

INSTALLATION AND OPERATING INSTRUCTIONS OF PORTABLE CONTROLLING PANEL

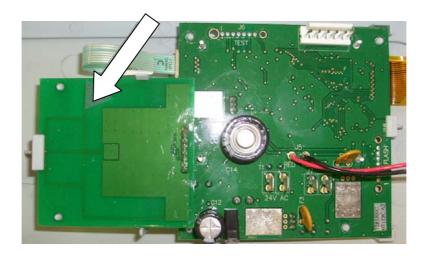


A complete control panel consists of a portable monitor, 3 batteries, the rack and the transmitter (plates).



1. PORTABLE CONTROL PANEL INSTALLATION

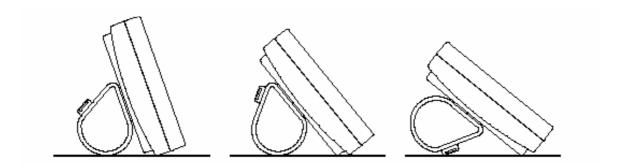
- 1.1. Placing the transmitter on circuit board of the softener.
- 1) Remove the cover and remove the water softener electronic control board.
- 2) Connect the transmitter to the control board softener as pictured below.



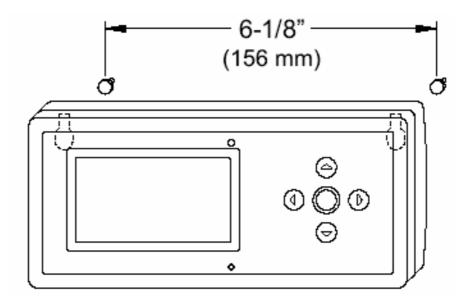
3) Replace the electronic control board to a softener and mount front softener cover.

1.2. INSTALLATION AND START-UP OF PORTABLE MONITOR

- 1) Insert the batteries into a portable monitor.
- 2) Mount the stand as shown below (depending on the position in which the rack is mounted, the panel may be at different angles).



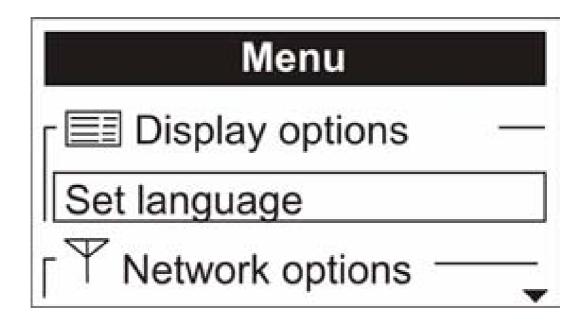
Portable monitor has 2 holes at the back (see figure below) that allow its mounting on the wall.



3) After inserting the batteries into the monitor, on screen briefly Ecowater logo appears.

1.3. RADIO COMMUNICATIONS BETWEEN INITIATED SOFTENER AND REMOTE MONITOR

- 1) Start softener ESM according to the instructions attached to it.
- 2) Make sure the portable monitor is running.
- 3) When initiating the radio communication between softener and a portable monitor, keep the monitor near water softener.
- 4) In softener press SELECT (O) from level of changing basic information on the screen one after the other, to enter the "Main Menu". Then press DOWN button (▼), until you see "Advanced Settings", which should be in the frame. Press SELECT (O). Then press DOWN button (▼), until "Connect to a portable panel" will be in the frame.
- 5) Before the softener will be "added" to the portable monitor laptop screen monitor display is a window menu, as shown in Fig. below. If you do not see the menu window, first in a portable monitor, press SELECT(O).



- 6) If the window Menu is visible, the word "Select language" should be in frame. Then press SELECT (O). DOWN buttons (▼) or UP (♠) should find your language and then select it by pressing SELECT (O).
- 7) Then, in <u>portable monitor</u> press DOWN(▼), until "Add new device" will be in the frame. Then press SELECT(O). You will get message "Waiting for new device ... Turn on the machine!".
- 8) In softener, make sure that the word "Connect to a portable panel" is in the frame.
- 9) In <u>softener</u> press SELECT (O). After few seconds you should see the message "Found portable monitoring panel".
- 10) Portable monitor should show the message "Adding a device successful. Softener ESM".

- 11) If the operation is unsuccessful, press SELECT(O) on <u>softener</u> and on <u>portable monitor</u> choose LEFT (◀), next both on <u>softener and portable monitor</u>, press SELECT(O). If after several attempts the operation fails, contact your dealer.
- 12) If the operation fails, press SELECT (O) on softener, and then press twice LEFT (◀), to return to the level of changing basic information.

2. BASIC INFORMATION ON THE SCREEN

After adding the device to a portable monitor, on LCD monitor will appear basic information about the work of the added device. In addition to softener, you can also add <u>Ecowater</u> reverse osmosis filter to the portable monitor, then the monitor screen will show alternately basic information relating to the softener and osmosis. To manually enter the data of softener or osmosis, press LEFT (◀) or RIGHT (▶). When there is no reverse osmosis filter added, instead of basic information on its operation, the screen displays "No drinking water system installed".

3. ALARMS

The screen will not display basic information, if on he screen will appear following alarms:

- Low level of salt or no salt (you must add salt to the water softener)
- Current time (set the current time, eg. Due to an earlier power outage)
- Reminder of technical review (Please contact service)
- Error detected (Please contact service)

4. PHOTOCELL

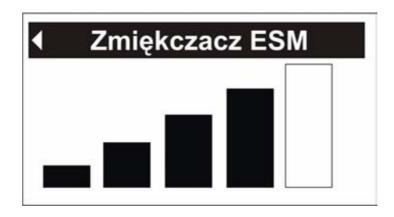
In order to extend battery life, portable monitor has a photocell above the screen.

Thanks to the photocell, the display fades (screen is blank) when it is dark around for 10 minutes and goes into activation (information appear on the screen again), when around gets bright. **NOTE: Despite the blackout, if an alarm is activated, the alarm LED constantly flashes red.**

5. CHECKING THE RADIO SIGNAL STRENGTH

 In portable monitor, press LEFT (◀) or RIGHT (▶), to manually go to basic information regarding selected device. The device name appears on top line, for example "softener ESM".

- 2) Press SELECT (O), to go to menu.
- 3) Next press DOWN(▼), until there is a sign "Strenght of radio signal", which should be in a frame.
- 4) Press SELECT (O). Following screen will appear:



The more black rectangles appear, the better signal strenght it is.

5) To leave the screen, press LEFT (◀).

6. SOFTENER REGENERATION

This function can be used to provide appropriate amount of softened water during a much higher than normal water consumption, eg. when we have guests, and the available amount of soft water (the information that you see on the screen softener) indicates 50% or below 50%, there is a high risk that the ability of ion-exchange water softener runs out before the automatic regeneration of specified time (eg. 2 at night). In this case, it is worth to manually start an immediate regeneration to restore 100% of the available soft water. This can be done remotely by selecting the appropriate option in the portable monitor:

- 1) Press LEFT (◀) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) If neccessary, press DOWN (▼), until "Regeneration" appears, which should be in frame.
- 4) Press SELECT (O) to unfold "**Regeneration**" menu (by currently selected option is a black dot).
- 5) Press DOWN (▼) or UP (♠) to go to selected option, and then press SELECT (O), to confirm your choice.

- ▶ Option "Automatic regeneration" deletes manually set time of regeneration and allows electronic controller to define time of regeneration.
- ▶ Option "Immediate regeneration" starts process of regeneration right after pressing SELECT (O).
- ▶ Option "Planning regeneration" allows setting time of regeneration start.
- 7) Press SELECT (O).
- 8) Press LEFT (◀).

7. PROGRAMMING OF REGENERATION TIME

Factory hour softener regeneration is set for 2.00 am. To change this time, use a portable monitor

- 1) Press LEFT (◀) or RIGHT (▶) to go to softener data
- 3) Press SELECT to go to menu.
- 3)Press DOWN (▼) until "Regeneration time" appears, which should be in frame.
- 4) Press SELECT (O).
- 5) Press DOWN (\checkmark) or UP ($^{\triangle}$), so that time changes 1 hour back or forward. If you hold the button, time changes faster. If 12-hour time is set, you should check whether there is "AM" between 0^{00} and 11^{59} and "PM" between 12^{00} and 23^{59} .
- 6) Press SELECT (O).
- 7) Press LEFT (◀).

8. CHANGE / CHOICE OF BASIC INFORMATION ON THE SCREEN

You can enable and disable the display of chosen information.

- 1) Press LEFT (◀) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) Press DOWN (▼) until "Selection of data to display" appears, which should be in frame.
- 4) Press SELECT (O).
- 5) Press DOWN (▼) or UP (♠) to move on information list on the screen. Information, next to which is a black square with a tag, will be displayed in softener normal operation mode.
- 6) To select the information that is not selected, you must make sure that it is next to a black square. Then press SELECT (O), then in a square marker appears.
- 7) If you do not want certain information to be displayed on the screen (it was previously selected), you should make sure that next to it is a black square with a tag, then press SELECT(O) and then a square marker disappears.
- 8) After making your selection, press twice LEFT (◀).

9. CHANGING THE DEVICE NAME

- 1) Press LEFT (◀) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) Press DOWN (▼) until a message: "Change the device name" appears, which should be in frame.
- 4) Press SELECT (O).
- 5) Names will appear in 2 lines. In upper line current name will appear, i.e. ESM Softener. In lower line next alphabet letters will appear.
- 6) Press LEFT (◀) or RIGHT (▶) to highlight the letter, which we want to change in current name.
- 7) Press DOWN (\checkmark) to go to next line.
- 8) Press LEFT (◀) or RIGHT (▶) to find the right letter. When the chosen letter is highlighted, press SELECT (O). Chosen letter will be added to top line.
- 9) After making the changes, press UP (♠) next SELECT (O) and LEFT (♠).

10. CHANGE / CHOICE OF FUNCTIONS, WHICH CAN BE CONTROLLED REMOTELY

- 1) Press LEFT (♠) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) Press DOWN(▼) until you see "Choice of remotely controlled data", which should be in frame.
- 4) Press SELECT (O).
- 5) Keep pressing DOWN $(\ \ \)$ or UP $(\ \ \)$ to move on function list. Functions with tag next to it, can be controlled with a portable monitor.
- 6) To select a function that is not selected, you must make sure that it is next to a black square. Then press the SELECT (O) and then there will be a marker in a square.
- 7) To uncheck the selected function, you must make sure that next to it is a black square with a tag, then press SELECT(O) and then the marker will disappear.
- 8) After making the changes, click LEFT (◀) twice.

11. CHANGING NAME OF THE DEVICE

- 1) Press LEFT (◀) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) Press DOWN (▼) until a message: "Change the device name" appears, which should be in frame.
- 4) Press SELECT (O).
- 5) Names will appear in 2 lines. In upper line current name will appear, i.e. ESM Softener. In lower line next alphabet letters will appear.
- 6) Press LEFT (◀) or RIGHT (▶) to highlight the letter, which we want to change in current name.
- 7) Press DOWN (\checkmark) to go to next line.
- 8) Press LEFT (♠) or RIGHT (▶) to find the right letter. When the chosen letter is highlighted, press SELECT (O). Chosen letter will be added to top line.
- 9) After making the changes, press UP ($^{\triangle}$) next SELECT (O) and LEFT ($^{\blacktriangleleft}$).

12. REMOVING THE DEVICE WITH PORTABLE MONITOR.

- 1) Press LEFT (♠) or RIGHT (▶) to go to softener data.
- 2) Press SELECT (O) to go to menu.
- 3) Press DOWN (▼) until "Delete the device" apears. It should be in frame.
- 4) Press SELECT (O).
- 5) On screen a question "Are you sure?" will appear.
- 6) If you are sure you want to remove the device from a monitor, press RIGHT (▶). Then a message: "ESM softener has been removed from portable monitor" will appear.
- 7) If you don't want to remove the device, press LEFT (◀).
- 8) After making the changes press LEFT (◀).