





Control Station OWNER'S MANUAL

### PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

HAYWARD POOL EUROPE - 1070 Allée des Chênes - CS 20054 Saint Vulbas - 01154 Lagnieu Cedex - France







#### WARNING: Electrical hazard. Failure to comply with these instructions can result in serious injuries or death. THE EQUIPMENT IS INTENDED TO BE USED ONLY IN SWIMMING POOLS

A WARNING – Disconnect the equipment from the mains supply before any intervention.

A WARNING – All electrical connections must be carried out by a qualified approved electrician in accordance with the standards currently in force in the country of installation.

F	NF C 15-100	GB	BS7671:1992
D	DIN VDE 0100-702	EW	SIST HD 384-7-702.S2
Α	ÖVE 8001-4-702	Н	MSZ 2364-702:1994 / MSZ 10-533 1/1990
E	UNE 20460-7-702 1993, REBT ITC-BT-31 2002	M	MSA HD 384-7-702.S2
IRL	IS HD 384-7-702	PL	TS IEC 60364-7-702
1	CEI 64-8/7	CZ	CSN 33 2000 7-702
LUX	384-7.702 S2	SK	STN 33 2000-7-702
NL	NEN 1010-7-702	SLO	SIST HD 384-7-702.S2
Р	RSIUEE	TR	TS IEC 60364-7-702

**WARNING** – Check that the device is plugged into a power outlet that is protected against short-circuits. The device must also be powered via an isolating transformer or a residual current device (RCD) with a nominal operating residual current not exceeding 30 mA.

WARNING– Ensure that children cannot play with the device. Keep your hands and any foreign object away from openings and moving parts.

WARNING – Check that the supply voltage required by the product corresponds to the voltage of the distribution network and that the power supply cables are suitable for the product power supply.

WARNING – Chemicals can cause internal and external burns. To avoid death, serious injury and/or damage to equipment, wear personal protective equipment (gloves, goggles, mask, etc.) when servicing or maintaining this device. This device must be installed in an adequately ventilated place.

A WARNING – To reduce the risk of electric shock, do not use an extension cable to connect the device to the mains. Use a wall socket.

A WARNING – Carefully read the instructions that appear in this manual and on the device. Failure to comply with the instructions can cause injuries. This document must be given to every pool user, who should keep it in a safe place.

A WARNING – The appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

MARNING – Use only original Hayward parts.

WARNING – If the power supply cable is damaged, it must be replaced by the manufacturer, the after-sales service or similarly qualified persons to avoid danger.

WARNING – The device must not be used if the power cord is damaged. An electric shock could occur. A damaged power cord must be replaced by the after-sales service or similarly qualified persons to avoid danger.

### REGISTRATION

Thank you for choosing Hayward. This manual contains important information regarding the operation and maintenance of your product. Please retain it for reference.

## TO REGISTER YOUR PRODUCT IN OUR DATABASE, GO TO:

www.hayward.fr/en/services/register-your-product

×		
For You	r Records	
Record	the following information for your convenience:	
1)	Purchase Date	-
2)	Complete Name	_
3)	Address	_
4)	Zip code	-
5)	Email Address	_
6)	Part numberSerial number	_
7)	Pool Dealer	_
8)	Address	_
9)	Zip codeCountry	_

Note

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USE ONLY GENUINE REPLACEMENT PARTS

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### GENERAL

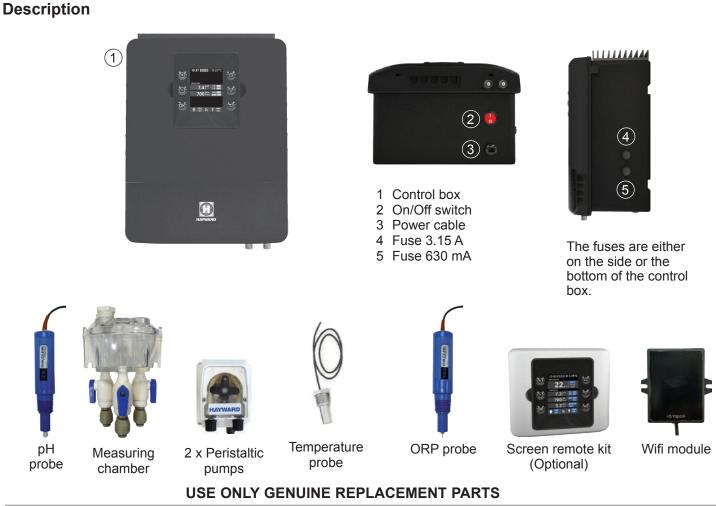
The Control Station is a pool equipment control and treatment regulation system.

The Control Station allows you to control the filtration system (pump) as well as the peripheral equipment (heat pump, lighting, etc.).

It also allows you to treat your pool effectively via liquid chlorine injection. The Control Station is suitable for treating most residential swimming pools.

The quantity of chlorine required to treat a pool correctly varies according to the number of bathers, the rainfall, water temperature and the cleanliness of the pool...

## INSTALLATION



**Control Station** 



#### Wall-mounted installation

Fix the box and the measuring chamber on the wall (optional). The box must be installed in the equipment room (dry, temperate, ventilated). Caution, acid vapours can cause irreversible damage to your device. Position the treatment product tanks accordingly.

The Control Station must be fitted a minimum horizontal distance of 3.5 m (or more, if required by local regulations) from the pool.

The box must be placed vertically on a flat surface, with the cables downwards. As this box is also used to evacuate heat (heat dissipation from internal components), it is important that the four sides of the box remain unobstructed. Do not to install the Control Station behind a panel or in an enclosed space.

Before installing the control unit in the intended location, check that the power cord can reach the protected outlet.

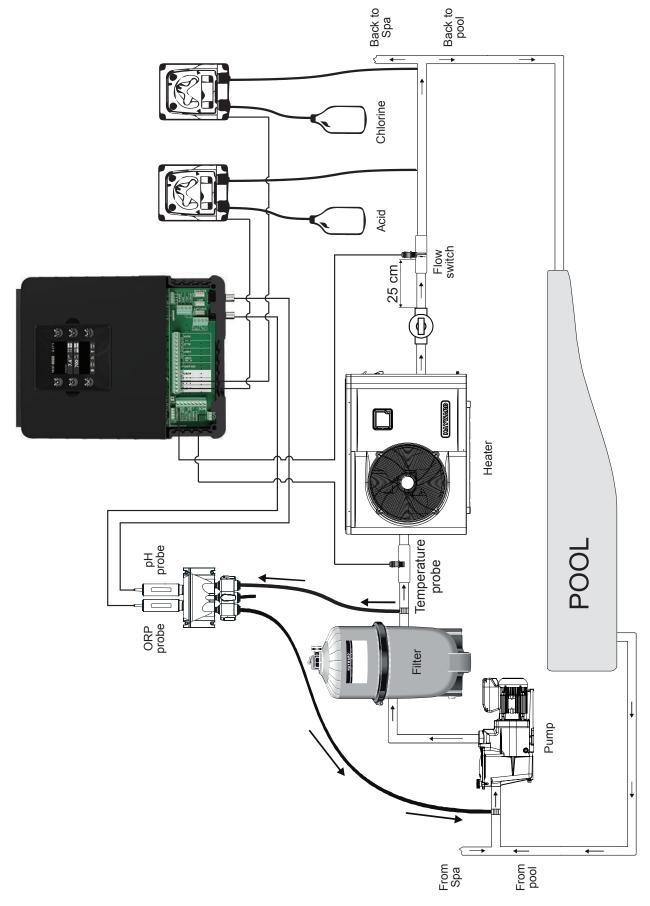


Disconnect the pool filtration pump before starting the installation. The system must be installed in accordance with the standards currently in force in the country of installation. The control box must be fitted a minimum horizontal distance of 3.5 m (or more, if required by local regulations) from the pool, within 1 m of a protected outlet. Install and use the product at an altitude below 2000 m.

The flow switch must be installed on the return pipe directly in line with and upstream of the treatment product injection point. Allow a 25 cm straight section before the flow switch. A hole should previously have been drilled in the pipe to allow the flow switch to pass through. Screw the flow switch into the saddle clamp, taking care to seal with Teflon. Then install the clamp on the pipe. The flow switch must be installed in the direction of operation to ensure that it is tripped by the flow from the filtration pump.

The device used to inject the treatment products (acid, etc.) must be installed last on the water return line, after any equipment (heater, etc.). A hole should previously have been drilled in the pipe to allow the treatment product to pass through. Install the saddle clamp and screw the injection valve into the saddle clamp using the adapter provided. Seal with Teflon. Use the transparent PVC hose for suction (between the tank and the peristaltic pump) and the semi-rigid white polyethylene tube for injection (between the peristaltic pump and the injection valve).

All the metal components of the swimming pool can be connected to the same earth as per local regulations



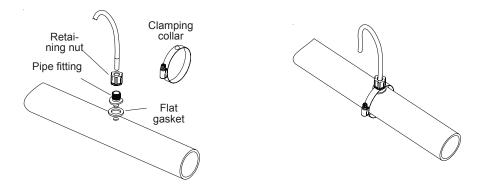
USE ONLY GENUINE REPLACEMENT PARTS



#### Connecting the water supply points

Install the measuring chamber as close as possible to the pool pipes to avoid head losses.

Drill a 10 mm hole. Place the flat gasket on the pipe fitting and insert the assembly into the hole, as illustrated below. Tighten the fitting with the clamp provided. Once the fitting has been secured to the pool pipe, insert the hose firmly into the pipe and tighten the retaining nut by hand.

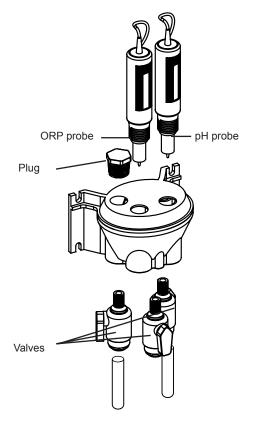


#### Installing the pH and ORP probes on the measuring chamber

The pH and ORP probes are "wet" packed and protected by plastic caps. The probes must always remain wet. If the probes are allowed to dry, they will be permanently unusable (not covered by the warranty) and the pH-ORP test kit will be ineffective. Remove the pH and ORP probes from their plastic protective caps and set the caps aside for later use (wintering). To ensure that the probes remain wet at all times, fill the measuring chamber with people with people installing the probes. Apply a length of Toflag

the probes remain wet at all times, fill the measuring chamber with pool water before installing the probes. Apply a length of Teflon tape to the probe threads. Tighten the probes by hand only. Check that they are watertight at startup. If the probes leak, do not tighten them further, but remove the Teflon tape and apply a new one.

After installation, check that the probes are constantly in contact with the water in the pool. When the filtration pump is not running (even for long periods), the water remaining in the chamber may be sufficient to protect the probes.

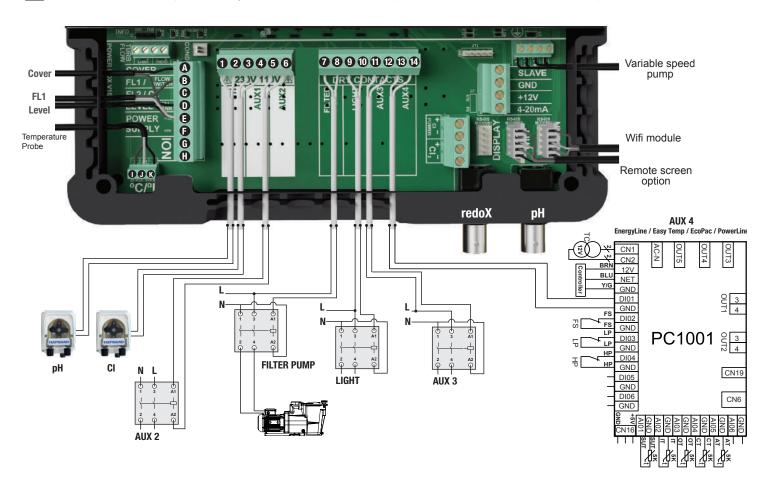




#### Electrical installation and wiring

Connect the Control Station to a permanent power outlet.

This circuit must be protected by a residual current device (RCD) (residual current: 30 mA max.).



#### Description of outgoing relays

Name	Description	Terminals	Type of output	Imax
pН	Peristaltic acid pump 230 V $\scriptscriptstyle \wedge$	1 - 2	Voltage output	1 A
CI	Peristaltic chlorine pump 230 V ${\sim}$	3 - 4	Voltage output	1 A
Aux2	Auxiliary voltage output 230 V ${\sim}$	5 - 6	Voltage output	1 A
Filter Pump	Filtration pump control	7 - 8	Dry contact	
Light	Lighting control	9 - 10	Dry contact	
Aux3	Auxiliary dry contact	11 - 12	Dry contact	
Aux4	Auxiliary dry contact (or heating control).	13 - 14	Dry contact	

If no heating system is installed on Aux4, it can be used as another auxiliary contact. To do this, contact Hayward technical support.



#### Connecting a heating system (Aux 4)

The Control Station is compatible with all types of pool heaters such as heat pumps, electric heaters or even heat exchangers.

#### Connecting to a Hayward heating system fitted with a remote On/Off control

Connect a 2 x 0.75 mm<sup>2</sup> electric cable (not supplied) across terminals (13)-(14) of auxiliary contact Aux 4, then connect it across the DI01 and GND terminals on electronic circuit board PC1001/PC1002 of the Hayward heat pump or any other compatible equipment (see the installation instructions). Set the set point of the heat pump or heating system to maximum. The Control Station will use its own water temperature probe to control the heating set point.

Compatible equipment includes the seasonal Energyline Pro, the inverter Energyline Pro, the All Seasons Energyline Pro, EasyTemp, EcoPac, PowerLine and other brands with a remote On/Off control.

Connecting to a Hayward heating system not fitted with a remote On/Off control

In this case, the heating is controlled in series with the flow controller. Connect a 2 x 0.75 mm<sup>2</sup> cable in series with the flow control system.

Set the heating system set point to maximum. The Control Station will use its own water temperature probe to control the heating set point.

#### Connecting inputs:

Name	Description	Terminals	Type of input
FL1	Flow switch	B - E	Dry contact
Cover	Not used	A - E	Dry contact
Level	Acid container level detection	D - E Dry contact	
ION	Not used	G - H	-
	Black wire	K	-
°C / F°	Yellow wire	J	-
	Red wire	I	-

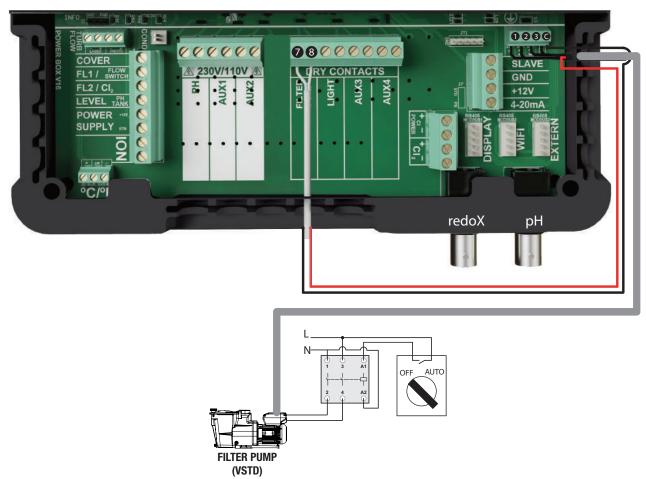
#### Characteristics

Power supply	230 V∿ 50 Hz
Current consumption	100 mA
Power consumption	23 W
Safety rating	IPX4
Characteristics of pH and ORP relays	Imax (pH+CI+Aux2) = 3,15A , Pmax (PH+CI+Aux2) = 725 W
Dimensions	270 x 220 x 150

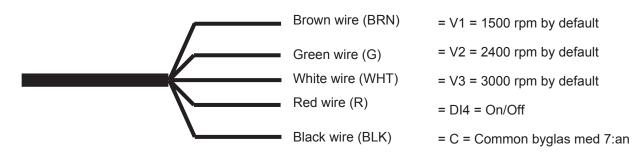
#### Connecting the ORP option (Optional)

Insert the ORP probe into the measuring chamber. Connect the BNC connector on the ORP probe to the redox BNC input on the Control Station.

Connecting a Hayward variable-speed pump with digital inputs



When using a Hayward variable-speed pump fitted with digital inputs, bridge the common black wire, connected to terminal (C), to terminal (7) and follow the connection instructions given in the following table. You will have to strip the digital cable back 15 cm and cut the orange wire.



Name	Description	Terminals	Colour
V1	Low pump speed (V1)	1	Brown (BRN)
V2	Average pump speed (V2)	2	Green (G)
V3	High pump speed (V3)	3	White (WHT)
С	Common	C - 7	Black (BLK)
DI4	On/Off	8	Red (R)



#### **Assigning speeds**

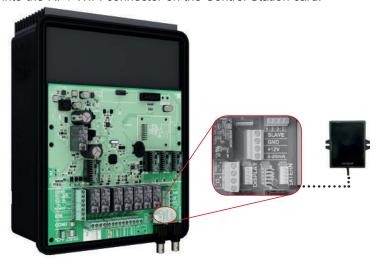
Whatever the filtration mode (**Manual**, **Automatic**, **Smart**, **Heating** or **Intelligent**), one of the three operating speeds (V1, V2 or V3) can be selected, thus providing a high degree of flexibility for setting and adjusting the water flow according to the equipment. The device will first have to be configured to take the variable-speed pump into account (see the section entitled "Setting the pump type").

The speed assigned to the "antifreeze" mode is V2.

**Note:** We should point out that the speed of all pool devices requiring a minimum water flow that is appropriate to their correct operation must be set manually before being stored in the memory and used by the Control Station (heat pump, chlorinator, etc.). See the variable-speed pump instructions for setting all the parameters related to its operation and safety.

#### **Connecting the Wifi option**

The Wifi module must be installed in the equipment room (dry, temperate, ventilated) and located within reach of the wireless network cover to which it will be connected. Switch off the device before connecting the module. Plug the Wifi module connector into the RF / WIFI connector on the Control Station card.

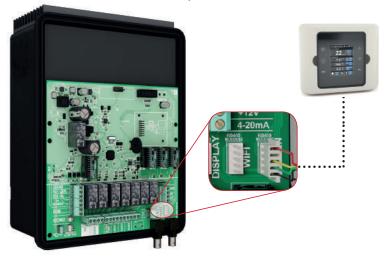


#### Installing the screen wall-mounting kit (not supplied)

Remove the screen from the box and unplug it.

Plug the extension connector into the DISPLAY connector on the Control Station card.

Plug the other end of the extension into the screen after first passing the cable through the wall bracket. Fit the cover (supplied) over the front of the Control Station to replace the screen.





#### Chemical water balance

The water must be balanced manually **BEFORE** the device is started up.

The following table summarizes the concentrations recommended by Hayward. Your water should be checked regularly to maintain these concentrations and minimize surface corrosion or deterioration.

CHEMISTRY	Recommended CONCENTRATIONS
Free chlorine	1.0 to 3.0 ppm
рН	7.2 to 7.6
Cyanuric acid (Stabilizer)	20 to 30 ppm max. (Add stabilizer only if necessary) 0 ppm in indoor pool
Total alkalinity	80 to 120 ppm
Water hardness	200 to 300 ppm
Metals	0 ppm
Saturation index	-0.2 to 0.2 (preferably 0)

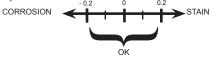
#### Saturation index

The saturation index (Si) gives us information about the calcium content and alkalinity of the water; it is a water balance indicator. Your water is correctly balanced if the Si is  $0 \pm 0.2$ . If the Si is below -0.2, the water is corrosive and the coating on the pool walls may be damaged. If the Si is above +0.2, stains may appear. Use the table below to determine the saturation index.

51 - pH + 11 + CI + AI - 12.1						
°C	°F	Ti	Hardness (Calcium)	Ci	Total alkalinity	Ai
12	53	0.3	75	1.5	75	1.9
16	60	0.4	100 125	1.6 1.7	100 125	2.0 2.1
19	66	0.5	150	1.8	150	2.2
24	76	0.6	200 250	1.9 2.0	200 250	2.3 2.4
29	84	0.7	300	2.1	300	2.5
34	94	0.8	400 600	2.2 2.4	400 600	2.6 2.8
39	100	0.9	800	2.5	800	2.9

#### Si = pH + Ti + Ci + Ai - 12.1

Use: Measure the pH of the pool water, the temperature, water hardness and total alkalinity. Use the table above to determine Ti, Ci and Ai in the formula shown above. If the Si is equal to 0.2 or more, stains may appear. If the Si is equal to -0.2 or less, corrosion or deterioration may occur.



▲ WARNING – Chemicals can cause internal and external burns. To avoid death, serious injury and/or damage to equipment, wear personal protective equipment (gloves, goggles, mask, etc.) when servicing or maintaining this device. The treatment products must be installed and/or stored in an adequately ventilated place.

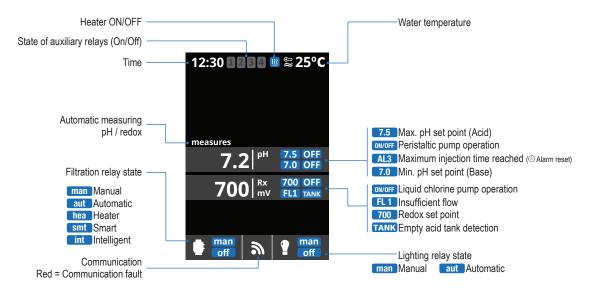


## **OPERATION**

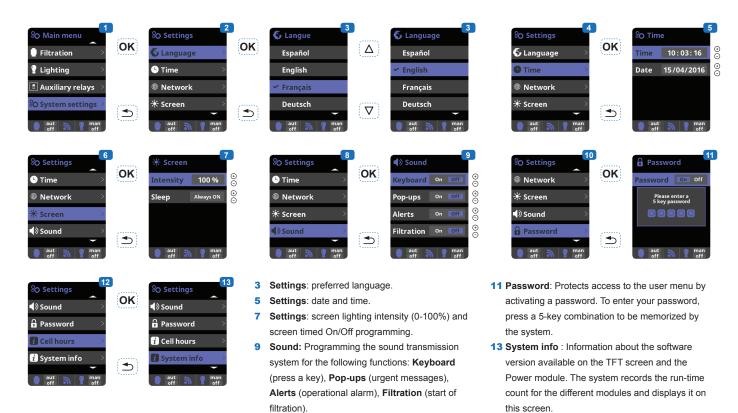
The device is designed to be connected to a protected outlet at all times. The Control Station must not be disconnected unless the pool equipment is undergoing maintenance or the pool is to be closed (wintering).

Assuming that the chemical balance of the water is within the recommended ranges, the device can be started up.

#### Configuration

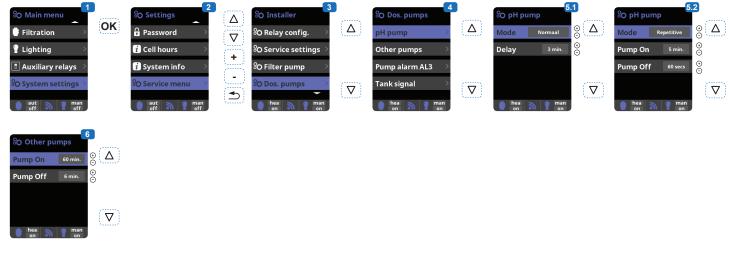


#### Settings





#### Setting the pH/ORP correction time



**1** Setting the pH correction time.

The chemical parameters of the water must be set manually before the device is started up. If these adjustments are not made in advance, unwanted AL3 alarms may be tripped.

- **2** Enter the password:  $\triangle \nabla \odot \odot$
- **3** Select the "Dos. pumps" menu.
- 4 Select the "pH Pump" menu. Do not change the default values on the "Pump alarm AL3" and "Tank signal" menus.
- **5.1Allows** you to set the pH pump to run continuously (Normal mode).
- **5.2Allows** you to set the pH pump to run intermittently (Repetition mode).

**Caution:** if the interval is too long, your pool may not be protected against acid overdoses and your equipment may be irreversibly damaged. Too short an interval may trip unwanted AL3 alarms. 6 Allows you to set the ON/OFF periods of the disinfectant pump.

#### Filtration



- 6 Heating : This mode acts in the same way as the automatic mode, but it can also operate via a relay that controls the temperature. The set point temperature is determined in this menu and the system operates with a hysteresis of one degree (for example: if the set point temperature is 23°C, the system will start up when the
- 7 Intelligent\*: In this mode, the user has two operating parameters: Select the required water temperature and the minimum filtration time (minimum two hours and maximum 24 hours). The filtration will operate for at least ten minutes every two hours to check the temperature. The minimum filtration time selected is divided into twelve sections that are added to its ten minutes. Example 1: Over twelve hours, the time

temperature falls below 22°C and shut down only when it rises above 23°C).

Heating control OFF: The heating operates only during the filtration periods configured.

Heating control ON: Keeps the filtration on after

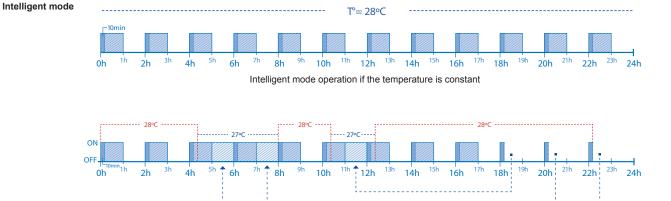
is divided between the twelve times a day when the filtration starts up to check the temperature. **Example 2:** (12 hours x 60 minutes) / 12 = 60 minutes every two hours. This is the filtration and heating period every two hours. If the programmed filtration period ends and the required temperature has not been reached, the filtration and heating remain on until the required temperature is reached. To minimize the

#### 1 Filtration modes.

- 2 **Manual:** Allows the filtration process to be turned on and off manually.
- **3 Filter cleaning:** This mode is used to backwash the filter.
- 4 Automatic: In this mode, filtration is turned on according to the start and end times set in the time slots. The time slots always operate on a daily basis.
- 5 Smart\*: This mode is based on the automatic mode, with its three filtration intervals, but the filtration times are adjusted according to the temperature. This is done by setting two temperature parameters: the maximum temperature, above which the filtration times will be determined by the time slots, and the minimum temperature, below which filtration will be reduced to five minutes, the minimum operation period. Between these two temperatures, the filtration times will be staggered linearly. The antifreeze mode can be activated to turn the filtration on if the water temperature falls below 2°C.

the filtration period has expired if the temperature is below the set point temperature. When the setpoint temperature is reached, the filtration and heating stop and only resume when the next programming period begins.

number of hours during which filtration operates each day, this additional time will be deducted from the next filtration periods occurring during the rest of the day. (See the chart below).



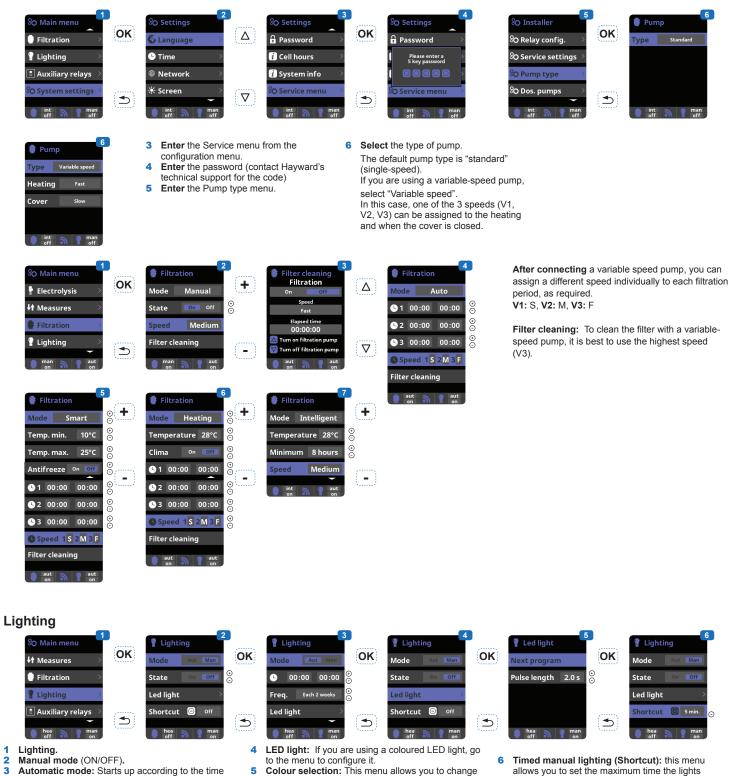
Intelligent mode operation if the temperature varies

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Control Station



#### Setting the pump type



2 3 Automatic mode: Starts up according to the time slots used to set the lighting start and end times. The time slots can be configured with the following frequencies: daily, every 2 days, every 3 days, every 4 days, every 5 days, weekly,

every 2 weeks, every 3 weeks, every 4 weeks.

**Control Station** 

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0.5 s, maximum 10 s).

the colours manually and, according to the type

of LED light, program the pulse length required to

cycle through the colours and programs (by default,

1

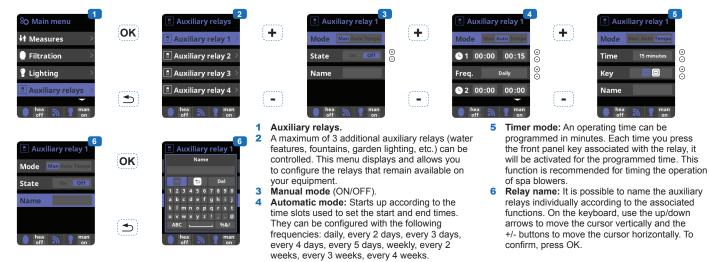
remain on before they switch off automatically after

The lighting can be switched on manually from the

main screen by pressing the (-) button

a predefined time.

#### Auxiliary relays



#### Measures

% Main menu         */* Measures         * Filtration         * Lighting         * Auxiliary relays         heft         * man	Image: Arrow of the second	Image: state points       Image: state points       Image: state points       Image: state points         Image: state point points       Image: state points       Image: state points       Image: state points       Image: state points         Image: state point points       Image: state points       Imag	and measuring probes. Set points for each measurement. Setting the set points. pH probe calibration: Recommended 7 once a month during the pool season.	Calibration using buffer solutions (liquids models pH7 / pH10 / neutral). Follow the on-screen instructions (fig. 6). Manual calibration: Allows you to set the probes to 1 point (without buffer solution) – recommended only for adjusting small deviations in readings.
Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image: Head of the set points         Image: Head of the set points       Image:	Buffer (2pt)	Pri calibration     P	for the second s	7 CMC Current messurement 7.2   <sup>pH</sup> Target messurement 7.2   <sup>pH</sup> © ⊙ Fine adjustment © © Fine adjustment © © Fine adjustment © K © K © K © K man on N man on man on man man
If Measures       ●         If Set points       ●         If PH calibration       ●         If Redox cal.       ●         If Temperat. cal.       ●         If an in the man       ●	Redox cal. Buffer (1pt) ·* Offset (1pt) man n man	Total and total	I2         Buffer (1pt)         Offset (1pt)         Offset (1pt)         Image: The second	13 8 Without removing the probe from the water, use the + / - keys to adjust the reading to your reference value (photometer or other measuring instrument).
If Measures       14         If Set points       >         If pH calibration       >         If Redox cal.       >         If Temperat. cal.       >         Image: man in the set of the set	27.3   ∘c ⓒ ⑦ Fine adjustment △ ♡ Coarse adjustment	Redox probe calibration: Recommended every two months during the pool season. Calibration with reference solution 465 mV. Follow the on-screen instructions (fig. 11). Manual calibration: Allows you to the probes to 1 point (without soluti	the reading to your reference value (photometer or other measuring set instrument).	<ul> <li>14 Temperature probe calibration: Allows you to set the probes to 1 point.</li> <li>15 Without removing the probe from the water, use the + / - keys to adjust the reading to your reference value (thermometer). The same conditions should apply for measurements.</li> </ul>



#### Setting the Wifi module

So Settings C Language Time Network * Screen auf a g and	Network     WIFI     System settings     Status     So Test connection     aut off	Available network 1 Available network 2	etwork password         (m) WIFI           bel         Ø System settings           4 5 6 7 8 9 0         (f) Status           in o p q r 5 t         Ø Soft connection           wy z l , in Ø         % D Test connection	Ø         System settings           DHCP         on           IP         192.168.12           Mask         255.255.255.0           Gateway         192.168.1.1           DNS         6.8.8.8           auf         mark
Network       ۱     ۲       ۱     ۱       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۲       ۱     ۱       ۱     ۱       ۱     ۱       ۱     ۱       ۱     ۱       ۱     ۱	Network       8       1         W WIFI       >       2         Ø System settings >       2         Ĵ Status       >         Ø Test connection >       3         eff       1       man	<ul> <li>Internet: Once the module is connected, switch on the device. A Network menu appears in the Settings menu.</li> <li>Wifi: Select the Wifi menu to start an automatic search for available networks.</li> <li>Choose the relevant available network.</li> <li>Enter the password for this</li> </ul>	network via the keyboard. Use the up/down arrows to move the cursor vertically and the +/- buttons to move the cursor horizontally. To confirm, press OK. 5 Configuration: If you want to configure your connection manually or if automatic configuration fails, you can	change the network parameters in this menu. Status: Displays information about your current connection. Test connection: Checks that your connection has been established.

When the module is connected to the Wifi network and the two LEDs are on continuously (steady), you can register at poolwatch.hayward.fr. Get your ID Node (see below) and follow the registration process.

Once you have registered, you can monitor all your Control Station parameters remotely.



#### Setting the redox level

The redox level tells you the oxidation potential, i.e. the disinfectant capacity of the water.

Setting the redox set point is the last step in setting the Control Station.

To find the optimum redox level for your pool, follow the steps below:

1) Start up the pool filtration system.

2) Add chlorine to the swimming pool until it reaches 1 to 1.5 ppm. This level is achieved with (approximately 1 to 1.5 g/m<sup>3</sup> of water).

The pH level must vary between 7.2 and 7.5.

3) After 30 min. Check whether the level of free chlorine in the pool (manual DPD1 test kit) is between 0.8 and 1.0 ppm.

4) Look at the redox value on the screen and enter it as the redox set point.

5) The next day, check the free chlorine levels (manual DPD1 test kit) and the redox level. Increase / reduce the setting, if required.

Remember to check all your water parameters at regular intervals (2-3 months) (see table) and adjust the redox set point according to the steps listed above.



### SERVICING

During the first 10-15 days, your system will require more attention:

- Check that the pH remains at the ideal level (7.2 to 7.4).

- If the pH is exceptionally unstable and uses a lot of acid, check the alkalinity (see table).

If the balance is highly unstable, contact your pool installer/builder.

**REMEMBER** that the system needs a certain amount of time to adapt to your pool and will require additional chemicals during the first 3-5 days.

The pool must be regularly maintained and the skimmer baskets emptied whenever necessary. Also check that your filter is not clogged.

**DOSING PUMPS:** Check the levels regularly to ensure that the pumps do not run on empty. The dosing pumps must be checked and serviced at regular intervals.

#### Servicing the probes

The probes must be clean and free from oil, chemical deposits and contamination to function properly. As they are in continuous contact with the water in the pool, the probes may need to be cleaned weekly or monthly, depending on the number of bathers and other specific pool characteristics. A slow response, more frequent pH calibration and inconsistent readings indicate that the probes need to be cleaned.

To clean the probes, turn off the power to the Control Station.

Unplug the probe connectors from the control box, unscrew the probes and carefully remove them from the chamber. Clean the probe bulb (white ring at the bottom of the body of the probe) with a soft toothbrush and regular toothpaste. A household washing-up liquid detergent may also be used to remove any oil.

Rinse with fresh water, replace the Teflon tape on the threads, and reinstall the probes.

If the probes continue to give inconsistent readings or require excessive calibration after they have been cleaned, they should be replaced.

#### Wintering

The flow switch, probes and pool piping run the risk of being damaged if the water freezes. In regions that experience long periods of cold weather, be sure to drain all the water from the pump and filter and from the supply and return pipes before winter. Do not remove the control unit.

#### Probe storage

The end of the probes must always be in contact with water or a solution of KCI. If they are removed from the measuring chamber, they should be stored in the plastic caps provided (filled with water). If the storage caps have been mislaid, the probes should be stored separately in small glass or plastic containers with their ends immersed in water. The probes must always be in a frost-free environment.



### **TROUBLESHOOTING GUIDE**

#### No display

Check that the On / Off switch is on. Check the connection cable between the display and the control box. Check that the external 630 mA fuse is not defective. Check the power supply: 210-230 V $\sim$  50 Hz. If the problem persists, contact your pool installer/builder.

#### Excessive chlorine

Check the redox setting. Check the redox probe and calibrate, if necessary.

#### Impossible to attain a free chlorine level of 0.8 ppm

Increase the filtration time.

Increase the ORP set point. Check the level of isocyanuric acid in the pool. Check that the reactive agents in your test kit are not out of date. If the temperature or the number of users increases.

If the pH is above 7.8, it must be adjusted.

#### Alarm AL3: dosing pump stopped

The maximum time required to attain the pH or ORP set point has been reached. The disinfectant or pH dosing pump is stopped to avoid overdosing.

Please carry out the following checks to avoid equipment failure:

Check that the can of liquid pH adjuster or liquid chlorine is not empty.

Check whether the pH read on the machine corresponds to the pH in the pool (use a pH analysis kit). Otherwise, calibrate the pH probe or replace it, if necessary.

Check that the pH pump is running normally.

Check and adjust the time of AL3 according to the size of your pool.

Check that the liquid chlorine pump is working correctly.

Check the ORP probe using a standard solution and replace the ORP probe if required.

To delete this message and reset the dosing values, press the rightarrow key.

#### Chlorinator display indicates FLOW

Check the flow switch cable.