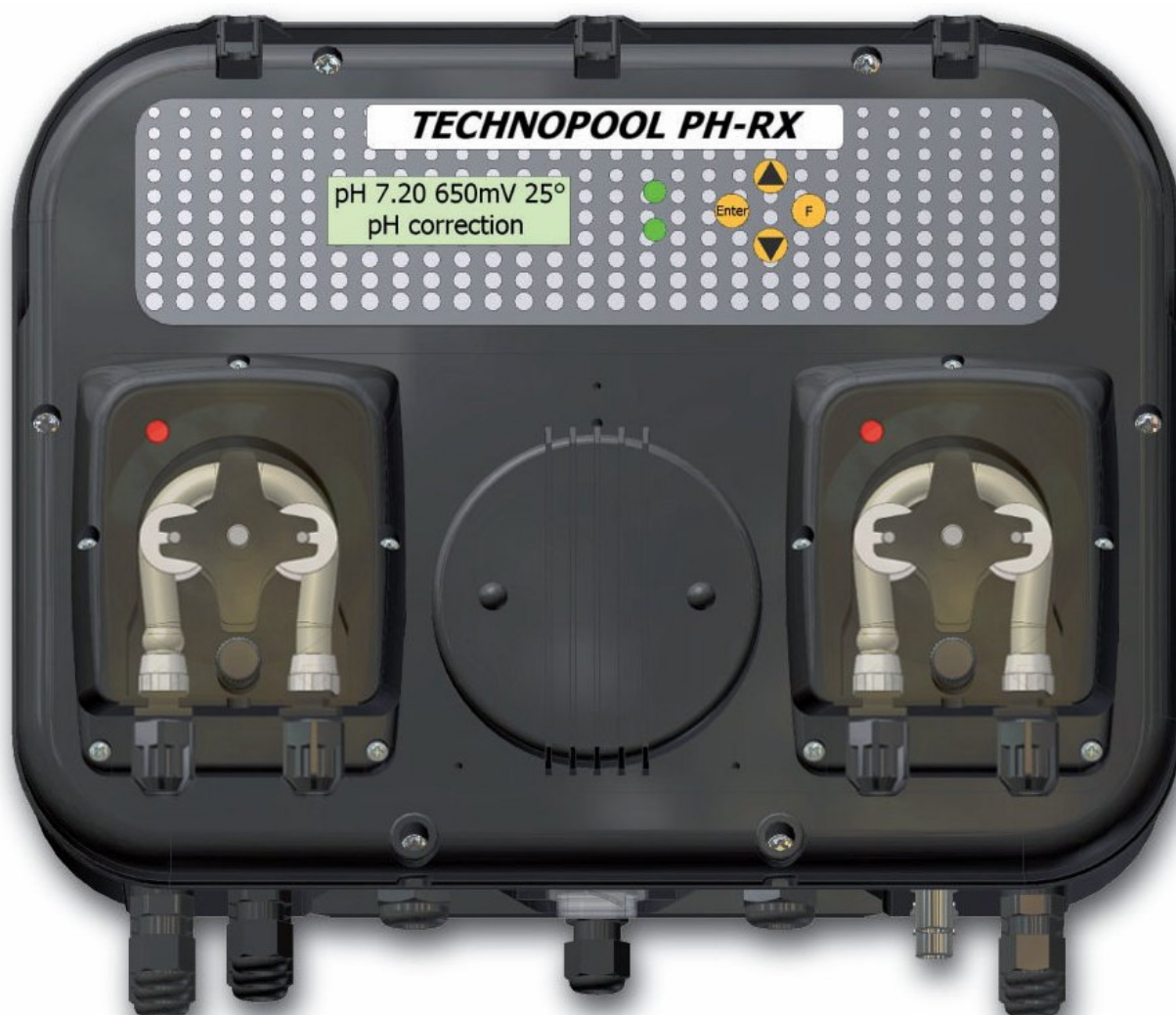


# TECHNOPOOL PH-RX

## INSTALLATION MANUAL

[https://wszystkodobasenu.pl/automat\\_dozyjacy\\_chemie\\_do\\_basenu](https://wszystkodobasenu.pl/automat_dozyjacy_chemie_do_basenu)



## 1.0 General Comments

### 1.1 Warnings

The aim of the manual is to provide you with all the necessary information for a proper installation and maintenance in order to give you optimum results whilst in operation.

For this reason it is really important reading with attention the instructions given below since they furnish all the indications necessary for the sureness of the installation, use and maintenance

- ◆ This manual has to be preserved with care to be consulted in whatever occasion.
- ◆ At the moment of the receipt you have to check the integrity of the panel and of all its components, in case of anomalies consult skilled staff before making interventions.
- ◆ Before the installation of the pump check that all the data on the pump's label correspond to those of the electrical plant.
- ◆ Do not operate with bare/naked hands or feet
- ◆ Do not leave the equipment exposed to the action of the atmospheric agents.
- ◆ The equipment has to be operated from skilled person.
- ◆ In case of improper functioning of the panel switch off and contact our technical assistance for any necessary repairs.
- ◆ For a correct functioning it is necessary to use original spare parts and original accessories. The producer declines whatever responsibility in reference with break down due to tampering or the use of not original spare parts and accessories.
- ◆ The electrical plant has to be in conformity with the rules of the country where it is realised.
- ◆ The room temperature of utilisation can't over take 45° C

### 1.2 Design standard

Our products are built according to the actual general directives endowed with CE mark in conformity with the following European directives:

- ◆ N° 89/336/CEE regarding "electromagnetic compatibility"
- ◆ N° 73/23/CEE regarding "low voltages", as also the subsequent modification N° 93/68/CEE
- ◆ N° 2002/95/CE, 2002/96/CE, 2003/108/CE " RoHs and WEEE directive "

Granted this we think that in order to obtain an high trustworthiness and a lasting functioning of the pump it is necessary to follow with attention our manual particularly in reference with the maintenance.

**The Producer declines all responsibility in reference with whatever intervention on the equipment from not skilled personnel.**

## 2.0 Technical Characteristics

### 2.1 General rules

#### Install the panel:

- ◆ In vertical position +/-15°.
- ◆ far from an hot source in dry places at maximum temperature of 45°C and minimum 0°C.
- ◆ In a ventilated place and easily accessible by an operator for periodical maintenance.
- ◆ At a suitable height above the chemical up to a maximum height of 1.5 meters. If for exigency

- ♦ of the plant it's necessary to install the pump under the level of the chemical, you need to use an injection valve or an anti siphon valve.
- ♦ Do not install the pump over the tank in presence of liquids that emanate fumes unless it
- ♦ is hermetically closed.

## 2.2 Electrical characteristics

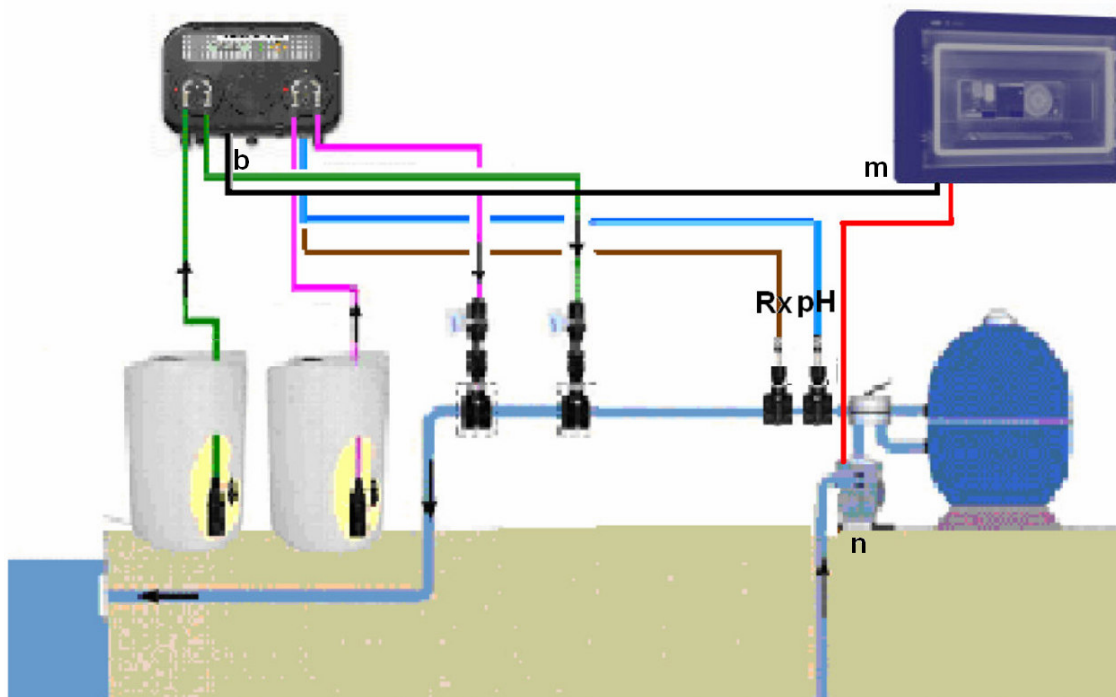
Power supply: 230 VAC 50/60 HZ

## 2.3 Standard Kit

1. Technopool pump
2. Suction and delivery tubing
3. Buffer solutions pH4-pH7-Rx
4. Fixing slide clamp
5. Wall fixing screws
  - i. pH – Rx probe
  - j. 2 Electrodes holder
  - k. 2 Collars DN50
  - g. 2 Injection nipples
  - h. 2 Collars DN50
  - f. 2 Suction filters
  - m. 2 closing washer for calibration



## 2.4 Hydraulic Connection



## 2.5 Electric connection

Before installation ensure that the supply is adequately earthed and is fitted with a suitably sensitive circuit breaker. Connect the pump to the power supply respecting the values you can see on the identify label of the pump.

The power supply cable "b" is connected to the junction box "m" (must be 230v) on auxiliary contact linked at the main pool circulation pump "n", or in parallel at A1 and A2 of pool circulation pump contactor coil.

## 2.6 Accessories construction



Injection nipple assembly g upon the collar h



make a hole in the tube through the collar

Diameter 8 mm for the collar h  
Diameter 14 mm for the collar k



electrode holder assembly j upon the collar K

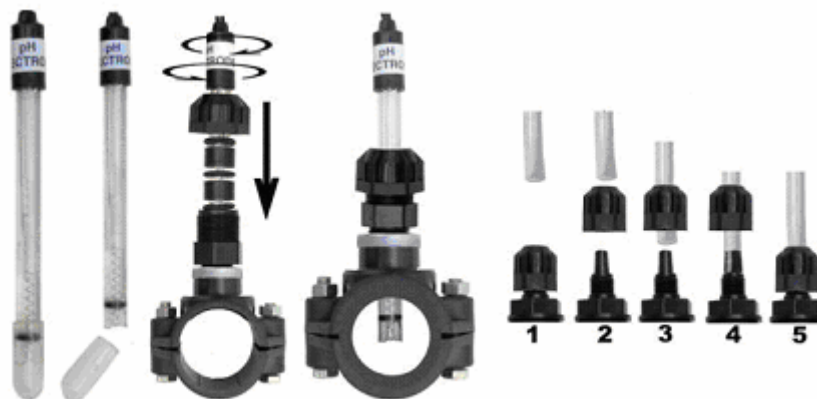


### Electrode assembly :

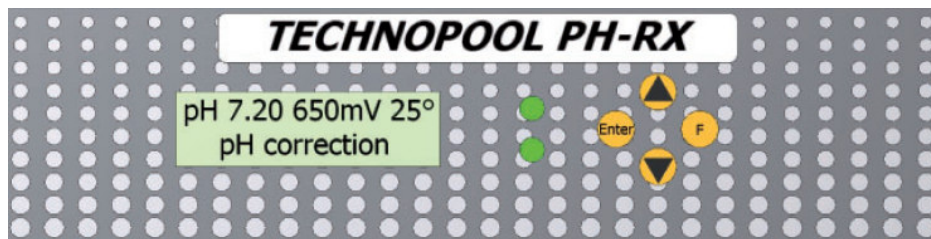
Put off the cap of the electrode (Fill the cap with  $\frac{3}{4}$  of water to store the electrode)

Assembly the electrode respecting the order of the pieces shown in the central figure. Insert the electrode into the electrode holder "j" pushing and rotating to the left and right. When all the pieces are in the electrode holder screw the nut but not totally to push the electrode till the foot of the tube and to retire it for 2 cm so to adjust the electrode at the centre of the hose.

Now it is possible to screw totally the nut of the electrode holder "j".



### 3.0 Technopool Programming



The Technopool programming is divided into 2 menu: User Menu and Installation Menu

**Press F to scroll User menu.**

Press Up-Down to change values.

Press Enter to confirm setting values.

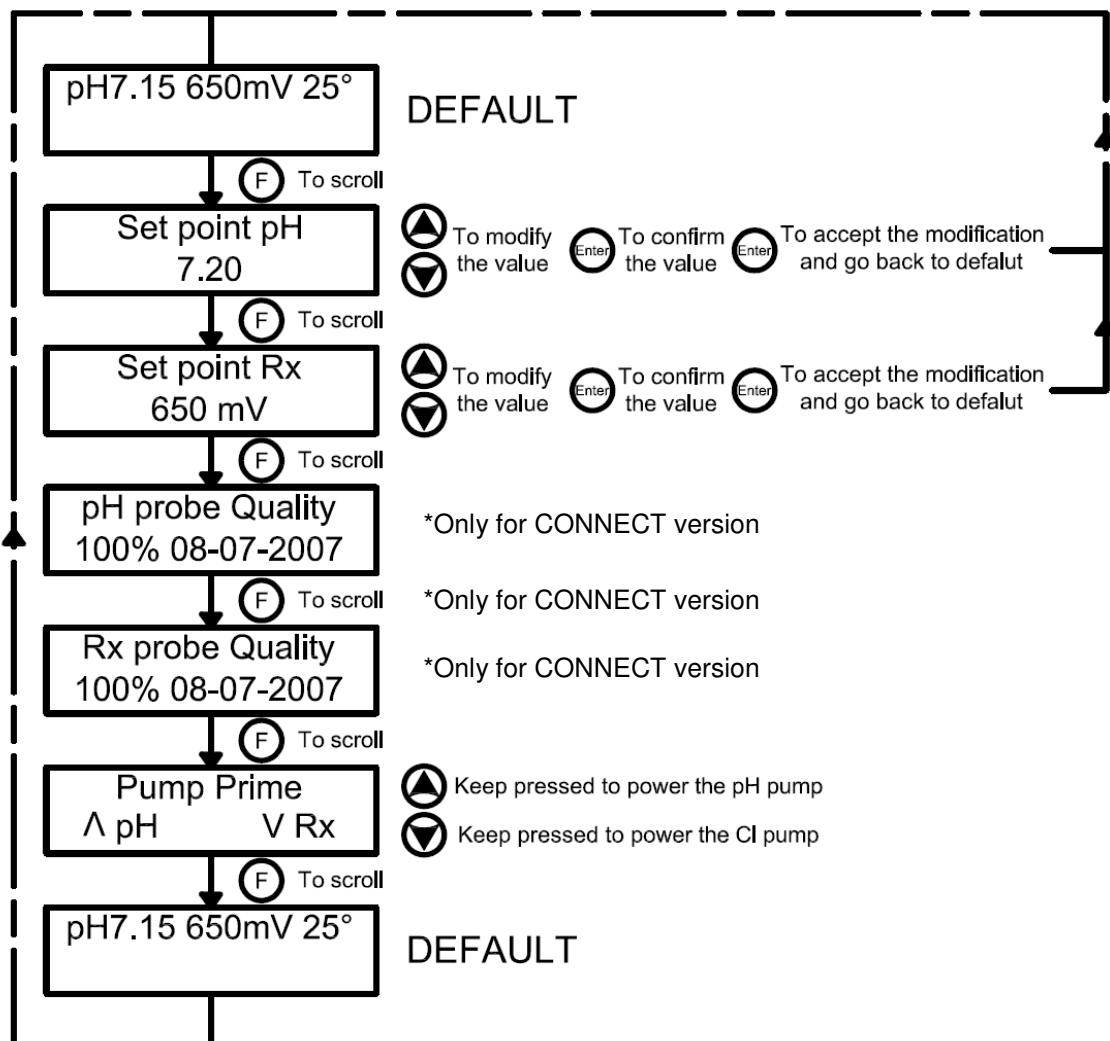
**Keep Pressed Enter to enter the Installation menu (password will be required)**

#### 3.1 User menu

User Menu is suitable for daily adjustment of Technopool settings.

It allows to:

- ♦ Adjust pH set point (always inside the Proportional limit L1 see below Installation menu)
- ♦ Adjust Rx set point (always inside the Proportional limit L1 see below Installation menu)
- ♦ Make pumps priming (pressing Up and Down Bottom the pumps will work at 100%)

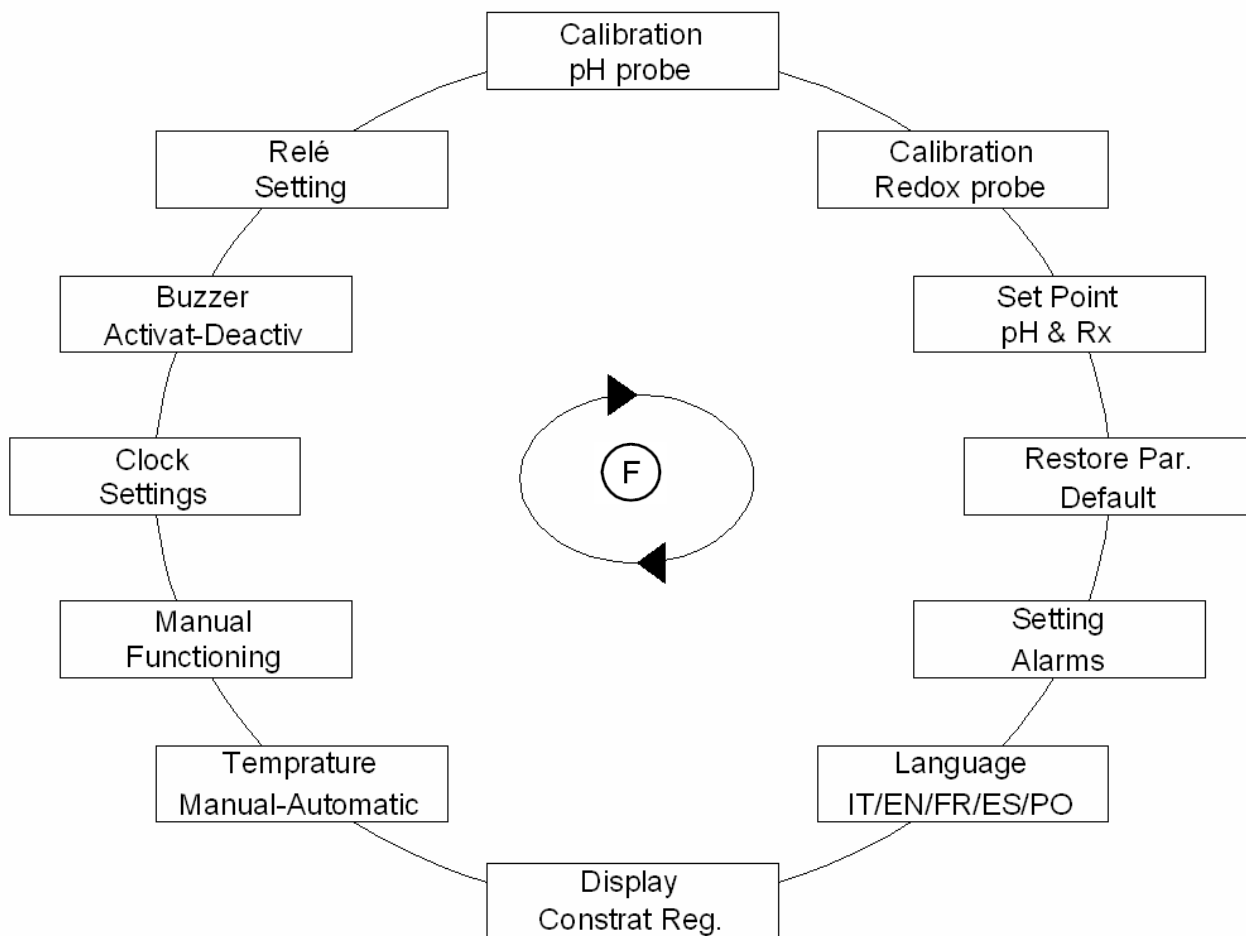


### 3.2 Installation Menu

Installation menu allows to set all the paramters of your Technopool.

To enter Installation menu keep pressed enter botton for more than 3 seconds (password will be required, default password is ▲▲▼▼ (Enter) )

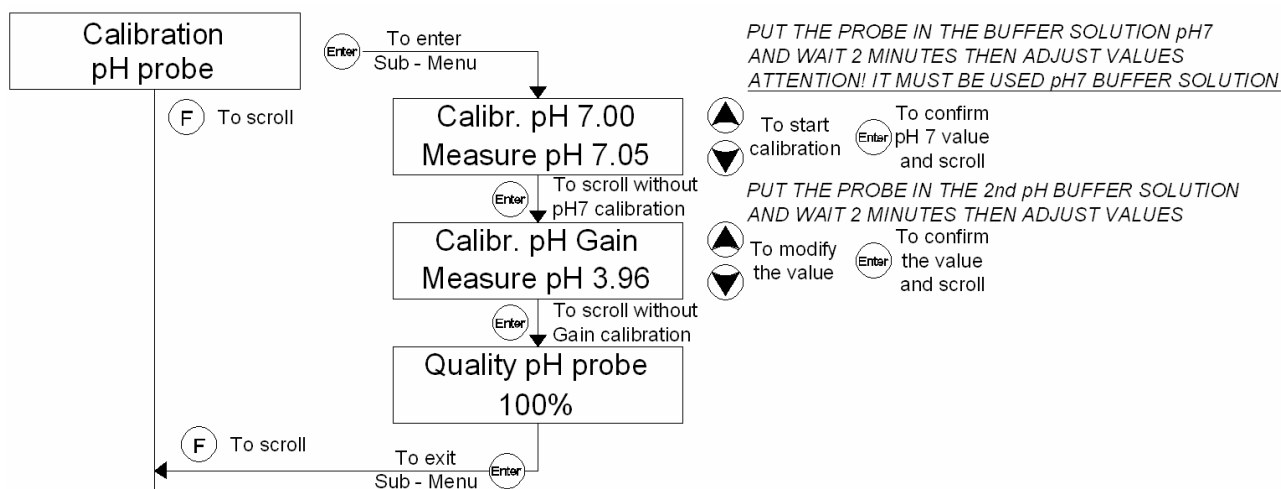
The menu is divided into sub menu:



You can scroll the menu with F button, if you want to enter the sub-menu you must press Enter.

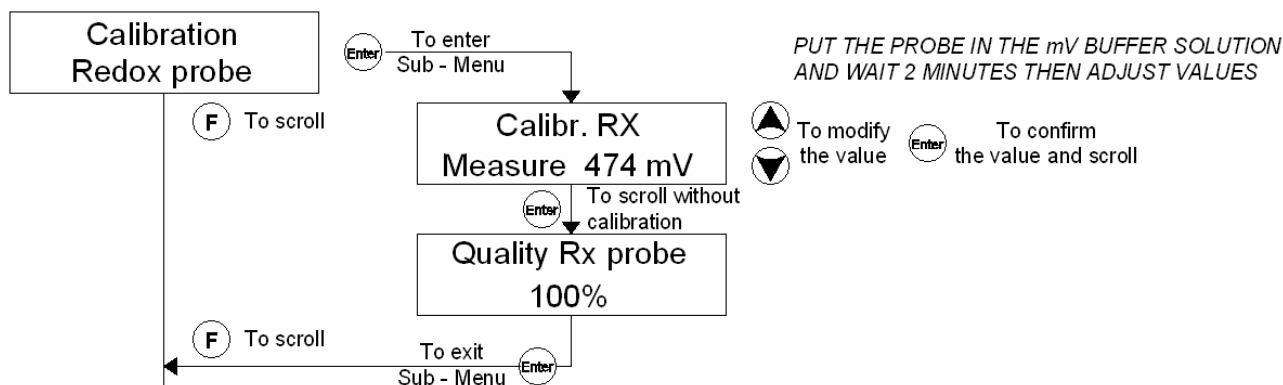
**To escape the Installation menu just keep pressed Enter botton for more than 3 seconds.**

#### 3.2.1 Calibration of pH probe



If the Quality of the probe is 25% or lower, make again the calibration. If the result is still 25% or lower it is recommended to change the probe.

### 3.2.2 Calibration of Rx



If the Quality of the probe is 25% or lower, make again the calibration. If the result is still 25% or lower it is recommended to change the probe.

### 3.2.3 Dosing mode

Dosage of the chemical is in proportion to the difference between set point and the reading carried out by pH and Rx probes.

The greater the difference between the value read from the probe and the value set as set point, the higher the percentage dosing pump.

(The duration of dosage also depends on the percentage of its maximum limit set to limit of proportionality)

Proportionality is obtained with a time - break dosing cycles of about 5 minutes

Every 5 minutes the pump acquires values from probes and compares them with set point set, by comparing is calculated the time dosing for that cycle.

If the difference is minimal the pump will dose for just a few seconds and then await the end of 5 minutes cycle before performing a new reading and a new strength.

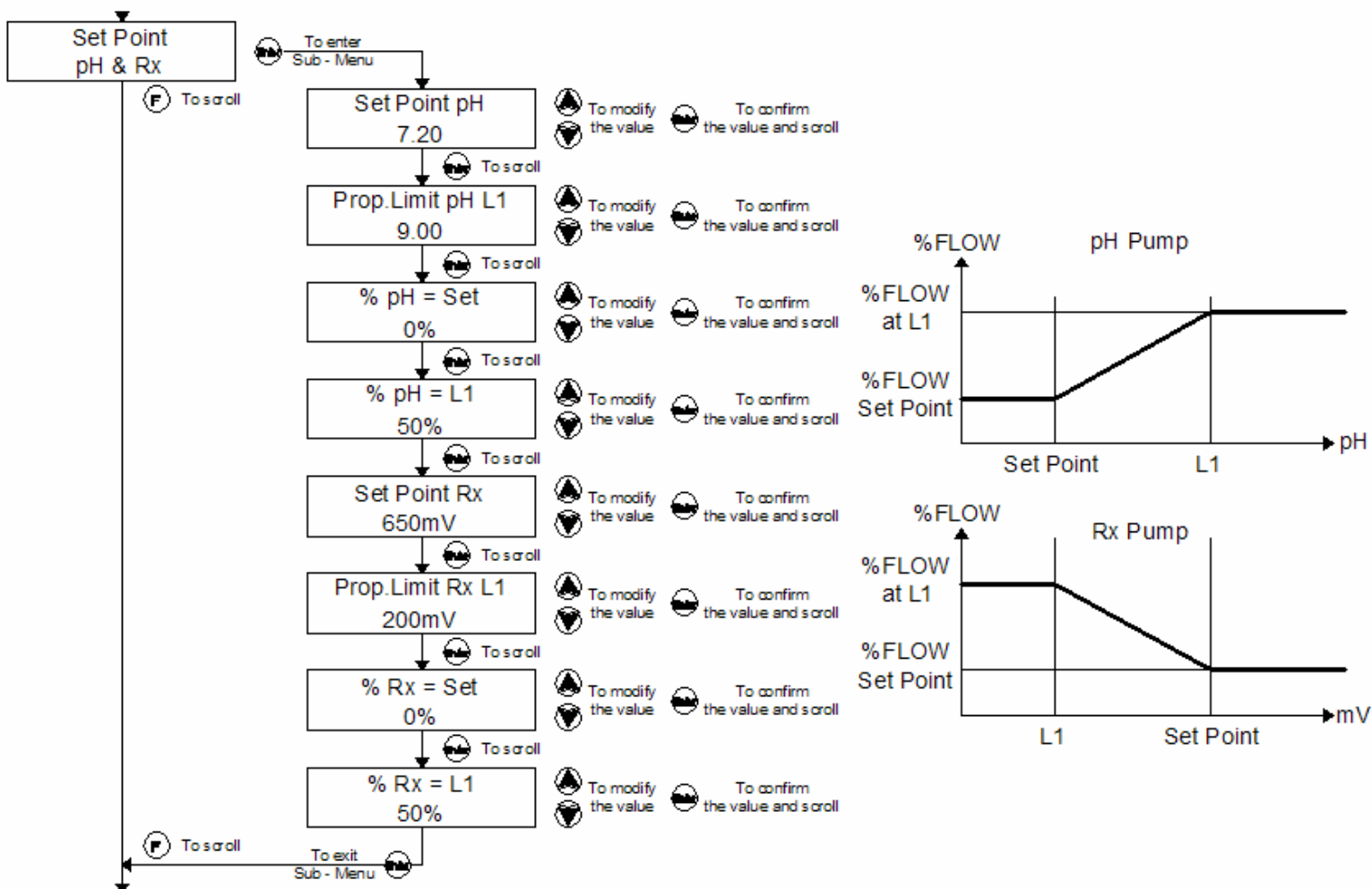
Es.: Set point pH = **7.00**, L1= pH **7.60**, %pH=Set = **0%** , %pH=L1 = **80%**, reading of pH probe **7.30**

The pump calculates a time dosing = 80% x 50% = 40% over the 5 minutes (300 seconds), the pump will dose for **120 seconds**

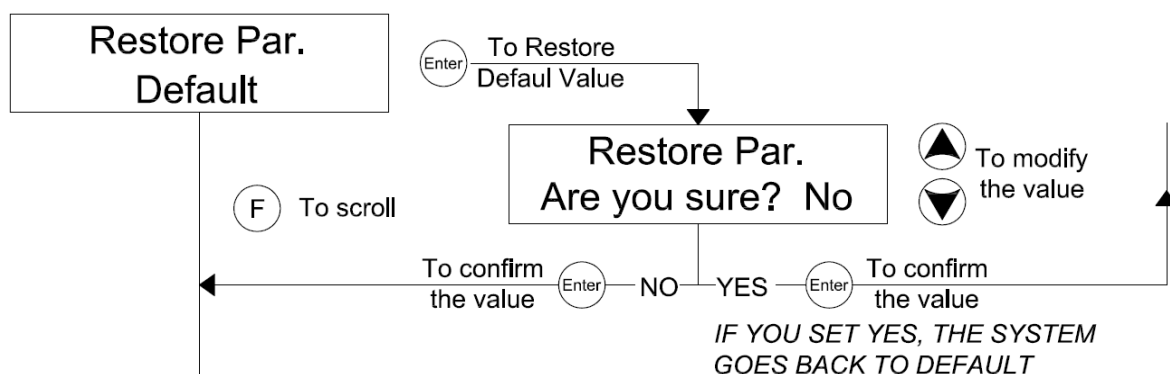


### 3.2.4 Set Point pH and Rx

With this sub-menu you can adjust the set point and the Limit of Proportionality (L1) of Technopool dosing pumps.



### 3.2.5 Restore Parameters to Default values

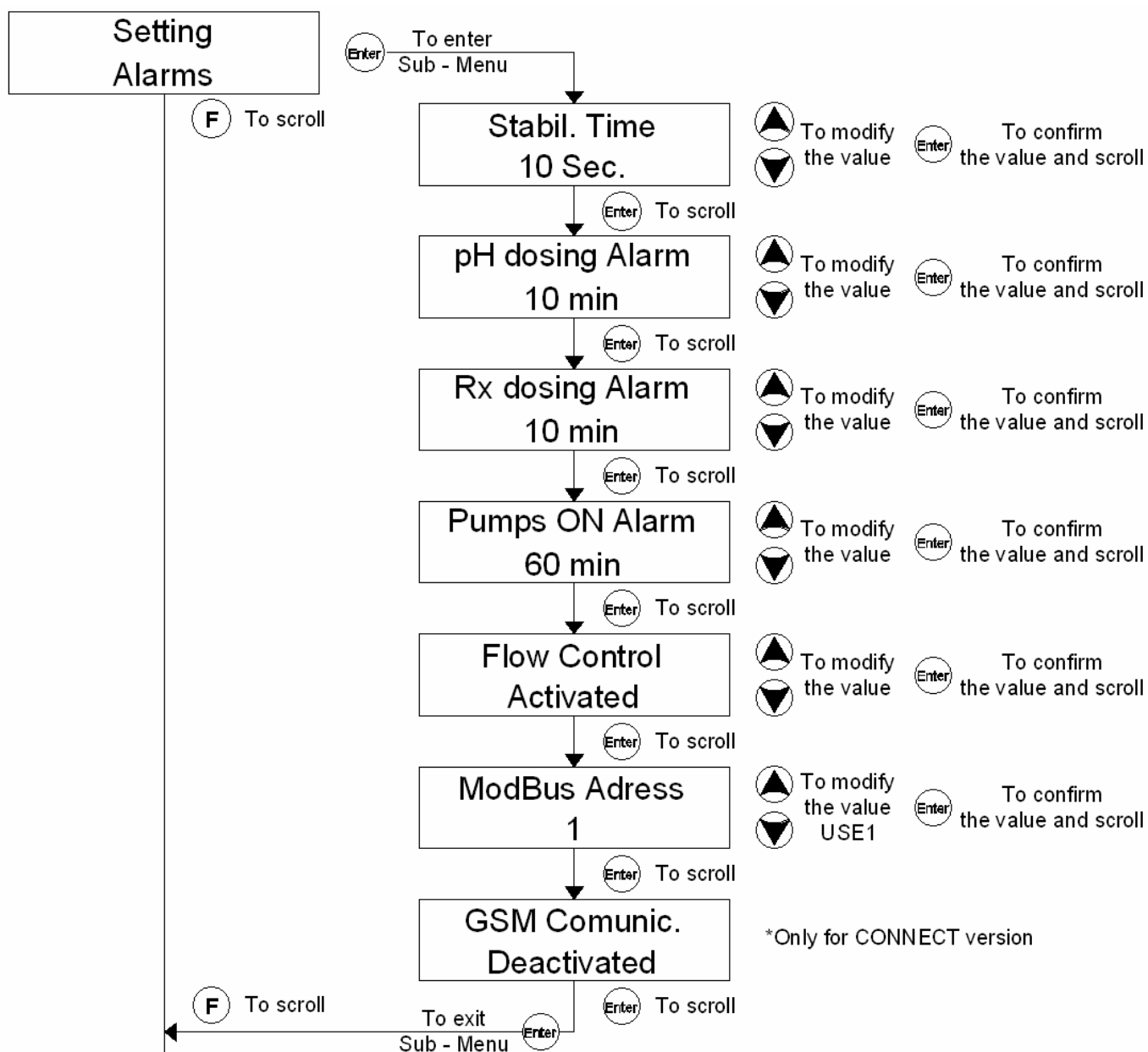




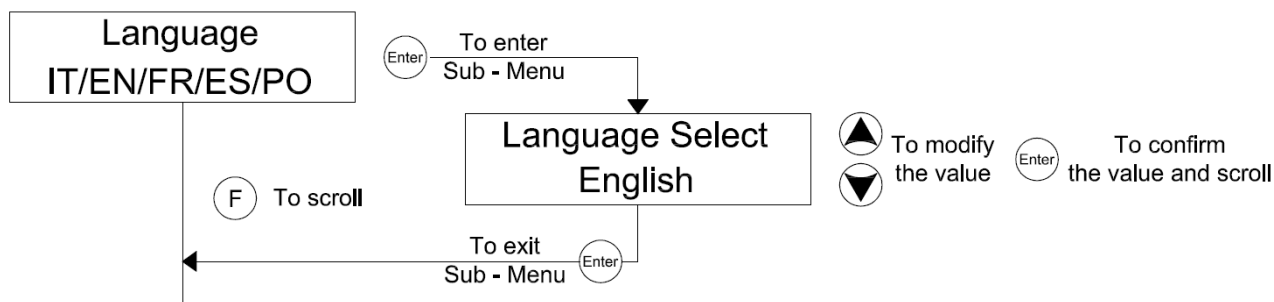
### 3.2.6 Settings Alarm

With this sub-menu it is possible to set some protections for your Pool such as:

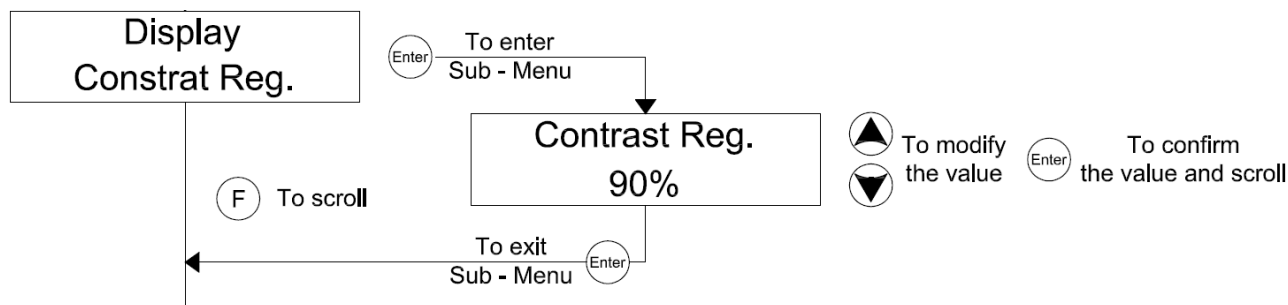
- ♦ Stabilization time (1sec – 60 min): when the system is switched on, it waits Stabilization time before starting to dose (the probe readings need few minutes to be stabilized)
- ♦ pH dosing alarm (5min – 60 min / OFF) if the pH pump doses its product and there is no variation of pH (0.05 pH) during the set time, the system gives alarm and stop to dose. The alarm is automatically disables near the set point (when the difference between the measurement of pH and the set - point is less than 0.2 pH but only if the pump is not dosing at maximum flow rate)
- ♦ Rx dosing alarm (5min – 60 min / OFF) if the Rx pump doses its product and there is no variation of Rx (5 mV) during the set time, the system gives alarm and stop to dose. The alarm is automatically disables near the set point (when the difference between the measurement of Rx and the set - point is less than 20 mV but only if the pump is not dosing at maximum speed)
- ♦ Pumps ON Alarm (5min – 60 min / OFF): if both the pumps doses for a period longer than the set time the system gives alarm and stop to dose
- ♦ Flow Control: the panel can be equipped with a flow-sensor, that detect the flow inside the probe holder, if the flow is over the system gives alarm and stop to dose.



### 3.2.7 Language (EN-FR-SP-IT-PT)



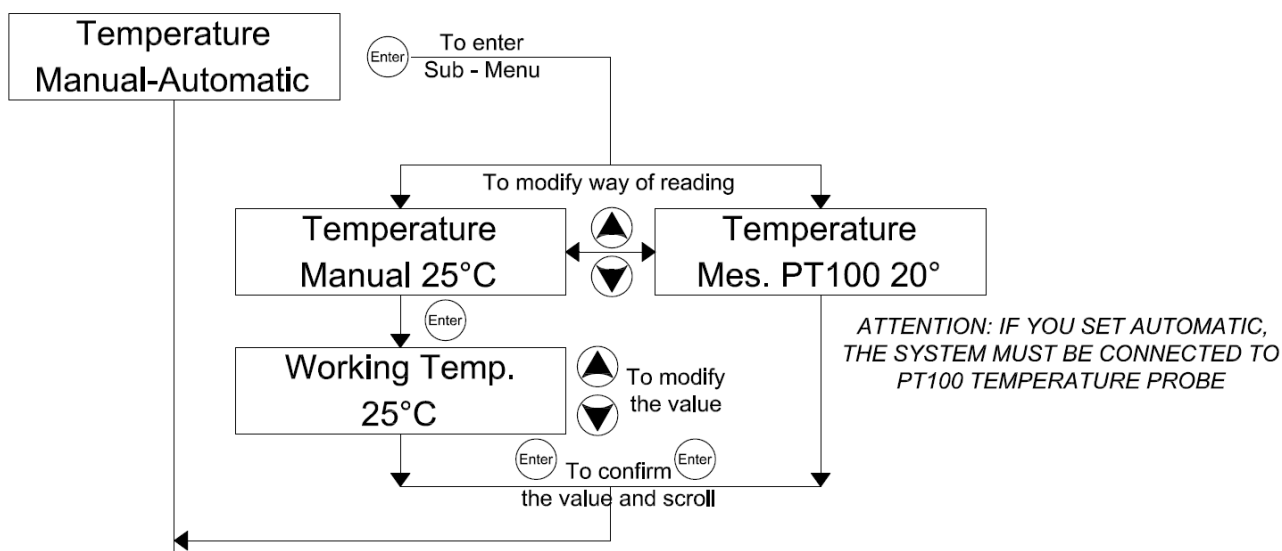
### 3.2.8 Display contrast regulation



### 3.2.9 Temperature measurement Automatic or Manual

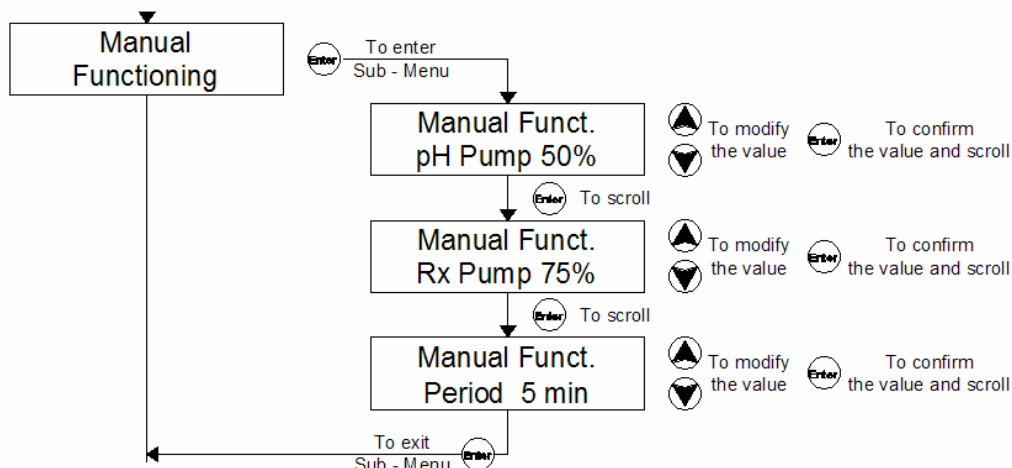
With this sub-menu it is possible to choose the way to adjust temperature compensation of reading. **Please note that *Working temperature* is the temperature of the water passing through the probe holder**

- ♦ Automatic: needs a PT100 temperature probe that must be connected to Technopool. If it has been selected Automatic, the system will display the absence of probe with a N.C. message (and consider 25°) instead of temperature reading.
- ♦ Manual: the temperature of the water passing through the probe holder can be adjusted manually setting its value as shown below.



### 3.2.10 Manual Functioning

With this sub-menu the Technopool can be programmed to dose without external signal for a certain time, programming the percentage of manual functioning of pH and Rx pump (percentage of 5 minutes cycle ) and the duration .



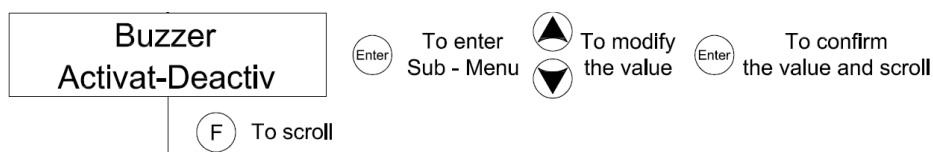
When the period of Manual Functioning is over the system goes back to reading/working mode.

### 3.2.11 Clock Settings

This function is available only on CONNECT model

### 3.2.12 Buzzer setting

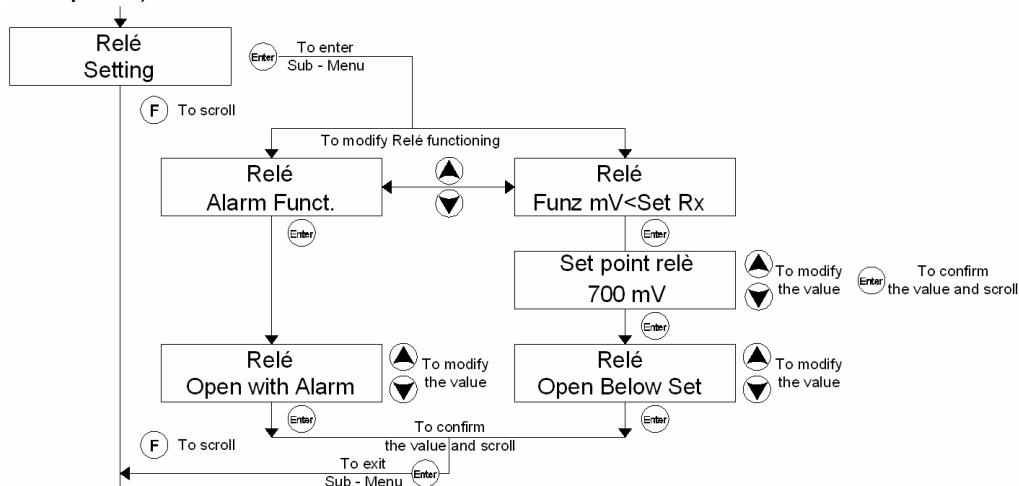
The Technopool is equipped with a Buzzer that can underline each condition of alarm



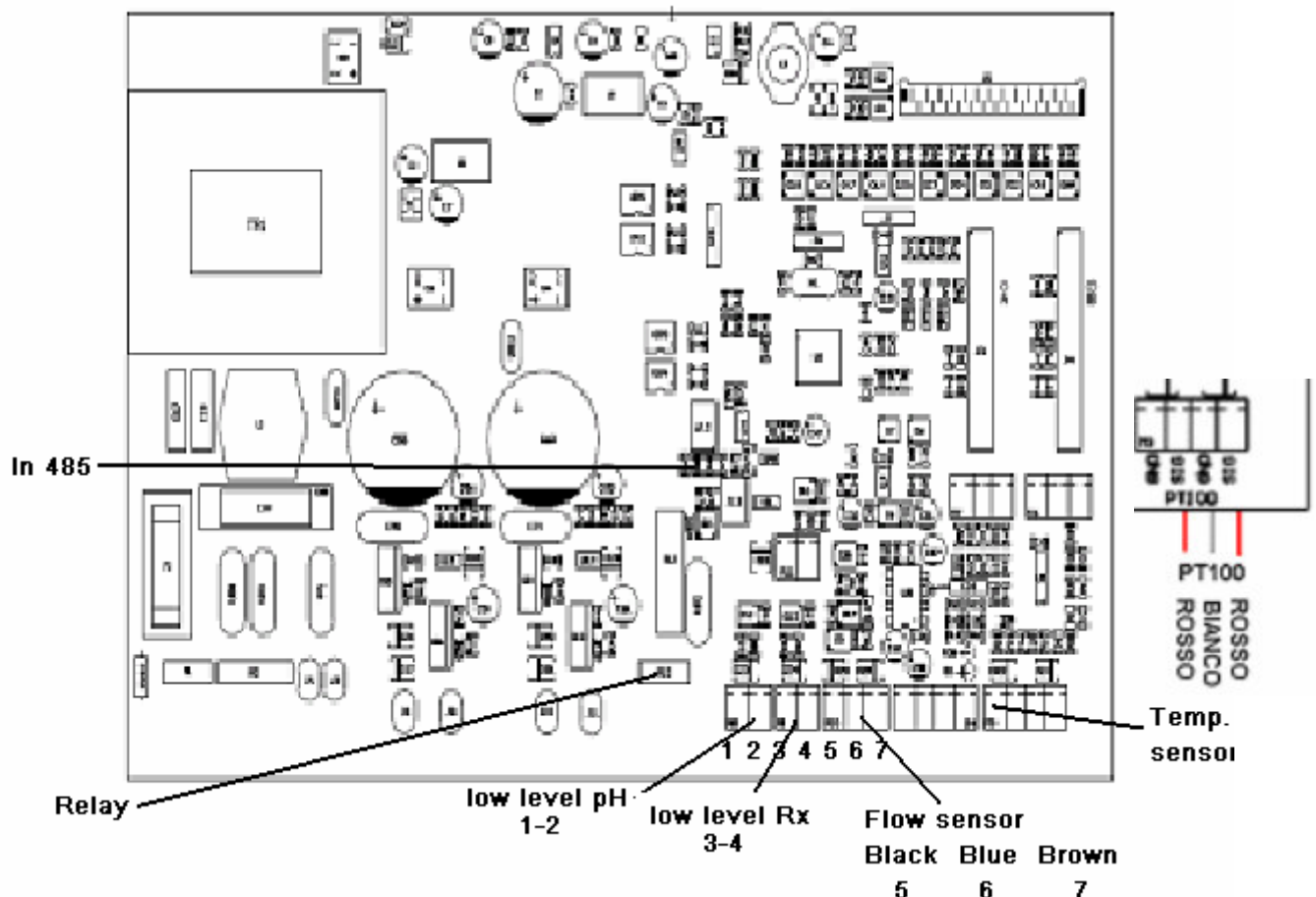
### 3.2.13 Relay settings

The Technopool is equipped with an additional free - voltage relay output that can be used as follow:

- ◆ Alarm Repetition (it can be set Open or Closed with alarm)
- ◆ Output for Salt Chlorinator or additional chlorine pump (Up to 5A 230V 50Hz) in this case the relé is driven by an additional set point. (It can be Open or Closed Below mV set point).



### 3.2.14 Circuit Layout



### 3.3 Alarms

The sistem is equipped with the following alarm:

- ♦ **Low level alarm**, with 5 seconds of Hysteresys. Low level alarm pH stops the dosing of pH pump only (the same for Rx).
- ♦ **Flow alarm**, with 5 seconds of Hysteresys. Flow alarm stops the dosing of both the pumps (with Flow alarm on the Relè is always open).
- ♦ **Dosing alarm** (see also 3.2.5). Dosing of product without effect (withou variation of pH&Rx readings). Dosing alarms can be removed only with system restart (use ON/OFF switch)
- ♦ **Measure alarm**: the system is equipped with an adding alarm of pH reading, if the reading of pH is lower than 5 or higher than 9 (WARNING), the system stops the pumps. If the reading of pH is lower than 5 or higher than 9 it is recommended to check the probe and the water.

### 4.0 Electrode winter break

Remove the electrodes during winter break. Fill in the protection cap with 1/3 of water and put it on the electrodes.

**§ It's recommended to install new electrodes every season begin §**

### 5.0 Coming season start-up procedures

- It's recommended to install a new electrode when season begin, in order to prevent failure during season.
- After the electrode replacement or start up of the apparatus, repeat the calibration procedure.

## 6.0 Returned goods procedure

The product must be sent back to the Manufacturer packed into it's own packaging, with all original protections, within the guarantee period.

The dosing pump must be properly washed with water in order to remove the chemical residuals from internal parts.

The electrode must be packed into it's own original box and provided by the protection cap duly filled in water.

If the above mentioned conditions will not be respected , the Manufacturer disclaim all responsibility for eventual damages occurred during transport.

## 7.0 Guarantee certificate

the Manufacturer guarantee the products for 24 months from the shipment date to the first Customer.

During this period the Manufacturer will supply for free those components that, upon verification by the Manufacturer or an Authorized distributor, might reveal defective; the Manufacturer reserve the right to repair or to replace the defective product.

The Manufacturer will not be responsible for any other claim by the customer for any direct or indirect damages caused by the use or by the impossibility to use, totally or partially, the product. ; from this guarantee are excluded all components subject to normal wear and tear, such as valves, gaskets, fittings, ring nuts, tubes, filters, valve injection, probes, electrodes and components in glass.

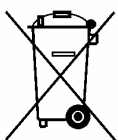
The reparation or replacement do not extend or renew the warranty period.

All expenses related to assembling and disassembling of the apparatus, transport, and used materials (filters, valves, etc.), remain at customer' cost.

The reparation or replacement warranty right decade in following cases:

- The pump have not been used according to the instructions specified by the Manufacturer.
- The pump have been repaired, disassembled or modified by entity NON authorized by the Manufacturer.
- Non original spare parts have been used.
- The injection line have been damaged by using incompatible products.
- The electrical circuit board have been damaged by any external factor, i.e.: high-tension.

24 months after the delivery date the Manufacturer will be free from all above mentioned obligations.



After the implementation of the European Directive 2002/96/EU in the national legal system, the following applies: Electrical and electronic devices may not be disposed of with domestic waste. Consumers are obliged by law to return electrical and electronic devices at the end of their service lives to the public collecting points set up for this purpose. Details to this are defined by the national law of the respective country. This symbol on the product, the instruction manual or the package indicates that the product is subject to these regulations. By recycling, reusing the material or other forms of utilising old devices, you are making an important contribution to protecting our environment