SV310-SV315 Control Valve User Manual

Applications-01.11.2021

- 1st Screen;

1. Language Settings
2. Date & Time Settings
3. Working Settings
4. Manual Regeneration
5. Regeneration Cycles
6. System Information

- 2nd Screen;

7. Holiday Mode
8. Sleep Mode
9. Brightness
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13.  Arrow Keys
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15.  Reset to Factory Settings (default)
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1)Language Selection

Select the desired language; English, Turkish, German, French, Italian, Spanish, Russian and Arabic language icons, and the  sign will appear next to it. Then select the Save button and the chosen language will be saved.
If you press Default, the menus will be in English.

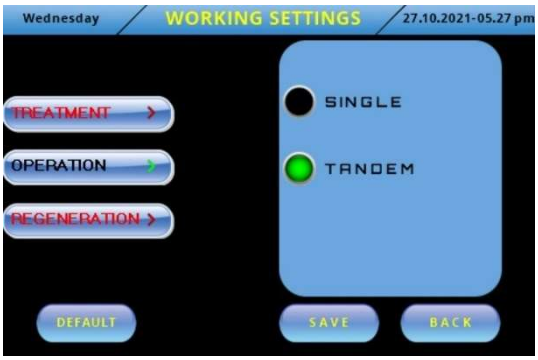
2) Date&Time Settings

After selecting the language, you can proceed to setting the date and time setting. Set the day, month and year in the first column using the up and down keys.
Set the hour unit by pressing the numbers 12 and 24 at the right of the hour, minute and second column.
When you select the number 12, you will set the time as am and pm.
You need to set the date and time correctly for the valve to regenerate according to Time Control.

3) Softening/Filtration Settings

There are;

3.1) Softening/Filtration Selection
3.2) Operation Type Selection
3.3) Regeneration Type Selection



3.1) Treatment Type Selection

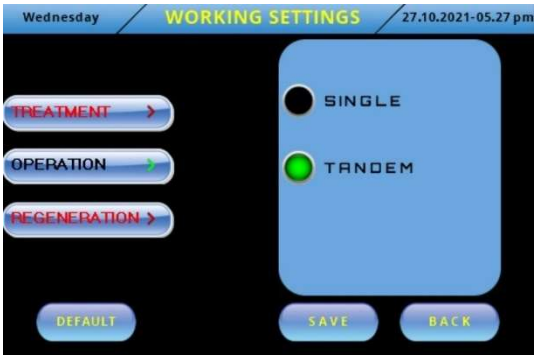
- Softening

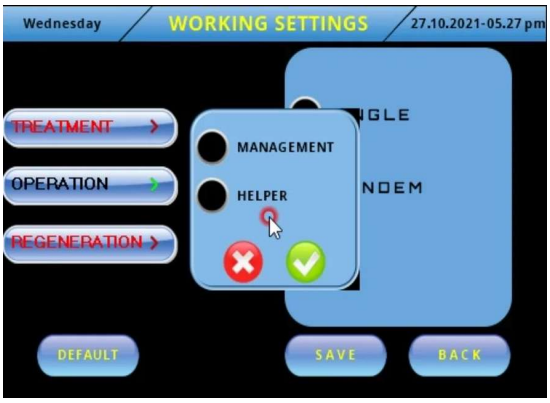
- Filtration

After “Treatment” Selection, Softening and Filtration options will be displayed. Make your selection by pressing the application you want to select. “Softening” is Default.

3.2) Operation Type Selection

- Single
- Tandem





Select “Operation” from the Working Settings” menü. Select whether Single or Tandem and Save it. If no selection is made, factory default Single will be saved.

In tandem selection; Make sure that the Tandem communication cable is plugged in when the system is to be operated as Tandem.

The passive icon  at the top of the main screen becomes active  . It means that the tandem communication system is active. Select Tandem and press the “Save” button. You need to select “Managemet” and “Helper” valve on the screen. After selecting the “Management” valve, select the “Helper” valve.

All commands will be given through the valve you selected as "Management". You can also make the settings only on the “Management” valve.

The settings you make from the valve you selected as “Helper” will not be valid. It works according to the “Management” valve.

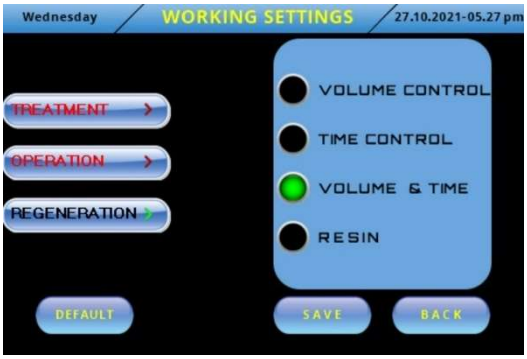
When the “Management” valve switches from the service section to regeneration, it sends a command to the “Helper” valve, allowing it to go into service.

Once the “Management” has finished regenerating the valve, it stays in standby. When the “Helper” valve switches to regeneration from the service section, the “Management” valve switches to service.

By continuing the operating cycle of the valves like this, treated water is supplied to the system continuously.

3.3) Regeneration Selection

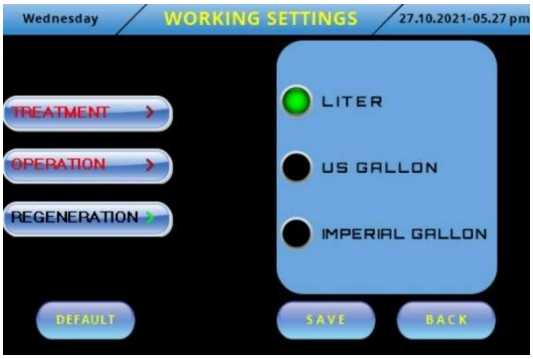
- Regeneration by Volume Control
- Regeneration by to Time Control
- Regeneration by Volume & Time Control
- Regeneration by Resin Capacity



Select "Regeneration" from the Working Settings screen. You can regenerate the treatment device according to volume control, time control, volume & time control and resin amount. If you do not make a selection, the factory default Volume Control application is saved.

3.3.1) Settings of regeneration by Volume Control

- Liter
- US Gallon
- Imperial(UK) Gallon



After selecting Volume Control (which is total volume treated before regeneration occurs), press the save button. Liters, US Gallons, Imperial Gallons will be displayed to select the unit of Volume. Select one of them and press the save button. If you do not make a selection, the Liter application will be saved, Liter is the factory setting (default).

The amount of water to be treated can be entered according to the selected unit. After making your selection, you will be prompted to enter the amount of units you selected on the screen. You can easily type the amount by using keys to set the unit or pressing the unit on the keyboard that will appear on the screen.

Liter>>> Minimum 5 liters, Maximum 200,000 liters

US Gallon>>> Minimum 1 Us Galons, Maximum 50,000 US Gallons

Imperial Gallon>>> Minimum 1 Imperial galon, Maximum 50,000 Imperial Gallons

You can adjust the volume by pressing the up and down keys, or press on the part with the numbers to make it faster, the keyboard will appear on the screen. Write the amount you want to enter and save it with the key. If you write a value above or below the minimum and maximum values, the

valve fixes these values at the lower or upper limit of the value. After you have written the volume you have determined, press the save button. In this way, you can adjust the volume. If you do not adjust the volume, the default setting is;

Liters=10,000 litres, American Gallons=2640 Galons, Imperial Gallons=2200 Imperial Gallons.

3.3.2) Settings of regeneration by Time Control

- Regeneration by Day & Clock
- Regeneration by Clock

3.3.2.1) Settings of regeneration by Day & Hour

After making the time control selection, press the save button. Now the treatment device will regenerate according to time.

For the Time Control setting, the day range, hour and minute sections will be displayed on the screen. By default;
Day Range>>>1,
Hour >>>2 am,
Minutes>>>15.
In this case, the treatment device will enter regeneration at 2:15 am every day. If you want to change these times, you can make adjustments by pressing the up and down keys, or you can make changes by entering the desired values with the keyboard that will appear on the screen and pressing ↵ .

The maximum values that can be entered are;

Day range >>> 0 – 99 days

Hour >>> 0 - 23 hours,

Minutes >>> 0 - 59 minutes

Time range>>>24 or 12 am-pm

If you write a value below or above these values, the valve ignores these values and fixes them at the lower or upper limit of the specified minimum and maximum values.

3.3.2.2) Settings of regeneration by Clock

Day Range >>> 0 day will be written

Hour >>> 0 - 23 hours,
Minutes>>> 0 - 59 minutes

If you save the day range as 0, you can set the Regeneration with hours and minutes. Thus, you can set a desired time period from 1 minute to 59 minutes and/or from 1 hour to 23 hours 59 minutes.

3.3.3) Regeneration by Volume & Time Control

In order for the regeneration to take place, the adjusted volume or the adjusted time must fill. Regenaration begins according to whichever of these conditions fill.

Make your selection by pressing the Volume & Time button. Press the Save button, the treatment device both treats the amount of the adjusted volume and executes the regeneration with the arrival of the set time (day, hour, minute). In other words, whichever of these two conditions fulfill first, regeneration starts accordingly.

Volume Settings

- Liter

- US Gallon

- Imperial Gallon

*** After selecting the volume control, press the save button. Liters, US Gallons, Imperial Gallons will be displayed to select the unit of measure. Select one of them and press the save button. If you do not make a selection, Liter application will be saved, which is the factory setting (default).**

The amount of treated water can be entered according to the selected unit. After making your selection, you will be prompted to enter the amount of units you selected on the screen. You can easily type the amount by using keys to set the unit or pressing the unit on the keyboard that will appear on the screen.

Liter>>> Minimum 5 liters, Maximum 200.000 liters

US Gallon>>> Minimum 1 US Gallon, Maximum 50.000 US Gallons

Imperial Gallon>>> Minimum 1 Imperial Gallon, Maximum 50.000 Imperial Gallons

You can adjust the volume by pressing the up and down keys, or press on the part with the numbers to make it faster, the keyboard will appear on the screen. Write the amount you want to enter and save it with the key. If you write a value above or below the minimum and maximum values, the valve fixes these values at the lower or upper limit of the value. After you have written the volume you have determined, press the save button. In this way, you can adjust the volume rate. If you do not adjust the volume rate, the default setting is;

Liters=10.000 litres, US Gallons=2.640 US Gallons, Imperial Gallons=2.200 Imperial Gallons.

Time Settings

For the Time Control setting, the day range, hour and minute sections will be displayed on the screen. By default;

Day Range>>>1,

Clock >>>2 am,

Minutes>>>15.

In this case, the treatment device will execute regeneration at 2:15 am every day. If you want to change these times, you can make adjustments by pressing the up and down keys, or you can make changes by entering the desired values with the keyboard that will appear on the screen and pressing↵.

The maximum values that can be entered are;

Day range >>> 0 – 99 days

Hour >>> 0 - 23 hours,

Minutes >>> 0 - 59 minutes

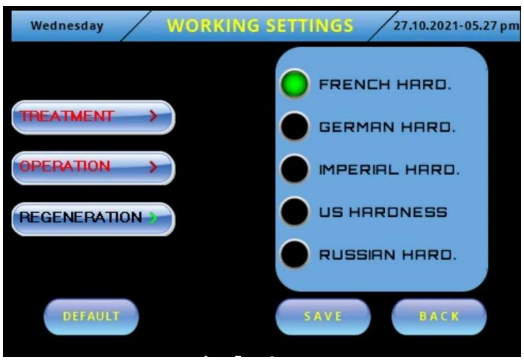
Time range>>>24 or 12 am-pm

If you write a value below or above these values, the valve ignores these values and fixes them at the lower or upper limit of the specified minimum and maximum values.

3.3.4) Regeneration by Capacity of Resin

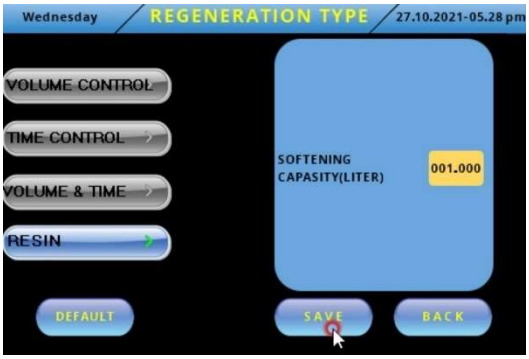
French, German, Imperial, American and Russian Water Hardness

Hardness degrees relative to each other						
ppm	ppm $CaCO_3$	Degrees				
		Imp	US	French	German	Russian
ppm or $CaCO_3$	1,00	0,07	0,058	0,10	0,056	0,40
Imp. Hardness Deg.	14,19	1,00	0,83	1,43	0,80	5,72
US Hardness Deg.	17,16	1,20	1,00	1,72	0,96	6,86
French Hard. Deg.	10,00	0,70	0,58	1,00	0,56	4,00
German Hard. Deg.	17,86	1,25	1,04	1,79	1,00	7,14
Russian Hard. Deg.	2,50	0,18	0,15	0,25	0,14	1,00
meq $CaCO_3$	50,00	3,50	2,90	5,00	2,80	20,04



The regeneration of the treatment device will be determined by the resin capacity. Make your selection by pressing the Resin button and press the save button.

French hardness, German hardness, Imperial hardness, American and Russian hardness will appear on the screen. Here you will need to determine which degree of hardness the water will be based on.



The factory setting (default) is saved as French hardness. When you make your selection and press the save button, the above screen will appear. The respective values are the maximum and minimum ranges;
Resin amount>>>5-999 liters (Selections of French-German-Imperial-Russian Hardness)
Resin amount>>>00.1-99.9 Cubic Feet (Selection of US Hardness)
Resin multiplier>>>1- 9
Water inlet hardness>>> 1-999
Water outlet hardness>>> 1-100
Softening capacity>>>No setting, the device calculates automatically.

Resin amount = "0" will be written next to the amount of resin in the device you selected as softening. When you key on the number “0”, the keyboard will appear on the screen. Write the value you want here and save it by pressing ↵. You can enter the resin amount in Liters in the French, German, Russian and Imperial hardness selection, and the resin amount in cubic feet in the American hardness selection.

Resin multiplier= Here you are asked to set a multiplier according to the quality of the resin you have used. Key on the number “0” and the keyboard will appear on the screen. Write the multiplier you have determined here and save it by pressing ↵.

Water inlet hardness = It is required to write the hardness value of the water to be treated. Press on the number “0” and the keyboard will appear on the screen. Write the hardness value of the water here and save it by pressing ↵ .

Water outlet hardness = At the end of the softening process, the value of the hardness you want at the outlet is required to be written. **The device does not automatically adjust the degree of hardness. You need to make the adjustment to the valve you will install in the piping installation.** Press on the number “0” and the keyboard will appear on the screen. Write the hardness of the water you want at the exit and save it by pressing ↵ .

Water softening capacity = **User cannot enter any value in this section.** After entering the Resin Amount, Resin Multiplier, Water Inlet Hardness, Water Outlet Hardness values specified in the upper section, the amount of water to be treated or the amount of treated water to be regenerated are automatically determined and displayed on the screen. It is calculated in Liters for the French, German and Russian hardness selection, in Imperial galon for the Imperial hardness selection, and as American gallons for the American hardness selection.

3.1.1) Adjusting treatment position times

Positions of the treatment device

Softening >>>Backwash >>>Salt Absorption >>>Rinse >>>Brine Refill >>>Service (not visible)	Filtering >>>Backwash >>>Rinse >>> Service (not visible)

If you don't make a selection, it is saved as the factory setting (default) which is Softening application with default values.

Default values;

Softening >>>Backwash>>>10 minutes

>>>Salt Absorption>>>60 minutes

>>>Rinse>>>5 minutes

>>> Brine Refill >>>10 minutes

If you want to change these times, you can make adjustments by pressing the keys on the screen. When you press the numbers, the keyboard will appear on the screen. Enter the Regeneration time you want to enter and save it by pressing ↵.

Settings for all Regeneration times;

Minimum >>>1 minute

It is limited to >>> **maximum** 200 minutes.

If you write a value above or below these values, the valve ignores these values. Fixes at the lower or upper limit of the specified minimum and maximum values.

3.4) Work Info

After all the settings are made and saved, the information of all settings you have made in operation type are displayed on the screen.

Treatment >Treatment type> Position times

Regeneration> Regeneration type> Regeneration settings

Operation > Single-Tandem

If you find the settings you have made appropriate, press the accept button. Your device will start working in service position. If you want to make changes, press the back button to make the changes you want and press the accept button. Your device will start working in service position.

4) Manual Regeneration

This mode regenerates the treatment device manually. When you press the manual button, the values you have made in the operating settings and operating information are displayed on the screen. When you press the accept button, the device starts regeneration manually. If you want to make changes, make the change you want by pressing the back button, then start the Manual Regeneration process by pressing the accept button. The colored round image starts to rotate.

The regeneration sequence is according to the following positions;

- Backwash,
- Salt Absorption,
- Rinse,
- Brine Refill,

The position of the current regeneration is in the middle section. You'll see the previous one at the top and the next at the bottom. There is no previous mode of Backwash and next modes of Brine Refill.

In the next mode, the first start of Regeneration starts with Backwash. You cannot apply the Previous Mode. You can jump to Salt Absorption, Rinse, and Brine Refill positions in order.

You cannot pass the last section, the Brine Refill position. (Before the set time expires) So you cannot apply the next mode.

At the bottom left, the positions of Treatment Type you have selected come in order. The next position is indicated by the green arrow . The position time you set next to it counts down. This way you can see the remaining time.

Next Mode; It helps to bypass the unwanted regeneration position.

Previous Mode; It serves to repeat the previous regeneration position. In this way, you can make the regeneration position you want as many times as you want.

Stop Key; It stops regeneration. Rotating colored circle image disappears.
When you presss stop key, regeneration continues from where it stopped. Colored circle image starts rotating.

5) Regeneration Movements

It functions to control and inform regeneration cycles during Service or Regeneration. When you press the regeneration cycles button, the treatment type of the device is written at the top. When the regeneration process starts, the colored round image starts to rotate.

The regeneration sequence is according to the following positions;

- Backwash,
- Salt Absorption,
- Rinse,
- Brine Refill,

The position of the current regeneration is in the middle section. You'll see the previous one at the top and the next at the bottom. There is no previous mode of Backwash and next modes of Brine Refill.

In the next mode, the first start of Regeneration starts with Backwash. You cannot apply the Previous Mode. You can jump to Salt Absorption, Rinse, and Brine Refill positions in order.

You cannot pass the last section, the Brine Refill position. (Before the set time expires) So you cannot apply the next mode.

At the bottom left, the positions of Treatment Type you have selected come in order. The next position is indicated by the green arrow . The position time you set next to it counts down. This way you can see the remaining time.

Next Mode; It helps to bypass the unwanted regeneration position.

Previous Mode; It serves to repeat the previous regeneration position. In this way, you can make the regeneration position you want as many times as you want.

Stop Key; It stops regeneration.  Rotating colored circle image disappears.

When you presss stop key, regeneration continues from where it stopped.  Colored circle image starts rotating.

6) System Information

In this section, the installer determines and enters;
- The serial number of the device,
- The date of installation of the device,
- Next service date,
- You can set a mineral change date.

When you want to adjust these sections, press the "0" key next to them, the keyboard will appear on the screen  .

Enter the desired values using the keyboard and press the save button.

When specified Service Date and Mineral Change Time has reached, there will **be warning** information on the screen.

7) Holiday Mode

If you are not going to use your device for a long time, you can deactivate the device by pressing holiday mode. Press the Holiday Mode icon to activate the Holiday mode. “Activate Holiday Mode?” is displayed on the screen.  Red (off) and  green (on) are displayed on the screen. Press  green button, now you are on holiday mode. In this mode, other keys stop all function. It keeps current information in memory. Thus it stops consuming unnecessary water and salt. When you want to exit from the Holiday Mode, touch the screen,  Red (off) and  green (on) will appear on the screen, press red icon  . Treatment device continues to work with the values set before holiday mode.

8) Sleep Mode

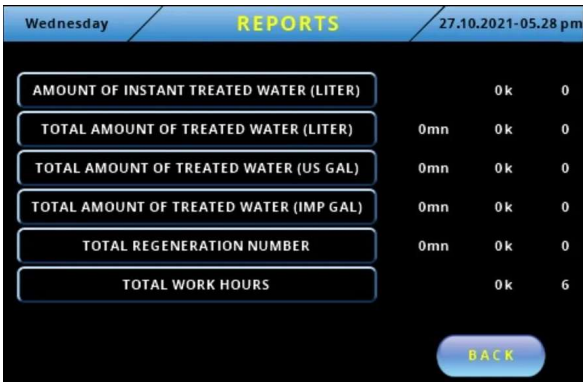
In sleep mode, the device continues to work by dimming the screen. Thus, the life of the electrical and electronic components of the device is extended. Press the Sleep Mode icon to activate the sleep mode. Sleep Mode Red (off) and Sleep Mode green (on) options appear on the screen. Press the green button. Use the + and - keys to determine how long after you want to switch to sleep mode and press green (on) button . The minimum time you can do here is 1 minute, the maximum time is 60 minutes.

After the setting, the screen goes black when the time you set has expired. When you want to wake up from sleep mode, touch the darkened screen to turn it off, the whole screen will light up. Press the sleep mode icon. Red (off) and green (on) options will appear. Disable sleep mode by pressing the green (on) button.

9) Brightness

It is used to adjust the screen brightness. Press the brightness key. The brightness level is displayed as a red circle in the middle. You can adjust the brightness level of the screen by using the right +, left - keys. You can use the green button to activate the brightness option, and the red button to deactivate it.

10) Reports



- In this section, the values are calculated automatically by the Control Valve.

K=1.000 and its multiples.

Mn=1.000.000 and its multiples.

- Instant Treated Water Amount displays the treated water amount instantly according to the selected volume unit. When the number "0" on the far right of the line comes to the number "999", "0"K becomes "1"K, that is, "1000"

- Total Amount of Treated Water Liters,

It shows the total amount of water that the Control Valve has treated since the moment it works. When the "0" number on the far right of the line passes “999” liters , the "0"K in the middle section becomes "1"K, that means "1000" liters. When “0”K in the middle passes“1000”K, the left section “0”mn becomes “1”mn, that means “1.000.000” liters.

- Total Amount of Treated Water in US Gallons,

It shows the total amount of water that the Control Valve has treated since the moment it works. When the "0" number on the far right of the line passes “999” US Gallons, the "0"K in the middle section becomes "1"K, that means "1000" Us Gallons. When “0”K in the middle passes“1000”K, the left section “0”mn becomes “1”mn, that means “1.000.000” US Gallons.

- Total Amount of Treated Water Imperial Gallons

It shows the total amount of water that the Control Valve has treated since the moment it works. When the "0" number on the far right of the line passes “999” Imperial Gallons, the "0"K in the middle section becomes "1"K, that means "1000" Imperial Gallons. When “0”K in the middle passes“1000”K, the left section “0”mn becomes “1”mn, that means “1.000.000” Imperial Gallons.

- Total Regeneration Number,

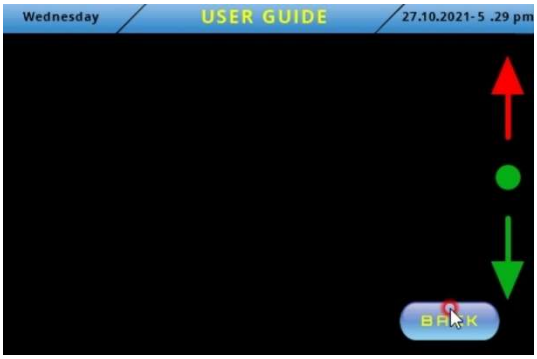
It shows the number of regenerations it has made after the Control Valve is installed. When the "0" number on the far right of the line passes “999”, the "0"K in the middle section becomes "1"K, that means "1000" . When “0”K in the middle passes “1000”K, the left section “0”mn becomes “1”mn, that means “1.000.000”.

- Total Work Hours,

From the moment the Control Valve is energized, it shows how long it has worked.

When the number “0” on the far right of the line passes “999”, the “0”K in the middle becomes “1”K, that means “1000” hours.

11) User Guide



The user guide of the control valve is written on the screen.

You can see the pages using the  keys.

12) About Us

The information of the company that installed the device can be written here. When you key in the opposite of company name, address, phone, e-mail information, the keyboard  will appear on the screen.

You can type and save information by using the keyboard.

MENU DESCRIPTIONS

1. Language : It allows you to select the language of valve's screen.

2. Date and time : It allows you to set the current date and local time.

3. Operation settings : It allows you to set the working programs of the valve.

4. Manual Regeneration : Allows the valve to enter regeneration manually outside the regeneration program you have set.

5. Regeneration movements : Shows the information of the valve during working

6. System Information : Allows to set the valve's serial number, installation date, next service and mineral change dates.

7. Holiday mode : It serves to stop the device when you go on vacation.

8. Screen sleep mode : It is used to dim the valve's screen.

9. Brightness : Allows adjustment of the valve's display light.

10. Reports : It shows the amount of instant treated water and total treated water from the moment it starts to work and the number of regenerations and the working hours.

11. User manual : Shows the operating information of the valve

12. About us : It is useful to see the information of the company that installed the valve.

13.  : Used to show pages or sections.

14.  Key Lock : When you press and hold the green dot  between the Red  and Green arrows  for three seconds, “Key Lock” becomes active. While the key lock is active, press and hold the green dot  for three seconds, and the key lock becomes inactive.

15.  Reset to Factory Settings (default): Press the up arrow button  while it is in red color for three seconds.When it is pressed, the text "Reset to Factory Settings" appears on the screen. When the yes button  is pressed, all entered information is deleted and the default specified “Factory Settings” is restored.

16.  -  Wi-Fi : Indicates whether the wired or wireless internet connection is active or passive.

You can provide remote access to the SV3XX Control Valve via Wi-Fi connection. To do this, press the button  at the top of the main screen. The necessary information is entered on the screen to provide internet connection. Press the Save button. When the passive connection  changes to the active connection  , you can remote access to the valve. In remote

access, you can change some values of the valve, and you can see some of them only.

You can provide remote access to the valve via the web database or with the mobile phone application (SVX iWater).

Operations you can do with remote access;

* In regeneration selections,

- Volume settings;

- Day, hour, minute settings

- Regeneration time settings

- Resin amount, multiplier, water inlet and outlet hardness settings

* In Manual Regeneration and Regeneration movements

- Stop skip and go back settings

* On holiday mode

- Activation and deactivation setting

* Ability to see the values on the report screen.

17. Communication Cable (Tandem): Tandem communication is used to operate 2 valves together. Make sure that the communication cable is connected when the valve is to be operated as “Tandem”. The passive icon  at the top of the main screen becomes active  . Make the Tandem selection and press the “Save” button. You need to choose "Management" - "Helper" on the screen. Select the “Management” valve. All commands will be given through the valve you selected as "Management". You can also make the settings via the “Management” valve.

When the “Management” valve switches from the service section to regeneration, it sends a command to the “Helper” valve, allowing it to go into service. Once the “Management” has finished regenerating the valve, it stays in standby.

When the “Helper” valve switches to regeneration from the service section, the “Management” valve switches to service.

By continuing the operating cycle of the valves like this, treated water is supplied to the system continuously.