Instruction manual



Automatic water softener 12 l 230 V / 1N
AL 12

2026-11-18

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1. DECLARATION OF CONFORMITY

Decree of the Ministry of Health of the Czech Republic no. 38/2001 Coll. of 19 January 2001 Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation of the European Parliament and Council Regulation (EC) no. 1935/2004 of 27 October 2004

The products meet the requirements of §26 of Act No.258/2000 as amended. The products meet the requirements of RoHS Directive 2015/863/EU, 10/2011, 517/2014, 2015/1094, 2015/1095.

Attention, the manufacturer gives up any responsibility in case of direct and indirect damage that is relate to poor installation, incorrect intervention or adjustments, insufficient maintenance, incorrect by using and which are eventually caused by other causes that the points referred to in the conditions sales. This appliance is intended only for professional use and must be operated by qualified by persons. Parts that have been secured by the manufacturer or authorized worker after the setting rebuild.

2. TECHNICAL DATA

The label with technical data is located on the side or back panel of the device. Please read the wiring diagram and all the following information in the attached manual before installation.

Net Width [mm]	Net Depth [mm]	Net Height [mm]	Net Weight [kg]	Power electric [kW]
285	595	595	15.00	0.040

Loading	Power gas [kW]	Gross depth [mm]	Gross Height [mm]	Resin capacity
230 V / 1N - 50 Hz	0.040	420	570	8.50

Gross Volume [m3]	Net Volume [m3]	Gross Weight [kg]	Gross Width [mm]
0.074	0.069	16.00	310

3. LOCATION ELECTRIC

For the correct operation and placement of the appliance, it is necessary to observe the following all prescribed standards for the given market. Unpack the device and check that the device has not been damaged during transport. Place the device on a horizontal surface (maximum unevenness up to 2°). Small unevenness can be leveled with adjustable feet. If the device will be placed in such a way that it will be in contact with the walls of the furniture, these must withstand a temperature of up to 60°C. Installation, adjustment, commissioning must be performed by a qualified person who is authorized to perform such operations, according to applicable standards. The device can be installed separately or in series with devices of our production. A minimum distance of 10 cm from flammable materials must be observed. In this case, it is necessary to secure the appropriate modifications to ensure the thermal insulation of the combustible parts. The appliance must only be installed on a non-flammable surface or against a non-flammable wall. **Parts of the appliance provided by the manufacturer. or his representative, the worker performing the installation may not rebuild the product.**

4. SAFETY MEASURES FOR FIRE PROTECTION

- the appliance may only be operated by adults
- the appliance may be used safely in accordance with applicable market standards:

Fire protection in spaces with special risk or danger

Protection against the effects of heat

- the appliance must be placed so that it stands or hangs firmly on a non-combustible surface

Objects of flammable substances must not be placed on the appliance at a distance less than a safe distance from it (the smallest distance between the appliance and flammable substances is 10 cm).

Table: degree of flammability of building materials included in st. flammability of substances and products

Degree of flammability	Building materials
A - non-flammable	granite, sandstone, concrete, brick, ceramic tiles, plaster
B - Not easily flammable	Acumin, Heraclitus, Lihnos, Itaver
C1 - highly flammable	wood, hardwood, plywood, hard paper, umakart
C2 - moderately flammable	chipboards, solodur, cork boards, rubber, flooring
C3 - Highly flammable	wood fiber boards, polystyrene, polyurethane, PVC

- information on the degree of flammability of common building materials is given in the table above. Appliances must be installed in a safe manner. During installation, the relevant design, safety and hygiene regulations must also be respected:
- fire safety of local appliances and heat sources
- fire protection in areas with special risk or danger
- protection against the effects of heat

5. INSTALLATION

Important: The manufacturer does not provide any warranty for defects arising as a result of incorrect use, failure to follow the instructions contained in the attached user manual and mishandling of appliances. Installation, modification and repair of appliances for large kitchens, as well as their dismantling due to possible damage to the gas supply, can only be carried out on the basis of a maintenance contract, this contract can be concluded with an authorized dealer, while technical regulations and standards and regulations must be observed regarding installation, electrical supply, gas connection and work safety. Technical instructions for installation and adjustment, for use by specialized technicians ONLY. The instructions that follow refer to a technician qualified for installation to carry out all operations in the most correct manner and according to the applicable standards. Any activity related to regulation etc. must only be performed with the device disconnected from the network. If it is necessary to keep the appliance under voltage, the utmost care must be taken. The type of appliance for extraction is declared on the nameplate, it is an A1 appliance.

6. WATER CONNECTION

Water connection is done using G1/2 threaded hoses. The water supply must be fitted with separate closures that are freely accessible and within reach of the device. The device includes return valves. The water for filling the duplicator space must be softened - a maximum of 5 ° the French scale of water hardness. The water pressure must be in the range of 50-300 kPa.

7. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK

Installation of the electrical supply - this supply must be separately secured. Ato with the corresponding circuit breaker of rated current depending on the power input of the installed device. Check the power consumption of the device on the production label on the back panel (or side) of the device. The connected ground wire must be longer than the other wires. Connect the device directly to the network, it is necessary to insert a switch between the device and the device with a minimum distance of 3 mm between the individual contacts, which corresponds to the applicable standards and load. The earth supply (yellow-green) must not be interrupted by this switch. Connect the device to the mains if the socket has adequate protection. In any case, the supply cable must be located so that it does not reach a temperature of 50 degrees higher than the environment at any point. Before the appliance is connected to the network, it is necessary to first make sure that:

- the supply circuit breaker and the internal distribution can withstand the current load of the appliance (see matrix label)
- the distribution board is equipped with effective grounding according to the standards of the relevant market and the conditions given by law
- the socket or switch in the supply is easily accessible from the appliance

- the electrical supply to the device must be made of oil-resistant material

We disclaim any responsibility in the event that these standards are not respected and in the event of a violation of the above principles. Before first use, you must clean the device, see chapter """"cleaning and maintenance""""". The appliance must be grounded using a screw with a grounding mark.

- Do not insert the plug of the power supply into the electrical outlet. sockets and do not pull out the zel. sockets with wet hands and pulling on the power cord!
- Do not use extension cords or multiple sockets.
- **The mains connection point must have a maximum of the following impedance: ZMAX = 0.042 + j 0.026 Ω for the phase conductors and 0.028 + j 0.017 Ω for the neutral conductor.**

	AL 08	**AL 12**
width mm	250	285
Depth mm	460	405
Height mm	485	595
Weight kg	12	15
Salt consumption per cycle	1 kg	1,5 kg
Salt tank capacity kg	20	25
Resin volume in litres	5,5	9
Supply voltage	230V 50/60 Hz	230V 50/60 Hz
Output voltage	12 VAC	12 VAC
Inlet water pressure	2 - 8 bar	2 - 8 bar
Flow rate at 4 bar		
Inlet water temperature	6 - 25°C	6 - 25°C
Power input W	4	4
Connection Fig. 2	3/8", ¾", tr. d.12 mm	3/8", ¾", tr. d.12 mm

Amount of softened water as a function of its hardness (°F)

Hardness [f]	**20o**	**30o**	**40o**	**50o**	**60o**
Hardness [d]	**11o**	**16,5o**	**22o**	**28o**	**33o**
Hardness [ca]	**2**	**3**	**4**	**5**	**6**
AL 08	1 680 l	1 120 l	840 l	672 l	560 l
AL 12	2 520 l	1 680 l	1 260 l	1 008 l	840 l

Amount of softened water depending on water hardness (French degrees)

f - French d - German ca - amount of calcium in mmol

Conversion of water hardness: 1° d (German) = 1.8° f (French) = 1.25° e

Inlet water parameters:

Pressure: min. 2 bar, max. 8 bar

Temperature: min. 8°C, max. 25°C

Fig. 1

A - Salt tank
B - Air vent
C - Control unit
D - Roller
E - Overflow pipe
F - Grid

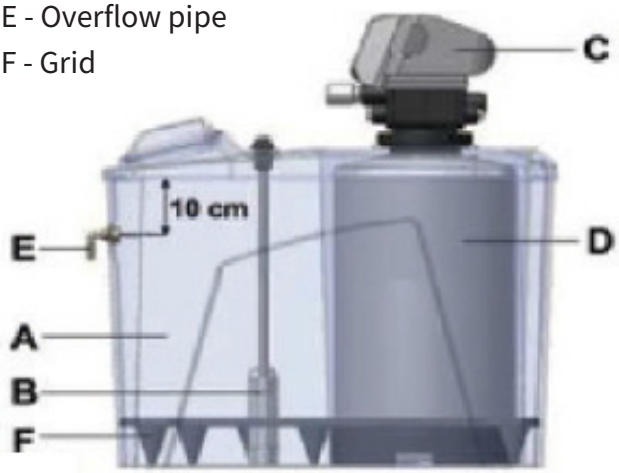


Fig. 2

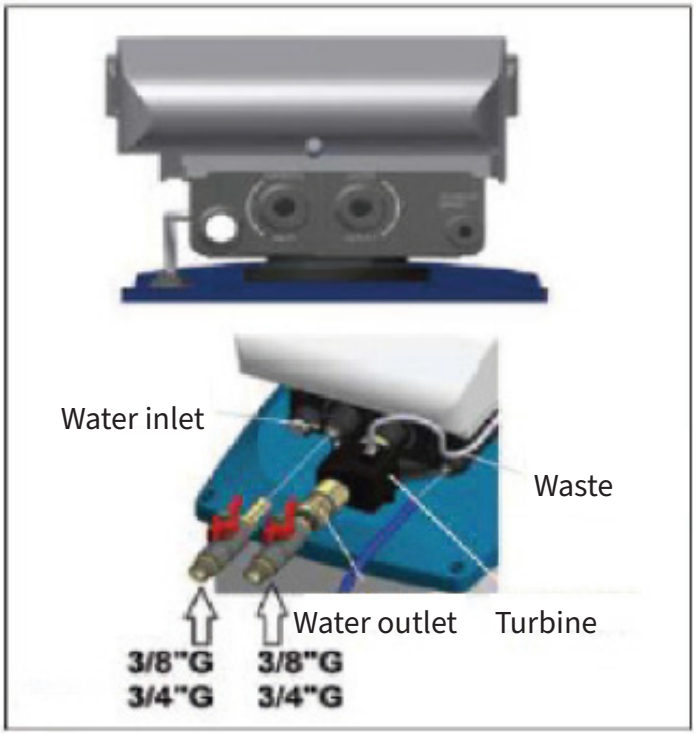


Fig. 3

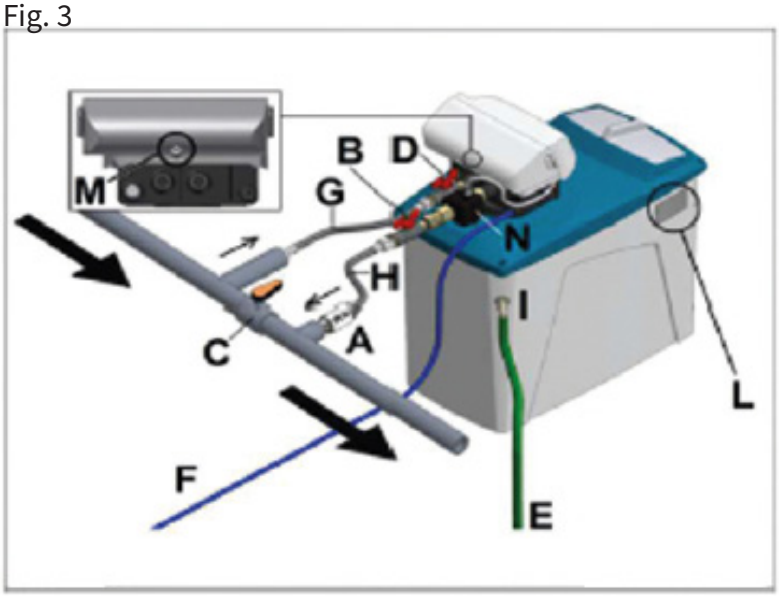
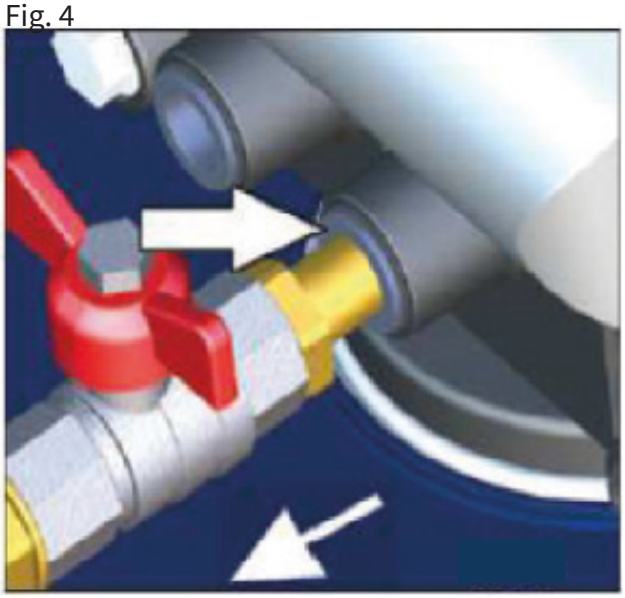


Fig. 4



A - One-way valve
B - Water outlet
C - Bypass
D - Water inlet
E - Overflow pipe
F - Waste pipe
G - Water supply pipe
H - Water outlet pipe
I - Overflow end cap
L - Production label
M - Mixing screw
N - Turbine

Fig. 5

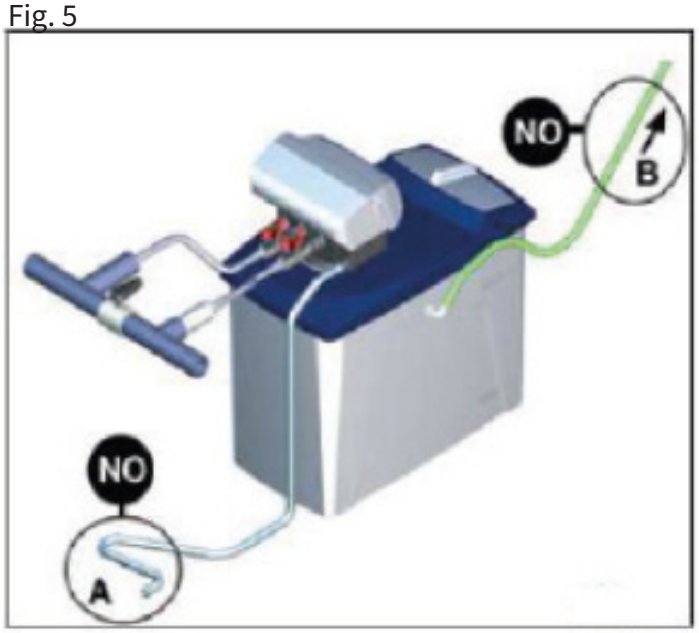


Fig. 6

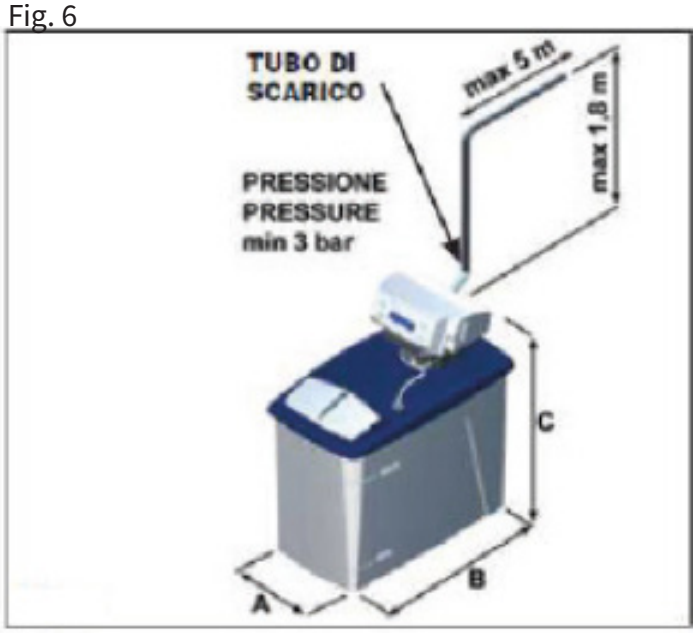


Fig. 7

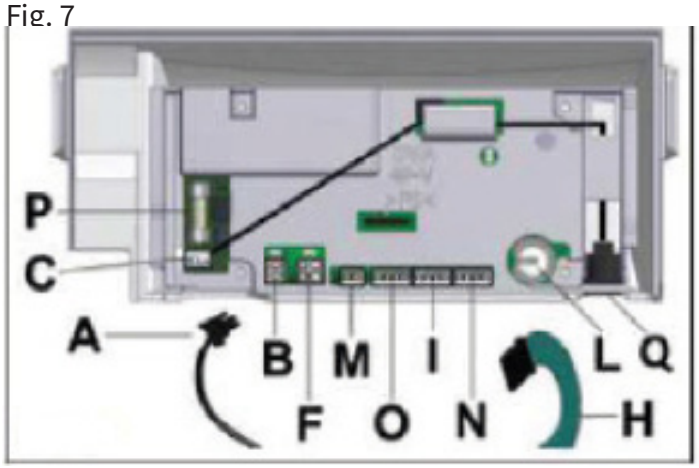
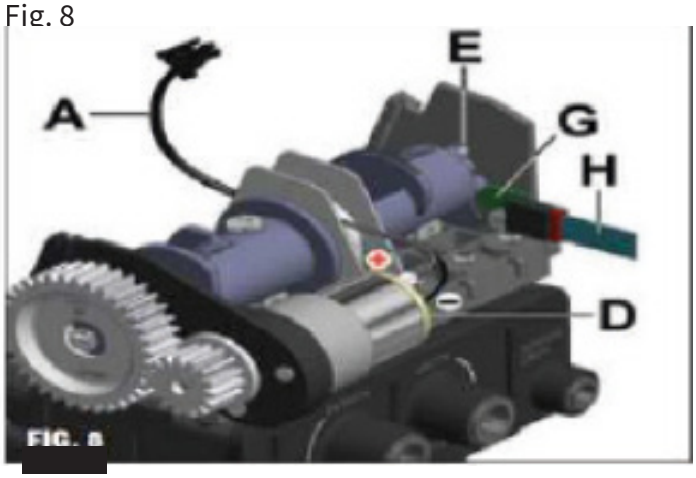
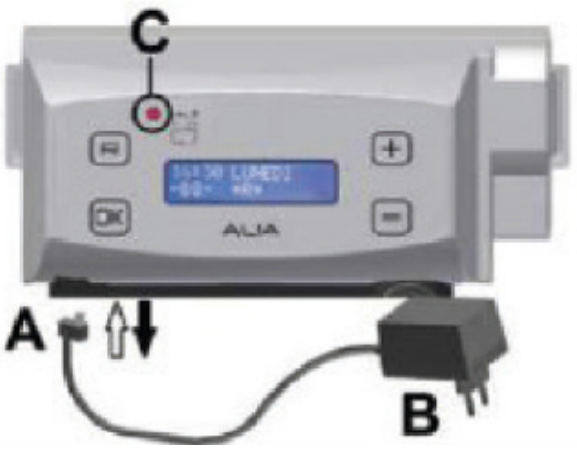


Fig. 8



A - Motor cable
B - Motor cable connector
C - Inlet connector
D - Engine
E - Camshaft magnets
F - Disinfection cable connector
G - Magnetic sensor
H - Magnetic sensor cable
I - Magnetic sensor cable connector
L - Torch
M - Salt signal connector
N - Turbine connector
O - External RS232 serial connector
P - Fuse
Q - Supply cable

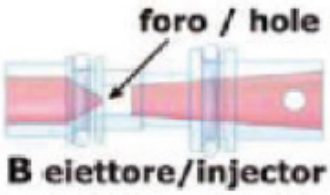
Fig. 9



A - Connector
B - Adapter
C - Salt shortage alarm LED

Fig. 10





A - Chlorine generator electrodes
B - Ejector
C - Ejector filter
D - Stopper

Fig. 11

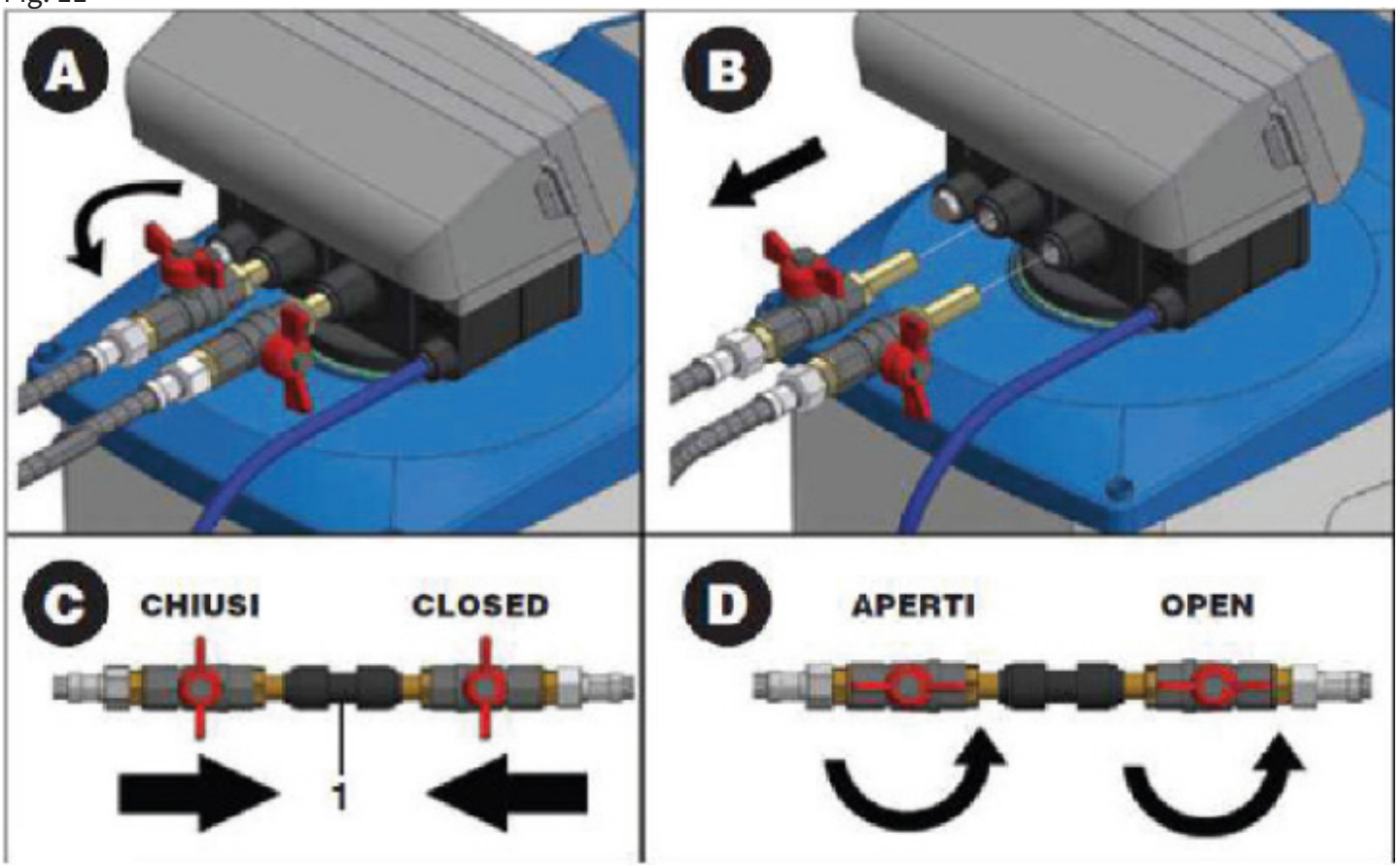
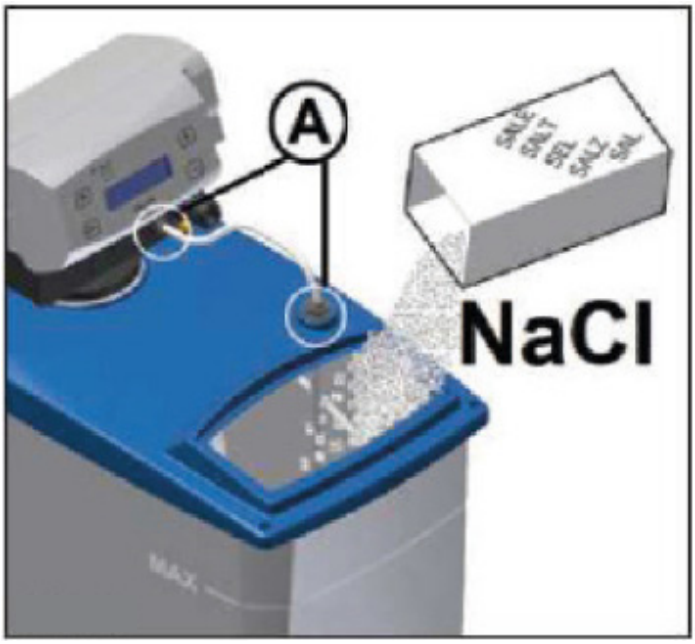
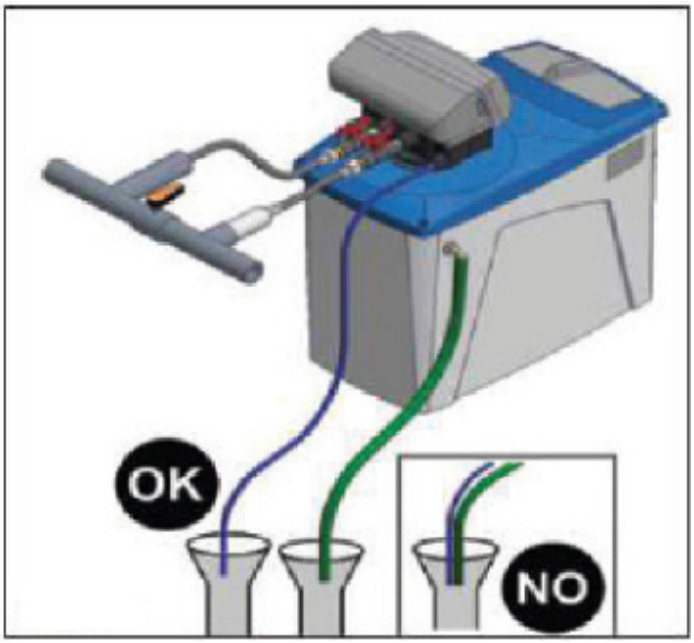


Fig. 12





Installation

Before installation, check that the device has not been damaged in transit and does not show any anomalies.

If in doubt, contact the dealer.

- To maintain hygienic safety, we recommend removing the packaging at the time of installation.
- When removing the packaging, make sure that no parts of the device are left in the packaging. Keep the packaging out of the reach of children.
- Inside the salt container there are:

- Drain pipes (fig.3, E, F)
- Transformer (Figure 9, B)
- Packaging with end caps (Figure 2)
- bypass terminals (Figure 11)
- Check that there are no parts of the package left in the salt tank.

- The device must be installed in a horizontal position.
- Make sure that there is no other water treatment device at the installation site.
- Ensure that the supply water comes from the drinking water pipe. Before installation, we recommend checking the chemical and physical parameters of the drinking water, as well as the hardness.
- Install the device near the floor drain, which must be located under the device so that water drains from the overflow pipe without obstruction.
- Install the equipment in a dry location that is easily accessible for maintenance and cleaning of the equipment. do not install the equipment in dirty or unsanitary places or places that are difficult to clean.
- Make sure the room temperature at the installation site is between 4°C and 35°C.
- Keep equipment away from corrosive or acidic products.
- If the water softener is located near the boiler, check that the pipes and the water softener itself are not exposed to overheating. If possible, install piping that maintains a distance of several feet (Minimum 3) between the water softener outlet and the boiler inlet.
- Do not install equipment in locations where electrical and safety standards are routinely ignored.
- The water pressure must not be less than 0.2 MPa (2 bar) or more than 0.8 MPa (8 bar). At least 3 or 4 bar is recommended.
- If the water pressure is above 8 bar, a pressure adapter must be fitted.
- If the pressure is below 0.2 MPa (2 bar), the device may not work properly.
- Salt or its packaging must not be stored in damp places or in direct contact with the floor: keep it on a wooden pallet, for example.

Water connection

Connection to the water system shall be made in accordance with all applicable standards, in accordance with the manufacturer's instructions and by a qualified person.

During installation, use pipes, hoses, valves and components that comply with the applicable hygiene safety standards DM174/2004. They must be kept in a sealed container until installation to maintain their hygienic safety. It is forbidden to use components that are not suitable for contact with drinking water or components that compromise hygienic safety because they could damage the quality of the treated water and the equipment itself.

We recommend using the installation method described in Figure 3, as it includes a by-pass to prevent interruption of the supply water flow in the event that the equipment needs to be shut down for maintenance. The by-pass allows you to use water for your equipment even during maintenance.

Check the presence of sanitary safety caps at the inlet (INLET) and outlet (OUTLET) of the device (Figure 2), remove them during this phase, not before.

Quick couplers

The pipes are connected to the valve by quick couplers. To connect the pipes, the pipes must be fully inserted.

Metal quick-connector inserts prevent the pipe from disconnecting. When disconnecting the pipe, you must depressurize the tank, then squeeze the black ring that surrounds the pipe next to the nipple and pull the pipe out (Figure 4).

Make sure:

- The pipes for the water inlet (Fig.3, G) and outlet (Fig.3, H) meet the standards for drinking water pipes.
- The supply hose shall have an internal diameter of at least 8 mm.

We recommend installing the filter before the inlet pipe (Fig.3, To protect the softener from hot water backflow that could cause damage, install a check valve (Fig. 3, A) (DVGW, DIN 1988 T2). Fit a tap to take a water sample from the outlet to test the hardness.

Connect the inlet and outlet piping to the 3/8 "G or 3/4 "G couplings provided and tighten securely (Figure 2 and Figure 3, D, B). Insert the couplings into the valve (Figure 4). All piping must be loose, not crushed or constricted.

Connection to waste

The waste water from the regeneration must be directed to the waste through the plastic hose with an internal diameter of 8 mm (Fig. 3, F), which is included in the package. Very often the main cause of water softener failure is that this hose was not installed correctly (Figure 5, A). Insert the drain tube into its joint (Figure 2, "DRAIN") and place the other end of the tube in the drain. Make sure to:

- If the waste is located higher than the water softener, the maximum acceptable heightis 1,8 metres, provided the pipe is not longer than 5 metres and the pressure of the water system is at least 3 bar (Figure 6).
- The pipe is not flattened or bent, as the water should flow without obstruction (Figure 5, A).
- The drain hose must never be directly connected to the siphon or other drain lines to prevent water backflow and contamination of the water softener. Position it so that it cannot be immersed in the water in the drain.
- Ensure that the piping remains routed to the drain during regeneration.

Connection to the brine tank

The plumber must ensure that the pipes and couplings that connect the valve and brine tank are perfectly sealed to prevent air infiltration (Figure 12, A).

Connecting the overflow pipe

The installation of an overfill protection line (Figure 3, E) on the brine tank allows for drainage of any excess water that may be caused by faulty filling or operational malfunctions. If the overfill quick coupler is not fitted to the softening tray, drill a 17 mm diameter hole in the brine tank, approximately 10 cm below the cap (Figure 1, E) and tighten the quick coupler (Figure 3, I). Insert the green flexible hose (Included in the package) into the quick coupler and then connect the pipe to the drain, which must be located below the quick coupler because water that may flow outcat will not be pressurized (Figure 5, B) do not place the overflow pipe in the same waste that is used for reclaimed water to prevent possible backflows into the brine.

8. INSTRUCTIONS FOR USE

Softener activation

To activate the water softener, you must: select your language, set the current day and time and run the installer.

This is a very important feature during the installation of the softener.

Once it is connected to the water and electrical mains and the installation phase is complete, the AL softener starts the self-test program and is ready for operation without additional input from the installer. This is done by pressing the "OK" and - " buttons simultaneously. The technician only needs to check the correct brine tank level at the end of the process.



Language selection

You can choose one of the following languages: Italian, English, French, German and Spanish.

Language selection:

- Insert the plug (Figure 9, B) into the socket in the connector (Figure 9, A)

- Press the OK and R buttons at the same time to display the language setting. Press the + button to select the desired language. Press OK to confirm.

Date and time settings

Press the + and - buttons at the same time while inserting the plug into the valve (Figure 9, A) until the display shows the flashing day of the week. Press the + button and select the current day. Press OK to confirm.

Use the + and - buttons to set the current date and time. Press OK to confirm.

Installation program

To activate the water softener, perform the following operations:

- Press the OK and - buttons simultaneously until the word "INSTALLATION" appears on the display.

- Wait a few seconds and then first slowly open the inlet tap (Fig.3, D) and then slowly open the outlet tap (Fig.3, B). The water softener will now automatically start the installation program and perform the following operations:

1. Rinse (B3)
2. First filling of the salt tank and quick rinse (B7)
3. Soak and rinse resin (B5)
4. Quick rinse and second filling of the salt tank (B7)
5. Service mode.

The display will show the step in progress and the number of minutes remaining in the installation. At the end of the cycle, fill the salt tank 3/4 full (Figure 8); the water softener is now ready for programming. The installation program can be interrupted by holding the - button for 5 seconds. The water softener switches to service mode.

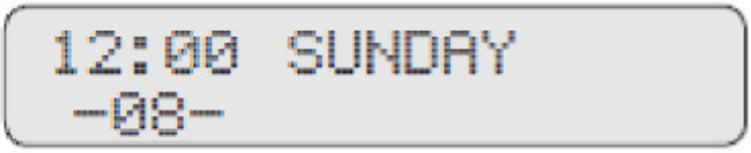
Timer settings

When starting the softener programming, the operator must select which mode the softener should have. either chronometric or volumetric. In the second step, the following data is entered: regeneration start time, softener model data, and an indication of how to warn of a salt shortage in the softener. If chronometric mode is selected, regeneration will take place on the set day. When volumetric mode is selected, regeneration will take place according to the set water consumption.

WARNING: If no button is pressed for more than 1 minute during the setup procedure, the display will revert to the current time and day display, saving the data entered up to that point. To return to the setup step where you left off, you must repeat the program from the beginning.

Start

Insert the connector into the timer (Fig. 9, A). The display will show the time, day and model of the water softener (for example, if the water softener is AL8, the display will show -08-).



Setting the regeneration day in chronometric mode

Regeneration sequences can be set up in two ways, by setting one or more preset days or on a weekly basis.

WARNING: one setting will exclude the other. To set the interval between regenerations based on day intervals, you must not select any regeneration day in the weekly schedule. If you want to change to a different setting, you can do so whenever you want.

Set regeneration on a weekly basis

Press the OK button until "SET" appears and confirm by pressing OK. Press the + button and the star symbol will appear next to the days when regeneration has been set (e.g.: * Monday - * Wednesday). Press the - button to view all days of the week.

To delete a specific day, set the cursor to the day next to it and press the + button. When you have finished setting, press the OK button.

If no asterisk symbol is entered for any days, you can set the number of days that elapse between regeneration cycles in the timer.

Setting regeneration to interval days

To set the interval between the regeneration and the next one, do not enter any asterisks and press OK.

The display will show "Regeneration EVERY = xx DAYS". Use the + and - buttons to set the number of days between regenerations.

For example: if you choose 12, the water softener will regenerate every 12 days. The values range from 00 (no regeneration) to 30 (one regeneration every 30 days). If you set 00, the water softener will never perform an automatic regeneration and you will have to do a manual regeneration (see paragraph manual regeneration) after setting the number of days, press the OK button.

Setting the regeneration time

Once the regeneration days or number of days between regeneration cycles are set, the "START REGENERATE.

TIME - TIME: "will appear on the display.

1) set the regeneration hour using the + or - buttons and press the OK button.

2) set the minute using the + or - buttons and confirm by pressing the OK button.

Softener model selection

The ALIA valve has three standard programs: 5, 8 and 12 - one for each softener model. When the display shows "MODEL 5 YES = OK NO = +", press the OK button to confirm if you have model AL5 or press the + button and the display shows "MODEL 8 YES = OK NO = +", press OK to confirm if you have model AL8 or press the + button and the display shows "MODEL 12 YES = OK NO = +", press OK if you have model AL12. If you press the + button again, you will be able to change the duration of each regeneration step (paragraph Extra rinse).

Regeneration duration and water consumption by model:

Model	**Program**	**B3 rinse**	**B5 seeding solution**	**B7 replenishment solution**	**Duration regeneration**	**Consumption waters**
AL8	08	2 min	20 minutes	1 min	23 min	80 l
AL12	12	3 minutes	25 min	1 min 40 sec	29 min 40 sec	110 l

Setting the regeneration time

Once the regeneration days or number of days between regeneration cycles are set, the "START REGENERATE.

TIME - TIME: "will appear on the display.

1) set the regeneration hour using the + or - buttons and press the OK button.

2) set the minute using the + or - buttons and confirm by pressing the OK button.

Extra rinse

The display will show EXTRA-RINSE YES / NO. This option allows you to change the timing of steps B3, B5 and B7, which are executed sequentially during the regeneration cycle (see table below). It is advisable to select "NO" at the beginning so that the softener operates according to the standard timing. This can be changed at a later stage if required. By selecting "YES" and pressing the OK button, the display will show "step B3 min sec". you can increase or decrease the values by pressing the + and - buttons. press OK to confirm the changes. You can then change the values for steps B5 and B7.

Minimum and maximum values of each step:

Step	Duration in minutes	
	MIN	MAX
B3	1	5
B5	15	50
B7	0	11

Resin disinfection and salt deficiency alarm

The water softener is equipped with a system that disinfects the resin during regeneration. This device is inserted into the valve (Figure 10, A). It has two electrodes which, when in contact with salt water, produce hypochlorite through electrolysis. The hypochlorite comes into contact with the resin and disinfects it. If the electrodes do not find salt water, the electrolysis process will not take place and the device will alert the user via a visual and acoustic signal that the salt container needs to be filled. Salt monitoring takes place in step B5 of the regeneration.

To activate tracking, press the + button when "SALT CHECK" appears on the display. Press the + button to select "YES" or "NO". If you select "NO", the salt check will not be performed and no alarm will be activated (the disinfection process will still be performed). Selecting "YES" will cause the display to show "AUDIO ALARM ". Selecting "YES" will also signal a salt shortage with an intermittent buzzer. Selecting "NO" will only indicate a salt shortage by a message on the display. Press the OK button to confirm the setting.

Regeneration settings in Volumetric mode

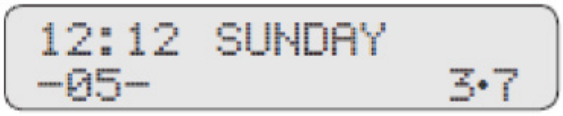
the data required for the volumetric setting are as follows: the hardness of the water and the number of days that must elapse before the softener starts the regeneration cycle, regardless of water consumption.

Press OK until the word "SETTING" appears on the display, then press OK. Press OK again and the display will show "VOLUMETRIC YES / NO". Use the + button to select "YES", then press the OK button. the word "HARDNESS" appears on the display, it can be seen in French degrees (°f) or German degrees (°d). Use the + and - buttons to set the water hardness value and press OK.

"Regeneration every xx days" is the text that appears on the display. Use the + and - buttons to set the desired value and press OK. This value represents the number of days that must elapse before the system starts the regeneration cycle, regardless of water consumption. The values range from 00 to 30. By entering the value 00, the softener will never start the regeneration cycle based on time, but in fact the regeneration will only be based on the actual measured water consumption. For example, if a value of 10 is entered, the softener will perform a regeneration cycle after 10 days regardless of actual water consumption. Starting from this step, the setting parameters are the same for both versions, so you can continue following the instructions given under Setting the regeneration time.

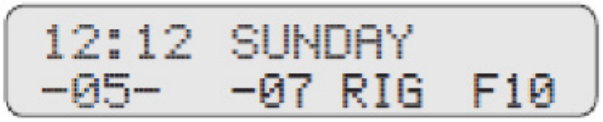
Reading the settings on the display

The display shows information about how the softener works and what it will do. Two lines are used to display different messages. The top line shows the current day and time. The bottom line shows the softener model and the program that is running. Example of displaying the version when the softener is set to weekly mode (paragraph Setting up regeneration on a weekly basis).



In the top line the current time and day are visible, in the bottom line the model -05- (AL5) and some inscriptions (e.g. 3, 7) are displayed. These are the days of the week on which the regeneration cycles will take place - 1 means Monday, 2 means Tuesday, 3 means Wednesday and so on .... 3, 7 means that regeneration will take place on Wednesday and Sunday, that is, on the third and seventh days of the week.

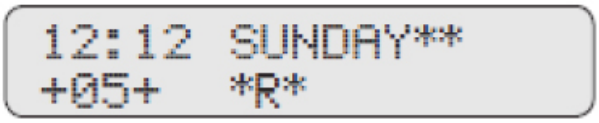
Example of displaying the version when the softener is set to interval days (paragraph setting regeneration to interval days).



The top line shows the current day and time. The bottom line displays the softener model and how many days should elapse before the next regeneration. -07 RIG = 7 is the regeneration frequency (day intervals). In this case, F10 means that the softener is set to perform a regeneration cycle every 10 days. WARNING: if F00 appears on the display, the softener will never perform an automatic regeneration, regeneration will only take place if necessary in semi-automatic mode.

Reading instructions on the display

Regardless of the actual softener setting, some additional functions will appear on the display. One, two or no star symbols may appear after the day name.



If the asterisk symbol is not visible on the display, the salt light is on. With this setting, a visual message will appear in the event of a salt shortage (the red lights will illuminate and the message "ADD SALT" will be displayed), as well as an audible alarm.

- A single asterisk symbol indicates that the salt control is on, but will only be visually indicated by red lights and the "ADD SALT" symbol on the display.

- The two-star symbols mean that the salt control is off and no visual signal will be visible once the salt runs out.

When the *R* and (R) symbols are displayed, the softener will perform a regeneration cycle at the preset day and time.

When "+05+" is displayed before and after the model type, it means that the regeneration time with extra rinse has changed (see paragraph Extra rinse).

Reading settings and alarms

When the softener is in operation, you can press the + button to view some softener functions and setting data.

Softener in chronometric mode on a weekly regeneration cycle:

+ Displays the regeneration start time

++ days of the week with the flag "*" means that regeneration will be performed on these days

+++ alarm history

++++ first installation

A softener in chronometric regeneration mode based on the number of days elapsed between cycles:

+ Displays the regeneration start time

++ alarm history

+++ first installation

Softener in volumetric mode:

+ Displays the regeneration start time

++ remaining water volume until regeneration

+++ water hardness

++++ number of days during which regeneration will be carried out

+++++ average softened water consumption per day

++++++ alarm history

+++++++ first installation.

As for "PAST ALARM LOG" and "FIRST INSTALLATION", they are the same for all three programs. When "PAST ALARM LOG " is displayed, all alarms recorded in the softener are displayed by pressing the - button. The alarms are recorded by the softener in numerical order, which also contains date and time information.

There are three types of alarms:

AS is displayed in case of salt shortage. E1 and E2 are displayed in case of system errors.

Note: if the salt deficiency check is in the off position, the softener will not record such an event in the log (Resin Disinfection and Salt Deficiency Alarm paragraph).

When "FIRST INSTALLATION" is displayed, the softener displays the date when the third automatic regeneration was performed. This will be considered the actual start of the device.

Salt deficiency alarm

By setting up comprehensive salt monitoring, the softener signals a salt shortage in three ways:

- flashing red light (Figure 9, C, D)

- The message "ADD SALT" is displayed

- Intermittent audible alarm. The alarm sounds for 3 minutes, then remains silent for 7 minutes. The device works like this from 8:00 am to 12:00 pm and from 2:00 pm to 6:00 pm.

By partially setting it to monitor salt, the softener will visually indicate a lack of salt:

- flashing red light next to the display (Figure 9, C, D)

- "ADD SALT" message

If the salt monitoring is not switched on, the salt deficiency will not be signalled.

When the softener is in "salt shortage alarm", the correct procedure to silence the alarm is as follows: simultaneously press the R and - buttons to turn off the audible alarm, add salt to the brine tank and press the + button, press the R button for one second. (Delayed manual regeneration). (R) is displayed and regeneration is performed at the set time. This procedure is performed regardless of the previously set schedule.

Press R and - simultaneously to silence the audible alarm.

Hold down the - button and then press the OK + OK + buttons to cancel the salt shortage alarm. Whenever the softener signals a salt shortage alarm, it will record it with the time and date of that alarm. You can recall it later and view it on the display.

Outages and extended periods of inactivity

If there is a short power failure, this will not cause any problem. Even if the outage lasts for several days, the softener is able to store data. If the outage is longer than 15 days, we recommend checking all settings, including the day and time.

Manual settings - manual regeneration

To perform a manual regeneration, press the R button for 5 seconds. Once regeneration has started, the display will show "Regeneration OF resins". During regeneration, the display will show the current step and the time remaining until completion. To move to the next step, press and hold the R button for 5 seconds.

Regeneration has the following 4 phases:

B1 Operating mode - the device is in operation. Water enters the system and softened water leaves. B3 Rinse - this is the quick rinse phase. The water flows back and flushes the tank, mixing and rinsing the resin and carrying to waste any contaminants that may have formed in the softener during normal operation.

B5 soak in salt water and slow rinse - during the first part the salt water is soaked inis sucked in and comes into contact with the resin together with the hypochlorite formed by the electrodes (Figure 10, A). At the end of this phase, a slow rinse of the resin takes place. B7 Replenishment of the solution and quick rinse - water is sent to the brine tank to melt the correct amount of

salts to be used in the next regeneration. At the same time, the resin is rinsed.

During steps B3, B5 and B7 the water is sent to waste. When the machine is in operating mode, the water softener does not send water to waste. During regeneration, unsoftened water is supplied to the plant.

Manual regeneration postponed

After pressing the R button, the display will show (R) and the softener will perform the regeneration cycle at the time set in the program (paragraph on setting the regeneration time).

Return to work mode

To abort the regeneration and return to the working mode, press the OK and - buttons simultaneously.

Resin rinse programme

The water softener can sometimes deliver salt water, this problem can be caused by lack of pressure during regeneration, preventing the water softener from rinsing properly. With the resin rinse program, the tank empties after a few minutes and clean water is delivered again. Press the OK and + buttons until the display shows "RESIN RINSE".

The water softener rinses the resin in Backwash mode (B3) for 5 minutes and then returns to the working mode.The rinsing step can be interrupted at any time by pressing the + button for 5 seconds. The water softener will interrupt the cycle and return automatically to operating mode. This is also a very useful function to reduce the pressure in the cylinder when service procedures are to be carried out.

Water hardness adjustment

The softener supplies softened water at the outlet. In some cases, however, residual water hardness is necessary.

By tightening the mixing screw, a small amount of unsoftened water is mixed with the softened water near the outlet, which increases the hardness of the outlet water. The more you tighten the agitator screw (Figure 3, M), the more the hardness level in the water rises. Remember that this operation must be done very carefully by the plumber, who will need to measure the correct water hardness at the end of the procedure.

maintenance for the service technician

All service operations must take all necessary precautions to maintain the sanitary integrity of the equipment. Repairs and maintenance must be carried out using original spare parts.

Periodic maintenance

We recommend that you carry out the following activities regularly to ensure that the equipment operates in optimum conditions:

- Clean the brine tank with warm water and remove all sediment from the suction pipe every six months (Figure 1, B). For external cleaning, use a damp cloth and warm water. Do not use cleaning agents or other chemicals.
- Check and clean the injector (Figure 10, B), its filter (Figure 10, C) and electrodes (Figure 10, A) at least once a year

follow these instructions:

1. Close the inlet and outlet taps (fig.3, B, D)
2. Press the OK and + buttons simultaneously until "RESIN RINSE" appears on the display.
3. Wait 30 seconds and then disconnect the transformer connector from the timer (fig.9, A)
4. Unscrew the caps (fig.10, D) and remove the ejector (fig.10, B), the fi lter (fig.10, C) and the electrode holder.
5. Clean the components with water and make sure that the hole in the ejector is not blocked (Fig. 10, B).
6. Carefully put the parts back in place.
7. Pull out both electrodes (Figure 10, A) and inspect and clean them with a wet cloth; replace them if there are clear signs of wear.
8. Put them back in the correct position.
9. Open the inlet and outlet taps again.
10. Reconnect the transformer connector to the timer (Figure 9, A) and allow the resin rinse cycle to run (approximately 5 minutes).

Resin disinfection and activation after a long period of inactivity

If the water softener is not used for more than 30 days, a double regeneration should be carried out first. inactivity of the unit for more than 12 months is not recommended and turning the system on after such a long period of non-use is not permitted. If the period of inactivity is less than 12 months, a resin rinse should be performed.

Disconnecting the device

1. Close the inlet and outlet taps (Figure 11, A).
2. Press the OK and + buttons simultaneously until "RESIN RINSE" appears on the display.
3. Wait 30 seconds and then disconnect the transformer connector from the timer (Figure 9, A).
4. To disconnect the inlet, outlet and drain pipe, press the black ring that surrounds the pipe next to the nipple,

and pull the pipe out. (Figure 4).

5. Use a double joint to insert the taps (Figure 11).
6. In this way you will be able to bypass the water softener and supply the machine with unsoftened water.
7. Open the inlet and outlet taps (Fig. 11, D).

Resin exchange

The softening ability of the resin ends after 5-7 years. This period may vary based on the characteristics of the feed water and the amount of water softened. After this time period, the user must decide whether it is sufficient to change the resin or whether it is better to change the water softener itself. To change the resin, the water softener must be disconnected as described in the previous paragraph. Unscrew the valve from the tank, being careful not to lose the valve O-ring. Resins are not biodegradable and must be considered a non-hazardous waste (CER code 190905). Do not dispose of the resin in the garbage. After replacing the resin, inspect and clean the valve seal for resin residue. If necessary, replace the O-ring. Slide the O-ring back into place and tighten the valve into the tank. reconnect the water softener and rinse the resin. Check for any leaks.

Alarms on display

- ERROR 1

The valve cannot find the correct position. During this alarm, check to see if the camshaft is rotating or stationary.

1. If the camshaft rotates:

- Check that the magnetic reader is in the correct position or is not broken (Figure 7, G);
- Check that the cable or connector that connects the timer to the magnetic reader is properly connected or not damaged (Figure 7, H, I);
- Check that the camshaft is correctly mounted and not tilted.
- Check that all magnets are inserted into the camshaft (Fig.7, E);

2. If the cam shaft doesn't turn:

- Check that the cable connecting the motor and the timer is not disconnected (Fig.7, A, B, D).
- Make sure that the motor is not damaged or that nothing is obstructing its movement (Fig.7, D).

- ERROR 2

This alarm indicates that the timer could not read all the data in the program. To recover the data, disconnect the power connector from the timer (Figure 9, A) and reconnect it. If the error message has been resolved, reset the timer by entering the necessary parameters (see "SETTING THE TIMER" section). If the error persists, disconnect the power connector from the timer (Figure 9, A) and reset the day and time according to the instructions in Setting the Date and Time.

- REPLACE THE BATTERY

This alarm indicates that the battery must be replaced. After replacement, the date and time must be set again. To remove the battery (Figure 7, L), disconnect the power supply from the softener, remove the back of the cover, and then pull out the front of the valve. Replace the battery (CR1220 3V) and replace the front and rear covers. Reconnect the power supply.

After replacing the battery, set the time and date again.

The importance of coloured LEDs

Thanks to the 4 LEDs in different colors located under the "ALIA" valve display (Figure 9, D) we can understand what the current status of the softener is. Each colour indicates a specific function:

- Green softener working properly

- Red is the alarm
- White means the steps that take place
- Flashing white indicates date, time and language setting
- Blue means setting step

NOTE: When the softener is in volumetric mode and the water is softened, the LEDs will gradually change from green to white. For example: 1 white LED and 3 green LED lights mean that the softener has used 25% of its operating range, while 2 white LEDs and 2 green LEDs mean that its operating range is 50%.

As a result, the following coding applies:	
4 flashing green LEDs	Operation / service
4 flashing white LEDs	Language, date and time settings
4 sequentially flashing white LEDs	Resin rinse (B3 set to 5 min)
4 sequentially flashing green LEDs	"R" regeneration is underway

Timer settings :	
1 flashing blue LED	Select volumetric mode YES/NO
1 flashing blue LED	regeneration day
1 flashing blue LED	regeneration interval
2 flashing blue LED	regeneration time
3 flashing blue LED	Choosing a softener model
3 flashing blue LED	Extra rinse
4 flashing blue LED	Select the salt alarm
4 flashing blue LED	Select the buzzer

Installation:	
2 luminous white LEDs	B3 rinse
4 luminous white LEDs	B7 first addition of solution and rinse
3 luminous white LEDs	B5 soak solution
4 luminous white LEDs	B7 second addition of solution and rinse

Regeneration:	
2 luminous blue LEDs	B3 rinse
3 luminous blue LEDs	B5 soak solution
4 luminous blue LEDs	B7 refill solution and rinse

Alarms:	
4 flashing red LEDs	Lack of salt
1 flashing red LED	ERROR 1
2 flashing red LEDs	ERROR 2
3 flashing red LEDs	replace the battery

9. CLEANING AND MAINTENANCE

It is recommended to have the device checked with a specialist service at least once a year. All the interventions in the device can only be carried out by a qualified person who has the authorization to do so. **CAUTION!** The device must not be cleaned with direct or pressure water. Clean the equipment daily. Daily

maintenance extends the life and efficiency of the equipment. Always turn off the main inlet to the device. Wash the stainless steel parts with a damp cloth with a detergent without coarse particles and wipe dry. Do not use abrasive or corrosive cleaning agents. Attention! Before using the device, it is necessary to remove the protective foil from the entire surface, and then wash it well with water with detergent, and then wipe it with a damp cloth. **ALERT!** The warranty does not apply to all consumables subject to normal wear (rubber seals, bulbs, glass and plastic parts, etc.). The warranty also does not apply to the device if the installation is not carried out in accordance with the instructions - an authorized worker according to the corresponding standards and if the equipment was unprofessionally manipulated (interventions in the internal equipment, etc.) or were operated by unhappy staff and contrary to the instructions for use, further The warranty does not apply to damage by natural effects or other external intervention. **Required service organization 2 times a year. After the lifetime, the shipping packaging and equipment are submitted to the collection, according to the regulations on waste management and hazardous waste.**