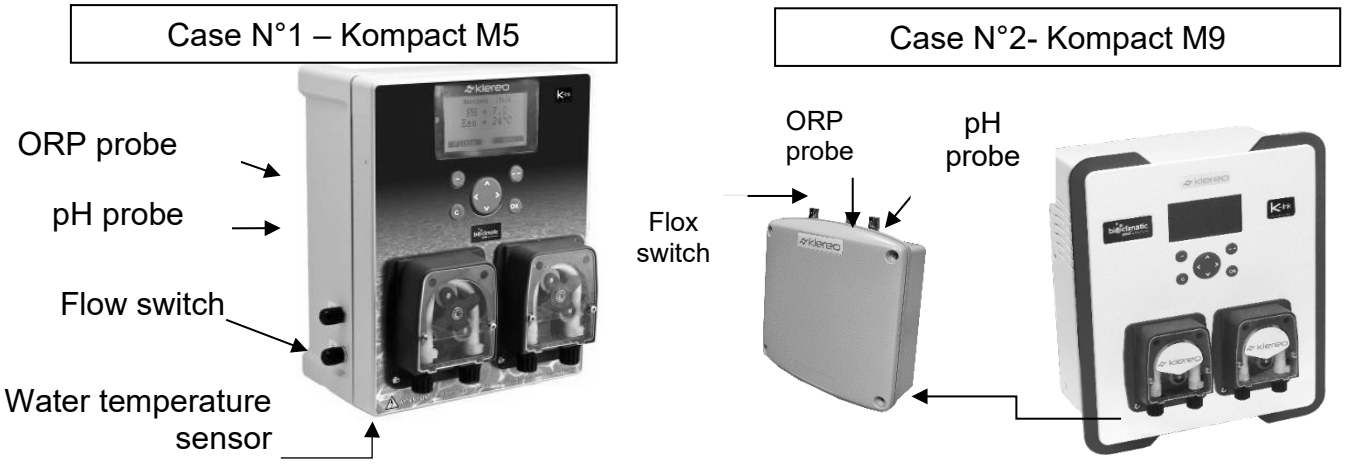


Figure 32. Connecting the sensors to the kompact M5 and M9 control box unit

For water temperature sensor connect the bleu wire to B, yellow wire to J, green wire to V and red wire to R

4.2. Positioning the pressure sensor

Klereo is suitable for conventional installations using sand or cartridge filters. The pressure sensor measures positive pressures and is mounted near or in place of the existing pressure gauge. The pressure sensor can be screwed directly onto the filter (use Teflon tape for sealing). It should not be more than 2 meters from the multi-sensor housing (M9 only).

Figure 33. The pressure sensor

4.3. Connecting the klereo Kompact power supply

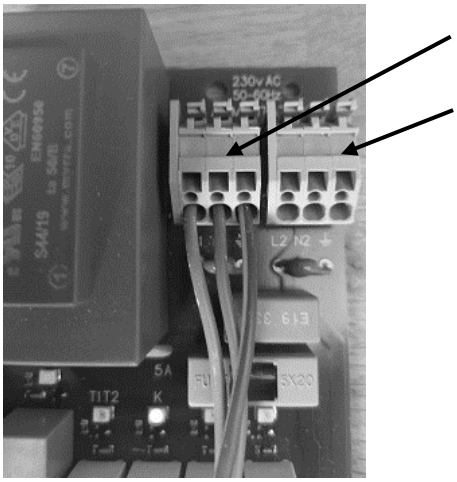


Figure 34. Connecting the power supply to the Klereo Kompact box

<u>The control box unit must be connected to the main perrnanently. The power supply must not be a slave from filtering.</u>

The lower housing of the Kompact M9 is metallic and must be earthed.

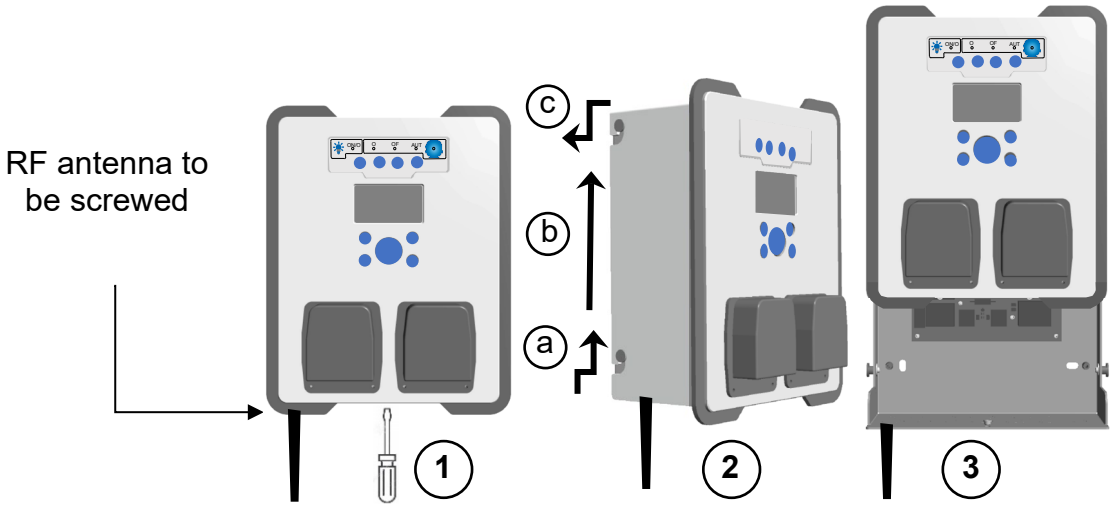


Figure 35. Opening and fixing of the Kompact M9 housing

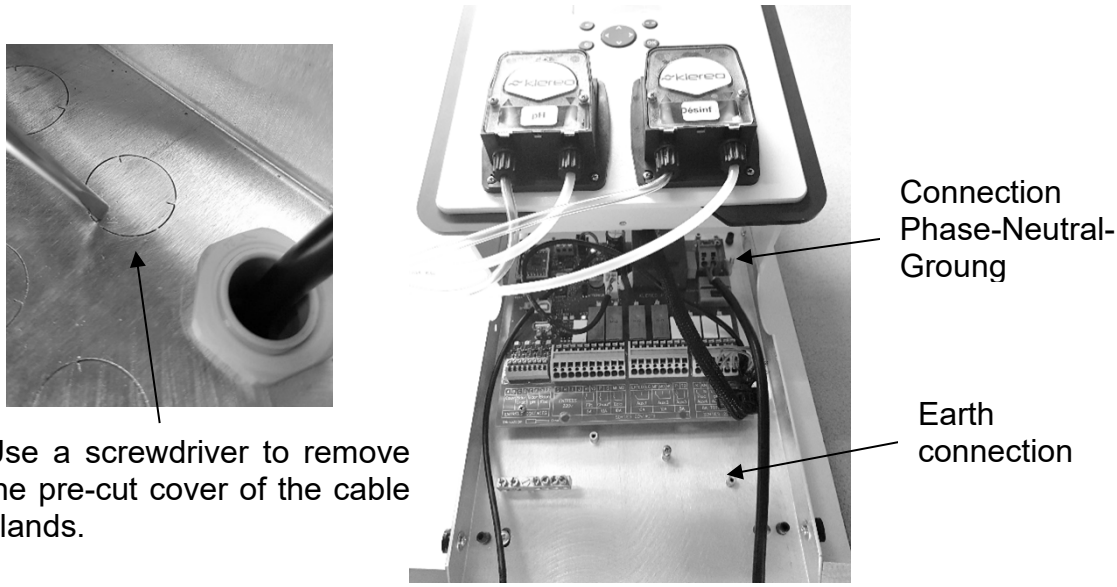


Figure 36. Connection of the power supply of the Kompact M9 Chlorine, Bromine and Active Oxygen unit

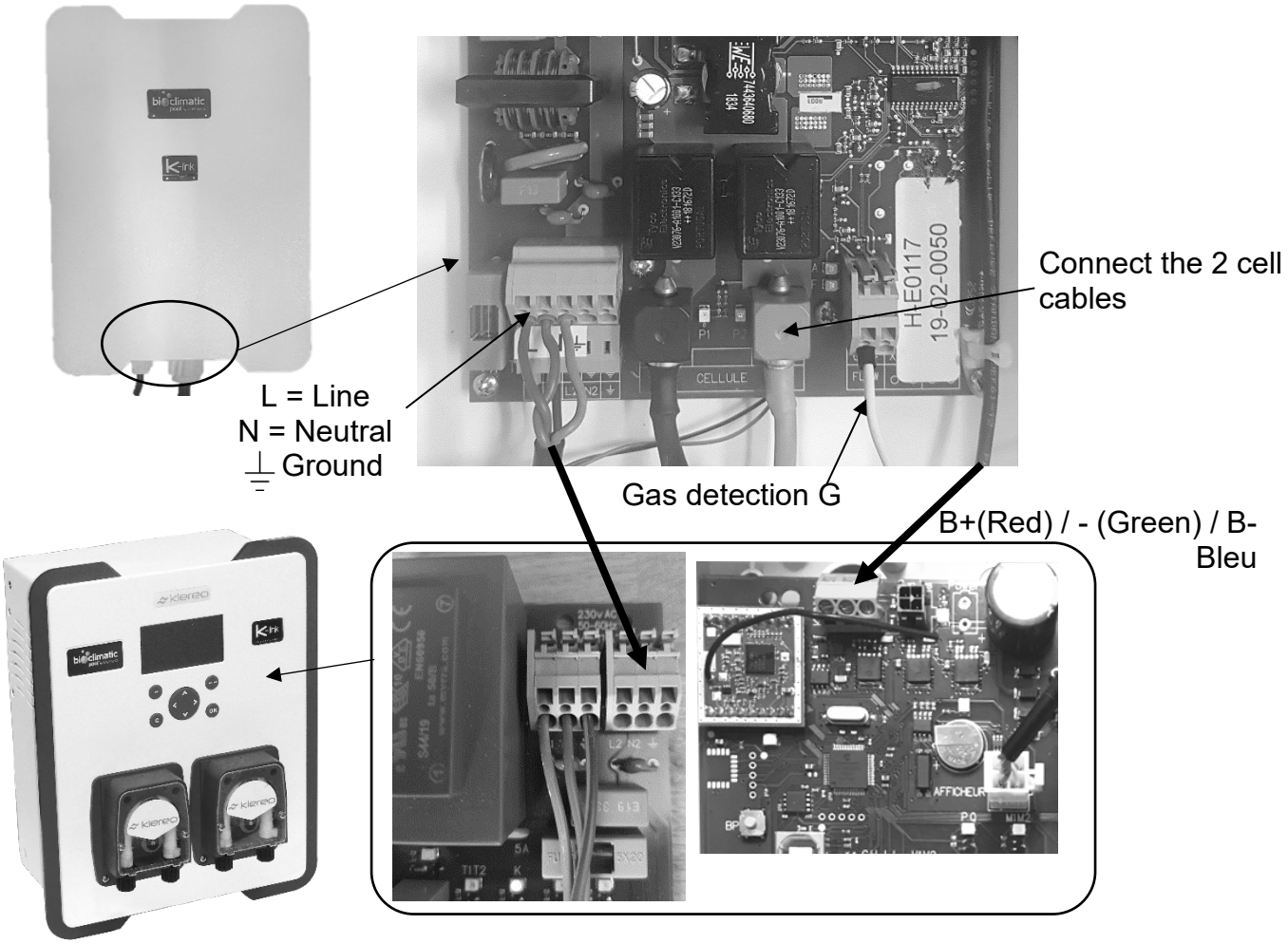
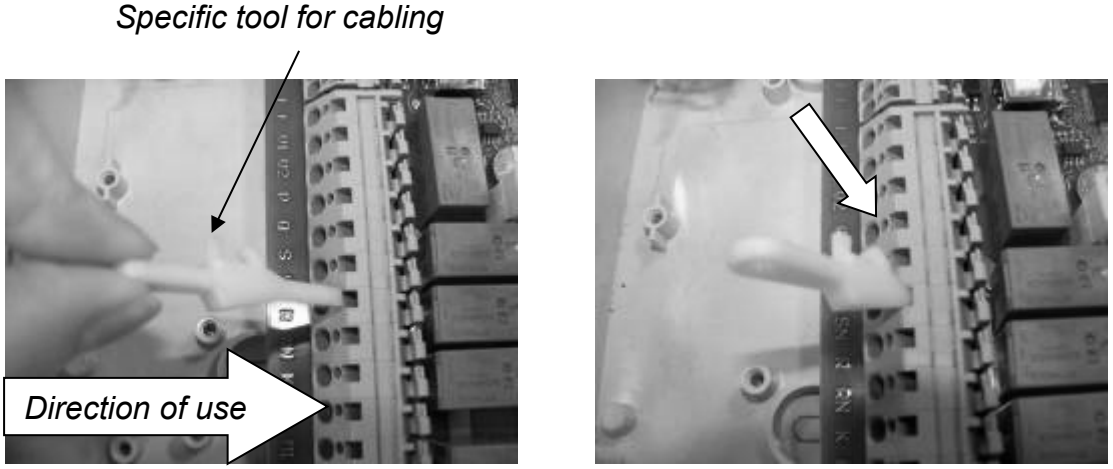


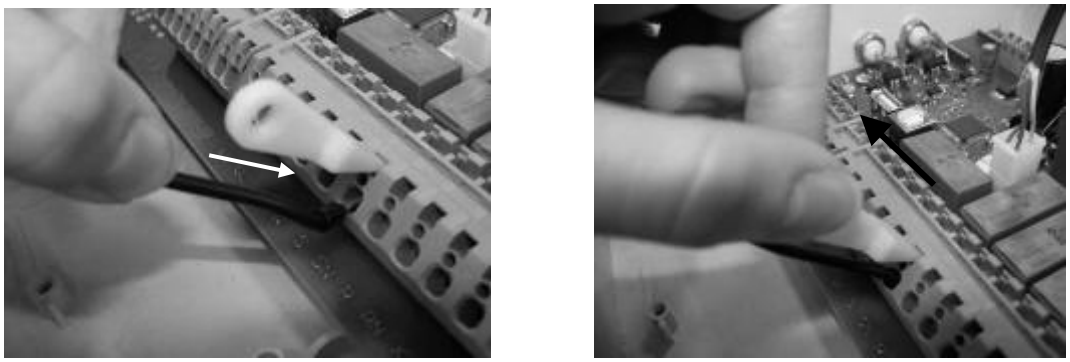
Figure 37. Connection of the Hybrid Salt chlorinator,

4.4. Connecting the inputs outputs

A specific tool is supplied within the kit to connect the wires onto the control box unit connectors. A small screwdriver can also be used. The connection is done as shown below.



Insert the tool while respecting the direction of use. A little sound tells you that the tool is in the right place.



Insert the wires into the right connectors and, once this done, remove the tool and check that they are correctly cabled by pulling slightly on them. They should not come out.

Figure 38. Cabling the wires on the Klereo Kompact control box unit

The control box unit must be installed into the technical room in order to be in a position to connect the other pool equipment.

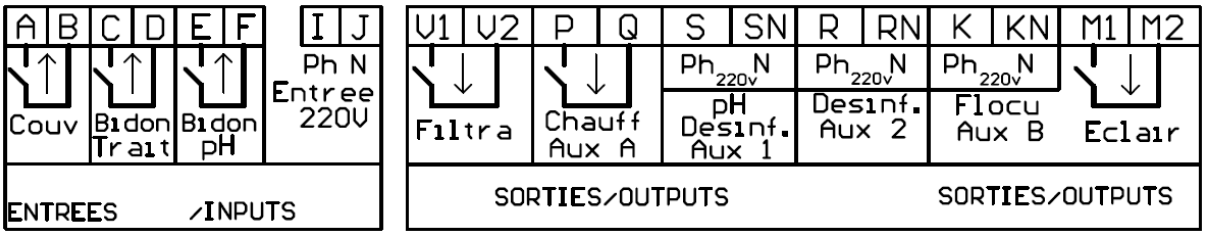


Figure 39. Kompact M5 control box unit inputs/outputs.

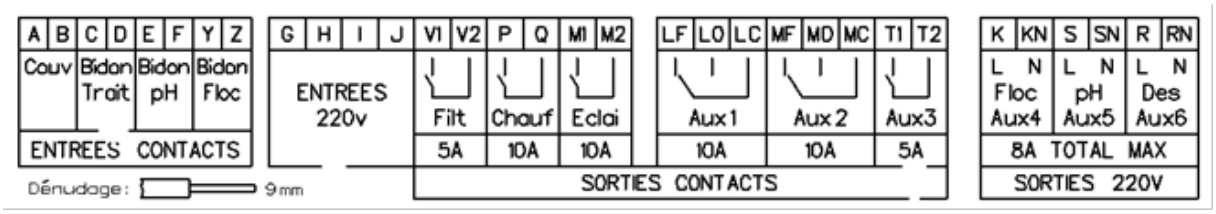


Figure 40. Kompact M9 control box unit inputs/outputs

The meanings of the abbreviations are as follows:

- Filtra = Filtering, Chauff = Heating ; Eclair = Lighting and Aux = Auxiliary
- pH = pH , Desinf. = Disinfectant, Floc = flocculent , Trait = disinfectant and Bidon = tank
- Ph = Line, N = Neutral, Couv = pool cover , Floc = Flocculent

Kompact M5 is equipped with 5 outputs and the Kompact m9 with 9 outputs:

1. The filtering output V1 and V2 must be connected to the swimming pool control box unit (refet to § filtering connection).
2. The S and SN output is connected to the pH dosing pump located in the front panel of the control box unit.
3. The R and RN output is connected to the other dosing pump located on the front panel of the Kompact control box unit for liquid Chlorine, active Oxygen or when using a salt chlorinator other than Klereo.
   When ordering a Bromine Kit, the R-RN output must be connected to the transformer of the solenoid valve supplied in the Bromine Kit, the dosing pump must then be disconnected in order to connect the transformer.
4. The P and Q outputs are used to control a type of heating system: heat pump, electrical heater, or exchanger. This output is a relay "dry contact" type (maximum load =10A max)
   In the case of the Kompact + M5 it is configured by default to control an auxiliary equipment (Aux A) of your choice: cleaning robot, whirlpool, counter-current swimming, garden lighting, water fountain... it is necessary to modify its configuration in heating mode in the parameters/configuration menu.
5. Kompact M5 is equipped with an output with a double relay allowing:
   - Either using a 220V power supply (2,5A max): in that case connect to K and KN
   - Or using a relay contact (8A max): in that case connect to M1 and M2.

This double relay output can also be set up to control a dosing pump for flocculant or another auxiliary equipment (Aux B) (refer to outputs assignment).

6. Kompact + M9 is equipped with the M1 -M2 output to connect the lighting transformer
7. The 220V K-KN output of the Kompact M9 can be used to supply and control a dosing pump to inject flocculent or other maintenance products into the pool or backwash valve and compressor.

8. Kompact + M9 is equipped with the Relay outputs LF-LC, MF-MC and T1-T2 which are auxiliary relays outputs "dry contact" type (maximum load LF-LC, MF-MC =10A max and T1-T2 = 5A max).

The Kompact is equipped with following inputs:

1. The A and B input is used to indicate if pool cover status: open or closed.
2. The C and D input is used to detect the empty disinfectant tank (liquid Chlorine or active Oxygen)
3. The E and F input is used to detect the empty pH tank.
4. The Y and Z input is only available in the Kompact+ M9 control box unit and is used to detect the empty tank of flocculant.
5. The Inputs I and J (and G and H in the case of the Kompact M9) is supplied with 220V signal. It allows the lighting or filtration to be controlled externally to Klereo (see § input configuration).

Table 1. Klereo Kompact Inputs / outputs of Kompact M5 (default set-up)

Inputs/outputs	Functions	Connectors	Types	Max amperage
Couv.	Pool cover input	A B	Dry contact	NA (Input)
Bidon Trait	Disinfectant tank input	C D	Dry contact	NA (Input)
Bidon pH	pH tank input	E F	Dry contact	NA (Input)
Entrée 220V	220 V input	I J	Line/ neutral	NA (Input)
Filtra	Filtering output	V1 V2	Dry contact	10A
Chauff/Aux A	Auxiliary A output	P Q	Dry contact	10A
pH/Desinf./Aux 1	pH output	S SN	Line neutral	2,5A
Desinf. /Aux 2	Disinfectant output	R RN	Line neutral	2,5A
Flocu/Aux B/ Eclair	Flocculant or other auxiliary output	K KN	Line neutral	2,5A
	Lighting or other Auxiliary output	M1 M2	Dry contact	8A

Table 2. Klereo Kompact Inputs / outputs of Kompact M9 (default set-up)

Inputs/outputs	Functions	Connectors	Types	Max amperage
Couv.	Pool cover input	A B	Dry contact	NA (Input)
Bidon Trait	Disinfectant tank input	C D	Dry contact	NA (Input)
Bidon pH	pH tank input	E F	Dry contact	NA (Input)
Bidon Flocu Flow	Floculent tank input	Y Z	Dry contact	NA (Input)
ENTREES 220v	220 V input	I J	Line neutral	NA (Input)
ENTREES 220v	220 V input	G H	Line neutral	NA (Input)
Filt	Filtering output	V1 V2	Dry contact	10A

Chauf	Heating	P Q	Dry contact	10A	
Eclai	Lighting	M9 M2	Dry contact	10A	
Aux 1	Auxiliary output	LF LC	Dry contact	10A	
Aux 2	Auxiliary output	MF MC	Dry contact	10A	
Aux 3	Auxiliary output	T TN	Dry contact	5A	
pH	pH output	S SN	Line neutral	5A	5 A total max
desinf	Disinfectant output	R RN	Line neutral	5A	
Floc Aux 4	Flocculant or other auxiliary	K KN	Line neutral	5A	

4.5. Connecting Filtering

The filtering output (V1 V2) must be connected to the electrical circuit supplying the filtering pump. This output is a normally open contact. The power supply going through should not exceed 5A. Make sure that the electrical circuit is equipped with necessary protections meeting local standards.

IMPORTANT

Set the filtering switch in Auto mode. Never connect the filter pump directly to Klereo Kompact control box unit V1-V2 inputs.

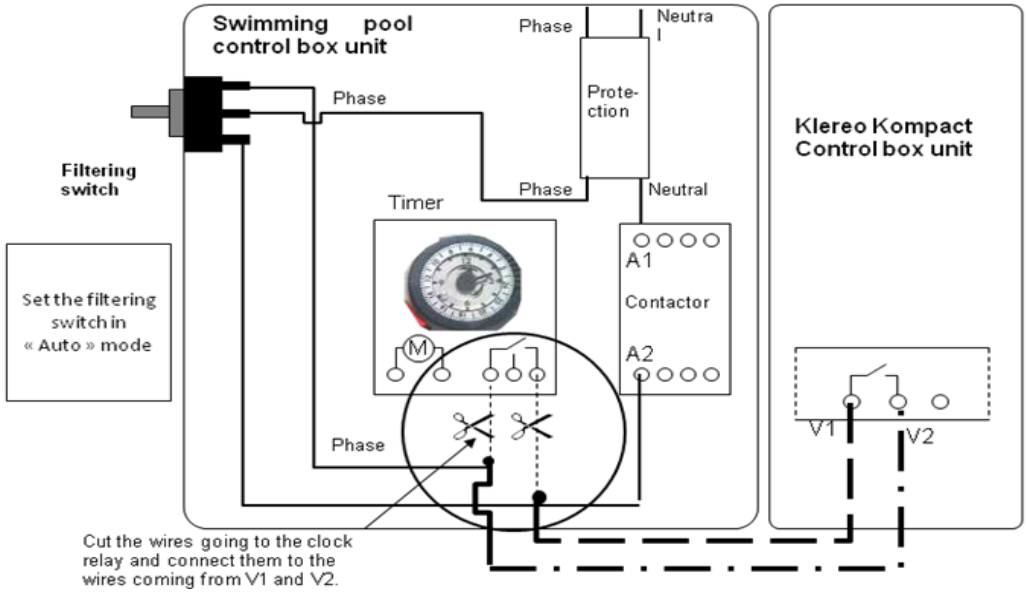


Figure 41. Example of connection to an existing swimming pool control box unit.

4.6. Connecting lighting

The lighting output (M1 M2) must be connected to the electrical circuit supplying the pool lighting transformer. This output is a normally open contact. The power supply going through should not exceed 10 A. Make sure that the electrical circuit is equipped with necessary protections meeting local standards.

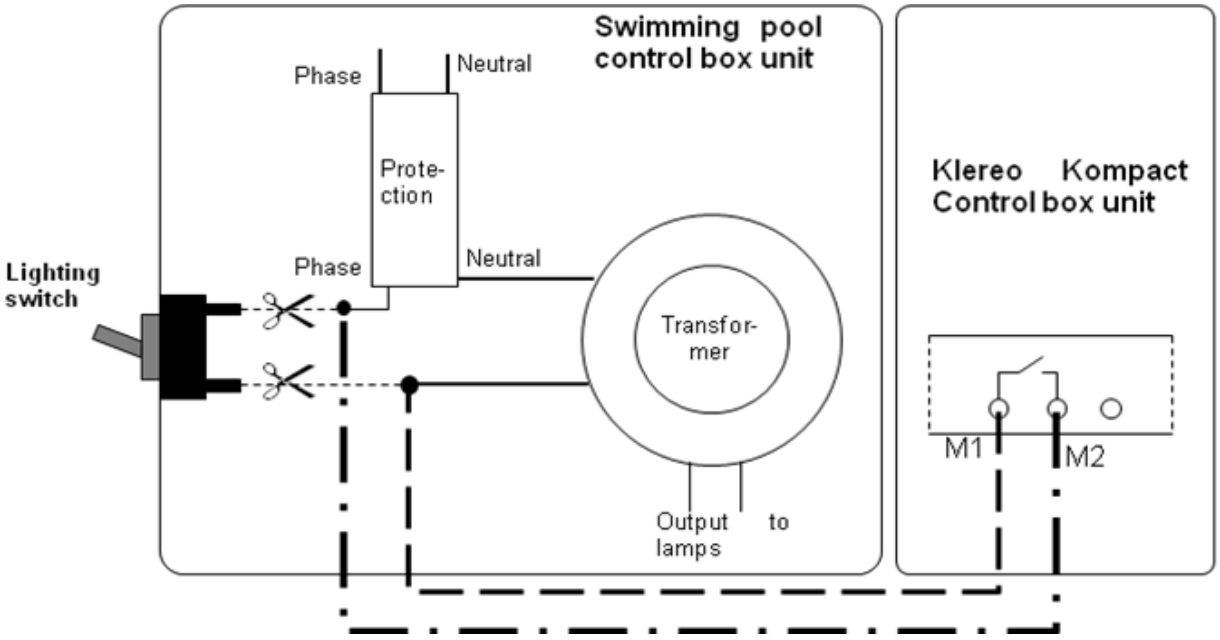


Figure 42. Example of lighting connection to an existing swimming pool control box unit

Additional possible connections for the Aux B double relay output of Kompact M5

The following diagram shows both types of wiring according to the auxiliary equipment amperage.
The dosing pump for the flocculant is optional (Ref. KLPR-PP15). To be connected directly to the output K and KN.

You can use:

- K-KN (220V output) for a dosing pump or an auxiliary or

- M1-M2 (dry contact) alone for lighting or

- both of which will operate at the same time, i.e. the lighting will operate when K-KN is switched on

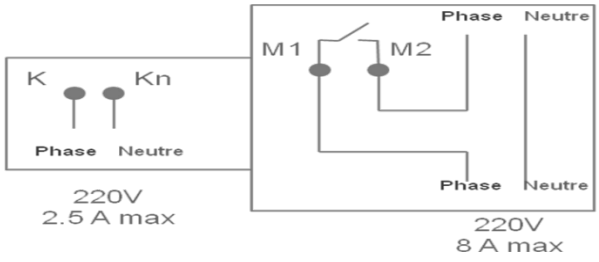


Figure 43. Connecting the double relay output

4.7. Connecting the Kompact M9 control unit to the multi-sensor box

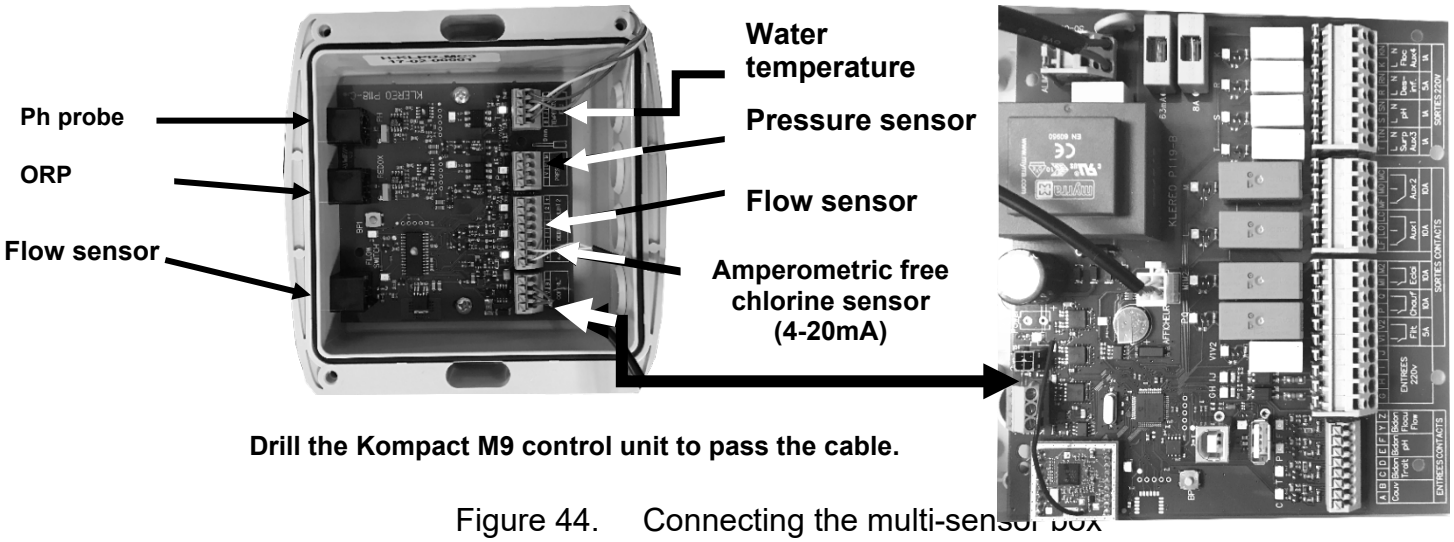


Figure 44. Connecting the multi-sensor box

Connect the wires as follow:

- Connection of the multisensor box to the control unit

	R	V	B
COFFRET			

The connection wire is delivered with the Kit. It has a connector in one side to be connected to the control unit. In the other side, connect the red wire to R, green wire to V and blue wire to B.

- Water temperature sensor :

B	J	V	R
TEMPERATURE EAU			

Connect the bleu wire to B, yellow wire to J, green wire to V and red wire to R

- Pressure sensor

	V	B	M
PRESSION			

Connect the brown wire to M, white wire to B and green wire to V

- Flow meter or flow sensor of analysis chamber

-	1	+
DEBIT 1		

or

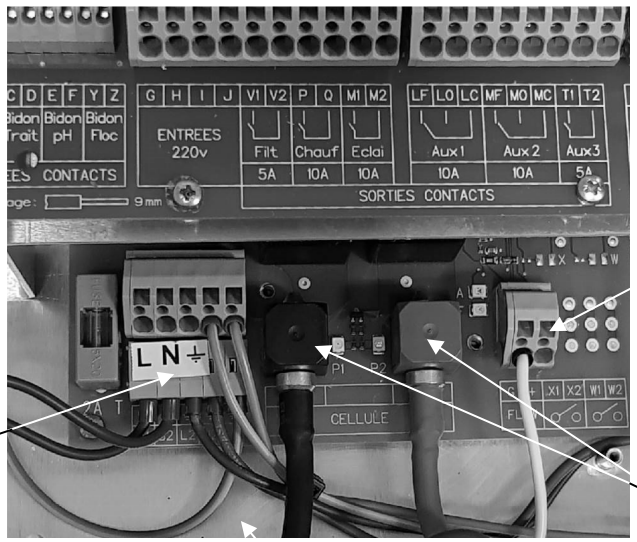
-	1	+
DEBIT 2		

The flow meter and or flow sensor of analysis chamber must be connected between – and 1 or – and 2. The configuration of these inputs should done in the menu Parameter/Configuration

Figure 45. Connecting the water meter to flow input 1(red wire on terminal 1 and black wire on -)

4.8. Connection of the Salt Chlorinator

4.8.1. Connection of hybrid salt chlorinator version 3 with integrated power electronics



Connect the gas detector (white cable) to the G terminal.

L = Line
N = Neutral
⏚ = Earth

Connect the power cable of the cell: red and black cables. There is no order to follow

Figure 46. Connection of the Klereo 3 salt chlorinator

4.8.2. Use of anotherchlorinator

With another Salt Chlorinator, different from Klereo , you can connect its power supply to Klereo Kompact control box unit R-RN terminals. **The electrical consumption must be less than 2,5A.**

4.9. Connecting the transformer and the solenoid valve for Kompact Bromine

Figure 47. Connecting the solenoid valve

The transformer must be fixed on a DIN rail in an IP55 waterproof control box unit. Connect the R-RN terminals to the transformer primary between terminals 2 and 5. Then connect the solenoid valve on the transformer secondary between terminals 8 and 11. The valve characteristics and accessories are supplied in its box.

4.10. Connecting the heating system

When using a heating device, it must be controlled by output P and Q. It is a relay contact (normally open 10A max).

In the case of the Kompact M5, this output is default set up to control auxiliary equipment Aux A. To activate the heating menu, change the output assignment (refer to §: outputs assignment)).

Through the relay contact, you will enable or disable the heating system (heating pump, electrical heater and so on).

For the connection, refer to the heating system electrical and technical diagrams.

4.11. Installing the air temperature sensor (if frost-free function)

Only the 3 LR03 batteries need to be inserted and paired, no connection needed.**it must be placed outside and protected from the sun.**

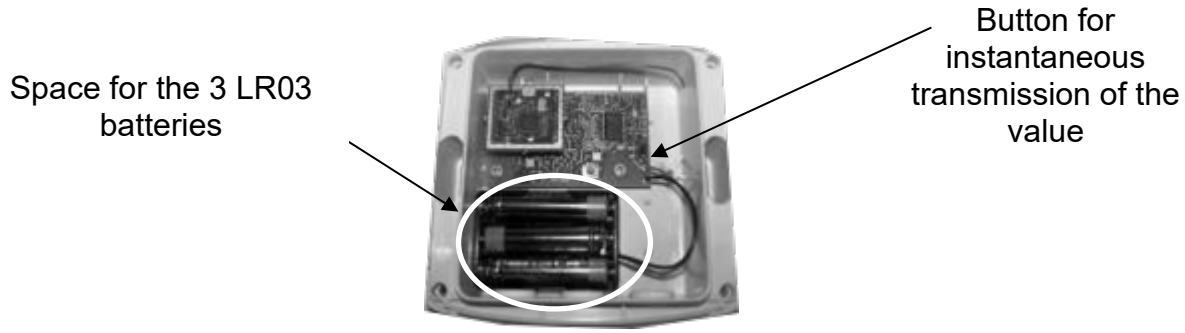


Figure 48. Air temperature sensor

Place the sensor on a support that is protected from the sun
The sensor sends a "low battery" message to the display, from this message you have about 1 month to change them.

4.12. 220V input –IJ input or GH

Klereo Kompact control box unit has a 220V input for an external monitoring of lighting or filtering.

The different programming modes are listed into the menu Parameters/Set-up/Inputs set-up/220V

- Filtering modes (for example with overflow level control box systems) are:
  - Force filtering: this function forces filtering when there is 220V signal at the input
  - Prohibit filtering: this function prevents filtering when there is 220V signal at the input
  - Authorize filtering: this function authorizes filtering when there is 220V input (useful with an automatic backwash system)
  - Slave filtering: filtering is in slave mode. It is ON when there is 220V input and OFF in case of no 220V supply. Mode to select when Klereo does

not manage filtering. Please contact after sales service department for further information on this working mode.

- Lighting modes are:
  - Either « two-way switch » mode when you wish to keep an existing switch (to be connected to I-J input).
  - or « push-button » mode that allows changing the status every time you press the push button.

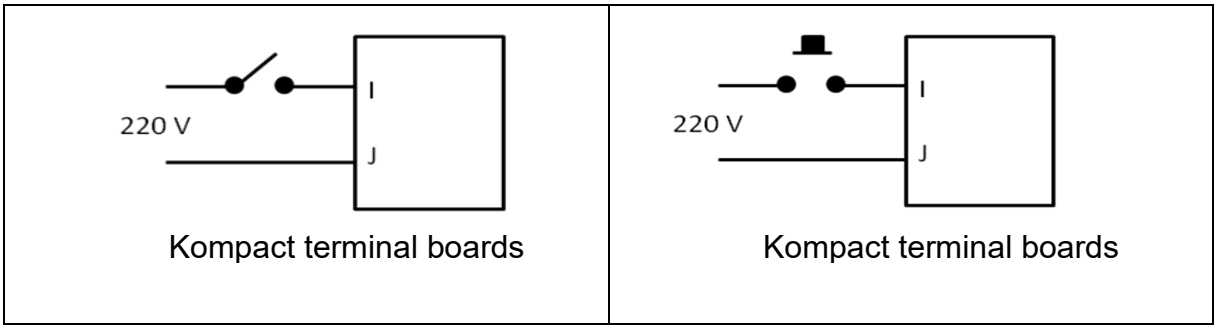


Figure 49. « two-way switch » or « push-button » mode wirings for IJ input

4.13. Contacts inputs

The A and B input is to detect the pool cover status: open or closed. To connect to the automatic pool cover control box unit (refer to the specific technical diagrams in the manual).

The C-D and E-F, Y- Z inputs are used to detect when the disinfectant (liquid Chlorine or active Oxygen) and pH tanks are empty. The drawings up canes with empty level detector are optional (Ref. KLPR-D1)

On the M9, a LED shows the status of the empty tank sensor

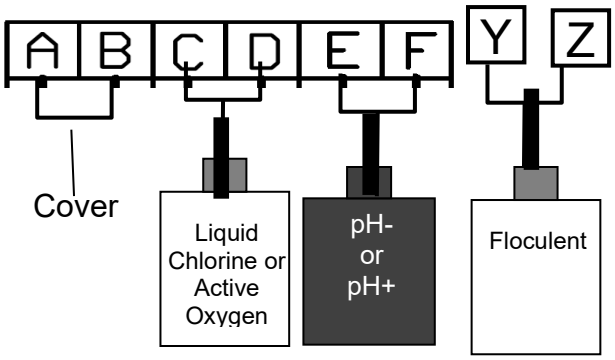


Figure 50. connecting the drawing up canes with empty level detectors

4.14. Connecting the display bracket (if optional)

The display is portable, however the bracket for charging it must be mounted on the wall in a location that is suitable for the user (inside or outside protected from the

weather). Connect the display as shown in the picture below. It is the 8V transformer connected.

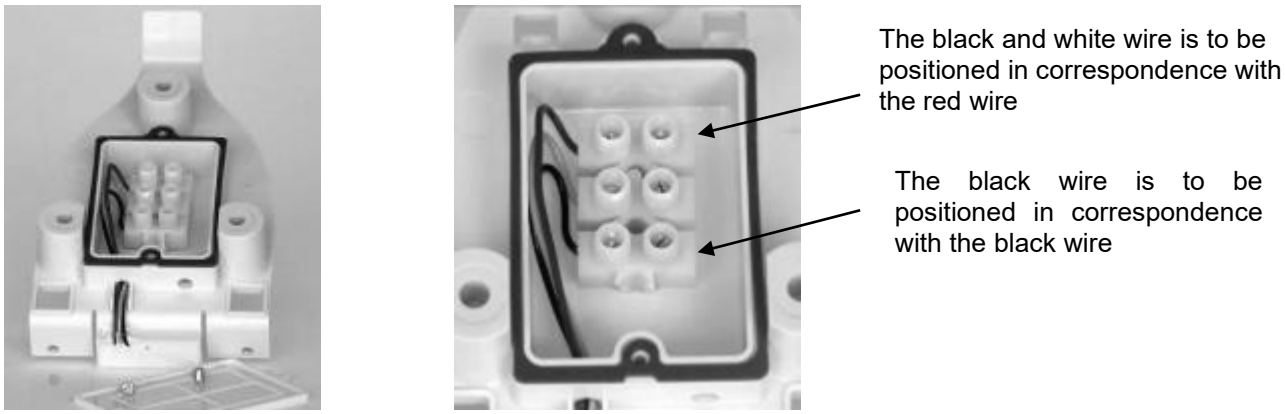


Figure 51. connecting the display holder

5. KLEREO CONNECT

The Klereo Connect option (Ref: KL60-C2) allows remote monitoring of the pool. A simple interface allows you to visualize the parameters and control the pool equipment.

6. START UP

6.1. Klereo display

6.1.1. Kompact M5 Interface

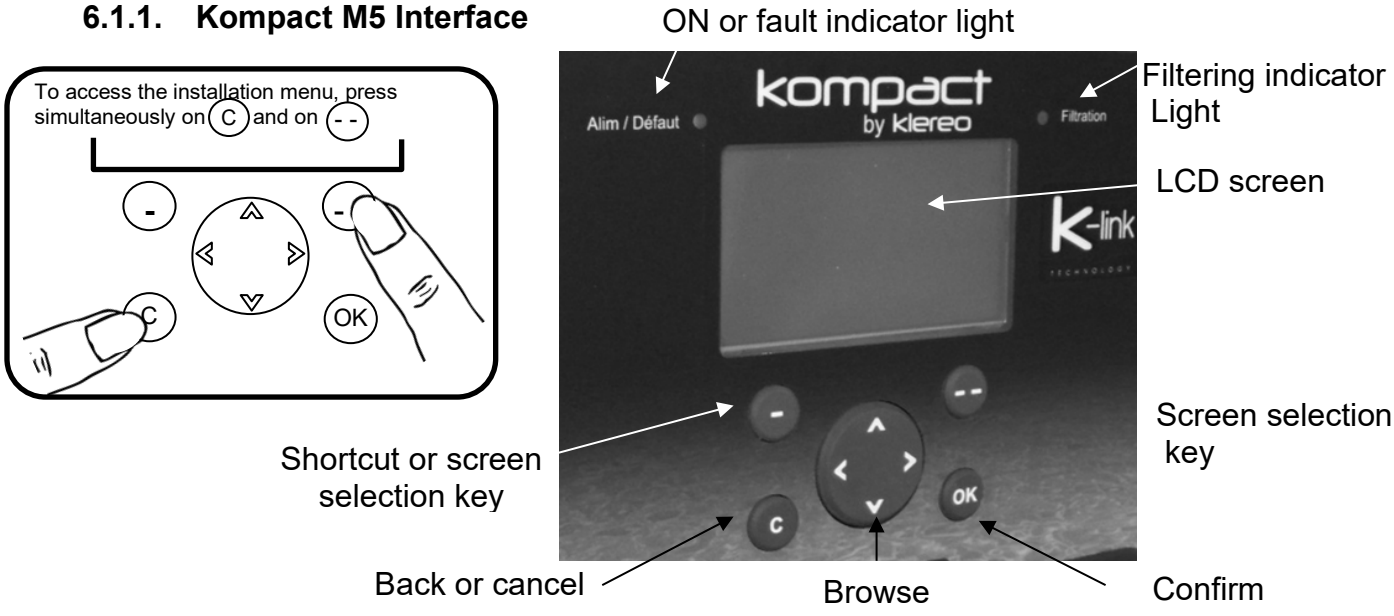


Figure 52. Klereo Kompact display unit

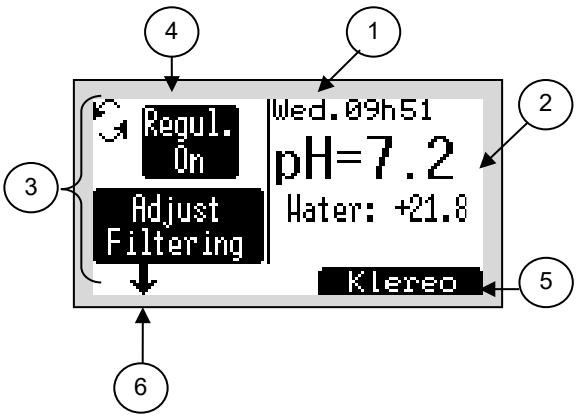
The ON or fault indicator light is:

- Steady green when the Kompact control box unit is power supplied and filtering, pH and disinfectant regulation **is possible.**
- Flashing green when the Kompact control box unit is power supplied and there is a fault. Refer to the menu « message » to know the fault.

The filtering indicator light:

- Steady green when the filtering is permanently on (manual ON)
- Flashing green when the filtering is on for a cycle (regulated / time slots or external command)
- Flashing red when filtering is not possible because of a security or a fault.
- OFF when filtering is stopped.

Once the display unit starts up, it displays the following home screen:

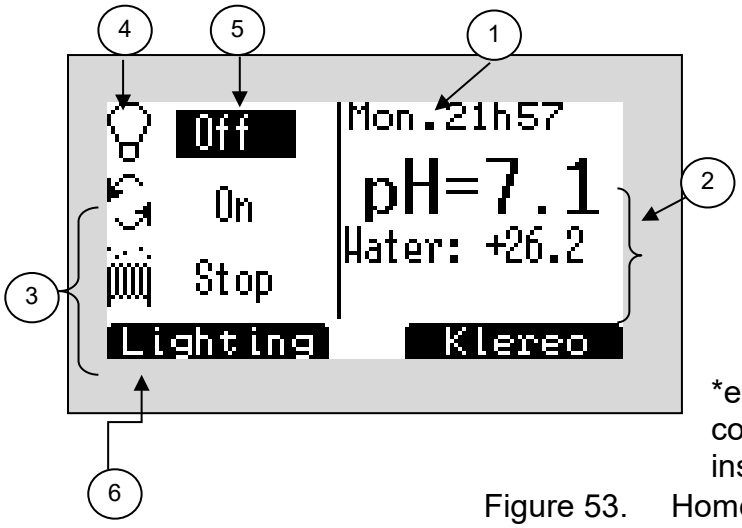


1. Date and time. Alternately with “messages” if any.
2. pH and water temperature values
3. filtration area
4. Programmed mode and filtration status
5. Access to the Klereo menu
6. Switching filtration ON or OFF manually (maintenance mode)

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

Klereo	Parameters	Interface	Home screen	Simple control

The other display mode of the home screen is as follows:



1. Date and time. Alternately with “messages” if any.
2. pH and water temperature values
3. Display area for status functions*.
4. Function symbols*
5. Programmed modes and status of functions*
6. Shortcut to selected function*

*equipment connected to Klereo Kompact control box (lighting, Filtering, heating if installed auxiliary)

Figure 53. Home screen

The values of the pH, air and water temperature sensors flash when filtering is stopped. Their display is steady when filtering is running for at least 10 min. Wait for 30 to 90 min with ORP.

6.1.2. Kompact M9 Interface

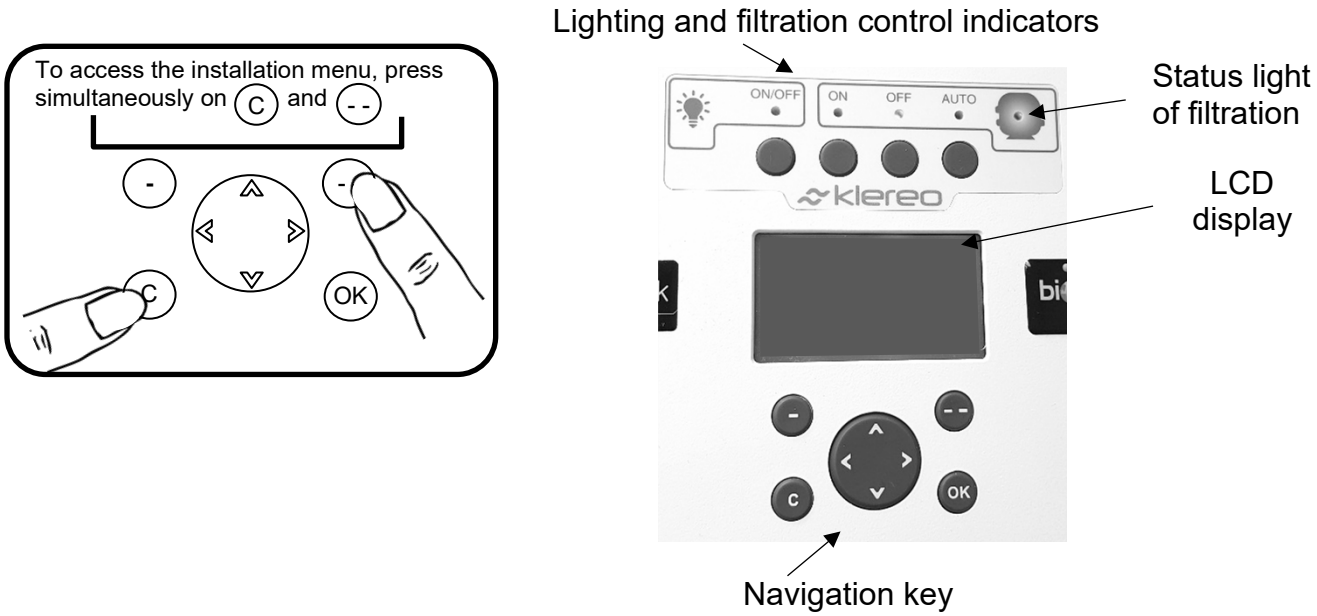


Figure 54. Kompact M9 home screen

The filtration indicator light is :

- Steady green when the filtering is permanently ON (manual ON)
- Flashing green when the filtering is on for a cycle (regulated / time slots or external command)
- Flashing red when filtering is not possible because of a security or a fault.
- OFF when filtering is stopped.

If you press the AUTO button, it will operate according to the programmed mode in the filtration menu. The AUTO button indicator light is :

- Flashing green when the filtering is ON for a cycle (regulated / time slots or external command).
- OFF when filtering is stopped.

If you press the ON or OFF button of the filtration, a red light is ON, the filtration enters the maintenance mode (forced ON or OFF).

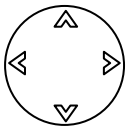
Warning:
In this case, the safety related to the flow detection is deactivated. To re-establish this safety, press the AUTO filter button.

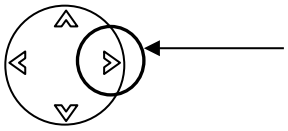
If you press the OFF button of the filtration a red light is ON, it means that the filtration is in forced OFF.

If you press the light button, the pool light is in timer mode and will automatically turn off after the programmed period. This period is set by default to 4 hours; you can change it by accessing the lighting menu. The indicator LED on the button is:

- flashing green when the lighting is on for a cycle (time slots or timer)
- Steady green when the lighting is on continuously (manual ON)
- Switched OFF when the lighting is OFF

Browse:

Key	Définition
- - -	Screen selection key: the functions for these keys are listed in the display at the bottom of the LCD screen. 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

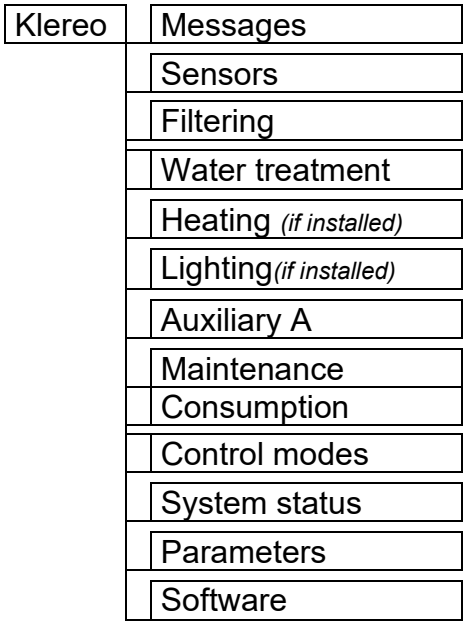
Browse key  Direct access to « system status » statement

When the right arrow is pressed, a summary of the system status is displayed on the Klereo screen. This provides a summary of the filtration, heating and treatment settings (pH and disinfectant).

6.2. 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
- **Filtering, Water treatment, Lighting, Heating, and Auxiliary**: to parameter the different pool equipments.
- **Maintenance**: to indicate the different elements consumptions (water treatment products and pool equipments) and to check and calibrate the probes.
- **Consumption:** Measures the consumption of the basin
- **Control Modes**: to select between “comfort” and “eco” 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.



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.

6.3. Interface:

The "Interface" menu allows you to set the date and time, choose the language and adjust contrast of the screen. This information should be changed at times when the time changes (summer-winter).

Klereo	Parameters	Interface	Date	
			Time	
			Language	
			Privilege	
			Contrast	
			Screen	Activate simple control

6.4. Entering pool and filtering characteristics:

Klereo	Filtering	Filtering mode
		Pool volume
		Filter pump flow rate
		antifreeze target value (if optional)
		antifreeze cycles (if optional)
		Night monitoring (if heater installed)
		Daily max. (if regulated mode)
		Prohibit filtering (if regulated mode)
		*Resume frost (optional)**
		Mi-day filtering*

**Menus accessible from the service interface*

For the best Klereo regulation performance, it is very important to enter the right characteristics: **pool water volume** and **the filter pump flow rate.**

6.4.1. Filtration modes

Figure 55. The different filtration modes

The filtration mode can be:

- set in regulated mode, i.e. the filtration time is automatically calculated by Klereo according to the temperature, pool volume and pump flow rate.

  In addition, an "advanced" sub-menu allows you to configure two functions (see next paragraph: §filtration settings)

  - ***Daily max***: you set maximum daily filtering time that you wish
  - ***Prohibit filtering***: you can define one or more time slots during which you do not wish filtering to be on.

  When regulated mode is selected, these two functions are also available from the filtering menu.
- programmed according to time slots configurable according to your wishes (important , you need at least one slot of at least 2 consecutive hours of filtration)
- Set in manual mode (on/off)
- **Backwash**

For more information on these different filtering modes: refer to the user manual, §Filtering programming.

6.4.2. Filtering Parameters

Daily max (if regulated mode selected): 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.

Prohibit time filtering (if regulated mode selected) : 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.

Figure 56. Advanced filtering set-up in regulated mode: daily max and prevent filtering

Filtering tracking (whatever the selected mode): this function will start filtering in order to control water temperature and to start heating and/or water treatment if necessary (for instance during the night).
You need to set the frequency for filtering to resume (from 1 to 12 hours –default value is every 4hours) .
Filtering will start for 10 to 15 min. If water temperature or water parameters are below the target values, filtering will carry ON so that heating and water treatment will start again as well.
Make sure that heating and water treatment priority have been selected (refer to §priorities and securities set-up)

IMPORTANT

When filtering tracking is selected, this function has the priority over all the other filtering modes (regulated, time slots, manual) including manual OFF.

6.4.3. Antifreeze function management

The menus **« antifreeze target value », « antifreeze cycles » and « Resume frost »** will be only displayed if the Antifreeze function has been activated (available with the frost function option). These 3 menus will allow setting up and use of the antifreeze function.

6.4.4. Mid-day filtering

For optimized water treatment efficiency, when regulated filtering mode has been selected, filtering cycle is centered around a **mid-day** value (default value is 1 p.m.). This parameter can be adjusted according to when the pool is used.

Browse

Key	Definition
- -	Typical value: matches the default value set in the factory
▲ ◀ ▶ ▼	Change of values
OK	For accessing a sub-menu or confirming an action
C	Cancel or return to previous menu

6.5. Regulations test

Now that all the Klereo Kompact components are installed, the various regulations must be checked.

Test heating (if installed), the pH dosing pump and the disinfectant (dosing pump, solenoid valve or Salt Chlorinator). Starting-up the metering pumps enable to activate them. Let them run by selecting ON until the treatment products reach their injection point. Go to:

Klereo | Parameterrs | Tests/Installation | Regul. Test

When using a Salt Chlorinator, go the following menu for testing:

Klereo | Parameters | Tests/Installation | Salt Chlor. Test

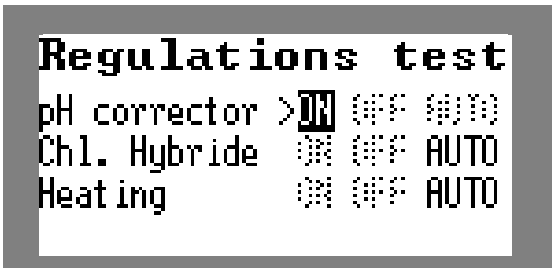
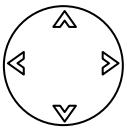


Figure 57. Regulations test screen

When coming out of the regulations test screen, the regulations return to the « auto » regulated mode.

Browse

Key	Definition
	Used to select the fields to be enabled (ON, OFF or Auto).
OK	To validate the field enabled (the selected function is highlighted)
C	Back or Cancel key: for cancelling an action or returning to the previous menu

WARNING : When activating the dosing pumps, check that the liquid is circulating in the right direction and up to the pool's filtration circuit.

6.6. Water treatment

6.6.1. Balanced PH

Klereo		Water treatment		Balanced Ph.

This menu indicates the balanced pH by measuring and entering the TAC (alkalinity) and TH (hardness) values. The balanced pH is the « reference » pH respecting the water balance, ensuring it does not become aggressive or cause limestone build-up. Whenever possible we advise to fix a target pH value close to the balanced pH value, taking also into consideration the type of disinfectant selected to as to set a target value to guarantee the best treatment efficiency.

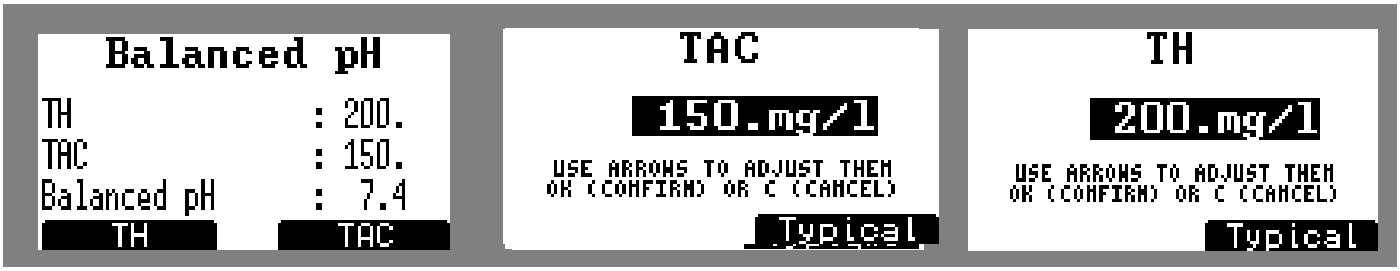


Figure 58. Balanced PH calculation

Press the buttons below the screen, respectively (-) and (--) to enter the TH and TAS values measured on the pool.

6.6.2. PH correcting agent set-up

6.6.2.1. Configuration of the ph corrector

The "Choice of treatment" "pH corrector" menu allows you to configure whether it is a pH- or pH+ corrector. By default, at the factory, the pH corrector is the pH-minus :

Klereo	Water treatment	Advanced param.	pH correcting agent	PH-Minus
				PH-Plus
				None

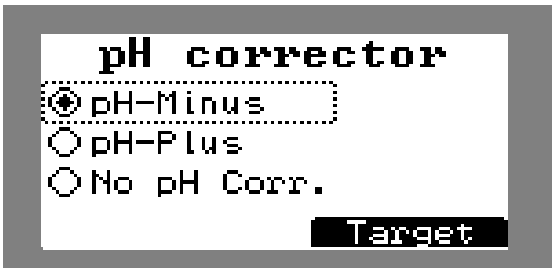


Figure 59. PH correcting agent selection screen

6.6.2.2. Operating mode of the ph injection

This menu is used to configure the operating mode of the pH control:

Klereo	Water treatment	pH corrector	Regulated
			Stop
			Fixed volume

Depending on the pH corrector chosen (pH minus or pH plus), the operating modes offered are identical.

a) Regulated mode

This mode allows the Klereo system to inject the pH corrector according to the measured pH value and the programmed pH set point.

If the measured pH value is higher than the set pH setpoint, in the case of a correction with pH minus, Klereo will control the pH corrector injection in order to reach the set point. In the case of a treatment with pH plus, if the measured pH value is lower than the pH set point, klereo will command the addition of pH corrector.

The usual target pH is between 7.2 and 7.4. It must not be too far from the balanced pH value. It may be necessary to correct the TAC (easier to modify) or the TH in the pool to get closer to the balanced pH.

To adjust the pH parameters, go to the menu:

Klereo	Water treatment	pH corrector

Select the regulation mode, default mode is regulated (recommended). Press the screen selection key below « Modify » in order to access the settings of the target value as well as Min and Max limits.

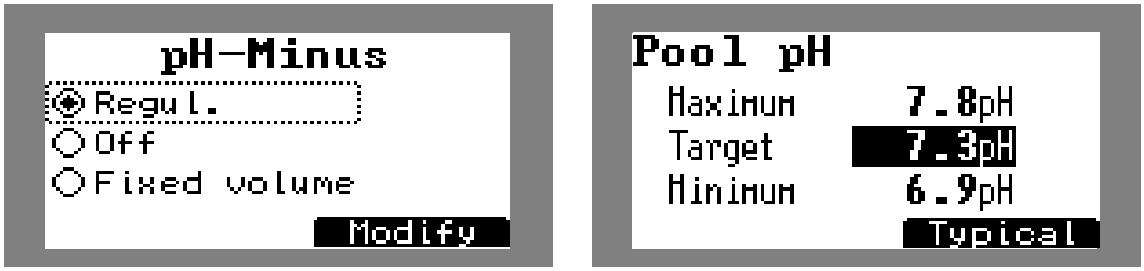


Figure 60. Adjusting of the set point and Ph target alert

b) OFF mode

This mode can be used temporarily in case of wintering or when adding products to the pool in order to adjust certain chemical parameters of the water such as TAS, TH, and so on (consult your Klereo installer).

c) Fixed volume mode

This treatment method can be used when the pH probe fails and thus maintain proper disinfection of the pond, pending its replacement. To know the volumes to be injected, contact your pool specialist who will advise you according to the volume of the pool and the water temperature.

The fixed volume mode can also be programmed in daily, weekly, monthly or single injection mode, in order to correspond to all types of requests.

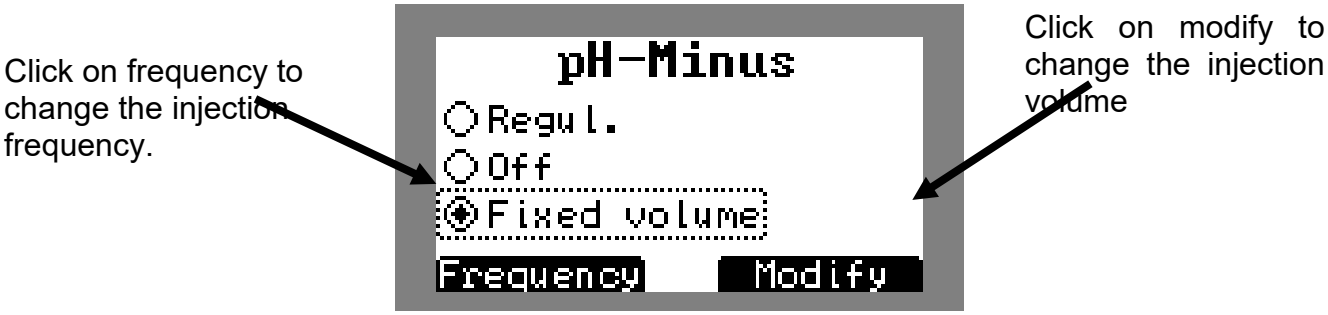


Figure 61. Adjusting the injection volume and frequency

6.6.3. Disinfectant

6.6.3.1. Disinfectant set-up

Klereo		Water treatment		Advanced param.		Disinfectant type		Liquid Chlorine
								Klereo2 or 3 Salt Chl.
								Other Salt Chl.
								Active Oxygen
								Bromine
								None

You can access this menu to select the disinfectant that will be used to treat the pool: chlorine, bromine...

For a non-Klereo salt chlorinator, select "other Salt Chlor".

If you have bought a Kompact Hybrid Salt Chlorinator, select as disinfectant « Klereo Salt Chlor 2or 3 ». **Select then the Klereo Salt Chlorinator model (S15,S20,S25 ;…) by pressing the screen selection key below «Model».**

6.6.3.2. Operating mode

This menu allows you to configure the operating mode of the disinfection. Depending on the disinfectant chosen, the operating modes will not be the same.

There are 4 disinfectants: chlorine, bromine, active oxygen and salt chlorinator.

In the case of a liquid chlorine treatment, you will have the following options:

Klereo	Water traitement	Disinfectant	ORP regulated
			stop
			Boost treatment
			Fixed volume

In the case of a bromine tablets treatment, you will have the following options:

Klereo	Water traitement	Disinfectant	Regulated
			Filt Sync.
			stop
			Boost treatment
			Fixed time

In the case of active oxygen treatment, you will have the following options:

Klereo	Water traitement	Disinfectant	Regulated
			stop
			Boost treatment
			Fixed volume

In the case of a treatment with a klereo salt chlorinator, you will have the following options:

Klereo	Water traitement	Disinfectant	Regulated ORP.salt
			Filt Sync.
			Stop
			Boost treatment

In the case of treatment with a salt chlorinator other than Klereo (not compatible with K-link protocol), the possibilities are limited to:

Klereo	Water traitement	Disinfectant	RegulatedORP.salt
			Filt Sync.
			stop
			Boost treatment

6.6.3.3. Regulated mode

a) Case of liquid chlorine or bromine in tablets

We advise to measure the pool disinfectant ratio (Chlorine or Bromine) and to modify the ORP target control value if you wish to increase or decrease the disinfectant concentration.

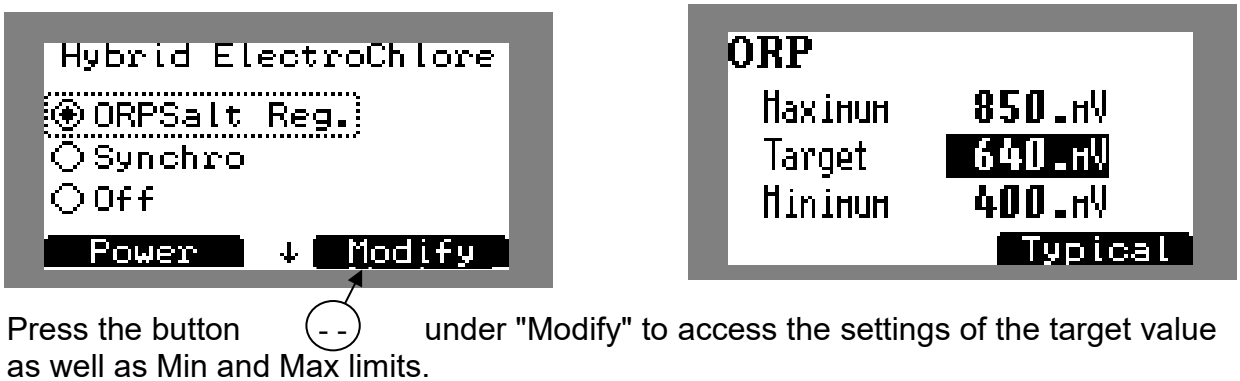
With this treatment mode, klereo will inject the disinfectant according to the values measured by the ORP probe and the programmed ORP target value while taking into consideration the pool characteristics. If the value measured by the ORP probe is below the target value, Klereo will inject disinfectant and will stop injection when the target value is reached.

To adjust the ORP parameters, go to the menu:

Klereo	Water traitement	Disinfectant

Select the regulated mode and adjust the target

.



Press the button (--) under "Modify" to access the settings of the target value as well as Min and Max limits.

Figure 62. ORP settings screen

b) Regulated ORP mode: case of the klereo Salt Chlorinator with the ORP control kit

This regulation can only be used if the salt regulation kit is associated with the chlorinator. The ORP probe provided in this kit has specific features that make it compatible in salty water. Do not configure this mode with another probe.
It is advisable to measure the disinfectant level (Chlorine) and adjust the ORP settings target if you want to increase or decrease the disinfectant concentration depending on the disinfectant level you have measured in the pool.
This treatment mode allows the klereo system to operate the salt chlorinator according to the values measured by the ORP probe and the programmed ORP target, while taking into account the characteristics of the pool. If the value measured by theORP probe is lower than the target , disinfectant will be produced via the chlorinator and this will stop when the value is reached.
In the case of the salt chlorinator, in ORP -salt regulated mode, you can also change the production power of your chlorinator.

Figure 63. Adjusting the operating power of the Salt Chlorinator

By pressing the key (-) you enter the "power" menu and select the desired production percentage.

c) In case of active oxygen

It is advisable to measure the disinfectant level and adjust the "regulated" mode if you want to increase or decrease the disinfectant concentration according to what you have measured in the pool.
Disinfection is regulated taking into consideration pool volume and water temperature. This regulation mode is adapted to the majority of pools, but in some cases it is necessary to modify the treatment level by reducing or increasing it.
To change it, you must then configure it by selecting "modify" and pressing the "OK" button. The temperature-controlled mode is configured by default to "typical" mode.
By using the arrows, it is then possible to decrease the injections by -20, -40, -60% or to increase them by +20, +40, +60%. This operation can be very useful when there are many people in the pool.

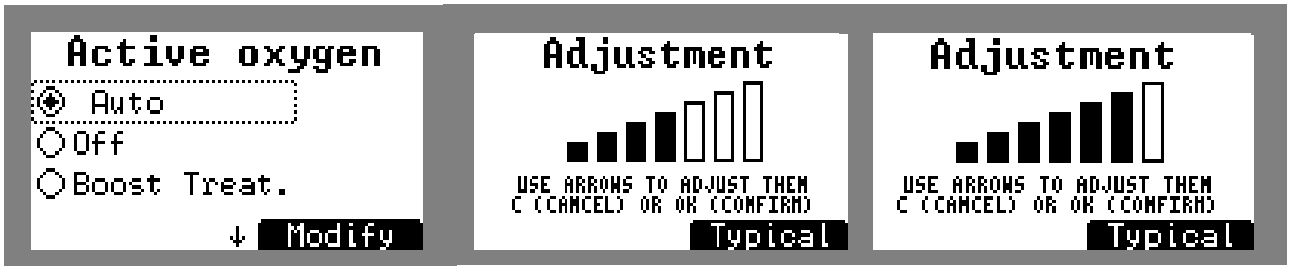
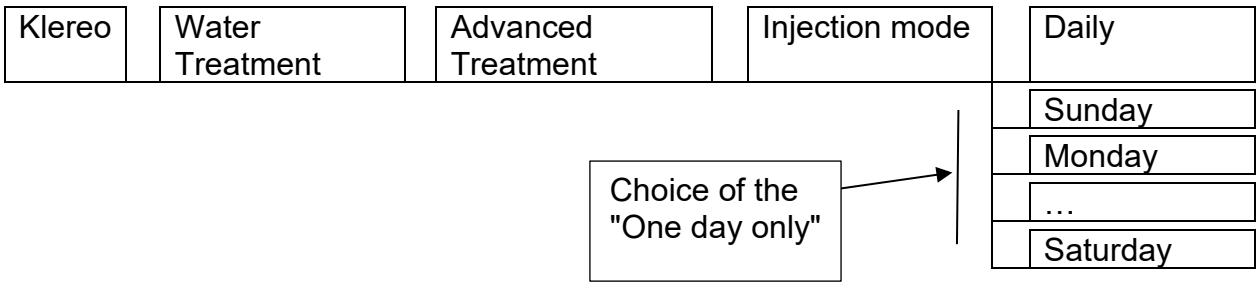


Figure 64. Modifying the regulated mode

When the regulated active oxygen mode is selected, it is possible to choose the day of injection of the disinfectant. To do this, use the menu:



The "daily" mode injects the quantity calculated according to temperature and water volume every day
The "single day" mode injects the quantity calculated according to the temperature and volume of water over a day! ➔ The volume is multiplied!
Then select the injection time in the filtration cycle

Klereo	Water traitement	Advanced Processing	Injection mode	Start filtering
				Distributed filtering
				End Filtering

The "Distributed filtering " mode is the default mode. In this case the amount of active oxygen is distributed over 1/3 of the filtering time. This mode allows a gentle treatment but can create an addictive effect of water and the appearance of microalgae. If this is the case, use the "start" or "end" mode.
The "Start filtering " mode injects the entire product at the beginning of the filtration cycle, producing a boost treatment effect.
The "End filtering" mode injects the entire product at the end of the filtration cycle, producing a boost treatment effect.

WARNING

If you select a **single injection per week** and **not distributed**, then the boost effect is very important and the disinfection very effective.

It is not recommended to swim during this injection period.

6.6.3.4. Fixed time mode: case of tablets bromine

This mode allows you to set the time during which the processing will take place. This corresponds to the time during which the solenoid valve will remain open in order to allow water to pass through the brominator or chlorinator so that it can be charged with disinfectant. To know this information, contact your pool specialist who will advise you according to the volume of the pool, the type of disinfectant and the water temperature. The fixed time mode can also be programmed in a daily, weekly, monthly or single injection mode, in order to correspond to all types of requests.

6.6.3.5. Synchronization filtering: case of bromine tablets and salt chlorinator

This operating mode allows disinfection to be synchronized with the duration of the Filtration.

6.6.3.6. Boost mode

This mode allows a boost treatment to be carried out, this action is to be carried out when the pool is restarted when the disinfectant level is very low and/or if necessary (if the water is green).

The boost treatment lasts 24 hours, the procedure is different depending on the type of disinfectant.

- **In case of liquid chlorine or bromine tablets or salt chlorinator (with regular**

ORP-salt regulation kit)

The boost treatment for this type of disinfectant consists in increasing the ORP target by 100mV and maintaining this value for 24 hours. This is automatically done when launching the boost treatment.
Once the boost treatment is completed, treatment regulation comes back to its predefined operational mode.

- **In case of active oxygen and Klereo salt chlorinator (without ORP regulator kit - salt)**

The boost treatment consists in increasing the initial treatment, so for active oxygen, the volume of product injected will be 4.5 times higher than the regulated mode and for the salt chlorinator the operating time will be multiplied by 4.5 in order to last longer.

- **In case of another salt chlorinator**

Boost treatment with another Salt Chlorinator will force filtering for 24h so that disinfection lasts the same duration.

6.6.3.7. Salt chlorinator parameters (if installed)

Klereo | Water treatment | Salt Chlorinator parameters

This menu is only shown when a Klereo slat Chlorinator has been installed, allowing access to features specific to the use of this Salt Chlorinator.

a) Hybrid set up

Klereo offers a Hybrid salt chlorinator (patented system) that combines salt chlorination and the injection of liquid chlorine, which occurs automatically when the water temperature is below a certain threshold, in case the cell does not produce enough salt or in case of need for boost chlorination.
When Hybrid mode is activated, you can adjust the following three parameters by pressing the setting button (-):

- Temperature below which the treatment switches to liquid chlorine
- The maximum daily volume of liquid chlorine to be injected: the disinfectant treatment will start as liquid chlorine at the beginning of the day and will switch to salt chlorinator once the programmed volume is reached.
- Maximum volume in boost chlorine mode: this is the maximum volume that will be injected when the boost treatment control is activated (see disinfectant operating mode menu).

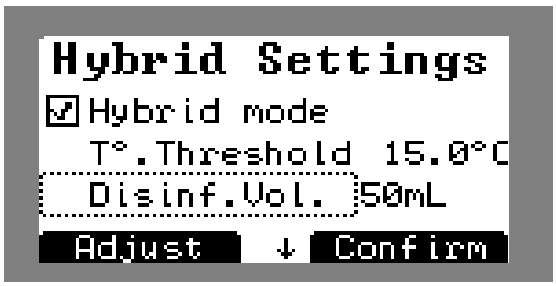


Figure 65. Hybrid Settings

b) Adjourning Salt Chlorinator – Restart Salt Chlorinator* (in case of klereo salt chlorinator)

- Adjourn Salt Chlorinator: this menu will stop the water treatment until midnight.
- Restart Salt Chlorinator: this menu will start again all treatment cycles of the day.

** Sub-menus accessible in after-sales service mode*

c) Water temperature security

This menu allows setting the minimum water temperature below which the Salt Chlorinator will be stopped. Default value is 15°C, so that when the water temperature goes below 15°C, the Salt Chlorinator does not produce anymore. This temperature is the same as the one set in the hybrid setup menu.
This value can be modified to 10°C minimum, but to be done in specific cases and with a pool specialist advise in order to protect the Salt Chlorinator equipment.

d) ORP security

There is an adjustable ORP security when using a Salt Chlorinator treatment (whatever the model, Klereo or another brand) in order to stop Chlorine production when reaching a maximum value.
Default value is 800mV.
Please note that this safety device only works with the redox sensor provided for this purpose: KL20-SEL.It can be modified by going to menu:

Klereo	Water treatment	Advanced parameters	ORP Salt chl. sec

e) Salt Chlorinator cleaning

With this menu, you can set up the reverse of polarity timing (allowing self-cleaning of the cells).
Default value is every 4 hours. It is possible to adjust the value between 1 hour and 4 hours with 10 min slots.

f) Salt Chlorinator boost treatment* ratio (if klereo salt chlorinator)

With this menu, you can adjust the Salt Chlorinator production ratio during a boost treatment .
Default ratio value is “x 4.5”, meaning that the Salt Chlorinator will produce 4.5 times more chlorine during a boost treatment compared to standard production.
This parameter is adjustable between « x 1.5 » and « x 10 » but we recommend that you ask your pool specialist advise before conducting any modification.
*Menu accessible from the service menu

6.6.4. Reset daily treatment

This menu enables to reset the treatment made during the day when it has reached its quantity daily limit. You can then start again disinfection if necessary, without launching a boost treatment.
To reset daily treatment, go to menu:

Klereo	Water treatment	Advanced parameters	Reset daily treatment

6.6.5. Reset of consumption

This menu allows you to reset the different consumptions to zero.

Klereo	Consumption	Reset consumption

IMPORTANT

The consumption of the pH and Chlorine or Active Oxygen products is given as an indication and corresponds to the operating time of the dosing pump outputs of the plant. Make sure that the pumps remain connected and that the pH and Chlorine containers are not completely empty.

Similarly, the operating time of the filtration, heating, lighting and auxiliary outputs corresponds to the operating time of the plant outputs.

6.7. Sensors values

6.7.1. Reading values

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

Klereo	Sensors

Values are transmitted by the Kompact control box unit at regular intervals.

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).

6.7.2. Water temperature calibration

Sometimes, the water temperature given by the Klereo sensor may differ from the one given by a thermometer inside the pool or another pool equipment. It is possible to calibrate the Klereo sensor to display the same temperature values. to do this, contact the Klereo after-sales menu

6.8. Programming the antifreeze function (if optional)

Once the air temperature sensor has been installed, away from the sun, it is necessary to set its parameters. To do this, perform the following steps:

6.8.1. Pairing procedure

Klereo	Parameters	Set up	Pairing	Ext. air

Perform the pairing procedure according to the instructions on the display. When the following message appears: "Teach Ext. Air Sensor Ext. Standby Sensor", press the orange button on the air temperature sensor circuit board. When it has identified the sensor, it displays "pairing complete".

Button for instant value transmission and radio pairing

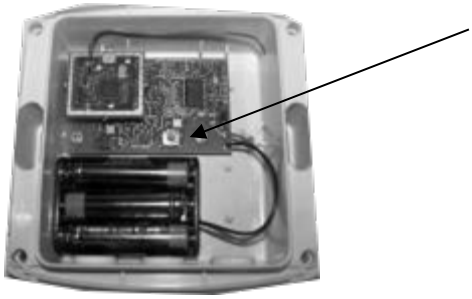


Figure 66. Air temperature sensor

6.8.2. Activating the antifreeze function

Thanks to your air temperature sensor, you can configure the Frost protection function, which is very useful in case of active wintering.

To activate the Frost Protection function, go to the following menu:

Klereo	Parameters	Set up	Equipments

Check the "Frost function" box to activate it.

6.8.3. Setpoint and frost cycle settings

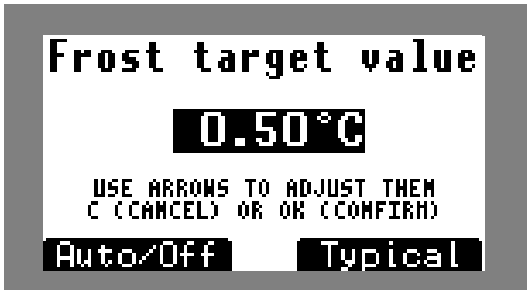


Figure 67. Frost Target value setup

Klereo	Filtration	Frost target value

The frost function consists in turning on the filtration which will operate 24/24 hours per cycle (ON/OFF alternation) whose duration can be defined by going to the following menu:

Klereo	Filtration	Frost cycle

- Step 1: Set the total duration of the frost function cycle: between 30 min and 12h

  This setting defines the duration of an antifreeze cycle, which will consist of a time when the filtration will be running and the other part when it will be stopped. This cycle will be repeated 24 hours a day

- Step 2: set the active duration of the antifreeze function cycle: between 15 min and 12h

This setting defines the length of time the filtration will be active during a antifreeze cycle.

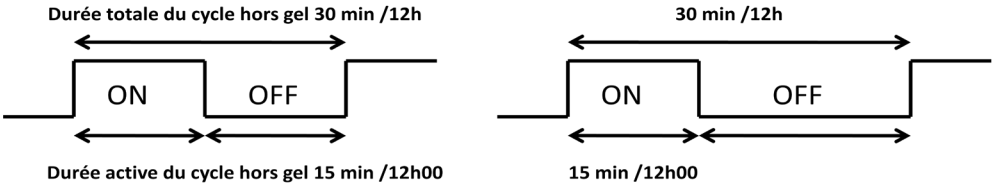


Figure 68. Possibilities of filtration operation in frost function mode

Example :

- Cycle time frost-free: 3 hours
- Active duration of the frost-free cycle: 2 hours

The antifreeze protection cycle is set so that the filtration works for two hours and stops for 1 hour and so on.
The antifreeze function cycle can be set so that the filtration time and the stopping time are the same. The filtration time can also be set to be lower or higher than the stopping time of the filter.
INFO: If the air temperature sensor information is not available, the frost function uses the water temperature sensor.

6.9. Equipment set-up

Go to menu « Equipment» to set up the pool environment:

Klereo		Parameters		Set-up		Equipments		Indoor pool
								Pool cover
								Pool cover polarity
								Frost function *(optional)*
								Klereo filtering

Indoor pool: mark this option if the pool is indoor. When this option is selected, the Salt Chlorinator production of Chlorine is default reduced by 80%. This reduction is adjustable (menu: « water treatment », «advanced parameters », « indoor pool ratio »).

Pool cover: mark this option when there is a pool cover. When this option is selected, the Salt Chlorinator production of Chlorine is reduced by 80%. This option is default selected when delivered. This reduction is adjustable (menu: « water treatment », advanced parameters », “pool cover ratio”).

Pool cover polarity: depending if the pool cover contact is normally open or normally closed. When this option is selected, the contact is normally open (i.e. pool cover closed → contact open)

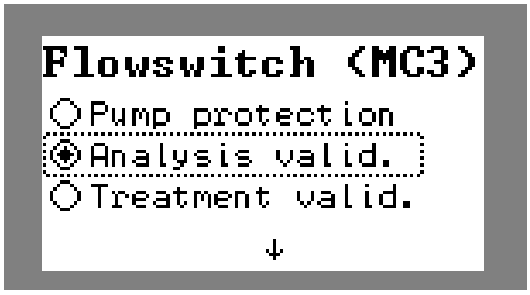
Frost function: by marking this option, you activate it and get access to its set-up (refer to 6.10).

Klereo filtering: this function is selected when delivered. Indeed, it is Klereo default piloting filtering. However an external device can also control filtering: in that case disable the mar

If Klereo filtering is disabled, water treatment will only be ON either when the Klereo control box detects a water flow or when there is 220V detected on input I-J (Klereo control box unit power supply input).

In that case:

- **Connect the filter pump 220V on the input I-J and set-up the 220V input in « filtering slave mode" (go to menu "parameters"/ "set-up" / "Inputs set-up"/ 220V input).**
- **Do not disable the flow switch function. Check that the flow switch is set up to validate the values of the analyzed sensors by marking the option "valid analysis" (go to menu "parameters"/ "set-up" / "Inputs set-up"/ Flow switch)**



We also advise that you program 2 hours filtering cycles minimum.

6.10. Outputs Assignment

Klereo Kompact outputs are default set up when delivered.
The " Output setup " or " Output selection " menu allows you to define the type of equipment connected to the KLEREO KOMPACT system. Each output is identified by letters (P-Q, R-RN, S-SN, K-KN, ...and so son). These outputs are factory-programmed by default and can be changed in the menu:

Klereo		parameters		setup		Outputs assignment

For the Kompact M5, the desired function must be marked (see next section: Heating configuration).
The interface used for the Kompact+ M9 is as follows:

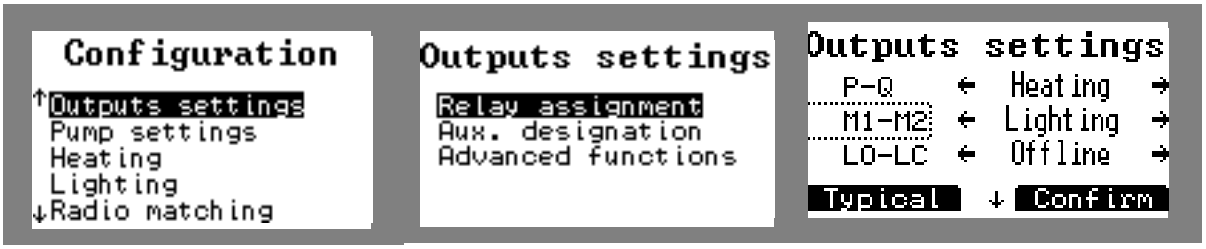
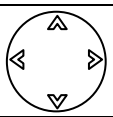


Figure 69. Configuration the outputs for the Kompact M9

Browse:

Key	Definition
(-)	Typical value: corresponds to the factory default value
(--)	Validates the choice of outputs

	Changing the output erasures
OK	Allows access to a submenu that lists the same possibilities for outputs setup
C	Cancel or cancel to the previous menu

If you have the message "Cnx multiple" on one of the outputs, it means that you have assigned the same function on two different outputs.

6.11. Designation of the Auxiliary outputs

You can name the auxiliary output as: blower, SPA, blower, outdoor lighting, fountain, cc swim, water blade, watering...and so on.
This configuration is applied in the menu:

Klereo		Parameters		Setup		Aux. Designation

6.12. Variable Speed Pump (KOMPACT+ M9 ONLY)

When using a variable speed pump, the outputs V1 -V2 filtration and auxiliary aux1 to aux3 can be connected to the pump's external digital inputs to be able to vary the speeds according to Klereo's operating mode.
To make this connection, consult the instructions of your variable speed pump supplier.
In the case of the Kompact M9 you have a menu that allows you to select the type of pump: standard or variable speed pump by specifying the number of speeds to be controlled by Klereo.

Klereo		Parameters		Set up		Pump

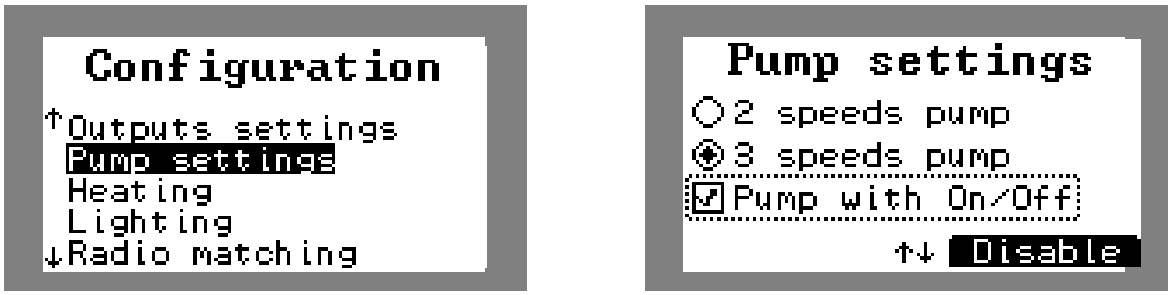


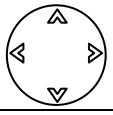
Figure 70. Configuration of the Kompact M9 filtering pump

WARNING

If you use variable speed pump, wiring of the electrical box must be changed (ask klereo the appropriate wiring diagram).

Make sure that the control of the variable speed pump is connected correctly. If the pump is equipped with an ON/OFF or On/Off relay control input, do not forget to check the Pump ON/OFF box in the Pump menu.

Browse

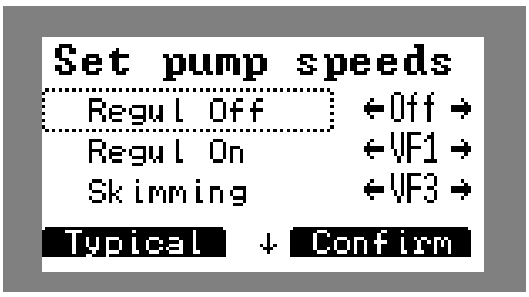
Key	Definition
-	Speed: choose a speed by function
--	Relay: define the pump speed control outputs
	Changing output setup
OK	confirm the choice
C	Cancel or back to the previous menu

After selecting the number of speeds to be controlled and assigning the V1-V2 and auxiliary outputs, you can define pump speeds for each function in the menu :

Klereo		Filtering		Pump speeds setup

Or

Klere		Paremeters		Setup		Pump



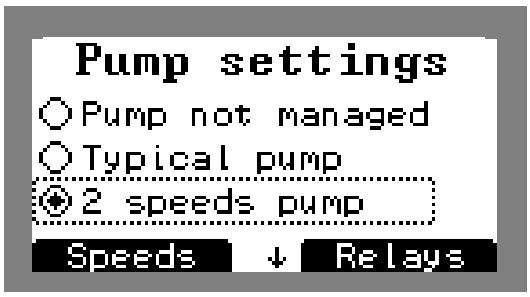


Figure 71. Configuration of the variable speed pump (Kompact M9)

You can program for example:

- Regulated ON: speed triggered when Klereo needs to filter and filtration is programmed in regulated mode (depending on water temperature)
- Regulated OFF: pump speed when filtration is programmed in regulated mode and Klereo does not need to filter and treat water
- Skimming: speed used for pool skimming (the ranges are to be programmed when the regulated mode is selected in the filtration menu.
- Heating: speed used when Klereo triggers the heating

When the variable speed pump is selected, additional menus open in the filtration mode menu. This allows you to change the speed in manual mode, program different speed during the day in time slot mode and program a skimming schedule in the advanced menu of the regulated mode.

6.13. Heating

Important: in the case of a Kompact M5, it is necessary to assign the P-Q output for heating as above mentioned.

To set up P-Q output to heating, go to menu:

Klereo		Parameters		Set-up		Outputs		P-Q assignment

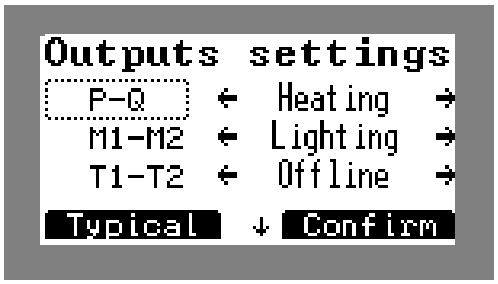


Figure 72. P-Q output set-up in heating mode

6.13.1. Type of heating

Go to menu « Heating type» to set up the type of heating used in the installation. It is default set up « other heating ».

Klereo		Parameter		Set-up		Heating		Select heating

Type of heating: choose between Heating, Heating pump or none.

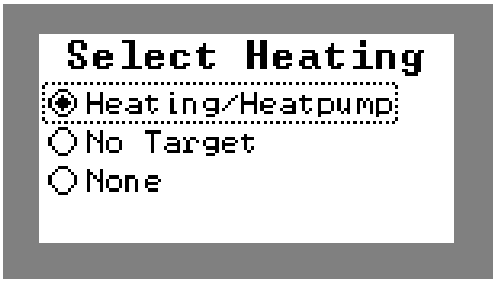


Figure 73. Choosing the type of heating

- Heating/Heating pump: to select when using a heating equipment. The P-Q heating output will be closed or open depending on whether the heating target value is reached or not. This is default selected when delivered.
- None: select this option when there is no heating equipment.

6.13.2. Adjusting target value for heating

If a heating system is present, the setpoint value must be set.
Use the display to go to the menu :

Klereo	Heating		Heating target

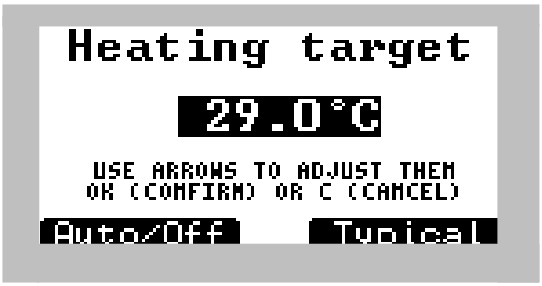


Figure 74. Heating temperature target value setting screen

Set the heating equipment target value to the maximum so that it will always be above Klereo heating target value.

Target value is adjustable from 0° to 45°C.
The heating hysteresis menu allows you to adjust the temperature delta between the pool water temperature and the setpoint set on Klereo from which your heating system will start up again to maintain the pool water temperature as well as possible.

This menu is accessible from:

Klereo		Parameter		Set up		Heating		heating hysteresis

By default, the factory default hysteresis is set at 0.5°C, allowing a good range between water temperature regulation and the durability of the heating system because it prevents it from being restarted unintentionally, but you can select a hysteresis of 0.2°C or even 0.1°C.

6.13.3. Prevent heating

Klereo		Heating		Prevent heating

This menu allows you to define one or more time slots during which you do not want your heating system to operate. This allows, for example, to stop the operation of a heat pump (sometimes noisy) from 2pm to 3pm while taking a nap beside the pool

Figure 75. Prevent heating setting up

6.14. Sensors set up

The "Presence. Sensors" menu allows you to indicate which sensors are present in the installation. If the box is ticked it indicates that the sensor is present and the function associated with it will be allowed.

Klereo		Parameters		Setup		Presence		Water
								ORP
								PH
								Pressure
		select the sensors used						Chlorine
								Flow rate 1
								Flow rate 2
								Ph Tank
								Treatment Tank
								Flocculant Tank
								Outside air

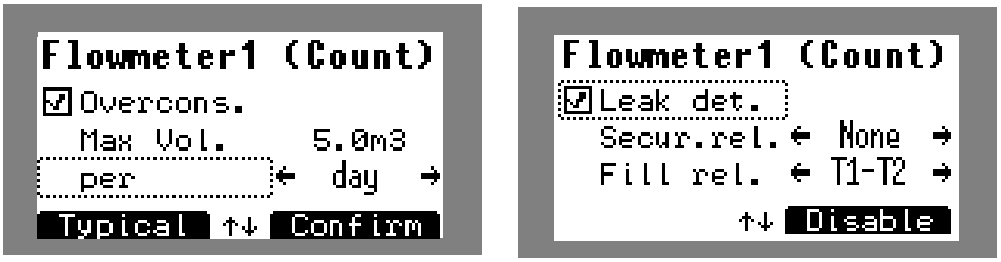
6.15. Water Meter

When installing a water meter, you must activate flow sensor 1 in the menu

Klereo		Parameters		setup		Sensor presence

To be alerted in case of overconsumption, tick the box "overconsumption/Surconsom.". In this case an alert is triggered if a continuous water flow rate between 30 and 50 l/h is detected (default setting). Enter the maximum volume and the desired duration to define the alert threshold.

Klereo		Parameters		setup		Flowmeter



For example, on this display the alert is triggered when the consumption exceeds 6m3/day.

Figure 76. Setup of the overconsumption alert

In case of leak detection, you can program an auxiliary output to shut off the filling solenoid valve in case of leakage.

When the water meter is installed, the water consumption of the pool can be viewed in the menu

Klereo		consumption		Water meter

You can also configure another auxiliary output to activate the solenoid valve to inject a volume of water that you can define in the menu

Klereo		consumption		Complete meter 1

6.16. Priorities and securities set-up

Go to menu « Priorities/Secur » to set up priorities and securities.

Klereo		Parameters		Set-up		Priorities/Secur		Pump protection
								Frost function safety
								pH priority
								Disinfectant priority
								Boost treat. priority
								Heating priority
								Unlimited injections

Pump priority: Disable or enable the filter pump security. When this option is marked, filtering is stopped in case of low water flow rate. Default selection when delivered.

Frost function security: allows you to activate antifreeze protection monitoring in the event of active wintering of the pool.

pH priority: this option gives priority to the pH regulation in “comfort mode”, i.e. filtering will carry on after the regulated time in case the pH target value has not been reached. Default selected when delivered.

Disinf. priority: this option gives priority to the disinfectant regulation in “comfort mode”, i.e. filtering will carry on after the regulated time in case the disinfectant target value has not been reached. Default selected when delivered.

These two treatment priorities are inactive when Klereo is in “Eco mode”.

Boost treat. priority: this option starts immediately the disinfectant boost treatment during 24h and therefore forces filtering. After 24h, both filtering and disinfectant treatment come back to their predefined operational modes. Default selected when delivered.

Heating priority: this option forces filtering at the end of its cycle providing that the water temperature target value has not been reached. Heating carries on until the water temperature reaches its target value then it stops together with filtering. Default selected when delivered.

Unlimited injections: This option cancels the daily security injections (for pH correcting agent and disinfectant) and authorize therefore unlimited injections for both water treatment products. To be used with the pool specialist approval.

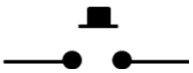
To disable the option, press the screen selection key below « disable » or press the “OK” key. Proceed the same way to enable the option. To get out of the menu, press the “C” key.

6.17. Input and flow switches set-up

Klereo	Parameters	Set-up	Inputs set-up	220V - IJ input
				220V - GH input
				Flowswitch

6.17.1. 220V input set-up

The 220V input can be set up as follows (200V-IJ input):



- **Two-way switch**: to pilot lighting
- **Push-button**: to pilot lighting
- **Force filtering**: forces filtering in case of 220V input
- **Prevent filtering**: prevents filtering in case of 220V input
- **Authorize filtering**: authorize filtering in case of 220V input (useful when using automatic valve for backwash system)
- **Slave filtering**: to use the Kompact control box unit in slave mode. In this setting-up, filtering is ON when there is 220V input and OFF on the contrary.

6.17.2. Flow switch set-up

The flow switch can be set up for the following functions:

- **Pump protection**: to secure the filter pump by stopping it in case of low water flow rate. Default selected when delivered.
- **Analysis validation**: to confirm analysis when a sufficient water flow rate is detected. In case of too low water flow rate, measured values are not confirmed and regulation is stopped.
- **Not used**

6.17.3. Inputs and flow switches status

To check 220V (IJ terminal) input and flow switches status as well as empty tank level detectors (for pH and disinfectant) and pool cover when used.

Klereo	Parameters	Tests / Installation	Inputs status

Klereo	Parameters	Tests / Installation	Flow switches status

6.18. Programming modes for filtering, lighting and auxiliaries OUTPUTS:

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 or Auxiliary	Timer Frequency	Automatically turned off at the end of the setup time. It is possible to set a recurring timer trigger by using the Frequency function
	Time slots	Operation programmed in time slots
	Manual	Always ON or OFF
	Filt. synch.	Operation synchronised with filtering

Force filtering mode is available in the lighting and auxiliary functions.
It enables filtering to be started up at the same time as the operating periods defined for lighting and/or auxiliary systems outside the filtering periods calculated or planned for treatment.
On the opposite, auxiliaries can work at the same time filtering works. In that case select the « Filt. synch.» (synchronized with filtration) mode.

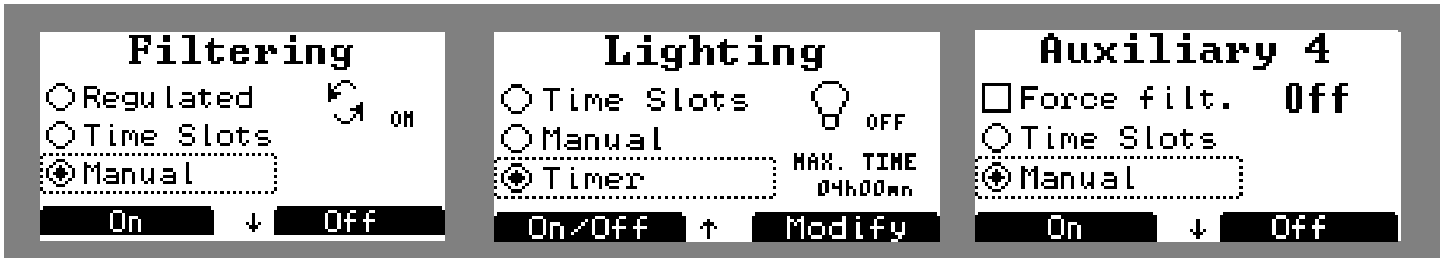
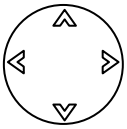


Figure 77. Outputs setting screens

Browse:

Key	Definition
-	Used to **confirm** the change of programming mode and perform the following actions: **Stop** in manual mode, **modify** in time slot or timer mode and **info** in regulated mode
- -	**On** in manual mode and **On/Off** in timer mode
	Browsing to choose programming mode.
OK	For accessing a sub-menu or confirming an action
C	Cancel or return to previous menu

The different programming modes are detailed into the user manual brochure.
The timer mode of the lighting and auxiliary outputs can be programmed with an hourly recurrence, every 2 hours, daily, biweekly (every Wednesday and Sunday), weekly (every Sunday), bi-monthly (every 1st and 15th of the month) or monthly (every 1st of the month).
When the timer mode is checked, it is necessary to exit the menu and access again to choose the recurrence:

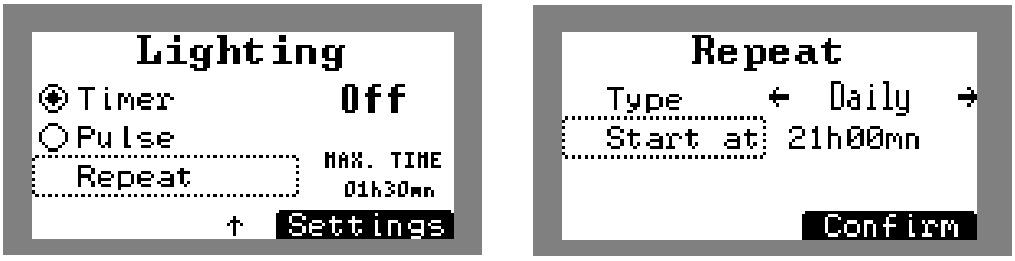


Figure 78. Recurrence programming screens

6.19. Selecting the control modes

Klereo	Control modes

Select with this menu:

- **Comfort mode** will always favor water quality. Indeed, when filtering time is coming to an end, filtering will continue if one of the 3 parameters (pH, disinfectant and heating) 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. Do not forget to select the treatment priorities that will extend the filtration (see priority/safety menu).
- **Eco mode** for energy savings. When filtering time is coming to an end, filtering will stop even though one of the 2 parameters (pH and disinfectant) has not reached its target value. Regulation will resume 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. If heating priority has been marked, this priority will remain in eco mode.

- **The Overwintering mode:** deactivates the pH/Redox/Chlorine probes and associated treatments. The filtration and temperature functions remain active. The home screen displays "Winterization" instead of the sensor values.

7. MAINTENANCE

7.1. PH PROBE calibration

This menu is used to calibrate the pH probe in order to check if the probe is efficient for regulation.

The pH probe is supplied with a cover containing a preservation product. Remove the cover to make the probe operational (keep it and put it back onto the probe if the pool is winterized or unused for a long period).

Before the pH probe is installed, let it submerged in a glass of tap water for at least 30 minutes.

The pH probe must be calibrated every 6 months. For calibration go to the following menu:

Klereo	Maintenance	PH calibration

On the display unit, enter the pH calibration menu and run the procedures following the instructions given by the display:

- Connect the pH probe
- Rinse the probe with tap water
- Immerse the probe in a pH=7 solution for 10 to 15 min.
- The probe must be kept vertical ± 10°

- Do not hold the probe, and check there are no 220V cables nearby (to avoid EMC perturbation)
- Press one of the display keys (except the black or cancel one, “C”) an wait 2 min
- Rinse the probe with the tap water
- Immerse the probe in a pH=4 solution, positioning it according to the same instructions as for pH 7
- Press one of the display keys (except the black or cancel one, “C”) and wait 2 min
- The display shows that the sensor is calibrated
- Rinse and insert the probe into the probe holder,

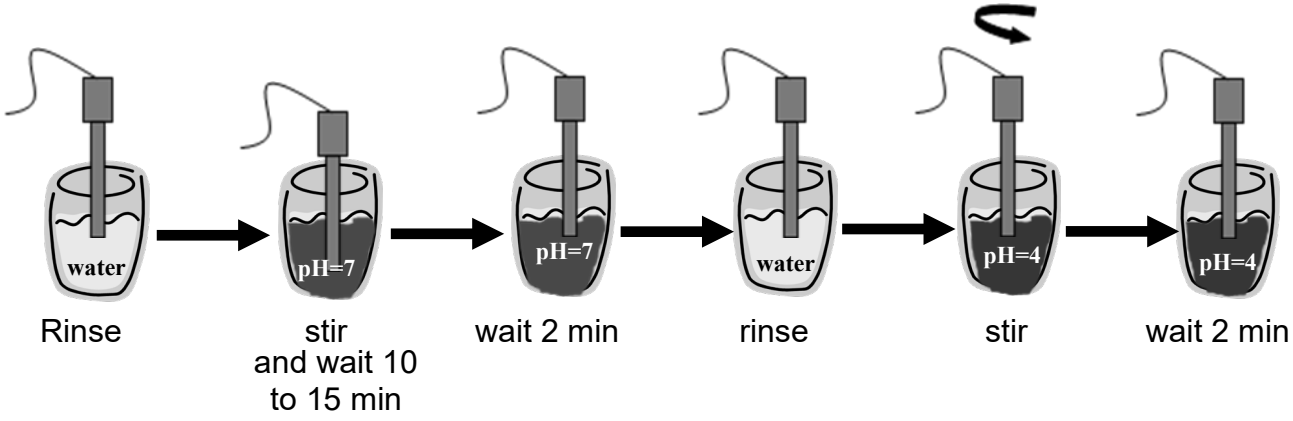


Figure 79. Calibration of pH probe

7.2. ORP Probe checking

This menu is used to check the ORP probe in order to make sure that the probe is suitable for regulation.

The ORP probe is supplied with a cover containing a preservation product. Remove the cover to make the probe operational (keep it and put it back onto the probe if the pool is winterized or unused for a long period).

Before the ORP probe is installed, let it submerged in a glass of tap water for at least 30 minutes.

The ORP probe must be checked when installed and each time the season starts. For calibration go to the following menu:

Klereo	Maintenance	ORP Checking

On the display unit, enter the ORP check menu and run the procedures following the instructions given by the display:

- Connect the ORP probe
- Rinse the probe with tap water
- Immerse the probe in a 468mV solution for 10-15 min. Ideally the 468mV solution must be between 20°C and 30°C.
- The probe must be kept vertical ± 10°
- Do not hold the probe, and check there are no 220V cables nearby (to avoid EMC perturbation)
- Press one of the display keys (except the black or cancel one, “C”) and wait 2 min
- The display shows whether or not the sensor is OK.
- Rinse and insert the probe into the probe holder.

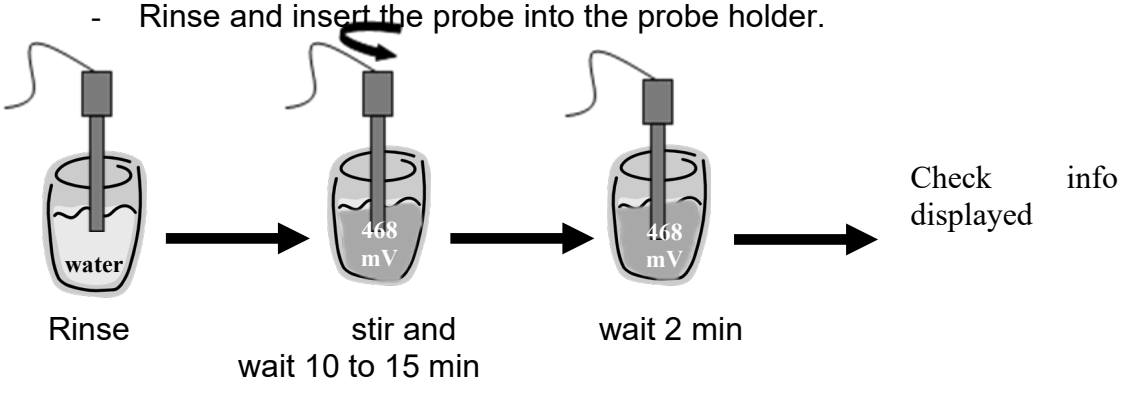


Figure 80. Checking ORP probe

7.3. Peristaltic Pumps

The santoprene tube inside the pump is the part to be protected during wintering.
Draw clear water through to rinse the pipe and avoid premature deterioration.
Activate the metering pump using the adequate menu on the display (refer to § regulations test in the Kompact installation manual), so that the roller is positioned as shown on the picture below. It will allow minimum deterioration of the santoprene tube.

The santoprene tubes inside the metering pump are to be changed once a year. Refer to the metering pump manual.

Figure 81. Santoprene tube

8. APPENDIX 1: MENU TREE

The menu tree is dynamically updated regarding your system configuration, model and software version.

<table>
<tr><td rowspan="1">messages</td><td>List of messages if any</td><td></td><td></td><td></td></tr>
<tr><td rowspan="6">Sensors</td><td>Air temp. (optional)</td><td></td><td></td><td></td></tr>
<tr><td>Water</td><td></td><td></td><td></td></tr>
<tr><td>pH</td><td></td><td></td><td></td></tr>
<tr><td>ORP</td><td></td><td></td><td></td></tr>
<tr><td>Resynchronisation</td><td></td><td></td><td></td></tr>
<tr><td>Sensors validation</td><td></td><td></td><td></td></tr>
<tr><td rowspan="7">Filtering</td><td rowspan="4">Filtering mode</td><td rowspan="2">Regulated</td><td>Info</td><td rowspan="2">Daily max
Prevent filtering</td></tr>
<tr><td>Advanced</td></tr>
<tr><td>Time slots</td><td></td><td></td></tr>
<tr><td>Manual</td><td></td><td></td></tr>
<tr><td>Maintenance</td><td></td><td></td></tr>
<tr><td>Pool volume</td><td>Fill in the value</td><td></td><td></td></tr>
<tr><td>Filter flow rate</td><td></td><td></td><td></td></tr>
<tr><td>Daily max</td><td>To set up in regulated mode</td><td></td><td></td></tr>
</table>

	Prevent filtering	To set up in regulated mode	
	Skimming planning	Set up the slots	
	Pump speed settings	Regulated OFF Regulated ON Skimming Heating Disinfect Lavage Closed cover Displaced cover Frost-free Night	
	Night watch	If heating present Fill in the value	
	Frost target value	(optional)	
	Frost cycles		
	Resume frost		
	Mid-day filtering	Fill in the value	
Water treatment	Disinfectant	ORP regul.	(if need be)
		Regulated	
		ORP regul. Salt	(is salt chlorinator)
		Time slots	(if need be)
		Filtering synch..	(if need be)
		OFF	
		Boost treatment	
		Fixed volume	(if need be)
		Fixed time	(if need be)
	pH	Regulated	
		OFF	
		Fixed volume	
	Balanced pH	TH value to fill in	
		TAS value to fill in	
	Advanced parameters	Reset daily treatment	
		Suspend treatment	12H
			24H
			36H
			48H
			Take over
		Disinfectant type	Liquid Chlorine

			Klereo2 OR 3 Salt Chl.
			Other Salt Chlor.
			Active Oxygen
			Bromine
			None
		pH correcting agent	pH minus
			pH plus
			None
		pH concentration*	*Submenus accessible in service mode
		Treat. concentration*	
		pH pump flow rate*	
		Treat. pump flow rate*	
		Boost treat. timelag*	
		Injection mode	Start filtering
			Distribution filtering
			End filtering
Water treatment	Salt Chlorinator parameters (in case of Salt Chlroinator)	Hybrid configuration	
		Salt Chlor. cleaning	
		Water temp security	
		ORP security	
		Pool cover ratio	
		Indoor pool ratio	
Heating* (if installed)	Heating target value	Fill in target value	
	Prevent heating	Time slots to fill in	
Consumption	Water meter	Total volume Current flow rate	
	Consumption	Correct pH Treatments Filtering Heating Lighting Auxiliary 4	

	RESET Consumptions	Total water meter Correct pH Disinfect Flocculant Filtration Heating Lighting Auxiliary 4
Lighting	Force Filtering.	Adjustable frequency
	Time slots	
	Manual	
	Timer	
	Pulse	
	Frequency	
Auxiliary	Force Filtering	Adjustable frequency for auxiliaries
	Time slots	
	Manual	
	Filt. sync.	
	Timer	
	Pulse	
	Stop Aux (in case of other auxiliary)	
Maintenance	pH calibration	
	ORP checking	
	Clear messages	
Control modes	Comfort	
	Eco	
	Wintering	
System status	listing	

Parameters	Interface	Privilege		Client	
				Advanced	
				Piscinier	
		Home screen		Simple control	
				ORP Poster	
		Set the date			
		Set the time			
		Langage			
		Contrast			
	Set-up	Sensors presence		Water	
				ORP	
				pH	
				pH tank	
				Treatment tank	
				Chlorine (optional)	
				Air temp (optional)	
				Pressure	
				Flocculant tank	
				Flowmeter 1	
				Flowmeter 2	
		Equipments		Indoor Pool	
				Pool cover	
				Pool cover polarity	
				Frost function (optional)	
				Klereo filtering	
				Lighting	
				Heating	
				Auxiliary (if option)	
		Outputs settings	Relay assignements	P-Q assignment	Heating
					Aux A
				S-SN assignment	Aux 5
					pH
					Disinfectant
				R-RN assignment	Aux 6
					Disinfectant
				T1-T2 assignment	Aux 3
				LF-LO-LC assignment	Aux 1
				MF-MD-MC assignment	Aux 2
					Lighting

				M9-M2 / K-KN assignment	Aux 4
					Flocculant
				V1-V2 assignment (if Klereo filtration deactivated)	(Sync) filtering Flocculant Aux A
				Aux A designation if auxiliary set up	Allows selecting the function associated with Aux A
			Advanced functions	**ask Klereo support for definition*	
		Heating		Type of heating	Heating /Heating pump
					None
					Heating hysteresis
				Type of heating	0.1°C
					0.2°C
					0.5°C
					1.0°C
		Inputs settings		Entrée 200 V - IJ	Two-way switch
					Push button
					Force filtering
					Prevent filtering
					Authorize filtering
					Slave filtering
				Flow switch	Pump protection
					Analysis valid.
					None
				Frost protection Priority pH Disinfectant priority	(if frost-free option)
		Priorities / securities		Boost treat. priority	
				Heating priority	
				Unlimited injections	
				Salt chlorinator	
				Ext. air (if frost free)	
				Box	
				Multisensor	
		Radio matching		Multi-Gen2	
				Ext. air (if frost free)	

			Box
			Multisensor
			Multi-Gen2
	Tests / Installation	Salt Chlor. test (if installed)	
		Regulations test	
		Input status	
		Flow switches status	
		Pool info	
	Quick installation		
Software	Reset	Reset Display	
		Reset control box	
		Reset parameters	
		Factory Settings Display	
	Software version		
	Control box update		
	Display update		
	USB operations		

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