



# HAYWARD®



## EasyChem Double and Plug version | pH · ORP

### OWNER'S MANUAL

**PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE**

The product images shown in this manual are for illustration purposes only and may not be an exact representation of the product.



**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**

**⚠ 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.

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

**⚠ WARNING** – The device shall be disconnected from its power source during cleaning or maintenance and when replacing parts: 1. for mains operated devices with a plug, remove the plug from the socket-outlet; 2. for mains operated pumps without a plug, disconnect the device.

**⚠ 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 or, failing this, in accordance with the international standard IEC 60334-7-702.

|     |                                           |     |                                       |
|-----|-------------------------------------------|-----|---------------------------------------|
| F   | NF C 15-100                               | GB  | BS7671:1992                           |
| D   | DIN VDE 0100-702                          | EW  | SIST HD 384-7-702.S2                  |
| A   | ÖVE 8001-4-702                            | H   | 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                    |
| I   | 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                  |
| P   | 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** – Protect the electrical connection cables with a wiring box with IP55 protection.

**⚠ 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.

**⚠ WARNING** – The unit shall not be operated when there is no water flow in the cell.

**⚠ 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.

**⚠ WARNING** – Use, cleaning or maintenance of the device by children over 8 years of age or by people with impaired physical, sensory or mental capacities, or a lack of experience or expertise, should only take place once they have received appropriate instruction and under adequate supervision of an adult who is responsible for them, to ensure the device is handled safely and avoid all risk of danger.

**⚠ WARNING** – 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.

**⚠ WARNING** – Protect the trigger cable with an appropriate IP55 wiring box.

**⚠ WARNING** – Please refer to Section 4 for the correct electrical connections.

**⚠ WARNING** – The product is equipped with a power socket that is not suitable for the English (UK) and Swiss (CH) markets.

**⚠ WARNING** – Means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III conditions must be incorporated in the fixed wiring in accordance with the wiring rules.

**⚠ WARNING** – The device shall be disconnected from its power source during service and when replacing parts and, if that the removal of the plug is foreseen, the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed

**⚠ WARNING** – The installation must be performed in compliance with the regulations in effect in the country of installation.

**⚠ WARNING** – Please refer to Section 3 for correct installation of the device; Section 3 also includes an installation example of the appliance.

**⚠ WARNING** – The device is to be located where flooding cannot occur.

**⚠ WARNING** – Do not leave the device outdoors during freezing weather conditions.

**⚠ WARNING** – Pollution of the liquid could occur due to leakage of lubricants.

**⚠ WARNING** – The airborne noise emission level does not exceed 70 dB.

**⚠ WARNING** – Please refer to Section 9 for details regarding the preventive maintenance measures.

**⚠ WARNING** – Failure to comply with the instructions contained in this manual could cause injury to people and/or damage to the appliance and the system.

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## 1. GENERAL

Before carrying out ANY work inside control panel of the EasyChem Double device, make sure you disconnect it from the power supply.

Failure to comply with the instructions contained in this manual could cause injury to people and/or damage to the appliance and the system.

## 2. PACK CONTENTS



A: PVC Crystal 4x6 suction hose (4 m)



B: Polyethylene delivery hose (5 m)



C: FPM Lip valve (3/8" GAS)



D: PSS3 probe-holder (1/2" GAS)



E: Tapping saddle (ø=50mm)



F: Reducer for injection valve (1/2" M to 3/8" F)



G: Foot filter (PP riser)



H: Mounting bracket kit (ø=6 mm screws)



L: Temperature sensor



M: pH probe



N: ORP probe



O: pH 4 Buffer solution



P: pH 7 Buffer solution



Q: 465 mv Calibration solution



R: Water



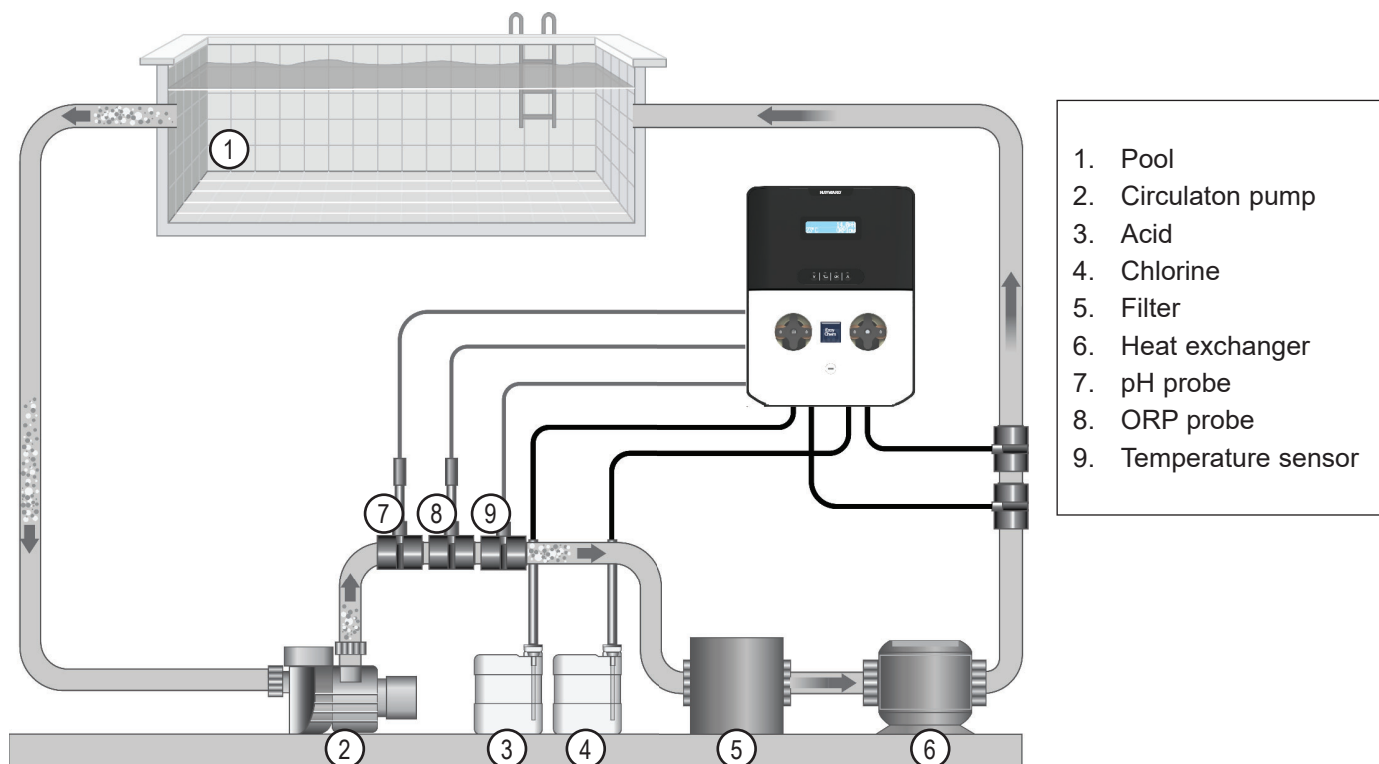
S: Nuts for peristaltic tube

| System | EASY-CH-DPHRXG | EASY-CH-DPHRXGS |
|--------|----------------|-----------------|
| A      | 2              | 1               |
| B      | 2              | 1               |
| C      | 2              | 1               |
| D      | 2              | 2               |
| E      | 5              | 4               |
| F      | 2              | 1               |
| G      | 2              | 1               |
| H      | 1              | 1               |
| L      | 1              | 1               |
| M      | 1              | 1               |
| N      | 1              | 1               |
| O      | 1              | 1               |
| P      | 1              | 1               |
| Q      | 1              | 1               |
| R      | 1              | 1               |
| S      | 2              | 1               |

\*NOTE: The values from the table represent the number of items inside the package.

## 3. INSTALLATION

### 3a. View of overall installation



#### Warning!

##### Use with salt chlorinator:

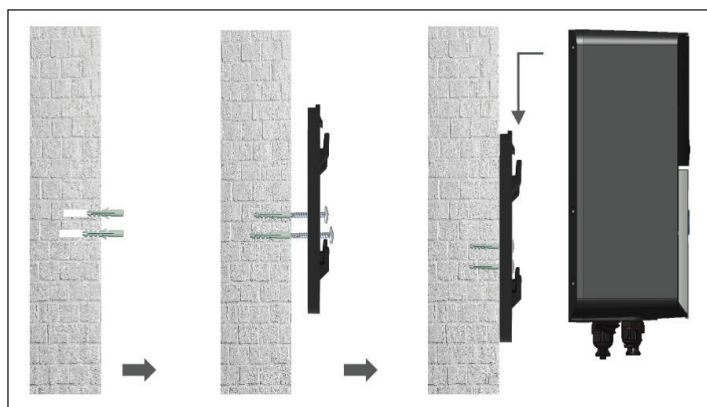
For the pH systems, to prevent the risk of system malfunctioning or damage, observe the following instructions:

1. Position the pH measuring probe prior to the chlorinator cell.
2. To eliminate eddy currents, connect the pool water to an electrical ground point
3. Position the product injection point after the chlorinator cell.

### 3b. Wall-mounted installation

Mount the control box on the wall. 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.

Unplug the pool filter pump before you begin the installation. The installation must be performed in compliance with the regulations in effect in the country of installation.



#### Warning!

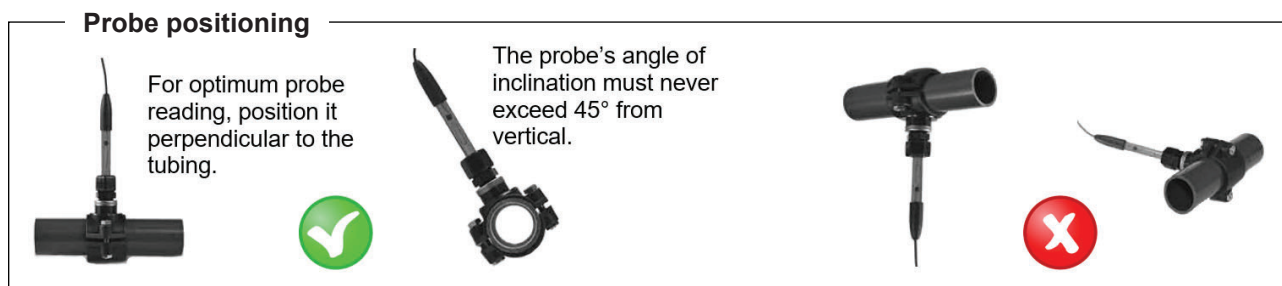


### 3c. Installation of pH and ORP probes, and acid dosing pump

The pH and ORP probes are «wet» packed and protected by a plastic cap. 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). Insert the probes into the double probe holder and tighten to ensure they are watertight. Connect the probe holder to the valves screwed onto the saddle clamps and tighten by hand only. Check that the probes are watertight at startup. Seal with Teflon, if required.

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.

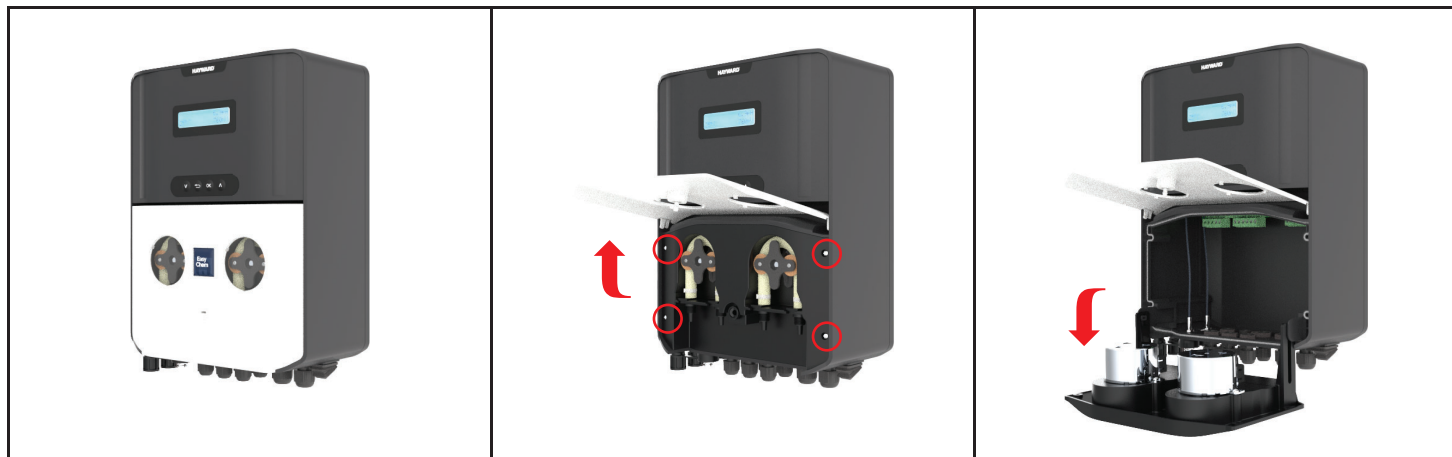


## 4. ELECTRICAL CONNECTIONS

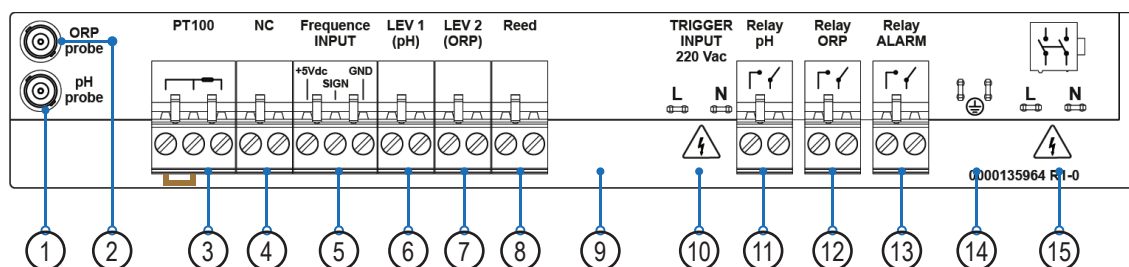
### 4a. Electrical installation and wiring

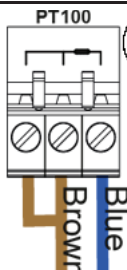
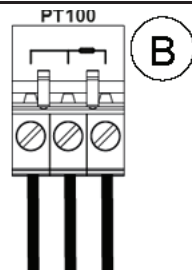
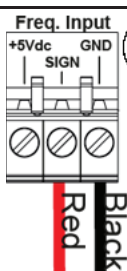
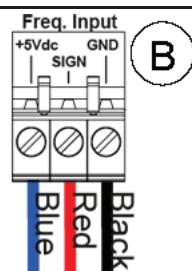
Connect the EasyChem Double to a permanent power outlet.

Open the peristaltic pump lid (1), unscrew four screws (2) and pull the peristaltic pump on the side (3), as illustrated in the pictures below:



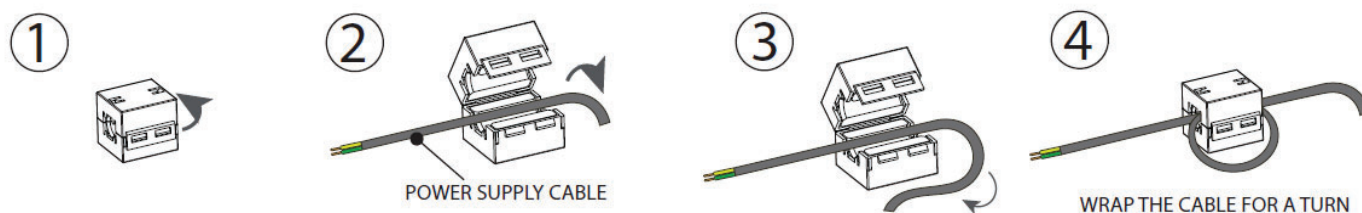
**Label connection:**



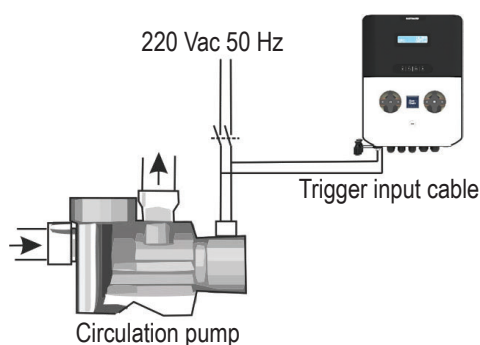
| Clamp | Description                                 | EASY-CH-DPHRXG / EASY-CH-DPHRXGS                                                                                                                  | Wire connection details                                                                                                                                                     |
|-------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Input Probe                                 | pH                                                                                                                                                | pH Probe                                                                                                                                                                    |
| 2     | Input Probe                                 | ORP                                                                                                                                               | ORP Probe                                                                                                                                                                   |
| 3     | Input Probe                                 | TEMPERATURE SENSOR (PT100)<br>A= two wires sensor, probe included in the package<br>B= three wires sensor, please check the optional colors probe |     |
| 4     | Input Probe                                 | Not used                                                                                                                                          | ---                                                                                                                                                                         |
| 5     | Frequency input by water meter pulse sender | Flow Rate (Freq. Input)<br>A= Mechanical reed<br>B= Padwheel hall sensor                                                                          |   |
| 6     | Level (product tank)                        | pH Level probe                                                                                                                                    | Level probe for chemical tank                                                                                                                                               |
| 7     | Level (product tank)                        | Chlorine (ORP) level probe                                                                                                                        | Level probe for chemical tank                                                                                                                                               |
| 8     | Level (Reed sensor)                         | Flow (External REED flow sensor)                                                                                                                  | Flow sensor                                                                                                                                                                 |
| 9     | Serial Port                                 | Not present                                                                                                                                       | ---                                                                                                                                                                         |
| 10    | Trigger Input 220Vac (High Voltage)         | Circulation Pump (220Vac input)                                                                                                                   | Line/Neutral wires                                                                                                                                                          |
| 11    | Output Relay R1 (AUX1)                      | RL1 AUX1 pH                                                                                                                                       | Dry contact                                                                                                                                                                 |
| 12    | Output Relay R2 (AUX2)                      | <b>Easy-CH-DPHRXG:</b><br>RL2 AUX2 OPR<br><br><b>Easy-CH-DPHRXGS:</b><br>RL2 AUX2 OPR with Schuko socket                                          | Dry contact                                                                                                                                                                 |
| 13    | Output Relay R3                             | RL3 Alarm                                                                                                                                         | Dry contact                                                                                                                                                                 |
| 14    | Earth connector                             | Earth                                                                                                                                             | ---                                                                                                                                                                         |
| 15    | Power Supply                                | 220-240 Vac 50-60 Hz (F/N)                                                                                                                        | ---                                                                                                                                                                         |

#### 4b. Electrical suppressor device

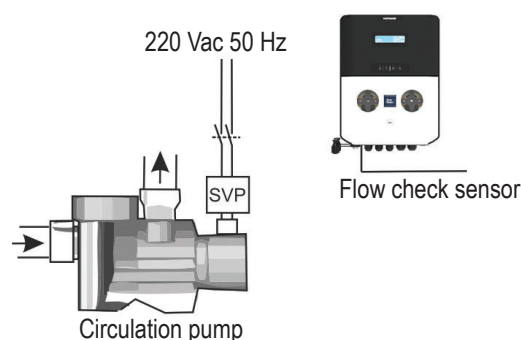
It is mandatory to install the coil suppressor, please see the instructions below:



#### 4c. Trigger input by circulation pump



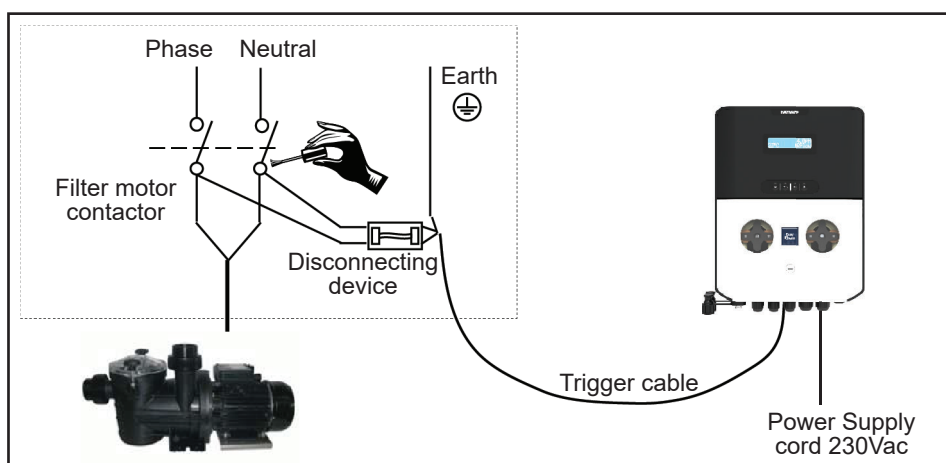
Connect the Trigger cable as the example on the site with the traditional circulation pump, to check the flow is present in the pipe line.



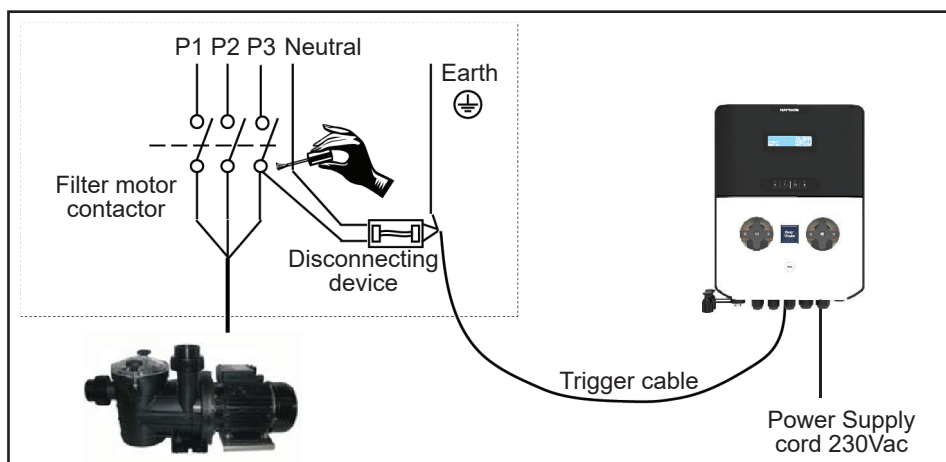
Do not use the Trigger cable to the circulation pump if the SVP (speed variable pump) is present, but use the Flow check sensor, pay attention to disable or enable the function in the setting menu.

**⚠ WARNING – Protect the trigger cable with an appropriate IP55 wiring box.**

**Case of a 230V 50Hz single-phase filter box...**



## Case of a 380V 50Hz three-phase filter box...



NOTE: In both cases, connect «Neutral and one phase» as well as earth!

## 5. SPECIFICATIONS

| Specifications                  | EASY-CH-DPHRXG / EASY-CH-DPHRXGS |
|---------------------------------|----------------------------------|
| Range                           | 0-14pH; -99 -1000mV; 0...+55°C   |
| Accuracy                        | ±0.02pH, ±3mV; ±0.5°C            |
| Device precision                | ± 0.1 pH; ±10mV; ±1°C            |
| Flow rate pump (l/h)            | 1.5 l/h                          |
| Flow rate pump (SPA model only) | 1.5 l/h                          |
| Power supply                    | 220-240 VAC 50-60 Hz             |
| Consumption (W)                 | 28 Watt                          |
| Probe calibration               | Automatic                        |
| Pump state                      | Pause – Supply                   |
| Max. back-pressure              | 1.5bar                           |
| Relay contact (number 3)        | 250 Vac 10A (resistive load)     |
| Fuse                            | 500 mA (fast)                    |
| Weight                          | 3.5 Kg                           |
| Dimensions (W–H–D)              | 212 x 303 x 113 mm               |



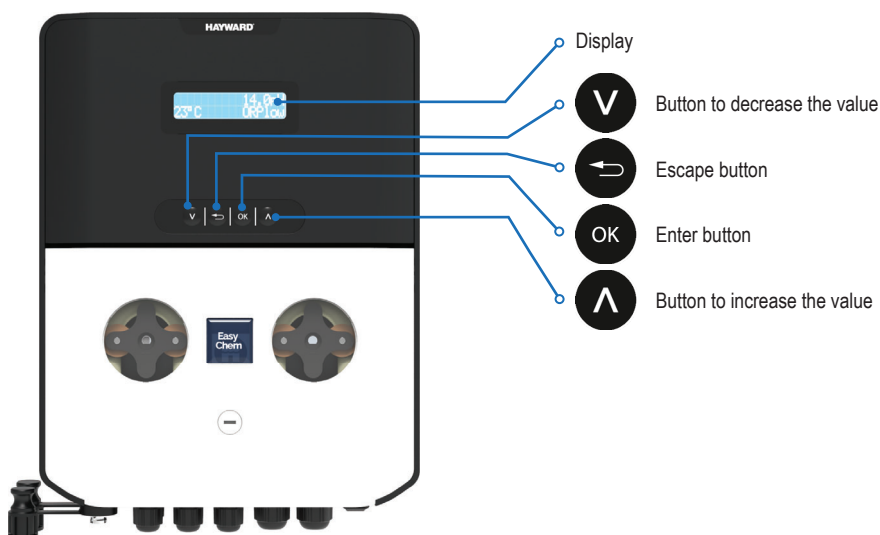
NOTE: The red light indicator turns on when the internal relay is activated according to the measurement and the Schuko socket is powered at 230Vac.

## 6. SETUP AND OPERATION

The device is designed to be connected to a protected outlet at all times. The EasyChem Double 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.

### 6a. Description of the home screen and defaults parameters



#### Default parameters

| n  | Item             | Value                                     |                                   |
|----|------------------|-------------------------------------------|-----------------------------------|
| 1  | Language         | EN                                        |                                   |
| 2  | Set Point value  | 7.4 pH                                    | 700 mV                            |
| 3  | Dosing method    | Acid (pH)                                 | Low (ORP)                         |
| 4  | OFA Time         | ON (120') (pH)                            | ON (120') (ORP)<br>OFF (ORP-Plug) |
| 5  | Calibration      | Full                                      |                                   |
| 6  | Circulation pump | ON                                        |                                   |
| 7  | Dosing type      | PROP; Relay Aux1, Aux2, Aux3 are disabled |                                   |
| 8  | IN Freq.         | OFF                                       |                                   |
| 9  | Flow Input       | NO (normally open) (Reed Sensor)          |                                   |
| 10 | Power ON Delay   | OFF                                       |                                   |
| 11 | Flow Delay       | OFF                                       |                                   |

#### Measure alarm ranges default parameters

| n | Item              | Limits  |
|---|-------------------|---------|
| 1 | Temp. Measure min | + 10°C  |
| 2 | Temp. Measure Max | + 38°C  |
| 3 | pH Measure min    | 6 pH    |
| 4 | pH Measure Max    | 8.0 pH  |
| 5 | ORP Measure min   | +450 mV |
| 6 | ORP Measure Max   | +850 mV |

To restore the default parameters, follow the steps below:

- Power off the device unit
- Keep **V** and **^** pressed and power on the unit
- The unit will display **Init.default**
- Select the unit to reset - WiFi module or dosing system
- Press **V** or **^** to select **Yes** or **no**
- Select **Yes** and press **OK** to restore the default parameters.

## 6b. Main menu

Press  for 3 seconds to run the main menu and then use  and  to select one of the following functions:

### 6b1. Calibration

### 6b2. Setup

### 6b3. Advanced

### 6b4. Priming

Main Menu  
CALIBRATION



Main Menu  
SETUP



Main Menu  
ADVANCED



Main Menu  
PRIMING

**Main menu** - Press  for 3 seconds.

At the entry of each menu item, the parameter can be directly modified by using  and .

Confirmation of the current setting and switching to the next item is done by pressing the  button.

The menu has a circular structure: once you arrive at last item, the confirmation of the parameter set by pressing  determines the return to the first menu item.

### 6b1. Calibration menu

The Calibration menu consists of three (3) sub-menus:

- pH: Calibration routine
- ORP: Calibration routine
- Temperature: Calibration routine

**Note:** please check sections **6f**, **6g** and **6h** for step by step calibration routine.

Main Menu  
CALIBRATION

CALIBRATION  
PH

CALIBRATION  
ORP

CALIBRATION  
TEMPERATURE

### 6b2. Setup menu

The Setup menu consists of two (2) sub-menus:

- pH
- ORP

Scroll through the menu using  , select the item and confirm with .

Main Menu  
SETUP

SETUP  
PH

SETUP  
ORP

## Setup pH

The Setup pH menu consists of six (6) sub-menus:

- **Setpoint pH: 7.4pH** (range 6-8pH) Set the pH value keep in the pool.
- **Setpoint Type: Acid** (Acid/Alkaline) Type dosing product to regulate the pH value. **Acid**: add chemical Acid product, **Alka**: add chemical Alkaline product.
- **Temperature: 25°C** (Automatic compensation by manual value or set Automatic to use an external temperature sensor)
- **OFA Alarm**: Over feed alarm timer, maximum activation time, the function is enabled at 60 minutes (range: OFF...60 minutes).
- **Alarm Min**: Setting the minimum pH alarm value (0,0...6,0 pH)
- **Alarm Max**: Setting the Maximum pH alarm value (8,0...14,0 pH)
- **\*Time ON**: range from 5" to 360" (Default **Time ON**: 180")
- **\*Time OFF**: range from 5" to 360" (Default **Time OFF**: 360")

### \*Notes:

The items **Time ON** and **Time OFF** will be displayed if the **Timed** dosing method is set in the **Advanced menu**.

**Time OFF** must be equal to or greater than **Time ON**.

Scroll through the menu using  , select the item and confirm with .

**SETUP  
PH**

**SETPOINT PH  
7.4pH**

**SETPOINT TYPE  
ACID (pH-)**

**TEMPERATURE  
25°C**

**OFA ALARM  
60**

**ALARM MIN  
6.0pH**

**ALARM MAX  
8.0pH**

**TIME ON  
180"**

**TIME OFF  
360"**

## Setup ORP

The Setup ORP menu consists of five (5) sub-menus:

- **Setpoint ORP: 700mV** (range 400-850mV) Set the ORP value keep in the pool.
- **Setpoint Type: Low** (LOW/HIGH) Type of dosing regulation. **Low**: add chemical chlorine, **High**: reduce chemical chlorine.
- **OFA Alarm**: Over feed alarm timer, maximum activation time, the function is enabled at 60 minutes (range: OFF...60 minutes).
- **Alarm Min**: Setting the minimum ORP alarm value (0...250 mV)
- **Alarm Max**: Setting the Maximum ORP alarm value (900...1000 mV)
- **\*Time ON**: range from 5" to 360" (Default **Time ON**: 180")
- **\*Time OFF**: range from 5" to 360" (Default **Time OFF**: 360")

### \*Notes:

The items **Time ON** and **Time OFF** will be displayed if the **Timed** dosing method is set in the **Advanced menu**.

**Time OFF** must be equal to or greater than **Time ON**.

**SETUP  
ORP**

**SETPOINT ORP  
700mV**

**SETPOINT TYPE  
LOW**

**OFA ALARM  
60**

Scroll through the menu using  , select the item and confirm with .

**ALARM MIN**  
**250mV**

**ALARM MAX**  
**900mV**

**TIME ON**  
**180''**

**TIME OFF**  
**360''**

### 6b3. Advanced menu

The Advanced menu consists of the following sub-menus:

- **Language:** Set language menu (EN, IT, ES, DE, FR)
- **Circulating Pump:** Enable/Disable input signal from pool circulation pump High voltage 230Vac.
- **In Freq.:** Flow rate function measure, Enable/Disable input frequency signal from water meter pulse sender, set Pulse/Liter or Liter/Pulse.
- **Calib. pH:** Double ore Single point and Reference calibration, Double point 7pH and 4pH, Single point 7pH, reference pH value.
- **Calib. ORP:** Single point and Reference calibration, Single point 465 mV, reference ORP mV value.
- **Calib. Temp:** Reference calibration by external hand held controller.
- **Dosing Type pH:** Proportional, Timed, On/Off, Off (disable pump)
- **Dosing Type ORP:** Proportional, Timed, On/Off, Off (disable pump)
- **(\*1)Aux Relay:** Set AUX1: pH or disable; AUX2: ORP or Disable
- **Password:** Set value to enable password of setting menu. (0000 disable)
- **Reset Cal:** Menu to reset the last Calibration value, and reload the factory settings
- **Reset all Param.:** Menu to reset all parameter and reload the factory settings
- **Control Panel:** Menu to show the input raw signal, pH in mV raw signal, ORP in mV raw signal, Temperature in Ohm raw signal.
- **Reed:** set logic sensor NO/ NC (normally open/close)
- **P.On Delay:** Power ON delay function is a countdown timer Off...60' to delay dosing actions when switch on the device. During this period the system wait the chemical measure stabilizing the dosing pump are disable.
- **Flow Delay:** Flow delay function is a countdown timer Off...60' to delay dosing actions when the flow rate will be restable, and during this time the chemical measure will be stabilizing the dosing pump are disable.

**Main Menu**  
**ADVANCED**

**ADVANCED MENU**  
**LANGUAGE**

**ADVANCED MENU**  
**CIRCULATING PUMP**

**ADVANCED MENU**  
**IN FREQ**

**ADVANCED MENU**  
**CALIB. pH**

**ADVANCED MENU**  
**CALIB. ORP**

**ADVANCED MENU**  
**CALIB. TEMP**

**ADVANCED MENU**  
**DOSING TYPE PH**

**ADVANCED MENU**  
**DOSING TYPE ORP**

**(\*1)Note:** Default setting parameters of AUX Relay in the following EasyChem Double Model:

- **EASY-CH-DPHRXG:** AUX1: Disable; AUX2: Disable
- **EASY-CH-DPHRXGS:** AUX1: Disable; AUX2: ORP

Scroll through the menu using **^** **V**, select the item and confirm with **OK**.

**ADVANCED MENU**  
**AUX RELAY**

**ADVANCED MENU**  
**Password**

**ADVANCED MENU**  
**Reset Cal**

**ADVANCED MENU**  
**Reset all param**

**ADVANCED MENU**  
**Control panel**

**ADVANCED MENU**  
**REED**

**ADVANCED MENU**  
**P.ON Delay**

**ADVANCED MENU**  
**Flow Delay**

To exit the menu, press **↩**; the instrument will display the question "save?"; confirm with **OK**.

For not saving, select NO using **^** **V** and confirm with **OK**.

**EXIT**  
**NO SAVE**

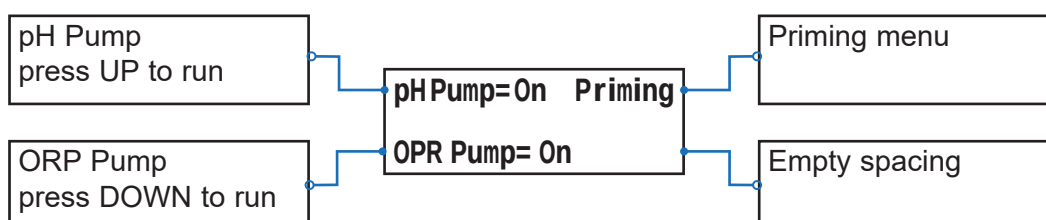
**EXIT**  
**SAVE**

#### 6b4. Priming menu

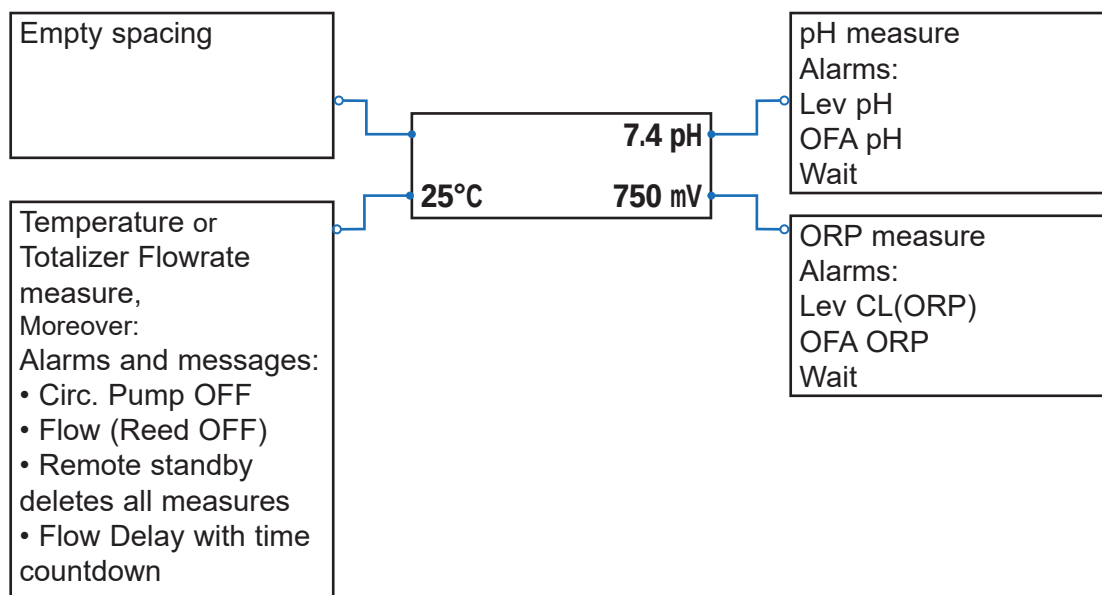
Priming menu dosing pumps, please select the dosing pump to start the priming action.

**Main Menu**  
**PRIMING**

**pH:Off**  
**ORP:Off**



## 6c. View Parameters



## 6d. Standby system

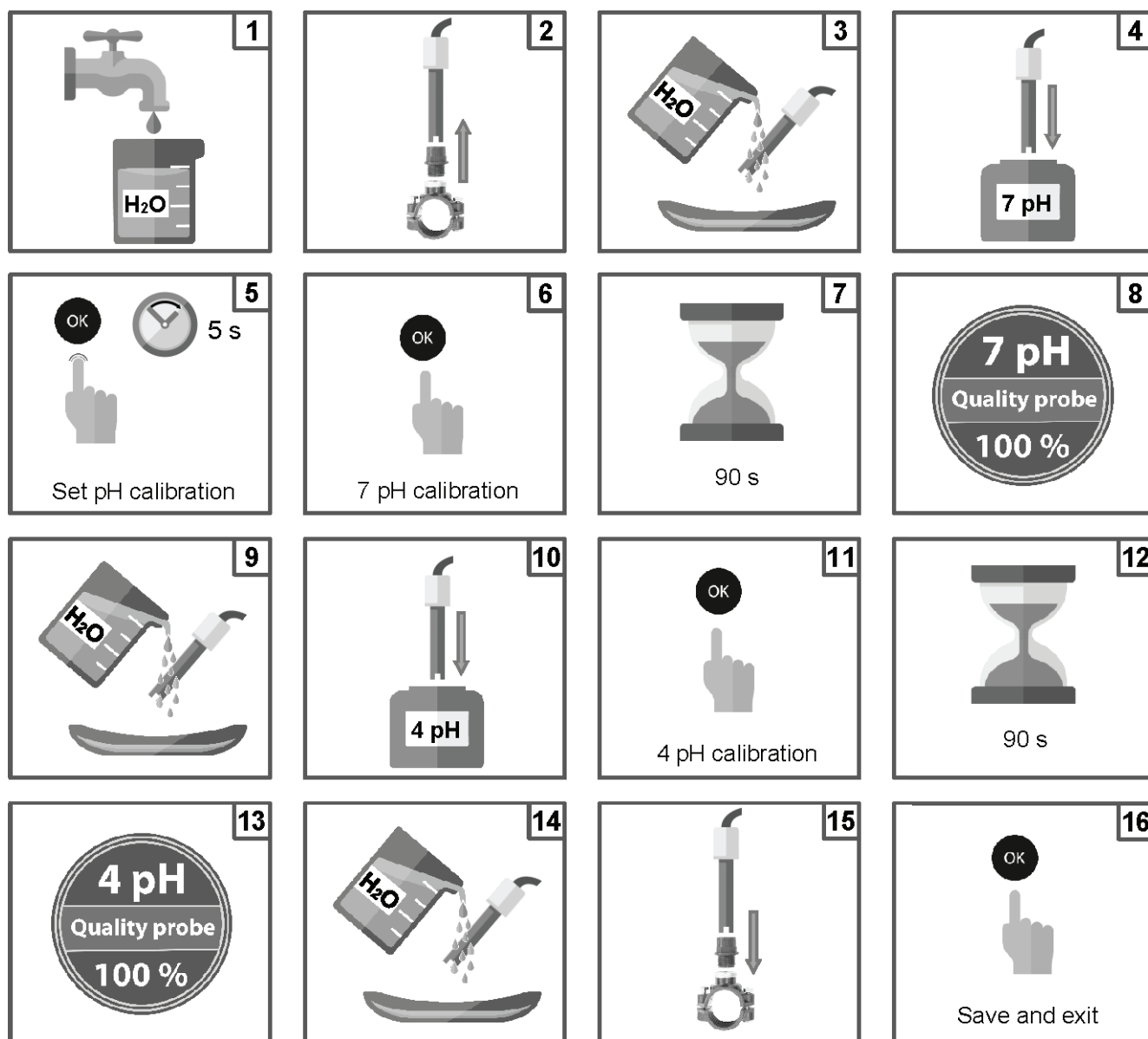
Press   (5 seconds) the system sets in StandBy mode; all functions are disabled

## 6e. Reset OFA Timer

Press  (3 seconds) to reset OFA Alarm or press   to reset OFA Alarm.

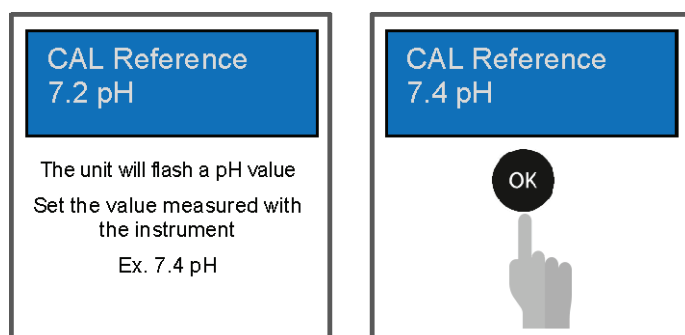
## 6f. pH probe calibration

Always begin the calibration procedure with a calibration reset.



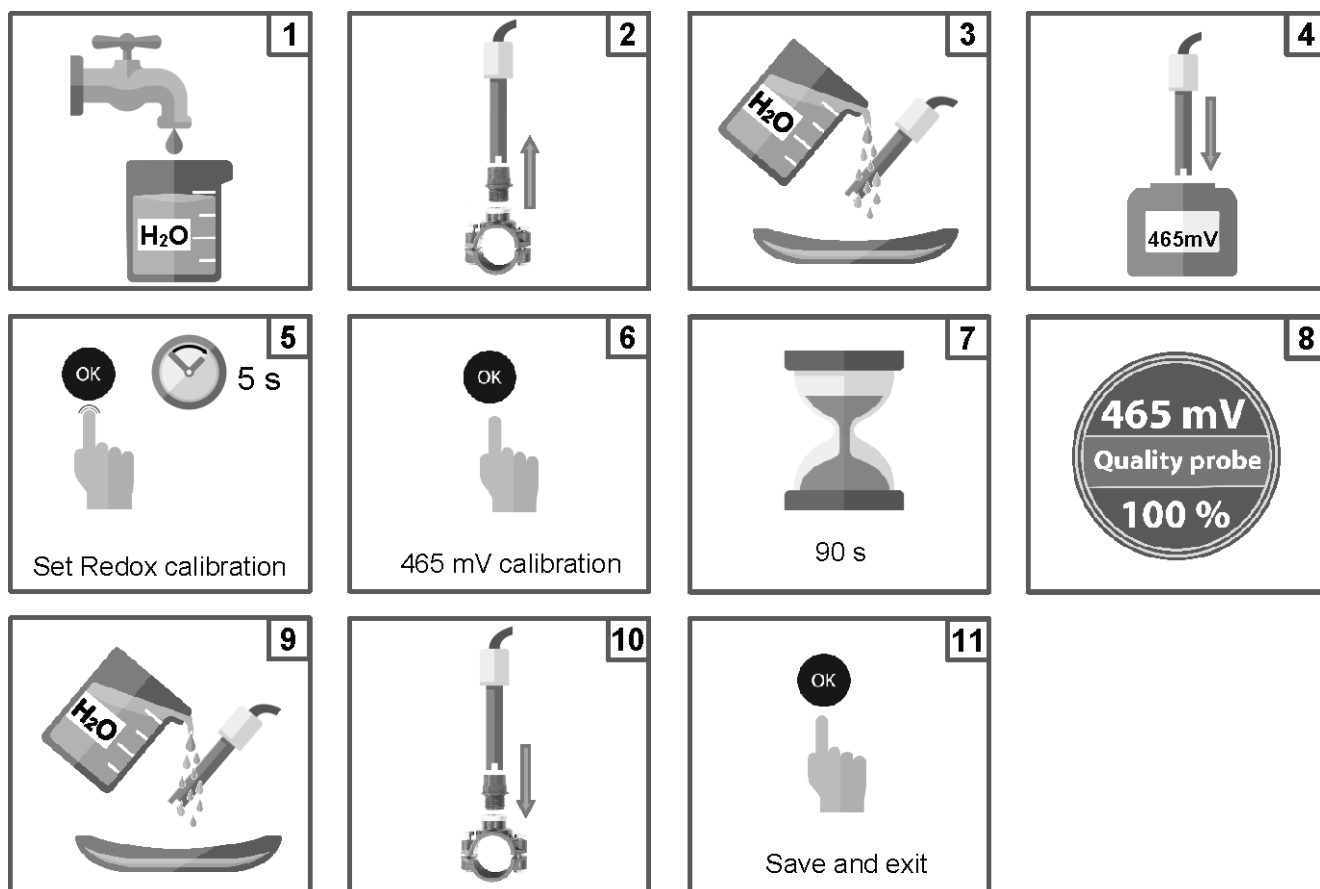
Note: If you have selected the "1 point cal.", the calibration will be made only in 1 point using the 7pH buffer solution.

## Reference calibration

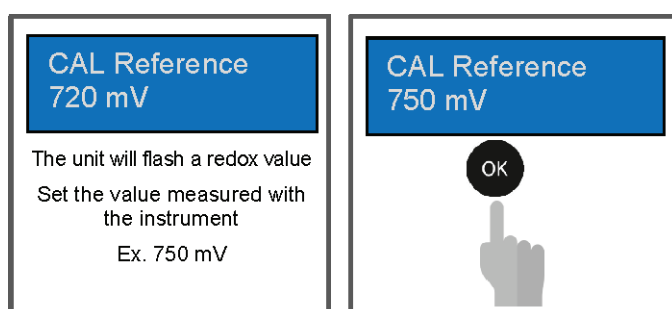


## 6g. ORP probe calibration

Always begin the calibration procedure with a calibration reset.

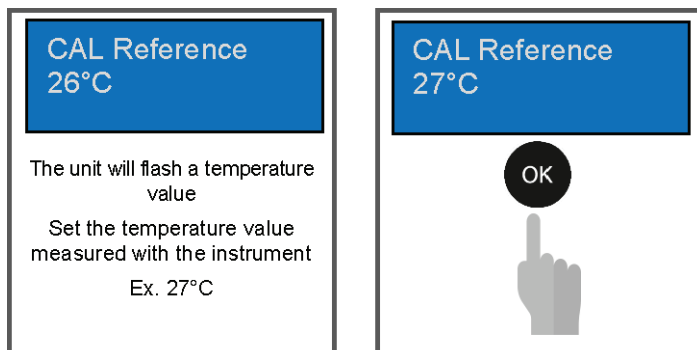


## Reference calibration



## 6h. Temperature probe calibration

Always begin the calibration procedure with a calibration reset.

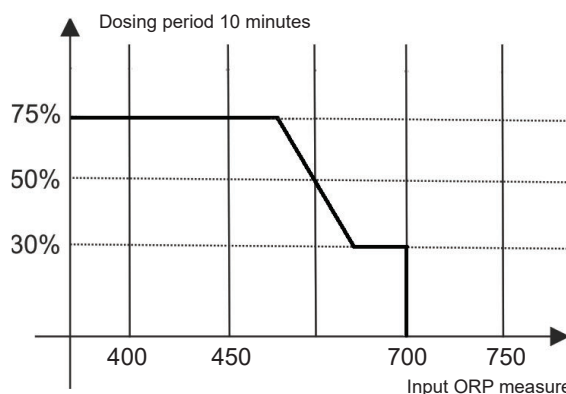
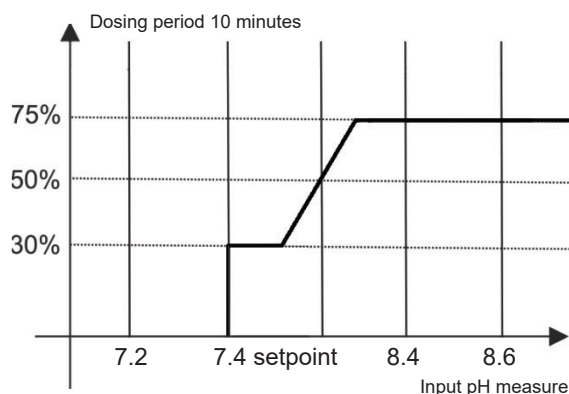


## 7. DOSING METHOD

**EASY-CH-DPHRXG:** The pH/ORP measurement is configured using the Proportional method for dosing with a peristaltic pump.

Setpoint = 7.4 pH  
Dosing mode = Acid  
Prop. Band= 1.0 pH (\* Fixed value)

Setpoint = 700 mV  
Dosing mode = Low  
Prop. Band= 250mV (\* Fixed value)



**EASY-CH-DPHRXGS:** The pH measurement is configured using the Proportional method for dosing with a peristaltic pump, while the ORP measurement is set to ON/OFF method for dosing via an electrical plug.

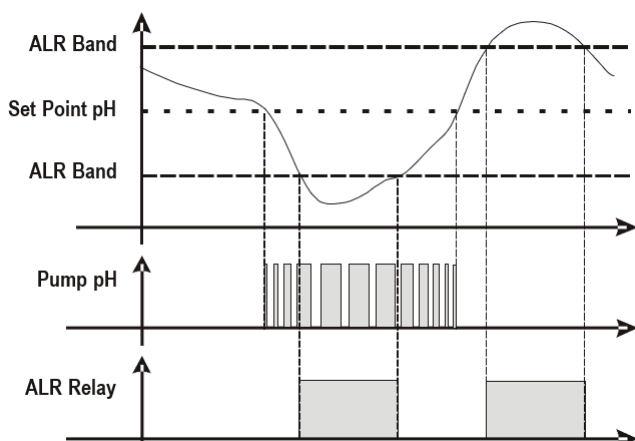
### Alarm for the pH/ORP Set Point

When the alarm band is set, a work window is created. If the allowed limits are exceeded the alarm relay closes and remains closed until the measurement is reset or **OK** is pressed to deactivate the alarm.

When the OFA time (Over Feed Alarm) is set, the dosing time of Set Point pH/ORP in time is controlled with two alarms:

- First alarm at 70% of the time set is seen on the display, the alarm relay closes.
- Second alarm at 100% of the time set is seen on the display and the alarm relay closes and the pH/ORP pump is blocked.

Press **OK** (3 seconds) to reset OFA Alarm or press **V** **^** (5 seconds) to reset OFA Alarm.



(\*1 Measure Alarm Ranges - fixed values)

| n | Item              | Limits |
|---|-------------------|--------|
| 1 | Temp. Measure min | + 10°C |
| 2 | Temp. Measure Max | + 38°C |

## 8. ALARMS

| Alarm                                  | Display                     | Actions to do                                                                                                                                                                                                                                                                                                            |
|----------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level</b><br>*only active measures  | Lev Low                     | - Restore Product tank                                                                                                                                                                                                                                                                                                   |
| <b>Out of Range measure</b>            | ALARM BAND                  | - Replace or check the measure probe<br>- Restore measure                                                                                                                                                                                                                                                                |
| <b>OFA First Alarm</b><br>(time >70%)  | OFA_1 blinking              | - Press  for 3 seconds to reset or press   for 5 seconds to reset |
| <b>OFA Second Alarm</b><br>(time 100%) | OFA_2                       | - Press  for 3 seconds to reset or press   for 5 seconds to reset |
| <b>Flow Rate</b>                       | Flow                        | - Restore Flow Rate                                                                                                                                                                                                                                                                                                      |
| <b>Calibration Function</b>            | CALIBRATION ERR             | - Restore Probe or Buffer solution and repeat calibration procedure                                                                                                                                                                                                                                                      |
| <b>System Error</b>                    | ParameterS error            | - Press  to restore Default parameter<br>- Broken Unit                                                                                                                                                                                  |
| <b>Alarm measure</b> (*1)              | High Measure<br>Low Measure | - Adjust the chemical concentration                                                                                                                                                                                                                                                                                      |

(\*1 Measure alarm ranges default parameters)

| n | Item              | Limits  |
|---|-------------------|---------|
| 1 | Temp. Measure min | + 10°C  |
| 2 | Temp. Measure Max | + 38°C  |
| 3 | pH Measure min    | 6 pH    |
| 4 | pH Measure Max    | 8.0 pH  |
| 5 | ORP Measure min   | +450 mV |
| 6 | ORP Measure Max   | +850 mV |

### Safety peristaltic motor efficiency routine

The dosing system features an internal routine designed to enhance the efficiency of the peristaltic motor and ensure continuous dosing.

The Proportional and ON/OFF dosing methods are enhanced with continuous monitoring of the dosing action over 15 minutes, along with an automatic routine stop mode of 5 minutes for the dosing pump, in the rare event of frequent dosing, the system provides incremental dosing pauses. During the stop dosing the system shows the «wait» message.

## 9. 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:** Regularly check the acid level to ensure that the pump does not run dry. The dosing pump must be checked and serviced at regular intervals. The Santoprene tube of the peristaltic pump has a lifetime of 2 years. We recommend that you change it once a year.

### Servicing the probe

The probe must be clean and free from oil, chemical deposits and contamination to function properly. As it is in continuous contact with the water in the pool, the probe 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 probe needs to be cleaned.

To clean the probe, turn off the power to the EasyChem Double.

Unplug the probe connector from the control box, unscrew the probe and carefully remove it from the chamber. Clean the probe bulb 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 probe.

If the probe continues to give inconsistent readings or requires excessive calibration after it has been cleaned, it should be replaced. The lifetime of the probes is 1 year. We recommend that you calibrate them every month during the season the pool is in use.

### Wintering

The EasyChem Double, probe 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 box.

### Probe storage

The end of the probe must always be in contact with water or a solution of KCl. If it is removed from the measuring chamber, it should be stored in the plastic cap provided (filled with water). If the storage cap has been mislaid, the probe should be stored separately in a small glass or plastic container with its end immersed in water.

The probe must always be in a frost-free environment.

**Hose and/or roller replacement procedure (valid for 2 and 3 rollers)**

Necessary tools:

- 1x Allen key of 2,5 mm (\*\*\*)
- 1x Screwdriver

Follow the steps below:

1. Open the pump's lid, if present.

2. Position the roller as shown in the image in step 2., turning it in the direction of the arrow.

3. Completely release the left connector of the hose. Turn the roller in the direction of the arrow in order to release also the connector on the right.

4. Position the roller as shown in the image in the step 4, turning it in the direction of the arrow. Release the roller using the hex key to unscrew the bolt. (\*)

5-6. Remove the roller using a screwdriver or other tool to leverage.

7. Insert the new roller while paying attention to the forced direction of the motor pin.

8. Position the roller as shown in the image in step 8., turning it in the direction of the arrow.

9. Fix the roller with the bolt using the hex key.

10. Insert the left connector into the relative housing and pass the hose under the roller's guide. Turn the roller in the direction of the arrow, while positioning the hose into the pump's head, then insert the connector on the right in its housing. (\*\*)

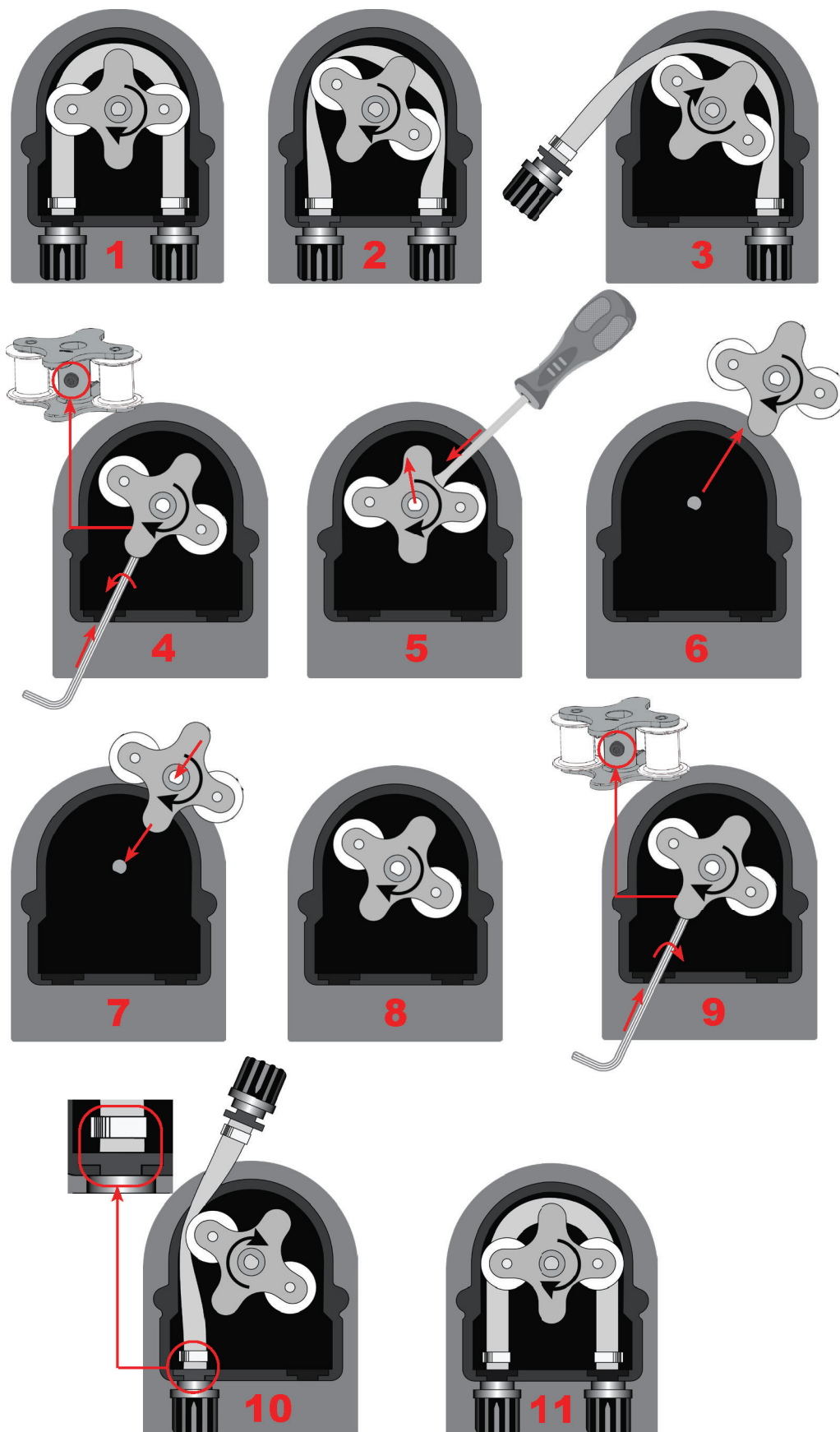
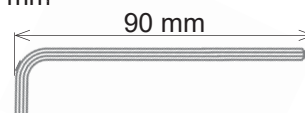
11. Close the pump's lid and press its surface hard so that it is properly locked into place, if it is present.

Notes:

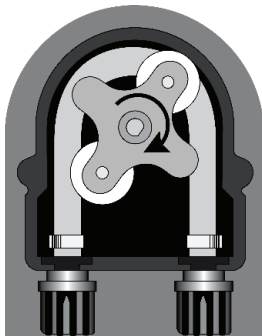
(\*) In case you don't want to replace the roller, skip steps 4-7 and 9

(\*\*) Make sure the cable tie head is oriented as shown in the detail picture of step 10.

(\*\*\*) Allen key L= 90 mm and size 2,5 mm



## Storing the pump after use



When the regulation device must be stored, clean water should be pumped through the hose in order to rinse it.

Then position the roller at 7h05, turning in the direction indicated by the circular arrow.

These two precautions will facilitate the subsequent reactivation of the unit.

## 10. TROUBLESHOOTING GUIDE

### No display

Check that the On / Off switch is on.

Check the connection cable between the display and the control box.

Check the power supply: 210-230 V<sub>~</sub> 50 Hz.

Check the dosing method if the OFA Alarm show continusly.

Check the lifetime probe by calibration method.

Check the running pump by Priming function.

If the problem persists, contact your pool installer/builder.

## 11. ENVIRONMENTAL INFORMATION

Provision regarding professional waste from electrical and electronic equipment (WEEE). In compliance with directive 2012/19/EU regarding the management of waste from electrical and electronic equipment, this pump must be disposed of at a waste sorting site.

==> for more information contact your dealer.

Good management of waste from electrical and electronic equipment contributes to the prevention of damage to the environment and human health.



## LIMITED WARRANTY

All HAYWARD products are covered for manufacturing defects or material defects for a warranty period of **3 years** as of date of purchases. Any warranty claim should be accompanied by evidence of purchase, indicating date of purchase. We would therefore advise you to keep your invoice.

The HAYWARD warranty is limited to repair or replacement, as chosen by HAYWARD, of the faulty products, provided that they have been subjected to normal use, in compliance with the guidelines given in their user guides, provided that the products have not been altered in any way, and provided that they have been used exclusively with HAYWARD parts and components. The warranty does not cover damage due to frost and to chemicals. Any other costs (transport, labour, etc.) are excluded from the warranty.

HAYWARD may not be held liable for any direct or indirect damage resulting from incorrect installation, incorrect connection, or incorrect operation of a product.

In order to claim on a warranty and in order to request repair or replacement of an article, please ask your dealer.

No equipment returned to our factory will be accepted without our prior written approval.

**Wearing parts are not covered by the warranty.**

**The wearing parts of the salt water chlorinator listed below must be maintained according to their estimated service life:**

|                   |         |
|-------------------|---------|
| Seal set =        | 2 years |
| Santoprene tube = | 2 years |
| Roller =          | 2 years |

## Notes

## Notes

