

# INSTALLATION and REPAIR MANUAL

## AqueenaPro WT-100

REV. A



## AqueenaPro WT-100 Installation and Repair manual

Version	Date	Author	Revision Description	Signature
A	1.8.2014	MNE	First draft release	

**Note:** The repair manual may be changed/updated, due to modification on product. Please always refer to the latest version, which will be delivered to all authorized service centre and posted on web page WebShop under product item code.

## 1. Table of Contents

2. Electro Static Discharge – ESD .....	5
2.1. What is ESD? .....	5
2.2. Where do we get static charge by operating in the service environment?.....	5
2.3. Minimum equipment for ESD protection .....	6
3. Spare parts .....	6
4. Related document .....	6
5. Product overview .....	7
5.1. Water Purifier: Product Definition .....	7
5.2. Water flow principle .....	7
5.3. Technical characteristic .....	8
5.4. Water route map .....	9
5.5. Operating Information .....	9
5.6. Product special features .....	10
5.7. Product characteristics.....	10
5.8. Product overview .....	11
6. Repair information .....	12
6.1. Warranty card .....	12
6.2. Note for ZCT users:.....	13
7. Product installation.....	14
7.1. Pre-Installation Preparations .....	14
7.1.1. Recommended side preparation.....	14
7.1.2. Recommended tools for installation .....	15
7.2. Installation .....	15
7.3. Quick connectors.....	15
7.4. Tube connection .....	16
7.5. Inlet water tube installation .....	17
7.6. Waste water pipe installation.....	19
7.7. Pure water faucet installation .....	21
7.8. Main Unit installation .....	22
8. RO Membrane installation .....	23
9. Maintenance and filter replacement method .....	26
9.1. Flushing the RO Membrane .....	26
9.2. Filter Replacement Time.....	26
9.3. RO membrane replacement time .....	27

9.4. The filters replacement procedure .....	28
9.5. After filter replacement.....	30
9.6. The RO membrane replacement procedure.....	31
10. Trouble shooting guideline .....	32
11. Tools .....	33
12. How to open AqueenaPro .....	34
13. Locking plate left and right.....	35
14. Inlet solenoid valve (33).....	36
15. Low pressure switch (22).....	39
16. Display (55).....	41
17. Control board (24) .....	43
18. Flashing solenoid valve (32).....	46
19. High pressure switch (28).....	49
20. Water tank (40).....	51
21. Leakage sensor (59) .....	53
22. Pump (25) .....	55
23. Power cord extension (44).....	59
24. Colour cable set .....	61

## 2. Electro Static Discharge – ESD

### 2.1. What is ESD?

ESD is the rapid transfer of an electrostatic charge between two objects. ESD happens when two objects of different potentials comes close together.

### 2.2. Where do we get static charge by operating in the service environment?

E.g. by pulling off a sweater, shirt, fleece, walking shoes, etc.

The handling of electronic components need`s special attention regarding ESD. All activities have to be done with ESD precaution, that means:

- Don't touch any components without connection to earth-common ground potential.
- Keep the electronic always protected by an ESD approved bag.
- Use static dissipative work surface
- Keep wrist band during dissembling and assembling of the electronic always on.



ESD bags



Wrist band  
connected to the  
work surface

Static dissipative  
work surface



### 2.3. Minimum equipment for ESD protection

- Static dissipative work surface
- Adjustable ESD wrist band



Even defect electronic needs be treated in the same way that no further damage will happen to the electronic circuits in the Printed Circuit Board (PCB).

ESD can cause additional problems even in the late future and will dramatically influence the reliability of electronic components or their products.

## 3. Spare parts

Only approved spare parts and consumables can be used for the product repair and maintenance. Valid spare parts list is available to download from WebShop application under product code **WT-100 Spare Parts List**.

**Any substitutions from the local source are not allowed!**

If unauthorized spare parts and/or consumables are used during repair and maintenance, Home Art & Sales Service is not responsible for future product malfunctioning and /or damages.

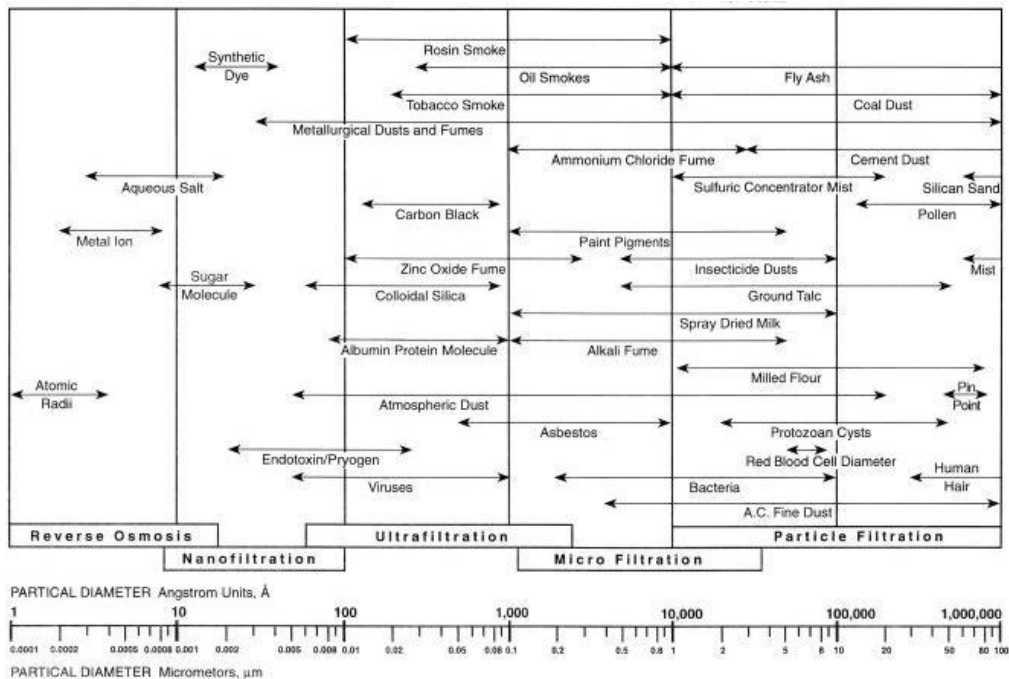
## 4. Related document

1. WT-100 Exploded drawing
2. WT-100 Filter sets drawing
3. WT-100 Sets drawing 78-83
4. WT-100 Sets drawing 84-87
5. WT-100 Service spare parts list
6. WT-100 Spare parts list – Full BOM
7. User Manual PMD-HC-034-14-ML

## 5. Product overview

### 5.1. Water Purifier: Product Definition

AqueenaPro WT-100 is reverse osmosis water purifier uses the semi-permeable membrane with pores small as 0.0001 micron.



### 5.2. Water flow principle

#### 1. First stage: 5-micron PP filter (WT-100-72)

The PP filter has a 5 micron pore size that can effectively filter larger particles in water as rust, sand, and other solid impurities.

#### 2. Second stage: Pellet Carbon filter (WT-100-73)

The Pellet Carbon filter can effectively adsorb free chlorine, organic matter, odours, discoloration, and other substances in water.

#### 3. Third stage: 1-micron PP filter (WT-100-74)

The 1-micron PP filter subsequently removes particles of a smaller size, such as suspended solids and colloids.

#### 4. Fourth stage: Reverse osmosis membrane (WT-100-15)

The RO membrane can effectively remove bacteria, viruses, heavy metals, pesticide residues, and other harmful substances.

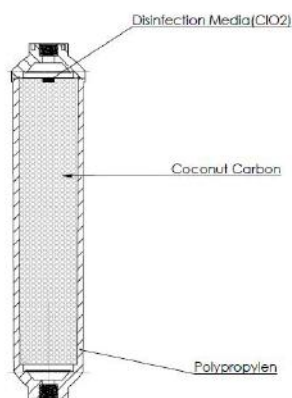
#### 5. Fifth stage: Coconut post-filter (WT-100-75)

The coconut post-filter removes odour and adjusts taste.

## AqueenaPro WT-100 Installation and Repair manual

As a special feature of Coconut post-filter is the content of disinfection media  $\text{ClO}_2$ . The tablet is embedded under the cup of the filter. The main purpose is to reset to factory setting/quality of water tank (eliminate secondary contamination).

The disinfection medium will be completely washed out with 10 l of water (2 tanks). The tablet is part only of freshly new filter and it is not accessible by end user/service technician.

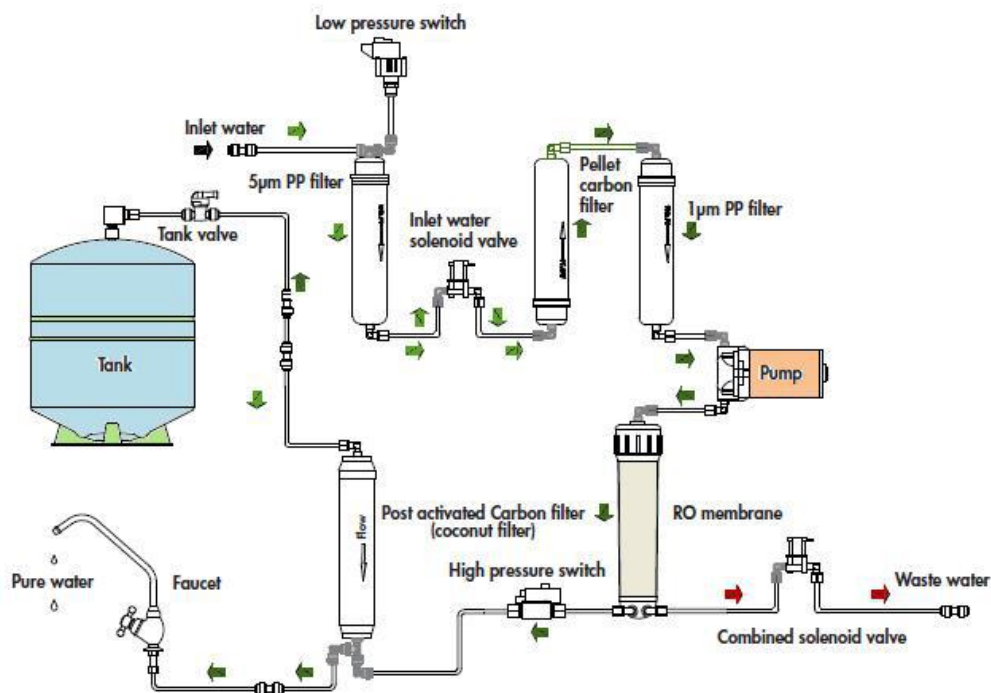


### 5.3. Technical characteristic

Model	WT-100
Voltage	AC100-240V, 50-60HZ
Power Rating	25W
Dimensions (mm)(WxDxH)	408x265x420
Suitable Inlet Water Pressure	0.07MPa-0.75MPa
Operating Pressure	0.6MPa-0.8MPa
Inlet Water Temperature	5-38°C
Maximum Inlet Water TDS Value	≤2000PPM
Maximum Daily Water Production Volume	100 Gallons, approximately 378.5 Liters
Auto-flushing system	YES
Electric Shock Protection Type	Type II
Tank Capacity	9.5 l (usable capacity 6l) 2.5Gallons (usable capacity 1.6G)
Suitable Water Quality	Primly designed for municipal tap water.



## 5.4. Water route map



## 5.5. Operating Information

General Operating Information	Value	Unit
Rated Capacity*	<378	[L/day]
Min-Max Feed Water Pressure	10-110	[psi]
Min-Max Feed Water Temperature	5-38	[bar]
Product Recovery Rate**	42	[%]
Maximum Feed Water Hardness	<1000	[mg/L]
Maximum Feed Water TDS	<2000	[ppm]
Maximum Feed Water Dissolved Iron	<2	[mg/L]
Suitable Feed Water pH	6-8	[-]
Turbidity	<3	[NTU]
* at 3.5 bar feed water pressure and 25°C feed water temperature		
** at 3.5 bar feed water pressure and 25°C feed water temperature; TDS < 750 ppm. Measured on closed tank.		

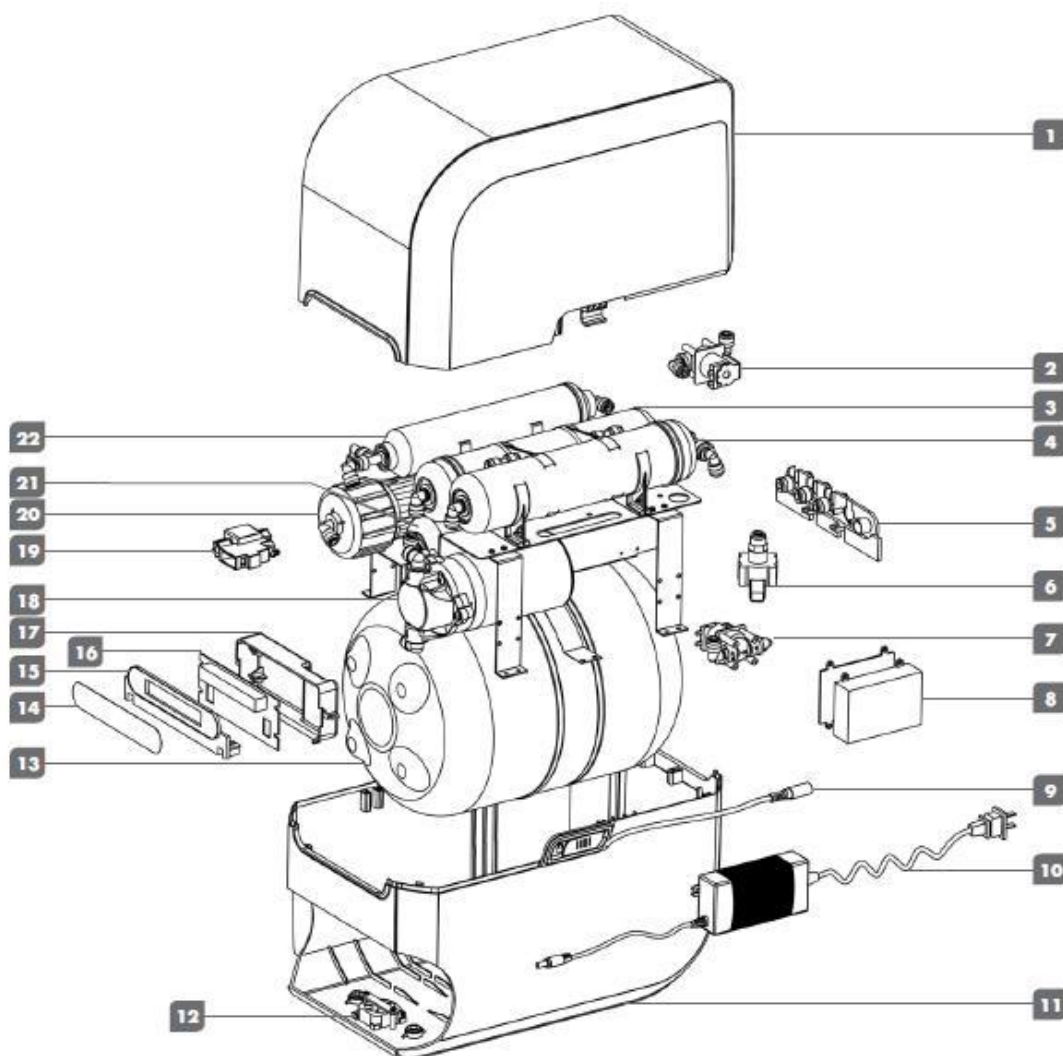
## 5.6. Product special features

- **Built-in water tank** 9.5l (2.5Gallons)
- **Computer control box** automatically regulates AqueenaPro`s working status.
- **Filter change alarm**, which indicates when the filter needs to be replaced.
- RO membrane integrated with the membrane housing to prevent tampering.
- **Leakage sensor**, to detects device leakage; it secures the user`s property and avoids damages caused by leaks.
- **High pressure pump**, which creates a stable environment for the RO membrane.
- **Combined solenoid valve**, to flush the RO membrane automatically and controls waste water flow.
- **Inlet water solenoid valve**, which by definition opens or shuts inlet water pressure in range between 0.03-0.6MPa (4.35 – 87 psi).
- **One way flow valve**, to prevent water backflow.
- **Safety features** – low and high voltage switch.

## 5.7. Product characteristics

- Low noise, low vibrations, long service life, and operational quality and reliability;
- **Flushes** the Reverse Osmosis membrane with high pressure and then prolong the lifetime of RO membrane effectively.
- **Automatic Control System**: The system automatically controls the water auto flush process and control pure water production process, ( it stops water production if it is no inlet water or tank is full).

## 5.8. Product overview



- |                                    |  |
|------------------------------------|--|
| 1. Upper cover                     | 12. Leakage sensor                             |
| 2. Combined valve                  | 13. Water tank                                 |
| 3. PP Filter (1micron)             | 14. Panel label                                |
| 4. PP Filter (5micron)             | 15. Display panel bracket                      |
| 5. Bracket for inlet/outlet water  | 16. Display board                              |
| 6. Low pressure switch             | 17. Display board box                          |
| 7. 24V small square solenoid valve | 18. Pump                                       |
| 8. Computer control box            | 19. High pressure switch                       |
| 9. Patch cord                      | 20. RO membrane housing                        |
| 10. Adapter                        | 21. Pellet Carbon Filter                       |
| 11. Lower cover                    | 22. Post active carbon filter (Coconut filter) |

## 6. Repair information

Each device is identified by a rating label with basic technical parameters, certification marks, serial number and lot number.



Before each repair, the device has to be checked and failures have to be diagnosed by **qualified repair technician**. In case of inappropriate usage or maintenance, the customer loses rights to a warranty repair and the case will be treated as a non-warranty.

### 6.1. Warranty card

Ensure, if warranty card was filled properly before every repair. The card is part of each user manual.

WARRANTY CARD	
Product:	AqueenaPro, WT-100
Serial No.:	
Lot No.:	
<b>CUSTOMER DETAILS</b>	
Customer's name:	
Customer's address:	
Phone number:	e-mail:
Invoice number:	Invoice date:
<b>INSTALLATION DETAILS</b>	
Name and stamp of installation service provider:	
Date of installation:	
TDS of raw water:	TDS of purified water:
Customer signature:	
Service technician signature:	
<b>SERVICE CONTACT</b>	
Name:	
Address:	
Phone number:	e-mail:

Responsible technician is obliged to fill section **"Installation Details"** immediately after water purifier installation. For future follow up is recommended to notice TDS level of water before purification and TDS level of clean water.

To secure and keep appropriate repair and maintenance level, sales representative must fill section **"Service Contact"**. The customer should have easy access to professional ZEPTEP service.

### 6.2. Note for ZCT users:

Ensure that each repair record contains following:

- Correct serial number and lot number:

**Serial number format:** PS013 (nnnnnnnnnnnn) – optional information

**Note:** If the serial number being recorded, use only numbers (without “letters” only digits 001403180001)

**Lot number format:** PL02 (nnnn-Wnn) – mandatory information

- Warranty type
- Invoice date
- Correct spare part(s) code
- Adequate failure code(s) and resolution code(s)

### New Repair

Country:  Test      Complaint Date\*:

Company:  Test Company      Creation Date:

Repair Center:  Central Service      Modification Date:

External No. :

#### Repaired Items:

Line No.	Item No.	Item Description	Invoice Date	Lot No.	Serial No.	Warranty	Service Time
1	WT-100	AQUEENAPRO		2014-W33	001403180001	Yes	0

Item:

Invoice Date\*:

Warranty\*: ☐ Unknown ☒ Yes ☐ No

Lot No. :  nnnn-Wnn

Serial No. :  nnnnnnnnnnnnn

Service Time:  (minutes)

#### Used spare parts

☒ WT-100-40 - 2.5G water tank TT-2,5G(W) x 1

Quantity:

#### Fault codes

☒ FC704 - Damaged tank (esthetical issue)

#### Resolutions

☒ RES000 - Spare part(s) replaced

## 7. Product installation

### Note!

1. The AqueenaPro is a water filtration system for **home use**. Any use outside the indoor home environment and for purpose other than purifying water for household use will automatically void your warranty.
2. The AqueenaPro should not be used on feed water that is microbiologically unsafe or unknown microbiological quality without disinfecting the water before using the device.
3. **Cold water plumbing** – AqueenaPro must be connected to cold water pipe. If the hot water (>38°C) as water source will be used, it will cause permanent damages to RO membrane and severely degrades the product
4. **Plumbing** and **carpentering** work is needed.
5. Ensure, whether the main water supply is turned off before any plumbing work is started!

### 7.1. Pre-Installation Preparations

To secure correct functionality and to keep long life time of the water purifier AqueenaPro, the place for the main unit should be consider and precisely chosen in prior, following recommendation should be followed:

#### 7.1.1. Recommended side preparation

- Mains connection not more than 1.5 m from the point of installation of AqueenaPro
- Water supply not more than 3 m away
- Drain for rejected water not more than 3 m away
- Space as per dimensions of the AqueenaPro
- It is preferable to install the AqueenaPro near a sink so that inlet and reject water lines are easily available.
- Avoid sharp bends in the pipe. Do not bend or block the rejected water tube.
- Do not confine the AqueenaPro in a tight cabinet.

### 7.1.2. Recommended tools for installation

Adjustable spanner	1
Drilling machine	1
Drill Ø14 mm, Ø7 mm	1
Hole saw, Ø 14mm	1 (high-speed steel or marble hole saw – if needed)
Phillips and flathead screwdrivers	1 of each
Scissors	1 pair
14-16 mm wrench	1
19-21 mm wrench	1
Needle nose pliers	1

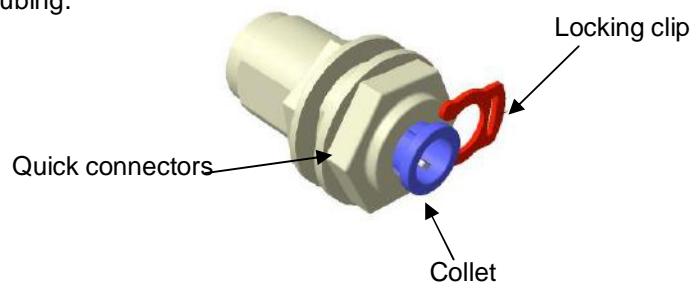
### 7.2. Installation

Each unit is equipped with “dummy” plugs, which must be removed before installation.



### 7.3. Quick connectors

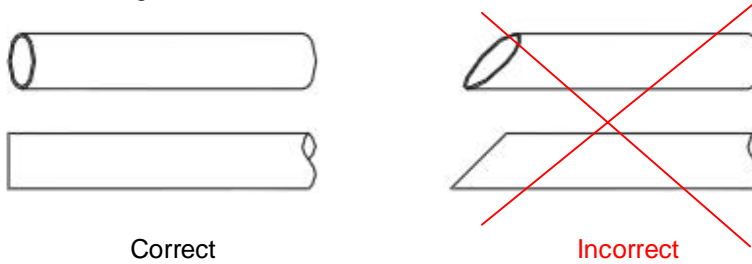
All external and internal water connections are done using flexible tubing and quick connect fittings. As an additional safety features all connections are secured with safety locking clips that make it impossible to accidentally remove any tubing.





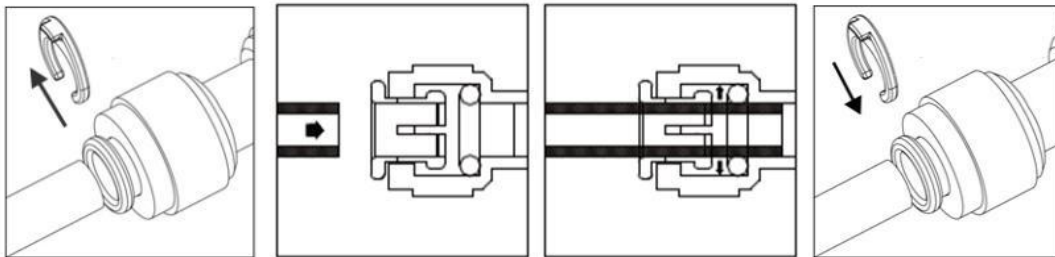
## 7.4. Tube connection

To be able connect the tube correctly in to the quick connector; the ends must be straight and smooth. Do not cut the tube under the angel!



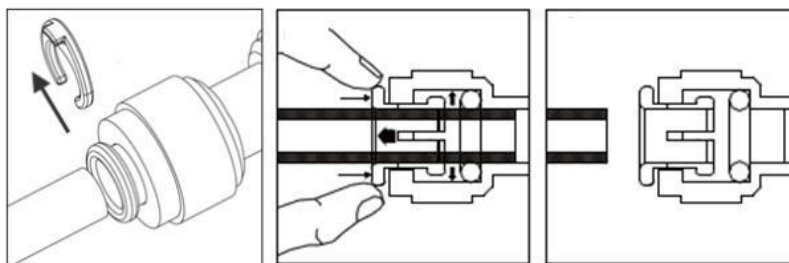
**To connect tube in to the quick connector, follow next steps:**

1. Remove the locking clip
2. Put the tube inside
3. Secure it by locking clip.



**To disconnect the tube from the quick connector follow next steps:**

1. Remove the locking clip
2. Slightly pull out the collet
3. Pull the tube out

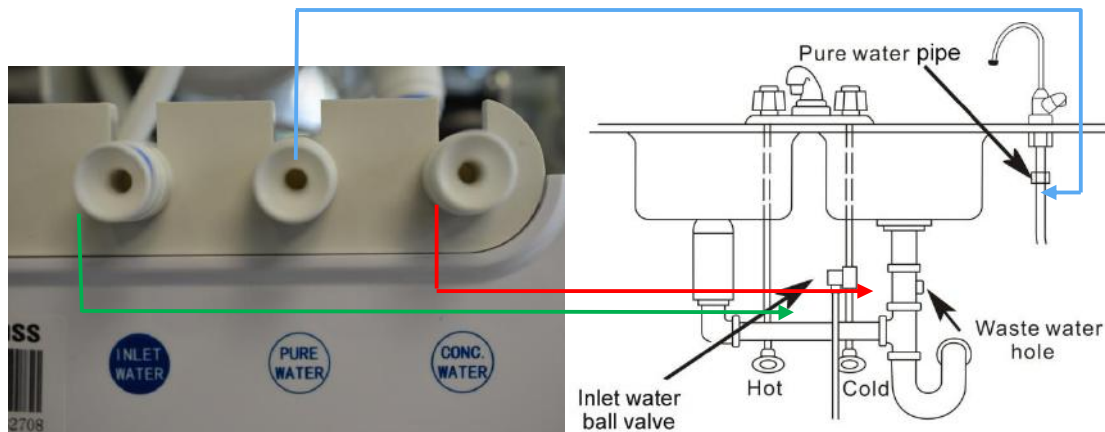




### 7.5. Inlet water tube installation

Familiarize yourself with connectors on the back side of the unit before installation!

Ensure that tubes are connected correctly after work is done!



**Note!** Check size of pipe/hose of the customer before installation.

As a standard accessories AqueenaPro has **1/2` inline feed water connector**. If pipes/hose has different diameter, adequate reduction must be applied/purchased.

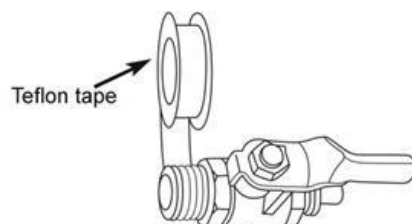


Standard accessories  
1/2` inline feed water connector



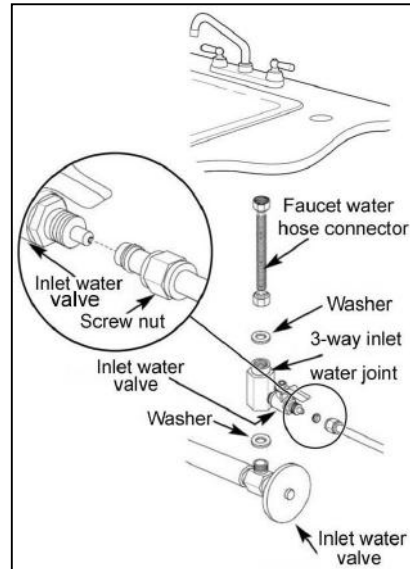
1/2` inline feed water connector  
with applied reduction 3/4`

**Note!** Teflon tape must be applied to all connections.

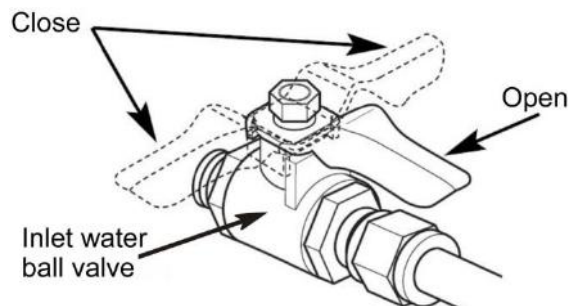


## AqueenaPro WT-100 Installation and Repair manual

1. Close the main house inlet water source.
2. Disconnect inlet water pipe/tube.



3. Assembly inline feed water connector and connect the tube/pipe to the connector.



4. Connect white tube to the feed water connector. Unscrew the nut from the connector, put it on the white tube, connect the tube and secure it by the nut.

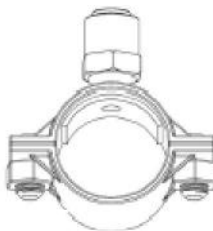


5. Connect the tube in to INLET WATER connector.

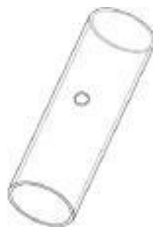


## 7.6. Waste water pipe installation

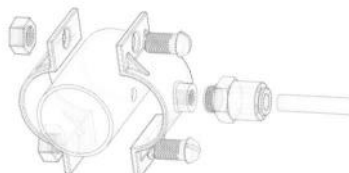
1. Remove the clamp drain from the accessories bag.



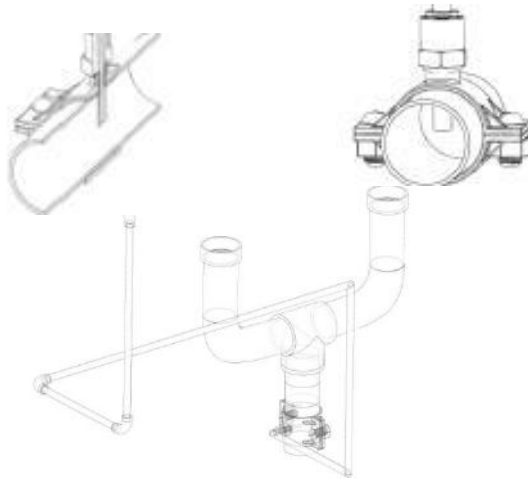
2. Drill 7 mm hole in the drain pipe under the sink.



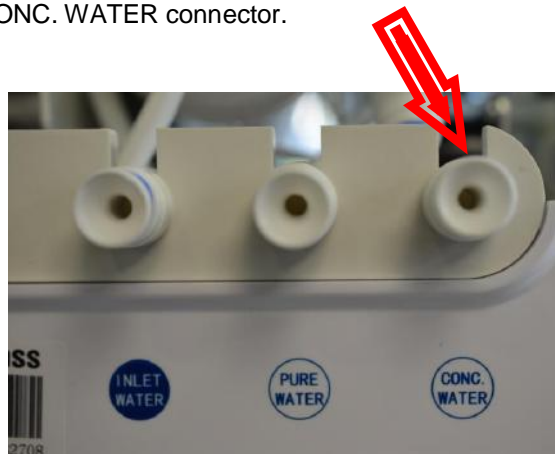
3. Connect the white tube in to upper part of the clamp and tighten it with the nut.



4. Ensure that tube is inserted correctly in to pipe (see pictures below), assembly the clamp to the pipe and secure it with screws.



5. Connect the tube in to CONC. WATER connector.

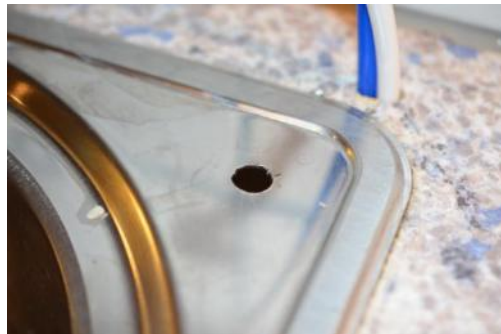


### 7.7. Pure water faucet installation

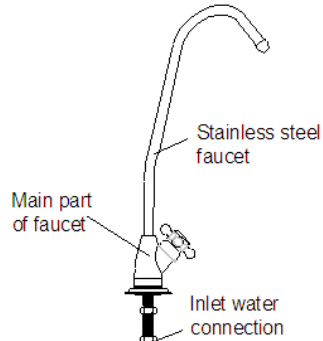
1. Choose a place in the sink or kitchen counter where the pure water faucet should be installed.

**Note!** Certain space should be left between the hole and wall or edge of the sink. Do not forget that the faucet must be accessible from the bottom of the sink as well.

2. Drill an Ø 14 mm hole on the chosen spot.



3. Remove the pure water faucet from the accessories bag. Unscrew washers from the faucet.

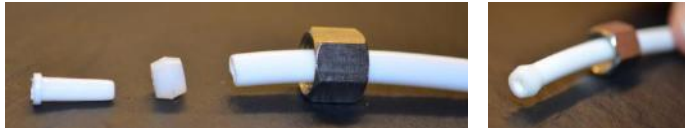


4. Place the faucet in to its position and secure by nuts from the bottom of the sink. Do not forget apply the washers on the

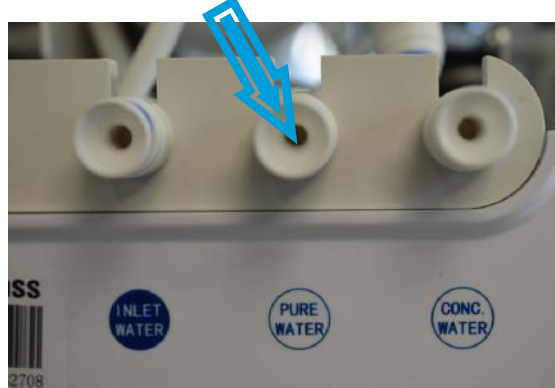


5. Connect white tube to the pure water faucet from the bottom of the sink.

Before the tube will be inserted in to the faucet apply the protection against leakage according photos below.



6. Other end of the tube connects to PURE WATER connector.



**Note!** The pure water faucet can be mounted on the wall. Use the wall fixture as holder for the faucet.

## 7.8. Main Unit installation

1. Verify if all connection are correct, no water leakage
2. **Install RO MEMBRANE WT-100-15 according chapter 7. RO MEMBRANE INSTALATION.**
3. Remove the power adaptor WT-100-46 from the accessories bag and connect it. Ensure that the power cord plug is suitable for local power socket.
4. Position the main unit under the sink.
5. Bypass the water tank, close the water tank valve.
6. Open inlet water main valve and water faucet.
7. Switch on the AqueenaPro. As a start-up audio signal will be activated 1 buzz.
8. **Let water run through the system for approx. (5-10 min system stabilization)** and check all connections.

**Caution!** If any leaks are found, do not proceed further until the leaks are fixed.

9. Close the water faucet and check if flow of waste water (aprox. after 30 s) stops.
10. If no deviation or leakage was found, open the water tank valve and let fill the system with water.
11. **Drain first two water tanks before use.**

**Note!** The first two tanks can contain black residues. It is carbon particles washing away from the carbon filter. It will not affect future system performance or quality of purified water.

12. Measure TDS level and note it in to ***The Product Warranty Card.***

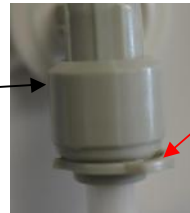
**Note!** Do not use the AqueenaPro when the drain is blocked up.

## 8. RO Membrane installation

1. RO membrane is not installed and it is separately packed in protective foil.  
Remove the membrane (WT-100-15) from the protective foil.



2. Open the main unit – remove the top cover. Please refer to chapter **13 How to open AqueenaPro.**
3. Remove the locking clip from quick connector and unplug the tube from the RO membrane housing.

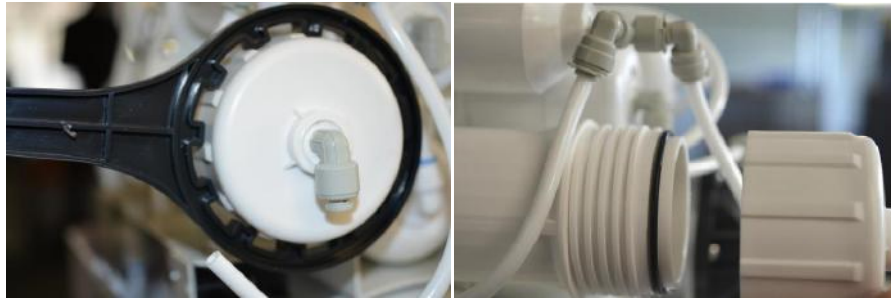


Locking clip

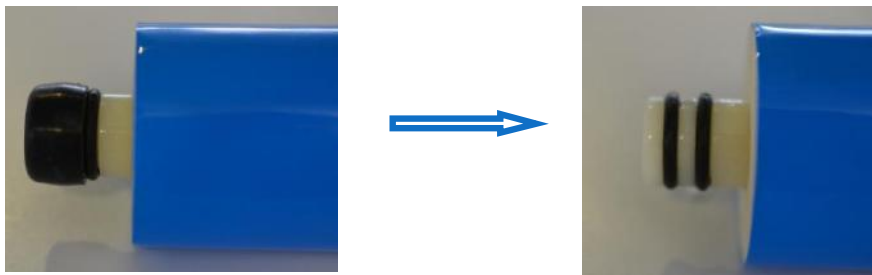




4. To unscrew the cup use enclosed wrench

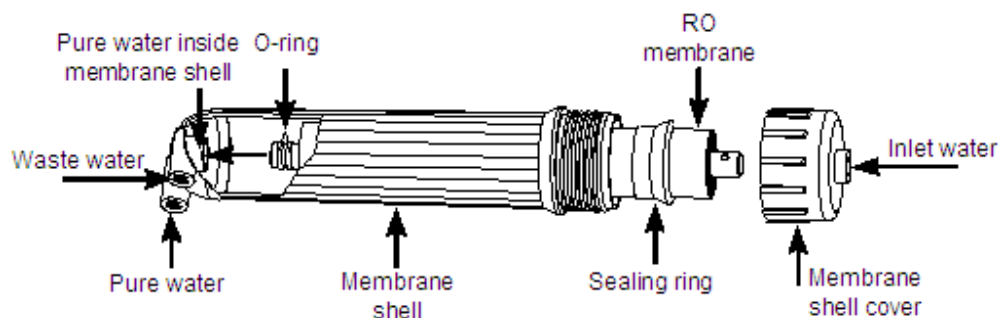


5. Install the RO membrane WT-100-15  
Remove protective rubber caps from RO membrane



**Note!** Do not force the reverse osmosis membrane into the membrane shell; it can result in permanent damage of the shell or membrane components. **Damages caused by forced installation are not covered under the warranty.**

1. Pay attention to direction how the membrane is installed.
2. Verify, before installation, if the membrane has O-ring.

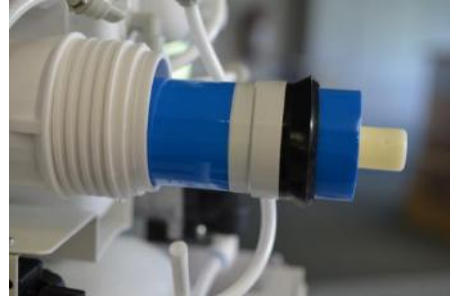




## AqueenaPro WT-100 Installation and Repair manual



Insert RO membrane with O-ring inside of the housing



The RO membrane should be possible to insert without any force.



Close the housing by using wrench, plug the tube in to quick connector and secure with the clip.

**Note:** Checks if the sealing was not loosen and if it is correctly mounted, before the RO housing is closed. The sealing must be put on therear od the shell.



6. Close the unit.

**Note:** Verify all connections before the top cover is put back – no water leakage.

## 9. Maintenance and filter replacement method

### 9.1. Flushing the RO Membrane

1. The RO membrane is automatically flush for **15 seconds** when **the device is turn on**.
2. When **the water tank is full**, the RO membrane is automatically flush for **18 seconds**.

### 9.2. Filter Replacement Time

**Note:** Filters and membrane are consumables. Their replacement time is dependent on the quality of raw water and water consumption. They are not covered under warranty.

**Filter Status Display** shows actual filter status.



**Green light** – the filter operates at its optimum level.







**Orange light** - the filter life time will be exceeded soon.



**Red light** along with the audible alarm (4 times buzz) and the filter must be exchanged immediately. Further use of the filter is not recommended.



-  5 – micron PP filter WT-100-72
-  Pellet carbon filter WT-100-73
-  1 – micron PP filter WT-100-74
-  Coconut filter WT-100-75

**Note:** If the water purifier is not in daily use (average use of 10L per day), please refer to the table below. The filters must be replaced either according **Filter Status Display** indication or before maximum recommended filter replacement time.

The AqueenaPro water purifying system is equipped with vigilance system of filters life time. The system automatically monitors the filters conditions and actual status is shown on the **Filter Status Display**.

### CAUTION!

If the water purifier is not in daily use (average use of 10L per day), please refer to the table below. The filters must be replaced either according **Filter Status Display** indication or before maximum recommended filter replacement time.

Filter type	Max. recommended filter replacement cycle (months)
<b>WT-100-72</b> 5-micron PP filter	6
<b>WT-100-73</b> Pellet carbon filter	6
<b>WT-100-74</b> 1-micron PP filter	6
<b>WT-100-75</b> Coconut filter	12

### 9.3. RO membrane replacement time

Membrane	Max. recommended filter replacement cycle (months)
<b>WT-100-15</b> RO membrane	12

The manufacturer recommends changing the RO membrane WT-100-15 with the Coconut filter; therefore referring to Coconut filter replacement period according **Filter Status Display** (No. 5)

**Tips!**

If you are not sure if it is right time for filter change,

- Is TDS level significantly higher than at the beginning of purification process? (Please refer to your record in the **Warranty Card**).
- Does to completely fill the water tank takes longer than at the beginning of purification process?
- Is the amount of waste water greater than at the beginning of purification process?

If the answer is YES at least one of these 3 questions, please exchange the filter(s).

**9.4. The filters replacement procedure**

1. Close the inlet water valve.
2. Unplug the device from mains.
3. Remove the top cover. (See chapter 13. **How to open AqueenaPro**)
4. Unplug/remove the “old” filter. Release locking clip from the quick connector and disconnect the tube.



**Tip!**

The colour of connector will help to keep correct orientation of filter regarding to water flow.

White connector – water flow – out

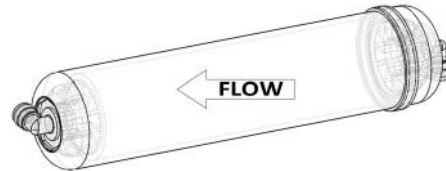
Grey connector – water flow – in

**Note!**

Coconut filter WT-100-75 is two way water flow filter and actual water flow depends on working stage of the unit, therefore it is important to follow the arrow on the label.

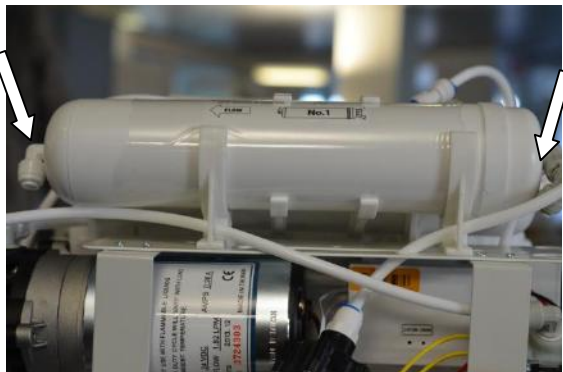
## AqueenaPro WT-100 Installation and Repair manual

5. Replace the filter – **Pay attention to correct water flow** - the arrow on the filter label represents correct water flow.



6. Plug the tube to quick connector and secure it with locking clip.

If the pellet carbon filter WT-100-73 and/or PP filter 1µm WT-100-74 needs to be replaced, unplug the PP filter 5µm WT-100-72 firstly and remove all three filters (WT-100-72, WT-100-73 and WT-100-74) as one set.



Disconnect PP filter 5 µm WT-100-72



3 filters set

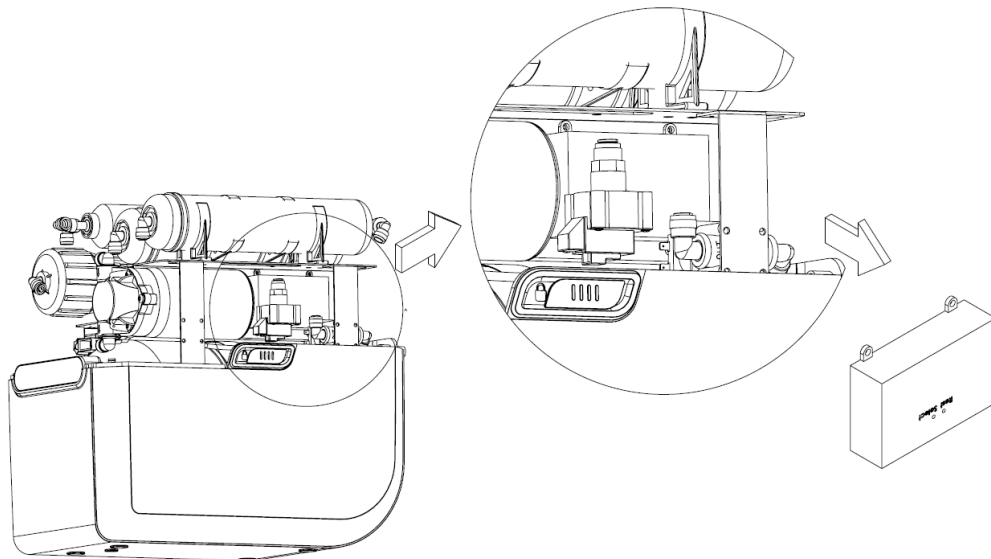
Change requested filter(s), connect tubes in to quick connectors and assemble set back on its position.  
Connect tubes to PP filter 5 µm WT-100-72.

7. Check all connections and verify that no water leaks.
8. Close the top cover.
9. Open the inlet water valve and switch on the power supply.

### 9.5. After filter replacement

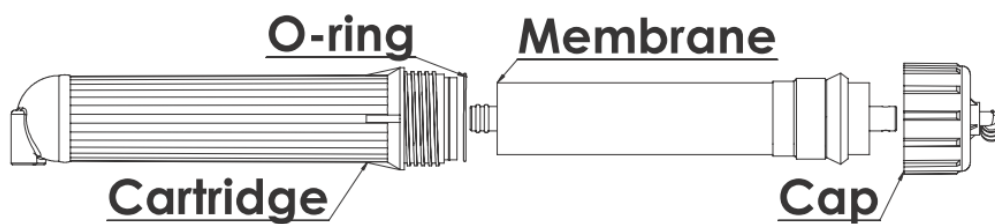
**“Select” button:** After the filters are replaced, press the “Select” button to select the corresponding filter icon, the icon starts blink.

**“Reset” button:** Select the corresponding filter and press the “reset” button, hold for more than 3 seconds until it is effective. After resetting, the red light will turn green.



### 9.6. The RO membrane replacement procedure

1. Switch off the power supply.
2. Close the inlet water valve.
3. Remove the top cover.
4. Unplug the "old" filter – disconnect filter from quick connectors
5. Replace the filter – **Pay attention to correct water flow!**



6. Check all connections and verify that no water leakage.
7. Close the top cover.
8. Open the inlet water valve and switch on the power supply.

## 10. Trouble shooting guideline

Failure Experienced	Reason	Possible root cause
The machine will not start	The power source is not connected	Check the power source or the power source plug
	Low inlet water pressure or no water	Check the inlet water pressure
	Low-pressure switch failure, cannot connect the power source	After connecting the inlet water, measure the resistance, replace if needed
	High-pressure switch cannot be restored	After letting off the pressure, measure the resistance, replace if needed
	Transformer is burned out	Measure the output voltage, replace if needed
The high pressure pump is working properly, but no water is being produced	High-pressure pump has lost pressure	Measure the water pump pressure, replace if needed
	Inlet water solenoid valve is faulty, no water can get in (no pure water)	Replace the solenoid valve
	A pre-filter is blocked	Observe the pure water and waste water, replace the pre-filter
	Non return valve is blocked (waste water, no pure water)	Replace the non return valve
	The RO Membrane is plugged	Clean or replace the RO membrane
The storage tank is full but no pure water is flowing out	Storage tank doesn't have enough pressure	Inflate the storage bucket, empty tank pressure should be between 0.05 and 0.07MPa
	Post-activated carbon filter is plugged	Replace the post-activated carbon filter
The machine is turned off but waste water has not stopped	Inlet solenoid valve failed, cannot effectively cut off the water supply	Observe the waste water, replace the inlet solenoid valve
	Non return valve has lost pressure (small waste water flow rate)	Observe the waste water, replace the non return valve
After the machine is filled with	Non return valve has lost pressure	Replace the non return valve
	High-pressure switch failure	Replace the high pressure switch



## AqueenaPro WT-100 Installation and Repair manual

water, the machine starts repeatedly	System is exhibiting a loss of pressure	After checking the non return valve, check whether there is water leakage in the pipelines
The pure water flow is small or not flowing	Pre-filter is plugged	Replace the pre-filter
	RO membrane is plugged	Wash or replace the RO membrane
	Inlet solenoid valve failure	Replace the inlet solenoid valve
	Non return valve is plugged	Replace the non return valve
	Post-carbon filter is plugged	Replace the post-carbon filter
	High pressure pump pressure is not enough	Measure the high pressure pump water pressure, replace if needed

## 11. Tools

Flathead screwdriver 3x75



Philips screwdriver PH2



Allen key CH17,19

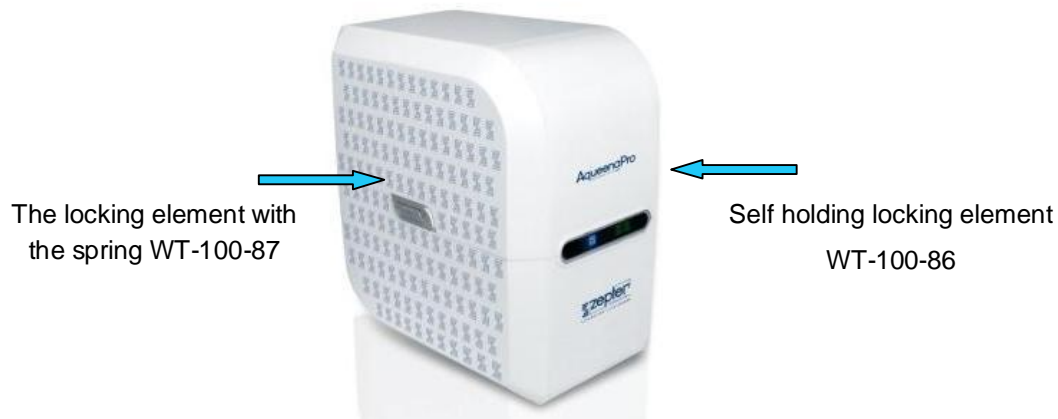


Pliers



## 12. How to open AqueenaPro

1. Put the locking elements in to unlock position and remove the top cover WT-100-01

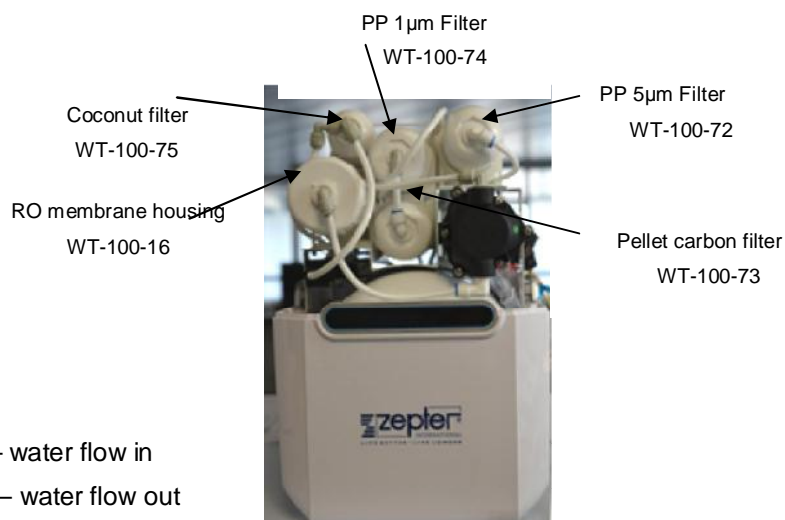


Locked

Unlocked

**Note!** Right locking element is self holding – put the lock in unlocked position.

Left one is equipped by the spring (WT-100-50) and it needs be hold in unlocked position during cover opening.



### Remember!

Grey connector – water flow in

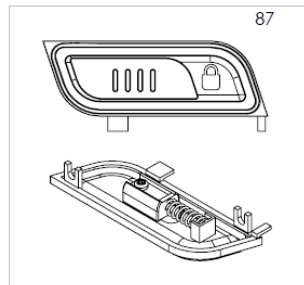
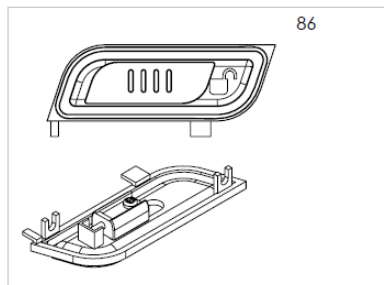
White connector – water flow out

### 13. Locking plate left and right

**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-86 Lock Right KIT (47+48+49+70)  
WT-100-87 Lock Left KIT (52+51+49+50+70)  
WT-100-69 Tapping screw M3x12 with washer Ø3



3. Unscrew two screws WT-100-69



4. Release the locking plate and exchange to new one

**Note!** Only Lock Right KIT **WT-100-86** (pos. 47+48+49+70) and Lock Left KIT **WT-100-87** can be ordered.



**Note!** Pay attention to correct locking plate. Left and right are not same!

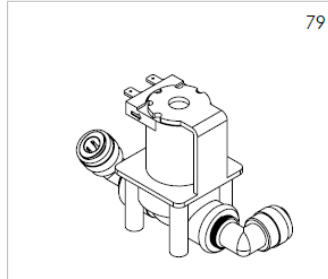


## 14. Inlet solenoid valve (33)

**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-79 Inlet solenoid valve kit

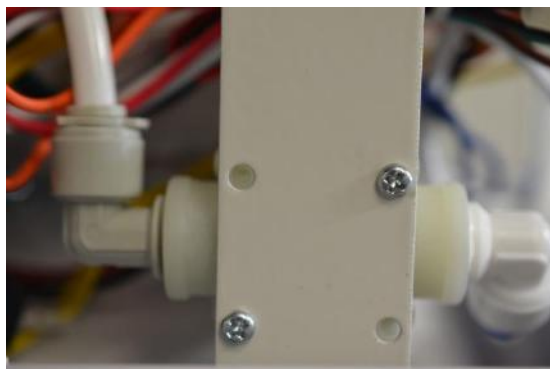


1. Remove the top cover (WT-100-01)



Position of inlet solenoid  
valve (33) – pump side

2. Unscrew two screws



3. Remove the locking clip and unplug pipes



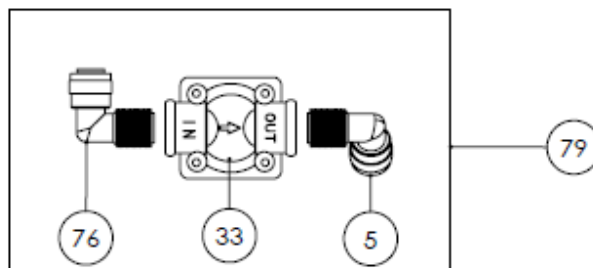
4. Disconnect two orange wires



5. Exchange the new inlet solenoid valve.

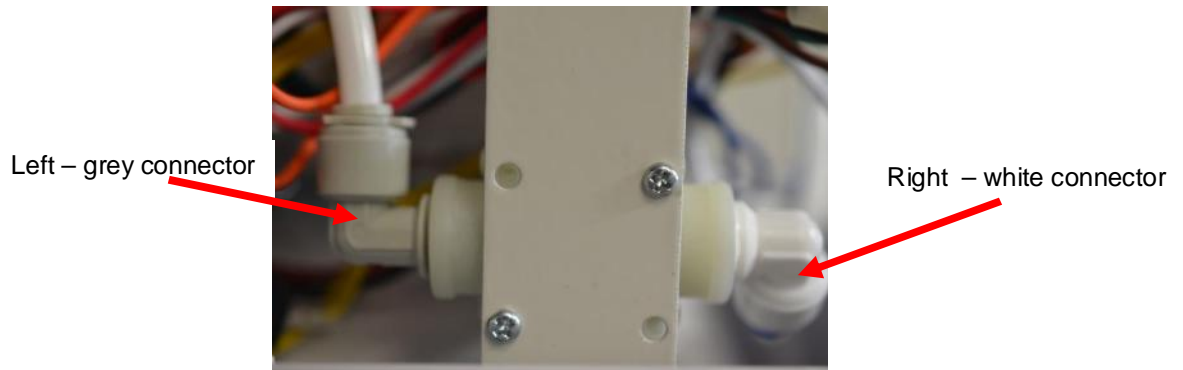
**Note!** The solenoid valve (33) is delivered together with two connectors (76+5).

Only Solenoid valve kit WT-100-79 is possible to order.



To install the inlet solenoid valve back follow the steps in reverse order.

**Note!** Pay attention to correct position of solenoid valve and correct water flow.



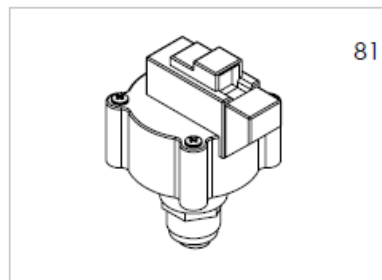
1. Plug water pipes and secure them with the locking clip.

## 15. Low pressure switch (22)

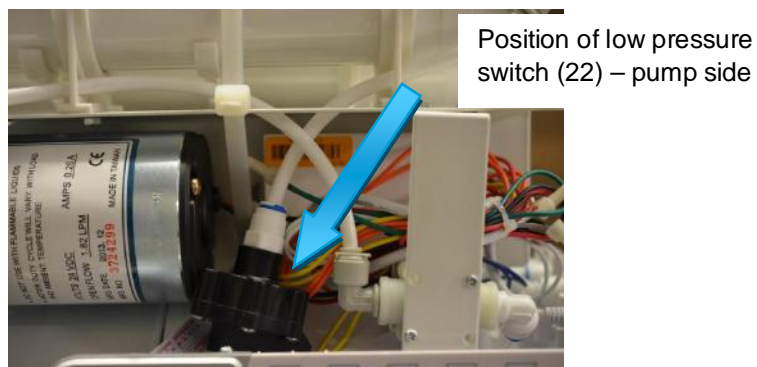
**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-81 Low Pressure Switch kit

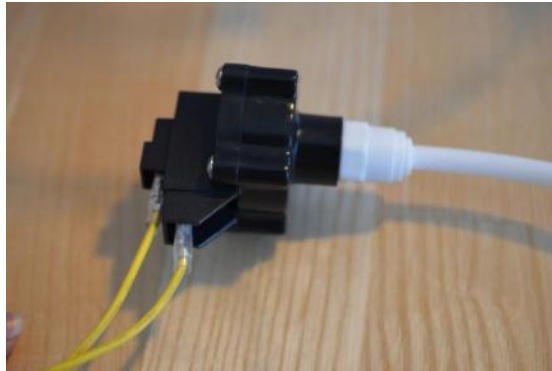


1. Remove the top cover (WT-100-01)



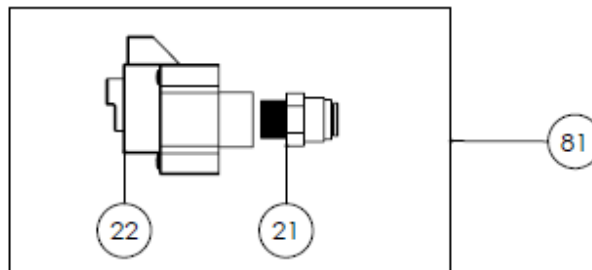


2. Pull out the low pressure switch (22)
3. Disconnect two yellow wires



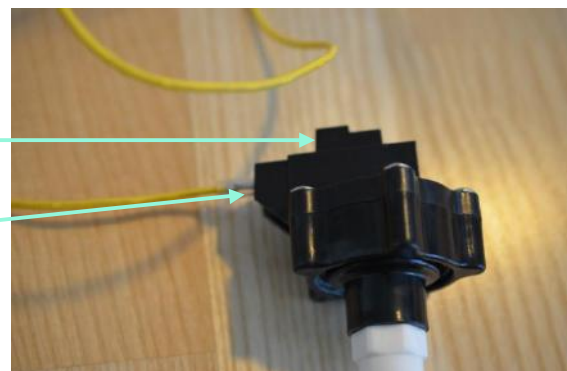
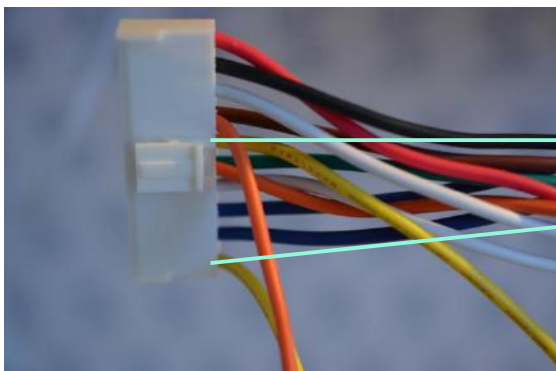
4. Unplug the water tube
5. Exchange the low pressure switch (22)

**Note!** Only Low Pressure Switch Kit WT-100-81 is possible to order. Set contain low pressure (22) switch and connect (21)



6. Connect the white tube and two yellow wires back.

**Note!** Pay attention to correct connection



## 16. Display (55)

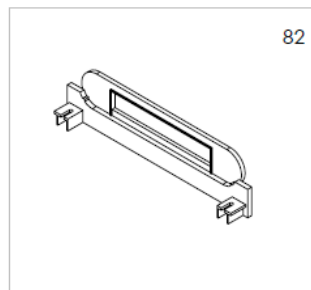
**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-55 Display board  
WT-100-54 Display board  
WT-100-82 Display kit

WT-100-69 Screw M3x12 (2 pcs)

WT-100-70 Screw M3x8 (2 pcs)



1. Remove the top cover (WT-100-01)
2. Dismount 2 screws (WT-100-69) and release the display box. Slightly pull the box out.



3. Open the display box (WT-100-82; WT-100-54).

**ATTENTION!** Use ESD protection when touching the PCB!

## AqueenaPro WT-100 Installation and Repair manual



4. Release the flat cable from the set – cut tie-wrap.
5. Disconnect the flat cable from the connector.



6. Release the PCBA board (WT-100-55) by removing two screws WT-100-70

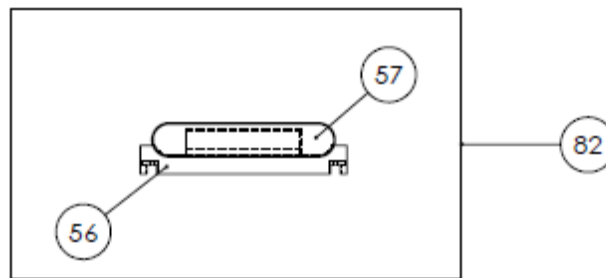


7. Exchange the display board WT-100-55.
8. To assembly the display box back follow the steps in reverse order.

**Note!** To fix the display box to the lower cover WT-100-60 use the correct screws WT-100-69 (M3x12) and washer



If the panel label WT-100-57 is damaged/scratched/broken and it must be changed, only display kit **WT-100-82-** (panel label with the bracket) can be ordered.



## 17. Control board (24)

**Tools:** Philips screwdriver PH1



**Spare part:** WT-100-24 Computer control box with PCBA  
WT-100-23 Lower cover of control board  
WT-100-65 Cross recessed screw M3x8

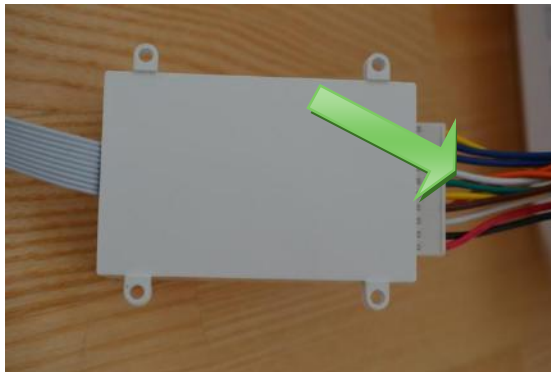
1. To reach the control box, release the inlet solenoid valve (33) firstly.

2. Remove 4 screws and release the box.

**Note!** Do not lose lower cover (23)



3. Remove the cable set from the connector

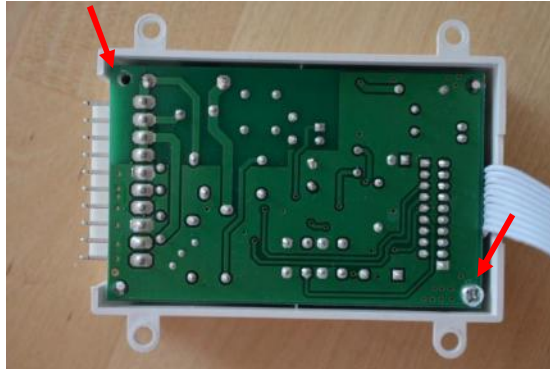


4. Disassembly the PCBA from the box by releasing of two screws

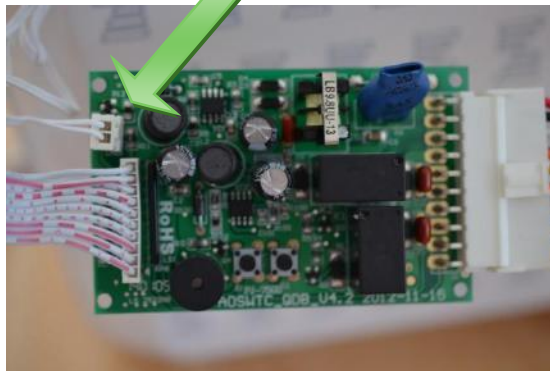
**ATTENTION!** Use ESD protection when touching the PCB!



## AqueenaPro WT-100 Installation and Repair manual

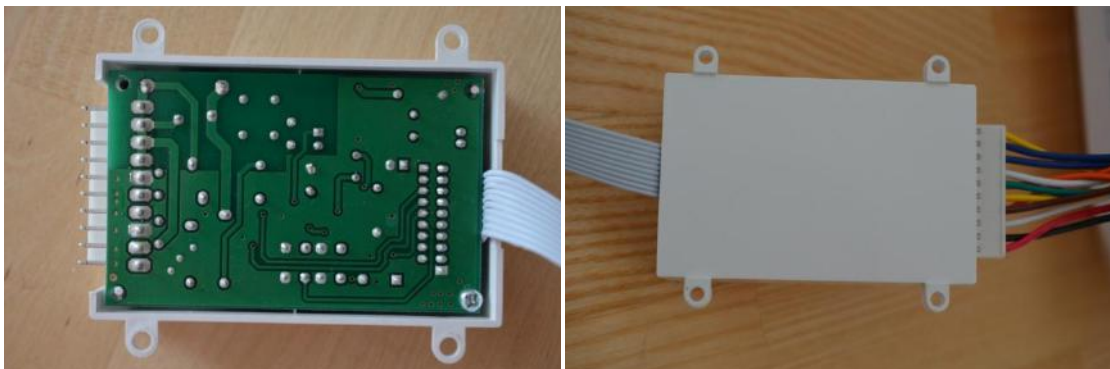


5. Unplug the leakage sensor cable from the connector.



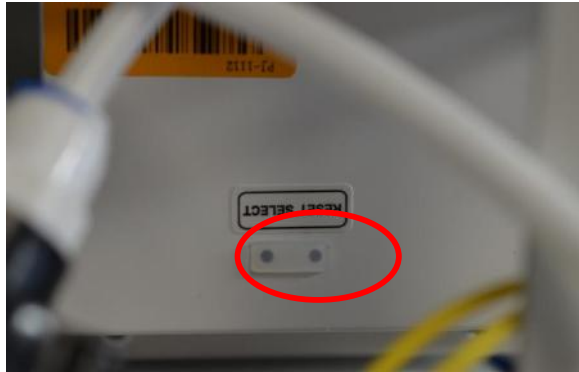
**Note!** Display cable (flat cable) is solder to PCBA. Never disorder the cable. The PCBA is deliver all the time together with the display cable.

6. Exchange the PCBA, connect leakage sensor cable and cable set in its connectors.
7. Place the PCBA in to the box. Pay attention to correct position – side with components should be palce inside of the box. Put lower cover (23) and assemble the control box (23+24) on its position.



8. Place the box on the position; secure it with 4 screws (WT-100-65).

Do not forget put plastic protection to reset buttons



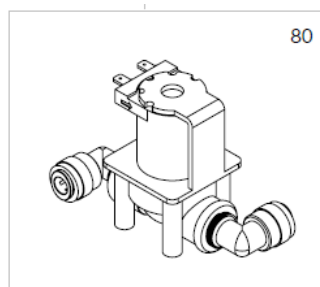
9. Tidy up the cable set inside of the device and ensure cables are not squeezed.
10. Assembly the inlet solenoid valve (33) back, follow the steps in reverse order.

## 18. Flashing solenoid valve (32)

**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-80 Flashing Solenoid Valve KIT

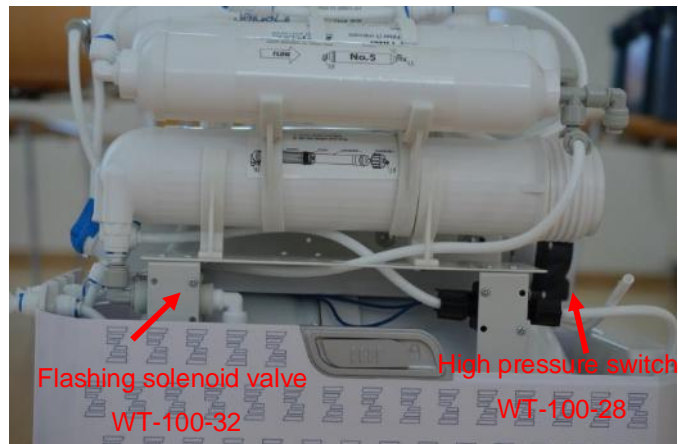




## AqueenaPro WT-100 Installation and Repair manual

Back side

Front side



1. Remove two screws (WT-100-65)

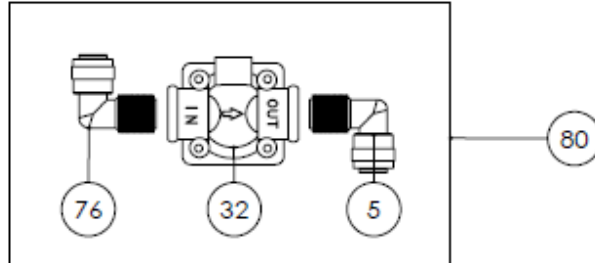


2. Unplug water pipes from the quick connectors, disconnect white wires from the valve.



3. Exchange the flashing solenoid valve.

**Note!** Only flashing solenoid valve kit WT-100-80 can be ordered.



**Pay attention to correct position of the flashing solenoid valve.**

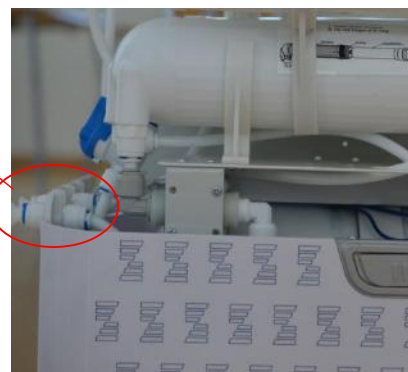
Grey connector connected  
to RO membrane



White connector connected  
to outlet connector (WT-  
100-43) – concentr. water

**Note!** Do not forget apply locking clips to quick connectors!

4. Place outlet connect to its position



## 19. High pressure switch (28)

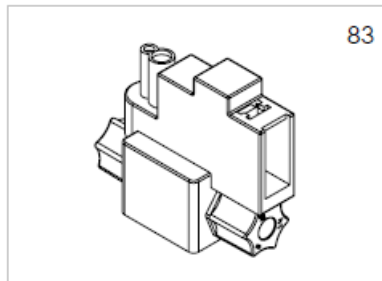
**Tools:** Philips screwdriver PH2



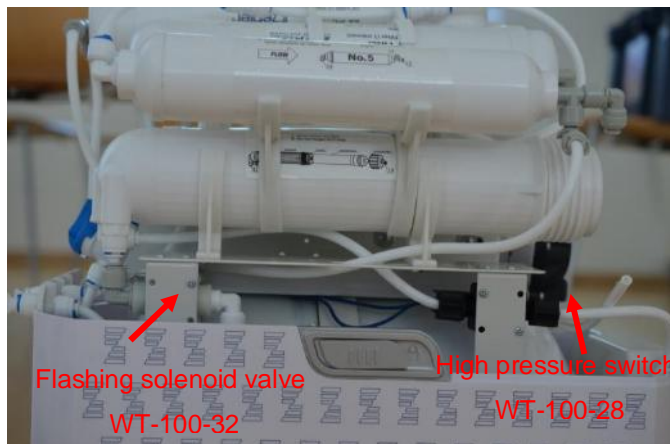
Allen key CH17,19



**Spare part:** WT-100-83 High pressure switch KIT



Back side



Front side

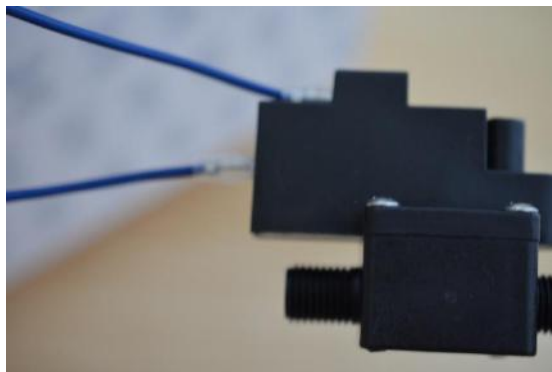
1. Release water pipe from the plastic screw cup WT-100-29.



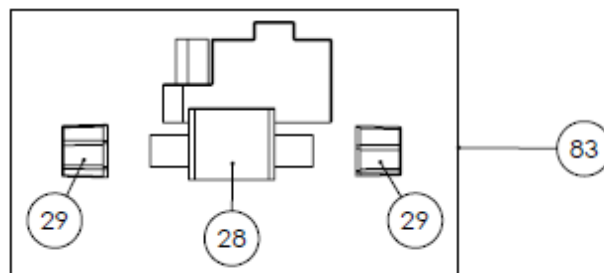
2. Dismount two screws WT-100-66 and remove the high pressure switch.



3. Disconnect two blue wires and exchange the high pressure switch (28).



**Note!** Only high pressure switch KIT WT-100-83 can be ordered.

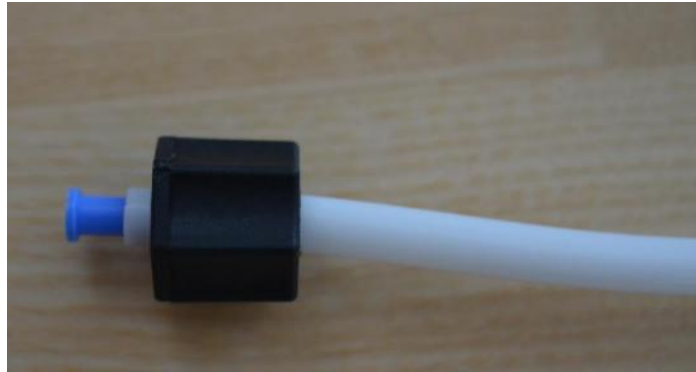


**Pay attention to correct position of the flashing solenoid valve.**

4. To assembly the high pressure switch back follow steps in reverse order.

5. Insert the water pipe in 1/4" screw cup (29) and assembly it back to high pressure switch.

**Note!** Do not forget insert blue pin before water pipe is connected to the switch.



## 20. Water tank (40)

**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-40 2,5 G water tank

WT-100-36 Anchor ear

WT-100-35 Spongy pads of anchor ear

WT-100-68 Tapping screw M4x10 (8 pcs)

WT-100-85 Tank Connector KIT (37+38+39)

1. Remove the whole filter platform – 4screws from each side.



2. Disconnect pipe from tank valve (41)



3. Pull out outlet connectors (43) – all three.



4. Remove the filter platform and put it aside.

**Note!** Pay attention to cable set – do not pull.





5. Release the water tank by removing anchor ear (36) – unscrew 4 screws (68).



6. Disconnect water pipe with water tank valve (41) from tank connector (kit WT-100-85).



7. Replace a new water tank (40)

**Note!** New spongy pad (35) and new anchor ear (36) must be replaced, too.



Follow the steps in reverse order to assembly the water tank (40) back.

Do not forgot apply the locking clip to quick connector(s).

## 21. Leakage sensor (59)

**Tools:** Philips screwdriver PH2

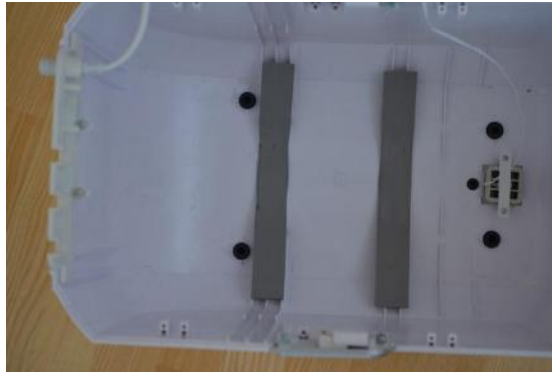


**Spare part:** WT-100-59 Leakage sensor

WT-100-66 Tapping screw M3x10



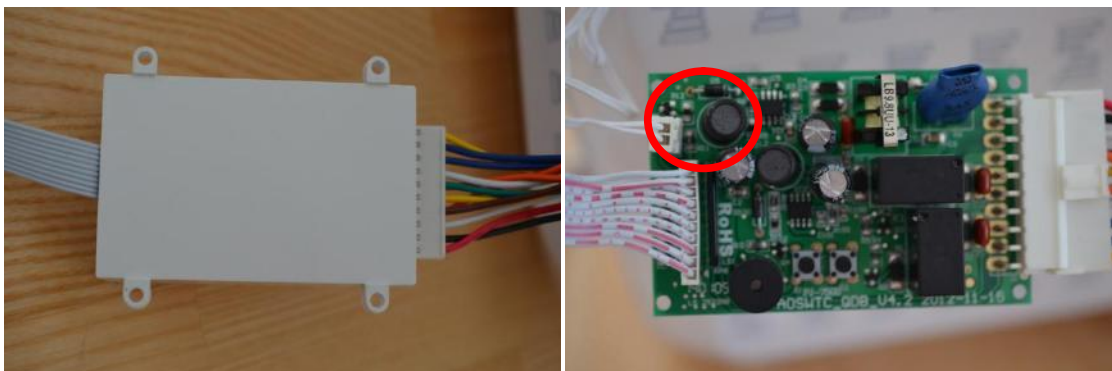
1. Remove water tank (40) firstly. Follow the instruction according chapter 19 Water tank (40).



2. Unscrew two screws (66) and remove the leakage sensor.



3. Dismount control box (24) from the filter platform and disconnect leakage sensor cable from the connector.



4. Connect new leakage sensor to control board and assembly it back to its position.
5. Place the leakage sensor (59) on the bottom of the device and secure with the screws.
6. To close the device, follow the steps in reverse order.

## 22. Pump (25)

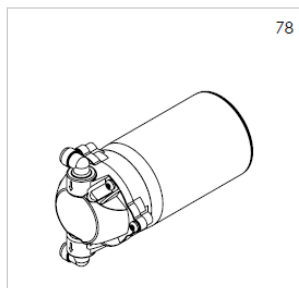
**Tools:** Philips screwdriver PH2



Pliers



**Spare part:** WT-100-78 Pump Kit



1. Remove the whole filter platform – 4screws from each side.



2. Disconnect pipe from tank valve (41)



3. Pull out outlet connectors (43) – all three.

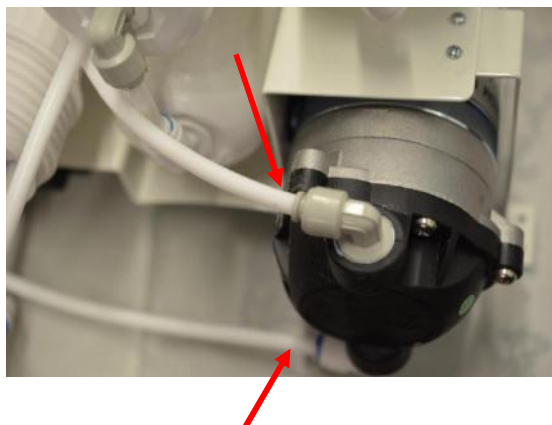


4. Remove the filter platform and put it aside.

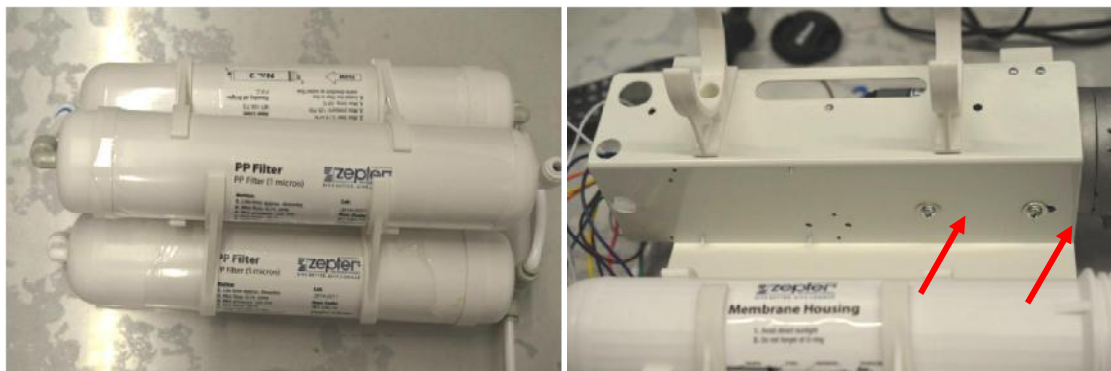
**Note!** Pay attention to cable set – do not pull.



5. Unplug the water pipes from the pump (25)



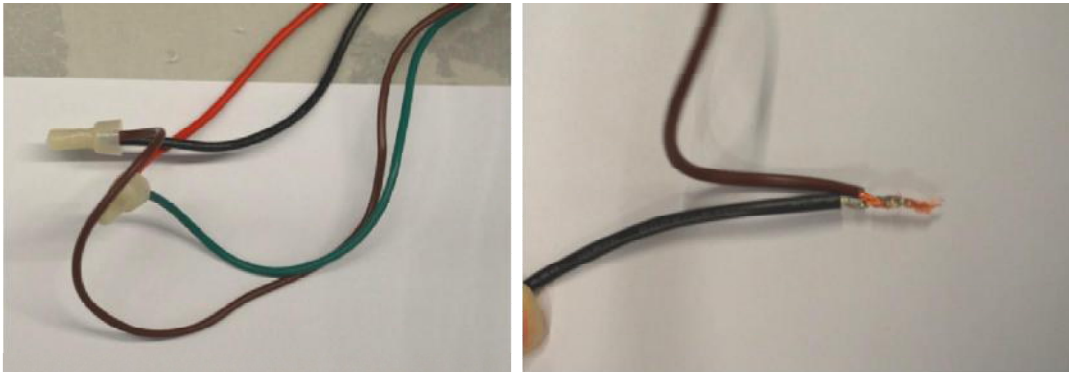
6. Remove 3-set filter for better access to screws (64 + 27) and unscrew them.



7. Remove the pump (25).

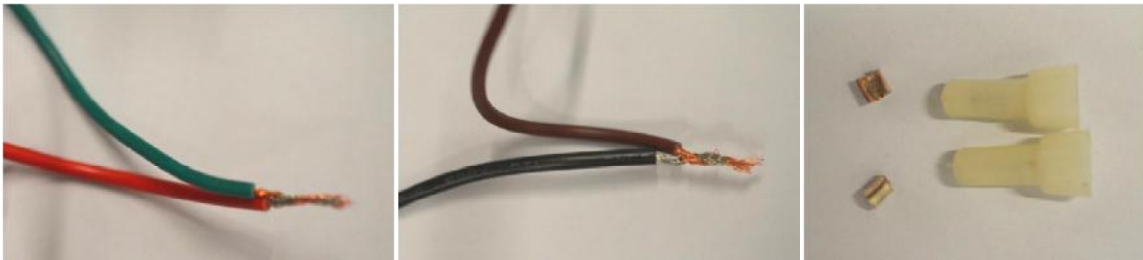


8. Disconnect the red and black cable.



9. Replace the pump.

**ATTENTION!** Pay attention how wires are connected. Always connect red+ green, black + brown. Use the clamps as protection,



To assemble the new pump back follows the steps in reverse order.

When water pipes are connected pay attention to correct water flow.

**Remember!** Grey connector – water flow in  
White connector – water flow out



Grey connector – from  
1µm PP

White connector – in RO  
membrane housing

## 23. Power cord extension (44)

**Tools:** Philips screwdriver PH2



**Spare part:** WT-100-44 1.5A patch cord

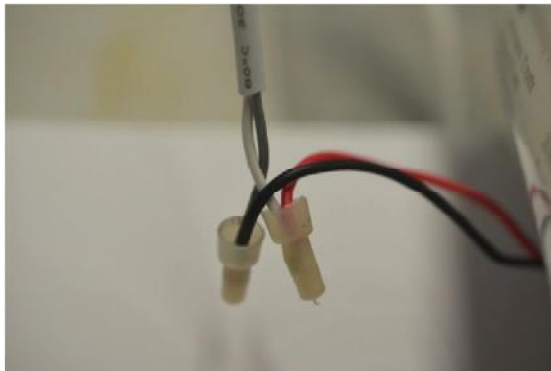
1. Release the bracket (45) for better manipulation, unscrew two screws (WT-100-69)







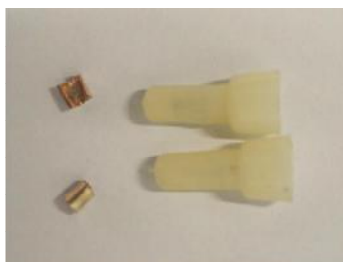
2. Disconnect the brown and grey wires from cable set



3. Pull the cord (44) from the bracket (45) and exchange it.



4. **ATTENTION!** To connect the wires back, pay attention to correct pair grey+red, brown + black .  
Use clamps as protection.

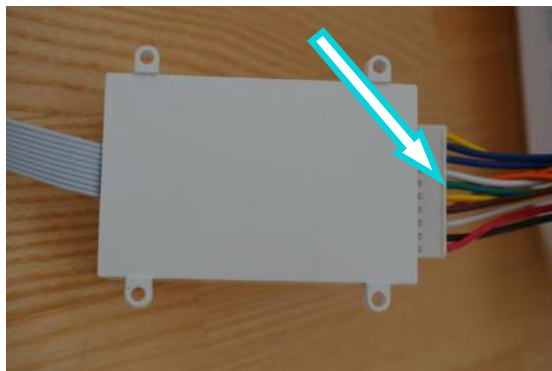




## 24. Colour cable set



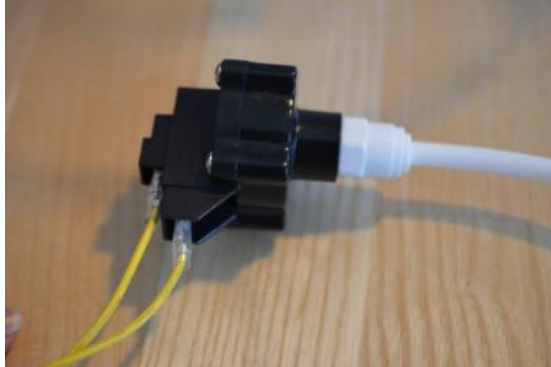
1. Unplug cables set from the control board connector (24).



2. Disconnect 2 orange wires from inlet solenoid valve (33).



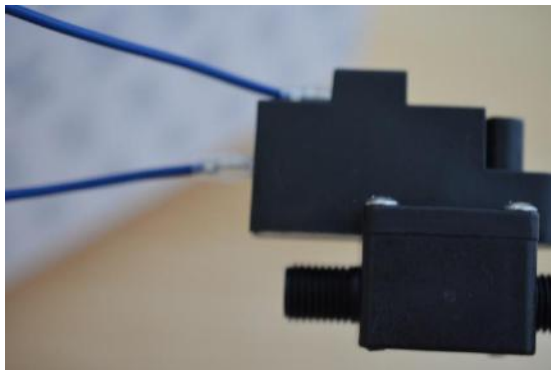
3. Disconnect 2 yellow wires from low pressure switch (22)



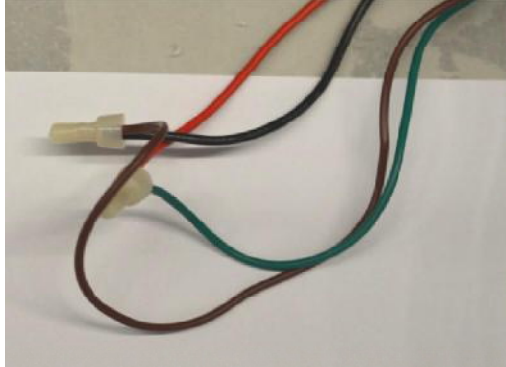
4. Disconnect 2 white wires from inlet flashing valve (32).



5. Disconnect 2 blue wires from high pressure switch (28).



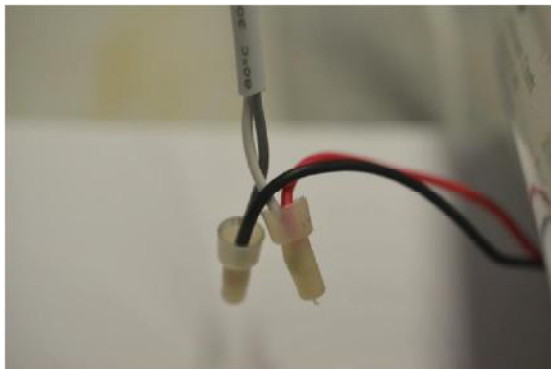
6. Disconnect the pump (25).



**ATTENTION!** Pay attention how wires are connected. Always connect red+ green, black + brown. Use the clamps as protection,



7. Disconnect the power cord (44).



**ATTENTION!** To connect the wires back, pay attention to correct pair grey+red, brown + black.  
Use clamps as protection.

8. Exchange the colour wire set to new one.  
9. Connect all elements back  
a) Control board  
b) Inlet solenoid valve (33) - orange  
c) Low pressure switch (22) – yellow  
d) Flashing valve (32) – white

- e) High pressure switch (28) – blue
- f) Pump (25) - red+ green, black + brown
- g) Power cord (44) - grey+red, brown + black